

ER- 004

ASC 16436

ELRINGTON PASSAGE

ACE 1369544



- Prince William Sound -

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

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

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

ACE 7237306
+F1S1111FF1 F-1S/1t



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 09/11/89

TIME: -0-

SEGMENT#: -0-

STATION#: -0-

LOCATION: WEST SIDE OF ELRINGTON ISLAND 16436

REASON FOR TAKING PHOTO: DOCUMENTING UNDOCUMENTED SALMON SPAWNING
SITE (148°05'42"/59°58'03"). (AERIAL PHOTO).

TAKEN BY: RICK GUSTIN

INITIALS: _____

ROLL #: 89RLG007V FRAME #: 02

EVIDENCE ID#: 10210

ACE 7237308

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6/29/89

SHORELINE SEGMENT ER-04

LOCATION: (see enclosed map) ERLINGTON ISLAND-ELRINGTON PASSAGE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/22/89

Recommended Cleanup Activity(ies):

Cut and collect oiled fucus.

Remove oiled fucus debris.

Use other approved methods as appropriate.

No mechanical cleanup recommended at this time, subject to FOSC approval. Sensitive ecological area and light oiling.

Priorities Considerations:

Class 1: Time sensitive resources.

Class A: San Juan Fishery restrictions for cleanup.

Ecological Constraints (from site survey):

Cleanup should be manual only, with as few people and as little disturbance as possible.

Archeological Constraints (from site survey):

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

Douglas Reger
State Historic Preservation Officer *

Date: 6/29/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7237309+151AC

DOCUMENTATION:

Map/Aerial photo marking segment boundaries ☐ E2-04

VTR: Y/N ☒ Tape Number(s) _____

Photography: Y/N ☒ Roll Number(s) TAG-6

Sample Numbers Collected: N/A.

FILM ROLL # TAG-6

Rick Grille

ACE 7237311

FRAME	DATE	SEGMENT	DESCRIPTION
1	6/21/89	ER-01	TITLE PAGE
2	✓	✓	- View north at cabin site
3	✓	✓	- View of pocket beach at cabin site
4	6/22/89	ER-02	- Title page
5	✓	✓	- North end
6	✓	✓	- South end
7	✓	✓	- Close-up oil band
8	✓	✓	- Close-up <u>Fucus</u>
9	✓	✓	- Close-up <u>Fucus</u> (R. Grille)
10	✓	✓	- South End - <u>Fucus</u> debris at HT
11	✓	ER-04	- TITLE PAGE
12	✓	✓	- North End Beach (Site 1)
13	✓	✓	- View to south (Site 1)
14	✓	✓	- Close-up of top of oil band (Site 1)
15	✓	✓	- Site 2 (Oil on Boulders)
16	✓	✓	- Large Delta (Site 4)
17			
18			
19			

ACE 7237312

ELRINGT

BAND OF OIL

- 5M WIDE, 10 CM deep
- Light to Moderate Coatings
- 100 m long
- Pebble / Cobble beach

OILED BARRIER BEACH

- Oiled Furrows in rock

OILER ROCKS BARRIER

No OIL
Sand Gravel Delta/
Fan

ELRINGTAD ISLAND

ER-04

(06/22/1989)

ECOLOGICAL EVALUATION

LOCATION: Elrington Is. SITE: South Elrington OBSERVER: StokerLOCATION PREFIX: _____ SEG. NO.: 4 LENGTH: 3100 (M)DATE: 1/1 TIME (HHMM): 1130-1330 TIDE HT.: _____ (M)OILED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NExtremely variable. Generally sparse & discontinuous on cobble/gravel/shale/sand, denser on rock outcrops, patchy on boulders.Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NPatchy, discontinuous. Generally denser, larger patches near point (Elrington) at N. end of segment.Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NExtremely variable. Generally larger individuals on rock outcrops; recent settlement on boulder/cobble.LittorinaPatchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NExtremely variable. Generally denser around mid tide level. Very dense clusters on rock outcrops, sparser and scattered on cobble.Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable, sparse on shale/sand, denser on rock & boulder.OTHER OBSERVATIONS: Nucella patchy & variable; some dense clusters. Pagurus common.Some dense clusters; limpets common; Asteroidea common; chitons sparse. Shallow subtidal algae dense, at least 6 species common. Amphipods, Nereids common.

CLEANUP PRECAUTIONS: _____

MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales 1
Other 1 Minke whale near Elrington point.BIRDS: Eagle, Gulls.GENERAL OBSERVATIONS: Long beach of cobble/gravel/sand/shale grading to boulder/cobble/gravel with rock outcroppings and steep boulder slopes. Biota sparse on shale/sand. Small stream toward S. end of segment (on map), little in-stream spawning potential.

ACE 7237314

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/22/89 Location Elvington Island Site

Location Prefix ER Segment # ER-4 Length 3100

Survey Method:

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

Ground 3 BENCHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile visibly sloped beach and vertical wall face

Fresh Water Sources streams

Sea Exposure protected to west

Access/Safety good

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

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

Photos: Color Roll # Frames

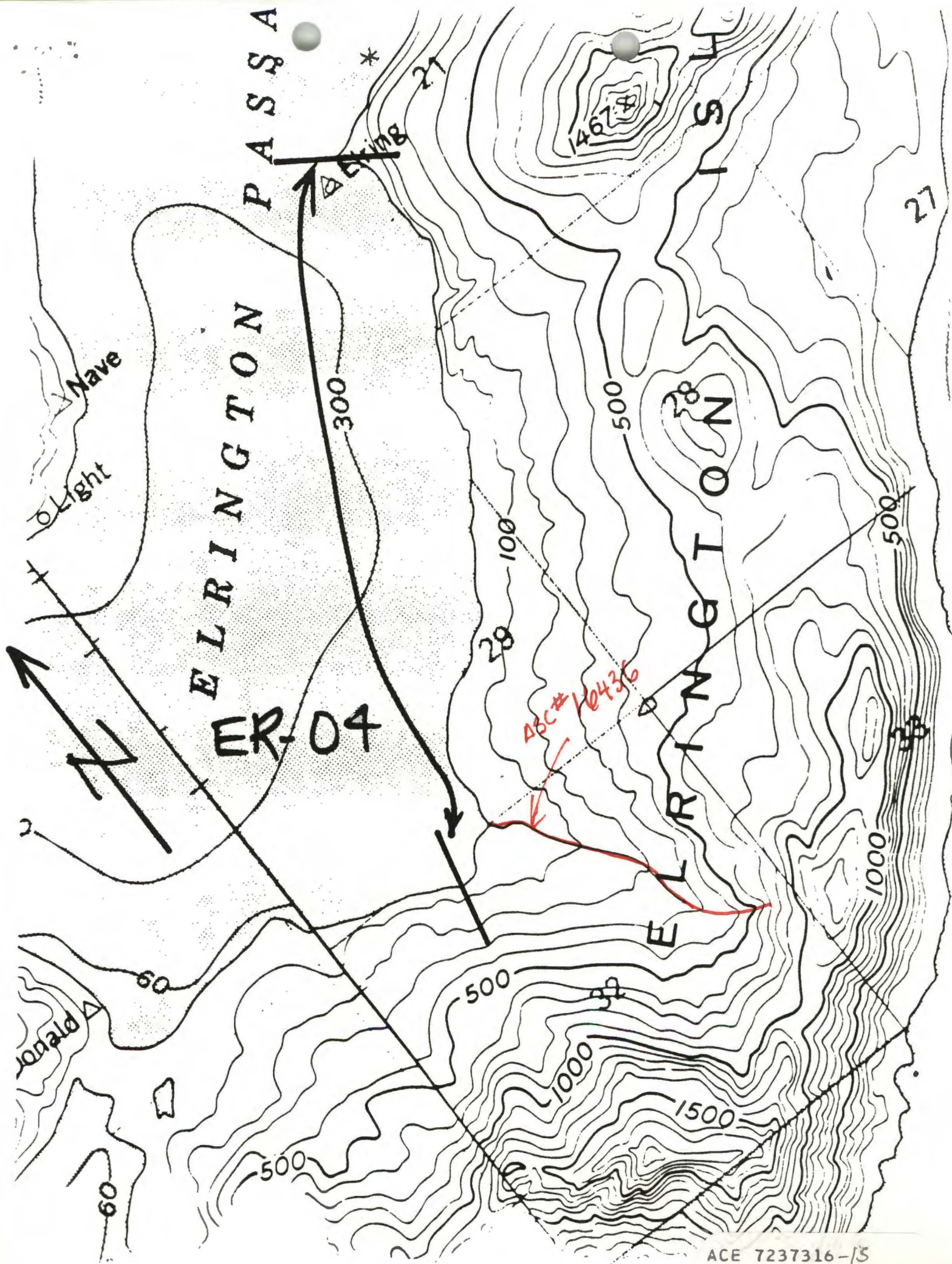
B/W Roll # Frames

Observer(s) C. McKen

Time survey started 1130 Time survey ended 1330

Cultural resource considerations/restraints:

If heretofore undiscovered cultural material is found during cleanup contact Elyse archaeologist, C. McKen, immediately -



ACE 7237317-1L/AC/FF

- Prince William Sound.

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

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____ '89 Shoreline Clean-Up Program (SAT)
____ '89 Anadromous Fish Stream Authorization, for instream work
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____ '89 Demobilization Reports ____ Bioremediation ____ other
____ '89 RLS Sheet ____ Oil sed. sample ____ Egg sample
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____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. Surv.)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (Feb.)
____ '90 Other Documents _____

ACE 7237318
+1F1S11t1FF1-1S11t



AJW

Re-ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA2 REGION: PWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4/12/9015 HIGH TIDE TIMES: 1

21 TEAM RECORDER: _____

4 START TIME: 112116 HIGH TIDE HTS: 122 OBSERVERS: TOM CROWL5 STOP TIME: 112717 LOW TIDE TIMES: 123 AGENCY: ADF&G AJW6 SEGMENT #: ER00518 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

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

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y (N) Number _____

12 SOURCE: Map Loran

Oil _____

13 LOCATION: _____

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

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

36 CATALOGED ANAD. FISH STREAM? (Y) N

28 SURFACE THICKNESS

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

37 CATALOG #: 226-50-16432 ^{AJW}

29 PENETRATION

38 STREAM NAME: _____

30 OVERALL OIL IMPACT: N VL L M H39 OIL IN STREAM BED? (Y) N31 OIL TYPE: Pooled Mousse Tap Asphalt Sticky Stain40 OIL ON STREAM BANKS? (Y) N

32 OILED DEBRIS? Y N

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

Where: _____

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

43 ANADROMOUS FISH PRESENT? Y N

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

COMMENTS: TARMAT IN UPPER PORTION

ACE 7237346+15

FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

ATW
226-50-16432

TWC

RR-5

4/12/90

LOG STAINED

TAR MAT

= Sample taken
 = Photo frame # and
 shot direction.

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

ALL SEGMENTS:

LATITUDE:

LONGITUDE:

LEGAL: S

ASC NUMBER: 226-50-16432

SURVEY TYPE:

METHOD:

DATE: 4/12/90

START TIME:

STOP TIME:

WAVE EXPOS:

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	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							AP
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS:

ATW
Re-ANADSCAT-90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMS PTA2 REGION: PWS KP,CI K,APMETHOD: Aerial Ground Boat3 DATE: 4/12/9015 HIGH-TIDE TIMES: 1

21 TEAM RECORDER: _____

4 START TIME: 112116 HIGH TIDE HTS: 122 OBSERVERS: TOM CROW5 STOP TIME: 112717 LOW TIDE TIMES: 123 AGENCY: ADF&G ATW6 SEGMENT #: ER00518 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

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

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y (N) Number _____

12 SOURCE: Map Loran

Oil _____

13 LOCATION: _____

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

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

36 CATALOGED ANAD. FISH SREAM? (Y) N37 CATALOG #: 226-50-16432 ATW

38 STREAM NAME: _____

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

Where: _____

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate (Low)44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock Boulder Cobble (X)
Gravel (X) Sand Mud/silt

Species	Aerial	Ground

COMMENTS: TARMAT IN UPPER INTERTIDAL

FRAME(S)	DESCRIPTION

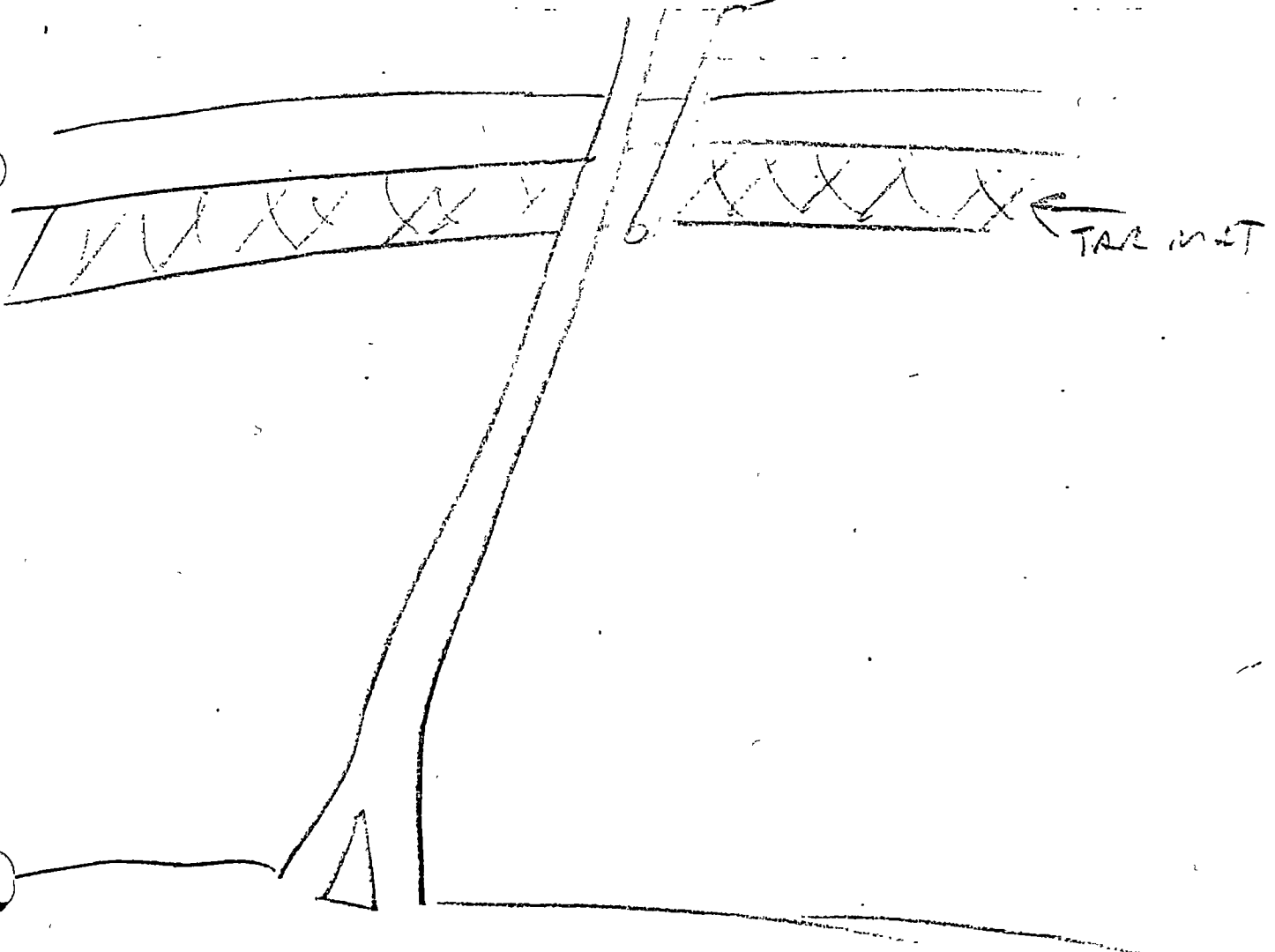
ATW
 226-50-1/6432
 48 OIL DISTRIBUTION DIAGRAM

RR-5

TWL

4/12/90

LOG STAINED



= Sample taken
 = Photo frame # and
 shot direction.

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

ASC NUMBER: 226-50-16432 TEAM RECORDER:
 SURVEY TYPE: OBSERVERS:
 METHOD:
 DATE: 4/12/96 AGENCY(IES):
 START TIME: PHOTOS TAKEN?
 STOP TIME: Roll #: Frames:
 VIDEO TAKEN? Tape Number:
 Counter Start:

SAMPLES TAKEN?

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

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

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS:

mt
Anadrom - 90

8

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PN KP, CI X, AP

METHOD: Aerial Ground Boat

3 DATE: 4-20-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R Gustin

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: A Wynn

5 STOP TIME: 1535

17 LOW TIDE TIMES: 1

23 AGENCY: ADFO

6 SEGMENT #: ER-5

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: 90RLG 001555

9 STAT AREA:

20 USCG QUAD:

Start: 1180 End: 1241

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

011

13 LOCATION: Elkington Is.

Sediment

14 DESCRIPTION: tar mat

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	4-5cm							
29 PENETRATION	4-5cm							

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-50-16432

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:

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 20% Cobble 25%
Gravel 55% Sand Mud/silt

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: narrow band tar mat in water under tide / on NW side

Creek, vary in width from 8-10 feet to 7-3 feet

on LSFDS only. (Shovel removal)

9km x 4m x 1cm broken old Tar mat

LSFDS → 4m x 1m x 1cm sporadic asphalt patch

L W Thick

ACE 7237342+1S

S1

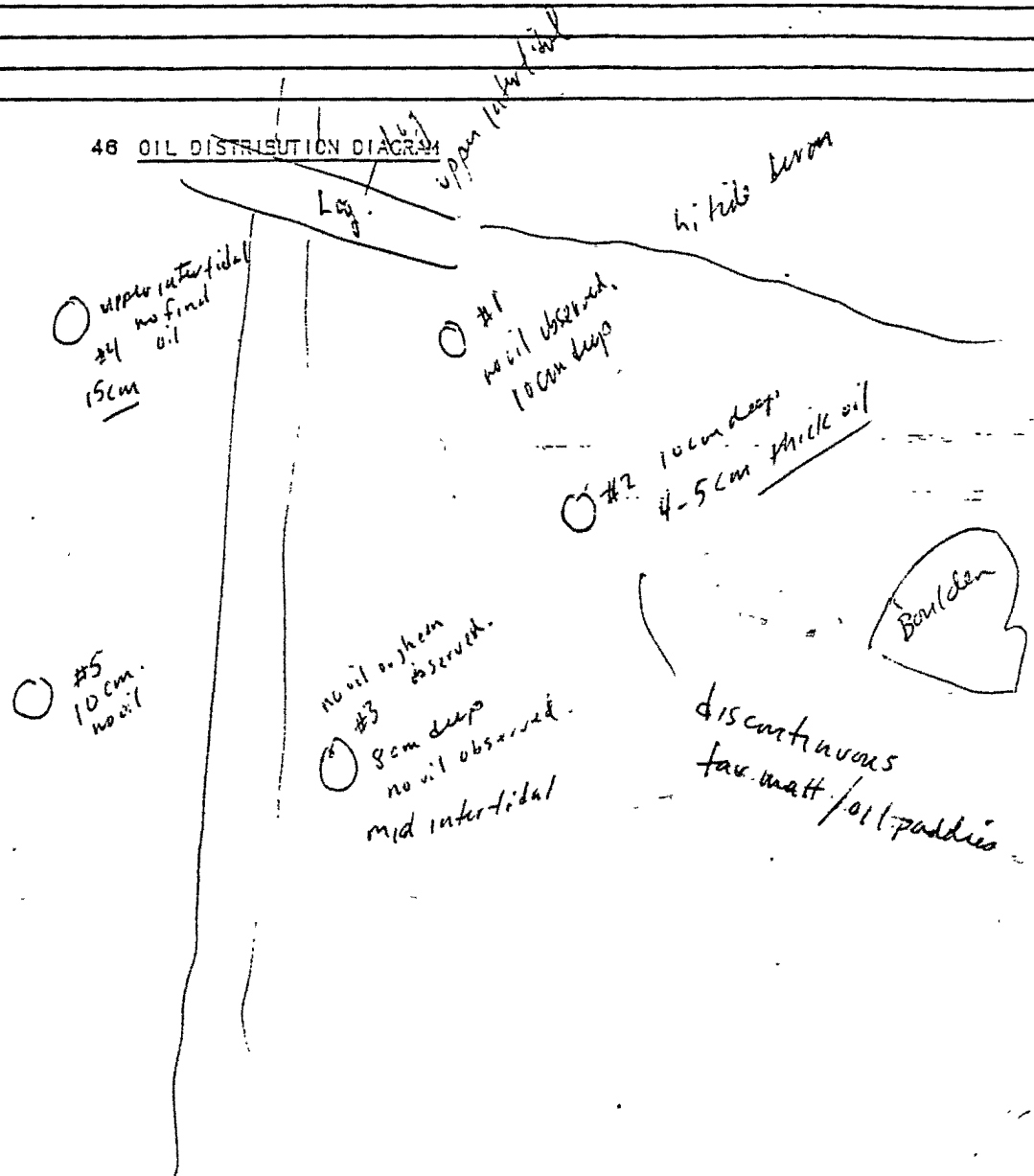
DESCRIPTION

Recommendations

Shovel remove and bag broken scattered tar mats and
sporadic asphalt patches.

No bioremediation Recommended

46 OIL DISTRIBUTION DIAGRAM



Comments by Ken Critchlow:

I agree with ADFG's comments.

KRC

YR CATALOGED:

LATITUDE:

LONGITUDE:

LEGAL:

ALL SEGMENTS:

WAVE EXPOSURE:

TEAM RECORDER:

OBSERVERS:

AGENCY (IES) :

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN? Tape Number:

Counter Start:

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1							AP
SITE 2	9.5	4			.01		AP
SITE 3	4	1			.01		AP
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

-SUBSTRATE-

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE	
Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS: oil on stream banks

pls add % MAO

Recommendations - Shovel, remove, and bag broken scattered tar mats and sporadic asphalt patches.
No bioremediation recommended.

8/14/51

Kc

I agree with ADF & G's comments FdC (Ken Critchlow)



8

ANADSCAT - 90

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) OS TS AVS SCHA MMHS PTA2 REGION: (2) KP, CI K, APMETHOD: Aerial (Ground) Boat3 DATE: 4-20-9015 HIGH TIDE TIMES: 121 TEAM RECORDER: R Gustaf4 START TIME: 151016 HIGH TIDE HTS: 122 OBSERVERS: A. W. Wrenn5 STOP TIME: 153517 LOW TIDE TIMES: 123 AGENCY: ADFO6 SEGMENT #: ER-518 LOW TIDE HTS: 124 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: (Y) N TAPE#: 90R16001555

9 STAT AREA:

20 USCG QUAD:

Start: 1180 End: 1241

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number12 SOURCE: (Map) Loran

Oil

13 LOCATION: Elvington Is.

Sediment

14 DESCRIPTION: tar mat cove.

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	4-5cm							
29 PENETRATION	4-5cm							

36 CATALOGED ANAD. FISH SREAM? (Y) N37 CATALOG #: 226-50-16432

38 STREAM NAME:

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

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: (High) Moderate Low44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground35 SUBSTRATE TYPE: Bedrock Boulder 26% Cobble 25%
Gravel 55% Sand Mud/silt

Species	Aerial	Ground

COMMENTS: narrow band tar mat in upper water tidal on NW sidecreek, vary in width from 8-10 feet to 2-3 feeton LSFDS only (Shovel removal)9km x 4m x 1cm broken up Tar matLSFDS → 4m x 1m x 1cm sporadic asphalt patchL W Thick

ACE 7237342+1S

E(S)

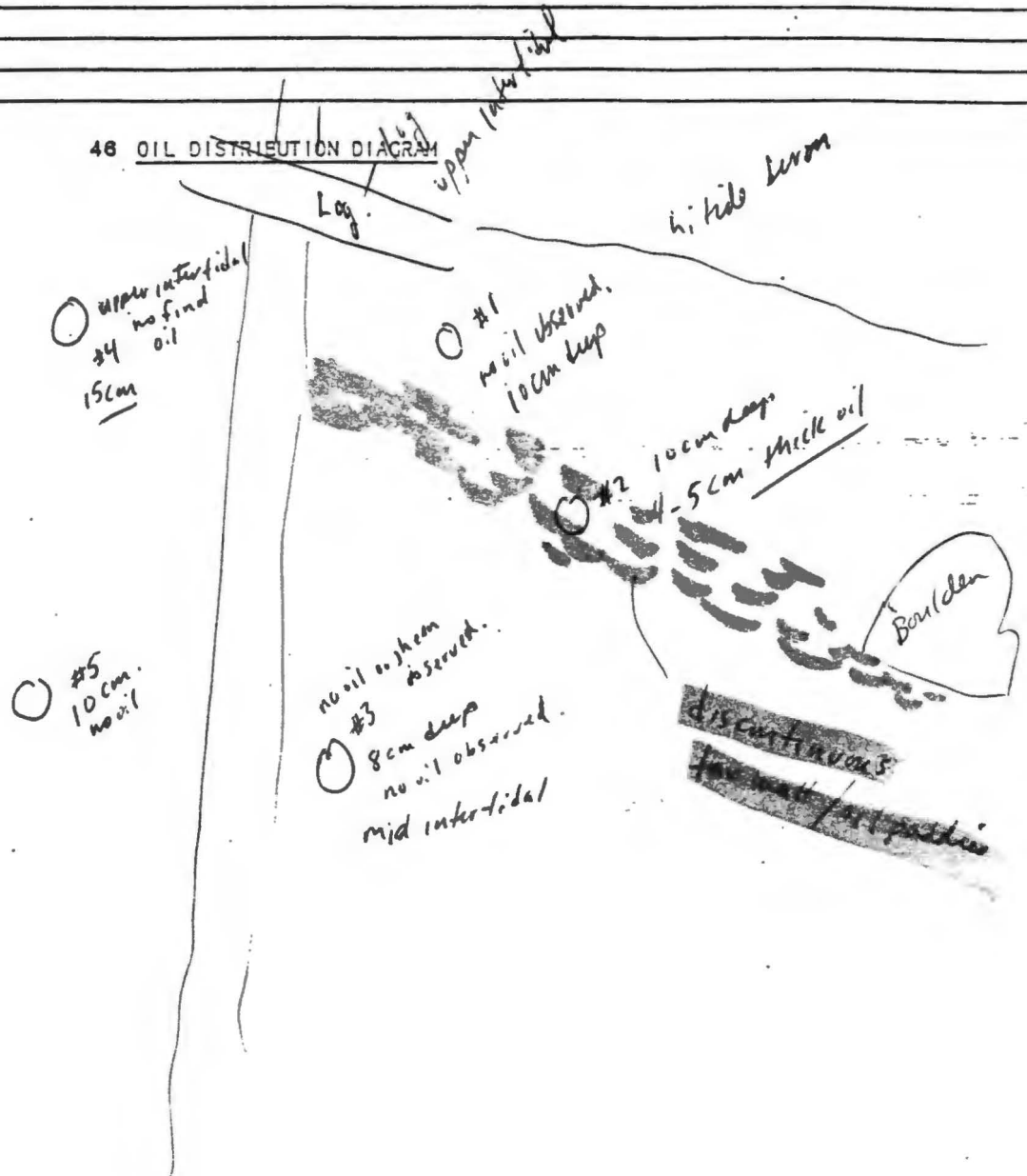
DESCRIPTION

Recommendations

Shovel remove and bag broken scattered tar matts and
sporadic asphalt patches.

