

KN129A ASC: NONE site #1
South Arm Herring Bay

ACE 1369621

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

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

____ '90 Pre-Anadscat Survey, multi-assessment form
____ '90 Anadscat Survey
____ '90 Anadromous Fish Stream Evaluation (work order)
____ '90 Anadromous Fish Stream Addendum to work order
____ '90 Shoreline Evaluation, SAT and work order for segment
____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. 5, 1991)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (Feb. 1991)
____ '90 Other Documents _____



ANADROMOUS FISH STREAMS/OILING CONDITION

PWS

226 Uncat08

Segment # KN129A ASC# UNDOCUMENTED Location KNIGHT IS.

Date 8/15/90 Recorder/Observer R. Gusten / T. Crowl

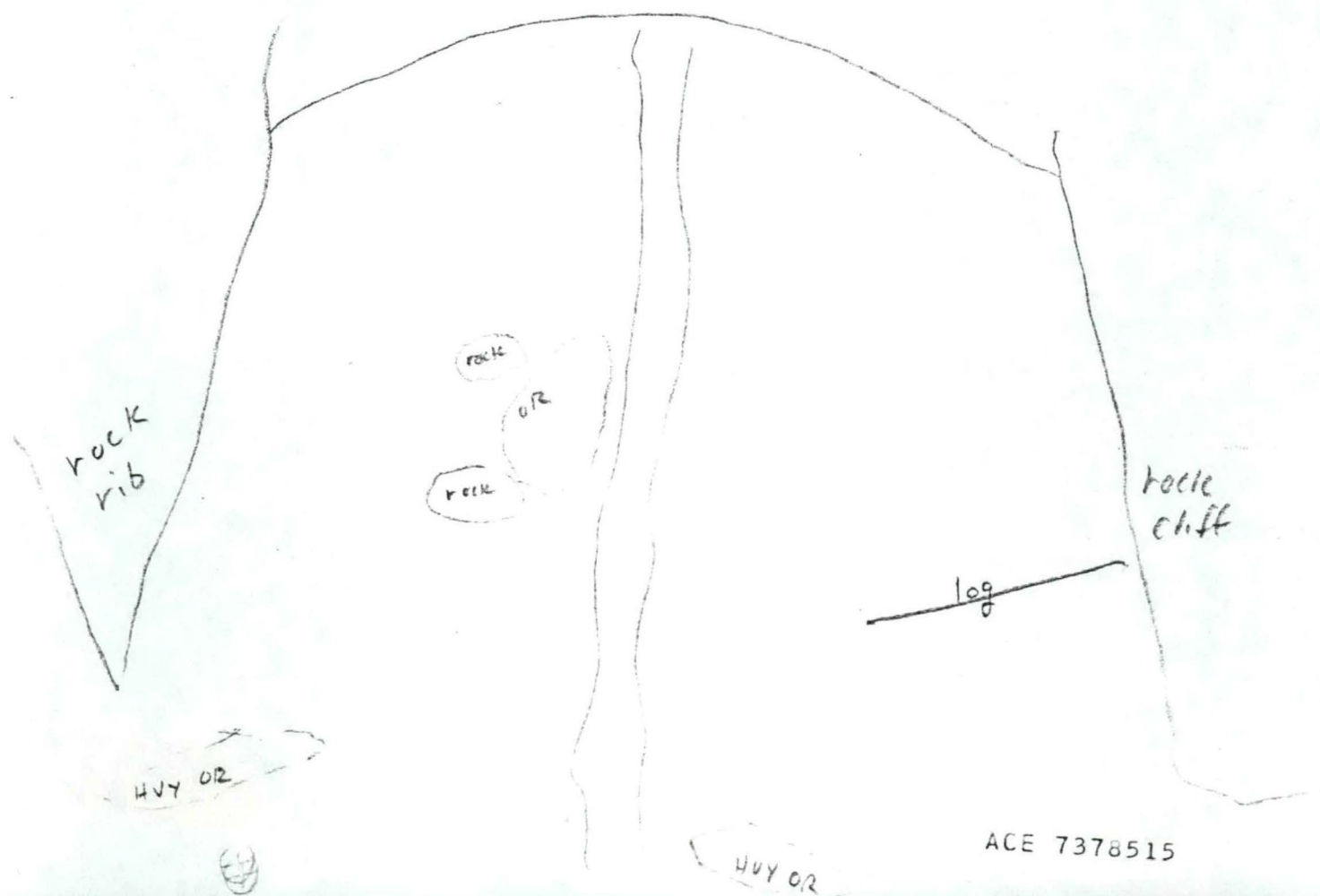
Oil in streambed Yes Oil on streambanks Yes

Oil within 50m of mouth Yes Anadromous Fish present Yes

Description of oil and comments oiling band runs in several
places on the beach. Band of tar/mat/mousse in
under intertidal both sides of stream. Also there
are remains of heavy OR Oschements between large boulders
near east side of stream. This stream also has bands of
heavy OR in the Lower ITZ on both sides of the stream
It has been continuously missed by work crews as
the tide must be low to reach the oiled areas.

100 pilers milling intertidally. in stream

Oil Distribution Diagram





226 UNCAT 08

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 Ceonk
- 5) START TIME: 1835 17) HIGH TIDE HTS: _____ 23) OBSERVERS: Aimee Weseman
- 6) STOP TIME: 1950 18) LOW TIDE TIMES: 1900-1930 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129A 19) LOW TIDE HTS: +1.5 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +1.8 to +1.5 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ (Ebb) Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: UNCAT LOGGED START: _____ STOP: _____
- 12) STREAM NAME: None 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: HEERING BAY KNIGHT ISLAND SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate (Low) _____
- 15) SHORELINE TYPE: Headland Low-lying Rocks (Beach) _____
- (Cove) Lagoon Marsh _____

28) EXTENT OF OIL

	DEPTH LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 <u>pit</u>	35 cm				<u>2-3 cm</u>	<u>3</u>	HOR
SITE 2 <u>pit</u>	30 cm						AOR
SITE 3 <u>pit</u>	30 cm						HOR
SITE 4 <u>pit</u>	12 cm						HOR
SITE 5 <u>pit</u>	5 cm						HOR

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
- (N) = could not be determined

30) OIL IN STREAMBED: Y N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 50% Gravel 30% Sand 10% Cobble 10% Mud/Silt _____

35) COMMENTS: RECOMMEND MECHANICAL TILLING WITH ≤ 1450 CAT WITH RAKER BAR.NO SURFACE OIL SEEN. (from map)SUBSURFACE OILING. (from map)THE OIL OCCURRING AT THIS STREAM SITE CONSISTED MAINLY OF SUBSURFACE DEPOSITS. SEE SITE #1 #2 ON MAP.33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

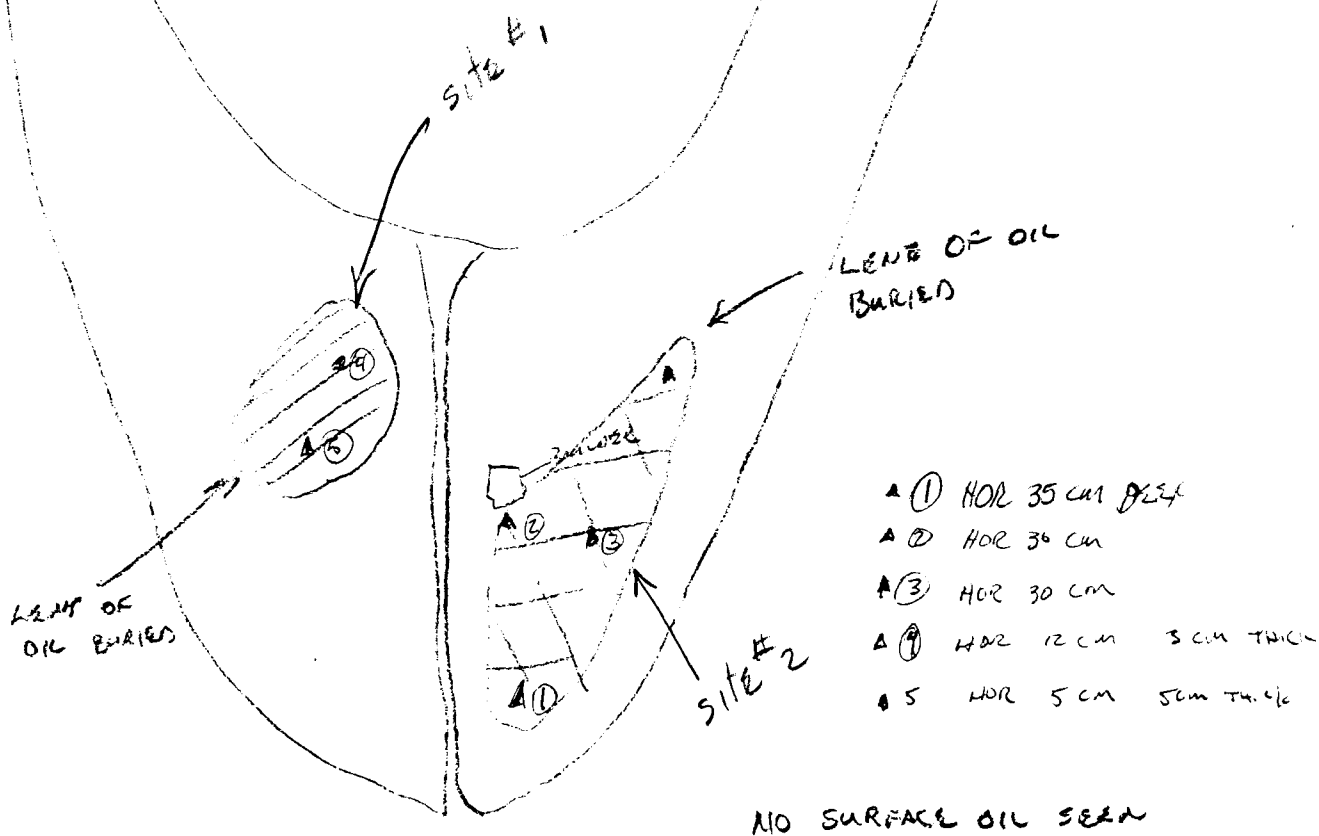
Species _____ Number _____

sea otter 1

KN 129A

UNLOCATED

4/27/91





226 UNCAT08

ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS ☒ CS TS AVS SC-A MMS PTA 2 REGION: ☒ PWS KP,CI K,AP

METHOD: Aerial ☒ Ground Boat

3 DATE: 11-24-96 15 HIGH TIDE TIMES: / 21 TEAM RECORDER: R. Gustin

4 START TIME: 0953 16 HIGH TIDE HTS: / 22 OBSERVERS: A. W. Wynn

5 STOP TIME: 1011 17 LOW TIDE TIMES: / 23 AGENCY: ADFG

6 SEGMENT #: KN124X 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#: Start: 209 End: 235

9 STAT AREA: 20 USCG QUAD: 26 SAMPLES TAKEN? Y ☒ N Number

10 LAT: 11 LONG: Oil

12 SOURCE: ☒ Map Loran Sediment

13 LOCATION: south arm Henning Bay Biological

14 DESCRIPTION: 16144 J. Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	1-2mm	1-2cm						
29 PENETRATION	Shallow	10cm						
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	40	Cobble	35			
	Gravel	35%	Sand	Mud/silt				

36 CATALOGED ANAD. FISH STREAM? Y ☒ N

37 CATALOG #: NONE

38 STREAM NAME:

39 OIL IN STREAM BED? Y ☒ N

40 OIL ON STREAM BANKS? ☒ Y ☒ N

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

42 OIL WITHIN 1 MILE OF STREAM? ☒ Y ☒ N

Where:

43 ANADROMOUS FISH PRESENT? Y ☒ N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: submerged oil on east bank of stream
 scattered patches / oiled gravel oiled area primarily east
 bank - upper & mid TIZ Mixed organic/oil stream
 Seen at water edge 30-40' long

ACE 7378571 +/S

Recommendations

Perform work during proper tide window 0 → minus, if possible

Remove oiled gravels, patties etc along east side of creek.

Survey entire beach area and remove oiled vegetation or isolated oil patties where found.

Use Bolson Process in boulders on west bank of stream in the upper intertidal where oiled.

Till areas after removal of oiled gravels/sediments

KN 1295
uncatalogued

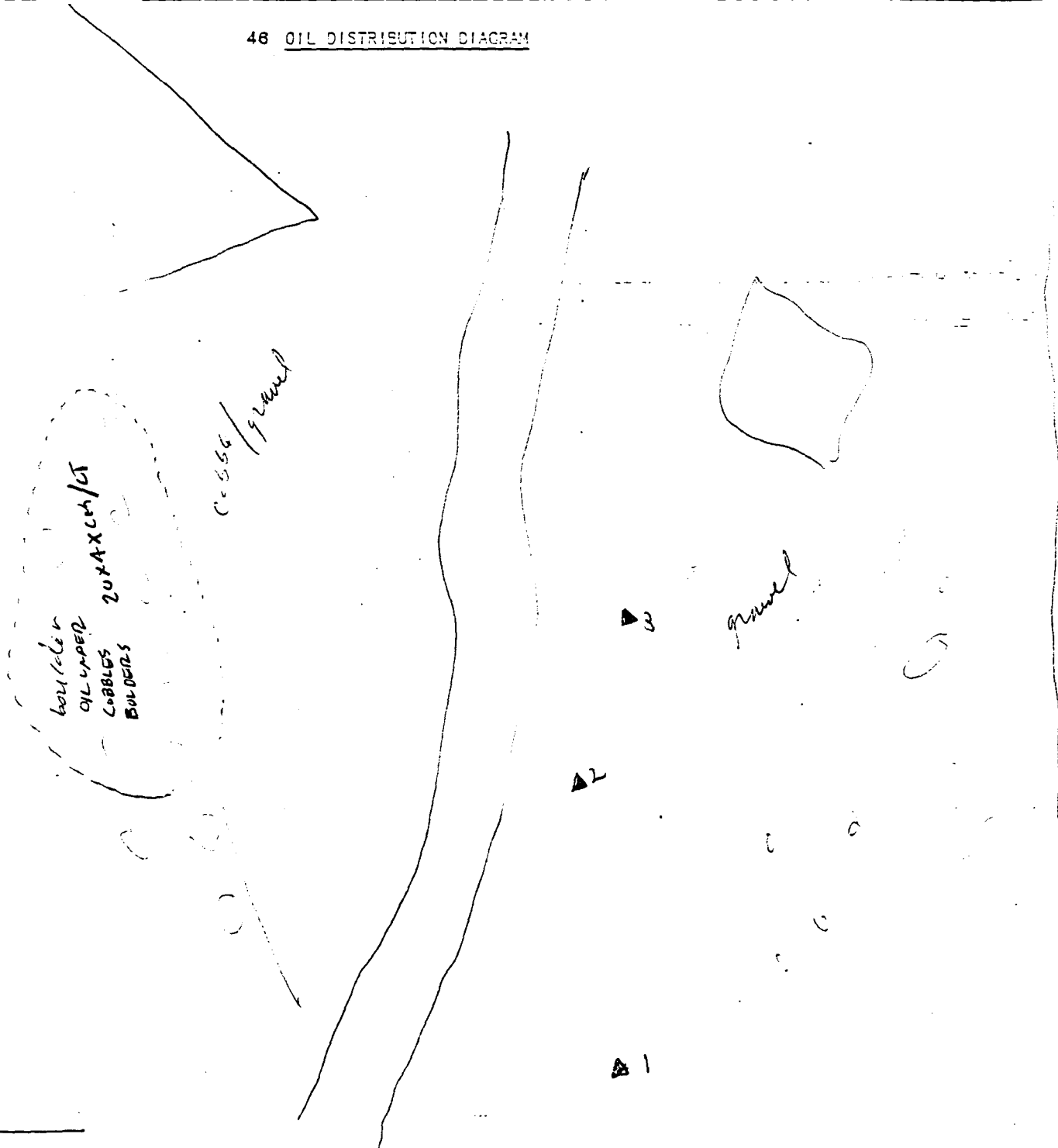
45 PHOTOLOG

E(S)

DESCRIPTION

pit #1	20 cm deep	no beneath oil
pit #2	15 cm	seen in water at bottom
pit #3	32 cm	10 cm oil deep surface area
pit #4	25 cm	no oil

46 OIL DISTRIBUTION DIAGRAM



sample taken
photo frame # and
shot direction.

ACE 7378573

NUMBER: SEGMENT NUMBER: *KU/294* YR CATALOGED:
 ATION:
 STREAM NAME: LATITUDE:
 KODIAK K-UNIT: LOCAL STREAM #: LONGITUDE:
 USGS QUADRANGLE: LEGAL:
 SHORELINE TYPE: ALL SEGMENTS:
 WAVE EXPOSURE:

ASC NUMBER: *Uncat*
 SURVEY TYPE:
 METHOD:
 DATE: *4/24/90*
 START TIME:
 STOP TIME:

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

SAMPLES TAKEN?

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

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	<i>20</i>	<i>4</i>					<i>CT</i>
SITE 2						<i>.10</i>	<i>TB/2R</i>
ITE 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*

Recommendations — Perform work during tide window 0 → minus if possible

Remove oiled gravels, pathies, etc along east side of creek.

Survey entire beach area and remove oiled vegetation or isolated oil pathies where found.

Use Bolzing Process in boulders on west bank of stream on the upper intertidal where oiled.

Till areas after removal of ~~oiled~~ oiled gravels/sediments.

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
04/24/90	ANADSCAT	1	BOTH			OR 0-10	EAST SIDE: MITZ - OIL SURFACE DOWN TO 10CM. IN PIT 3, PIT 2 HAS SHEEN ON WATER TABLE 15CM DOWN.
04/24/90	ANADSCAT	2	4 x 20 SURFACE			CT	WEST SIDE: UITZ.
MAD vs. OG: COMMENTS: SUBMERGED OIL ON EAST BANK OF STREAM. SCATTERED PATTIES/OILED GRAVEL OILED AREAS PRIMARILY EAST BANK - UPPER AND MID ITZ. MIXED ORGANIC/OIL SHEEN SEEN AT WATERS EDGE, 30 - 40' LONG. RECOMMENDATIONS: PERFORM WORK DURING PROPER TIDE WINDOW 0 - MINUS IF POSSIBLE. REMOVE OILED GRAVELS, PATTIES ETC. ALONG EAST SIDE OF CREEK. SURVEY ENTIRE BEACH AREA AND REMOVE OILED VEGETATION OR ISOLATED OIL PATTIES WHERE FOUND. USE BOLISING PROCESS IN BOULDERS ON WEST BANK OF STREAM ON THE UPPER INTERTIDAL WHERE OILED. TILL AREAS AFTER REMOVAL OF OILED GRAVELS/SEDIMENTS.							

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
04/24/90	OG'S ANADSCAT	1	5 x 10 BOTH	51-90		AP OR 5-10	EAST SIDE OF STREAM - MITZ AND UITZ - BROKEN AP AND OR, 5-10CM.
04/24/90	OG'S ANADSCAT	2	4 x 20 SURFACE	11-50		CV	WEST SIDE OF STREAM - PATCHY COVER ADJACENT TO STREAM BANK.
MAD vs. OG: MAD FORM DOES NOT SHOW AP ON SITE 1, OG DOES. ONLY 4 PITS DUG - LOTS OF SUBSURFACE OIL <u>UNCOVERED</u>. COMMENTS:							

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
08/15/90	PRE-ASAP	1	BOTH			AP MS	BAND OF TARMAT/MOUSSE IN UITZ ON BOTH SIDES OF STREAM.

08/15/90	PRE-ASAP	2	BOTH			OR	EAST SIDE: REMAINS OF HEAVY 'OR' SEDIMENTS BETWEEN LARGE BOULDERS.
08/15/90	PRE-ASAP	3	SURFACE			OR	BANDS OF HEAVY 'OR' IN LITZ ON SIDES OF STREAM. NO DIMENSIONS AVAILABLE FOR SITES.

MAD vs. OG:

COMMENTS:

OILING BAND RUNS IN SEVERAL PLACES ON THE BEACH. BANK OF TARMAT/MOUSSE IN UPPER INTERTIDAL BOTH SIDES OF STREAM. ALSO THERE ARE REMAINS OF HEAVY 'OR' SEDIMENTS BETWEEN LARGE BOULDERS NEAR EAST SIDE OF STREAM. THIS STREAM ALSO HAS BANDS OF HEAVY 'OR' IN THE LOWER ITZ ON THE SIDES OF THE STREAM. IT HAS BEEN CONTINUOUSLY MISSED BY WORK CREWS AS THE TIDE MUST BE LOW TO REACH THE OILED AREAS. 100 PINKS MILLING INTERTIDALLY IN STREAM. OIL OBSERVED ON STREAM BANKS. REASSESS SPRING 1991.

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
04/21/91	MAYSAP	1	PIT		3	HOR	EAST SIDE.
04/21/91	MAYSAP	2	PIT		3	HOR	EAST SIDE.
04/21/91	MAYSAP	3	PIT		3	HOR	EAST SIDE.
04/21/91	MAYSAP	4	PIT		3	HOR	WEST SIDE.
04/21/91	MAYSAP	5	PIT		5	HOR	WEST SIDE.

MAD vs. OG:

COMMENTS:

RECOMMEND MECHANICAL TILLING WITH D450 CAT WITH RAKER BAR. NO SURFACE OIL SEEN. (FROM MAP) SUBSURFACE OILING (FROM MAP). THE OIL OCCURRING AT THIS STREAM SITE CONSISTED MAINLY OF SUBSURFACE DEPOSITS. SEE SITE #1,2 ON MAP. EAST SIDE OF STREAM - AREA OF SUBSURFACE OIL - L TO UITZ - HOR UNDER CLEAN, 3-5CM THICK WEST SIDE OF STREAM - AREA OF SUBSURFACE OIL - MITZ 3-5CM THICK.

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
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07/31/91	POST TREATMENT	4	PIT			NONE	
07/31/91	POST TREATMENT	6	PIT			LOR	NO OBVIOUS OIL LENSE
07/31/91	POST TREATMENT	7	PIT			NONE	
07/31/91	POST TREATMENT	A	34 x 8 SURFACE	5	2.5	LSOR	
07/31/91	POST TREATMENT	A12	PIT			PRESENT	WATER TABLE HAMPERED VISUAL EXAM ON PIT
07/31/91	POST TREATMENT	B	6 x 10 SUBSUR		10	HOR OP	
07/31/91	POST TREATMENT	B10	PIT			HOR OP 0-9	WATER TABLE PREVENTED CLEAR OBSERVATION
07/31/91	POST TREATMENT	B11	PIT			HOR 0-5	
07/31/91	POST TREATMENT	B8	PIT			HOR 0-15	
07/31/91	POST TREATMENT	B9	PIT			HOR OP 0-14	WATER TABLE PREVENTED CLEAR OBSERVATION
07/31/91	POST TREATMENT	C	8 x 6 SUBSUR		9	HOR MOR	
07/31/91	POST TREATMENT	C1	PIT			HOR 6-12	2 OIL BANDS
07/31/91	POST TREATMENT	C1	PIT			HOR 21-24	2 OIL BANDS
07/31/91	POST TREATMENT	C2	PIT			HOR 3-7	2 OIL BANDS

07/31/91	POST TREATMENT	C2	PIT			HOR 15-20	2 OIL BANDS
07/31/91	POST TREATMENT	C3	PIT			HOR 9-13	2 OIL BANDS
07/31/91	POST TREATMENT	C3	PIT			HOR 24-29	2 OIL BANDS
07/31/91	POST TREATMENT	D	4 x 4 SUBSUR		8	HOR	
07/31/91	POST TREATMENT	D5	PIT			HOR 2-15	
07/31/91	POST TREATMENT	D5	PIT			HOR 12-15	2 OIL BANDS
07/31/91	POST TREATMENT	D5	PIT			HOR 2-7	2 OIL BANDS

MAD vs. OG:

COMMENTS:

MAJORITY OF OIL ON BEACH IS SUBSURFACE AND HEAVIEST OIL RESIDES IN LITZ. LITZ PERIODICALLY MISSES TREATMENT DUE TO BEING COVERED BY WATER MOST OF THE TIME. OIL ON WEST SIDE OF STREAM (AREAS C AND D) IS CONTAINED IN 2 DISTINCT OIL LENSES. THE 1ST LENSE IS APPROX 5CM FROM TOP. IT IS 5CM THICK FOLLOWED BY 10CM OF CLEAN SUBSTRATE AND THEN ANOTHER 5CM OF LENS. THE OILED AREAS WOULD BENEFIT FROM A THOROUGH MECHANICAL OR MANUAL TILLING. REASSESS IN 1992. *SURVEY FOCUSED ON DOCUMENTED OIL, TREATED IN 1991.

