ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 60 DATE PRINTED: 08/19/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 89 AFHS - ~~BS~~ SS METHOD: FOOT

DATE: 08/12/89 TEAM RECORDER: HILL

START TIME: 1940 OBSERVERS: GLENN LENTFER
END TIME:

TIDES: Flood AGENCY: FG CAC
OG/HAB DISCREPANCIES:

PHOTOS TAKEN: Y

STATION: 2421010270 ROLL#: 89DDH018H
FRAME: 27-36

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: Y

SAMPLE NUMBERS: 89DDH043H

89DDH044H

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M/H OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: H SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE:	BEDROCK	BOULDER	COBBLE	VEGETAT
	GRAVEL 10	SAND 90	MUD/SILT	GRANULE

ANADROMOUS FISH PRESENT: Y

SPECIES:		COUNT:
	PINK SALMON	45
	JUVENILE DOLLIES ~~VARDEN~~	150

ACE 10459444 HSP

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

ok

PAGE 72

DATE PRINTED: 08/19/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 89 AFHS - ~~BS~~ 89
DATE: 08/12/89
TIMES: 1940 -

LOCATION: ELIZABETH ISLAND

TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
8			46	3	138	5	<7.5	1	TB MS
9			152	.6	91.0	50	<5.0	1	MS TB AP LO
10			61	.5	30.5	45	<3.0	1	MS TB AP MO
11			189	12	2268	30	13	18	MS HOR
12			150	12	1800	20	13	5	MS HOR AP
13	SUBS	90	71	25	1775	90	10		OR
6			55	8	440	80	2.0	2.0	MS AP MOR L
7			381	9	3429	1	<5.0		MS TB
4			3	1.5	4.5	90.0	20.0	25	MS OP HOR
1			90	1	90	1.0	2.5		MS TB ST CT
2			180	.5	90	8.0	5.0		MS TB
3			15	15	225	10.0	2.5	1.5	MS TB AP LO
5			46	7	522	5.0	1	1	MS MOR TB S

pls reprint just this page, sorted by site#.

ACE 10459445

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

OK

PAGE 73 DATE PRINTED: 08/19/91

COMMENTS:
SITE 9-2. SITE DESCRIPTIONS ARE AS FOLLOWS: #1 - LOGS, #2 - SOUTH SHORE LAKE, #3 - EAST SHORE LAKE, #4 - NORTH SHORE CREEK, #5 - WEST SHORE CREEK, #6 - NORTH BERM CREEK, #7 - CREEK BOTTOM, #8 - SOUTH BERM CREEK, #9 - SOUTHEAST SHORE CREEK, #10 - NORTH SHORE CREEK, #11 - SOUTH BEACH, #12 - NORTH BEACH. SITE #13 IS A SUBSURFACE VEIN OF OIL. THIS VEIN IS 90CM BELOW THE BEACH SURFACE AT ITS DEEPEST POINT. THIS VEIN OF OIL IS BEING EXPOSED BY STREAM EROSION AND MOUSSE (HOWING) FALLING INTO THE STREAM. THE SELDOVIA CLEANUP CREW REMOVED A LARGE OF AMOUNT OF OIL FROM THE BEACH AT THE MOUTH OF THIS STREAM. BUCKETS WERE USED TO SCOOP THE OIL - SEE ADFG ELIZABETH ISLAND CREEK HISTORICAL CHRONOLGY. NUMEROUS OILED POMPOMS, OILED ~~LOGS~~ AND OTHER OILED DEBRIS WERE RETRIEVED FROM THE LAKE CREEK AND BEACH BY ADFG. OILED DEBRIS PILED UP ON STREAM SHORE ABOVE BEACH BERM. NUMEROUS PHOTOS AND A SUBSTANTIAL QUANTITY OF VIDEO TAPE EXIST CONCERNING THIS STREAM. NUMEROUS SURVEYS WERE MADE. NUMEROUS OIL SAMPLES EXIST ALSO. 100 PINK SALMON OBSERVED IN OILED STREAM ON 8/16/89. COHO SALMON ARE REPORTED TO SPAWN IN THIS SYSTEM LATE IN THE YEAR.

Buckets

Nancy - pls put these site descriptions into the new column pivcomm + also leave in comments.

ACE 10459446 - 15

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

OK

PAGE 1 DATE PRINTED: 08/23/91

STREAM# : 2421010270
SEGMENT#: E1001

SURVEY TYPE : 89 AFHS - ~~BS~~ SS LOCATION: ELIZABETH ISLAND
DATE: 08/12/89
TIMES: 1940 - -0- TEAM RECORDER: -0-

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1		-0-	90	1	90	1.0	2.5	-0-	MS TB ST CT
10	-0-	-0-	61	.5	30.5	45	<3.0	1	MS TB AP MO
11	-0-	-0-	189+M	12	2268	30	13	18	MS HOR
12	-0-	-0-	150	12	1800	20	13	5	MS HOR AP
13	SUBS	90	71	25	1775	90	10	-0-	OR, MS, OP
2	-0-	-0-	180	.5	90	8.0	5.0	-0-	MS TB
3	-0-	-0-	15	15	225	10.0	2.5	1.5	MS TB AP LO
4	-0-	-0-	3	1.5	4.5	90.0	20.0	25	MS OP HOR
5	-0-	-0-	46	7	522	5.0	1	1	MS MOR TB S
6	-0-	-0-	55	8	440	80	2.0	2.0	MS AP MOR L
7	-0-	-0-	381	9	3429	1	<5.0	-0-	MS TB
8	-0-	-0-	46	3	138	5	<7.5	1	TB MS
9	-0-	-0-	152	.6	91.0	50	<5.0	1	MS TB AP LO

ACE 10459447

OK

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: EI-1 YR CATALOGED:
LOCATION: Elizabeth Island
STREAM NAME:
KODIAK K-UNIT: LOCAL STREAM #: LATITUDE: 59 9 15
USGS QUADRANGLE: Seldovia A-5 LONGITUDE: 151 48 1
SHORELINE TYPE: Beach/Lagoon ALL SEGMENTS: LEGAL: S12S 15W10
WAVE EXPOSURE:

ASC NUMBER:
SURVEY TYPE: SS
METHOD: Foot
DATE: 8/12/89
START TIME: 1940
STOP TIME:

TEAM RECORDER: Doug Hill (ADF&G)
OBSERVERS: Lee Gilson
Jack Lentfer (CAC)
AGENCY(IES):

PHOTOS TAKEN?
Roll #: 89DDH18H 27-36 Frames:
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. DOH/LPG-8/12/89-2010 (89DDHØ43H) 2. 89/LPG-8/12/89-2030 (89DDHØ44H) 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 LOGS	90	1	90	1.0	2.5	—	MS,TB,ST,CT,CV
SITE 2 SOUTH SHORE LAKE	180	.5	90	8.0	5.0	—	MS,TB
SITE 3 EAST SHORE LAKE	15	15	225	10.0	2.5	1.5	MS,TB,AP,LOR
SITE 4 NORTH SHORE CREEK	3	1.5	4.5	90.0	20.0	25	MS,OR,HOR
SITE 5 WEST SHORE CREEK	46	7	322	5.0	1	1	MS,MOR,TB,Sheen

OVERALL OIL IMPACT: M/H

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 90
Cobble	Silt
Pebble 10	Veget.

SPECIES	PINK	JUV. Dollies			
COUNT	45	150 Juveniles			

COMMENTS: ON Following page

please add the site descriptions to comments. Ks.

ACE 10459448 +/S

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 6 North Berm Creek	55	8	440	80	2.0	2.0	MS,AP,MOR,LOR OK
SITE 7 Lake Creek	381	9	3429	1	<5.0	—	MS,TB,
SITE 8 South Berm Creek	46	3	~~138~~	5	<7.5	1	TB,MS
SITE 9 South Eagle Island Creek	152	.6	91.0	50	<5.0	1	MS,TB,AP,LOR
SITE 10 North Shore Creek	61	.5	30.5	45	<3.0	1	MS,TB,AP,MOR

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 11 South BEACH	189+ m	12	2268	30	13	18	MS,MOR
SITE 12 NORTH BEACH	150	12	1800	20	13	5	MS,MOR,AP
SITE 13	site type Subsurf 71 Depth 90 cm	25	1775	90	10	see below *	~~OIL~~ MS,OP
SITE ~~14~~							
SITE							

NO DOH 8/29/89

*Site 13 is a subsurface vein of oil. ~~This~~ vein ~~is~~ 90 cm below the beach surface at its deepest point. This vein of oil is being exposed by ~~the~~ stream erosion and mousse (flowing) ~~o~~ falling into the stream.

- The Seldovia cleanup crew removed a large of amount of oil from the beach at the mouth of this stream. Buckets were used to scoop the oil - SEE AOF+G Elizabeth Island Creek ~~Site~~ Historical Chronology

- Numerous oiled pom poms, oiled logs and other oiled debris ~~were~~ retrieved from the lake creek and beach by AOF+G. Oiled debris piled up on stream shore above beach berm.
- Numerous photos and a substantial quantity of video tape exist ~~—~~ Concerning this stream. Numerous surveys were made, ~~absence~~ numerous oil samples exist also.
- 100 pink salmon observed in oiled stream on 8/16/89.
- Coho salmon are reported to spawn in this system late in the year

FISH HABITAT ASSESSMENT FORM

Elizabeth Island - East Side Salmon System

[1]REGION: [2]PWS (3)KP,CI [4]K,AP [5]OBSERVER(S) Doug Hill, Lee Glean, Rick Randall, Jack Lentfer, Dick McLean

[6]SITE NO. 9-2 [7]AERIAL PHOTO NO. _____ [8]CAT NO. 242-10-10230

[9]STREAM NAME _____ [10]LAT ___°___.___' [11]LONG ___°___.___'

[12]DATE 8/12/89 [13]TIME 1940 [14]TIDE: Low slack (Flood) High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? (Y) N [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? (Y) N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. Eliz. Isle-DDH/LPG-8/12/89-2010 Eliz. Isle-DDH/LPG-8/12/89-2030

[21]35 MM PICTURES TAKEN? (Y) N [22]ROLL NO(S). 89-DDH-18H

[23]EXPOSURE NO. 27-36 [24]DESCRIPTION

27 Lee Glean (ADF&G) Jack Lentfer (CNA) - oiled log, splotches of oil on stream beach.

28 Oil sample DDH/LPG-8/12/89-2010-Mousse within Stream

29 Mousse on bottom of freshwater stream

30 Sample-2010 hrs

31 Sample-2010 hrs, oil 5" below water surface

32 Lake-10"x14" patch of oil on bottom of lake / Sample 2030 hrs

33 Same as photo 32, ~~[illegible]~~ old Cabin in photo

34 heavily oiled pom pom in anadramous lake

35 Sheen on water surface from pom pom

[25]VIDEO FOOTAGE TAKEN? (Y) N [26]CASSETTE NO(S). 89 RDR-001-H

[27]DESCRIPTION: RDR-001 (0913-2099) - otter Seaton oiled beach, South Shore Survey (9) oil in lake, oiled logs + debris NW end lake, mousse in stream, sample

ACE 10459450

ACE 7380317

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial	100* 30*							
29	Ground	80* 15*					150-juveniles observed downstream of pinks		

30 COMMENTS: *8/12/89 Survey, *8/16/89
8/12/89-Fish observed in lake and outlet stream, 8/16/89 random fish only observed in Outlet Stream (where stream runs North-South) Pink Fry observed at west end of lake-and in main Inlet stream

OIL OBSERVATIONS

Site 2/M

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE	SEE	ATTATCHED
32 SURFACE THICKNESS		MAP
33 PENETRATION		

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

35 PREDOMINANT SUBSTRATE TYPE:

1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other_____

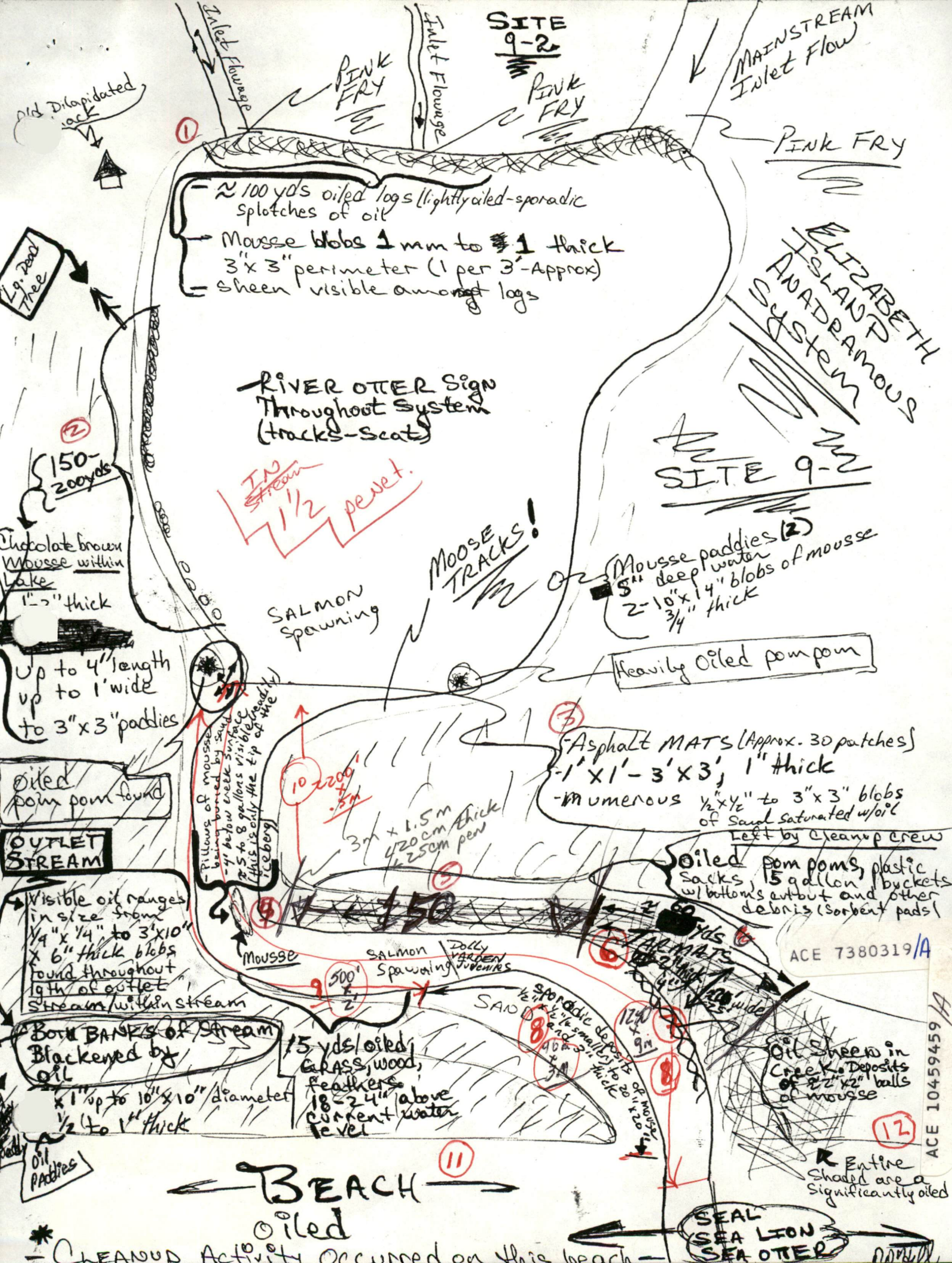
SEE MAP

Attatched

36 COMMENTS:_____

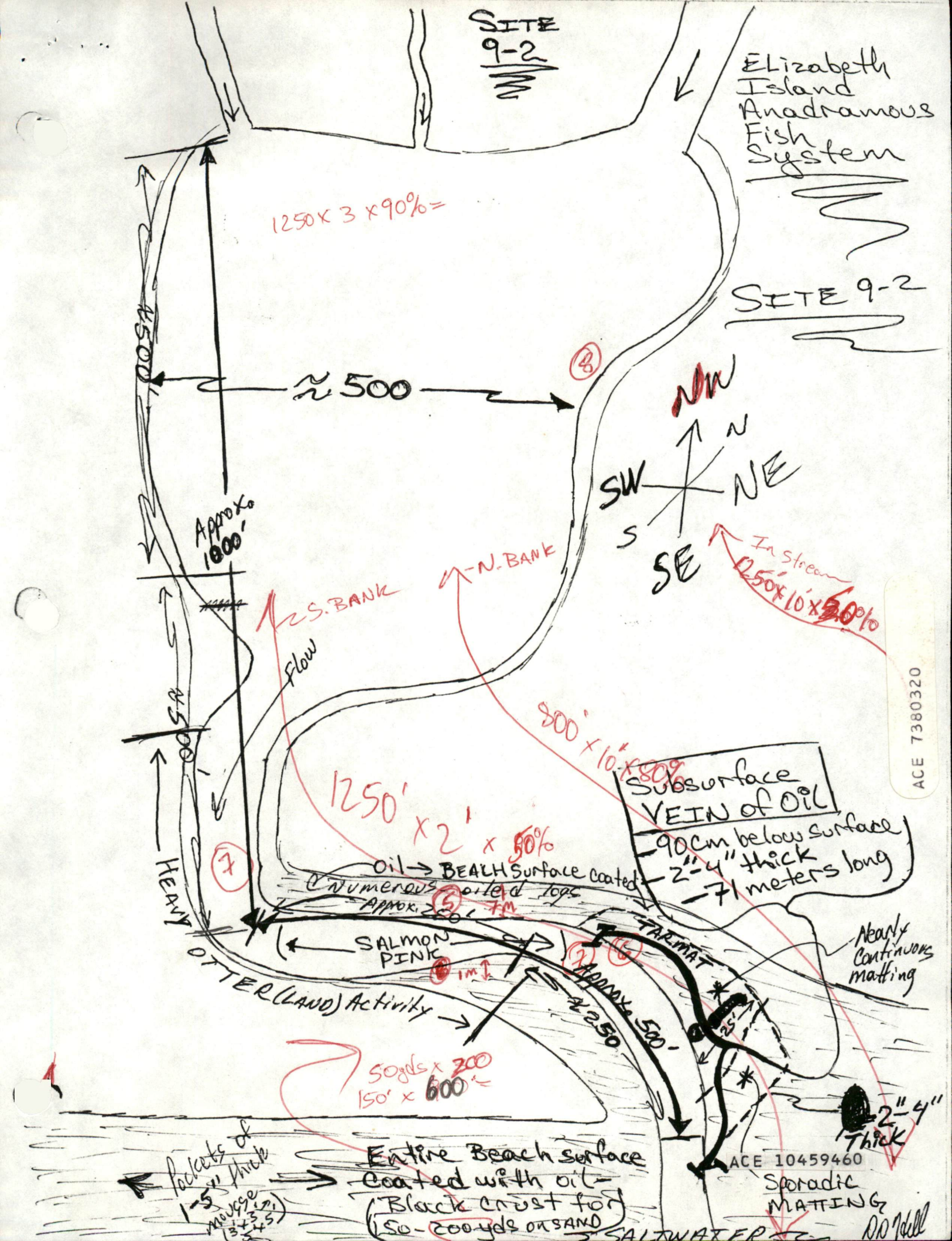
ACE 7380318

ACE 10459451



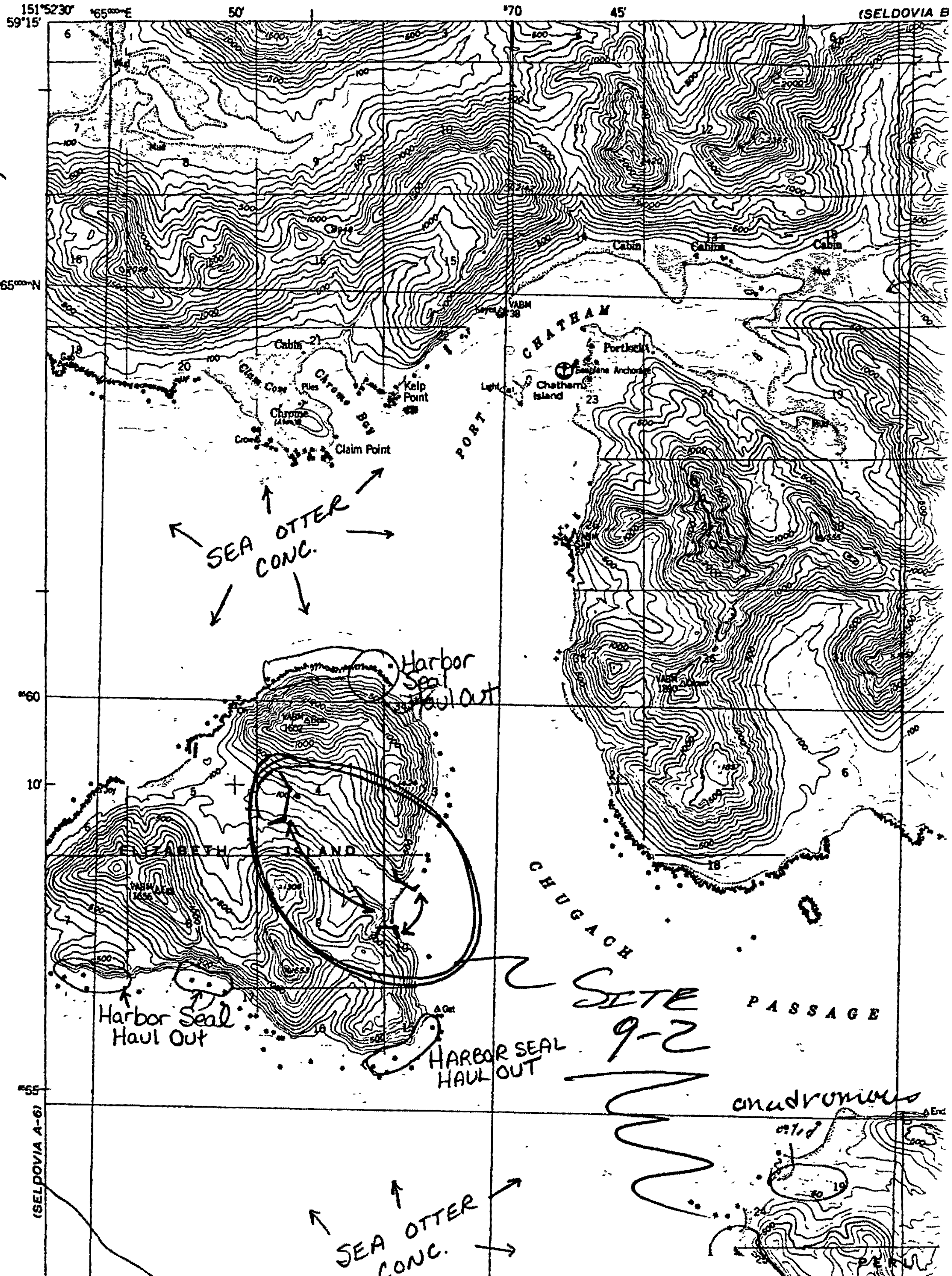
ACE 7380319/A

ACE 10459459/A


SITE 9-2
Elizabeth Island Anadramous Fish System
SITE 9-2
1250 x 3 x 90% =
≈500
≈500
Approx 1000'
≈500'
N
NW
SW
NE
S
SE
S. BANK
N. BANK
flow
In Stream
250' x 10' x 80%
800' x 10' x 80%
1250' x 2' x 50%
Subsurface VEIN of Oil
90cm below surface
2"-4" thick
71 meters long
Oil → BEACH Surface coated
Numerous oiled logs
Approx. 250'
1M
HEAVY OTTER (LAND) Activity
SALMON PINK
1M
TARMAT
Approx. 500'
≈250
Nearly Continuous matting
50yds x 200
150' x 600'
2"-4" Thick
ACE 10459460
Sporadic MATTING
Entire Beach surface coated with oil - (Black crust for 50-200 yds on SAND
SALTWATER
Patches of 1-5" thick mousse
ACE 7380320

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Seldovia A-5



For Chart... high

8/12/89 DOH/LPG

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: EI-1 YR CATALOGED:
LOCATION: Elizabeth Island
STREAM NAME: LATITUDE: 59 9 15
KODIAK K-UNIT: , LOCAL STREAM #: LONGITUDE: 151 48 1
USGS QUADRANGLE: Seldovia A-5 LEGAL: S12S 15W10
SHORELINE TYPE: Beach/Lagoon ALL SEGMENTS:
WAVE EXPOSURE:

ASC NUMBER:
SURVEY TYPE: SS
METHOD: Foot
DATE: 8/12/89
START TIME: 1940
STOP TIME:

TEAM RECORDER: Doug Hill (ADF&G)
OBSERVERS: Lee Gilson
Jack Lentfer (CAC)
AGENCY(IES):

PHOTOS TAKEN?
Roll #: 89DOH18H Frames: 27-36
VIDEO TAKEN? Tape Number:
Counter Start:

SAMPLES TAKEN?
SAMPLE I.D. NUMBERS: 1. DOH/LPG-8/12/89-2010 2. 89/LPG-8/12/89-2030 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1 LOGS	90	1	90	1.0	2.5	—	MS,TB,ST,CT,CV
SITE 2 SOUTH SHORE LAKE	180	.5	90	8.0	5.0	—	MS,TB
SITE 3 EAST SHORE LAKE	15	15	225	10.0	2.5	1.5	MS,TB,AP,LOR
SITE 4 NORTH SHORE CREEK	3	1.5	4.5	90.0	20.0	25	MS,OP,HOR
SITE 5 WEST SHORE CREEK	46	7	322	5.0	1	1	MS,MOR,TB,Sheen

OVERALL OIL IMPACT: M/H

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 90
Cobble	Silt
Pebble 10	Veget.

SPECIES	PINK	Dollies			
COUNT	45	150 Juveniles			

COMMENTS: ON Following page

ACE 10459455 +/S

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 6 North Berm Creek	55	8	440	80	2.0	2.0	MS,AP,MOR,LOR
SITE 7 Lake Outlet	381	9	3429	1	<5.0	—	MS,TB,
SITE 8 South Berm Creek	46	3	~~138~~	5	<7.5	1	TB,MS
SITE 9 South East Lake Creek	152	.6	91.0	50	<5.0	1	MS,TB,AP,LOR
SITE 10 North Shore Lake	61	.5	30.5	45	<3.0	1	MS,TB,AP,MOR

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 11 South BEACH	189+ m	12	2268	30	13	18	MS,HOR
SITE 12 North BEACH	150	12	1800	20	13	5	MS,HOR,AP
SITE 13	71	25	1775	90	10	see below *	
SITE ~~14~~							
SITE							

*Site 13 is a subsurface vein of oil. This vein ~~is~~ 90 cm below the beach surface at its deepest point. This vein of oil is being exposed by ~~the~~ stream erosion and mousse (flowing) is falling into the stream.

- The Seldovia cleanup crew removed a large of amount of oil from the beach at the mouth of this stream. Buckets were used to scoop the oil - SEE AOF+G Elizabeth Island Creek ~~Hist~~ Historical Chronology
- Numerous oiled pom poms, oiled logs and other oiled debris were retrieved from the lake creek and beach by AOF+G. Oiled debris piled up on stream shore above beach berm.
- Numerous photos and a substantial quantity of video tape exist ~~—~~ Concerning this stream. Numerous surveys were made, ~~absorbs~~ numerous oil samples exist also.
- 100 pink salmon observed in oiled stream on 8/16/89.
- Coho salmon are reported to spawn in this system late in the year

001

FISH HABITAT ASSESSMENT FORM

Elizabeth Island - East Side Salmon System

[1]REGION: [2]PWS (3)KP,CI [4]K,AP [5]OBSERVER(S) Doug Hill, Lee Glean, Rick Randall, Jack Leuttfer, Dick McKean

[6]SITE NO. 9-2 [7]AERIAL PHOTO NO. _____ [8]CAT NO. 242-10-10270

[9]STREAM NAME _____ [10]LAT ___°___.___' [11]LONG ___°___.___'

[12]DATE 8/12/89 [13]TIME 1940 [14]TIDE: Low slack (Flood) High slack Ebb

[15]CATALOGED ANADROMOUS STREAM? (Y) N [16]ANAD. FISH FOUND? (Y) N

[17]OIL FOUND IN STREAM? (Y) N [18]OIL FOUND NEAR STREAM (1 MI.)? (Y) N

[19]OIL SAMPLES TAKEN? (Y) N [20]ID NOS. Eliz. Isle-DDH/LPG-8/12/89-2010 Eliz. Isle-DDH/LPG-8/12/89-2030

[21]35 MM PICTURES TAKEN? (Y) N [22]ROLL NO(S). 89-DDH-18H

[23]EXPOSURE NO. 27-36 [24]DESCRIPTION

27 Lee Glean (ADF&G) Jack Leuttfer (CNA) - oiled log, splotches of oil on stream beach.
28 Oil sample DDH/LPG-8/12/89-2010-Mousse within Stream
29 Mousse on bottom of Southwest stream
30 Sample-2010 hrs
31 Sample-2010 hrs, oil 5" below water surface
32 Lake-10"x14" patch of oil on bottom of lake / Sample 2030 hrs
33 Same as photo 32, ~~Shack~~ Old Cabin in photo
34 heavily oiled pom pom in anadramous lake
35 Sheen on water surface from pom pom

[25]VIDEO FOOTAGE TAKEN? (Y) N [26]CASSETTE NO(S). 89BDR-001-H

[27]DESCRIPTION: BDR-001 (0913-2099) - otter Seaton oiled beach, South Shore Survey, oil in lake, oiled logs at debris NW end lake, mousse in stream, sample

ACE 10459457

ACE 7380317

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Aerial	200* 30*							
29	Ground	80* 15*					150 - Juveniles observed downstream of Pinks		

30 COMMENTS: *8/12/89 Survey, *8/16/89

8/12/89 - Fish observed in lake and outlet stream, 8/16/89 random fish only observed in Outlet Stream (where stream runs North-South) Pink Fry observed at west end of lake - and in main Inlet stream

OIL OBSERVATIONS

Site 2

EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE	SEE	ATTATCHED MAP
32 SURFACE THICKNESS		
33 PENETRATION		

34 OIL DISTRIBUTION DIAGRAM (SHOW SAMPLING SITES)

35 PREDOMINANT SUBSTRATE TYPE:

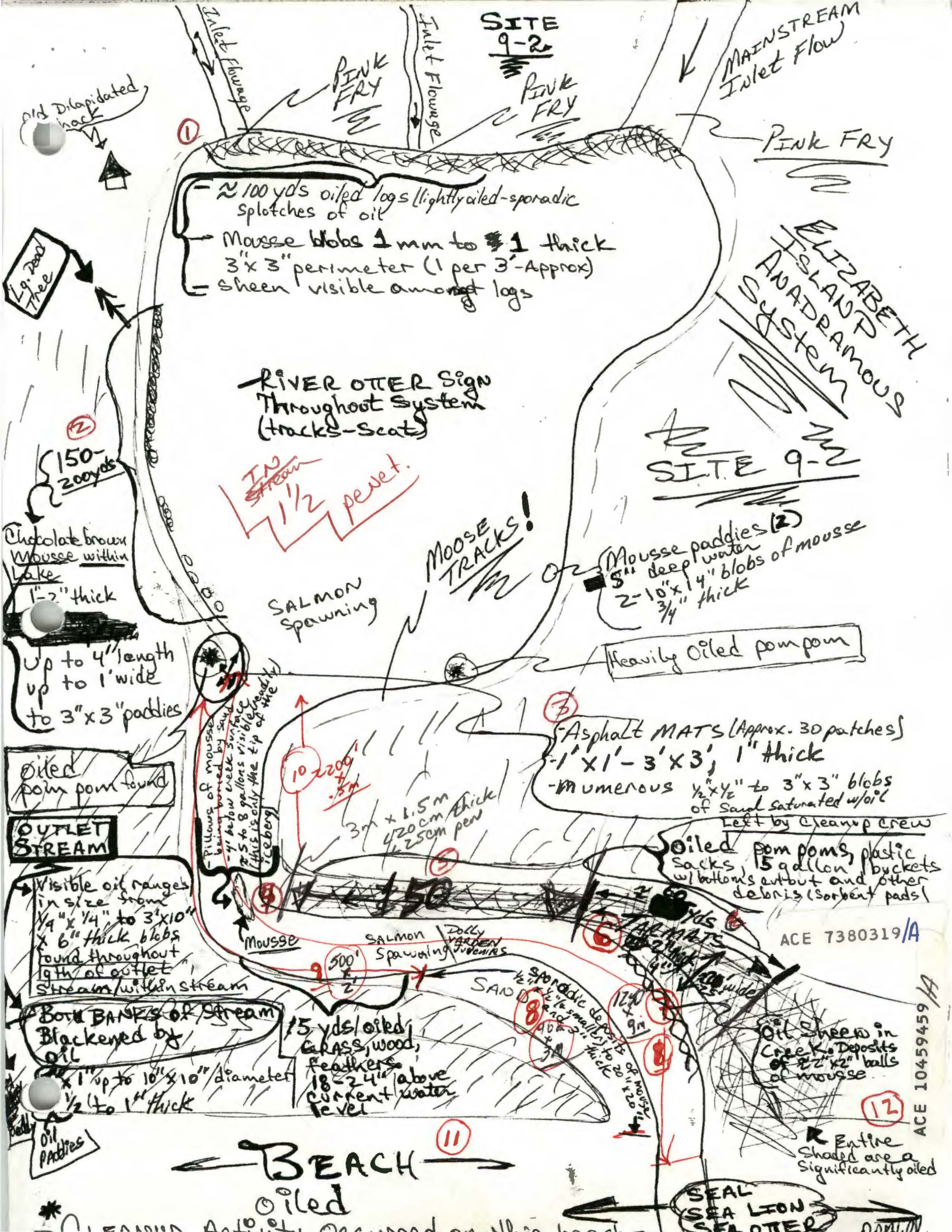
1. Bedrock
2. Boulder
3. Cobble
4. Gravel
5. Sand
6. Mud
7. Other _____

