1989-AFHS Site 1-1 Perl Island Creek OK

ASC NUMBER: 242-10-10196 SEGMENT NUMBER: NONE YR CATALOGED:
LOCATION: Chugach Islands, Perl Island, Northwest shore
STREAM NAME:
KODIAK K-UNIT: . LOCAL STREAM #: LATITUDE: 59 7 25
USGS QUADRANGLE: Seldovia A-5 LONGITUDE: 151 42 42
SHORELINE TYPE: BEACH LEGAL:
WAVE EXPOSURE: High ALL SEGMENTS:

ASC NUMBER:
SURVEY TYPE: BS TEAM RECORDER: Doug Hill
METHOD: GROUND OBSERVERS: Lee Glenn
DATE: 7/21/89 AGENCY(IES): ADF&G
START TIME: 1115
STOP TIME: 1145 PHOTOS TAKEN? ✓
Roll #: 89DDH007 Frames: 18-19
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? Yes BGLPE0003H
SAMPLE I.D. NUMBERS: 1. Perl Isl Crk-LPG/DDH-7/21/89-1125 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	.30	.30	.09	100	1	~~7~~	TP Tar, CT
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: VL

OIL IN STREAM CHANNEL? NO

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Yes

SUBSTRATE

Bedrock		Granule	
Boulder		Sand	70
Cobble	15	Silt	
Pebble	15	Veget.	

SPECIES					
COUNT					

COMMENTS: Dave Latrell (private land owner on Perl Island) states that a 20' band of 18"-24" Tarballs, beached on the Northwest shore of Perl Island a number of tides around 4/7/89. Lee and I met Dave near the salmon stream (NW shore Perl Island). Dave took us to the Intertidal flats/shelf immediately West of the stream mouth where the oil supposedly beached. We were unable to find any sign of the oil at the time of this survey. Oil is also reported to have beach on NE end of this beach (in the vicinity of the cabins). Initial beach oil coverage info is available from Dave Latrell/Tom Besh at phone # 337-3131.

Oil sample taken from oiled on shoreside of storm berm. 1-0

Harley Hess (Homer Resident) states that Cohos run in this stream (Rick Randall/ADF&G-Arsenal Communication). This stream is catalogued as a pink stream only. The lake would certainly provide good rearing ground.

ACE 10459324 4/5

FISH HABITAT ASSESSMENT FORM

Perl Island

[1]REGION: [2]PWS ([3]KP,CI) [4](circled, scribbled over) [5]OBSERVER(S) Lee Glynn, Doug Hill

[6]SITE NO. 1-1 [7]AERIAL PHOTO NO. ~~18~~, ~~18~~ 19 [8]CAT NO. 242-10 10196

[9]STREAM NAME Perl Island Crk. [10]LAT 59 ° ~~05~~ 07 . ~~8~~ 25 ' [11]LONG 151 ° ~~38~~ 42 . ~~5~~ 42 '

[12]DATE 7/21/89 [13]TIME 1125 [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. Perl Isl Crk-LPG/DOH-7/21/89-1125

[21]35 mm PICTURES TAKEN? Y N [22]ROLL NO(S). 89-DOH-7

[23]EXPOSURE NO.	[24]DESCRIPTION
18	Aerial photo – Perl Island Creek – looking North
19	" " " " " " "
	Dave Intolt states that a 20' band of 18-24" Tar
	Mats/Balls beached on the Northwest shore of Perl Island
	for numerous tides around the 7th of April.

[25]VIDEO FOOTAGE TAKEN? Y (N) [26]CASSETTE NO(S).

[27]DESCRIPTION:

ACE 7380156

ACE 10459325

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Ø Aerial								
29	Ø Ground								

30 COMMENTS: "Coho Stream" No fish observed - None expected in stream til Mid-August. Harley Hess states that Cohos do run on this stream/ers. Communic w/ Rich RANDALL ADF&G. No pinks observed ⇒ this stream catalogued as pink stream.

site 1-1

OIL OBSERVATIONS

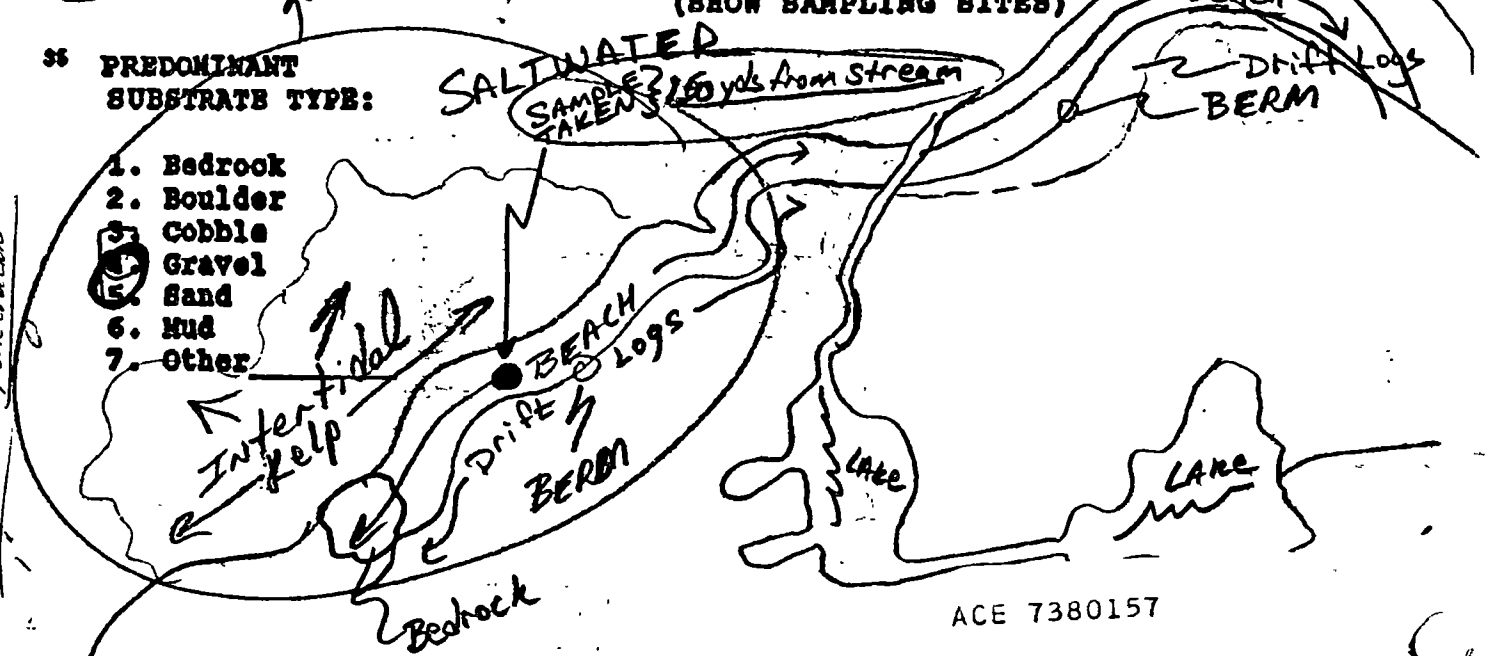
EXTENT OF OIL:

	WITHIN STREAM	OUTSIDE STREAM
31 SURFACE COVERAGE	Ø observed	Sample taken from oiled drift log on shoreside of stream
32 SURFACE THICKNESS		berm. - barge log with root wad embedded in substrate
33 PENETRATION		

Lee + I found No oil at either location → oil beached (Dave Latrell)

According to Dave Latrell oil mat beached in the intertidal flats below ←

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

½" oil coverage penetration

ACE 7380157

36 COMMENTS: Initial Beach oil Coverage & Info Available from Dave Latrell / ~~Ex~~ Tom BESH (AN Island Land Owners) Phone # 337-3131. No oil was observed in Stream above berm line

ACE 10459326

CHUGACH PASSAGE
Site 41 (7/21/89)
PRL Isl. Crk-196-00H-7/21/89-1125
SITE
1-1
PERL Island Creek
ASCH 242-10-10196
ACE 10459327 -1/S
ACE 7380158

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010196
SEGMENT: PE-02

PAGE 29 DATE PRINTED: 08/14/91

LOCATION: PERL ISLAND

SURVEY TYPE: 89 AFHS - BS/SS METHOD: GROUND FOOT

DATE: 07/21/89 TEAM RECORDER: HILL

START TIME: 1115 OBSERVERS: GLENN
END TIME: 1145

TIDES: low AGENCY: FG
OG/HAB DISCREPANCIES:

PHOTOS TAKEN: Y

STATION: 2421010196 ROLL#: 89DDH007H
FRAME: 18-19

VIDEO TAKEN: N TAPE#:
START: END:

SAMPLES TAKEN: N

SAMPLE NUMBERS: 89LPG003H

OIL IN STREAM BED: N

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

WAVE EXPOSURE: H SHORELINE TYPE: BEACH

SUBSTRATE TYPE: BEDROCK BOULDER COBBLE 15 VEGETAT

GRAVEL 15 SAND 70 MUD/SILT GRANULE

ANADROMOUS FISH PRESENT: N

SPECIES: COUNT:

ACE 10459322

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

ok

PAGE 32

DATE PRINTED: 08/14/91

STREAM# : 2421010196
SEGMENT#: PE-02

SURVEY TYPE : 89 AFHS - BS / 99
DATE: 07/21/89
TIMES: 1115 - 1145

LOCATION: PERL 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			.30	.30	.090	100	1	0	TP CT

COMMENTS:
SITE 1-1. DAVE LATRELL (PRIVATE LAND OWNER ON PERL ISLAND) STATES THAT A 20' BAND OF 18"-24" TARBALLS BEACHED ON THE NORTHWEST SHORE OF PERL ISLAND A NUMBER OF TIDES AROUND 4/7/89. LEE AND I MET DAVE NEAR THE SALMON STREAM (NW SHORE PERL ISLAND). DAVE TOOK US TO THE INTERTIDAL FLATS/SHELF IMMEDIATELY WEST OF THE STREAM MOUTH WHERE THE OIL SUPPOSEDLY BEACHED. WE WERE UNABLE TO FIND ANY SIGN OF THE OIL AT THE TIME OF THIS SURVEY. OIL IS ALSO REPORTED TO HAVE BEACHED ON NE END OF THIS BEACH (IN THE VICINITY OF THE CABINS). INITIAL BEACH OIL COVERAGE INFO IS AVAILABLE FROM DAVE LATRELL/TOM BESH AT PHONE #337-3131. OIL SAMPLE TAKEN FROM OILED ON SHORE SIDE OF STORM BERM. HARLEY HESS (HOMER RESIDENT) STATES THAT COHOS RUN IN THIS STREAM (RICH RANDALL/ADFG PERSONAL COMMUNICATION). THIS STREAM IS CATALOGED AS A PINK STREAM ONLY. THE LAKE WOULD CERTAINLY PROVIDE A GOOD REARING GROUND for cohos.

DDH

ACE 10459323 - 5

1989-AFHS Site 1-1 Perl Island Creek

ASC NUMBER: 242-10-10196 SEGMENT NUMBER: NONE YR CATALOGED:
LOCATION: Chugach Islands, Perl Island, Northwest shore
STREAM NAME: LATITUDE: 59 7 25
KODIAK K-UNIT: . LOCAL STREAM #: LONGITUDE: 151 42 42
USGS QUADRANGLE: Seldovia A-5 LEGAL:
SHORELINE TYPE: ALL SEGMENTS:
WAVE EXPOSURE:

ASC NUMBER:
SURVEY TYPE: BS
METHOD: GROUND
DATE: 7/21/89
START TIME: 1115
STOP TIME: 1145

TEAM RECORDER: Doug Hill
OBSERVERS: Lee Glenn
AGENCY(IES): ADF&G

PHOTOS TAKEN?
Roll #: Frames:
VIDEO TAKEN? Tape Number:
Counter Start:

SAMPLES TAKEN? Yes
SAMPLE I.D. NUMBERS: 1. Perl Isl Crk-LPG/DDH-7/21/89-1125 2. 3.
4. 5. 6.

	LENGTH m	WIDTH m	M2	%	THICK cm	PEN cm	OIL TYPE
SITE 1	.30	.30	.09	100	1	~~0~~	Tar, CT
SITE 2							
SITE 3							
SITE 4							
SITE 5							

OVERALL OIL IMPACT: VL

OIL IN STREAM CHANNEL? NO

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? Yes

SUBSTRATE

Bedrock		Granule	
Boulder		Sand	70
Cobble	15	Silt	
Pebble	15	Veget.	

SPECIES					
COUNT					

COMMENTS: Dave Latrell (private land owner on Perl Island) states that a 20' band of 18"-24" Tarballs, beached on the Northwest shore of Perl Island a number of tides around 4/7/89. Lee and I met Dave near the salmon stream (NW shore Perl Island). Dave took us to the Intertidal flats/shelf immediately West of the stream mouth where the oil supposedly beached. We were unable to find any sign of the oil at the time of this survey. Oil is also reported to have beach on NE end of this beach (in the vicinity of the cabins). Initial beach oil coverage info is available from Dave Latrell/Tom Besh at phone # 337-3131.

Oil sample taken from oiled on shoreside of storm berm.

ACE 10459328
+13

Harley Hess (Homer Resident) states that Cohos run in this stream (Rick Randall/ADF&G-Arsenal Communication). This stream is cataloged as a pink stream only. The lake would certainly provide good rearing ground.