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
04/24/90	ANADSCAT	1	SURFACE subsurface		10	OR 0-10	EAST SIDE OF STREAM. MITZ OIL SURFACE DOWN TO 10CM. in pit 3, pit 2 has sheen on water table 15cm down
04/24/90	ANADSCAT	2	4 x 20 SURFACE			CT	WEST SIDE OF STREAM MITZ

MAD vs. OG:
 COMMENTS:
 SUBMERGED OIL ON EAST BANK OF STREAM. SCATTERED PATTIES/OILED GRAVEL OILED AREAS PRIMARILY EAST BANK - UPPER AND MID ITZ. MIXED ORGANIC/OIL SHEEN SEEN AT WATERS EDGE, 30 - 40' LONG. RECOMMENDATIONS: PERFORM WORK DURING PROPER TIDE WINDOW 0 - MINUS IF POSSIBLE. REMOVE OILED GRAVELS, PATTIES ETC. ALONG EAST SIDE OF CREEK. SURVEY ENTIRE BEACH AREA AND REMOVE OILED VEGETATION OR ISOLATED OIL PATTIES WHERE FOUND. USE BOLDSING PROCESS IN BOULDERS ON WEST BANK OF STREAM ON THE UPPER INTERTIDAL WHERE OILED. TILL AREAS AFTER REMOVAL OF OILED GRAVELS/SEDIMENTS.

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04/24/90	OG'S ANADSCAT	1	5 x 10 SURF/SUB	51-90	10	AP OR 5-10cm	EAST SIDE OF STREAM - MITZ AND UITZ - BROKEN AP AND OR, 5-10CM.
04/24/90	OG'S ANADSCAT	2	4 x 20 SURF/SUB	11-50		CV	WEST SIDE OF STREAM - PATCHY COVER ADJACENT TO STREAM BANK.

MAD vs. OG: MAD FORM DOES NOT SHOW AP ON SITE 1, OG DOES. 4PITS DUG - LOTS OF SUBSURFACE OIL UNDISCOVERED.
 COMMENTS: only

CATALOG NUMBER: 226UNCAT08 SEGMENT#: KN129 A 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
08/15/90	PRE-ASAP	1	SURFACE			AP MS	BAND OF TARMAT/MOUSSE IN UITZ ON BOTH SIDES OF STREAM.

08/15/90	PRE-ASAP	2	SURFACE <i>subsurface</i>		OR	EAST SIDE: REMAINS OF HEAVY 'OR' SEDIMENTS BETWEEN LARGE BOULDERS.
08/15/90	PRE-ASAP	3	SURFACE <i>subsurface</i>		OR	BANDS OF HEAVY 'OR' IN LITZ ON SIDES OF STREAM. NO DIMENSIONS AVAILABLE FOR SITES.

MAD vs. OG:

COMMENTS:

OILING BAND RUNS IN SEVERAL PLACES ON THE BEACH. BANK OF TARMAT/MOUSSE IN UPPER INTERTIDAL BOTH SIDES OF STREAM. ALSO THERE ARE REMAINS OF HEAVY 'OR' SEDIMENTS BETWEEN LARGE BOULDERS NEAR EAST SIDE OF STREAM. THIS STREAM ALSO HAS BANDS OF HEAVY 'OR' IN THE LOWER ITZ ON THE SIDES OF THE STREAM. IT HAS BEEN CONTINUOUSLY MISSED BY WORK CREWS AS THE TIDE MUST BE LOW TO REACH THE OILED AREAS. 100 PINKS MILLING INTERTIDALLY IN STREAM. OIL OBSERVED ON STREAM BANKS. REASSESS SPRING 1991.

CATALOG NUMBER: 226UNCAT08

SEGMENT#: KN129 A

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
04/21/91	MAYSAP	1	PIT		3	HOR	<i>east side</i>
04/21/91	MAYSAP	2	PIT		3	HOR	<i>east side</i>
04/21/91	MAYSAP	3	PIT		3	HOR	<i>east side</i>
04/21/91	MAYSAP	4	PIT		3	HOR	<i>west side</i>
04/21/91	MAYSAP	5	PIT		<i>3 5</i>	HOR	<i>west side</i>

MAD vs. OG:

COMMENTS:

RECOMMEND MECHANICAL TILLING WITH D450 CAT WITH RAKER BAR. NO SURFACE OIL SEEN. (FROM MAP) SUBSURFACE OILING (FROM MAP). THE OIL OCCURRING AT THIS STREAM SITE CONSISTED MAINLY OF SUBSURFACE DEPOSITS. SEE SITE #1,2 ON MAP.

East side of stream - area of heavy subsurface oil - L to U ITZ - HOR under clean - 3-5 cm thick
West side of stream - area of subsurface oil - MITZ 3 to 5 cm thick.

CATALOG NUMBER: 226UNCAT08

SEGMENT#: KN129 A

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
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07/31/91	POST TREATMENT	4	PIT			NONE	
07/31/91	POST TREATMENT	6	PIT			LOR	NO OBVIOUS OIL LENSE
07/31/91	POST TREATMENT	7	PIT			NONE	
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07/31/91	POST TREATMENT	B10	PIT			HOR OP 0-9	WATER TABLE PREVENTED CLEAR OBSERVATION
07/31/91	POST TREATMENT	B11	PIT			HOR 0-5	
07/31/91	POST TREATMENT	B8	PIT			HOR 0-15	
07/31/91	POST TREATMENT	B9	PIT			HOR OP 0-14	WATER TABLE PREVENTED CLEAR OBSERVATION
07/31/91	POST TREATMENT	C	8 x 6 SUBSUR		9	HOR MOR	
07/31/91	POST TREATMENT	C1	PIT			HOR 6-12	2 OIL BANDS
07/31/91	POST TREATMENT	C1	PIT			HOR 21-24	2 OIL BANDS
07/31/91	POST TREATMENT	C2	PIT			HOR 3-7	2 OIL BANDS

07/31/91	POST TREATMENT	C2	PIT			HOR 15-20	2 OIL BANDS
07/31/91	POST TREATMENT	C3	PIT			HOR 9-13	2 OIL BANDS
07/31/91	POST TREATMENT	C3	PIT			HOR 24-29	2 OIL BANDS
07/31/91	POST TREATMENT	D	4 x 4 SUBSUR		8	HOR	
07/31/91	POST TREATMENT	D5	PIT			HOR 2-15	
07/31/91	POST TREATMENT	D5	PIT			HOR 12-15	2 OIL BANDS
07/31/91	POST TREATMENT	D5	PIT			HOR 2-7	2 OIL BANDS

MAD vs. OG:

COMMENTS:

MAJORITY OF OIL ON BEACH IS SUBSURFACE AND HEAVIEST OIL RESIDES IN LITZ. LITZ PERIODICALLY MISSES TREATMENT DUE TO BEING COVERED BY WATER MOST OF THE TIME. OIL ON WEST SIDE OF STREAM (AREAS C AND D) IS CONTAINED IN 2 DISTINCT OIL LENSES. THE 1ST LENSE IS APPROX 5CM FROM TOP. IT IS 5CM THICK FOLLOWED BY 10CM OF CLEAN SUBSTRATE AND THEN ANOTHER 5CM OF LENS. THE OILED AREAS WOULD BENEFIT FROM A THOROUGH MECHANICAL OR MANUAL TILLING. REASSESS IN 1992. *SURVEY FOCUSED ON DOCUMENTED OIL, TREATED IN 1991.

*Aest. oil on stream - LITZ - 8.6m HOR/OP - 3-5cm lenses with a gap between 4x4m HOR 2 lenses
 east side of stream - LITZ 6x10m HOR/OP 3 to 5cm thickness of oil LITZ 10m HOR 5%

transfere to O60K sheet.

PAGE

REC-DATE:

OG vs. MAD:

ASA

[illegible]

OG SUPPLEMENTAL INFO TO MAD

RECORDER: *Weseman* REC-DATE: *10/8/91*

REC-DATE: 10/8/91

PAGE

CATALOG NUMBER: uncatalogued. 271611 post 08

STREAM NAME: 226 W. H. C. 00

LOCATION: Hevinger Bay.

SEGMENT NUMBER: KN129A mod form does not show AP on site 1, OG does
SHORELINE TYPE: 4 units aug. lots of submergence

SHORELINE TYPE: 4 pits dug - lots of subsurface oil and grease and

DATE: 4/24/90 OG vs. MAD: 4/24/90 subsurface oil undiscov AD AJW

OG vs. MAD: *Philang-Holston* substantial oil undiscovered *OG*
X J.W.

[illegible]



RECORDER: Weseman

REC-DATE: 10/25/91

CATALOG NUMBER: *uncat*
STREAM NAME: *KN*
LOCATION:

2264NEXT Ø8

SEGMENT NUMBER: KN129A
SHORELINE TYPE: Cove
DATE: 4/24/91

MAY SAP

OG vs. MAD: - OG much more detailed

[illegible]

State of Alaska
Department of Fish and Game
Habitat Division

Page ___ of ___

Field Inspection Report

Date 5-30-90 Time 0810

Location: (Logging unit/Road/Waterbody) KN129 B A UNDOCUMENTED

Operator/Contractor: Exxon/Veco

Individuals present at time of inspection:

Name

Representing

John Hayes ADEC
JAN KRIEGER ADEC
RICK GUSTIN ADEG

BOB DAWSON VECO
AIMEE WESEMAN ADE

Activity/Situation Observed: CLEANUP

Some mod/heavy OR in lower intertidal on both sides
of stream could use a little more work. 6/1/90

Pertinent Statutes/Regulations: AK. Title 16 Statute

Recommended/Required Action (Specify):

Remove far mat
pick up oiled debris / filling

bio IF ADEG allows AS OF June 5 1990
ADEG still not satisfied with work here.

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 Tech 3
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 0810

Location: (Logging unit/Road/Waterbody) KN129 B A^{AW} UNDOCUMENTED

Operator/Contractor: Exxon/Veco

Individuals present at time of inspection:

Name Representing

<u>John Hayes</u>	<u>ADEC</u>	<u>BOB DAWSON</u>	<u>VECO</u>
<u>JAN KRIEGER</u>	<u>ADEC</u>	<u>AIMEE WESEMAN</u>	<u>ADFG</u>
<u>RICK GUSTIN</u>	<u>ADFG</u>		

Activity/Situation Observed: CLEANUP

Some mod/heavy OR in lower intertidal on both sides
of stream could use a little more work. 6/1/90

Pertinent Statutes/Regulations: AK. Title 16 Statute

Recommended/Required Action (Specify): Remove far mat
pick up oiled debris / filling
bio if ADFG allows AS OF June 5 1990
ADFG still not satisfied with work here.

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 Tech 3
Fish and Game Representative/Title

Company Representative/Title

Page of

Date 5-30-90 Time 0810

Location: (Logging unit/Road/Waterbody) KN129 ~~is~~ ~~AW~~ UNDOCUMENTED

Operator/Contractor: Exxon/Veco

Name

Representing

John Hayes ADEC

JAN KRIEGER AP EC

RICK GUSTIN ADTG

BOB DAWSON VECO

AIMEE LYSEMAN ADR

Activity/Situation Observed: CLEANUP

Same mod/heavy OR in lower intertidal on both sides
of stream could use a little more work. 6/1/90

Pertinent Statutes/Regulations: AK. Title 16 Statute

Recommended/Required Action (Specify):

Recommended/Required Action (Specify): Remove farmland
pick up oil/d debris / filling

11. Did IF ADFG allow? AS of June 5 1990
ADFG still not satisfied with work here.

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 Tech 3

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 0810

Location: (Logging unit/Road/Waterbody) KN129 ~~3~~ A^{AW} UNDOCUMENTED

Operator/Contractor: Exxon/Veco

Individuals present at time of inspection:

Name Representing

John Hayes ADEC

BOB DAWSON VECO

JAN KRIEGER ADEC

AIMEE WESEMAN ADEC

RICK GUSTIN ADEC

Activity/Situation Observed: CLEANUP

Some mod/heavy OK in lower intertidal on both sides
of stream could use a little more work. 6/1/90

Pertinent Statutes/Regulations: AK. Title 16 Statute

Recommended/Required Action (Specify):

Remove farm mat
pick up oiled debris / filling

bio if ADEC allows AS OF June 5 1990
ADEC still not satisfied with work here.

By (date) _____ (if applicable)

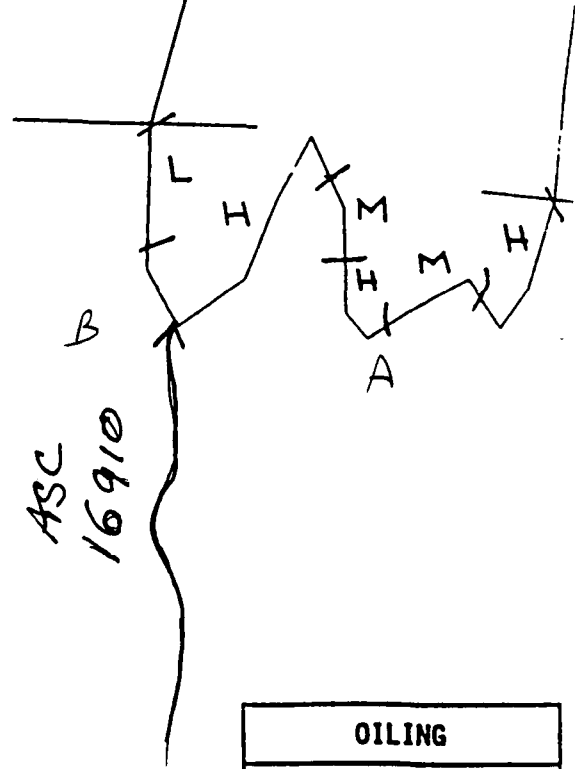
Please note: This is not a final inspection report. It is intended to provide the operator/contractor with a notice of problems or concerns which require immediate attention. If necessary, a final inspection report will be issued at a subsequent date.

Rick Gustin Tech 3
Fish and Game Representative/Title

Company Representative/Title

KN129

500.0



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

walk-a-tron

ACE 7378681

ADEC Sep/Oct 1989 Survey

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

Walk-a-thon

ACE 7378512
+IAC/RT

May 30, 1990

Rick Gustin

KN129A.RLG

ASC# NONE

KN129A AW

I arrived on the work site at approximately half past 8 o'clock after doing a quick survey of 129A. As John Hayes of ADEC and I approached the beach the prop wash of the OOSKIK landing craft had already kicked up enough sheen from the bottom sediments to create a sheen which covered 3\4's of the surface of the cove. The crew was working the upper intertidal zone as the tide was high and the majority of the oiled areas were under water. The anadscat work order had not arrived yet and since this is an undocumented salmon stream, it was being treated as a beach segment. The beach segment work order called for manual removal of surface tarmats and tilling of OR subsurface oiled gravels in preparation for bioremediation. This was done, however whenever you have recommendations made to bio, you don't get the same quality work that you do when the work order calls for manual removal only. That is one of the reasons I don't like to see bio recommended for any salmon stream, as it really affects the quality of work accomplished. This is so much more critical on salmon streams where manual removal is really the only affective way to actually clean the stream. So it goes. I returned to the site later in the day around 1330. At this time the majority of the removal and tilling had been finished. As the tide was lower than it had been during the Anadscat, Aimee and I found several areas of moderate to heavy OR below the areas indicated on the work orders. These areas were on both sides of the stream in the lower intertidal zone. I grabbed a bucket and a shovel and removed two buckets before the tide came in. I also tilled the areas until I located the edges of the oiled deposits. The crew was brought back to remove some of the oil on these lower areas. But since it was scheduled for bio, there was definately a limit to what could be removed. Bio is a real limitation. By 1530 the work was effectively finished, and the crew moved over to another beach segment. Four supersacks of oiled gravel, and 0.5 bags of oiled debris were removed from this stream. Later on in the day after the work was finished the anadscat for KN129B arrived, a day late and a dollar short as usual. I really hope that one of these days soon, all of these work orders can get out here, as this continual lateness is causing so many problems and so much confusion. Confusion reigns the work continues.

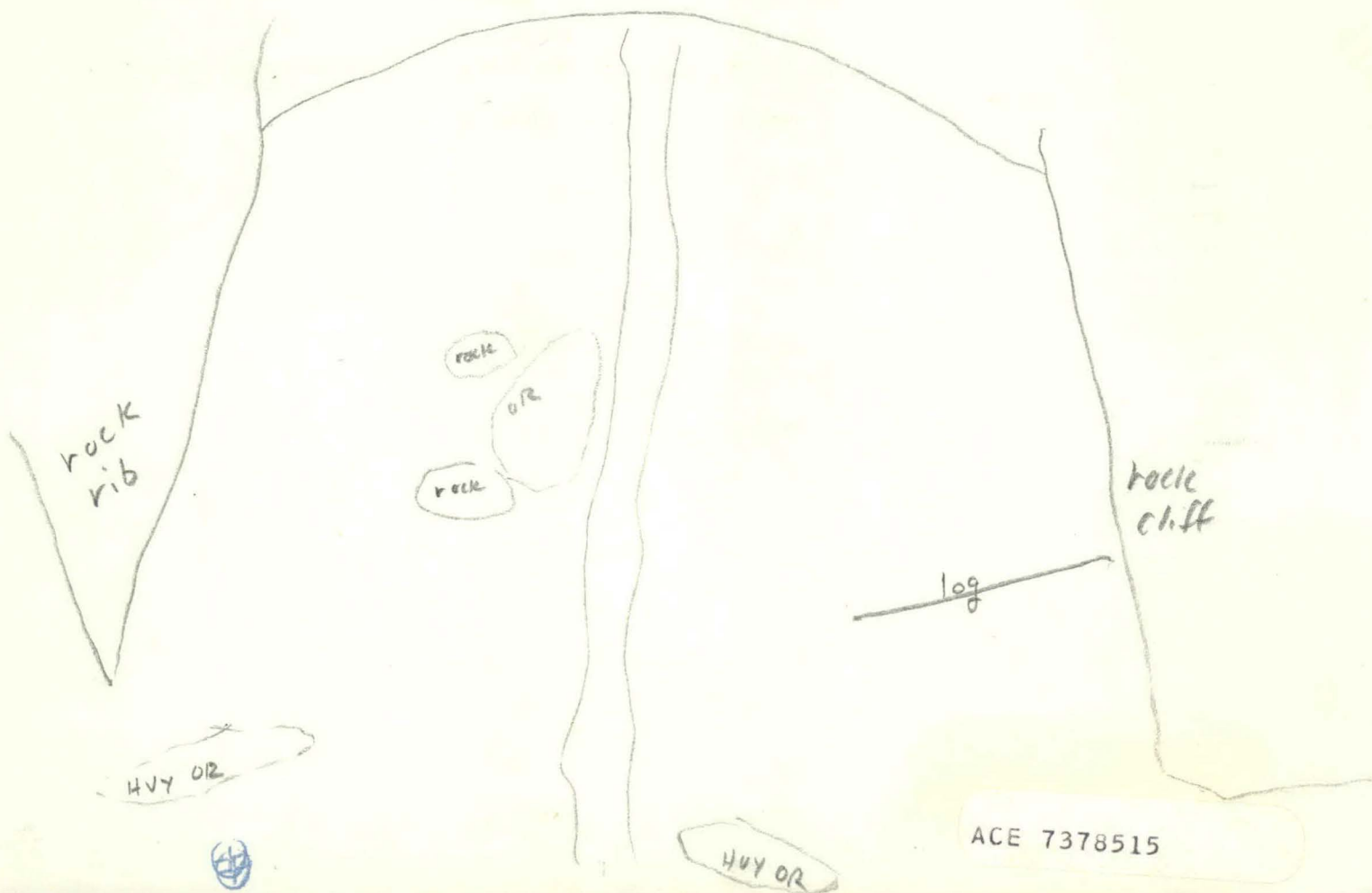
ANADROMOUS FISH STREAMS/OILING CONDITION
PWS

Pre-ASAP

Segment # KN129A ASC# UNDOCUMENTED Location KNIGHT IS.
Date 8/15/90 Recorder/Observer R. Gusten/T. Crowl
Oil in streambed Yes Oil on streambanks Yes
Oil within 50m of mouth Yes Anadromous Fish present Yes

Description of oil and comments oiling band runs in several
places on the beach. Band of tar/mat/mousse in
upper intertidal both sides of stream. Also there
are remains of heavy OR sediments between large boulders
near east side of stream. This stream also has bands of
heavy OR in the Lower ITZ on both sides of the stream.
It has been continuously missed by work crews as
the tide must be low to reach the oiled areas.
100 pilers milling intertidally. in stream

Oil Distribution Diagram



SURFACE OIL

SITE 1

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

SITE 2

[illegible]

SITE 3

[illegible]

SUBSURFACE OIL

[illegible]

Photographs:

Roll No. 42-80

Frames

REVIEWED

5/14/90 F-16

ACE 7378517

COMMENTS Small Cove between Rocky headlands with uncataloged ANAD STREAM. Oiling consists of SUR finer sediments across to UITE-MITZ U- Both sides of Stream. Coat and Interstitial SUR were found on Boulder River at this site.

FIELD SHORELINE COMMENT SHEET

ASAP survey - 90

JAB

SEGMENT AS / KN-129 SUBDIVISION: A SITE: 1 DATE 8/9/90

USCG

NAME MSTC Michael O. Brown SIGNATURE Michael O. Brown

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

ADEC

NAME John Hayes SIGNATURE _____

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

Site has surface and subsurface oiling in the m+u TZ's within 50 meters of the stream banks. Oiling was also observed in the LIT at the waterline (screen) and 0-4 cm. Recommend that this area stream site be reassessed by ADEC in regards to treatment for 1991.

