

KN-129^B ASC: 226-10-16975 site 1
South End Herring Bay - Knight Island

ACE 1369622

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. Surv.)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (Fall)
____ '90 Other Documents _____

missing copy of pre-asap '90



Post-treatment assessment
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: 7/31/91 16) HIGH TIDE TIME: 4:27 22) TEAM RECORDER: A. Weseman
- 5) START TIME: 9:15 17) HIGH TIDE HTS: 10.4 23) OBSERVERS: Fink, Kuwada, Middleton
- 6) STOP TIME: 10:10 18) LOW TIDE TIMES: 1046 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129B 19) LOW TIDE HTS: .0ft 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +1-0 ft ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: 226-10-16975 START: _____ STOP: _____
- 12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: Herring Bay, Knight I. 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 A	4	4		5	2cm		MSOR an Sod
SITE 2 B	4	8			5cm		H/MOR <u>9-14</u>
SITE 3							
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

33) ANADROMOUS FISH ^{Observed} PRESENT: Y (N)

- OK. 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)

31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder ✓ Gravel ✓ Sand ✓ Cobble ✓ Mud/Silt ✓

35) COMMENTS:

Surface run-off flowing through "site B" hampered a precise definition of oil lense. Oil is still mobile and sheened profusely into stream when agitated.

Area should be re-assessed in '92, due to the closeness of oil lense to stream, it's mobile nature & slope towards stream.
survey focused on documented oil, treated in 1991.

34) WILDLIFE OBSERVATION

Species _____ Number _____

DATE 2, 31, 91

M. Fink

ENERGY LEVEL: ☐ H ☐ M ☒ L

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

[illegible]

T	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		
	15		X						9 - 14	?	9	R			X		PGS	
	10							X	-	X	10	N			X		PGS	
	9			X					-	?	1	R			X		PGS	
	15							X	-	Y	1	N			X		PGS	
	16				X				-	?	10	S		X			PGS	
	20							X	-	Y	18	N			X		PGS	
	15			X					-	?	11	R			X		PGS	
	17		X						9 - 14	?	15	Black			X		PGS	
	22								-	?	21	Black	X				Org/mud	
	21	SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE							X	0 - 2		N	X				org/mud	

Survey focused on documented oil, treated in 1991

Post-treatment assessment

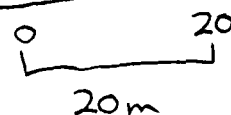
KN 129-B

2/31/91 A. Weseman

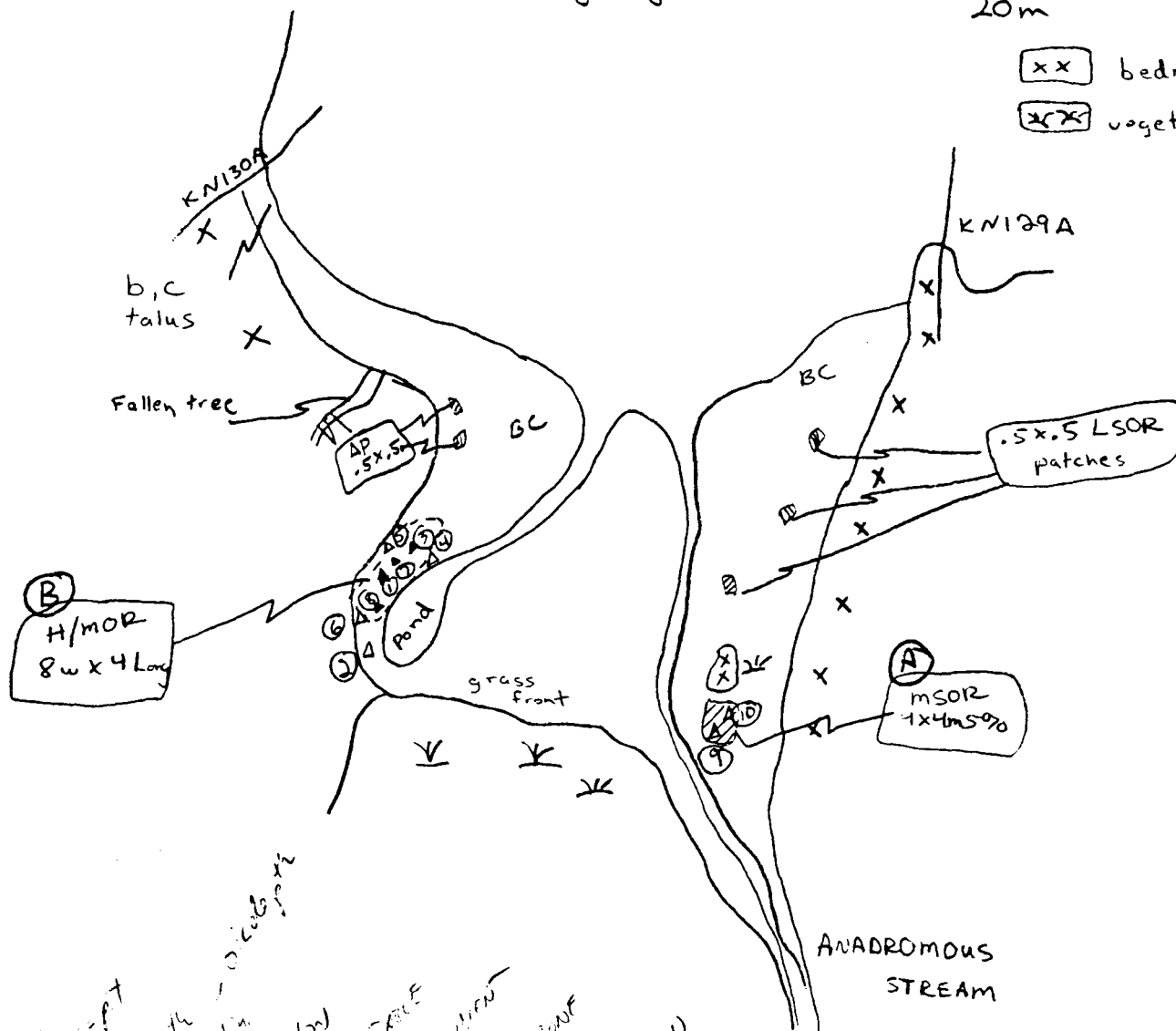
9:15-10:10



Herring Bay



xx bedrock
xxx vegetation



Pit #	TD	Oil	clean below	W/T	Sed	Zone	Sheen	PITCOFF
B①	15	9-14 HOR	Y	9	PGS	MITZ	Rainbow	- 0 -
②	10	N	Y	10	PGS	MITZ	N	
B③	9	Y	?H	1	PGS	MITZ	Rainbow	
B④	15	N	Y	1	PGS	MITZ	N	
B⑤	16	Y	?H	10	PGS	MITZ	Silver	
⑥	20	N	Y	18	PGS	MITZ	N	
B⑦	15	Y	?H	11	PGS	MITZ	Rainbow	
B⑧	17	9-14 HOR	?H	1	PGS	MITZ	Blackheads	
A⑨	22	-	?H	21	Org/mud	Supra	Blackheads	
A⑩	21	0-2	Y	N	org/mud/G	Supra	N	

run-off flowing thru sediments of pits 1-8 hampered precise delineation of oiled lens.

Add to
MAD
comments

TEAM NO ONE EXXON MARTINEZ SEGMENT AS/ KN-129 PAGE 1 OF 1
 OG Reimer CG BROWN SUI /VISION B
 ADEC HAYES ID REP GIBSON TOTAL NO. SITES 1
 DATE 8/9/90 TIME 11:45 TIDE LEVEL 0 to +1
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 300 m Heavy
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W 0 m M 0 m N 50 m VL 0 m NO 250 m US 95 m

SURFACE OIL

SITE 1

SITE 2

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT								
S.O.R.			X		X	X		
POOLED								
COVER								
COAT				X	X			
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL							X	X
EST. SITE LENGTH					300			

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								

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

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
1	1	15				X	.			X			PG-GP
							.						
							.						
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							.						

Photographs:

Roll No. KN-129

Frames 2

REVIEWED

8/14/90 TJS

ASAP
90

COMMENTS Small Cove with ANAD STREAM 226-10-16975.

Oil was found along the east side of the Cove on boulders. ACE 7378604
 At the head of the cove in the upper-supratidal area (SOR) and
 in a small bight along the west side of the Cove on a boulder bank
 by a freshwater Run off stream.

LEGEND

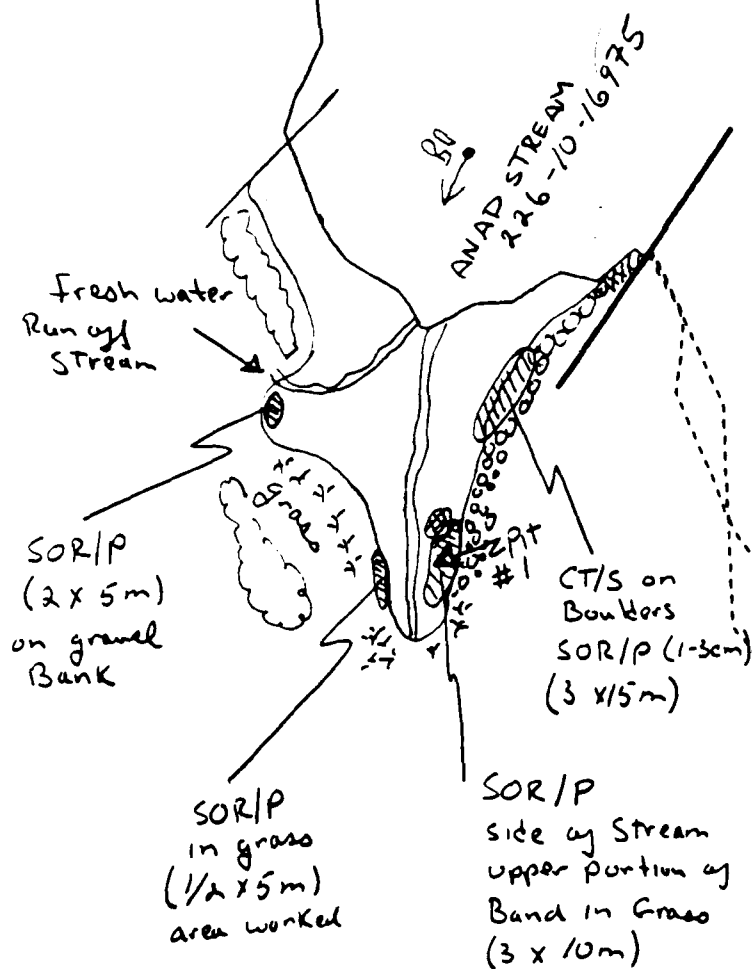
~ - Trees

- Rock

ooo - Boulders

||||| - Surface
caking

~ - grass



XXXX

Wide

////

Medium

Narrow

TTTT

Very Light

0000

No Oil

KN-129 B

ADEC Subsegment Length: 395m

METERS

0 55 110

AK State Plane Zone 4 1:2103
kn-129b



Subdivision Field Map

Map Key: KN1KN-129B

Name: Reimer

Date: 8/9/90

Date Entered:

ACE 7378605

SEGMENT AS / KN 129 SUBDIVISION: B SITE: 1 DATE 8-10-90**USCG**NAME MSTC Michael D. Brown SIGNATURE Michael D. Brown

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

ADECNAME John Hayer SIGNATURE John Hayer

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

SOR/P within 50 meters of streambank, site should be assessed by ADF+6 and their recommendations included during discussion of this site. Oiling observed was light ^{SOR} where crews had removed grass contamination.

LAND MANAGERNAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

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

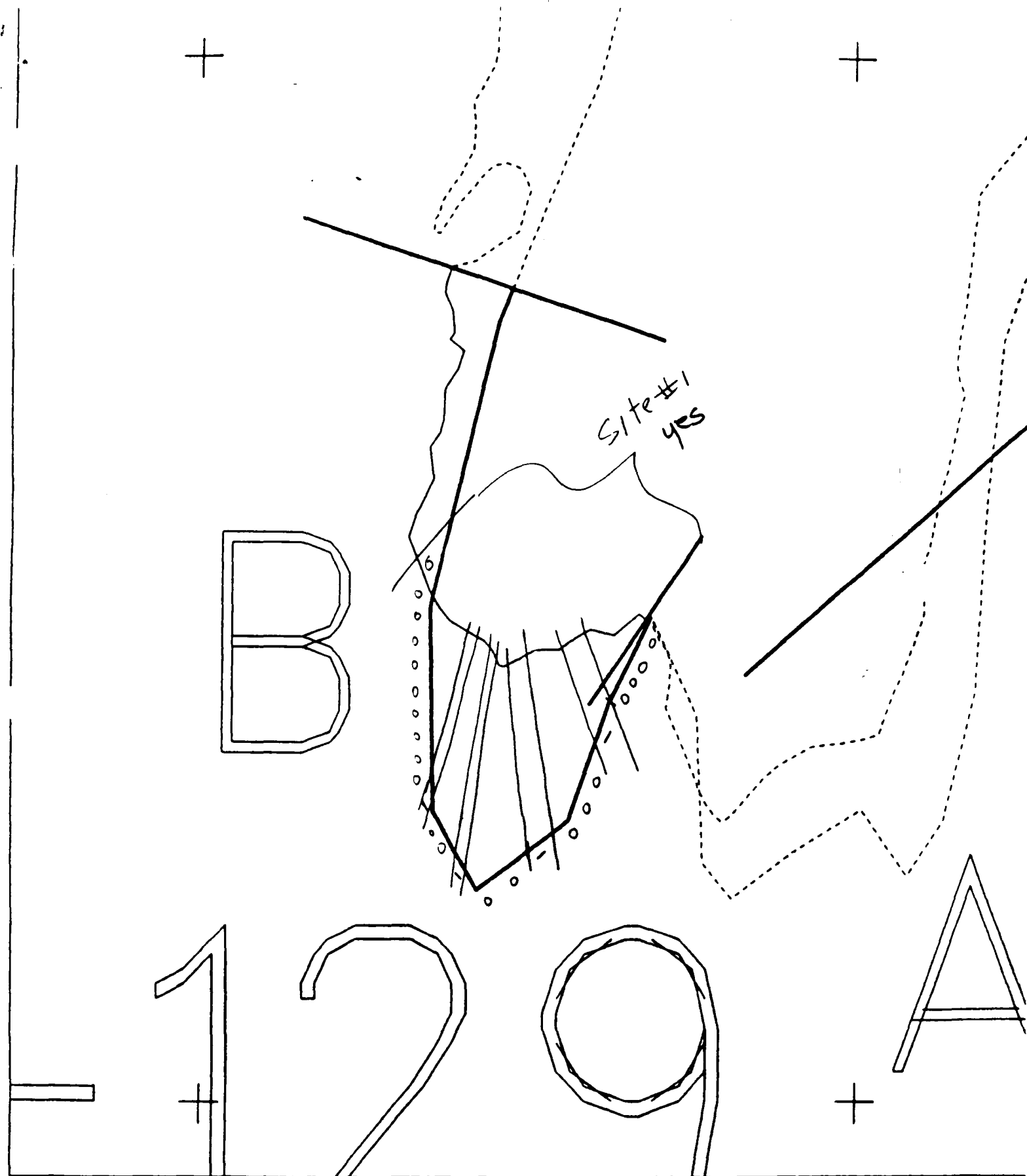
REASSESSMENT
 RECOMMENDATION DUE TO PRESENCE OF STREAM
 AND NEED TO EVALUATE EFFECTIVENESS
 OF BIO TREATMENT AND WINTER WAVES.

EXXONNAME Martinez N.J. SIGNATURE Martinez N.J.

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

Minimum oiling, winter should break what's left down nicely.

206-10-16975



XXXX
///

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

KN-129 B

ADEC Subsegment Length: 395m
METERS

0 55 110
AK State Plane Zone 4 1:2103
hkn-129b



Subdivision Field Map
Map Key: KN1KN-129B
Name: Reimer
Date: 8/9/90
Date Entered:

ACE 7378006
/5

SHORELINE CLEANUP PROGRAM

DATE 5/4/89

SHORELINE SEGMENT KN-129 *B*

LOCATION: (see enclosed map) HERRING BAY/KNIGHT ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/4/89

Recommended Cleanup Activity(ies):

- 1) Vacuum or shovel oil and oiled debris at strandline.
- 2) Hot water, high pressure on cobbles, boulders, rocks.
- 3) Hot water low pressure with agitation on gravel beaches.

Priorities Considerations:

Remove thick mousse as high priority due to strong potential for re-oiling.

Ecological Constraints (from site survey):

Avoid streams or banks of streams unless the Resource Advisory Team Biologist authorizes cleanup on a site-specific basis.

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. H. Jones
State Historic Preservation Officer *

Date: *May 9, 1989*

EXXON: _____

Date: *5-14-89*

FOSC: _____

Date: *5-21-89*

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

SHORELINE CLEANUP PROGRAM

DATE 5/4/89 SHORELINE SEGMENT KN-129

LOCATION: (see enclosed map) HERRING BAY/KNIGHT ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/4/89

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Remove thick mousse as high priority due to strong potential for re-oiling.

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Avoid streams if possible. Most organisms dead - more important to remove oil and tar.

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.

State Hi. _____

EXXON: _____

FOSC: _____

* Signature
land use

5/19/89 - Requested 48-hour notice to
DFG (ISCC)

See 5/17 Sigman field notes

Clean-up recommended - to avoid
fry + adults
Permit needed

SHORELINE OIL EVALUATIONDate: 4 May 89 / Time: 0900Observer: R. DuganSurveyed From: Foot / Boat / Helio / PlaneWeather: Sun / Cloud / Rain / Snow / FogLOCATIONLOCATION Knight Island
HERRING Bay (south end)SEGMENT NUMBER KN # 129LENGTH OF SHORELINE SEGMENT: 500 mACCESS: Foot / Vehicle / Boat / Barge / Helio / Float PlaneSHORELINE:Shoreline Type: SPI / BEA / COV / HLD / STRTSlope: LANG / HANG / VERWave Exposure: High / Med / LowSediment: B20 % / C20 % / P10 % / G ___ % / S ___ % / M ___ % / R50 %Drift Debris on Beach: Yes / No Supra / Upper / Mid / Lower Type logsOILDegree of Oiling: Heavy / Moderate / Light / No Oil / UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y / N % of Segment 100 Width of Band: 10-50 mSporadic: Y / N % of Segment _____Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: 8 cmPooled Oil: _____ % "Free" Oil: _____ % Coated: H 100 % / M 80 % / L 40 %Fresh _____ % Mousse 10 % Tar Formation: 80 %Drift Debris Oiled? Yes / No Supra / Upper / Mid / Lower Amount: H / M / L

Comments:

- 2 beaches, both high priority for cleanup,
- 2 streams
- need hot water, shovel & rakes for globs
- ~~450 g~~
- hot water & pressure necessary

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

VTR: Y N Tape Number(s) None

Photography: Y N Roll Number(s) T1-SMB-6

Sample Numbers Collected: None

ECOLOGICAL EVALUATION

LOCATION: 3 Knight Is. SITE: OBSERVER: Sm BarnLOCATION PREFIX: KU SEG. NO.: 129 LENGTH: 500 (M)DATE: 5/4/89 TIME (HHMM): 0900 TIDE HT.: + 2 1/2 (M)OILED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y/N) Contin. Y/N Dense (Y/N) Sparse Y/N None Y/NDead on rocks, oiled - healthy subtidallyMytilus (Mussels): Patchy (Y/N) Contin. Y/N Dense Y/N Sparse (Y/N) None Y/Nmay be denser subtidallyBalanus (Barnacles): Patchy (Y/N) Contin. Y/N Dense (Y/N) Sparse Y/N None Y/NDense as spot at water line or subtidally probably dead on oiled rocks, OK under waterLittorinaPatchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y/N)None seenLimpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y/N) None Y/Noiled but aliveOTHER OBSERVATIONS: Thick mousse high in ITZ, Yhais alive in streamCLEANUP PRECAUTIONS: Avoid streams and lower ITZMAMMALS: Otters Harbor Seals Sea Lions Whales
Other BIRDS: NoneGENERAL OBSERVATIONS: This segment is two moderate to heavily oiled beaches with potential for oiling high.

(version of 4/25/89)

CULTURAL RESOURCE EVALUATION FOR OILED SHORELINE

Date 5/4/89 Location Knapik Island Site _____

Location Prefix KN Segment # KN-129 Length 500m

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 to heavy

Width of beach zone surveyed 2-6 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile beaches moderately sloped

Fresh Water Sources each of two beaches has a stream

Sea Exposure northwest & protected

Access/Safety good

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 # CW6 Frames 22, 23

B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started 0900 Time survey ended 0935

Cultural resource considerations/restraints:

If heritage undiscovered cultural resources are identified during cleanup notify Epson archaeologist, C. Mobley, immediately.

4 MAY 89

KN 129

TIME: 0900

RAIN

scale

100m

N

mouse
abandoned oil
Boon

START
KN 129

Bea #1

Rock

Bea #2

CB VERT

CBP

VERT

END

KN 129

High Priority

Beach #1

CB, P

Heavy oil, H, M, L ITZ, penetration 3 in
width 10.50 meters

Continuous oil, mouse & free oil
debris H/ITZ

Need: vacuum or shovel
Hot H₂O, High pressure

Beach #2 - C, B, P, (5.50 m wide)

- Heavy oil east side
with tarry pools
3" deep, H, M, L
- Moderate oil west side
3 in penetration

NEED - hot water / pressure

ACE 7378675

ACE 7378676

2 380 000
FEET

756

780

HERRING
BAY

Herring Pt

774

HERRING
BAY

Self Cove

Knight Island

Island 26

Disk Island

Lower

Passage

Louis Bay

BM 5
(Tidal)

Otter Lake

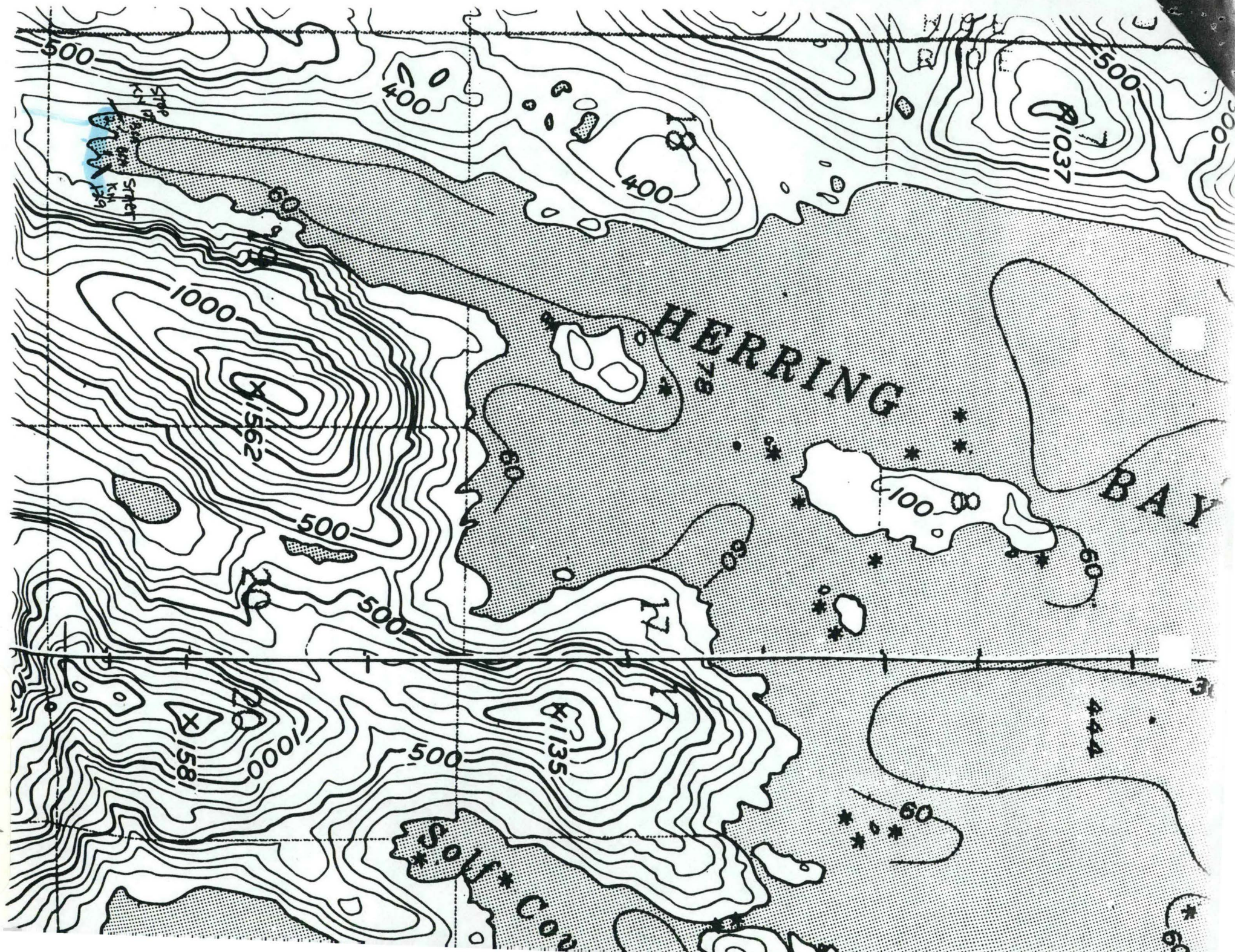
ACE 7378677

4408

kn-129

2050X

©1970



SHORELINE CLEANUP PROGRAM

DATE 5/4/89 SHORELINE SEGMENT KN-129

LOCATION: (see enclosed map) HERRING BAY/KNIGHT ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/4/89

Recommended Cleanup Activity(ies):

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Priorities Considerations:

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Avoid streams if possible. Most organisms dead - more important to remove oil and tar.

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State Hi. _____

EXXON: _____

FOSC: _____

* Signatu
land us

5/19/89 - Requested 48-hour notice to
DFG (ISCC)

See 5/17 Sigman field notes

Clean-up recommended - to avoid
fry + adults
Permit needed

ISLANDS (Locations)

Naked Is.	NA
Peak Is.	PE
Stoney Is.	ST
Eleanor Is.	EL
Ingot Is.	IN
Block Is.	BL
Entrance Is.	EN
Sphinx Is.	SP
Disk Is.	DI
Knight Is.	KN
Smith Is.	SM
Seal Is.	SE
Applegate Is.	AP
Green Is.	GR
L. Green Is.	LG
Agnes (Bass) Is.	AB
L. Smith Is.	LS
Gore Point	GP
Montague Is.	MN
Aguliak Is.	AG
Squirrel Is.	SL
New Year Is.	NY
Murray Is.	MU
Squire Is.	SQ
Crafton Is.	CR
Pt. Nowell	PN
Junction Is.	JU
Chenega Is.	CH
Pleiades Is.	PL
Bainbridge Is.	BA
Flemming Is.	FL
Evans Is.	EV
Elrington Is.	ER
Latouche Is.	LA
Danger Is.	DA

* GEOLOGIC SEDIMENT TYPE

Boulder (>256mm)	B
Cobble (64-256)	C
Pebble (4-64)	P
Granule (2-4)	G
Sand (0.06-2)	S
Mud (less 0.06)	M
Rock	R

** DEGREE OF OILING

Heavy	HV
Moderate	MD
Light	LT
No Oil	NO
Unobserved	UN

AREA OF BEACH IMPACT

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

ADEC IMPACT SURVEY

Heavy	HVY
Moderate	MOD
Light	LT
No Oil	NO
Unobserved	UNOBS

SHORELINE TYPE

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

Comments:

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

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

SHORELINE OIL EVALUATIONDate: 4 May 89 / Time: 0900Observer: R. DuganSurveyed From: Foot / Boat / Helio / PlaneWeather: Sun / Cloud / Rain / Snow / FogLOCATIONLOCATION Knight Island
HERRING Bay (south end)SEGMENT NUMBER KN #129LENGTH OF SHORELINE SEGMENT: 500 mACCESS: Foot / Vehicle / Boat / Barge / Helio / Float PlaneSHORELINE:Shoreline Type: SPI / BEA / COV / HLD / STRTSlope: LANG / HANG / VERWave Exposure: High / Med / LowSediment: B 20 % / C 20 % / P 10 % / G % / S % / M % / R 50 %Drift Debris on Beach: Yes / No Supra / Upper / Mid / Lower Type logsOILDegree of Oiling: Heavy / Moderate / Light / No Oil / UnobservedArea of Beach Impact: SU / SP / H / M / LContinuous: Y / N % of Segment 100 Width of Band: 10-50 mSporadic: Y / N % of Segment Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: 8 cmPooled Oil: % "Free" Oil: % Coated: H 100 % / M 80 % / L 40 %Fresh % Mousse 10 % Tar Formation: 80 %Drift Debris Oiled? Yes / No Supra / Upper / Mid / Lower Amount: H / M / L

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DOCUMENTATION:Map/Aerial photo marking segment boundaries AttachedVTR: Y/N Tape Number(s) NonePhotography: Y/N Roll Number(s) T1-SMB-6Sample Numbers Collected: None

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Other BIRDS:

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(version of 4/25/89)

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Ground ✓ (G - indicate on map)

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Width of beach zone surveyed 2-6 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile beaches moderately sloped

Fresh Water Sources each of two beaches has a stream

Sea Exposure northwest & protected

Access/Safety good

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 # CW6 Frames 22, 23

B/W Roll # _____ Frames _____

Observer(s) C. Nelson

Time survey started 0900 Time survey ended 0935

Cultural resource considerations/restraints:

If hereafter undiscovered cultural resources are identified during cleanup, notify EPA archaeologist, C. Nelson, immediately.

4 MAY 89

KN 129

TIME: 0900

RAIN

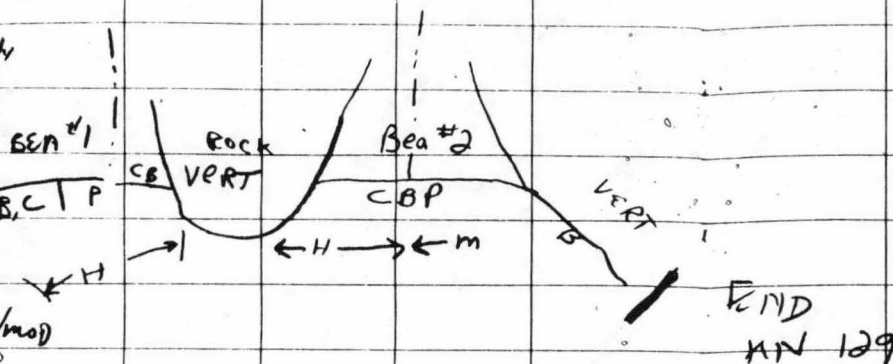
scale

0 100m

N

mouse
abandoned oil
Boon

START
KN 129
B.C.T.P.
VERT
LT/mod
E



High Priority

Beach #1 C.B.P.

Heavy oil, H.M.L.I.T.Z., penetration 3 in
width 10.50 meters

Continuous oil, mouse & free oil
debris H.I.T.Z.

need: vacuum or shovel

Hot H₂O, High pressure

Beach #2 - C.B.P. (5.50 m wide)

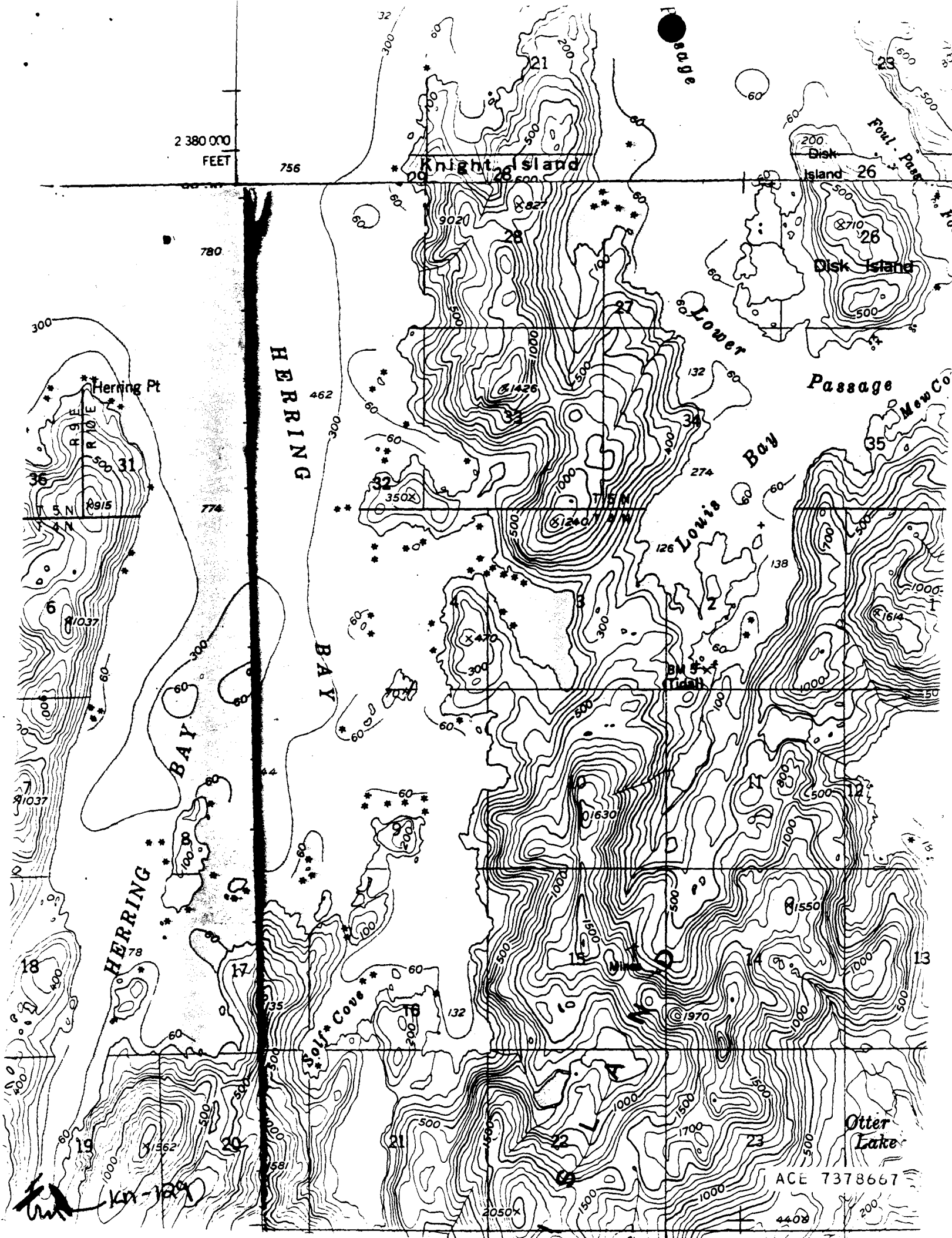
- Heavy oil east side
with many pools
3" deep, H.M.L.

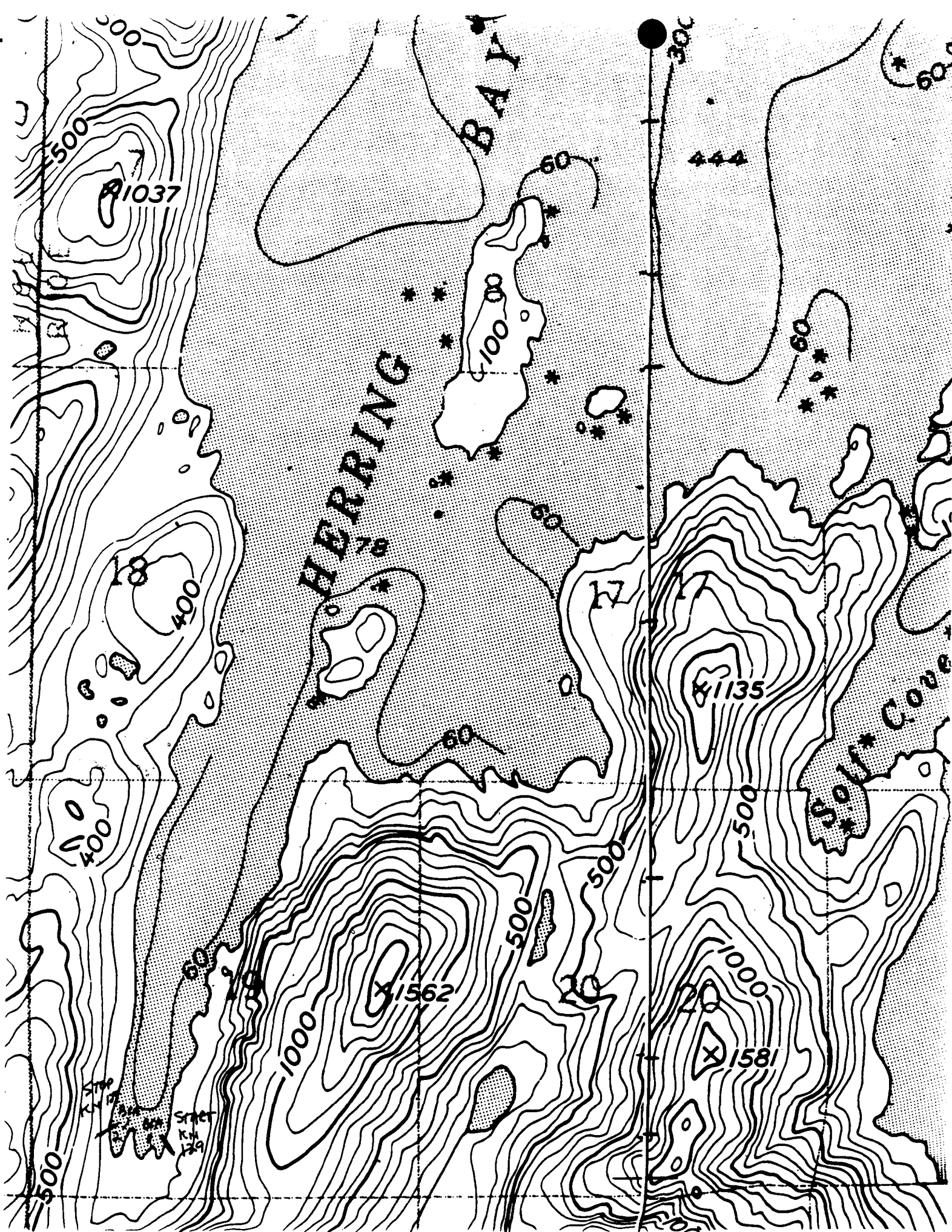
- Moderate oil west side
3 in penetration

NEED - hot water / pressure

ACE 7378665

ACE 7378666







ANADSCAT - 90

8

ACFSG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES SS CS TS AVE SCBA MMS PTA2 REGION: FMS KP, CI K, APMETHOD: Aerial Ground Boat3 DATE: 4-21-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: Aimee Weseman4 START TIME: 151016 HIGH TIDE HTS: 122 OBSERVERS: Rick Gustin5 STOP TIME: 154517 LOW TIDE TIMES: 173023 AGENCY: ADF&G6 SEGMENT #: KN-12918 LOW TIDE HTS: 124 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 TAPES: 90RL6001555

9 STAT AREA:

20 USCG QUAD: Sew B-3

Starts: Ends:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number12 SOURCE: Map Loran

Oil

13 LOCATION: South end Herring Bay - Knight I

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

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

30 OVERALL OIL IMPACT: N VL L M H ?31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock Boulder 5 Cobble 45
Gravel 20 Sand Mud/silt 3036 CATALOGED ANAD. FISH STREAM? Y N37 CATALOG #: 276-10-16975

38 STREAM NAME:

39 OIL IN STREAM BED? Y N40 OIL ON STREAM BANKS? Y N41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 50 meters)42 OIL WITHIN 1 MILE OF STREAM? Y N

Where:

43 ANADROMOUS FISH PRESENT? Y N44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: snow pack covering upper portions of stream
noted several tar balls in grassy area surrounding houlder & across from shoot
looks much better than last year - no visible sheen at this time

ACE 7378626 +/S

45 PHOTOLOG

FRAME(S)

DESCRIPTION

pit 1 - 18cm - some light oil pit 2 - 18cm light coat on surface

60m to length

48 OIL DISTRIBUTION DIAGRAM



Recommended - treat after resurvey

assess after snow melts & periodically check for sheening
remove scattered tar balls in grassy area by boulder & chute

Agreed Ken Cutchlow

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

ASC NUMBER: 226-10-16975
 SURVEY TYPE:
 METHOD:
 DATE: 4/21/90
 START TIME:
 STOP TIME:

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

SAMPLES TAKEN?