ANADROMOUS FISH OBSERVATIONS

		PINK	CHUM	RED	KING	COHO	DOLLY		
28	Ø Aerial								
29	Ø Ground								

30 COMMENTS: "Coho Stream" - No fish observed - None expected in stream til Mid-August & Harley Hess states that Cohos do run on this stream (Pers. Communic w/ Rich RANDALL - ADF&G)
No pinks observed ⇒ this stream catalogued as pink stream

Site 1-1

OIL OBSERVATIONS

EXTENT OF OIL:

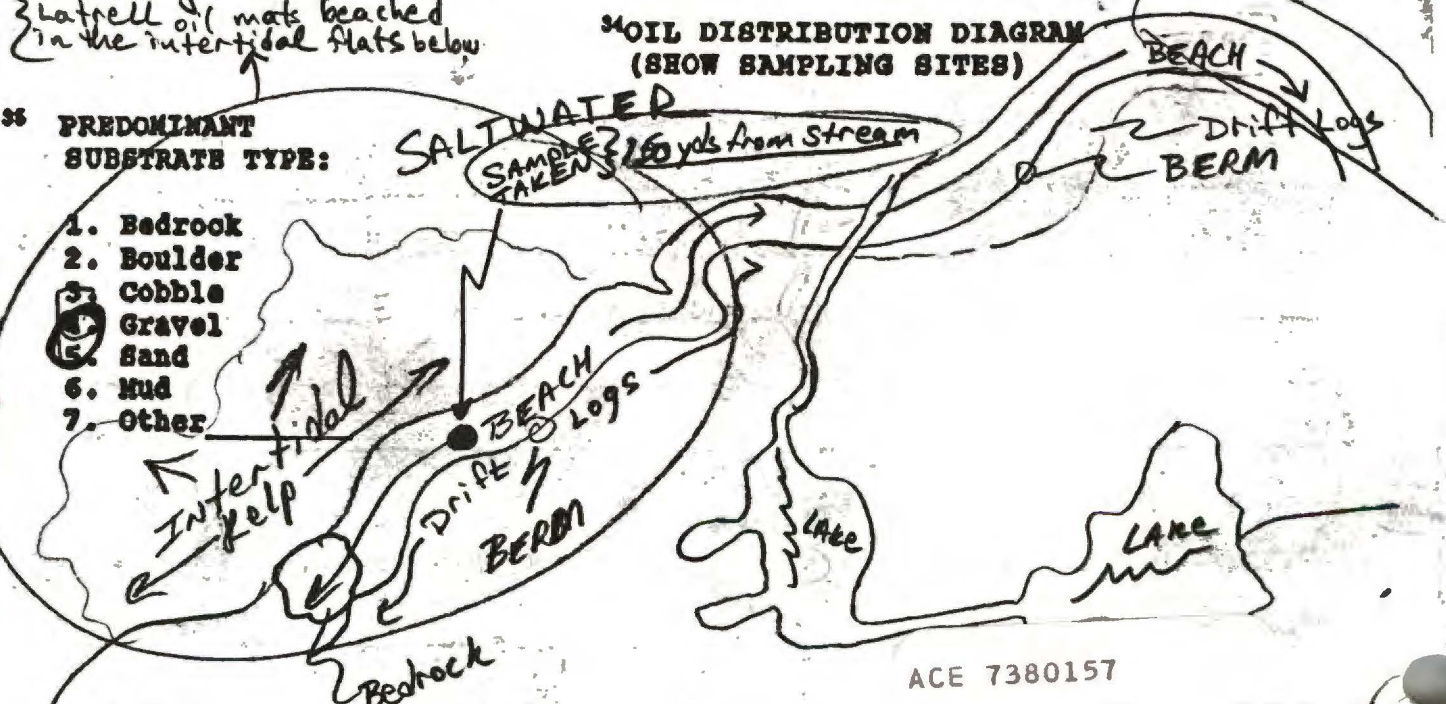
		WITHIN STREAM	OUTSIDE STREAM
31	SURFACE COVERAGE	Ø observed	Sample taken from oiled drift log on shoreside of storm
32	SURFACE THICKNESS		berm. - Large log with Root wad embedded in Substrate
33	PENETRATION		

According to Dave Latrell oil mats beached in the intertidal flats below ← Lee & I found No oil at either location → oil beached (Dave Latrell)

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



affected 1/2" thickness
oil coverage 1/2" penetration

ACE 7380157

36 COMMENTS: Initial Beach oil Coverage & Info Available from Dave Latrell / Tom BESH (Pen Island Land Owners) Phone: 337-3131. No oil was observed in stream above berm line

ACE 10459330/A

FISH HABITAT ASSESSMENT FORM

Perl Island

[1]REGION: [2]PWS (KP, CI) [redacted] [5]OBSERVER(S) Lee Glynn, Doug Hill

[6]SITE NO. 1-1 [7]AERIAL PHOTO NO. ~~18~~, ~~19~~ 19 [8]CAT NO. 242-10 10196

[9]STREAM NAME Perl Island Crk. [10]LAT 59 · ~~07~~ · ~~25~~ 8 · [11]LONG 151 · ~~42~~ · ~~42~~ 8 ·

[12]DATE 7/21/89 [13]TIME ~~1125~~ [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. Perl Isk Crk-LPG/DOH-7/21/89-1125

[21]35 mm PICTURES TAKEN? Y N [22]ROLL NO(S). 89-DOH-7

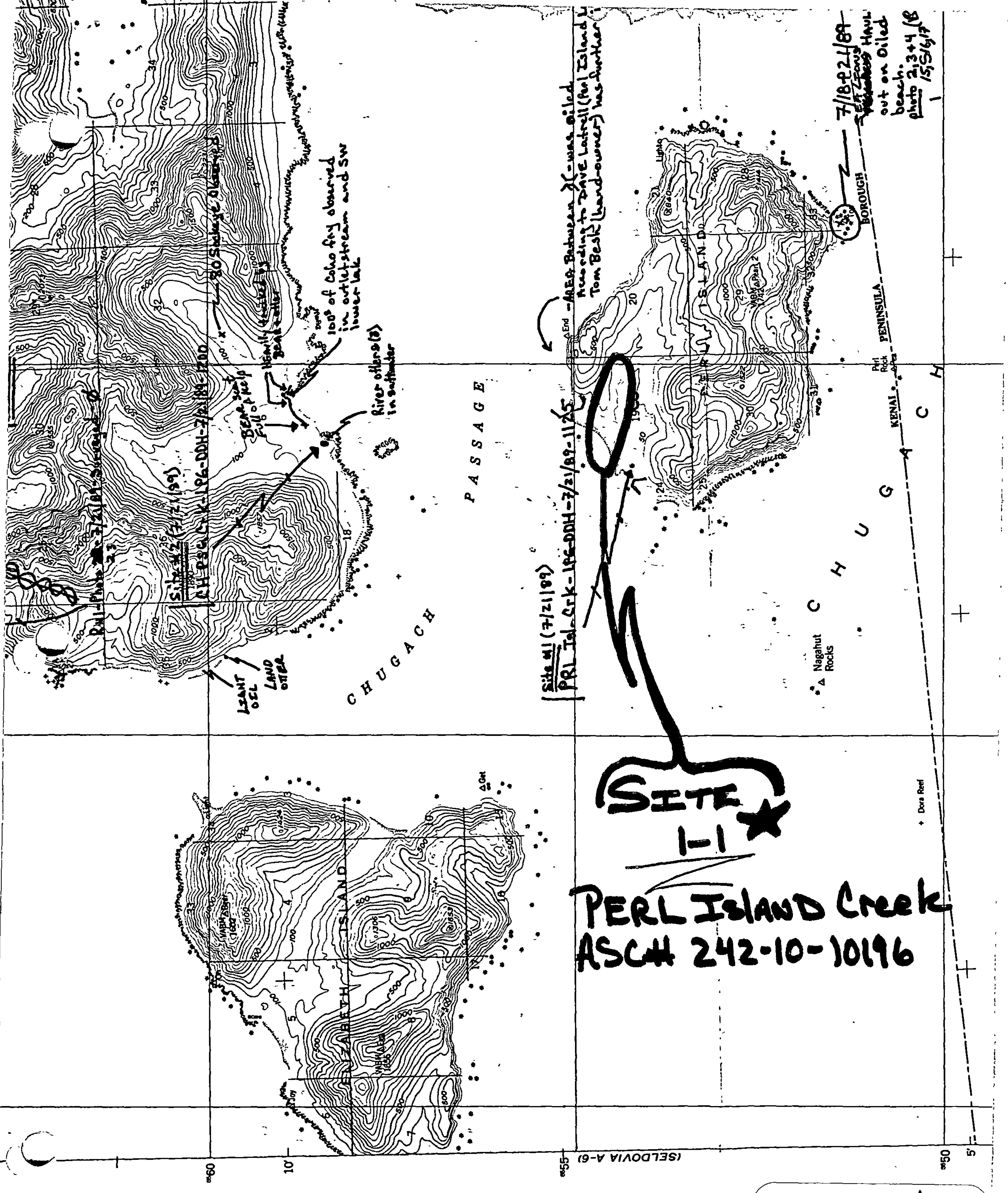
[23]EXPOSURE NO.	[24]DESCRIPTION
18	Aerial photo – Perl Island Creek-Looking North
19	" " " " " " "
	Dave Latrell states that a 20' band of 18-24" TAR
	MATS/BALLS beached on the Northeast shore of Perl Island
	on numerous tides around the 7th of April.

[25]VIDEO FOOTAGE TAKEN? Y (N) [26]CASSETTE NO(S). _____

[27]DESCRIPTION: _____

ACE 10459329

ACE 7380156



ASC NUMBER: 242-10-10196 SEGMENT NUMBER: YR CATALOGED:
LOCATION: Outer Coast-Kenai Penin., Perl Island
STREAM NAME: Perl Island Creek
KODIAK K-UNIT: . LOCAL STREAM #:
USGS QUADRANGLE: Seldovia A-5
SHORELINE TYPE: Beach, Low lying rocks ALL SEGMENTS:
WAVE EXPOSURE: Moderate
LATITUDE: 59 7 25
LONGITUDE: 151 42 42
LEGAL:

ASC NUMBER:
SURVEY TYPE: 90 Prescreening
METHOD: Foot
DATE: 4 / 18 / 90
START TIME: 1224
STOP TIME: 1325

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLain, Jacki Botkin
AGENCY(IES): ADF+G, USCG

PHOTOS TAKEN?
Roll #: 9000H06H Frames: 18, 19, 20, 21, 22, 23, 24
VIDEO TAKEN? N Tape Number:
Counter Start:

SAMPLES TAKEN? Yes (white sorbent boom material)
SAMPLE I.D. NUMBERS: 1. DDH-4/18/90-1245 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: None observed

OIL IN STREAM CHANNEL? NO

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? NO

SUBSTRATE

Bedrock	Granule
Boulder	Sand 70%
Cobble 15%	Silt
Pebble 15%	Veget.

SPECIES					
COUNT					

COMMENTS: (See 90 MAP Form for further comment)
A portion of a locally fabricated oil deflection boom (spruce log with Fypar attached) found on beach.

ACE 10459336 4/5/90

Not Included in A, B or C group list.

PRE-Screening

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat Seldovia

3 DATE: 4-18-90 15 HIGH TIDE TIMES: 0820 / 21 TEAM RECORDER: Doug Hill

4 START TIME: 1224 16 HIGH TIDE HTS: 13.1 / 22 OBSERVERS: Susan McLane

5 STOP TIME: 1325 17 LOW TIDE TIMES: 1457 / 23 AGENCY: ADF&G

6 SEGMENT #: None designated 18 LOW TIDE HTS: 3.9 / 24 PHOTOS TAKEN: (Y) N

7 STATION #: _____ 19 TIDE HT AT SURVEY: _____ Roll #: 90-DDH-06-H Frame: 18, 19, 20, 21, 22, 23, 24, 25

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

9 STAT AREA: 242-10 20 USCG QUAD: Seldovia A-5 Start: _____ End: _____

10 LAT: 59° 07' 36" 11 LONG: 151° 42' 24" 26 SAMPLES TAKEN? (Y) N Number

12 SOURCE: (Map) Loran Debris on white boom material DDH-4/18/90-1245

13 LOCATION: Perl Island-AES 242-10-10196 Sediment _____

14 DESCRIPTION: NW shore - within view of Airstrip & Cabins. Biological _____

EXTENT OF OIL Water _____

	SHORELINE L	W	H²	%	STREAM L	W	H²	%
27 SURFACE COVERAGE								
28 SURFACE THICKNESS								
29 PENETRATION								

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10196

38 STREAM NAME: Perl Island Crk.

39 OIL IN STREAM BED? Y (N) Zone

40 OIL ON STREAM BANKS? Y (N) Zone

30 OVERALL OIL IMPACT: N VL L M H

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

31 OIL TYPE: Pooled Mousse Tar Asphalt Sticky Stain

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

32 OILED DEBRIS? (Y) N Where: _____

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

43 ANADROMOUS FISH PRESENT? Y (N)

34 WAVE EXPOSURE: High (Moderate) Low

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

35 SUBSTRATE TYPE: Bedrock _____ Boulder _____ Cobble 15%

Gravel 15% Sand 70% Mud/silt _____

ACE 10459337

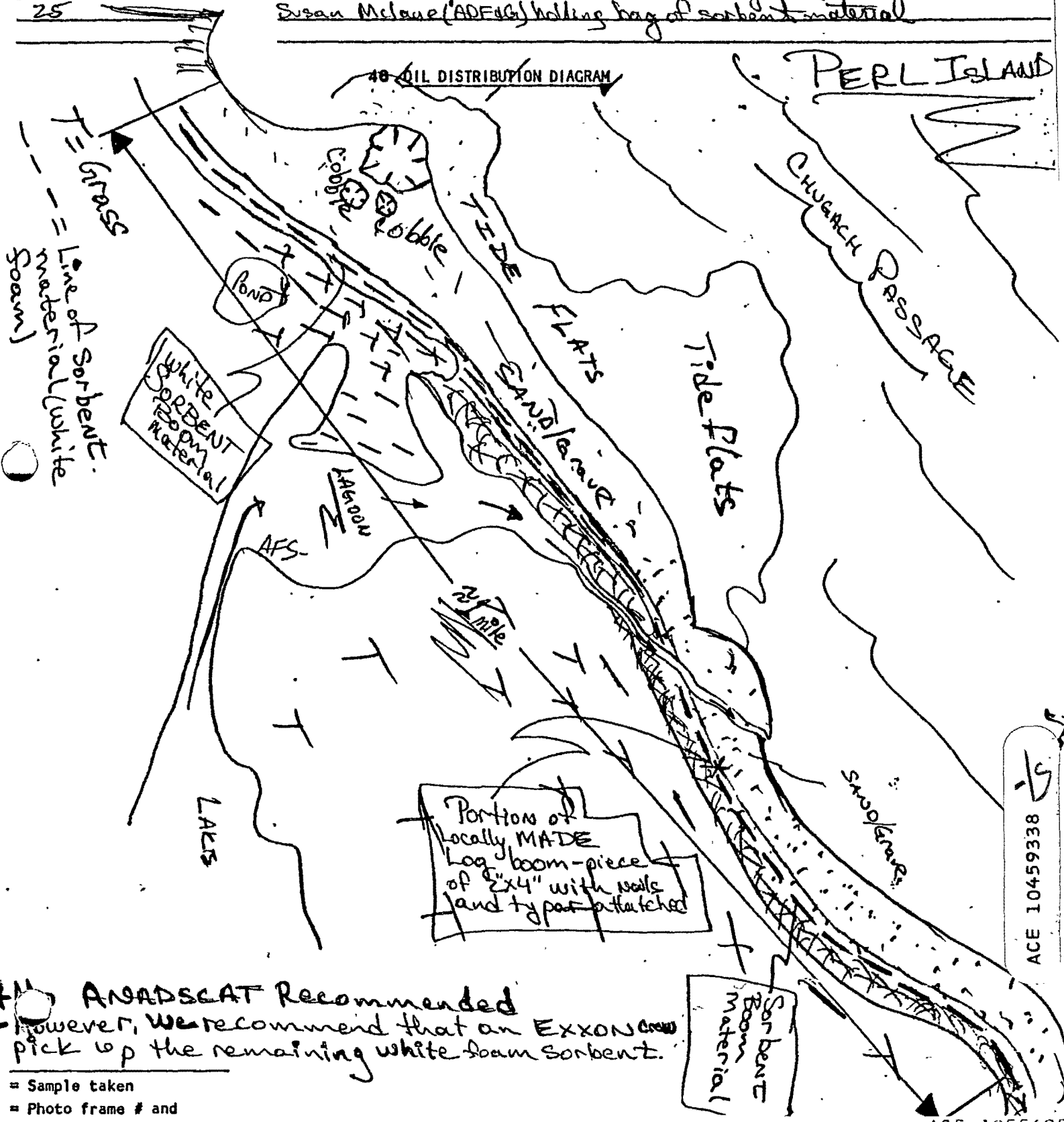
COMMENTS: ~~The~~ DOH 1. 5oz piece spot of oil observed on 2"x4"x12". "Numerous" "Scraps of white "foam Sorbent boom material" found - primarily at hi-tide drift line & on top of berm and amongst logs and grass. Approximate distribution on Northeast shore of creek was one piece of foam per 8'— Over an ≈ 3/4 mile distance. This sorbent material

ACE 1955694

46 PHOTOLOG

FRAME(S)	DESCRIPTION
18,	Sorbent boom material - hi tide drift line
19,	Jackie Botkin (USCG) picking up sorbent boom material
20	Sorbent boom material on hi tide drift line / Elie. Isl in background
21	Closeup of [redacted] Boom material found on hi-tide drift line.
22	0.1% 2"x4", And yet another piece of sorbent boom material
23	Local made log boom - Sea Curtain portion - 2x4 w/ type attached.
24	Same as 23, Elizabeth Isl. in background
25	Susan McLane (ADF&G) holding bag of sorbent material

46 OIL DISTRIBUTION DIAGRAM



NOT Included in A, B or C group list.

