[Shoreline evaluations, 1990].

YB-01 – YP-04

SHORELINE EVALUATION

SEGMENT ST/ YB-01 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
ADF&G anadromous stream no. 232-22-10190 (Ps, 2/90)
1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1J Purse seine area (7/10 to 8/20)
2M Herring spawning (4/1 to 6/15)
4LL National Parks
6U Recreation: Tent sites (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

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

SHPO SIGNATURE: J. David McMahan DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 466 m: No Oil 2212 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: 5/8/90.
ADEC Art Weiner
EXXON Army Tesh
NOAA Gary Petrae Gary Petrae
USCG G.A. Reiter G.A. Reiter

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

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)**
7HH **Finfish harvesting**
7II **Deer harvesting (8/15 to 2/28)**
7JJ **Invertebrate harvesting**
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / YBØØ1 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/26/9

USCG NAME Jerry Scholtz SIGNATURE Jerry Scholtz

[X] NO TREATMENT RECOMMENDED [ ] TREATMENT SUGGESTED

COMMENTS

ADEC NAME Mike Ebel SIGNATURE Michael J. Ebel

[X] NO TREATMENT RECOMMENDED [ ] TREATMENT SUGGESTED

COMMENTS

YB-01-A: Very light oiling found here, the majority of which was found near the north end of segment along a pebble beach. Outside of the few specks of stain and coal elsewhere found in segment (very infrequent), the splashy bands that contained tarballs, patties and pooled (mousse) type oil were either collected or broken up (where degraded enough). One lone tar patty was found 5m from a stream (possibly anadromous). No subsurface oil seen in any of the 12 test pits. No further impact recommended.

LAND MANAGER NAME Mike Tetreau NPS SIGNATURE

~~[ ] NO TREATMENT RECOMMENDED~~ ~~[ ] TREATMENT SUGGESTED~~

COMMENTS

Good survey. The bayhead looks suprisingly clean compared to what was there last year. The few patties and tarballs we found we scattered/broke up. Other patties and tarballs may have been missed, but there is not enough to warrant any treatment.

63/63

SHORELINE OILING SUMMARY

REVISION NO >

OG Randy Siegel USCG Jerry Schultz SEGMENT ST/ YB-1
BIO Lewis/Sharman LAND REP Mike Tetrick (WPS) SUBDIVISION A 1 OF
EXXON Leonard Herbst ADEC Mike Ebel TIME 17 32 to 19 30
TEAM NO. 12 TIDE LEVEL 6.05' & 1.25' DATE 4 / 25 / 90
EST. SUBDIVISION LENGTH: 2346 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☑ Forest ☑ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
SURFACE SEDIMENTS: R 20 % B 5 % C 5 % P 60 % G 10 % S 0 % M 0 % V 0
SLOPE Lang 75 % Hang 25 % Ven 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 310 m NO 2036

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 1 B

NEAR SHORE SHEEN? NO BR RW SL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

None

DID YOU COLLE DEBRIS?

YES ☑ NC
Float/Pa
TYPE clean

#BAGS 1

Photographs:

Roll No None

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	!	SURFA SUBSUR SEDIME
		op	or	ol	of	mo		uo	uc						su	ui	mi	u				
1	31					X	0-0		X							X				—	—	P
2	25					X	0-0		X							X						P G
3	25					X	0-0		X							X				N	20	P G
4	32					X	0-0		X							X				—	—	P G S
5	30					X	0-0		X							X				—	—	P G
6	32					X	0-0		X							X				—	—	P G

COMMENTS Segment consists of large bay surrounded by pebble beaches. Several undrowned streams within segment. Very light oiling to no observed oiling throughout segment. Occasional coat-stain or tarball/patty. No oil observed in pits.

REVIEWED JW DATE 4/27/90

SHORELINE OILING SUMMARY (PAGE 2)

SEGMENT ST/ YB-1 SUBDIVISION A (2 OF 2)

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 SEDIMENT
		OP	OR	OL	OF	NO		UO	UC	BRN/BLK	BRN/TAN	OLV/BRN	BRN/YEL	LGHT	SU	UI	MI	U				
7	30					X	0-0		X							X				—	—	P,G
8	33					X	0-0		X							X				—	—	P,G
9	38					X	0-0		X							X				—	—	P,G
10	34					X	0-0		X							X				—	—	P,G
11	20					X	0-0		X							X				—	—	P,G
12	35					X	0-0		X							X				—	—	P,G
							·															
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							·															
							·															
							·															

COMMENTS

49/63

REVIEWED TW DATE 4/27/90

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

REVISION: 6/90

Segment ST / YB-1 Subdivision A Date (mo / day / yr) 4/25/90

Time (24 hr) 1735-2000 Biologist SHARMAN

(A) Substrate type and % of ~~segment~~: SUBDIV.
(1) Bedrock 20 (2) Boulder 5 (3) Cobble 5 (4) Pebble 60 (5) ~~Sand~~ granules 10 (6) Silt ____

(B) Overall % cover of biota (% of ~~segment~~ SUBDIV.): Dense ____ Moderate X 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. –
Frames –

BARNACLES

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

MYTILUS

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

GASTROPODS (Nucella, Littorina, Limpets)

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

FUCUS

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

Wildlife Observations/ General Comments: 20 pairs Barrow's goldeneyes, 10 pairs surf scoters, 5 pairs harlequin ducks, 5 pairs red-breasted mergansers, 1 pair common mergansers, fox sparrow foraging in intertidal, 3 Steller's Jays forest edge, varied thrushes in forest, river otter scat in supratidal atop bedrock point. Intertidal fringe of dead trees evidence land subsidence in '64 earthquake. (cont.)

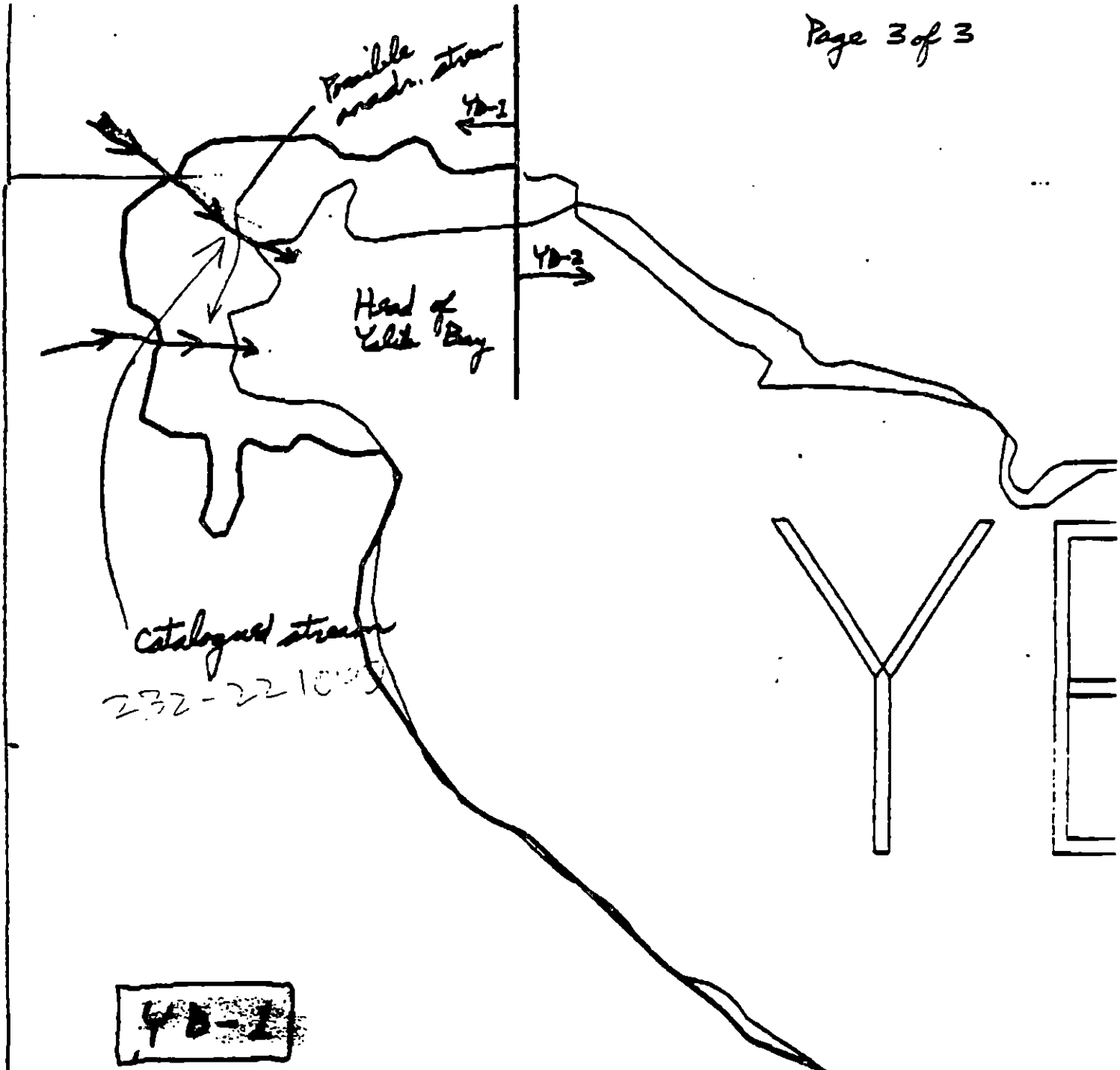
Ecological Considerations:
We received no information regarding previously identified resource sensitivities for this segment. However, some information about the streams was gleaned from a recent NPS report by Alexander Milner. Please see attached map. As always, nearshore eelgrass communities are fairly sensitive to physical disturbance; this segment cannot benefit biotically from further human intrusion.

YB-1 Shoreline Ecological Summary (cont.) Sharman 4/29/90
(Page 2 of 3)

General Comments (cont.):

locally dense Fucus on bedrock cliffs, platforms, + giant boulders. Eelgrass in bedrock tidepools. As in NC-1 the LTE of the bedrock/large boulder habitat is very rich and productive (please refer to this section of that segment summary). Although few actual barnacle spat are present, there are very abundant newly settled cyprid larvae, again as in NC-1. Where Fucus and mussels are established, there appears to be satisfactory recruitment. Similarly, littorines and limpets are recruiting well, especially on the more stable substrates (bedrock, giant boulders). There are Macoma shells (+ rare other bivalve spp.) on the cobble/pebble shingle beaches, and there is discontinuous rather sparse eelgrass just offshore in the shallow subtidal. The large bayhead fine-grained beach appears to have (historically) withstood last summer's intensive manual treatment quite well.

60/63



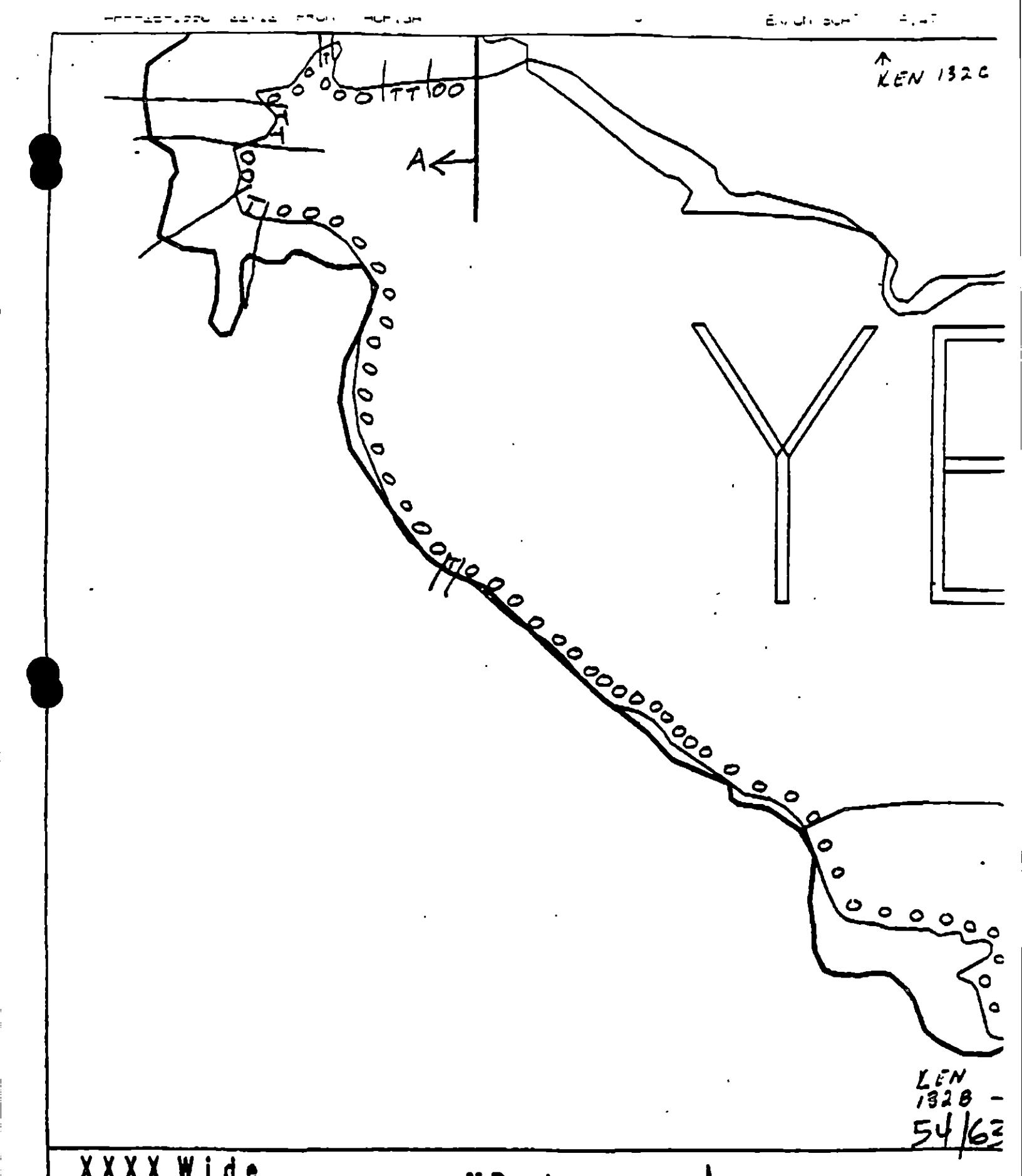
YB-1

[redacted] showing anadromous stream(s)

Southerly stream is catalogued ADF&G at bayhead [redacted]

Possible unadr. st

Both are often dewatered, but at least the bayhead S. stream produces some pink & chum fry (or, rather, those fry have been collected from the eelgrass bed at its mouth). Pinks have been observed spawning in the stream & intertidally at the mouth.



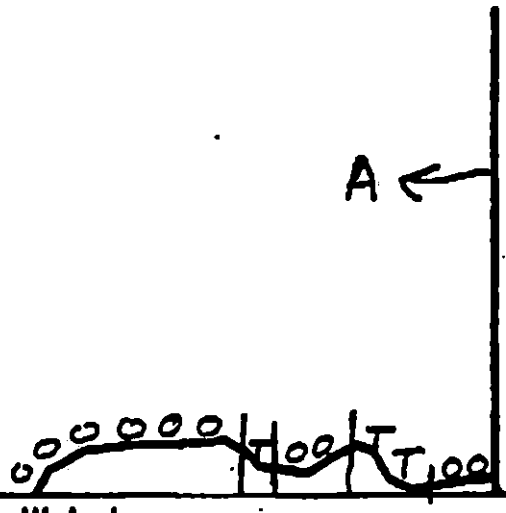
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

YB-1

ADEC Segment Length: 2878m

0 100 200 300
METERS

Map Key: KEN-132e
Name: Rudy Voigt
Date: 4/25/90
Date Entered:



53/62

KEN 132 A

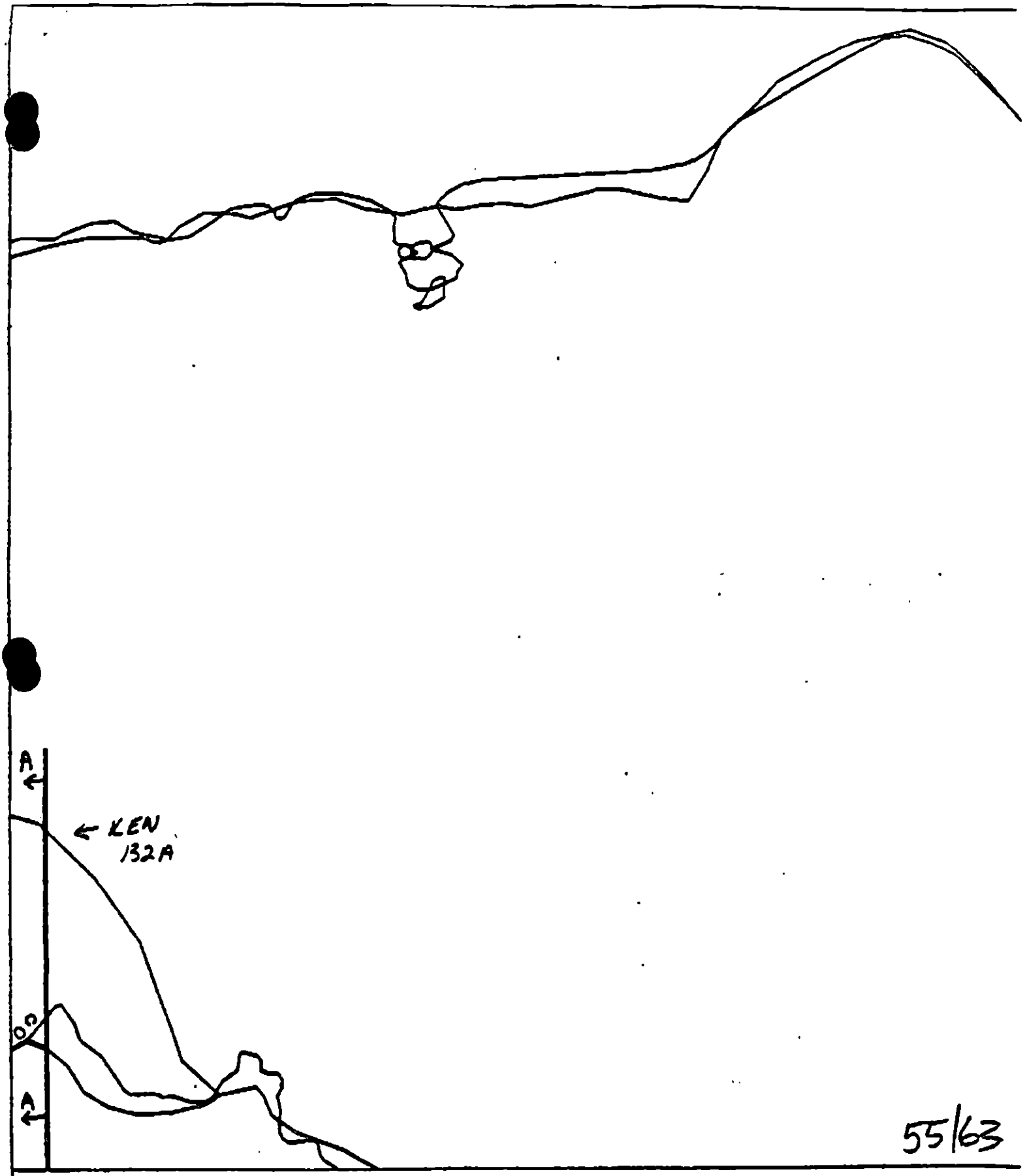
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

YB-1

ADEC Segment Length: 2678m

0 100 200 300
METERS

Map Key: KEN-132c
Name: Rudy Siegel
Date: 4/25/90
Date Entered:



55/63

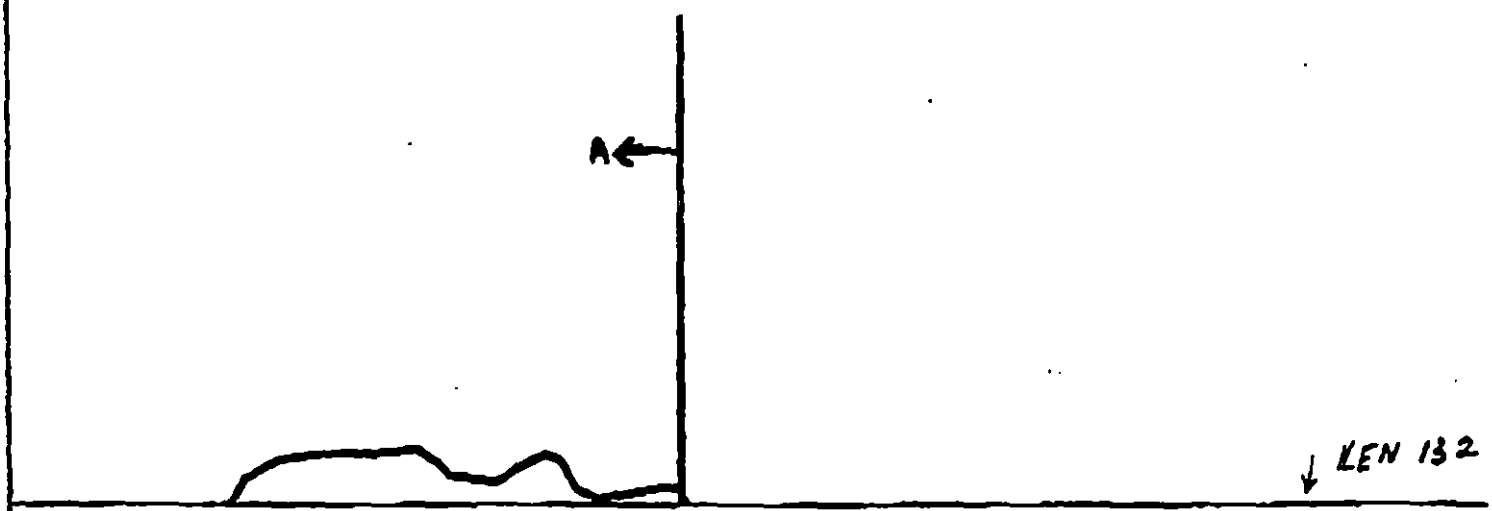
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

YB-1

ADEC Segment Length: 2678m

0 100 200 300
Meters

Map Key: KEN-132b
Name: Rob Diegl
Date: 4/25/90
Date Entered:



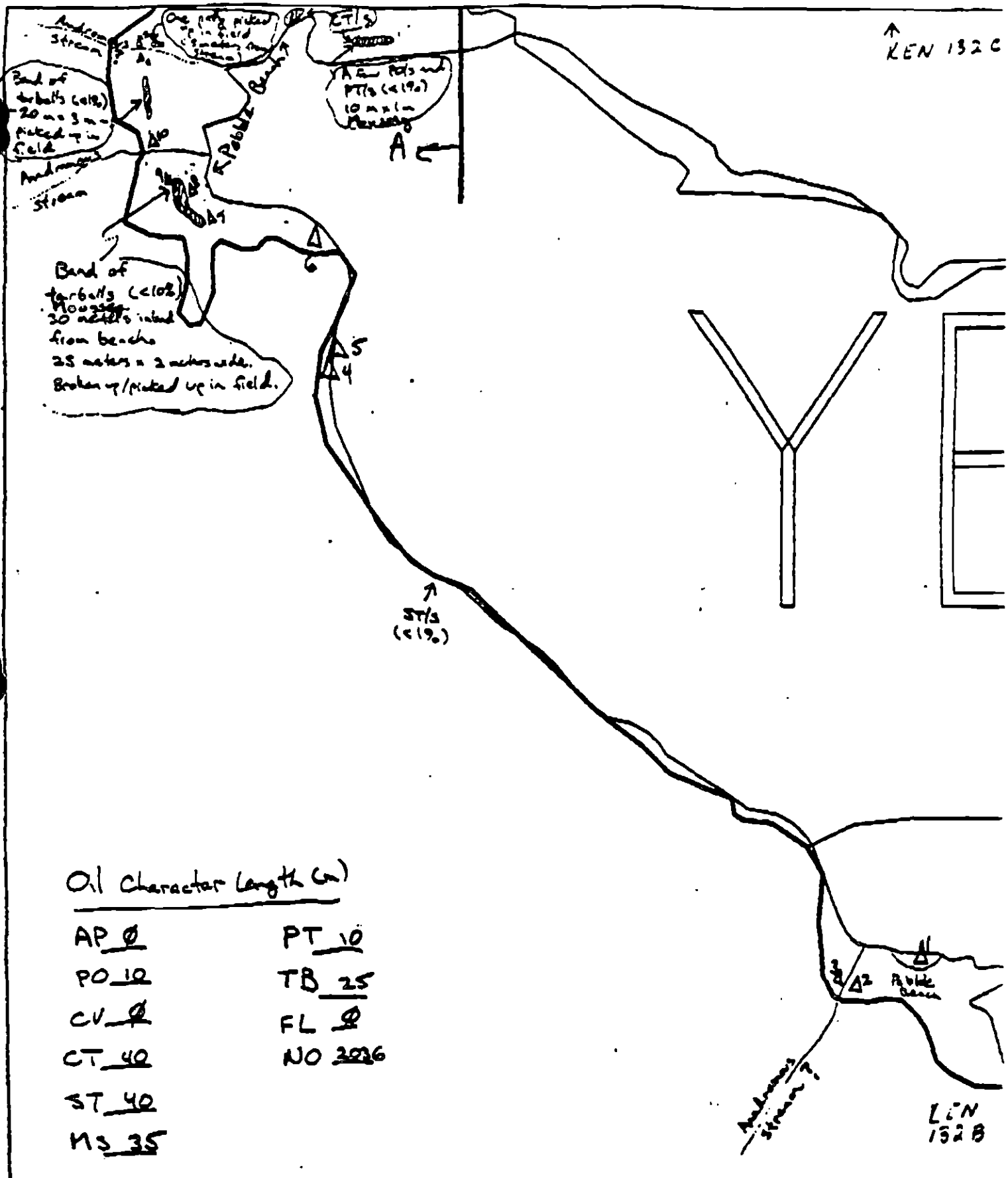
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