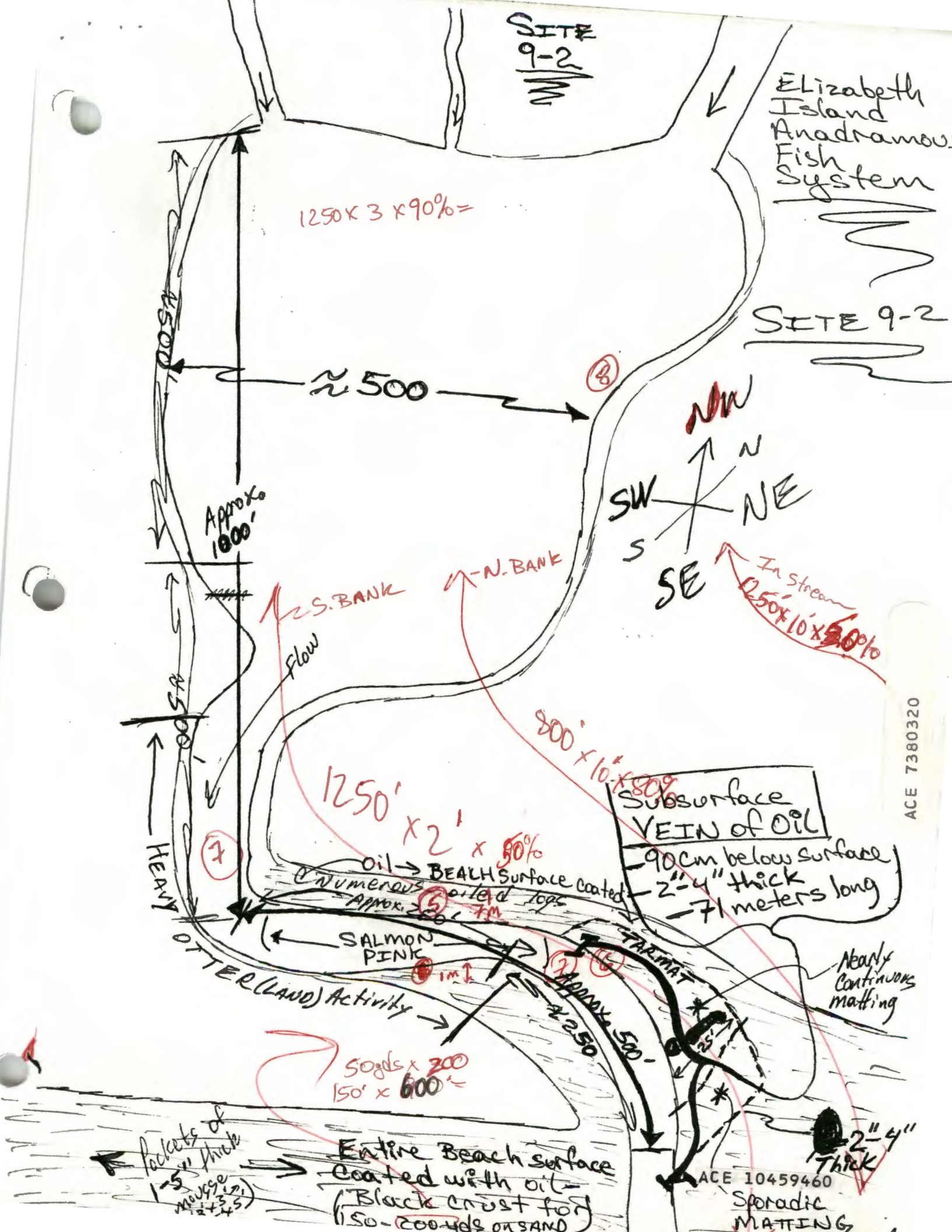
SEE MAP Attatched

ACE 10459458

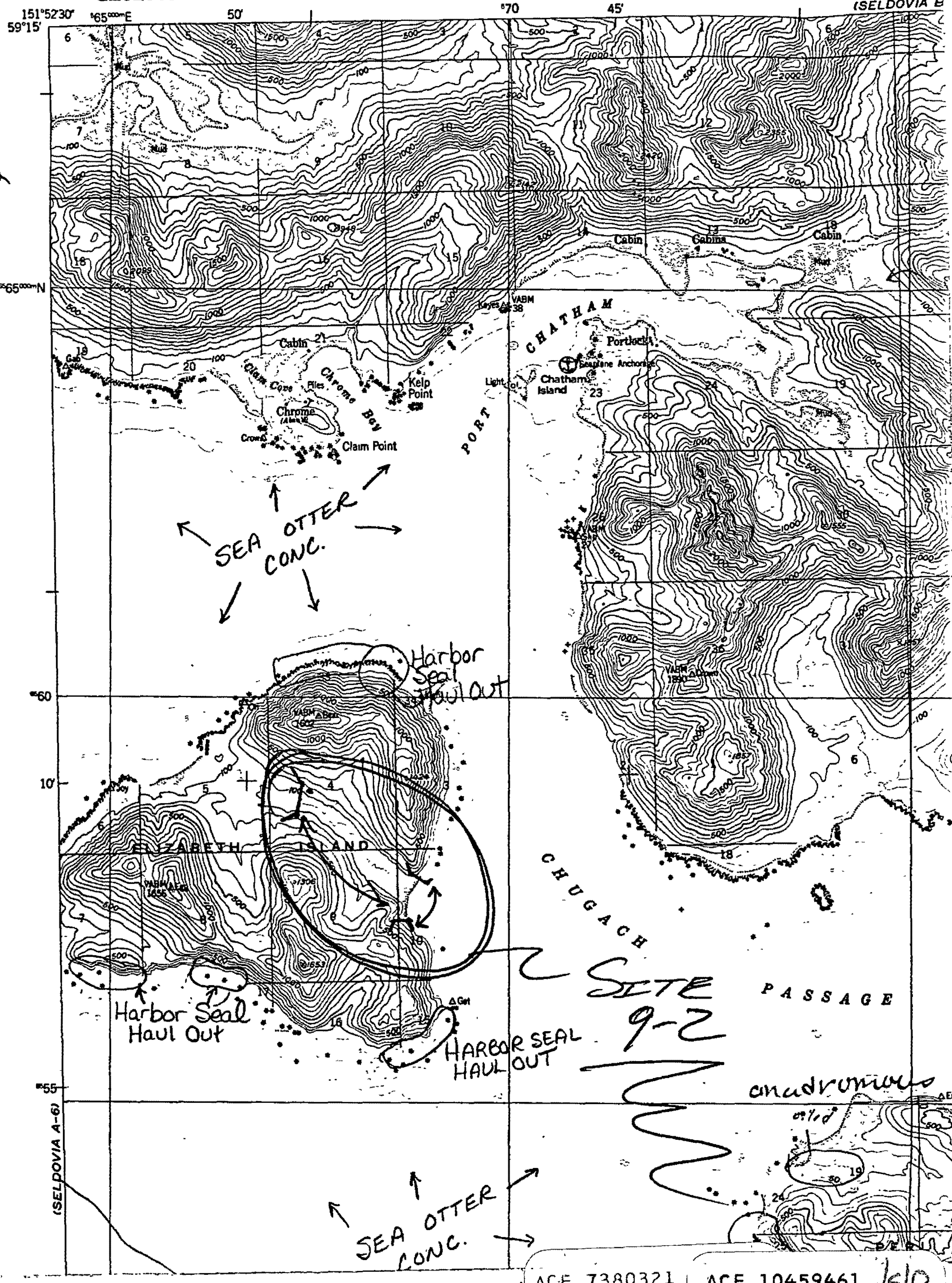
36 COMMENTS: _____

ACE 7380318


SITE 9-2
Inlet Flowage
Inlet Flowage
PINK FRY
PINK FRY
PINK FRY
MAINSTREAM Inlet Flow
Old Dilapidated shack
≈100 yds oiled logs (lightly oiled-sporadic splotches of oil
Mousse blobs 1 mm to 1 thick
3"x 3" perimeter (1 per 3'-Approx)
Sheen visible amongst logs
Lg. Dead Tree
ELIZABETH ISLAND ANADROMOUS SYSTEM
SITE 9-2
RIVER OTTER Sign Throughout System (tracks-Scat)
IN Stream 1½ penet.
150-200yds
Chocolate brown Mousse within Lake 1-2" thick
MOOSE TRACKS!
SALMON spawning
Mousse paddies (2) 5" deep water 2-10"x14" blobs of mousse 3/4" thick
Heavily Oiled pom pom
up to 4" length up to 1' wide to 3"x3" paddies
Pillows of mousse being buried by sand 4" below creek surface 25 to 8 gallons visible (this is only the tip of the iceberg)
Oiled pom pom found
OUTLET STREAM
Visible oil ranges in size from ¼"x¼" to 3'x10" x 6" thick blobs found throughout 1/4th of outlet stream/within stream
Both BANKS of Stream Blackened by oil
1" up to 10"x10"/diameter ½ to 1" thick
Oil Paddies
15 yds/oiled grass, wood, feathers 18-34" above current water level
3m x 1.5m 420cm thick 425cm pen
-Asphalt MATS (Approx. 30 patches) -1'x1'-3'x3', 1" thick -numerous ½"x½" to 3"x3" blobs of Sand saturated w/oil Left by Cleanup Crew
Oiled pom poms, plastic 5 gallon buckets w/bottoms cutout and other debris (Sorbent pads)
Mousse
SALMON Spawning
DOLLY VARDEN Juveniles
SAND
Sporadic deposits ½"-2" & smaller to 3" thick
Oil Sheen in Creek. Deposits of ½"-2" balls of mousse
Entire Shaded area is significantly oiled
BEACH
Oiled
SEAL
SEA LION
SEA OTTER
ACE 7380319/A
ACE 10459459/A


SITE 9-2
Elizabeth Island Anadramous Fish System
1250 x 3 x 90% =
SITE 9-2
≈500
≈500
Approx. 1000'
≈500
N
NW
SW
NE
S
SE
S. BANK
N. BANK
Flow
In Stream
250 x 10 x 90%
800' x 10' x 80%
1250' x 2' x 90%
Subsurface VEIN of Oil
90cm below surface
2"-4" thick
71 meters long
Oil → BEACH Surface coated
Numerous oiled logs
Approx. 5
7m
SALMON PINK
1m
HEAVY OTTER (LAND) Activity
TAR MAT
Approx. 500'
≈250
Nearly Continuous matting
25'
50yds x 200
150' x 600'=
pockets of 1" thick (1-5 Mousse 1, 2, 3, 4, 5)
Entire Beach surface coated with oil — Black crust for 150-200 yds on SAND
2"-4" Thick
ACE 10459460
Sporadic MATTING
ACE 7380320

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 18 DATE PRINTED: 06/21/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 PRE SCREEN - ~~MB~~ SS METHOD: GROUND

DATE: 04/07/90 TEAM RECORDER: HILL

START TIME: 1127 OBSERVERS: GLENN
END TIME: 1315

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2421010270 ROLL#: 90DDH001H
FRAME: 18-20

VIDEO TAKEN: ~~N~~ N ~~TAPE#: ??~~ ~~N~~
START: -0- END: -0-

SAMPLES TAKEN: Y ~~N~~

SAMPLE NUMBERS: ?? 90DDH005 -0-
DDH 4/7/90-1205
-0- -0-

-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: HIGH SHORELINE TYPE: BEACH

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

GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: -

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 10459462 HS/C

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 06/21/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 PRE SCREEN - BS LOCATION: ELIZABETH ISLAND
DATE: 04/07/90
TIMES: 1127 - 1315 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	90	1	90	1	-0-	-0-	CT CV TB
2	-0-	-0-	180	.5	90	5	<5.5	-0-	TB MS
3	-0-	-0-	15	15	225	10	<3	-0-	TB AP
4	-0-	-0-	3	.5	1.5	90	<20	<25	MS
5	-0-	-0-	76	7	~~-0-~~ 532	5	<1	-0-	MS TB
6	-0-	-0-	300	1	300	15	-0-	-0-	AP TB CT CV
7	-0-	-0-	300	7	2100	3	-0-	-0-	TB MS
8	-0-	-0-	1	1	1	80	-0-	-0-	TB

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

 DATE PRINTED: 06/21/91

COMMENTS:
HUNDREDS OF BALLS OF OIL SATURATED SAND (UP TO ½" DIAMETER) WERE OBSERVED IN CREEK AND ON SHORELINE. BALLS OF MOUSSE UP TO 4" X 4" WERE FOUND IN THE STREAM, APPROX 50 WERE EASILY OBSERVED IN THE STREAM. OILED LOGS OBSERVED ON THE CREEKS SHORT WESTERN SHORE. SCATTERED TARBALLS, MOUSSE BALLS, 'AP' FRAGMENTS AND BALLS OF OIL SATURATED SAND WERE FOUND SCATTERED FOR AT LEAST 150' ON EITHER SIDE OF THE STREAM. SITE 9-2 OF 1989 A.F.H.A.
OIL ON STREAM BANKS: YES
OIL WITHIN 1 MILE OF STREAM: YES, ON BEACH ADJACENT STREAM MOUTH

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: EI-1 YR CATALOGED:
LOCATION: KPOC, Eliz. Island
STREAM NAME: Eliz. Island Crk.
LATITUDE: 59 9 15
DIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 48 1
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach, Lagoon ALL SEGMENTS:
WAVE EXPOSURE: High

ASC NUMBER:
SURVEY TYPE: [redacted]SS
METHOD: Foot
DATE: 4/7/90
START TIME: — 1127
STOP TIME: — 1315

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn

AGENCY(IES): ADF&G

PHOTOS TAKEN? Yes
Roll #: 90DDH01H Frames: 18, 19, 20
VIDEO TAKEN? ~~Yes~~ N Tape Number:
Counter Start: ~~2 taken by Lee Glenn~~

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. DDH-4/7/90-1200 2. 1200 3. 4. 5.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	west shore 90m	1m	90m	1%	—	—	CT, CV, TB
SITE 2	south sh-lake 180m	.5m	90m	5%	< 5.5cm	—	TB, MS
SITE 3	Penas-Lake 15m	15m	225m	10%	< 3cm	—	TB, AP
SITE 4	Crk 3m	.5m	1.5m	90%	< 20cm	buried < 25cm	MS
SITE 5	76m	7m	.5	5%	< 1cm	—	MS, TB

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 90%
Cobble	Silt
Pebble 10%	Veget.

SPECIES					
COUNT					

COMMENTS: Hundreds of balls of oil ~~saturated~~ sand (up to ½" diameter) were observed in creek and on shoreline. Balls of mousse up to 4" x 4" were found in the stream (approximately 50 were easily observed in the stream
Oiled logs observed on the creeks short western shore
Scattered tarballs, mousse balls, AP fragments and balls of oil saturated sand were found scattered for at least 150' on either side of the stream.

* site 9-2 of 1989 A.F.H.A
* ~~see field log for further info~~

ACE 10459465 +/S

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: EI-1 YR CATALOGED:
LOCATION: KPOC, Elizabeth Island
STREAM NAME: Eliz. Island creek LATITUDE:
DIAK K-UNIT: . LOCAL STREAM #: LONGITUDE:
GS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach, Lagoon ALL SEGMENTS:
WAVE EXPOSURE: High

ASC NUMBER:
SURVEY TYPE: Pre-Screening
METHOD: Foot
DATE:
START TIME:
STOP TIME:

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLane

AGENCY(IES): ADF&G

PHOTOS TAKEN? Y
Roll #: 90DDH001H Frames: 18, 19, 20
VIDEO TAKEN? No Tape Number:
Counter Start:

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE #6	300m	1m	300m	15%	—	—	AP,TB,CT,CV,ST
SITE #7	300m	7m	2100m	3%		—	TB, Ms
SITE 3 8	1m	1m	1m	80%	—	—	TB
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 90%
Cobble	Silt
Pebble 10%	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: See 1990 MAD Form - sediments + diagram
See 1989 Hab. Assess. form for dimensions - sites 1-8 correspond to 1989 Hab. Assess. form map.

ACE 10459466

Pre-Screening

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MHHS PTA 2 REGION: PWS (KP, CI) K, AP

METHOD: Aerial (Ground) Boat

3 DATE: 4/7/90 16 HIGH TIDE TIMES: 0102 / 1310 21 TEAM RECORDER: Doug Hill

4 START TIME: 1127 16 HIGH TIDE HTS: 11.8 / 11.5 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1315 17 LOW TIDE TIMES: 0702 / 1915 23 AGENCY: ADF&G

6 SEGMENT #: EI-1A 18 LOW TIDE HTS: 1.3 / 0.5 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: 900KH01H Frame: 16,19,20

8 K-UNIT: _____ Ebb (Slack) (Flood) Slack 25 VIDEO TAKEN: Y N TAPE#: _____

9 STAT AREA: 242-10 20 USCG QUAD: _____ Start: _____ End: _____

10 LAT: 59 9 15 11 LONG: 151 48.1 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: Map Loran (Oil) DOH-4/7/90-1200 ~~DOH-4/7/90-1305~~

13 LOCATION: KP, OC, Elizabeth Island Sediment _____

14 DESCRIPTION: Stream/lake on east side of Island Biological _____

EXTENT OF OIL Water _____

	SHORELINE L	W	M^2	%	STREAM 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 _____ Gravel 10 Sand 90 Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Island Crk.

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: on beach adjacent stream mouth

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: _____

ACE 10459467 -5

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: EI-1 YR CATALOGED:
LOCATION: KPOC, Eliz. Island
STREAM NAME: Eliz. Island Crk.
LATITUDE: 59 9 15
DIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 48 1
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach, Lagoon ALL SEGMENTS:
WAVE EXPOSURE: High

ASC NUMBER:
SURVEY TYPE: I, SS
METHOD: Foot
DATE: 4/7/90
START TIME: 1127
STOP TIME: 1315

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn

AGENCY(IES): ADF&G

PHOTOS TAKEN? Yes
Roll #: 90DDH01H Frames: 18, 19, 20
VIDEO TAKEN? Yes Tape Number:
Counter Start: → Taken by Lee Glenn

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. DDH-4/7/90-1205 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	90m (west shore)	1m	90m	1%	—	—	CT, CV, TB
SITE 2	180m (south shore-lake)	.5m	90m	5%	< 5.5cm	—	TB, MS
SITE 3	15m (Finish-Lake)	15m	225m	10%	< 3cm	—	TB, AP
SITE 4	3m (Crk)	.5m	1.5m	90%	< 20cm	< 25cm (buried)	MS
SITE 5	76m	7m		5%	< 1cm.	—	MS, TB

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SUBSTRATE		
Bedrock		Granule
Boulder		Sand 90%
Cobble		Silt
Pebble	10%	Veget.

SPECIES					
COUNT					

*See MAD form for Comment.

COMMENTS: Hundreds of balls of oil ~~saturated~~ sand (up to ½" diameter) were observed in creek and on shoreline. Balls of mousse up to 4" x 4" were found in the stream approximately 50 were easily observed in the stream
Oiled logs observed on the creeks short western shore
Scattered tarballs, mousse balls, AP fragments and balls of oil saturated sand were found scattered for at least 150' on either side of the stream.

* site 9-2 of 1989 A.F.H.A
* see field log for further info

ACE 10459468 +15

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: EI-1 YR CATALOGED:
LOCATION: KPOC, Elizabeth Island
STREAM NAME: Eliz. Island Creek LATITUDE:
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE:
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach, Lagoon ALL SEGMENTS:
WAVE EXPOSURE: High

ASC NUMBER:
SURVEY TYPE: Pre-Screening
METHOD: Foot
DATE: 4/7/90
START TIME:
STOP TIME:

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLane

AGENCY(IES): ADF&G

PHOTOS TAKEN? Y
Roll #: 90DDH001H Frames: 18, 19, 20
VIDEO TAKEN? NO Tape Number:
Counter Start:

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE #6	300m	1m	300m	15%	—	—	AP, TB, CT, CV, ST
SITE #7	300m	7m	2100m	3%		—	TB, MS
SITE 3 8	1m	1m	1m	80%	T	—	TB
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

SUBSTRATE

Bedrock	Granule
Boulder	Sand 90%
Cobble	Silt
Pebble 10%	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: See 1990 MAD Form - comments & diagram
See 1989 Hab. Assess. form for dimensions - sites 1-8 correspond to 1989 HAB Assess. form map

ACE 10459469

Pre-Screening

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (EVOS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 4/7/90
4 START TIME: 1127
5 STOP TIME: 1315
6 SEGMENT #: EI-1A
7 STATION #:
8 K-UNIT:
9 STAT AREA: 242-10
10 LAT: 59 9 15
11 LONG: 151 48.1
12 SOURCE: Map Loran
13 LOCATION: KP, OC, Elizabeth Island
14 DESCRIPTION: Stream/lake on East Side of Island

15 HIGH TIDE TIMES: 0102 1310
16 HIGH TIDE HTS: 11.8 14.5
17 LOW TIDE TIMES: 0702 1915
18 LOW TIDE HTS: 1.3 10.5
19 TIDE HT AT SURVEY:
Ebb (Slack) (Flood) Slack
20 USCG QUADS:

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: 900DH01H Frame: 18,19,20
25 VIDEO TAKEN: Y N TAPE#:
Start: End:
26 SAMPLES TAKEN? (Y) N Number
DOH-4/7/90-1200
(Oil) DOH-4/7/90-1305
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH SREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Eliz. Island Crk.
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: On beach adjacent stream mouth
43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: Tha

ACE 10459470 →

48 PHOTOLOG

FRAME(S)	DESCRIPTION

48 OIL DISTRIBUTION DIAGRAM

= Sample taken
= Photo frame # and shot direction.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 19 DATE PRINTED: 06/21/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 PRE SCREEN - SS METHOD: GROUND

DATE: 04/18/90 TEAM RECORDER: HILL

START TIME: 1333 OBSERVERS: MCLANE
END TIME: 1428

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2421010270 ROLL#: 90DDH001H
FRAME: 18-25

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: # N

SAMPLE NUMBERS: ?? -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: -0- M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: H/M SHORELINE TYPE: BEACH, LAGOON

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

GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: N

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 10459472 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 06/21/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 PRE SCREEN - SS LOCATION: ELIZABETH ISLAND
DATE: 04/18/90
TIMES: 1333 - 1428 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	NOT AVAIL -0-

COMMENTS:
OBSERVED LESS OIL ON THIS TRIP THAN WAS OBSERVED ON 4/7/90. BALLS OF MOUSSE AND SAND CEMENTED BY OIL FOUND THROUGHOUT OUTLET STREAM. OIL COVERINGS STILL EXIST ON BANKS OF STREAM ABOVE BEACH. A FEW TAR PATTIES IN LAKE. MORPHOLOGY OF OUTLET STREAM CHANGED SIGNIFICANTLY OVER WINTER - CUT BANK IS NOW ON THE SOUTH SHORE. NO SIGN OF A SUBSURFACE BAND OF OIL VISIBLE WHERE STREAM CUTS ~~THRU~~ THROUGH BEACH AS IT DID LAST YEAR. ANADSCAT RECOMMENDED.
OIL ON STREAM BANKS: YES
OIL WITHIN 1 MILE OF STREAM: YES, ~~AT HEAD OF LAGOON~~

- oil stained logs observed at west end of lake.
- 2 - 5"x7" tarballs observed on North shore of lake - ½ way between inlet & outlet
- Tarmats observed on North shore of ~~lake~~ creek & east shore of lake (near outlet of lake).
- tarballs & mousse patties observed along entire N & W shores of creek
- tarballs on east shore of stream
- Black crusty oil found on ~~grass~~ grass along south & east shore of stream

ASC NUMBER: 242-10-10270 SEGMENT NUMBER: YR CATALOGED:
LOCATION: Elizabeth Island Creek
STREAM NAME: LATITUDE:
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE:
USGS QUADRANGLE: LEGAL:
SHORELINE TYPE: ALL SEGMENTS:
WAVE EXPOSURE:

ASC NUMBER: TEAM RECORDER:
SURVEY TYPE: OBSERVERS:
METHOD:
DATE: 4/18/90 AGENCY(IES):
START TIME: 1353
STOP TIME: 1428 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							
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

SUBSTRATE	
Bedrock	Granule
Boulder	Sand
Cobble	Silt
Pebble	Veget.

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: Observed less oil on this trip than 4/7/90 survey. ~~Balls of sand cemented by oil/mousse were found.~~ However, a more thorough survey will be conducted under the presumption that more oil remains in the lake. Balls of sand cemented by oil/mousse were found throughout the outlet stream. Oil coverings still exist on banks of stream above beach. A few tar patties observed in lake. Morphology of outlet stream changed significantly over winter. Cut bank is now on south shore. No sign of subsurface band of oil visible where stream cuts beach berm - as was observed in 1989.
- oil stained logs ~~were observed~~ observed at west end of lake
- 2-5" x 7" tarballs observed on North shore of lake (1/2 way between inlet & outlet & ¾ of lake)
- Tarmats observed on north shore of creek & east shore of lake (near outlet of lake)
- Tarballs & mousse patties observed along entire north & west shores of creek
- Tarballs on east shore of stream
- Black crusty oil found on grass on east & south shore of stream.

ACE 10459474 +/S
Site 9-2 of 1989 AFHR

GROUP A

Pre-screening

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) DS TS AVS SCHA MMHS PTA — 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 4-18-90

4 START TIME: 1333

5 STOP TIME: 1428

6 SEGMENT #: EI-1

7 STATION #: ____

8 K-UNIT: ____

9 STAT AREA: 242-10

10 LAT: 59° 09'1

11 LONG: W 151° 44'6

12 SOURCE: Map Loran

13 LOCATION: Elizabeth Island AFS# 242-10-10276

14 DESCRIPTION: ____

Seldovia Tides

15 HIGH TIDE TIMES: 0820 /

16 HIGH TIDE HTS: 13.1 /

17 LOW TIDE TIMES: 1457 /

18 LOW TIDE HTS: 3.9 /

19 TIDE HT AT SURVEY: Low

Ebb (Slack) Flood Slack

20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill

22 OBSERVERS: Susan McLane

23 AGENCY: ADF&G

24 PHOTOS TAKEN: (Y) N

Roll #: 90-DDH-001 Frame: 18, 19, 20, 21, 22, 23, 24, 25

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

Start: ____ End: ____

26 SAMPLES TAKEN? (Y) N Number

Oil ~~DDH/LLC 4/7/90 1305~~ DATE

Sediment cannot locate sample.

Biological ____

Water ____

EXTENT OF OIL

	SHORELINE L	SHORELINE W	SHORELINE M²	SHORELINE %	STREAM L	STREAM W	STREAM M²	STREAM %
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 ____

Gravel 10% Sand 90% Mud/silt ____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Is. Stream

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: At head of Lagoon

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

COMMENTS: Observed less oil on this trip than was observed on 4/7/90. Balls of mousse and sand cemented by oil found throughout outlet stream. Oil coverings still exist on banks of stream above beach - A few tar patties in lake. Morphology of outlet stream changed significantly over winter - cut bank is now on the south shore. No sign of a subsurface band of oil visible where stream cuts thru beach as it did last year.

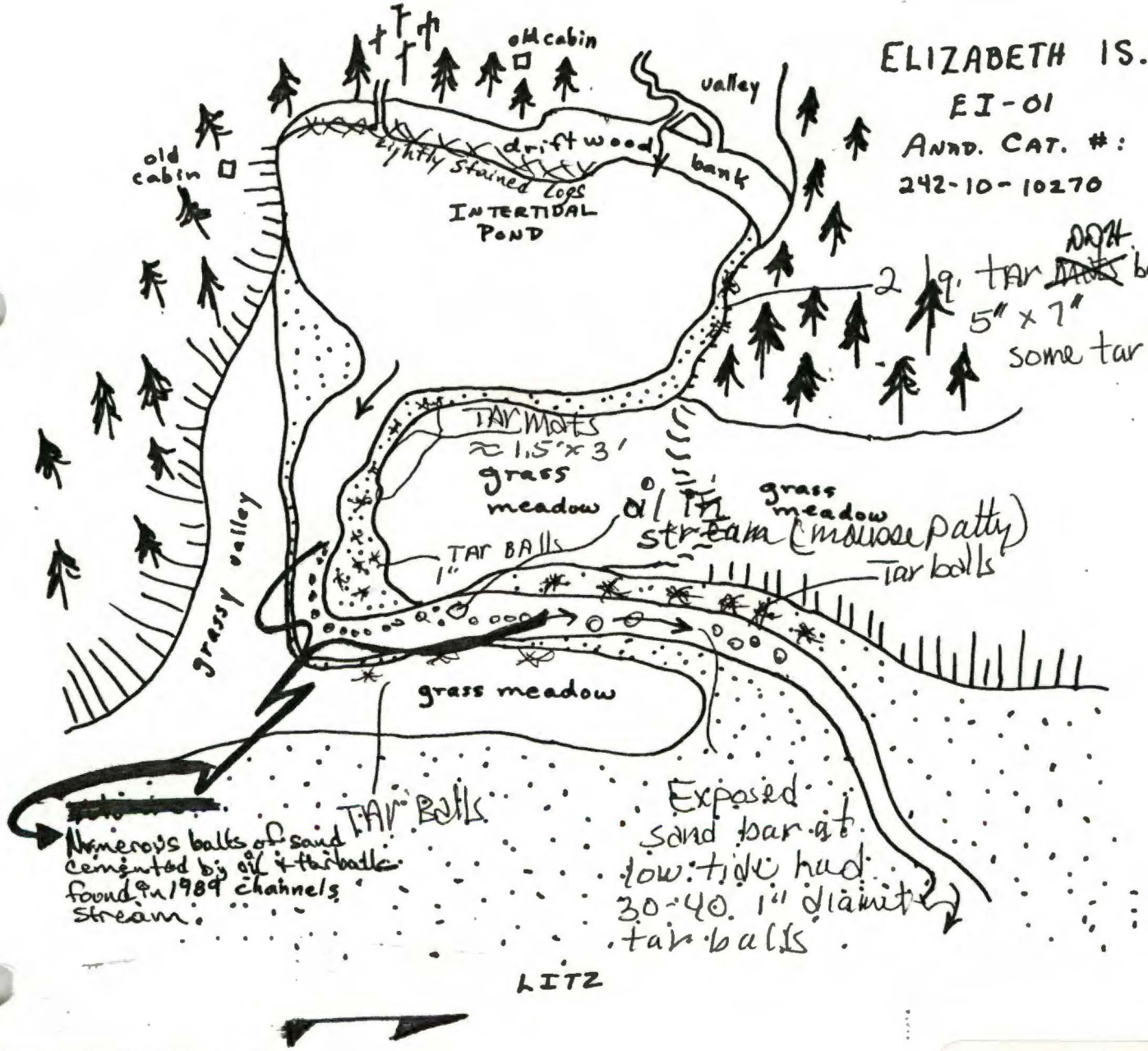
ACE 10459475

ACE 1955680

45 PHOTOLOG

FRAME(S)	DESCRIPTION
18, 19, 20	Depicting Difference in Morphology of stream outlet in 1990 VS 1989. Cut bank is on South bank.

46 OIL DISTRIBUTION DIAGRAM



= Sample taken

= Photo frame # and shot direction.

ANADSCAT RECOMMENDED

ACE 10459476 -15

ACE 1955681

ANADROMOUS FISH STREAM ASSESSMENT

REGION: KENAI

SEGMENT: EI-001

SUBDIVISION: A

STREAM NO: 242-10-10270

Remove patties.
Remove mousse from stream bottom
after 1 June.

FAX COVER SHEET

FROM

M/V SEA TRADER

PHONE 011-872-150-1372 FAX 011-872-150-2147

TO: SHARIE METHJEN-TONEY
ALASKA STATE PARKS F.D.O.T.N.A
FAX 262-3717

FROM: RICK [illegible], TRAV'S M/V SEA TRADER
EXXON SEA

TIME/DATE: 21:20
09/27/90

NUMBER OF PAGES: 10

COMMENTS:

① PLS. REVIEW FOLLOWING REPORT FOR EI-01

AND FAX COMPLETED COMMENT SHEET

DIRECTLY TO EXXON/JSAT FAX 564-3771

Rick Stillie

ACE 10459478

ACE 6896890

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EI-001 STREAM NO: 242-10-10270 DATE 4/29/90

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Stream is located within subdivision A (1 of 1). No additional ecological constraints.

ARCHAEOLOGICAL CONSTRAINTS:
If cultural resources are uncovered during shoreline treatmen in the vicinity, mark the location of the find and cont Cultural Resource Program immediately (564-3276 (Anchorage) (24 hrs.)).

SHPO SIGNATURE: [signature] DATE: 5/22/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarballs and oiled vegetation. Work from 6/2 to 7/10 with approval of USFWS regarding eagle nest.

TAG COMMENTS: NO ~~BE~~ WORK TO BE CONDUCTED WITHIN THE STREAM CHANNEL PRIOR TO JUNE 1

TAG APPROVAL DATE: 5/18/90
ADEC ART WEINER [signature]
EXXON ANDY TETRA [signature]
NOAA Gary Petrae [signature]
USCG G.A. REITER [signature]

FOSC: [signature] DATE: MAY 25 1990

ACE 10459479

ACE 6896866

FIELD SHORELINE COMMENT SHEET

DNAV SCAT

ASC #

SEGMENT ST / EI-001 SUBDIVISION: 242-10-10270 DATE 29 APR 90

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

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Type A manual removal

ADEC → ADF&G
NAME LEE GLENN SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS Type A - manual removal

1. Clean oil from sandy streamline on both sides of stream.
2. Manually remove mousse from the bottom of the stream.
3. Clean oil from rocky/cobble shoreline on both sides of the stream and lake including beneath vegetation overhang.
4. Prior to work contact Lee Glenn so A.D.F&G can place an observer on site.

The attached A.D.F&G. assessment completed on 4-18-90 has not changed since the 4-29-90 AnchScat survey

LAND MANAGER → NONE
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ACE 10459480

ACE 6896874

REVISION NO. 03/21/90

Seg ID: EI-001 Subdiv: 242-10-10270
Survey Date: 4/29/90
Comments by: Ken Critchlow

The portion of the stream that was surveyed was upstream of the storm berm of the beach. Oil was observed mainly at the edge of the UITZ and overhanging dead grass in the STZ along the left or west side of the stream. This oil was in the form of stain and patties; a few tarballs were also seen in this area. On the opposite side of the stream numerous very small tarballs were observed partially buried in fine sediments on the bank and on bars in the channel.

I recommend that oil on the left bank be removed by shovel. This may necessitate trimming dead overhanging grass to clearly observe and remove oil. Tarballs in the sediments could be removed by shovel; the upper surface of the sediment can be raked to uncover tarballs for removal.

KR Critchlow

ACE 10459481

ACE 6896875

OPERATIONS FIELD NOTES

See Back for Instructions

SEGMENT ID ANAS EI-001 (ELIZABETH I)
STREAM ID # 242-10-10270
ANNOTATED MAP INCLUDED (Y)/N

DATE 4-29-90
NAME DARYL YOE
TEAM # 14

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

SUBSURFACE OIL

Other (Describe)?	NONE FOUND

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

MANUAL PICKUP	Type of Debris			In Meters				Pickup Y/N	Manday Estimate
	~~Mousse~~ Tarballs	Oiled Veget	Cleanup Debris	Length	Width	# of Bags			
"Pocket" #1	✓			2M	2CM	10	VERY DISPERSED	Y	1
"Pocket" #2	✓			30	10	2		Y	1
"Pocket" #3	✓			20	5	2		Y	1
Random/~~Continuous~~		✓				10		Y	1

OILED LOGS (Y)/N	OILING H/M/(L)	QUANTITY L/M/(S)	BURN Y/(N)	

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

GENERAL

Snow covering 0 % of the Supratidal Zone?