FAXed Anch. 2/20/90

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 Seldovia

3 DATE: 4-18-90

4 START TIME: 1224

5 STOP TIME: 1325

6 SEGMENT #: None designated

7 STATION #:

8 K-UNIT:

9 STAT AREA: 242-10

10 LAT: 59° 07' 36"

11 LONG: 151° 42' 24"

12 SOURCE: (Map) Loran

13 LOCATION: Perl Island-AFS 242-10-10196

14 DESCRIPTION: NW shore - within view of Airstrip & Cabins.

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:

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-06-H Frame: 18, 19, 20, 21, 22, 23, 24, 25

25 VIDEO TAKEN: Y (N) TAPE#:

Start: End:

26 SAMPLES TAKEN? (Y) N Number

Debris ON white boom material DDH-4/18/90-1245

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 15%

Gravel 15% Sand 70% Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 242-10-10196

38 STREAM NAME: Perl Island Cr.

39 OIL IN STREAM BED? Y (N) None observed

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 10459339

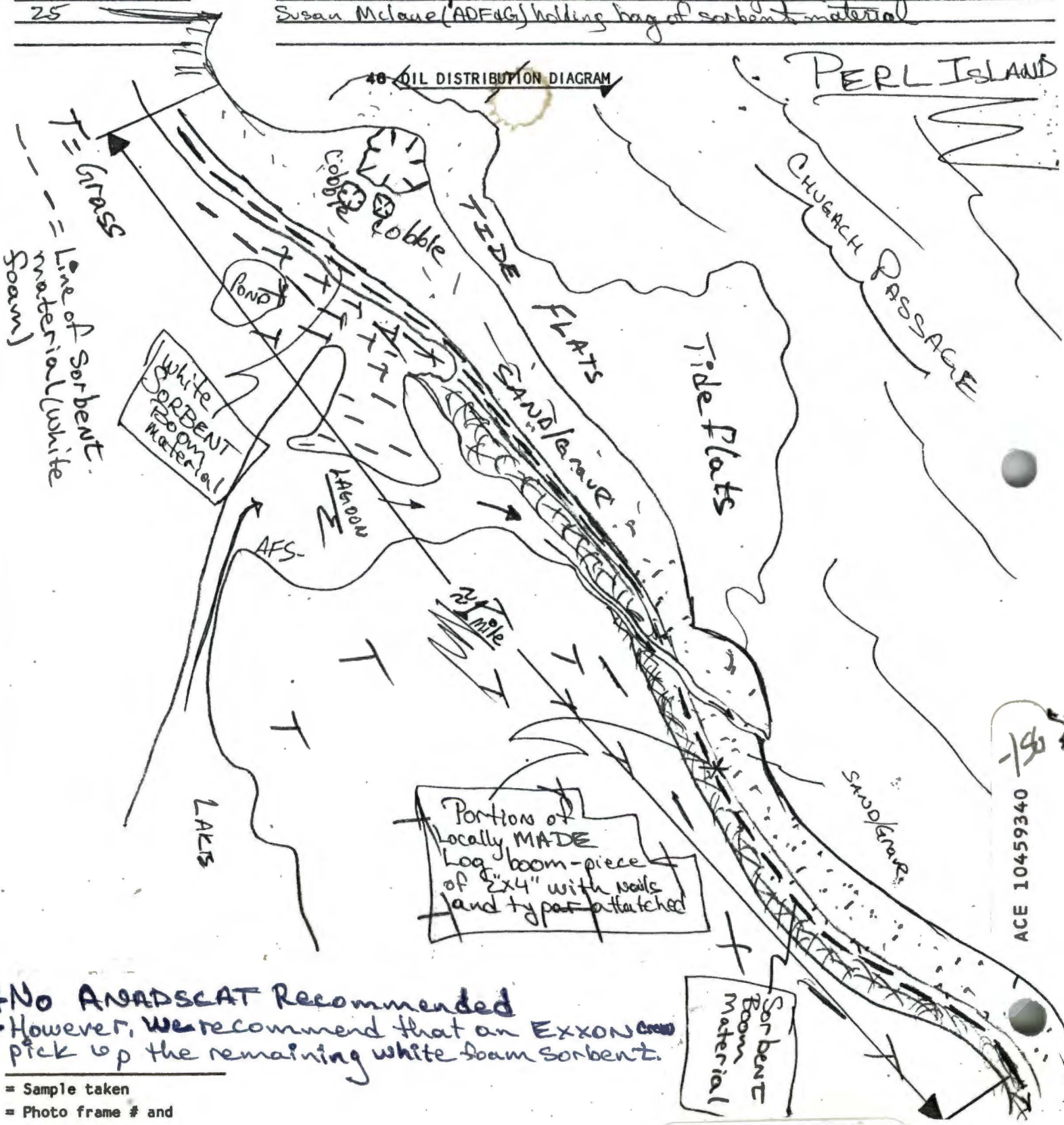
COMMENTS: ~~No Oil~~ DOH 1 50¢ piece spot of oil observed on 2"x4"x12". "Numerous" Scraps of white "foam Sorbent boom material" found - primarily at hi-tide/drift line & on top of berm and amongst logs and grass. Approximate distribution on Northeast shore of creek was one piece of foam per 8'.

ACE 1941080

48 PHOTOLOG

FRAME(S)	DESCRIPTION
18,	Sorbent boom material - hi tide drift line
19.	Jackie Botkin (USCG) picking up sorbent boom material
20	Sorbent boom material on hi tide drift line / Elie. Isl in background
21	Close up of [redacted] Boom material found on hi-tide drift line
22	0.1 2"x4"; And yet another piece of sorbent boom material
23	Local made log boom - Sea Curtain portion - 2x4 w/ typar attached.
24	Same as 23, Elizabeth Isl. in background
25	Susan Mclane (ADF&G) holding bag of sorbent material

48 OIL DISTRIBUTION DIAGRAM



-150

ACE 10459340

*No ANDADSCAT Recommended
*However, We recommend that an EXXON crew pick up the remaining white foam sorbent.

= Sample taken
= Photo frame # and shot direction.

ACE 1941081

ASC NUMBER: 242-10-10196 SEGMENT NUMBER: YR CATALOGED:
LOCATION: Outer Coast Kenai Penin., Perl Island
STREAM NAME: Perl Island Creek
KODIAK K-UNIT: . LOCAL STREAM #: LATITUDE: 59 7 25
USGS QUADRANGLE: Seldovia A-5 LONGITUDE: 151 42 42
SHORELINE TYPE: Beach, Low lying rocks ALL SEGMENTS: LEGAL:
WAVE EXPOSURE: moderate

ASC NUMBER:
SURVEY TYPE: 90 Prescreening
METHOD: Foot
DATE: 4/18/90
START TIME: 1224
STOP TIME: 1325

TEAM RECORDER: Doug Hill
OBSERVERS: Susan McLain, Jacki Botkin

AGENCY(IES): ADF&G, USCG

PHOTOS TAKEN?
Roll #: 9000H06H Frames: 8, 9, 20, 21, 22, 23, 24, 25
VIDEO TAKEN? no Tape Number:
Counter Start:

SAMPLES TAKEN? Yes (white sorbent boom material)
SAMPLE I.D. NUMBERS: ~~1. DDH-4/18/90-1245~~ 2. ~~DO NOT HAVE SAMPLE COC?~~ 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: None observed

OIL IN STREAM CHANNEL? no

OIL ON BEACH WITHIN 50M OF STREAM MOUTH? ~~conflicts~~ no

SUBSTRATE

Bedrock	Granule
Boulder	Sand 70%
Cobble 15%	Silt
Pebble 15%	Veget.

SPECIES					
COUNT					

COMMENTS: (See 90 MAD Form for further comments)

A portion of a locally fabricated oil deflection boom (spruce log with Typar attatched) found on beach

ACE 10459333 #5

Site 1-1 of 1989 AFHM

General question:
oil impact: NONE OBSERVED
= No oil?
or OBSERVATION NOT MADE?

NOT Included in A, B or C group list

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 — Seldovia

3 DATE: 4-18-90	15 HIGH TIDE TIMES: 0820 /	21 TEAM RECORDER: Doug Hill
4 START TIME: 1224	16 HIGH TIDE HTS: 13.1 /	22 OBSERVERS: Susan McLane
5 STOP TIME: 1325	17 LOW TIDE TIMES: 1457 /	23 AGENCY: ADF&G
6 SEGMENT #: None designated	18 LOW TIDE HTS: 3.9 /	24 PHOTOS TAKEN: (Y) N
7 STATION #:	19 TIDE HT AT SURVEY:	Roll #: 90-DDH-06-H Frame: 18,19,20,21,22,23 24,25
8 K-UNIT:	Ebb Slack Flood Slack	25 VIDEO TAKEN: Y (N) TAPE#:
9 STAT AREA: 242-10	20 USCG QUAD: Seldovia A-5	Start: End:
10 LAT: 59° 07' 36"	11 LONG: 151° 42' 24"	26 SAMPLES TAKEN? (Y) N Number
12 SOURCE: (Map) Loran		~~Debris white Foam material Oil DDH-4/18/90-1245~~
13 LOCATION: Perl Island - AES 242-10-10196		Sediment
14 DESCRIPTION: NW shore - within view of Airstrip + cabins.		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 SREAM? (Y) N

37 CATALOG #: 242-10-10196

38 STREAM NAME: Perl Island Crk.

39 OIL IN STREAM BED? Y (N) None

40 OIL ON STREAM BANKS? Y (N)

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

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

Where:

43 ANADROMOUS FISH PRESENT? Y (N)

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

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 15%

Gravel 15% Sand 70% Mud/silt ____

COMMENTS: ~~1 oil~~ DDH 1 50¢ piece spot of oil observed on 2"x4"x12". "Numerous" Scraps of white "foam Sorbent boom material" found - primarily at hi-tide/drift line (s & on top of berm and amongst logs and grass). Approximate distribution on Northeast shore of creek was one piece of foam per 8' — Over an ≈ 3/4 mile distance. This sorbent material is from the inside of sorbent oil boom

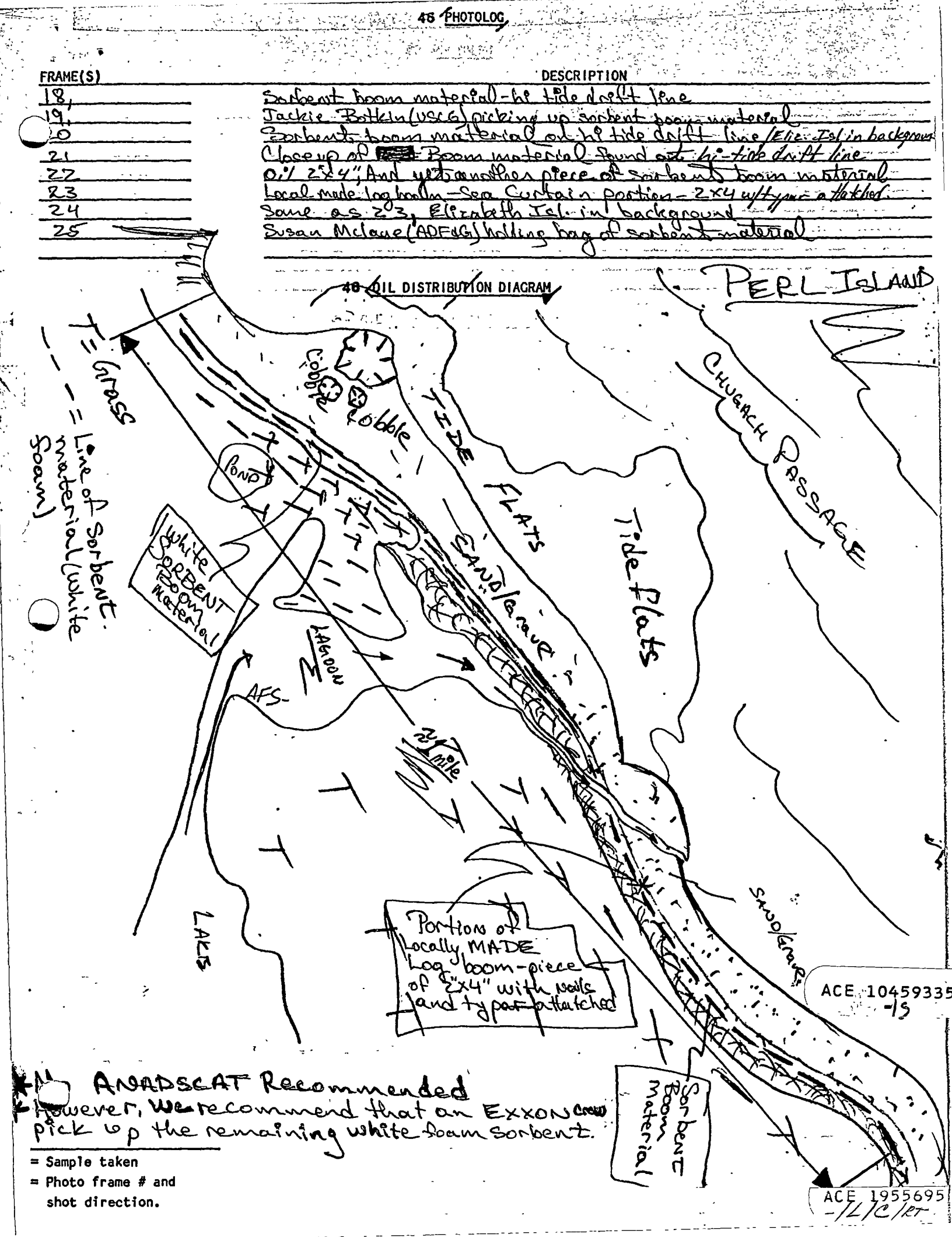
ACE 10459334

ACE 1955694

46 PHOTOLOG

FRAME(S)	DESCRIPTION
18,	Sorbent boom material - hi tide drift line
19,	Jackie Botkin (USCG) picking up sorbent boom material
20	Sorbent boom material on hi tide drift line / Elie. Isl in background
21	Close up of [redacted] Boom material found on hi-tide drift line
22	Oil 2"x4", And yet another piece of sorbent boom material
23	Local made log boom - Sea Curtain portion - 2x4 w/type attached
24	Same as 23, Elizabeth Isl. in background
25	Susan McLane (ADF&G) holding bag of sorbent material

46 OIL DISTRIBUTION DIAGRAM



* ANIADSCAT Recommended
However, we recommend that an EXXON crew pick up the remaining white foam sorbent.

= Sample taken
= Photo frame # and shot direction.