LAND MANAGER

NAME DOUGLAS GIBSON SIGNATURE Douglas Gibson

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

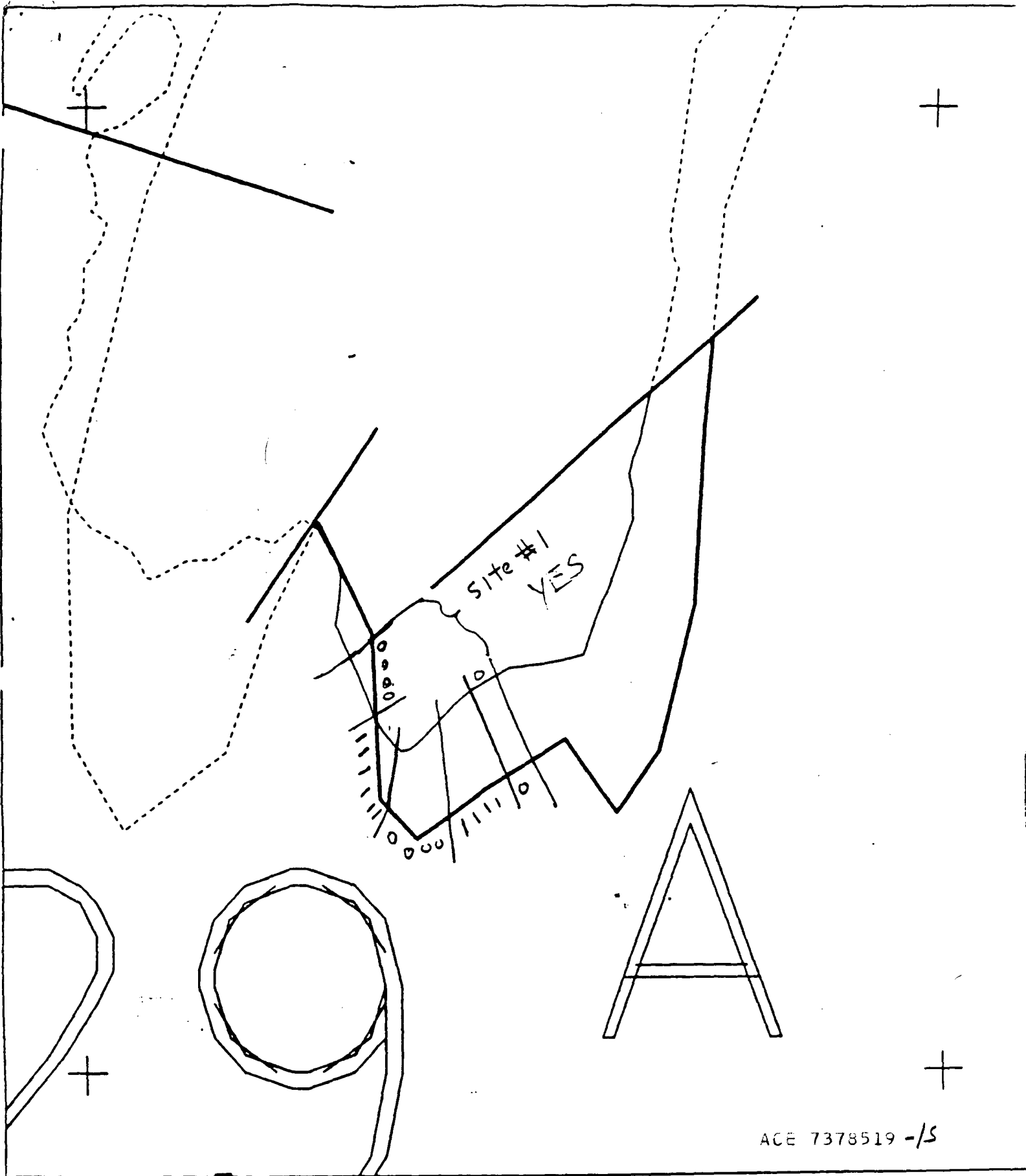
Not well-cleaned in 1990. Due to presence of AHEAD stream this site should receive priority reassessment in 1991.

EXXON

NAME Martinez Nubia SIGNATURE Nubia Martinez

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

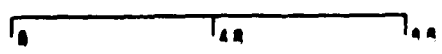
Oiling is very light believe it will clean up through winter storms. Manual work at this time would no benefit the environment.



ACE 7378519 -/S

YXX Wide
 //// Medium
 ---- Narrow
 TTTT Very light

KN-129 A
 ADEC Subsegment Length: 407m
 METERS



Subdivision Field Map
 Map Key: KN1KN-129A
 Name: Reimer

CATALOG NUMBER: 226UNCAT08

STREAM NAME:

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

SEGMENT NUMBER: KN129 A

SHORELINE TYPE:

DATE: 04/24/90 TIME: COVE -1011

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
#2 21	4	20				10	SURFACE SURFACE	CT OR	west side of stream east side of stream-oil surfaced down to 10 cm

COMMENTS:

SUBMERGED OIL ON EAST BANK OF STREAM. SCATTERED PATTIES/OILED GRAVEL OILED AREAS PRIMARILY EAST BANK - UPPER & MID ITZ. MIXED ORGANIC/OIL SHEEN SEEN AT WATERS EDGE, 30 - 40' LONG.

- MINUS IF POSSIBLE. REMOVE OILED GRAVELS, PATTIES ETC. ALONG EAST SIDE OF CREEK. SURVEY ENTIRE BEACH AREA AND REMOVE OILED VEGETATION OR ISOLATED OIL PATTIES WHERE FOUND. USE BOLTING PROCESS IN BOULDERS ON WEST BANK OF STREAM ON THE UPPER INTERTIDAL WHERE OILED. TILL AREAS AFTER REMOVAL OF OILED GRAVELS/SEDIMENTS.

OIL ON STREAM BANKS: YES

OIL WITHIN 1 MILE OF STREAM:

YES

CATALOG NUMBER: 226UNCAT08

STREAM NAME:

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

SEGMENT NUMBER: KN129 A

SHORELINE TYPE:

DATE: 04/21/91 TIME: COVE -1950

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1						3	PIT	HOR	
2						3	PIT	HOR	
3						3	PIT	HOR	
4						3	PIT	HOR	
5						3	PIT	HOR	

COMMENTS:

RECOMMEND MECHANICAL TILLING WITH D450 CAT WITH RAKER BAR. NO SURFACE OIL SEEN. (FROM MAP) SUBSURFACE OILING (FROM MAP).

CATALOG NUMBER: 226UNCAT08

STREAM NAME:

LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM

SEGMENT NUMBER: KN129 A

SHORELINE TYPE:

DATE: 07/31/91 TIME: COVE -1115

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
4							PIT	NONE	NO OBVIOUS OIL LENSE
6							PIT	LOR	
7							PIT	NONE	
A12							PIT	PRESENT	WATER TABLE HAMPERED VISUAL EXAM ON PIT
B10							PIT	HOR OP	
B11							PIT	HOR	WATER TABLE PREVENTED CLEAR OBSERVATION
B8							PIT	HOR	
B9							PIT	HOR OP	
C1							PIT	HOR	

WATER TABLE PREVENTED CLEAR OBSERVATION
2 OIL BANDS

C1						PIT	HOR	2 OIL BANDS
C2						PIT	HOR	2 OIL BANDS
C2						PIT	HOR	2 OIL BANDS
C3						PIT	HOR	2 OIL BANDS
C3						PIT	HOR	2 OIL BANDS
D5						PIT	HOR	2 OIL BANDS
D5						PIT	HOR	2 OIL BANDS
D5						PIT	HOR	2 OIL BANDS
B	6	10			10	SUBSUR	HOR OP	
C	8	6			9	SUBSUR	HOR MOR	
D	4	4			8	SUBSUR	HOR	
A	34	8		5	2.5	SURF	LSOR	

COMMENTS:

MAJORITY OF OIL ON BEACH IS SUBSURFACE AND HEAVIEST OIL RESIDES IN LITZ. LITZ PERIODICALLY MISSES TREATMENT DUE TO BEING COVERED BY WATER MOST OF THE TIME. OIL ON WEST SIDE OF STREAM (AREAS C AND D) IS CONTAINED IN 2 DISTINCT OIL LENSES. THE 1ST LENSE IS APPROX 5CM FROM TOP. IT IS 5CM THICK FOLLOWED BY 10CM OF CLEAN SUBSTRATE AND THEN ANOTHER 5CM OF LENS. THE OILED AREAS WOULD BENEFIT FROM A THOROUGH MECHANICAL OR MANUAL TILLING. REASSESS IN 1992. *SURVEY FOCUSED ON DOCUMENTED OIL, TREATED IN 1991.

ADFG 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: 11-24-90 15 HIGH TIDE TIMES: 1 21 TEAM RECORDER: R. Luster

4 START TIME: 0953 16 HIGH TIDE HTS: 1 22 OBSERVERS: A. W. Wapner

5 STOP TIME: 1011 17 LOW TIDE TIMES: 1 23 AGENCY: ADFG

6 SEGMENT #: KN129 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: 209 End: 235

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

12 SOURCE: ☒ Map Loran Oil _____

13 LOCATION: South arm Henning Bay Sediment _____

14 DESCRIPTION: 10m high x. Biological _____

Water _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	<u>1-2mm</u>	<u>1-2cm</u>						
29 PENETRATION	<u>Shallow</u>	<u>10cm</u>						

30 OVERALL OIL IMPACT: N VL L M H 36 CATALOGED ANAD. FISH SREAM? Y ☒ N

31 OIL TYPE: Pooled ☒ Mousse Tar Asphalt Sticky Stain 37 CATALOG #: NONE

32 OILED DEBRIS? ☒ Y N 38 STREAM NAME: _____

33 SHORELINE TYPE: Headland Low-lying Rocks Beach ☒ Cove 39 OIL IN STREAM BED? Y ☒ N

Lagoon Marsh 40 OIL ON STREAM BANKS? ☒ Y N

34 WAVE EXPOSURE: High Moderate ☒ Low 41 OIL ON BEACH ADJACENT TO MOUTH? ☒ Y N

(within 50 meters)

35 SUBSTRATE TYPE: Bedrock _____ Boulder 40 Cobble 25 42 OIL WITHIN 1 MILE OF STREAM? ☒ Y N

Gravel 350% Sand _____ Mud/silt _____

Where: _____

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: submerged oil on east bank of stream
scattered patches / oiled gravel oiled area primarily east
bank - upper & mid T12 Mixed organic/oil stream
Seen at water edge 30-40' long

ACE 7378571 +1/5

Recommendations

Perform work during proper tide window 0 → minus if possible.

Remove oiled gravels, patties etc along east side of creek.

Survey entire beach area and remove oiled vegetation or isolated ~~patties~~ oil patties where found.

Use Bolson Process in boulders on west bank of stream in the upper intertidal where oiled.

Till areas after removal of oiled gravels/sediments

KN 129 E
uncatalogued.

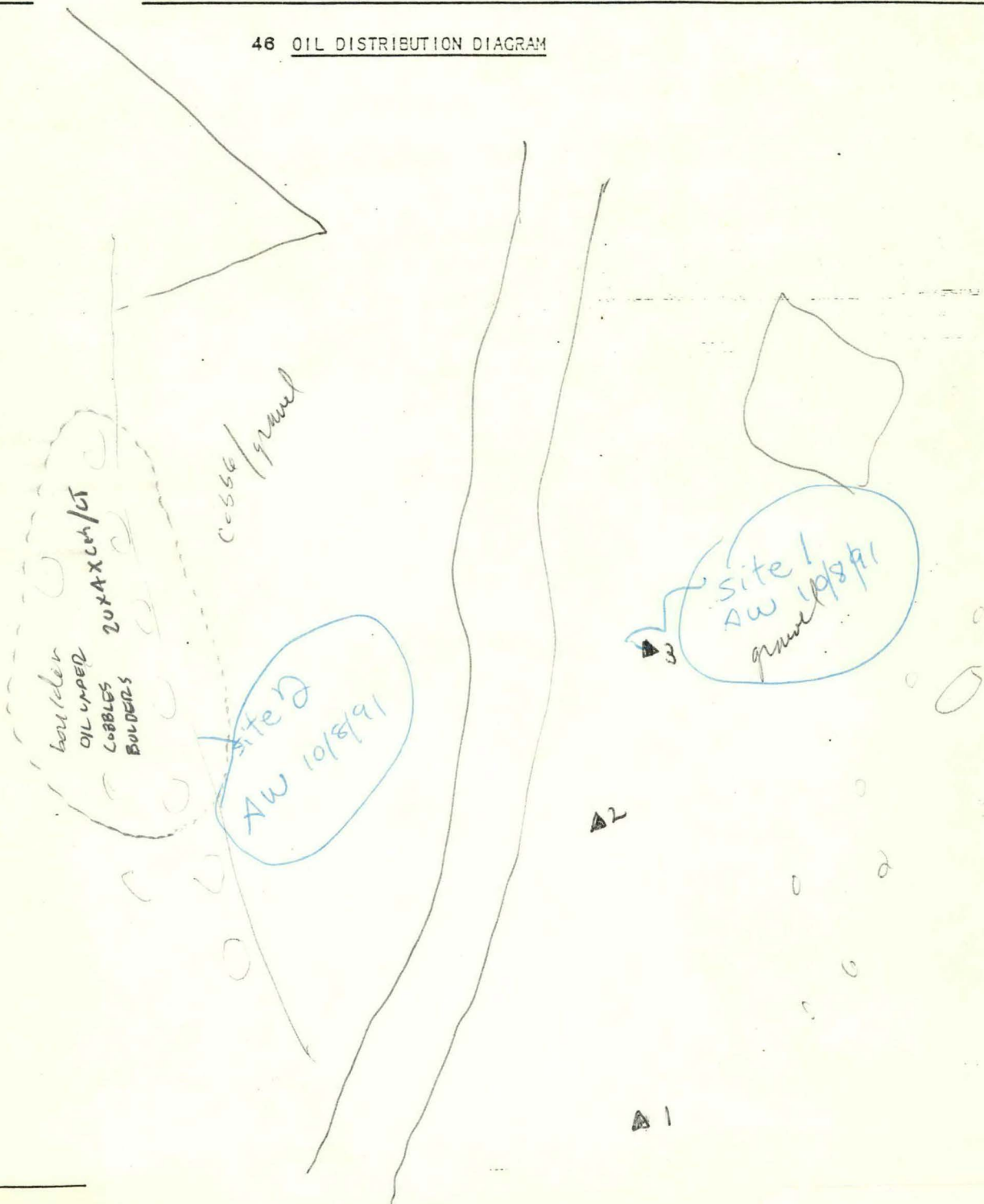
45 PHOTOLOG

FRAME(S)

DESCRIPTION

pit #1	20 cm deep	no noticeable oil
pit #2	15 cm	sheen in water at bottom
pit #3	32 cm	10 cm oil deep surface down
pit #4	25 cm	no oil

46 OIL DISTRIBUTION DIAGRAM



Sample taken
Photo frame # and
shot direction.

ACE 7378573

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ KN129E 21/48
 BIO KEN CRITCHLOW LAND REP STREAM No NUMBER (OF)
 EXXON DARLYL YOE ADFG ELIK GUSTIN-AIMEE WESEMAN TIME 09:45 to 10:10
 TEAM NO. 14 TIDE LEVEL +4 DATE 4 12A 190
 EST. SUBDIVISION LENGTH: 30 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 50 % B 40 % C 25 % P 25 % G 5 % S 5 % M 5 % V 5 %
 SLOPE: Lang 50 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 5 m M 5 m N 4 m VL 5 m NO 21 m

SURFACE OIL

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

PAVEMENT H F (S) 50 sq. m by .5 cm

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you COLLECT

DEBRIS

☐ YES ☐ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	V	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SB	BR	FW	GY	SL	TL	LR	LR	SU	U	M	U				
1	20					✓	-											✓							GR, SD, PB, / GR, SD, LB, PB
2	15					✓	-											✓					Y	✓	PB, GR, SD, / PB, GR, SD
3	32		✓				570	✓	✓											✓			N		PB, GR, SD, / PB, GR, SD
4	25					✓	-													✓					PB, GR, SD, / PB, GR, SD
							-																		
							-																		

COMMENTS OILED UNDER COBBLES/BOLDERS ON SOUTH SIDE OF POCKET COVE.

REVIEWED _____ DATE _____

ACE 7378579

SEGMENT ST1 KN129 JNC

STREAM: NO NUMBER

DATE 7 124 90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 ▲

Plt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1

Photo location, direction,
and number

SKETCH MAP

Z11W

211-

LEGEND

1 Δ

Pit - No Subsurface Oil

2 ▲

Plt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1

Photo location, direction,
and number

Oil Character Length (m): AP 5 PO _____ CV 4 CT _____ ST _____ MS _____ PT _____ TB _____ FL _____ NO 21

REVISION:03/24/90

ACE 7378574

21
#/48

Seg ID: KN-129 E Subdiv: No ASC #
Survey Date: 4/24/90
Comments of: Ken Critchlow

About 25 percent of the UITZ, MITZ and LITZ were oiled (cover and asphalt pavement on this small pocket beach. Subsurface oil was found in association with asphalt pavement on the east side of the stream in the lower UITZ and upper MITZ. Some stain was observed on a log in the STZ.

I suggest that oiled surface sediments be removed by shovel. If asphalt pavement proves difficult to remove completely, till beach sediments to the depth of oil penetration and apply Inipol. Oil stain on the log may be removed by scraping the surface. Boom-off the entire cove and use snare boom on the beach to minimize contamination of the stream and to contain sheen.

KR Critchlow

19/48

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANPD KH-129E
 STREAM ID # UNDOCUMENTED
 ANNOTATED MAP INCLUDED ☒ Y/N

DATE 4-24-90
 NAME DARRYL YVES
 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	4	20	80		Y	100	N		N	
Medium Band										
Narrow Band										
Very Light										
TOTAL MANDAYS						1				

SUBSURFACE OIL

Other (Describe)?	SUBSURFACE OIL FOUND ONLY IN TARMAT									

TARMATS	Quantities in Meters			Treatment Rec			# of Bags	Mandays Required	
	Length	Width	Thick(cm)	None	Breakup	Remove		Breakup	Remove
Area #1	10	5	5-10			✓	200		3
Area #2									
Area #3									
Area #4									
Sporadic Mats									

MANUAL PICKUP	Type of Debris			In Meters		# of Bags	Pickup Y/N	Manday Estimate
	Mousse Tarballs	Oiled Veget	Cleanup Debris	Length	Width			
"Pocket" #1	NONE							
"Pocket" #2								
"Pocket" #3								
Random/Continuous								

OILED LOGS ☒ Y/N	OILING H/M/I ☒ D	QUANTITY L/M/KS ☒ S	BURN Y/N ☒ N
--	--	---	--

Is there Other Debris on the Beach? ☒ Y/N How Many Bags? 2 Is it mingled with the Oiled Debris Y/N ☒ N

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure H/M/I ☒ D

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 ☒ N, # of Times

COMMENTS:

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

ANAD

SSAT DATA ENTRY FORM

PAGE 1 OF 2

GENERAL DATA

22/4/90
SEG ID: KN-129E SUBDIV: NO ASC# TEAM: 14 SURVEY DATE: 4/24/90
PAVEMENT: CHAR S AREA 50 THICKNESS 5 TARBALLS -
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 30 OIL CATEGORY: W 5 M - N 4 VL - NO 2 U -

SURFACE DATA

SURFACE SEDIMENT: BRK - BLD 40 COB 25 PEB 25 GRN 5 SAN 5 MUD - VEG -CHAR #: 1 OIL CHAR: AP OIL DIST: CONT - BRKN X PTCH - SPLH -
OIL CLR: DBL FILM CLR: RW TIDAL ZONE: SU - UI X MI X LI -CHAR #: 2 OIL CHAR: CV OIL DIST: CONT - BRKN - PTCH X SPLH -
OIL CLR: LBR FILM CLR: - TIDAL ZONE: SU - UI - MI X LI XCHAR #: 3 OIL CHAR: ST OIL DIST: CONT - BRKN - PTCH - SPLH X
OIL CLR: DBL FILM CLR: RW 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 -

23/48

ANAD
SSAT DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: KN-129E SUBDIV: NO ASC #

PIT # 1 PIT DEPTH 20 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN X MUD — VEG —

PIT # 2 PIT DEPTH 15 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN X MUD — VEG —

PIT # 3 PIT DEPTH 32 OIL CHARACTER — OIL INTVAL: FROM 5 TO 10
QUANT: UC OIL CLR: SBL FLM CLR: BR ZONE: SU — UI — MI X LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN X SAN X MUD — VEG —

PIT # 4 PIT DEPTH 25 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI — MI X 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: —

18/48

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 KN-129 E SUBDIVISION: ^{ASC #} not documented _{cataloged} DATE 24 APR 90

USCG

NAME Kerwin L. Dreher SIGNATURE cwo K. L. Dreher

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Withhold recommendation of Bolsing (COOH) method.

~~ADEC~~ → ADF&G

NAME Rick Gustin SIGNATURE Richard J Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Perform work during proper tide window 0 → minus if possible.
Remove oiled gravels, patches etc. along east side of creek.

Survey entire beach area and remove oiled vegetation or isolated oil patches where found.

Use Bolsing Process on boulders on west bank of stream

~~LAND MANAGER~~ → NONE

NAME Rick Gustin SIGNATURE Richard J Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

In the upper inter-tide where oiled.

Fill areas after removal of oiled gravels/sediments

RECEIVED
APR 14 1966

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/KN-129

SUBDIVISIONS: A (1 OF 2)

ACE 7378563 +/S

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

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

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

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

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

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

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

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

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

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

1H Remote release site

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Rothy 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

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

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

6Y Special use destination

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

7HH Finfish harvesting

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

7JJ Invertebrate harvesting

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

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

ACE 7378551

May be two phos mixed

129 E & S. E+H same stream
undocumented

RECEIVED
MAY 07 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

2 pages from KN 5005 are mistakenly
included - explains discrepancy in pit data etc...
I included missing data for KN 129 E A

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: KN-129 we called it E

STREAM NO: ~~226-10-16975~~ - uncatalogued

See ADF+G rec. - up to 30cm penetration
lots of subsurface oil - see pit numbers - will require
more than the suggested format removal & bio.

We rec gravel washing machine - should at least receive spot washing.
and tilling

steady sheening along edge of stream bank (into water) - Oiled gravels
They ~~want to~~ do not address this at all - we rec manual removal of these
stream bank sediments & any oiled sed in stream bed - also further
agitation of the area to release trapped oil

~~NOTE DISCREPANCY OF PIT DATA!~~

ADF+G rec - tilling areas after removal of oiled gravels

Prior review KN-129

KN-129

SUBJECT
-STRENGTH IS
LOCATED IN
HAILING RAIN
WEST SIDE
LN-129A 145

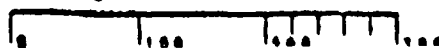
KN-129A

KN-129 A 300 meters

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

KN-129A

ADEC Segment Length: 802m
EXACN Segment Length 532m



ACE 7378548 -/S

Map Key: PWS-311

NAME: Greg Chace / Tim Sawyer

Date: March 30 1990

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. KN-129A Uncatalogued Stream

SEGMENT KN-129 SUBDIVISION A

WORK WINDOW

Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream

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

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

An uncatalogued anadromous stream is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDA KN-129A & KN-129B
FOR ADDITIONAL CONSTRAINT INFORMATION.