Wave Exposure (H)/M/L → STREAM IS SHELTERED

Access Limitations: BARRIER N100/200 YDS FROM RIV

Snare Boom/Pom Poms Recommended? NO

Would the production Craft have to be relocated to complete work on this subdivision? (Y)/N, # of Times 1

COMMENTS:

WORK SHOULD BE PLANNED FOR APRIL 5-15 → 7-10

NOTIFY ADF&G BEFORE STARTING WORK

ACE 10459482

ACE 6896876

SHORELINE OILING SUMMARY (ANAD)

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ E L 01
BIO KEN CRITCHLOW LAND REP ________ STREAM ZA2-10 [illegible] OF
EXXON DARRYL YOES ADFG LEE GLEN TIME 12:00 to [illegible]
TEAM NO. 14 TIDE LEVEL -2.2 FT DATE 9/29/90
EST. SUBDIVISION LENGTH: 220 m ☐ Sun ☑ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☑ Grass ☑ Forest ☐ Rock
SURVEYED FROM: ☑ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ___ % B 5 % C 5 % P 5 % G 5 % S 50 % M 20 % V ___
SLOPE : Lang 100 % Hang ___ % Vert ___ % WAVE EXPOSURE: ☑ Low ☑ Med ☑ High
OIL CATEGORY LENGTH: W ___ m M ___ m N 214 m VL 6 m NO ___

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	B	P	S	color 1	color 2	color 3	color 4	color 5	SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER		✓				✓					✓		
COAT													
STAIN		✓		✓		✓				✓	✓		
MOUSSE													
PATTIES		✓		✓		✓		✓			✓	✓	
TARBALLS			✓					✓			✓	✓	
FILM				✓		✓	✓				✓		
NO OIL													✓

PAVEMENT H F S ______ sq. m by ___

PATTIES / TARBALLS 4 B.I.

NEAR SHORE SHEEN? NO BR RW (SL) T

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

Did You Collect DEBRIS? ☐ YES ☑ NO

TYPE ______

#BAGS ______

Photographs:

Roll No. ______

Frames ______

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER: OP	OR	OL	OF	NO	OILED INTERVAL (CM-CM)	BELOW: UO	UC	OIL / FILM COLOR: color 1	color 2	color 3	color 4	color 5	PIT ZONE: SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE SUBSURFACE SEDIMENT
1	22					✓	-									✓				N		[illegible]
							-															
							-															
							-															
							-															
							-															

COMMENTS SMALL FLECKS OF SHEEN WERE NOTED IN LOOSE MUD NEXT TO AN IN STREAM BED IN MARKED AREA ON SKETCH MAP. BROKEN BAND OF TARRY OIL COVER ALONG GRASS/UPPER TIDAL BANK. DEAD GRASS HIDING OIL UNDERNEATH.

ACE 6896877

REVIEWED TW DATE 5/3/90

ACE 10459483

SEGMENT STI E - 01

STREAM Z-2-10-10270

DATE 4 /29 90

CHECKLIST

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

LEGEND

1 △

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C
Continuous Distribution

CT/B

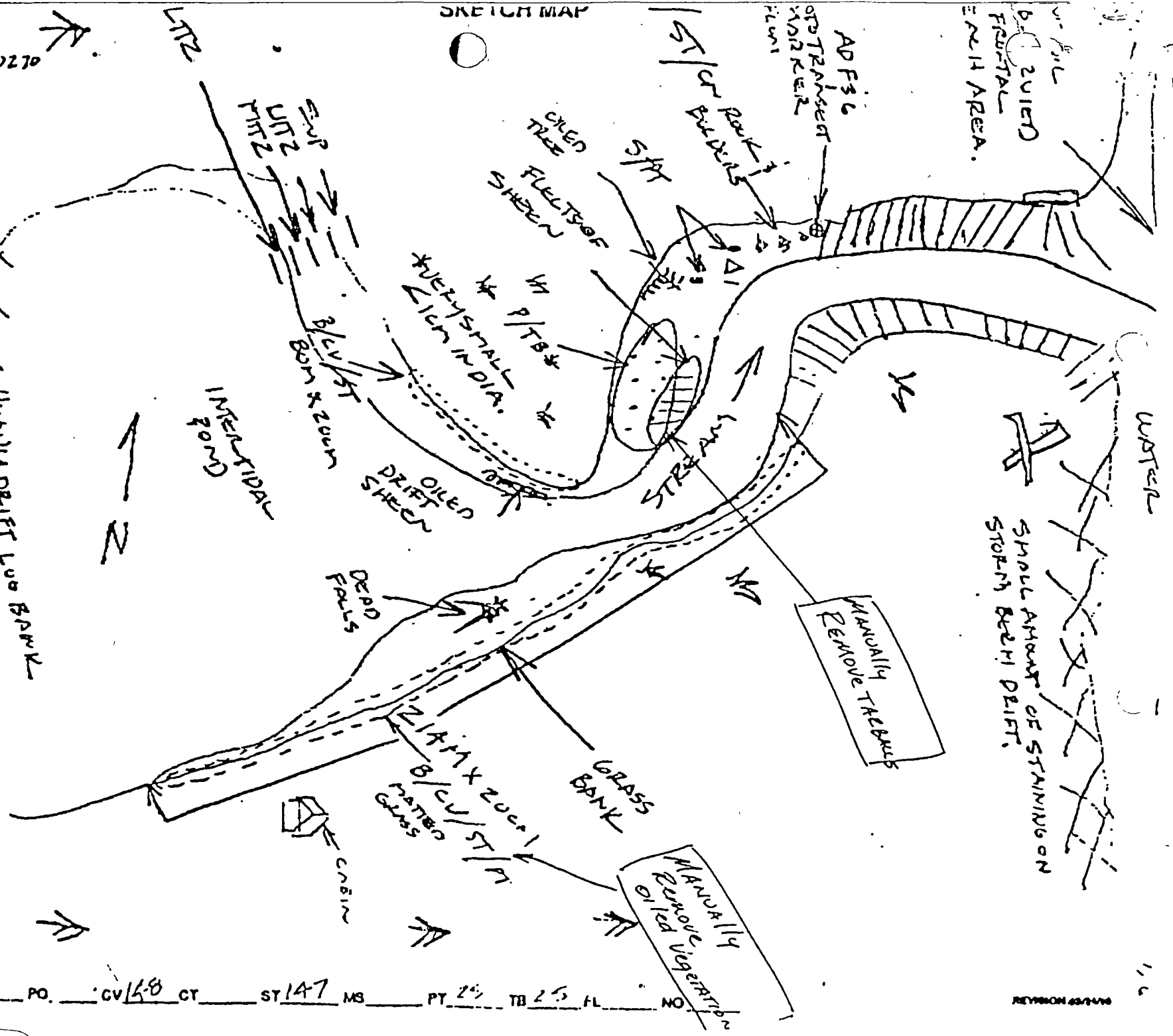
CT/P

CT/S

Vegetation

Photo location, direction, and number

SKETCH MAP



Character Length (m): AP____ PO. ___ CV 158 CT____ ST 147 MS____ PT 2½ TB 2½ FL____ NO____

REVISION 03/14/90

ACE 10459484

SEGMENT ST 01

STREAM ZAZ-10-10270

DATE 4/29/90

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

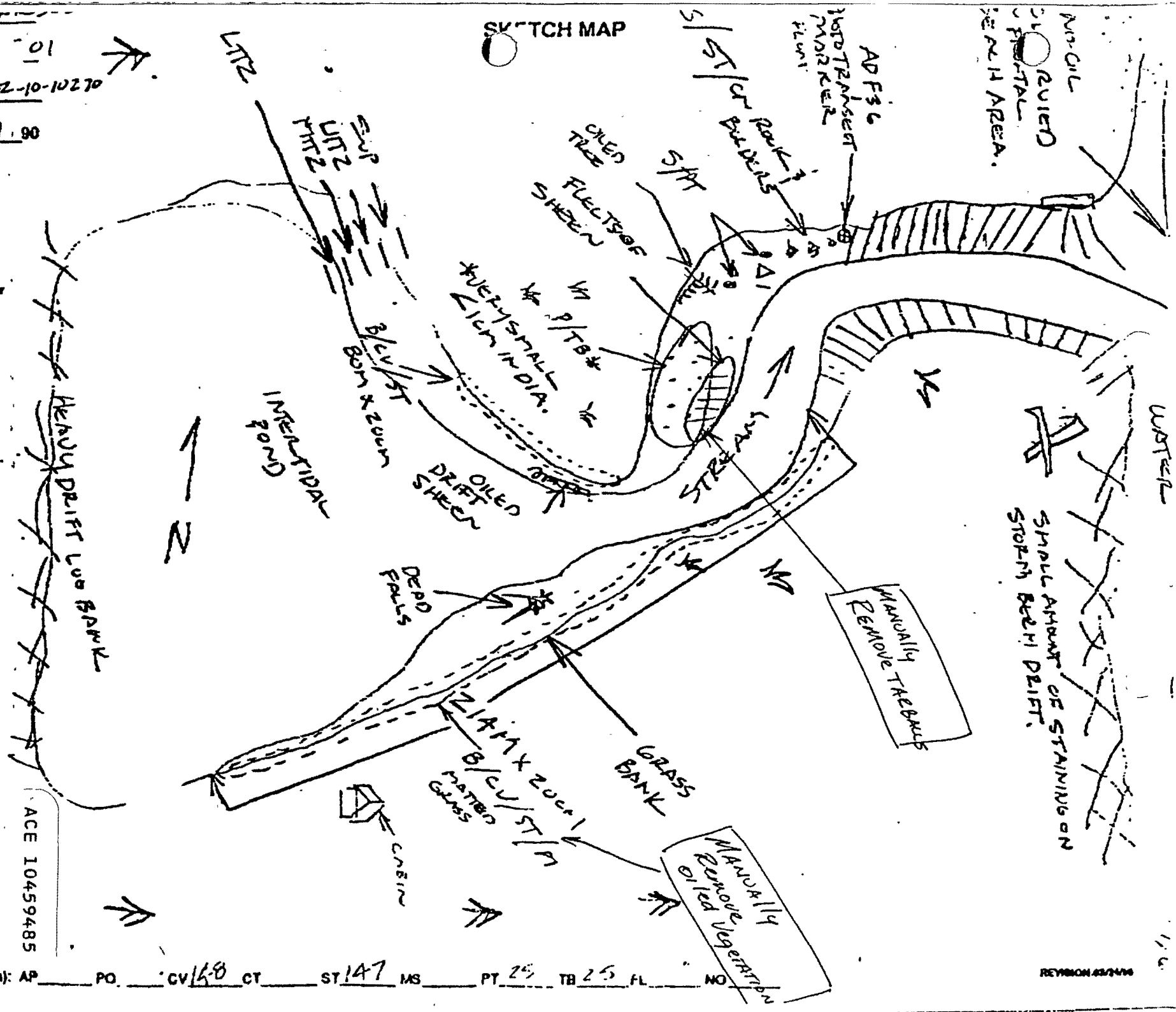
Oiled Vegetation

Photo location, direction, and number

ACE 6896873

ACE 10459485

SKETCH MAP



Oil Character Length (m): AP ____ PO ____ CV 68 CT ____ ST 147 MS ____ PT 25 TB 25 FL ____ NO ____

REVISION 4/3/94

ANAD

SSAT DATA ENTRY FORM

GENERAL DATA

SEG ID: EI-001 SUBDIV: 242-10 ~~10270~~ TEAM: 14 SURVEY DATE: 4/29/90

PAVEMENT: CHAR — AREA — THICKNESS — TARBALLS X

OILED: LGS SM VEG MD TRH — DBR SM WAVE EXP: LW X MD — HG —

FAX RCVD: ______ DT: ______ AGENCY DISAGREE: ______

EST SUBDIV LGTH: 220 OIL CATEGORY: W — M — N 214 VL 6 NO — U —

SURFACE DATA

SURFACE SEDIMENT: BRK — BLD 5 COB 5 PEB 5 GRN 5 SAN 50 MUD 20 VEG —

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

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

CHAR #: 3 OIL CHAR: PT OIL DIST: CONT — BRKN X PTCH — SPLH X
OIL CLR: DBL / DBR FILM CLR: RW / TL TIDAL ZONE: SU — UI X MI X LI —

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

CHAR #: 5 OIL CHAR: FL OIL DIST: CONT — BRKN — PTCH — SPLH X
OIL CLR: DBL / GY FILM CLR: RW / SL 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 ____

ANAD

SSAT DATA ENTRY FORM

SUBSURFACE DATA

SEGMENT ID: EI-001 SUBDIV: 242-10 10270

PIT # 1 PIT DEPTH 22 OIL CHARACTER NO OIL INTVAL: FROM — TO —
QUANT: — OIL CLR: — FLM CLR: — ZONE: SU — UI X MI — LI —
SUBSURF SEDIMENT: BRK — BLD — COB — PEB X GRN — 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___

PIT #___ PIT DEPTH___ OIL CHARACTER___ OIL INTVAL: FROM___ TO___
QUANT:___ OIL CLR:___ FLM CLR:___ ZONE: SU___ UI___ MI___ LI___
SUBSURF SEDIMENT: BRK___ BLD___ COB___ PEB___ GRN___ SAN___ MUD___ VEG___

PROBLEMS:___

SHORELINE EVALUATION

SEGMENT ST/ EI-01 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 242-10-10270
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest 400M from work area.
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled 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 Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).**

SHPO SIGNATURE: Judith E. Bittner DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 186 m: V.Light 1452 m: No Oil 0 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
X Treatment Recommended	____Oil Snares (pom poms)
X Manual Pickup	____Absorbents (pads,rolls,etc)
____Bioremediation	____Spot Washing:____Wands
X Tarmat Removal	____Beach Cleaner
	____Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of asphalt + TARMAT where indicated, and 2) manual pickup of oiled debris. Work should be conducted between 6/1 and 7/10 based on anadromous stream and eagle constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 5/12/90
ADEC Art Weaver
EXXON Andy Cox
NOAA Gary Petrae
USCG D.D. Rome

FOSC: _____ DATE: 5-15-90

ACE 6896880

ACE 10459488 +5

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EI-01 SUBDIVISION: A - 1 of 1 DATE 04/29/90

USCG
NAME David G. Thomas SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS
Due to the close proximity of the Anadromous fish Stream & the likelihood of clean up within that area - Suggest clean up of AP/P & MO at the Southern end of Segment as well as removal of oiled net at N. end -
Please refer to the Anadcat Survey for clean-up recommendations within that packet - (lake & Stream)

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Note. Comments to be faxed directly by
SHARIE WETHEN-TONEY, ADNR

ACE 6896886

REVISION NO. 03-21-90

ACE 10459489

SHORELINE OILING SUMMARY (ADNR)

REVISION NO. 04.13.90

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ EI-01
IO DAVE LOHFE LAND REP S. METHVEN-TONEY SUBDIVISION A (1 OF 1)
XXON FRANK BOX ADEC CLARA CROFBY TIME 12:00 to 14:30
AM NO. 13 TIDE LEVEL -1 to +1 DATE 09/29/90
EST. SUBDIVISION LENGTH: 800 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 5 % B 15 % C 25 % P 20 % G 10 % S 30 % M 0 % V 0 %
SLOPE : Lang 85 % Hang 10 % Vert 5 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 150 m VL 650 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	/C	/B	/P	/S	SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR		SU	UI	MI	LI
ASPHALT PAVEMENT			X			X						X		
POOLED														
COVER				X		X						X	X	
COAT				X		X					X	/	/	
STAIN														
MOUSSE				X					X			/		
PATTIES				X		X						/		
TARBALLS														
FILM				X			X					X		
NO OIL														X

PAVEMENT H F (S) 10 sq. m by 2 cm
PATTIES / TARBALLS 1 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?
YES ☒ NO ☐
TYPE PLAS C
#BAGS 1

Photographs:
Roll No. ST-13-06
Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR		SU	UI	MI	LI				
1	30					X	-		X								X						S-P-S
2	30					X	-		X								X						S-P-S
3	35					X	-		X								X						S-P-S
4	30					X	-		X							X							S-P-S
5	30					X	-		X							X							S-S
6	40					X	-		X							X							S-S-P

ACE 6896881

COMMENTS

GEOMORPHOLOGY: 600 M LONG SAND/PEBBLE/COBBLE BEACH WITH ANADROMOUS STREAM. BOULDERS AT EACH END OF SUBDIVISION. REST OF COAST NO EXPOSURE.

OIL: VERY LIGHT EXCEPT FOR SOUTH END (AP, MO) IN ROCK CREVICES - BETWEEN BOULDERS.

REVIEWED DATE

ACE 10459490

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04 12-90

SEGMENT ST/ EI-01 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR		SU	UI	MI	LI				
7	40					X	-		X								X						S-SP
8	40					X	-		X								X						S-SP
9	40					X	-		X								X						S-SP
10	30					X	-		X								X						S-SP
11	30					X	-		X								X						S-SP
12	30					X	-		X								X						S-SP
13	40					X	-		X								X						S-SP
14	40					X	-		X								X						S-SP
15	40					X	-		X									X						
16	40					X	-		X									X						S-SP
17	30					X	-		X								X							S-SP
							-																
							-																
							-																

COMMENTS

SUBSURFACE: NO SUBSURFACE OIL FOUND ON BEACH (UIT2 TO MIT2).

NOTE: CHECK ANIDROMOUS STREAM SCAT SURVEY FOR STREAM AND LAKE RESULTS

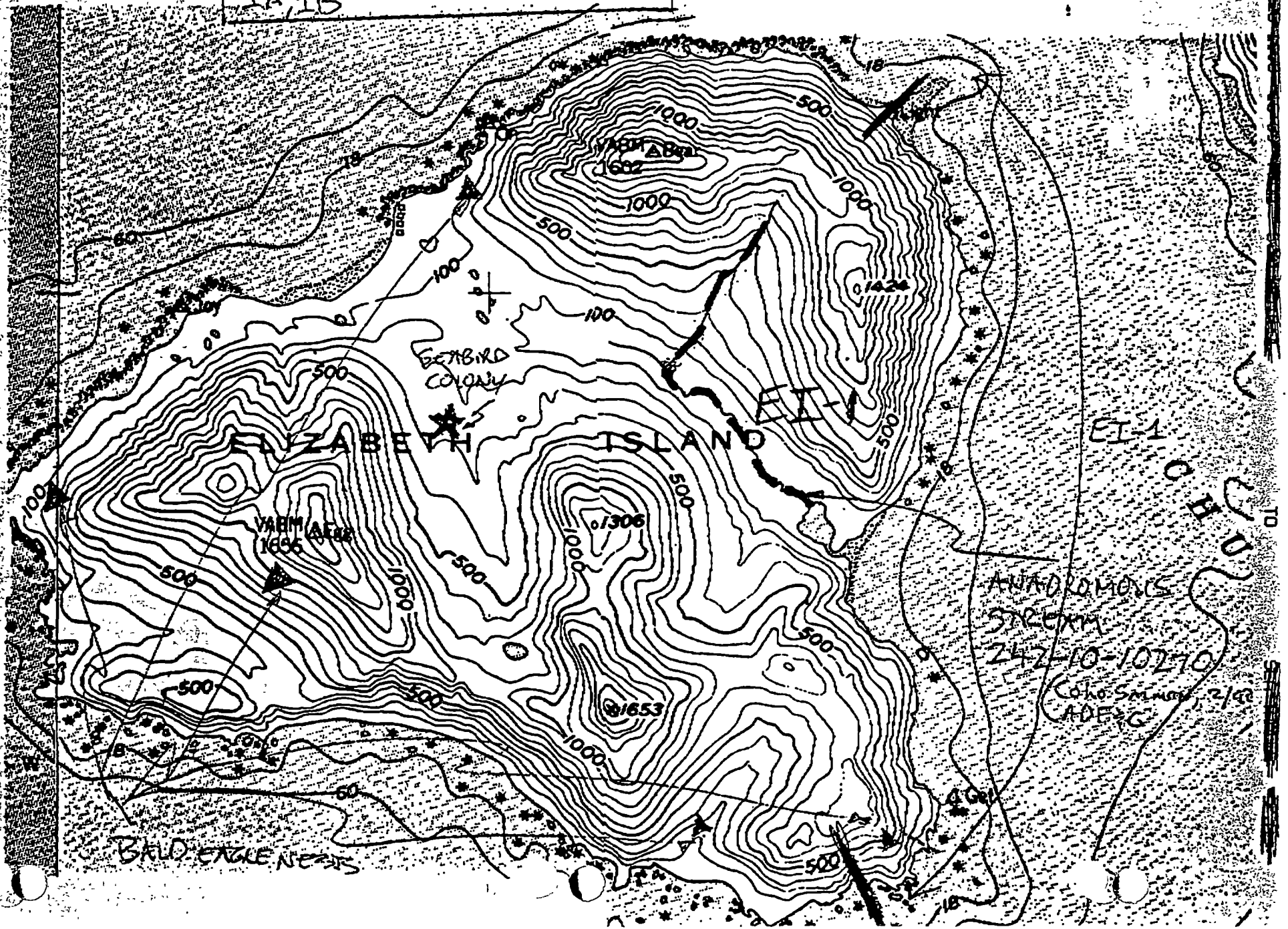
ACE 6896882

REVIEWED_____ DATE_____

ACE 10459491

ECOLOGICAL MAP – ELIZABETH ISLAND

ST(S)
SR – IN MIDDLE OF ISLAND
1A, 1B



ACE 10459492
ACE 6896889

ELIZABETH ISLAND (EI-01)

OG RICK TILLIE

SEGMENT ST/ EI-01

SUBDIVISION A-1 of 1

DATE 04/29/90

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

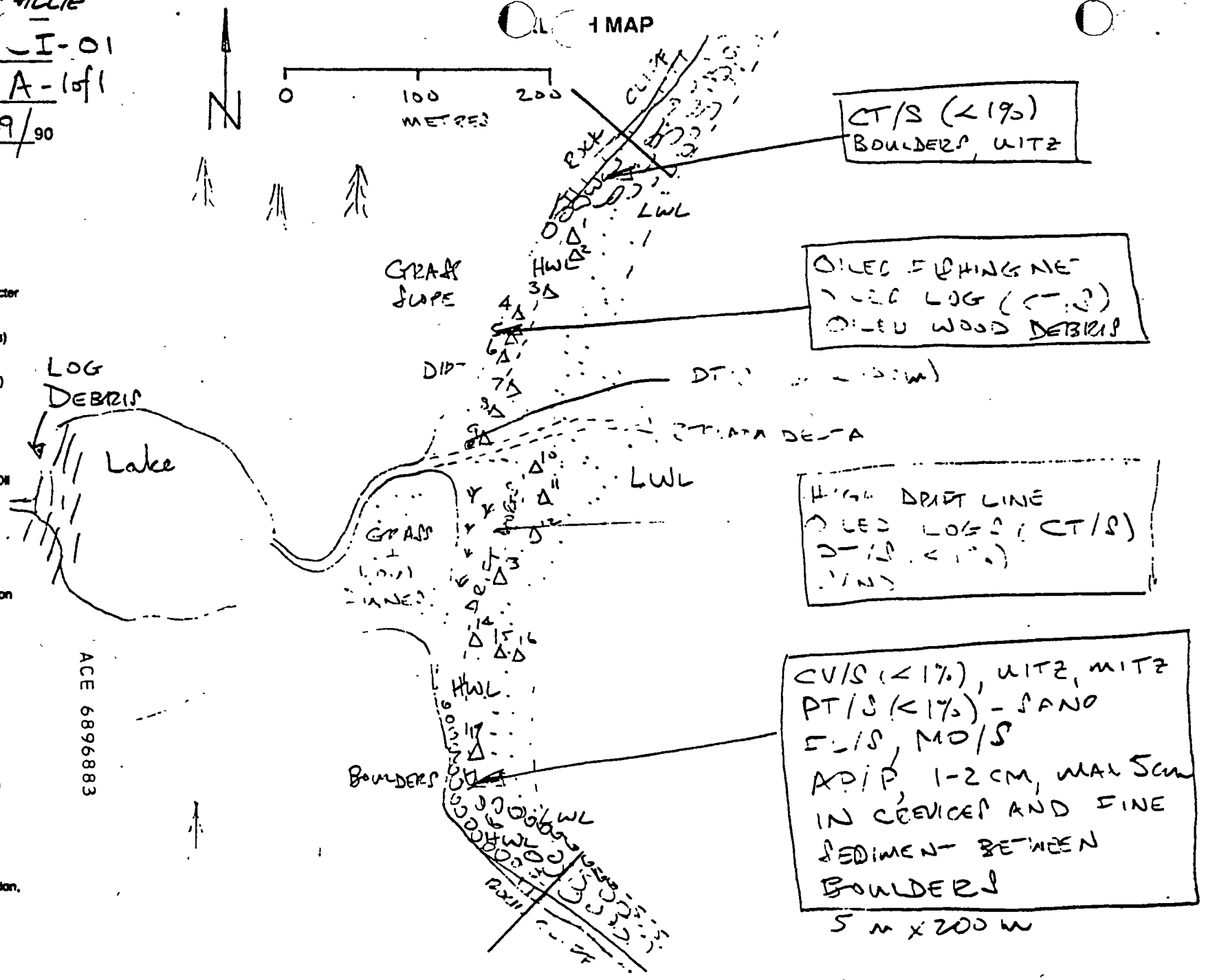
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

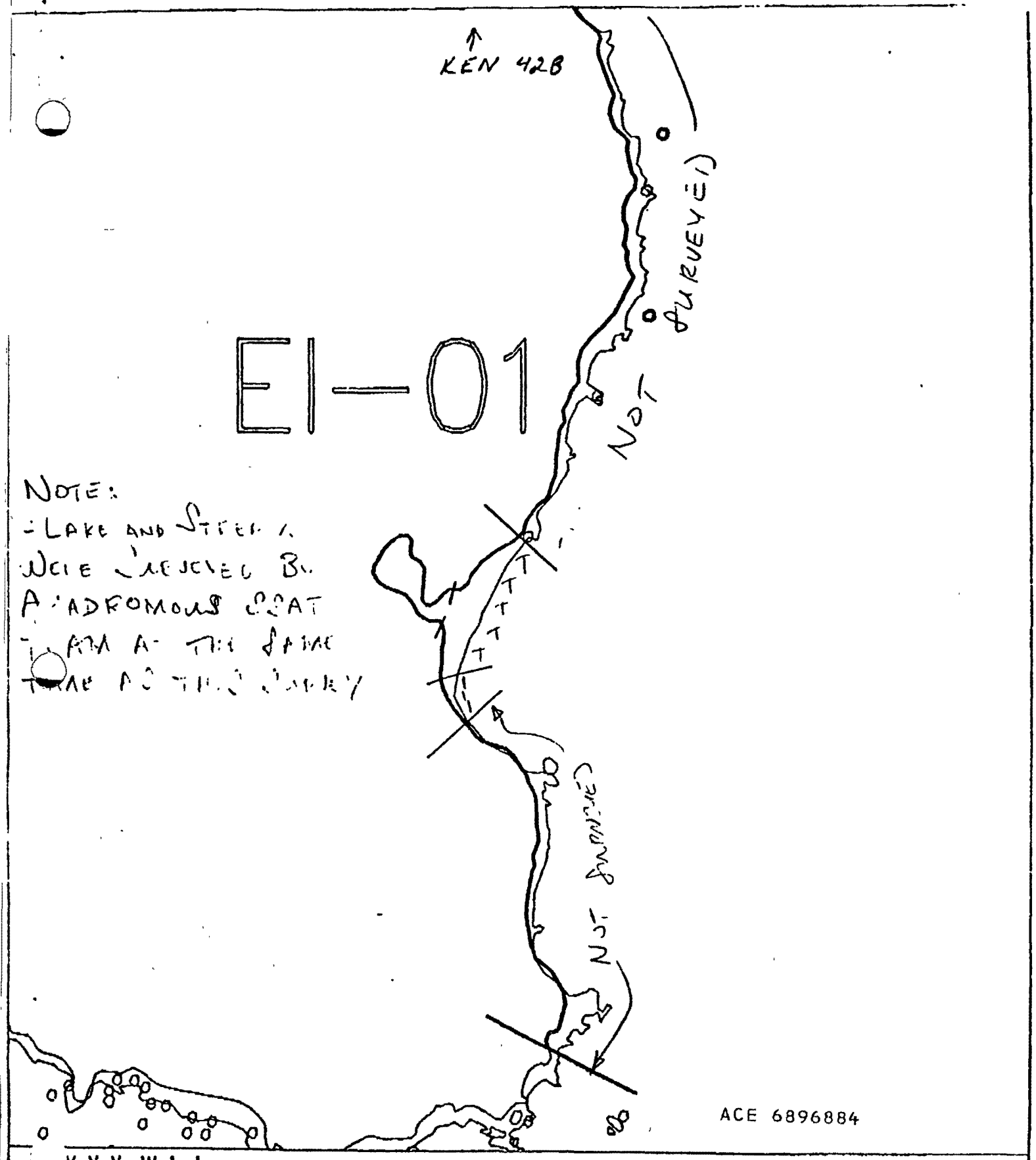
1 ●→ Photo location, direction, and number



Oil Character Length (m): AP 30 PO 0 CV 10 CT 30 ST 0 MS 20 PT 5 TB 0 FL 5 NO 700

REVISION:03/24/93

ACE 10459493



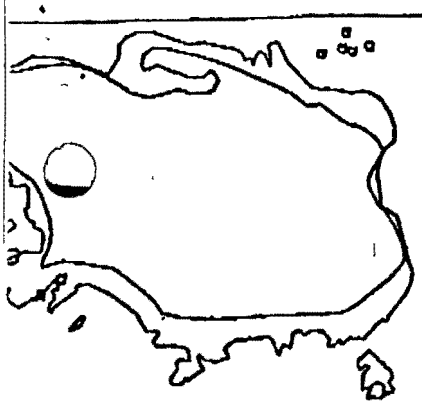
XXX Wide
/// Medium
---- Narrow
TTTT Very Light

EI-1

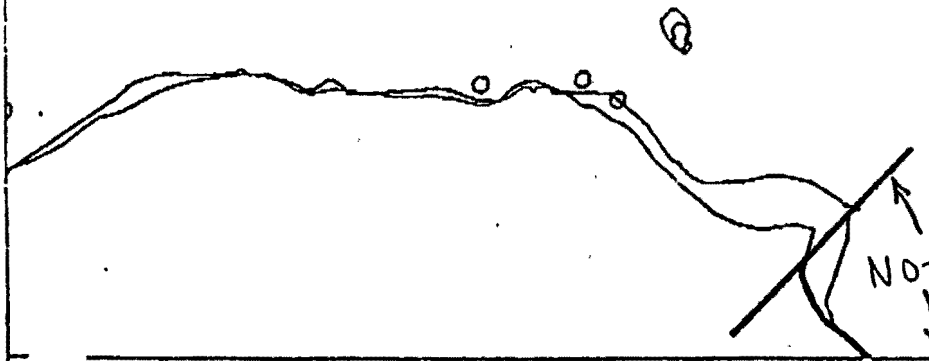
ADEC Segment Length: 5684m

0 300 600 900

Map Key: KEN-42a
Name: RICK GILLIE
Date: 04/29/90



CS-01



ACE 6896885

XXX Wide
/// Medium
---- Narrow
TTTT Very Light

EI-1

ADEC Segment Length: 5684m

0 900 6000 9000

Map Key: KEN-42b
Name: Rick Gillie
Date: 04/29/90

ACE 10459495

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03.22.90

Segment ST / ET 001 Subdivision A Date (mo / day / yr) 4-29-90

Time (24 hr) 12:00 Biologist David Lohse

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 15 (3) Cobble 20 (4) Pebble 20 (5) Sand 40 (6) Silt ____

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 10 Low 80

(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-13-6
Frames 11-13

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~~	
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	~~1M~~	(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:

See page 2

Ecological Considerations:

ACE 6896887

B - Stream 242-10-10270 : oil present - see OG report

5T: next location in part of segment not surveyed. Unable to confirm or deny its presence

5R - seabird colony in center of island. Unknown how far it is from

Shoreline Ecological Summary

Segment ST-EI001 Subdivision A 4-29-90

Biologist: David Lohse

Wildlife Observations / General Comments

1. Present in low intertidal: Epiactus, Alaria, unknown red algal "blade" (Iridea?) Kathrina tunicata, Ulva, Porphyra, Enteromorpha, Cladophora, coralline algae, Rhodomelia, Laminaria, Pycnopodia, Anthopleura

   mid intertidal: Endocladia, unknown red algal blade (Iridea?), Alaria, Halosaccion, unknown red algal "branch" (Rhodomenia?), Kathrina tunicata, Epiactus, Ralfsia, Porphyra, Pagurus, coralline algae, sculpins

2. Most of this segment was unsurveyed. Therefore, the abundances listed only on page 1 should be considered as rough estimates for the entire segment since few sites were actually censused.

3. 1 Land otter and several gulls were spotted in the area.

4. Algal cover in the low intertidal was ~75% on boulders (1 site) and ~90% on bedrock (1 site estimated).

5. Small section of surveyed portion of segment consisted of boulders in all 3 tidal zones virtually barren of barnacles, mussels, gastropods, and Fucus. Most of those that were present were found either on the protected sides of the boulders, or in cracks and crevices. Enteromorpha and Porphyra were abundant on these boulders.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 7 DATE PRINTED: 07/25/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 STREAM SURVEY METHOD: ~~GROUND~~ FOOT

DATE: 05/29/90 TEAM RECORDER: HILL

START TIME: 1245
END TIME: -0-

OBSERVERS: GLENN

TIDES: -0- Ebb
OG/HAB DISCREPANCIES: -

AGENCY: FG

PHOTOS TAKEN: Y

STATION: 2421010270

ROLL#: 90DDH011H
FRAME: 01-19

VIDEO TAKEN: Y TAPE#: 90LPG023H
START: 2844 END: 3657

SAMPLES TAKEN: - N

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: LOW SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE -0- VEGETAT -0-
GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: - U

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 10459498 4/5

ok

DATE PRINTED: 07/26/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 STREAM SURVEY
DATE: 05/29/90
TIMES: 1245 - -0-

LOCATION: ELIZABETH ISLAND

TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP SO HOR, OP

COMMENTS:
THE OILED PORTION OF THIS STREAM SEGMENT DOES NOT RECEIVE A THE HIGH WAVE ENERGY THAT THE BEACH DOES. WE REMOVED CLOSE TO 3 FIVE GALLON BUCKET LOADS OF OIL FROM THE STREAM BOTTOM (APPROX 10 YARDS UPSTREAM OF THE 90° BEND ON THE NORTH SHORE). THE OIL FOUND WAS A SOFT LIGHT BROWN LOW VISCOSITY MOUSSE FOUND IN 1-2' OF WATER. THE WATER LEVEL IS AS LOW AS WE'VE SEEN IT. WHEN WE LIFTED THE OIL TO THE SURFACE, HEAVY SHEENING OCCURRED ON THE WATER SURFACE AND ON THE SAND BEACH WHERE WE PLACED THE OIL PRIOR TO LOADING IT INTO BUCKETS (SHEEN WAS GRAY/BLUE IN COLOR). WE ALSO FOUND AN APPROX 20' LONG SEAM OF OIL BENEATH 2-6" OF SAND ON THE NORTH SHORE APPROX 10 YARDS ABOVE THE 90° BEND. TO OUR KNOWLEDGE THIS ~~WATER~~ OIL HAS BEEN ~~BURIED BY~~ beneath WATER AND SAND SINCE JULY OF 1989 (DATE OF OUR 1ST THOROUGH VISIT). THIS SEAM IS 2-3' WIDE AND PATCHY. SEAM THICKNESS VARIES FROM ½" TO 1½" THICK. THE SEAM WAS FOUND BY LOCATING A PATTY OR ON THE SURFACE (PATTY WAS APPROX 2½' LONG BY 1' WIDE). BALLS OF OIL-SATURATED SAND WERE OBSERVED ABOUT EVERY 4' ON THE DARK SAND ALONG THE STREAMS WEST SHORE SOME OF THESE BALLS OF SAND HAD A SHEEN EMANATING FROM THEM. IN FACT EVERY BALL OF SAND LYING NEAR OR IN A WET SPOT HAD A SHEEN AROUND IT. THE BALLS OF SAND IN POOLS OF WATER CREATED A SHEEN ON THE POOL SURFACE.

