OIL SPILL PUBLIC INFO. CENTER
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EVOS
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S42
1991
v.41

[Shoreline evaluations, 1991].

Prince William Sound EV-70 to EV-900

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REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: A (1 OF 8)

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: A DATE 4/1/90

~~USCG~~ NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SUBDIVISION CONSISTED OF ONE ISLAND. TWO BEACH LANDINGS WERE MADE. OILING WAS MUCH MORE EVIDENT AT THE BEACH LOCATED ON THE NORTHEAST SIDE OF THE ISLAND. CHARACTER OF THE OIL VARIED FROM HIGHLY WEATHERED TO STILL TACKY, WITH EXPOSED FACES OF BOULDERS SHOWING STAIN AND COVER. LANDWARD FACES OF ROCK OUTCROPPING LOCATED ON THE WESTERN SIDE OF THE BEACH SHOWED BOTH A HEAVIER DEGREE OF OILING AND LESSER DEGREE OF WEATHERING.

ADEC
NAME John Hayes SIGNATURE John Hayes

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Oiling observed on this small island consisted splash tar stains and continous tar bands with a very light coat of stain. No S.S. oiling was observed on this sub-segment. Stain & coat observed was weathering.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget USCG NOAA Gary Shigenaka SEGMENT ST/ EV-70 (1 of 8)
BIO Richard Ambrose LAND REP — SUBDIVISION A
EXXON Larry Olson ADEC John Hayes TIME 12 :30 to 13 :15
TEAM NO.: 11 TIDE LEVEL: 0.0 to 0.4 DATE 4 / 1 / 90
EST. SUBDIVISION LENGTH: 1080 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested Backshore
SURVEYED FROM: ☐ Foot ☒ Boat ☒ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 20 % B 30 % C 25 % P 10 % G 10 % S 5 % M 0 % V 0 %
SLOPE : Lang 55 % Hang 25 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 5 m VL 70 m NO 1005 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/0	/8	/P	/8						SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER			X			X					X		
COAT				✓		✓					✓		
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

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

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE 0
#BAGS 0

Photographs:
Roll No. ST-11-1
Frames 18-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		OO	UC						SU	UI	MI	LI		
1	10					X	-		X								X			C, P, G, S, C
2	5					X	-		X							X				G, C
3	5					X	-		X							X				B, C
4	10					X	-		X							X				C, M water (5cm no sheen)
							-													
							-													

COMMENTS

Oil was observed on the North side of the segment contained a very light 1m x 60m Coat located in the HITZ, The Rock out crop on the Western side of the some beach has a few oiling patches on a rock out crop (ref 2). The the western side of the Island consists of high angle Bedrock shore zone and the western half of the Island consists of Low angle cobble, Pebble, Granule grain area.

REVIEWER M.A. DATE 4/11/90

OG Mi[redacted]get

SEGMENT ST/ EV-70

SUBDIVISION A (blow up)

DATE 4 / 1 / 90

CHECKLIST

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

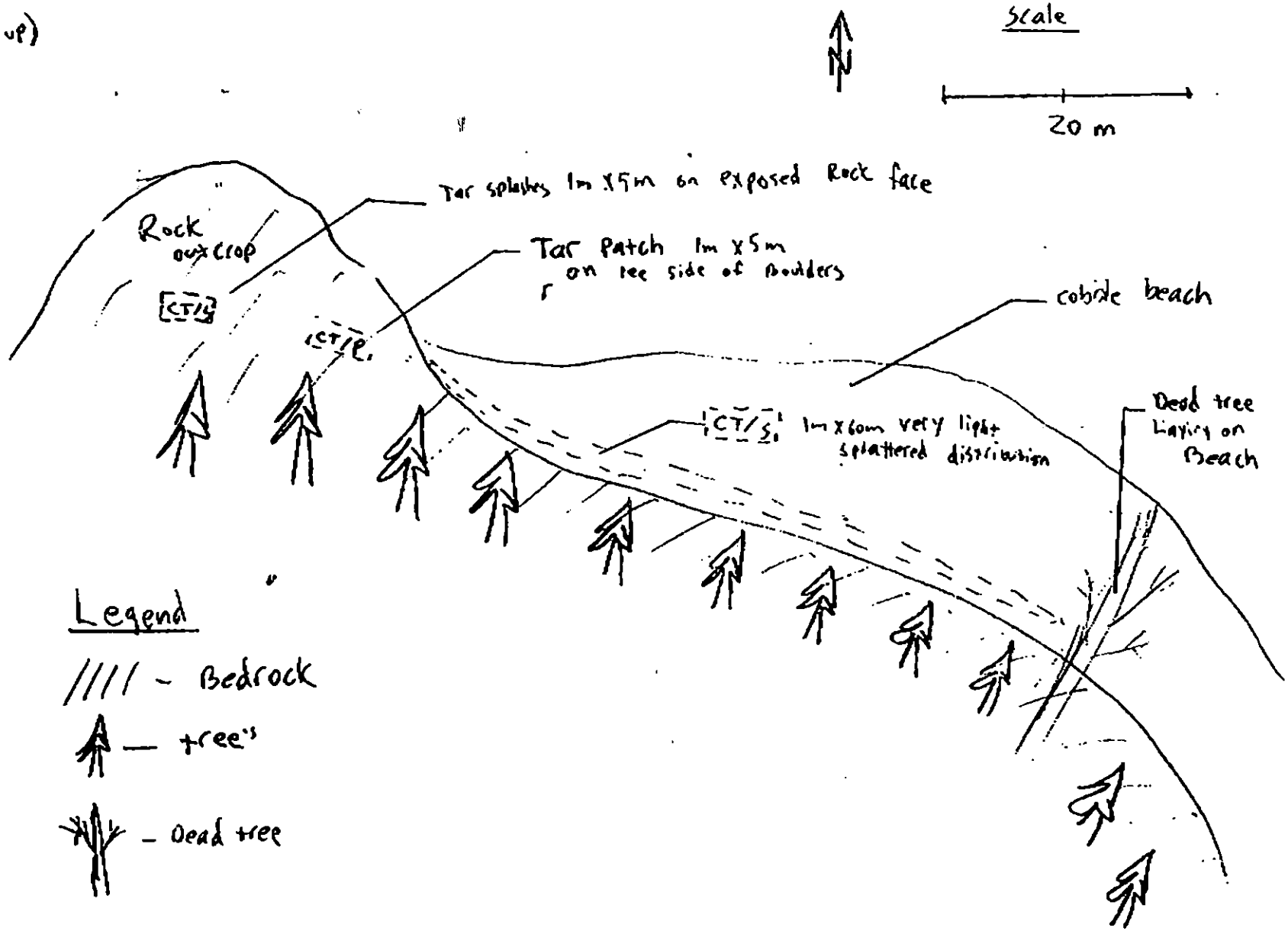
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ⟵ Photo location, direction, and number

SKETCH MAP 2



Oil Character Length (m): AP___ PO___ CV___ CT___ ST___ MS___ PT___ TB___ FL___ NO___

REVISION 03/24/88

HPR-07-1990 23:16 FROM PACIFIC SEASURGE TO [redacted] P.02

SHORELINE ECOLOGICAL SUMMARY

REVISION: 6/22/90

Segment ST / EV070 Subdivision A Date (mo / day / yr) 4/1/90

Time (24 hr) 1230 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 30 (3) Cobble 25 (4) Pebble 10 (5) Sand 15 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 35 Moderate 15 Low 50

(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-11-1
Frames 21

BARNACLES

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

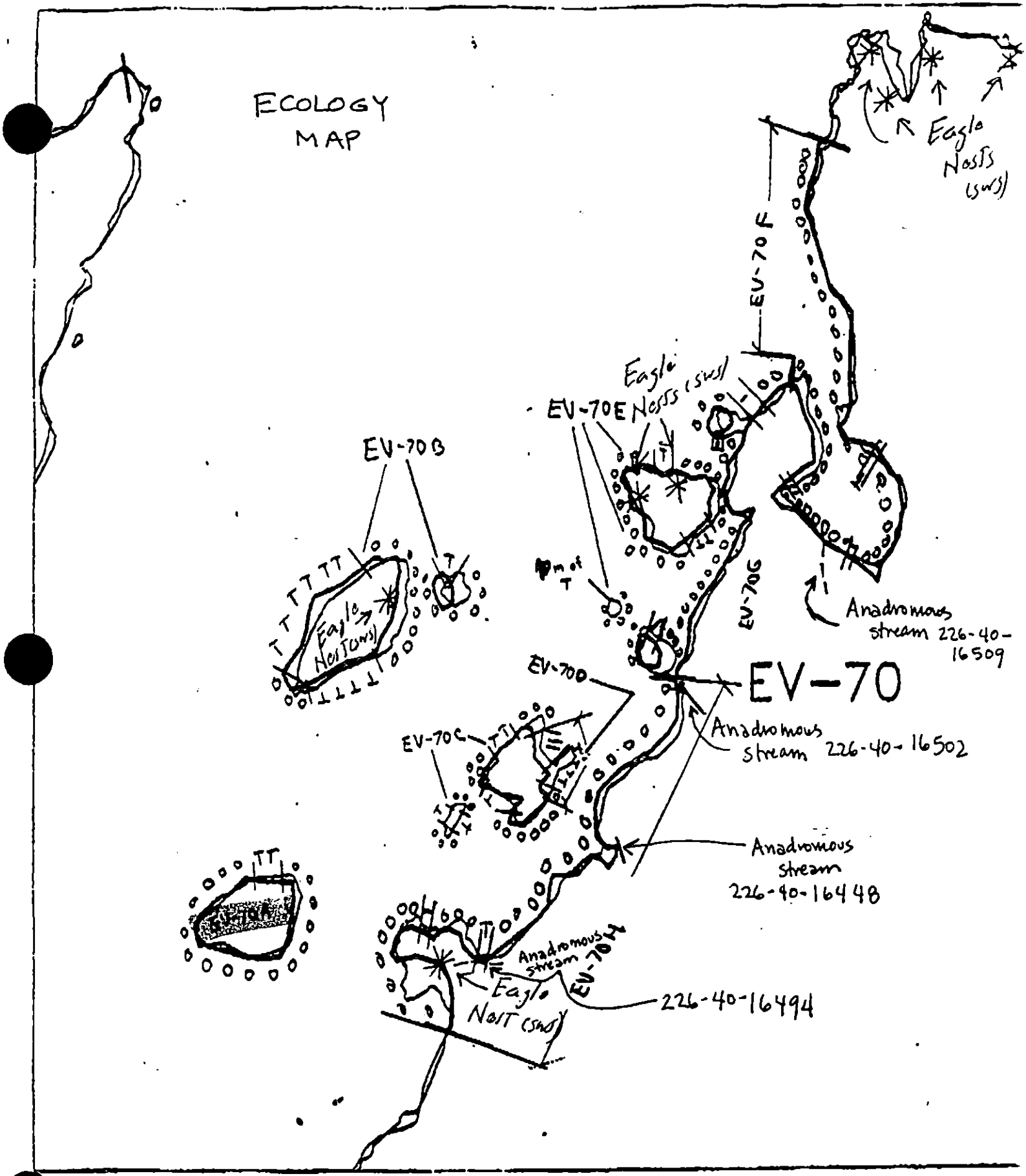
FUCUS

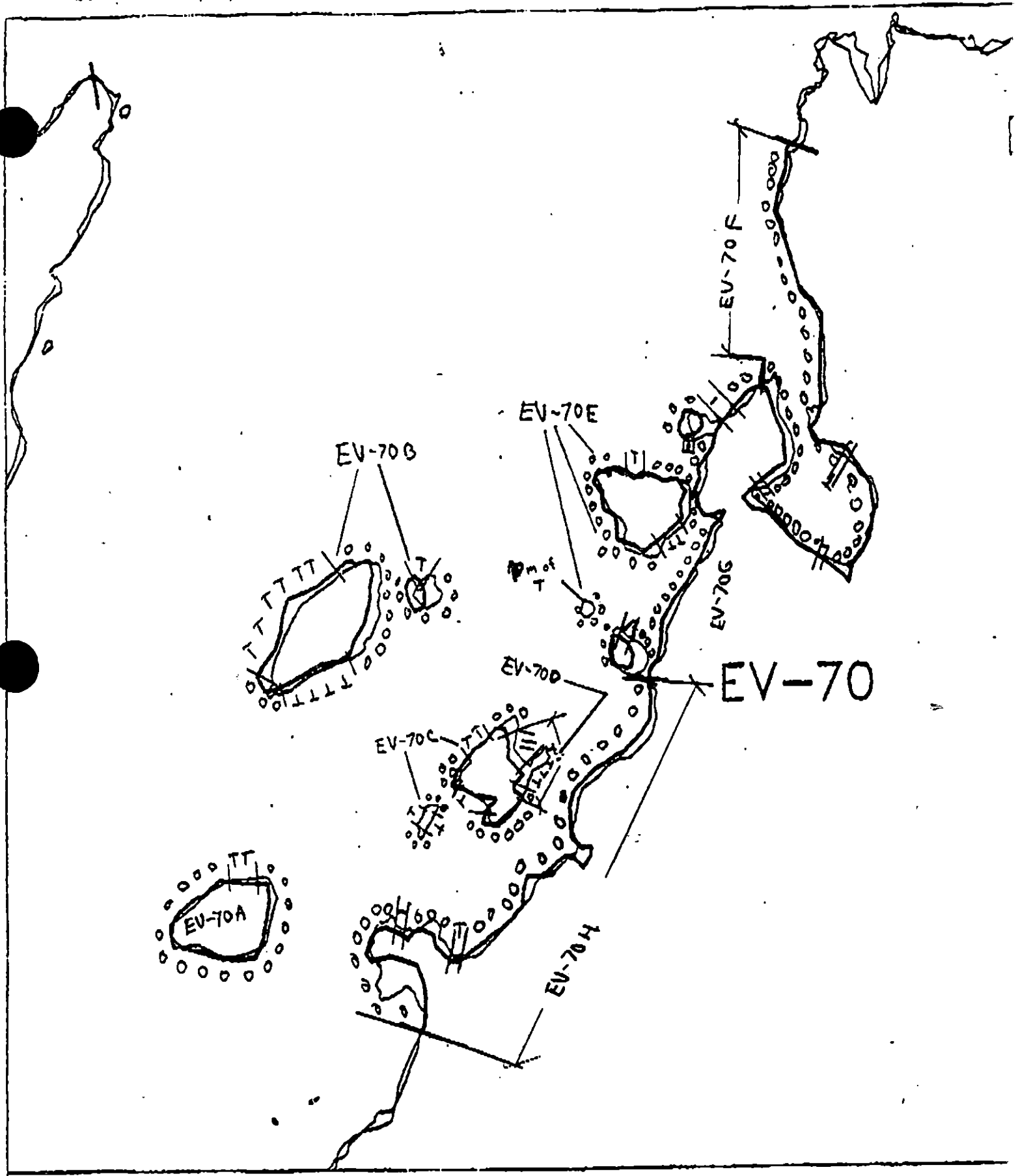
Dense			Moderate			Sparse			Rare			
X	X	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	2	2	2	X	2	2	2	2	
3	3	3	X	3	3	3	X	3	3	3	3	NOT PRESENT
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:* 4 otters, 6 crows.
Heavy algal cover on rock walls (mostly W. side of island), very sparse cover on cobble beaches that predominate on E. side of island.
Laminaria abundant in subtidal.

Ecological Considerations:
711, 1B: Not relevant for this subdivision.

*Notes: most surveyed by boat.


ECOLOGY MAP
Eagle Ness (SWS)
EV-70F
Eagle Ness (SWS)
EV-70E
EV-70B
EV-70G
Anadromous stream 226-40-16509
EV-70
EV-70D
Anadromous stream 226-40-16502
EV-70C
Anadromous stream 226-40-16448
EV-70A
Anadromous stream
EV-70H
Eagle Nest (SWS)
226-40-16494
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
EV-70
ADEC Segment Length: 12625m
Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90



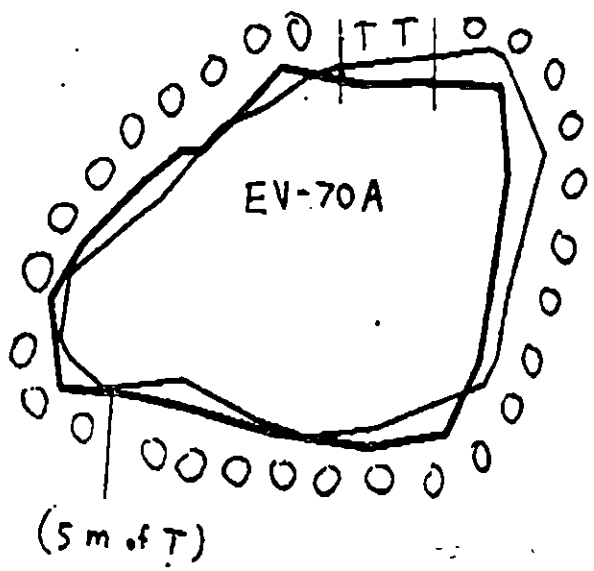
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

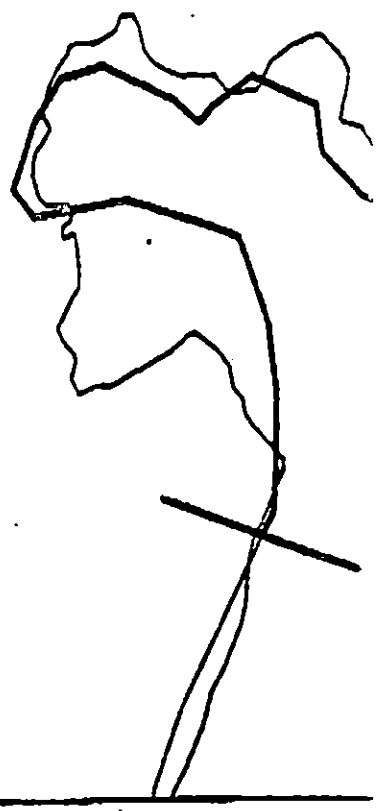
ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Data Entered:







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

EV-70A

ADEC Segment Length: 12625m

0 100 200 300

Map Key: PWS-270a
Name: Mike Foget
Date: 4/1/10
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: B (2 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION B (2 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Bald eagle nest in Subdivision B.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 788 m: No Oil 897 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Removal	_____ Beach Cleaner
	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: B DATE 4/1/90

~~USCG~~ NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SUBDIVISION CONSISTED OF 2 ISLANDS OFF THE WEST CENTRAL COAST OF EVANS ISLAND. ON THE LARGER ISLAND LYING TO THE SOUTHWEST, LIGHT STAIN WAS OBSERVED IN SEVERALS AREAS ON THE WEST SIDE, GENERALLY ON THE LEE SIDE OF ROCKY FACES. SPORADIC SPLATTERS WERE NOTED ALONG THE NORTH AND EAST COASTS.
ON THE SMALLER ISLAND, STAIN WAS NOTED ON ROCK FACES ON THE NORTHEAST COAST.

ADEC
NAME John Hayes SIGNATURE

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS This sub-segment consisted of two small islands that had high cyle headlands for shoreline. Light staining was observed on both islands along with some tar splashes. Stain + splash were on vertical bedrock and weathering.

LAND MANAGER
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget NOAA/USCG Gary Shigenaka SEGMENT ST/ EV-70 (to
BIO Richard Ambrose LAND REP — SUBDIVISION B (2 of 8)
EXXON Larry Olson ADEC John Hayes TIME 13 :15 to 13 :50
TEAM NO.: 11 TIDE LEVEL: 0.4 to 1.0 DATE 4 / 1 /90
EST. SUBDIVISION LENGTH: 1800 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested backshore
SURVEYED FROM: ☐ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 75 % B 20 % C 5 % P 0 % G 0 % S 0 % M 0 % V 0 %
SLOPE : Lang 5 % Hang 25 % Vert 70 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 850 m NO 950 m

SURFACE OIL

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

PAVEMENT: H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI		
							-													
							-													
							-													
							-													
							-													
							-													

COMMENTS No pits were made due to the nature of the shore zone. Both Islands are mostly steep to vertical Boulder Rock Face. Oiling was observed on Island I as a discontinous stain Located in the UITZ, most of the oiling occured on Southern exposure Rock faces. Island II has 100m of light stain occuring on the Northern side in the UITZ.

REVIEWED M.A. DATE 4/11/90

OG M.K[redacted]ET

SEGMENT STA EV-70

SUBDIVISION B

DATE 4/1/90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Bndy
- ___ 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

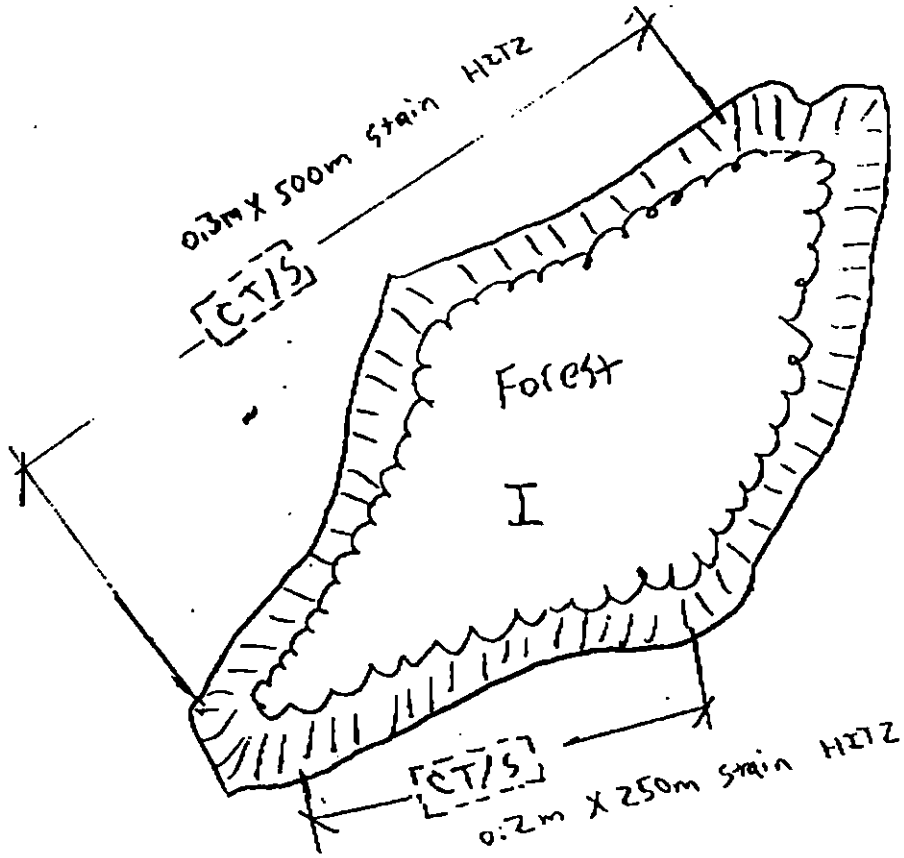
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

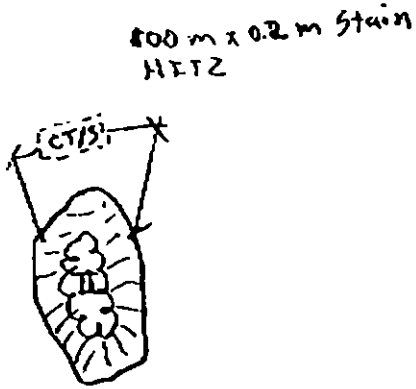
1 ◂▸ Photo location, direction, and number

SKETCH MAP



Legend

- Forest
- //// - Bedrock/Large Boulders





Oil Character Length (m): AP — PO — CV — CT — ST 850 MS — PT — TB — FL — NO 950

REVISION: 08/24/89

HFS-07-1990 13:21 FROM PACIFIC SEAHORSE TO 01#---0015075437718 P.13

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/90

Segment ST / EV070 Subdivision B Date (mo / day / yr) 4/1/90

Time (24 hr) 1315 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 20 (3) Cobble 5 (4) Pebble — (5) Sand — (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 70 Moderate 20 Low 10

(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. —
Frames —

BARNACLES

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

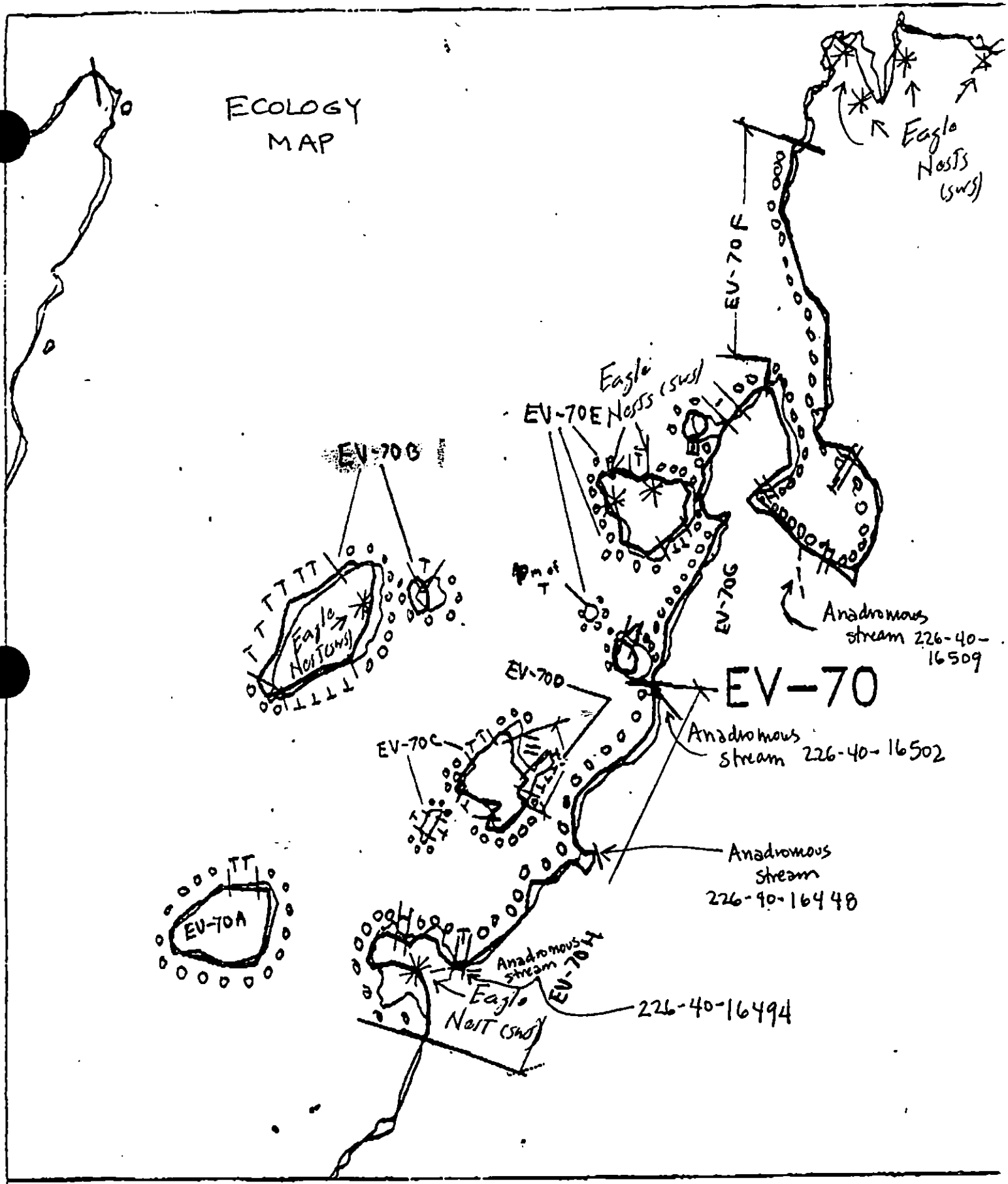
FUCUS

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

Wildlife Observations/ General Comments:* 1 harbor seal, 2 deer, 1 mature bald eagle. Heavy cover of biota around almost entire island, with only a few areas of sparser cover. Low tidal zone is dominated by red algae.

Ecological Considerations:
711, 18: Not relevant for this subdivision.

*Note: most surveyed by boat.



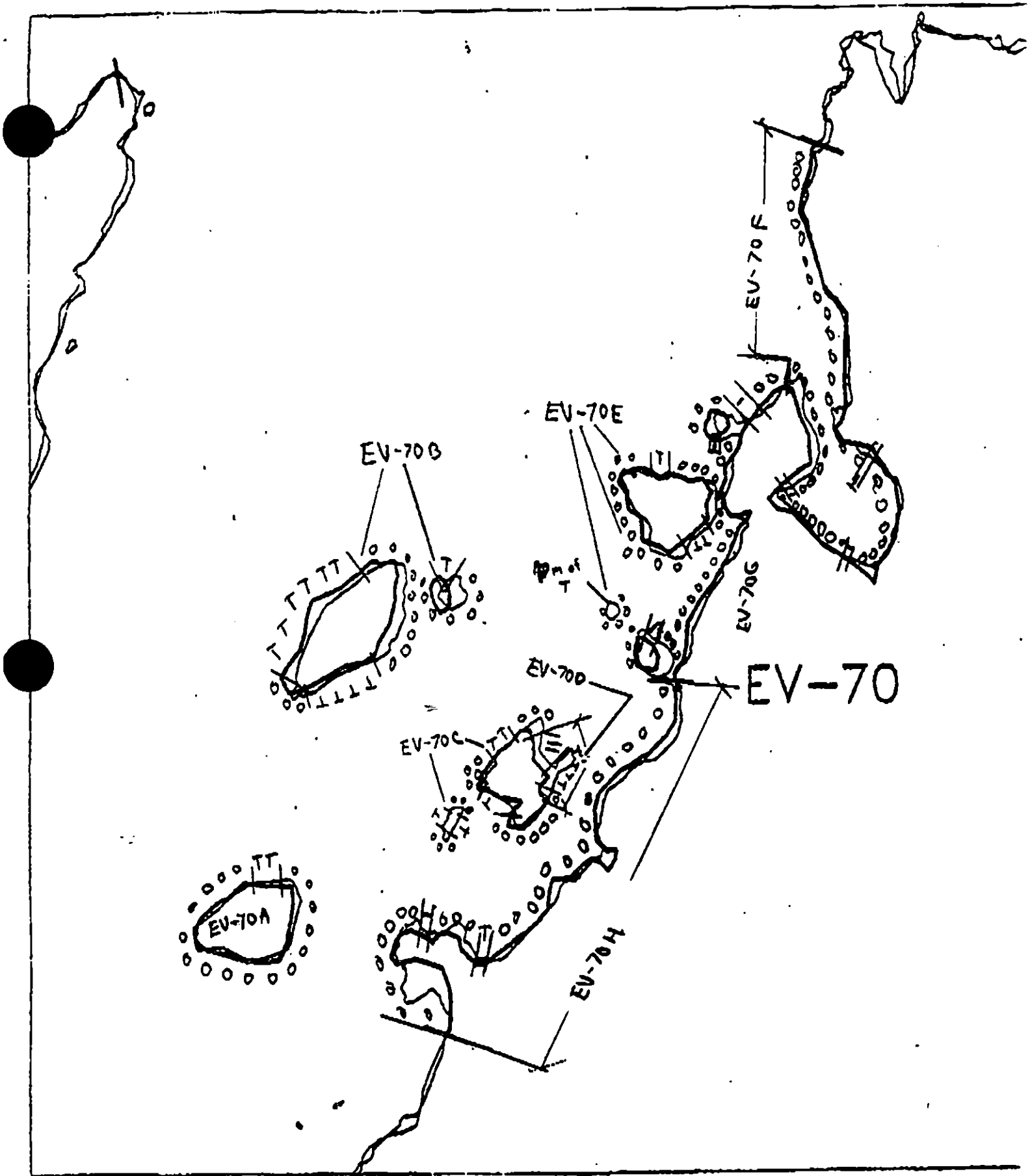
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: C (3 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION C (3 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 319 m: No Oil 511 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Removal	_____ Beach Cleaner
	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: C DATE 4/1/90

~~USCG~~ NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF ONE SMALL ISLAND AND MOST OF A LARGER ONE LYING TO THE NORTHEAST OFF THE WEST CENTRAL COAST OF EVANS ISLAND. THE PORTION OF THE LARGER ISLAND NOT INCLUDED IN THIS SUBDIVISION (AND DESIGNATED AS SEPARATE SUBDIVISION "D") WAS THE NORTHERN EMBAYMENT OF THE ISLAND.

THE SMALLER ISLAND WAS SURVEYED BY BOAT. SPORADIC WEATHERED SPLATTERS WERE OBSERVED ON ROCK FACES.

SPLATTERS WERE NOTED IN THE MID- TO UPPER-INTERTIDAL OF MUCH OF THE LARGER ISLAND. A BEACH ON THE SOUTH SIDE OF THE ISLAND, CONSISTING OF GRAVEL AND COBBLE WITH BOULDERS IN THE UPPER INTERTIDAL, WAS ASSESSED IN A BEACH LANDING. SPLATTERS WERE OBSERVED IN THE UPPER INTERTIDAL OF THE EASTERN PORTION. A "BATHTUB RING" OF WEATHERED STAIN AND COAT WAS FOUND IN THE CENTRAL PART OF THE BEACH, AND THIS EXTENDED WEST ONTO THE ROCK FACES THAT BORDERED ON THE WEST.

ADEC
NAME John Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

This sub-section consisted of one Island and part of another nearby Island (see map). Both Islands had tar splatters and tar stain that was weathering. Staining on both Islands consisted of discontinuous bands on the U.I.T.Z. No S.S. oiling was observed on these segments.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 05/22/90

OG Mike Foget NOAA/UCCG Gary Shigenaka SEGMENT ST/ EV-70
BIO Richard Ambrose LAND REP — SUBDIVISION C (3 of 8)
EXXON Larry Olson ADEC John Hayes TIME 13 :58 to 15 :00
TEAM NO.: 11 TIDE LEVEL: 1.8 to 4.6 DATE 4 / 1 / 90
EST. SUBDIVISION LENGTH: 1000 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Forested Backshore
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 75 % B 15 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
SLOPE : Lang 10 % Hang 50 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 300 m NO 700 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE 0
#BAGS 0

Photographs:
Roll No. 0
Frames 0

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					PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE - SEDIMENTS
1	30					X	-		X							X				P, G, S
2	10					X	-		X							X				G, S, M
							-													
							-													
							-													
							-													

COMMENTS Some discontinuous splattered staining is located in the HITZ the Eastern side of the island along the vertical rock wall. The cobble beach on the Southern End of the Island also has a 1m X 100m discontinuous coating of tar in the HITZ. The smaller Island Just South of the larger Island also has 100m of discontinuous staining located on the bedrock in the HITZ. (see map). All oil looked weathered by its splattered worn distribution of light staining. DATE 4/11/90

OG [redacted] Foler

SEGMENT ST/ EV-70

SUBDIVISION C

DATE 4 / 1 / 90

CHECKLIST

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

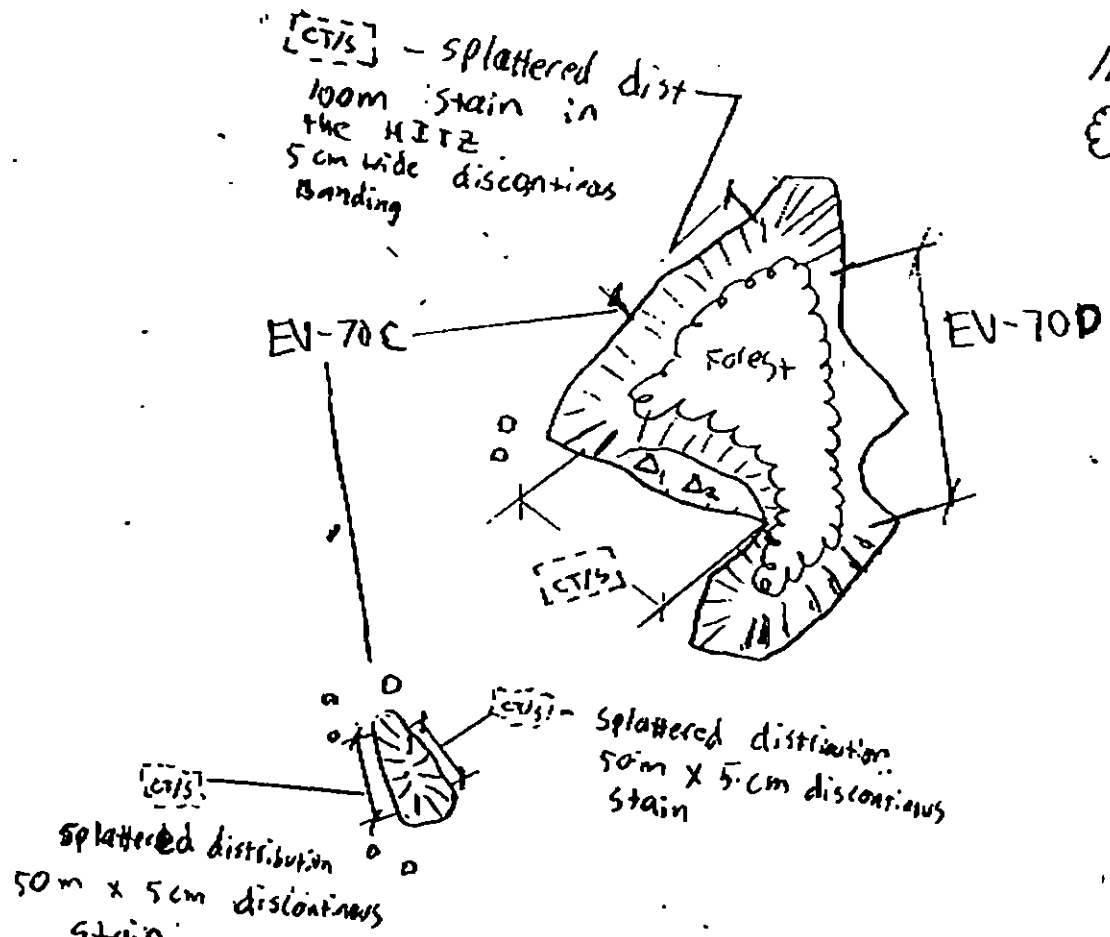
Splashed Distribution

Oiled Vegetation

1 ⟷

Photo location, direction, and number

SKETCH MAP



Legend

o - Rock

//// - Bedrock / Large

⟲ - Forest

N

Scale

100 m.

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

REVISION: [redacted]

APR-07-1990 23:25 FROM PACIFIC SEAHORSE TO 011--0015075643??? P.25

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV070 Subdivision C Date (mo / day / yr) 4/1/90

Time (24 hr) 1350 Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 75 (2) Boulder 15 (3) Cobble 10 (4) Pebble — (5) Sand — (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 55 Moderate 35 Low 10

(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. —
Frames —

BARNACLES

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

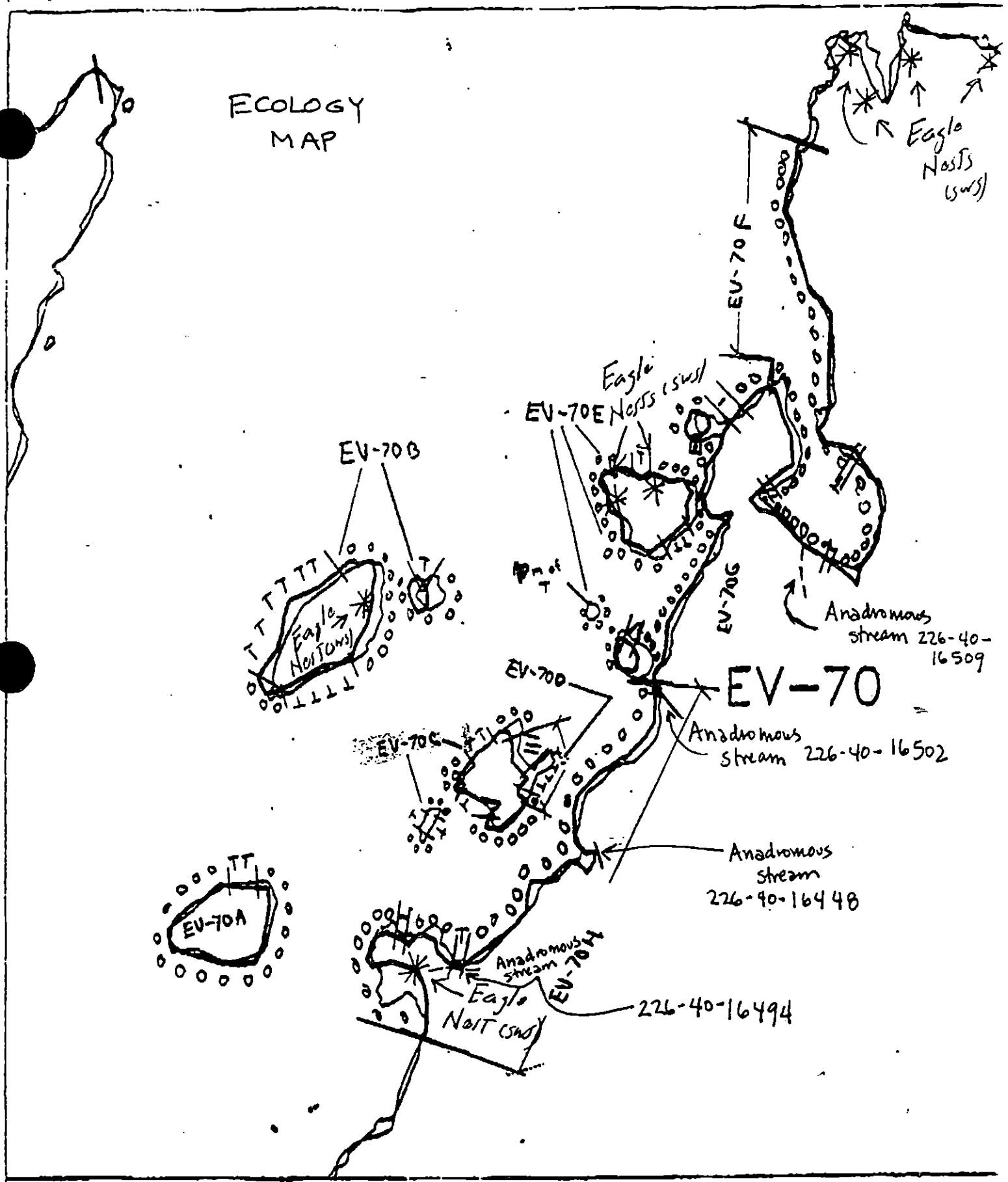
FUCUS

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

Wildlife Observations/ General Comments: * 1 otter, 1 great blue heron.
Algal cover a bit sparser than subdivision B on the E side, but still dense on the W. side, esp. with red algae in the intertidal.

Ecological Considerations:
7II, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.



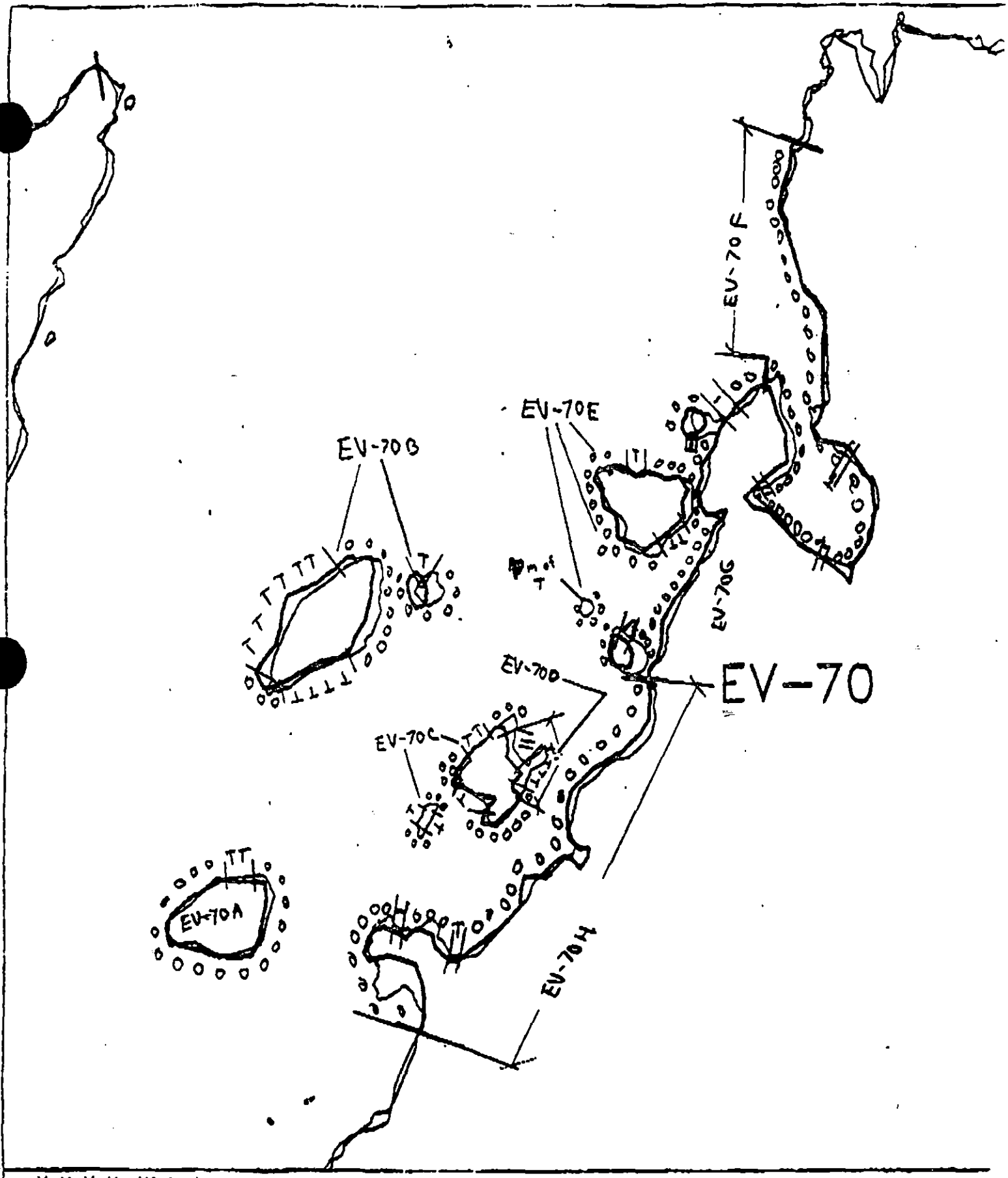
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: D (4 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION D (4 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 139 m: Narrow 0 m: V.Light 66 m: No Oil 73 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 5 cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
_X_Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
_X_Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Removal	____ Beach Cleaner
	____Other (see comments)

COMMENTS: Recommend bioremediation of area shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint. Avoid mussel bed near proposed bioremediation site.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)	
1B	Salmon stream mouth - spawning (7/10 to 8/31)	
	No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.	
1C	Salmon fry nursery area (4/31 to 7/31)	
1D	Esther Hatchery release (4/15 to 6/1)	
1E	Main Bay Hatchery release (4/20 to 5/10)	
1F	Sawmill Bay Hatchery release (4/15 to 6/1)	
1G	Cannery Creek Hatchery release (4/21 to 6/1)	
1H	Remote release site	
1I	Gill net area (6/7 to 8/31)	
1J	Purse seine area (7/20 to 9/30)	
1K	Purse seine hook-off (7/20 to 9/30)	
1L	Set net sites (6/11 to 7/25)	
	For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.	
2M	Herring spawning (4/1 to 6/15)	
	Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.	
3N, 3P	Harbor seal and sea lion pupping (5/15 to 7/1)	
3O, 3Q	Harbor seal and sea lion molting (8/15 to 9/15)	
	Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.	
5R	Seabird colony (5/1 to 9/1)	
	Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.	
5S	Shorebird/waterfowl concentration (4/1 to 5/15)	
	Restrict all activity to essential minimum, especially air traffic.	
5T	All Bald Eagle nests (3/1 to 6/1)	
	Active Bald Eagle nests (3/1 to 9/1)	
	Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.	
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
	For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.	

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: D DATE 4/1/90

OSCC NOAA
NAME GARY SHIGENAKA SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

LIQUID OIL WAS OBSERVED IN THIS SUBDIVISION, WHICH CONSISTED OF AN EMBAYMENT ON THE NORTH SIDE OF AN ISLAND ABOUT A MILE SOUTH OF THE ENTRANCE TO EGUGAC BAY (EVANS ISLAND). EXCLUDING THIS EMBAYMENT, THE REMAINDER OF THE ISLAND WAS DESIGNATED AS SUBDIVISION "C". THE BEACH WAS CHARACTERIZED BY SHALE COBBLE AND BOULDERS. THE UPPER INTERTIDAL SHOWED EVIDENCE OF OILING IN THE FORM OF CONSISTENT SPLATTERS THROUGH A 1-2 M BAND ALONG MUCH OF THE BEACH. A BAND IN THE LOWER INTERTIDAL SHOWED EVIDENCE OF CONSISTENT SURFACE OILING (WEATHERED COAT AND COVER). AND EXAMINATION UNDER COBBLE AND BOULDER REVEALED FREE OIL ON THE WATER WITH A DISTINCT ODOR OF CRUDE. THIS ≤1 M BAND EXTENDED FOR MUCH OF THE ENCLOSED BEACH ~60M. A SHEEN WAS OBSERVED IN THE IMMEDIATELY ADJACENT NEARSHORE WATERS, AND AS THE BOAT HAD APPROACHED THE BEACH FOR LANDING, BIOLOGIST RICH AMBROSE HAD NOTED OCCASIONAL SMALL (1-2 CM) POCKETS OF SHEEN. LIQUID OIL WAS ESTIMATED TO BE PRESENT TO A DEPTH OF 3 CM IN THE SEDIMENTS, WITH WATER FILLING THE PIT BELOW THIS DEPTH AND MAKING FURTHER OBSERVATION DIFFICULT. NEVERTHEAN WORMS WERE OBSERVED LIVING IN SEDIMENTS OF OILED PIT. MUSSEL BEDS NEAR THE LOWER INTERTIDAL OILED ZONE APPEARED TO BE OKAY, ALTHOUGH OBSERVED ASPHALTING. MAY HAVE CAUSED A PORTION OF THE BEDS TO BREAK AWAY. THIS BEACH MAY BE A CANDIDATE FOR BIOREMEDIATION.

ADEC
NAME John Hayes SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED
COMMENTS This sub-segment consisted of part of an Island off the shoreline of EV-70 (see sketch map). The sub-segment D, had oiling in the L-M-U T'2's. Subsurface oiling ranged from 3-5 cm. Most of the oiling was concentrated in the UJT2 in a continuous band surface coverage was coat and cover. Treatment recommended is either bioremediation or mechanical, with further evaluation dredge + wash mechanical may be applicable to this beach. The beach appears stable and the free oil is all subsurface. Special attention should be paid to healthy mussel beds + other growth noted on bio. map.

LAND MANAGER Rec. treatment only for section with three bands of oiling indicated on sketch map. Hot water treatment would be applicable but due to healthy stable beach around oil is not advised on this segment.
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Mike Foget USCG NOAA Gary Shigenaka SEGMENT ST/ EV-70
BIO Richard Ambrose LAND REP — SUBDIVISION D (4 of 8)
EXXON Larry Olson ADEC John Hayes TIME 14:00 to 15:10
TEAM NO.: 11 TIDE LEVEL: 1.1 to 3.6 DATE 4/1/90
EST. SUBDIVISION LENGTH: 240 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Snow covered uplands
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
SURFACE SEDIMENTS: R 10 % B 10 % C 35 % P 20 % G 15 % S 10 % M 5 % V 0 %
SLOPE : Lang 60 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 50 m N 0 m VL 100 m NO 90 m

SURFACE OIL

CHARACTER	DISTRIBUTION /c	/s	/p	/s	OIL / FILM COLOR					IMPACTED ZONES su	ui	mi	u
ASPHALT PAVEMENT		~	X			X					X		X
POOLED													
COVER			X			X					X		
COAT			✓			✓					✓		
STAIN				+		+						+	+
MOUSSE													
PATTIES													
TARBALLS													
FILM				X	X								X
NO OIL										X			

PAVEMENT: H (F) S 2 sq. m by 3 cm
PATTIES / TARBALLS 0 BAGS
NEAR SHORE SHEEN? NO BR (RW) SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE 0
#BAGS 0

Photographs:
Roll No. ST-11-1
Frames 22-26, 29-31

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					PIT ZONE su	ui	mi	u	ANA	SUBSURFACE SEDIMENTS
1	5		X				0-1		X		X					X				P, C
2	10		X				0-3		X		X					X				P, C
3	15					X	-		X		:					X				P, C
4	10				X		0-5	X			X/N							X		C, P, S (water at 5cm = 9cm)
5	10			X			0-3	X			X/N							X		C, P, S (")
6	15					X	-		X							X				P, C

COMMENTS: Subdivision D is located on the North eastern side of subdivi C. this shoreline had more extensive oiling than the rest of subdivision C. A light discontinous splattered tar/stain is located on the eastern side of the cobble beach in HIT2. The same distribution of stained cobble is located on the eastern side of the Large rock outcrop to the North of the beach. over

REVIEWED [signature] DATE 4/11/90

SHORELINE OILING SUMMARY (PAGE 2 of 2) REVISION 03/22/90

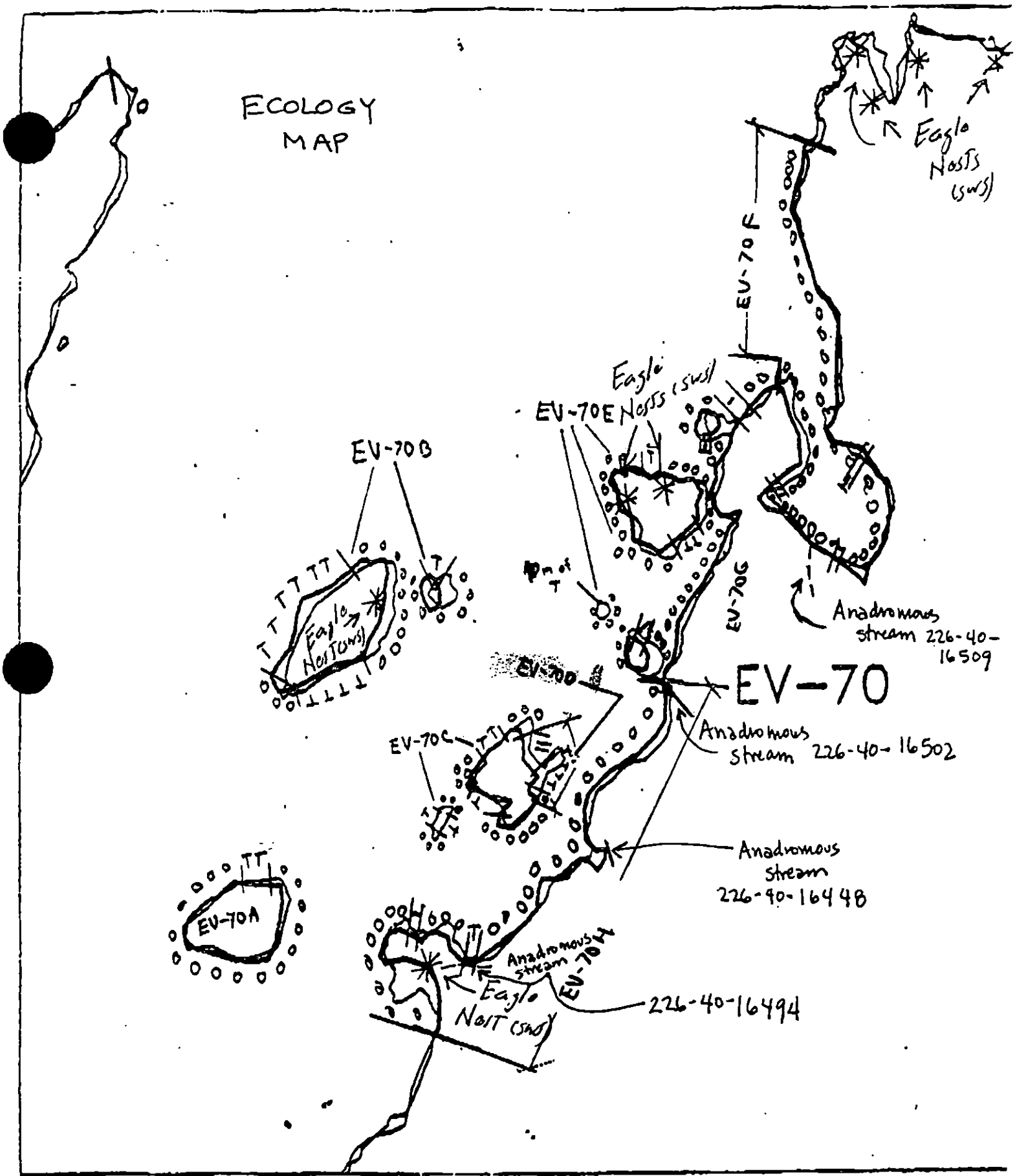
SEGMENT ST/ EV-70 SUBDIVISION D

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SH/DK	MED/LT	DT	VERY LT	LSH		SU	UI	MI	LI		
							•														
							•														
							•														
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							•														
							•														
							•														

COMMENTS The Beach to the west of the large rock outcrop and mussel Bed was hit fairly hard. The oil category for this section is medium. In the upper ITZ is a 2m X 50m Patchy distribution of oil/tar. Their are some tar/asphalt patches located in this zone Most of the oil is located on the Protected side of the Boulders and cobbel. In the Mid intercidal is a splattered 4m X 50m tar staining with most of the oil located on the protected side of the cobble the oil appears to be weathered on the exposed side of cobbles. In the LITZ their is a 2m X 50m cover of oil/tar in a patchy distribution. On the surface the oil apears highly weathered. Underneath Cobbles is free oil. Brown oil globuels appear on the water surface (water at 5cm) when cobbles are uncovered. A slight rainbow sheen was observed in the water just off shore.

REVIEWED M.A. DATE 4/11/90



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-278
Name: Mike Foget
Date: 4/1/90
Data Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV070 Subdivision D Date (mo / day / yr) 4/1/90

Time (24 hr) 1400 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 10 (3) Cobble 35 (4) Pebble 20 (5) Sand 25 (6) Silt –

(B) Overall % cover of biota (% of segment): Dense 0 Moderate 15 Low 85

(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-11-1
Frames 27,28

BARNACLES

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

Wildlife Observations/ General Comments:* 14 unid. ducks (Harlequins??), 4 cormorants
Generally sparse biota (since most of subdivision consists of E. side of island). Virtually all mussels occurred in one area; see Addendum.

Ecological Considerations:
711, 16: Not relevant for this subdivision.
Mussel bed would be susceptible to trampling; see Addendum.

*Note: most surveyed by boat.

OG [redacted] Project

SEGMENT ST/ EV-70

SUBDIVISION D

DATE 4 / 1 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bndy
- 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

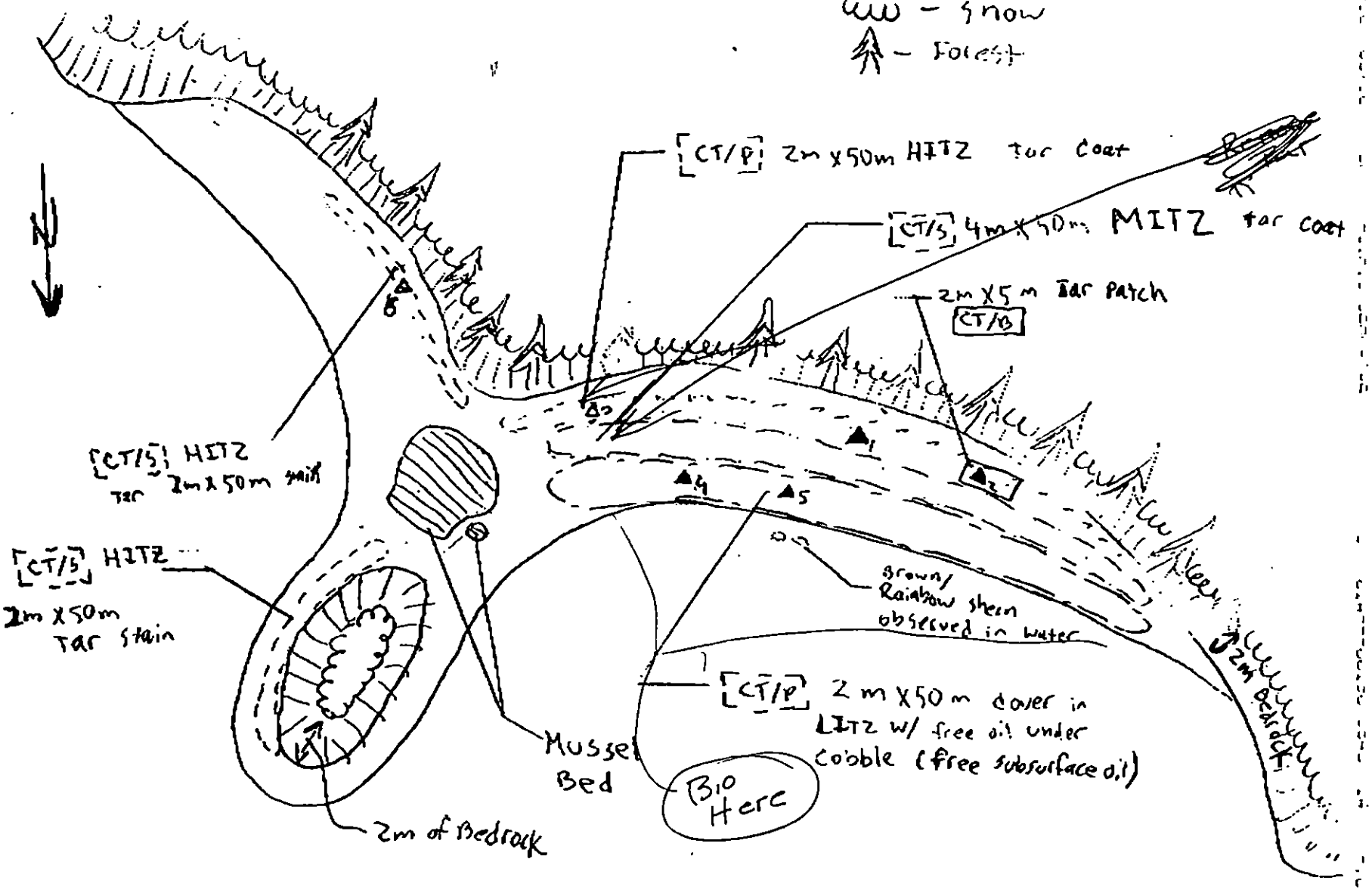
[redacted]CH MAP

scale

25 m

Legened

- Mussel Bed
- //// - Rock / Boulder outcrop
- ~~~ - Snow
- Forest



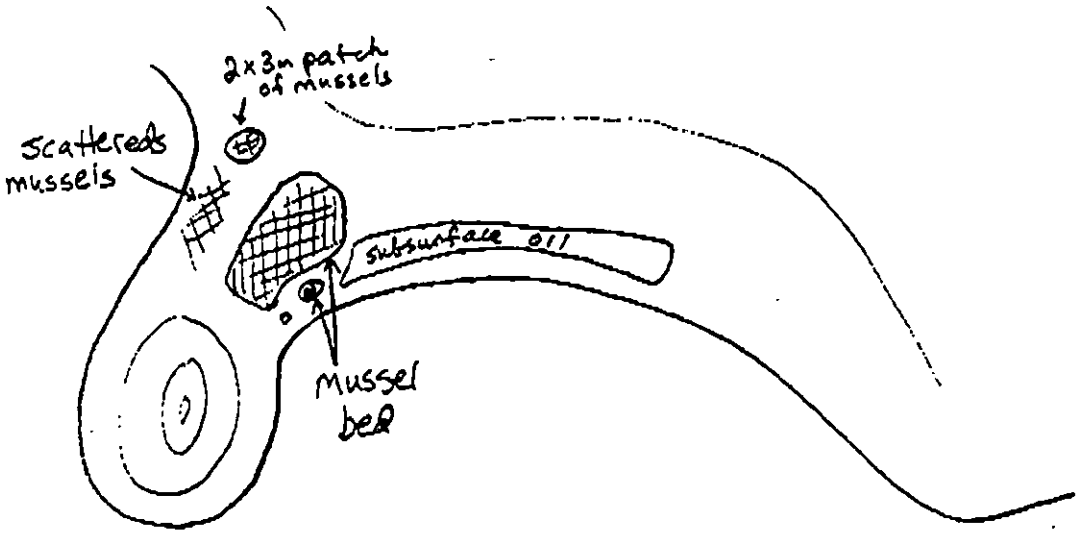
Oil Character Length (m): AP 5 PO — CV 50 CT 150 ST — MS — PT — TB — FL 1 NO 206

Subdivision EV070D

TMorose
4/1/90

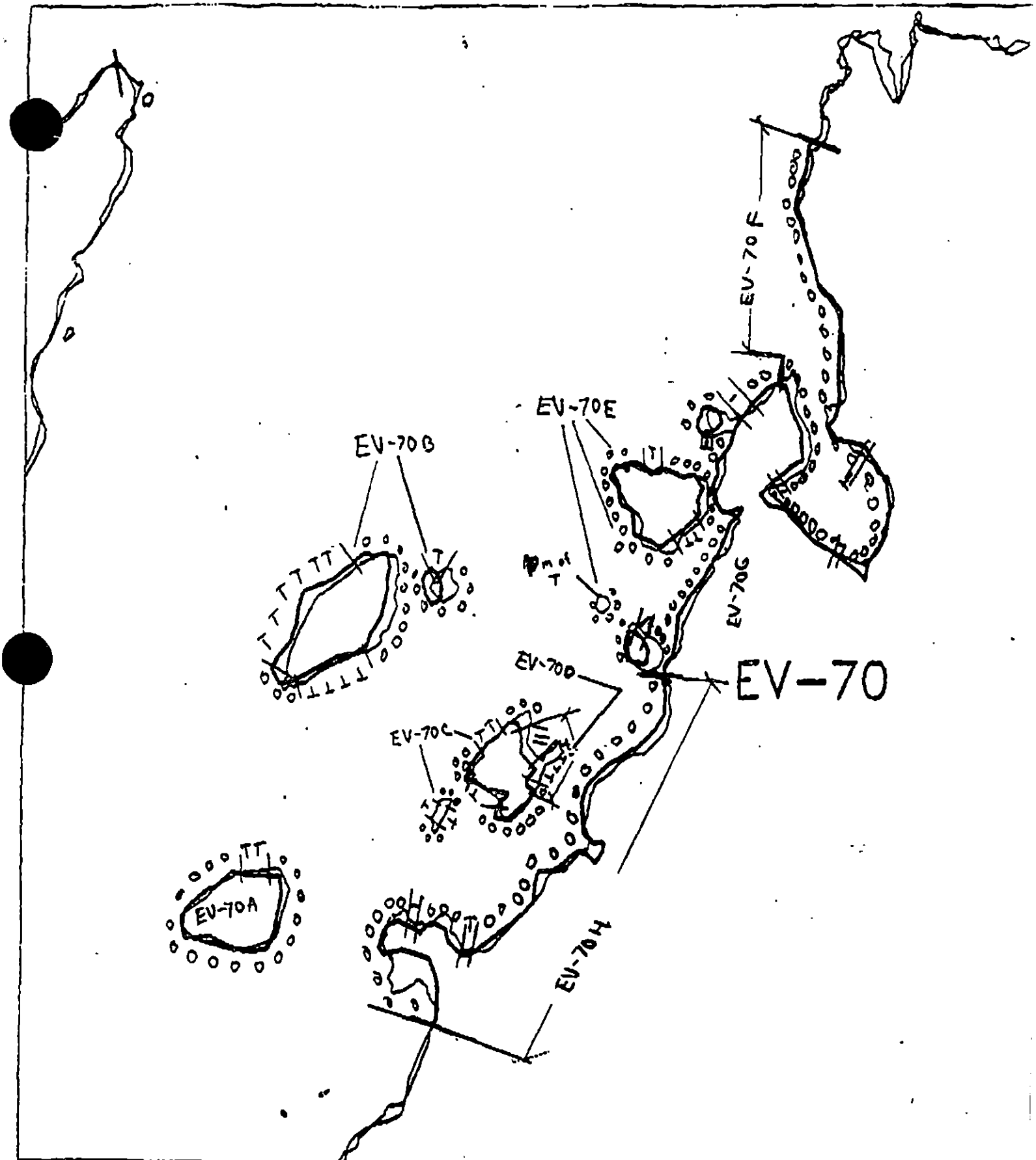
Addendum

A dense mussel bed on pebbles occurred at beach with free subsurface oil. The biota over the main part of the cove was quite sparse, with sparse barnacles & littorines and rare Fucus. The mussel bed would be susceptible to trampling, but it occurs on the ridge east of the main beach, and could be avoided during beach activities:



The mussel bed is about 5cm thick. No oil was found on the mussels; however, the northwest edge of the bed was broken up, and it looks as though the bed used to extend to where subsurface oil and asphalt are found now.

Hermit crabs were observed under one rock in the mid intertidal (in oil zone). A nemertean - alive - was under a rock with a noticeable amount of free oil on the water.



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900
Metres

Map Key: PWS-279
Name: Mike Fogt
Date: 4/1/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: E (5 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION E (5 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 191 m: No Oil 839 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 6 cm

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 pick up of oiled debris and vegetation. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraints.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: E DATE 4/1/90

NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION "E" CONSISTED OF A LARGER ISLAND DUE SOUTH OF THE ENTRAUCE TO GUGUAK BAY (EVANS ISLAND). THE SUBDIVISION INCLUDED A VERY SMALL ISLAND LYING TO THE NORTH OF THE LARGER. SPLATTERS OF WEATHERED OIL WERE OBSERVED ON THE SHEER FACES OF THE SMALL ISLAND. THE LARGER ISLAND SHOWED A "BATHTUB RING" OF STAIN ON MANY OF ITS ROCK WALLS AND BOULDERS IN THE UPPER INTERTIDAL. A BEACH ON THE NORTHEAST SIDE OF THE LARGER ISLAND WAS VISITED. THE BEACH CONSISTED OF TWO DISTINCT TYPES, WITH A ROCK OUTCROPPING DIVIDING THE TWO. THAT TO THE WEST WAS COMPRISED OF LARGE BOULDERS. SOME SPLATTERS WERE OBSERVED ON EXPOSED FACES. NO OTHER EVIDENCE OF OILING WAS SEEN. THE SUPRATIDAL WAS NOT ACCESSIBLE DUE TO SNOW. THE EASTERN HALF OF THE BEACH CONSISTED OF COBBLE AND GRAVEL, WITH SOME BOULDERS. THE LANDWARD FACES OF MANY OF THE BOULDERS SHOWED STAIN, COAT OR COVER. COATING WAS SEEN ON BARNACLES ATTACHED TO A ROCKY OUTCROPPING ON THE EASTERN EDGE OF THE BEACH, WITH SOMEWHAT HIGHER INCIDENCE OF DEAD BARNACLES OBSERVED BY BIOLOGIST RICH AMBROSE IN THIS OILED PORTION RELATIVE TO UNOILED. NO EVIDENCE OF OILING WAS OBSERVED UNDER ROCKS OR IN PITS. OILED VEGETATION WAS FOUND IN THE SUPRATIDAL, ALTHOUGH ONLY A SMALL PART OF THAT ZONE WAS ACCESSIBLE DUE TO SNOW. THIS SHOULD BE REEXAMINED AT A LATER DATE TO MORE CLEARLY DEFINE EXTENT OF OILING.

THE REMAINDER OF THE ISLAND SHOWED EVIDENCE OF OILING IN THE FORM OF WEATHERED SPLATTERS OR "BATHTUB RING", BOTH DISCOUTINUOUS.

ADEC
NAME John Hayes SIGNATURE

☐ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED

COMMENTS

This sub-section consisted of two Islands one large and one small (see map) The small Island had staining on the UIT2 the staining was a discontinous band.

The larger Island had a discontinous tar stain on the UIT2.

A pocket beach on the large Island had oiling in the supratidal 2. Although most of the zone was covered with snow we observed oiled pebbles + vegatation to a depth of 6 cm. Area should be re-assessed after snow melts and manual pick up of oiled vegetation + pebbles is recommended. It appeared that contamination extended in the zone but was not confirmed due to snow cover.

LAND MANAGER The rest of the Islands were weathering and not in need of treatment
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Mike Foget NOAA USCG Gary Shigenaka SEGMENT ST/ EV-70
BIO Richard Ambrose LAND REP ~ None SUBDIVISION E (5 of 8)
EXXON Larry Olson ADEC John Hayes TIME 15 : 40 to 16 : 00
TEAM NO.: 11 TIDE LEVEL: 4.6 to 5.0 DATE 4 / 1 / 90
EST. SUBDIVISION LENGTH: 1100 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 30 % B 30 % C 20 % P 10 % G 10 % S ~ % M ~ % V ~ %
SLOPE : Lang 45 % Hang 25 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 120 m NO 980 m

SURFACE OIL

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

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

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

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE rope pine needs / Fu
#BAGS 0

Photographs:
Roll No. ST-11-1
Frames 32

SUBSURFACE OIL

	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
			OP	OR	OL	OF	MO		UO	UC						SU	UI	MI	LI		
*	1	15			X			0 - 6		X					X	X					debris, P
	2	15					X	-		X							X				P
	3	20					X	-		X								X			P
								-													
								-													
								-													

COMMENTS * oiled interval <5cm in pit #1 does not constitute subsurface oil.
Oil is located on a Pocket Beach on the N. side of the Islar
(Map 2) in the storm berm Located in the Supra I.T.Z. Most of the Supra I.T.Z. is
covered by Snow. Also there is some staining in the M.I.T.Z on the S.E. part
of the Island

BUT Icon does!
JRH 4/4/90

REVIEWED JW DATE 4/13/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV070 Subdivision E Date (mo / day / yr) 4/1/90

Time (24 hr) 1540 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 30 (3) Cobble 20 (4) Pebble 10 (5) Sand 10 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 50 Moderate 30 Low 20

(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-11-1
Frames 33

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	X	X	X	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	X	2	2	2	2	
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	X	⊗	2	2	2	2	
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	2	2	2	2	2	2	2	2	2	2	2	
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	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	X	X	X	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	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:*
2 Harlequin ducks, 1 cormorant, 1 common merganser, 1 mature bald eagle, 1 deer plus deer tracks and deer skeleton on one beach.

Ecological Considerations:
7II, 1B: Not relevant for this subdivision.

*Note: most surveyed by boat.

SEGMENT EV-70

SUBDIVISION E

DATE 4 / 1 90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
- ___Substrate Character
- ___Est. HWL/LWL
- ___SSL
- ___Profile Location(s)
- ___Profile(s)
- ___Pit Location(s)
- ___Photo Location(s)

LEGEND

1 △

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

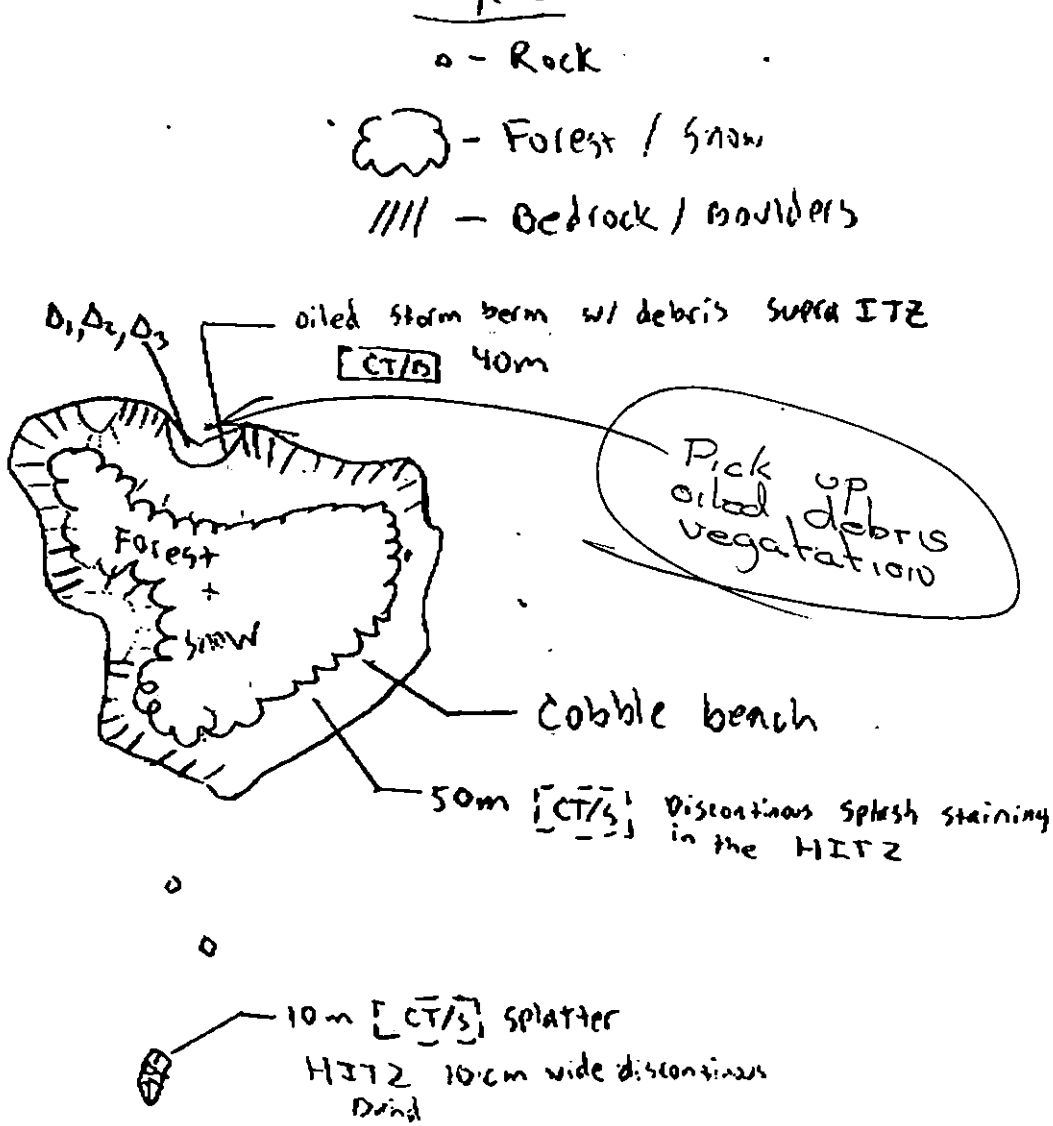
Splashed Distribution

Oiled Vegetation

1 ⇒

Photo location, direction, and number

SKETCH MAP



Scale

100 m

Oil Character Length (m): AP ~ PO ~ CV ~ CT 60 ST 60 MS ~ PT ~ TB ~ FL ~ NO 1000

REVISION 08/2000

SEGMENT/_____

SUBDIVISION_____

DATE____/____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

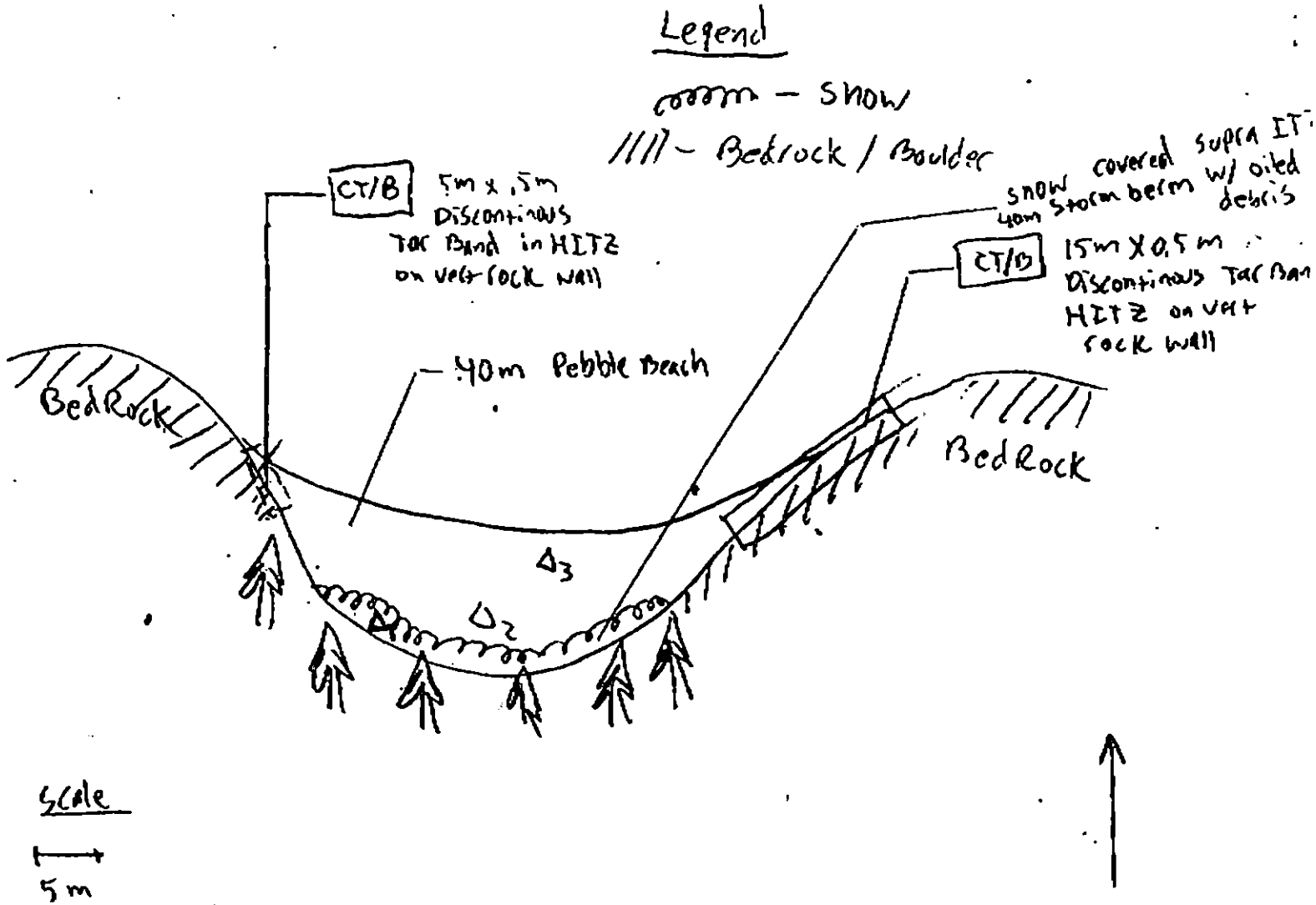
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

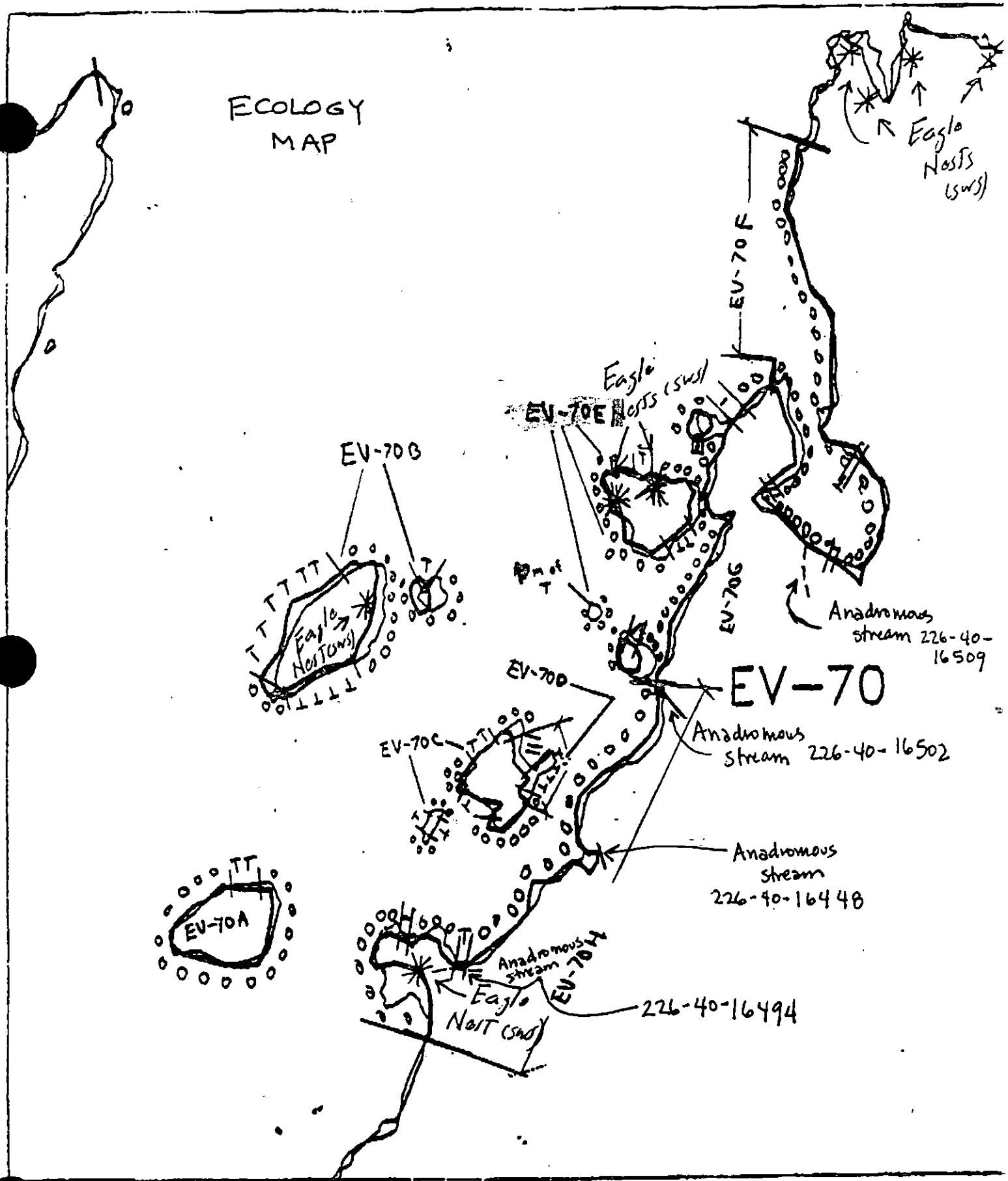
1 ⇔
Photo location, direction, and number

SKETCH MAP 2



Oil Character Length (m): AP___ PO___ CV___ CT 60 ST___ MS___ PT___ TB___ FL___ NO 20

80m Shore zone



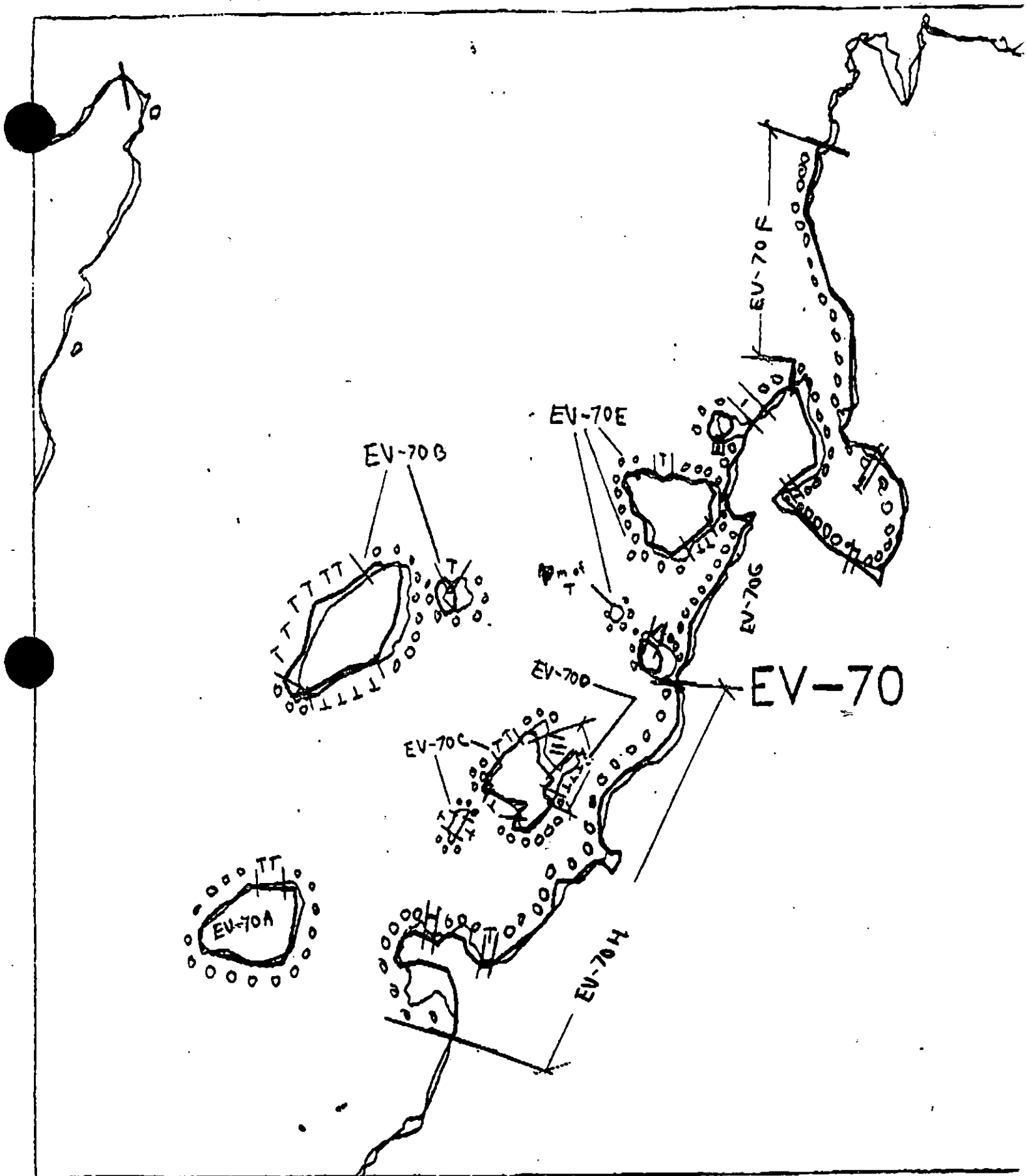
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: F (6 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION F (6 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Anadromous stream no. 226-40-16509 in Subdivision F; 4 bald eagle nests close by in Segment EV-60.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 36 m: No Oil 2808 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 10 cm

RECOMMENDATIONS:

_____No Treatment Recommended	_____Snare/Absorbent Booms
__X__Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
__X__Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Removal	_____ Beach Cleaner
	_____Other (see comments)

COMMENTS: Recommend bioremediation of areas shown in sketch map and reassessment of segment after additional snow-melt by Anadromous SCAT team. Work should be conducted with the approval of ADF&G regarding anadromous fish stream and USFWS concerning eagle nests.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: F DATE 4/6/90

USCG NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF THE SHORELINE OF GUGUAK BAY AND ITS APPROACHES, ON THE WEST SIDE OF EVANS ISLAND. IT WAS COMPRISED LARGELY OF COBBLE-BOULDER BEACHES WITH ROCK OUTCROPPINGS. ALONG THE NORTH APPROACH TO THE BAY, OIL STAIN WAS OBSERVED, PRIMARILY ON THE LEEWARD SIDE OF ROCK FACES, AND OFTEN IN THE FORM OF "BATHTUB RING". THE ENTIRE SHORELINE OF GUGUAK BAY WAS SURVEYED ON FOOT. VERY SPORADIC STAIN, WITH SOME COATING, WAS OBSERVED ALONG THE NORTHERN SHORE OF THE BAY. SEVERAL SMALL STREAMS AND SNOWMELT SEEPS FED INTO THE NORTHEASTERN END OF THE BAY, WITH THE SOUTHERNMOST OF THESE AN ANADROMOUS STREAM (EVIDENCED BY SALMONID BONES AND CARTILAGINOUS PARTS FOUND IN THE BED). WHILE SOME VERY SLIGHT EVIDENCE OF SHEEN WAS OBSERVED IN THE WATER, NO OILING COULD FOUND EITHER IN THE IMMEDIATE VICINITY OR IN THE STREAM. CONTINUING AROUND THE BAY, SOME SPLATCHES OF WEATHERED OIL WERE FOUND ON BOULDERS IN THE UPPER INTERTIDAL ABOVE A PEBBLE-COBBLE BEACH ALONG THE SOUTHERN SHORE OF THE BAY, ABOUT 50 M WEST OF THE ANADROMOUS STREAM. ABOUT 80 M WEST OF THE STREAM, SHEEN WAS OBSERVED IN THE MID- TO UPPER INTERTIDAL IN A SEEPAGE AREA, AND CLOSER EXAMINATION REVEALED A 5 M (WIDE) X 15 M (LENGTH) PATCH OF CONTAMINATION. GLOBULAR OIL ON WATER WAS FOUND IN PITS, AND RESIDUAL OIL WAS FOUND IN SEDIMENTS TO 7 CM, WITH FILM DOWN TO 10 CM. NO OTHER OIL WAS FOUND FROM THIS PATCH TO THE SOUTHWEST CORNER OF THE BAY, WHERE A MELT SEEPAGE FED INTO THE BAY. A SURFACE SHEEN WAS OBSERVED IN THE UPPER INTERTIDAL ZONE OF THE SEEP, (CONT BELOW)

ADEC
NAME John Hayes SIGNATURE

☐ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED

COMMENTS

Recommend Anad Scat team access this bay.

The area is a sheltered bay with very little wave energy also 6 streams drain into bay 5 appear to be small + runoff streams + 1 had signs of being anadromous (Jawbone). No oil was observed near the stream bed. Apprx 80 yds West of the stream (see map) was a patch of oiling 30x6m. with SS. pen. to 13cm. The SS. oiling was free oil + sheening. Another oiling patch 1 oxga. was observed in the NW corner of the bay this had a soft weathered coat and was pen. to 8cm. with a ss film to 11cm.

LAND MANAGER NOAA (CONTINUED FROM ABOVE) (OR) (OF)
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

AND ON THE NORTH SIDE OF THE SEEP, A 6 M (WIDE) X 20 M (LENGTH) PATCH OF COVER WAS FOUND. A PIT REVEALED 5 CM PENETRATION INTO THE SEDIMENTS. AN ISOLATED PATCH OF COVER MEASURING 1/4 M X 1/4 M WAS SEEN ON A BOULDER NORTH OF THE PATCH. NO OTHER OILING WAS OBSERVED ALONG THE SOUTHERN APPROACH TO GUGUAK BAY.

MUCH OF THE SUPRATIDAL ZONE WAS COVERED BY SNOW AND SO COULD NOT BE ASSESSED.

Spot washing, low pressure wash or bio, should all be considered for this segment after assessment from Anad-Scat. Team. Careful attention should be paid to healthy growth (Bio. Map) + access to bay is at high tide due to rocks at the entrance that are exposed at low tide.

REVISION NO. 03/21/89

SHORELINE OILING SUMMARY

REVISION NO. 03/23/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70
BIO Richard Ambrose LAND REP None SUBDIVISION E (6 of 8)
EXXON Larry Olsen ADEC John Hayes TIME 15:00 to 17:15
TEAM NO.: 11 TIDE LEVEL: 6.0 to 1.2 DATE 4/6/90
ST. SUBDIVISION LENGTH: 2670 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock With Snow in the supra ITZ
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 10 % B 10 % C 30 % P 20 % G 20 % S 5 % M 5 % V 0 %
SLOPE: Lang 60 % Hang 20 % Vert 20 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 35 m N 0 m VL 25 m NO 2610 m

SURFACE OIL

Wave exposure - Low in protected bay, medium outside of bay

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

PAVEMENT: H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 2 BAGS

NEAR SHORE SHEEN? NO BR (RW) SL TL

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

DEBRIS COLLECTED ☒ YES ☐ NO
TYPE Pom Pom
#BAGS 1

Photographs:
Roll No. ST-11-2
Frames 13 - 18

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BRT BR	DRK BR/RW	GY SL	DRK TL	LGT TL		SU	UI	MI	LI		
1	20					X	-		X								X				G,C (H_2O @ 15cm)
2	30					X	-		X							X					G
3	35					X	-		X		.						X				G
4	15					X	-		X									X			G, P
5	10					X	-		X										X		G, P (H_2O @ 5cm)
6	15					X	-		X										X		G, P (H_2O @ 10cm)

COMMENTS Most of the oiling that occured in this segment was at beach 1 & 2. At Beach 1 a 20m x 6m CT/B cover in the HITZ. Subsurface oiling includes rainbow sheen and globules. Beach 2 had a 15m x 5m CT/B cover of oil/tar in the HITZ. Subsurface oiling included a rainbow sheen. Both of these beach zones are R/P Beaches. The rest of the oiling in this subdivision occurs as CT/S weathered tar stain among boulders in the HITZ

REVIEWED M.G DATE 4/11/90

SHORELINE OILING SUMMARY (PAGE 2 of 2) REVISION 03/22/99

SEGMENT ST/ EV-70 SUBDIVISION F

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC	SHN/BR	DBR/RW	DT/AL	DBR/TL	SHN	SU	UI	MI	LI		
7	10					X	-		X							X				C, G, M
8	10					X	-		X							X				G, S
9	15					X	-		X									X		G, S, M
10	10					X	-		X							X				G, S, M (H_2O @ 10cm)
11	20		X				0-7		X	X							X			C, P, G (H_2O @ 10cm)
11	20				X		7-10		X		X						X			C, P, G (H_2O @ 10cm)
12	15		X				0-5		X	X							X			G, P, S
12	15				X		5-10		X		X						X			G, P, S
13	15				X	X	-		X							X				C, S, M
14	20		X				0-5		X	X						X				G, S
15	20					X	-		X							X				P, G
							-													
							-													
							-													

COMMENTS

REVIEWED _____ DATE _____

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/29/90

Segment ST / EV070 Subdivision F Date (mo / day / yr) 4/6/90

Time (24 hr) 1455 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 10 (3) Cobble 30 (4) Pebble 20 (5) Sand 30 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 10 Moderate 20 Low 70

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

Photographs:
Roll No. —
Frames —

BARNACLES

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

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

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X	X	2	X	X	X	2	2	2
3	3	3	2	X	3	3	X	X	3	3	3
4	4	4	4	4	4	X	X	X	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: 2 oystercatchers, 2 common mergansers, 2 cormorants and 7 Barrows goldeneyes, deer tracks.
Most beach was generally sparse cover, with moderate to dense areas; Guguate Bay was generally sparse with some Mytilus and Fucus areas

Ecological Considerations:
711, 1B: Oil noted within 80m of salmon stream (see Addendum).
Oil was also noted at the west end of the Bay; a dense Fucus band in the low intertidal would be susceptible to trampling if this second patch was cleaned. (See Addendum).

OG [redacted] Fogel

SEGMENT ST/ EV-70

SUBDIVISION F

DATE 4 / 6 90

SKETCH MAP

Scale

200 m

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

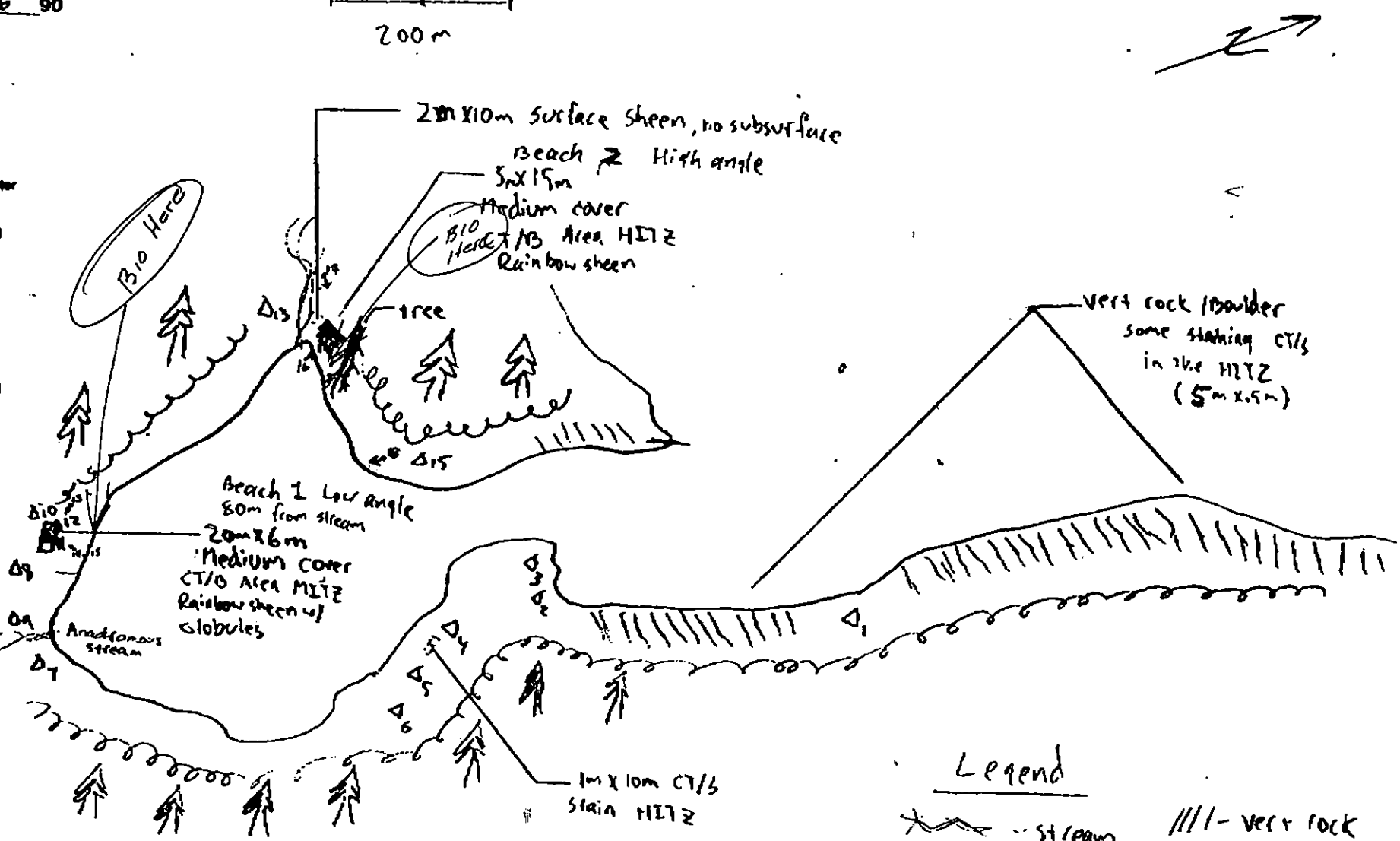
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●→ Photo location, direction, and number



Legend

- ~~~ - stream
- //// - very rock
- ↑ - forest
- ⟋ - Horizontal dead tree in ITZ
- (snow) - snow

Oil Character Length (m): AP — PO — CV 35 CT — ST 15 MS — PT — TB — FL 45 NO —

REVISION/SERIES

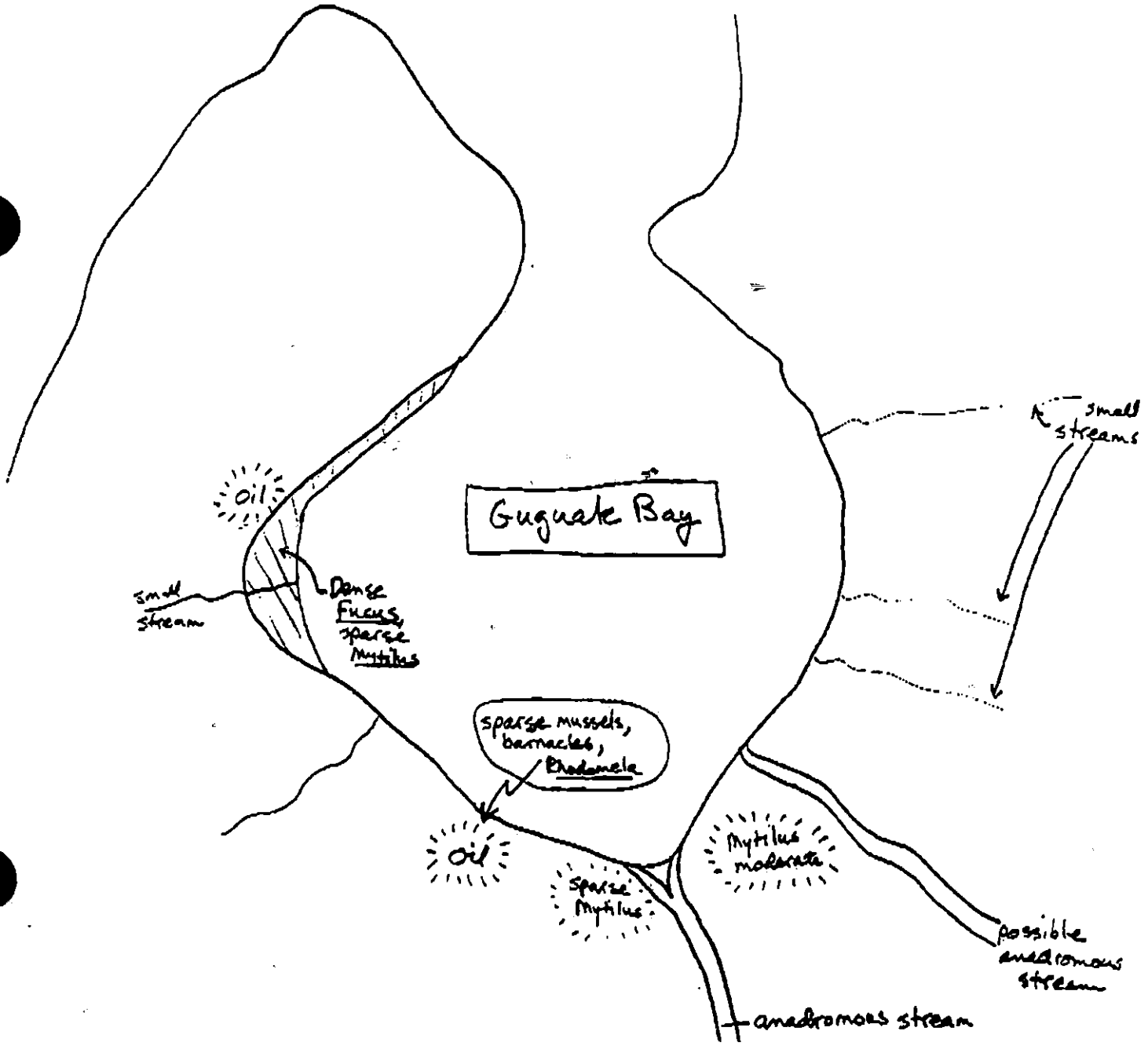
Subdivision EV070F

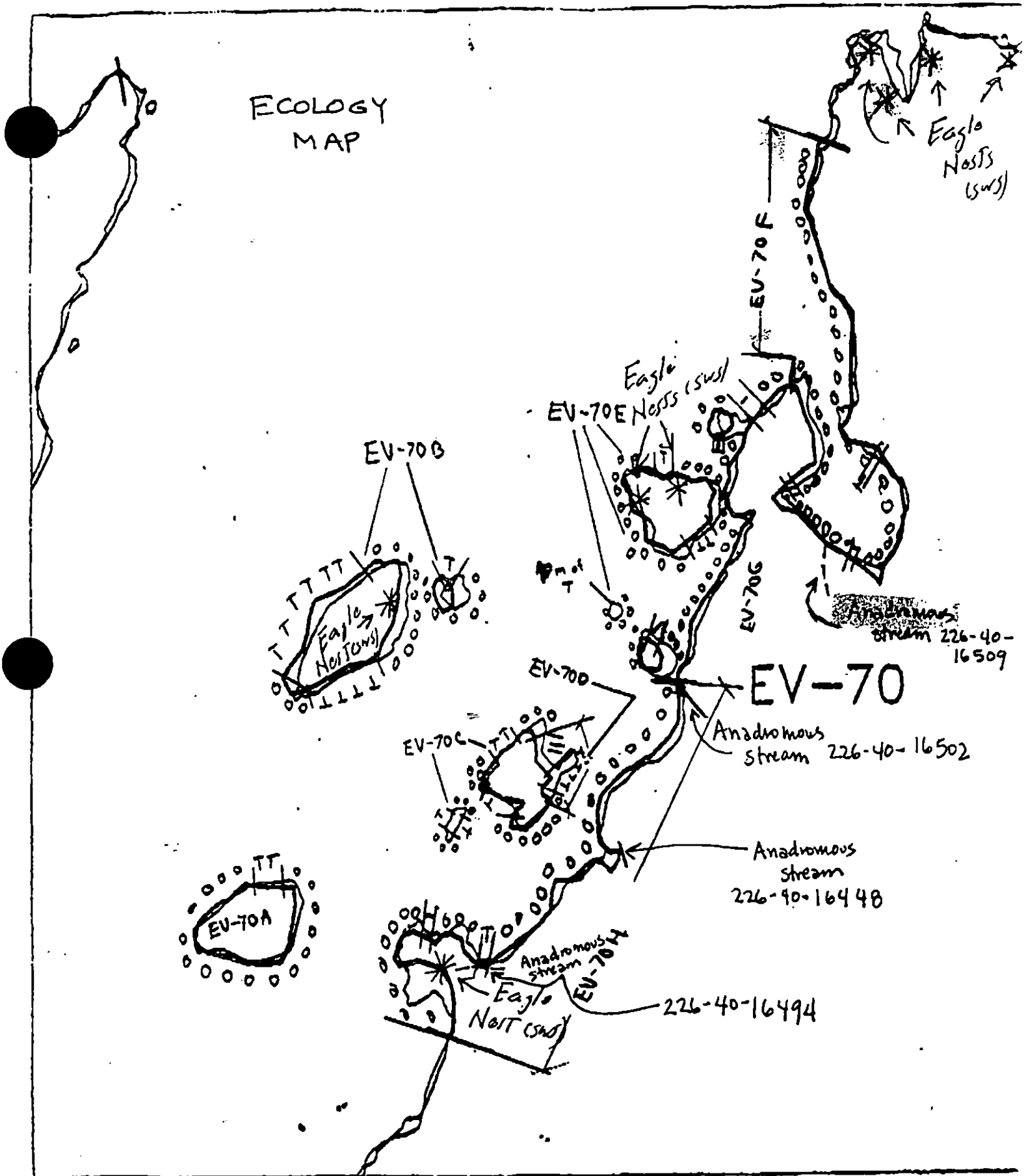
Ambrose
4/6/90

Addendum

Both a salmon stream and oil were found in Guguale Bay. The salmon stream had salmon bones and jaws in the stream. A second stream also seamed large enough to be anadromous.

One oiled location, with globules of free oil & a sheen visible on the water in pits, was about 80 m from the known anadromous stream.





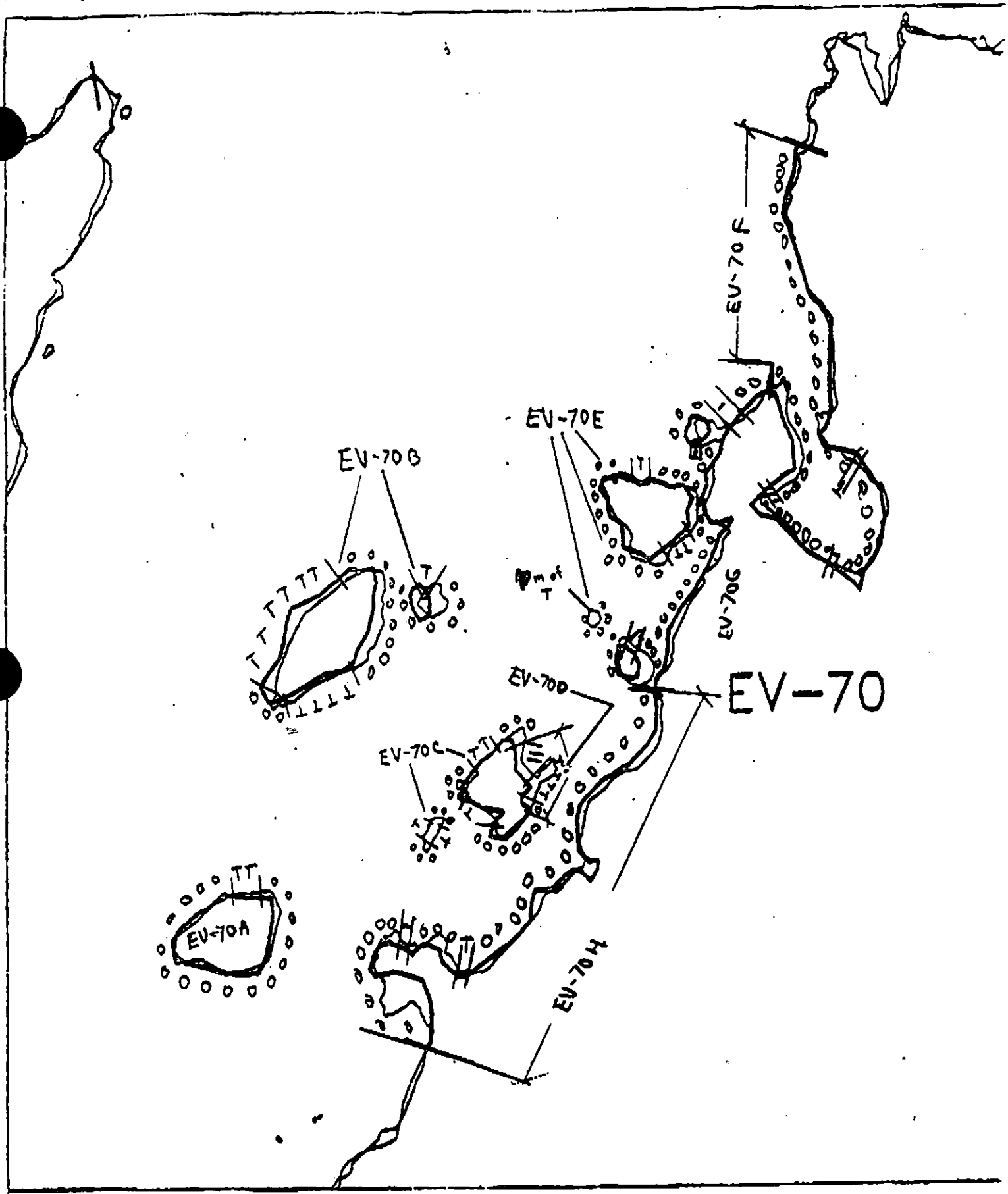
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: G (7 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION G (7 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 45 m: Narrow 61 m: V.Light 40 m: No Oil 1639 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of tarmat, oiled vegetation and debris, 2) blot any mobile oil with pom poms, 3) bioremediate areas shown on attached sketch map. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraint and ADF&G regarding anadromous streams.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: G DATE 4/6/90

~~BCG~~ NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

SUBDIVISION CONSISTED OF COBBLE-BOULDER-ROCKY OUTCROP SHORELINE ALONG THE WESTERN COAST OF EVANS ISLAND. DEGREE OF OBSERVED OILING WAS VARIABLE. WEATHERED STAIN AND "BATHTUB RING" WAS SEEN SPORADICALLY ALONG THE SUBDIVISION. AT THE NORTHERN END OF THE SUBDIVISION, A SMALL ISLAND THAT WAS CONNECTED TO THE MAIN BODY OF EVANS ISLAND AT LOWER PORTIONS OF THE TIDAL CYCLE WAS SURVEYED ON FOOT, AND WEATHERED STAIN AND COVER WAS FOUND, AS WELL AS SOFT PAVEMENT MATERIAL. THE LATTER WAS BROKEN UP WITH THE SHOVEL TO FURTHER THE WEATHERING PROCESS. THE LARGER ISLAND APPEARING ON THE MAPS TO THE SOUTH OF THE PREVIOUSLY DISCUSSED SMALL ISLAND ALSO WAS CONNECTED TO EVANS ISLAND AT LOW TIDE. A CONSISTENT BAND OF SPLATTERS WAS OBSERVED IN THE UPPER INTERTIDAL ZONE TO THE EAST OF THIS CONNECTING ISTHMUS ON THE EVANS ISLAND SIDE, AND SOME LIGHT SHEEN WAS SEEN IN PITS DUG IN A FRESHWATER SEEP BELOW THIS BAND. CONTINUING SOUTH DOWN EVANS ISLAND, ANOTHER ISLAND LINKED TO EVANS AT LOW TIDE WAS ENCOUNTERED, AND ALONG THE NORTHERN COAST OF THIS LINKED ISLAND, POOLED BUT WEATHERED OIL WAS FOUND IN THE UPPER INTERTIDAL AMONG BOULDERS. INTERESTINGLY, MUSSELS AND SNAILS WERE DETERMINED TO BE ALIVE IN THIS POOLED OIL. IN THE SUPRATIDAL, POOLED WEATHERED GOOEY OIL WAS ALSO FOUND, WITH A DEPTH OF 2-5 CM, AND IN TWO BANDS OF ABOUT 10M EACH. AT THE SOUTHERN END OF THE SUBDIVISION, A COBBLE-BOULDER BEACH WAS FOUND IN WHICH A SHEEN WITH LITTLE PENETRATION COVERED AN AREA OF APPROXIMATELY 10M (WIDE) x 15M (LENGTH).

ADEC
NAME Jeho Hayes SIGNATURE

☐ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED

COMMENTS

[redacted] The shoreline on this subsection had a combination of tar stains + splatters that were weathering well. Two tar patties observed were broken up manually and spread out. No treatment recommended for this shoreline. Although there was a small Island connected to this subsection by a land bridge at low tide. This Island (see map) had tar ~~splatters~~ splatters + staining NTR and a patch of oiled vegetation and oil accumulation in the matrix between the boulders (see map.) This oil is located in the supratidal and ranges in depth from 2-5 cm. Manual pick up + removal is recommended.

LAND MANAGER Consideration given to healthy growth (Bio Map) Oil is weathered mousse +
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

the majority of it is in two 1-2 x 10m Bands. These bands are connected by a strip of the same type of oil in matrix between boulders aprox ½ x 15m.

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70 ✓
BIO Richard Ambrose LAND REP ____ SUBDIVISION 9 ✓ (8 of 8)
EXXON Larry Olson ADEC John Hayes TIME 17 : 15 to 19 : 45
TEAM NO.: 11 TIDE LEVEL: 1.2 to 1.9 DATE 4 / 6 ✓ 90
ST. SUBDIVISION LENGTH: 1930 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
PLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock stain in the supra HTZ
SURVEYED FROM: ☑ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 25 % B 30 % C 25 % P 10 % G 10 % S 0 % M 0 % V 0 %
SLOPE : Lang 25 % Hang 35 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 80 m N 80 m VL 65 m NO 1705 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/S	SHN/BR	DBR/RW	CT/SL	DSL/TL	LSHN	SU	UI	MI	U
ASPHALT PAVEMENT													
POOLED		X						X		X			
COVER													
COAT			X			X					X		
STAIN				X		X					X		
MOUSSE													
PATTIES				X		X					X		
TARBALLS													
FILM													
NO OIL												X	X

PAVEMENT: H F S 0 sq. m by 0 cm
(PATTIES) TARBALLS 1 BAGS
NEAR SHORE SHEEN? NO BR RW SL TL

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

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE G
#BAGS 0

Photographs:
Roll No. ST-11-2
Frames 19-23

SUBSURFACE OIL

* Patties were broken up

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-cm)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SHN/BR	DBR/RW	CT/SL	DSL/TL	LSHN		SU	UI	MI	U		
1	10					X	-		X								X				G P C
2	20					X	-		X								X				G, P, C
3	20					X	-		X								X				G, P, C
4	30					X	-		X									X			G, S, M
5	20				X		-		X				X				X				C, G, S (Film on H2O)
6	10	X					0 - 5		X				X			X					O:1, G, S
7	10	X					0 - 4		X				X			X					O:1, G, S

COMMENTS

Most of the oiling in this segment occured on two beaches, The oiled beach in the Northern part of the subdivision is a 2m x 80m CT/P patchy cover in the HITZ w/ a 15m x 80 m. very light CT/S splattered stain in the MITZ which classifies this beach as Narrow. There were some tar patties located in the HITZ which were manualy broken up by the SSAT team. JW 4/13/90

REVIEWED ____ DATE ____

SHORELINE OILING SUMMARY (PAGE___ of___)

REVISION 03/22/90

SEGMENT ST/_____ SUBDIVISION_____ 70

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC						SU	UI	MI	LI		
7	10					X	-		X							X				C, G, M
8	10					X	-		X							X				G, S
9	15					X	-		X									X		G, S, M
10	10					X	-		X							X				G, S, M (4-20 mm 12 cm)
11	20		X				0 - 7		X	X	X						X			C, P, G (4-20 mm 12 cm)
12	15		X		✓		0 - 5		X	X						X				G, P, S
12	15				✓		5 - 10		X		X					X				G, P, S
13	15				✓		-		X		X					X				C, S, M
14	20		X			X	0 - 5		X		X					X				G, S
							-													
							-													
							-													
							-													
							-													

Sheen 10cm

Film 10cm

COMMENTS

11 ~ Rainbow + Glossy sheen METZ 5m X 20m

14

REVIEWED JW DATE 4/3/90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/98

SEGMENT ST/ EV-70 SUBDIVISION 6

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC	BRN/BK	DKBL/TN	DK/MD	DRK/TL	LGT	SU	UI	MI	LI		
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													

COMMENTS The other beach w/ substantial oiling is located on a Island in the southern end of the subdivision. This is a Northern facing beach which was Pooling in the Supra IT Z (map 2). One is a 1m x 10m CT/B distribution 4 cm thick The other is a 2m X 10m CT/B distribution approx 5 cm thick. Their is also a oil coating in the HITZ approx 80 m in Length. With this beach their is also 1. some oiled material located in the storm berm. this areal is classified as Medium.

REVIEWED_____ DATE_____

OG Mike Foget

SEGMENT EV-70

SUBDIVISION G

DATE 5/16/90

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

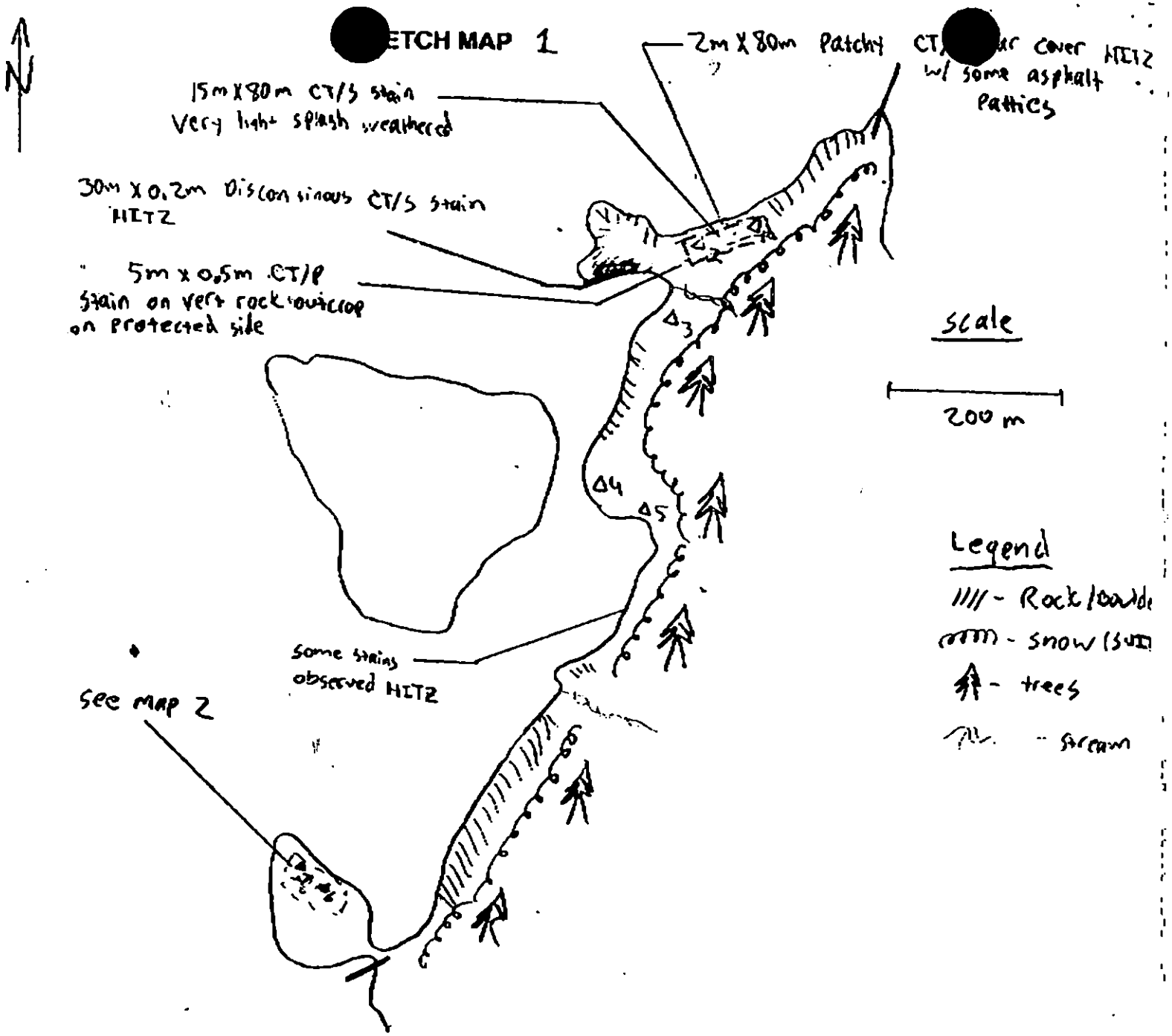
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ⇨ Photo location, direction, and number

SKETCH MAP 1



Oil Character Length (m): AP_____ PO 2.0 CV 90 CT 80 ST 145 MS — PT — TB — FL — NO_____

REVISION: 03/24/98

OG Mike Foget

SEGMENT EV-70

SUBDIVISION 6

DATE 4 / 6 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bndry
- Oil Dist.
  - Width
  - Length
  - % Cover
- Substrate Character
- Est HWL/LWL
- SSL
- Profile Location(s)
- Probe(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 2

3m x 50m CT/S Coat in the HITZ

3m x 30 m CT/S Coat of oil in the HITZ

Blot oil Port Ports of Bio

1m x 10m CT/B Band of Pooled oil/tar in the SUPRA HITZ w/ oiled vegitation

Remove oiled vegetation

2m x 10m CT/B Band of Pooled oil/tar SUPRA HITZ w/ oiled Vegitation

10m x 0.5 m CT/B Coverage of tar amoungst Boulders

Remove Tar

Blot oil Remove Tar Bio

Boulder/cobble beach

Rocky/Boulder outcrop

Rocky/Boulder outcrop

Boulder/Cobble Beach

30m x 0.2m CT/S very light stain on boulders in the HITZ

Legend

~~~ - snow

- trees

See map 1

Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

REVISION 2/94
~~~

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV070 Subdivision G Date (mo / day / yr) 4/6/90

Time (24 hr) 1715hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock____(2) Boulder____(3) Cobble____(4) Pebble____(5) Sand____(6) Silt____

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 30 Low 40

(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.____
Frames____

BARNACLES

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

NOT PRESENT

MYTILUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	X	3	3
4	4	4	4	4	4	4	4	4	X	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	X	3	X	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	X	1L	1U	1M	1L	X	1M	1L	1U	1M	1L
2	2	2	X	X	2	2	2	2	2	2	2
3	3	3	3	X	3	3	3	X	X	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: 6 Barrow's goldeneyes, 2 eagles (mature)
High-angle beaches had moderate to high cover, pocket beaches were generally sparse. In one section, Littorina and Nucella were aggregated & laying eggs.

Ecological Considerations:
7/11, 1B: No relevant observations.

See Addendum.

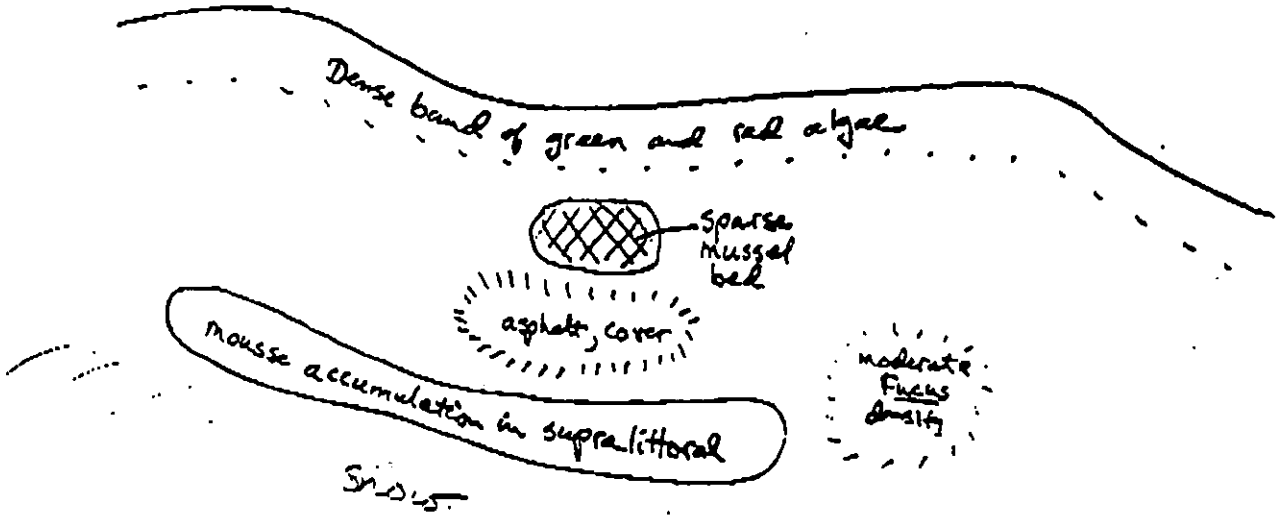
Subdivision EV070G

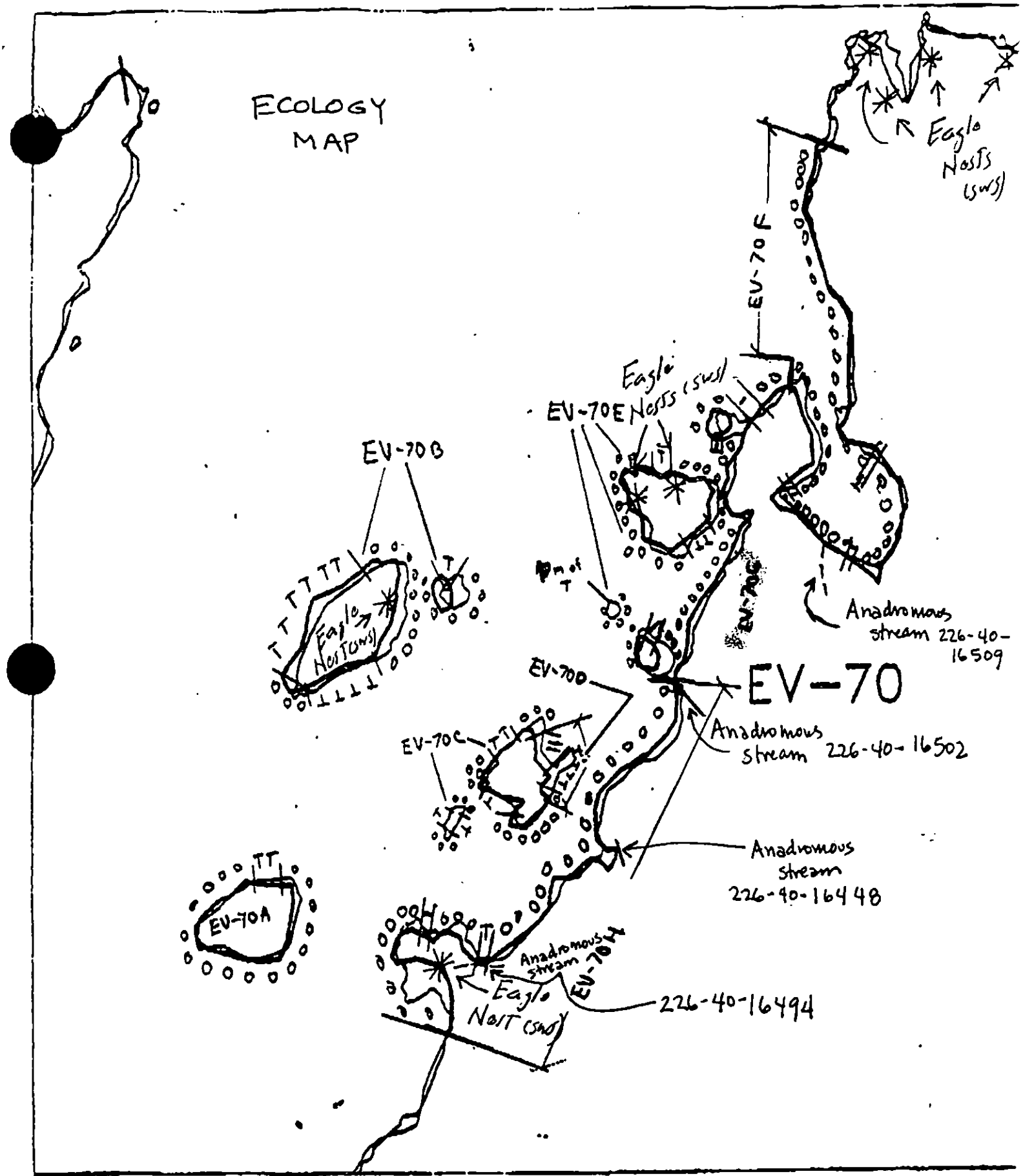
Ambrose
4/6/90

Addendum

Oil was found in two separate areas in this subdivision. In one cove, there were asphalt patches in the upper intertidal. A small mussel bed (with moderate Mytilus density) occurred off to one side of the cove, away from the asphalt. Otherwise, cover was sparse and there are no unusual ecological considerations.

Along one section of beach, asphalt was found in the upper intertidal and a mousse accumulation was found in the supralittoral zone. A sparse bed of mussels would be susceptible to trampling, but there are not many mussels there. There is also a dense band of green and red algae in the lower intertidal; these algae are, in part, ephemeral and not particularly susceptible to trampling.





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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-70

SUBDIVISIONS: H (8 OF 8)

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION H (8 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Three anadromous streams one in Subdivision H: 226-40-16502; 16448; 16494. One bald eagle nest in Subdivision H. Do not trample or otherwise damage mussel bed.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 42 m: V.Light 60 m: No Oil 2308 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 15 cm

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 pick up of oiled debris, vegetation, patties and mousse. Work should be conducted between 6/1 and 7/10 and only with permission of USFWS due to eagle nest constraints.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-70 SUBDIVISION: H DATE 4/6/90

~~USCG~~ NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS
SUBDIVISION CONSISTED OF A PEBBLE BEACH AND ADJACENT SHORELINE. A SHEEN WAS OBSERVED BELOW A MUSSEL BED ON THE BEACH, AND SOFT TAR PATTIES AND OILED VEGETATION WERE FOUND IN THE SUPRATIDAL ACROSS THE LENGTH OF THE BEACH (APPROXIMATELY 20 M). A PIT DUG INTO THE SUPRATIDAL BERM REVEALED ABOUT 7 CM OF CLEAN PEBBLES OVERLYING ABOUT 8 CM OF OILED PEBBLES AND VEGETATION.
NO EVIDENCE OF OILING WAS OBSERVED IN THE REMAINDER OF THE SUBDIVISION.

ADEC
NAME Jaha Hayes SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED
COMMENTS
Oiling observed on this segment consisted of soft patties of oiled vegetation + pebble in the supratidal zone. Full extent of oiling was not observed due to snow cover. Dug into storm berm beyond 8cm. were pebble with residual oil coat. NTR for pebble
Recommend manual removal of oiled pebble & vegetation, also manual pickup of oil patties all of which are in supratidal just above storm berm (see sketch map).
Sheen was observed on beach indicating were it originated from oiling at head of beach w no S.S. or oil coat was observed in L.M.U. TZ's.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget NOAA Gary Shigenaka SEGMENT ST/ EV-70 ~~1 of 8~~
BIO Richard Ambrose LAND REP ~~USCG~~ SUBDIVISION H (8 of 8)
EXXON Larry Olson ADEC John Hayes TIME 19 : 45 to 20 : 10
TEAM NO.: 11 TIDE LEVEL: 1.9 to 2.9 DATE 4 / 6 / 90
EST. SUBDIVISION LENGTH: 2805 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock Snow in the supra ITZ
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 20 % B 35 % C 25 % P 10 % G 10 % S 0 % M 0 % V 0 %
SLOPE : Lang 40 % Hang 40 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M ~~0~~ m N 30 m VL 50 m NO ~~2725~~ 2705 m

SURFACE OIL

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

PAVEMENT: H F (S) 2 sq. m by 3 cm
PATTIES / TARBALLS 0 BAGS
NEAR SHORE SHEEN? NO BR (RW) SL TL

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

DEBRIS COLLECTED ☐ YES ☒ NO
TYPE 0
#BAGS ~~10~~ 0

Photographs:
Roll No. 91-11-2
Frames 24-25

* Sheen on water in pits 5 & 6; origin uncertain

SUBSURFACE OIL

** oiled interval < 5cm in pit #7 does not constitute subsurface oil.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	CRL RW	CY SL	DRK TL	LGT		SU	UI	MI	LI		
1	25					X	-		X									X			G, S
2	30					X	-		X								X				P, G, S
3	25					X	-		X		-					X					C, P, G (H2O @ 12cm)
4	30					X	-		X								X				C, P, G (H2O @ 10cm)
* 5	15				X		-		X				X				X				C, P, S
* 6	10				X		-		X		X							X			G (H2O @ 5cm)

COMMENTS All oiling observed in the subdivision occured in the southern end. Beach 1 has a 2m x 50m CT/S weathered stain along the cobble in the HTTZ. Beach 2 is a 30 m pocket low angle cobble/pebble beach with a 1m x 30m CT/B oiling in the storm berm. There is heavily oiled vegetation, asphalt patties and some pooled oil on this area. JW : 4/13/90

REVIEWED M.F. DATE 4/11/90

SHORELINE OILING SUMMARY (PAGE 2 of 2) REVISION 03/22/90

SEGMENT ST/ EV-70 SUBDIVISION H

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	BR	DBR	RW	BL	DBL	SU	UI	MI	LI		
7	20		X				0-7		X	X					X					G
8	20		X	X			7-15		X	X					X					P

COMMENTS

Located in the MITZ on beach 2 is a 5m x 20m CT/P surface Rainbow sheen. There is no subsurface oil in the MITZ.

YW 4/13/90

REVIEWED M.G. DATE 4/11/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV070 Subdivision H Date (mo / day / yr) 4/6/90

Time (24 hr) 1945 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock____ (2) Boulder____ (3) Cobble____ (4) Pebble____ (5) Sand____ (6) Silt____

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 15 Low 70

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

Photographs:
Roll No. —
Frames —

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	X	X	2	X	X	2	2	2	2	
3	3	3	3	X	3	2	2	2	3	3	3	
4	4	4	4	4	4	X	3	3	4	4	4	NOT PRESENT
5	5	5	5	5	5	4	4	4	5	5	5	
6	6	6	6	6	6	5	5	5	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	2	
3	3	3	3	3	3	3	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	NOT PRESENT
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	2	2	2	2	2	X	X	2	2	2	2	
3	3	3	3	3	3	X	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	NOT PRESENT
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	X	2	X	X	2	2	2	2	
3	3	3	3	X	3	X	X	X	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	NOT PRESENT
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: 6 seals, 22 Barrow's goldeneyes, 6 Harlequin ducks, 6 Canada Geese at anadromous stream, 3 deer tracks, Cobble beaches are fairly sparse, but bedrock and high-angle beaches had dense red and green algae in mid and low intertidal. Dense Laminaria in subtidal.

Ecological Considerations:

711, 1B: One anadromous stream noted in this subdivision; no oil seen nearby.

The pocket beach with oil has a mussel bed; see Addendum.

OG Mile Four

SEGMENT ST/ 70

SUBDIVISION H

DATE 4 / 6 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

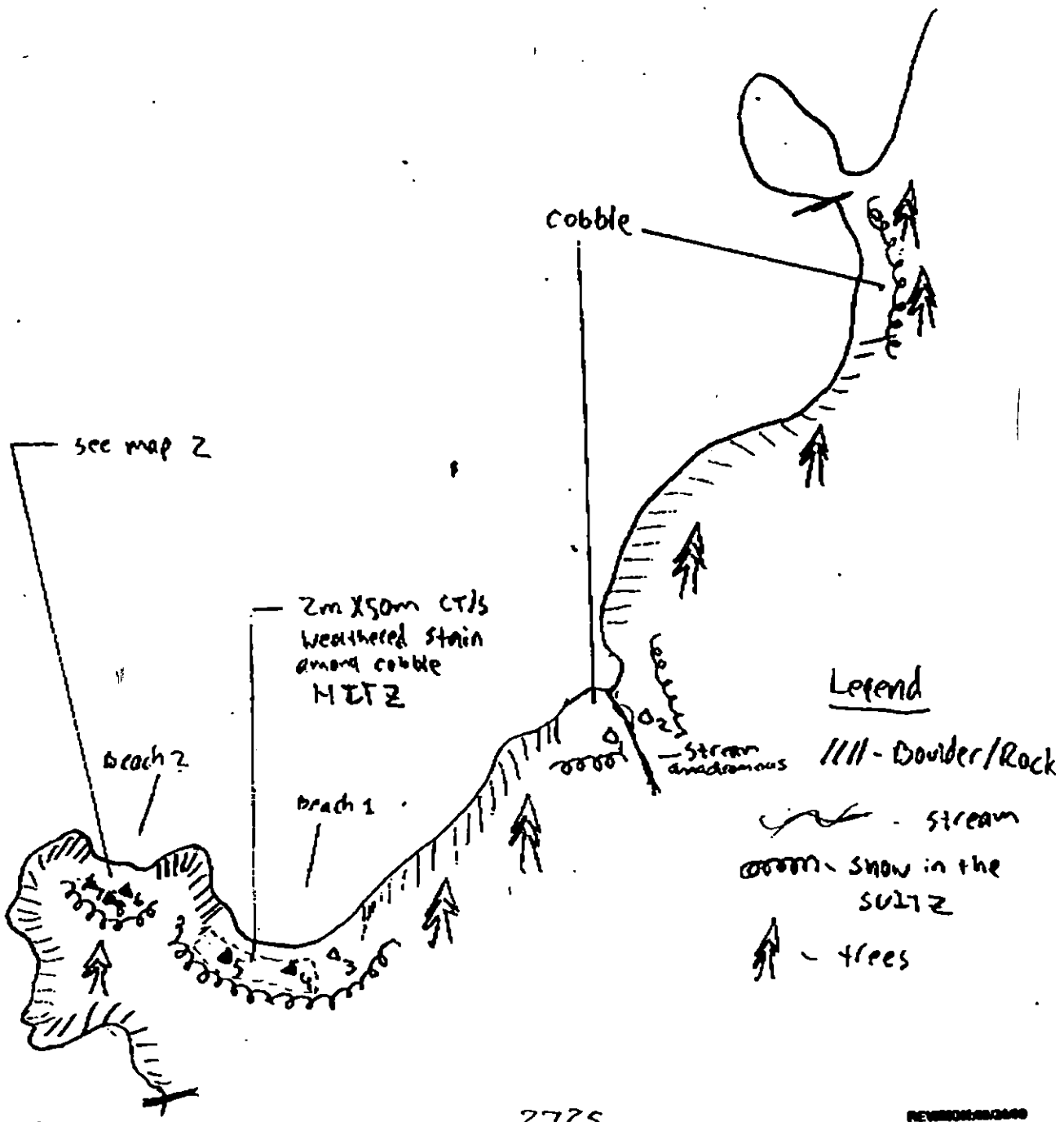
1
Photo location, direction, and number

N

Scale

100 m

SKETCH MAP 1



Oil Character Length (m): AP — PO — CV 30 CT — ST 50 MS — PT — TB — FL 20 MO 2725

OG [redacted] Foget

SEGMENT ST/ EV-70

SUBDIVISION H

DATE 4 / 6 90

CHECKLIST

__N Arrow
__Approx. Scale
__Sep/Sub Bndry
__Oil Dist.
__Width
__Length
__% Cover
__Substrate Character
__Est HWL/LWL
__SSL
__Probe Location(s)
__Probe(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 2

N

Scale

10 m

1m X 30m CT/B narrow oiling in storm berm, SUIT 2
Berm contains oiled vegetation, contains some heavily oiled debris and asphalt patties.

Bedrock/ Boulder outcrop

5m X 20m CT/P surface rainbow sheen, no subsurface oil SUIT 2

25

Bedrock/ Boulder outcrop

Light CT/S stain on rock

Legend

//// - Boulder / rock outcrop

0000 - snow in the SUIT 2

Manually Remove Patties Oiled Vegetation Debris

See map 1

Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

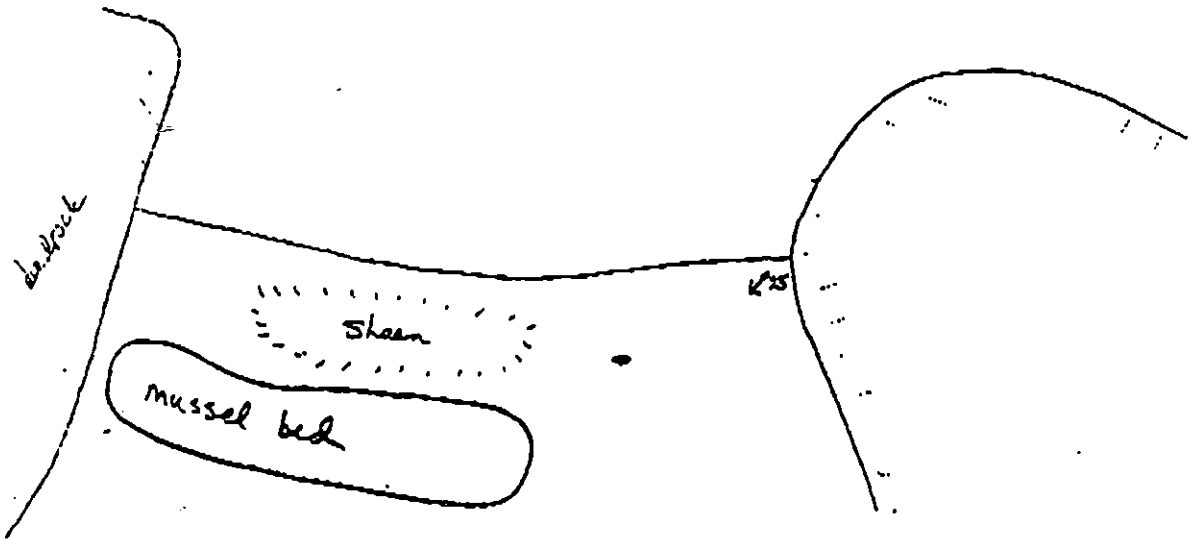
REVISION/ERCHAR

Subdivision EV070H

Ambrose
4/6/90

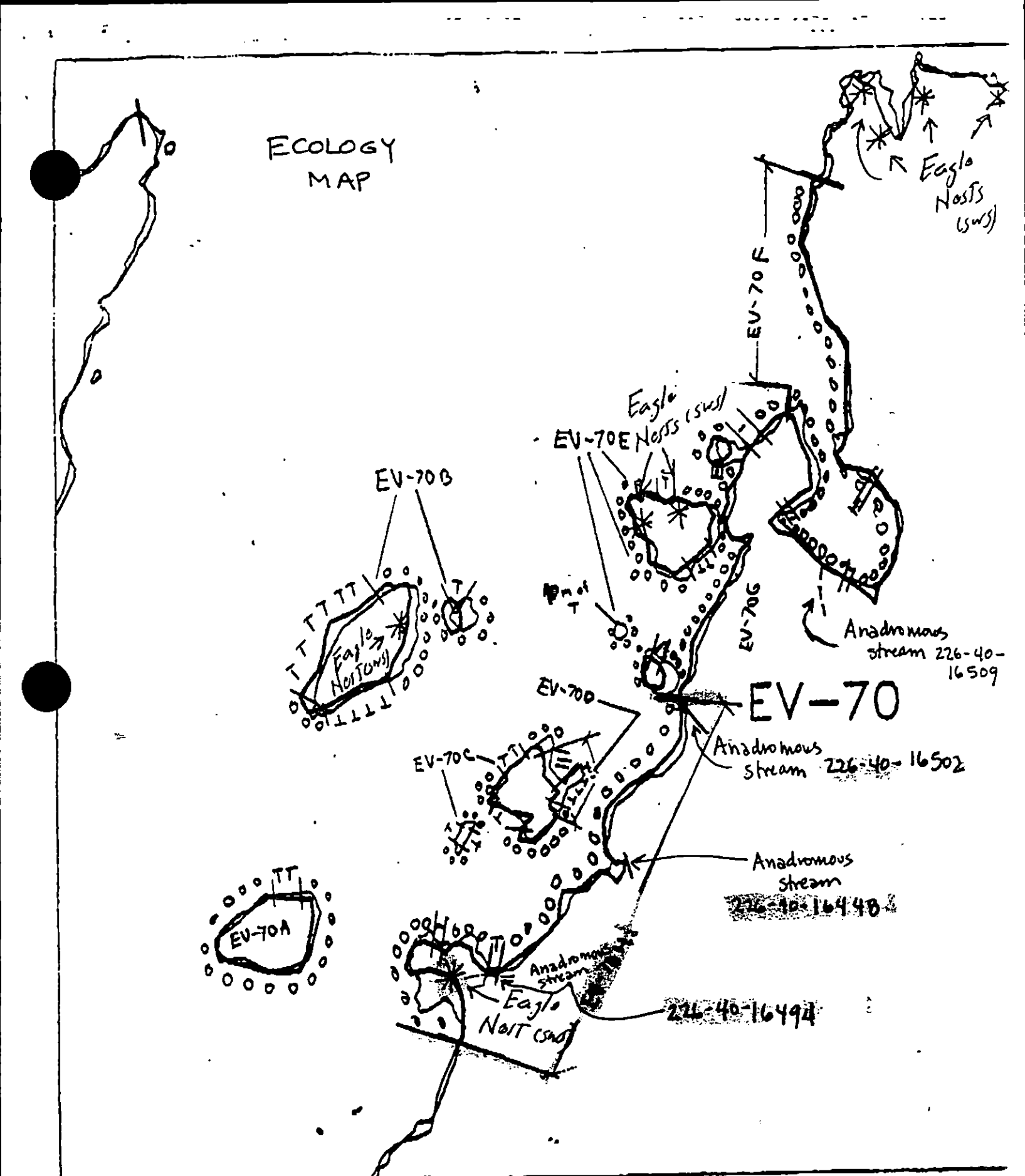
Addendum

Cobble pocket beach with sheen and oiled debris. Mussel bed in mid intertidal spans half of the width of the beach. Mussels mostly are growing on the sides of large cobbles/small boulders, so are less susceptible to damage by foot traffic over beach. Fucus also occurs in mussel bed (in moderate density), and it would be susceptible to trampling.



oiled debris in supra littoral

Pit #13



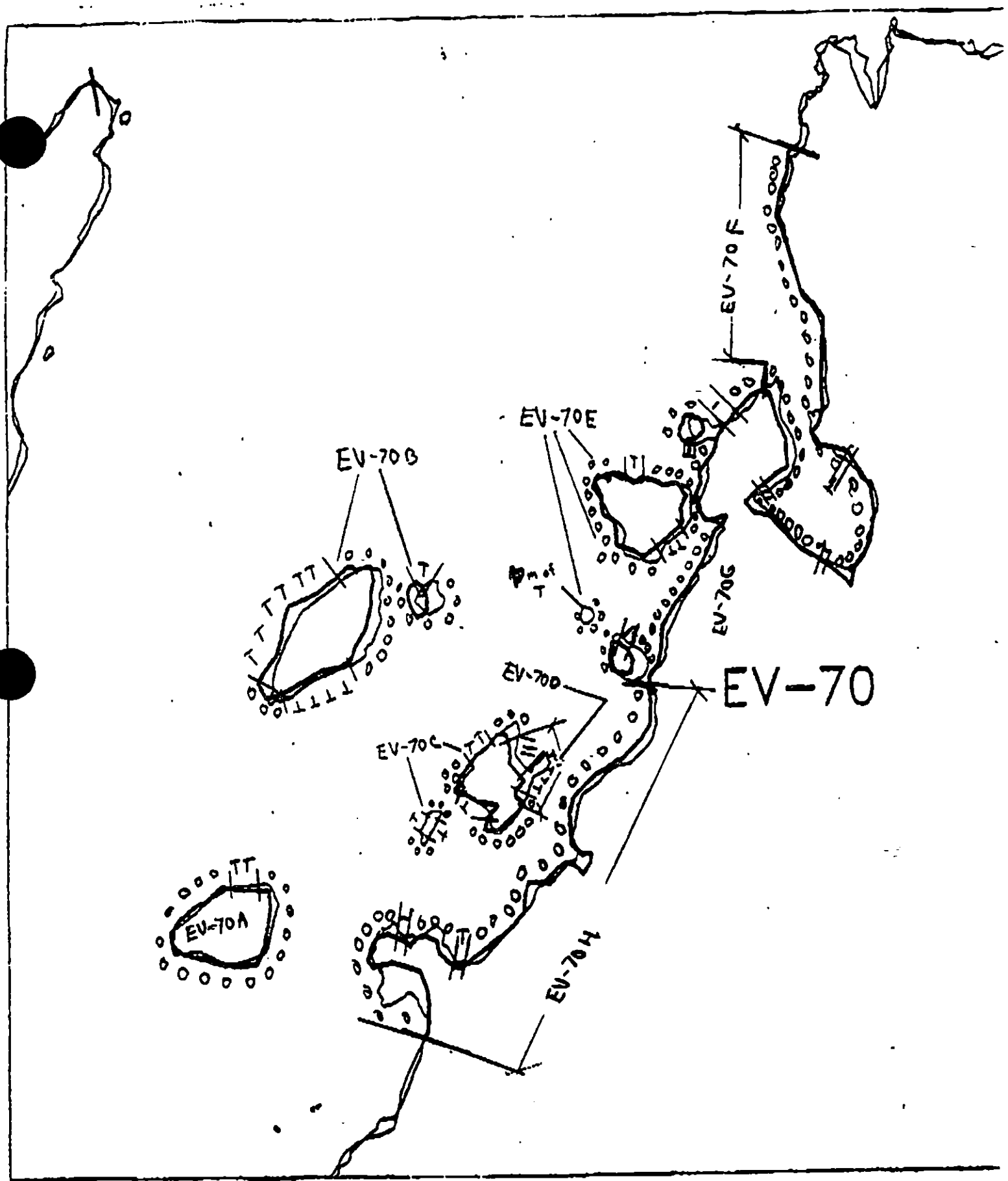
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Fogt
Date: 4/1/90
Date Entered:



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION D (4 of 8)

WORK WINDOW	
Manual Pickup Tarmat Removal	**OPEN**
Bioremediation	**WORK PRIOR TO 7/20**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Stream**	NO CONSTRAINT. ADF&G catalogued anadromous streams (226-40-16494, -16498, -16502, and -16509) are more than 100m from the work area.
IK	**Purse Seine Hook-off**	Closed to bioremediation after 7/20. No constraint to manual pickup and tarmat removal.
5T	**Bald Eagle Nest**	NO CONSTRAINT. Work area is more than 400m from nest.
7II	**Subsistence: Deer Harvesting**	Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

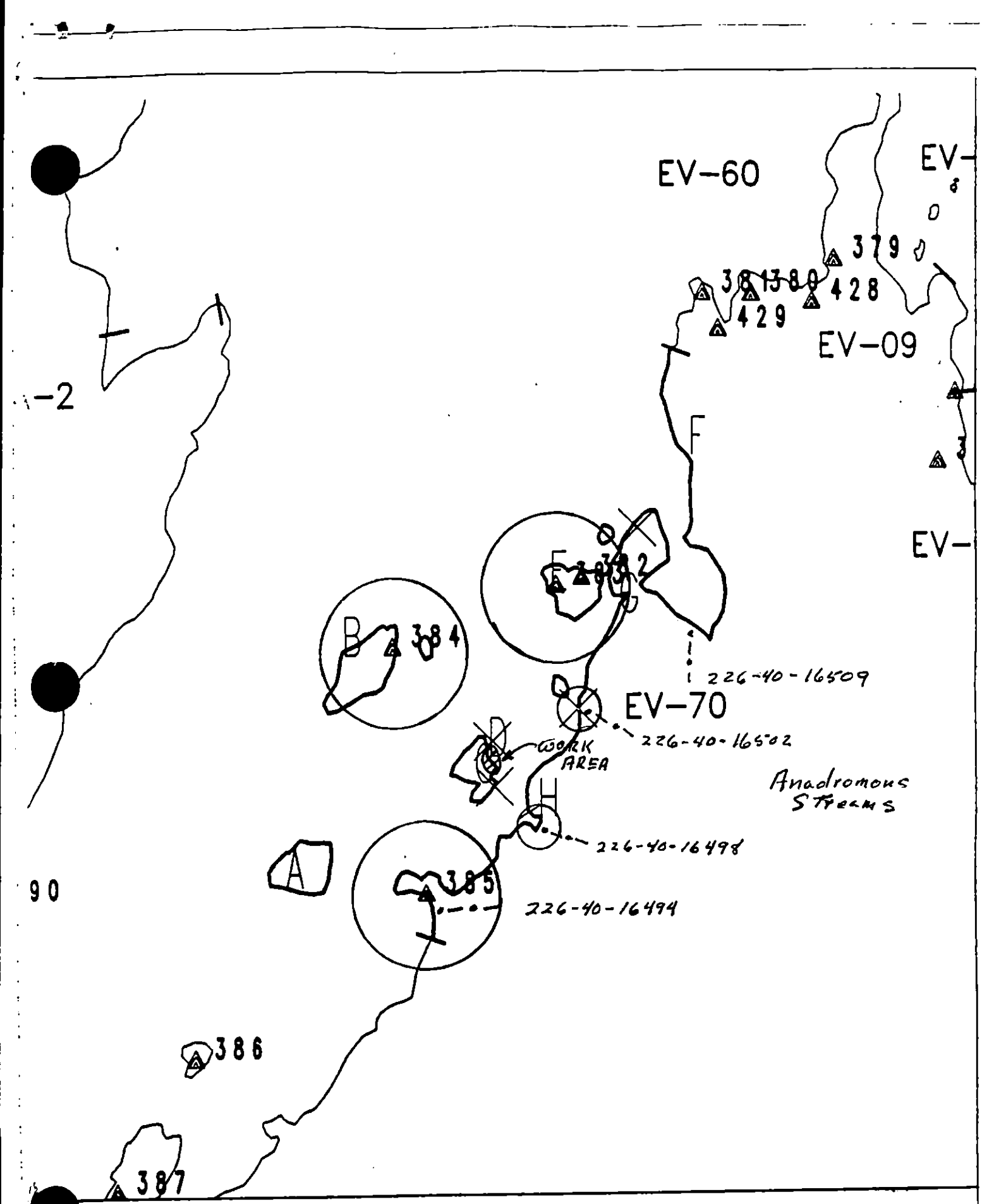
OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/20. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit and avoid the bed during bioremediation.