TAG APPROVAL DATE

ADEC Roy McGarr R. McGarr

EXXON Andy TSN Andy

NOAA Joseph Talbot Joseph

USCG G.A. REITER G.A. Reiter

FOSC

R. Zampelli

Date

6/4/90

Prepared by

Andrew Meyer AM

Date

6/3/90

AN/ OMOUS FISH STREAM EVALUA' N

uncatalogued Amn 4/2/90SEGMENT 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 uncoiled biota and substrate. No additional ecological constraints. ~~Subject stream is located in subdivision B (2 of 2).~~ Amn 4/2/90

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 DATE: 5/22/90Subsurface 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.See Addendum dated 6/3/90TAG COMMENTS: NO BIO WITHIN STREAM AREA (50m) PRIOR TO JUNE 1
PERMIT REQUIRED FOR BIO AFTER JUNE 1TAG APPROVAL DATE: 5/18/90.ADEC ART WEINEREXXON AMYNOAA GARY PETRAGEUSCG G.A. REITERFOSC DATE: MAY 25

KN-130

KN-127

KN-128

KN-129

WORK
AREA

UNCATALOGED ANADROMOUS STREAM
100m ZONE

ANADROMOUS STREAM
(226-10-16975)
100m ZONE

Anadromous Stream Evaluation: 226-10-16925



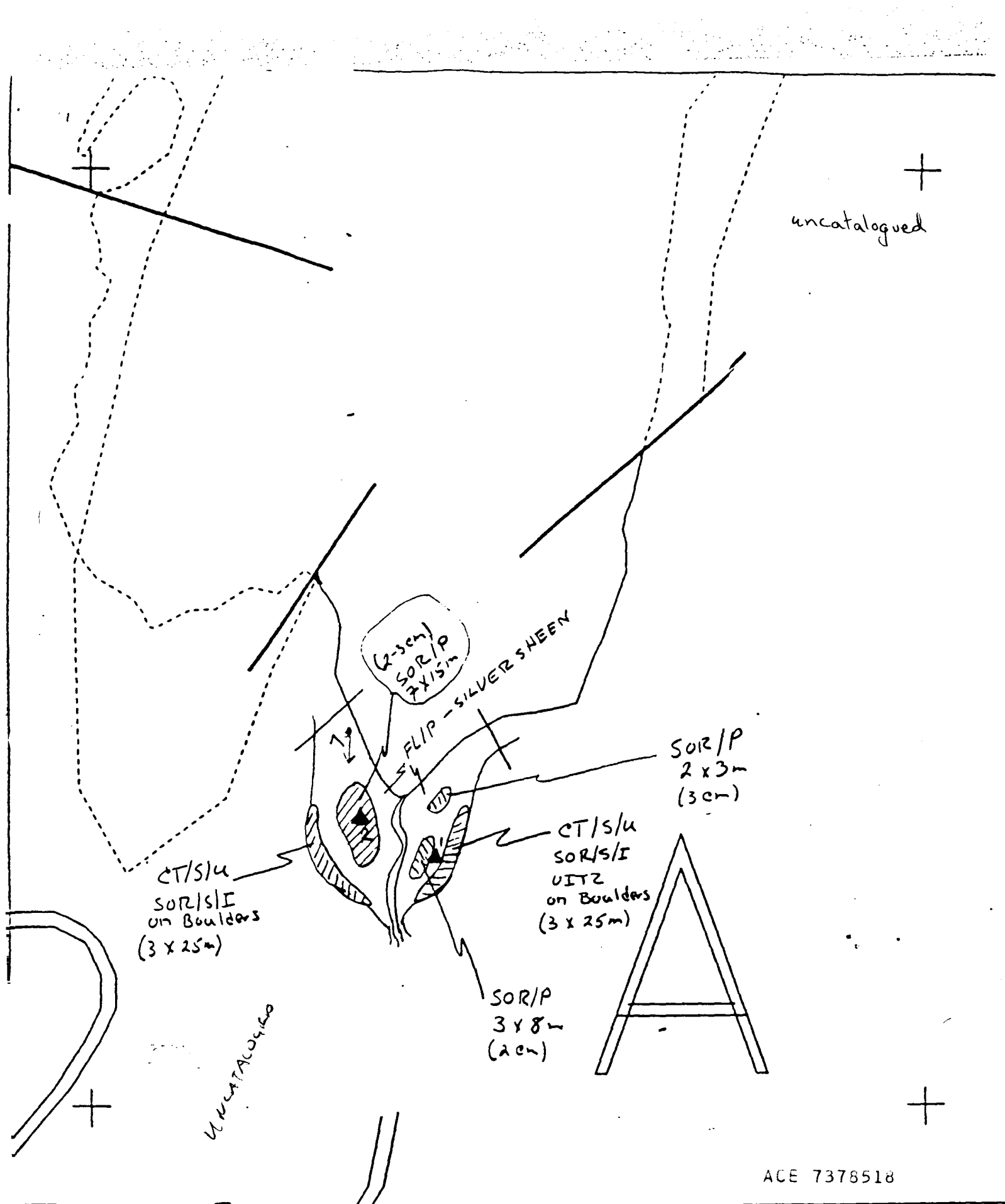
Exxon Company, USA
Map Key: KN1-101-129



ECOLOGY MAP
SEGMENT KN-129
SUBDIVISION A (... of ...)
METERS

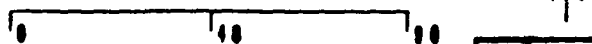
- ★ Seabird Colony
- ▲ Eagle Nest

... ACE 7378525



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

KN-129 A
 ADEC Subsegment Length: 407m
 METERS



Subdivision Field Map
 Map Key: KNKN-129A
 Name: Reimer
 c. 1960

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	

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMBLEN

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

RE: SEGMENT NUMBER KN-124 SUBSEGMENT NUMBER A
DEC REP John Hayer USCG REP Dave Sylvester
EXXON REP _____ BOAT NAME/SQUAD NUMBER Corinthian Sgd #1

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

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

Yes

Bioremediation will follow manual treatment.

Oiling remaining is cover, coat, stain, + AP + OR in LITZ.

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

Surface AP + SS OR oiling in LITZ. Will
reassess at low tide on 5/31/90.

Cover coat stain along bank in U.I.T.Z.

Additional Comments (keep objective)

Since Weseman
ADF+6 expressed concerns about b/o. in area near
streambed.

More treatment for segment may be needed. Stream is

signature _____

Date and time of demobilization from segment 5/30/90 15:00
Shoremon\55 5-12-90

not catalogued but ADF+6 rep. is waiting for Anad. Sent
report for further treatment recommendations.

ACE 7378521

ADEC DEMOBILIZATION REPORT FOR INIPOL AND CUSTOMBLEN TREATMENT

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

Attn: John Bauer
FAX 265-4666

From: Steven Blank (please print)

RE: SEGMENT NUMBER KN-129 SUBSEGMENT NUMBER A

ADEC REP Steven Blank USCG REP Dan Percy

EXXON REP Frank Box BOAT NAME/SQUAD NUMBER Don Bollinger

Site #	Length (along shore m)	Area m ²	Inipol (gallons)	Customblen (lbs.)
1	50	264	19	9.5/lbs
2	27	27.5	2.3	1.15

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

No. When the Don Bollinger crew got there, there was no pavement to be removed as indicated on the work order. There was a coat in the areas indicated for Bio and this is where Bio was applied.

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

The oil remaining is "OF" in nature ~~and~~ and is located in the LIT2. The tide did not go out far enough for this oil to be treated.

Additional Comments (keep objective)

The oil that was not bio'ed makes up a very small percentage of the total oil that was in this segment.

signature Steven Blank

Date and time of demobilization from segment 6:00pm 6-19-90
Shoremon\Demob.bio 55/30/90

ADEC DEMOBILIZATION REPORT
FOR INIPOL AND CUSTOMBLEN TREATMENT

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

Attn: John Bauer
FAX 265-4666

From: Steven Blank (please print)

RE: SEGMENT NUMBER 4N-129 SUBSEGMENT NUMBER B

ADEC REP Steven Blank USCG REP Dan Pearcey

EXXON REP Frank Box BOAT NAME/SQUAD NUMBER Don Bollinger

Site #	Length (along shore m)	Area m ²	Inipol (gallons)	Customblen (lbs.)
1	21	42	3.5	1.7
2	7	5.95	.4	.25

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

Yes, work was completed as stated on the work order to the best of my knowledge.

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

The only oil remaining is some oiled peat behind a large boulder. This was located within 15ft. of an anadromous stream and Rich Crustin said that we could not come closer than 15ft to the streams in this segment.

Additional Comments (keep objective)

Used a backpack Inipol sprayer since treatment areas were small.

signature

Steven Blank

Date and time of demobilization from segment 6:45pm 6-19-90

Shoremon\Demob.bio 55/30/90

ACE 7378522

ADEC DEMOBILIZATION REPORT
FOR PHYSICAL/MECHANICAL TREATMENT AND CUSTOMER

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

RE: SEGMENT NUMBER KN-129 SUBSEGMENT NUMBER B

DEC REP John Hayes USCG REP Dave Sylvester

EXXON REP Daryl Yost BOAT NAME/SQUAD NUMBER Caribbean Sec. #1

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

Yes

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

During post inspection Amice Weseman and I found 1 area with surface + ss oil remaining which we removed.

Oiling remaining is in the form of stain cover/coat + 1 small turball that was manually broken up for weathering. T.B was light oiling.

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

Stain & coat on rocks in U.I.T.Z. (little, border)

Additional Comments (keep objective)

ADFG reg. Amice Weseman concurred with demob. segment has salmon stream.

signature *[Signature]*

Date and time of demobilization from segment 14:00

Shoremon\55 5-12-90

5/20/90

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

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: 427 22) TEAM RECORDER: A. Weseman
- 5) START TIME: 10:15 17) HIGH TIDE HTS: 10.4 23) OBSERVERS: Fink, Middleton, Kuwada
- 6) STOP TIME: 11:15 18) LOW TIDE TIMES: 1046 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129-A 19) LOW TIDE HTS: .05t 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: .05t ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: Uncatalogued 226 UNCAT 08 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>SITE 1 A</u>	<u>8</u>	<u>34</u>		<u>5%</u>	<u>2-3cm</u> ^{2.5}		<u>LSOP</u>
<u>SITE 2 B</u>	<u>10</u>	<u>6</u>			<u>10cm</u>		<u>HOR/OP</u>
<u>SITE 3 C</u>	<u>6</u>	<u>8</u>			<u>9cm</u>		<u>HOR/MOR</u>
<u>SITE 4 D</u>	<u>4</u>	<u>4</u>			<u>8cm</u>		<u>HOR</u>
<u>SITE 5</u>							

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 ✓

34) WILDLIFE OBSERVATION

Species _____ Number _____

35) COMMENTS: Majority of oil on beach is subsurface & heaviest oil resides in LITZ.
LITZ periodically misses treatment due to it being covered by water most of the
time. Oil on west side of stream-areas C & D is contained in 2 distinct oil
lenses. The 1st lense is approx 5cm from top. It is 5cm thick followed by 10cm
of clean substrate & then another 5cm lense
The oiled areas would benefit from a thorough mechanical or manual tilling
Re-assess in '92.
survey focused on documented oil, treated in 1991

OG COMMENTS:
majority of oil on beach is subsurface. Area of site D4 upper Location A was manually tilled in '91. Heavy subsurface exists in LITZ on east side of stream; B (area of pits 8-11) totally missed on MARSAP due to tide. Area C, pits 1-3 contains 2 distinct oil layers with clean interval between. This area missed being treated in '91 due to location in LITZ - & coverage by tide.
Area would benefit from a thorough mechanical tilling in 92 - a definite re-assessment is in order in 92. Survey focused on documented oil, treated in 1991 over

DATE 2, 3, 1991

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

OG COMMENTS:

Subsurface oil -

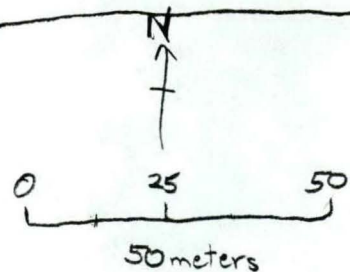
Loc B = 6mw x 10long. HOR/OP LITZ

Loc C = 8mw & 6 long. HOR/MOR. LITZ - 2 distinct lenses

Loc D = 4mwx4 long. HOR - MITZ - " " " - part of area
was manually filled in '91

Pit #	cm	TD	Oil	clean	Below	WT	seeds	zone	sheen
C①	30	6-7 HOR 21-24	?			30	SPG	MITZ	black beads
C②	30	3-7 HOR 15-20	Y			27	SGG	LMITZ	black beads
C③	30	9-13 HOR 24-29	Y			29	SPG	LITZ	black beads
C④	30	NO	Y			29		LITZ	NO
D⑤	22	2-7 HOR 12-15	Y			20	PGSC	MITZ	black beads
D⑥	24	LOR - no obvious lense					PGSC	MITZ	NO
⑦	22	NO					PGSC	MITZ	NO
B⑧	24	0-15 HOR	Y				PGSC	MITZ	NO
B⑨	30	0-14 HOR/OP	water table prevented clear observation			14	PGSC	LITZ	Black beads
B⑩	30	0-9 HOR/OP	"	"		9cm	PGSC	LITZ	black beads
B⑪	21	0-5 HOR	?			20	PGSC	LMITZ	NO
A⑫	10	yes water table hampered visual exam on pit				1	PGSC	LITZ	black beads

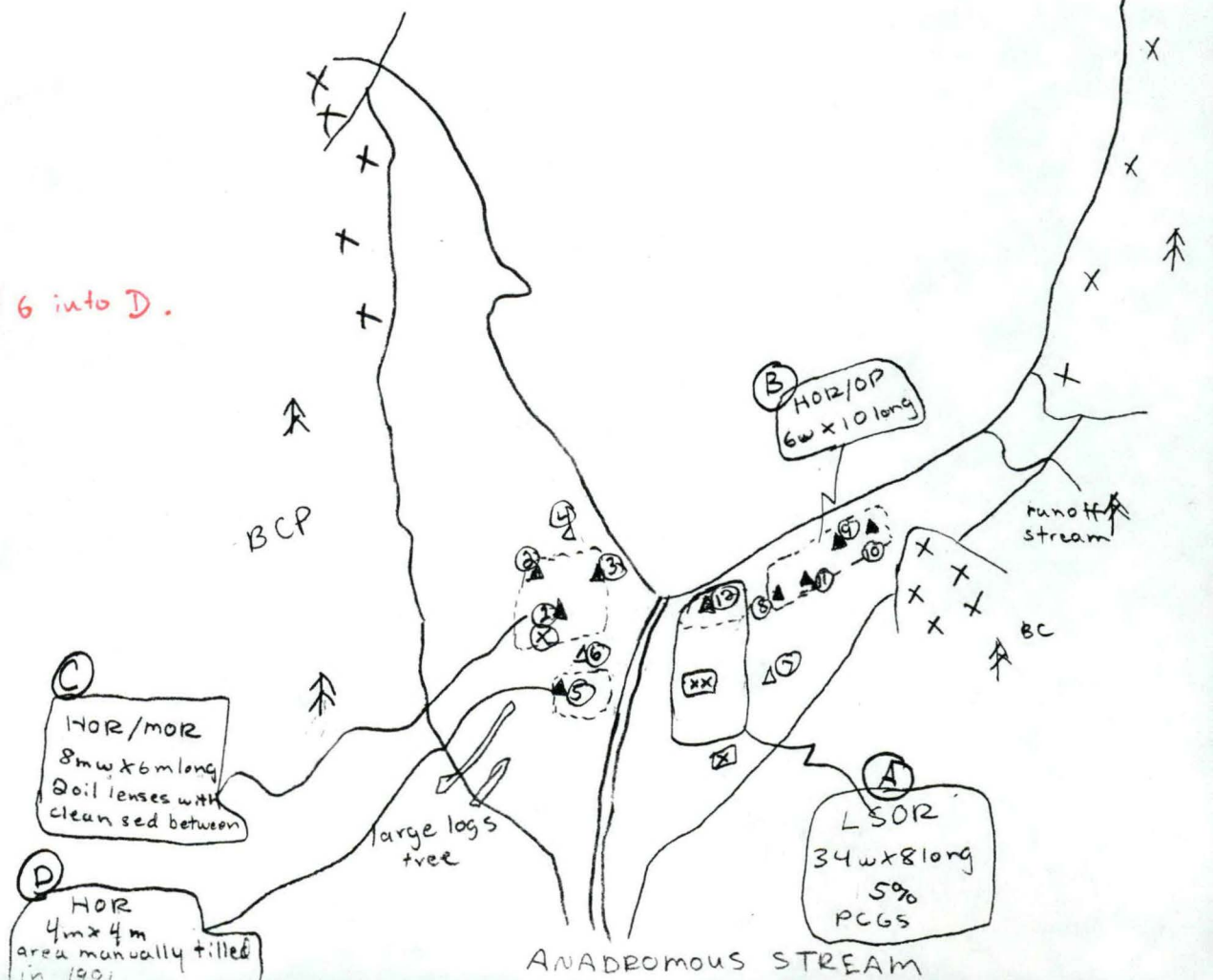
Post-treatment survey
KN129A
uncatalogued
7/31/91 A. Weseman
10:15-11:15



Bedrock
 Trees

please enter ^{these} pits from next page.

MARK, I put pit 6 into D.



KN 129 A 7/31/91

226 UNCAT Ø8

PITS for data-entry.

(2 bands of oil - vertically)

Ks 8/15/91

site	type	depth	oil depth	below	water	sedim	tide zone	sheen	oil	pit comment
C1	pit	30 6-12	6-12	U	30	SPG	MITZ	black beads	HOR	2 oil bands
C1	pit	30 21-24	21-24	U	30	SPG	MITZ	black beads	HOR	2 oil bands
C2	pit	30	3-7	Y	27	SGG	LMITZ	black beads	HOR	2 oil bands
C2	pit	30	15-20	Y	27	SGG	LMITZ	black beads	HOR	2 oil bands
C3	pit	30	9-13	Y	29	SPG	LITZ	black beads	HOR	2 oil bands
C3	pit	30	24-29	Y	29	SPG	LITZ	black beads	HOR	2 oil bands
4	pit	30	—	Y	29	SPG	LITZ	NO	None	—
D5	pit	22	2-7	Y	20	PGSC	MITZ	black beads	HOR	2 oil bands
D5	pit	22	12-15	Y	20	PGSC	MITZ	black beads	HOR	2 oil bands
6	pit	24	—	U	—	PGSC	MITZ	NO	LOR	no obvious oil lens
7	pit	22	—	U	—	PGSC	MITZ	NO	NO	—
B8	pit	24	0-15	Y	—	PGSC	MITZ	NO	HOR	—
B9	pit	30	0-14	U	14	PGSC	LITZ	Black beads	HOR OR	water table present feel clear observ.
B10	pit	30	0-9	U	9	PGSC	LITZ	Black beads	HOR OR	" "
B11	pit	21	0-5	U	20	PGSC	LMITZ	NO	HOR	—
A12	pit	10	—	U	1	PGSC	LITZ	Black beads	Present	water table present visual exam on pit



ADF&G OIL SPILL RESPONSE MONITORING

ASC# Uncatalogued 226UNCAT08 Date: 8/26/91
Stream Name: _____ Observer: Aimee Weseman
Segment-Sub Unit KN129A
Location: Herring Bay, Knight I
Anad. Stream Permit Issued? ☒ Y ☐ N Date: Gen Permit in effect
Work Order Issued: _____ Y ☒ N ☐ Date: _____
Demob Date: _____

Oil Characteristics (circle appropriate ones)

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

Treatment Techniques:

Manual Removal	Bioremediation & Type
Manual Raking/tilling X	Mechanical Tilling
Spot Wash	Header Flood (Hot/Cold)
Other	

Crew Size: 5

Lbs. or Bags of Oil/Sediment Removed 0

Other Agency Reps, and Names: Mike Barker-Exxon
John Bauer-ADEC, Dennis McGuire, Ivan Nanc-USCG

<u>Photos</u>	Y ☒ N ☐	<u>Roll #</u>	<u>Frames</u>
		_____	_____
		_____	_____
<u>Video</u>	☒ N ☐	<u>Tape #</u>	<u>Start</u> <u>End</u>
		_____	_____
		_____	_____

Sediment/Oil Samples (Y ☒ N ☐) Collection Number

Purpose of Trip * TAG visit to determine further 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.

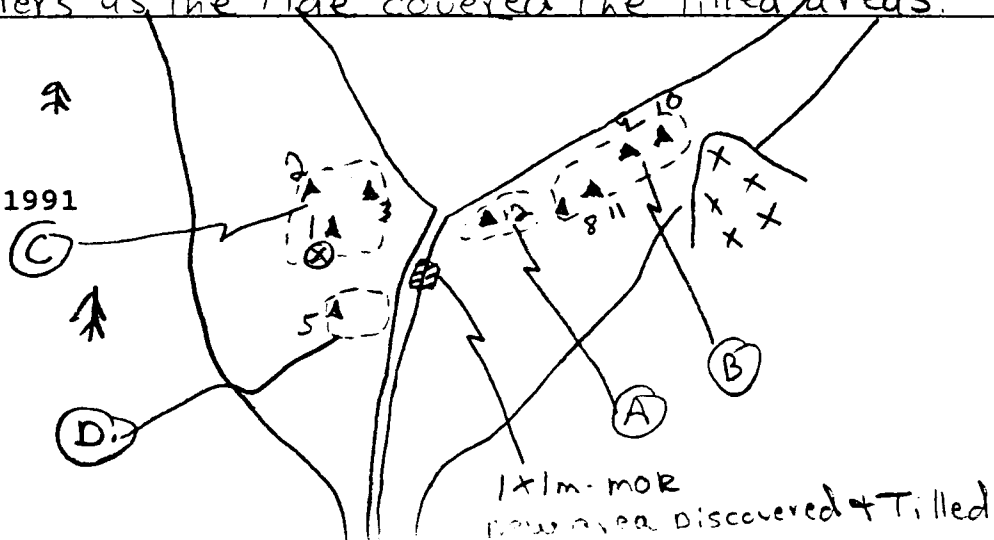
Describe extent of remaining oil (any comments on expected completion of cleanup).

Tilling exposed MOR/OP sediments in LITZ to wave action & degradation. Varying degrees of subsurface oil-OP-TR remains thru-out the stream/beach area - some of it along the stream bank itself. Stream should be re-assessed in 1992.

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

TAG officially recommended NTR on this stream site, but did accomplish 1/2 hour of manual tilling in areas A, B, C & D. A previously unidentified area of MOR (1x1m) along the eastern stream bank (see sketch) was discovered and tilled. This area released a silver sheen into the stream when agitated. Due to the time constraints of the trip, treatment was not thorough, but I believe that the heaviest known accumulations of oil were tilled. Tilling was accomplished without the tide & no containment or retrieval of oil was attempted despite my expressed concern over this. There were approx 50 live fish & 80 morts in-stream, and more off the mouth. An overflight of the area revealed a 50m long silver sheen released into the bay waters as the tide covered the tilled areas.

A: OPRESP
April 2, 1991



1991 MAYSAP EVALUATION

SEGMENT: KN-129 SUB: A REGION: PWS SURVEY DATE: 8/26/91

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: _____ Date: _____

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

COMMENTS:

INITIAL: _____

TAG: Area was manually raked/tilled by survey team to the depth of the oil in all areas (both sides of the stream). No further treatment needed.