1-2' { One to two feet of water }

ACE 10459499

Seam of Mousse In Stream {Elizabeth Island Salmon Stream

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ~~AS~~ OSS DS TS AVS SCHA MHHS PTA 2 REGION: PWS (KP,CI) K,AP

OK

METHOD: Aerial (Ground) Boat

3 DATE: 5/29/90
4 START TIME: 1245
5 STOP TIME: _____
6 SEGMENT #: EI-1
7 STATION #: _____
8 K-UNIT: _____
9 STAT AREA: _____
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION: KI, OC, Elizabeth Island
14 DESCRIPTION: _____

15 HIGH TIDE TIMES: 0542 / 1915
16 HIGH TIDE HTS: 12.2 / 10.8
17 LOW TIDE TIMES: **** / 1221
18 LOW TIDE HTS: **** / -0.8
19 TIDE HT AT SURVEY: _____
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: 90DOHIIH Frame: 1 → 29
25 VIDEO TAKEN: (Y) N TAPE#: 90LP60234
Start: 2844 End: 3657
26 SAMPLES TAKEN? Y (N) Number
Oil _____
Sediment _____
Biological _____
Water _____

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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
MS TP AP SOR ST HOR, MOR

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: (High) Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____
Gravel 10 Sand 90 Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Elizabeth Island Creek
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: Beach Adjacent Creek
43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

The oiled portions of this stream segment does not recieve the high wave energy that the beach does.

COMMENTS: We removed close to 3 five-gallon bucket loads of oil from the Stream bottom --- ≈10 yds upstream of the 90° bend on the North shore. The oil found was a soft light brown low viscosity mousse-found in 1-2' of water. The water level is as low as we've seen it. When we lifted the oil to the surface heavy sheening occurred on the water surface & on the sand beach where we placed the oil prior to loading it into buckets (sheen was gray-blue in colors). We also found an approx. 20' long seam of oil beneath → over →

ACE 10459500 +15

46 PHOTOLOG

FRAME(S)	DESCRIPTION

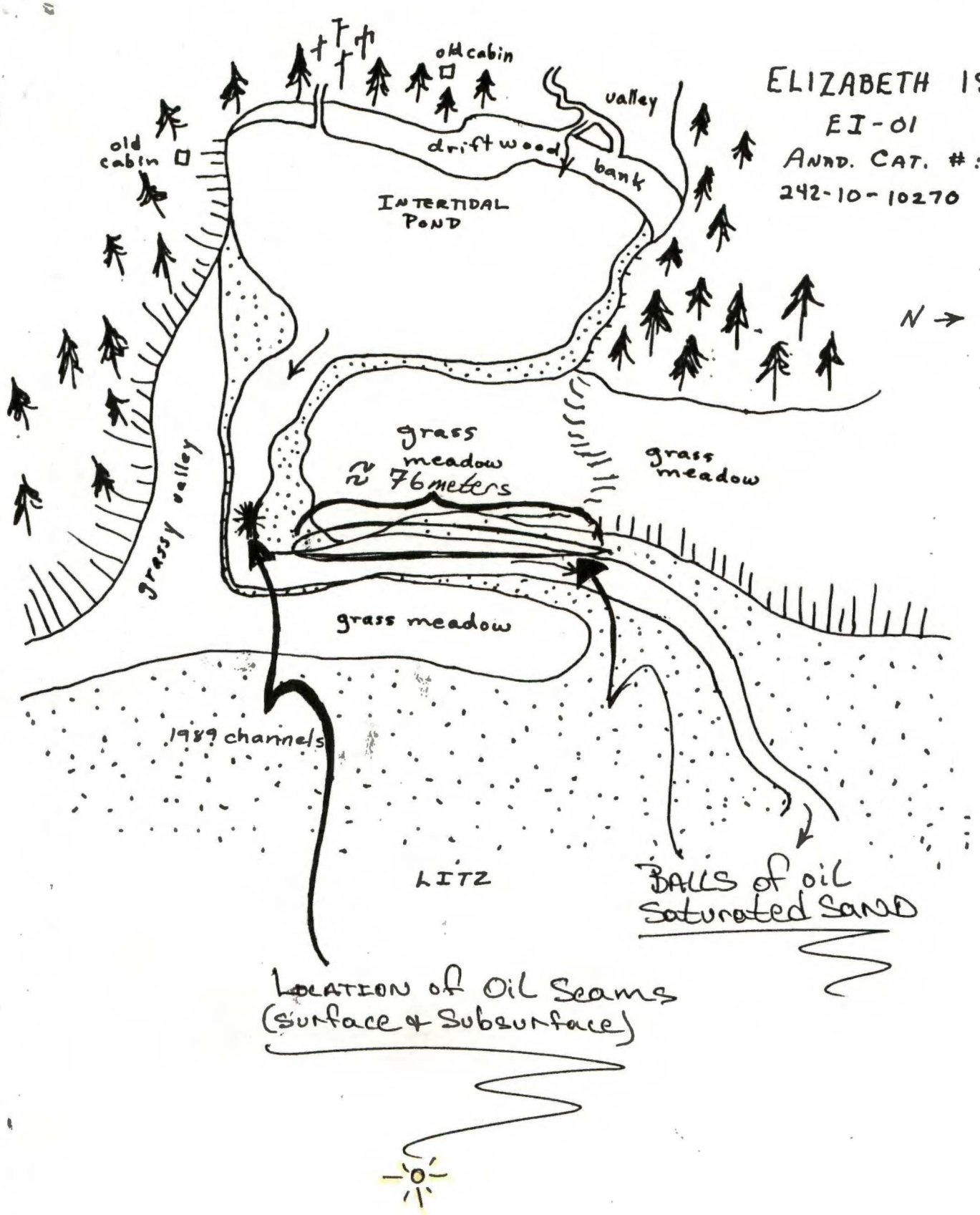
46 OIL DISTRIBUTION DIAGRAM

Comments cont'd =>
2-6" of sand on the north shore ≈ 10 yds above the 90° bend. To our knowledge this water has been buried by water & sand since July of 1989 (date of our 1st thorough visit). This seam is 2-3' wide and patchy. Seam thickness varies from ½" to 1½" thick. The seam was found by locating a patty on the surface (patty was approx: 2½' long by 1' wide).

Balls of oil saturated sand were observed about every 4' on the dark sand along the stream's west shore. Some of these balls of sand had a sh[illegible] emanating from them --- in fact every ball of sand lying near or in a wet spot had a sheen around it. The balls of sand in pools of water created a sheen on the pool surface.

= Sample taken
= Photo frame # and shot direction.

ACE 10459501



Seam of Mousse in Stream } Elizabeth Island Salmon Stream

ADF&G MULTI-ASSESSMENT DATA FORM

DNR 10/9/91

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 5/29/90
4 START TIME: 1245
5 STOP TIME:
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 9 15
11 LONG: 151 48 /
12 SOURCE: Map Loran
13 LOCATION: KI, OC, Elizabeth Island
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0542 / 1915
16 HIGH TIDE HTS: 12.2 / 10.8
17 LOW TIDE TIMES: **** / 1221
18 LOW TIDE HTS: **** / -0.8
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: 9000H11H Frame: 1→19
25 VIDEO TAKEN: (Y) N TAPE#: 90CP60234
Start: 2844 End: 3657
26 SAMPLES TAKEN? Y N Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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
Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH SREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Elizabeth Island Creek
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: Beach Adjacent Creek
43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459503 +S

The oiled portions of this stream segment does not recieve the high wave energy that the beach does.

COMMENTS: We removed close to 3 five-gallon bucket loads of oil from the stream bottom --- ≈10 yds upstream of the 90° bend on the North shore. The oil found was a soft light brown low viscosity mousse-found in 1-2' of water. The water level is as low as we've seen it. When we lifted the oil to the surface heavy sheening occurred on the water surface & on the sand beach where we placed the oil prior to loading it into buckets (sheen was gray-blue in color). We also found an approx. 20' long seam of oil beneath →

45 PHOTOLOG

FRAME(S)	DESCRIPTION

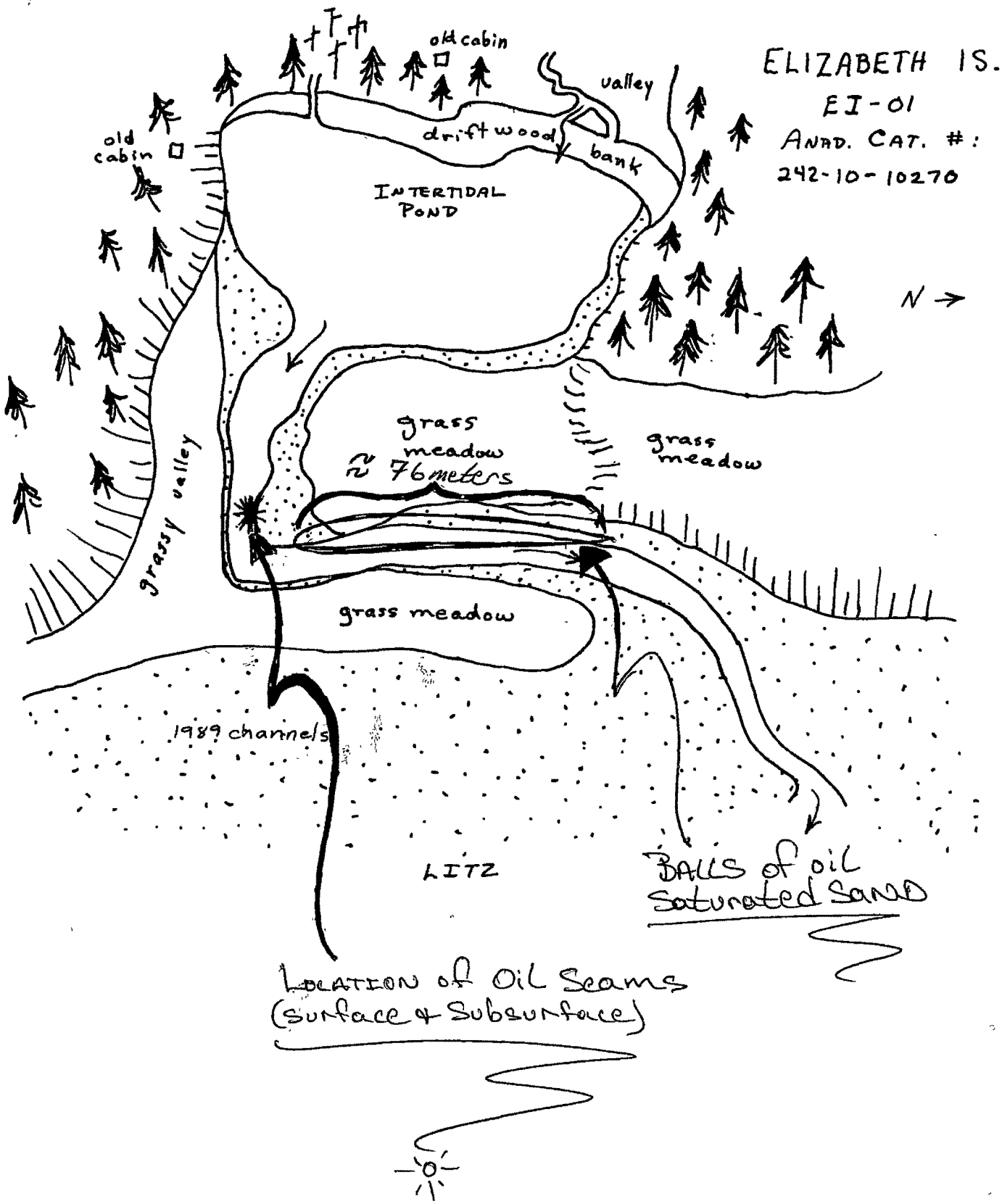
46 OIL DISTRIBUTION DIAGRAM

Comments cont'd =>
2-6" of sand on the north shore x 10 yds above the 90° bend. To our knowledge this (water) has been buried by water & sand since July of 1989 (date of our 1st thorough visit). This seam is 2-3' wide and patchy. Seam thickness varies from ½" to 1½" thick. The seam was found by locating a patty on the surface (patty was approx. 2½' long by 1' wide).

Balls of oil saturated sand were observed about every 4' on the dark sand along the stream's west shore. Some of these balls of sand had a sheen emanating from them --- in fact every ball of sand lying near or in a wet spot had a sheen around it. The balls of sand in pools of water created a sheen on the pool surface.

= Sample taken
= Photo frame # and shot direction.

ACE 10459504



ACE 10459505 - 15

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

DATE PRINTED: 07/25/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 STREAM SURVEY

METHOD: ~~GROUND~~ FOOT

DATE: 06/15/90

TEAM RECORDER: HILL

START TIME: 1200
END TIME: 1245

OBSERVERS: GLENN

TIDES: EBB

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: N

STATION: 2421010270

ROLL#: -0-
FRAME: -0-

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: HIGH

SHORELINE TYPE: BEACH LAGOON

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

GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: U

SPECIES:	COUNT:
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 10459506 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/26/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 STREAM SURVEY LOCATION: ELIZABETH ISLAND
DATE: 06/15/90
TIMES: 1200 - 1245 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP SO

COMMENTS:
ALTHOUGH THE WAVE ENERGY ARRIVING AT THE BEACH IS HIGH, THE MAJORITY OF THE STREAMS OILED AREA IS NOT AFFECTED BY THE WAVE ENERGY - THE OIL IS ABOVE THE SURF ZONE. NUMEROUS BALLS OF SAND SATURATED WITH OIL OBSERVED ON ~~SAND~~ SHORE OF WEST AND NORTH (100'S OF THEM). WALKED EAST AND SOUTH SHORE OF STREAM OBSERVING SMALL/THIN TARMATS UP TO 12" X 12" X ½" THICK. A FEW BLOBS OF MOUSSE AND DARK BLACK 'AP' LIKE OIL OBSERVED ALONG THE ENTIRE SOUTH SHORE PORTION. IF A CREW EVER COMES IN HERE TO WORK I'M SURE MORE OIL WILL TURN UP. FROM THE NORTH SHORE (ABOVE BEND) WE SHOVELED APPROX 60 POUNDS OF OIL/MOUSSE OUT OF THE CREEK AND INTO PLASTIC BAGS. THE OIL WE REMOVED FROM THE CREEK PREVIOUSLY IS NOW SEEPING OFF THE LOG AND INTO THE SAND - WE PUT THIS OIL IN THE BAG. MORE MOUSSE REMAINS IN CREEK. THERE IS PROBABLY MORE OIL BURIED BENEATH THE SAND/BANK IN THE CREEK (BURIED MOUSSE). LITTLE SEDIMENT IS VISIBLE IN THIS PEANUT BUTTER LIKE LIGHT CHOCOLATE BROWN MOUSSE.

Of, HOR

Were

the

E. Lizabeth Isl.
SALMON System

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA — 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

OK.

3 DATE: 6/15/90 — 16 HIGH TIDE TIMES: 0646 / 2004 — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1200 — 16 HIGH TIDE HTS: 9.7 / 10.6 — 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1245 — 17 LOW TIDE TIMES: 0055 / 1311 — 23 AGENCY: ADF&G

6 SEGMENT #: EI-1 — 18 LOW TIDE HTS: 3.4 / 0.7 — 24 PHOTOS TAKEN: Y (N)

7 STATION #: _____ — 19 TIDE HT AT SURVEY: _____ — Roll #: _____ Frame: _____

8 K-UNIT: _____ — (Ebb) Slack / Slack — 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: _____ — 20 USCG QUAD: _____ — Start: _____ End: _____

10 LAT: 59 9 15 — 11 LONG: 151 48 1 — 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran — Oil _____

13 LOCATION: Elizabeth Island, East Side — Sediment _____

14 DESCRIPTION: _____ — Biological _____

Water _____

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: _____

38 STREAM NAME: 242-10-10270

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 MS TY AP SOR SI HOR,MOR — 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 10 Sand 90 Mud/silt _____

COMMENTS: Although the wave energy arriving at the beach is high the majority of the streams oiled area is not affected by the wave energy - the oil is above the surf zone. Numerous balls of sand saturated with oil observed on sand of west and north (100's of them). Walked east & south shore stream observing small/thin tarmats up to 12" x 12" x ½" thick. A few blobs of mousse & dark black AC-like

ACE 10459508

over →

46 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

oil observed along the ~~entire~~ southshore portion. If a crew ever comes in here to work I'm sure more oil will turn up. North Shore (above bend) → shovelled approximately 60 pounds of oil (→ mousse →) out of the creek and into plastic bags. The oil we removed from the creek previously is now seeping off the log and into the sand --- we put this oil in the bag. More mousse remains in the creek. There is probably more oil buried beneath the sand/bank in the creek. Little sediment is visible in this peanut butter like light chocolate brown mousse.

Buried Mousse 12 FOR 19 IT CM

= Sample taken
= Photo frame # and shot direction.

Elizabeth Isl.
SALMON System

ADF&G MULTI-ASSESSMENT DATA FORM

Rpt 10 of 91

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 6/15/90
4 START TIME: 1200
5 STOP TIME: 1245
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION: Elizabeth Island, East Side
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0646 / 2004
16 HIGH TIDE HTS: 9.7 / 10.6
17 LOW TIDE TIMES: 0055 / 1311
18 LOW TIDE HTS: 3.4 / 0.7
19 TIDE HT AT SURVEY:
(Ebb) Slack / Slack
20 USCG QUAD:

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: Y (N)
Roll #: Frame:
25 VIDEO TAKEN: Y (N) TAPE#:
Start: End:
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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
Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH SREAM? (Y) N
37 CATALOG #:
38 STREAM NAME: 242-10-10270
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

ACE 10459510

COMMENTS: Although the wave energy arriving at the beach is high the majority of the streams oiled area is not affected by the wave energy - the oil is above the surf zone. Numerous balls of sand saturated with oil observed on sand of west and north (100's of them). Walked east & south shore stream observing small/thin tarmats up to 12" x 12" x ½" thick. A few blobs of mousse & dark black AC-like

over →

46 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

oil observed along the entire south shore portion. If a crew ever comes in here to work I'm sure more oil will turn up. North Shore (above bend) → shovelled approximately 60 pounds of oil (→ mousse →) out of the creek and into plastic bags. the oil we removed from the creek previously is now seeping off the log and into the sand --- we put this oil in the bay. More mousse remains in the creek. There is probably more oil buried beneath the sand/bank in the creek. little sediment is visible in this peanut butter like light chocolate brown mousse.

= Sample taken
= Photo frame # and shot direction.

ACE 10459511

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 34 DATE PRINTED: 08/14/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 CLEANUP - SS METHOD: ~~GROUND~~ FOOT

DATE: 07/02/90 TEAM RECORDER: HILL

START TIME: 1117 OBSERVERS: GLENN BERNARD
END TIME: 1220

TIDES: FLOOD SLACK EBB AGENCY: FG USCG
OG/HAB DISCREPANCIES:

PHOTOS TAKEN: N

STATION: 2421010270 ROLL#:
FRAME:

VIDEO TAKEN: Y TAPE#: 90LPG025H
START: 0001 END: 0353

SAMPLES TAKEN: N

SAMPLE NUMBERS:

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: HIGH SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK BOULDER COBBLE VEGETAT

GRAVEL 10 SAND 90 MUD/SILT GRANULE

ANADROMOUS FISH PRESENT: U

SPECIES: COUNT:

ACE 10459512 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 08/14/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 CLEANUP - SS
DATE: 07/02/90
TIMES: 1117 - 1220

LOCATION: ELIZABETH ISLAND

TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1									MS TP AP ST

COMMENTS:
BURIED MOUSSE. STREAM NARRATIVE EXISTS FOR 2421010270. CLEANUP CREW WAS AT ELIZABETH ISLAND OVER THE WEEKEND PRIOR TO THIS SURVEY DATE. WE FLEW OUT TO THE ELIZABETH ISLAND SALMON STREAM/LAKE TO SURVEY WHAT THE CREW HAD DONE. THE CREW PICKED UP BITS AND PIECES. THE CREW MISSED THE OIL IN THE GRASS ON THE STREAMS EAST SHORE. APPARENTLY THE CREW DID NOT EVEN ATTEMPT TO REMOVE THE OIL SATURATED BALLS OF SAND ON THE STREAM BOTTOM AND ON THE NORTH AND WEST SHORES OF THE CREEK. THESE BALLS OF OIL WERE FOUND PARTICULARLY IN THE VICINITY OF THE CREEKS 90° BEND AND DOWNSTREAM (100'S OF THEM FROM ¼" TO 4" X 4"). OIL/MOUSSE WAS FOUND 2' BENEATH CREEKS PRESENT WATER LEVEL 5 YARDS UPSTREAM OF THE 90° BEND. WE FOUND 100'S OF MOUSSE PATTIES IN THE LAKE FROM DIME SIZE TO 10" IN DIAMETER. THE LAKE WAS THE LOWEST WE'VE EVER SEEN IT. MATT TOLD US THAT HE FELT THERE WAS A SUFFICIENT QUANTITY OF OIL TO WARRANT THE DEPLOYMENT OF A CLEANUP CREW. TOM SCHROEDER (EXXON FISHERIES CONSULTANT) SAYS THAT "ELIZABETH ISLAND IS SUCH A SMALL RUN OF FISH WHY WORRY IT". IN OTHER WORDS ITS NOT A BIG MONEY PRODUCER. ADFG NEEDS TO BE INFORMED WHERE CLEANUP OPERATIONS WILL OCCURR SO THAT ADFG CAN BE PRESENT WITH ~~FOLKS~~ KNOWLEDGEABLE AS TO WHERE THE OIL IS.

personnel

DOH 8/29/91

Matt Bernard also took video

Elizabeth Island
Post "work" Survey
[?!?]
Cleanup
OK

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) (SS) DS TS AVS SCHA MHHS PTA   2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/28/90   15 HIGH TIDE TIMES: 1035 / 2300B   21 TEAM RECORDER: Doug Hill (ADF&G)

4 START TIME: 1117   16 HIGH TIDE HTS: 7.7 / 11.2   22 OBSERVERS: Lee Glenn (ADF&G)

5 STOP TIME: 1220   17 LOW TIDE TIMES: 0436 / 1556   23 AGENCY: MATT Bernard (USCG)

6 SEGMENT #: EI-1   18 LOW TIDE HTS: 2.0 / 4.5   24 PHOTOS TAKEN: Y (N)

7 STATION #:   19 TIDE HT AT SURVEY: Soldovia A-5   Roll #: Frame:

8 K-UNIT: (Ebb) Slack Flood Slack   25 VIDEO TAKEN: (Y) N TAPE#: 90LPG025H

9 STAT AREA: 20 USCG QUAD: Start: 0001 End: 0353

MATT Bernard also took video

10 LAT: 59 9 15   11 LONG: 151 48 1   26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran   Oil

13 LOCATION: Chugach Islands, Elizabeth Island   Sediment

14 DESCRIPTION: Lagoon/Lake, sandy beach/east side Island   Biological

EXTENT OF OIL   Water

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Elizabeth Island Creek

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)
MS TP AP ST OP

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

32 OILED DEBRIS? (Y) N

Where: Beach Adjacent stream Mouth

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

43 ANADROMOUS FISH PRESENT? Y (N)

34 WAVE EXPOSURE: (High) Moderate Low ← The oil in the Lagoon & stream above beach berm do not recieve Energy.

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

35 SUBSTRATE TYPE: Bedrock ____ Boulder ____ Cobble ____

Gravel 10 Sand 90 Mud/silt ____

Burial Mousse.
Stream Narrative exists for 242101027O.

ACE 10459514 H/S

COMMENTS: We recieved a message that a cleanup crew was at Elizabeth Island over the weekend prior to this survey date. We flew out to the Elizabeth Island Salmon stream/lake to survey what the crew had done. the crew picked up bits and pieces. The crew missed the oil on the grass on the streams east shore. Apparently the crew did not even attempt to remove the oil saturated balls of sand (over →)

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

Comments cont'd

on the stream bottom and on the north and west shores of the creek. These balls of oil were found particularly in the vicinity of the creeks 90° bend and downstream (100's of them from ¼" to 4"x4"). Oil/mousse was found 2' beneath the creeks ~~surface~~ present water level 5 yds aboat upstream of the 90° bend. We found 100's of Mousse patties in the lake from dime size to 10" diameter. The lake was the lowest we've ever seen it. Matt said he would pass the information on to Condr Reiter. Matt told us that he felt there was a sufficient quantity of oil to warrant the deployment of a cleanup crew. I'll be suprised if the USCG brings EI-1 up on their own after this survey.

Tom Schroeder (EXXON Fisheries Consultant) says that "Elizabeth Island is such a small run of fish why worry it" - in other word its not a big money producer.

ADF&G needs to be informed where cleanup operations will occur so that ADF&G can be present with folks knowledgeable as to where the oil is. This knowledge (of where the oil is) presence at the time the crew is on the beach will save resources, time, money and reduce conflict + mistrust of the parties involved.

The reduction in wasted resources is too important to be disregarded. Throwing money out as a sedative does in any way reduce or dismiss the problem which this spill symbolizes on world wide level--- I'm pretty sick of the Hollywood style show that Americans think can act as a cure when its only a poor see through bandaid.

PS sorry about the incoherency of the last few lines - but I think the message is clear

= Sample taken
= Photo frame # and shot direction.

Office Report

Elizabeth Island

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial Ground Boat

3 DATE: 7/1/90

4 START TIME: ~~_____~~

5 STOP TIME: ~~_____~~

6 SEGMENT #: EI-1

7 STATION #: _____

8 K-UNIT: _____

9 STAT AREA: _____

10 LAT: _____

11 LONG: _____

12 SOURCE: Map Loran

13 LOCATION: Chugach Islands, Elizabeth Island

14 DESCRIPTION: Lagoon-lake-sandy beach/east side island

15 HIGH TIDE TIMES: _____ / _____

16 HIGH TIDE HTS: _____ / _____

17 LOW TIDE TIMES: _____ / _____

18 LOW TIDE HTS: _____ / _____

19 TIDE HT AT SURVEY: _____

Ebb Slack Flood Slack

20 USCG QUAD: _____

21 TEAM RECORDER: Doug Hill

22 OBSERVERS: _____

23 AGENCY: ADF&G

24 PHOTOS TAKEN: Y N

Roll #: _____ Frame: _____

25 VIDEO TAKEN: Y N TAPE#: _____

Start: _____ End: _____

26 SAMPLES TAKEN? Y N Number

Oil _____

Sediment _____

Biological _____

Water _____

EXTENT OF OIL

	SHORELINE L	SHORELINE W	SHORELINE M^2	SHORELINE %	STREAM L	STREAM W	STREAM M^2	STREAM %
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 _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Isl. Creek

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: Beach Adjacent Stream mouth

43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

7/1

COMMENTS: A crew of four plus one ADEC representative from the M/V Yukon River worked the anadromous fish stream at Elizabeth Island. Jeff Fullard, USCG, and Charles Reed, ADEC, monitored the effort. The weather was rough so women were not taken to the beach and one outboard motor was damaged in the surf. Neither the stream, the lake nor the sandy beach on the north side of the stream were cleaned. ADF&G was given such short notice that no representatives were present during this operation. (Susan McLane, ADF&G-Homer Office Memo; Charles Reed, ADEC-Daily Assessment Form; ADF&G Homer-Office Log; Lee Glenn & Doug Hill, ADF&G).

ACE 10459516 -15

Elizabeth Island
Post "Work" Survey
E?!??

DOA 10/9/91

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/28/90
4 START TIME: 1117
5 STOP TIME: 1220
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION: Chugach Islands, Elizabeth Island
14 DESCRIPTION: Lagoon/lake, sandy beach/east side Island

15 HIGH TIDE TIMES: 1035 / 1008
16 HIGH TIDE HTS: 7.7 / 11.2
17 LOW TIDE TIMES: 0436 / 1556
18 LOW TIDE HTS: 2.0 / 4.5
19 TIDE HT AT SURVEY: Seldovia A-5
(Ebb) Slack Flood Slack
20 USCG QUAD:

21 TEAM RECORDER: Doug Hill (ADF&G)
22 OBSERVERS: Lee Glenn (ADF&G)
23 AGENCY: MATT Bernard (USCG)
24 PHOTOS TAKEN: Y (N)
Roll #: Frame:
25 VIDEO TAKEN: (Y) N TAPE#: 90LP6025H
Start: 0001 End: 0353
MATT Bernard also took video
26 SAMPLES TAKEN? Y N Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

The oil in the Lagoon & stream above beach berm do not recieve Energy

36 CATALOGED ANAD. FISH SREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Elizabeth Island Creek
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: Beach Adjacent stream Mouth
43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459517

COMMENTS: We recieved a message that a cleanup crew was at Elizabeth Island over the weekend prior to this survey date. We flew out to the Elizabeth Island Salmon stream/lake to survey what the crew had done. The crew picked up bits and pieces. The crew missed the oil on the grass on the streams east shore. Apparently the crew did not even attempt to remove the oil saturated balls of sand (over→)

46 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

Comments cont'd

on the stream bottom and on the north and west shores of the creek. These balls of oil were found particularly in the vicinity of the creeks 90° bend and downstream (100's of them from ¼" to 4"x4"). Oil/mousse was found 2' beneath the creeks ~~surface~~ present water level 5 yds aboal upstream of the 90° bend. We found 100's of Mousse patties in the lake from dime size to 10" diameter. The lake was the lowest we've ever seen it. Matt said he would pass the information on to Landr Reiter. Matt told us that he felt there is a sufficient quantity of oil to warrant the deployment of a cleanup crew. I'll be suprised if the USCG brings EI-1 up on their own after this survey.

Tom Schroeder (EXXON Fisheries Consultant) says that "Elizabeth Island is such a small run of fish why worry it" — in other word its not a big money producer.

ADF&G needs to be informed where cleanup operations will occur so that ADF&G can be present with folks knowledgeable as to where the oil is. This knowledge (of where the oil is) presence at the time the crew is on the beach will save resources, time, money and reduce conflict & mistrust of the parties involved.

The reduction in wasted resources is too important to be disregarded. Throwing money out as a sedative does in any way reduce or dismiss the problem which this spill symbolizes on world wide level---

I'm pretty sick of the Hollywood style show that Americans think can act as a cure when its only a poor see through bandaid.

PS sorry about the incoherency of the last few lines but I think the message is clear.

= Sample taken
= Photo frame # and shot direction.

ACE 10459518

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

DATE PRINTED: 07/25/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 STREAM SURVEY

METHOD: ~~GROUND~~ FOOT

DATE: 07/03/90

TEAM RECORDER: HILL

START TIME: 1925
END TIME: 2050

OBSERVERS: GLENN

TIDES: -0- FLOOD
OG/HAB DISCREPANCIES: -

AGENCY: FG

PHOTOS TAKEN: Y

STATION: 2421010270

ROLL#: 90DDH017H
FRAME: 18-28

VIDEO TAKEN: Y TAPE#: 90LPG025H
START: 1350 END: 1645

SAMPLES TAKEN: - No

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: M

SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE -0- VEGETAT -0-
GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: Y

SPECIES:		COUNT:	
-0-	COHO Fry	-0-	100
-0-		-0-	
-0-		-0-	
-0-		-0-	
-0-		-0-	

ACE 10459519 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/26/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 STREAM SURVEY LOCATION: ELIZABETH ISLAND
DATE: 07/03/90
TIMES: 1925 - 2050 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP SO

COMMENTS:
SALMON FRY SWIMMING NEAR OIL. OIL FOUND EASILY IN AND ON SAND O ECREEK SHORE. BLOBS OF LIGHT BROWN MOUSSE FOUND IN CREEK - PROBABLY BEING TRANSPORTED OUT OF LAKE TO LOWER CREEK. IT COULD ALSO BE COMING FROM SEAM OF MOUSSE ON INSIDE OF 90° BEND OR FROM SEAM OF MOUSSE AT BEACH (MOST ON SURFACE). NUMEROUS MOUSSE PATTIES FOUND IN EAST ½ OF LAKE (PUDDING LIKE CONSISTENCY - VERY PLIABLE). A FEW BLOBS OF MOUSSE FOUND ON GRAVEL BARS WHERE FEEDER CREEK ENTERS LAKE. LT. MATT BERNARD, DC-1 JEFF FULLARD, CADET L. BARIBEAU, USCG, AND GEORGE STILES (EXXON) FLEW TO ELIZABETH ISLAND AT 1530 HOURS. THEY PICKED UP 4 "FAIRLY FULL" BAGS OF OIL ALONG THE STREAM. THEY DEPARTED AT 1730 HOURS. AT 1925 HOURS LEE GLENN AND DOUG HILL, ADF&G, ARRIVED AT ELIZABETH ISLAND. THEY FOUND THAT OIL STILL HAD NOT BEEN CLEANED FROM THE BOTTOM OF THE STREAM OR LAKE. THE WATER LEVEL OF THE LAKE HAD DROPPED AND EXPOSED MORE OIL IN THE LAKE AND ON THE SAND BAR NEAR THE STREAM OUTLET. THEY OBSERVED WHERE THE COAST GUARD AND EXXON REPRESENTATIVES HAD WALKED THROUGH THE MOUSSE AND PUSHED IT DOWN ITO THE SOFT SEDIMENTS OF THE LAKE. THE CLEANUP ACTIVITY APPEARED TO BE CONFINED TO THE SANDY BEACH ON THE SOUTH SIDE OF THE STREAM. (SUSAN MCLANE, ADF&G - OFFICE MEMO; LEE GLENN, ADF&G - HOMER OFFICE LOG; DOUG HILL, ADF&G FIELD LOGBOOK & PHOTOS).