ADF&G MULTI-ASSESSMENT FORM
1991 GENERAL ENTRY CHECKLIST

STREAM#: 2421010196
SEGMENT: -0-

PAGE 15 DATE PRINTED: 06/21/91

LOCATION: PERL ISLAND

SURVEY TYPE: 90 PRE SCREEN - SS METHOD: GROUND

DATE: 04/08/90 → 18

TEAM RECORDER: HILL

START TIME: 1224
END TIME: 1325

OBSERVERS: MCLANE BOTKIN

AGENCY: FG USCG

OG/HAB DISCREPANCIES: -

PHOTOS TAKEN: Y

STATION: 2421010196

ROLL#: 90DDH006H
FRAME: 18-~~28~~ 24

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

SAMPLES TAKEN: Y → DDH-4/18/90-1245

SAMPLE NUMBERS: ?? we do not have this sample. COC?

-0- -0-

-0- -0-

-0- -0-

OIL IN STREAM BED: N

OVERALL OIL IMPACT: N

OIL ON BEACH BY MOUTH: N ~~Surface~~

WAVE EXPOSURE: MOD SHORELINE TYPE: LOW-LYING ROCKS BEACH

SUBSTRATE TYPE: BEDROCK -0- BOULDER -0- COBBLE 15 VEGETAT -0-

GRAVEL 15 SAND 70 MUD/SILT -0- GRANULE -0-

ANADROMOUS FISH PRESENT: N

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

ACE 10459331 +15

ADF&G MULTI-ASSESSMENT FORM
1991 OILING ENTRY CHECKLIST

PAGE 16 DATE PRINTED: 06/21/91

STREAM# : 2421010196
SEGMENT#: -0-

SURVEY TYPE : 90 PRE SCREEN - SS LOCATION: PERL ISLAND
DATE: 04/08/90
TIMES: 1224 - 1325 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-	~~NO OIL~~ [redacted] CT

COMMENTS:
1 50 CENT PIECE SPOT OF OIL OBSERVED ON 2" X 4" X 12". NUMEROUS SCRAPS OF ~~WHITE~~ white FOAM SORBENT BOOM MATERIAL FOUND - PRIMARILY AT HI-TIDE/DRIFT LINE, ALSO ON TOP OF BERM AND AMONGST LOGS AND GRASS. APPROXIMATE DISTRIBUTION ON NORTHEAST SHORE OF CREEK WAS ONE PIECE OF FOAM PER 8' - OVER AN APPROX 3/4 MILE DISTANCE. THIS SORBENT MATERIAL IS FROM THE INSIDE OF SORBENT OIL BOOM. NO ANADSCAT RECOMMENDED. HOWEVER, WE RECOMMEND THAT AN EXXON CREW PICK UP THE REMAINING WHITE FOAM SORBENT.
OIL ON STREAM BANKS: NO
OIL WITHIN 1 MILE OF STREAM: ~~NO~~ Yes

[redacted] not clear if no oil observed or obs. not made.

ACE 10459332 -15

Sta. #_____

Date Observed_____

Other Areas Observed_____

Sample #'s_____

Field Data_____

Photo/Video Roll #_____

State of Alaska
Oil Response Center
509 Sterling Highway
Homer, Alaska 99603
(907) 235-5322

PE-I
ADF&G MAP Included

Fax: (907) 235-5385

Fax Transmittal Sheet

Deliver To: Rick Gillie } Rex Coulter Bryan From: Lee Glenn A.O.F&G.

Date: 4-30-90 Time: 8:00 PM

Number of Pages (Including Transmittal Sheet): _____

Operator: Lee Glenn

If Telecopy does not transmit properly, please call (907) 235 - 5322 Immediately.

Notes: Attached are my comments of SAT on Pod Island on 4-29-90

ACE 10459341 +/S/C

ACE 1941085 +/S

STOC

Alaska Department of Fish and Game

Homer Office - Exxon Valdez Spill Response

Phone Number (907) 235-5322 (Lynette for fax questions)
Telefax Number (907) 235-5385

Transmittal Sheet

Sent
5-1-90
2:30 P.M.

Distribution:

✓ Anchorage ADF&G (349-1723): Dick Hensel
__ Valdez ADF&G (835-8071): _____
__ Seward ADF&G (224-7025): _____
__ Kodiak ADF&G (486-4969): _____
__ Homer ADF&G (235-2448): _____
__ Homer USFWS (235-): _____
__ Other ( ): _____

From: Lee Glenn

Number of Pages including the Cover Sheet: 13

Comments and Notes: SAT of Perl Island Sea Lion haulout - As per our conversation there is no asphalt pavement on this beach. It might be good to give the video tape of oiling to the TAG (video taken 4-12-90)

ACE 10459342

ACE 1941086

FAX COVER SHEET

FROM

M/V SEA TRADER

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

TO: LEE GLENN ADF+G
HOMER OIL SPILL CENTRE
FAX: 235-5385

FROM: RICK GILLIE EXXON/SEAT
M/V SEA TRADER

TIME/DATE: 22:45 / 04/29/90

NUMBER OF PAGES: 9

COMMENTS:

(1) PLEASE REVIEW FOLLOWING REPORT FOR PERL ISLAND AND FAX COMPLETED COMMENT SHEET DIRECTLY TO EXXON/SEAT FAX 564-3771

Rick Gillie

ACE 10459343

ACE 1941087

FIELD SHORELINE COMMENT SHEET

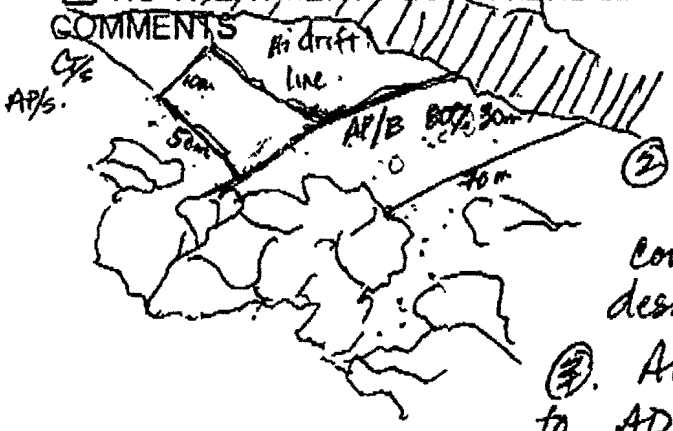
SEGMENT ST / PE-01 SUBDIVISION: DATE 4-29-90

USCG
NAME David S. Thomas SIGNATURE

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS



① Suggest manual removal of AP no other specific techniques recommended.
② Considering subsurface oiling, area designated moderate has a Continuous coverage of a 10X50 m area - WIDE designation for subsurface —
③ All clean-up activity to be subjected to ADF&G contraints.

~~LAND MANAGER~~ A.O.F&G
NAME Lee Glenn SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

See comments attached

ACE 10459344

ACE 1941088

REVISION NO. 03/21/90

Attachment - FIELD SHORELINE COMMENT SHEET
PE-01 4-29-90
Lee Glenn - Alaska Dept. of Fish and Game

The sea lion haulout on the south tip of Perl Island remains heavily oiled. No cleanup was attempted last year and there were no significant natural cleaning on this high energy beach over winter. The oil remains wet and fluid even on moderately warm days. Pooled surface oil, therefore, remains an environmental threat to fish and wildlife (especially birds). There is a concern that this oil may re-float and threaten some commercial salmon fishing areas of Cook Inlet or Kodiak Islands.

There are obsticals to a successful cleanup operation on Perl Island. Congress recently added sea lions to the list of species that are threatened. As a result of that action and because sea lions remain in a state of population decline, the National Marine Fisheries Service and the Alaska Department of Fish and Game will not allow cleanup of this haulout if such activity will cause disturbance to these mammals.

The following criteria for cleaning the sea lion haulout on Perl Island will be followed:

1. A.D.E.&G will survey the haulout and keep Exxon informed as to the possibility of mobilizing a successful cleanup effort which will result in little or no impact on sea lions

2. Cleanup should start as soon as possible since the number of animals utilizing the area are low (less than 12) and will build over the next 2 months (over 100 last summer).

3. All treatment shall be Type A.

4. Initial cleaning shall concentrate on pooled, mobile, surface oil.

5. In treating asphalt pavement and tar mats, concentrate only on that which can

be quickly and readily picked up and moved.

6. No bioremediation is recommended unless pooled surface oil is removed and asphalt and tar mats are picked up or broken up.

Alaska Department of Fish and Game

Homer Office - Exxon Valdez Spill Response

Phone Number (907) 235-5322 (Lynette for fax questions)
Telefax Number (907) 235-5385

Transmittal Sheet

Distribution:

__ Anchorage ADF&G (349-1723): _____
__ Valdez ADF&G (835-8071): _____
__ Seward ADF&G (224-7025): _____
__ Kodiak ADF&G (486-4969): _____
__ Homer ADF&G (235-4448): _____
__ Homer USFWS (235-): _____
✓ Other ( ): 564-3771 Rex Coulter

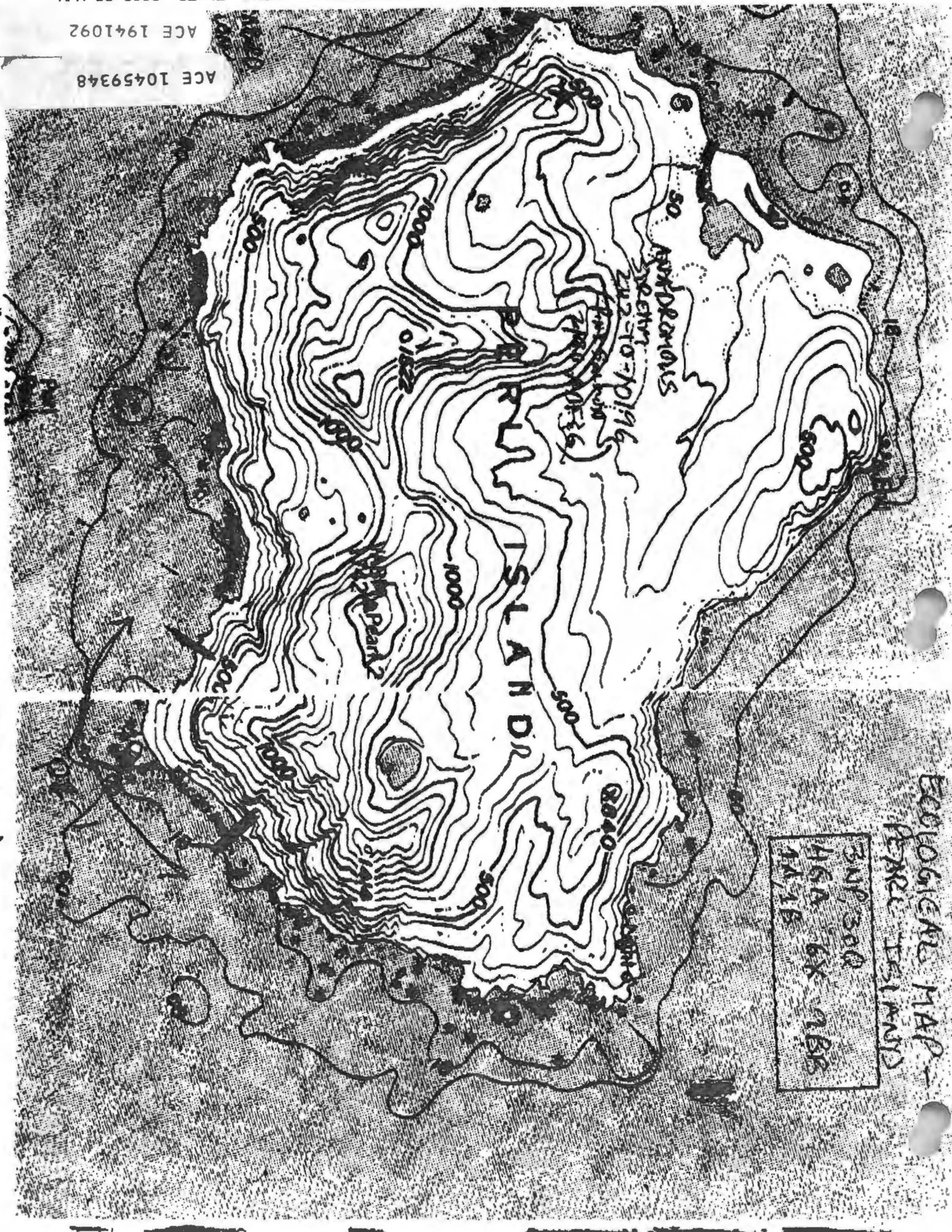
From: Lee Glenn

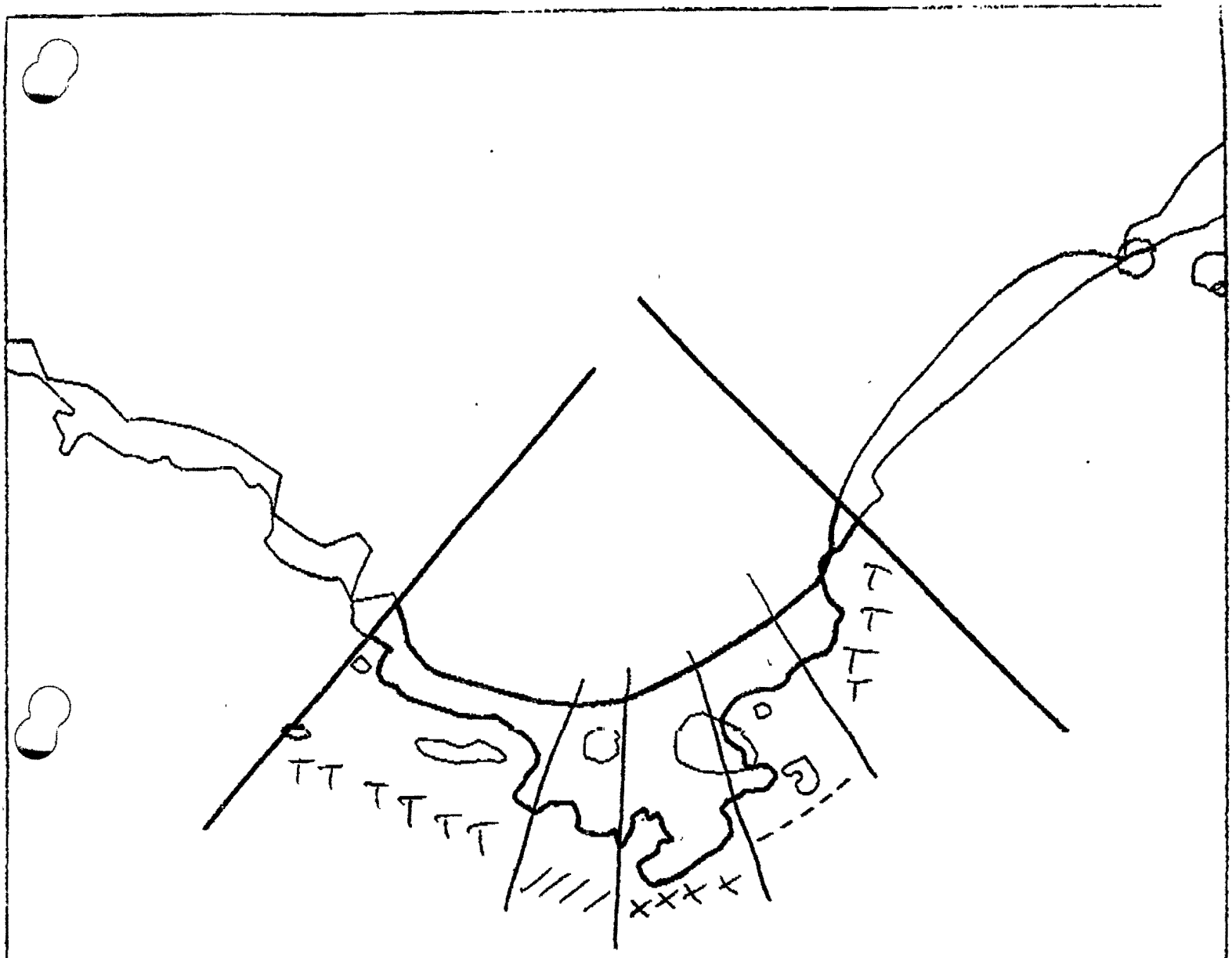
Number of Pages including the Cover Sheet: 2