YB-1

ADEC Segment Length: 2678m

0 100 200 300
Meters

Map Key: KEN-132c
Name: Rudy Diegel
Date: 4/25/90
Date Entered: 1/



Oil Character Length (m)

AP 0	PT 10
PO 10	TB 25
CV 0	FL 0
CT 40	NO 2026
ST 40	
NS 35	

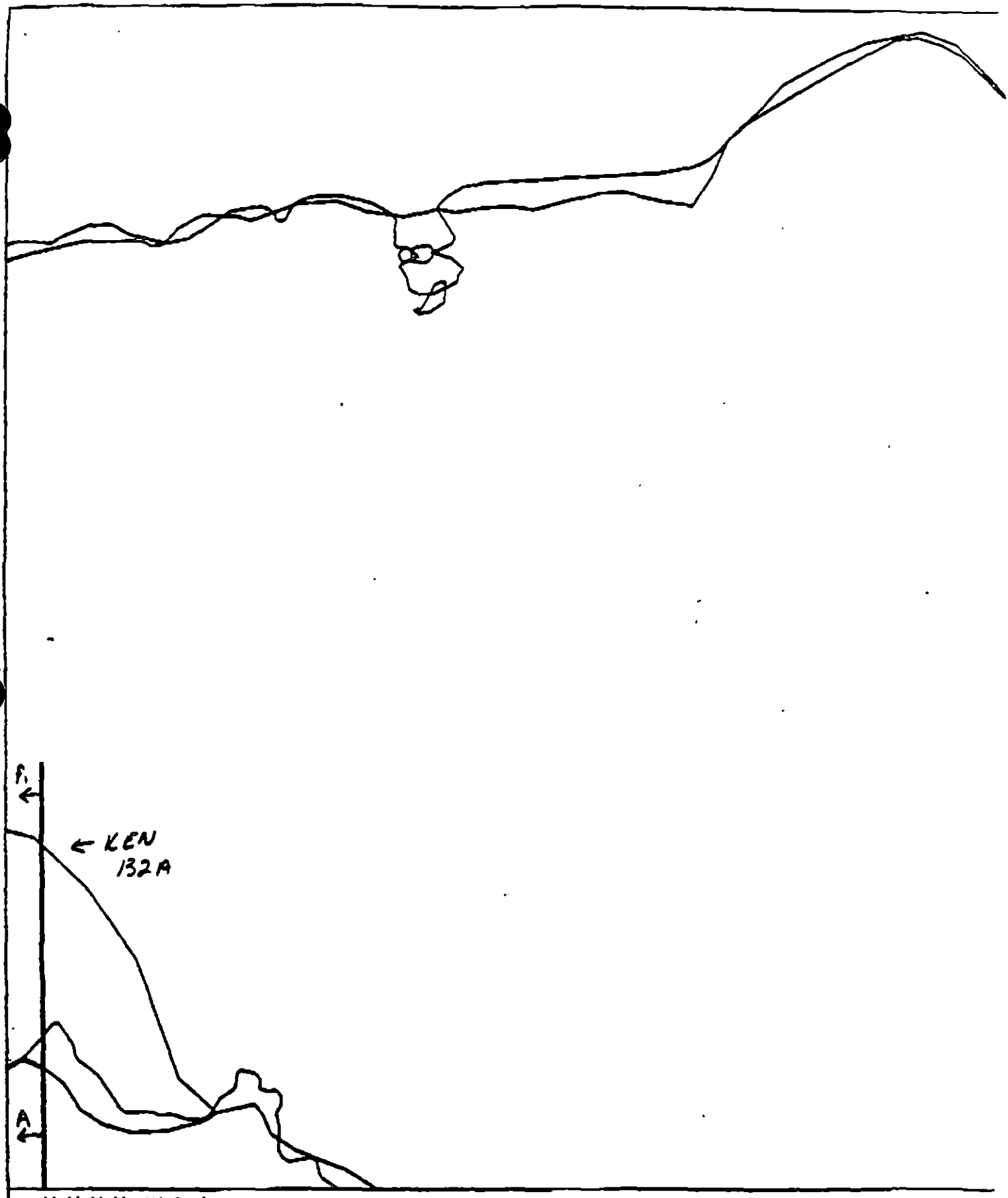
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

YB-1

ADEC Segment Length: 2678m

0 100 200 300

Map Key: KEN-132c
Name: Ruby Siegel
Date: 4/25/90
Date Entered:



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

YB-1

ADEC Segment Length: 2678m

0 100 200 300
Meters

Map Key: KEN-132b
Name: Funny Lizard
Date: 9/25/90
Date Entered: _____

SHORELINE EVALUATION

SEGMENT ST/ YB-02 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Uncatalogued and not seen in field scat

1A	Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B	Salmon stream mouth - spawning (7/10 to 8/31)
1J	Purse seine area (7/10 to 8/20)
2M	Herring spawning (4/1 to 6/15)
4LL	National Parks
6U	Recreation: Tent sites (6/1 to 8/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

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

SHPO SIGNATURE: J. David McMahan DATE: 5/8/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 47 m: No Oil 4715 m
Subsurface Oil Observed: Yes ___ No X Maximum Depth ___

RECOMMENDATIONS:

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

COMMENTS: ___

TAG COMMENTS: ___

TAG APPROVAL DATE: 5/8/90
ADEC Art Weiner
EXXON Andy Teal
NOAA Gary Petrae
USCG G.A. Reiter
FOSC: [signature] DATE: 5-12-90

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)**
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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 uncited 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 267-2208

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)**
7HH **Finfish harvesting**
7II **Deer harvesting (8/15 to 2/28)**
7JJ **Invertebrate harvesting**
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / YB002 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/26/9

USCG NAME Jerry Schultz SIGNATURE Jerry Schultz

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ADEC NAME Mike Ebel SIGNATURE Michael J. Ebel

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

YB-02-A: Very light & inconsequential oil found here. This long segment composed mostly of bedrock cliffs was surveyed at the site listed for oiling. Mostly weathered away, broken, coat and associated splashes were found along a cliff and debris slope within a 10m L x 0.3m band. One area having very light surface pooling confined to an area ≈ 4 m² had been washed well having little remaining oil between rock interstices. No treatment necessary.

LAND MANAGER NAME Mike Tetreau - NPS SIGNATURE

~~☐ NO TREATMENT RECOMMENDED~~ ~~☐ TREATMENT SUGGESTED~~

COMMENTS

Did a limited survey of this segment by boat due to the past history of no oiling over most of this segment. We checked the area where oil was noted previously very carefully and found small areas of coat and a little pooled oil. This oil is well-hidden and does not appear to be recoverable. Further

38163

SHORELINE OILING SUMMARY

REVISION NO

OG Randy Siegel USCG Jerry Schultz SEGMENT ST/ VR-2
BIO Lewis Sharman LAND REP Mike Jefferson (CDFG) SUBDIVISION A 1 OF
EXXON Leonard Herbst ADEC Mike Ebel TIME 19:45 to 21:05
TEAM NO 12 TIDE LEVEL 1.75' to 1.75' DATE 4 / 25 / 90
EST. SUBDIVISION LENGTH: [redacted] m 3960 ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NE
SURFACE SEDIMENTS: R 70 % B 20 % C 8 % P 2 % G 0 % S 0 % M 0 % V 0
SLOPE: Lang 15 % Hang [redacted] % Ver 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ Hi
OIL CATEGORY LENGTH. W 0 m M 0 m N 0 m VL 75 m NO 3885

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	AC	AB	AP	S						SU	UI	MI	U
ASPHALT PAVEMENT													
POOLED				X				X			X		
COVER													
COAT		X		✓				X✓			X✓		
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		X	X

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

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLE DEBRIS?
YES ☐ NO
TYPE 0
#BAGS 0

Photographs: None (None)
Roll No —
Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFA SUBSURI SEDIME
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	U				
1	20					X	0-0		X							X				—	—	S
2	30					X	0-0		X							X				—	—	G
3	30					X	0-0		X							X				—	—	S
							·															
							·															
							·															

COMMENTS Most of segment consisted of vertical bedrock cliffs. Segment length is about 7 miles - oiling previously reported along one short stretch of shoreline. Therefore, we surveyed most of segment by boat, until reaching the portion where oiling was reported previously. The remainder of the segment (where no oiling was observed previously) was not surveyed due to tidal window and history of no oiling.

REVIEWED JWL DATE 4/27/

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

Segment ST / YB-2 Subdivision A Date (mo / day / yr) 4/25/90

Time (24 hr) 2000-2100 Biologist SHARMAN

(A) Substrate type and % of ~~segments:~~ SUBDIV.
(1) Bedrock 70 (2) Boulder 20 (3) Cobble 8 (4) Pebble 2 (5) Sand ___ (6) Silt ___

(B) Overall % cover of biota (% of ~~segment~~ SUBDIV.): Dense ___ Moderate X 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. –
Frames –

BARNACLES

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

MYTILUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	(X) 1M	(X) 1L	NOT PRESENT
2	2	2	2	2	2	2	2	2	2	(X) 2	(X) 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	

GASTROPODS (Nucella, Littorina, Limpets)

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

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	~~1M~~ X	1L	~~1U~~ X	1M	~~1L~~ X	(1U)	(1M)	(1L)	NOT PRESENT
2	2	2	2	2	2	2	2	2	(X) 2	(X) 2	(X) 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	

Wildlife Observations/ General Comments: 15 pairs harlequin ducks, 1 pair common mergansers, 1 adult eagle, 1 Steller's jay, 3 crows, 6 glaucous-winged gulls, 1 cormorant. This segment quite similar to NC-1 (refer to this section in NC-1 segment report) intertidally. Pycnopodia common among large boulders, Pisaster on bedrock walls. Bedrock LTZ just like NC-2. White gold MTB [illegible] (cont.)

Ecological Considerations:
We received no information regarding previously identified resource sensitivities for this segment. We observed one presently inactive bald eagle nest (see attached eco. map). No apparent anadromous streams, pinniped haulouts etc. Sea caves and arches near eagle nest location may soon become cormorant nesting habitat. As in YB-1 [illegible]

YB-2 Shoreline Ecological Summary (cont.) Sharman 4/25/90
(Page 2 of 3)

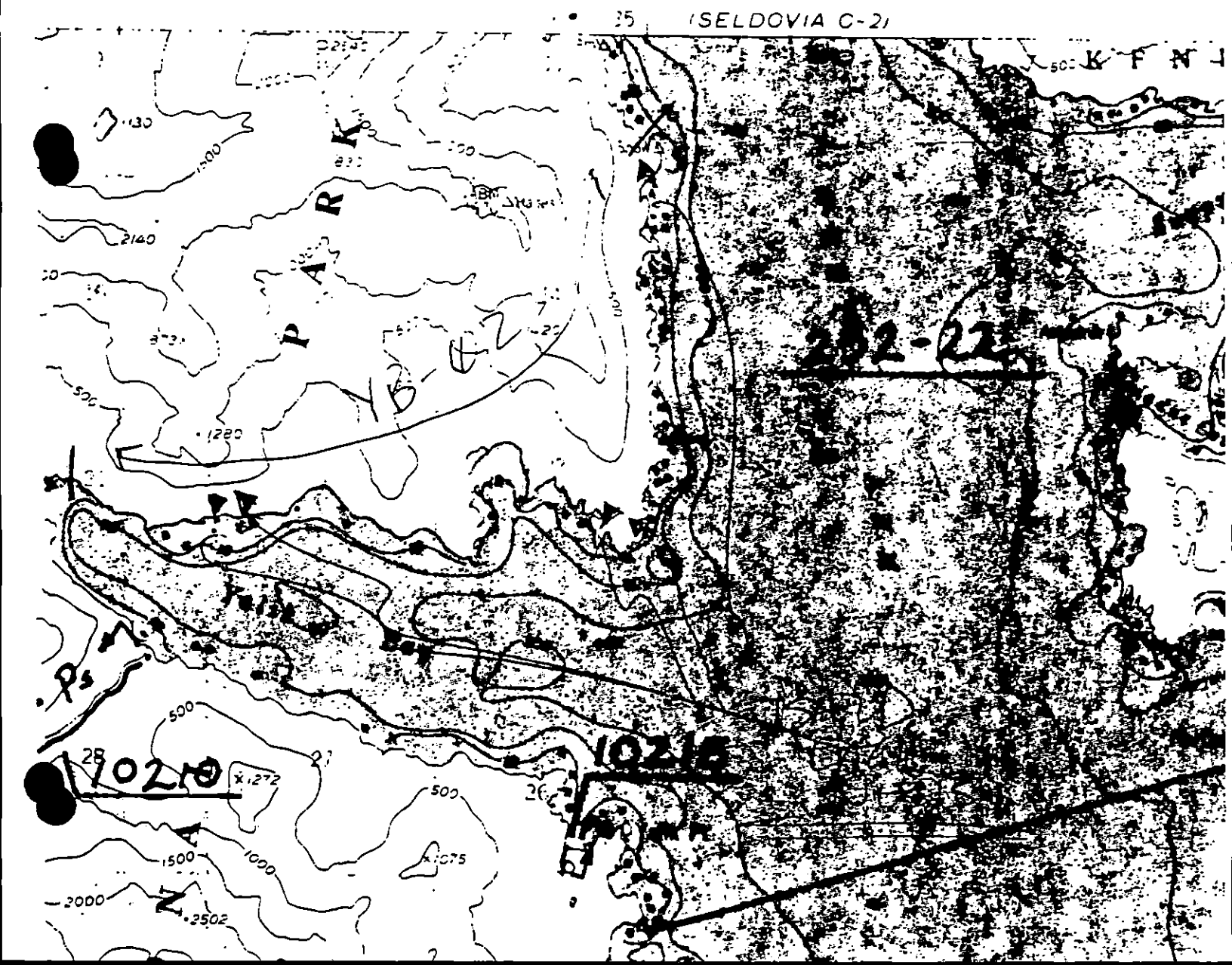
General Comments (cont.):

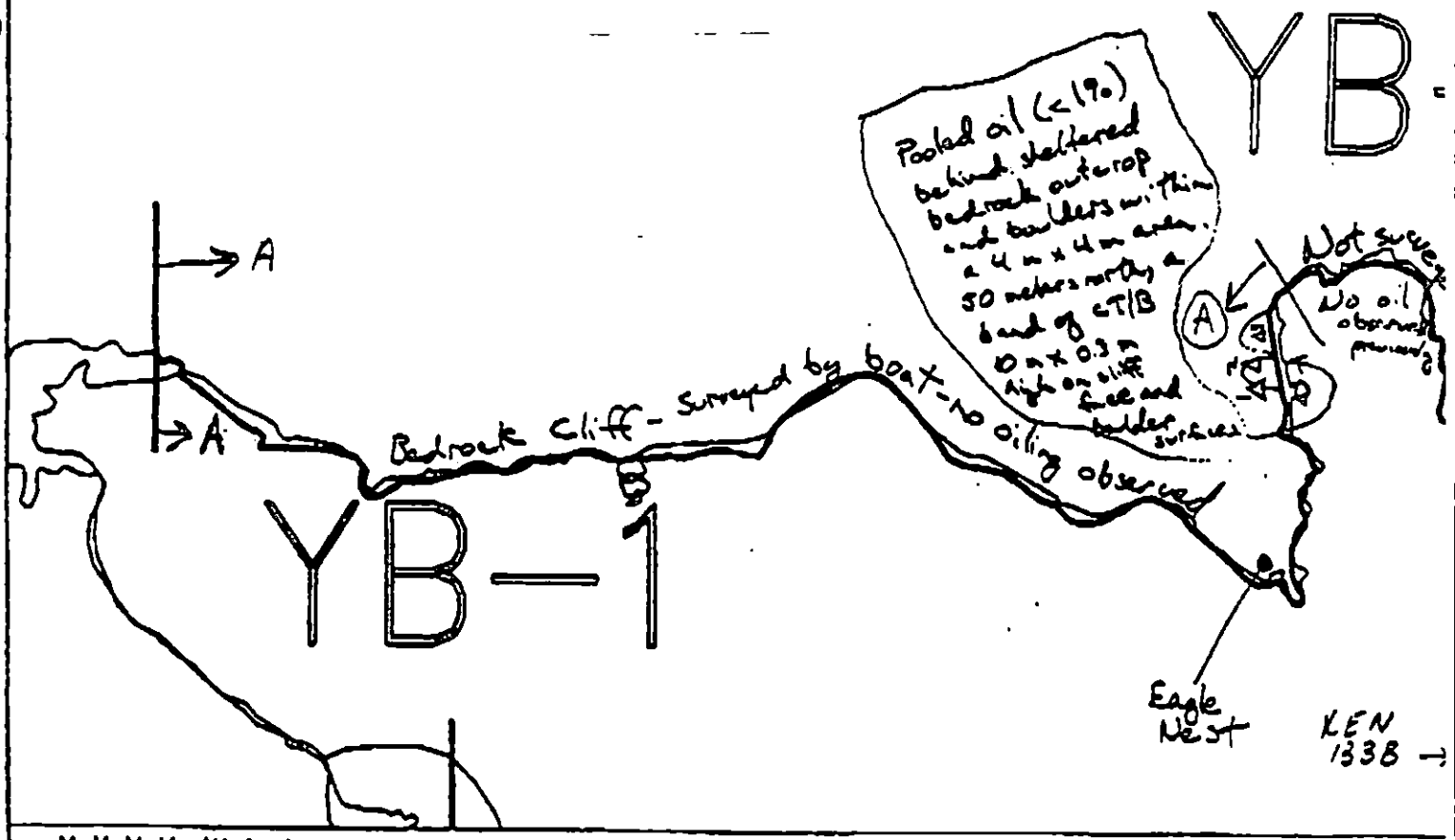
recruitment among established adults; this applies also to Fucus. Barnacle recruitment is presently still in the form of newly arrived cyprids - excellent spat development should follow shortly. Some sparse areas of eelgrass in shallow nearshore subtidal waters.

Ecological Considerations (cont.):

from further human remediation/intrusion.

ECOLOGICAL



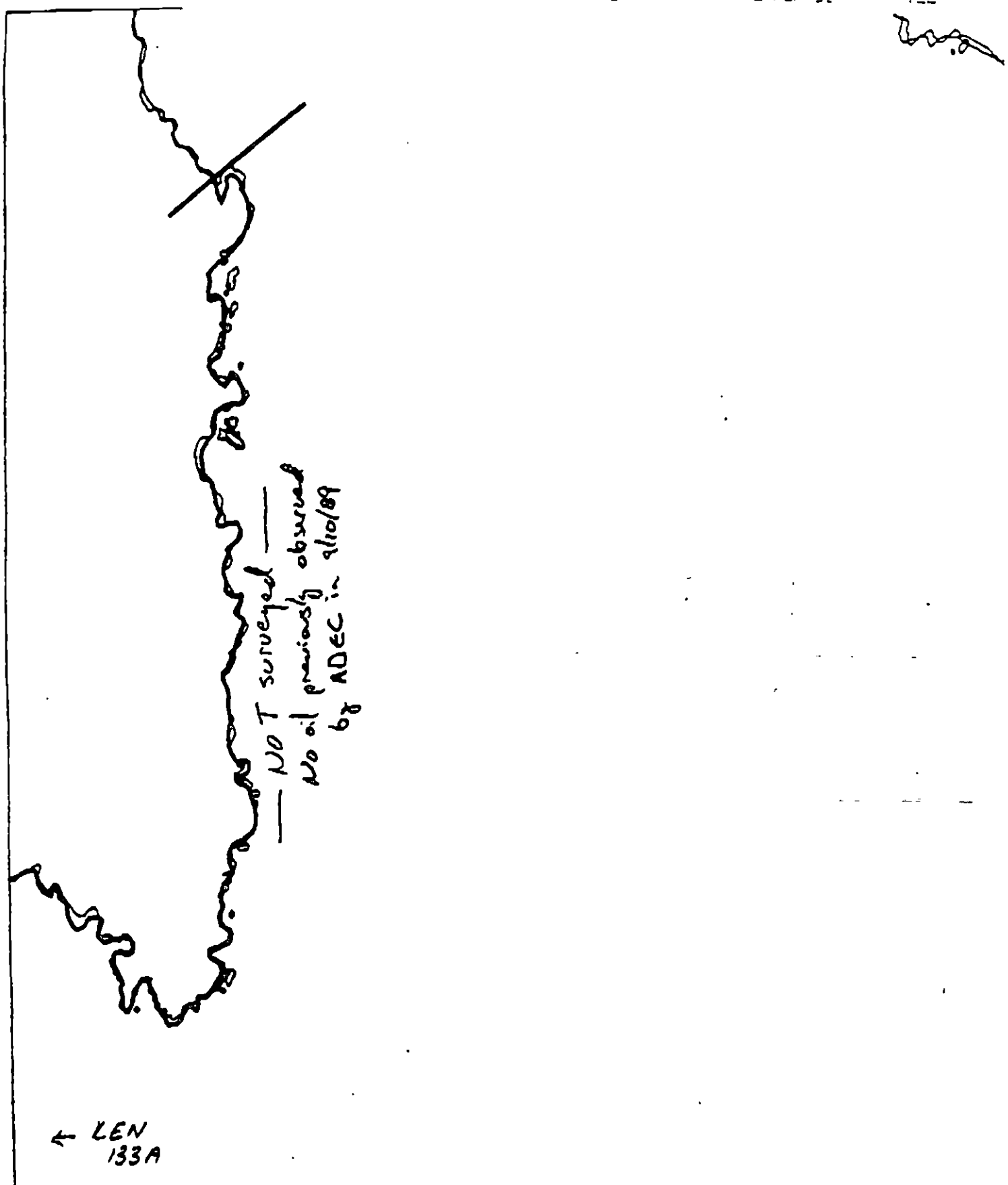


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

YB-2

ADEC Segment Length: 10792m

Map Key: KEN-133a
Name: Ruby Angel
Date: 4/26/90



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

YB-2

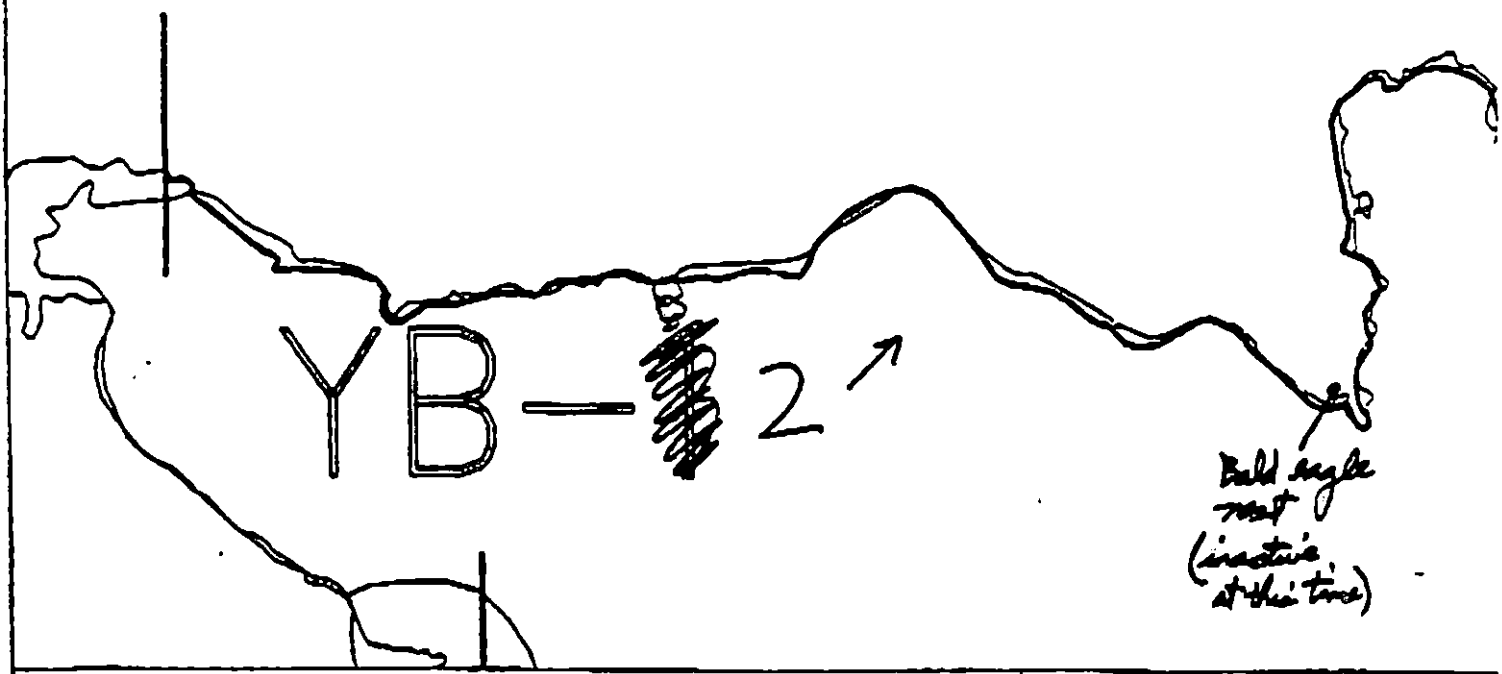
ADEC Segment Length: 10792m

0 300 600 900

Map Key: KEN-133b
Name: Barb Siegel
Date: 4/26/90
Date Entered:

Eco. Map showing eagle nest, presently inactive.