Elizabeth Island Oil Survey

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: ~~GS~~ SS DS TS AVS SCHA MMHS PTA — 2 REGION: PWS ~~KP,CI~~ K,AP OK

METHOD: Aerial (Ground) Boat

3 DATE: 7/3/90 — 16 HIGH TIDE TIMES: 1200 / 2211 — 21 TEAM RECORDER: Doug Hill

4 START TIME: 1925 — 16 HIGH TIDE HTS: 8.0 / 11.2 — 22 OBSERVERS: Lee Glenn

5 STOP TIME: 2050 — 17 LOW TIDE TIMES: 0450 / 1550 — 23 AGENCY: ADF&G

6 SEGMENT #: EI-1 — 18 LOW TIDE HTS: 2.0 / 4.5 — 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ — 19 TIDE HT AT SURVEY: _____ — Roll #: 900HIZH Frame: 18 > 28

8 K-UNIT: _____ — Ebb Slack Flood Slack — 25 VIDEO TAKEN: (Y) N TAPE#: 90KPG025H

9 STAT AREA: _____ — 20 USCG QUAD: Seldovia A-5 — Start: 1350 End: 1645

10 LAT: 59 9 15 — 11 LONG: 151 48 / — 26 SAMPLES TAKEN? Y N Number: salmon fry swimming near oil

12 SOURCE: Map Loran — Oil _____ comments

13 LOCATION: Chugach Islands, Elizabeth Island — Sediment _____

14 DESCRIPTION: Lagoon/beach east side of Island. — Biological _____

Water _____

EXTENT OF OIL

	SHORELINE L	W	M^2	%	STREAM 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) MS TB AP SOL ST HOR-MOR

32 OILED DEBRIS? (Y) N

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

34 WAVE EXPOSURE: (High) Moderate Low

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble _____ Gravel 10 Sand 90 Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Island Creek

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: Beach Adjacent Stream mouth

43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
PINK		VR
COHO Fry		100

COMMENTS: Oil found easily in & on sand of creek shores. Blobs of light brown mousse found in creek - probably being transported out of lake to lower creek - could also be coming from seam of mousse on inside of 90° bend or from seam at of mousse at beach (most on surface). Numerous mousse patties found in east ½ of lake (pudding-like consistency, very pliable). A few blobs (over)

ACE 10459521

46 PHOTOLOG

FRAME(S)	DESCRIPTION
18	Mousse in lake - dark brown inside / light outer coat
19	Mousse floating on lake surface
20, 21	Mousse; random steps reveal mobile mousse in lake
22, 23, 24	Mousse in lake, upper end of lake, near feeder stream
25, 26	Mousse in lake " bubbles on surface of patties make it easy to locate
27	Mousse in lake - near feeder stream
28	Mousse in lake - near lake outlet

46 OIL DISTRIBUTION DIAGRAM

of mousse found on gravel bars where feeder creek enters lake.

Lt. Matt Bernard, DC-1 Jeff Fullard, Cadet L. Baribeau, USCG, and George Stiles (Exxon) flew to Elizabeth Island at 1530 hours. They picked up 4 "fairly full" bags of oil along the stream. They departed at 1730 hours.

At 1925 hours Lee Glenn and Doug Hill, ADF&G, arrived at Elizabeth Island. They found that oil still had not been cleaned from the bottom of the stream or lake. The water level of the lake had dropped and exposed more oil in the lake and on the sand bar near the stream outlet. They observed where the Coast Guard and Exxon representatives had walked through the mousse and pushed it down into the soft sediments of the lake. The cleanup activity appeared to be confined to the sandy beach on the south side of the stream. (Susan McLane, ADF&G-Office Memo; Lee Glenn, ADF&G-Homer Office Log; Doug Hill, ADF&G-Field Logbook & Photos).

= Sample taken
= Photo frame # and shot direction.

Elizabeth Island Oil Survey

DNR 10/9/91

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MHHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/3/90
4 START TIME: 1925
5 STOP TIME: 2050
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION: Chugach Islands; Elizabeths Island
14 DESCRIPTION: Lagoon/beach east side of Island.

15 HIGH TIDE TIMES: 1200 / 2211
16 HIGH TIDE HTS: 8.0 / 11.2
17 LOW TIDE TIMES: 0450 / 1550
18 LOW TIDE HTS: 2.0 / 4.5
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: 900041214 Frame: 18 > 28
25 VIDEO TAKEN: (Y) N TAPE#: 90LPG025H
Start: 1350 End: 1645
SALMON fry swimming near oil

26 SAMPLES TAKEN? Y N Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Eliz. Island Creek
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: Beach Adjacent Stream mouth
43 ANADROMOUS FISH PRESENT? Y N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
COHO Fry		≈100

ACE 10459523

COMMENTS: Oil found easily in & on sand of creek shores. Blobs of light brown mousse found in creek - probably being transported out of lake to lower creek - could also be coming from seam of mousse on inside of 90° bend on item seam at of mousse at beach (most on surface) & Numerous mousse patties found in east ½ of lake (pudding-like consistency, very pliable) & A few blobs (over)

46 PHOTOLOG

FRAME(S)	DESCRIPTION
18	Mousse in lake - dark brown inside / light outer coat
19	Mousse floating on lake surface
20, 21	Mousse; random steps reveal mobile mousse in lake
22, 23, 24	Mousse in lake, upper end of lake, near feeder stream
25, 26	Mousse in lake !! bubbles on surface of patties make it easy to locate
27	Mousse in lake - near feeder stream
28	Mousse in lake - near lake outlet

46 OIL DISTRIBUTION DIAGRAM

of mousse found on gravel bars where feeder creek enters lake.

Lt. Matt Bernard, DC-1 Jeff Fullard, Cadet L. Baribeau, USCG, and George Stiles (Exxon) flew to Elizabeth Island at 1530 hours. They picked up 4 "fairly full" bags of oil along the stream. They departed at 1730 hours.

At 1925 hours Lee Glenn and Doug Hill, ADF&G, arrived at Elizabeth Island. They found that oil still had not been cleaned from the bottom of the stream or lake. The water level of the lake had dropped and exposed more oil in the lake and on the sandbars near the outlet. They observed where the Coast Guard and Exxon representatives had walked through the mousse and pushed it down into the soft sediments of the lake. The cleanup activity appeared to be confined to the sandy beach on the south side of the stream. (Susan McLane, ADF&G-Office Memo; Lee Glenn, ADF&G-Homer Office Log; Doug Hill, ADF&G-Field Logbook & Photos).

= Sample taken

= Photo frame # and shot direction.

Eliz. Island

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MHIS PTA — 2 REGION: PWS (P,C) K,AP

METHOD: Aerial Ground Boat

3 DATE: 7/5/90 — 15 HIGH TIDE TIMES: / — 21 TEAM RECORDER: Lee Glenn / Doug Hill

4 START TIME: — 16 HIGH TIDE HTS: / — 22 OBSERVERS: —

5 STOP TIME: — 17 LOW TIDE TIMES: / — 23 AGENCY: ADF&G

6 SEGMENT #: EI-1 — 18 LOW TIDE HTS: / — 24 PHOTOS TAKEN: Y N

7 STATION #: — 19 TIDE HT AT SURVEY: — Roll #: — Frame: —

8 K-UNIT: — Ebb Slack Flood Slack — 25 VIDEO TAKEN: Y N TAPE#: —

9 STAT AREA: — 20 USCG QUAD: Seldovia A-5 — Start: — End: —

10 LAT: 59 9 15 — 11 LONG: 151 48 1 — 26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran — Oil —

13 LOCATION: Chugach Islands, Elizabeth Island — Sediment —

14 DESCRIPTION: Lake-Creek-Sandy beach East Side Isl — Biological —

EXTENT OF OIL — Water —

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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

Rocks Beach Cove

36 CATALOGED ANAD. FISH SREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Isl. Crk

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: Beach Adjacent Stream mouth

43 ANADROMOUS FISH PRESENT? Y N

JULY 5, 1990

Lt. Matt Bernard, USCG, called Doug Hill requesting that he pick up Steve Ferguson, ADEC, and Jeff Fullard, USCG, and fly to Elizabeth Island to demobilize segment EI-1. Doug told Lt. Bernard that no oil appeared to have been picked up in the stream or the lake. More oil also remained on the shoreline that could have easily been removed. Lee Glenn stated ADF&G would not agree to demobilize EI-1.

Lee asked Matt Bernard why they didn't clean the oil from the stream and lake. Matt said neither the USCG or the EXXON crew had hip boots. Lee mentioned the oil had been tromped into the substrate by the Exxom-USCG crew (sheen was observed in many boot tracks) and requested that only two workers accompany ADF&G personnel to help clean the stream and lake. (Lee Glenn/Doug Hill, ADF&G-Homer Office Log).

45 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

= Sample taken
= Photo frame # and shot direction.

Conversation with USCG Monitor concerning Elizabeth Island creek.

Elizabeth Island

~~Exxon Valdez Oil Spill Restoration Projects~~

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS SS DS TS AVS SCHA MMHS PTA — 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial Ground Boat

3 DATE: 7/6/90 — 15 HIGH TIDE TIMES: / — 21 TEAM RECORDER: Doug Hill

4 START TIME: NA — 16 HIGH TIDE HTS: / — 22 OBSERVERS: Lee Gleason

5 STOP TIME: NA — 17 LOW TIDE TIMES: / — 23 AGENCY: ADF&G

6 SEGMENT #: EI-1 — 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#: ~~EVOS 11~~

9 STAT AREA: — 20 USCG QUAD: Seldovia A-5 — Start: ~~266~~ End: ~~2261~~

10 LAT: 59 9 15 — 11 LONG: 151 48 1 — 26 SAMPLES TAKEN? Y N Number

12 SOURCE: Map Loran — Oil

13 LOCATION: Chugach Islands, Elizabeth Island — Sediment

14 DESCRIPTION: Lake-Creek-Sandy beach East side island — Biological

EXTENT OF OIL — Water

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Isl. Creek

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: Beach Adjacent Stream mouth

43 ANADROMOUS FISH PRESENT? Y ? N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 10459527

COMMENTS: 7/6/90 Spoke With USCG Monitor Jeff Fullard at MMS Base Concerning Elizabeth Island. Jeff was informed by Lee Gleason (ADF&G) that a work only needs a Stream work permit for stream work when a crew is in the water. As there was some confusion whether or not the crew could legally be at Elizabeth Island. Fullard said the 7/1/90 crew picked up "about" 5 bags of oil from ~~Exxon~~ EI-1. They supposedly worked (over)

= Sample taken
= Photo frame # and shot direction.

the shore systematically--- picking up mousse and saturated balls of sand. ~~No women were on the job.~~ According to Fullard no women were on the job because of the heavy surf. ?!? The women remained on the berthing vessel. The crew worked one low tide. Matt Bernard (USCG) said the crew was on the beach til ≈ 1715 hrs and did pick up any oil from within the creek. The crew did pick up oil from the east side of the lake--- mostly they mucked the lake up by stomping oil into the sediment and making it harder to find & remove. As evidenced by the 7/20/90 survey the crew missed a lot of oil.

~~The oil to Elizabeth Island~~

The oil in the stream (above the beach berm) and lake does recieve the wave energy that bound the beach when the SE winds blow

46 OIL DISTRIBUTION DIAGRAM

FRAME(S) | DESCRIPTION

46 PHOTOLOG

ACE 10459528

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 10 DATE PRINTED: 07/25/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 STREAM SURVEY METHOD: ~~GROUND~~ FOOT

DATE: 07/07/90 TEAM RECORDER: HILL

START TIME: 0843 OBSERVERS: GLENN
END TIME: 0945

TIDES: -0- Ebb SLACK Flood AGENCY: FG
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: N

STATION: 2421010270 ROLL#: -0-
FRAME: -0-

VIDEO TAKEN: Y TAPE#: 90LPG025H
START: 2266 END: 3221

SAMPLES TAKEN: - N

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: H/M/L SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE -0- VEGETAT -0-
GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: Y

SPECIES:	COUNT:
-0- COHO	-0- 1
-0-	-0-
-0-	-0-
-0-	-0-
-0-	-0-

ACE 10459529 4/5

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/26/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 STREAM SURVEY
DATE: 07/07/90
TIMES: 0843 - 0945

LOCATION: ELIZABETH ISLAND

TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP SO OP, HOR

COMMENTS:
OBSERVED 1 DEAD COHO FRY. WE STAKED APPROXIMATELY 30 OILED AREAS IN THE LAKE WITH LATHING STICKS AND FLAGGING TAPE TO OUTLINE THE PERIMETER OF THE LAKES SUBMERGED OIL. WE PLAN TO RETURN TO LOCATE THE REST OF THE VISIBLE OIL IN THE LAKE. THESE STAKES WILL VARIFY WHETHER OR NOT OIL IS MIGRATING AROUND THE LAKE AND/OR DOWN THE STREAM.

VERIFY / INDICATE

ACE 10459530 -15

Elizabeth Island
1st staking trip

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) (SS) DS TS AVS SCHA MHHS PTA 2 REGION: PWS (KP,C) K,AP Okt

METHOD: Aerial (Ground) Boat

3 DATE: 7/7/90
4 START TIME: 0843
5 STOP TIME: 0945
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION:
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0177 / 1502
16 HIGH TIDE HTS: 12.5 / 10.1
17 LOW TIDE TIMES: 0821 / 2011
18 LOW TIDE HTS: -1.1 / 3.8
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN? Y (N)
Roll #: Frame:
25 VIDEO TAKEN: (Y) N TAPE#: 90LPG025H
Start: 2266 End: 3221
This tape is dated 7/6/90 on video Log
Correct date is 7/7/90
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water
update in videos

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Elizabeth Island Creek
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: Beach Adjacent Stream mouth
43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
COHO		1 dead Fry

COMMENTS: We staked approximately 30 oiled areas in the lake with lathing sticks and flagging tape to outline the perimeter of the lake's submerged oil. We plan to return to locate the rest of the visible oil in the lake. These stakes will verify whether or not oil is migrating around the lake and/or down the stream. We found on dead Coho fry

ACE 10459531

1 dead Coho fry observed

Elizabeth Island
1st staking trip

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,C) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/7/90
4 START TIME: 0843
5 STOP TIME: 0945
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION:
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0127 / 1502
16 HIGH TIDE HTS: 12.5 / 10.1
17 LOW TIDE TIMES: 0821 / 2011
18 LOW TIDE HTS: -1.1 / 3.8
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: Y (N)
Roll #: Frame:
25 VIDEO TAKEN: (Y) N TAPE#: 90LPG025H
Start: 2266 End: 3221
This tape is dated 7/6/90 on video log. Correct date is 7/7/90
26 SAMPLES TAKEN? Y N Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Elizabeth Island Creek
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: Beach Adjacent Stream mouth
43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
COHO		1 dead Fry

COMMENTS: We staked approximately 30 oiled areas in the lake with lathing sticks and flagging tape to outline the perimeter of the lake's submerged oil. We plan to return to locate the rest of the visible oil in the lake. These stakes will verify whether or not oil is migrating around the lake and/or down the stream. We found one dead Coho fry

ACE 10459532

45 PHOTOLOG

FRAME(S)	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM

= Sample taken

= Photo frame # and shot direction.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

DATE PRINTED: 07/25/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 STREAM SURVEY

METHOD: GROUND FOOT

DATE: 07/09/90

TEAM RECORDER: HILL

START TIME: 1209
END TIME: 1610

OBSERVERS: GLENN

TIDES: -0- FLOOD

AGENCY: FG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2421010270

ROLL#: 90DDH017H 90DDH018H
FRAME: 35-36 01-12

VIDEO TAKEN: -N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: -N

SAMPLE NUMBERS: -0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: HIGH

SHORELINE TYPE: BEACH LAGOON

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

GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: Y

SPECIES: PINKS/SALMON COUNT: 200

-0- -0-
-0- -0-
-0- -0-
-0- -0-

ACE 10459533 +/S

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/26/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 STREAM SURVEY
DATE: 07/09/90
TIMES: 1209 - 1610

LOCATION: ELIZABETH ISLAND

TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	MS TP AP SO

COMMENTS:
WE LOCATED, STAKED AND FLAGGED ABOUT 150-200 PATCHES OF OIL/MOUSSE. FOUND OIL ON THE WEST END OF THE LAKE WHERE FEEDER STREAM ENTERS LAKE (BLOBS OF MOUSSE). OIL IS DEFINITELY MIGRATING (PROBABLY WITH TIDAL INFLUX AND/OR STREAM CURRENT) AS SOME STAKES PLANTED ON THE 7TH HAVE NO OIL AROUND THEM. GEORGE STILES (EXXON CREW LEADER AT ELIZABETH ISLAND) FAXED A MESSAGE STATING THAT HE TOLD LT. MATT BERNARD, USCG, THAT HE DIDN'T FEEL EXXON SHOULD HAVE TO GO BACK TO EI001 BECAUSE BERNARD SAID "IT WAS GOOD THE LAST TIME I WENT". GEROGE NOTES THAT HE WAS FIRM WITH LT. BERNARD (THIS INFO IS DERIVED FROM ADF&G ELIZABETH ISLAND STREAM CHRONOLOGY).

Eliz. Island Lake
2nd oil staking

ADF&G MULTI-ASSESSMENT DATA FORM

OK

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/9/90 16 HIGH TIDE TIMES: 0251 / 1611 21 TEAM RECORDER: Doug Hill

4 START TIME: 1209 16 HIGH TIDE HTS: 12.9 / 10.8 22 OBSERVERS: Lee Glenn

5 STOP TIME: 1610 17 LOW TIDE TIMES: 0931 / 2129 23 AGENCY: ADF+G

6 SEGMENT #: EI-1 18 LOW TIDE HTS: -1.7 / 3.1 24 PHOTOS TAKEN: (Y) N

90DDH17H → 35,36.

7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: 90DDH18H Frame: 1→12

8 K-UNIT: _____ Ebb Slack Flood Slack 25 VIDEO TAKEN: Y (N) TAPE#: _____

9 STAT AREA: 32 20 USCG QUAD: _____ Start: _____ End: _____

10 LAT: 59 9 15 11 LONG: 151 48 1 26 SAMPLES TAKEN? Y (N) Number

12 SOURCE: Map Loran Oil _____

13 LOCATION: Chugach Islands, Elizabeth Island Sediment _____

14 DESCRIPTION: Lake/Creek/sandy beach east side Island Biological _____

EXTENT OF OIL Water _____

	SHORELINE L	SHORELINE W	SHORELINE M²	SHORELINE %	STREAM L	STREAM W	STREAM M²	STREAM %
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 _____

Gravel 10 Sand 90 Mud/silt _____

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10270

38 STREAM NAME: Eliz. Island Creek

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: Beach adjacent stream mouth

43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
Pink		200±

COMMENTS: We located, staked & flagged about 150-200 patches of oil/mousse. Found oil on the west end of the lake where feeder streamers enters lake (blobs of mousse). Oil is definitely migrating (probably with tidal influx +/or stream current) as some stakes planted on the 7th have no oil around them.

ACE 10459535

George Stiles (EXXON Crew Leader at Elizabeth Island) faxed (over)

48 PHOTOLOG

FRAME(S)	DESCRIPTION
35, 36; 10	Vein of lathing with attached flagging tape in lake
1	Random footfalls often make oil visible [illegible] sheen on boot depress
2, 3	Oil sheen on lake surface; sheen on sand surface common sight around lake
4, 5	Lathing with flagging attached to mark oil in lake - oil sheen on lake
6	Floating oil, Significant sheen coming off this patty
7,	Mousse being buried or uncovered, lake outlet
8	Large oil patty
9	lake, [illegible], staked & flagged
11, 12	Aerial of lathing & flagging in lake

46 OIL DISTRIBUTION DIAGRAM

a message stating that he told Lt. Matt Bernard, USCG, that he didn't feel EXXON should have to go back to EI-1 because Bernard said "it was good the last time I went." George notes that he was firm with Lt. Bernard (This info is derived from ADF&G Eliz. Island stream chronology)

= Sample taken

= Photo frame # and shot direction.

ACE 10459536

Eliz. Island Lake
2nd oil staking

DRM 10/9/91

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,C) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/9/90
4 START TIME: 1209
5 STOP TIME: 1610
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA: 3
10 LAT: 59 9 15
11 LONG: 151 48 1
12 SOURCE: Map Loran
13 LOCATION: Chugach Islands, Elizabeth Island
14 DESCRIPTION: Lake/Creek/sandy beach-east side Island

15 HIGH TIDE TIMES: 0251 / 1611
16 HIGH TIDE HTS: 12.9 / 10.8
17 LOW TIDE TIMES: 0931 / 2129
18 LOW TIDE HTS: -1.7 / 3.1
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD:

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
90DDH17H → 35,36.
Roll #: 90DDH18H Frame: 1→12
25 VIDEO TAKEN: Y N TAPE#:
Start: End:
26 SAMPLES TAKEN? Y N Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Eliz. Island Creek
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: Beach adjacent stream mouth
43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
Pink		200±

COMMENTS: We located, staked & flagged about 150-200 patches of oil/mousse. Found oil on the west end of the lake where feeder streamers enters lake (blobs of mousse). Oil is definitely migrating (probably with tidal influx &/or stream current) as, some stakes planted on the 7th have no oil around them.

ACE 10459537

George Stiles (EXXON Crew Leader at Elizabeth Island) faxed (over)

46 PHOTOLOG

FRAME(S)	DESCRIPTION
35, 36; 10	Vein of lathing with attatched flagging tape in lake
1	Random footfalls [illegible] make oil visible [illegible] on boot depressio[n]
2, 3	Oil sheen on lake surface; sheen on sand surface common sight around lake
4, 5	Lathing with flagging attatched to mark oil in lake - oil sheen on lake
6	Floating oil; Significant sheen coming off this patty
7,	Mousse being buried or uncovered, lake outlet
8	Large oil patty
9	Lake area, staked & flagged
11, 12	Aerial of lathing & flagging in lake

46 OIL DISTRIBUTION DIAGRAM

a message stating that he told Lt. Matt Bernard, USCG, that he didn't feel EXXON should have to go back to EI-1 because Bernard said "it was good the last time I went." George notes that he was firm with Lt. Bernard (This info is derived from ADF&G Eliz. Island stream chronology)

= Sample taken
= Photo frame # and shot direction.

ACE 10459538

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

DDM 10/9/91

STREAM#: 2421010270
SEGMENT: EI001

PAGE 1 DATE PRINTED: 08/23/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 90 STREAM SURVEY METHOD: ~~GROUND~~ FOOT

DATE: 07/12/90 TEAM RECORDER: HILL

START TIME: 1128
END TIME: 1743

OBSERVERS: GLENN

TIDES: -0- Ebb SLACK Flood
OG/HAB DISCREPANCIES: -

AGENCY: FG

PHOTOS TAKEN: Y

STATION: 2421010270

ROLL#: 90DDH020H
FRAME: 10-25

VIDEO TAKEN: Y TAPE#: 90LPG026H
START: 0088 END: 2919

SAMPLES TAKEN: - N

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: M

OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: H SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE -0- VEGETAT -0-
GRAVEL 10 SAND 90 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: Y

SPECIES: -0- PINK SALMON COUNT: -0-
-0- -0-
-0- -0-
-0- -0-
-0- -0-

END OF REPORT

ACE 10459539 +/s

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

OK

PAGE 1 DATE PRINTED: 08/23/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 90 STREAM SURVEY LOCATION: ELIZABETH ISLAND
DATE: 07/12/90
TIMES: 1128 - 1743 TEAM RECORDER: HILL

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	SURF	-0-	-0-	-0-	-0-	-0-	-0-	-0-	OP HOR

COMMENTS:
PINK FRY OBSERVED. WE PICKED UP THE VISIBLE OIL FROM THE STREAM BOTTOM, STREAM BANKS, LAKE SHORE AND LAKE BOTTOM. SOME OF THE OIL STAKED/FLAGGED ON PREVIOUS VISITS HAS MIGRATED WITH INCOMING AND OUTGOING TIDES, STREAM FLOW AND/OR HAS BEEN BURIED WITH KELP OR OTHER DEBRIS. AS OIL WAS NOT FOUND NEAR SOME STAKES AND OIL WAS FOUND IN AREAS WHERE PREVIOUSLY IT DID NOT EXIST. OBSERVED BALLS/PATTIES OF MOUSSE RANGING IN SIZE FROM 10" DIAMETER AND LESS. AS THE DAY WARMED, MORE OIL WAS VISIBLE IN THE STAKED AND UNSTAKED AREAS. OIL TENDED TO BECOME SHINIER AND BEGAN OOZING WITH INCREASED SUN. ALSO, WHEN I RETURNED TO AREAS COVERED WITH KELP THAT I HAD PICKED UP EARLIER, I FOUND MORE OIL PATTIES FLOATING ON THE WATERS SURFACE. OFTEN MY BOOTRACKS WERE FOUND FILLED WITH WATER, THE SURFACE OF THE WATER FREQUENTLY HELD GLOBULES OF OIL. WE PICKED UP 10-12 GALLONS OF, VISIBLY, NEARLY PURE MOUSSE FROM THE BOTTOM OF THE LAKE. WE REMOVED BALLS OF OIL SATURATED SAND FROM THE BEACH ALONG THE CREEK. MORE WILL TURN UP ALONG THE CREEK - FROM THE LAKE AND FROM WITHIN THE SUBSTRATE. THE PROPWASH OF THE HELO EXPOSES OIL FROM THE SAND BEACH. OIL WAS OBSERVED FLOATING IN THE LAKE (DARK BROWN MOUSSE). OBSERVED SOME MOUSSE GLOBULES BEHAVING LIKE ALKA SELTZER, WHEN IT ROSE TO THE SURFACE AFTER BEING DISTURBED IT DIFFUSED LIKE A SPARKLER AND ENDED IN A SHEEN (NO MOUSSE, ONLY SHEEN). LEE FILLED A SAMPLE JAR (~1 QUART) WITH MOUSSE FROM THE LAKE BOTTOM. THESE MOUSSE PATTIES WERE DARK BROWN AND POCKMARKED WHERE THE GASSES ESCAPED - BUBBLES ON THE OUTER SURFACE OF THE??????????. LEE GLENN, ADF&G, NOTIFIED LT. BERNARD THAT ADF&G WAS GOING TO START CLEANING OIL FROM THE STREAM AND LAKE AT ELIZABETH ISLAND.

Mousse
JDH
8/29/91

END OF REPORT

ACE 10459540 -5

Elizabeth Island

OK

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (EV) SS DS TS AVS SCHA MHHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/12/90
4 START TIME: 1128
5 STOP TIME: 1743
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT:
11 LONG:
12 SOURCE: Map Loran
13 LOCATION: Chugach Islands, Elizabeth Island
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0447 / 1947
16 HIGH TIDE HTS: 11.7 / 11.3
17 LOW TIDE TIMES: 1018 / 2341
18 LOW TIDE HTS: -.9 / 2.1
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF&G
24 PHOTOS TAKEN: (Y) N
Roll #: 90DOHZ04 Frame: 10 → 25
25 VIDEO TAKEN: (Y) N TAPE#: 90PG026H
Start: 0086 End: 2919
26 SAMPLES TAKEN? Y (N) Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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
MS TB AP ST SOA HOR, MOR
32 OILED DEBRIS? (Y) N
33 SHORELINE TYPE: Headland Low-lying Rocks (Beach) Cove (Lagoon) Marsh
34 WAVE EXPOSURE: (High) Moderate Low
35 SUBSTRATE TYPE: Bedrock Boulder Cobble Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Eliz. Island Creek
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: Beach Adjacent Streammouth
43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
Pink Fry		

PINK FRY OBSERVED

COMMENTS: We picked up the visible oil from the stream, stream banks, lakeshore + lake bottom. Some of the oil staked/flagged on previous visits has migrated with incoming + outgoing tides + stream flow and/or has been buried with kelp or other debris. As, oil was not found near some stakes and oil was found in areas where previously, it did not exist. Observed balls/patties of mousse ranging in size

ACE 10459541

over →

from 10" diameter and less.

As the day warmed more oil was visible in the staked and unstaked areas. Oil tended to become shinier and began oozing with increased sun. Also, when I returned to areas ~~.....~~ covered with kelp that I had picked up earlier, I found more oil patties floating on the waters surface. Often my bootracks were found filled with water, the surface of the water frequently held globules of oil.

We picked up 10 to 12 gallons of, visibly, nearly pure mousse from the bottom of the lake.

- We removed balls of oil saturated sand from the beach along the creek.
- More will turn up along the creek -- from the lake and from within the substrate. The propwash of the helo exposes oil from the sand beach.
- Oil was observed floating in the lake (dark brown mousse)
- Observed some mousse globules behaving like Alka Seltzer --> when it rose to the surface ~~upon dist~~ after being disturbed it diffused like a sparkler and ended in a sheen (No mousse only sheen)
- Lee filled a sample jar (≈ ½ quart) with mousse from the lake bottom (these mousse patties were dark brown and pockmarked ~~with~~ where the gasses escaped - bubbles on the outer surface of the

Lee Glenn, ADF&G, notified Lt. Bernard that ADF&G was going to start cleaning oil from the stream and lake at Elizabeth Island.

shot direction.
= Photo frame # and
= Sample taken

48 OIL DISTRIBUTION DIAGRAM

48 PHOTOLOG

FRAME(S)	DESCRIPTION
10,11,12,13,14,15,16	Scooping oil off ~~lake~~ bottom, Mousse deposit on bottom of stream
17	Subsurface oil deposit, oil/mousse beneath sand
18	Same as 17
19	Removing oil
20	One of numerous balls of oil in/around
21,22,23,24	Floating oil on lake surface from lake bottom, dissolving like Alka Seltzer

ACE 10459542

Elizabeth Island

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: (BS) SS DS TS AVS SCHA MHHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 7/12/90
4 START TIME: 1128
5 STOP TIME: 1743
6 SEGMENT #: EI-1
7 STATION #:
8 K-UNIT:
9 STAT AREA:
10 LAT:
11 LONG:
12 SOURCE: Map Loran
13 LOCATION: Chugbash Islands, Elizabeth Island
14 DESCRIPTION:

15 HIGH TIDE TIMES: 0447 / 1947
16 HIGH TIDE HTS: 11.7 / 11.3
17 LOW TIDE TIMES: 1018 / 2341
18 LOW TIDE HTS: -.9 / 2.1
19 TIDE HT AT SURVEY:
Ebb Slack Flood Slack
20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill
22 OBSERVERS: Lee Glenn
23 AGENCY: ADF+G
24 PHOTOS TAKEN: (Y) N
Roll #: 90AOH20H Frame: 10 → 25
25 VIDEO TAKEN: (Y) N TAPE#: 90PG026H
Start: 0086 End: 2919
26 SAMPLES TAKEN? Y N Number
Oil
Sediment
Biological
Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10 Sand 90 Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N
37 CATALOG #: 242-10-10270
38 STREAM NAME: Eliz. Island Creek
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: Beach Adjacent Streammouth
43 ANADROMOUS FISH PRESENT? (Y) N

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground
Pink Fry		

ACE 10459543

COMMENTS: We picked up the visible oil from the stream, stream banks, lakeshore & lake bottom. Some of the oil staked/flagged on previous visits has migrated with incoming & outgoing tides & stream flow and/or has been buried with kelp or other debris. As, oil was not found near some stakes and oil was found in areas where previously, it did not exist. Observed balls/patties of mousse ranging in size

(over →)

from 10" diameter and less.

As the day warmed more oil was visible in the staked and unstaked areas. Oil tended to become shinier and began oozing with increased sun. Also, when I returned to areas ~~staked~~ covered with that I had picked up earlier, I found more oil patties floating on the waters surface. Often my bootracks were found filled with ~~water~~, the surface of the water frequently held globules of oil.

We picked up 10 to 12 gallons of, visibly, nearly pure mousse from the bottom of the lake.

We removed balls of oil saturated sand from the beach along the creek. More will turn up along the creek -- - from the lake and from within the substrate. The propwash of the helo exposes oil from the sand beach.

- Oil was observed floating in the lake (dark brown mousse)
- Observed some mousse globules behaving like Alka Seltzer --> when it rose to the surface ~~upon dist~~ after being disturbed it diffused like a sparkler and ended in a sheen (no mousse only sheen)
- Lee filled a sample jar (≈ 1 quart) with mousse from the lake bottom (these mousse patties were dark brown and pockmarked ~~with~~ where the gasses escaped - bubbles on the outer surface of the

Lee Glenn, ADF&G, notified Lt. Bernard that ADF&G was going to start cleaning oil from the stream and lake at Elizabeth Island.

48 OIL DISTRIBUTION DIAGRAM

48 PHOTOLOG

FRAME(S)	DESCRIPTION
10,11,12,13,14,15,16	Scooping oil off ~~lake~~ stream bottom, Mousse deposit on bottom of stream
17	Subsurface oil deposit oil/mousse beneath sand
18	Same as 17
19	Removing oil [illegible]
20	One of numerous balls of oil in/around [illegible]
21,22,23,24	Floating Oil on lake surfaced from lake bottom, dissolving like Alka Seltzer

= Photo frame # and shot direction.

...ple taken

ACE 10459544 7C

The survey of the stream & lake was only preliminary.

MAYSAP - Elizabeth Island Creek

ADF&G MULTI-ASSESSMENT DATA FORM

ANAD

1) SURVEY TYPE: (SS) SS

METHOD: Aerial (Ground) Boat

2) REGION: PWS (KP,CI) K,AP

DRAFT 10/9/91

Duncan Fitzgerald (OG)

3) DATE: 5/11/91

4) START TIME: 0845

5) STOP TIME: 0950

6) SEGMENT #: E1-1

7) K-UNIT: _____

8) LAT: 59 9 15

9) LONG: 151 48 1

10) ASC #: 242-10-10270

11) STREAM NAME: Elizabeth Island Creek

12) LOCATION: KPOC, Elizabeth Island

13) WAVE EXPOSURE: (High) Moderate Low

14) SHORELINE TYPE: Headland Low-lying Rocks (Beach)

Cove (Lagoon) Marsh

16) HIGH TIDE TIME: 00:21 / 00:06

17) HIGH TIDE HTS: 17.1 / 16.0

18) LOW TIDE TIMES: 0645 / 1850

19) LOW TIDE HTS: 0.3 / 2.7

20) TIDE HT AT SURVEY: -.8 / .2

Ebb Slack Flood Slack

21) USCG QUAD: Seldovia A-5

22) TEAM RECORDER: Doug Hill (ADF&G)

23) OBSERVERS: Steve Ferguson (ADEC)

24) AGENCY: _____

25) PHOTOS TAKEN: (Y) N

See Photolog on opposite side

ROLL #: _____ FRAMES: _____

26) VIDEO TAKEN: Y (N)

TAPE # _____

START: _____ STOP: _____

27) SAMPLES TAKEN? Y (N)

SAMPLE I.D. _____

28) EXTENT OF OIL

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

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

M = >6m band with ≤ 50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage

(L) = <3m band with >10% oil coverage

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: (Y) N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel ____ Sand ____ Cobble ____ Mud/Silt ____

33) ANADROMOUS FISH PRESENT: Y ? N

prj.