Comments and Notes: Rex - Please attach this map to my comments on the Port Island SPT.
Thanks

ACE 10459347

ACE 1941091





ACE 10459349

ACE 1941093

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

PE-1

Approx. Segment Length: 891m

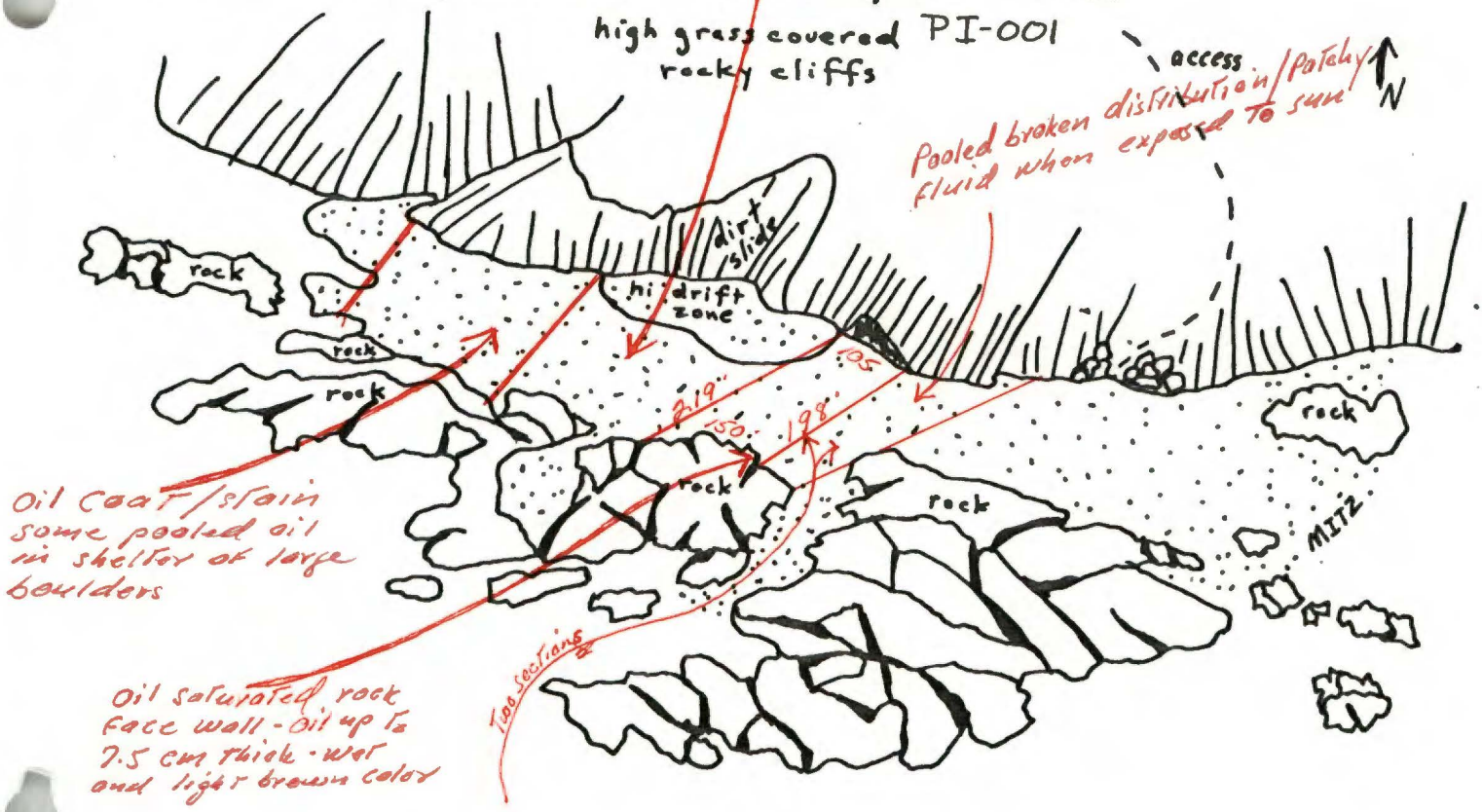
0 100 200 300 METERS

N

Map Key: KEN-PE-1
Name: Rick Gillie
Date: 04/29/90
Date Entered:

Subsurface mousse saturated sediments - oil up to 7 cm thick

PERL ISLAND, SEA LION HAULOUT, SE COAST



Pooled oil - Continuous to broken distribution - Dull black surface mixed with sand and pebble - Beneath surface film, the oil is light to dark brown in color and up to 10 cm thick. On warm days the oil breaks through the surface film and runs. See Video of oil taken in this area on April 12, 1990. Video shows how fluid the oil is & how thick. THIS IS THE OIL A.O.F.&G. WOULD LIKE REMOVED FIRST. See Dick Hensel (A.O.F.&G 267-2341) on STAG for copy of video.

Lee Glenn
A.O.F.&G.

ACE 10459350

ACE 1941094

OG RICK [redacted]E

SEGMENT ST/ PE-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

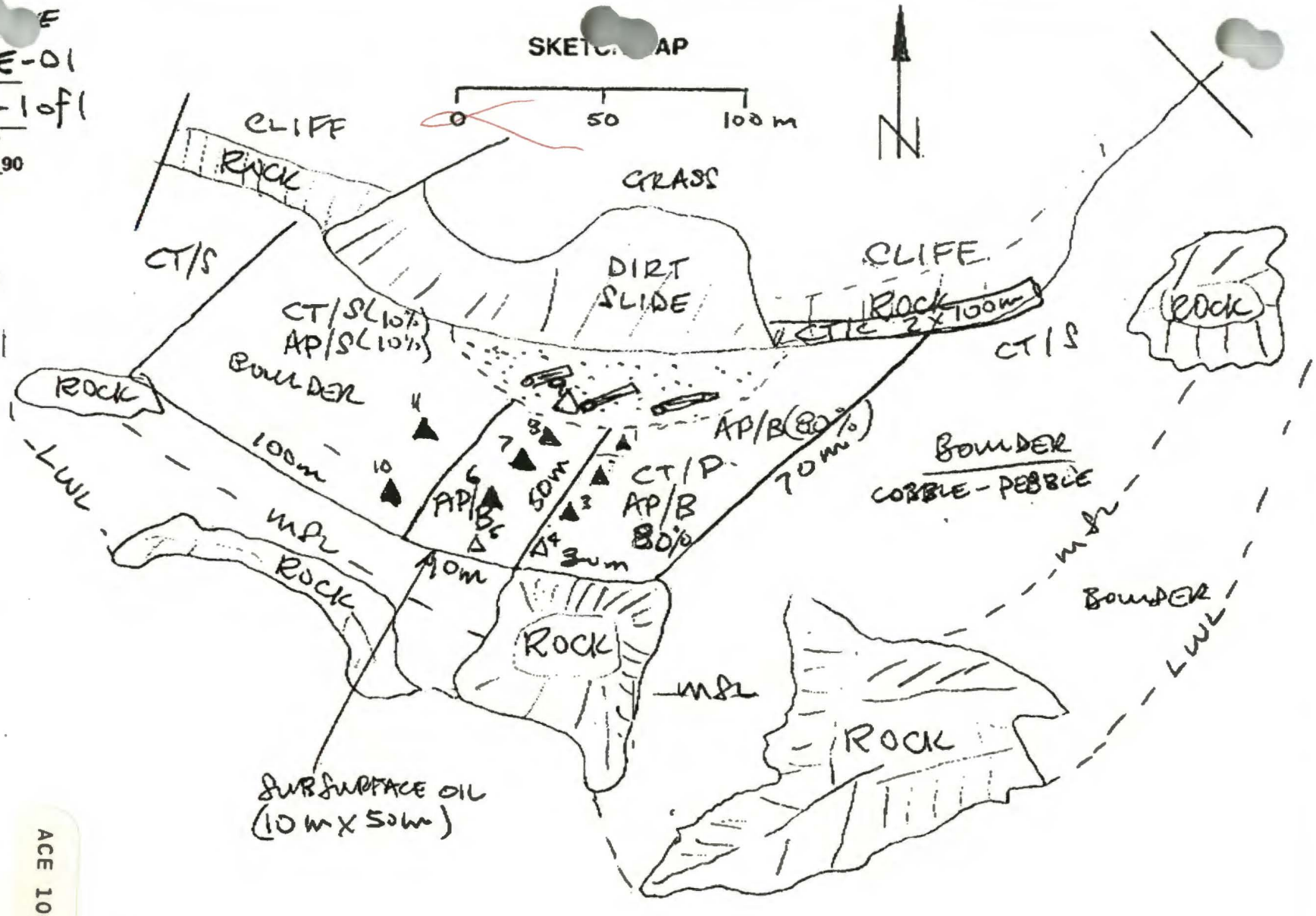
Oiled Vegetation

1 ●→ Photo location, direction, and number

ACE 1941095

ACE 10459351

SKETCH MAP



Oil Character Length (m): AP 100 PO 0 CV 0 CT 200 ST 0 MS 0 PT 0 TB 0 FL 0 NO 894

REVISION:03/24/90

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ PE-01
O DAVE LOHRE LAND REP LEE GLENN (A.D.F.G.) SUBDIVISION A (1 OF 1)
XXON FRANK BOX ADEC CLARA CROSBY TIME 09:45 to 11:15
TEAM NO. 13 TIDE LEVEL +1 to -2 DATE 04/29/90
EST. SUBDIVISION LENGTH: 1,194 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
SURFACE SEDIMENTS: R 40 % B 45 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
SLOPE : Lang 70 % Hang 10 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 100 m M 80 m N 120 m VL 894 m NO 0 m

SURFACE OIL

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

PAVEMENT H F ~2,500 sq. m by 5 cm
PATTIES / TARBALLS 0 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris		X	

DID YOU COLLECT DEBRIS?
YES ☐ NO ☒
TYPE -
#BAGS

Photographs: DEBRIS NOT OILED
Roll No. ST-13-6
Frames 1-10

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (CM)	BELOW UO	UC	OIL / FILM COLOR BR	RW	OT	SL	TL	PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	!	SURFACE - SUBSURFACE SEDIMENTS
1	15	X					5-10		X	X						X						P-P,G
2	15	X					10-11		X	X						X						B-G,S
3	20	X					10-13		X	X						X						B-P,S
4	15					X	-		X							X						B-P,S
5	15					X	-		X							+						B-P,S
6	20	X					10-13		+	X						X						B-P,G

COMMENTS

GEOMORPHOLOGY : EXPOSED POINT WITH HOUSE-SIZE ROCKS SHELTERING A BOULDER/COBBLE VENEER OVER WAVE-CUT BEDROCK PLATFORM.

OILING : . ASPHALT PAVEMENT 5-8 CM THICK BETWEEN AND AROUND BOULDERS

ACE 10459352

REVIEWED DATE

ACE 1941096

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04/13/90

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

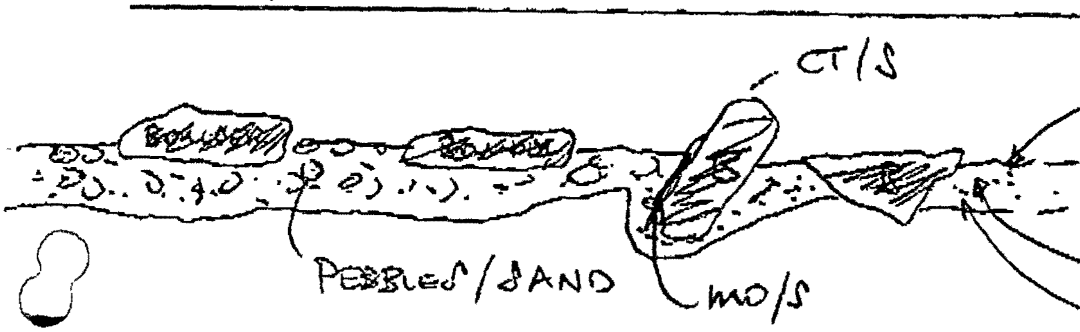
SUBSURFACE OIL (CONTINUED)

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	SBK/BR	DBL/RW	GY/SL	DBR/TL	LBR	SU	LI	MI	UI				
7	15	X					10-13		X		X					X						B-G, S
8	30			X			20-27		X							X						B-P, G
9	60					X	-		X							X						P-P, G
10	30	X					15-20		X		X					X						B-P, G
11	15	X					7-10		X				X			X						B-G, S
							.															
							.															
							.															
							.															
							.															
							.															
							.															
							.															
							.															

COMMENTS

SUBSURFACE OILING: EXTENDS TO >5 CM DEPTH IN PITS WITH SURFACE ASPHALT AND IS A BURIED OIL LENS TO 20-30 CM DEPTHS IN UITZ (PITS 8,10)

TYPICAL CROSS-SECTION OF ASPHALT PAVEMENT (80% COVER)



REVIEWED__________ DATE__________

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / PE021 Subdivision A Date (mo / day / yr) 4-29-90

Time (24 hr) 9:45 Biologist David Lohse

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 45 (3) Cobble 10 (4) Pebble 5 (5) Sand ____ (6) Silt ____

(B) Overall % cover of biota (% of segment): Dense 45 Moderate 15 Low 30

(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 1-10

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	X	X	X
3	3	3	3	3	3	3	3	3	3	X	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

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	X	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	X	2	X	X	2	X	2	X	(1)	(2)	X
3	X	3	2	2	3	3	3	3	(2)	(2)	3
4	4	4	4	4	4	4	4	4	3	3	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

N, O, P, Q - Pinniped Haulout

Seabird colony nearby - unknown how close it is to segment boundry.

Other ecological considerations for this specific segment are unknown.

ACE 10459354

ACE 1941098

Shoreline Ecological Summary

Lot 2

Segment ST-PE001 Subdivision A 4-29-90

Biologist: David Cohen

Wildlife Observations/General Comments

1. Present in low intertidal: Rhodomela, Enteromorpha, Halosaccion, Alaria, Porphyra, coralline algae, yellow sponge, Katharina tunicata, unknown red algal "blade" (Iridea?), Laminaria, Cladophora, Pagurus

   mid intertidal: Ralfsia, coralline algae, Endocladia, Anelipus, Nuella, Anthopleura, Ulva, Enteromorpha, Halosaccion, Scytosiphon, Alaria (in tide pools), Rhodomela, Laminaria (in tide pools), unknown red algal "branch" (Rhodomenia?), unknown yellow sponge, Epiactus

   high intertidal: Porphyra, Ulva, Endocladia

2. Many gulls and oystercatchers seen in the area

3. Algal cover in low intertidal was ~95% on boulders (2 sites estimated), 75-95% on bedrock (3 sites), and ~95% on cobble (1 site).