No bioremediation Recommended

48 OIL DISTRIBUTION DIAGRAM



Comments by Ken Critchlow:
I agree with ADFG's comments.

KRC

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

ALL SEGMENTS:

LATITUDE:

LONGITUDE:

LEGAL: S

ASC NUMBER: 226-50-16432

SURVEY TYPE:

METHOD:

DATE: 4/20/90

START TIME:

STOP TIME:

WAVE EXPOS:

TEAM RECORDER:

OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN?

Tape Number:

Counter Start:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.

4.

2.

5.

3.

6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1	9.5	4			.01	.04	AP/TB
SITE 2	4	1			.01		AP
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

SUBSTRATE

Bedrock

Boulder

Cobble

Pebble

Granule

Sand

Silt

Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SPECIES					
COUNT					

COMMENTS:

CATALOG NUMBER: 2265016432 SEGMENT#: ER005 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/12/90	PRE-ANADS CAT	1	SURFACE			AP SOR	AP BAND ON BOTH SIDES OF STREAM AND UP TO STREAM BANK IN UITZ.

MAD vs. OG:
COMMENTS:

CATALOG NUMBER: 2265016432 SEGMENT#: ER005 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/20/90	ANADSCAT	1	4 x 9.5 SURFACE		1 4	AP TB	WEST SIDE IN UITZ: DISCONTINUOUS TARMAT AND PATTIES.
04/20/90	ANADSCAT	2	1 x 4 SURFACE	11-50	1	AP	WEST SIDE: SPORADIC AP.

MAD vs. OG:
COMMENTS:
NARROW BAND TARMAT IN UPPER INTERTIDAL ON NW SIDE CREEK. VARIES IN WIDTH FROM 8-10 FT TO 2-3 FT ON LSFDS ONLY. (SHOVEL REMOVAL) 9.5M X 4M X 1CM BROKEN TARMAT. LSFDS 4M X 1M X 1CM SPORADIC ASPHALT PATCH. OIL ON STREAM BANKS. RECOMMENDATIONS: SHOVEL REMOVE AND BAG BROKEN SCATTERED TARMATS AND SPORADIC ASPHALT PATCHES. NO BIOREMEDIATION RECOMMENDED.

CATALOG NUMBER: 2265016432 SEGMENT#: ER005 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/20/90	OG'S ANADSCAT	1	4 x 9.5 SURFACE	11-50	1	AP	WEST SIDE OF STREAM - UITZ - PATCHY AP.
04/20/90	OG'S ANADSCAT	2	SUBSURF				FIVE PITS DUG - NO SUBSURFACE OIL OBSERVED.

MAD vs. OG: MAD HAS AP THICKNESS AS 4-5CM, OG HAS 1CM. MAD HAS ADDITIONAL AP/S - 1 X 4 X 1CM, OG DOES NOT.
COMMENTS:

CATALOG NUMBER: 2265016432		SEGMENT#: ER005 A		LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END			SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/12/90	PRE-ANADS CAT	1	SURFACE			AP SOR	AP BAND ON BOTH SIDES OF STREAM TO STREAM BANK. ^{AND UP} is <u>UITZ</u>
MAD vs. OG: COMMENTS: TARMAT IN UPPER INTERTIDAL ZONE. <i>delete</i>							

CATALOG NUMBER: 2265016432		SEGMENT#: ER005 A		LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END			SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/20/90	ANADSCAT	1	4 x 9.5 SURFACE		1 4	AP TB	WEST SIDE IN UITZ: DISCONTINUOUS TAR MAT AND PATTIES.
04/20/90	ANADSCAT	2	1 x 4 SURFACE	11-50	1	AP	WEST SIDE: SPORADIC AP.
MAD vs. OG: COMMENTS: <i>ies</i> NARROW BAND TARMAT IN UPPER INTERTIDAL ON NW SIDE CREEK. VARY IN WIDTH FROM 8-10 FT TO 2-3 FT ON LSFDS ONLY. (SHOVEL REMOVAL) 9.5M X 4M X 1CM BROKEN TARMAT. LSFDS 4M X 1M X 1CM SPORADIC ASPHALT PATCH. OIL ON STREAM BANKS. RECOMMENDATIONS: SHOVEL REMOVE AND BAG BROKEN SCATTERED TARMATS AND SPORADIC ASPHALT PATCHES. NO BIOREMEDIATION RECOMMENDED. COMMENTS BY KEN CRITCHLOW : I AGREE WITH ADFG'S COMMENTS.							

CATALOG NUMBER: 2265016432		SEGMENT#: ER005 A		LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END			SEQ:
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/20/90	OG'S ANADSCAT	1	4 x 9.5 SURFACE	11-50	1	AP	WEST SIDE OF STREAM - UITZ - PATCHY AP.
04/20/90	OG'S ANADSCAT	2	SUBSURF <u>ACE</u>				FIVE PITS DUG - NO SUBSURFACE OIL OBSERVED.

DATE PRINTED: 10/17/91

NON-DUCK STREAMS

PAGE 43

MAD vs. OG: MAD HAS AP THICKNESS AS 4-5CM, OG HAS 1CM. MAD HAS ADDITIONAL AP/S - 1 X 4 X 1CM, OG DOES NOT.
COMMENTS:

OG SUPPLEMENTAL INFO TO MAD

RECORDER: Weseman RED-DATE: 10/4/91

RED-DATE: 10/4/91

PAGE

CATALOG NUMBER: 226-50-16432

STREAM NAME:

LOCATION: SW Elrington - Elvinton Passage

SEGMENT NUMBER: EK005

SHORELINE TYPE: *COVE*

DATE: 4/20/90 TIME:

Mad has IP thickness as 5-5cm, OG has 1cm

had has additional AP/S - $1 \times 4 \times 1 \text{ cm}$, OG does not

OG VB. MAD:

[illegible]

CATALOG NUMBER: 2265016432						SEGMENT NUMBER: ER005 A			
STREAM NAME:						SHORELINE TYPE:			
LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END						DATE: 04/12/90 TIME: BEACH-1127			
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1							SURFACE	AP SOR	Both sides of stream to banks - AP band.
COMMENTS: TARMAT IN UPPER INTERTIDAL ZONE.									

CATALOG NUMBER: 2265016432						SEGMENT NUMBER: ER005 A			
STREAM NAME:						SHORELINE TYPE:			
LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END						DATE: 04/20/90 TIME: BEACH-1535			
SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
1	4	9.5		51-90	4-5cm		SURFACE	AP + PT	west side of stream - discontinuous tarmat + patches
2	1	4		11-50	1		SURFACE	AP	west side of stream - sporadic AP
COMMENTS: 2 NARROW BAND TARMAT IN UPPER INTERTIDAL ON NW SIDE CREEK. VARY IN WIDTH FROM 8-10 FT TO 7-3 FT ON LSFDS ONLY. (SHOVEL REMOVAL) 9CM X 4M X 1CM BROKEN TARMAT. LSFDS 4M X 1M X 1CM SPORADIC ASPHALT PATCH. SHOVEL REMOVE AND BAG BROKEN SCATTERED TARMATS AND SPORADIC ASPHALT PATCHES. NO BIOREMEDIATION RECOMMENDED. COMMENTS BY KEN CRITCHLOW: I AGREE WITH ADFG'S COMMENTS. OIL ON STREAM BANKS: YES WITHIN 1 MILE OF STREAM: YES									

RECOMMENDATIONS:
OIL

ADF&G MULTI-ASSESSMENT DATA FORM

ATW
Pre-ANADSCAT-90

1 SURVEY TYPE: BS SS TS AVS SCHA MMHS PTA

2 REGION: PWS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4/12/90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: _____

4 START TIME: 1121

16 HIGH TIDE HTS: 1

22 OBSERVERS: TOM CROWE

5 STOP TIME: 1127

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G ATW

6 SEGMENT #: RR005

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

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

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y (N) Number _____

12 SOURCE: Map Loran

Oil _____

13 LOCATION: _____

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

27 SURFACE COVERAGE

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

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-50-16432 ATW

38 STREAM NAME: _____

28 SURFACE THICKNESS

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

39 OIL IN STREAM BED? (Y) N

29 PENETRATION

40 OIL ON STREAM BANKS? (Y) N

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

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? Y N

Where: _____

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

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

COMMENTS: TAR MAT 10' WIDE, INTERIOR

ACE 7237346+15

FRAME(S)

DESCRIPTION

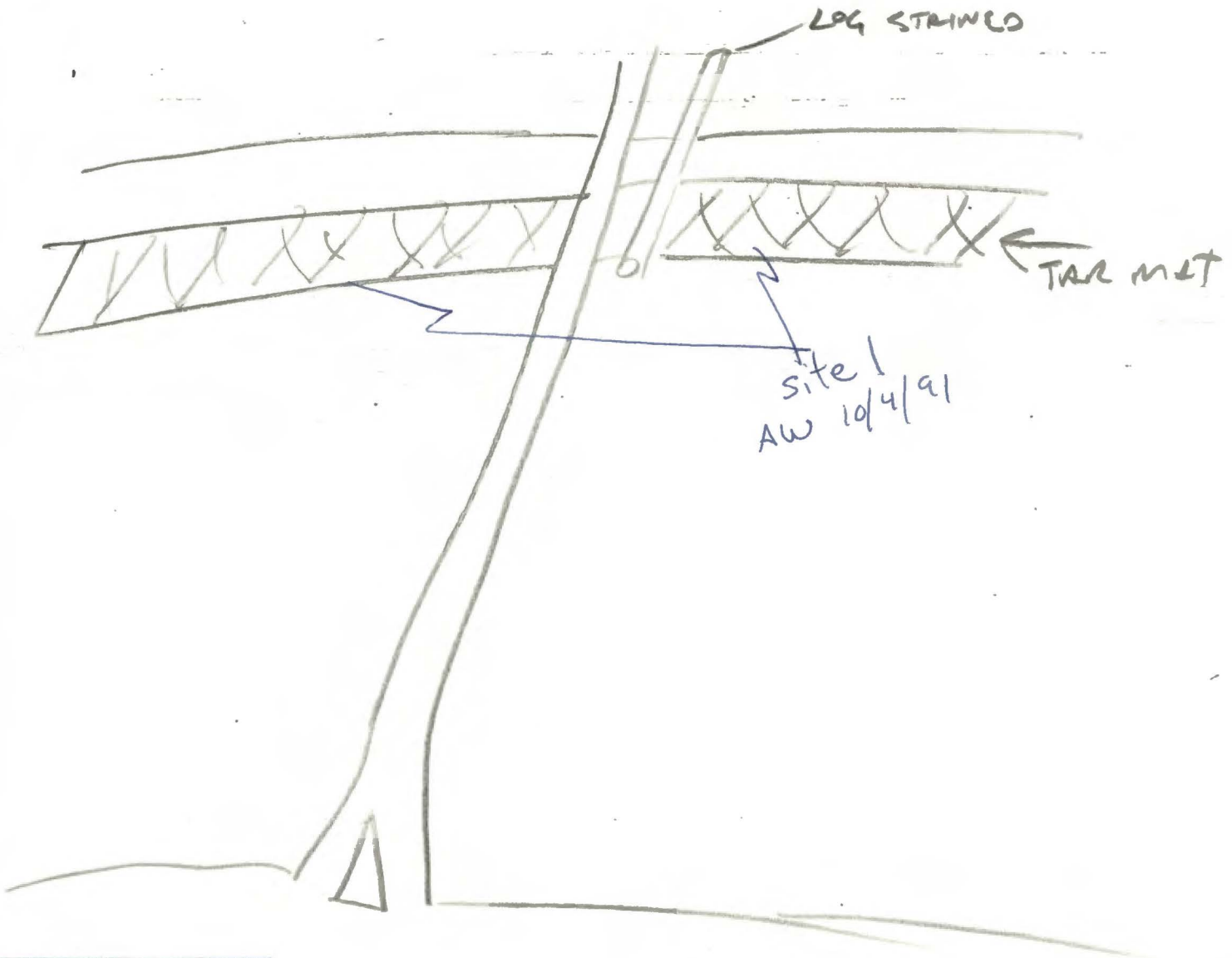
46 OIL DISTRIBUTION DIAGRAM

ASW
226-50-1/6432

ERTS

TWL

4/12/90



= Sample taken
= Photo frame # and
shot direction.

ACE 7237347-1S

PROCESSED
5/1/90
MK

RECEIVED
MAY 03 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: ER-05

STREAM NO: 226-50-16432

Corcoran

ACE 7237333+15

ANAL MOUS FISH STREAM EVALUATI

SEGMENT ST/ ER-05 STREAM NO: 226-50-16432 DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
 6Y Recreation: Special use destination
 7II Subsistence area: Deer harvesting (8/15 to 2/28)
 See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Bald Eagle nest within 400M of stream 226-50-16432 - see ecology map. Subject stream is located in Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is manual removal of tarmat as indicated on sketch map. Work should be conducted between 6/1 and 7/10 based on above constraints, with approval of USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
 EXXON _____
 NOAA _____
 USCG _____

FOSC: _____ DATE: _____

Salmon stream mouth - fry outmigration (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 6/1)

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

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

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

1H Remote release site

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

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

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

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

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

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

1L Set net sites (8/11 to 7/25)

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

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

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

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

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

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

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

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (8/1 to 9/15)

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

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

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

Special use destination

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

Finfish harvesting

Deer harvesting (8/15 to 2/28)

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 7237335

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / ER-005 SUBDIVISION: ^{ADCF} 226-50-16432 DATE 4-20-90

USCG

NAME Kerwin L. Dreher SIGNATURE cwe2 K. R. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADCF

ADCF

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Manually remove scattered tar mats and sporadic asphalt patches on NW side of stream.
Coverage includes an area 9^{ft} x 4^{ft} x 4^{ft} - of broken tar matt
and 4m x 1m x 4cm of sporadic tar mats
No bioremediation recommended.

LAND MANAGER

NAME no team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY (ANAO)

REVISION NO. 001

6/58

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ER.005
 BIO REN LUTCHMAN LAND REP STREAM 226-50-16421 OF
 EXXON DARRELL YONES ADFG 226-50-16421 WISEMAN TIME 15:00 to 15:30
 TEAM NO. 14 TIDE LEVEL +2 FT DATE 4/12/90
 EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 5 % B 5 % C 20 % P 50 % G 10 % S 10 % M % V
 SLOPE: Long 100 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 9.5 m NO 50.5 m

SURFACE OIL

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

PAVEMENT H F 2 sq. m by 1PATTIES / TARBALLS BAGNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	✓		
Vegetation			
Trash			
Debris			

 Did You COLLECT
 DEBRIS
☐ YES ☒ NO
TYPE #BAGS

Photographs:

Roll No. 2Frames 1-10

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A	N	A	SEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	NO	1	2	3	4	NO	U	M	U						
1	10					✓	•							✓				✓	N		N		FB, GR
2	10					✓	•			✓	✓			✓									CB, FB, GR, SL
3	0					✓	•									✓							CB, FB, GR, SL
4	15					✓	•							✓									CB, FB, GR, SL
5	10					✓	•										✓						CB, FB, GR, SL

COMMENTS

BROWN TRP - MAT / ASPHALT PATCH NO OIL IN STREAM

REVIEWED JWDATE 4-24-90

ACE 7237337

OG CALLARSON

SEGMENT ST/ ER-005

STREAM 226-5-16432

DATE 4/20/80

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LML
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PB Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
PB - No Subsurface Oil

2 Δ
PB - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

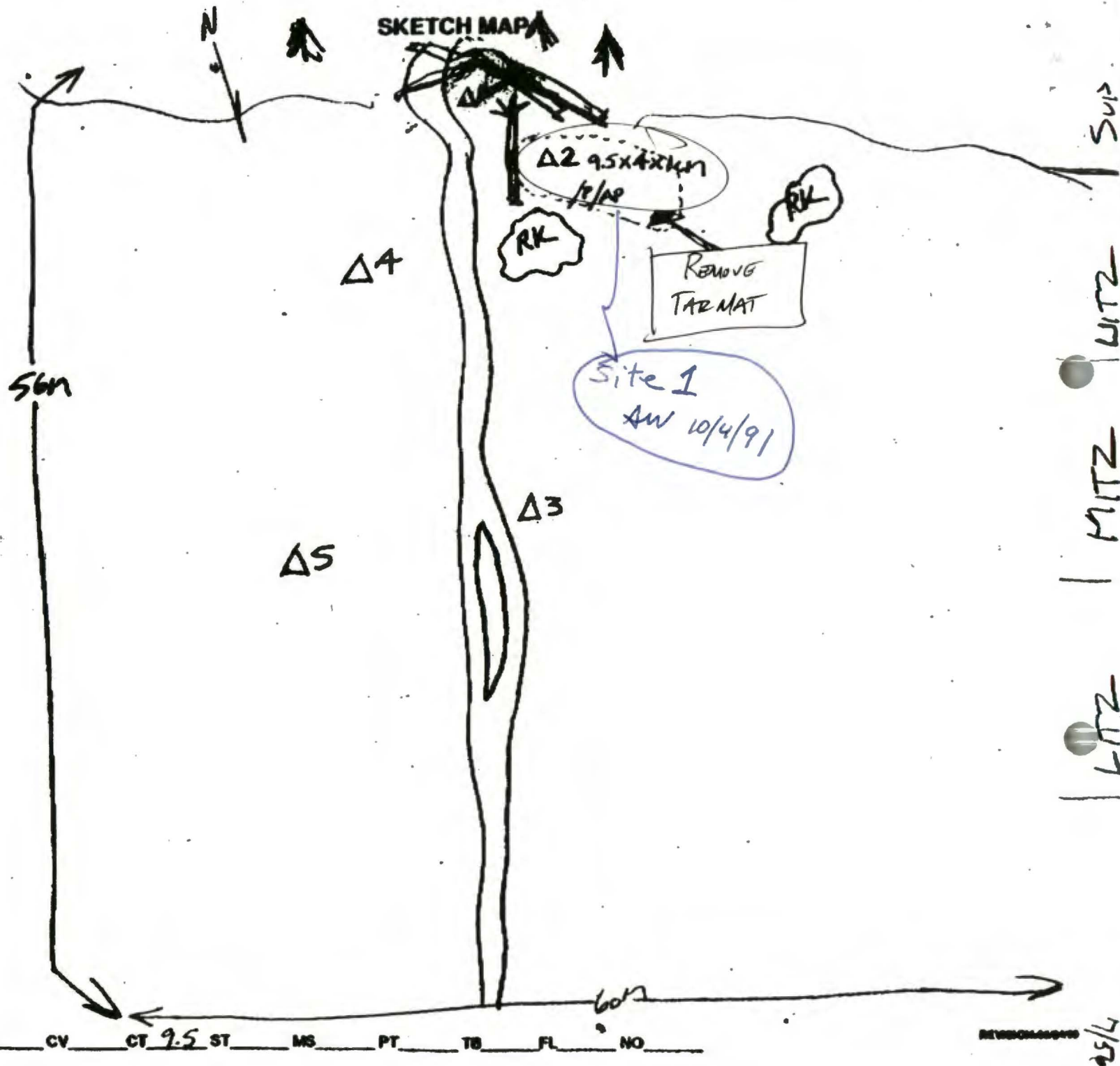
CT/P
Pebbly Distribution

CT/S
Splashed Distribution

lll
Oiled Vegetation

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

SKETCH MAP



ADPAC MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: SS SB DB TS AVS SCH MMS PTA

2 REGION: EX IC KAP

METHOD: Aerial Ground Boat

3 DATE: 4-20-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Gustin

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: A. W. Wynn

5 STOP TIME: 1535

17 LOW TIDE TIMES: 1

23 AGENCY: ADFO

6 SEGMENT #: SR-5

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

ebb slack flood slack

25 VIDEO TAKEN: (Y) N TAPES: 90RL6 ca 1555

9 STAT AREA:

20 USCG QUAD:

Start: 1180 End: 1241

10 LAT:

11 LONG:

26 SAMPLES TAKEN Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: Elmington Is.

Sediments

14 DESCRIPTION: tar mat

Biological

Water

EXTENT OF OIL

SHORELINE

STREAM

L	V	H	S	L	V	H	S

27 SURFACE COVERAGE

36 CATALOGED ANAD. FISH BREAST (Y) N

37 CATALOG #: 226-50-16432

38 STREAM NAME:

28 SURFACE THICKNESS

4.5cm							
4.5cm							

39 OIL IN STREAM BED? (Y) (N)

29 PENETRATION

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled House (tar) mat Asphalt Sticky Stain

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

32 OILED DEBRIS? (Y) N

Where:

33 SHORELINE TYPE: Hardland Low-lying Rocks (Seal) Cove
Lagoon Marsh

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: (High) Moderate Low

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder 20% Cobble 25%
Gravel 55% Sand Mad/silt

Species	Aerial	Ground

COMMENTS: Narrow band tar mat in upper intertidal on NW side

Cells vary in width from 2-10 feet to 2-3 feet.

in LSPDS only (Should be removed)

9.6m x 4m x 1cm broken glass Tar mat

(LSPDS) → 4m x 1m x 1cm sporadic asphalt patch

ELRINGTON

ECOLOGY MAP

2m
4/24/90

PASSAGE

Nave

Light

ER-05

226-50-16432

Donald

Bald Eagle
Nest

28

32

EL

ACE 7237340

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: QWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-20-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Gustin

4 START TIME: 1510

16 HIGH TIDE HTS: 1

22 OBSERVERS: A. Wasson

5 STOP TIME: 1535

17 LOW TIDE TIMES: 1

23 AGENCY: ADFG

6 SEGMENT #: ER-5

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#: 90RLG.001555

9 STAT AREA:

20 USCG QUAD:

Start: 1180 End: 1241

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: Elkhorn Is.