TAG APPROVAL DATE 5/29/90.
ADEC ART WEINER Art Weiner
EXXON ANDY TEAR
NOAA B Wescott
USCG G.A. REITER G.A. Reiter

FOSC _____ Date MAY 29 1990

Prepared by Andy Mayo WTK Date 5/29/90



EXXON

Exxon Company, USA

Map Key: PWS-EV-70

ECOLOGY MAP

SEGMENT EV-70

SUBDIVISION 0 (4 of 8)

METERS

★ Seabird Colony

△ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION D (4 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit.

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

SHPO SIGNATURE: [signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 139 m: Narrow 0 m: V.Light 66 m: No Oil 73 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 5 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend bioremediation of area shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint. Avoid mussel bed near proposed bioremediation site. REMOVE TARMAT AT LOCATIONS ON SKETCH

TAG COMMENTS: See Constraint Addendum dated 5/28/90 WJK

TAG APPROVAL DATE: 4/25/90.
ADEC ART WERNER
EXXON ANDY TEAL
NOAA JOSEPH TALBOT
USCG KENNETH KEARNS

FOSC: [signature] DATE: 5-6-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION G (7 of 8)

WORK WINDOW	
Manual Pickup Tarmat Removal Other Approved Treatment	OPEN
Bioremediation	WORK PRIOR TO 7/20

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Stream**	NO CONSTRAINT. ADF&G catalogued anadromous streams (226-40-16509) in Subdivision G and (226-40-16448) in adjacent Subdivision H are more than 100m from recommended treatment areas.
1K	**Purse Seine Hook-off**	No constraint to manual pickup, tarmat removal and other approved treatment; closed to bioremediation after 7/20.
5T	**Bald Eagle Nest**	NO CONSTRAINT. Nests more than 400m from treatment sites.
7II	**Subsistence: Deer Harvesting**	No constraint to manual pickup, tarmat removal, and other recommended treatment; closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Restrict boat and air traffic to essential minimum after 7/20. Restrict beach disturbance after 8/15. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

TAG ADDENDUM DATE 5/21/90

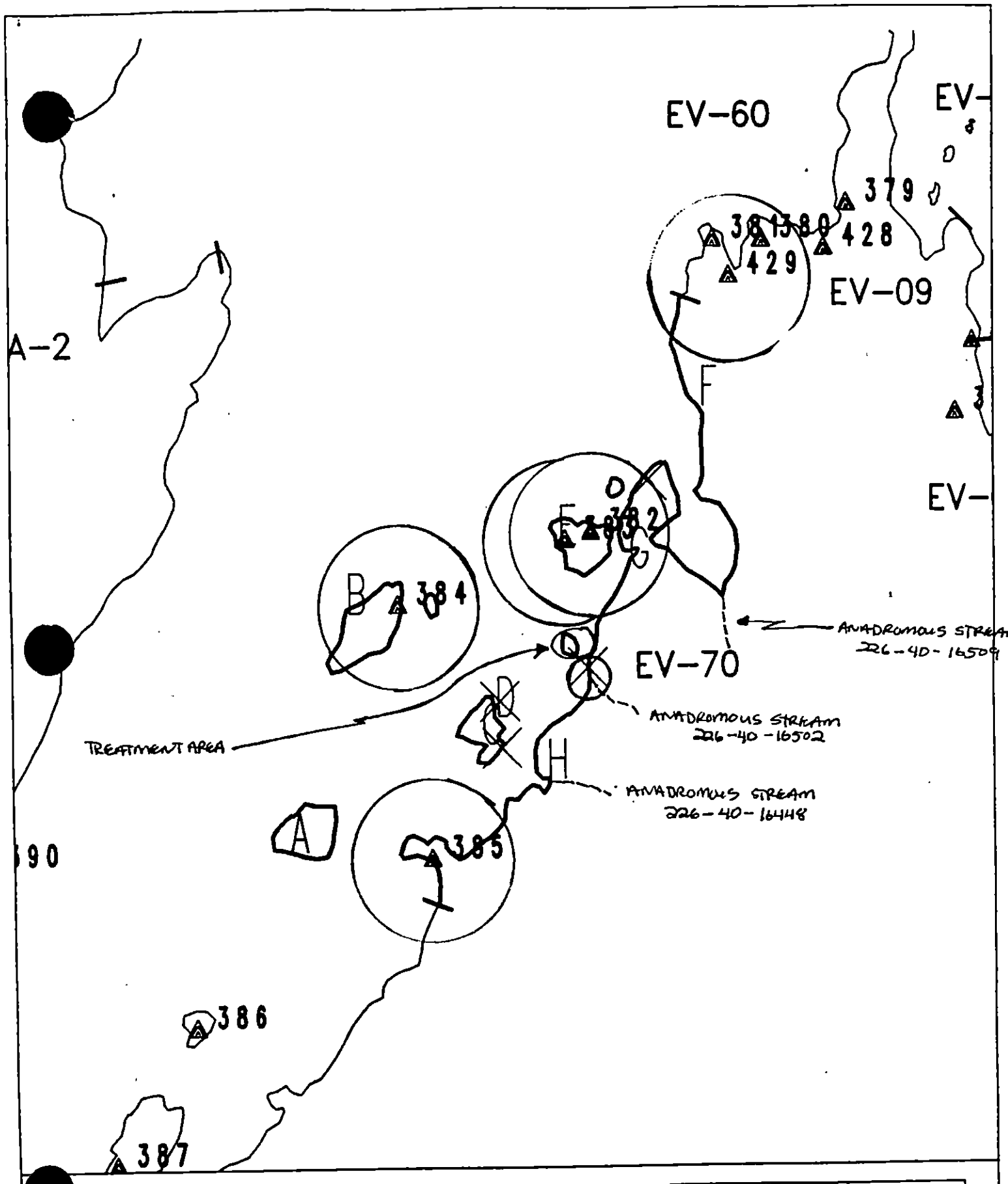
ADEC Art Weaver Dirt Weems

EXXON Andy Tate FOSC _____ DATE 5-21-90

NOAA Joseph Tallett

USCG M. J. Hall, LCDR

Prepared by: _____ Date: 5/20/90


EV-60
EV-
379
380
428
429
EV-09
A-2
F
EV-
B
384
EV-70
ANADROMOUS STREAM
226-40-16509
ANADROMOUS STREAM
226-40-16502
TREATMENT AREA
H
ANADROMOUS STREAM
226-40-16448
A
385
386
387
EXXON
Exxon Company, USA
Map Key: PWS-EV-70
ECOLOGY MAP
SEGMENT EV-70
SUBDIVISION G (7 of 8)
METERS
Seabird Colony
Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION G (7 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 45 m: Narrow 61 m: V.Light 40 m: No Oil 1639 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 10 cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
__X__Treatment Recommended	__X__Oil Snares (pom poms)
__X__Manual Pickup	____Absorbents (pads,rolls,etc)
__X__Bioremediation	____Spot Washing:____Wands
__X__Tarmat: __X__Removal	____ Beach Cleaner
	____Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmat, oiled vegetation and debris, 2) blot any mobile oil with pom poms, 3) bioremediate areas shown on attached sketch map. ~~Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraint and ADF&G regarding anadromous streams.~~ SEE ADDENDUM DATED 5/20/90 Rev C.

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/25/90.
ADEC ART WEINER
EXXON ANN TEAL FOSC: _____ DATE: _____
NOAA Joseph Pabst
USCG KENNETH KEARNEY

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION H (8 of 8)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

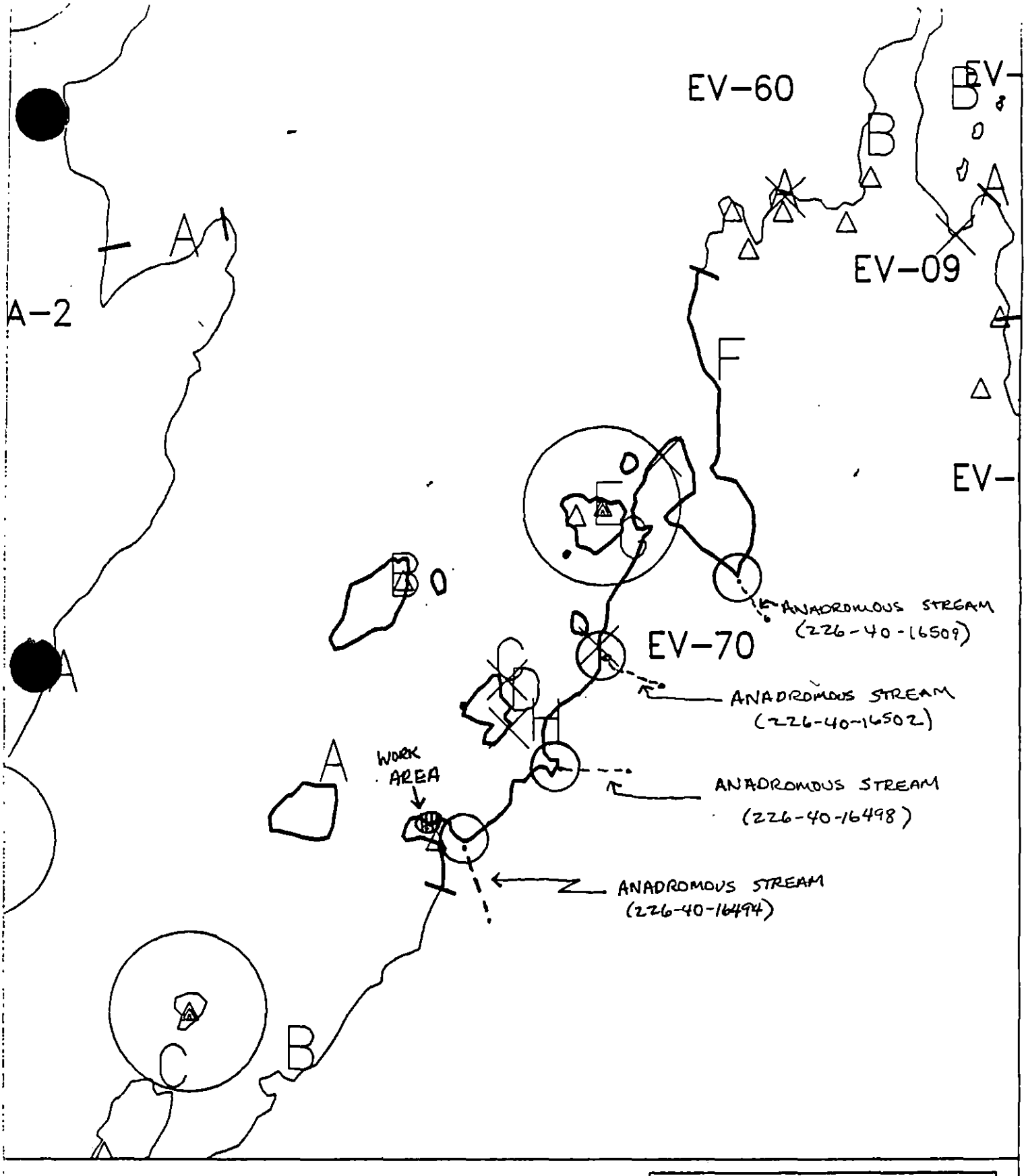
1A,1B	**Salmon Stream**	ADF&G catalogued anadromous streams (226-40-16494, 16498, and 16502) are present in Subdivision H. No constraint to manual pickup.
1K	**Purse Seine Hook-off**	No constraint to manual pickup.
5T	**Bald Eagle Nest**	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision H work site.
7II	**Subsistence: Deer Harvesting**	No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Do not trample or otherwise damage mussel beds. No disturbance to stream bed or banks. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

FOSC _____ DATE 6-10-90

Prepared by: W Kelley Date: 6/9/90



EXXON

Exxon Company, USA

Map Key: PWS-EV-70

June 04, 1990

ECOLOGY MAP

SEGMENT EV-70

SUBDIVISION F (8 of 8)

METERS

0 — 676 — 1353

★ Seabird Colony

△ Active Eagle Nest

△ Inactive Eagle Nest

1 Inch = ~~2219 feet~~

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION H (8 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Three anadromous streams one in Subdivision H: 226-40-16502; 16498; 16494. One bald eagle nest in Subdivision H. Do not trample or otherwise damage mussel bed.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 42 m: V.Light 60 m: No Oil 2308 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 15 cm

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 pick up of oiled debris, vegetation, patties and mousse. Work should be conducted between 6/1 and 7/10 and only with permission of USFWS due to eagle nest constraints.
[See Constraint Addendum Dated 6/9/90 WK]

TAG COMMENTS: MONITORS TO FURTHER ASSESS SUITZ DUE TO SNOW COVER DURING SURVEY.

TAG APPROVAL DATE: 4/25/90
ADEC ART WEINER
EXXON ANN TEN
NOAA Joseph Talbott
USCG KENNETH KEANE
FOSC: DATE: 5-4-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT IN-28 SUBDIVISION A (1 of 1)

WORK WINDOW	
Bioremediation	**CLOSED**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T **Bald Eagle Nest** — USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to bioremediation within 400m of active nest.

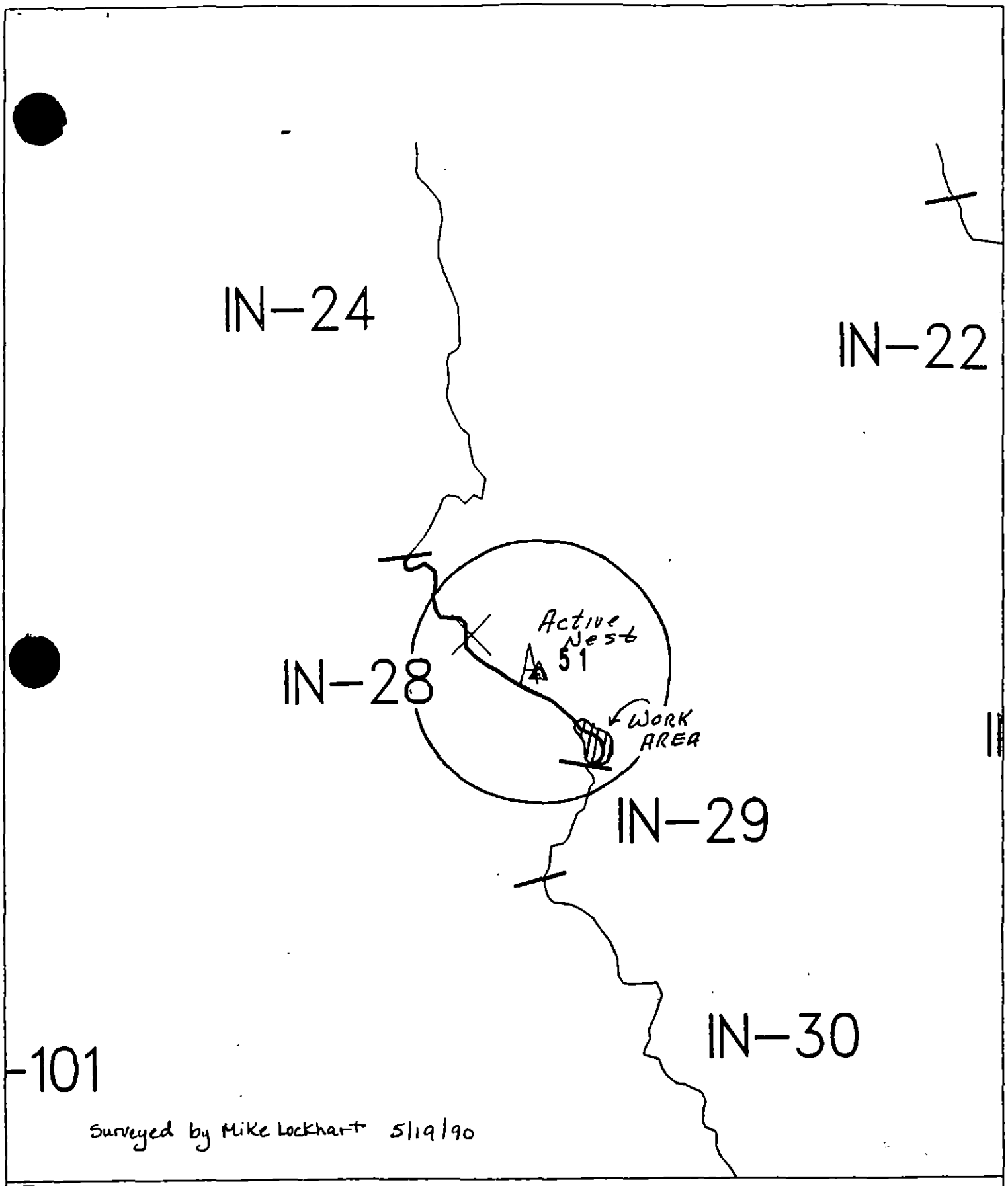
OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE_____
ADEC_____
EXXON_____
NOAA_____
USCG_____

FOSC _____ DATE 6-10-90

Prepared By: W Kelley Date 6/9/90



Surveyed by Mike Lockhart 5/19/90

EXXON

Exxon Company, USA

Map Key: KNI-IN-28

6/4/90

ECOLOGY MAP

SEGMENT IN-28

SUBDIVISION A (1 of 1)

METERS

0 397 794

★ Seabird Colony

▲ Eagle Nest

1 inch = 1303 feet

SHORELINE EVALUATION

SEGMENT ST/ IN-28 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
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 CONSTRAINT: 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: J. David McAlpine DATE: 5/8/90

OILING CATEGORIZATION:

Wide 32 m: Medium 0 m: Narrow 22 m: V.Light 468 m: No Oil 123 m
Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
X Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
X Bioremediation	____Spot Washing: ____Wands
____Tarmat: ____Breakup	____ Beach Cleaner
____Removal	____Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of broken coat area shown on sketch map with USFWS permission regarding the eagle nest.

TAG COMMENTS: MONITORS TO ASSESS SUITE DURING TREATMENT.

TAG APPROVAL DATE: 4/25/90
ADEC ART WEAVER Art Weaver
EXXON Andy TEAGUE
NOAA Joseph Talbott JC Talbott
USCG KENNETH KOANE

FOSC: [signature] DATE: 5-12-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-70 SUBDIVISION F (6 of 8)

WORK WINDOW	
Bioremediation More Than 100m From Stream	**WORK PRIOR TO 7/20**
Bioremediation Less Than 100m From Stream	**WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)**
Bioremediation More Than 400m From Active Nest	**WORK PRIOR TO 7/20**
Bioremediation Less Than 400m From Active Nest	**CLOSED**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

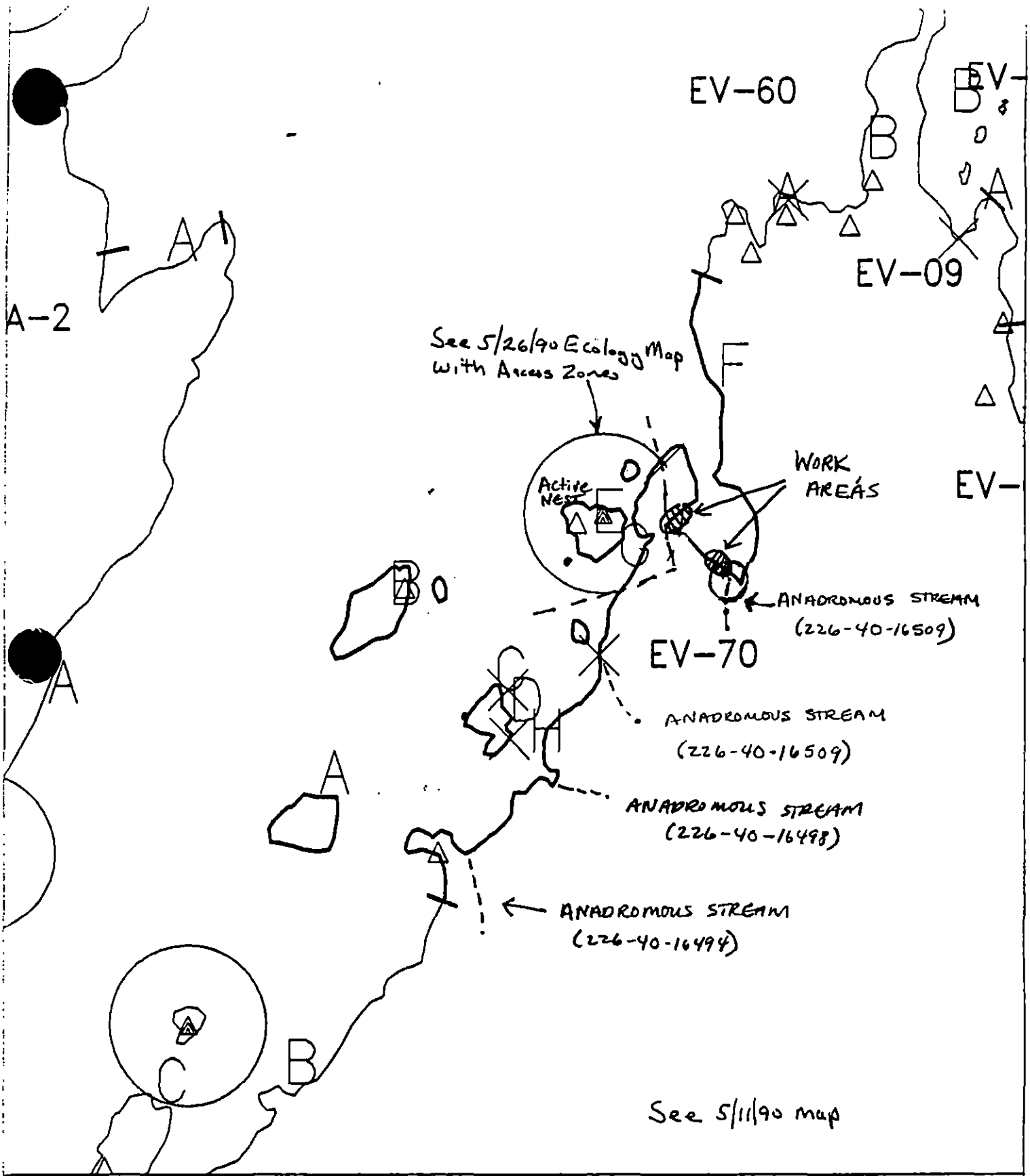
1A,1B	**Salmon Stream**	ADF&G catalogued anadromous stream (226-40-16509) is present in Subdivision F. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream.
1K	**Purse Seine Hook-off**	Closed to bioremediation after 7/20.
5T	**Bald Eagle Nest**	USFWS 6/1/90 map indicates an active nest in adjacent subdivision. Closed to bioremediation within 400m of active nest. No constraint to bioremediation more than 400m from active nest.
7II	**Subsistence: Deer Harvesting**	Closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unoiled substrate and biota.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM NO. 226-40-16509) FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC _____ Date 6-10-98



EXXON

Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990

ECOLOGY MAP
SEGMENT EV-70
SUBDIVISION F (6 of 8)

METERS
0 ~~676~~ ~~1353~~

★ Seabird Colony
△ Active Eagle Nest
△ Inactive Eagle Nest

1 inch = ~~2219 feet~~

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION F (6 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Anadromous stream no. 226-40-16509 in Subdivision F; 4 bald eagle nests close by in Segment EV-60.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 36 m: No Oil 2808 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 10 cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
__X__Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
__X__Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Removal	____ Beach Cleaner
	____Other (see comments)

COMMENTS: Recommend bioremediation of areas shown in sketch map and reassessment of segment after additional snow-melt by Anadromous SCAT team. Work should be conducted with the approval of ADF&G regarding anadromous fish stream and USFWS concerning eagle nests.
See Constr. A Addendum Dated 6/9/90 WK

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/25/90
ADEC ART WEINER Art Weiner
EXXON Amy Teas Ateas FOSC:_____ DATE:_____
NOAA Joseph Talbott JTalbott
USCG Kenneth Keating

ADDENDUM: SUBDIVISION CONSTRAINTS

-SEGMENT EV-70 SUBDIVISION E (5 of 8)

WORK WINDOW	
Manual Pickup	**CLOSED**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

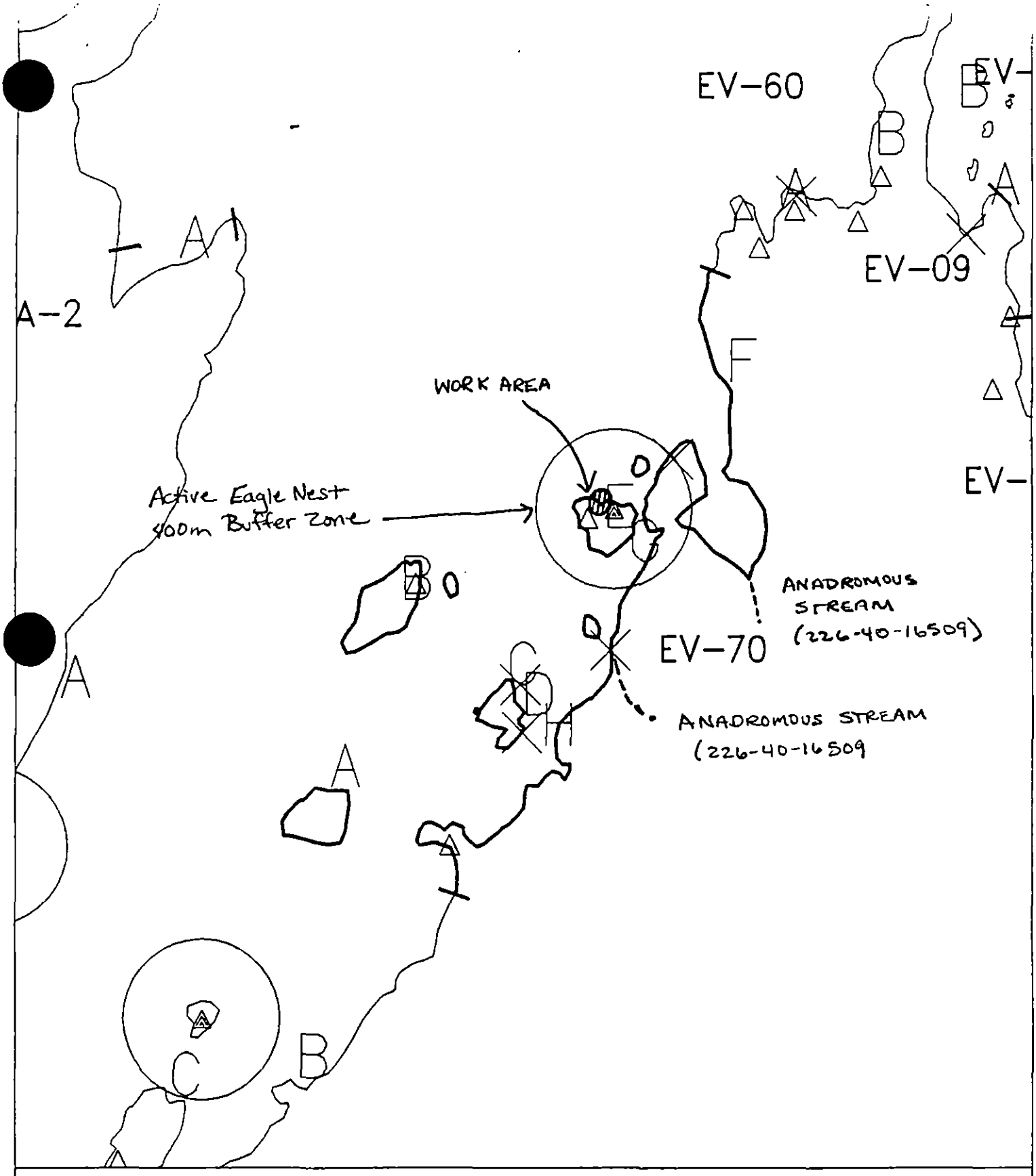
1A,1B	**Salmon Streams**	NO CONSTRAINT. ADF&G catalogued anadromous streams are located in adjacent Subdivisions more than 100m from recommended treatment areas.
1K	**Purse Seine Hook-off**	No constraint to manual pickup.
5T	**Bald Eagle Nest**	USFWS 6/1/90 map indicates an active nest in Subdivision E. Closed to manual pickup within 400m of active nest.
7II	**Subsistence: Deer Harvesting**	No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Restrict boat and air traffic to essential minimum after 7/20. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

TAG APPROVAL DATE_____
ADEC_____
EXXON_____ FOSC_____ DATE 6-10-90
NOAA_____
USCG_____

Prepared By: _____ Date 6/9/90



EXXON

Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990

ECOLOGY MAP
SEGMENT EV-70
SUBDIVISION E (5 of 8)

METERS
0 ~~676~~ ~~1353~~

★ Seabird Colony
⧋ Active Eagle Nest
△ Inactive Eagle Nest

1 inch = ~~2219 feet~~

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION E (5 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 191 m: No Oil 839 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 6 cm

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 pick up of oiled debris and vegetation. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraints. → See Constraint Addendum Dated 6/9/90 LMC

TAG COMMENTS: MONITOR TO CHECK SUITS DURING TREATMENT.

TAG APPROVAL DATE: 4/25/90.
ADEC Art WEBER Art Weber
EXXON ANDY TEAR
NOAA Joseph Talbott JC Talbott
USCG KENNETH KEANE
FOSC: [illegible] DATE: 5-3-90

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION A (1 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 81 m: No Oil 983 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

X No Treatment Recommended	____Snare/Absorbent Booms
____Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
____Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Removal	____ Beach Cleaner
	____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/25/90.
ADEC ART WEINER Art Weiner
EXXON Andy Tan
NOAA Joseph Talbott
USCG KENNETH KEANE
FOSC: _____ DATE: 5-3-90

OG Mi[redacted]et

SEGMENT ST/ EV-70

SUBDIVISION A (blow up)

DATE 4 / 1 80

CHECKLIST

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

LEGEND

1 △

PI - No Subsurface Oil

2 ▲

PI - 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 2

Scale

20 m

Rock outcrop

CT/S

CT/P

Tar splashes 1m x 5m on exposed Rock face

Tar Patch 1m x 5m on lee side of Boulders

cobble beach

CT/S 1m x 60m very light splattered distribution

Dead tree Laying on Beach

Legend

//// - Bedrock

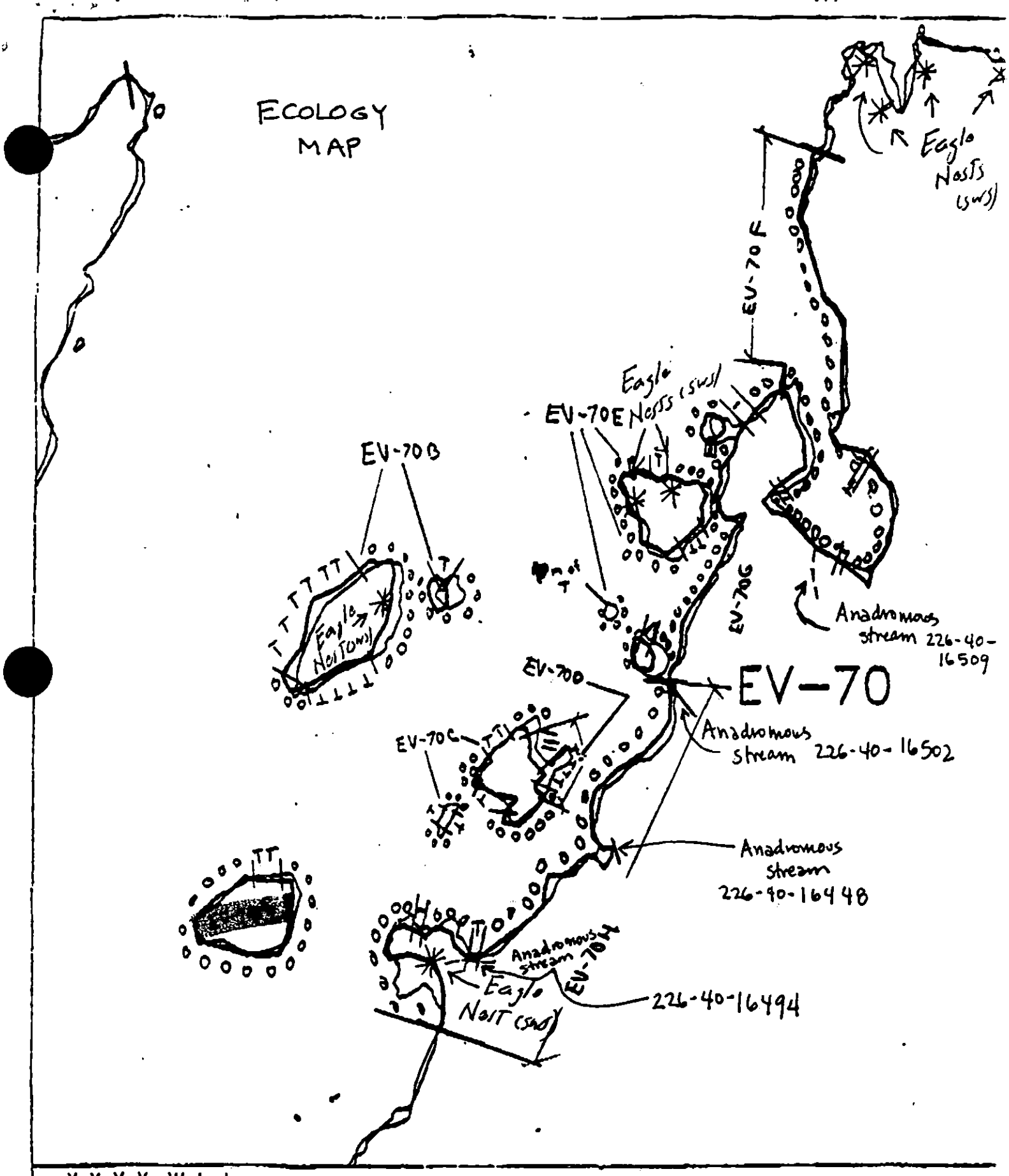
— trees

— Dead tree

Oil Character Length (m): AP___ PO___ CV___ CT___ ST___ MS___ PT___ TB___ FL___ NO___

REVISION/ERRATA

APR-07-1998 03:16 FROM PACIFIC SEARCH TO [redacted] P.03



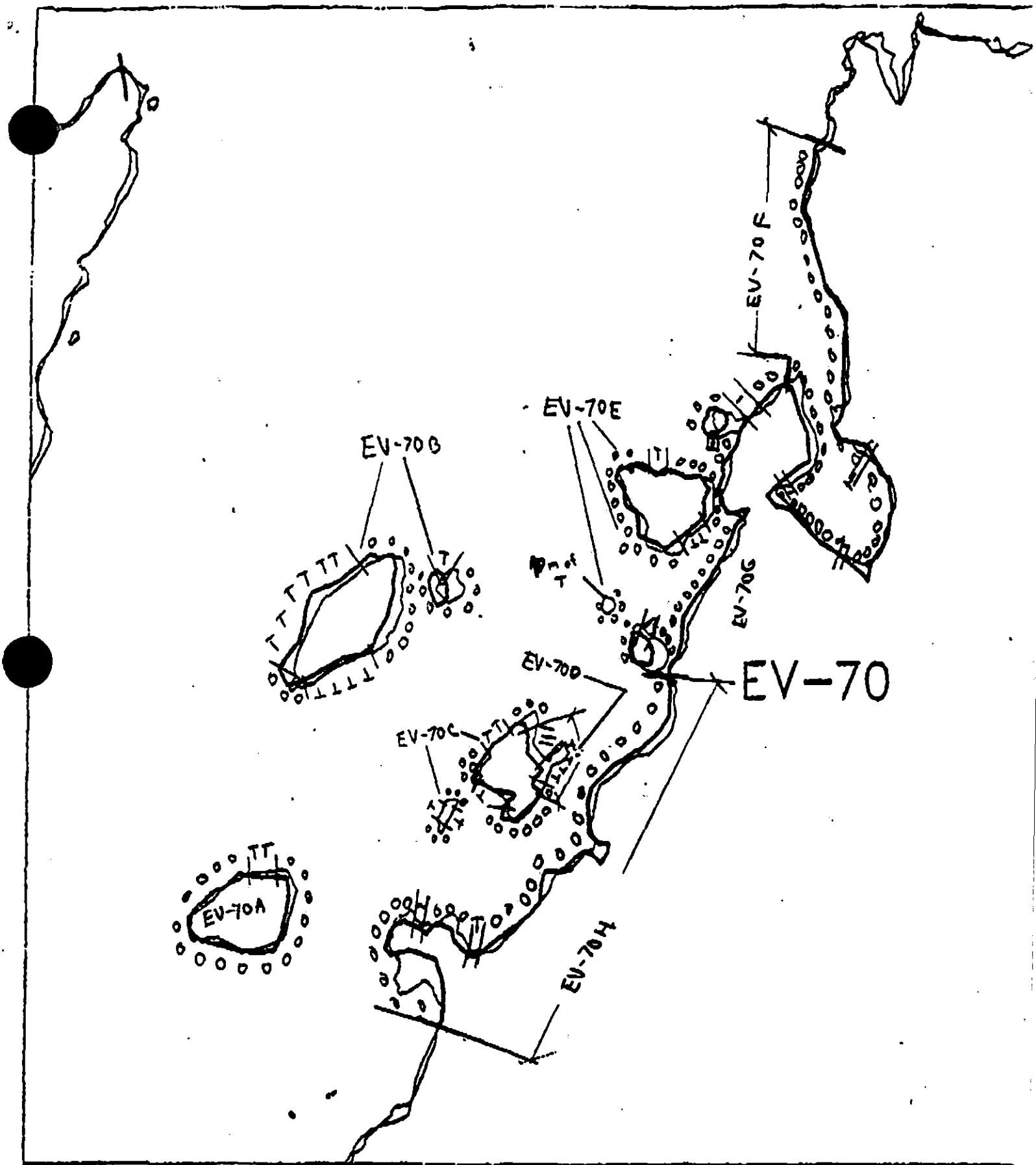
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:



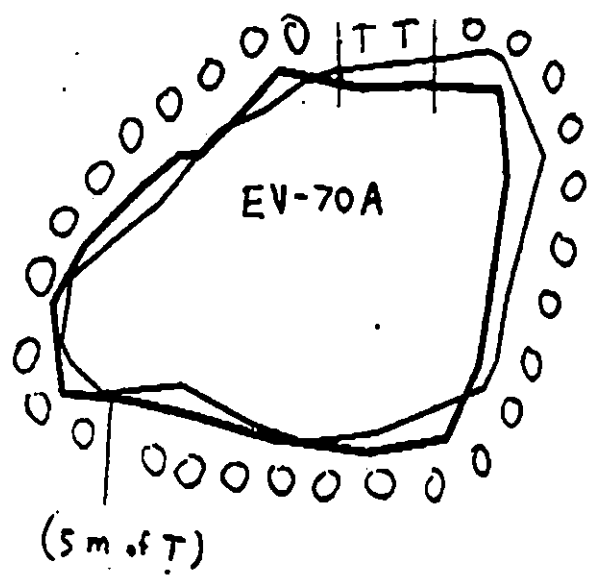
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-70

ADEC Segment Length: 12625m

0 300 600 900
Metres

Map Key: PWS-279
Name: Mike Fogel
Date: 4/1/90
Date Entered:







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

EV-70A

ADEC Segment Length: 12625m

0 100 200 300
METERS

Map Key: PWS-270e
Name: Mike Foget
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION B (2 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Bald eagle nest in Subdivision B.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 788 m: No Oil 897 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

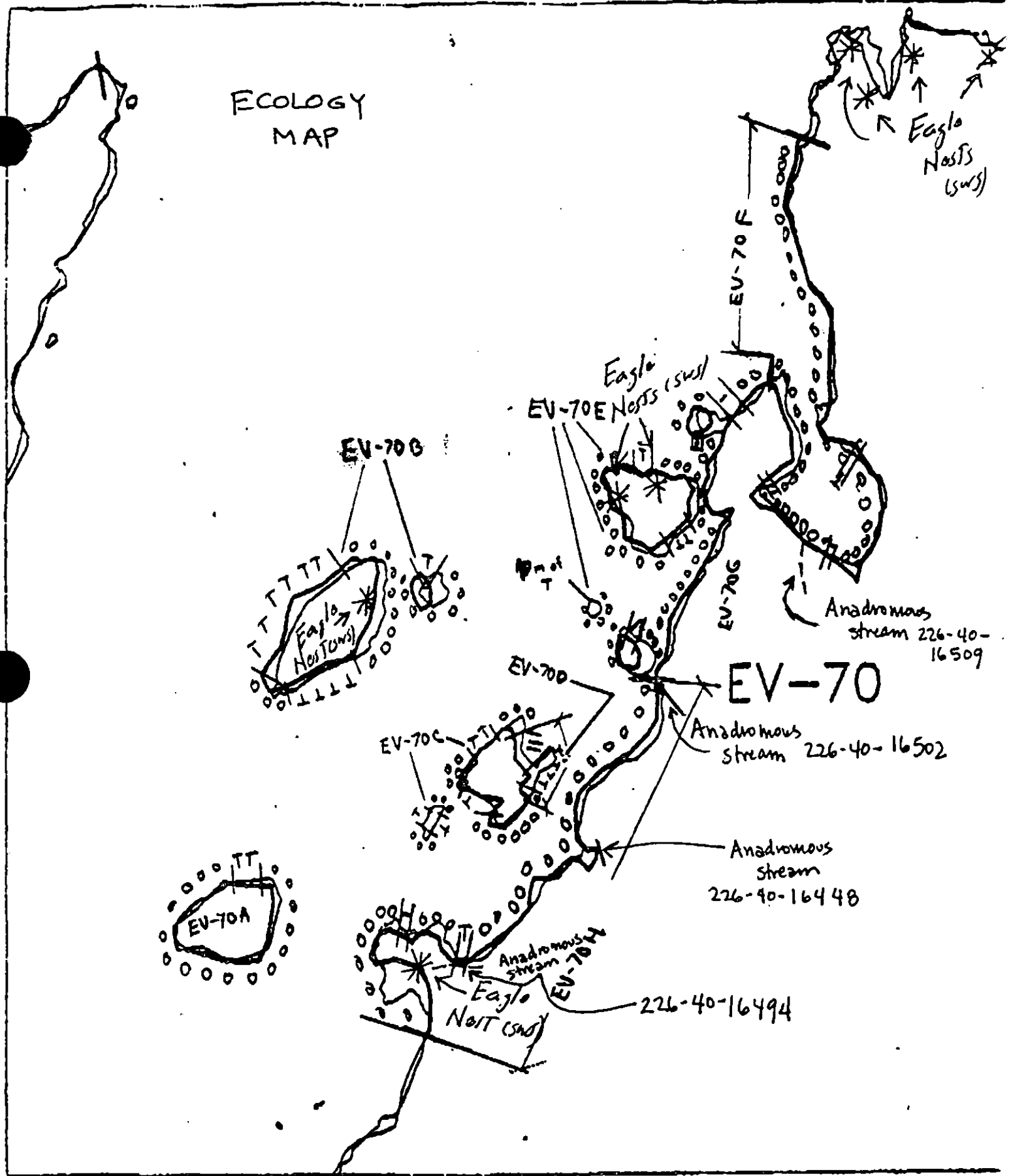
X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Removal	_____ Beach Cleaner
	_____Other (see comments)

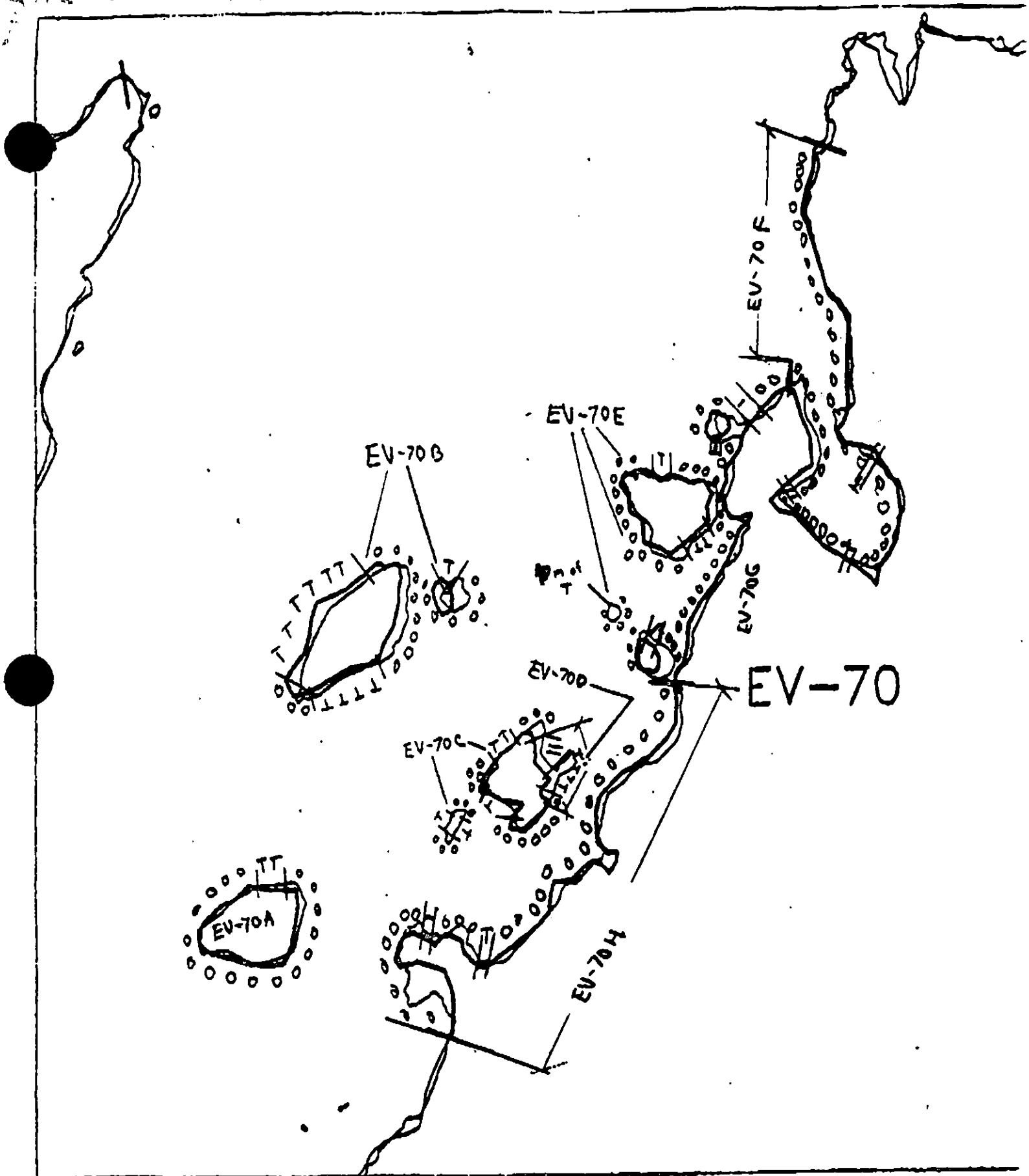
COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/25/90.
ADEC Art Weiner Art Weiner
EXXON Andy Teal Andy Teal
NOAA Joseph Talbott
USCG Kenneth Keane

FOSC: _____ DATE: 5-3-90


ECOLOGY MAP
Eagle Nests (SWS)
EV-70F
EV-70E
Eagle Nests (SWS)
EV-70B
EV-70G
Anadromous stream 226-40-16509
EV-70
EV-70D
Anadromous stream 226-40-16502
EV-70C
Anadromous stream 226-40-16448
EV-70A
Anadromous stream
EV-70H
Eagle Nest (SWS)
226-40-16494
EV-70
ADEC Segment Length: 12625m
0
300
600
900
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil
Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900
Meters

Map Key: PWS-278
Name: Mike Fogt
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION C (3 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 319 m: No Oil 511 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Removal	_____ Beach Cleaner
	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/25/90.
ADEC ART WEINER
EXXON ANDY TEAL
NOAA JOSEPH TALBOT
USCG KENNETH KEARNS

FOSC: _____ DATE: 5-3-90

OG [redacted] Foyet

SEGMENT ST/ EV-70

SUBDIVISION C

DATE 4 / 1 / 90

CHECKLIST

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

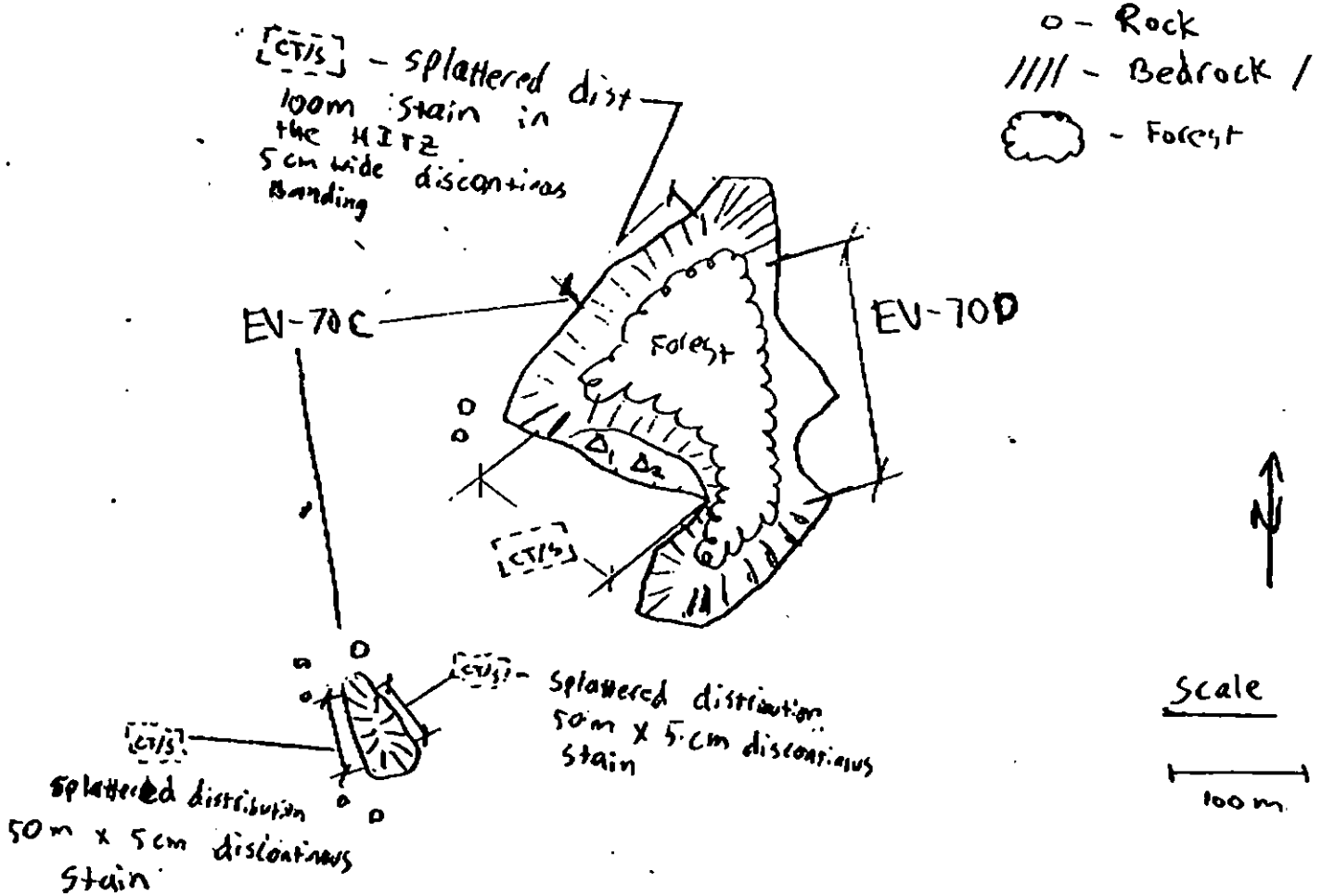
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ⇐ Photo location, direction, and number

SKETCH MAP



Legend

o - Rock

//// - Bedrock / Large

⬭ - Forest

N

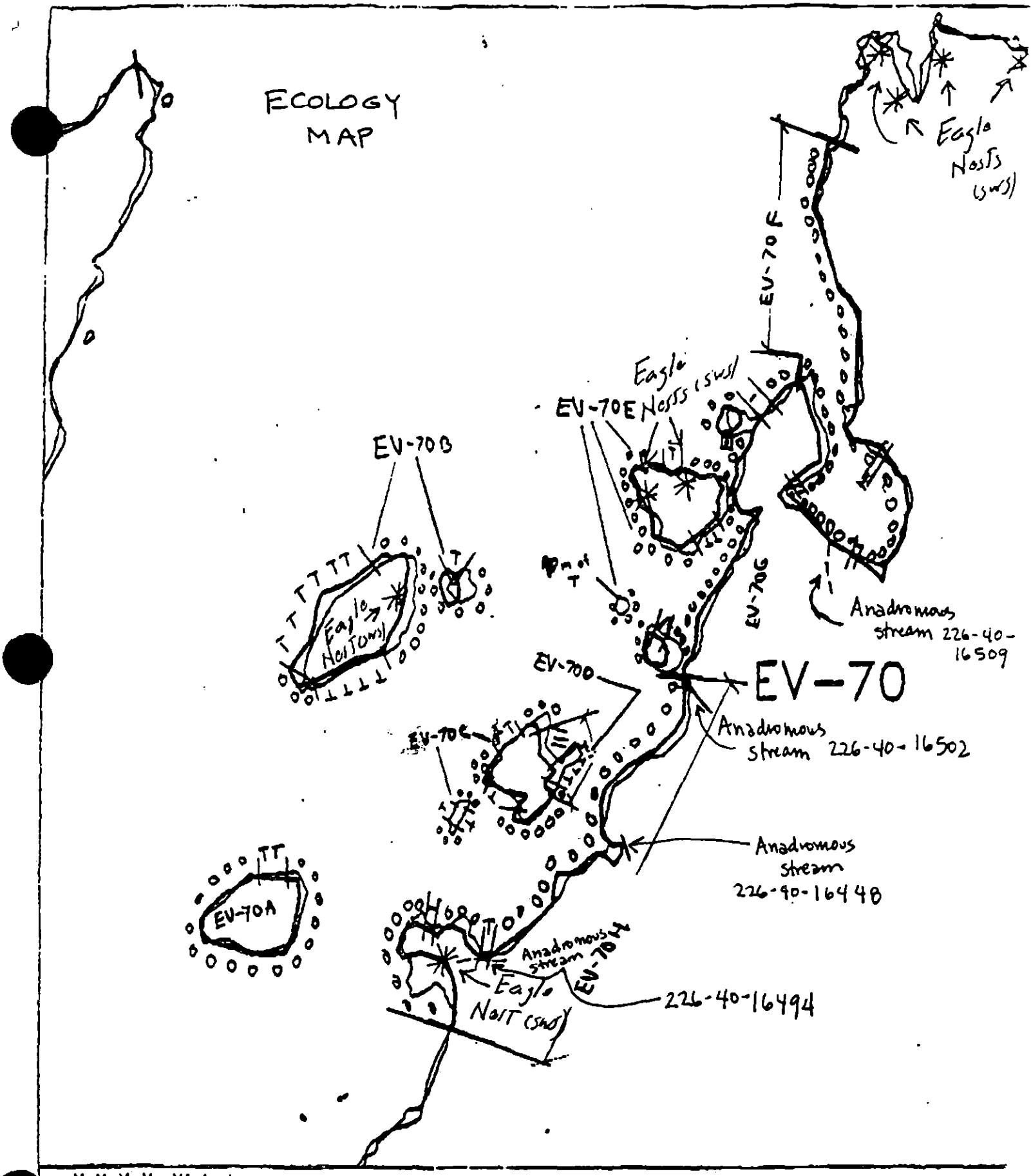
Scale

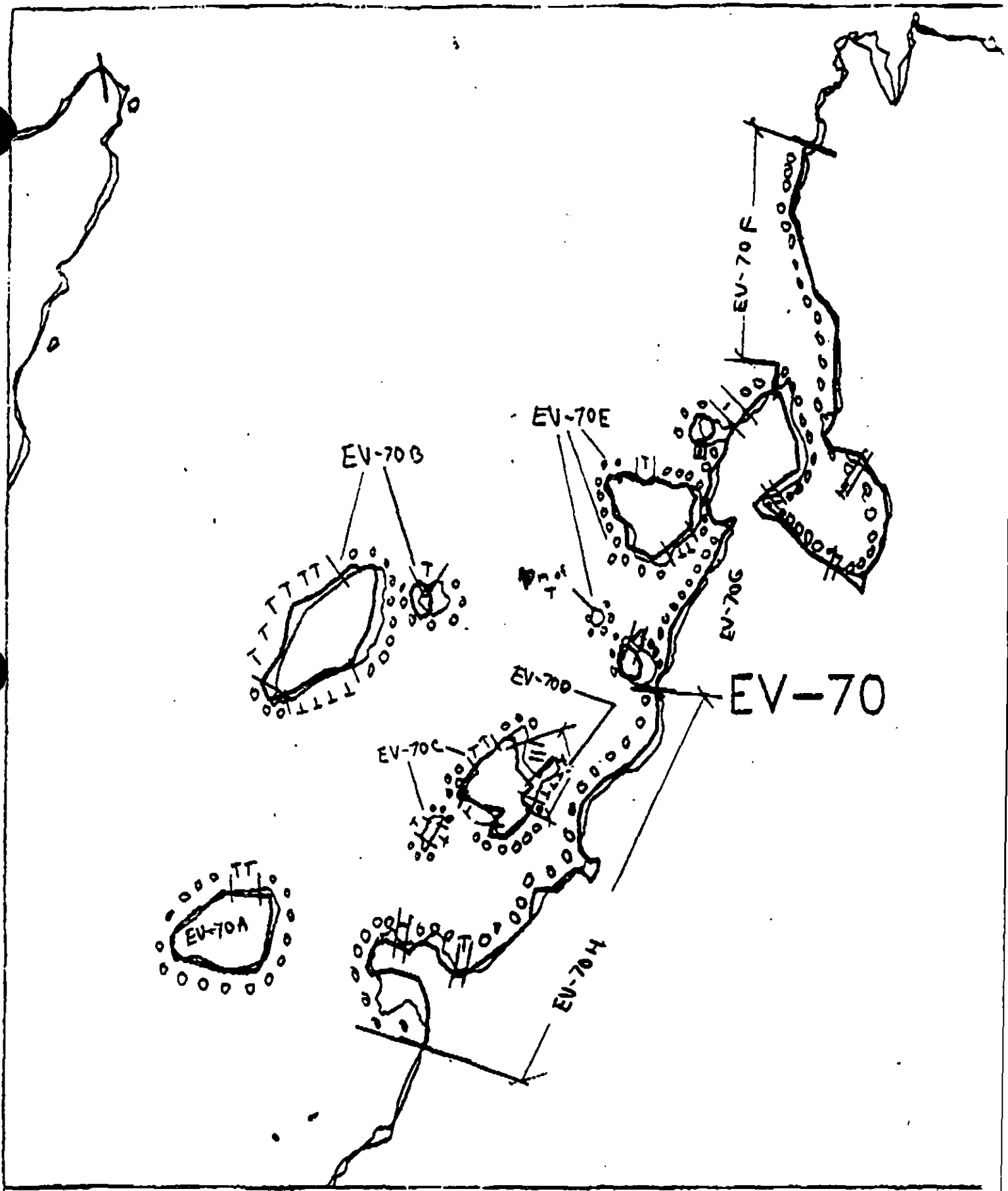
100 m

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

REVISION 6/88/89

APR-07-1990 23:25 FROM PHILLIPS SEMICONSE TO 918---8815075643 P.23


ECOLOGY MAP
Eagle Nest (SWS)
EV-70F
EV-70E
Eagle Nest (SWS)
EV-70B
EV-70G
Anadromous stream 226-40-16509
EV-70
EV-70D
Anadromous Stream 226-40-16502
EV-70C
Anadromous stream 226-90-16448
EV-70A
Anadromous stream
EV-70H
Eagle Nest (SWS)
226-40-16494
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
EV-70
ADEC Segment Length: 12625m
0
300
600
900
Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION E (5 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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

SHPO SIGNATURE: [signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 191 m: No Oil 839 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 6 cm

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 pick up of oiled debris and vegetation. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraints.

TAG COMMENTS: MONITORS TO CHECK SUITS DURING TREATMENT.

TAG APPROVAL DATE: 4/25/90.
ADEC ART WERNER [signature]
EXXON ANDY TEAL [signature] FOSC: [signature] DATE: 5-3-90
NOAA Joseph Talbott [signature]
USCG KENNETH KEANE [signature]

SEGMENT EV-70

SUBDIVISION E

DATE 4 / 1 90

CHECKLIST

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

LEGEND

1 △

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

N

Scale

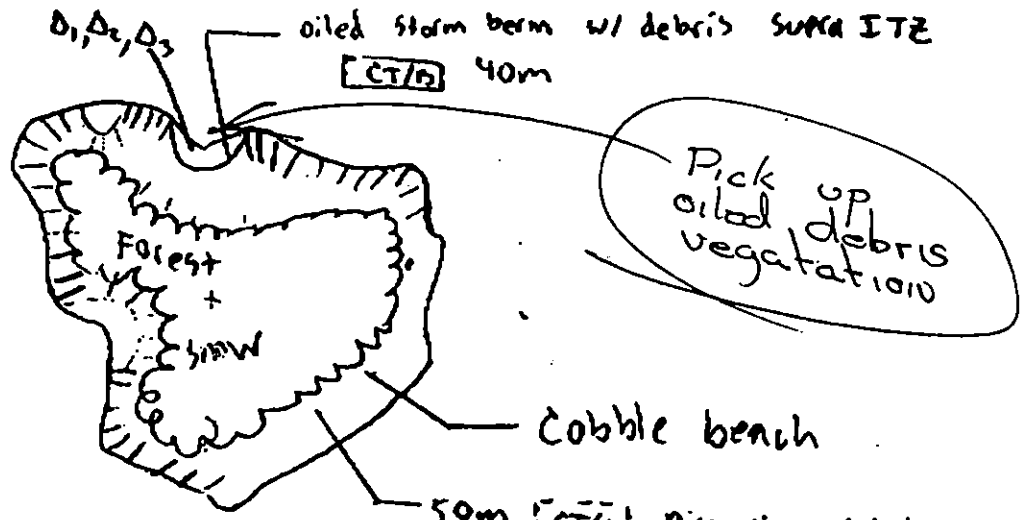
100 m

Legend

o - Rock

- Forest / snow

//// - Bedrock / boulders



Oil Character Length (m): AP — PO — CV — CT 60 ST 60 MS — PT — TB — FL — NO 1000

SEG[redacted]ST/_____

SUBDIVISION_____

DATE____/____90

CHECKLIST

___N Arrow
___Approx. Scale
___Seg/Sub Binary
___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

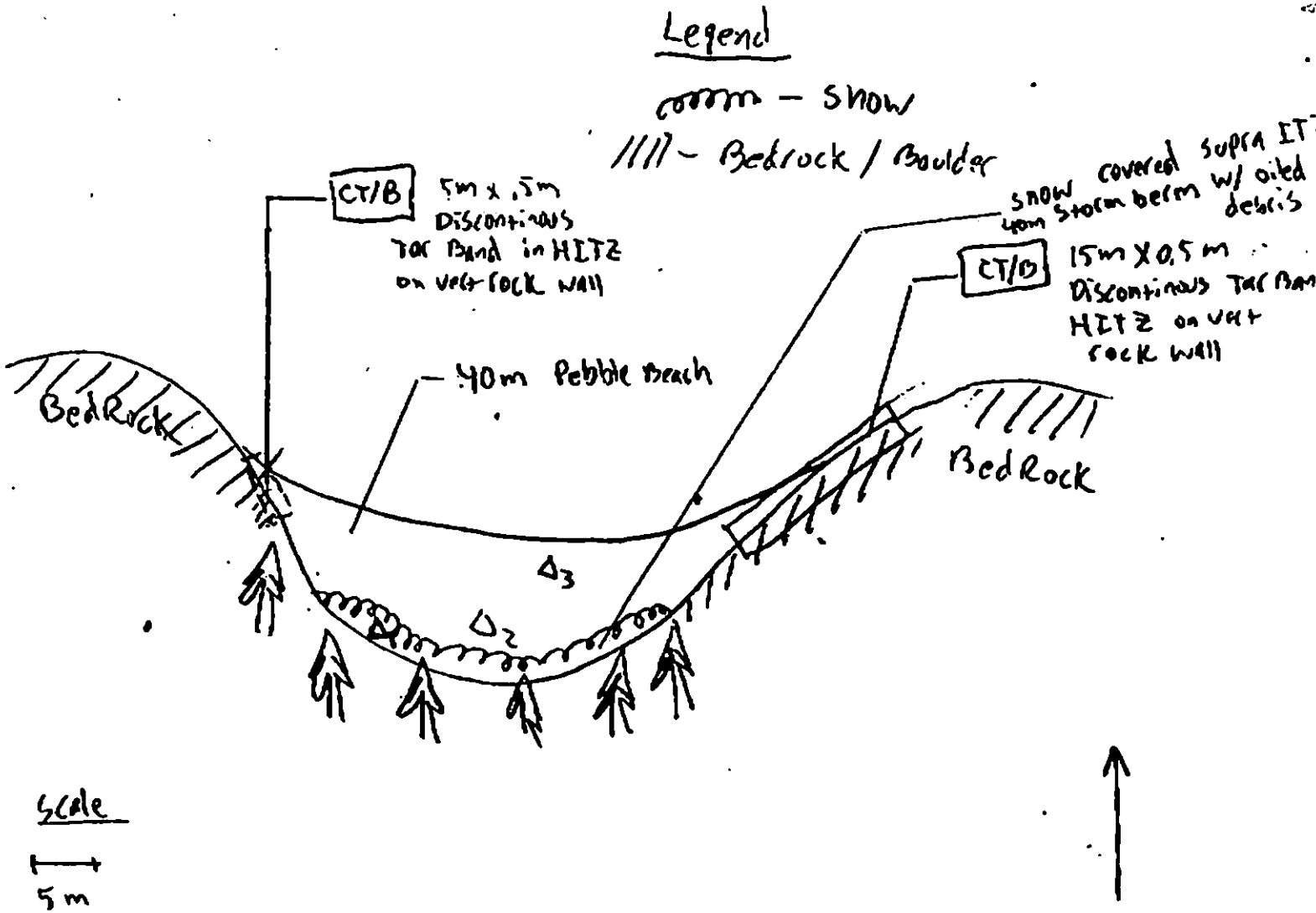
Splashed Distribution

Oiled Vegetation

1 ⇨

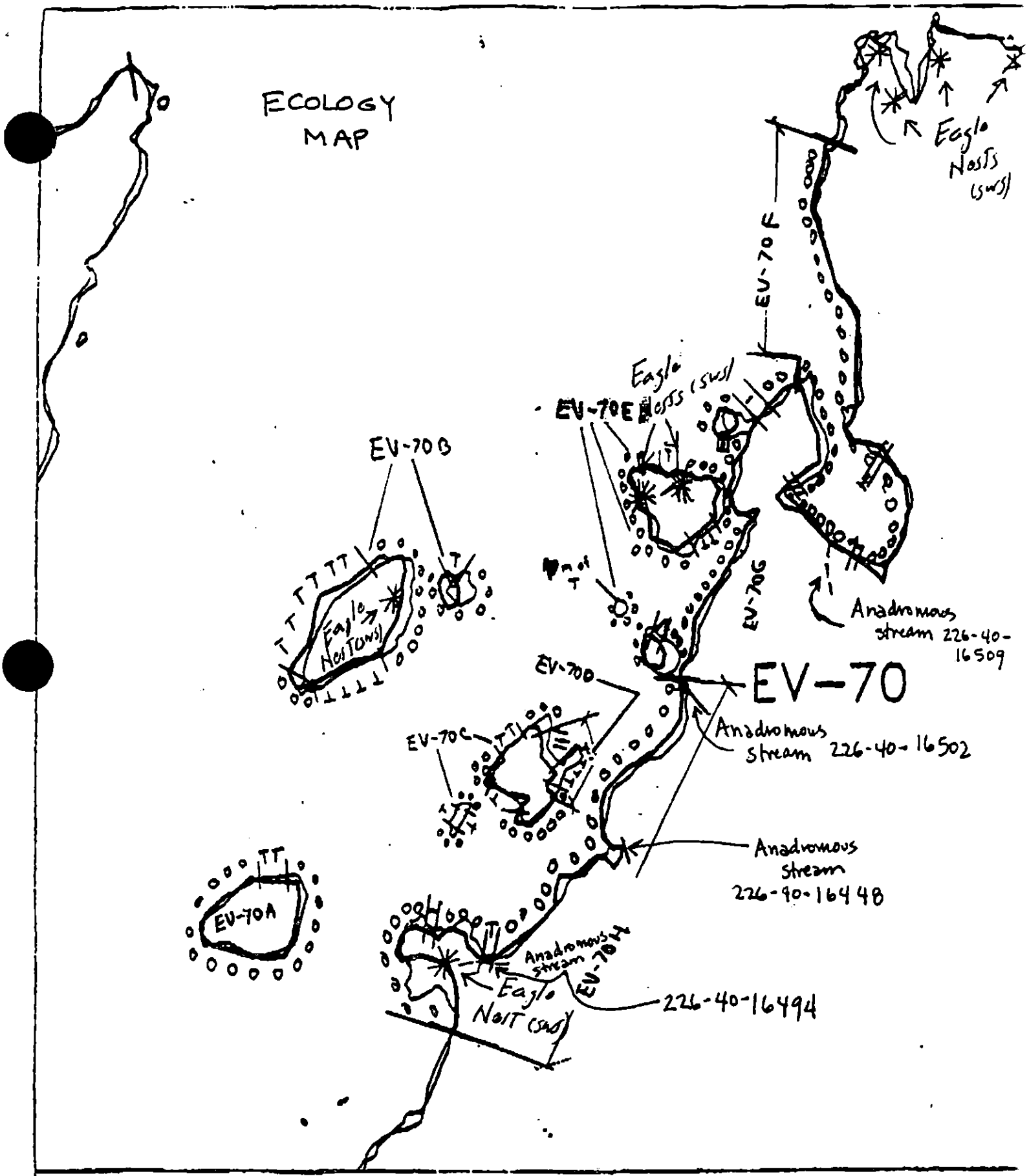
Photo location, direction, and number

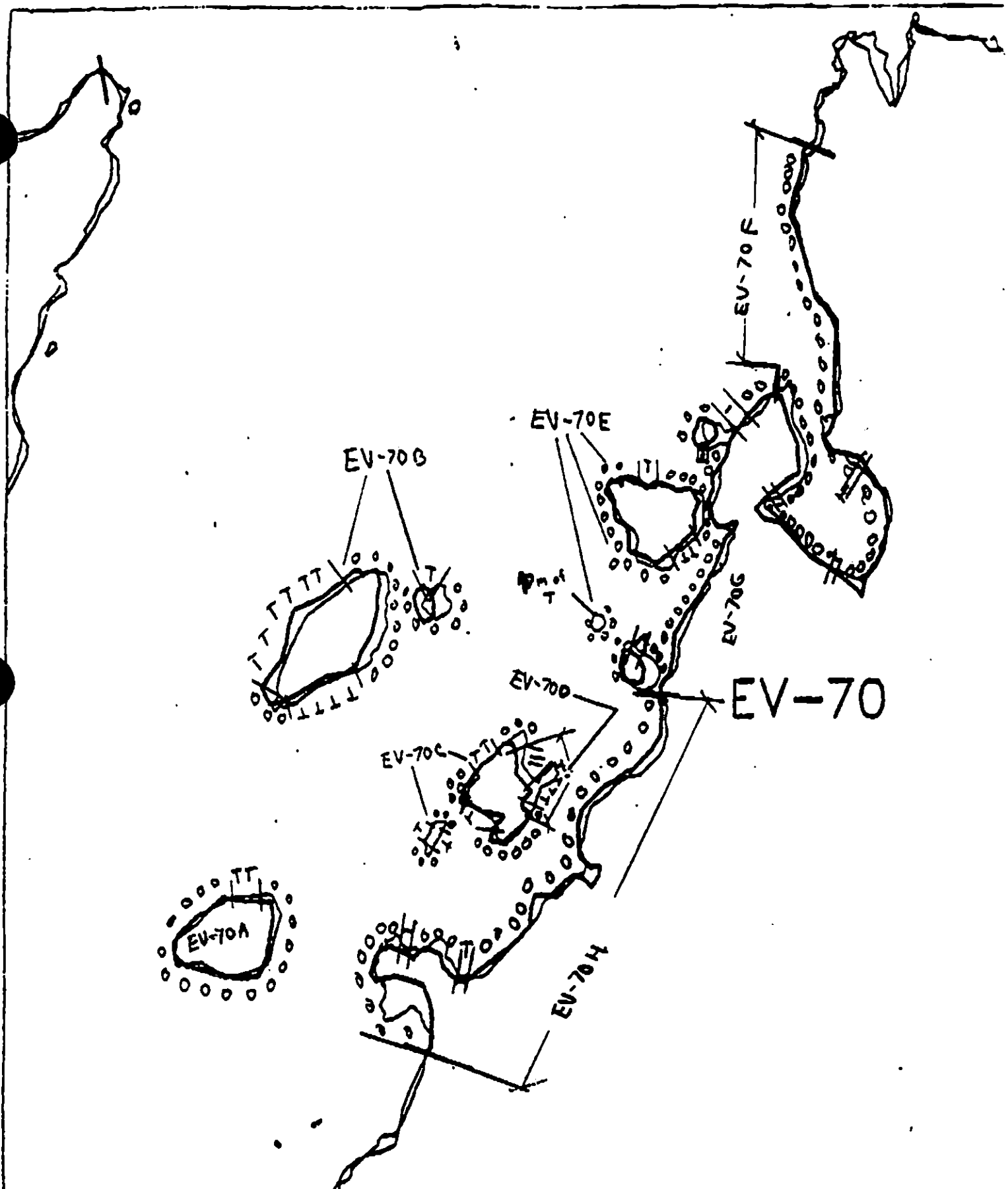
SKETCH MAP 2



Oil Character Length (m): AP___ PO___ CV___ CT 60 ST___ MS___ PT___ TB___ FL___ NO 20

80m shore zone


ECOLOGY MAP
Eagle Nests (SWSI)
EV-70F
Eagle Nests (SWSI)
EV-70E
EV-70B
EV-70G
Anadromous stream 226-40-16509
EV-70
EV-70D
Anadromous stream 226-40-16502
EV-70C
Anadromous stream 226-90-16448
EV-70A
Anadromous stream
EV-70H
226-40-16494
Eagle Nest (SWSI)
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
EV-70
ADEC Segment Length: 12625m
0
300
600
900
Map Key: PWS-279
Name: Mike Fogt
Date: 4/1/90



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION D (4 OF 8) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Do not trample or otherwise damage mussel bed at base of spit.

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

SHPO SIGNATURE: [signature] DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 139 m: Narrow 0 m: V.Light 66 m: No Oil 73 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 5 cm

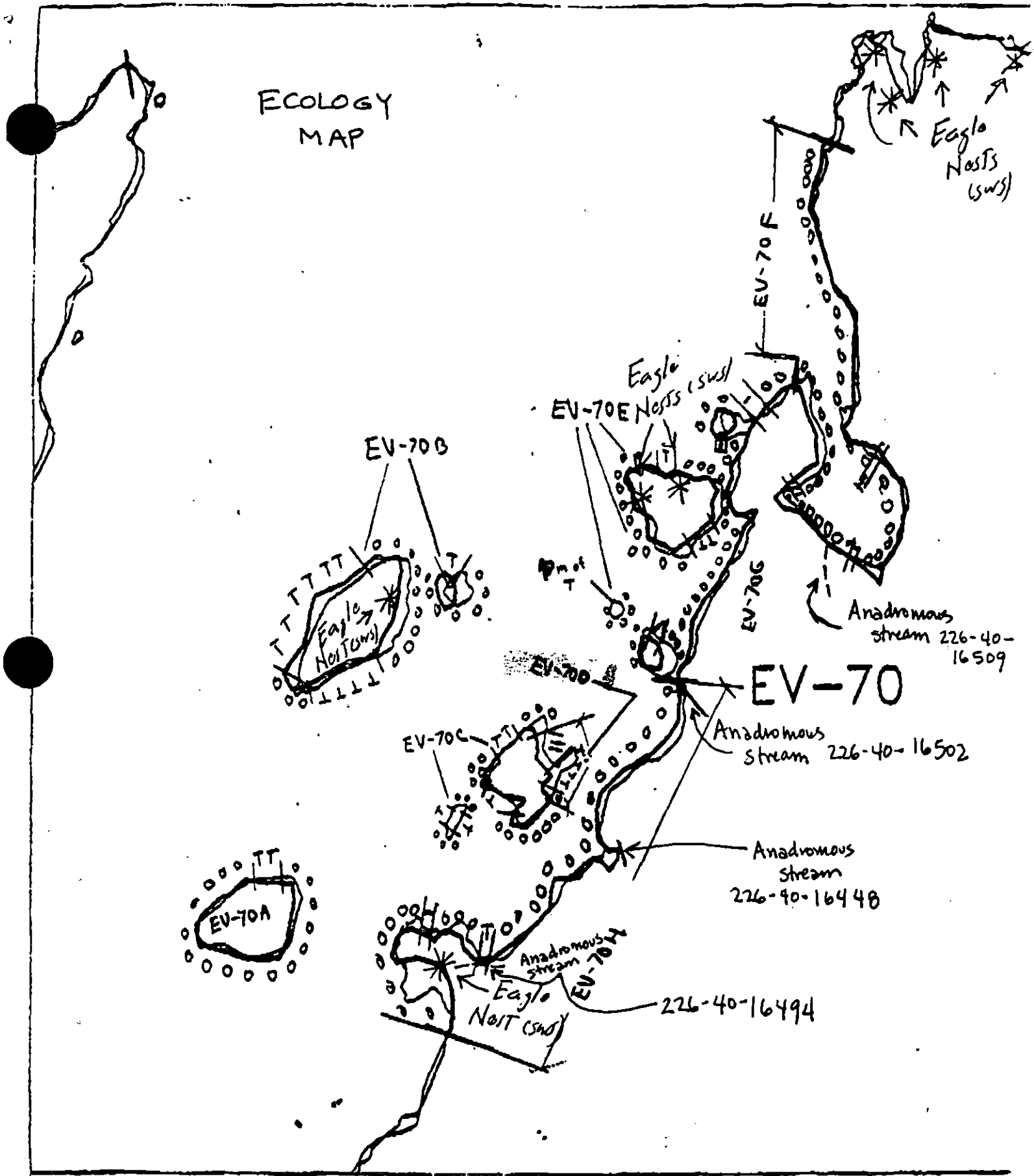
RECOMMENDATIONS:

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

COMMENTS: Recommend bioremediation of area shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint. Avoid mussel bed near proposed bioremediation site. REMOVE TARMAT AS INDICATED ON SKETCH

TAG COMMENTS: ____

TAG APPROVAL DATE: 4/25/90.
ADEC ART WERNER
EXXON ANDY TEAL
NOAA Joseph Talbott
USCG KENNETH KEANE
FOSC: [signature] DATE: 5-6-90



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

OG [redacted] Foyet

SEGMENT ST/ EV-70

SUBDIVISION D

DATE 4 / 1 90

CHECKLIST

- __N Arrow
- __Approx. Scale
- __Seg/Sub Bndry
- __Oil Dist.
  - Width
  - Length
  - % Cover
- __Substrate Character
- __Est. HWL/LWL
- __SSL
- __Profile Location(s)
- __Profile(s)
- __Pit Location(s)
- __Photo Location(s)

LEGEND

1 △ 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

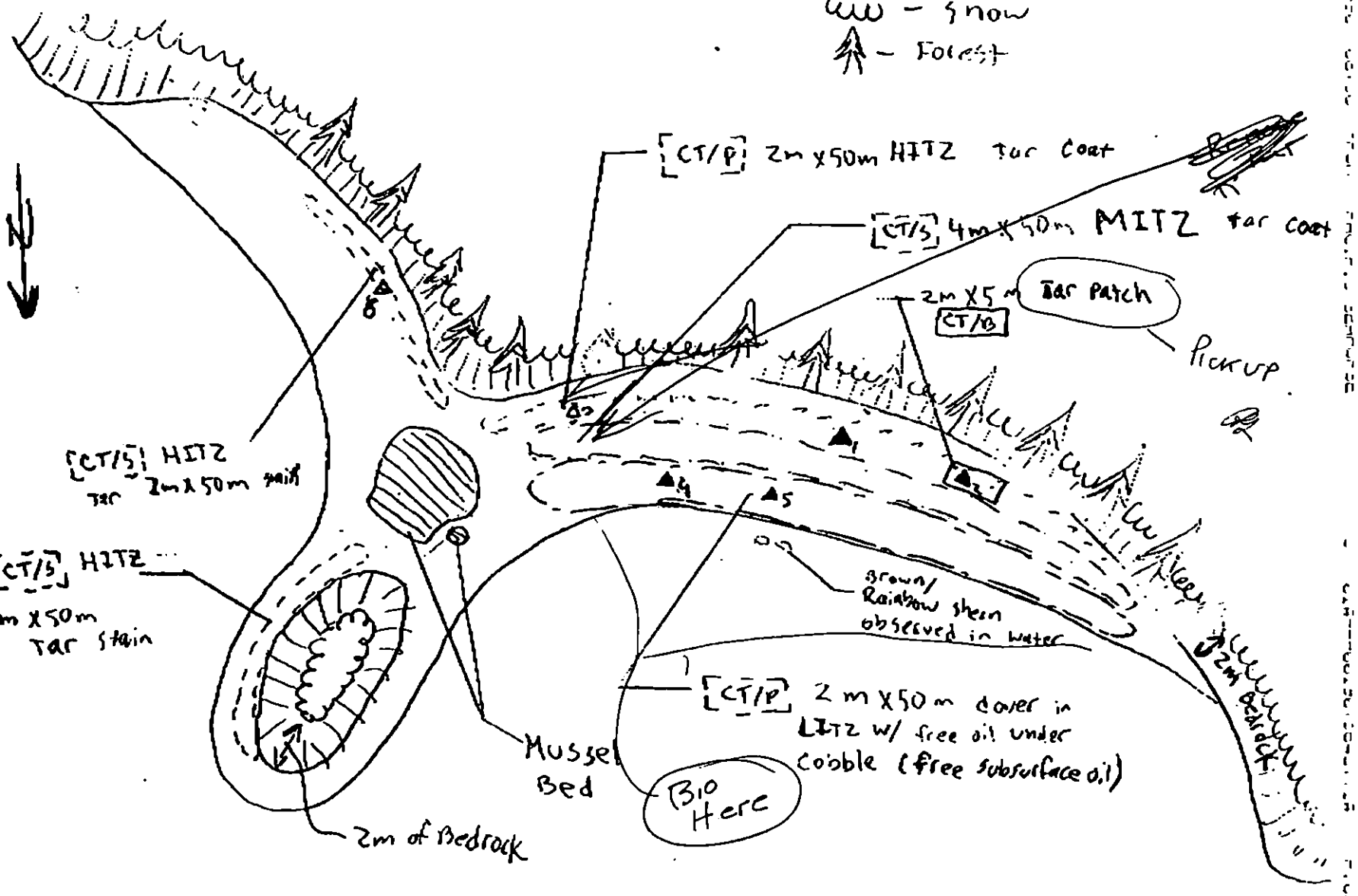
SKETCH MAP

Scale

25 m

Legend

- Mussel Bed
- //// - Rock / Boulder outcrop
- ww - Snow
- Forest



Oil Character Length (m): AP 5 PO — CV 50 CT 150 ST — MS — PT — TB — FL 1 NO 206

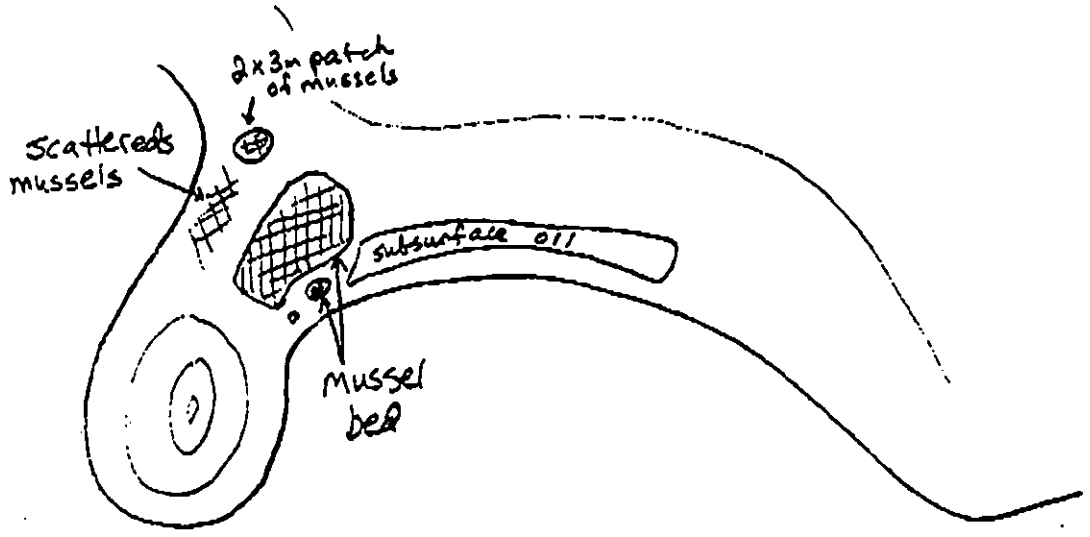
REVISION 03/2000

Subdivision EV070D

HTMorse
4/1/90

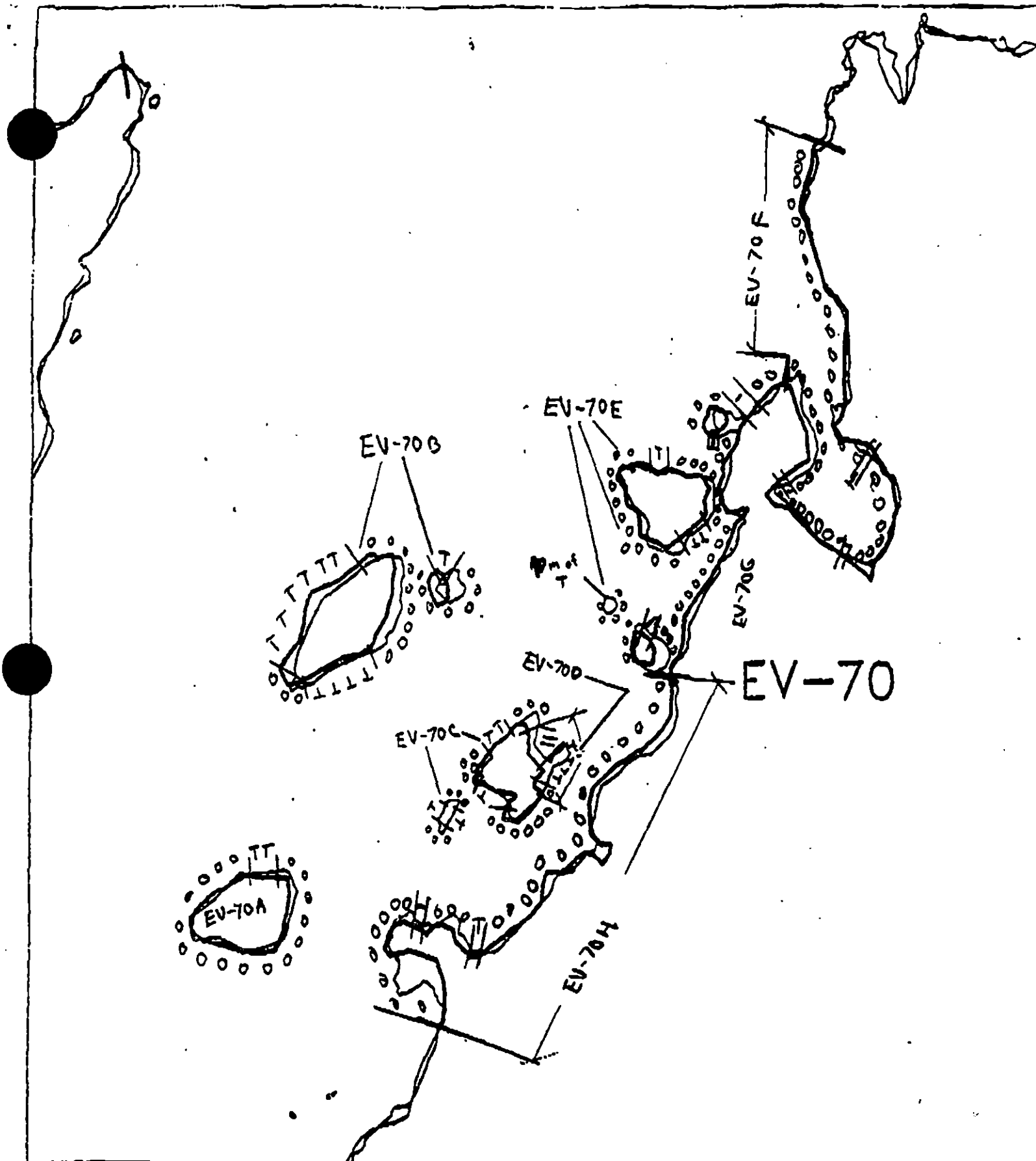
Addendum

A dense mussel bed on pebbles occurred at beach with free subsurface oil. The biota over the main part of the cove was quite sparse, with sparse barnacles & littorines and rare Fucus. The mussel bed would be susceptible to trampling, but it occurs on the ridge east of the main beach, and could be avoided during beach activities:



The mussel bed is about 5cm thick. No oil was found on the mussels; however, the northwest edge of the bed was broken up, and it looks as though the bed used to extend to where subsurface oil and asphalt are found now.

Hermit crabs were observed under one rock in the mid intertidal (in oil zone). A nemertean - alive - was under a rock with a noticeable amount of free oil on the water.



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900
Meters

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION F (6 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Anadromous stream no. 226-40-16509 in Subdivision F; 4 bald eagle nests close by in Segment EV-60.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 29 m: V.Light 36 m: No Oil 2808 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 10 cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
X Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
X Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Removal	____ Beach Cleaner
	____Other (see comments)

COMMENTS: Recommend bioremediation of areas shown in sketch map and reassessment of segment after additional snow-melt by Anadromous SCAT team. Work should be conducted with the approval of ADF&G regarding anadromous fish stream and USFWS concerning eagle nests.

TAG COMMENTS: ____

TAG APPROVAL DATE: 4/25/90
ADEC ART WEINER Art Weiner
EXXON [illegible] FOSC: [illegible] DATE: 5-4-90
NOAA Joseph Talbott
USCG KENNETH KEANE

OG [redacted] Fogel

SEGMENT ST/ EV-70

SUBDIVISION F

DATE 4 / 6 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

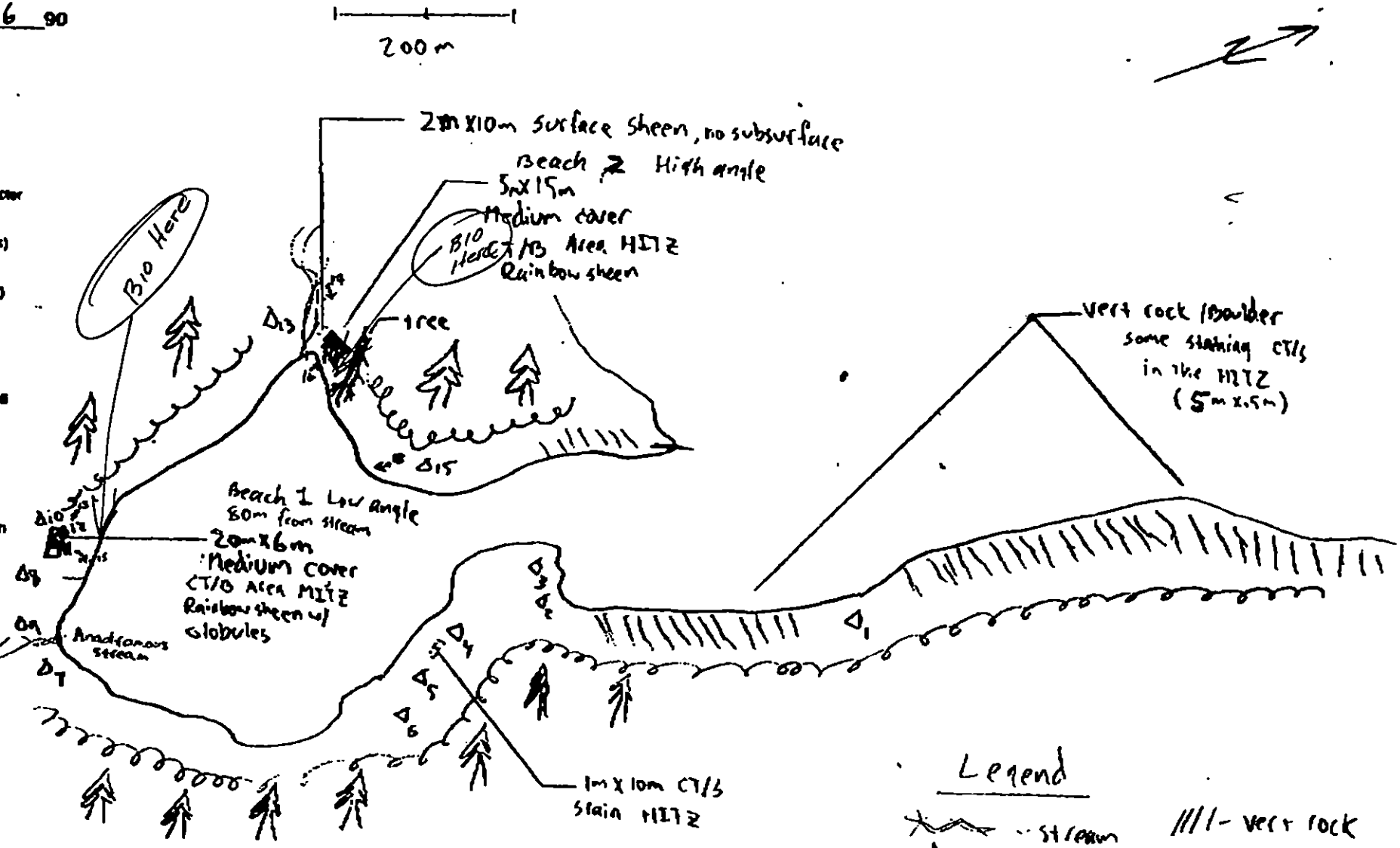
Oiled Vegetation

1 ⇐ Photo location, direction, and number

SKETCH MAP

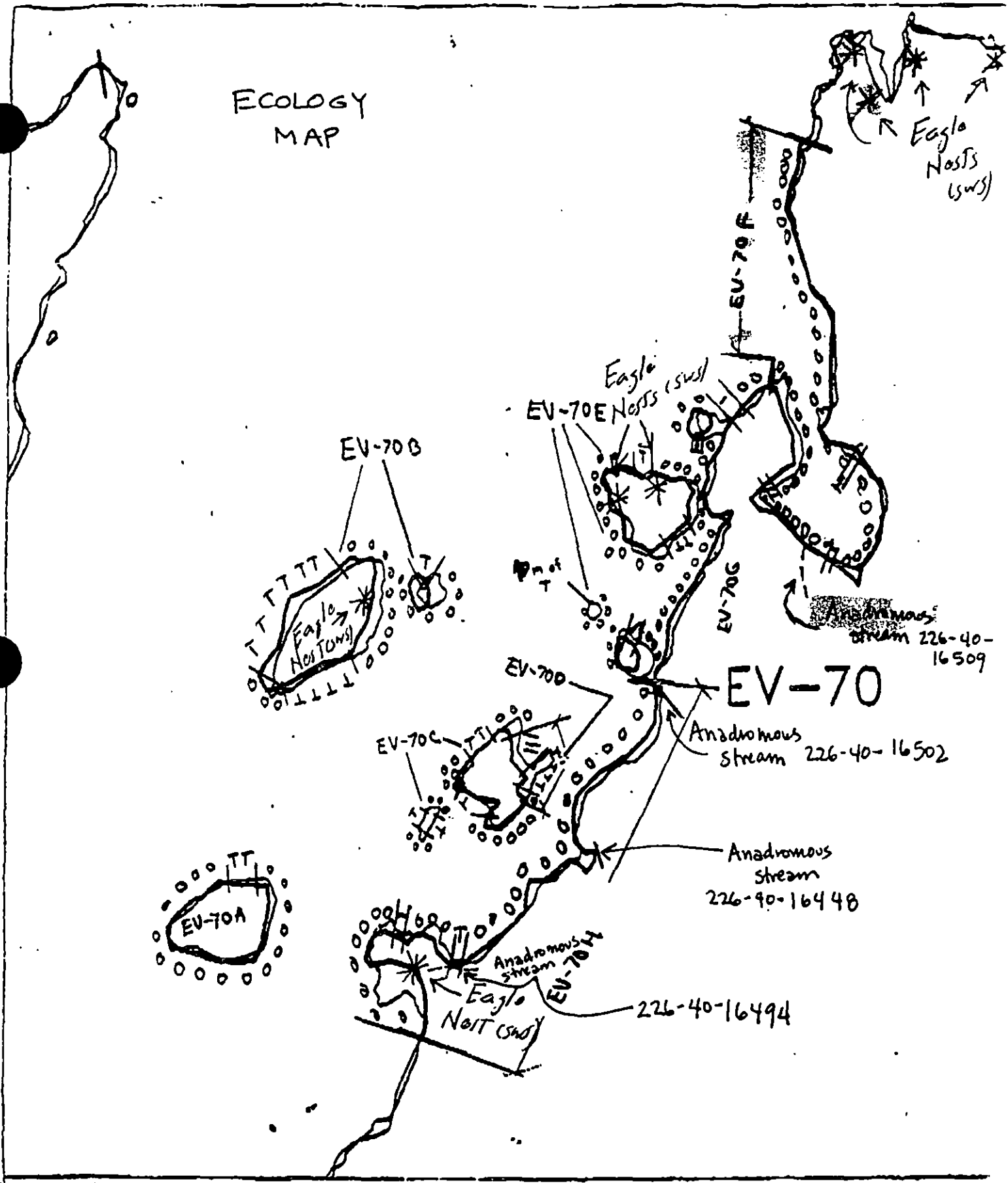
Scale

200 m



Oil Character Length (m): AP — PO — CV 35 CT — ST 15 MS — PT — TB — FL 45 NO —

REVISION:


ECOLOGY MAP
Eagle Nests (SWS)
EV-70F
EV-70E
Eagle Nests (SWS)
EV-70B
EV-70G
Anadromous Stream 226-40-16509
EV-70
EV-70D
EV-70C
Anadromous Stream 226-40-16502
Anadromous Stream 226-90-16448
EV-70A
Anadromous Stream
EV-70H
Eagle Nest (SWS)
226-40-16494
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
EV-70
ADEC Segment Length: 12625m
0
300
600
900
Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

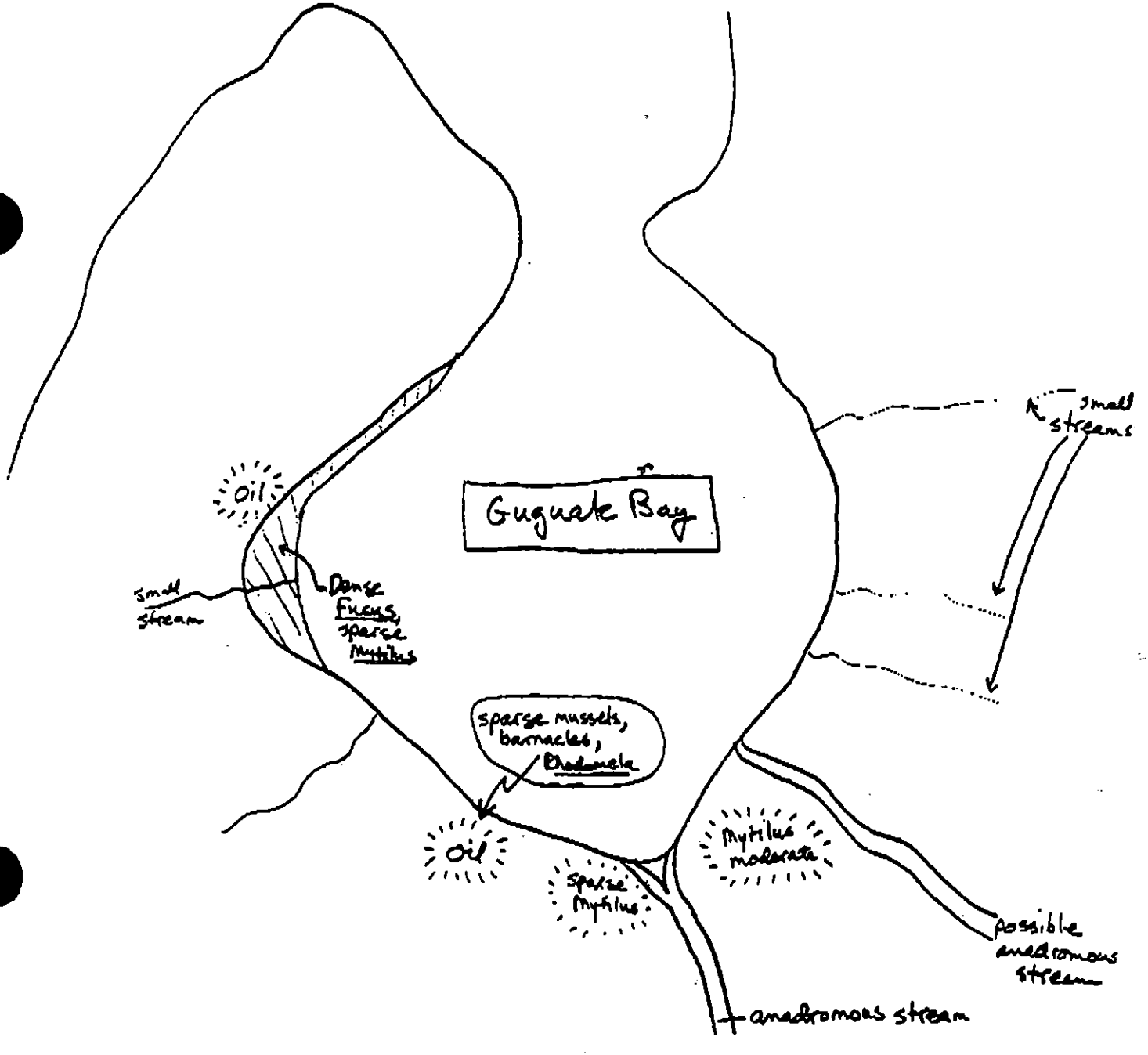
Subdivision EV070F

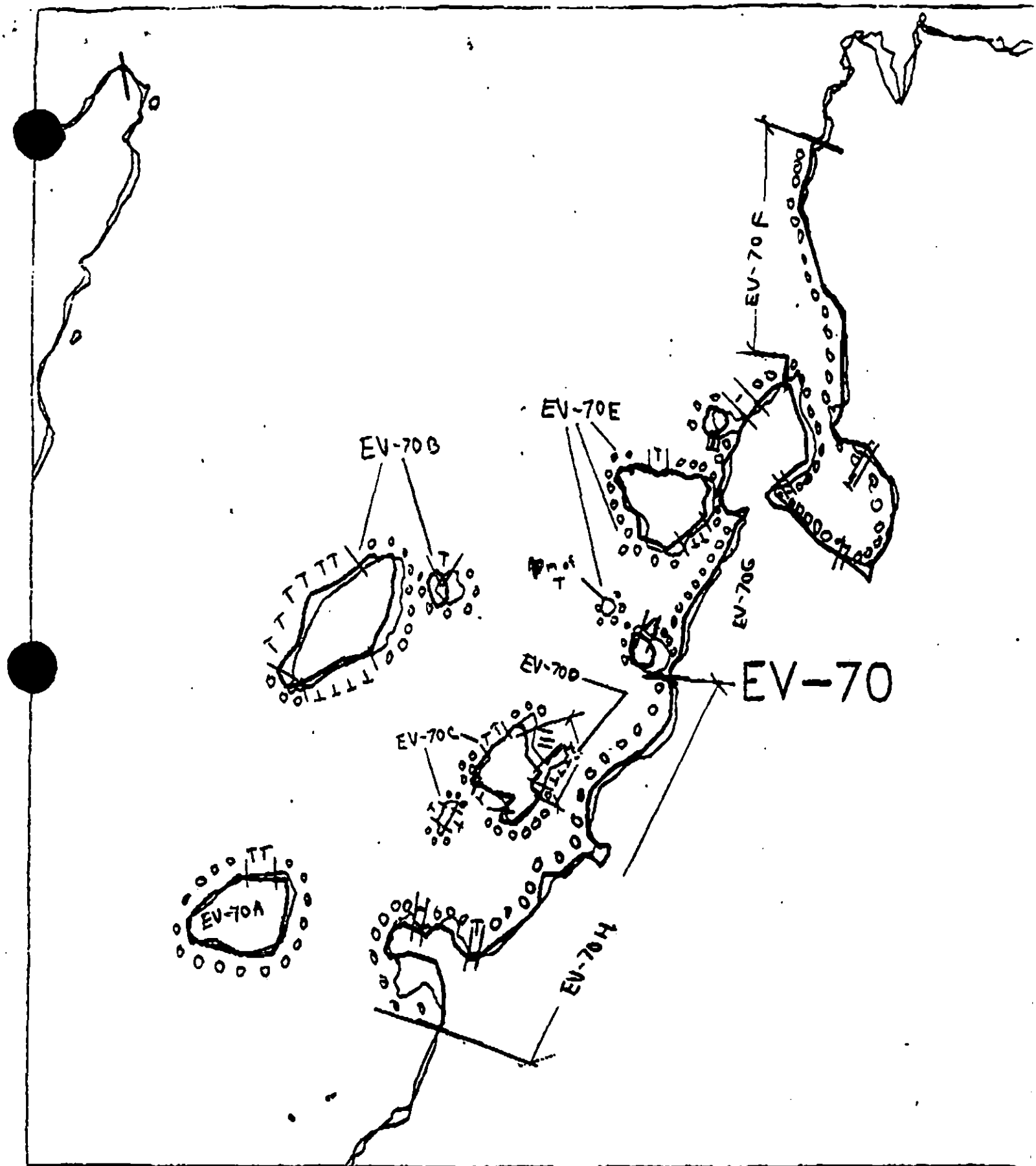
Ambrose
4/6/90

Addendum

Both a salmon stream and oil were found in Guguale Bay. The salmon stream had salmon bones and jaws in the stream. A second stream also seemed large enough to be anadromous.

One oiled location, with globules of free oil & a sheen visible on the water in pits, was about 80 m from the known anadromous stream.





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

EV-70

ADEC Segment Length: 12625m

0 300 600 900
Meters

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION G (7 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two bald eagle nests in Subdivision E.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 45 m: Narrow 61 m: V.Light 40 m: No Oil 1639 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of tarmat, oiled vegetation and debris, 2) blot any mobile oil with pom poms, 3) bioremediate areas shown on attached sketch map. Work should be conducted after 6/1 and with permission of USFWS due to eagle nest constraint and ADF&G regarding anadromous streams.

TAG COMMENTS:

TAG APPROVAL DATE: 4/25/90.
ADEC ART WEINER
EXXON
NOAA Joseph Pabst
USCG KENNETH KEANE

FOSC: DATE: 5-4-90

OG Mike Foget

SEGMENT EV-70

SUBDIVISION G

DATE 5/16 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

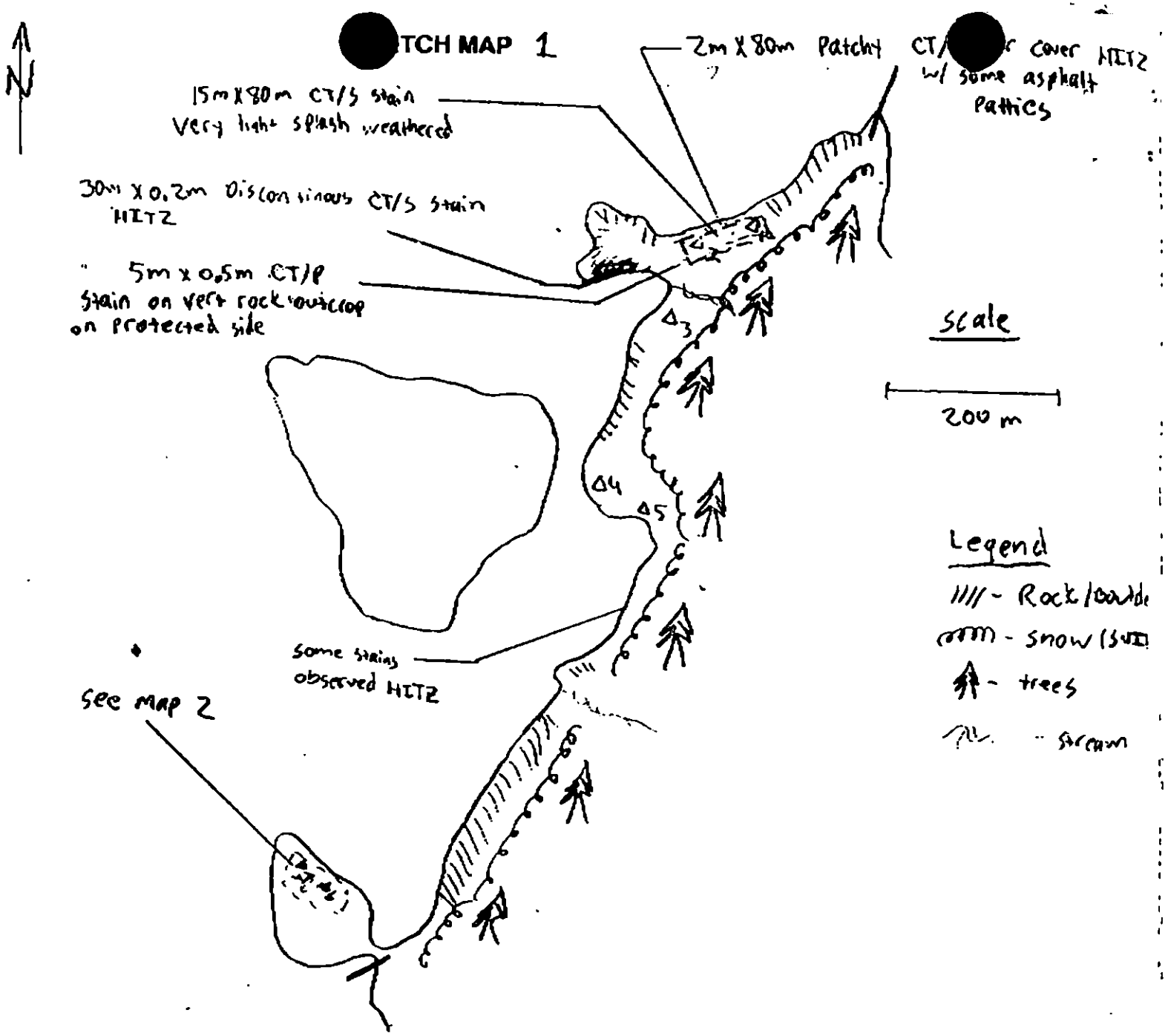
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ⇻ Photo location, direction, and number

SKETCH MAP 1



Oil Character Length (m): AP _____ PO 2.0 CV 90 CT 80 ST 145 MS — PT — TB — FL — NO _____

REVISION: 8/24/98

OG Mike Foget

SEGMENT EU-70

SUBDIVISION 6

DATE 4, 6 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bndry
- Oil Dist
- Width
- Length
- % Cover
- Substrate Character
- Est # PWL/YWL
- 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

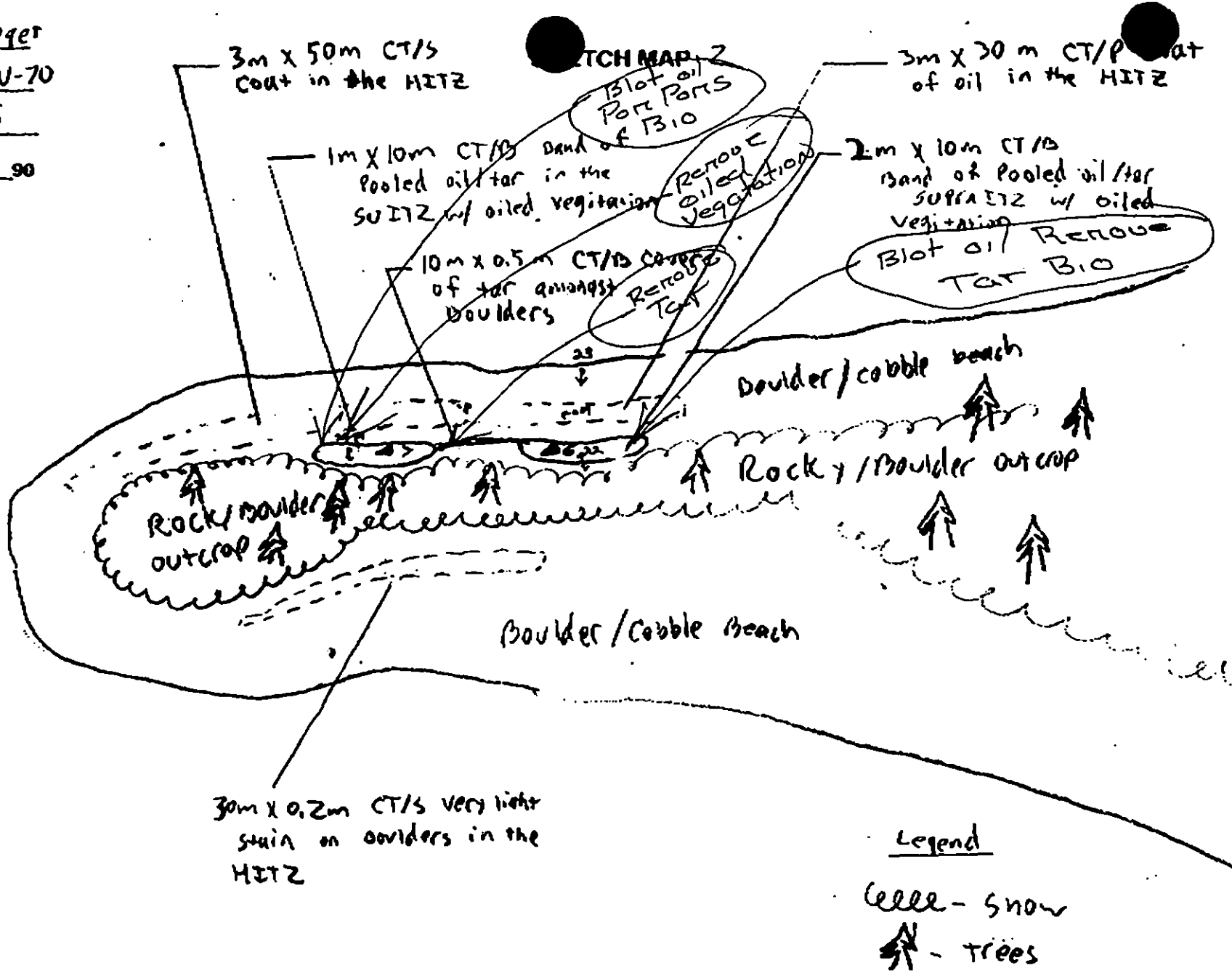
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

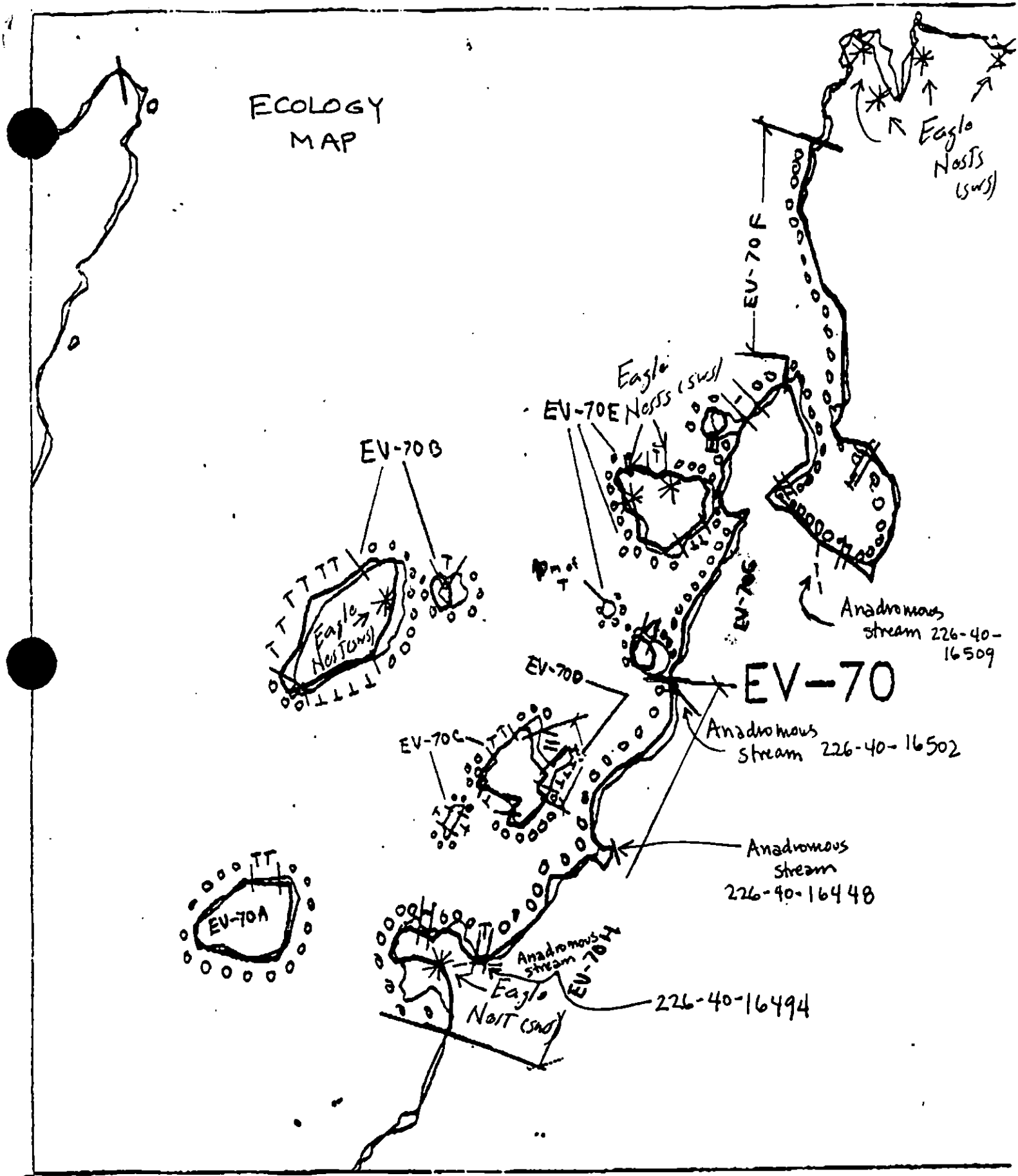
1 ⇔ Photo location, direction, and number

SKETCH MAP 2



See map 1

Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90

SHORELINE EVALUATION

SEGMENT ST/ EV-70 SUBDIVISION H (8 OF 8) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16494, 16498, 16509, 16502.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Three anadromous streams one in Subdivision H: 226-40-16502; 16448; 16494. One bald eagle nest in Subdivision H. Do not trample or otherwise damage mussel bed.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 42 m: V.Light 60 m: No Oil 2308 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 15 cm

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 pick up of oiled debris, vegetation, patties and mousse. Work should be conducted between 6/1 and 7/10 and only with permission of USFWS due to eagle nest constraints.

TAG COMMENTS: MONITORS TO FURTHER ASSESS SUITZ DUE TO SNOW COVER DURING SURVEY.

TAG APPROVAL DATE: 4/25/90
ADEC ART WEINER
EXXON ANDY TEAL
NOAA Joseph Talbott
USCG KENNETH KEANE

FOSC: [signature] DATE: 5-4-90

OG [redacted] Fogel

SEGMENT ST/ 70

SUBDIVISION H

DATE 4 / 6 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 ⊶

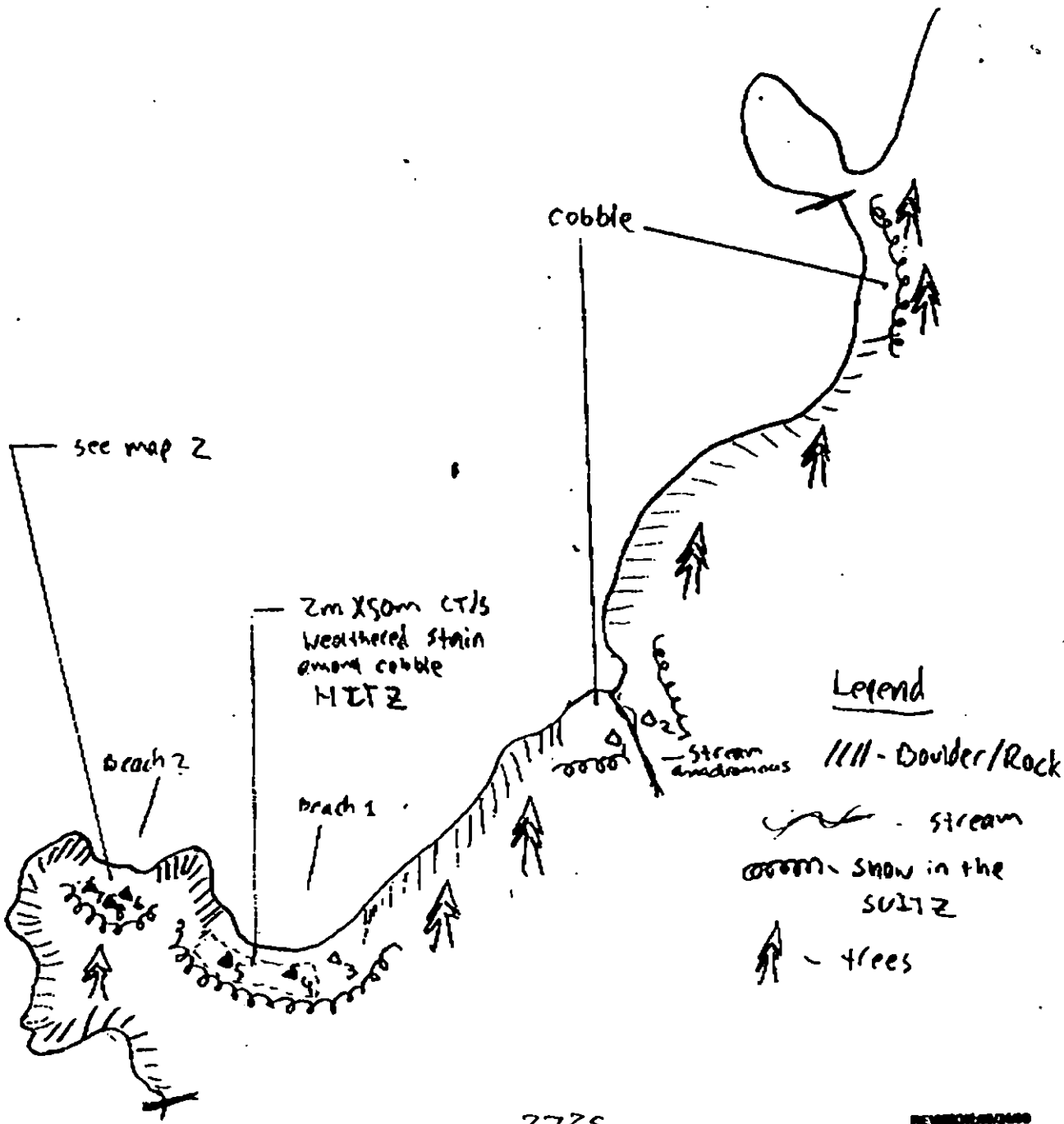
Photo location, direction, and number

N

Scale

100 m

SKETCH MAP 1



Oil Character Length (m): AP — PO — CV 30 CT — ST 50 MS — PT — TB — FL 20 NO 2725

REVISION 8/90

OG [redacted] Foget

SEGMENT ST/ EV-70

SUBDIVISION H

DATE 4 / 6 90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
  - Substrate Character
  - Est #WL/LWL
  - SSL
  - Probe Location(s)
  - Probe(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

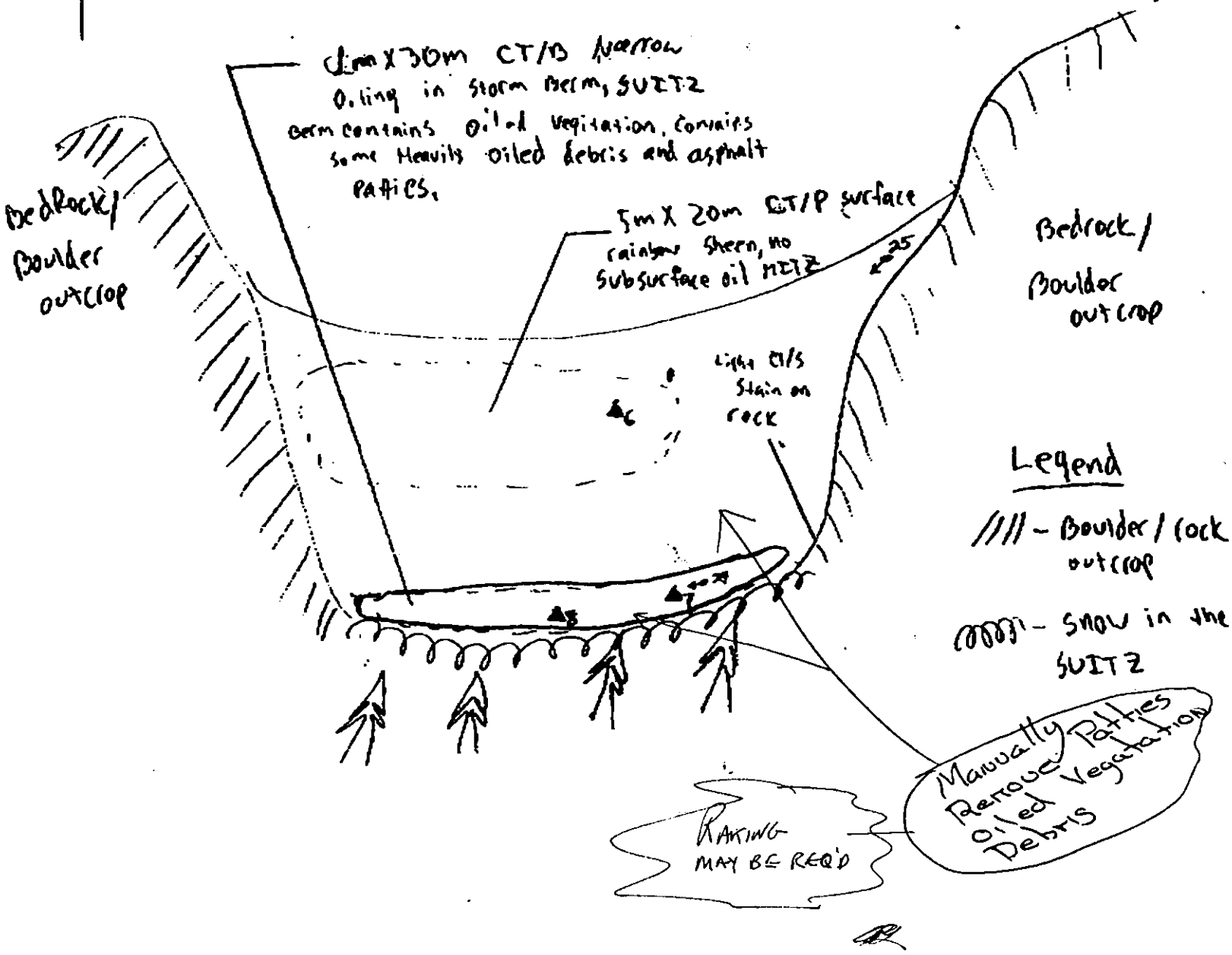
Photo location, direction, and number

SKETCH MAP 2

N

Scale

10 m



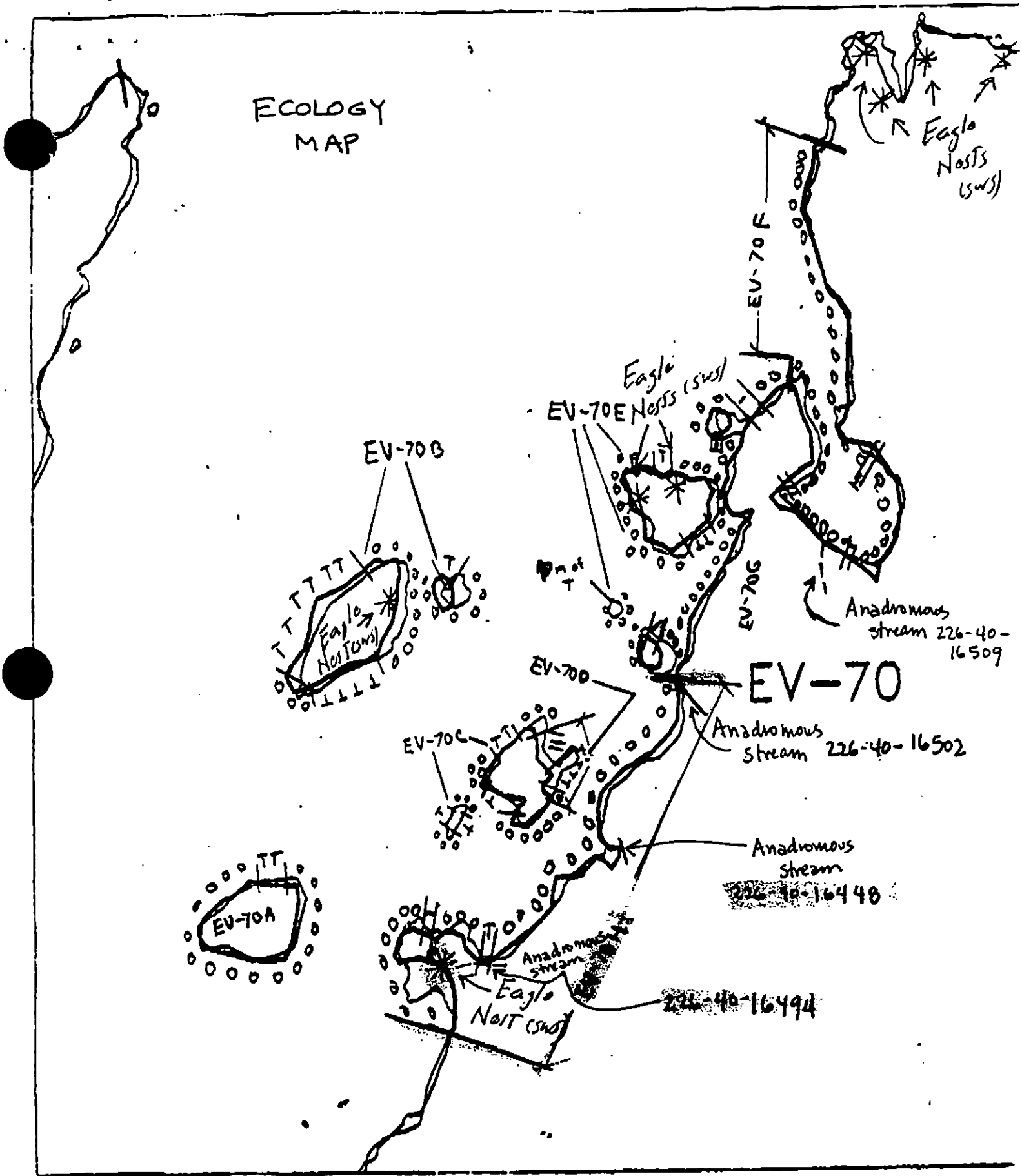
1m X 30m CT/B narrow Oiling in storm berm, SUIT 2 berm contains oiled vegitation, contains some Heavily oiled debris and asphalt patics.

5m X 20m CT/P surface rainbow sheen, no subsurface oil NOTE

See map 1

Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

REVISION/ERRATA



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

EV-70

ADEC Segment Length: 12625m

0 300 600 900

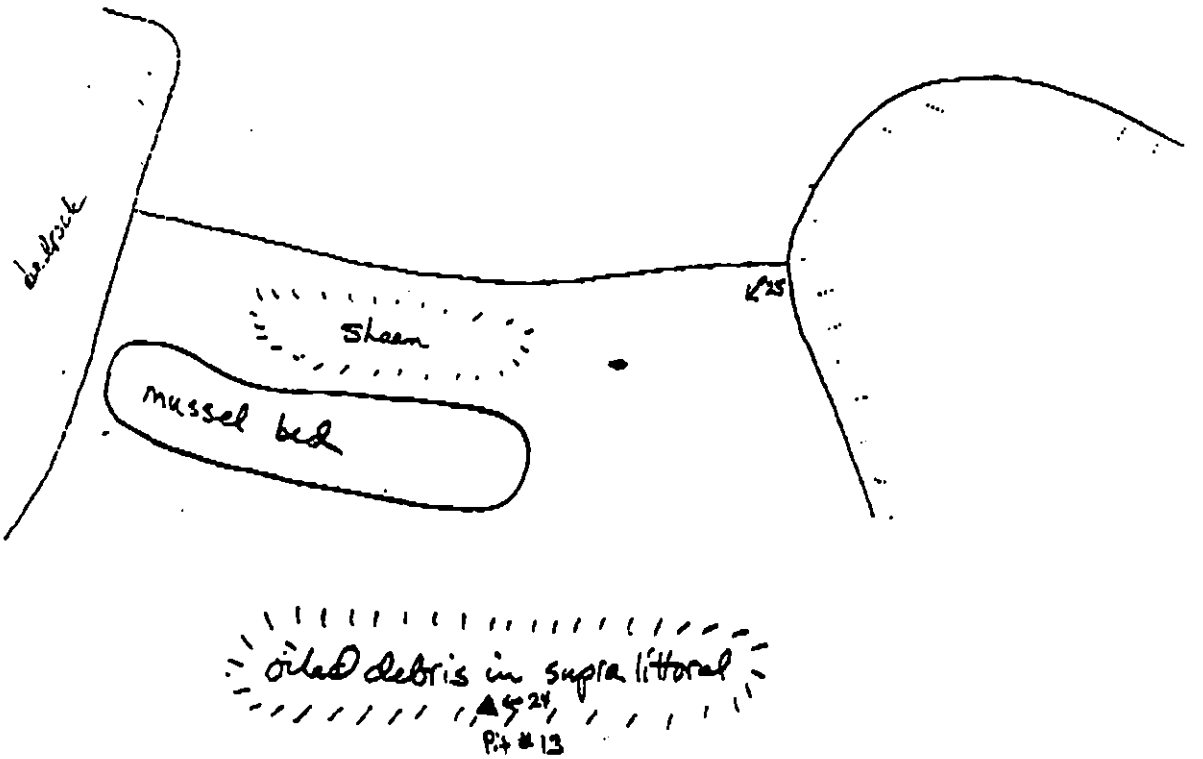
Map Key: PWS-278
Name: Mike Foget
Date: 4/1/90
Date Entered:

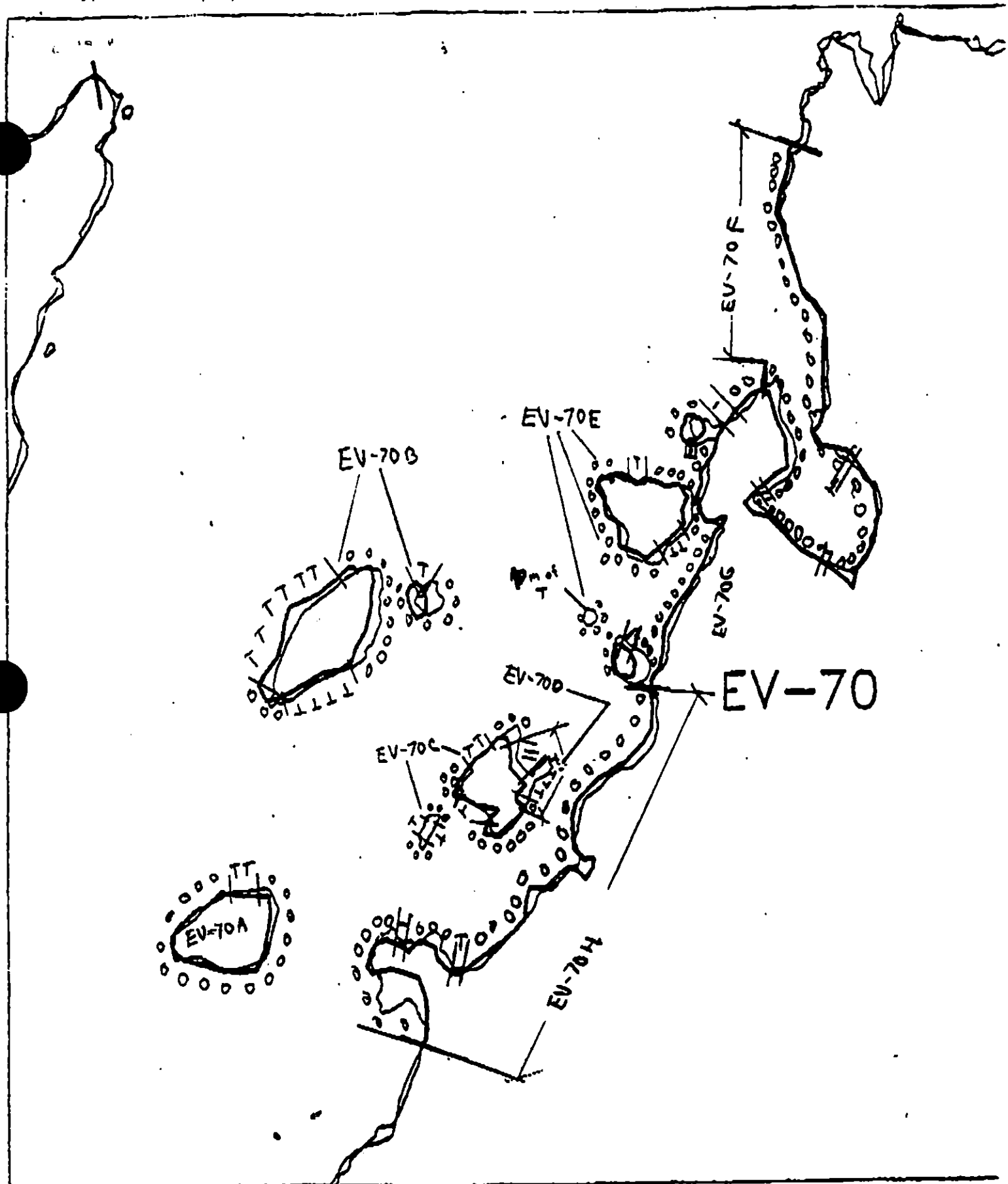
Subdivision EV070H

Ambrose
4/6/90

Addendum

Cobble pocket beach with sheen and oiled debris. Mussel bed in mid intertidal spans half of the width of the beach. Mussels mostly are growing on the sides of large cobbles/small boulders, so are less susceptible to damage by foot traffic over beach. Fucus also occurs in mussel bed (in moderate density), and it would be susceptible to trampling.





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

EV-70

ADEC Segment Length: 12625m

0 300 600 900
Metres

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90
Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: EV 070 SUB: G REGION: PWS SURVEY DATE: 5/25/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area, Subsistence - Deer harvesting

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: 564-3276; 564-3657; (Anchorage) or 229-1514 (24 hrs.). FAB

Timothy O Emmick for SHPO 6/07/91

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

COMMENTS:
INITIAL:

TAG: MANUAL P/U OF EASILY ACCESSIBLE AP. AT LOCATIONS O + Q FOLLOWED BY CUSTOMBLEN

FOSC:

TAG APPROVAL DATE: JUNE 6 1991 FOSC APPROVAL DATE: 6/10/91

ADEC John Brown

EXXON

USCG E J Mackey

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT EV 70 SUBDIVISION C DATE 5/25/91

ADEC
NAME Peter Montesano SIGNATURE

NTR ☒ TREATMENT RECOMMENDED

The AP in area F+G was broken up, none removed. This oiling should have been left for later removal. It was well broken up and scattered.

Area Q has an AP area not entirely visible from the surface. This oil is well packed and glueing sediments together. Most of this is easily removable, and breaks up is appropriate for the rest. This oiling is made up of a hard layer protecting a mousse layer, which extends up into the grasses.

EXXON
NAME FRANK ABEL SIGNATURE FRANK ABEL

☐ NTR The oil in section G + F was broken-up or picked-up. The patch of Asphalt on section Q might be broken up & Bio'd.

LANDMANAGER
NAME Dennis S. Kennedy OF WSFS SIGNATURE D S. Kennedy

☐ NTR Location [F] had AP which was removed by crew.
Location [Q] - has the most workable oil, some is mixed with veg & roots. grass
Beach Rye Grass is invading this site.

USCG/NOAA NOAA D. SIMECEK BARRY Robert-Barry
NAME Bmi M P Zenone USCG SIGNATURE Bmi M P Zenone

☐ NTR VECO broke-up pavements within sectors F. In section Q, there is a small area of AP that could be broken up. However manual treatment may damage the beach grass that is growing within the pavement DJ-03

NO TREATMENT RECOMMENDED. Z

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 2

SEGMENT EV70

OG Reimer BIO Baird

SUBDIVISION 0

ADEC Montasano LANDMANAGER Kennedy for USFS

DATE 5 / 25 / 91

EXXON Box USCG/NOAA Zerbone Sincock-Beatty

TIME 17 : 25 to 19 : 20 TIDE LEVEL 2.92 ft. to 3.7 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELO WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1786 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M ~~20~~ 35 m N 19 m VL 453 m NO ~~514~~ 1299 m US 0 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						S					BR	H	0.5	3		X			
B	B										BR	H	0.5	1		X			
C						T					BR	H	0.5	80		X			
D						T					BC	M	10	80		X			
E	S			S		B					PG	M	2	15		X			
F	R										PG	M	1	3		X			REMOVED
G	T										PG	M	3	15		X			
H				S		S					BC	M	3	35		X			
I						S					R	V	0.25	50	X	X			
J						T					R	V	0.5	20		X			
K	T										PC	M	1.0	50		X			
L	S					S					RB	H	0.25	20		X			
M						T					BR	H	1.0	15		X			
N						T					PCB	M	2.0	60		X			
O	R										PCB	M	5.0	10		X			
P						S					CB	M	5.0	25		X			

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- 2 - 27 FRAMES 1-6

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							X	-					X			BCP-PG	
2	20							X	-					X			BCP-PG	
3	10							X	-					X			BCP-PG	
4	10		a		X				2-5	Y				X			B-PG-Rock	
5	15							X	-					X			P-PG-CB	
6	20							X	-					X			PC-GSP	
									-									
									-									
									-									

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

OG COMMENTS: Rocky / Boulder shoreline with two small near shore Islands forming tombolos. The nondern tombolo has dropped a fair bit of AP in Pebble across the UIT2. This was largly removed or Broken up. the Southern Island has two small pockets of AP on the northern Coast at the UIT2 in C/B (0,4). The remainder of the shoreline has sporadic CT (BTR) with random Tar balls.

REVISED: MC 5/29/91
reviewed 5.29.91

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 2

OG Reimer BIO BAN

ADEC Montansano LANDMANAGER Knowlton for USFS

EXXON Box USCG/NOAA Zaunbrecher/Simecek/Boggs

SEGMENT EV 70

SUBDIVISION G

DATE 5/25/91

TIME 17:25 to 19:20 TIDE LEVEL 2.92 ft. to 3.71 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1786 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 20 m N 19 m VL 453 m NO 314 m US 0 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	
Q	S					S					PCB	M	10	10		X			
R						S					R	V	0.5	3					

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

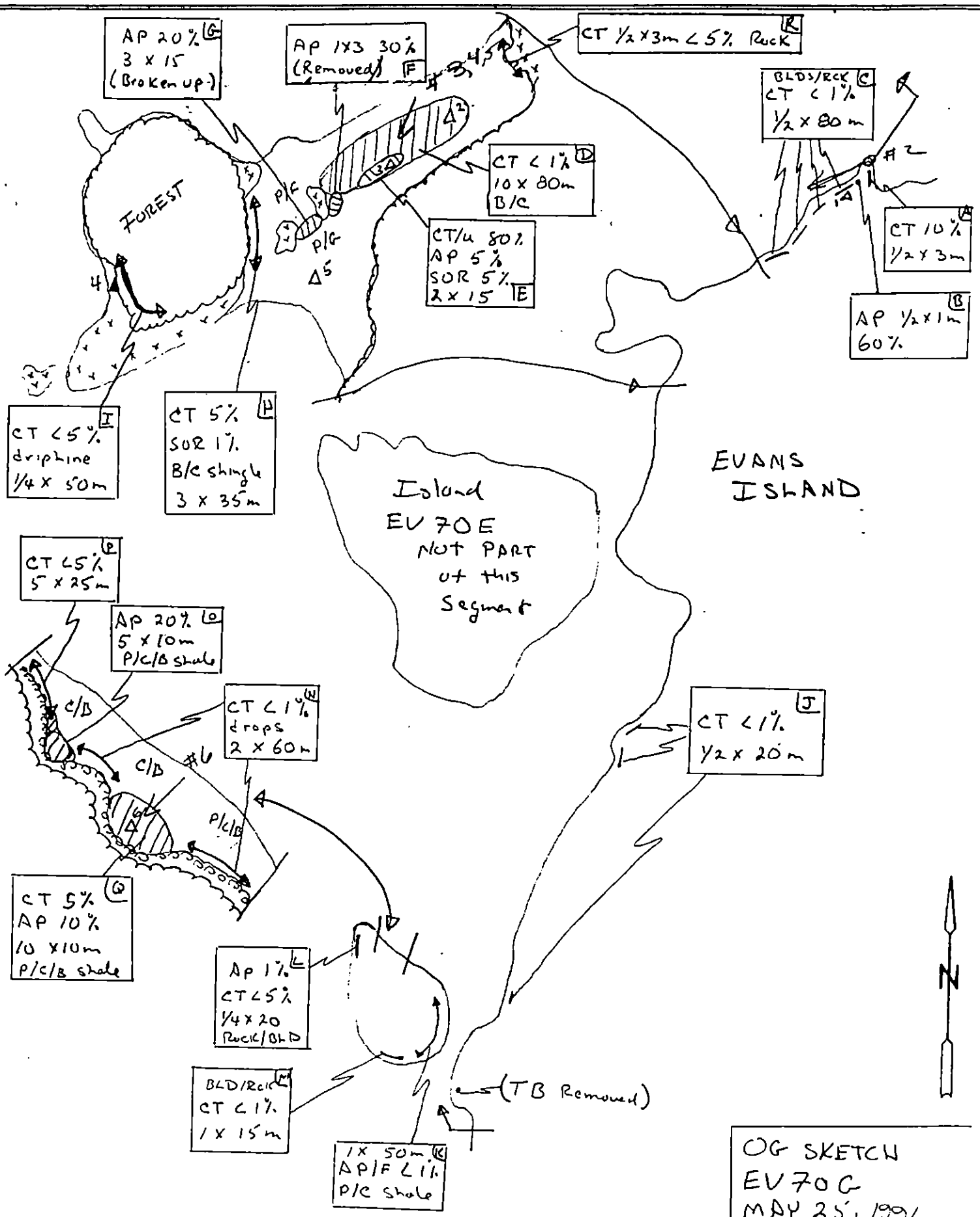
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP-_____-_____ FRAMES _____

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:

REVIEWED: MC 5/29/91
revised 5.29 9y



OG SKETCH
EV 70 G
MAY 25, 1991
17:25 - 19:20
Doug Reimer

REVISIONS: MC 5/29/91
reviewed 5.29 DJ

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	2	**DATE**	26 May 91
SEGMENT #	EU-206	**TIDAL HEIGHT (Range)**	3-4 ft
SUBDIVISION	G	**BIOLOGIST**	SMB+N
SEA STATE	1-2 ft	**WIND SPEED/DIRECTION**	5 kts
PHOTOGRAPHS: ROLL #	—	**FRAME #**	—

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

A: CT in barnacle zone, Fucus & Littorines nearby. Amphipods & Limpets under boulders in lower zones

B: AP near Littorines & Green Algae. lower zones as at "A"

C: CT high in ITZ, in lichen zone. Tide pools in lower zones and to the south support sculpins, limpets, chitons, Anemones etc

D: CT under boulders in the lichen to upper barnacle zone. Oiled barnacles observed in area. Pit #2 in lichen zone. Lower ITZ dense with Fucus & recent spat.

E: AP in lichen & green algae zone - beach grass nearby Lichen at Pit #3

F&G: AP in area with NO biota - rock outcrops nearby support Barnacles, & Fucus. A dense mussel bed is seaward of the outcrops

H&I CT in upper to mid ITZ in barnacle to Fucus zone NO oiled barnacles noted. Littorines near SOR.

J/K/L/M: CT in lichen to upper barnacle zone. AP also in barnacle zone. Lower ITZ has patchy Fucus, barnacles and mussels.