34) WILDLIFE OBSERVATION

Species	Number
Bald Eagles	(2) Adult
River otter tracks	

35) COMMENTS: All oil observed was not picked up as the EXXON Rep. OG has stated in the comments section of the oiling Summary sheet. Only the beach portion of this segment had a VALID survey - the north shore of the creek to the lake was briefly looked at. The lake/creek water level was too high to conduct a thorough (valid) survey. Aerated sediment was observed on the bank from the beach to the lake. Small (¼"x¼") balls of oil saturated sand was easily observed on the bottom of the creek just above the beach berm (North/south flowing portion). ACE 10459545 +P

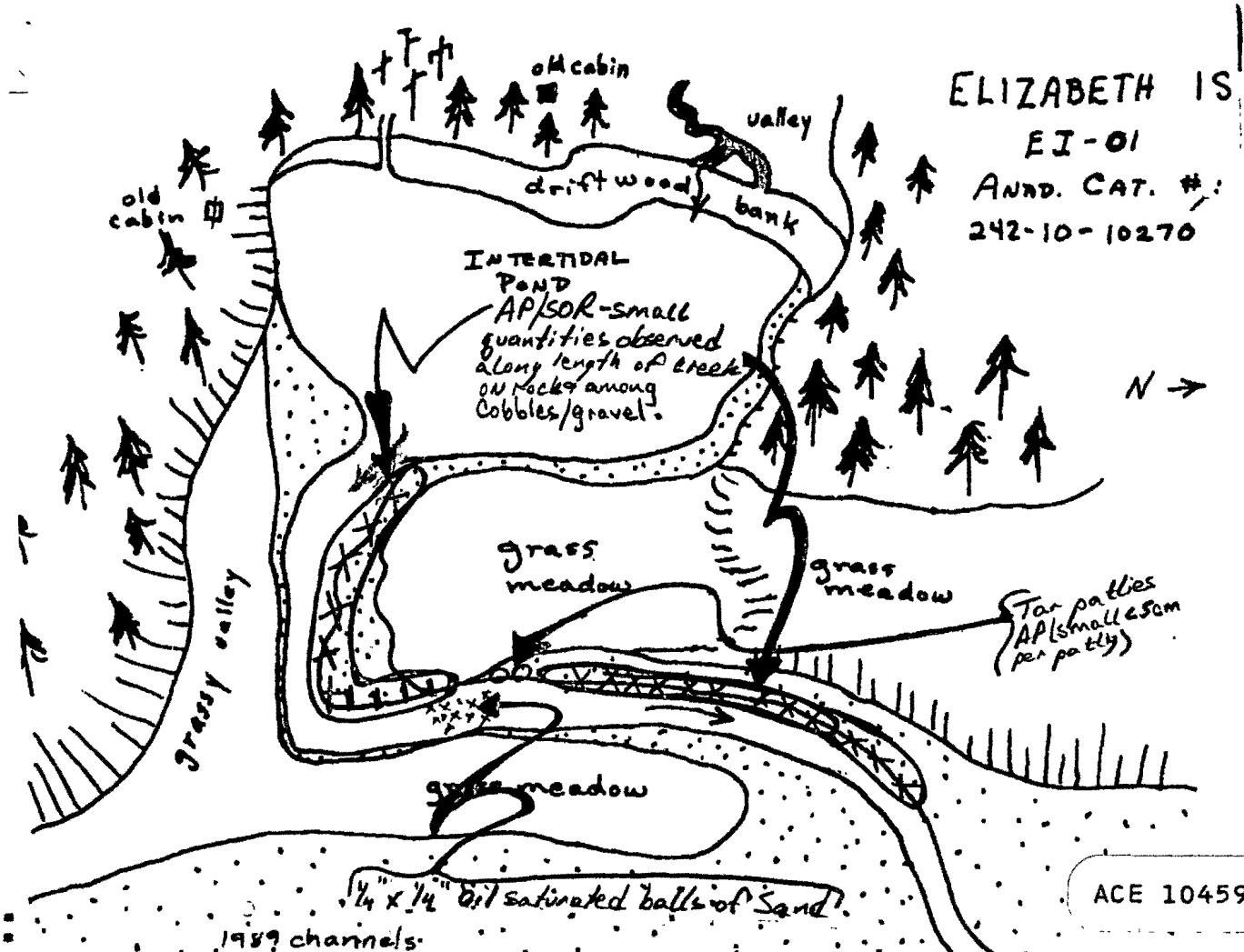
CT or ST is all that was found on the beach portion of this segment

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	See Photo location map of Maxrae Survey. Gary Shigenaka of NOAA Took photos – Roll # 6-11, Frame 6 thru 11.
! ★ !	Rex Coulter (EXXON), PSC Jensen (USCG) agreed that this survey would only be a Preliminary Survey of the stream + lake due to the high water level.

Comments Cont'D: The stream lake should be looked at in July when the water level will probably be lower.

The bucket (≈ 4 gallons worth) and bag (≈ 40 pds) of mousse left from 1990 were retrieved and brought to town: this mousse was retrieved in the form of patties Lee + I found scattered throughout the east end of the lake. These patties contained little sediment. The creek portion surveyed is Approx. 1000' feet long



ACE 10459546

OATFO
April 3, 1991

EXXON MAYSAP

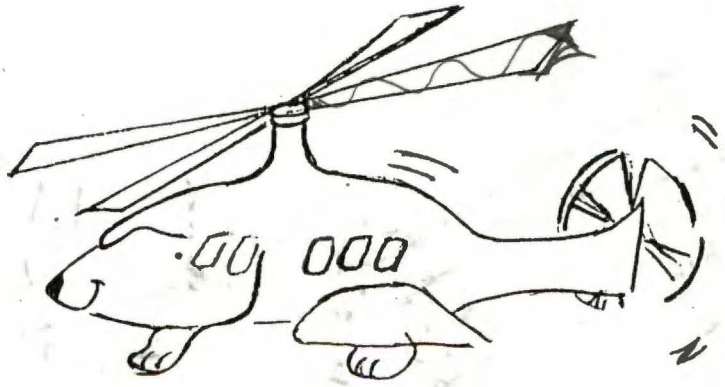
May Shoreline Assessment Program

1991

SEGMENT: EI-1

SUBDIVISION: A

DATE: 11 MAY 1991



Team # 6 Pumas

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-H&O SEGMENT EI-1 SUBDIVISION A DATE 11/May/91

ADEC
NAME Doug Hill (ADFG) SIGNATURE Douglas D Hill

☐ NTR ☒ TR A valid survey was conducted only on the beach portion of this segment. A valid and thorough survey of the anadromous fish system within segment EI-1 was not conducted due to an excessive water level. I would recommend No treatment on the beach portion of this segment. With regards to the Anadromous system, in "89 + 90" the water level did not drop to a point where the majority of the oil could be observed and removed until July. Oil has been observed throughout the lake and stream in the form of MS, TB, TP, ST, CT, CV, AP. A proper survey can not be conducted until the water level drops. Nonetheless, a preliminary survey of the North shore of the creek up to the lake was conducted on this date. Oil in the form of TB, AP, CV, CT + ST was observed within the stream and on the bank from the beach up to the lake (oil in "small quantities"). Treatment recommendation(s) can not be made until a valid survey is conducted of the anadromous portion. In 1989 + 1990 tarballs + patties with little sediment were found in the lake and stream. (both)

EXXON
NAME R. Coulter SIGNATURE Rex R. Coulter

☑ NTR WE REMOVED EVERYTHING WE FOUND HERE. THE TAR PATTIES WERE COMPOSED OF PRIMARILY FINE GRAIN SEDIMENTS WITH VERY LITTLE WEATHERED OIL HOLDING THEM TOGETHER. WE DID FIND ONE SMALL (12-15 cm²) PATTY WHICH WAS SOFT, "MOUSSEY" AND PLIABLE. IT ALSO CONTAINED A VERY HIGH PERCENTAGE OF SEDIMENTS. ADEC REP. INDICATED THAT IT WAS SIMILAR TO THOSE THAT WERE UNDERWATER IN THE SMALL POND. EVERYTHING WAS VERY WEATHERED. CONSIDERING THAT THE POND BOTTOM APPEARS TO BE COMPOSED OF VERY FINE GRAIN SEDIMENTS, REMOVAL (OR ATTEMPT AT REMOVING) OF ANY PATTIES FOUND WOULD BE DIFFICULT AND PROBABLY FORCE SEDIMENT FINES INTO THE WATER COLUMN.

LANDMANAGER
NAME JEFF JOHNSON OF ADNR SIGNATURE

☐ NTR Was not on the survey team for this survey. However, I was briefed by Steve Fergusson (DEC) and Doug Hill (ADF+G). Having worked with Doug and Steve on other surveys, I will concur with Hills' comments. I will not be able to make a treatment recommendation until the small tidal lagoon is able to be surveyed.

USCG/NOAA
NAME JENSEN / G. SHIGENAKA SIGNATURE Glenn B Jensen / Gary Shigenaka

☐ NTR "NTR" on beach part of this segment. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again. Walked up the Anadramous stream to the mouth of the lake but didn't complete the survey of the lake due to the high water level. Found a few very small mousse patties along bank. Water clear in stream and mouth of lake. I wouldn't recommend any cleanup if the rest of the lake banks continue to be similar to what we observed.

SEGMENT IS BISECTED BY ANADROMOUS STREAM FLOWING DOWN FROM NEARBY SMALL LAKE. TO THE NORTH OF THE STREAM, THE BEACH IS A PEBBLE-GRANULE BEACH THAT BECOMES ROCKIER TO THE NORTH. NO OIL WAS OBSERVED NORTH OF THE STREAM. SOUTH OF THE STREAM, THE BEACH IS CHARACTERIZED BY BOULDERS. A FEW SMALL PATCHES OF COAT WERE OBSERVED ON SHOREWARD FACES OF BOULDERS BUT THESE WERE MINOR OCCURRENCES. TIME AND WEATHER PERMITTED EXAMINATION OF THE STREAM BANK (PARTICULARLY ON THE NORTH SIDE) AND THE EDGE OF THE LAKE. PATCHES OF WEATHERED MOUSSE AND MOUSSE/SAND CONGLOMERATES WERE OBSERVED ALONG THE STREAM AND REMOVED BY VECO CREW. (PREVIOUSLY COLLECTED OILED DEBRIS ALSO REMOVED BY VECO CREW). ALTHOUGH THIS AREA STILL CONTAINS OIL, FURTHER REMOVAL BEYOND SIMPLE MANUAL PICKUP WOULD LIKELY BE HIGHLY DISRUPTIVE.

ACE 10459548

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 6-Helo

OG D. FitzGerald BIO H. Davis

ADEC S Ferguson LANDMANAGER D. Hill ADF&G // R. McCampbell for ADNR

EXXON R. Coulter USCG/NOAA PSC Jensen / 6. SHIGENAKA

SEGMENT EI-1

SUBDIVISION A

DATE 11 / MAY / 91

TIME 8 : 45 to 9 : 50 TIDE LEVEL -.8 ft. to +.2 ft. ENERGY LEVEL: [X] H [ ] M [ ] L

SURVEYED FROM: [X] FOOT [ ] BOAT [ ] HELO WEATHER: [ ] SUN [X] CLOUDS [ ] FOG [ ] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1638 m NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W ____ m M ____ m N ____ m VL 351 m NO ____ m US 1287 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	WIDTH m	LENGTH m	S	UI	MI	LI	
A							T				BR	V	1	1	X				Drips on vertical face
B						T	T				BR-B	V-H	2	150	X	X			In sheltered areas + cracks
C			T			T					S-P-C	L	1	200		X			Along creek bank

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

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

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									

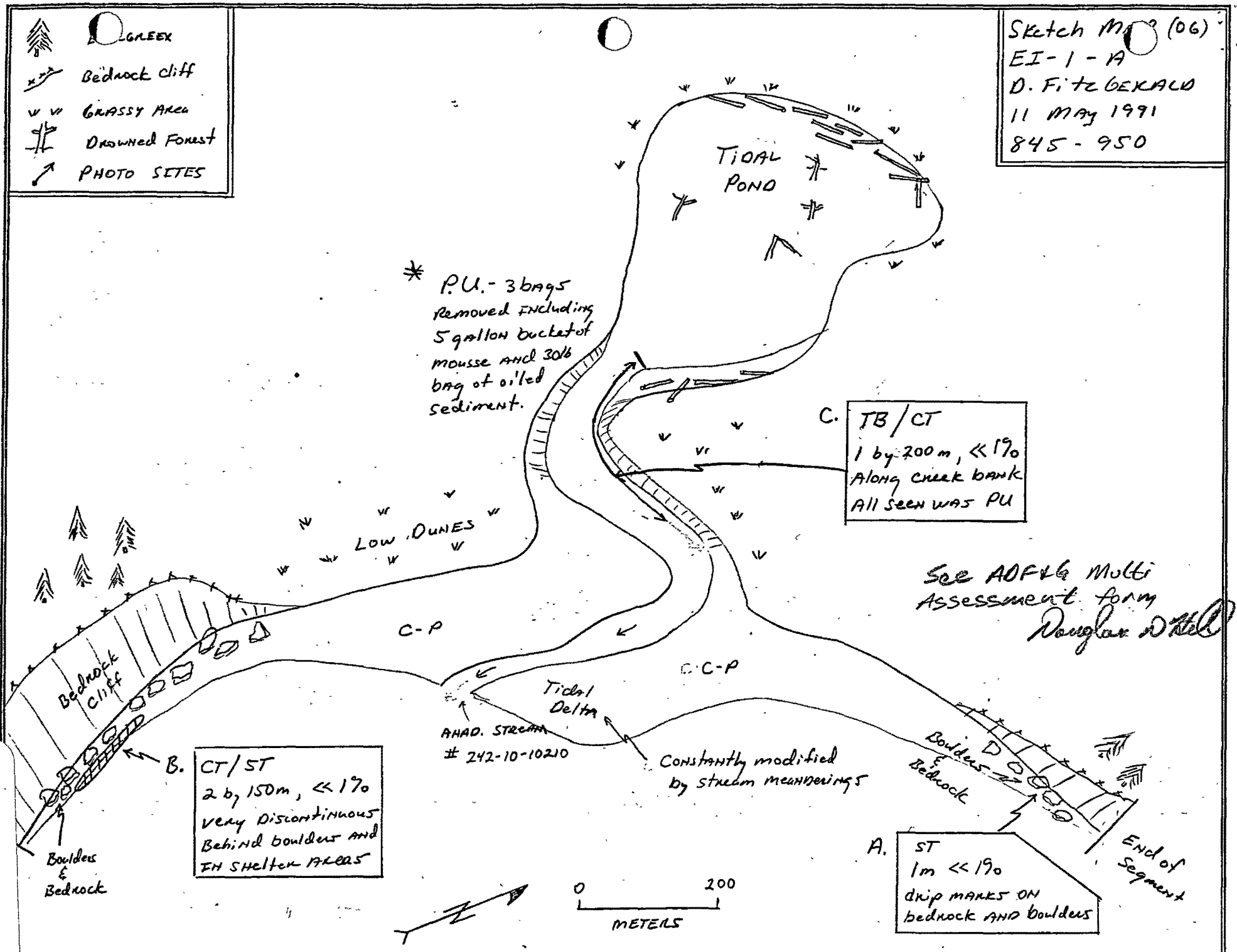
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: Site is a pocket sand, pebble, cobble beach with boulders and bedrock outcrops toward the headland areas. In the center of the beach an anadromous stream drains a nearby shallow pond. Oiling of this beach consists of 1. stains on vertical bedrock at the northern end of beach, 2. very sporadic coats and stains along 150m length shoreline in cracks of bedrock and boulders, and 3. some infrequent tar patties along the creek bank and channel. For the most part, these patties have a very high sediment content. All the patties found by the team were picked up. In addition, a pail (5gal.) of oil and bag of oiled sediment left behind by a former clean up effort were removed.

ACE 10459549

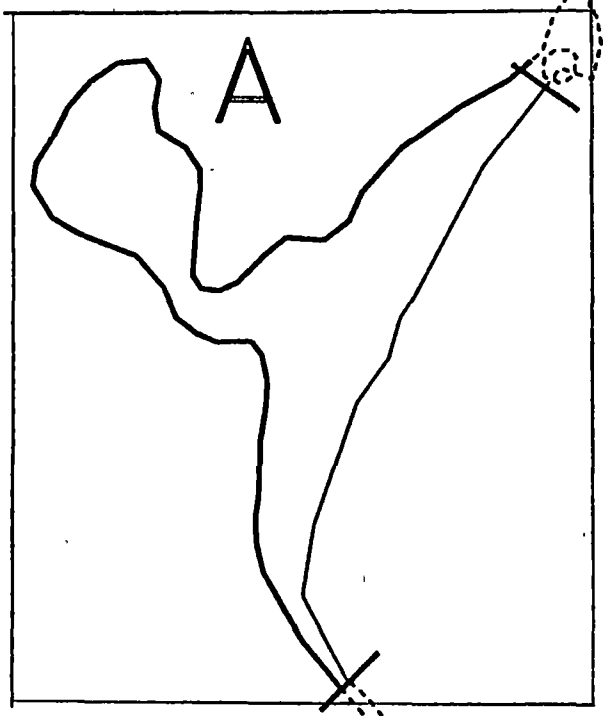
SEE ADF&G Multi Assessment form

Douglas D Hill



ACE 10459550

MAP # 1



EXXON

EI001 A

METERS

0 200 400

AK State Plane Zone 4

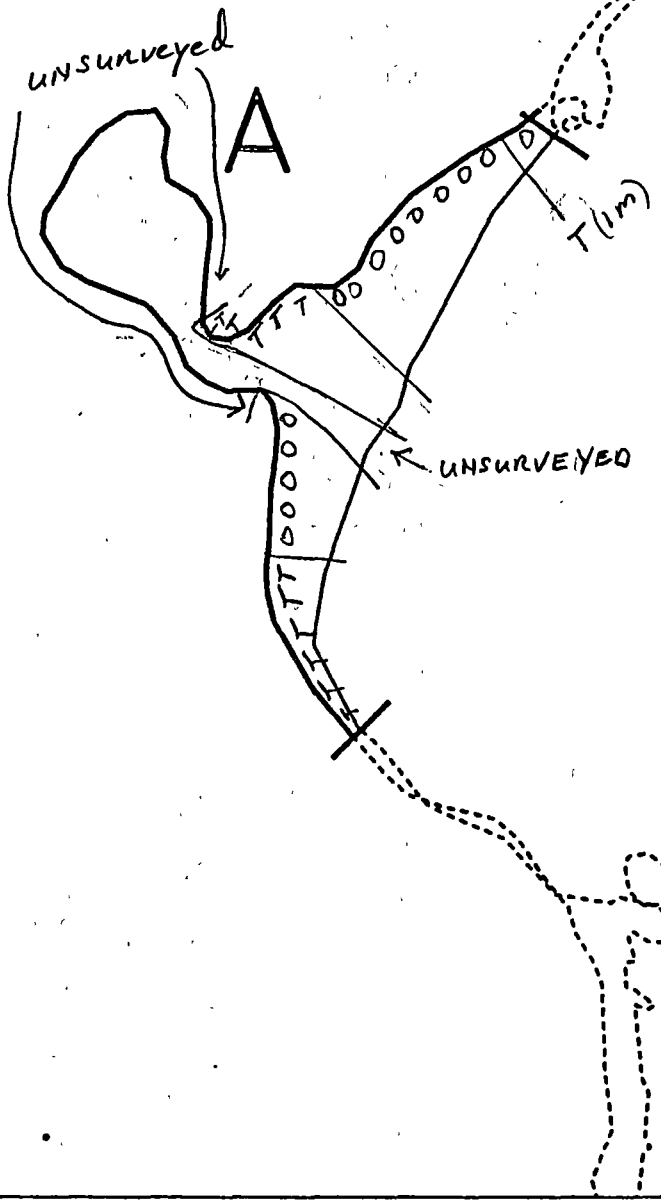
Subdivision Field Map

Map Key: KENEI001Ab

Name: D. FitzGerald

Date: 11 May 1991

ACE 10459551



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

EI001 A

ADEC Subsegment Length: 1638m

METERS

0 200 400

AK State Plane Zone 4
nad83a

EXXON

Subdivision Field Map
Map Key: KENEI001A
Name: D. Fitzgerald
Date: 11 May 1991
Date Entered:

ACE 10459552

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo DATE May 11 1991

SEGMENT # EI-01 TIDAL HEIGHT (Range) 3ft-5ft (08:45-09:52)

SUBDIVISION A BIOLOGIST H. Davis

SEA STATE 2 ft WIND SPEED/DIRECTION 0-5mph

PHOTOGRAPHS: ROLL # 6-11 FRAME # 6-11

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

A. The drips are in the supratidal zone on boulders with verrucaria and a few littorina. Below this area is the UITZ which has a sparse biota of Barnacles, littorina, porphyra, Enteromorpha, mussels (Rare), and some spots of Fucus.

B. Site B is in the UITZ, most of the biota is sparse and growing in or near crevices on the boulders. Mussels are sparse and small. Barnacles are sparse. Littorina moderately dense.

Below the SITZ and UITZ at each end of the surveyed segment is a richer MITZ. Fucus, Endocladia, Halosaccion, Irided(?), coralline algae, Katharina, Epiactis and Rhodomela. Laminaria, Alaria and anthopleura can be seen in the LITZ.

C. TB/CT along the creek bank. Coho salmon spawn in this stream. River Otter Tracks were seen along the banks.

There was a fresh bird kill on the western side of the creek. The smallish mammal (Possibly River otter: the tracks were blurry) left only blood and brown feathers.

Mallards (2) Winter Wren (1)
Cormorants (3) Kittiwakes (2) Glaucous winged Gulls (2)

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

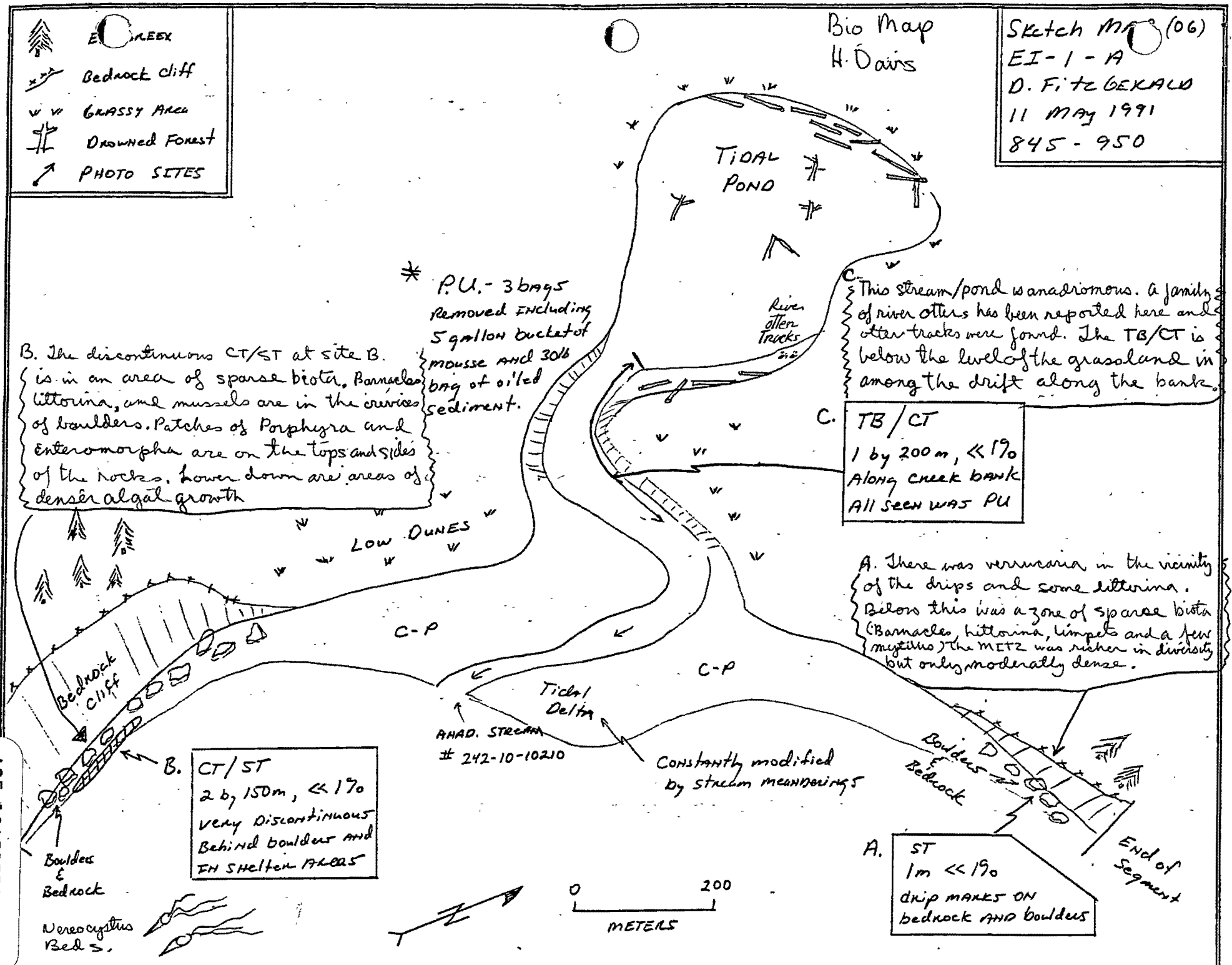
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 adults*	Sculpin
Seabirds	1	3	*Coho not seen but
Waterfowl	1	2	supposed to be in the
Gulls/kittiwakes	2	4	Stream.
Shorebirds	Ø	—	
Corvids	Ø	—	
Other Birds Winter Wren	1	1	

*Both were seen during an aborted previous visit. No nest was seen.

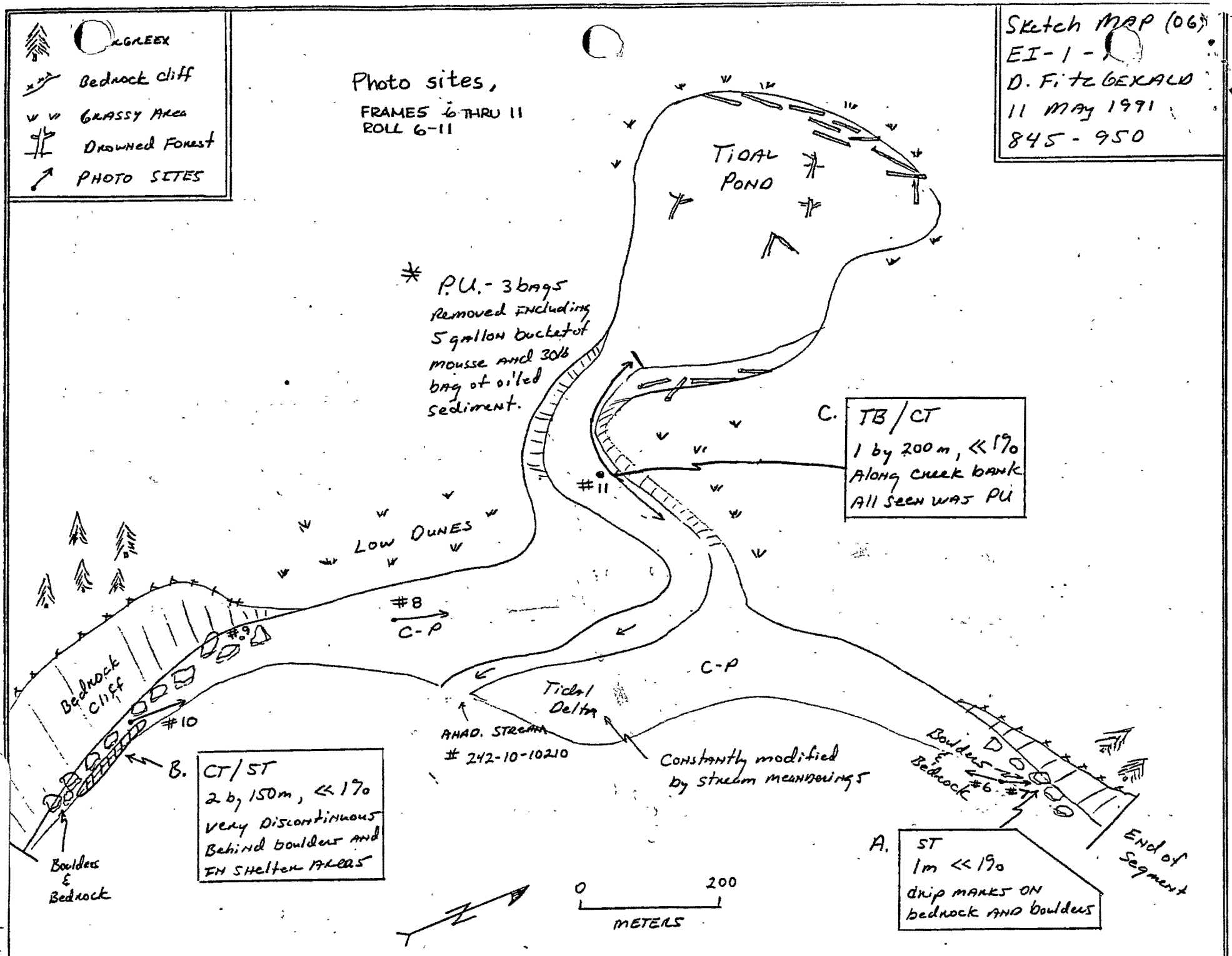
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	Ø	River Otter tracks	
Pinnipeds (specify)	Ø		
Whales (specify)	Ø		

ACE 10459553

Shoreline subdivision map showing important biological features attached.



ACE 10459554


Sketch MAP (06)
EI-1-
D. FitzGERALD
11 MAY 1991
845 - 950
EGREEX
Bedrock cliff
GRASSY AREA
DROWNED FOREST
PHOTO SITES
Photo sites,
FRAMES 6 THRU 11
ROLL 6-11
TIDAL POND
* P.U. - 3 bags
Removed including
5 gallon bucket of
mousse and 30lb
bag of oiled
sediment.
C. TB/CT
1 by 200 m, << 1%
Along creek bank
All seen was PU
#11
LOW DUNES
#8
C-P
#9
Bedrock Cliff
#10
C-P
Tidal Delta
AHAD. STREAM
242-10-10210
CONSTANTLY modified
by stream meanderings
B. CT/ST
2 by 150m, << 1%
Very Discontinuous
Behind boulders and
IN Shelter AREAS
Boulders & Bedrock
Boulders & Bedrock
#6
#7
A. ST
1m << 1%
drip MARKS ON
bedrock AND boulders
End of Segment
0
200
METERS
ACE 10459555-1/15/91

ADF&G OIL SPILL RESPONSE MONITORING

ASC# _____ Date: 4-30-91

Stream Name: _____ Observer: _____

Segment-Sub Unit EI-1

Location: Elizebeth Island

Anad. Stream Permit Issued? Y (N) Date: _____

Work Order Issued: Y (N) Date: _____

Demob Date: _____

Oil Characteristics (circle appropriate ones)

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

Treatment Techniques:

Manual Removal
Manual
Spot W
Other

mediation & Type
nical Tilling
: Flood (Hot/Cold)

IN. KCSINDEX

Crew Size:

Lbs. or Bags

Other Agency by and Steve
Ferguson

Photos Y (N) Roll # Frames

Video Tape # Start End

Sediment/Oil Samples (Y-N) Collection Number

Aerial - overflight

Purpose of Trip * Check H2O level in lake in prep. for MAYSAP

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

ADF&G OIL SPILL RESPONSE MONITORING

ASC# _____ Date: 4-30-91

Stream Name: _____ Observer: _____

Segment-Sub Unit EI-1

Location: Elizebeth Island

Anad. Stream Permit Issued? Y (N) Date: _____

Work Order Issued: Y (N) Date: _____

Demob Date: _____

Oil Characteristics (circle appropriate ones)

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

Treatment Techniques:

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

Crew Size: _____

Lbs. or Bags of Oil/Sediment Removed _____

Other Agency Reps, and Names: Clara Crosby and Steve Ferguson of D.O.E.C

Photos Y (N) Roll # Frames

_____ _____
_____ _____

Video Tape # Start End

_____ _____
_____ _____

Sediment/Oil Samples (Y-N) Collection Number

_____
_____

Purpose of Trip * Aerial - overflight Check H2O level in lake in prep. for MAYSAR

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

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

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

MAYSAP scheduled for this stream at beach segment next week. The level of water in the lake and stream is too high to conduct a survey.

The oil collected from the lake and stream last fall was still in a 5 gallon bucket and plastic bags on the high intertidal area

A:OPRESP
April 2, 1991

ADF&G OIL SPILL RESPONSE MONITORING

ASC# _____ Date: 4-30-91

Stream Name: _____ Observer: _____

Segment-Sub Unit EI-1

Location: Elizebeth Island

Anad. Stream Permit Issued? Y (N) Date: _____

Work Order Issued: Y (N) Date: _____

Demob Date: _____

Oil Characteristics (circle appropriate ones)

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

Treatment Techniques:

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

Crew Size: _____

Lbs. or Bags of Oil/Sediment Removed _____

Other Agency Reps, and Names: Clara Crosby and Steve Ferguson of D.O.E.C

Photos Y (N) Roll # Frames

_____ _____
_____ _____

Video Tape # Start End

_____ _____
_____ _____

Sediment/Oil Samples (Y-N) Collection Number

_____
_____

Purpose of Trip * Aerial - overflight Check H2O level in lake in prep. for MAYSAP

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

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

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

MAYSAP scheduled for this stream at boat segment next week. The level of water in the lake and stream is too high to conduct a survey.

The oil collected from the lake at stream last fall was still in a 5 gallon bucket and plastic bags on the high intertidal area

A:OPRESP
April 2, 1991

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010270
SEGMENT: EI001

PAGE 4 DATE PRINTED: 07/29/91

LOCATION: ELIZABETH ISLAND

SURVEY TYPE: 91 MAYSAP - ~~[illegible]~~ 99 METHOD: ~~GROUND~~ FOOT

DATE: 05/11/91 TEAM RECORDER: HILL FITZGERALD

START TIME: 0845 OBSERVERS: FERGUSON, DAVIS, BROWN, JENSEN
END TIME: 0950

TIDES: ~~-.8/.2~~ FLOOD AGENCY: FG DEC
OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2421010270 ROLL#: ~~-0-~~ NOAA 6-11
FRAME: ~~-0-~~ 6-11

VIDEO TAKEN: N TAPE#: -0-
START: -0- END: -0-

SAMPLES TAKEN: N

SAMPLE NUMBERS: -0- -0-
-0- -0-
-0- -0-

OIL IN STREAM BED: Y

OVERALL OIL IMPACT: L OIL ON BEACH BY MOUTH: Y

WAVE EXPOSURE: HIGH SHORELINE TYPE: BEACH LAGOON

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE -0- VEGETAT -0-
GRAVEL ~~-0-~~ 10 SAND 90 -0- MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: - U

SPECIES: BALD EAGLES COUNT: 2
-0- -0-
-0- -0-
-0- -0-
-0- -0-

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

DATE PRINTED: 07/29/91

STREAM# : 2421010270
SEGMENT#: EI001

SURVEY TYPE : 91 MAYSAP - BS
DATE: 05/11/91
TIMES: 0845 - 0950

LOCATION: ELIZABETH ISLAND

TEAM RECORDER: HILL FITZGERALD

-- OILING EXTENT --

SITE#	SITE TYPE	DEPTH (cm)	LENGTH (m)	WIDTH (m)	AREA (m)	%	THICK (cm)	PEN (cm)	OIL TYPE CODES
1	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0- TB AP SOR CT ST

COMMENTS:
ALL OIL OBSERVED "WAS NOT PICKED" UP AS THE EXXON REP AND OG HAS STATED IN THE COMMENTS SECTION OF THE OILING SUMMARY SHEET. ONLY THE BEACH PORTION OF THIS SEGMENT HAD A VALID SURVEY - THE NORTH SHORE OF THE CREEK TO THE LAKE WAS BREIFLY LOOKED AT. THE LAKE/CREEK WATER LEVEL WAS TOO HIGH TO CONDUCT A THOROUGH/VALID SURVEY. 'AP' AND OILED SEDIMENT WAS OBSERVED ON THE BANK FROM THE BEACH TO THE LAKE. SMALL (¼" X ¼") BALLS OF OIL SATURATED SAND WAS EASILY OBSERVED ON THE BOTTOM OF THE CREEK JUST ABOVE THE BEACH BERM (NORTH/SOUTH FLOWING PORTION). 'CT' & 'ST' IS ALL THAT WAS FOUND ON THE BEACH PORTION OF THIS SEGMENT. THE STREAM/LAKE SHOULD BE LOOKED AT IN JULY WHEN THE WATER LEVEL WILL PROBABLY BE LOWER. THE BUCKET (APPROX 4 GALLONS WORTH) AND BAG (APPROX 40 POUNDS) OF MOUSSE LEFT FROM 1990 WERE RETRIEVED AND BROUGHT TO TOWN. THIS MOUSSE WAS THE EAST END OF THE LAKE. THESE PATTIES CONTAINED LITTLE SEDIMENT. THE CREEK PORTION SURVEYED IS APPROX 1000' LONG. RIVER OTTER TRACKS OBSERVED.