FOSC: _____

TAG APPROVAL DATE: 8/28/91 FOSC APPROVAL DATE: _____

ADEC [Signature] FOSC _____

EXXON D. Michael Be

USCG Ann Nancy, LTJG, USCGA

NOAA JN

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.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 226UNCAT08
SEGMENT: KN129

PAGE 14

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: 1015

OBSERVERS: FINK KUWADA MIDDLETON

END TIME: 1115

TIDES: 0.0 *stack*
OG/HAB DISCREPANCIES: -

AGENCY: FG

PHOTOS TAKEN: N

STATION: 226UNCAT08

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-

END OF REPORT

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 21

DATE PRINTED: 08/26/91

STREAM# : 226UNCAT08
SEGMENT#: KN129

SURVEY TYPE : 91 POST TREATMENT - SS LOCATION: KNIGHT ISLAND, HERRING BAY,
DATE: 07/31/91 SOUTH ARM
TIMES: 1015 - 1115 TEAM RECORDER: WESEMAN

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
A	SURF	-0-	8	34	-0-	5	2.5	-0-	LSOR
B	SUBS	-0-	10	6	-0-	-0-	10	-0-	HOR OP
C	SUBS	-0-	6	8	-0-	-0-	9	-0-	HOR MOR
D	SUBS	-0-	4	4	-0-	-0-	8	-0-	HOR

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

PAGE 11

DATE PRINTED: 08/26/91

STREAM# : 226UNCAT08
SEGMENT#: KN129

SURVEY TYPE : 91 POST TREATMENT - SS LOCATION: KNIGHT ISLAND, HERRING BAY, SOUTH ARM
DATE:
TIMES: 1015 - 1115

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
4	PIT	30	-0-	Y	NO	29	SPG	LITZ	NONE	-0-
6	PIT	24	-0-	U	NO	-0-	PGSC	MITZ	LOR	NO OBVIOUS OIL LENSE
7	PIT	22	-0-	U	NO	-0-	PGSC	UITZ	NONE	-0-
A12	PIT	10	-0-	U	BLACK BEADS	1	PGSC	LITZ	PRESENT	WATER TABLE HAMPERED VISUAL EXAM ON PIT
B10	PIT	30	0-9	U	BLACK BEADS	9	PGSC	LITZ	HOR OP	WATER TABLE PREVENTED CLEAR OBSERVATION
B11	PIT	21	0-5	U	NO	20	PGSC	LMITZ	HOR	-0-
B8	PIT	24	0-15	Y	NO	-0-	PGSC	MITZ	HOR	-0-
B9	PIT	30	0-14	U	BLACK BEADS	14	PGSC	LITZ	HOR OP	WATER TABLE PREVENTED CLEAR OBSERVATION
C1	PIT	30	21-24	U	BLACK BEADS	30	SPG	MITZ	HOR	2 OIL BANDS
C1	PIT	30	6-12	U	BLACK BEADS	30	SPG	MITZ	HOR	2 OIL BANDS
C2	PIT	30	15-20	Y	BLACK BEADS	27	SGG	LMITZ	HOR	2 OIL BANDS
C2	PIT	30	3-7	Y	BLACK BEADS	27	SGG	LMITZ	HOR	2 OIL BANDS
C3	PIT	30	24-29	Y	BLACK BEADS	29	SPG	LITZ	HOR	2 OIL BANDS
C3	PIT	30	9-13	Y	BLACK BEADS	29	SPG	LITZ	HOR	2 OIL BANDS

D5 pit 22 2-15 Y black beads 20 PGSC MITZ HOR

← new

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

PAGE D5	12 PIT	22	12-15	Y	BLACK BEADS	20	PGSC	MITZ	HOR	DATE PRINTED: 08/26/91 2 OIL BANDS
D5	PIT	22	2-7	Y	BLACK BEADS	20	PGSC	MITZ	HOR	2 OIL BANDS
END OF REPORT										

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 22

DATE PRINTED: 08/26/91

COMMENTS:

MAJORITY OF OIL ON BEACH IS SUBSURFACE AND HEAVIEST OIL RESIDES IN LITZ. LITZ PERIODICALLY MISSES TREATMENT DUE TO BEING COVERED BY WATER MOST OF THE TIME. OIL ON WEST SIDE OF STREAM (AREAS C AND D) IS CONTAINED IN 2 DISTINCT OIL LENSES. THE 1ST LENSE IS APPROX 5CM FROM TOP. IT IS 5CM THICK FOLLOWED BY 10CM OF CLEAN SUBSTRATE AND THEN ANOTHER 5CM OF LENS. THE OILED AREAS WOULD BENEFIT FROM A THOROUGH MECHANICAL OR MANUAL TILLING. REASSESS IN 1992. *SURVEY FOCUSED ON DOCUMENTED OIL, TREATED IN 1991.

END OF REPORT



KN0129A

4/27/91 NO#814



Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 19
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments OVERVIEW LOOKING ACROSS
SEGMENT ACROSS STREAM

Roll No MAYSAP-6-01 Neg. No 18
Control No 814 (Office Use Only)

Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 20
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments OVERVIEW LOOKING DOWN AT
WATER

Roll No MAYSAP-6-01 Neg. No 19
Control No 814 (Office Use Only)

Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 21
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments PIT WITH SOR (#2) RIGHT
ABOVE WATER LINE

Roll No MAYSAP-6-01 Neg. No 20
Control No 814 (Office Use Only)

Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 22
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments PIT #5 IN GRAVEL AREA

Roll No MAYSAP-6-01 Neg. No 21
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 19
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments OVERVIEW LOOKING ACROSS
SEGMENT ACROSS STREAM

Roll No MAYSAP-6-01 Neg. No 18
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 20
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments OVERVIEW LOOKING DOWN AT
WATER

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



Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 21
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments PIT WITH SOR (#2) RIGHT
ABOVE WATER LINE

Roll No MAYSAP-6-01 Neg. No 20
Control No 814 (Office Use Only)



Segment No KN0129 Subdivision A
Date 4/27/91 Log Frame No 22
Photographer REBECCA HOFF
Location KNIGHT ISLAND
Comments PIT #5 IN GRAVEL AREA

Roll No MAYSAP-6-01 Neg. No 3
Control No 814 (Office Use Only)

ADF&G OIL SPILL RESPONSE MONITORING

ASC# uncatalogued

Date: 6/3/91

Stream Name: _____

Observer: A. Weseman

Segment-Sub Unit KN129A

Location: Herring Bay, Knight I.

Anad. Stream Permit Issued? ☒ Y ☐ N

Date: 6/3/91

Work Order Issued: ☒ Y ☐ N

Date: 5/13/91

Demob Date: 6/3/91

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 ☒ X
 Manual Raking/filling ☒ X
 Spot Wash
 Other

Bioremediation & Type Customblend 6#
 Mechanical Tilling
 Header Flood (Hot/Cold)

Crew Size: 6

Lbs. or Bags of Oil/Sediment Removed 3 bags

Other Agency Reps, and Names: Scott Nauman, Randy Boyer-Exxon
Bob Jensen-USCG

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).

LSMOR 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 it's likely small pockets or trailers of subsurface oil are scattered thruout the beach area.

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

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 & reduced to LSOR. Six pounds of Custom Blend applied to same areas.

Stream should be quickly re-assessed by ADFTG mid summer & the near stream oiled areas re-tilled if deemed necessary

A:OPRESP
April 2, 1991

KN-129-A

07/27/91

PG Map

D.I. Little

1845-2000

N

0 25 50

50 meters

4,5,6,8,10,12

ABC, D

HERRING BAY

KN-128-A

KN-129-B

covered by tide when treatment occurred

A SOR <5% 3x10

NO TO 20

OR m

NO 3

C A: 2x15 SOR(m) 15%

D AP 3x3 40%

UN SURVEY

Stream

B, C, P

PU (partially)

3x10 HOR

B SOR 2x10 1%

BPC

large logs/tree

ANADROMOUS STREAM

KNIGHT IS.

TR of OR (v small pocket and cattle) 2x2

TR of OR (v small pockets) - OF 5x15

NO SURFACE OIL OBSERVED (ALGAE & VERY WET)

LOR 23-24

X X Bedrock

Tree Trees

areas treated

6/3/91

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

WALTER J. HICKEL, GOVERNOR

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

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date June 3, 1991

EXXON Authorized Representative Scott Nauman

Shoreline Segment KN 129 A

Anadromous Fish Stream Number(s) uncatalogued

Approved Cleanup Techniques manual removal, manual
tilling & custom blend

Approved Cleanup Period May 15 - July 10 1991

Alaska Department of Fish and Game

Aimee Weseman
Authorized Officer

Scott A. Nauman
Permittee's Signature

1991 MAYSAP EVALUATION

SEGMENT: KN 129 SUB: A 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: [Signature] Date: 5/9/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL: _____

TAG: MANUAL RAKE/TILL TO THE DEPTH OF THE OIL IN AREAS INDICATED BY PITS 4, 5, 6, 8, 10, 12, (BOTH SIDES OF THE STREAM). RAKE IN CUSTOMBLEN.

FOSC: MANUAL PICKUP, BIO/CUSTOMBLEN, MANUAL RAKE/TILL

TAG APPROVAL DATE: MAY 9 1991

FOSC APPROVAL DATE: 5/13/91

ADEC [Signature]

FOSC [Signature]
E. E. PAGE, CDR, USCG
CHIEF OF STAFF, FOSC

EXXON [Signature]

USCG [Signature]

NOAA [Signature]



SEGMENT: KN 129 SUB: A 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. Hume Date: 5/9/91

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

COMMENTS:

INITIAL: NO TREATMENT

05/09/91 TAG: MANUAL RAKE/TILL TO THE DEPTH OF THE OIL IN AREAS INDICATED BY PITS 4, 5, 6, 8, 10, 12, (BOTH SIDES OF THE STREAM). RAKE IN CUSTOMBLEN.

05/13/91 FOSC: TREATMENT MANUAL PICKUP, BIO/CUSTOMBLEN, MANUAL RAKE/TILL

TAG APPROVAL DATE: MAY 9 1991

FOSC APPROVAL DATE: 5/13/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

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

USCG [Signature]

NOAA [Signature]

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



PRINCE WILLIAM SOUND

SEGMENT: KN0129
ANADROMOUS STREAM.

SUBDIVISION: A

SITE:

RECOMMENDED TREATMENT:

ON BOTH SIDES OF STREAM:

-MECHANICALLY TILL AND COLLECT OIL WITH SORBENTS.

ENVIRONMENTAL SENSITIVITIES:

SEABIRD COLONY. ANADROMOUS STREAM.

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

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/09/91

STATE ON SCENE COORDINATOR:

 for E. Piper

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Seabird Colony: Access restricted. USF&WS authorization required after 5/15. Maintain 1000' vertical and 1/2 mile horizontal buffer.

1991 MAYSAP EVALUATION

SEGMENT: KM 129 SUB: A 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)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

Manually mechanically till, and fill with

TAG:

Agree ↑

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: A

SITE:

RECOMMENDED TREATMENT:

ON BOTH SIDES OF STREAM:

-MECHANICALLY TILL AND COLLECT OIL WITH SORBENTS.

ENVIRONMENTAL SENSITIVITIES:

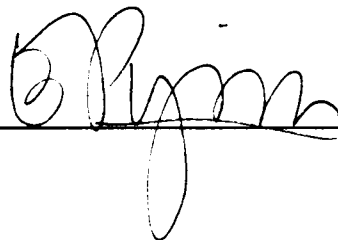
SEABIRD COLONY. ANADROMOUS STREAM.

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

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/07/91

STATE ON SCENE COORDINATOR:



1991 STREAM FILE LOG HABITAT

STREAM CATALOG # : 226-uncat08
STREAM NAME : Knight Island

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

[illegible]

1991 MAYSAP EVALUATION

SEGMENT: KN-129 SUB: A REGION: PWS SURVEY DATE: 8/26/91ENVIRONMENTAL SENSITIVITIES:Work Window(s) OPEN 5/1 - 7/10 (EXCEPT STREAM BED); RESTRICTED 7/10 - 9/15Ecological/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: _____ Date: _____

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

COMMENTS:

INITIAL: _____

TAG: Area was manually raked/tilled by survey team to the depth of the oil in all areas (both sides of the stream). No further treatment needed.

FOSC: _____

TAG APPROVAL DATE: 8/28/91

FOSC APPROVAL DATE: _____

ADEC

Blubauer

FOSC

EXXON

D. Michael Be

USCG

Ivan Nancy, LTJG, USCGA

NOAA

tn

ADF&G OIL SPILL RESPONSE MONITORING

ASC# Uncatalogued

Date: 8/26/91

Stream Name: _____

Observer: Aimee Weseman

Segment-Sub Unit KN129A

Location: Herring Bay, Knight I

Anad. Stream Permit Issued? ☒ Y ☐ N

Date: Gen Permit in effect

Work Order Issued: ☐ Y ☒ N

Date: _____

Demob Date: _____

Oil Characteristics (circle appropriate ones)

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

Treatment Techniques:

Manual Removal
 Manual Raking/tilling ☒ X
 Spot Wash
 Other

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

Crew Size: 5

Lbs. or Bags of Oil/Sediment Removed 0

Other Agency Reps, and Names: Mike Barker-Exxon
John Bauer-ADEC, Dennis McGuire, Ivan Nanc-USCG

Photos ☐ Y ☒ N Roll # Frames

Video ☒ N Tape # Start End

Sediment/Oil Samples ☒ Y ☐ N Collection Number

Purpose of Trip * TAG visit to determine further 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.

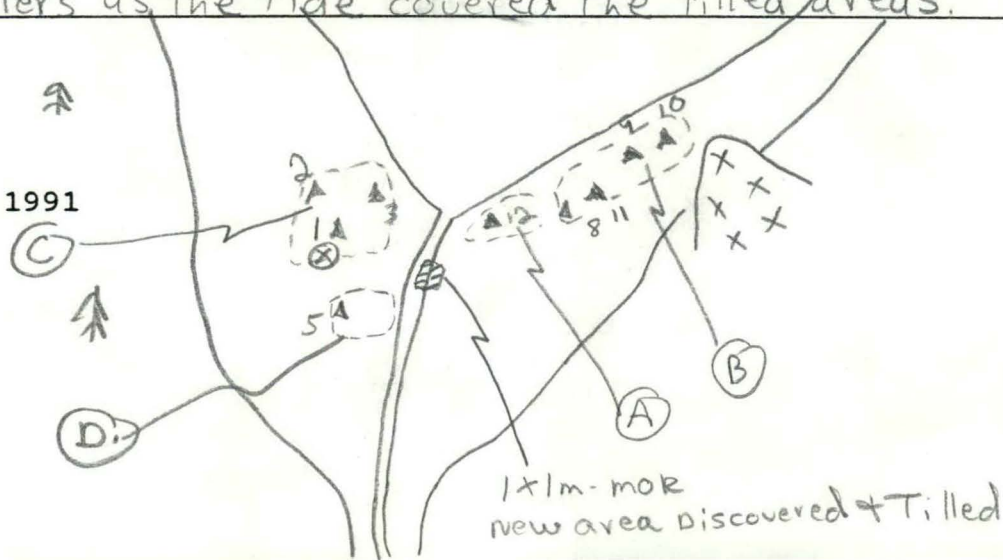
Describe extent of remaining oil (any comments on expected completion of cleanup).

Tilling exposed MOR/OP sediments in LITZ to wave action & degradation. Varying degrees of subsurface oil-OP-TR remains thru-out the stream/beach area - some of it along the stream bank itself. Stream should be re-assessed in 1992.

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

TAG officially recommended NTR on this stream site, but did accomplish 'shour of manual tilling in areas A, B, C & D. A previously unidentified area of MOR (1x1m) along the eastern stream bank (see sketch) was discovered and tilled. This area released a silver sheen into the stream when agitated. Due to the time constraints of the trip, treatment was not thorough, but I believe that the heaviest known accumulations of oil were tilled. Tilling was accomplished without the tide & no containment or retrieval of oil was attempted despite my expressed concern over this. There were approx 50 live fish & 20 morts in-stream, and more off the mouth. An overflight of the area revealed 2-50 m long silver sheens released into the bay waters as the tide covered the tilled areas.

A: OPRESP
April 2, 1991



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: 427 22) TEAM RECORDER: A. Weseman
- 5) START TIME: 10:15 17) HIGH TIDE HTS: 10.4 23) OBSERVERS: Fink, Middleton, Kuwada
- 6) STOP TIME: 11:15 18) LOW TIDE TIMES: 1046 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129-A 19) LOW TIDE HTS: .05ft 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: .05ft ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: Uncatalogued 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	8	34		5%	2-3cm		LSOP
SITE 2 B	10	6			10cm		HOR/OP
SITE 3 C	6	8			9cm		HOR/MOR
SITE 4 D	4	4			8cm		HOR
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

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: Majority of oil on beach is subsurface, & heaviest oil resides in LITZ.

LITZ periodically misses treatment due to it being covered by water most of the time. Oil on west side of stream-areas C & D is contained in 2 distinct oil lenses. The 1st lense is approx 5cm from top. It is 5cm thick followed by 10cm of clean substrate & then another 5cm lense

The oiled areas would benefit from a thorough mechanical or manual tilling

Re-assess in '92.

survey focused on documented oil, treated in 1991

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

34) WILDLIFE OBSERVATION

Species _____ Number _____

36) PHOTOLOG

FRAME(S)

DESCRIPTION

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

A:EDDATFO
 April 3, 1991

A.S.C.NO. Uncatalogued

Team Recorder: Aimee Weseman

SEGMENT KN 129

Observers: M. Fink, M. Kawada.

K. Middleton

SUBDIVISION A

DATE 7 / 31 / 91

TIME 10 : 15 to 11 : 15

TIDE LEVEL 0 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 _____

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

majority of oil on beach is subsurface. Area of site DY upper Location A was manually tilled in '91. Heavy subsurface exists in LITZ on east side of stream; B (area of pits 8-11) totally missed on MARSAP due to tide. Area C, pits 1-3 contains 2 distinct oil layers with clean interval between. This area missed being treated in '91 due to location in LITZ - coverage by tide. Area would benefit from a thorough mechanical tilling in 92 - a definite re-assessment is in order in 92. Survey focused on documented oil, treated in 1991 over

DATE 2/3/91

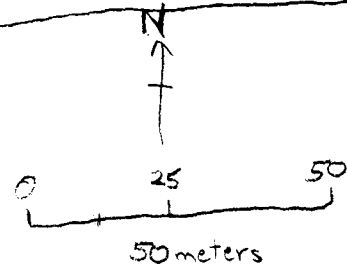
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

Subsurface oil -

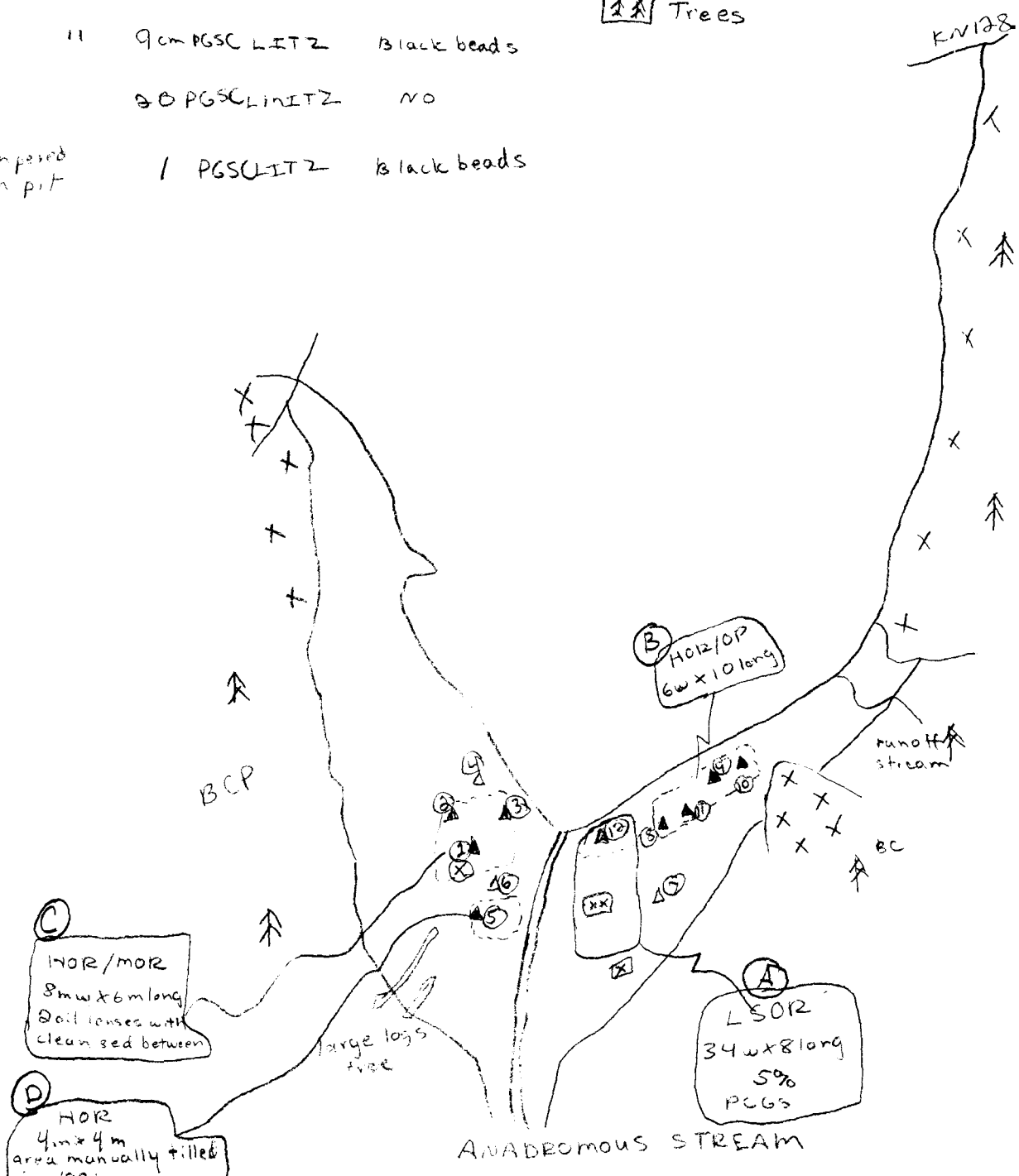
OG COMMENTS:
Subsurface oil -
Loc B = 6mw x 10 long. HOR/OP LITZ
Loc C = 8mw x 6 long. HOR/MOR. LITZ - 2 distinct lenses
Loc D = 4mw x 4 long. HOR - MITZ - " " " - part of area
was manually filled in '91

Pit #	cm	TD	Soil	clean below	WT	seeds	zone	sheen
①	30	6-12	HOR	✓	30	SPG	MITZ	black beads
		11-24						
②	30	3-7	HOR	Y	27	SGG	MITZ	black beads
		15-20						
③	30	9-13	HOR	Y	29	SPG	MITZ	black beads
		24-29						
④	30	NO		Y	29		LITZ	NO
⑤	22	2-7	HOR	Y	20	PGSC		black beads
		12-15						
⑥	24	HOR	no obvious fence		PGSC	MITZ	NO	
⑦	22	NO			PGSC	MITZ	NO	
⑧	24	0-15	HOR	Y	PGSC	MITZ	NO	
⑨	30	0-14	HOR/OP	water table prevented clear observation	14	PGSC	LITZ	Black beads
⑩	30	0-9	HOR/OP	"	11	9cm PGSC	LITZ	Black beads
⑪	21	0-5	HOR	?	20	PGSC	LITZ	NO
⑫	10	yes	water table hampered visual exam on pit		1	PGSC	LITZ	black beads

Post-treatment survey
KN129A
uncatalogued
7/31/91 A. Weseman
1615-11:15



X Bedrock
▲ Trees



ADF&G OIL SPILL RESPONSE MONITORING

ASC# uncatalogued

Date: 6/3/91

Stream Name: _____

Observer: A. Weseman

Segment-Sub Unit KN129A

Location: Herring Bay, Knight I.

Anad. Stream Permit Issued? ☒ Y ☐ N

Date: 6/3/91

Work Order Issued: ☒ Y ☐ N

Date: 5/13/91

Demob Date: 6/3/91

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 ☒ X
 Manual Raking/tilling ☒ X
 Spot Wash
 Other

Bioremediation & Type Customblend 6#
 Mechanical Tilling
 Header Flood (Hot/Cold)

Crew Size: 6

Lbs. or Bags of Oil/Sediment Removed 3 bags

Other Agency Reps, and Names: Scott Nauman, Randy Boyer-Exxon
Bob Jensen-USCG

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).

LSMOR 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 it's likely small packets or trailers of subsurface oil are scattered thruout the beach area

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

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 & reduced to LSOR. Six pounds of Custom Blend applied to same areas.