YB



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

YB-2 (Map 3 of 3)

ADEC Segment Length: 10792m

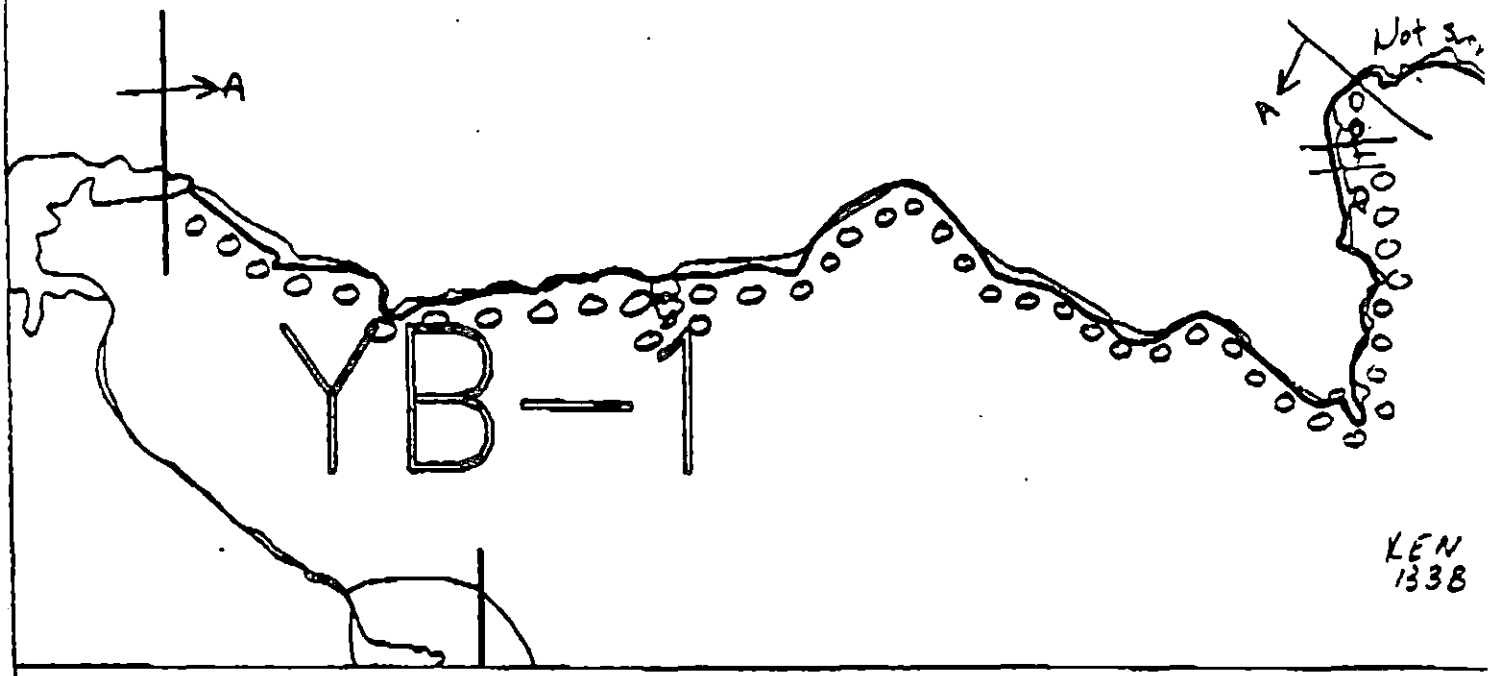
0 300 600 900

Map Key: KEN-133a

Name: _____

Date: _____

YB

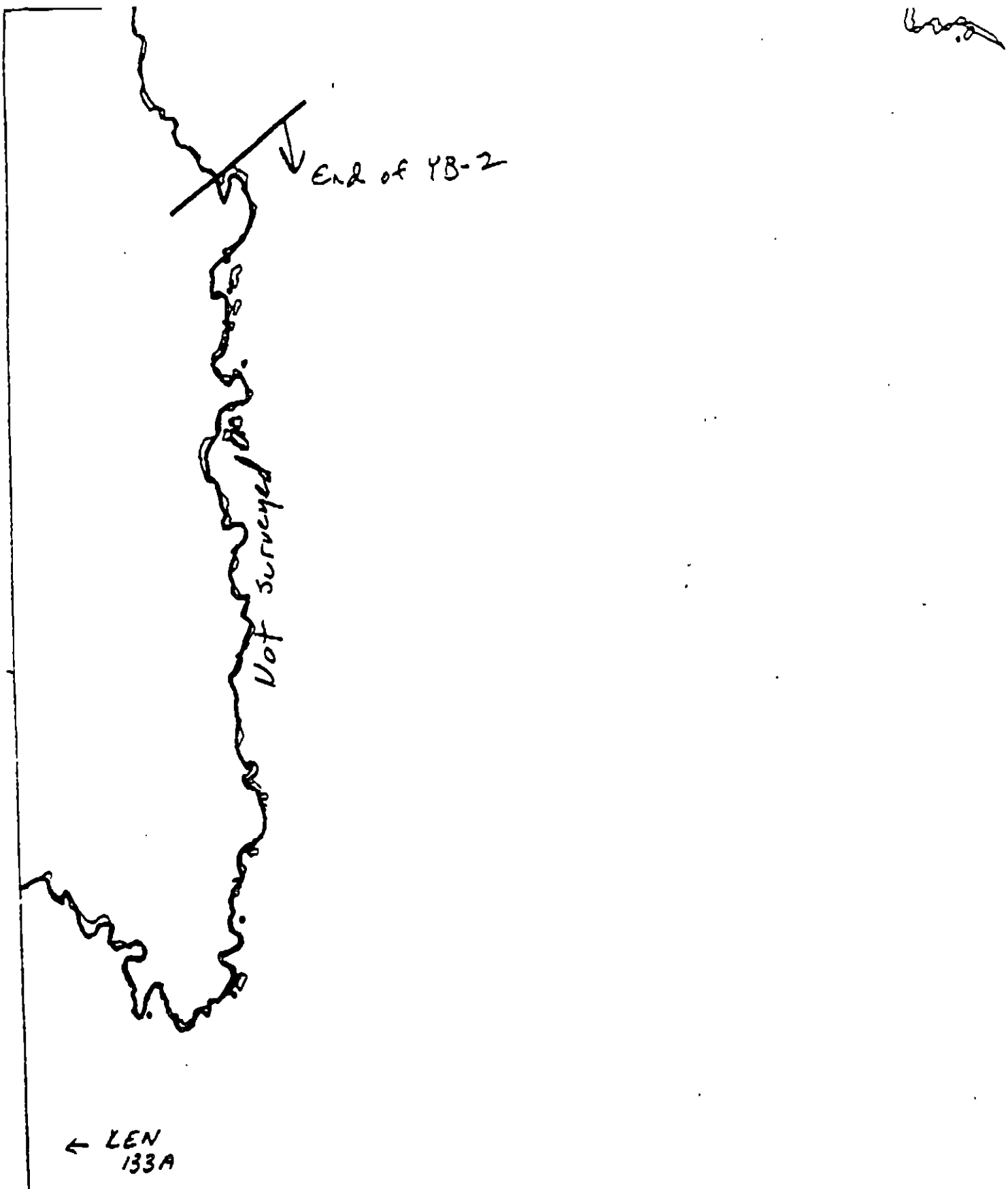


XXXX Wide
//// Medium
---- Narrow
TTTT Very Light

YB-2

ADEC Segment Length: 10792m

Map Key: KEN-133a
Name: Rob Voigt
Date: 4/26/90



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

YB-2

ADEC Segment Length: 10792m

0 300 600 900

Map Key: KEN-133b
Name: R. Knight
Date: 4/26/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ YB-05 SUBDIVISION A (1 OF 1) DATE 4/29/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
1J Purse seine area (7/10 to 8/20)
2M Herring spawning (4/1 to 6/15)
4LL National Parks
6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 7442 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: 5/8/90.
ADEC Art Weiner Art Weiner
EXXON Andy Teas Andy Teas
NOAA Gary Petrasek Gary Petrasek
USCG C.A. Reiber C.A. Reiber

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

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)**
7HH **Finfish harvesting**
7II **Deer harvesting (8/15 to 2/28)**
7JJ **Invertebrate harvesting**
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / YB5 SUBDIVISION: A (ENTIRE SEGMENT) DATE 4/27/90

USCG NAME JERRY SCHULTZ SIGNATURE Jerry Schultz

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

ADEC NAME MIKE EBEL SIGNATURE Michael J. Ebel

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

YB-5-A: Most of area surveyed by boat; inspected areas indicating oil from the 1989 ADEC maps (none was found). No treatment necessary.

LAND MANAGER - NPS
NAME MIKE TETREAU SIGNATURE

~~☐ NO TREATMENT RECOMMENDED~~ ~~☐ TREATMENT SUGGESTED~~

COMMENTS

Good survey, no oil observed.

12/12

REVISION NO. 00.2

SHORELINE OILING SUMMARY Peter Zalar (CAC) REVISION NO 0

OG Randy Siegel USCG Jerry Schultz SEGMENT ST/ YB-5
BIO Lewis Sharman LAND REP Mike Tetreau (CIPS) SUBDIVISION A 1 OF 1
EXXON Leonard Herbst ADEC Mike Abel TIME 07 :00 to 08 :30
TEAM NO. 12 TIDE LEVEL 3.17' to -2' DATE 4 / 27 / 90
EST. SUBDIVISION LENGTH: 7694 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow 42
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: NW to SE
SURFACE SEDIMENTS: R 75 % B 15 % C 5 % P 2 % G 3 % S 1 % M Ø % V Ø
SLOPE : Lang 5 % Hang 90 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
OIL CATEGORY LENGTH: W Ø m M Ø m N Ø m VL Ø m NO 7694

SURFACE OIL

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

PAVEMENT H F S Ø sq. m by Ø
PATTIES / TARBALLS Ø BAG
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 0

Photographs — None —
Roll No. — None —
Frames —

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE SUBSURFA SEDIMENT
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	U				
1	17					X	0-0		X							X				—	—	S
2	17					X	0-0		X							X				N	SR	AG
3	25					X	0-0		X							X				—	—	S
4	20					X	0-0		X						X					—	—	G
5	35					X	0-0		X							X				—	—	S
6	33					X	0-0		X							X				—	—	S

COMMENTS Long segment consisting largely of hi-angle cliff faces and occassional pocket beaches. No oiling at all was observed in this segment. All pits were mailed. Most of segment surveyed from boat with occassional stops on beach.

2/12

REVIEWED YH DATE 4-29-9

SHORELINE OILING SUMMARY (PAGE 2)

SEGMENT ST/ YB-5 SUBDIVISION A (2 OF 2)

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)	▼	SURFAC SUBSURF SEDIMEN
		OP	OR	OL	OF	NO		UO	UC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SU	UI	MI	U				
7	25					X	0-0		X								X			–	–	S
							·															
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							·															

COMMENTS

3/12

REVIEWED GH DATE 4-29-10

SEGMENT ST/ [redacted] B-5

SUBDIVISION A

DATE 4/27/90

CHECKLIST

- N Arrow
- Approx. Scale
- Sep/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

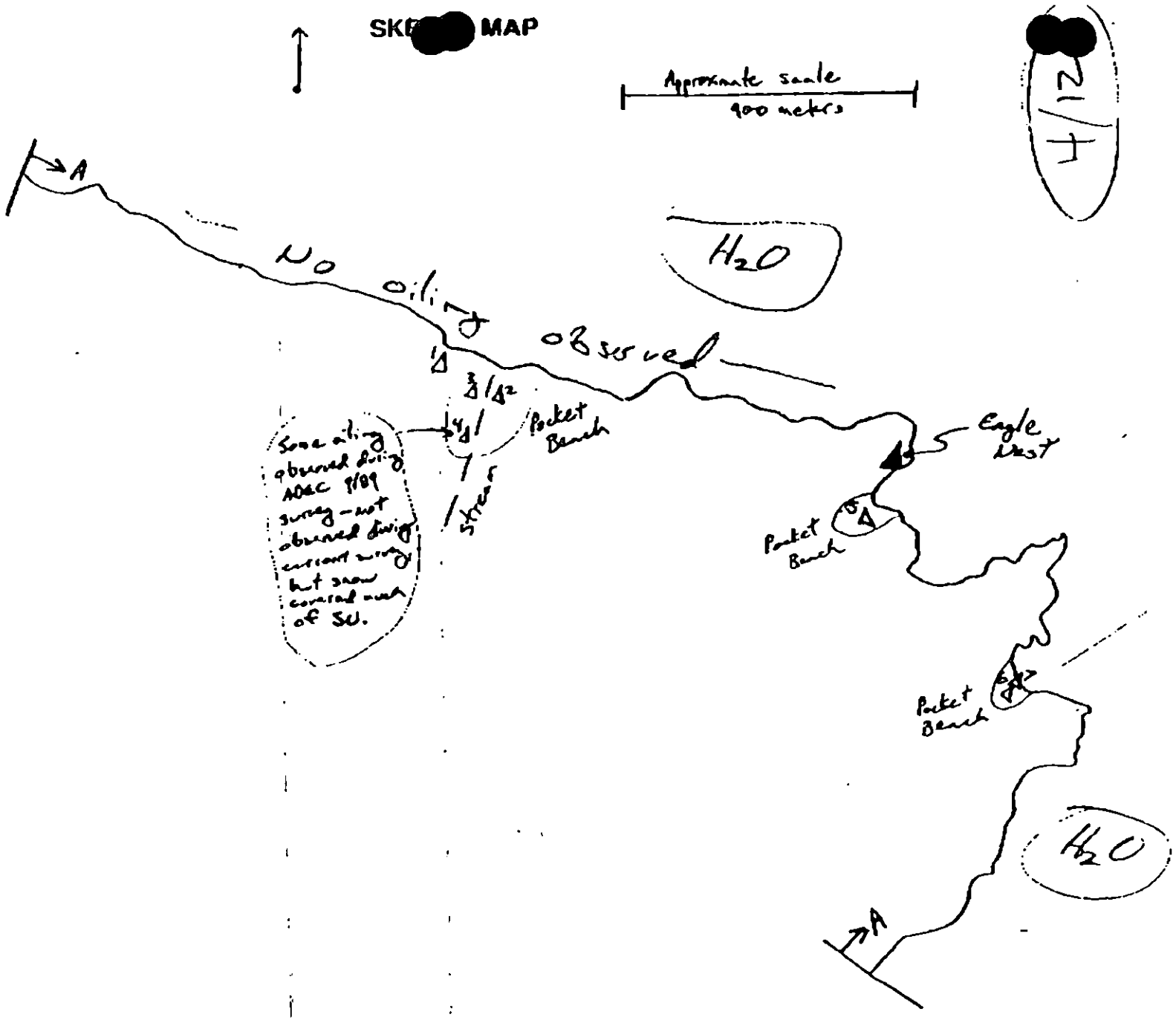
CT/S Splashed Distribution

lll. Mod Vegetation

1 ⇒ Photo location, direction, and number

SKE[redacted] MAP

Approximate scale 900 meters



Character Length (m): AP ϕ PO ϕ CV ϕ CT ϕ ST ϕ MS ϕ PT ϕ TB ϕ FL ϕ NO 7694

REVISION [redacted]

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

Segment ST / YB-5 Subdivision A Date (mo / day / yr) 4/22/90

Time (24 hr) 0700-0845 Biologist SHARMAN

(A) Substrate type and % of segment: SUBDIV.
(1) Bedrock 75 (2) Boulder 15 (3) Cobble 5 (4) Pebble 2 (5) Sand 3 (6) Silt ____ and + granules

(B) Overall % cover of biota (% of segment): SUBDIV. Dense ____ Moderate X 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. ____ 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	(3)	(3)	X	
3	3	3	3	3	3	3	3	3	3	(3)	(3)	NOT PRESEN
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	(3)	(3)	2	
3	3	3	3	3	3	3	3	3	3	3	3	NOT PRESEN
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 (NUCELLA, LITTORINA, LIMPETS)

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	(3)	(3)	(3)	
3	3	3	3	3	3	3	3	3	(3)	(3)	(3)	NOT PRESEN
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	X	2	(3)	(3)	2	
3	3	3	3	3	3	3	3	3	3	3	3	NOT PRESEN
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: 40 pairs glaucous-winged gulls, 1 pair bittiwake, 1 murrelet, 3 cormorants, 1 ♂ mallard, 15 pairs harlequin ducks, 6 pairs pigeon guillemots, 3 pairs white-winged scoters, 4 pairs Barrow's goldeneye, 3 ravens, 10 crows, 3 mature eagles, 5 pairs common mergansers, 4 Steller's jays, 1 pair oystercatchers. 5 seals on ledge at S. end of segment; 1 sea lion, 1 otter; (cont.)

Ecological Considerations:

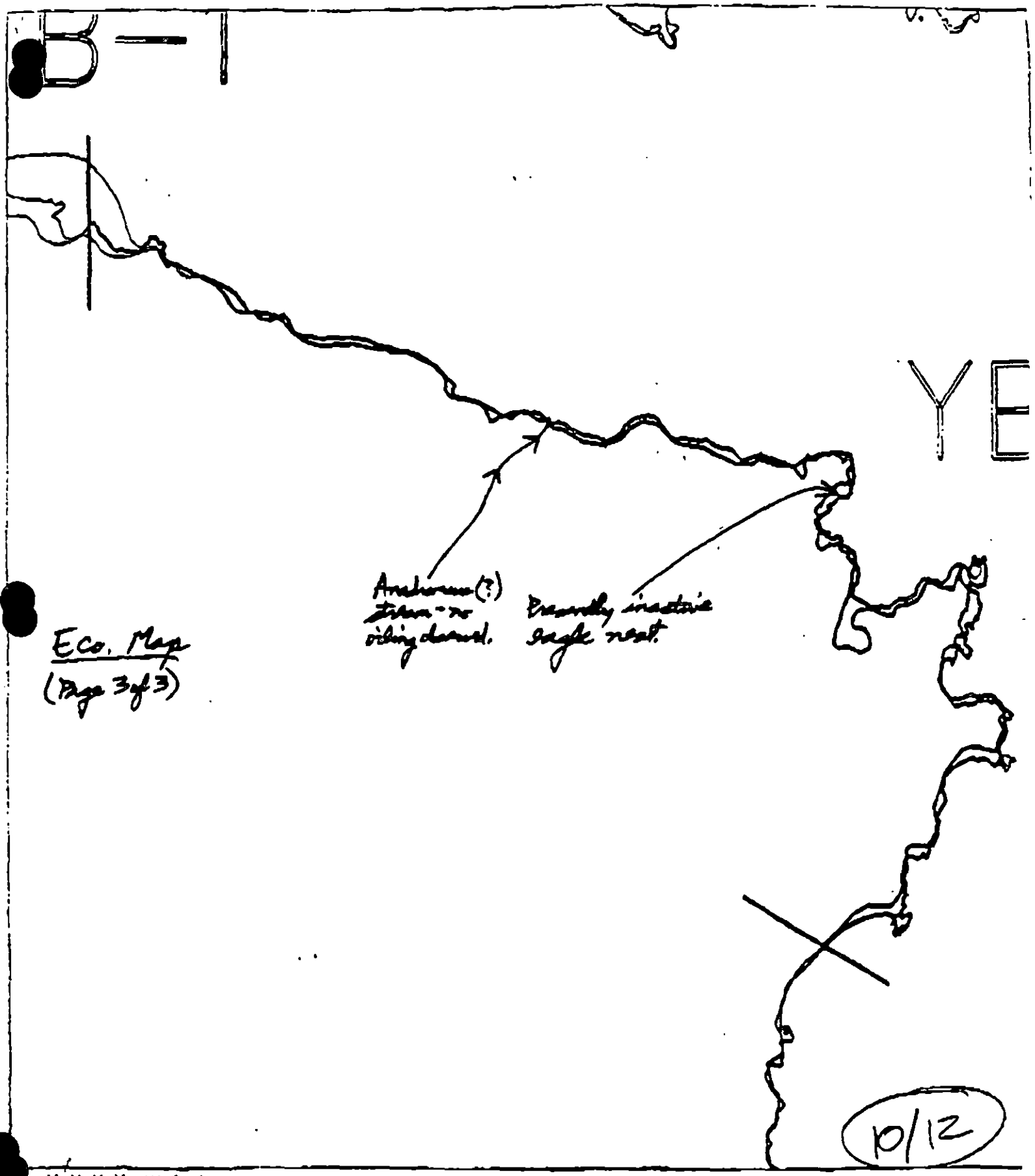
We received no information regarding previously identified resource sensitivities for this segment. See the attached Geo. map for locations of a presently inactive eagle nest, and a stream identified by ADEC maps as anadromous (but no ADF&G #). I suspect that if the stream is indeed anadromous, it produces fish numbered in the 10's. Biologically, this area is clearly immensely diverse + productive. Also, it is shoreline. Further human intrusion cannot in any way benefit this area.

YB-5 Shoalwater Ecological Summary (cont.) Sharman 4/27/90
(Page 2 of 3)

General Comments (cont.):

1 mink + 1 river otter in intertidal zone; abundant river otter tracks in UT2 sand of pocket beaches, minor tracks in UT3 sand of one beach. Good stands of last year's Nereocystis off rocky points. Extremely productive and diverse subtidal zone. This area (as all areas along this coast) evidently subsided during the '64 earthquake (dead trees along beach fringe). The occasional black sand beaches are quite depauperate, as would be expected, but they are bounded by very richly colonized boulder/bedrock substrates. The great majority of this segment is composed of exceedingly productive bedrock/boulder intertidal communities. The ecological data form gives entirely the wrong impression re. the abundance and diversity of the intertidal biota. The LT2 in particular is certainly among the most diverse and productive in the world. A list of species is essentially an species list (and a long one at that) - quick reference to this section in the summary for WC-1 may be helpful.

9/12



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

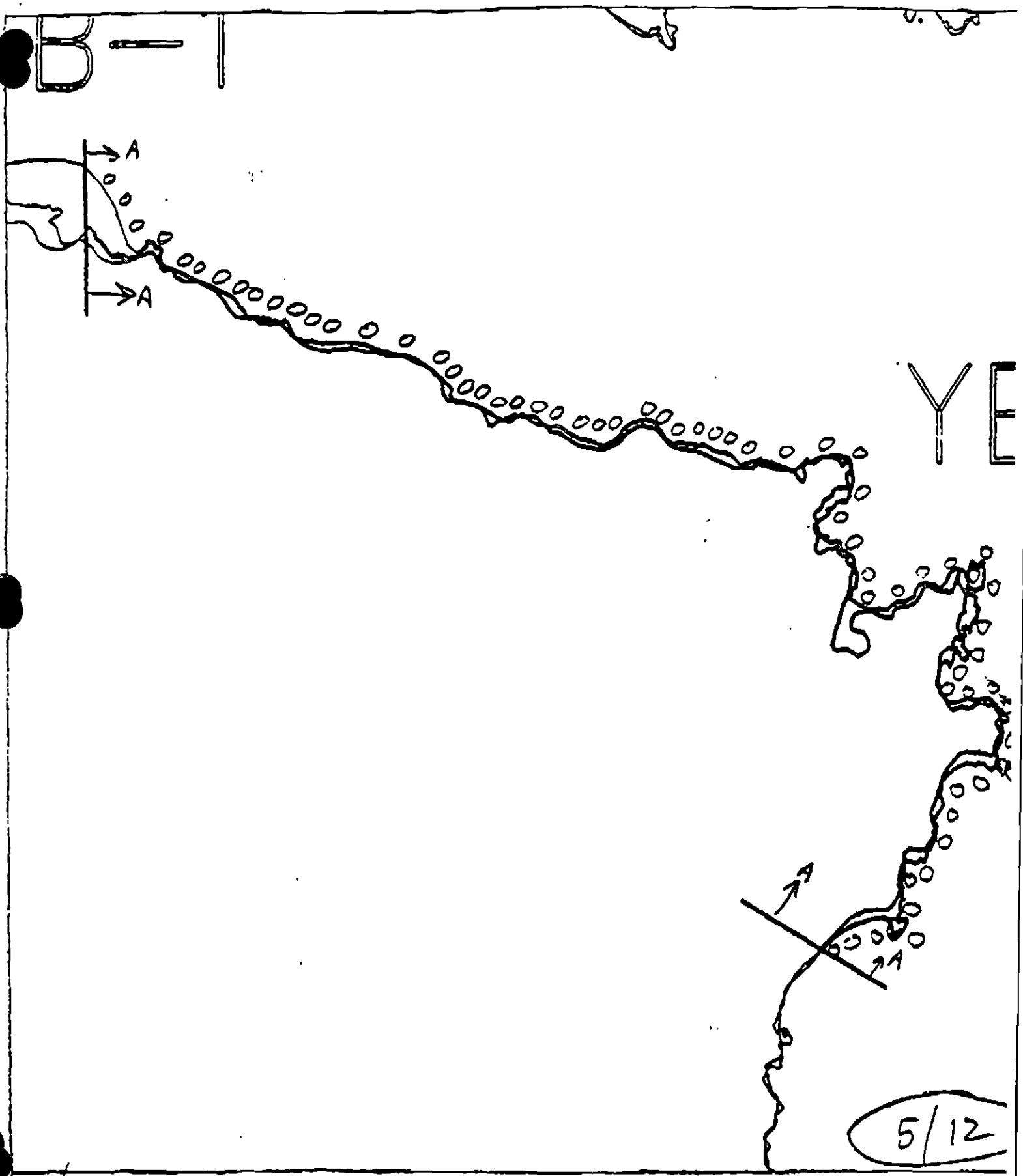
YB-5

Approx. Segment Length: 7178m

Map Key: KEN-YB-5a

Name: _____

Date: _____



XXXX Wide
//// Medium
---- Narrow

YB-5

Approx. Segment Length: 7178m

Map Key: KEN-YB-5a
Name: Rudy Angel
Date: 4/27/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT YG-2 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Mechanical Removal	OPEN

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

>>> PHONE 564-3274 (Anchorage) OR 229-1508 (24 hrs.) <<<

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

No ecological time constraints.