N: CT reaches to barnacle / Fucus zone

O&P: AP/CT in lichen zone. Mussel beds dense in lower ITZ

Q: CT on rock face in lichen zone reaching to upper edge of barnacles. NO oiled barnacles observed

→ If additional removal of AP is required near "D-G" avoidance of mussels in lower ITZ should be enforced

WILDLIFE OBSERVATIONS

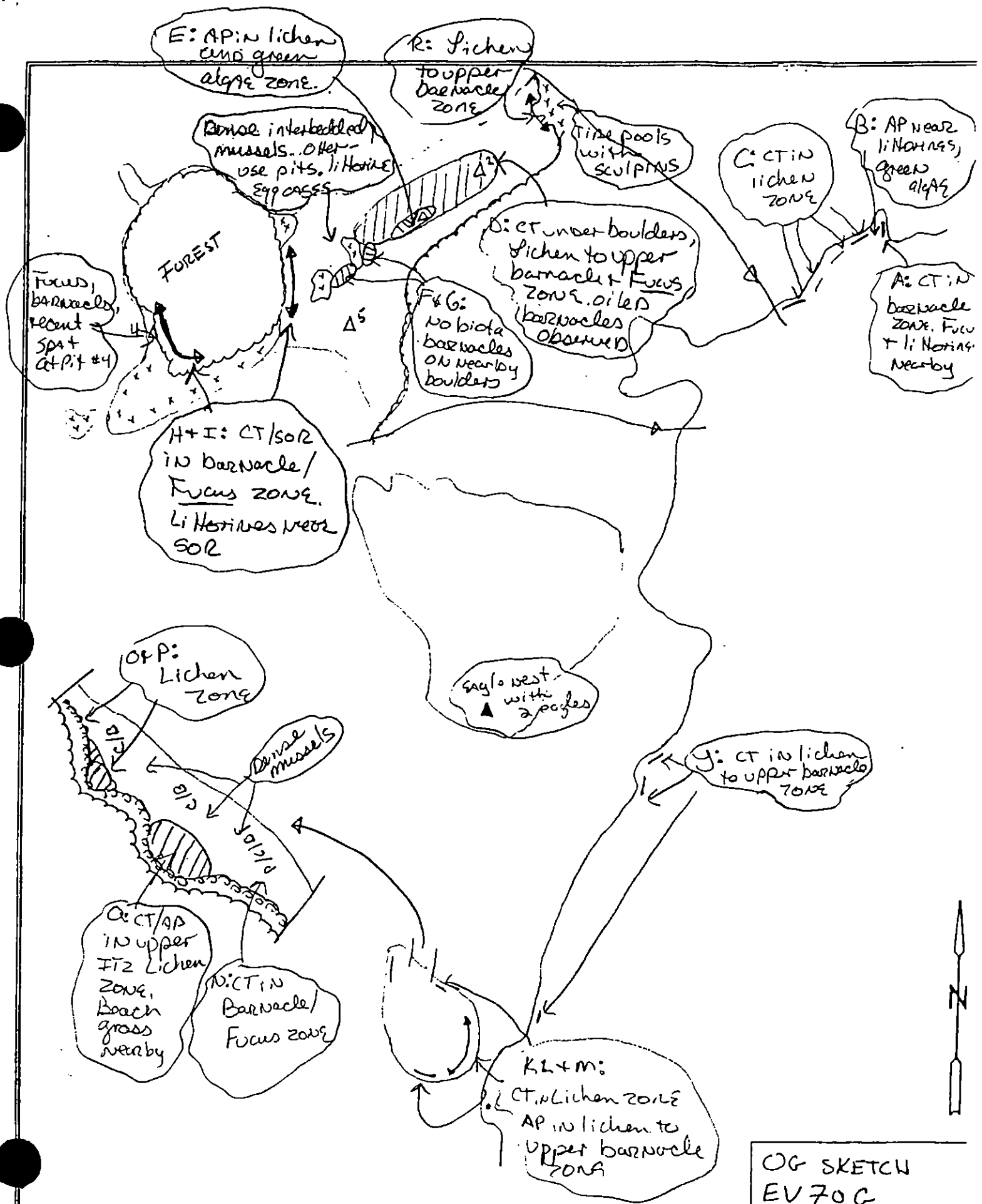
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	♂ + ♀	2	Sculpins
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	3 (with pups)		
Pinnipeds (specify)			
[illegible]es (specify)			

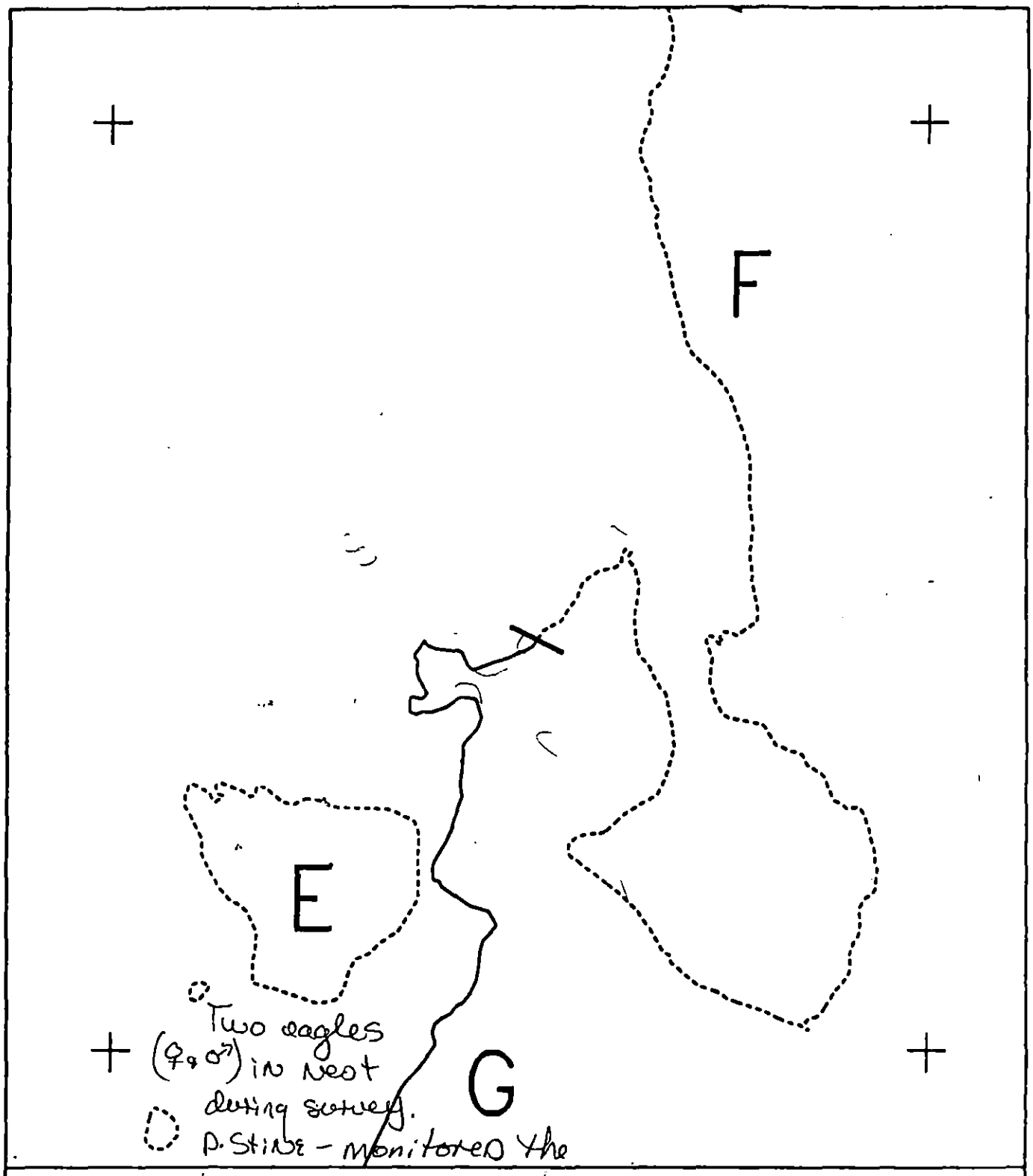
Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/29/91



OG SKETCH
EV 70 C
MAY 25, 1991
17:25 - 19:20

Reviewed M.B. 5/29/91



EV070 G

Subdivision Field Map

Map Key: PWSEV070Gd

Name: _____

Date: _____

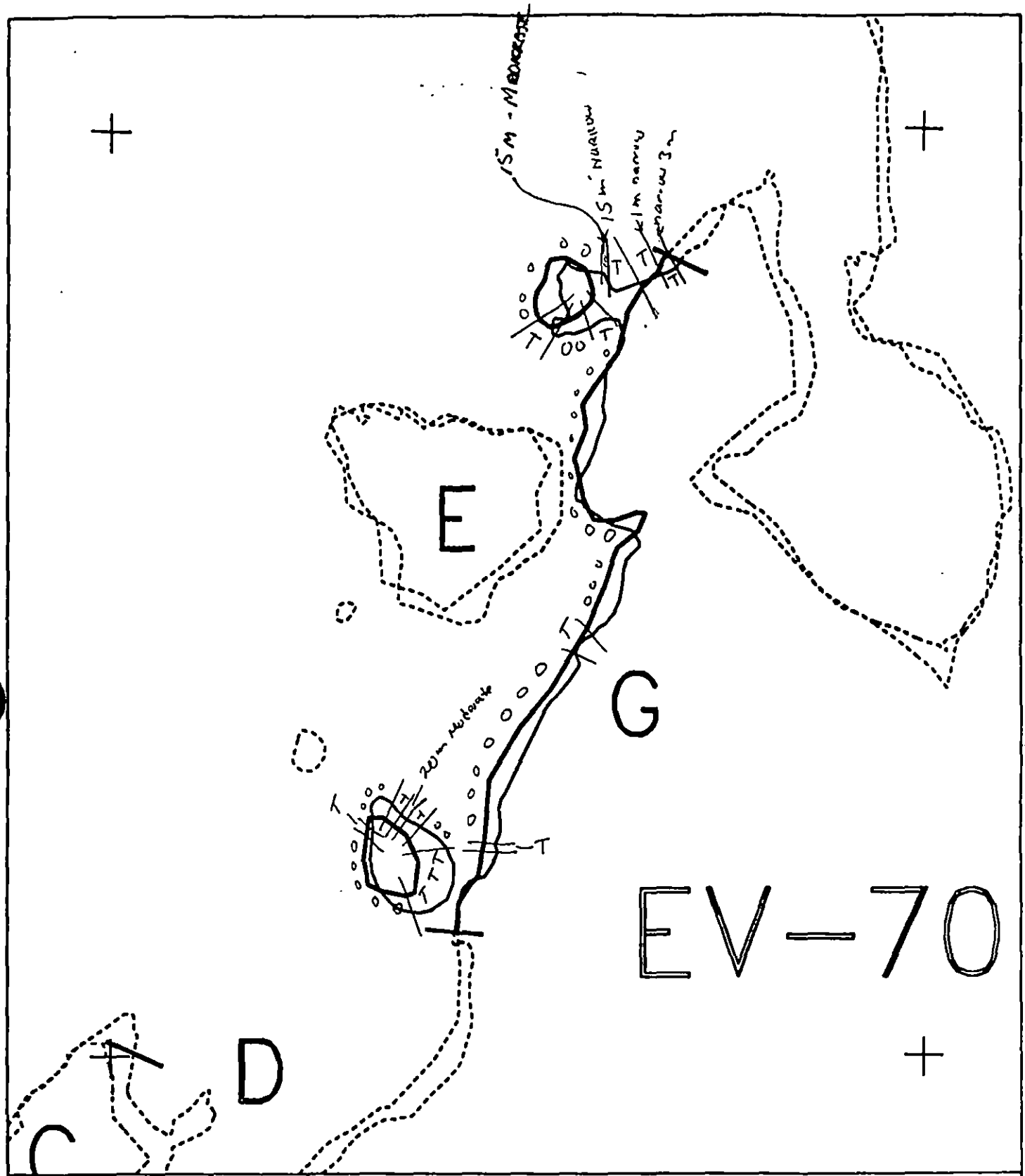
N

EXXON

METERS

200 400

AK State Plane Zone 4 pwsmap



XXXX	Wide	EV070 G	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 1786m	Map Key: PWSEV070G
----	Narrow	METERS	Name: Reino
TTTT	Very Light	0 200 400	Date: 5/25/91
0000	No Oil	AK State Plane Zone 4 nov070g	Date Entered:

EXXON

Revised: MC 5/29/91 reviewed 5.29.91

1991 MAYSAP EVALUATION

SEGMENT: EV 070 **SUB:** F **REGION:** PWS **SURVEY DATE:** 5/15/91

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

Ecological/Constraints (see page two for details) Eagle nest, Anadromous stream, Fish harvest area, Subsistence - Deer harvesting

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

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

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-no SUBDIVISION F DATE 5 / 15 / 91

ADEC
NAME John Hayes SIGNATURE [signature]

☒ NTR Bay has recovered well oiling observed is light & no treatment is needed here.

EXXON
NAME John Dean SIGNATURE [signature]

☑ NTR Natural cleansing continues to improve cosmetic appearance. Biota abundant & healthy.

LANDMANAGER
NAME Steve Ward OF CVC/FS SIGNATURE [signature]

☒ NTR A Lite sheen in one pit. no observable oil in pit
no oil Found - Entire Sub Washed
no Bio

USCG/NOAA
NAME DREHER / CLINE SIGNATURE CWO K.L. Dreher [signature]

☒ NTR Further clean up operations would cause more environmental harm than the oil to be removed.

No significant surficial oiling occurs in this subdivision. However, subsurface oil (MOR) exists @ oiling site A which should be treated.
DWC

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 70

ADEC HAYES LANDMANAGER WARD for CVC SUBDIVISION F

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 15 / 91

TIME 19 : 25 to 20 : 45 TIDE LEVEL 3.5 ft. to 2.5 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1623 m NEAR SHORE SHEEN: ☐ BR ☑ RB ☐ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W 10 m M — m N 4 m VL 90 m NO 1519 m US 1250 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				B				P			P	L	6	10		✓			
B				C							P	L	1	1		✓			
C								C			P	L	1	1		✓			Rainbow Sheen on Surface
D				C							P	L	1	1		✓			" " " "
E				B							PB	L	1	1		✓			" " " "
F						T					BC	H	5	20		✓			Splash on Bldr Ct.
G						T					BPC	M	5	70		✓			Splash on Bldr Ct.

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- 5 - 17 FRAMES 6-9

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	35							✓	-		—	—		✓			PG-PG	
2	30							✓	-		25	N			✓		PG-PGM	
3	30							✓	-		25	N			✓		PG-PGM	
4	35						✓		-		30	S		✓			GP-PGM	
5	30			✓					15-20	3.	10	BR		✓			GP-PGM	LENSE INDISTINCT
6	30							✓	-		15	N		✓			GP-PGM	
7	25							✓	-		15	N		✓			GP-PGM	
8	25							✓	-		—	—		✓			PG-PGM	
									-									

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

THE OILED LENSE IN PIT

OG COMMENTS: (5) WAS INDISTINCT DUE TO RAPID FLUSHING WITH WATER. BRIGHT RAINBOW SHEEN IN PIT. THE HIGHEST CONCENTRATION OF OIL OBSERVED WAS LOCATED ON THE WEST SIDE OF THE FALLEN TREE IN AREA (A). THE SEDIMENTS IN THIS AREA HAD A RAINBOW SHEEN WHEN WE FIRST OBSERVED THEM. AFTER DIGGING PIT (5) A BRIGHT BAND OF SHEEN SPREAD FROM THE HITZ TO THE WATER LINE. THESE AREAS MIGHT APPEAR LESS OILED ON A DRY DAY DUE TO LACK OF SHEEN.

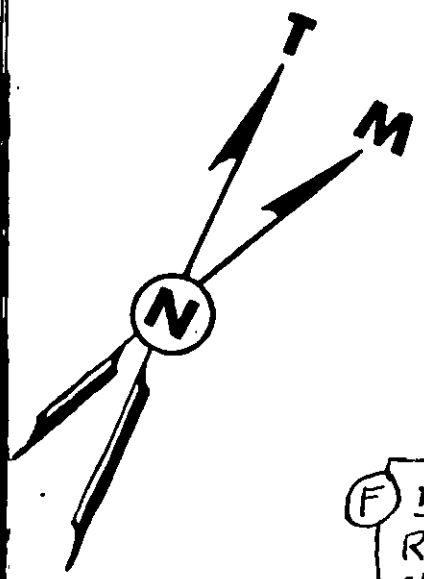
reviewed 5.19 9y

REVIEWED: MC 5/20/91

MA[illegible]P 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV 70-F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227
PIM-C 005-228

MAP 1 of 2

REVIEWED: MC 5/20/91
reviewed 5.19 gy



Prince of Wales Passage

EV 60 A

TREES

STREAMS

NO SURVEY

(G) 5 x 70 RANDOM DRIPS ON BOULDERS CT Tr.

EV 70 G

(F) 5x20m RANDOM DRIPS ON BOULDERS CT. Tr.

TREES

TREES

EVANS ISLAND

INSET 1

(E) 1x1m² SOR 60%

STREAM

GUGUAK BAY

(D) 1x1m SOR 100%

1 PATTIE AP PU

STREAMS

STREAM

1 PATTIE PU

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SEE INSET FOR AREAS (A) to (C) # PITS (1) to (6)

SCALE

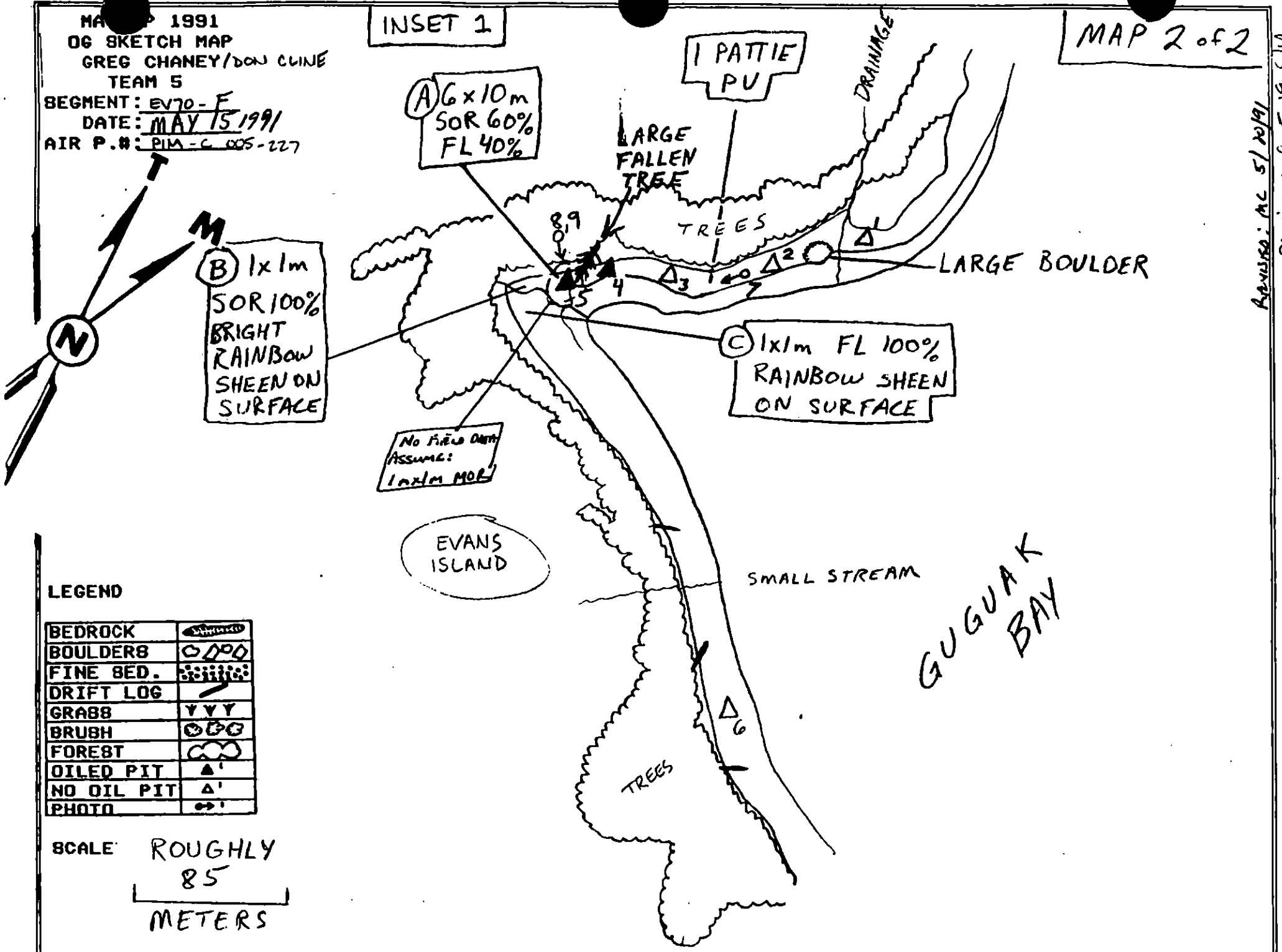
200 METERS

MA[illegible] 1991
OG SKETCH MAP
GREG CHANEY/DON CLINE
TEAM 5
SEGMENT: EV70-F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227

INSET 1

MAP 2 of 2

Reviewed: MC 5/20/91
Reviewed 5.19. GJ.



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE ROUGHLY 85 METERS

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5	**DATE** 15 May 1991
SEGMENT # EV-70	**TIDAL HEIGHT (Range)** +3.5 → +2.5
SUBDIVISION F	**BIOLOGIST** Crank
SEA STATE 0 → 1'	**WIND SPEED/DIRECTION** 5-10 knots/ll
PHOTOGRAPHS: ROLL #	**FRAME #**

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

(Pit 4) There is a rare concentration of barnacles around the pit cover. <1% of the surface sediments. One meter below the pit there is a sparse concentration of barnacles, mussels and Fucus covering ~10% of the surface sediments.

(A) Area is located low in the UITZ. Within the site there are Fucus and barnacles (with a recent spat settlement) covering 5% of the surface sediments. Two meters below the site Fucus dominates the surface cover. A sparse concentration of barnacles and mussels are also present. Biota cover is 50%. Sediments are soft near water's edge ~ +1' level, sinking under weights. Pit 5 is in area A.

(B) Area is in the high part of the UITZ, 1m north of a small stream. Barnacles are present within the site. Biota cover is <1%. The MITZ is similar to that described for area A. Fucus cover increases to 70% next to stream

(C) Area is in the UITZ. Sparsely concentrated barnacles that tightly sealed their inner plates when stimulated were present in site. Biota cover is 10%. MITZ species are the same as in A plus filamentous green algae. Biota cover is 30%.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	
Seabirds			
Waterfowl	2 Ducks / Canada Goose	24	
Gulls/Kittiwakes/Terns	2	16	
Shorebirds	2 Dunlin/Sanderlings	76	
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2	Deer	2
Pinnipeds (specify)	1 Harbor Seal		
Cetaceans (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed A.B. 5/19/91

Team # 5 Date 15 May 1997
Segment # EV-70 Tidal Height +3.5 → +2.5
Subdivision F Biologist Crank
Sea State 0→1' Wind Speed / Direction 5-10 knots/N

Comments (cont.)

(D) Area is located low in the UITZ. Sparsely concentrated barnacles and limpets and rare mussels are present in site. Biota cover is 10%. Directly below site, high in MITZ, biota cover is 30%. There is a dense Fucus bed at the +3' tide level with a moderate concentrat of Littorina, limpets and mussels. Biota cover is 70%. Sandpipers were feeding in the vicinity during survey.

(E) Area is located in the UITZ next to a small stream. Fucus is the dominant species; rare barnacles are also present. Biota cover is 20%. In the MITZ, Fucus is dense, barnacles are moderate; and filamentous green algae are present. Biota cover is 70%.

(F) Area is located high in the UITZ. Black lichen covers ~80% of the surface. In the MITZ, main biota present are patchy, dense barnacles and continuous, moderate Fucus. Biota cover is ~70%.

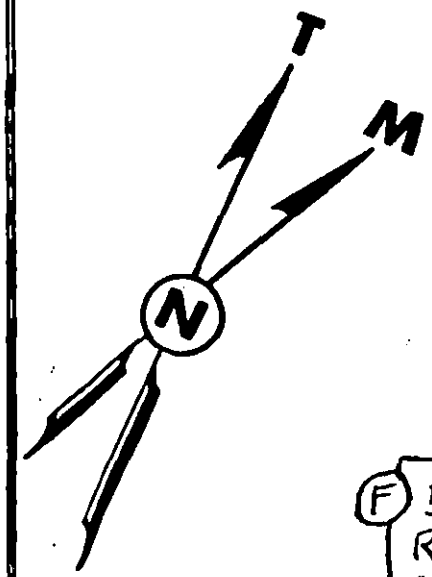
(G) Area is located in the UITZ. Barnacles cover ~5% of the surface sediments. Below site, in the MITZ there is a moderate concentration of barnacles, Fucus (with sporelings and maturing conceptacles) and mussels. Littorina are dense. Low in the zone is a clam bed. Biota cover is 70%.

Guguak Bay is a human use area for wildlife; Deer, waterfowl and shorebirds were observed during survey.

Reviewed M.B. 5/19/97

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY/DON CLINE
TEAM 5
SEGMENT: EV 70 - F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227
PIM-C 005-228

MAP 1 of 2



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
200
METERS

SEE INSET FOR AREAS (A) to (C) & PITS (1) to (6)

Prince of Wales Passage

EV 60 A

TREES

(G) 5 x 70 RANDOM DRIPS ON BOULDERS CT Tr.

Clam bed

NO SURVEY

Fucus has a dense concentration in association with streams.

STREAM

EV 70 G

(F) 5x20m RANDOM DRIPS ON BOULDERS CT. Tr.

TREES

EVANS ISLAND

INSET 1

GUGUAK BAY

(E) 1x1m² SOR 60%

STREAM

Sandpipers were observed feeding between the two streams

(D) 1x1m SOR 100%

1 PATTIE AP PU

STREAMS

STREAM

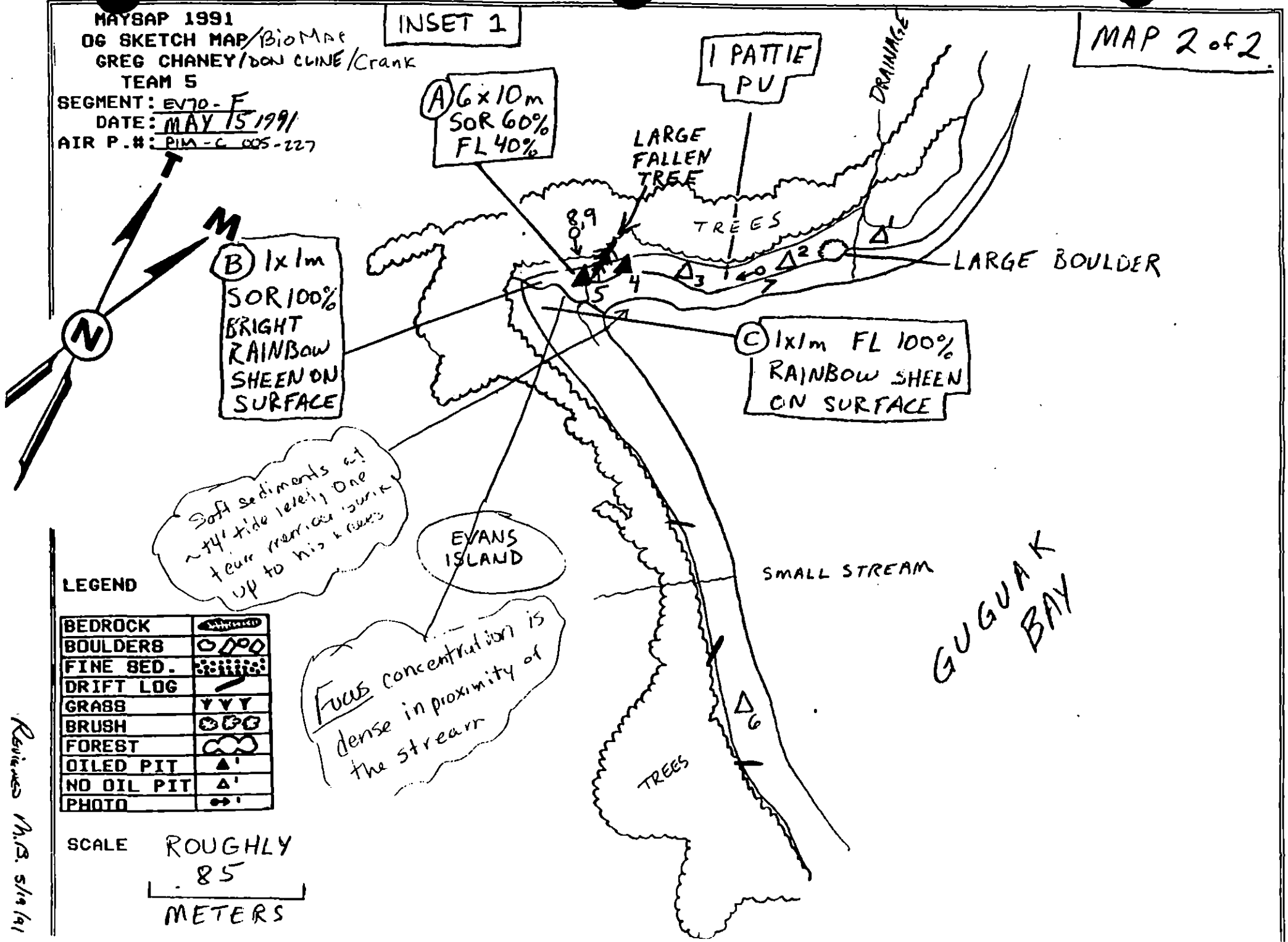
1 PATTIE PU

Reviewed 11.13.91 5/19/91

MAYSAP 1991
OG SKETCH MAP/BioMAP
GREG CHANEY/DON CLINE/Crank
TEAM 5
SEGMENT: EV70-F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227

INSET 1

MAP 2 of 2

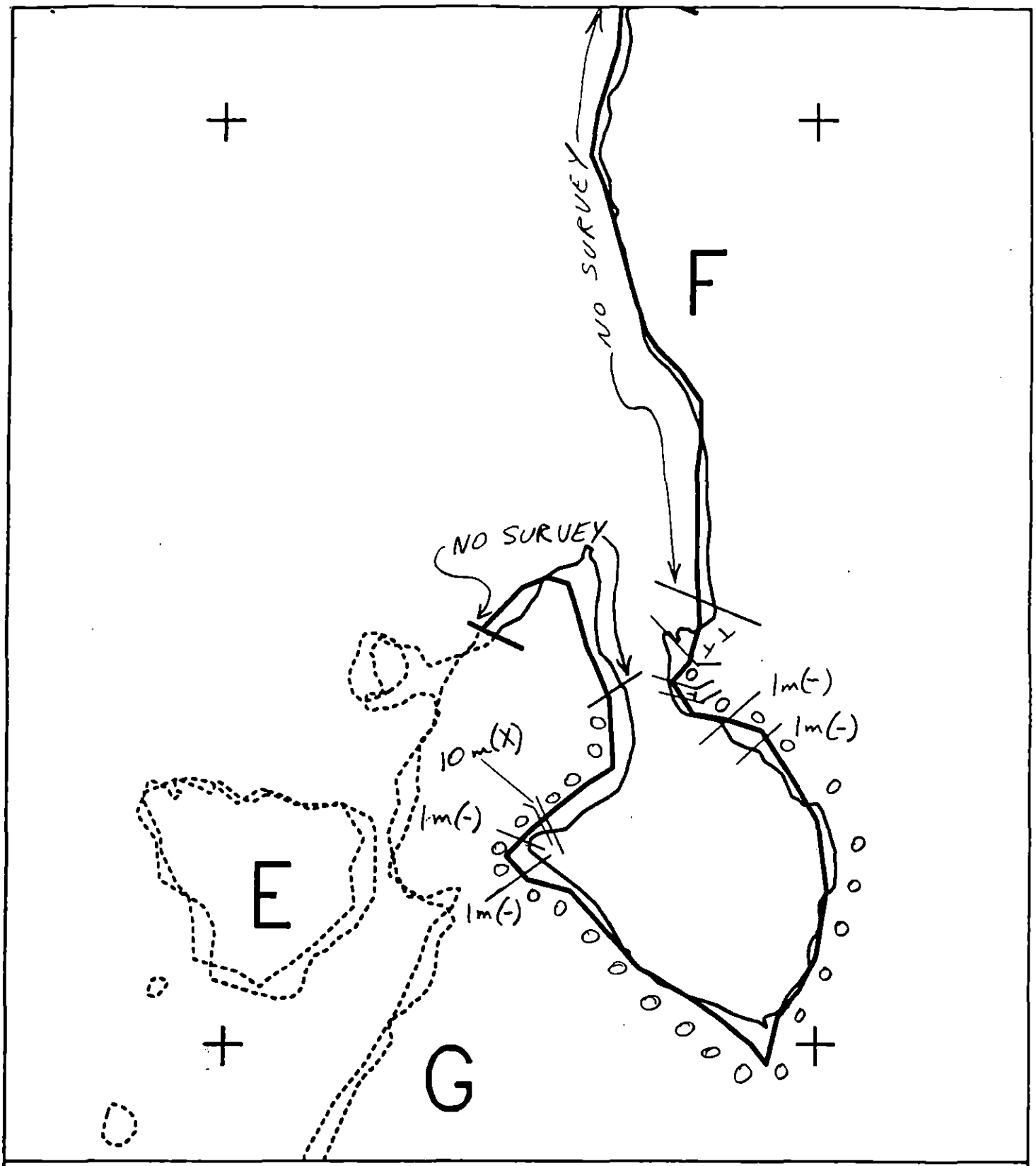


LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE ROUGHLY 85 METERS

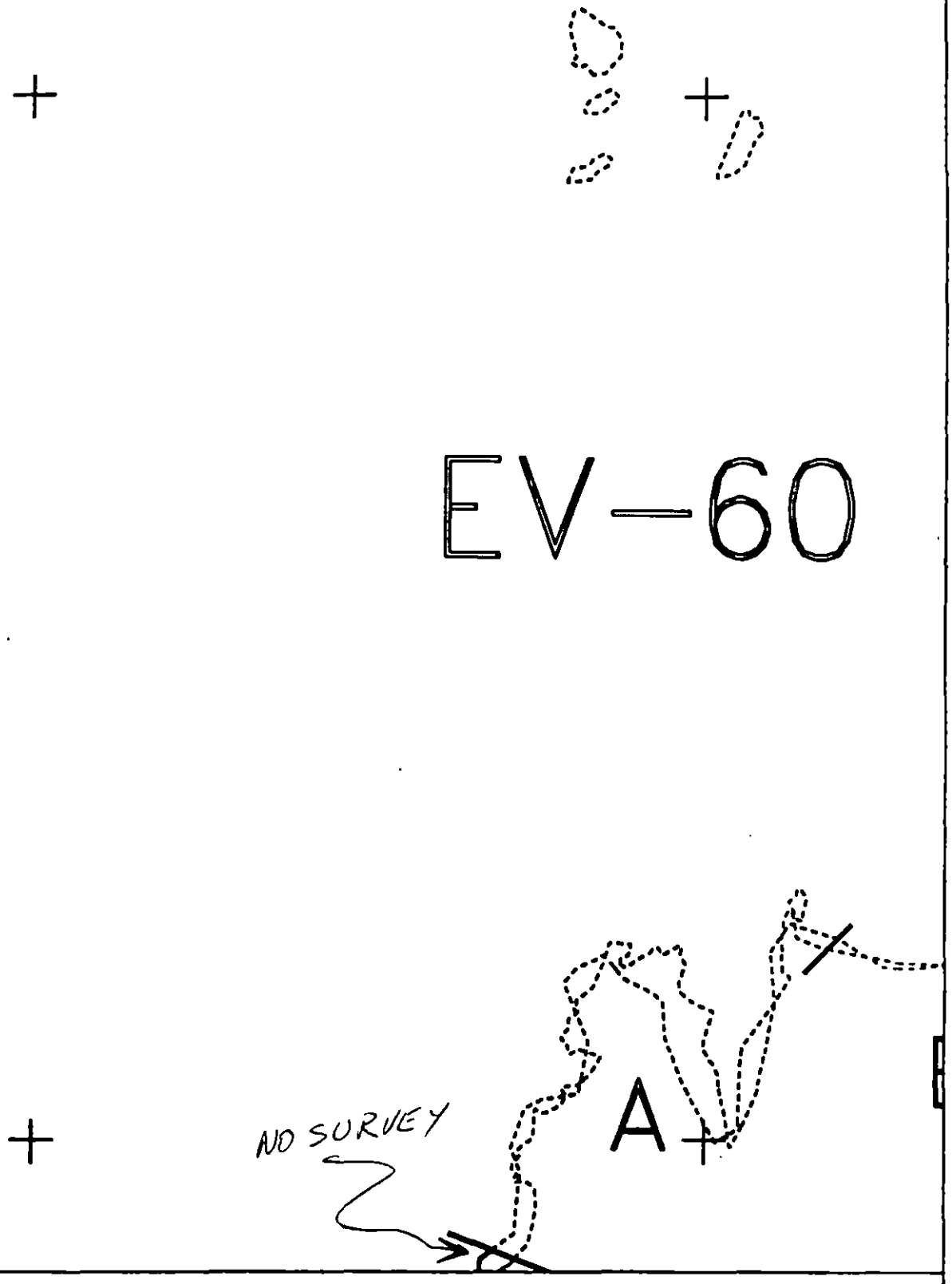
Reviewed M.B. 5/10/91



XXXX	Wide	EV070 F	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 2873m	Map Key: PWSEV070Fa
----	Narrow	METERS	Name: GREG CHANEY
TTTT	Very Light	0 200 400	Date: MAY 16 1991
0000	No Oil	AK State Plane Zone 4 pwsev070fa	Date Entered:

Reviewed: MC 5/20/91
reviewed 5.19 JY

EV-60



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

EV070 F

ADEC Subsegment Length: 2873m

METERS

0 200 400

AK State Plane Zone 4
pev070fb

N

EXXON

Subdivision Field Map

Map Key: PWSEV070Fb

Name: GREG CHANEY

Date: MAY 16 1991

Date Entered:

REVIEWED: MC 5/20/91

1991 MAYSAP EVALUATION

SEGMENT: EV 070 SUB: D REGION: PWS SURVEY DATE: 5/15/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN 5/1 - 8/15; RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Subsistence - Deer harvesting

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE:_____ FOSC APPROVAL DATE:_____

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

TEAM NO. 5 SEGMENT EV-70 SUBDIVISION D DATE 5/15/91

ADEC
NAME John Hayes SIGNATURE

☒ NTR Tide was too high to survey LITZ mussel bed area, oiling observed was light MTUITZ only had trace subsurface oiling. 1x2m area of MS/on rye grass in the STZ of this segment No treatment recommended at this time.

EXXON
NAME JOHN DEAN SIGNATURE

☑ NTR LITTLE EVIDENCE OF OILING PRESENT, NONE RECOVERABLE

LANDMANAGER
NAME Steve WARD OF CUC/FS SIGNATURE

☒ NTR This Area Recovering Very Well, Very Little History of oil But what was there is just About gone. no trash seen. one pit showed a Lite sheen, But no observable oil could be Found
No Bio.

USCG/NOAA
NAME DREHER/CLINE SIGNATURE CWO K.L Ulcher

☒ NTR Small splash of hard asphaltic residue found in supratidal.

Oiling is insignificant in this subdivision. Subsurface oiling was expected, but none was found. I don't recommend any further treatment.
Doc

TEAM NO. 6

OG CHANEY BIO CRANK SEGMENT EV 70

ADEC HAYES LANDMANAGER WARD for CUC SUBDIVISION D

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 15 / 91

TIME 12 : 10 to 12 : 50 TIDE LEVEL +4 ft. to 6.5 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 229 + m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 57 60 m NO 172 164 m US 50 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA WIDTH	AREA LENGTH	ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	VHML	m	m	S	UI	MI	LI	
A	T				T	T	T				BC	M	5	20		✓			BETWEEN BOULDERS
B	T				T	T	T				BC	M	8	10		✓	✓		3-4 Patties small
C						T					BR	H	3	15		✓			FEW SPLASHES
D	T					T					BC	M	3	10		✓			Random splashes
E	T				T	T			S		BP	M	58	52	✓				Oiled grass between boulders

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- 5 - 17 FRAMES 1-5

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
1	15							✓	-		—	—		✓			BC-BCG	
2	20							✓	-		—	—		✓			BC-BCG	
3	25							✓	-		10	N			✓		C-GCP	
4	20							✓	-		0	N			✓		C-GCP	
5	25							✓	-		0	N		✓			P-CPGB	
6	15							✓	-		0	N		✓			BC-CPM	
7	30							✓	-		10	N		✓			CP-CPM	
8	25							✓	-		5	N			✓		C-PCG	
9	30					✓			?-	?	0	N		✓			P-PG	HORIZON UNKNOWN DUE TO WATER FLUSHING PIT

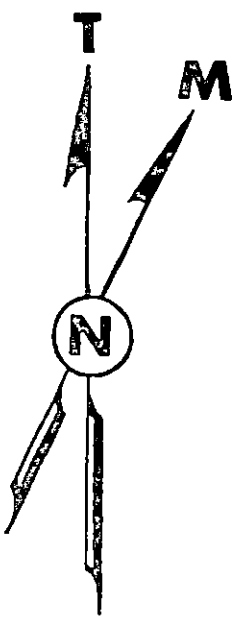
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS: FEW SPLASH CT & CV REGIONS REMAIN. SCATTERED SMALL PATTIES WERE ALSO FOUND IN AREAS (A)(B)(D)(E). THE ONLY SUBSURFACE OIL WAS FOUND IN PIT 9. AN OIL FILM WAS OBSERVED ON THE SEDIMENTS BUT HORIZON WAS IMPOSSIBLE TO DETERMINE DUE TO RAPID FLUSHING OF PIT WITH GROUND WATER. SUBSURFACE OILING DID NOT SEEM FAR BEYOND THE LOCAL AREA OF PIT 9.

reviewed 5.19 gy
REVISED: 5-20 mc

MAY 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV 70 D
DATE: MAY 15 1991
AIR P.#: PIMC 005 225

PRINCE OF WALES PASSAGE



FOREST

N° SURVEY

FALLEN TREE

A 5x20m
AP, CV, CT, ST
TRACE: SPLASHES & PATCHES BETWEEN BOULDERS

C 3x15m
CT TRACE
FEW SPLASHES
ON BOULDERS

B 8x10m
AP, CV, CT, ST
TRACE: SPLASHES
AND 3 to 4 PATTIES

D 3x10m AP & CT
TRACE REMNANT
PATTIES AND SPLASHES

SILVER SHEEN ON
SEDS IN PIT BUT
IT RAPIDLY FILLED
WITH WATER

E 5x2m
AP, CV, CT
TRACE
OILED GRASS ~1%
"HAND FULLS" OF OILED GRASS IN BEDROCK
CRACKS AND BETWEEN BOULDERS

EV 70 D

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 m

Reviewed: Spo MC reviewed 6.19 gg

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5 | DATE 15 May 1991

SEGMENT # EV-70 | TIDAL HEIGHT (Range) +4 ⇒ +6.5

SUBDIVISION D | BIOLOGIST Frank

SEA STATE 1' | WIND SPEED/DIRECTION 15 kts / N

PHOTOGRAPHS: ROLL # | FRAME #

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

A MIT2 [illegible] the site. The site [illegible] upper boulders & cobbles, barnacles, sparse Littorina and sparse limpets. Biota cover is ~20%. Some barnacle shells are oil stained on mid tide & scattered throughout upper strandline. Region 2 m below the site to the water's edge there is a sparse Fucus colonization with sporelings and maturing conceptacles; a sparsely concentrated intercobble mussle bed with various age classes; a sparse to moderate barnacle concentration with a cover of peat settled at and moderate Littorina and limpets. Biota cover is ~40%.

(B) Site is west of the tombolo, located in the MIT2 and MIT2. Species and biota concentrations are similar to site A.

(C) Site is east of the tombolo, located in the MIT2. Fucus is rare, both sporelings and maturing conceptacles are present. Barnacles are also rare. Littorina and limpets are sparse. Biota cover is ~10%. In the MIT2, beginning 1m below site, Fucus concentration increases covering 30% of the surface sediments and up to 80% on a rock outcrop near the water's edge (~5' tide). Between the site and the rock outcrop there is a sparse mussel bed with overlaying Fucus, Odonthalia and Ulva. A peat layer is present under the mussel bed.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	
Seabirds	1	1	
Waterfowl	1	2	
Gulls/kittiwakes	2	2	
Shorebirds			
Corvids	2	2	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	3 (incl.		
Pinnipeds(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Rev 1 '91 SM

Team # 5 Date: 15 May 1997 pg 2 of 6
Segment # EV-70 Tidal Height +4 → +6
Subdivision D Biologist Crank
Sea State 1' Wind Speed / Direction 15 knots/N

Comments (cont.)

(D) Area is located in the UITZ. There is an approximate 1% biota cover within the site including barnacles, black lichen, littorina snails and limpets. Two meters below the site barnacles are dominant species with a moderate concentration covering ~40% of the surface sediments. Sparse mussels and moderate concentrations of Littorina and limpets are also present.

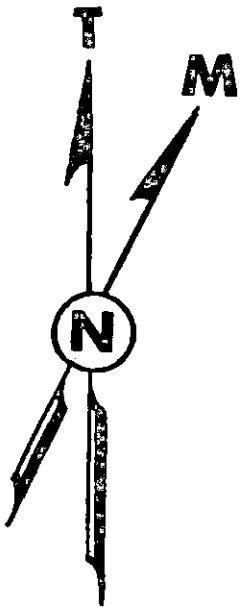
Pit #9 Subsurface silt in the UITZ. There are a few barnacles present in the site covering none to <1% of the surface. Four meters below the pit Fucus has a sparse to moderate concentration, barnacles are sparse, and Littorina are sparse with various age classes present. Biota cover is ~50%.

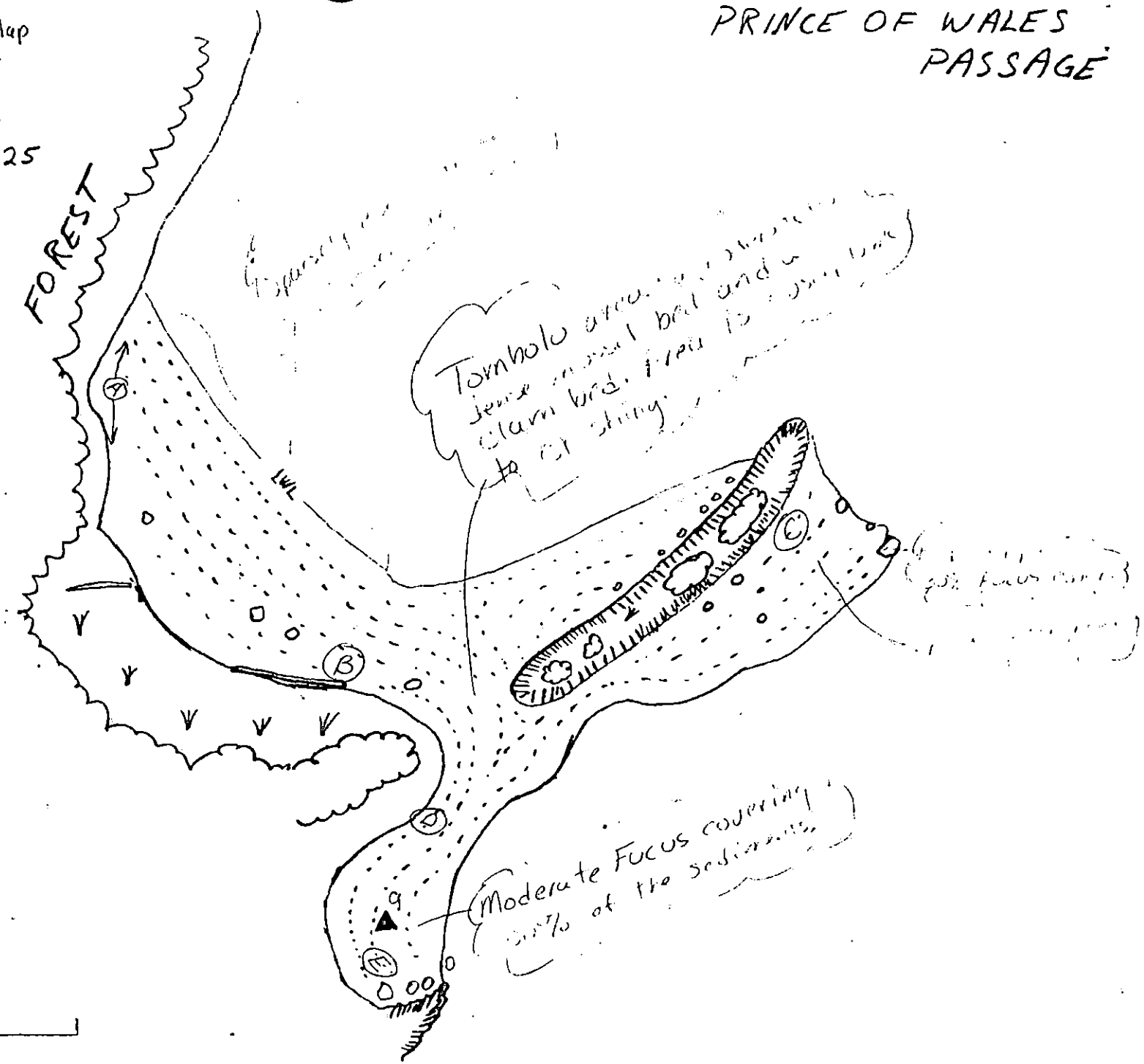
(E) Area is located in the SUPRA on cobbles and boulders. Black lichen is encrusted into ~60% of the sediment surfaces. Rye grass, moss and white lichen are also present covering ~30% of the area. Five meters below the site there is a moderate Fucus pocket covering ~50% of the surface.

This subdivision has a tombolo. Biota on the tombolo include a clam bed with Saxidomus, Protothaca & Tresus (young clams <2 yrs old were found); a moderate to dense mussel bed. The beds are susceptable to trampling; access should be restricted.

MAYSAP 1991
OG SKETCH MAP Bio Map
GREG CHANEY & Crank
TEAM 5
SEGMENT: EV 70 D
DATE: MAY 15 1991
AIR P.#: PIMC 005 225

PRINCE OF WALES PASSAGE

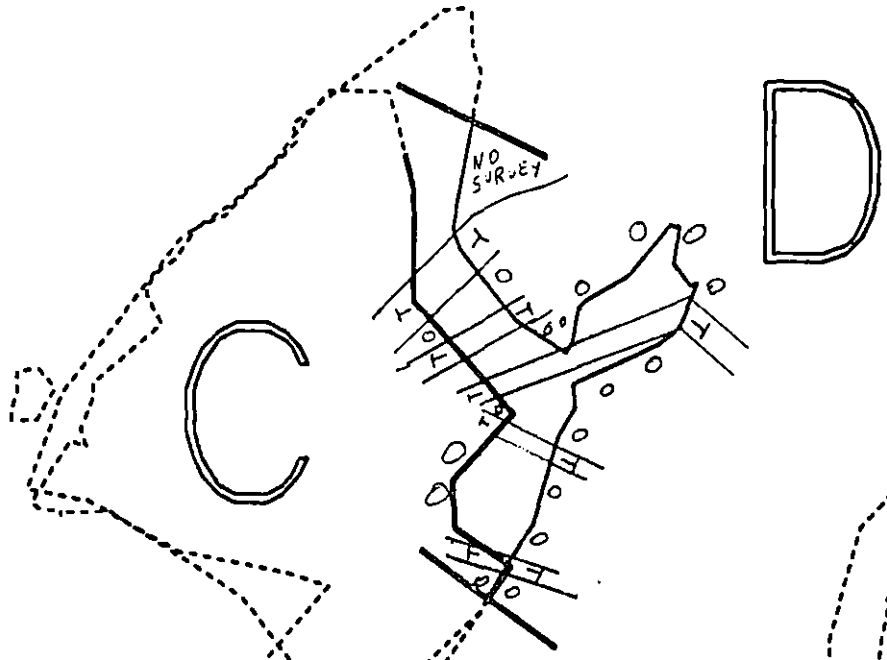




LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 m



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

EV070 D

ADEC Subsegment Length: 279m

METERS

0 100 200

AK State Plane Zone 4
nad27cd

N

EXXON

Subdivision Field Map

Map Key: PWSEV070D

Name: CHANEY

Date: MAY 15 1991

Date Entered:

Reviewed: 5-20 mc
reviewed 5.19 gz

1991 MAYSAP EVALUATION

SEGMENT: EV 070 **SUB:** G **REGION:** PWS **SURVEY DATE:** 5/25/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area, Subsistence - Deer harvesting

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

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

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT EV 70 SUBDIVISION C DATE 5/25/91

ADEC
NAME Peter Montesanti SIGNATURE

NTR ☒ TREATMENT RECOMMENDED

The AP in area F+6 was broken up, none removed. This oiling should have been left for later removal. It was well broken up and scattered.

Area Q has an AP area not entirely visible from the surface. This oil is well packed and glueing sediments together. Most of this is easily removable, and break up is appropriate for the rest. This oiling is made up of a hard layer protecting a mousse layer, which extends up into the grasses.

EXXON
NAME FRANK ABEL SIGNATURE

☐ NTR The oil in section G + F was broken up or picked up. The patch of Asphalt on section Q might be broken up + picked.

LANDMANAGER
NAME Dennis S. Kennedy OF WSFS SIGNATURE D S. Kennedy

☐ NTR Location [F] had AP which was removed by crew.
Location [Q] has the most workable oil, some is mixed with veg & grass roots.
Beach Rye Grass is invading this site.

USCG/NOAA NOAA D. SIMECEK ~~BARRY~~ Admiral-Retired
NAME Brian M P ZENONE USCG SIGNATURE

☐ NTR VECO broke up pavements within area F. On section Q, there is a small area of AP that need is broken up. However manual treatment may damage the beach grass that is growing within the pavement D3-03

- NO TREATMENT RECOMMENDED. Z

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 2

SEGMENT EV70

OG Reimer BIO BAIS

SUBDIVISION A

ADEC Montasano LANDMANAGER Kennedy for USFS

DATE 5/25/91

EXXON Box USCG/NOAA Zerone Sinnett-Beatty

TIME 17:25 to 19:20 TIDE LEVEL 2.92 ft. to 3.7 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELO WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1786 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M ~~35~~ 20 m N 19 m VL 453 m NO ~~1299~~ 1574 m US 0 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						S					BR	H	0.5	3		X			
B	B										BR	H	0.5	1		X			
C						T					BR	H	0.5	80		X			
D						T					BC	M	10	80		X			
E	S			S		B					PG	M	2	15		X			
F	R										PG	M	1	3		X			REMOVED
G	T										PG	M	3	15		X			
H				S		S					BC	M	8	35		X			
I						S					R	V	0.25	50	X	X			
J						T					R	V	0.5	20		X			
K	T										PC	M	1.0	50		X			
L	S					S					RB	H	0.25	20		X			
M						T					BR	H	1.0	15		X			
N						T					PCB	M	2.0	60		X			
O	P										PCB	M	5.0	10		X			
P						S					CB	M	5.0	25		X			

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- 2 - 27 FRAMES 1-6

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	20							X	-					X			BCP-PG	
2	20							X	-					X			BCP-PG	
3	10							X	-					X			BCP-PG	
4	10		•		X				2-5	Y				X			B-PG-Rock	
5	15							X	-					X			P-PG-GB	
6	20							X	-					X			PC-GSP	
									-									
									-									
									-									

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

OG COMMENTS: Rocky / Boulder shoreline with two small near shore Islands forming tombolos. The northern tombolo has dropped a fair bit of AP in Pebble across the UIT2. This was largely removed or Broken up. The Southern Island has two small pockets of AP on the northern Corner at the UIT2 in C/B (0,4). The remainder of the shoreline has sporadic CT (BTR) with random Tar balls.

REVISED: MC 5/29/91
reviewed 5.29 9J

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 2

SEGMENT EV 70

OG Reimer BIO Ban

SUBDIVISION G

ADEC Montansano LANDMANAGER Kennedy for USFS

DATE 5/25/91

EXXON Box USCG/NOAA Zerbonia/Simacek/Beaty

TIME 17:25 to 19:20 TIDE LEVEL 2.92 ft. to 3.71 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELO WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1786 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 20 m N 19 m VL 453 m NO 1314 m US 0 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	
Q	S					S					PCB	M	10	10		X			
R						S					R	V	0.5	3					

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

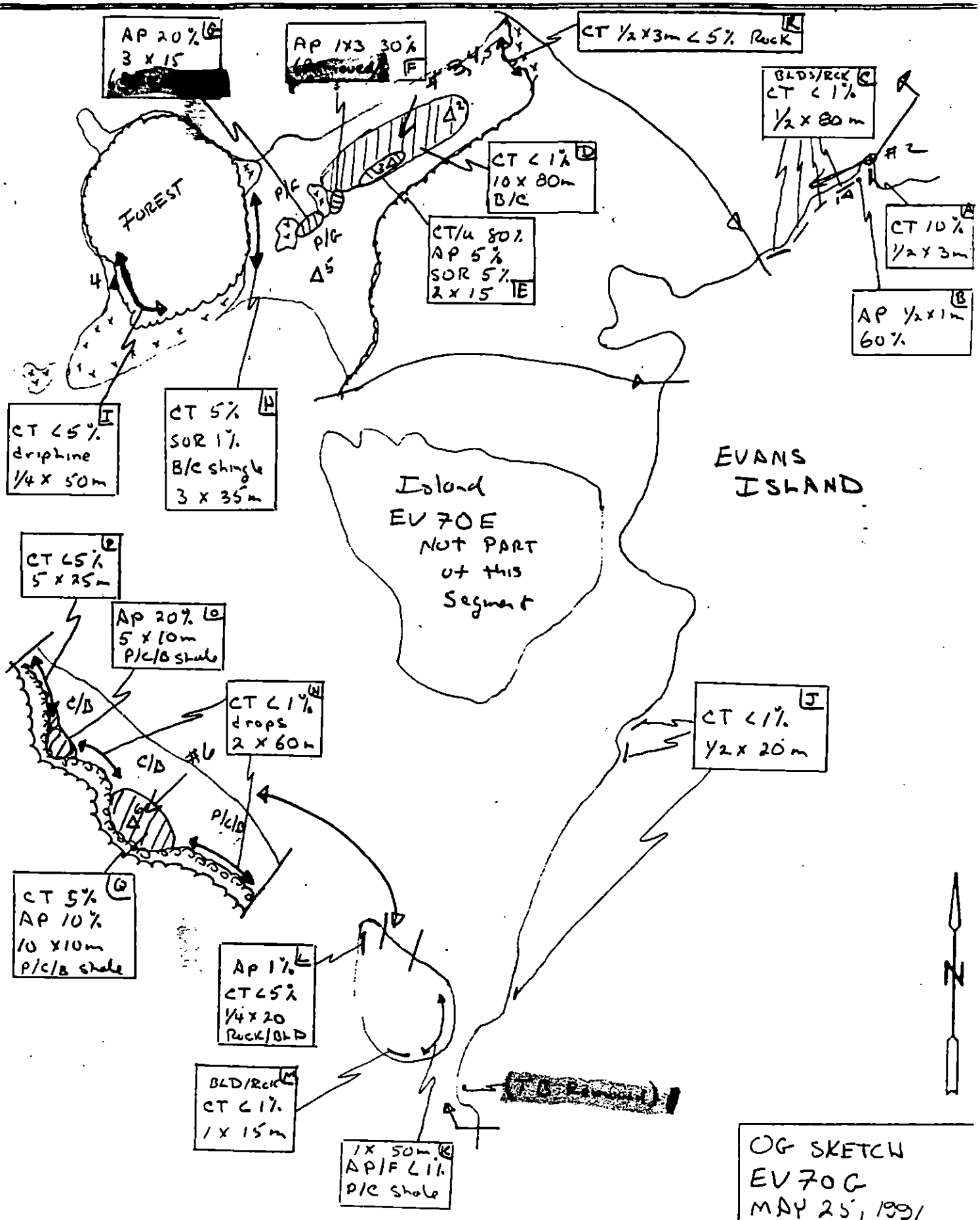
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP-_____-_____ FRAMES _____

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:

Reviewed: MC 5/29/91
revised 5.29 9y



OG SKETCH
EV 70 G
MAY 25, 1991
17:25 - 19:20
Doug Reimer

REVIEWED: MC 5/29/91
reviewed 5.29 9J

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM #	2	**DATE**	26 May 91
SEGMENT #	EU = 206	**TIDAL HEIGHT (Range)**	3-4 ft
SUBDIVISION	G	**BIOLOGIST**	SMB+N
SEA STATE	1-2 ft	**WIND SPEED/DIRECTION**	5 kts
PHOTOGRAPHS: ROLL #	—	**FRAME #**	—

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

A: CT in barnacle zone, Fucus & Littorines nearby. Amphipods + Limpets under boulders in lower zones
B: AP near Littorines + Green Algae. Lower zones as at "A"
C: CT high in ITZ, in lichen zone. Tide pools in lower zones and to the south support sculpins, limpets, chitons, anemones etc
D: CT under boulders in the lichen to upper barnacle zone. Oiled barnacles observed in area. Pit #2 in lichen zone. Lower ITZ dense with Fucus + recent spat.
E: AP in lichen/green algae zone - beach grass nearby. Lichen at Pit #3
F+G: AP in area with no biota - rock outcrops nearby support Barnacles, + Fucus. A dense mussel bed is seaward of the outcrops
H+I CT in upper to mid ITZ in barnacle to Fucus zone. No oiled barnacles noted. Littorines near SOR.
J K L M: CT in lichen to upper barnacle zone. AP also in barnacle zone. Lower ITZ has patchy Fucus, barnacles and mussels.
N: CT reaches to barnacle / Fucus zone
O P Q: AP/CT in lichen zone. Mussel beds dense in lower ITZ
R: CT on rock face in lichen zone reaching to upper edge of barnacles. No oiled barnacles observed

→ If additional removal of AP is required near "D-G" avoidance of mussels in lower ITZ should be enforced

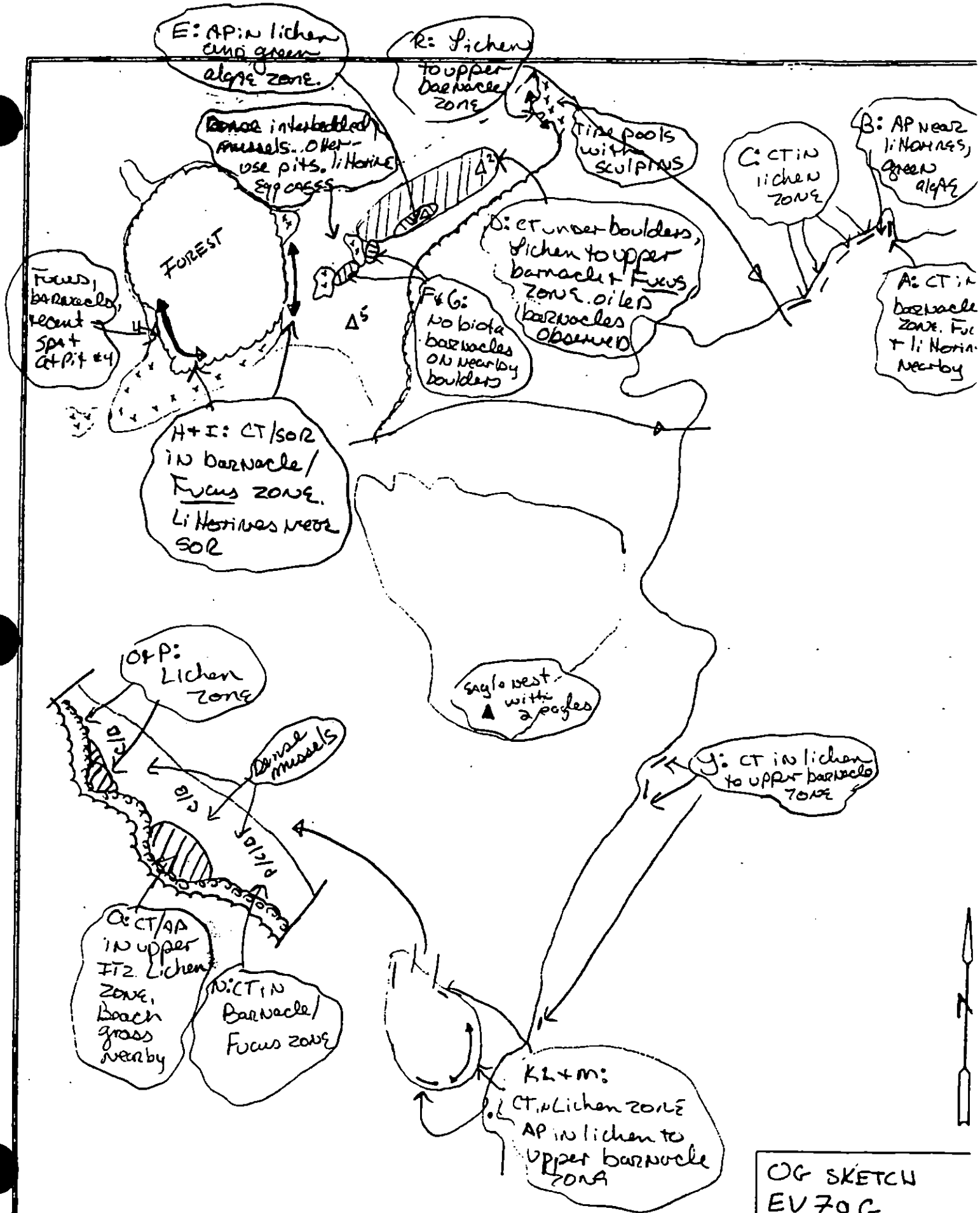
WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	♂ + ♀	2	Sculpins
Seabirds			
Waterfowl			
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	3 (with pups)		
Pinnipeds (specify)			
les (specify)			

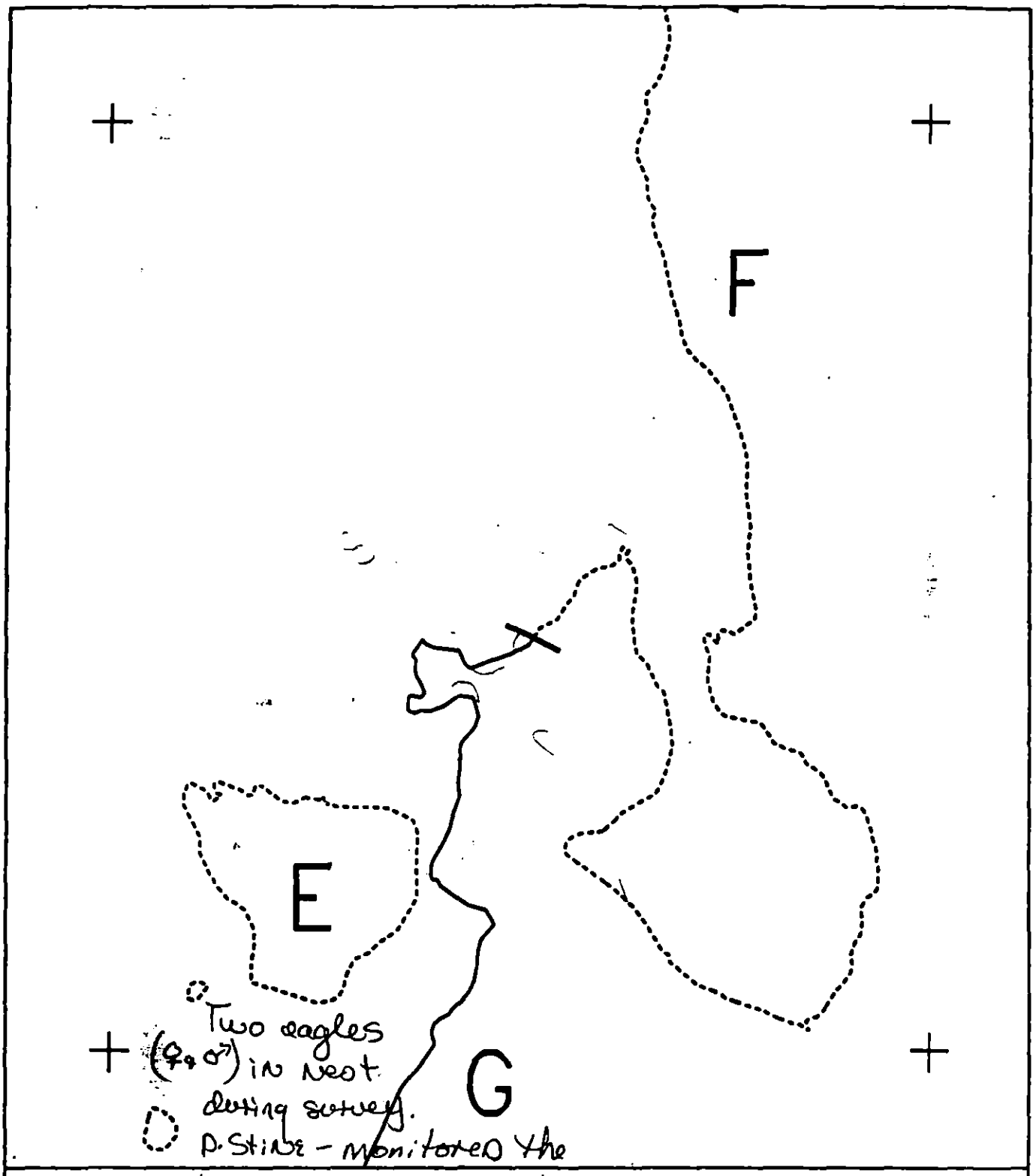
Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/29/91



OG SKETCH
EV 70 C
MAY 25, 1991
17:25 - 19:20

Reviewed M.B. 5/29/91



EV070 G

Subdivision Field Map

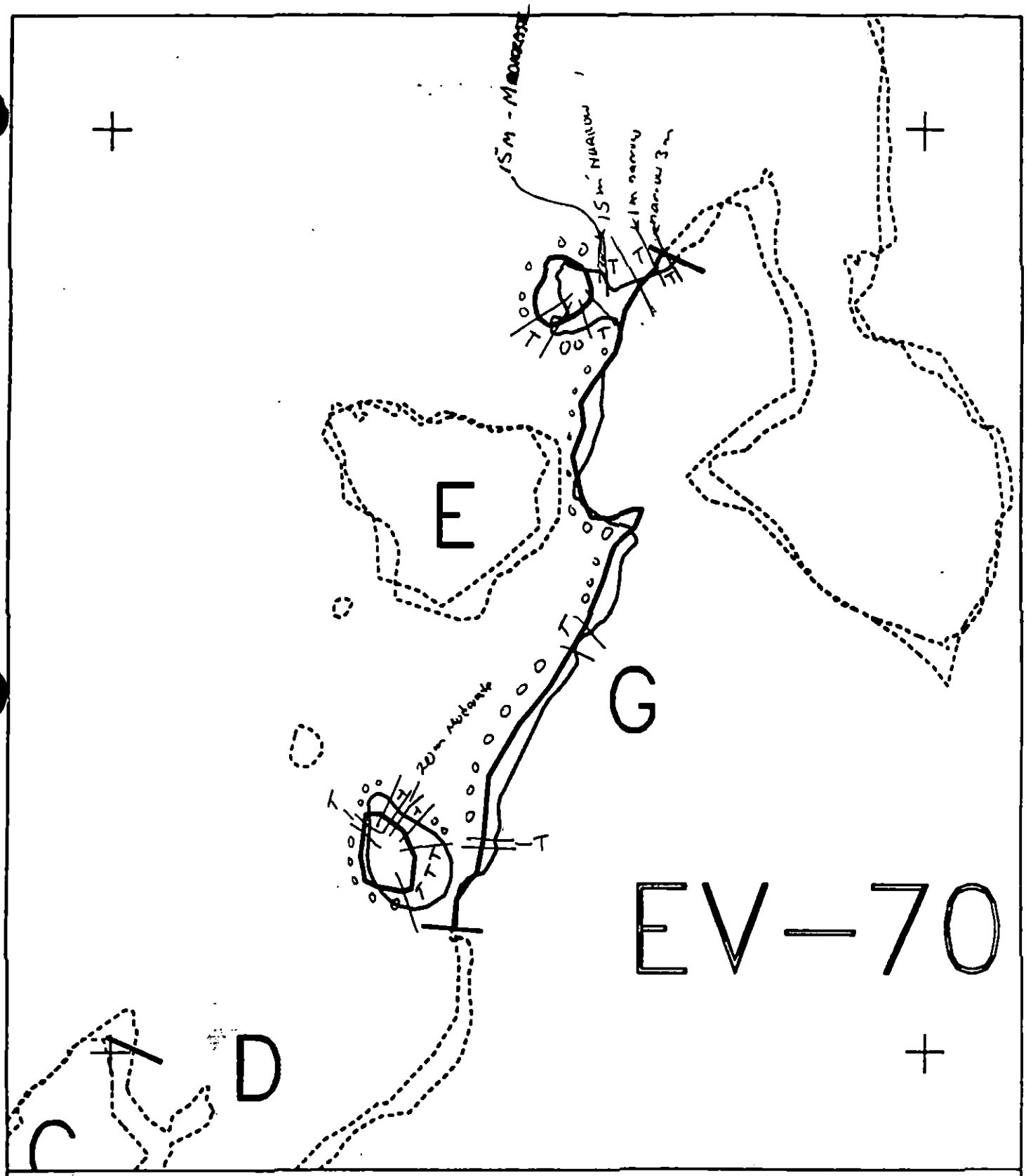
Map Key: PWSEV070G

Name: _____

Date: _____

EXXON

All State Plane Zone 4 Feet



XXXX	Wide	EV070 G
////	Medium	ADEC Subsegment Length: 1786m
----	Narrow	METERS
TTTT	Very Light	0 200 400
0000	No Oil	AK State Plane Zone 4 pev070g

N

EXXON

Subdivision Field Map
Map Key: PWSEV070G
Name: Reino
Date: 5/25/91
Date Entered:

Revised: MC 5/29/91 reviewed 5.29 gy

1991 MAYSAP EVALUATION

SEGMENT: EV 070 SUB: F REGION: PWS SURVEY DATE: 5/15/91

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

Ecological/Constraints (see page two for details) Eagle nest, Anadromous stream, Fish harvest area, Subsistence - Deer harvesting

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

SHPO Signature: [signature] Date: 5/30/91

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 29 1991 FOSC APPROVAL DATE: 6/5/91

ADEC [signature]

EXXON [signature]

USCG [signature]

NOAA [signature]

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

/

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.

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-70 SUBDIVISION F DATE 5 / 15 / 91

ADEC
NAME John Hayes SIGNATURE [signature]

☒ NTR

Bay has recovered well oiling observed is light & no treatment is needed here.

EXXON
NAME JOHN DEAN SIGNATURE [signature]

☑ NTR NATURAL CLEANSING CONTINUES TO IMPROVE COSMETIC APPEARANCE. BIOTA ABUNDANT & HEALTHY.

LANDMANAGER
NAME Steve WARD OF CUC/FS SIGNATURE [signature]

☒ NTR A Lite sheen in one pit. no observable oil in pit
no oil Found - Entire Sub Walked
no Bio

USCG/NOAA
NAME DREHER / CLINE SIGNATURE CWO K.L. Dreher [signature]

☒ NTR Further cleanup operations would cause more environmental harm than the oil to be removed.

No significant surficial oiling occurs in this subdivision. However, subsurface oil (MOR) exists @ oiling site A which should be treated.
DWC

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 70 F

ADEC HAYES LANDMANAGER WARD for CUC SUBDIVISION

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 15 / 91

TIME 19 : 25 to 20 : 45 TIDE LEVEL 3.5 ft. to 2.5 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1623 m NEAR SHORE SHEEN: ☐ BR ☑ RB ☐ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W 10 m M — m N 4 m VL 90 m NO 1519 m US 1250 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				B				P			P	L	6	10		✓			
B				C							P	L	1	1		✓			
C								C			P	L	1	1		✓			Rainbow Sheen on Surface
D				C							P	L	1	1		✓			" " " "
E				B							PB	L	1	1		✓			" " " "
F						T					BC	H	5	20		✓			Splash on Bldr Ct.
G						T					BPc	M	5	70		✓			Splash on Bldr Ct.

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- 5 - 17 FRAMES 6-9

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
1	35							✓	-		—	—		✓			PG-PG	
2	30							✓	-		25	N			✓		PG-PGM	
3	30							✓	-		25	N			✓		PG-PGM	
4	35						✓		-		30	S		✓			GP-PGM	
5	30			✓					15-20	?	10	BR		✓			GP-PGM	LENSE INDISTINCT
6	30							✓	-		15	N		✓			GP-PGM	
7	25							✓	-		15	N		✓			GP-PGM	
8	25							✓	-		—	—		✓			PG-PGM	
									-									

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

THE OILED LENSE IN PIT

OG COMMENTS: (5) WAS INDISTINCT DUE TO RAPID FLUSHING WITH WATER. BRIGHT RAINBOW SHEEN IN PIT. THE HIGHEST CONCENTRATION OF OIL OBSERVED WAS LOCATED ON THE WEST SIDE OF THE FALLEN TREE IN AREA (A). THE SEDIMENTS IN THIS AREA HAD A RAINBOW SHEEN WHEN WE FIRST OBSERVED THEM. AFTER DIGGING PIT (5) A BRIGHT BAND OF SHEEN SPREAD FROM THE HITZ TO THE WATER LINE. THESE AREAS MIGHT APPEAR LESS OILED ON A DRY DAY DUE TO LACK OF SHEEN.

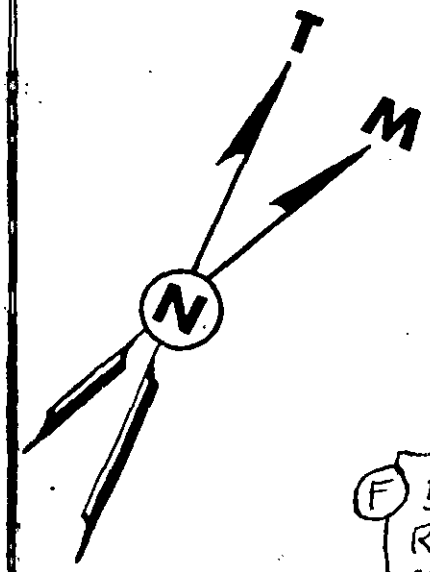
reviewed 5.19 gy

REVIEWED: MC 5/20/91

MAYSHIP 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV 70 - F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227
PIM-C 005-228

MAP 1 of 2

REVIEWED: MC 5/20/91
Reviewed 5.19 GJ



Prince of Wales Passage

EV 60 A

TREES

(G) 5 x 70 RANDOM DRIPS ON BOULDERS CT Tr.

NO SURVEY

STREAMS

EV 70 G

(F) 5x20m RANDOM DRIPS ON BOULDERS CT. Tr.

TREES

TREES

EVANS ISLAND

(E) 1x1m² SOR 60%

INSET 1

GUGUAK BAY

STREAM

(D) 1x1m SOR 100%

1 PATTIE AP PU

STREAMS

STREAM

1 PATTIE PU

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	▲'
NO OIL PIT	△'
PHOTO	↔'

SEE INSET FOR AREAS (A) to (C) & PITS (1) to (6)

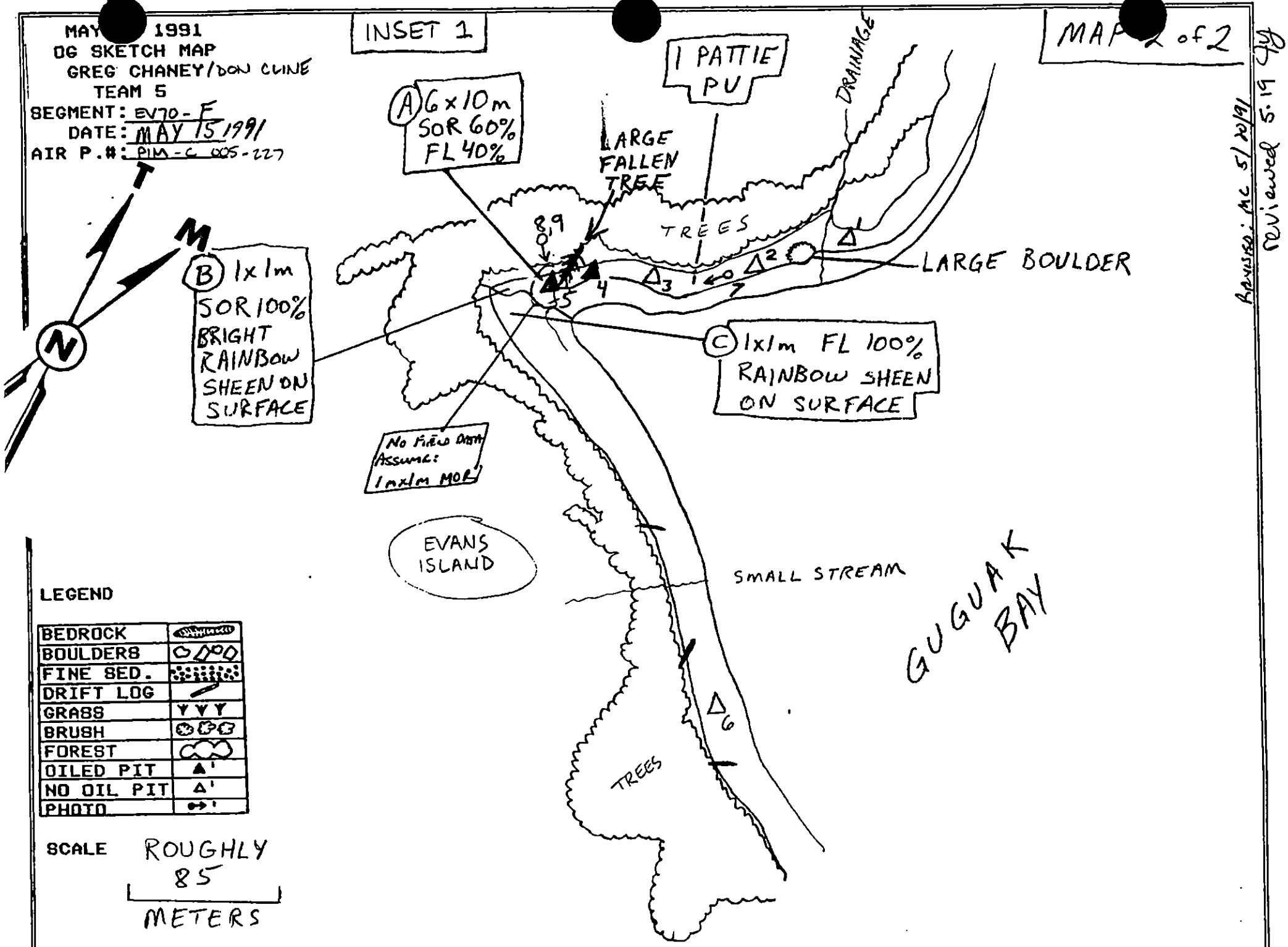
SCALE

200 METERS

MAY 1991
OG SKETCH MAP
GREG CHANEY/DON CLINE
TEAM 5
SEGMENT: EV70-F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227

INSET 1

MAP 2 of 2



Revised: MC 5/20/91
Reviewed 5.19 JH

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5 DATE 15 May 1991

SEGMENT # EV-70 TIDAL HEIGHT (Range) +3.5 → +2.5

SUBDIVISION F BIOLOGIST Crank

SEA STATE 0 → 1' WIND SPEED/DIRECTION 5-10 knots/ll

PHOTOGRAPHS: ROLL # FRAME #

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

(Pit 4) There is a rare concentration of barnacles around the pit, covering <1% of the surface sediments. One meter below the pit there is a sparse concentration of barnacles, mussels and Fucus covering ~10% of the surface sediments.

(A) Area is located low in the UITZ. Within the site there are Fucus and barnacles (with a recent spat settlement) covering 5% of the surface sediments. Two meters below the site Fucus dominates the surface cover. A sparse concentration of barnacles and mussels are also present. Biota cover is 50%. Sediments are soft near water's edge ~+4' level, sinking under weights. Pit 5 is in area A.

(B) Area is in the high part of the UITZ, 1m north of a small stream. Barnacles are present within the site. Biota cover is <1%. The MITZ is similar to that described for area A. Fucus cover increases to 70% next to stream.

(C) Area is in the UITZ. Sparsely concentrated barnacles that tightly sealed their inner plates when stimulated were present in site. Biota cover is 10%. MITZ species are the same as in A plus filamentous green algae. Biota cover is 30%.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	
Seabirds			
Waterfowl	2 Ducks / Canadian Geese	24	
Gulls/kittiwakes/terns	2	16	
Shorebirds	2 Oystercatchers/Sandpipers	76	
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2	Deer	2
Pinnipeds (specify)	1 Harbor Seal		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/14/91

Team # 5 Date 15 May 1997
Segment # EV-70 Tidal Height +3.5 → +2.5
Subdivision F Biologist Crank
Sea State 0→1' Wind Speed / Direction 5-10 knots/N

Comments (cont.)

(D) Area is located low in the UITZ. Sparsely concentrated barnacles and limpets and rare mussels are present in site. Biota cover is 10%. Directly below site, high in MITZ, biota cover is 30%. There is a dense Fucus bed at the +3' tide level with a moderate concentration of Littorina, limpets and mussels. Biota cover is 70%. Sandpipers were feeding in the vicinity during survey.

(E) Area is located in the UITZ next to a small stream. Fucus is the dominant species; rare barnacles are also present. Biota cover is 20%. In the MITZ, Fucus is dense, barnacles are moderate, and filamentous green algae are present. Biota cover is 70%.

(F) Area is located high in the UITZ. Black lichen covers ~80% of the surface. In the MITZ, main biota present are patchy, dense barnacles and continuous, moderate Fucus. Biota cover is ~70%.

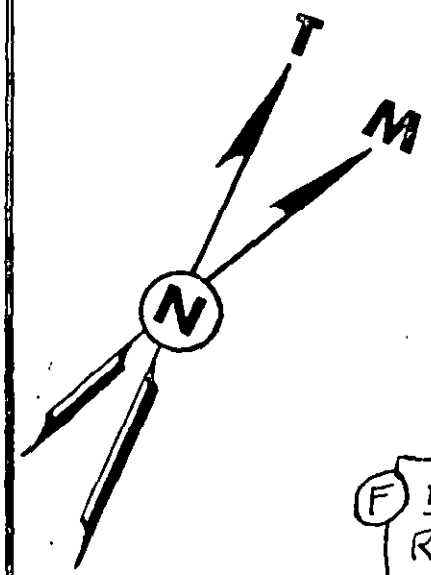
(G) Area is located in the UITZ. Barnacles cover ~5% of the surface sediments. Below site, in the MITZ there is a moderate concentration of barnacles, Fucus (with sporelings and maturing conceptacles) and mussels. Littorina are dense. Low in the zone is a clam bed. Biota cover is 70%.

Gugulek Bay is a human-use area for wildlife. Deer, waterfowl and shorebirds were observed during survey.

Reviewed M.B. 5/14/97

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV 70 - F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227
PIM-C 005-228

MAP 1 of 2



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
200
METERS

SEE INSET FOR AREAS (A) to (C) & PITS (1) to (6)

EV 60 A

Prince of Wales Passage

TREES

(G) 5 x 70 RANDOM DRIPS ON BOULDERS CT Tr.

Clam bed

NO SURVEY

Fucus has a dense concentration in association with streams.

STREAMS

EV 70 G

(F) 5x20m RANDOM DRIPS ON BOULDERS CT. Tr.

TREES

TREES

EVANS ISLAND

INSET 1

GUGUAK BAY

STREAM

(E) 1x1m² SOR 60%

STREAM

Sandpipers were observed feeding between the two streams

(D) 1x1m SOR 100%

1 PATTIE AP PU

STREAMS

STREAM

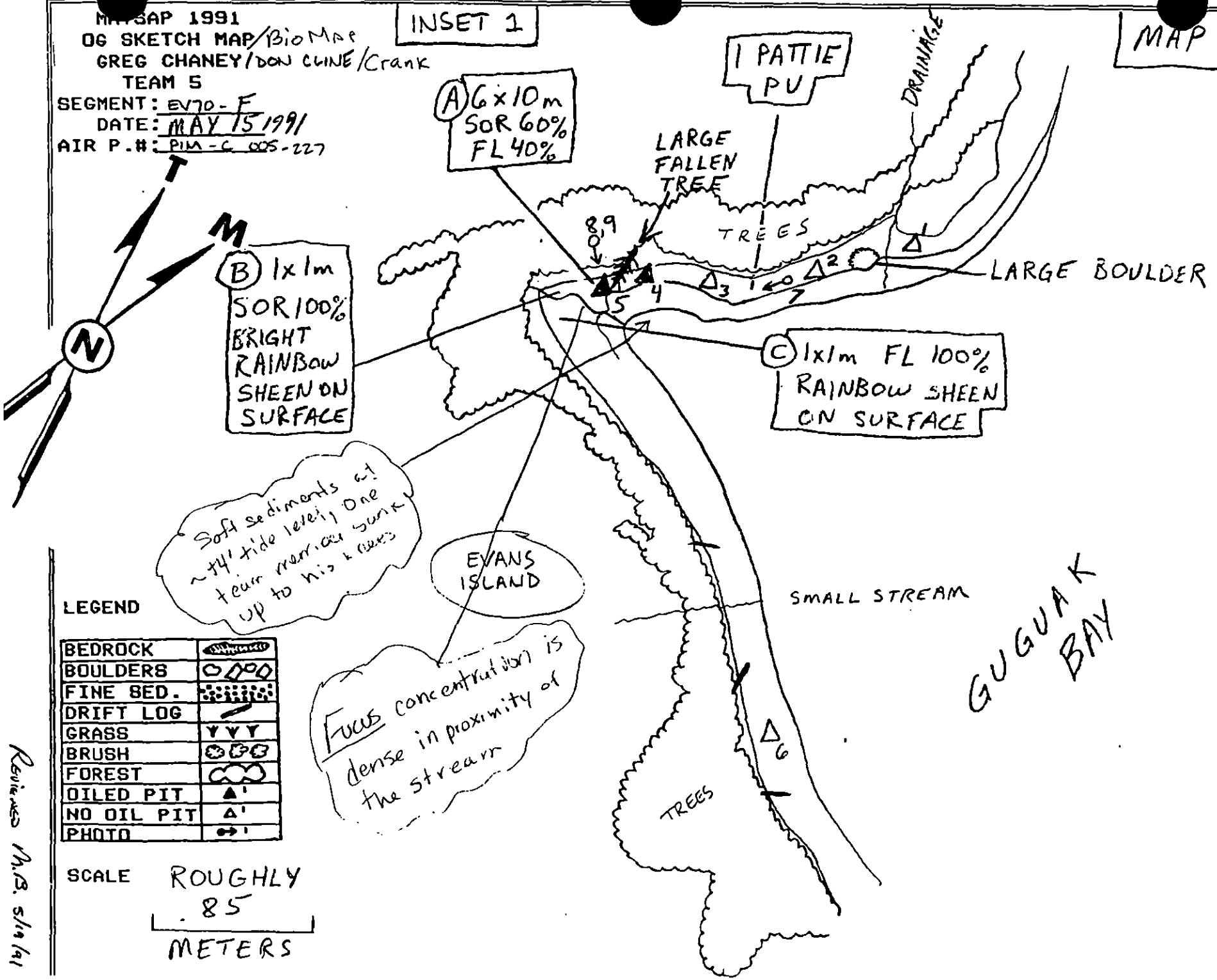
1 PATTIE PU

Reviewed M.B. 5/19/91

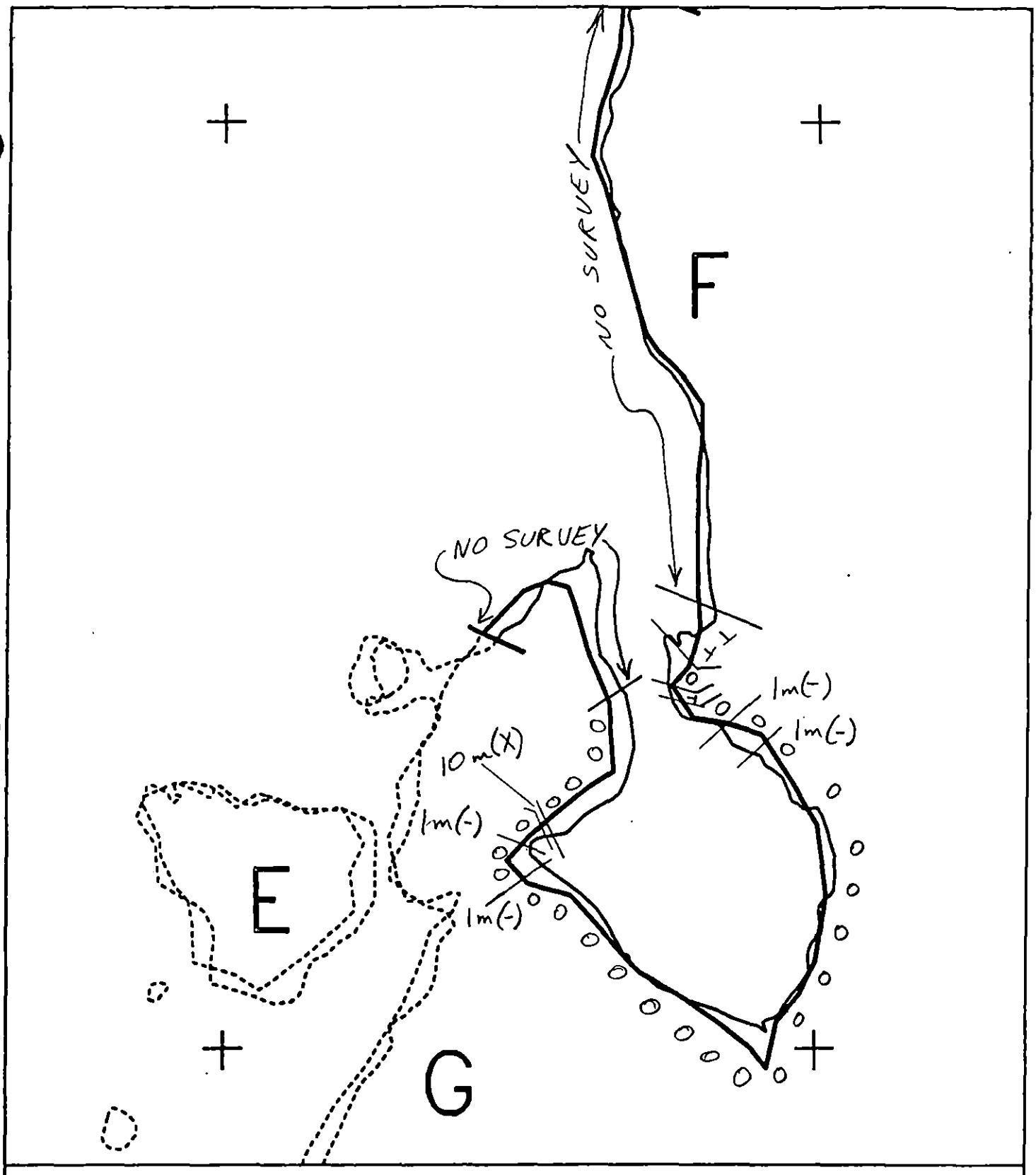
MAPSAP 1991
OG SKETCH MAP/BioMAP
GREG CHANEY/DON CLINE/Crank
TEAM 5
SEGMENT: EV70-F
DATE: MAY 15 1991
AIR P.#: PIM-C 005-227

INSET 1

MAP 2 of 2



Reviewed M.B. 5/19/91



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

EV070 F

ADEC Subsegment Length: 2873m

METERS

0 200 400

AK State Plane Zone 4
pev070fa

N

DXON

Subdivision Field Map

Map Key: PWSEV070Fa

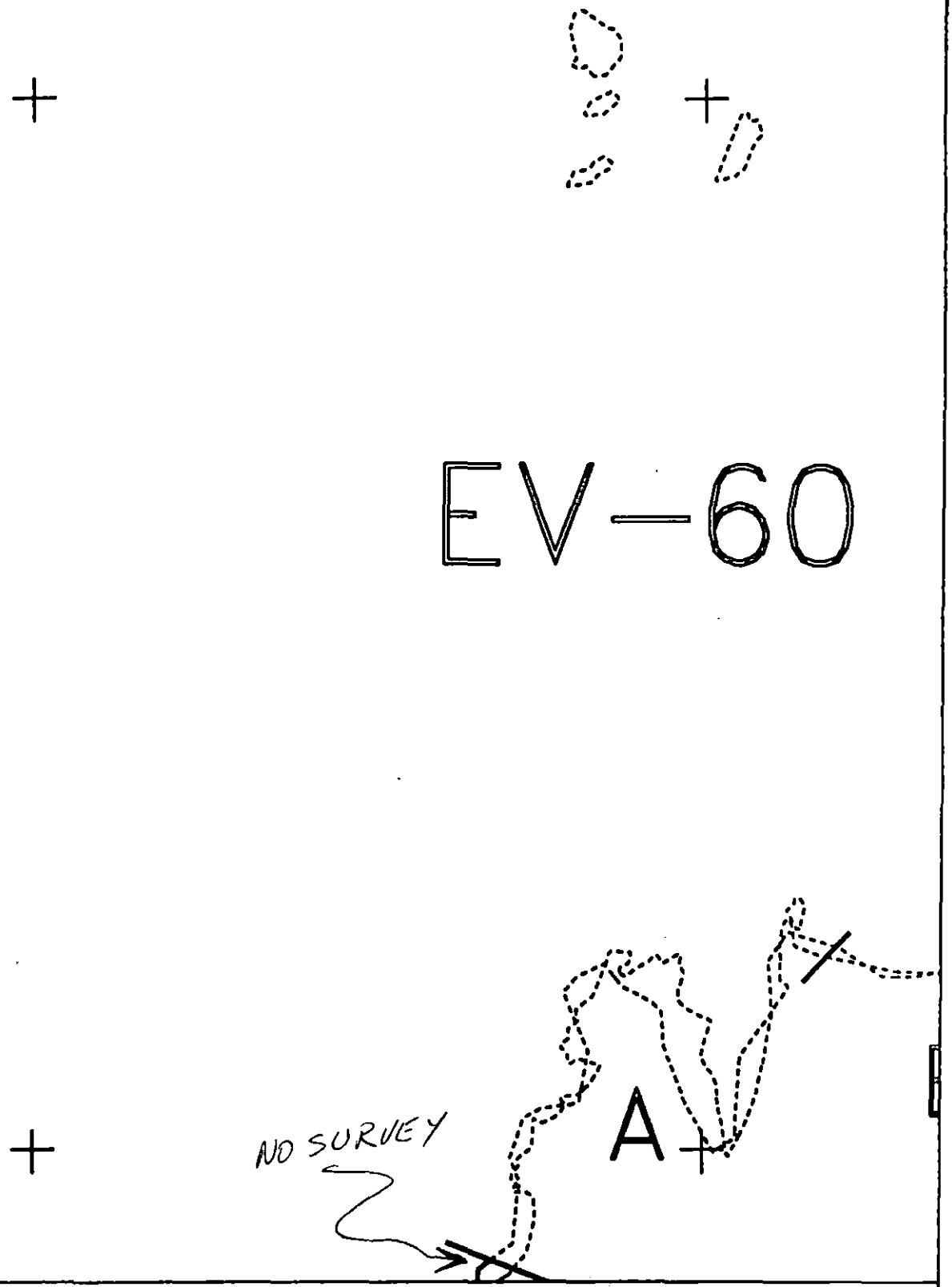
Name: GREG CHANEY

Date: MAY 16 1991

Date Entered:

REVIEWED: MC 5/20/91
reviewed 5.19 JY

EV-60



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

EV070 F

ADEC Subsegment Length: 2873m

METERS

0 200 400

AK State Plane Zone 4
pev070fb

N

EXXON

Subdivision Field Map

Map Key: PWSEV070Fb

Name: GREG CHANEY

Date: MAY 16 1991

Date Entered:

REVIEWED: MC 5/20/91

1991 MAYSAP EVALUATION

SEGMENT: EV 070 SUB: D REGION: PWS SURVEY DATE: 5/15/91

ENVIRONMENTAL SENSITIVITIES:
Work Window(s) OPEN 5/1 - 8/15; RESTRICTED 8/15 - 9/15

Ecological/Constraints (see page two for details) Subsistence - Deer harvesting

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

SHPO Signature: Charles E. Holmes Date: 5/30/91

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 29 1991 FOSC APPROVAL DATE: 6/5/91

ADEC

EXXON

USCG

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-70 SUBDIVISION D DATE 5/15/91

ADEC
NAME John Hayes SIGNATURE

☒ NTR Tide was too high to survey LITZ mussel bed area, oiling observed was light M+UITZ only had trace subsurface oiling. 1x2m area of MS/on rye grass in the STZ of this segment No treatment recommended at this time.

EXXON
NAME JOHN DEAN SIGNATURE

☑ NTR LITTLE EVIDENCE OF OILING PRESENT, NONE RECOVERABLE

LANDMANAGER
NAME Steve WARD OF CVC/FS SIGNATURE

☒ NTR This AREA Recovering very well, very Little History of oil Dot What was there is just About gone. no TRASH seen. one pit showed a Lite sheen, But no observable oil could be Found

No Bio.

USCG/NOAA
NAME DREHER/CLINE SIGNATURE CWO K.L Dreher

☒ NTR Small splash of hard asphaltic residue found in supratidal.

Oiling is insignificant in this subdivision. Subsurface oiling was expected, but none was found. I don't recommend any further treatment.
Dic

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 70

ADEC HAYES LANDMANAGER WARD for CUC SUBDIVISION D

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 15 / 91

TIME 12 : 10 to 12 : 50 TIDE LEVEL +4 ft. to 6.5 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 229+ m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 57 60 m NO 172 167 m US 50 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				T	T	T				BC	M	5	20		✓			BETWEEN BOULDERS
B	T				T	T	T				BC	M	8	10		✓	✓		3-4 Patties small
C						T					BR	H	3	15		✓			FEW SPLASHES
D	T					T					BC	M	3	10		✓			Random splashes
E	T				T	T			S		BP	M	5 3	5 2	✓				Oiled grass between boulders

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- 5 - 17 FRAMES 1-5

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	15							✓	-		—	—		✓			BC-BCG	
2	20							✓	-		—	—		✓			BC-BCG	
3	25							✓	-		10	N			✓		C-GCP	
4	20							✓	-		0	N			✓		C-GCP	
5	25							✓	-		0	N		✓			B-CTGB	
6	15							✓	-		0	N		✓			BC-CPM	
7	30							✓	-		10	N		✓			CP-CPM	
8	25							✓	-		5	N			✓		C-PCG	
9	30					✓			?, -	?	0	S		✓			P-PG	HORIZON UNKNOWN DUE TO WATER FLUSHING PIT

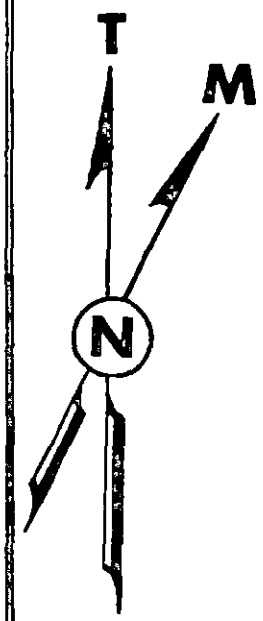
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

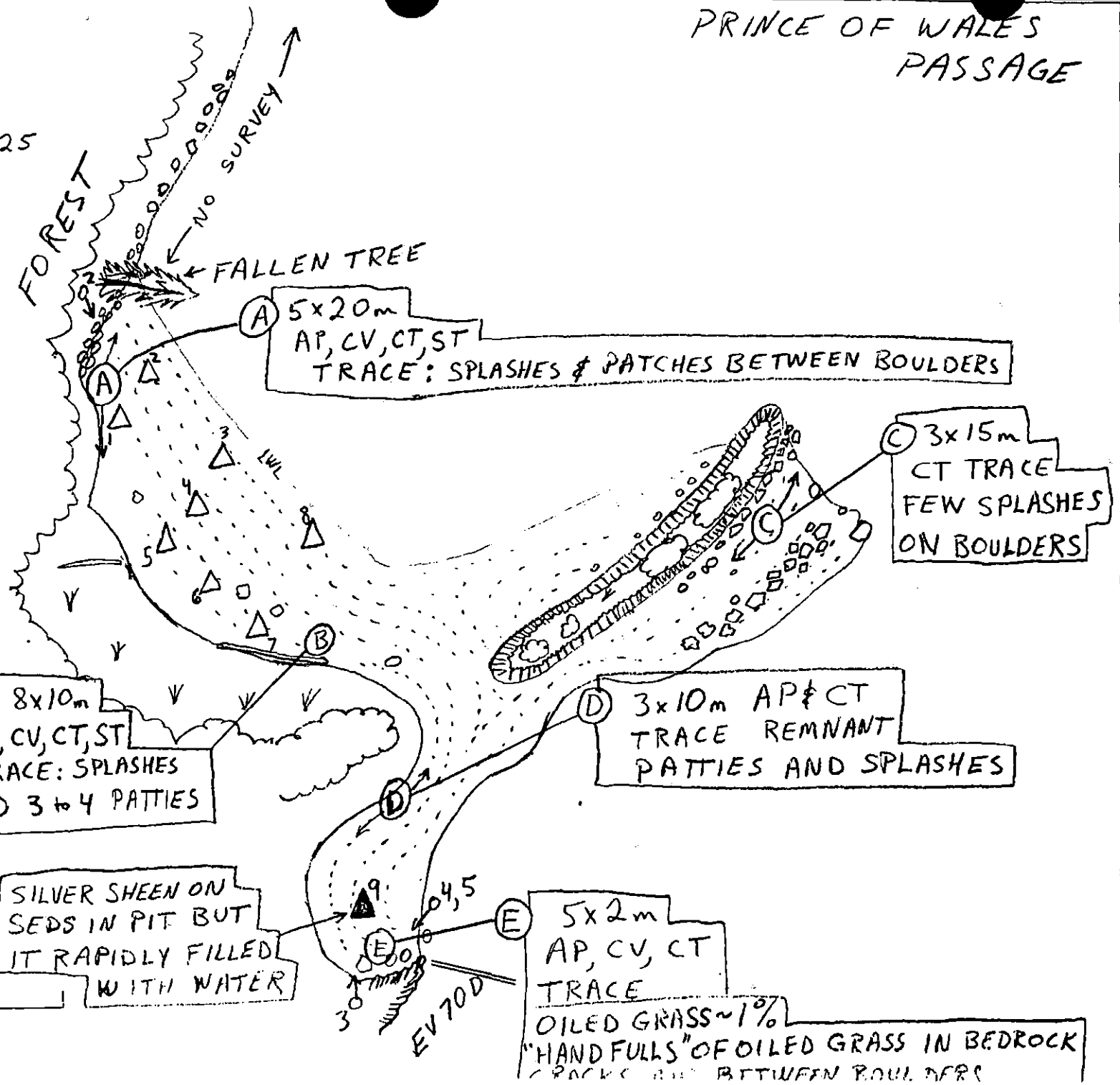
OG COMMENTS: FEW SPLASH CT&CV REGIONS REMAIN. SCATTERED SMALL PATTIES WERE ALSO FOUND IN AREAS (A)(B)(D)(E). THE ONLY SUBSURFACE OIL WAS FOUND IN PIT 9. AN OIL FILM WAS OBSERVED ON THE SEDIMENTS BUT HORIZON WAS IMPOSSIBLE TO DETERMINE DUE TO RAPID FLUSHING OF PIT WITH GROUND WATER. SUBSURFACE OILING DID NOT SEEM FAR BEYOND THE LOCAL AREA OF PIT 9.

reviewed 5.19 gy
REVISED: 5-20 mc

MAY 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV 70 D
DATE: MAY 15 1991
AIR P.#: PIMC 005 225

PRINCE OF WALES PASSAGE





LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 m

Reviewed: SJW MC reviewed 6.19.91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5 | DATE 15 May 1991

SEGMENT # EV-70 | TIDAL HEIGHT (Range) +4 ⇒ +6.5

SUBDIVISION D | BIOLOGIST Frank

SEA STATE 1' | WIND SPEED/DIRECTION 15 knots / N

PHOTOGRAPHS: ROLL # | FRAME #

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

(A) Site is located in the UITZ. Within the site there are sparse barnacles of various sizes, black lichen, sparse Littorina and sparse limpets. Biota cover is ~20%. Some barnacle shells are oil stained, and oil tightly seals the shell edges where still present. Begin. 2 m below the site to the water's edge there is a sparse Fucus concentration with sporelings and maturing conceptacles; a sparsely concentrated intercobble mussle bed with various age classes; a sparse to moderate barnacle concentration with a recent spat settlement and moderate Littorina and limpets. Biota cover is ~40%.

(B) Site is west of the tombolo, located in the UITZ and MITZ. Species and biota concentrations are similar to site A.

(C) Site is east of the tombolo, located in the UITZ. Fucus is rare, both sporelings and maturing conceptacles are present. Barnacles are also rare. Littorina and limpets are sparse. Biota cover is ~10%. In the MITZ, beginning 1m below site, Fucus concentration [illegible] covering 30% of the surface sediments and up to 80% on a rock outcrop near the water's edge (±5' tide). Between the site and the rock outcrop there is a sparse mussel bed with overlaying Fucus, Odonthalia and Ulva. A peat layer is present under the mussel bed.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	
Seabirds	1	1	
Waterfowl	1	2	
Gulls/kittiwakes	2	2	
Shorebirds			
Corvids	2	2	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	3 (inc 1 p		
Pinnipeds(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Team # 5 Date 15 May 1991
Segment # EV-70 Tidal Height +4 ⇒ +6
Subdivision D Biologist Crank
Sea State 1' Wind Speed / Direction 15 knots/N

Comments (cont.)

(D) Area is located in the VITZ. There is an approximate 1% biota cover within the site including barnacles, black lichen, littorine snails and limpets. Two meters below the site barnacles are dominant species with a moderate concentration covering ~40% of the surface sediments. Sparse mussels and moderate concentrations of Littorina and limpets are also present.

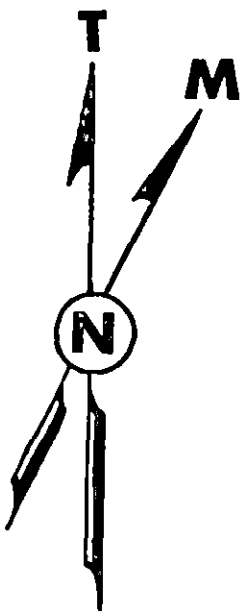
Pit #9 Subsurface oil in the VITZ. There are a few barnacles present in the site covering none to <1% of the surface. Four meters below the pit Fucus has a sparse to moderate concentration, barnacles are sparse, and Littorina are sparse with various age classes present. Biota cover is ~50%.

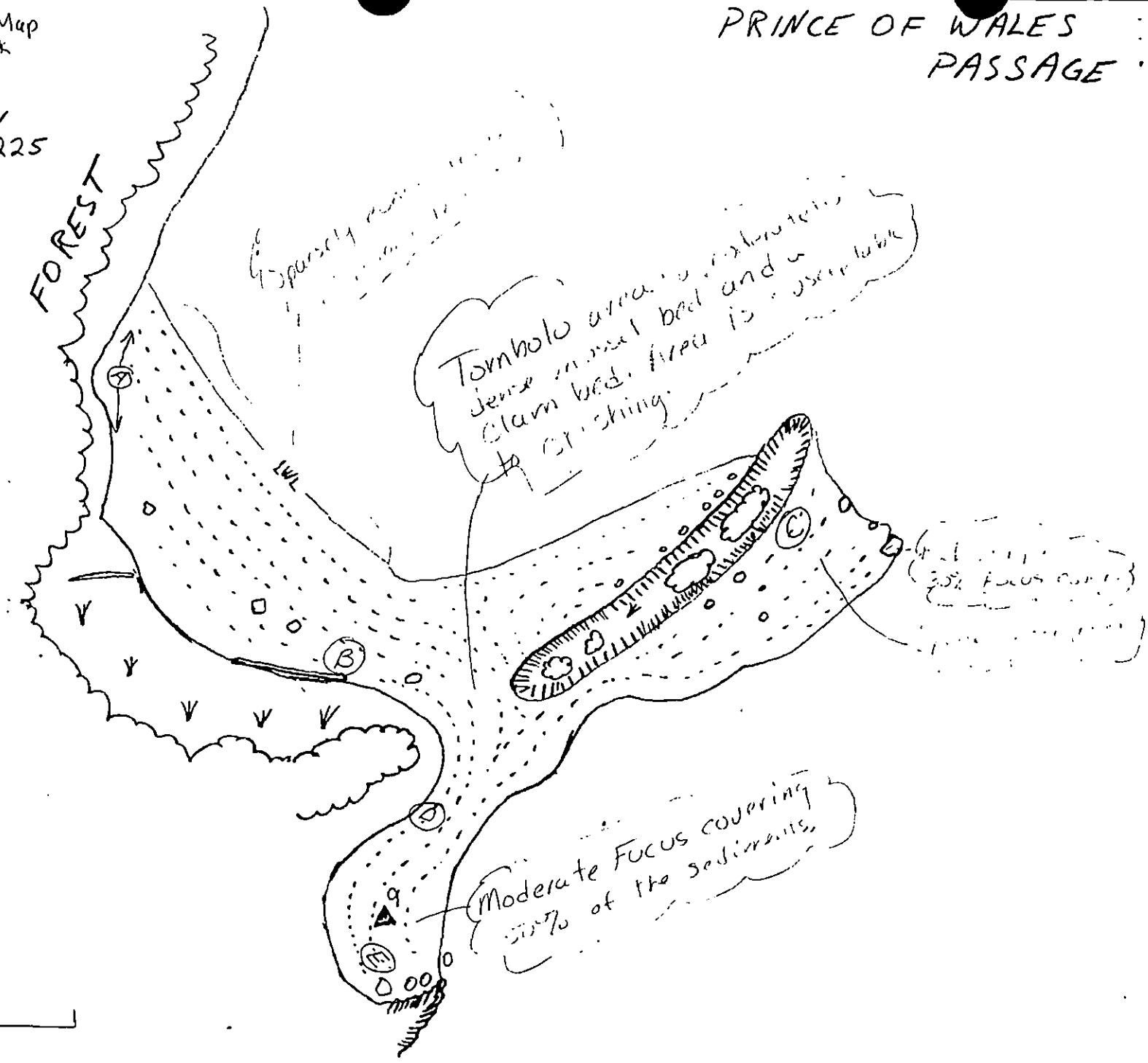
(E) Area is located in the SUPRA on cobbles and boulders. Black lichen is encrusted into ~60% of the sediment surfaces. Rye grass, moss and white lichen are also present covering ~30% of the area. Five meters below the site there is a moderate Fucus pocket covering ~50% of the surface.

This subdivision has a tombolo. Biota on the tombolo includes a clam bed with Saxidomus, Protothaca & Tresus (young clams <2 yrs old were found); a moderate to dense mussel bed. The beds are susceptable to trampling; access should be restricted.

SAP 1991
OG SKETCH MAP Bio Map
GREG CHANEY & Crank
TEAM 5
SEGMENT: EV 70 D
DATE: MAY 15 1991
AIR P.#: PIMC 005 225

PRINCE OF WALES PASSAGE

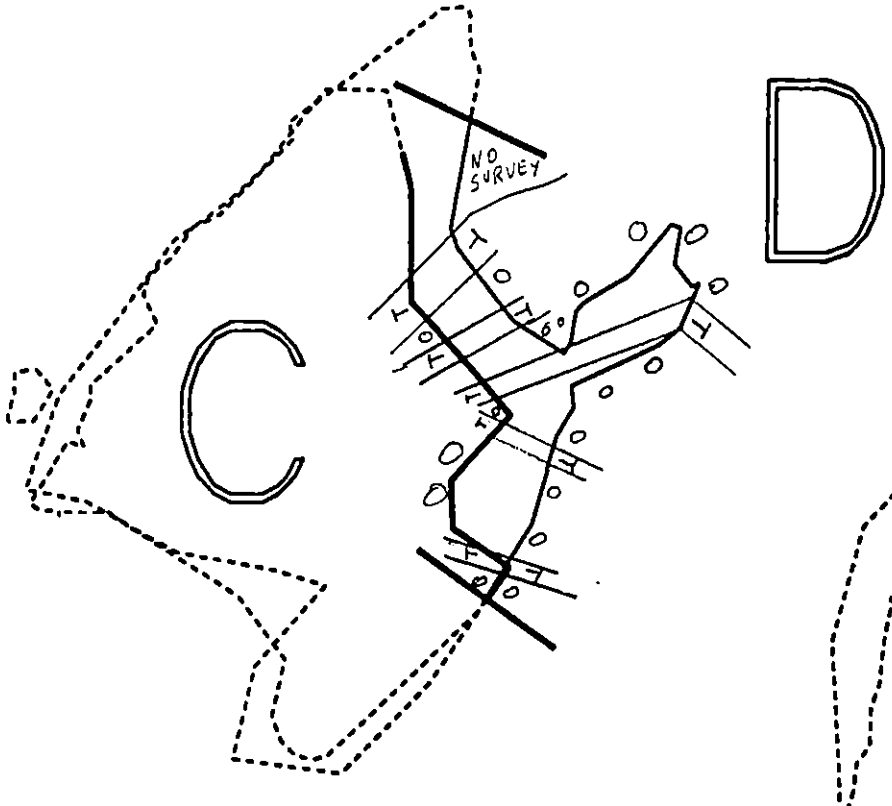




LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 m



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

EV070 D

ADEC Subsegment Length: 279m

METERS

0 100 200

AK State Plane Zone 4
pev070d

EXXON

Subdivision Field Map
Map Key: PWSEV070D
Name: CHANEY
Date: MAY 15 1991
Date Entered:

REVIEWED: 5-20 MC
reviewed 5.19 9z

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PRINCE WILLIAM SOUND

SEGMENT: EV-70

SUBDIVISION: F

STREAM NO: 226-30-16840

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1K Purse seine hook-off (7/20 to 9/30)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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:_____ DATE:_____

Subsurface Oil Observed: Yes_____ No__X__ Maximum Depth_____

RECOMMENDATIONS:

_____No Treatment Recommended	_____Snare/Absorbent Booms
__X__Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
__X__Tarmat Removal	_____Beach Cleaner
	_____Other (see comments)

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

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

Salmon stream mouth - fry outmigration (3/1 to 5/15)
Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C **Salmon fry nursery area (4/31 to 7/31)**
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D **Esther Hatchery release (4/15 to 6/15)**
1E **Main Bay Hatchery release (4/20 to 6/15)**
1F **Sawmill Bay Hatchery release (4/15 to 6/1)**
1G **Cannery Creek Hatchery release (4/21 to 6/1)**
1H **Remote release site**
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzomoto 424-7511

1I **Gill net area (6/7 to 8/31)**
1J **Purse seine area (7/20 to 9/30)**
Purse seine hook-off (7/20 to 9/30)
1L **Set net sites (6/11 to 7/25)**
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M **Herring spawning (4/1 to 6/15)**
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3O **Harbor seal and sea lion pupping (5/15 to 7/1)**
3O, 3Q **Harbor seal and sea lion molting (8/15 to 9/15)**
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R **Seabird colony (5/1 to 9/1)**
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S **Shorebird/waterfowl concentration (4/1 to 5/15)**
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U **Recreation:** **Tent sites (6/1 to 9/15)**
6V **Anchorages (6/1 to 9/15)**
6W **Forest Service cabins (6/1 to 9/15)**
6X **Lodge (6/1 to 9/15)**
6Y **Special use destination**

7Z **Subsistence area:** Salmon harvesting (5/1 to 9/30)
7HH **Finfish harvesting**
Deer harvesting (8/15 to 2/28)
Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

32/52

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV 070 A SUBDIVISION: 16509 DATE 4/21/90

USCG
NAME CWO J. MCMAHON SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

~~ADF&G~~ MICHAEL WIEDMER
~~ADEC~~
NAME No Team member SIGNATURE [signature]

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

LAND MANAGER
NAME No Team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY (ANAD.) 27/52

OG William Reid USCG McMahon SEGMENT ST/ EVOA
BIO Michael Fawcett LAND REP Tom Crowe-ADFG STRAT 26-40-16500 OF
EXXON Gus Garcia ADFG Mike Wiedmer Time 15:19 to 15:35
TEAM NO. 15 TIDE LEVEL +2.5 ft DATE 21 / APR / 90
EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ___ % B 10 % C 20 % P 70 % G ___ % S ___ % M ___ % V ___
SLOPE: Lang 100 % Hang ___ % Ver ___ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W ___ m M 35 m N ___ m VL ___ m NO 25

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	AC	AB	AP	AR						SU	UI	MI	LI
ASPHALT PAVEMENT	X							X			X		
POOLED													
COVER													
COAT													
STAIN			X				X				X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

PAVEMENT H F (S) 200 sq. m by 3
PATTIES / TARBALLS 0 BAC
NEAR SHORE SHEEN? (NO) BR RW SL TI

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Collect DEBRIS ☐ YES ☐ NO
TYPE ___
#BAGS ___

Photographs:
Roll No. AS-15-2
Frames 13-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)		SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		UO	LO						SU	UI	MI	LI				
1 *	35		X				0-3		X				X			X				N		P/G
2	15					X	-										X			N		P/G/C
3 *	15		X				0-1		X				X				X			N		P/C
							-															
							-															
							-															

COMMENTS
* OILED INTERVAL <5cm IN PIT NOS 1 AND 3 DOES NOT CONSTITUTE SUBSURFACE OIL

REVIEWED JW DATE 4-23-90

OG WILLIAM REID

SEGMENT SW-E-V-70A

STREAM 226-40-16509

DATE 24 APR 90

SKETCH MAP

CHECKLIST

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

LEGEND

1 △
PR - No Subsurface Oil

2 ▲
Pit - Subsurface Oil

CT/C
Continuous Distribution

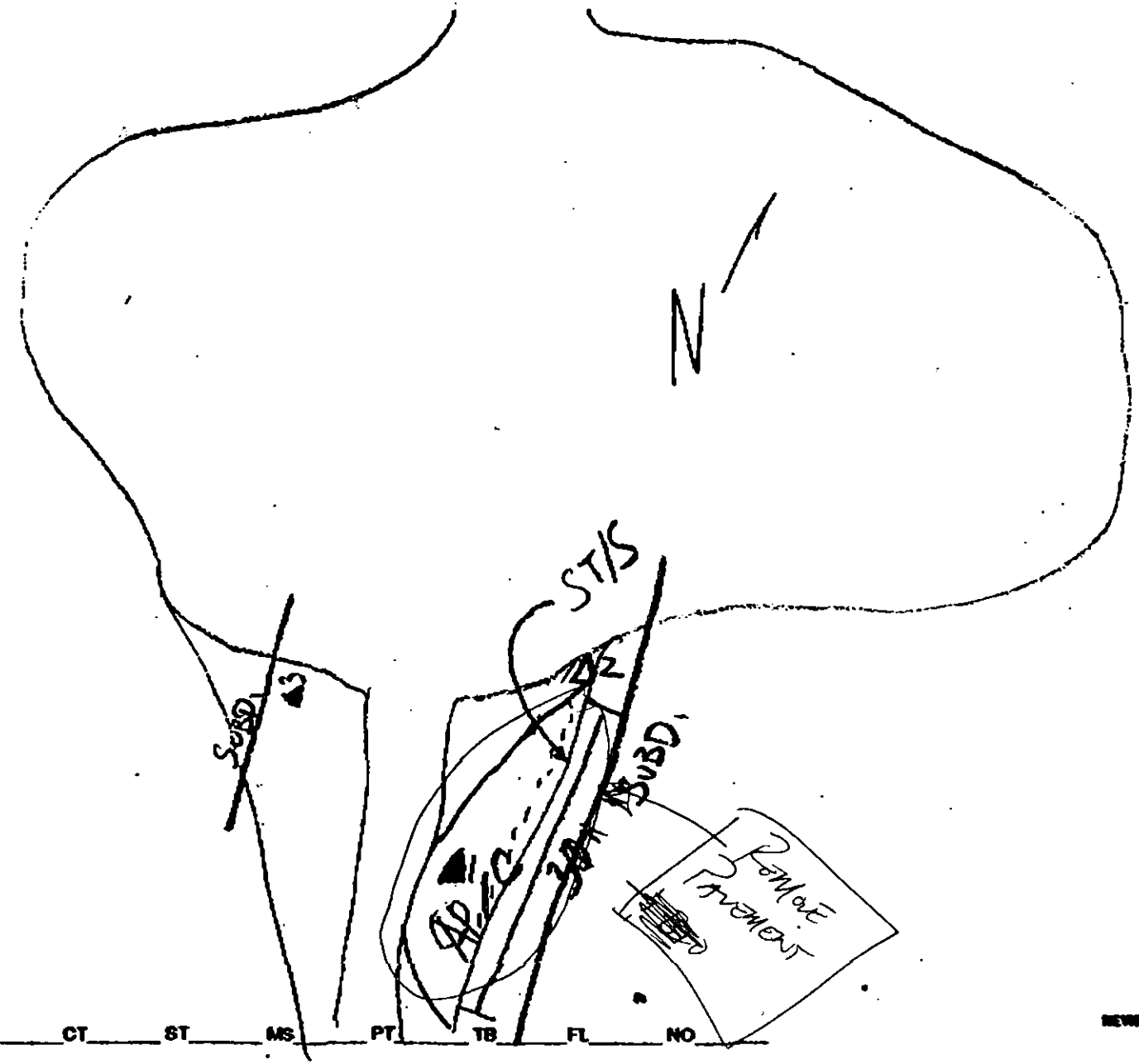
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

lll
Oiled Vegetation

1 ⇐
Photo location, direction, and number



Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

REVISION 03/2000

25/52

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4/21/90 16 HIGH TIDE TIMES: 1109, 2344 21 TEAM RECORDER: M. WIGGMER

4 START TIME: 1515 16 HIGH TIDE HTS: 9.4, 10.3 22 OBSERVERS: T. CROWE

5 STOP TIME: 1530 17 LOW TIDE TIMES: 0512, 1730 23 AGENCY: ADF&G

6 SEGMENT #: EV-070A 18 LOW TIDE HTS: 2.9, 1.1 24 PHOTOS TAKEN: Y (N)

7 STATION #: 226-40-16509 19 TIDE HT AT SURVEY: 3.6' Roll #: Frame:

8 X-UNITS: (Ebb) Slack Flood Slack 25 VIDEO TAKEN: Y (N) TAPE #:

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

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

12 SOURCE: Map Laran Oil

13 LOCATION: WEST SHORE EVANS Is. Sediment

14 DESCRIPTION: Biological

Water

EXTENT OF OIL

	SHORELINE L	W	M²	%	STREAM L	W	M²	%
27 SURFACE COVERAGE	100y	20y		<1	40y	3y		0
28 SURFACE THICKNESS	1 mm	<0.1	<0.1	0	0	0		
29 PENETRATION	3cm	3cm	0	0	0	0		

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 226-40-16509

38 STREAM NAME:

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? Y (N)

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

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

31 OIL TYPE: Pooled (Mousse) (Tar) (Asphalt) Sticky (Stain)

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

32 OILED DEBRIS? Y (N) Where:

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

43 ANADROMOUS FISH PRESENT? (Y) N FRY PRESUMED

34 WAVE EXPOSURE: High Moderate (Low)

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder 33 Cobble 33 Gravel 33 Sand Mud/silt

Species	Aerial	Ground

COMMENTS: VERY SPORADIC STAIN, ASPHALT TAR, AND BURIED MOUSSE. OIL QUANTITY AND DISTRIBUTION RELATIVE TO STREAM DO NOT PLACE SALMON OR OTHER ORGANISMS AT RISK. NO TREATMENT IS RECOMMENDED

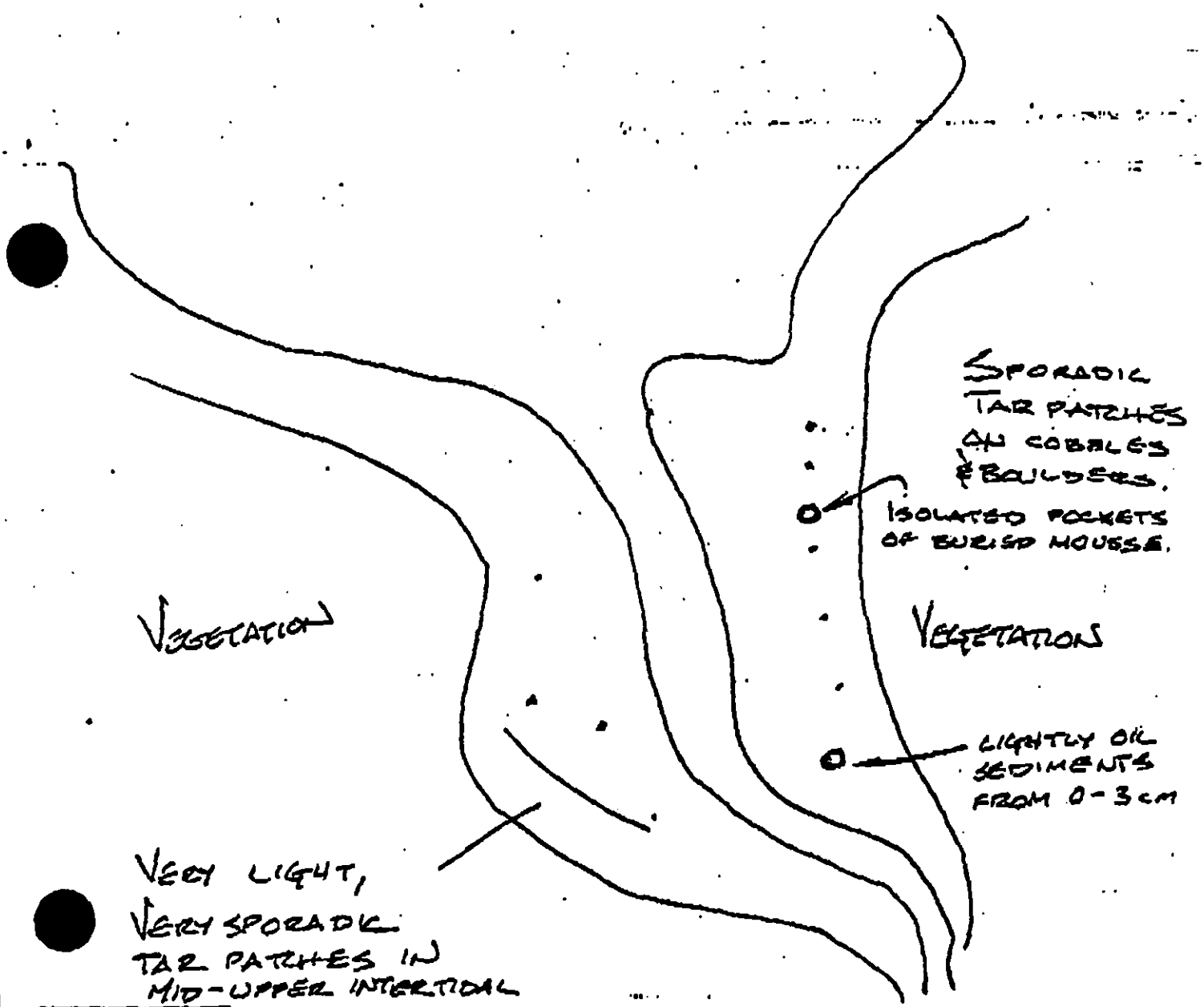
C452

226-40-16509

45 PHOTOLOG

	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



:ls taken
o frame # and
direction

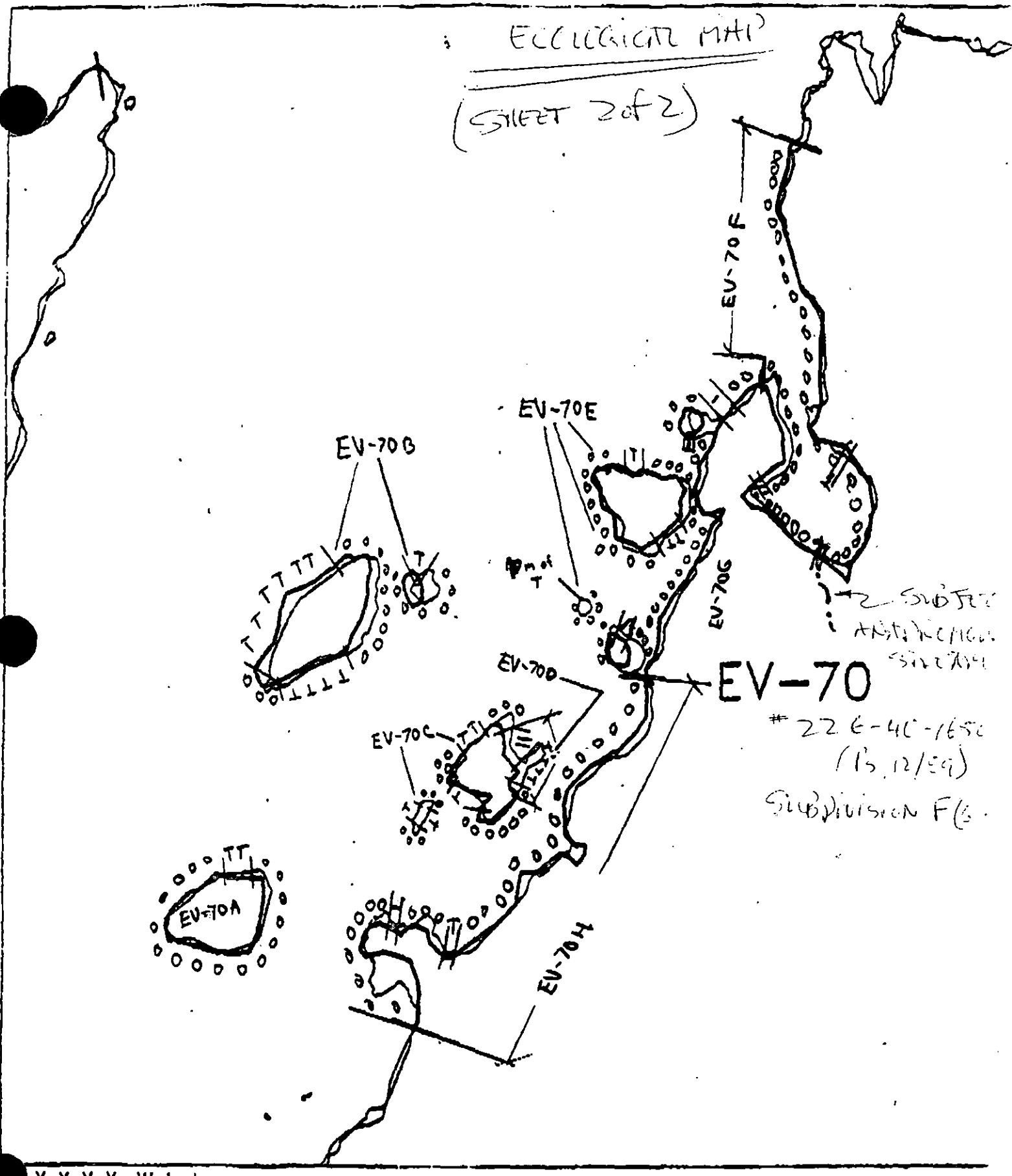
Segment EV 70A (Gugak Cove) 4/21/90
Stream 226-40-16509 Michael Fawcett
Ecological Summary.

This stream has a relatively stable delta composed of pebbles/sand and mud, with a well-developed infaunal community (clams, worms, shrimp, etc.). Sparse scattered clumps of mussels, barnacles, and Fucus occur on isolated ~~cobbles~~ in MTZ and UTZ, along with abundant littorines, dogwhelks, and hermit crabs. Light patches of asphalt and stains were found in UTZ. If any cleanup operations are conducted, trampling and disturbance of LTZ should be avoided.

MH Fawcett

ECOLOGICAL MAP

(SHEET 2 of 2)

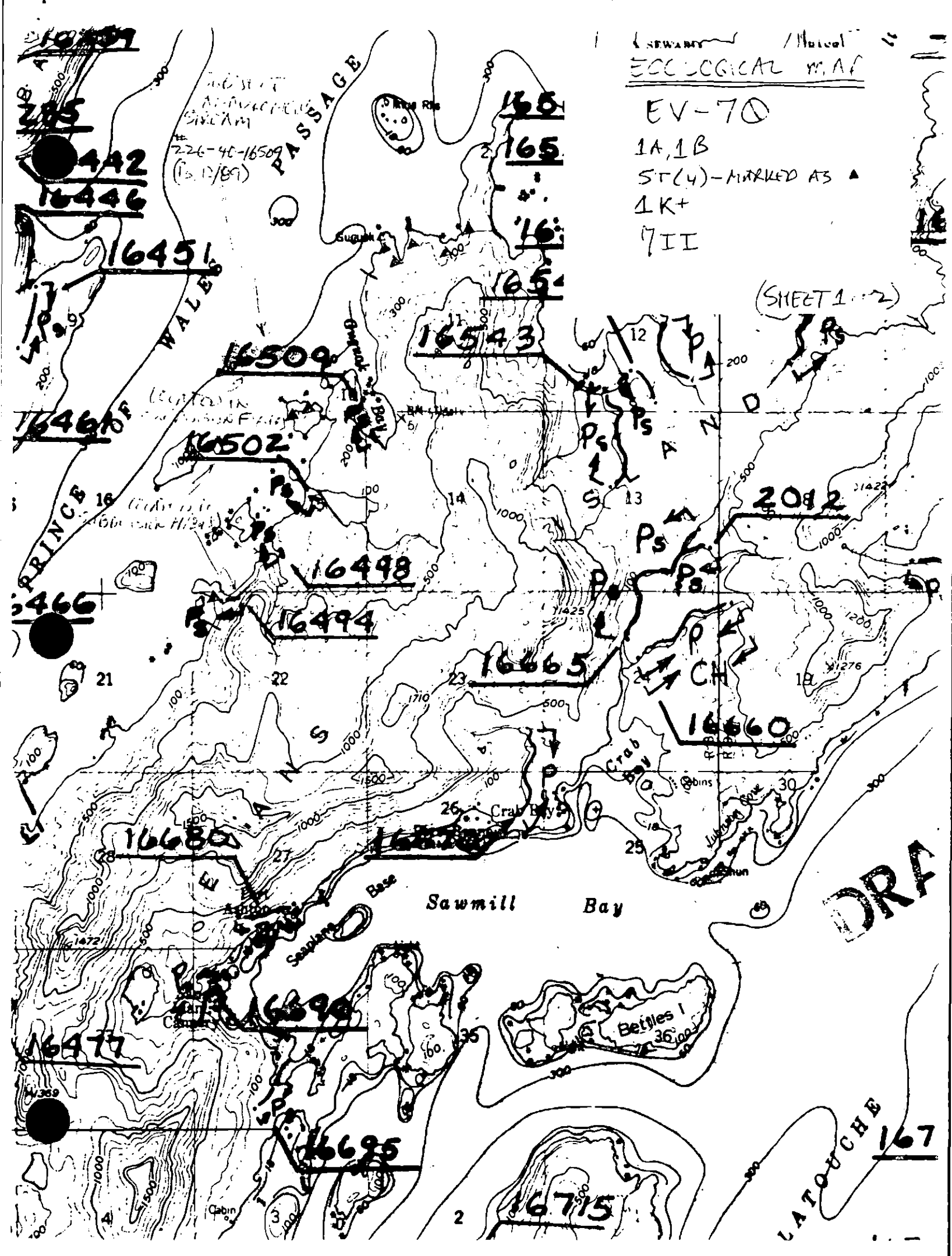


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90


ECOLOGICAL MAP
EV-70
1A, 1B
5T(4) – MARKED AS ▲
1K+
7II
(SHEET 1 of 2)
PASSAGE
PRINCE WALES
ISLAND
Sawmill Bay
Crab Bay
Bettles I
16442
16446
16451
16509
16543
16502
16498
16494
16665
16660
16680
16690
16695
16715
16477
2012
2466
165
167

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16509

SEGMENT EV-70 SUBDIVISION F

WORK WINDOW	
Tarmat Removal	**OPEN**
Bioremediation Less Than 100m From Stream	**WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)**
Bioremediation More Than 100m From Stream	**WORK PRIOR TO 8/15**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

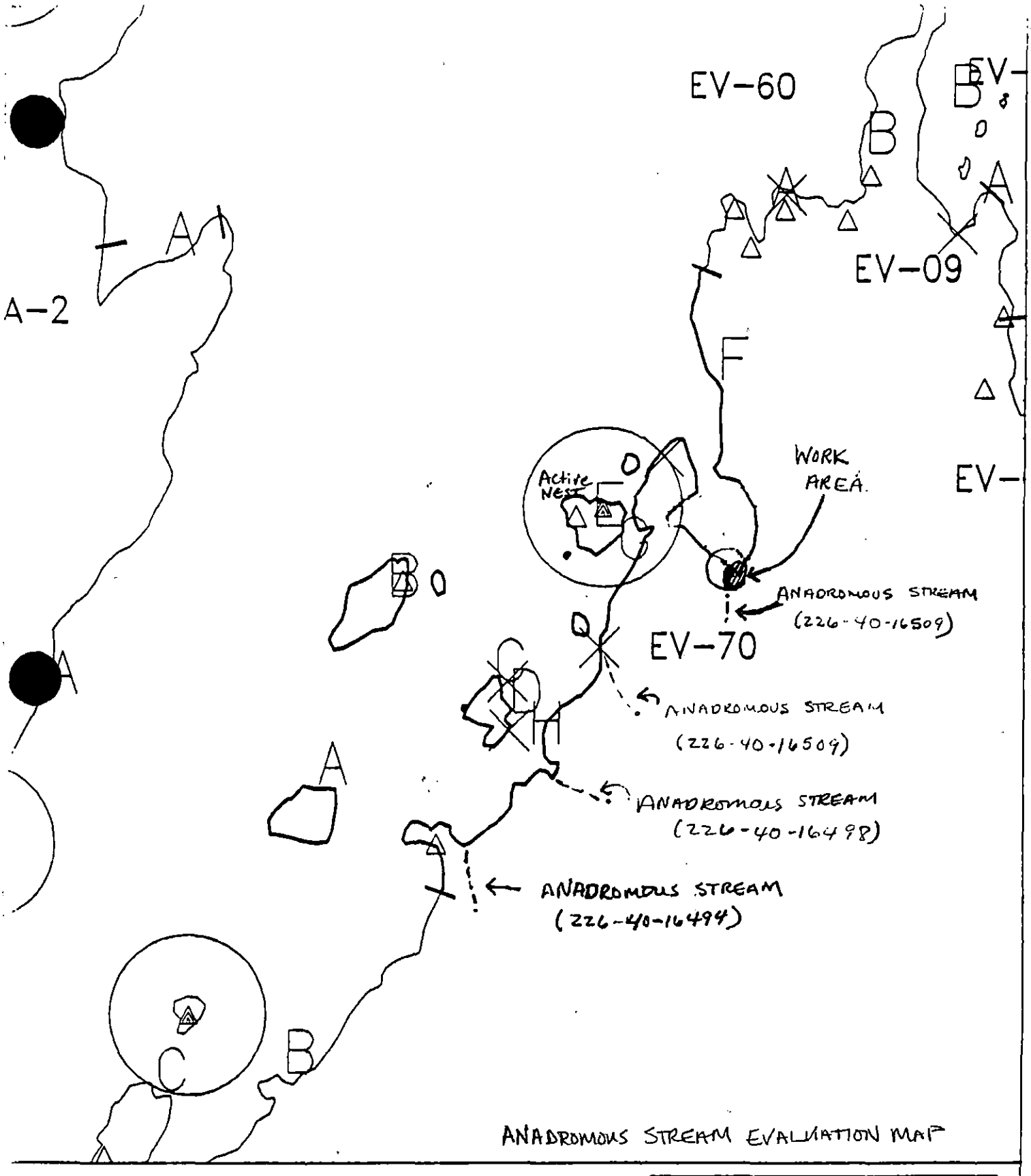
1A,1B	**Salmon Stream**	ADF&G catalogued stream (226-40-16509) is in Subdivision F. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. ADF&G catalogued streams (226-40-16498, -16502, and -16494) are also within segment, however, these do not affect work site.
1K	**Purse Seine Hook-off**	Closed to bioremediation after 7/20. No constraint to tarmat removal.
5T	**Bald Eagle Nest**	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision F work site.
7II	**Subsistence: Deer Harvesting**	Closed to bioremediation after 8/15. No constraint to tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. No flushing of pollutants or sediments into stream drainage; do not allow Inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-70F FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC _____ Date 6-10-90



EXXON

Exxon Company, USA
Map Key: PWS-EV-70
June 04, 1990

ECOLOGY MAP
SEGMENT EV-70
SUBDIVISION E (6 of 8)

METERS
0 676 1353

★ Seabird Colony
△ Active Eagle Nest
△ Inactive Eagle Nest

1 inch = 2219 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1K Purse seine hook-off (7/20 to 9/30)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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: Rachel Jean Waite 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)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
__X__Bioremediation	_____Spot Washing:_____Wands
__X__Tarmat Removal	_____Beach Cleaner
	_____Other (see comments)

COMMENTS: Recommended treatment is manual removal of tarmat where shown on attached sketch map. Work should be conducted between (6/1) and (7/10) based on eagle nest and salmon constraints with approval of USFWS regarding eagle nest.
→ [See Constraint Addendum Dated 6/9/90] WSK

TAG COMMENTS: BIOREMEDIATE (CUSTOMOCEN) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90
ADEC Art Weiner Art Weiner
EXXON Andy Tarr
NOAA Gary Petrae Gary Petrae
USCG G.A. Reiter G.A. Reiter

FOSC _____ DATE: MAY 25 '90

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-70 F STREAM NO: 226-40-16509 DATE 4/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Subject stream plus: 226-40-16498, 226-40-16502, 226-40-16494
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1K Purse seine hook-off (7/20 to 9/30)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

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: Rachel Jean Dale 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)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
__X__Bioremediation	_____Spot Washing:_____Wands
__X__Tarmat Removal	_____Beach Cleaner
	_____Other (see comments)

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

TAG COMMENTS: BIOREMEDIATE (CUSTOMDEEN) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90
ADEC Art Weiner Art Weiner
EXXON Andy Tosi
NOAA Gary Petrae Gary Petrae
USCG G.A. Reiter G.A. Reiter

FOSC _____ DATE: MAY 25 1990

OG WILLIAM REID

SEGMENT EV 70A

STREAM 226-40-16509

DATE 21 APR 90

SKETCH MAP

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Segment 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 ▲

FR - No Subsurface Oil

2 ▲

FR - Subsurface Oil

CT/C
Continuous Distribution

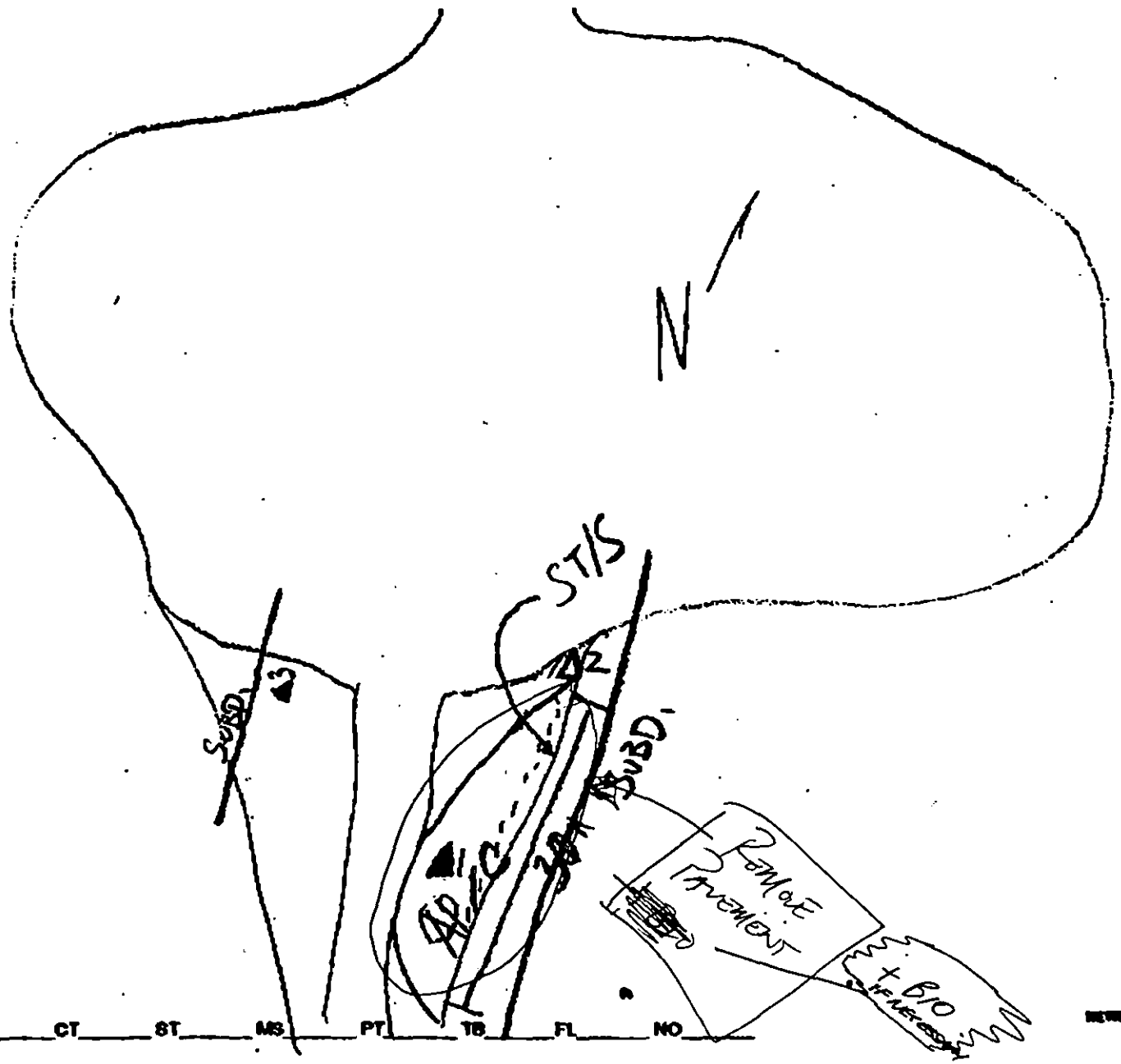
CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oiled Vegetation

1 ⇨
Photo location, direction, and number



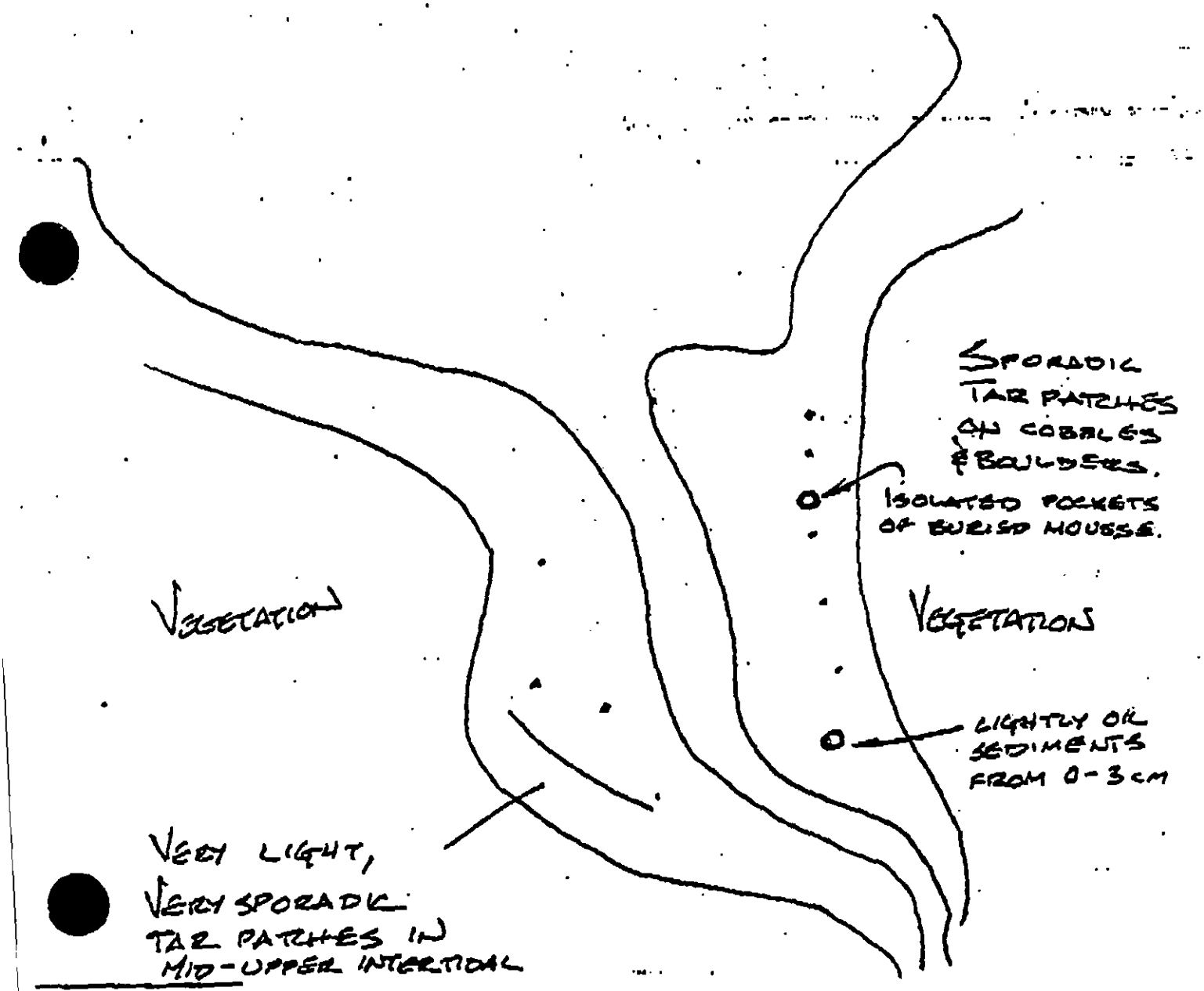
Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

226-40-16509

4B PHOTOLOG

PHOTO(S)	DESCRIPTION

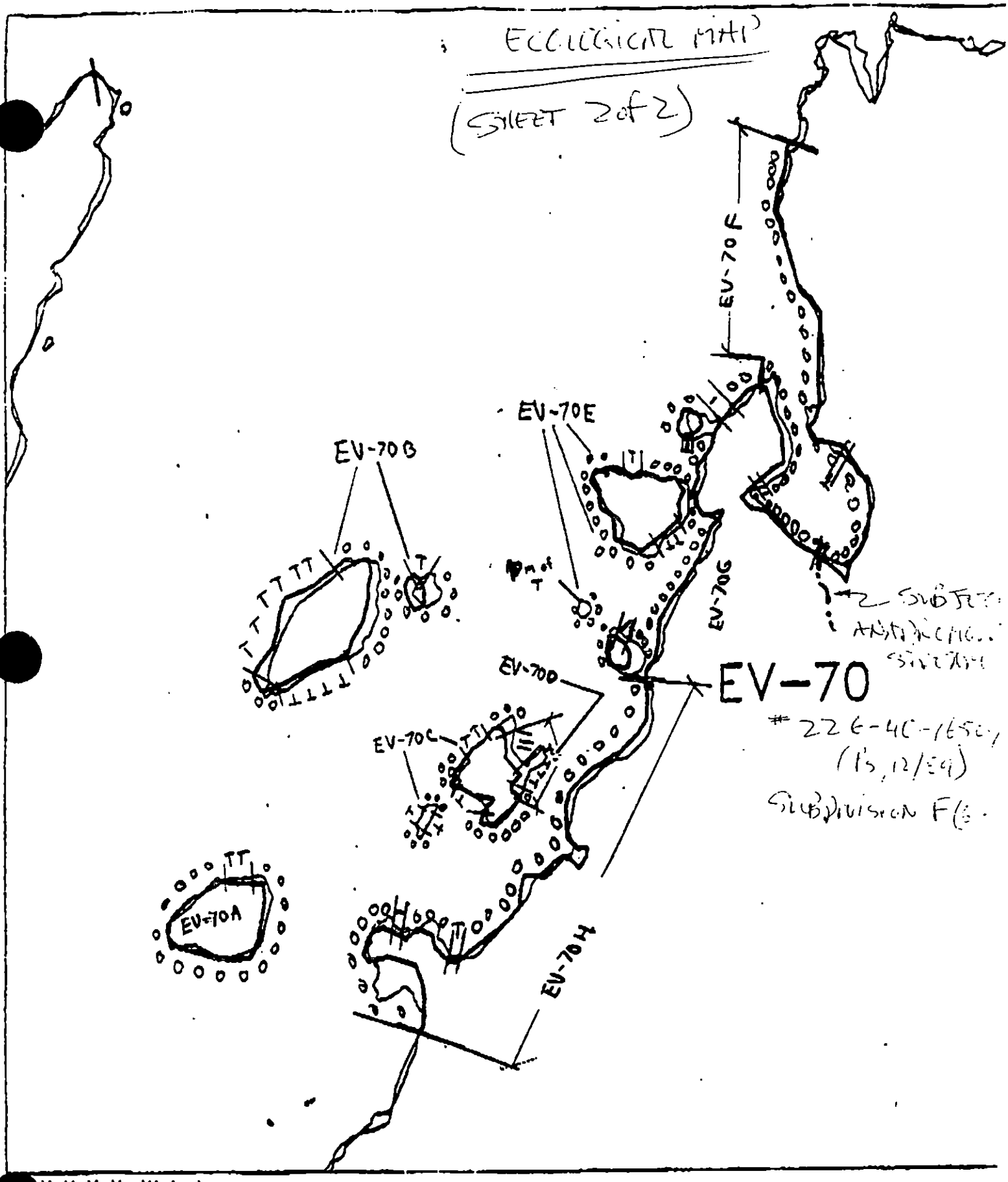
4B OIL DISTRIBUTION DIAGRAM



:la taken
o frame # and

ECOLOGICAL MAP

(SHEET 2 of 2)

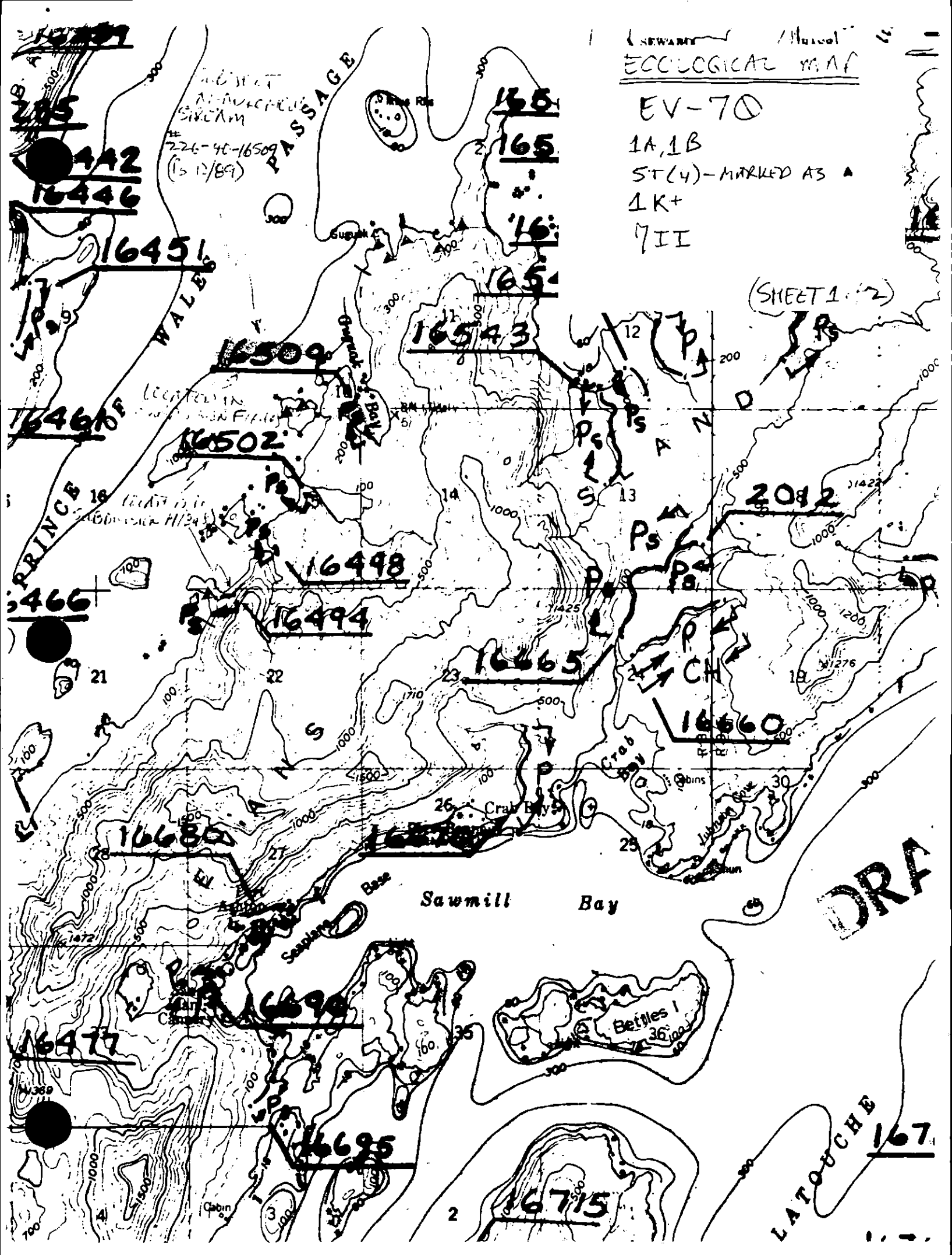


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-70

ADEC Segment Length: 12625m

Map Key: PWS-279
Name: Mike Foget
Date: 4/1/90


ECOLOGICAL MAP
EV-70
1A, 1B
ST(4) - MARKED AS ▲
1K+
7II
(SHEET 1 of 2)
PASSAGE
PRINCE WALES
ISLAND
Sawmill Bay
Crab Bay
Beitles I
LATOUCHE
16446
16451
16509
16543
16502
16498
16494
16665
16660
16680
16690
16695
16715
16477
2012
Ps
P
CH
S

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-71

SUBDIVISIONS: A (1 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION A (1 OF 3) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no 226-40-16475, 16484, 16477.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. 1 eagle nest on border with EV-68.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 494 m: No Oil 258 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 5+ cm

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Breakup	_____ Beach Cleaner
_____Removal	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV - 71 SUBDIVISION: A DATE 3/31/90

USCG NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

UPPER INTERTIDAL ZONE HAD NARROW BAND OF OILING IN PORTION OF SEGMENT BETWEEN THE TWO EXISTING STREAMS FEEDING INTO THE EMBAYMENT. EXTENT OF OILING WAS SPOTTY AND RANGED FROM SPLASHES TO COVER TO SMALL (10CM) PATCHES OF OILED VEGETATION. OILING DID NOT EXTEND BEYOND UPPER INTERTIDAL. OG AND ADEC REPS OBSERVED IMMOTION PATCH OF COVER AS DESCRIBED ELSEWHERE IN THIS PACKET.