Stream should be quickly re-assessed by ADFG mid summer & the near stream oiled areas re-tilled if deemed necessary

A:OPRESP
April 2, 1991

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF FISH AND GAME

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

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date June 3, 1991

EXXON Authorized Representative Scott Nauman

Shoreline Segment KN 129 A

Anadromous Fish Stream Number(s) uncatalogued

Approved Cleanup Techniques manual removal, manual
tilling & customblend

Approved Cleanup Period May 15 - July 10 1991

Alaska Department of Fish and Game

Rimee W. Weisman
Authorized Officer

Scott A. Nauman
Permittee's Signature

1991 MAYSAP EVALUATION

SEGMENT: KN 129 SUB: A 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) stream

Anadromous

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: Chuck Hoffme

Date: 5/9/91

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 RAKE/TILL

✓

✓

Other

COMMENTS:

INITIAL:

TAG: MANUAL RAKE/TILL TO THE DEPTH OF THE OIL IN AREAS INDICATED BY PITS 4, 5, 6, 8, 10, 12, (BOTH SIDES OF THE STREAM). RAKE IN CUSTOMBLEN.

FOSC: MANUAL PICKUP, BIO/CUSTOMBLEN, MANUAL RAKE/TILL

TAG APPROVAL DATE: MAY 9 1991

FOSC APPROVAL DATE: 5/13/91

ADEC

FOSC

EXXON

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

USCG

NOAA

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: 4/21/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Ceura
- 5) START TIME: 1835 17) HIGH TIDE HTS: _____ 23) OBSERVERS: Amee Weseman
- 6) STOP TIME: 1950 18) LOW TIDE TIMES: 1900-1930 24) AGENCY: ADF&G
- 7) SEGMENT #: KN1129A 19) LOW TIDE HTS: +1.5 25) PHOTOS TAKEN: Y N
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: +1.8 to +1.5 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y N
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: UNLOGGED START: _____ STOP: _____
- 12) STREAM NAME: NOVE 27) SAMPLES TAKEN? Y N
- 13) LOCATION: HEARNS BAY LAKEWATER ISLAND SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate Low
- 15) SHORELINE TYPE: Headland Low-lying Rocks Beach
- Cove Lagoon Marsh

28) EXTENT OF OIL

	DEPTH LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
<u>SITE 1</u>	<u>35 cm</u>				<u>? 3 cm</u>		<u>HOR</u>
<u>SITE 2</u>	<u>30 cm</u>						<u>AOR</u>
<u>SITE 3</u>	<u>30 cm</u>						<u>HOR</u>
<u>SITE 4</u>	<u>12 cm</u>						<u>HOR</u>
<u>SITE 5</u>	<u>3 cm</u>						<u>HOR</u>

29) OVERALL OIL IMPACT:

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

33) ANADROMOUS FISH PRESENT: Y N

30) OIL IN STREAMBED: Y N

31) OIL ON BEACH ADJACENT TO MOUTH: Y N

32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 50% Gravel 30% Sand 10% Cobble 10% Mud/Silt _____

35) COMMENTS: RECOMMEND MECHANICAL TILLING WITH 4D450 CAT WITH RAKER BAR

34) WILDLIFE OBSERVATION

Species _____ Number _____

sea otter 1

36) PHOTOLOG

FRAME(S)

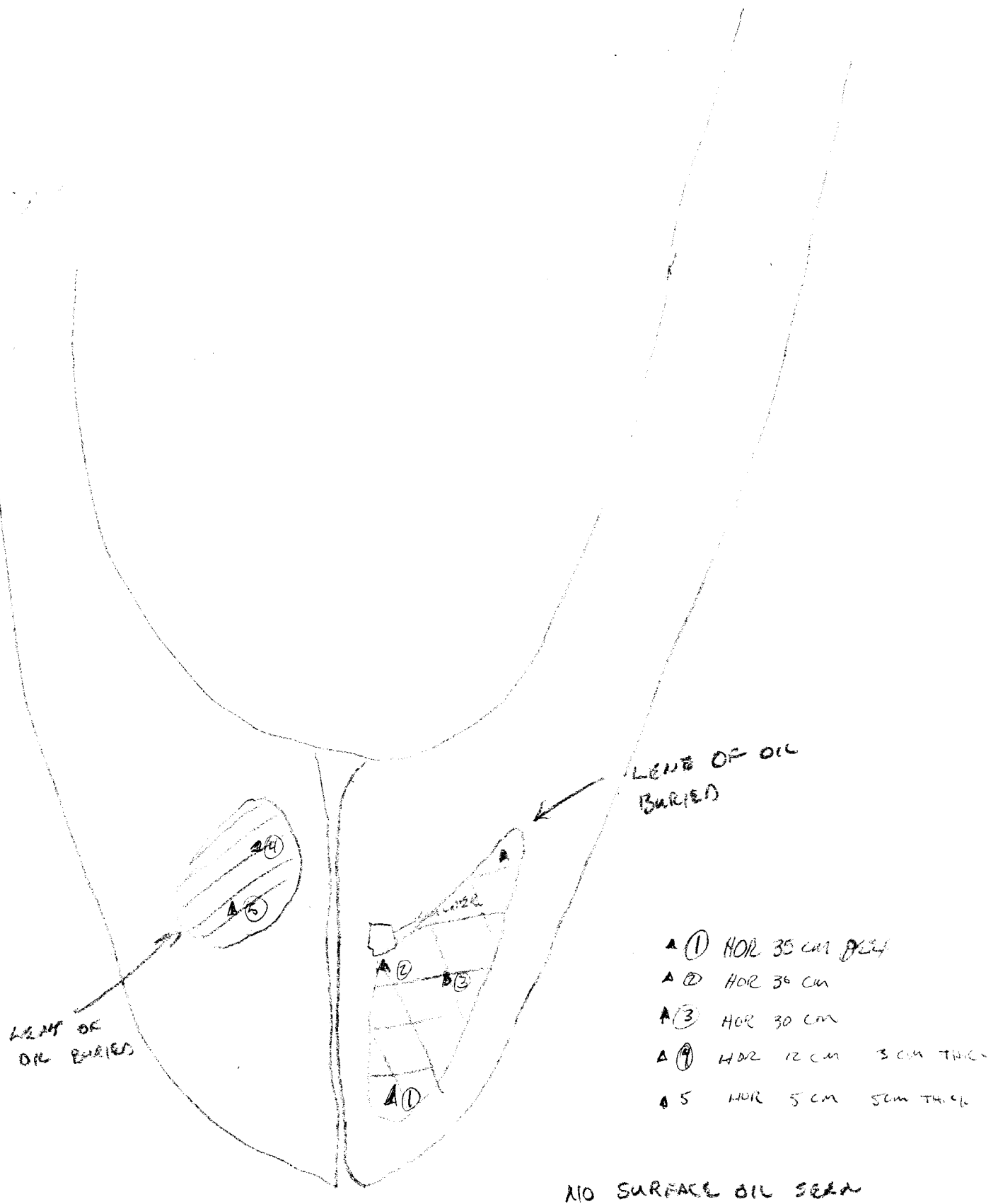
DESCRIPTION

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

KN 129A

UNCATALOGED

4/27/41



- 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: 427 22) TEAM RECORDER: A. Weseman
- 5) START TIME: 10:15 17) HIGH TIDE HTS: 10.4 23) OBSERVERS: Fink, Middleton, Kuwada
- 6) STOP TIME: 11:15 18) LOW TIDE TIMES: 1046 24) AGENCY: ADF&G
- 7) SEGMENT #: KN129-A 19) LOW TIDE HTS: .05t 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: .05t ROLL #: _____ FRAMES: _____
- 9) LAT: _____ Ebb Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE #: _____
- 11) ASC #: Uncatalogued 226 UNCAT 08 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	8	34		5%	2-3cm ^{2.5}		LSOR
SITE 2 B	10	6			10cm		HOR/OP
SITE 3 C	6	8			9cm		HOR/MOR
SITE 4 D	4	4			8cm		HOR
SITE 5							

29) OVERALL OIL IMPACT:

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

33) ANADROMOUS FISH ~~PRESENT~~ Observed 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: Majority of oil on beach is subsurface & heaviest oil resides in LITZ. LITZ periodically misses treatment due to it being covered by water most of the time. Oil on west side of stream - areas C & D is contained in 2 distinct oil lenses. The 1st lense is approx 5cm from top. It is 5cm thick followed by 10cm of clean substrate & then another 5cm lense. The oiled areas would benefit from a thorough mechanical or manual tilling. Re-assess in '92. survey focused on documented oil, treated in 1991

34) WILDLIFE OBSERVATION

Species _____ Number _____

EST. OIL CATEGORY LENGTH: W_____m M_____m N_____m VL_____m NO_____m US_____m

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

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

OG COMMENTS:
majority of oil on beach is subsurface. Area of site D & upper location A was manually tilled in '91. Heavy subsurface exists in LITZ on east side of stream; B (area of pits 8-11) totally missed on MAKSAF due to tide. Area C, pits 1-3 contains 2 distinct oil layers with clean interval between. This area missed being treated in '91 due to location in LITZ - & coverage by tide.
Area would benefit from a thorough mechanical tilling in 92 - a definite re-assessment is in order in 92. Survey Focused on documented oil, treated in 1991 over

[illegible]

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

OG COMMENTS:

Subsurface oil -

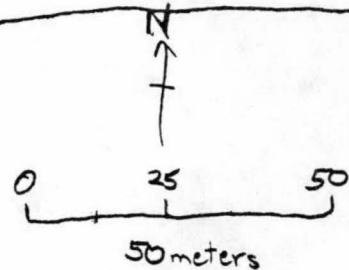
Loc B = 6mw x 10 long. HOR/OP LITZ

Loc C = 8mw x 6 long-HOR/mor-LITZ - 2 distinct lenses

Loc D = 4mw x 4 long. HOR - MIZ - " " " - part of area
was manually filled in '91

cm
TD 31L clean below wt sed zone sheer

Post-treatment survey
KN129A
uncatalogued
7/31/91 A. Weseman
1975-11:15

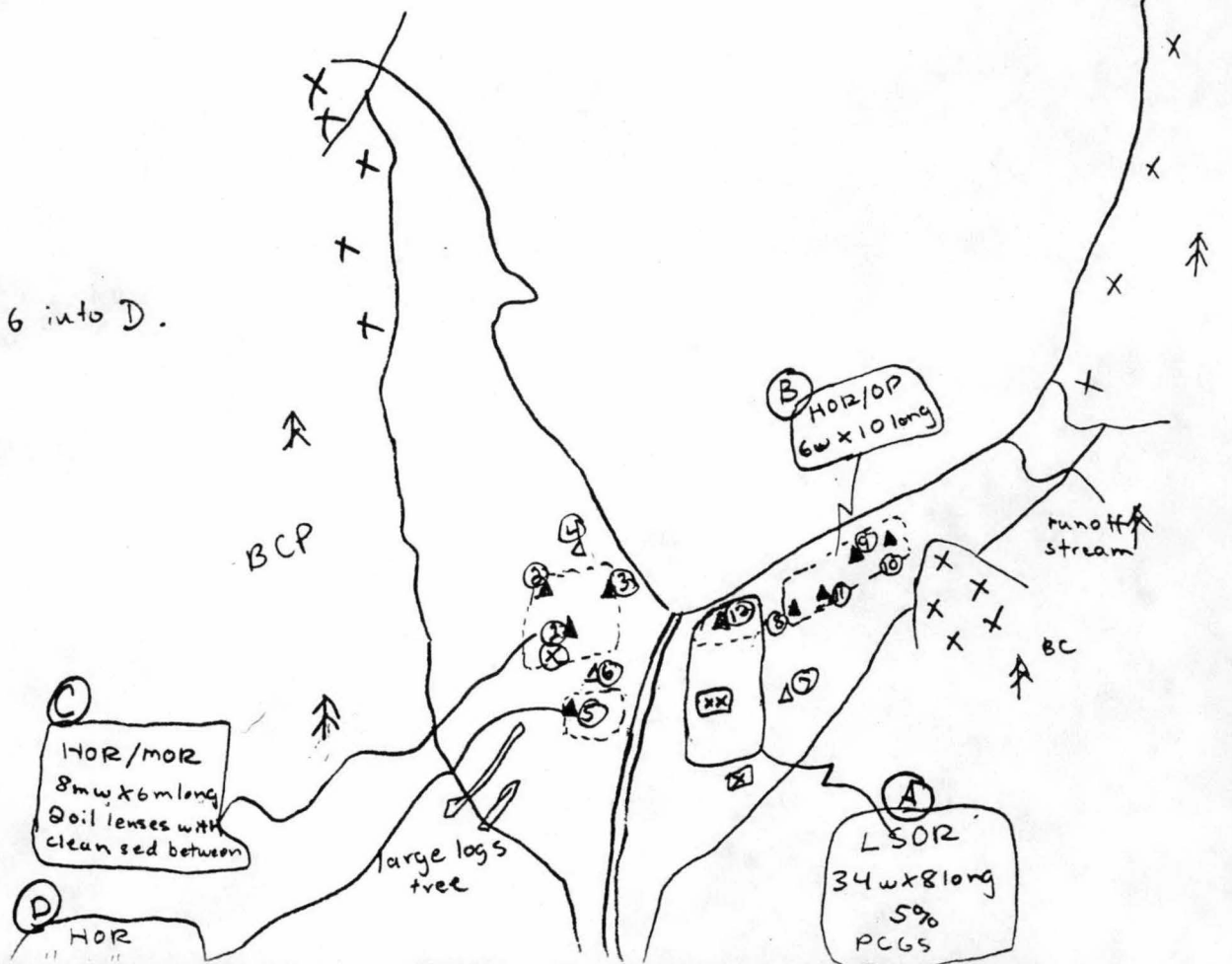


30	6-12 HOR ?	30	SPG MITZ black beads
	31-34		
30	3-7 HOR Y	27	SGG LMITZ black beads
	15-20		
30	9-13 HOR Y	29	SPG LITZ black beads
	24-29		
30	NO Y	29	LITZ NO
22	2-7 HOR Y	30	PGSC MITZ black beads
	12-15		
24	LOR - no obvious lense	PGSC MITZ NO	
22	NO	PGSC LITZ NO	
24	0-15 HOR Y	PGSC MITZ NO	
30	0-14 water table prevented clear observation	PGSC LITZ Black beads	
30	0-9 HOR/OP	9cm PGSC LITZ Black beads	
21	0-5 HOR ?	20 PGSC LMITZ NO	
10	yes water table hampered visual exam on pit	1 PGSC LITZ black beads	

XX Bedrock
AA Trees

please enter these pits from next page.

MARK, I put pit 6 into D.



SHORELINE EVALUATION

SEGMENT ST/ KN-129 SUBDIVISION A (1 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. Restrict disturbance of uncoiled fucus and barnacles in L and M ITZ.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 34 m: Narrow 78 m: V.Light 296 m: No Oil 0 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 25 cm

RECOMMENDATIONS:

☐ 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: Recommend manual removal of tarmats as shown on attached sketch map. Work should be conducted between 5/15 and 7/10 based on above constraints.

TAG COMMENTS:

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

ACE 7378564

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / KA 129 SUBDIVISION: A (172) DATE 3 30 90

USCG

NAME MSF Malay / PS Ed White SIGNATURE Patrick Malay / Ed E. White

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Broken pavement in U.I. zone to remove manually. Boulders in U.I. zone turned to expose coated areas. Residual oil in subsurface U.I. zone to 30cm (and) Silver & Rainbow sheens on both ends of the subdivision (25m²) at the waterline. Sensitive ~~stream~~ stream runs through the middle of the subdivision. Would not recommend bioremediation.

ADEC

NAME Cunningham / Munson SIGNATURE McCunningham / D. Munson

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Turn boulders at mid. to expose oil coating, use a beach crew to team and flush. From mid to high itz. where subsurface oil was observed at 15-20 cm use mechanical dredging / cleaning of native beach materials with redeposition of the same materials on the site. Physical removal of asphalt / pavement. Use a type of absorbent boom to collect mobile sheen which is leaching out at waters edge.

Note: possible anadromous stream.
low energy environment.

LAND MANAGER

NAME Phillips (ONE) Mandella (USF) SIGNATURE Steve Phillips Dave Mandella

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

turn over boulders scoop up asphalt
disturb moderate oil layers
may need absorbant boom along creeks (sandsorb)
pick up debris especially pom-pom strands
bioremediation around boulders
sensitive stream #16932 in A or B?

SHORELINE OILING SUMMARY

REVISION NO. 06/23/90

OG Chaney / Sawyer USCG Malay / White SEGMENT ST/ KN129
 BIO Roth / Benson LAND REP Phillips / Mandrella SUBDIVISION A (10+2)
 EXXON Sotelo / Katmanolis ADEC Cunningham / Munson TIME 10:50 to 1:20
 TEAM NO.: 7 and 8 TIDE LEVEL: -0.5 ft to 5.0 ft DATE March / 30 / 90
 EST. SUBDIVISION LENGTH: 300 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 40 % C 10 % P 30 % G 10 % S - % M - % V - %
 SLOPE: Long 90 % Hang - % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W - m M 16 m N 54 m VL 230 m NO - m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SU	U	M	U	
ASPHALT PAVEMENT		X							X		X			
POOLED														
COVER														
COAT				X		X					X			
STAIN														
MOUSSE														
PATTIES				X				X				X		
TARBALLS														
FILM				X			X				X	X	X	
NO OIL										Sub				

PAVEMENT: H F @ 70 sq. m by 8 cmPATTIES / TARBALLS 2 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED
☒ YES ☐ NOTYPE polymer / rope#BAGS 1

Photographs:

Roll No. St-8-1Frames 1, 2, 3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-OS)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			UO	UC	30	35	40	45	50	U	M		
1	25				X		0.5												G P C
* 2	30		X				0.5												S G P
* 3	30		X				0.5												S G P
* 4	30		X				0.5												G S P
5	30		X				0.8												G C G
6	25					X	- -									X			G C G

COMMENTS St/KN129A: low angle boulder and pebble beach bordered by high angle bedrock cliffs. Broken pavement in upper tidal zone appears to be erosional remnants of formerly more extensive pavement. Snow covering supratidal zone. Sub-surface oiling not continuous. Pits excavated where surficial oil observed. Sporadic oil coats bottom of boulders in upper intertidal zone. * Oiled intervals of 0-5 cm in Pits 2, 3 & 4 do not constitute subsurface oil. YH

SHORELINE OILING SUMMARY (PAGE 2 of)

REVISION 12-22-98

SEGMENT ST/ XN129 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1B	2B	3B	4B	5B	6B	7B	8B	SU	U	M		
7	20		X				15-20		X								X				X	GCG
							.															
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COMMENTS

ACE 7378567

 REVIEWED YH DATE 4-2-10
4-4-10

2-f6

⊗

SHORELINE ECOLOGICAL SUMMARY

REVISION: 10/12/90

Segment ST / KN0129 Subdivision A Date (mo / day / yr) 3/30/90

Time (24 hr) 1050 Biologist Benson/Roth

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 40 (3) Cobble 10 (4) Pebble 30 (5) Sand 10 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 30 Low 60
- (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-8-1

Frames 1-3

BARNACLES

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	X	2	
3	3	3	3	3	3	3	3	3	3	X	X	
4	4	4	4	4	4	4	4	4	4	X	X	
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	X	X	
3	3	3	3	3	3	3	3	3	3	X	X	
4	4	4	4	4	4	4	4	4	4	X	X	
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	2	X	X	
3	3	3	3	3	3	3	3	3	3	X	X	
4	4	4	4	4	4	4	4	4	4	X	X	
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	2	X	2	X	2	
3	3	3	3	3	3	3	3	3	3	X	X	
4	4	4	4	4	4	4	4	4	4	X	X	
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:

- 1) 3 Killer Whales (Orcinus orca) in mid-Herring Bay (2 large, 1 small)
- 2) Adult Sea Otter (Enhydra lutra) between ship (Yukon River) and site (KN0129)

Ecological Considerations:

Sensitivities: 1B (Salmon spawning)

U. Greg & Cheney / 10m L. Sawyer SKETCH MAP

SEGMENT ST/ 129 F11

SUBDIVISION A

DATE Mar 1 30 90

CHECKLIST

☐ In Area
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HWA/LWA
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ P/L Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
No Subsurface Oil

2 Δ
Subsurface Oil

CT/C
Continuous Distribution

CT/B
Non Distribution

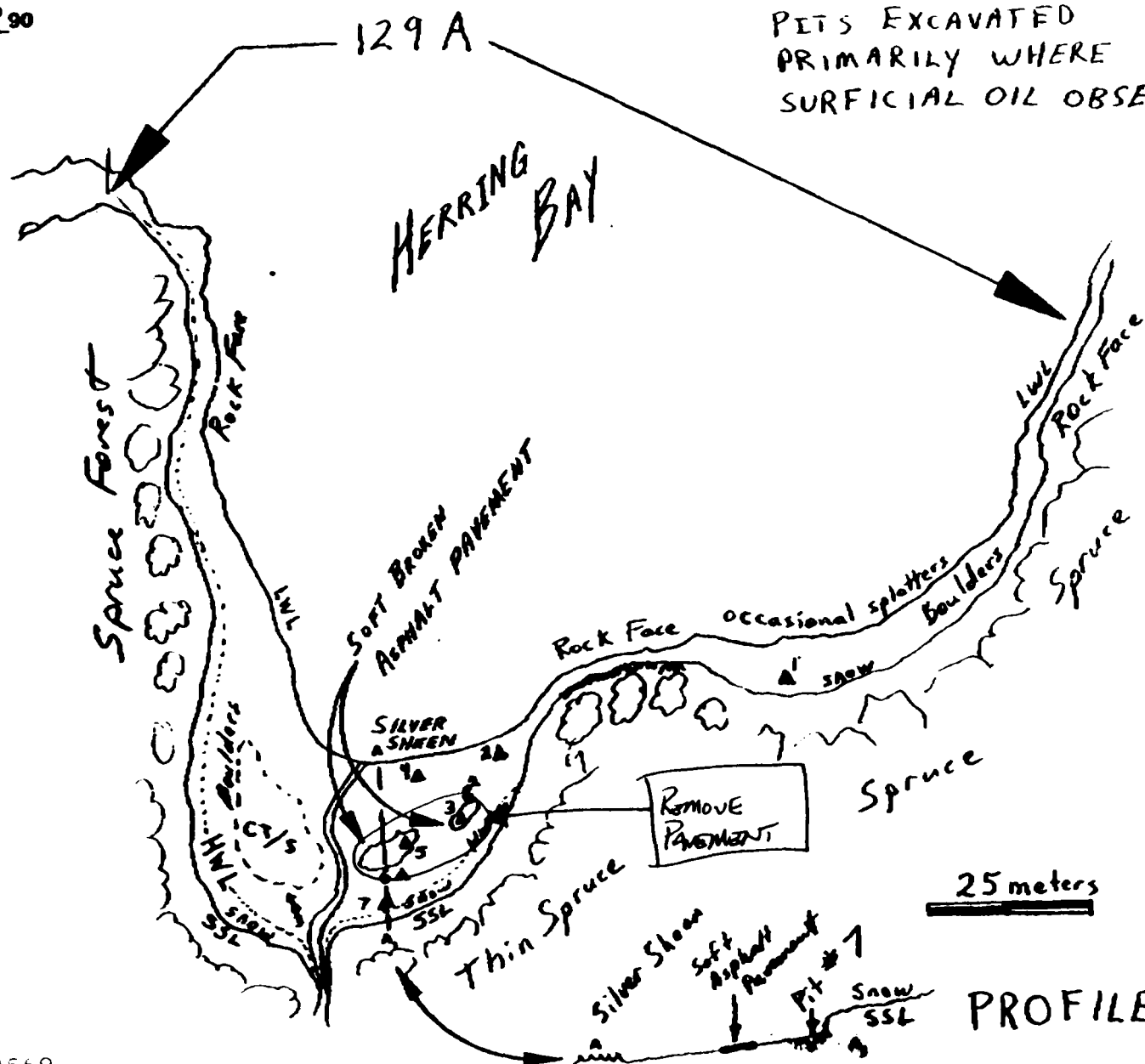
CT/P
Patchy Distribution

CT/S
Spotted Distribution

ed Vegetation

☐ location, direction,
 number

SUB SURFACE OILING
 NOT CONTINUOUS.
 PETS EXCAVATED
 PRIMARILY WHERE
 SURFICIAL OIL OBSERVED



ACE 7378569

Character Length (m): AP 16 PO - CV - CT 25 ST - MS - PT 5 TB - FL 40 NO 214

REVISION 6/24/90

Itty observed approximately every 25 meters along subsegment. Total continuous nattes observed 45m