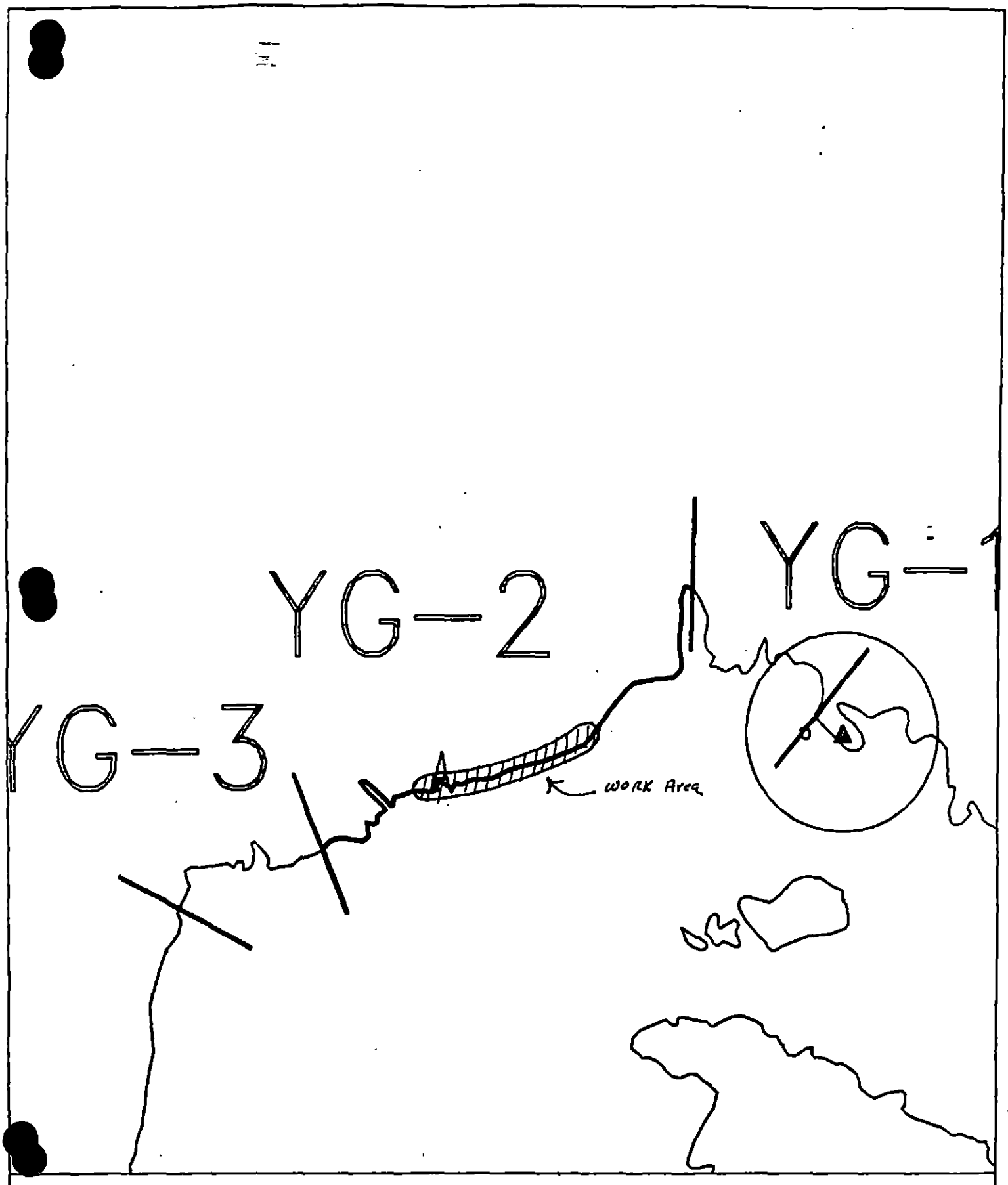
OTHER ECOLOGICAL CONSIDERATIONS

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

TAG APPROVAL DATE 6/04/90
ADEC Ray Morris
EXXON Amor Tear
NOAA Joseph Talbott
USCG

FOSC _____ DATE 6/5/90

Prepared By: _____ Date 6/3/90



EXXON

ECOLOGY MAP
SEGMENT YG-2

SUBDIVISION A (/ of /)

★ Seabird Colony

▲ Eagle Nest

ASAP

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT Y4-02 SUBDIVISION A DATED 8/1/90.

MODIFICATION CLASS I ✓ CLASS II _____ CLASS III _____

1. REASON FOR MODIFICATION

Scattered Asphalt Pavement, to approximately 6 cm, Remains over an area approximately 20m x 500 m. An estimated 40-60 bags of oiled sediments can be Removed, and is on the surface. The asphalt is now Readily available and can be Removed as per the original TAG work order.

2. SUGGESTED ADJUSTMENT TO WORK PLAN

A crew should manually Remove soft asphalt along the entire length of the segment to complete treatment. This does not represent an adjustment to the existing TAG work order, but simply addresses Remaining work to be done.

3. TIMING ISSUES

Work should be completed prior to Sept 15, 1990.

ADEC John R. Reed

EXXON Keith Miles → Reasses spring 1991

USCG AEC Vandegrift → I concure but would only schedual this work if a crew was in the area & could not work another segment.

LAND MANAGER _____ (If field rep is on scene)

Yalik Glacier Beach
FIELD SHORELINE COMMENT SHEET

SEGMENT AS / YG02 SUBDIVISION: A SITE: 1 DATE 08/21/90

USCG
NAME AEC Vandepeels SIGNATURE AEC Vandepeels

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: Some tarmats were found on eastern half of beach ranging in size up to 1x2 ft. These could be picked up. I recommend waiting for further work until after winter storms and reassess in 1991.

ADEC
NAME JOHN R. REED SIGNATURE John R. Reed

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: This is an area were extensive mechanical cleanup was done. After cleanup some scattered tarmats still Remain. These Tarmats are concentrated on east and west ends. Some surface OR and CT also Remain on cobble and pebbels. An estimated 40-50 bags could be Removed this year. 1990.

LAND MANAGER
NAME David K. Kenagy SIGNATURE [signature] ADNR

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

EXXON
NAME Keith Miles SIGNATURE Keith Miles

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
REASON: Mechanical methods on this segment appeared to be quite successful, although a few tarmats remain on the eastern end of the impacted area I feel any further work in 1990 would not be environmentaly advantageous.

REVISION NO. 7/26/90

- Land Manager Comments
David Kenagy, ADNR
8/01/90

Reason: Observed tarmats remaining after effort with mechanical equipment ended. Tarmats vary in size from several centimeters to several meters in diameter, over an area approximately 20m x 55m. Though classified as largely VL by the OA, an estimated 40-60 bags of asphalt could be removed, and are on the surface. The remaining asphalt is oiled sediment which Exxon was directed to remove as per the original 1990 work order; some work, obviously, remains to be done. In addition, a depression remains where a cobble "armor" layer was removed prior to mechanical work. Exxon agreed to smooth the area with a tined "scraper" prior to equipment demobilization. This was completed on the western portion of the work area. However, on the far eastern portion of the subdivision, beginning where small dead standing trees are located, a depression approximately 30m in length remains. The cobble armor layer is absent and a fine to coarse sand layer is exposed. ADNR would like the remaining tarmats to be removed to complete the original work order and the exposed fine sediments covered with cobble. This beach is within the Kachemak Bay State Wilderness Park. Mechanical equipment removed the majority of the tarmat, but sufficient tarmats remain to warrant additional removal. An addendum for this subdivision (Class 1) would serve to complete work originally prescribed by the TAA. Even after addition work is done this summer, oiled sediments will no doubt remain. Therefore, this subdivision should be reassessed during the Spring 1991 survey.

ASAP SHORELINE OILING SUMMARY

TEAM NO. 4 EXXON Keith Miles SEGMENT AS YG-02
OG Rich Marty US CG AEC Vandepals SUBDIVISION A
ADEC Randy Reed LAND REP Dave Kenagy TOTAL NO. SITES 1
DATE 08 / 01 / 90 TIME 06:00 to 07:00 TIDE LEVEL +2.5' to +4.0'
TOTAL EST LENGTH OF SHORELINE SURVEYED: 575 m
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow
OIL CATEGORY LENGTH: W — m M — m N — m VL 575 m NO — m US 1266 m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION /C	/B	/P	/S	OILED ZONES SU	UI	MI	LI
ASPHALT				X		X	X	
S.O.R.				X		X	X	
POOLED								
COVER								
COAT				X		X	X	
STAIN				X		X	X	
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X			X
EST. SITE LENGTH					575m			

SITE 2

DISTRIBUTION /C	/B	/P	/S	OILED ZONES SU	UI	MI	LI

SITE 3

DISTRIBUTION /C	/B	/P	/S	OILED ZONES SU	UI	MI	LI

SUBSURFACE OIL

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER OP	OR	OF	NO	OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE SU	UI	MI	LI	SURFACE-SUBSURFACE SEDIMENTS
			NO		PITS		-						
							-						
							-						
							-	•					
							-						
							-						
							-						
							-						
							-						
							-						

Photographs:
Roll No. —
Frames None

RAT

COMMENTS Area is not a candidate for subsurface oiling. The change at this site is remarkable. Cleaning was the most thorough seen by the OG to date. Some scattered, probably recoverable, patches of AP + SOR remain, but overall the oiling is very light.

REVISION NO. 7/27/90

SEGMENT ST/ YG-002

SUBDIVISION A

DATE 4/28/90

SKETCH MAP

MAP 4

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

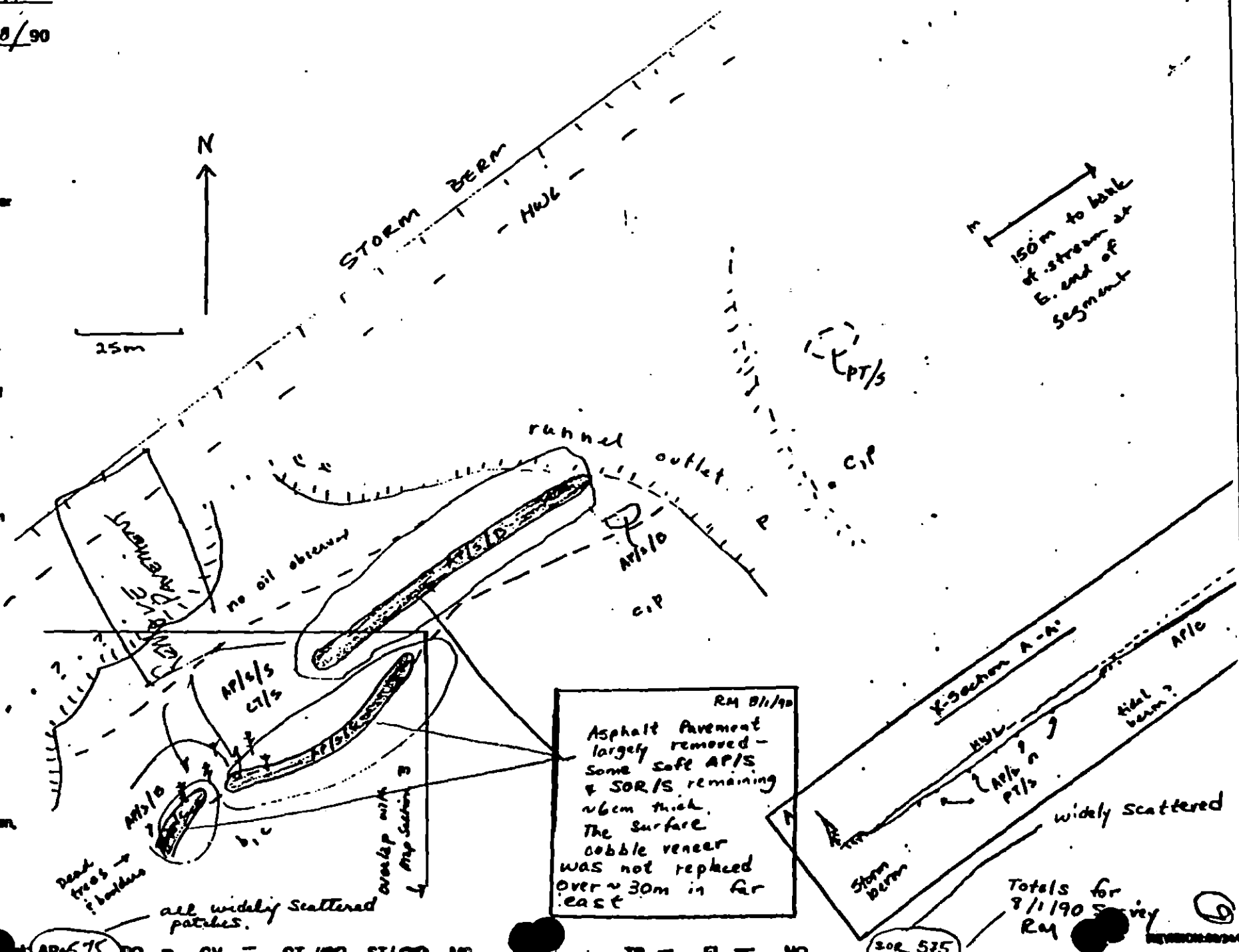
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

lll Oiled Vegetation

1 Photo location, direction, and number



Oil Character [redacted]: AP 575 PO — CV — CT 100 ST 100 MS ____ PT ____ TB — FL — NO ____

[redacted]

SUBDIVISION A

DATE 4 / 29 / 90

CHECKLIST

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

LEGEND

1 ▲ FI - No Subsurface Oil

2 ▲ FI - Subsurface Oil

CT/C Continuous Distribution

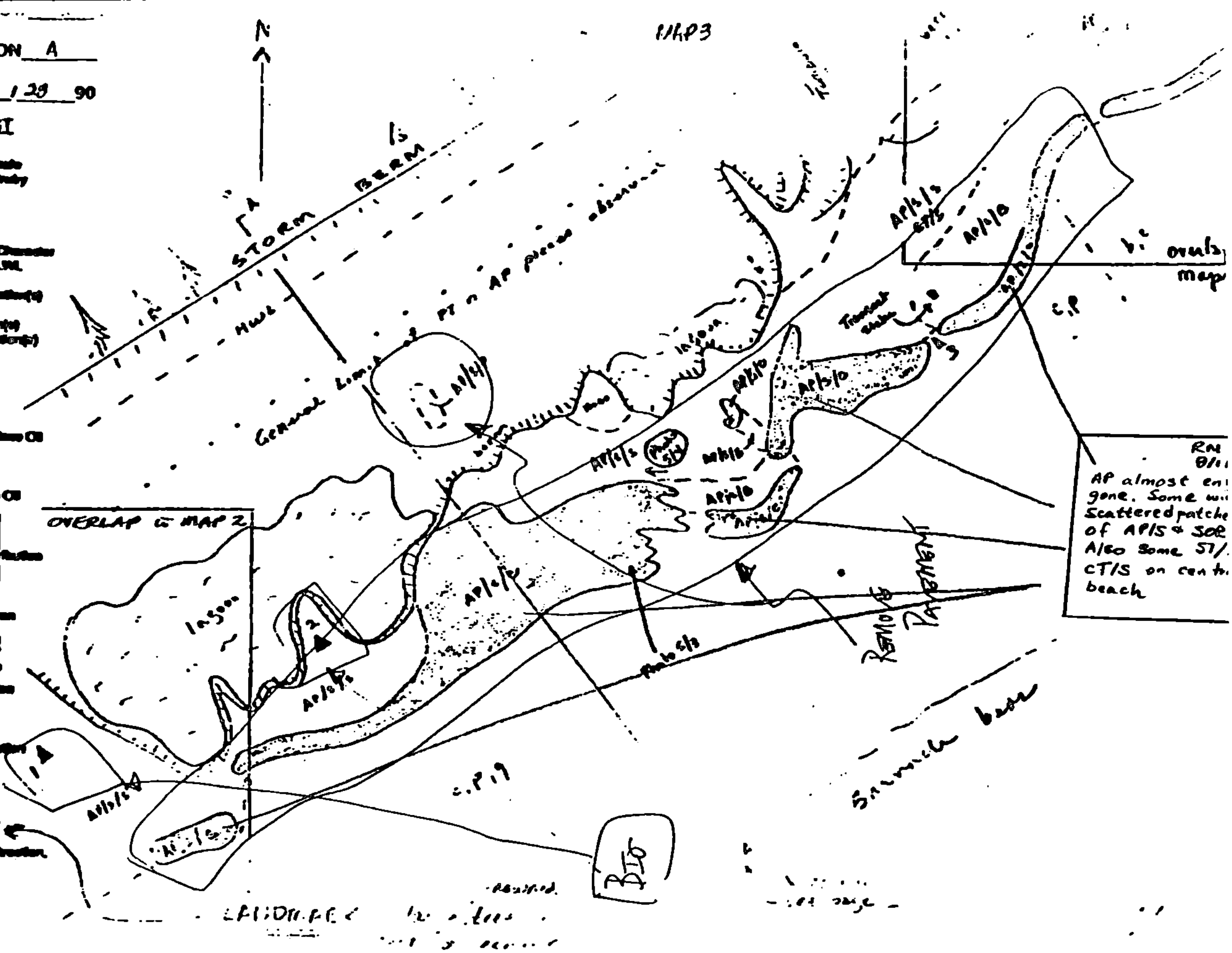
CT/B Broken Distribution

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____

SKETCH MAP
MAP 2

SEGMENT ST/ [illegible]

SUBDIVISION A

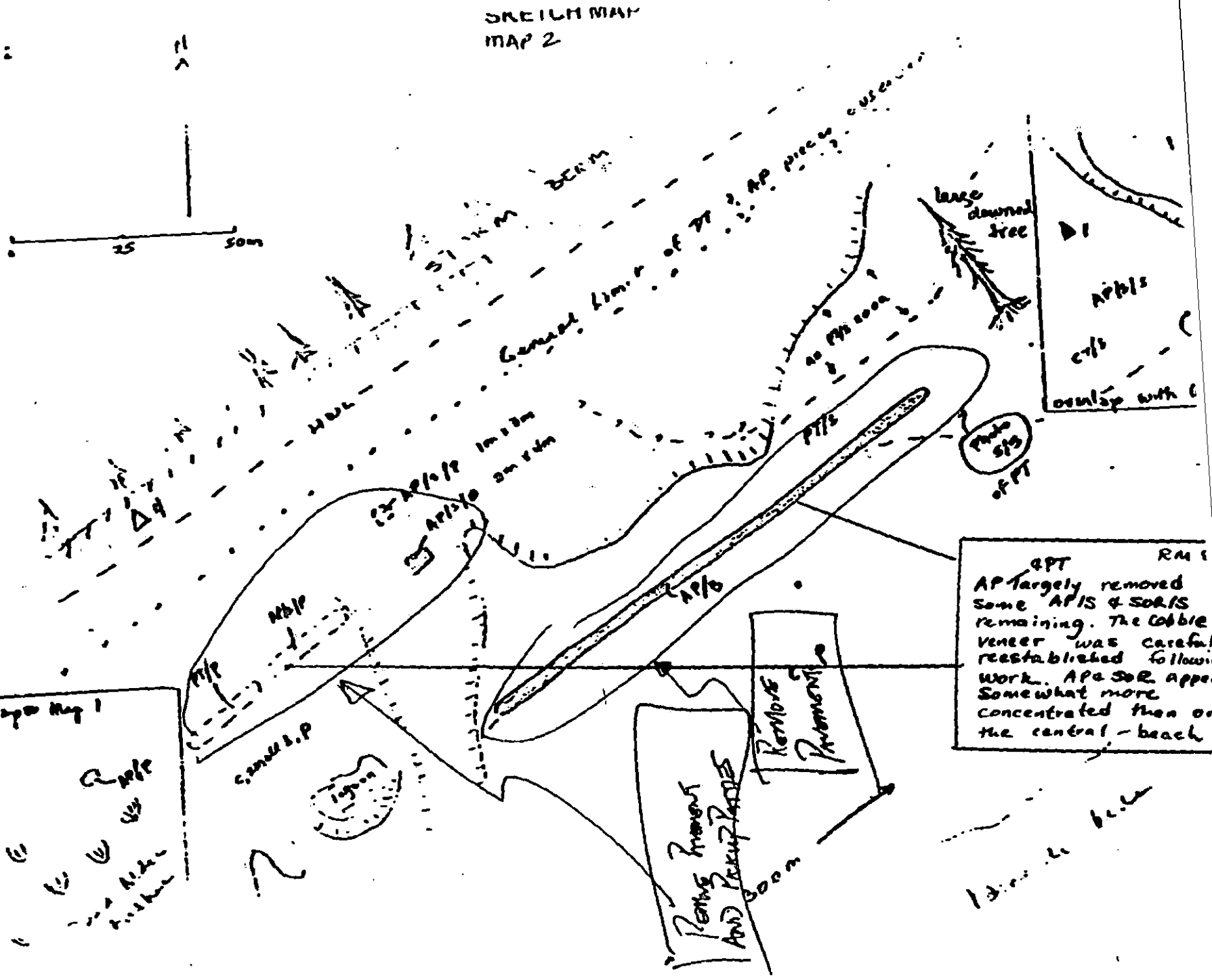
DATE 4/29/90

CHECKLIST

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

LEGEND

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



Oil Character Legend: AP____ PO____ CV____ CT____ ST____ MS____ TB____ FL____ NO____

REVISION

SEGMENT ST/ 96-002

SUBDIVISION A

DATE 7/20/90

SKETCH MAP

MAP 1

CHECKLIST

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

LEGEND

1 △ Pit - No Subsurface Oil

2 ▲ Pit - Subsurface Oil

CT/C Continuous Distribution

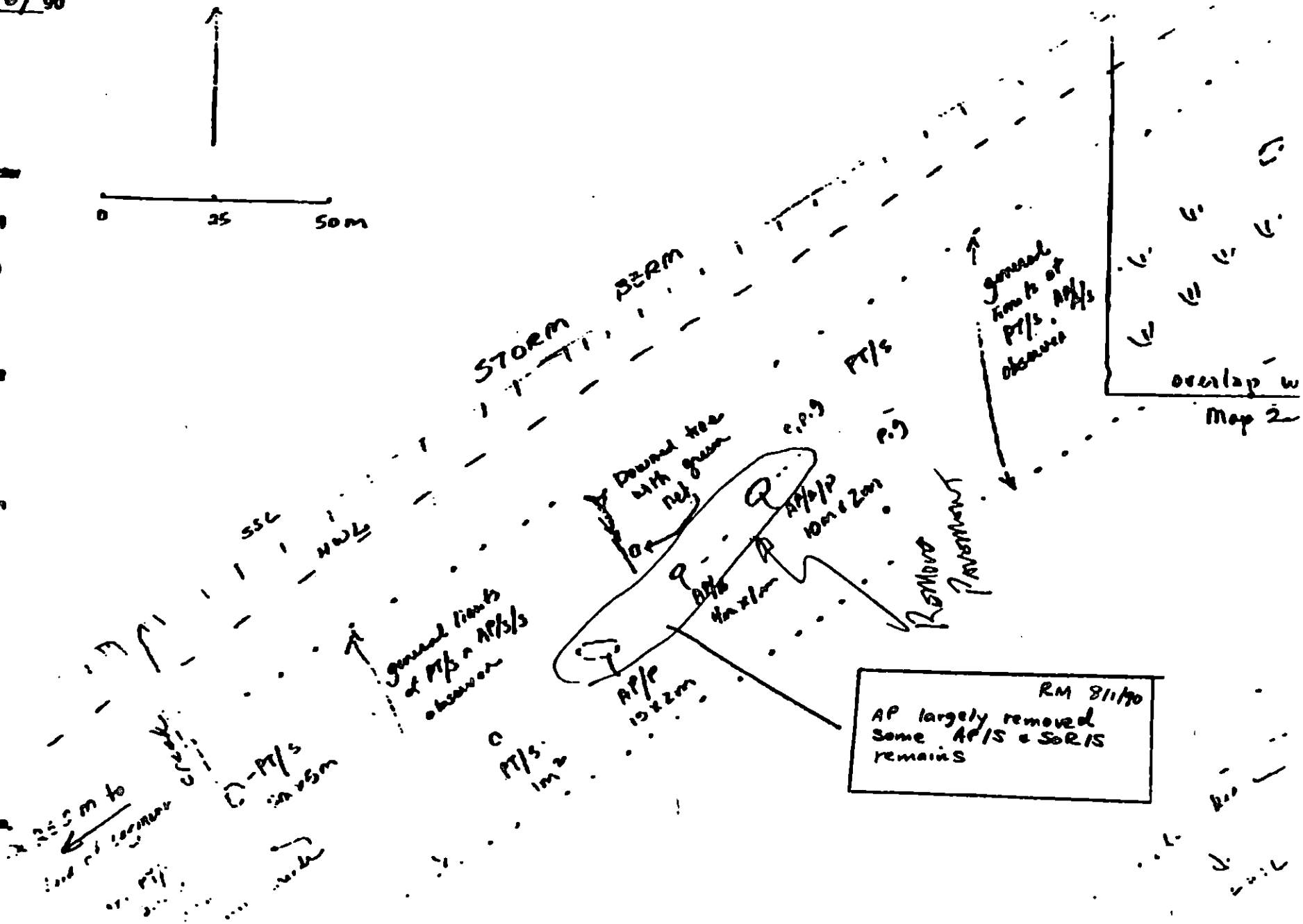
CT/B Broken Distribution

CT/P Patchy Distribution

CT/S Splashed Distribution

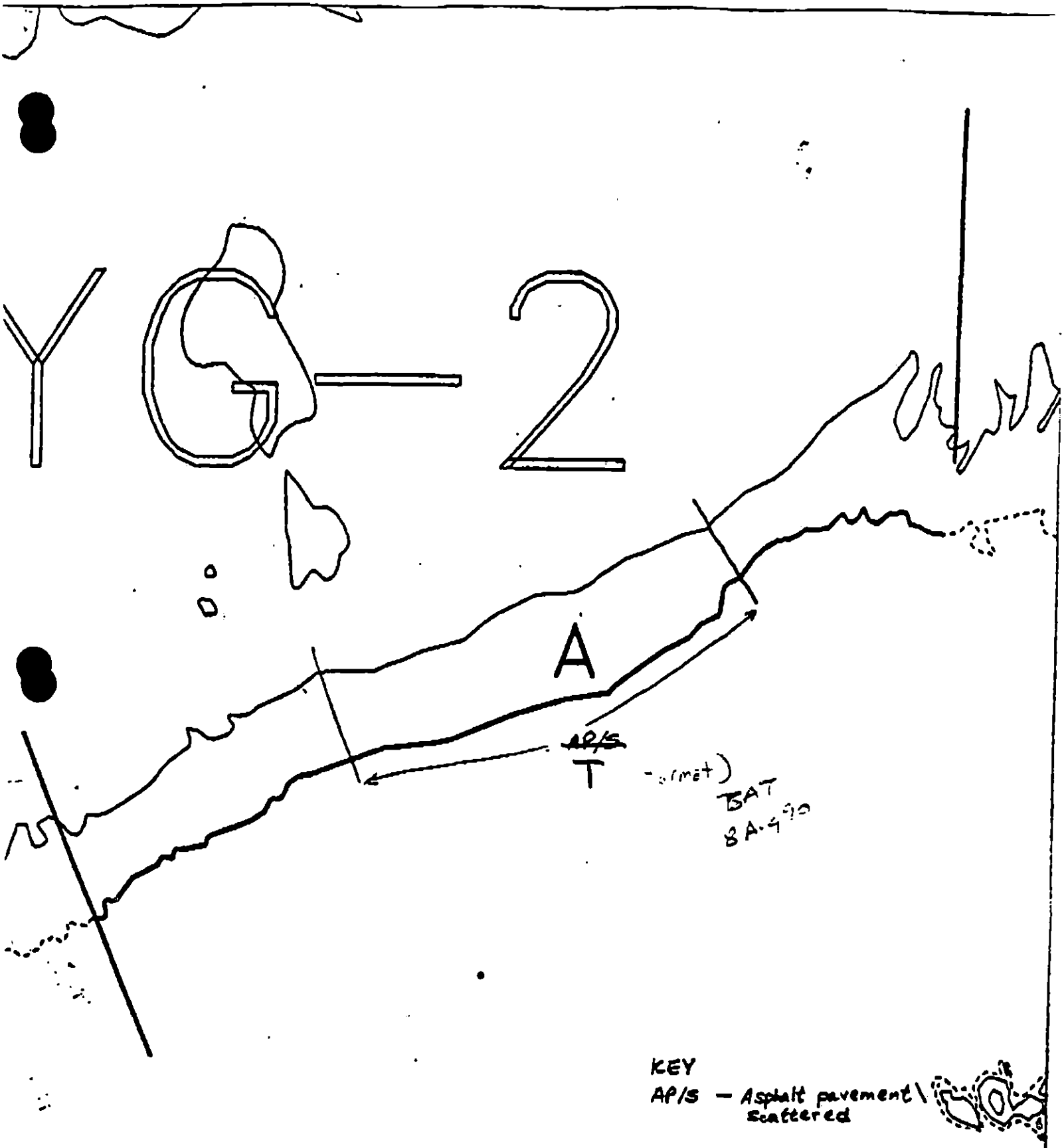
Oiled Vegetation

Photo location, direction, and number



Oil Character Legend: AP____ PO____ CV____ CT____ ST____ MS____ TB____ FL____ NO____