Sediment

14 DESCRIPTION: rocky cove.

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

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

28 SURFACE THICKNESS

4-5cm							
4-5cm							

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar ^{mat} 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 20% Cobble 25%
Gravel 55% Sand Mud/silt

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-50-16432

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: narrow band tar mat in upper inter-tidal on NW side

creek, vary in width from 8-10 feet to 2-3 feet

on LSFDS only. (Shore removal)

9km x 4m x 1cm broken up Tar mat

LSFDS → 4m x 1m x 1cm sporadic asphalt patch

L W Thick

ACE 7237342+HS

FRAME(S)

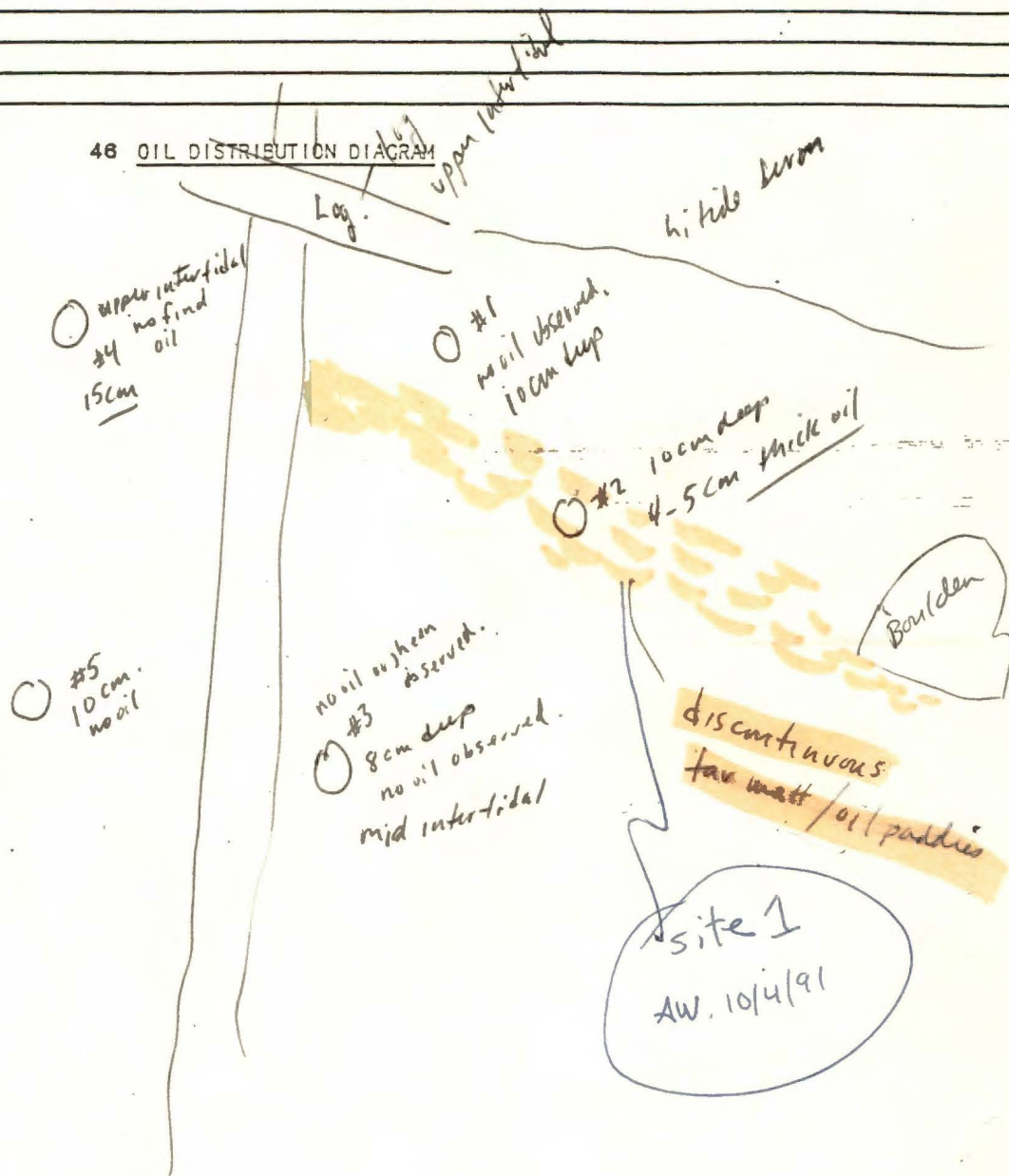
DESCRIPTION

Recommendations

Shovel remove and bag broken scattered tar matts and
sporadic asphalt patches.

No bioremediation Recommended

46 OIL DISTRIBUTION DIAGRAM



Comments by Ken Critchlow:
I agree with ADFG's comments.

KRC

unsure of location of
site 2?

1x4 x 1cm AP/S

AW

4.2.5.11
File Ace 1199710

Aimee Weseman
ADF&G Oil Spill Response
M/V Corinthian, PWS

June 21, 1990

Re: Stream Report
ASC# 226-50-16432, Seg. ER-05, S. Elrington I.

Treatment to this anadromous fish stream occurred on June 21, 1990. From 0740 to 0810 on the 21st, the stream area was assessed for oiling conditions by Larry Smith OOPS, Jan Krieger, Barbara Winkley ADEC, Jim Davis USCG, Sand Tucker USF USF&W and myself. Sandy Tucker was along to observe the active eagle nest on the segment near the stream and advise the crew supervisor should the treatment disturb the eagles.

Veco foreman Ron Kirk arrived on site at 0810 with 10 workers and began treatment. The manual removal began at the streambank on the right side facing downstream and continued away from the stream. The majority of the oil, in the form of a tarmat band, ran the length of the upper-intertidal zone on the nw side of the stream. Treatment began without the use of a fourwheeler to transport oiled material, but was later used when it became apparant to the eagle biologist that our presense was not causing a disturbance to the two resident eagles. They were both seen flying together numerous times through-out the day. John Morrison ADF&G, who arrived on the site after lunch mentioned that the eagles flight behavior looked similar to courtship patterns and that this could indicate the absence of young in the nest. The nest itself was not visible from the beach.

The crew worked the stream portion until 1700 and then moved down the beach to treat an adjacent segment. Approximately two and one half supersacks of oiled gravel and one half of oily material were removed from the stream area. ADEC, OOPS, and USCG reps. were absent from the site from noon until 1700, when they returned and demobilized the site.

✓ All agency reps. involved in the treatment were exceptionally cooperative in the treatment of the area and I am very satisfied with the results.

Some residual oil remains. It is difficult to remove it all. No bioremediation is recommended for the site nor called for in the workplan. Because the stream area makes up the majority of the segment and was the main area of oiling, it was decided not to apply bioremediation to the remainder of the segment.

Aimee Weseman

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: ER005
LOCATION: SW ELRINGTON ISLAND

DATE: 10/14/89
TIME: 9:11

Survey Type: Boat, Ground
Team: B. McCready, P. Montesano

WEATHER AND SEA CONDITIONS

Weather: Rain Wind Direction: NW
Sea State: Rough Knots: 16-30

Low Tide: 7:21	Feet: 0.19	High Tide: 13:29	Feet: 14.4
Low Tide: 19:53	Feet: -2.3	High Tide: 1:24	Feet: 12.8

SHORELINE DESCRIPTION

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

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

OIL CHARACTERISTICS

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

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

Percent Segment Categorized as Oiled: 25%
Presence of Oiled Driftwood (y/n): n
Oil Types: T
(P=pooled, M=mousse, SY=sticky, T=tar, A=asphalt, ST=stain)
Samples: none / none / none / none

DAMAGED OR OILED ORGANISMS

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

SOLID WASTE FOUND

Type: None
Bags Collected: 0

Draft

Printed: 12/12/89 11:12

Walk-a-thon

ACE 7237321+IAC

Final Anadromous Stream Treatment Information

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

ADEC DEMOBILIZATION REPORT

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

TODAY'S DATE 6/21/90

RE: SEGMENT NUMBER ERS-ER6 SUBSEGMENT NUMBER A

DEC REP BARBARA WINKLEY-JAN KRIEGER USCG REP JIM DAVIS

EXXON REP DARYL YDES BOAT NAME/SQUAD NUMBER CORINTHIAN SQ1

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? If yes then describe amount of oil remaining (type, size of area and location).

NO

Date and Time of demobilization from segment 1850 6/21/90

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

Additional Comments (keep objective)

ADFG REP AIMEE WEISMAN WAS ON SITE.
CREW DID AN EXCELLENT JOB.

Barbara Winkley
signature

GRADE A+

Revised 5/8/90

ADEC DEMOBILIZATION REPORT

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

TODAY'S DATE 6/21/90

RE: SEGMENT NUMBER FR-05 SUBSEGMENT NUMBER A

DEC REP BRESARA-WINKLEY-JAN KRIEGER USCG REP JIM DAVIS

EXXON REP DARYL VOES BOAT NAME/SQUAD NUMBER CORINTHIAN SQ1

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? If yes then describe amount of oil remaining (type, size of area and location).

NO

Date and Time of demobilization from segment 1850 6/21/90

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

Additional Comments (keep objective)

TWO WORK FORM MODIFICATIONS WERE FILLED OUT [ENCLOSED] - ONE REGARDING LISTED BALD EAGLE NEST CONSTRAINTS, AND THE OTHER RECOMMENDING NO INDOLE APPLICATION. CREW DID AN EXCELLENT JOB TO-DAY - REMOVING OIL AS WELL AS DEBRIS IN THE SITE.

Bresara-Winkley
signature

Revised 5/8/90

GRADE A+

ACE 7237324

STATE OF ALASKA

STEVE COWPER, 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 6/21/90

EXXON Authorized Representative _____

Shoreline Segment FR-005

Anadromous Fish Stream Number(s) 226-50-16432

Approved Cleanup Techniques Manual removal of oiled
sediments as specified in the AnadScat stream
work order approved by the FOSC

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

Alaska Department of Fish and Game

Aimee Weseman
Authorized Officer

M. H. Jones
Permittee's Signature

ACE 7237325

Aimee Weseman
ADF&G Oil Spill Response
M/V Corinthian, PWS

June 21, 1990

Re: Stream Report
ASC# 226-50-16432, Seg. ER-05, S. Elrington I.

Treatment to this anadromous fish stream occurred on June 21, 1990. From 0740 to 0810 on the 21st, the stream area was assessed for oiling conditions by Larry Smith OOPS, Jan Krieger, Barbara Winkley ADEC, Jim Davis USCG, Sand Tucker BSF USF&W and myself. Sandy Tucker was along to observe the active eagle nest on the segment near the stream and advise the crew supervisor should the treatment disturb the eagles.

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All agency reps. involved in the treatment were exceptionally cooperative in the treatment of the area and I am very satisfied with the results.

Some residual oil remains. It is difficult to remove it all. No bioremediation is recommended for the site nor called for in the workplan. Because the stream area makes up the majority of the segment and was the main area of oiling, it was decided not to apply bioremediation to the remainder of the segment.

Aimee Weseman

Aimee Weseman



ACE 7237326+16

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT: ER-5 ANAD SUBDIVISION: A
STREAM # 226-50-16432

DATED: 6/4/90 ADDENDUM

MODIFICATION CLASS I X CLASS II _____ CLASS III _____

1. REASON FOR MODIFICATION:

Current addendum has segment closed for treatment less than 400m from eagle nest.

2. SUGGESTED ADJUSTMENT TO WORK PLAN:

Permit tarmat removal less than 400m from eagle nest in presence of USFWS monitor. Monitor will observe eagle nest and advise crew supervisor should treatment disturb eagles.

3. TIMING ISSUES:

Work to be performed June 21, 1990.

ADEC S. J. Pruse

EXXON MD Hoen 6/21/90

USCG JAMES B. DAVIS JR BM³

LAND MANAGER Kyle Burger ADNR (If field rep is on scene)

USFWS Sandra S. Tucker 6/21/90
ADFG Guinee Weseman

ACE 7237327

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

STEVE COWPER, GOVERNOR

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

EXXON Valdez Oilspill Cleanup

Anadromous Fish Stream Authorization

Date 6/21/90

EXXON Authorized Representative _____

Shoreline Segment FR-005

Anadromous Fish Stream Number(s) 226-50-16432

Approved Cleanup Techniques Manual removal of oiled
sediments as specified in the AnadScat stream
work order approved by the FOSC

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

Alaska Department of Fish and Game

Aimee Wiseman
Authorized Officer

M. H. [Signature]
Permittee's Signature

ACE 7237328-15

ANONYMOUS FISH STREAM EVALUATION

SEGMENT ST/ ER-05 STREAM NO: 226-50-16432 DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
 6Y Recreation: Special use destination
 7II Subsistence area: Deer harvesting (8/15 to 2/28)
 See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled biota and substrate. Bald Eagle nest within 400M of stream 226-50-16432 - see ecology map. Subject stream is located in Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 5/2/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is manual removal of tarmat as indicated on sketch map. Work should be conducted between 6/1 and 7/10 based on above constraints, with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90
 ADEC [Signature]
 EXXON [Signature]
 NOAA [Signature]
 USCG G.A. REITER

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

ELRINGTON

ECOLOGY MAP

am
4/24/90

PASSAGE

ELRINGTON

Nave

Light

60

300

Donald

Bald Eagle
Nest

ER-05

226-50-16432

28

32

500

1000

500

60

60

18

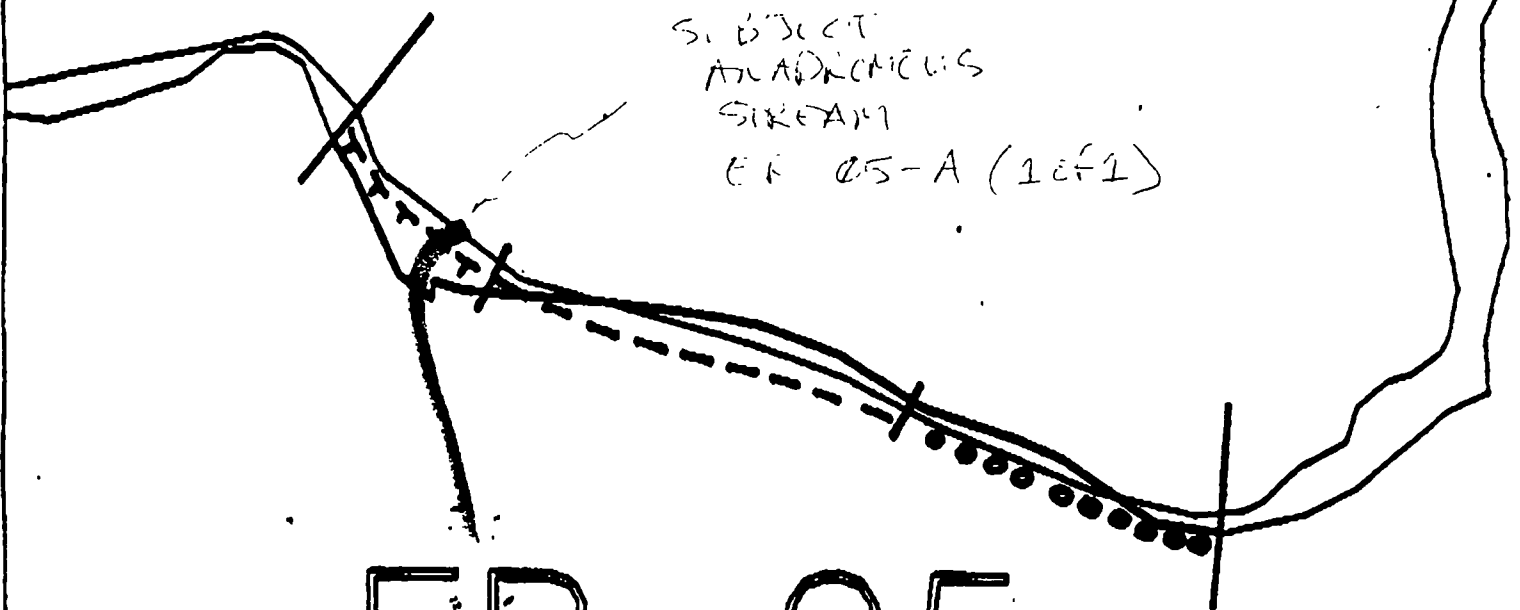
18

500

1

ACE 7237331

ER-06



ER-05

No.	1.75	263	2
V. Light	1.1	165	16
Light	2.1	315	315
		743	75

19 of 22

XXXX Wide	ER-5	Map Key: PWS-171
//// Medium	ADCC Segment Length: 820m	Name: <u>R. Marty</u>
--- Narrow		Date: <u>04/04/90</u>
TTTT Very Light		Date Entered:
0000 No Oil	0 100 200 300 METERS	

ANONYMOUS FISH STREAM EVALUATION

SEGMENT ST/ ER-05 STREAM NO: 226-50-16432 DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Bald Eagle nest within 400M of stream 226-50-16432 - see ecology map. Subject stream is located in Subdivision A (1 of 1).

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *J. Daniel M. Mahan* DATE: 5/8/90

Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment is manual removal of tarmat as indicated on sketch map. Work should be conducted between 6/1 and 7/10 based on above constraints, with approval of USFWS regarding eagle nest.

TAG COMMENTS:

TAG APPROVAL DATE: 5/7/90

ADEC *Art Winters* *D. Williams*

EXXON *Andy Tark* *Bob*

NOAA *Gary Peterson* *Gary Peterson*

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

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

ER-06

SUBJECT
ANADROMOUS
STREAM
ER-05-A (1 of 1)

ER-05

No	1.75	263	2
V. Light	1.1	165	16
Light	2.1	315	311
		743	75

19 of 22

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-5

ADEC Segment Length: 820m

0 100 200 300
METERS



Map Key: PWS-171

Name: R. Marty

Date: 04/04/90

Date Entered:

ACE 7237341-16/SG

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / ER-005 SUBDIVISION: ^{ASC#} 226-50-16432 DATE 4-20-90

USCG

NAME Kerwin L. Dreher SIGNATURE cwoz K. L. Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADFT6

ADEC

NAME Aimee Weseman SIGNATURE Aimee Weseman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Manually remove scattered tar mats and sporadic asphalt patches on NW side of stream.
Coverage includes an area $9\frac{1}{2}m \times 4m \times 4cm$ - of broken tar matt
and $4m \times 1m \times 4cm$ of sporadic tar mats
No bioremediation recommended.

LAND MANAGER

NAME no team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED





3

OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 09/11/89

TIME: -0-

SEGMENT#:

-0-

STATION#:

-0-

LOCATION: WEST SIDE OF ELRINGTON ISLAND

226-50-16432
16432

REASON FOR TAKING PHOTO: DOCUMENTING UNDOCUMENTED SALMON SPAWNING
SITE (148°07'30"/59°58'06"). (AERIAL PHOTO).

TAKEN BY: RICK GUSTIN

INITIALS: _____

ROLL #: 89RLG007V FRAME #: 03

EVIDENCE ID#: 10210

ACE 7237320

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89

SHORELINE SEGMENT ER-05

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE
SOUTH END

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):

Manual cleanup of oiled popweed debris.

Consider manual removal of 2" thick asphalt oil/sand layer
(possibly with rakes, shovels and wheel barrows).

Use other approved methods as appropriate.

No mechanical cleanup recommended.

Priorities Considerations:

Class 1: Oil present, time sensitive resources.

Class A: San Juan Fishery restrictions on oil cleanup after
July 15, 1989.

Ecological Constraints (from site survey):

Use as few people and cause as little disturbance as
possible. No mechanical measures recommended.

Archeological Constraints (from site survey):

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

Dauglas Reger
State Historic Preservation Officer *

Date: 6/29/89

ISCC: ✓

Date: 7/5/89

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7237348+1S

SHORELINE OIL EVALUATION

Date: 6/23/89 Time: 08:50

Observer: Rick GILLIE

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION ELRINGTON ISLAND

SEGMENT NUMBER ER-05

LENGTH OF SHORELINE SEGMENT: 700 m

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

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B40% / C40% / P20% / G___% / S___% / M___% / R___% Fine

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type _____

OIL

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

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

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

Sporadic: Y/N % of Segment 20

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: 5 cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H10% / M30% / L60%

Fresh _____ % Mousse 10% Tar Formation: 90%

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

Comments:

- ① Light oil band (0.5m wide) in HTZ. Sporadic.
- ② Band of lightly coated oil on cobble beach from HTZ to MTZ (20m wide).
- ③ Incipient asphalt band at HTZ in river delta. Approx 0.5-1.0 m wide and 5 cm thick.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries

ER-05

VTR:

Y/N

Tape Number(s)

Photography:

Y/N

Roll Number(s)

T46-6

Sample Numbers Collected:

N/A

ACE 7237350

6/23/89

SEGMENT

ER-05

@ 08:50

(Site 1)

Substrate

- boulder / cobble / pebble beach
- 40 40 20

- Light oil band (0.5 m high)
in HTZ

- No oiled Fucus, no Fucus
debris

- Band is very sparsely (< 5%)
coverage

- Accro-GrowD.

Rick Gillie

ER-05

Site 2

- Cobble beach / changing to river delta
with gravel / cobble

- Band (20.) of light oil coating
~ cobble from HT to upper LTZ.
- No recoverable oil.

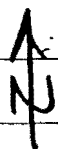
- Also incipient asphalt band
at HTZ. Approx 0.5-1 m wide
and 2-5 cm thick.

- Same oiled Fucus

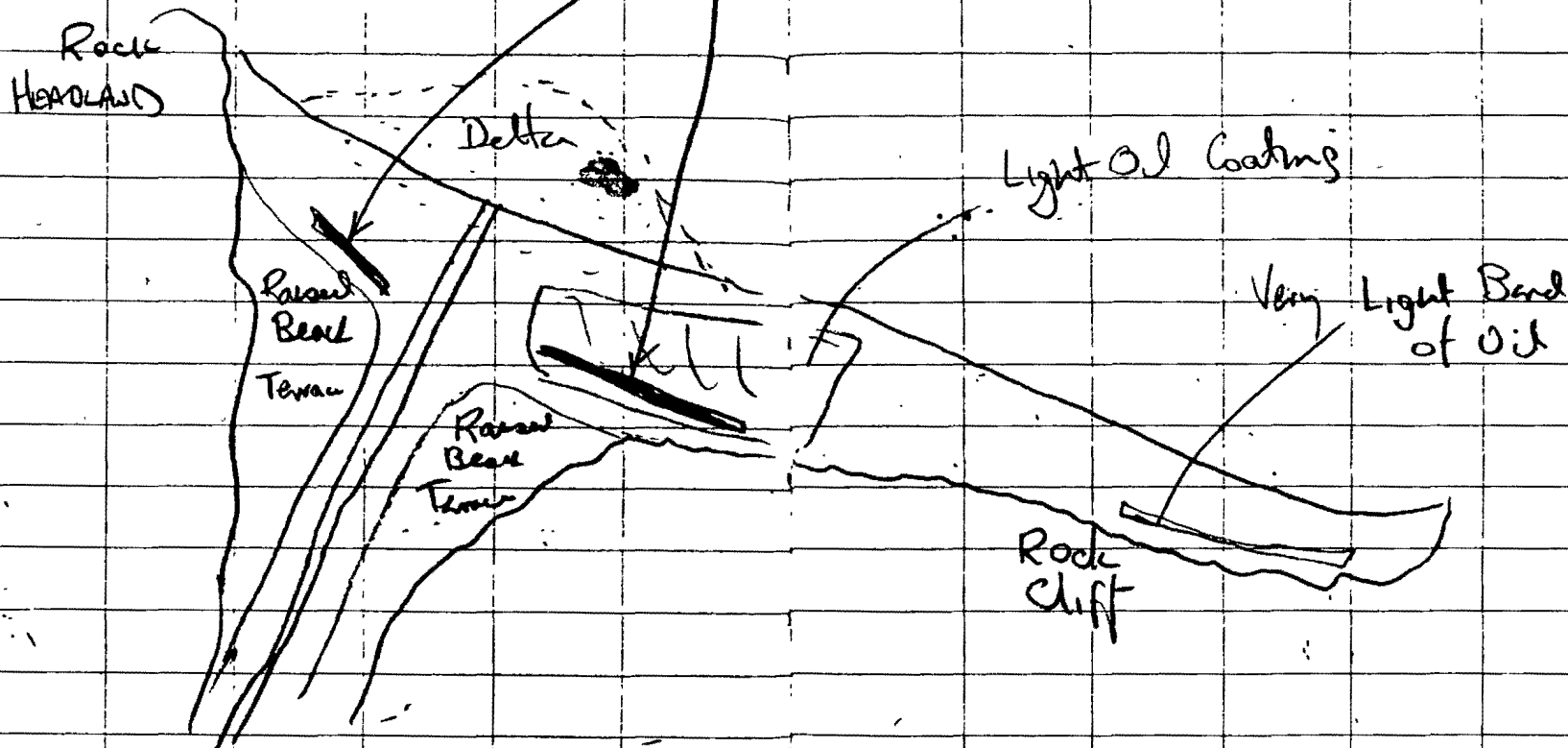
- Sand is a hard clear grey.

Rick Grille

ER-05



Band of incipient asphalt.