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

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

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock Granule
 Boulder Sand
 Cobble Silt
 Pebble Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS: Oil on stream banks.

~~could not assess overall oil impact because of snow pack~~

Recommendations - treat after resurvey

Assess after snow melts + periodically check for sheering.
 Remove scattered tarballs in grassy area by boulder + the
 avalanche chute.

Agreed Ken Critchlow



AJW
Pre-ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-12-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Gustin

4 START TIME: 1012

16 HIGH TIDE HTS: 1

22 OBSERVERS: 1 pilot

5 STOP TIME: 1020

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G HAB.

6 SEGMENT #: KN129B
AJW

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

13 LOCATION: KNIGHT IS.

14 DESCRIPTION: HERRING BAY.

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

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

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder ✓ Cobble ✓

Gravel _____ Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 26975 AJW

38 STREAM NAME: _____

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: Upper inter-tidal zone

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species Aerial Ground

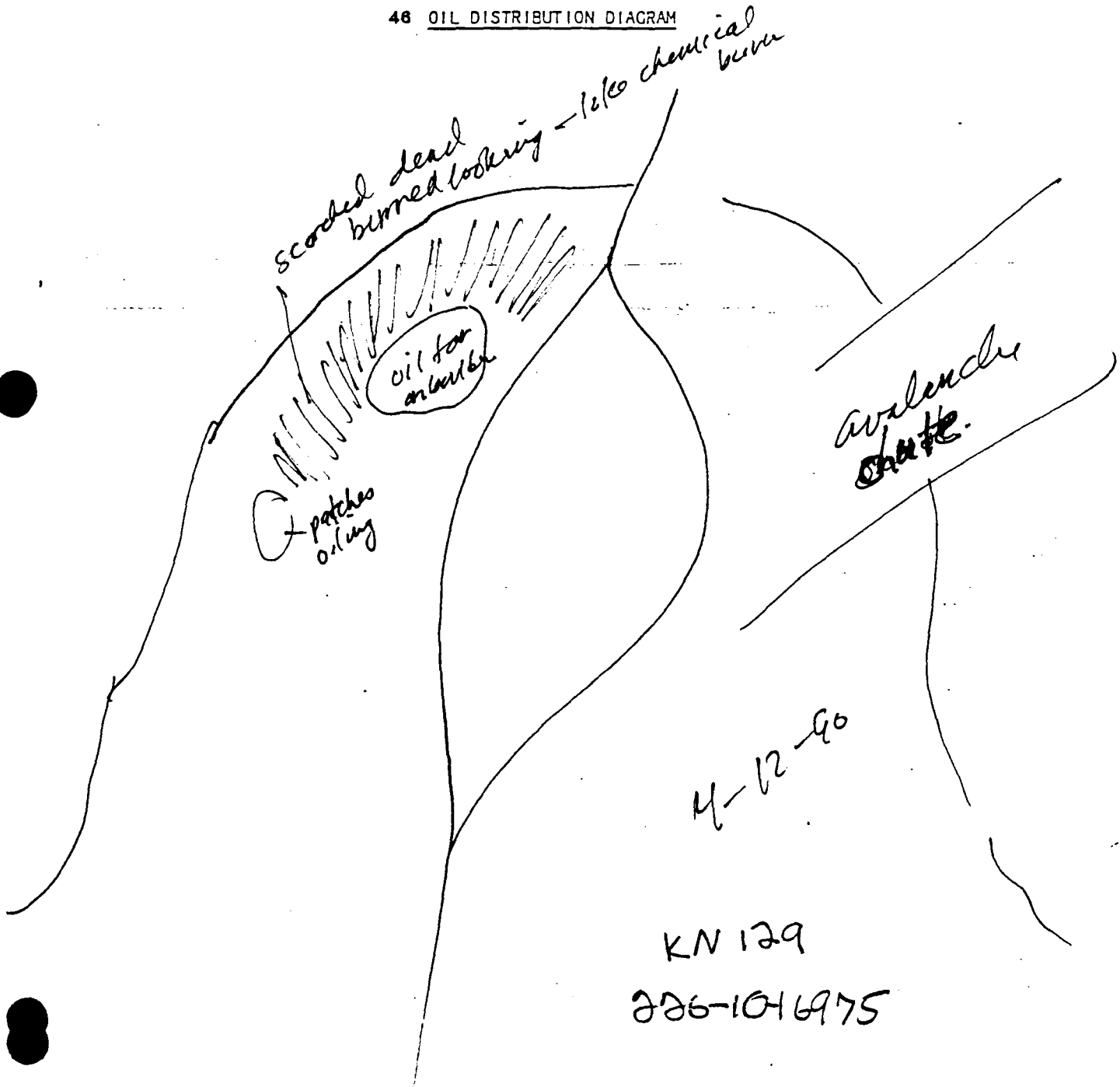
COMMENTS: large areas of adjacent stream bottom appear burned
as if from volatiles. thick tar on large
boulder in stream. large areas affected
by same residue. No life.

Treatment?

ACE 7378679 +/S

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



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: 22C-10-16975
SURVEY TYPE:
METHOD:
DATE: 4/12/90
START TIME:
STOP TIME:

TEAM RECORDER:
OBSERVERS:

AGENCY (IES) :

PHOTOS TAKEN?

Roll #: Frames:

VIDEO TAKEN? Tape Number:

Counter Start:

2 SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.
4.

2. 3.
5. 6.

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

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

-SUBSTRATE-

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS: ⁽⁴⁾ Oil on stream banks.

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 4/27/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1711 17) HIGH TIDE HTS: _____ 23) OBSERVERS: Aimee Weseman
- 6) STOP TIME: 1830 18) LOW TIDE TIMES: 1900-1930 24) AGENCY: ADF+G
- 7) SEGMENT #: KN129B 19) LOW TIDE HTS: +1.5 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +5 to 1.8 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ EBB Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: 226-10-16975 START: _____ STOP: _____
- 12) STREAM NAME: NONE 27) SAMPLES TAKEN? Y N
- 13) LOCATION: HERRING BAY SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach

Cove

Lagoon

Marsh

28) EXTENT OF OIL

PIT #	DEPTH LENGTH m	<u>OIL DEPTH</u> WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 <u>3</u>	30 cm	15 cm			3 cm	3 cm	HOR
SITE 2 <u>4</u>	15 cm	5 cm			3 cm	3 cm	HOR
SITE 3 <u>5</u>	30 cm	10 cm			3 cm	3 cm	HOR
SITE 4						<u>200</u>	
SITE 5						<u>6451</u>	

- 29) OVERALL OIL IMPACT: H = >6m band with ≥50% oil coverage
M = >6m band with ≤50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage
L = <3m band with >10% oil coverage
VL = ≤10% oil coverage regardless of band width
N = No oil observed
- 33) ANADROMOUS FISH PRESENT: Y N

30) OIL IN STREAMBED: Y N

31) OIL ON BEACH ADJACENT TO MOUTH: Y N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 30% Gravel 60% Sand 2% Cobble 8% Mud/Silt _____

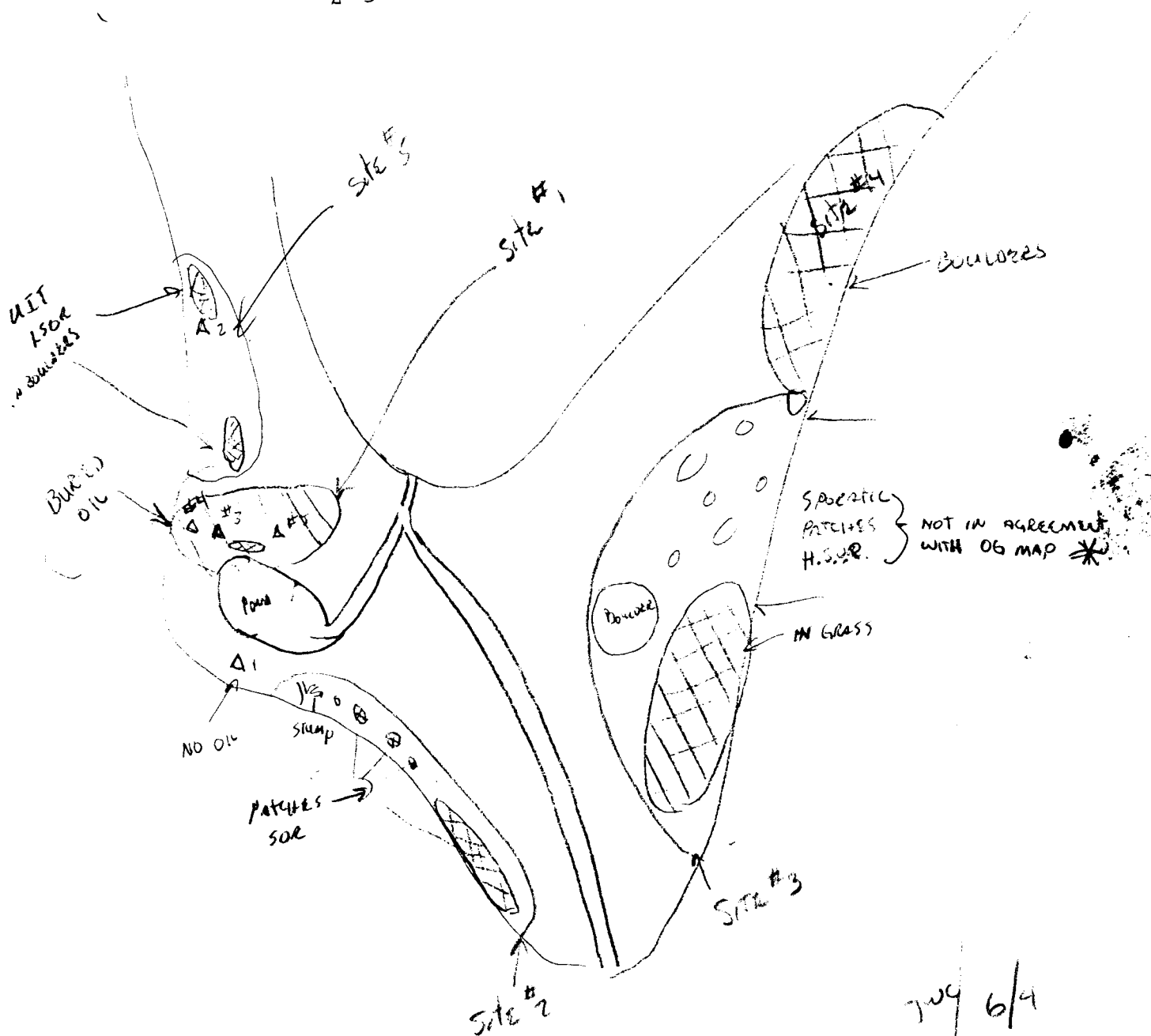
35) COMMENTS: BURIED HOR LENS ADJACENT TO STREAM/POND. 4 IT ARE
SCATTERED WITH PATCHES OF H.SOR TO L.SOR. OIL IS BURIED AND COVERED
BY CLEAN GRAVEL (SEE SITE #1, PITS #345). THE REMAINING OILING OCCURRING
AT THIS SITE IS SURFACE SOR/PO DEPOSITS (SEE SITE #2,3,4,5 ON MAP)

KN1293

ASC 226-10-16975

DATE 4-27-91

Δ #1 REM SUR
Δ #3



709 6/4

ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN129B ASC# 226-10-16975 Location Herring Bay

Date 8/13/90 Recorder/Observer _____

Oil in streambed none Oil on streambanks yes
sighted

Oil within 50m of mouth yes Anadromous Fish present a few at
the mouth at low tide

Description of oil and comments

East side - 5m x 5m patch OR sed in MITZ - 9m north of boulder
Upstream of boulder - sporadic patches of oiled veg/mousse/tarpatties

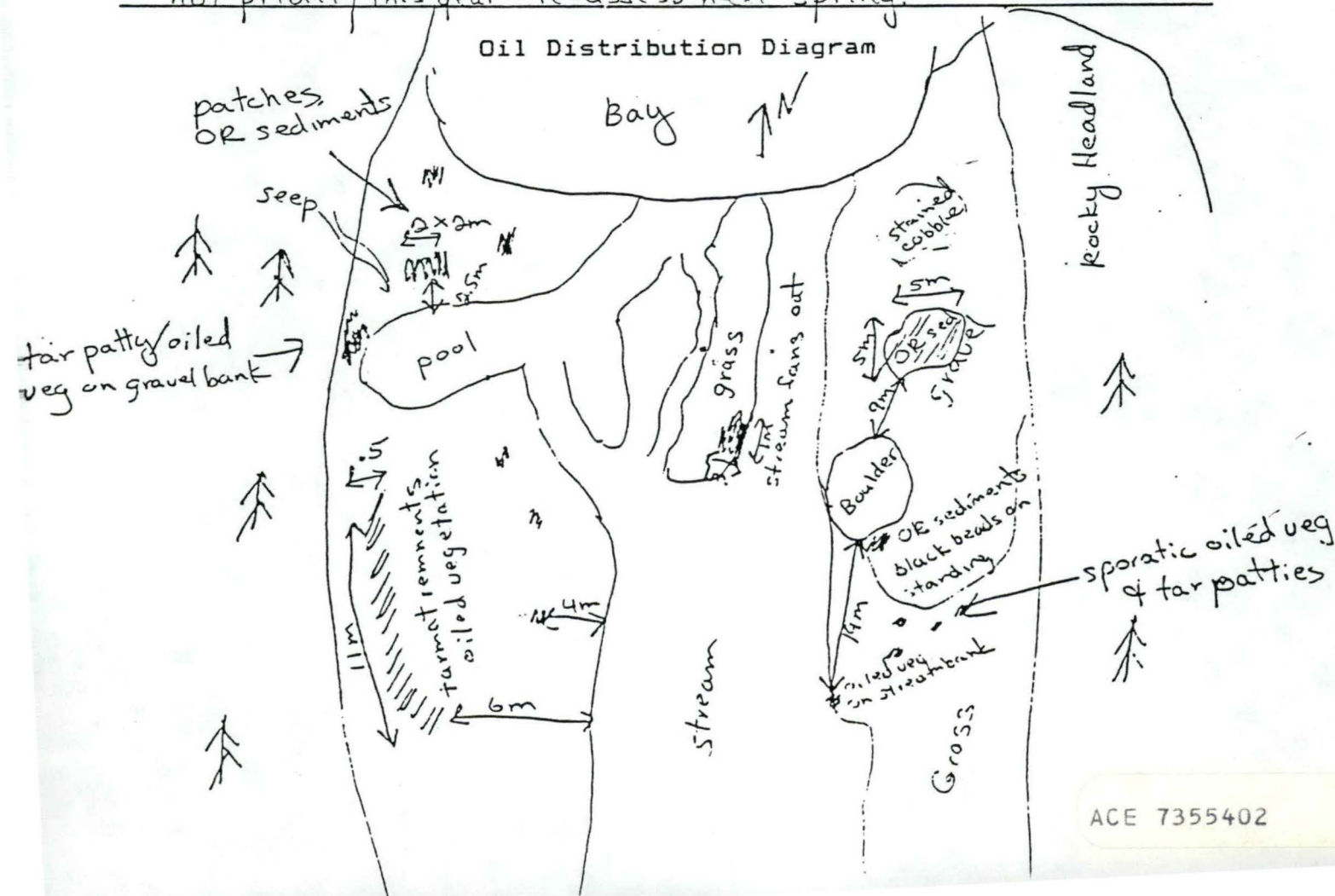
West side - 1m x 1m patch on streambank across from boulder

3 patches OR sed on North side of pool

a 11m long x .5m wide band tar mat remnants in UTTZ &
sporadic patches of oiled vegetation

Rec - Site could use the MR of oiled sediments on stream banks -
not priority this year - re-assess next spring.

Oil Distribution Diagram



LDW

ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN129B ASC# 226-10-16925 Location Herring Bay

Date 8/13/90 Recorder/Observer _____

Oil in streambed none Oil on streambanks yes
sighted

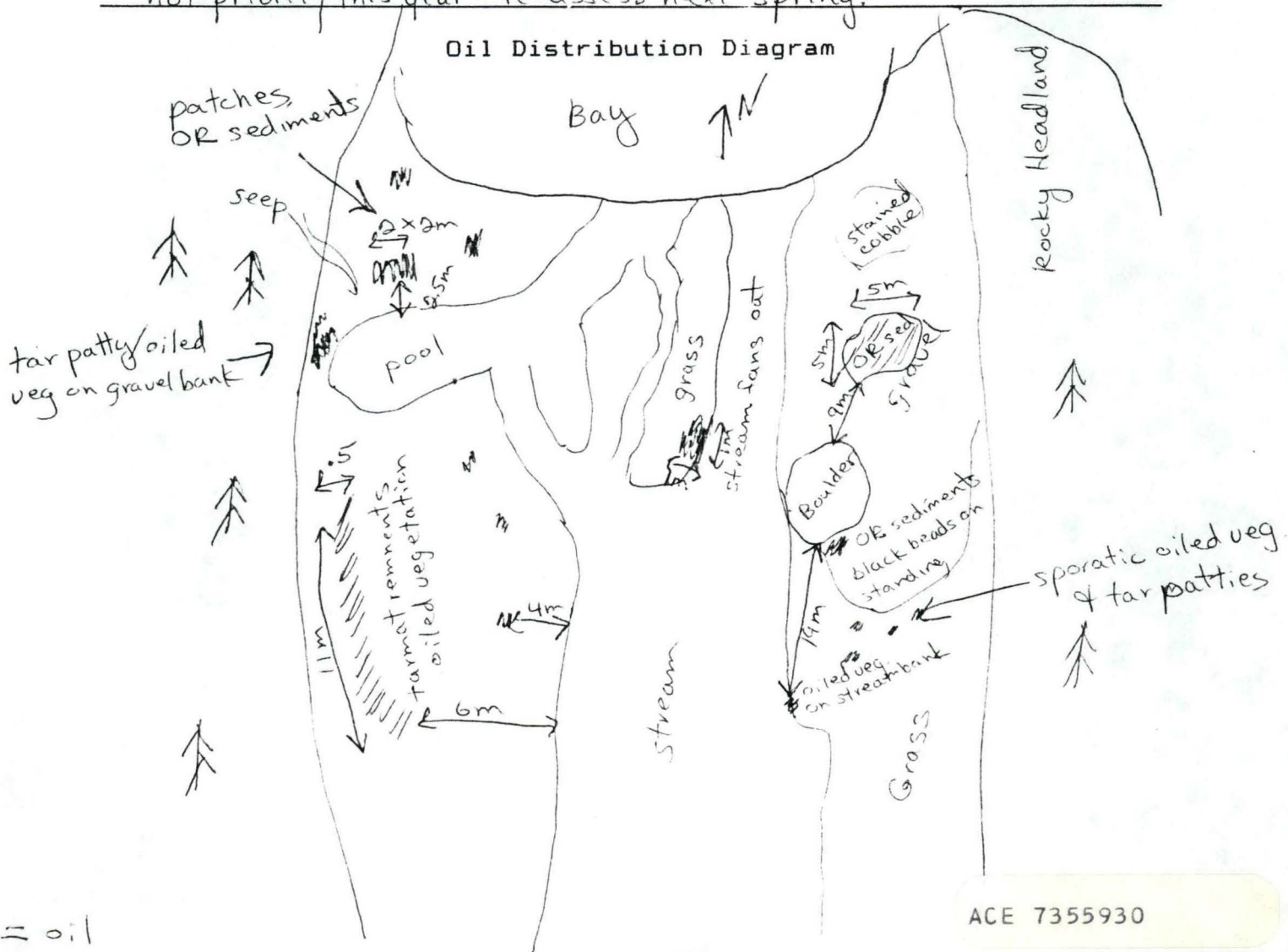
Oil within 50m of mouth yes Anadromous Fish present a few at
the mouth at low tide

Description of oil and comments

East side - 5m x 5m patch OR sed in MITZ - 9m north of boulder
Upstream of boulder - sporadic patches of oiled veg/mousse/tarpatties

West side - 1m x 1m patch on streambank across from boulder
3 patches OR sed on North side of pool
a 11m long x .5m wide band of tar mat remnants in U1T2 &
sporadic patches of oiled vegetation

Rec - Site could use the MR of oiled sediments on stream banks -
not priority this year - re-assess next spring.



ACE 7355930

ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN129B ASC# 226-10-16925 Location Herring Bay

Date 8/13/90 Recorder/Observer _____

Oil in streambed none Oil on streambanks yes
_{sighted}

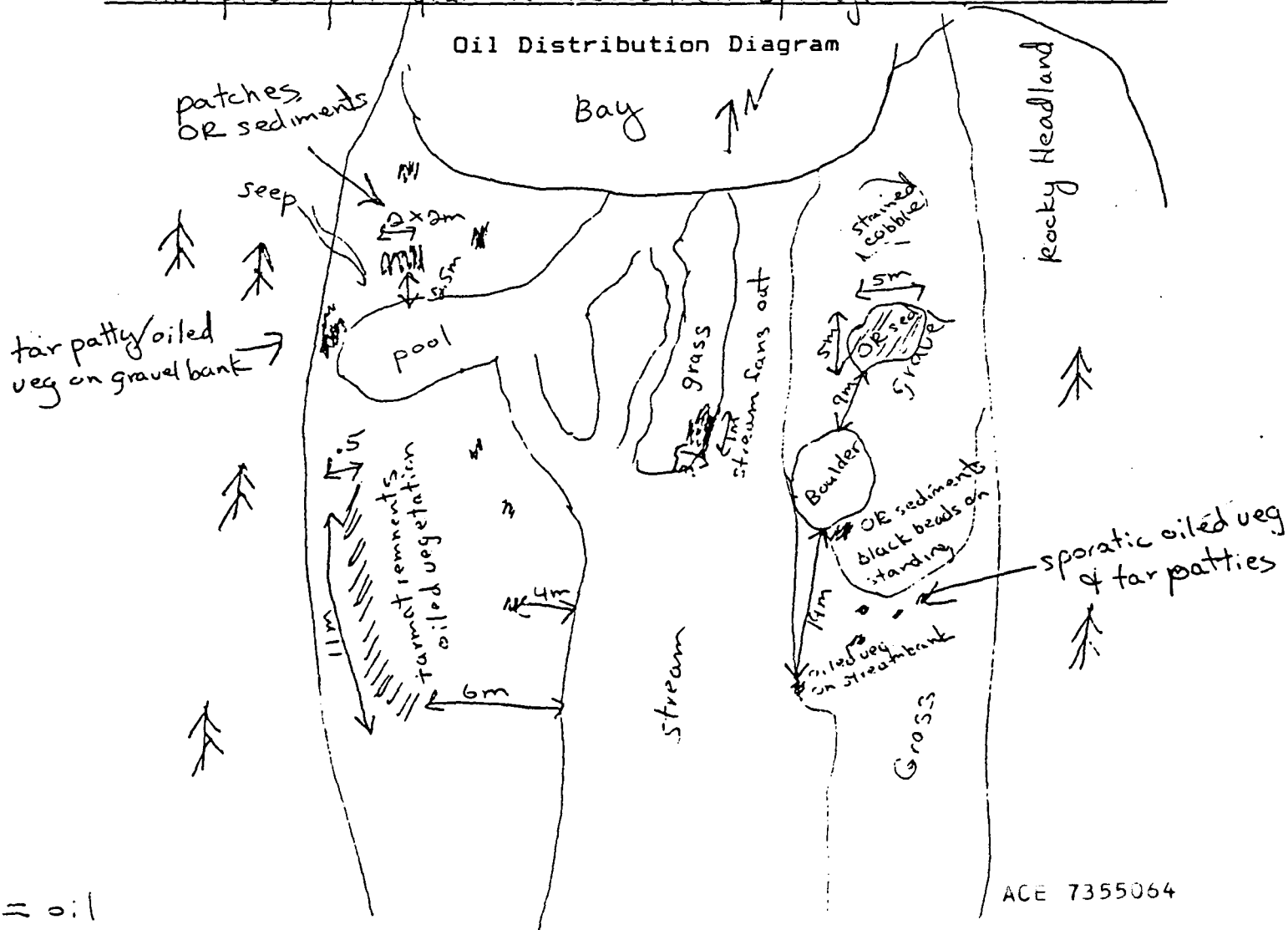
Oil within 50m of mouth yes Anadromous Fish present a few at the mouth at low tide

Description of oil and comments

East side - 5m x 5m patch OR sed in MITZ - 9m north of boulder
upstream of boulder - sporadic patches of oiled veg/mousse/tarpatties

West side - 1m x 1m patch on streambank across from boulder
3 patches OR sed on North side of pool
a 11m long x .5m wide band of tar mat remnants in UTTZ &
sporadic patches of oiled vegetation

Rec - Site could use the MR of oiled sediments on stream banks -
not priority this year - re-assess next spring.



ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN1298 ASC# 226-10-16925 Location Herring Bay

Date 8/13/90 Recorder/Observer _____

Oil in streambed none Oil on streambanks yes
sighted

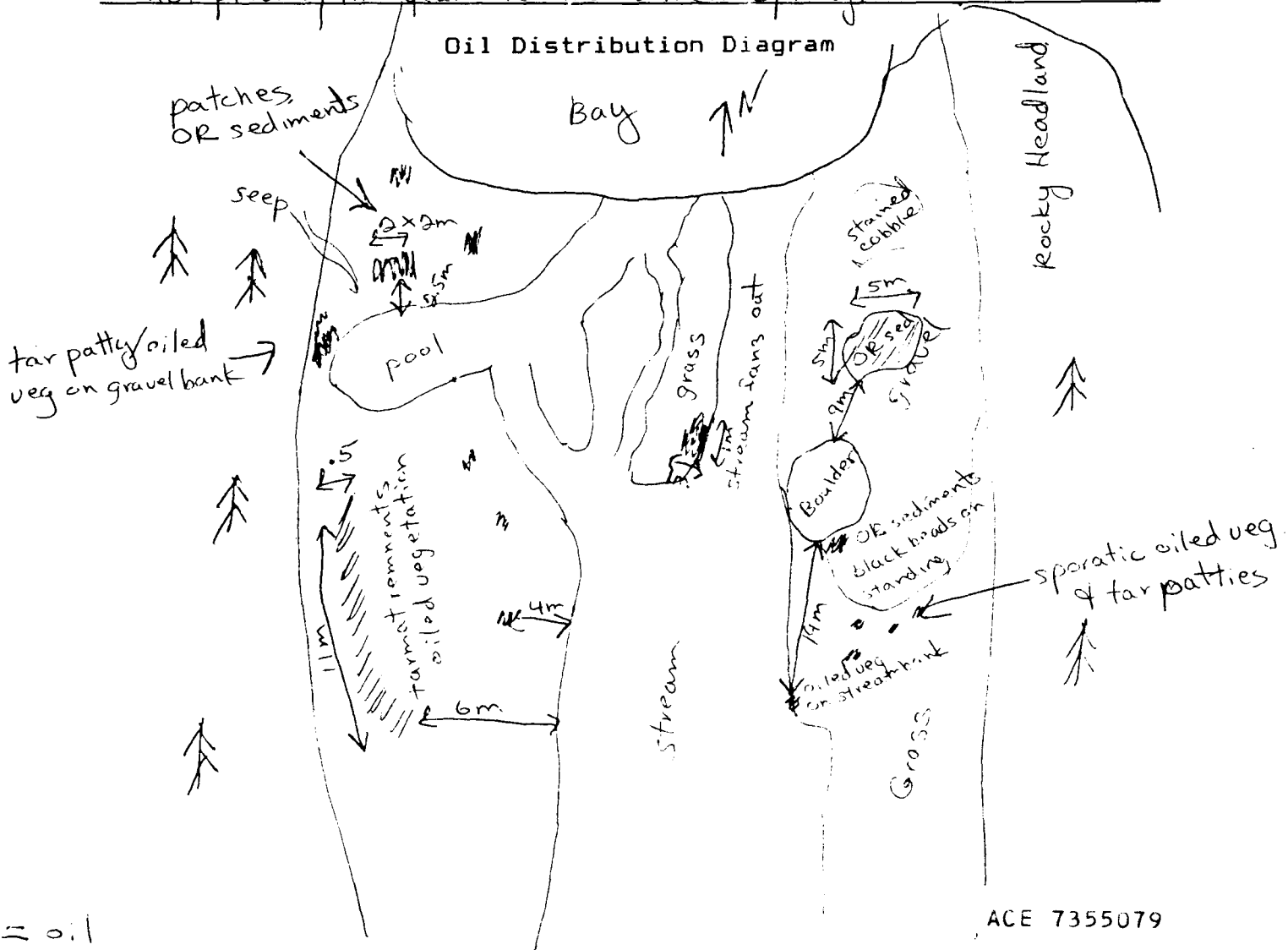
Oil within 50m of mouth yes Anadromous Fish present a few at
the mouth at low tide

Description of oil and comments

East side - 5m x 5m patch OR sed in MITZ - 9m north of boulder
Upstream of boulder - sporadic patches of oiled veg/mousse/tarpatties

West side - 1m x 1m patch on streambank across from boulder
3 patches OR sed on North side of pool
a 11m long x .5m wide band of tar mat remnants in UITZ &
sporadic patches of oiled vegetation

Rec - Site could use the MR of oiled sediments on stream banks -
not priority this year - re-assess next spring.



CATALOG NUMBER: 2261016975 SEGMENT#: KN129 B LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/21/90	ANADSCAT	1	BOTH	11-50		TB OR 5-8	EAST SIDE AND STREAM BANK: IN UITZ AND MITZ SCATTERED TAR BALLS. PIT #1 8CM OR. SHOW PRECLUDES COMPREHENSIVE SURVEY.
MAD vs. OG: COMMENTS: SNOW PACK COVERING UPPER PORTIONS OF STREAM. NOTED SEVERAL TAR BALLS IN GRASSY AREA SURROUNDING BOULDER & ACROSS FROM SHOOT LOOKS MUCH BETTER THAN LAST YEAR. NO VISIBLE SHEEN AT THIS TIME. OIL ON STREAM BANKS. RECOMMENDATIONS: TREAT AFTER RESURVEY. ASSESS AFTER SNOW MELTS AND PERIODICALLY CHECK FOR SHEENING REMOVE SCATTERED TARBALLS IN GRASSY ARE BY BOULDER AND CHUTE.							

CATALOG NUMBER: 2261016975 SEGMENT#: KN129 B LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/21/90	OG'S ANADSCAT	1	30 x 10 BOTH	11-50	8	CT PT OR 5-8	EAST BANK: TAR/ASPHALT PATCHES IN UITZ, OR.
04/21/90	OG'S ANADSCAT	2	.5 x .5	51-90		CT ST	UITZ, ON LARGE BOULDER - BROKEN COAT AND STAIN.
MAD vs. OG: AGREE COMMENTS:							

CATALOG NUMBER: 2261016975 SEGMENT#: KN129 B LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
08/13/90	PRE-ASAP	1	5 x 5 BOTH			OR	EAST SIDE: PATCH OF 'OR' SEDIMENTS IN MITZ, 9M NORTH OF BOULDER.
08/13/90	PRE-ASAP	2	SURFACE	11-50		MS TP V	EAST SIDE, UPSTREAM OF BOULDER: SPORADIC PATCHES OF OILED VEGETATION, MOUSSE, TAR PATTIES.

08/13/90	PRE-ASAP	3	1 x 1 SURFACE			AP	WEST SIDE: PATCH (TYPE NOT SPECIFIED) ON STREAM BANK ACROSS FROM BOULDER.
08/13/90	PRE-ASAP	4	.5 x 11 SURFACE			AP	WEST SIDE: BAND OF TARMAT REMNANTS IN UITZ.
08/13/90	PRE-ASAP	5	SURFACE			V	SPORADIC PATCHES OF OILED VEGETATION.

MAD vs. OG:
 COMMENTS:
 EAST SIDE - 5M X 5M PATCH 'OR' SEDIMENTS IN MITZ - 9M NORTH OF BOULDER. UPSTREAM OF BOULDER - SPORADIC PATCHES OF OILED VEG/MOUSSE/TAR PATTIES. WEST SIDE - 1M X 1M PATCH ON STREAM BANK ACROSS FROM BOULDER. 3 PATCHES 'OR' SEDIMENTS ON NORTH SIDE OF POOL. AN 11M LONG X .5M WIDE BAND TARMAT REMNANTS IN UITZ. SPORADIC PATCHES OF OILED VEGETATION. REC - SITE COULD USE THE MANUAL REMOVAL OF OILED SEDIMENTS ON STREAM BANKS - NOT PRIORITY THIS YEAR. REASSESS NEXT SPRING. OIL OBSERVED ON STREAM BANKS. A FEW ANADROMOUS FISH AT THE MOUTH AT LOW TIDE.

CATALOG NUMBER: 2261016975 SEGMENT#: KN129 B LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/27/91	MAYSAP	3	30 PIT		3 15	HOR	WEST SIDE OF STREAM - BY CHUTE.
04/27/91	MAYSAP	4	15 PIT		3 5	HOR	WEST SIDE - BY CHUTE.
04/27/91	MAYSAP	5	30 PIT		3 10	HOR	WEST SIDE - BY CHUTE.

MAD vs. OG:
 COMMENTS:
 BURIED 'HOR' LENS ADJACENT TO STREAM/POND. UIT AREA SCATTERED WITH PATCHES OF 'HSOR' TO 'LSOR'. OIL IS BURIED AND COVERED BY CLEAN GRAVEL (SEE SITE #1, PITS #3, 4, 5). THE REMAINING OILING OCCURRING AT THIS SITE IS SURFACE 'SOR/AP' DEPOSITS (SEE SITE #2, 3, 4, 5 ON MAP).

CATALOG NUMBER: 2261016975 SEGMENT#: KN129 B LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
07/31/91	POST TREATMENT	2	PIT			N	

07/31/91	POST TREATMENT	6	PIT			N	
07/31/91	POST TREATMENT	A	4 x 4 SURFACE	5	2	MSOR SOD	
07/31/91	POST TREATMENT	A10	PIT			0-2	
07/31/91	POST TREATMENT	A9	PIT				
07/31/91	POST TREATMENT	B	8 x 4 SUBSUR		5	H/MOR	
07/31/91	POST TREATMENT	B1	PIT			HOR 9-14	
07/31/91	POST TREATMENT	B3	PIT			Y	
07/31/91	POST TREATMENT	B4	PIT			N	
07/31/91	POST TREATMENT	B5	PIT			Y	
07/31/91	POST TREATMENT	B7	PIT			Y	
07/31/91	POST TREATMENT	B8	PIT			HOR 9-14	

MAD vs. OG:

COMMENTS:

SURFACE RUN OFF FLOWING THROUGH "SITE B" HAMPERED A PRECISE DEFINITION OF OIL LENSE. OIL IS STILL MOBILE AND SHEENED PROFUSELY INTO STREAM WHEN AGITATED. AREA SHOULD BE REASSESSED IN 1992, DUE TO THE CLOSENESS OF OIL LENSE TO STREAM AND ITS MOBILE NATURE AND SLOPE TOWARDS STREAM. *SURVEY FOCUSED ON DOCUMENTED OIL TREATED IN 1991. RUN OFF FLOWING THROUGH SEDIMENTS OF PITS 1-8 HAMPERED PRECISE DEMARCATION OF OILED LENS.

CATALOG NUMBER: 2261016975							SEGMENT#: KN129 B	LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM	SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS		
04/21/90	ANADSCAT	1	SURFACE subsurface	11-50		TB oiled org. OR 5-8	stream bank east side of stream MITZ SCATTERED TAR BALLS ON EAST BANK. PIT #1 8CM OR. Snow precludes comprehensive survey		
MAD vs. OG: COMMENTS: SNOW PACK COVERING UPPER PORTIONS OF STREAM. NOTED SEVERAL TAR BALLS IN GRASSY AREA SURROUNDING BOULDER & ACROSS FROM SHOOT, LOOKS MUCH BETTER THAN LAST YEAR. NO VISIBLE SHEEN AT THIS TIME. OIL ON STREAM BANKS. <u>RECOMMENDATIONS: TREAT AFTER RESURVEY. ASSESS AFTER SNOW MELTS AND PERIODICALLY CHECK FOR SHEENING REMOVE SCATTERED TARBALLS IN GRASSY ARE BY BOULDER AND CHUTE. AGREEED, KEN CRITCHLOW.</u> Delete only this									

CATALOG NUMBER: 2261016975							SEGMENT#: KN129 B	LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM	SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS		
04/21/90	OG'S ANADSCAT	1	30 x 10 SURFACE subsurface	11-50	8	CT PT OR 5-8	PIT #1: OR, 5-8. PIT #2: NO OIL U12, EAST BANK. east bank - U12 - Tar/Asphalt patches, OR 5-8 oiled interval		
04/21/90	OG'S ANADSCAT	2	.5 x .5	51-90		CT ST	UITZ, ON LARGE BOULDER. - Broken coat & stream		
MAD vs. OG: AGREE COMMENTS:									

CATALOG NUMBER: 2261016975							SEGMENT#: KN129 B	LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM	SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS		
08/13/90	PRE-ASAP	1	5 x 5 SURFACE subsurface			OR	EAST SIDE: PATCH OF 'OR' SEDIMENTS IN MITZ, 9M NORTH OF BOULDER.		
08/13/90	PRE-ASAP	2	SURFACE	11-50		MS TP V	EAST SIDE, UPSTREAM OF BOULDER: SPORADIC PATCHES OF OILED VEGETATION, MOUSSE, TAR PATTIES.		