REVISION



EXXON

SEGMENT YG-2A

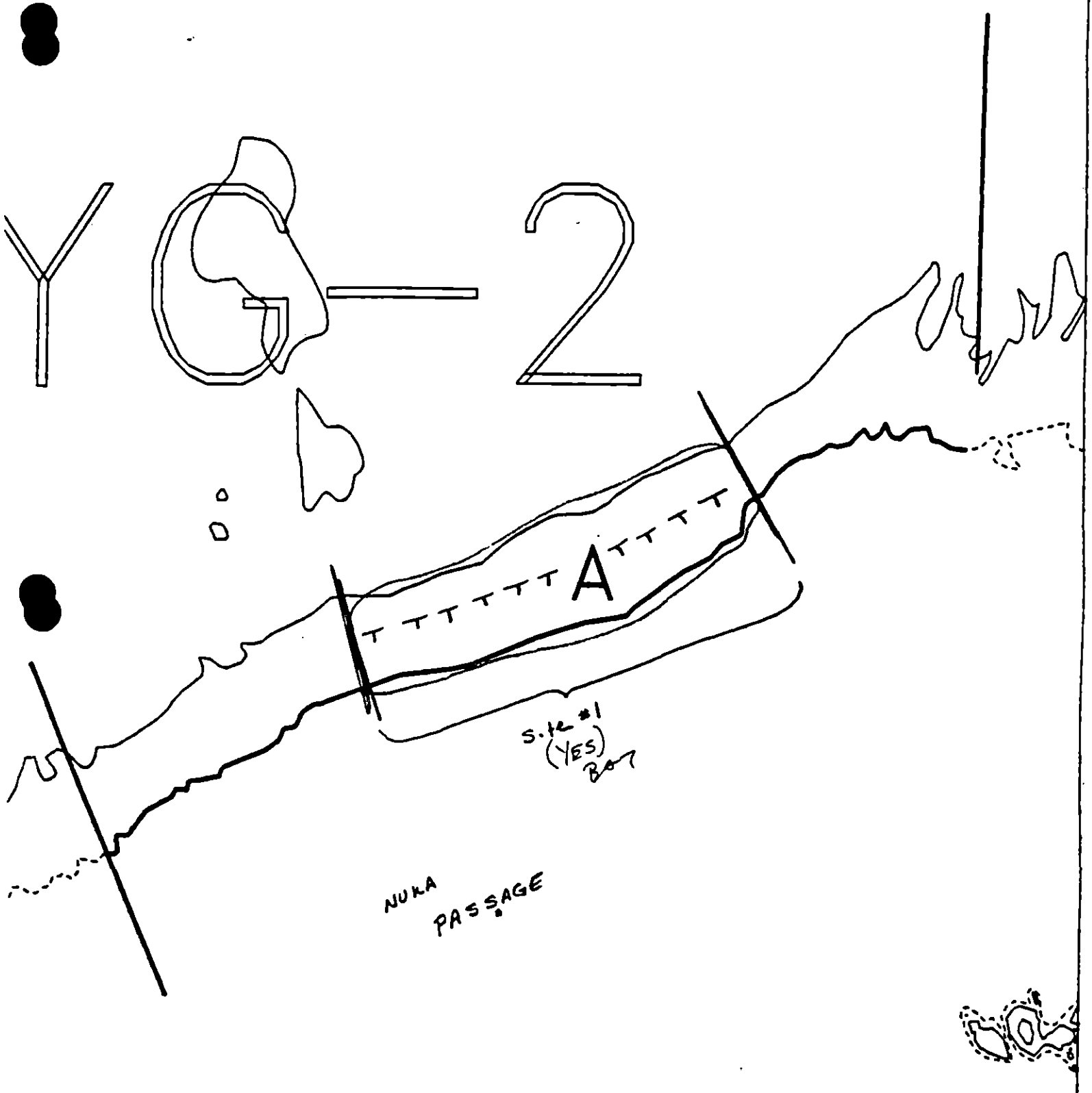
ASAP SIGNIFICANT OILING MAP

METERS

Segment Location Map

Map Key: KENYG-2

July 18, 1990



RM 08/01/90

SEGMENT YG-2

Segment Location Map

Map Key: KENYG-2

July 18, 1990

METERS

ASAP TAG REVIEW SHEET

Segment: YG02 Subd: A Site: 1 Date PRE-Review 14AUG90

Priority For Addressing In 1990

____ HIGH ____ MEDIUM ____ LOW ____ NTR X NTR

Treatment Recommended: NTR

Sporatic - SOR
- ASPHALT

MATRIX CALLS for NTR

NOTE: - 40 TO BAGS OF WASTE ??

Priority Site For Reassessment In 1991

YES X CG NO ___ YES X ADEC NO ___ YES X EXXON NO ___ YES X LAND MGR NO ___

TAB 15AUG90

NTR

SHORELINE EVALUATION

SEGMENT ST/ YG-04 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
4GG Alaska State Parks
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.

SHPO SIGNATURE: Charles E Holmes DATE: 5/14/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 3618 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: 5/12/90.
ADEC Art Weiner Art Weiner
EXXON Andy Teal
NOAA Gary Petrae Gary Petrae
USCG D.D. ROME

FOSC: _____ DATE: 5-15-90

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

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 (5/1 to 9/15)
6V Anchorages (5/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (5/1 to 9/15)
6Y Special use destination

7Z Subsistance area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ YG-4 SUBDIVISION: A DATE 4-28-90

NOAA
~~USCG~~
NAME STEPHEN STURM SIGNATURE Stephen Sturm

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

No oil was observed in this segment.
No treatment is recommended.

ADEC
NAME Wesley Ghormley SIGNATURE Wesley Ghormley

■ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

-No oil was observed on segment-

Do to the massive Asphalt/Pavement area on the YALIK Glacier segment, depending on types of clean-up deployed there monitoring of YG-4 may be necessary when operations start on YG-2.

LAND MANAGER
NAME J. David McMahan (ADNR) SIGNATURE J. David McMahan

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

Segment YG-4A within Kachemak State Wilderness Park is characterized by narrow, relatively steep, cobble/boulder beaches separated by rocky headlands. Vertical rock faces ascend directly behind the beaches and evidence of avalanches is abundant. I noted eagles, a river otter and abundant shellfish in some areas. One cave was examined at the mouth end of the segment. No oil was noted.

REVISION NO. 07/1/90

10 118

SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG K. DEBUSSCHERE NOAA/OSAG STEPHEN STURM SEGMENT ST/ VG-4
BIO D. REED LAND REP J. David McMahon SUBDIVISION 1 of 1
EXXON T. DIAZ ADEC Wesley Ghormley TIME 7:45 to 5:25
TEAM NO. 9 TIDE LEVEL 5 → -2 DATE 4/28/90
EST. SUBDIVISION LENGTH: 3824 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☐ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 15 % B 40 % C 30 % P 13 % G 1 % S 1 % 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 0 m NO 3824 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	PC	IB	IP	IS						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 0 BAGS
NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?
YES ☐ NO ☒
TYPE 0
#BAGS 0

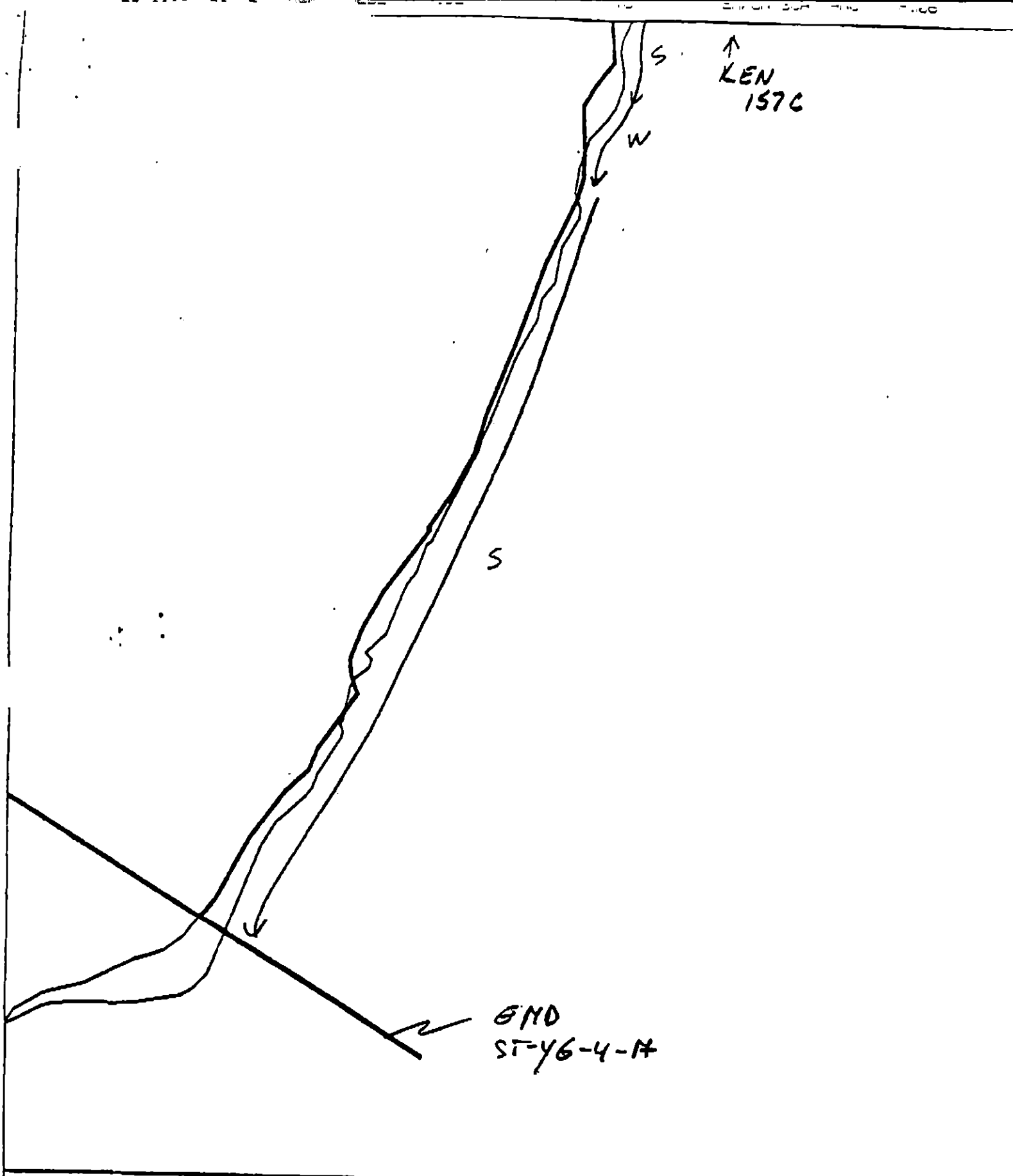
Photographs:
Roll No. NONE
Frames NONE

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				ANA	SHEEN (YAN)	▼	SURFACE · SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC						SU	UI	MI	LI				
1	25					X	·									X				N	—	P-S & C
2	20					X	·									X				N	—	P-C & S & G
3	30					X	·									X				N	—	P- P & S & C
4	40					X	·									X				N	—	P-P
							·															
							·															

COMMENTS
- THE SHORELINE IS DOMINATED BY SCREE-DEPOSITS (BOULDERS AND COBBLES) INTERSPERSED WITH SOME BEDROCK. WAVE EXPOSURE IS RELATIVELY LOW.
- NO OIL WAS OBSERVED THROUGHOUT THE SEGMENT

REVIEWED BAT DATE 1 MAY 90



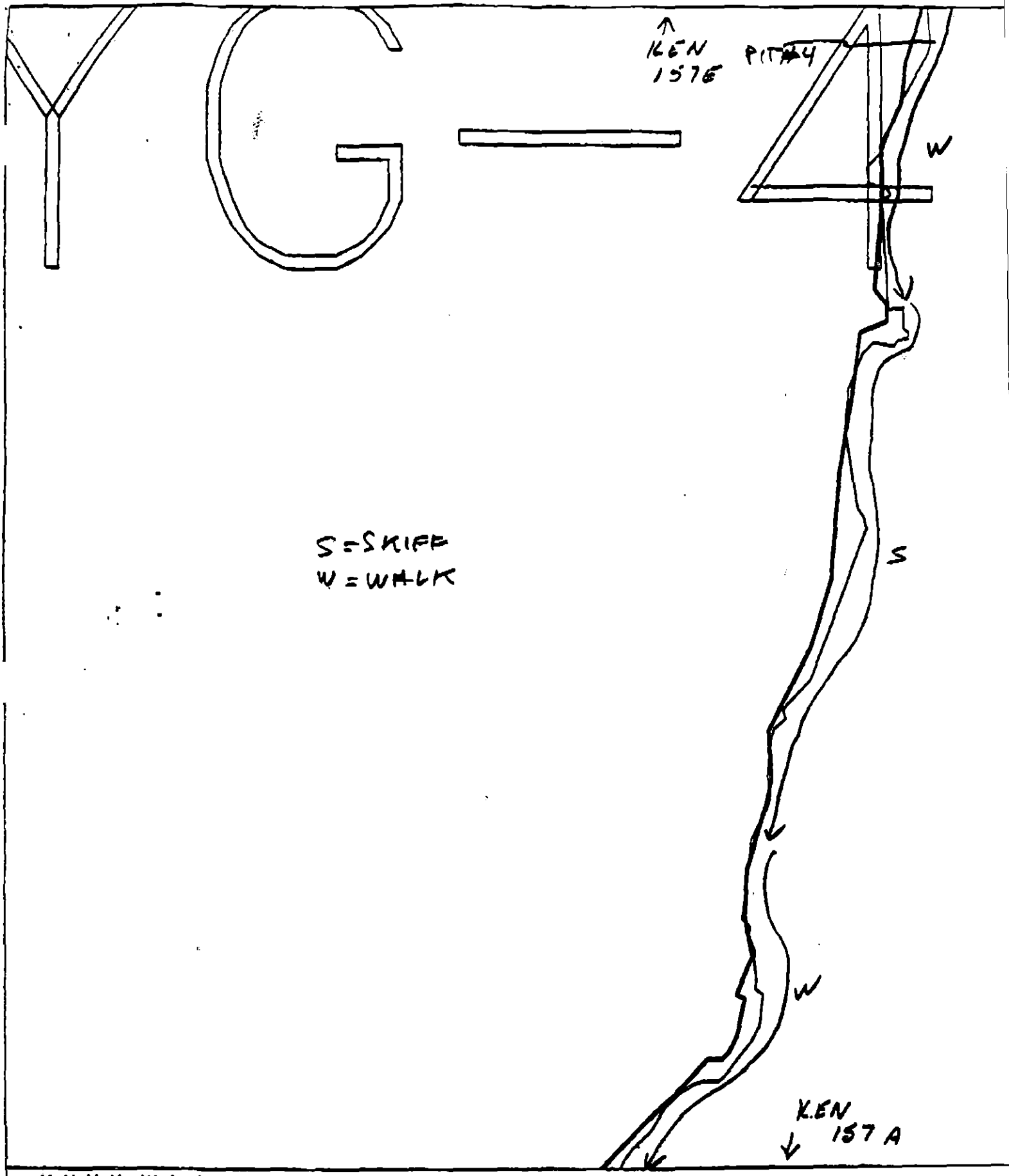
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

ST-YG-4-M

ADEC Segment Length: 3824m

0 6/18 100 200 300 METERS

Map Key: KEN-157a
Name: K. DEBUSSCHERE
Date: 4/29/90
Date Entered:



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

ST-YG-4-H

ADEC Segment Length: 382Y ~~350m~~

0 5/18 100 200 300 METERS

Map Key: KEN-157c
Name: K. DOBRUSSKIN
Date: 4/28/00
Date Entered:

S=SKIFF
W=WALK

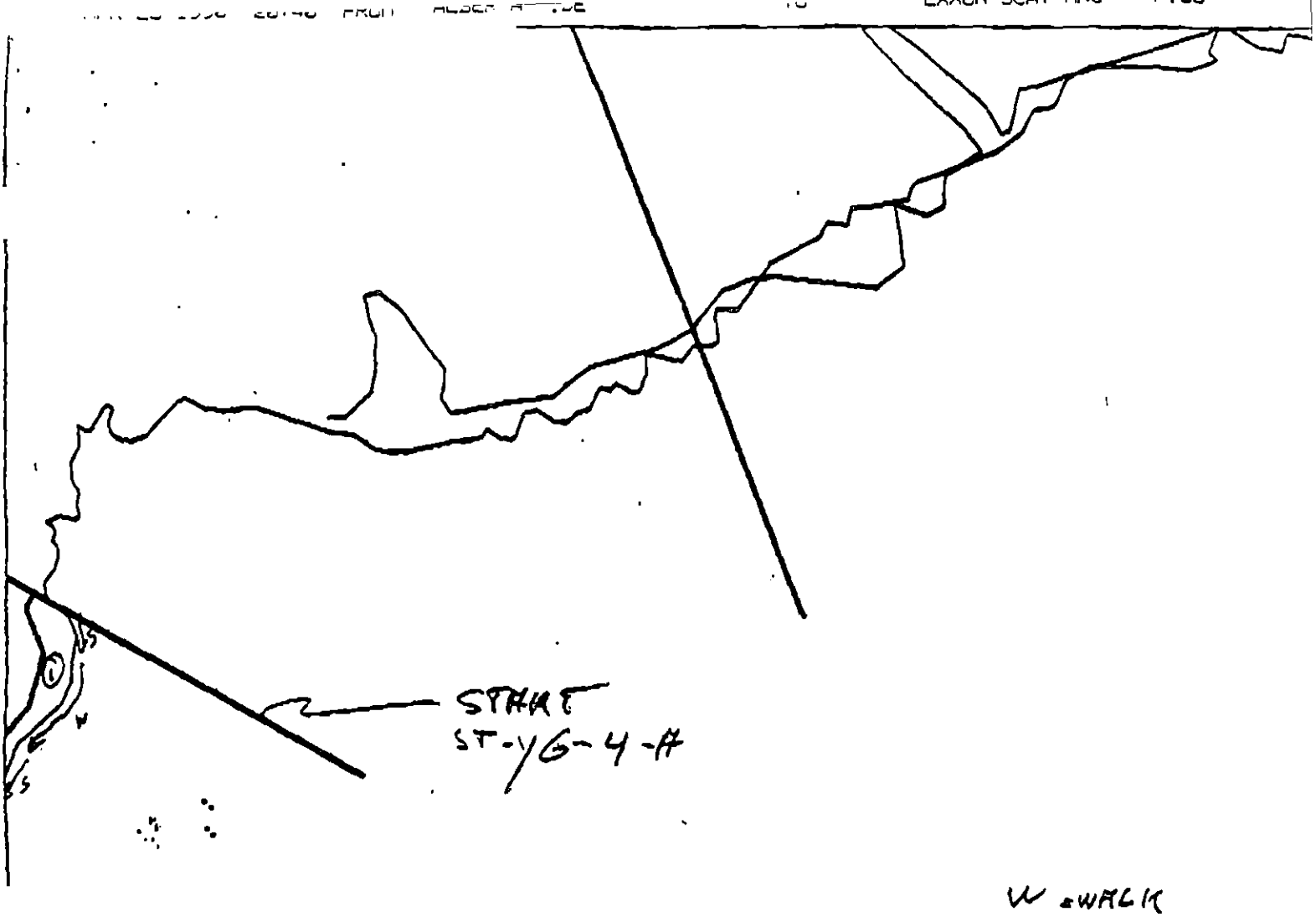
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

ST-YG-4-A

ADEC Segment Length: ~~[illegible]m~~ 3824

0 4/18 100 200 300 METERS

Map Key: KEN-157e
Name: K. DeBUSSCHERE
Date: 4/28/90
Date Entered:



W = WALK
S = SKIFF

← KEN 157 E

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

ST-YG-4-A

ADEC Segment Length: ~~3600~~ 3824 m

0 3/8 100 200 300 METERS

Map Key: KEN-157

Name: KDERUSSCOOKE

Date: 4/22/90

Date Entered:

* NO ECOLOGY MAP IS INCLUDED BECAUSE NO NOTEWORTHY RESOURCES WERE FOUND

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ YG-04 Subdivision A Date (mo / day / yr) 04/28/90

Time (24 hr) 0750 Biologist D. REED

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 40 (3) Cobble 30 (4) Pebble 13 (5) Sand 2 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 40 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 NONE

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

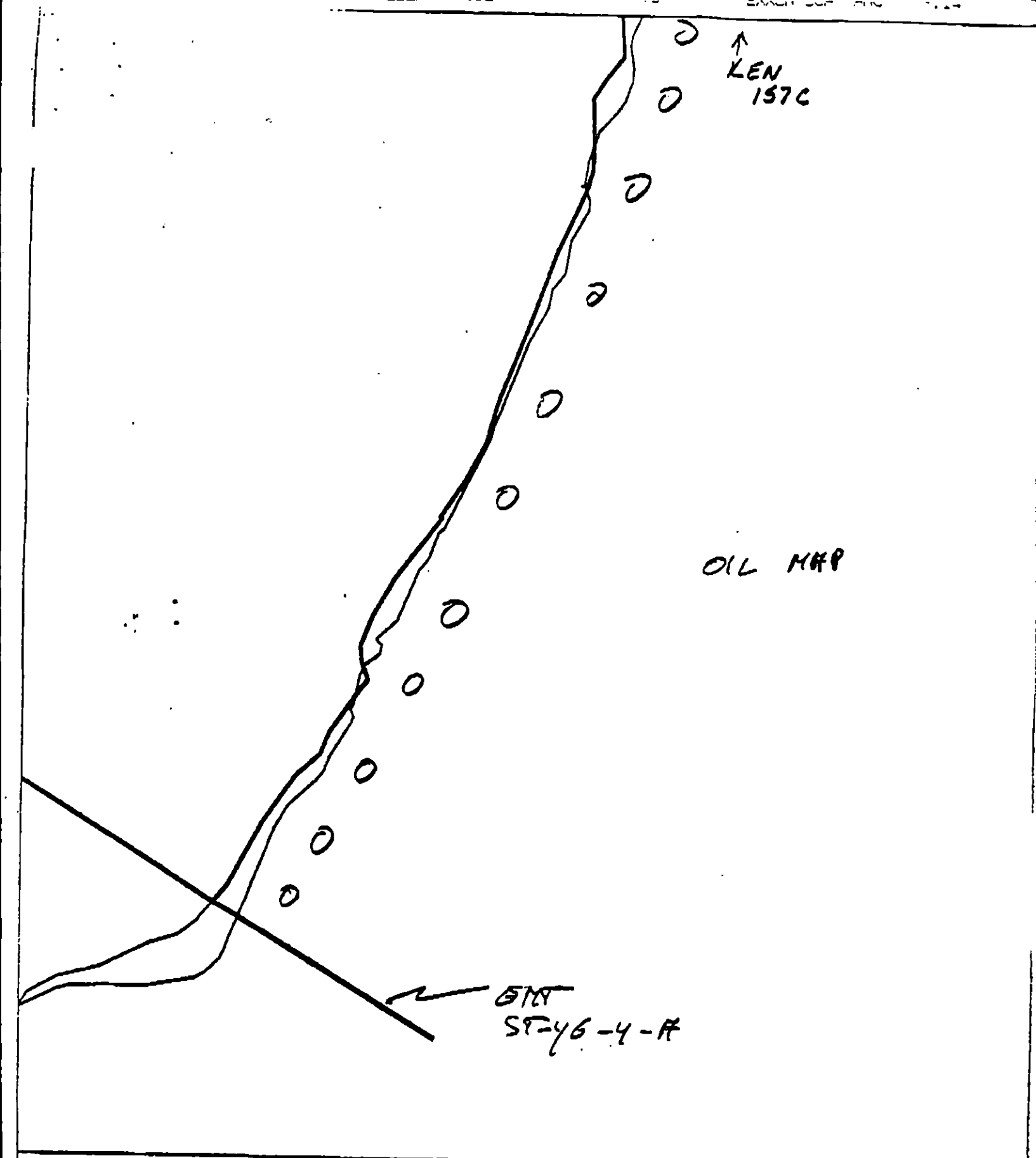
NOT PRESENT

Wildlife Observations/ General Comments: 1 BALD EAGLE 1 IMMATURE BALD EAGLE, 2 MOUTAIN GOATS, 2 STELLAR SEA LIONS, 1 HARBOR SEAL, 1 RIVER OTTER, 54 Harelquin Ducks, 2 Black-legged KITTIWAKES, 26 Glaucous-winged gulls.