4. Littorine egg masses were found on low intertidal boulders. Also a group of unknown eggs was observed in the mid-intertidal. (See picture #2 on roll ST-13-6).

5. Ralfsia was quite abundant in the mid intertidal. It occupied ~60% of mid intertidal bedrock (1 site estimated), and from 10-75% of mid intertidal boulders (2 sites estimated).

6. Barnacle mortality on high intertidal bedrock was ~15% (based on estimate at one site), 50% on high intertidal boulders (1 site), and ~5% on mid intertidal bedrock (1 site).

ACE 10459355 -9

ACE 1941099 -15

Sta. #_____

Date Observed_____

Other Areas Observed_____

Sample #'s_____

Field Data_____

Photo/Video Roll #_____

State of Alaska
Oil Response Center
509 Sterling Highway
Homer, Alaska 99603
(907) 235-5322

Fax: (907) 235-5385

Fax Transmittal Sheet

Deliver To: Rick Gillie From: Lee Glenn A.O.F&G.

Date: 4-30-90 Time: 8:00 PM

Number of Pages (Including Transmittal Sheet): _____

Operator: Lee Glenn

If Telecopy does not transmit properly, please call (907) 235 - 5322 Immediately.

Notes: Attached are my comments of SAT on Port Island on 4-29-90

ACE 10459356 +/S

ACE 1955415

FAX COVER SHEET

FROM

M/V SEA TRADER

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

TO: LEE GLENN, ADF+G
HOMER OIL SPILL CENTER
FAX: 235-5385

FROM: RICK GILLIE, EXXON/JSAT
M/V SEA TRADER

TIME/DATE: 22:45 / 04/29/90 NUMBER OF PAGES: 9

COMMENTS:

① PLEASE REVIEW FOLLOWING REPORT FOR PERL ISLAND AND FAX COMPLETED COMMENT SHEET DIRECTLY TO EXXON/JSAT FAX 564-3771

Rick Gillie

ACE 10459357

ACE 1955416

FIELD SHORELINE COMMENT SHEET

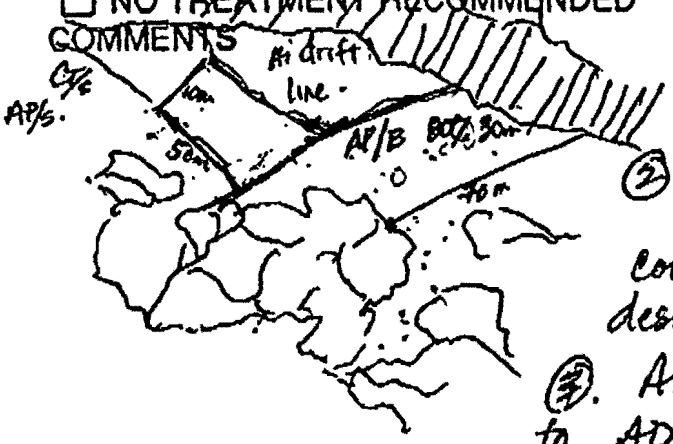
SEGMENT ST / PE-01 SUBDIVISION: DATE 4-29-90

USCG
NAME David S. Thomas SIGNATURE

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS



① Suggest manual removal of AP no other specific techniques recommended.
② Considering subsurface oiling, area designated moderate has a Continuous coverage of a 10X50 m area - WIDE designation for subsurface —
③ All clean-up activity to be subjected to ADF&G contraints.

~~LAND MANAGER~~ A.D.F&G
NAME Lee Glenn SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

See comments attached

ACE 10459358

ACE 1955417

REVISION NO. 03/21/90

Attachment - FIELD SHORELINE COMMENT SHEET
PE-01 4-29-90
Lee Glenn - Alaska Dept. of Fish and Game

The sea lion haulout on the south tip of Perl Island remains heavily oiled. No cleanup was attempted last year and there were no significant natural cleaning on this high energy beach over winter. The oil remains wet and fluid even on moderately warm days. Pooled surface oil, therefore, remains an environmental threat to fish and wildlife (especially birds). There is a concern that this oil may re-float and threaten some commercial salmon fishing areas of Cook Inlet or Kodiak Islands.

There are obsticals to a successful cleanup operation on Perl Island. Congress recently added sea lions to the list of species that are threatened. As a result of that action and because sea lions remain in a state of population decline, the National Marine Fisheries Service and the Alaska Department of Fish and Game will not allow cleanup of this haulout if such activity will cause disturbance to these mammals.

The following criteria for cleaning the sea lion haulout on Perl Island will be followed:

1. A.D.F.&G will survey the haulout and keep Exxon informed as to the possibility of mobilizing a successful cleanup effort which will result in little or no impact on sea lions.

2. Cleanup should start as soon as possible since the number of animals utilizing the area are low (less than 12) and will build over the next 2 months (over 100 last summer).

3. All treatment shall be Type A.

4. Initial cleaning shall concentrate on pooled, mobile, surface oil.

5. In treating asphalt pavement and tar mats, concentrate only on that which can

be quickly and readily picked up and moved.
6. No bioremediation is recommended unless pooled surface oil is removed and asphalt and tar mats are picked up or broken up.

SHORELINE OILING SUMMARY

REVISION NO. 04.13.90

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ PE-01
IO DAVE LOHSE LAND REP LEE GLENN (A.D.F.G.) SUBDIVISION A (1 OF 1)
EXXON FRANK BOX ADEC CLARA CROSBY TIME 09:45 to 11:15
TEAM NO. 13 TIDE LEVEL +1 to -2 DATE 04/29/90
EST. SUBDIVISION LENGTH: 1,194 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
SURFACE SEDIMENTS: R 40 % B 45 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
SLOPE : Lang 70 % Hang 10 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 100 m M 80 m N 120 m VL 894 m NO 0 m

SURFACE OIL

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

PAVEMENT H F S 2,500 sq. m by 5 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris		X	

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE -

#BAGS

Photographs: DEBRIS NOT OILED

Roll No. ST-13-6

Frames 1-10

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 SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR	PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
1	15	X					5-10		X	X						X						P - P, G
2	15	X					10-14		X	X						X						B - G, S
3	20	X					10-13		X	X						X						B - P, S
4	15					X	-		X							X						B - P, S
5	15					X	-		X							X						B - P, S
6	20	X					10-13		X	X						X						B - P, G

COMMENTS

GEOMORPHOLOGY: EXPOSED POINT WITH HOUSE-SIZE ROCKS SHELTERING A BOULDER/COBBLE VENEER OVER WAVE/CUT BEDROCK PLATFORM.

ACE 10459361

OILING: ASPHALT PAVEMENT 5-8 CM THICK BETWEEN AND AROUND BOULDERS.

REVIEWED ______ DATE ______

ACE 1955420

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04/13/90

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

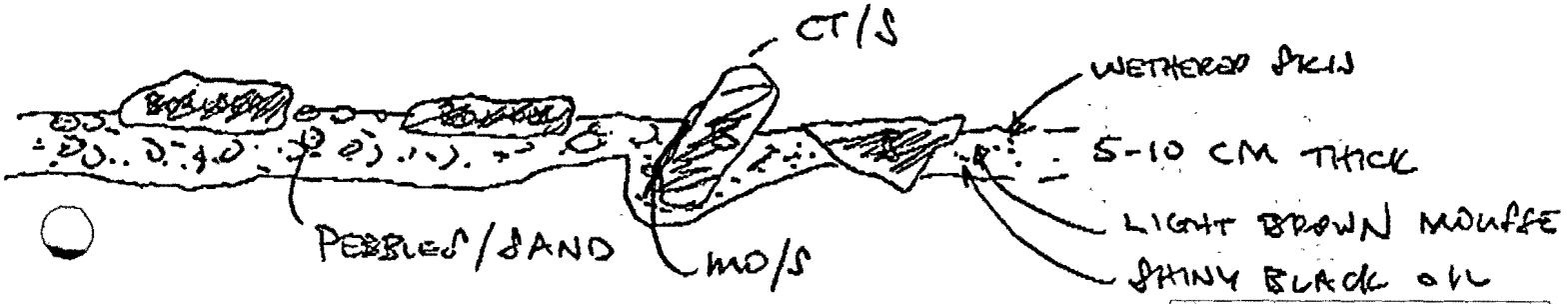
SUBSURFACE OIL (CONTINUED)

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	MO		UO	UC	SBR/FR	DBR/RW	GY	SL	DBR	TL	LBR	SU	UI	MI	LI				
7	15	X					10-13		X		X							X						B-G,S
8	30			X			20-27		X									X						B-P,G
9	60					X	-		X									X						P-P,G
10	30	X					15-20		X		X							X						B-P,G
11	15	X					7-10		X					X				X						B-G,S
							-																	
							-																	
							-																	
							-																	
							-																	
							-																	
							-																	
							-																	

COMMENTS

SUBSURFACE OILING: EXTENDS TO >5 CM DEPTH IN PITS WITH SURFACE ASPHALT AND IS A BURIED OIL LENS TO 20-30 CM DEPTHS IN UNIT 2 (PITS 8, 10)

TYPICAL CROSS-SECTION OF ASPHALT PAVEMENT (80% COVER)



ACE 10459362

ACE 1955421

REVIEWED_____ DATE_____

OG RICK GILLE

SEGMENT ST/ PE-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

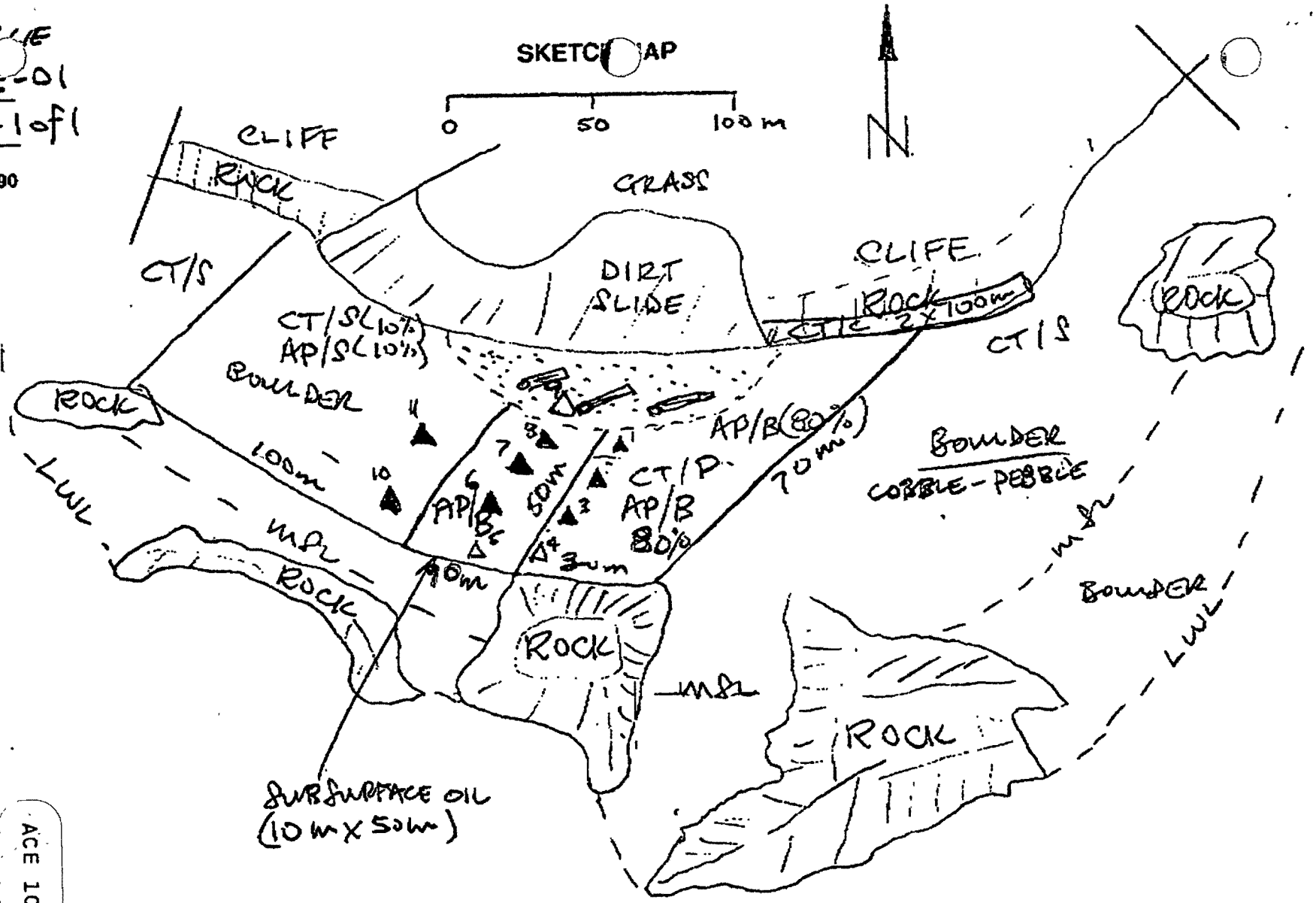
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●→ Photo location, direction, and number



ACE 10459363

ACE 1955422

Oil Character Length (m): AP 100 PO 0 CV 0 CT 200 ST 0 MS 0 PT 0 TB 0 FL 0 NO 894

REVISION 03/2000

SCAT

To: LEE GLENN ADF&G
Fax Number: 235-5385
Dated: 4-30-90
Time: 1233

Number of pages (including cover sheet):

Sent From Fax # 907/564-3771
Name: REX COULTER - EXXON

Comments:

1) SHORELINE COMMENT SHEET
2) ECOLOGICAL SUMMARY
3) " WILDLIFE OBSERVATIONS
4) " MAP

If any questions with this transmission, please contact Sandy Moeller-Rikard at 907/564-3660.

Exxon Company, U.S.A.
Alaska Operations
3301 C Street, Suite 508
P.O. Box 240409
Anchorage, Alaska 99503

OUR NEW FAX NUMBER IS 907/564-3771

ACE 10459364

ACE 1955423

APR-30-1990 12:40 FROM SCAT CENTRAL TO 9235538S P.01

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / _____ SUBDIVISION: _____ DATE _____

USCG
NAME David S. Thomas SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

① Suggest manual removal of AP no other specific techniques recommended.
② Considering subsurface oiling, area designated moderate has a continuous coverage of a 10X50 m area - WIDE designation for subsurface —
③ All clean-up activity to be subjected to ADF&G contraints.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

- To be sent directly by LAND MANAGER
& LEE GLENN, ADF&G

ACE 10459365

ACE 1955424

REVISION NO. 05/21/90

APR-30-1990 12:40 FROM SCAT CENTRAL TO 92355385 P.02

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / PE001 Subdivision A Date (mo / day / yr) 4-29-90

Time (24 hr) 9:45 Biologist David Lohse

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 45 (3) Cobble 10 (4) Pebble 5 (5) Sand ___ (6) Silt ___

(B) Overall % cover of biota (% of segment): Dense 45 Moderate 15 Low 30

(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 1-10

BARNACLES

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

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	X	2	2	X	X	X	2	X
3	3	3	3	3	3	3	3	3	X	3	X
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 10459366

N, O, P, Q - Pinnipeds Haulout

Seabird colony nearby - unknown how close it is to segment boundry. Other ecological considerations for this specific segment are unknown.