08/13/90	PRE-ASAP	3	1 x 1 SURFACE			AP?	WEST SIDE: PATCH (TYPE NOT SPECIFIED) ON STREAM BANK ACROSS FROM BOULDER.
08/13/90	PRE-ASAP	4	.5 x 11 SURFACE			AP	WEST SIDE: BAND OF TAR MAT REMNANTS IN UITZ.
08/13/90	PRE-ASAP	5	SURFACE			V	SPORADIC PATCHES OF OILED VEGETATION.

MAD vs. OG:

COMMENTS:

EAST SIDE - 5M X 5M PATCH 'OR' SEDIMENTS IN MITZ - 9M NORTH OF BOULDER. UPSTREAM OF BOULDER - SPORADIC PATCHES OF OILED VEG/MOUSSE/TAR PATTIES. WEST SIDE - 1M X 1M PATCH ON STREAM BANK ACROSS FROM BOULDER. 3 PATCHES 'OR' SEDIMENTS ON NORTH SIDE OF POOL. AN 11M LONG X .5M WIDE BAND TARMAT REMNANTS IN UITZ. SPORADIC PATCHES OF OILED VEGETATION. REC - SITE COULD USE THE MANUAL REMOVAL OF OILED SEDIMENTS ON STREAM BANKS - NOT PRIORITY THIS YEAR. REASSESS NEXT SPRING. OIL OBSERVED ON STREAM BANKS. A FEW ANADROMOUS FISH AT THE MOUTH AT LOW TIDE.

CATALOG NUMBER: 2261016975

SEGMENT#: KN129 B

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

SEQ:

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
04/27/91	MAYSAP	3	30 PIT		3 15	HOR	west side of stream - by chute
04/27/91	MAYSAP	4	15 PIT		3 5	HOR	west side - by chute
04/27/91	MAYSAP	5	30 PIT		3 10	HOR	west side - by chute

MAD vs. OG: MAD shows heavier subsurface oil near chute than OG

COMMENTS:

BURIED 'HOR' LENS ADJACENT TO STREAM/POND. UIT AREA SCATTERED WITH PATCHES OF 'HSOR' TO 'LSOR'. OIL IS BURIED AND COVERED BY CLEAN GRAVEL (SEE SITE #1, PITS #3, 4, 5). THE REMAINING OILING OCCURRING AT THIS SITE IS SURFACE 'SOR/AP' DEPOSITS (SEE SITE #2, 3, 4, 5 ON MAP).

From OG - west side of stream by Avalanche chute/pond - 5x10 m HOR-OF from -3 to 10 cm thick lense & several small patches AP
 " " east side of stream - 6x15 SOR 15% ~~SOR~~, 4x10 SOR < 5% & 1x.5 AP 50%

transferred
+ OG OIL

CATALOG NUMBER: 2261016975

SEGMENT#: KN129 B

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

SEQ:

DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
07/31/91	POST TREATMENT	2	PIT			N	

07/31/91	POST TREATMENT	6	PIT			N	
07/31/91	POST TREATMENT	A	4 x 4 SURF	5	2	MSOR SOD	
07/31/91	POST TREATMENT	A10	PIT			0-2	
07/31/91	POST TREATMENT	A9	PIT				
07/31/91	POST TREATMENT	B	8 x 4 SUBSUR		5	H/MOR	
07/31/91	POST TREATMENT	B1	PIT			HOR 9-14	
07/31/91	POST TREATMENT	B3	PIT			Y	
07/31/91	POST TREATMENT	B4	PIT			N	
07/31/91	POST TREATMENT	B5	PIT			Y	
07/31/91	POST TREATMENT	B7	PIT			Y	
07/31/91	POST TREATMENT	B8	PIT			HOR 9-14	

MAD vs. OG:

COMMENTS:

SURFACE RUN OFF FLOWING THROUGH "SITE B" HAMPERED A PRECISE DEFINITION OF OIL LENSE. OIL IS STILL MOBILE AND SHEENED PROFUSELY INTO STREAM WHEN AGITATED. AREA SHOULD BE REASSESSED IN 1992, DUE TO THE CLOSENESS OF OIL LENSE TO STREAM AND ITS MOBILE NATURE AND SLOPE TOWARDS STREAM. *SURVEY FOCUSED ON DOCUMENTED OIL TREATED IN 1991. RUN OFF FLOWING THROUGH SEDIMENTS OF PITS 1-8 HAMPERED PRECISE DEMARCATION OF OILED LENS.

east side of stream - 4x4m MSOR in MITZ 5% + 3 patches - 5x.5L SOR - m4 MITZ
west side by chute - 8x4m H/MOR - 5cm thick/lense under clean - MITZ + AP. 5x.5 in MITZ

↓
transferred
to OGOR.

CATALOG NUMBER: 2261016975				SEGMENT NUMBER: KN129 B					
STREAM NAME:				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM				DATE: 04/21/90 TIME: COVE -1545					
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	TB	oil on stream banks
COMMENTS: SNOW PACK COVERING UPPER PORTIONS OF STREAM. NOTED SEVERAL TARBALLS IN GRASSY AREA SURROUNDING BOULDER & ACROSS FROM SHOOT LOOKS MUCH BETTER THAN LAST YEAR. NO VISIBLE SHEEN AT THIS TIME. SNOW MELTS & PERIODICALLY CHECK FOR SHEENING REMOVE SCATTERED TARBALLS IN GRASSY ARE BY BOULDER & CHUTE. AGREED, KEN CRITCHLOW. OIL WITHIN 1 MILE OF STREAM: YES OIL ON STREAM BANKS: YES									

CATALOG NUMBER: 2261016975				SEGMENT NUMBER: KN129 B					
STREAM NAME:				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM				DATE: 04/27/91 TIME: COVE -1830					
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
3		30			3	15	PIT	HOR	
4		15			3	5	PIT	HOR	
5		30			3	10	PIT	HOR	
COMMENTS: BURIED 'HOR' LENS ADJACENT TO STREAM/POND. UIT AREA SCATTERED WITH PATCHES OF 'HSOR' TO 'LSOR'. OIL IS BURIED AND COVERED BY CLEAN GRAVEL (SEE SITE #1, PITS #3, 4, 5). THE REMAINING OILING OCCURING AT THIS SITE IS SURFACE 'SOR/AP' DEPOSITS (SEE SITE #2, 3, 4, 5 ON MAP).									

CATALOG NUMBER: 2261016975				SEGMENT NUMBER: KN129 B					
STREAM NAME:				SHORELINE TYPE:					
LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM				DATE: 07/31/91 TIME: COVE -1010					
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
2							PIT	N	
6							PIT	N	
A10							PIT		
A9							PIT		
B1							PIT	HOR	
B3							PIT	Y	
B4							PIT	N	
B5							PIT	Y	
B7							PIT	Y	
B8							PIT	HOR	
B	8	4			5		SUBSUR	H/MOR	
A	4	4		5	2		SURF	MSOR SOD	

COMMENTS:

SURFACE RUN OFF FLOWING THROUGH "SITE B" HAMPERED A PRECISE DEFINITION OF OIL LENSE. OIL IS STILL MOBILE AND SHEENED PROFUSELY INTO STREAM WHEN AGITATED. AREA SHOULD BE REASSESSED IN 1992, DUE TO THE CLOSENESS OF OIL LENSE TO STREAM AND ITS MOBILE NATURE AND SLOPE TOWARDS STREAM. *SURVEY FOCUSED ON DOCUMENTED OIL TREATED IN 1991. RUN OFF FLOWING THROUGH SEDIMENTS OF PITS 1-8 HAMPERED PRECISE DEMARCATION OF OILED LENS.



REC-DATE:

PAGE

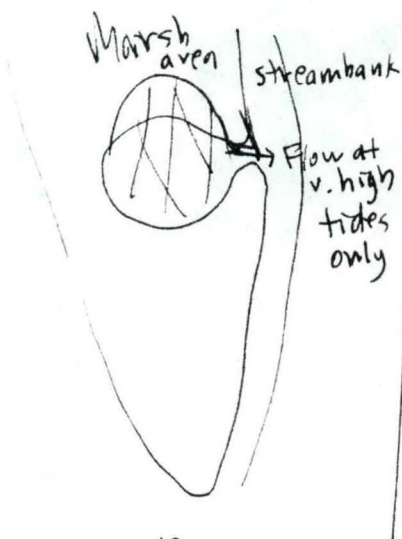
OG vs. MAD:

OG's Analysis

[illegible]

The crew had implemented several measures to minimize oiling of the stream: containment boom at mouth, traffic control w/ sorbent pathways, snare boom perpendicular to stream & parallel to channel at base of contaminated area, "guards" to enforce traffic control.

They were also working in a small sedge marsh I had not observed previously on the east bank. The small marsh had an



outlet which drained into the stream and had pooled oil in patches and oil sheen on the raised water table. Workers were using shovels to dig up oiled sedges + sediments in the

patches. Russell said they were working in a "downstream" direction to avoid recontamination by water flow and would boom the outlet if a storm occurred. I expressed concerns to Donlee Hill, saying removal of marsh vegetation was generally not recommended. This area was apparently missed by SCAT & the ISCC and should be reassessed following treatment.

We went with the RAT and Exxon personnel to the stream in KIV-129 (SW Herring Bay # 226-10-16970). The area no longer had pooled oil, but there were still patches of oiled grass and oiled rocks. The perimeter of the tidal pool had no visible oil. The flow was very low, with only one channel flowing (on the w.) They said an omni-boom had been used and they had cut & baled the grass while flushing with 1150' water.

THE CONDIE DROVE TO THE POINT STATION AT THE
OVE HAD VIS... on some rock surf 25.

We then went to Sleepy Bay and
observed the stream there. No further
work had occurred since my last visit, Robin
Willis was on-site, but bored due to the
lack of activity to monitor.

We then flew to Cordova to drop off
Norm Cohen and returned to Valdez at
approx. 1800.

Marilyn Sigmund

NOTE: SEE p. 63 for
Field Observations

7/3/89 - 7/6/89

7/8/89

1320 LEE ROGERS AND CHARLOTTE GRANT DEPART ROBE
LAKE ATON 3 HR. DELAY DUE TO FOG. PILOT IS
BUTCH TROESON. 500 FT. CEILING NECESSARILY FLYING
THE DECK AND AVOIDING HEAVY HELICOPTER TRAFFIC.
WE WERE UNABLE TO LAND AT MARSHA BAY, CHENBERA,
EVANS, OR GREEN ISLAND DUE TO FOG AND HELICOPTER
TRAFFIC. PILOT TROESON DECIDED AGAINST LANDING
AT SLEEPY BAY DUE TO IRREGULAR WIND PATTERNS.
1430 LANDED AT EVANS ISLAND - EVIT AS WEATHER CLEARING

STORMY 216-40/6630 (#5)

WINDS: 10% WINDS

WINDS NE 0-10 MPH.

CEILING: 1000

VISIBILITY: UNLIMITED

BEACH COMPLETELY UNOCCUPIED. HADIT OIL SPILL ABOUT
50 YDS. WIDE CIRCUMSCRIBED THE STREAM MOUTH. DEPTH OF
OIL = 1/2". FLEES AND DRIFTWOOD AT HIGH TIDE COVER
THE OILED BANK WITH THE CORBLES AND SEDIMENT. GRASSES
ON THE OILED SPOTS AND OILED LITTORAL.

1 ROAD LEGAL FLEW DOWNWARD NB → SW.

RECOMMENDED TREATMENT = RIPPING AND SURVEILLANCE OF OILED
MATERIALS; HAS WATER WASH, REMOVAL OF OILED FLEES & DEBRIS.

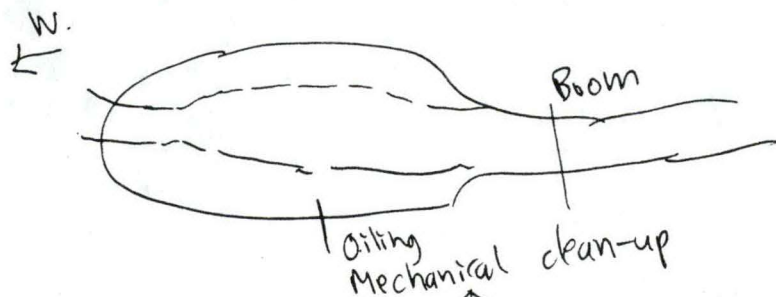
1 SEA OTTER CAPTURING IN HIDE.

OIL SAMPLES COLLECTED. PLANTS #5, 6

ACE 7378654 -1/5

Left Valdez at 6:20 a.m. via chopper with Carl Yanagawa, mng. n Alaska Corp. Day w. clear in Valdez Arm, then very foggy ^{between} the mainland and on the east side of Naked and Knight Islands.

Confirmed oil distribution in West Arm, Bay of Isles at low tide (-2.0'). Observed 1 oiled ^{adult} seal in the lagoon. Oiling in the upper intertidal zone is in quantities where mechanical treatment could be used $\approx$ 300' away from the end of the defined channel. The channel has good spawning gravels in the lower IIZ at the mouth.



Oiling is at high tide line, so

would have to be worked at high tide due to steep beach.

6/6/89
Marilyn
Stegman

Stopped at SW Herring Bay and did a stream transect perpendicular to the stream. Also developed tips for the A.S. Title 16 for the stream.

Stopped at segment EB-9 in S. Eshamy Bay. No oiling was evident adjacent to the stream in the S. end of the cove, with the exception of oiled Fucus in the high tide storm berm (also 1 dead, v. oiled bird) w. of the stream and ^{very} spotty tar balls. The substrate adjacent to the stream and along the cove to the east was very muddy. We observed numerous worm holes, an eelgrass band, a diatom/Enteromorpha roosting, and several Dungeness crab molts.

We flew the S. shore of Eshamy and observed light oiling. We stopped at the stream mouth in EB-1. The SAT reports of an

ACE 7378657

not a fish stream. Wilkes had good luck
times. Oil inc. led some pooled ~~in~~ ~~the~~ ~~stream~~

Observed a boom left on beach in this segment.

Also observed a boomed area on NE Ingot -
appeared to be a marsh.

Returned to Valdez @ 3:30 p.m.

Marilyn Sigmom

5/17/84

3:25 p.m. Leave Valdez via float plane for Harring
Bay. Checked out 2 anadromous fish streams:

1. #226-10-16920-Stream about mid-way down west side
is a pink stream. Oiling was heavy north of
the stream, but only black oil on tops of rocks near
stream, gravel appeared to be free of oil on
surface. A band $\approx 30'$ wide of unoiled
sediments was between the oiled zone &
stream ^{channel} at slack tide (+39 at high / low).

Some mossy blobs also, with green, healthy
Fucus down slope of the oil. This is an
area where no instream work is needed,
but some barrier (sorbent boom) to
oil migration at bottom of oiled zone into
unoiled sediments or stream. <sup>This stream may have
oil from Exxon</sup>

Stream at head of south arm is also ^{#226-10-16920} 16975
a pink stream. There are two different outlets
separated by a small rise. The western
stream has heavy oil accumulations adjacent
to the channel ~~and within~~ on rocks in
the channel, ^{and} on ^{small} vegetated islands in the
floodplain. Oil on the island is pooled to
several inches. Sheens ~~also~~ appeared on the
water surface with the agitation provided
by walking in the channel. This stream area
should definitely be treated, although gravel
within the channel ^(10+5' wide) appears oil-free. The
floodplain is $\approx 75'$ wide. Harring Bay had
considerable surface sheens.



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: POOLED OIL IN GRASS BETWEEN STREAM CHANNELS.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 37 EVIDENCE ID#: 10181

ACE 7378584

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

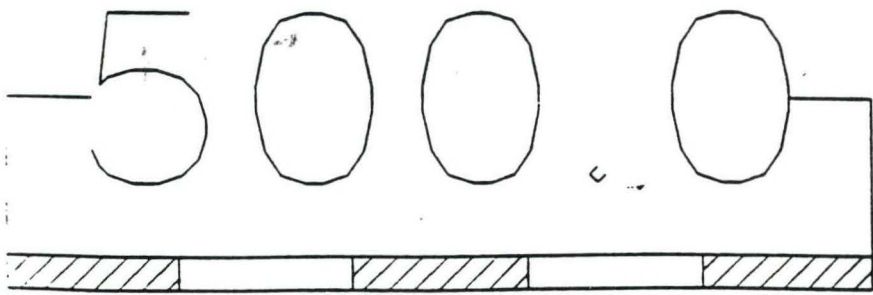
REASON FOR TAKING PHOTO: STREAM AND OIL TO BANK.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 24 EVIDENCE ID#: 10181

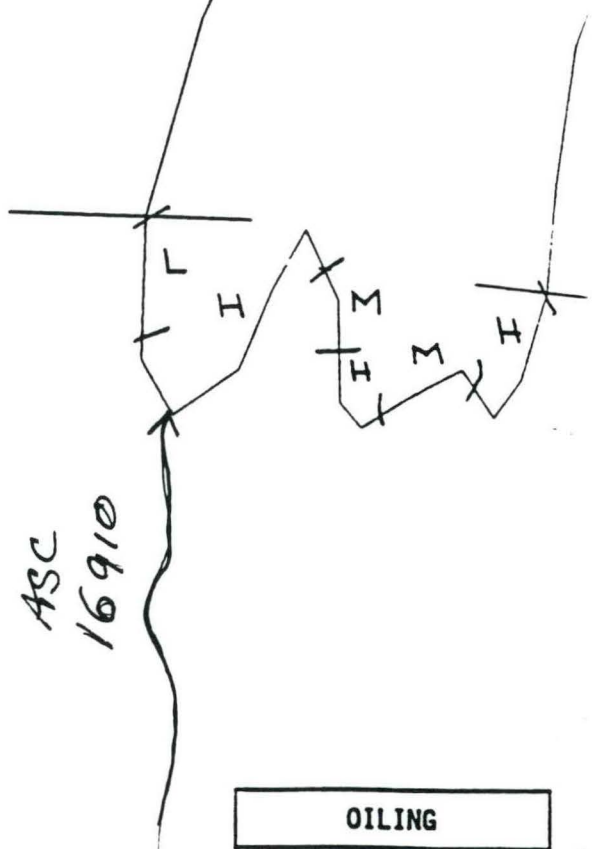
ACE 7378585

KN129



walk-a-tron

ACE 7378681



OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed
Distance In Meters	

ADEC Sep/Oct 1989 Survey

N

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: KN129

DATE: 09/18/89

LOCATION: SE HERRING BAY, KNIGHT I.

TIME: 10:13

Survey Type: Boat, Ground

Team: B. Fitzsimons, B. McCready

WEATHER AND SEA CONDITIONS

Weather: Sunny
Sea State: Calm

Wind Direction: 0
Knots: 0

Low Tide: 9:45 Feet: 0.54 High Tide: 15:53 Feet: 14.5
Low Tide: 22:25 Feet: -1.9 High Tide: 3:54 Feet: 12.6

SHORELINE DESCRIPTION

Shoretypes: H,LR,B,C,M

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

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

Shoreline Composition: R,B,C,G,S,M

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

OIL CHARACTERISTICS

Degree of Oiling: L,M,H

(N=none, VL=very light, L=light, M=moderate, H=heavy)

Area of Impact: S,H,M

(S=supratidal, H=high intertidal, M=mid tidal, L=low intertidal)

Max. Oil Thickness: 3 mm (1 = 1 mm or less, 0 = no oil)

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

Percent Segment Categorized as Oiled: 100%

Presence of Oiled Driftwood (y/n): y

Oil Types: SY,T

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

Samples: KN129-1 / KN129-2 / none / none

DAMAGED OR OILED ORGANISMS

Fucus (y/n): y Barnacles (y/n): n Mussels (y/n): y

Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: One locality, boom

Bags Collected: 0

Draft

Printed: 12/12/89 11:33

ACE 7378598 +/AC/RT

Walk-a-thon

ALASKA/CIVIL EXXON

over

Additional Information continued :

ACE # 7378593: Reason for taking photo: Looking downstream.
Frame #: 32, ACE # 7378594: reason for taking photo:
Looking downstream, Frame #: 33, ACE # 7378595: reason
for taking photo: Shoreline, Frame # 34, ACE # 7378596:
reason for taking photo: Shoreline, Frame #: 35, ACE # 7378597:
reason for taking photo: Pooled oil in grass between
stream channels frame # 36.

ACE 7378583/B



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:UPSTREAM BY NARROW CHANNEL.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 29

EVIDENCE ID#: 10181

ACE 7378590

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:POOLS OF MOUSSE IN GRASS BETWEEN STREAM CHANNELS.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 30

EVIDENCE ID#: 10181

ACE 7378591

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 31

EVIDENCE ID#: 10181

ACE 7378592

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 32

EVIDENCE ID#: 10181

ACE 7378593



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:UPSTREAM BY NARROW CHANNEL.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V

FRAME #: 29

EVIDENCE ID#: 10181

ACE 7378590



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: POOLS OF MOUSSE IN GRASS BETWEEN STREAM CHANNELS.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V

FRAME #: 30

EVIDENCE ID#: 10181

ACE 7378591



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 31

EVIDENCE ID#: 10181

ACE 7378592



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 32

EVIDENCE ID#: 10181

ACE 7378593



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 33 EVIDENCE ID#: 10181

ACE 7378594

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:SHORELINE

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 34 EVIDENCE ID#: 10181

ACE 7378595

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:SHORELINE

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 35 EVIDENCE ID#: 10181

ACE 7378596

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:POOLED OIL IN GRASS BETWEEN STREAM
CHANNELS.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 36 EVIDENCE ID#: 10181

ACE 7378597



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 33

EVIDENCE ID#: 10181

ACE 7378594



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: SHORELINE

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V

FRAME #: 34

EVIDENCE ID#: 10181

ACE 7378595



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: SHORELINE

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 35

EVIDENCE ID#: 10181

ACE 7378596



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: POOLED OIL IN GRASS BETWEEN STREAM CHANNELS.

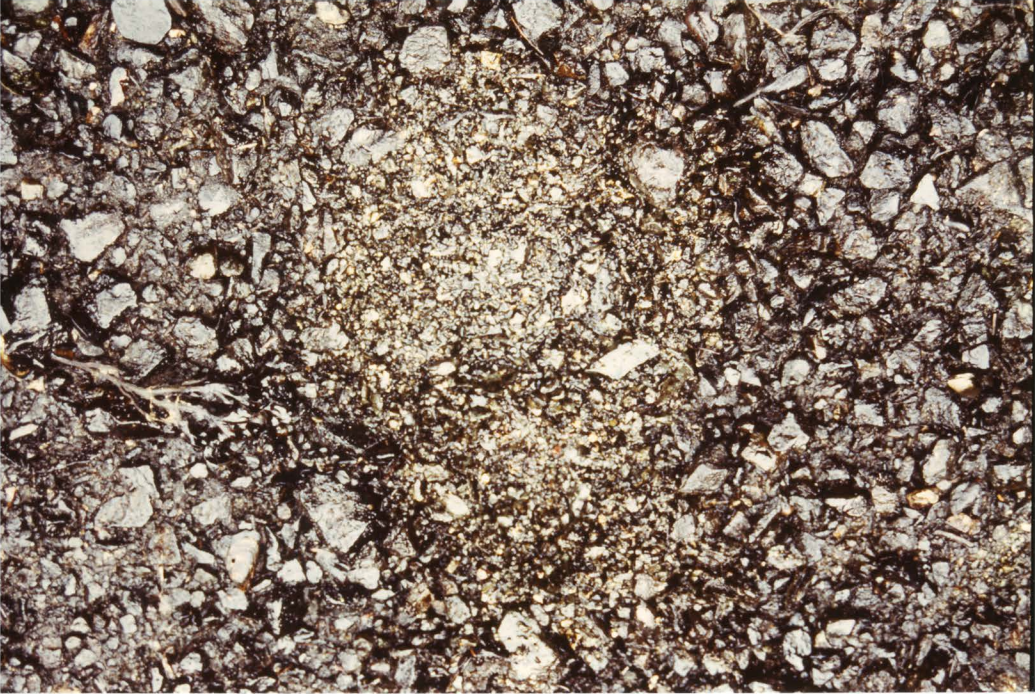
TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 36

EVIDENCE ID#: 10181

ACE 7378597



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:STREAM AND OIL TO BANK.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 25 EVIDENCE ID#: 10181

ACE 7378586

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:STREAM AND OIL TO BANK.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 26 EVIDENCE ID#: 10181

ACE 7378587

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:AIMEE IN FRONT OF ROCK WITH OIL LINE.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 27 EVIDENCE ID#: 10181

ACE 7378588

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ DATE: 05/17/89 TIME: -0-

SEGMENT#: KN 129 STATION#: 2261016910
LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO:LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN INITIALS: _____

ROLL #: 89AW002V FRAME #: 28 EVIDENCE ID#: 10181

ACE 7378589



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: STREAM AND OIL TO BANK.

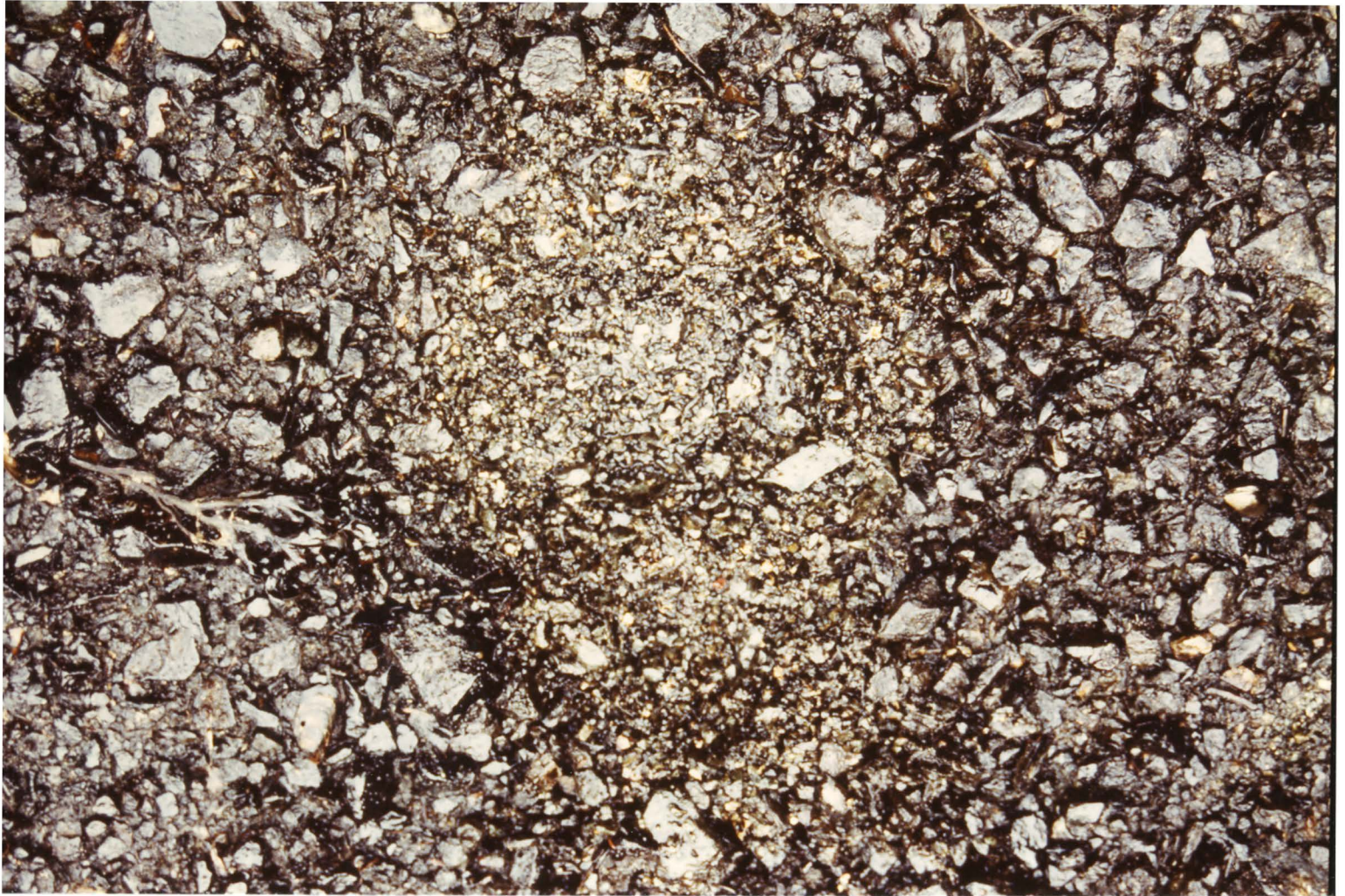
TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 25

EVIDENCE ID#: 10181

ACE 7378586



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: STREAM AND OIL TO BANK.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 26

EVIDENCE ID#: 10181

ACE 7378587



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: AIMEE IN FRONT OF ROCK WITH OIL LINE.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V FRAME #: 27

EVIDENCE ID#: 10181

ACE 7378588



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 05/17/89

TIME: -0-

SEGMENT#: KN 129

STATION#: 2261016910

LOCATION: KNIGHT ISLAND, HERRING BAY

REASON FOR TAKING PHOTO: LOOKING DOWNSTREAM.

TAKEN BY: AIMEE WESEMAN

INITIALS: _____

ROLL #: 89AW002V

FRAME #: 28

EVIDENCE ID#: 10181

ACE 7378589

May 30, 1990

Rick Gustin

KN129 Herring Bay

KN129 B AW

ASC# 226-10-16975

Arrived at the work site at approximately 0800 and surveyed the upper intertidal area previously covered by snow when the anadscat was performed. Inspection revealed areas of oiled vegetation and surface tarmat which was removed by Jan Krieger of ADEC. The crew fell to and soon had the majority of the tar mats and patties removed. Tilling was performed on these scarified areas and other lightly oiled areas were rake tilled. This stream had some extensive manual removal done to it last summer, so this was simply the fine tuning at the finish. Even though Bioremediation was recommended I feel that tilling and natural weathering will be more beneficial and would hope no bioremediation be done. By 1500 the majority of the work was completed, with one super sack of oiled gravel and 0.5 super sack of oiled vegetation May 30, 1990

May 30, 1990
Rick Gustin
KN129A Herring Bay B
ASC# 226-10-16975

Arrived at the work site at approximately 0800 and surveyed the upper intertidal area previously covered by snow when the anadscat was performed. Inspection revealed areas of oiled vegetation and surface tar mat which was removed by Jan Krieger of ADEC. The crew fell to and soon had the majority of the tar mats and patties removed. Tilling was performed on these scarified areas and other lightly oiled areas were rake tilled. This stream had some extensive manual removal done to it last summer, so this was simply the fine tuning at the finish. Even though Bioremediation was recommended I feel that tilling and natural weathering will be more beneficial and would hope no bioremediation be done. By 1500 the majority of the work was completed, with two super sacks of oiled gravel removed from the site. Later on in the afternoon the site was demobed.

State of Alaska
Department of Fish and Game
Habitat Division

Page ___ of ___

Field Inspection Report

Date 5-30-90 Time 0825

Location: (Logging unit/Road/Waterbody) KN129A B
ASC 226-10-16975

Operator/Contractor: EXXON / UECO

Individuals present at time of inspection:

Name

Representing

John Hayes ADEC
Jan Knefer ADEC

Rick Gustin ADFG
GERRY NOYES UECO

Activity/Situation Observed: CLEANUP

Work looks acceptable. 6/1/90

Pertinent Statutes/Regulations: AK Title 16 Statute

Recommended/Required Action (Specify):

Pick up tar mat remove tar patties
and heavily oiled sediments
fill & bio if ADEC allows

By (date) _____ (if applicable)

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

Rick Gustin

Fish and Game Representative/Title

Company Representative/Title

State of Alaska
Department of Fish and Game
Habitat Division

Page ___ of ___

Field Inspection Report

Date 5-30-90 Time 0825

Location: (Logging unit/Road/Waterbody) KN129 A B
ASC 226-10-16975

Operator/Contractor: EXXON / UECO

Individuals present at time of inspection:

Name

Representing

<u>John Hayes</u>	<u>ADEC</u>	<u>Rick Costin</u>	<u>ADFG</u>
<u>Jan Knefer</u>	<u>ADEC</u>	<u>GERRY NOYES</u>	<u>UECO</u>

Activity/Situation Observed: CLEANUP

Work looks acceptable. 6/1/90

Pertinent Statutes/Regulations: AK. Title 16 Statute

Recommended/Required Action (Specify):

Pick up tar mat remove tar patches
and heavily oiled sediments
fill & bio if ADFG allows

By (date) _____ (if applicable)

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

<u>Rick Costin</u>	_____
Fish and Game Representative/Title	Company Representative/Title

State of Alaska
Department of Fish and Game
Habitat Division

5-30-90

0810
Page of

Field Inspection Report

Date 5-30-90 Time 0825

Location: (Logging unit/Road/Waterbody) KN129A B
ASC 226-10-16975

Operator/Contractor: EXXON / VECO

Individuals present at time of inspection:

<u>Name</u>	<u>Representing</u>
<u>John Hayes</u>	<u>ADEC</u>
<u>Jan Knefer</u>	<u>ADEC</u>
<u>Rick Costin</u>	<u>ADFG</u>
<u>GERRY NOYES</u>	<u>VECO</u>

Activity/Situation Observed: CLEANUP

Work looks acceptable. 6/1/90

Pertinent Statutes/Regulations: AK. Title 16 Statute

Recommended/Required Action (Specify):

Pick up tar mat remove tar patches
and heavily oiled sediments
fill + bio if ADFG allows

By (date) _____ (if applicable)

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

<u>Rick Costin</u>	_____
Fish and Game Representative/Title	Company Representative/Title

State of Alaska
Department of Fish and Game
Habitat Division

Page 810 of

Field Inspection Report

Date 5-30-90 Time 0825

Location: (Logging unit/Road/Waterbody) KN129A B
ASC 226-10-16975

Operator/Contractor: EXXON / UECO

Individuals present at time of inspection:

Name

Representing

<u>John Hayes</u>	<u>ADEC</u>	<u>Rick Costin</u>	<u>ADFG</u>
<u>Jan Knepper</u>	<u>ADEC</u>	<u>GERRY NAYES</u>	<u>UECO</u>

Activity/Situation Observed: CLEANUP

Work looks acceptable. 6/1/90

Pertinent Statutes/Regulations: AK Title 16 Statute

Recommended/Required Action (Specify):

Pick up tar mat remove tar patches
and heavily oiled sediments
fill & bio if ADFG allows

By (date) _____ (if applicable)

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

Rick Costin
Fish and Game Representative/Title

Company Representative/Title

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

NAME: Knight I Herring Bay

USGS MAP: *Seward B-3*

MAP #:

DATE: 4-26-89

TIME OF SURVEY: 1513

LOW TIDE .4 TIME 1139

COLLECTORS: DR + SM

ASC# 226-10-16975

OIL TYPES PRESENT (1 2 3 4)

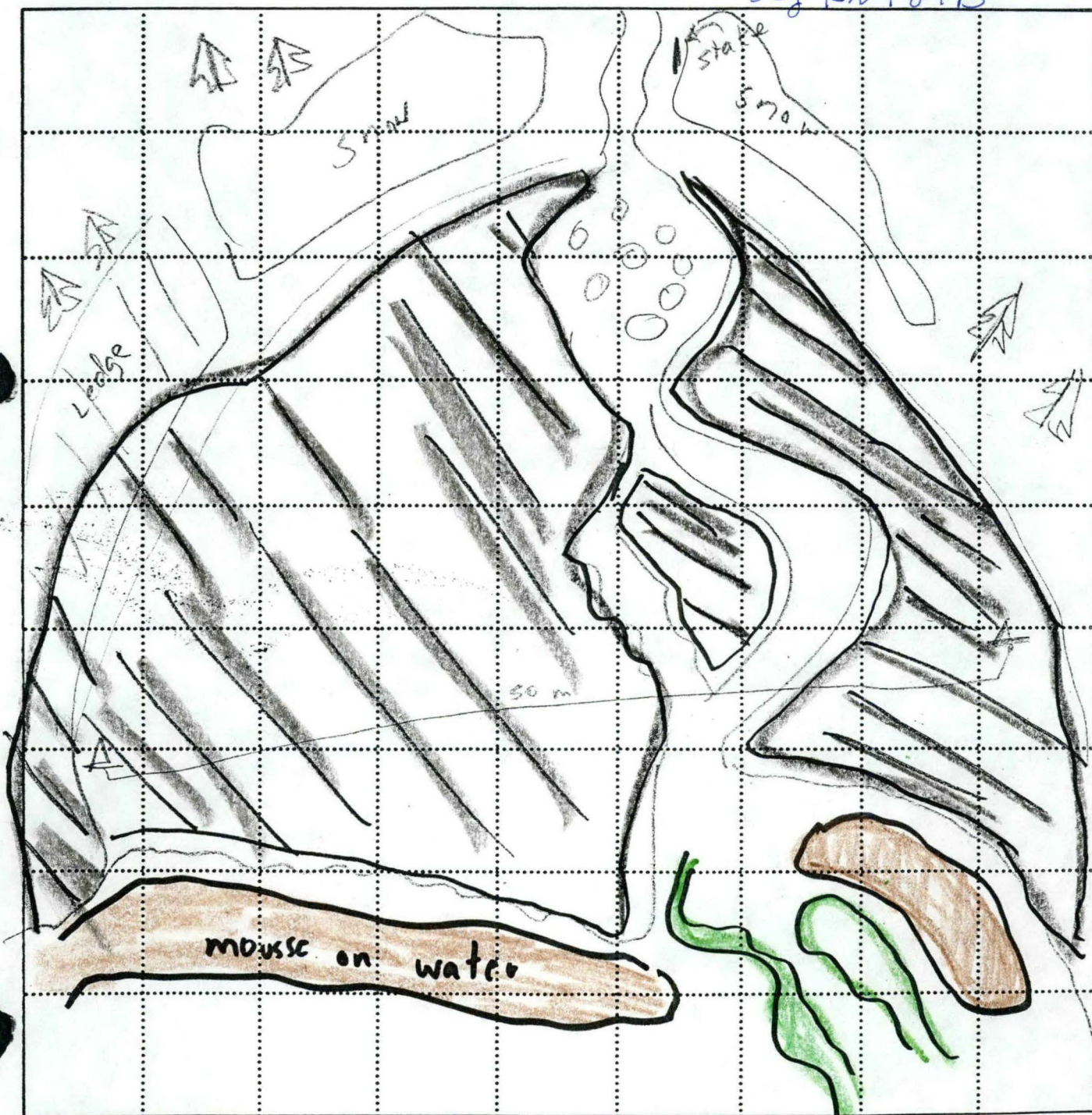
PHOTO #: 29, 30, 31, 32, 33 roll 15

STREAM CATALOG #: 16910 now 16925

SCALE: ONE GRID EQUALS

seg KN129B

NO OIL
SHEEN
MOUSSE
BLACK OIL



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

COMMENTS:

COMMENTS: Beech is covered completely. oil penetration 2" to 1' - Rocks in stream covered.