Rex Coulter (EXXON) and PSC Bob Jensen (USCG) Agreed previous to the walk upstream that this would on be a "preliminary" survey due to the high water level.

The survey of the stream & lake was only preliminary.

~~ADF&G~~ MULTI-ASSESSMENT DATA FORM

ANAD

INAYSAN - Elizabeth Island Creek

1) SURVEY TYPE: ~~MS~~ (SS)

2) REGION: PWS (KP,CI) K,AP

3) METHOD: Aerial (Ground) Boat

OK Duncan Fitzgerald/06

DATE: 5/11/91

16) HIGH TIDE TIME: 00:21/00:06

22) TEAM RECORDER: Doug Hill (ADF&G)

5) START TIME: 0845

17) HIGH TIDE HTS: 17.1/16.0

23) OBSERVERS: Steve Ferguson (ADEC)

6) STOP TIME: 0950

18) LOW TIDE TIMES: 0645/1850

24) AGENCY: _____

7) SEGMENT #: E1-1

19) LOW TIDE HTS: 0.3/2.7

25) PHOTOS TAKEN: (Y) N

See Photolog on opposite side

8) K-UNIT: _____

20) TIDE HT AT SURVEY: -.8/.2

ROLL #: _____ FRAMES: _____

9) LAT: 59 9 15

Ebb Slack Flood Slack

26) VIDEO TAKEN: Y (N)

10) LONG: 151 48 1

21) USCG QUAD: Seldovia A-5

TAPE # _____

11) ASC #: 242-10-10270

START: _____ STOP: _____

12) STREAM NAME: Elizabeth Island Creek

27) SAMPLES TAKEN? Y (N)

13) LOCATION: KPOC, Elizabeth Island

SAMPLE I.D. _____

14) WAVE EXPOSURE: (High) Moderate Low

15) SHORELINE TYPE: Headland Low-lying Rocks (Beach)

Cove (Lagoon) Marsh

28) EXTENT OF OIL

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

29) OVERALL OIL IMPACT:

H = >6m band with ≥50% oil coverage

M = >6m band with ≤ 50% oil coverage or ≥3m to ≤6m with ≥10% oil coverage

(L) = <3m band with >10% oil coverage

VL = ≤10% oil coverage regardless of band width

N = No oil observed

30) OIL IN STREAMBED: (Y) N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel 10 Sand 90 Cobble ____ Mud/Silt ____

10, 90?

33) ANADROMOUS FISH PRESENT: Y ? (N)

Survey?

34) WILDLIFE OBSERVATION

Species	Number
Bald Eagles	(2) Adult
River otter tracks	

35) COMMENTS: All oil observed was not picked up as the EXXON Rep. OG has stated in the comments section of the oiling Summary sheet. Only the beach portions of this segment had a VALID survey - the north shore of the creek to the lake was briefly looked at. The lake/creek water level was too high to conduct a thorough valid survey. Aerated sediment was observed on the bank from the beach to the lake. Small (1/4"x1/4") balls of oil saturated sand was easily observed on the bottom of the creek just above the beach berm (North/south flowing portion).

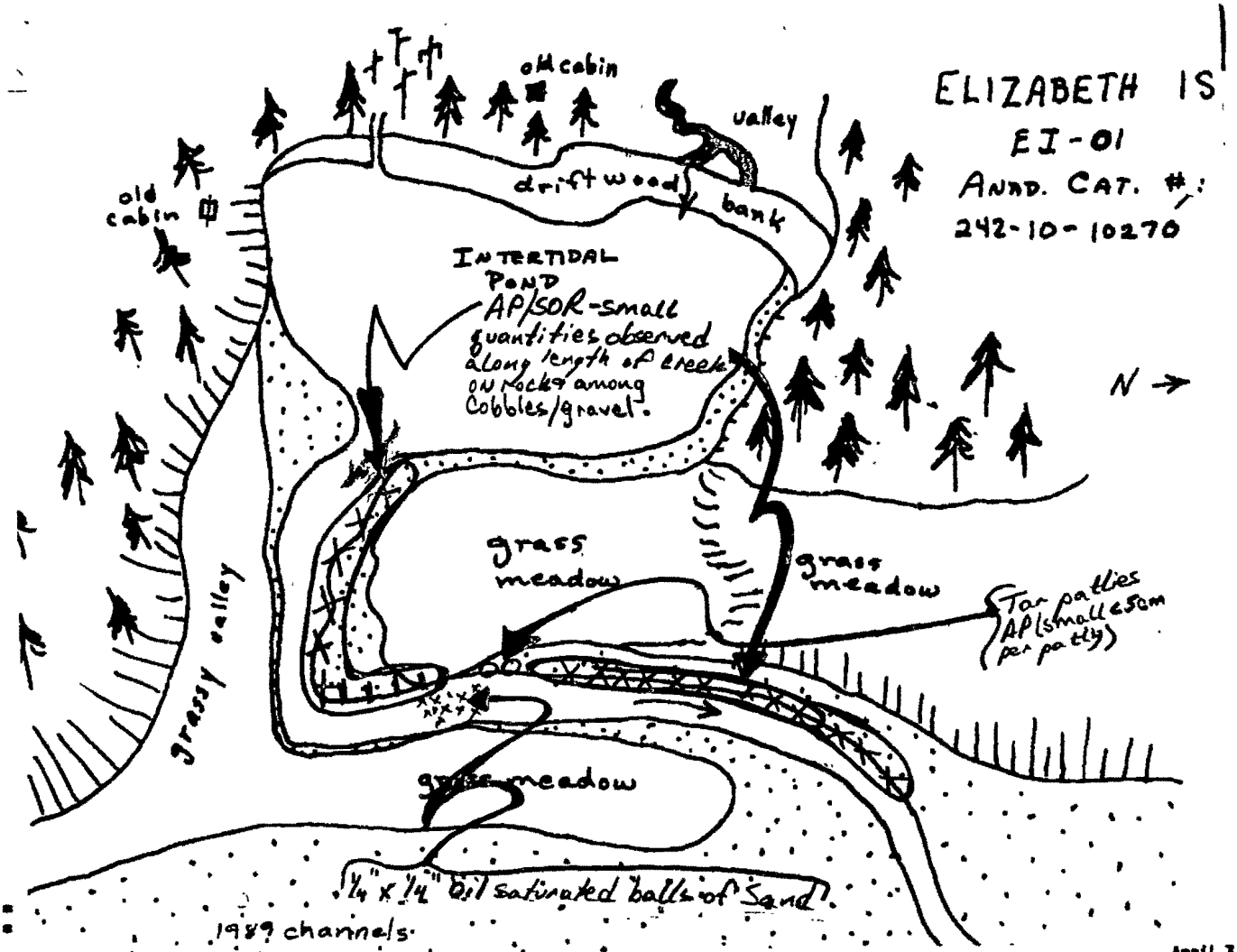
CT + ST is all that was found on the beach portion of this segment

36) PHOTOLOG

FRAME(S)	DESCRIPTION
	See Photo location map of Monroe Survey. Gary Shigenaka of NOAA took photos – Roll # 6-11, Frame 6 thru 11.
! ★ !	Rex Coulter (EXXON), ASC Jensen (USCG) agreed that this survey would only be a Preliminary Survey of the stream + lake due to the high water level.

Comments Cont'D: The stream lake should be looked at in July when the water level will probably be lower.

The bucket (≈ 4 gallons worth) and bag (≈ 40 pds) of mousse left from 1990 were retrieved and brought to town: this mousse was retrieved in the form of patties Lee + I found scattered throughout the east end of the lake. These patties contained little sediment. The creek portion surveyed is Approx. 1000' feet long



DATFO
April 3, 1991

1991 MAYSAP EVALUATION

SEGMENT: EI 001 **SUB:** A **REGION:** HOM **SURVEY DATE:** 5/11/91

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

Ecological/Constraints (see page two for details) Seabird colony, Pinniped haulout, Eagle nest, Anadromous stream

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

SHPO Signature:_____ Date:_____

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

COMMENTS:

5/20 INITIAL: NTR on beach but resurvey lake & stream in July.

EI-001

5/21 TAG: NTR state to resurveyor revaluate in July.

FOSC:

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

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Pinniped Haulout: Access restricted from 5/15 to 6/30 and 8/15 to 9/15 unless approved by NMFS. Maintain 1000' vertical and 1/2 mile (3 mile for sea lions at all times) horizontal buffer.

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

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 6-Helo SEGMENT EI-1 SUBDIVISION A DATE 11 / May / 91

242-10-10270

ADEC
NAME Doug Hill (ADFG) SIGNATURE Douglas D Hill

☐ NTR ☐ TR - A valid survey was conducted only on the beach portion of this segment. A valid and thorough survey of the anadromous fish system within segment EI-1 was not conducted due to an excessive water level. I would recommend No treatment on the beach portion of this segment. With regards to the Anadromous system, in "89 +'90 the water level did not drop to a point where the majority of the oil could be observed and removed until July. Oil has been observed throughout the lake and stream in the form of MS, TB, TP, ST, CT, CV, AP. A proper survey can not be conducted until the water level drops. Nonetheless, a preliminary survey of the North shore of the creek up to the lake was conducted on this date. Oil in the form of TB, AP, CV, CT + ST was observed within the stream and on the bank from the beach up to the lake (oil in "small quantities"). Treatment recommendation(s) can not be made until a valid survey is conducted of the anadromous part. In 1989 + 1990 tarballs + patties with "Little" sediment were (both) found in the lake and stream

EXXON
NAME R Coulter SIGNATURE Rex R. Coulter

☑ NTR WE REMOVED EVERYTHING WE FOUND HERE. THE TAR PATTIES WERE COMPOSED OF PRIMARILY FINE GRAIN SEDIMENTS WITH VERY LITTLE WEATHERED OIL HOLDING THEM TOGETHER. WE DID FIND ONE SMALL (12-15cm²) PATTY WHICH WAS SOFT, "MOUSSEY" AND PLIABLE. IT ALSO CONTAINED A VERY HIGH PERCENTAGE OF SEDIMENTS. ADEC REP. INDICATED THAT IT WAS SIMILAR TO THOSE THAT WERE UNDERWATER IN THE SMALL POND. EVERYTHING WAS VERY WEATHERED. CONSIDERING THAT THE POND BOTTOM APPEARS TO BE COMPOSED OF VERY FINE GRAIN SEDIMENTS, REMOVAL (OR ATTEMPT AT REMOVING) OF ANY PATTIES FOUND WOULD BE DIFFICULT AND PROBABLY FORCE SEDIMENT FINES INTO THE WATER COLUMN.

LANDMANAGER
NAME Jeff Johnson OF ADNR SIGNATURE Jeff forgot to sign this. Jim Sipping for Jeff Hein (Dec Steve Ferguson)

☐ NTR
Was not on the survey team for this survey. However, I was briefed by Steve Ferguson (DEC) and Doug Hill (ADF+G). Having worked with Doug and Steve on other surveys, I will concur with Hill's comments. I will not be able to make a treatment recommendation until the small tidal lagoon is able to be surveyed.

DEC Rep Ferguson → AGREE WITH STATEMENTS MADE BY D.D. Hill (ADF+G) [initials]

USCG/NOAA
NAME Jensen / G. SHIGENAKA SIGNATURE Robert B Jensen / Gary Shigenaka

☐ NTR "NTR" on beach part of this segment. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again. Walked up the Anadromous stream to the mouth of the lake, but didn't complete the survey of the lake due to the high water level. Found a few very small mousse patties along bank. Water clear in stream and mouth of lake. I wouldn't recommend any cleanup if the rest of the lake banks continue to be similar to what we observed.

SEGMENT IS BISECTED BY ANADROMOUS STREAM FLOWING DOWN FROM NEARBY SMALL LAKE. TO THE NORTH OF THE STREAM, THE BEACH IS A PEBBLE-GRANULE BEACH THAT BECOMES ROCKIER TO THE NORTH. NO OIL WAS OBSERVED NORTH OF THE STREAM. SOUTH OF THE STREAM, THE BEACH IS CHARACTERIZED BY BOULDERS. A FEW SMALL PATCHES OF COAT WERE OBSERVED ON SHOREWARD FACES OF BOULDERS BUT THESE WERE MINOR OCCURRENCES. TIME AND WEATHER PERMITTED EXAMINATION OF THE STREAM BANK (PARTICULARLY ON THE NORTH SIDE) AND THE EDGE OF THE LAKE. PATCHES OF WEATHERED MOUSSE AND MOUSSE/SAND CONGLOMERATES WERE OBSERVED ALONG THE STREAM AND REMOVED BY VECO CREW. (PREVIOUSLY COLLECTED OILED DEBRIS ALSO REMOVED BY VECO CREW). ALTHOUGH THIS AREA STILL CONTAINS OIL, FURTHER REMOVAL BEYOND SIMPLE MANUAL PICKUP WOULD LIKELY BE HIGHLY DISRUPTIVE.

SHORELINE SEGMENT SUMMARY

TEAM NO. 6-Helo

OG O. FitzGerald | BIO H Davis, D Hill AOF6 | SEGMENT EI-1

ADEC S Ferguson | LANDMANAGER R McCampbell for ADNR | SUBDIVISION A

EXXON R. Coulter | USCG/NOAA PSC Jensen/6 Shigenaka | DATE 11 / MAY / 91

TIME 8 : 45 to 9 : 50 | TIDE LEVEL -.8 ft. to +.2 ft. | ENERGY LEVEL: [X] H [ ] M [ ] L

SURVEYED FROM: [X] FOOT [ ] BOAT [ ] HELO | WEATHER: [ ] SUN [X] CLOUDS [ ] FOG [ ] RAIN [ ] SNOW

TOTAL LENGTH SHORELINE SURVEYED: 320 m | NEAR SHORE SHEEN: [ ] BR [ ] RB [ ] SL [X] NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 151 m NO 169 m US 818 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	ZONE UI	ZONE MI	ZONE LI	NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO									
A							T				BR	V	1	1	X				Drips on vertical face
B						T	T				BR-B	V-H	2	150	X	X			In sheltered areas + cracks
C			T			T				X	S-P-C	L	1	200		X			Along creek bank
																			*picked up - see sketch map for comment

DISTRIBUTION: C = 81–100%; B = 51–80%; P = 11–50%; S = 1–10%; T = <1%

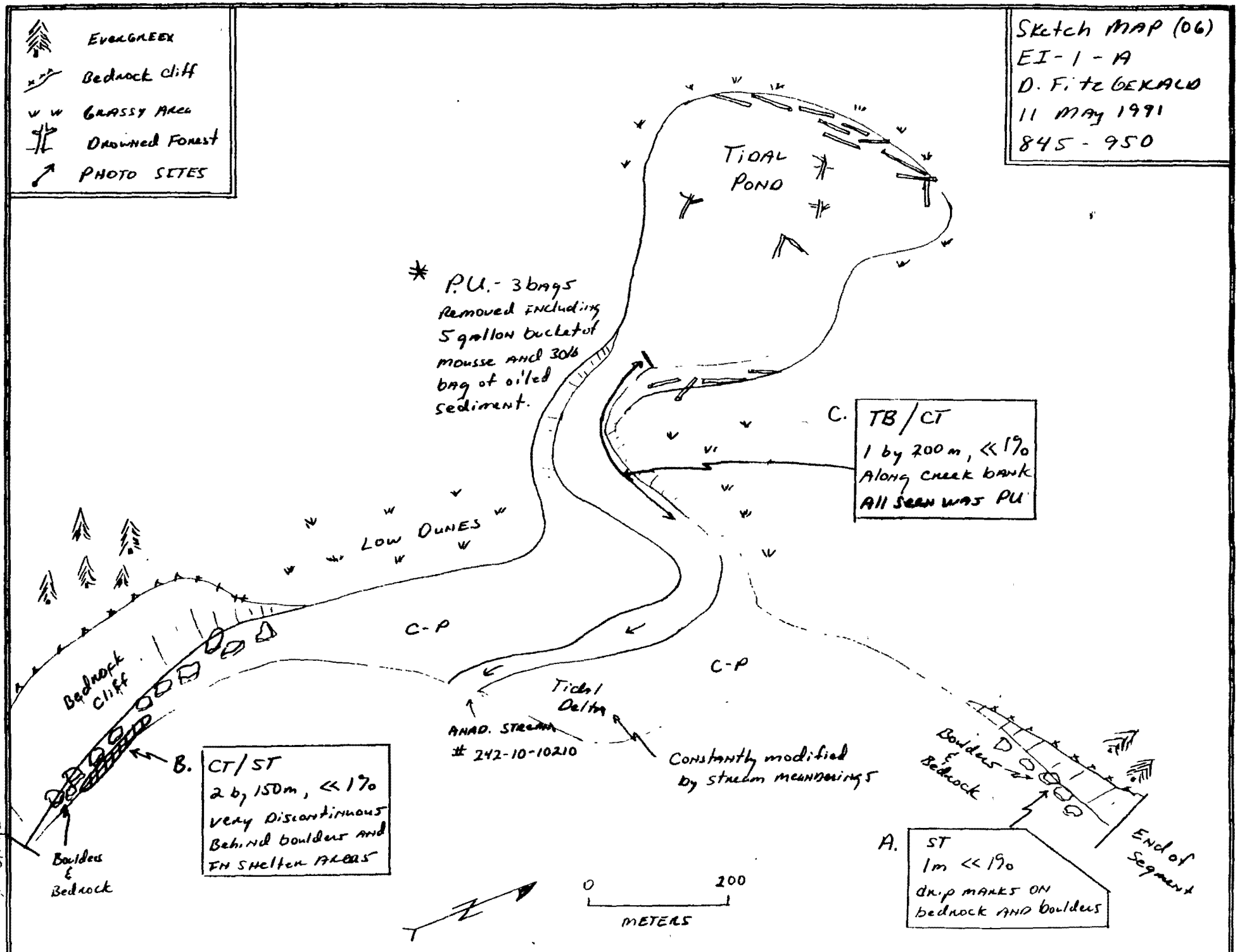
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE | PHOTO ROLL # MAYSAP- 6 - 11 FRAMES - 11

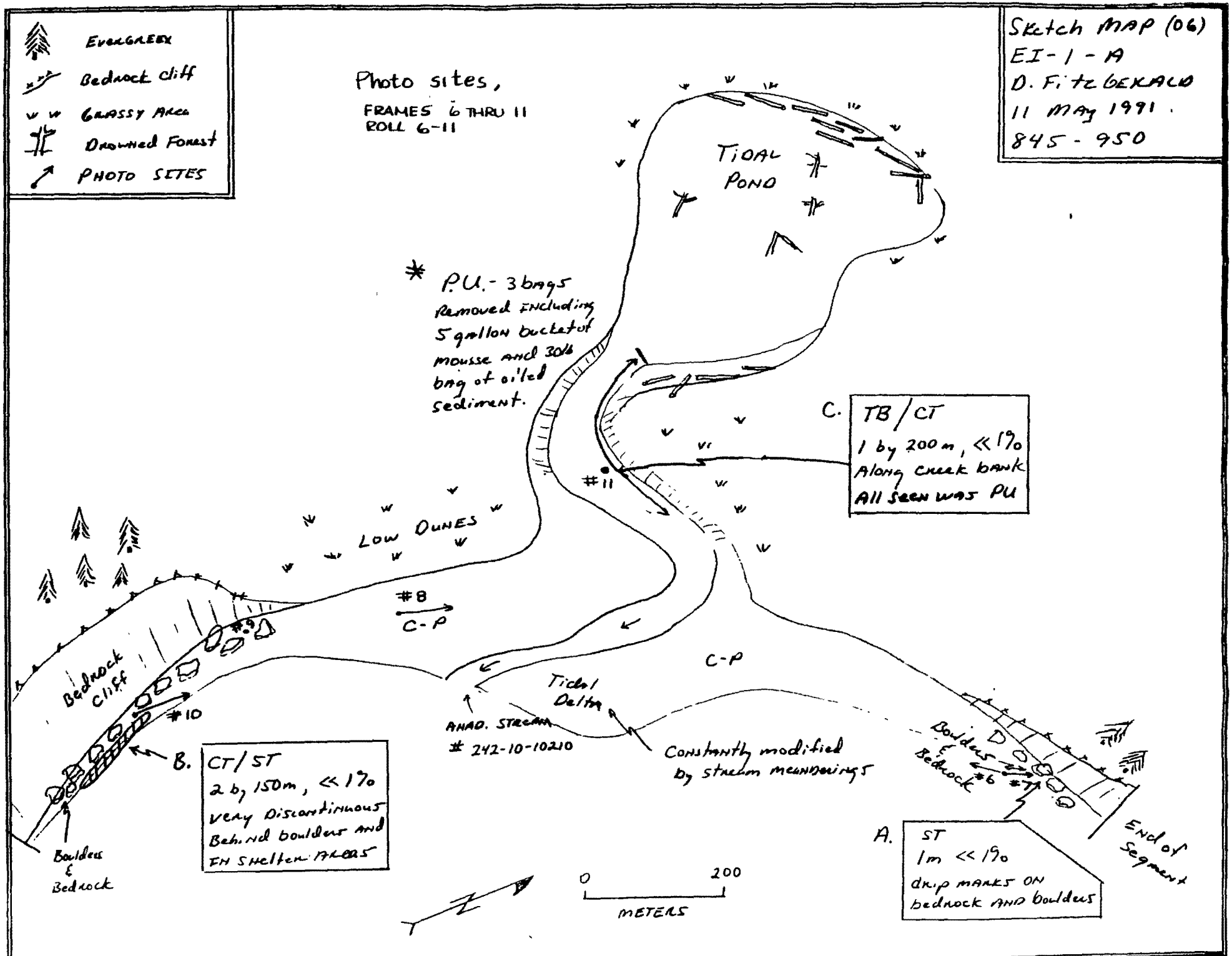
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO				B R S N	S	UI	MI	LI		
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									
									-									

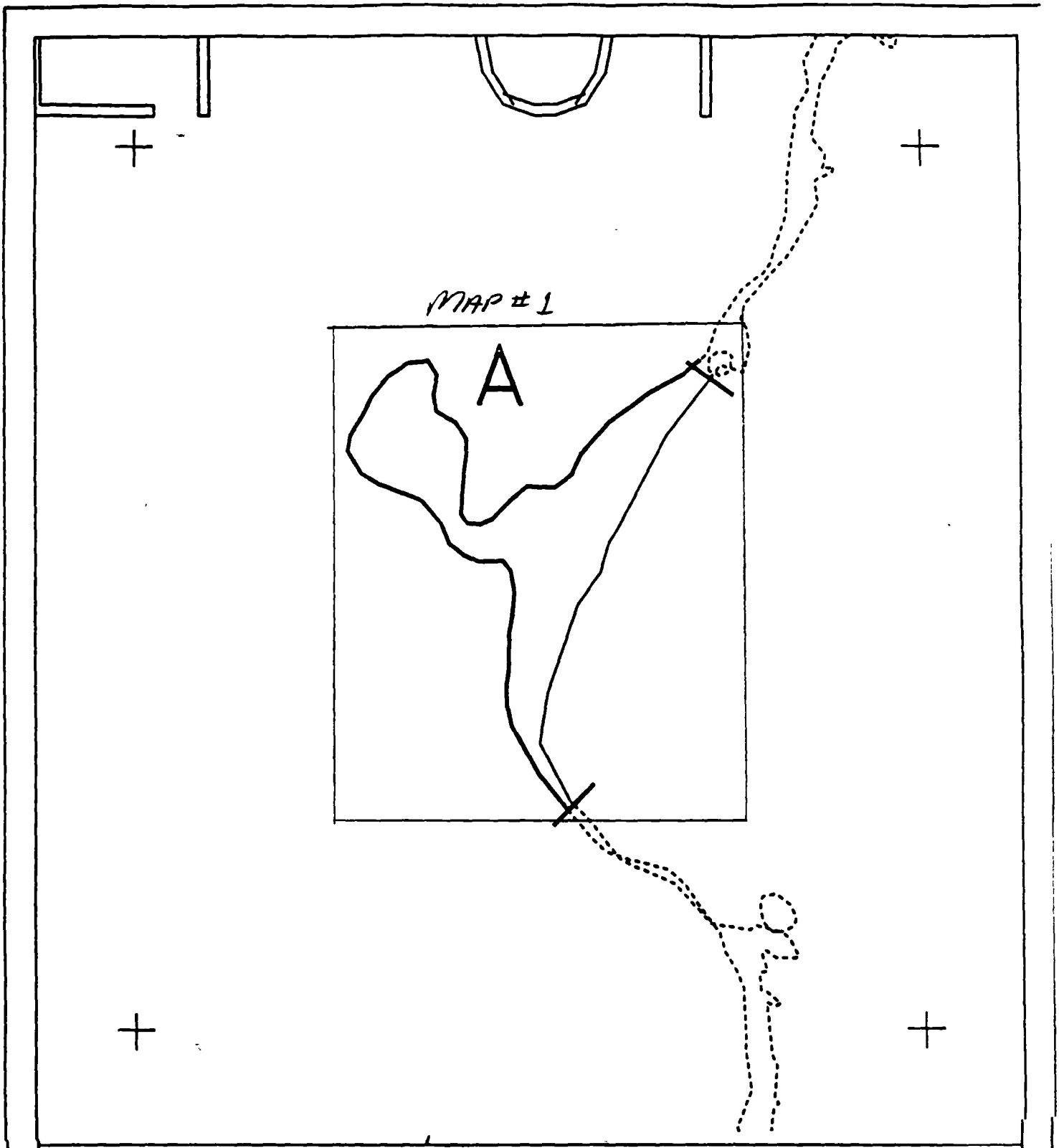
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: Site is a pocket sand, pebble, cobble beach with boulders and bedrock outcrops toward the headland areas. In the center of the beach an anadromous stream cuts to a nearby shallow pond. Oiling of this beach consists of 1. stains on vertical bedrock at the northern end of beach, 2. very sporadic coats and stains along 150m length shoreline in cracks of bedrock and boulders, and 3. some infrequent tar pan + along the creek bank and channel. For the most part, these patties have a very high sed. content. All the patties found by the team were picked up. In addition, a p. 5 gal of oil and bag of oiled sediment left behind by a former clean up effort, were removed.

revised 5/14 K. K.
REVIEWED CE 14 MAY


Evergreen
Bedrock cliff
Grassy Area
Drowned Forest
Photo Sites
Sketch MAP (06)
EI-1-A
D. Fitzgerald
11 May 1991
845 - 950
Tidal Pond
P.U. - 3 bags
Removed including
5 gallon bucket of
mousse and 30lb
bag of oiled
sediment.
C. TB/CT
1 by 200 m, << 1%
Along creek bank
All seen was PU
Low Dunes
C-P
C-P
Bedrock Cliff
Tidal Delta
Anad. Stream
242-10-10210
Constantly modified
by stream meanderings
B. CT/ST
2 by 150m, << 1%
very Discontinuous
Behind boulders and
in shelter areas
Boulders
& Bedrock
Boulders
& Bedrock
A. ST
1m << 1%
drip marks on
bedrock and boulders
End of
Segment
0
200
METERS
reviewed 5/14/91 cc
REVIEWED CB 14 MAY


Evergreen
Bedrock cliff
Grassy Area
Drowned Forest
Photo Sites
Photo sites,
FRAMES 6 THRU 11
ROLL 6-11
Sketch MAP (06)
EI-1-A
D. FitzGerald
11 May 1991.
845 - 950
Tidal Pond
P.U. - 3 bags
Removed including
5 gallon bucket of
mousse and 30lb
bag of oiled
sediment.
C. TB/CT
1 by 200 m, << 1%
Along creek bank
All seen was PU
#11
Low Dunes
#8
C-P
#9
Bedrock Cliff
#10
B. CT/ST
2 by 150m, << 1%
Very Discontinuous
Behind boulders and
in Shelter Areas
Boulders & Bedrock
C-P
Tidal Delta
Anad. Stream
242-10-10210
Constantly modified
by stream meanderings
Boulders & Bedrock
#6
#7
A. ST
1m << 1%
drip marks on
bedrock and boulders
End of Segment
0
200
METERS



EI001 A

METERS

0 200 400

AK State Plane Zone 4

Subdivision Field Map

Map Key: KRNEI001A

Name: D. FitzGerald

Date: 11 May 1991

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo	DATE May 11 1991
SEGMENT # EE-01	TIDAL HEIGHT(Range) 3ft-5ft ([illegible])
SUBDIVISION A	BIOLOGIST H. Davis
SEA STATE 2ft	WIND SPEED/DIRECTION 0-5 mph
PHOTOGRAPHS: ROLL # 6-11	FRAME # 6-11

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

A. The drips are in the supratidal zone on boulders with verrucaria and a few littorina. Below this area is the UITZ which has a sparse biota of Barnacles, littorina, porphyra, Enteromorpha, mussels (Rare), and some spots of Fucus.

B. Site B is in the UITZ. Most of the biota is sparse and [illegible] in crevices on the boulders. Mussels are sparse and small. B[illegible] are sparse, littorina moderately dense.

Below the SITZ and UITZ at each end of the surveyed segment is a richer MITZ. Fucus, Endocladia, Halosaccion, Iridea?, coralline algae, Katharina, Epiactis and Rhodomela. Laminaria, Alaria and Pathopleura can be seen in the LITZ.

C. TB/CT along the creek bank. Coho salmon spawn in this stream. River Otter Tracks were seen along the banks.

There was a fresh bird kill on the western side of the creek. The [illegible] mammal (Possibly River otter. The tracks were blurry) left only blood and [illegible].

Mallards (2) Winter wren (1)
Cormorants (3) Kittiwakes (2) Glaucous-winged Gulls (2)

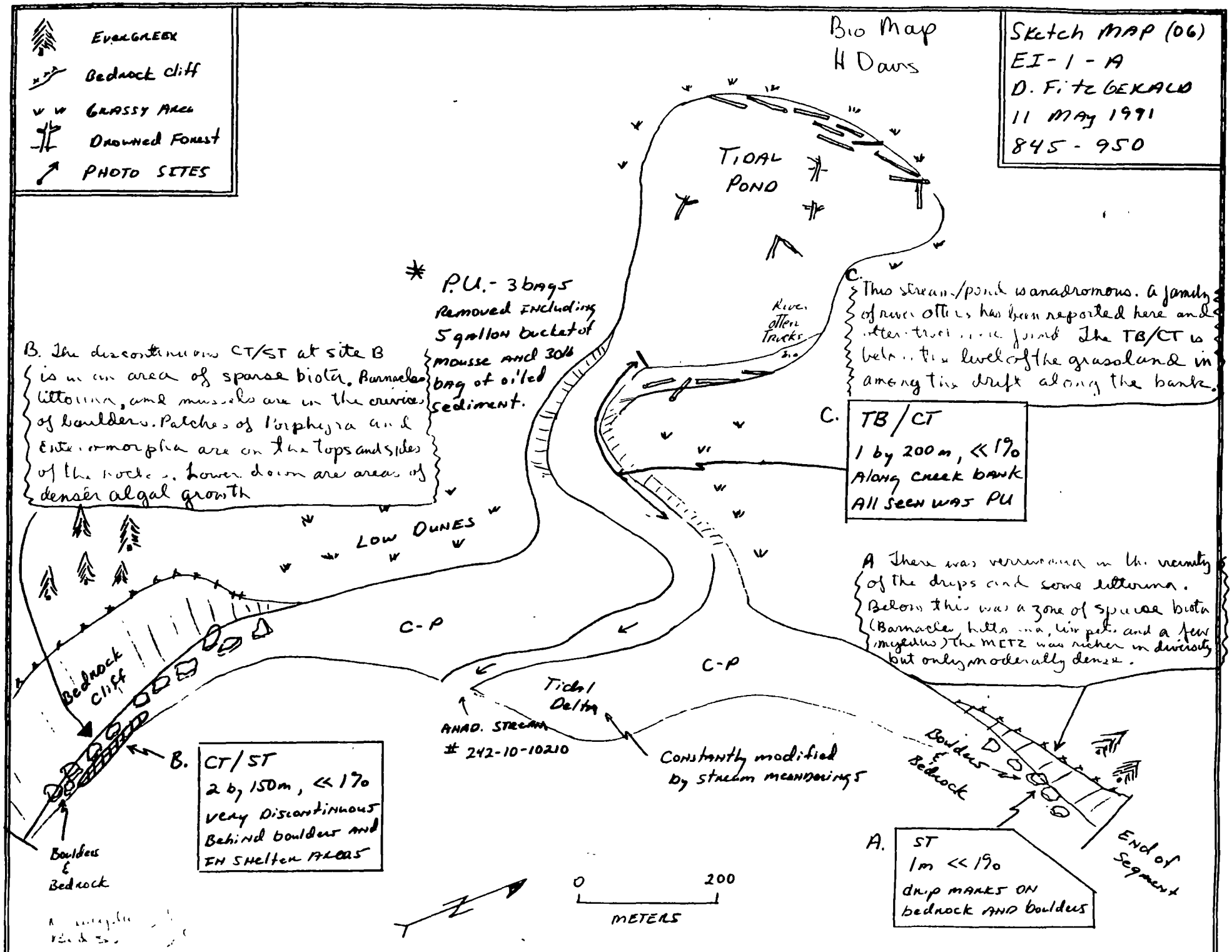
WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

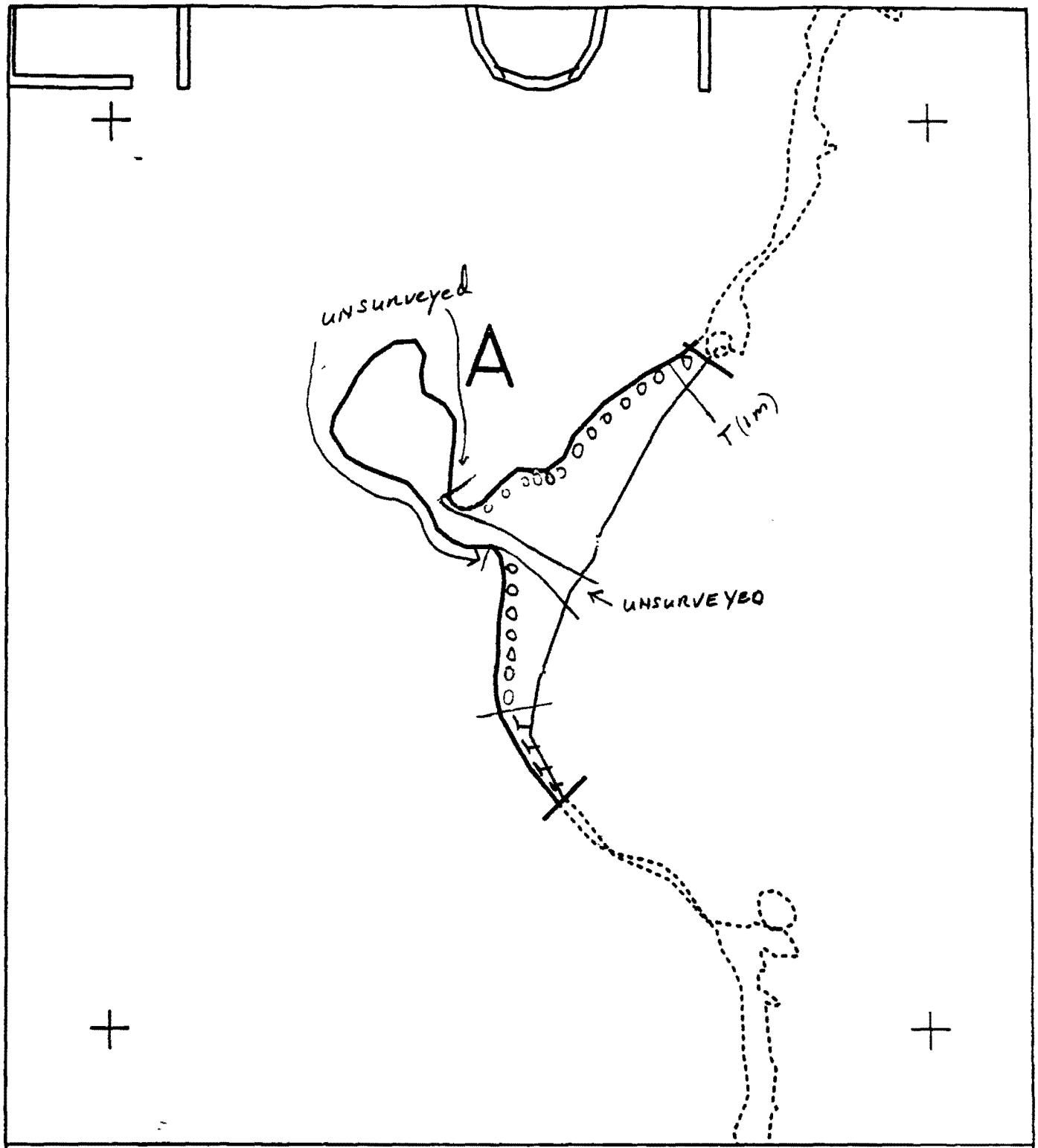
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	2 adults *	Sculpin
Seabirds	1	3	* Coho not [illegible]
Waterfowl	1	2	Supposed [illegible]
Gulls/kittiwakes	2	4	Stream.
Shorebirds	Ø	—	
Corvids	Ø	—	
Other Birds winter wren	1	1	

* Both were seen during an aborted previous visit. No nest was seen.