ACE 1955425

Shoreline Ecological Summary

2 of 2

Segment ST-PE001 Subdivision A 4-29-90

Biologist: David Cohn

Wildlife Observations/General Comments

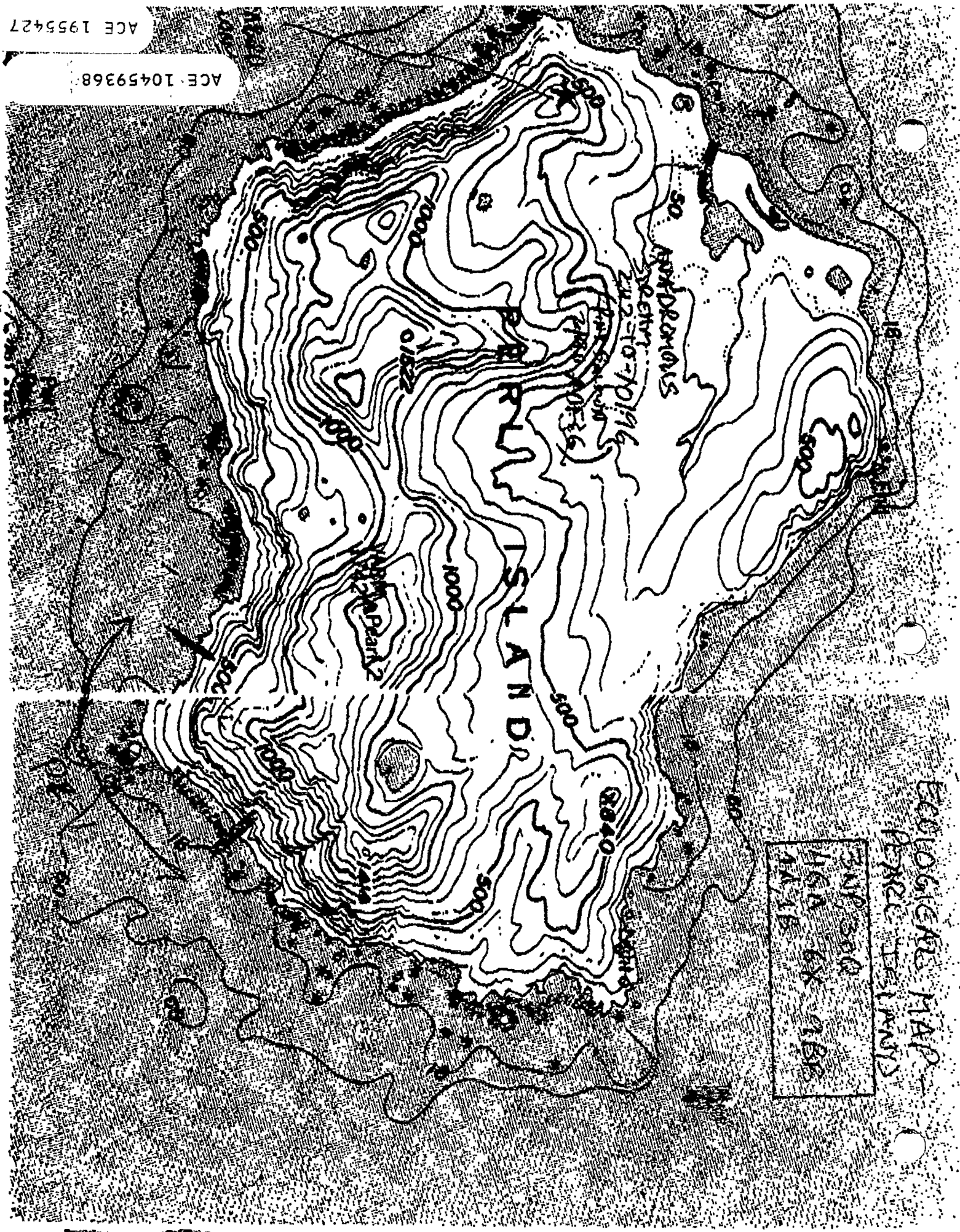
1. Present in low intertidal: Rhodomelia, Enteromorpha, Halosaccion, Alaria, Porphyra, coralline algae, yellow sponge, Katharina tunicata, unknown red algal "blade" (Iridea?), Laminaria, Cladophora, Pagurus

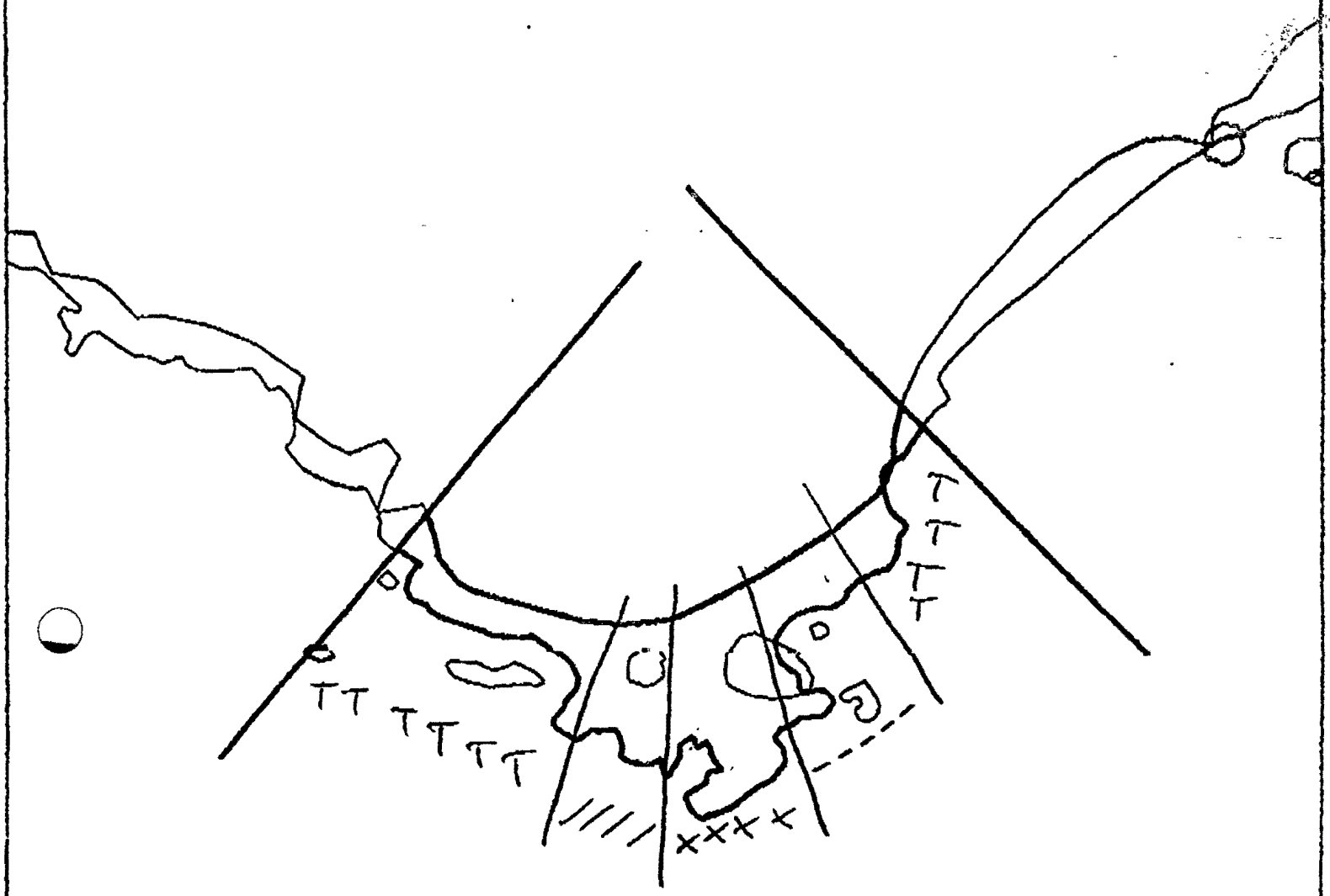
   mid intertidal: Ralfsia, coralline algae, Endocladia, Anthopleura, Nucella, Anthopleura, Ulva, Enteromorpha, Halosaccion, Scytosiphon, Alaria (in tide pools), Rhodomelia, Laminaria (in tide pools), unknown red algal "branch" (Rhodomenia?), unknown yellow sponge, Epiactis

   high intertidal: Porphyra, Ulva, Endocladia
2. Many gulls and oystercatchers seen in the area
3. Algal cover in low intertidal was ~95% on boulders (2 sites estimated), 75-95% on bedrock (3 sites), and ~95% on cobble (1 site).
4. Littorina egg masses were found on Low intertidal boulders. Also a group of unknown eggs was observed in the mid-intertidal. (see picture #2 on roll ST-13-6).
5. Ralfsia was quite abundant in the mid intertidal. It occuppied ~60% of mid intertidal bedrock (1 site estimated), and from 10-75% of mid intertidal boulders (2 sites estimated).
6. Barnacle mortality on high intertidal bedrock was ~15% (based on estimate of one site), 50% on high intertidal boulders (1 site), and ~5% on mid intertidal bedrock (1 site).

ACE 10459367

ACE 1955426





ACE 10459369 -1S

ACE 1955428

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

PE-1

Approx. Segment Length: 891m

0 100 200 300
METERS

Map Key: KEN-PE-1
Name: RICK GILLIE
Date: 04/29/90
Date Entered:

FIELD SHORELINE COMMENT SHEET

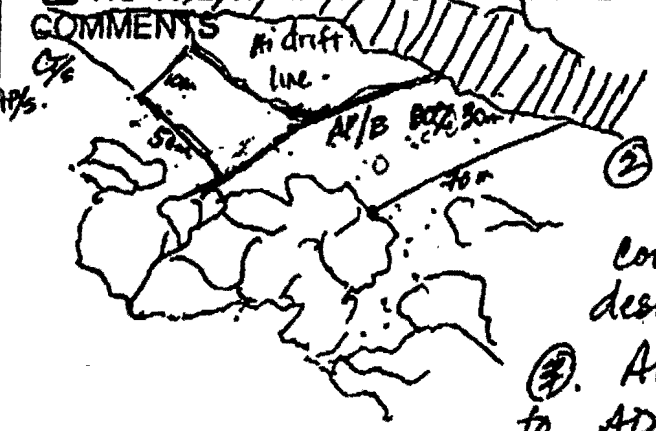
SEGMENT ST/ PE-01 SUBDIVISION: DATE 4-29-90

USCG
NAME David S. Thomas SIGNATURE

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS



1. Suggest manual removal of AP no other specific techniques recommended.
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~~LAND MANAGER~~ A.O.F&G
NAME Lee Glenn SIGNATURE

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

See comments attached

ACE 10459370 4/5

ACE 1954898

REVISION NO. 08/21/89

Attachment - FIELD SHORELINE COMMENT SHEET
PE-01 4-29-90
Lee Glenn - Alaska Dept. of Fish and Game

The sea lion haulout on the south tip of Perl Island remains heavily oiled. No cleanup was attempted last year and there were no significant natural cleaning on this high energy beach over winter. The oil remains wet and fluid even on moderately warm days. Pooled surface oil, therefore, remains an environmental threat to fish and wildlife (especially birds). There is a concern that this oil may re-float and threaten some commercial salmon fishing areas of Cook Inlet or Kodiak Islands.

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2. Cleanup should start as soon as possible since the number of animals utilizing the area are low (less than 12) and will build over the next 2 months (over 100 last summer).

3. All treatment shall be Type A.

4. Initial cleaning shall concentrate on pooled, mobile, surface oil.

5. In treating asphalt pavement and tar mats, concentrate only on that which can

be quickly and readily picked up and moved.
6. No bioremediation is recommended unless pooled surface oil is removed and asphalt and tar mats are picked up or broken up.

Joe Stam

ACE 10459372

ACE 1954900

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ PE-01
IO DAVE LOHRE LAND REP LEE GLENN (A.DFG.) SUBDIVISION A (1 OF 1)
EXXON FRANK BOX ADEC CLARA CROSBY TIME 09:45 to 11:15
TEAM NO. 13 TIDE LEVEL +1 to -2 DATE 04/29/90
EST. SUBDIVISION LENGTH: 1,194 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
SURFACE SEDIMENTS: R 40 % B 45 % C 10 % P 5 % G 0 % S 0 % M 0 % V 0 %
SLOPE: Lang 70 % Hang 10 % Vert 20 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 100 m M 80 m N 120 m VL 894 m NO 0 m

SURFACE OIL

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

PAVEMENT H F (S) 2,500 sq. m by 5 cm
PATTIES / TARBALLS 0 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris		X	

DID YOU COLLECT DEBRIS? YES ☐ NO ☒
TYPE -
#BAGS

DEBRIS NOT OILED

Photographs:
Roll No. ST-13-6
Frames 1-10

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 BK/BR	DBL/RW	GY/SL	DBR/TL	LBR	PIT ZONE SU	UI	MI	LI	ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
1	15	X					5-10		X	X						X						P-P,G
2	15	X					10-14		X	X						X						B-G,S
3	20	X					10-13		X	X						X						B-P,S
4	15					X	-		X							X						B-P,S
5	15					X	-		X							X						B-P,S
6	20	X					10-13		X	X						X						B-P,G

COMMENTS

GEOMORPHOLOGY: EXPOSED POINT WITH HOUSE-SIZE ROCKS SHELTERING A BOULDER/COBBLE VENEER OVER WAVE/CUT BEDROCK PLATFORM.

OILING: ASPHALT PAVEMENT 5-8 CM THICK BETWEEN AND AROUND BOULDERS.