ACE 7378688
-14/AC/RT/FF

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

ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN129B ASC# 226-10-16975 Location Herring Bay

Date 8/13/90 Recorder/Observer _____

Oil in streambed none Oil on streambanks yes
sighted

Oil within 50m of mouth yes Anadromous Fish present a few at
the mouth at low tide

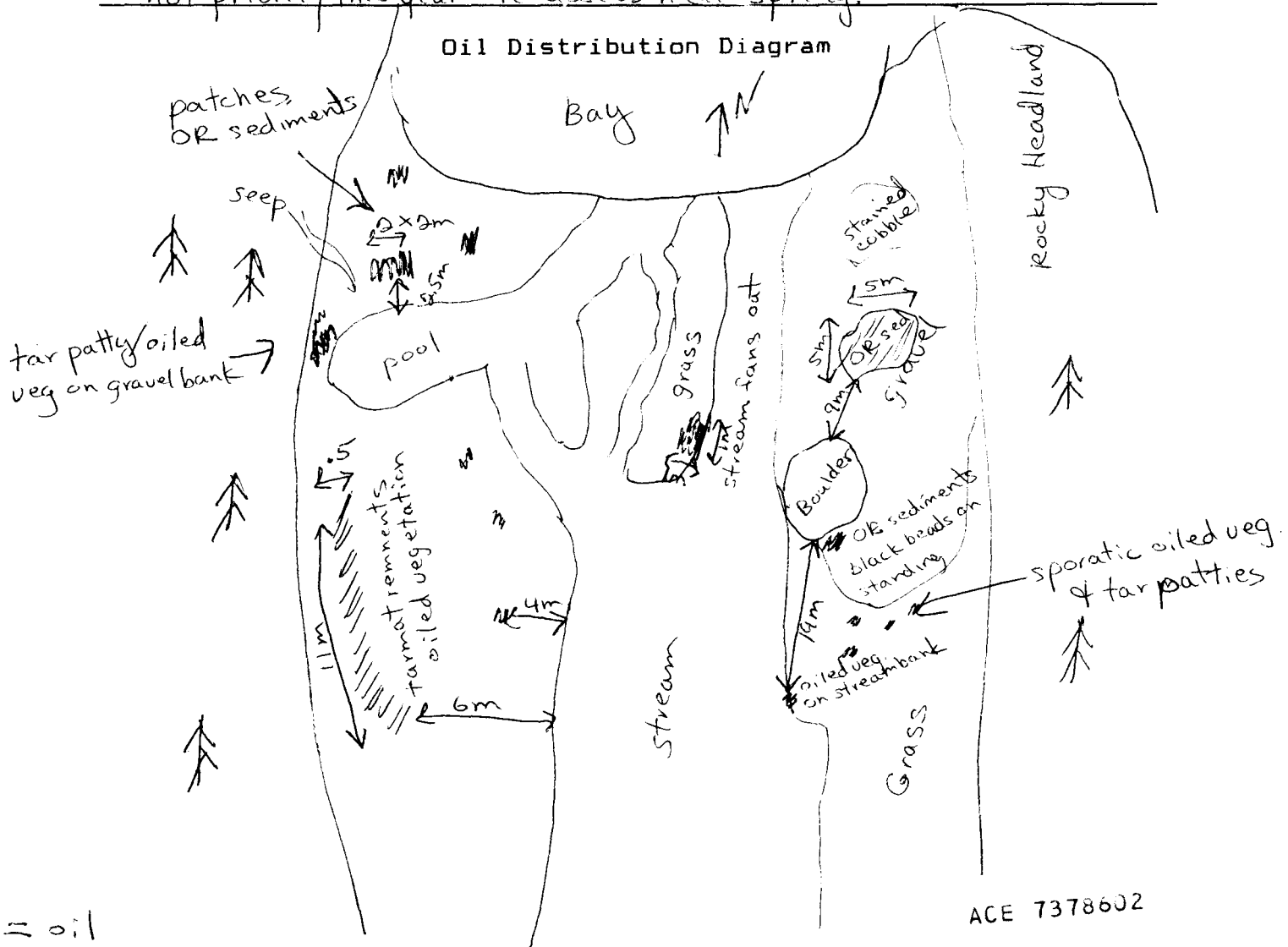
Description of oil and comments

East side - 5m x 5m patch OR sed in MITZ - 9m north of boulder
Upstream of boulder - sporadic patches of oiled veg/mousse/tarpatties

West side - 1m x 1m patch on streambank across from boulder
3 patches OR sed on North side of pool
a 11m long x .5m wide band of tar mat remnants in U.T.Z. &
sporadic patches of oiled vegetation

Rec - site could use the MK of oiled sediments on stream banks -
not priority this year - re-assess next spring.

Oil Distribution Diagram



22 = oil

ACE 7378602

ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Segment # KN129B ASC# 226-10-16975 Location Herring Bay Knight 7s.

Date 8/15/90 Recorder/Observer T. Crum/R. Gustin

Oil in streambed Yes Oil on streambanks Yes

Oil within 50m of mouth Yes Anadromous Fish present NO

Description of oil and comments Oiling in upper intertidal zone
next to creek in grass. Still some oil in grass further upstream.
Also still some oil on the east side of the stream
near the large boulder and on down towards the
Ocean.

No fish present

Oil Distribution Diagram

Tar mat broken.
oil in upper
ITZ.

x still some oil up stream further.
in grass.

○ excavated
patches in
grasses.

ACE 7378601

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

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

EXXON Valdez Oilspill Cleanup Anadromous Fish Stream Authorization

Date 6-11-89

EXXON Authorized Representation Bill Baird

Shoreline Segment KN 129B Herring Bay/
Knight Island

Anadromous Fish Stream Number (s) 226-10-16910
16975

Approved Cleanup Techniques _____

1. Mechanical shoreline treatment methods shall be limited
to area shown in attached sketch.

a. Do not use high pressure hoses in stream channels

b. Work with tides (above rising tide, then wash with
falling tide) - OVER

Approved Cleanup Period June 5 - July 1, 1989

Alaska Department of Fish and Game

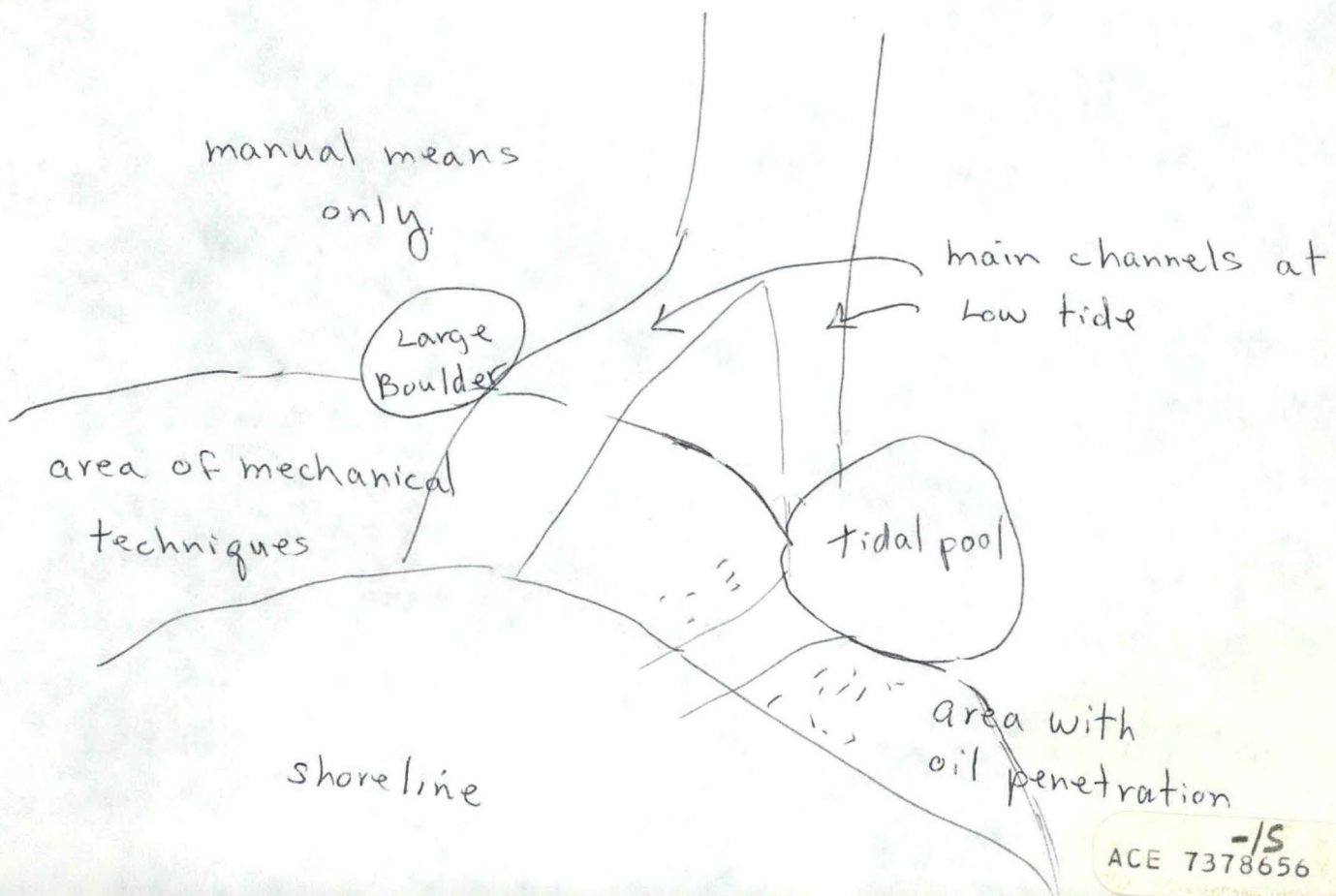
ACE 7378655 +/5

Rimee Weseman
Authorized Officer

Wm C Baird 6/11/89
Permittee's Signature

- c. Avoid washing into tidal pool (see sketch)
- d. The use of mechanical agitation with rakes or hot-water injection is recommended to remove oil from floodplain gravels (penetration to 8c.m.)

2. Remove all oiled debris, tarballs, and pooled oil in the stream floodplain using manual means (i.e., shovels, rakes.)
3. Cut oiled vegetation; avoid disturbance of root systems and sediments
4. Prevent movement of surface oil sheens into stream channels and floodplain re-oiling



STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

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

EXXON Valdez-Oilspill Cleanup Anadromous Fish Stream Authorization

Date 6-11-89

EXXON Authorized Representation Bill Baird

Shoreline Segment KN 129 Herring Bay/
Knight Island

Anadromous Fish Stream Number (s) 226-10-16910 16975B
changed to

Approved Cleanup Techniques _____

1. Mechanical shoreline treatment methods shall be limited
to area shown in attached sketch.

a. Do not use high pressure hoses in stream channels

b. Work with tides (above rising tide, then wash with
falling tide) - OVER

Approved Cleanup Period June 5- July 1, 1989

Alaska Department of Fish and Game

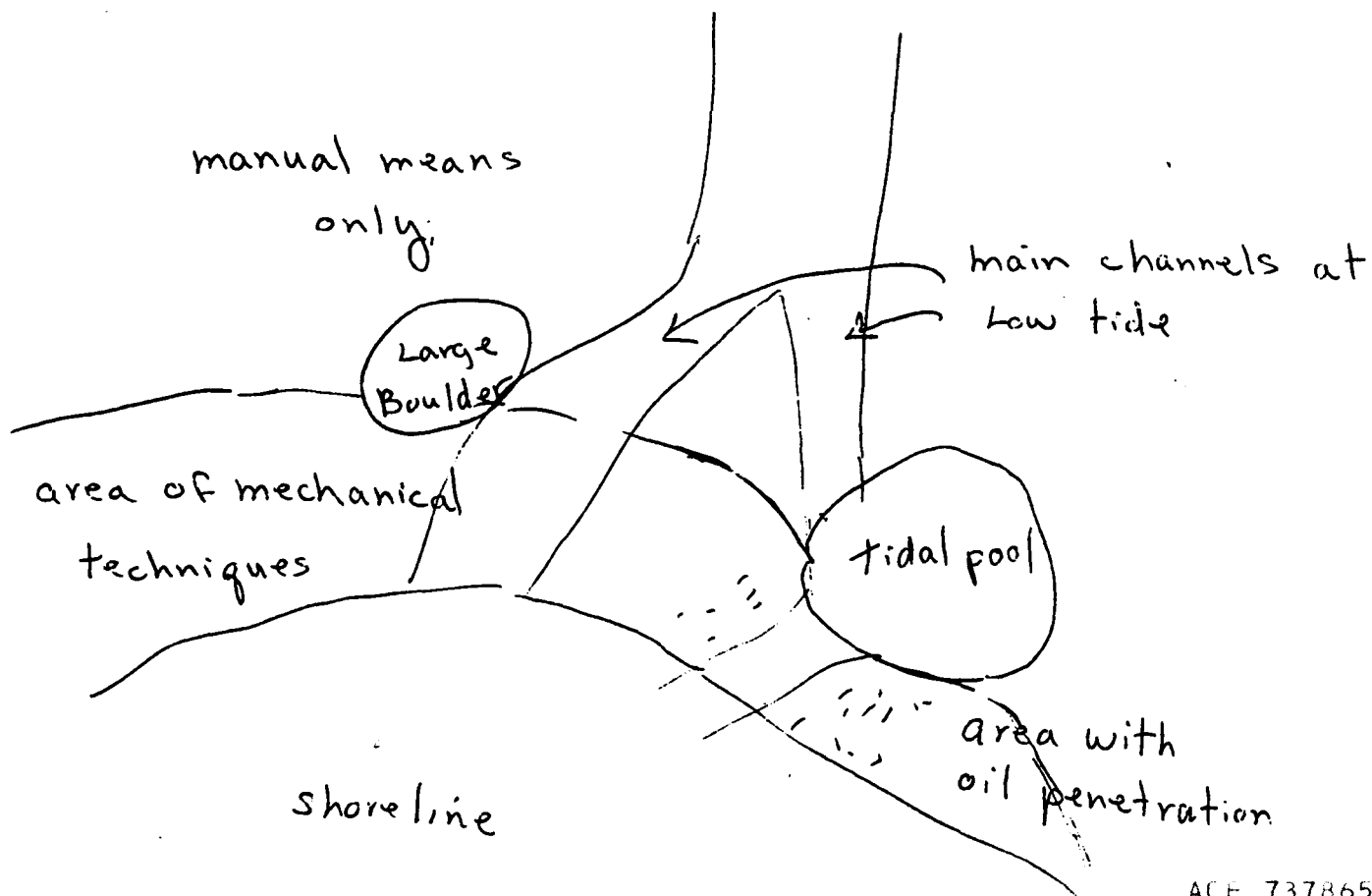
ACE 7378651 +15

Rimée Weseman
Authorized Officer

Wm C Baird 6/11/89
Permittee's Signature

- c. Avoid washing into tidal pool (see sketch)
- d. The use of mechanical agitation with rakes or hot-water injection is recommended to remove oil from floodplain gravels (penetration to 8c.m.)

2. Remove all oiled debris, tarballs, and pooled oil in the stream floodplain using manual means (i.e., shovels, rakes.)
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4. Prevent movement of surface oil sheens into stream channels and floodplain re-oiling



ADF&G MULTI-ASSESSMENT DATA FORM

Pre ANADSCAT-90 AJW

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

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-12-90

15 HIGH TIDE TIMES: /

21 TEAM RECORDER: R. Gustin

4 START TIME: 1012

16 HIGH TIDE HTS: /

22 OBSERVERS: 1 pilot

5 STOP TIME: 1020

17 LOW TIDE TIMES: /

23 AGENCY: ADF&G HAB.

6 SEGMENT #: KN129B

18 LOW TIDE HTS: /

24 PHOTOS TAKEN: Y N

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil _____

13 LOCATION: KNIGHT IS.

Sediment _____

14 DESCRIPTION: HERRING BAY.

Biological _____

EXTENT OF OIL

Water _____

	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 AJW

37 CATALOG #: 76975

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL L M H

39 OIL IN STREAM BED? Y N

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

40 OIL ON STREAM BANKS? Y N

32 OILED DEBRIS? Y N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N

Where: upper intertidal zone

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

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

Species	Aerial	Ground

COMMENTS: large areas adjacent
as if from Volatiles. thick tar on large
boulder in stream. large areas affected
by same residue. No life.

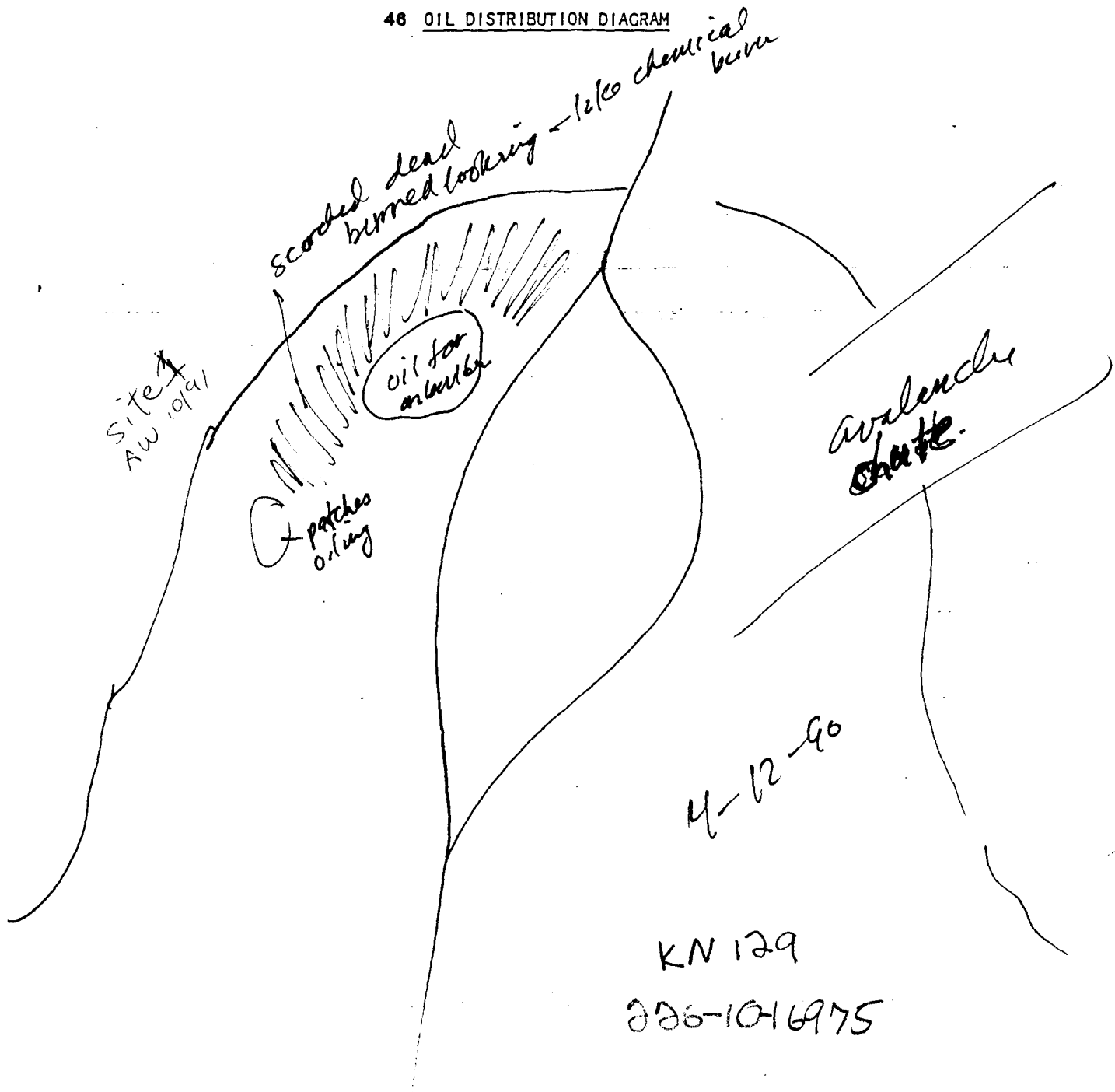
Treatment?

ACE 7378679 +15

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



= Sample taken
 = Photo frame # and
 shot direction.

ACE 7378680 -/5

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1545

17 LOW TIDE TIMES: 1730

23 AGENCY: ADF+G

6 SEGMENT #: KN-129B

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#: 90RL6001555

9 STAT AREA: _____

20 USCG QUAD: Sew B-3

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil _____

13 LOCATION: South end Herring Bay - Knight I

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	<u>coat</u>							
29 PENETRATION								

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-10-16975

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 5 Cobble 45
Gravel 20 Sand _____ Mud/silt 30

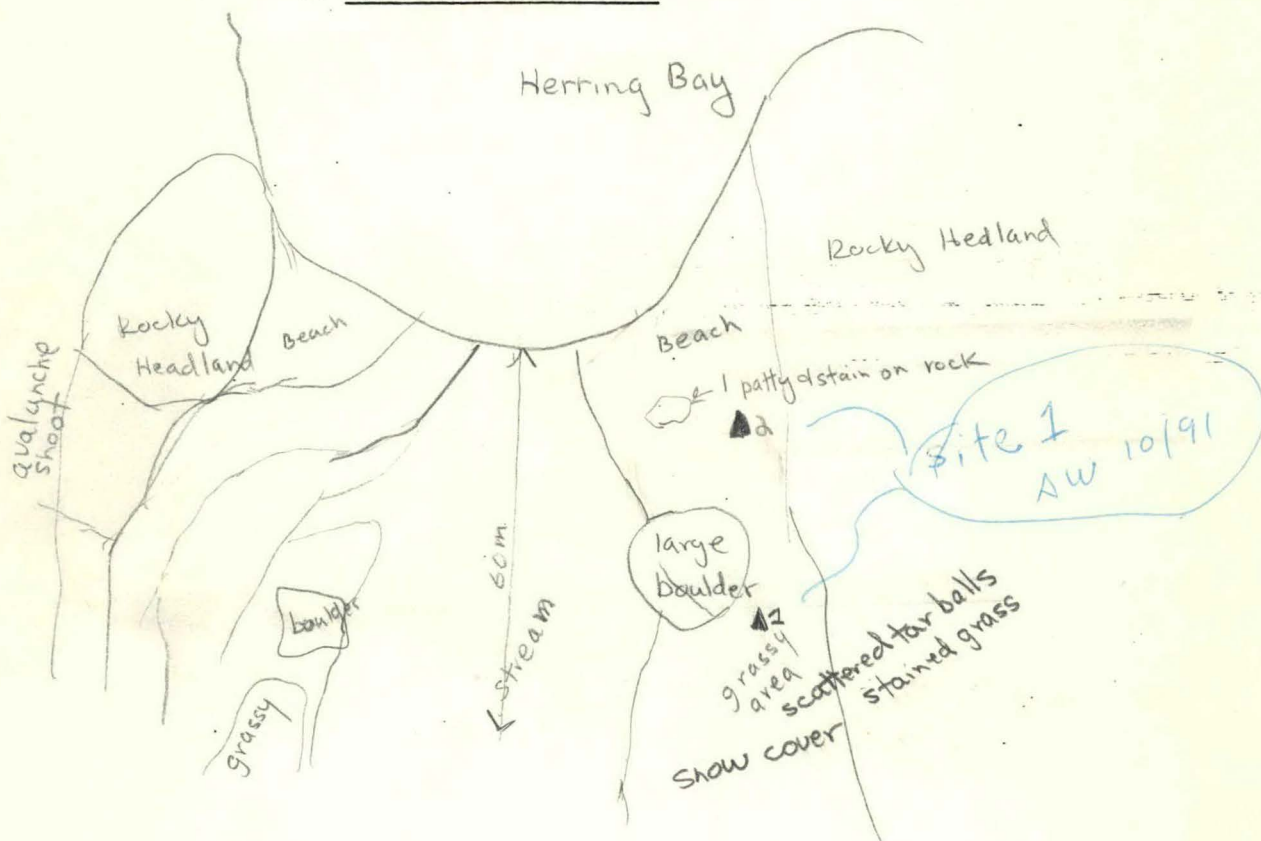
COMMENTS: show pack covering upper portions of stream
noted several tar balls in grassy area surrounding boulder & across from shoot
looks much better than last year - no visible sheen at this time

226-10-16975

45 PHOTOLOG

FRAME(S)	DESCRIPTION
	pit 1 - 18cm 8cm oiled vegetation
	pit 2 - 18cm light coat oil on surface
	60 meter length

46 OIL DISTRIBUTION DIAGRAM



Recommended - treat after resurvey

assess after snow melts & periodically check for sheening
remove scattered tar balls in grassy area by boulder & chute

Agreed Ken Cutchlow

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ KN 129 21
 BIO KEN CRITCHLOW LAND REP STREAM 226 10-6975 (OF)
 EXXON DARLHL YOE ADFG ZIKK GUSTIN-AIMEE WESEMAN TIME 5:10 to 5:45
 TEAM NO. 14 TIDE LEVEL +2 FT DATE 4 12/1 190
 EST. SUBDIVISION LENGTH: 120 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B 40 % C 30 % P 10 % G 10 % S 10 % M % V %
 SLOPE: Lang 100 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 30 m NO 90 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IS	IP	IS	SP	BR	FW	GY	SL	DR	TL	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES			✓							✓			✓			
TARBALLS																
FILM																
NO OIL																

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect
 DEBRIS
☐ YES ☒ NO

TYPE #BAGS

Photographs:

Roll No. 3Frames 20-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BR	FW	GY	SL	DR	TL	LR	SU	U	M	U				
1	18		✓				50		✓									✓					N		PB, GR, SD / PB, GR, SD
2	18					✓	.		✓									✓					N		PB, GR, SD / PB, GR, SD
							.																		
							.																		
							.																		
							.																		

COMMENTS TAR / ASPHALT - PATCHES - MAT NOTE NO SHEEN OBSERVED
CONTINUED OFF BEACH - CHECK SSAT REPORT MARCH 30TH 1990 SSAT.

REVIEWED DATE

ACE 7378641

SKETCH MAP

SEGMENT ST/ KN/29

STREAM 226-10-16975

DATE 4 121 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

Plt - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

latchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 

Photo location, direction,
and number

ACE 7378637

Oil Character Length (m): AP _____ PO _____ CV _____ CT _____ ST _____ MS _____ PT ³⁰ _____ TB _____ FL _____ NO _____

REVISION:03/24/90

18

OG CAL LARSON

SEGMENT ST/ KN/29

STREAM 220-10-16975

DATE 4/21/90

SKETCH MAP

CHECKLIST

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

LEGEND

1

Pit - No Subsurface Oil

2

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1

Photo location, direction, and number



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

REVISION 03/24/90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN-129 SUBDIVISION: ^{ASC#} 226-10-16 975 DATE 4-21-90

USCG

NAME Kerwin L. Drchen SIGNATURE CWO2 K.L. Drchen

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree

~~ADEC~~ → ADFFG

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Snow pack covering upper portions of stream
send crew in after it melts & warms up to assess oiling
monitor site for sheening
Remove scattered tar patties in grassy area by boulder & avalanche chute

~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD RN-129
 STREAM ID # 226-10-16975
 ANNOTATED MAP INCLUDED Y/N

DATE 4-21-90
 NAME DARRYL JOES
 TEAM # 14

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

SUBSURFACE OIL

Other (Describe)?	<u>NONE</u>

	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
TARMATS									
Area #1	<u>NONE</u>								
Area #2									
Area #3									
Area #4									
Sporadic Mats							<u>0</u>	<u>0</u>	<u>0</u>

	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
MANUAL PICKUP								
"Pocket" #1	<u>✓</u>			<u>30</u>	<u>10</u>	<u>5</u>	<u>Y</u>	<u>5</u>
"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? LOGS Is it mingled with the Oiled Debris Y/N

GENERAL

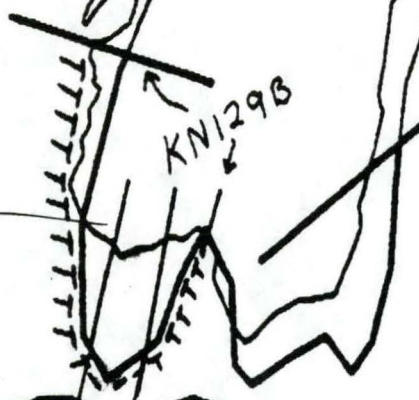
Wave Exposure H/M/L Snow covering 100% of the Supratidal Zone?
 Access Limitations: GOOD ACCESS
 Snare Boom/Pom Poms Recommended? NO
 Would the production Craft have to be relocated to complete work on this subdivision? Y/N, # of Times

COMMENTS:

ONLY WORK INDICATED IS MINOR PICKUP OF PATTIES AS INDICATED. RECOMMEND RESURVEY AFTER SUPRATIDAL SNOW THAWS.
ALL WORK SHOULD BE PLANNED FOR APRIL 5-15 - 7-10
CONTACT ADF 96 BEFORE STARTING WORK ACE 7378640

KN.

SUBJECT
STREAM
LOCATED
WITHIN SUBDIVISION
KN-129B (2 of 2)



KN-129

Sub segment length 232

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

KN-129B

ADEC Segment Length: 802m
EXXON Segment Length: 532



ACE 7378621

Map Key: PWS-311

Name: Chaney/Sawyer

Date: 3-30-90

Date Entered:

A ANADROMOUS FISH STREAM EVALUATION ON

SEGMENT ST/ KN-129 B STREAM NO: 226-10-16975 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located in Subdivision A (1 of 2).

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 8 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tar patties in area indicated on sketch map. Work should be conducted between 5/15 and 7/10 based on anadromous stream constraints.

TAG COMMENTS: MONITORS TO ASSESS SUITZ

TAG APPROVAL DATE: 5/7/90.

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature]

DATE: 5-15-90

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-129 A STREAM NO: 226-10-16975 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream, previously uncatalogued, now numbered 226-10-16975 (P, 2/90)

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. No additional ecological constraints. Subject stream is located in Subdivision B (2 of 2).

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: Rachel Jean Orr DATE: 5/22/90

Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual tarmat removal, and
2) bioremediation of areas shown on attached sketch map. Work should
be conducted between 5/15 and 7/10 based on salmon constraints with
approval of ADF&G regarding bioremediation near stream bank.

TAG COMMENTS: NO BIO WITHIN STREAM AREA (50m) PRIOR TO JUNE 1
PERMIT REQUIRED FOR BIO AFTER JUNE 1

TAG APPROVAL DATE: 5/18/90.

ADEC ART WEINER

EXXON ANDY GALT

NOAA GARY PETRAE

USCG G.A. REITER

FOSC [Signature]

DATE: MAY 25 1990

GENERAL DATA

SEG ID: KN-129 SUBDIV: ²²⁶⁻¹⁰16975 TEAM: 14 SURVEY DATE: 4/21/90
PAVEMENT: CHAR — AREA — THICKNESS — TARBALLS —
OILED: LGS — VEG — TRH — DBR — WAVE EXP: LW X MD — HG —
FAX RCVD: — DT: — AGENCY DISAGREE: —
EST SUBDIV LGTH: 60 OIL CATEGORY: W — M — N — VL 30 NO 30 U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD 40 COB 30 PEB 10 GRN 10 SAN 10 MUD — VEG —

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

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

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

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

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

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

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

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

20

PAGE 1 OF 1

SEGMENT ID: KN-129 SUBDIV: 226-10
14975

PIT # 1 PIT DEPTH 18 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 8
QUANT: UC OIL CLR: DBR FLM CLR: TL ZONE: SU UI X MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB X GRN X SAN X MUD VEG

PIT # 2 PIT DEPTH 18 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: UC OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN X MUD — VEG —

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

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

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

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

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

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

PROBLEMS:

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

Salmon stream mouth - spawning (7/1 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 6/1)

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

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

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

1H Remote release site

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

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

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

1I Gill net area (8/7 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 (8/11 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 Rothy 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (8/1 to 9/15)

6V Anchorages (8/1 to 9/15)

6W Forest Service cabins (8/1 to 9/15)

6X Lodge (8/1 to 9/15)

6Y Special use destination

7Z Subsistence area: Salmon harvesting (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 267-2350

Processed

5-7-90

mk

RECEIVED
MAY 03 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: KN-129 B

STREAM NO: 226-10-16975

*no concern - reaches
dr grades toward
snow*

ACE 7378615

SHORELINE OILING SUMMARY

REVISION NO. 04/89

OG Chaney / Sawyer USCG Malay / White SEGMENT ST/ KN129
 BIO Roth / Benson LAND REP Phillips / Mandrella SUBDIVISION B (20+2)
 EXXON Sotelo / Katampolis ADEC Cunningham / Munson TIME 13:00 to 13:45
 TEAM NO.: 7 and 8 TIDE LEVEL: 5 to 7 DATE March 1 30 / 90
 EST. SUBDIVISION LENGTH: 232 m ☒ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Snow
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 10 % B 70 % C 10 % P 10 % G - % S - % M - % V - %
 SLOPE: Long 90 % Hang - % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W - m M - m N 5.3 m VL 179 m NO - m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES				
	R	B	P	C	W	VL	ST	NO	FL	LM	SU	U	M	V
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT				X					X			X		
STAIN														
MOUSSE														
PATTIES				X					X			X	X	
TARBALLS														
FILM				X			X					X		
NO OIL														X

PAVEMENT: H F S - sq. m by - cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? ☒ NO BR RW ☒ SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Pm Pm#BAGS 1

Photographs:

Roll No. St-8-1Frames 4, 5

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS			
		OP	OR	OL	OF	NO		UO	US	W	VL	NO	W	VL	SU	U	M	V					
1	20		X				0.5-1.5		X					X			X						GP
2	20					X	- - -		X								X						GPS
3	15				X		- - -		X					X			X						GPS
4	20		X				0-5		X					X			X						GPS
							.																
							.																

COMMENTS ST/KN129B: Sporadic oil coats bottom of boulders in upper inter tidal.
 Snow covers supratidal zone. Possible debris and trash within storm surge line
 * Oiled interval from 0-5 cm in Pit 4 does not constitute subsurface oil. MH

ACE 7378647

OG Greg Chaney / Tom Sawyer

SEGMENT ST/ 129

SUBDIVISION B

DATE Mar 130 90

CHECKLIST

☐ M Area
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HMLA/VL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Pt Location(s)
☐ Photo Location(s)

LEGEND

1 Δ

Pt - No Subsurface Oil

2 Δ

Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

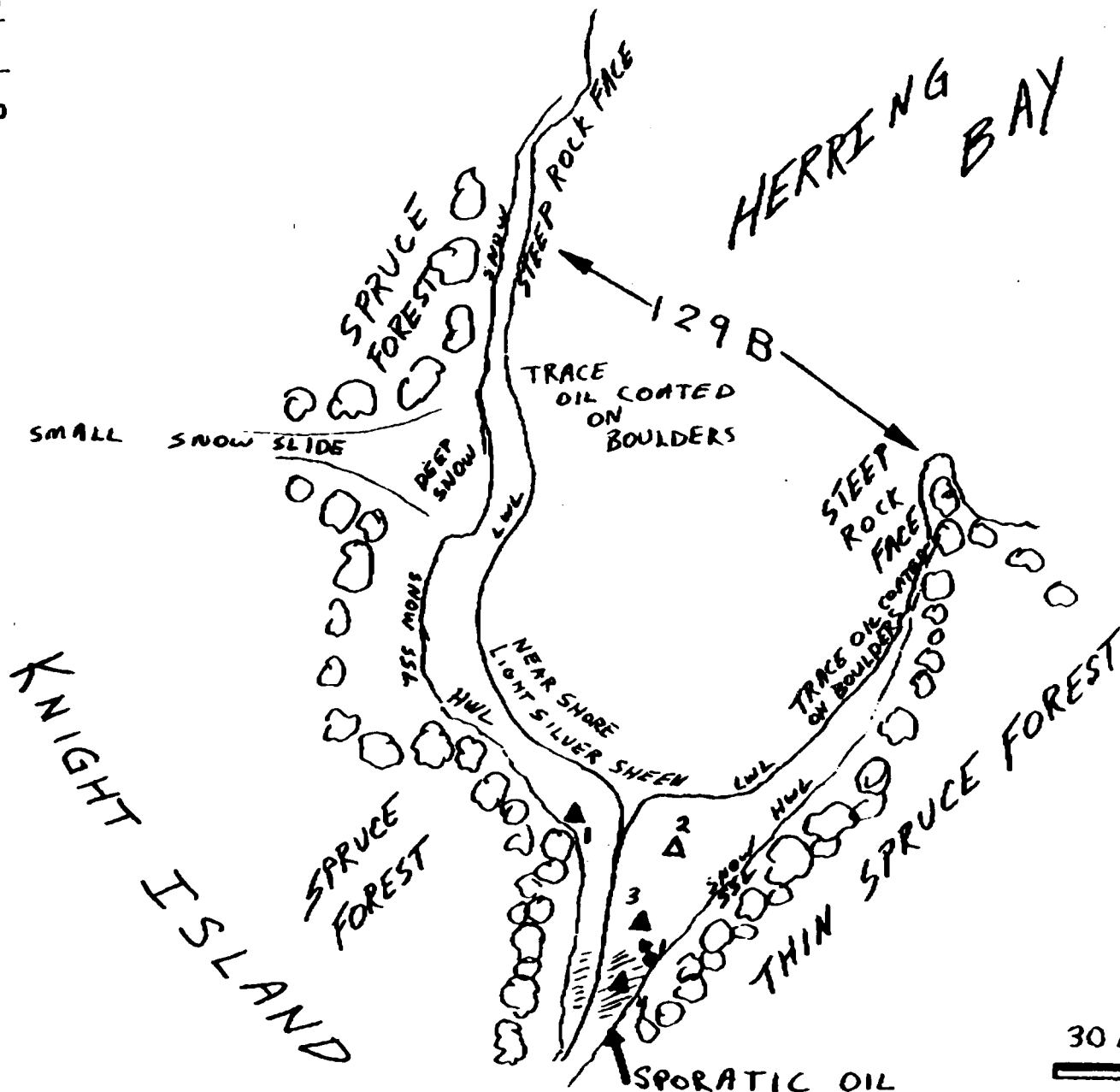
Splashed Distribution

Oil'd Vegetation

1 ●

Photo location, direction,
and number

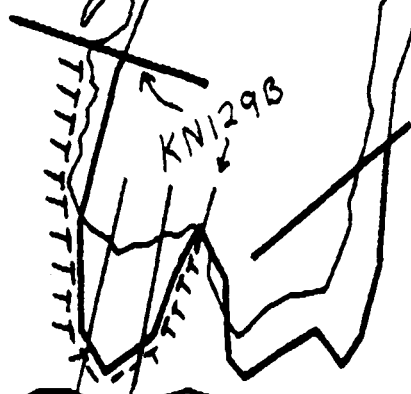
SKETCH MAP



ACE 7378649

Oil Character Length (m): AP - PO - CV - CT 60 ST - MS - PT 80 TB - FL 15 NO. -

KN



KN-129

Sub segment length 232

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

KN-129B

ADEC Segment Length: 802m

EXXON Segment Length: 532



ACE 7378650 -/S

Map Key: PWS-311

Name: Chaney/Sawyer

Date: 3-30-90

Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 12/12/90

Segment ST / KN0129 Subdivision B Date (mo / day / yr) 3/30/90Time (24 hr) 1300 Biologist Roth / Benson

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 70 (3) Cobble 10 (4) Pebble 10 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 0 Moderate 30 Low 70

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

Photographs:

Roll No. ST-B-2Frames 4, 5

BARNACLES

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	X	2	2	X	2	X	2	2	
3	3	3	3	3	3	3	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	X	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	X	2	2	
3	3	3	3	3	3	3	3	3	3	X	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	X	2	X	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

We did not observe the low intertidal zone in this Subdivision.