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	Ø	River Otter tracks	
Pinnipeds(specify)	Ø		
Whales(specify)	Ø		

Shoreline subdivision map showing important biological features attached.


Evergreen
Bedrock cliff
Grassy Area
Drowned Forest
Photo Sites
Bio Map
H Davis
Sketch MAP (06)
EI-1-A
D. FitzGERALD
11 MAY 1991
845 - 950
TIDAL POND
River otter Tracks
* P.U. - 3 bags
Removed including 5 gallon bucket of mousse and 30lb bag of oiled sediment.
C. This stream/pond is anadromous. A family of river otters has been reported here and otter tracks were found. The TB/CT is below the level of the grassland in among the drift along the bank.
B. The discontinuous CT/ST at site B is in an area of sparse biota. Barnacles, littorina, and mussels are in the crevices of boulders. Patches of Porphyra and Enteromorpha are on the tops and sides of the rocks. Lower down are areas of denser algal growth
C. TB/CT
1 by 200 m, << 1%
Along creek bank
All seen was PU
LOW DUNES
A There was verrucaria in the vicinity of the drips and some littorina. Below this was a zone of sparse biota (Barnacles, littorina, limpets and a few mytilus) The METZ was richer in diversity but only moderately dense.
C-P
C-P
Bedrock Cliff
Tidal Delta
ANAD. STREAM # 242-10-10210
Constantly modified by stream meanderings
Boulders & Bedrock
B. CT/ST
2 by 150m, << 1%
very Discontinuous
Behind boulders and IN SHELTER AREAS
Boulders & Bedrock
A. ST
1m << 1%
drip MARKS ON bedrock AND boulders
End of Segment
0
200
METERS



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

E1001 A
ADEC Subsegment Length: 1830m
METERS
0 200 400
AK State Plane Zone 4
NAD83

EXXON

Subdivision Field Map
Map Key: KENE1001A
Name: D. Fitzgerald
Date: 11 May 1991
Date Entered:

revised 5/14/91 ~~~
REVIEWED CB 14 MAY

Maysap - 4

2421010270

1991 MAYSAP EVALUATION

SEGMENT: EI 001 **SUB:** A **REGION:** HOM **SURVEY DATE:** 5/11/91

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

Ecological/Constraints (see page two for details) Seabird colony, Pinniped haulout, Eagle nest, Anadromous stream

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

SHPO Signature: Rachel Van Dam Date: 5/21/91

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 21 1991 **FOSC APPROVAL DATE:** 5/26/91

ADEC

EXXON

USCG

NOAA

FOSC

→ The state will consider a reopening of this site.

ASC NUMBER: 242-10-10271 SEGMENT NUMBER: YR CATALOGED:
LOCATION: Elizabeth Island
STREAM NAME: LATITUDE:
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE:
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: Beach ALL SEGMENTS:
WAVE EXPOSURE: high

ASC NUMBER:
SURVEY TYPE: SS FOOT
METHOD:
DATE: 4/18/90
START TIME: 1353
STOP TIME: 1428

TEAM RECORDER: Hill
OBSERVERS: McLane
AGENCY(IES): ADF&G

PHOTOS TAKEN? Y
Roll #: 90DDH001 Frames: 18, 19, 20
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? Y
SAMPLE I.D. NUMBERS: 1. DDH/LPC-4/7/90.1305 2. 3.
4. 5. 6.

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

OVERALL OIL IMPACT: M

OIL IN STREAM CHANNEL? Y

SUBSTRATE		
Bedrock	Granule	10
Boulder	Sand	90
Cobble	Silt	
Pebble	Veget.	

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Y

SPECIES					
COUNT					

COMMENTS: Observed less oil on this trip than 4/7/90 survey. ~~Balls of sand cemented by oil/mousse were found~~ However, a more thorough survey will be conducted under the presumption that more oil remains in the lake. Balls of sand cemented by oil/mousse were found throughout the outlet stream. Oil coverings still exist on banks of stream above beach. A few tar patties observed in lake. Morphology of outlet stream changed significantly over winter. Cut bank is now on south shore. No sign of subsurface band of oil visible where stream cuts beach berm as was observed in 1989.
- stained logs ~~[illegible] observed~~ observed at west end of lake
- 2-5"x7" tarballs observed on North shore of lake 1/2 way between inlet & outlet & of lake
- Tarmats observed on North shore of creek & east shore of lake (near outlet of lake)
- Tarballs & mousse patties observed along entire Northwest shores of creek
- Tarballs on east shore of stream
- Black crusty oil found on grass on east & South shore of stream.

ACE 10459439
T/FIS/SG

GROUP A

Pre-screening

ADF&G MULTI-ASSESSMENT DATA FORM

1 SURVEY TYPE: BS (SS) DS TS AVS SCHA MMHS PTA 2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

3 DATE: 4-18-90 4 START TIME: 1333 5 STOP TIME: 1428 6 SEGMENT #: EI-1 7 STATION #: 8 K-UNIT: 9 STAT AREA: 242-10 10 LAT: 59° 09' 1 11 LONG: W 151° 44' 6

12 SOURCE: Map Loran

13 LOCATION: Elizabeth Island AFS# 242-10-10276

14 DESCRIPTION:

Seldovia Tides

15 HIGH TIDE TIMES: 0820 / 16 HIGH TIDE HTS: 13.1 / 17 LOW TIDE TIMES: 1457 / 18 LOW TIDE HTS: 3.9 / 19 TIDE HT AT SURVEY: Low

Ebb (Slack) Flood Slack

20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill

22 OBSERVERS: Susan McLane

23 AGENCY: ADF&G

24 PHOTOS TAKEN: (Y)

Roll #: 90-DDH-001 Frame: 18,19,20

25 VIDEO TAKEN: Y (N) TAPE#: Start: End:

26 SAMPLES TAKEN? (Y) N Number

Oil DDH LPG-4/7/90-1305

Sediment

Biological

Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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

Gravel 10% Sand 90% Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10276

38 STREAM NAME: Eliz. Is. Stream

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: At head of Lagoon

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

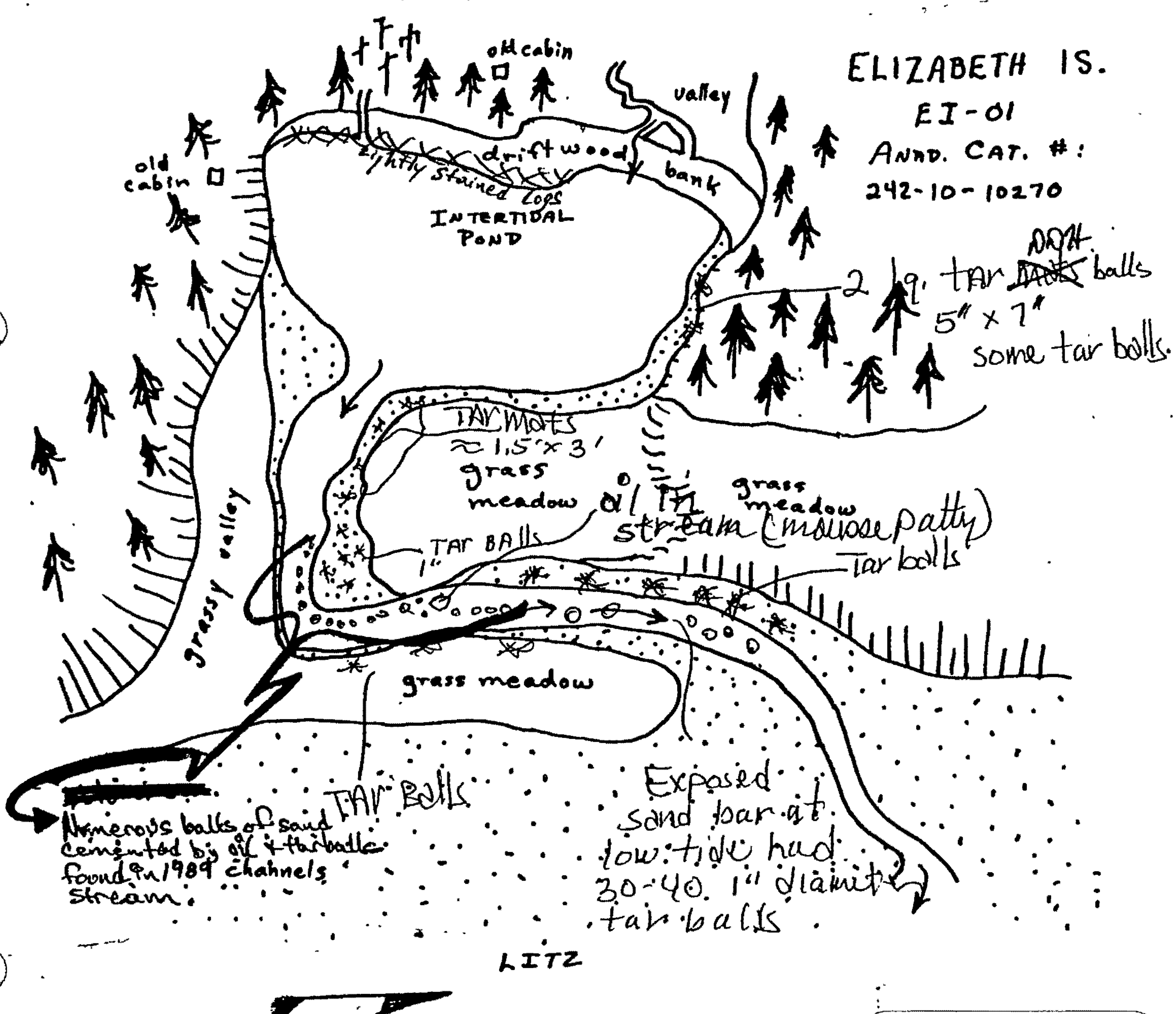
COMMENTS: Observed less oil on this trip than was observed on 4/7/90. Balls of mousse and sand cemented by oil found throughout outlet stream. Oil coverings still exist on banks of stream above beach - A few tar patties in lake. Morphology of outlet stream changed significantly over winter - Cut bank is now on the south shore. No sign of a subsurface band of oil visible where stream cuts thru beach as it did last year.

ACE 10459440
ACE 1955680

48 PHOTOLOG

FRAME(S)	DESCRIPTION
19, 20	Drastic Difference in Morphology of Stream outlet [illegible] in 1990 VS 1989. [illegible] on South bank

46 OIL DISTRIBUTION DIAGRAM



= Sample taken

= Photo frame # and shot direction.

ANADSCAT RECOMMENDED

ACE 10459441 -15

ACE 1955681

Faxed Anch. 4/20/90

Pre-screening

GROUP A

ADF&G MULTI-ASSESSMENT DATA FORM

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

2 REGION: PWS (KP,CI) K,AP

METHOD: Aerial (Ground) Boat

Seldovia Tides

3 DATE: 4-18-90

4 START TIME: 1333

5 STOP TIME: 1428

6 SEGMENT #: EI-1

7 STATION #:

8 K-UNIT:

9 STAT AREA: 242-10

10 LAT: 59° 09' 1

11 LONG: W 151° 44' 6

12 SOURCE: Map Loran

13 LOCATION: Elizabeth Island AFS# 242-10-1027

14 DESCRIPTION:

15 HIGH TIDE TIMES: 0820 /

16 HIGH TIDE HTS: 13.1 /

17 LOW TIDE TIMES: 1457 /

18 LOW TIDE HTS: 3.9 /

19 TIDE HT AT SURVEY: Low

Ebb (Slack) Flood Slack

20 USCG QUAD: Seldovia A-5

21 TEAM RECORDER: Doug Hill

22 OBSERVERS: Susan McLane

23 AGENCY: ADF&G

24 PHOTOS TAKEN: (Y) N

Roll #: 90-DDH-001 Frame: 18,19,20

25 VIDEO TAKEN: Y (N) TAPE#: Start: End:

26 SAMPLES TAKEN? (Y) N Number

Oil DDH/LPG-4/7/90-1305

Sediment

Biological

Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
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 Gravel 10% Sand 90% Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-1027

38 STREAM NAME: Eliz. Is. Stream

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: At head of Lagoon

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

ACE 6896863

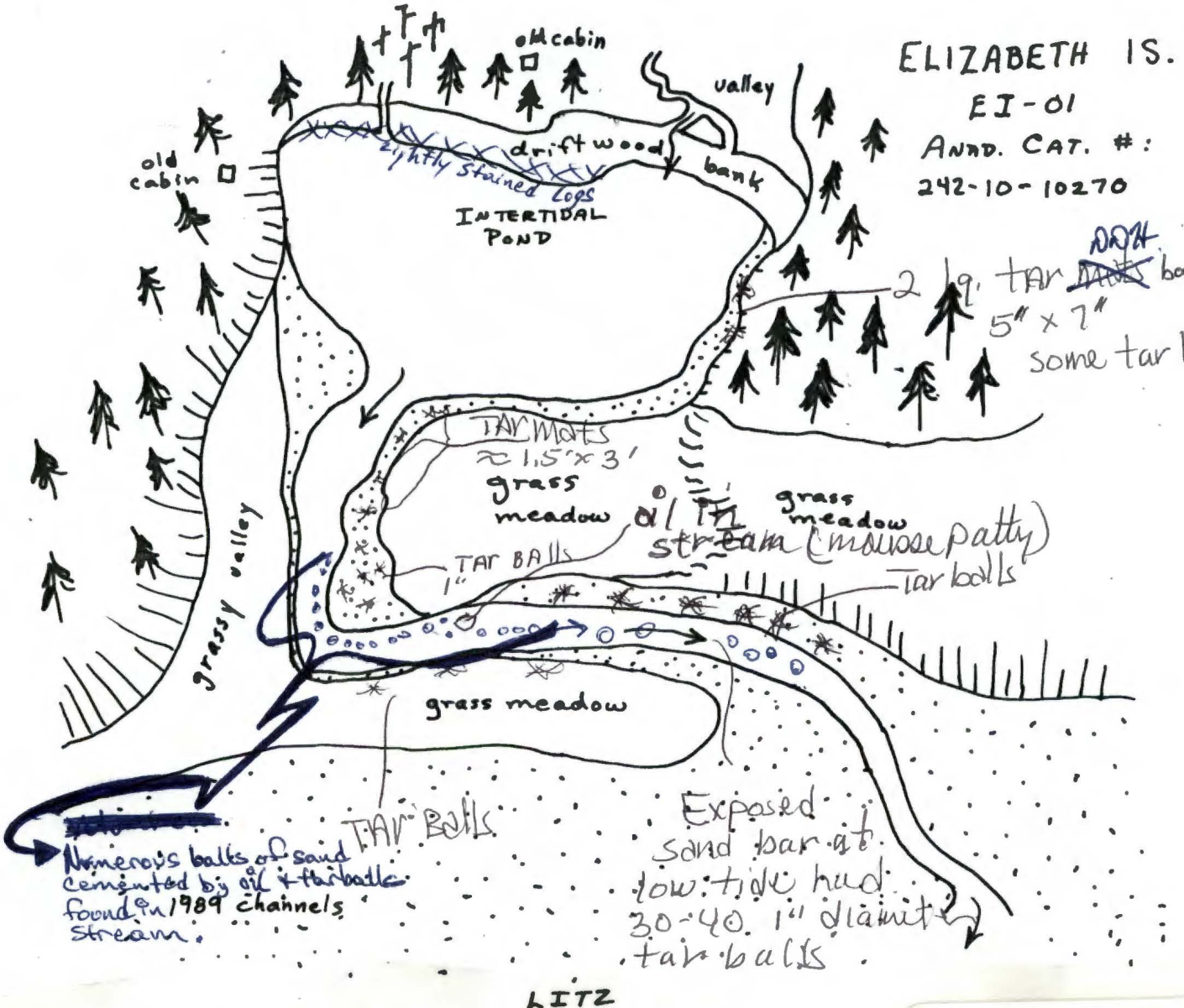
COMMENTS: Observed less oil on this trip than was observed on 4/7/90. Balls of mousse and sand cemented by oil found throughout outlet stream. Oil coverings still exist on banks of stream above beach - A few tar patties in lake. Morphology of outlet stream changed significantly over winter - Cut bank is now on the south shore. No sign of a subsurface band of oil visible where stream cuts thru beach as it did last year.

ACE 10459442 →

46 PHOTOLOG

FRAME(S)	DESCRIPTION
18, 19, 20	Depicting Difference in Morphology of stream outlet in 1990 VS 1989. Cut bank is on South bank.

46 OIL DISTRIBUTION DIAGRAM



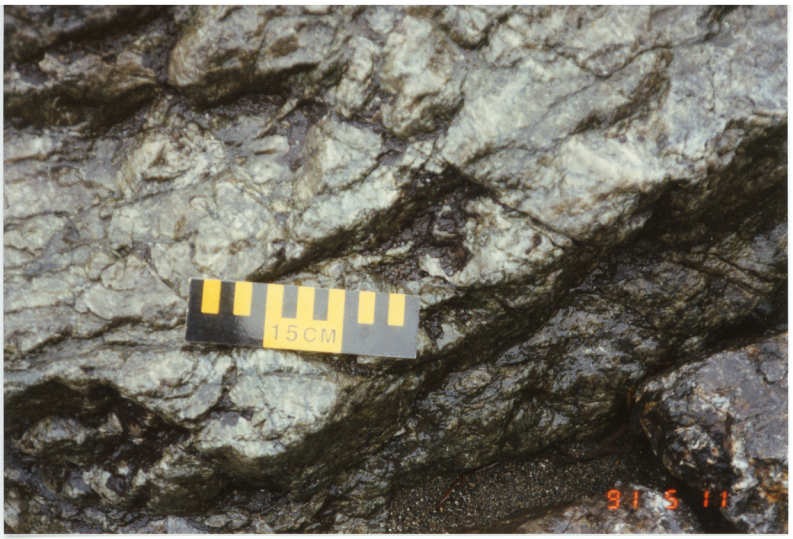
ACE 10459443 -SG

= Sample taken

= Photo frame # and shot direction.

ACE 6896864

★ ANADSCAT RECOMMENDED

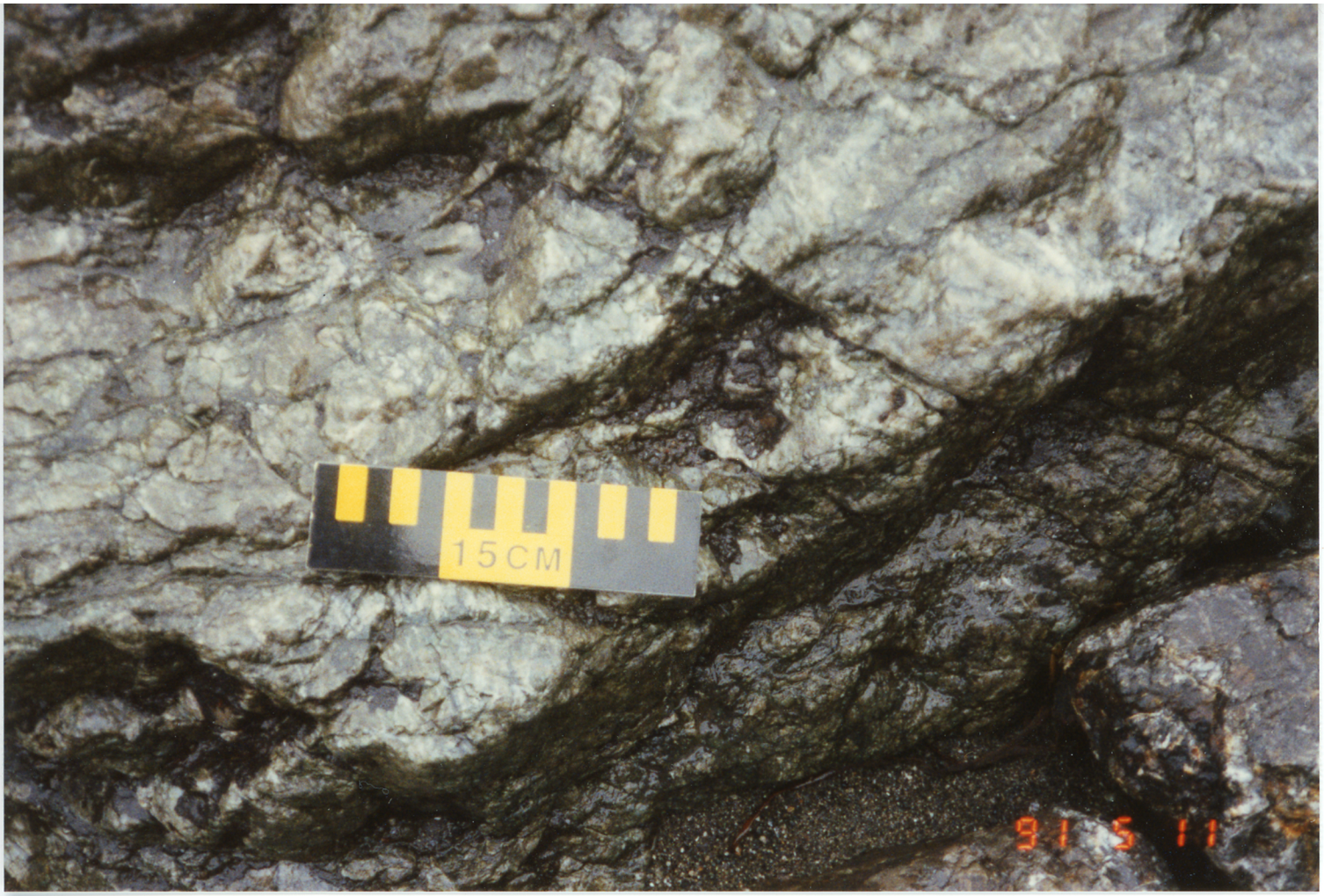


Date: 5/11/91 No. 888

Title: EI001A

Segment No E1-1 Subdivision A
Date 5/11/91 Log Frame No 7
Photographer GARY SHIGENAKA
Location ELIZABETH ISLAND
Comments AT NORTH END OF SEGMENT (SAME LOCATION AS PHOTO #6), FACING TO THE NORTHWEST, PHOTO OF SURVEY PARTY ALONG ROCKY HEADLAND

Roll No MAYSAP-6-11 Neg. No 6
Control No 888 (Office Use Only)



Segment No E1-1 Subdivision A
Date 5/11/91 Log Frame No 9
Photographer GARY SHIGENAKA
Location ELIZABETH ISLAND
Comments OIL COAT ON BOULDER (ABOVE & TO RIGHT OF PHOTO SCALE) OBSERVED ON BOULDER BEACH SOUTH-EAST OF STREAM

Roll No MAYSAP-6-11 Neg. No 8
Control No 888 (Office Use Only)

Segment No E1-1 Subdivision A
Date 5/11/91 Log Frame No 6
Photographer GARY SHIGENAKA
Location ELIZABETH ISLAND
Comments AT NORTH END OF SEGMENT FACING SOUTH

Roll No MAYSAP- 6-11 Neg. No 5
Control No 888 (Office Use Only)

Segment No EI-1 Subdivision A
Date 5/11/91 Log Frame No 8
Photographer GARY SHIGENAKA
Location ELIZABETH ISLAND
Comments ON SOUTH SIDE OF ANAD STREAM
FACING NORTHWEST, TOWARD HELO

Roll No MAYSAP- 6-11 Neg. No 7
Control No 888 (Office Use Only)

Date: 5/11/91 No. 888

Title: EI001A

Segment No E1-1 Subdivision A
Date 5/11/91 Log Frame No 11
Photographer GARY SHIGENAKA
Location ELIZABETH ISLAND
Comments TAR PATTY OBSERVED (AND SUBSEQUENTLY PICKED UP BY VECO) ALONG NORTHERN BANK OF ANAD STREAM BELOW LAKE. PATTY IS LOCATED TO THE LEFT OF PHOTO SCALE.

Roll No MAYSAP-6-11 Neg. No 10
Control No 888 (Office Use Only)

Segment No E1-1 Subdivision A
Date 5/11/91 Log Frame No 10
Photographer GARY SHIGENAKA
Location ELIZABETH ISLAND
Comments PHOTO OF BOULDER SUBSTRATE ALONG SOUTHERN SIDE OF SEGMENT, FACING WEST NORTHWE

Roll No MAYSAP-6-11 Neg. No 9
Control No 888 (Office Use Only)

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

KENAI

SEGMENT: EI001 **SUBDIVISION:** A **SITE:**
anadromous stream

242-10-10270

RECOMMENDED TREATMENT:
Recommend a resurvey of this subdivision when lake level is low JG

ENVIRONMENTAL SENSITIVITIES:
Open only after eagle nest is cleared.

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

CLEANUP PLAN AND COST ESTIMATE DUE:

DATE SUBMITTED: 05/21/91

STATE ON SCENE COORDINATOR: John Bauer for GPiper

1991 STREAM FILE LOG
HABITAT

STREAM CATALOG # : 242-10-10270
STREAM NAME : Elizabeth Holland CK

LOCATION : Homer
SEGMENT : EI-001A

DATE	NAME	ACTIVITY	REASON/STATUS

The survey of the stream & lake was only preliminary.

MAYSAP - Elizabeth Island Creek

~~MULTI-ASSESSMENT~~ DATA FORM

ANAD

1) SURVEY TYPE: (SS) SS

2) REGION: PWS (KP,CI) K,AP

3) METHOD: Aerial (Ground) Boat

4) DATE: 5/11/91

5) START TIME: 0845

6) STOP TIME: 0950

7) SEGMENT #: E1-1

8) K-UNIT: _____

9) LAT: 59 9 15

10) LONG: 151 48 1

11) ASC #: 242-10-10270

12) STREAM NAME: Elizabeth Island Creek

13) LOCATION: KPDC, Elizabeth Island

14) WAVE EXPOSURE: (High) Moderate Low

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

16) HIGH TIDE TIME: 00:21/00:06

17) HIGH TIDE HTS: 17.1/16.0

18) LOW TIDE TIMES: 0645/1850

19) LOW TIDE HTS: 0.3/2.7

20) TIDE HT AT SURVEY: -.8/.2
Ebb Slack Flood Slack

21) USCG QUAD: Seldovia A-5

22) TEAM RECORDER: Doug Hill (ADEC)

23) OBSERVERS: Steve Ferguson (ADEC), Duncan Fitzgerald (OC)

24) AGENCY: _____

25) PHOTOS TAKEN: (Y) N
See Photolog on opposite side
ROLL #: _____ FRAMES: _____

26) VIDEO TAKEN: Y (N)
TAPE # _____
START: _____ STOP: _____

27) SAMPLES TAKEN? Y (N)
SAMPLE I.D. _____

28) EXTENT OF OIL

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

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

30) OIL IN STREAMBED: (Y) N

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

32) SUBSTRATE TYPE (PERCENT):

Bedrock ____ Boulder ____ Gravel ____ Sand ____ Cobble ____ Mud/Silt ____

33) ANADROMOUS FISH PRESENT: Y ? N
fry?

34) WILDLIFE OBSERVATION

Species	Number
Bald Eagles	(2) Adults
River otter tracks	

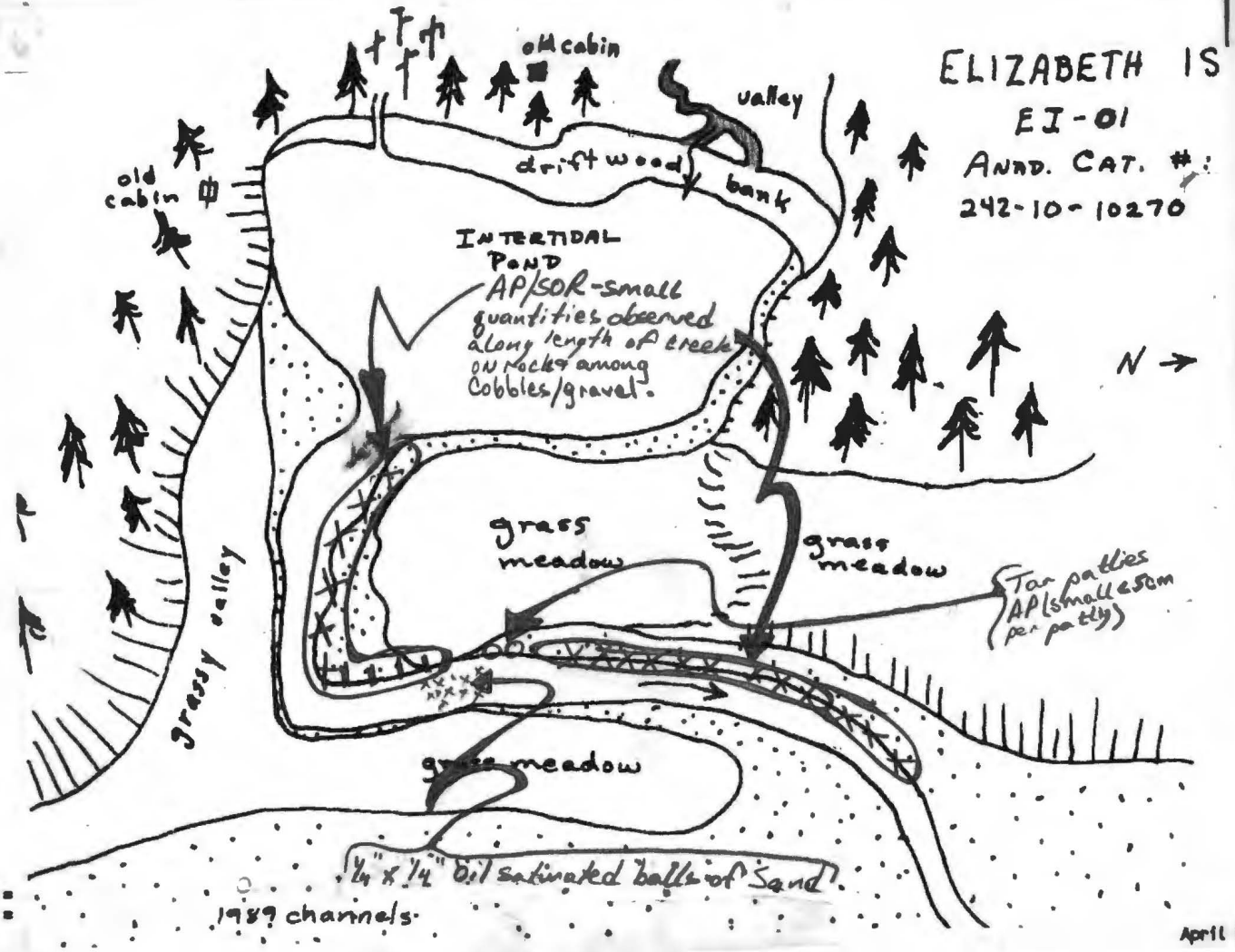
35) COMMENTS: All oil observed was not picked up as the EXXON Rep. OIS has stated in the comments section of the oiling Summary sheet. Only the beach portion of this segment had a VALID survey - the North shore of the creek to the lake was briefly looked at. The lake/creek's water level was too high to conduct a thorough survey. Aerated sediment was observed on the bank from the beach to the lake. Small (¼"x¼") balls of oil saturated sand was easily observed on the bottom of the creek just above the beach berm (north/south flowing portion). CT + ST is all that was found on the beach portion of this segment.

(over)

FRAME(S)	DESCRIPTION
	See Photo location map of Moyrae Survey. Gary Shigenaka of NOAA Took photos – Roll # 6-11, Frame 6 thru 11.
! ★ !	REX Coulter (EXXON), ASC Jensen (USCG) agreed that this survey would only be a Preliminary Survey of the stream + lake due to the high water level.

Comments Cont'D: The stream lake should be looked at in July when the water level will probably be lower.

The bucket (≈ 4 gallons worth) and bag (≈ 40 pds) of mousse left from 1990 were retrieved and brought to town: this mousse was retrieved in the form of patties Lee + I found scattered throughout the east end of the lake. These patties contained little sediment. The creek portion surveyed is Approx. 1000' feet long



OATFO
April 3, 1991