ACE 7237353/A

ACE 7237353/B

ECOLOGICAL EVALUATION

LOCATION: Elkington Is. SITE: SW shore OBSERVER: STOKERLOCATION PREFIX: ER SEG. NO.: 5 LENGTH: 700 (M)DATE: 6/23/89 TIME (HHMM): 0850-1000 TIDE HT.: _____ (M)OILED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand MudLIVE BIOTAFucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NPatchy & variable sparse to dense at high-mid level. sparser on cobble/shale toward S. end segment.Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NPatchy & variable. sparse on boulder/cobble; some dense patches in shale at S. end.Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable. sparse to dense, large individuals, on large rocks, dense recent settlement on boulder/cobble. sparse on shale at south end.LittorinaPatchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NDense band large individuals upper mid-tide on boulder/cobble to North. sparser, smaller individuals in lower tide zone. sporadic and sparse on shale to south.Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NDense at mid level on boulder/cobble to N, sparse in lower zone, sparse on shale to south.OTHER OBSERVATIONS: Nucella continuous, with dense patches. Amphipods dense under rocks. Pagurus in clusters under rocks. Blennies, Nereids, under rocks. sea stars sparse. At least 5 common non-fucus algae in lower intertidal-shallow subtidalCLEANUP PRECAUTIONS: If cleanup is to proceed it should be done with as few people and as little disturbance as possible.MAMMALS: Otters 8 Harbor Seals 1 Sea Lions 2 Whales _____
Other 1 otter with pup.BIRDS: Gulls, Kittiwakes, Mergansers, GuillemotsGENERAL OBSERVATIONS: Small stream at south end, unlikely in-stream spawning potential. Mytilus denser in shale toward S. end; all other biota very sparse on shale.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/23/89 Location Edlington Island Site

Location Prefix EL Segment # EA-5 Length 706

Survey Method:

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

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light

Width of beach zone surveyed 10-12 m Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile boulder / cobble / gravel beach that is steep to

Fresh Water Sources several small streams

Sea Exposure protected to west

Access/Safety fair

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

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

Photos: Color Roll # _____ Frames _____

B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started 0800 Time survey ended 1045

Cultural resource considerations/restraints:

If hereafter undiscovered cultural resources material are
uncovered during cleanup, contact Lynn arch-
aeologist, C. McElroy, immediately.

ELRINGTON

PASSAGE

ELRINGTON

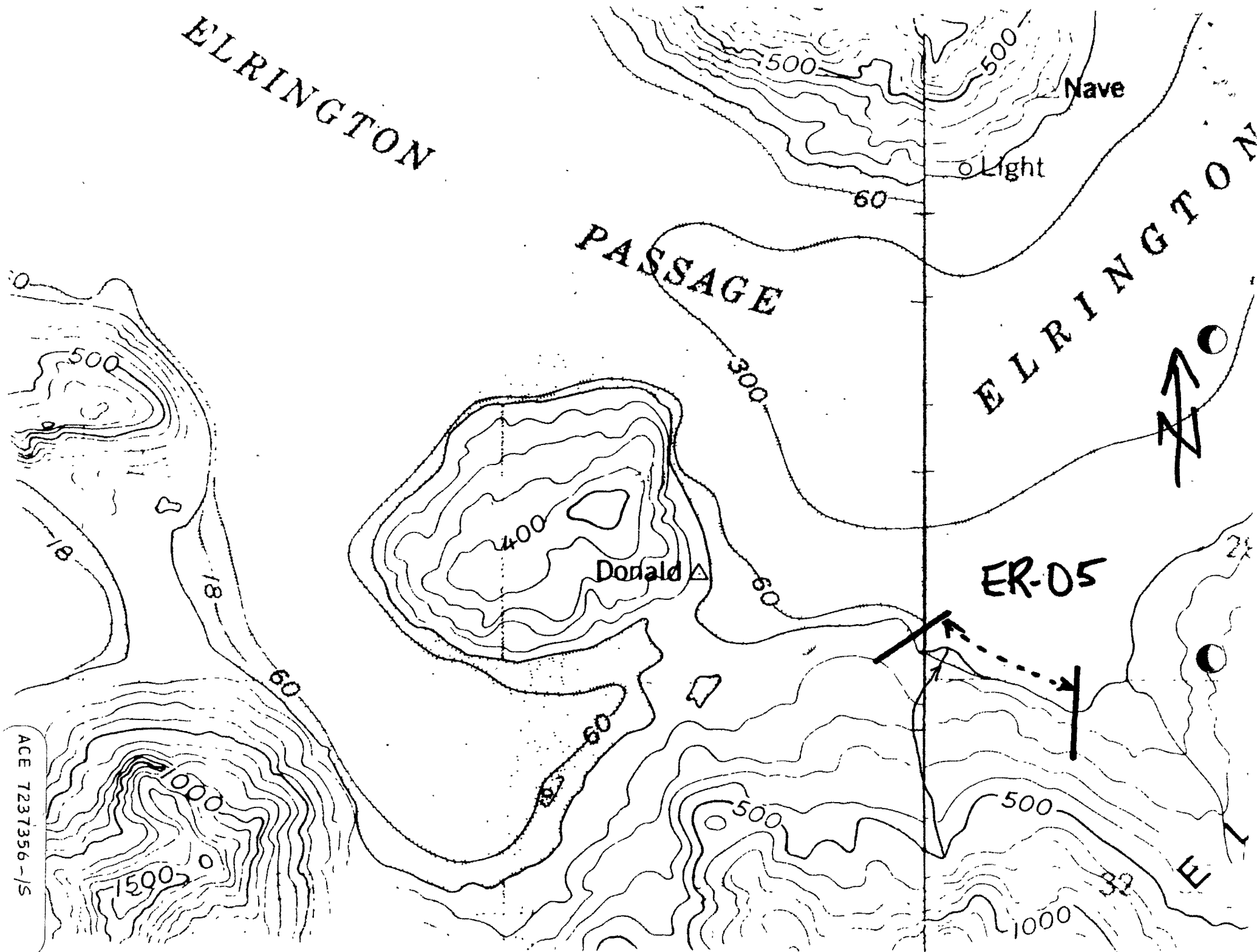
Nave

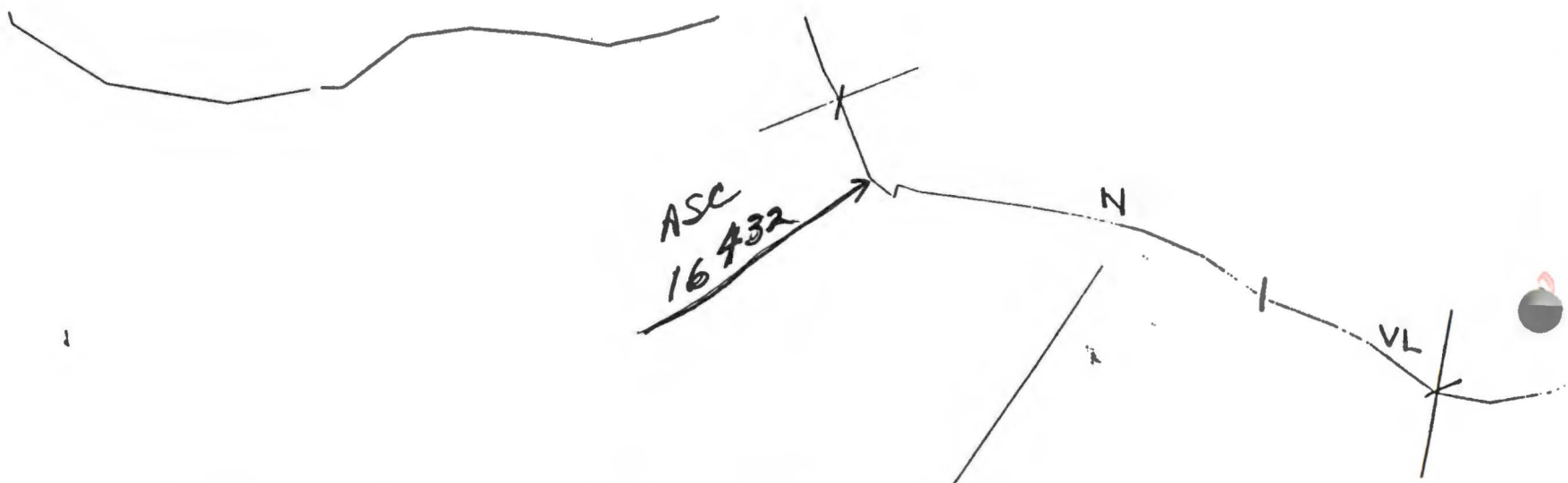
Light

Donald 

ER-05

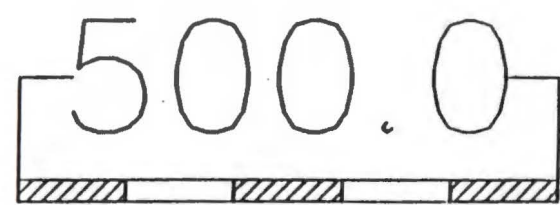
ACE 7237356-15





ER005

mod → heavy



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



ACE 7237357

-11/10/FF

ER-005 ASC 16432
S.W. END OF ELRINGTON PASSAGE

ACE 1369545



- Prince William Sound -

DOCUMENTS IN STREAM FILES

ASC# _____ Segment # _____

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

____ '90 Pre-Anadscat Survey, multi-assessment form
____ '90 Anadscat Survey
____ '90 Anadromous Fish Stream Evaluation (work order)
____ '90 Anadromous Fish Stream Addendum to work order
____ '90 Shoreline Evaluation, SAT and work order for segment
____ '90 Anadromous Fish Stream Authorization, Title 16 permit
____ '90 Stream Treatment Report
____ '90 ADEC Demobilization Report for Bio
____ '90 ADF&G Oiling Condition Survey, for ASAP use (Aug. Survey)
____ '90 ASAP Survey ____ ASAP Rec. ____ ADEC Rec. (7-2-91)
____ '90 Other Documents _____

ACE 7237358
+1F1S11E1FF1-1S11E

CATALOG NUMBER: 2265016430

STREAM NAME:

LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END

SEGMENT NUMBER: ER006 A

SHORELINE TYPE:

DATE: 04/12/90 TIME: BEACH-1145

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
2 21				11-50 91-100			SURFACE SURFACE	TB / AP HOR AP TB SOR	north side - Patchy AP/TB - U & M ITZ south side - Heavy tar - U & ITZ - near stream

COMMENTS:

TARMAT BAND AND TAR/ASPHALT BLOBS NEAR STREAM MOUTH. ANADSCAT - YES.

STREAM BANKS: YES

MILE OF STREAM: YES

OIL ON
OIL WITHIN 1

CATALOG NUMBER: 2265016430

STREAM NAME:

LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END

SEGMENT NUMBER: ER006 A

SHORELINE TYPE:

DATE: 04/20/90 TIME: BEACH-1650

SITE	WIDTH (m)	LENGTH (m)	AREA (sqm)	PERCENT OIL	THICKNESS (cm)	PENETRATION (cm)	SURFACE SUBSURF	OIL TYPES	COMMENTS
2 21	6	12		11-50 11-50	2 1-2cm		SURFACE SURFACE	AP PT PT MS	north side - intermittent tarmat - U & ITZ south side of stream along stream bank U & ITZ - sporadic mousse patties - some buried patties under

COMMENTS:

UPPER INTERTIDAL SMALL STORM BERM SOUTH SIDE CREEK HAS OIL PATTIES AND SOME OILED SEDIMENTS/MOUSSE PATTIES CONTINUE UP TO STREAM EDGE. SOUTH SIDE UPPER INTERTIDAL

LAYER BROKEN PATTIES ASPHALT MATS SMALL BROKEN.

TREATMENT/SHOVEL REMOVAL. SHOVEL REMOVE AND BAG MOUSSE PATTIES

OIL ON STREAM BANKS: YES

WITHIN 1 MILE OF STREAM: YES

RECOMMENDATIONS:

OIL

5cm of clean sediment



Pre-ANAD SCAT-ATW 90

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-12-90 15 HIGH TIDE TIMES: 1

21 TEAM RECORDER:

4 START TIME: 1129 16 HIGH TIDE HTS: 1

22 OBSERVERS: Tom Crowe

5 STOP TIME: 1145 17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G ATW

6 SEGMENT #: RR006 18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: 19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT: Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#:

9 STAT AREA: 20 USCG QUAD:

Start: End:

10 LAT: 11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: LURINGTON

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

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

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-50-15W 16430

38 STREAM NAME:

28 SURFACE THICKNESS

39 OIL IN STREAM BED? (Y) N

29 PENETRATION

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? Y N

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

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

COMMENTS: TAR MAT BAND + TAR / ASPHALT BLOBS

NEAR STREAM MOUTH ANADSCAT - YES

ACE 7237406 +IP

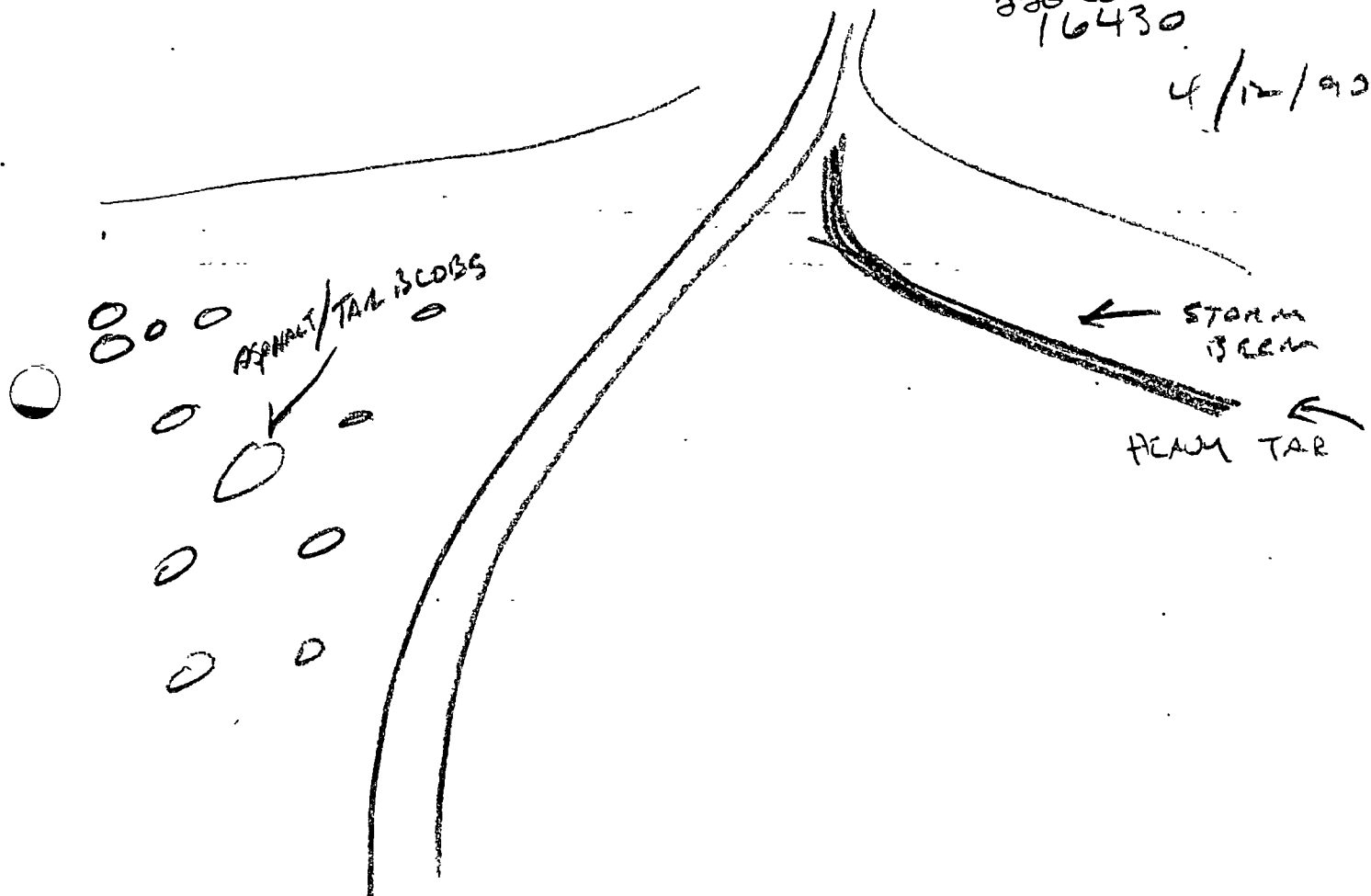
FRAME(S)

DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

ER-6 TC
 226-SOAW
 16430

4/12/90



= Sample taken
 = Photo frame # and
 shot direction.

ACE 7237407-1P

ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

ALL SEGMENTS:

LATITUDE:

LONGITUDE:

LEGAL: S

ASC NUMBER: 226-50-16430

SURVEY TYPE:

METHOD:

DATE: 4/12/90

START TIME:

STOP TIME:

TEAM RECORDER:

OBSERVERS:

AGENCY(IES):

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN?

Tape Number:

Counter Start:

WAVE EXPOS:

SAMPLES TAKEN?

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

	LENGTH	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1							AP
SITE 2							AP/TB
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES

COUNT

COMMENTS:

Pre-ANAD SCAT-AJW 90

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-12-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Tom Crowe

4 START TIME: 1129

16 HIGH TIDE HTS: 1

22 OBSERVERS: Tom Crowe

5 STOP TIME: 1145

17 LOW TIDE TIMES: 1

23 AGENCY: ADF&G

6 SEGMENT #: RR006

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#:

9 STAT AREA:

20 USCG QUAD:

Start: End:

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil

13 LOCATION: FLORINGTON

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

27 SURFACE COVERAGE

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

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 226-50-16430

38 STREAM NAME:

28 SURFACE THICKNESS

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

39 OIL IN STREAM BED? Y N

29 PENETRATION

40 OIL ON STREAM BANKS? Y N

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

42 OIL WITHIN 1 MILE OF STREAM? Y N

32 OILED DEBRIS? Y N

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

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

COMMENTS:

TAR MAT BAND + TAR / ASPHALT PLOBS

NEAR STREAM MOUTH

ANADSCAT-435

ACE 7237406 +1P

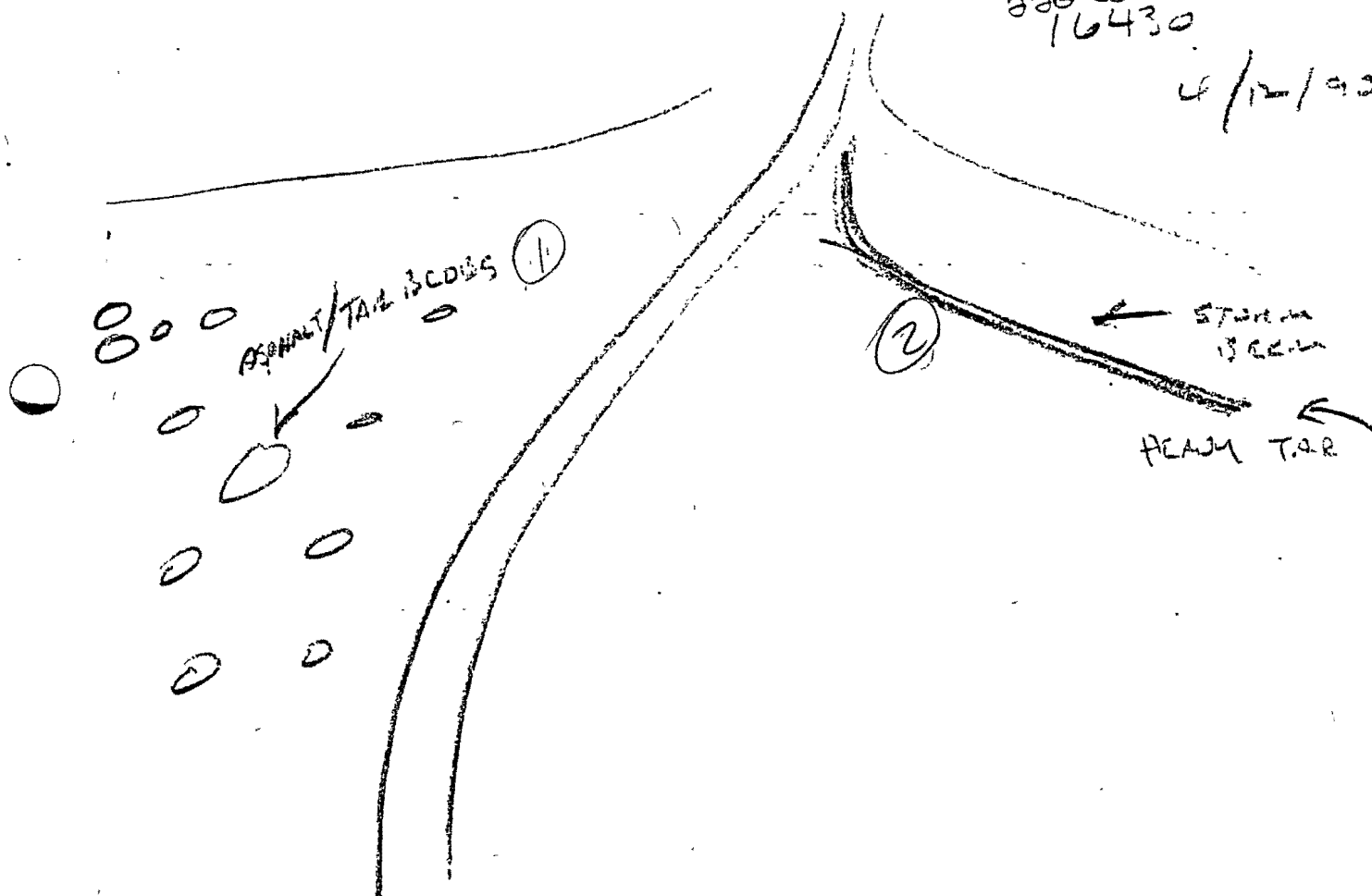
FRAME(S)

DESCRIPTION

48 OIL DISTRIBUTION DIAGRAMER-6
826-SO-MW
16430

TC

4/12/90



- = Sample taken
- = Photo frame # and shot direction.

ACE 7237407-1P

YR CATALOGED:

LATITUDE:

LONGITUDE:

LEGAL:

ALL SEGMENTS:

WAVE EXPOSURE:

TEAM RECORDER:

OBSERVERS:

AGENCY (IES) :

PHOTOS TAKEN?

Roll #:

Frames:

VIDEO TAKEN? Tape Number:

Counter Start:

SAMPLE I.D. NUMBERS: 1.

2.

3.

4.

5.

6.

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

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

-SUBSTRATE-

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS: Oil on stream bank

ANASCAT-90

10

ACF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: FXS KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 4-20-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Custer

4 START TIME: 1625

16 HIGH TIDE HTS: 1

22 OBSERVERS: A. Weseman

5 STOP TIME: 1650

17 LOW TIDE TIMES: 1

23 AGENCY: ADG

6 SEGMENT #: ER-6

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame:

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPES: FOR RLGOW 555

9 STAT AREA:

20 USCG QUAD:

Start: 1281 End: 1357

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

Oil

13 LOCATION: Elkington Is.

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	2 cm							
29 PENETRATION	3 cm							

36 CATALOGED ANAD. FISH SREAM? Y N

37 CATALOG #: 226-50-16430

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:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock 20 Boulder 55 Cobble
Gravel 25 Sand Mud/silt

COMMENTS: Upper intertidal small storm berm south side with two oil puddles and some oiled sediments / mousse patches continue up to stream edge. South side upper intertidal larger broken patches for asphalt matter small broken.

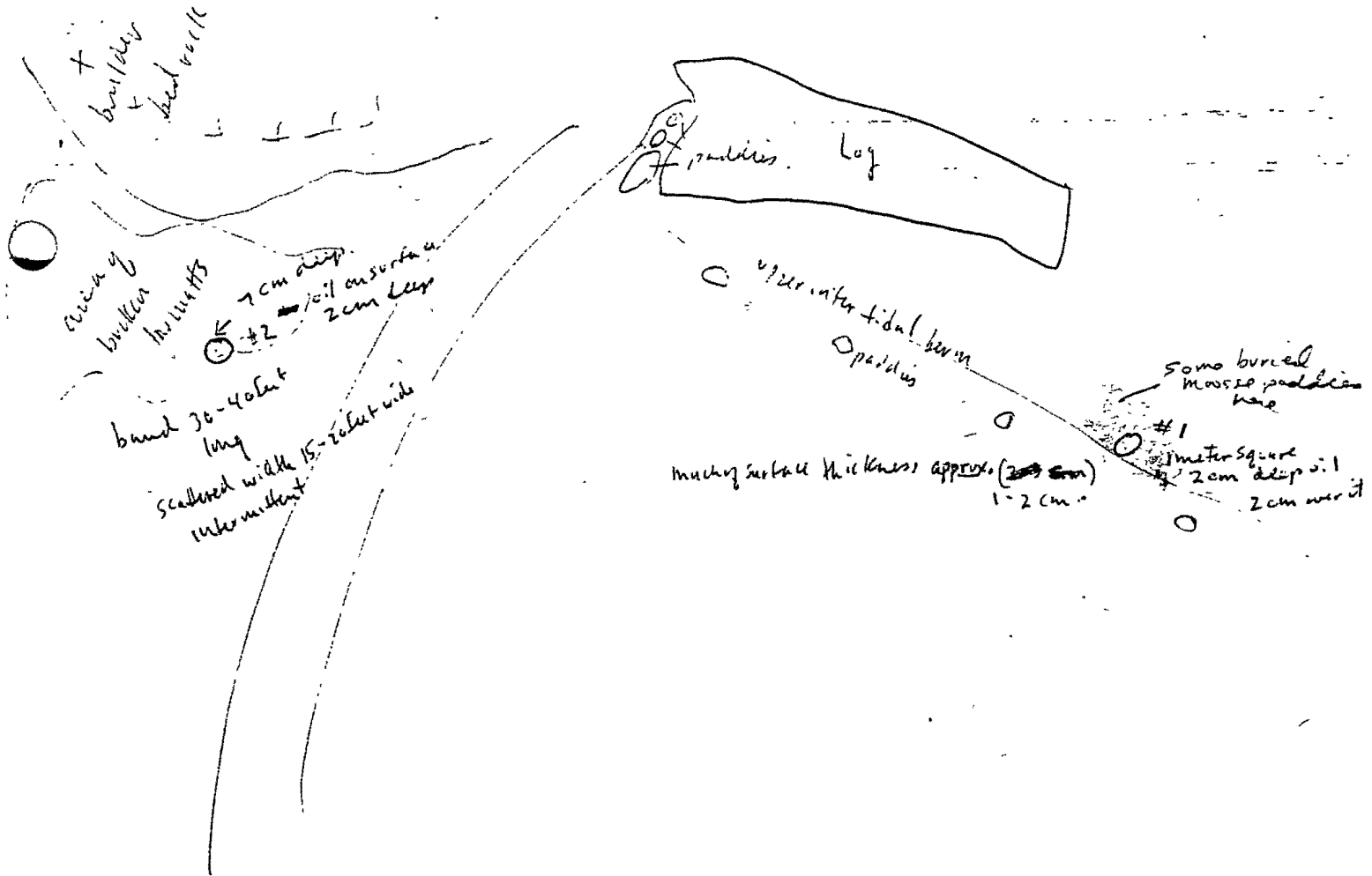
DESCRIPTION

Recommendations

test ment / shovel removed. Shovel remove and bag mussels.
 - paddies / pick up any oiled debris grasses etc.
 - If any finer sediments found with oil bag & remove these.
 No bio-remediation recommended.

46 OIL DISTRIBUTION DIAGRAM

Comments by Ken Critchlow:
 I agree with ADFG's recommendation KRC



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

ASC NUMBER: 226-50-16430
 SURVEY TYPE:
 METHOD:
 DATE: 4/20/90
 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	9	6			02		AP
SITE 2							MS/TB
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock Granule
 Boulder Sand
 Cobble Silt
 Pebble Veget.

SPECIES					
COUNT					

COMMENTS: oil on stream banks

Recommendation: treatment/shovel removal. Shovel, bag, and bag mouse pannes. Pick up any oiled debris (grasses). If any finer sediments found with oil, bag + remove these. No bioremediation recommended.

Comments by Ken Critchlow:

I agree with MFC's recommendations

KRC



AMASSCAT-90

10

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: RWS KP, CI K, AP

METHOD: Aerial Ground Boat

3 DATE: 4-20-90

15 HIGH TIDE TIMES: /

21 TEAM RECORDER: R. Lusti

4 START TIME: 1625

16 HIGH TIDE HTS: /

22 OBSERVERS: A. Weseman

5 STOP TIME: 1650

17 LOW TIDE TIMES: /

23 AGENCY: ADFG

6 SEGMENT #: ER-6

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#: 90RL6007555

9 STAT AREA:

20 USCG QUAD:

Start: 1281 End: 1357

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran

13 LOCATION: Elvington Is.

14 DESCRIPTION:

Oil

Sediment

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	2 cm							
29 PENETRATION	3 cm							

36 CATALOGED ANAD. FISH STREAM? Y N

37 CATALOG #: 226-50-16430

38 STREAM NAME:

39 OIL IN STREAM BED? Y N

40 OIL ON STREAM BANKS? Y N

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

42 OIL WITHIN 1 MILE OF STREAM? Y N

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock Boulder 20 Cobble 55
Gravel 25 Sand Mud/silt

Where:

43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

COMMENTS: Upper intertidal grass storm berm south side with two oil patches
and some oiled sediments / mousse patches continue up to stream edge.
Southside upper intertidal layer broken patches for asphalt matter small broken.

ACE 7237399 H1S

F-2(S)

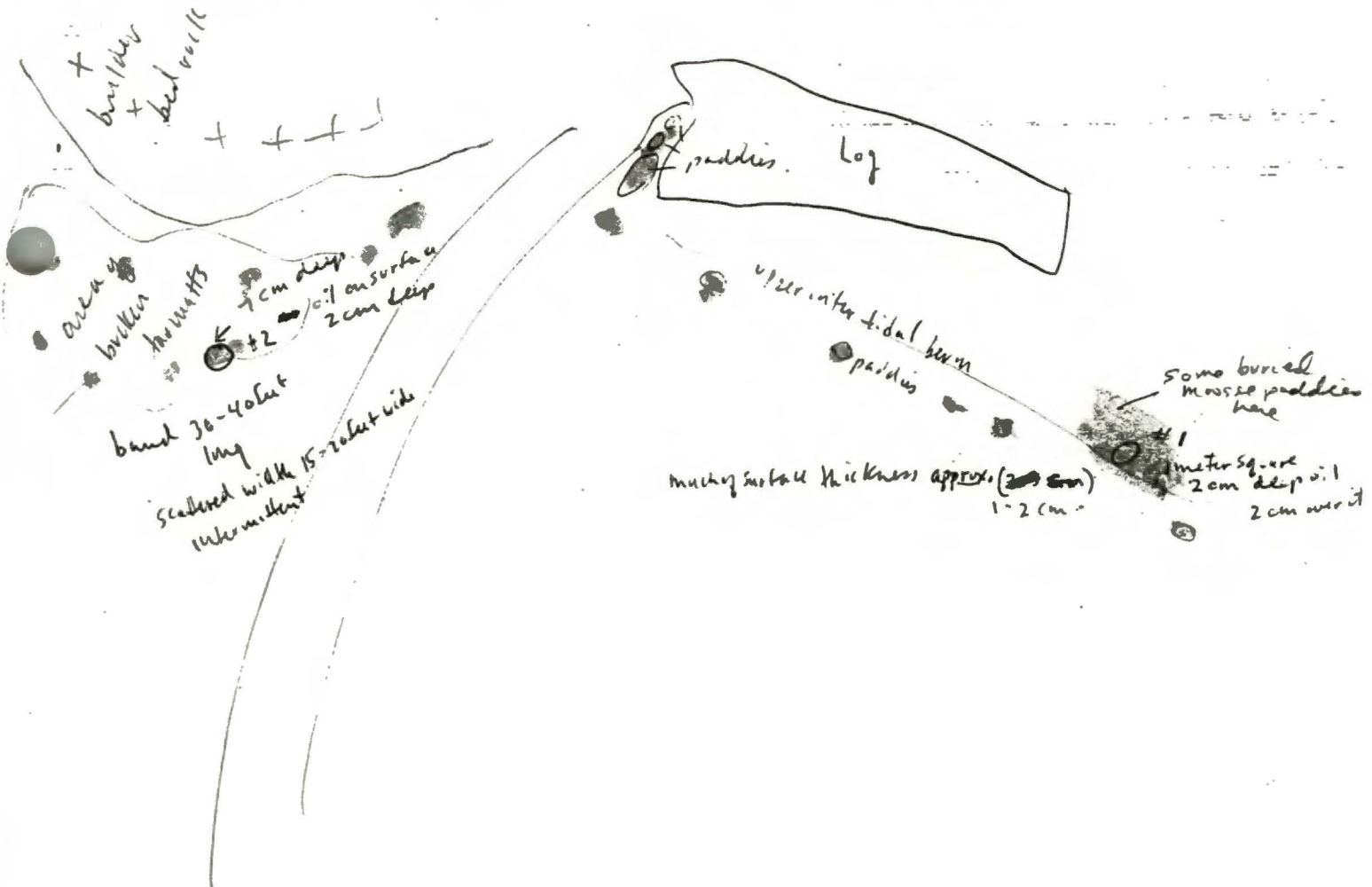
DESCRIPTION

Recommendations

Just went / shovel removal. Shovel remove and bag mussels!
 paddies / pick up any oiled debris - grasses etc.
 If any finer sediments found with oil bag & remove those.
 No bioherm removal recommended.

46 OIL DISTRIBUTION DIAGRAM

Comments by Ken Critchlow:
 I agree with ADFG's recommendations KRC



ASC NUMBER:

SEGMENT NUMBER:

YR CATALOGED:

LOCATION:

STREAM NAME:

KODIAK K-UNIT:

USGS QUADRANGLE:

SHORELINE TYPE:

LOCAL STREAM #:

LATITUDE:

LONGITUDE:

LEGAL: S

ALL SEGMENTS:

ASC NUMBER: 226-50-16430

SURVEY TYPE:

METHOD:

DATE: 4/20/90

START TIME:

STOP TIME:

WAVE EXPOS:

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	WIDTH	M2	%	THICK	PEN	OIL TYPE
SITE 1	9	5				.02	AP
SITE 2					.01	.02	TB/MS
SITE 3						.02	TB/MS
SITE 4							
SITE 5							

OVERALL OIL IMPACT:

OIL IN STREAM CHANNEL?

OIL ON BEACH WITHIN 50M OF STREAM MOUTH?

SUBSTRATE

Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

SPECIES					
COUNT					

COMMENTS:

CATALOG NUMBER: 2265016430 SEGMENT#: ER006 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/12/90	PRE-ANADS CAT	1	SURFACE	91-100		SOR	SOUTH SIDE: HEAVY TAR IN UITZ NEAR STREAM.
04/12/90	PRE-ANADS CAT	2	SURFACE	11-50		TB AP	NORTH SIDE: PATCHY AP/TB IN UITZ AND MITZ.
MAD vs. OG: COMMENTS: TARMAT BAND AND TAR/ASPHALT BLOBS NEAR STREAM MOUTH. OIL ON STREAM BANKS. RECOMMEND ANADSCAT.							

CATALOG NUMBER: 2265016430 SEGMENT#: ER006 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/20/90	ANADSCAT	1	SURFACE	11-50	1 2	TB MS	SOUTH SIDE IN UITZ ALONG STREAM BANK: SPORADIC MOUSSE PATTIES. SOME BURIED PATTIES UNDER 2CM OF CLEAN SEDIMENT.
04/20/90	ANADSCAT	2	5 x 9 SURFACE	51-90	2 2	AP	NORTH SIDE IN UITZ: INTERMITTENT TARMAT.
MAD vs. OG: COMMENTS: UPPER INTERTIDAL SMALL STORM BERM SOUTH SIDE CREEK HAS OIL PATTIES AND SOME OILED SEDIMENTS/MOUSSE PATTIES CONTINUE UP TO STREAM EDGE. SOUTH SIDE UPPER INTERTIDAL LAYER BROKEN PATTIES ASPHALT MATS SMALL BROKEN. RECOMMENDATIONS: TREATMENT/SHOVEL REMOVAL. SHOVEL REMOVE AND BAG MOUSSE PATTIES.							

CATALOG NUMBER: 2265016430 SEGMENT#: ER006 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL(cm)	SITE SPECIFIC COMMENTS
04/20/90	OG'S ANADSCAT	1	1 x 1 SURFACE	1-10	2	AP PT CT	SOUTH SIDE IN UITZ: SPLASH OF AP, PT AND CT UP TO STREAM BANK.

04/20/90	OG'S ANADSCAT	2	1 x 1 SURFACE	1-10	2	AP PT CT	NORTH SIDE OF STREAM - UITZ - SPLASH OF AP, PT AND CT UP TO STREAM BANK.
04/20/90	OG'S ANADSCAT	3	SURFACE		1	OF	NORTH SIDE OF STREAM - VERY LIGHT SURFACE OIL IN PIT 2 - MITZ, 0-1CM.

MAD vs. OG: MAD GIVES OIL COVERAGE SOMEWHAT HEAVIER % AND LONGER BAND DISTRIBUTION.
COMMENTS:

CATALOG NUMBER: 2265016430 SEGMENT#: ER006 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END SEQ:							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
04/12/90	PRE-ANADSCAT	1	SURFACE	91-100		SOR	SOUTH SIDE: HEAVY TAR IN UITZ NEAR STREAM.
04/12/90	PRE-ANADSCAT	2	SURFACE	11-50		TB AP	NORTH SIDE: PATCHY AP/TB IN UITZ AND MITZ.
MAD vs. OG: COMMENTS: TARMAT BAND AND TAR/ASPHALT BLOBS NEAR STREAM MOUTH. OIL ON STREAM BANKS. RECOMMEND ANADSCAT.							

CATALOG NUMBER: 2265016430 SEGMENT#: ER006 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END SEQ:							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
04/20/90	ANADSCAT	2 2	5 x 9 SURFACE	51-90	2 2	AP	NORTH SIDE IN UITZ: INTERMITTENT TAR MAT.
04/20/90	ANADSCAT	2 1	SURFACE	11-50	1 2	TB MS	SOUTH SIDE IN UITZ ALONG STREAM BANK: SPORADIC MOUSSE PATTIES. SOME BURIED PATTIES UNDER 2CM OF CLEAN SEDIMENT.
MAD vs. OG: COMMENTS: UPPER INTERTIDAL SMALL STORM BERM SOUTH SIDE CREEK HAS OIL PATTIES AND SOME OILED SEDIMENTS/MOUSSE PATTIES CONTINUE UP TO STREAM EDGE. SOUTH SIDE UPPER INTERTIDAL LAYER BROKEN PATTIES ASPHALT MATS SMALL BROKEN. RECOMMENDATIONS: TREATMENT/SHOVEL REMOVAL. SHOVEL REMOVE AND BAG MOUSSE PATTIES.							

CATALOG NUMBER: 2265016430 SEGMENT#: ER006 A LOCATION: ELRINGTON ISLAND, ELRINGTON PASSAGE, SOUTHWEST END SEQ:							
DATE	SURVEY	SITE	W x L (m) SITE TYPE	PERCENT OIL	THICKNESS & PENETR. (cm)	OIL TYPES, DEPTH INTERVAL (cm)	SITE SPECIFIC COMMENTS
04/20/90	OG'S ANADSCAT	1	1 x 1 SURFACE	1-10	2	AP PT CT	SOUTH SIDE OF STREAM ⁱⁿ UITZ : SPLASH OF AP, PT AND CT UP TO STREAM BANK.

DATE PRINTED: 10/17/91

NON-DUCK STREAMS

PAGE 45

04/20/90	OG'S ANADSCAT	2	1 x 1 SURFACE	1-10	2	AP PT CT	NORTH SIDE OF STREAM - UITZ - SPLASH OF AP, PT AND CT UP TO STREAM BANK.
04/20/90	OG'S ANADSCAT	3	SURFACE		1	OF	NORTH SIDE OF STREAM - VERY LIGHT SURFACE OIL IN PIT 2 - MITZ. 0-1cm

MAD vs. OG: MAD GIVES OIL COVERAGE SOMEWHAT HEAVIER % AND LONGER BAND DISTRIBUTION.
COMMENTS:

J.W.

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES SS CS TS AVS SCBA MMS PTA

2 REGION: RWS KP,CI X,AP

METHOD: Aerial Ground Boat

3 DATE: 4-20-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Custer

4 START TIME: 1625

16 HIGH TIDE HTS: 1

22 OBSERVERS: A. Wessman

5 STOP TIME: 1650

17 LOW TIDE TIMES: 1

23 AGENCY: ADFG

6 SECTENT #: ER-6

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#: 90RLG-007 5:55

9 STAT AREA:

20 USCG QUAD:

Start: 1281 End: 1357

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: Elvington Is.

Sediment

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 226-50-16430

38 STREAM NAME:

28 SURFACE THICKNESS	2 cm							
29 PENETRATION	3 cm							

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? (Y) N

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? (Y) N

Where:

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock Boulder 20 Cobble 55
Gravel 25 Sand Mud/silt

COMMENTS: Upper intertidal small storm berm south side creek has oil patches
and some oiled sediments / mousse patches continue up to stream edge.
Southside v. near intertidal larger broken patches tar asphalt matter small broken.

226-50-16430

FRAME(S)

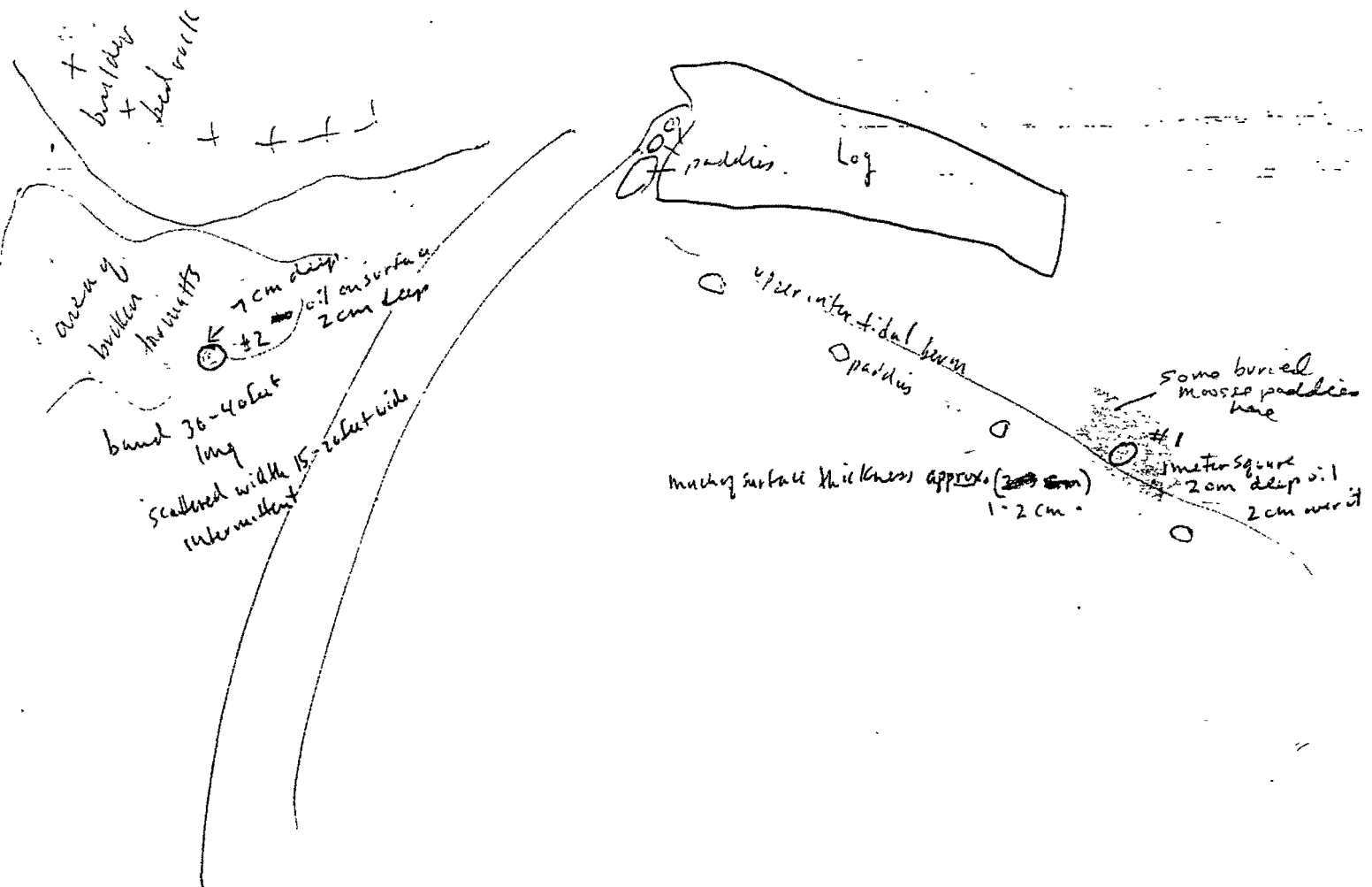
DESCRIPTION

Recommendations

test ment / shovel removal. Shovel remove and bag mussels
 paddies / pick up any oiled debris grasses etc.
 If any finer sediments found with oil bag & remove these.
 No bioremediation recommended.

46 OIL DISTRIBUTION DIAGRAM

Comments by Ken Critchlow:
 I agree with ADFG's recommendations KRC



FIELD SHORELINE COMMENT SHEET

SEGMENT ST / ER-006 SUBDIVISION 226-50-16430 ^{ASC #} DATE 4-20-90

USCG

NAME Kerwin L Dreher SIGNATURE CWO2 K L Dreher

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADFGADEC

NAME Rick Gustin SIGNATURE Richard J Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Our recommendations include shovel removal and bagging of mousse paddles and picking up any oiled debris (grasses etc)

If any finer sediments are found with oil in them, remove these

No bio remediation recommended

ADFGLAND MANAGER

NAME Rick Gustin SIGNATURE Richard J Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

The upper inter-tidal small storm berm on the south side
and some oiled sediments

ACE 7237394

OG CALLARSON

SEGMENT STIER006

STREAM 226-50-16430

DATE 1/90

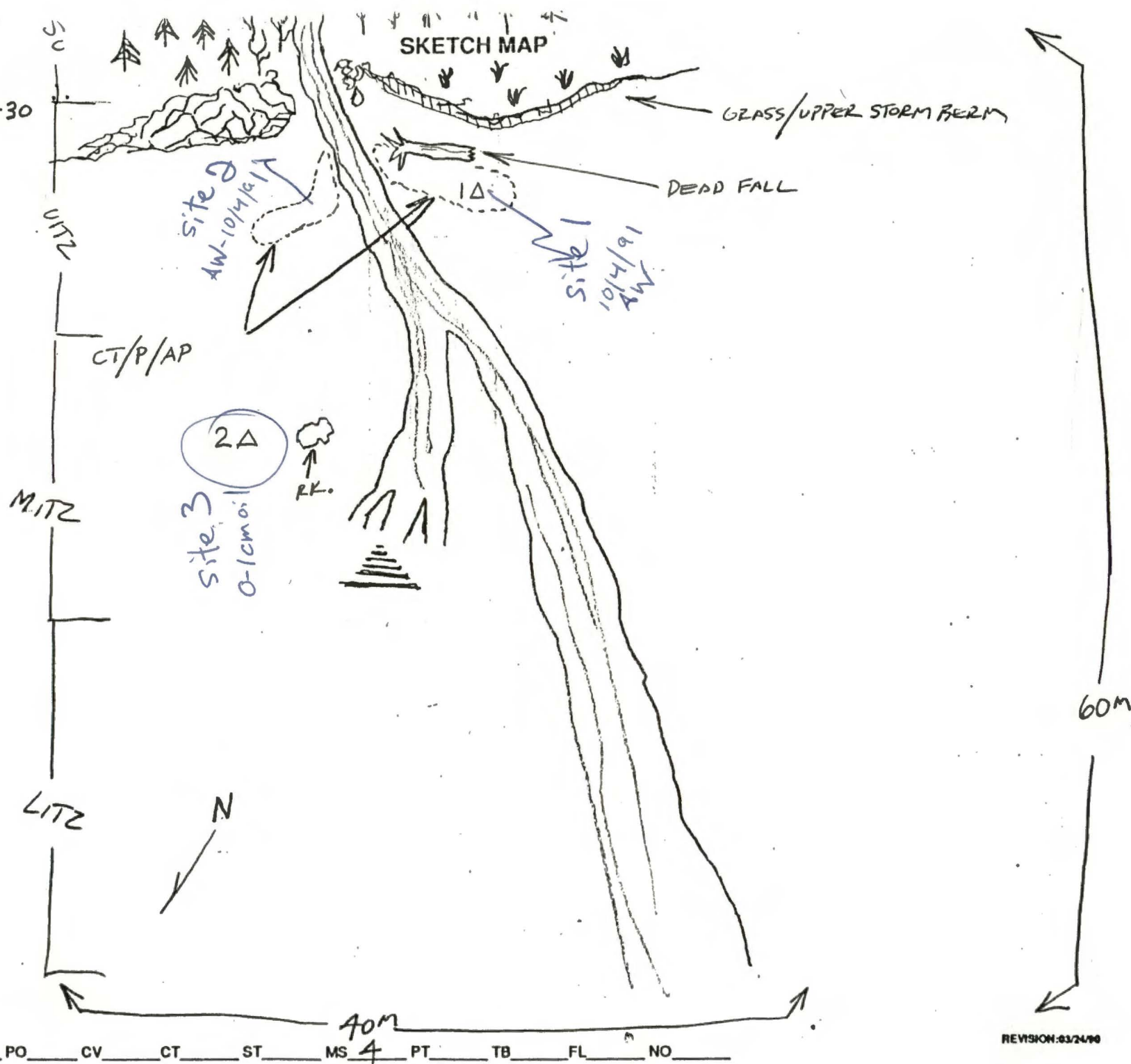
CHECKLIST

- ☒ 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 ▲
Pit - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- eee
Oiled Vegetation
- 1 ●→
Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 1 PO CV CT ST MS 4 PT TB FL NO

ACE 7237395

REVISION: 03/24/90

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON SCG DREHER, CWE SEWAGE ST. ER 000 38
 BIO KEN CRITCHLOW LAND REP STREAM 22050-18130 (OF)
 EXXON DARLYL YOE ADFG ZICK GUSTIN-AIMEE WESEMAN TIME 10:25 10/6:45
 TEAM NO. 14 TIDE LEVEL XL DATE 4 120 190
 EST. SUBDIVISION LENGTH: 60 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 60 % P 10 % G 5 % S 5 % M % V %
 SLOPE: Lang 6 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 22 m NO m

SURFACE OIL

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

PAVEMENT H F 5 2 sq. m by 2 crPATTIES / TARBALLS BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you collect
DEBRIS
☐ YES ☒ NO

TYPE #BAGS

Photographs:

Roll No. 2Frames 18-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CL)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	▽	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UD	UC	BR	BL	RW	GY	SL	TL	LR		SU	U	M	L				
1	10				✓		0-2	✓		✓								✓					N	N	GR, CB, PB
2	7				✓		0-1	✓		✓									✓				N	N	ON TAR PATCH S, GR, PB, CB

COMMENTS SMALL AMOUNT OF OIL OBSERVED AT SITE, NO SHEEN OR OIL IN STREAM BED.

REVIEWED DATE

ACE 7237396

GENERAL DATA

226-50
SEG ID: ER-006 SUBDIV: 16430 TEAM: 14 SURVEY DATE: 4/20/90
PAVEMENT: CHAR S AREA 2 THICKNESS 2 TARBALLS 0
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 60 OIL CATEGORY: W - M - N - VL 2 NO 58 U -

SURFACE DATA

SURFACE SEDIMENT: BRK 10 BLD 10 COB 60 PEB 10 GRN 5 SAN 5 MUD - VEG -

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

CHAR #: 2 OIL CHAR: PT 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 -

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

ANAD
SSAT DATA ENTRY FORM

37

SUBSURFACE DATA

PAGE 1 OF 1

SEGMENT ID: ER-006 SUBDIV: 226-50
16430

PIT # 1 PIT DEPTH 10 OIL CHARACTER OF OIL INTVAL: FROM 0 TO 2
QUANT: UC OIL CLR: DBL FLM CLR: RW ZONE: SU - UI X MI - LI -
SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN - MUD - VEG -

PIT # 2 PIT DEPTH 7 OIL CHARACTER OF OIL INTVAL: FROM 0 TO 1
QUANT: UC OIL CLR: DBL FLM CLR: RW ZONE: SU - UI - MI X LI -
SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN X MUD - VEG -

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

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

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

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

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

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

PROBLEMS:

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ES ☒ DS TS AVS SCHA MMHS PTA 2 REGION: ☒ RWS KP, CI K, AP

METHOD: Aerial ☒ Ground Boat

3 DATE: 4-20-90 15 HIGH TIDE TIMES: / 21 TEAM RECORDER: R. Gusti

4 START TIME: 1625 16 HIGH TIDE HTS: / 22 OBSERVERS: A. Wernum

5 STOP TIME: 1650 17 LOW TIDE TIMES: / 23 AGENCY: ADFG

6 SEGMENT #: ER-6 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#: 90 RLG-007 SSS

9 STAT AREA: 20 USCG QUAD: Start: 1281 End: 1357

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

12 SOURCE: Map Loren Oil

13 LOCATION: Ellington Is. Sediment

14 DESCRIPTION: Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	W	M ²	%	L	W	M ²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	2 cm							
29 PENETRATION	3 cm							
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 20	Cobble 55					
	Gravel 25	Sand	Mud/silt					
36 CATALOGED-ANAD. FISH SREAM?	☒ Y	☐ N						
37 CATALOG #:	226-50-16430							
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: Upper intertidal small storm berm South side with low oil patches and some oiled sediments / mussel patches continue up to stream edge. South side upper intertidal larger broken patches for Asphalt matts. small broken

FRAME(S)

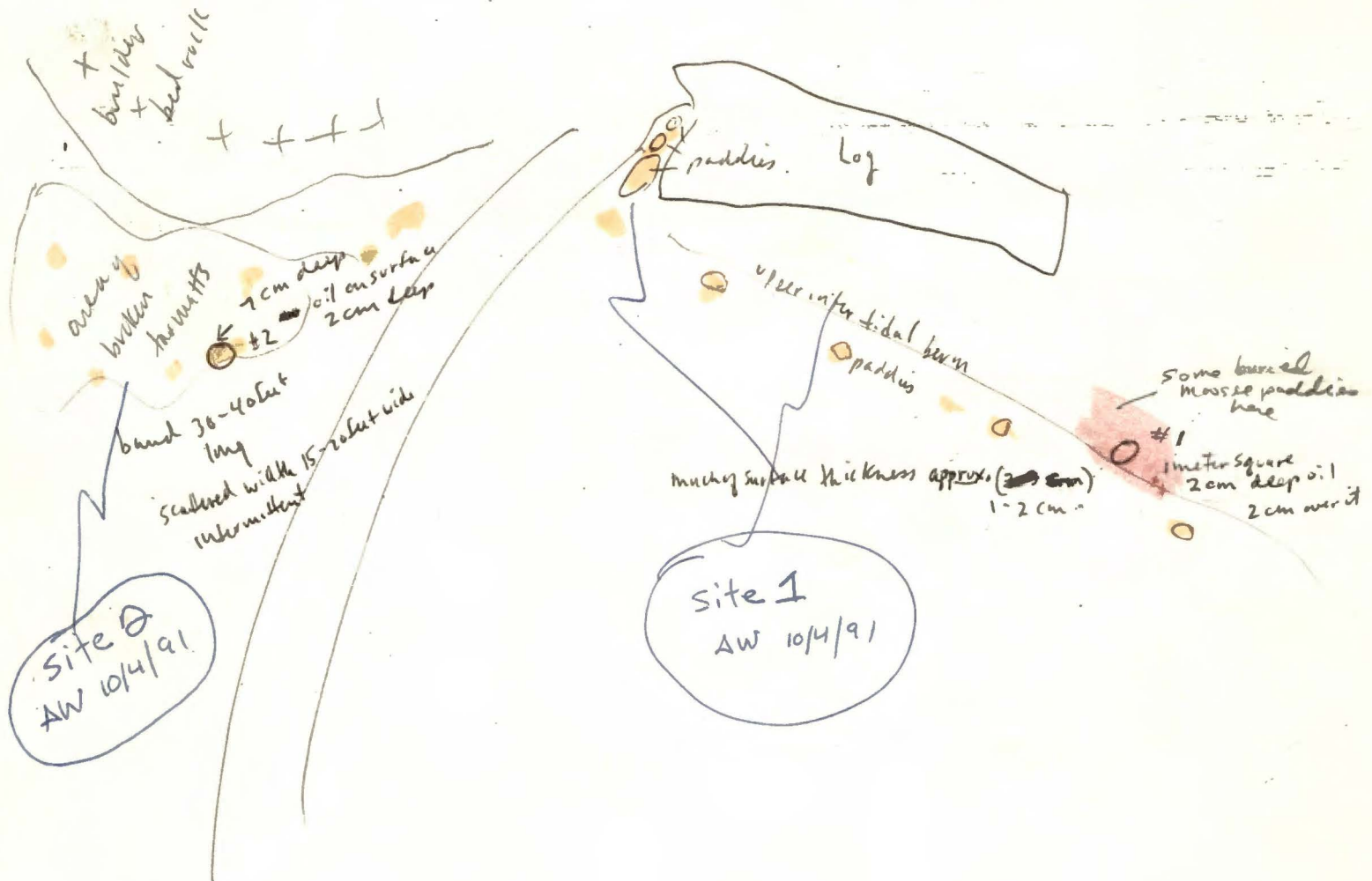
DESCRIPTION

Recommendations

test ment / shovel removal. Shovel remove and bag mussels
 paddies pick up any oiled debris grasses etc.
 If any finer sediments found with oil bag & remove these.
 No bioremediation recommended.

46 OIL DISTRIBUTION DIAGRAM

Comments by Ken Critchlow:
 I agree with ADFG's recommendation KRC



PRE-ANAD SCAT-90 ^{ATW}

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS KP,CI K,AP

METHOD: Aerial ADW Ground Boat

3 DATE: 4-12-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: _____

4 START TIME: 1129

16 HIGH TIDE HTS: 1

22 OBSERVERS: TOM CROWE

5 STOP TIME: 1145

17 LOW TIDE TIMES: 1

23 AGENCY: ADFG ^{ATW}

6 SEGMENT #: ER 006

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #: _____

19 TIDE HT AT SURVEY: _____

Roll #: _____ Frame: _____

8 K-UNIT: _____

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: _____

20 USCG QUAD: _____

Start: _____ End: _____

10 LAT: _____

11 LONG: _____

26 SAMPLES TAKEN? Y (N) Number _____

12 SOURCE: Map Loran

011 _____

13 LOCATION: FLURINGTON

Sediment _____

14 DESCRIPTION: _____

Biological _____

Water _____

EXTENT OF OIL

SHORELINE

STREAM

L	W	M ²	%	L	W	M ²	%

27 SURFACE COVERAGE

28 SURFACE THICKNESS

29 PENETRATION

30 OVERALL OIL IMPACT: N VL L M H

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

32 OILED DEBRIS? Y N

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

34 WAVE EXPOSURE: High Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble X

Gravel X Sand _____ Mud/silt _____

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 226-50-ADW 16430

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: TAR MAT BAND + TAR / ASPHALT FLOBS

NEAR STREAM MOUTH ANADSCAT = YES

ACE 7237406 +1P

FRAME(S)

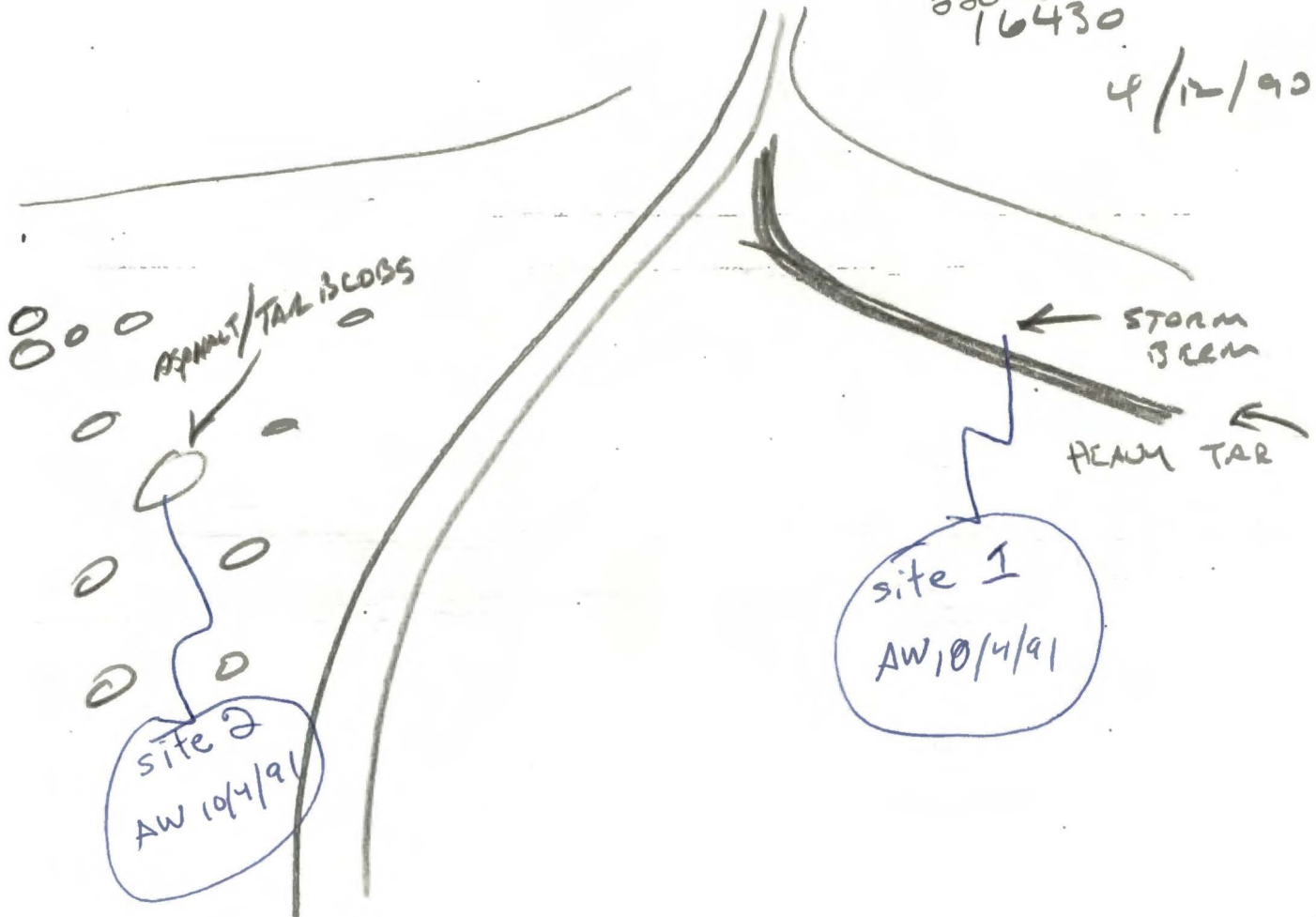
DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

ER-6
 226-50-AW
 16430

TL

4/12/90



= Sample taken
 = Photo frame # and
 shot direction.

ACE 7237407-1P

*Processed
5/8/90
gaw*

RECEIVED
MAY 05 1990

DEPT. OF
ENVIRONMENTAL CONSERVATION

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: ER-06 A

STREAM NO: 226-50-16430

CONCUR

ACE 7237376 +15

ok

ANADOMOUS FISH STREAM EVALUATION

SEGMENT ST/ ER-6 A STREAM NO: 226-50-16430 DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
6U Recreation: Tent sites (6/1 to 9/15)
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7JJ Subsistence area: Invertebrate harvesting
See attached Ecological Constraint sheet for specifif constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Bald eagle nest is possibly within 400 M of stream 226-50-16430- see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of tarmat and manual pickup of mousse patties. Work should be conducted between 6/1 and 7/10 based on constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

ACE 7237377

1A Salmon stream mouth - fry outmigration (4/1 to 5/15)

1B 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 6/1)

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

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

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

1H Remote release site

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

✓ 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

Recreation:

Tent sites (8/1 to 9/15)

Anchorage (6/1 to 9/15)

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

Lodge (6/1 to 9/15)

Special use destination

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

Finfish harvesting

Deer harvesting (8/15 to 2/28)

Invertebrate harvesting

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

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / ER-006 A SUBDIVISION: ^{ASC #} 226-50-16430 DATE 4-20-90

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

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADFG
~~ADFG~~
NAME Rick Gustin SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Our recommendations include shovel removal and bagging of mussel paddies and picking up any oiled debris (grasses etc.)

If any finer sediments are found with oil in them, remove these.

No bioremediation recommended.

ADFG
~~LANDMANAGER~~
NAME Rick Gustin SIGNATURE Richard J. Gustin

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

The upper intertidal small storm berm on the south side of creek has oil paddies and some oiled sediments.

Oiled sediments/mussel paddies continue in broken bands up to stream edge. There are some paddies at the base of the butt end of the large upper intertidal log.

The southside of stream upper intertidal layer has broken paddies + matts

SHORELINE OILING SUMMARY (ANAD)

24156
REVISION NO. 02/13/90

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ ER 000
 BIO KEN CRITCHLOW LAND REP STREAM 22450-16T30 (OF)
 EXXON DARRELL YOE ADFG 22450-16T30-ALICE WESEMAN TIME 10:28 10/6/90
 TEAM NO. 104 TIDE LEVEL XL DATE 4/20/90
 EST. SUBDIVISION LENGTH: 600 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 60 % P 10 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2 m NO 50 m

SURFACE OIL

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

PAVEMENT H F ⑤ 2 sq. m by 12 cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect
DEBRIS
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

ANAD-14 - 2Roll No. 2Frames 18-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	UO	1	2	3	4	5	SU	U	M	L				
* 1	10				✓		0-2		✓	✓					✓					N	N	CR, CO, PB
* 2	7				✓		0-1		✓	✓						✓				N	N	CR, CO, PB, CB
							.															
							.															
							.															
							.															

COMMENTS SMALL AMOUNT OF OIL OBSERVED AT SITE, NO SHEEN OR OIL IN STREAM BED.

* OILED INTERVAL < 5 cm IN PIT NOS. 1 AND 2 DOES NOT CONSTITUTE SUBSURFACE OIL

REVIEWED JWDATE 4-24-90

ACE 7237380

25/5/86

OG CAL LARSON

SEGMENT ST/ER006

STREAM 226-50-16430

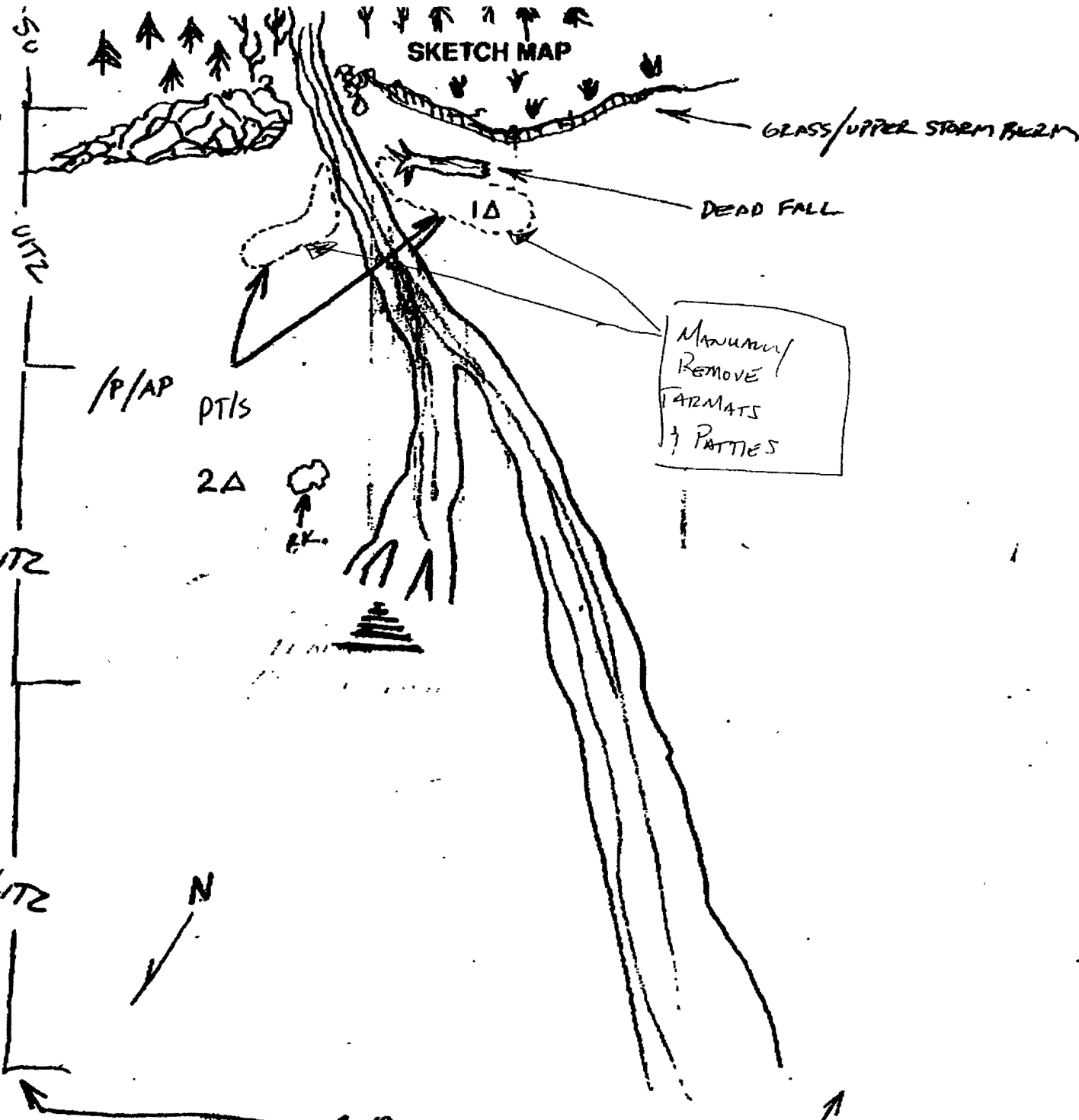
DATE 1 80

CHECKLIST

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

LEGEND

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



Oil Character Length (m): AP 1 PO CV CT ST MS 4 PT TB FL NO

REVISION 03/000

ACE 7237381



OFFICIAL PHOTOGRAPH ADF&G EXXON VALDEZ OIL SPILL

OFFICE: VALDEZ

DATE: 09/11/89

TIME: -0-

SEGMENT#:

-0-

STATION#:

-0-

LOCATION: WEST SIDE OF ELRINGTON ISLAND

226-50-16430
E2006
16430

REASON FOR TAKING PHOTO: DOCUMENTING UNDOCUMENTED SALMON SPAWNING
SITE (148°07'48"/59°58'09"). (AERIAL PHOTO).

TAKEN BY: RICK GUSTIN

INITIALS: _____

ROLL #: 89RLG007V FRAME #: 04

EVIDENCE ID#: 10210

ACE 7237360

ADEC EXXON VALDEZ POST-TREATMENT SURVEY REPORT

SEGMENT#: ERO06
LOCATION: SW ELRINGTON ISLAND

DATE: 10/14/89
TIME: 8:55

Survey Type: Boat, Ground
Team: B. McCready, P. Montesano

WEATHER AND SEA CONDITIONS

Weather: Rain
Sea State: Rough

Wind Direction: NW
Knots: 16-30

Low Tide: 7:21	Feet: 0.19	High Tide: 13:29	Feet: 14.4
Low Tide: 19:53	Feet: -2.3	High Tide: 1:24	Feet: 12.8

SHORELINE DESCRIPTION

Shoretypes: LR,B

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

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

Shoreline Composition: B,C

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

OIL CHARACTERISTICS

Degree of Oiling: N,VL

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

Area of Impact: H,M

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

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

Max. Oil Penetration: 0 cm (35 = 35 cm or greater)

Percent Segment Categorized as Oiled: 40%

Presence of Oiled Driftwood (y/n): n

Oil Types: T

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

Samples: none / none / none / none

DAMAGED OR OILED ORGANISMS

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

Dead Mammals: 0 Dead Birds: 0

SOLID WASTE FOUND

Type: None

Bags Collected: 0

Draft

Printed: 12/12/89 11:12

ACE 7237361

Walk-a-thon

Final Anadromous Stream Treatment Information

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

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 ER-06 SUBSEGMENT NUMBER A

DEC REP BARBARA WINKLEY ^{JAN KREIGER} USCG REP JIM DAVIS

EXXON REP DARYL YVES BOAT NAME/SQUAD NUMBER CORINNIAN SQ1

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.

NO

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

NONE

Additional Comments (keep objective)

TWO WORK FORM MODIFICATIONS WERE FILLED OUT. [ENCLOSED]
- ONE REGARDING LIFTED BALD EAGLE NEST CONSTRAINTS
AND THE OTHER RECOMMENDING NO INDOLE APPLICATION
CREW DID AN EXCELLENT JOB TO-DAY. REMOVING
OIL AS WELL AS DEBRIS IN THE SITE

signature Barbara Winkley

Date and time of demobilization from segment 6/21/90 1850
Shoremon\55 5-12-90

GRADE A⁺

ACE 7237363+IAC

**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

FOX FARM BAY

STRM# 226-SD-16430

RE: SEGMENT NUMBER ER-6 SUBSEGMENT NUMBER A

DEC REP BARRARA WINKLEY ^{JAN KRIEGER}

USCG REP JIM DAVIS

EXXON REP DARYL VOES BOAT NAME/SQUAD NUMBER MV. CORONATHIAN SQ1

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.

NO

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

NONE

Additional Comments (keep objective)

that
~~Walked the beach - a few remaining~~ isolated
tar patches were removed by a crew of 4, ADEC,
ADF + G + OOPS, & USCG were also present.

signature Barbara Winkley

Date and time of demobilization from segment 930 6/20/90

Shoremon\55 5-12-90

Clean GRADE (A)

ACE 7237364

ADEC DEMOBILIZATION REPORT

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

TODAY'S DATE 6/21/90

SRM# 226-50-16432

RE: SEGMENT NUMBER ERS+ER6 SUBSEGMENT NUMBER A

DEC REP BARBARA WINKLEY-SAN KRIEGER USCG REP JIM DAVIS

EXXON REP DARYL YDES BOAT NAME/SQUAD NUMBER CORNWALLIAN 581

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? If yes then describe amount of oil remaining (type, size of area and location).

NO

Date and Time of demobilization from segment 1850 6/21/90

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

Additional Comments (keep objective)

ADFG REP AIMEE WEISMAN WAS ON SITE.
CREW DID AN EXCELLENT JOB.

Barbara Winkley
signature

GRADE A+

Revised 5/8/90

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89

SHORELINE SEGMENT ER-06

LOCATION: (see enclosed map) ELRINGTON ISLAND-ELRINGTON PASSAGE
SOUTH END

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/23/89

Recommended Cleanup Activity(ies):

Cut and remove oiled fucus (popweed) and popweed debris.

Wipe band (10m) of rocks with absorbent pads and/or
pom-poms.

Use other approved methods as appropriate.