Ecological Considerations:

Sensitivities: 1B (Salmon spawning)

WORLD SHORELINE COMMENT SHEET

SEGMENT ST / KN 129 SUBDIVISION: B DATE 3-30-90

USCG

NAME 1st Lt / Major / PSE White SIGNATURE Patricia White / PSE White

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Sporadic oil coats on bottom of boulder in U.I.T. zone. Grass in the upper intertidal should be monitored for recovery this summer. If it doesn't recover top layer should be removed. A stream runs through the middle of the subdivision. Small amount of trash and debris (pom-poms). Suggest boulders in the upper intertidal be turned.

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Turn boulders at h.i.t.z. to expose oil coating, use a beach crew to steam and flush. Where oil was observed at 0-15cm use mechanical dredging/cleaning of native beach materials with redeposition of the same materials on the site. At h.i.t.z. where oil was observed under grass mat to 5cm. remove manually. Pick-up debris.

Note: Snow at supra tidal (unobserved)
Anadromous Stream.

LAND MANAGER

NAME Mandrella / Phillips SIGNATURE Dave Mandrella / Steve Phillips

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Sensitive Stream # 16932

UI behind large rock: monitor for grass recovery (June)

turn over boulders (UI)

may need absorbent boom along creek

if grass doesn't recover, pick up top 5cm.

pick up debris esp. pom-pom strands

KN

SUBJECT
STREAM
LOCATED
WITHIN SUBDIVISION
KN-129B (2 of 2)

KN-129

Sub segment length 232

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KN-129B

ADEC Segment Length: 802m

EXXON Segment Length: 532

0 100 200 300
METERS



Map Key: PWS-311

Name: Chaney/Sawyer

Date: 3-30-90

Date Entered:

RECEIVED
APR 14 1968

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/KN-129

SUBDIVISIONS: B (2 OF 2)

ACE 7378644 +/S

RICK GUSTIN LOG BOOK FROM 098-12-89 TO 09-21-89 PRE OIL SPILL CATALOGED STREAMS

#	Box	Map	ASC #	Quad #	Location	Segment #	Sample #	Date	Footage	Page #	Condition of Oiling
1.	[1]	21	16280	Sew-B3	Chenega Is.	CH-001	89RLG006	08-13-89		4	Heavy
2.	[1]	18	16180	Sew-B3	Chenega Is.	CH-002	89RLG009	08-13-89		4	Heavy
3.	[1]	20	16260	Sew-B3	Kake Cove	CH-017	89RLG007	08-13-89		6	Light
4.	[2]	44	16940	Sew-B3	Herring Bay	KN-132	89RLG025	08-14-89		11	Very heavy
5.	[2]	37	16932	Sew-B3	Herring Bay	KN-129	89RLG032	08-14-89		12	Heavy to Moderate
6.	[3]	33	16797	Sew-A3	Thumb Bay	KN-605	89TWC034	08-15-89		13	Light
7.	[3]	15	16851	Sew-A3	Main Bay	KN-602	89TWC039	08-15-89		14	Heavy
8.	[3]	34	16810	Sew-A3	Hogan Bay	KN-411	89TWC042	08-15-89		15	Light
9.	[3]	35	16820	Sew-B3	Snug Harbor	KN-402	89TWC046	08-15-89		15	Heavy to Moderate
10.	[3]	37	16840	Sew-B2	Marsha Bay	KN-701	89TWC050	08-16-89		17	Heavy to Moderate
11.	[3]	39	16850	Sew-B2	Marsha Bay	KN-704	89TWC054	08-16-89		18	Moderate
12.	[3]	33	16844	Sew-B2	Marsha Bay	KN-704	89TWC058	08-16-89		19	Moderate
13.	[3]	40	16865	Sew-B2	SA Bay of Isles	KN-134	89TWC062	08-16-89		20	Heavy
14.	[5]	41	16868	Sew-B3	Bay of Isles	KN-201	89RLG066	08-18-89		21	Moderate (this stream does not exist?)
15.	[6]	36	16830	Sew-B2	Knight Is. S.E.	KN-705	89RLG069	08-18-89		23	Moderate

THE NUMERALS IN THE MAP COLUMN ARE FOR REFERENCE TO 'DOCUMENTED OILED ANADROMOUS STREAMS IN PRINCE WILLIAM SOUND' RANDOMIZED LIST FOR STREAM SURVEYS, 2 AUGUST 1989.

NUMERALS IN THE BOX COLUMN INDICATE THE NUMBER CODE PRINTED ON THE SAMPLE BOXES.

ANADSCAT
90

ACF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS 33 DE TS AVS SCH MMS PTA

2 REGION: PHS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Wesenc

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1545

17 LOW TIDE TIMES: 1730

23 AGENCY: ADFG

6 SEGMENT #: KN-129

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 TAPES: 90RL0015

9 STAT AREA: _____

20 USCG QUAD: Sew B-3

Starts: _____ Ends: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN: Y N Number

12 SOURCE: Map Loren

Oil _____

13 LOCATION: South end Herring Bay - Knight I

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	H	S	L	V	H	S
27 SURFACE COVERAGE								

35 CATALOGED ANAD. FISH BREAST Y N

	coat							
28 SURFACE THICKNESS								
29 PENETRATION								

37 CATALOG #: 226-10-16975

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL L M H ?

39 OIL IN STREAM BED? Y N

31 OIL TYPE: Pooled House Tar Asphalt Sticky Stain

40 OIL ON STREAM BANKS? Y N

32 OILED DEBRIS? Y N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N

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

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder 5 Cobble 45
Gravel 20 Sand _____ Mud/silt 30

COMMENTS: snow pack covering upper portions of stream
noted several tar balls in grassy area surrounding boulder & across from shoot
looks much better than last year - no visible sheen at this time

KN 129

43

48 PHOTOLOG

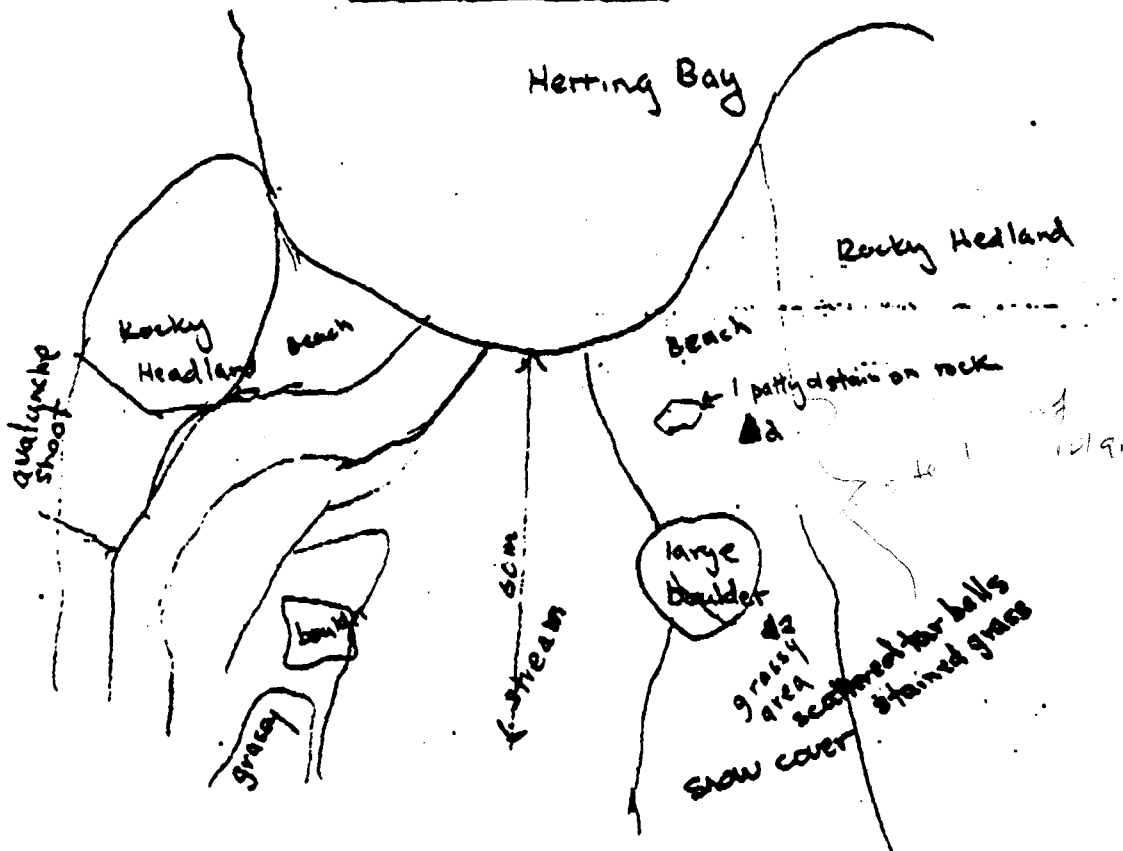
FRAME(S)

DESCRIPTION

pit 1 - 18cm scum on ice pit 2 - 18cm light water on surface

60 meter length

48 OIL DISTRIBUTION DIAGRAM



Recommended - treat after resurvey

assess after snow melts & periodically check for sheening
remove scattered tar balls in grassy area by boulder & chute

Agreed Ken Cutchlow

See KN 129 B
AW

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 047

OG CAL LARSON USCG DRIVER, CWE SEGMENT ST/ KN 129 32/51
 BIO REN CRITCHLOW LAND REP STREAM 224 0-1971 OF
 EXXON DARRELL YOE ADFG 24 KAYEN - ALICE WESTMAN TIME 5:10 TO 5:15
 TEAM NO. 14 TIDE LEVEL +2 FT DATE 4/21/90
 EST. SUBDIVISION LENGTH: 120 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B 40 % C 30 % P 10 % G 10 % S 10 % M % V
 SLOPE: Long 100 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 30 m NO 90

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	S	E	W	1	2	3	4	5	6	7	8
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN			✓			✓					✓	
MOUSSE												
PATTIES				✓			✓				✓	
TARBALLS												
FILM												
NO OIL												

PAVEMENT H F S sq. m by PATTIES / TARBALLS 1 BAGNEAR SHORE SHEEN? NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you Col
DEBRIS☐ YES ☒ NOTYPE #BAGS

Photographs:

ANAD-14-

Roll No. 3Frames 20-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFA SEDIMENT
		OP	OR	OL	OF	NO		50	100	1	2	3	4	5	6	7	8				
1	18		✓				58		✓					✓					N		18, 60, 30/ 18, 60, 30/ 18, 60, 30/ 18, 60, 30/
2	18					✓	.		✓					✓					N		
							.														
							.														
							.														
							.														

COMMENTS TAR/ASPHALT. PATCHES - MAT NOTE NO SHEEN OBSERVED
CONTINUING OFF BEACH - CHECKS AT REPT MARCH 30TH 1990 SSAT.

REVIEWED JWDATE 4-29-90

ACE 7378530

33/5

SEGMENT STI KN/29

SKETCH MAP

STREAM 220-D-16975

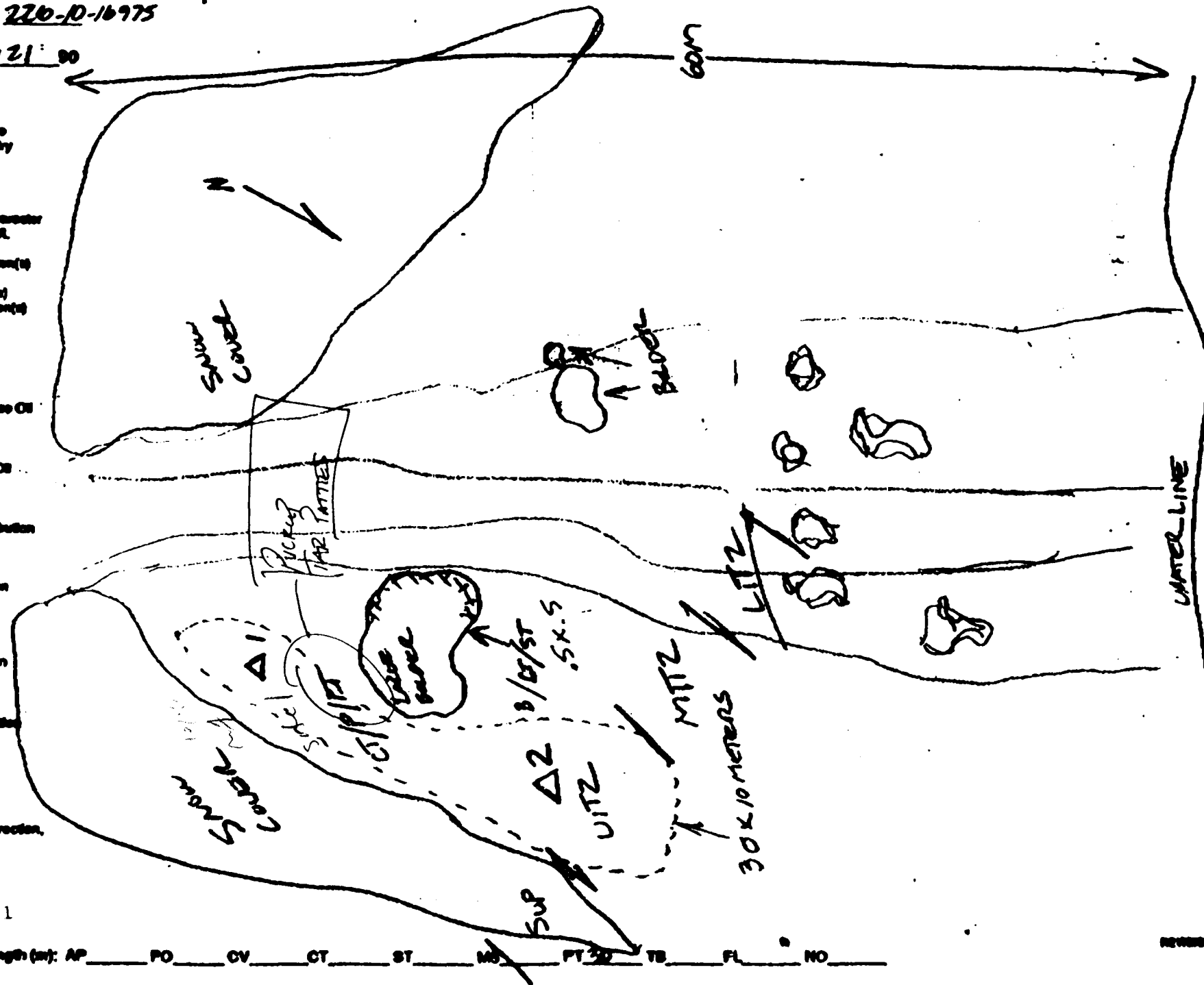
DATE 4/21/80

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Plot Study
- ☐ OS Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HMLA/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

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



ACE 7378531

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

REVISION 000000

SHORELINE EVALUATION

SEGMENT ST/ KN-129 SUBDIVISION B (2 OF 2) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream mouth (ADF&G catalogue Rev. 2190, #226-10-16975) - fry outmigration (1A) 3/1 to 5/15 and spawning (1B) 7/10 to 8/31.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

(1A,1B) No disturbance of stream bed or banks unless authorized by ADF&G. Contact ADF&G Habitat Division prior to treatment for permits.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 49 m: V.Light 346 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 15 cm

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact a member of

KN

SUBJECT
STREAM
LOCATED
WITHIN SUBDIVISION
KN-129B (2 of 2)



KN-129

Sub segment Length 232

ACE 7378534 -15

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

KN-129B

ADEC Segment Length: 802m
EXXON Segment Length: 532

0 100 200 300
METERS



Map Key: PWS-311

Name: Chaney/Sawyer

Date: 3-30-90

Date Entered:

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-129 SUBDIVISION: ASC# 226-10-16975 DATE 4-21-90

USCG

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

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree.

~~ADEC~~ → ADFF

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Snow pack covering upper portions of stream
send crew in after it melts & warms up to assess oiling
monitor site for sheening
Remove scattered tar patties in grassy area by boulder & avalanche chute

~~LAND MANAGER~~ → NAME

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

AN...ROMOUS FISH STREAM EVALUA...N

SEGMENT ST/ KN-129 A STREAM NO: 226-10-16975 DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Subject salmon stream, previously uncatalogued, now numbered 226-10-16975 (P, 2/90)

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. No additional ecological constraints. Subject stream is located in Subdivision B (2 of 2).

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: Rachel Jean Owen DATE: 5/22/90

Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual tarmat removal, and
2) bioremediation of areas shown on attached sketch map. Work should
be conducted between 5/15 and 7/10 based on salmon constraints with
approval of ADF&G regarding bioremediation near stream bank.

TAG COMMENTS: NO BIO WITHIN STREAM AREA (50m) PRIOR TO JUNE 1
PERMIT REQUIRED FOR BIO AFTER JUNE 1

TAG APPROVAL DATE: 5/18/90.

ADEC ART WEINER

EXXON ANDY GAN

NOAA GARY PETRAE

USCG G.A. REITER

FOSC [Signature]

DATE: MAY 25 1990

ACE 7378616

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ KN-129 B STREAM NO: 226-10-16975 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Subject stream is located in Subdivision A (1 of 2).

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 8 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual pickup of tar patties in area indicated on sketch map. Work should be conducted between 5/15 and 7/10 based on anadromous stream constraints.

TAG COMMENTS: MONITORS TO ASSESS SUITZ

TAG APPROVAL DATE: 5/7/90.

ADEC ART WILSON Det Chem

EXXON AMY TATE Reach

NOAA GARY PETROSC Gary Petrosc

USCG G.A. BEITH G.A. BEITER

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

ACF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES SS CS TS AVS SC&A MMHS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1545

17 LOW TIDE TIMES: 1730

23 AGENCY: ADFG

6 SEGMENT #: KN-129

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 TAPES: 90RL6001SSS

9 STAT AREA: _____

20 USCG QUAD: Sew B-3

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y N Number _____

12 SOURCE: Map Loran

Oil _____

13 LOCATION: South end Herring Bay - Knight I

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

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

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 226-10-16975

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

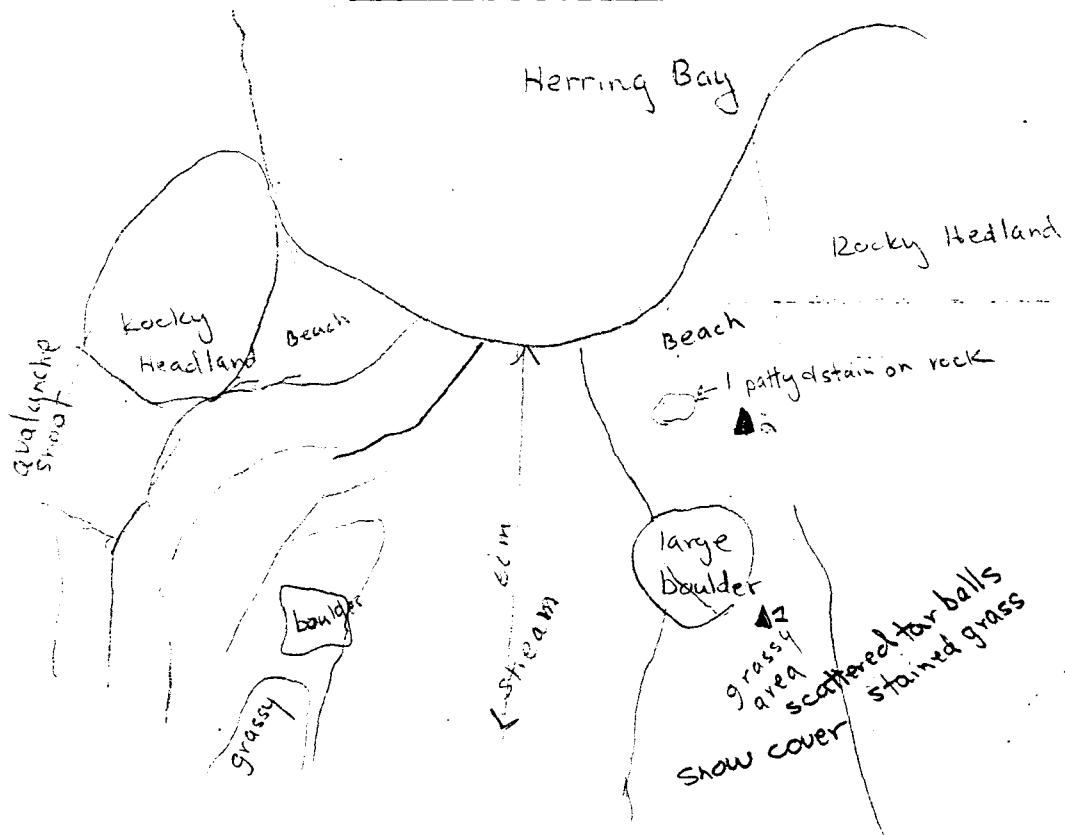
34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder 5 Cobble 45
Gravel 20 Sand _____ Mud/silt 30

COMMENTS: snow pack coloring upper portions of stream
noted several tar balls in grassy area surrounding boulder & across from shoot
looks much better than last year - no visible sheen at this time

45 PHOTOLCG

48 OIL DISTRIBUTION DIAGRAM

Recommended - treat after resurvey

assess after snow melts & periodically check for sheening
remove scattered tar balls in grassy area by boulder & chute

Agreed Ken Cutchlow

ADPAG MULTI-ASSESSMENT DATA FORM

4/51

1 SURVEY TYPE: SS SS DE TS AVS SCH MMS PTA

2 REGION: PNB NP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-21-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Aimee Weseman

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: Rick Gustin

5 STOP TIME: 1545

17 LOW TIDE TIMES: 1730

23 AGENCY: ADFTG

6 SEGMENT #: KN-129

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 TAPES: 90RL4001 SS

9 STAT AREA:

20 USCG QUAD: Sew B-3

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

13 LOCATION: South end Herring Bay - Knight I

14 DESCRIPTION:

Oil

Sediments

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
27 SURFACE COVERAGE								

36 CATALOGED ANAD. FISH BREAST Y N

37 CATALOG #: 226-10-16975

38 STREAM NAME:

	SHORELINE				STREAM			
	L	V	N	S	L	V	N	S
28 SURFACE THICKNESS	<u>coat</u>							
29 PENETRATION								

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

30 OVERALL OIL IMPACT: N VL L N N ?

41 OIL ON BEACH ADJACENT TO MOUTH? Y N
(within 30 meters)

31 OIL TYPES: Pooled House Tar Asphalt Slicky Stain

42 OIL WITHIN 1 MILE OF STREAM? Y N

32 OILED DEBRIS? Y N

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder 5 Cobble 45
Gravel 20 Sand Mod/silt 30

Species	Aerial	Ground

COMMENTS: snow pack covering upper portions of stream
noted several tar balls in grassy area surrounding boulder & across from shoot
looks much better than last year - no visible sheen at this time

KN 129

42/6

48 PHOTOLOG

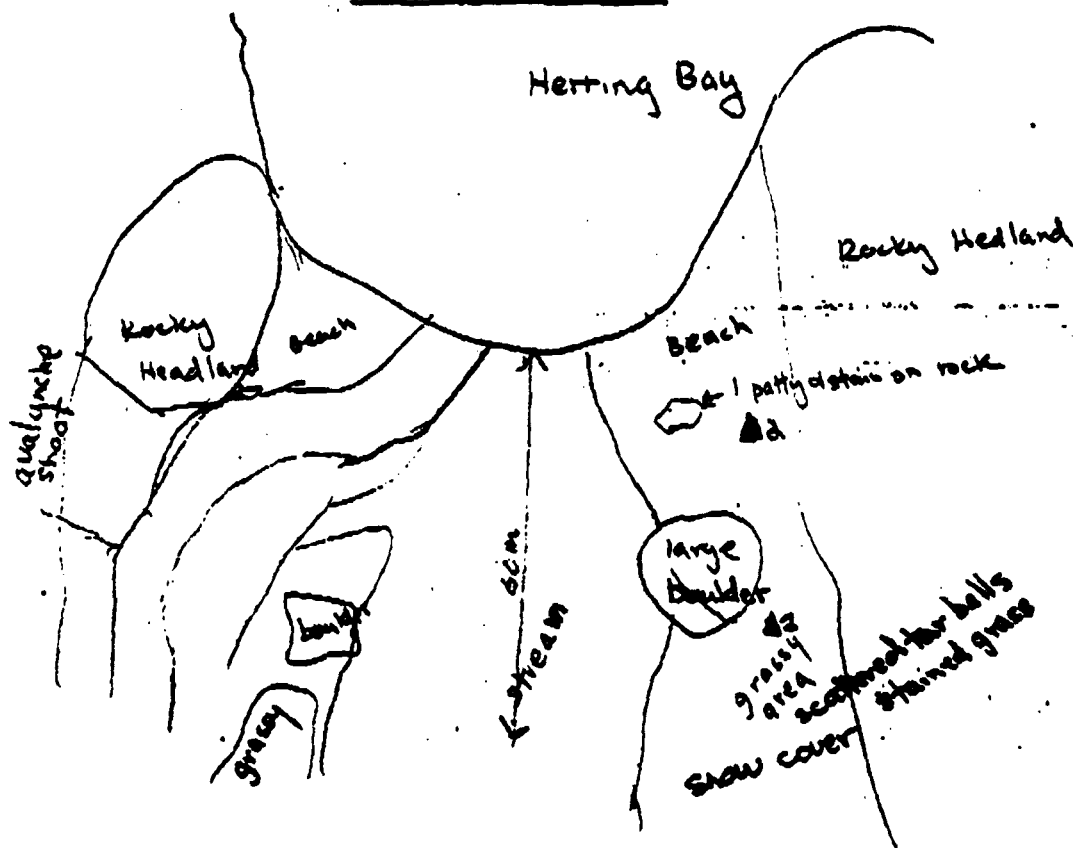
FRAME(S)

DESCRIPTION

pit 1 - 18cm - 5cm oil depth pit 2 - 18cm light coat oil on surface

60 meter length

48 OIL DISTRIBUTION DIAGRAM



Recommend - treat after resurvey

access after snow melts & periodically check for sheening
remove scattered tar balls in grassy area by boulder & chute

Agreed

Ken Cutchlow

48 PHOTOLOG

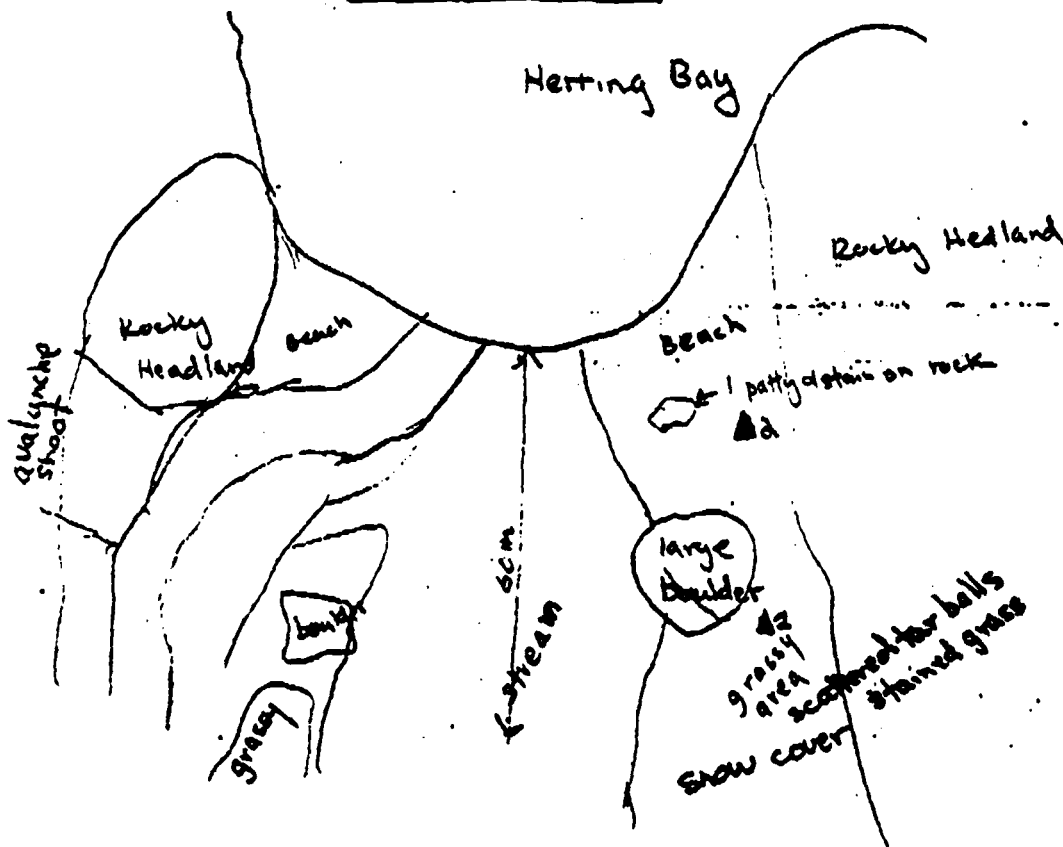
FRAME(S)

DESCRIPTION

pit 1 - 18m - 8cm - 18m light center surface

60 meter length

46 OIL DISTRIBUTION DIAGRAM



Recommended - treat after resurvey

access after snow melts & periodically check for sheening
remove scattered tar balls in grassy area by boulder & chute

Agreed

Ken Cutchlow

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 00/01

OG CAL LARSON USCG DEWEY, CWE SEGMENT ST/ KN 129 32/51
 BIO REN CRITCHLOW LAND REP STREAM 224 0-6978 (OF)
 EXXON DARRELL YVES ADFG BARBARA WISEMAN TIME 5:10 TO 5:15
 TEAM NO. 10 TIDE LEVEL +2 FT DATE 4/21/90
 EST. SUBDIVISION LENGTH: 120 m ☐ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 40 % B 40 % C 30 % P 10 % G 10 % S 10 % M 10 % V 10
 SLOPE: Long 100 % Hang 100 % Vert 100 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 100 m M 100 m N 100 m VL 30 m NO 90 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	S	1	2	3	4	5	BU	U	ML	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN			✓			✓					✓		
MOUSSE													
PATTIES			✓				✓				✓		
TARBALLS													
FILM													
NO OIL													

PAVEMENT H F S 1 sq. m by 1PATTIES / TARBALLS 1 BAGNEAR 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:

ANAD-14- 3Roll No. 3Frames 20-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	V	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		BU	U	1	2	3	4	5	BU	U	ML	U				
1	18		✓				58		✓						✓					N		PA 6030/PA 6030
2	18					✓	.		✓						✓					N		PA 6030/PA 6030
							.															
							.															
							.															
							.															

COMMENTS TAR/ASPHALT - PATCHES - MAT NOTE NO SHEEN OBSERVED
CONTINUING OFF BEACH - CHECK SSAT REPORT MARCH 30TH 1990 SSAT.

REVIEWED JWDATE 4-29-90

33/51

SEGMENT STI KN/29

SKETCH MAP

STREAM 220-D-16975

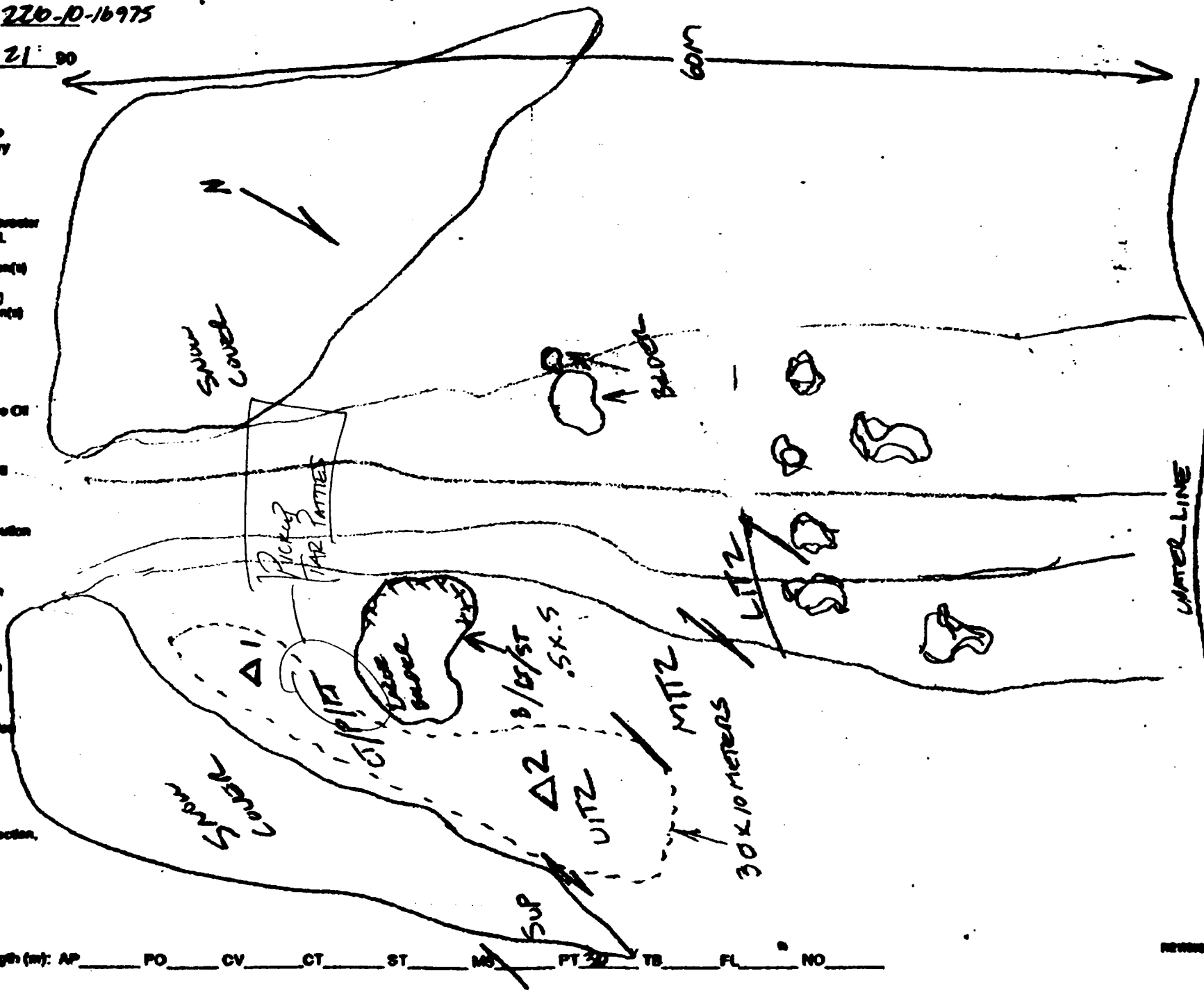
DATE 4/21/90

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRA/LVR
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- PI - No Subsurface Oil
- 2 Δ
- PI - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- dry Distribution
- CT/S
- Splashed Distribution
- lll
- Oil Vegetation
- 1 ●
- Photo location, direction, and number



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

REVISION 000000

ACE 7378612

SKETCH MAP

33/5
SEGMENT ST/KN/29

STREAM 220-10-16975

DATE 4/21/90

CHECKLIST

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

LEGEND

1 Δ
PI - No Subsurface Oil

2 Δ
PI - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

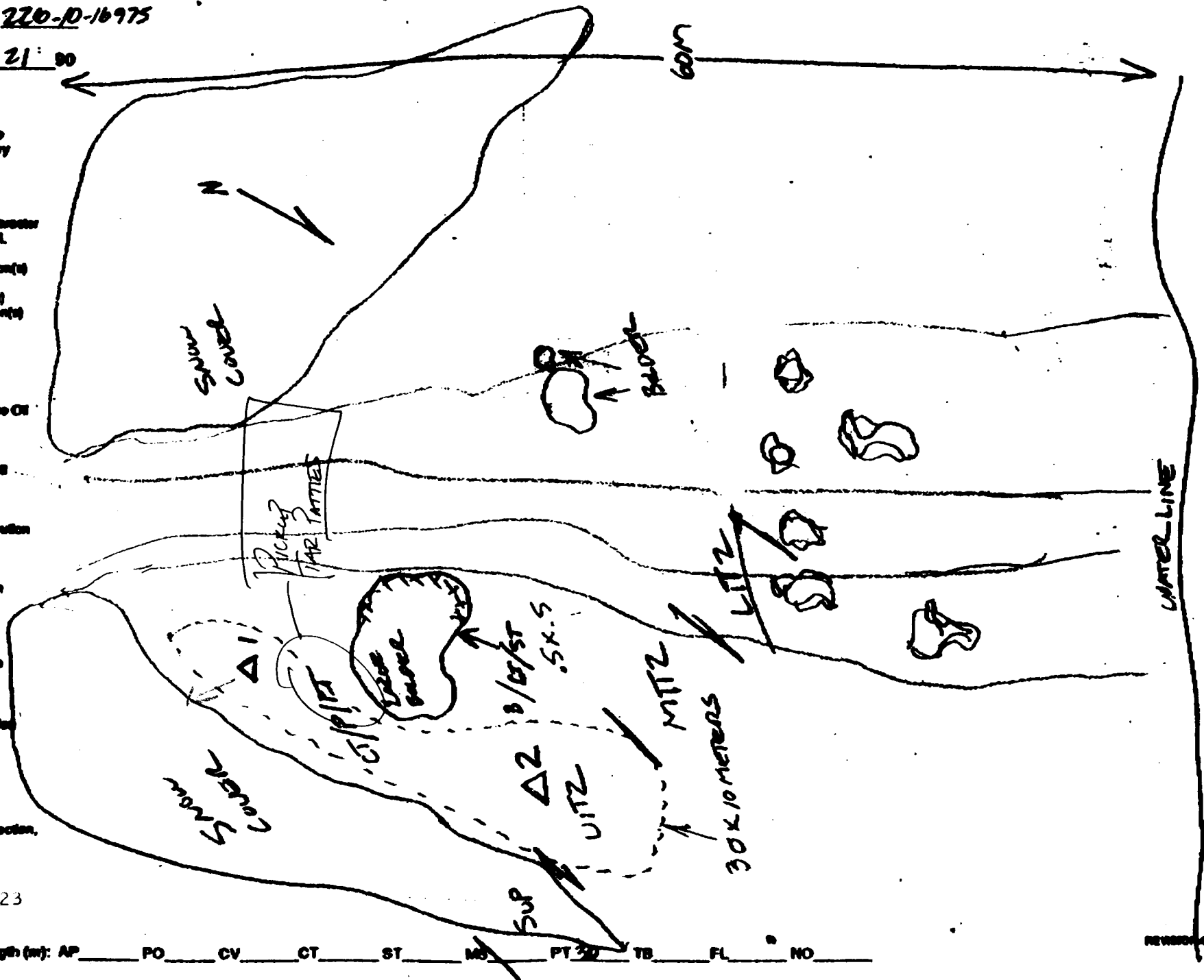
CT/S
Sporadic Distribution

lll
Oiled Vegetation

1 ●
Photo location, direction, and number

ACE 7378623

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



REVISION 000000

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KN-129 SUBDIVISION: ASC# 226-10-16975 DATE 4-21-90

USCG

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

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree

~~ADEC~~ → ADFF

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Snow pack covering upper portions of stream
send crew in after it melts & warms up to assess oiling
monitor site for sheening
Remove scattered tar patties in grassy area by boulder & avalanche chute

~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

GENERAL DATA

SEG ID: KN-129 SUBDIV: 226-10 TEAM: 14 SURVEY DATE: 4/21/90
PAVEMENT: CHAR — AREA — THICKNESS — TARBALLS —
OILED: LGS — VEG — TRH — DBR — WAVE EXP: LW X MD — HG —
FAX RCVD: — DT: — AGENCY DISAGREE: —
EST SUBDIV LGTH: 60 OIL CATEGORY: W — M — N — VL 30 NO 30 U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD 40 COB 30 PEB 10 GRN 10 SAN 10 MUD — VEG —

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

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

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

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

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

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

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

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 1 OF 1

SEGMENT ID: KN-129 SUBDIV: 226-10
16975

PIT # 1 PIT DEPTH 18 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 8
QUANT: UC OIL CLR: DBD FLM CLR: TL ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

PIT # 2 PIT DEPTH 18 OIL CHARACTER NO OIL INTVAL: FROM - TO -
QUANT: UC OIL CLR: - FLM CLR: - ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB - PEB X GRN X SAN X MUD - VEG -

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

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

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

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

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

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

PROBLEMS:

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ KN 129
 BIO KEN CRITCHLOW LAND REP STREAM 226 10-695 (OF)
 EXXON DARLHL YOE ADFG ZICK GUSTIN-AIMEE WESEMAN TIME 15:10 to 15:45
 TEAM NO. 14 TIDE LEVEL +2 FT DATE 4 121 190
 EST. SUBDIVISION LENGTH: 120 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R % B 40 % C 30 % P 10 % G 10 % S 10 % M % V
 SLOPE: Long 100 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 30 m NO 90 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IP	IS	SB	BR	FW	GY	SL	DR	TL	LR	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES			✓							✓			✓			
TARBALLS																
FILM																
NO OIL																

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect
DEBRIS
☐ YES ☒ NO

TYPE #BAGS

Photographs:

Roll No. 3Frames 20-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	!	SURFACE-SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SB	BR	FW	GY	SL	DR	TL	LR	SU	U	M	U				
1	18		✓				58		✓						✓			✓					N		PB GR SD / PB GR SB
2	18					✓	.		✓									✓					N		PB GR SD / PB GR SB
							.																		
							.																		
							.																		
							.																		

COMMENTS TAR/ASPHALT - PATCHES - MAT NOTE NO SHEEN OBSERVED
CONTINUED OFF BEACH - CHECK SAT REPORT MARCH 30TH 1990 SAT.

REVIEWED DATE

ACE 7378632

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN-129 SUBDIVISION: ^{ASC#} 226-10-16975 DATE 4-21-90

USCG

NAME Kerwin L. Drcher SIGNATURE CWO2 K.L. Drcher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agree

~~ADEC~~ → ADFG

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Snow pack covering upper portions of stream
send crew in after it melts & warms up to assess oiling
monitor site for sheening
remove scattered tar patties in grassy area by boulder & avalanche chute

~~LAND MANAGER~~ → NONE

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAD RN-129
 STREAM ID # 226-10-16975
 ANNOTATED MAP INCLUDED Y/N

DATE 4-21-90
 NAME DARRELL JOE
 TEAM # 14

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

SUBSURFACE OIL

Other (Describe)?	<u>NONE</u>

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	<u>NONE</u>								
Area #2									
Area #3									
Area #4									
Sporadic Mats							<u>0</u>	<u>0</u>	<u>0</u>

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup	Manday
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width		Y/N	Estimate
"Pocket" #1	<u>✓</u>			<u>30</u>	<u>10</u>	<u>5</u>	<u>4</u>	<u>5</u>
"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? LOGS Is it mingled with the Oiled Debris Y/N

GENERAL

Wave Exposure H/M/L

Snow covering 100% of the Supratidal Zone?

Access Limitations: GOOD ACCESS

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:

ONLY WORK INDICATED IS MINOR PICKUP OF PARTIES AS INDICATED. RECOMMEND RESURFACING AFTER SUPRATIDAL SNOW THAWS.

ALL WORK SHOULD BE PLANNED FOR APRIL 5-15 → 7-10
CONTACT ADF 96 BEFORE STARTING WORK ACE 7378631

ADF&G INTERTIDAL TRANSECT FORM

KN129-2

Observers: _____ Date: 8/15/89 Transect ID Herring Bay
Recorder: Jane Middleton Time: 1235 Exxon Segment/Beach KN129
Photo: Jane Middleton Low Tide; Time: 0707-4 = 0703 Height: -0.9 no correction
ID: Norma Dudiak Lat: 60°25' W Long: 147°48' N
Location of spike: Spike in line tall hemlock with a white dead spruce next to it, east shore in alders. Transect goes near huge boulder but straight to hemlock on the west shore.
Compass bearing from spike: 220
Distance from spike to top of oil zone: 11 m
Distance from spike to upper tide line: 11 m to gyars
Width of oiled zone (meters): Sporadic occurrence across level area
Beach Slope: Low angle

Reportedly heavily oiled, now nearly clean. ?
Coves protected by boom.

all species alive unless otherwise noted.
No shovel could not did.

^{5m}
Study plot: 1 Slide # 19 Oil penetration (if tested) Mousse ball.
Substrate type Gravel
Species found within the plot: Beach Rye 100% Land snail
Bedstraw 5% (second layer) Galium
Grass 3%
2 Herbaceous seedlings

^{15m}
Study plot: 2 Slide # 20 Oil penetration (if tested) black patches on rocks
Substrate type Gravel dirt
Species found within the plot: Plantago maritima 20%
Grass, dead 25%
Grass - live .1%

wide of photos
end of roll in mid
circle.
Roll 3V

Study plot 3 Slide # 21 Oil penetration (if tested) black oil stains ^{on rock} in grass
Substrate type Gravel dirt
Species found within the plot: Grass live .5%
Grass dead 90%
1 Herbaceous seedling

Study plot 4 Slide # 4 Oil penetration (if tested) Asphalted rock.
Substrate type Gravel
Species found within the plot: Carex (dead, oiled) 7%

Study plot 5 Slide # 5 Oil penetration (if tested) _____
Substrate type Gravel
Species found within the plot: Grass 12%
Carex 55% (2 different species)

Stream transect

Transect Form

Date: 6/6/39 Time: 10:19 Island: Knight - Herring Bay - SW arm
 ACEC # 52 Preassessment Section: RAV
 Tide Level: 1/2 hr past low - 3.3

Location of Spike: Transect from ^{hemlock} tree next to light stay on e. bank
 on w. bank

SA 54-10 (See sketch)

Direction of transect from spike (compass bearing): 240° to large boulder e. of
 Distance from spike to top of oil line (meters): 10.1 m. to oily debris
 Distance from spike to tideline (meters): N/A
 Width of oiled zone: 45 m.

Width of transect ^{edge of} 53.1 m.

1st study plot (5 meters into oiled area)
 slide #: 13

Oil penetration (if tested): N/A
 Species found within plot:

Beach rye
 beach greens
 oily debris

2nd study plot 5 meters into oiled area
 slide #: 14

Oil penetration (if tested): 5 cm
 Species found within plot:

Arrow grass

poled oil < 1 cm just outside transect

3rd study plot 8 meters into oiled area (next to 1st big rock)
 slide #: 15 416

Oil penetration (if tested):
 Species found within plot:

Colored sheen on water
 mousse splattering on rocks

slide 17 adjacent to segment slide 18 adjacent to transect

4th study plot → break in transect for boulder
 slide #: 16

Oil penetration (if tested):
 Species found within plot:

5th study plot adjacent to boulder bearing 220° to tree
 slide #: 17
 Oil penetration (if tested): 5 cm
 Species found within plot:

gravel

ACE 7378685

EXXON2/Transect Form

1st channel 5.5 meter wide

5th study plot 5 meters (middle of channel) note: upstream from
slide #: 20 transect oil coated rocks in
Oil penetration (if tested): 0 stream photo # 21 oil appears
Species found within plot: gravel in stream stable

light discontinuous sheen on water

6th study plot 10 meters from boulder
slide #: 22

Oil penetration (if tested):
Species found within plot:

oil pooled to 6 cm adjacent to plot
rock and oiled grass

7th study plot 15 meters from boulder
slide #: 0

Oil penetration (if tested):
Species found within plot:

gravel - no visible oil

channel adjacent to and upstream of plot has thin sheen

8th study plot - 20 meters from boulder
slide #: 1

Oil penetration (if tested):
Species found within plot: 2nd channel 5 meters wide

note 2 rock adjacent to transect in stream (weathered oil & fresh oil)
grass in transect no penetration

9th study plot 20 meters from boulder | gravel adjacent to downstream
slide #: 3 pool has patchy penetration
Oil penetration (if tested): to 8 cm (seen on pool)
Species found within plot:

1 meter² oiled grass (note: this plot taken on other
side of take (no penetration)

10th study plot 25 meters from boulder
slide #: 4

Oil penetration (if tested): 0
Species found within plot:

canopy

11th study plot 28 meters from boulder - just outside oiled
slide #: 5 zone

Oil penetration (if tested):
Species found within plot:

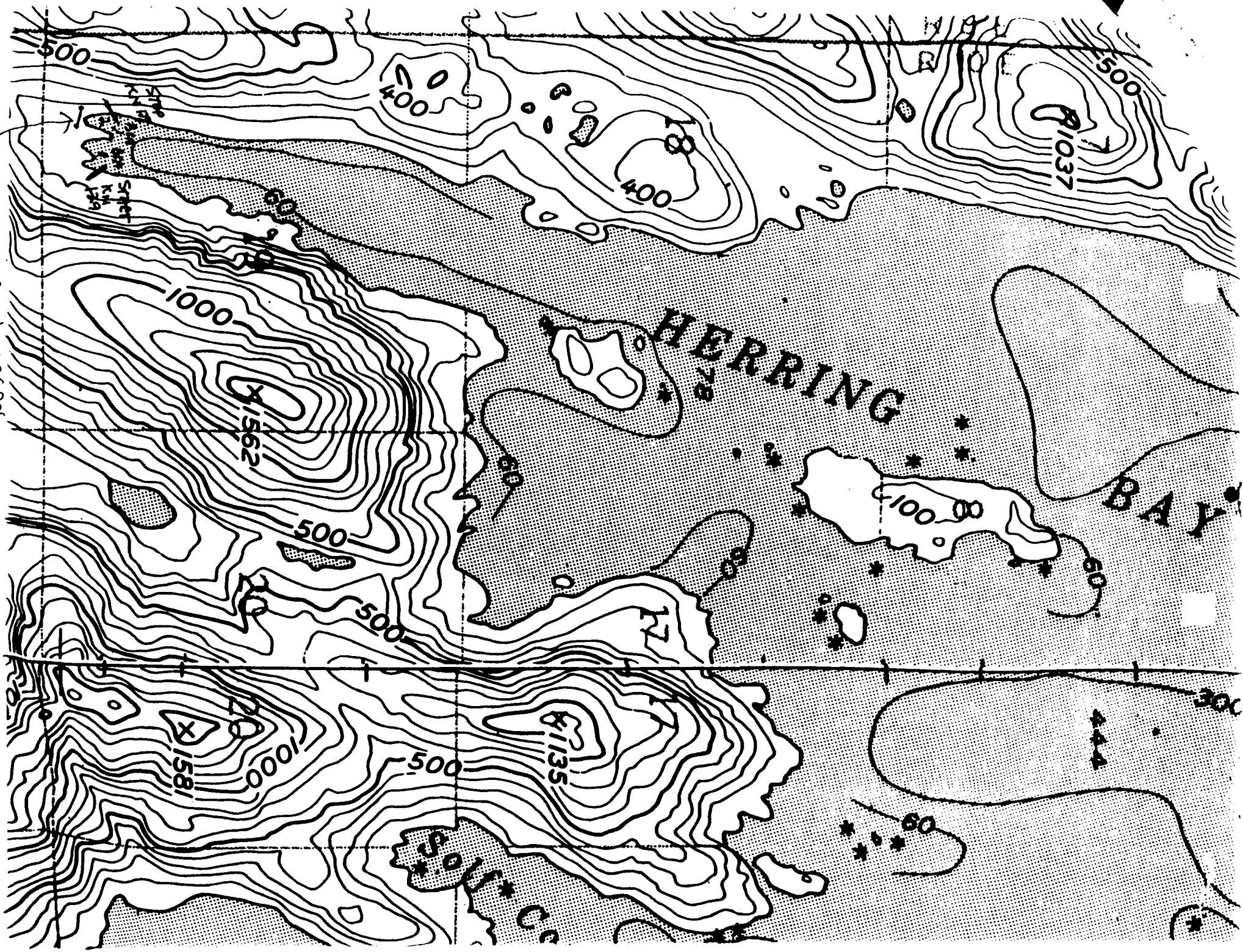
stranded algae, sedges, debris

photo 6 - oiled debris at
edge of oiled zone

notes 1 channel approx 5.5 meters wide -

oiled grassy island approx 10 meters wide

Location of transect



AGENDA - JULY 19, 1989

- 9:00 a.m. Meeting - Captain Zawadzki
- 9:30 a.m. Briefing on Bioremediation
- 9:45 a.m. Depart for airport
- 10:30 a.m. Depart from airport
- 11:15 a.m. Green Island (treated and reoiled shoreline)
- 12:00 a.m. Sleepy Bay (treated salmon stream, heavily oiled shoreline)
- 12:15 p.m. Herring Bay (Omni Boom - high press wash - hot water)
- 1:00 p.m. Upper Passage (Maxi Barge - pressurehose and flush)
- 5:00 p.m. Valdez (via Columbia Glacier Highway)

Post-treatment Assessment
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: 7/31/91 16) HIGH TIDE TIME: 4:27 22) TEAM RECORDER: A. Weseman
- 5) START TIME: 9:15 17) HIGH TIDE HTS: 10.4 23) OBSERVERS: Fink, Kuwada, Middleton
- 6) STOP TIME: 10:10 18) LOW TIDE TIMES: 1046 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129B 19) LOW TIDE HTS: .0ft 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: 41-0 ft ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 226-10-16925 START: _____ STOP: _____
- 12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: Herring Bay, Knight I. 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
<u>sub</u> SITE 1 A	<u>4</u>	<u>4</u>		<u>5</u>	<u>2cm</u>		<u>MSOR on Sod</u>
SITE 2 B	<u>4</u>	<u>8</u>			<u>5cm</u>		<u>H/MOR 9-14</u>
SITE 3							
SITE 4							
SITE 5							

- 29) OVERALL OIL IMPACT: 33) ANADROMOUS FISH ^{Observed} 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 ✓ Gravel ✓ Sand ✓ Cobble ✓ Mud/Silt ✓
- Species _____ Number _____
- _____
- _____
- _____

35) COMMENTS: _____

Surface run-off flowing through "site B" hampered a precise definition of oil lense. Oil is still mobile and sheened profusely into stream when agitated.

Area should be re-assessed in '92, due to the closeness of oil lense to stream, it's mobile nature & slope towards stream.

survey focused on documented oil, treated in 1991.

36) PHOTOLOG

FRAME(S)

DESCRIPTION

AS.C.NO. 226-10-16975

Team Recorder: Aimee Weseman

SEGMENT KN 129

Observers: K Middleton.

SUBDIVISION B

DATE 7 / 31 / 91

M kuwada

M. Fink

TIME 9 : 15 to 10 : 10

TIDE LEVEL +1 ft. to +0 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

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 #

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	15		X						9 - 14	?	9	R			X		PGS	
2	10							X	-	X	10	N			X		PGS	
3	9			X					-	?	1	R			X		PGS	
4	15							X	-	Y	1	N			X		PGS	
5	16				X				-	?	10	S		X			PGS	
6	20							X	-	Y	18	N			X		PGS	
7	15			X					-	?	11	R			X		PGS	
8	17	X							9 - 14	?	15	Black			X		PGS	
9	22								-	?	21	Black	X				Org/mud	
10	21	SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE							X	0-2		N	X				org/mud	

OG COMMENTS:

Run-off flowing thru pits in site "B" hampered a precise demarcation of oiled lense. area sheened profusely when agitated. Subsurface oil in area = 8m x 4 long - H/MOR projected lense thickness - 5cm

Subsurface lense is still mobile & immediately adjacent to stream - should be re-assessed in '92.

survey focused on documented oil, treated in 1991

Post-treatment Assessment

KN 129-B

2/31/91 A. Weseman

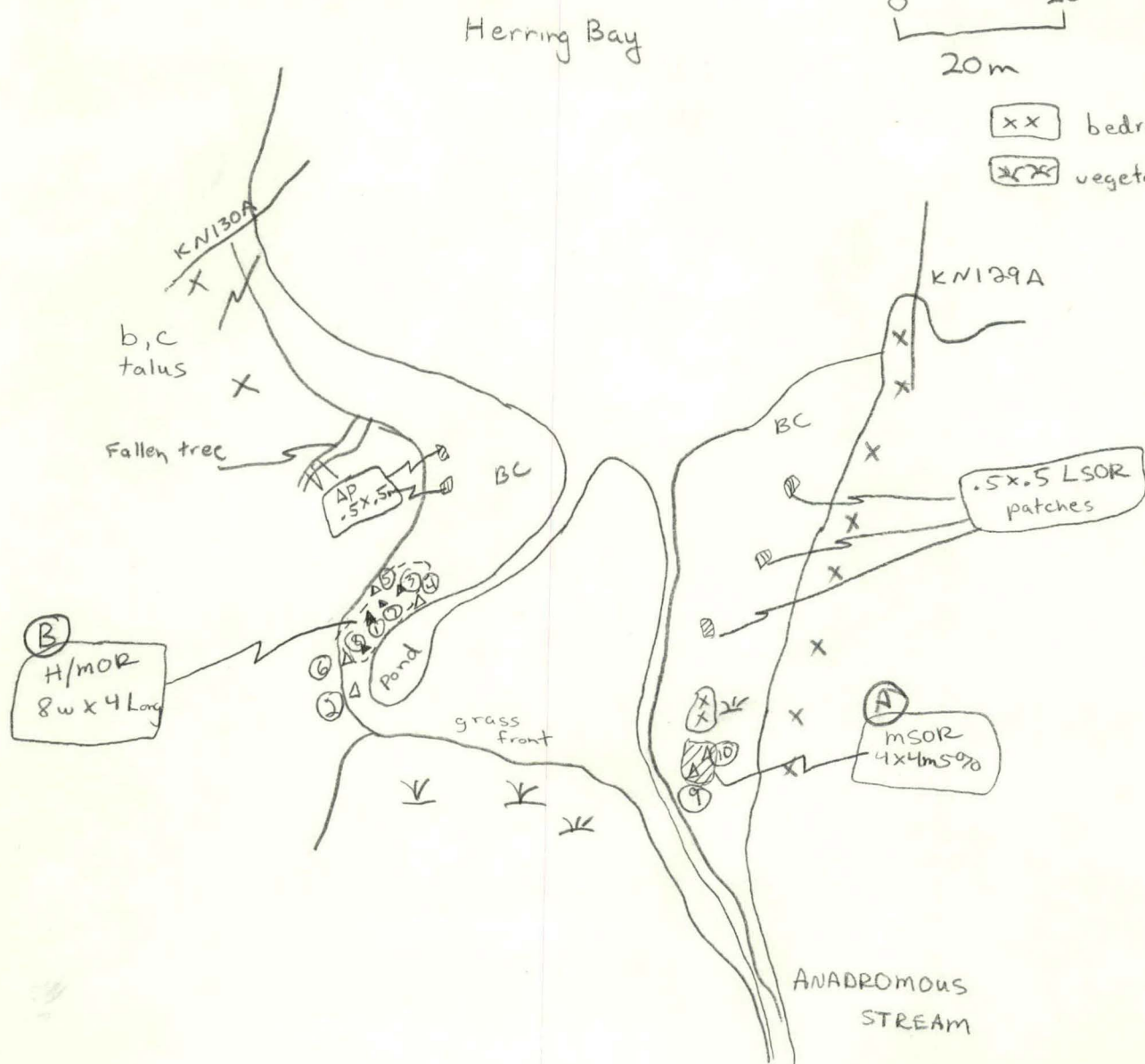
9:15-10:10

0 20

20m

xx bedrock

xx vegetation



Pit #	cm	Oil	clean below	w/t	Sed	Zone	Sheen
①	15	9-14 H/MOR	Y	9	PGS	MITZ	Rainbow
②	10	N	Y	10	PGS	MITZ	N
③	9	Y	?	1	PGS	MITZ	Rainbow
④	15	N	Y	1	PGS	MITZ	N
⑤	16	Y	?	10	PGS	UITZ	Silver
⑥	20	N	Y	18	PGS	MITZ-	N
⑦	15	Y	?	11	PGS	MITZ	Rainbow
⑧	17	9-14 H/MOR	?	1	PGS	MITZ	Blackbeads
⑨	22	?	?	21	Org/mud	Supra	Blackbeads
⑩	21	0-2	Y	N	org/mud/G	Supra	N

run-off flowing thru sediments of pits 1-8 hampered precise demarcation of oiled lense.

1991 MAYSAP EVALUATION

SEGMENT: KN 129 SUB: B REGION: PWS SURVEY DATE: 4/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15

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

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find, and contact Exxon's Cultural Resource Program immediately: 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.).

SHPO Signature: Charles E. Jones Date: 5/10/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N) N

N

Y

Y

Manual Pickup (Check as Req.) _____

✓

✓

Spot Washing _____

✓

✓

Bio-Customblen Only _____

✓

✓

Bio-Inipol/Customblen _____

✓

✓

Other MANUAL TILL

✓

✓

Other _____

COMMENTS:

INITIAL: NOTE

TAG: MANUAL TILL AT PIT #3 AND VICINITY RAKE IN CUSTOMBLEN, MANUALLY RAKE AREA OF SOR ON EAST BANK OF THE STREAM

FOSC: MANUAL PICKUP, BIO/CUSTOMBLEN, MANUAL TILL

TAG APPROVAL DATE MAY 9 1991

FOSC APPROVAL DATE: 5/15/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

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

USCG [Signature]

NOAA [Signature]

ADF&G OIL SPILL RESPONSE MONITORING

ASC# 206-10-16935

Date: 5/28/91

Stream Name: _____

Observer: A. Weseman

Segment-Sub Unit KN129B

Location: Herring Bay, Knight I

Anad. Stream Permit Issued? ☒ Y ☐ N

Date: 5/28/91

Work Order Issued: ☒ Y ☐ N

Date: 5/15/91

Demob Date: 5/28/91

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 ☒ < 1 lb. AP
☒ Manual Raking/tilling
 Spot Wash
 Other

☒ Bioremediation & Type ☒ custom blend
 Mechanical Tilling 1 lb.
 Header Flood (Hot/Cold)

Crew Size: 4 - same as agency Reps. - no VECCO workers along

Lbs. or Bags of Oil/Sediment Removed < 1 lb

Other Agency Reps, and Names:

Bob Jensen USCG
Scott Nauman & Randy Boyer - Exxon

Photos

Y ☒ N

Roll #

Frames

Video

Tape #

Start

End

N

Sediment/Oil Samples (Y ☒ N)

Collection Number

Purpose of Trip * treatment

* 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).

m⁴ LOR sediments remain on east bank in locations E4D & C
LOR sediments remain on west bank near pits 3, 4 & 7
Small sor patches on west bank not addressed by work
order, as well as LOR on east bank

Comments: (Are work order procedures being followed?, etc.)

Work order was satisfactorily completed.
Area of subsurface oil on west bank thoroughly tilled
with a natural water flush assisting process Custom Blend
was applied after tilling. Oil was not recovered

On east bank, SOR in locations E4D was raked
& custom blended. Approx 1 lb of AP sediments
were removed

As with most streams receiving treatment in '91
I recommend a final assessment of oiling conditions
in late July or August by APF&G. Any final treatments
could occur at that time

A:OPRESP
April 2, 1991

N
↑

20 U1T2 NO

A1	SCR	0.5	$\times 0.5$	} 20%
A2	"	"	"	
A3	"	"	"	

KN-129-A

Failen Tree

Subsurface
patch

5 x 10 m
OF → HOR

Q OF/LCR

SNOW

KNIGHT
IS.

ANADROMOUS STREAM

AP 0.1 x 0.5
70%

SOR(L) + x 10
 < 5%

0-5 LOR 24cm WT at 15

© SOR box is 15% 15%

(x
xx) bedrock

↓ ↓ vegetation

 areas addressed in 91 work order

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 5/28/91

EXXON Authorized Representative Scott Nauman

Shoreline Segment KN 129B

Anadromous Fish Stream Number(s) 226-10-16975

Approved Cleanup Techniques Manual tilling, raking,
pick-up & custom blend

Approved Cleanup Period May 15 - July 10, 1991

Alaska Department of Fish and Game

Aimee Weseman
Authorized Officer

[Signature]
Permittee's Signature

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 5/28/91

EXXON Authorized Representative Scott Nauman

Shoreline Segment KN 129B

Anadromous Fish Stream Number(s) 226-10-16975

Approved Cleanup Techniques Manual tilling, picking
pick-up & custom blend

Approved Cleanup Period May 15 - July 10, 1991

Alaska Department of Fish and Game

Arnee Weseman
Authorized Officer

[Signature]
Permittee's Signature

EXXON Valdez Oilspill Cleanup

Alaska Fish Survey Information

Date 12/1/81

Exxon Authorized Representative _____

Shoreline Segment _____

Alaska Fish Survey Information _____

Approved Cleanup Techniques _____

Approved Cleanup Period _____

Alaska Department of Fish and Game

Authorized Officer

Patricia A. McInnis

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 4/27/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1711 17) HIGH TIDE HTS: _____ 23) OBSERVERS: AIMEE WEJEMAN
- 6) STOP TIME: 1830 18) LOW TIDE TIMES: 1900-1930 24) AGENCY: ADF+G
- 7) SEGMENT #: KN129B 19) LOW TIDE HTS: +1.5 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +5 to 1.8 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 220-10-16975 START: _____ STOP: _____
- 12) STREAM NAME: NONE 27) SAMPLES TAKEN? Y N
- 13) LOCATION: HERRING BAY SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

<u>pit # 3</u>	DEEP LENGTH m	OIL DEPTH WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 <u>3</u>	30 cm	15 cm			3 cm		HOR
SITE 2 <u>4</u>	15 cm	5 cm			3 cm		HOR
SITE 3 <u>5</u>	30 cm	10 cm			3 cm		HOR
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
- 31) OIL ON BEACH ADJACENT TO MOUTH: Y N
- 32) SUBSTRATE TYPE (PERCENT):
- Bedrock _____ Boulder 30% Gravel 60% Sand 2% Cobble 8% Mud/Silt _____
- 34) WILDLIFE OBSERVATION
- | Species | Number |
|---------|--------|
| | |
| | |
| | |
| | |
| | |
- 35) COMMENTS: BURIED HOR LENS ADJACENT TO STREAM/POND. UET AREA
SCATTERED WITH PATCHES OF HSOR TO LSOR

36) PHOTOLOG

FRAME(S)

DESCRIPTION

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

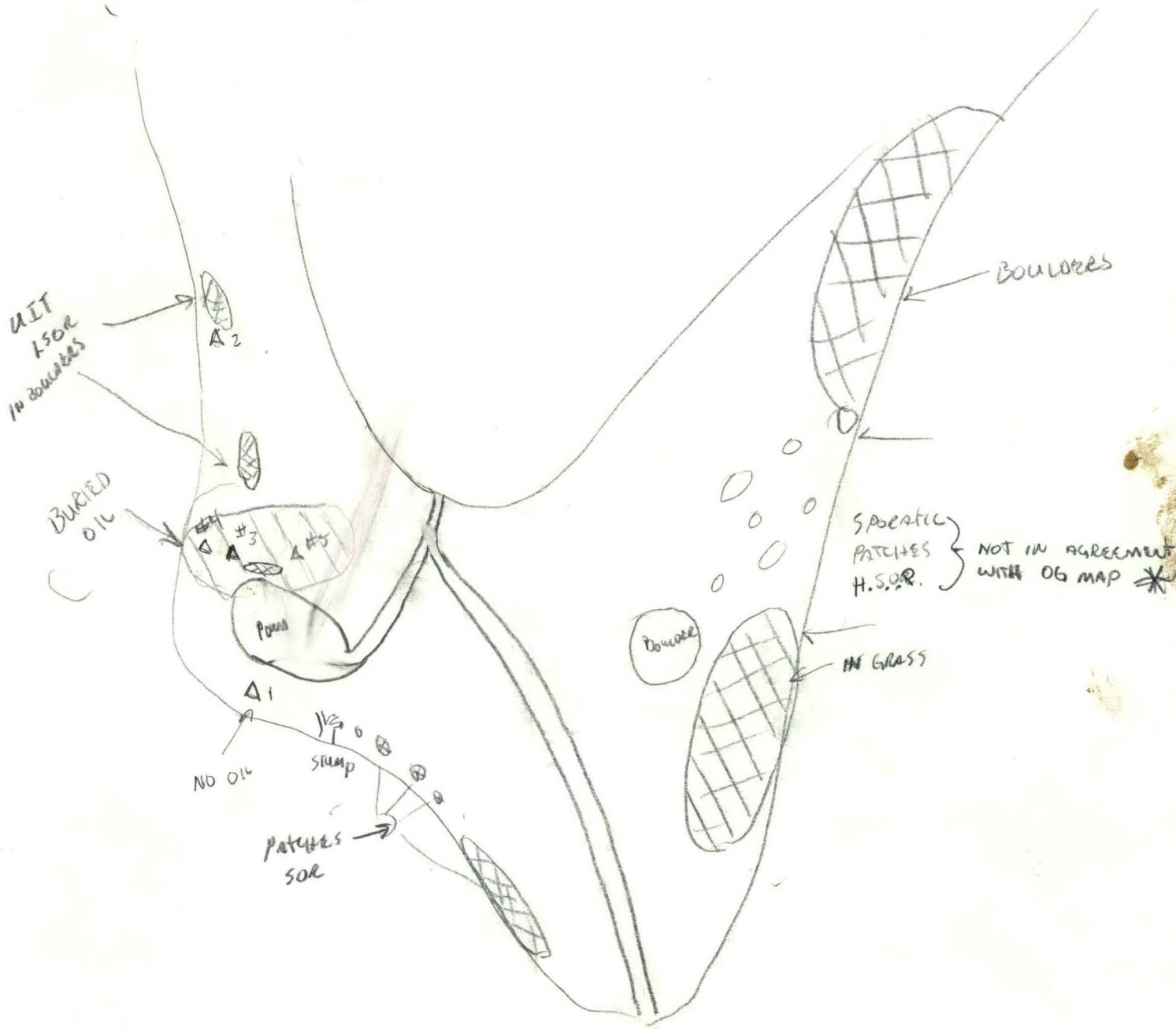
A:EDDATFO
 April 3, 1991

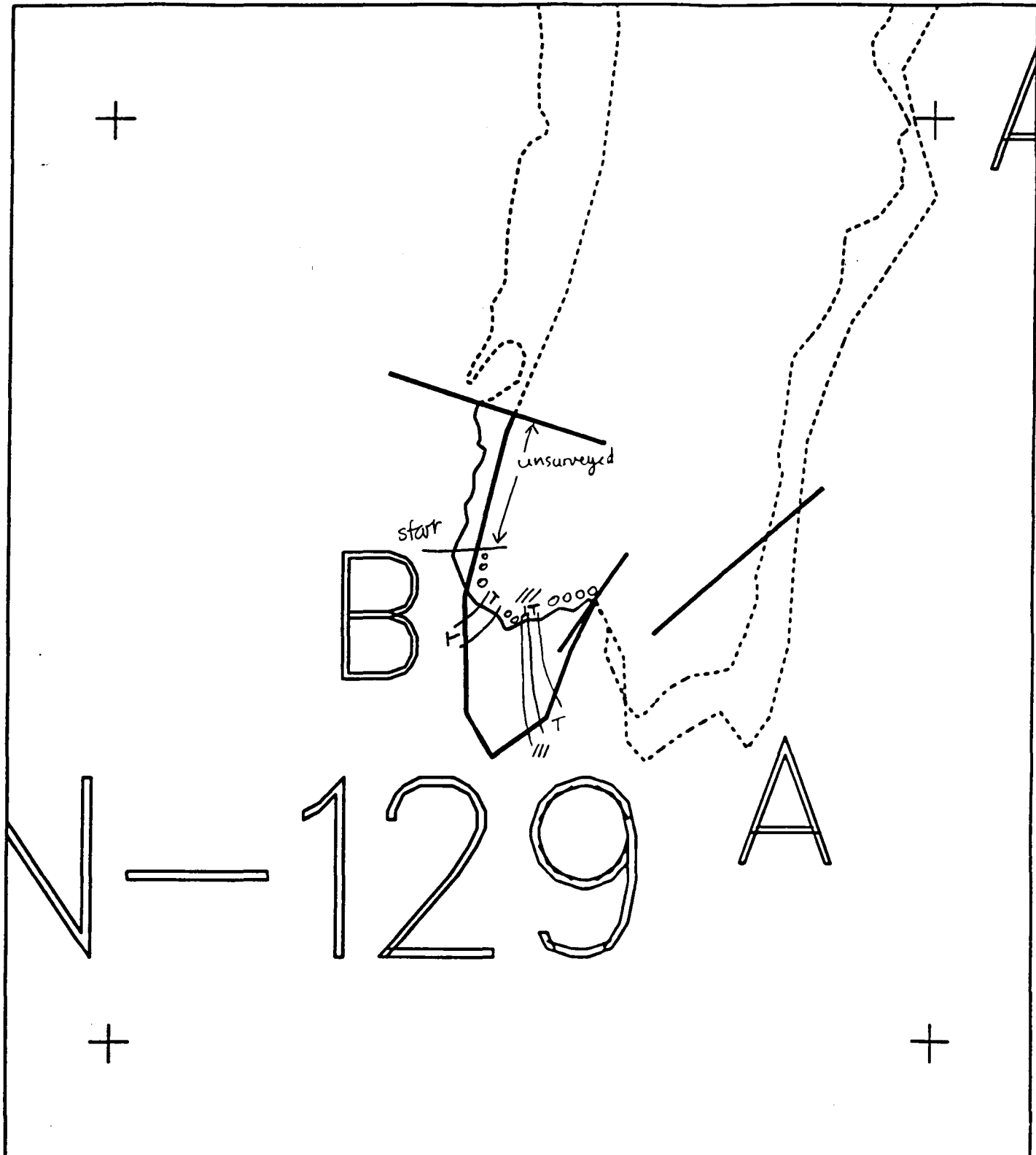
KN1293

ASC 226-10-16975

DATE 4-27-91

ΔH_2 5cm SOR
 $\Delta \#3$





XXXX
 ////

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

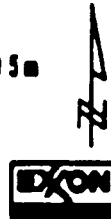
KN0129 B

ADEC Subsegment Length: 395m

METERS

0 100 200

AK State Plane Zone 4
 kn0129b



Subdivision Field Map

Map Key: KNKN0129B

Name: D.I. LITTLE

Date: 09/27/91

Date Entered:

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 DATE 4/27/91
 SEGMENT # KN-129 TIDAL HEIGHT (Range) +5½ to 2 feet
 SUBDIVISION B BIOLOGIST T.R. Schreiber
 SEA STATE Calm WIND SPEED/DIRECTION N.E. 10
 PHOTOGRAPHS: ROLL # FRAME #

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

(A₁, A₂ & A₃) = Extensive feces help regrowth occurring in LITZ. Soil fleas, worms, snails and snail egg clusters under rocks. Soil insects present on rocks. Intertidal community flourishing.

(C) = SOR present in grass bed along anal stream. Remaining edges root system near stream would be very intrusive and could destabilize stream bank.

(D & E) = Intertidal community below SOR is very healthy. & submergous. Small barnacles and littorids, snail egg masses present on or under rocks.