KN

KN-129

KN-129 A

KN-129 A 300 meters

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

nnnn N. N. 1

KN-129 A

ADEC Segment Length: 802m
Exxon Segment Length: 532m

0 100 200 300

ACE 7378570 -/S

Map Key: PWS-311

Name: Greg Chapp / Tom Sawyer

Date: March 30 1990



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: 4/21/91 16) HIGH TIDE TIME: _____ 22) TEAM RECORDER: Tom Ceane
- 5) START TIME: 1835 17) HIGH TIDE HTS: _____ 23) OBSERVERS: Amee Weseman
- 6) STOP TIME: 1950 18) LOW TIDE TIMES: 1900-1930 24) AGENCY: USF ADF&G
- 7) SEGMENT #: K1129A 19) LOW TIDE HTS: 1.5 25) PHOTOS TAKEN: Y (N)
- 8) K-UNIT: _____ 20) TIDE HT AT SURVEY: 1.8 1.5 ROLL #: _____ FRAMES: _____
- 9) LAT: _____ (Ebb) Slack Flood Slack 26) VIDEO TAKEN: Y (N)
- 10) LONG: _____ 21) USCG QUAD: _____ TAPE # _____
- 11) ASC #: UNCALIBRATED (226 UNCTION) E START: _____ STOP: _____
- 12) STREAM NAME: None 27) SAMPLES TAKEN? Y (N)
- 13) LOCATION: HEERING CAY KUMST ISLAND SAMPLE I.D. _____
- 14) WAVE EXPOSURE: High Moderate (Low) _____
- 15) SHORELINE TYPE: Headland Low-lying Rocks (Beach) _____
- (Cove) Lagoon Marsh _____

28) EXTENT OF OIL

HOLE #	DEPTH LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	35 cm				3-30 cm	35 cm	HOR
SITE 2	30 cm				3	30	AOR
SITE 3	30 cm				4	30	HOR
SITE 4	12 cm				3	12	HOR
SITE 5	5 cm				5	5	HOR

29) OVERALL OIL IMPACT:

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

N = No oil observed

33) ANADROMOUS FISH PRESENT: Y (N)

34) WILDLIFE OBSERVATION

Species _____ Number _____

Sea Catter 1

30) OIL IN STREAMBED: Y N

31) OIL ON BEACH ADJACENT TO MOUTH: Y N

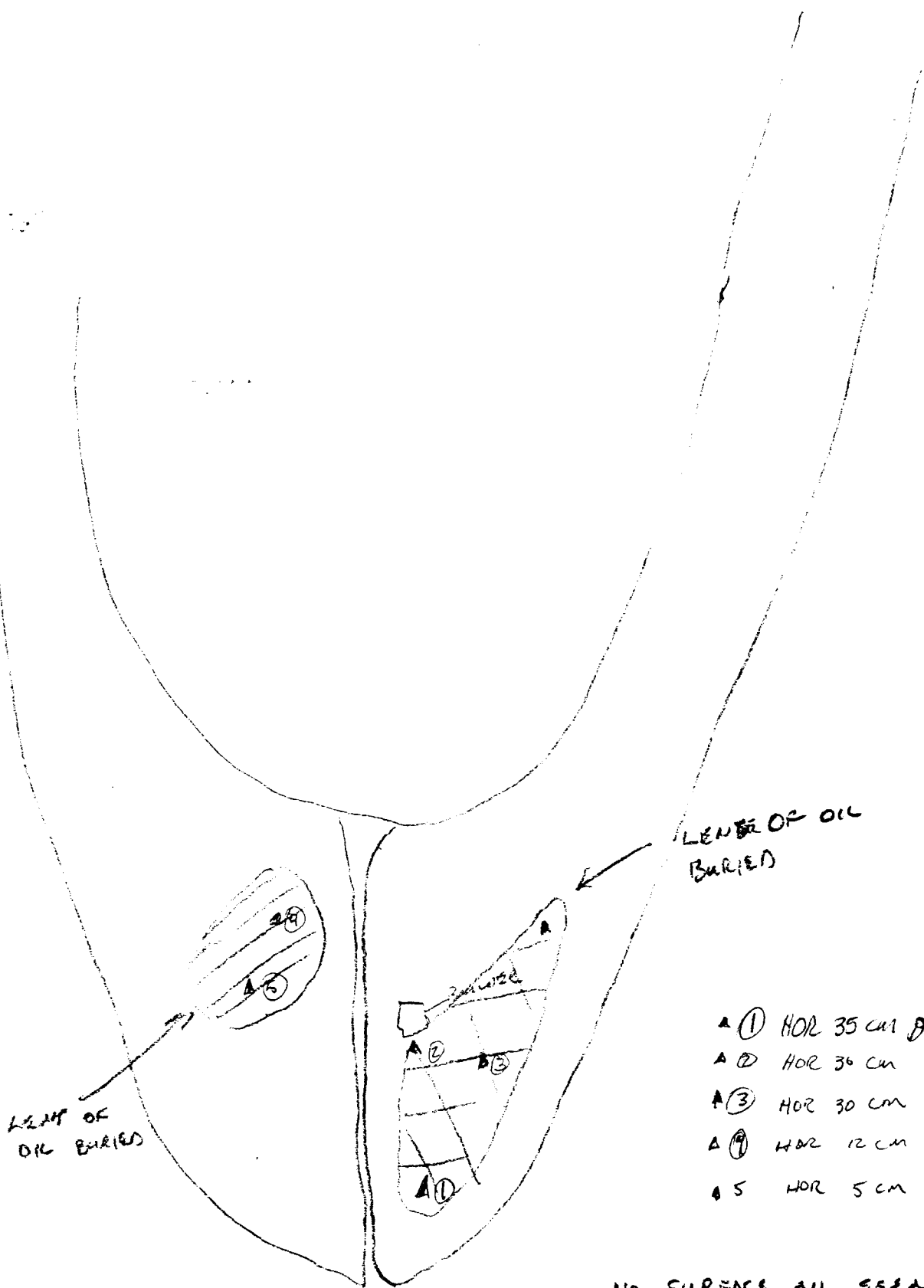
32) SUBSTRATE TYPE (PERCENT):

Bedrock _____ Boulder 50% Gravel 30% Sand 10% Cobble 10% Mud/Silt _____35) COMMENTS: RECOMMEND MECHANICAL TILLING WITH 4D450 CAT WITH
RAKER BARDATA ENTRY NOTE: SITES 1-5 are holes, their "lengths" represent depth.
in cm. (12)

KN 129 A

UNLOCATED

4/27/91



appears at least
W. side Adam Wierps
tilling pits 4, 5, 6 = HOR
+ manual removal
of cephalec patches

ORIGINAL COPY

711 - 1200 - 120000
1000/1000000000
1000 - 1000000000

TEAM NO. 6

PAGE 2 OF 2

SEGMENT KN-129

SUBDIVISION A

DATE 04 / 37 / 91

[illegible]

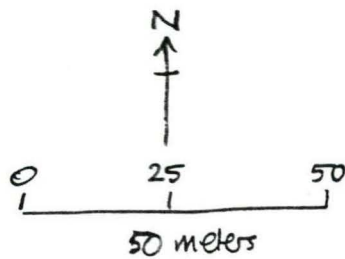
SHEEN COLOR: B = BROWN: R = RAINBOW: S = SILVER: N = NONE

OG COMMENTS:

cont'd

located. Separate because they were isolated by one or more of the following - heavy surface runoff, large boulders/bedrock outcrops, and/or remaining oil-free pits. Additional, uncircled pits were also dug in Area 1 - 1 pit, both NO oil - which were not logged.

Pits 10, 11 and 14 are shown as TR because the ^{137}Cs values found were in very small ($< 10 \text{ cm}^3$) pockets, either associated with ~~in-situ~~ lenses or cobble pockets.

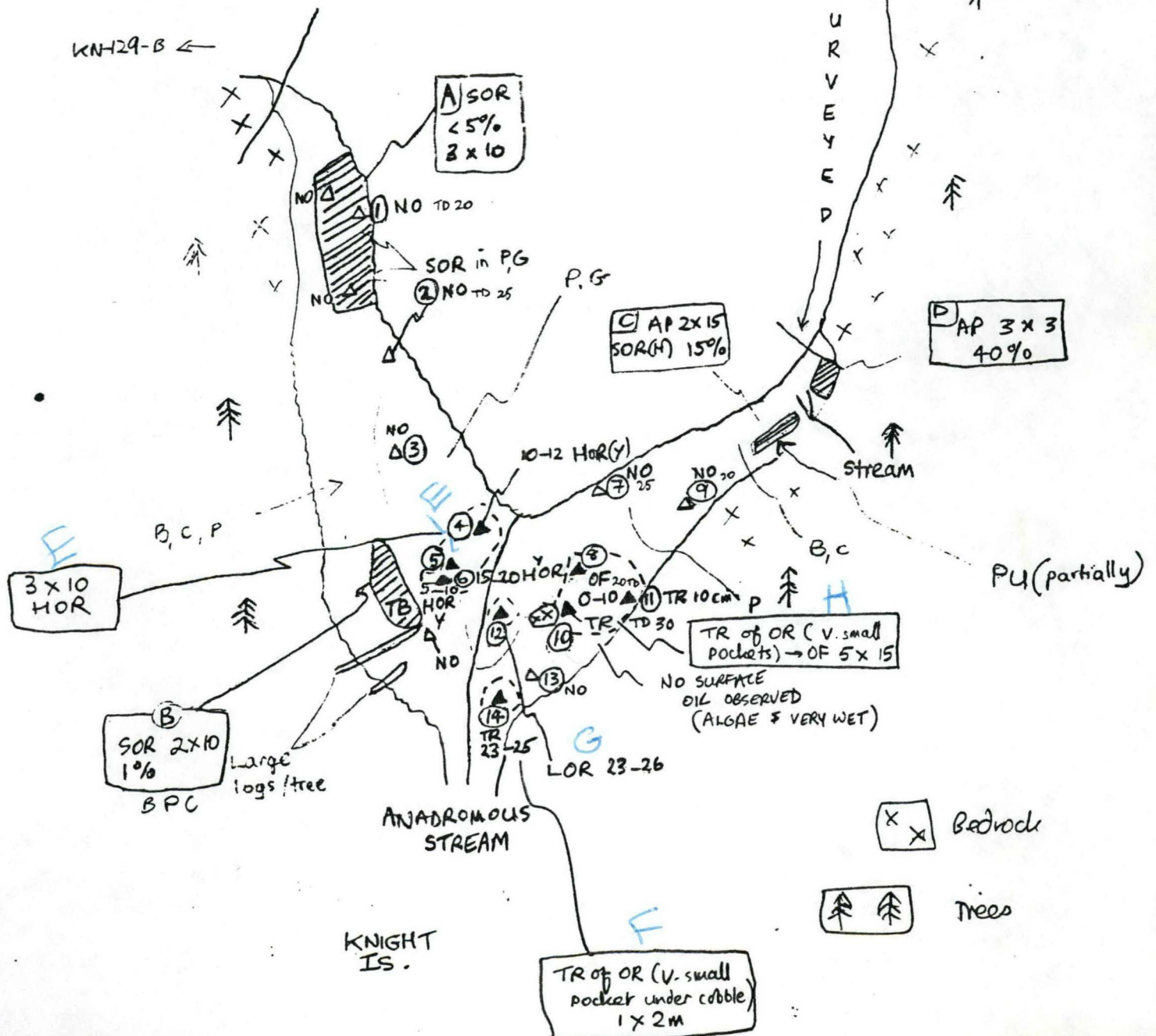


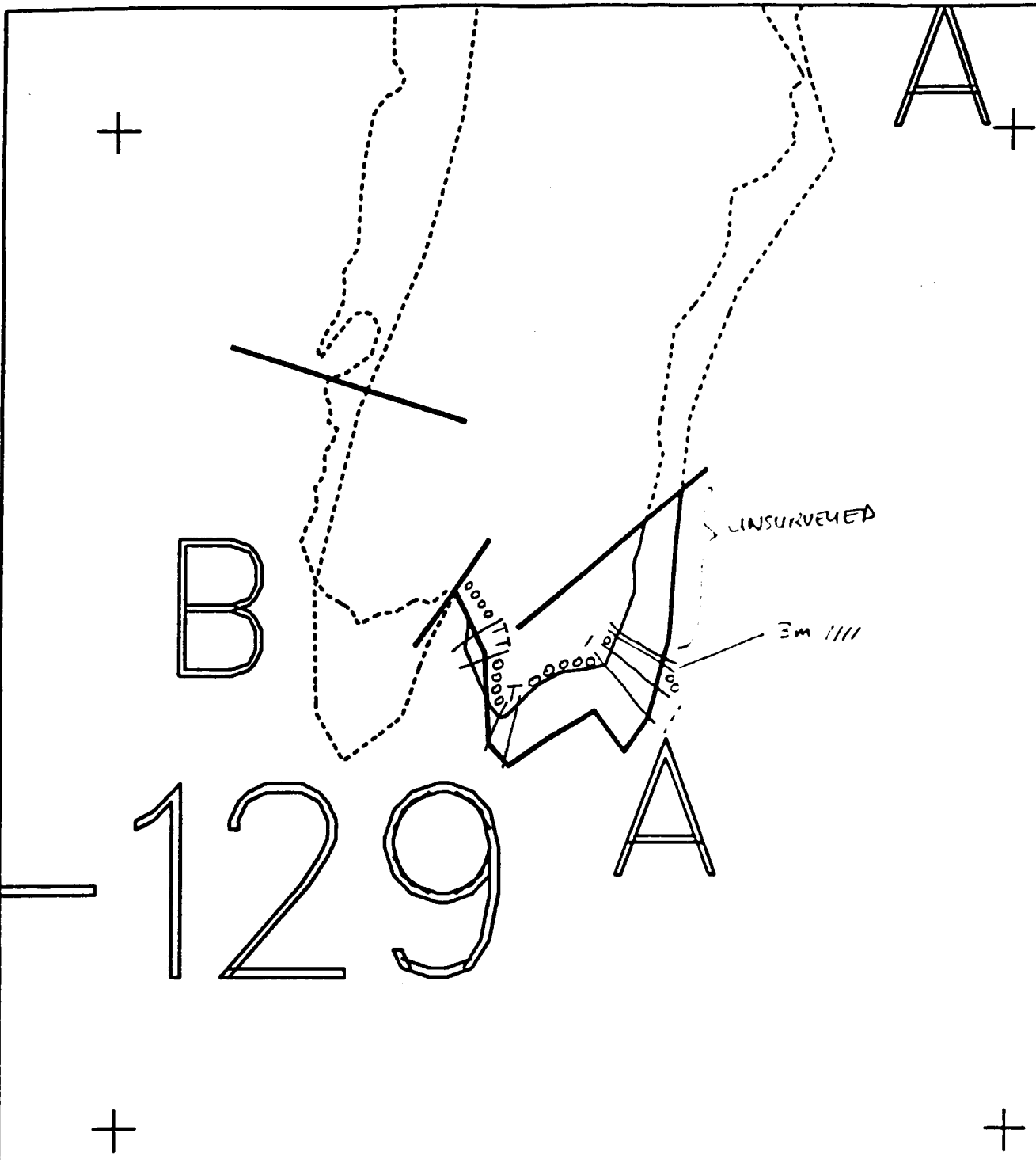
KN-129-A 09/27/91
OG Map D.I. Little
1845-2000

KN-128-A

HERRING BAY

KN-129-B





XXXX	Wide	KN0129 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 407m	Map Key: KNKN0129A
----	Narrow	METERS	Name: <u>D.I. LITTLE</u>
TTTT	Very Light	5 100 200	Date: <u>04/27/91</u>
0000	No Oil	AK State Plane Zone 4	Date Entered:
		kn0129a	

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6
 DATE 4/27/91
 SEGMENT # KN-129
 TIDAL HEIGHT(Range) +1 1/2 to 2 1/2 feet
 SUBDIVISION A
 BIOLOGIST T.R. Schroeder
 SEA STATE Light chop
 WIND SPEED/DIRECTION N/E. 15-20
 PHOTOGRAPHS: ROLL #
 FRAME #

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

(A) Lower intertidal zone, regrowth of fucus kelp and sea lettuce is good. Numerous intertidal organisms present especially Littorid snails and snail egg masses under rocks. Any additional pickup of oil would be secondary-productive to near recruitment.

(B) Some sheering observed near tree from SOA, but it does not appear to be affecting regrowth and repopulation of intertidal area.

(C & D) Lower intertidal zone (LITZ) very healthy. Fucus kelp regrowth is good.

Area is not high energy beach. Some manual work has been observed on G. If additional work is scheduled for C & D it would not impact biological community. If conducted towards high water, biological community appears to be repopulating area very well. Snail and fucus kelp would suffer with any major activity in area.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

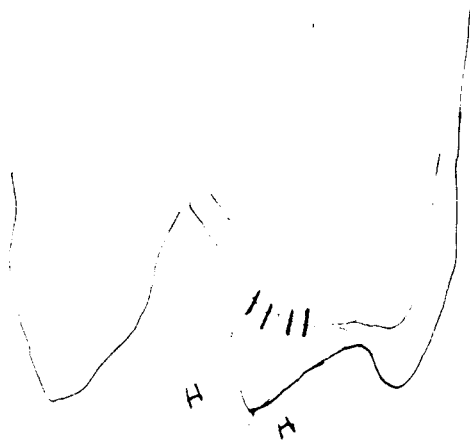
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl	1	1	
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1		
Pinnipeds(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

ADEC comments continued

4/27/91 Aimee Weseman

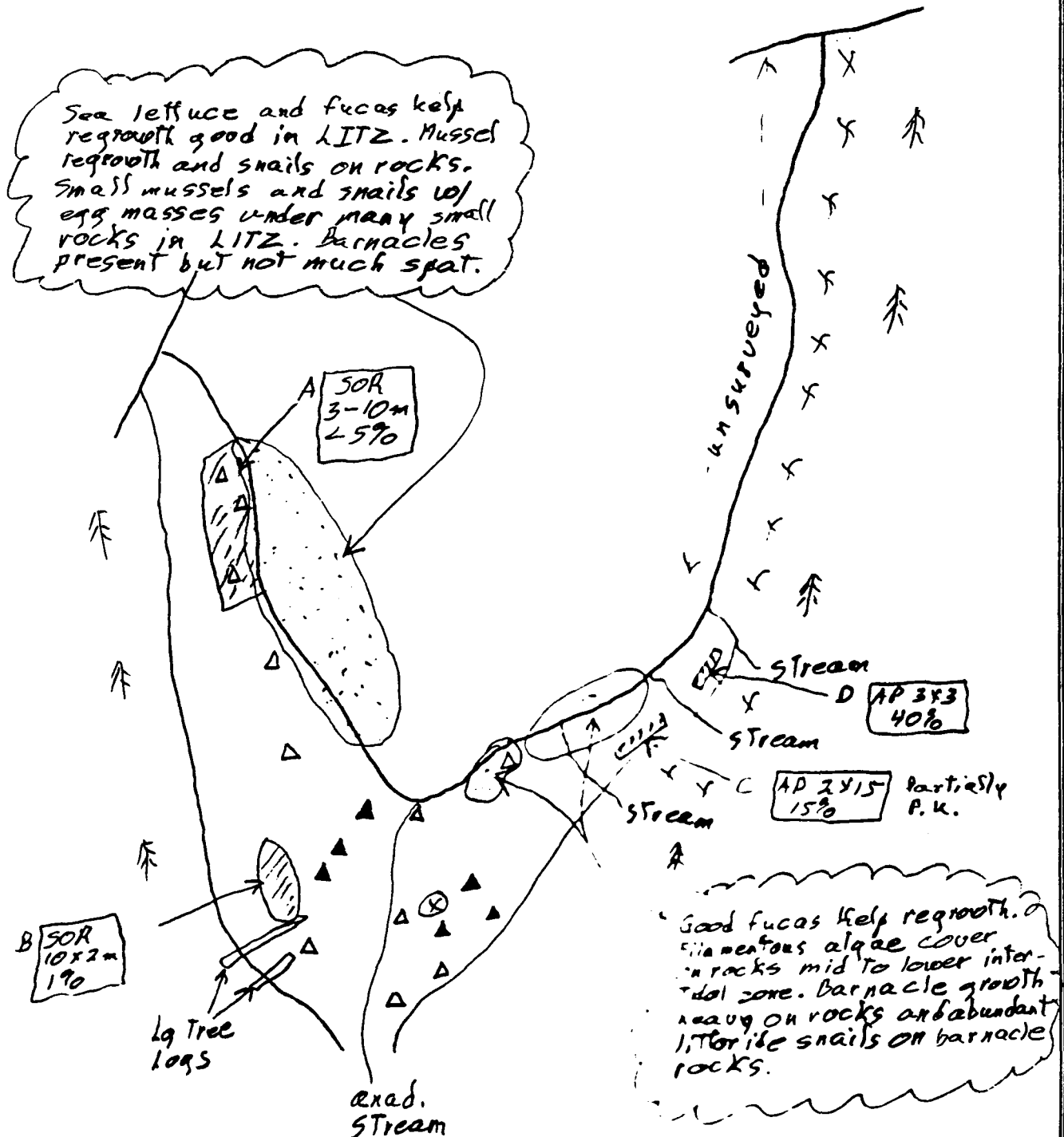


KN 129A

Bio. Map KN-129-A
1845-2000 4/27/91
T.R. Schroeder

N
↑
Herring Bay

Δ = no oil
▲ = oil
⊗ = rock



Segment No K11179 Subdivision A
Date 4/27/91 Log Frame No 19
Photographer Ribeca Hagg
Location _____
Comments Overview looking across
segment across stream

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

Segment No K11179 Subdivision A
Date 4/27/91 Log Frame No 21
Photographer Ribeca Hagg
Location _____
Comments Pit with SAR (#2) right above
water line

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 K11179 Subdivision A
Date 4/27/91 Log Frame No 20
Photographer Ribeca Hagg
Location _____
Comments Overview looking down at
water

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

Segment No K11179 Subdivision A
Date 4/27/91 Log Frame No 22
Photographer Ribeca Hagg
Location _____
Comments Pit in gravel area

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

N
↑

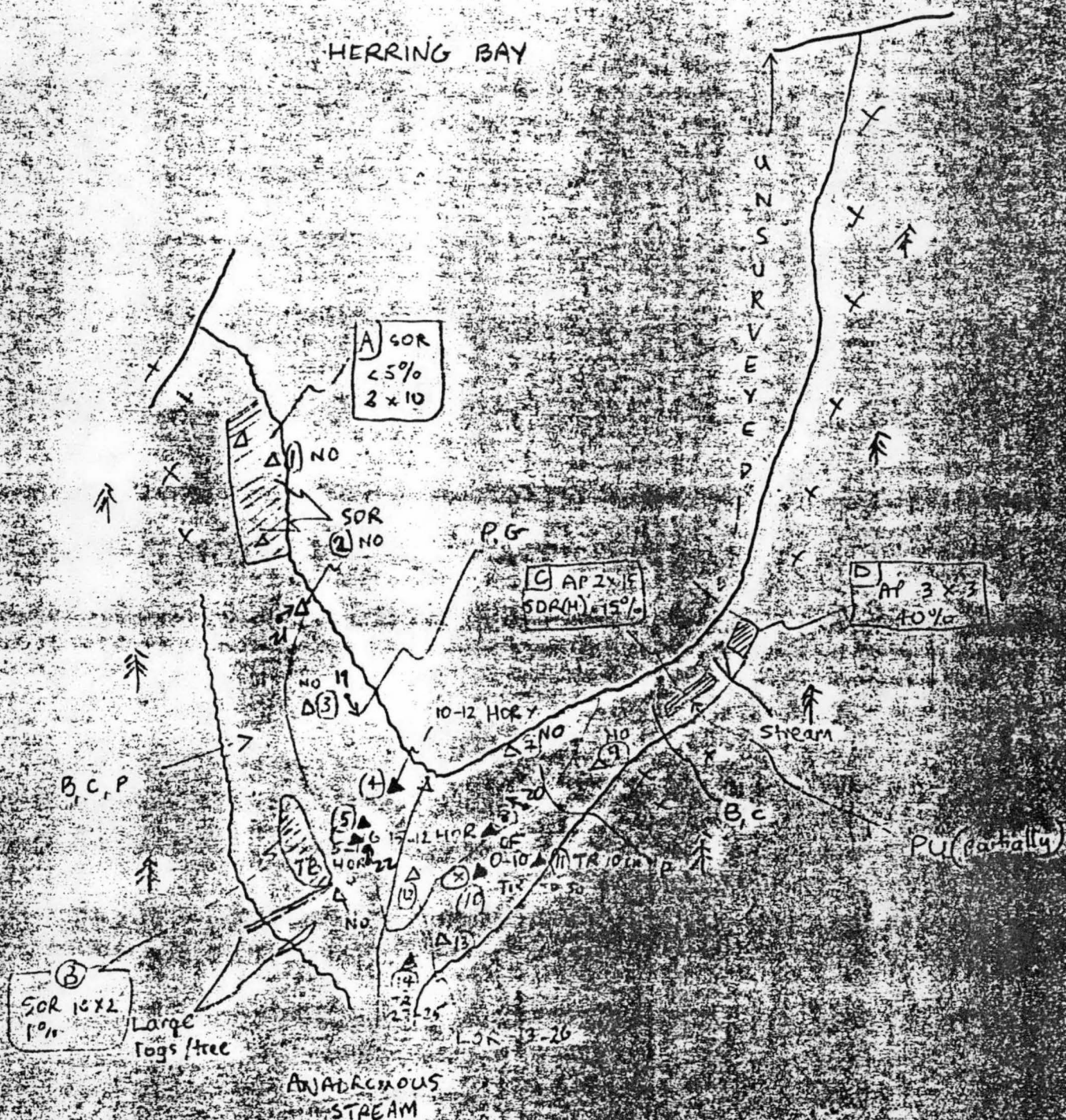
KN-129-A

Q9-105-11

OG Map

D. M. L. H. C.

1845-2000



MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT KN-129 SUBDIVISION A DATE 07/27/91

ADEC Representing ADEC & USFS

NAME Aimee Weseman ADF+6 SIGNATURE Aimee Weseman

☐ NTR ☒ Treatment Recommended

This site contains an ANADROMOUS FISH stream & has a commercial tourism designation. The near stream area contains HOR sediments (see pits # 4, 5, 6, 8, 10, & 14 OG sketch) which should be manually removed & or tilled. Treatment of this area should occur during the window period.