Ecological Considerations: NO OIL OBSERVED

THIS segment IS A LOW WAVE EXPOSURE STRETCH OF SHORELINE WITH FEW NOTEWORTHY ECOLOGICAL CONSIDERATIONS. A BROKEN DISTRIBUTION OF RELATIVELY DENSE MUSSELS (≈ 20-30 mm total length) WAS COMMON IN THE LOWER MID ZONE. THE LOW ZONE CONSISTED OF A DENSE ALGAL COVER OF BROWN (ALARIA, LAMINARIA, DESMARESTIA), RED (Polysiphonia sp? Plocamium sp?, Callophyllis sp?, IRIDAEA sp?, Halosaccion), AND GREEN (ULVA, CLADOPHORA) algae. NO SEA OTTERS OR EVIDENCE OF SEA OTTER FORAGING WAS OBSERVED.

7/9



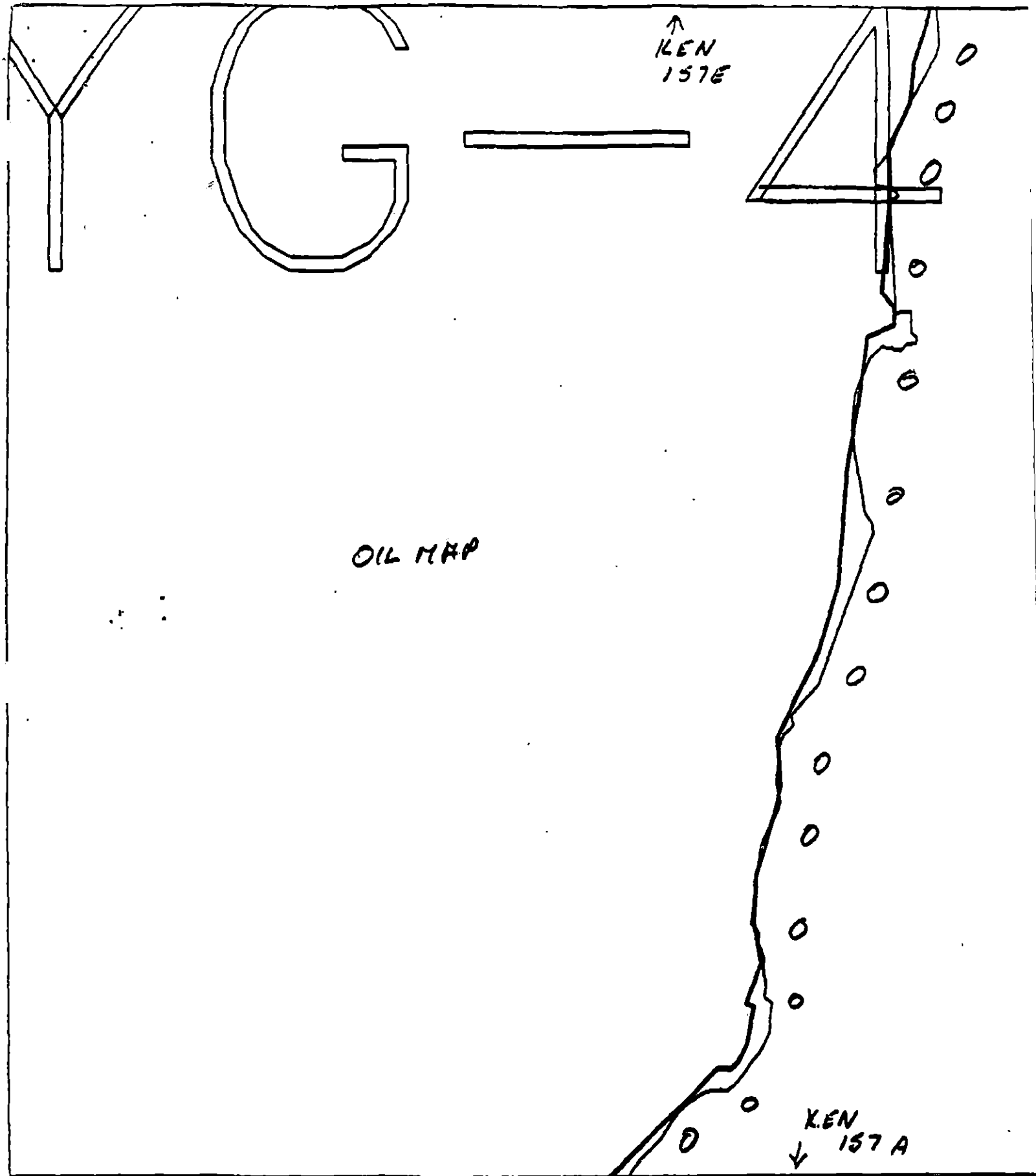
XXXX Wide
/// Medium
---- Narrow
TTTT Very Light
0000 No Oil

ST-YG-4-A

ADEC Segment Length: 3524 m

0 14/18 100 200 300 METERS

Map Key: KEN-157a
Name: M. DeMarco
Date: 4/22/90
Date Entered:



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

ST-YG-4-PT

ADEC Segment Length: 382Y m

0 13/18 100 200 300 METERS

Map Key: KEN-157c
Name: K DEBUSSCHERE
Date: 4/22/90
Date Entered:

OIL MAP

KEN 157C

KEN 157F

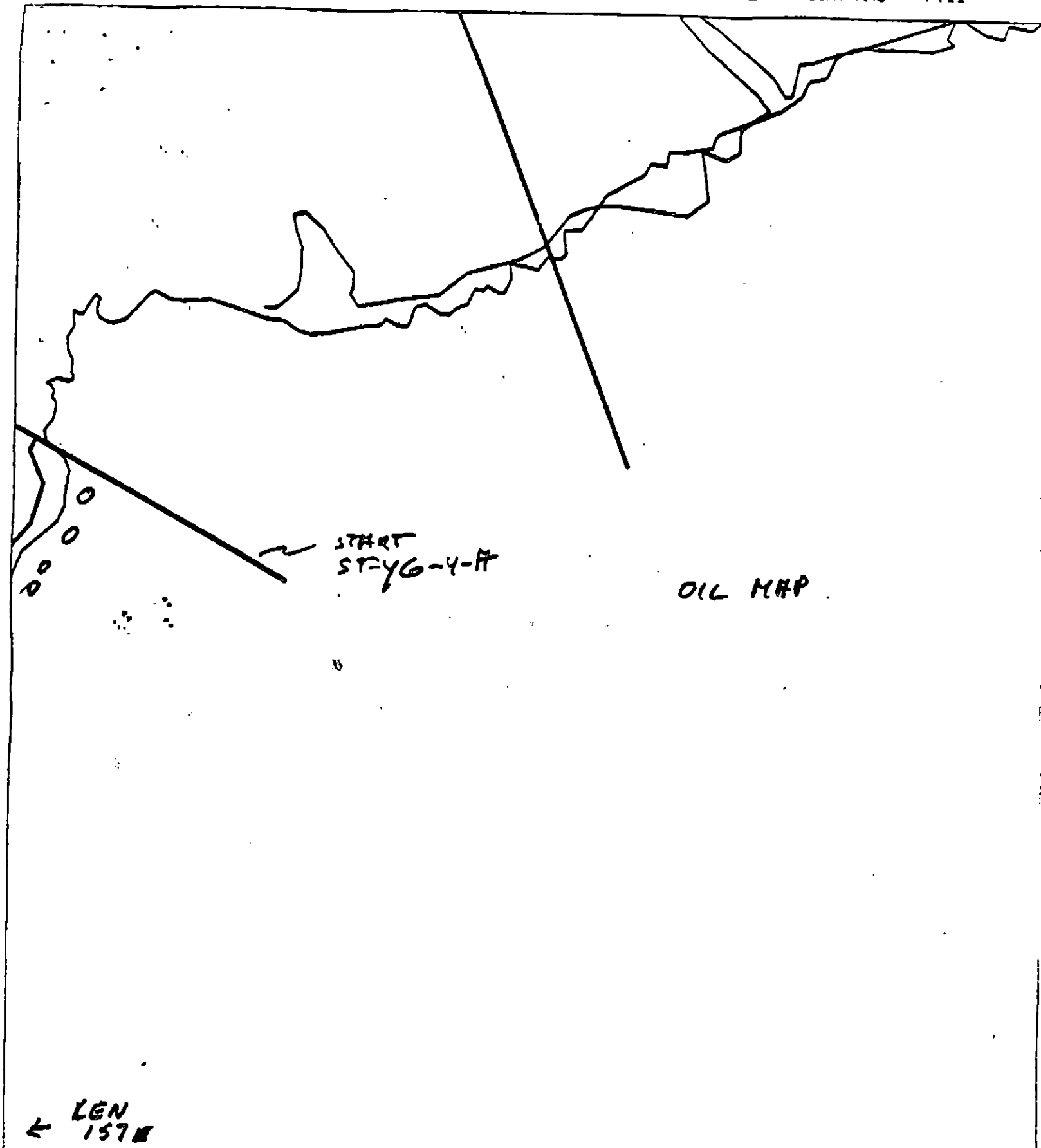
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
0000 No Oil

ST-Y G-4-A

ADEC Segment Length: 5824m

12/18 0 100 200 300 METERS

Map Key: KEN-157e
Name: K. DeBUSSCHERE
Date: 4/23/90
Data Entered:



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

ST-YG-4-A

ADEC Segment Length: 382y 382m

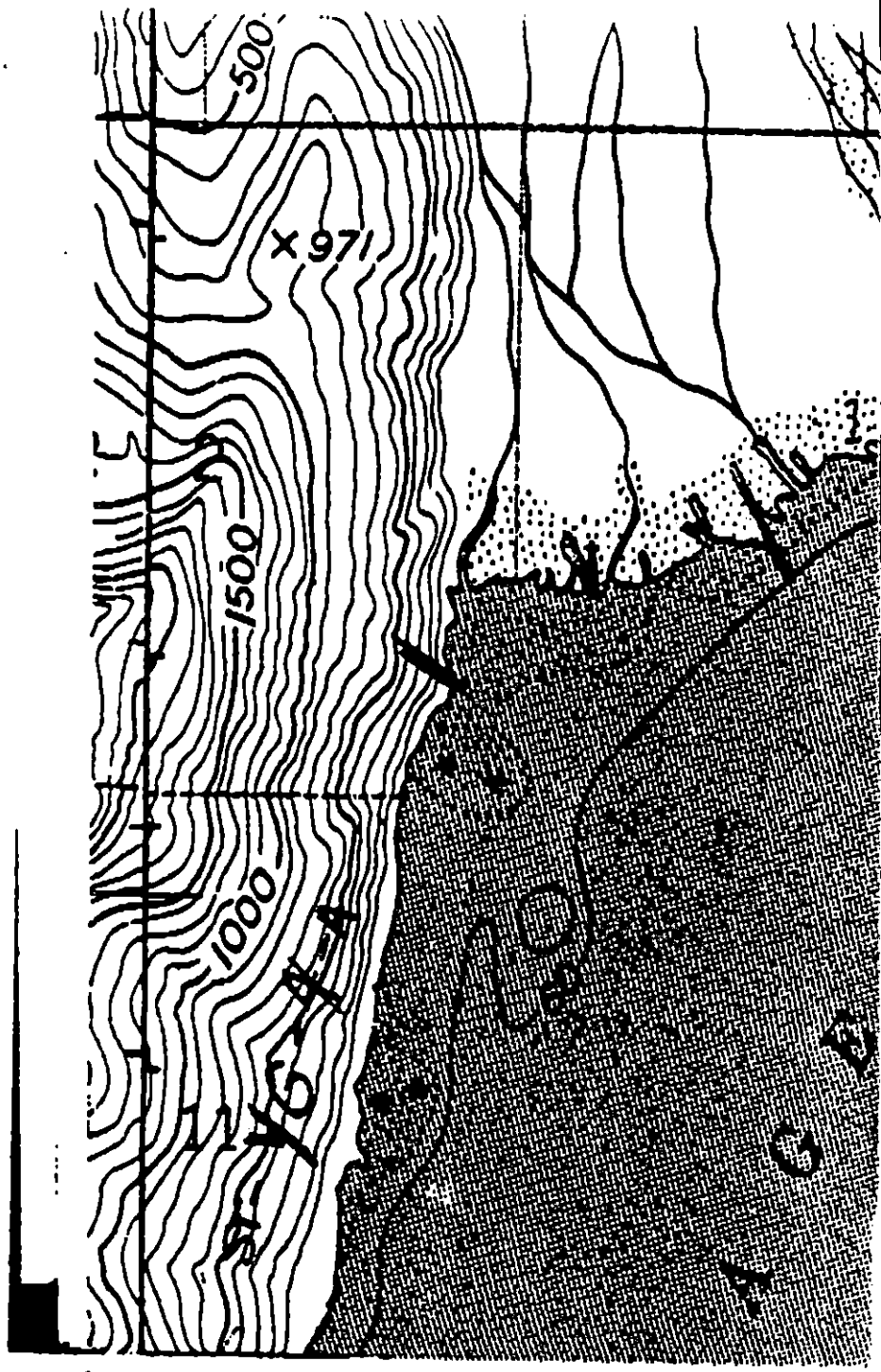
4/18

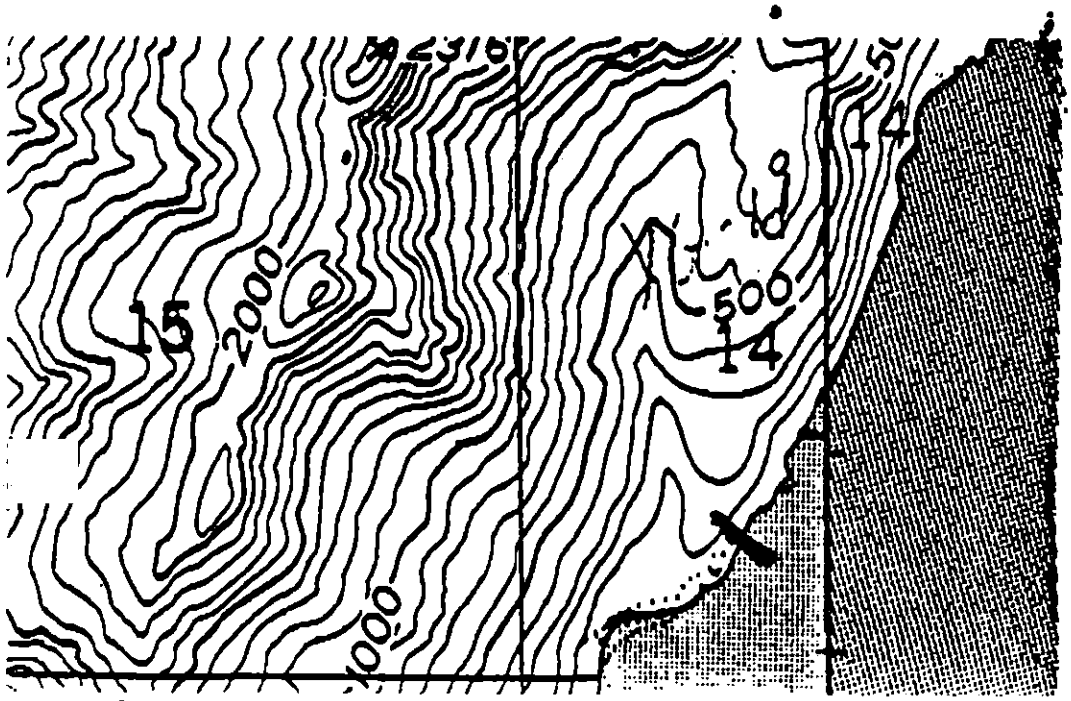
0 100 200 300 METERS

Map Key: KEN-1571
Name: K-DEBUSCHEWE
Date: 9/28/90
Date Entered:

ST-Y64-A
(3824meters)

- Bedrock, cobble/boulder mostly high angle shoreline
- No oil was observed
- No Treatment Recommended by Exxon Representative.





11/18

SHORELINE EVALUATION

SEGMENT ST/ XP-02 SUBDIVISION A (1 OF 1) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
No specific constraints identified.

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

SHPO SIGNATURE: Charles E Holmes DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 51 m: No Oil 2084 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: 5/4/90.
ADEC ART WEINER
EXXON Andy TERR
NOAA Gary Petrae
USCG G.A. REITER

FOSC: _____ DATE: 5-9-90

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

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

1D Esther Hatchery release (4/15 to 6/1)
1E Main Bay Hatchery release (4/20 to 6/10)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce 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

[redacted]3P Harbor seal and sea lion pupping (5/15 to 7/1)
[redacted]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 267-2208

✓ [redacted]6T 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

✓ [redacted]6A Recreation: Tent sites (6/1 to 9/15)
✓ [redacted]6B Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
✓ [redacted]6Z Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
✓ [redacted]7JJ Deer harvesting (8/15 to 2/28)
7JJ Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ YP-2 SUBDIVISION: A DATE 4-26-90

NAME STEPHEN STURM SIGNATURE Stephen Sturm

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

NARROW BAND OF BROKEN COAT WAS PRESENT ON VERTICAL ROCK FACES AT LOCATION #1. NO SUBSURFACE OIL WAS PRESENT ON THE PEBBLE/GRAVEL BEACH ITSELF AS PREVIOUSLY REPORTED IN ADEC FALL SURVEY MAP. PITS WERE DUG ALONG AN EXXON SURVEY TRANSECT. AS STATED PREVIOUSLY NO OIL WAS PRESENT IN THE SUBSURFACE.

SIMPLY STATED THERE WAS NOT ENOUGH OIL PRESENT TO WARRANT TREATMENT. VERY SCENIC AREA.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

- ONLY a very small portion of oil consisting of coat was observed on this segment. It was located on the west side of gravel beach in Location #1. Exxon had a test site on location dated 3-15-90, "Exxon subsurface test site". 5 pits were dug @ an average of 50 cm to try to locate subsurface oil. None was observed. A very large portion of this segment was classified as no oil on ADEC walkathon map. It was surveyed by Team via staff due to vertical bedrock cliffs & no oil was observed.
- small amount of coat that was present was extremely weathered; beach seems to be a very high energy beach due to overturned boulders.

LAND MANAGER

NAME David McMahon ADNR SIGNATURE J. David McMahon

☒ NO TREATMENT RECOMMENDED ☑ TREATMENT SUGGESTED

COMMENTS

ST-YP-2A location #1 is a small pocket beach and adjacent vertical rock exposures. A drowned forest is situated just above the existing storm berm. Only traces of oil were noted on the vertical rock faces & no cleanup is recommended. Due to close proximity of cultural resource site SEL-119, it is desirable to keep clean in the area to a minimum. Area is not recommended for public use. Fresh black bear tracks noted.

9/13

SHORELINE OILING SUMMARY

REVISION NO. 6A-1.99

OG K. DEBUSSCHERE NOAA STEPHEN STURM SEGMENT ST/ YP-2
BIO D. REED LAND REP David McMahan ADNR SUBDIVISION A (1 OF 1)
EXXON T. DIAZ ADEC Wesley Cotharmaley TIME 19:50 to 20:50
TEAM NO. 9 TIDE LEVEL 2 → 1.75 FT DATE 4 / 26 / 90
EST. SUBDIVISION LENGTH: 2821 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: W to E
SURFACE SEDIMENTS: R 90 % B 2 % C 2 % P 5 % G 0 % S 1 % M 0 % V 0 %
SLOPE : Lang 10 % Hang 30 % Vert 60 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 2791 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	c	s	p	r						sw	ui	mi	u
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT		X	V			V X					V X		
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			

DID YOU COLLECT DEBRIS? YES ☐ NO ☒
TYPE 0
#BAGS 0

Photographs:
Roll No. ST-9-3
Frames 29

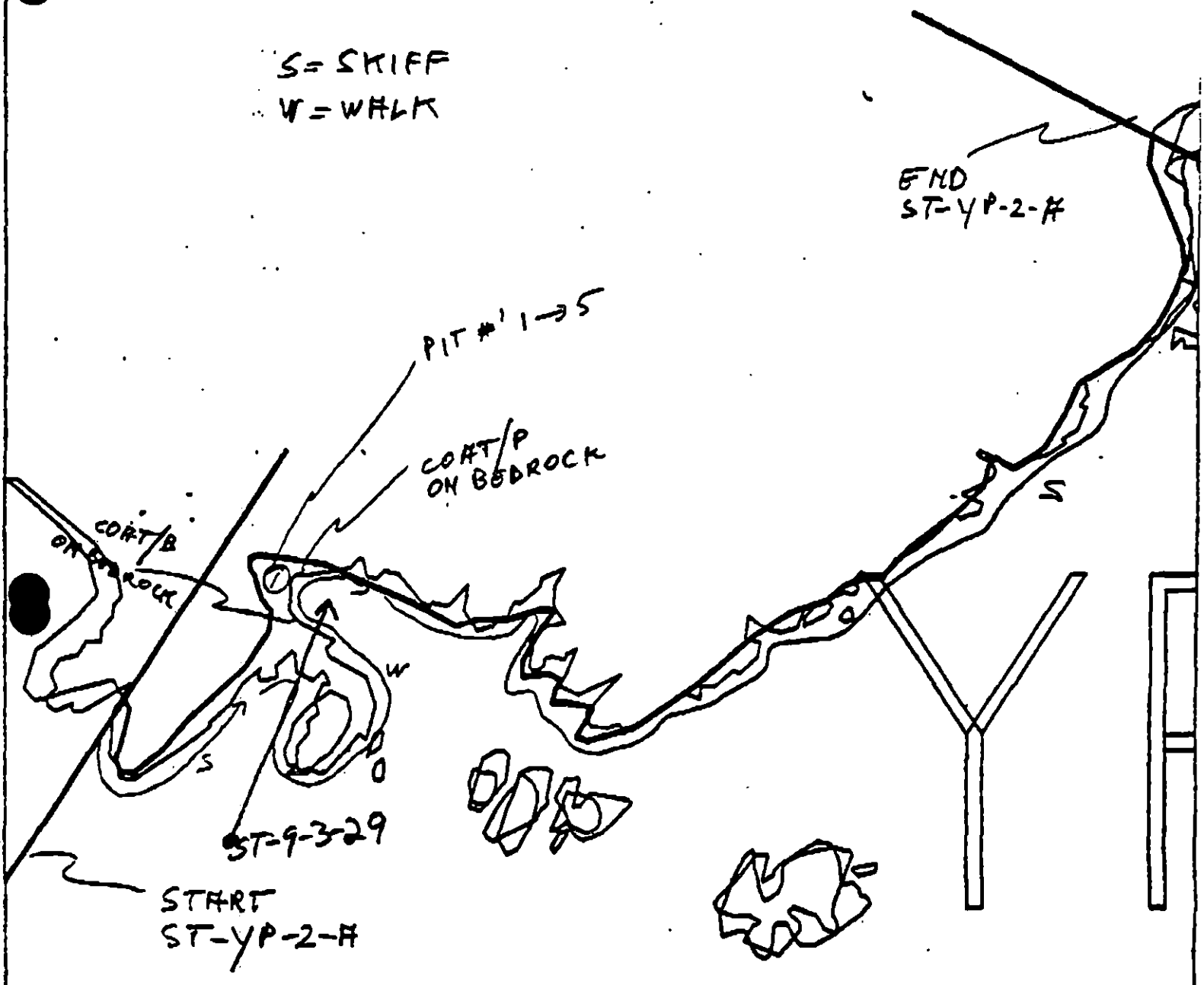
SUBSURFACE OIL

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						SW	UI	MI	U				
1	60					X	·									X				N	—	P-P&S
2	50					X	·									X				N	—	P-P&S
3	50					X	·										X			N	—	P&S-P&S
4	60					X	·									X				N	—	P-P&S
5	30					X	·										X			N	—	P-P&S
							·															