SNOW COVERED SUPRATIDAL ZONE - AND SO ASSESSMENT OF ANY OILING AT THAT LEVEL WAS NOT POSSIBLE.

ADEC
NAME John Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED
COMMENTS

Two sections of oil bands both approx 1X10 UTE meters (see sketch map). Both bands have 1 or coat to 3mm oil s.s. oiling to 5cm.. Oiling is weathered and mostly in matrix of cobble + gravel below boulders. Recommend manual removal of oiled bands. Also recommend working at mid-tide to protect healthy mytilus + fucus patches that are thriving and healthy. Both bands are near streams but not within 50 yds. No oil was observed within 50yds. of streams that may be anadromous.

The rest of segment had patches of tar and weathered oil that were light to very light and I do not recommend treatment for these.

LAND MANAGER
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

NAT'L FOREST SVC. REP
NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 03/28/90

OG Mike Foget NOAA Used Gary Shigenaka SEGMENT ST/ EV-71
BIO Richard Ambrose LAND REP — SUBDIVISION A (1 of 3)
EXXON Larry Olson ADEC John Hayes TIME 13:00 to 14:00
TEAM NO.: 11 TIDE LEVEL: 2.7 to 5.0 DATE 3/31/90
EST. SUBDIVISION LENGTH: 600 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Forested Backshore with grass and snow
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 5 % B 30 % C 50 % P 5 % G 5 % S 5 % M 0 % V 0 %
SLOPE : Lang 80 % Hang 15 % Vert 5 % WAVE EXPOSURE: ☒ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 480 m NO 120 m

SURFACE OIL

CHARACTER	DISTRIBUTION /C	/B	/P	/S	OIL / FILM COLOR					IMPACTED ZONES SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER			X						X		X		
COAT			V			√					√		
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										5		X	X

PAVEMENT: H F S 0 sq. m by 0 cm

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE 0

#BAGS 0

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OL	OF	NO	OILED INTERVAL (cm-cm)	BELOW NO	UC	OIL / FILM COLOR					PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE SEDIMENTS
1	20					X	-		X								X			G,S
2	5		X				0-5	X			X					X				C,P,B
3	5		X				0-5	X					X			X				C,P,B
4	5		X				0-2		X		X					X				C,P
5	30					X	-		X							X				P,G,S
							-													

COMMENTS Oiling in subdivision consisted of a 450 m zone of weathered splattered oil located in the MITZ. The weathered oil was a black coat and located on the exposed part of cobble and boulder. The oil located on the sheltered side of cobbles and boulders is a brown coat, there is a small 1m by 10 m patchy distribution of an oil cover near pits 2 and 4. The shore zone is mostly low angle boulder / cobble beach w/ some rock outcrops and two streams.

REVIEWED JW DATE 4-4-90

OG Mike jet

SEGMENT ST/ EV-71

SUBDIVISION A

DATE 3/31/90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Entry
- Oil Obsl.
- 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

Legend
- Stream
- forested
- Boulders

Bedrock/boulders

1m X 450m
CT/S

Backshore -
10 ft rock ledge w/ trees and w/ snow in the SU ITZ and

CT/P 1m X 10m Patch Narrow Distribution

1m X 10m
CT/P

1m X 20m
CT/S

Bedrock

N

Oil Character Length (m): AP ___ PO ___ CV ___ CT 450 ST ___ MS ___ PT ___ TB ___ FL ___ NO 120

APR-02-1990 20:46 FROM PACIFIC SEAHORSE TO 01#---0019075643771# P.02

REVISION: 6/23/89

SHORELINE ECOLOGICAL SUMMARY

Segment ST / EV071 Subdivision A Date (mo / day / yr) 3/31/90

Time (24 hr) 1300 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 30 (3) Cobble 50 (4) Pebble 5 (5) Sand 10 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20

(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-11-1
Frames 14-15

BARNACLES

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

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	X	2	2	NOT PRESENT
3	3	3	3	3	3	3	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

GASTROPODS

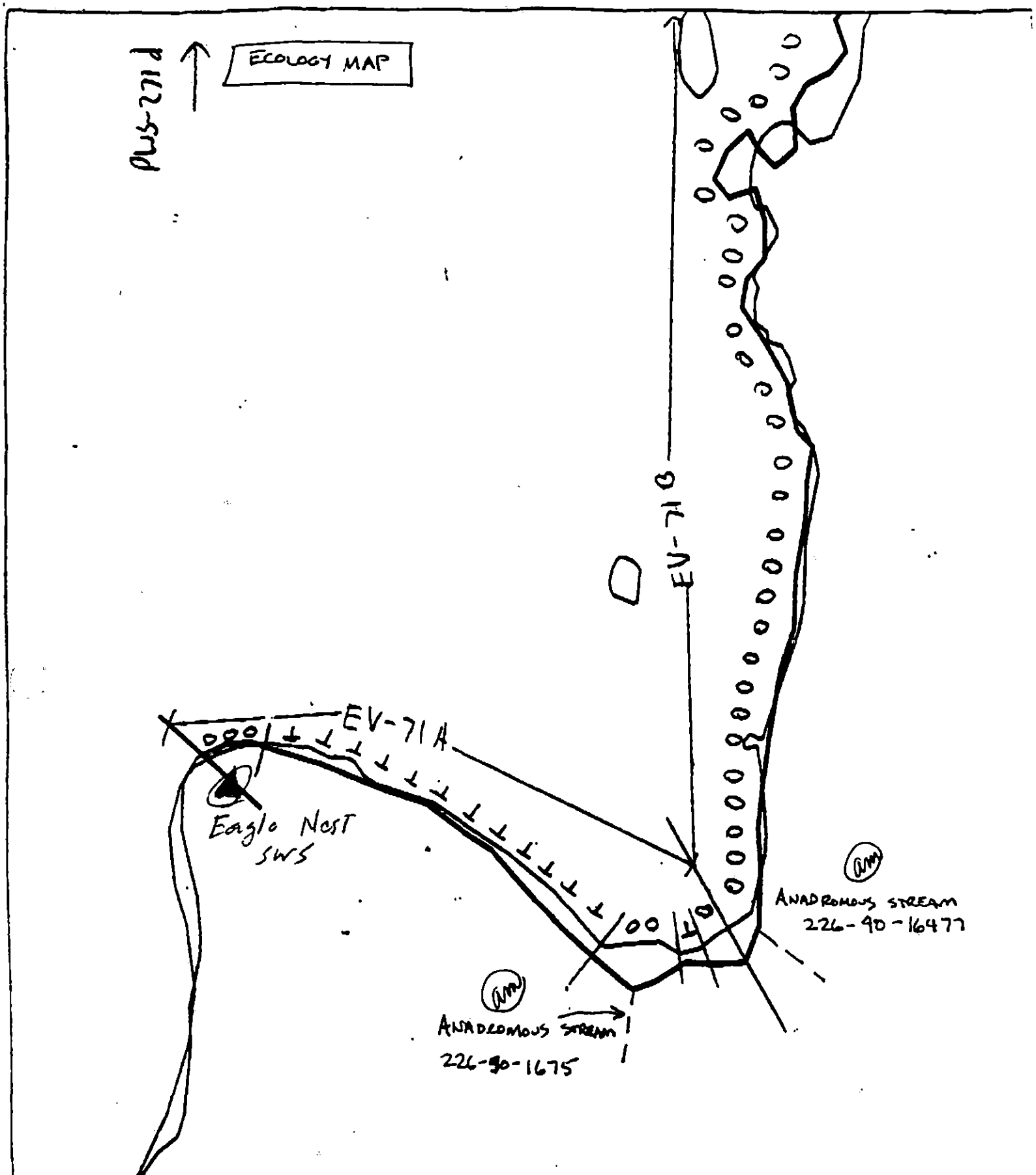
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
3	3	3	X	3	3	3	X	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

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

Wildlife Observations/ General Comments:
One otter seen. On high-angle beaches and rock walls, there was dense cover of red algae (both on boulders and bedrock). Mytilus rare except in two dense beds (see below) in mid tidal zone

Ecological Considerations:
711, ST-5: No bald eagles or nests seen.
One beach with oil had two dense Fucus / Mytilus patches, with Mytilus imbedded in pebbles. (location noted on OG's map.) These mussels would be susceptible to trampling, which could be avoided by directing cleanup crew away from streams, or having cleanup occur at high tide, when mussels



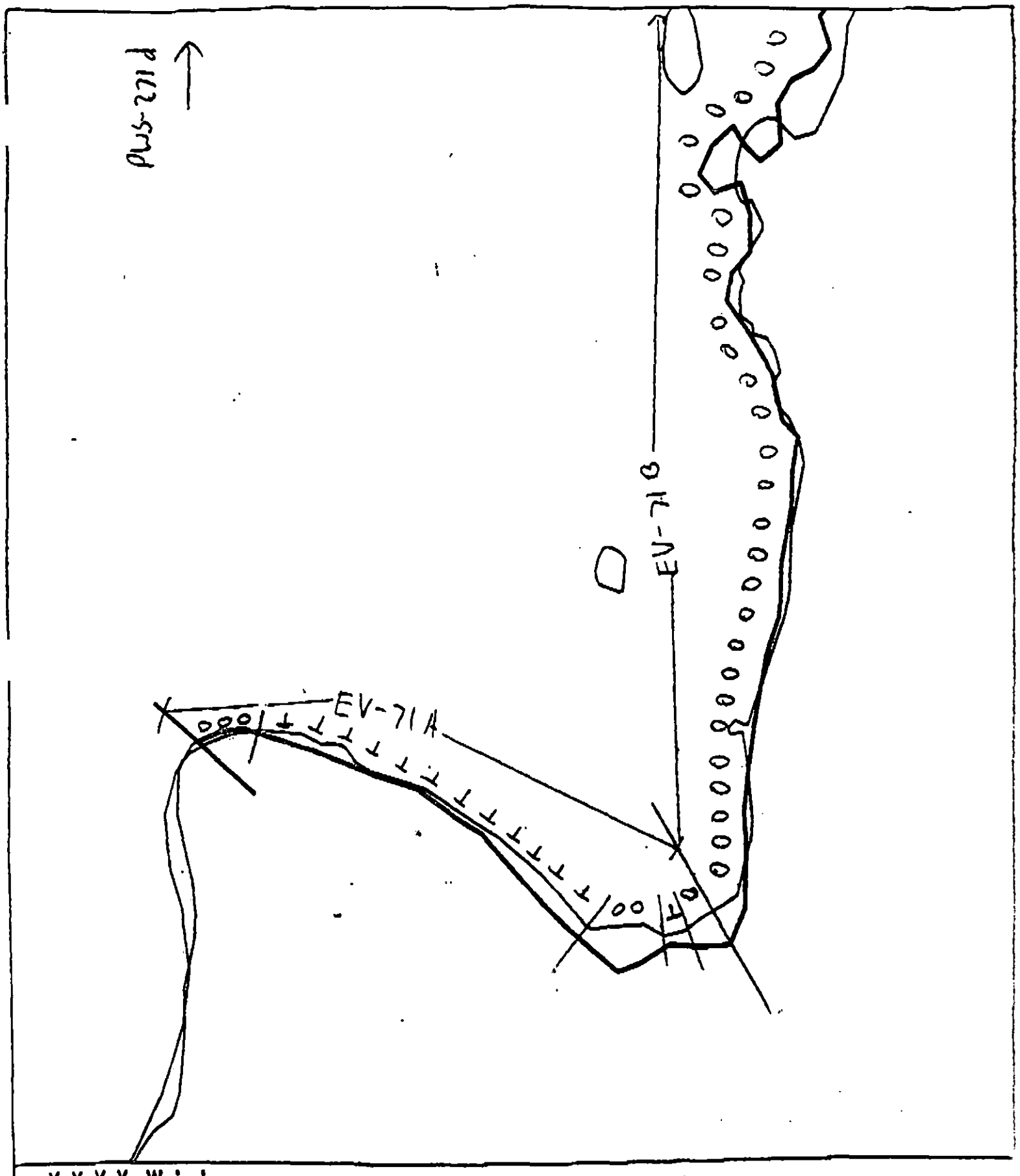
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271e
Name: Mike Foyer
Date: 4/11/90
Date Entered:



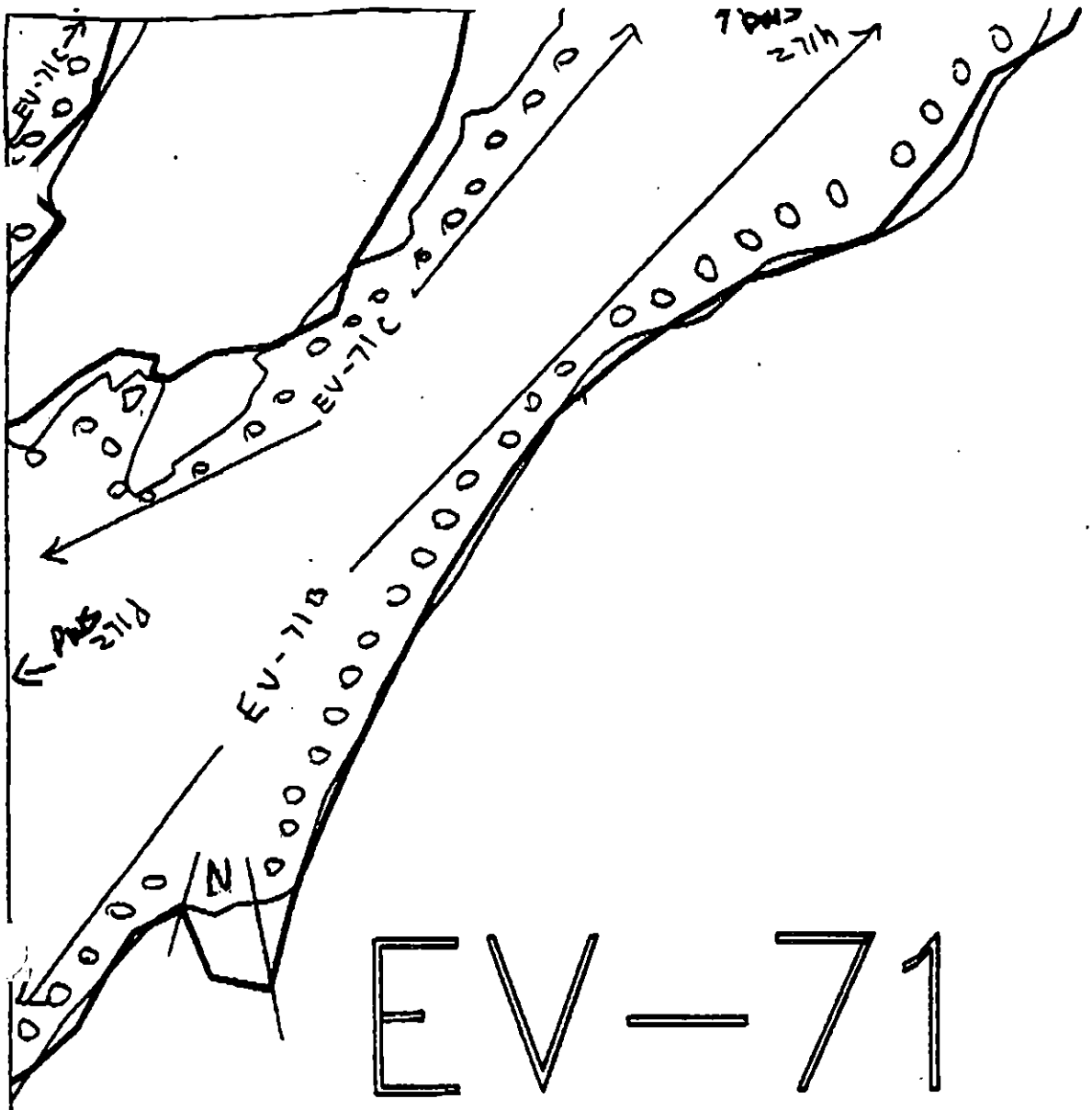
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//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:



EV-71

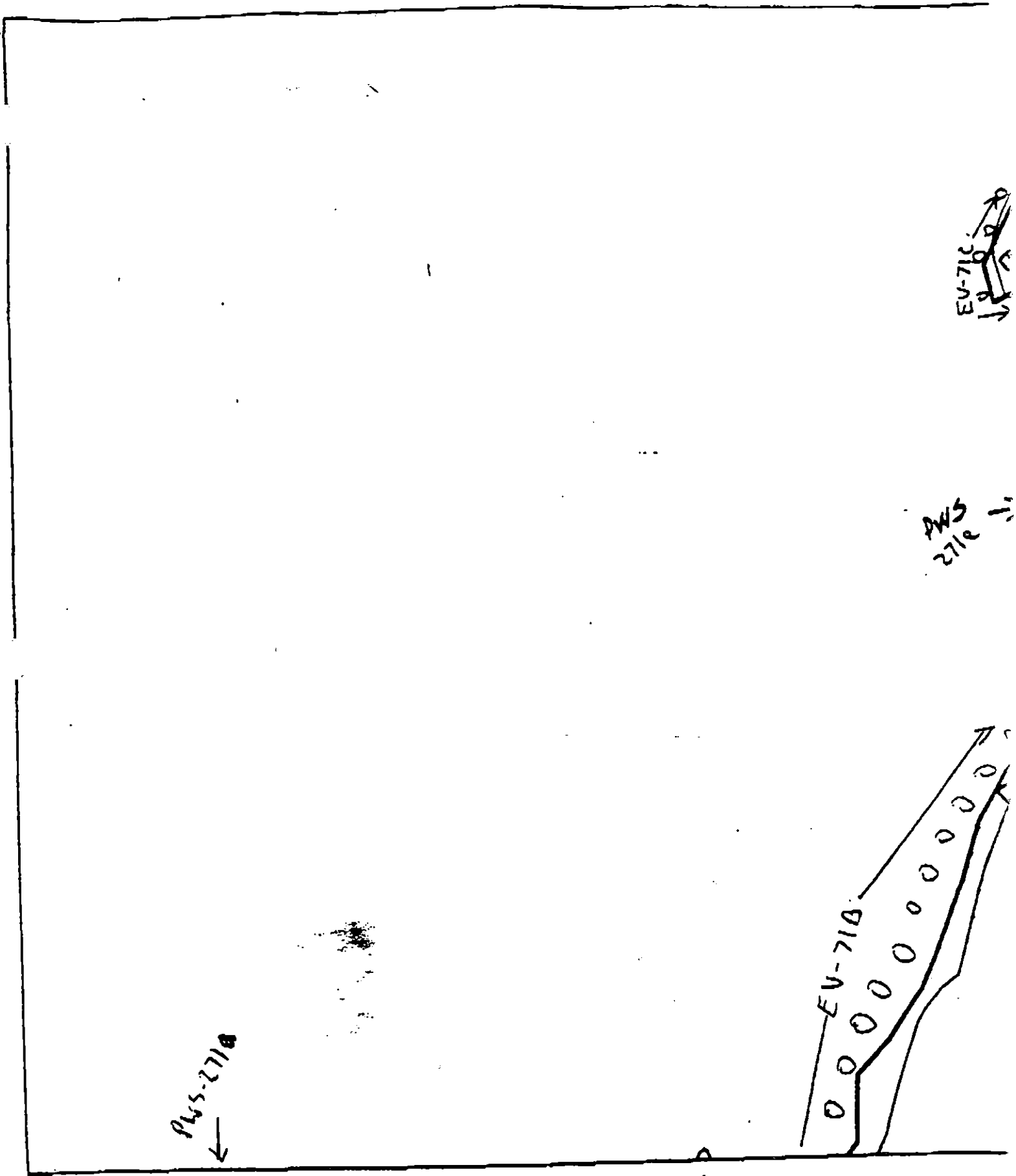
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Data Entered:



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

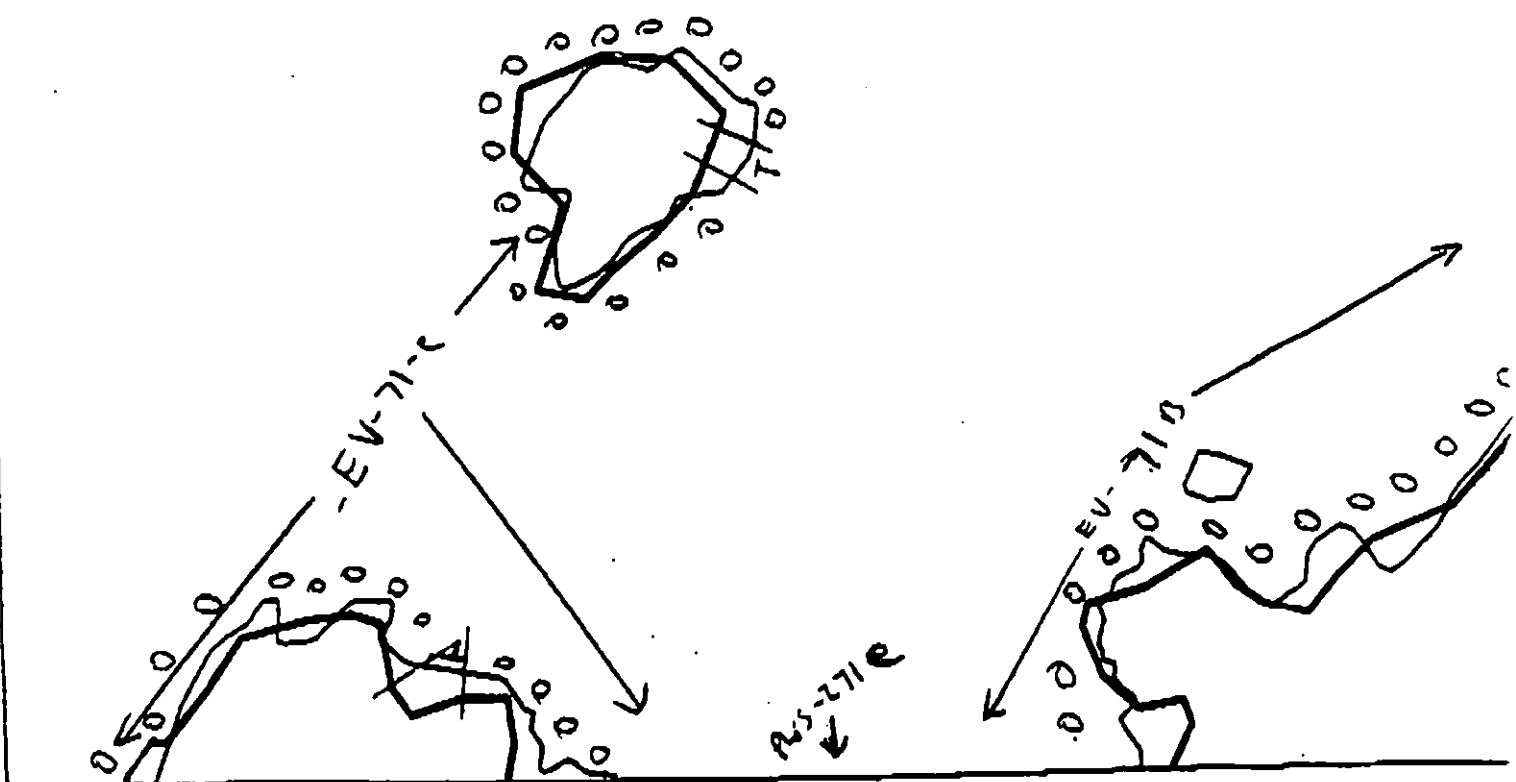
EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:

PWS-271i →



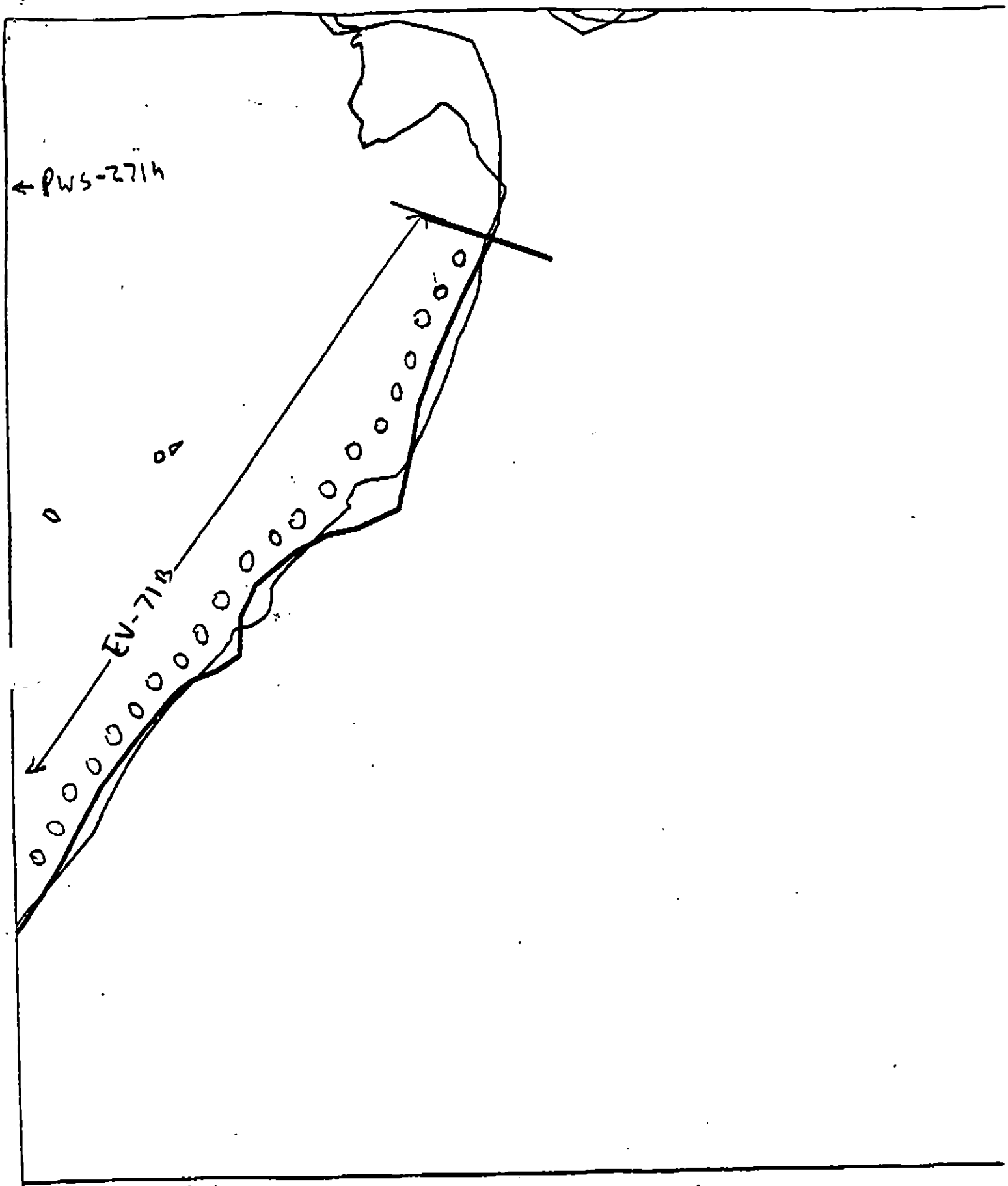
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//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-71

ADEC Segment Length: 8115m

0 100 200 500
METERS

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-71

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no 226-40-16494, 16484, 16477.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. 1 eagle nest in EV-70, near border with Subdivision B.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 118 m: No Oil 4957 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Breakup	_____ Beach Cleaner
_____Removal	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-71 SUBDIVISION: B DATE 3/31/90

USCG NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

THIS SEGMENT SUBDIVISION COVERED A RELATIVELY LENGTHY PORTION OF SHORELINE AND INCLUDED DIFFERENT BEACH TYPES WITH DIFFERENT VEGREES OF OILING. THE SECTION ADJACENT TO AND CONTINUING NORTH OF SUBDIVISION EV-71A, ENDING ABOUT 1 MI. NORTHWARD, SHOWED NO EVIDENCE OF OILING.
A COBBLE AND BOULDER BEACH EXAMINED AT A SMALL EMBAYMENT HAD WEATHERED SPLATTERS ON BOULDERS AND A BAND OF RESIDUAL OIL ON SEDIMENTS, APPROX 3 CM DEEP AND 1 M OR LESS WIDE EXTENDING FOR A LENGTH OF 100 M. OILING WAS EVIDENT ONLY ALONG THE NORTHERLY FACING PORTION OF THE BEACH. THERE WAS NO OILED SUBSTRATE IN THE BED OF THE STREAM ITSELF, ALTHOUGH THE BAND OF RESIDUAL OIL DISCUSSED ABOVE WAS IN ITS VICINITY TO THE SOUTH. NO OIL WAS NOTED NORTH OF THE STREAM. THE SUPRATIDAL WAS COVERED BY SNOW AND NOT VISIBLE.

THE REMAINDER OF THE SUBDIVISION WAS LARGELY FREE FROM EVIDENCE OF OILING, WITH ONLY OCCASIONAL WEATHERED SPLATTERS. SNOW COVERED THE SUPRATIDAL IN AREAS WHERE BEACHES WERE WELL-DEFINED, PRECLUDING ASSESSMENT OF UNDERLYING CONDITIONS.

RESULTS FROM EV-71A AND EV-71B SUGGEST THAT NORTH-FACING BEACHES IN THIS SEGMENT EXPERIENCED A GREATER DEGREE OF EXPOSURE THAN OTHER ORIENTATIONS.

ADEC
NAME John Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Oiling was very light & weathering. Oiling observed consisted of tar patches & bands of film & stain. One area with subsurface oil to 5cm. Quantity of residual oil grading down to a film. Surface oil observed was weathering no treatment recommended. S.S. oiling was isolated & not near [redacted] within near proximity of a stream.

LAND MANAGER
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

NAT'L FOREST REP NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 03/20/89

OG Mike Foget NOAA/USCG Gary Shigenaka SEGMENT ST/ EV-71
BIO Richard Ambrose LAND REP — SUBDIVISION B (2 OF 3)
EXXON Larry Olson ADEC John Hayes TIME 10:30 to 12:00
TEAM NO.: 11 TIDE LEVEL: 2.7 to 0.2 DATE 4/1/90
EST. SUBDIVISION LENGTH: 5175 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock Steep Rocky backshore w/ forest
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 20 % B 35 % C 30 % P 10 % G 5 % S — % M — % V — %
SLOPE: Lang 30 % Hang 50 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W — m M — m N — m VL 100 m NO 5075 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/S	/P	/R						SU	UI	MI	LI
ASPHALT PAVEMENT				√				√			√		
POOLED													
COVER													
COAT			X					X			X		
STAIN				√ X		√			X		√ X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										S		X	X

PAVEMENT: H (F) S 1 sq. m by 3 cm
PATTIES / TARBALLS — BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ 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 NO	NC	OIL / FILM COLOR					PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE SEDIMENTS
1	20					X	-									X				P, S
* 2	5		X				0-4		X				X			X				P S
* 3	5		X				0-3		X				X			X				P S
4	10					X	-									X				P, G
5	20					X	-									X				P, G, S, P
6	15					X	-									X				P, S, M, P

* OILED INTERVAL < 5cm IN PIT NOS. 2 AND 3 DO NOT CONSTITUTE SUBSURFACE OIL

COMMENTS A narrow 1m x 100 m tar coating was found in the HITZ among the cobble at a bay located midway through the Subsite + locations 2 and 3 are located on this beach. The distribution of the oil is patchy. The oil shows signs of weathering, because oil on the exposed rock is a tar stain and a coat on protected cobble (See map 2). 1 m^2 asphalt patch was also observed in this zone, no other oil was observed in this sub division w/ the exception of a few weathered oil splotches.

REVIEWED JW DATE 4-4-90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 05/22/90

SEGMENT ST/ EV-7 SUBDIVISION B

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO	(CM-CM)	UO	UC						SU	UI	MI	LI		
7	10					X	-									X				G, R (water 5cm)
8	20					X	-									X				P, G, S
9	20					X	-									X				P, G, S
							-													
							-													
							-													
							-													
							-													
							-													
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							-													
							-													
							-													
							-													

COMMENTS

REVIEWED JW DATE 4-4-90

SEGMEN EU-71

SUBDIVISION D - Blow Up

DATE ____/____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

ETCH MAP 2

Point - Bedrock / Boulders

N

Scale

10m

Snow covered Backshore

CT/P 1m X 100m

1m x 1m asphalt patch

Low angle Cobble Beach

Stream

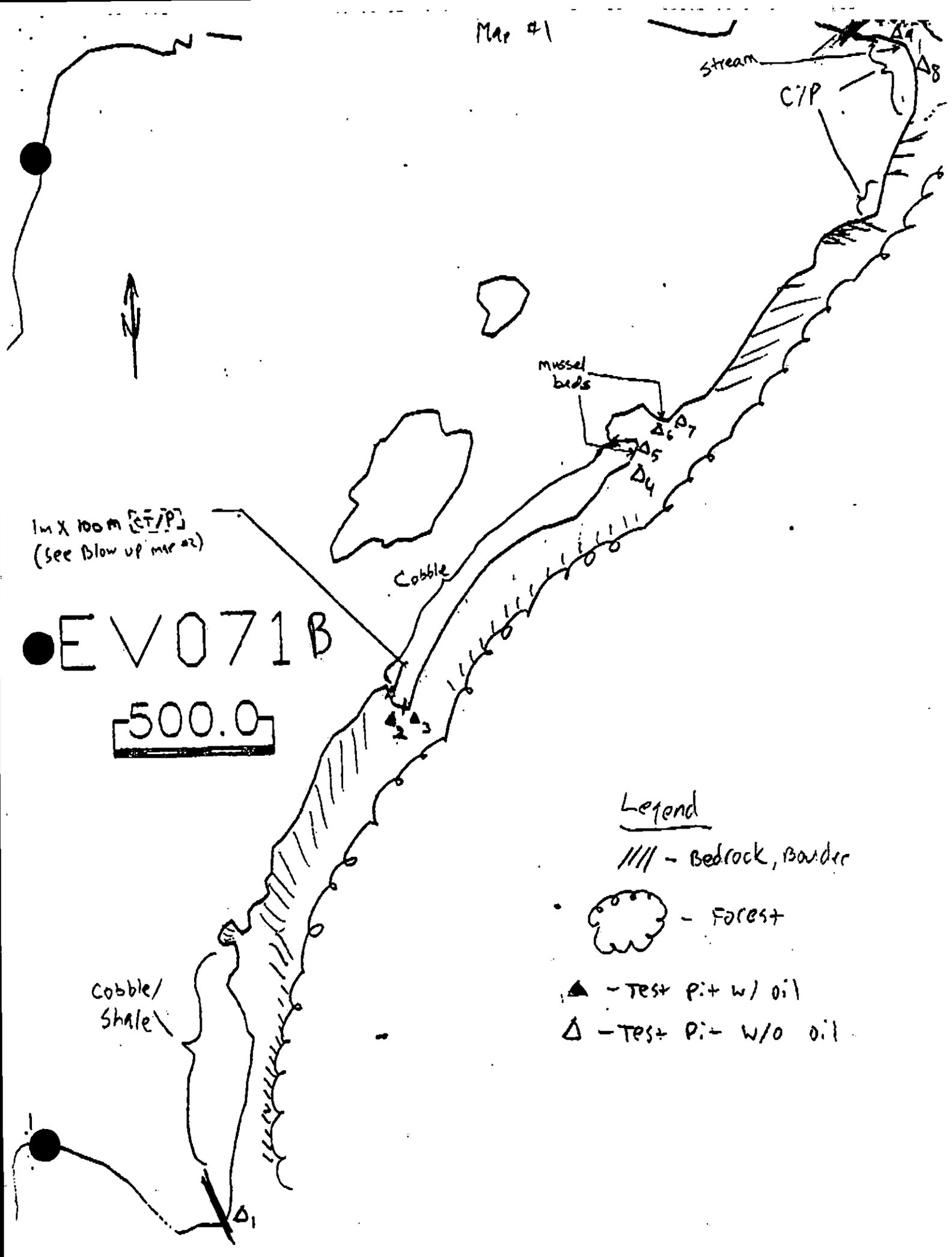
Legend

Forest and Snow

↑ - trees

O - Boulders

Oil Character Length (m): AP ___ PO ___ CV ___ CT 100 ST ___ MS ___ PT ___ TB ___ FL ___ NO 5075


Map #1
stream
C/P
mussel beds
1m X 100m [C/T/P]
(See Blow up map #2)
Cobble
EV071B
500.0
Cobble/
Shale
Legend
//// - Bedrock, Boulder
- Forest
▲ - Test Pit w/ oil
△ - Test Pit w/o oil

REVISION: 03/22/90

SHORELINE ECOLOGICAL SUMMARY

Segment ST/ EV071 Subdivision B Date (mo / day / yr) 3/31/90 and 4/1/90.

Time (24 hr) 1030 hrs and 1040 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 35 (3) Cobble 30 (4) Pebble 10 (5) Sand 5 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 50 Moderate 20 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-11-1 Frames 16, 17

BARNACLES — NOT PRESENT

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

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

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	X	X	2
3	3	3	3	3	3	3	X	3	X	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

FUCUS — NOT PRESENT

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

Wildlife Observations/ General Comments:

See addendum

Ecological Considerations:

71!, ST-5: 2 mature bald eagles seen, but no nests.
Several beaches have established or beginning mussel beds, with mussels embedded in pebbles; these would be susceptible to trampling (but no oil was found on these beach
One stream might possibly be important for salmon. (These are noted on OG's map)

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31)
	No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C	Salmon fry nursery area (4/31 to 7/31)
1D	Esther Hatchery release (4/15 to 6/1)
1E	Main Bay Hatchery release (4/20 to 5/10)
1F	Sawmill Bay Hatchery release (4/15 to 6/1)
1G	Cannery Creek Hatchery release (4/21 to 6/1)
1H	Remote release site
1I	Gill net area (6/7 to 8/31)
1J	Purse seine area (7/20 to 9/30)
1K	Purse seine hook-off (7/20 to 9/30)
1L	Set net sites (6/11 to 7/25)
	For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M	Herring spawning (4/1 to 6/15)
	Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P	Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q	Harbor seal and sea lion molting (8/15 to 9/15)
	Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R	Seabird colony (5/1 to 9/1)
	Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S	Shorebird/waterfowl concentration (4/1 to 5/15)
	Restrict all activity to essential minimum, especially air traffic.
5T	All Bald Eagle nests (3/1 to 6/1)
	Active Bald Eagle nests (3/1 to 9/1)
	Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.

6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

Shoreline Ecological Survey
Segment EV071B

Ambrose
4/1/90

Addendum

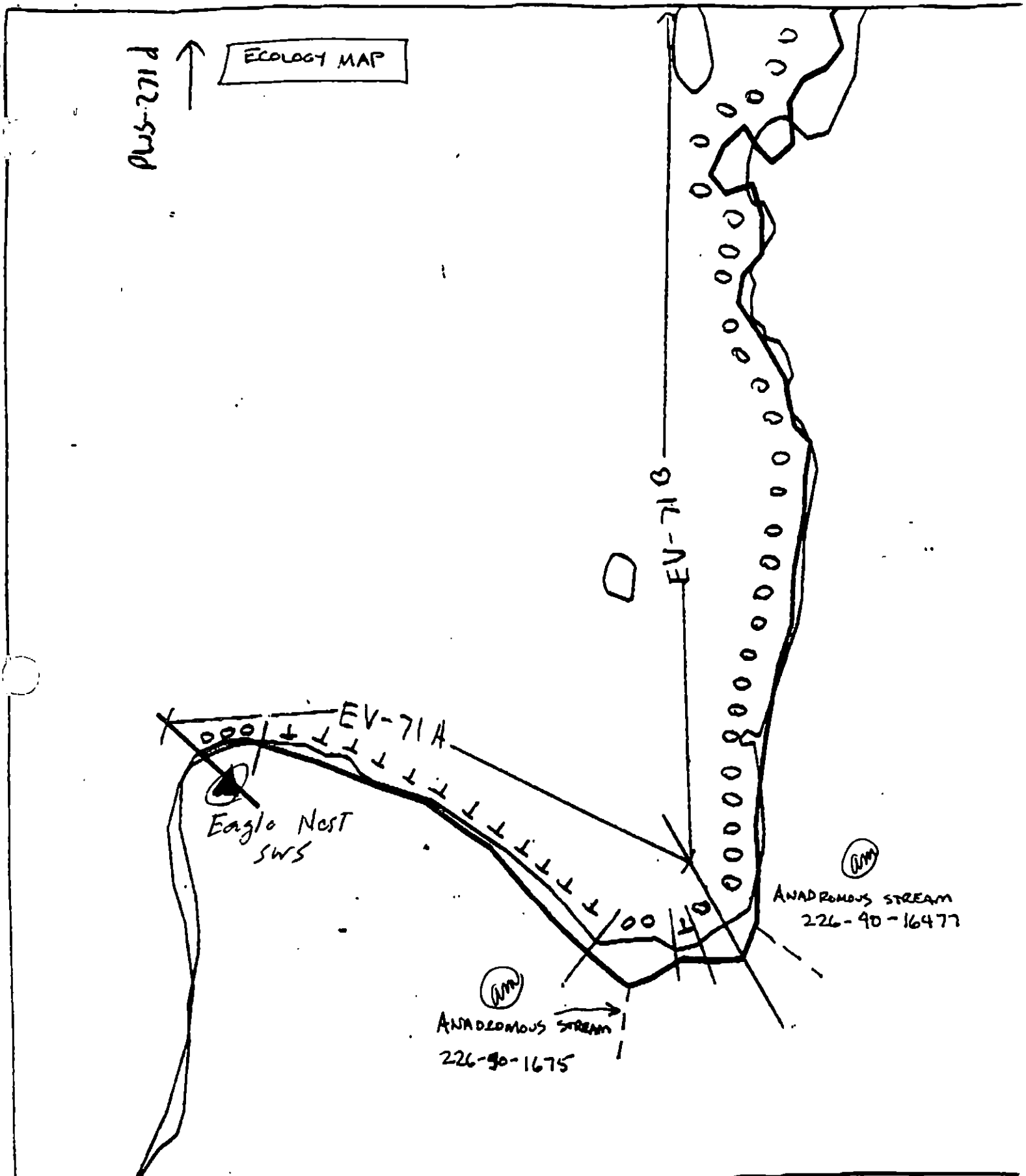
Wildlife Observations:

2 mature bald eagles, 18 crows, 4 otters, 7 Harlequin ducks, 1 porcupine, 2 common murres, 14 cormorants, 1 gull, 1 sea lion, 5 deer. Also noted a possible bear trail leading to the beach!

General comments:

EV071B is a long and diverse section. Portions of the segment, especially the rock walls and high-angle beaches, have dense cover (with Fucus in the high intertidal and red algae down low). However, cobble and other low-angle beaches have sparse cover.

Laminaria was very dense in the shallow subtidal off of this section.



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

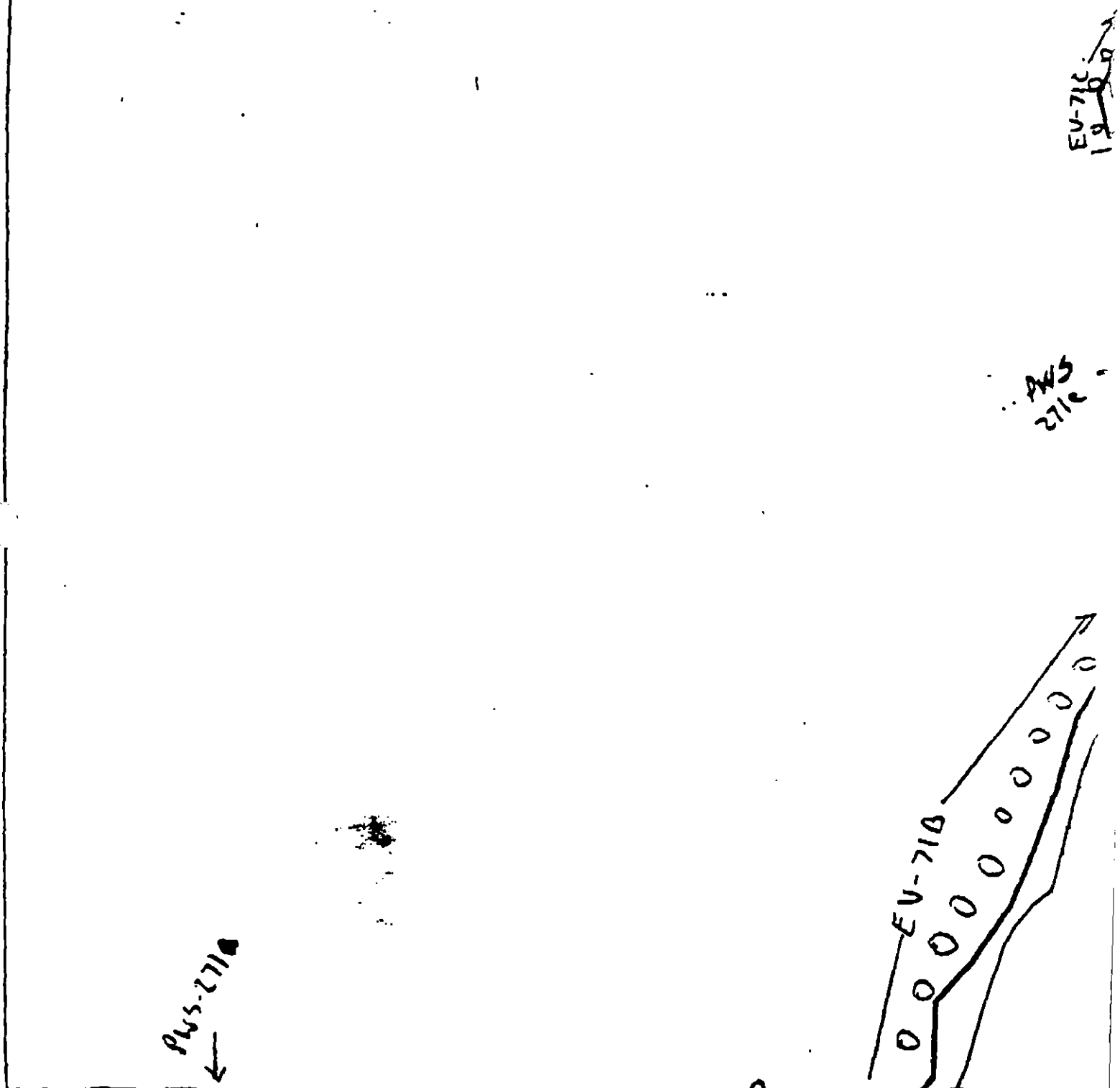
EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:

ECOLOGY MAP



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

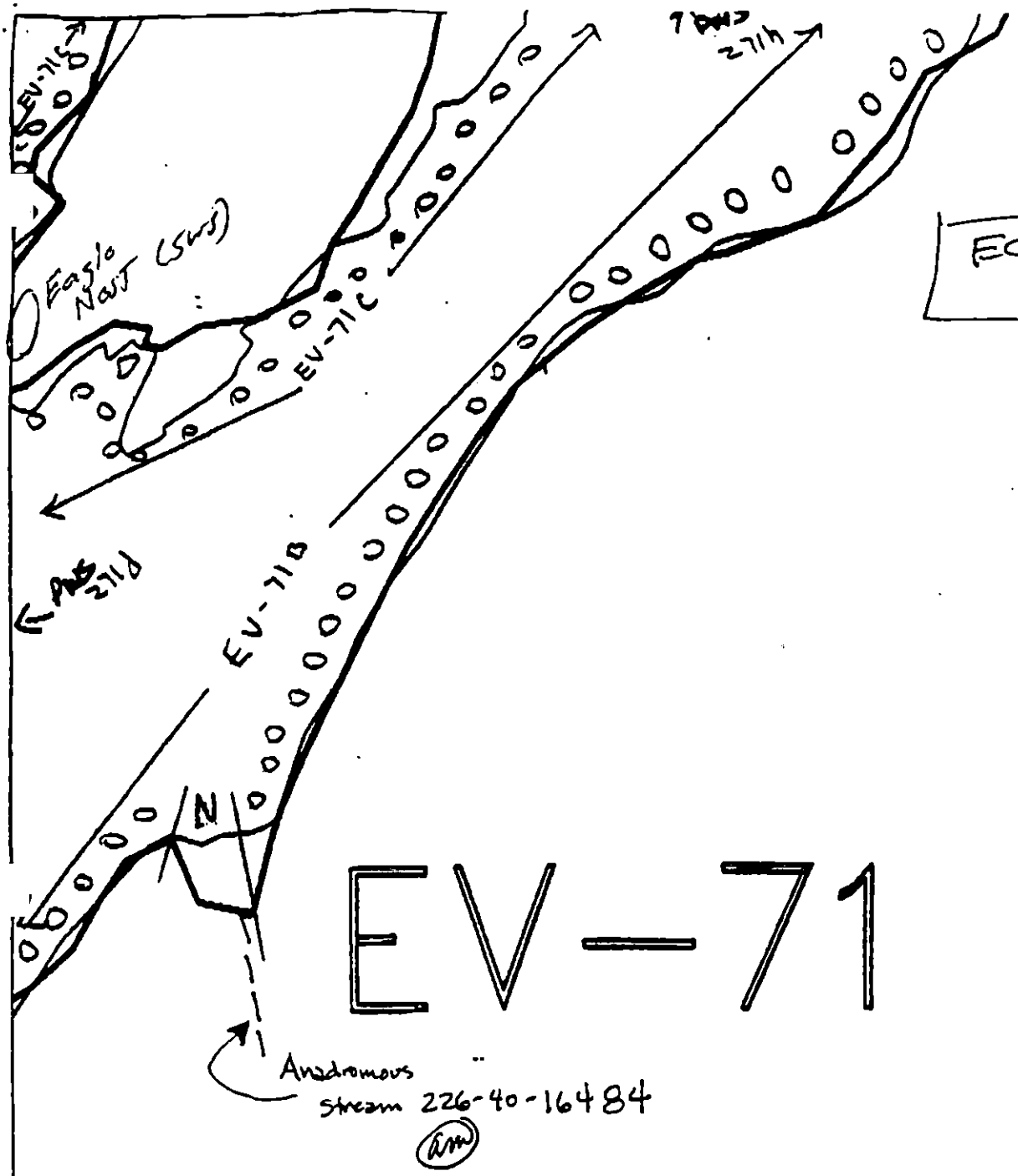
EV-71B

ADEC Segment Length: 8115m

0 100 200 300

N

Map Key: PWS-2716
Name: Mike Foyer
Date: 4/1/90
Date Entered:



ECOLOGY MAP

EV-71

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

EV-71B

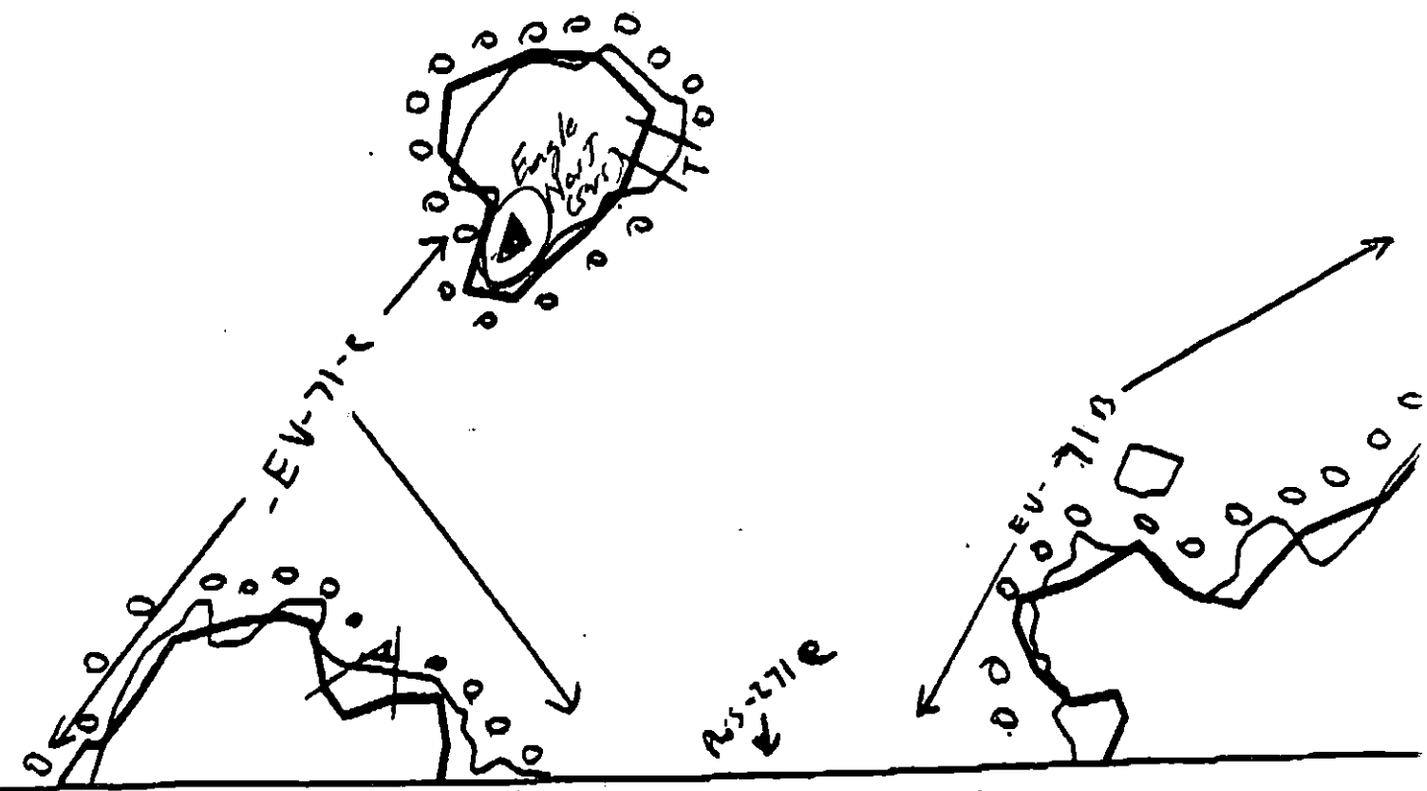
ADEC Segment Length: 8115m

0 100 200 500
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Date Entered:

ECOLOGY MAP

PWS-271i →



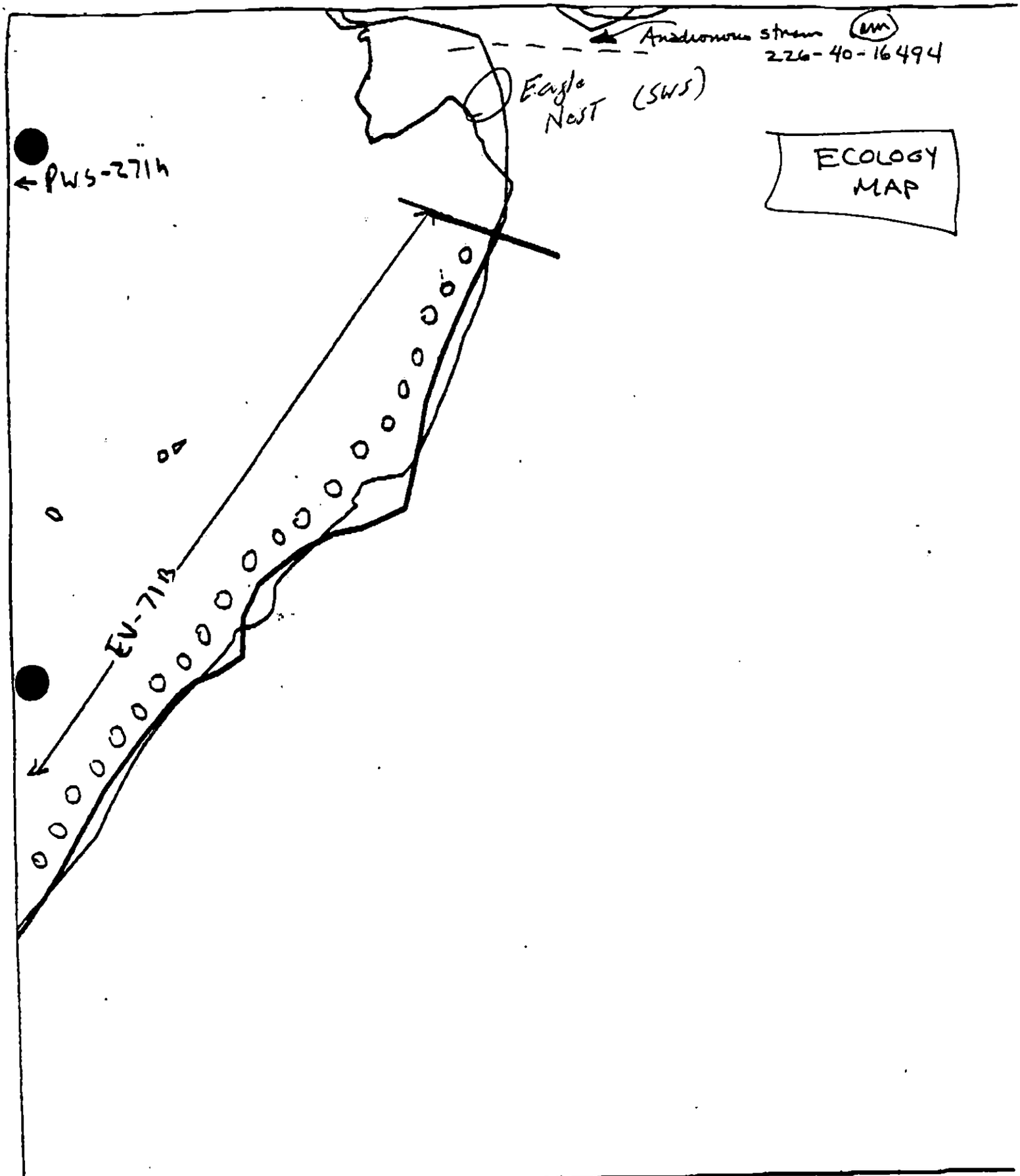
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//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



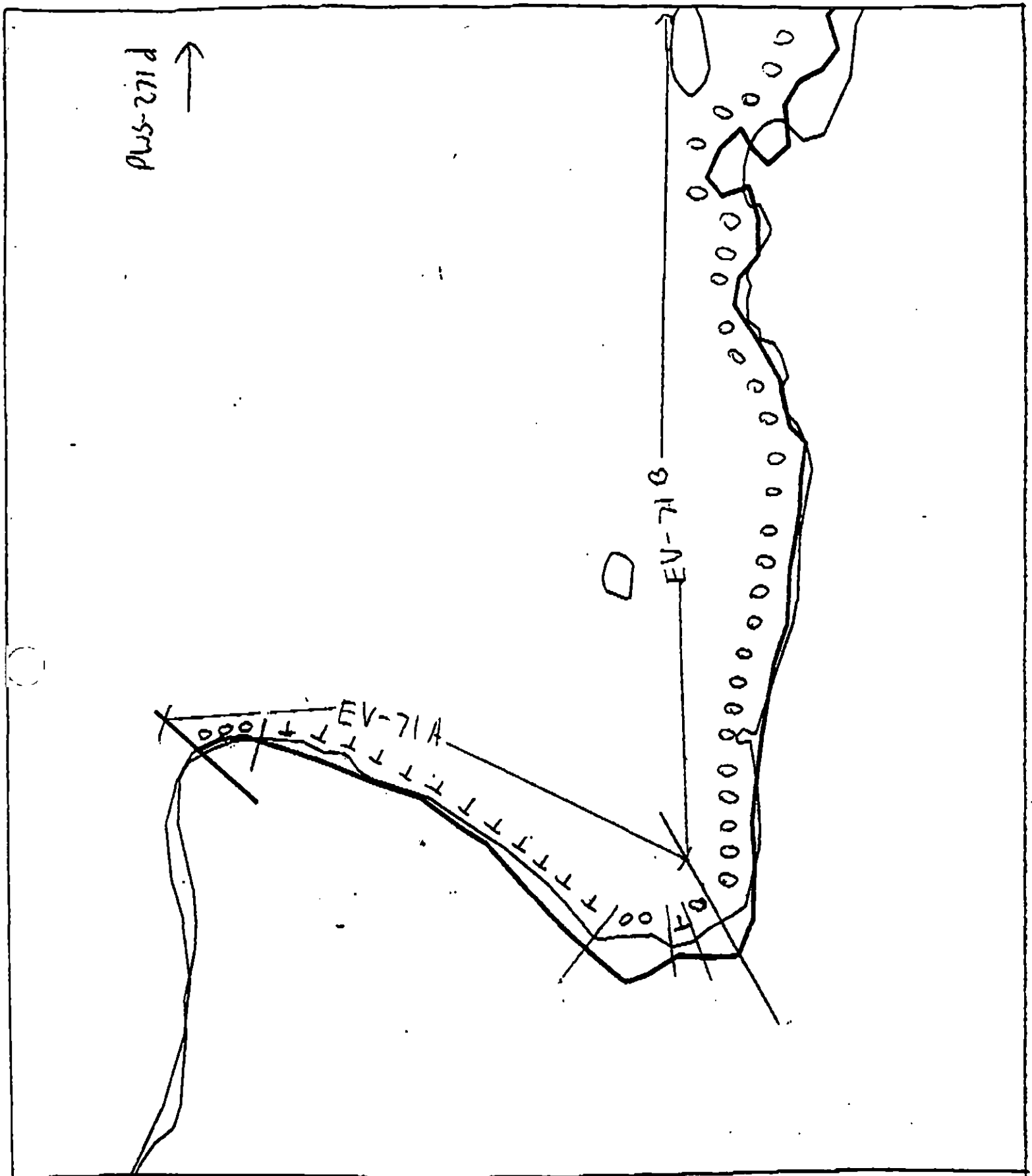
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//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:



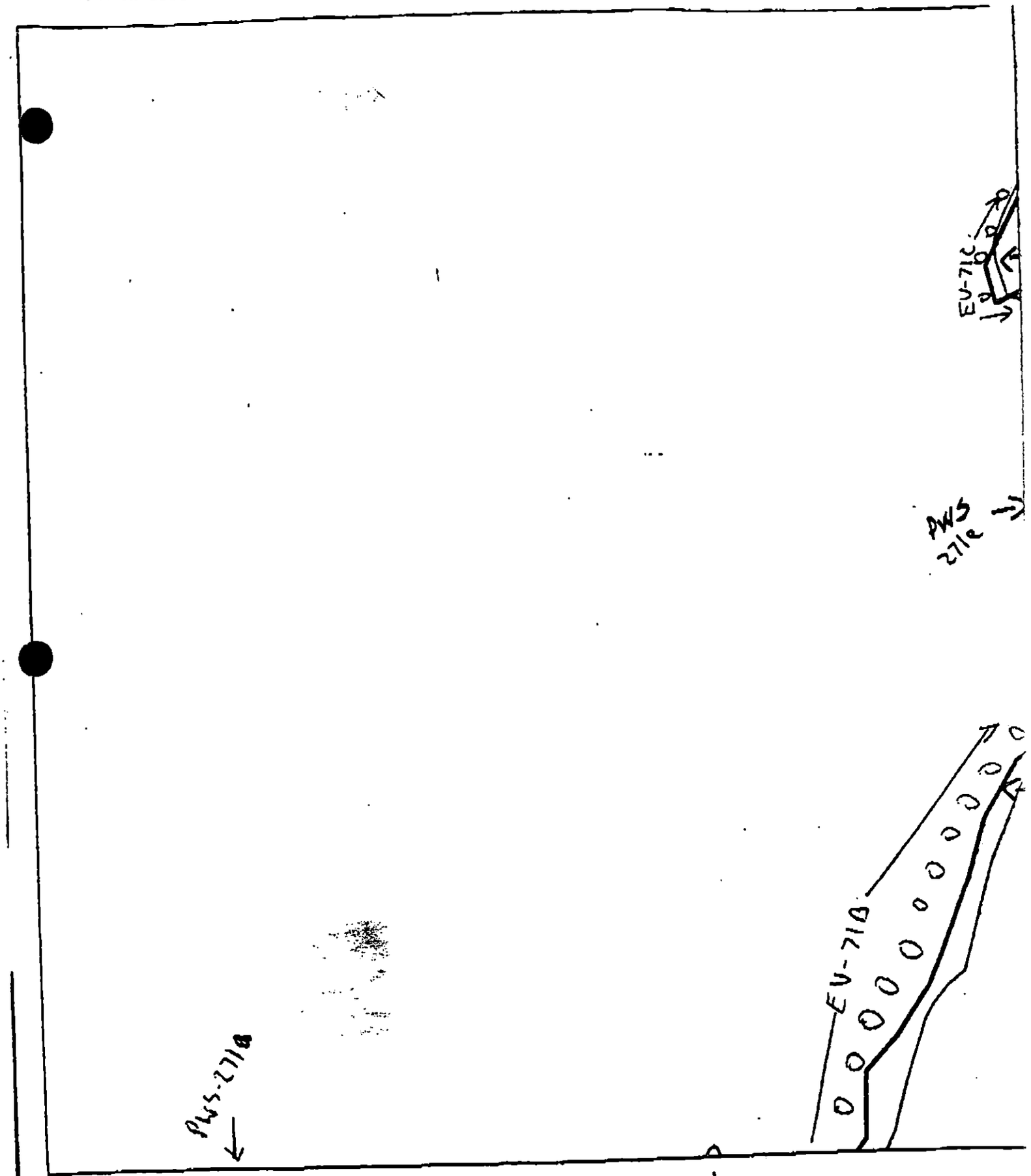
XXXX Wide
//// Medium
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TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271a
Name: Mike Foget
Date: 4/11/90
Date Entered:



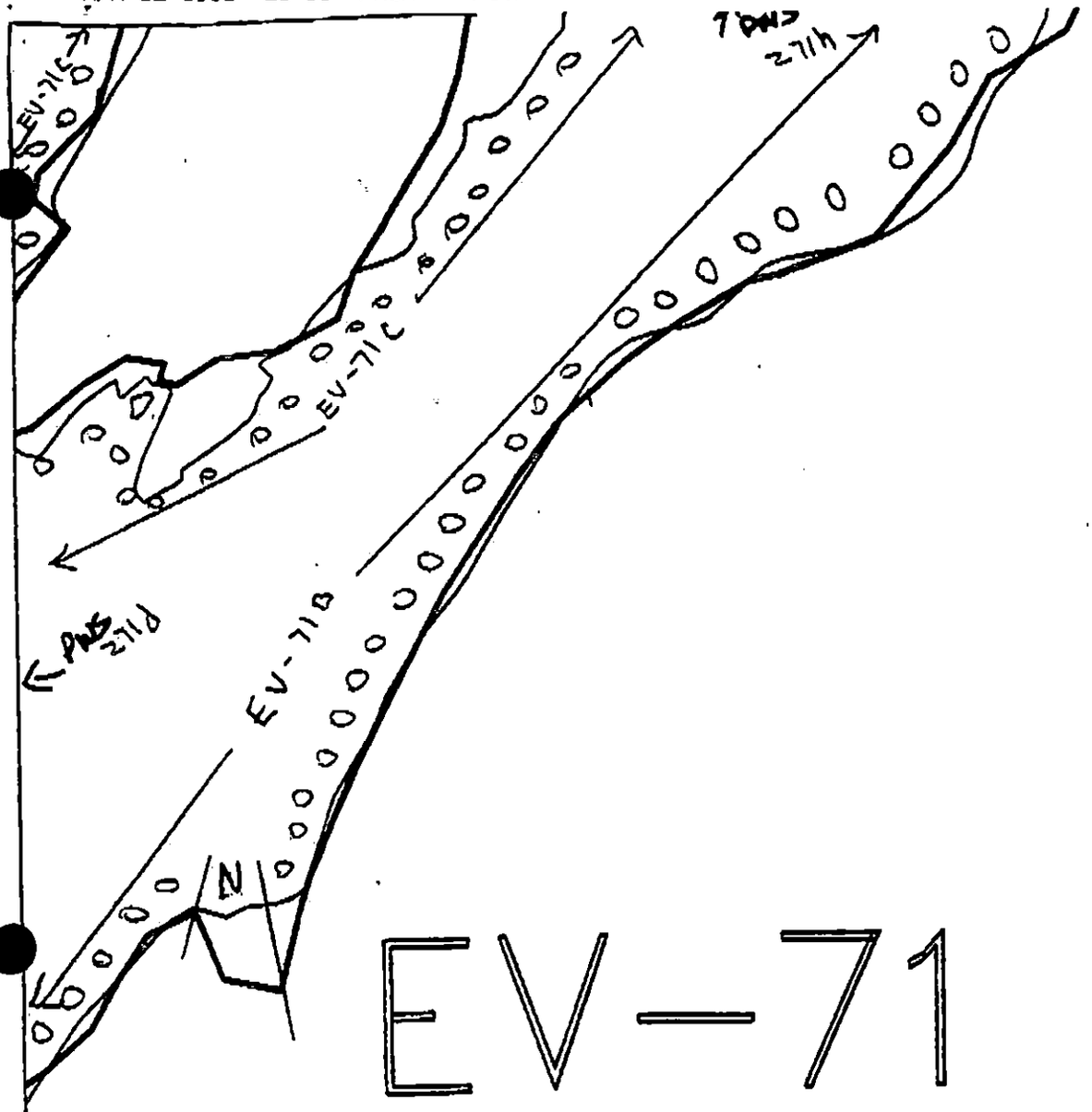
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TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foget
Date: 4/1/90
Date Entered:



EV-71

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

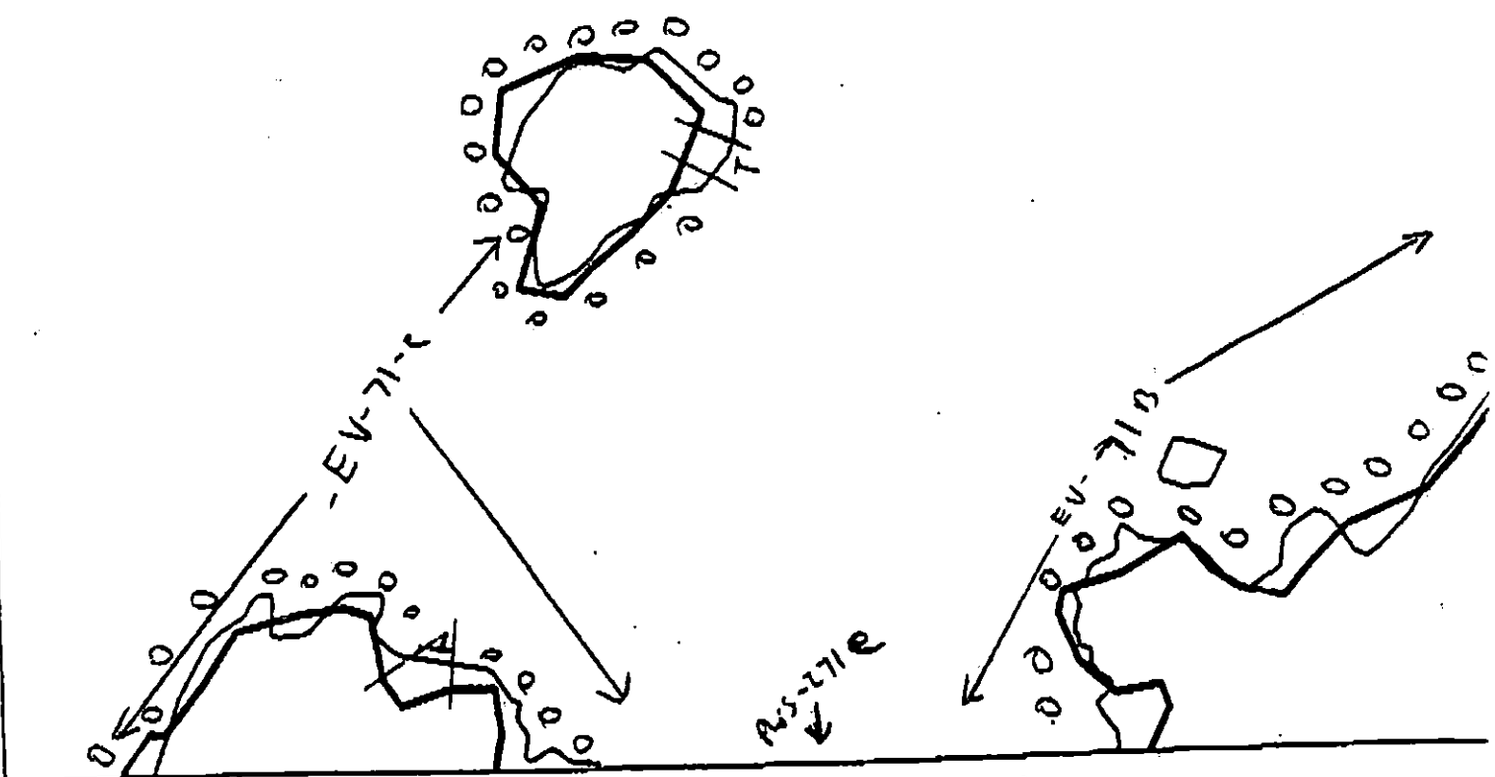
EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Data Entered:

PWS-271i →



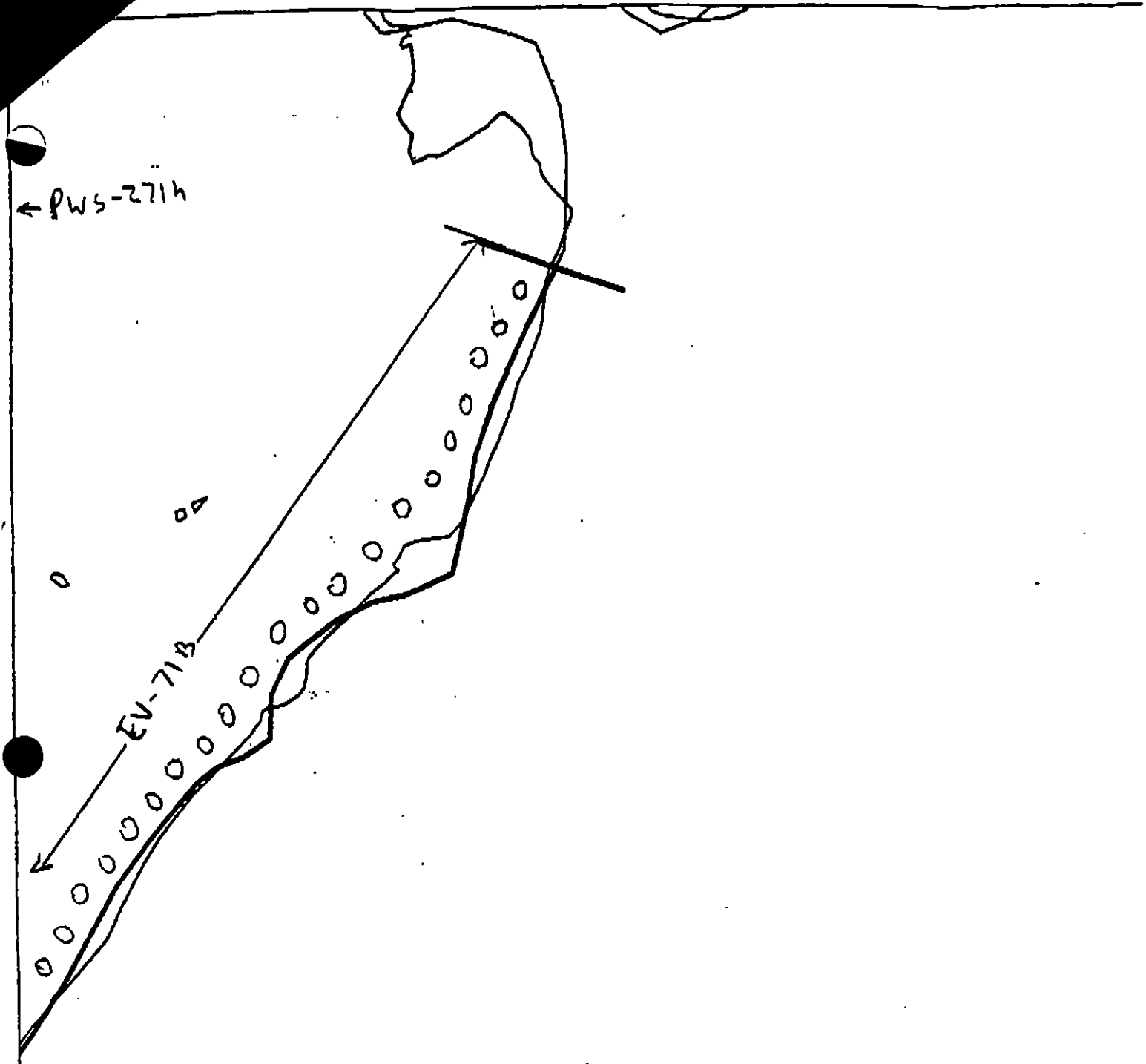
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-71

SUBDIVISIONS: C (3 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION C (3 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
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 treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 105 m: No Oil 2020 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Breakup	_____ Beach Cleaner
_____Removal	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A		Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B		Salmon stream mouth - spawning (7/10 to 8/31)
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		Salmon fry nursery area (4/31 to 7/31)
1D		Esther Hatchery release (4/15 to 6/1)
1E		Main Bay Hatchery release (4/20 to 5/10)
1F		Sawmill Bay Hatchery release (4/15 to 6/1)
1G		Cannery Creek Hatchery release (4/21 to 6/1)
1H		Remote release site
1I		Gill net area (6/7 to 8/31)
1J		Purse seine area (7/20 to 9/30)
1K		Purse seine hook-off (7/20 to 9/30)
1L		Set net sites (6/11 to 7/25)
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		Herring spawning (4/1 to 6/15)
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q		Harbor seal and sea lion molting (8/15 to 9/15)
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		Seabird colony (5/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		Shorebird/waterfowl concentration (4/1 to 5/15)
		Restrict all activity to essential minimum, especially air traffic.
5T		All Bald Eagle nests (3/1 to 6/1)
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-71 SUBDIVISION: C DATE 4/1/90

FOG NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SUBDIVISION CONSISTED OF 2 ISLANDS OFF THE WEST CENTRAL PORTION OF EVANS ISLAND. PERIMETERS OF BOTH WERE COMPLETELY SURVEYED AND SIX BEACH LANDINGS WERE MADE AS WELL. OILING WAS SPORADIC AND CONSISTED OF STAIN AND COATING, MOSTLY WELL-WEATHERED.

ADEC
NAME John Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Two small Islands west of beach segment EV-71. We made six Landings at pocket beaches on Islands. Oiling observed was very light and consisted of tar splatter and sticky weathered oil on surface (discontinuous) on headlands. Area is naturally weathering and no SS contamination was observed.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

NAT'L FOREST REP NOT AVAILABLE

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget NOAA/USCG Gary Shigenaka SEGMENT ST/ EV-71
BIO Richard Ambrose LAND REP — SUBDIVISION E (3 OF 3)
EXXON Larry Olson ADEC John Hayes TIME 9:05 to 10:30
TEAM NO.: 11 TIDE LEVEL: 6.9 to 2.9 DATE 4/1/90
EST. SUBDIVISION LENGTH: 2340 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☑ Rock Rocky backshore w/ Forest
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 35 % B 20 % C 15 % P 10 % G 10 % S 10 % M ~ % V — %
SLOPE : Lang 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
OIL CATEGORY LENGTH: W Ø m M Ø m N Ø m VL 60 m NO 2280 m

SURFACE OIL

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

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

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED ☒ YES ☐ NO
TYPE Clean Pom Pom Line Banding
#BAGS 1

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					PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE SEDIMENTS
1						X	-		X							X				C, P (H2O at 3cm No Sheen)
2						X	-		X									X		C, P, M (H2O at 5cm No sheen
3						X	-		X							X				P, G, S
4						X	-		X							X				G, C
5						X	-		X							X				P, G, M, C
6						X	-		X									X		G, S (water at 5cm)

COMMENTS Only some oiling was observed, the oil was weathered and was a splattered distribution in the HITZ, the two Island Shore zones consisted mostly of Bedrock / Boulders w some Pocket Cobble beaches

REVIEWED JW DATE 4-4-90

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 08/22/90

SEGMENT ST/ EV-71 SUBDIVISION C

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI		
7						X	-		X								X			G,S (H2O 5cm)
8						X	-		X							X				G
9						X	-		X								X			P, G, S
10						X	-		X							X				G, S
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													
							-													

COMMENTS

REVIEWED JW DATE 4-4-90

OG Mike Foget

SEGMENT ST/ EV-71

SUBDIVISION C

DATE 4 / 1 90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Seg/Sub Bndry
- ___Oil Dist.
  - Width
  - Length
  - % Cover
- ___Substrate Character
- ___Est. HWL/LWL
- ___SSL
- ___Profile Location(s)
- ___Profile(s)
- ___Pit Location(s)
- ___Photo Location(s)

LEGEND

1 △

PR - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

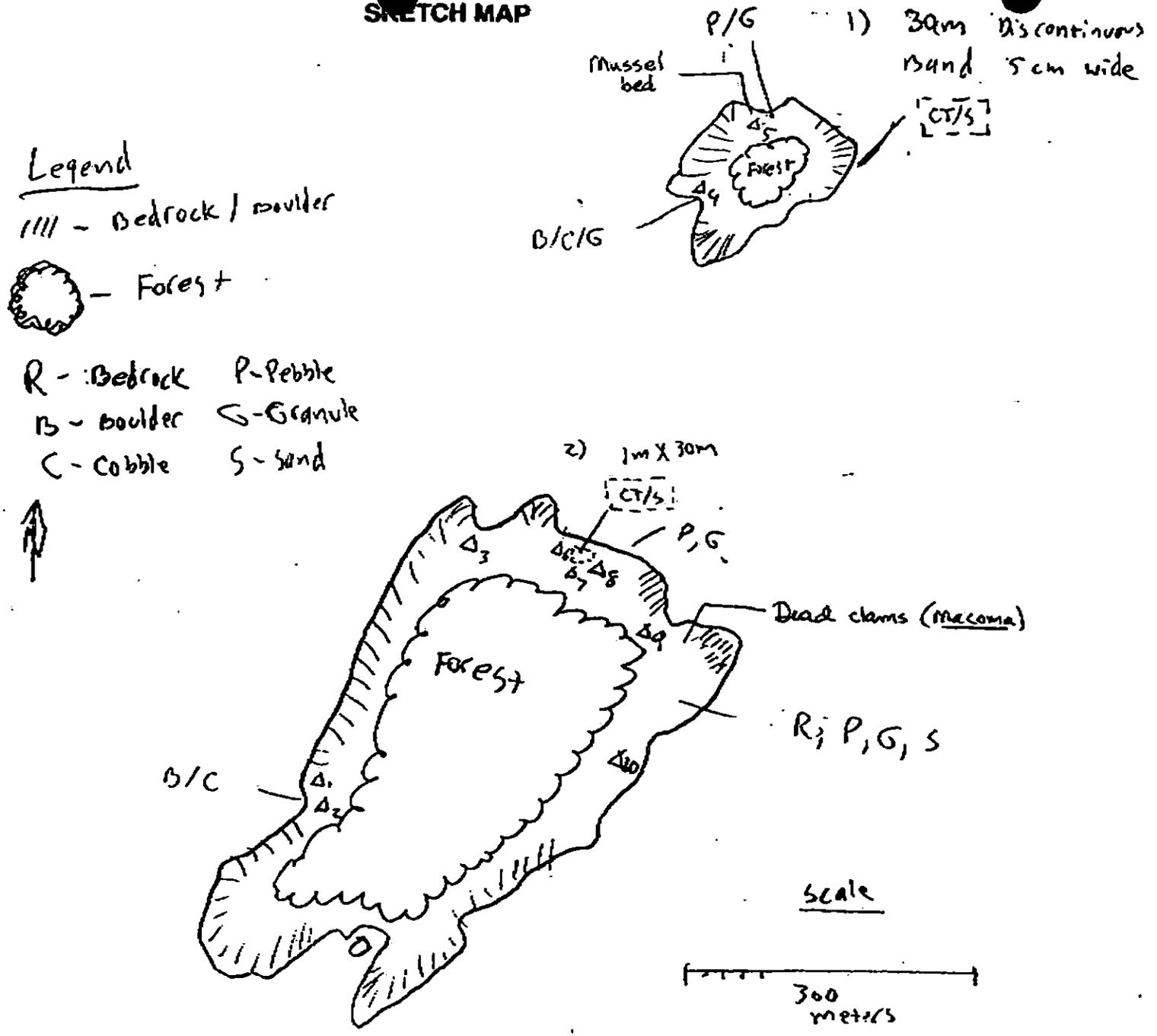
Splashed Distribution

Oiled Vegetation

1 ⇐

Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP ___ PO ___ CV ___ CT 30 ST 30 MS ___ PT ___ TB ___ FL ___ NO 2280

REVISIONS/NOTES

MAR-02-1990 21:11 FROM PHYSIC SEMINOSE TO 01#---0013075643771# P.15

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/20/90

Segment ST / EV071 Subdivision C Date (mo / day / yr) 4/1/90

Time (24 hr) 0910 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 35 (2) Boulder 20 (3) Cobble 15 (4) Pebble 10 (5) Sand 20 (6) Silt ____

(B) Overall % cover of biota (% of segment): Dense 50 Moderate 30 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. —
Frames —

BARNACLES

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

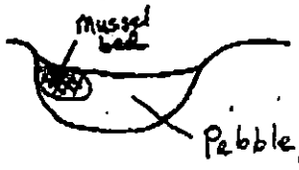
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	X	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	X	2	2	2	2	
3	3	3	3	3	3	3	X	3	X	3	3	NOT PRESENT
4	4	4	4	4	4	X	X	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

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

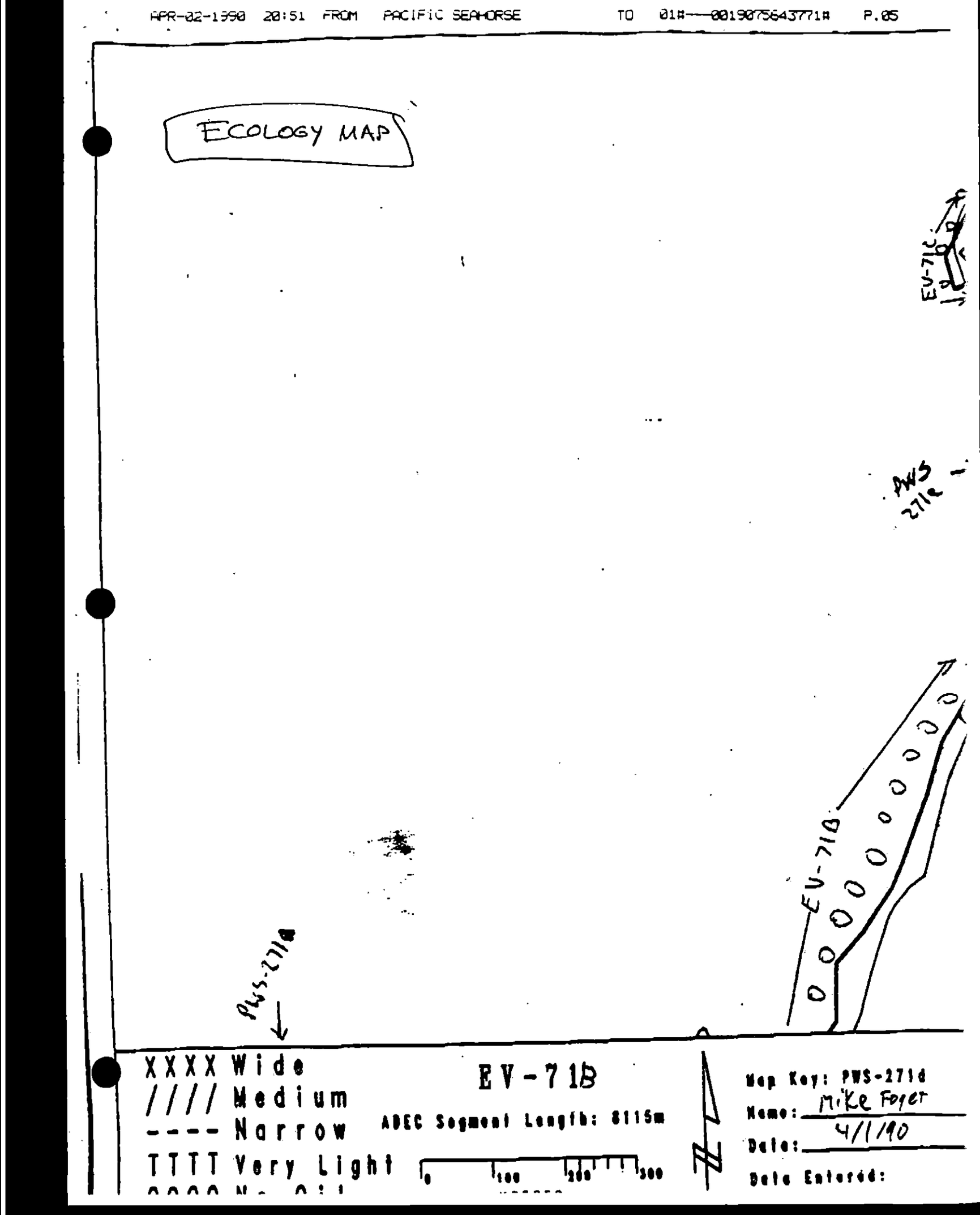
Wildlife Observations/ General Comments:*
10 crows, 1 eagle, 4 Harlequin ducks, 3 otters, 3 oystercatchers, 1 great blue heron, 2 sea lions. Dense cover on high-angle beaches/ rock walls. At one beach, many dead Macoma nasuta still in place, with valves showing at surface (location noted on OG's map).

Ecological Considerations:
TII, ST-5: 1 mature bald eagle seen, but no nests.
Mussel bed found on one pocket beach (noted on OG's map), but no oil seen there. Specific location of bed w/in pocket beach:



* Much of this section surveyed by boat.

ECOLOGY MAP



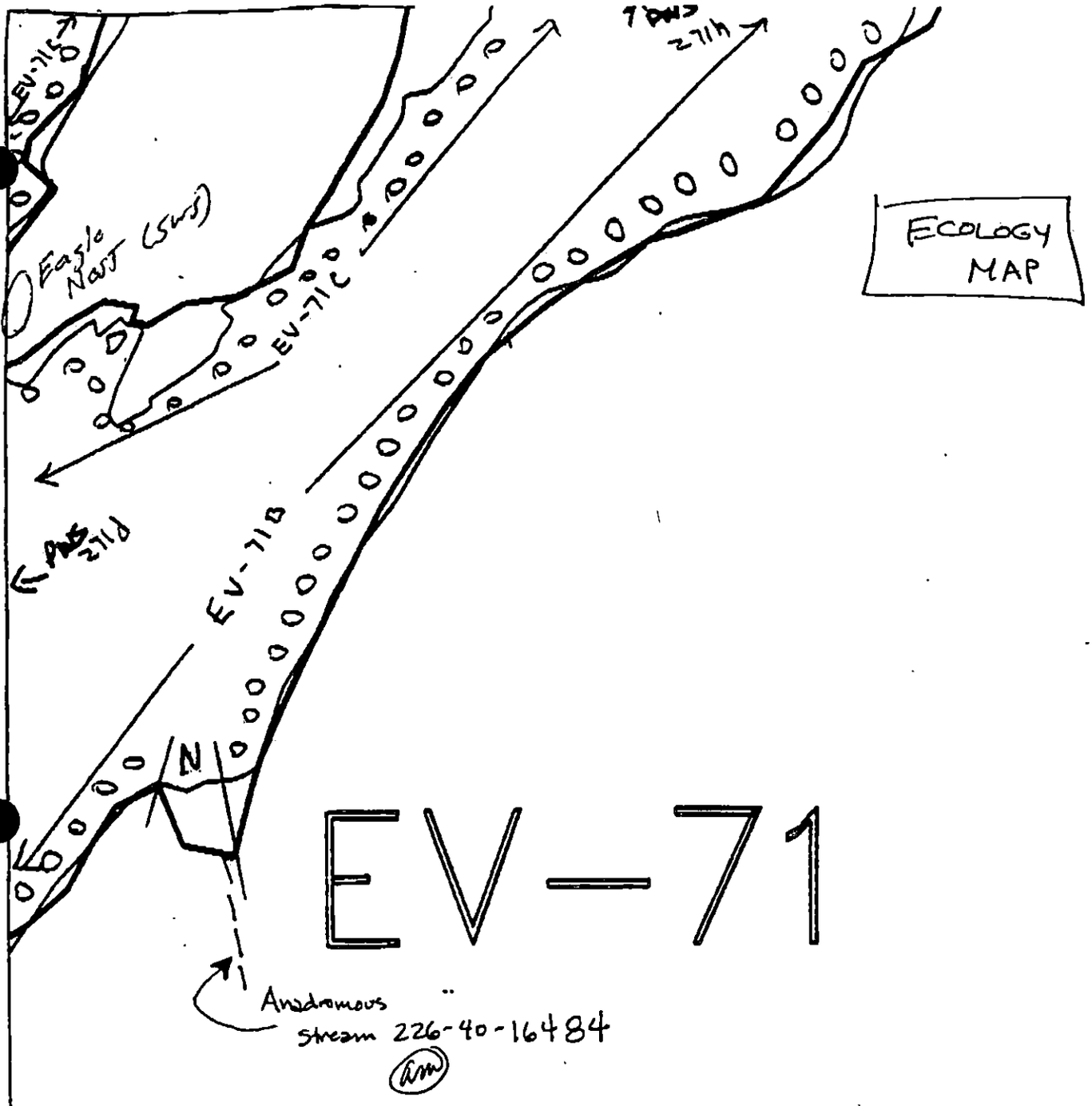
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71B

ABEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271A
Name: Mike Foget
Date: 4/1/90
Date Entered:



ECOLOGY MAP

EV-71

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

EV-71B

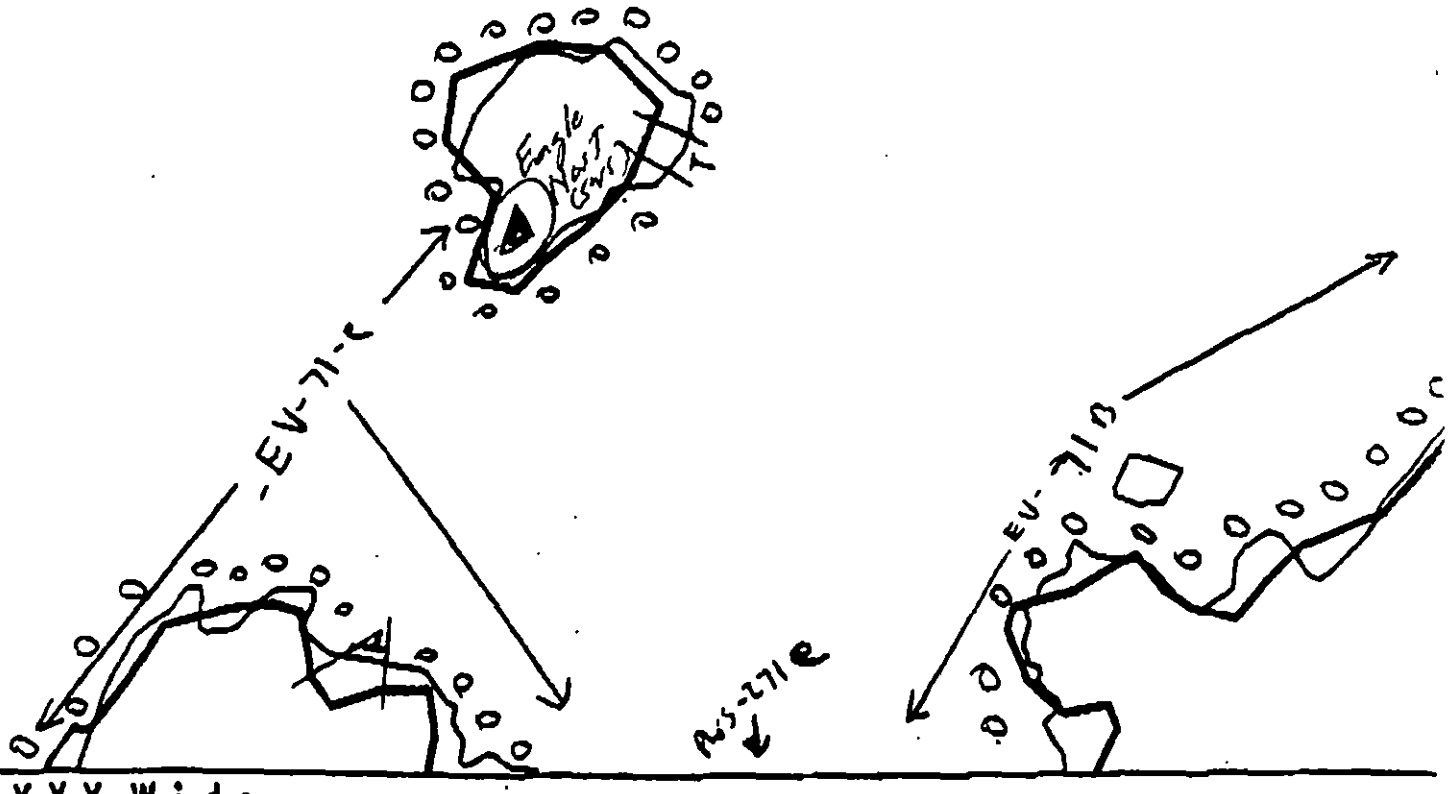
ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Date Entered:

ECOLOGY MAP

PWS-271i →



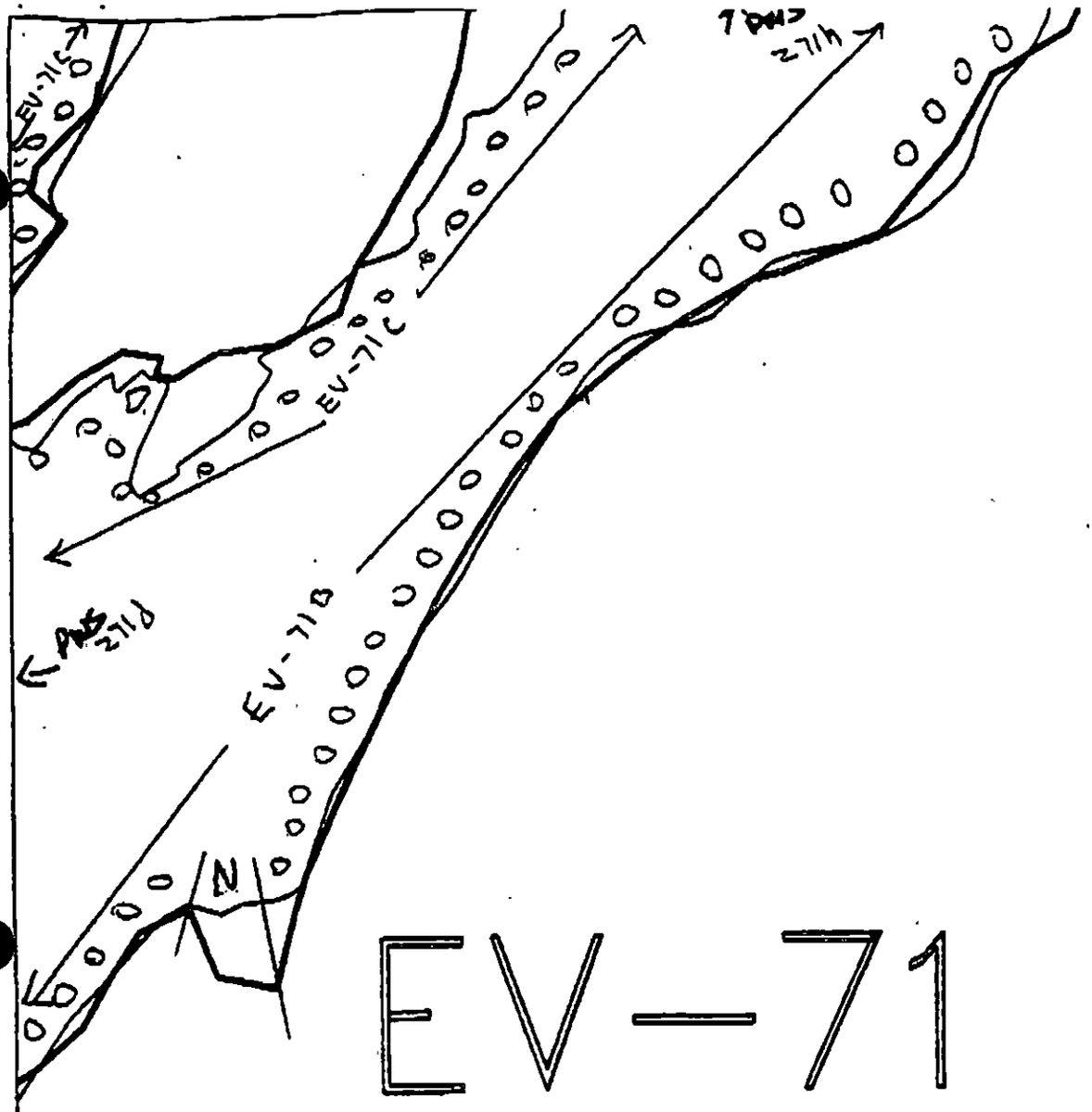
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



EV-71

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

EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:

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

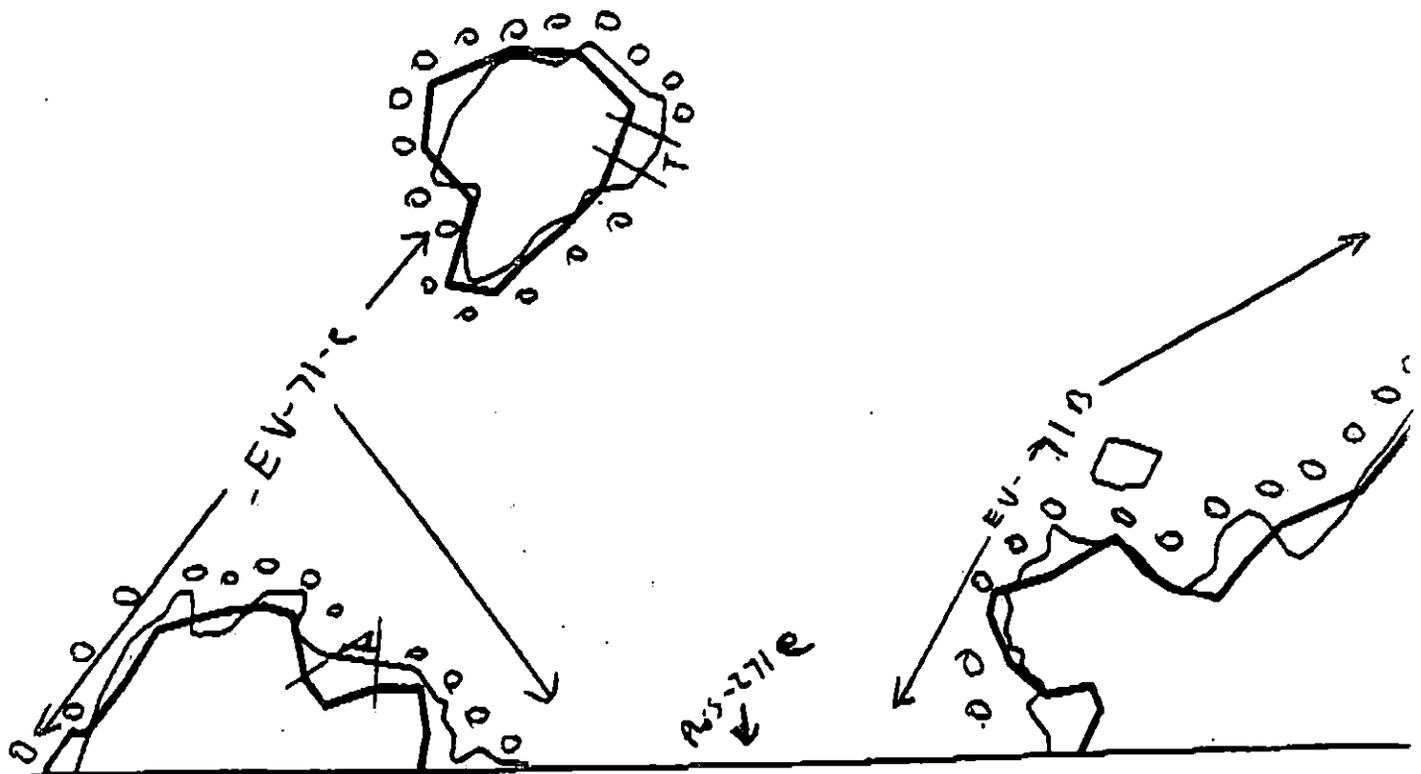
EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:

PWS-271i →



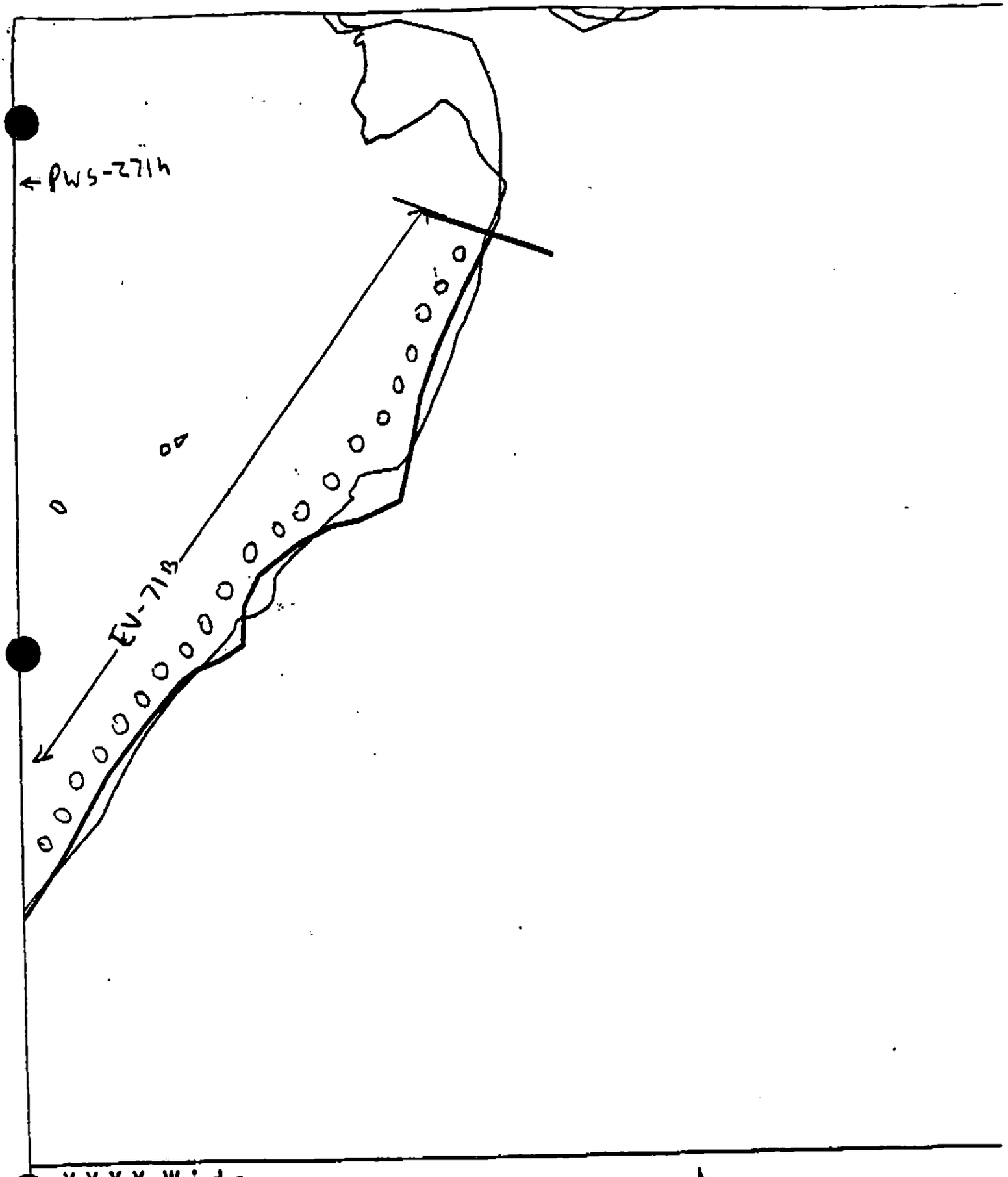
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



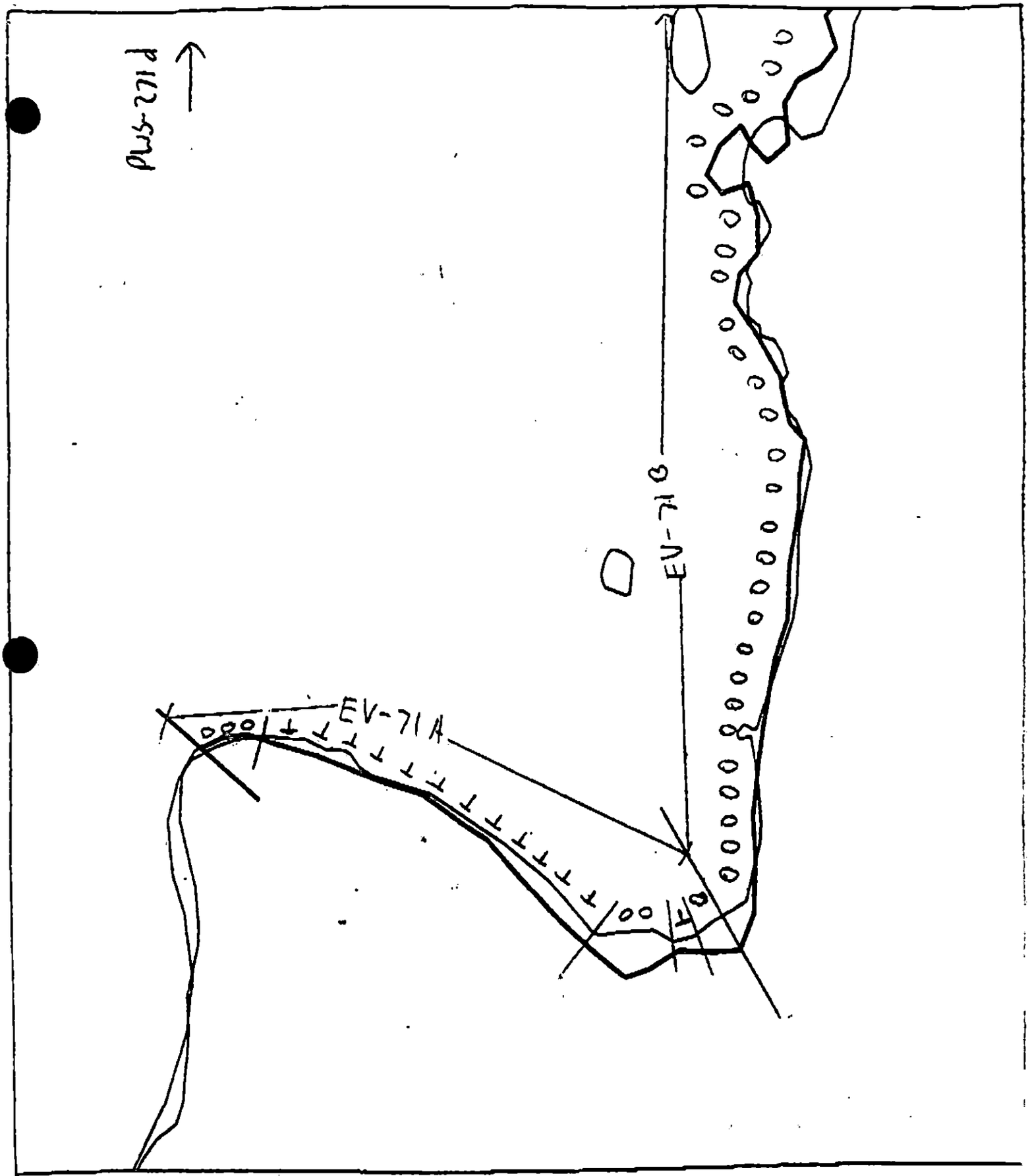
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-71

ADEC Segment Length: 8115m

0 100 200 500

Map Key: PWS-271a
Name: Mike Foget
Date: 4/11/90
Date Entered:

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-071 B STREAM NO: 226-40-16484 DATE 4/30/90

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-2 All Bald Eagle nests (3/1 to 6/1)
7II Subsistence area: Deer harvesting

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 (564-3276 (Anchorage) or 229-1508 (24 hrs.)).**

SHPO SIGNATURE: Rachel Jean Orr DATE: 5/25/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

_____No Treatment Recommended	_____Snare/Absorbent Booms
X Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
X Bioremediation	_____Spot Washing:_____Wands
X Tarmat Removal	_____Beach Cleaner
	_____Other (see comments)

COMMENTS: Recommend manual removal of tarmat as indicated on the attached sketch map. Work from 6/2 to 7/9 with approval of USFWS due to eagle nest.

TAG COMMENTS: BIOREMEDIATE (CUSTOMBLEN) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/23/90
ADEC Art Weiner Art Weiner
EXXON Andy Bear
NOAA Burl Wescott
USCG G.A. Reiter G.A. Reiter

FOSC: [signature] DATE: 5/31/90

OG WILLIAM REID

SEGMENT ST/ EV071A

STREAM 226-40-16484

DATE 7/1/AR90

CHECKLIST

- ___N Arrow
- ___Approx. Scale
- ___Segr/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

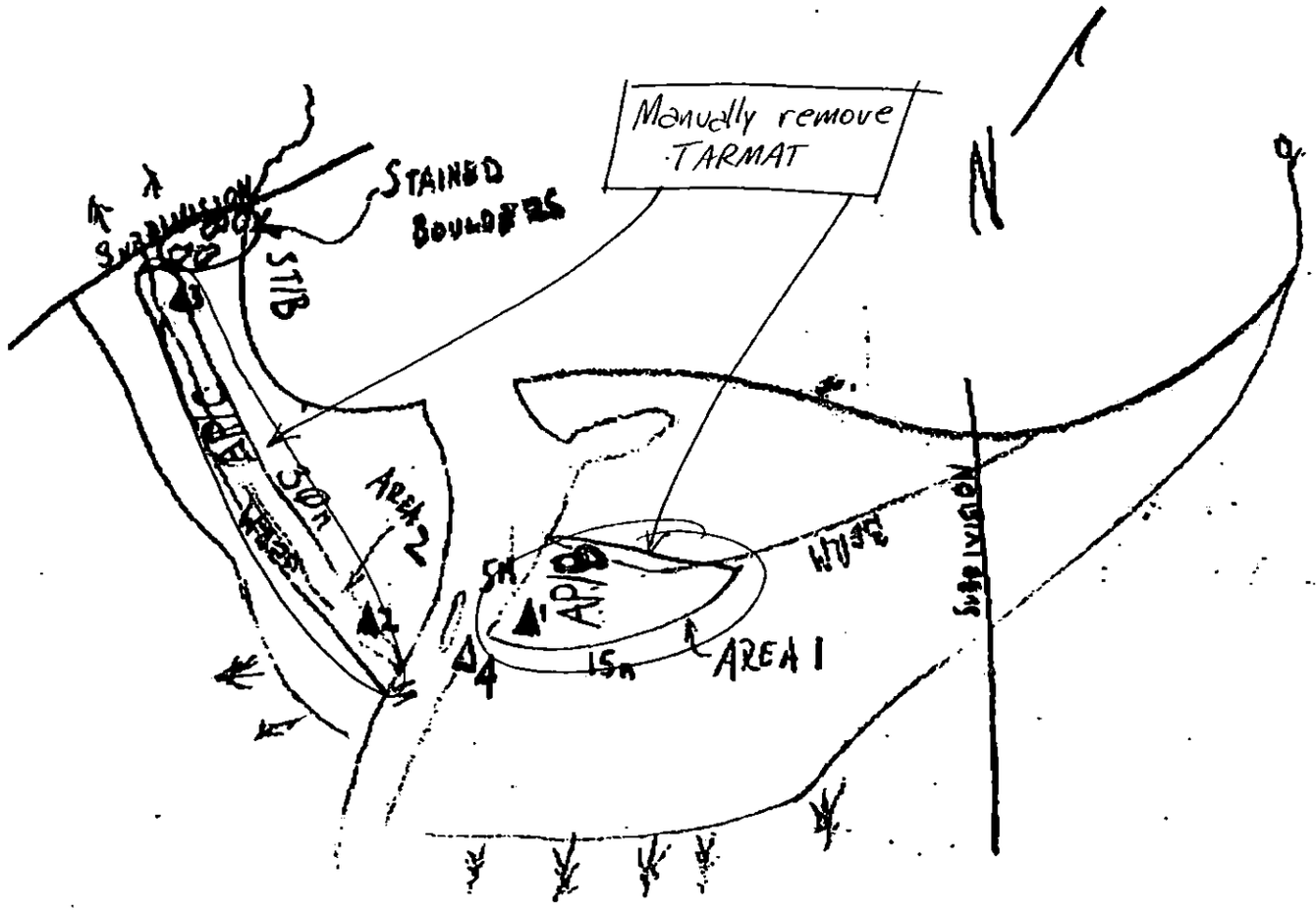
Splashed Distribution

Oiled Vegetation

1 ⇨

Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

REVISIONS/DATE

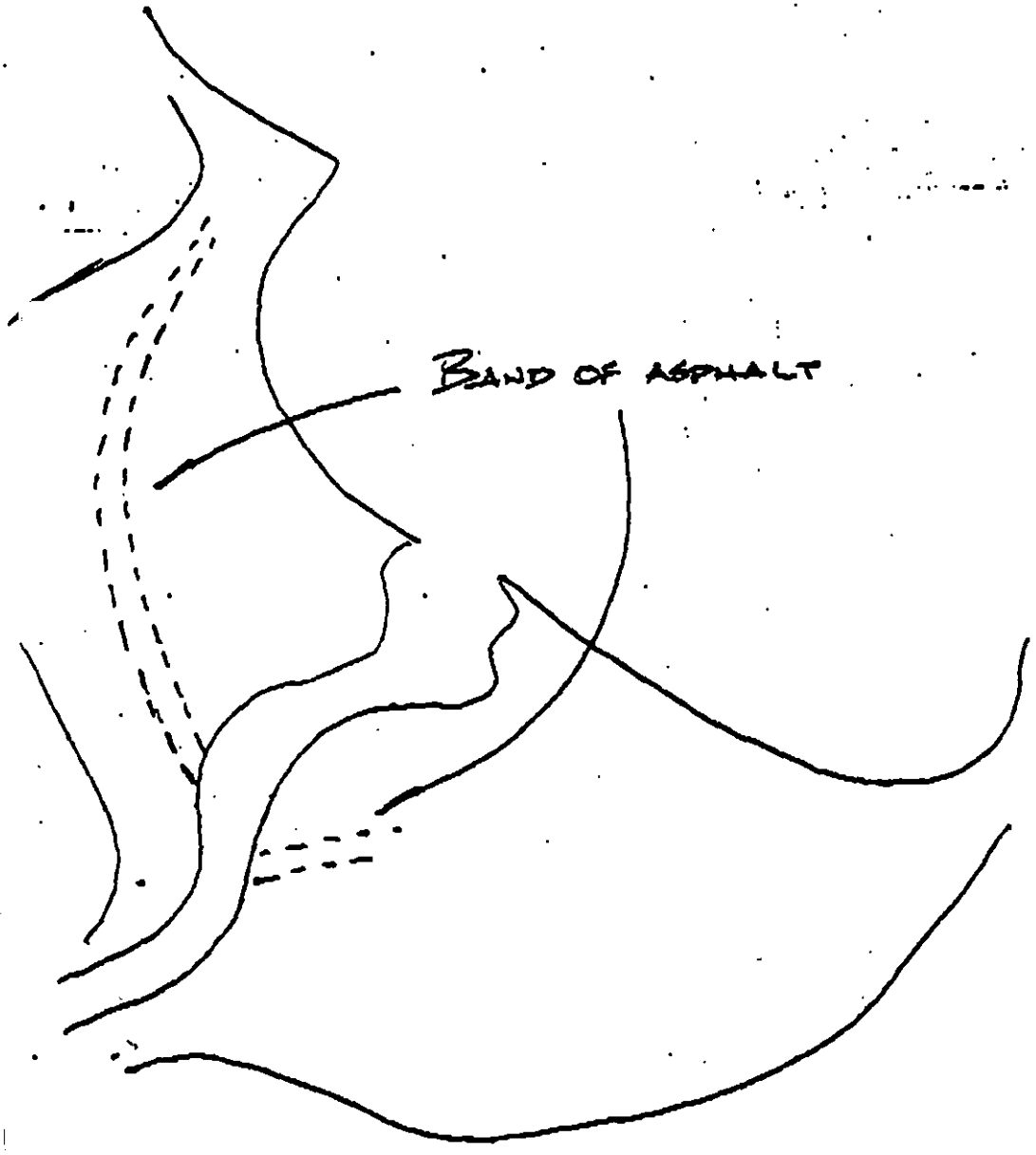
2 of 2

EV-071A
226-40-16484
17/52

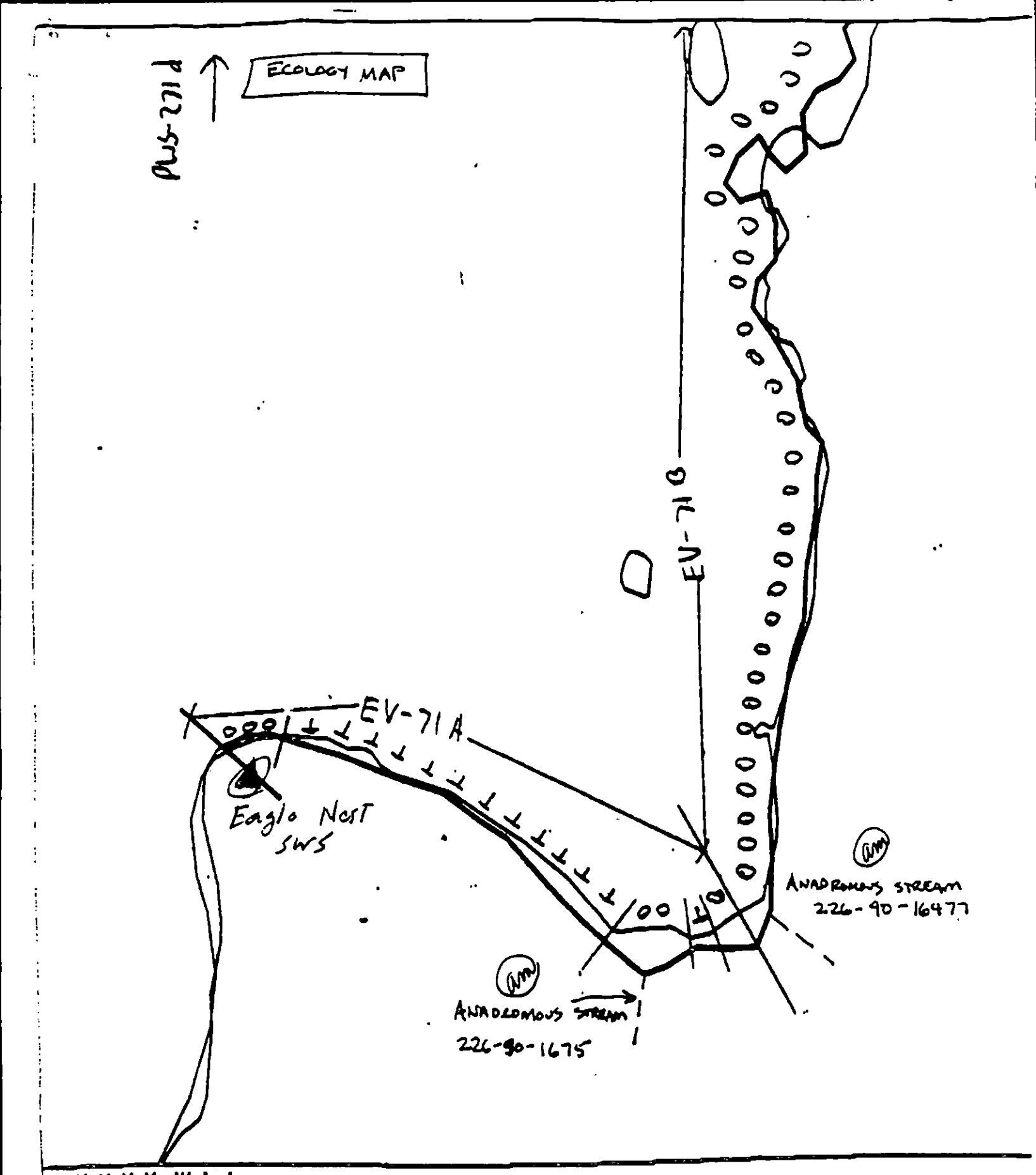
45 PHOTOLOG

	DESCRIPTION

46 OIL DISTRISUTION DIAGRAM



ple taken
ce frame # and
ic direction.



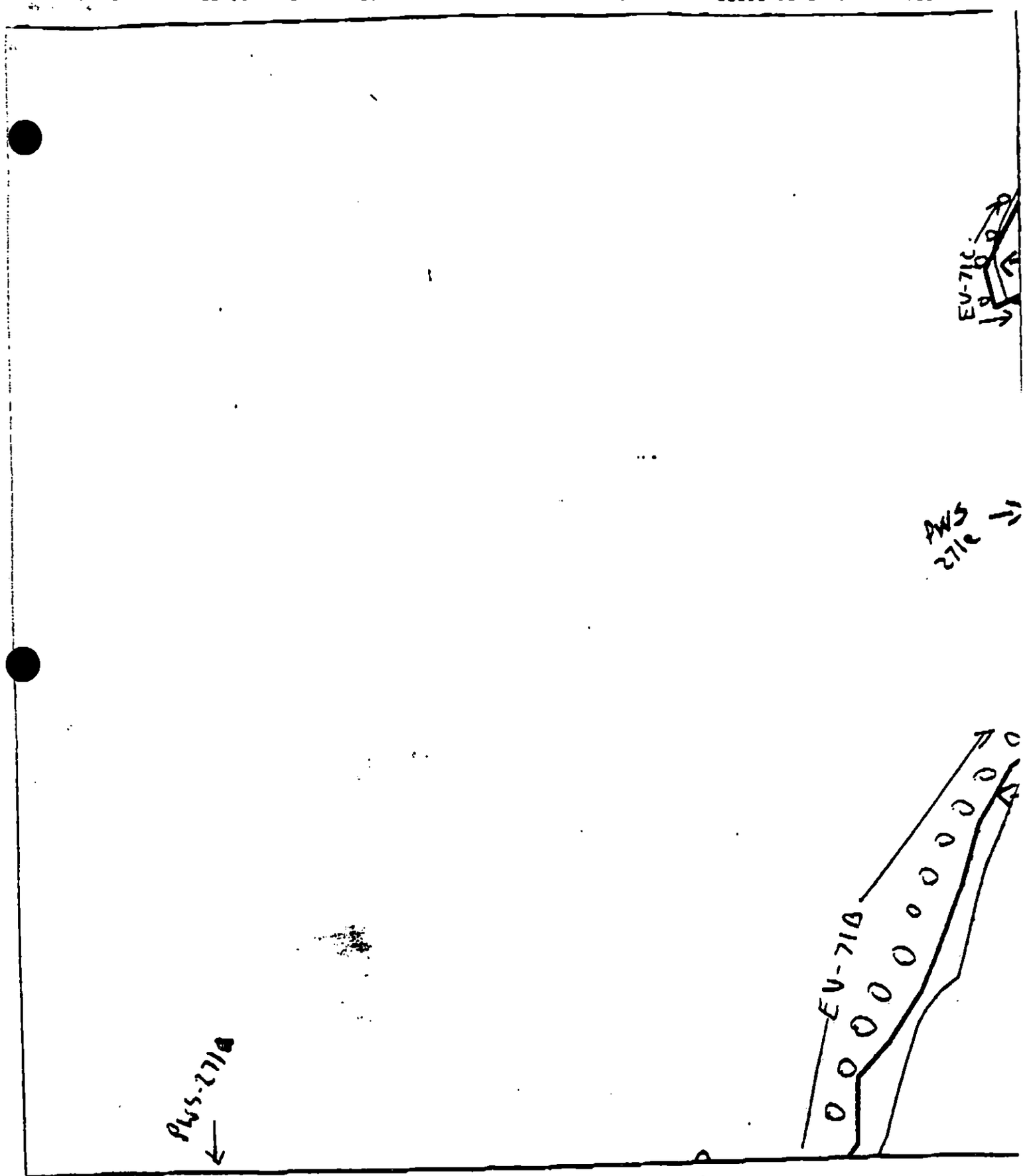
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271a
Name: Mike Foyer
Date: 4/11/90
Date Entered:



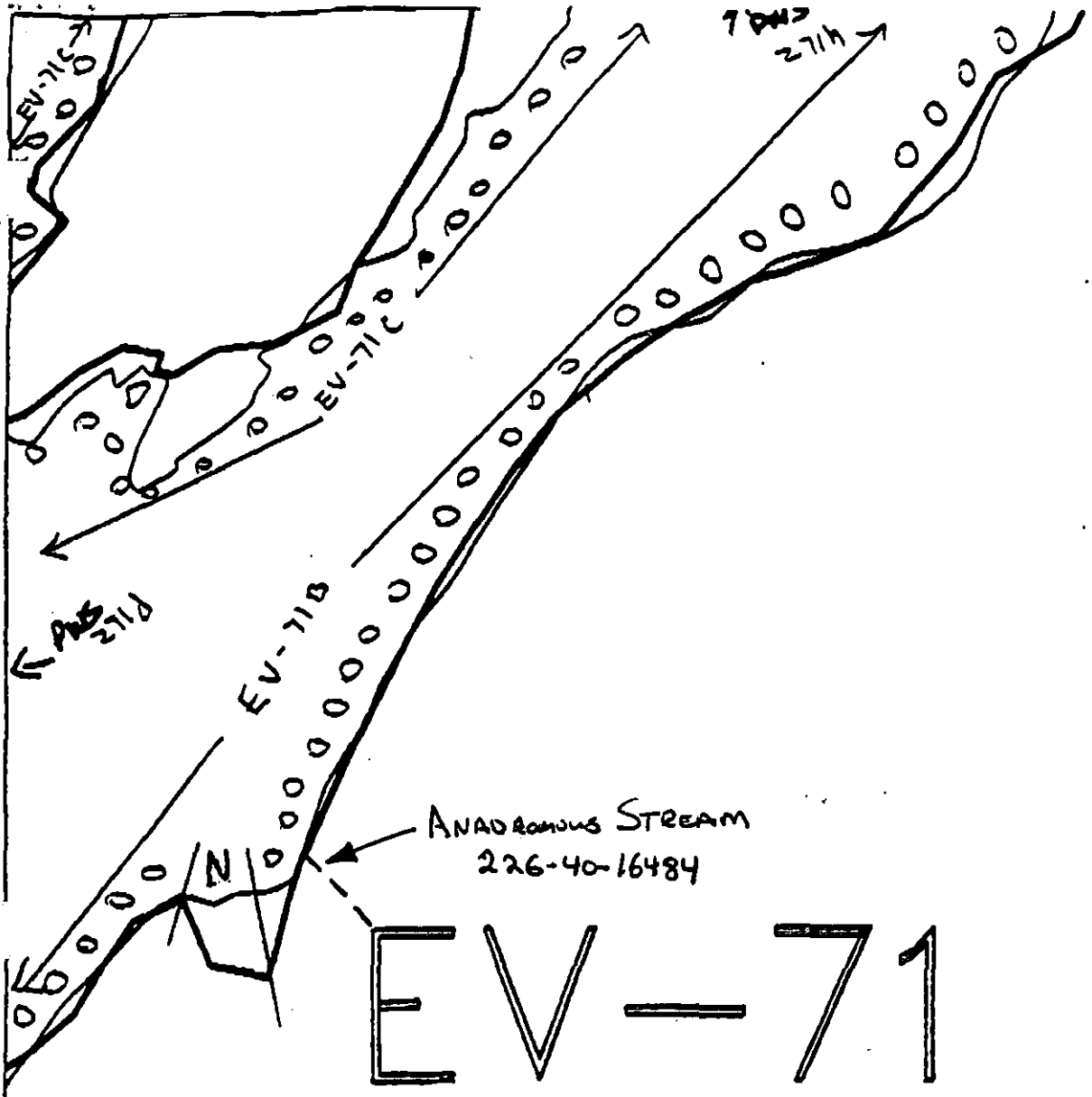
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:



EV-71

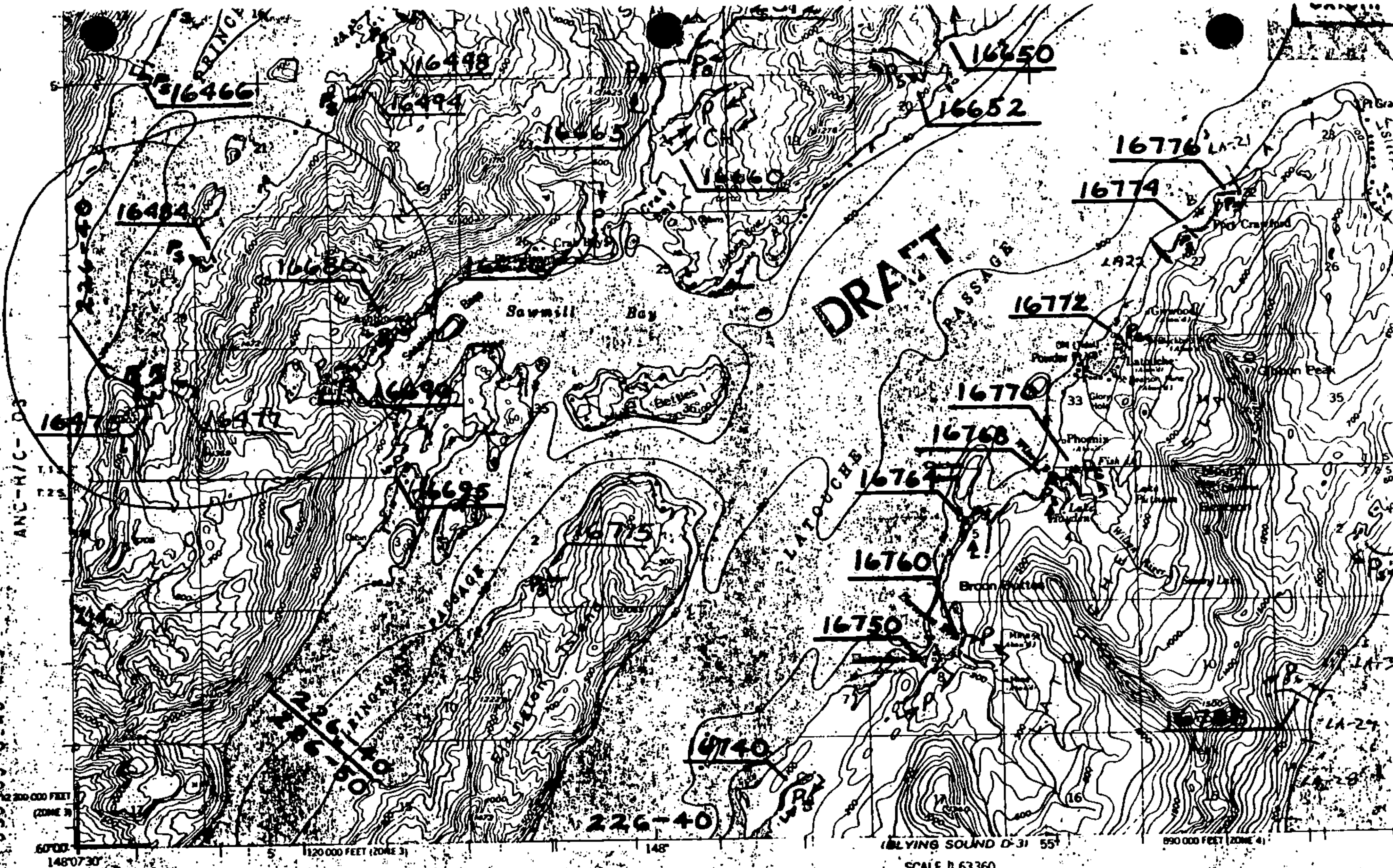
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:



Mapped, edited, and published by the Geological Survey

Control by USC&GS and USCE

Topography by photogrammetric methods from aerial photographs taken 1950, field annotated 1951. Map not field checked

Selected hydrographic data compiled from USC&GS Charts 8515 (1949), 8523 (1951), and 8524 (1943). This information is not intended for navigational purposes

Universal Transverse Mercator projection, 1927 North American datum 10,000-foot grid based on Alaska coordinate system, zones 3 and 4 1000-meter Universal Transverse Mercator grid ticks, zone 6, shown in blue

Land lines represent unsurveyed and unmarked locations predetermined by the Bureau of Land Management

TRUE NORTH

MAGNETIC NORTH

26½°

APPROXIMATE MEAN DECLINATION, 1951

SCALE 1:63360

This scale now at 1:40 000

CONTOUR INTERVAL 100 FEET

DATUM IS MEAN SEA LEVEL

DEPTH CURVES AND SOUNDINGS IN FEET DATUM IS MEAN LOWER LOW WATER

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 9 FEET

FOR SALE BY U. S. GEOLOGICAL SURVEY

FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20242

A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

DRAFT

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION A (1 OF 3) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no 226-40-16475, 16484, 16477.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. 1 eagle nest on border with EV-68.

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

SHPO SIGNATURE: Charles E. Holmes DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 494 m: No Oil 258 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 5+ cm

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: DUE TO THE MINIMAL AMOUNT OF OIL AND THE RICHNESS OF THE LIMITS NTR IS RECOMMENDED

TAG APPROVAL DATE: 4/21/90.
ADEC ART WEINER
EXXON ANDY TEAL
NOAA Bud Wescott
USCG KENNETH KEANE
FOSC: _____ DATE: 4-27-90

OG Mike Enget

SEGMENT ST/ EV-71

SUBDIVISION A

DATE 3 / 31 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Endry
- 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

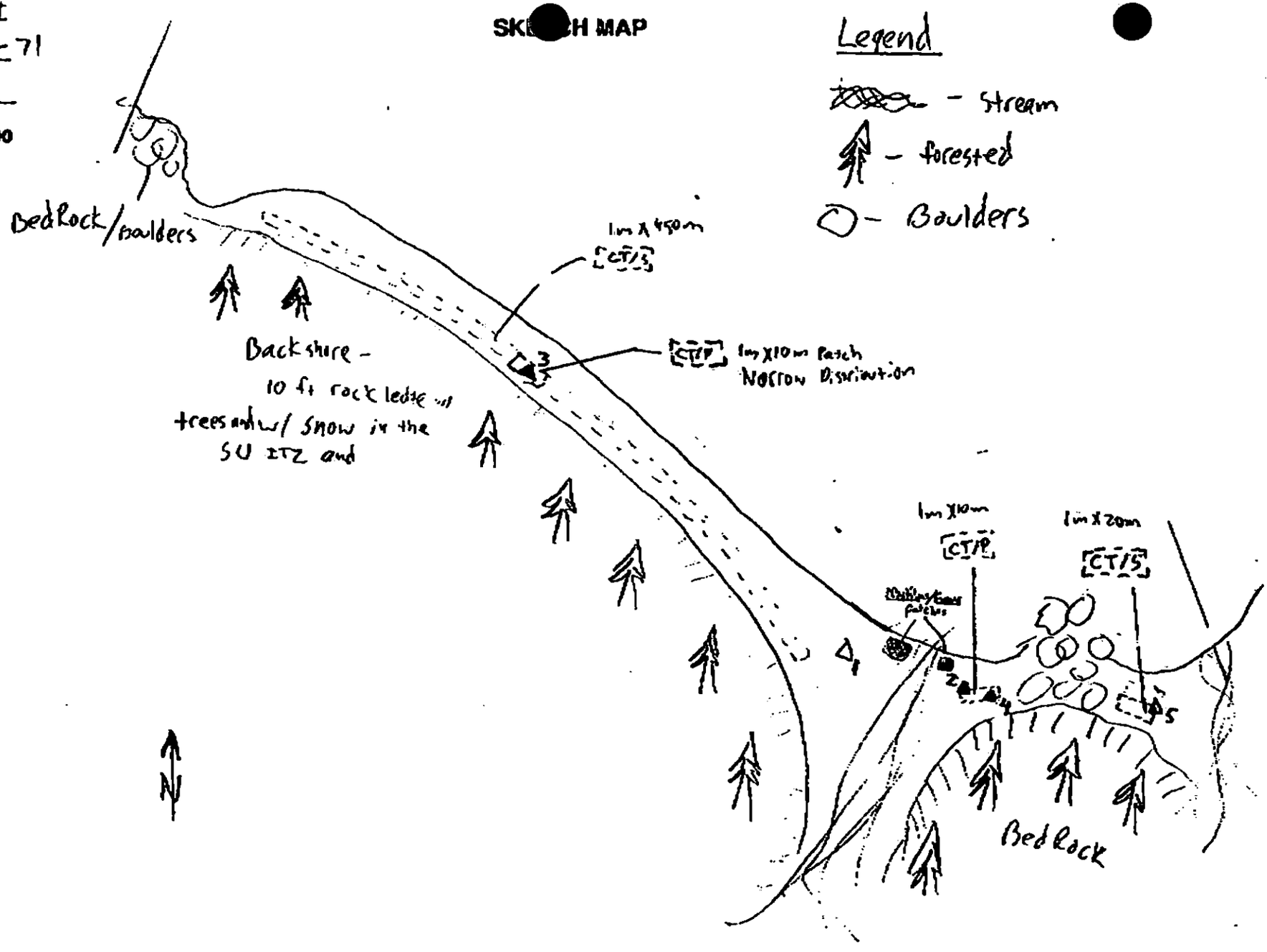
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●► Photo location, direction, and number

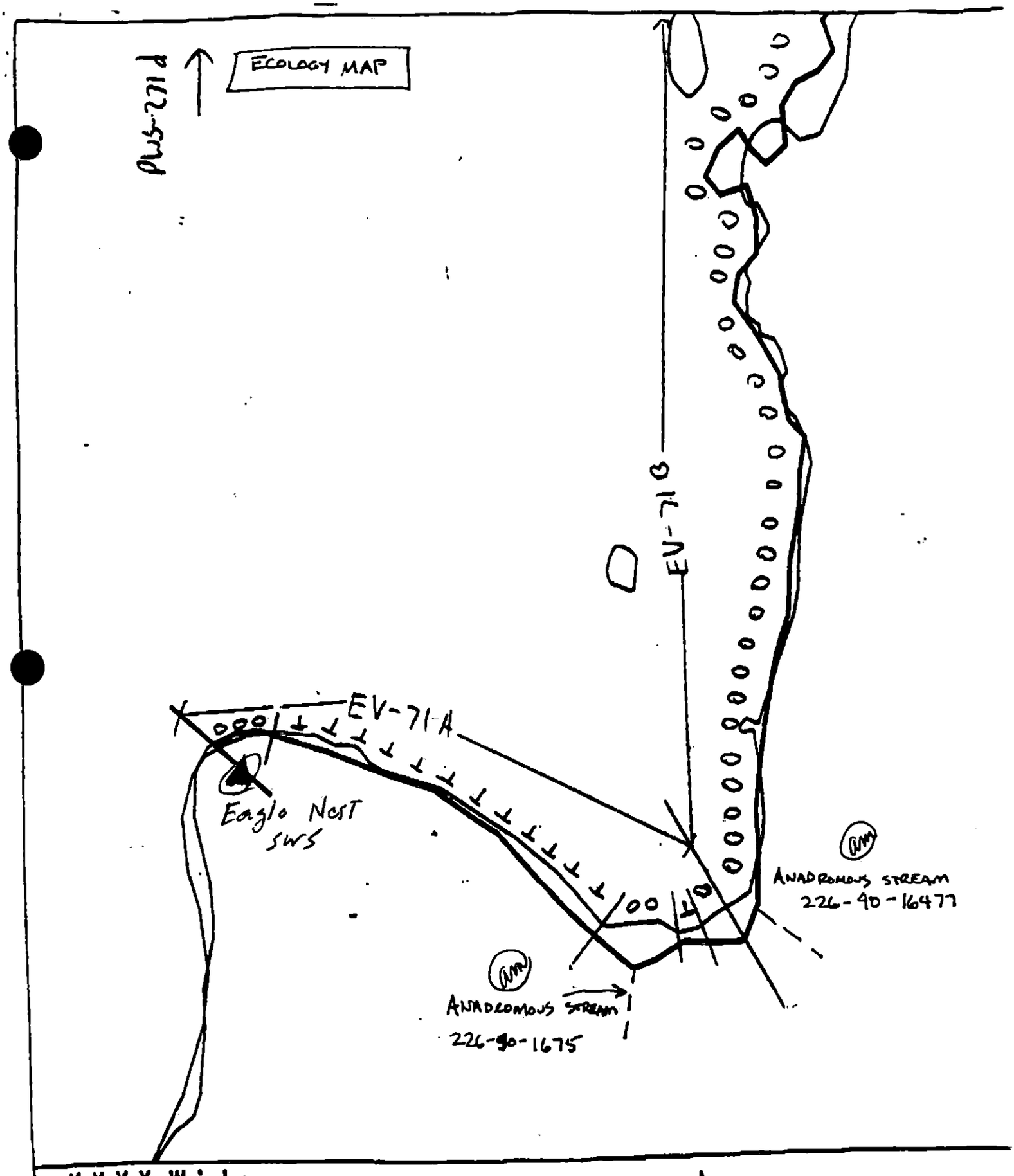
SKETCH MAP



Oil Character Length (m): AP ___ PO ___ CV ___ CT 450 ST ___ MS ___ PT ___ TB ___ FL ___ NO 120

REVISION/MARGINS

APR-02-1990 20:46 FROM PACIFIC SEAHORSE TO 01#---001907564377 1# P.02



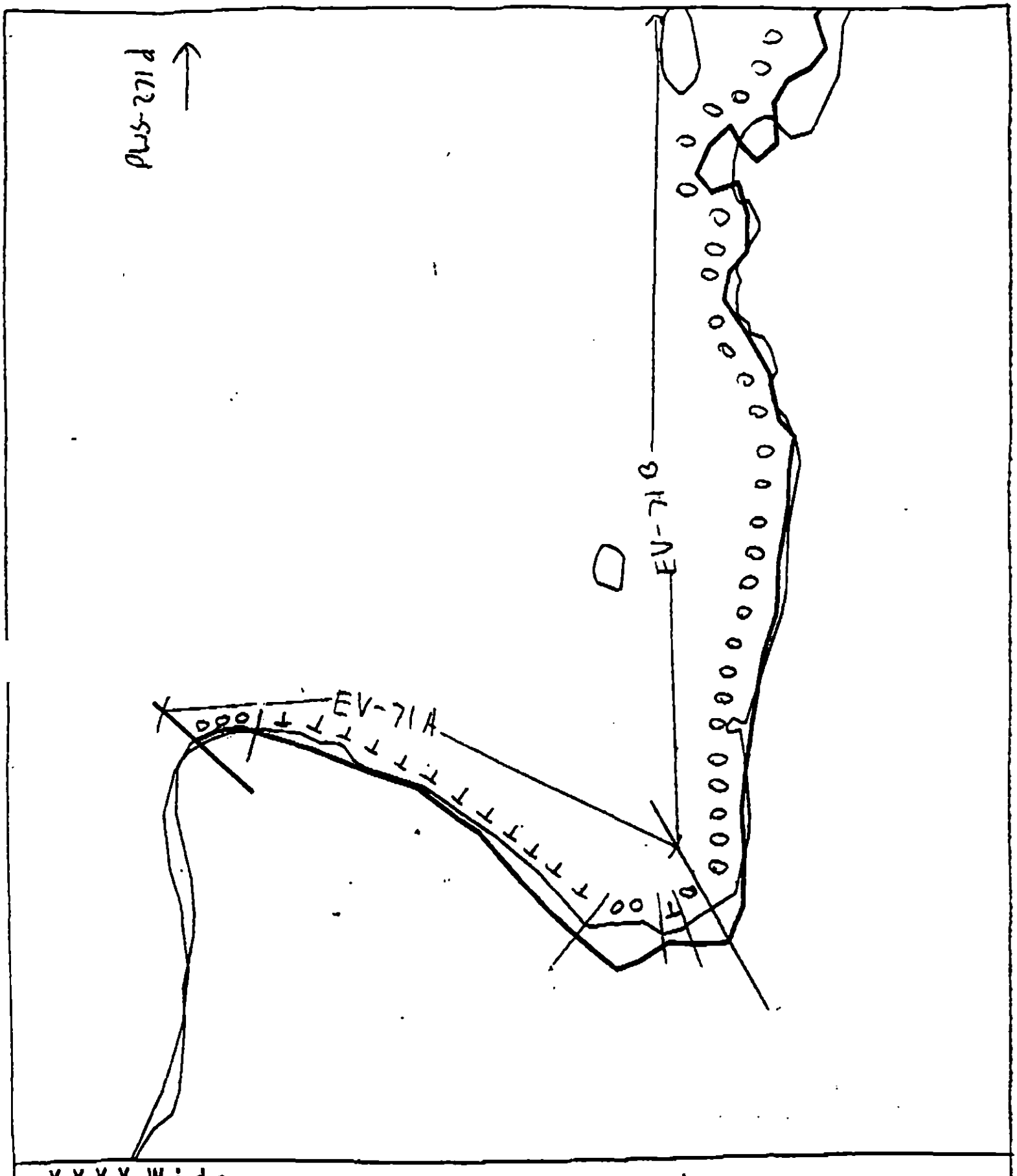
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271a
Name: Mike Foget
Date: 4/11/90
Date Entered:



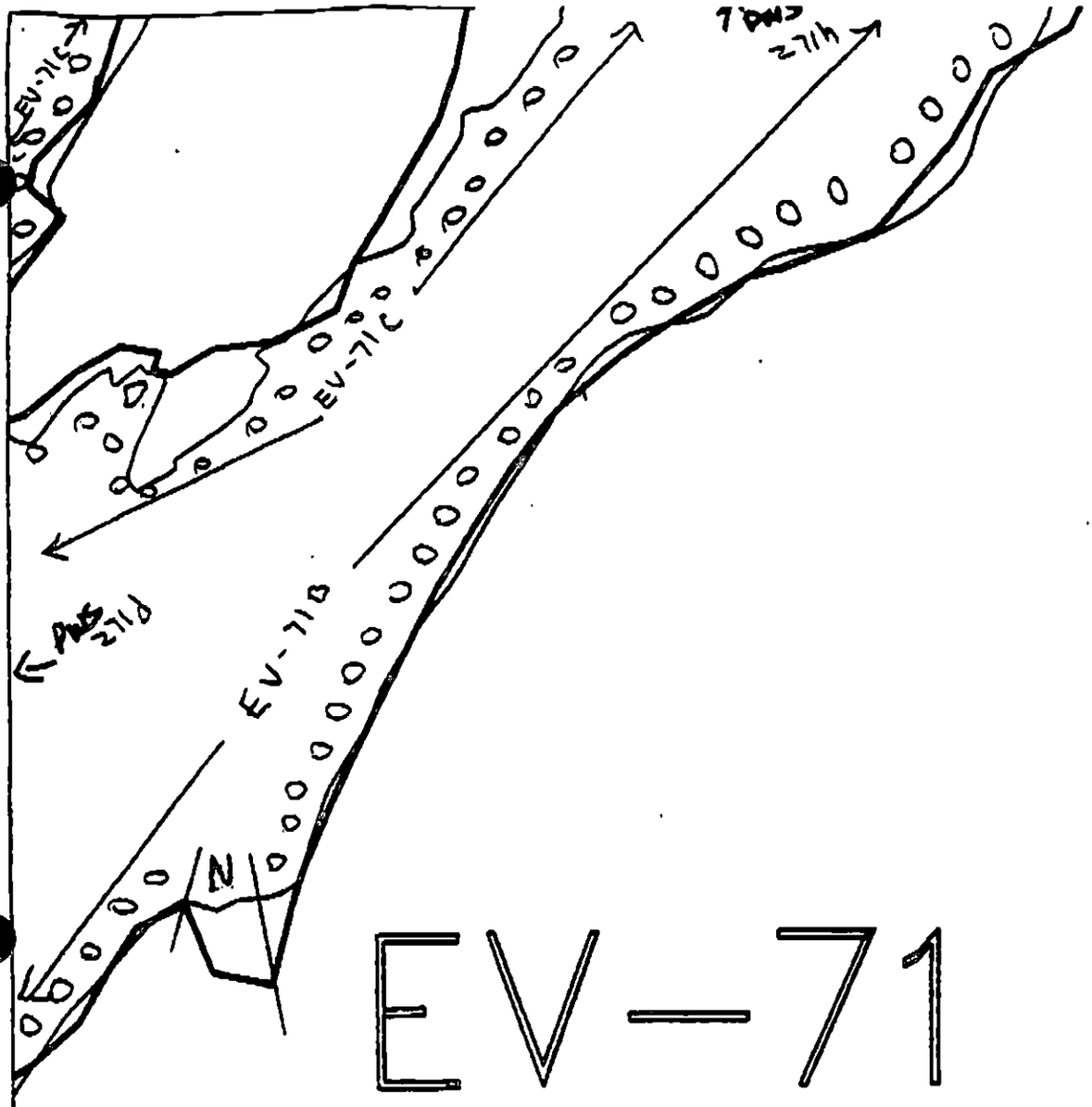
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//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271a
Name: Mike Foyer
Date: 4/11/90
Date Entered:



EV-71

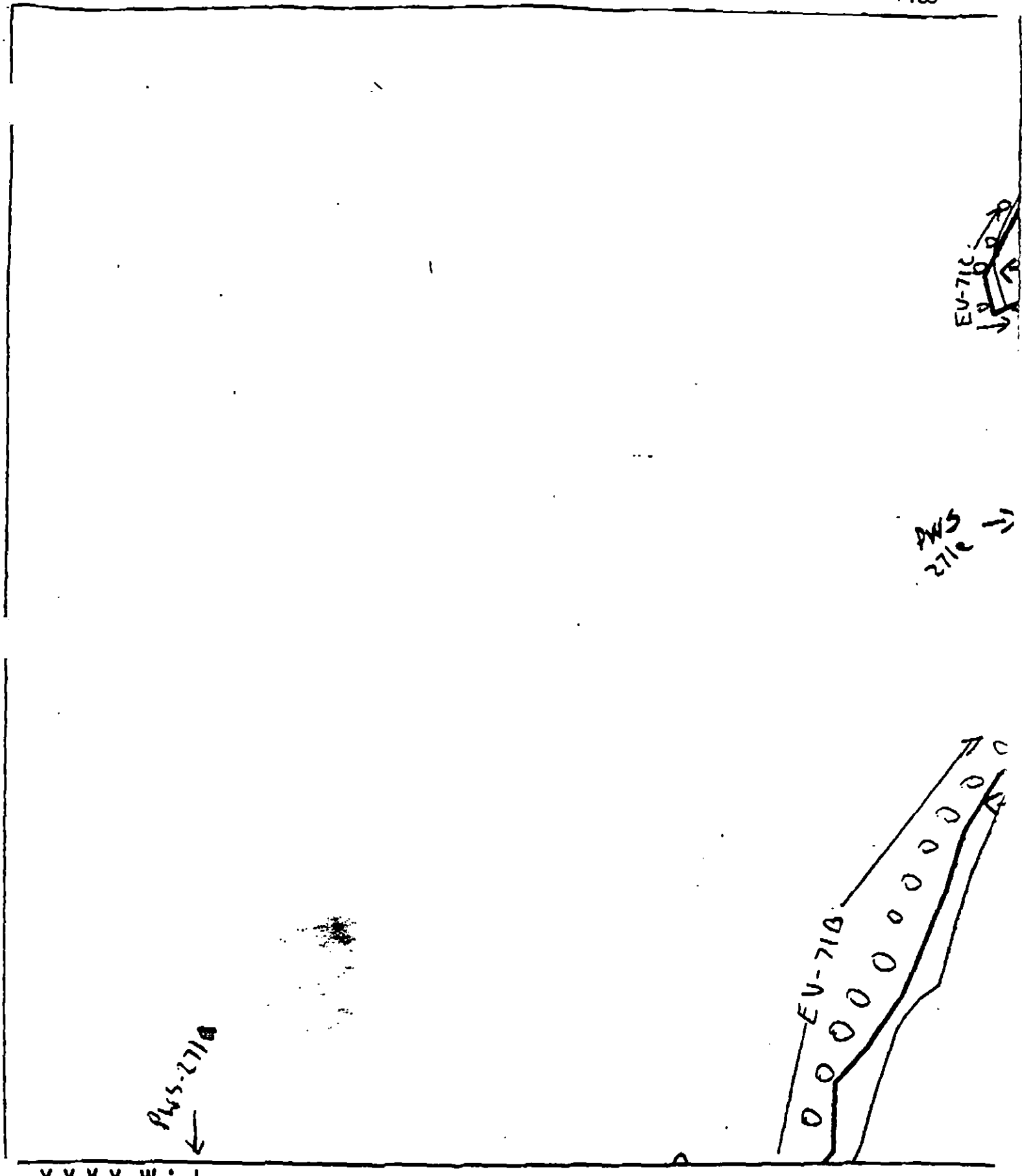
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:



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

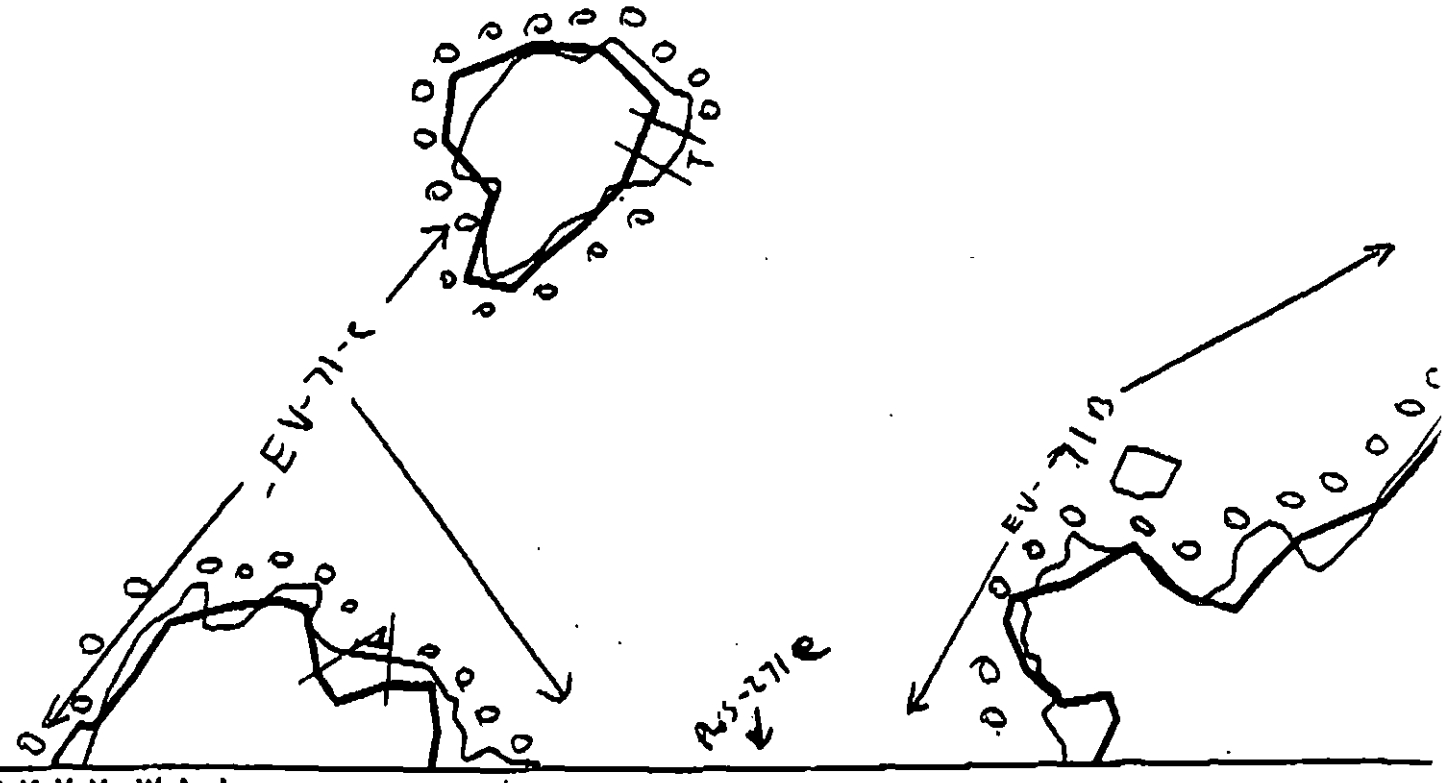
EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:

PWS-271i →



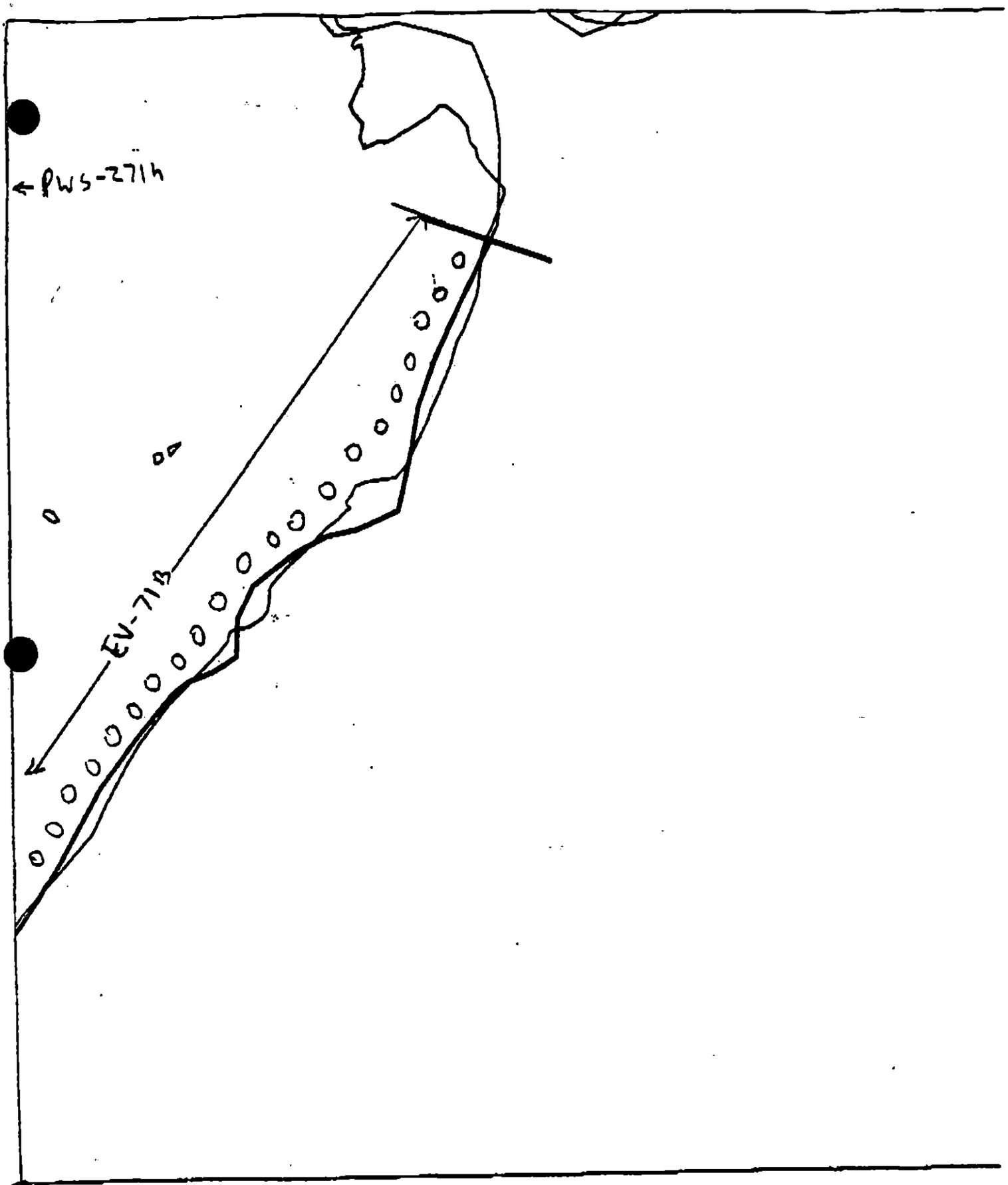
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//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no 226-40-16494, 16484, 16477.
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid any unnecessary disturbance or damage to unoiled biota and substrate. 1 eagle nest in EV-70, near border with Subdivision B.