Intertidal communities are very healthy and flourishing. Even with considerable freshwater runoff percolation through area containing subsurface oil, no die-off was occurring in streams. Some small manual pickup could be done on (D) but subsurface oil and SOR in grass bed at (C) should be left alone. Once major work on these would be more intrusive and potentially destructive to anadromous stream than remaining oil!

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

LAND MAMMALS

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

Shoreline subdivision map showing important biological features attached.

KN-129-B

4/27/95

Bio. Map

T.R. Schroeder

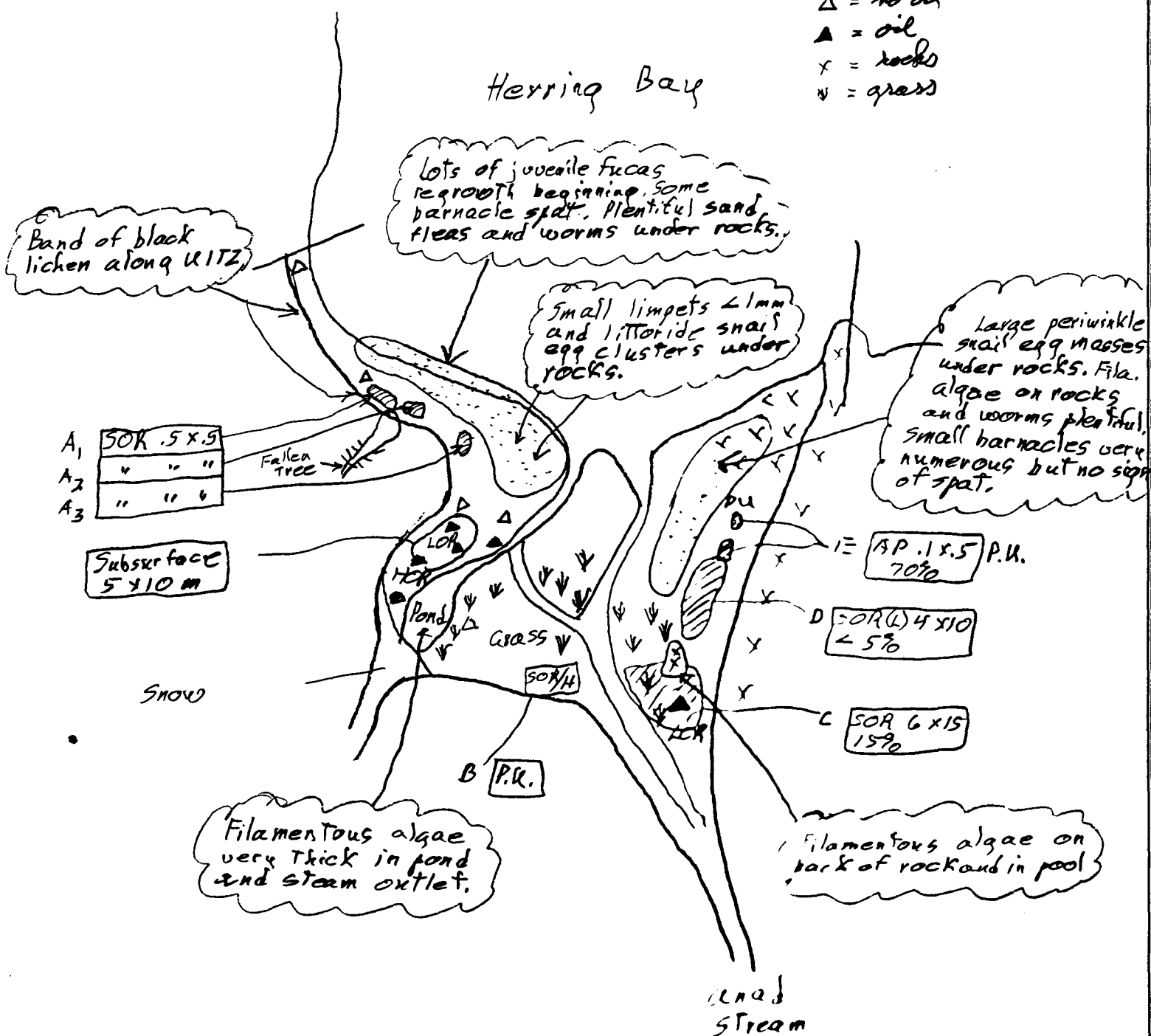
1730-1820

 Δ = no oil $\blacktriangle$ = oil

x = rocks

v = grass

Herring Bay



Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 15
Photographer Piterra J. Hoff
Location _____
Comments Surface and residue

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 17
Photographer Piterra Hoff
Location _____
Comments View from boulders looking down towards the water

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 16
Photographer Piterra Hoff
Location _____
Comments Overview of track looking upstream

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 18
Photographer Piterra Hoff
Location _____
Comments Pit #2 in gravel near stream in rock and snowmelt showing subsurface oil

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Photo locations

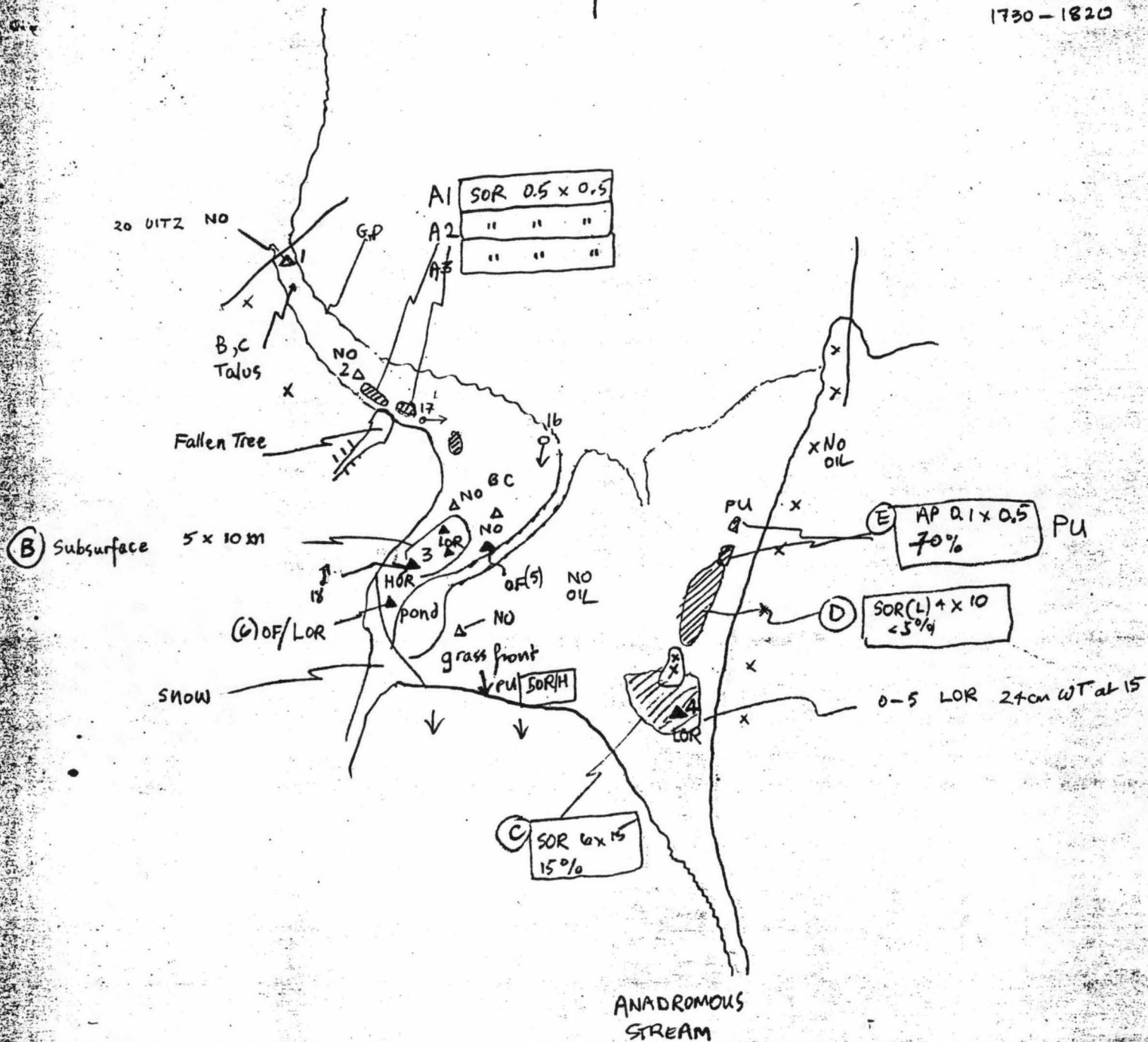
KN-129-B

04/27/91

OG maps

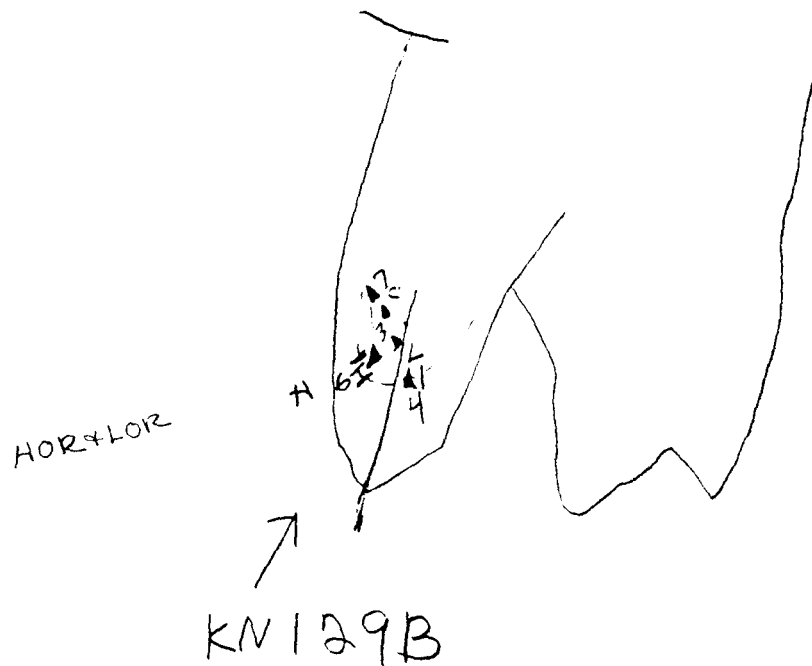
Δ.Ι. Little.

1730-1820



ADEC Comments cont....

4-27-91 Aimee Weseman



pit #3

- pit # 3 = HOR - 15-18 cm oiled zone
- pit # 4 = LOR 0-5 cm oiled zone
- pit # 5 = LOR 0-10 cm " "
- pit # 6 = LOR 0-10 cm " "
- pit # 8 = LOR 0-10 cm " "

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT LN-129 SUBDIVISION B DATE 04/27/91

ADEC Representing ADEC & USFS

NAME Aimee Weseman ADFG SIGNATURE Aimee Weseman

- ☐ NTR ☒ Treatment Recommended - Anadromous fish stream, commercial tourism desig.
- The 5x8m oil lense (HOR→LOR 15-18cm) on the west side of the stream should be manually removed & tilled. This area is adjacent to the stream, slopes towards it & is an unstable nature. There exists the possibility of it migrating into the stream bed & spawning areas. A small crew with shovels could readily handle the work. The small patches of scattered AP sediments on the east side of the stream should also be picked up at that time (areas E & D).

EXXON

NAME Scott A. Nauman

SIGNATURE Scott A. Nauman

☒ NTR

Very healthy intertidal zone with essentially no remaining surface oil. Vast majority of subsurface region free of oil. Small patches of primarily LOR/OF do not warrant treatment. Extensive grass bed at the head of the stream. Would definitely not recommend further intrusion for surveys/treatment.

LANDMANAGER ADFG

NAME TOM CROWE

OF ADFG

SIGNATURE Tom Crowe

☐ NTR

☒ TREATMENT RECOMMENDS

BURIED OIL LENSE ADJACENT TO STREAM NEAR THE POND SHOULD BE MANUALLY TILLED AND EXPOSED OIL SHEEN MOPPED UP WITH SONDAVI POMPONS. EXPOSED HOR AND LOR SEDIMENTS SHOULD BE PICKED UP AND OR TILLED. THIS WORK COULD EASILY BE ACCOMPLISHED BY A SMALL CREW IN A SHORT AMOUNT OF TIME.

USCG/NOAA

NAME CWORSPOFF / Rebecca Hoff

SIGNATURE R.P. Spurr / Rebecca Hoff

☐ NTR

Subsurface oil in gravel berm (pits #3 & 8) could represent a potential source to the stream. Gravel in this area could be manually tilled to allow subsurface weather. However, this could increase exposure to organisms in the stream in the short term. Since no current pathway was noticed (ie no sheening) even with extensive freshwater runoff, this area could be left alone to weather slowly.

Do not recommend any activities in vegetated areas in upper intertidal. Some bare areas where sediments were removed have not recolonized with grasses (between pit 4 & 8). If other treatment is undertaken, asphalt patches in E could be picked up, otherwise this would not be warranted.

PAGE 1 OF 2

Subsurface oil is restricted to a small well-sorted berm adjacent to a pond on minor stream inflow to site. Penetration maximized at 18 cm in one pit, elsewhere about 10 cm over a 5x10 m patch.

PAGE 2 OF 2

TEAM NO. 6

SEGMENT KN-129

SUBDIVISION B

DATE 04 / 27 / 91

[illegible]

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

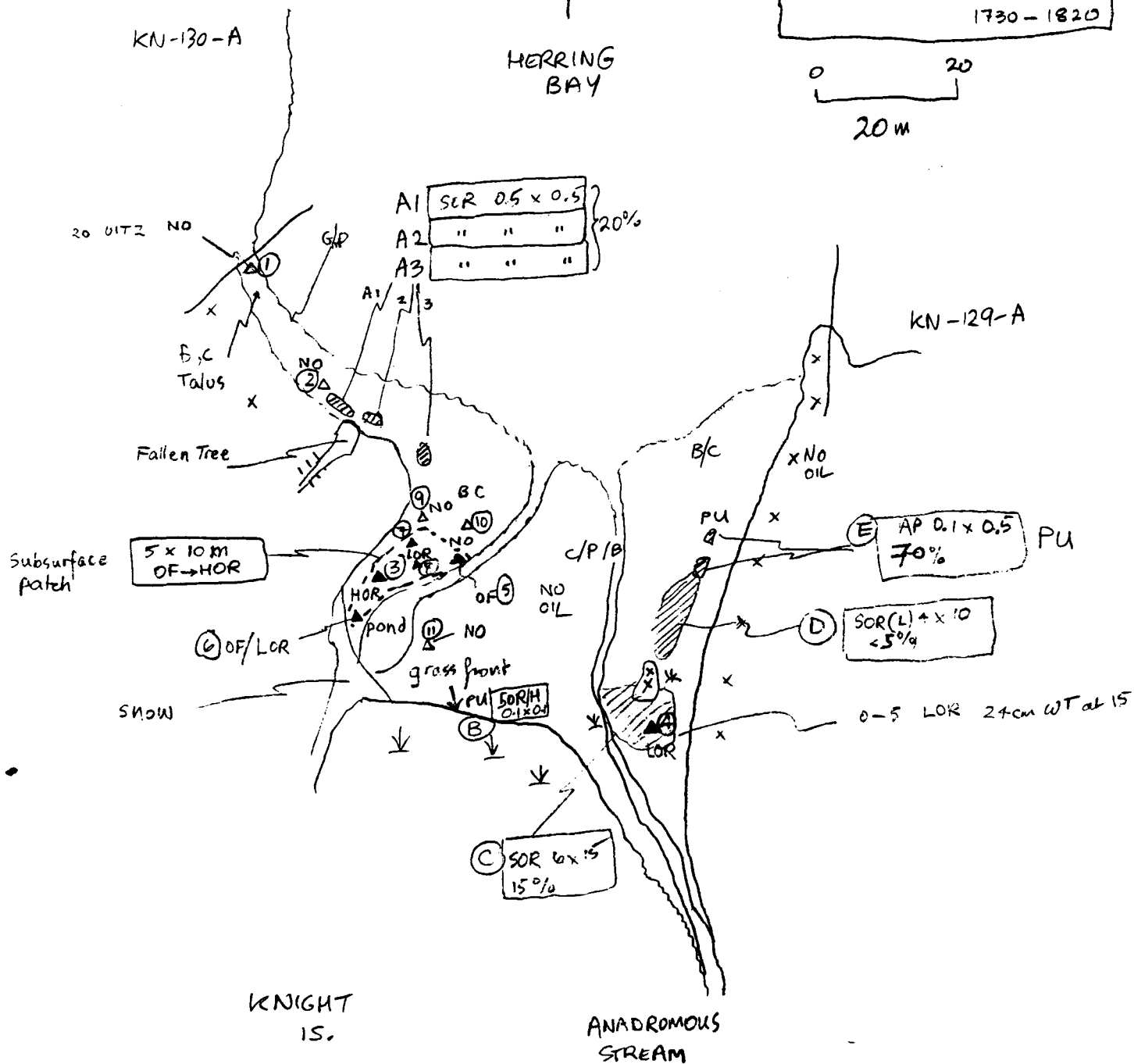
QG COMMENTS:

KN-129-B 04/27/91
OG map D.I. Little
1730-1820



HERRING BAY

0 20
20 m



x x x Bedrock

v v v Vegetation

STREAM#: 2261016975
PURPOSE: TREATMENT

SEGMENT#: KN129 B

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

STREAM NAME:

DATE	OBSERVER OTHER REPS	WORK ORDER DATE	DEMOBIL. DATE	SURFACE OIL SUBSURFACE OIL	TREATMENTS	AMOUNT REMOVED	REMAINING OIL
05/28/91	AIMEE WESEMAN USCG JENSEN, EXX NAUMAN BOYER	05/15/91	05/28/91	AP SOR HOR LOR	MANUAL REMOVAL MANUAL RAKING MANUAL TILLING BIO/CUSTOMBLEN 1#	<1 LB.	M & LSOR SEDIMENTS REMAIN ON EAST BANK IN LOCATIONS E, D & C. 'LOR' SEDIMENTS REMAIN ON WEST BANK NEAR PITS 3, 4 & 7. SMALL 'SOR' PATCHES ON WEST BANK NOT ADDRESSED BY WORK ORDER, AS WELL AS 'LOR' ONE EAST BANK.

COMMENTS:
WORK ORDER WAS SATISFACTORILY COMPLETED. AREA OF SUBSURFACE OIL ON WEST BANK THOROUGHLY TILLED WITH A NATURAL WATER FLUSH ASSISTING PROCESS. CUSTOMBLEN WAS APPLIED AFTER TILLING. OIL WAS NOT RECOVERED. ON EAST BANK, 'SOR' IN LOCATIONS E & D WAS RAKED AND CUSTOMBLENDED. APPROX 1 LB OF 'AP' SEDIMENTS WERE REMOVED. AS WITH MOST STREAMS RECEIVING TREATMENT IN 1991, I RECOMMENDED A FINAL ASSESSMENT OF OILING CONDITIONS IN LATE JULY OR AUGUST BY ADF&G. ANY FINAL TREATMENTS COULD OCCUR AT THAT TIME.

STREAM#: 226UNCAT08
PURPOSE: TREATMENT

SEGMENT#: KN129 A

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

STREAM NAME:

DATE	OBSERVER OTHER REPS	WORK ORDER DATE	DEMOBIL. DATE	SURFACE OIL SUBSURFACE OIL	TREATMENTS	AMOUNT REMOVED	REMAINING OIL
06/03/91	AIMEE WESEMAN EXX NAUMAN BOYER, USCG JENSEN	05/13/91	06/03/91	AP SOR HOR MOR LOR TR	MANUAL REMOVAL MANUAL RAKING MANUAL TILLING BIO/CUSTOMBLEN 6#	3 GEO BAGS	L & MOR SEDIMENTS REMAIN IN TILLED AREAS BOTH SIDES OF STREAM. LIGHT 'SOR' SEDIMENTS IN LOCATION A WERE NOT ADDRESSED, BUT SHOULD NOT POSE A THREAT TO THE STREAM. 'LSOR' REMAINS. IN MY OPINION ITS LIKELY SMALL POCKETS OR TRAILERS OF SUBSURFACE OIL ARE SCATTERED THROUGHOUT THE BEACH AREA.

COMMENTS:
YES, AREAS OF SUBSURFACE OIL DESCRIBED ON WORK ORDER & SKETCH WERE MANUALLY TILLED TO THE DEPTH OF THE OIL. PIT #14 IS <1M FROM STREAM CHANNEL & CONTAINED HEAVIEST 'OR'. 'AP' SEDIMENTS IN LOCATIONS C & D WERE MANUALLY REMOVED AND/OR REDUCED TO 'LSOR'. SIX POUNDS OF CUSTOMBLEN APPLIED TO SAME AREAS. STREAM SHOULD BE QUICKLY REASSESSED BY ADF&G MID-SUMMER & THE NEAR STREAM OILED AREAS RETILLED IF DEEMED NECESSARY.

Post-treatment assessment
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: 2/31/91 16) HIGH TIDE TIME: 4:27 22) TEAM RECORDER: A. Weseman
- 5) START TIME: 9:15 17) HIGH TIDE HTS: 10.4 23) OBSERVERS: Fink, Kuwada, Middleton
- 6) STOP TIME: 10:10 18) LOW TIDE TIMES: 1046 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129B 19) LOW TIDE HTS: .0ft 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +1-0 ft ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: 226-10-16925 START: _____ STOP: _____
- 12) STREAM NAME: _____ 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: Herring Bay, Knight I. 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 A	4	4		5	2cm		MSOR on Sod
SITE 2 B	4	8			5cm		H/MOR <u>9-14</u>
SITE 3							
SITE 4							
SITE 5							

29) OVERALL OIL IMPACT:

- H = >6m band with $\geq 50\%$ oil coverage
- M = >6m band with $\leq 50\%$ oil coverage or $\geq 3m$ to $\leq 6m$ with $\geq 10\%$ oil coverage
- L = <3m band with $> 10\%$ oil coverage
- VL = $\leq 10\%$ oil coverage regardless of band width
- N = No oil observed

33) ANADROMOUS FISH ^{Observed} PRESENT: Y (N)

30) OIL IN STREAMBED: Y (N)

31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder ✓ Gravel ✓ Sand ✓ Cobble ✓ Mud/Silt ✓

35) COMMENTS:

Surface run-off flowing through "site B" hampered a precise definition of oil lense. Oil is still mobile and sheened profusely into stream when agitated.

Area should be re-assessed in '92, due to the closeness of oil lense to stream, it's mobile nature & slope towards stream. survey focused on documented oil, treated in 1991.

34) WILDLIFE OBSERVATION

Species _____ Number _____

ADFG SHORELINE OILING SUMMARY

PAGE _____ OF _____

A.S.C. NO. 226-10-16975

Team Recorder: Aimee Weseman

Observers: K Middleton

M kuwada

M. Fink

SEGMENT KN 129

SUBDIVISION B

DATE 2/31/91

TIME 9 : 15 to 10 : 10

TIDE LEVEL +1 ft. to +0 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

[illegible]

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

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

PHOTO ROLL #

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	15		X						9 - 14	?	9	R			X		PGS	
2	10							X	-	Y	10	N			X		PGS	
3	9			X					-	?	1	R			X		PGS	
4	15							X	-	Y	1	N			X		PGS	
5	16				X				-	?	10	S		X			PGS	
6	20							X	-	Y	18	N			X		PGS	
7	15			X					-	?	11	R			X		PGS	
8	17		X						9 - 14	?	15	Black			X		PGS	
9	22								-	?	21	Black	X				Org/mud	
10	21	SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE							X	0 - 2		N	X				org/mud	

OG COMMENTS:

Run-off flowing thru pits in site "B" hampered a precise demarcation of oiled lense. area sheened profusely when agitated. Subsurface oil in area = 8m x 4 long - H/MOR projected lense thickness - 5cm

Subsurface layer is still mobile & immediately adjacent to stream - should be re-assessed in '92

survey focused on documented oil, treated in 1991

Post-treatment Assessment

KN 129-B

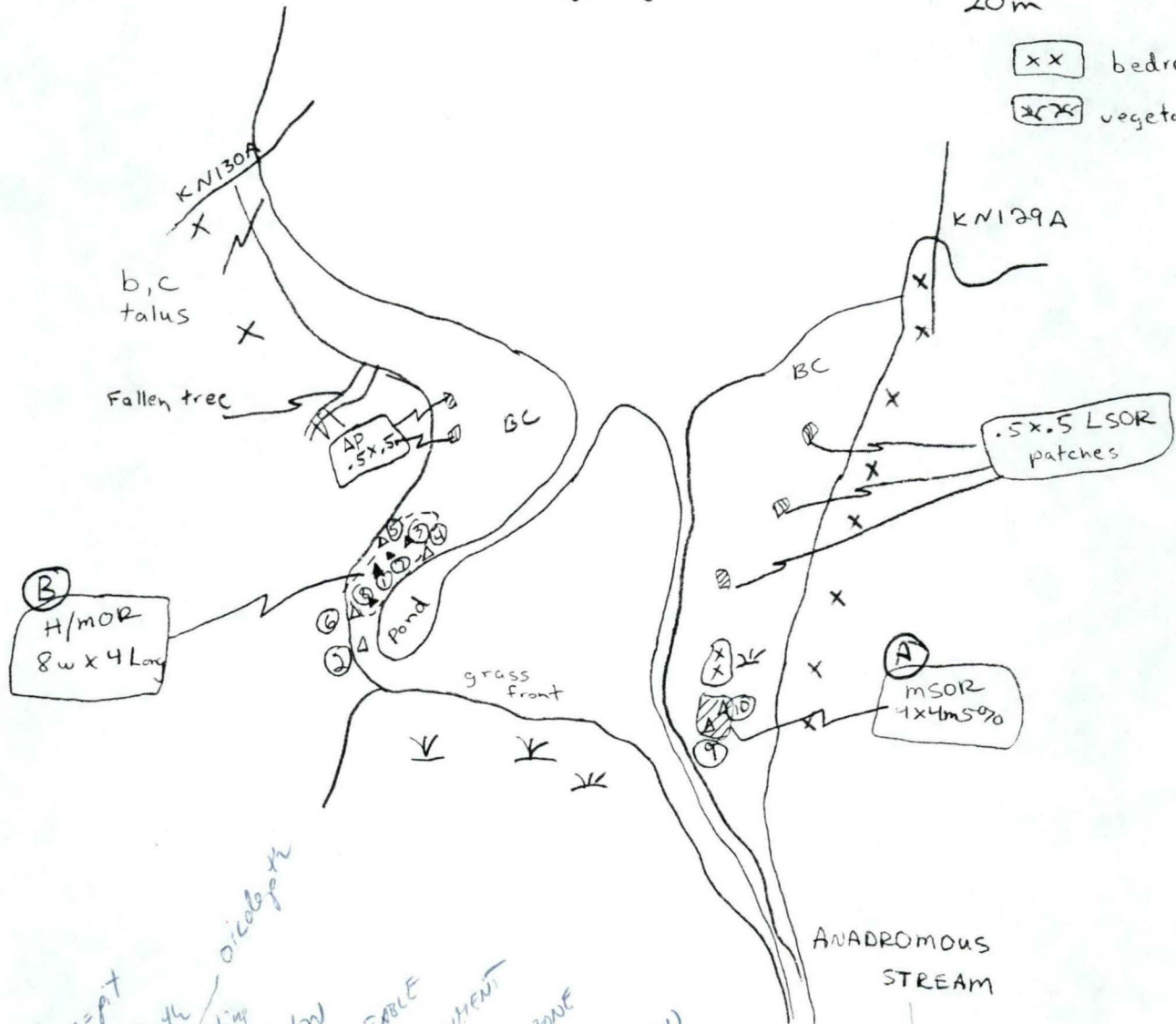
2/31/91 A. Weseman

9:15-10:10

0 20
20m

xx bedrock
xxx vegetation

Herring Bay



Site type = pit
Depth (align below)

Site	Pit #	Depth cm	Oil	Clean below	W/T	Sed	TIDEZONE	SHEEN
B ①	15	9-14	Y	Y	9	PGS	MITZ	Rainbow
②	10	N	Y	Y	10	PGS	MITZ	N
B ③	9	Y	?u	Y	1	PGS	MITZ	Rainbow
B ④	15	N	Y	Y	1	PGS	MITZ	N
B ⑤	16	Y	?u	Y	10	PGS	MITZ	Silver
⑥	20	N	Y	Y	18	PGS	MITZ	N
B ⑦	15	Y	?u	Y	11	PGS	MITZ	Rainbow
B ⑧	17	9-14	?u	Y	1	PGS	MITZ	Blackbeads
A ⑨	22	—	?u	Y	21	Org/mud	Supra	Blackbeads
A ⑩	21	0-2	Y	Y	N	org/mud/G	Supra	N

PITCONT

- 0 -

Add to
MAD
- comments

runoff flowing thru sediments of pits 1-8 hampered precise demarcation of oiled lense.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2261016975
SEGMENT: KN129

PAGE 1

DATE PRINTED: 08/26/91

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

SURVEY TYPE: 91 POST TREATMENT - SS

METHOD: GROUND

DATE: 07/31/91

TEAM RECORDER: WESEMAN

START TIME: 0915

OBSERVERS: FINK KUWADA MIDDLETON

END TIME: 1010 1 to 0

TIDES: ~~+1/-0~~ (ebb/stack)
OG/HAB DISCREPANCIES: -

AGENCY: FG

PHOTOS TAKEN: N

STATION: 2261016975

ROLL#: -0-

FRAME: -0-

VIDEO TAKEN: N

TAPE#: -0-

START: -0-

END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0-

-0-

-0-

-0-

-0-

-0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: -0-

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: LOW

SHORELINE TYPE: BEACH COVE

SUBSTRATE TYPE: BEDROCK -0- BOULDER Y COBBLE Y VEGETAT -0-

GRAVEL Y SAND Y MUD/SILT Y GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES: -0-

COUNT: -0-

-0-

-0-

-0-

-0-

-0-

-0-

-0-

-0-

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 1

DATE PRINTED: 08/26/91

STREAM# : 2261016975
SEGMENT#: KN129

SURVEY TYPE : 91 POST TREATMENT - SS LOCATION: KNIGHT ISLAND, HERRING BAY,
DATE: 07/31/91 SOUTH ARM
TIMES: 0915 - 1010 TEAM RECORDER: WESEMAN

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
A B	SURF SUBS	-0- 9-14	4 4	4 8	-0- -0-	5 -0-	2 5	-0- -0-	MSOR SOD H/MOR

COMMENTS:

SURFACE RUN OFF FLOWING THROUGH "SITE B" HAMPERED A PRECISE DEFINITION OF OIL LENSE. OIL IS STILL MOBILE AND SHEENED PROFUSELY INTO STREAM WHEN AGITATED. AREA SHOULD BE REASSESSED IN 1992, DUE TO THE CLOSENESS OF OIL LENSE TO STREAM AND ITS MOBILE NATURE AND SLOPE TOWARDS STREAM. *SURVEY FOCUSED ON DOCUMENTED OIL TREATED IN 1991. RUN OFF FLOWING THROUGH SEDIMENTS OF PITS 1-8 HAMPERED PRECISE DEMARCATION OF OILED LENS.

ADF&G MULTI-ASSESSMENT FORM
1991 POST TREATMENT PIT INFO

PAGE 1

DATE PRINTED: 08/26/91

STREAM# : 2261016975
SEGMENT#: KN129

SURVEY TYPE : 91 POST TREATMENT - SS LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM
DATE:
TIMES: 0915 - 1010
TEAM RECORDER: -0-

-- PIT DETAILS ---

SITE#	SITE TYPE	TOT DP (cm)	OIL DP (cm)	CLEAN BELOW	SHEEN	W/T (cm)	SEDIM CODES	TIDE ZONE	OIL TYPE CODES	PIT-SPECIFIC COMMENTS
2	PIT	10	-0-	Y	N	10	PGS	MITZ	N	-0-
6	PIT	20	-0-	U	N	18	PGS	MITZ	N	-0-
A10	PIT	21	0-2	Y	N	N	ORG/MUD	SUPRA	-0-	-0-
A9	PIT	22	-0-	U	BLACK BEADS	21	ORG/MUD	SUPRA	-0-	-0-
B1	PIT	15	9-14	Y	RAINBOW	9	PGS	MITZ	HOR	-0-
B3	PIT	9	-0-	U	RAINBOW	1	PGS	MITZ	Y	-0-
B4	PIT	15	-0-	Y	N	1	PGS	MITZ	N	-0-
B5	PIT	16	-0-	U	SILVER	10	PGS	UITZ	Y	-0-
B7	PIT	15	-0-	U	RAINBOW	1	PGS	MITZ	Y	-0-
B8	PIT	17	9-14	U	BLACK BEADS	1	PGS	MITZ	HOR	-0-



KN0129 b

4/27/91

NO. 814



Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 15
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments SURFACE OIL RESIDUE

Roll No MAYSAP-6-01 Neg. No 14
Control No 814 (Office Use Only)

Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 16
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments OVERVIEW OF BEACH LOOKING
UPSTREAM

Roll No MAYSAP-6-01 Neg. No 15
Control No 814 (Office Use Only)

Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 17
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments VIEW FROM BOULDER LOOKING
DOWN TOWARDS THE WATER

Roll No MAYSAP-6-01 Neg. No 16
Control No 814 (Office Use Only)

Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 18
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments PIT #3 IN GRAVEL NEAR
STREAM BY POOL FROM SNOWMELT SHOW-
ING SUBSURFACE OIL

Roll No MAYSAP-6-01 Neg. No 17
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 15
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments SURFACE OIL RESIDUE

Roll No MAYSAP-6-01 Neg. No 14
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 16
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments OVERVIEW OF BEACH LOOKING
UPSTREAM

Roll No MAYSAP-6-01 Neg. No 15
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 17
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments VIEW FROM BOULDER LOOKING
DOWN TOWARDS THE WATER

Roll No MAYSAP-6-01 Neg. No 16
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision B
Date 4/27/91 Log Frame No 18
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments PIT #3 IN GRAVEL NEAR
STREAM BY POOL FROM SNOWMELT SHOW-
ING SUBSURFACE OIL

Roll No MAYSAP-6-01 Neg. No 17
Control No 814 (Office Use Only)

ADF&G OIL SPILL RESPONSE MONITORING

ASC# 226-10-16955

Date: 5/28/91

Stream Name: _____

Observer: A. Weseman

Segment-Sub Unit KN129B

Location: Herring Bay, Knight I

Anad. Stream Permit Issued? ☒ Y ☐ N

Date: 5/28/91

Work Order Issued: ☒ Y ☐ N

Date: 5/15/91

Demob Date: 5/28/91

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:

X Manual Removal ☒ < 1 lb. 40
 X Manual Raking/tilling
 Spot Wash
 Other

X Bioremediation & Type ☒ custom blend
 Mechanical Tilling 1 lb.
 Header Flood (Hot/Cold)

Crew Size: 4 - same as agency Reps - no VECCO workers along

Lbs. or Bags of Oil/Sediment Removed < 1 lb

Other Agency Reps, and Names:

Bob Jensen USCG
Scott Nauman & Randy Boyer - Exxon

Photos

Y ☒ N

Roll #

Frames

Video

Tape #

Start

End

N

Sediment/Oil Samples (Y ☒ N)

Collection Number

Purpose of Trip * treatment

* 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).

MYL SOR sediments remain on east bank in locations E4D4C
LOR sediments remain on west bank near pits 3,4 & 7
Small SOR patches on west bank not addressed by work
order, as well as LOR on east bank

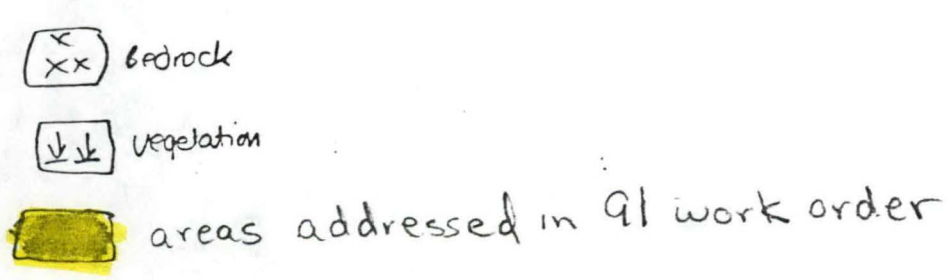
Comments: (Are work order procedures being followed?, etc.)

Work order was satisfactorily completed.
Area of subsurface oil on west bank thoroughly tilled
with a natural water flush assisting process Custom Blend
was applied after tilling. Oil was not recovered

On east bank, SOR in locations E4D was raked
& custom blended. Approx 1 lb of AP sediments
were removed

As with most streams receiving treatment in '91
I recommend a final assessment of oiling conditions
in late July or August by ADF&G. Any final treatments
could occur at that time

A:OPRESP
April 2, 1991



1991 MAYSAP EVALUATION

SEGMENT: KN 129 SUB: B REGION: PWS SURVEY DATE: 4/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15

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

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find, and contact Exxon's Cultural Resource Program immediately: 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.).

SHPO Signature: Charles E. Holmes Date: 5/10/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Y

Y

Manual Pickup (Check as Req.)

✓

✓

Spot Washing

✓

✓

Bio-Customblen Only

✓

✓

Bio-Inipol/Customblen

✓

✓

Other MANUAL TILL

✓

✓

Other

✓

✓

COMMENTS:

INITIAL: NOTE

TAG: MANUAL TILL AT PIT #3 AND VICINITY RAKE IN CUSTOMBLEN, MANUALLY RAKE AREA OF SOR ON EAST BANK OF THE STREAM

FOSC: MANUAL pickup, bio/customblen, manual till

TAG APPROVAL DATE: MAY 9 1991

FOSC APPROVAL DATE: 5/15/91

ADEC

FOSC

EXXON

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

USCG

NOAA

1991 MAYSAP EVALUATION

SEGMENT: KN 129 SUB: B REGION: PWS SURVEY DATE: 4/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15

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

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find, and contact Exxon's Cultural Resource Program immediately: 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.).

SHPO Signature: Charles E. Jones Date: 5/10/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Y

Y

Manual Pickup (Check as Req.)

✓

✓

Spot Washing

✓

✓

Bio-Customblen Only

✓

✓

Bio-Inipol/Customblen

✓

✓

Other MANUAL TILL

✓

✓

Other

✓

✓

COMMENTS:

INITIAL: NOTE

TAG: MANUAL TILL AT PIT #3 AND VICINITY RAKE IN CUSTOMBLEN. MANUALLY RAKE AREA OF SOR ON EAST BANK OF THE STREAM.

FOSC: NOTE. MANUAL PICKUP, BIO/CUSTOMBLEN, MANUAL TILL.

TAG APPROVAL DATE: May 9 1991

FOSC APPROVAL DATE: 5/15/91

ADEC

FOSC

EXXON

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

USCG

NOAA

1991 MAYSAP EVALUATION

SEGMENT: KN 129 **SUB:** B **REGION:** PWS **SURVEY DATE:** 4/27/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

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

COMMENTS:

INITIAL: Till re-evaluated with a stream
area of pit #3. I need to
check up SR report of stream.

TAG: 1-yes ↑

FOSC: _____

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

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

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



PRINCE WILLIAM SOUND

SEGMENT: KN0129
ANADROMOUS STREAM.

SUBDIVISION: B

SITE:

RECOMMENDED TREATMENT:

NEAR AREA OF PIT #3:

- TILL OR SEDIMENTS WEST OF STREAM.
- REMOVE OR BREAK UP SOR EAST OF STREAM.

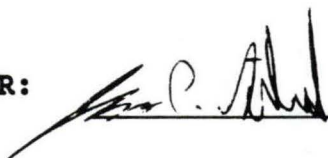
ENVIRONMENTAL SENSITIVITIES:
ANADROMOUS STREAM.

WORK WINDOW: 05/01/91 - 07/10/91

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/09/91

STATE ON SCENE COORDINATOR:

 for E. Piper

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

PRINCE WILLIAM SOUND

SEGMENT: KN0129
ANADROMOUS STREAM.

SUBDIVISION: B

SITE:

RECOMMENDED TREATMENT:

NEAR AREA OF PIT #3:

-TILL OR SEDIMENTS WEST OF STREAM.

-REMOVE OR BREAK UP SOR EAST OF STREAM.

ENVIRONMENTAL SENSITIVITIES:

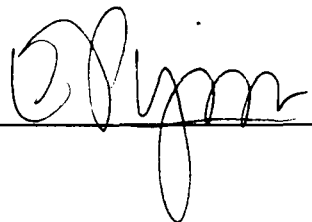
ANADROMOUS STREAM.

WORK WINDOW: 05/01/91 - 07/10/91

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/07/91

STATE ON SCENE COORDINATOR:



**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

ADF&G MULTI-ASSESSMENT DATA FORM

- 1) SURVEY TYPE: BS SS 2) REGION: PWS KP, CI K, AP
- 3) METHOD: Aerial Ground Boat
- 4) DATE: 4/27/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Crowe
- 5) START TIME: 1711 17) HIGH TIDE HTS: _____ 23) OBSERVERS: AIMEE WESEMAN
- 6) STOP TIME: 1830 18) LOW TIDE TIMES: 1900-1930 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129B 19) LOW TIDE HTS: +1.5 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +5 to +1.8 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: 226-10-16975 START: _____ STOP: _____
- 12) STREAM NAME: NONE 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: HERRING BAY SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach

Cove

Lagoon

Marsh

28) EXTENT OF OIL

PT #	DEPTH LENGTH m	DIG-DEPTH WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 <u>3</u>	30 cm	15 cm			3 cm		HOR
SITE 2 <u>4</u>	15 cm	5 cm			3 cm		HOR
SITE 3 <u>5</u>	30 cm	10 cm			3 cm		HOR
SITE 4							
SITE 5							

- 29) OVERALL OIL IMPACT: Y 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)
- 31) OIL ON BEACH ADJACENT TO MOUTH: (Y) N
- 32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 30% Gravel 60% Sand 2% Cobble 8% Mud/Silt _____

- 35) COMMENTS: BURIED HOR LENS ADJACENT TO STREAM/POND. U/LT AREA
SCATTERED WITH PATCHES OF H/SOR TO L/SOR

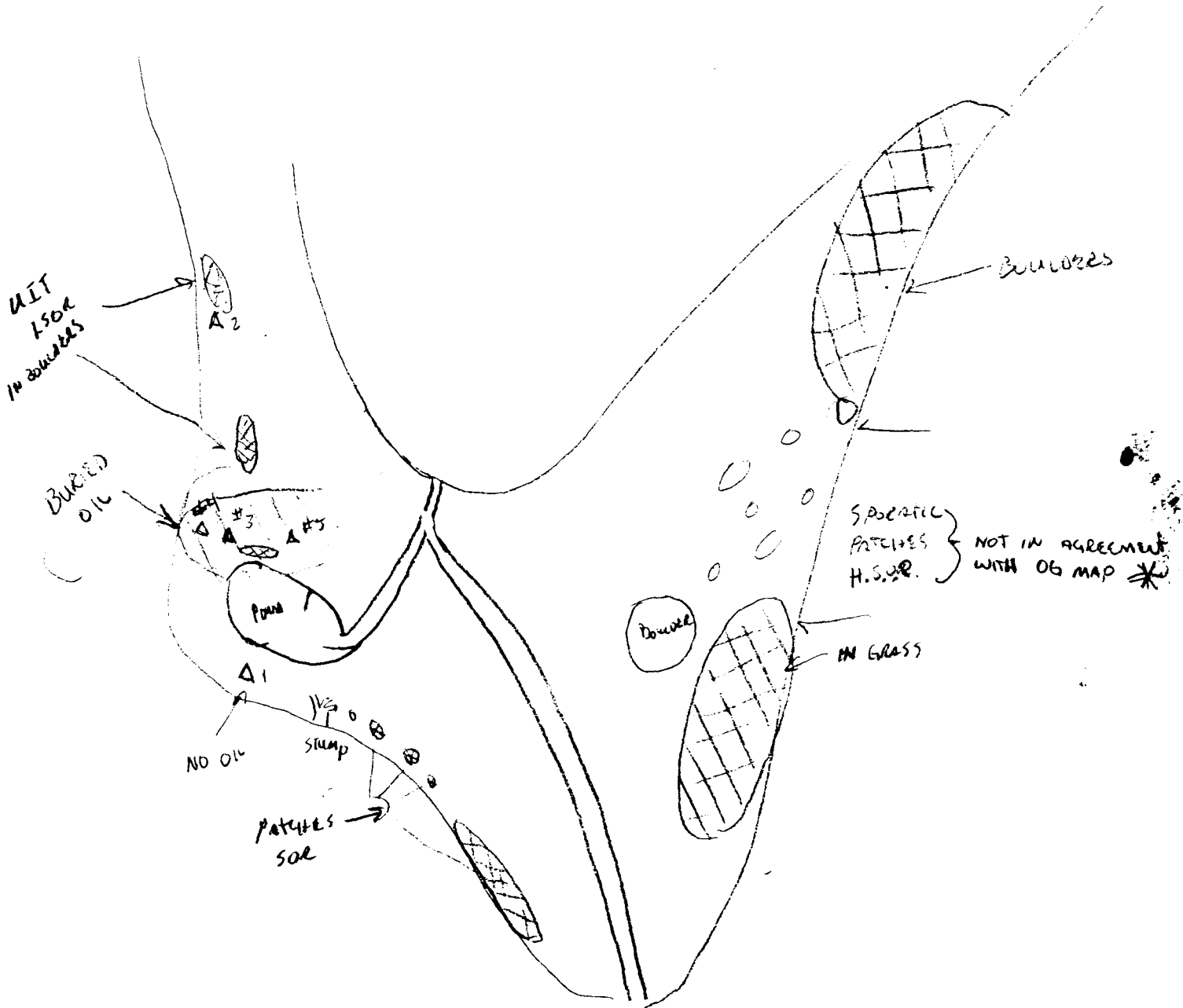
DATA ENTRY NOTE: SITES 3, 4, 5 represent p.t.s; length represents other p.t.-depths; width represents the oil depths.

KN1293

ASC 226-10-16975

DATE 4-27-91

Δ #2 SW SOR
Δ #3



PAGE 1 OF 2

subsurface oil is restricted to a small well-sorted berm adjacent to a pond on minor stream inflow to site. Penetration maximised at 18 cm in one pit, elsewhere about 10 cm over a 5 x 10 m patch.

PAGE 2 OF 2

DATE 04 / 27 / 91

[illegible]

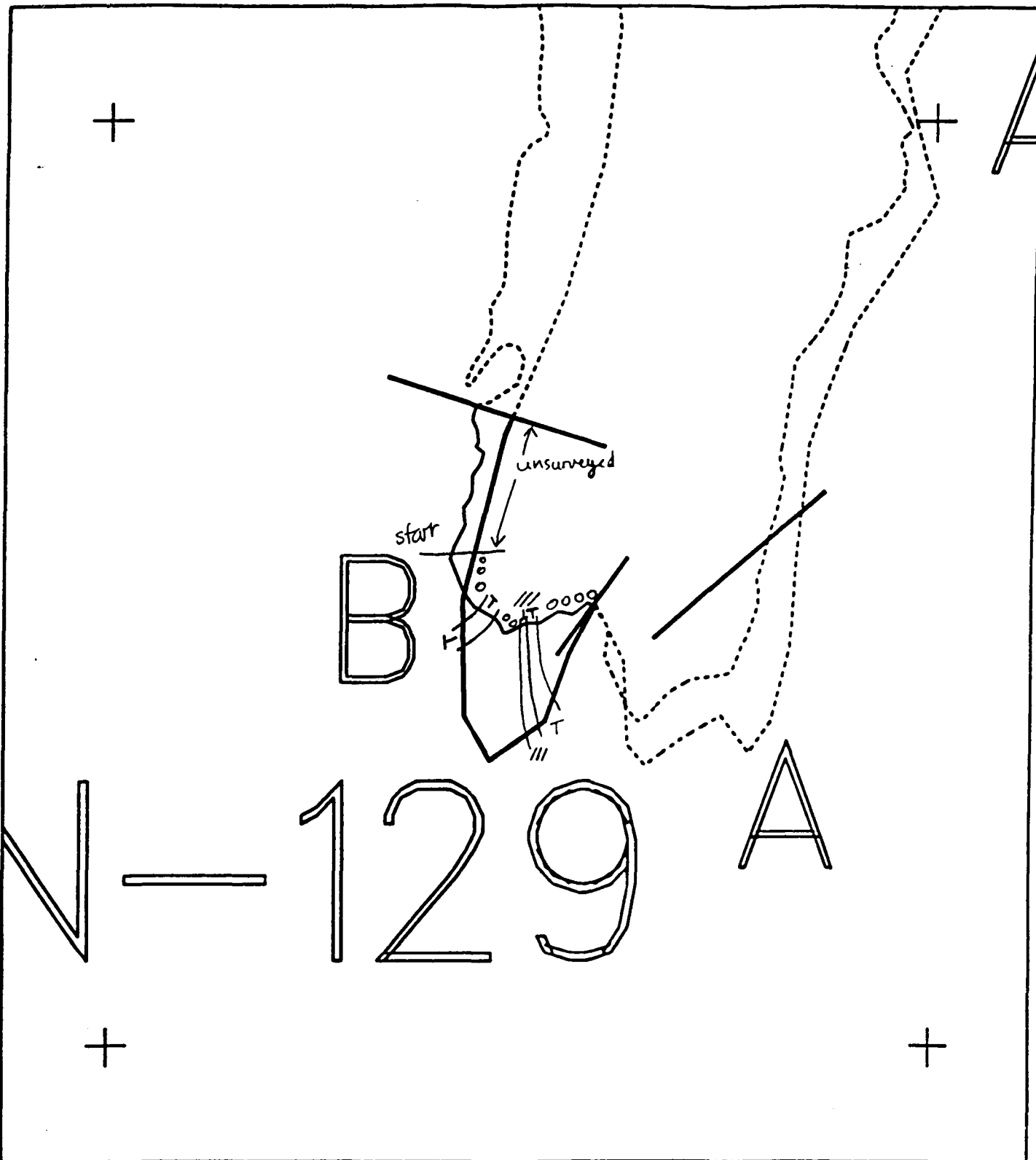
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

QG COMMENTS:

HERRING
BAY

[illegible]

$\downarrow \downarrow$ vegetation



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

KN0129 B
 ADEC Subsegment Length: 305m
 METERS

0 100 200
 AK State Plane Zone 4
 4401295



Subdivision Field Map
 Map Key: KN0129B
 Name: D.I. LITTLE
 Date: 07/27/91
 Date Entered:

MAYSAP BIOLOGICAL SUMMARY FORM

W. J. M. 111
 submitted - OK
 4/27/91

TEAM # 6 DATE 4/27/91
 SEGMENT # (KN-129) TIDAL HEIGHT (Range) +5 1/2 to 2 feet
 SUBDIVISION B BIOLOGIST T.R. Schneider
 SEA STATE Calm WIND SPEED/DIRECTION NE 10
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

(+ 1, 2, 3) = Extensive areas help regrowth occurring in LITZ.
 End of grass, worms, snails and snail egg clusters under
 rocks. Small ligules present on rocks. Intertidal
 community flourishing.

(C) = SOR present in grass bed along and stream.
 growing estuarine plant system near stream would
 be very intrusive and could destabilize
 stream bank.

(D & E) = Intertidal community below SOR is very healthy.
 + subsurface small barnacles and littorine snail egg masses
 present on or under rocks.

Intertidal communities are very healthy and flourishing.
 Even with considerable freshwater runoff percolation through
 area containing subsurface oil no dieback was
 occurring in streams. Some small manual findings
 could be done on (D) but subsurface oil and SOR
 in grass bed at (C) should be left alone. Any major
 work on these would be more intrusive and potentially
 destructive to anadromous stream than remaining oil.

WILDLIFE OBSERVATIONS TO BE COMPLETED IN ALL SUBDIVISIONS

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

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

Shoreline subdivision map showing important biological features attached.

ORIGINAL COPY

KN-129-B

4/27/95

Bio. Map

T.R. Schroeder

1730-1820

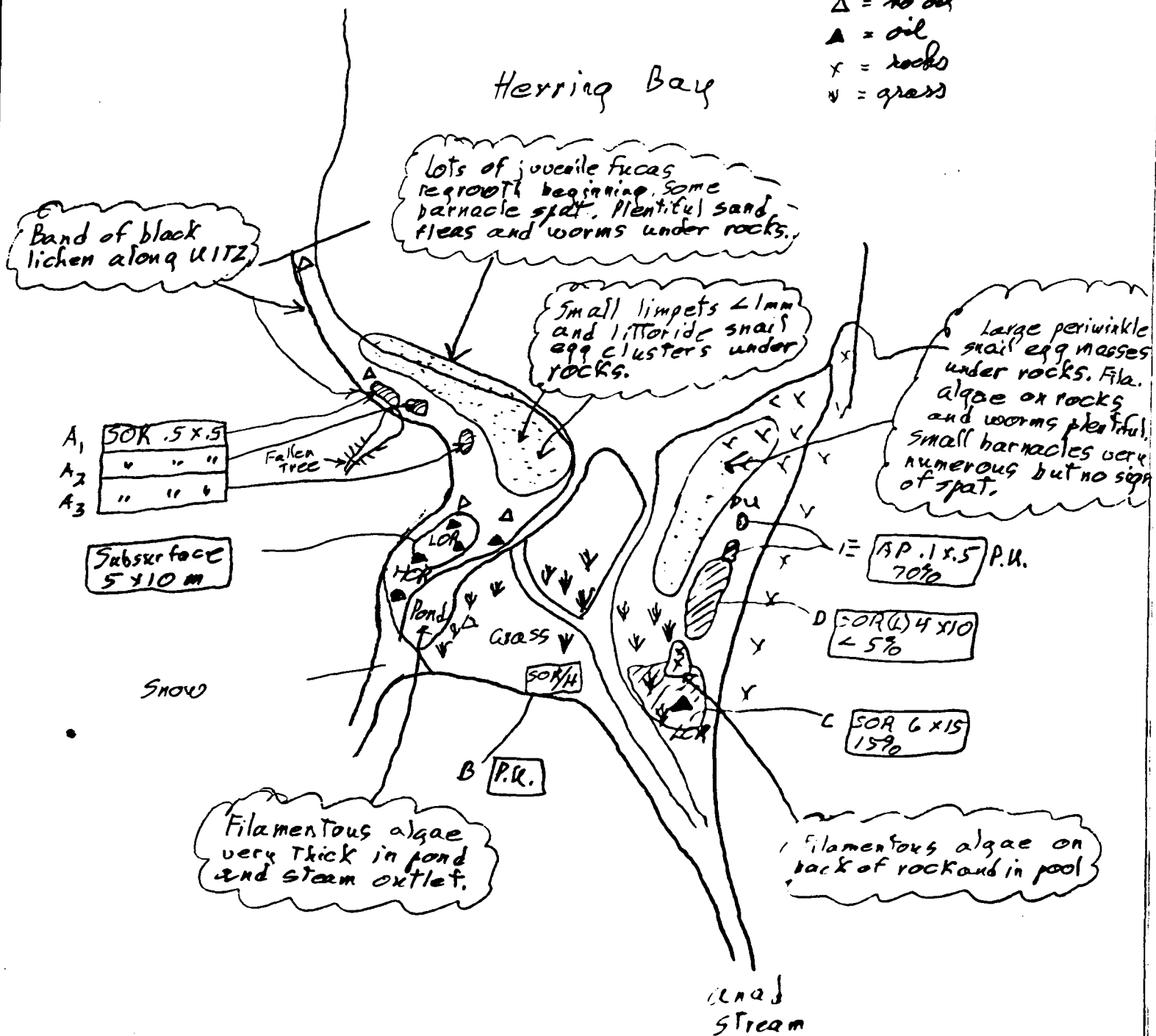
Δ = no oil

$\blacktriangle$ = oil

x = rocks

v = grass

Herring Bay



Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 15
Photographer P. Berca 3. #577
Location _____
Comments Surface and residue.

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 17
Photographer P. Berca 4577
Location _____
Comments View from boulders looking down towards the water.

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 16
Photographer P. Berca 4577
Location _____
Comments Overview of track looking upstream.

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No KN129 Subdivision B
Date 4/27/91 Log Frame No 18
Photographer P. Berca 4577
Location _____
Comments Pit #2 in gravel near stream in road bank snowmelt showing sub-surface oil

Roll No MAYSAP- 6-01 Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Segment No _____ Subdivision _____
Date _____ Log Frame No _____
Photographer _____
Location _____
Comments _____

Roll No MAYSAP- Neg. No _____
Control No _____ (Office Use Only)

Photo locations



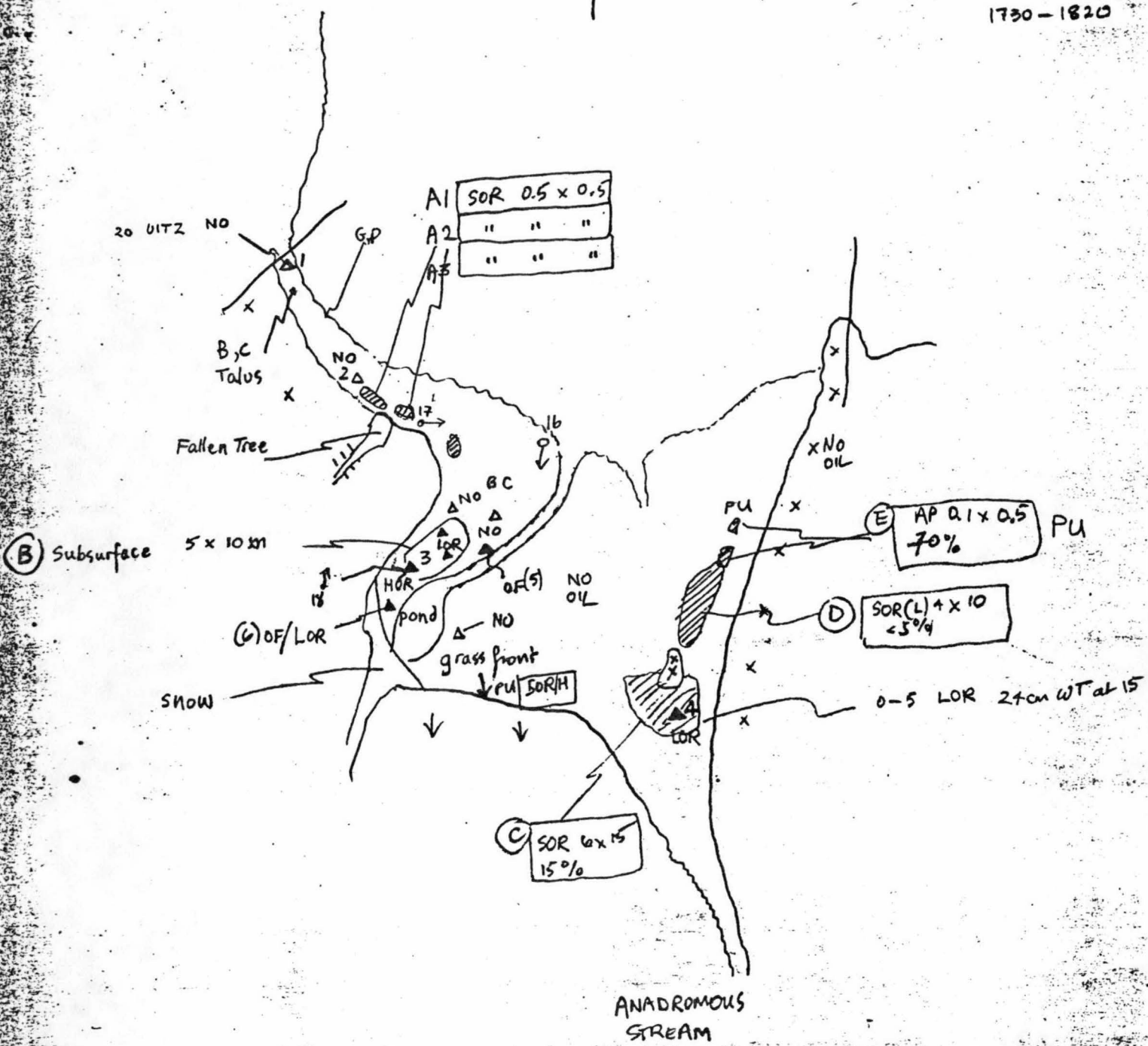
KN-129-B

04/27/91

OG map

D.I. Little

1730-1820





MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT LN-129 SUBDIVISION B DATE 04/27/91

ADEC Representing ADEC & USFS

NAME Aimee Weseman ADFIG SIGNATURE Aimee Weseman☐ NTR ☒ Treatment Recommended - Anadromous fish stream, commercial tourism desig.

The 5x8m oil lense (HOR→LOR 15-18cm) on the west side of the stream should be manually removed & tilled. This area is adjacent to the stream, slopes towards it & is an unstable nature. There exists the possibility of it migrating into the stream bed & spawning areas. A small crew with shovels could readily handle the work. The small patches of scattered AP sediments on the east side of the stream should also be picked up at that time (areas E & D).

EXXON

NAME Scott A. Nauman

SIGNATURE

Scott A. Nauman☒ NTR

Very healthy intertidal zone with essentially no remaining surface oil. Vast majority of subsurface region free of oil. Small patches of primarily LOR/OF do not warrant treatment. Extensive grass bed at the head of the stream. Would definitely not recommend further intrusion for surveys/treatment.

LANDMANAGER ADFIG

NAME TOM CROWEOF ADFIG

SIGNATURE

Tom Crowe☐ NTR☒ TREATMENT RECOMMENDED

BURIED OIL LENSE ADJACENT TO STREAM NEAR THE POND SHOULD BE MANUALLY TILLED AND EXPOSED OIL SHEEN MOPPED UP WITH SORBANT POMPONS. EXPOSED HOR AND LOR SEDIMENTS SHOULD BE PICKED UP AND OR TILLED. THIS WORK COULD EASILY BE ACCOMPLISHED BY A SMALL CREW IN A SHORT AMOUNT OF TIME.

USCG/NOAA

NAME CWORKSPOTT/ Rebecca Hoff

SIGNATURE

R.P. Spurr / Rebecca Hoff☐ NTR

Subsurface oil in gravel berm (pits #3 & 8) could represent a potential source to the stream. Gravel in this area could be manually tilled to allow subsurface weather. However, this could increase exposure to organisms in the stream in the short term. Since no current pathway was noticed (ie no sheening) even with extensive freshwater runoff, this area could be left alone to weather slowly.

Do not recommend any activities in vegetated areas in upper intertidal. Some bare areas where sediments were removed have not recolonized with grasses (between pit 4 & D). If other treatment is undertaken, asphalt patches in E could be picked up. Otherwise this would not be warranted.

ADEC Comments cont....

4-27-91 Aimee Weseman



5/13/91

Discrepancy comments

K2

Review

KN129 B - 226 10 16975

HAB

pit 3	15-18	HOL
4	2-5	HOL
5	7-10	HOL

OG

pit 3	15-18
4	0-5
5	0-10

(appear to be OG-pits.)

contains 5 more sites.

Why are these pits listed
on MAD form?

1991 STREAM FILE LOG HABITAT

STREAM CATALOG # : 226-10-116975
STREAM NAME : Knight Cleveland

LOCATION : P.W.S.
SEGMENT : KN-129B

[illegible]

ADF&G MULTI ASSESSMENT DATA FORM (1992-A)

ANAD Fin

ASC#: 226-10-16975DATE: 5/22/92RECORDER: Aimee WesemanSEGMENT#: KN129 SUB#: BTIME: 1315 - 1338OBSERVERS: M Kuwada, K Sandet, M FinkLOCATION: Herring Bay, Knight IWAVE EXPOSURE: H M (L)AGENCIES: ADF&GPWS

PHOTOS ? : Y N

ROLL#: P98mf001vFRAMES: 20-24OIL W/I 50M OF STREAM ? : (Y) N

VIDEOS ? : Y N

TAPE#: _____

METER#: _____ - _____

OIL IN STREAM ? : Y (N)

SAMPLES ? : Y N

ID#: _____

ANADROMOUS FISH ? : Y (N)SUBSTRATE %: BEDROCK _____ BOULDER ✓ GRAVEL ✓ SAND ✓ COBBLE ✓ MUD/SILT ✓

SITE#	TYPE	L (m)	W (m)	DEPTH INT (cm)	%	THICK	OIL TYPE	SITE COMMENTS
A	surface	5	4		5	2cm	MSOR	east side of stream - remnants of oil soaked sod - grass is dead, not growing back
B	subsurf	2	4	0-10			H/MOR	west side - immediately adjacent to pond.

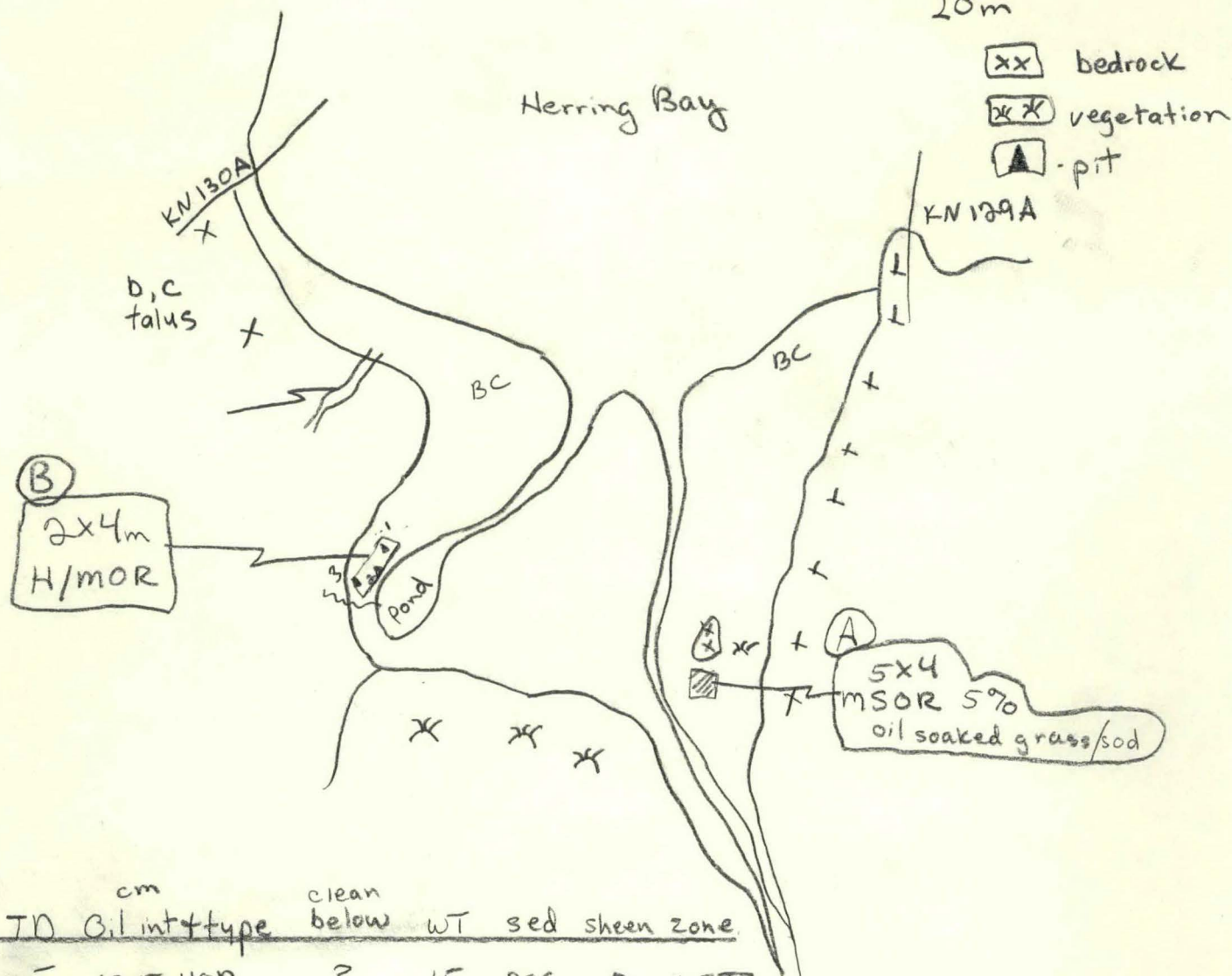
COMMENTS: This site received manual treatment from 89-91, and is generally in good shape. Site B immediate adjacent to the "pond" benefited greatly from last years "tilling", reducing the oiled area from 4x8m to 2x4-H/MOR. Due to its proximity to the stream & aquatic life in the pond, it is recommended that this area receive a manual tilling. On the east side; the remaining oiled sod (dead) should be removed. The grass is not growing back.

ANAD-Fin-ADF+G
KN 129-B weseman

ASC# 226-10-16975

5-22-92 1315-1338

0 20
20m



Pit#	TD	cm G.I. int + type	clean below	WT	sed	sheen zone
B-1.	15	10-15 HOR	?	15	PSC	B MITZ
B-2.	15	3-5 MOR	?	13	PSC	S MITZ
B-3.	15	0-10 HOR	?	10	PSC	B MITZ

water table hampered exact measurement of
thickness of oil lense.

ADF&G MULTI ASSESSMENT DATA FORM (1992-A)

ANAD Fin

ASC#: 226-10-16935DATE: 5/22/92RECORDER: Aimee WesemanSEGMENT#: KN129 SUB#: BTIME: 1215 - 1338OBSERVERS: M Kuwada, K Sundet, M FinkLOCATION: Herring Bay, Knight IWAVE EXPOSURE: H M (L)AGENCIES: ADF&GPWS

PHOTOS?: Y N

ROLL#: P90MFO01VFRAMES: 20-24OIL W/I 50M OF STREAM?: (Y) N

VIDEOS?: Y N

TAPE#: _____

METER#: _____ - _____

OIL IN STREAM?: Y (N)

SAMPLES?: Y N

ID#: _____

ANADROMOUS FISH?: Y (N)SUBSTRATE %: BEDROCK _____ BOULDER ✓ GRAVEL ✓ SAND ✓ COBBLE ✓ MUD/SILT ✓

SITE#	TYPE	L (m)	W (m)	DEPTH INT (cm)	%	THICK	OIL TYPE	SITE COMMENTS
A	surface	5	4		5	2cm	MSOR	east side of stream - remnants of oil soaked sod - grass is dead, not growing back
B	subsurf	2	4	0-10			H/MOR	west side - immediately adjacent to pond.

COMMENTS: This site received manual treatment from 89-91, and is generally in good shape. Site B immediate adjacent to the "pond" benefited greatly from last years "tilling", reducing the oiled area from 4x8m to 2x4 H/MOR. Due to its proximity to the stream & aquatic life in the pond, it is recommended that this area receive a manual tilling. On the east side; the remaining oiled sod (dead) should be removed. The grass is not growing back.

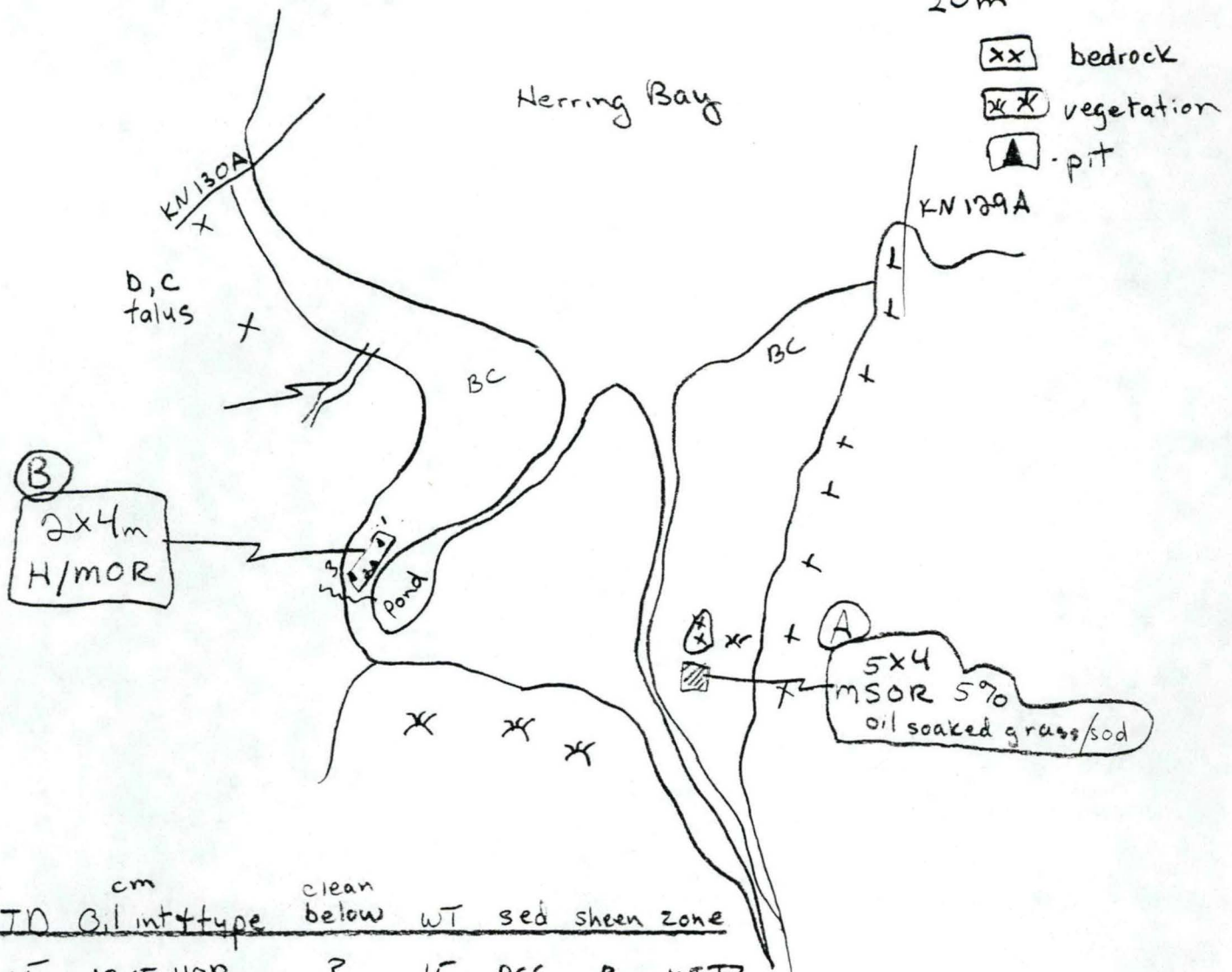
ANAD-Fin-ADP4G
KN 129-B wesemav

ASC# 226-10-16975

5-22-92 1315-1338

0 20
20m

xx bedrock
x x vegetation
▲ pit



Pit#	TD	cm Oil int & type	clean below	WT	sed	sheen	zone
B-1.	15	10-15 HOR	?	15	PSC	B	MITZ
B-2.	15	3-5 MOR	?	13	PSC	S	MITZ
B-3.	15	0-10 HOR	?	10	PSC	B	MITZ

water table hampered exact measurement of
thickness of oil lense.

Entry 5/29/92 kg

2261016975 segment: KN129 B location: KNIGHT ISLAND, HERRING BAY, SOUTH ARM
H89: H SCAT 89: H/M DEC Fall Walk: H
H90: M/H
H91: L/M (SUBSURFACE)

05/22/92		ANADFIN		agency: HAB		WESEMAN		OIL w/i 50m: Y		OIL IN STREAM: N	
record#	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS					
4090	A	4 x5 SURFACE	5	2	MSOR	EAST SIDE OF STREAM: REMNANTS OF OIL-SOAKED SOD. GRASS IS DEAD, NOT GROWING BACK.					
4091	B	3 x2 SUBSURF			HOR MOR 0-10	WEST SIDE, IMMEDIATELY ADJACENT TO POND.					
4092	B01	PIT			HOR 10-15						
4093	B02	PIT			MOR 3-5						
4094	B03	PIT			HOR 0-10						
OG/HAB COMPARISON: COMMENTS: THIS SITE RECEIVED MANUAL TREATMENT FROM 1989-1991, AND IS GENERALLY IN GOOD SHAPE. SITE B IMMEDIATELY ADJACENT TO THE 'POND' BENEFITTED GREATLY FROM LAST YEAR'S 'TILLING', REDUCING THE OILED AREA FROM 4X8M TO 2X4M H/MOR. DUE TO ITS PROXIMITY TO THE STREAM AND AQUATIC LIFE IN THE POND, IT IS RECOMMENDED THAT THIS AREA RECEIVE A MANUAL TILLING. ON THE EAST SIDE, THE REMAINING OILED SOD (DEAD) SHOULD BE REMOVED. THE GRASS IS NOT GROWING BACK. WATER TABLE HAMPERED EXACT MEASUREMENT OF THICKNESS OF OIL LENSE.											

2261016975

KN129 B

KNIGHT ISLAND, HERRING BAY, SOUTH ARM