No mechanical cleanup recommended at this time subject to
FOSC approval. Sensitive ecological area and very light
oiling.

Priorities Considerations:

Class 1: Time sensitive resources.

Class A: San Juan Fishing restriction.

Ecological Constraints (from site survey):

Use as few people and cause as little disturbance as
possible. No mechanical measures recommended.

Archeological Constraints (from site survey):

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

Angus Reger
State Historic Preservation Officer *

Date: 6/29/89

ISCC: _____

Date: _____

EXXON: _____

Date: _____

FOSC: _____

Date: _____

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

ACE 7237366 +15

SHORELINE OIL EVALUATION

Date: 6/23/89 Time: 10:10

Observer: RICK GILLIE

Surveyed From: Foot/Boat/Helio/Plane

Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION ELRINGTON ISLAND SEGMENT NUMBER ER-06

LENGTH OF SHORELINE SEGMENT: 600 m

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

SHORELINE:

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

Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 40% / C ___% / P ___% / G ___% / S ___% / M ___% / R 60%

Drift Debris on Beach: Yes/No

Supra/Upper/Mid/Lower Type

Fucius

OIL

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

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

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

Sporadic: Y/N % of Segment 50

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____% "Free" Oil: _____% Coated: H ___% / M 50% / L 50%

Fresh _____% Mousse _____% Tar Formation: 100%

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

Comments:

See Notes and hand drawn map for location

ACE 7237367

DOCUMENTATION:

Map/Aerial photo marking segment boundaries

ER-06

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s)

T4G-6

Sample Numbers Collected:

N/A

6/23/89

SEGMENT

ER-06

@ 10:10

① Rocky/boulders steep shoreline

② Light oil sparker band (1m)
- east side

③ Light oil band (1m) -
West side

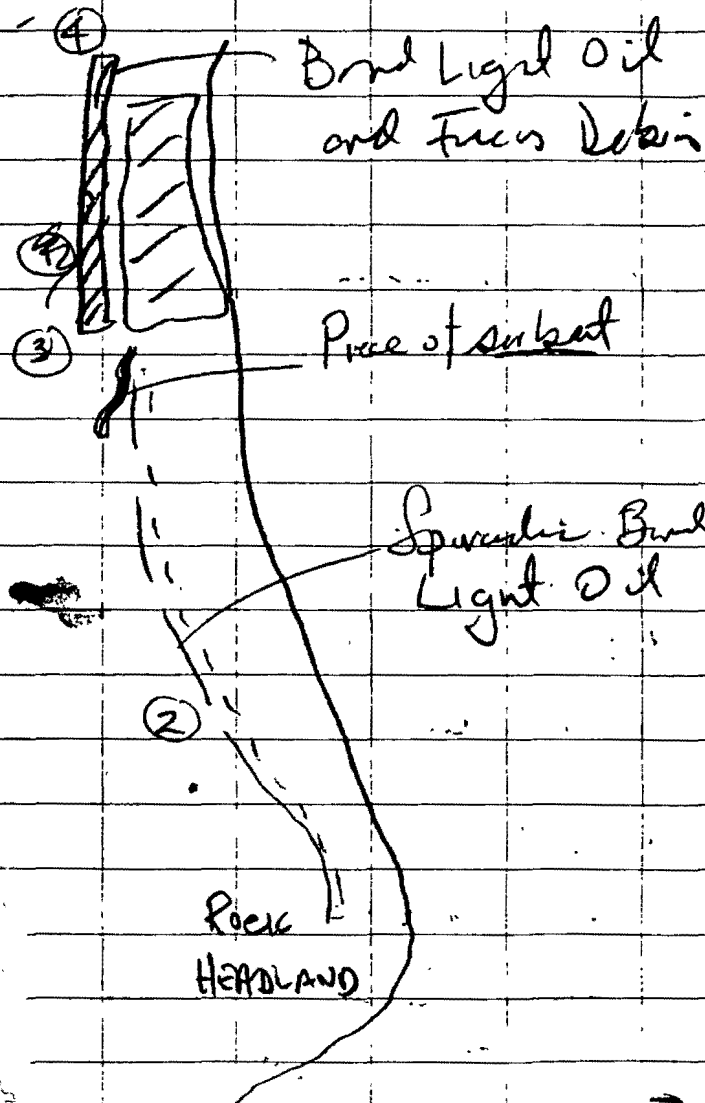
④ Oiled Fucus debris at
west end

⑤ Manual oil

No mechanical

Oil line - wiper web
- Fucus - cut / bag

Rick Crille



ER-06

ECOLOGICAL EVALUATION

LOCATION: Elington Is. SITE: SW shore OBSERVER: StellarLOCATION PREFIX: ER SEG. NO.: 6 LENGTH: 600 (M)DATE: 6/23/89 TIME (HHMM): 1000-1030 TIDE HT.: _____ (M)OILED ZONE: Splash High Medium LowSUBSTRATUM: Rocks Boulder Cobble Gravel Sand MudLIVE BIOTAFucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable. Generally continuous & dense on rock/boulder, sparser & patchy on cobble.Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable. Generally sparse, small individuals on rock/boulder. Some dense patches in cobble.Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable. Generally dense & continuous on rock, sparse on smaller boulder/cobble.LittorinaPatchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable. Continuous, sparse to moderate density.Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/NVariable. Continuous, sparse to moderate density.OTHER OBSERVATIONS: Nucella patchy, some dense clusters. Sea stars sparse.Amphipods, blennies common under rocks. Some dense clusters of pagurus under rocks.CLEANUP PRECAUTIONS: Proceed with as few people and as little disturbance as possible. Mechanical means not needed and not recommended.MAMMALS: Otters _____ Harbor Seals _____ Sea Lions _____ Whales _____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: At least 6 common non-fucus species of algae in low intertidal/shallow subtidal.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/23/29 Location Elvington Island Site

Location Prefix ER Segment # ER-6 Length 600

Survey Method:

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

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed 10 m Tree fringe surveyed 10

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

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

Shore Profile moderately sloped boulder field

Fresh Water Sources Two small streams

Sea Exposure protected to west

Access/Safety fair

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

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

Photos: Color Roll # Frames

B/W Roll # Frames

Observer(s) C. Mullen

Time survey started 1045 Time survey ended 1100

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are
uncovered during cleanup contact Exxon arch-
aeologist, C. Mobley, immediately.

ELRINGTON

PASSAGE

ELRINGTON

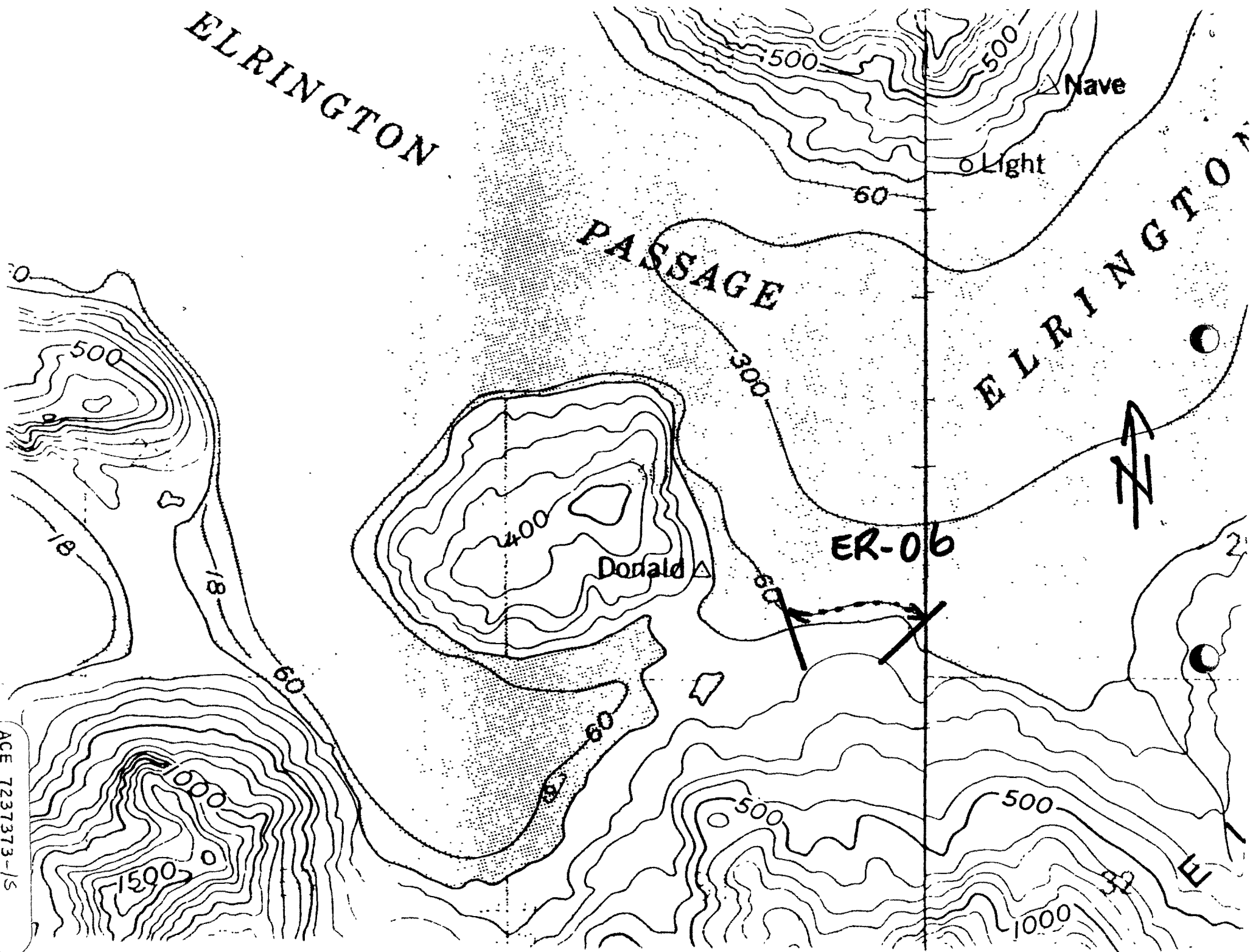
Nave

Light

ER-06

Donald

ACE 7237373-15



Rick Gustin

FWT3

June 2, 1990

ER006\ASC#226-50-16430

Elrington Is.

Work took place at this stream site before I arrived. Oil condition consisted of a scattered band of tar patties primarily in the UITZ on both sides of the stream. There was also oiled vegetation (grass and small leafy shrubs). Upon walking the site, everything was removed that was described in the anadscat. Tilling had been performed under the patties. There was very little penetration of oil into the sediments. No further treatment was recommended. Approximately 1\4 of a supersack of oiled gravel and vegetation was removed.

State of Alaska
Department of Fish and Game
Habitat Division

Page of

Field Inspection Report

Date June 2 1990 Time 1620

Location: (Logging unit/Road/Waterbody) EROOG Elvington Island
ASC # 226-50-16430

Operator/Contractor: Exxon/Veco

Individuals present at time of inspection:

Name Representing

Nick Martinez (Exxon) Rick Gustaf (ADF&G)
Bob McCreedy (ADF&G)
Pat Malan (USCG)

Activity/Situation Observed: Inspection of salmon stream
following manual removal & filling

Pertinent Statutes/Regulations: AK Statutes Title 16

Recommended/Required Action (Specify): Inspected stream site post
treatment and was satisfied with the cleanup efforts.
No further treatment recommended. June 2 1990

By (date) June 2 1990 (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 Gustaf ADF&G Tech
Fish and Game Representative/Title

Company Representative/Title

ACE 7237375

ADFG MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS GS OS TS AVS SCHM MMS PTA

2 REGION: ROB KP,CI K,AP

METHOD: Aerial Ground Boat

3 DATE: 9-20-90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: R. Lush

4 START TIME: 1625

16 HIGH TIDE HTS: 1

22 OBSERVERS: A. Wessman

5 STOP TIME: 1650

17 LOW TIDE TIMES: 1

23 AGENCY: ADFG

6 SEGMENT #: ES-6

18 LOW TIDE HTS: 1

24 PHOTOS TAKEN: Y (N)

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: Frame: *

8 K-UNIT:

Ebb Slack Flood Slack

25 VIDEO TAKEN: Y N TAPES: 90RL6001 SS

9 STAT AREA:

20 USCG QUAD:

Scale: 1:250 End: 1357

10 LAT:

11 LONG:

26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran

Oil

13 LOCATION: Elkington Is.

Sediments

14 DESCRIPTION:

Biological

Water

EXTENT OF OIL

	SHORELINE				STREAM			
	L	N	N ²	S	L	N	N ²	S
27 SURFACE COVERAGE								
28 SURFACE THICKNESS	2 cm							
29 PENETRATION	3 cm							

35 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 226-50-16430

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:

30 OVERALL OIL IMPACT: N VL L N N

31 OIL TYPE: Pooled House tar Asphalt Sticky Stain

32 OILED DEBRIS? (Y) N

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

43 ANADROMOUS FISH PRESENT? Y N

34 WAVE EXPOSURE: High Moderate Low

44 ANADROMOUS FISH OBSERVATION
Species Aerial Ground

35 SUBSTRATE TYPE: Bedrock Boulder 20 Cobble 55

Gravel 25 Sand Mud/silt

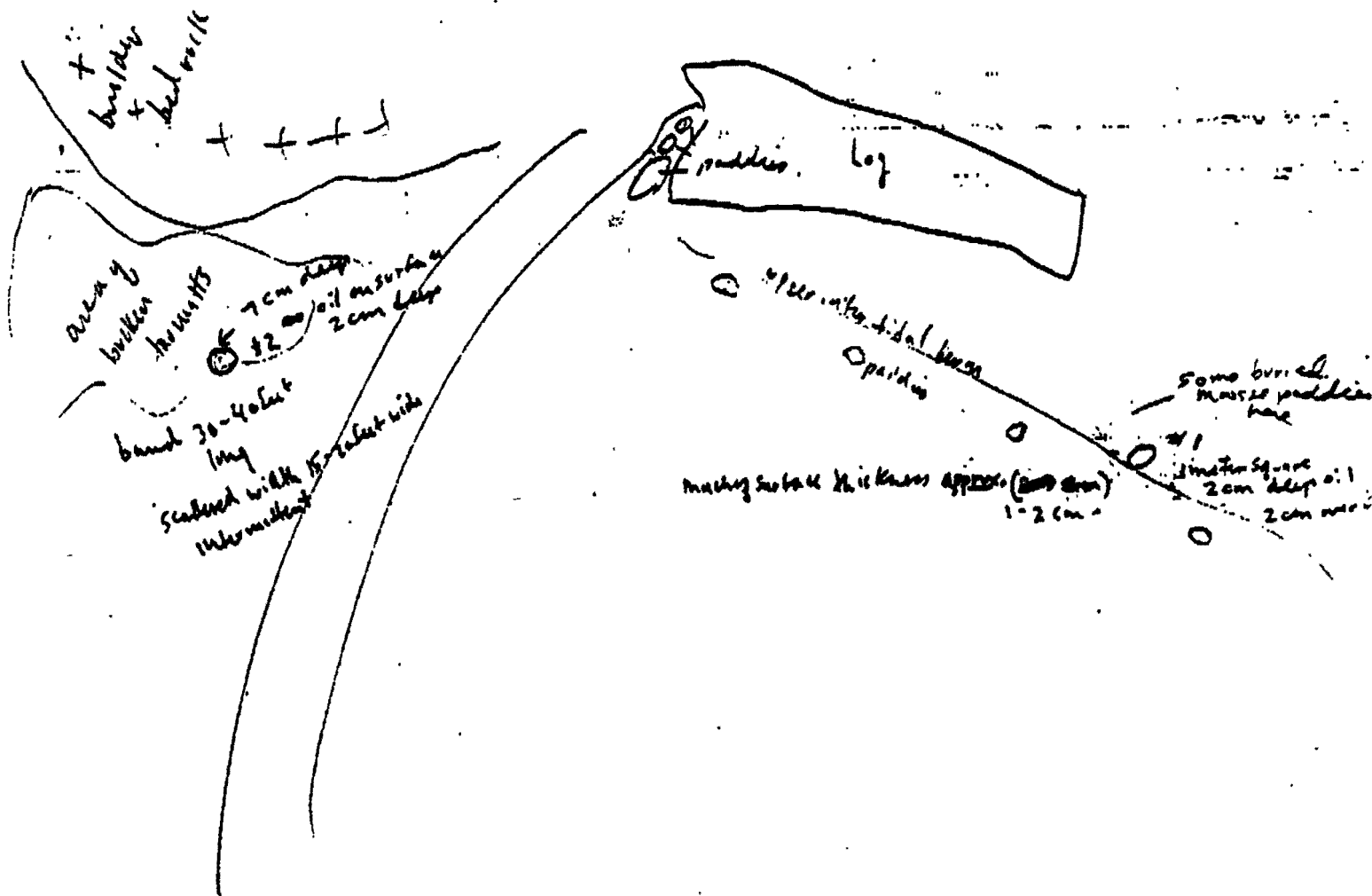
COMMENTS: Upper inter-tidal creek storm berm south side with two oil patches
and some oiled sediments / more patches continue up to stream edge.
South side upper inter-tidal lagoon broken patches two asphalt matter creek bottom.

48 PHOTOLOG

FRAME(S)	DESCRIPTION
Recommendation	Test must / don't remove. Should remove each bag masses paddle / pick up any oiled debris. grasses etc. If any finer sediment found with oil bag + remove those. No bio remediation recommended.

48 OIL DISTRIBUTION DIAGRAM

Comments by Ken Critchlow:
I agree with ADFG's recommendation KRC



ER-07

SUBJECT
ANADROMOUS
STREAM

ER-06-A
(1 of 1)

ER-06

ER-09

No	2.6	390	408
Light	0.75	$\frac{113}{503}$	$\frac{118}{526}$

ER-(

140/22

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-6

ADEC Segment Length: 540m

0 100 200 300
METERS

Map Key: PWS-172

Name: Richard Narty

Date: 4 April 1990

Date Entered:

ACE 7237385-15

ELRINGTON

ECOLOGY MAP

dm
4/24/90

PASSAGE

ELRINGTON

Nave

Light

Donald

ER-06

Bald
Eagle Nest

226-50-16432

ACE 7237384

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ ER-6 A STREAM NO: 226-50-16430 DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
6U Recreation: Tent sites (6/1 to 9/15)
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7JJ Subsistence area: Invertebrate harvesting
See attached Ecological Constraint sheet for specifif constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiiled biota and substrate. Bald eagle nest is possibly within 400 M of stream 226-50-16430- see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: *J. David McWhorter* DATE: 5/9/90

Subsurface Oil/ Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes manual removal of tarmat and manual pickup of mousse patties. Work should be conducted between 6/1 and 7/10 based on constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/9/90
ADEC *Art Weir*
EXXON *Andy Tate*
NOAA *Barl Worcott*
USCG *D.D. Rome*

FOSC: *M L* DATE: 5-15-90

ACE 7237386

J.W.

SEGMENT ST/ ER-6 A STREAM NO: 226-50-16430 DATE 4/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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

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

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

7HH Subsistence area: Finfish harvesting

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

7JJ Subsistence area: Invertebrate harvesting

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Bald eagle nest is possibly within 400 M of stream 226-50-16430- see ecology map.

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: J. David McWhorterDATE: 5/9/90Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment RecommendedX Treatment RecommendedX Manual Pickup BioremediationX Tarmat Removal Snare/Absorbent Booms Oil Snares (pom poms) Absorbents (pads, rolls, etc) Spot Washing: Wands Beach Cleaner Other (see comments)COMMENTS: Recommended treatment includes manual removal of tarmat and manual pickup of mousse patties. Work should be conducted between 6/1 and 7/10 based on constraints.TAG COMMENTS: TAG APPROVAL DATE: 5/9/90ADEC Art WeinerEXXON Amy TalarNOAA Barl WarrattUSCG D.D. RomeFOSC: DATE: 5-15-90

25/56

00 CAL LARSON

SEGMENT ST/ER006

STREAM 226-50-16430

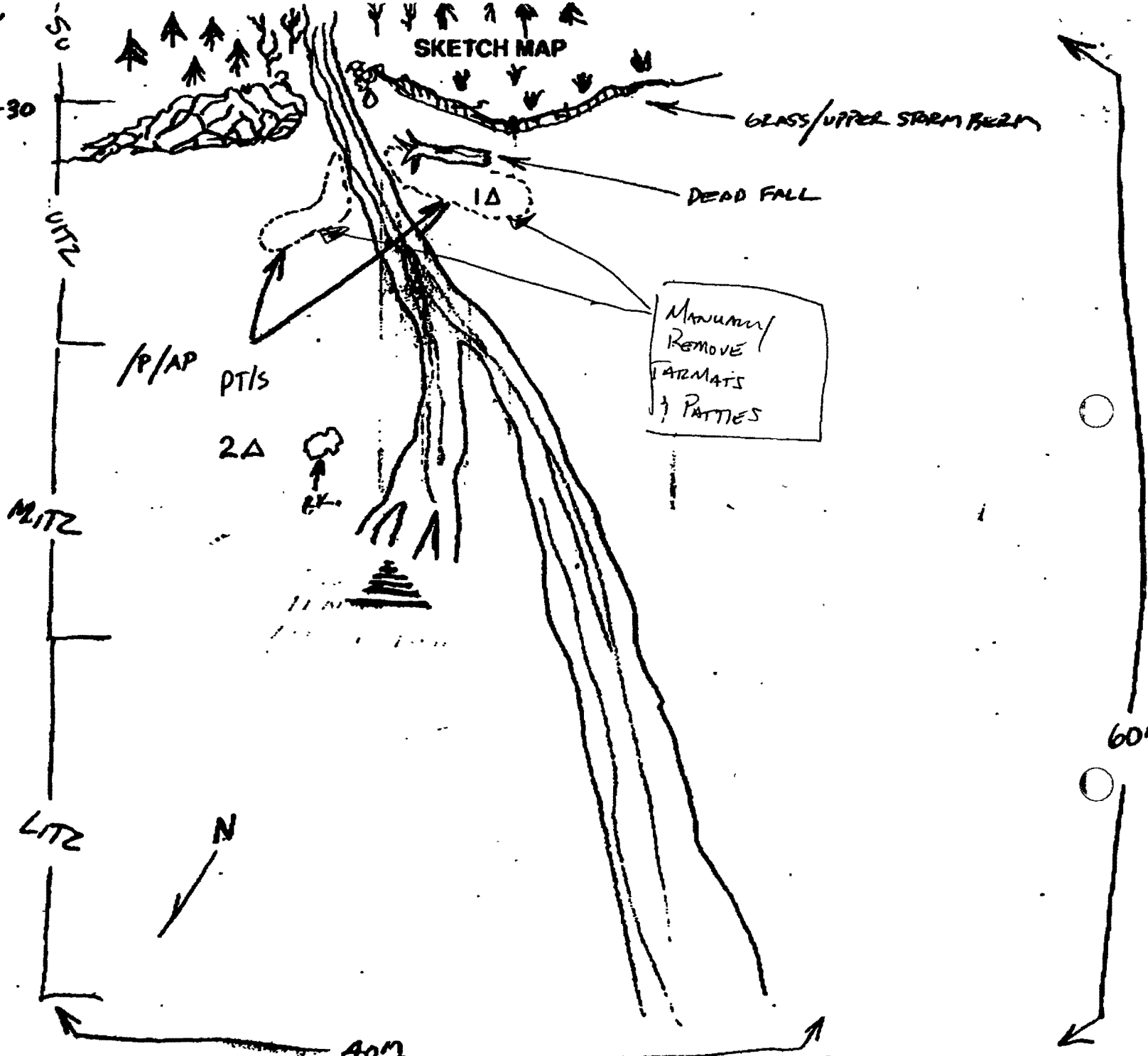
DATE 1/80

CHECKLIST

- ☒ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. MW/LAB
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

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



Oil Character Length (m): AP 1 PO CV CT ST MS 4 PT TB FL NO

ACE 7237388

REVISION 12/80

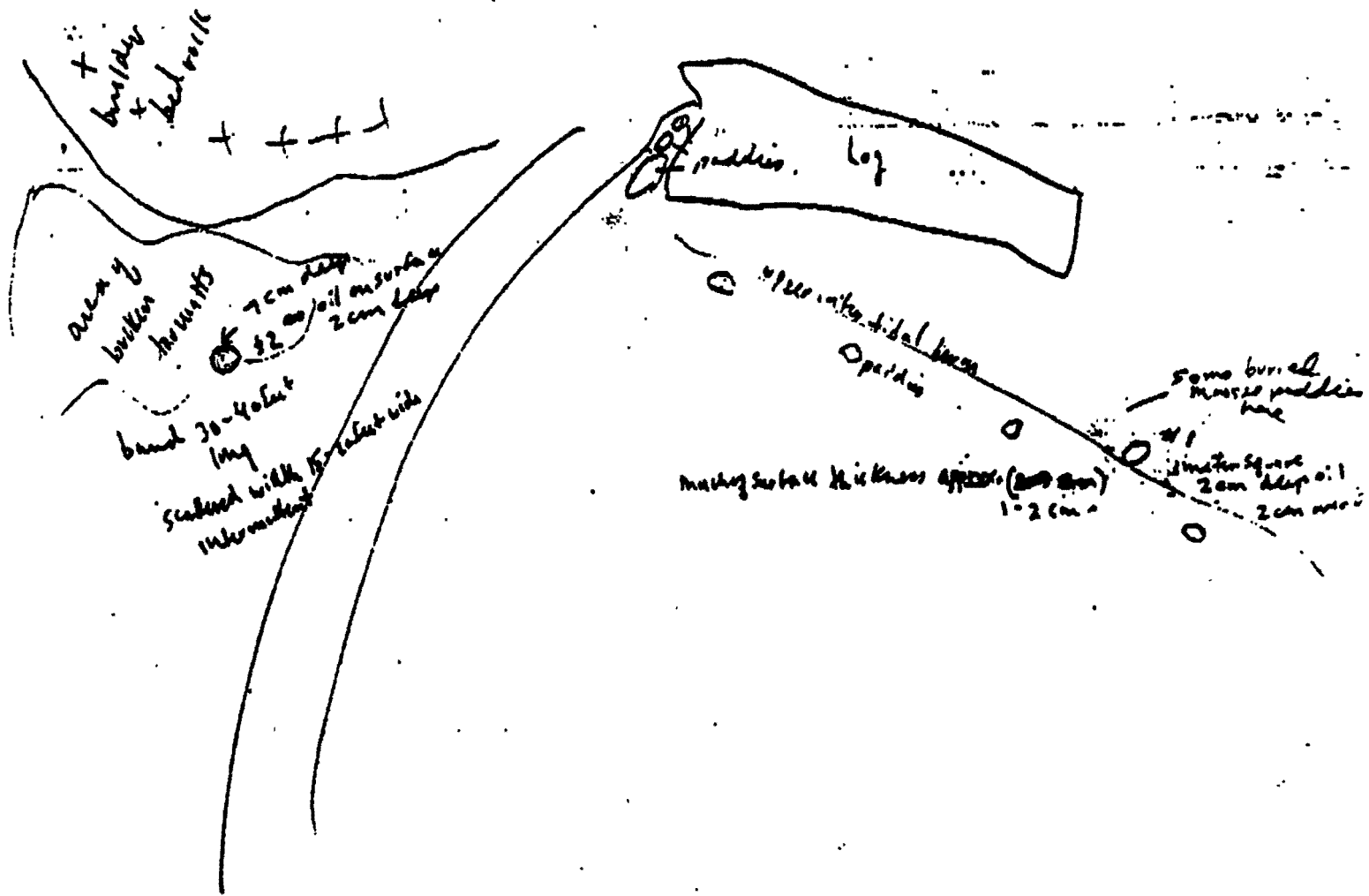
FRIVE(S)

DESCRIPTION

Recommendations	Test water / bird stomach. Shovel remove crab legs, mussels, pebbles / pick up any oiled debris, grasses etc. If any live sediment found with oil bag & remove those. No bio-remediation recommended.