A band of AP sediments in areas C & D, IITZ should be manually removed, as well as the AP sediments scattered through areas A & B.

EXXON

NAME Scott A. Nauman

SIGNATURE Scott A. Nauman

☒ NTR

Further intrusion and treatment not warranted at this site. Subsurface oil is very patchy and is generally thin and mixed with peat. Surface areas C & D are very limited in extent and consist of oil residue matted into small tufts of still connected grass, interspersed in a fairly steep slope boulder shoreline. The entire area has a healthy covering of green filamentous algae. Due to the limited distribution, difficulty in access and healthy intertidal, strongly recommend no treatment.

LANDMANAGER

NAME Tom Crowe

OF ADF+6

SIGNATURE Tom Crowe

☐ NTR ☒ TREATMENT RECOMMENDED

CONSIDERING THAT THERE APPEARS TO BE A SUBSTANTIAL CAUSE OF BURIED OIL ON BOTH SIDES OF THIS STREAM, I RECOMMEND MECHANICAL TILLING WITH A SMALL JD 450 CAT WITH RAKER BARS AS WAS USED ON KN 500 IN 1990. ALSO CONCERNING THE HOR ON THE WEST END OF THIS COVE, IT SHOULD BE PICKED UP AND BROKEN UP BY A SMALL CREW.

USCG/NOAA

NAME CWO R. SPURR / Rebecca Hoff

SIGNATURE R. P. Spurr / Rebecca Hoff

☒ NTR

Small asphalt patches in areas C & D (partially removed) are high in intertidal & should not impact biological resources. Area A low in intertidal with SOR should be left to weather on its own. The lower intertidal is beginning to recover, but vegetation & invertebrates have probably been impacted by previous treatments & oil. Further physical impacts to the area should be avoided.

5/13/91

Discrepancies - comments

Review
KZ (HAB supplements OG)

KN129A - 226 UNCAT #8

HAB

-

AGREE

-

OG

pits, no sites:

pits 4, 5

1: 32-35

2: 27-30

3: 26-30

• : unid'd pit

used to delineate
buried lens of HOR

no surface oil observed

=

pits 4, 5

14? 23-25

12? 23-26

13? none

most pits show subsurface

no surface oil observed.

Review: what defines upper corner of oil-lens?
(no pit-info). looks like OG-pit #8.

PAGE 12 OF 2

cont'd

MAYSAP SHORELINE OILING SUMMARY (cont.)

PAGE 2 OF 2

TEAM NO. 6

SEGMENT KN-129

SUBDIVISION A

DATE 04 / 27 / 91

[illegible]

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

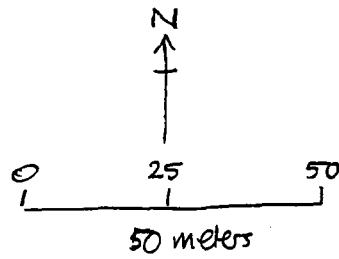
OG COMMENTS:

cont'd

located. Separate because they were isolated by one or more of the following - heavy surface runoff, large boulders/bedrock outcrops, and/or remaining oil-free pits.

Additional, unciled pits were also dug in Area A - - pit both No oil - which were not logged.

Pits 10, 11 and 14 are shown as TR because the/mol residues found were in very small ($< 10 \text{ cm}^3$) pockets, either associated with ~~in-situ~~ lenses or cobble pockets.

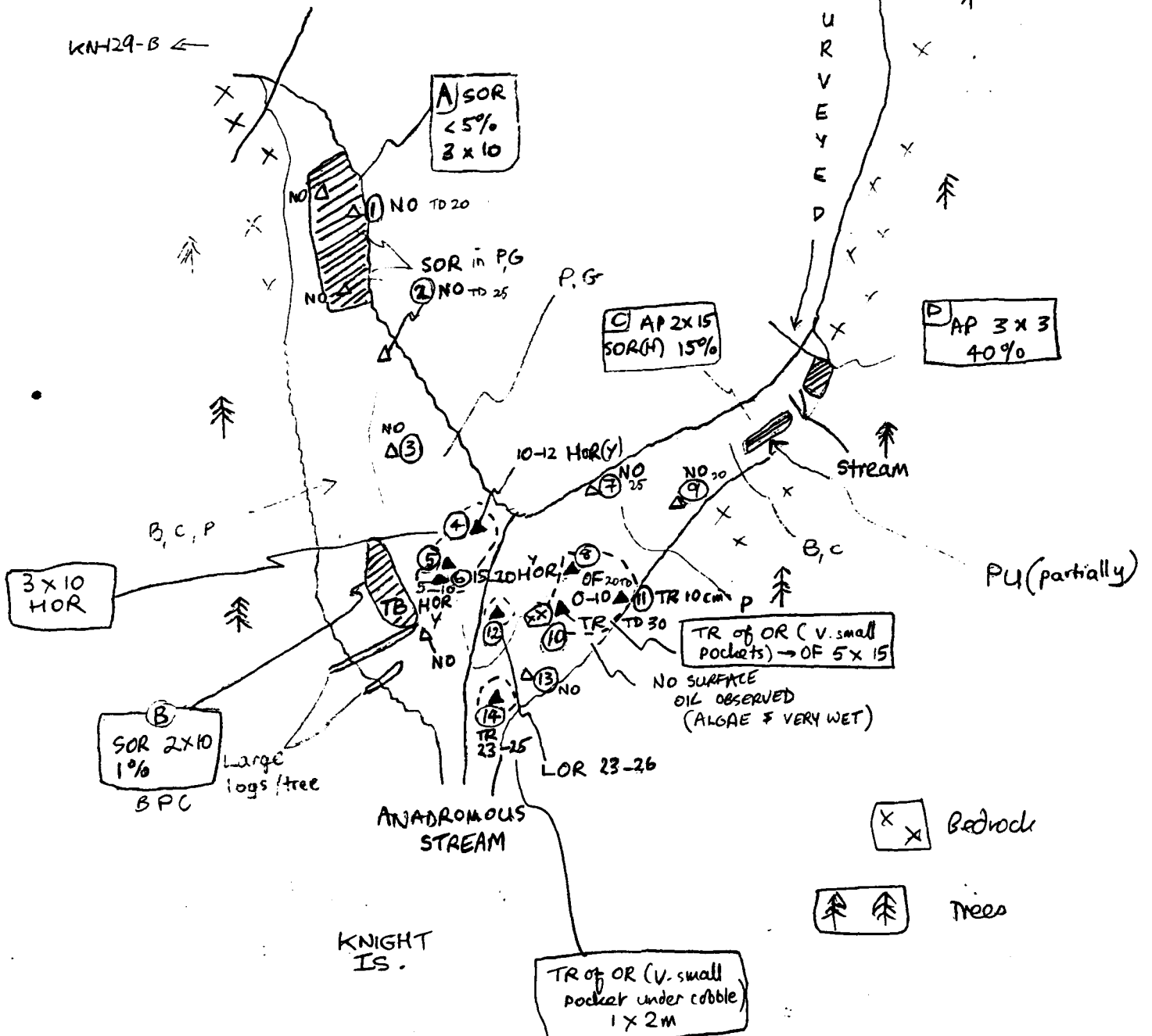


KN-129-A 04/27/91
OG Map D.I. Little
1845-2000

KN-128-A

HERRING BAY

KN-129-B



MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6 SEGMENT KN-129 SUBDIVISION A DATE 09/27/91

ADEC Representing ADEC & USFS

NAME Aimee Weseman ADF+G SIGNATURE Aimee Weseman

☐ NTR ☒ Treatment Recommended

This site contains an ANADROMOUS FISH stream & has a commercial tourism designation. The near stream area contains HOS sediments (see pits # 4, 5, 6, 8, 10, & 14 OG sketch) which should be manually removed & or tilled. Treatment of this area should occur during the window period.

A band of AP sediments in areas C & D, U & T Z should be manually removed, as well as the AP sediments scattered through areas A & B.

EXXON

NAME Scott A. Nauman

SIGNATURE Scott A. Nauman

☒ NTR

Further intrusion and treatment not warranted at this site. Subsurface oil is very patchy and is generally thin and mixed with peat. Surface areas C & D are very limited in extent and consist of oil residue matted into small tufts of still connected grass, interspersed in a fairly steep slope boulder shoreline. The entire area has a healthy covering of green filamentous algae. Due to the limited distribution, difficulty in access and healthy intertidal, strongly recommend no treatment.

LANDMANAGER

NAME TOM CROWE

OF ADF+G

SIGNATURE Tom Crowe

☐ NTR ☒ TREATMENT RECOMMENDED

CONSIDERING THAT THERE APPEARS TO BE A SUBSTANTIAL LEASE OF BURIED OIL ON BOTH SIDES OF THIS STREAM, I RECOMMEND MECHANICAL TILLING WITH A SMALL 30-450 CAT WITH RAKER BAR AS WAS USED ON KN 500 IN 1990. ALSO CONCERNING THE HOS ON THE WEST END OF THIS COVE, IT SHOULD BE PICKED UP AND BROKEN UP BY A SMALL CREW.

USCG/NOAA

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

☒ NTR

Small asphalt patches in areas C & D (partially removed) are high in intertidal & should not impact biological resources. Area A low in intertidal with SOR should be left to weather on its own. The lower intertidal is beginning to recover, but vegetation & invertebrates have probably been impacted by previous treatments & oil. Further physical impacts to the area should be avoided.

+

A+

B

UNSURVEYED

3m ////

-129

A

+

+

XXXX
////

TTTT
0000Wide
Medium
Narrow
Very Light
No Oil

KN0129 A

ADEC Subsegment Length: 407m

METERS

0 100 200

AK State Plane Zone 4
kn0129a

Subdivision Field Map

Map Key: KNKN0129A

Name: D.I. LITTLE

Date: 04/27/91

Data Entered:

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6
 DATE 4/27/91
 SEGMENT # KN-129
 TIDAL HEIGHT (Range) +1 1/2 to 2 1/2 feet
 SUBDIVISION A
 BIOLOGIST T.R. Schroeder
 SEA STATE Light chop
 WIND SPEED/DIRECTION N.E. 15-20
 PHOTOGRAPHS: ROLL # FRAME #

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

(A) Lower intertidal zone, regrowth of fucus kelp and sea lettuce is good. Numerous intertidal organisms present especially Littorina snails and snail egg masses under rocks. Any additional pickup of oil would be secondary-production to near recruitment.

(B) Some sheering observed near tree from SOA, but it does not appear to be affecting regrowth and repopulation of intertidal area.

(C + D) Lower intertidal zone (LITZ) very healthy. Barometer thick and fucus kelp regrowth is good.

Area is not high energy beach. Some mangrove islands has algae observed on E. If additional work is scheduled for C or D it would not impact biological community if conducted towards high water. Biological community appears to be repopulating area very well. Snail and fucus kelp would suffer with any major activity in area.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

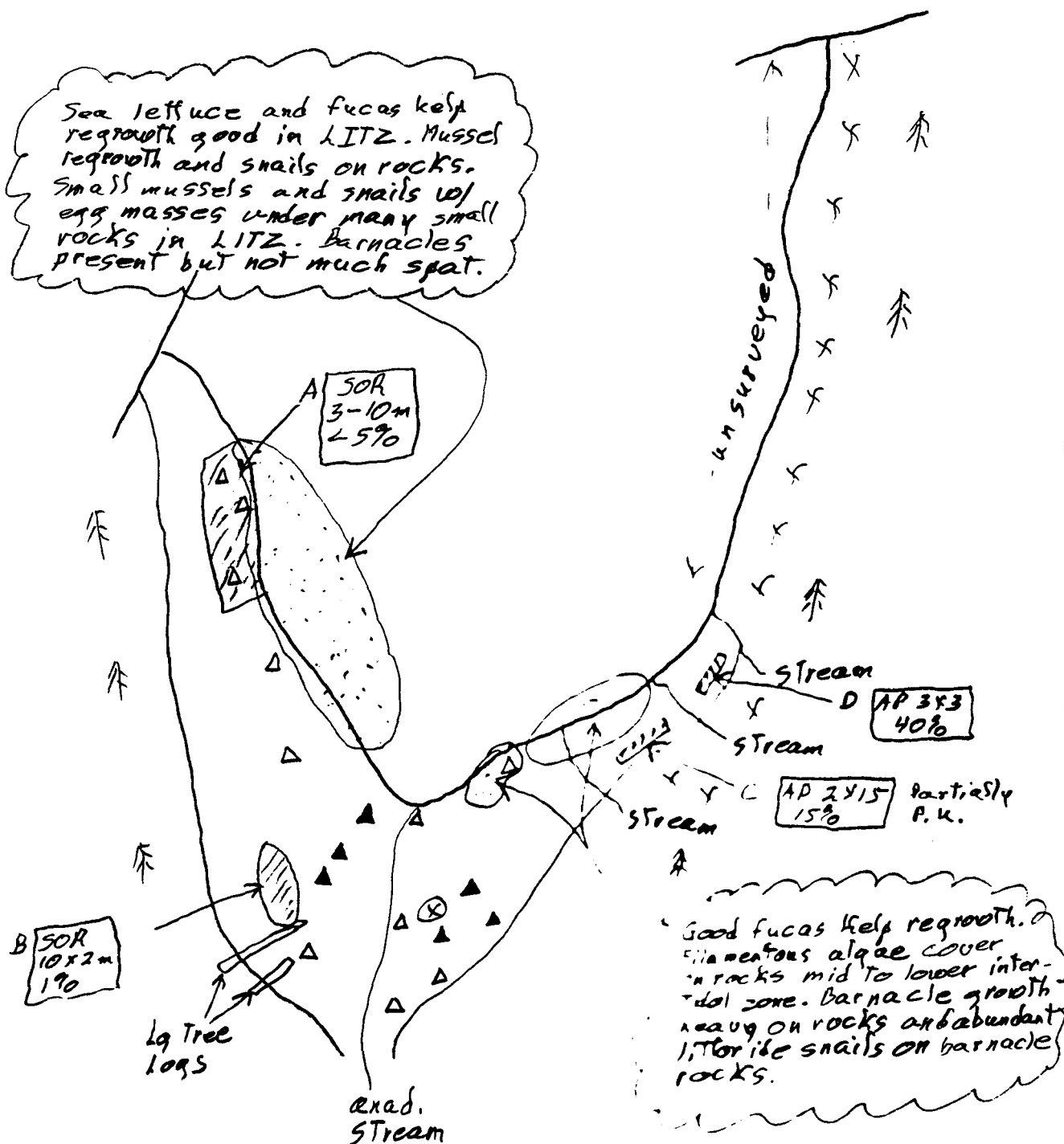
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1		
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Bio. Map KN-129-A
1845-2000 4/27/91
T.R. Schroeder

N
↑
Herring Bay

Δ = no oil
▲ = oil
⊗ = rock



Segment No K11129 Subdivision A
Date 4/27/91 Log Frame No 19
Photographer Rebecca Hoff
Location _____
Comments Overview looking across
segment across stream

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

Segment No K11129 Subdivision A
Date 4/27/91 Log Frame No 21
Photographer Rebecca Hoff
Location _____
Comments Pit with SAR (#2) right above
water line

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 K11129 Subdivision A
Date 4/27/91 Log Frame No 20
Photographer Rebecca Hoff
Location _____
Comments Overview looking down at
water

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

Segment No K11129 Subdivision A
Date 4/27/91 Log Frame No 22
Photographer Rebecca Hoff
Location _____
Comments Pit in gravel area

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-A

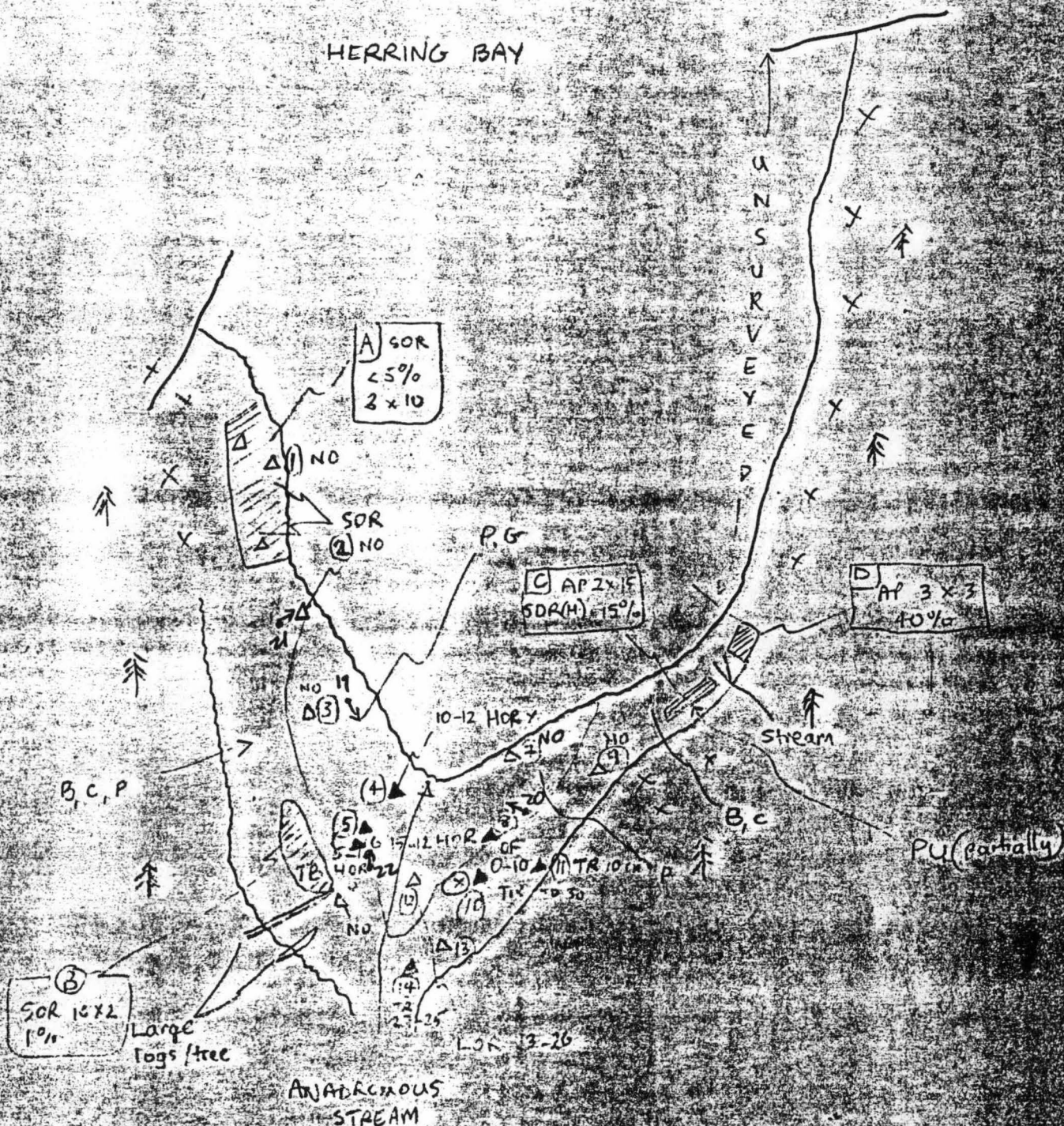
07/27/41

OG Map

D. I. Little

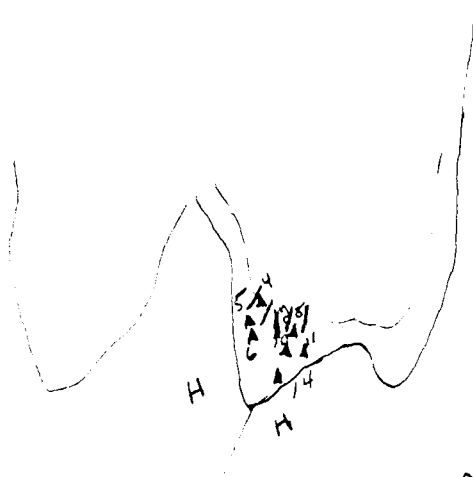
1845-2000

HERRING BAY



ADEC comments continued

4/27/91 Aimee Weseman



KN 129A

- oiled zone
- pits # 4 10-12 cm HOR
- 5 5-10 cm HOR
- 6 15-20 cm HOR
- 8 - 0-10 cm OF
- 10 9-10 cm TR
- 11 9-10 cm TR
- 12 23-26 cm HOR
- 14 23-25 cm TR

pits # 8 & 14 contained "globs" of HOR under rocks - since not a continuous "land" OG classified it "trace" - however - oiled sediments much heavier than "trace" would indicate.