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

SHPO SIGNATURE: [signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 118 m: No Oil 4957 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Breakup	_____ Beach Cleaner
_____Removal	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/21/90.
ADEC ART WEINER [signature]
EXXON ANDY TEAL [signature]
NOAA Burl Wescott [signature]
USCG KENNETH KEANE [signature]

FOSC: [signature] DATE: 4-27-90

OS Tree Edge

SEGMENT EV-71

SUBDIVISION D - Blow Up

DATE ____ / ____ 90

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Entry
- ___ 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

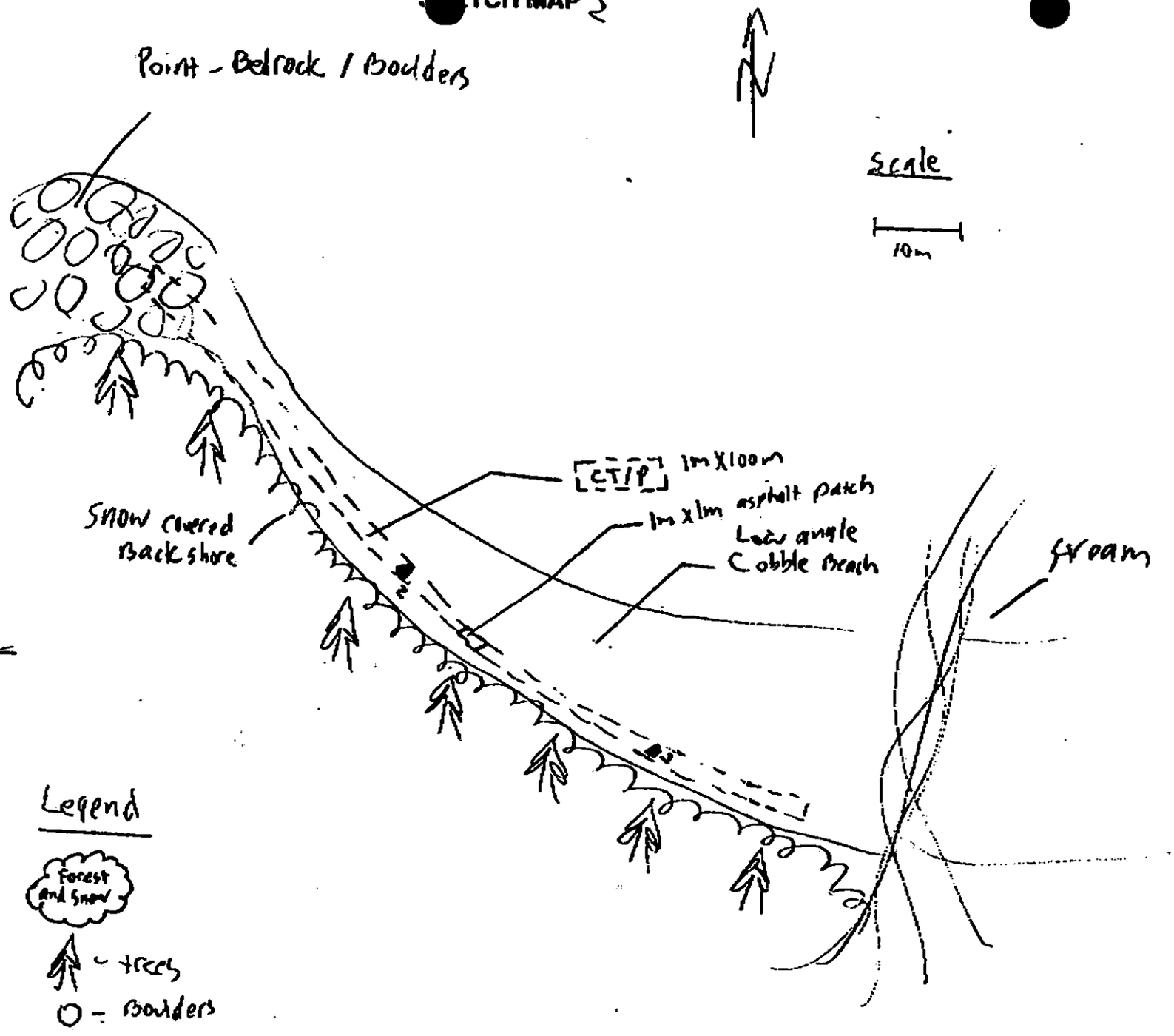
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

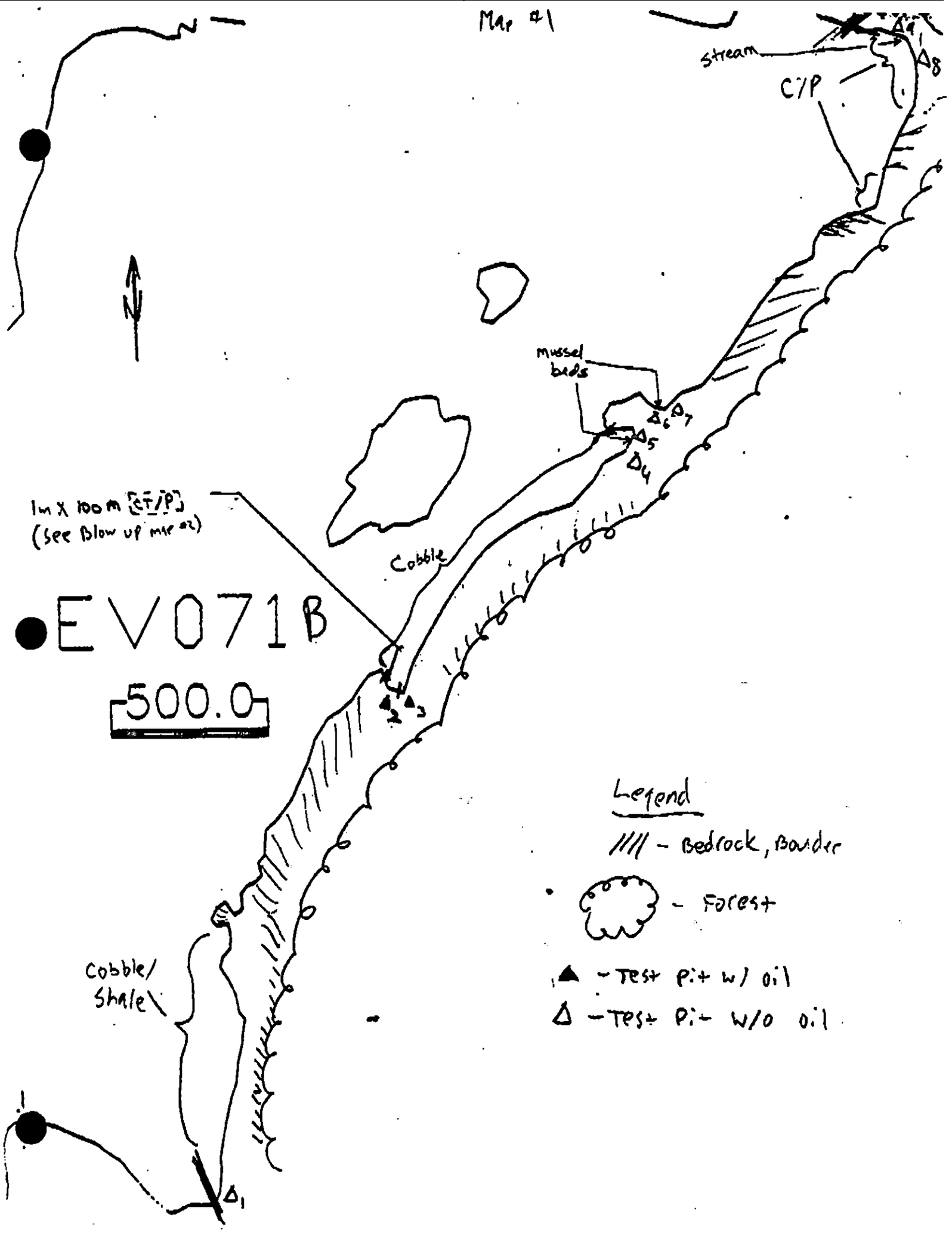
1 ⇒ Photo location, direction, and number

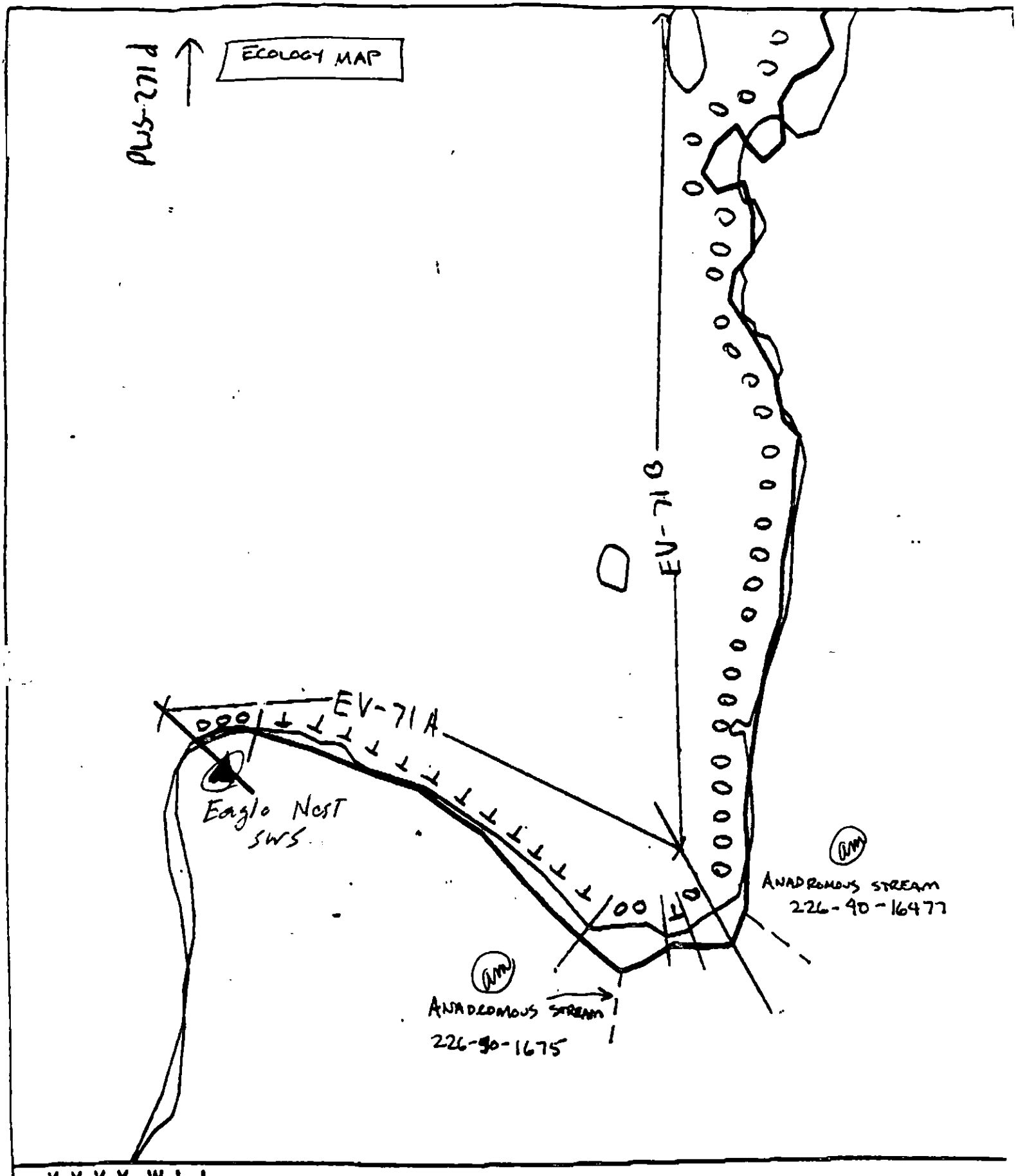
SKETCH MAP 2



Oil Character Length (m): AP ___ PO ___ CV ___ CT 100 ST ___ MS ___ PT ___ TB ___ FL ___ NO 5075

REVISED 08/02/00


Map #1
stream
C/P
mussel beds
1m X 100m [C/T/P]
(See Blow up map #2)
Cobble
EV071B
500.0
Cobble/
Shale
Legend
//// - Bedrock, Boulder
- Forest
▲ - Test Pit w/ oil
Δ - Test Pit w/o oil



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

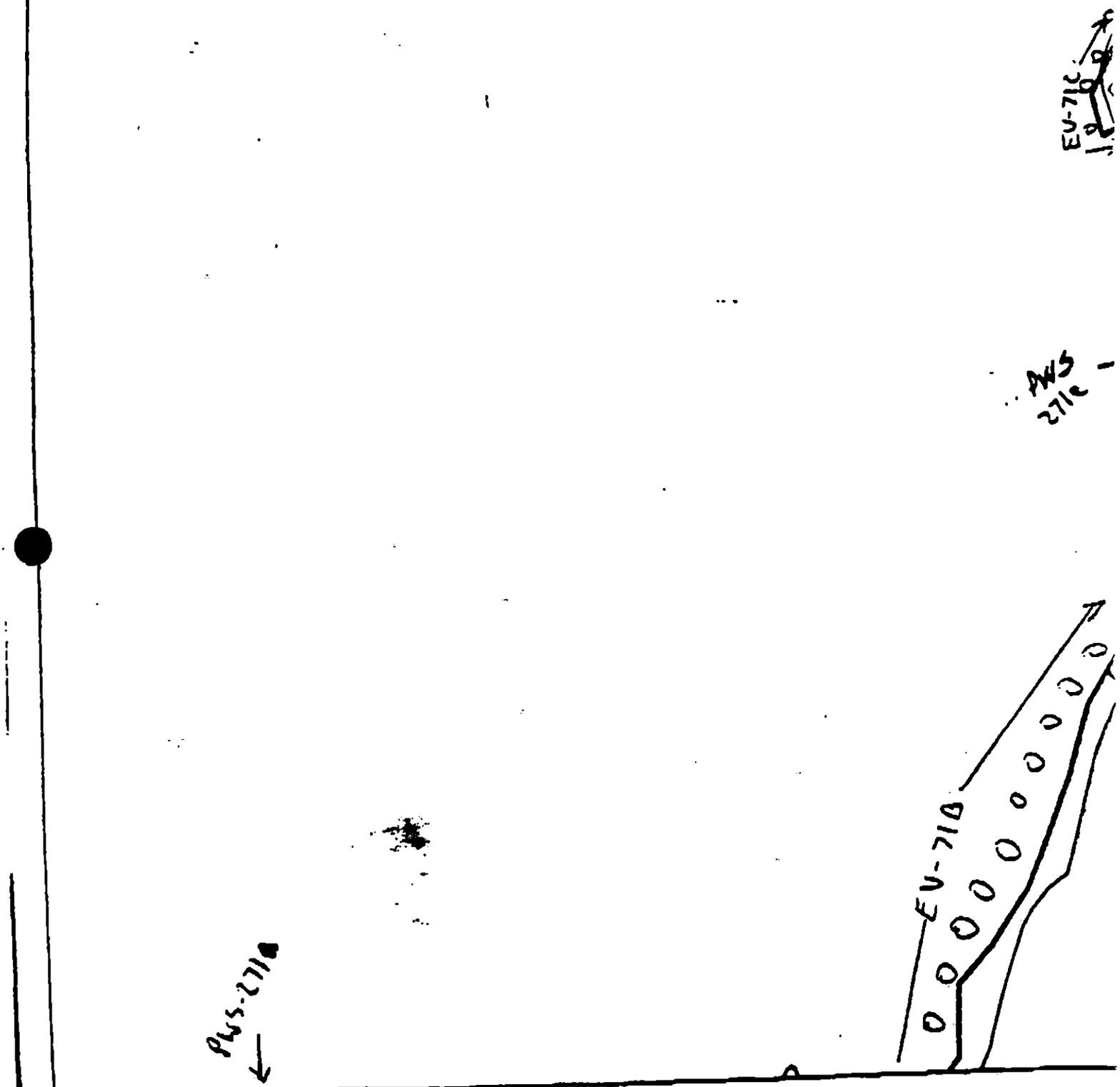
EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:

ECOLOGY MAP



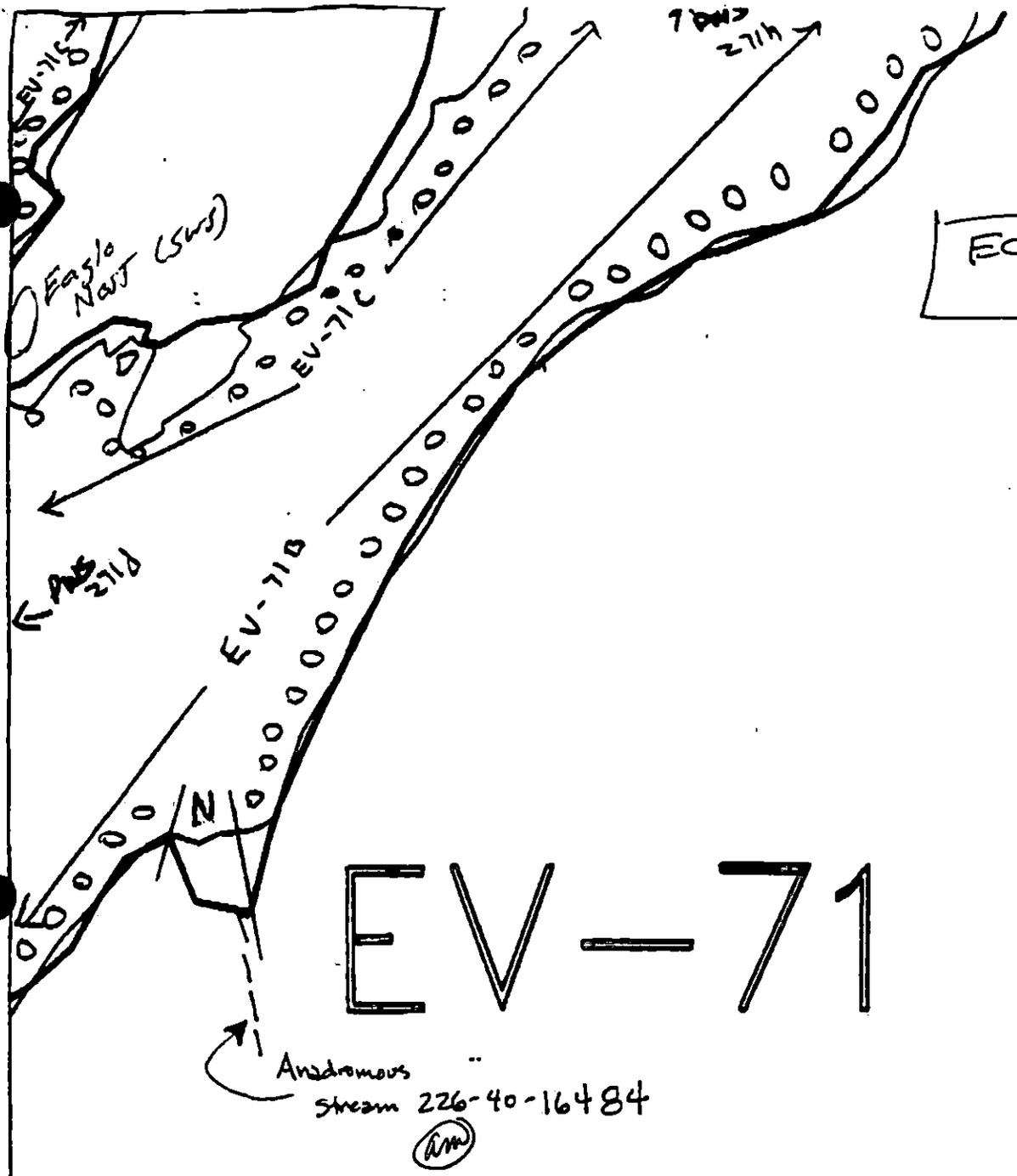
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:



ECOLOGY MAP

EV-71

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

EV-71B

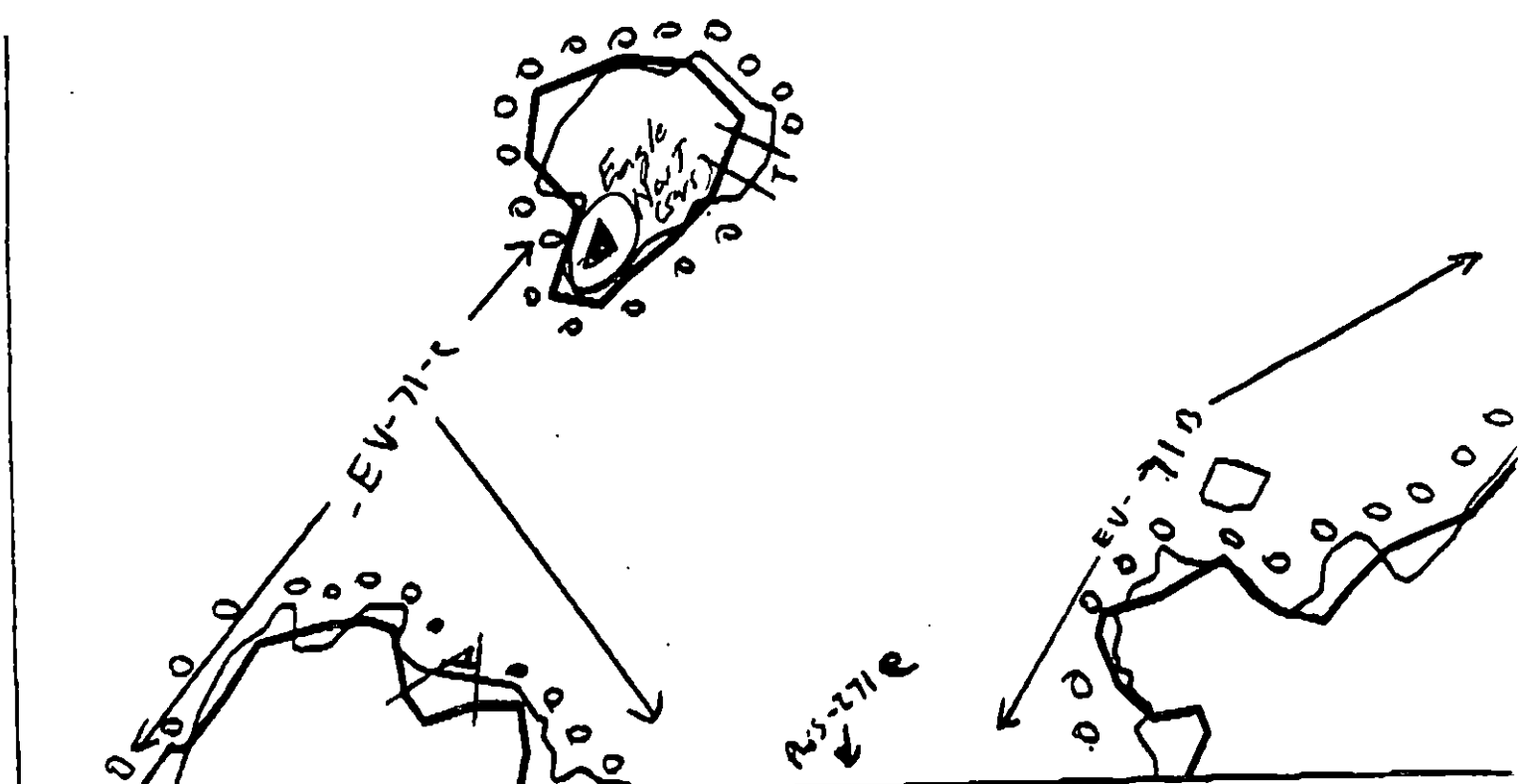
ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Date Entered:

ECOLOGY MAP

PWS-271i →



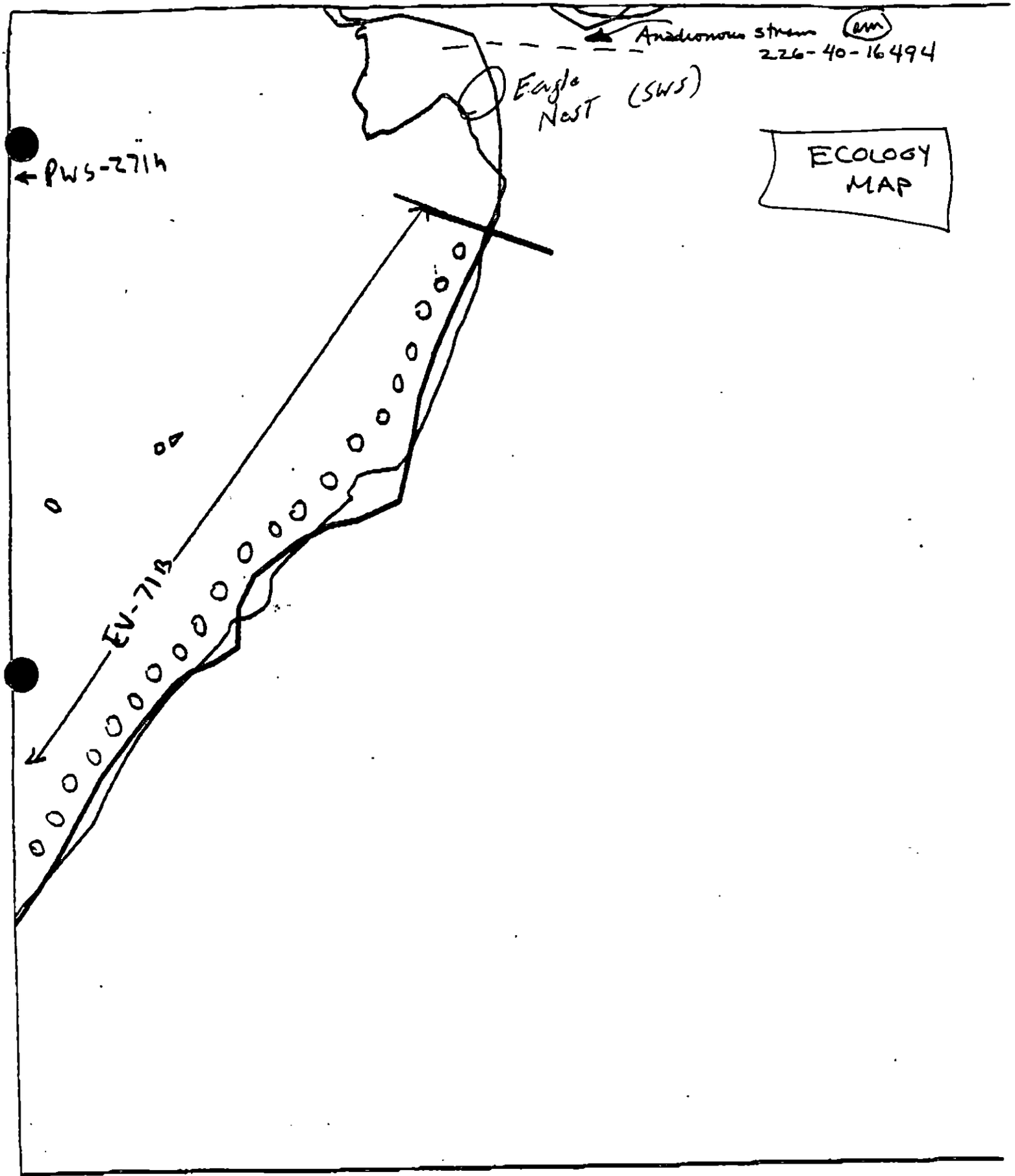
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 500

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Area Entered:



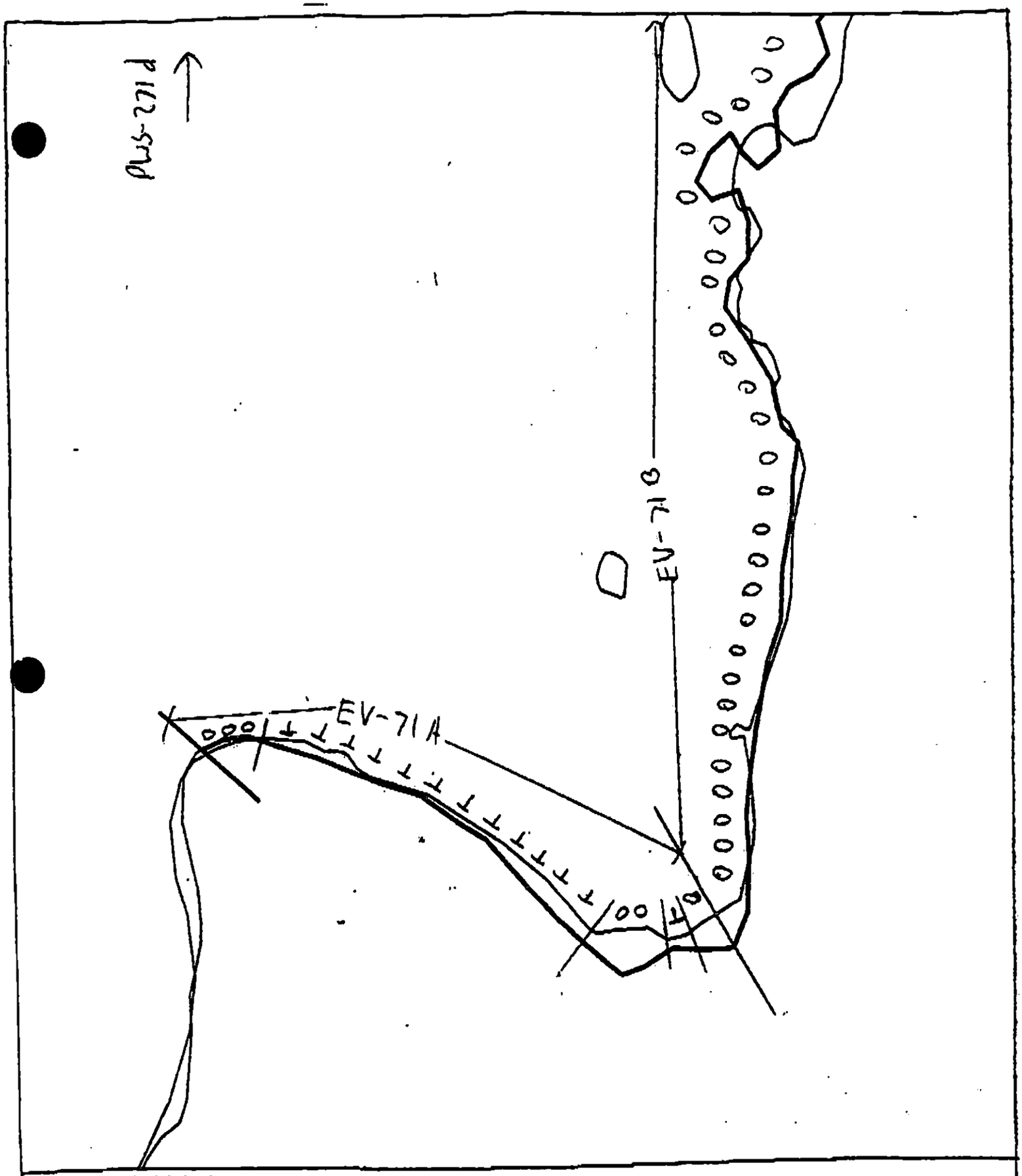
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ABEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:



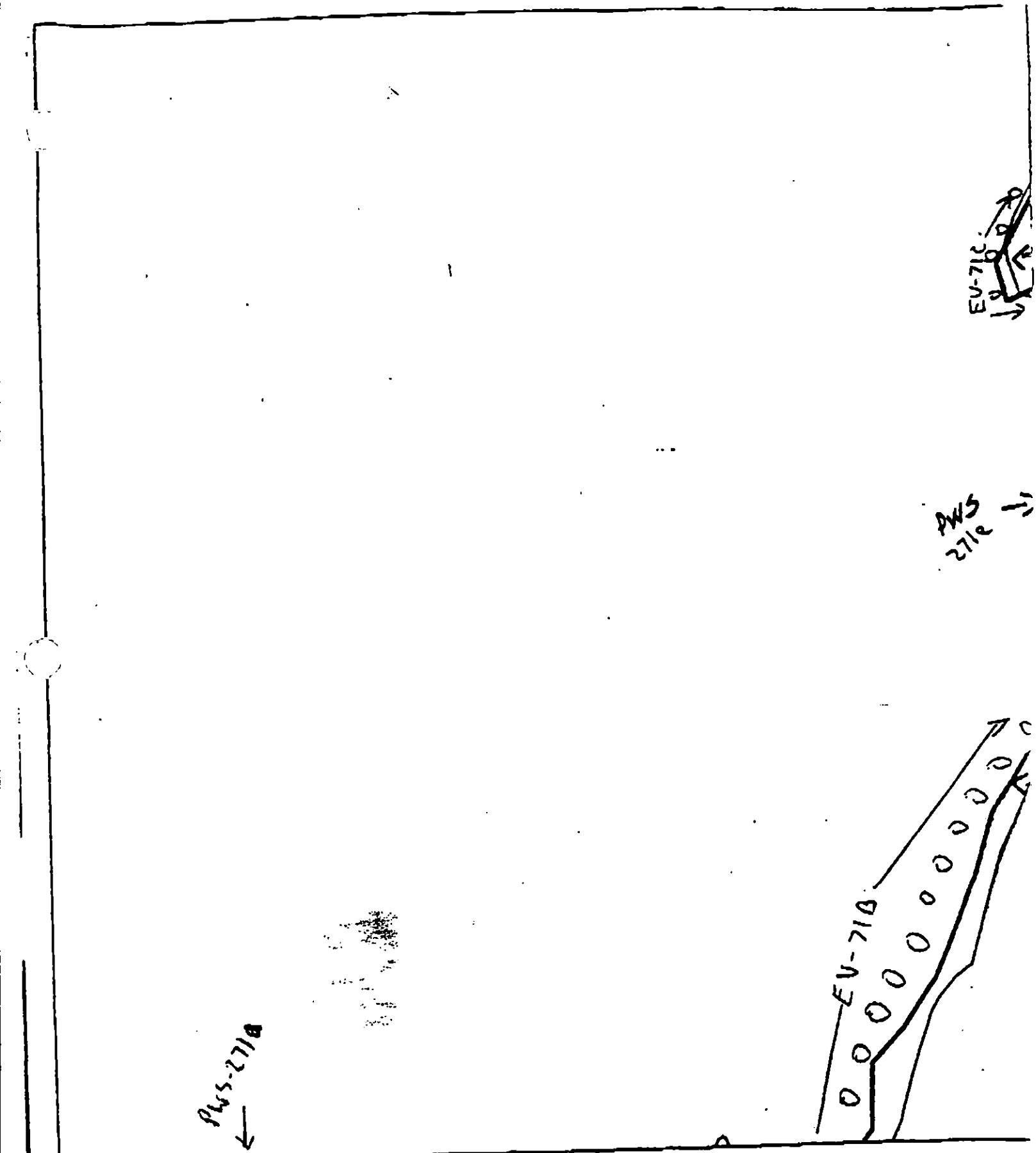
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271a
Name: Mike Foget
Date: 4/11/90
Date Entered:



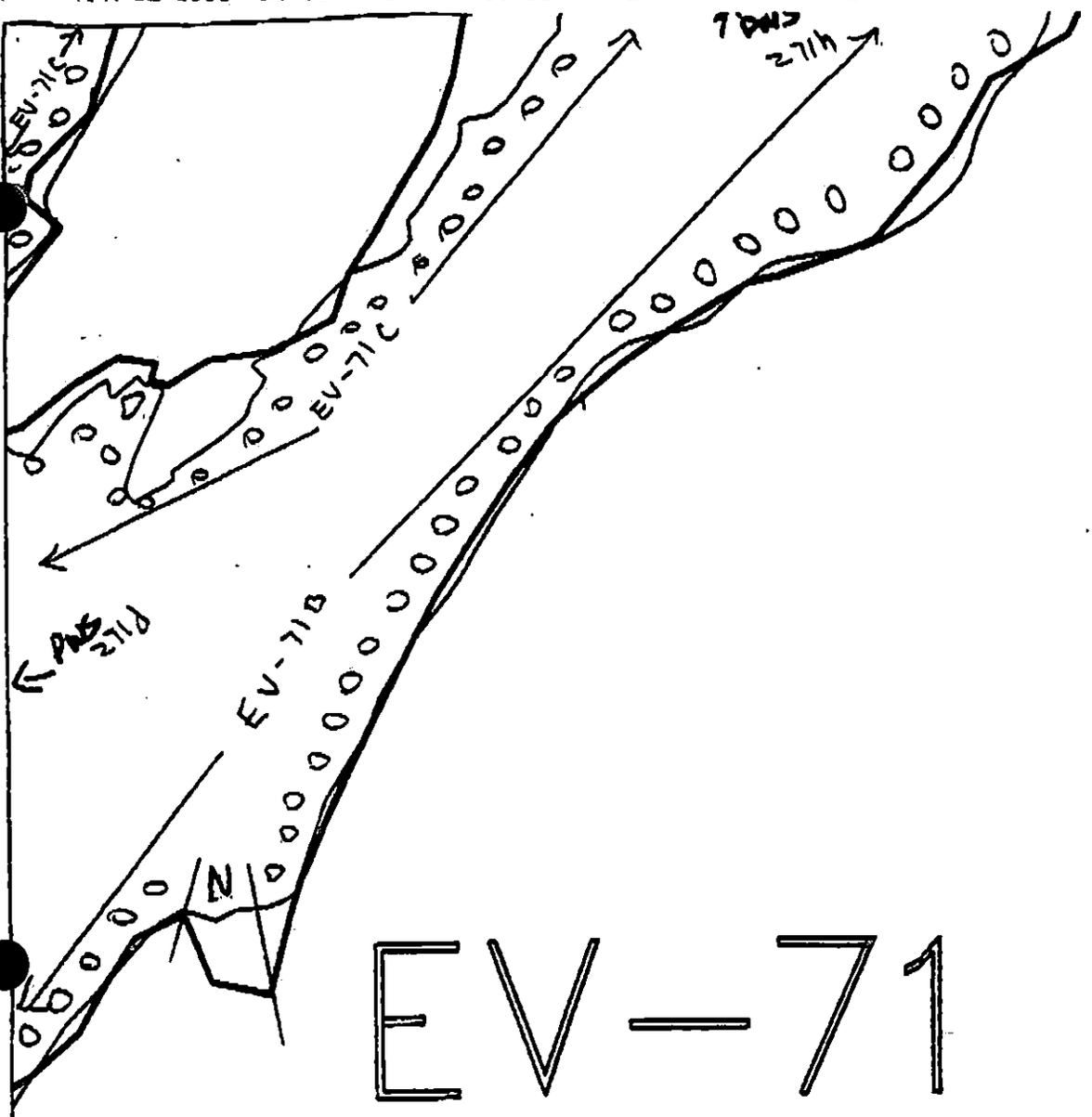
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foget
Date: 4/1/90
Date Entered:



EV-71

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

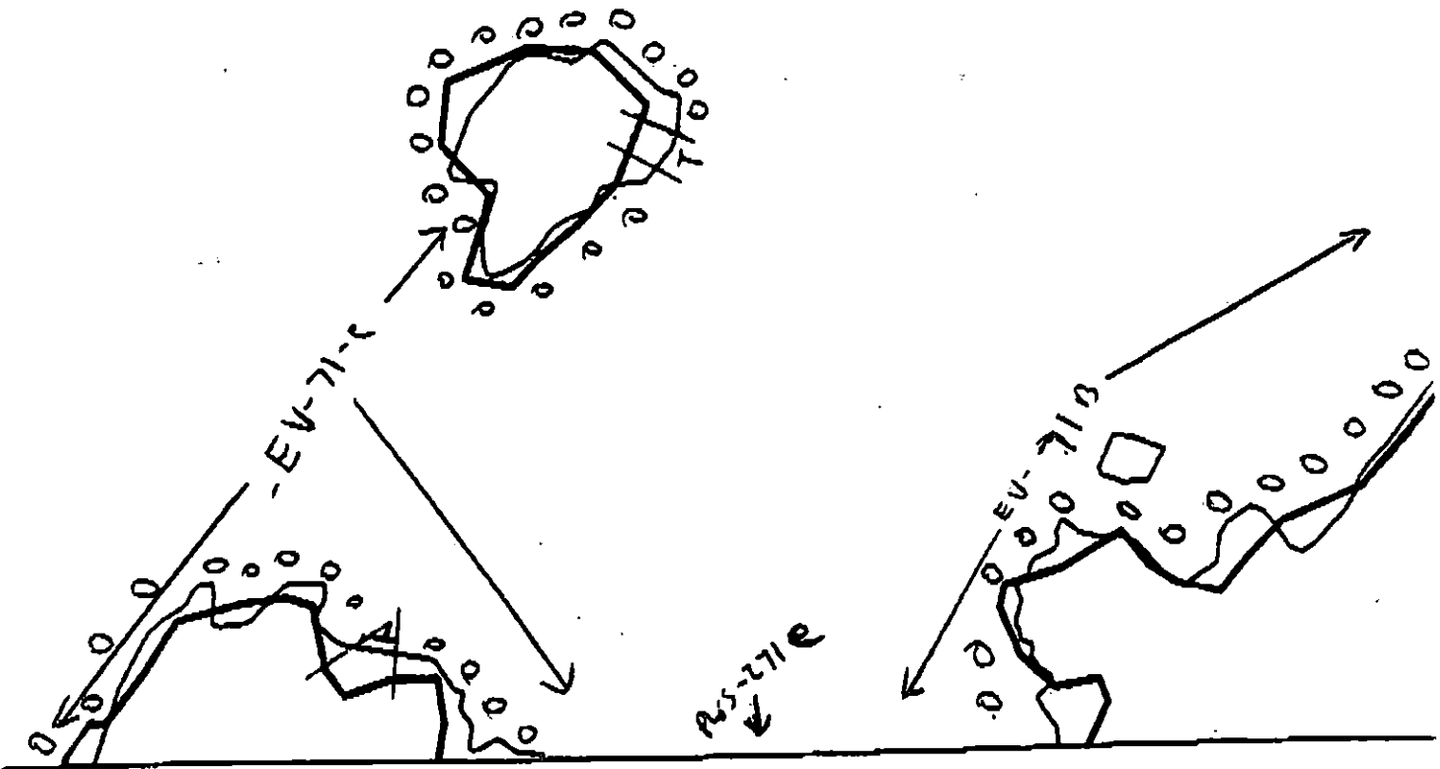
EV-71B

ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Data Entered:

PWS-271i →



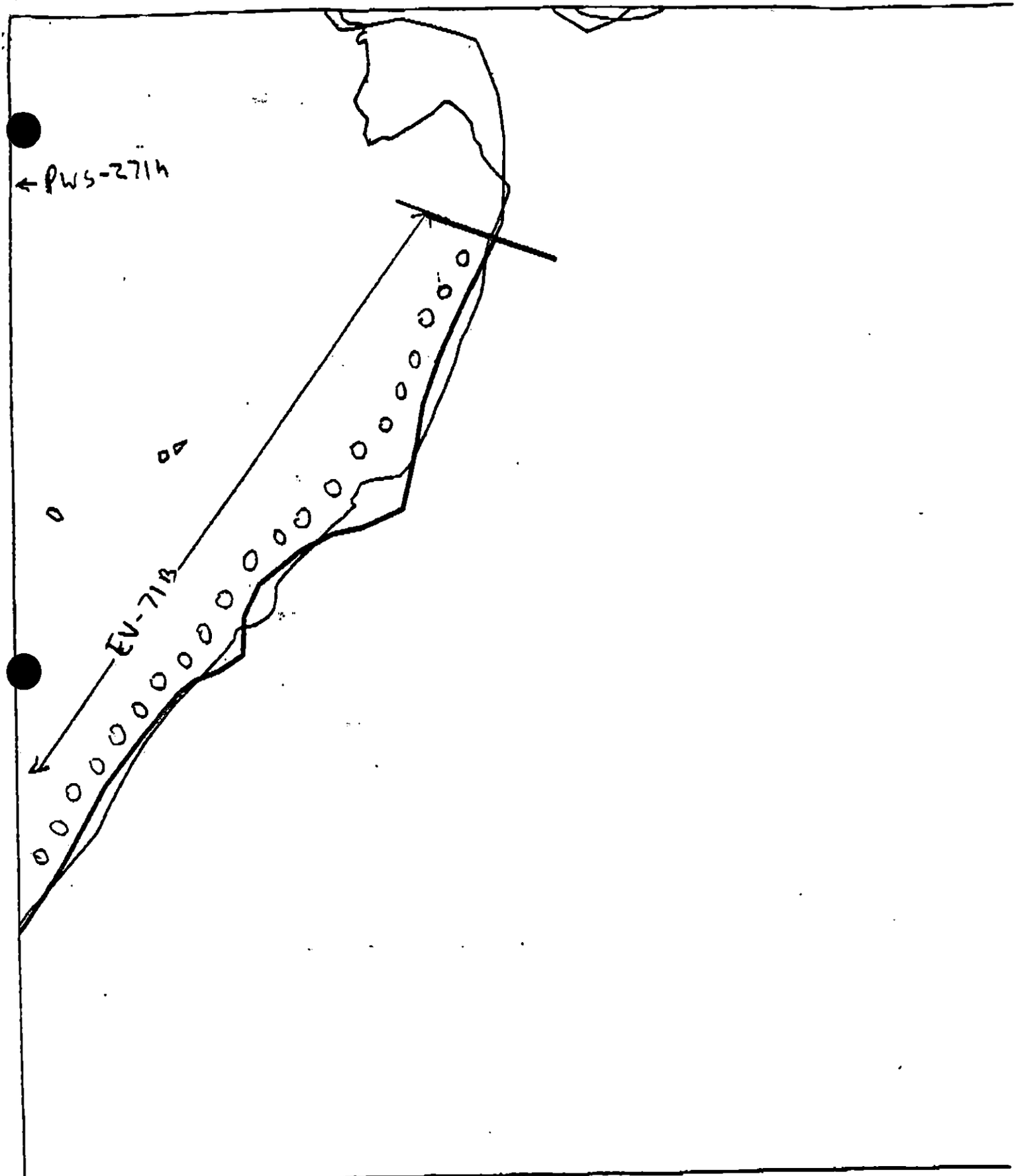
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



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

EV-71

ADEC Segment Length: 8115m

0 100 200 300
Meters

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-71 SUBDIVISION C (3 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
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 treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: [signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 105 m: No Oil 2020 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat: _____Breakup	_____ Beach Cleaner
_____Removal	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/21/90.
ADEC ART WEINER [signature]
EXXON ANDY TEAL [signature] FOSC: [signature] DATE: 4-27-90
NOAA Burl Wescott [signature]
USCG KENNETH KEANE [signature]

OG M Foyet

SEGMENT ST/ EV-71

SUBDIVISION C

DATE 4 / 1 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bndry
- Oil Dist.
  - Width
  - Length
  - % Cover
- Substrate Character
- Ext. 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

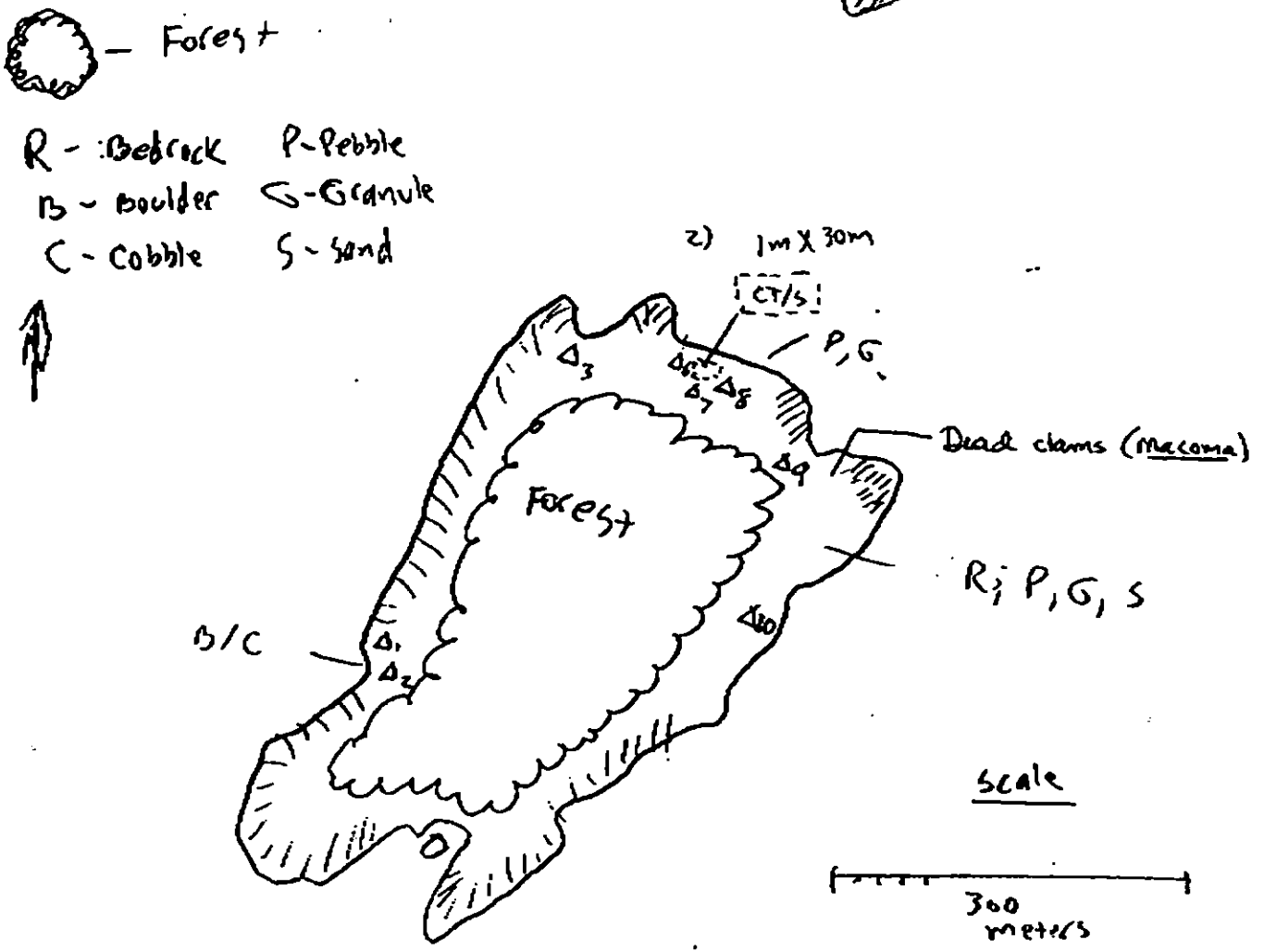
CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ●► Photo location, direction, and number

ETCH MAP



Oil Character Length (m): AP — PO — CV — CT 30 ST 30 MS — PT — TB — FL — NO 2280

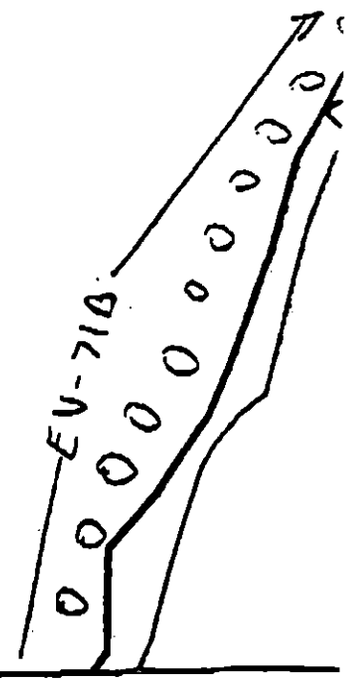
REVISIONS

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ECOLOGY MAP



PWS 271C



PWS-271A

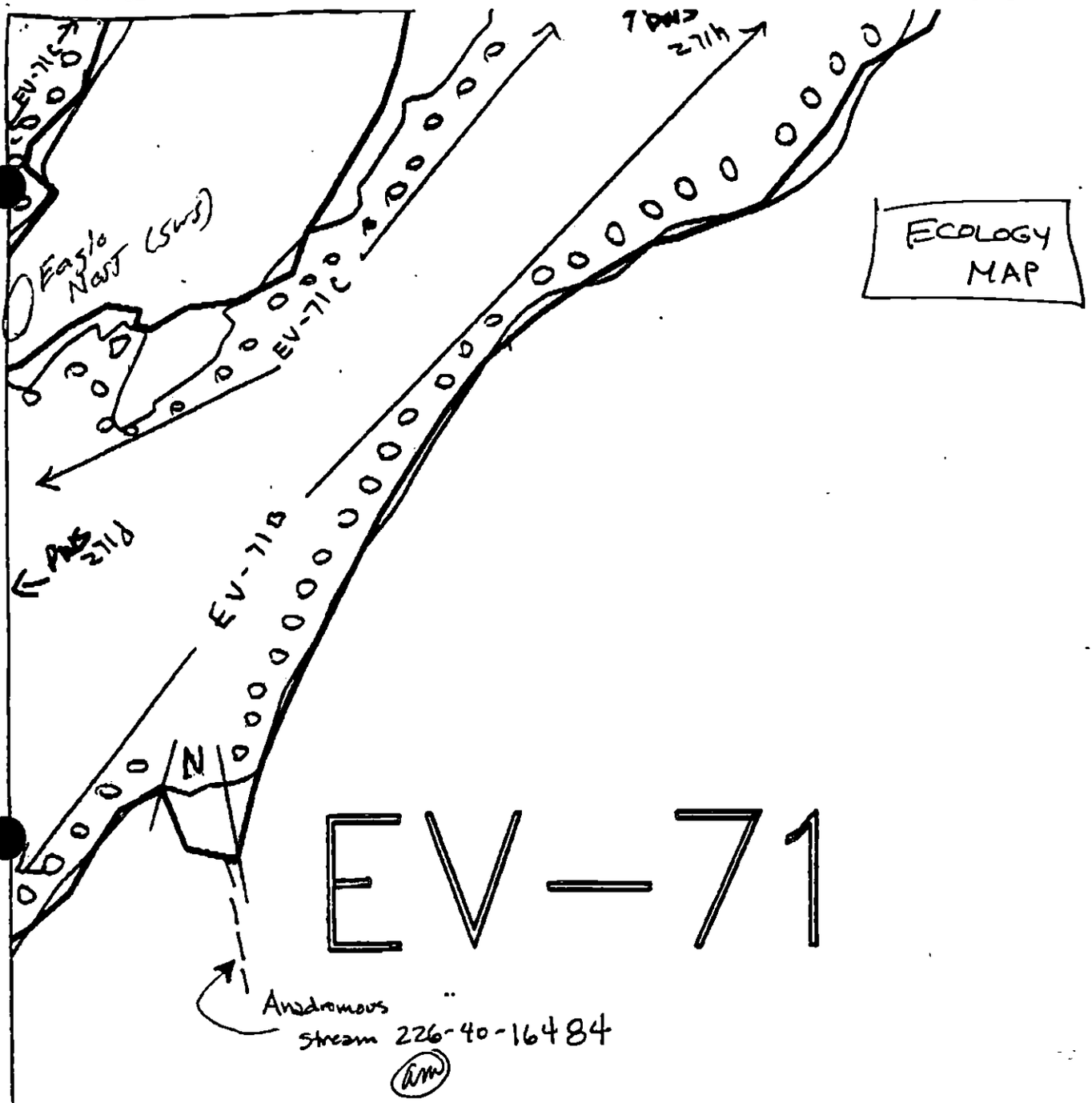
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:



ECOLOGY MAP

EV-71

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

EV-71B

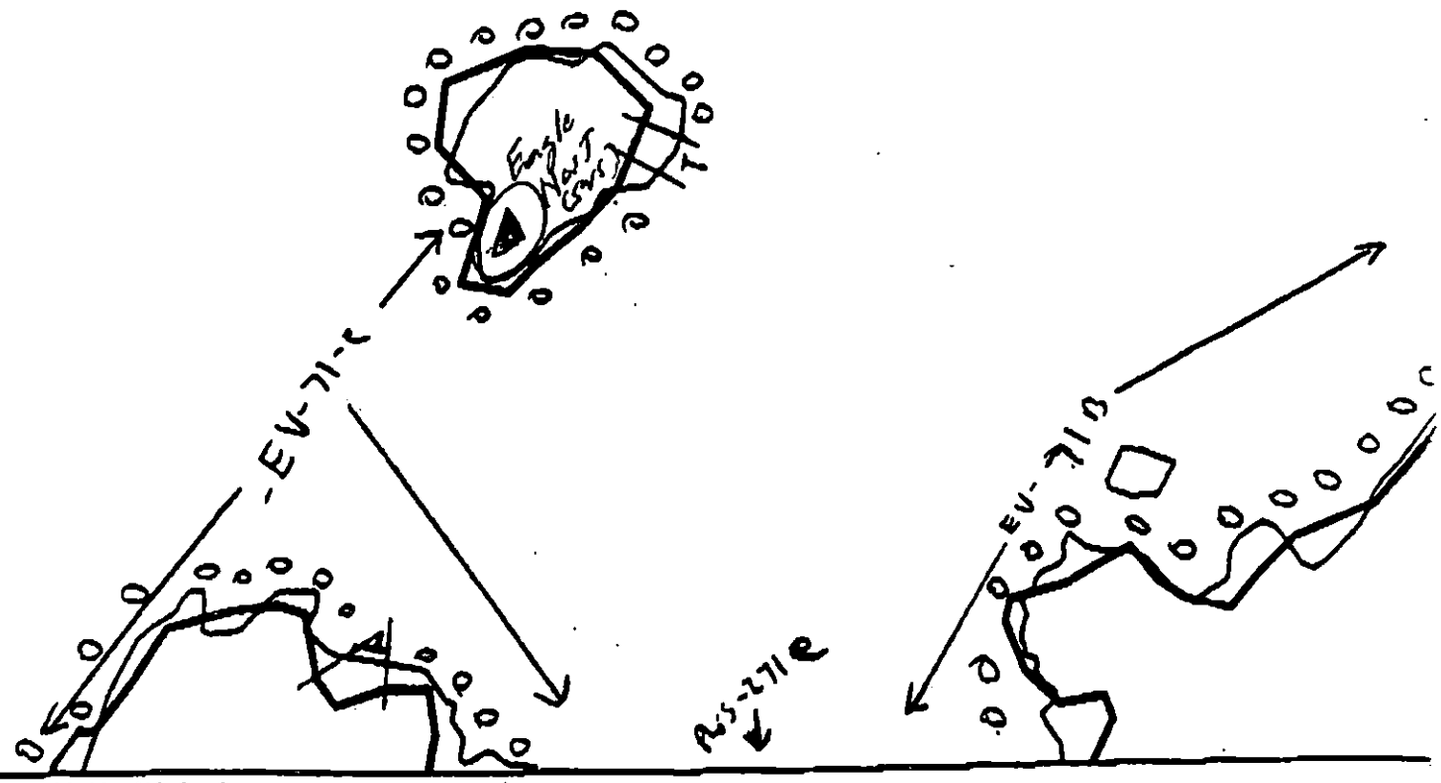
ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Date Entered:

ECOLOGY MAP

PWS-271i →



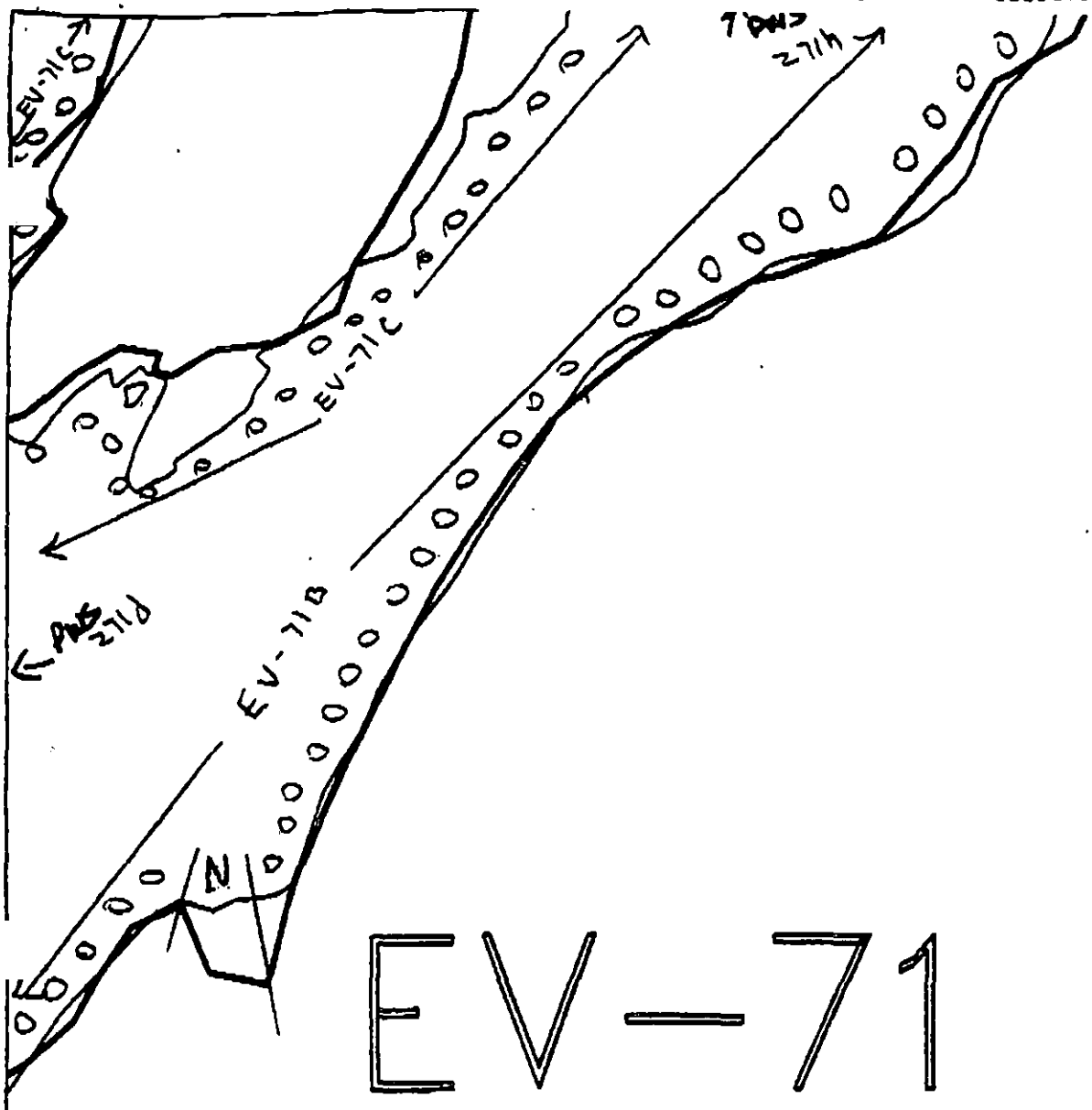
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8119m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



EV-71

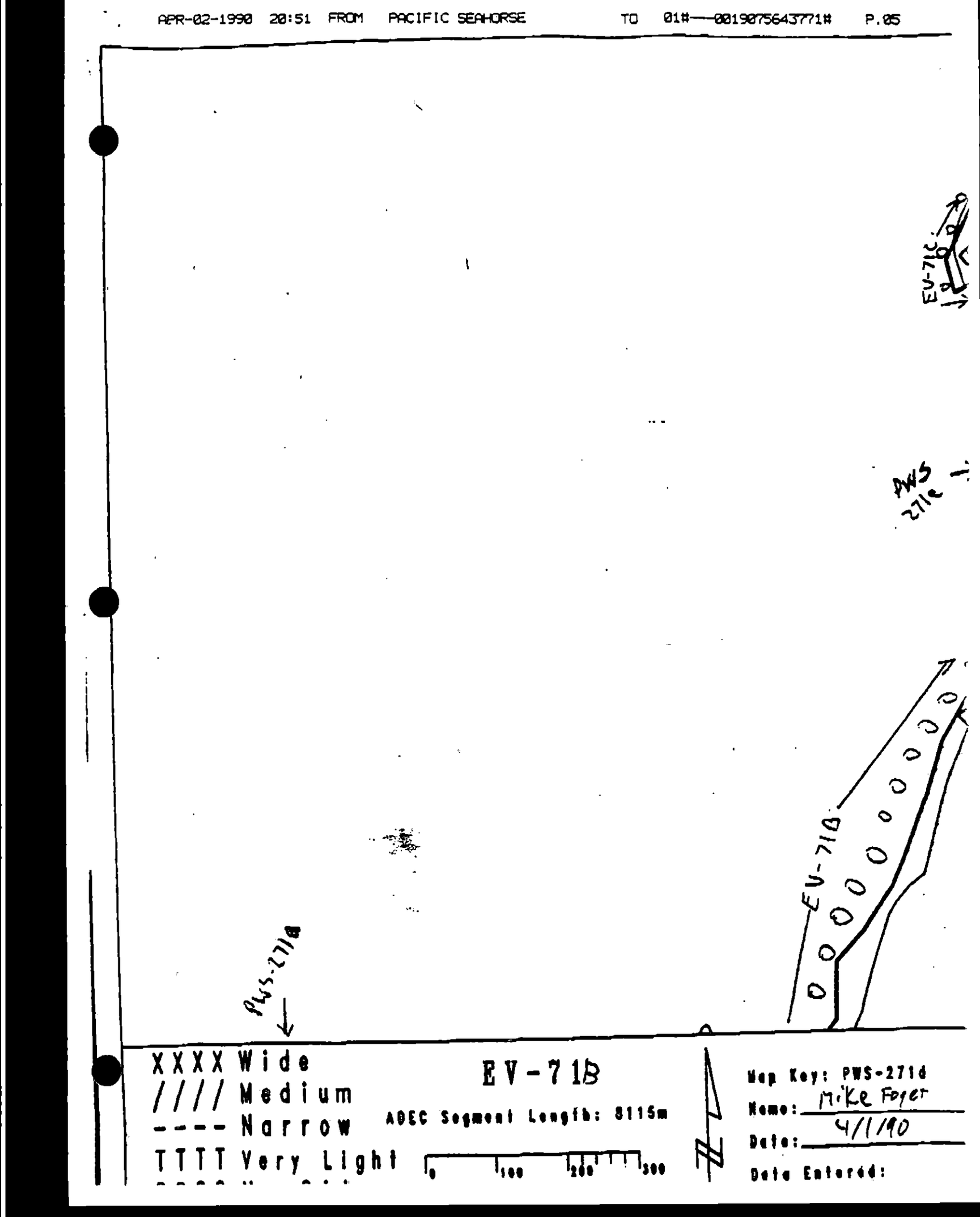
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71B

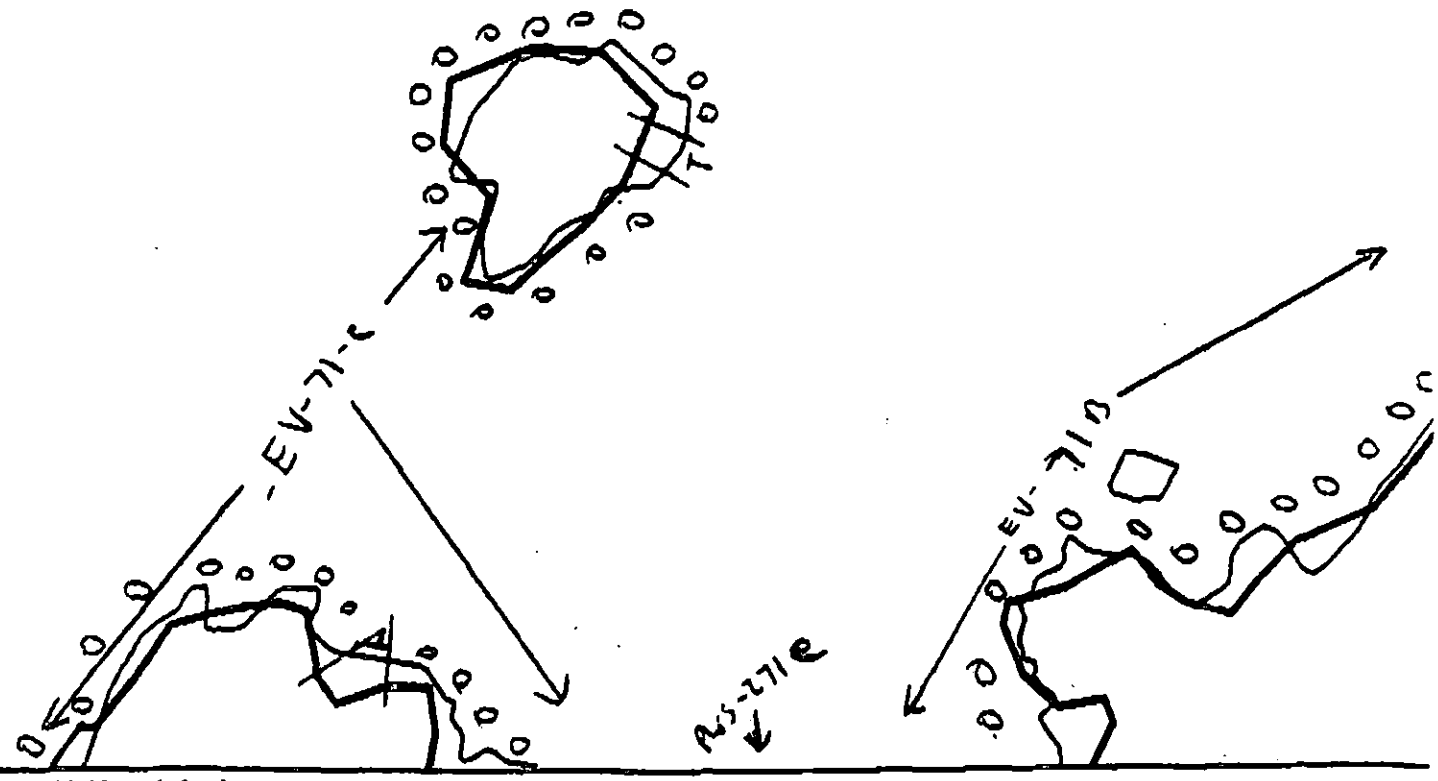
ADEC Segment Length: 8115m

0 100 200 300
METERS

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Data Entered:


EV-71C
PWS 271C
EV-71A
PWS-271A
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
EV-71B
AOEC Segment Length: 8115m
0
100
200
300
Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:

PWS-271i →



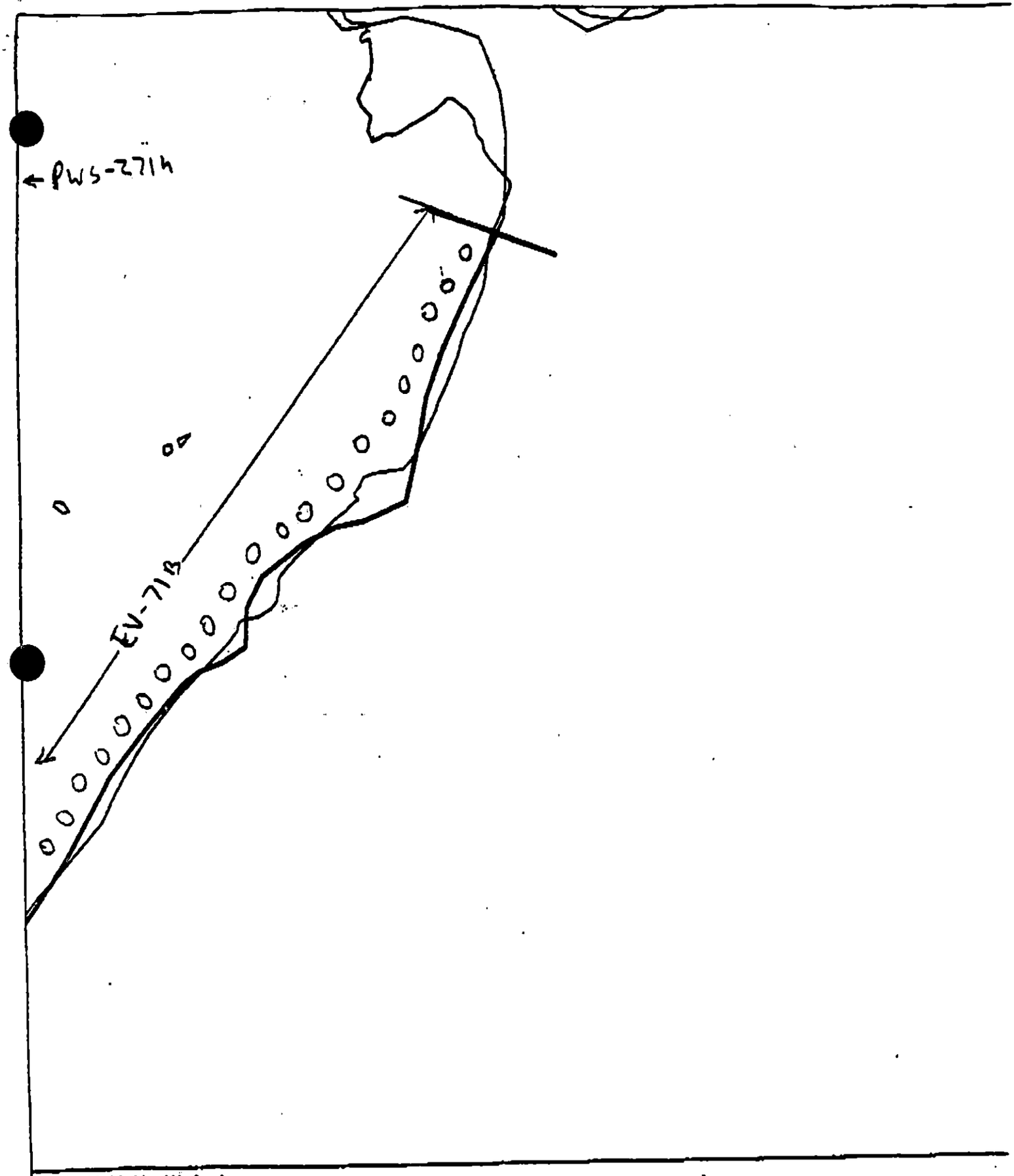
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271h
Name: Mike Foget
Date: 4/1/90
Date Entered:



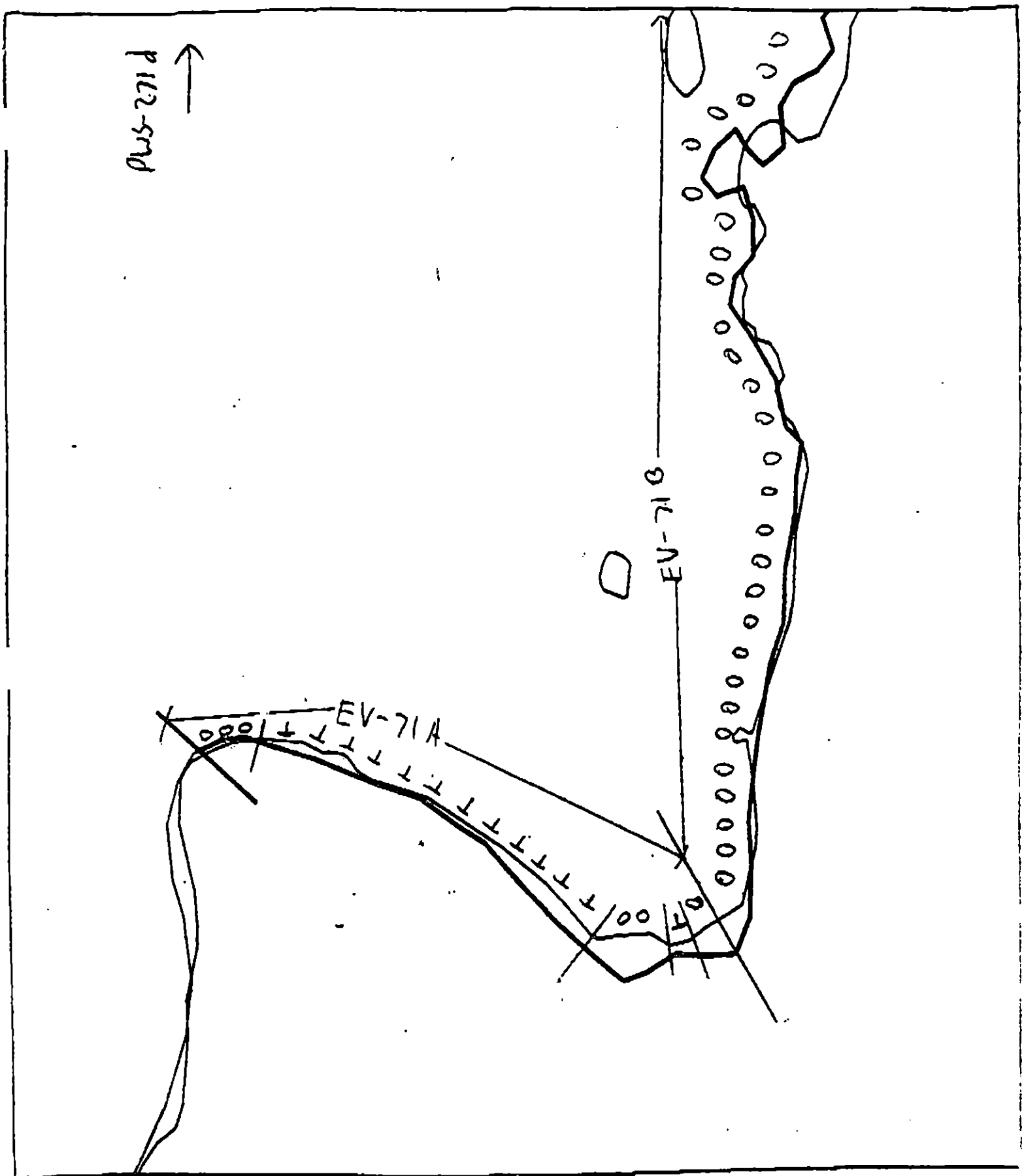
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-2711
Name: Mike Foget
Date: 4/1/90
Data Entered:



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

EV-71

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271a
Name: Mike Foget
Date: 4/11/90
Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: EV 071 **SUB:** C **REGION:** PWS **SURVEY DATE:** 5/25/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area

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

SHPO Signature: Timothy A. Smith Date: 6/07/91

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: JUNE 6 1991 **FOSC APPROVAL DATE:** 6/10/91

ADEC John Bauer

EXXON

USCG

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT EV 71 SUBDIVISION C DATE 5/25/91

C Peter Montesano SIGNATURE [signature]

☒ NTR ☐ TREATMENT RECOMMENDED

A small portion of this segment went unsurveyed due to an Eagle Nest. Significantly more oil found than reported by ASAP, most of which was either BC or removed (areas A, B, + C) — Treatment complete.

a dead otter pup was found and flagged in area "E."

EXXON

NAME [illegible] SIGNATURE [signature]

☐ NTR No treatment due to light oiling & heavy Biota, Also Eagle activity

LANDMANAGER

NAME Norm S Kennedy OF USFS SIGNATURE [signature]

☒ NTR found more oil than ASAP reported
many sea otters with pups around islands
One dead baby sea otter found on beach [E]
Oil was removed from any potential work sites.
Eagle on nest at smaller island.

USCG/NOAA DSI/MECP/BOI [illegible]

NAME Bm. M.C. Zenone USCG SIGNATURE [signature]

☐ NTR Observed "SOR" was scattered on shingle beaches. VECO removed three bags of oiled sediments. Due to foliation of the surface sediments, removal of subsurface remaining "SOR" would be difficult IAW 12

CG - No TREATMENT RECOMMENDED - 3

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 2

SEGMENT EV 71

OG Reimer BIO BAN

SUBDIVISION C

ADEC Montasano LANDMANAGER Kennedy for USFS
Zenone

DATE 5/25/91
5/26/91

EXXON Box USCG/NOAA D.Simecek - Beatty
398 6.11

TIME 19 : 30 to 20 : 33 (6 : 20 to 7 : 25) TIDE LEVEL -0.93 ft. to -0.97 ft. ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELO WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 2125 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 25 m N 46 m VL 310 m NO 1784 (1786) m US 0 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			S								R	V	2	1		X			
B	P					S					P	M	2	2		X			
C	S										R	V	1	2		X			
D			T								R	V	20	80		X			
E						S					RB	H	1	100		X			
F						T					RB	H	1	100		X			
G			T	S		T					RB	H	1	3		X			
H				T		T					RB	H	3	20		X			
I						T					R	V	1	5		1			
J			T	T		S					D	H	4	4		X			
K	S				P	P					PEB	V	5	25		X			
L	B										R	H	1	2		X			

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- 2 - 27 FRAMES 7-11

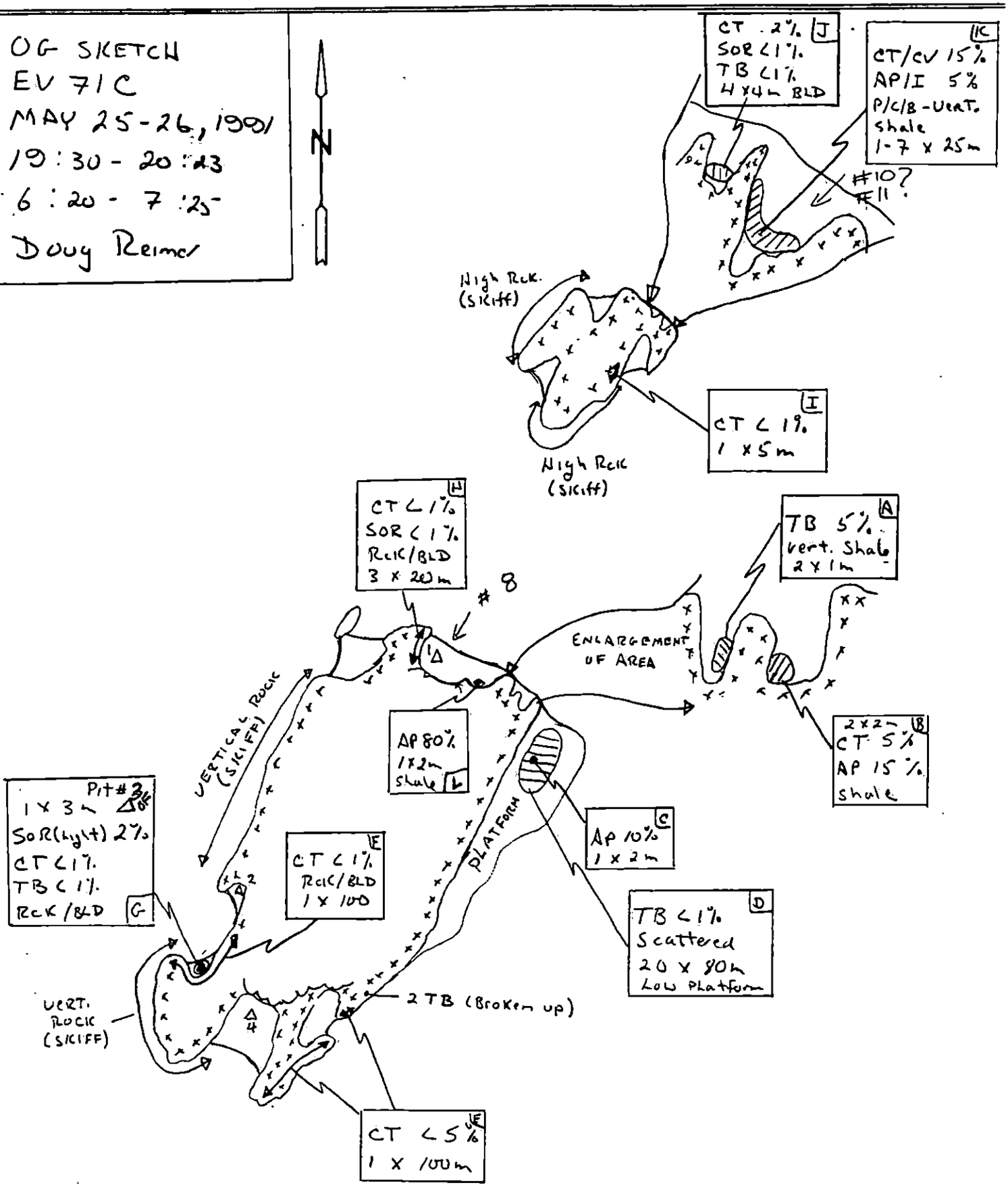
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	10							X	-					X			B-PG	
2	20							X	-					X			CP-PG	
3	10					X			0-3	Y				X			B-PGC	
4	20							X	-					X			G-GS	
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: Two small Rocky Islands with small pocket beaches and wide low rock platform on eastern shorelines. Oiling is spuradic and consists of Bath Tub ring (BTR) on Rocky sections. Some small pockets of AP were found along the North shore of both islands in Medical Shale. Scattered Tb were found across platform.

REVISED: MC 5/29/91
revised 5.29 QJ

OG SKETCH
EV 71C
MAY 25-26, 1991
19:30 - 20:23
6:20 - 7:25
Doug Reimer



REVISED: MC 5/14/91
reviewed 5.29 94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2	**DATE** 25-26 May 91
SEGMENT # EV-71C	**TIDAL HEIGHT(Range)** 4-6 ft, -1 ft
SUBDIVISION C	**BIOLOGIST** SMB+R
SEA STATE <1 ft	**WIND SPEED/DIRECTION** <1 kt
PHOTOGRAPHS: ROLL # —	**FRAME #** —

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

A+B. TB/CT/AP on foliated shale - Fucus recruits & clumps of Fucus adults are within the oiled zone - lichen is nearby. Lower zones support dense Fucus & barnacles, patchy mussels

C+D: AP removed from area with no biota. Sparse TB on low platform in Fucus barnacle, Littorine assemblage. Small mussels & amphipods found under rocks. No oiled organisms.

E: CT in green algae zone, Fucus recruits nearby

F+G: CT high in ITZ in lichen zone. SOR (Pit #3) in Fucus zone with limpets, barnacles & littorines nearby.

H: CT/SOR high in ITZ - lichen & moss nearby. Pit 1 on cobble beach has amphipods

I: CT in lichen zone - shingle beach below supported dense mussels, littorines & littorine egg masses

J+K: CT/CU/SOR/AP in barnacle zone with littorines, limpets & mussels. Shingle beach to west had an extremely dense bed of small mussels. Hasia in lowest zones of shingle beaches

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

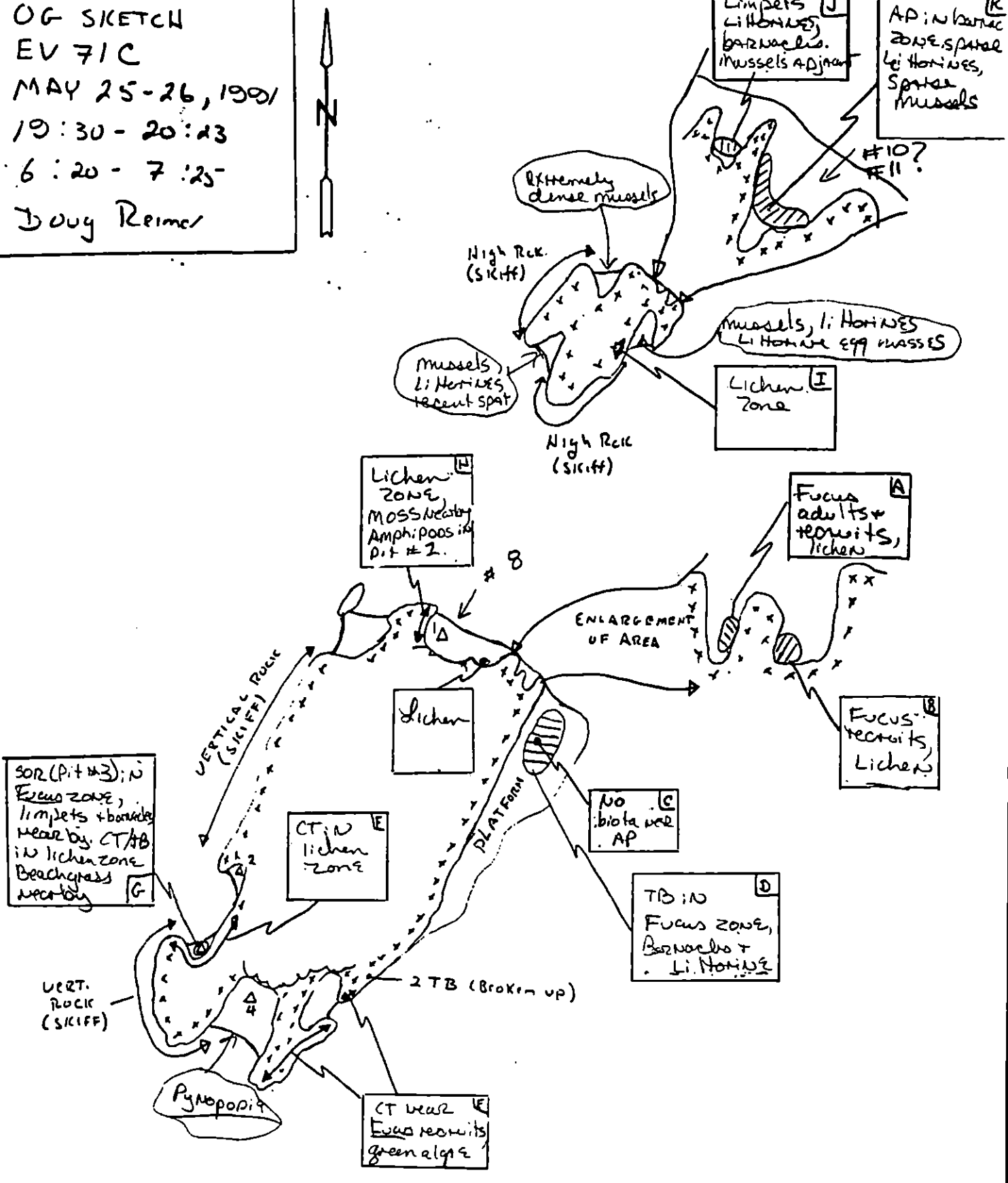
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	♀ ♂	2	
Seabirds			
Waterfowl			
Gulls/kittiwakes	≠ 10		
Shorebirds			
Corvids			
Other Birds			

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

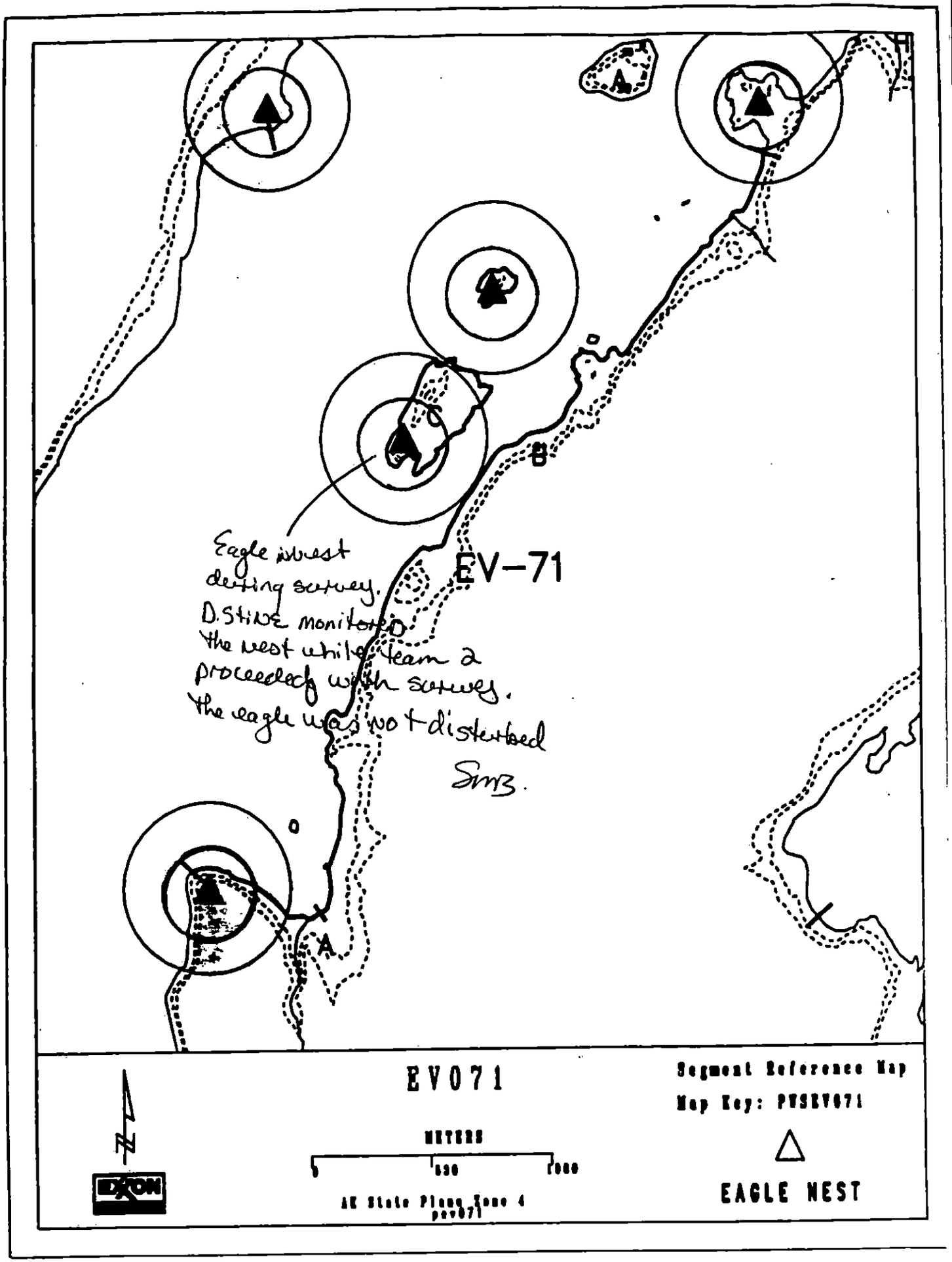
Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/22/91

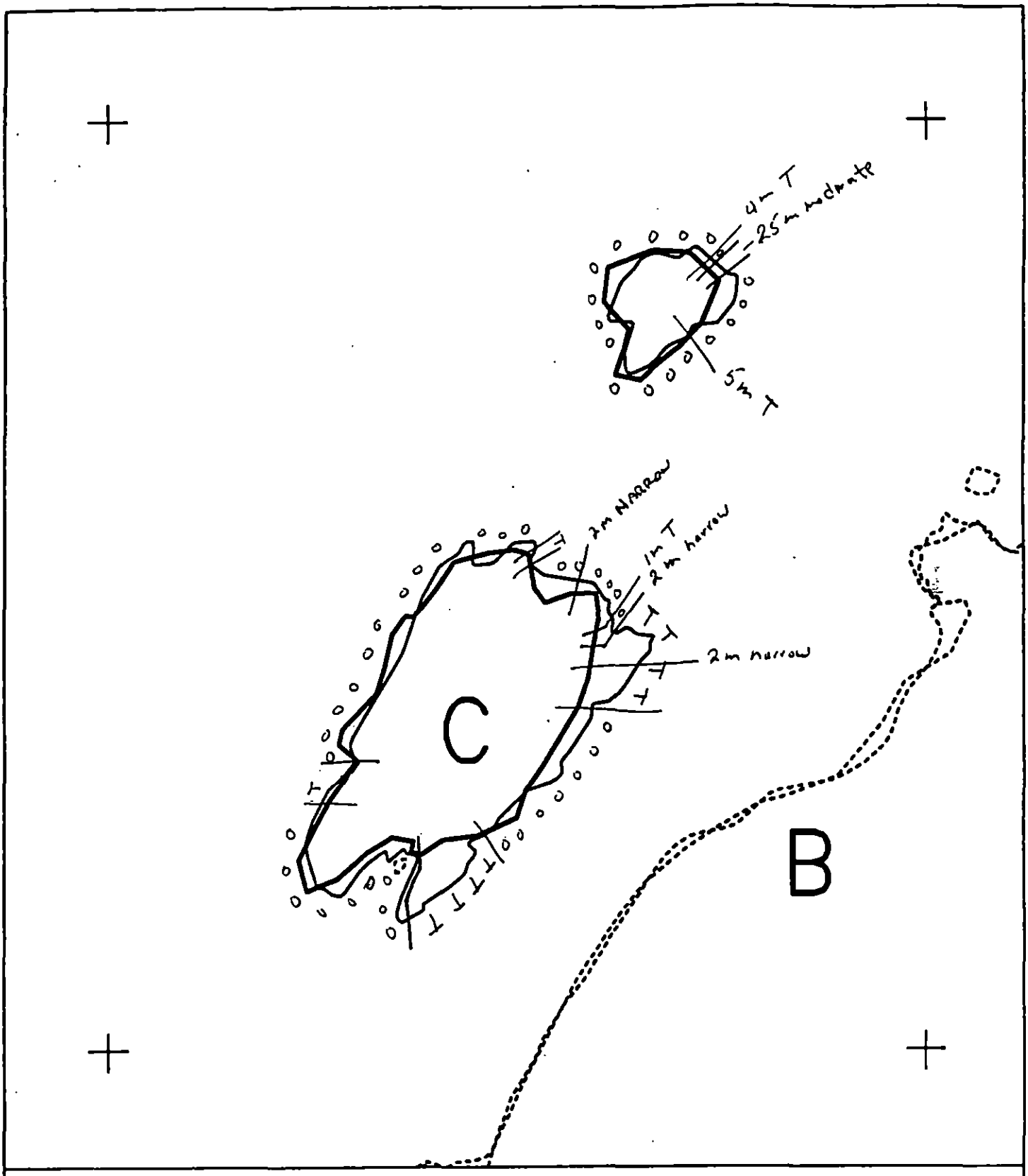
OG SKETCH
EV 71C
MAY 25-26, 1991
19:30 - 20:23
6:20 - 7:25
Doug Reimer



Reviewed M.B. 5/29/91



Reviewed M.B. 5/29/91



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

EV071 C

ADEC Subsegment Length: 2125m

METERS

0 200 400

AK State Plane Zone 4
pev071c

EXXON

Subdivision Field Map
Map Key: PWSEV071C
Name: Reimer
Date: 5/25/91
Date Entered:

Reviewed: MC 5/29/91
revised 5.29 dy

1991 MAYSAP EVALUATION

SEGMENT: EV 071 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/15/91

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

Ecological/Constraints (see page two for details) **Eagle nest, Fish harvest area, Anadromous stream**

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

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

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

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.

MATSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-71 SUBDIVISION (A)+B DATE 5/15/91

* Note: This was done as part of EV-71 B survey and includes information

ADEC
NAME John Hayes ADF&G Tom Crowe SIGNATURE [signature] Tom Crowe ADF&G

☐ NTR ANADROMOUS STREAMS IN SEG EV71A 226-40-16476 AND EV71B 226-40-16477 HAD A SPORATIC BAND OF AP/SOR IN UNIT OCCURING BETWEEN BOTH STREAMS AND ALONG THE SOUTHERN SHORELINE OF THIS COVE, RECOMMEND LOCAL RESPONSE CREW FOR MANUAL TILLING AND REMOVAL OF REMAINING OIL DEPOSITS IN PROXIMITY OF STREAM AREAS. STREAM # 226-40-16484 HAD <1% EV,CT,LSOR IN UNIT NO TREATMENT RECOMMENDED FOR THIS STREAM SITE (16484). TWC

✓

Agree with ADF&G comments for treatment in vicinity of streams, only stream areas of segment were surveyed by our team.

EXXON
NAME JOHN DEAN SIGNATURE [signature]

☑ NTR 1 bag of very slightly oiled sediments were recovered. No other oil in recoverable state was observed.

LANDMANAGER
NAME Steve WARD OF CVC/FS SIGNATURE [signature]

☐ NTR Chenega Land Selected But Not Conveyed.
MANUAL Required in these Stream Areas To Protect the Fish, team 5 Picked up A Lot But A Lot OF OIL is Still there to Be Picked up. Good For Chenega Local Resource.
High Priority this team did only Streams
NO-Bio. no Survey on EV-70 or 71

USCG/NOAA
NAME DREHER/CLINE SIGNATURE CWO K. L. Dreher

☒ NTR The very small amount of AP found was picked up and removed. ADF&G representative concured that no further treatment was necessary.

I agree with the ADF&G representative for all three streams. DOC

taken from EV-71B 5.19.91 dlj

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 3

OG CHANEY BIO CRANK

ADEC HAYES LANDMANAGER WARD for CUC

EXXON DEAN USCG/NOAA DREHER/CLINE

SEGMENT EV-71

SUBDIVISION (A) (B) with R

DATE MAY 15 /91

TIME 09:58 to 11:19 TIDE LEVEL -2.0 ft. to +2.0 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 252 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 50 m VL 35 m NO 167 m US 500 m

MAP 1

LOC	SURFACE OIL CHARACTER AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA WIDTH m	AREA LENGTH m	ZONE S	ZONE UI	ZONE MI	ZONE LI	NOTES
B				T	T	T					BR	M	3	20		✓			SMALL PATCHES BEHIND BLDR
C	S			S	S	S					B	M	1	50		✓			BAND PATTIES IN BLDRS
D	S			S	T	T					B	M	1	15		✓			FEW PATTIES IN BLDRS

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

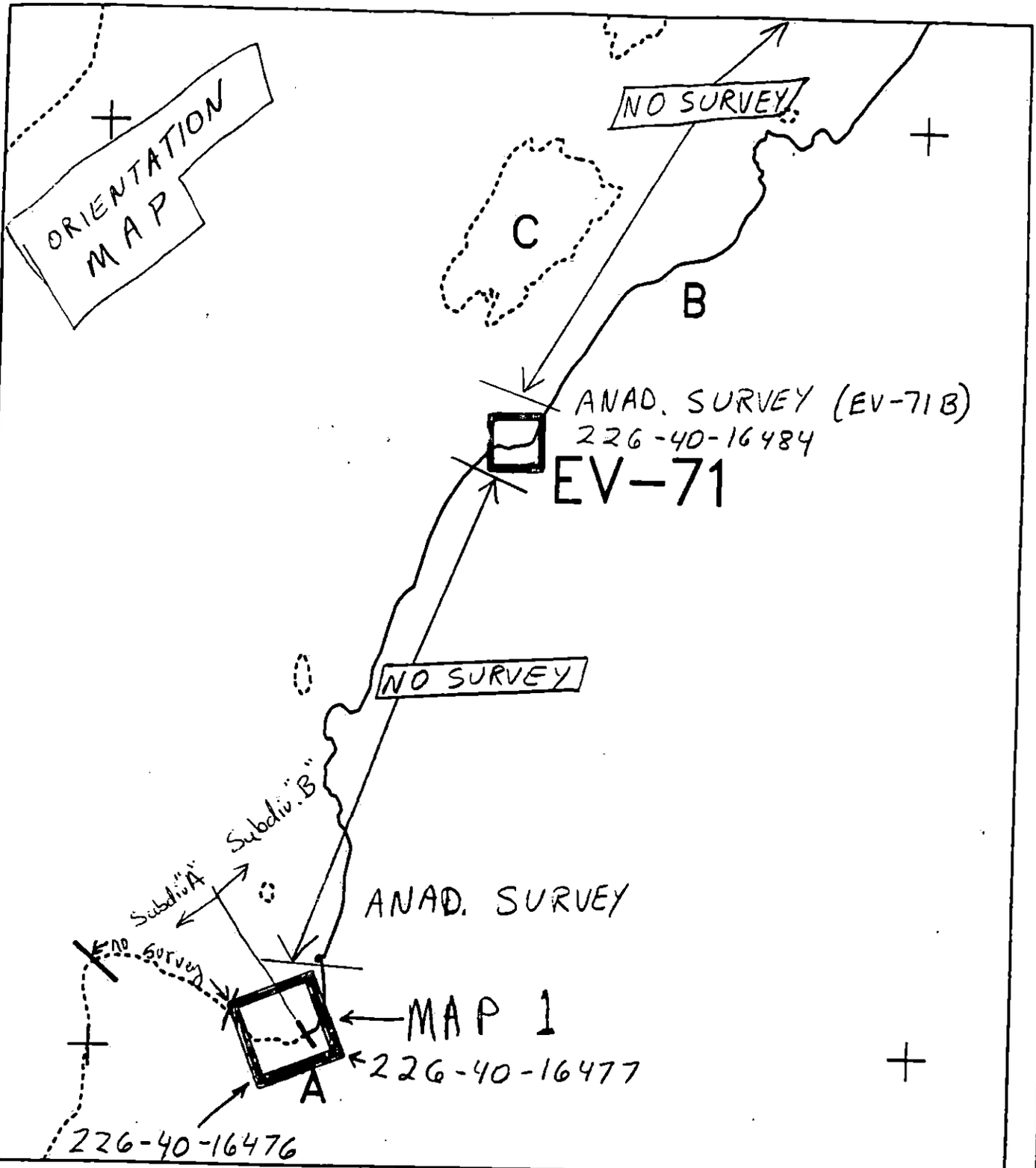
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 5 - NO PHOTOS WET CAMERA FRAMES

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
2	25							✓	-	—	—			✓			CP-CGB	

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

OG COMMENTS: FEW RANDOM PATTIES AP BEHIND PROTECTIVE BOULDERS AT LOCATIONS INDICATED ON SKETCH MAPS. THIS SURVEY INCLUDES PART OF EV71 B BECAUSE IT IS AN ANADROMOUS FISH STREAM.

REVISED: MC 5/22/91
revised from EV-71 B, 5.19.91 gg



EV071 (A)

METERS

400 0 400

AK State Plane Zone 4 NAD27/Clk

Subdivision Field Map

Map Key: PTSEV071Ba

Name: CHANEY

Date: MAY 15 1991

Revised: MC 5/22/91

revised from EV-71B, 5.19.91 gy

MAYSAP 1991
O KETCH MAP
G CHANEY
TEAM 5
SEGMENT: EV71(A)
DATE: MAY 15 1991
AIR P.#: G-15-89-No 110

PRINCE OF JALES PASSAGE

MAP 1

EVAN'S ISLAND

ANAD. STREAM NUMBERS
PROVIDED BY TOM CROW
ADF&G

T
M
N

D
1 x 15m
AP 2%
SOR 2%
CV, CT
TRACE

C
BAND PATTIES
IN BOULDERS
1 x 50m
AP 5%
SOR 5%
CV 1%
CT 1%

STREAM

POORLY DEFINED CHANNEL

EV71B
EV71A

DRIFT TREE ROOTS

ANAD.
226-40-16477

ALDERS

B
3 x 20
SOR, CV, CT
TRACE
SMALL PATCHES BEHIND BOULDERS

note segment boundary

TREES

ANAD.
226-40-16476

TREES

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS ROUGHLY

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5	DATE 15 May 1991
SEGMENT # EV-71	TIDAL HEIGHT (Range) -2 → +2
SUBDIVISION B (part of (A) w/ Anad Stream)	BIOLOGIST Crank
SEA STATE 1'	WIND SPEED/DIRECTION 10 knots/N
PHOTOGRAPHS: ROLL #	FRAME #

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

(A) Area is located high in the UITZ and in the SUPRA. Within the site there are mosses, Fucus sporelings, rye grass, white and black lichen and Littorina. Biota cover is ~1%. ½ m below site there is a 2 x 15 m patch of sparsely concentrated Fucus sporelings covering ~20% of the sediments. The MITZ has moderate concentrations of Fucus and barnacles. Fucus sporelings are more concentrated and present. There are dense pockets of Littorina and sparse mussels. Biota cover is ~50%. The LITZ has dense mussels with various size classes. Barnacles are still moderate, ~45% of the adult shells are empty. The 'empties' are being used by Littorina. Approx. 10% of the moderate Fucus concentration in the LITZ are 'stipe-only'. Biota cover is 40-60%.

→ (B) Area is located high in the UITZ on bedrock and boulders. Black lichen encrusts ~30% of the sediment. Moss and white lichen are also present covering <1% of the sediments. The MITZ below site is a granular shale beach with a small (1x3m) low bedrock outcrop. On the bedrock there is dense Fucus and sparse barnacles.

in "A"

(C) Area is located among cobbles in the UITZ. Black lichen is encrusted into 20% of the sediments. Barnacles and oligochaete worms are also present, covering <1%.

in "A"

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			None observed.
Seabirds	1 Murres	30	Anad Streams:
Waterfowl	1 Ducks	3	226-40-16476
Gulls/kittiwakes	1 Gulls	50	226-40-16477
Shorebirds	1 Sandpipers	17	226-40-16484
Corvids			
Other Birds	1 Warbler	2	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Deer	1
Pinnipeds (specify)			
W es (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed: MC 5/22/91 taken from EV.71B, 5.19.91 GJ

Team # 5 Date 15 May 1991 pg 2 of 2

Segment # EV-71 Tidal Height -2 → +2

Subdivision (B) (A) (part of A) Biologist Crank

Sea State 1' Wind Speed / Direction 10 knots/N

Comments (cont.)

The LITZ below areas B & C has a sparse to rare concentrations of barnacles, moderate Littorina and limpets and rare mussels on cobbles. Most of the sediment surface directly below these site is granular. At the stream mouth, in the minus tide level there are pebbles and cobbles with a 60% biota cover including: moderate barnacles, moderate Littorina with egg masses, interpebble mussel bed, and sparse Fucus sporelings

→ (D) "A" Area is in the UITZ on the west side of anad stream 226-40-16476. Black lichen encrusts about 20% of the sediments. Barnacles, rye grass and white lichen cover less than 1%. 15m below the site there is: dense Fucus, moderately concentrated barnacles, mussels and Littorina. Biota cover is ~70%.

(E) Area is located in the UITZ, 10m north of anad. stream 226-40-16484. Black lichen is encrusted into ~30% of the sediments. Barnacles, rye grass, seasonal plants, and oligachaete and polychaete worms cover <1% of sediments. Fifteen meters below site, in the MITZ through the LITZ, there is a moderate concentration of Fucus with maturing conceptacles and sporelings, sparse to moderate barnacles, moderate to dense mussels and dense Littorina and limpets. Littorina egg mass and nudibranch egg masses were present. Biota cover is ~80%.

taken from EV.71 B 5.19.91 dg

RETIEWED: AC 5/22/91

Team # 5 Date 15 May 1991 pg 3 of 3
Segment # EV-71 Tidal Height -2 → +2
Subdivision B (part of A) Biologist Crank
Sea State 1' Wind Speed / Direction 10 Knots / N

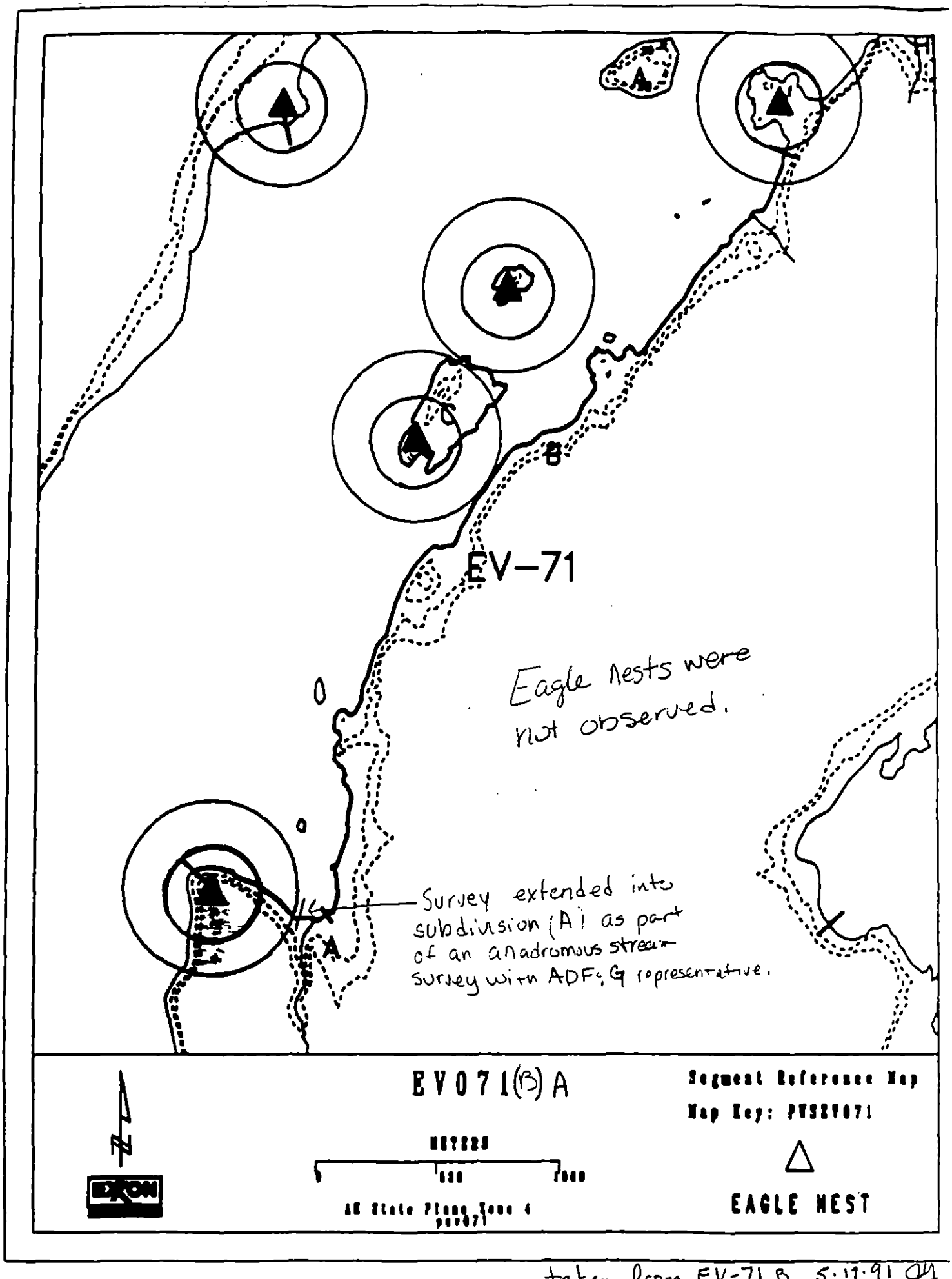
Comments (cont.)

(F) Area is located in the UITZ among boulders, 15 m from the SW stream bank. Black lichen encrusts 60% of the sediments. Rye grass, tar spot algae, yellow and white lichen with fruiting bodies, moss and filamentous green algae cover 5% of the surface. Two meters below the site to the stream, there is dense Fucus and moderately concentrated barnacles. Biota cover is ~80%.

This subdivision has 3 anadromous streams #226-40-16476/16477/16484. Gulls were feeding in the mouth of stream # 16477. The intertidal biota appears to be healthy and not adversely affected by present oiling conditions.

REVIEWED: MC 5/22/91

taken from EV.71B
5.19.91 gy



taken from EV-71 B, 5.11.91 GJ

MAYSAP 1991
DG SKETCH MAP/Bio Map
G CHANEY/Crank
TEAM 5
SEGMENT: EV 71 (A) & B
DATE: MAY 15 1991
AIR P.#: 6-15-91-No 110

PRINCE OF WALES PASSAGE

MAP 1

EVAN'S ISLAND

T M

N

ANAD. STREAM NUMBERS PROVIDED BY TOM CROW ADF&G

In the minus tide level, pebbles and cobbles at the stream mouth have 60% Biota cover
In the plus tide levels most of the surface is granular = low biota cover

BAND PATTIES IN BOULDERS

(C) 1x50m
AP 5%
SOR 5%
CV 1%
CT 1%

(D) 1x15m
AP 2%
SOR 2%
CV, CT
TRACE

Dense mussels on low bedrock outcrops in LITZ

POORLY DEFINED CHANNEL

STREAM

(2x15m patch of sparsely [illegible])

(A) 3x50m
CT TRACE
SPORADIC
SPLATTERS

ANAD.
226-40-16477

Gulls feeding in stream mouth

EV71B

EV71A

Dense Fucus in association with stream bank

DRIFT TREE ROOTS

ALDERS

TREES

TREES

ANAD.
226-40-16476

(B) 3x20
SOR, CV, CT
TRACE
SMALL PATCHES BEHIND BOULDERS

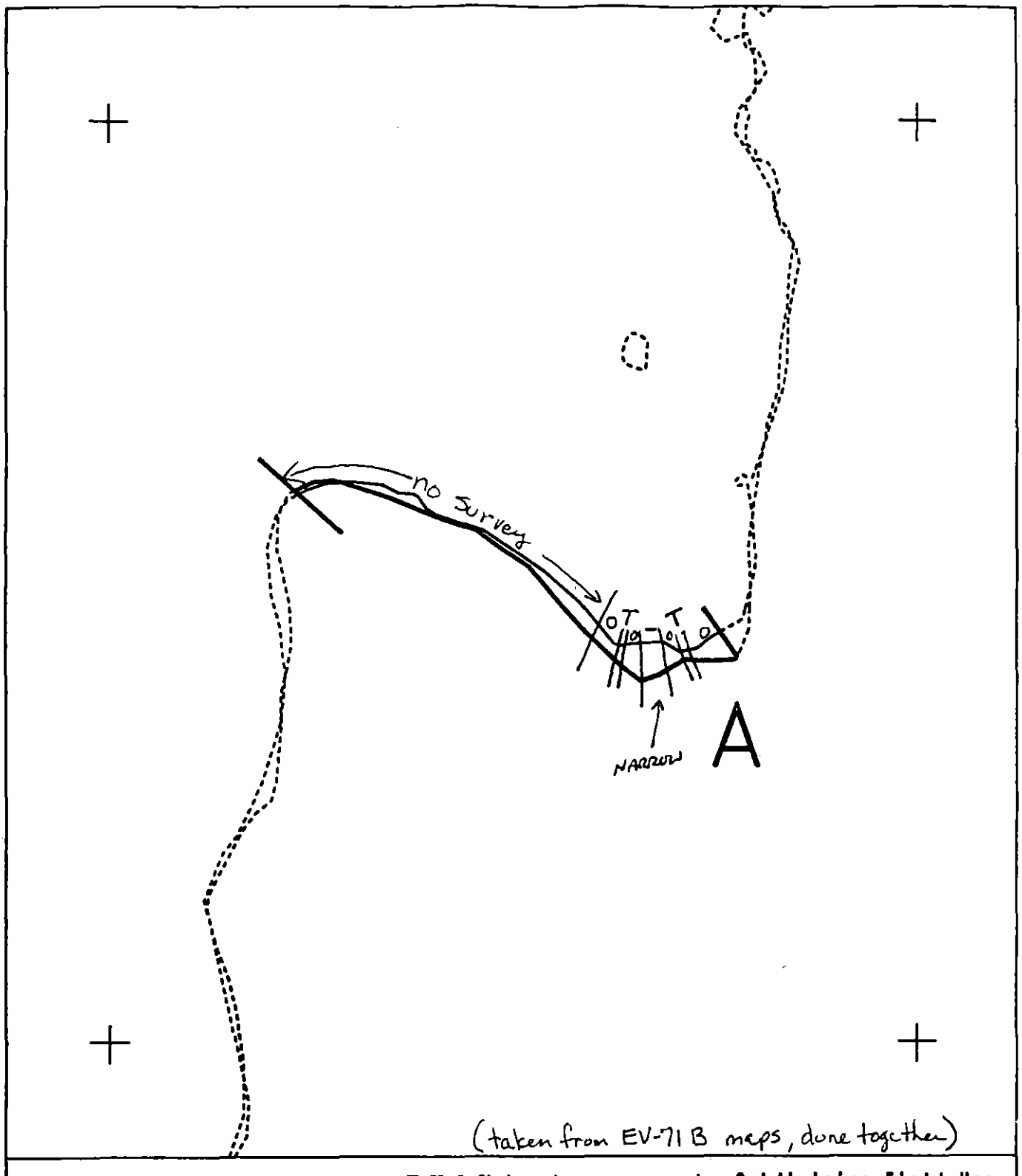
note segment boundary

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS ROUGHLY

taken from EV.71B, 5.19.91 by [illegible]



(taken from EV-71 B maps, done together)

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

EV071 A

ADEC Subsegment Length: 752m

METERS 0 200 400

AK State Plane Zone 4
pev071a

EXXON

Subdivision Field Map
Map Key: PWSEV071A
Name: Chaney (J.Y)
Date: 5.15.91
Date Entered:

REVISED: MC 5/22/91
revised from EV.71 B, 5.19.91 dy

1991 MAYSAP EVALUATION

SEGMENT: EV 071 SUB: B REGION: PWS SURVEY DATE: 5/15/91

ENVIRONMENTAL SEN[illegible]IES:
Work Window(s) [illegible]ED 3/1 - 9/15

Ecological/Constra[illegible]ee page two for details) Eagle nest, Fish harvest area, [illegible]omous stream, Subsistence - Deer harvesting

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE:_____ FOSC APPROVAL DATE:_____

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

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.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

NATURAL RESOURCE SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-71 SUBDIVISION (A) B DATE 5 / 15 / 91

* Note - this includes information on Segment EV-71A

ADEC

NAME John Hoyer ADF&G Tom Crowe SIGNATURE [signature] Tom Crowe ADF&G

☐ NTR ANADROMOUS STREAMS IN SEG EV71A 226-40-16476 AND EV71B 226-40-16477 HAD A SPORATIC BAND OF AP/SOC IN UNIT OCCURING BETWEEN BOTH STREAMS AND ALONG THE SOUTHERN SHORELINE OF THIS COVE, RECOMMEND LOCAL RESPONSE CREW FOR MANUAL TILLING AND REMOVAL OF REMAINING OIL DEPOSITS IN PROXIMITY OF STREAM MOUTHS. STREAM # 226-40-16484 HAD <1% CV,CT,LSOR IN UNIT NO TREATMENT RECOMMENDED FOR THIS STREAM SITE (16484). TWC

✓

Agree with ADF&G comments for treatment in vicinity of streams, only stream areas of segment were surveyed by our team.

EXXON

NAME JOHN DEAN SIGNATURE [signature]

☑ NTR 1 bag of very slightly oiled sediments were recovered. No other oil in recoverable state was observed.

LANDMANAGER

NAME Steve WARD OF CVC / FS SIGNATURE [signature]

☐ NTR Chenega Land Selected But Not Conveyed.
MANUAL Required in these Stream Areas to Protect the Fish, team 5 Picked up A Lot But A Lot of oil is Still there to Be Picked up. Good For Chenega Local Resource.
High Priority this team did only Streams
NO-Bio. no Survey on EV-70 or 71

USCG/NOAA

NAME DREHER / CLINE SIGNATURE CWO R. L. Dreher [signature]

☒ NTR The very small amount of AP found was picked up and removed. ADF&G representative concured that no further treatment was necessary.

I agree with the ADF&G representative for all three streams. Dick

TEAM NO. ____

OG CHANEY BIO CRANK SEGMENT EV-71

ADEC HAYES LANDMANAGER WARD for CUC SUBDIVISION A (B)

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 1, 15 / 91

TIME 09 : 58 to 11 : 19 TIDE LEVEL -2.0 ft. to +2.0 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 945 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 90 m NO 855 m US 4220 m

MAP 2 MAP 1

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA WIDTH	AREA LENGTH	ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	m	m	S	UI	MI	LI	
A						T					BR	M	3	50		✓			SPORADIC SPLATTERS
E						T					BC	M	5	10		✓			RANDOM DRIPS CT ON BLD
F	T				S	S	S				B	H	3	30		✓			LESS THAN 1 m² AP

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

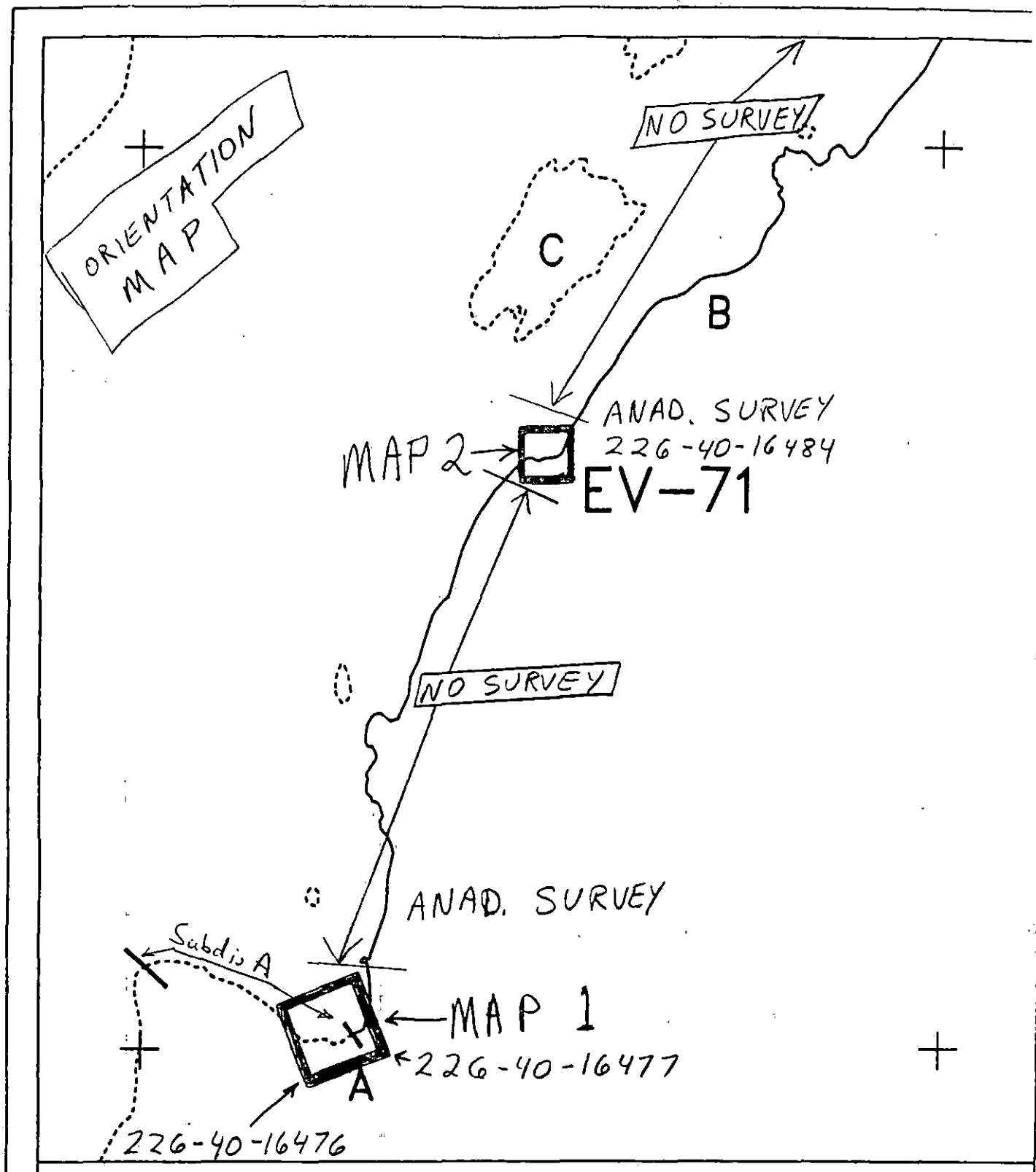
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 5 - ____ FRAMES NO PHOTOS WET CAME

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
1	20							✓	-	—	—			✓			C-CGB	
3	30							✓	-	—	—			✓			CP-CP	

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

OG COMMENTS: FEW RANDOM PATTIES AP BEHIND PROTECTIVE BOULDERS AT LOCATIONS INDICATED ON SKETCH MAPS. THIS SURVEY INCLUDES PART OF EV71-A BECAUSE IT IS AN ANADROMOUS FISH STREAM.

Revised: mc 5/20/91
revised 5.19.91 dg
to only reflect segment B



EV071 B

Subdivision Field Map

Map Key: PUSEV071Bs

Name: CHANEY

Date: MAY 15 1991

METERS

0 400 800

AK State Plane Zone 4 NAD27/Clk

EXXON

REVIEWED: MC 5/20/91

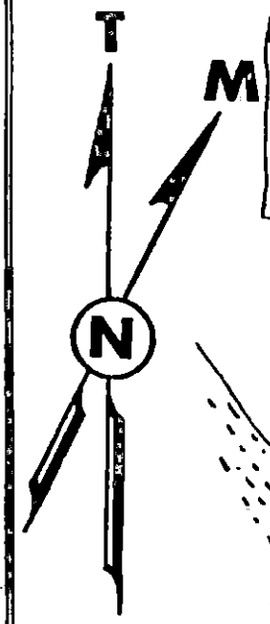
reviewed 5.19.91 dy

NAYSAP 1991
DG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV71A & B
DATE: MAY 15 1991
AIR P.#: G-15-89-No 110

PRINCE OF WALES PASSAGE

MAP 1 of 2

ANAD. STREAM NUMBERS PROVIDED BY TOM CROW ADF&G



EVAN'S ISLAND

STREAM

POORLY DEFINED CHANNEL

(A) 3x50m CT TRACE SPORADIC SPLATTERS

ANAD. 226-40-16477

EV71B

EV71A

DRIFT TREE ROOTS

ALDERS

TREES

TREES

ANAD. 226-40-16476

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

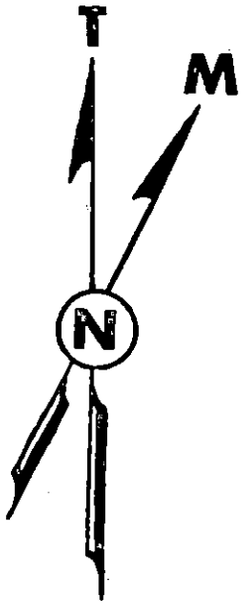
SCALE 50 METERS ROUGHLY

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV71B
DATE: MAY 15 1991
AIR P.#: NONE

PRINCE OF WALES PASSAGE

MAP 2 of 2

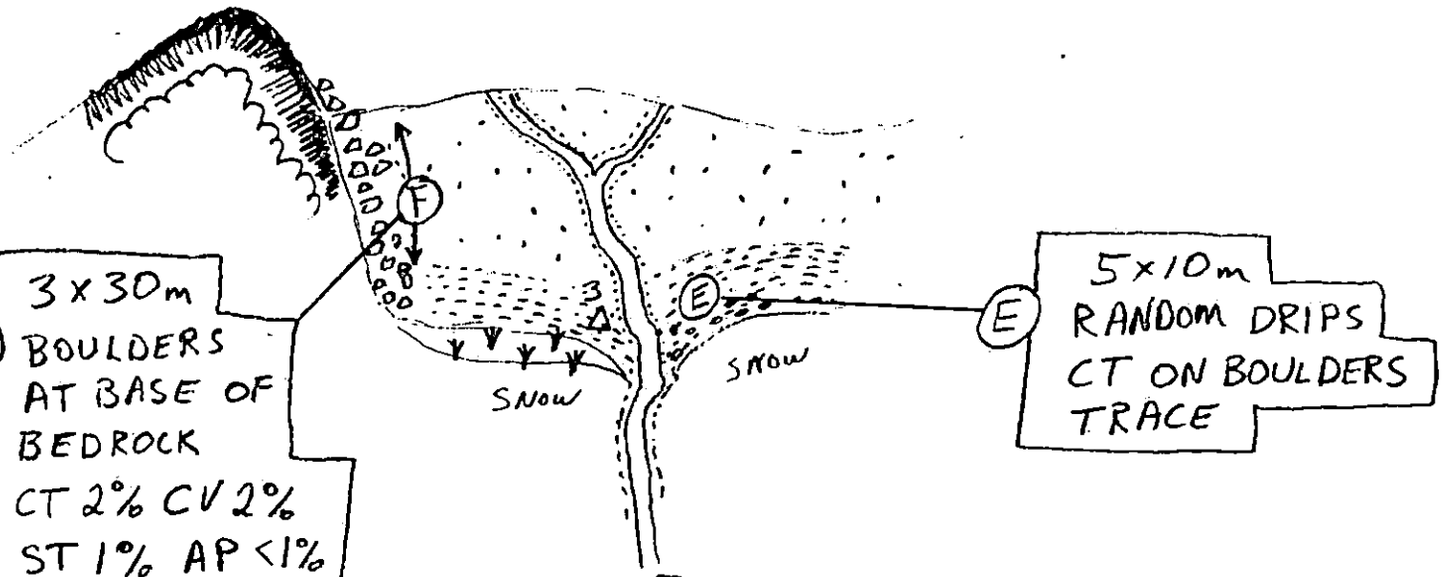
ANAD. STREAM NUMBER
PROVIDED BY TOM CROW
ADF&G



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE ROUGHLY 30 METERS



F 3x30m
BOULDERS
AT BASE OF
BEDROCK
CT 2% CV 2%
ST 1% AP <1%
ON BACK OF
BOULDERS
VERY SMALL
PATCHES AP
TOTAL LESS
THAN 1 m²

E 5x10m
RANDOM DRIPS
CT ON BOULDERS
TRACE

ANAD STREAM
226-40-16484

EVAN'S ISLAND

REVISED 5/21/91 MS

MAYSAP BIOLOGICAL SUMMARY FORM

*Note: Includes information on EV-71 A

TEAM # 5	**DATE** 15 May 1991
SEGMENT # EV-71	**TIDAL HEIGHT (Range)** -2 → +2
SUBDIVISION B (part of A w/ Anad Stream)	**BIOLOGIST** Crank
SEA STATE 1'	**WIND SPEED/DIRECTION** 10 knots/N
PHOTOGRAPHS: ROLL #	**FRAME #**

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

→ (A) Area is located high in the UITZ and in the SUPRA. Within the site there are mosses, Fucus sporelings, rye grass, white and black lichen and Littorina. Biota cover is ~1%. ½ m below site there is a 2 x 15 m patch of sparsely concentrated Fucus sporelings covering ~20% of the sediments. The MITZ has moderate concentrations of Fucus and barnacles, Fucus sporelings and mature individuals are present. There are dense packets of Littorina and sparse mussels. Biota cover is ~50%. The LITZ has dense mussels with various age classes. Barnacles are still moderate, ~40% of the adult shells are empty. The "empties" are being used by Littorina. Approx. 10% of the moderate Fucus concentration in the LITZ are single-only. Biota cover is 40-60%.

(B) Area is located high in the UITZ on bedrock and boulders. Black lichen encrusts ~30% of the sediment. Moss and white lichen are also present covering <1% of the sediments. The MITZ below site is a granular shale beach with a small (1x3m) low bedrock outcrop. On the bedrock there is dense Fucus and sparse barnacles.

(C) Area is located among cobbles in the UITZ. Black lichen is encrusted into 20% of the sediments. Barnacles and oligochaete worms are also present, covering <1%.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES		TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles				None observed.
Seabirds	1	Murres	30	Anad Streams:
Waterfowl	1	Ducks	3	226-40-16476
Gulls/kittiwakes	1	Gulls	50	226-40-16477
Shorebirds	1	Sandpipers	17	226-40-16484
Corvids				
Other Birds	1	Warbler	2	

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

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/19/91

Team # 5 Date 15 May 1991 pg 2 of
Segment # EV-71 Tidal Height -2 → +2
Subdivision B (part of A) Biologist Crank
Sea State 1' Wind Speed / Direction 10 knots/N

Comments (cont.)

The LITZ below areas B & C has a sparse to rare concentration of barnacles, moderate Littorina and limpets and rare mussels on cobbles. Most of the sediment surface directly below these site is granular. At the stream mouth, in the minus tide level there are pebbles and cobbles with a 60% biota cover including: moderate barnacles, moderate Littorina with egg masses, interpebble mussel bed, and sparse Fucus sporelings.

Subdiv A (D) Area is in the UITZ on the west side of anad stream 226-40-16476. Black lichen encrusts about 20% of the sediments. Barnacles, ryegrass and white lichen cover less than 1%. 15m below the site there is: dense Fucus, moderately concentrated barnacles, mussels and Littorina. Biota cover is ~70%.

→(E) in "B" Subdiv Area is located in the UITZ, 10m north of anad stream 226-40-16484. Black lichen is encrusted into ~30% of the sediments. Barnacles, rye grass, seasonal plants, and oligachaete and polychaete worms cover <1% of sediments. Fifteen meters below site, in the MITZ through the LITZ, there is a moderate concentration of Fucus with maturing conceptacles and sporelings, sparse to moderate barnacles, moderate to dense mussels and dense Littorina and limpets. Littorina egg mass and nudibranch egg masses were present. Biota cover is ~80%.

Reviewed M.B. 5/14/91

Team # 5 Date 15 May 1991 pg 3 of

Segment # EV-71 Tidal Height -2 → +2

Subdivision B (part of A) Biologist Crank

Sea State 1' Wind Speed / Direction 10 knots / N

Comments (cont.)

→(F) in "B" Subdiv. Area is located in the UITZ among boulders, 15 m fr. the SW stream bank. Black lichen encrusts 60% of the sediments. Rye grass, tar spot algae, yellow and white lichen with fruiting bodies, moss and filamentous green algae cover 5% of the surface. Two meters below the site to the stream, there is dense Fucus and moderately concentrated barnacles. Biota cover is ~80%.

This subdivision has 3 anadromous streams #226-40-16476/16477/16484. Gulls were feeding in the mouth of stream #16477. The intertidal biota appears to be healthy and not adversely affected by present oiling condi...

Reviewed M.B. 5/19/91
WK 5/23/91

MAYSAP 1991
OG SKETCH MAP/Bio Map
GREG CHANEY/Crank
TEAM 5
SEGMENT: EV71A & (B)
DATE: MAY 15 1991
AIR P.#: 6-15-89-No 110

PRINCE OF WALES PASSAGE

MAP 1 of 2

EVAN'S ISLAND

T M N

ANAD STREAM NUMBERS PROVIDED BY TOM CROW ADF&G

In the minus tide level, pebbles and cobbles at the stream mouth have 60% Biota cover In the plus tide levels most of the surface is granular = low biota cover

Dense mussels on low bedrock outcrops in LITZ

BAND PATTIES IN BOULDERS
(C) 1x50m
AP 5%
SOR 5%
CV 1%
CT 1%

(D) 1x15m
AP 2%
SOR 2%
CV, CT TRACE

POORLY DEFINED CHANNEL

STREAM
(2x15m patchs of sparsely [illegible] Flows sporadic

(A) 3x50m
CT TRACE
SPORADIC SPLATTERS

Gulls feeding in streams mouth

EV71A

EV71B

Dense Fucus in association with stream bank

DRIFT TREE ROOTS

ALDERS

TREES

TREES

(B) 3x20
SOR, CV, CT
TRACE
SMALL PATCHES BEHIND BOULDERS

ANAD. 226-40-16476

ANAD. 226-40-16477

*note segment boundary

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS ROUGHLY

Reviewed M.B. 5/

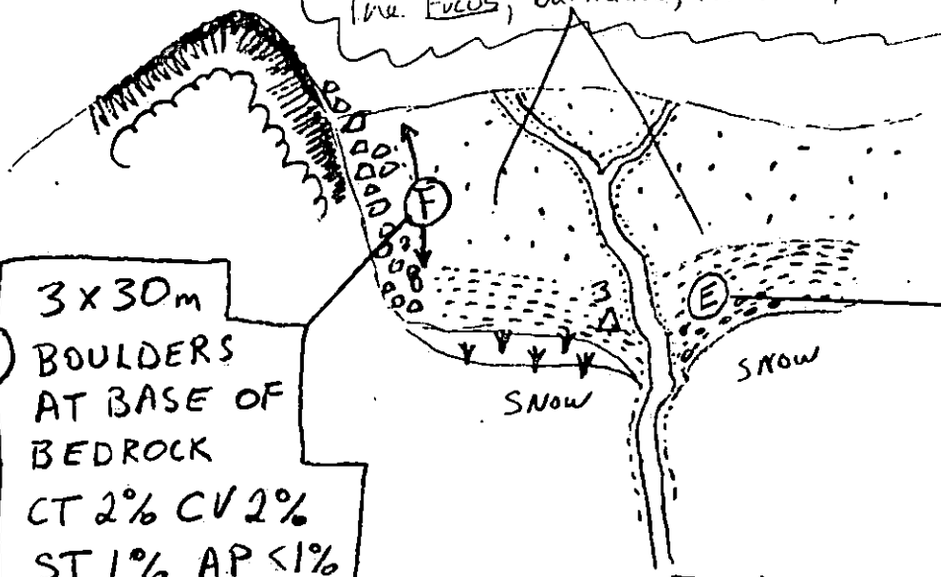
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV71B
DATE: MAY 15 1991
AIR P.#: NONE

PRINCE OF WALES PASSAGE

MAP 2 of 2

ANAD. STREAM NUMBER
PROVIDED BY TOM CROW
ADF&G

MITZ and LITZ have ~80% biota cover. Fucus is the dominant species. Recruitment is occurring in the Fucus, barnacle, mussel, Littorina and limpet population.



F 3x30m
BOULDERS
AT BASE OF
BEDROCK
CT 2% CV 2%
ST 1% AP <1%
ON BACK OF
BOULDERS
VERY SMALL
PATCHES AP
TOTAL LESS
THAN 1 m²

E 5x10m
RANDOM DRIPS
CT ON BOULDERS
TRACE

ANAD STREAM
226-40-16484

EVANS ISLAND

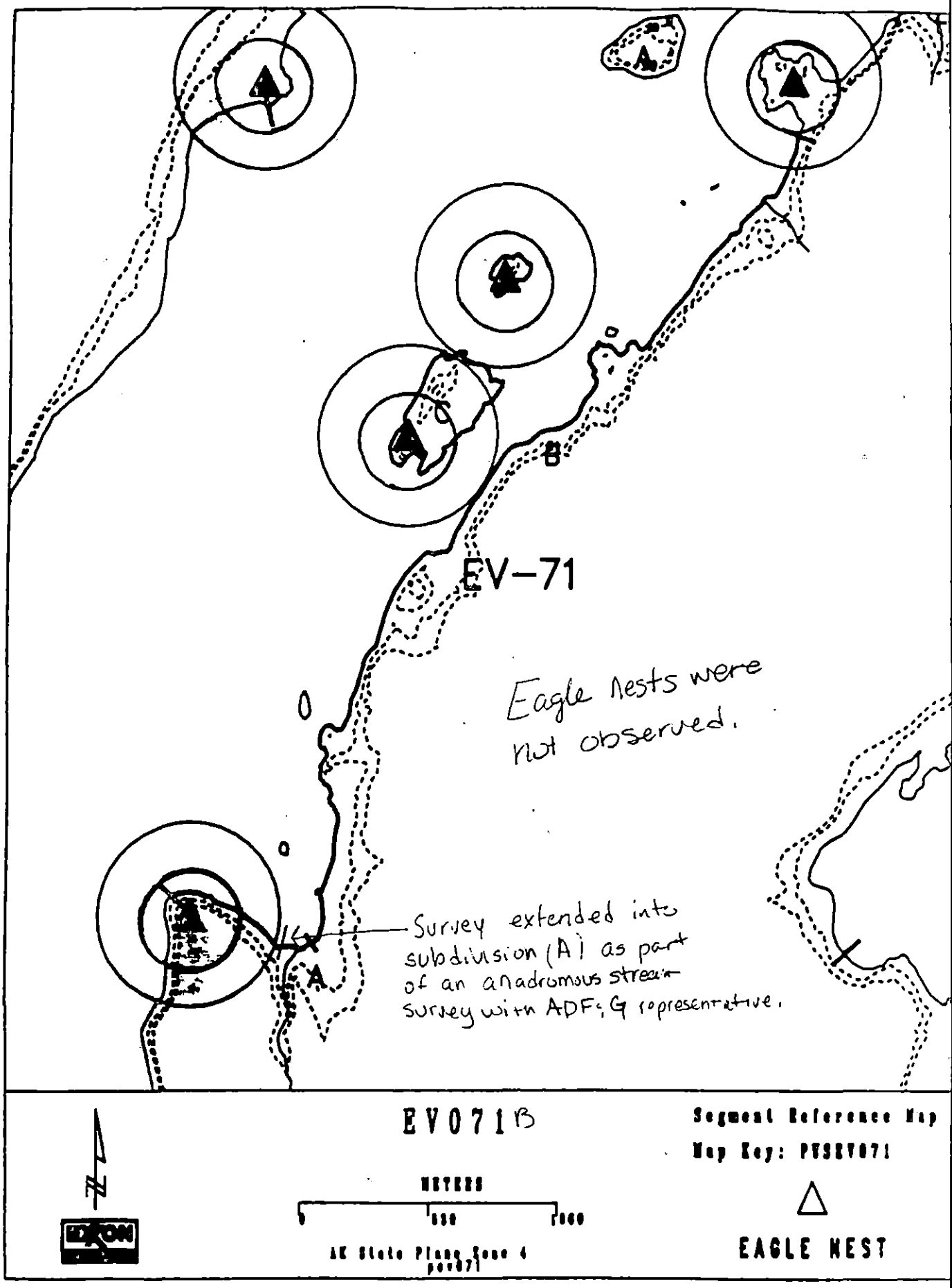
T
M
N

LEGEND

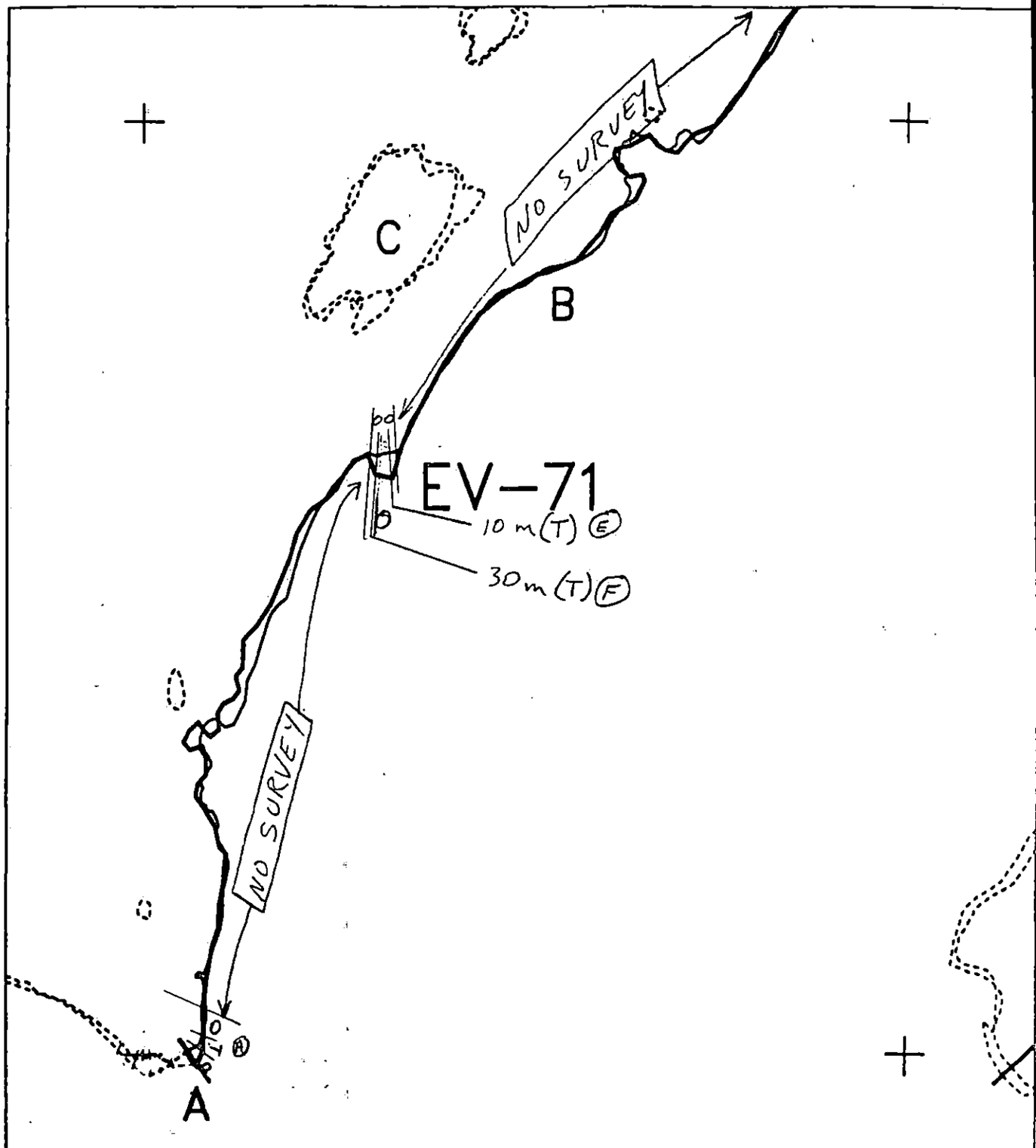
BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE ROUGHLY 30 METERS

Reviewed M.B. 5/14/91



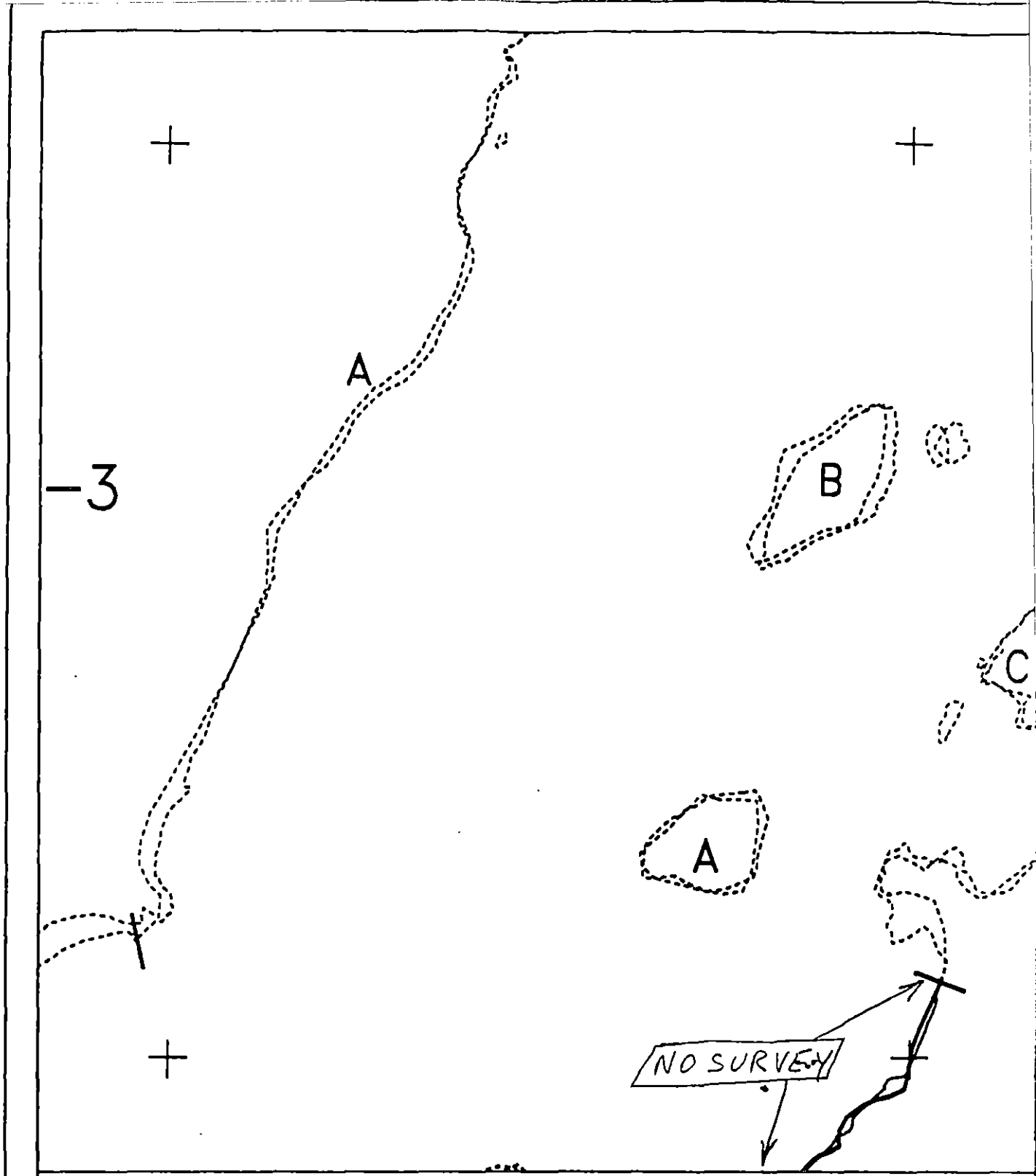
Reviewed M.B. 5/14/96



XXXX	Wide	EV071 B
////	Medium	ADEC Subsegment Length: 5075m
----	Narrow	METERS
TTTT	Very Light	0 400 800
0000	No Oil	AK State Plane Zone 4 pev071ba

Subdivision Field Map
Map Key: PWSEV071Ba
Name: CHANEY
Date: MAY 15 1991
Date Entered:

Reviewed: mc 5/20/91
revised 5.19.91 dy
to only reflect segment



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

EV071 B

ADEC Subsegment Length: 5075m

METERS

0 400 800

AK State Plane Zone 4
pev071bb

Subdivision Field Map

Map Key: PWSEV071Bb

Name: CHANEY

Date: MAY 15 '91

Date Entered:

Reviewed: 5/20/91 ma
reviewed 5.19.91 gy

1991 MAYSAP EVALUATION

SEGMENT: EV 071 **SUB:** C **REGION:** PWS **SURVEY DATE:** 5/25/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area

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

SHPO Signature: _____ Date: _____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

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

ADEC _____ FOSC _____

EXXON _____

USCG _____

NOAA _____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT EV 71 SUBDIVISION C DATE 5/25/91

ADEC
NAME Peter Montesano SIGNATURE [signature]

☒ NTR ☐ TREATMENT RECOMMENDED
A small portion of this segment went unsurveyed due to an Eagle nest. Significantly more oil found than reported by ASAP, most of which was either BU or removed (areas A, B, + C) — Treatment complete.
a dead otter pup was found and flagged in area "E."

EXXON
NAME [illegible] SIGNATURE [illegible]

☐ NTR To the [illegible] due to light oiling & heavy Bioturb. Also Eagle activity

LANDMANAGER
NAME Thomas S Kennedy OF USFS SIGNATURE [signature]

☒ NTR found more oil than ASAP reported
many sea otters with pups around islands
One dead baby sea otter found on beach [E]
Oil was removed from any potential wash areas.
Eagle on nest at smaller island.

USCG/NOAA DSI/ECFB [illegible]
NAME Bruce M. Zenone USCG SIGNATURE [signature]

☐ NTR Observed "SOR" was scattered on shingle beaches. VECO removed three bags of oiled sediments. Due to foliation of the [illegible] sediments, removal of boat-type remaining "SOR" would be difficult DSI 12

CG - No TREATMENT RECOMMENDED - 3

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 2

SEGMENT EV 71

SUBDIVISION C

OG Reimer BIO BAN

ADEC Montasano LANDMANAGER Kennedy Zerone for USFS

EXXON Box USCG/NOAA D.Sumecek - Beatty

DATE 5/25/91 5/26/11

TIME 19 30 to 20 33 (6:20 to 7:25) TIDE LEVEL -0.93 ft. (3:48) to -0.97 ft. (6:11) ENERGY LEVEL: ☐ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELO WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 2125 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 25 m N 46 m VL 310 m NO 1784 ~~1786~~ m US 0 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			S								R	V	2	1		X			
B	P					S					P	M	2	2		X			
C	S										R	V	1	2		X			
D			T								R	V	20	80		X			
E						S					RB	H	1	100		X			
F						T					RB	H	1	100		X			
G			T	S		T					RB	H	1	3		X			
H				T		T					RB	H	3	20		X			
I						T					R	V	1	5		X			
J			T	T		S					B	H	4	4		X			
K	S				P	P					PG B	V	5	25		X			
L	B										R	H	1	2		X			

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- 2 - 27 FRAMES 7-11

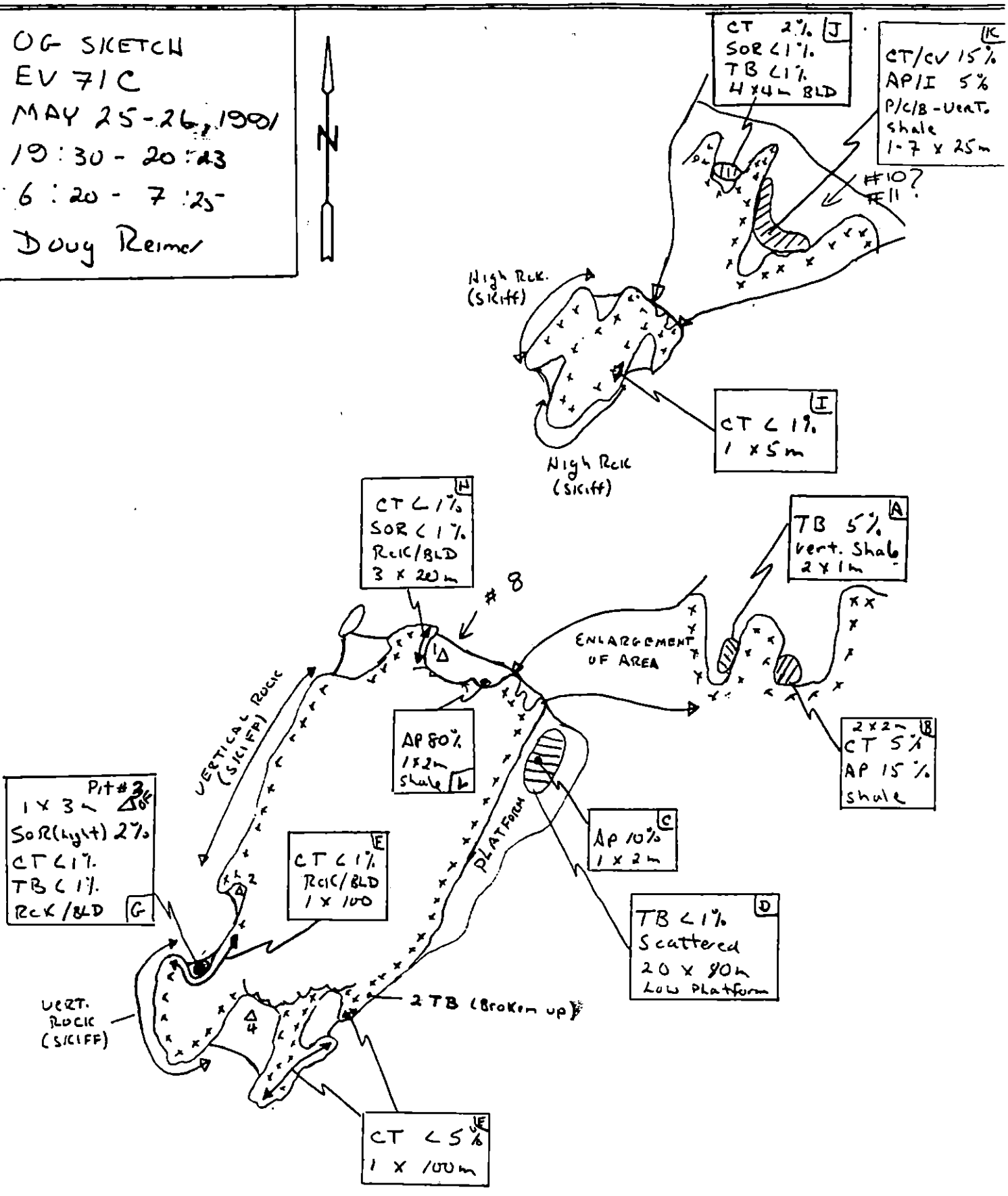
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	10							X	-					X			B - PG	
2	20							X	-					X			CP - PG	
3	10					X			0 - 3	Y				X			B - PGC	
4	20							X	-					X			G - GS	
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: Two small Rocky Islands with small pocket beaches and wide low rock platform on eastern shorelines. Oiling is sporadic and consists of Bath Tub ring (BTR) on Rocky sections. Some small pockets of AP were found along the North shore of both islands in vertical shale. Scattered Tb were found across platform.

REVISED: MC 5/29/91
revised 5-29 QJ

OG SKETCH
EV 71C
MAY 25-26, 1991
19:30 - 20:23
6:20 - 7:25
Doug Reimer



REVISED: MC 5/14/91
reviewed 5.29 94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2	**DATE** 25-26 May 91
SEGMENT # EV-71C	**TIDAL HEIGHT(Range)** 4-6 ft, -1 ft
SUBDIVISION C	**BIOLOGIST** SMB+R
SEA STATE <1 ft	**WIND SPEED/DIRECTION** C1 kt
PHOTOGRAPHS: ROLL # —	**FRAME #** —

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

A+B. TB/CT/AP on foliated shale - Fucus recruits & clumps of Fucus adults are within the oiled zone - lichen is nearby. Lower zones support dense Fucus & barnacles, patchy mussels

C+D: AP removed from area with no biota. Sparse TB on low platform in Fucus barnacle, Littorine assemblage. Small mussels & amphipods found under rocks. No oiled organisms.

E: CT in green algae zone, Fucus recruits nearby

F+G: CT high in ITZ in lichen zone. SOR (Pit #3) in Fucus zone with limpets, barnacles & littorines nearby.

H: CT/SOR high in ITZ - lichen & moss nearby. Pit 1 on cobble beach had amphipods

I: CT in lichen zone - shingle beach below supported dense mussels, littorines & littorine egg masses

J+K: CT/CU/SOR/AP in barnacle zone with littorines, limpets & mussels. Shingle beach to west had an extremely dense bed of small mussels. Hard in lowest zones of shingle beaches

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

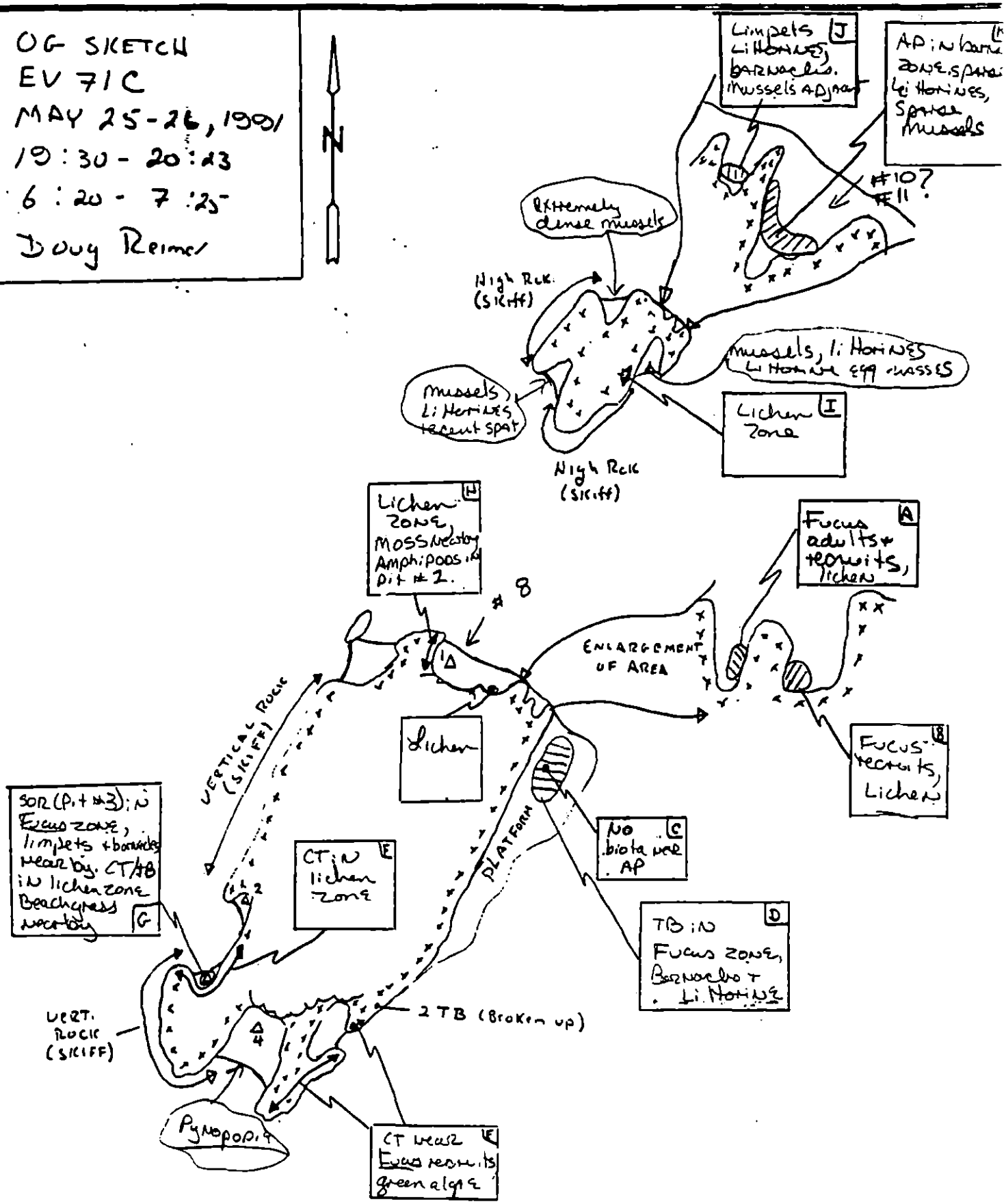
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	♀ ♂	2	
Seabirds			
Waterfowl			
Gulls/kittiwakes	± 10		
Shorebirds			
Corvids			
Other Birds			

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

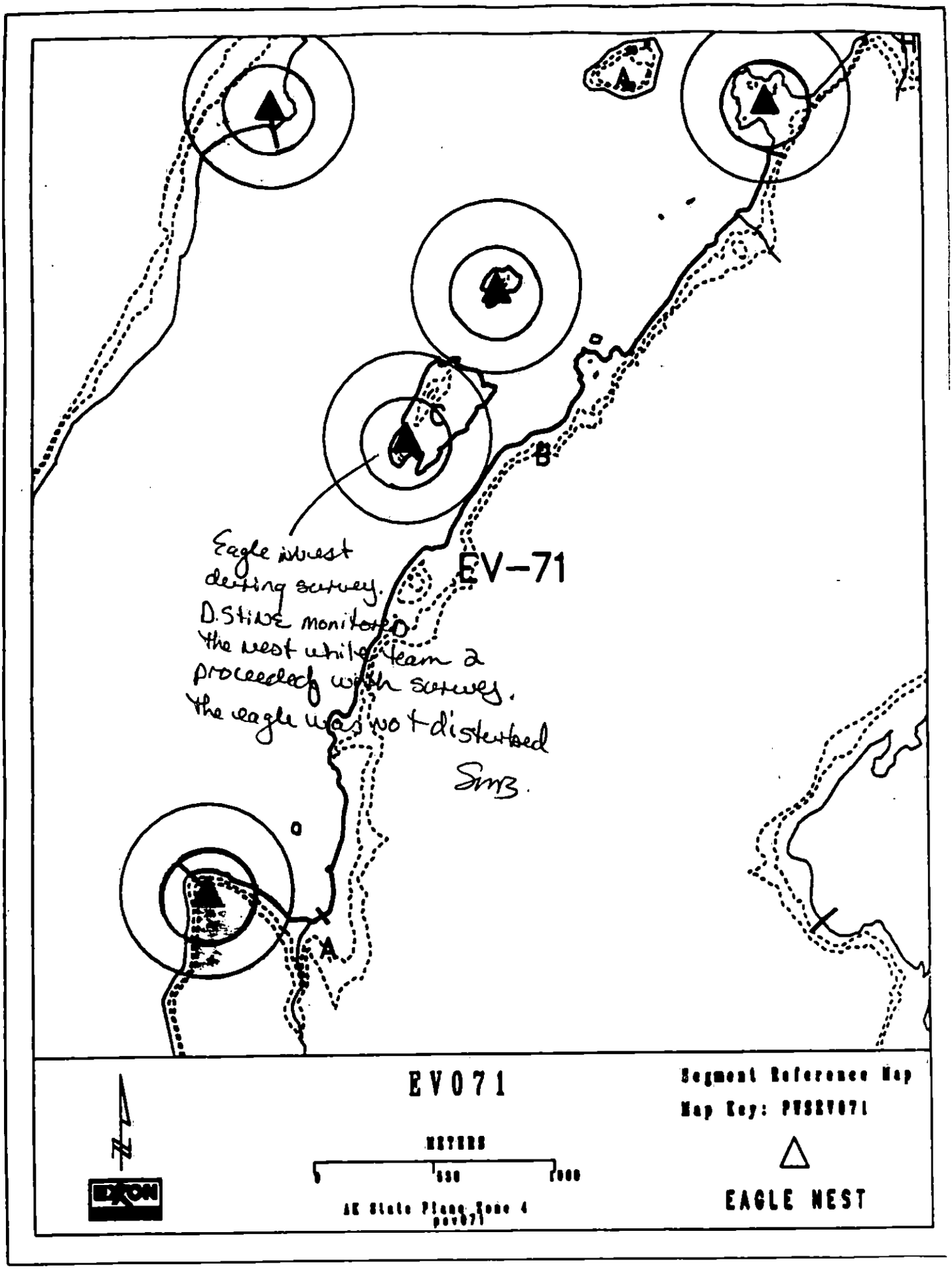
Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/29/91

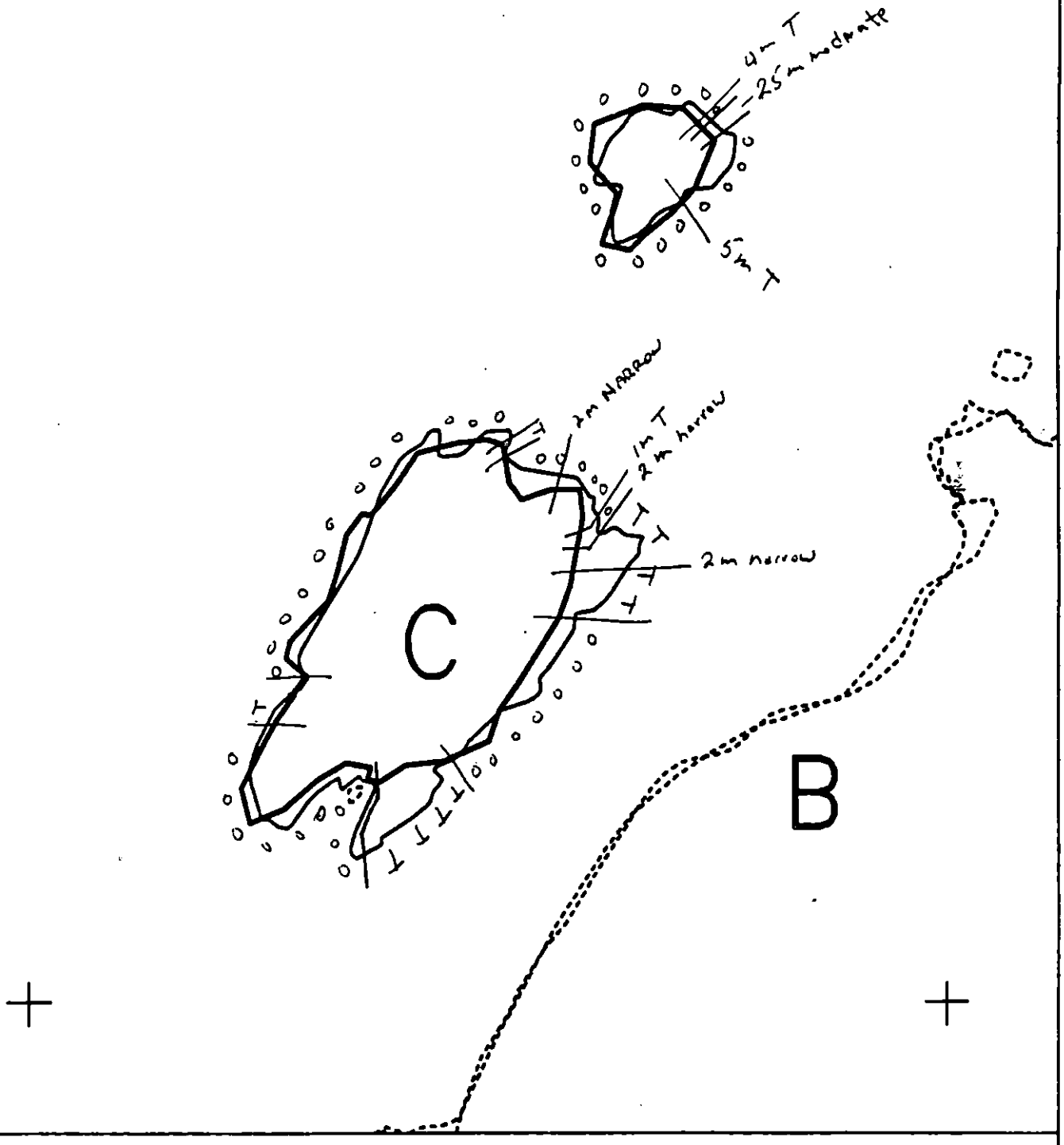
OG SKETCH
EV 71C
MAY 25-26, 1991
19:30 - 20:23
6:20 - 7:25
Doug Reimer



Reviewed M.B. 5/29/91



Reviewed M.B. 5/29/91



XXXX	Wide	**EV071 C**	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 2125m	Map Key: PWSEV071C
----	Narrow	METERS	Name: Reimer
TTTT	Very Light	0 200 400	Date: 5/25/91
0000	No Oil	AK State Plane Zone 4 pev071c	Date Entered:

Revised: mc 5/29/91
revised 5.29 dy

1991 MAYSAP EVALUATION

SEGMENT: EV 071 SUB: A REGION: PWS SURVEY DATE: 5/15/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area, Anadromous stream

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

SHPO Signature: Timothy A Smith Date: 5/31/91

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 31 1991 FOSC APPROVAL DATE: 6/5/91

ADEC

EXXON

USCG

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

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. 5 SEGMENT EV-71 SUBDIVISION (A)+B DATE 5/15/91

* Note: This was done as part of EV-71 B survey and includes information for B

ADEC
NAME John Hoyer ADF&G Tom Crowe SIGNATURE [signature] Tom Crowe ADF&G

☐ NTR ANADROMOUS STREAMS IN SEG EV71A 226-40-16476 AND EV71B 226-40-16477 HAD A SPORATIC BAND OF AP/SOC IN UITE OCCURING BETWEEN BOTH STREAMS AND ALONG THE SOUTHERN SHORELINE OF THIS COVE, RECOMMEND LOCAL RESPONSE CREW FOR MANUAL TILLING AND REMOVAL OF REMAINING OIL DEPOSITS IN PROXIMITY OF STREAM AREAS. STREAM # 226-40-16484 HAD <1% CV.T.LSOR IN UITE NO TREATMENT RECOMMENDED FOR THIS STREAM SITE (16484). TWC

✓

Agree with ADF&G comments for treatment in vicinity of streams, only stream areas of segment were surveyed by our team.

EXXON
NAME JOHN DEAN SIGNATURE [signature]

☑ NTR 1 bag of very slightly oiled sediments were recovered. No other oil in recoverable state was observed.

LANDMANAGER
NAME Steve WARD OF CVC/FS SIGNATURE [signature]

☐ NTR Chenega Land Selected But Not Conveyed.
MANUAL Required in these Stream Areas to Protect the Fish, team 5 Picked up A Lot But A Lot of oil is Still there to Be Picked up. Good For Chenega Local Resource.
High-Priority this team did only Streams
NO-Bio. no Survey on EV-70 or 71

USCG/NOAA
NAME DREHER / CLINE SIGNATURE CWO K. L. Dreher [signature]

☒ NTR The very small amount of AP found was picked up and removed. ADF&G representative concured that no further treatment was necessary.

I agree with the ADF&G representative for all three streams. DCC

Taken from EV-71B 5.19.91 dj

MANUAL SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 5

OG CHANEY BIO CRANK

ADEC HAYES LANDMANAGER WARD for CUC

EXXON DEAN USCG/NOAA DREHER/CLINE

SEGMENT EV-71

SUBDIVISION (A) (B with Fish)

DATE MAY 15 91

TIME 09:58 to 11:19 TIDE LEVEL -2.0 ft. to +2.0 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 252 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 50 m VL 35 m NO 167 m US 500 m

MAP 1

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	
B				T	T	T					BR	M	3	20		✓			SMALL PATCHES BEHIND BLDRS
C	S			S	S	S					B	M	1	50		✓			BAND PATTIES IN BLDRS
D	S			S	T	T					B	M	1	15		✓			FEW PATTIES IN BLDRS

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

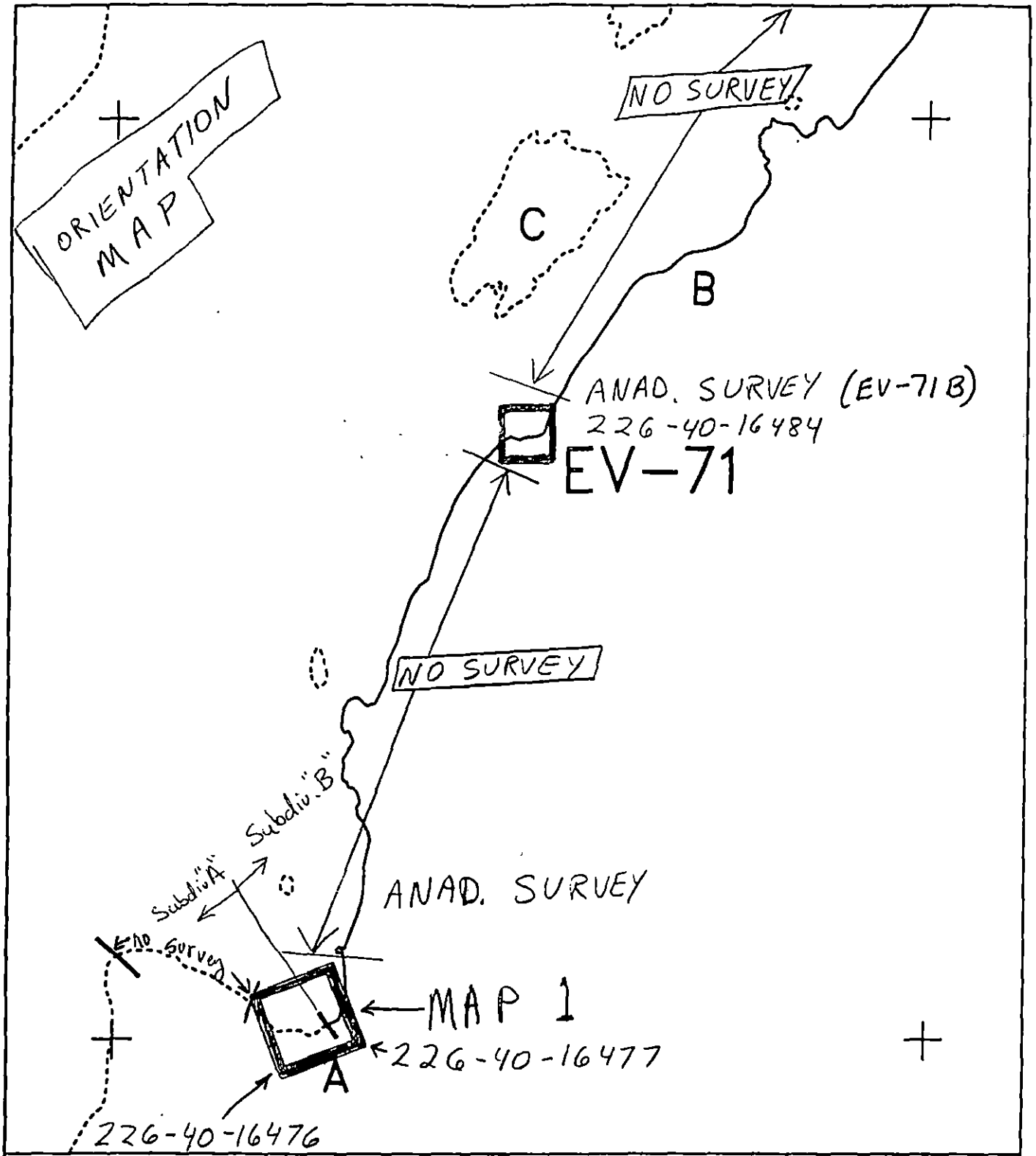
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 5 - ____ FRAMES ____ NO PHOTOS WET CAMERA

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		
2	25							✓	-	—	—			✓			CP-CGB	
									-	—	—							
									-									
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: FEW RANDOM PATTIES AP BEHIND PROTECTIVE BOULDERS AT LOCATIONS INDICATED ON SKETCH MAPS. THIS SURVEY INCLUDES PART OF EV71 #B BECAUSE IT IS AN ANADROMOUS FISH STREAM.

REVISED: MG 5/21/91
revised from EV-71 B, 5.19.91 44



EV071 (A)

METERS

0 400 800

AK State Plane Zone 4 pev071Ba

Subdivision Field Map

Map Key: PVSEV071Ba

Name: CHANEY

Date: MAY 15 1991

Reviewed: MC 5/22/91

revised from EV-71B, 5-19-91 GJ

MAYSAP 1991
OI SKETCH MAP
3 CHANEY
TEAM 5
SEGMENT: EV 71 (A)
DATE: MAY 15 1991
AIR P.#: 6-15-89-No 110

PRINCE OF WALES PASSAGE

MAP 1

EVAN'S ISLAND

T M N

ANAD. STREAM NUMBERS
PROVIDED BY TOM CROW
ADF&G

(D) 1x15m
AP 2%
SOR 2%
CV, CT
TRACE

(C) BAND PATTIES
IN BOULDERS
1x50m
AP 5%
SOR 5%
CV 1%
CT 1%

STREAM

POORLY DEFINED CHANNEL

EV71B
EV71A

DRIFT TREE ROOTS

ANAD.
226-40-16477

ALDERS

(B) 3x20
SOR, CV, CT
TRACE
SMALL PATCHES BEHIND BOULDERS

note segment boundary

TREES

TREES

ANAD.
226-40-16476

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	▲'
NO OIL PIT	△'
PHOTO	↔'

SCALE 50 METERS ROUGHLY

REVIEWED: MC 5/22/91

revised from EV-71 B GY 5.19.91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5	DATE 15 May 1991
SEGMENT # EV-71	TIDAL HEIGHT(Range) -2 → +2
SUBDIVISION B (part of (A) w/ Anad Stream)	BIOLOGIST Crank
SEA STATE 1'	WIND SPEED/DIRECTION 10 knots/N
PHOTOGRAPHS: ROLL #	FRAME #

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

(A) Area is located high in the UITZ and in the SUPRA. Within the site there are mosses, Fucus sporelings, rye grass, white and black lichen and Littorina. Biota cover is ~1%. ½m below site there is a 2x15m patch of sparsely concentrated Fucus sporelings covering ~20% of the sediments. The MITZ has moderate concentrations of Fucus and barnacles. Fucus sporelings and mature individuals are present. There are dense packets of Littorina and sparse mussels. Biota cover is ~50%. The LITZ has dense mussels with various size classes. Barnacles are still moderate, ~40% of the adult shells are empty. The "empties" are being used by Littorina. Approx. 10% of the mod-dense Fucus concentration in the LITZ are 'stipe-only'. Biota cover is 40-60%.

→ (B) Area is located high in the UITZ on bedrock and boulders. Black lichen encrusts in "A" ~30% of the sediment. Moss and white lichen are also present covering <1% of the sediments. The MITZ below site is a granular shale beach with a small (1x3m) low bedrock outcrop. On the bedrock there is dense Fucus and sparse barnacles.

→ (C) Area is located among cobbles in the UITZ. Black lichen is encrusted in "A" into 20% of the sediments. Barnacles and oligochaete worms are also present, covering <1%.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			None observed.
Seabirds	1 Murres	30	Anad Streams:
Waterfowl	1 Ducks	3	226-40-16476
Gulls/kittiwakes	1 Gulls	50	226-40-16477
Shorebirds	1 Sandpipers	17	226-40-16484
Corvids			
Other Birds	1 Warbler	2	

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

Shoreline subdivision map showing important biological features attached.

REVIEWED: MC 5/22/91 taken from EV.71B, 5.19.91 GJ

Segment # EV-71 Tidal Height -2 → +2

Subdivision (B) (A) (part of A) Biologist Crank

Sea State 1' Wind Speed / Direction 10 knots/N

Comments (cont.)

The LITZ below areas B & C has a sparse to rare concentrations of barnacles, moderate Littorina and limpets and rare mussels on cobbles. Most of the sediment surface directly below these site is granular. At the stream mouth, in the minus tide level there are pebbles and cobbles with a 60% biota cover including: moderate barnacles, moderate Littorina with egg masses, inter pebble mussel bed, and sparse Fucus sporelings

(D) Area is in the UITZ on the west side of anad stream 226-40-16476. Black lichen encrusts about 20% of the sediments. Barnacles, rye grass and white lichen cover less than 1%. 15m below the site there is: dense Fucus, moderately concentrated barnacles, mussels and Littorina. Biota cover is ~70%.

(E) Area is located in the UITZ, 10m north of anad. stream 226-40-16484. Black lichen is encrusted into ~30% of the sediments. Barnacles, rye grass, seasonal plants, and oligachaete and polychaete worms cover <1% of sediments. Fifteen meters below site, in the MITZ through the LITZ, there is a moderate concentration of Fucus with maturing conceptacles and sporelings, sparse to moderate barnacles, moderate to dense mussels and dense Littorina and limpets. Littorina egg mass and nudibranch egg masses were present. Biota cover is ~80%.

RETRIEVED: MC 5/14/91

taken from EV.71 B 5.19.91 dy

Team # 5 Date 15 May 1991
Segment # EV-71 Tidal Height -2 → +2
Subdivision B (part of A) Biologist Crank
Sea State 1' Wind Speed / Direction 10 knots / N

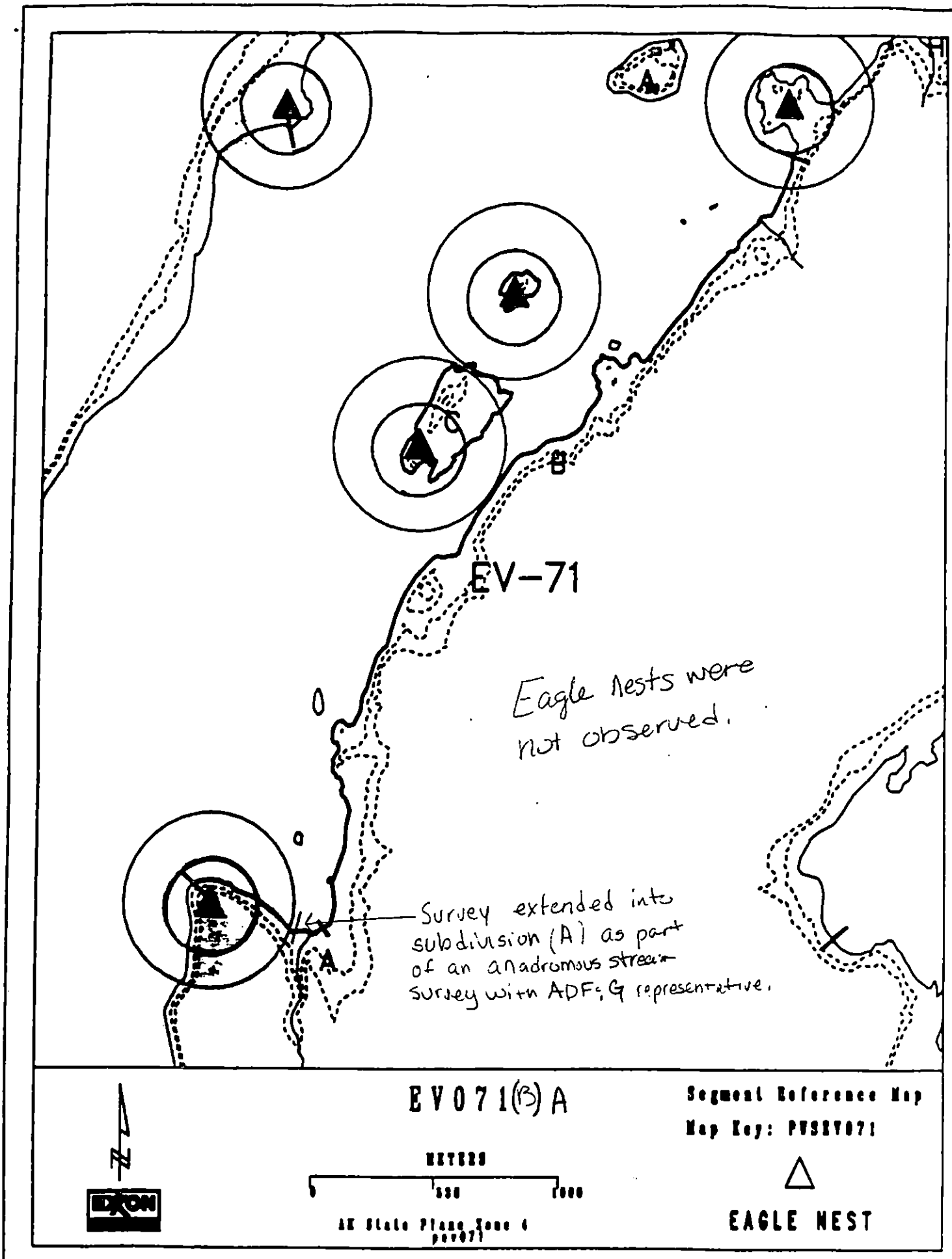
Comments (cont.)

(F) Area is located in the UITZ among boulders, 15 m from the SW stream bank. Black lichen encrusts 60% of the sediments. Rye grass, tar spot algae, yellow and white lichen with fruiting bodies, moss and filamentous green algae cover 5% of the surface. Two meters below the site to the stream, there is dense Fucus and moderately concentrated barnacles. Biota cover is ~80%.

This subdivision has 3 anadromous streams #226-40-16476/16477/16484. Gulls were feeding in the mouth of stream #16477. The intertidal biota appears to be healthy and not adversely affected by present oiling conditions

REVIEWED: MC 5/22/91

taken from EV.71B
5.19.91 GY



taken from EV-71 B, 5.19.91 GJ

MAYSAP 1991
OG ETCH MAP/Bio Map
G CHANEY/Crank
TEAM 5
SEGMENT: EV71 (A) & B
DATE: MAY 15 1991
AIR P.#: 6-15-89-No 110

PRINCE OF WALES PASSAGE

MAP 1

EVAN'S ISLAND

T
M
N

ANAD. STREAM NUMBERS PROVIDED BY TOM CROW ADF&G

In the minus tide level, pebbles and cobbles at the stream mouth have 60% Biota cover
In the plus tide levels most of the surface is granular = low biota cover

Dense mussels on low bedrock outcrops in LITZ

BAND PATTIES IN BOULDERS
C 1x50m
AP 5%
SOR 5%
CV 1%
CT 1%

D 1x15m
AP 2%
SOR 2%
CV, CT TRACE

POORLY DEFINED CHANNEL

STREAM
(2x15m patch of sparsely [illegible] Fucus sparsely [illegible]

(A) 3x50m
CT TRACE
SPORADIC SPLATTERS

ANAD. 226-40-16477

Dense Fucus in association with stream bank

DRIFT TREE ROOTS

Gulls feeding in stream mouth

EV71A

ALDERS

TREES

TREES

ANAD. 226-40-16476

B 3x20
SOR, CV, CT TRACE
SMALL PATCHES BEHIND BOULDERS

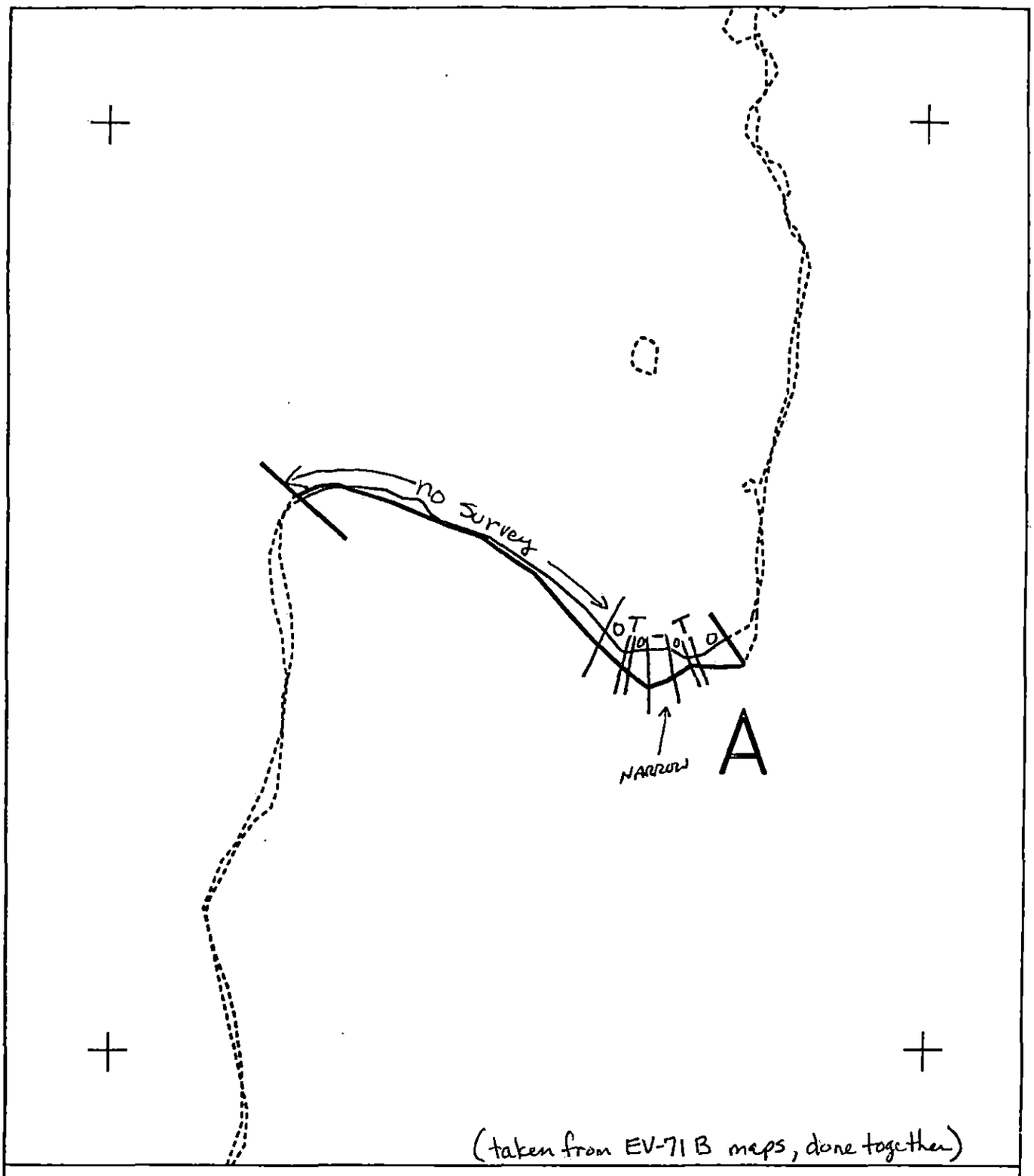
note segment boundary

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS ROUGHLY

taken from EV.71B, 5.19.91 gg REVIEWED: MC 5/22/91



(taken from EV-71 B maps, done together)

XXXX	Wide	EV071 A
////	Medium	ADEC Subsegment Length: 752m
----	Narrow	METERS
TTTT	Very Light	0 200 400
0000	No Oil	AK State Plane Zone 4 nad27

Subdivision Field Map
Map Key: PWSEV071A
Name: Chaney (J.Y)
Date: 5.15.91
Date Entered:

Revised: MC 5/22/91
revised from EV.71 B, 5.19.91 GJ

1991 MAYSAP EVALUATION

SEGMENT: EV 071 SUB: B REGION: PWS SURVEY DATE: 5/15/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area, Anadromous stream, Subsistence - Deer harvesting

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

SHPO Signature: Timothy A Smith Date: 5/31/91

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 31 1991 FOSC APPROVAL DATE: 6/6/91

ADEC

EXXON

USCG

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

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.

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-71 SUBDIVISION (A) B DATE 5/15/91

* Note - this includes information on Segment EV-71A

ADEC
NAME John Hayes ADF&G Tom Crowe SIGNATURE [signature] Tom Crowe ADF&G

☐ NTR ANADROMOUS STREAMS IN SEG EV71A 226-40-16476 AND EV71B 226-40-16477 HAD A SPORATIC BAND OF AP/SOC IN UITE OCCURING BETWEEN BOTH STREAMS AND ALONG THE SOUTHERN SHORELINE OF THIS COVE, RECOMMEND LOCAL RESPONSE CREW FOR MANUAL TILLING AND REMOVAL OF REMAINING OIL DEPOSITS IN PROXIMITY OF STREAM AREAS. STREAM # 226-40-16484 HAD <1% CV,GT,LSOR IN UITE NO TREATMENT RECOMMENDED FOR THIS STREAM SITE (16484). TWC

✓

Agree with ADF&G comments for treatment in vicinity of streams, only stream areas of segment were surveyed by our team.

EXXON
NAME JOHN DEAN SIGNATURE [signature]

☑ NTR 1 bag of very slightly oiled sediments were recovered. No other oil in recoverable state was observed.

LANDMANAGER
NAME Steve WARD OF CVC/FS SIGNATURE [signature]

☐ NTR Chenega Land Selected But Not Conveyed.
MANUAL Required in these Stream Areas to Protect the Fish, team 5 Picked up A Lot But A Lot of oil is Still there to Be Picked up. Good For Chenega Local Response.
High-Priority- this team did only Stream no Survey on EV-70 or 71
NO-Bio.

USCG/NOAA
NAME DREHER/CLINE SIGNATURE CWO K. L. Dreher [signature]

☒ NTR The very small amount of AP found was picked up and removed. ADF&G representative concured that no further treatment was necessary.

I agree with the ADF&G representative for all three streams. DLC

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 5

OG CHANEY BIO CRANK

ADEC HAYES LANDMANAGER WARD for CUC

EXXON DEAN USCG/NOAA DREHER/CLINE

SEGMENT EV-71

SUBDIVISION A (B)

DATE MAY 1, 15 / 91

TIME 09 : 58 to 11 : 19 TIDE LEVEL -2.0 ft. to +2.0 ft. ENERGY LEVEL: ☐ H ☐ M ☑ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 945 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 90 m NO 855 m US 4220 m

MAP 2 MAP 1

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA WIDTH	AREA LENGTH	ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	m	m	S	UI	MI	LI	
A						T					BR	M	3	50		✓			SPORADIC SPLATTERS
E						T					BC	M	5	10		✓			RANDOM DRIPS CT ON BLDS
F	T				S	S	S				B	H	3	30		✓			LESS THAN 1 m² AP

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

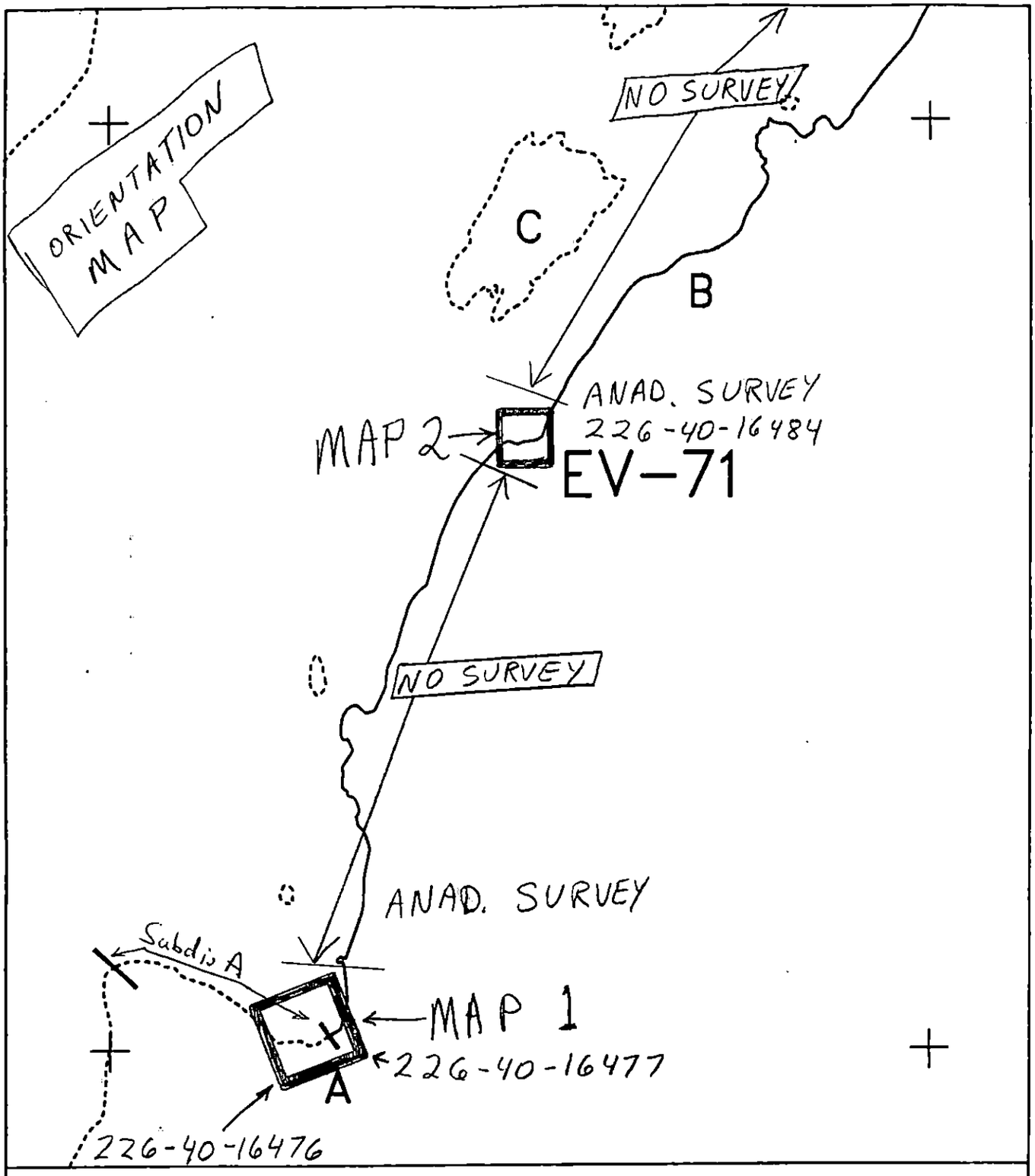
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 5 - ____ FRAMES ____ NO PHOTOS WET CAMERA

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
1	20							✓	-	—	—			✓			C-CGB	
2									-	—	—							
3	30							✓	-	—	—			✓			CP-CP	
									-									
									-									
									-									
									-									
									-									
									-									

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

OG COMMENTS: FEW RANDOM PATTIES AP BEHIND PROTECTIVE BOULDERS AT LOCATIONS INDICATED ON SKETCH MAPS. THIS SURVEY INCLUDES PART OF EV71-A BECAUSE IT IS AN ANADROMOUS FISH STREAM.

Revised: mc 5/20/91
revised 5.19.91 OG
to only reflect segment "B"



EV071 B

METERS

AK State Plane Zone 4 pev071b

Subdivision Field Map

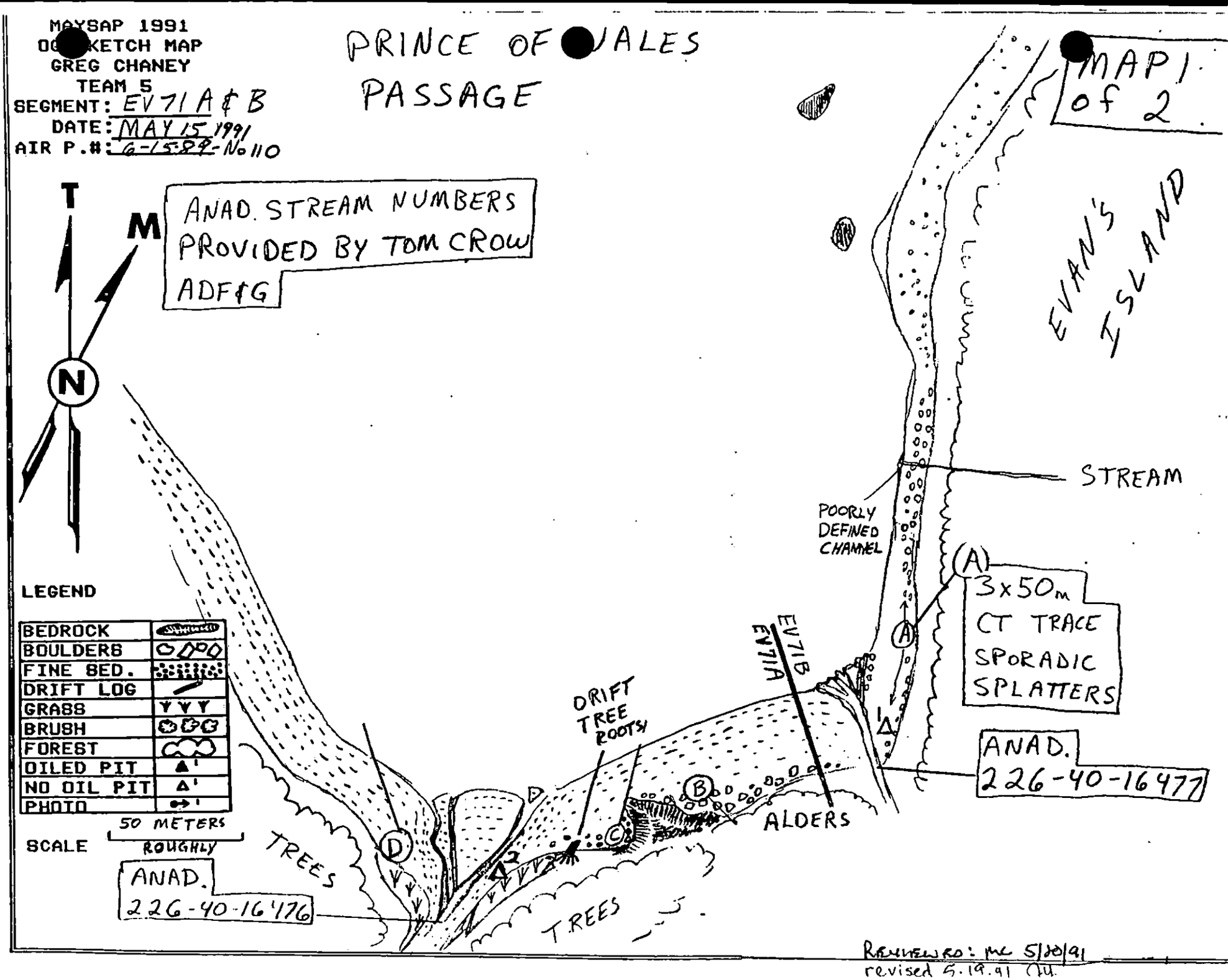
Map Key: PVSEV071Ba

Name: CHANEY

Date: MAY 15 1991

REVIEWED: ML 5/20/91

reviewed 5.19.91 dy


MAYSAP 1991
OC KETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV71A & B
DATE: MAY 15 1991
AIR P.#: 6-15-89-No 110
PRINCE OF WALES PASSAGE
MAP 1 of 2
T
M
N
ANAD. STREAM NUMBERS PROVIDED BY TOM CROW ADF&G
EVAN'S ISLAND
STREAM
POORLY DEFINED CHANNEL
(A) 3x50m CT TRACE SPORADIC SPLATTERS
ANAD. 226-40-16477
EV71B
EV71A
DRIFT TREE ROOTS
ALDERS
TREES
TREES
ANAD. 226-40-16476
LEGEND
BEDROCK
BOULDERS
FINE SED.
DRIFT LOG
GRASS
BRUSH
FOREST
OILED PIT
NO OIL PIT
PHOTO
SCALE
50 METERS
ROUGHLY
REVIEWED: MC 5/20/91
revised 5.19.91 CH

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV71B
DATE: MAY 15 1991
AIR P.#: NONE

PRINCE OF WALES PASSAGE

MAP 2 of 2

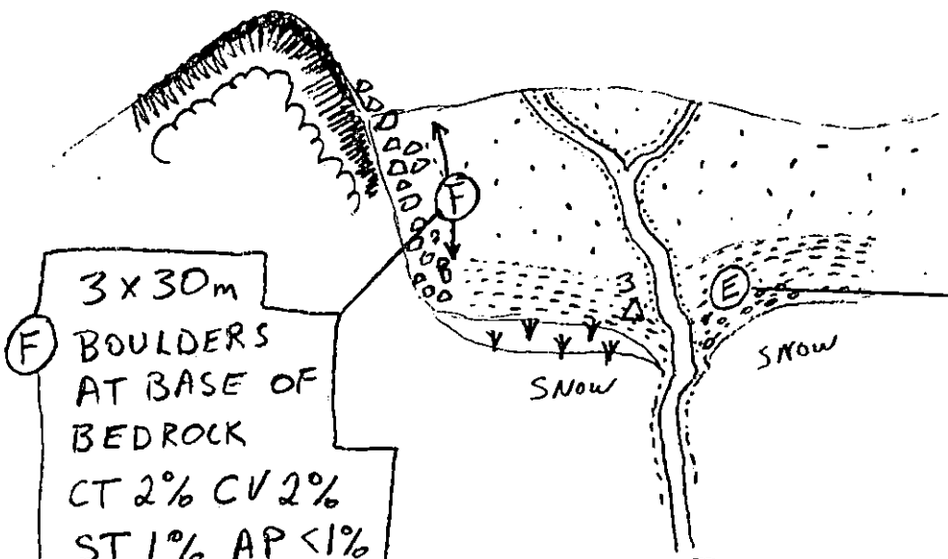
ANAD. STREAM NUMBER
PROVIDED BY TOM CROW
ADF&G

T
M
N

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE ROUGHLY 30 METERS



F 3x30m
BOULDERS
AT BASE OF
BEDROCK
CT 2% CV 2%
ST 1% AP <1%
ON BACK OF
BOULDERS
VERY SMALL
PATCHES AP
TOTAL LESS
THAN 1 m²

E 5x10m
RANDOM DRIPS
CT ON BOULDERS
TRACE

ANAD STREAM
226-40-16484

EVAN'S ISLAND

REVIEWED: 5/20/91 mc
reviewed 5.19.91 dg

MAYSAP BIOLOGICAL SUBMARY FORM

* Note: Includes information on EV-71 A

TEAM # 5	**DATE** 15 May 1991
SEGMENT # EV-71	**TIDAL HEIGHT (Range)** -2 → +2
SUBDIVISION B (part of A w/ Anad Stream)	**BIOLOGIST** Crank
SEA STATE 1'	**WIND SPEED/DIRECTION** 10 Knots/N
PHOTOGRAPHS: ROLL #	**FRAME #**

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

→ (A) Area is located high in the UITZ and in the SUPRA. Within the site there are mosses, Fucus sporelings, rye grass, white and black lichen and Littorina. Biota cover is ~1%. ½ m below site there is a 2 x 15 m patch of sparsely concentrated Fucus sporelings covering ~20% of the sediments. The MITZ has moderate concentrations of Fucus and barnacles. Fucus sporelings and mature rockweeds are present. There are dense packets of Littorina and sparse mussels. Biota cover is ~50%. The LITZ has dense mussels with various age classes. Barnacles are still moderate, ~45% of the adult shells are empty. The "empties" are being used by Littorina. Approx. 10% of the mod-dense Fucus concentration in the LITZ are 'stipe-only'. Biota cover is 40-60%.

(B) Area is located high in the UITZ on bedrock and boulders. Black lichen encrusts ~30% of the sediment. Moss and white lichen are also present covering <1% of the sediments. The MITZ below site is a granular shale beach with a small (1x3m) low bedrock outcrop. On the bedrock there is dense Fucus and sparse barnacles.

(C) Area is located among cobbles in the UITZ. Black lichen is encrusted into 20% of the sediments. Barnacles and oligochaete worms are also present, covering <1%.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			None observed.
Seabirds	1 Murrelets	30	Anad Streams:
Waterfowl	1 Ducks	3	226-40-16476
Gulls/kittiwakes	1 Gulls	50	226-40-16477
Shorebirds	1 Sandpipers	17	226-40-16484
Corvids			
Other Birds	1 Warbler	2	

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

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/14/91

Segment # EV-71 Tidal Height -2 → +2

Subdivision B (part of A) Biologist Crank

Sea State 1' Wind Speed / Direction 10 knots/N

Comments (cont.)

The LITZ below areas B & C has a sparse to rare concentrations of barnacles, moderate Littorina and limpets and rare mussels on cobbles. Most of the sediment surface directly below these site is granular. At the stream mouth, in the minus tide level there are pebbles and cobbles with a 60% biota cover including: moderate barnacles, moderate Littorina with egg masses, interpebble mussel bed, and sparse Fucus sporelings

Subdiv A (D) Area is in the UITZ on the west side of anad stream 226-40-16476. Black lichen encrusts about 20% of the sediments. Barnacles, rye grass and white lichen cover less than 1%. 15m below the site there is: dense Fucus, moderately concentrated barnacles, mussels and Littorina. Biota cover is ~70%.

→ (E) in "B" Subdiv Area is located in the UITZ, 10m north of anad. stream 226-40-16484. Black lichen is encrusted into ~30% of the sediments. Barnacles, rye grass, seasonal plants, and oligachaete and polychaete worms cover <1% of sediments. Fifteen meters below site, in the MITZ through the LITZ, there is a moderate concentration of Fucus with maturing conceptacles and sporelings, sparse to moderate barnacles, moderate to dense mussels and dense Littorina and limpets. Littorina egg mass and nudibranch egg masses were present. Biota cover is ~80%.

Reviewed M.B. 5/19/91

Team # 5 Date: 15 May 1991
Segment # EV-71 Tidal Height -2 → +2
Subdivision B (part of A) Biologist Crank
Sea State 1' Wind Speed / Direction 10 knots / N

Comments (cont.)

→(F) in "B" Subdiv.

Area is located in the UITZ among boulders; 15 m from the SW stream bank. Black lichen encrusts 60% of the sediments. Rye grass, tar spot algae, yellow and white lichen with fruiting bodies, moss and filamentous green algae cover 5% of the surface. Two meters below the site to the stream, there is dense Fucus and moderately concentrated barnacles. Biota cover is ~80%.

This subdivision has 3 anadromous streams #226-40-16476/16477/16484. Gulls were feeding in the mouth of stream #16477. The intertidal biota appears to be healthy and not adversely affected by present oiling conditions

Reviewed M.B. 5/10/91
I.V 5/23/91

MAPSAP 1991
OG SKETCH MAP / Bio Map
GREG CHANEY / Crank
TEAM 5
SEGMENT: EV71A & B
DATE: MAY 15 1991
AIR P.#: 6-15-89-No 110

PRINCE OF WALES PASSAGE

MAP 1 of 2

EVAN'S ISLAND

T M N

ANAD STREAM NUMBERS PROVIDED BY TOM CROW ADF&G

In the minus tide level, pebbles and cobbles at the stream mouth have 60% Biota cover
In the plus tide levels most of the surface is granular = low biota cover

Dense Mussels on low bedrock outcrops in LITZ

BAND PATTIES IN BOULDERS
C 1x50m
AP 5%
SOR 5%
CV 1%
CT 1%

D 1x15m
AP 2%
SOR 2%
CV, CT TRACE

POORLY DEFINED CHANNEL

STREAM
2x10m patch of sparsely covered mixed Fucus sporadic

(A) 3x50m
CT TRACE
SPORADIC SPLATTERS

ANAD. 226-40-16477

*note segment boundary

Dense Fucus in association with stream bank

DRIFT TREE ROOTS

Gulls feeding in stream mouth

LITZ A

LITZ B

ALDERS

B 3x20
SOR, CV, CT TRACE
SMALL PATCHES BEHIND BOULDERS

TREES

TREES

ANAD. 226-40-16476

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE 50 METERS ROUGHLY

Reviewed M.B. 5/14/91

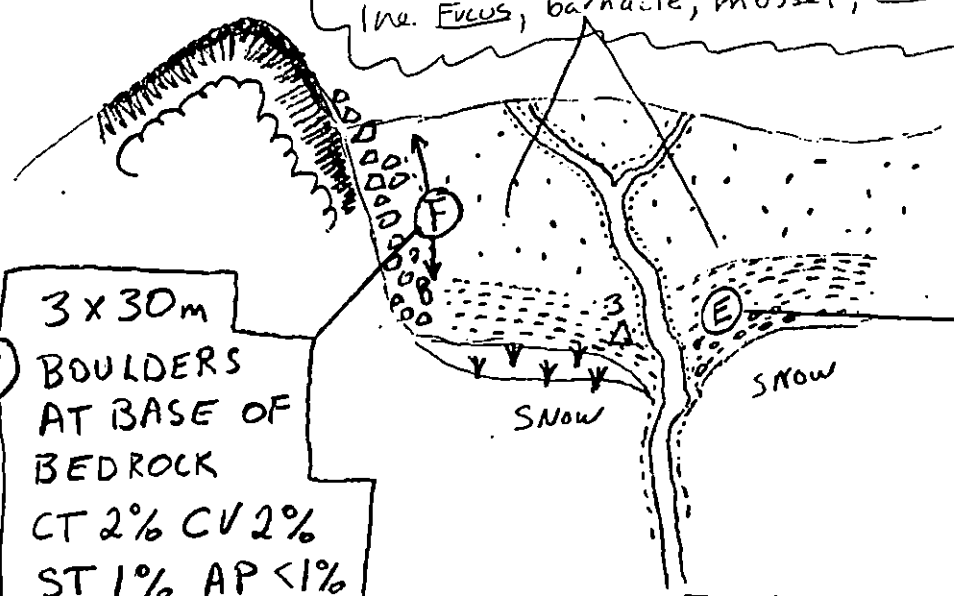
EXXON 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV71B
DATE: MAY 15 1991
AIR P.#: NONE

PRINCE OF WALES PASSAGE

MAP 2 of 2

ANAD. STREAM NUMBER
PROVIDED BY TOM CROW
ADF&G

MITZ and LITZ have ~80% biota cover. Fucus is the dominant species. Recruitment is occurring in the Fucus, barnacle, mussel, Littorina and limpet populations.



T
M
N

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE ROUGHLY 30 METERS

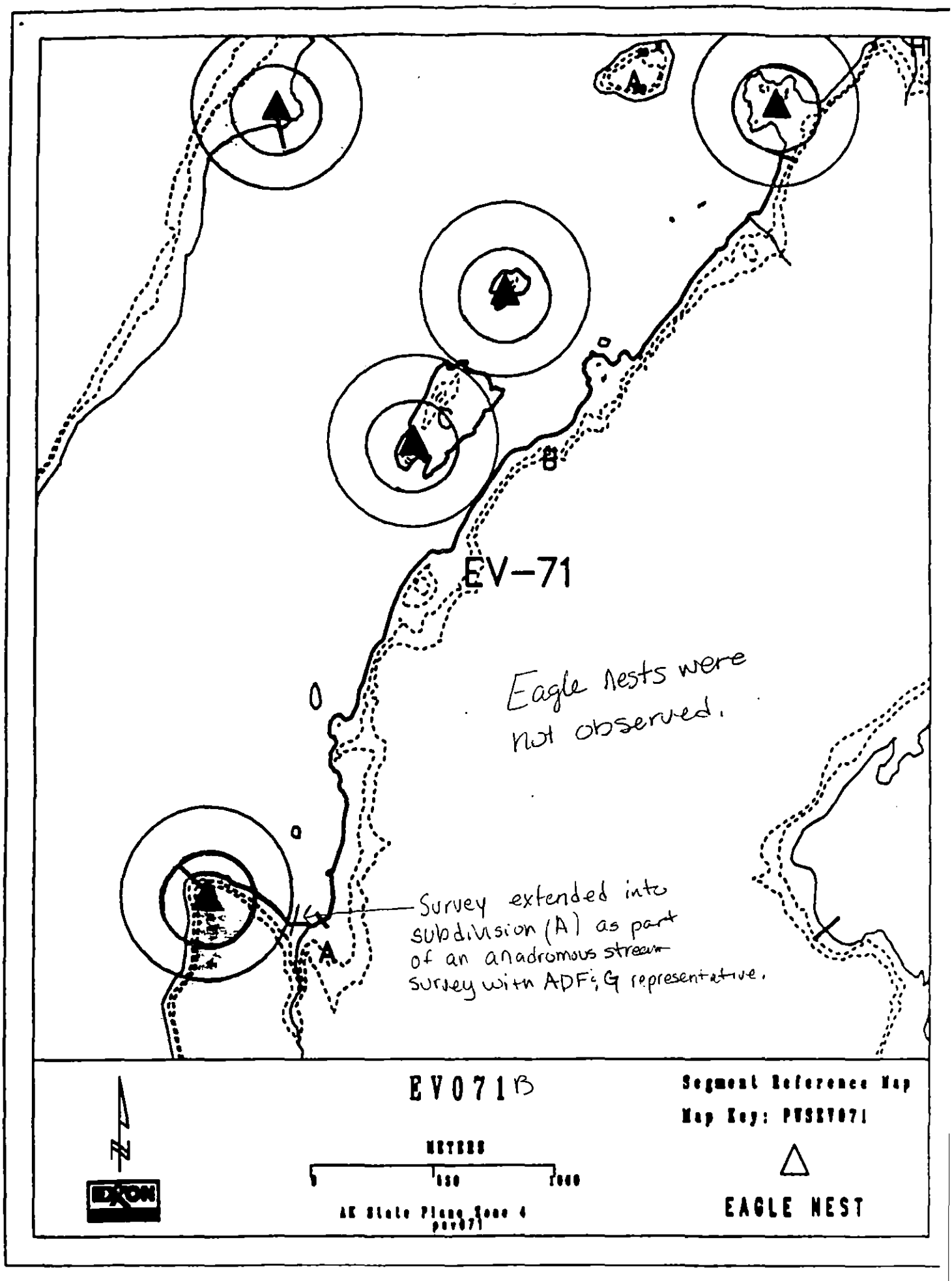
F
3 x 30m
BOULDERS
AT BASE OF
BEDROCK
CT 2% CV 2%
ST 1% AP <1%
ON BACK OF
BOULDERS
VERY SMALL
PATCHES AP
TOTAL LESS
THAN 1 m²

E
5 x 10m
RANDOM DRIPS
CT ON BOULDERS
TRACE

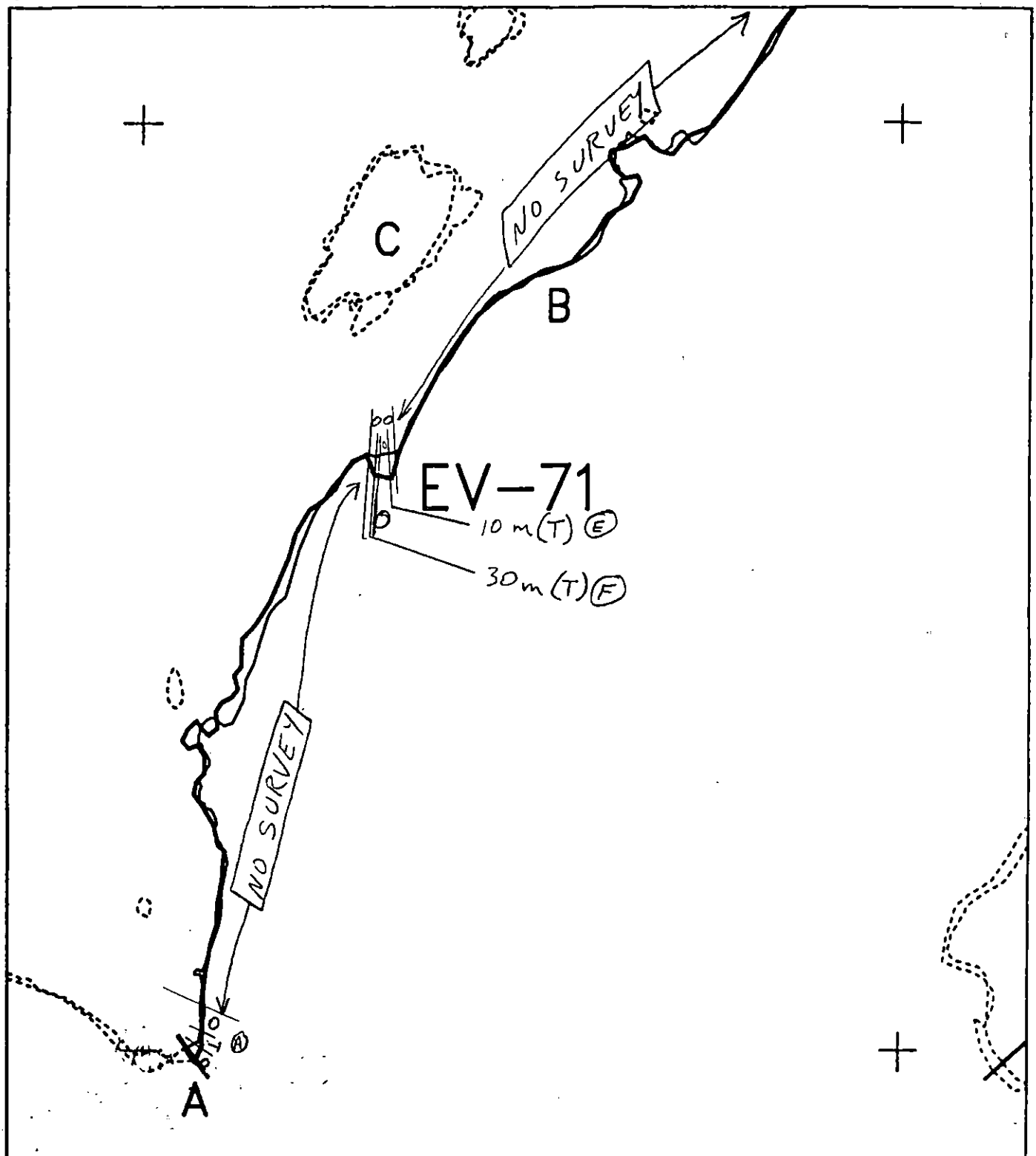
ANAD STREAM
226-40-16484

EVAN'S ISLAND

Reviewed M.B. 5/14/91



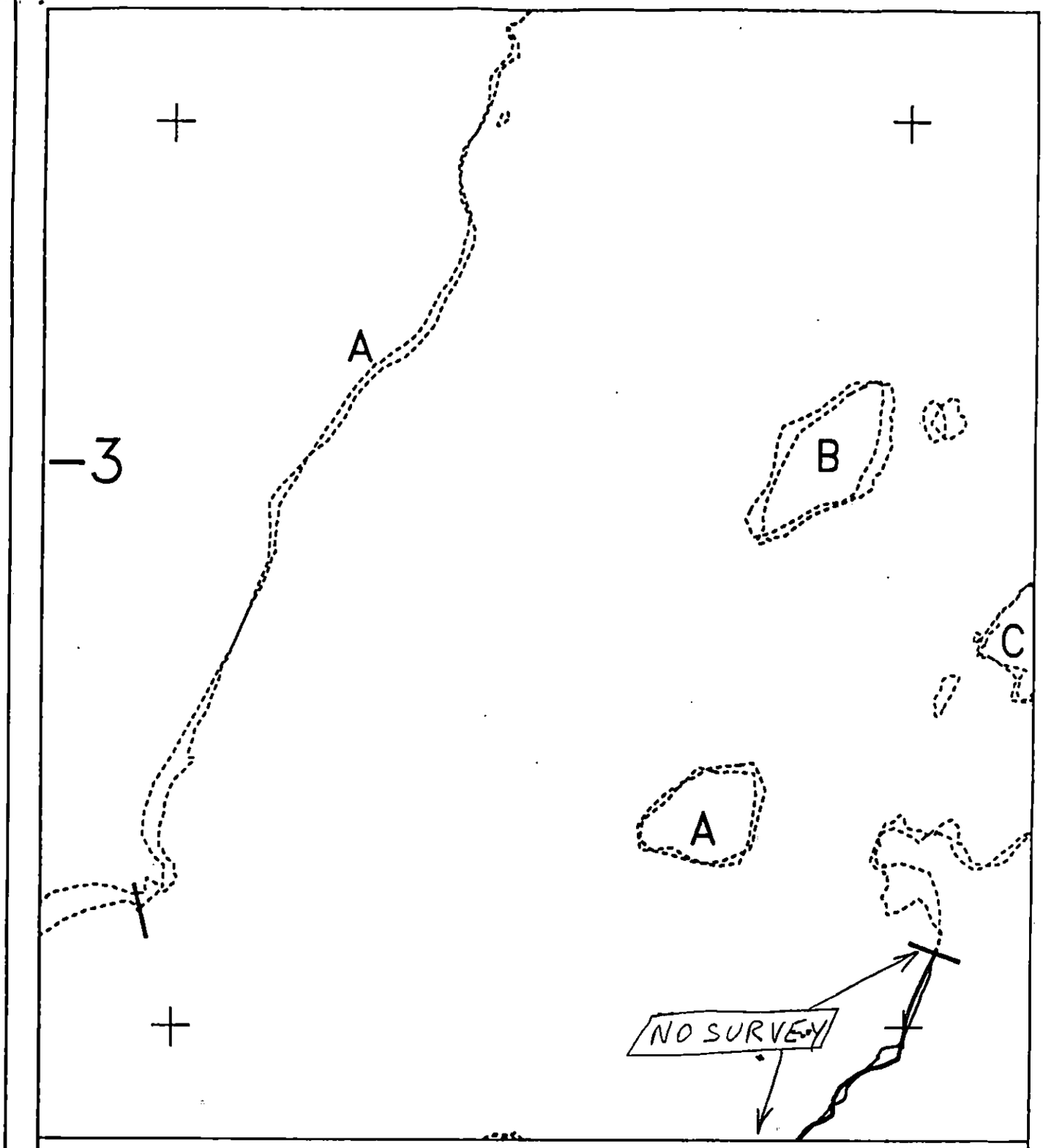
Reviewed M.B. 5/14/91



XXXX	Wide	EV071 B
////	Medium	ADEC Subsegment Length: 5075m
----	Narrow	METERS
TTTT	Very Light	0 400 800
0000	No Oil	AK State Plane Zone 4 pev071Ba

Subdivision Field Map
Map Key: PWSEV071Ba
Name: CHANEY
Date: MAY 15 1991
Date Entered:

Reviewed: mc 5/20/91
revised 5.19.91 dy
to only reflect segment "B"



XXXX	Wide	EV071 B	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 5075m	Map Key: PWSEV071Bb
----	Narrow	METERS	Name: CHANEY
TTTT	Very Light	0 400 800	Date: MAY 15 '91
0000	No Oil	AK State Plane Zone 4 pev071bb	Date Entered:

EXXON

Reviewed: 5/20/91 ma
reviewed 5.19.91 gy

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 226-40-16484

SEGMENT EV-71 SUBDIVISION B

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation Less Than 100m From Stream	WORK PRIOR TO 7/10 (ADF&G MONITOR REQ.)
Bioremediation More Than 100m From Stream	WORK PRIOR TO 8/15

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	**Salmon Stream**	ADF&G catalogued anadromous stream (226-40-16484) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to tarmat removal.
5T	**Bald Eagle Nest**	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision B work site.
7II	**Subsistence: Deer Harvesting**	Closed to bioremediation after 8/15. No constraint to tarmat removal.

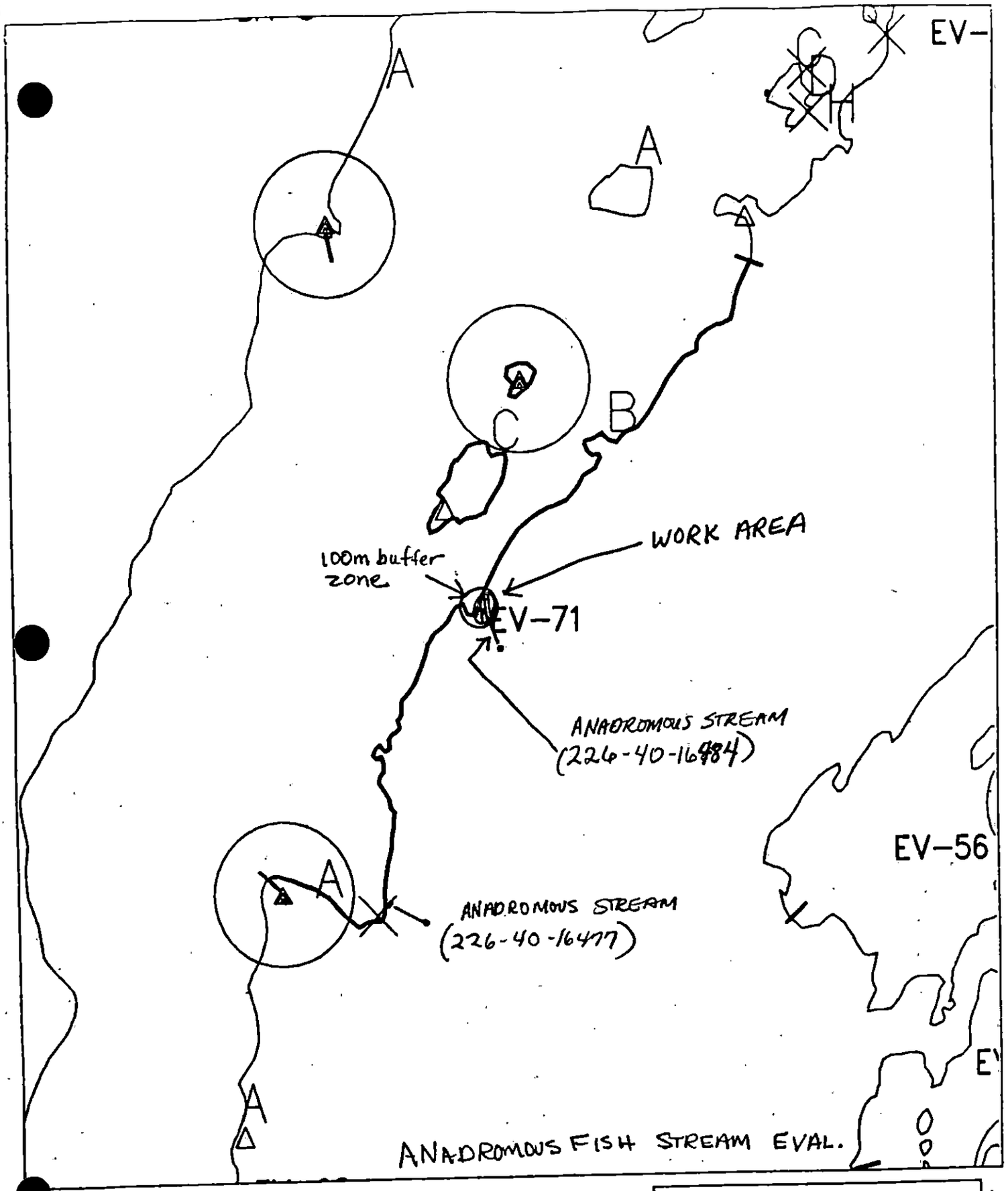
OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. No flushing of pollutants or sediments into stream drainage; do not allow inipol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and air traffic and beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM EV-71B FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC D Gonzalez Date 6/13/90

Prepared by A Phillips Date 6/12/90



EXXON

Exxon Company, USA
Map Key: PMS-EV-71.

ECOLOGY MAP
SEGMENT EV-71
SUBDIVISION B (2 of 3)

METERS

★ Seabird Colony
▲ Active Eagle Nest
△ Inactive Eagle Nest

1 inch = 2761 feet

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-071 B STREAM NO: 226-40-16484 DATE 4/30/90

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-2 All Bald Eagle nests (3/1 to 6/1)
7II Subsistence area: Deer harvesting

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 (564-3276 (Anchorage) or 229-1508 (24 hrs.)).**

SHPO SIGNATURE: Rachel Jean Orr DATE: 5/25/90

Subsurface Oil Observed: Yes____ No X Maximum Depth____

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat as indicated on the attached sketch map. Work from 6/2 to 7/9 with approval of USFWS due to eagle nest.
SEE CONSTRAINTS ADDENDUM dated 6/12/90

TAG COMMENTS: BIOREMEDIATE (CUSTOMOLEN) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/23/90
ADEC Art Weiner Art Weiner
EXXON Andy Ear
NOAA Burl Wescott
USCG G.A. Reiter G.A. Reiter
FOSC: [signature] DATE: 5/31/90

ANADROMOUS FISH STREAM ASSESSMENT

REGION: PWS

SEGMENT: ST/EV-071

SUBDIVISON: B

STREAM NO: 226-40-16484

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ EV-071 B STREAM NO: 226-40-16484 DATE 4/30/90

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-2 All Bald Eagle nests (3/1 to 6/1)
7II Subsistence area: Deer harvesting

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 (564-3276 (Anchorage) or 229-1508 (24 hrs.)).**

SHPO SIGNATURE:_____ DATE:_____

Subsurface Oil Observed: Yes_____ No__X__ Maximum Depth_____

RECOMMENDATIONS:

_____No Treatment Recommended	_____Snare/Absorbent Booms
__X__Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
__X__Tarmat Removal	_____Beach Cleaner
	_____Other (see comments)

COMMENTS: Recommend manual removal of tarmat as indicated on the attached sketch map. Work from 6/2 to 7/9 with approval of USFWS due to eagle nest.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A **Salmon stream mouth - fry outmigration (3/1 to 5/15)**
1B **Salmon stream mouth - spawning (7/10 to 8/31)**
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C **Salmon fry nursery area (4/31 to 7/31)**
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D **Esther Hatchery release (4/15 to 6/15)**
1E **Main Bay Hatchery release (4/20 to 6/15)**
1F **Sawmill Bay Hatchery release (4/15 to 6/1)**
1G **Cannery Creek Hatchery release (4/21 to 6/1)**
1H **Remote release site**
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzomoto 424-7511

1I **Gill net area (6/7 to 8/31)**
1J **Purse seine area (7/20 to 9/30)**
1K **Purse seine hook-off (7/20 to 9/30)**
1L **Set net sites (6/11 to 7/25)**
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M **Herring spawning (4/1 to 6/15)**
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P **Harbor seal and sea lion pupping (5/15 to 7/1)**
3O, 3Q **Harbor seal and sea lion molting (8/15 to 9/15)**
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R **Seabird colony (5/1 to 9/1)**
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S **Shorebird/waterfowl concentration (4/1 to 5/15)**
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T **All Bald Eagle nests (3/1 to 8/1)**
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U **Recreation: Tent sites (6/1 to 9/15)**
6V **Anchorages (6/1 to 9/15)**
6W **Forest Service cabins (6/1 to 9/15)**
6X **Lodge (6/1 to 9/15)**
6Y **Special use destination**

7Z **Subsistence area: Salmon harvesting (5/1 to 9/30)**
Finfish harvesting
Deer harvesting (8/15 to 2/28)
Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

23/52

FIELD SHORELINE COMMENT SHEET

226-40-

SEGMENT ST / EV 071 A SUBDIVISION: 1648A DATE 4/21/90

USCG
NAME Cmdr L. McMahon SIGNATURE J. McMahon

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

1. MANUAL REMOVAL OF ASPHALT & BAG

ADF&G ~~ADEC~~ Michael Wiedmer
NAME No Team member SIGNATURE Michael Wiedmer

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Refer to ADF&G observation and treatment comments for this date.

LAND MANAGER
NAME No Team member SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY (ANAD.) 18/52 REVISION NO. 0

OG William Reid USCG McMahon SEGMENT ST/ EVO71A
BIO Michael Fawcett LAND REP Tom Bowie STRIKE 336 40 164 RM OF
EXXON Gus Garcia ADFG Mike Wiedmer TIME 14:22 to 15:00
TEAM NO. 15 TIDE LEVEL +3.5 ft DATE 21 / APR / 90
EST. SUBDIVISION LENGTH: 60 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
SURFACE SEDIMENTS: R ___ % B ___ % C 60 % P 30 % G 10 % S ___ % M ___ % V ___
SLOPE: Lang 90 % Hang 10 % Vert ___ % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W ___ m M ___ m N 45 m VL 15 m NO ___

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/0	/0	/0	/0						SU	SI	SH	U
ASPHALT PAVEMENT	X	X						X			X		
POOLED													
COVER													
COAT													
STAIN			X			X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

PAVEMENT H (F) S 75 sq m by 5
PATTIES / TARBALLS ☐ BA
NEAR SHORE SHEEN? (NO) BR RW SL T

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

Did You Coll
DEBRIS ☐ YES ☒ NO
TYPE ___
#BAGS ___

Photographs:
Roll No. A5-15-2
Frames 5-12

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)		SURFAC SUBSURFA SEDIMEN
		OP	OR	OL	OF	NO		UO	UO						SU	SI	SH	U				
* 1	20		X				0-5		X				X			X				N		P/G/C
* 2	15		X				0-5		X				X			X				N		P/G/C
* 3	15		X				0-5		X				X			X				N		P/G/C
4	15					X	·									X				N	Ø	P/G/C
							·															
							·															

COMMENTS
* OILED INTERVAL <5cm IN PITS 1, 2 AND 3 DOES NOT CONSTITUTE SUBSURFACE OIL

REVIEWED JW DATE 4-23-9

OG WILLIAM REID

SEGMENT STI EVOS71A

STREAM 226-40-16484

DATE 21 APR 00

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

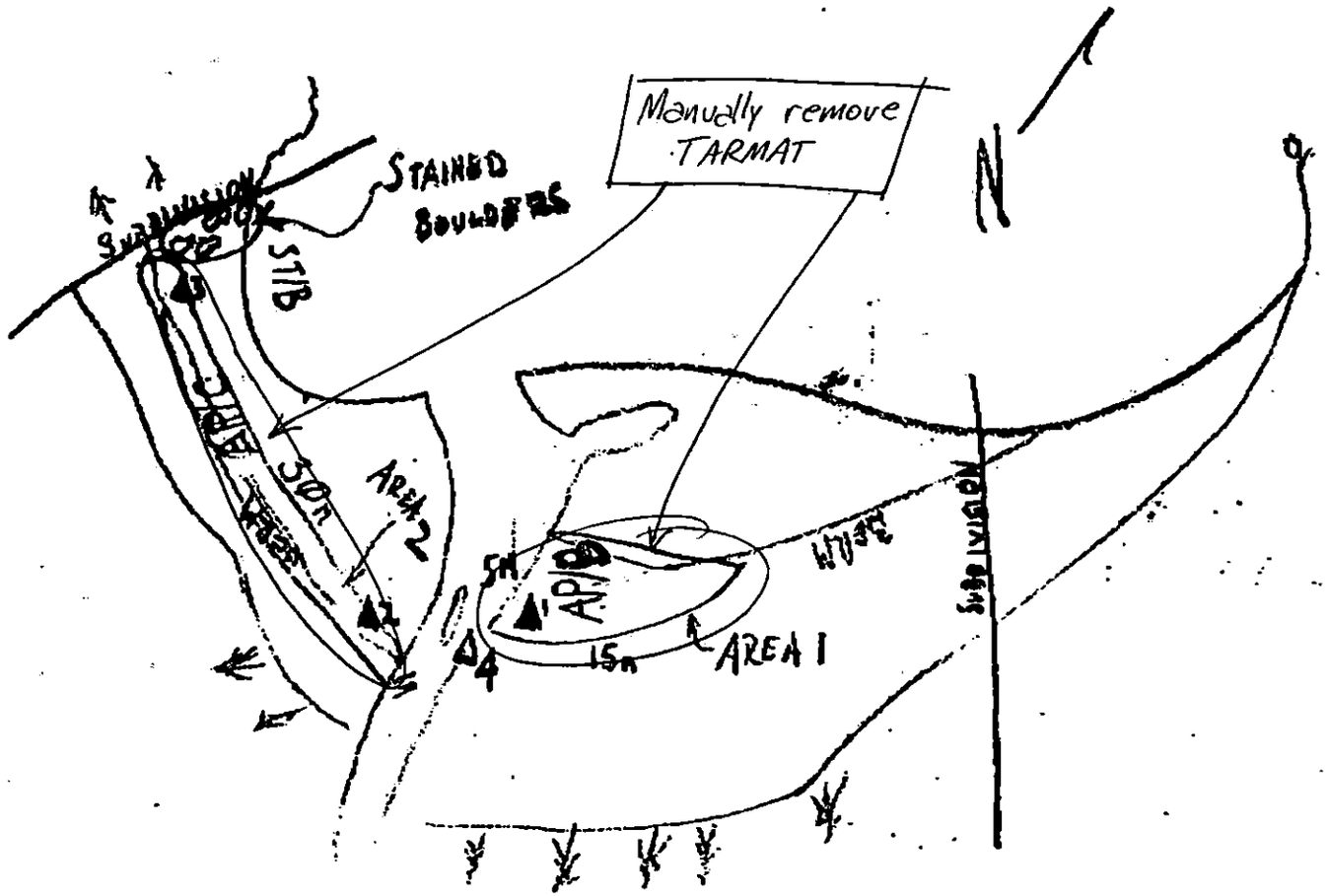
Splashed Distribution

Oiled Vegetation

1 ➔

Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP_____ PO_____ CV_____ CT_____ ST_____ MS_____ PT_____ TB_____ FL_____ NO_____

REVISION

2/52

16/52

ADF&G MULTI-ASSESSMENT DATA FORM

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

METHOD: Aerial (Ground) Boat

3 DATE: 4/21/90 15 HIGH TIDE TIMES: 1107 / 2344 21 TEAM RECORDER: M. WIEDMER

4 START TIME: 1425 16 HIGH TIDE HTS: 9.4 / 10.3 22 OBSERVERS: T. CROWE

5 STOP TIME: 1440 17 LOW TIDE TIMES: 0512 / 1730 23 AGENCY: ADF&G

6 SEGMENT #: EV-067A 18 LOW TIDE HTS: 2.9 / 1.1 24 PHOTOS TAKEN: Y (N)

7 STATION #: 226-40-16484 19 TIDE HT AT SURVEY: 5.23' Roll #: Frame:

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

9 STAT AREA: 20 USGS QUAD: SEWARD A3 Start: End:

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

12 SOURCE: Map Loran Oil

13 LOCATION: WEST SHORE EVANS IS. Sediment

14 DESCRIPTION: Biological

Water

EXTENT OF OIL

	SHORELINE L	W	M^2	%	STREAM L	W	M^2	%
27 SURFACE COVERAGE	100y	30		4	30	3		
28 SURFACE THICKNESS	0.1mm	2mm	0.1mm					
29 PENETRATION	5cm	5cm	5cm					

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

31 OIL TYPE: Pooled Mousse (Tar) (Asphalt) Sticky Stain

32 OILED DEBRIS? Y (N)

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

34 WAVE EXPOSURE: High Moderate (Low)

35 SUBSTRATE TYPE: Bedrock Boulder 15 Cobble 45 Gravel 40 Sand Mud/silt

36 CATALOGED ANAD. FISH STREAM? (Y) N

37 CATALOG #: 226-40-16484

38 STREAM NAME: —

39 OIL IN STREAM BED? Y (N)

40 OIL ON STREAM BANKS? (Y) N

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

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

43 ANADROMOUS FISH PRESENT? (Y) N FRY PRESUMED

44 ANADROMOUS FISH OBSERVATION

Species	Aerial	Ground

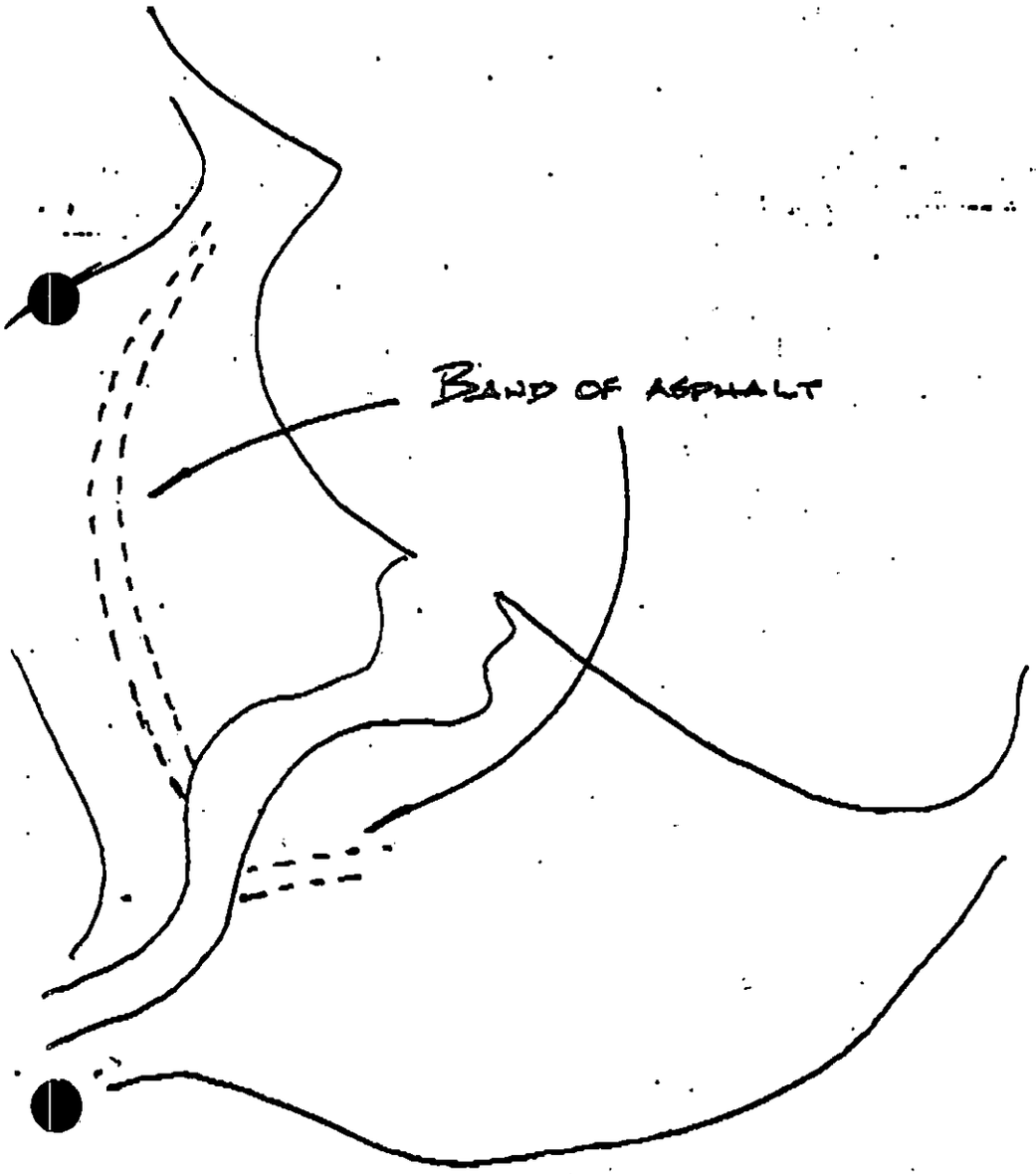
COMMENTS: RING OF 1 m WIDE ASPHALT [illegible] ALONG UPPER INTERTIDAL ZONE. RING EXTENDS 15 M NORTH OF STREAM AND 50 M+ SOUTHWEST OF STREAM. RECOMMEND MANUAL REMOVAL OF ALL OILED SUBSTRATES [illegible]

EV-071A 17/52
226-40-16484

45 PHOTOLOG

[illegible]	DESCRIPTION

46 OIL DISTRIBUTION DIAGRAM



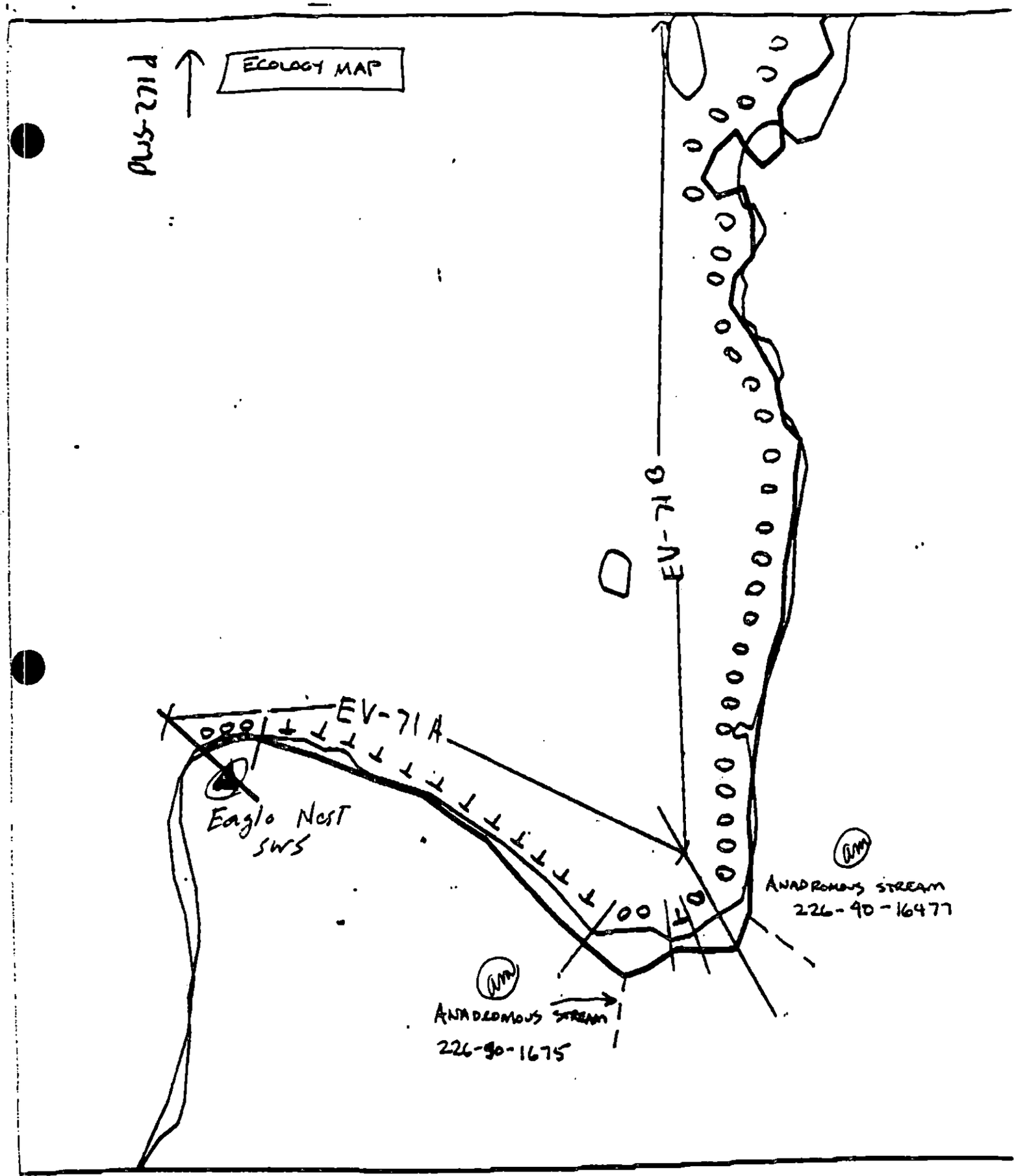
[illegible] taken
[illegible] frame # and

Segment EV 7/A
Stream 226-40-16484
Ecologist's Summary

4/21/90
Michael Fawcett

This stream mouth lies on a boulder/cobble/gravel beach in a sheltered bay. There are dense populations of Fucus, barnacles, littorines, and associated animals including large, old limpets (Collisella pelta) in MTZ and LTZ. A band of tar was found on the surface in UTZ, and manual pickup recommended. There are no ecological constraints on cleanup operations.

MF Fawcett



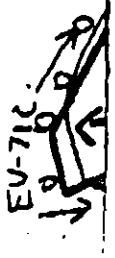
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-71

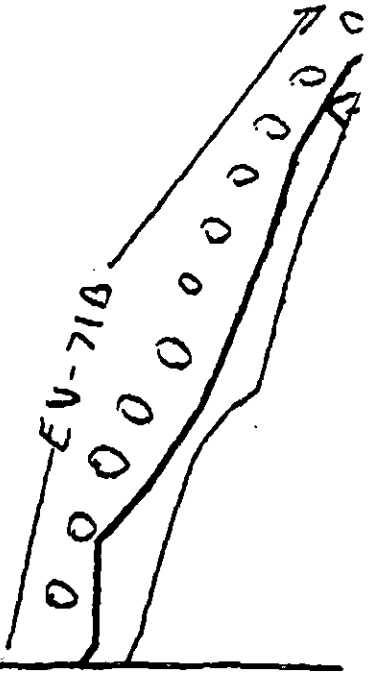
ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271e
Name: Mike Foget
Date: 4/11/90
Date Entered:



PWS 271c



PWS-271a

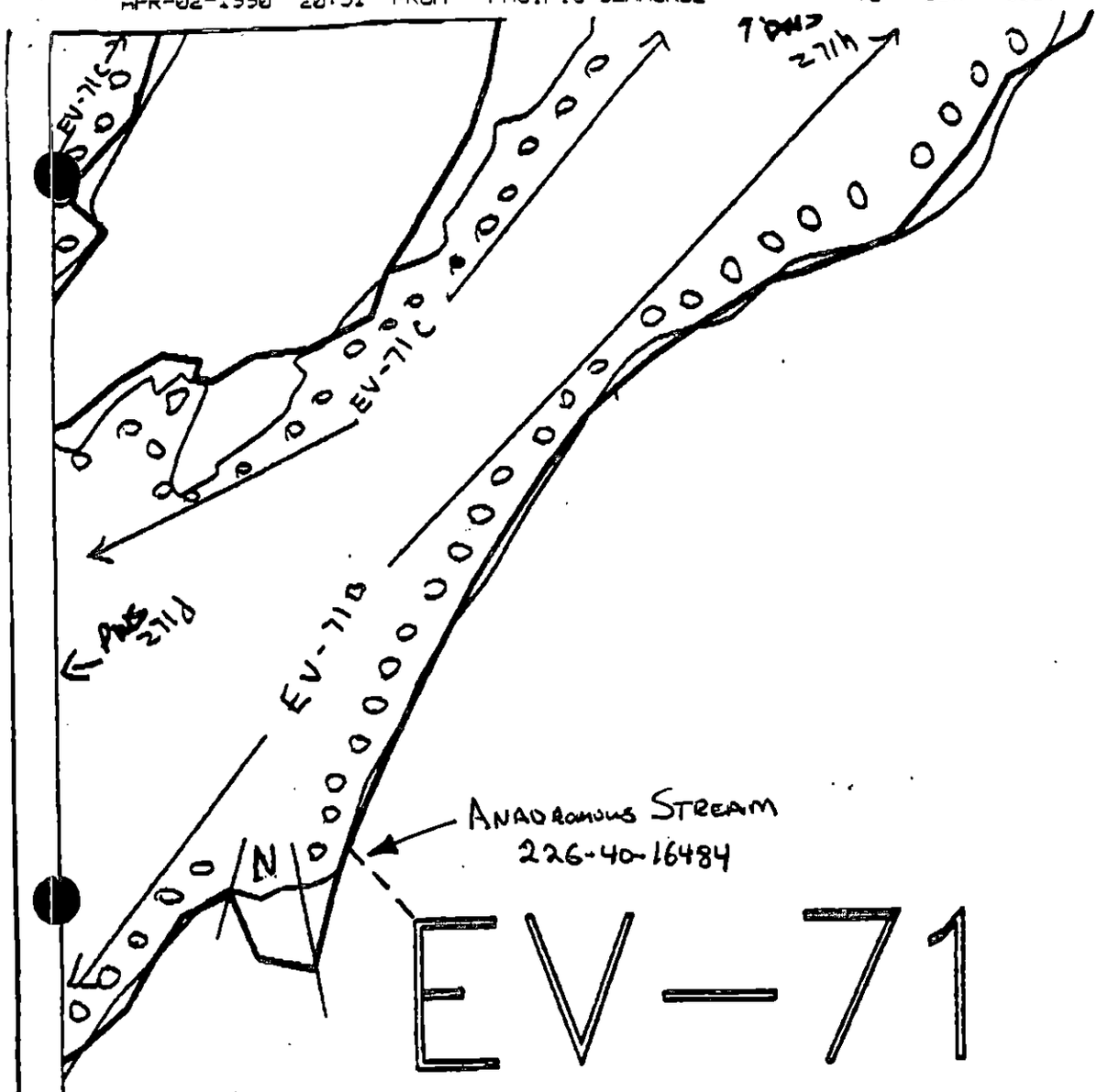
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-71B

ADEC Segment Length: 8115m

0 100 200 300

Map Key: PWS-271d
Name: Mike Foyer
Date: 4/1/90
Date Entered:



EV-71

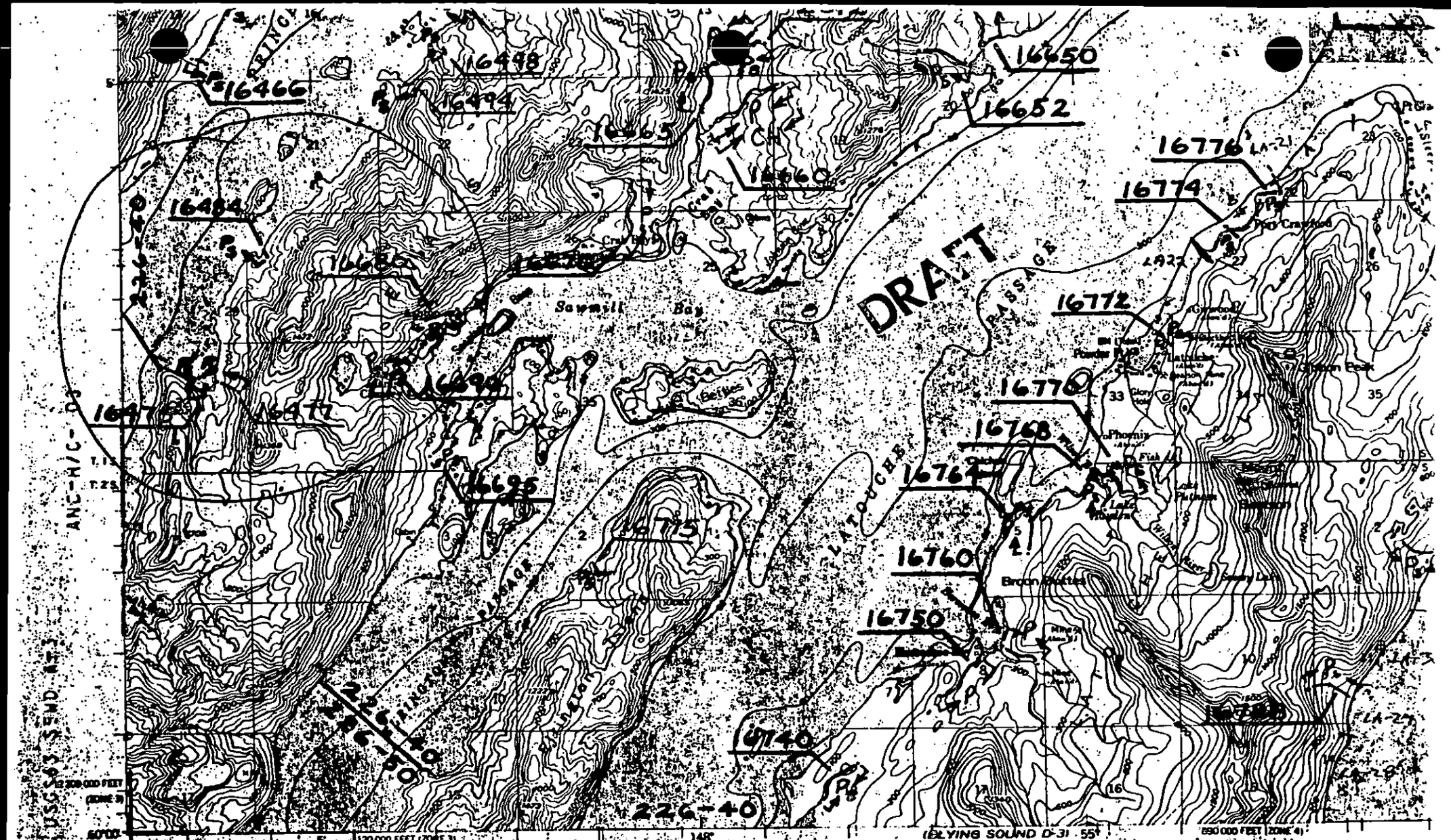
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Air

EV-71B

ADEC Segment Length: 8115m

0 100 200 500

Map Key: PWS-271e
Name: Mike Foget
Date: 4/1/90
Date Entered:



Mapped, edited, and published by the Geological Survey

Control by USC&GS and USCE

Topography by photogrammetric methods from aerial photographs taken 1950. Field annotated 1951. Map not field checked

Selected hydrographic data compiled from USC&GS Charts 8515 (1949), 8523 (1951), and 8524 (1943). This information is not intended for navigational purposes

Universal Transverse Mercator projection, 1927 North American datum
10,000-foot grid based on Alaska coordinate system, zones 3 and 4
1000-meter Universal Transverse Mercator grid ticks, zone 6, shown in blue

Land lines represent unsurveyed and unmarked locations predetermined by the Bureau of Land Management

APPROXIMATE MEAN DECLINATION, 1951

SCALE 1:63360

CONTOUR INTERVAL 100 FEET

DATUM IS MEAN SEA LEVEL

DEPTH CURVES AND SOUNDINGS IN FEET DATUM IS MEAN LOWER LOW WATER

SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 9 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY
FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20242

INDEX TO ADJOINING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

DRAFT

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-72

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-72 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
5T Active Bald Eagle nests (3/1 to 9/1) located within 400m
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
Sensitivity code and general time constraints. See attached Ecological sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. (See above)

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 (24hrs.)).**

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 1898 m: V.Light 1802 m: No Oil 864 m
Subsurface Oil Observed: Yes X No____ Maximum Depth 10cm

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 tarmats in areas shown on attached sketch maps. Work should be conducted between 6/1 and 8/15 with approval of USFWS regarding eagle nests and consultation with ADF&G regarding specific dates of finfish harvesting.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzomoto 424-7511

1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
Deer harvesting (8/15 to 2/28)
Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

SEGMENT ST/ EV-72 SUBDIVISION: A DATE 26 APRIL 9

USCG
NAME SHAWN MAAS SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

RECOMMEND MANUAL REMOVAL OF ASPHALT/PAVEMENT PATTIES AND TARBALLS. BIOREMEDIATION IN 2 ANGLE BEACHS WHERE SUB SURFACE OILS INTERSECT.
SUBSURFACE OILS PRESENT. FURTHER EVALUATION NEEDED.

ADEC
NAME DAVID M. SALE SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

① MANUALLY REMOVE TAR MATS AND TAR BALLS, AND PATTIES AND ASPHALTS.
② REMOVE AND/OR CLEAN SEDIMENTS FROM SURFACE TO DEPTH OF PENETRATION; PARTICULARLY, DO NOT MISS COBBLES AND SEDIMENTS OILED BETWEEN BOULDERS. (BEACH FACING 96° E TO PT. HELEN) (MAPS, PP. 2+3
③ REMOVE OILED SEDIMENTS AND COBBLES OILED IN BEACH NEXT TO STREAM AT 3. END OF SEGMENT. OIL IN GROUND WATER
THIS BEACH REQUIRES FURTHER TAR EVALUATION.

LAND MANAGER
NAME Don Kompkoff SIGNATURE [signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 05/12/89

OG R. Marty USCG S. Maas SEGMENT ST/ EV-72
BIO B. Lemen LAND REP D. Kamphaefer SUBDIVISION A (A OF A)
EXXON J. Cancemi ADEC D. Sale TIME [redacted] to [redacted]
TEAM NO. 10 TIDE LEVEL [redacted] DATE 25 / April / 90
EST. SUBDIVISION LENGTH: 994 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 30 % B 25 % C 25 % P 10 % G 5 % S 5 % M — % V — %
SLOPE: Lang 30 % Hang 30 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Mod ☐ High
OIL CATEGORY LENGTH: W — m M — m N 1490 m VL 1937 m NO 994 m

SURFACE OIL

OIL CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	a	a	p	a						su	u	m	u
ASPHALT PAVEMENT	—	—	P	—	—	—	—	P	—	P	P	—	—
POOLED	—	—	—	—	—	—	—	—	—	—	—	—	—
COVER	—	—	—	—	—	—	—	—	—	—	—	—	—
COAT	—	—	P	S	—	—	—	SP	—	—	S	—	—
STAIN	—	—	P	—	—	—	—	P	—	—	P	P	—
MOUSSE	—	—	—	—	—	—	—	—	—	—	—	—	—
PATTIES	—	—	—	P	—	—	—	P	—	P	P	—	—
TARBALLS	—	—	—	S	—	—	—	S	—	S	S	—	—
FILM	—	—	—	—	—	—	—	—	—	—	—	—	—
NO OIL										—	—	—	X

PAVEMENT H: P (S) 28 sq. m by 4 cm
PATTIES / TARBALLS 2 BAGS
NEAR SHORE SHEEN? NO BR RW (SI) TL on tide pools

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

DID YOU COLLECT DEBRIS?
YES ☒ NO ☐
TYPE Misc.
#BAGS 1-2

Photographs:
Roll No. ST 10/15
Frames 0-26

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (MM)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	U						su	u	m	u				
1	10	—	X	—	—	—	0-10	—	X	—	—	—	X	—	X	—	—	—	N	—	N	SC-S
2	18	X	—	—	—	—	0-7	—	X	—	—	—	X	—	—	X	—	—	N	Y	Ng	CBF-PGS
3	35	—	—	—	—	X	—	—	X	—	—	—	—	—	—	X	—	—	N	—	N	PG-Pbr
4	34	—	—	—	—	X	—	—	X	—	—	—	—	—	—	X	—	—	N	N	31	P-PG
5	25	—	—	—	—	X	—	—	X	—	—	—	—	—	—	X	—	—	N	—	N	C-PCG
6	45	X	—	—	—	—	0-5	—	X	—	—	—	X	—	—	X	—	—	Y	Y	38	C-GSV

COMMENTS Most of the high oil concentrations are found at or above the H HWS line in the backs of cracks and small pocket beaches.

2 of 41

REVIEWED YH DATE 4-28-90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04/13/90

SEGMENT ST/ EV-T2 SUBDIVISION A (A OF A)

SUBSURFACE OIL (CONTINUED)

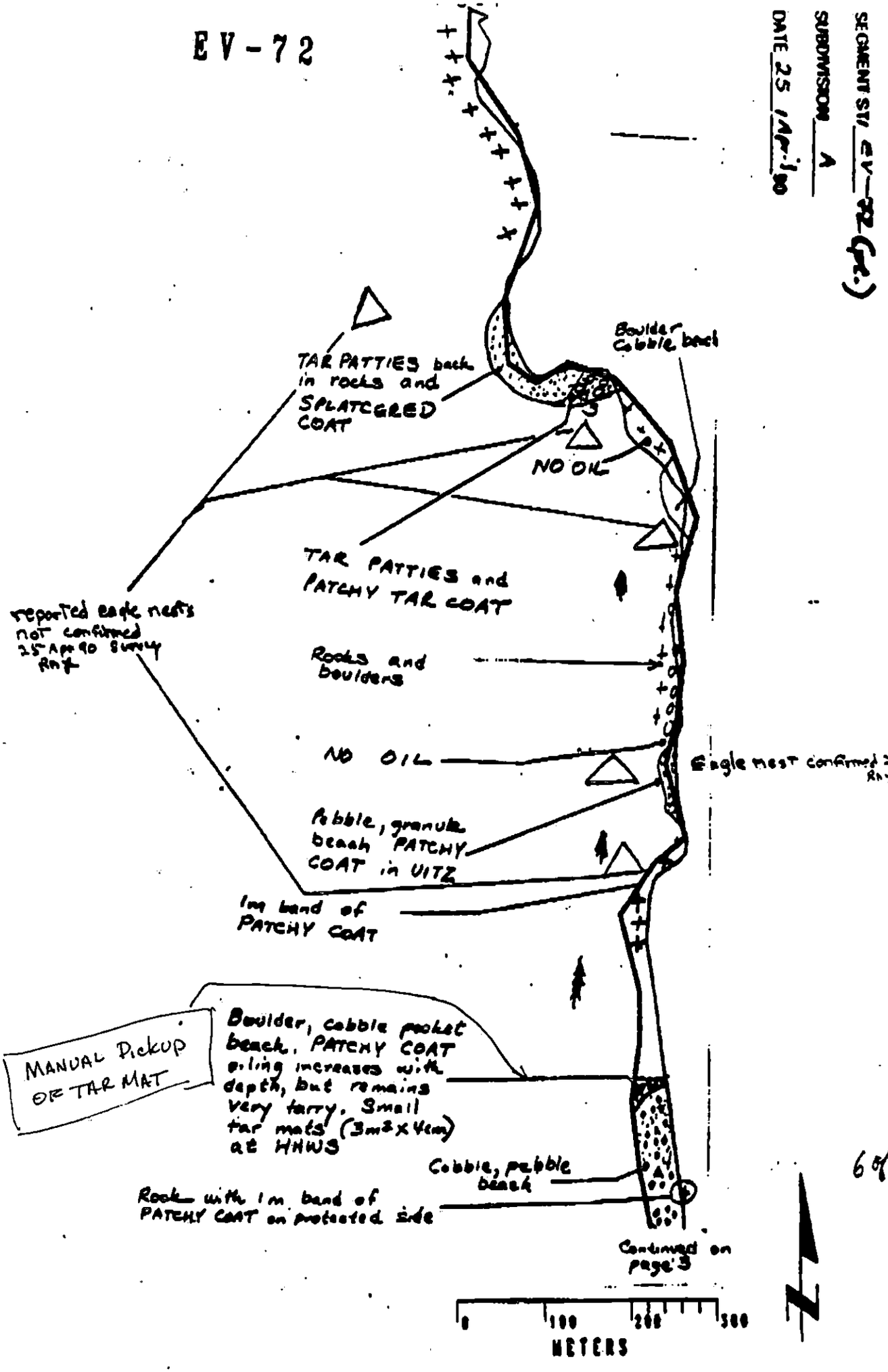
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE · SUBSURFAC SEDIMENTS
		OP	OR	OL	OP	NO		UO	UG						SU	UI	MI	LI				
7	51					X			X							X			Y	Y	47	PG-GSV
8	40					X			X						X				N	—	N	P-P

COMMENTS

3 of 4

REVIEWED GH DATE 4-28-90

SEGMENT STA EV-72 (pt.)
SUBDIVISION A
DATE 25 Apr 90



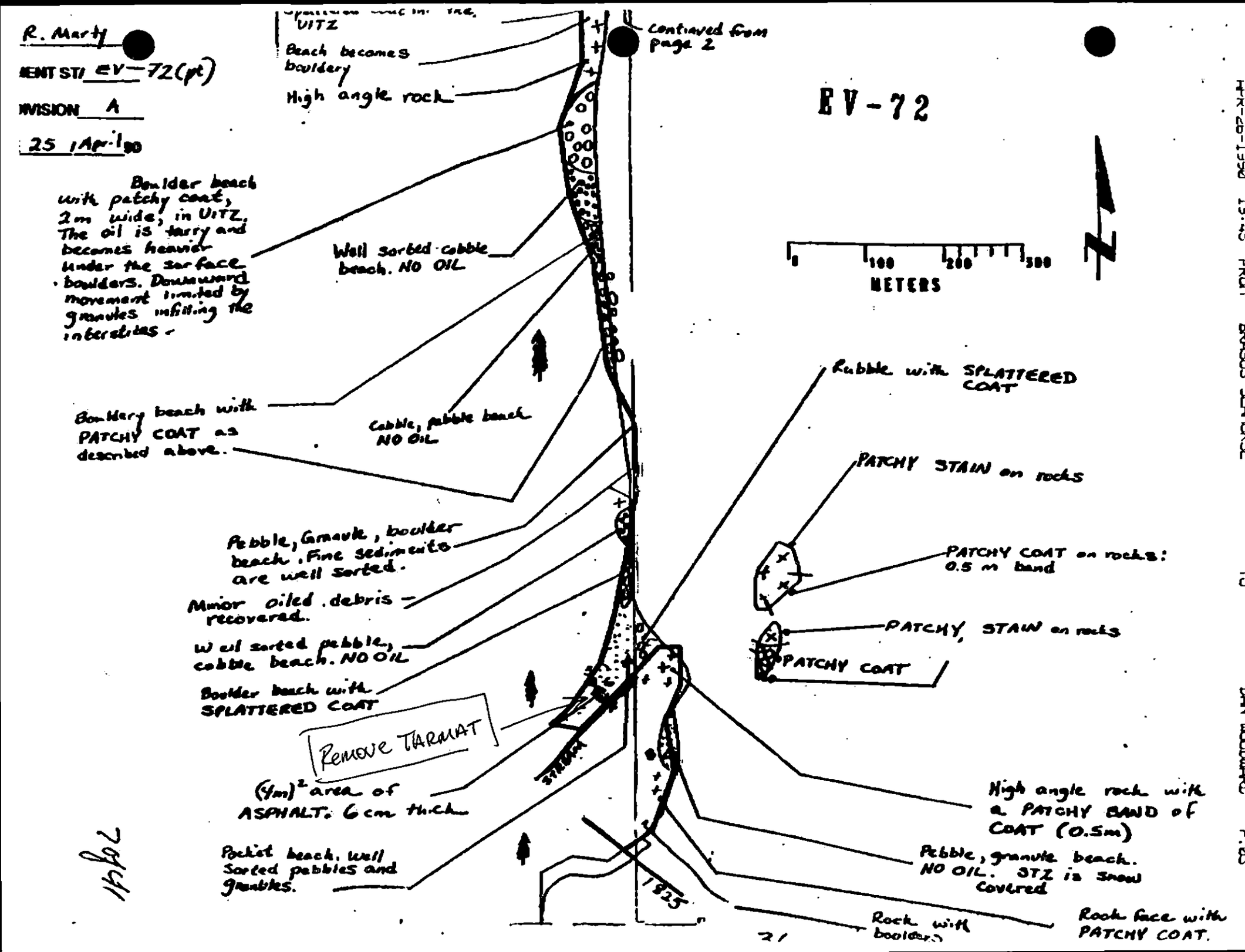
6 of 6

R. Marty

SENT STI EV-72(pt)

IVISION A

25 Apr 90



19g2

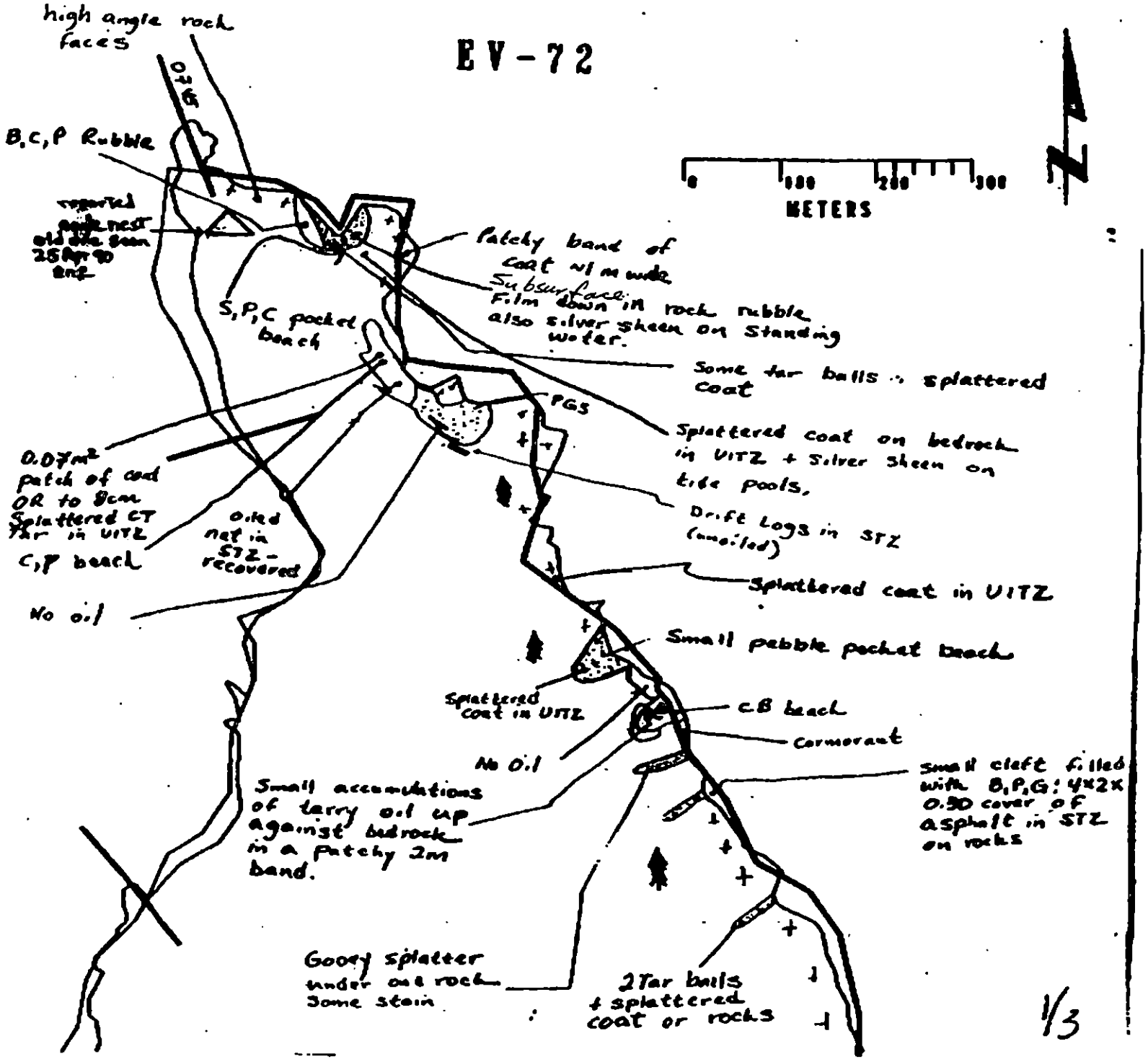
OG R. Mac

SEGMENT STI EV-72A

SUBDIVISION A

DATE 25 /Apr-1 90

EV-72



14 pgs

1/3

Character Length (nt): AP 25 PO — CV — CT 2900 ST 250 NS — PT 460 TB 460 FL — NO 994

Continued on page 2

SHORELINE ECOLOGICAL SUMMARY

REVISION 6/28/89

Segment ST / 10 / EV 72 Subdivision A Date (mo / day / yr) 4/25/90

Time (24 hr) 0730-1200 1700-1830 Biologist Lemon

(A) Substrate type and % of segments:
(1) Bedrock 30 (2) Boulder 25 (3) Cobble 25 (4) Pebble 10 (5) Sand 10 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 90% Moderate ____ Low ____

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

Photographs:
Roll No. ST/10/15
Frames 0 - 26

BARNACLES

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

GASTROPODS

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

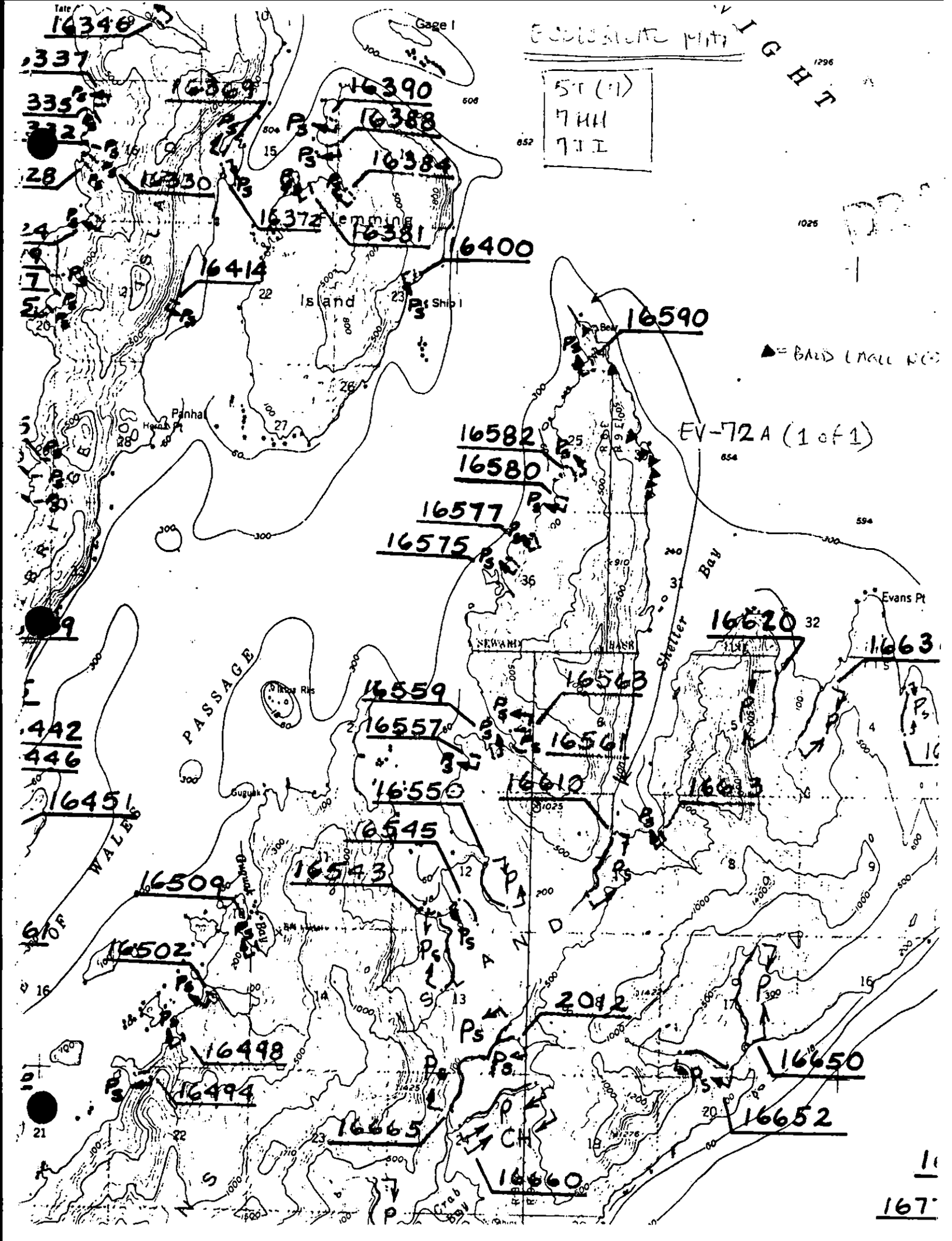
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	X	2	X	2	2	1	X	X	2	2	2	
3	3	3	X	X	3	2	3	X	3	3	3	NOT PRESENT
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

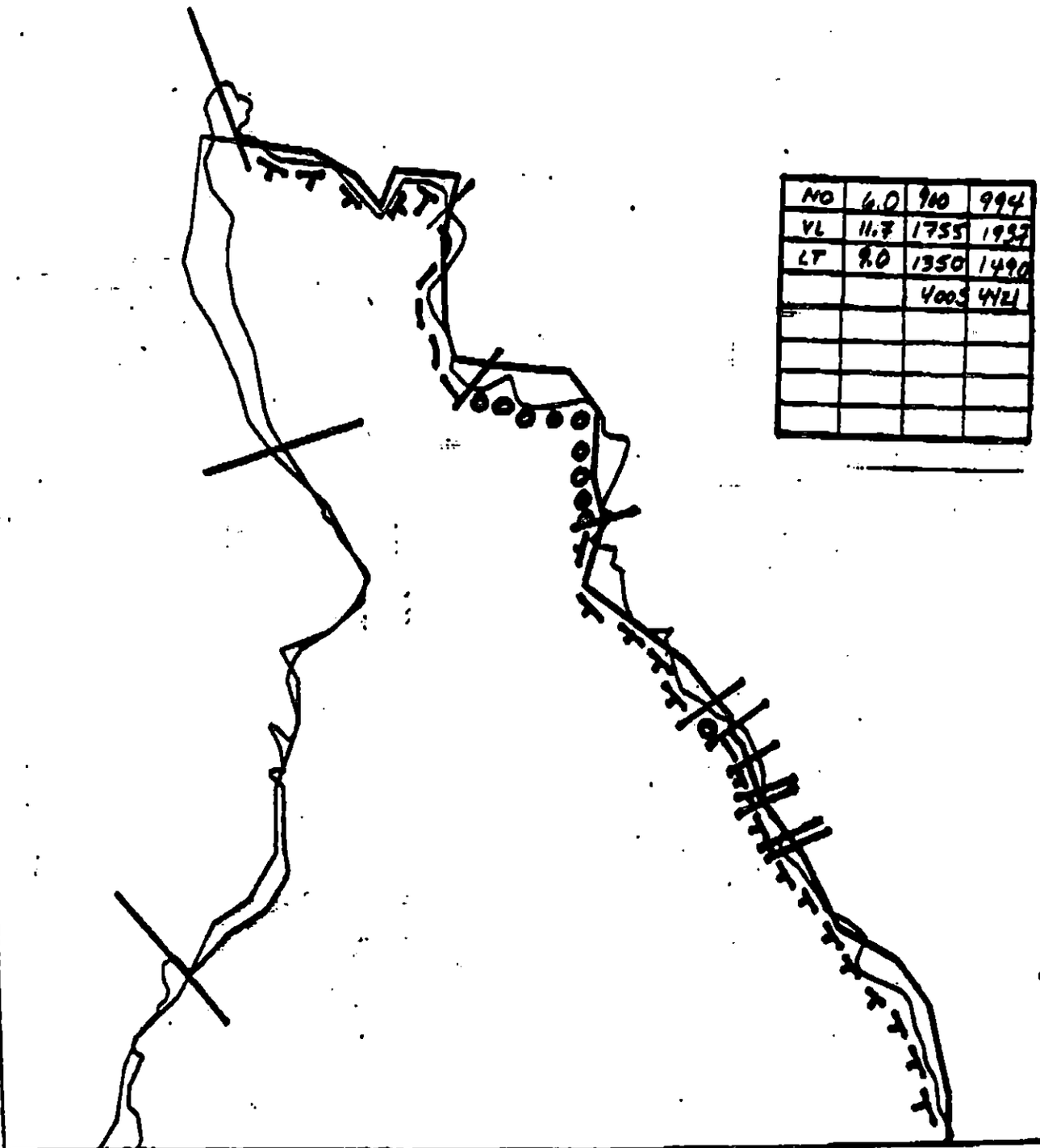
Wildlife Observations/ General Comments: Fucus reproductive in all zones, lacks density in low zone because of dense mixed reds. Water column is clearer than on few days ago. much less in bay.

10 waterfowl
4 gulls
4 otters
8 Sealions
2 eagles
1 live oiled cormorant
8 schools minnows
1 loon
1 grebe
1 humpback whale
2 orca whale

Ecological Considerations: Subsistence finfish and deer harvest area. 7 eagle nests reported, but only 2 were confirmed on 25 Apr 90 surveys, see map.

15 of 41


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Gage I
Island
Ship I
Panhal
Flemming
Evans Pt
Shelter Bay
PASSAGE
Gugulak
Bay
Crab
Bay
EV-72 A (1 of 1)



NO	6.0	910	994
VL	11.7	1755	1957
LT	8.0	1350	1490
		4005	4421

8 of 91

1/4

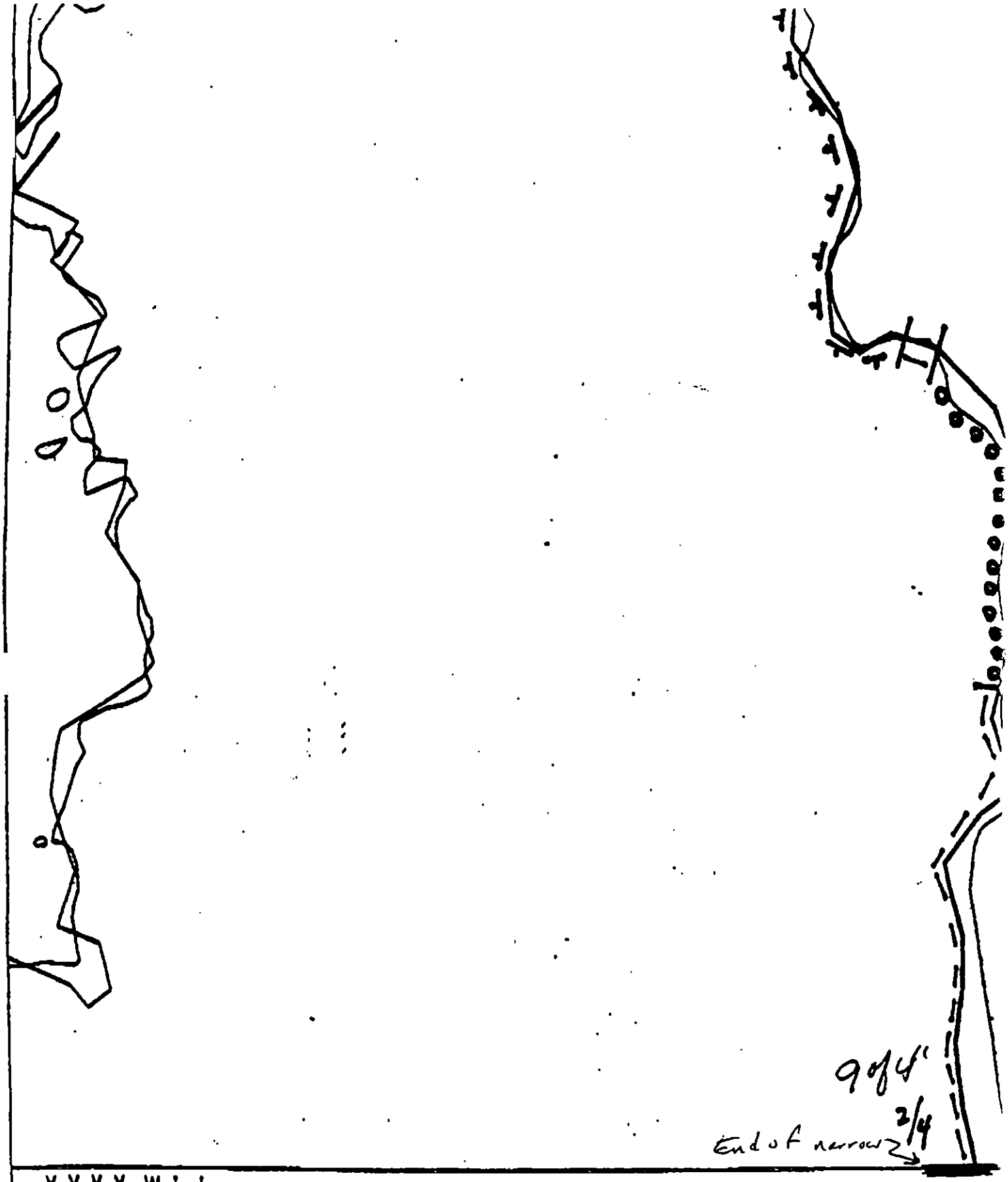
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-72

ADEC Segment Length: 4420m

0 100 200 300

Map Key: PWS-2720
Name: R. Marty
Date: 25 April 1990



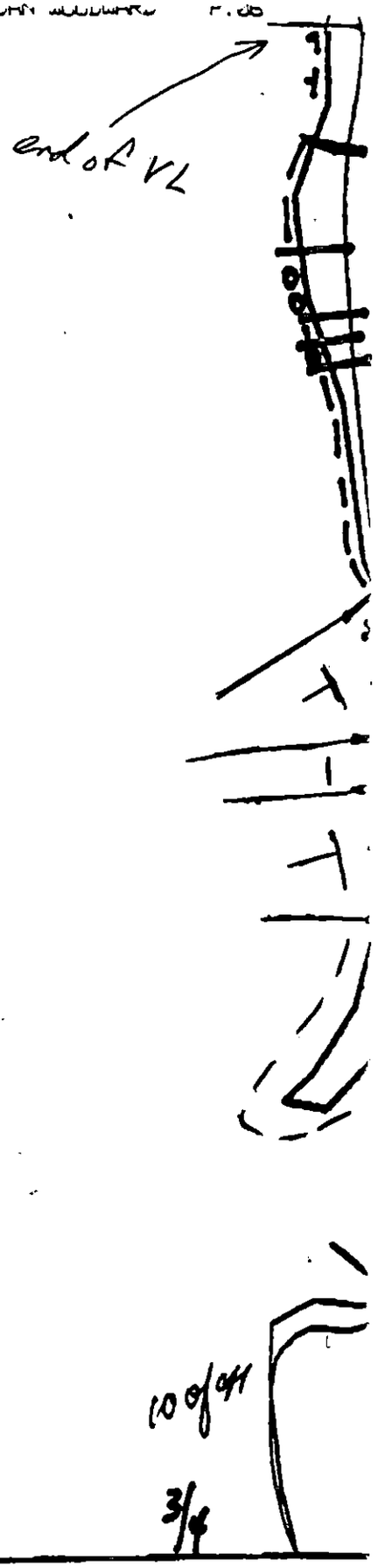
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-72

ADEC Segment Length: 4420m

0 100 200 300 meters

Map Key: PWS-272c
Name: R. Marty
Date: 28 April 199(
Date Entered:



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

EV-72

AOEC Segment Length: 4420m

0 100 200 300
METERS

Map Key: PWS-272e
Name: R. Marty
Date: 26 April 1990
Date Entered:

EV-19



11 of 11

4/4

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

EV-72

ADEC Segment Length: 4420m

Map Key: PWS-272b
Name: R. Marty
Date: 26 April 1990

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-72 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	WORK PRIOR TO 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

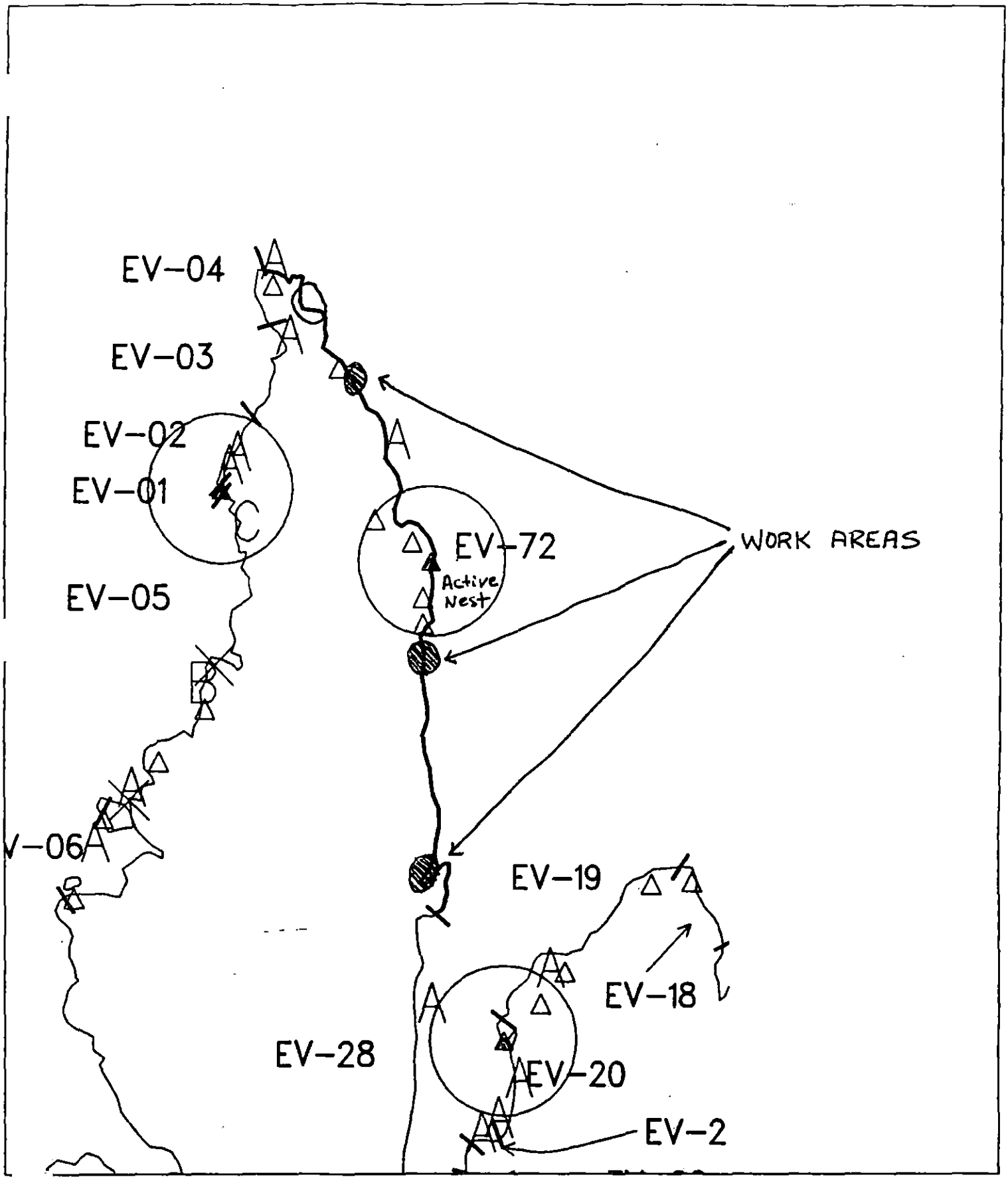
5T	**Bald Eagle Nest**	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work sites.
7HH	**Subsistence: Finfish Harvesting**	Closed to bioremediation after 7/1. No constraint to manual pickup and tarmat removal.
7II	**Subsistence: Deer Harvesting**	Closed to bioremediation after 8/15. No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Restrict boat and beach disturbance to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unoiled biota and substrate.

FOSC _____ Date 6/15/90

Prepared by _____ Date 6/14/90



EXXON

Exxon Company, USA
Map Key: PWS-EV-72

ECOLOGY MAP
SEGMENT EV-72
SUBDIVISION A (1 of 1)

METERS

★ Seabird Colony
▲ Active Eagle Nest
△ Inactive Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ EV-72 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
5T Active Bald Eagle nests (3/1 to 9/1) located within 400m
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
Sensitivity code and general time constraints. See attached Ecological sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. (See above)

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 (24hrs.)).

SHPO SIGNATURE: Rachel Joan Orr DATE: 5/18/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 1898 m: V.Light 1802 m: No Oil 864 m
Subsurface Oil Observed: Yes X No Maximum Depth 10cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes: 1) Manual removal of tarmats in areas shown on attached sketch maps. Work should be conducted between 6/1 and 8/15 with approval of USFWS regarding eagle nests and consultation with ADF&G regarding specific dates of finfish harvesting.
SPOT CONSTRAINTS ADDENDUM dated 6/14/90 RP

TAG COMMENTS: BIOREMEDIATION (CUSTOMBLEND) AFTER AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/17/90
ADEC ART WEINER Art Weiner
EXXON ANDY TEAL
FOSC [signature] DATE 6-8-90
Notify CRC 24 hrs prior to cleanup.

SHORELINE EVALUATION

SEGMENT ST/ EV-72 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
5T Active Bald Eagle nests (3/1 to 9/1) located within 400m
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
Sensitivity code and general time constraints. See attached Ecological sheet for specific constraints and contacts.

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Avoid any unnecessary disturbance or damage to unoiled biota and substrate. (See above)

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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 (24hrs.)).**

SHPO SIGNATURE: Rachel Joan Darr DATE: 5/18/90

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Wide 0 m: Medium 0 m: Narrow 1898 m: V.Light 1802 m: No Oil 864 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 10cm

RECOMMENDATIONS:

____No Treatment Recommended	____Snare/Absorbent Booms
__X__Treatment Recommended	____Oil Snares (pom poms)
__X__Manual Pickup	____Absorbents (pads,rolls,etc)
__X__Bioremediation	____Spot Washing:____Wands
__X__Tarmat Removal	____Beach Cleaner
	____Other (see comments)

COMMENTS: Recommended treatment includes: 1) Manual removal of tarmats in areas shown on attached sketch maps. Work should be conducted between 6/1 and 8/15 with approval of USFWS regarding eagle nests and consultation with ADF&G regarding specific dates of finfish harvesting.

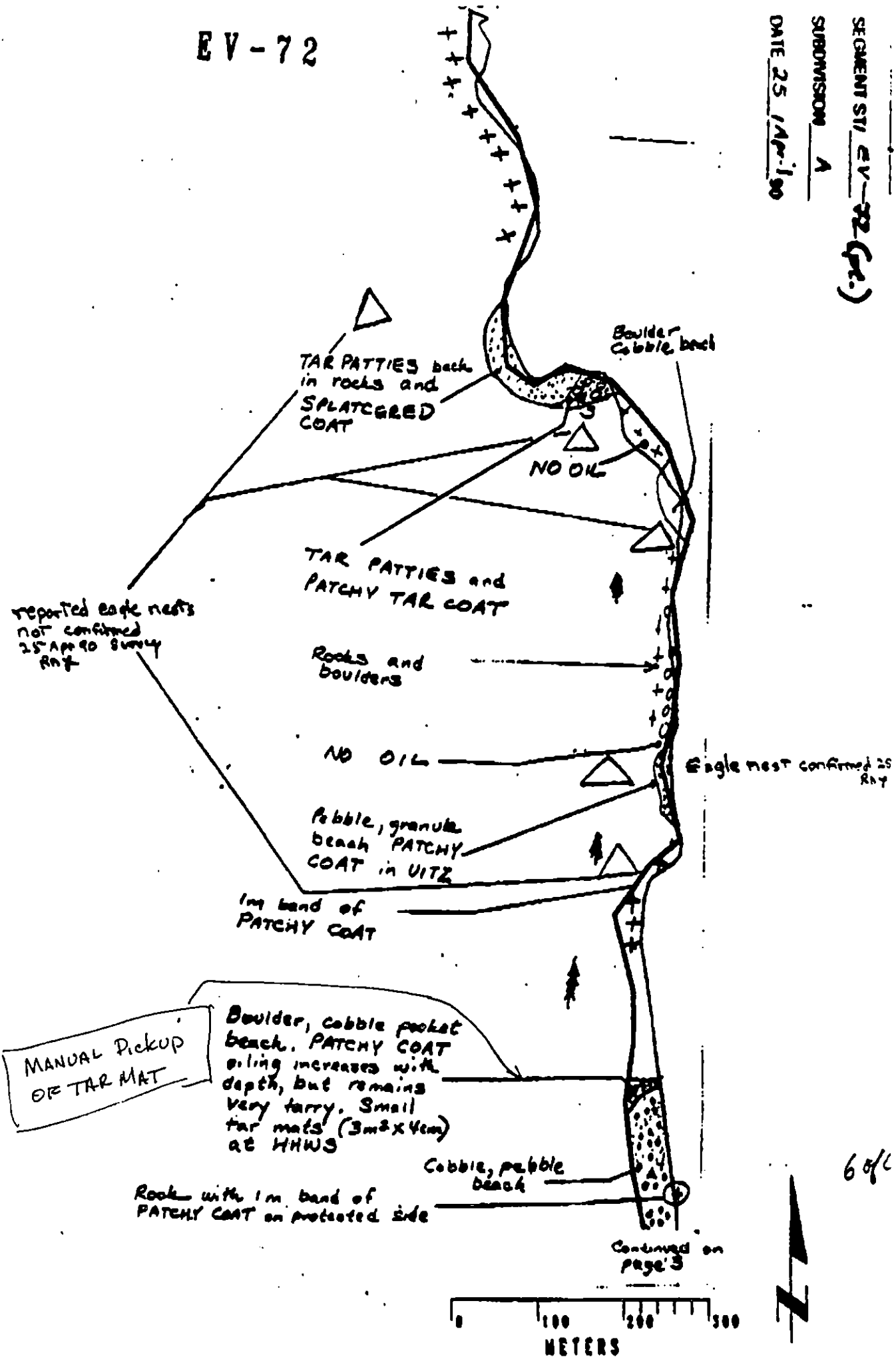
TAG COMMENTS: BIOREMEDIATION (CUSTOMBLEN) ~~AFTER~~ AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/17/90
ADEC ART WEINER Art Weiner
EXXON/ ANDY TEAR

FOSC _____ DATE 6-8-90
Notify CVC 24 HRS prior to cleanup

EV-72

SEGMENT ST/ EV-72 (pt.)
SUBDIVISION A
DATE 25 April 90



6 of 6

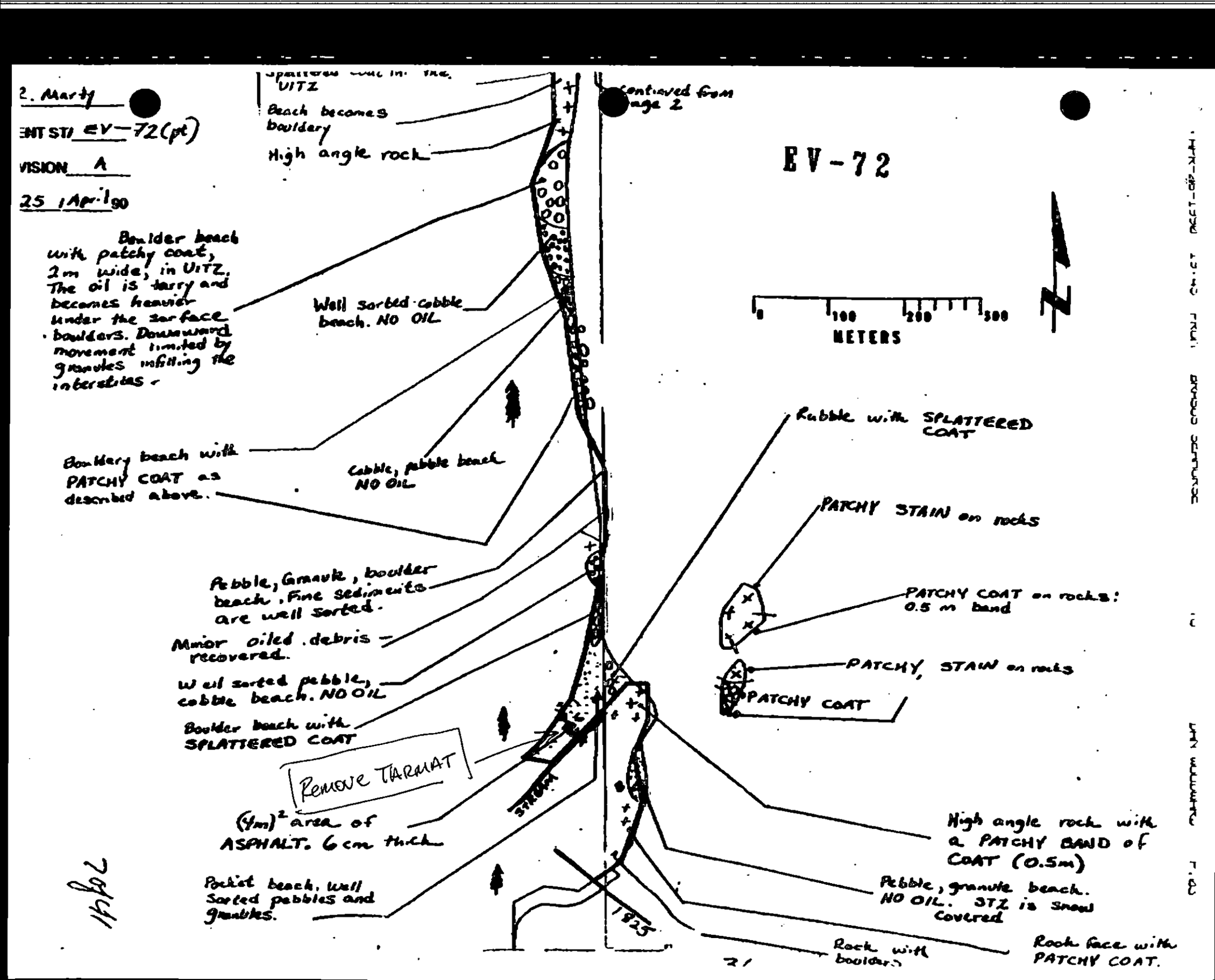
2. Marty

ENT STI EV-72(pt)

VISION A

25 /Apr/90

EV-72



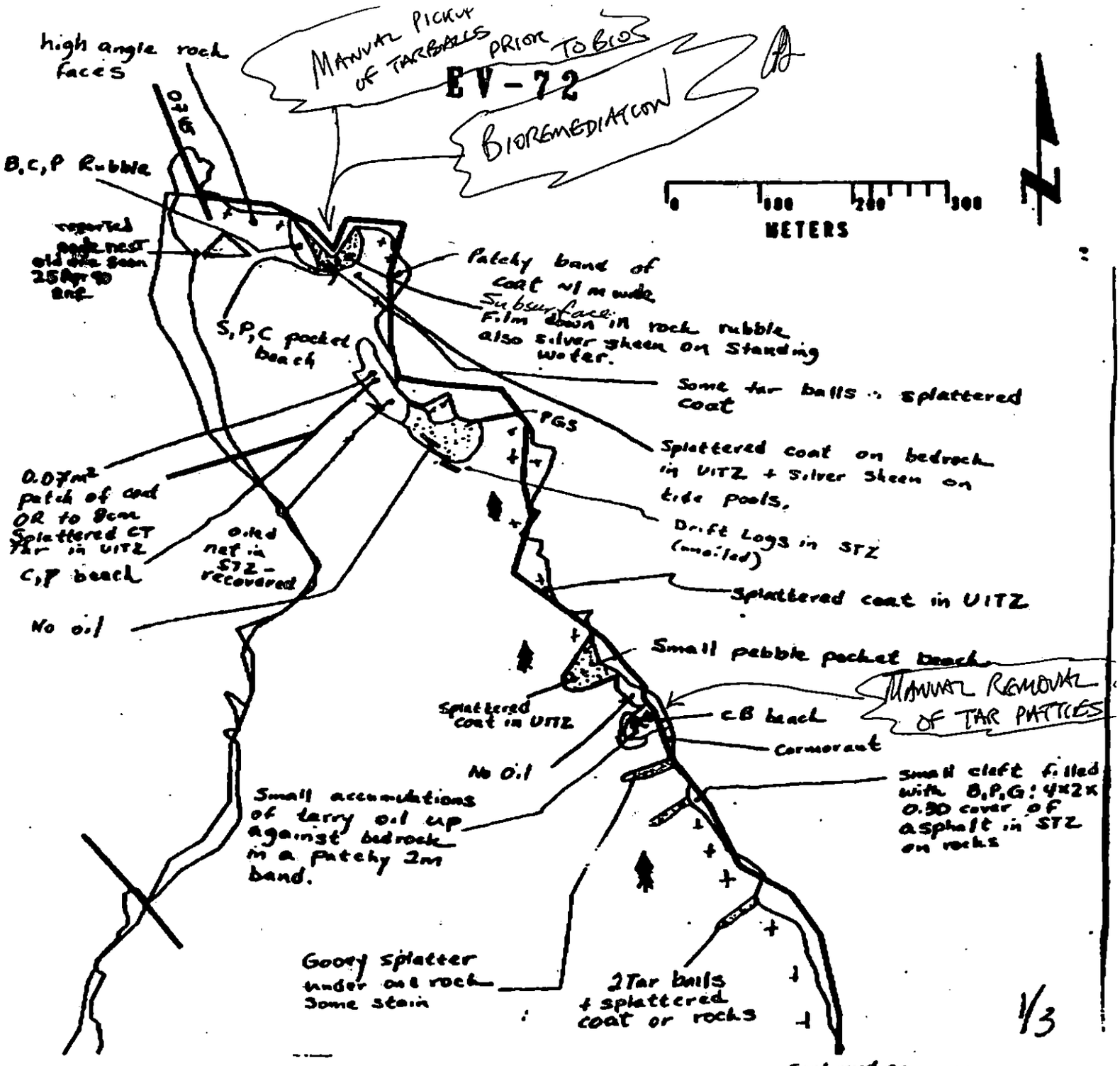
1 of 2

OO R. Marty

SEGMENT STI EV-72A

SUBDIVISION A

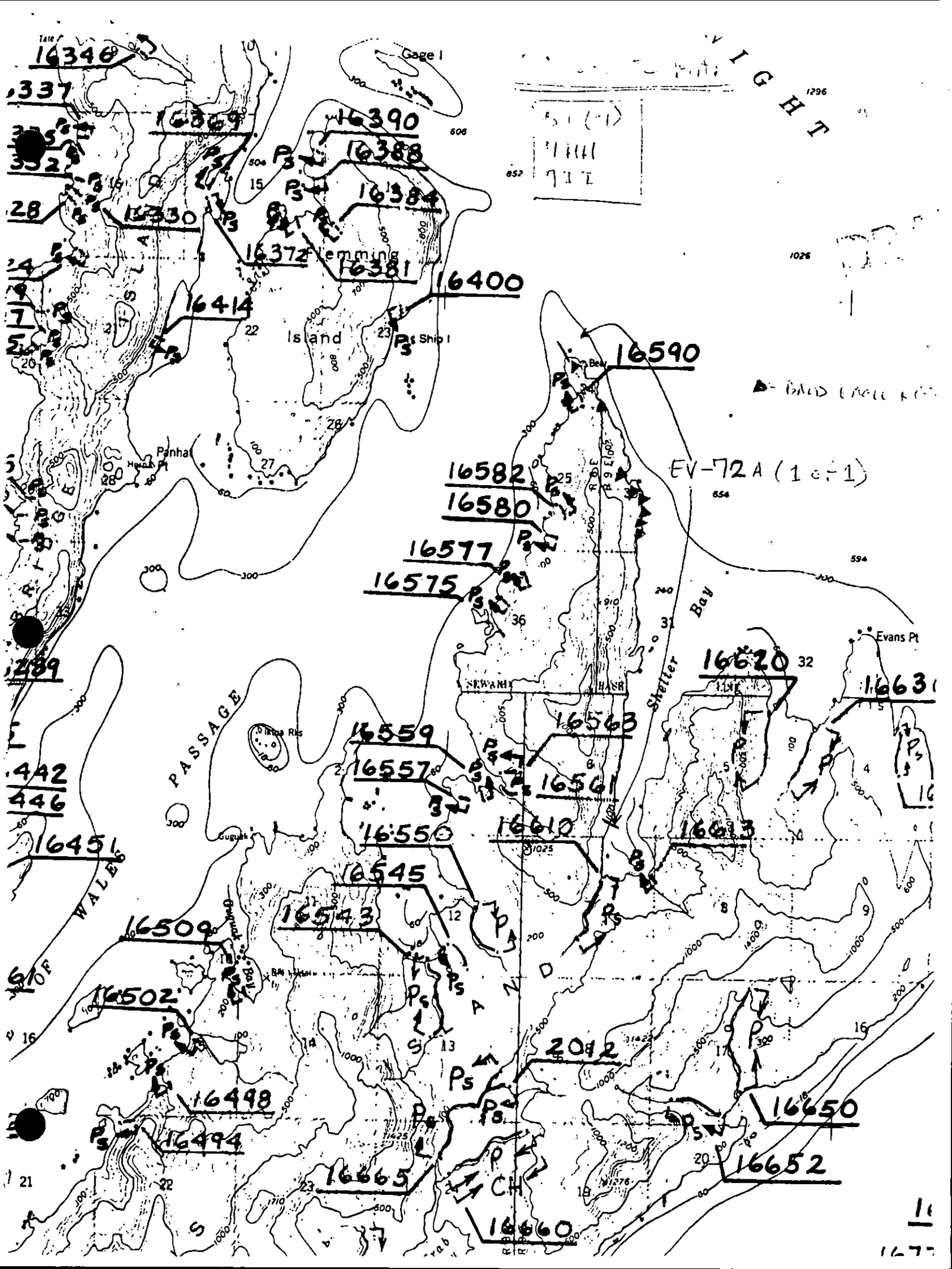
DATE 25 /Apr/90

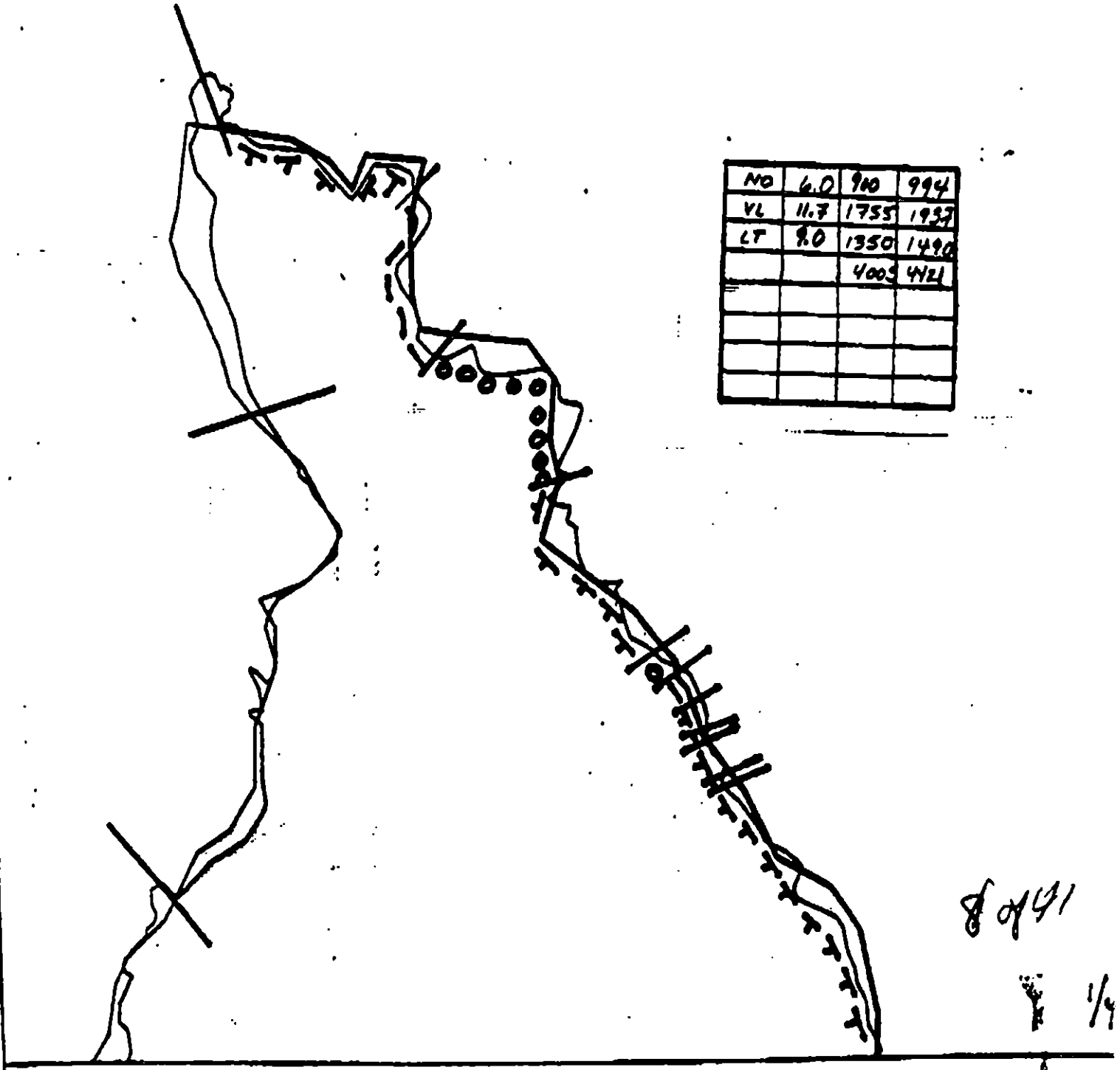


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2012
Gage I
Island
Shib I
Panhat
Evans Pt
Sheltered Bay
PASSAGE
Guguka
Bay
EV-72A (1 of 1)



NO	6.0	940	994
VL	11.7	1755	1957
LT	9.0	1350	1490
		4005	4421

8 of 41

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XXXX Wide
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---- Narrow
TTTT Very Light

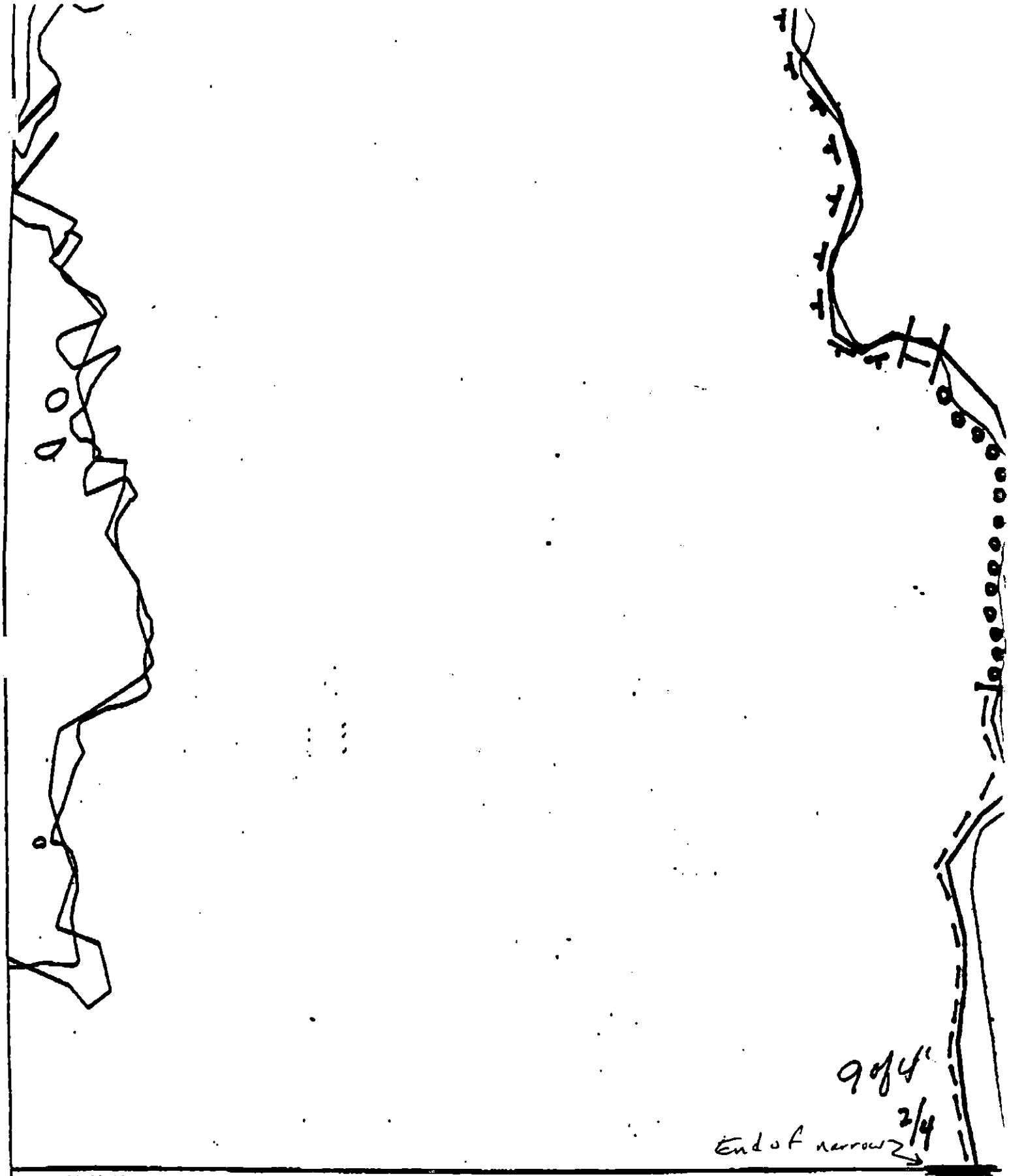
EV-72

ADEC Segment Length: 4420m

Map Key: PWS-2720

Name: R. Marty

Date: 25 April 1990



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

EV-72

ADEC Segment Length: 4420m

0 100 200 300

Map Key: PWS-272c
Name: R. Marty
Date: 25 April 1996
Date Entered:



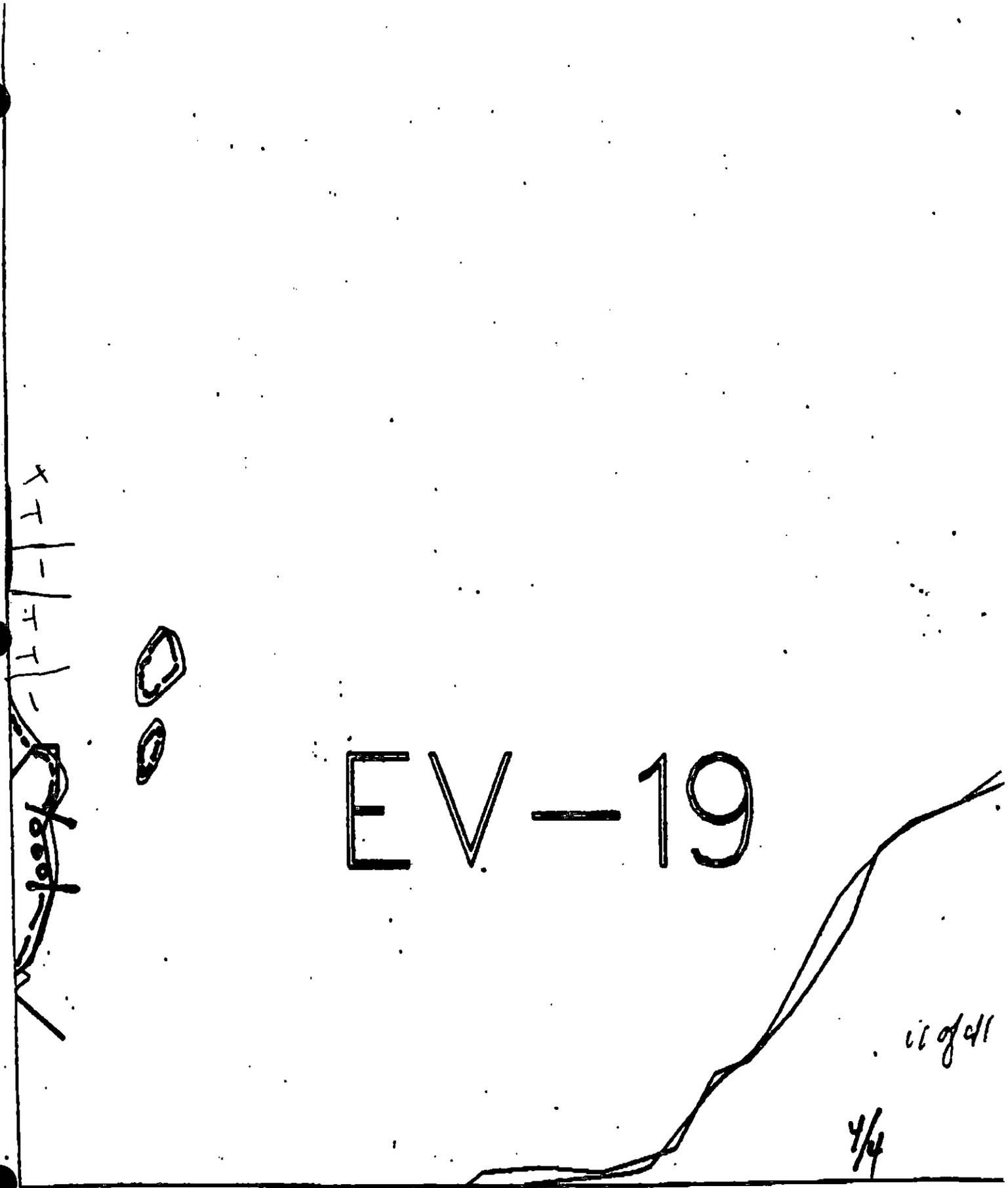
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

EV-72

ADEC Segment Length: 4420m

0 100 200 300

Map Key: PWS-272e
Name: R. Marty
Date: 26 April 1990



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

EV-72

ADEC Segment Length: 4420m

Map Key: PWS-272b
Name: R. Marty
Date: 26 April 1990

1991 MAYSAP EVALUATION

SEGMENT: EV 072 SUB: A REGION: PWS SURVEY DATE: 5/25/91

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

Ecological/Constraints (see page two for details) Eagle nest, Subsistence - Deer harvesting, Subsistence - Finfish harvesting

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

SHPO Signature: Timothy A Smith Date: 6/07/91

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: June 6 91 FOSC APPROVAL DATE: 6/11/91

ADEC John Bauer

EXXON

USCG E M Madden

NOAA

FOSC

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

Subsistence, Finfish Harvesting: Unlimited treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV 72 SUBDIVISION A DATE MAY 25 91

ADEC
NAME John Hyer @ Survey Reassembly SIGNATURE

☐ NTR Invalid Survey, team did not survey 4 pocket beaches and aprox 3/4 mile of boulder shoreline.
@ Timber Removal Oiling observed was SOR/H, MS, CV, CT, and AP. Recommend manual pickup of pooled oil in Area H. Additionally recommend addit further surveying during a tide window that is sufficient time for this long segment.

EXXON
NAME JOHN DEAN SIGNATURE

☑ NTR NO OIL OBSERVED IN RECOVERABLE QUANTITY, CHARACTER, OR LOCATION.

LANDMANAGER
NAME [illegible] OF CVC SIGNATURE Steve WARD

☐ NTR Pooled ~~oil~~ oil in one section of Sub-Div. Should be Recovered. tar mat - Broken Asphalt Brand. Asphalt patties - change Local Responce

NO - BIO.

USCG/NOAA
NAME DREHER / CLINE SIGNATURE CWO K. L. Dreher

☑ NTR KRD Observed only minute traces of CV, CT, DS - no recoverable quantity. KRD

No subsurface oiling was observed. Surface oiling included CV + CT, and one isolated area of fluid mousse. AP was observed in areas difficult to work in (beneath large boulders).

MAYSAP SHORELINE OILING SUMMARY

PAGE ____ OF ____

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 22

ADEC HAYES LANDMANAGER WARD for CUC SUBDIVISION A

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 1, 25 / 91

TIME 06 : 30 to 10 : 00 TIDE LEVEL -0.5 ft. to +6 ft. ENERGY LEVEL: ☐ H ☑ M ☐ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1700 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 75 m VL 178 m NO 1447 m US 2864 m

LOC	SURFACE OIL CHARACTER										SURFACE SEDIMENT	SHORE SLOPE	AREA WIDTH	AREA LENGTH	ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO	TYPE	V H M L	m	m	S	UI	MI	LI	
A						T					RB	VH	2	30		✓			RANDOM DROPS CT
B						T					RB	VH	2	95		✓			" " "
C						B	P				B	V	0.8	5		✓			MASSIVE BOULDER LEE.
D						S	P				B	H	1	10		✓			PROTECTED SIDES BOULDERS
E					T	T					B	V	1	40		✓			AROUND BOULDER
F					T						B	V	1	3		✓			PROTECTED BOULDER
G				P	P	S					B	H	2	10		✓			1 Pattie AP COLLECTED
H		T			S	S					RB	HV	2	25		✓			MS UP TO 5cm IN RX CKS
I						S					R	V	1	25		✓			
J	S					S					B	H	4	10		✓			AP under Massive Boulders

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- 5 - 23 FRAMES 16-19

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							✓	-	—	—	—		✓			CPG-CPG	
2	40							✓	-		—	—		✓			PG-PG	
3	35							✓	-		—	—		✓			PG-PG	
4	30							✓	-		—	—		✓			P-P	
5	40							✓	-		—	—		✓			P-P	
6	30							✓	-		—	—		✓			P-PG	
7	20							✓	-		—	—		✓			PG-PGB	
8	30							✓	-		—	—		✓			PG-PG	
9	40							✓	-		—	—		✓			PG-PG	

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

OG COMMENTS: FIVE LOCATIONS WHICH REQUIRED TREATMENT IN 1990 WERE SURVEYED. MOST OF THE OIL OBSERVED WAS IN THE FORM OF CV & CT ON PROTECTED SIDES OF BOULDERS.

REVISED: MC 5/30/91
revised 5/30/91

MAYSAP SHORELINE OILING SUMMARY (cont.)

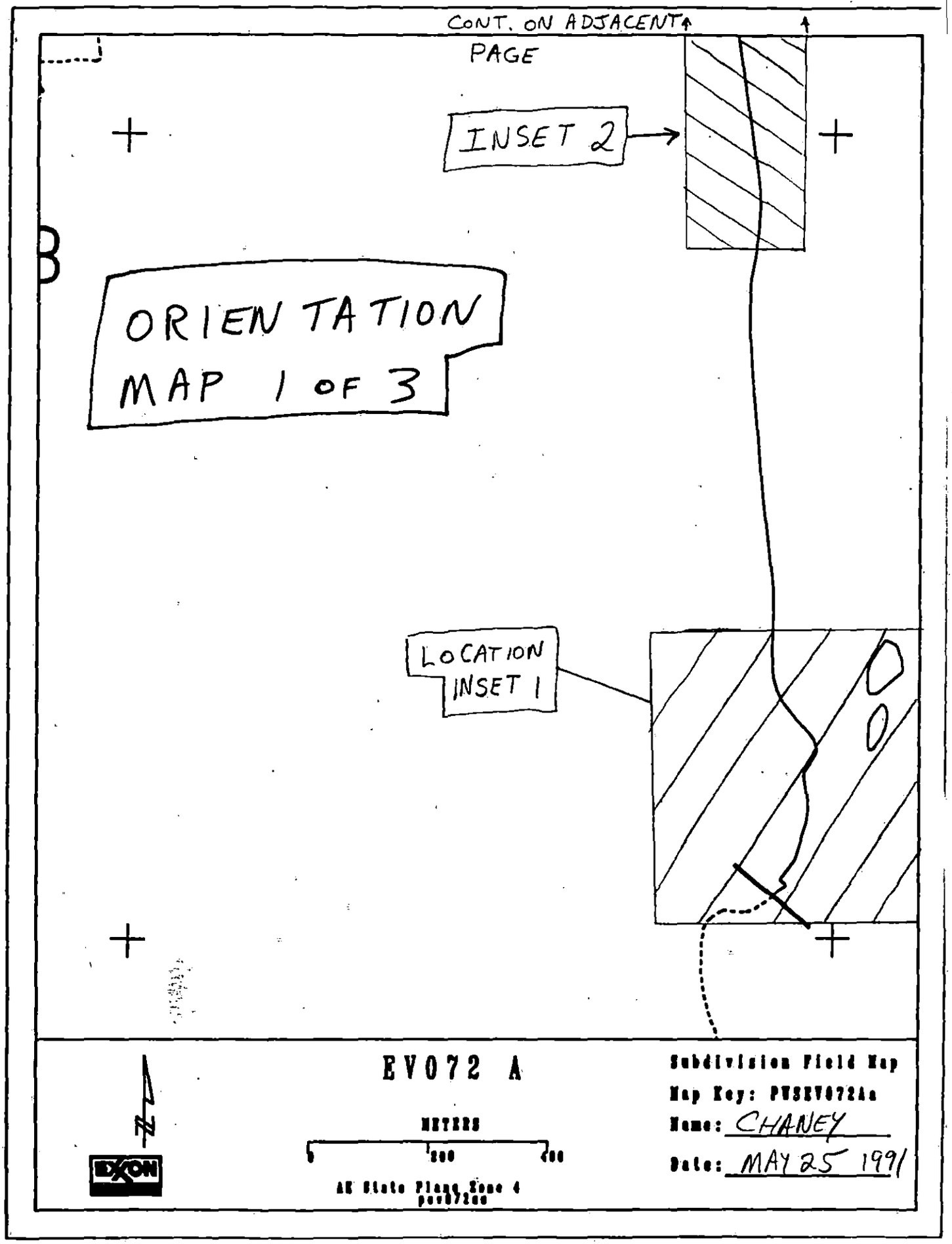
TEAM NO. 5

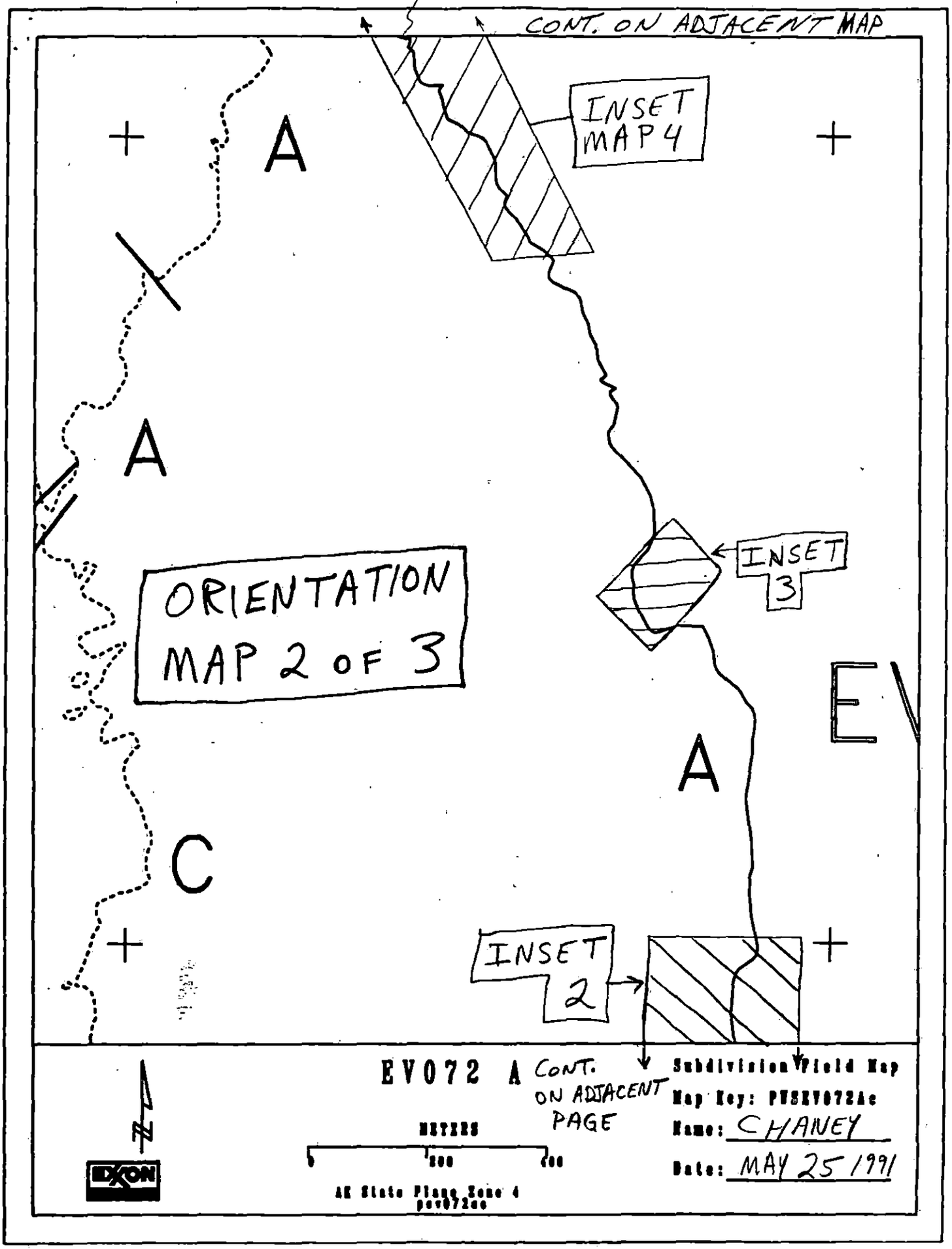
SEGMENT EV-72 SUBDIVISION A DATE MAY, 25 / 91

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
10	30							✓	-		—	—		✓			PC-PCG	
11	30							✓	-		—	—		✓			P-PC	
12	30							✓	-		—	—		✓			PG-PGC	
13	35							✓	-		—	—		✓			PG-PGC	
14	15							✓	-		5	N		✓			BP-BP	
15	20							✓	-		—	—		✓			PC-PCB	
16	20							✓	-		—	—		✓			PG-PGB	
									-									
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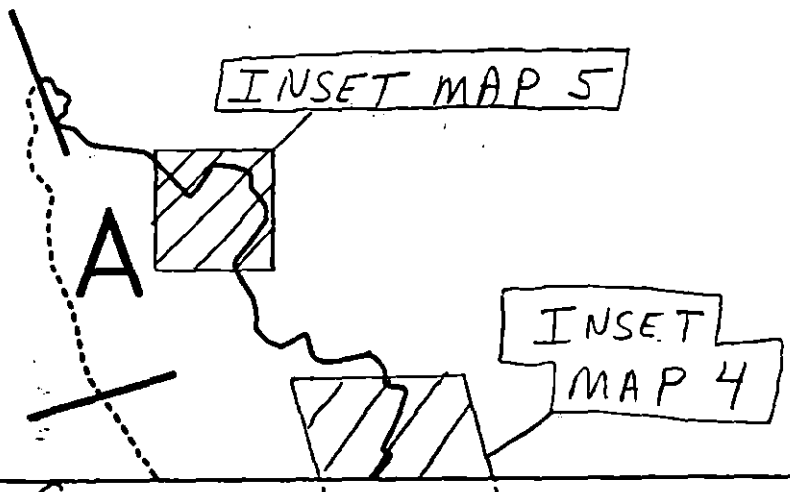
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:


CONT. ON ADJACENT PAGE
INSET 2
ORIENTATION MAP 1 OF 3
LOCATION INSET 1
EV072 A
METERS
AK State Plane Zone 4
Subdivision Field Map
Map Key: PTSEV072An
Name: CHANEY
Date: MAY 25 1991


CONT. ON ADJACENT MAP
INSET MAP 4
A
A
ORIENTATION MAP 2 OF 3
INSET 3
A
C
INSET 2
EV072 A
CONT. ON ADJACENT PAGE
METERS
300
600
AE State Plane Zone 4
pev072aa
Subdivision Field Map
Map Key: PESEV072Ac
Name: CHANEY
Date: MAY 25 1991
EXXON

ORIENTATION MAP 3 OF 3



CONT. ON ADJACENT MAP

EV072 A

METERS

200 0 200

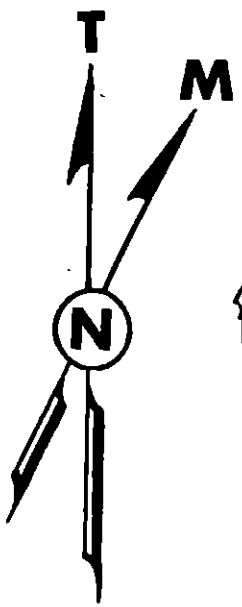
AK State Plane Zone 4

EXXON

Subdivision Field Map
Map Key: PWSEV072Ad
Name: Greg Chaney
Date: MAY 25 1991

MAY 1991
OG S CH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: 65-14

INSET #1



EVANS ISLAND

FOREST

NO OIL OBSERVED

NO SURVEY

SMALL LAKE

STREAM

TREES

NOT SURVEYED

B 2x 95m RANDOM SPLATTERS AND DROPS CT<1%

NOT SURVEYED

TREES

NO OIL OBSERVED

BAY

SHELTER

A 2x 30 RANDOM DROPS CT<1%

FEW PRE VALDEZ SPLATTERS

NO OIL OBSERVED

EV72A 28A

Revised: MC 5/30/91
reviewed 5/30/91 YG

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

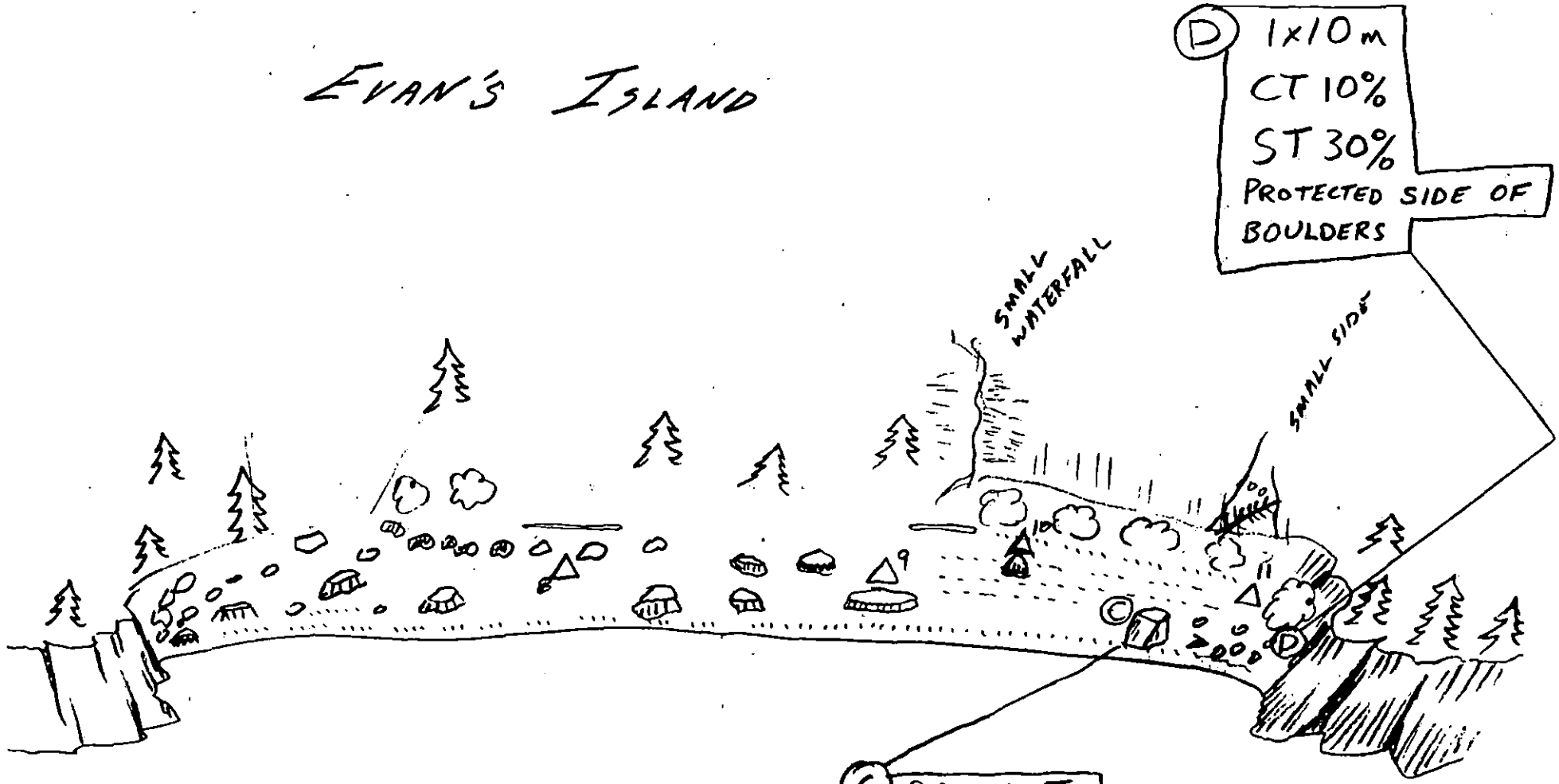
SCALE

0 100
m

INSET #2

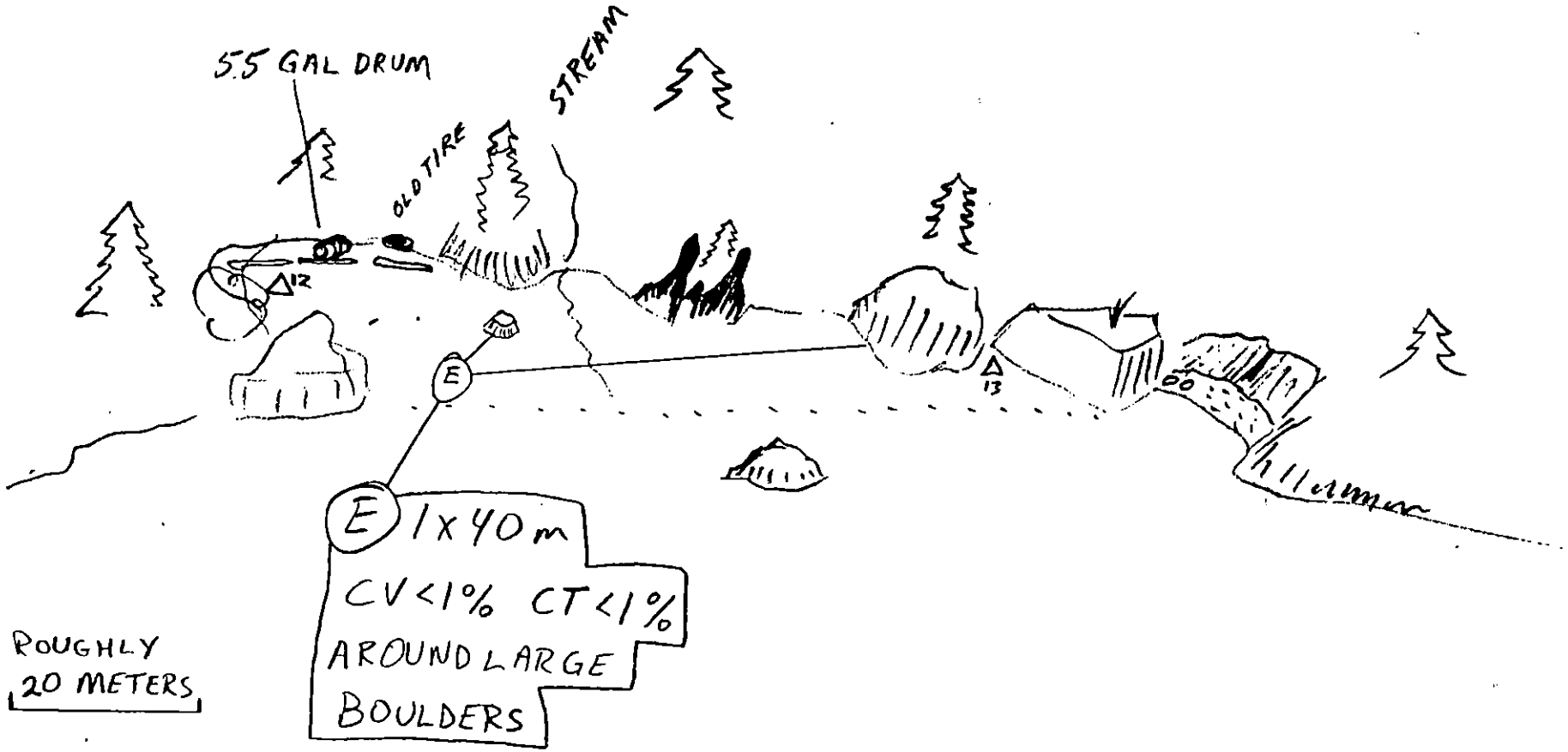
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-72 A SITE 2
DATE: MAY 25 1991
AIR P.#: NONE

REVIEWED: MC 5/30/91
reviewed 5/30/91 KG



INSET #3

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV 72A SITE 3
DATE: MAY 25 1991
AIR P.#: NONE



REVISED: MC 5/30/91
reviewed 5/30/91 GC

MAY! 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: PIMA C.005-236

INSET # 4

KNIGHT ISLAND PASSAGE

NO SURVEY

TREES

LAP PATTIE COLLECTED

(G) 2x10m 3m² SOR
CV 4m², CT 2m²
NEAR RED & WHITE BOULDER

(F) 1x3 CV<1% ON PROTECTED BOULDERS

(H) 2x25m
MS TRACE UP TO 5cm
DEEP IN BEDROCK CRACKS
CV 10% CT 10%

NO SURVEY

TREES

EVANS ISLAND

T
M
N

LEGEND

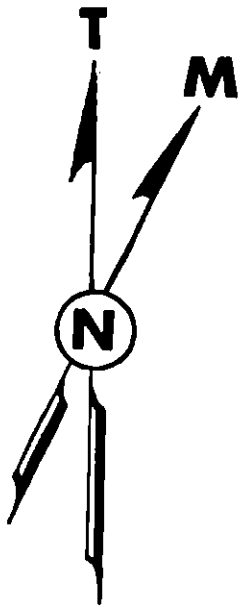
BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

0 50
m

Reviewed: MG 5/30/91
reviewed 5/30/91

MAY 8 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: PIM-C 005-236



LEGEND

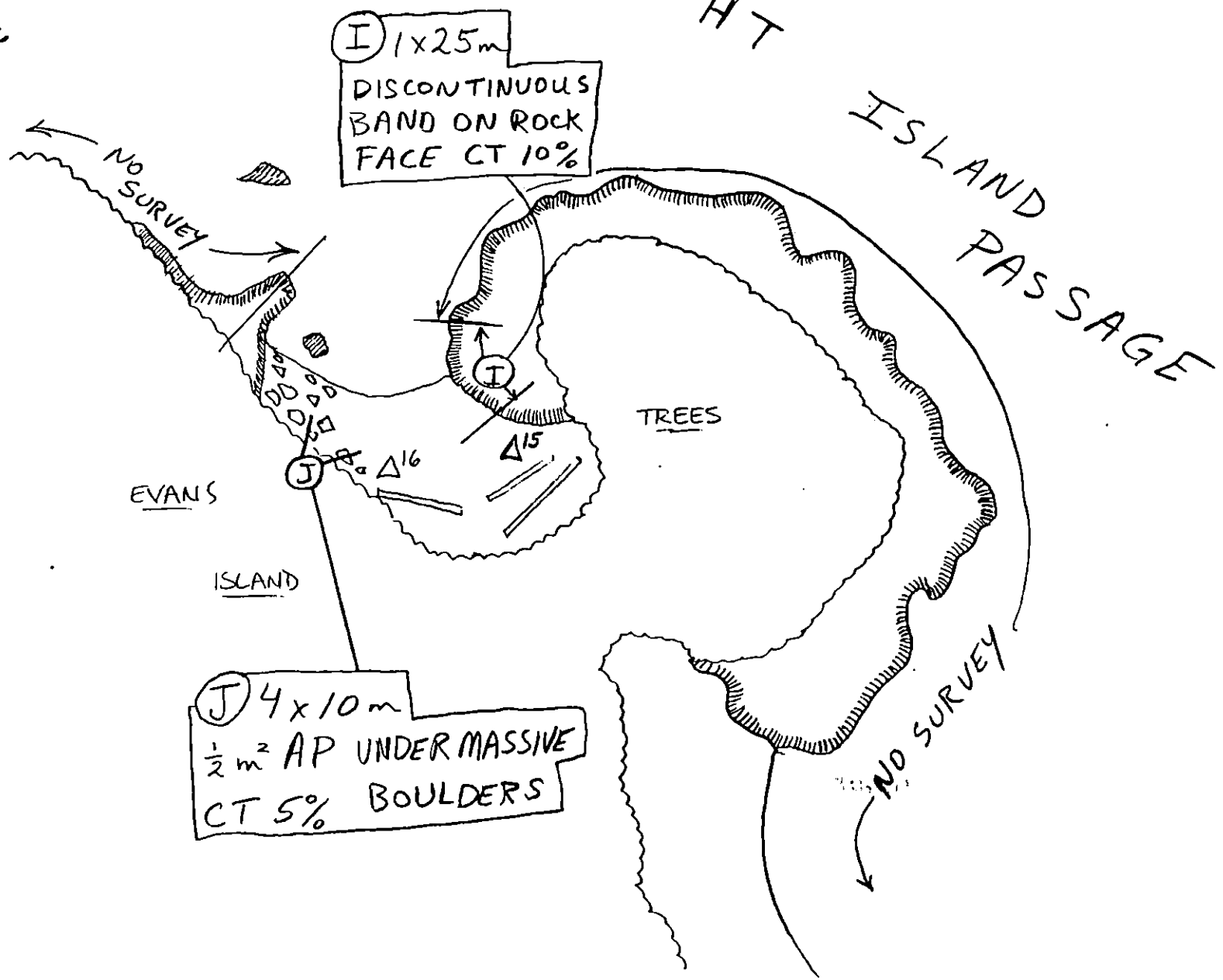
BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

0 50
m

N

INSET #5



Reviewed: MC, 5/30/91
reviewed 5/30/91 KG.

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5	**DATE** 25 May 1991
SEGMENT # EV-72	**TIDAL HEIGHT(Range)** −0.5 → +6
SUBDIVISION A	**BIOLOGIST** Crank
SEA STATE 0	**WIND SPEED/DIRECTION** <5 knots / NW
PHOTOGRAPHS: ROLL #	**FRAME #**

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

(A) Area is in the UITZ. Within the site black lichen and moss cover approximately 50% of the surface area. In the MITZ, the moderately concentrated Fucus is the dominant species. Sporelings and mature conceptacles are present. There are sparse concentrations of barnacles, Littorina and limpets. Tar spot algae is present. Biota cover is ~70%. In the LITZ, algae dominates. There are bladed and filamentous green algae, bladed red algae, coralline algae and a moderate concentration of Fucus with epiphytes. Piaster (Seastar), Nucella (whelk) and a rare concentration of barnacles are also present. Biota cover is approximately 90%.

(B) Area is located on the northern side of a pebble beach, on bedrock in the backshore. Within the site there is a rare concentration of barnacles. Biota cover is ~5%. Below the site there is a sparse concentration of Fucus and rare concentrations of barnacles and mussels. Biota cover is ~20%. In the MITZ, on the beach, there is a sparse interpebble mussel bed. Filamentous green algae is also present. Biota cover is ~10%. In the LITZ there is a moderate concentration of Fucus and a sparse to moderate concentration of mussels and barnacles. Filamentous and green algae is present. Biota cover is >80%.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3	
Seabirds	2	4	
Waterfowl	3	8	
Gulls/kittiwakes	1	23	
Shorebirds			
Corvids	1	5	
Other Birds	2	8	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Mink(?) tracks	
Pinnipeds(specify)	2 Sealions	otter scat	
Cetaceans(specify)			

Shoreline subdivision map showing important biological features attached.

RENEWED: MC 5/30/91

Team # 5
Segment # EV-72
Subdivision A
Sea State 0

Date 25 May 1991
Tidal Height -0.5 > +6
Biologist Crank
Wind Speed / Direction <5 / NW

Comments (cont.)

(B cont.) In the northern portion of the site, there is a bedrock face. Biota on the bedrock includes: Piaster (seastar); anenomes in small tidepools; Katherina tunicata (leather chiton); Scytosiphon; Halosaccion; filamentous and blade green algae; moderate concentrations of barnacles with spat; mussels of various age classes; and Fucus and sparse to moderate concentrations of Littorina and limpets, majority were juveniles. Biota cover >80%. On the granuale beach area in the LITZ in front of the bedrock there are sparse concentrations of Littorina and limpets.

(C) Area is a 0.8m band on the lee side of a large boulder in the UITZ. In the lower 0.2m there is a moderate concentration of adult, juvenile and spat barnacles. Barnacles with oil contaminated shells tightly sealed their inner plates when stimulated; a rare concentration of Littorina were also present. There is no biota in the top 0.6 m of the band. Biota cover in the lower 0.2m is ~70%.

REVIEWED: MC 5/30/91

Segment # EV-72 Tidal Height -0.5 → +6

Subdivision A Biologist Crank

Sea State 0 Wind Speed / Direction <5 / NW

Comments (cont.)

(D) Area is the UITZ on boulders at the northern end of a cobble/pebble beach. Within the site there are rare concentrations of barnacles, Fucus sporelings, Littorina, limpets and mussels. Biota cover is approximately 1%.
In the MITZ, Fucus has a dense to moderate concentration. Barnacle adults are in moderate patches and barnacle spat has a continuous distribution with a dense concentration. Littorina and limpets have a moderate concentration, many juvenile Littorina are present. Mussels are in sparse patches. Scytosiphon and filamentous green algae are present. Biota cover is >80%.

(E) Area is located in the UITZ on the lee side of a boulder. No macrobiota was located in the site. Directly below the site there are rare to sparse concentrations of Fucus (with sporelings), Littorina and limpets. Biota cover ranges from 1 to 10%. The beach in the MITZ is sand/granuale with some cobble and boulder. There is fresh water runoff. Barnacles, Fucus, mussels and Scytosiphon cover 10-20% on the cobble and boulder and <1% on the sand/granuale.

(Area is located on the lee side of a large boulder in the UITZ. No macrobiota was found within the oil band. 20 cm below the site rare barnacles and limpets cover ~5% of the boulder surface. In the MITZ on the beach moderate concentrations of Fucus, Littorina and limpets and rare barnacles cover ~60% of the boulders.

REVIEWED: MC 5/30/91

Team # 5
Segment # EV-72
Subdivision A
Sea State 0

Date 25 May 1991
Tidal Height -0.5 → 1.6
Biologist Crank
Wind Speed / Direction <5/NW

Comments (cont.)

(G) Area is located high in the UITZ. No macrobiota was found within the site. Five meters below the site, there is a 1x2 m patch of dense Fucus sporelings. In the MITZ there are: moderate concentrations of Littorina and limpets; sparse barnacles with spat; sparse, patchy mussels and a rare concentration of Fucus sporelings. Biota cover is ~30%.

(H) Area is in the UITZ. Patches of sparsely concentrated Fucus sporelings cover ~20% of the surface sediments within the site. There is one 15 x 6 cm patch of oil mousse covered by an encrustose green algae. The MITZ is similar to area (G).

(I) Area is located on backshore bedrock in the UITZ. Encrustose green algae covers ~50% of the sediments in the site. Below the site there is a 3m² patch of sparsely concentrated Fucus sporelings. In the MITZ, barnacles, mussels, Littorina and limpets are sparsely concentrated. Enteromorpha (filamentous green algae) is also present. Biota cover is ~30%. On the pebble beach there is <1% biota cover.

(J) Area is in the UITZ, under drift logs. No macrobiota was found in the site. Below the site filamentous green algae is dominant and sparse concentrations of Fucus, barnacles and tar spot algae is present. Biota cover is ~70%.

Reviewed: MC 5/30/91

U.S. FISH AND WILDLIFE SERVICE (FWS)
SHORELINE ACTIVITY/BALD EAGLE IMPACT EVALUATION

Date 5/25/91 Shoreline Segment/Subdivision EV 72A

Shoreline activity Assessment Team Survey

	Time - Begin	Time - End
FWS Observer		
Surveyors/workers		

Nest in view/monitored: [Y] N Adult in nest: [Y] N Unk.

Adverse eagle response: Y [N] Adult left nest: Y [N] Unk.

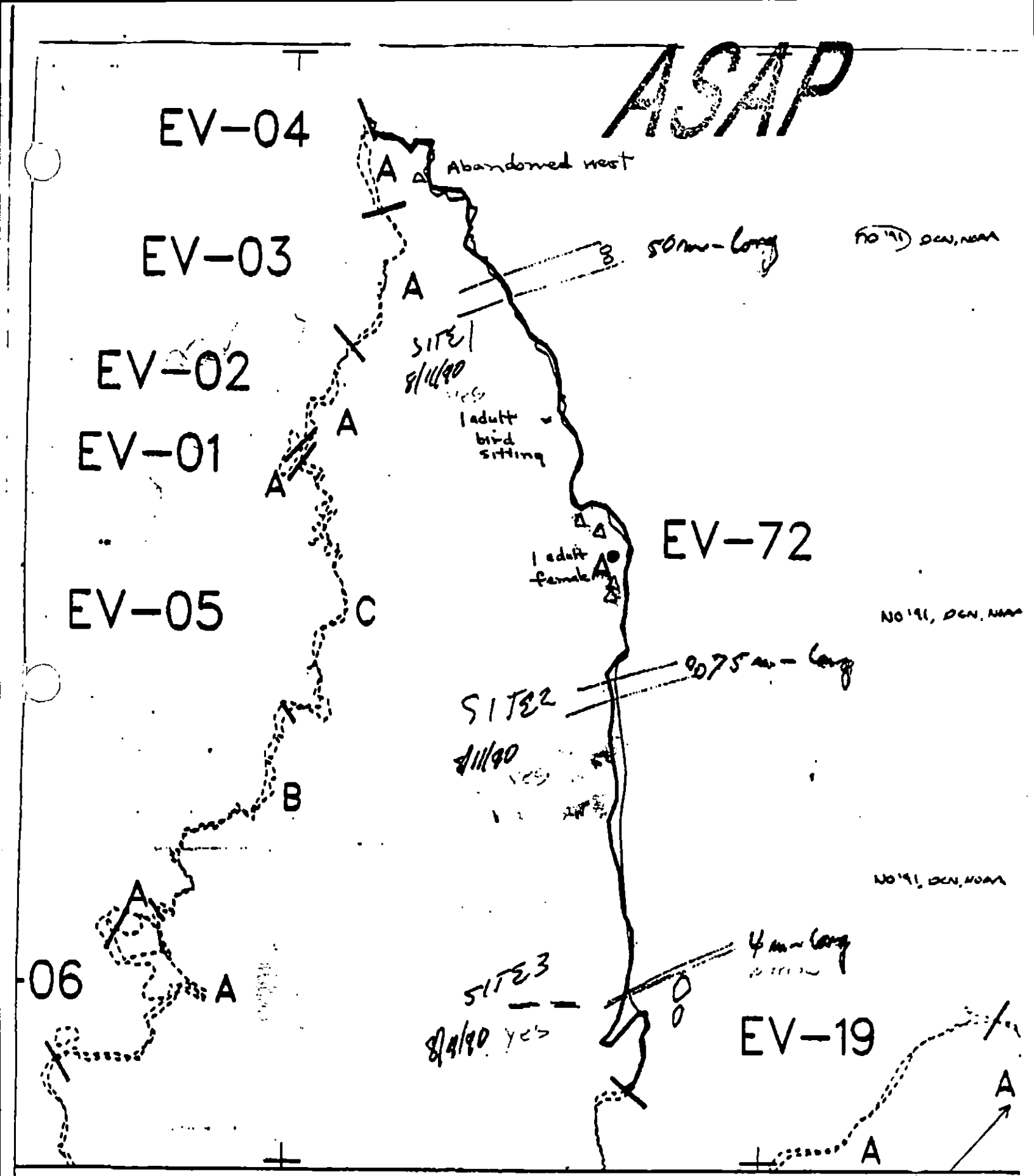
Time	Type of human activity/eagle response
	Four abandoned nests were shown on the eagle survey map. One additional abandoned nest was found on the north end. One adult bird was sitting on the shoreline 400 yds. north of the active nest. An active nest was located with a female in the nest. The survey crew worked on a pocket beach 200 yds from the nest. The bird was not disturbed

Survey/work activities completed: [Y] N

Personnel withdrawn due to eagle conflict: Y [N]

Recommendations: A monitor is required around the active nest. However the bird seemed calm and no problems were encountered.

FWS Observer Mike Lube Date 5/26/91



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

EV-72 A

ADEC Subsegment Length: 4564m

METERS

0 454 909

AK State Plane Zone 4 1:17893

Subdivision Field Map

Map Key: PWSEV-72A

Name: NAKASHIMA

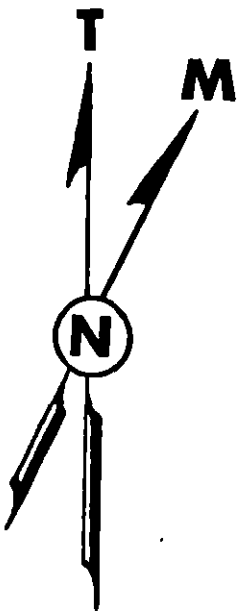
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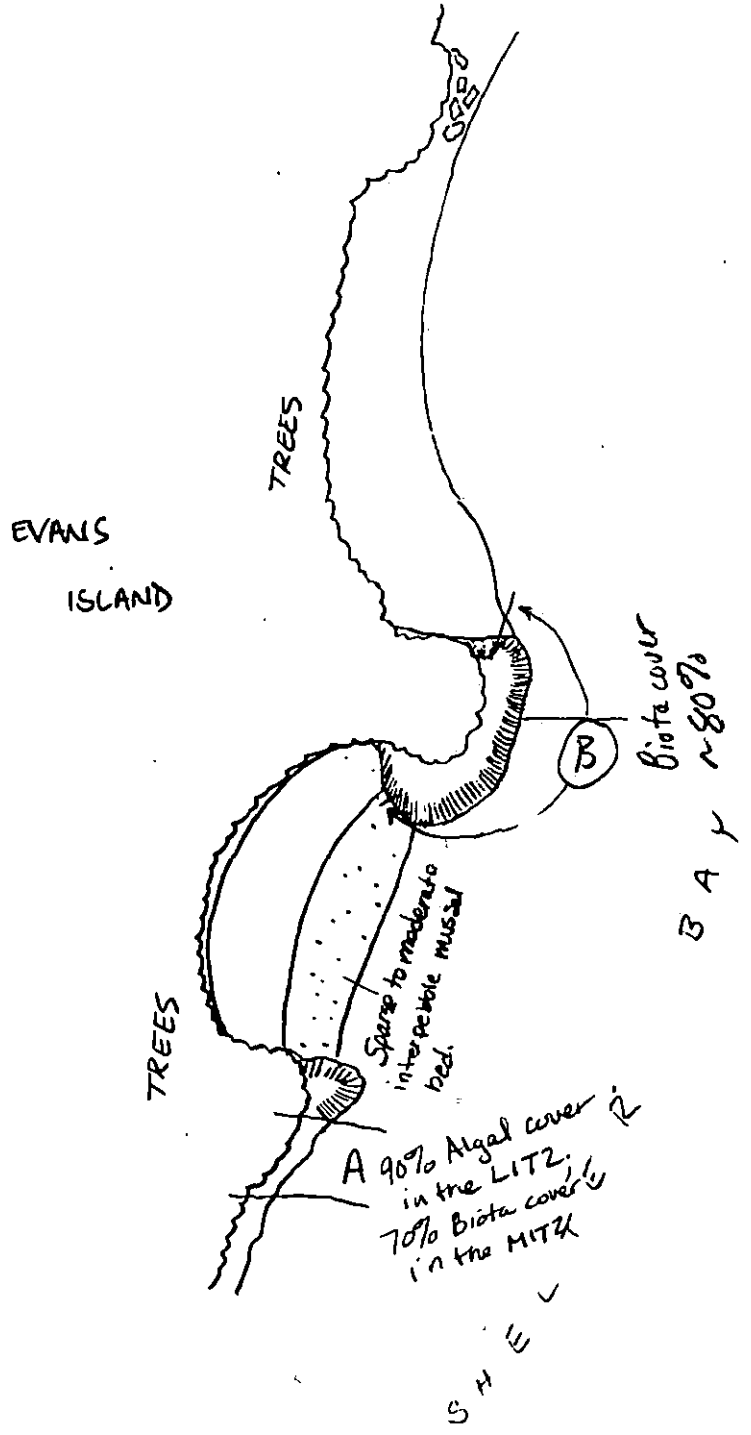
Date Entered:

MAP 1991
OG SKETCH MAP/ Bio
GREG CHANEY / DON CLINE / Crank
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: 6S-14

BIO MAP
P.C. CRANK

INSET #1





LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

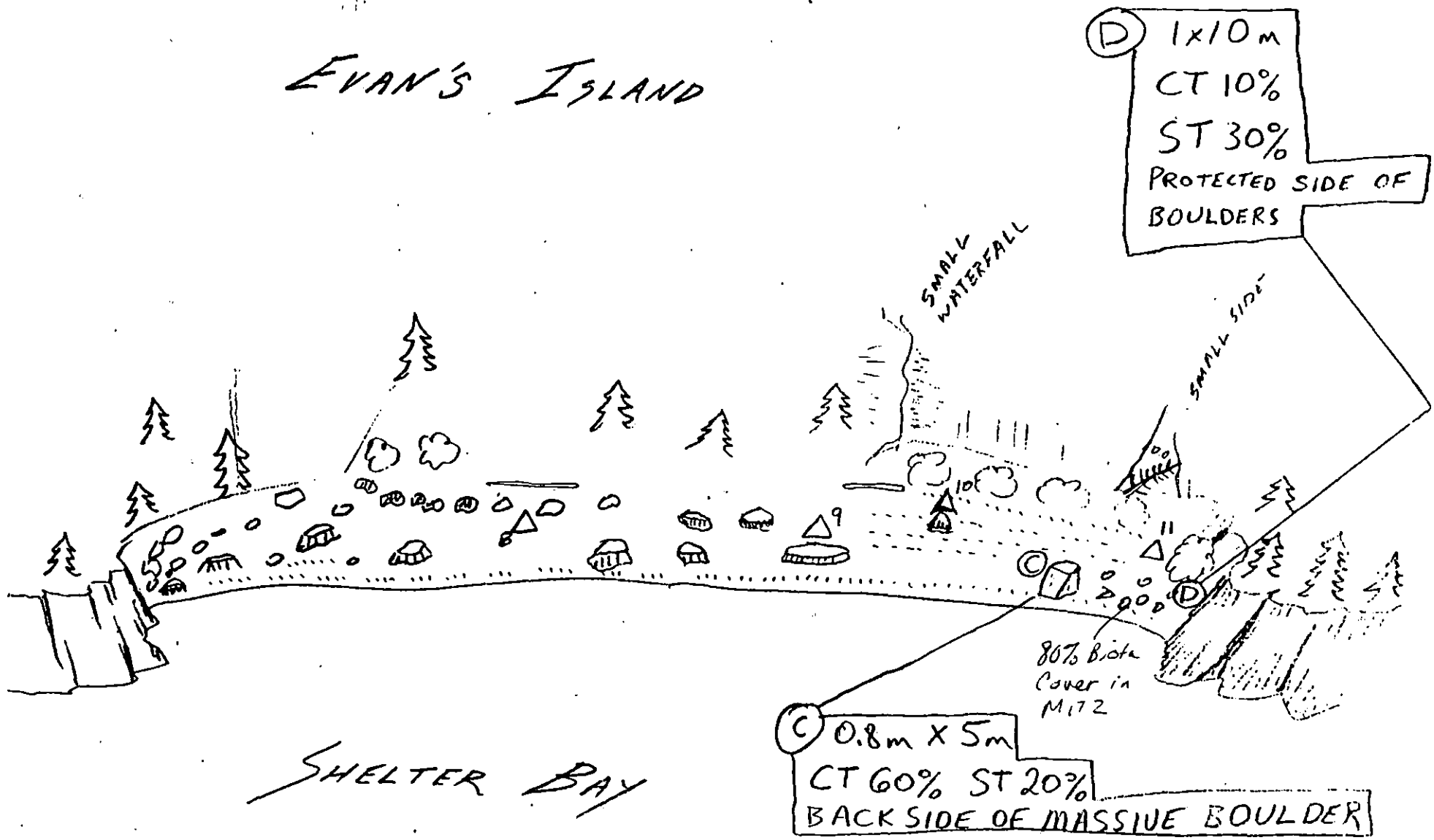
0 100

M

INSET #2

MAYSAP 1991
DG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-72 A SITE 2
DATE: MAY 25 1991
AIR P.#: NONE

BIG MAP
P. CRANK



INSET #3

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV 72A SITE 3
DATE: MAY 25 1991
AIR P.#: IVO/VE

BIG MAP.
P. CRANK



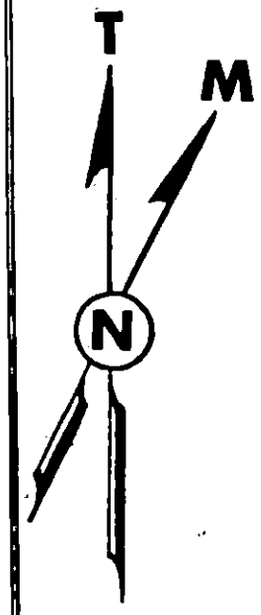
E 1x40m
CV<1% CT<1%
AROUND LARGE
BOULDERS

10-20% biota cover on cobble and boulders
<1% on sand and gravel

ROUGHLY
20 METERS

MAYSAP 1991
OG SKETCH MAP/Bio Map
GREG CHANEY/DON CLINE/Crane
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25/1991
AIR P.#: PIM C 005-236

INSET #4 BIO MAP
P.C.BANK



KNIGHT PASSAGE

TREES

Biota cover ~ 30%

40% Biota cover in the MITZ on boulders

A

G

F

EVANS ISLAND

TREES

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

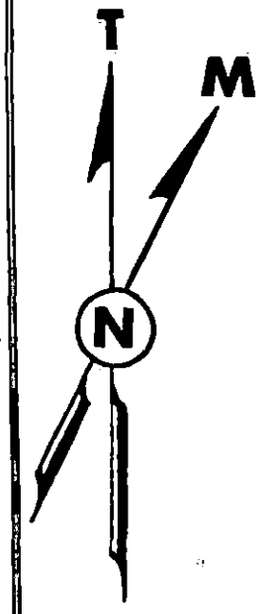
0 50

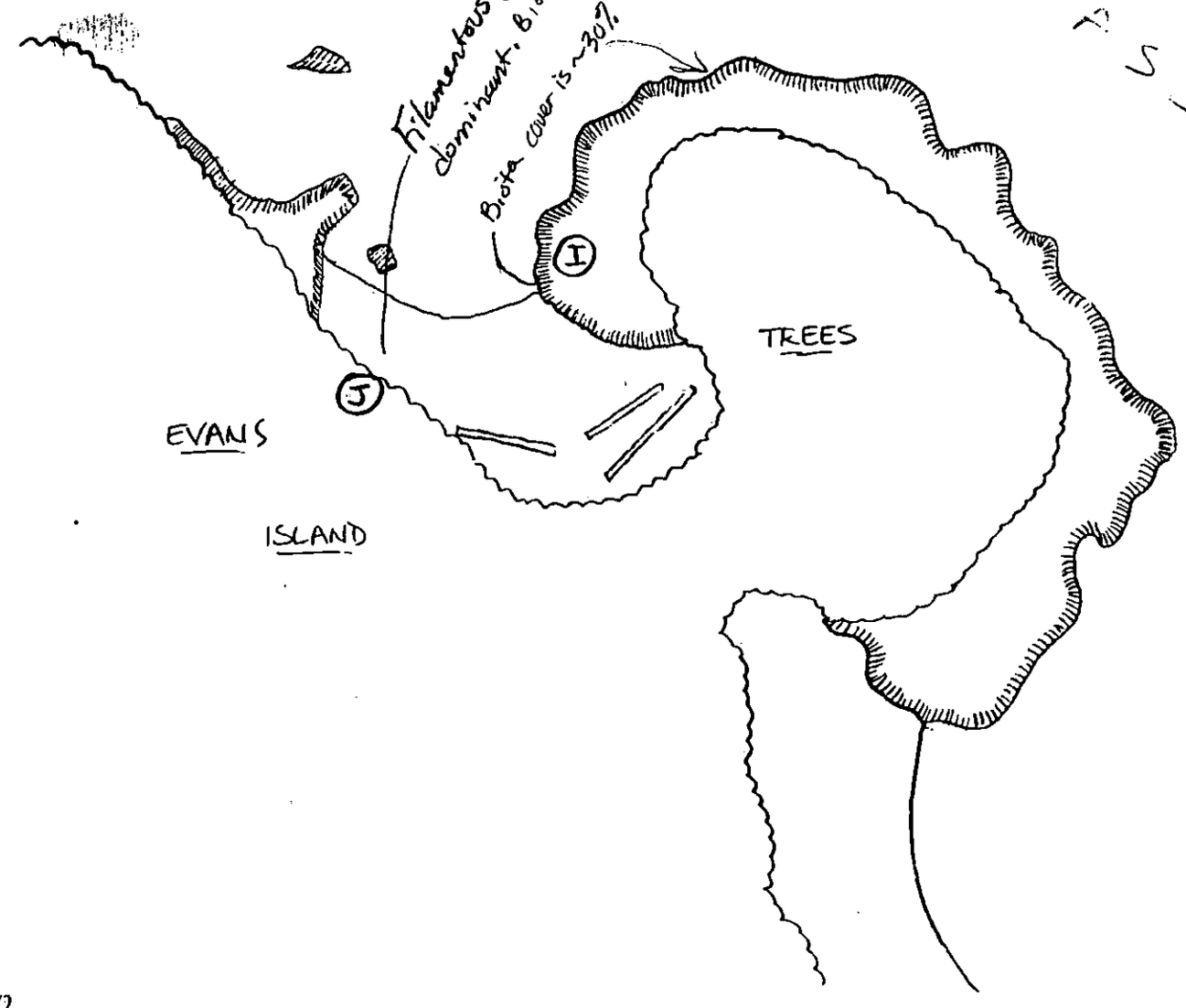
m

MAP 1991
OG SKETCH MAP / Bio Map
GREG CHANEY / DON CLINE / Crank
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: PIM-C 005-236

INSET #5

MAP
P. CRANK





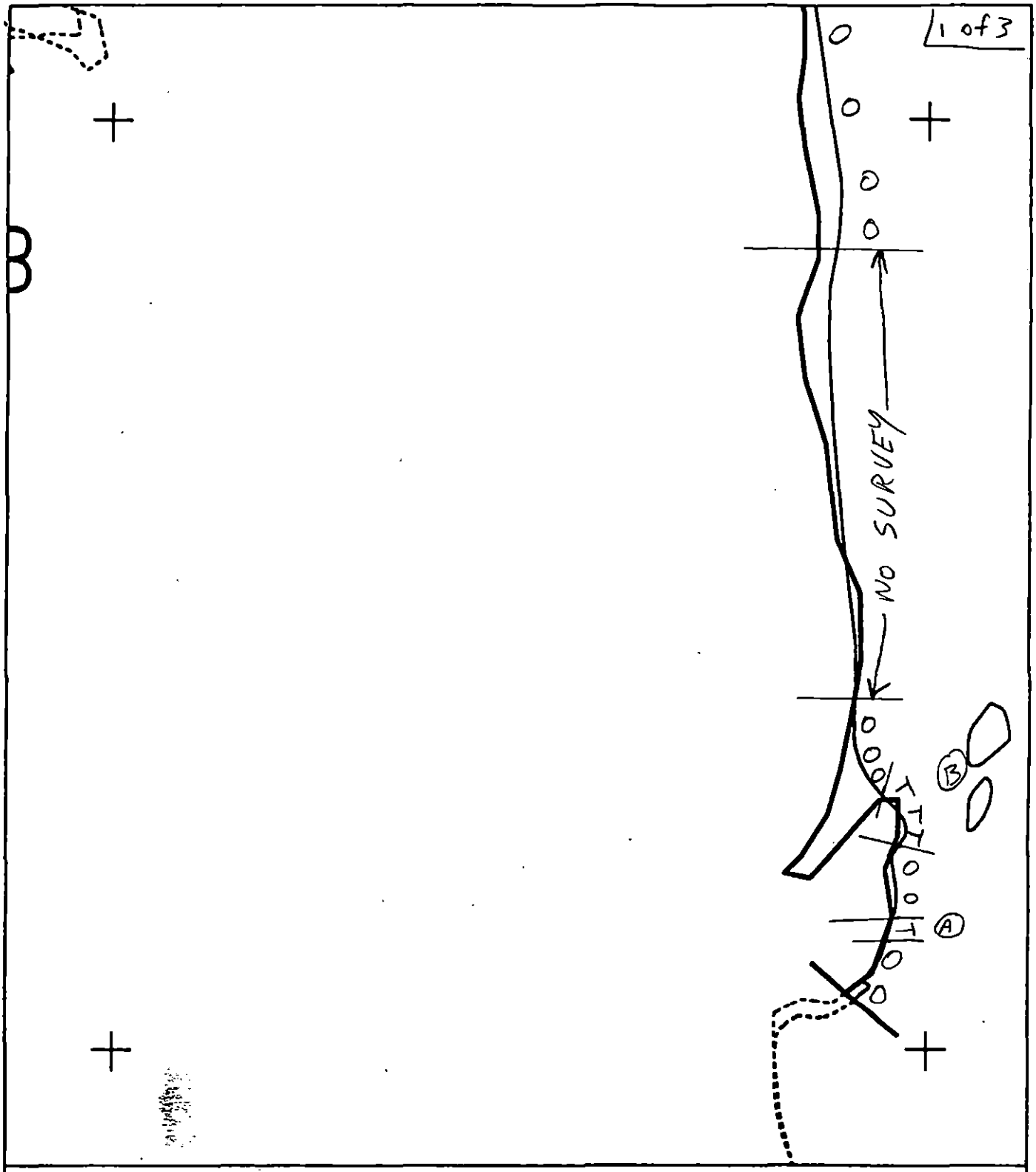
LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

0 50

M



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

EV072 A

ADEC Subsegment Length: 4564m

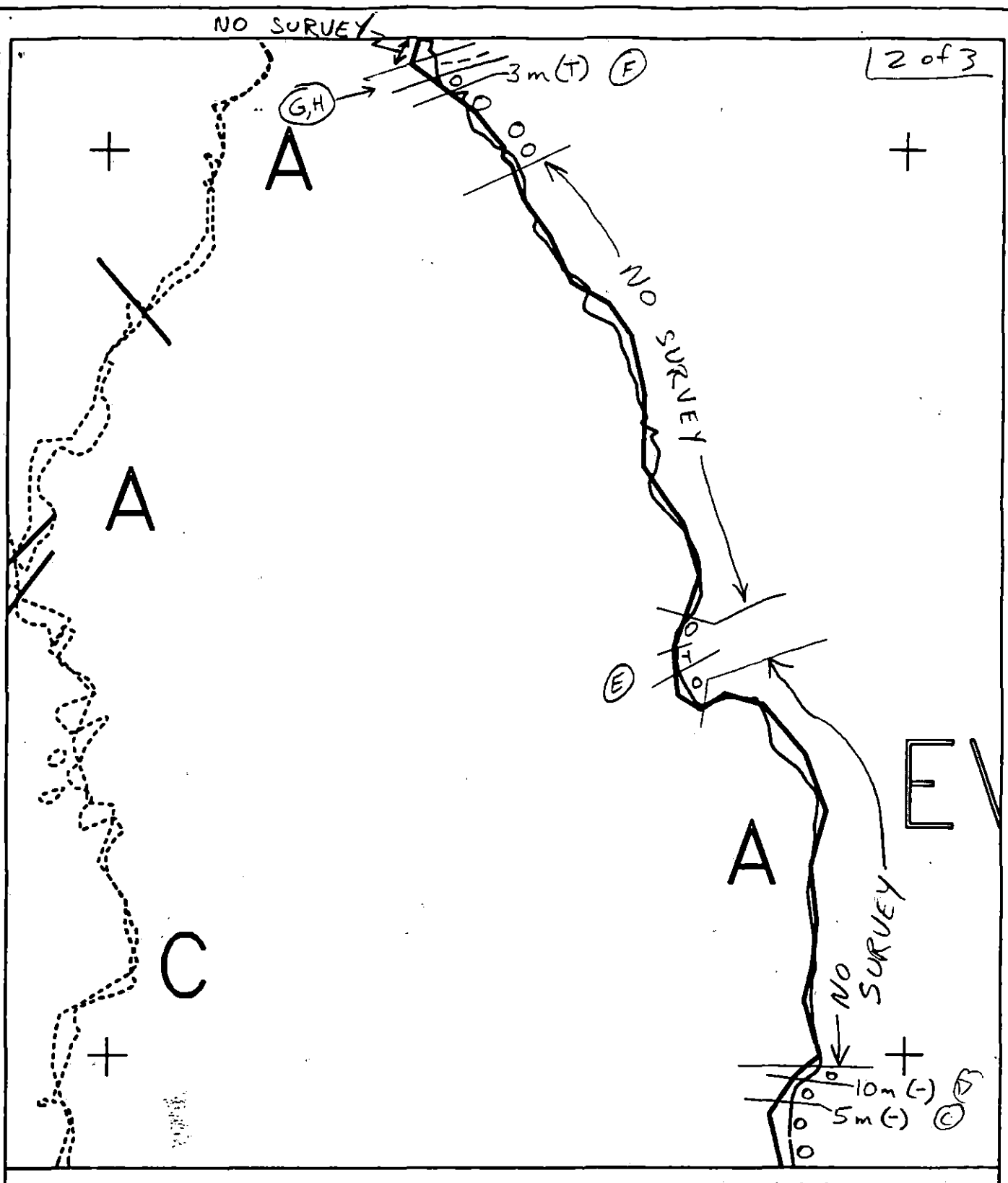
METERS

0 200 400

AK State Plane Zone 4
pev072aa

Subdivision Field Map
Map Key: PWSEV072Aa
Name: CHANEY
Date: MAY 25/1991
Date Entered:

Reviewed: MC 5/30/91
reviewed 5/30/91 KG



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

EV072 A

ADEC Subsegment Length: 4564m

METERS

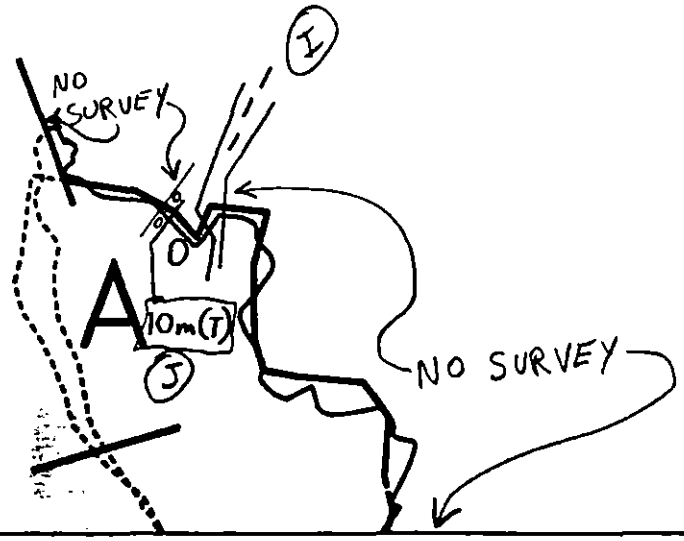
0 100 200 400

AK State Plane Zone 4
pev072aa

EXXON

Subdivision Field Map
Map Key: PWSEV072Ac
Name: GREG CHANEY
Date: MAY 25 1991
Date Entered:

REVIEWED: MC 5/30/91
reviewed 5/30/91



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

EV072 A

ADEC Subsegment Length: 4584m

METERS

0 200 400

AK State Plane Zone 4
pev072ad

N

EXXON

Subdivision Field Map
Map Key: PWSEV072Ad
Name: Greg Chaney
Date: MAY 25 1991
Date Entered:

Reviewed: 5/30/91 mc
reviewed 5/30/91

1991 MAYSAP EVALUATION

SEGMENT: EV 072 SUB: A REGION: PWS SURVEY DATE: 5/25/91

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

Ecological/Constraints (see page two for details) Eagle nest, Subsistence - Deer harvesting, Subsistence - Finfish harvesting

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE:_____ FOSC APPROVAL DATE:_____

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Subsistence - Deer Harvesting: Unlimited treatment prior to 8/15.

Subsistence, Finfish Harvesting: Unlimited treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV 72 SUBDIVISION A DATE MAY 25 91

ADEC
NAME John Hayes SIGNATURE

☐ NTR @ Survey Recommended Invalid Survey, team did not survey 4 pocket beaches and aprox 3/4 mile of boulder shoreline.
@ Tracer Recommended Oiling observed was SOR/H, MS. CV, CT and AP. Recommend manual pickup of pooled oil in Area H. Additionally recommend additional further surveying during a time window that is sufficient time for this long segment.

EXXON
NAME JOHN DEAN SIGNATURE

☑ NTR NO OIL OBSERVED IN RECOVERABLE QUANTITY, CHARACTER, OR LOCATION.

LANDMANAGER
NAME [illegible] OF CVC SIGNATURE Steve WARD

☐ NTR Pooled ~~oil~~ oil in one Section of Sub-Div. Shall be Recovered. tar-mat - Broken Asphalt Blend. Asphalt patties - Chenega Local Resource

NO-BIO.

USCG/NOAA
NAME DREHER / CLEVG SIGNATURE CWO K. L. Dreher

☑ KRD NTR Observed only minute traces of CV, CT, DS - no recoverable quantity. KRD

No subsurface oiling was observed. Surface oiling included CV + CT, and one isolated area of fluid mousse. AP was observed in areas difficult to work in (beneath large boulders).

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 72

ADEC HAYES LANDMANAGER WARD for CUC SUBDIVISION A

EXXON DEAN USCG/NOAA DREHER/CLINE DATE MAY 1,25 / 91

TIME 06 : 30 to 10 : 00 TIDE LEVEL -0.5 ft. to +6 ft. ENERGY LEVEL: ☐ H ☑ M ☐ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1700 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N 75 m VL 178 m NO 1447 m US 2864 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					RB	VH	2	30		✓			RANDOM DROPS CT
B						T					RB	VH	2	95		✓			" " "
C						B	P				B	V	0.8	5		✓			MASSIVE BOULDER LEE
D						S	P				B	H	1	10		✓			PROTECTED SIDES BOULDE
E					I	T					B	V	1	40		✓			AROUND BOULDER
F					I						B	V	1	3		✓			PROTECTED BOULDE
G				P	P	S					B	H	2	10		✓			1 Pattie AP COLLECTE
H		T			S	S					RB	HV	2	25		✓			MS UP TO 5cm IN RCK
I						S					R	V	1	25		✓			
J	S					S					B	H	4	10		✓			AP under Massive Boulders

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- 5 - 23 FRAMES 16-19

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	20							✓	-	—	—	—		✓			CPG-CPG	
2	40							✓	-		—	—		✓			PG-PG	
3	35							✓	-		—	—		✓			PG-PG	
4	30							✓	-		—	—		✓			P-P	
5	40							✓	-		—	—		✓			P-P	
6	30							✓	-		—	—		✓			P-PG	
7	20							✓	-		—	—		✓			PG-PGB	
8	30							✓	-		—	—		✓			PG-PG	
9	40							✓	-		—	—		✓			PG-PG	

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

OG COMMENTS: FIVE LOCATIONS WHICH REQUIRED TREATMENT IN 1990 WERE SURVEYED. MOST OF THE OIL OBSERVED WAS IN THE FORM OF CV & CT ON PROTECTED SIDES OF BOULDERS.

REVISED: MC 5/30/91
revised 5/30/91

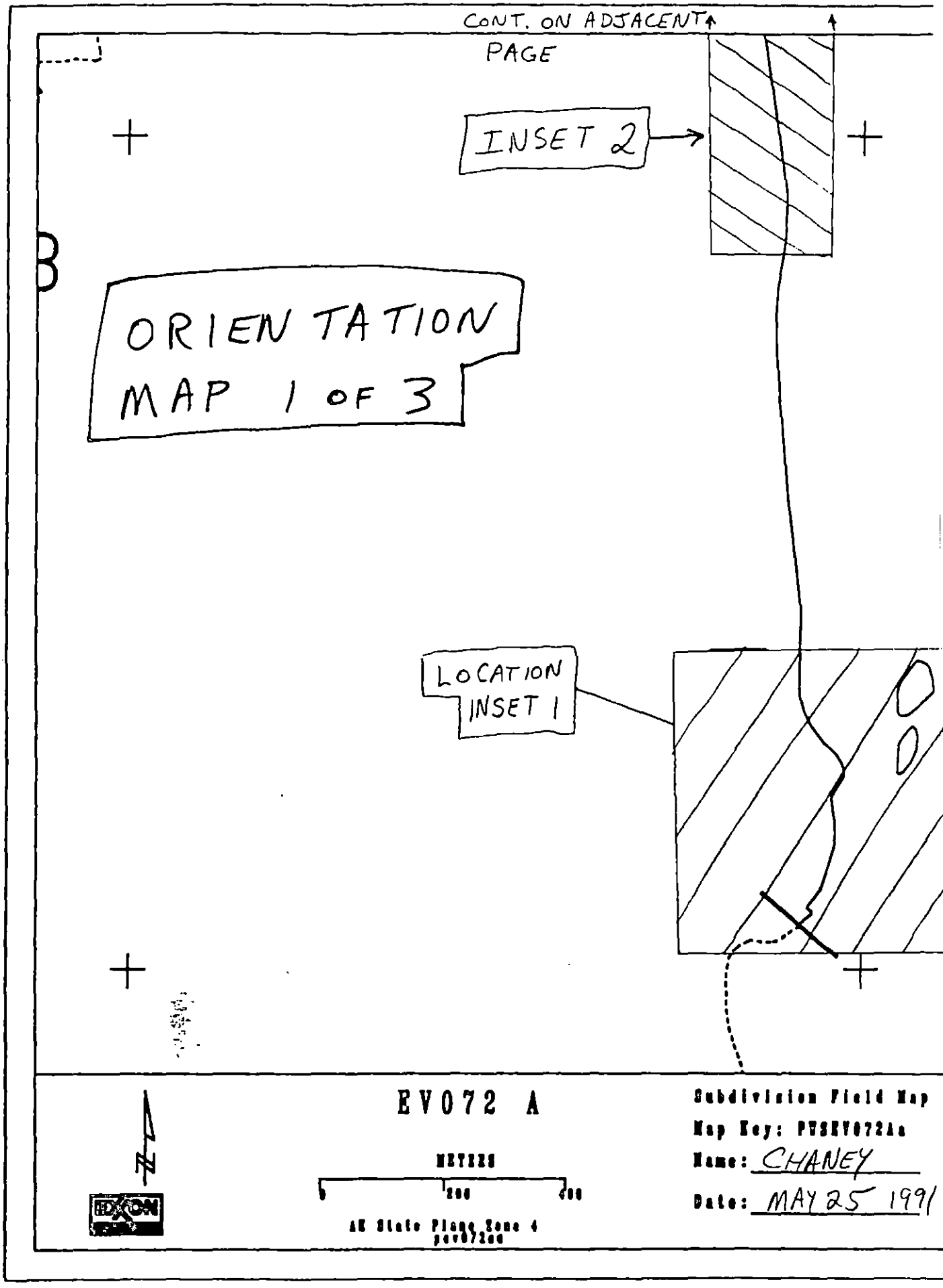
TEAM NO. 5

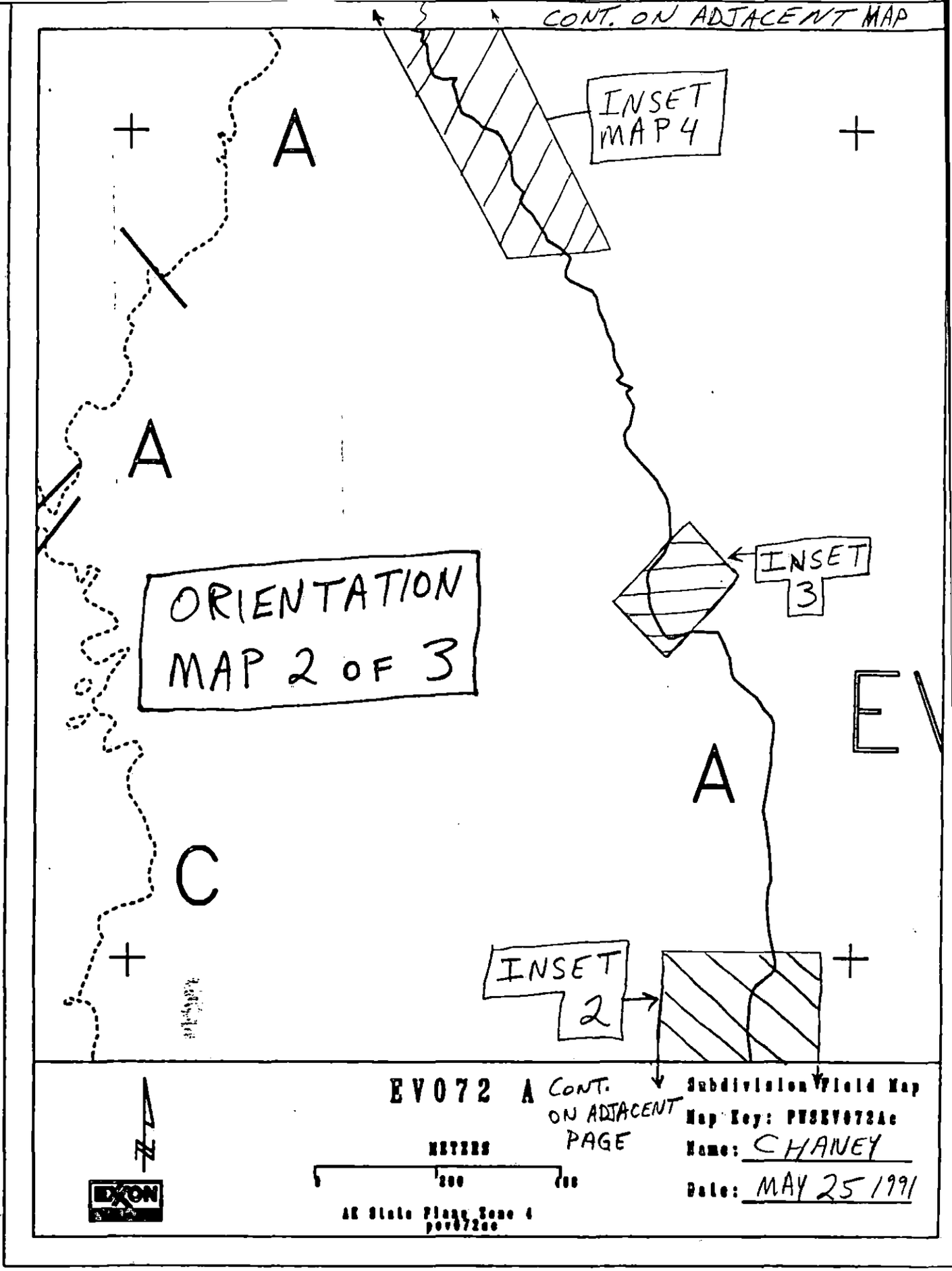
SEGMENT EV-72 SUBDIVISION A DATE MAY 1, 25 / 91

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		
10	30							✓	-		—	—		✓			PC-PCG	
11	30							✓	-		—	—		✓			P-PC	
12	30							✓	-		—	—		✓			PG-PGC	
13	35							✓	-		—	—		✓			PG-PGC	
14	15							✓	-		5	N		✓			BP-BP	
15	20							✓	-		—	—		✓			PC-PCB	
16	20							✓	-		—	—		✓			PG-PGB	
									-									
									-									
									-									
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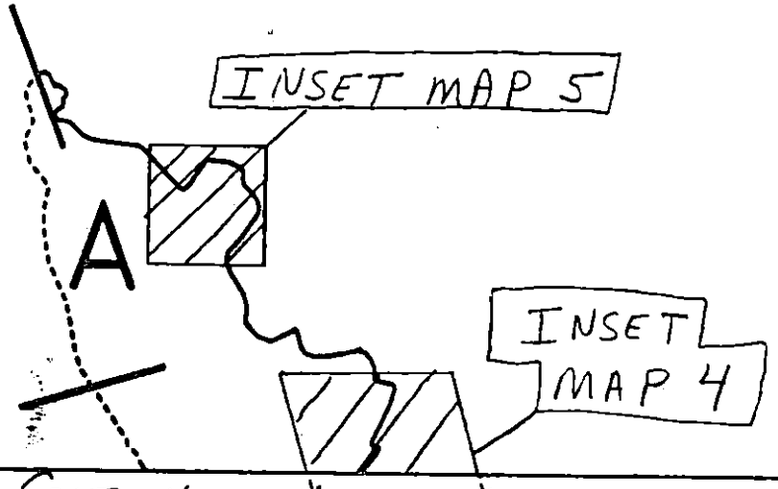
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

OG COMMENTS:


CONT. ON ADJACENT PAGE
INSET 2
ORIENTATION MAP 1 OF 3
LOCATION INSET 1
EV072 A
Subdivision Field Map
Map Key: PVSEV072Aa
Name: CHANEY
Date: MAY 25 1991
AK State Plane Zone 4


CONT. ON ADJACENT MAP
INSET MAP 4
A
A
ORIENTATION MAP 2 OF 3
INSET 3
A
C
INSET 2
EV072 A CONT. ON ADJACENT PAGE
METERS
AK State Plane Zone 4
Subdivision Field Map
Map Key: PUSEV072Ac
Name: CHANEY
Date: MAY 25 1991

ORIENTATION MAP 3 OF 3



CONT. ON ADJACENT MAP

EV072 A

METERS

0 100 200

AK State Plane Zone 4 NAD27

EXXON

Subdivision Field Map

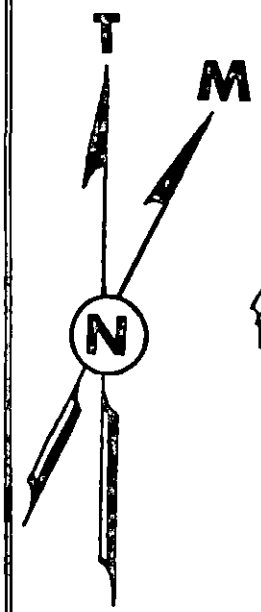
Map Key: PUSEV072Ad

Name: Greg Chaney

Date: MAY 25 1991

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: 65-14

INSET #1



EVANS ISLAND

FOREST

NO OIL OBSERVED

NO SURVEY

SMALL LAKE

STREAM

TREES

NOT SURVEYED

B 2x 95m RANDOM SPLATTERS AND DROPS CT<1%

NOT SURVEYED

TREES

NO OIL OBSERVED

BAY

SHELTER

A 2x 30 RANDOM DROPS CT<1%

FEW PRE VALDEZ SPLATTERS

NO OIL OBSERVED

EV72

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

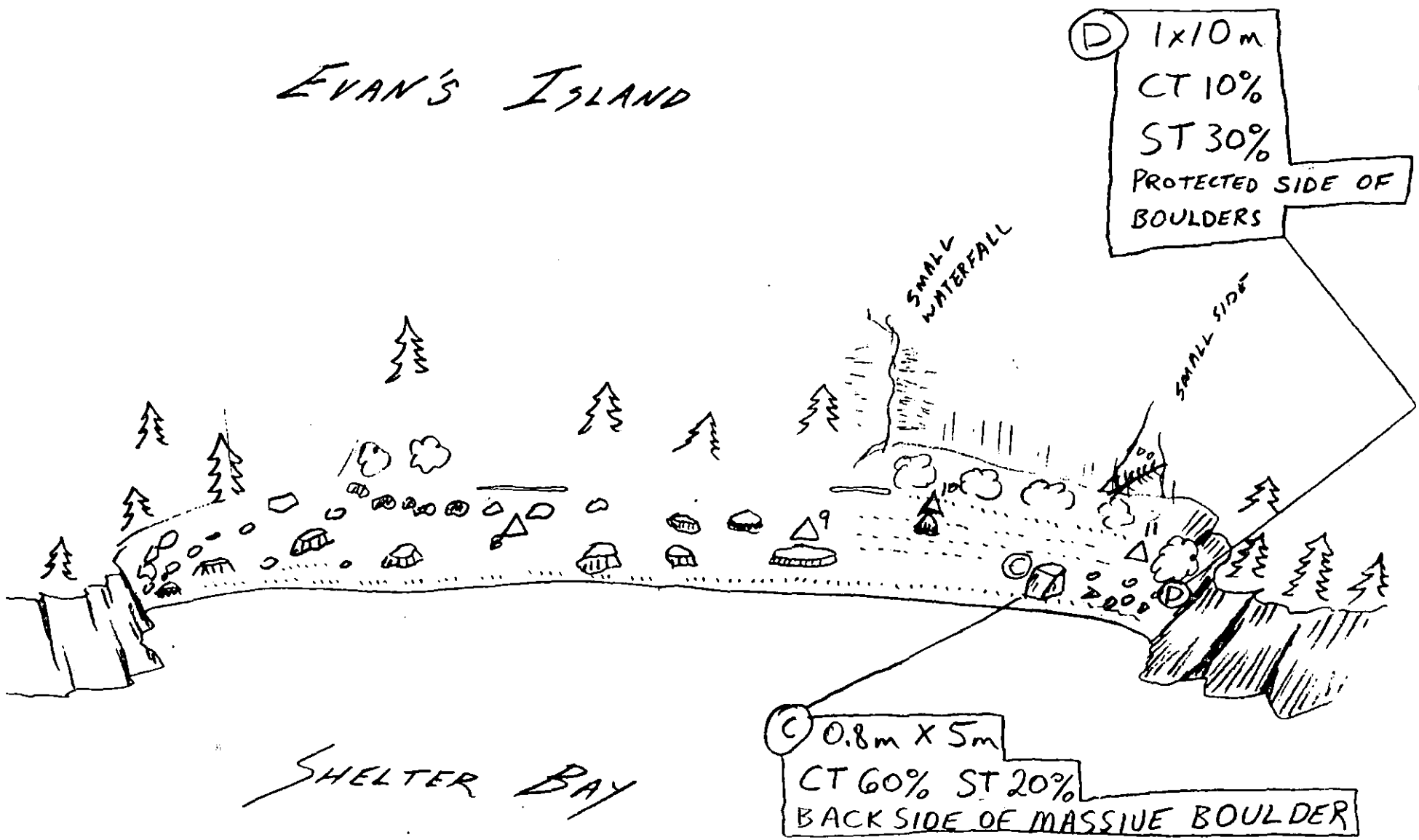
0 100

m

REVISED: MAC 5/30/91
revised 5/30/91 KS

INSET # 2

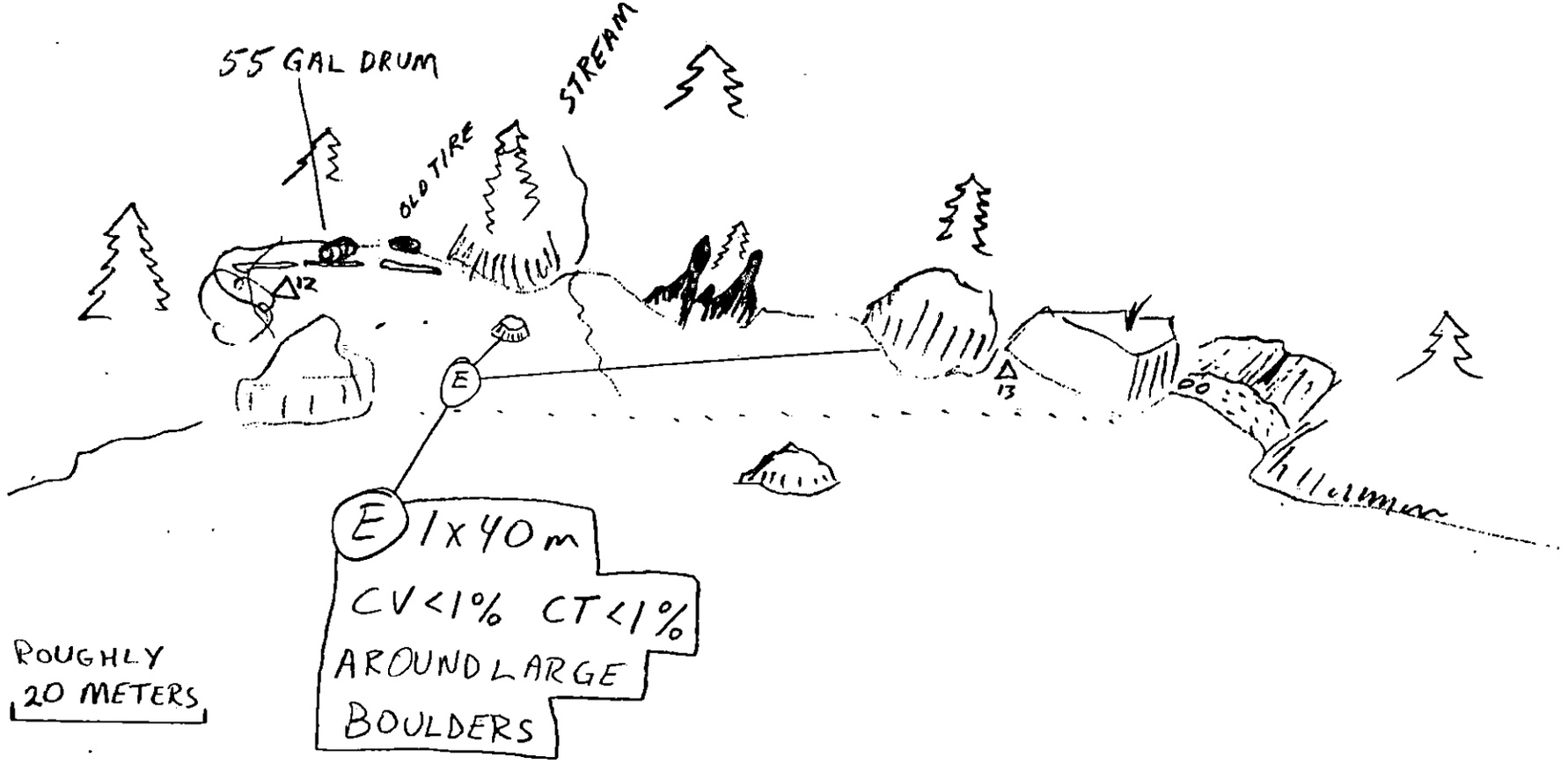
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-72 A SITE 2
DATE: MAY 25 1991
AIR P.#: NONE



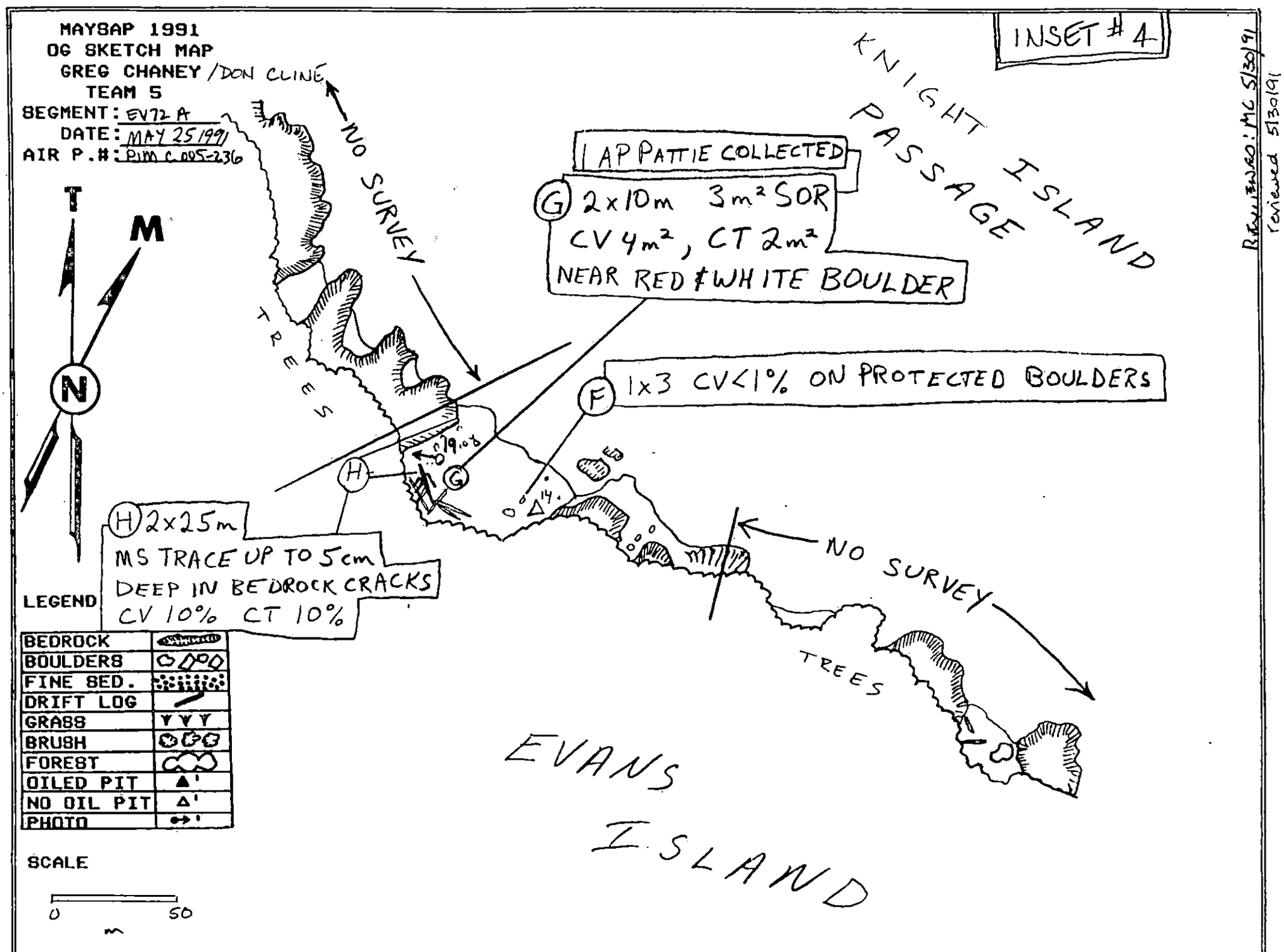
REVIEWED: MC 5/30/91
reviewed 5/30/91 KG

INSET #3

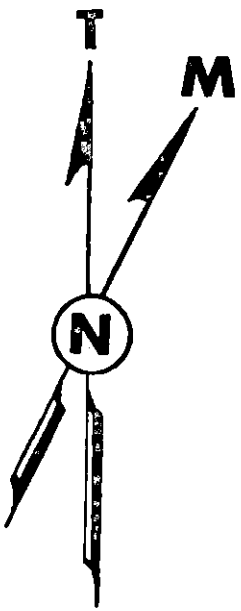
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV 72A SITE 3
DATE: MAY 25 1991
AIR P.#: NONE



REVISED: MC 5/30/91
reviewed 5/30/91 EG


MAYSAP 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: PIM C 005-236
INSET # 4
KNIGHT ISLAND PASSAGE
NO SURVEY
TREES
1 AP PATTIE COLLECTED
G 2x10m 3m² SOR
CV 4m², CT 2m²
NEAR RED & WHITE BOULDER
F 1x3 CV<1% ON PROTECTED BOULDERS
H 2x25m
MS TRACE UP TO 5cm
DEEP IN BEDROCK CRACKS
CV 10% CT 10%
NO SURVEY
TREES
EVANS ISLAND
T
M
N
LEGEND
BEDROCK
BOULDERS
FINE SED.
DRIFT LOG
GRASS
BRUSH
FOREST
OILED PIT
NO OIL PIT
PHOTO
SCALE
0
50
m
REVIEWED: MC 5/30/91
reviewed 5/30/91

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY / DON CLINE
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: PIM-C 005-236



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

0 50
m

KNIGHT ISLAND PASSAGE

INSET #5

I 1x25m
DISCONTINUOUS BAND ON ROCK FACE CT 10%

J 4x10m
½ m² AP UNDER MASSIVE BOULDERS CT 5%

NO SURVEY

NO SURVEY

TREES

EVANS ISLAND

Δ16

Δ15

Revised: MC 5/30/91
reviewed 5/30/91 KG

MAYSAP BIOLOGICAL SUMMARY FORM

Pg 1 of 2

TEAM # 5	DATE 25 May 1991
SEGMENT # EV-72	TIDAL HEIGHT(Range) −0.5 → +6
SUBDIVISION A	BIOLOGIST Crank
SEA STATE 0	WIND SPEED/DIRECTION <5 knots / NW
PHOTOGRAPHS: ROLL #	FRAME #

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

(A) Area is in the UITZ. Within the site black lichen and moss cover approximately 50% of the available area. In the MITZ, the moderately concentrated Fucus is the dominant species. Sporelings and mature conceptacles are present. There are sparse concentrations of barnacles, Littorina and limpets. Tar spot algae is present. Biota cover is ~70%. In the LITZ, algae dominates. There are bladed and filamentous green algae, bladed red algae, coralline algae and a moderate concentration of Fucus with epiphytes. Piaster (Sea star), Nucella (whelk) and a rare concentration of barnacles are also present. Biota cover is approximately 90%.

(B) Area is located on the northern side of a pebble beach, on bedrock in the backshore. Within the site there is a rare concentration of barnacles. Biota cover is ~5%. Below the site there is a sparse concentration of Fucus and rare concentrations of barnacles and mussels. Biota cover is ~20%. In the MITZ, on the beach, there is a sparse interpebble mussel bed. Filamentous green algae is also present. Biota cover is ~10%. In the LITZ there is a moderate concentration of Fucus and a sparse to moderate concentration of mussels and barnacles. Filamentous green algae is present. Biota cover is >80%.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3	
Seabirds	2	4	
Waterfowl	3	8	
Gulls/kittiwakes	1	23	
Shorebirds			
Corvids	1	5	
Other Birds	2	8	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Mink(?) tracks	
Pinnipeds(specify)	2 Sealions	Otter scat	
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed: MC 5/30/91

Team # 5
Segment # EV-72
Subdivision A
Sea State 0

Date 25 May 1991
Tidal Height -0.5 > +6
Biologist Crank
Wind Speed / Direction <5 / NW

Comments (cont.)

(B cont.) In the northern portion of the site, there is a bedrock face. Biota on the bedrock includes: Piaster (seastar); anemones in small tidepools; Katherina tunicata (leather chiton); Scytosiphon; Halosaccion; filamentous and sheet green algae; moderate concentrations of barnacles with spat; mussels of various age classes; and Fucus and sparse to moderate concentrations of Littorina and limpets, majority were juveniles. Biota cover >80%. On the granuale beach area in the LITZ in front of the bedrock there are sparse concentrations of Littorina and limpets.

(C) Area is a 0.8m band on the lee side of a large boulder in the UITZ. In the lower 0.2m there is a moderate concentration of adult, juvenile and spat barnacles. Barnacles with oil contaminated shells tightly sealed their inner plates when stimulated; a rare concentration of Littorina were also present. There is no biota in the top 0.6m of the band. Biota cover in the lower 0.2m is ~70%.

REVIEWED: MC 5/30/91

Team # 5 — Date 25 May 1991
Segment # EV-72 — Tidal Height -0.5 → +6
Subdivision A — Biologist Crank
Sea State 0 — Wind Speed / Direction <5 / NW

Comments (cont.)

(D) Area is the UITZ on boulders at the northern end of a wood/pebble beach. Within the site there are rare concentrations of barnacles, Fucus sporelings, Littorina, limpets and mussels. Biota cover is approximately 1%.
In the MITZ, Fucus has a dense to moderate concentration. Barnacle adults are in moderate patches and barnacle spat has a continuous distribution with a dense concentration. Littorina and limpets have a moderate concentration, many juvenile Littorina are present. Mussels are in sparse patches. Scytosiphon and filamentous green algae are present. Biota cover is >80%.

(E) Area is located in the UITZ on the lee side of a boulder. No macrobiota was located in the site. Directly below the site there are rare to sparse concentrations of Fucus (with sporelings), Littorina and limpets. Biota cover ranges from 1 to 10%. The beach in the MITZ is sand/granvale with some cobble and boulder. There is fresh water runoff. Barnacles, Fucus, mussels and Scytosiphon cover 10-20% on the cobble and boulder and <1% on the sand/granvale.

(F) Area is located on the lee side of a large boulder in the UITZ. No macrobiota was found within the oil band. 20cm below the site rare barnacles and limpets cover ~5% of the boulder surface. In the MITZ on the beach moderate concentrations of Fucus, Littorina and limpets and rare barnacles cover ~60% of the boulders.

REVIEWED: MC 5/30/91

Team # 5
Segment # EV-72
Subdivision A
Sea State 0

Date 25 May 1991
Tidal Height -0.5 → 1.6
Biologist Crank
Wind Speed / Direction <5/NW

Comments (cont.)

(G) Area is located high in the UITZ. No macrobiota was found within the site. Five meters below the site, there is a 1x2 m patch of dense Fucus sporelings. In the MITZ there are: moderate concentrations of Littorina and limpets; sparse barnacles with spat; sparse, patchy mussels and a rare concentration of Fucus sporelings. Biota cover is ~30%.

(H) Area is in the UITZ. Patches of sparsely concentrated Fucus sporelings cover ~20% of the surface sediments within the site. There is one 15 x 4 cm patch of oil mousse covered by an encrustose green algae. The MITZ is similar to area (G).

(I) Area is located on backshore bedrock in the UITZ. Encrustose green algae covers ~50% of the sediments in the site. Below the site there is a 3m² patch of sparsely concentrated Fucus sporelings. In the MITZ, barnacles, mussels, Littorina and limpets are sparsely concentrated. Enteromorpha (filamentous green algae) is also present. Biota cover is ~30%. On the pebble beach there is <1% biota cover.

(J) Area is in the UITZ, under drift logs. No macrobiota was found in the site. Below the site filamentous green algae is dominant and sparse concentrations of Fucus, barnacles and tar spot algae is present. Biota cover is ~70%.

REVIEWED: MC 5/30/91

U.S. FISH AND WILDLIFE SERVICE (FWS)
SHORELINE ACTIVITY/BALD EAGLE IMPACT EVALUATION

Date 5/25/91 Shoreline Segment/Subdivision EV 72A

Shoreline activity Assessment Team Survey

	Time - Begin	Time - End
FWS Observer		
Surveyors/workers		

Nest in view/monitored: [Y] N Adult in nest: [Y] N Unk.

Adverse eagle response: Y [N] Adult left nest: Y [N] Unk.

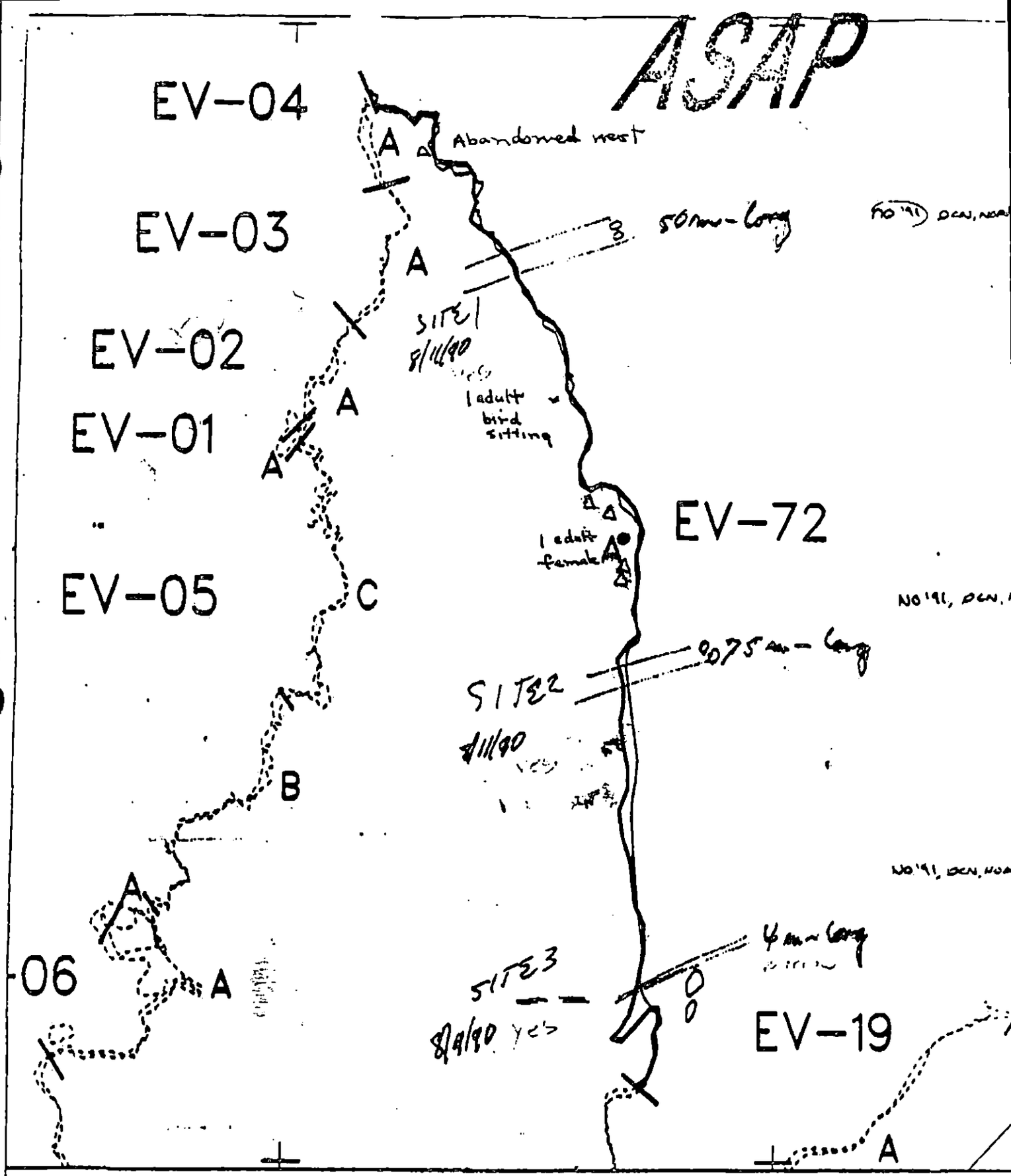
Time	Type of human activity/eagle response
	Four abandoned nests were shown on the eagle survey map. One additional abandoned nest was found on the north end. One adult bird was sitting on the shoreline 400 yds. north of the active An active nest was located with a female in the nest. The survey crew worked on a pocket beach 200 yds from the nest. The bird was not disturbed

Survey/work activities completed: [Y] N

Personnel withdrawn due to eagle conflict: Y [N]

Recommendations: A monitor is required around the active nest. However the bird seemed calm and no problems were encountered.

FWS Observer Mike Lube Date 5/26/91


ASAP
EV-04
EV-03
EV-02
EV-01
EV-05
EV-06
EV-72
EV-19
A
Abandoned nest
50m-long
SITE1
8/11/90
1 adult bird sitting
1 adult female
C
B
9075m-long
SITE2
8/11/90
4m-long
SITE3
8/9/90 yes
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil
EV-72 A
ADEC Subsegment Length: 4564m
METERS
0
4564
9128
AK State Plane Zone 4
1:17803
EXXON
Subdivision Field Ma
Map Key: PWSEV-72A
Name: NAKASHIMA
Date: 8/11/90
Date Entered:

MAYSAP 1991
OG SKETCH MAP/ Bio
GREG CHANEY / DON CLINE / Crank
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: 165-14

INSET #1

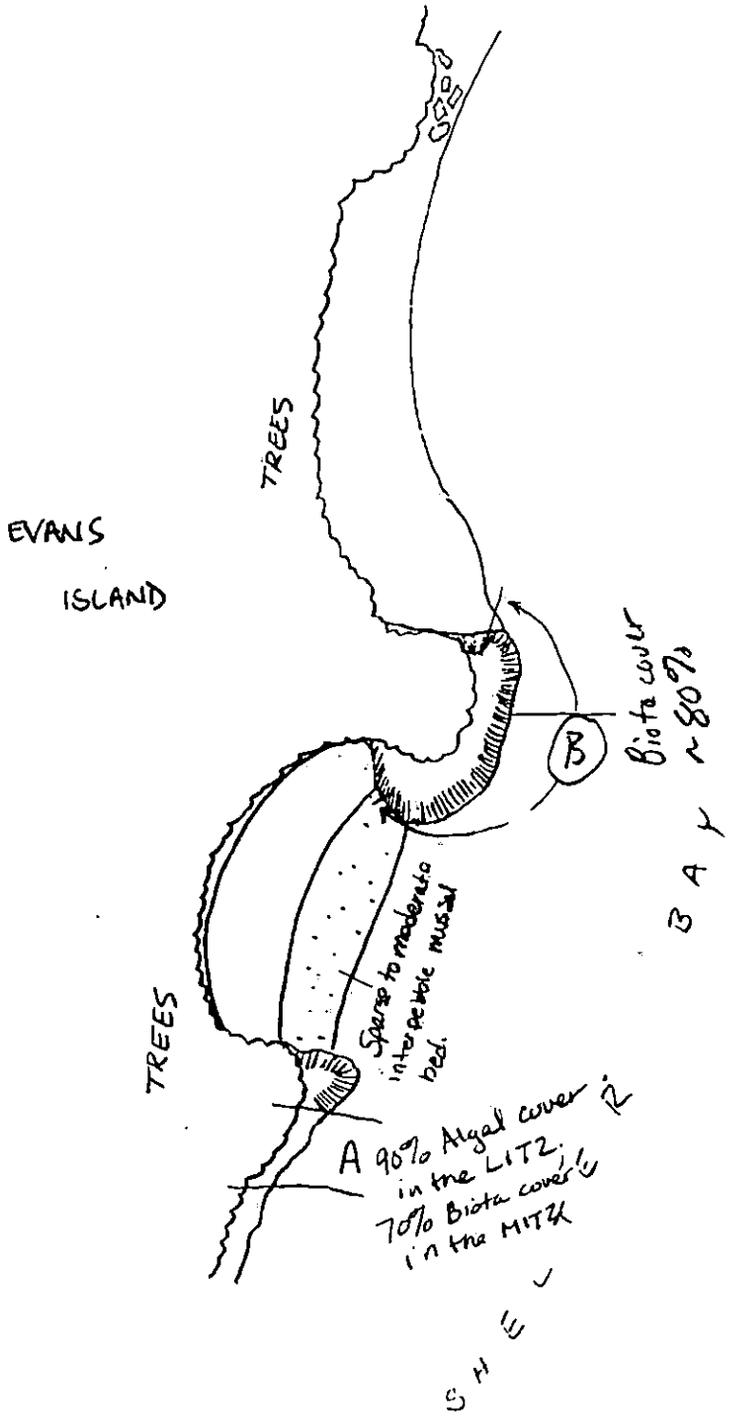
T M N

LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

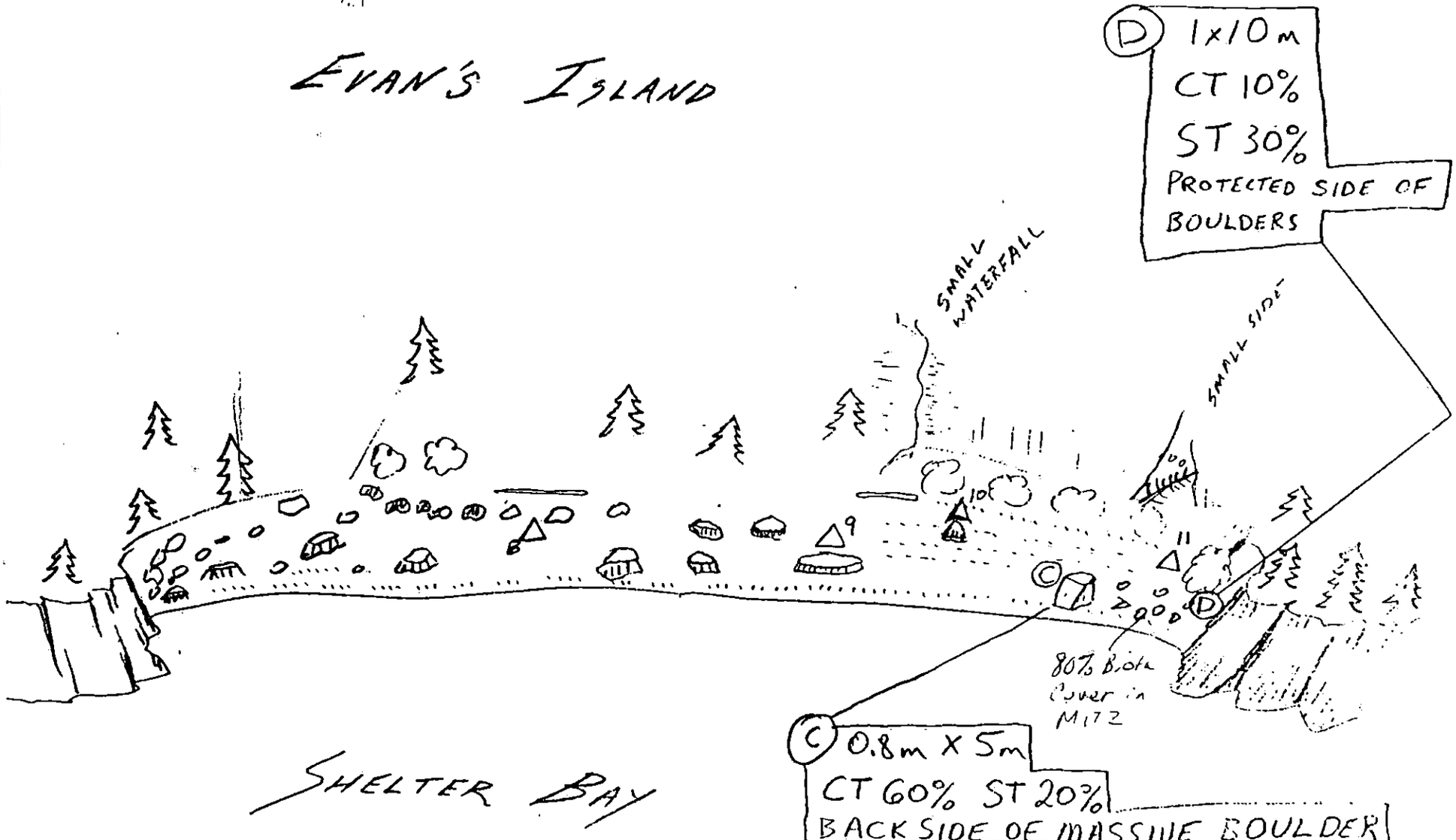
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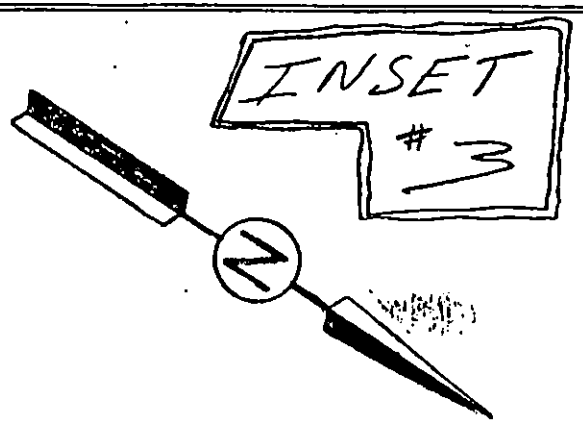
0 100
M



INSET #2

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-72 A SITE 2
DATE: MAY 25 1991
AIR P.#: NONE





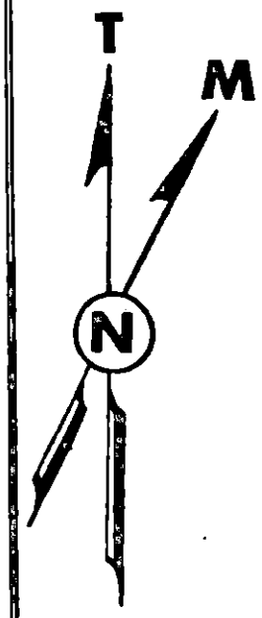
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV 72A SITE 3
DATE: MAY 25 1991
AIR P.#: NONE

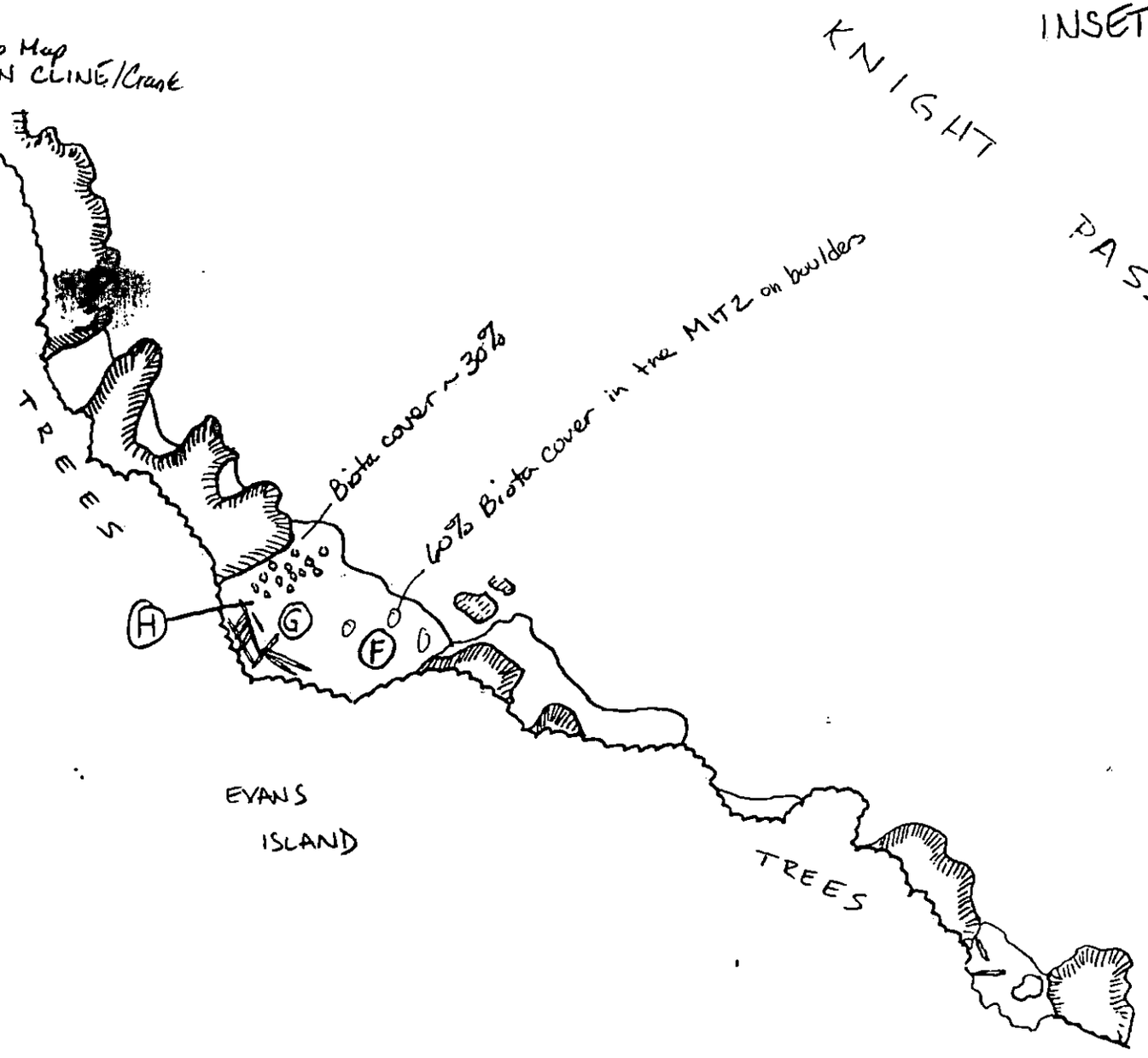
BIL MFG
[illegible]

55 GAL DRUM
STREAM
OLD TIRE
Δ12
E
Δ13
00
E 1x40m
CV<1% CT<1%
AROUND LARGE
BOULDERS
10-20% biota cover on cobble and boulders
<1% on sand and gravel
ROUGHLY
20 METERS

MAYSAP 1991
OG SKETCH MAP/Bio Map
GREG CHANEY/DON CLINE/Crank
TEAM 5
SEGMENT: EV72 A
DATE: MAY 25 1991
AIR P.#: PIM C 005-236

INSET #4 BIG MAP





LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

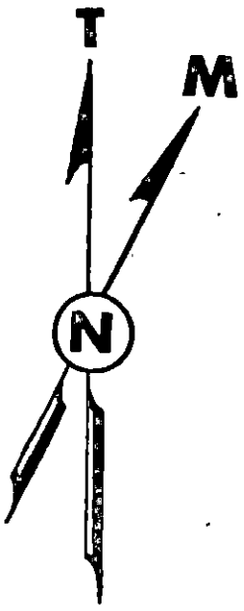
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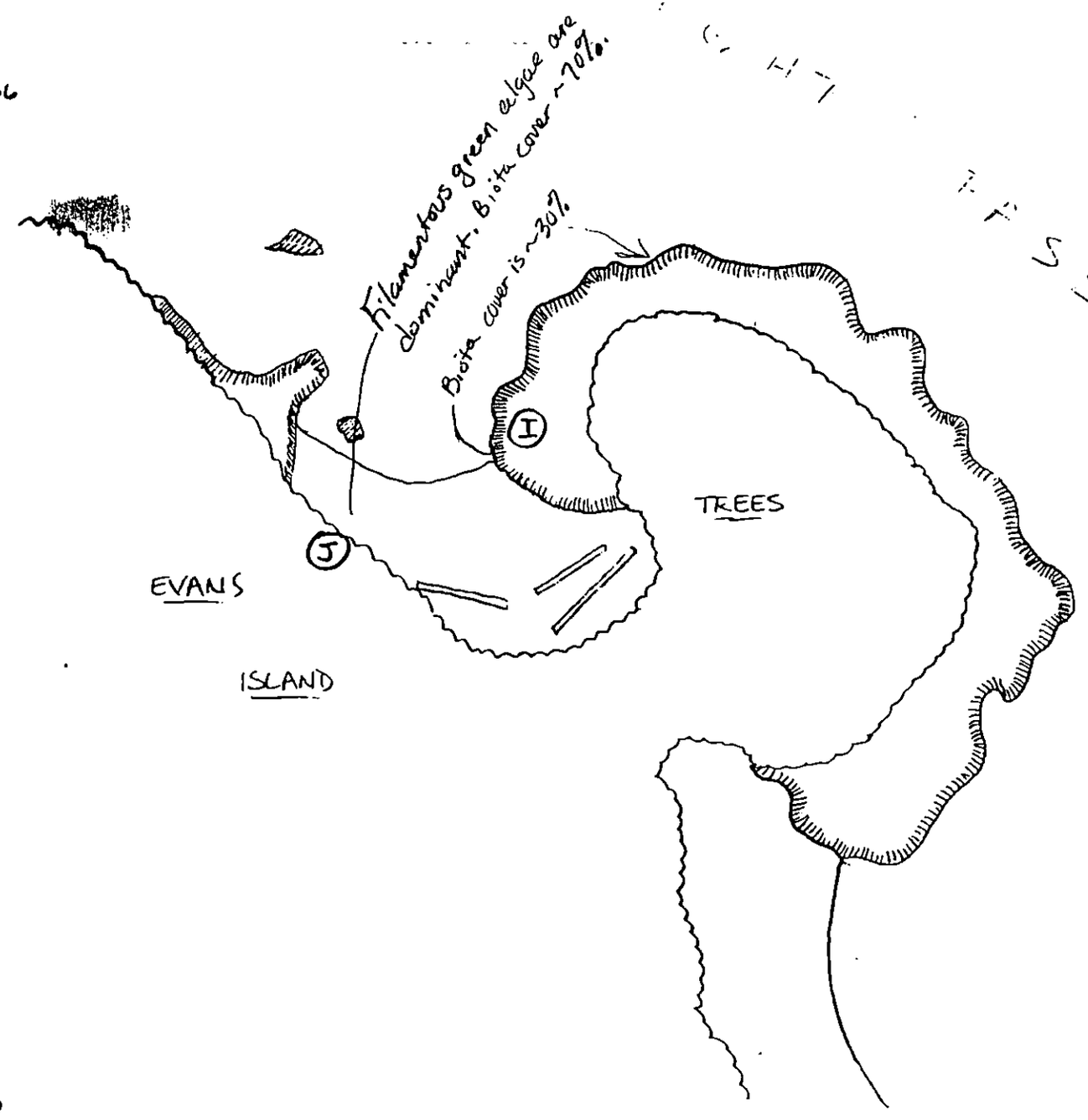
0 50

m

MAYSAP 1991
OG SKETCH MAP / Bio Map
GREG CHANEY / DON CLINE / Crank
TEAM 5
SEGMENT: EY72 A
DATE: MAY 25 1991
AIR P.#: PIM-C 005-236

INSET #5



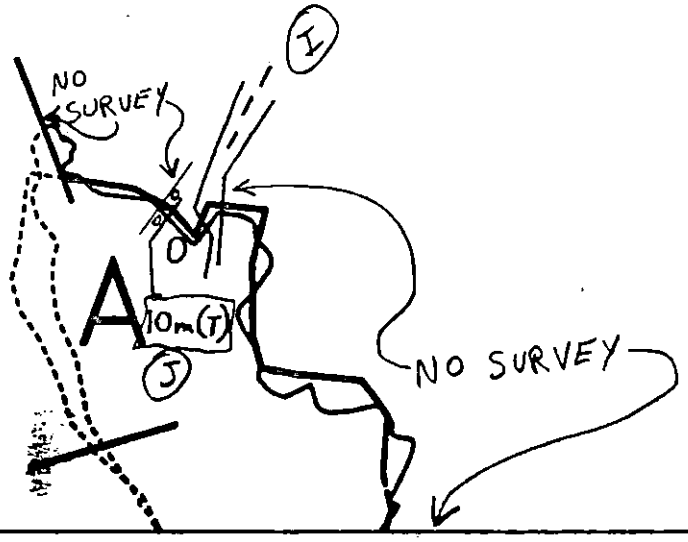


LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE

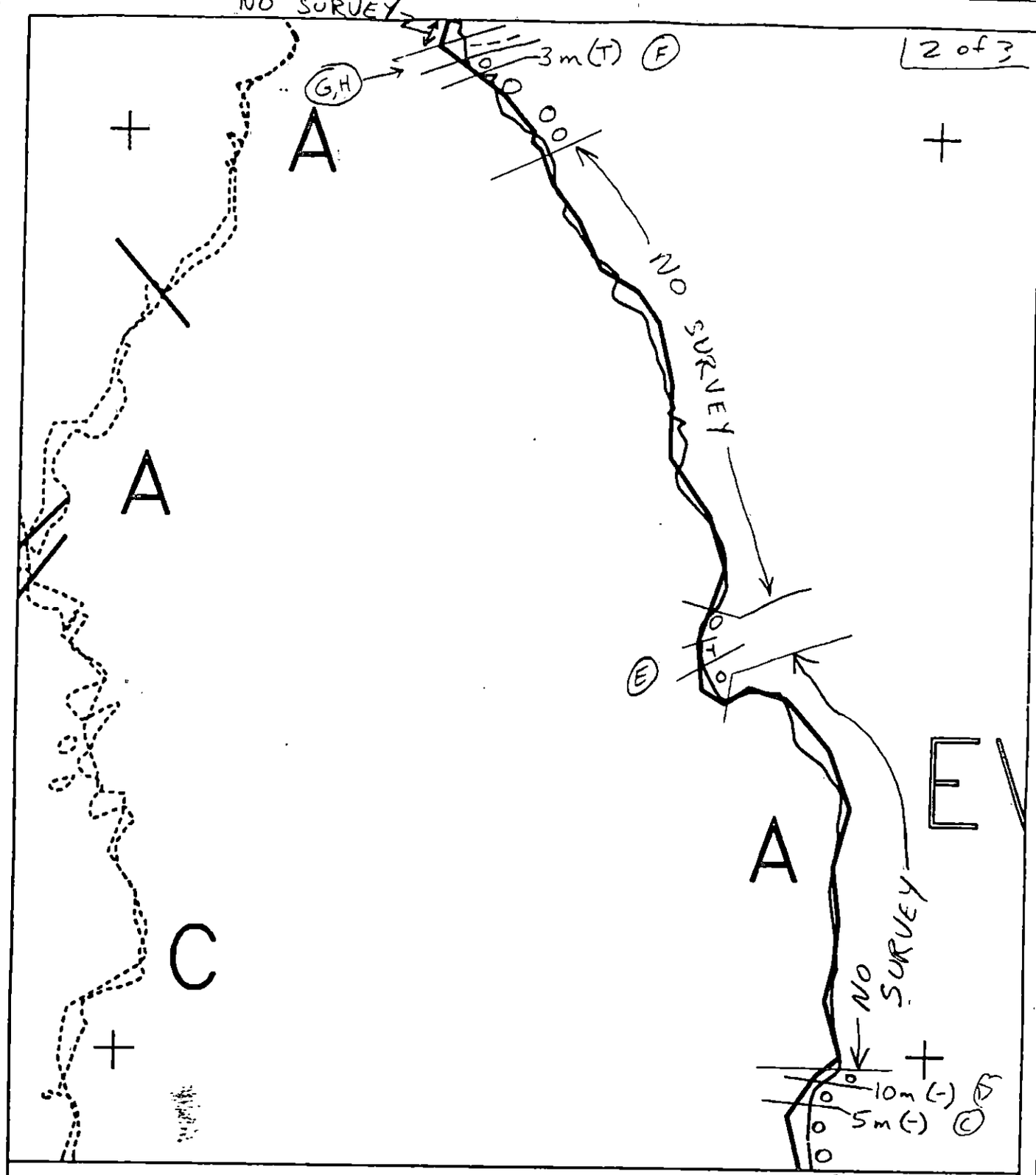
0 50
M



XXXX	Wide	EV072 A
////	Medium	ADEC Subsegment Length: 4564m
----	Narrow	METERS
TTTT	Very Light	0 200 400
0000	No Oil	AK State Plane Zone 4 pev072ad

Subdivision Field Map
Map Key: PWSEV072Ad
Name: Greg Chaney
Date: MAY 25 1991
Date Entered:

Reviewed: 5/30/91 mc
reviewed 5/30/91



XXXX	Wide	EV072 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 4584m	Map Key: PWSEV072Ac
----	Narrow	METERS 0 200 400	Name: GREG CHANEY
TTTT	Very Light	AK State Plane Zone 4 pev072ac	Date: MAY 25 1991
0000	No Oil		Date Entered:

REVIEWED: MC 5/30/91
renewed 5/30/91

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ EV-100

SUBDIVISIONS: A (1 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ EV-100 SUBDIVISION A (1 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four active Bald Eagle nests (5T) - 3/1 to 6/1; Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II) 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil1066m

Subsurface Oil Observed: Yes___ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended

_____Treatment Recommended

_____Manual Pickup ___Snare Booms/Sorbents ___Tarmat Breakup/Removal

_____Bioremediation SPOT WASHING ____Other

____Wands

____Beach Cleaner

Comments: Recommend no treatment of this subdivision. Very few traces of light, weathered oil found which appeared to be diminishing naturally. See Field Shoreline Comment Sheet.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____

ADEC _____

EXXON _____ FOSC:_____ DATE:_____

NOAA _____

USCG _____

FIELD SHORELINE COMMENT SHEET

WTK
Separate comment form for Subdivision "A" not submitted

SEGMENT ST / EV-100 SUBDIVISION: B DATE 3/30/90

USCG NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

BOULDER AND LARGE COBBLES. EV-100A SHOWED NO EVIDENCE OF OILING. EV-100B HAD SOME BOULDERS STAINED BY HIGHLY WEATHERED OIL. OCCURENCE WAS VERY PATCHY, OVER A WIDESPREAD (75-100m) AREA. ONE SMALL (2 CM.) TAR SPOT OBSERVED IN THIS AREA. NO EVIDENCE OF OIL BEYOND THIS INFREQUENT OCCURRENCE ON BOULDERS. LOTS FUCUS AND BARNACLES.

ADEC
NAME John Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

We found some intermittent staining and small patches of very weathered oil on lee + underside of boulders in UE12. Oil was in coat form and aprox 1 mm thick, very spotted along low tide band. No treatment recomended oil is naturally weathering and very sparse.

LAND MANAGER
NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

REVISION NO. 03/21/90

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Mike Foget NOAA ~~USCG~~ Gary Shigenaka SEGMENT ST/ EV-100
BIO Richard Knudsen LAND REP — SUBDIVISION A
EXXON Larry Olson ADEC John Hayes TIME 12:00 to 12:30
TEAM NO.: 11 TIDE LEVEL: +2 to +3 DATE 3/30/90
EST. SUBDIVISION LENGTH: 1110 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep rocky forested backshore
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 10 % B 25 % C 35 % P 20 % G 10 % S — % M — % V ____ %
SLOPE: Lang 30 % Hang 70 % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W — m M — m N — m VL — m NO 1110 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	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

PAVEMENT: H F S — sq. m by — cm

PATTIES / TARBALLS — BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ 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 SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR	PIT ZONE SU	UI	MI	U	ANA	SUBSURFACE SEDIMENTS
							-													
							-													
							-													
							-													
							-													
							-													

COMMENTS The N. end of the segment contains a Low angle cobble grade beac
Going south the shoreline becomes steeper and consists of - Boulders and Cobble

REVIEWED JW DATE 3-31

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV100 Subdivision A Date (mo / day / yr) 3/30/90

Time (24 hr) 1200 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 25 (3) Cobble 35 (4) Pebble 20 (5) Sand 10 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 5 Moderate 35 Low 60

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

Photographs:
Roll No. —
Frames —

BARNACLES

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

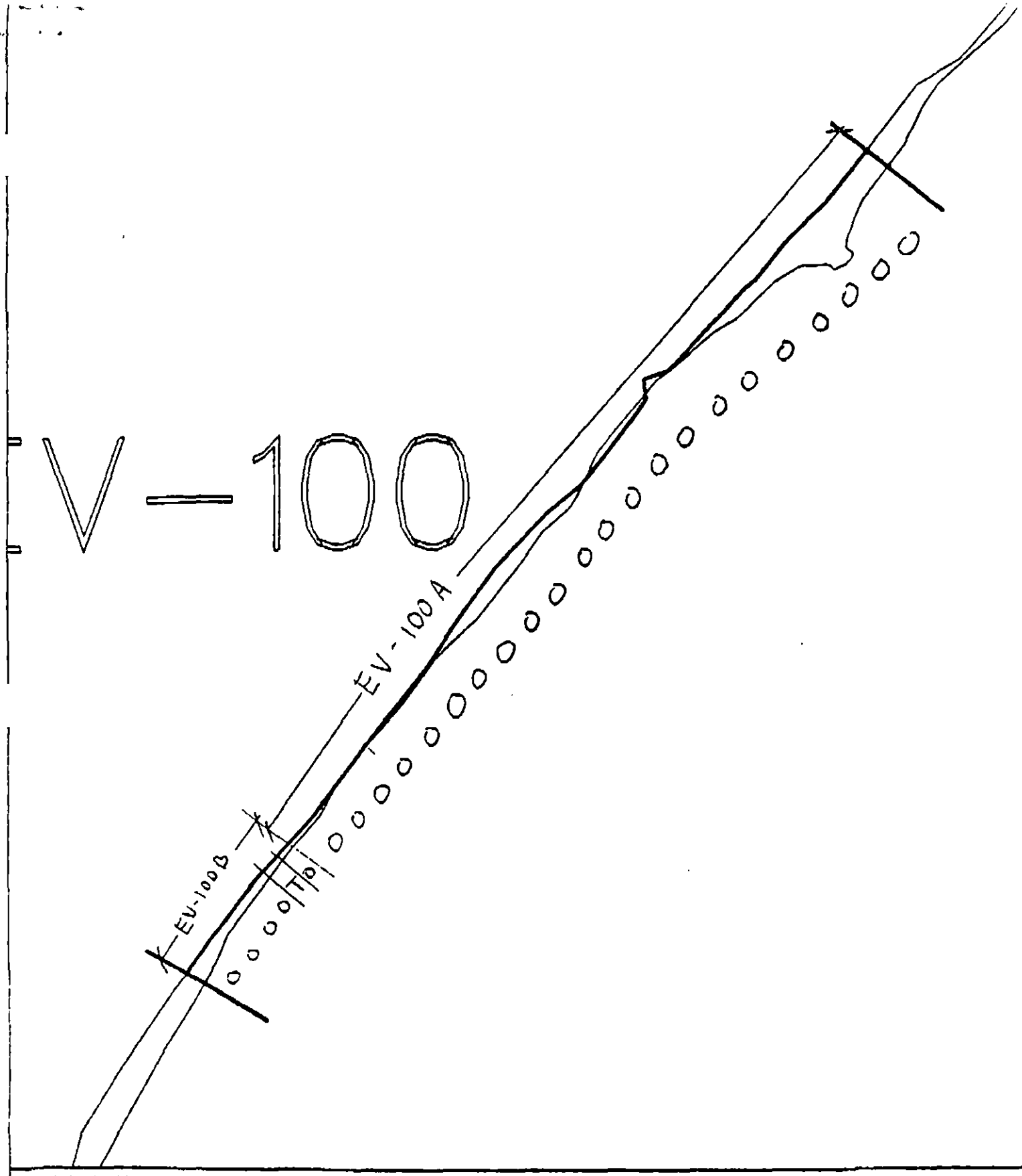
FUCUS

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

Wildlife Observations/ General Comments: *
6 otters, 4 Harlequin ducks, 1 sea lion

Ecological Considerations:
1F, #11, 5T-4: No bald eagles, or nests, seen in this segment.

*Most of the subdivision surveyed by boat; Fucus could be observed from the boat, but not other species.



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

EV-100

ADEC Segment Length: 1239m

0 100 200 300
METERS

Map Key: PWS-178
Name: Mike Eggert
Date: 3/30/96
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/ EV-100

SUBDIVISIONS: B (2 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ EV-100 SUBDIVISION B (2 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four active Bald Eagle nests (5T) - 3/1 to 6/1; Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

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

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 21 m: No Oil 152m

Subsurface Oil Observed: Yes___ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended

_____Treatment Recommended

_____Manual Pickup___Snare Booms/Sorbents ___Tarmat Breakup/Removal

_____Bioremediation SPOT WASHING ____Other

____Wands

____Beach Cleaner

Comments: Recommend no treatment of EV-100 B as only sporadic coat found on lee side of boulders in UITZ. Appears to be weathering naturally and is very isolated.

TAG COMMENTS:_____

TAG APPROVAL DATE:_____

ADEC _____

EXXON _____ FOSC:_____ DATE:_____

NOAA _____

USCG _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ EV-100 SUBDIVISION: B DATE 3/20/90

~~USCG~~ NOAA
NAME GARY SHIGENAKA SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

BOULDER AND LARGE COBBLES. EV-100A SHOWED NO EVIDENCE OF OILING. EV-100B HAD SOME BOULDERS STAINED BY HIGHLY WEATHERED OIL. OCCURRENCE WAS VERY PATCHY, OVER A WIDESPREAD (75-100m) AREA. ONE SMALL (2 CM) TAR SPOT OBSERVED IN THIS AREA. NO EVIDENCE OF OIL BEYOND THIS INFREQUENT OCCURRENCE ON BOULDERS.
LOTS FUCUS AND BARNACLES.

ADEC
NAME John Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

We found some intermittent staining on small patches of very weathered oil on lee + underside of boulders in UE12. Oil was in coat form and aprx 1 mm thick, very spotty along low band. No treatment recommended oil is naturally weathering and very sparse.

LAND MANAGER
NAME SIGNATURE

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SHORELINE OILING SUMMARY

REVISION NO. 03/27/90

OG Mike Foget NOAA ~~USCG~~ Gary Shigenaka SEGMENT ST/ EV-100
BIO Richard Ambrose LAND REP — SUBDIVISION B
EXXON Larry Olson ADEC John Hayes TIME 12:30 to 12:50
TEAM NO.: 11 TIDE LEVEL: +3' to +5 DATE 3/30/90
EST. SUBDIVISION LENGTH: 159 m ☒ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock The Backshore consits of Rocky forested Headla
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 40 % B 20 % C 20 % P 15 % G 5 % S — % M — % V ____ %
SLOPE: Lang 20 % Hang 50 % Vert 30 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W — m M — m N — m VL 15 m NO 144 m

SURFACE OIL

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

PAVEMENT: H F S — sq. m by — cm

PATTIES / TARBALLS — BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☐ YES ☒ NO

TYPE —

#BAGS —

Photographs:

Roll No. ST-11-1

Frames 2

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	DY/SL	DBR/TL	LBR	PIT ZONE SU	UI	MI	LI	ANA	SUBSURFACE SEDIMENTS
1	30					X	-		X							X				P, G, S
							-													
							-													
							-													
							-													
							-													

COMMENTS

Oiling is located in the Northern end of Sub-division EV-100:B in the upper intertidal zone. Two locations were found. 1 boulder had a splashed distribution on the eastern side (facing the water). The oil was highly weathered and dehydrated. Nearby to the North of this boulder was an area of oil with a splattered distribution (15 m x 2 m) Located in the upper intertidal zone. The oil was of the same nature. Also a few stains averaging 1 mm in diameter were observed in the HTZ along this subdivision.

REVIEWED DATE 3-31-90

OG Mike , et

SEGMENT ST/ EV-100

SUBDIVISION B

DATE 3 / 30 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

Legend

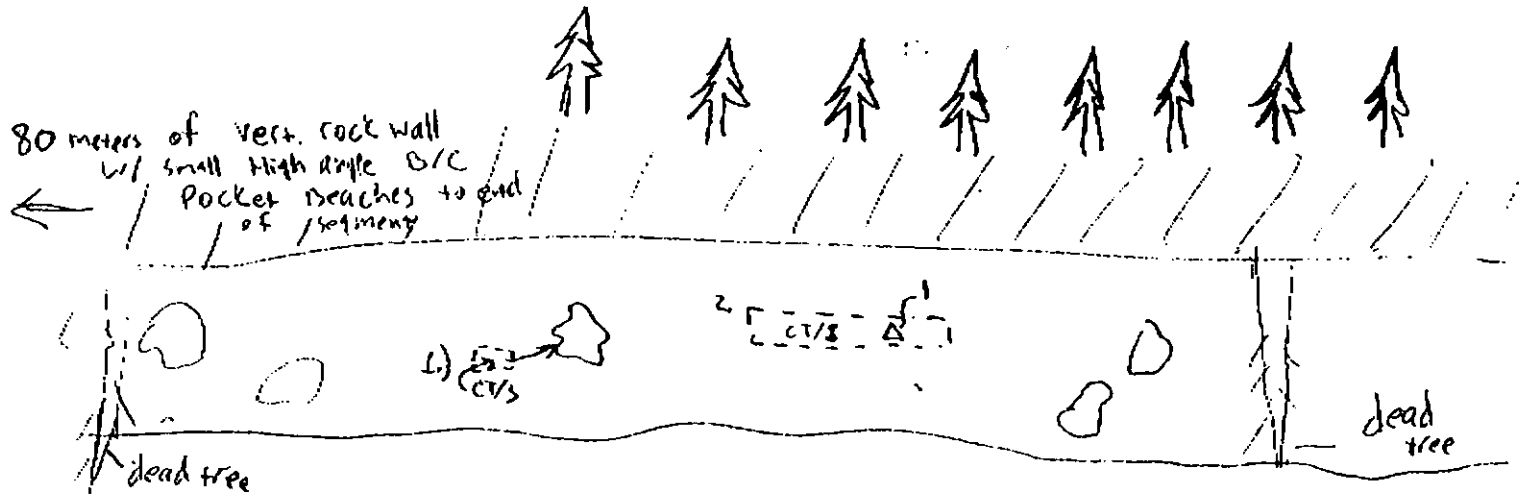
//// - Steep rocky Backshore

🌲 - forested

○ - Large Boulders

Scale

15 m



1) splashed Distribution of oil in HIT2 on 1.0 m Boulder

2) 15 m / 2 m area with a splatter distribution (< 10%)

High angle B / C / P Beach

Oil Character Length (m): AP___ PO___ CV___ CT 15 m ST___ MS___ PT___ TB___ FL___ NO 114

REVISION:03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV100 Subdivision B Date (mo / day / yr) 3/30/90

Time (24 hr) 1240 hrs Biologist Ambrose

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

(B) Overall % cover of biota (% of segment): Dense 0 Moderate 35 Low 65

(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. —
—
Frames

BARNACLES

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

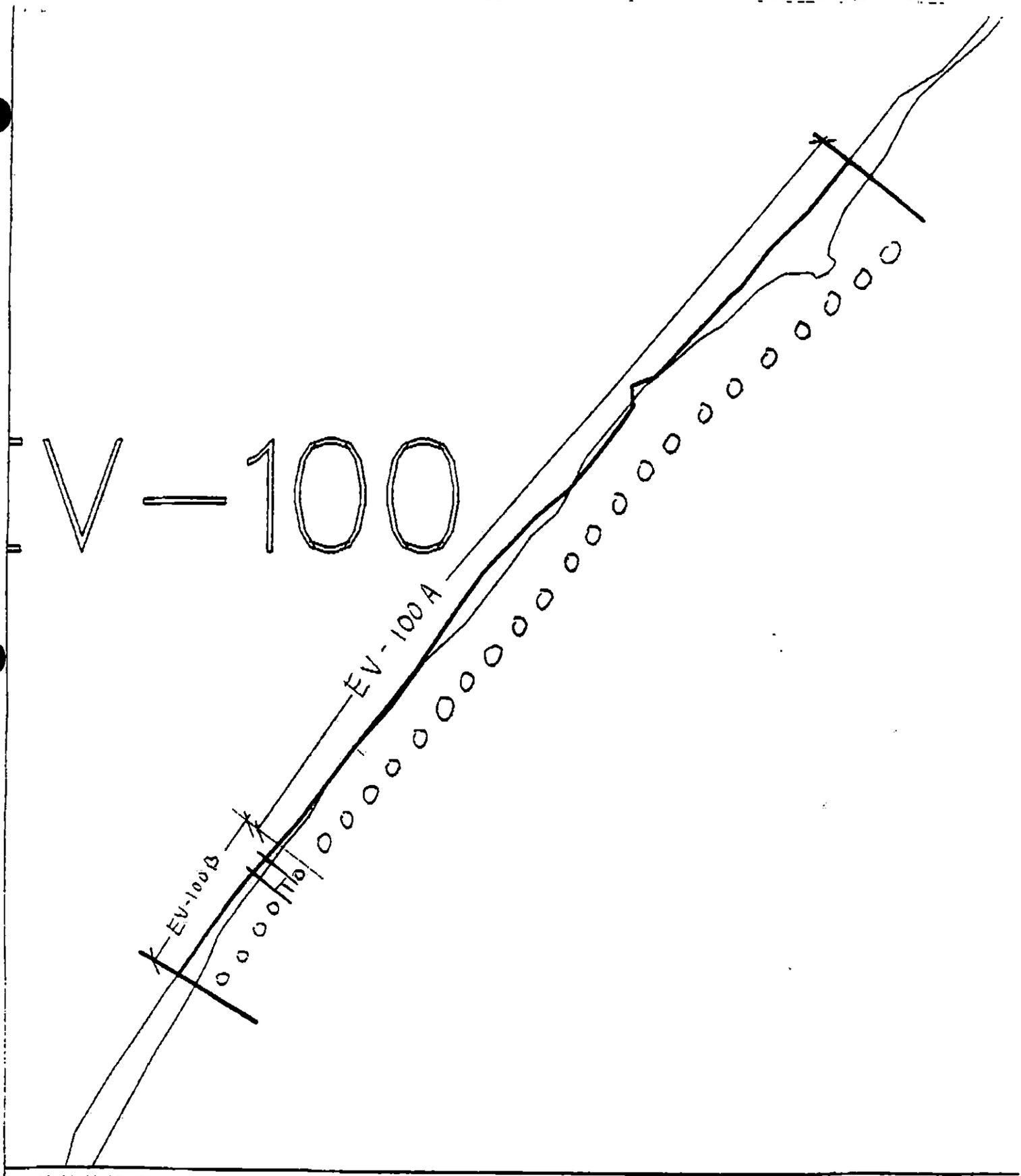
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	X	1M	1L	
2	2	2	2	2	2	2	X	2	X	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	NOT PRESENT
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	X	1L	X	1M	1L	1U	1M	1L	
2	2	2	2	X	2	X	2	2	2	2	2	
3	3	3	3	X	3	X	3	3	3	3	3	NOT PRESENT
4	4	4	4	X	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:
Generally sparser biota than EV100-A, although Fucus still achieves moderate densities in mid-intertidal. One boulder had oiled barnacles with about 1/3 of the barnacles dead (incl. lower barnacles w/o oil).

Ecological Considerations:
1F, 7I1, 5T-4: No bald eagles, or nests, seen in this segment.



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

EV-100

ADEC Segment Length: 1239m

0 100 200 300
METERS

Map Key: PWS-178
Name: Mike Foget
Date: 3/30/96
Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-100 SUBDIVISION A (1 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four active Bald Eagle nests (5T) - 3/1 to 6/1; Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II) 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above

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

SHPO SIGNATURE: Charles E. Holmes DATE: April 6, 1990

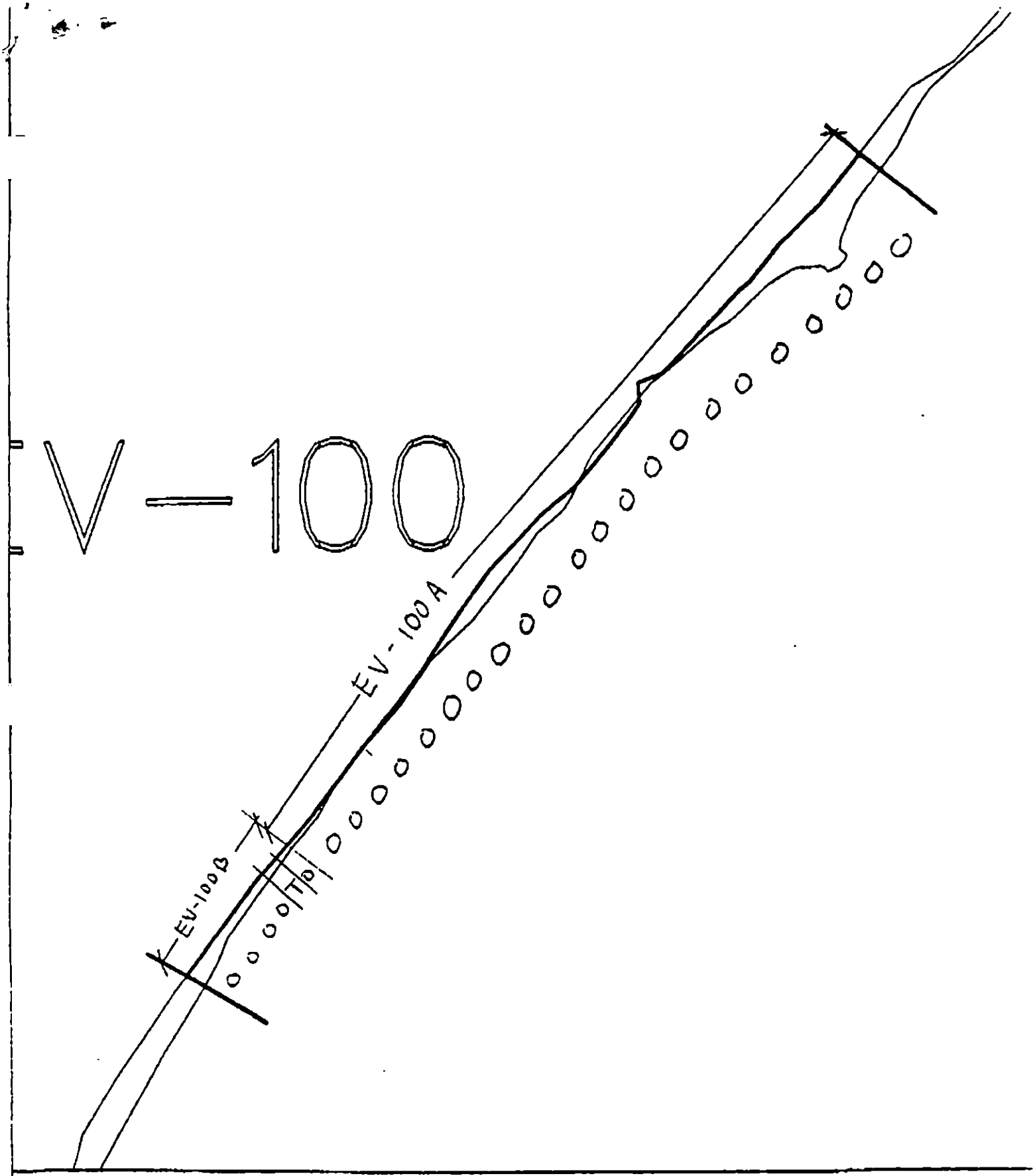
OILING CATEGORIZATION:
Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 1066m
Subsurface Oil Observed: Yes___ No X Maximum Depth_____

RECOMMENDATIONS:
X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup ___Snare Booms/Sorbents ___Tarmat Breakup/Removal
_____Bioremediation SPOT WASHING ____Other
____Wands
____Beach Cleaner

Comments: Recommend no treatment of this subdivision. Very few traces of light, weathered oil found which appeared to be diminishing naturally. See Field Shoreline Comment Sheet.

TAG COMMENTS:

TAG APPROVAL DATE: 4/6/90
ADEC JOHN BAUER John Bauer
EXXON ANDY TEAS Andy Teas FOSC: [signature] DATE: 4-19-90
NOAA Byrd Wescott Byrd Wescott
USCG G.A. REITER G.A. Reiter



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

EV-100

ADEC Segment Length: 1239m

0 100 200 300
METERS

Map Key: PWS-178
Name: Mike Foget
Date: 3/30/96
Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-100 SUBDIVISION B (2 OF 2) DATE 3/31/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Four active Bald Eagle nests (5T) - 3/1 to 6/1; Near Sawmill Bay Hatchery (1F) - 4/15 to 6/1; Deer harvesting (7II) - 8/15 to 2/28.

SUBDIVISION ECOLOGICAL CONSTRAINTS: Same as above.

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

SHPO SIGNATURE: Charles E. Holmes DATE: April 6, 1990

OILING CATEGORIZATION:
Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 21 m: No Oil 152m
Subsurface Oil Observed: Yes___ No X Maximum Depth_____

RECOMMENDATIONS:
X No Treatment Recommended
_____Treatment Recommended
_____Manual Pickup ___Snare Booms/Sorbents ___Tarmat Breakup/Removal
_____Bioremediation SPOT WASHING ____Other
____Wands
____Beach Cleaner

Comments: Recommend no treatment of EV-100 B as only sporadic coat found on lee side of boulders in UITZ. Appears to be weathering naturally and is very isolated.

TAG COMMENTS:

TAG APPROVAL DATE: 4-6-90
ADEC John Bauer John Bauer
EXXON Andy Teal Andy Teal FOSC: [signature] DATE: 4-19-90
NOAA Burt Wescott Burt Wescott
USCG G.A. Reiter G.A. Reiter

OG MiK Foget

SEGMENT ST/ EV-100

SUBDIVISION B

DATE 3 / 30 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

Legend

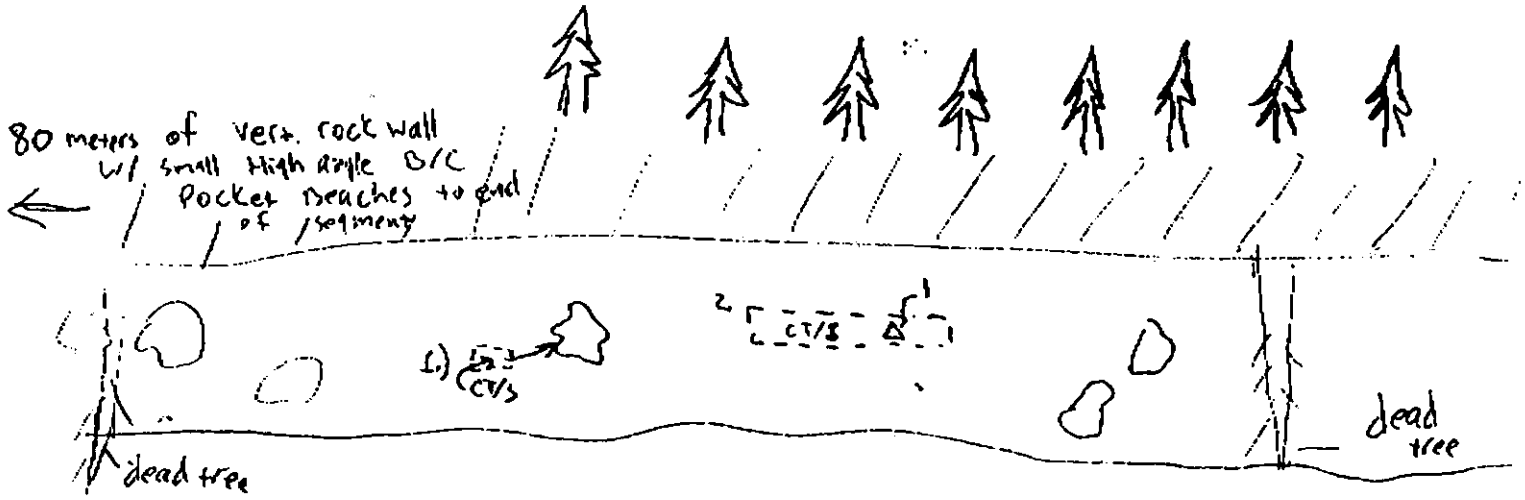
//// - Steep rocky Backshore

↑ - Forested

○ - Large Boulders

Scale

15 m



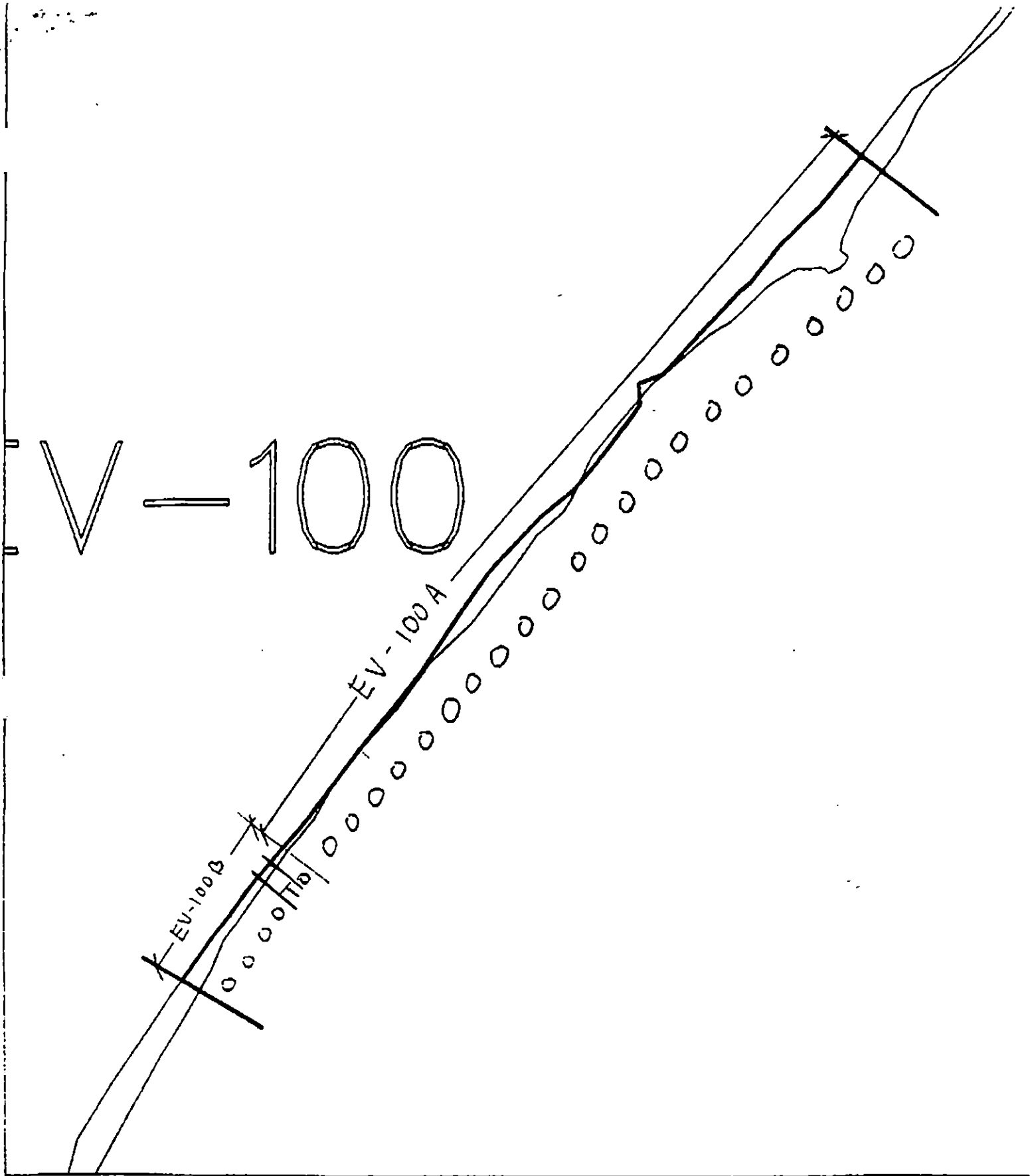
1) splashed Distribution of oil in HIT2 on 1.0 m Boulder

2) 15 m / 2 m area with a splatter distribution (< 10%)

High angle B / C / P Beach

Oil Character Length (m): AP ___ PO ___ CV ___ CT 15 m ST ___ MS ___ PT ___ TB ___ FL ___ NO 144

REVISION:03/24/90



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

EV-100

ADEC Segment Length: 1239m

0 100 200 300
METERS

Map Key: PWS-178
Name: Mike Foget
Date: 3/30/96
Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-500

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-500 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no's: 226-40-16660 (PCH), 226-40-16690 (PS), 226-40-16665 (PS), 226-40-16680 (PS), 226-40-16670 (P).
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)
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 treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 11390 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	_____Snare/Absorbent Booms
_____Treatment Recommended	_____Oil Snares (pom poms)
_____Manual Pickup	_____Absorbents (pads,rolls,etc)
_____Bioremediation	_____Spot Washing:_____Wands
_____Tarmat Removal	_____Beach Cleaner
	_____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

✓ 1		**Salmon stream mouth - fry outmigration (3/1 to 5/15)**
✓ 1		**Salmon stream mouth - spawning (7/10 to 8/31)**
		No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
1C		**Salmon fry nursery area (4/31 to 7/31)**
1D		**Esther Hatchery release (4/15 to 6/1)**
1E		**Main Bay Hatchery release (4/20 to 5/10)**
1F		**Sawmill Bay Hatchery release (4/15 to 6/1)**
1G		**Cannery Creek Hatchery release (4/21 to 6/1)**
1H		**Remote release site**
1I		**Gill net area (6/7 to 8/31)**
1J		**Purse seine area (7/20 to 9/30)**
1K		**Purse seine hook-off (7/20 to 9/30)**
1L		**Set net sites (6/11 to 7/25)**
		For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
2M		**Herring spawning (4/1 to 6/15)**
		Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.
3N, 3P		**Harbor seal and sea lion pupping (5/15 to 7/1)**
3O, 3Q		**Harbor seal and sea lion molting (8/15 to 9/15)**
		Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
5R		**Seabird colony (5/1 to 9/1)**
		Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.
5S		**Shorebird/waterfowl concentration (4/1 to 5/15)**
		Restrict all activity to essential minimum, especially air traffic.
✓		**All Bald Eagle nests (3/1 to 6/1)**
		Active Bald Eagle nests (3/1 to 9/1)
		Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
6U	**Recreation:**	**Tent sites (6/1 to 9/15)**
6V		**Anchorages (6/1 to 9/15)**
6W		**Forest Service cabins (6/1 to 9/15)**
6X		**Lodge (6/1 to 9/15)**
6Y		**Special use destination**
7Z	**Subsistence area:**	**Salmon harvesting (5/1 to 9/30)**
7HH		**Finfish harvesting**
7II		**Deer harvesting (8/15 to 2/28)**
7JJ		**Invertebrate harvesting**
		For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / EV-500 SUBDIVISION: A (1 of 1) DATE 4-22

IDAA
NAME Michael Buchman SIGNATURE M Buchman

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

ADEC
NAME John Hayes SIGNATURE

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Walked 90% of segment & skiffed the vertical rock walls. Only oil observed was 1 small asphalt patty that we manually picked up.

Observed band of oil at Port Ashton in the old cannery area. Land rep. who accompanied us stated it was from a fuel spill prior to the Exxon Valdez Spill.

LAND MANAGER
NAME Steve Ward-Changes SIGNATURE

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Only oil observed was from previous spill years ago at Port Ashton. All the oil is in immediate cannery area.

REVISION NO. 03/21/96

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG Mike Foget USCG NOAA Mike Buchman SEGMENT ST/ EV-500
BIO Kathleen Conlin LAND REP Steve Ward CVC SUBDIVISION A (1 OF 1)
EXXON Larry Olson ADEC John Hayes TIME 15:15 to 19:15
TEAM NO. 11 TIDE LEVEL +6' → +2' DATE 4 / 22 / 90
EST. SUBDIVISION LENGTH: 9724 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock Backshore composed of forest w/ some meadows
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 10 % B 5 % C 30 % P 30 % G 15 % S 5 % M 0 % V 0 %
SLOPE : Lang 65 % Hang 30 % Vert 5 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 9724 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	RC	RB	RP	RS	BR/RW	DBL/SL	OY	DBR/TL	LBR	SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X	X	X	X

PAVEMENT H F S 0 sq. m by 0 cm

(PATTIES) / TARBALLS 1 2m x 1m BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE See list

#BAGS 2

Photographs:

Roll No. 0

Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)		BELOW	OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			UO	UC	BR/RW	DBL/SL	OY	DBR/TL	LBR	SU	UI	MI	U				
1	40					X	•			X							X				N	30	P, G, S
2	40					X	•			X							X				N	35	P, G, S
3	20					X	•			X						X					N	10	P
4	20					X	•			X						X					N	15	P
5	30					X	•			X							X				N	~	P, G, S, M
6	25					X	•			X							X				N	~	S, P, C

COMMENTS

1 tar Pattie was found (see map) and removed. Aside from some oiled debris (see map) collected in the Supra ITZ, no oiling was observed in this segment. The shore zone consists mostly of low angle cobble/pebble beaches w/ a few high angle beaches and some rock outcrops. The only oil observed was a 1m x 100m weathered ST/P distribution on B/R in the Supra ITZ. This was located at Port Ashton and is

REVIEWED JW DATE 4-24-90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 04/13/90

SEGMENT ST/ EV-500 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
		OF	OR	OL	OF	NO		UO	UC	BRN/BR	DRK/RW	OT/BL	DGRY/TL	LGR		SU	MI	MB	LI				
7	30					X	·		X								X				N	–	P
8	30					X	·		X							X					N	–	P
9	35					X	·		X								X				N	30	P
10	20					X	·		X									X			N	10	P
11	30					X	·		X								X				N	–	P,C
12	30					X	·		X								X				N	–	P,C
13	20					X	·		X								X				N	10	P
14	40					X	·		X							X					N	–	P
							·																
							·																
							·																
							·																
							·																
							·																

COMMENTS

REVIEWED JW DATE 4-24-90

OG Mike Foget

SEGMENT: SU-37

SUBDIVISION A

DATE 4 / 22 90

CHECKLIST

- N Arrow
- Approx. Scale
- Seg/Sub Bndry
- Oil Obsl.
  - 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

SHORELINE MAP

scale

500m

N

Δ12 Recovered bag of oiled debris in the supra ITZ

Δ13 recovered oiled Pom Pom, 3m of Sorbent boom in the supra ITZ

Δ14 1m x 100m STIP in Supra ITZ (From previous spill at Port Ashton)

Port Ashton

Port Denny

Chenega Village

Crab Bay

recovered 1 oiled plank supra ITZ

recovered 4m x 1.2m tar Patties in the HITZ

Sawmill Bay

San Juan Hatchery

Legend

- trees
- Building
- site (village)
- stream

Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1724

REVISION: 03/24/99

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / EV-500 Subdivision A (1 OF 1) Date (mo / day / yr) 04/22/90

Time (24 hr) 1500 - 1900 Biologist K. CONLAN

(A) Substrate type and % of segments:
(1) Bedrock 10 (2) Boulder 5 (3) Cobble 30 (4) Pebble 30 (5) Sand 20 (6) Silt 0

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

(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. —
Frames —

BARNACLES

Dense			Moderate			Sparse			Rare		
X1U	X1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
X2	X2	2	2	2	2	2	2	2	2	2	2
3	3	3	X3	X3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	X4	4	X4	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	X1M	1L	1U	1M	1L
2	2	2	2	2	2	2	X2	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	X1U	X1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	X2	X2	2	2	2	2	2	2	2
3	3	3	X3	X3	3	3	3	3	3	3	3
4	X4	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	X1M	1L	1U	(1)1M	1L	X1U	1M	1L	1U	1M	1L
2	X2	2	2	(2)X2	2	2	2	2	2	2	2
3	3	3	3	(3)X3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	(4)	4	4	4	4
5	5	5	5	X5	5	5	5	5	5	5	5
6	6	6	6	X6	6	6	6	6	6	6	6

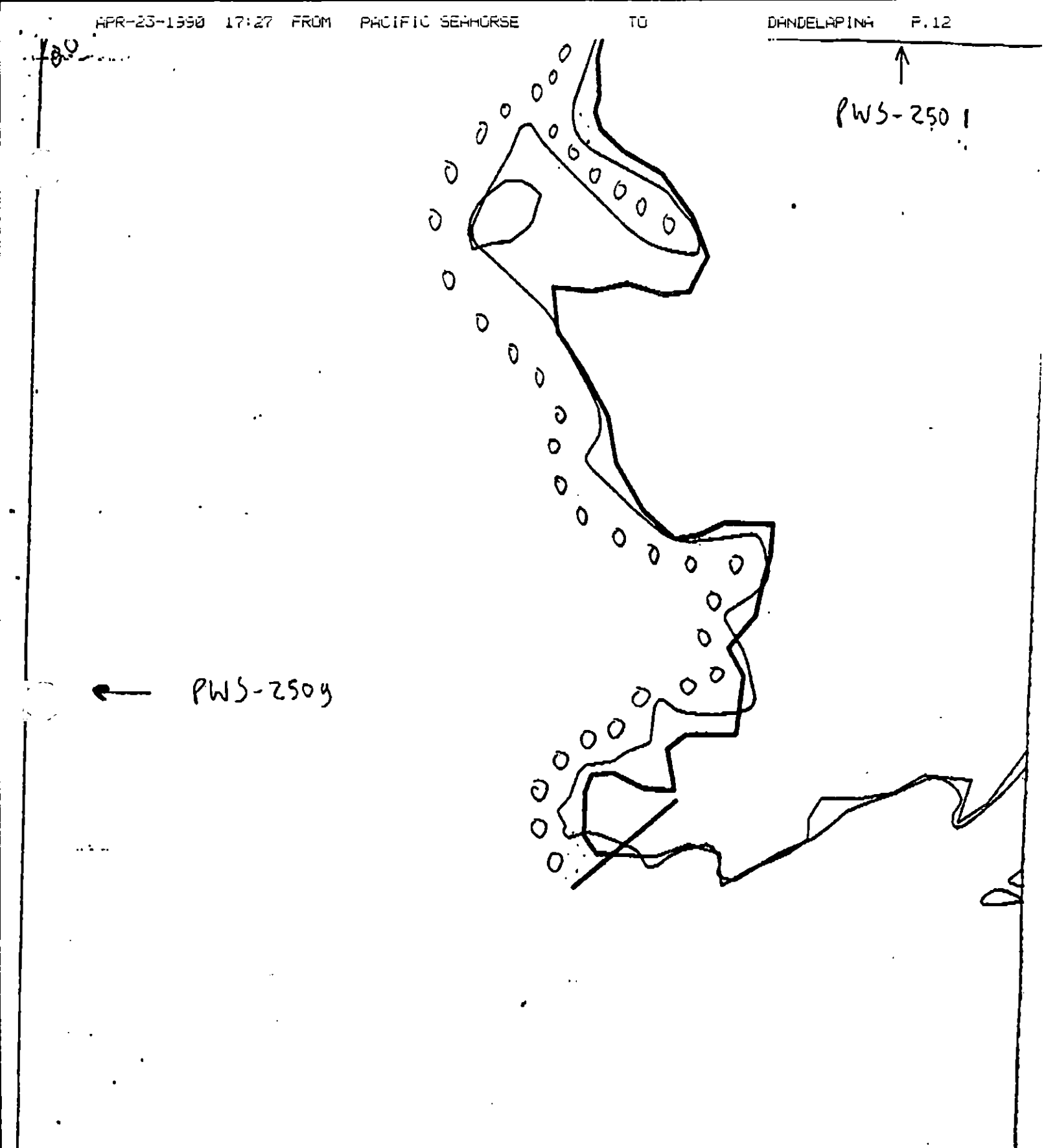
NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

3 SEA OTTERS
2 GOLDENEYE
1 BALD EAGLE

GASTROPOD EGGS 0



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

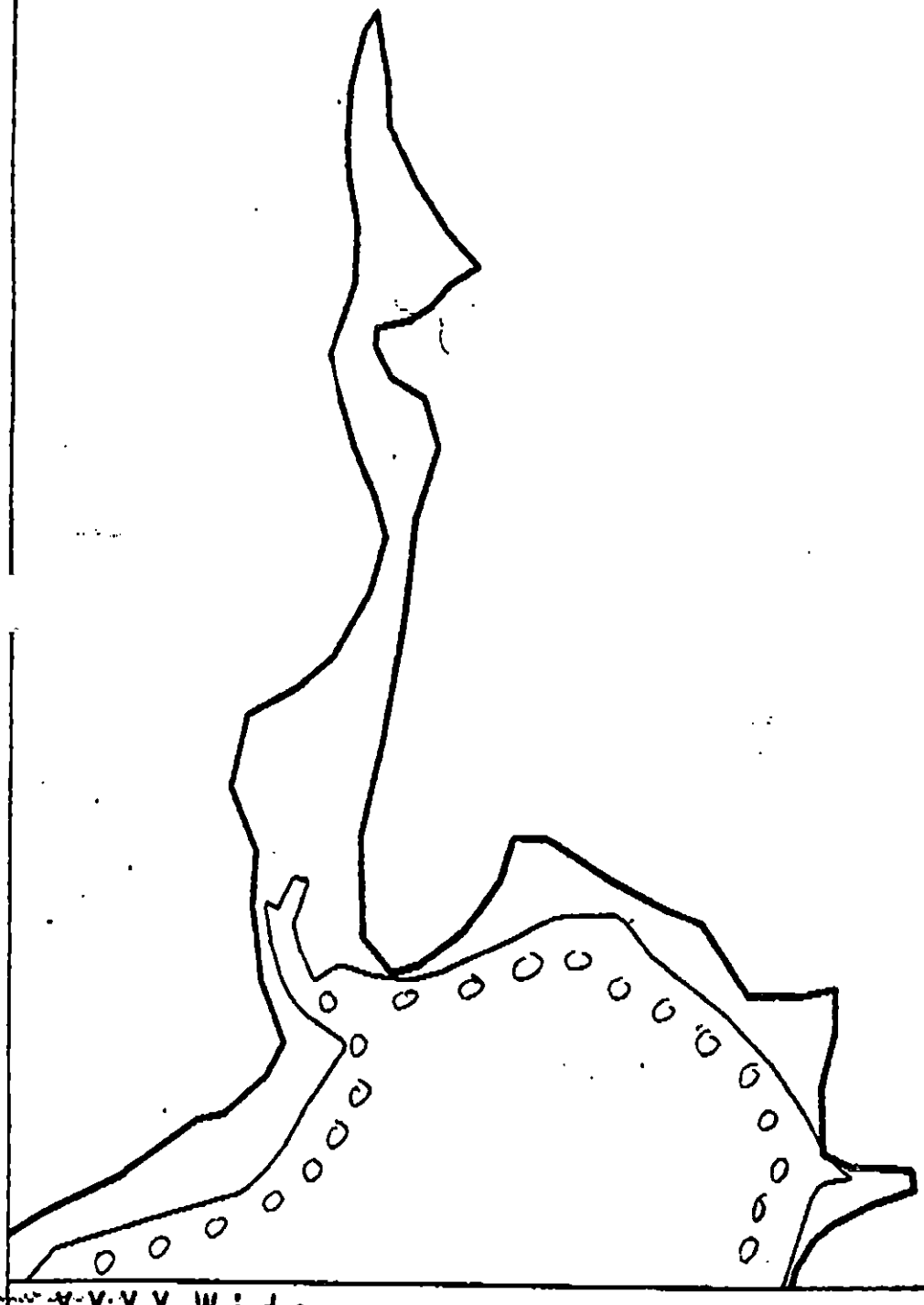
EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250h
Name: Mike Foyet
Date: 4/22/90
Date Entered:

← PWS-250K



PWS-250L ↓

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

EV-500

ADEC Segment Length: 9724m

0 100 200 500
METERS

Map Key: PWS-250I
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250 l →

PWS-250 g
↓

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

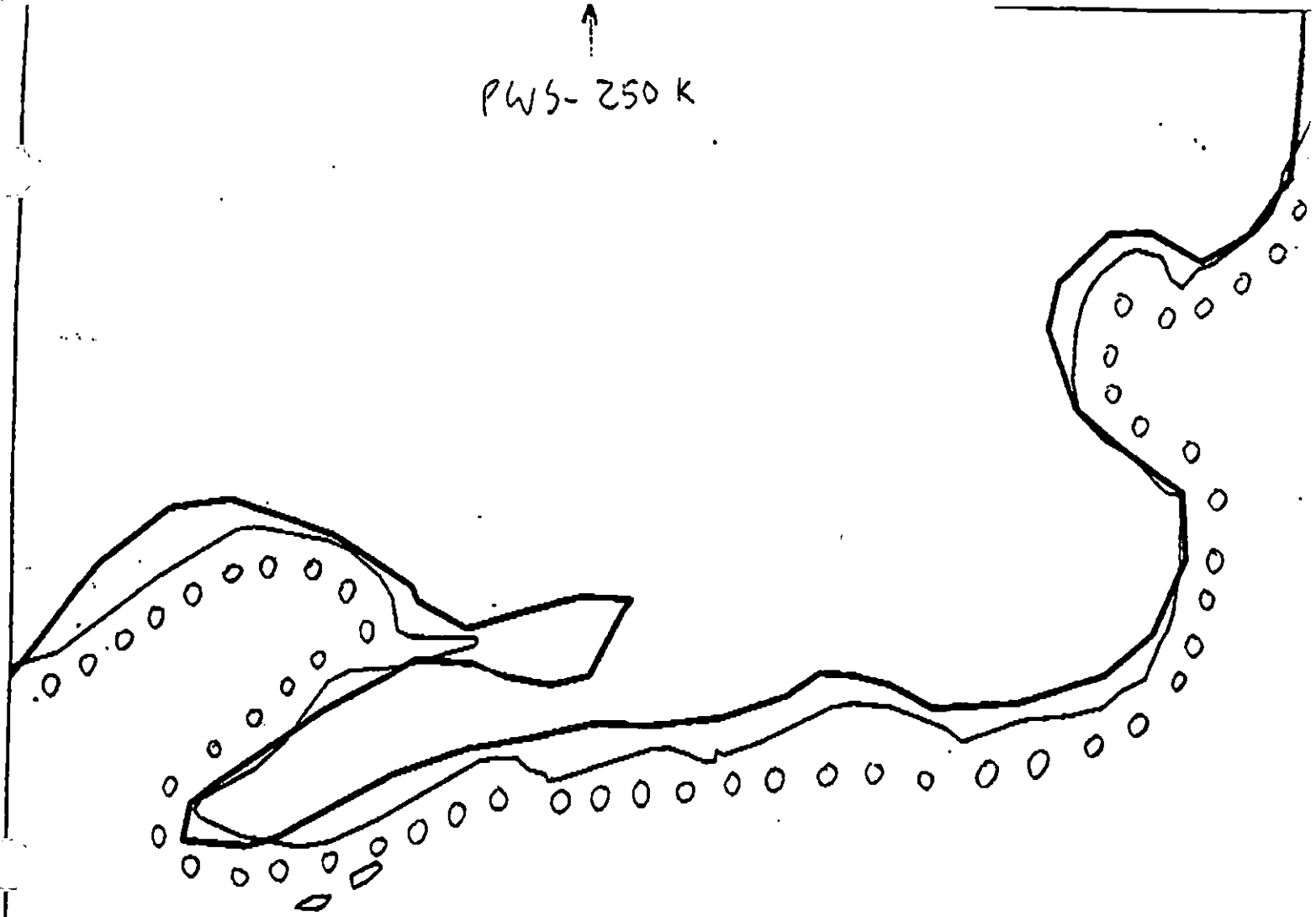
EV-500

ADEC Segment Length: 9724m

0 100 200 500
METERS

Map Key: PWS-250k
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250 K



← PWS-250 f

PWS-250 h →

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

EV-500

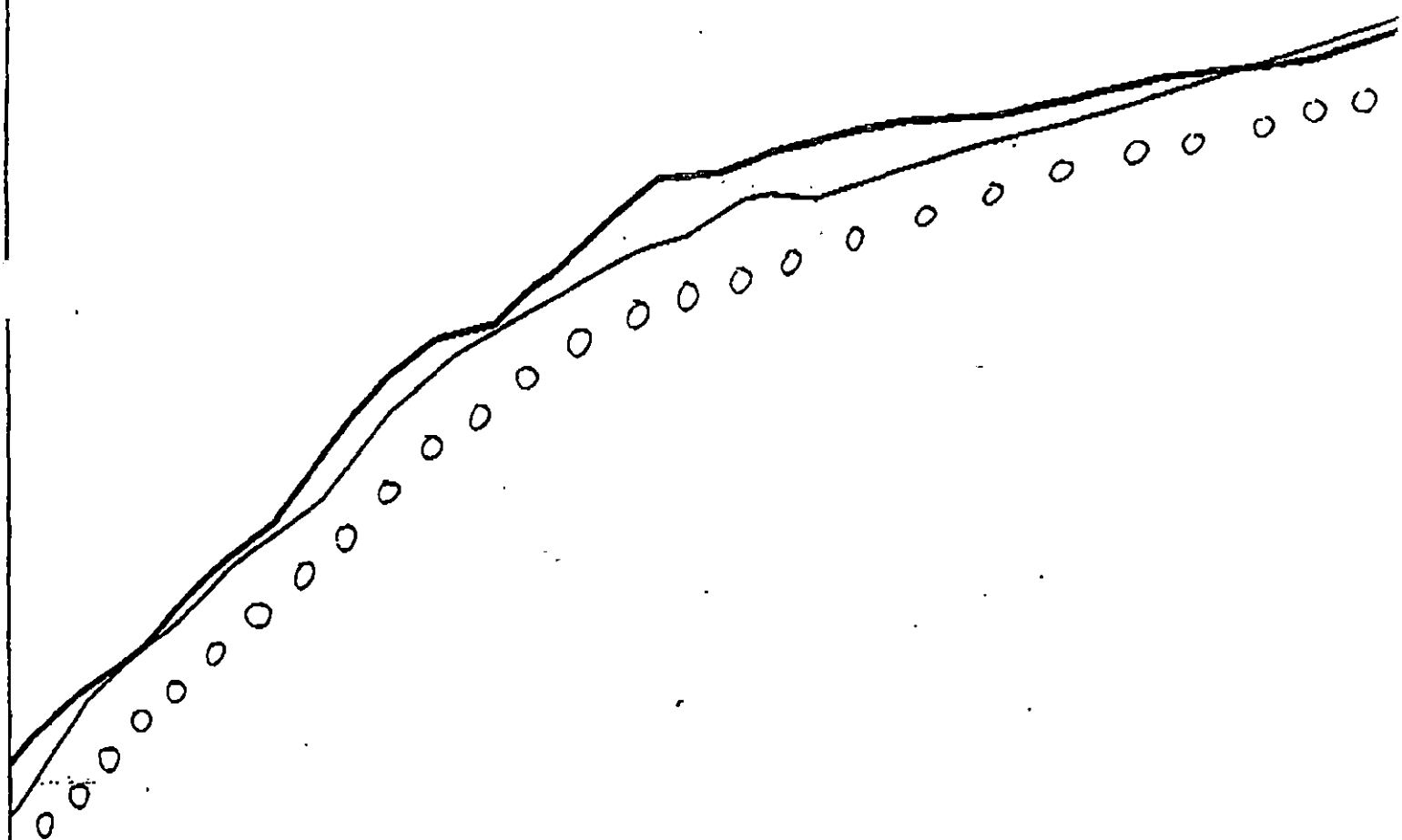
ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250g
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250g →

← PWS-250e



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

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250f
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250 f →

PWS-250 a ↓

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

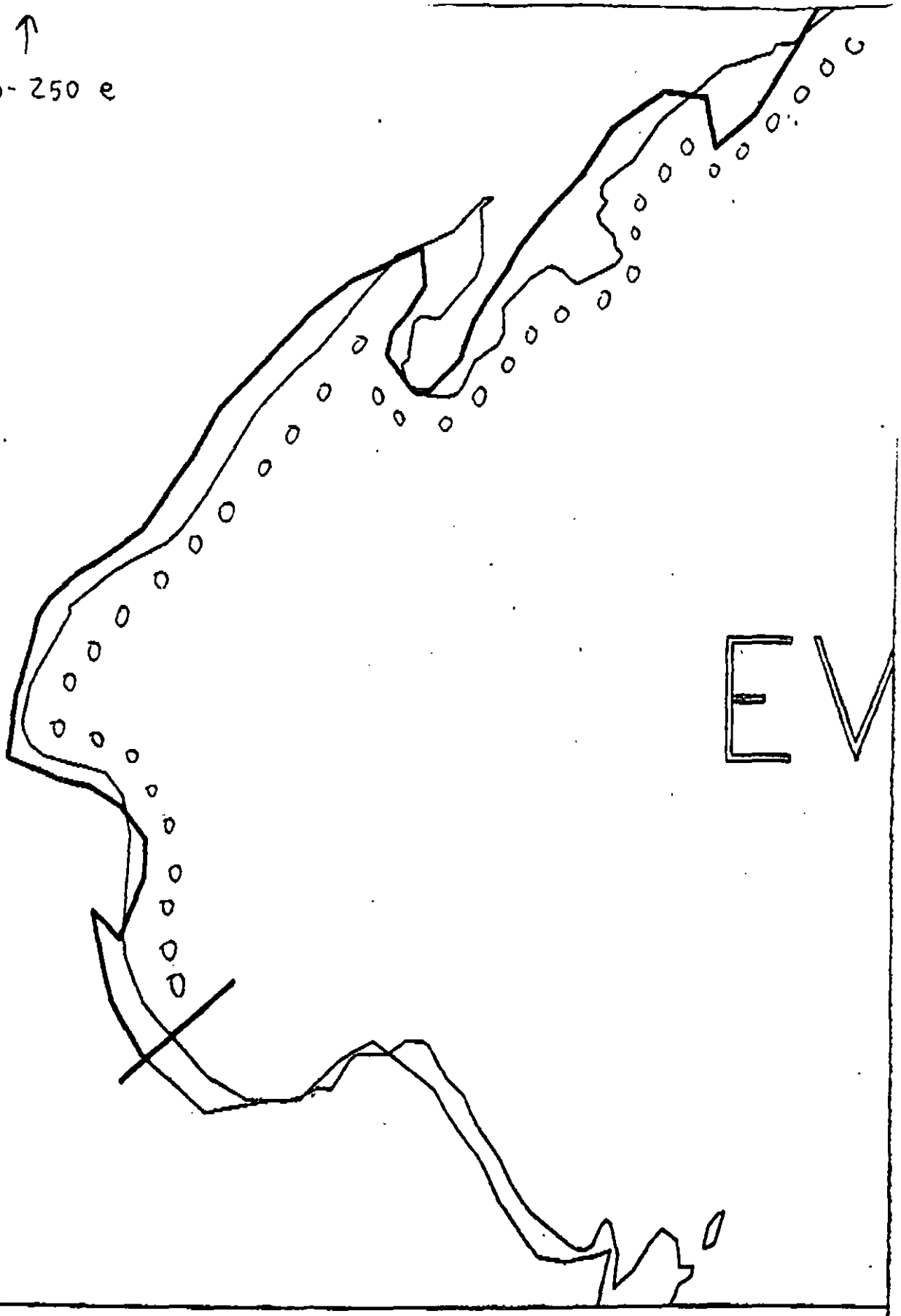
EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250e
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250 e



EV

YXXX Wide
,/// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250e
Name: Mike Foget
Date: 4/22/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-500 SUBDIVISION A (1 OF 1) DATE 4/22/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no's: 226-40-16660 (PCH), 226-40-16690 (PS), 226-40-16665 (PS), 226-40-16680 (PS), 226-40-16670 (P).
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)
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 treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: J. David McMahan DATE: 5/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 11390 m
Subsurface Oil Observed: Yes ____ No X Maximum Depth ____

RECOMMENDATIONS:

X No Treatment Recommended	____Snare/Absorbent Booms
____Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
____Bioremediation	____Spot Washing:____Wands
____Tarmat Removal	____Beach Cleaner
	____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/1/90
ADEC ART WEINER
EXXON ANDY TEAL
NOAA GARY PETRAS
USCG KENNETH KEANE

FOSC: _____ DATE: 5-8-90

OG Mike Foget

SEGMENT SH EV-37

SUBDIVISION A

DATE 4 / 22 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

Scale
500m

N →

Sawmill Bay
Crab Bay
Port Benny
Port Ashton
Cheneqa Village
San Juan Hatchery

Δ1 Δ2 Δ3 Δ4 Δ5 Δ6 Δ7 Δ8 Δ9 Δ10 Δ11 Δ12 Δ13

Recovered bag of oiled debris in the supra ITZ

recovered oiled pom pom + 3m of sorbent boom in the supra ITZ

1m x 100m STIP in supra ITZ (From previous spill at Port Ashton)

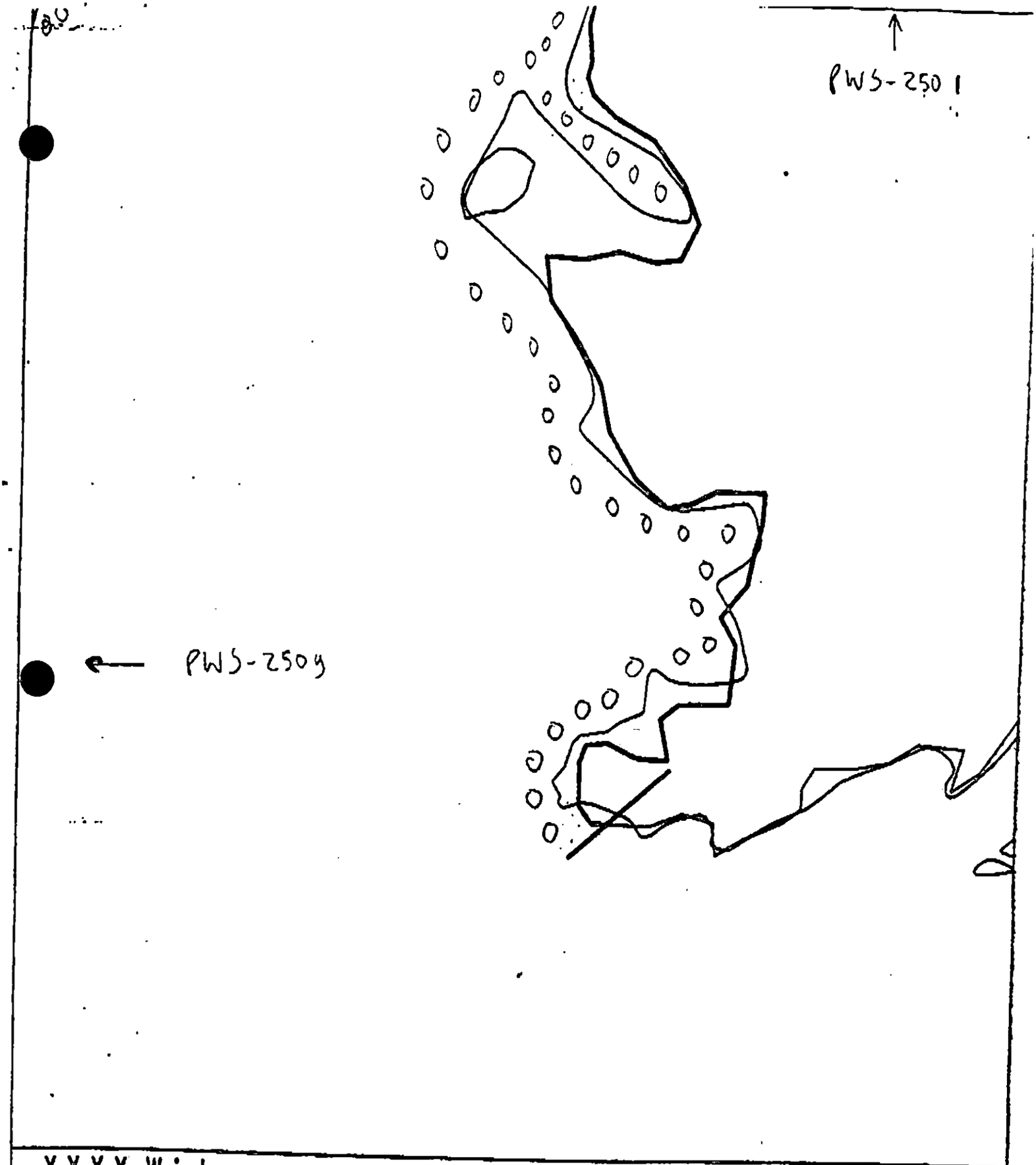
recovered 1 oiled plank supra ITZ

recovered 1m x 1m tar pattie in the HITZ

Legend
- trees
- Building
- site (village)
- stream

Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 1724

REVISION 03/01/99



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

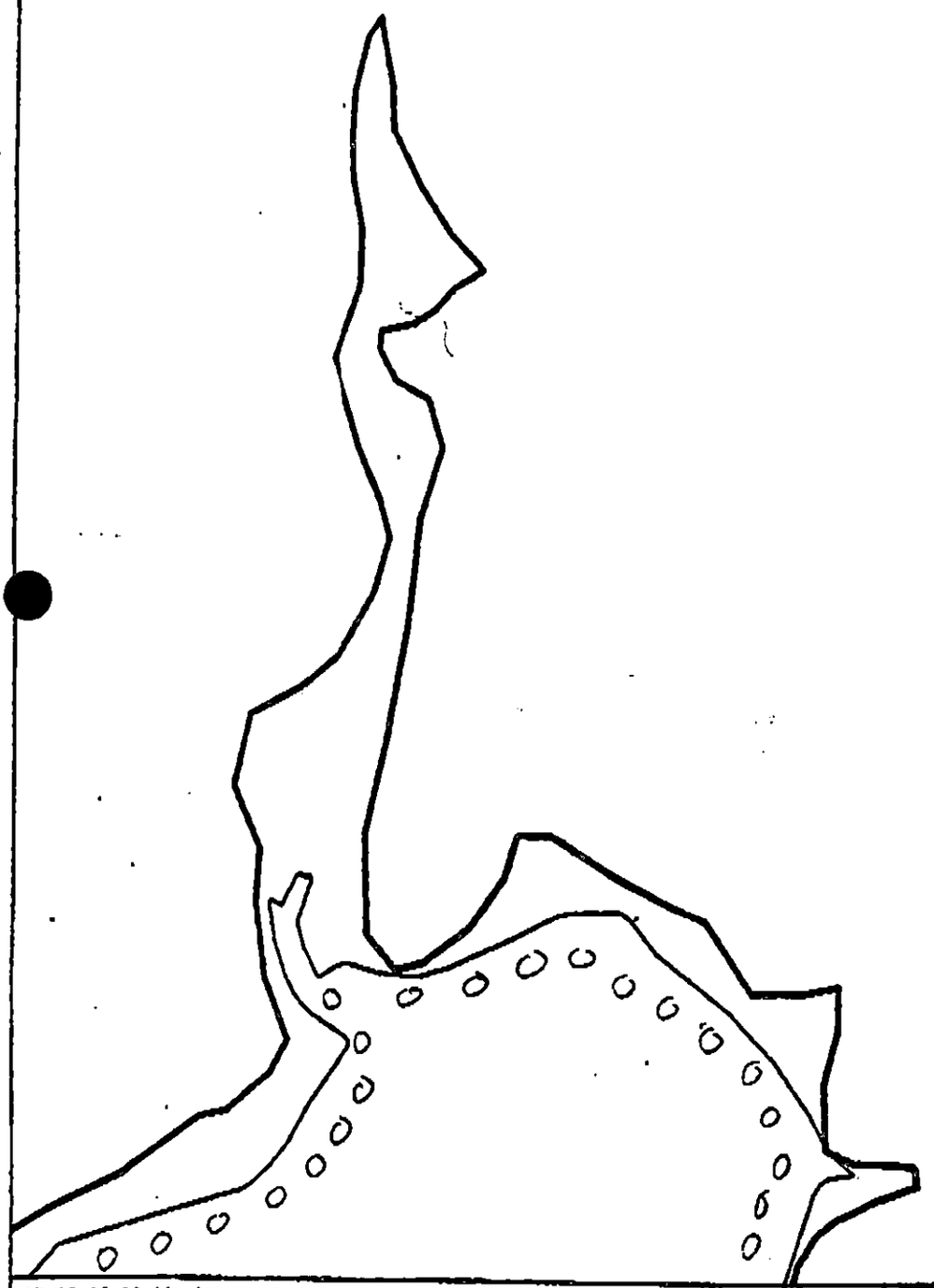
EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250h
Name: Mike Foget
Date: 4/22/90
Date Entered:

← PWS-250K



PWS-250L ↓

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

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250I
Name: Mike Foget
Date: 4/23/90
Date Entered:

PWS-250 l →

PWS-250 g
↓

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

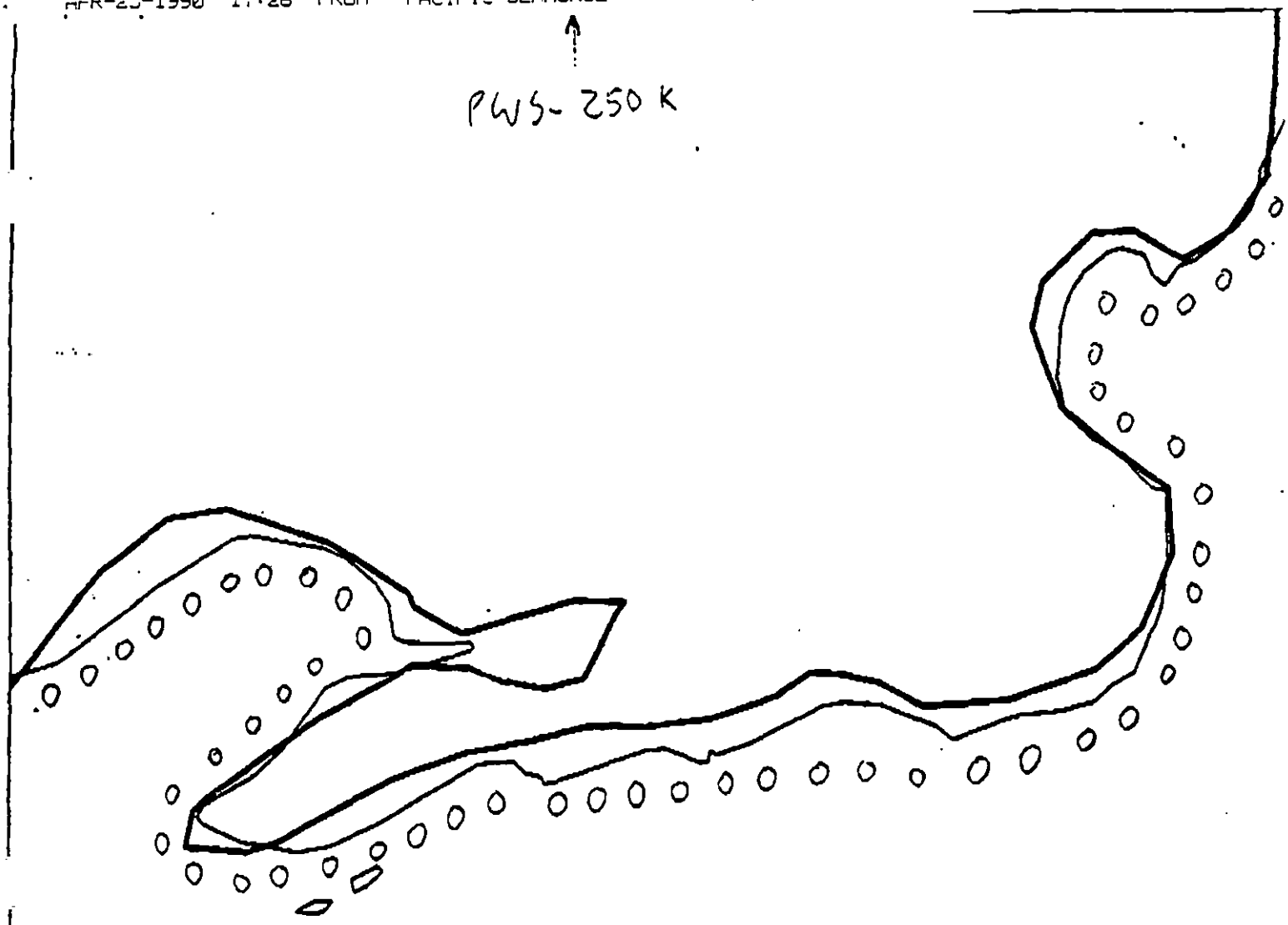
EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250k
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250 K



← PWS-250 f

PWS-250 h →

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

EV-500

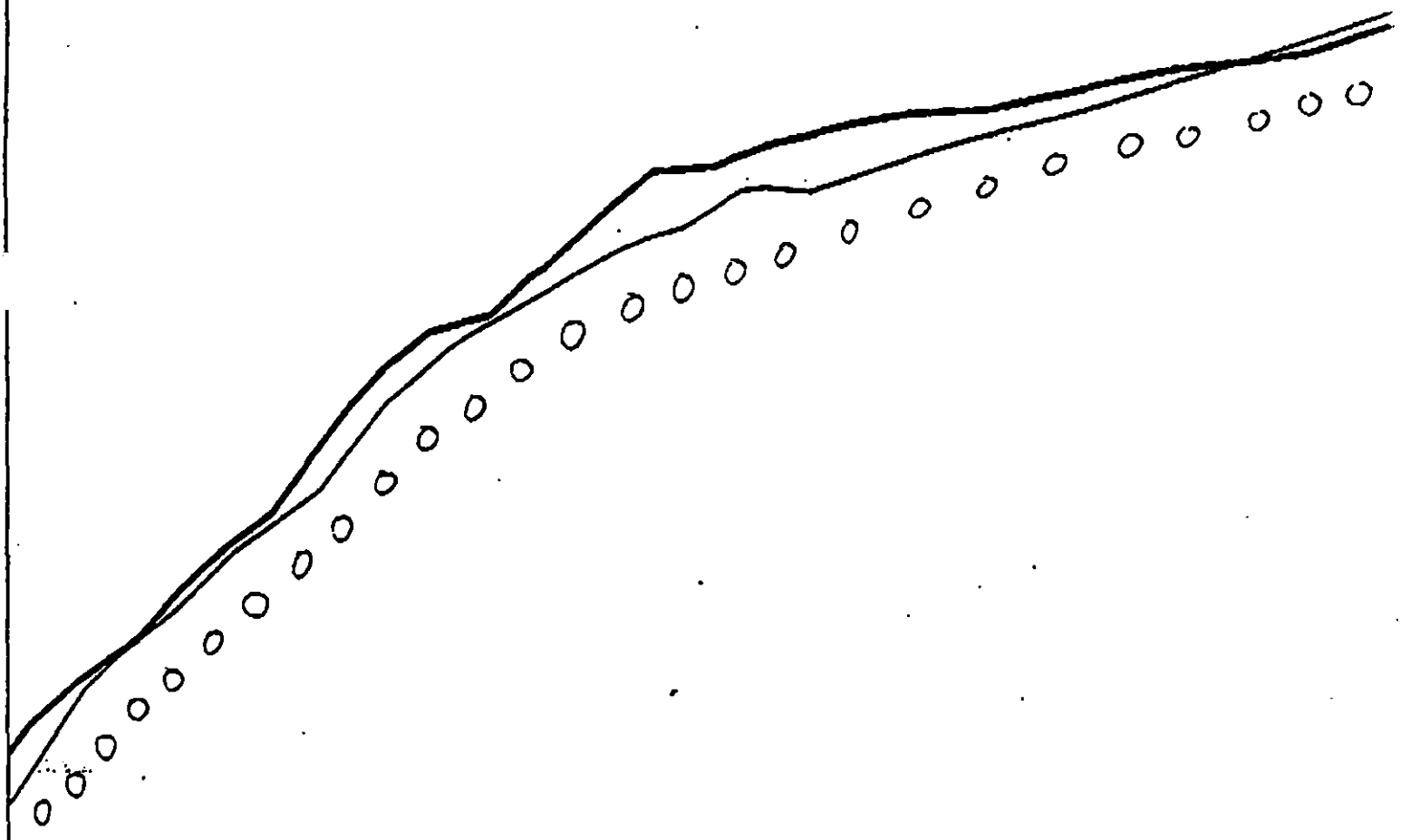
ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250g
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250g →

← PWS-250e



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

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250f
Name: Mike Foget
Date: 4/22/90
Date Entered:

PWS-250 f →

PWS-250 a
↓

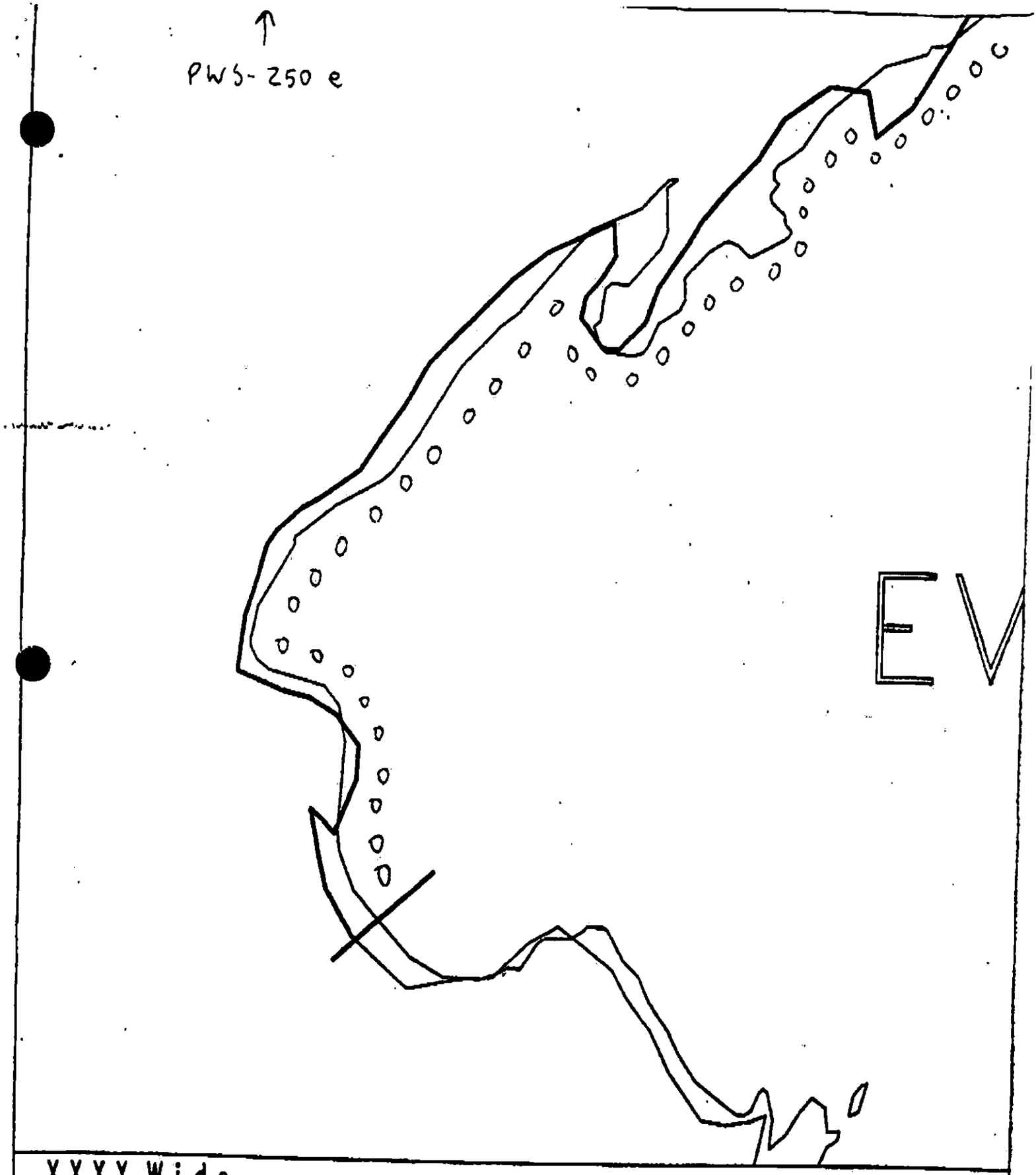
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250e
Name: Mike Foye+
Date: 4/22/90
Date Entered:



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

EV-500

ADEC Segment Length: 9724m

0 100 200 300
METERS

Map Key: PWS-250e
Name: Mike Foget
Date: 4/22/90
Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/EV-900

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ EV-900 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16650 and 226-40-16652
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7JJ Subsistence area: Invertebrate harvesting
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
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 treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE:_____ DATE:_____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1180 m: No Oil 6718 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	____Snare/Absorbent Booms
____Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
____Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Breakup	____ Beach Cleaner
____Removal	____Other (see comments)

COMMENTS: _____

TAG COMMENTS:_____

TAG APPROVAL DATE:_____
ADEC _____
EXXON _____ FOSC:_____ DATE:_____
NOAA _____
USCG _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)	
1B	Salmon stream mouth - spawning (7/10 to 8/31)	
	No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.	
1C	Salmon fry nursery area (4/31 to 7/31)	
1D	Esther Hatchery release (4/15 to 6/1)	
1E	Main Bay Hatchery release (4/20 to 5/10)	
1F	Sawmill Bay Hatchery release (4/15 to 6/1)	
1G	Cannery Creek Hatchery release (4/21 to 6/1)	
1H	Remote release site	
1I	Gill net area (6/7 to 8/31)	
1J	Purse seine area (7/20 to 9/30)	
1K	Purse seine hook-off (7/20 to 9/30)	
1L	Set net sites (6/11 to 7/25)	
	For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.	
2M	Herring spawning (4/1 to 6/15)	
	Restrict boat traffic to essential minimum. Avoid damage to unoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.	
3N, 3P	Harbor seal and sea lion pupping (5/15 to 7/1)	
3O, 3Q	Harbor seal and sea lion molting (8/15 to 9/15)	
	Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.	
5R	Seabird colony (5/1 to 9/1)	
	Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.	
5S	Shorebird/waterfowl concentration (4/1 to 5/15)	
	Restrict all activity to essential minimum, especially air traffic.	
5T	All Bald Eagle nests (3/1 to 6/1)	
	Active Bald Eagle nests (3/1 to 9/1)	
	Restrict air traffic to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.	
6U	Recreation:	Tent sites (6/1 to 9/15)
6V		Anchorages (6/1 to 9/15)
6W		Forest Service cabins (6/1 to 9/15)
6X		Lodge (6/1 to 9/15)
6Y		Special use destination
7Z	Subsistence area:	Salmon harvesting (5/1 to 9/30)
7HH		Finfish harvesting
7II		Deer harvesting (8/15 to 2/28)
7JJ		Invertebrate harvesting
	For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.	

FIELD SHORELINE COMMENT SHEET DRAFT

SEGMENT ST / EV-900 SUBDIVISION: DATE 4/8/90

USCG NOAA
NAME GARY SHIGENAKA - SIGNATURE Gary Shigenaka

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

SEGMENT CONSISTED OF A PORTION OF THE SHORELINE ALONG THE NORTHEASTERN SIDE OF EVANS ISLAND, WITH THE EXCEPTION OF JOHNSON COVE, AT THE SOUTHERN END OF THE SEGMENT NEAR SAWMILL BAY. MOST OF THE COAST WAS EXPOSED SHORELINE TYPIFIED BY ROCKY OUTCROPS AND COBBLE-BOULDER BEACHES. JOHNSON COVE WAS A FAIRLY ENCLOSED EMBAYMENT THAT WOULD BE EXPECTED TO EXPERIENCE LIMITED CIRCULATION. WEATHERED "BATHTUB RING" AND TAR STAIN WAS OBSERVED ON ROCK FACES AND BOULDERS ALONG THE SOUTHERN APPROACH TO JOHNSON COVE, INTO THE COVE ITSELF. A DISCONTINUOUS BAND OF TAR SPOTS WAS FOUND IN THE UPPER INTERTIDAL ON BOTH SIDES OF AN ANADROMOUS STREAM, THE BAND EXTENDING IN TO THE EDGE OF STREAM BANKS. THE DISCONTINUOUS BAND CONTINUED AROUND JOHNSON COVE BUT DISAPPEARED AS THE SHORELINE MADE THE TRANSITION TO A WIDE FLAT PEBBLE BEACH.

ALTHOUGH THIS SEGMENT WAS LISTED AS BEING WIDELY OILED BY THE ADEC MAP, IN GENERAL ONLY SPORADIC OCCURRENCES OF WEATHERED SPLASH AND STAIN WERE OBSERVED ALONG MOST OF THE REMAINDER OF THE SHORELINE. NEAR THE NORTHERN END OF THE SEGMENT, A SIZEABLE ANADROMOUS STREAM FED INTO A WIDE EMBAYMENT (A STATE OF ALASKA CERCLA TEST SITE WAS LOCATED HERE). A SOMEWHAT HEAVIER DISTRIBUTION OF STAIN AND COAT (WITH SOME COVER) WAS OBSERVED IN THE UPPER INTERTIDAL ON AND AMONG BOULDERS, BUT THIS WAS LIGHT RELATIVE TO MANY OTHER OILED AREAS. ACCORDING TO THE CVC REPRESENTATIVE, THIS SEGMENT WAS IN FACT FAIRLY EXTENSIVELY OILED, BUT STORM EXPOSURE HAS APPARENTLY WEATHERED MUCH OF WHAT REMAINED.

ADEC
NAME Jacha Hayes SIGNATURE

☑ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Oiling observed was stain with the exception of some asphalt splatter and light banding of stain in UTC. Some staining + 1 small asphalt patty was observed in vicinity of an anadromous stream. The patty was manually broken up and the staining stopped appx 50m from the stream bank. No oil was observed in or near the stream and beaches around both streams on this segment appeared stable. Recently a local Chenega Village rep. this stream has alot of salmon. And SSAT team should be aware of this and may want to answer watch while LCD appx 50m. from stream. See chenega map.

LAND MANAGER
NAME JAMES A. BARKER SIGNATURE

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

STARTING N. OF SAWMILL BAY SSAT TEAM MOVED N INTO JOHNSON COVE WE OBSERVED A BATHTUB RING STAIN 3-8 cm WIDTH ALONG THE HIGH TIDE MARK. STAIN WAS INTERMITTENT; LENGTH VARIED FROM 1-10 m STRETCHES. MOVING N. WEATHERED TAR PATIES & SPLASHES WERE FOUND IN ISOLATED AREAS. MOST AREAS OF THIS SEGMENT CONTAINED NO TRACE OF OIL. TIDAL ACTION AND WEATHERING HAVE SIGNIFICANTLY CLEANED; REMOVED CONTAMINATED DEBRIS FROM THIS SEGMENT

SHORELINE OILING SUMMARY

REVISION NO. 03/29/90

OG BIG Mike Foget NOAA ~~USCG~~ Gary Shigenaka SEGMENT ST/ EV-900
BIO Richard Ambrose LAND REP James A Dorker SUBDIVISION A
EXXON Larry Olsen ADEC John Hayes TIME 5:30 to 10:00
TEAM NO.: 11 TIDE LEVEL: 4.3 to 0.8 (PM) (AM) DATE 4 / 8 / 90
EST. SUBDIVISION LENGTH: 7730 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock steep vertical rocky backshore
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
SURFACE SEDIMENTS: R 15 % B 35 % C 30 % P 10 % G 5 % S 5 % M 0 % V 0 %
SLOPE : Lang 60 % Hang 30 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2100 m NO 5630 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	AC	AB	AP	AS	BRN/BLK	DBR/PRP	OLV	DBRN/TN	LGHT	SU	UI	MI	LI
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

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

~~SCAT~~ DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED ☒ YES ☐ NO
TYPE Fish Coat, 2 plastic containe
#BAGS 1

Photographs:
Roll No. 0
Frames 0

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BRN/BLK	DBR/PRP	OLV	DBRN/TN	LGHT		SU	UI	MI	LI		
1	20					X	-		X								X				S
2	30					X	-		X										X		P, G, S
3	25					X	-		X		-							X			P, G, S
4	40					X	-		X									X			S
5	30					X	-		X								X				C, P, G, S
6	15					X	-		X								X				C, P (H_2O at 2cm)

COMMENTS Oiling was observed in the southern end of the segment as a 0.1m discontinuous splattered stain in the HITZ among Bedrock / Boulders and cobble. To the North in the cove their was a 2m x 150m discont CT/S splattered stain distribution w/ a few tar patties. This was located in the HITZ. This beach was a low erie C/B beach. For the Whole segment, most of the shore zone consists of low erie cobble / boulder beach w/ some vertical rocky headlands

 REVIEWED [signature] DATE 4/13/90

Revised

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 03/22/90

SEGMENT ST/ EV-900 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		UO	UC	BRT	DBT	DBT	DY	DRK	LBR	SU	UI	MI	U		
7	20					X	-		X								X				C, S, C
8	40					X	-		X							X					P
9	30					X	-		X							X					C, P, S
10	20					X	-		X								X				C, P
11	20					X	-		X									X			C, P, S
12	30					X	-		X										X		P, G, S
13	20					X	-		X							X					C, P, G
14	10					X	-		X								X				C, P, C
							-														
							-														
							-														
							-														
							-														
							-														

COMMENTS

REVIEWED TW DATE 4/13/90

Exxon Valdez

SEGMENT EV-900

SUBDIVISION A

DATE 4 / 8 90

SKETCH MAP

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

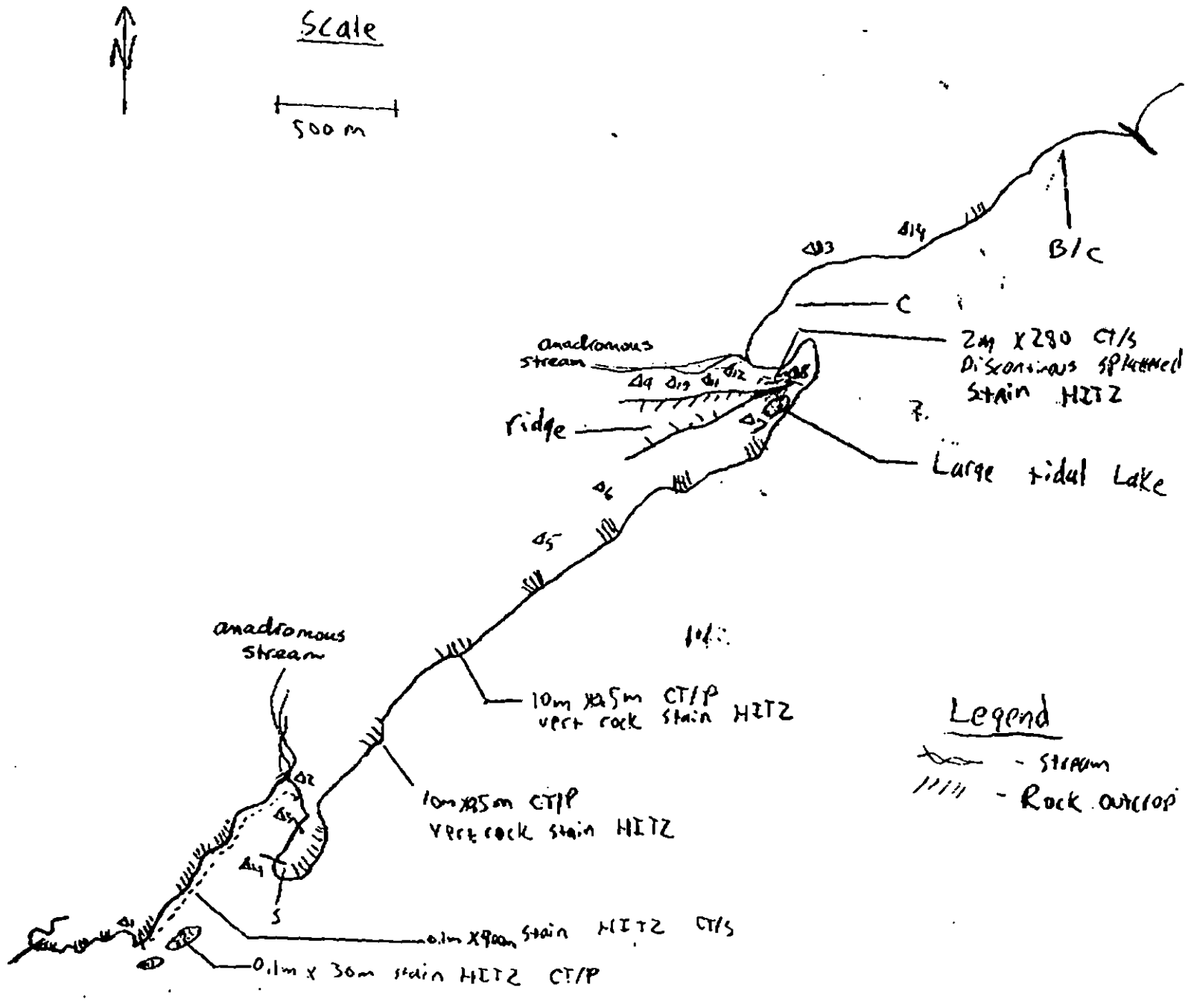
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

Oiled Vegetation

1 ⇔ Photo location, direction, and number



Oil Character Length (m): AP ___ PO ___ CV ___ CT ___ ST 1230 MS ___ PT ___ TB ___ FL ___ NO 6500

REVISION

SHORELINE ECOLOGICAL SUMMARY

REVISION: DATA

Segment ST / EV900 Subdivision A Date (mo / day / yr) 4/8/90

Time (24 hr) 0830 hrs / 1700 hrs Biologist Ambrose

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 35 (3) Cobble 30 (4) Pebble 10 (5) Sand 10 (6) Silt —

(B) Overall % cover of biota (% of segment): Dense 15 Moderate 25 Low 60

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

Photographs:
Roll No. —
Frames —

BARNACLES

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

NOT PRESENT

FUCUS

Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	X	1L	X	1M	X	①	1M	1L
2	2	2	2	X	2	2	2	X	X	2	2
3	3	3	3	3	X	3	X	3	X	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: * 14 others, 2 seals, 12 mergansers, 18 surf scoters, 2 oystercatchers, 3 bufflehead, 28 crows, 2 ravens, deer tracks.
Cover on bedrock walls and pocket beaches was dense to moderate; in embayments and low beaches cover was generally sparse. Although mussels were sparse overall, they were dense in the few discrete patches in which they occurred.

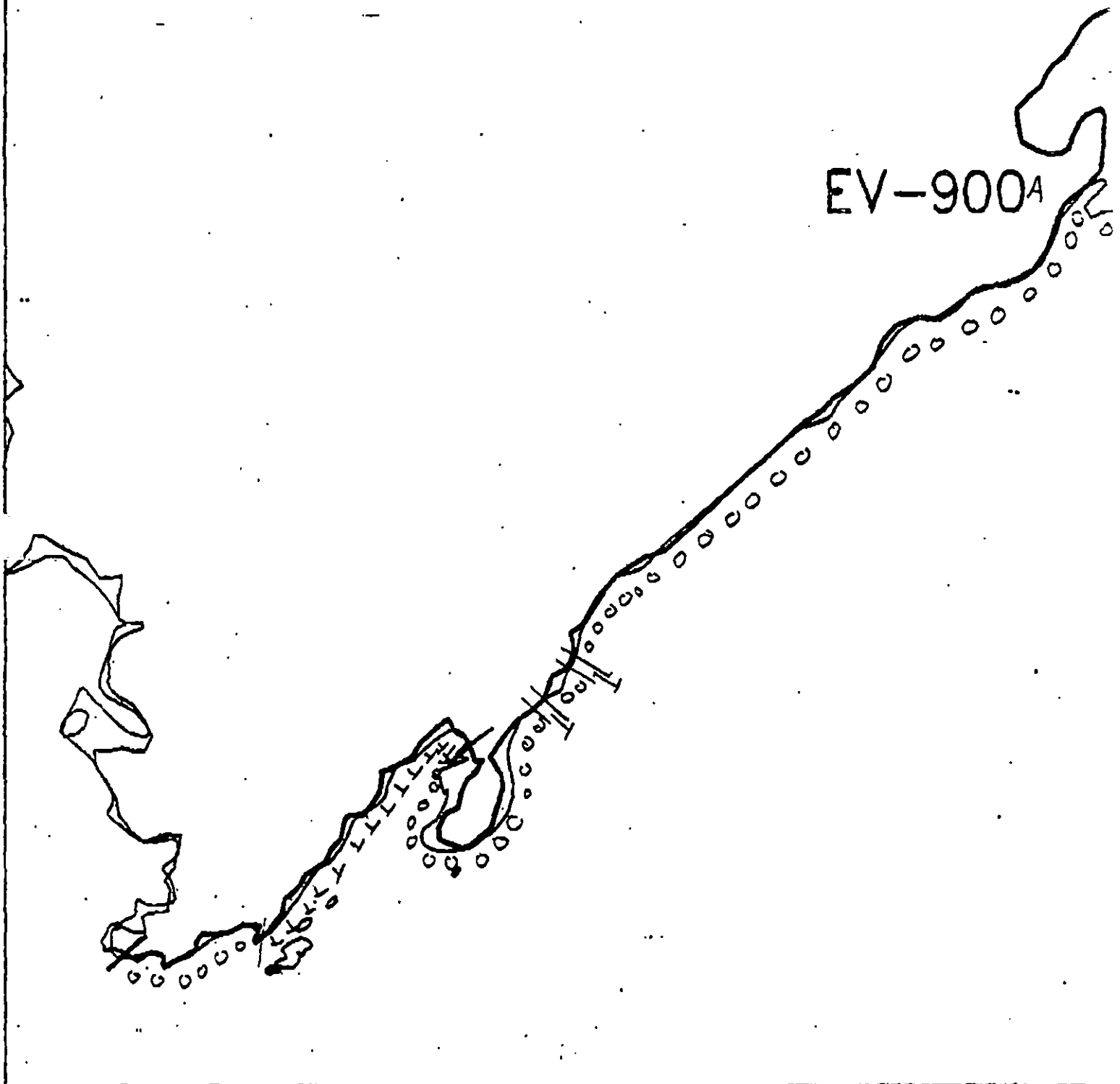
Ecological Considerations:

7HH, 7II, 7JJ, 7Z, 1F: No relevant observations.

9 bald eagles seen: 3 pairs of mature eagles plus two other matures and one immature. With one pair, one eagle chased away a third mature eagle. At another site, a mature eagle roosted near a nest while an immature soared nearby. Two anadromous streams occur in this segment (see next page).

* Part of this segment surveyed by boat

Revised



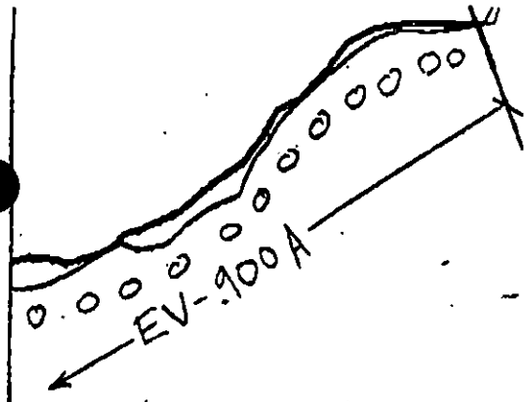
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

EV-900A

EXXON Segment Length: 7730m
Scale 1" = 1500'
0 500 1000
METERS

Map Key: PWS-EV-900a
Name: Mike Foret
Date: 4/18/90
Data Entered:

Revised



LA-21

LA-22

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

EV-900

EXXON Segment Length: 7730m
Scale 1" = 1500'

0 500 1000 1500
METERS

Map Key: PWS-EV-900b
Name: Mike Foret
Date: 4/8/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ EV-900 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 226-40-16650 and 226-40-16652
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
7HH Subsistence area: Finfish harvesting
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7JJ Subsistence area: Invertebrate harvesting
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
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 treatment is planned, a cultural resource evaluation is required prior to shoreline treatment.

SHPO SIGNATURE: [signature] DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1180 m: No Oil 6718 m
Subsurface Oil Observed: Yes____ No X Maximum Depth_____

RECOMMENDATIONS:

X No Treatment Recommended	____Snare/Absorbent Booms
____Treatment Recommended	____Oil Snares (pom poms)
____Manual Pickup	____Absorbents (pads,rolls,etc)
____Bioremediation	____Spot Washing:____Wands
____Tarmat: ____Breakup	____ Beach Cleaner
____Removal	____Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/20/90.
ADEC ART WEINER [signature]
EXXON AMY TEAR [signature] FOSC: [signature] DATE: 5-1-90
NOAA Burl Wescott [signature]
USCG KENNETH KEPPNE [signature]

OS Lake Roger

SEGMENT EV-900

SUBDIVISION A

DATE 4 / 8 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

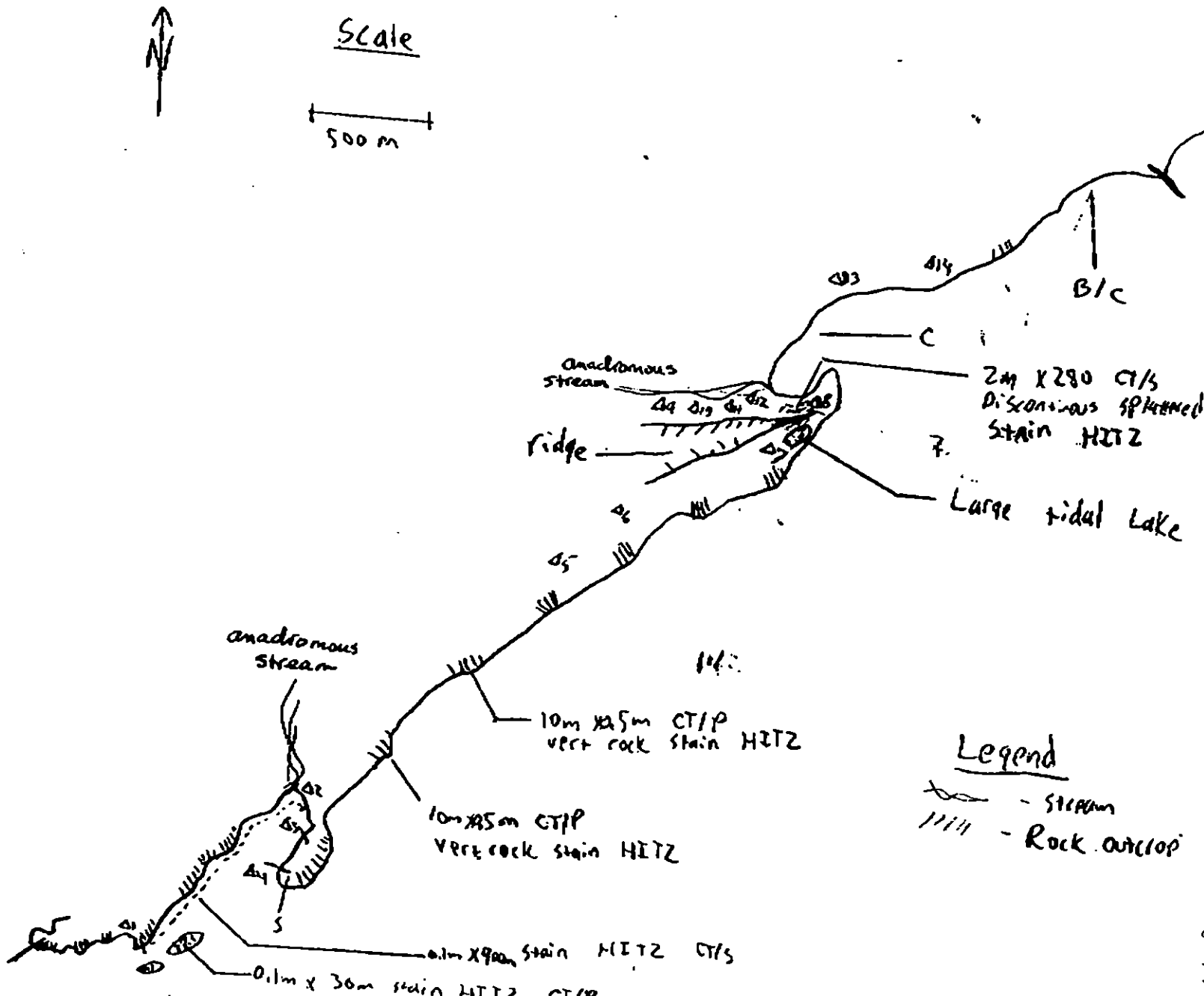
Oiled Vegetation

1 ⇐ Photo location, direction, and number

SKETCH MAP

Scale

500 m

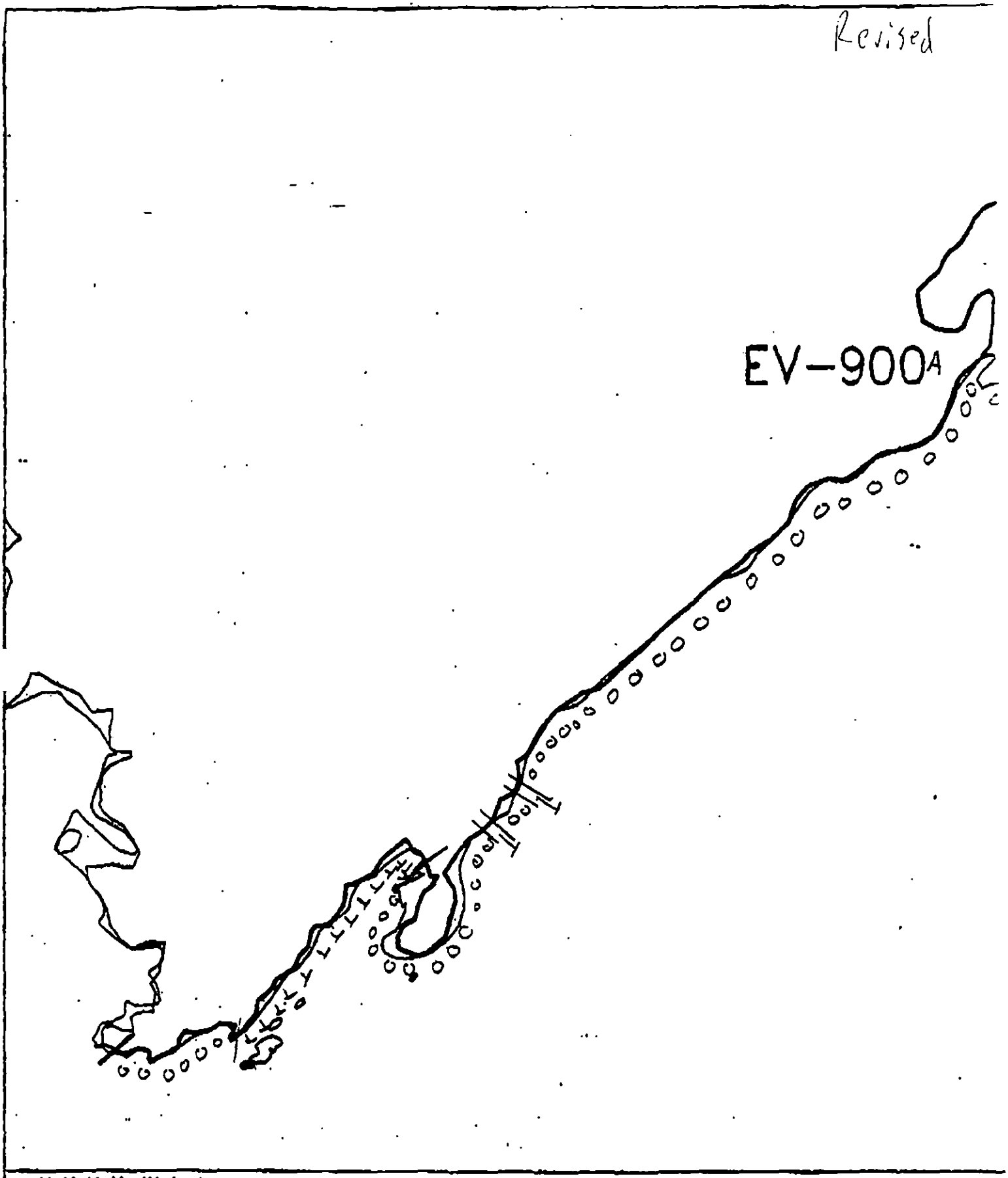


Oil Character Length (m): AP ___ PO ___ CV ___ CT ___ ST 1230 MS ___ PT ___ TB ___ FL ___ NO 6500

REVISION 03/2000

Revised

Revised



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

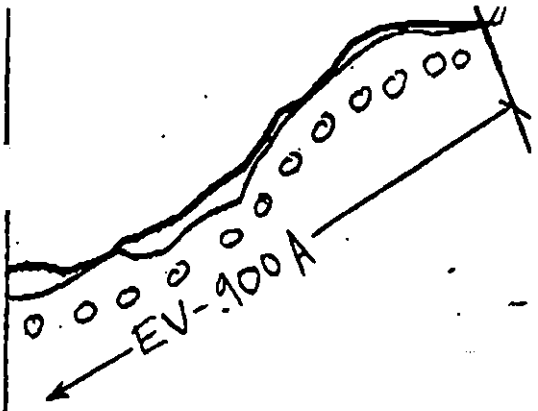
EV-900A

EXXON Segment Length: 7730m
Scale 1" = 1500'

0 300 600 900
METERS

Map Key: PWS-EV-900a
Name: Mike Foget
Date: 4/6/90
Data Entered:

Revised



LA-21

LA-22

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

EV-900

EXXON Segment Length: 7730m
Scale 1" = 1500'

0 500 1000
METERS

Map Key: PWS-EV-900b
Name: Mike Foget
Date: 4/8/90
Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: EV 900 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/28/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area

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

SHPO Signature: [signature] Date: 5/9/91

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 9 1991 **FOSC APPROVAL DATE:** 5/13/91

ADEC [signature]

EXXON [signature]

USCG [signature]

NOAA [signature]

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

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-900 SUBDIVISION A DATE 4/28/91

ADEC
NAME John Hayes SIGNATURE [signature]

☒ NTR Oiling observed by survey team consisted of sporadic CT/CV/TB in UITZ most of which was at southernmost point of segment. TB's observed were P.O. at remaining oiling is too light to warrant treatment at this time. We surveyed 225 meters of this segment that had been previously identified as having oiling.

EXXON
NAME Martinez N.J. SIGNATURE [signature]

☒ NTR Area had a few asphalt patties which team picked up I don't believe there is any thing else we should do.

LANDMANAGER
NAME Steve WARD OF CVC SIGNATURE [signature]

☒ NTR Area has no History of Subsurface oil. the Asphalt Patties Located were Removed during Survey. Nothing Else can be done in this Area. As all oil Appears gone. No Further treatment Recommended At this time.

USCG/NOAA
NAME Dreher / Hodges SIGNATURE CWO R L Dreher / [signature]

☒ NTR majority of beach showed no sign of oil. what oil was found was heavily weathered spatter on or around large rocks in southern portion of beach. oil was not recoverable.

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 900

ADEC HAYES LANDMANAGER WARD for CVC SUBDIVISION A

EXXON MARTINEZ USCG/NOAA DREHER / HODGES DATE April 27 / 91

TIME 17 : 55 to 19 : 15 TIDE LEVEL 2 ft. to 1.5 ft. ENERGY LEVEL: ☐ H ☑ M ☐ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1300 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 116 m NO 1184 m US 6598 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	T				C	L	0.3	0.3		✓			splatters on cobbles
B						T	T				BC	L	1	15		✓			SPLATTERS ON BOULDERS
C					T	T					BR	L	1	5		✓			ALGE ON CT & CV
D					T	S					R	L	5	15		✓			VERTICAL ROCK BEDDING AND LEE OF BOULDERS
E					T	T					BR	L	1	56		✓			
F	T				T	T					BR	L	0.3	30		✓			A FEW NON VALDEZ OIL MIXED WITH GENERAL SPLATTERS AND AP PATTIES

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- 5 - 3 FRAMES 1-6

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	HOR	MOR	LOR	OF	TR	NO	OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE S	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS	NOTES
1	25							✓	-					✓			BG-BG	
2	25							✓	-						✓		PC-PCG	
									-									
									-									
									-									
									-									
									-									
									-									
									-									

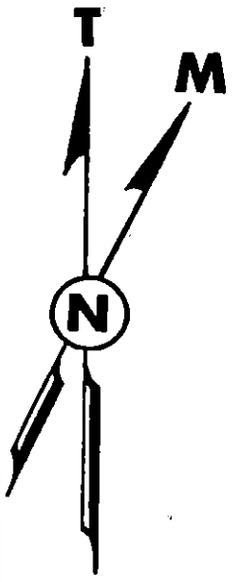
SHEEN COLOR: B = BROWN; R = RAINBOW; S = SILVER; N = NONE

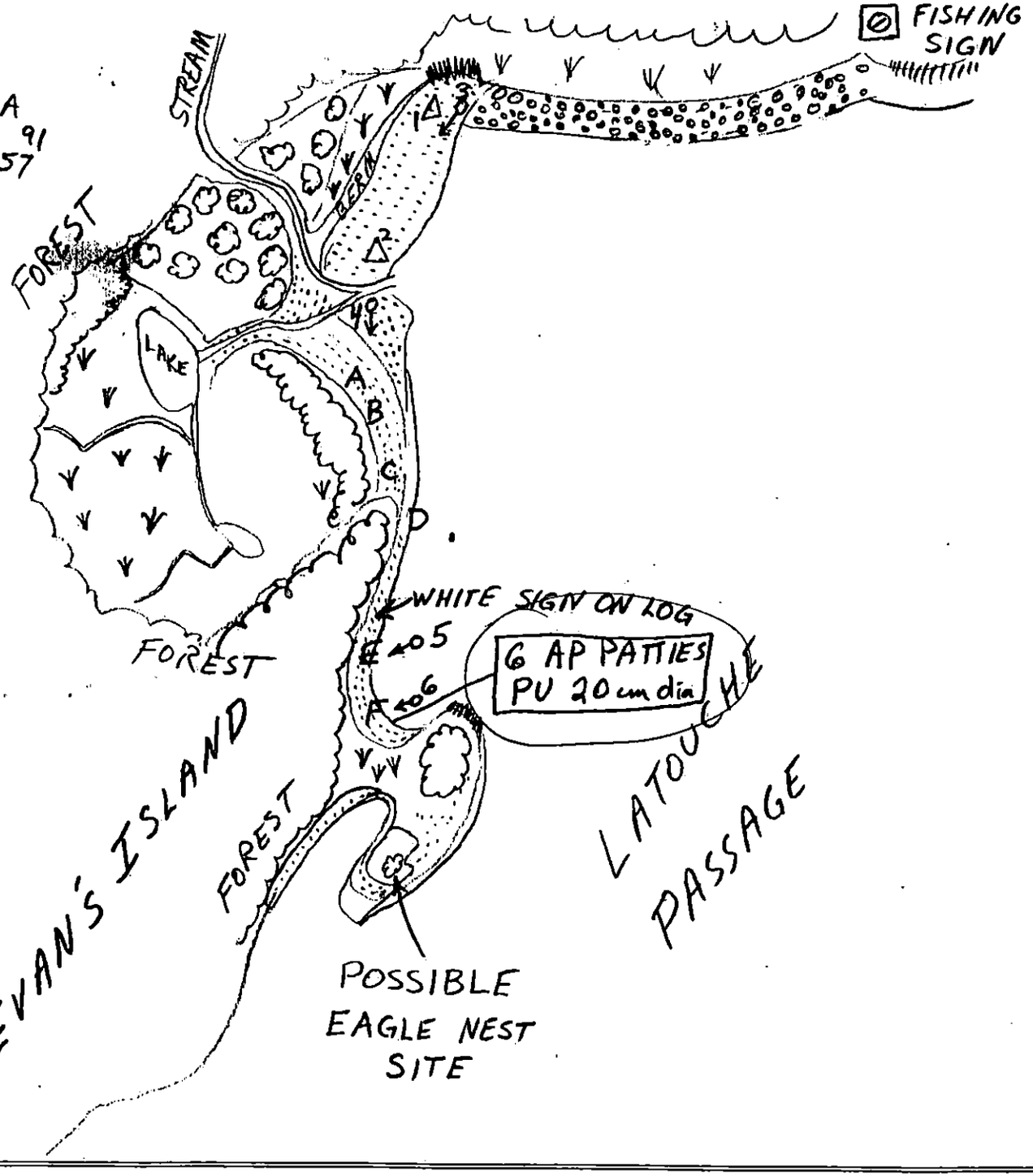
OG COMMENTS:

MOST OIL LOCATED WAS IN THE FORM OF RANDOM COATS AND COVERS SPLATTERED ON BOULDERS AND BEDROCK ON THE BEACH SOUTH OF THE LARGE ESTUARY. A FEW AP PATTIES WERE LOCATED AND RECOVERED AT LOCATION "F."

Reviewed: F.W. 5/2/91
Reviewed: M.C. 5/4/91

MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-900 A
DATE: APRIL 27 91
AIR P.#: INT 010 157





LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
APPROXIMATELY
225 METERS

REVIEWED: F.W. 5/2/91
RENEWED: M.C. 5/9/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5	**DATE** 27 Apr '91
SEGMENT # EV-900	**TIDAL HEIGHT (Range)** +2.5 → +1.5
SUBDIVISION A	**BIOLOGIST** Crank
SEA STATE 1'→3'	**WIND SPEED/DIRECTION** 10-20+ knots / SE
PHOTOGRAPHS: ROLL #	**FRAME #**

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

(A) Area in the UITZ. Rare barnacles in the immediate vicinity. Ten meter SE downshore there is a moderate Fucus bed on a rock bench. Rock bench has small tidepools with dense Littorina and sparse limpets.

(B) Area is located in the UITZ S-8 M SE of A. In the immediate vicinity Littorina empty shells only. No live macro-biota was observed in the UITZ. In the MITZ there is a rock bench with a moderate Fucus concentration (mature conceptacles and sporelings present). Dense Littorina and sparse limpets present. Would not be net beneficial to the rockbench inhabitants to remove the few remaining tar splatters.

(C) Area is located high in the UITZ. There are white and black lichens on boulders, appear to be healthy. Rare Littorina and limpets also present. Three meters downshore a continuation of rockbench is present. Biota appears to be healthy.

(D) Area is located high in the UITZ in boulders. Small (<5mm) Fucus sporelings found deep in boulder cracks. Fucus band begins 5m downshore, mod. concentration.

(E) Area is located in the UITZ. Rare barnacles, limpets and Littorina present. A sparse, recent barnacle set is also present. Five meters downshore Fucus band is present thinning from moderate concentration to rare at the SE end of area.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	4	
Seabirds			
Waterfowl	1	26	
Gulls/kittiwakes	2	17	
Shorebirds			
Corvids	1	1	
Other Birds - Terrestrial	3	?- Heard calls	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Bear tracks in snow - old	
Pinnipeds (specify)	3 Sealion	Deer tracks + scat	
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Team #5 Date 27 Apr '91
Segment #EV-900 Tidal Height +2.5 → +1.5
Subdivision A Biologist Crank
Sea State 1→3' Wind Speed/Direction 10-20+ knots/SE

Comments (cont.)

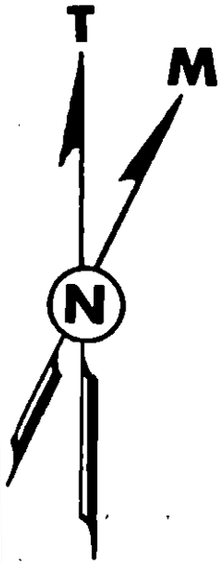
(F) Area is located in a rock bench from low SUPRA to high UITZ. White, yellow and black lichens present appear healthy. Rare Littorina and filamentous green algae are in close proximity to oil. Below site in the MITZ Fucus is dense and there is a healthy mussel bed with a moderate concentration. Odonthalia (alga) is also prominent and there are rare patches of Gloiopeltis (alga).

A mature Bald Eagle sat in top of tree approx. 50m behind site E. Eagle observed our group. There was a large dark shadow in a limb on the SE side of tree about 1/3 way down. Could not confirm as nest.

Small shrimp were found in driftline near site A, assumed to be recently wash-up as eyes were present.

The intertidal biota appear to be healthy. Recruitment is occurring in both barnacles and Fucus.

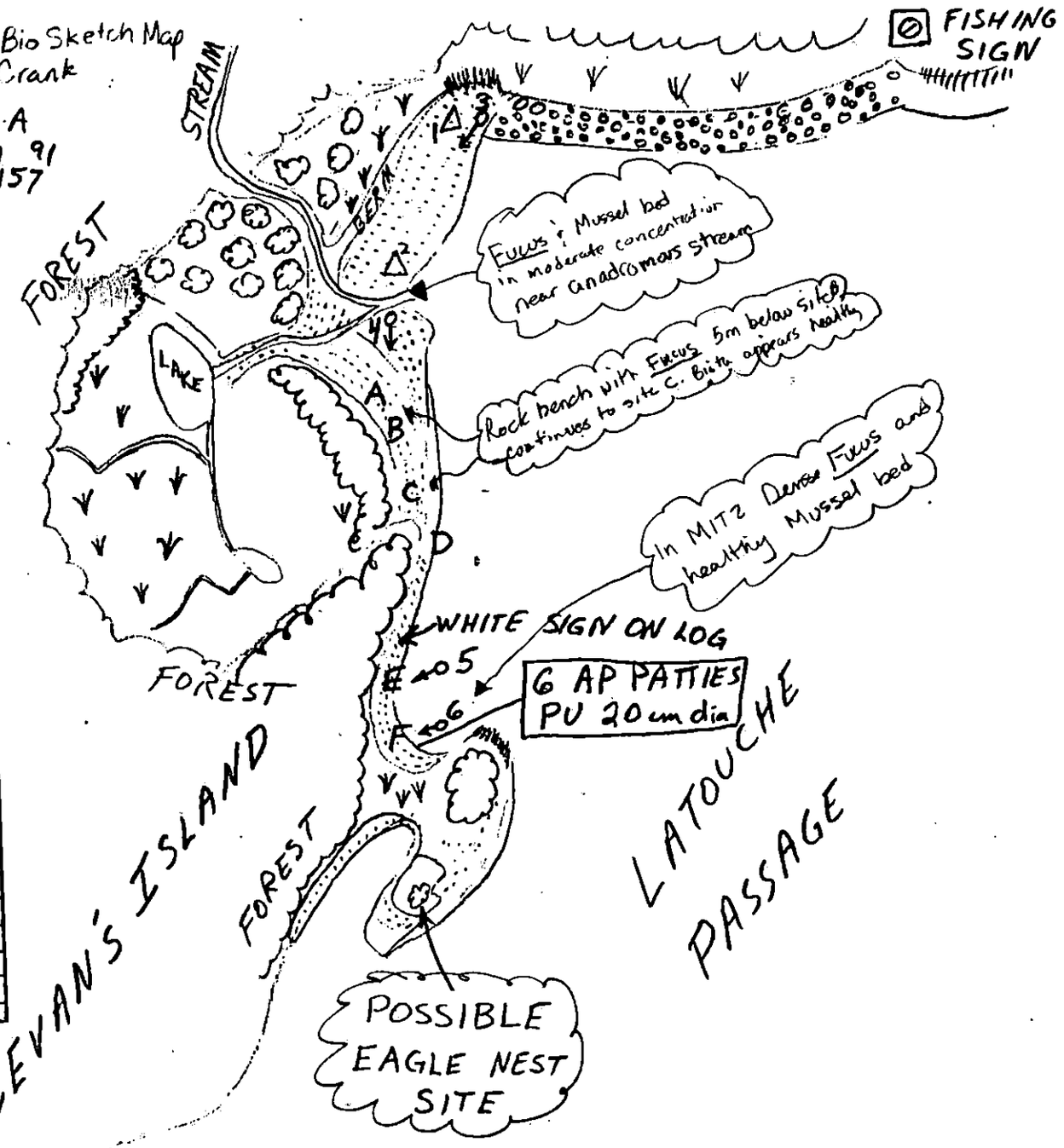
MAYBAP 1991
OG SKETCH MAP; Bio Sketch Map
GREG CHANEY ; Crank
TEAM 5
SEGMENT: EV-900 A
DATE: APRIL 27 91
AIR P.#: JNT 010 157

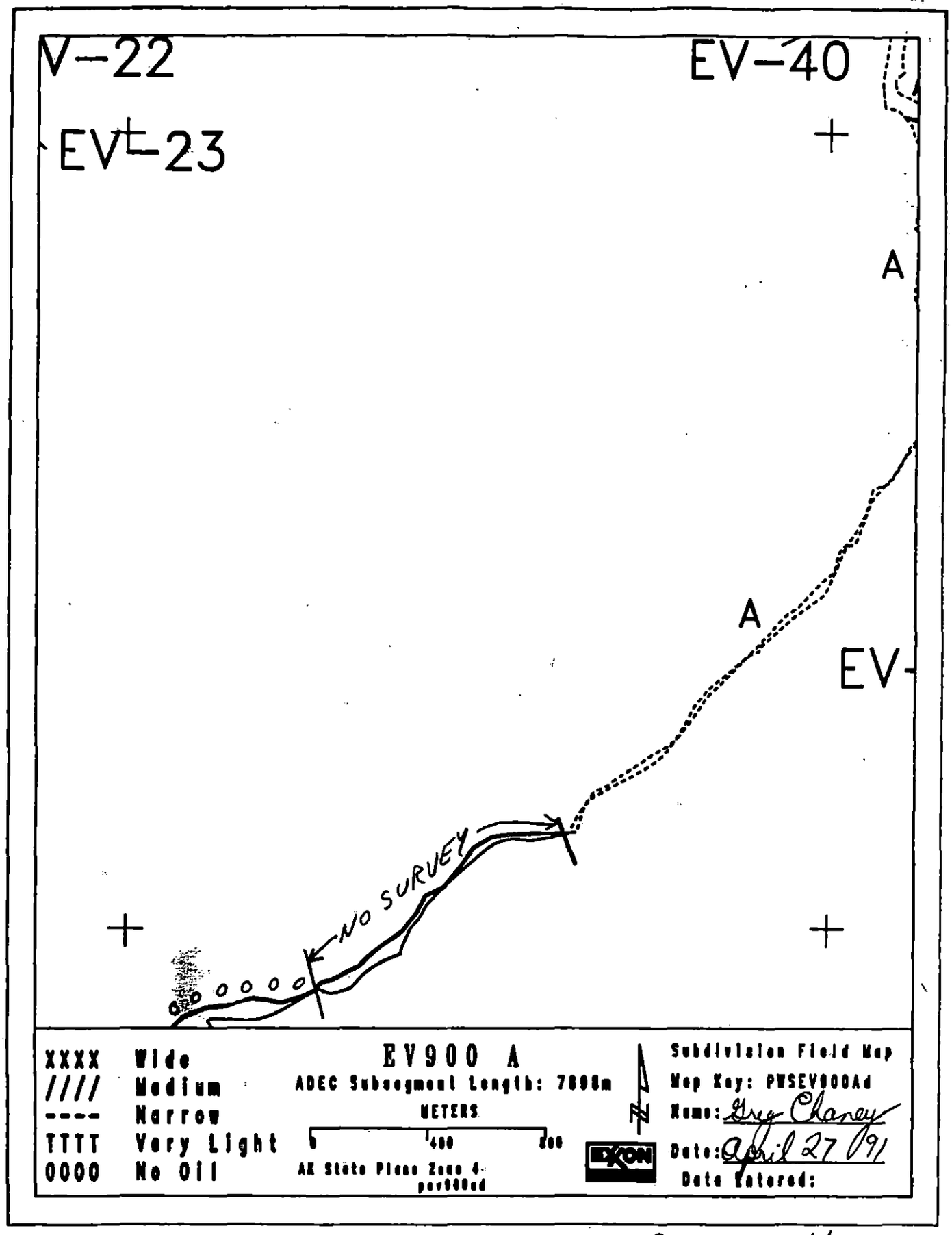


LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

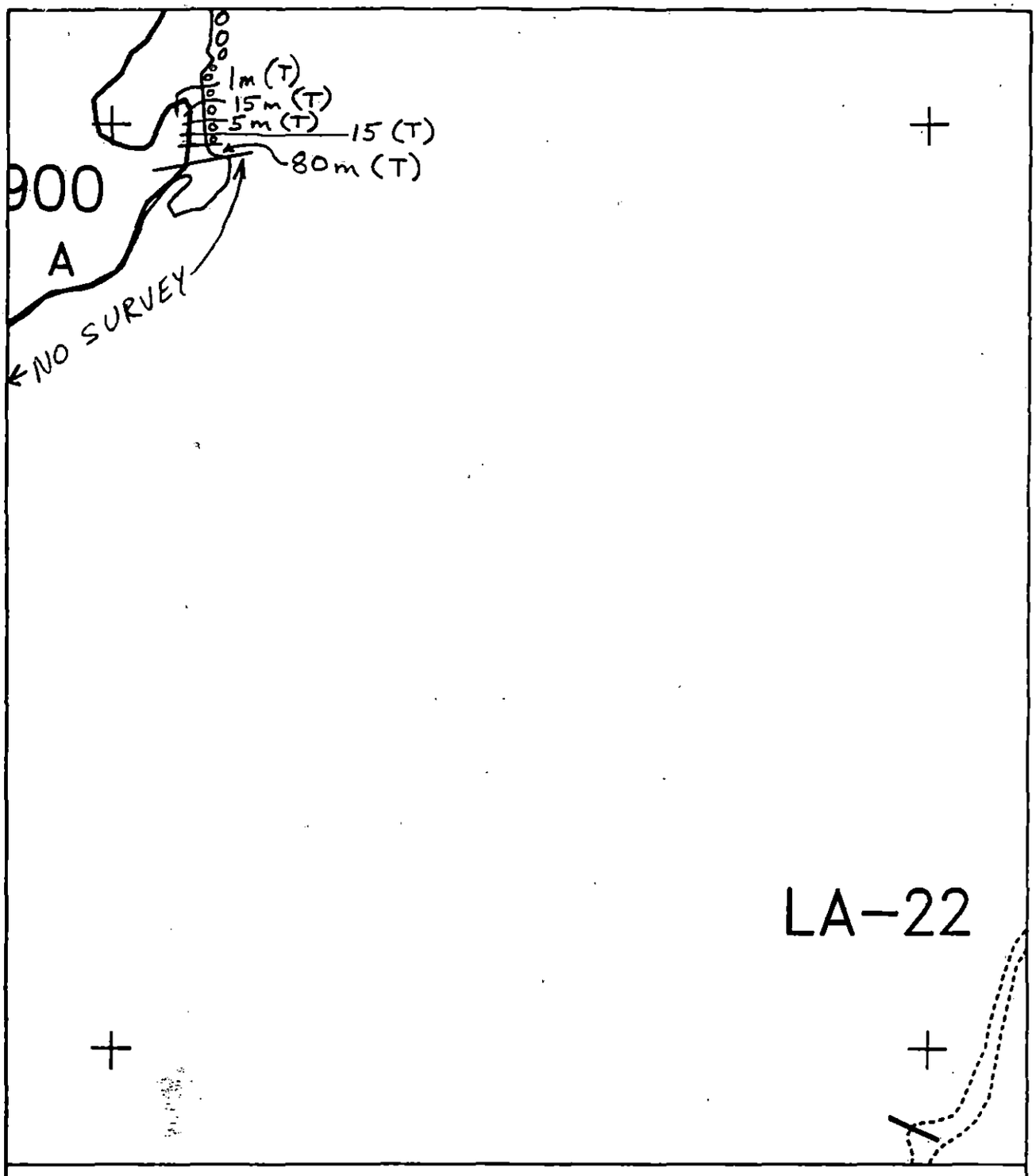
SCALE
APPROXIMATELY
225 METERS





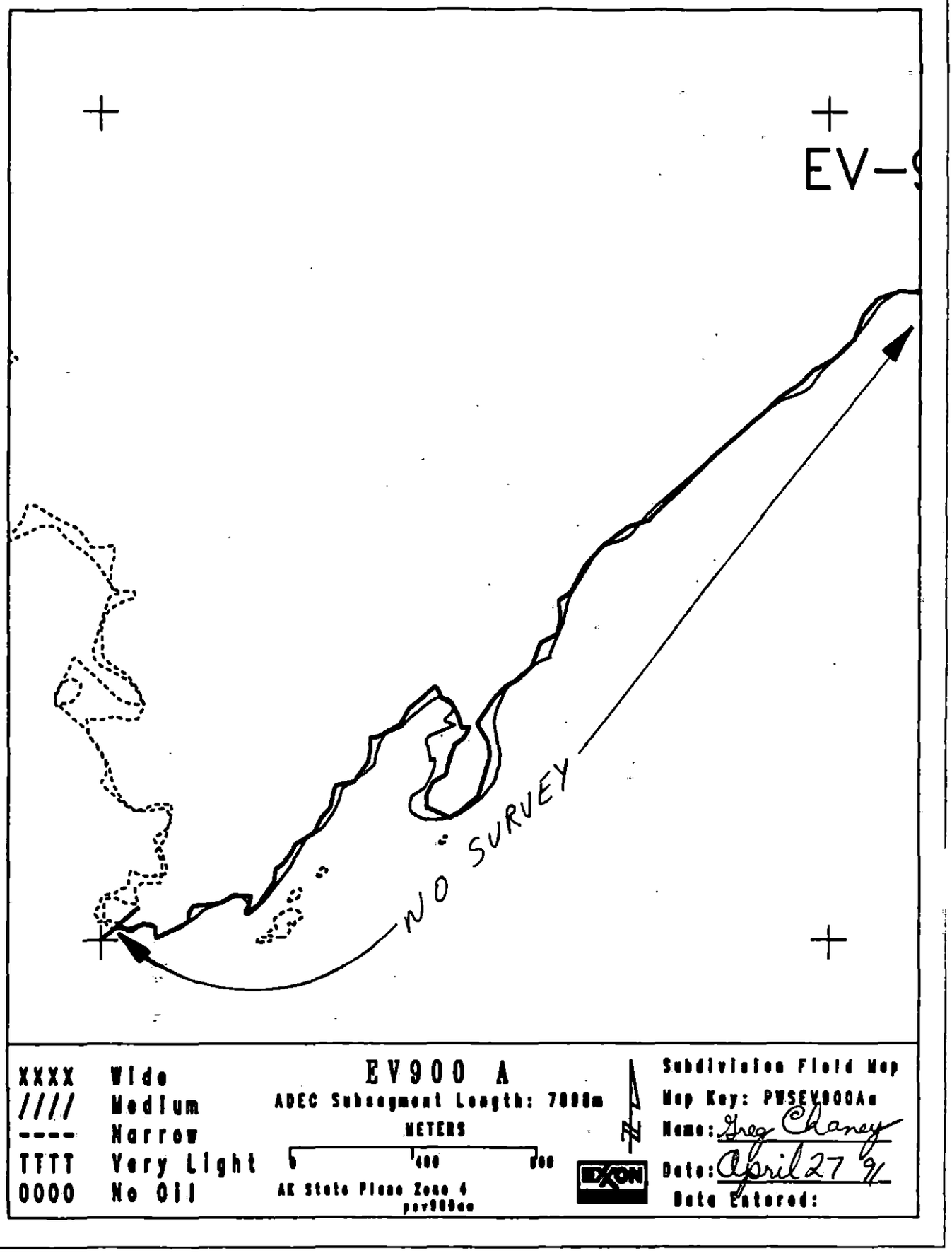
XXXX	Wide	EV900 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 7898m	Map Key: PWSEV900Ad
----	Narrow	METERS	Name: Greg Chaney
TTTT	Very Light	0 400 800	Date: April 27 91
0000	No Oil	AK State Plane Zone 4 nad83nad	Date Entered:

REVIEWED: F.W. 5/2/91
REVIEWED: M.C 5/2/91



XXXX	Wide	EV900 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 7898m	Map Key: PWSEV900Ab
----	Narrow	METERS	Name: Greg Chaney
TTTT	Very Light	0 400 800	Date: April 27 '91
0000	No Oil	AK State Plane Zone 4 nad83ak	Date Entered:

REVIEWED: F.W. 5/2/91
REVIEWED: M.C. 5/2/91



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

EV900 A

ADEC Subsegment Length: 7000m

METERS

0 400 800

AK State Plane Zone 4
pev900aa

DXON

Subdivision Field Map
Map Key: PWSEV900Aa
Name: Greg Chaney
Date: April 27 91
Date Entered:

REVIEWED: F.W. 5/2/91
REVIEWED: M.C. 5/2/91

1991 MAYSAP EVALUATION

SEGMENT: EV 900 **SUB:** A **REGION:** PWS **SURVEY DATE:** 4/28/91

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

Ecological/Constraints (see page two for details) Eagle nest, Fish harvest area

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

SHPO Signature:_____ Date:_____

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

COMMENTS:
INITIAL:_____

TAG:_____

FOSC:_____

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

ADEC_____ FOSC _____

EXXON_____

USCG_____

NOAA_____

ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES

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

Fish Harvest Area: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

EAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-900 SUBDIVISION A DATE 4 / 28 / 91

ADEC
NAME John Hayes SIGNATURE

☒ NTR Oiling observed by survey team consisted of sporadic CT/CV/TB in UITZ most of which was at southernmost point of segment. TB's observed were P.O. at remaining oiling is too light to warrant treatment at this time. We surveyed 225 meters of this segment that had been previously identified as heavily oiling.

EXXON
NAME Martinez N.J. SIGNATURE

☒ NTR Area had a few asphalt patties which team picked up I don't believe there is any thing else we should do.

LANDMANAGER
NAME Steve WARD OF CVC SIGNATURE

☒ NTR Area Has no History of Subsurface oil. the Asphalt Patties Initial were Removed during Survey. Nothing ELSE can be done in this Area. as all oil appears gone. no Further treatment Recommended at this time.

USCG/NOAA
NAME Dreher / Hodges SIGNATURE CWO R L Dreher

☒ NTR majority of beach showed no sign of oil. what oil was found was heavily weathered spatter on or around large rocks in southern portion of beach. oil was not recoverable.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. 5

OG CHANEY BIO CRANK SEGMENT EV 900

ADEC HAYES LANDMANAGER WARD for CVC SUBDIVISION A

EXXON MARTINEZ USCG/NOAA DREHER / HODGES DATE April 27 / 91

TIME 17 : 55 to 19 : 15 TIDE LEVEL 2 ft. to 1.5 ft. ENERGY LEVEL: ☐ H ☑ M ☐ L

SURVEYED FROM: ☑ FOOT ☐ BOAT ☐ HELO WEATHER: ☐ SUN ☑ CLOUDS ☐ FOG ☑ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 1300 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☑ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 116 m NO 1184 m US 6598 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	T				C	L	0.3	0.3		✓			Splatters on cobbles
B						T	T				BC	L	1	15		✓			SPLATTERS ON BOULDERS
C					T	T					BR	L	1	5		✓			ALGE ON CT & CV
D					T	S					R	L	5	15		✓			VERTICAL ROCK BEDDING
																			AND LEE OF BOULDERS
E					T	T					BR	L	1	50		✓			
F	T				T	T					BR	L	0.3	30		✓			A FEW NON VALDEZ OIL
																			MIXED WITH GENERAL
																			SPLATTERS AND AP
																			PATTIES

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- 5 - 3 FRAMES 1-6

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	25							✓	-					✓			BG - BG	
2	25							✓	-						✓		PG - PG	
									-									
									-									
									-									
									-									
									-									
									-									
									-									

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

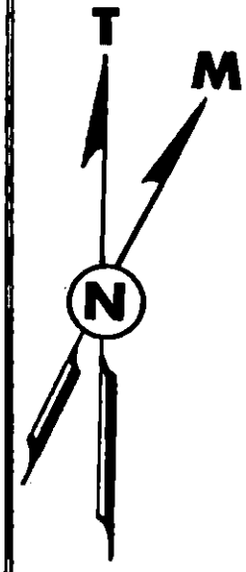
OG COMMENTS:

MOST OIL LOCATED WAS IN THE FORM OF RANDOM COATS AND COVERS SPLATTERED ON BOULDERS AND BEDROCK ON THE BEACH SOUTH OF THE LARGE ESTUARY. A FEW AP PATTIES WERE LOCATED AND RECOVERED AT LOCATION "F."

Reviewed: F.W. 5/2/91

Reviewed: M.C. 5/1/91

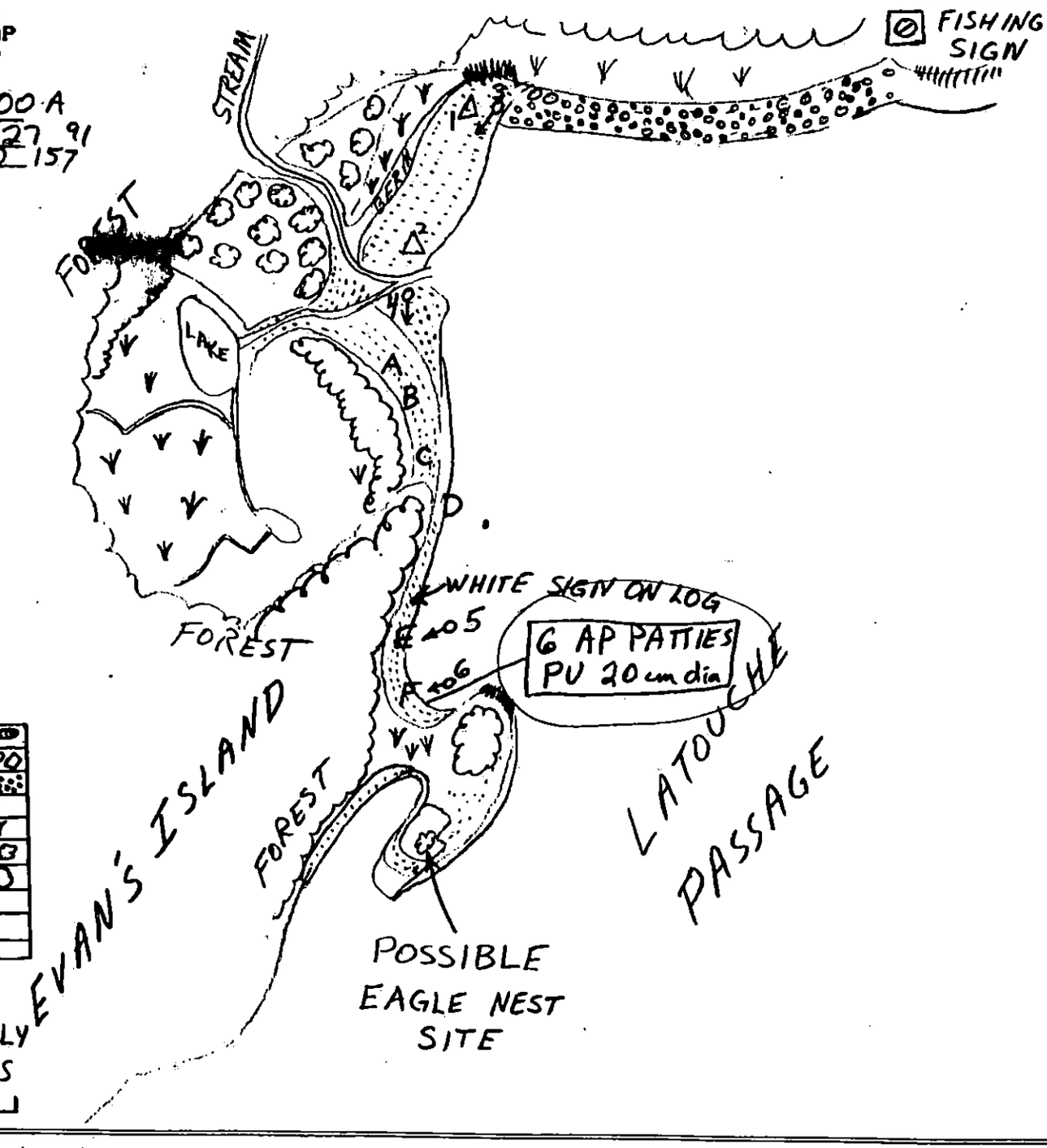
MAYSAP 1991
OG SKETCH MAP
GREG CHANEY
TEAM 5
SEGMENT: EV-900 A
DATE: APRIL 27 91
AIR P.#: INT 010 157



LEGEND

BEDROCK	
BOULDERS	
FINE SED.	
DRIFT LOG	
GRASS	
BRUSH	
FOREST	
OILED PIT	
NO OIL PIT	
PHOTO	

SCALE
APPROXIMATELY
225 METERS



REVIEWED: F.W. 5/2/91
REVIEWED: M.G. 5/14/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 5	**DATE** 27 Apr '91
SEGMENT # EV-900	**TIDAL HEIGHT (Range)** +2.5 → +1.5
SUBDIVISION A	**BIOLOGIST** Crank
SEA STATE 1'→3'	**WIND SPEED/DIRECTION** 10-20+ knots / SE
PHOTOGRAPHS: ROLL #	**FRAME #**

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

(A) Area in the UITZ. Rare barnacles in the immediate vicinity. Ten meter SE downshore there is a moderate Fucus bed on a rock bench. Rock bench has small tidepools with dense Littorina and sparse limpets.

(B) Area is located in the UITZ S-A M SE of A. In the immediate vicinity Littorina empty shells only. No live macro-biota was observed in the UITZ. In the MITZ there is a rockbench with a moderate Fucus concentration (mature conceptacles and sporelings present). Dense Littorina and sparse limpets present. Would not be net beneficial to the rockbench inhabitants to remove the few remaining tar splatters.

(C) Area is located high in the UITZ. There are white and black lichens on boulders, appear to be healthy. Rare Littorina and limpets also present. Three meters downshore a continuation of rockbench is present. Biota appears to be healthy.

(D) Area is located high in the UITZ in boulders. Small (<5mm) Fucus sporelings found deep in boulder cracks. Fucus band begins 5m downshore, mod. concentration.

(E) Area is located in the UITZ. Rare barnacles, limpets and Littorina present. A sparse, recent barnacle set is also present. Five meters downshore Fucus band is present thinning from moderate concentration to rare at the SE end of area.

WILDLIFE OBSERVATIONS
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	4	
Seabirds			
Waterfowl	1	26	
Gulls/kittiwakes	2	17	
Shorebirds			
Corvids	1	1	
Other Birds - Terrestrial	3	? - Heard calls	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Bear tracks in snow - old	
Pinnipeds (specify)	3 Sealion	Deer tracks + scat	
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Team #5 Date 27 Apr '91
Segment #EV-900 Tidal Height +2.5 → +1.5
Subdivision A Biologist Crank
Sea State 1→3' Wind Speed/Direction 10-20+ knots/SE

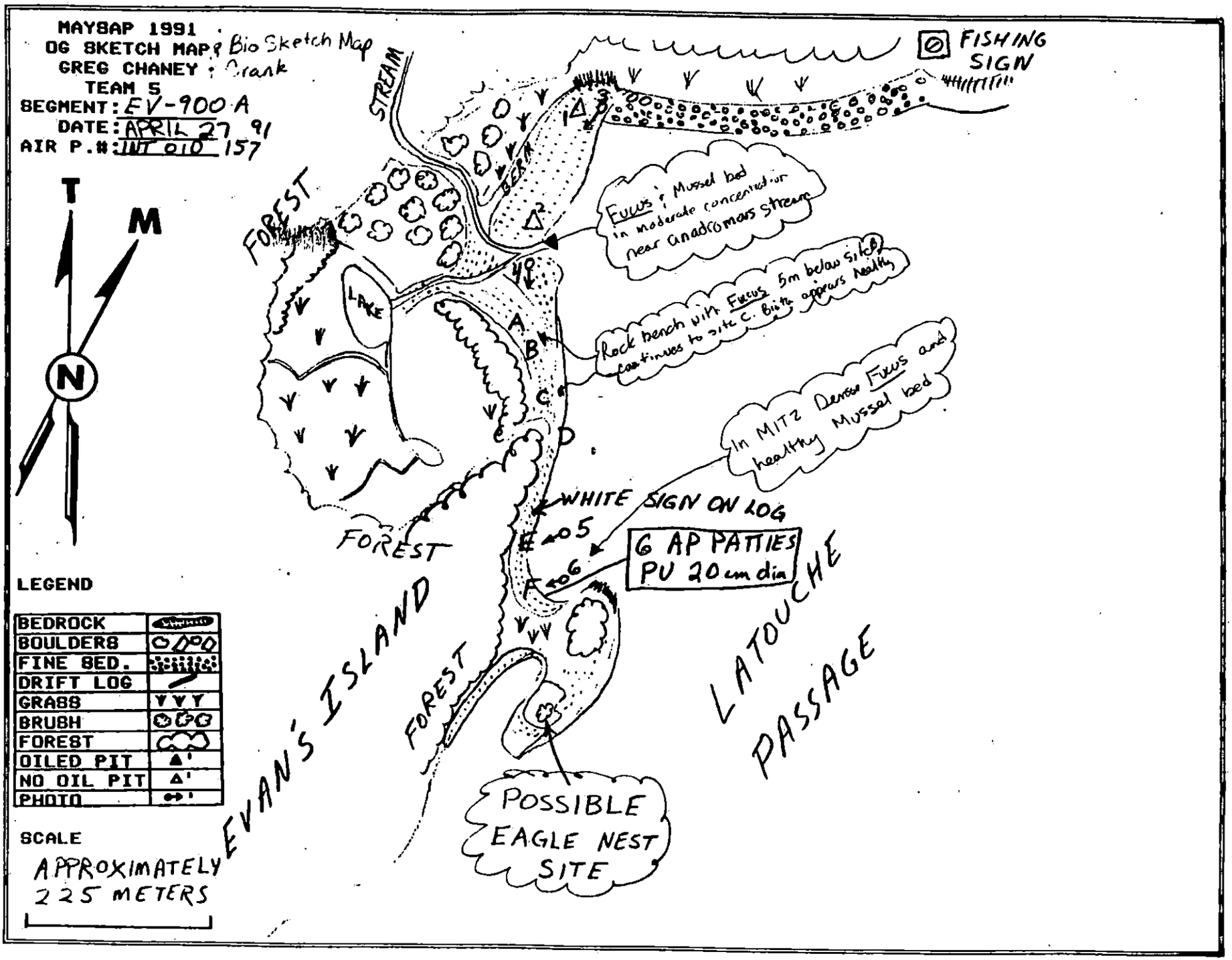
Comments (cont.)

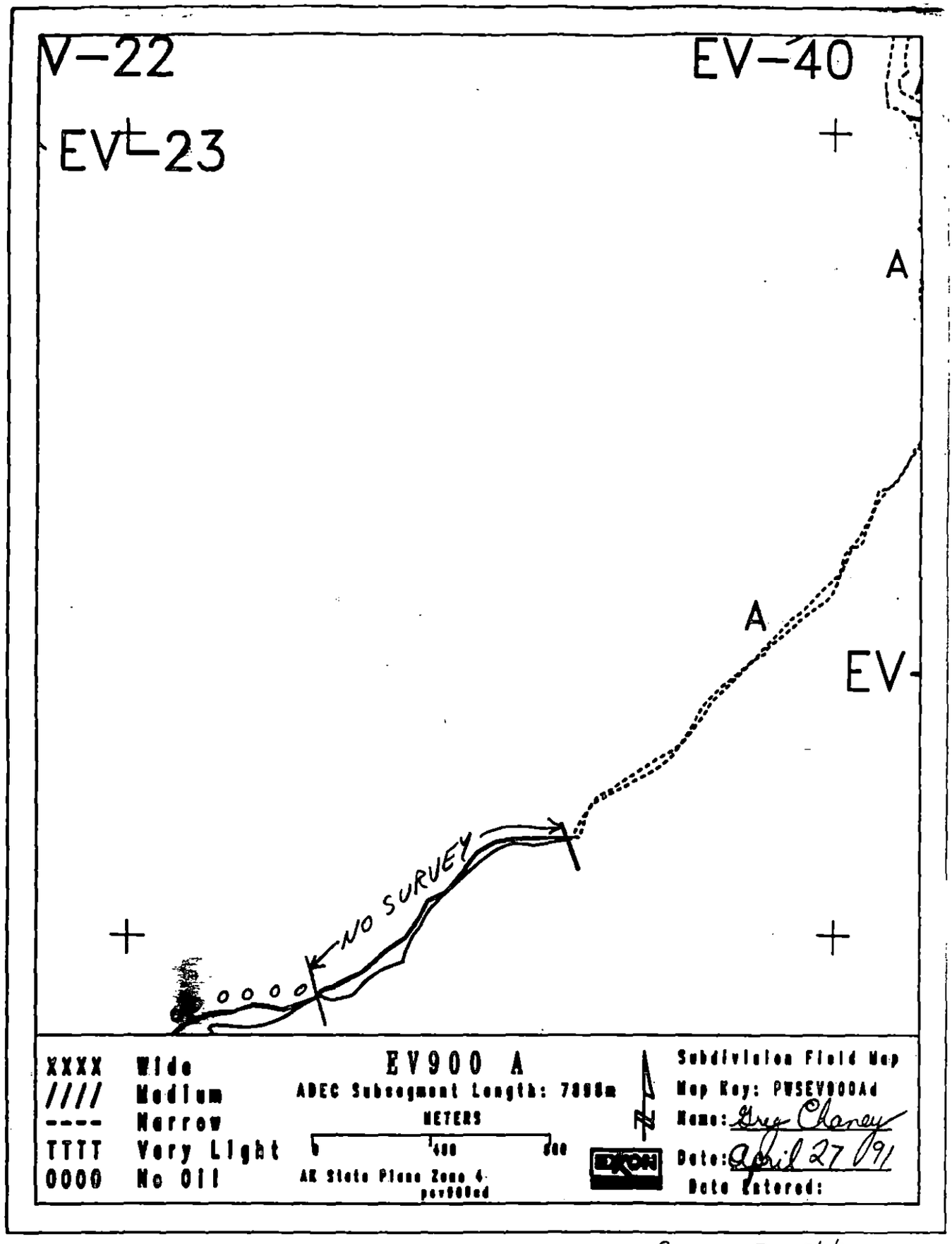
(F) Area is located in a rock bench from low SUPRA to high UITZ. White, yellow and black lichens present appear healthy. Rare Littorina and filamentous green algae are in close proximity to oil. Below site in the MITZ Fucus is dense and there is a healthy mussel bed with a moderate concentration. Odonthalia (alga) is also prominent and there are rare patches of Gloiopeltis (alga).

A mature Bald Eagle sat in top of tree approx. 50 m behind site E. Eagle observed our group. There was a large dark shadow in a limb on the SE side of tree about 1/3 way down. Could not confirm as nest.

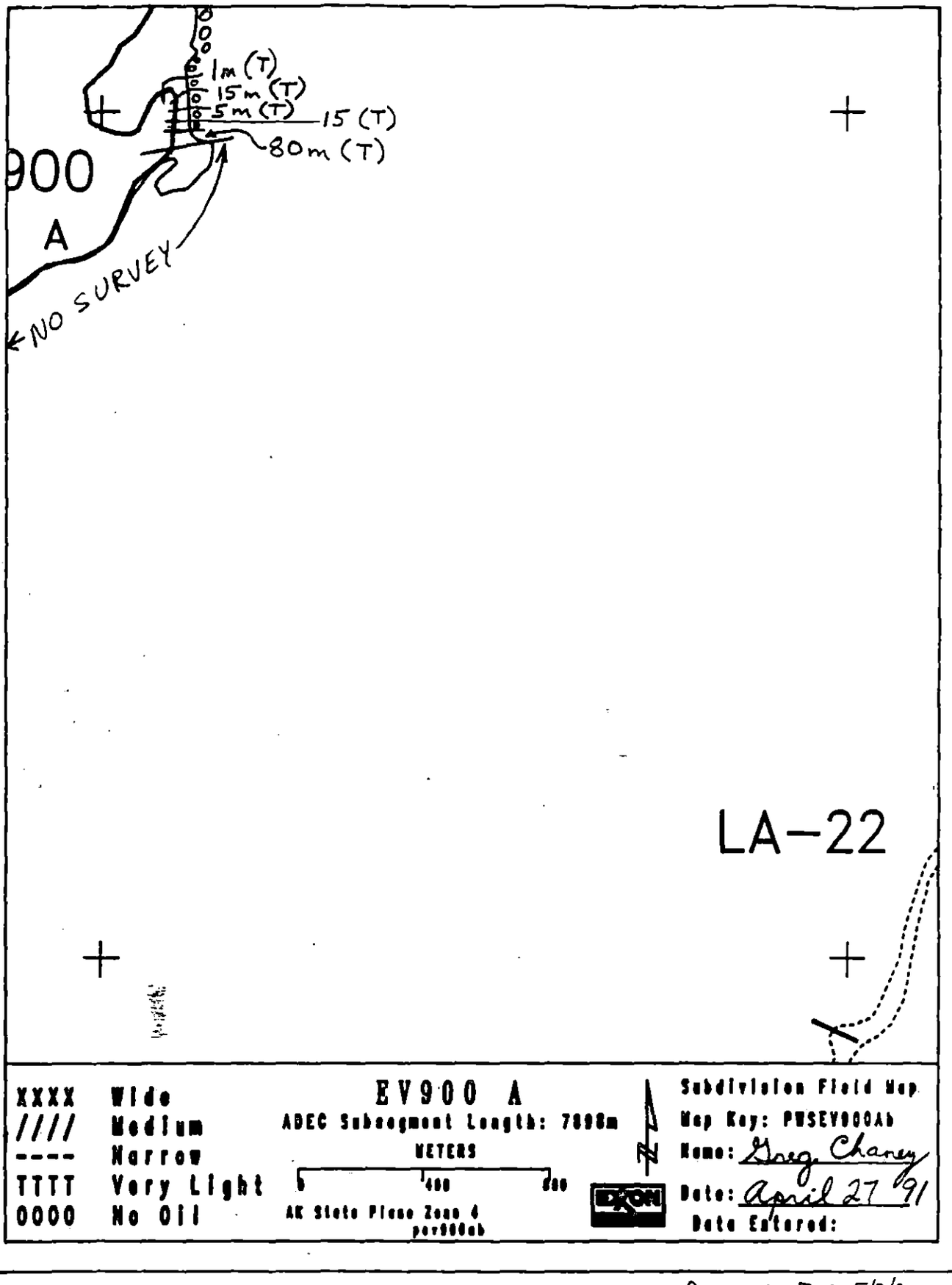
Small shrimp were found in driftline near site A, assumed to be recently wash-up as eyes were present.

The [redacted]ertidal biota appear to be healthy. Recruitment is occurring in both barnacles and Fucus.


MAYSAP 1991
OG SKETCH MAP; Bio Sketch Map
GREG CHANEY ; Crank
TEAM 5
SEGMENT: EV-900 A
DATE: APRIL 27 91
AIR P.#: JNT 010 157
T
M
N
LEGEND
BEDROCK
BOULDERS
FINE SED.
DRIFT LOG
GRASS
BRUSH
FOREST
OILED PIT
NO OIL PIT
PHOTO
SCALE
APPROXIMATELY
225 METERS
STREAM
FOREST
LAKE
FOREST
EVAN'S ISLAND
FOREST
LATOUCHE
PASSAGE
FISHING
SIGN
Fucus ; Mussel bed
in moderate concentration
near anadromous stream
Rock bench with Fucus 5m below site B
continues to site C. Biota appears healthy
In MIT2 Dense Fucus and
healthy Mussel bed
WHITE SIGN ON LOG
#205
#206
6 AP PATTIES
PU 20 cm dia
POSSIBLE
EAGLE NEST
SITE

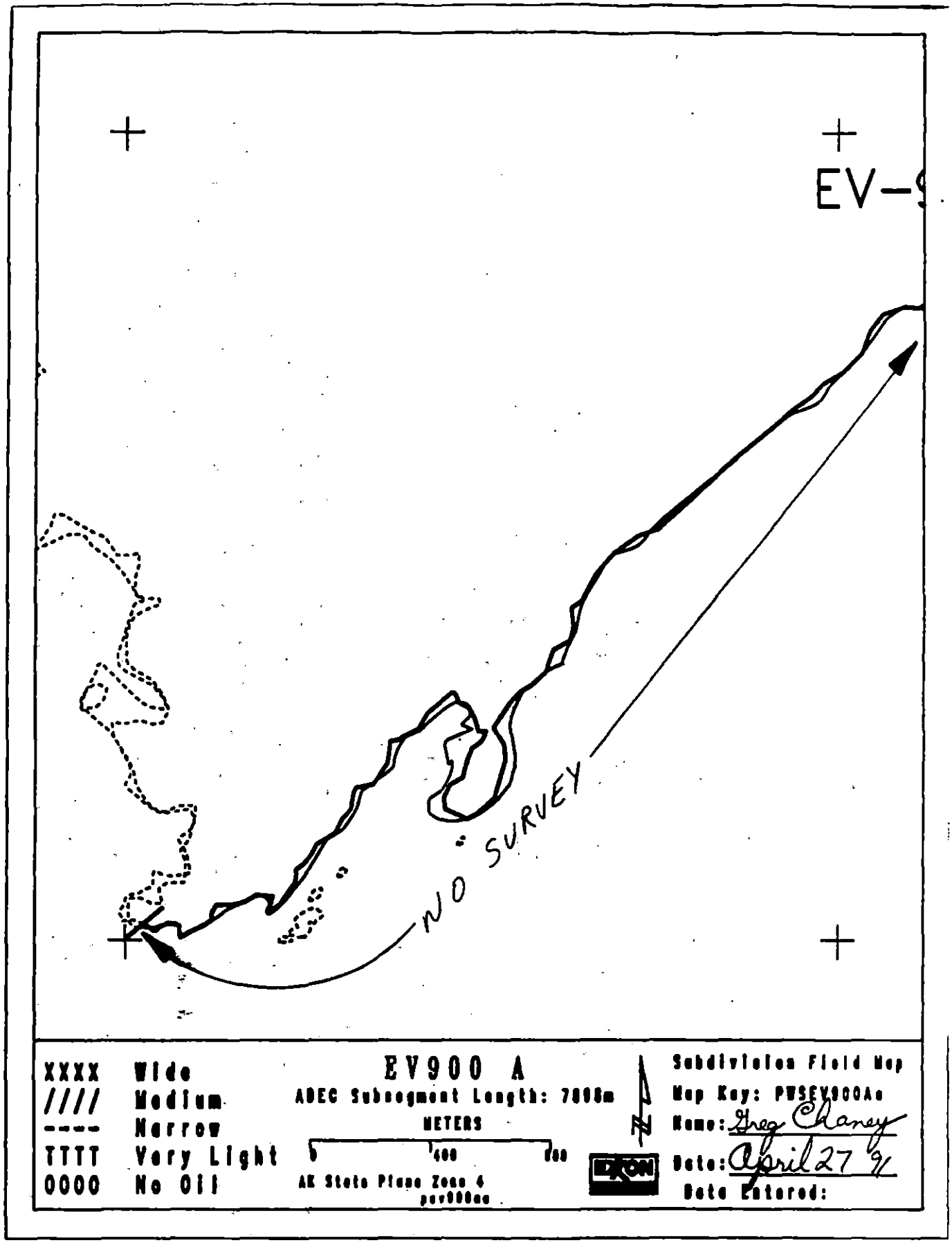


REVIEWED: F.W. 5/2/91
REVIEWED: M.C 5/1/91



XXXX	Wide	EV900 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 7898m	Map Key: PWSEV900Ab
----	Narrow	METERS	Name: Greg Chaney
TTTT	Very Light	0 400 800	Date: April 27 '91
0000	No Oil	AK State Plane Zone 4 per900ab	Date Entered:

REVIEWED: F.W. 5/2/91
REVIEWED: M.C. 5/2/91



REVIEWED: F.W. 5/2/91
REVIEWED: M.C. 5/2/91

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