48 OIL DISTRIBUTION DIAGRAM

Comments by Ken Critchlow:
I agree with ADFG's recommendation KRC



ELRINGTON

ECOLOGY MAP

4/24/10

PASSAGE

ELRINGTON

Nave

Light

Donald

ER-06

Bald Eagle Nest

226-59-16432

N

E

ACE 7237390

ER-07

SUBJECT
ANADROMOUS
STREAM

ER-06-A
(1 of 1)

ER-06

ER-09

No	2.6	390	408
Light	0.75	$\frac{113}{503}$	$\frac{118}{526}$

ER-

140122

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

ER-6

AOEC Segment Length: 540m

0 100 200 300
METERS



Map Key: PWS-172

Name: Richard Natty

Date: 4 April 1990

Date Entered:

ACE 7237391 4/5

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 ER-006 SUBDIVISION: ^{ASC #} 226-50-16430 DATE 4-20-90

USCG

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

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

ADFG

~~**ADEC**~~

NAME Rick Gustin SIGNATURE Richard S Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Our recommendations include shovel removal and bagging of mousse paddies and picking up any oiled debris (grasses etc.)

If any finer sediments are found with oil in them, remove these.

No bioremediation recommended.

ADFG

~~**LAND MANAGER**~~

NAME Rick Gustin SIGNATURE Richard S Gustin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

The upper intertidal small storm berm on the south side of creek has oil paddies and some oiled sediments.

ACE 7237401

OG CALLARSON

SEGMENT STIER006

STREAM 226-50-16430

DATE 1 90

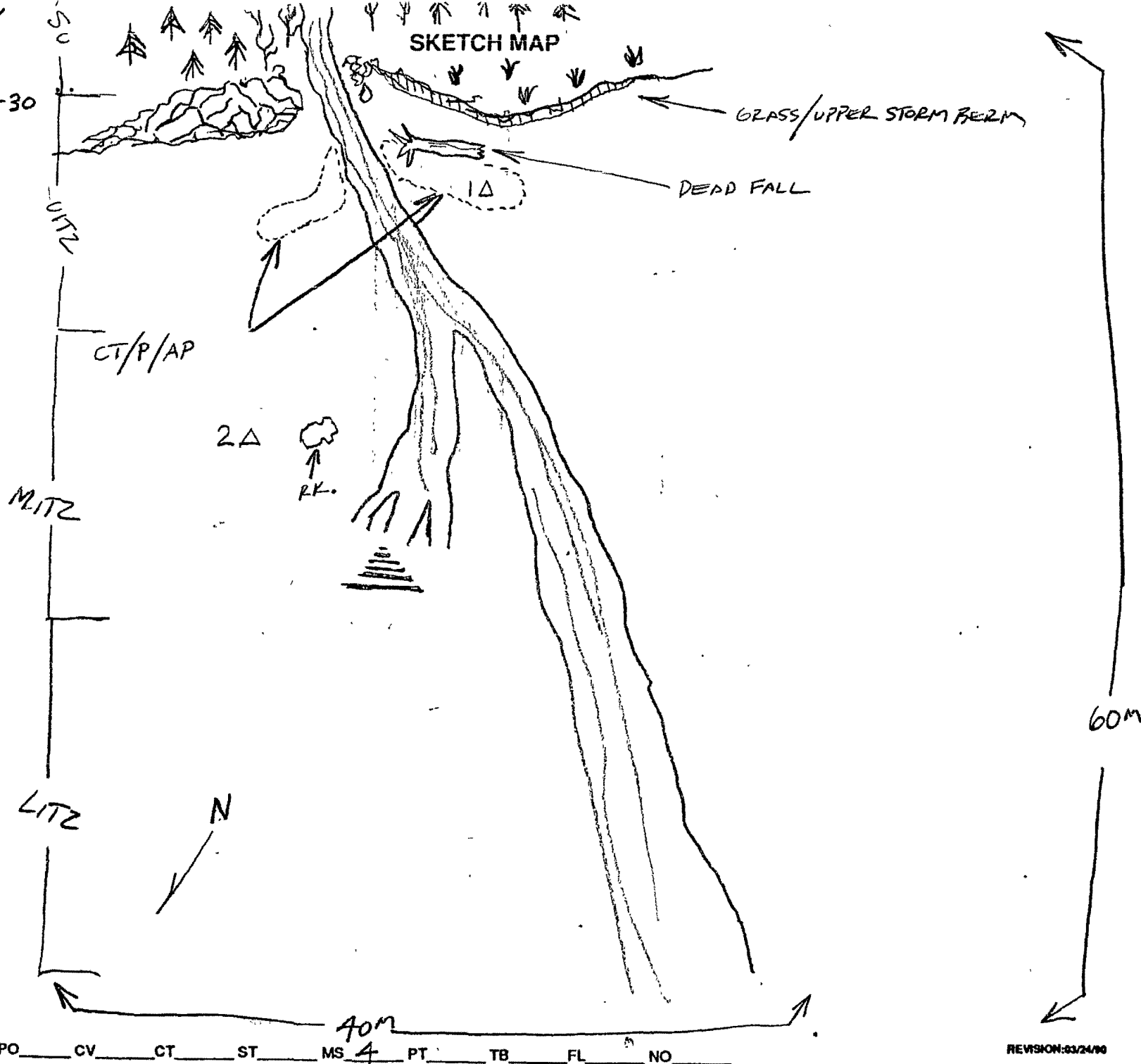
CHECKLIST

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

LEGEND

- 1 Δ
Plt - No Subsurface Oil
- 2 ▲
Plt - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patched Distribution
- CT/S
Splashed Distribution
- eee
Oiled Vegetation
- 1 →
Photo location, direction, and number

SKETCH MAP



REVISION: 03/24/90

Oil Character Length (m): AP 1 PO CV CT ST MS 4 PT TB FL NO

ACE 7237402

SHORELINE OILING SUMMARY (ANAD)

REVISION NO. 04/13/90

OG CAL LARSON USCG DREHER, CWE S. MENT ST. ER 000 38
 BIO KEN CRITCHLOW LAND REP STREAM 12050-16730 (OF)
 EXXON DARL YOE ADFG ELK GUSTIN-AIMEE WESEMAN TIME 10:25 to 10:45
 TEAM NO. 14 TIDE LEVEL XL DATE 4 120 190
 EST. SUBDIVISION LENGTH: 600 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 10 % B 10 % C 60 % P 10 % G 5 % S 5 % M % V %
 SLOPE: Lang 6 % Hang % Vert % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W m M m N m VL 2 m NO m

SURFACE OIL

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

PAVEMENT H F (S) 2 sq. m by .2 cmPATTIES / TARBALLS BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did you COLLECT DEBRIS

☐ YES ☒ NOTYPE #BAGS

Photographs:

Roll No. 2Frames 18-24

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CK)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SHEEN (Y/N)	⚠	SURFACE - SUBSURFACE SEDIMENTS		
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL BW	GY SL	DBR TL	LR	SU	U	M	L							
1	10				✓		0-2		✓		✓				✓							N	N		GR, CB, PB
2	7				✓		0-1		✓		✓					✓						N	N		ON TAR PATCH S, GR, PB, CB
							.																		
							.																		
							.																		
							.																		
							.																		

COMMENTS SMALL AMOUNT OF OIL OBSERVED AT SITE, NO SHEEN OR OIL IN STREAM BED.

REVIEWED DATE

ACE 7237403

GENERAL DATA

226-50
SEG ID: ER-006 SUBDIV: 16430 TEAM: 14 SURVEY DATE: 4/20/90
PAVEMENT: CHAR S AREA 2 THICKNESS 2 TARBALLS 0
OILED: LGS - VEG - TRH - DBR - WAVE EXP: LW X MD - HG -
FAX RCVD: - DT: - AGENCY DISAGREE: -
EST SUBDIV LGTH: 60 OIL CATEGORY: W - M - N - VL 2 NO. 58 U -

SURFACE DATA

SURFACE SEDIMENT: BRK 10 BLD 10 COB 60 PEB 10 GRN 5 SAN 5 MUD - VEG -

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

CHAR #: 2 OIL CHAR: PT 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 -

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

PAGE / OF /

PIT # 1 PIT DEPTH 10 OIL CHARACTER OF OIL INTVAL: FROM 0 TO 2
QUANT: UC OIL CLR: DBL FLM CLR: RW ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB X PEB X GRN X SAN — MUD — VEG —

PIT # 2 PIT DEPTH 7 OIL CHARACTER OF OIL INTVAL: FROM 0 TO 1
QUANT: UC OIL CLR: DBL FLM CLR: RW ZONE: SU - UI - MI X LI -
SUBSURF SEDIMENT: BRK - BLD - COB X PEB X GRN X SAN X MUD - VEG -

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

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

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

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

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

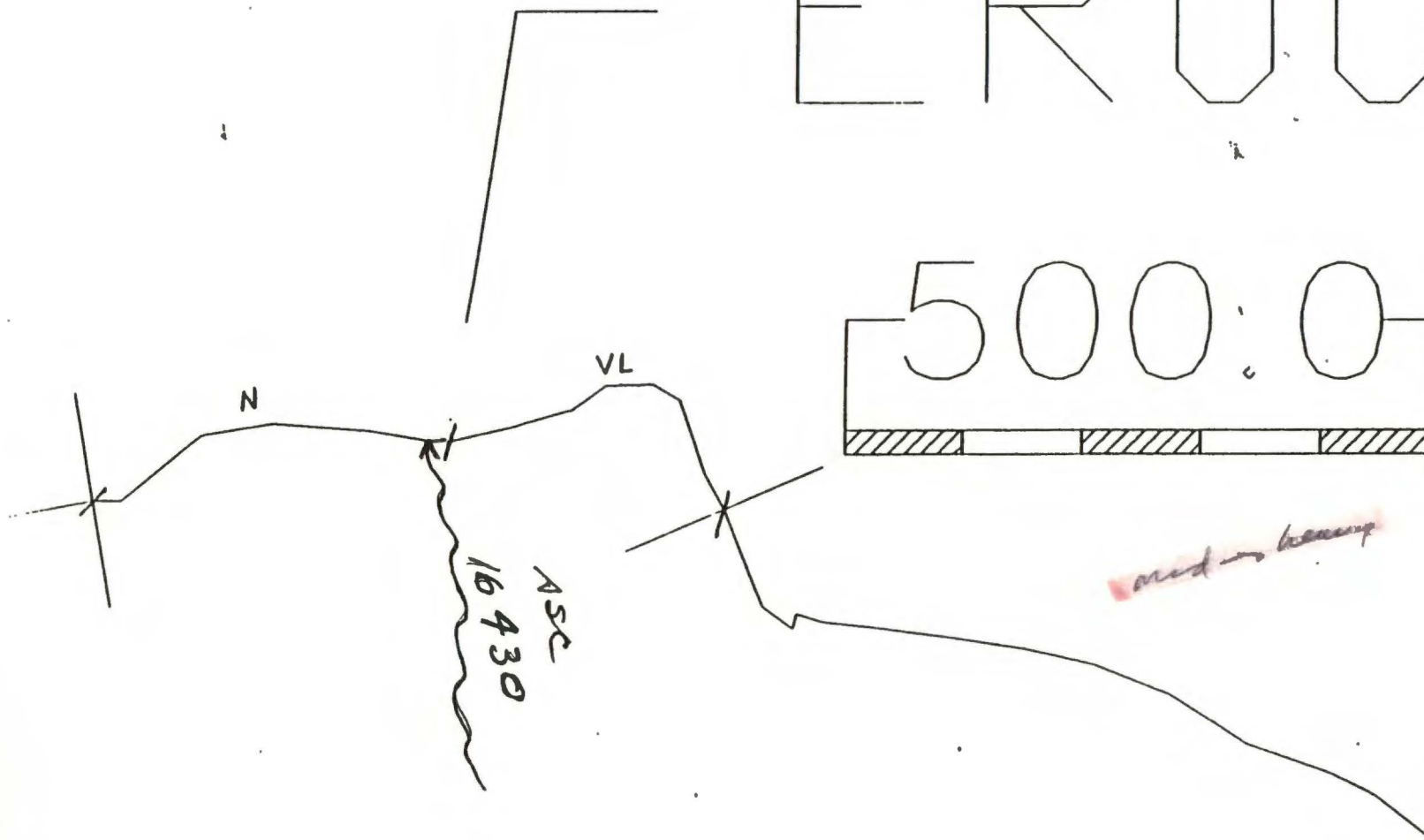
PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
 QUANT: _____ OIL CLR: _____ FLM CLR: _____ ZONE: SU _____ UI _____ MI _____ LI _____
 SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

PROBLEMS: _____

EROO6

5000.0

and - being



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

ACE 7237416-1/1/AC/FF

RECEIVED
APR 14 1993

DEPT. OF
ENVIRONMENTAL CONSERVATION

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ER-06

SUBDIVISIONS: A (1 OF 1)

ACE 7237408+15

SHORELINE EVALUATION

SEGMENT ST/ ER-06 SUBDIVISION A (1 OF 1) DATE 4/4/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Salmon stream no. 226-50-16432 and 16430

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
- 1B Salmon stream mouth - spawning (7/10 to 8/31)
- 1F Sawmill Bay hatchery release (4/15 to 6/1)
- 5T All bald eagle nest (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
- 6U Recreation: Tent sites (6/1 to 9/15)
- 7HH Subsistence area: Finfish harvesting
- 7II Deer harvesting (8/15 to 2/28)
- 7JJ Invertebrate harvesting

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 125 m: V.Light 0 m: No Oil 415 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 7+ 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 removal of tarmat and bioremediation as shown on sketch map. Work should be conducted between 6/1 and 7/10 as a result of hatchery and salmon constraints and with the approval from ADF&G and USFWS regarding eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

ACE 7237409

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A** ~~Salmon fry nursery area~~ - fry outmigration (3/1 to 5/15)
1B ~~Salmon fry nursery area~~ - spawning (7/15 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C** Salmon fry nursery area (4/31 to 7/31)
- 1D** Esther Hatchery release (4/15 to 6/1)
- 1E** Main Bay Hatchery release (4/20 to 5/10)
- 1F** Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G** Cannery Creek Hatchery release (4/21 to 6/1)
- 1H** Remote release site
- 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)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M** Herring spawning (4/1 to 6/15)
 Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
- 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.
- 5R** Seabird colony (5/1 to 9/1)
 Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
- 5S** Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic.
- 5T** ~~Active Bald Eagle nest~~ (5/1 to 6/1)
~~Active Bald Eagle nest~~ (5/1 to 6/1)
 Restrict air traffic to essential minimum. No personnel within 400m. 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
- 6U** ~~Salmon fry nursery area~~ (5/1 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** Fish harvesting
- 7I** Bear harvesting (8/15 to 2/28)
- 7JJ** Invertebrate harvesting
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

SEGMENT ST/ ER-06 SUBDIVISION: A DATE 04 APRIL 90

USCG

NAME LARRY FLETCHER SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

1. MANUALLY REMOVE ASPHALT.
2. BIO-REMEDiate.

ADEC

NAME DAVID M. SAGE SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

- ① MANUALLY REMOVE TAR BALLS, ASPHALT AND SATURATED SEDIMENTS TO 3-4 cm.

LAND MANAGER

NAME Leigh Carlson SIGNATURE Leigh Carlson ADNR

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Public uses for the segment include recreation and tent sites and subsistence harvesting of deer, finfish and invertebrates. Recommend manual removal followed by bioremediation.

12 of 22

SHORELINE OILING SUMMARY

REVISION NO. 02288

OG R. Marts USCG LARRY FLETCHER SEGMENT ST/ ER-06
 BIO S. Lumber LAND REP Leigh Carlson SUBDIVISION A
 EXXON J. Czarnecki ADEC Dave Sals TIME 17:30 to 18:02
 TEAM NO.: 10 TIDE LEVEL: 0.5m (1.75) to 0.5 m (1.75) DATE 04/04/90
 EST. SUBDIVISION LENGTH: 526 m ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 30 % B 30 % C 20 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 90 % Hang 0 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 118 m VL 0 m NO 408 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	A	B	P	S	1	2	3	4	5	SW	U	M	L
ASPHALT PAVEMENT			X							X	X	X	
POOLED													
COVER			X									X	X
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

 PAVEMENT: H F 90 x 2 x 0.25 45 sq. m by 3 cm

 PATTIES / TARBALLS 0 BAGS

 NEAR SHORE SHEEN? NO SR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

 DEBRIS COLLECTED
☒ YES ☐ NO

 TYPE Shore form

 #BAGS 2

Photographs:

 Roll No. 55/10/7

 Frames 25-28

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm - cm) (min-max)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS		
		SP. OP.	RES. CR.	LOC. OL.	LOC. OP.	NO		NO	HE	1	2	3	4	5	SW	W	M	U				
1	7	X					0 - 7	X						X				X			N	G, S
							.															
							.															
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							.															
							.															

COMMENTS

Revision

RM 4/4/90

13 of 22

REVIEWED

JW

DATE 4/9/90

ACE 7237412

W. K. K. K. K.

SEGMENT ST/ **ER06**

SUBDIVISION **A**

DATE **04 Apr 190**

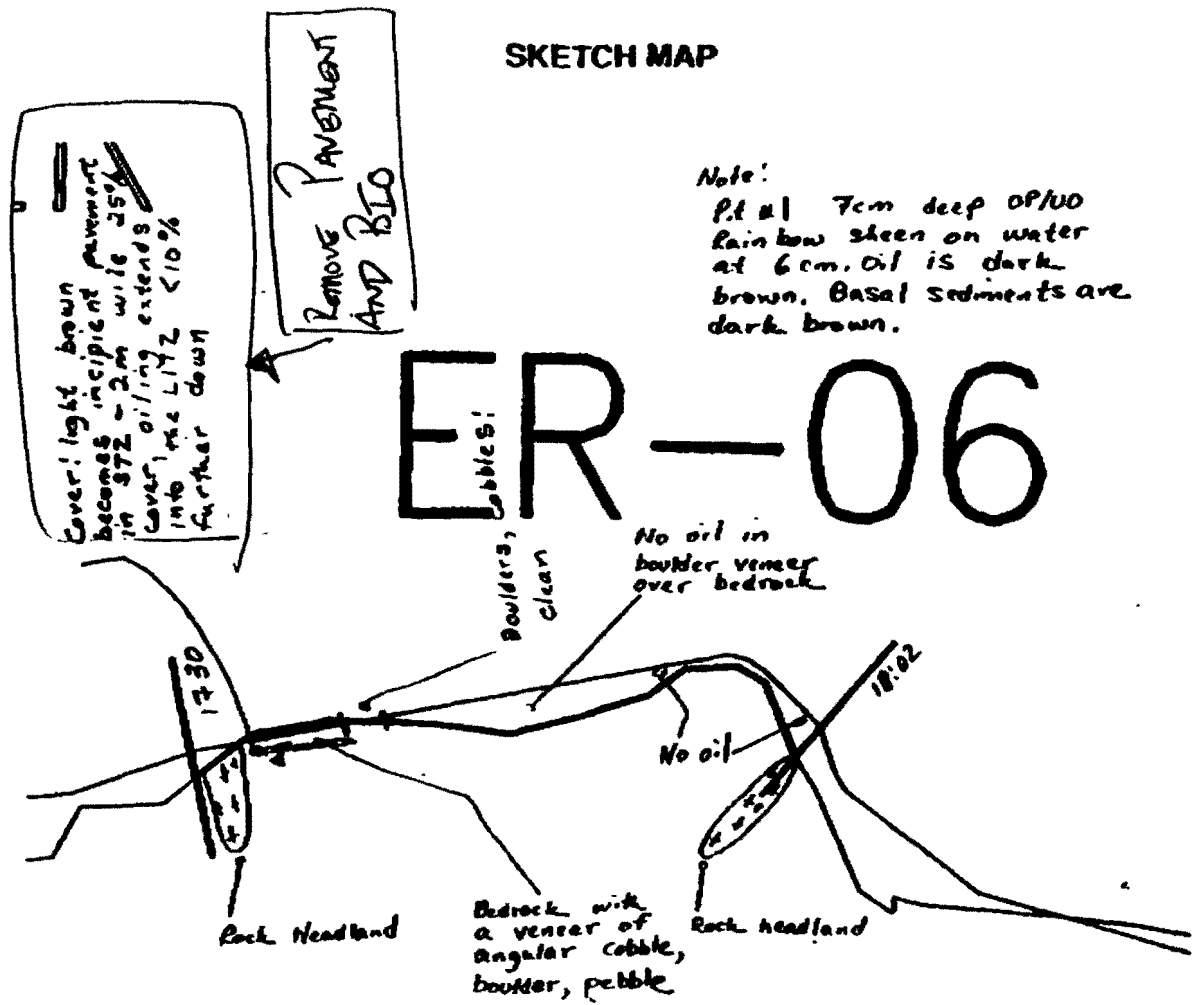
CHECKLIST

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

LEGEND

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

SKETCH MAP



Note:
Pt #1 7cm deep OP/VO
Rainbow sheen on water
at 6cm. Oil is dark
brown. Basal sediments are
dark brown.

15 of 22

ACE 7237413

Oil Character Length (m): AP **90** PO **CV 18** CT **ST** MS **PT** TB **FL** NO **408**

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

REVISION: 1/2/80

Segment ST/10/ER6 Subdivision A Date (mo/day/yr) 7/4/80
 1730-1800
 Time (24 hr) _____ Biologist Lemon Rain

- (A) Substrate type and % of segments:
 (1) Bedrock 30 (2) Boulder 30 (3) Cobble 20 (4) Pebble 20 (5) Sand _____ (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate 40% Low _____
- (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/10/7
 Frames 25-28

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Anthracinus xanthogenica in high tide pool.
 Lots of Rhodophyta in low zone includes Halosaccus; also spirogyra (annelida).

Ecological Considerations: Invertebrate harvest, spawning, deer harvest, hatchery release, fin fish harvest, Tent sites, bald eagle nest.

16 of 22

ER-07

ER-06

ER-09

ER-(

No	2.6	390	408
Light	0.75	$\frac{113}{503}$	$\frac{118}{526}$

140/22

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

ER-6

ADEC Segment Length: 540m



Map Key: PWS-172

Name: Richard Nardy

Date: 4 April 1990

Date Entered:

ACE 7237415-15