COMMENTS

- SEGMENT IS DOMINATED BY VERTICAL TO HIGH ANGLE BEDROCK WITH SOME PEBBLE/COBBLE/SAND BEACHES. - RELATIVELY HIGH ENERGY ENVIRONMENT
- LOCATION ①; A LOW ANGLE P/C/S BEACH, IS THE ONLY AREA WHERE OIL OBSERVED - OIL CONSISTED OF VERY WEATHERED COAT ON VERTICAL BEDROCK WALLS TO THE N AND S OF THE BEACH AT LOCATION ①
- SUBSURFACE OIL INDICATED ON FALL '89 ADEC SURVEY AND WAS NOT OBSE (PITS #1-5)
- NOTE: A MARKER WITH TAG "EXXON SUBSURFACE MARCH 15 1990" IS LOCAT ON BEACH AT LOCATION ①

REVIEWED [signature] DATE 4/27/9



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

ST-YP-2-A

ADEC Segment Length: ~~2821~~ m

3/13 100 200 300 METERS

Map Key: KEN-136a
Name: K. DEBUSSCHERE
Date: 4/26/90
Date Entered:

SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/2/90

Segment ST / YP-2 Subdivision A Date (mo / day / yr) 04/26/90

Time (24 hr) 1945-2050 Biologist D. Reed

(A) Substrate type and % of segments:
(1) Bedrock 90 (2) Boulder 2 (3) Cobble 2 (4) Pebble 5 (5) Sand 1 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 75 Moderate 5 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-9-3
Frames 29

BARNACLES

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

NOT PRESENT

MYTILUS

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

FUCUS

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

NOT PRESENT

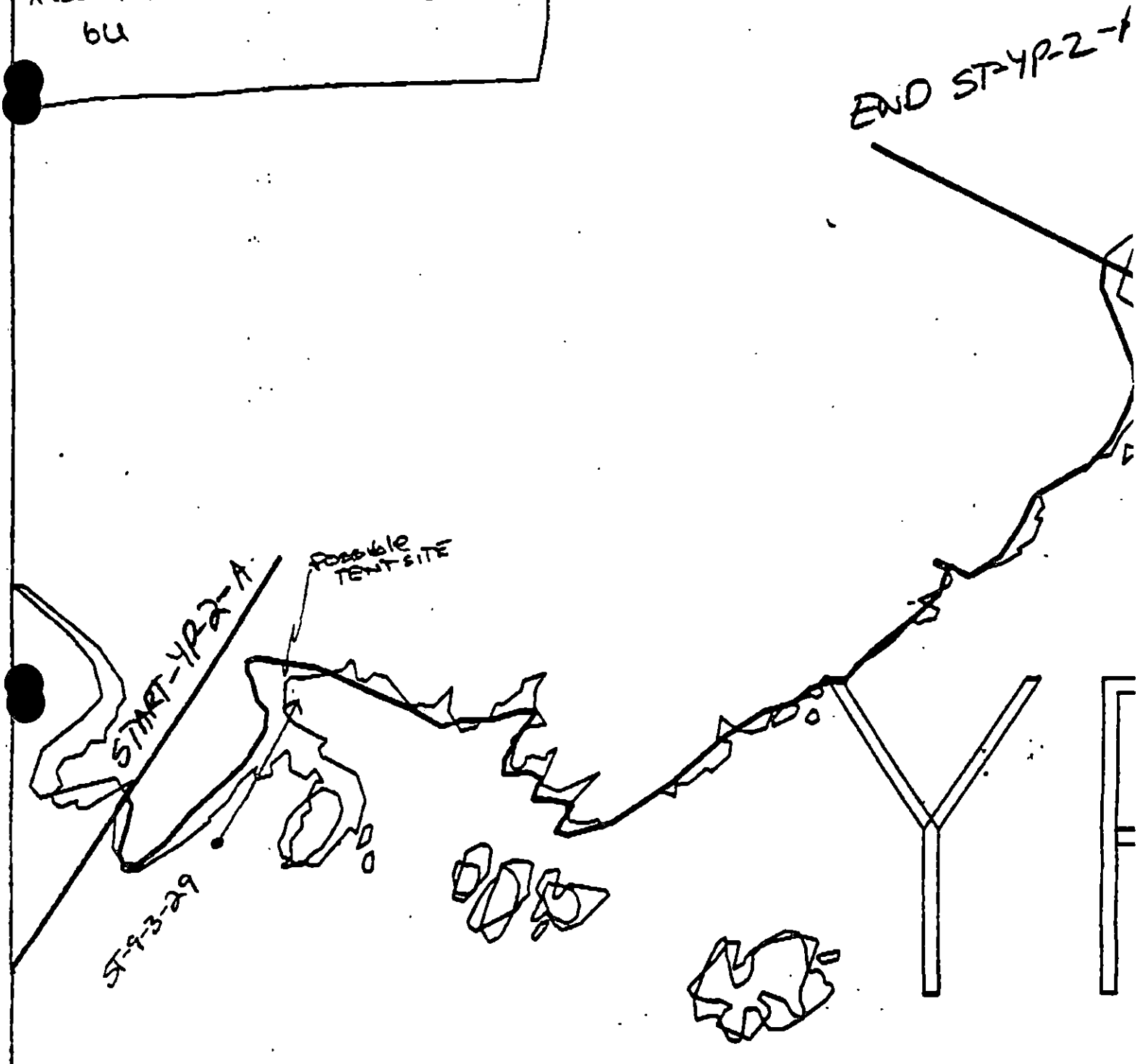
Wildlife Observations/ General Comments: 15 Harlequin ducks, 2 oyster catchers, 35 glaucous winged gulls, dense bands of mussels 2-3 m wide on vertical bedrock. mostly < 2cm in length, low zone has dense algal cover consisting primarily of Fucus, Halosaccion, Rhodymenia, and Callophyllis Nereocystis in subtidal.

Ecological Considerations:

None - very little oil in this segment of relatively exposed shoreline. If cleaning is recommended, recovery of intertidal biota from disturbances incurred during cleaning would probably be rapid.

4/13

ECOLOGY MAP
Resource codes for entire segment
6U



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

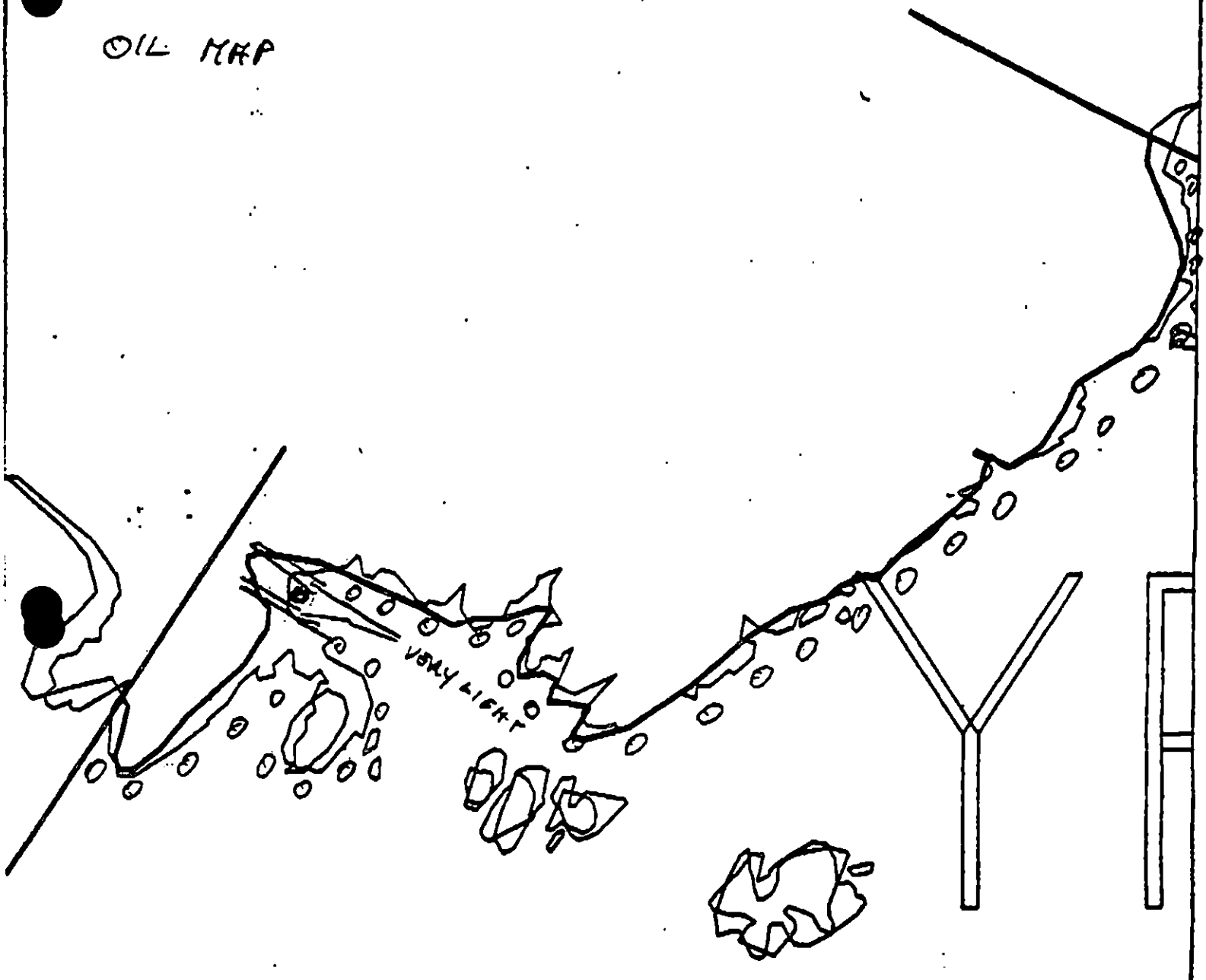
ST-YP-2-A

ADEC Segment Length: 1891m

0 7/13 100 200 300. METERS

Map Key: KEN-136a
Name: DAN Reed
Date: 04/26
Date Entered:

OIL MAP



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

ST-YP-2-A

ADEC Segment Length: ~~1884~~ 2821 m

0 100 200 300
8/13 METERS

Map Key: KEN-136a
Name: K VERVSSCHERE
Date: 4/26/90
Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ YP-04 SUBDIVISION A (1 OF 1) DATE 4/28/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
4GG Alaska State Parks
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.

SHPO SIGNATURE: J. David McMahan DATE: 5/11/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 183 m: No Oil 0 m
Subsurface Oil Observed: Yes X No ____ Maximum Depth 16 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
____Tarmat Removal	____Beach Cleaner
	__*X__Other (see comments)

COMMENTS: Recommended treatment includes 1) manual pickup of mousse patties, 2) manual tilling of areas shown on attached sketch map followed by 3) bioremediation of areas shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/11/90
ADEC Art Weaver
EXXON Andy Tiger FOSC: DATE: 5-18-90
NOAA Joseph Talbott
USCG D. D. Rome

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

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

5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2206

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation: Tent sites (6/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (6/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination

7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
7HH Finfish harvesting
7II Deer harvesting (8/15 to 2/28)
[redacted]JJ Invertebrate harvesting
Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / YP-4 SUBDIVISION: A DATE 4-28-90

NOAA
USCG
NAME STEPHEN STURM SIGNATURE Stephen Sturm

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

PATCHES OF MOUSSE WERE LOCATED AROUND THE PERIPHERY OF A RESTRICTED, LOW ENERGY TIDAL FLAT. THE MAJORITY OF THIS AREA IS UNDERLAIN BY IMPERMEABLE SILT AND CLAY KEEPING OIL/MOUSSE FROM PENETRATING TO ANY SIGNIFICANT DEPTH. OIL SHEENS WERE OBSERVED DOWNDIP FROM OILED AREAS, BEING RELEASED FROM PERCHED PATCHES OF MOUSSE COVERED BY GREEN ALGAE ON THE SE PART OF THE TIDAL FLAT (SEE SKETCH).

THE MOST EFFECTIVE METHOD OF CLEAN-UP WOULD BE TO MANUALLY REMOVE OILED AREAS AND TILL/PLOW/RAKE REMAINING SEDIMENTS TO PREVENT FORMATION OF TAR MATS AND INCREASE MICROBIAL DEGRADATION. UNDER NO CIRCUMSTANCE SHOULD DISPOL BE USED DUE TO VERY LOW TIDAL FLUSHING.

ADEC
NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NO TREATMENT RECOMMENDED ■ TREATMENT SUGGESTED

COMMENTS

Segment YP-4 has only one area that consisted of oil according to ADEC map. However, oil was observed & inspected by ADEC rep outside of oiled area quite a ways to the East. This oiling consisted of a very weath coat & splashes. Recommend Evaluation of entire segment.

Location #1 - Consists of a small low energy tidal flat. Mousse patties were observed on both the surface & subsurface in a broken condition. Manual removal is recommended for surface patties both on the surface & under the thick growth of algae. Tilling of the MITA & LITE to expose chocolate brown mousse patties is suggested & then raking to retrieve oil, bag & rema Hot H2O should NOT be a consideration do to mud flats in the lower MITA & LITE would make it impossible to retrieve oil. Very poor flushing also occurs in this

LAND MANAGER
NAME J. Ronald McMahan (ADNR) SIGNATURE J. Ronald McMahan

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Segment YP-4A, within Kachemak State Wilderness Park, is characterized by vertical rock faces interspersed with boulder/cobble pocket beaches. Light oiling, spotty and up to about 1cm thick, was noted in a small tidal lagoon at the western end of the segment (location #1). Treatment consistent with NOAA/ADEC recommendations, is warranted. However a cultural resource site may be present and is subject to CTAG review. No cleanup is recommended for spattering on vertical faces in the

10/11

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG K. DEBUSSCHERE USCG NOAA Stephen Sturm SEGMENT ST/ YP-4
BIO D. REED LAND REP J. David McMahan (ADF&G) SUBDIVISION 1A (1 OF 1)
EXXON T. DIAZ ADEC Wesley Ghormley TIME 10:00 to 12:30
TEAM NO. 9 TIDE LEVEL -2 TO 1 DATE 4 / 28 / 90
EST. SUBDIVISION LENGTH: 130 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
SURFACE SEDIMENTS: R 20 % B 2 % C 13 % P 15 % G 0 % S 0 % M 50 % V 0 %
SLOPE : Lang 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 130 m NO 0 m

SURFACE OIL

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

DID YOU COLLECT DEBRIS?
YES ☐ NO ☒
TYPE 0
#BAGS 0

Photographs:
Roll No. ST-9-4
Frames 8, 9, 10

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				ANA	SHEEN (Y/N)	▼	SURFACE · SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL/BR	DBL/RW	GY/SL	DBR/TL	LBR		SU	UI	MI	LI				
1	15		X				3-3.5		X				X				X				M	—	P-P/PoM
2	20					X	·										X				N	—	P∝C/P/PoM
3	20		X				3-3.5		X				X				X				N	—	P∝C/P/PoM
4	20	X					15-16		X				X				X				N	—	P∝C/P/PoM
							·																
							·																

OR SHEEN IS PRESENT IN TIDAL POOLS NEAR YP-5B

COMMENTS
- SUBDIVISION CONSISTS OF A PROTECTED, LOW ENERGY TIDAL MUDFLAT WITH COBBLE AND PEBBLE DOMINATED SHOREFACE IN UI.
- OILING IS VERY LIGHT BECAUSE OF OVERALL "SPLASHY" DISTRIBUTION OF OIL: SUBSURFACE OIL IS NOT CONTINUOUS. MOUSSE PATTIES "SETTLED" IN THIS LOW ENERGY ENVIRONMENT INTO THE MUD UP TO 15-16 CM BELOW THE SURFACE. SURFACE OIL CONSISTS OF ISOLATED BROKEN MOUSSE LAYER (± 0.5 CM THICK) UNDER ALGAE IN MI AND SOME ISOLATED AREAS OF PATCHY COVER ON COBBLES & PEBBLES IN UI.
- THE REMAINING SHORELINE OF YP-4 WAS REVIEWED BAT DATE 1 MAY 90 NOT SURVEYED B/C INDICATED AS "NO OIL" ON ADEC MAP. A THIN RING OF CONT WAS OBSERVED DURING A FAST SKIFF RT ☒ ON GLS MAP

2/17

OG K. DENNISTONE

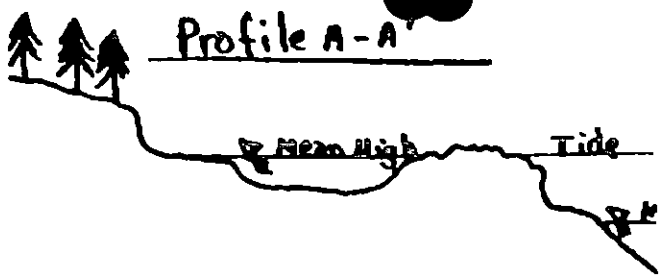
SEGMENT ST/ YP-4

SUBDIVISION A

DATE 4/28/90

SKETCH MAP

ST-YP-4-A
(loc. #1)

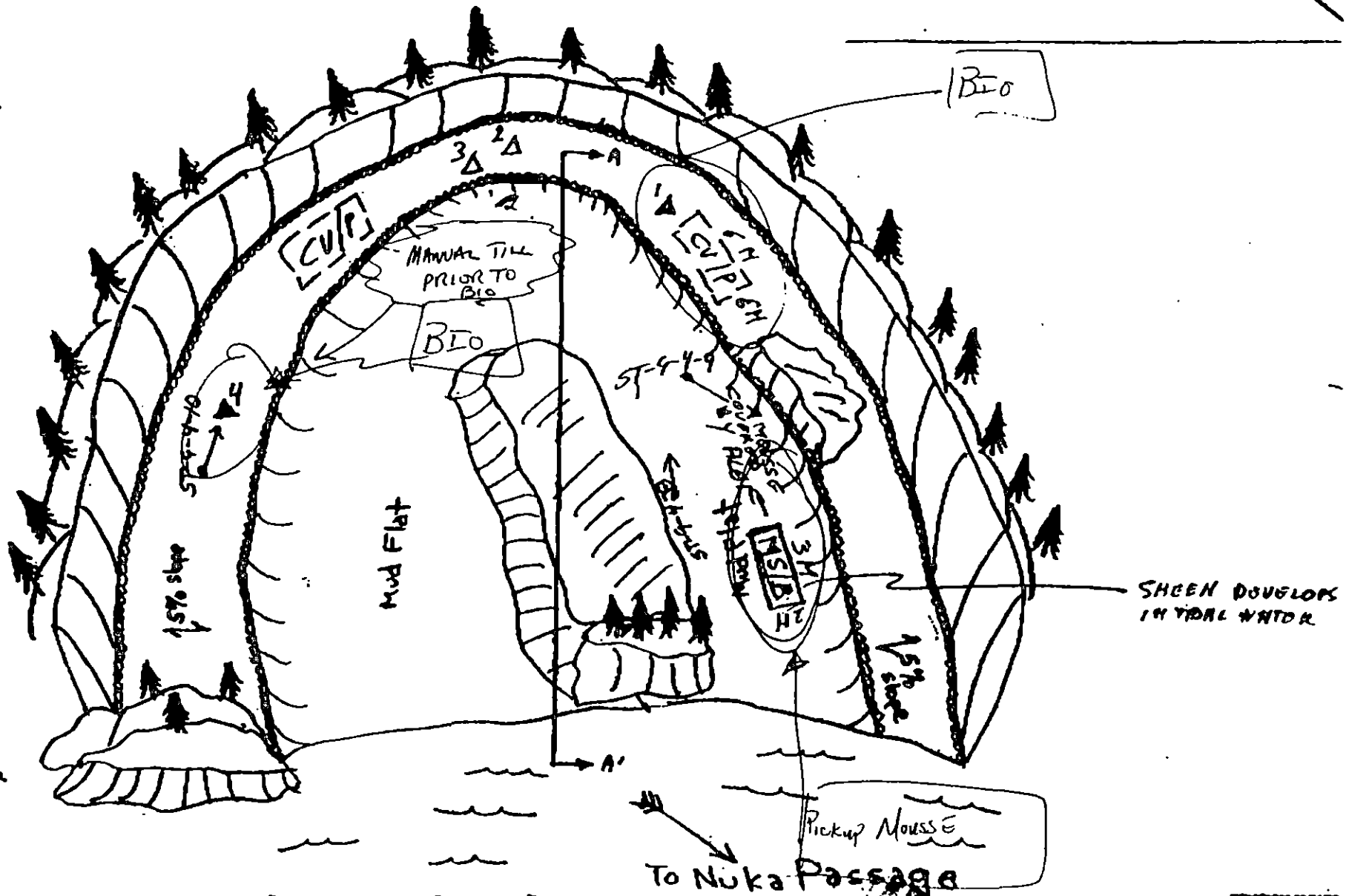


CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Bag/Bab 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/D Broken Distribution
- CT/P Patchy Distribution
- CT/S Splashed Distribution
- Oiled Vegetation
- Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 127 CT 0 ST 0 MB 3 PT 0 TB 0 FL 0 NO 0

REVISED 4/30/90

* NO ECOLOGY WORK IS INCLUDED BECAUSE NO NOTEWORTHY RESOURCES WERE FOUND. SEE SKETCH MAP FOR LOCATION OF PHOTOGRAPHS.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/91

Segment ST / YP-4 Subdivision A Date (mo / day / yr) 04/28/90

Time (24 hr) 1020 - 1230 Biologist DAN REED

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 2 (3) Cobble 13 (4) Pebble 15 (5) Sand 0 (6) Silt 50

(B) Overall % cover of biota (% of segment): Dense 30 Moderate 40 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-9-4
Frames 8, 9, 10

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	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	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	X	6	6	6	6	

GASTROPODS

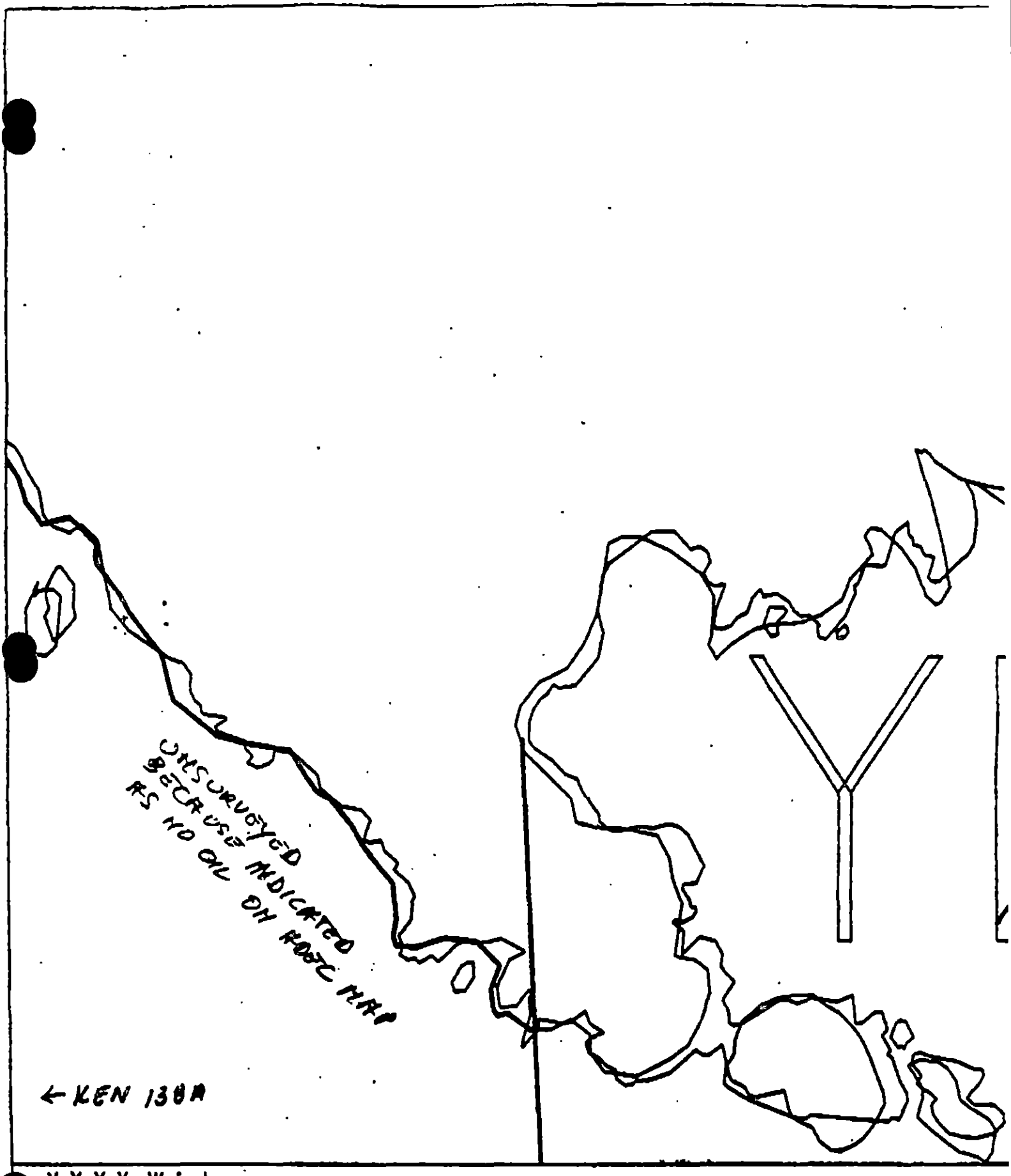
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	X	2	2	2	2	2	
3	3	3	3	3	3	X	3	3	3	3	3	NOT PRESENT
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

FUCUS

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

Wildlife Observations/ General Comments:
ONLY A SMALL COVE OF THIS SEGMENT WAS SURVEYED. THE UNSURVEYED PORTION WAS PREVIOUSLY REPORTED AS NO OIL. MODERATE DENSITIES OF MUSSELS ON BEDROCK. LOW ZONE HAS DENSE ALGAL COVER CONSISTING PRIMARILY OF KELPS (LAMINARIA, COSTARIA, ALARIA, & CYMATHERE). MID ZONE HAS MODERATE TO DENSE ALGAL COVER (ENTEROMORPHA, Filamentous BROWN ALGAE) THAT APPEARS TO BE GROWING DIRECTLY ON AN OIL MOUSSE LAYER ON THE MUD SURFACE.

Ecological Considerations:
1 PEREGRINE FALCON WITH ITS LIVE PREY (Short-Billed Dowitcher?) FLEW LOW OVERHEAD AND DROPPED ITS PREY WHEN SURPRISED BY SSAT TEAM. NO OTHER WILDLIFE WAS OBSERVED IN THIS COVE.
THERE APPEAR TO BE FEW "SENSITIVE" BIOLOGICAL RESOURCES IN THIS COVE.



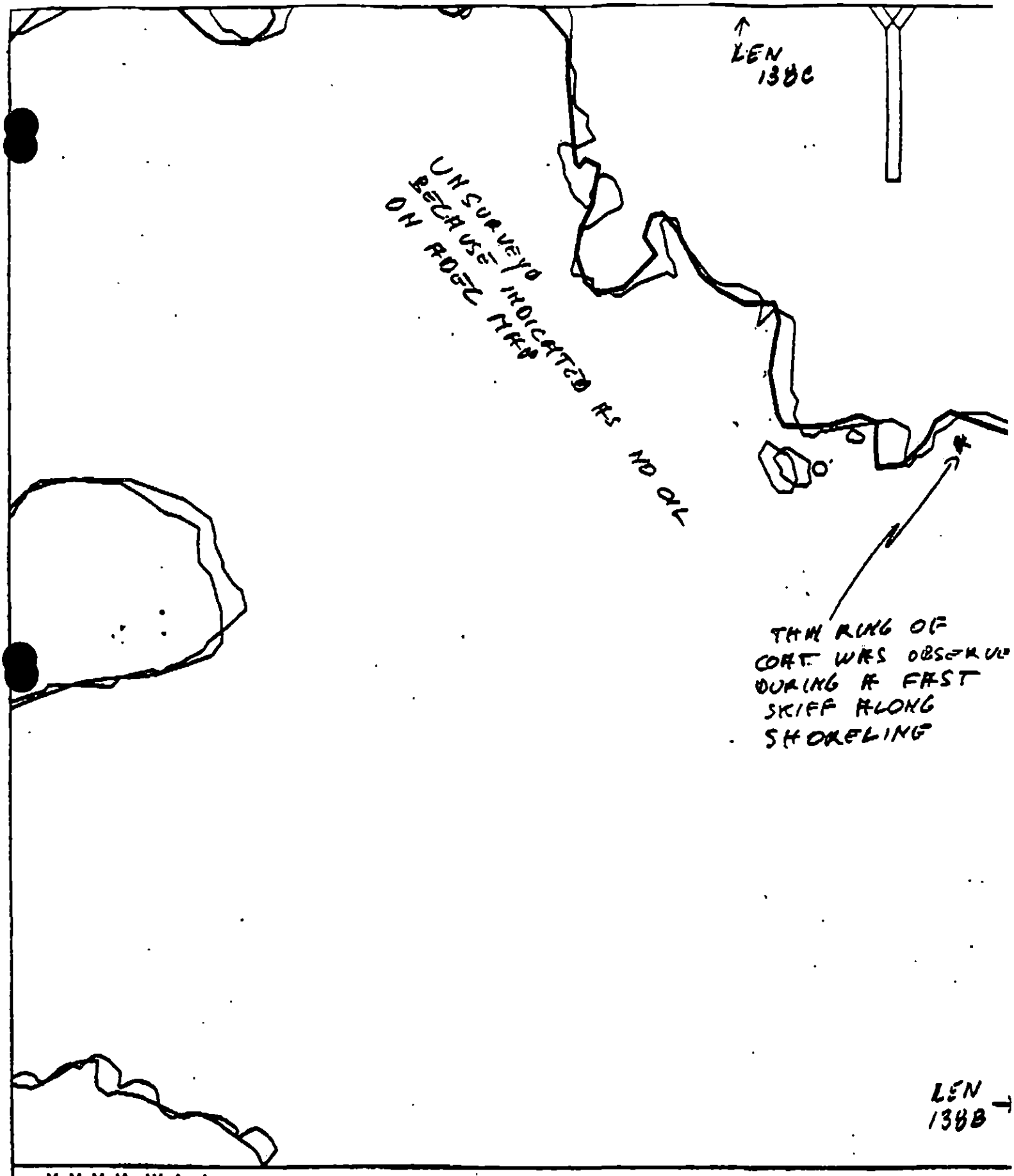
XXXX Wide
//// Medium
---- Narrow
TTTT Very Light
OOOO No Oil

ST-YP-4-A

ADEC Segment Length: ~~5000m~~ 4107

0 100 200 300

Map Key: KEN-138b
Name: K.D. BRUSSCHKE
Date: 4/28/90
Date Entered:



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

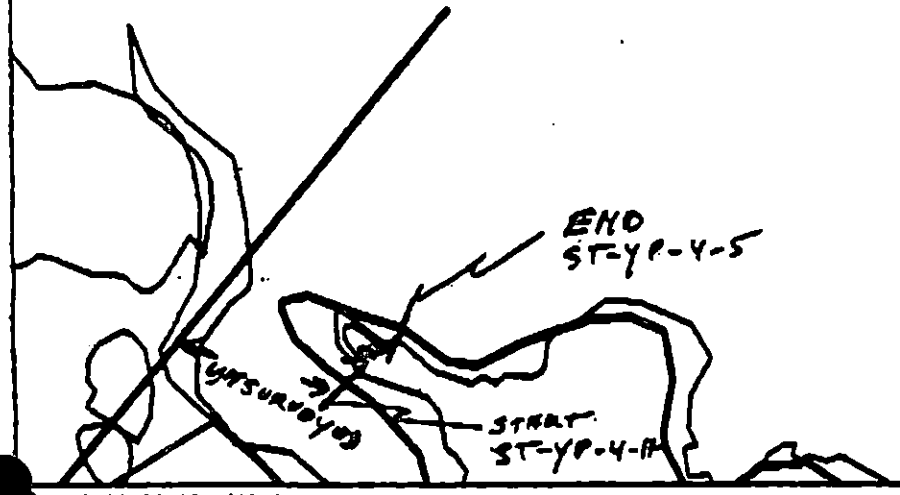
ST-YP-4-A

ADEC Segment Length: ~~5000m~~ 4107

0 100 200 300

Map Key: KEN-138c
Name: K. DEBUSSCHER
Date: 4/28/90
Date Entered:

W = WALK



↓ KEN 138A

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

ST-YP-4-A

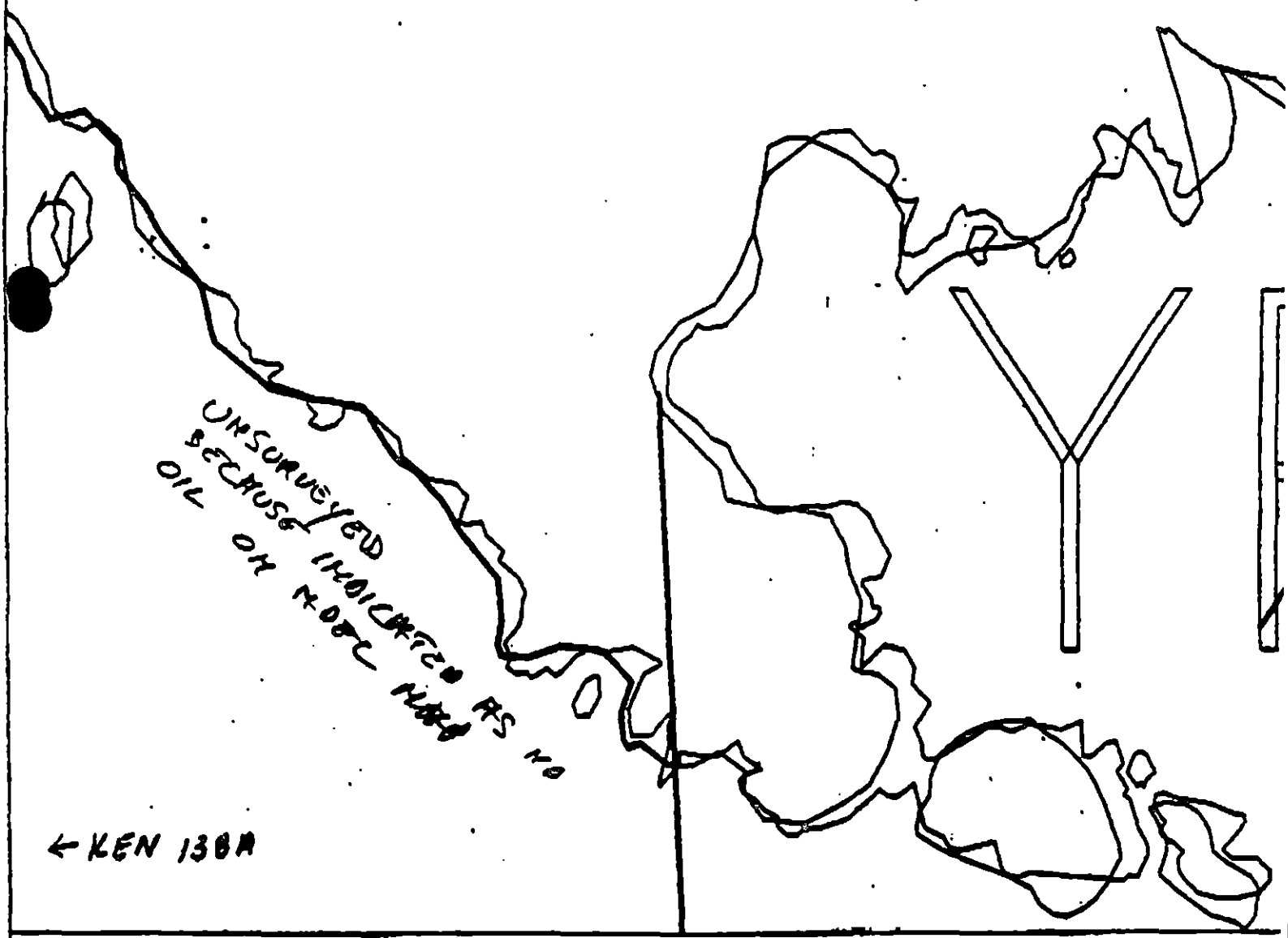
ADEC Segment Length: 4107 m

Map Key: KEN-138c

Name: K. DeBUSSCHERE

Date: 4/28/90

OIL MAP



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

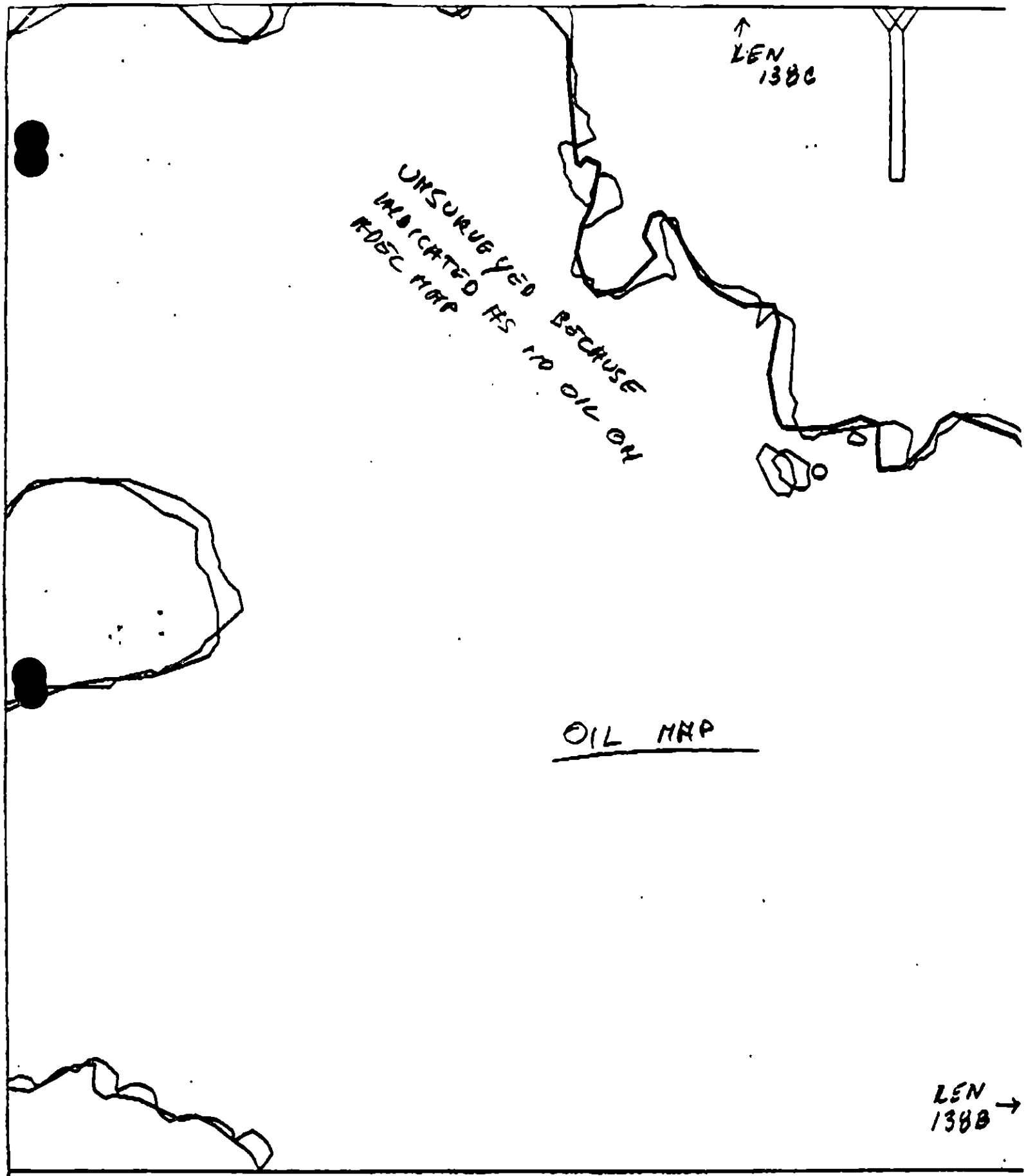
ST-YP-4-A

ADEC Segment Length: 4107 m

0 100 200 300 METERS

13/17

Map Key: KEN-138b
Name: K. DEBUSCHERE
Date: 4/19/90
Date Entered:



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

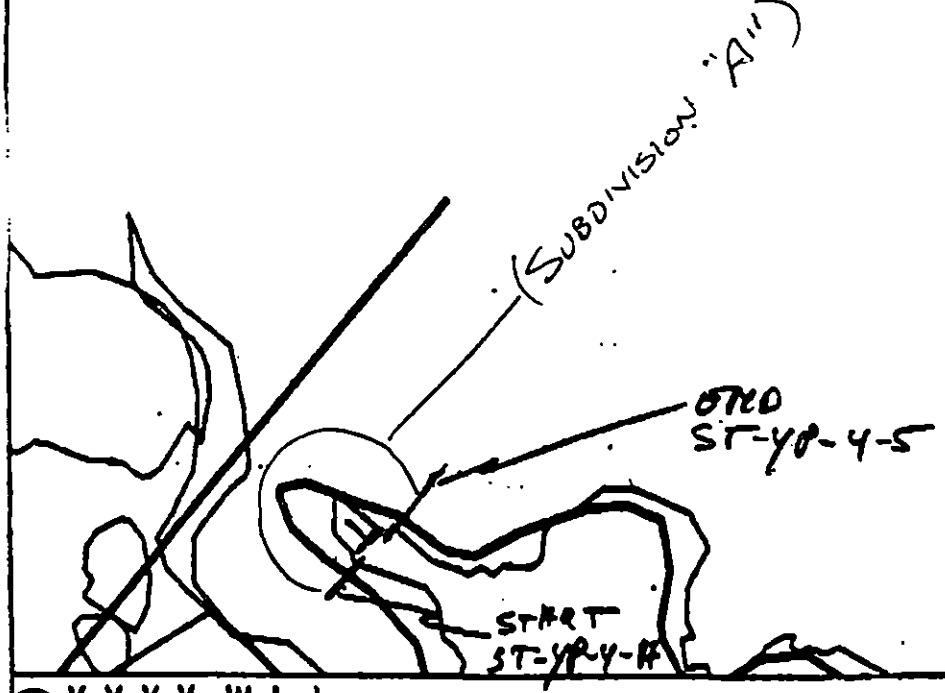
ST-YP-4-R

ADEC Segment Length: ~~4107~~ 4107

0 100 200 300
12/17 METERS

Map Key: KEN-138c
Name: K. DERUSSCHERE
Date: 4/28/90
Data Entered:

OIL MAP



↓ KEN 138A

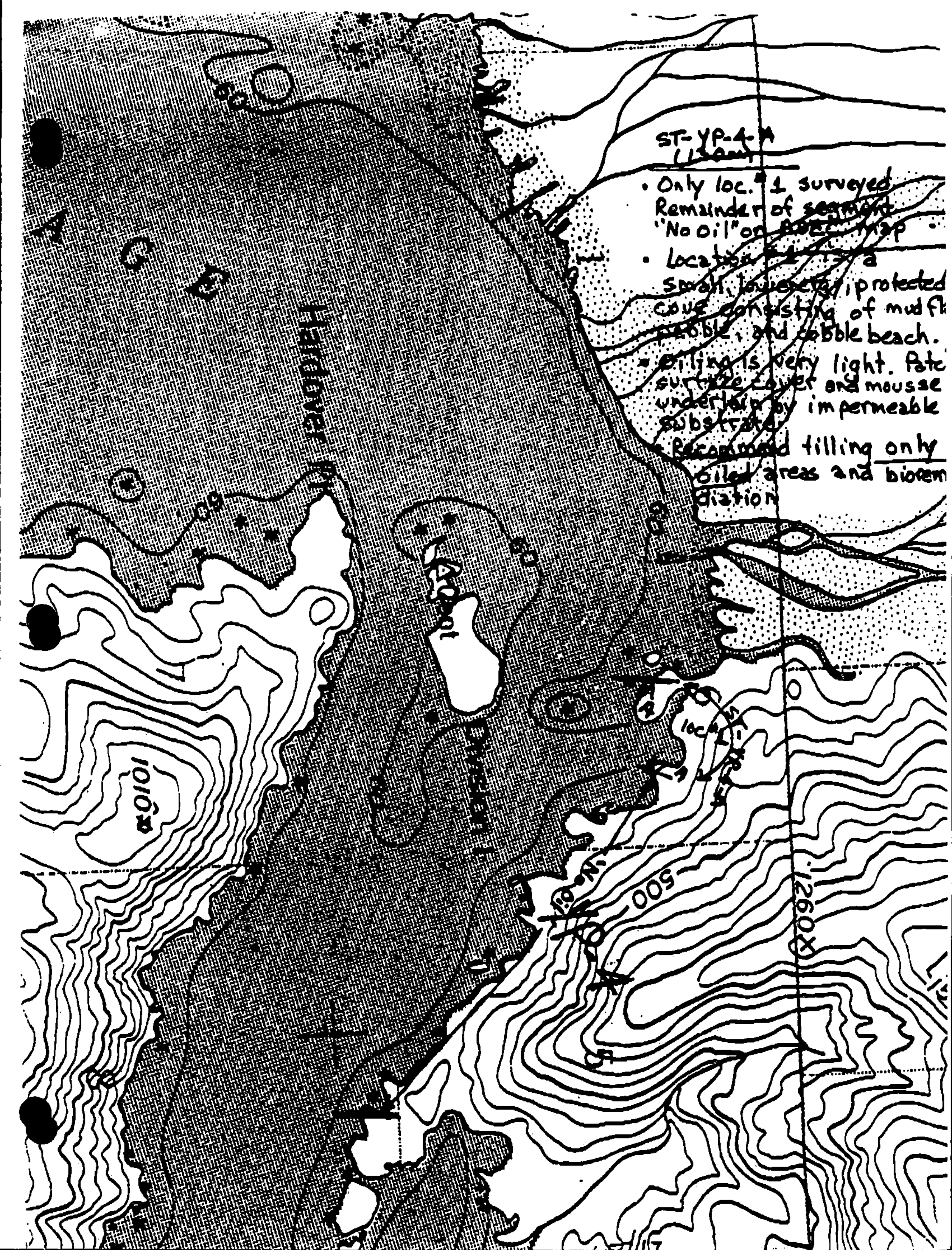
XXXX Wide
//// Medium
---- Narrow.
TTTT Very Light
0000 No Oil

ST-YP-4-A

ADEC Segment Length: 4107

0 100 200 300

Map Key: KEN-138c
Name: K. DEBUSSCHERE
Date: 4/24/90
Date Entered:


ST-YP-4-A
• Only loc. #1 surveyed
Remainder of segment
"No Oil" on
• Location
cove consisting of mud fl
and cobble beach.
light. Patc
and mousse
impermeable
substrate
tilling only
areas and bioreme
diation
500
No oil

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT YP-4 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	**CLOSED**
Bioremediation Manual Tilling	**CLOSED**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

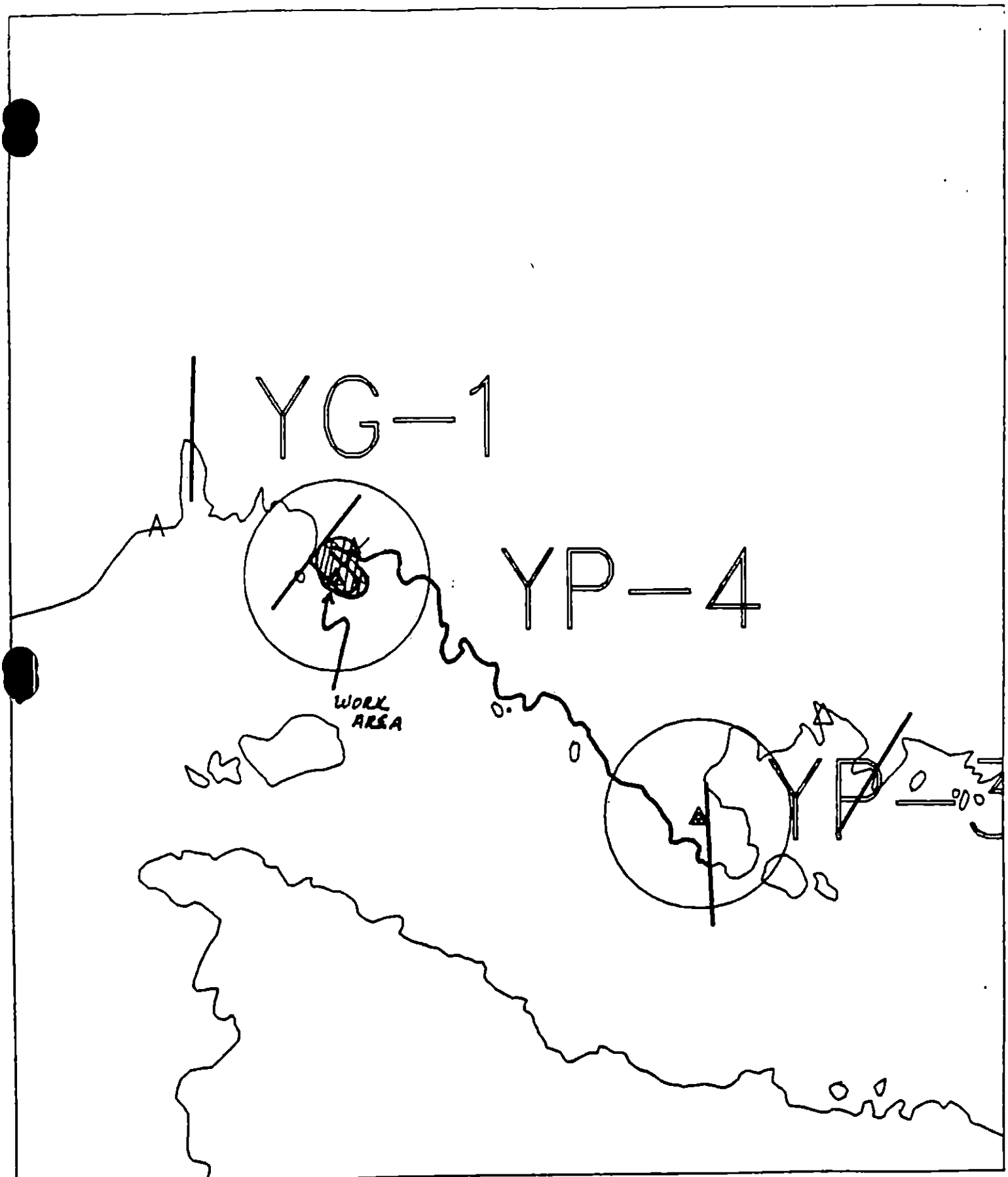
5T	**Bald Eagle Nest**	USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to manual pickup, bioremediation, and manual tilling within 400m of active nest. No constraint to manual pickup, bioremediation, and manual tilling more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest constraint is removed, other ecological considerations will apply.

FOSC D Jarvella Date 6/19/90

Prepared by V. P Phillips Date 6/14/90



EXXON

Exxon Company, USA
Map Key: KEN-YP-4
June 10, 1990

ECOLOGY MAP
SEGMENT YP-4
SUBDIVISION A (1 of 1)

METERS
0 557 1114

★ Seabird Colony
▲ Active Eagle Nest
△ Inactive Eagle Nest

1 inch = 1827 feet