ACE 10459373

REVIEWED ____ DATE ____

ACE 1954901

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04/13/90

SEGMENT ST/ PE-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/BM	GY/SL	DBR/TR	LBR	SU	UI	MI	LI				
7	15	X					10-13		X		X					X						B-G, S
8	30			X			20-27		X							X						B-P, G
9	60					X	·		X							X						P-P, G
10	30	X					15-20		X		X					X						B-P, G
11	15	X					7-10		X				X			X						B-G, S
							·															
							·															
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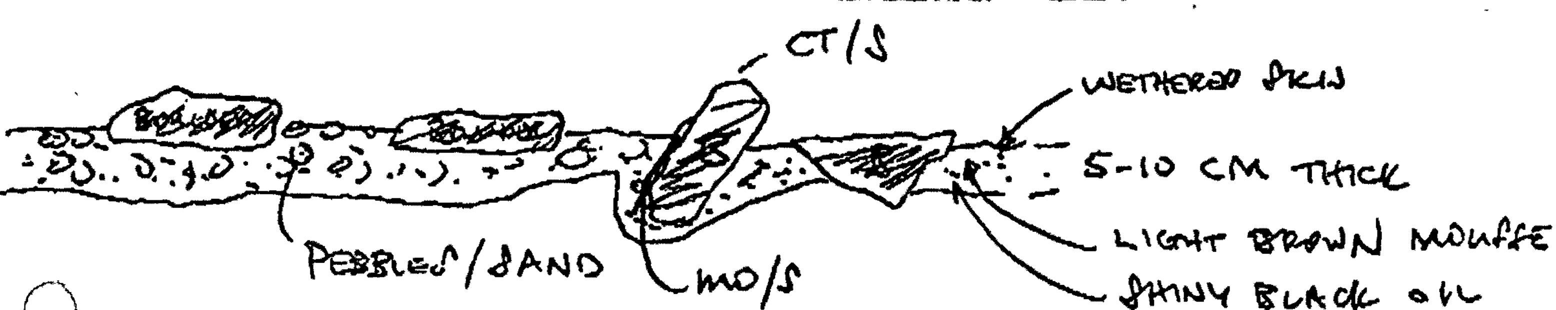
							·															
							·															
							·															
							·															

COMMENTS

SUBSURFACE OILING: EXTENDS TO >5 CM DEPTH IN PITS WITH SURFACE ASPHALT AND IS A BURIED OIL LENS TO 20-30 CM DEPTHS IN UITZ (PITS 8,10)

TYPICAL CROSS-SECTION OF ASPHALT PAVEMENT (80% COVER)



REVIEWED________ DATE________

OG Rick Gi've

SEGMENT ST/ PE-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

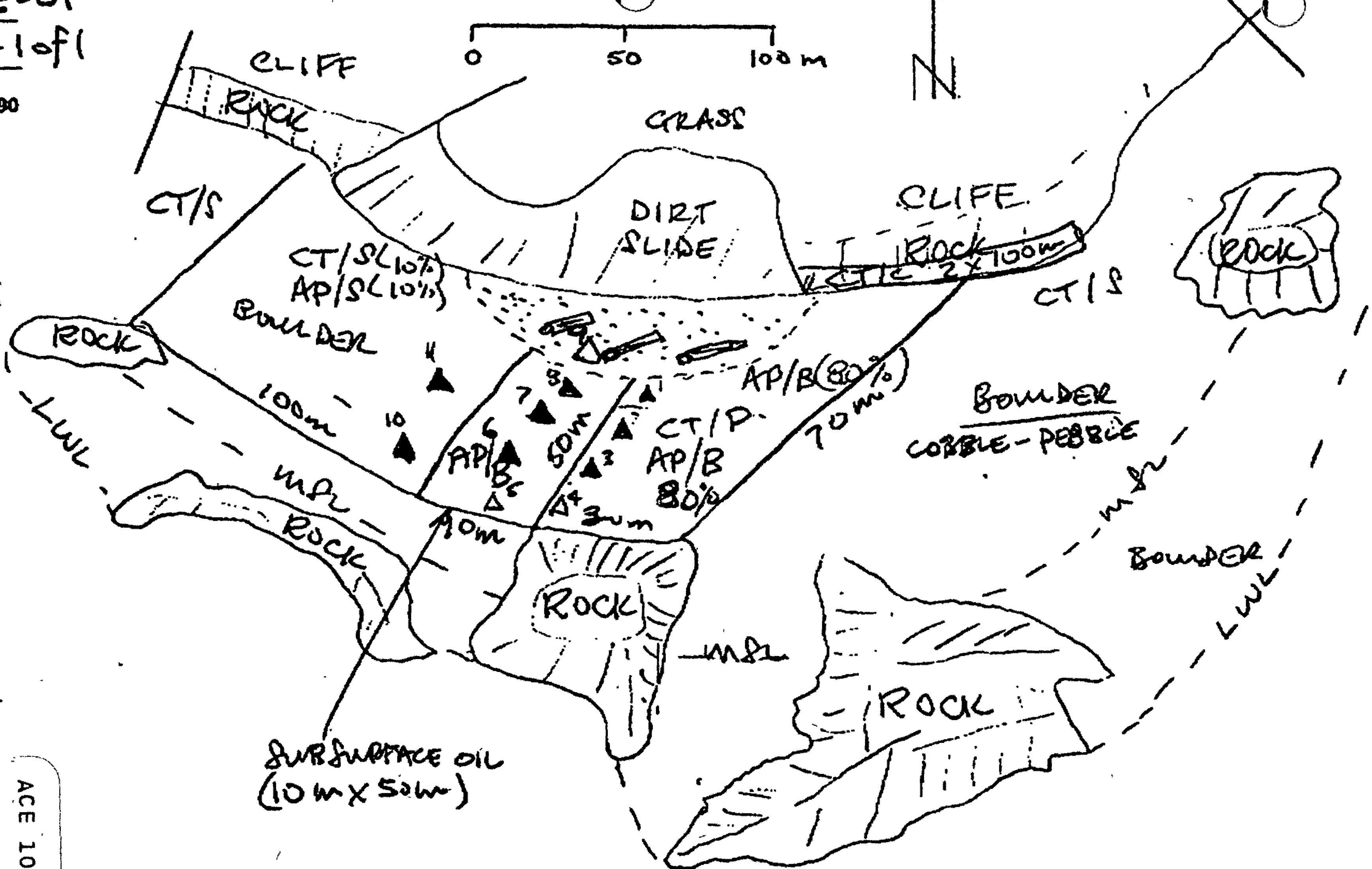
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 100 PO 0 CV 0 CT 200 ST 0 MS 0 PT 0 TR 0 FL 0 NO 894

REVISION

1 OF 6

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/21/90

Segment ST / PE001 Subdivision A Date (mo / day / yr) 4-29-90

Time (24 hr) 9:45 Biologist David Lohse

(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 45 (3) Cobble 10 (4) Pebble 5 (5) Sand ___ (6) Silt ___

(B) Overall % cover of biota (% of segment): Dense 45 Moderate 15 Low 30

(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 1-10

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	X	X	X	
3	3	3	3	3	3	3	3	3	3	3	3	NOT PRESENT
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

ACE 10459376

N, O, P, Q - Pinniped Haulout
Seabird colony nearby - unknown how close it is to segment boundry.
Other ecological considerations for this specific segment are unknown.

ACE 1954906

Shoreline Ecological Survey Lot 2

Segment ST-PE001 Subdivision A 4-29-90

Biologist: David Cohen

Wildlife Observations/General Comments

1. Present in low intertidal: Rhodomelia, Enteromorpha, Halosaccion, Alaria, Porphyra, coralline algae, yellow sponge, Katharina tunicata, unknown red algal "blade" (Iridea?), Laminaria, Cladophora, Pagurus

   mid intertidal: Ralfsia, coralline algae, Endocladia, Anelipus, Nuella, Anthopleura, Ulva, Enteromorpha, Halosaccion, Scytosiphon Alaria (in tide pools), Rhodomelia, Laminaria (in tide pools), unknown red algal "branch" (Rhodomenia?), unknown yellow sponge, Epiactus

   high intertidal: Porphyra, Ulva, Endocladia

2. Many gulls and oystercatchers seen in the area

3. Algal cover in low intertidal was ~95% on boulders (2 sites estimated), 5-95% on bedrock (3 sites), and ~95% on cobble (1 site).

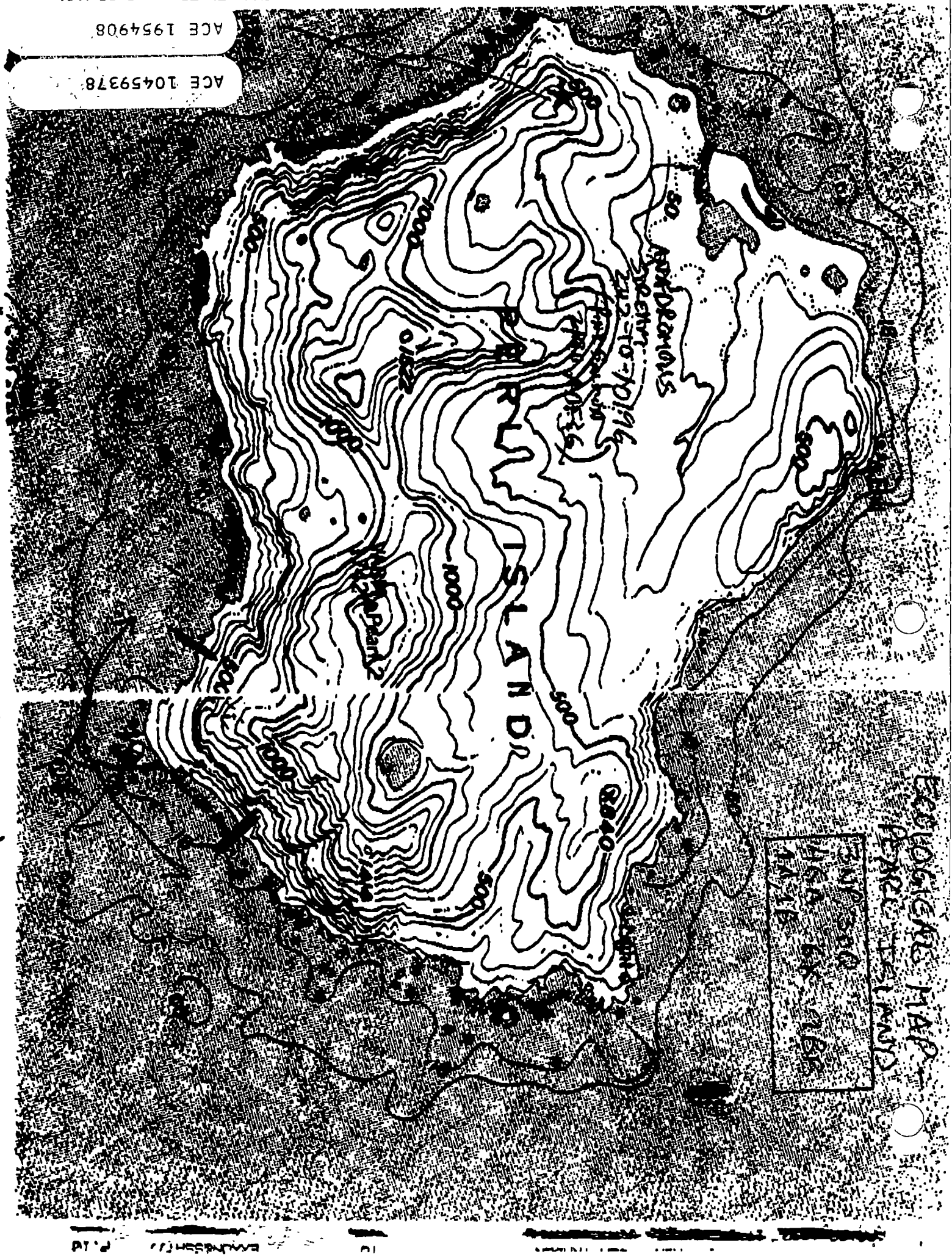
4. Littorine egg masses were found on Low intertidal boulders. Also a group of unknown eggs was observed in the mid-intertidal. (See picture #2 on roll ST-13-6).

5. Ralfsia was quite abundant in the mid intertidal. It occupied ~60% of mid intertidal bedrock (1 site estimated), and from 10-75% of mid intertidal boulders (2 sites estimated).

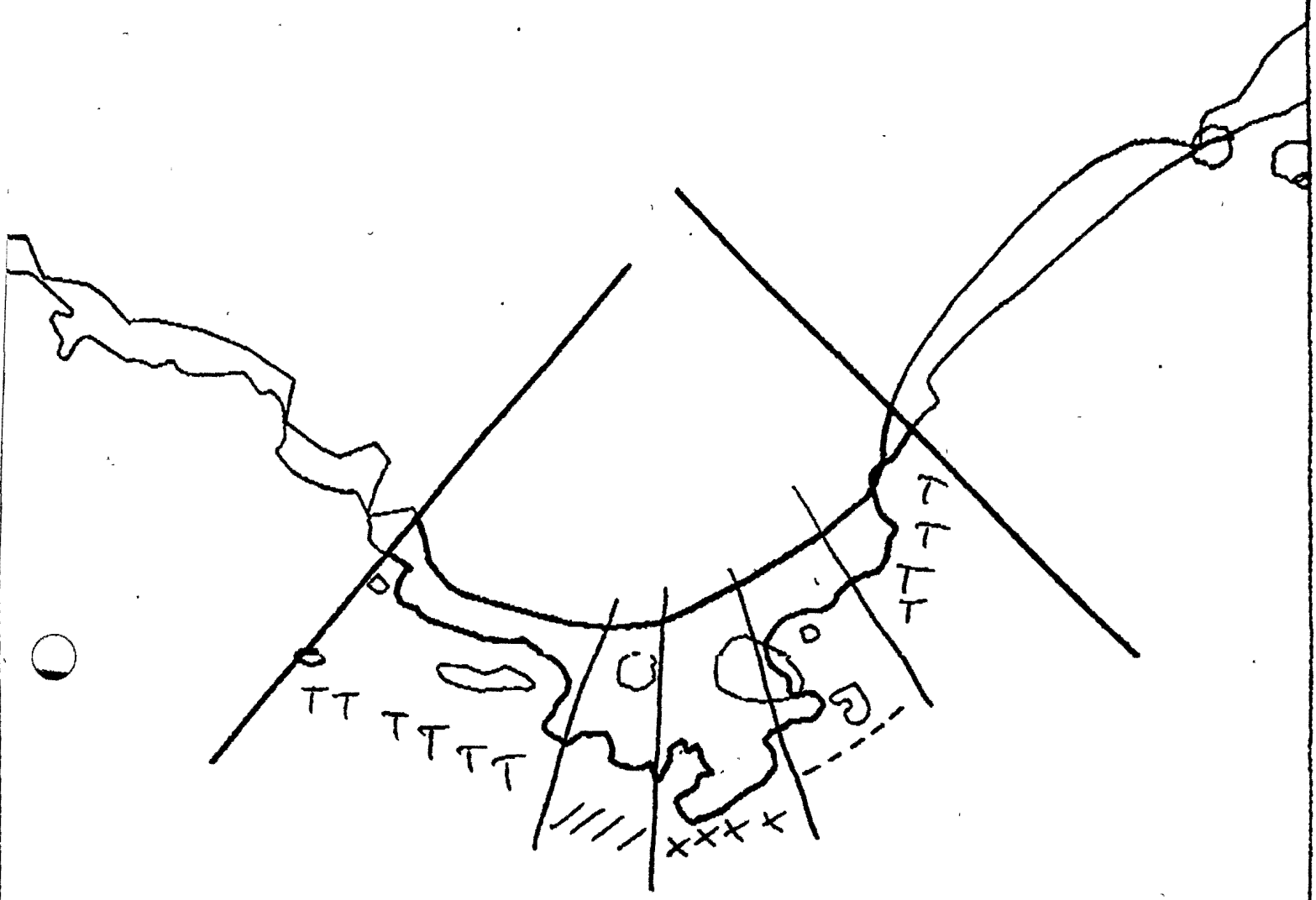
6. Barnacle mortality on high intertidal bedrock was ~15% (based on estimate of one site), 50% on high intertidal boulders (1 site), and ~5% on mid intertidal bedrock (1 site).

ACE 10459377

ACE 1954907



ECOLOGY AREA MAP
PEARL HARBOR, HAWAIIAN ISLANDS



ACE 10459379 5/4/5/C/HF

ACE 1954909

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

PE-1

Approx. Segment Length: 891m

0 100 200 300

Map Key: KEN-PE-1
Name: Rick Gillie
Date: 04/29/90
Date Entered: