

OIL SPILL PUBLIC INFO. CENTER



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[Shoreline evaluations, 1990].

WA-01 – WH-03

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SHORELINE EVALUATION

SEGMENT ST/ WA-01 SUBDIVISION A (1 OF 2) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 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: [Signature] DATE: 5/5/90

OILING CATEGORIZATION:

Wide 28 m: Medium 15 m: Narrow 0 m: V.Light 136 m: No Oil 159 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) absorbents use and manual pickup of mousse, pooled oil, and oiled debris (logs and trash), 2) followed by bioremediation in areas indicated on sketch map. Work should be conducted before 5/1 otherwise no treatment unless permitted by USFWS regarding seabird colony.

TAG COMMENTS: Monitors to assess logs.

TAG APPROVAL DATE: May 5 1990

ADEC	<u>Art Weiner</u>	FOSC: <u>[Signature]</u>	DATE: <u>5-9-90</u>
EXXON	<u>Mark N. Silber</u>		
NOAA	<u>Gary Petrucy</u>		
USCG	<u>G.A. Reiter</u>		

NO bioremediation!

- 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 257-2324
- 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 Suzumoto 424-7511
- 1I Gill net area (5/7 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 (5/11 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 unopened 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)
- 3Q Harbor seal and sea lion molting (5/15 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 257-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Roth 257-2206
- 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 Subistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7H Deer harvesting (5/15 to 2/25)
- 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 257-2359

SEGMENT ST/ WA-001 SUBDIVISION: A DATE 4/26/90USCG NARANAME Miles O. Hayes SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

I concur with OG and BID comments. Large rocks created classic "umbrella" effect that allowed oil to accumulate in its lee.

Manual pickups of mouse & mouse-saturated sediments is recommended.

ADEC

NAME Russell Kunibe SIGNATURE Russell Kunibe☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

The area of significant oiling was located behind a high tide line, the UITZ. It consisted of predominantly coral and cover over the beach and boulders. In this area there was a fairly distribution of pooled mouse and mouse-saturated sediments. There was also a small amount of oily trash in this subdivision.

Recommended treatment: The amount of recoverable oil in this subdivision is small (10-30 bags). I would recommend manual pickups of the mouse, mouse-saturated sediments and oily trash which took place at the Bayview Co. This would remove a possible source of oil and floating mouse which could be returned to the sea if possible.

LAND MANAGER

NAME Gerald M Nugent SIGNATURE Gerald M Nugent (USFWS)☒ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Recommend manual pick-up of mouse in conjunction with pick-up on other segments of Bureau Islands. Action should occur as close to May 1, 1990, as possible.

Suggest that pom-pom "soakers" be anchored to the beach or to rocks in the UITZ. Allow them to be swirled in the surf and possibly catch mouse as it is lifted. May minimize sheen - a major consideration in this area of high seabird concentrations.

SHORELINE OILING SUMMARY

REVISION NO. 04

OG GLENN HEYMAN ^{NOAA} USCG MILES HAYES SEGMENT ST/ WA-1
 BIO DAY RAIDER USA AND REP JERRY NIXON SUBDIVISION A (1 OF 2)
 EXXON JOHN DEAN ADEC RUSSEL KUNIBE TIME 18:30 19:30
 TEAM NO. 17 TIDE LEVEL +1 to 0 DATE 4/22/90
 EST SUBDIVISION LENGTH: 265 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 65 % B 10 % C 5 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE Lang 25 % Hang 35 % Vert 50 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 26 m M 30 m N 0 m VL 10 m NO 110 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0 gPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. 3Frames 32+33

SUBSURFACE OIL

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	!	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	U				
1	44					X	.	X							X					N		PL/C-G-P
2	44					X	.	X							X					N		PG/G-P
							.															
							.															
							.															
							.															

COMMENTS WA-1A is located at the southern end of the segment and consists of rocky headlands with 2 small pebble-cobbles boulder pocket benches. The most prominent features are the low relief bedrock plat forms which become exposed at low and mid tides. Higher relief bedrock masses are located

REVIEWED 7W DATE 4/27/90

SUBSURFACE OIL (CONTINUED)

[illegible]

on the north end of the subdivision. The mare furthest to the north shelters a lower bedrock area with CT-CV-PO which combines to form an /B distribution approximately 25X11 m. Individual distributions within the area are CT/B, CV/P, and PO/P to /S. There is surrounded by a /P to /S distribution approximately 15 X 55 m. Some logs in the storm berm area have CT generally as splashes.

Note: Due to the large variation in subdivision lengths w/
tide level, the subdivision ~~for~~ oil category lengths were
estimated "as the crow flies." REVIEWED YU DATE 4/27/90

REVIEWED

DATE 4/27/90

SEGMENT ST. WA-001

SUBDIVISION A

DATE 4/23/80

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HYDRAUL
- ☐ SCL
- ☐ Profile (contour)
- ☐ Profile(s)
- ☐ Pile Location(s)
- ☐ Photo Location(s)

LEGEND

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

SKETCH MAP

Boulders

MANUAL PICK UP
OF MOUSSE & POOLED OIL
COLLECTED BY BIODEGRADATION

Rb shear noted
on small tidal
pool in rock

Lower bedrock

Splat form in Mt
UITZ

Higher relief
bedrock masses

CT-CV-PD/B
~25X11m

CT/S on boulders
as drips and fine
splatter

Splatters on
logs in backshore

CT/P + MS-PD/S

Steep Scarp

25X11m area has 1/3
oil distribution (>50% coverage)
Individual characters are
CT/B, CV/P, and PD/P to 1/5.

0 25
Meters

End of
Cbl/Grl storm
berm

A 2 logs
Tropical
High
which
Belt
Main

WA-1-A

Oil Character Length (m) AP — PO 5 CV 15 CT 125 ST — MS — PT — TB — FL — No 12C

SHORELINE ECOLOGICAL SUMMARY

NO. 100-100

Segment ST / WA-001 Subdivision A Date (mo / day / yr) 4 / 22 / 90Time (24 hr) 15:30 Biologist DANIEL RAIDER

(A) Substrate type and % of segments:

(1) Bedrock 65 (2) Boulder 10 (3) Cobble 5 (4) Pebble 20 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 30 Moderate 25 Low 45 to none

(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 (O)

Photographs:

Roll No. 3Frames 30 + 33

BARNACLES

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

MYTILUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	1M	1L	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	

GASTROPODS

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

FUCUS

Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	1L	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	

Wildlife Observations/ General Comments:

- SEE ATTACHED SHEET FOR WILDLIFE / SPECIES LIST

Small tidal pools in southern portion of subdivision, sensitive area

Ecological Considerations:

NO ECOLOGICAL CONSTRAINTS ACCORDING TO DATA BASE.

Consideration should be taken for the sensitive southern tidal pools and the nutrient rich mussel beds and tidal pools in the northern portion of the subdivision. Minimized foot traffic and avoid spraying or other eradication techniques, these separately or a combination may cause more damage than is gained through clean up procedures.

BIRDS SITED FOR WA-001 A + B

22/21 APRIL 19

	NAME	AMOUNT	COMMENT
1)	SONG SPARROW	15	
2)	VARIED THRUSH	3	
3)	BLACK OYSTER CATCHER	4	Singing intermittently
4)	GLAUCOUS-WINGED GULL	10±	
5)	COMORANT SP.	2	Palegic or Redfaced
6)	BALD EAGLE	1	

NA-SSIA

TEAM 17

BIO-SKETCH

22 APRIL 1990

Rock face from
MTE to UTE

- Moderate adult barns
- Moderate adult limps
- Moderate adult Mytil
- Moderate adult Littor

Cobble
beach
w/ kelp
debris

Tide Pools

Rich UTE pools with
an abundant amount
of flora and fauna:

- Katharina tunicata
- Corallina
- Limpet
- Tonicella insignis (chiton)
- Anthopleura artemesia
- Stomatopoda
- Scaphopoda
- Sipuncula

Moderate fucus
and Endocladia
mucicata

Photo 33

Bedrock

Bedrock

dense adult musclobeds
kelp debris

Intertidal Bedrock pools

- Corallina
- Anthopleura artemesia
- sparse mytilos
- Laminaria spp

0 50 meters

2



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

WA-1

ADEC Segment Length: 1312m



Map Key: KEN-14

Name: _____

Date: _____

Map Key: KEN-14

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WA-1 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup and Absorbents

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R Seabird Colony

NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

D. J. Ferrell

Date

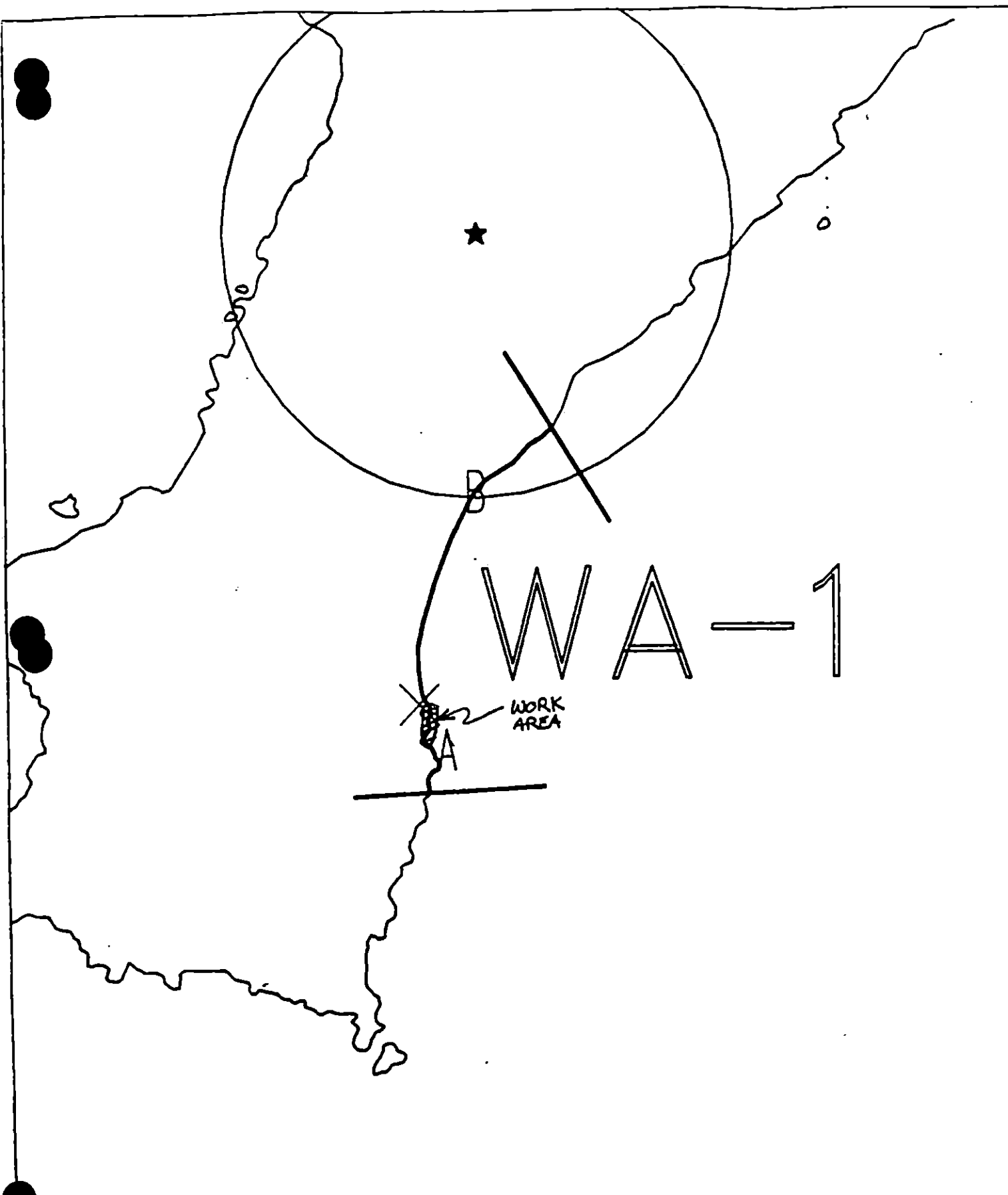
6/12/90

Prepared by

J. Phillips

Date

6/12/90



Exxon Company, USA
The Kert KEN-WA-1



ECOLOGY MAP
SEGMENT WA-1
SUBDIVISION A (1 of 2)
METERS

- | | |
|---|----------------|
| ★ | Seabird Colony |
| ▲ | Eagle Nest |

SHORELINE EVALUATION

SEGMENT ST/ WA-01 SUBDIVISION B (2 OF 2) DATE 4/26/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 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. H. H. H.

DATE: 5/5/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 286 m: No Oil 623 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: Monitors to assess pickup of oiled fishing net

TAG APPROVAL DATE: May 5 1990

ADEC Art W. W. W.

EXXON Mark N. W. W.

NOAA Gary Petrac

USCG G.A. Reiter

FOSC: W. L.

DATE: 5-9-90

Pickup + Remove net

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 1B Salmon stream mouth - spawning (7/10 to 8/31)
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 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 588-7235
 ADF&G Don Calkins 257-2403
- SR 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)
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 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 Subsistence area: Salmon harvesting (5/1 to 9/30)
 7H Finish harvesting
 7I Deer harvesting (5/15 to 2/25)
 7J Invertebrate harvesting
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 AGENCY CONTACT PERSON: ADF&G Jim Fall 257-2359

FIELD SHORELINE COMMENT SHEET

13

SEGMENT ST/ WA-001 SUBDIVISION: B DATE 4/26/90

USCG NOAA

NAME Miles O. Hayes SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Shore mostly erosion throughout. No major oil accumulations at all. Oiled debris should be removed.

** Even storm burns have eroded oiled.*

ADEC

NAME Russell Kuaibo SIGNATURE Russell Kuaibo

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

The oiling in this subdivision consisted of only a patchy distribution of coat on the beach and some oily trash.

Recommended treatment: Manual pick up of the oily trash while work crews are at the Barren Is.

LAND MANAGER

NAME Gerald M. Nugent SIGNATURE Gerald M. Nugent (USFWS)

☒ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Manual pick-up of oiled debris in conjunction with other similar pick-up on Barren Island segments. Pick-up recommended as close to May 1, 1990, as possible. A Service monitor should be present during any operations on the Barrens.

SHORELINE OILING SUMMARY

REVISION NO. 34

OG L'LEON HEYMAN NOAA USCG MILES HAYES SEGMENT ST/ WA-001
 BIO WILL RYDER USFWS LAND REP JERRY NUGENT SUBDIVISION B (2 OF 2)
 EXXON JOHN DEAN ADEC RUSSEL KIMBLE TIME 19:30 10:20:30
 TEAM NO. 12 TIDE LEVEL 0 to +4 DATE 4/22/90 10:20:30
 EST SUBDIVISION LENGTH: 930 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 20 % B 5 % C 10 % P 60 % G 4 % S 1 % M 0 % V 0
 SLOPE Lang 80 % Hang 10 % Ven 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 300 m NO 630 m

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by CPATTIES / TARBALLS 0 BAGNEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒TYPE 0#BAGS 0

Photographs:

Roll No. NO NET TAKENFrames,

SUBSURFACE OIL

PIT NO	PIT DIST (m)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UC	1	2	3	4	BU	U	M	U				
1	40					X	.	X						X				N	-	-	P/GPLG
2	49					X	.	X						X				N	N	4?	GP/GP
3	43					X	.	X						X				N	-	-	S/SGCP
4	33					X	.	X						X				N	-	-	P/P
5	42					X	.	X						X				N	-	-	P/P
6	43					X	.	X						X				N	-	-	G-P/P

COMMENTS

WA-001-B consists of pebble beaches w/ cobble berm.

Bedrock and large boulders separate the shoreline into small bays. Oiling occurs only to south as fine splashes on bedrock outliers, boulders, and occasional logs.

REVIEWED JW DATE 4/27/90

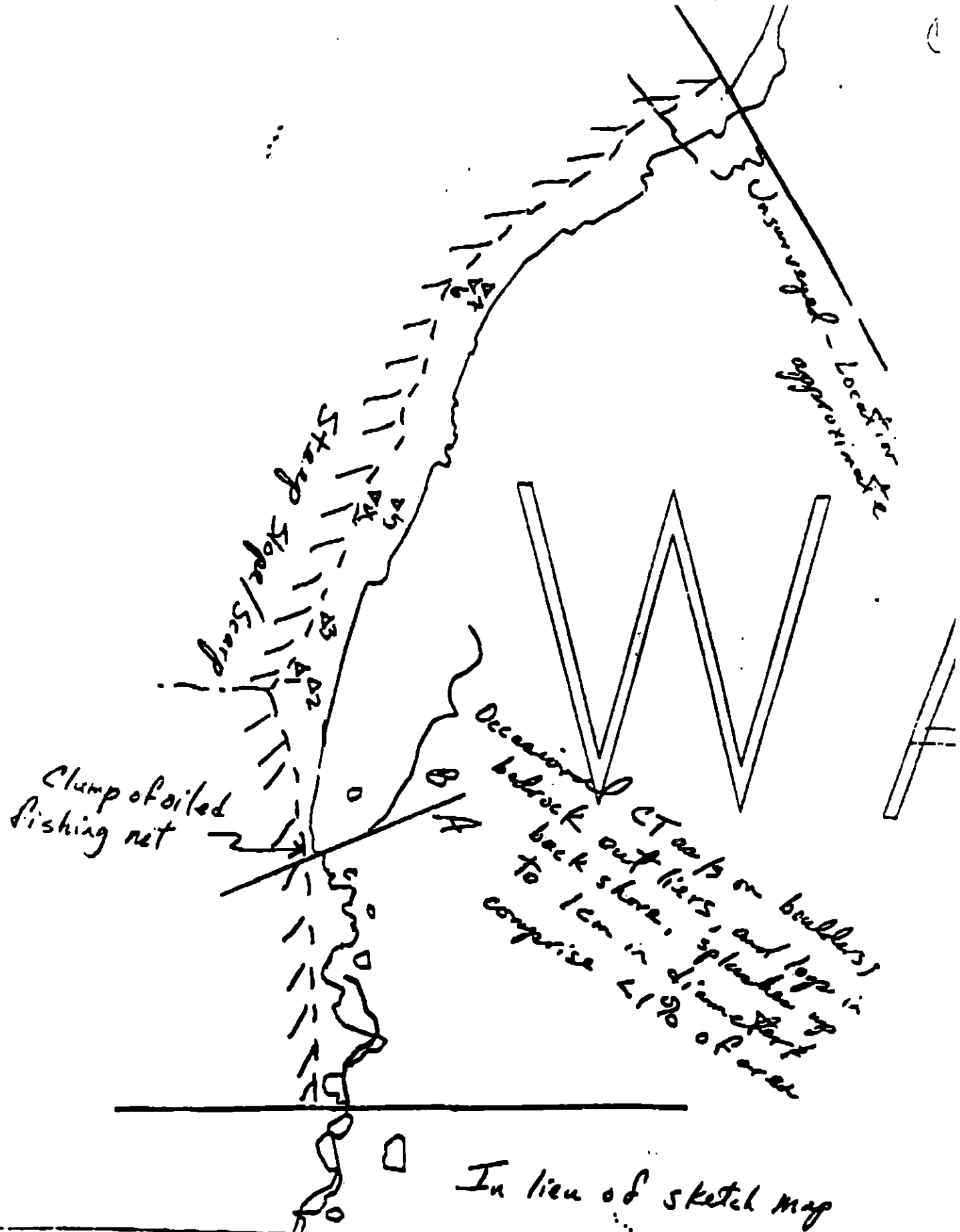
984731-24

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS

REVIEWED 7W DATE 4/27/90



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

WA-1B

ADEC Segment Length: 1312m



Map Key: KEN-14

Name: G. Heyman

Date: 4-24-92

SHORELINE ECOLOGICAL SUMMARY

01.07.2014

Segment ST / WA-001 Subdivision B Date (mo / day / yr) 4 / 22 / 2014

Time (24 hr) 19:30 Biologist DANIEL PAIDEN

(A) Substrate type and % of segments:
(1) Bedrock 20 (2) Boulder 5 (3) Cobble 10 (4) Pebble 64 (5) Sand 1 (6) Silt 0

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

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

Photographs:

Roll No. 3

Frames 32 + 32

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See attached wildlife sightings list

See note re pools in southern part of subdivision; this area has isolated patches of dense fucus which should be avoided by foot traffic

Ecological Considerations:

None in DNA listings

BIRDS SITED FOR WA-001 A + B

22/23 APRIL 1

	<u>NAME</u>	<u>AMOUNT</u>	<u>COMMENT</u>
1)	SONG SPARROW	15	
2)	VARIED THRUSH	3	
3)	BLACK OYSTER CATCHER	4	Singing intermittently
4)	GLAUCOUS-WINGED GULL	10±	
5)	COMORANT SP.	2	Paralytic or Red-faced
6)	BALD EAGLE	1	

IS - 100 FT

22 APR 1990

DANIEL ZAIDE

22 APR 1990

DANIEL ZAIDE



Cobbly/ boulder area
w/ little biota

Boulders & Bedrock Mts

- MTE w/ moderate Fucus, adult
- MTE w/ dark Fucus, new
- Endocladia muricata

Bedrock LTZ

- Sparse mytilus, new
- moderate new fucus
- Kelp detritus

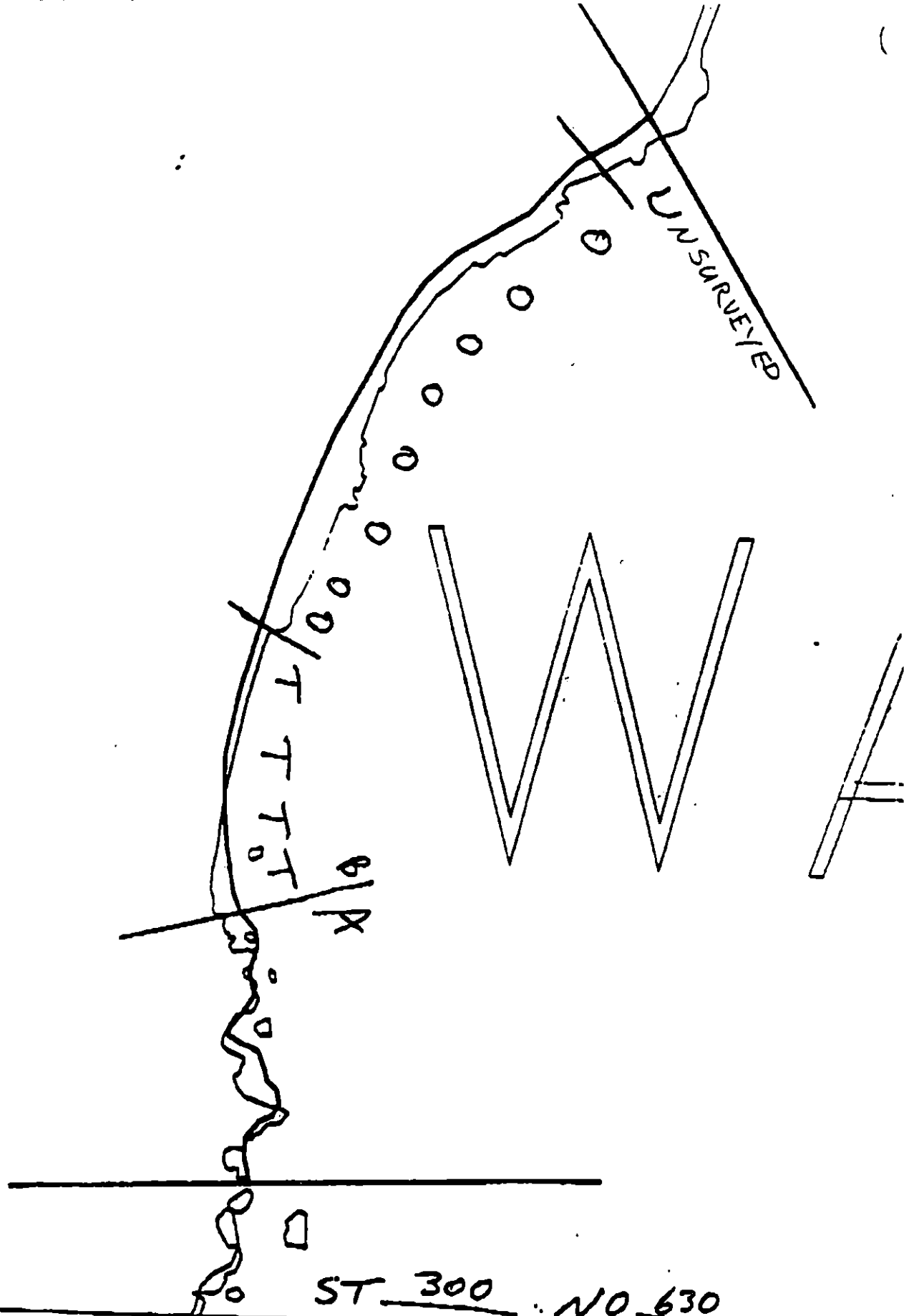
Storm berm

B A

Bedrock table in LTZ

- Rhodospira Palmata
- Halosarcion glandiforme
- Laminaria Andersoni
- Enteromorpha compressa
- Codium laminare sp
- Gelidium coulteri sp
- Ulva sp
- Enteromorpha sp

- Littorina - valente
- Limpets



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

WA-1

ADEC Segment Length: 1312m



Map Key: KEN-143

Name: G Heyman

Date: 4-23-90

Rate: 5.1

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WA-1 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup	OPEN

CULTURAL RESOURCE EVALUATION REQUIRED PRIOR TO TREATMENT

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

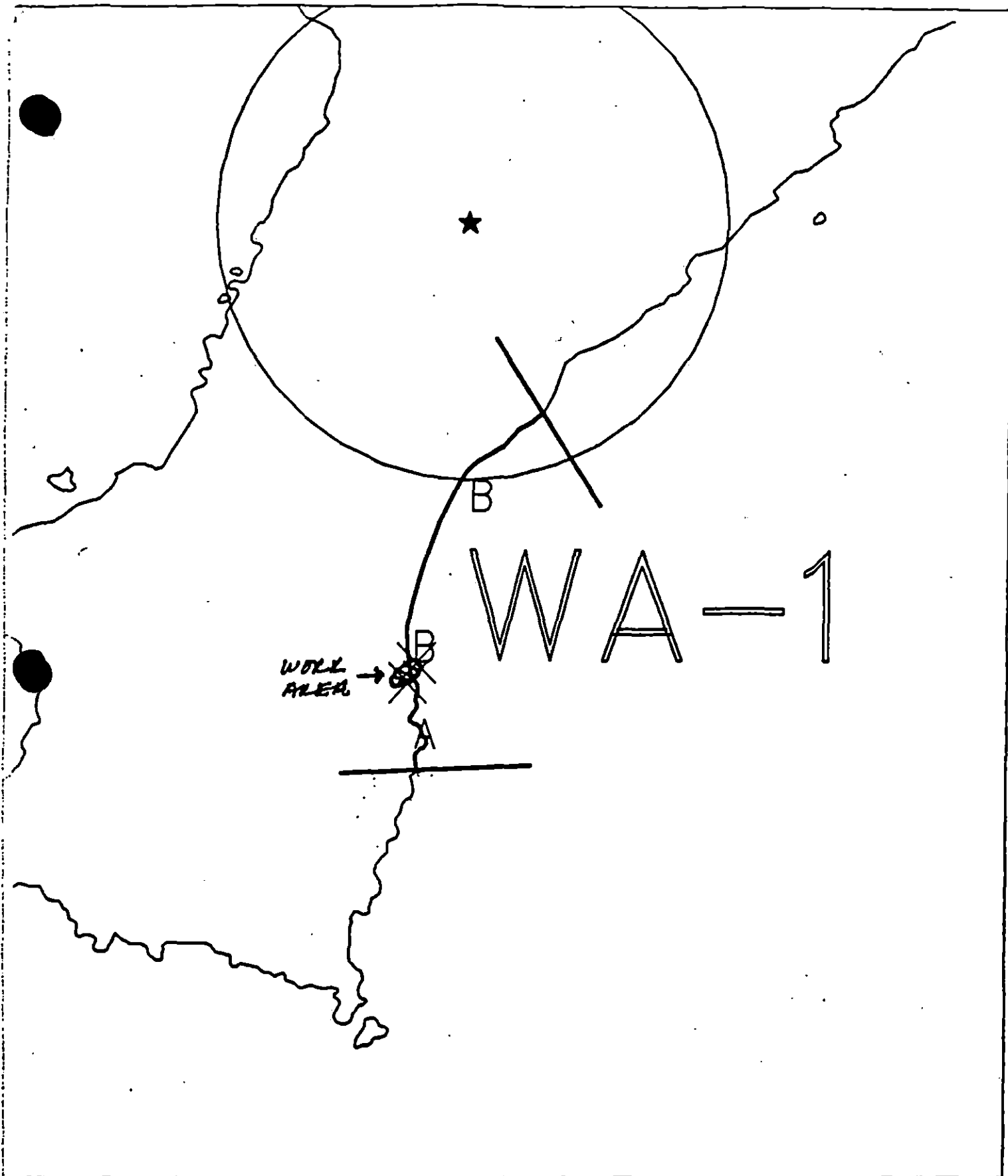
5R Seabird Colony NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

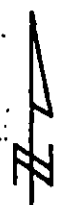
Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC ML Date 6 Jul 90

Prepared by R. D. Coulter Date 7/5/90



Exxon Company, USA
Map Key: KEN-WA-1
June 10, 1990



ECOLOGY MAP
SEGMENT WA-1
SUBDIVISION 6 (2 of 2)
METERS
0 400 800

- | | |
|---|---------------------|
| ★ | Seabird Colony |
| ▲ | Active Eagle Nest |
| △ | Inactive Eagle Nest |

1 inch = 1337 feet

SHORELINE EVALUATION

SEGMENT ST/ WA-02 SUBDIVISION A (1 OF 1) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T 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. Johnson

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 603 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of oiled debris. Work should be
conducted after 6/1 with permission of USFWS due to eagle nest con-
straint.

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90.

ADEC ART WETTER

EXXON ANDY TGAZ

NOAA By. I. Warratt

USCG KENNETH KEANE

FOSC:

DATE: 4-26-90

Pick up mouse where accessibility
and safety permit.

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

47

SEGMENT ST/ WA-2 SUBDIVISION: A DATE 4-9-90

NOAA

USGS

NAME

John Naughton

SIGNATURE

John Naughton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Some mussels observed in cracks and fissures on east end of cove. Oiled debris - travel webbing, pompom, logs also observed. However, high energy beach and area should be allowed to clean naturally. Also will be important sea bird nesting area during summer months.

ADEC

NAME

Scott Shelton

SIGNATURE

Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

WA-2Sub. A1011 meters segmentLength TEAM walked entire segment.Spores and stains observed on cobble and drift upper tidal Bays. (Possible Manual clean up)80 x 4 meter zone of mussels in crevices and staining on bed rock ledges and boulders in the upper tidal areas.VI impact extends along in the upper to mid tidal levels. Up to 30cm no sub. surface observed.High energy beach access very limited / High surf locationHigh SEAS Gill Net observed.

LAND MANAGER

NAME

LINDA HAGEN

SIGNATURE

Linda M. HagenUSFWS☐ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

Barren Islands are an important area for sea birds. As much clean up as possible is recommended. Nesting activities should be noted prior to scheduling any activity so that there is no conflict with wildlife needs.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Perland NOAA USCG Noughen SEGMENT ST/ W-2
 BIO Spight LAND REP Hagen SUBDIVISION A
 EXXON Dyes ADEC Shelby TIME 9:27 to 11:02
 TEAM NO.: 19 TIDE LEVEL: -0.5 ft to -1.5 ft DATE 4/9/90
 EST. SUBDIVISION LENGTH: 6.1 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 0 % B 0 % C 30 % P 70 % G 0 % S 0 % M 0 % 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 135 m NO 0 m
 611

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	AC	AB	AP	AD	1	2	3	4	5	6	7	8	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN					X	X							X	X		
MOUSSE					X											
PATTIES																
TARBALLS																
FILM																
NO OIL															X	X

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

DEBRIS COLLECTED
☒ YES ☐ NOTYPE NETS#BAGS 10

Photographs:

Roll No. ST/19-7Frames 5-16

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	6	7	8	SU	U	M	L		
1	30					X	-												X				Gravel
2	30					X	-													X			Gravel
3	30					X	-														X		Gravel
4	30					X	-												X				Gravel
5	30					X	-													X			Gravel
6	30					X	-														X		Gravel

COMMENTS

- stain observed on log and debris
- 90m x 4m zone of marine oil coat

OG. P. 100

SKETCH MAP

SEGMENT ST/ WA-2

SUBDIVISION A

DATE 4 / 9 / 90

CHECKLIST

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

LEGEND

1 Δ

PR - No Subsurface Oil

2 Δ

PR - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

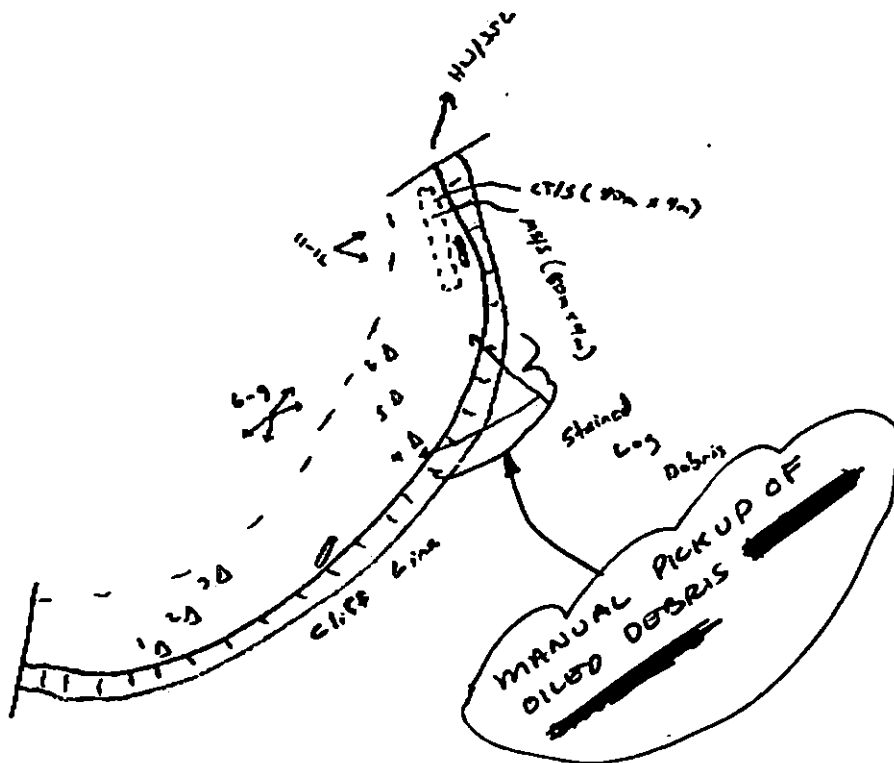
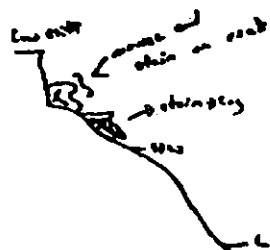
CT/S

Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction,
and number



↑ N

100m

Oil Character Length (m): AP 0 PO 0 CV 0 CT 611 ST 611 MS 80 PT 0 TB 0 FL 0 NO 0

REVISION: 000000

SHORELINE ECOLOGICAL SUMMARY

REVISION: 001

Segment ST / WA-2 Subdivision A Date (mo / day / yr) 4 / 9 / 90

Time (24 hr) 9:23 Biologist SP16HT

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

(B) Overall % cover of biota (% of segment): Dense Moderate Low 100

(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	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

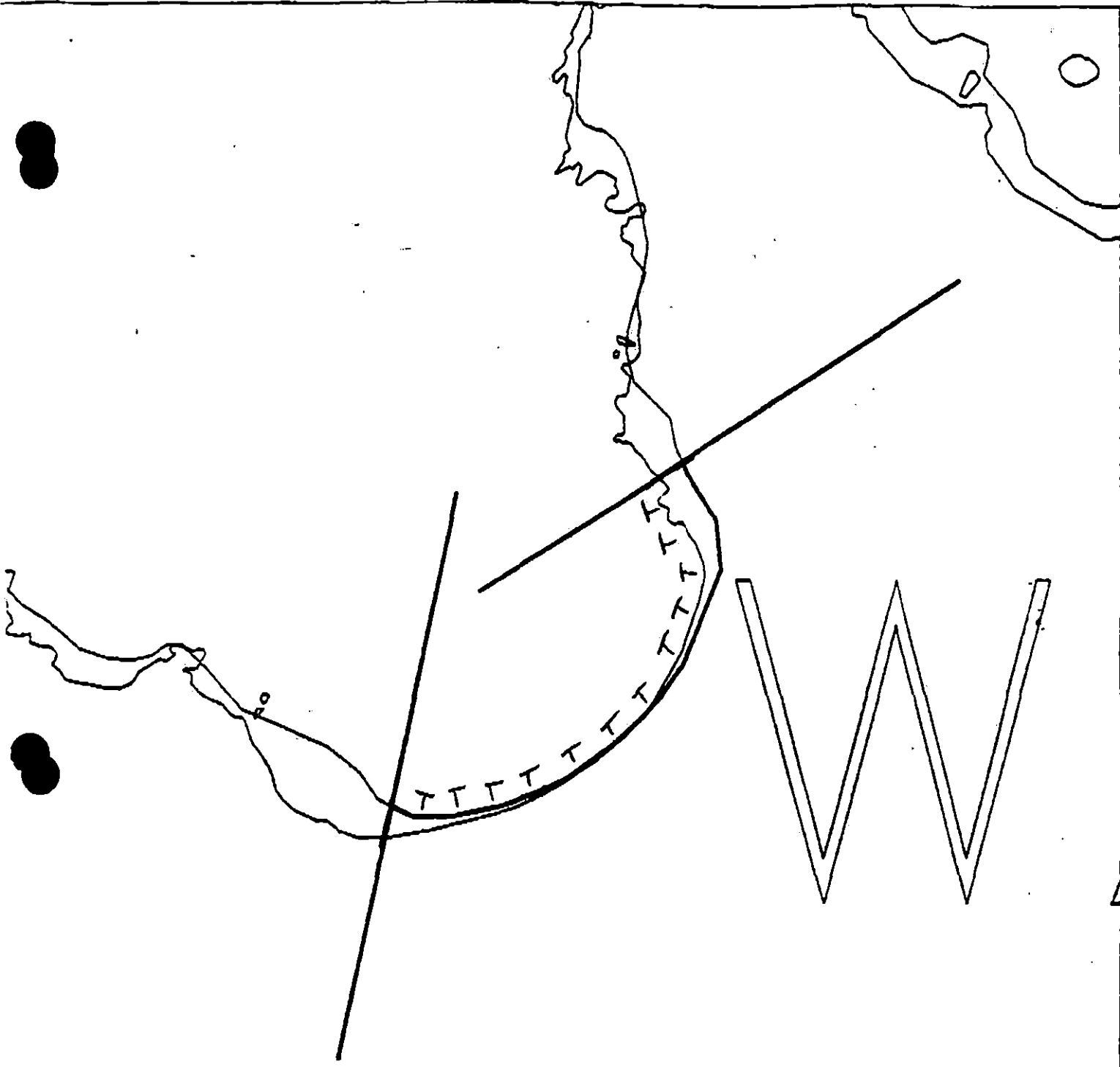
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments:

Ecological Considerations:

Sand/gravel beach
Outcrop/boulders at ends w/ red algae lower, normal barnacle/
Fucus/mussel higher
Fair kelp population offshore



XXXX Wide

/// Medium

WA-2

--- Narrow

AOEC Segment Length: 603m

TTTT Very Light

0000 No Oil



Map Key: KEN-174

Name: Penland

Date: 4-9-95

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WA-2 SUBDIVISION A (1 of 1)

WORK WINDOW

Manual Pickup

OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/14/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

D. Zampieri

Date

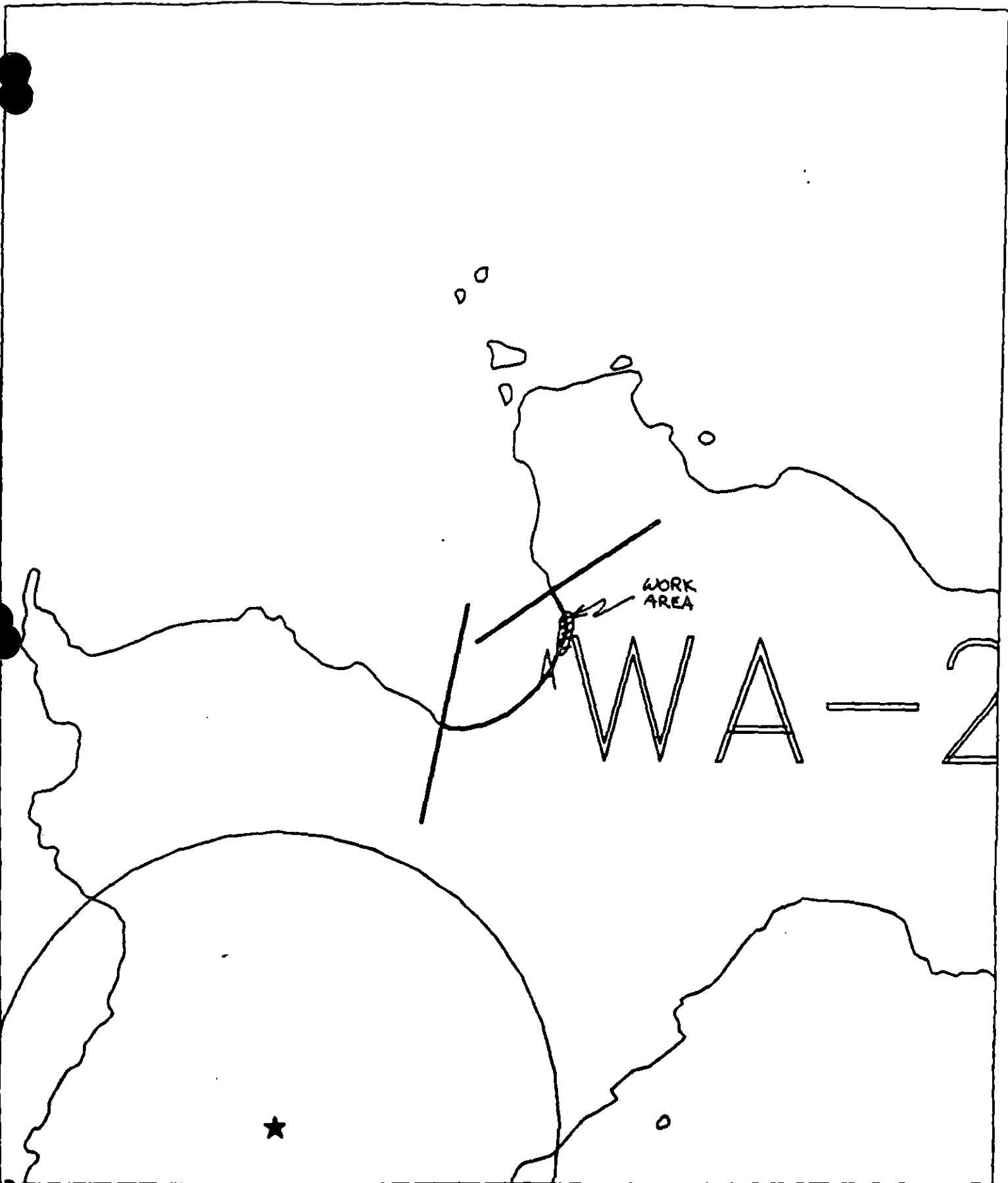
6/13/90

Prepared by

J.P. Phillips

Date

6/12/90



Exxon Company, USA
Map Key: KEN-WA-2



ECOLOGY MAP
SEGMENT WA-2
SUBDIVISION A (1 of 1)
METERS

★	Seabird Colony
▲	Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ WB-01 SUBDIVISION A (1 OF 2) DATE 4/8/90

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)

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. Hansen

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 166 m: Narrow 286 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 27 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal, manual pick up of mousse, oiled debris (debris, vegetation), and oiled logs if >10% coverage and splash impact. Work should be conducted between 5/16 and 7/9 due to salmon stream constraints.
MANUAL TILL/RACE IN AREA OF PITS 5, 6 + 7 FROM TO BLD.

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90

ADEC ART WEINER
EXXON AND TAC
NOAA BILL WERNER
USCG KENNETH KEANE

FOSC: WJL

DATE: 5-12-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.

- 1C Salmon fry nursery area (4/31 to 7/31)
- 1D Esther Hatchery release (4/15 to 6/1)
- 1E Main Bay Hatchery release (4/20 to 5/10)
- 1F Sawmill Bay Hatchery release (4/15 to 6/1)
- 1G Cannery Creek Hatchery release (4/21 to 6/1)
- 1H Remote release site
- 1I Gill net area (6/7 to 8/31)
- 1J Purse seine area (7/20 to 9/30)
- 1K Purse seine hook-off (7/20 to 9/30)
- 1L Set net sites (6/11 to 7/25)
For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

- 2M Herring spawning (4/1 to 6/15)
Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

- 5R Seabird colony (5/1 to 9/1)
Restrict air traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance. Contact ADF&G and USFWS prior to treatment.

- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic.

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

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

- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
- 7HH Finfish harvesting
- 7I Deer harvesting (6/15 to 2/28)
- 7JJ Invertebrate harvesting
For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ WB-1 SUBDIVISION: A DATE 4/8/90

USCG
NAME R. Bryan HIRTE SIGNATURE R. Bryan HIRTE DCI

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

I agree with The findings of The Shoreline
Ciling Summary Sheet for WB-001 subdivision A

ADEC
NAME Russell Nunibe SIGNATURE Russell Nunibe

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Please see attached 1 page

LAND MANAGER
NAME Patrick Worn SIGNATURE Patrick Worn

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

manual pickup of exposed Asphalt and mouse patties
should help in further cleanup of this ~~beach~~ subdivision.
The pond in the back will need to be surveyed after the
water level drops to check for mouse patties. A method needs
to be come up with to remove any remaining subsurface oil in
this subdivision also

SEGMENT: WB-1

SUBDIVISION: A

DATE: 4/8/90

ADEC COMMENTS:

Russell Kunibe, EFOII ADEC Signature _____

This subdivision consisted of a long tidal flat, a lagoon which feed an anadromous stream bordered on the north and south by rock faces. There was a band of oil stain and coat on the south shore rock face of the lagoon. A few mousse patties were found in the lagoon and a small area of asphalt was found on the bank of the lagoon. Because of the height of the water and the ice only the ocean side of the lagoon was looked at. On the north bank of the stream in the storm berm a buried lens of mousse saturated sediments was observed. In one place the lens appeared from the berm as a soft asphalt mat on the surface. In the MITZ and UITZ of the tidal flats there was a splashy distribution of asphalt patties. Along the south rock face of the tidal flats there was a patchy band of cover, coat and stain on the rock face. Additionally along the south shore there was a small bight which had a patchy band of asphalt between the cobbles.

Recommended treatment:

Manual pick up of the asphalt in the tidal flats and in the small bight on the south shore. Manual removal of the buried lens of oil in the storm berm. A complete survey of the lagoon picking up any oil encountered as it is found.

SHORELINE OILING SUMMARY

REVISION NO. 002070E

OG Randy Siegel USCG Bryan Hittle SEGMENT ST/ WB-1 (2.6)
 BIO Mike C. Sweet LAND REP Pat Warren (RAC) SUBDIVISION A (1.2)
 EXXON John Dean ADEC Russell Conibe TIME 08:20 10 10 30
 TEAM NO.: 17 TIDE LEVEL: 0.9 10 5.6 DATE 4/8/90
 EST. SUBDIVISION LENGTH: 4800 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 15 % B 15 % C 10 % P 30 % G 15 % S 10 % M 5 % V 0 %
 SLOPE: Long 25 % Hang 75 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M 110 m N 250 m VL N/A m NO N/A m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	C	1	2	3	4	5	6	7	8	SU	U	M	V
ASPHALT PAVEMENT		+	✓	X									X	✓	X	
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													✓			✓

PAVEMENT: H (F) 8 sq. m by 2 cmPATTIES / TARBALLS 75 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TI

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-17-5Frames 19-24, 27-29

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		VO	UC	1	2	3	4	5	6	7	8	SU	U	M	V		
1	40					X	0-0		X									X					G, S
2	40					X	0-0		X									X					G, S
3	40					X	0-0		X									X					S
4	10					X	0-0		X									X					S
5	30		X				7-13		X				X		X			X					S, G
6	30		X				3-6		X				X		X			X					S, G

COMMENTS

This subdivision consists primarily of a large tidal ~~lagoon~~ ^{lagoon} with a stream flowing through it. The ~~lagoon~~ ^{lagoon} is covered primarily with pebbles, gravel, and sand. Areas of oiling were observed in the lagoon, some of which occurred in the ~~1/2~~ ^{1/2}.

A layer of mousse was also observed near the stream channel, and was probably buried by sand and gravel stream deposits at some time in the past. Portions of asphalt were observed at the bottom of some pooled water in the southern portion of the ~~lagoon~~ ^{lagoon}. * Sheen on pooled water

SHORELINE OILING SUMMARY (PAGE 2 of 2)

REVISION 0377 20

SEGMENT ST/ WB-1 SUBDIVISION A

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	BR	BL	FW	GY	BL	DR	TL	LBH	SU	U	M	U		
7	40	X					24 - 27		X						X		X						S
8	30					X	0 - 0		X								X						G, S
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COMMENTS

REVIEWED BAT DATE 12 Apr 90

DATE 4 / 2 90

CHECKLIST

- ☐ N Arise
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ On Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/VML
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pl Location(s)
- ☐ Photo Location(s)

LEGEND

1 
 PK - No Subsurface Oil

2 
 PK - Subsurface Oil


 CT/C
 Continuous Distribution


 CT/B
 Broken Distribution

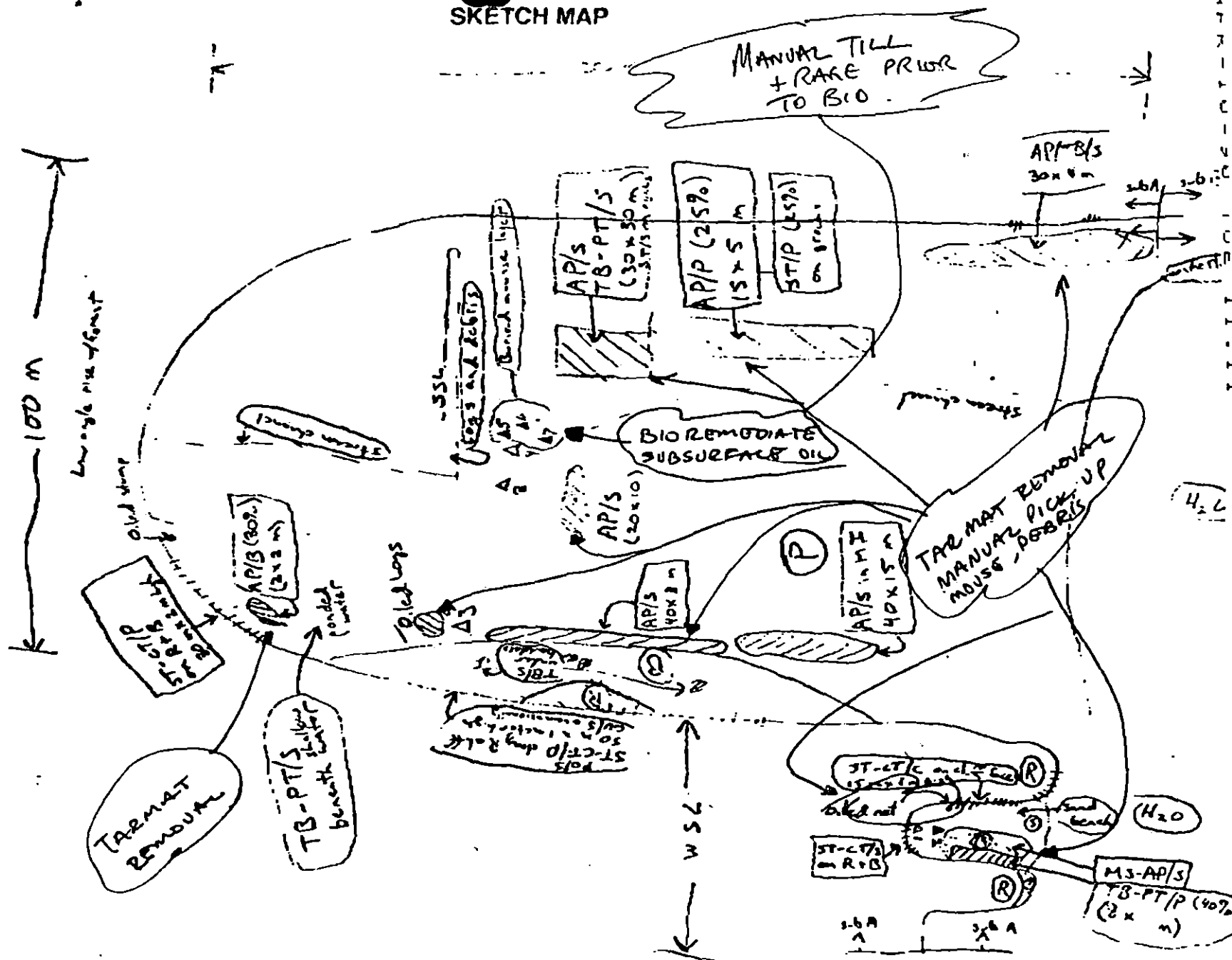

 CT/P
 Patchy Distribution


 CT/S
 Splashed Distribution


 Cited Vegetation

1 
 Photo location, direction
 and number

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

REVERSE

Segment ST/WB1 Subdivision A Date (mo/day/yr) 4/8/90Time (24 hr) 0830-1015 Biologist M.H. Fawcett(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 15 (3) Cobble 10 (4) Pebble 30 (5) Sand 25 (6) ^(including mud) 5(B) Overall % cover of biota (% of segment): Dense Moderate ✓ Low

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

Photographs:

Roll No. ST-17-5Frames 19-24, +

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

2 Eagles, mature, separate
1 belted kingfisher

see attached sheets

Ecological Considerations:

1A

1B

WB 1 A

4/8/90

M.H. Fawcett

Wildlife Observations & Comments

The main feature of this subsegment is the broad, gently sloping sand/gravel/cobble boulder delta around the mouth of the small stream draining a ponded area + drowned forest. The stream is quite small (typically 5-10 ft by 3-4 in deep) but was reportedly used by pink salmon last summer. No salmonid fry were seen, but a number of sticklebacks were observed in the pool. Cobbles and boulders along the ^{intertidal} sides near the mouth of the stream are densely populated with Fucus, barnacles, mussels, Littorines, limpets and whelks. Hermit crabs, fish (gunnels), worms, etc., are abundant between the rocks. Various species of algae including Ulva, Halosaccion, Cladophora?, Rhodomythion and Plocamium are scattered among the Fucus in the MTZ and LTZ.

At the south end of the segment is a bedrock outcrop with dense covering of barnacles including large, old Balanus cariosus and smaller B. cariosus and B. glandula. On horizontal surfaces on the outcrop at the +5-6 ft level, many (up to 75%) of the smaller (4-8 mm) barnacles of both species are dead, whereas few are dead on vertical faces, and nearly all the large B. cariosus are alive. A few starfish (Pisaster) and limpets

chitons (Katharina) occur in the LTZ or outcrop.

Toward the eastern end of the subsection on the north shore away from the stream mouth, plants and animals are much more sparse among the cobbles and boulders than at the head of the bay.

Photos: ST-17-5

Frames: 19-29

WB001

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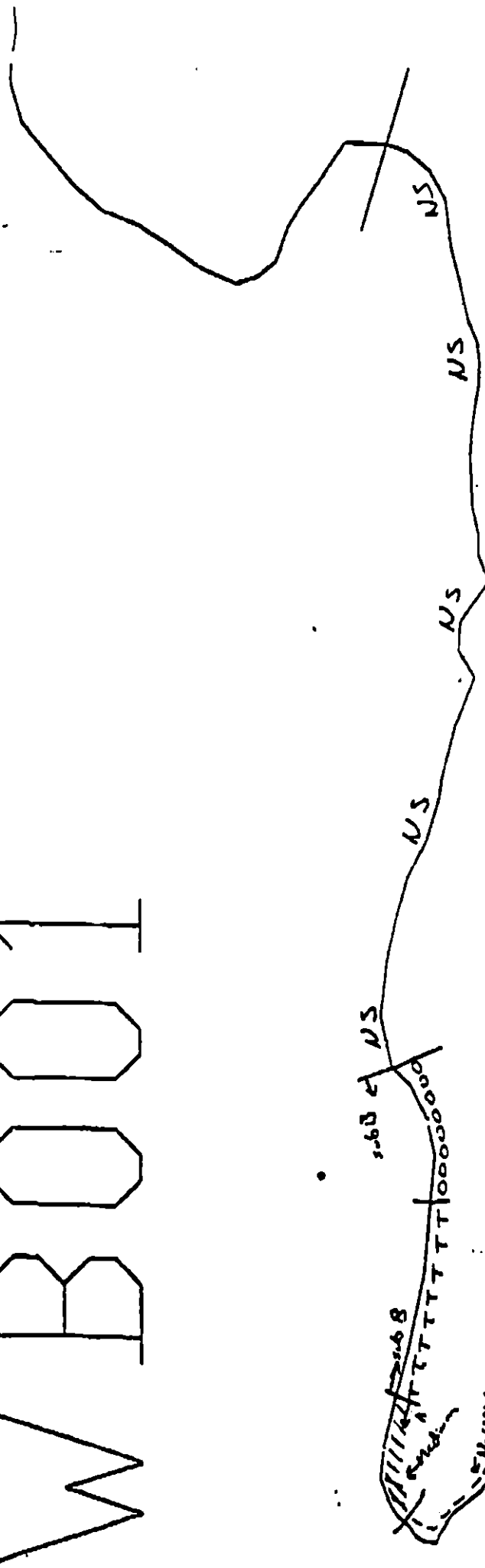
OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed
Distance in Meters	

ST-17-5

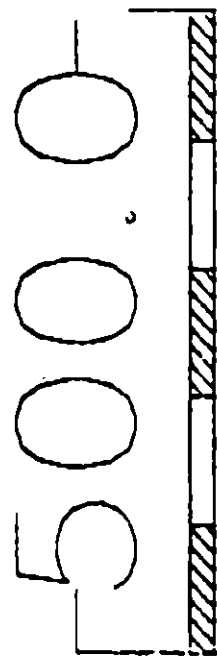
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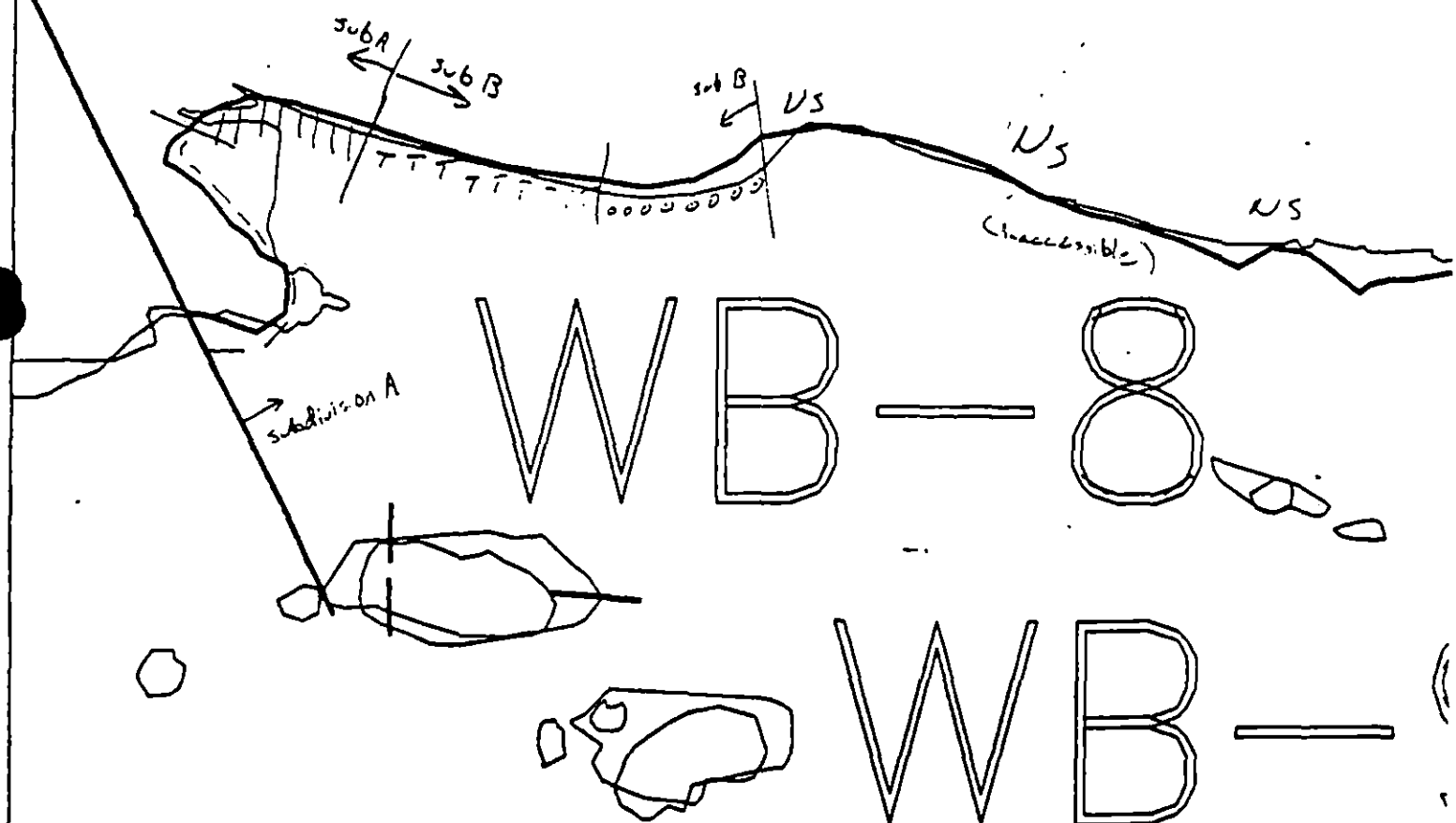
WB001



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



WB-C



XXXX Wide
//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

WB-1

EXXON Segment Length: 2116m

Scale 1" = 500'

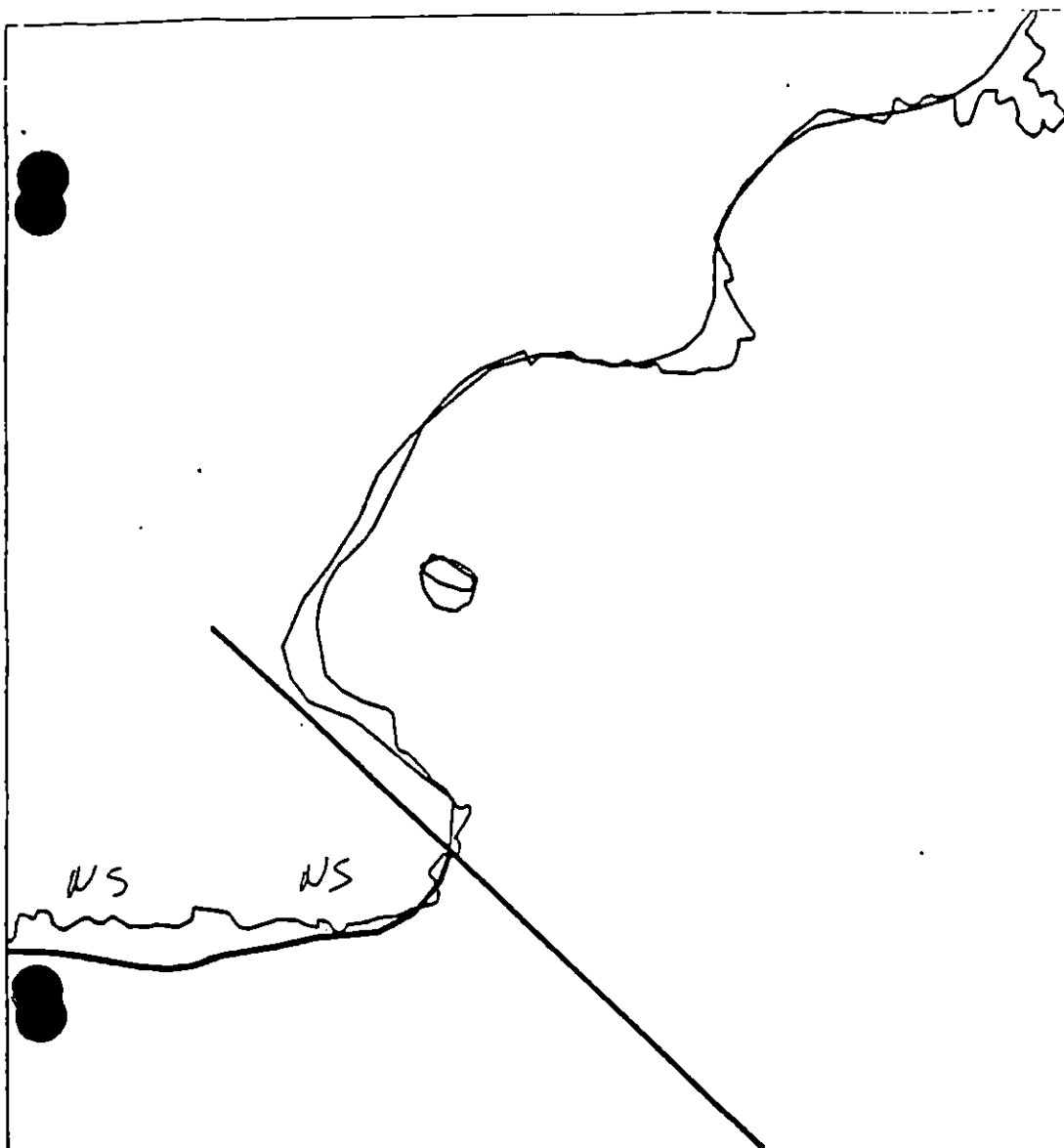


Map Key: PWS-WB-1a

Name: Edy Linsell

Date: 4/3/70

Data Entered:



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

WB-1

EXXON Segment Length: 2116m

Scale 1" = 500'



METERS



Map Key: PWS-WB-1b

Name: R. J. [unclear]

Date: 4/8/82

Date Entered:

SEGMENT WB-1 SUBDIVISION A (1 of 2)

WORK WINDOW

Manual Pickup Tarmat Removal	OPEN
Bioremediation Over 100m From Stream Manual Tilling/Raking	OPEN
Bioremediation Less Than 100m From Stream Manual Tilling/Raking	WORK PRIOR TO 7/1 (ADF&G MONITOR REQ.)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | |
|----------------------------|--|
| 1A,1B Salmon Stream | ADF&G catalogued anadromous stream (242-32-10155) is in Subdivision A. This subdivision is closed to bioremediation and manual raking/tilling less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation and manual tilling/raking are permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation and manual raking/tilling more than 100m from stream. No constraint to manual pickup and tarmat removal. |
| 1J Purse Seine Area | No constraint to manual pickup and tarmat removal; closed to bioremediation and manual tilling/raking after 7/1. |
| 5T Bald Eagle Nest | NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area. |

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or bank. No flushing of pollutants or sediment into stream drainage; do not allow In/Pol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Restrict boat and air traffic to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

**SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM NO. 242-32-10155)
FOR ADDITIONAL CONSTRAINT INFORMATION**

TAG APPROVAL DATE 5/29/90.
ADEC Art Weimer Art Weimer
EXXON Andy Tan Andy Tan
NOAA Bakeroff Bakeroff
USCG C.A. Reiter C.A. Reiter

FOSQ

Date _____

... the ...

Anadromous
Stream
242-32-10155

Work Area

Inactive
NIST

Inactive Nest

NO NEST OBSERVED
NO ADULTS
SEEN

Active
Nest

ACTIVE
NOT

Inactive



Exxon Company, USA

ECOLOGY MAP ^{5/28}

SEGMENT VB-1

SUBDIVISION A (1 of 2)

METERS



Seabird Colony



Eagle Nest

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ WB-001 STREAM NO: 242-32-10155 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 (7/1 to 8/31)
- 5T All bald eagle nests (3/1 to 6/1)
Active eagle nests (3/1 to 9/1) - one additional eagle nest located within adjacent segment WB-02

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Subject stream is located within subdivision A (1 of 2). No additional ecological constraints.

SHPO SIGNATURE: Rachel Davis DATE: 5/20/90

Subsurface Oil Observed: Yes ☐ No ☒ Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of pavement, mousse and patties in the UITZ and MITZ. Work from 6/2 to 7/1 with approval of USFWS regarding eagle nests.

TAG COMMENTS: BORINGATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL.

SPOT WASH AS REQUIRED TO REMOVE POOLED OIL FROM CRACKS IN ROCK FACE AS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/15/90

ADEC Art Weiner

EXXON Andy Tan

NOAA Gary Petrone

USCG G.A. Heiter

FOSC: DATE: 6-June 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
- 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 Suzumoto 424-7511
- 1I Gill net area (8/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (8/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened 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)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7J 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 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-1 SUBDIVISION: ASST 242-32-10155 DATE 29 APR 90

USCG

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

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Type A manual pickup.

ADEC A.O.F.B.G.

NAME Lee Glenn

SIGNATURE Lee Glenn

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Type A manual removal -

Remove oil from rock face wall on south side of stream and lagoon. Clean oil from the bottom of the lagoon (under floating debris) including some floating oily material, located just beyond this rock wall.

Remove tar mats in the intertidal zone.

Contact Lee Glenn prior to the start of this work so that an A.O.F.B.G. observation can be placed on site.

The attached A.O.F.B.G. assessment completed on 4.16.90 has not changed.

LAND MANAGER

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OG CAL LARSON USCG DREHER, CWE SEGMENT ST/ UB-01
 BIO KEN CRITCHLOW LAND REP STREAM 142-32-10/33 OF 1
 EXXON DARLH YVES ADFG: LEE CLEAN TIME: 4:00 to 4:45
 TEAM NO. 14 TIDE LEVEL +6 FT. DATE 4/29/90
 EST. SUBDIVISION LENGTH: 120 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo
 SURFACE SEDIMENTS: R 0 % B 0 % C 20 % P 10 % G 10 % S 40 % M 10 % V 0
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☐ Mod ☒ High
 OIL CATEGORY LENGTH: W 0 m M 120 m N 0 m VL 0 m NO 0

SURFACE OIL

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

PAVEMENT (H) F 3 25 sq. m by 3PATTIES / TARBALLS 40 BA.

NEAR SHORE SHEEN? NO BR RW (SD)

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

Did You Collect
DEBRIS
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. _____

Frames _____

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURFACE SEDIMENT
		OF	OR	OL	OF	NO		UO	UC	1	2	3	4	5	SU	U	M	V				
1	25					✓	.								✓							30 cm - 50 cm
							.															
							.															
							.															
							.															
							.															

COMMENTS IN BACK INTERTIDAL COAST CARD REP. OBSERVED POOLED OIL IN CRACKS/INTERSTICES - UNABLE TO DETERMINE EXTENT OF OILING. SOME SHEENING OBSERVED IN BACK INTERTIDAL LAGOON.

REVIEWED _____ DATE _____

OG CAMP CARSON

SEGMENT ST/ WB-1

STREAM 242-32-10155

DATE 4/29/90

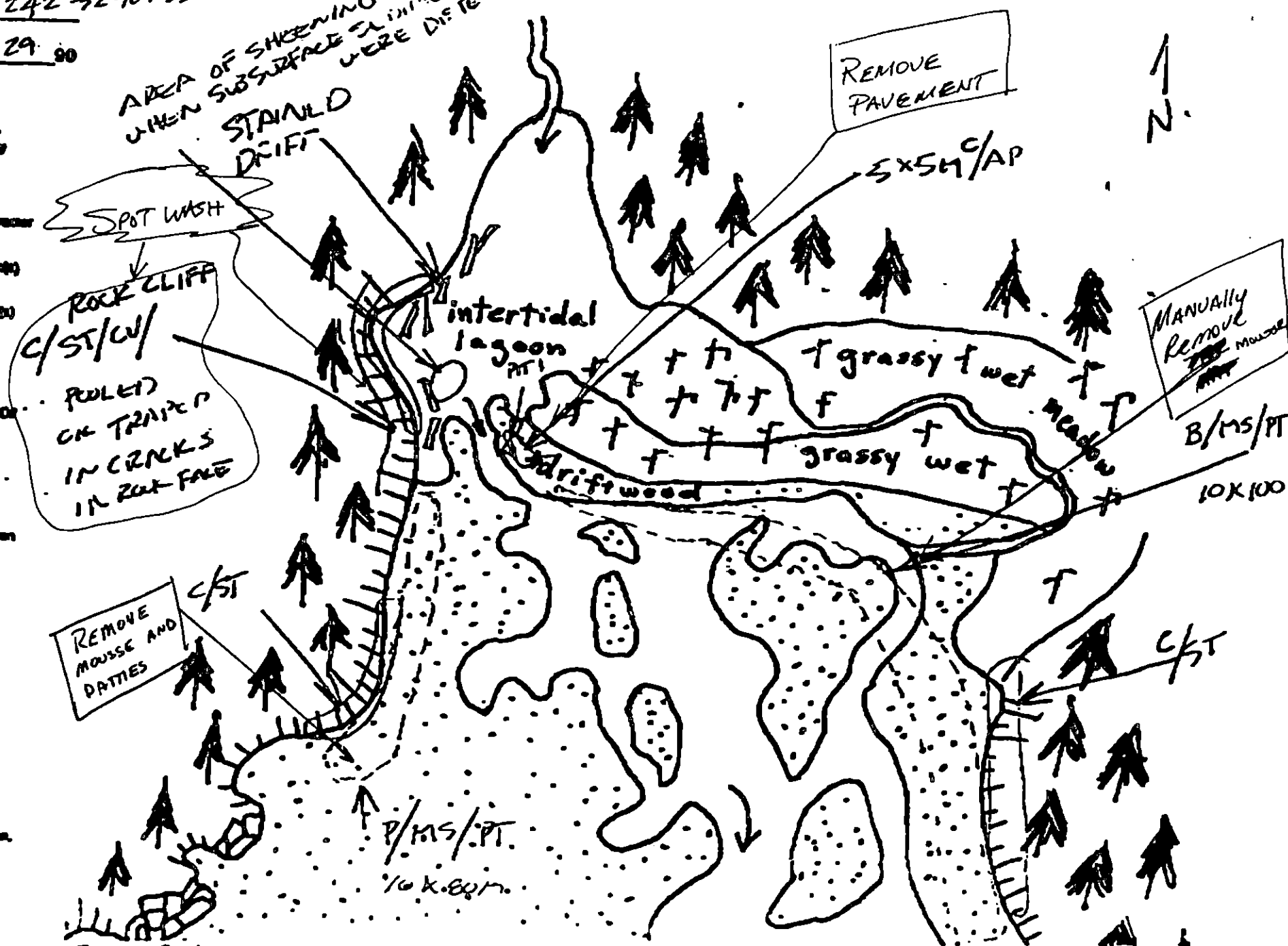
CHECKLIST

- H Annot
- Appr. Scale
- Spot/Sub Entry
- Oil Del.
- Wash
- Length
- % Cover
- Substrate Character
- Est. MVL/LWL
- SSL
- Profile Location(s)
- Profile(s)
- P/L Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
- PI - No Substrate Oil
- 2 Δ
- PI - Substrate Oil
- CT/C
- Continuous Distribution
- CT/B
- Isolated Distribution
- CT/P
- Wedge Distribution
- CT/S
- Plashed Distribution
- lll
- Red Vegetation
- 1 00
- 100 location, direction, & number

SKETCH MAP



Character Length (m): AP 5 PO ? CV 50 CT BT 10 W 25 PT 20

9/1
Seg ID: WB-001 Subdiv: No ASC #
Survey Date: 4/29/90
Comments by: Ken Critchlow

This high energy site was apparently oiled during a very high tide and/or storm that resulted in deposition of oil in the lagoon above the beach storm berm. The stream discharges across a broad area of beach below the storm berm. In this region a narrow band of mousse/patties was observed in the WITZ along both shores. Oil stain was also noted in the same locations. The storm berm adjacent to the right (east) bank was partially covered by asphalt pavement. The lower half of the lagoon on the west side was characterized by pooled oil trapped in cracks, stain and cover. Within the lagoon, disturbed sediments produced sheen; logs were stained.

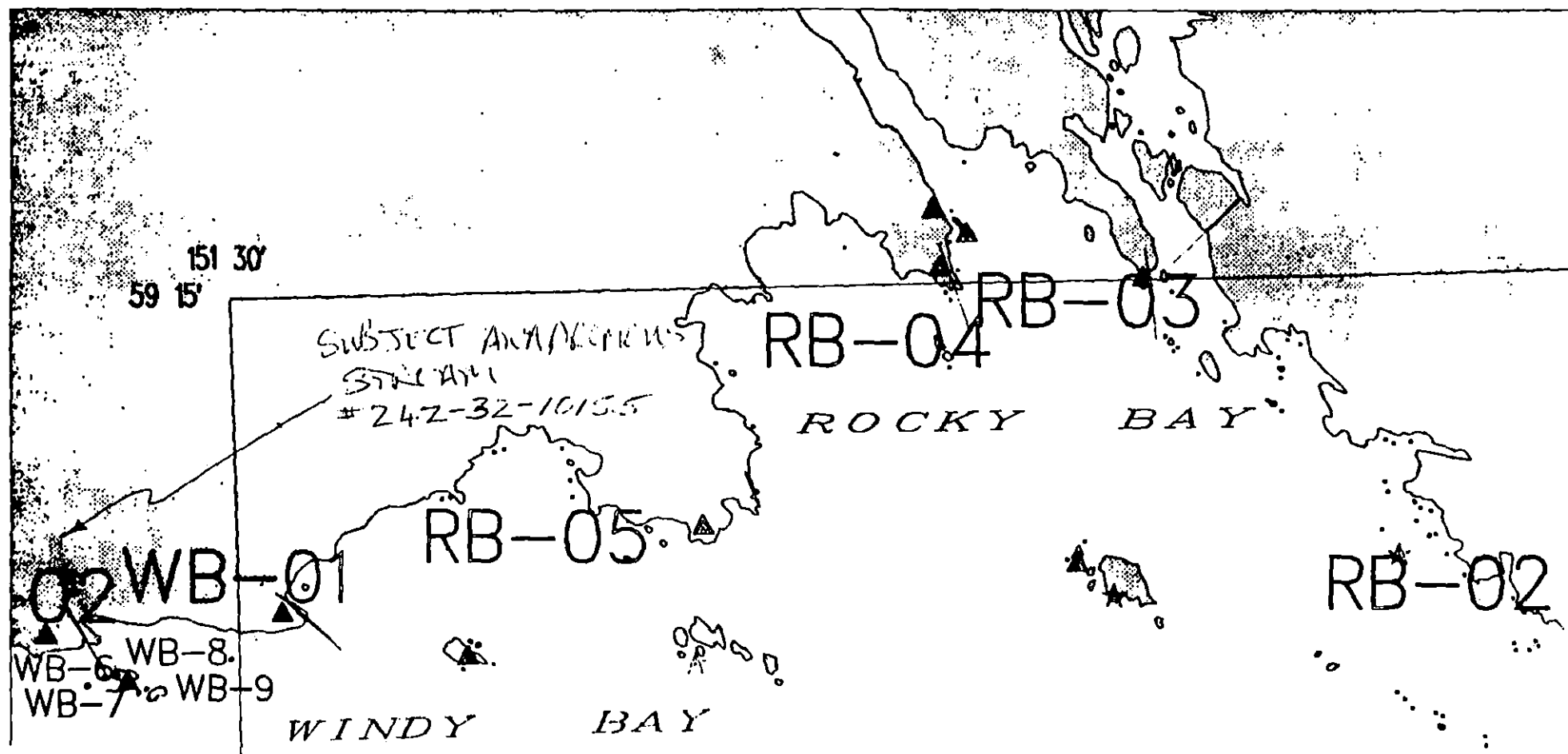
I recommend that mousse/patties along the shores below the storm berm be removed by shovel. The asphalt pavement in the storm berm can also be removed by shovel; a pit in this location didn't indicate subsurface oil. Sediments that produce sheen in the lagoon should be removed by shovel. Pooled oil in rock cracks may be removed using trowels and subsequently
limonite stained

57 1 1A 11
17+

WIK 1

Submission # A
(SUBS TO CI - SECRET)

SE EAGLE NESTS



ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 242-32-10155

SEGMENT WB-1 SUBDIVISION A

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Spot Washing	OPEN
Bioremediation More Than 100m From Stream	OPEN
Bioremediation Less Than 100m From Stream	WORK PRIOR TO 7/1 (ADF&G MONITOR REQ.)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- 1A,1B Salmon Stream** ADF&G catalogued anadromous stream (242-32-10155) is in Subdivision A. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation and are permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream. No constraint to manual pickup, tarmat removal or spot washing.
- 1J Purse Seine Area** No constraint to manual pickup and tarmat removal. Closed to bioremediation and spot washing after 7/1.
- 5T Bald Eagle Nest** NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/1. No disturbance to stream bed or bank. No flushing of pollutants or sediment into stream drainage; do not allow Inpol to enter stream flow. On-site examination and consultation by ADF&G monitor is required prior to bioremediation in order to authorize a setback distance from the stream during chemical application; if ADF&G monitor's presence is impossible, authorization may be given by the ADEC monitor. Avoid any unnecessary disturbance or damage to unloiled biota and substrate.

SEE SUBDIVISION CONSTRAINT ADDENDUM WB-1A
FOR ADDITIONAL CONSTRAINT INFORMATION.

TAG APPROVAL DATE 5/29/90
ADEC ART WEINER
EXXON ANDY TATE
NOAA B. J. RYAN
USCG G. A. RYAN

FOSC

[Signature]

DATE

5/29/90

Incorporates information from
USFWS Bald Eagle Survey 5/19/90.

Anadromous
Stream
242-32-10155

Work Area

Inactive
Nest

Inactive Nest

NO Nest Observed
No Adults
seen

WB-01

Active
Nest

Active
Nest

Inactive
Nest



Exxon Company, USA
Map Key: KEN-WB-1



ECOLOGY MAP 5/28
SEGMENT WB-1
SUBDIVISION A (1.01.2)
METERS



Seabird Colony



Eagle Nest

1 inch = 1000 feet

SHORELINE EVALUATION

SEGMENT ST/ WB-01 SUBDIVISION B (2 OF 2) DATE 4/8/90

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)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

SHPO SIGNATURE: Charles J. Holman

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 199 m: No Oil 146 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

 Bioremediation

X Tarmat: Breakup

 X Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommend manual pick up of oiled debris and trash. Work
should be conducted between 5/16 and 7/9 due to salmon stream con-
straint. MANUAL PICKUP OF SMALL ASPHALT SPOT.

TAG COMMENTS:

TAG APPROVAL DATE: 4/20/90

ADEC

Art Weikert

EXXON

Andy Teal

NOAA

Burt Wescott

USCG

Kenneth Keane

FOSC:

DATE: 5-12-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST WB-1 SUBDIVISION: B DATE 4/8/90

USCG

NAME R. Bryan Hirtle SIGNATURE R. Bryan Hirtle☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Agree with Shoreline Oiling Summary
Sheet.

only Clean up is small amount of
Oily debris, left from clean up crew
last year

ADEC

NAME Russell Kuni'be SIGNATURE Russell Kuni'be☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Pick up pom-poms and oily net. otherwise
treatment recommended.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

pick up oiled debris in subdivision WB-1-B

SHORELINE OILING SUMMARY

REVISION NO. 03/02/90

OG Randy Siegel USCG Bryan Kittle SEGMENT ST/ WR-1 (2 1-6)
 BIO Mike Fawcett LAND REP Pat Verman (PGVC) SUBDIVISION B (2 7 2)
 EXXON John Dean ADEC Russell Knicker TIME 0:30 to 11:00
 TEAM NO.: 17 TIDE LEVEL: +3.6 to +6.2 DATE 4 / 9 / 90
 EST. SUBDIVISION LENGTH: 13.450 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 40 % B 40 % C 10 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 40 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M N/A m N N/A m VL 320 m NO 130 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	R	OP	OR	OL	OP	OR	OL	OP	OR	SU	U	M	U
ASPHALT PAVEMENT				X									X			
POOLED																
COVER																
COAT				X					X				X			
STAIN				X					X				X			
MOUSSE																
PATTIES																
TARBALLS				X					X				X			
FILM																
NO OIL													X		X	X

PAVEMENT: H (F) S 0 sq. m by 2 cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? (NO) BR RW SL IL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS _____

Photographs:

Roll No. ST-17-5Frames 25, 26, 27, 28, 29SUBSURFACE OIL No pits dug

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW	OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO			UO	UC	OP	OR	OL	OP	OR	OL	SU	U	M	U		
D							.															
							.															
							.															
							.															
							.															
							.															

COMMENTS This subdivision consists of a long stretch of south-facing shoreline. Much of the eastern portion of the subdivision contained hi-angle or vertical rock cliffs and was not accessible. Very light oiling (occasional stains and coats) were present along some of the western portion, and no oiling was observed in other portions.

OG Ran Singer

SEGMENT ST-UB-1

SUBDIVISION B

DATE 4 / 8 90

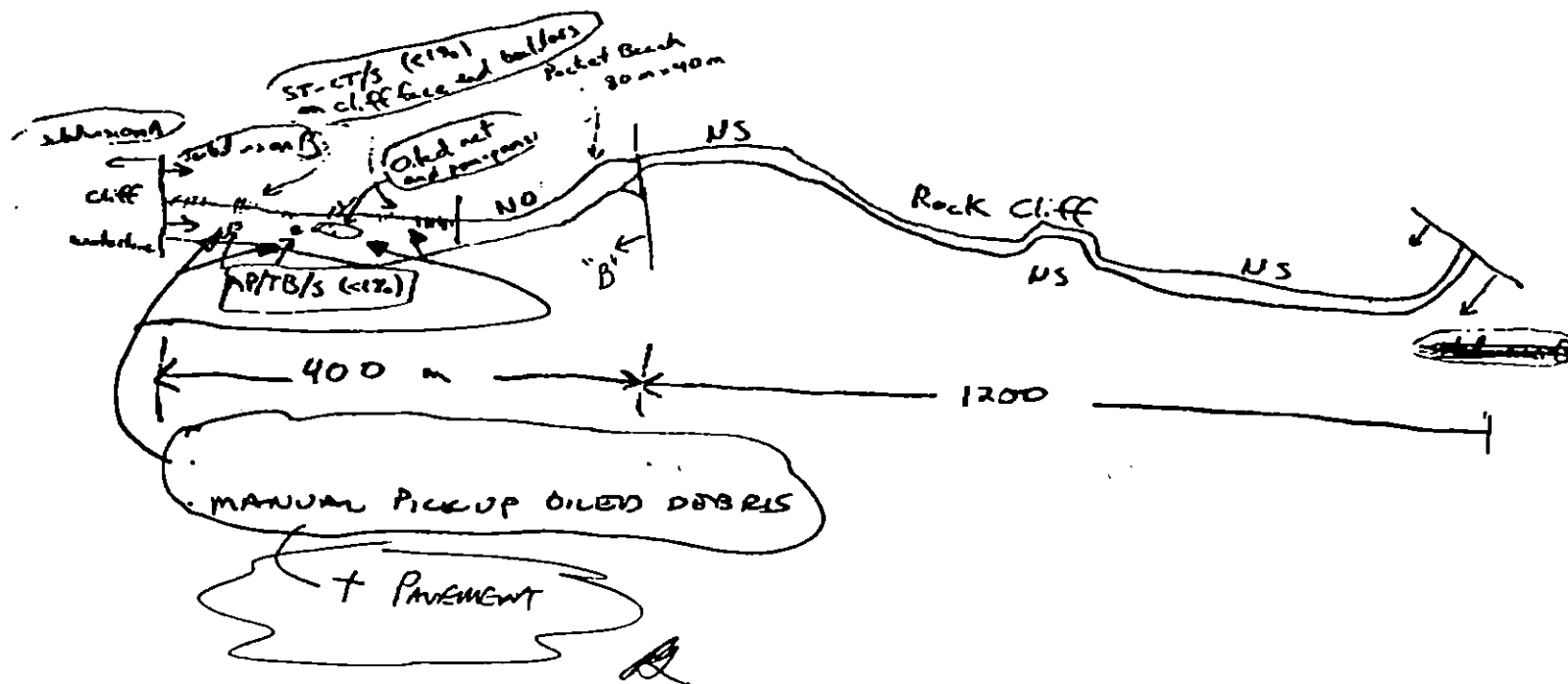
CHECKLIST

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

LEGEND

- 1 Δ
PR - No Subsurface Oil
- 2 Δ
PR - 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

SKETCH MAP



SHORELINE ECOLOGICAL SUMMARY

REVISION: 07-77

Segment ST WB1 Subdivision B Date (mo / day / yr) 4/8/90Time (24 hr) 1015-1035 Biologist M. H. Fawcett(A) Substrate type and % of segments:
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt 0
(included g. gravel)(B) Overall % cover of biota (% of segment): Dense Moderate Low ✓

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

Photographs:
Roll No. ST-17-5Frames 25-29

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

biota generally much less abundant than in subsection WB1A

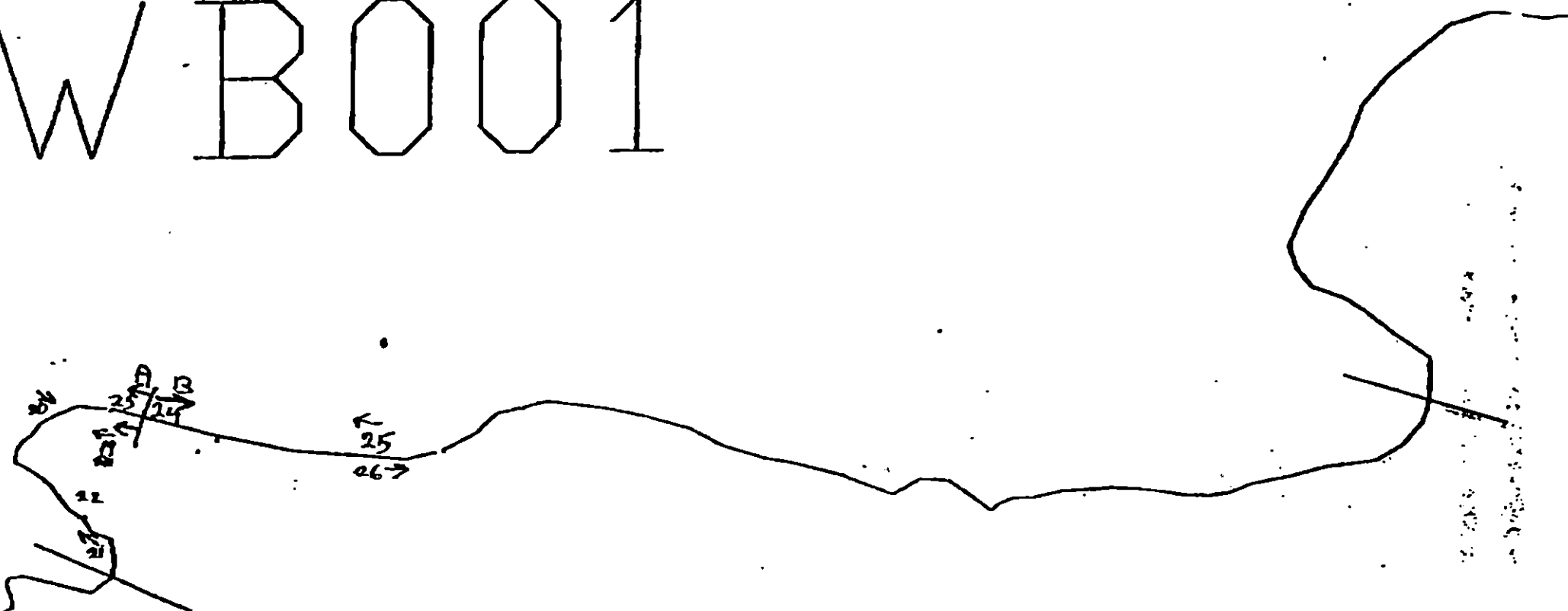
Ecological Considerations:

none

Photos: ST-17-5

Frames 19-29

WB001

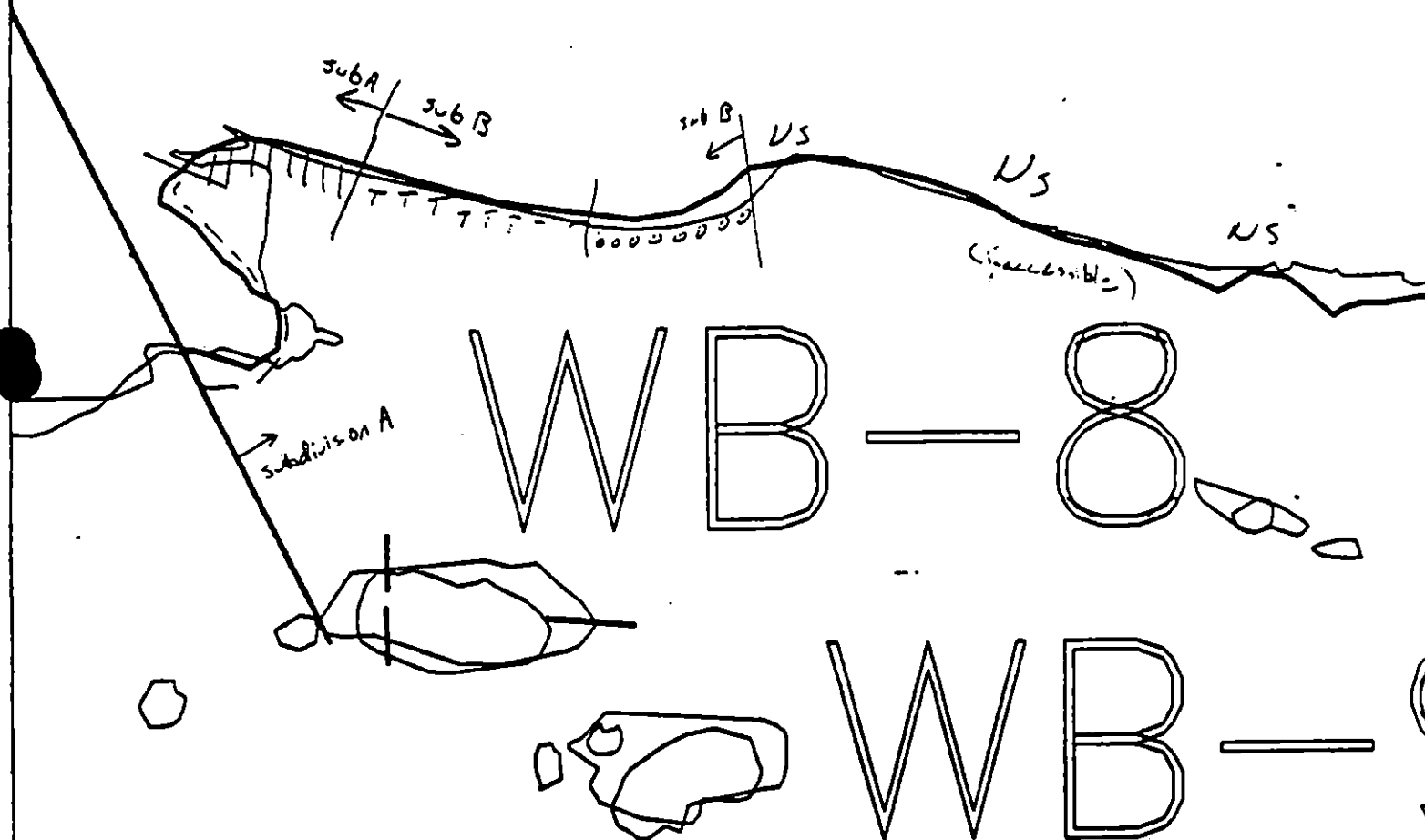


OILING	
H	Heavy
M	Moderate
L	Light
VL	Very Light
N	None
NS	Not Surveyed

27-29 (aerial)
500'

500.0

WB-C



WB-

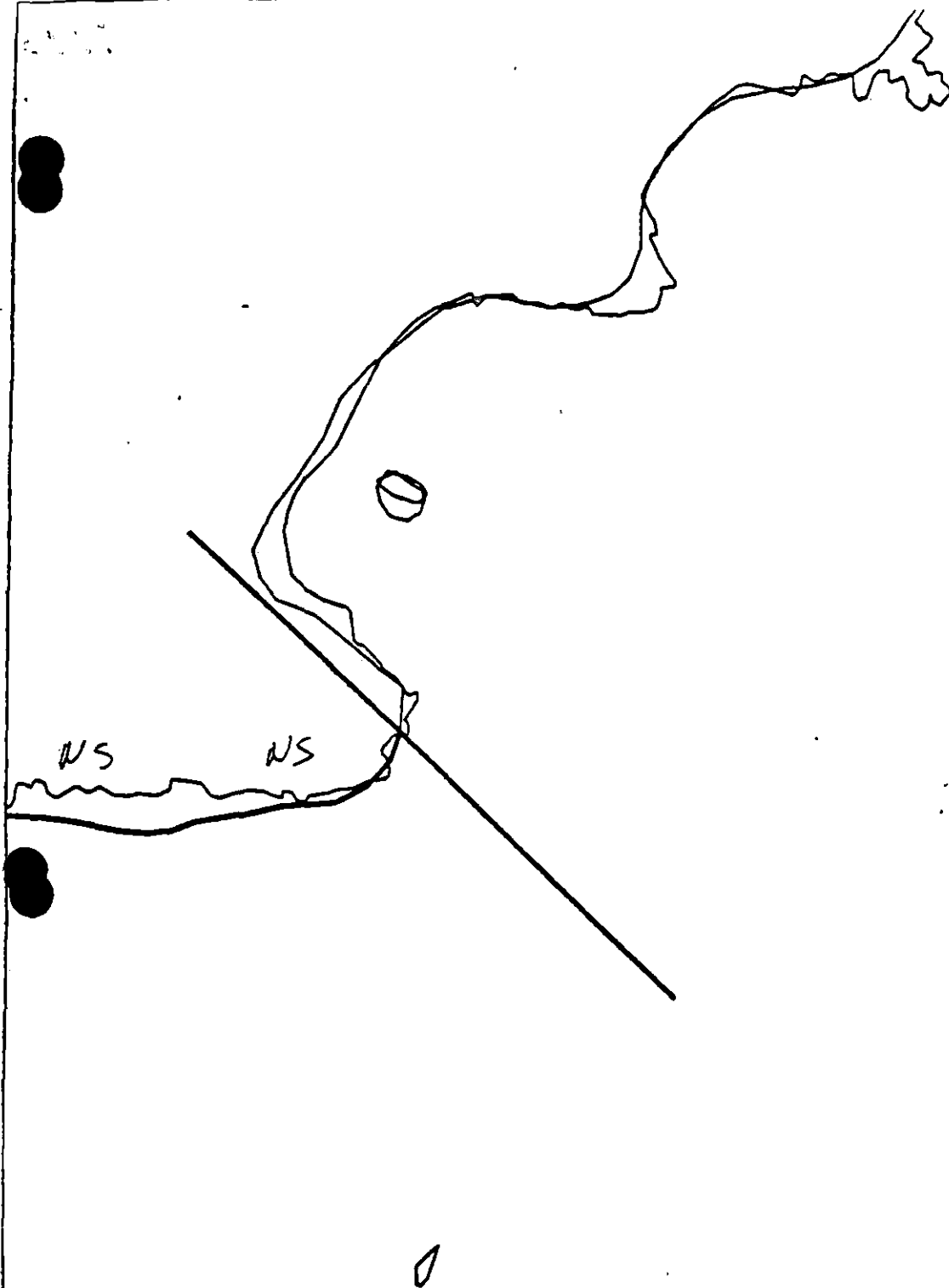
XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

WB-1

EXXON Segment Length: 2116m
 Scale 1" = 500'



Map Key: PWS-WB-1a
 Name: Bob Smith
 Date: 4/3/90
 Data Entered:



XXXX Wide

//// Medium

--- Narrow

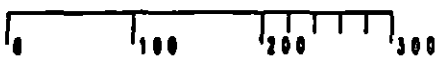
TTTT Very Light

0000 No Oil

WB-1

EXXON Segment Length: 2116m

Scale 1" = 500'



METERS



Map Key: PWS-WB-1b

Name: R. L. Lenz

Date: 11/2/82

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-1 SUBDIVISION B (2 of 2)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon stream	NO CONSTRAINT. ADF&G catalogued salmon stream (242-32-10150) is located in Subdivision A more than 100m from recommended treatment area.
1J	Purse Seine Area	No constraint to manual pickup or tarmat removal.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG ADDENDUM DATE 5/29/90
ADEC Art Weiner Art Weiner
EXXON Andy Teal Andy Teal
NOAA Balecroft Balecroft
USCG G.A. Reiter G.A. Reiter

FOSC

DATE

5/29/90

Prepared by:

Anders Mager Rex C.

Date:

5/28/90

Incorporates information from
USFWS Eagle Survey 5/19/90

ANADROMOUS STREAM
(242-32-10150)
100m ZONE

WB-01

TREATMENT
AREA

Inactive
Nest

Active
Nest

Active
Nest

Inactive
Nest

Inactive
Nest

NO NEST
Found



ECOLOGY MAP
SEGMENT WB-1

5/26

SUBDIVISION B (2 of 2)



Seabird Colony



Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ WB-02 SUBDIVISION A (1 OF 6) DATE 4/1/90

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

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

SHPO SIGNATURE: Charles E. Homan DATE: 4/20/90

OILING CATEGORIZATION:

Wide 43 m: Medium 112 m: Narrow 27 m: V. Light 171 m: No Oil 81 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

+ TARBALLS + PATTIES

COMMENTS: The recommended treatment activities are as follows: 1) Tar-
mat removal, 2) Manual pick up of mousse and pooled oil (see attached
sketch map for specific locations), and 3) bioremediation of areas
where pooled oil has been removed. No specific time constraints have
been identified. SPOT WASH AS REQUIRED PRIOR TO BIOREMEDIATION

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/19/90
ADEC Art Weimer
EXXON Andy Tate
NOAA Burt Worrell
USCG KENNETH KEANE

FOSC: h L DATE: 5-12-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST WB-002 SUBDIVISION: A DATE 4-1-90**USCG**NAME R. BRYAN HURTLE SIGNATURE R. Bryan Hurtle☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I agree with the findings of the shoreline
oiling summary sheet for WB-002 subdivision A

ADECNAME Russell Kunitz SIGNATURE Russell Kunitz☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

See attached 1 sheet

LAND MANAGERNAME Patrick Norman SIGNATURE Patrick Norman☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Recommend manual pick up of patties and matts in subdivision A.
also follow up with bioremediation.

Segment WB-2 Subdivision A Date 4/1/90

ADEC Russell Kunibe Signature *Russell Kunibe*

Description:

The oiling which remains in this subdivision is weathered mousse in the sediments around and under the boulders and cobbles. This oil is found on the pocket beaches in the UITZ and MITZ.

Recommendations:

Manual pick up and break up of the mousse and tar mats where possible. Because the mousse is under and around small boulders and cobbles washing may be needed. This would be especially true if the mousse-asphalt becomes more mobile in warmer weather. After much of the gross contamination has been removed bioremediation may be needed.

SHORELINE OILING SUMMARY

REVISION NO. 02/20/90

OG Randy Siegel USCG Bryan Hirtle SEGMENT ST/ WB-2 (4)
 BIO Mike Fawcett LAND REP Pat Norman (Pave) SUBDIVISION A (11' x 4)
 EXXON John Dean ADEC Russell Kumbhe TIME 9:00 10:30
 TEAM NO.: 17 TIDE LEVEL: +6.6 to 0.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 613 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 15 % B 60 % C 10 % P 10 % G 4 % S 1 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 60 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 50 m M 163 m N 87 m VL 243 m NO 65 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	R	B	P	C	1	2	3	4	5	6	SU	U	M	V
ASPHALT PAVEMENT	+		✓	X		X					X	+		
POOLED			X							X				X
COVER														
COAT	+	X	✓	!		++		++			+	+	✓	
STAIN	+	X	✓	!		++		++			+	+	✓	
MOUSSE	+		✓	X						+	X	+	✓	
PATTIES		✓	X			x✓		X			x✓	X		
TARBALLS		✓	X			x✓		X			x✓	X		
FILM	✓		X					✓			✓			
NO OIL											✓			

PAVEMENT: H (F) S 200 sq. m by 1 cmPATTIES / TARBALLS 50 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. ST-17-3Frames 1-21

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-GM)	BELOW	OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			1	2	3	4	5	6	SU	U	M	V		
1	30					X	0-0	X							X					P, G
2	12					X	0-0	X							X					C, G
3	12					X	0-0	X							X					C, G
4	10					X	0-0	X							X					C, G
5	15					X	0-0	X							X					C, G
						✓														

COMMENTS

This subdivision consisted of a narrow (typically less than 10 m) pocket of bedrock/boulder beach, occurring between the waterline and low/high tide marks. Pocket beaches were nested into the bedrock cliffs, and most oil was concentrated within the pocket beaches, particularly in an 8-10 m section along the U.I. Some staining and coating of beach sediments and boulders near the cliffs was observed between the nested beach.

See next
 page for
 comments
 LCB
 610-90

COMMENTS

This subdivision consisted of a narrow (typically less than 10 m) stretch of bedrock/boulder beach, occurring between the waterline and low/hi-angle cliffs. ~~Some~~ Pocket beaches were incised into the bedrock cliffs, and most ciling was concentrated within the pocket beaches, particularly in an 2-10 mch - band along the U.I. ~~Some~~ Some staining and coating of ~~some~~ cliffs and boulders near the cliffs was ^{also} observed between the incised beaches.

4/1/88
Randy Siegel

WB-2

Total Oil Character Length For Each Subdivision

<u>Subdivision</u>	<u>AP</u>	<u>PO</u>	<u>CV</u>	<u>CT</u>	<u>ST</u>	<u>MS</u>	<u>PT</u>	<u>TB</u>	<u>FL</u>	<u>NO</u>
A	50	N/A	N/A	350	350	75	150	150	20	75 65
B	35	N/A	N/A	60	60	20	20	20	10	30
C	150	N/A	N/A	500	500	150	150	150	N/A	30

OG Randy Siegel
 SEGMENT ST/ AWB-2
 SUBDIVISION A
 DATE 4 / 1 / 90

2 cm = 6 m
 Approximate
 Scale



SKETCH MAP

#1

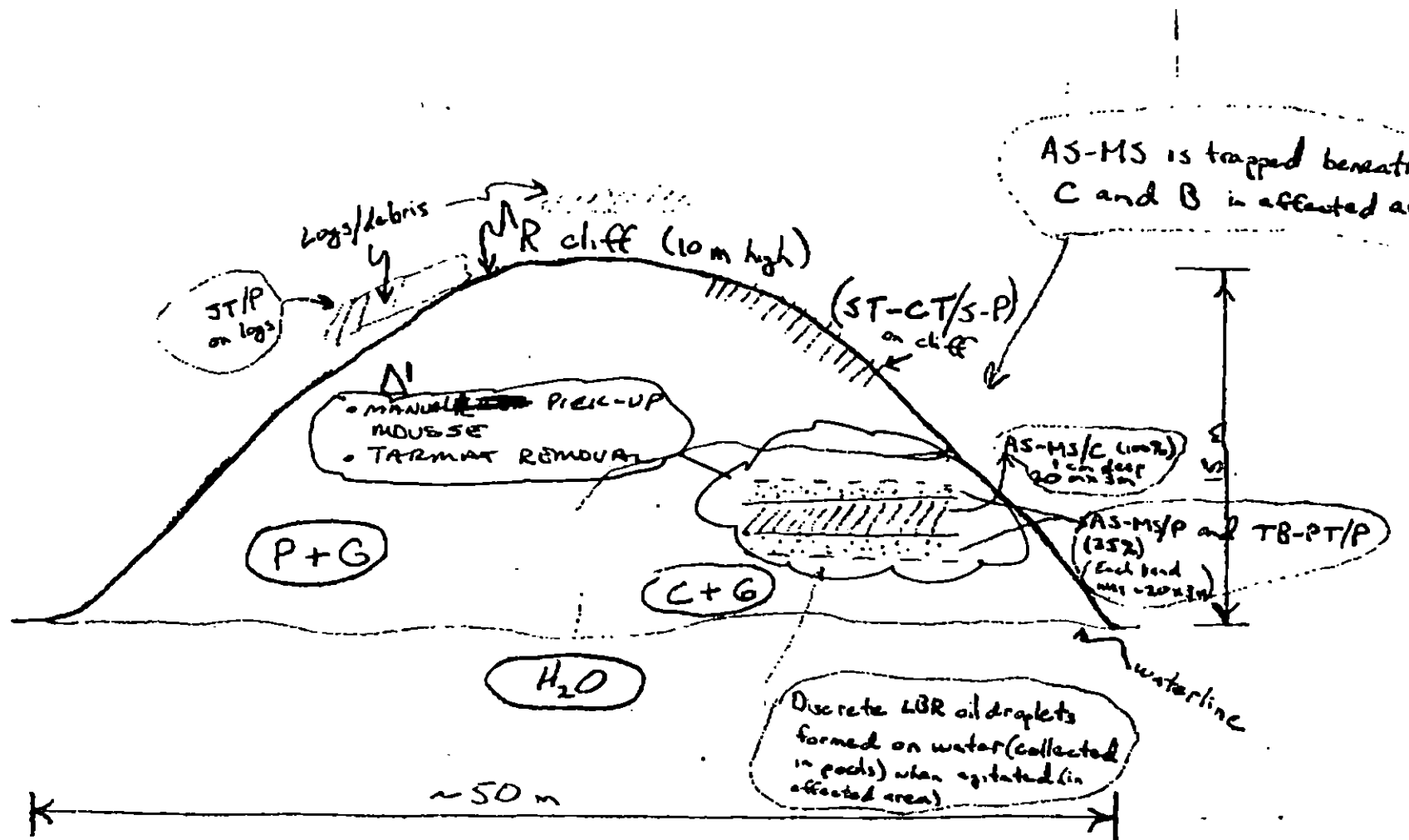
Part of Subdivision A

CHECKLIST

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

LEGEND

- 1 Δ
 P/I - No Subsurface Oil
- 2 Δ
 P/I - Subsurface Oil
- $\square$ CT/C
 Continuous Distribution
- $\square$ CT/B
 Broken Distribution
- $\square$ CT/P
 Patchy Distribution
- $\square$ CT/S
 Splashed Distribution
- $\rightarrow$ Oil Vegetation
- 1 $\rightarrow$
 Photo location, direction,
 and number



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

OG Randy Siegel
 SEGMENT ST/ WS-2
 SUBDIVISION A
 DATE 4/1/90

N
 2 cm = 6 m
 App. Scale

SKETCH MAP

#2

Part of Subdivision A

CHECKLIST

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

LEGEND

1 Δ

Px - No Subsurface Oil

2 Δ

Px - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

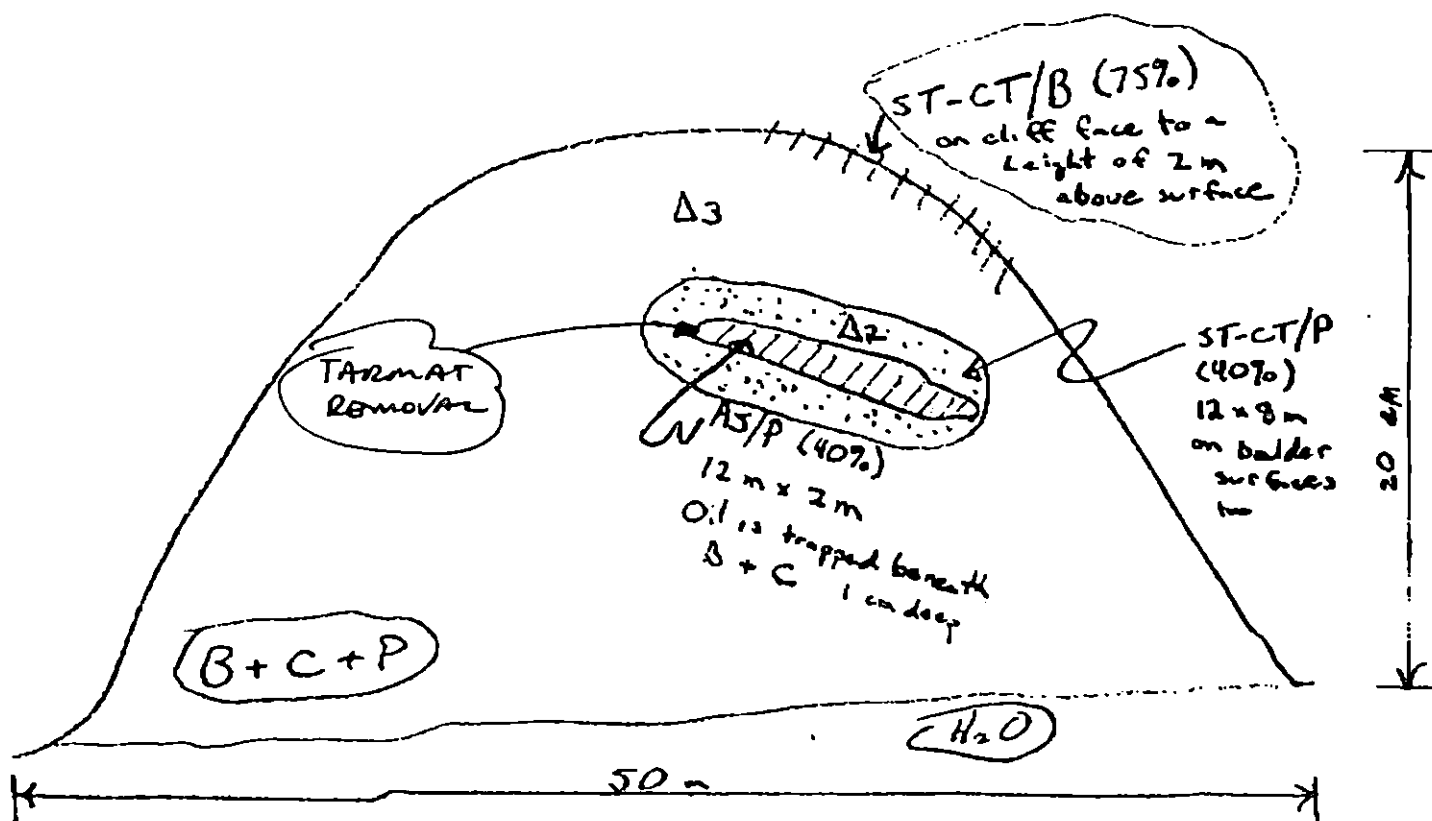
CT/S

Splashed Distribution

Oiled Vegetation

1 →

Photo location, direction, and number



OG Randy Siegel

SEGMENT ST/ WB-2

SUBDIVISION A

DATE 4/1/90

CHECKLIST

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

LEGEND

1 Δ

PI- No Subsurface Oil

2 Δ

PI- Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oiled Vegetation

1 →

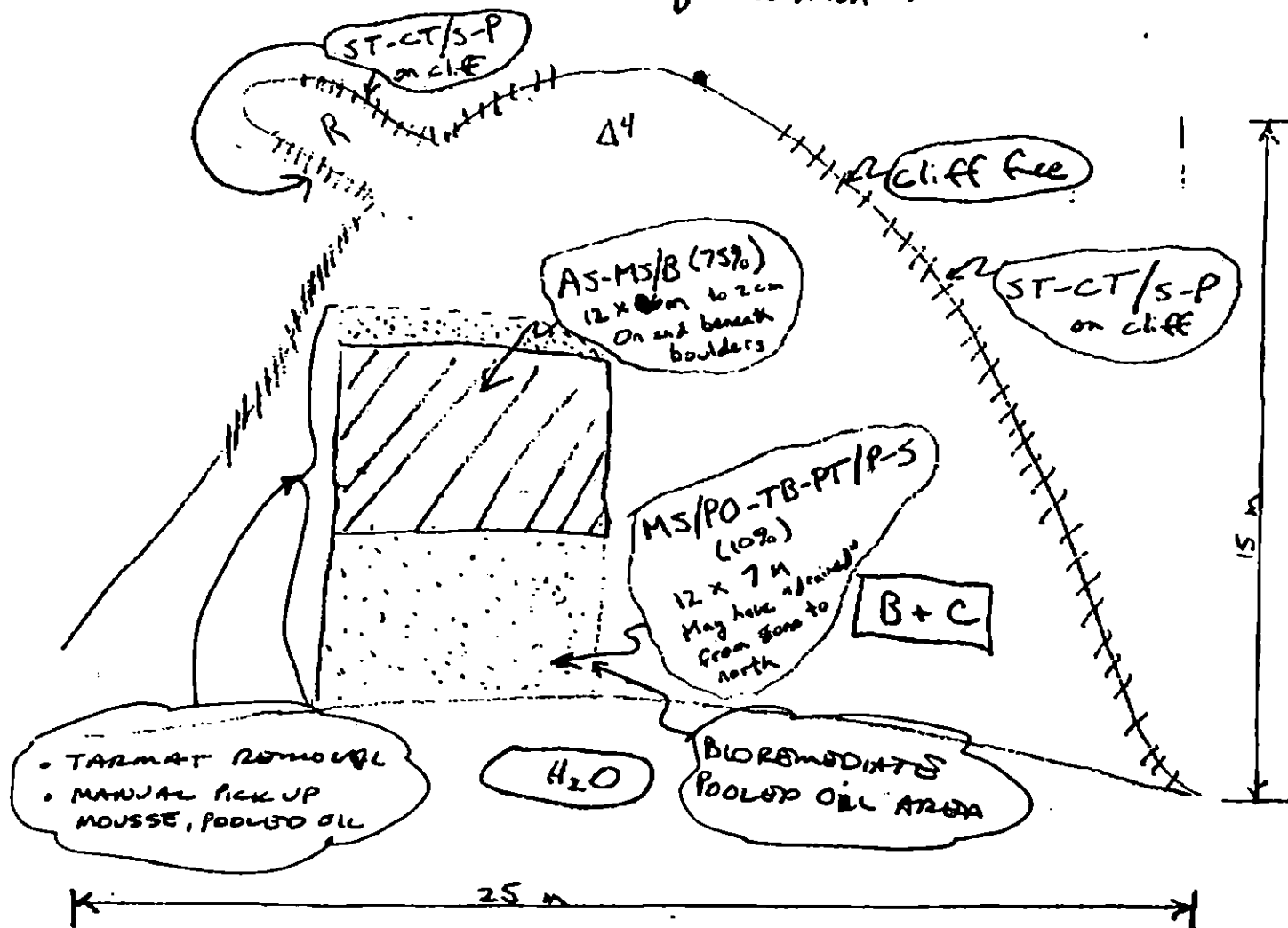
Photo location, direction,
and number

2 cm = 3 m
App. Scale

SKETCH MAP

#3

Part of Subdivision A



Oil Character Length (m): AP 12 PO 12 CV 12 CT 20 ST 20 MS 12 12 TB 12 PL 12 NO 5

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / WB002 Subdivision A Date (mo / day / yr) 4/1/90Time (24 hr) 1000-1100 Biologist M. Fawcett(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 60 (3) Cobble 10 (4) Pebble 14 (5) Sand 1 (6) Silt 0
(incl. gravel)(B) Overall % cover of biota (% of segment): Dense Moderate ✓ Low

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

Photographs:
Roll No. ST-17-3Frames 1-11

BARNACLES

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

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	X	2	2	2
3	3	3	3	3	3	X	3	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

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

see attached sheets

Ecological Considerations:

No sensitivities listed

WB 002 A, B, C
Windy Bay

M. Fawcett

1 April 90

P. 1 of 2

Wildlife Observations

This segment consists of vertical faces and large boulder outcrops separated by pocket beaches comprised of boulder cobbles, and pebbles, with sand/silt matrix beneath. In the mid- and low intertidal zones on the beaches a well-developed infaunal community lives buried below the boulders and cobbles (clams, echinuroids, worms, etc). There is also a rich infaunal community in the low intertidal mudflat indicated on the sketch map for subsection B. Numerous craters in mudflat indicate sea otters have been digging clams recently. There are high densities of mussels and barnacles on bedrock and boulders in the mid-intertidal, especially on the more exposed outcrops. There are also locally dense areas of Fucus. Other than Fucus, algae are sparse and not very diverse in this area, as is typical of quiet bays. The mussels mainly range from 2 to 6 or 7 mm in length, the smaller ones probably representing settlement from last summer or fall. In middle and upper zones, Balanus glandula often very dense, B. cariosus locally dense in lower zone. On one cobble beach about 120m west of seaward end of

on top of a heavy layer of mousse embedded in the surface sand at about the +6-7ft tide level. Removal of this mousse would require destruction of the mussels. Some barnacles (B. glandula) in upper intertidal zone on bedrock faces in subsections B and C of the segment are heavily coated with weathered oil. Barnacle scars on rock indicate up to about 50 percent mortality in small patches at upper fringe of distribution, but the causes of mortality could be either suffocation by oil or natural physical factors (weather extremes) which typically have the greatest effect on barnacles near the upper limit of their vertical distribution. The stream at the western end of subsection C appears too small for use by anadromous fish. Few birds seen, possibly owing to clearcut logging operation underway just above the shoreline in section C.

SM-1 = see sketch Map 1

Photos
ST-17-3

frames 2-21

subdivision C
subdivision B
subdivision B
subdivision A

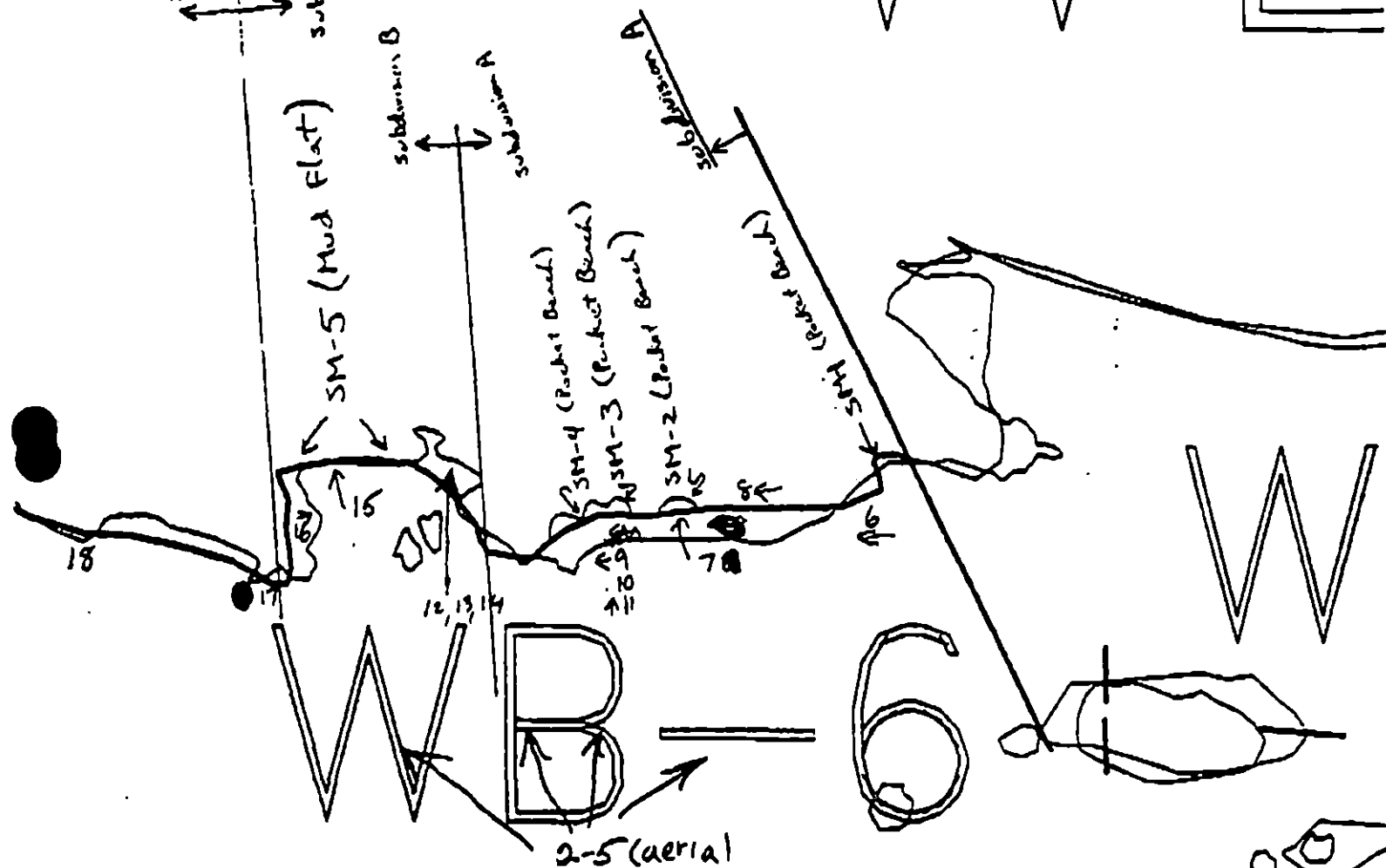
SM-5 (Mud Flat)

SM-4 (Pocket Beach)

SM-3 (Pocket Beach)

SM-2 (Pocket Beach)

SM-1 (Pocket Beach)



← KEN
145A

WB-7

WB-2

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

ADEC Segment Length: 2232m

Map Key: KEN-145b

Name: _____

Date: _____

SM-1 = see sketch Map 1

Photos
ST 17-3
frames 1-21



← KEN
145A

WB-2

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 2232m



Map Key: KEN-145b

Name: Andy Lacey

Date: 4/1/90

V V B

SM-5 See sketch map 05

subdivision C

SM-5
+ cross

KEN
1458 →

XXXX Wide

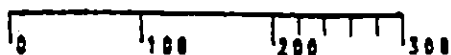
//// Medium

---- Narrow

TTTT Very Light

WB-2

ADEC Segment Length: 2232m



Map Key: KEN-1450

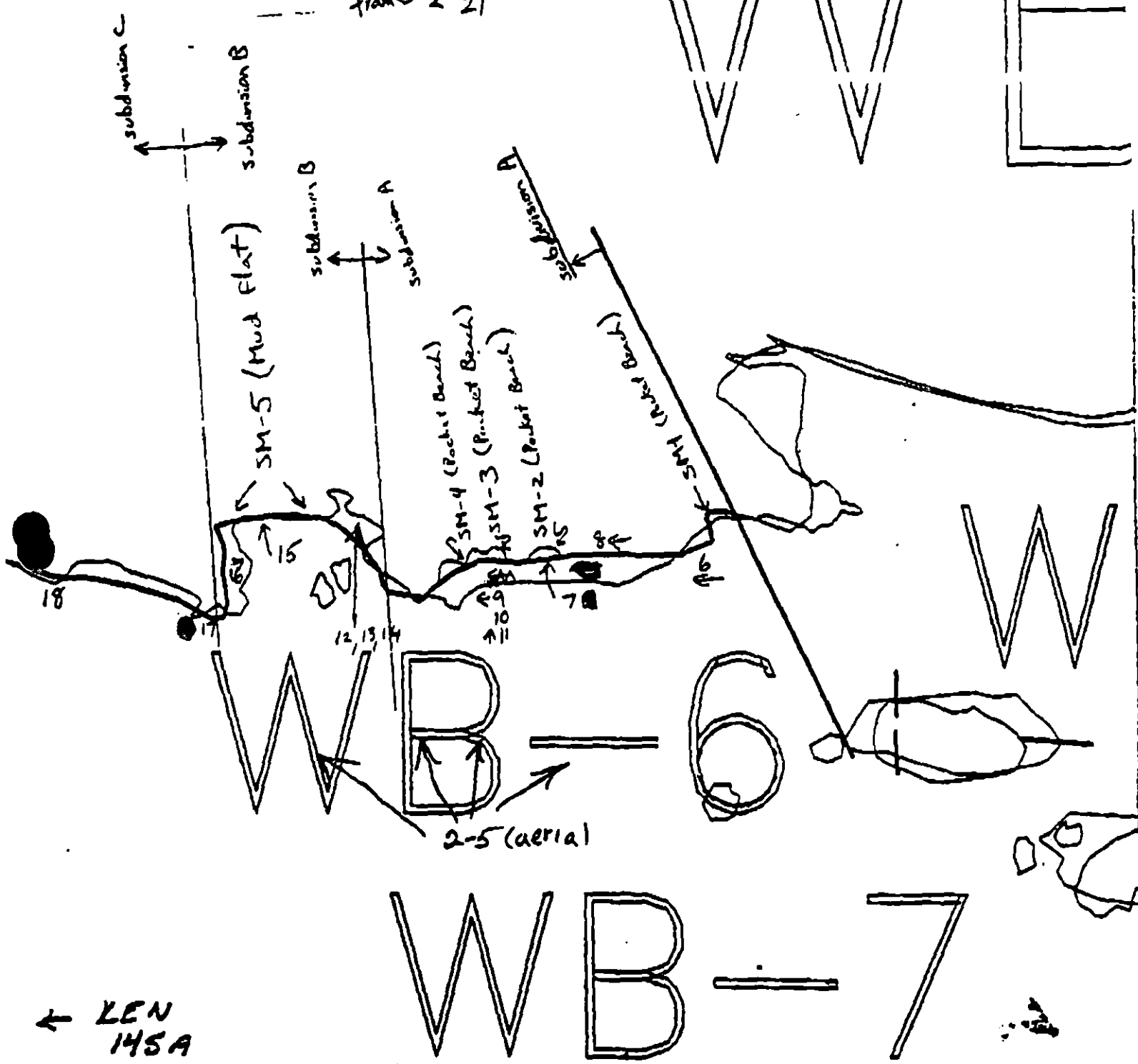
Name: Lady Bird

Date: 4/1/30

SM-1 = see sketch Map 1

Photos
ST-17-3

frames 2-21



← KEN
145A

XXXX Wide

/// Medium

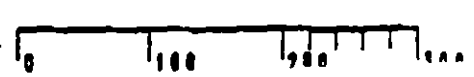
--- Narrow

TTTT Very Light

OOOO No. 1

WB-2

ADEC Segment Length: 2232m



Map Key: KEN-145b

Name: _____

Date: _____

WB

F. 21

submarine

20, 21

19 5M-6
+ 600

KEN
145B →

WB-2

ADEC Segment Length: 2232m

Map Key: KEN-145a

Name: _____

Date: _____

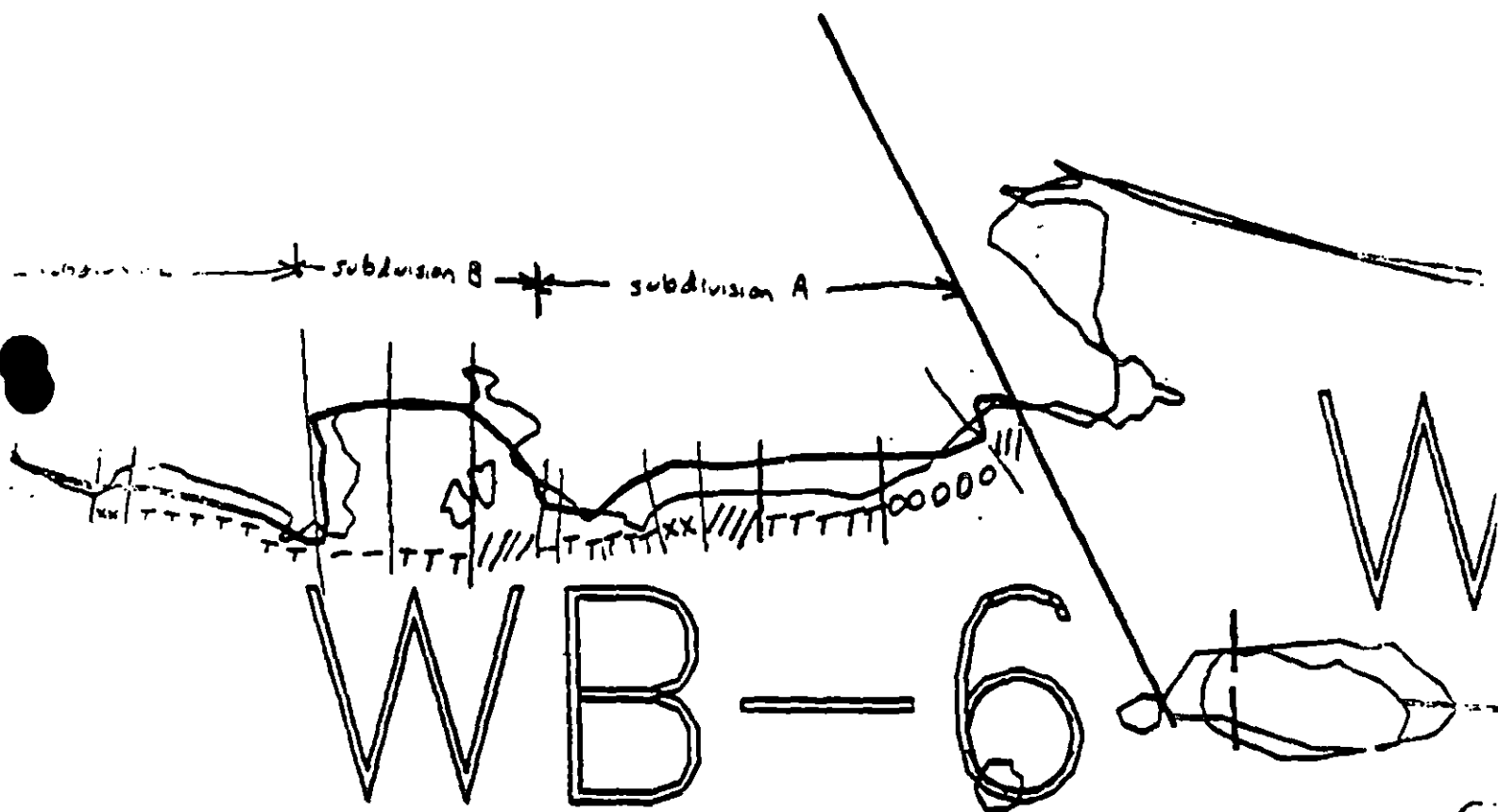
XXX Wide

//// Medium

--- Narrow

TTTT Very light

WE



WB-6

WB-7

2. KEN
145A

XXXX Wide
//// Medium
--- Narrow

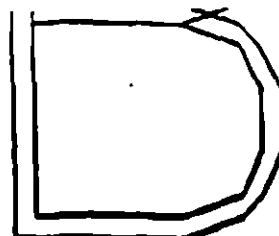
WB-2

ADEC Segment Length: 2232m

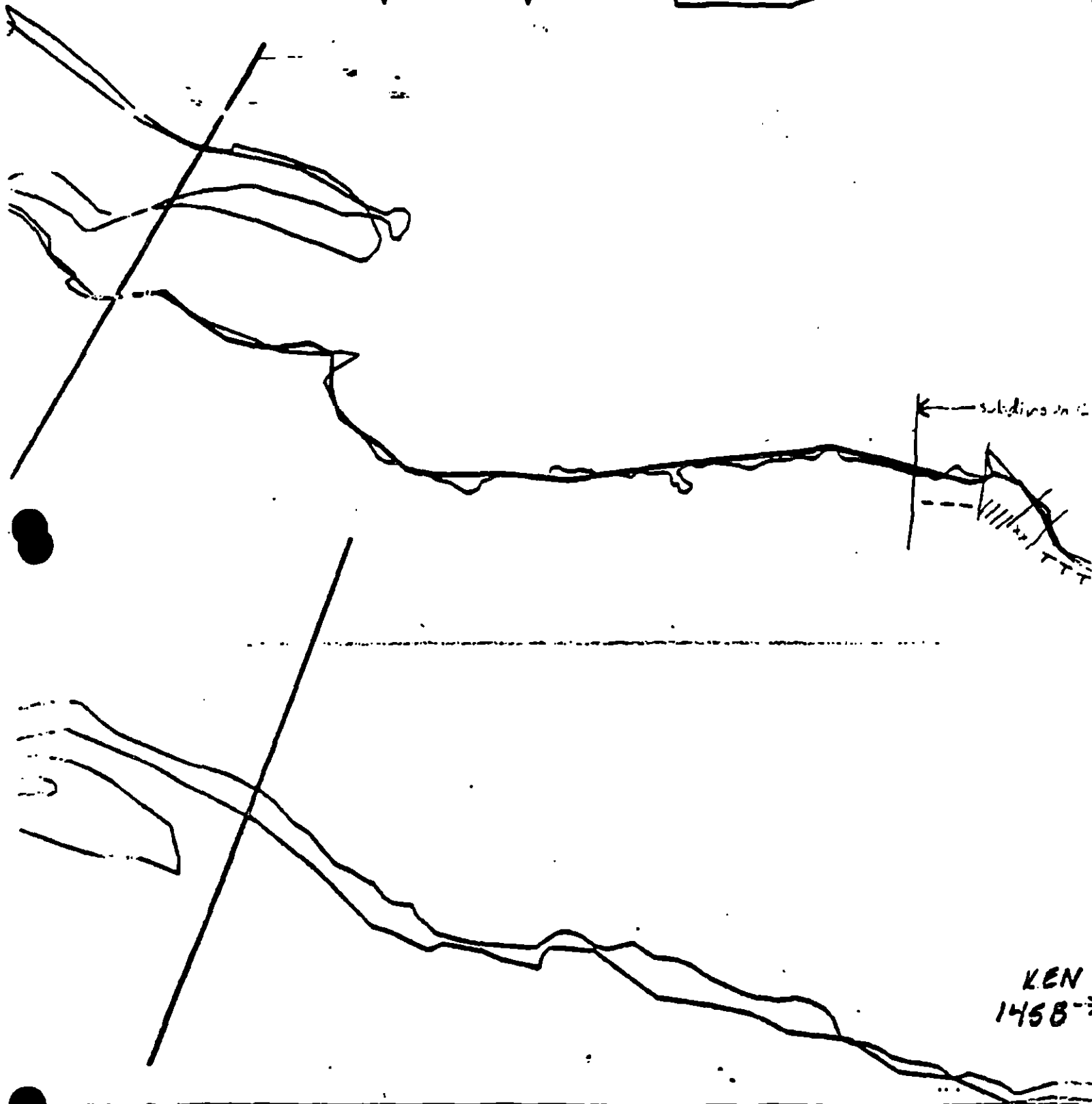
Map Key: KEN-145b

Name: Lib. Map

APR - 5-58 MON 15:40



1. 6. 4



KEN
1458-9

XXX Wide

//// Medium

--- Narrow

TTTT Very light

WB-2

ABEC Segment Length: 2232m

Map Key: KEN-1450

Name: Ruby Azevedo

Date: 4/1/70

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-2 SUBDIVISION A (1 of 6)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Spot Washing	WORK PRIOR TO 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|------------------|--|
| 1J | Purse Seine Area | Closed to bioremediation and spot washing after 7/1. No constraint to manual pickup or tarmat removal. |
| 5T | Bald Eagle Nest | NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area. |

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE 5/29/90.
ADEC ART WIGMORE Art Wigmore
EXXON ANDY IGAR Andy Igar
NOAA BURROFF BURROFF
USCG G.A. REITER G.A. Reiter

FOSC

[Signature]

DATE

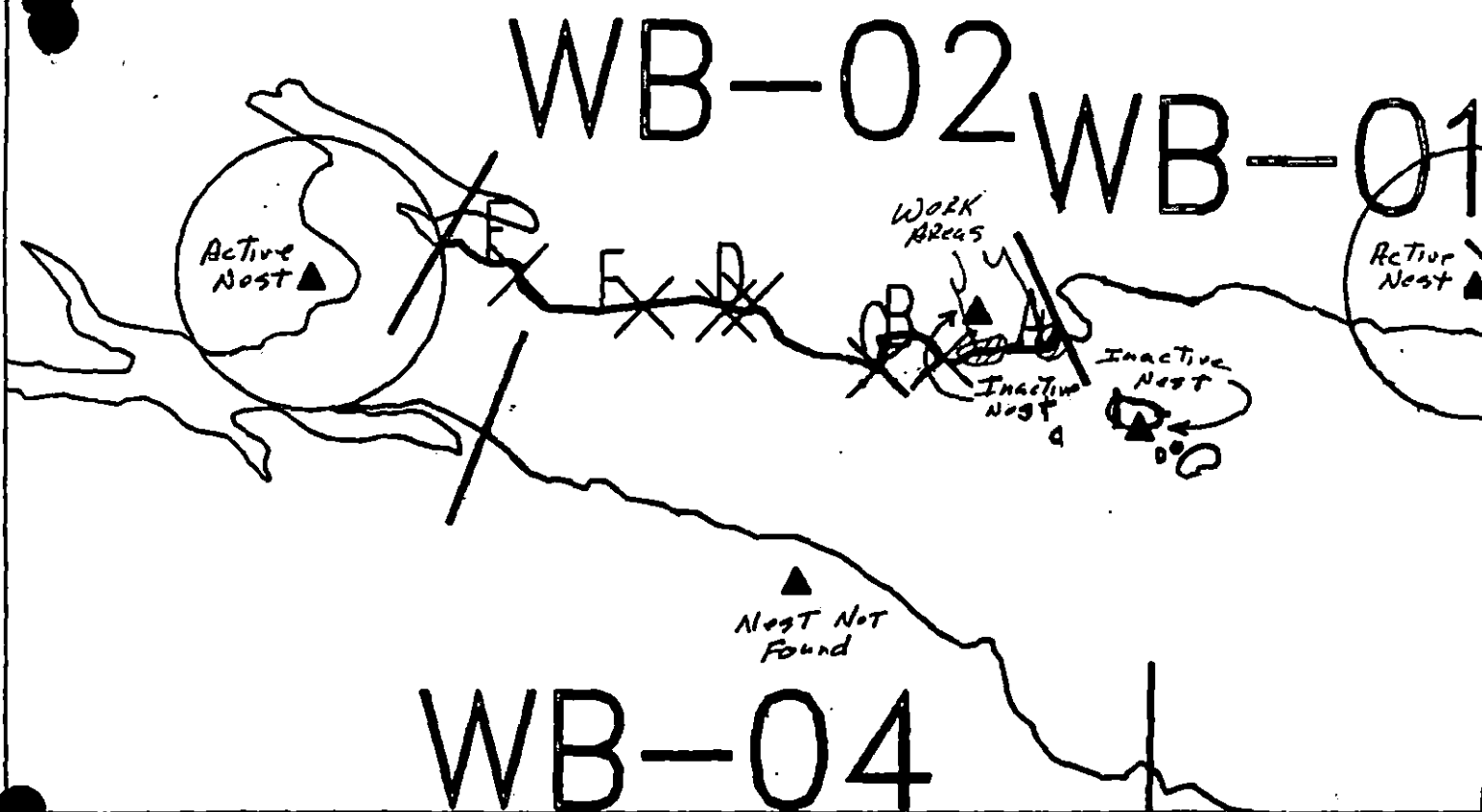
5/29/90

Prepared By: Andrea Meyer-Ross

Date

5/28/90

Incorporates information from
USFWS BALD EAGLE SURVEY 5-19-90



Exxon Company, USA
Map Kaul 1073-WB-2

ECOLOGY MAP
SEGMENT WB-2
SUBDIVISION A (1 of 6)
METERS

★	Seabird Colony
▲	Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ WB-02 SUBDIVISION B (2 OF 6) DATE 4/1/90

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

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

SHPO SIGNATURE: Charles E. Adams DATE: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 92 m: Narrow 164 m: V. Light 64 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and manual pick up of tar balls, patties, and oiled debris (see attached sketch map for locations). Bio-remediation of areas with broken coats or stains is also recommended
SPOT WASH AS REQUIRED IN AREA OF MOUSSE + BIOREMEDIATION AS NECESSARY
AVOID DENSE MUSSEL BEDS

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90
ADEC Art Weiner
EXXON Arny Ten
NOAA Burl Weisheit
USCG Kenneth Keane

FOSC: W/L DATE: 5-12-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1WB-002 SUBDIVISION: B DATE 4-1-90

USCG

NAME R. BRYAN HURTLE SIGNATURE R. Bryan Hurtle

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I agree with the findings of The Shoreline
Oiling Summary sheet for WB-002 subdivision B

ADEC

NAME Russell Kurbie SIGNATURE Russell Kurbie

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

See attached 1 sheet.

LAND MANAGER

NAME Patrick Doorman SIGNATURE Patrick Doorman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

recommend manual pickup of patties, mats, and isparted layers ~~that~~
in subdivision B, also follow up with bio remediation.

Segment WB-2 Subdivision B Date: 4/1/90

ADEC Russell Kunibe Signature *Russell Kunibe*

Description: --

This is a large cove with a mud flat below the boulder, cobble and pebble beach. The sketch map #4 misses a broken area of asphalt on the western beach which was approximately 5 M. X 10 M.

Recommendations:

Manual pick up and break up of the asphalt and mousse saturated sediments between the small boulders and cobbles. The tidal flushing of this cove is good so bioremediation may be effective.

SHORELINE OILING SUMMARY

REVISION NO 02-22-70

OG Kandy Siegel USCG Bryan Hittle SEGMENT ST/ WB-2
 BIO M. K. Cawsett LAND REP Pat Norana (Pave) SUBDIVISION B (2nd of 4)
 EXXON Taha Dean ADEC Russell Kunihe TIME 12:30 10 14:00
 TEAM NO.: 17 TIDE LEVEL: 0.0 10 1.2 DATE 4 / 1 / 90
 EST. SUBDIVISION LENGTH: 488 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 10 % B 35 % C 15 % P 10 % G 10 % S 10 % M 10 % V 0 %
 SLOPE: Lang 40 % Hang 60 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M 75 m N 244 m VL 169 m NO N/A m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	R	P	B	SP	BP	ST	SL	TL	SR	TR	LR	SU	U	M	U
ASPHALT PAVEMENT		X			X	X									X	
POOLED																
COVER																
COAT		X	✓				X	✓					✓			X
STAIN		✓	+	X			X	✓					✓			X
MOUSSE		X							X				X			
PATTIES		X							X				X			
TARBALLS		X							X				X			
FILM		X					X						X			
NO OIL													X			

PAVEMENT: H ☒ S 50 sq. m by 1 cmPATTIES / TARBALLS 20 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. ST-17-3Frames 1-21

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	VE	SP	BP	ST	SL	TL	SR	TR	LR	SU	U	M	U		
1	8				X		0-3	X				X				X							P, R
2	8				X		0-5	X				X				X							P, R
3	8				X		0-3	X				X				X							P, R
4	30					X	0-0									X							G, P
5	15					X	0-0									X							G

COMMENTS

This subdivision consisted of a mudflat, and gravel, to boulder beach area surrounding the mudflat. Low angle cliffs surrounded the beaches, at a distance of up to 100 meter from the trace of the waterline. A band of asphalt and gravel crossed across the UI, ranging in width from 8-10 meters. Some staining/leaking on the cliff was also frequently observed.

COMMENTS This subdivision consisted of a mudflat, and gravel to boulder benches surrounding the mudflat. Low angle cliffs surrounded the benches, at a distance of up to ~100 meter from the trace of the waterline. A band of asphalt and mud impreg occurred across the UI, ranging in width from 8-10 meters. Some staining/leaking of ~~the~~ the cliff was also frequently observed.

00 Ra. Siegel

SEGMENT ST/ WB-2

SUBDIVISION B

DATE 4/1/90

CHECKLIST

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

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil Vegetation

1 $\Rightarrow$

Photo location, direction, and number

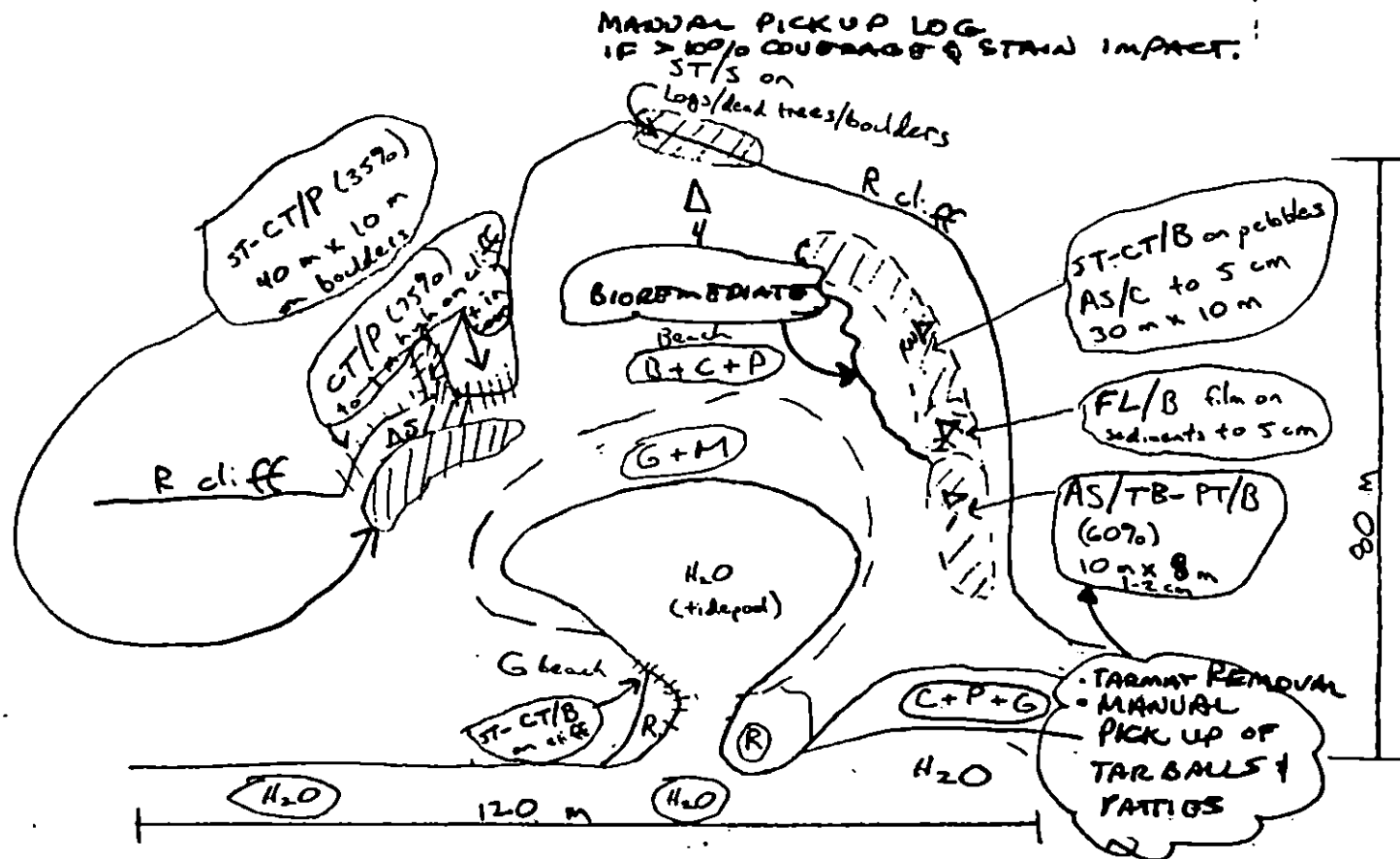


2 cm = 20 m
App. Scale

SKETCH MAP

#4

All of Subdivision B



Oil Character Length (m): AP 35 PO N/A CV N/A CT 60 ST 60 MS 20 PT 20 TB 20 FL 10 NO N/A

REVISION: 02/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / WB002 Subdivision B Date (mo / day / yr) 4/1/90Time (24 hr) 1100-1330 Biologist M. Fawcett

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 35 (3) Cobble 15 (4) Pebble 20 (5) Sand 10 (6) Silt 10(B) Overall % cover of biota (% of segment): Dense Moderate ✓ Low

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

Photographs:

Roll No. ST-17-3Frames 12-17

BARNACLES

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

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	X	2	2	2
3	3	3	3	3	3	X	3	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

FUCUS

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

see attached sheets

Ecological Considerations:

No sensitivities listed
 However, high density of clams and other infauna in LTZ mudflat
 indicates caution required in any cleanup activities on
 cobble beach above mudflat. Avoid trampling and other dist.

WB 002 A, B, C
Windy Bay

M. Fawcett

1 April 90

P. 1 of 2

Wildlife Observations

This segment consists of vertical faces and large boulder outcrops separated by pocket beaches comprised of boulders, cobbles, and pebbles, with sand/silt matrix beneath. In the mid- and low intertidal zones on the beaches a well-developed infaunal community lives buried below the boulders and cobbles (clams, echinoids, worms, etc). There is also a rich infaunal community in the low intertidal mudflat indicated on the sketch map for subsection B. Numerous craters in mudflat indicate sea otters have been digging clams recently. There are high densities of mussels and barnacles on bedrock and boulders in the mid-intertidal, especially on the more exposed outcrops. There are also locally dense areas of Fucus. Other than Fucus, algae are sparse and not very diverse in this area, as is typical of quiet bays. The mussels mainly range from 2 to 6 or 7 mm in length, the smaller ones probably representing settlement from last summer or fall. In middle and upper zones, Balanus glandula often very dense, B. cariosus locally dense in lower zone. On one cobble beach about 120m west of seaward end of subsection C a dense bed of live mussels site

on top of a heavy layer of mousse embedded in the surface sand at about the +6-7ft tide level. Removal of this mousse would require destruction of the mussels. Some barnacles (B. glandula) in upper intertidal zone on bedrock faces in subsections B and C of the segment are heavily coated with weathered oil. Barnacle scars on rock indicate up to about 50 percent mortality in small patches at upper fringe of distribution, but the causes of mortality could be either suffocation by oil or natural physical factors (weather extremes) which typically have the greatest effect on barnacles near the upper limit of their vertical distribution. The stream at the western end of subsection C appears too small for use by anadromous fish. Few birds seen, possibly owing to clearcut logging operation underway just above the shoreline in section C.

SM-1 = see sketch Map 1

Photos
ST17-3
frames 1-21

SEE DETAILED MAP

subdivision C
subdivision B
subdivision B
subdivision A

SM-4 (Mud Flat)

A, 2, 3, 4, 5

Pocket beach (40 x 15m)
AS-MS/B (75%)

25 x 8m
CT/PT (75%)
boulders and cobbles

Pocket beach
30m x 15m
ST-CT/C on
cliff faces and
SP-CT/B on
boulders (75%)
(15 x 8m)

SM-3 (Pocket Beach)

SM-2 (Pocket Beach)

Long Beach (145m)

Pocket Beach - 30m x 15m
AS-MS/TB-PT/P
under B on beach
6m to 1m to 1m

pocket beach
25m x 10m
AS/TP/S
on R+B

← KEN
145A

WB-2

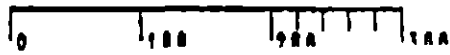
XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 2232m



Map Key: KEN-145b

Name: by hand

Date: 4/1/90

SM-1 = see sketch Map 1

Photos
ST-17-3

frames 2-21

subdivision C
subdivision B
subdivision B
subdivision A

SM-5 (Mud Flat)

SM-4 (Pocket Beach)

SM-3 (Pocket Beach)

SM-2 (Pocket Beach)

SM-1 (Pocket Beach)

18

15

12, 13, 14

10

11

7

8

16

2-5 (aerial)

← KEN
145A

WB-2

XXX Wide

/// Medium

--- Narrow

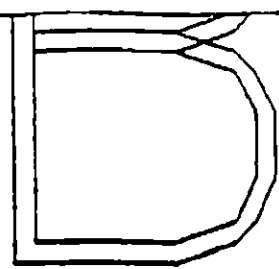
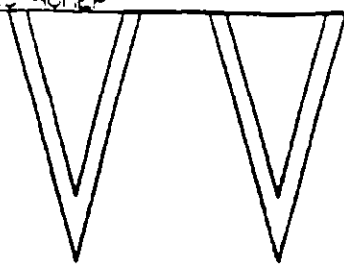
TTTT Very Light

ADEC Segment Length: 2232m

Map Key: KEN-145b

Name: _____

Date: _____



SM-5 See sketch map 05

subdivision C

SM-5
← 400m

KEN
145B →

XXXX Wide

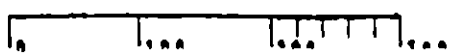
//// Medium

---- Narrow

TTTT Very Light

WB-2

ADEC Segment Length: 2232m



Map Key: KEN-145a

Name: Andy Singh

Date: 4/1/30



SM-1 = see sketch Map 1

Photos
ST-17-3

frames 2-21

subdivision C
subdivision B
subdivision B
subdivision A

SM-5 (Mud Flat)

SM-4 (Pocket Beach)

SM-3 (Pocket Beach)

SM-2 (Pocket Beach)

SM-1 (Mud Flat)

18
17
15
12, 13, 14
9
10
11
7
8
6

2-5 (aerial)

← KEN
145A

WB-7

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

WB-2

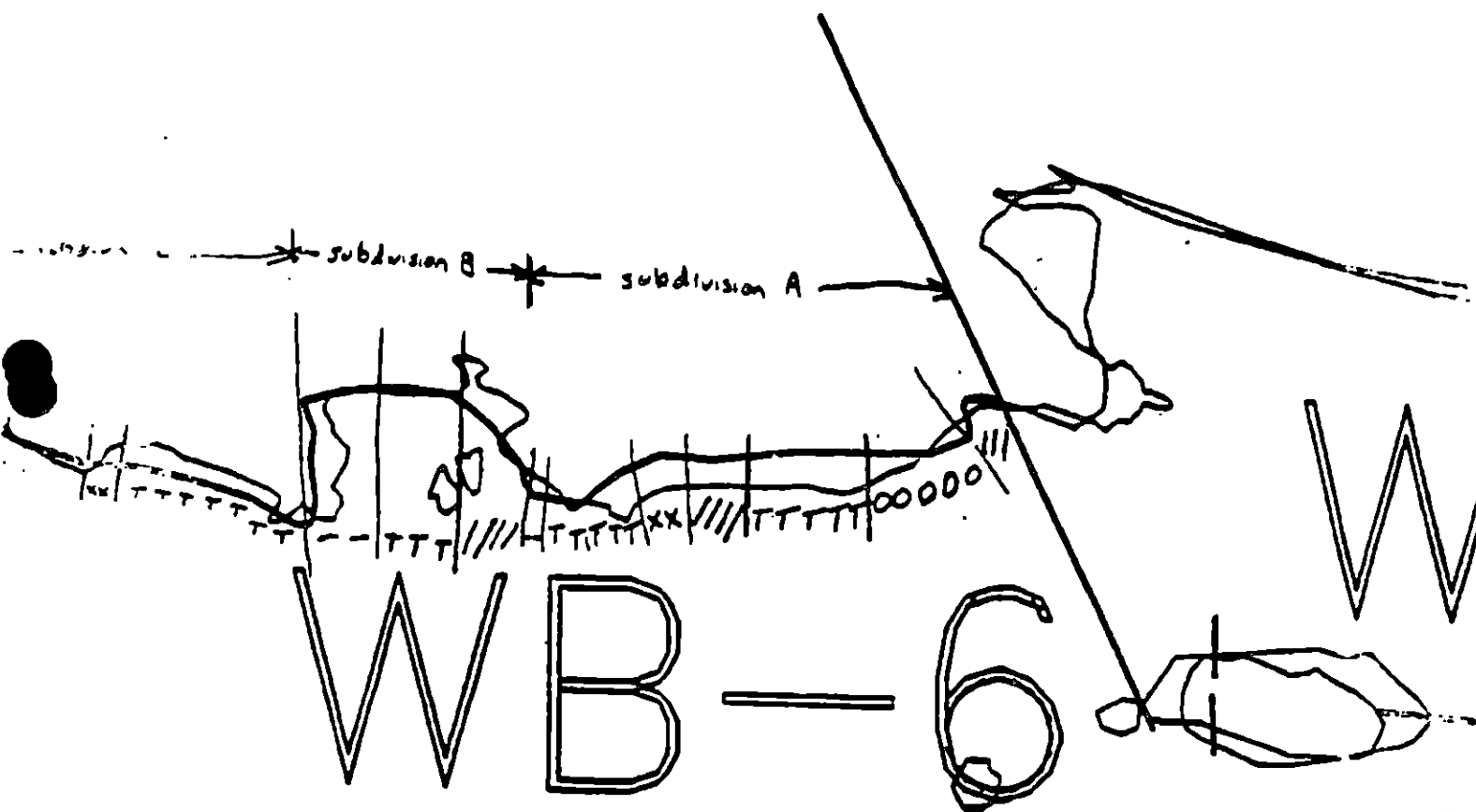
ADEC Segment Length: 2232m

Map Key: KEN-145b

Name: _____

Date: _____

WE



WB-6

WB-7

2. KEN
145A

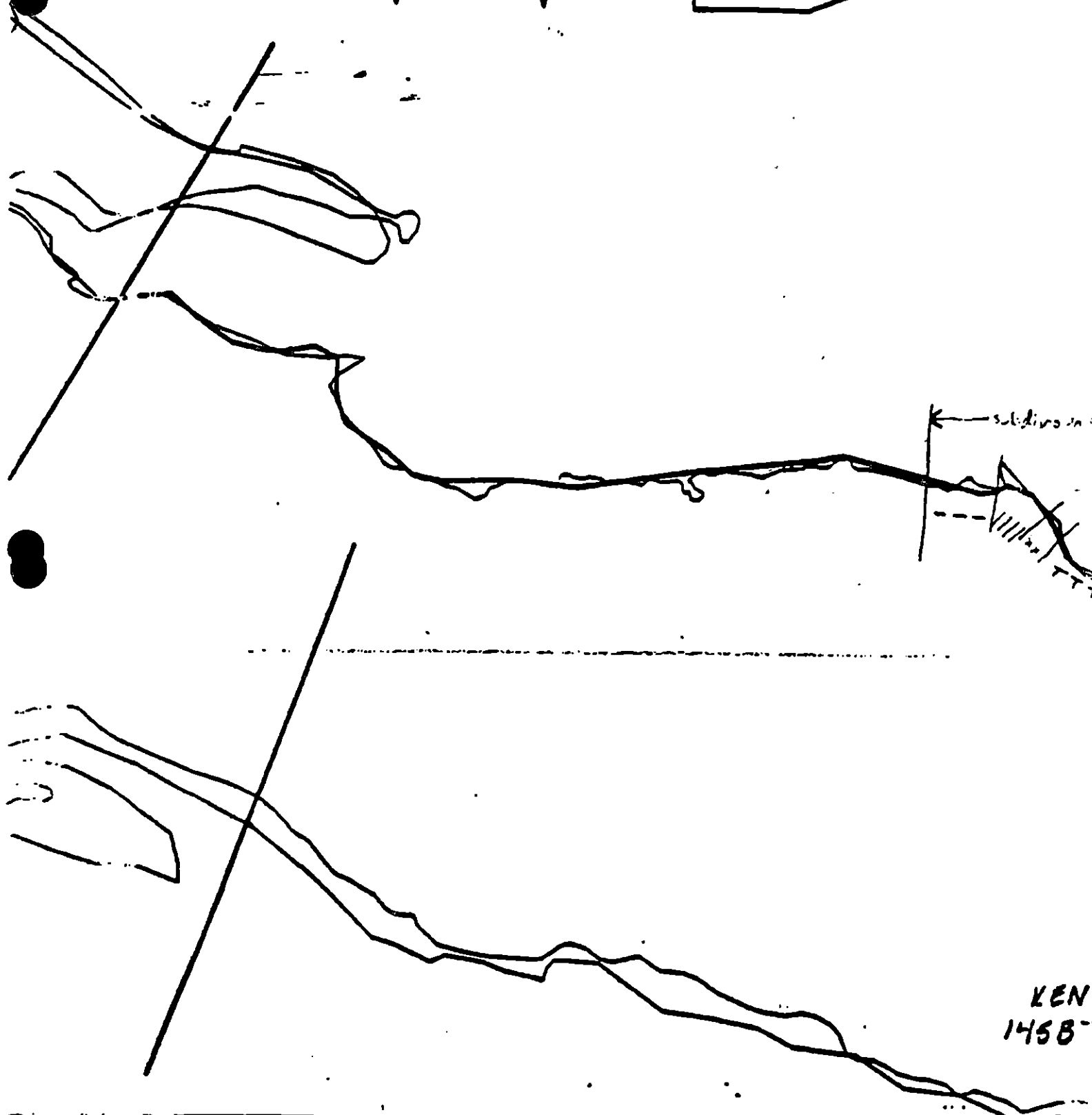
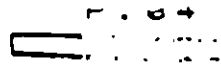
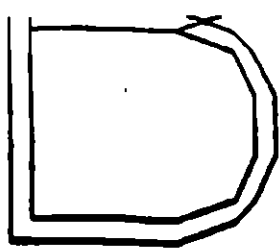
XXXX Wide
//// Medium
--- Narrow
TTTT Very narrow

WB-2

ADEC Segment Length: 2232m

Map Key: KEN-145b

Name: *Edy Lopez*



← solid line in
TTT

KEN
145B

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

WB-2

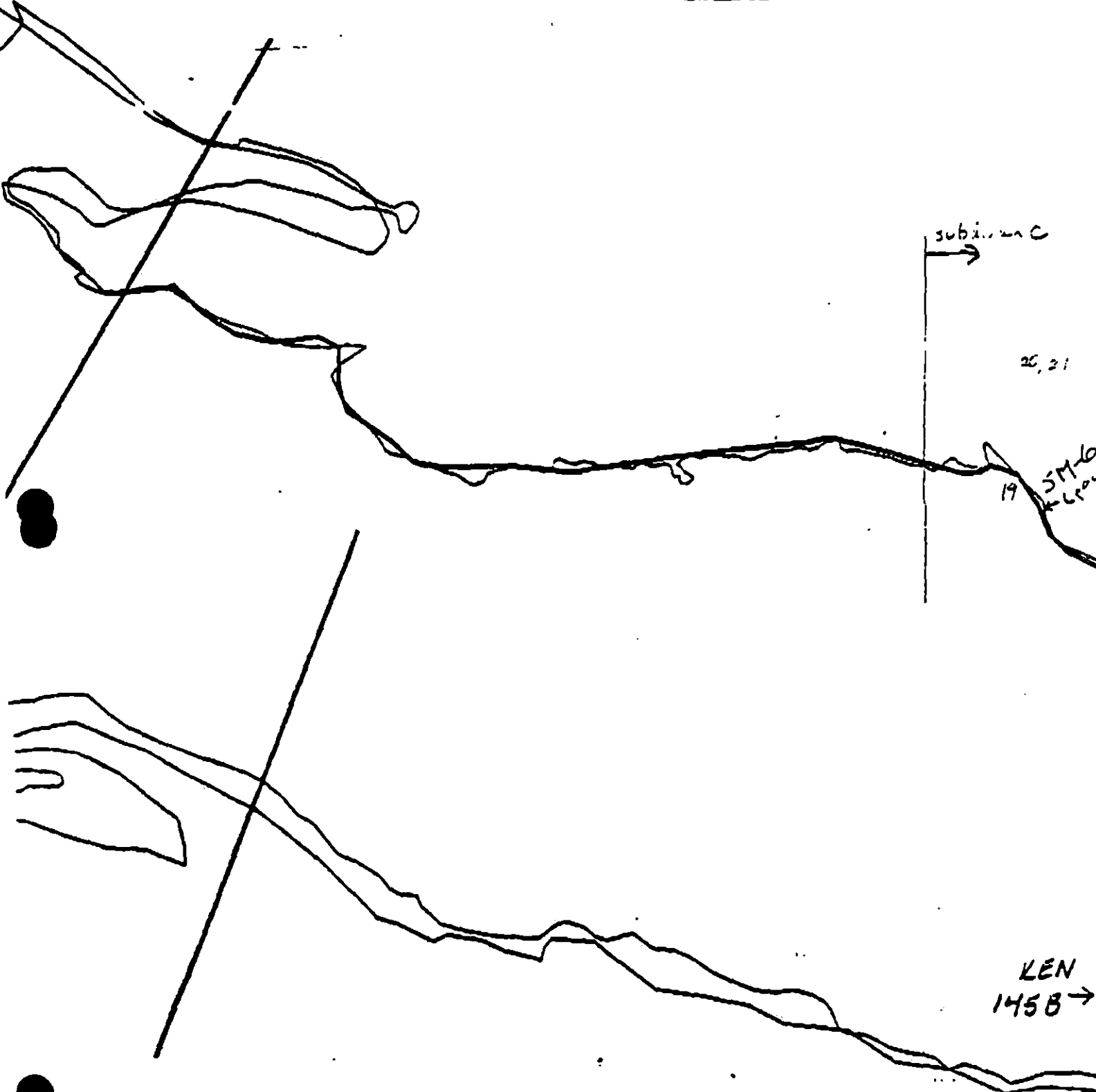
ADEC Segment Length: 2232m

Map Key: KEN-145a

Name: Edy Angel

Date: 4/1/50

WB



XXX Wide
/// Medium
--- Narrow
TTT Very light

WB-2

ADEC Segment Length: 2232m

Map Key: KEN-145a
Name: _____
Date: _____

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-2 SUBDIVISION B (2 of 6)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Spot Washing	WORK PRIOR TO 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|------------------|--|
| 1J | Purse Seine Area | Closed to bioremediation and spot washing after 7/1. No constraint to manual pickup or tarmat removal. |
| 5T | Bald Eagle Nest | NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area. |

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/1. Avoid any unnecessary disturbance or damage to unrolled biota and substrate. Avoid trampling and flushing pollutants onto mud flat below the cobble beach. Avoid dense mussel beds during bioremediation.

TAG APPROVAL DATE 5/29/90
ADEC Aet Wagon
EXXON ANDY OR
NOAA Balescott
USCG G.A. KEITER

FOSC

DATE

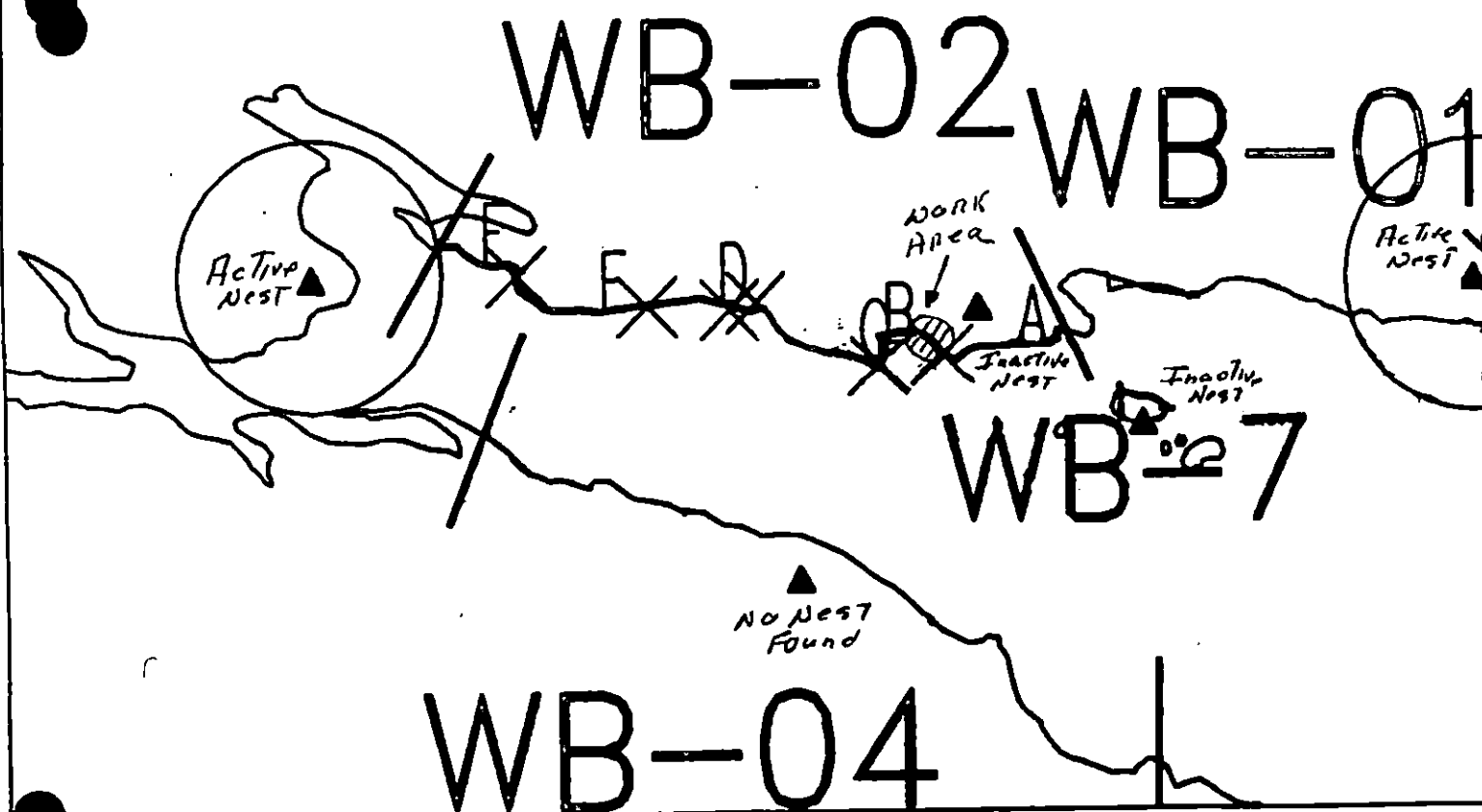
5/29/90

Prepared By: Andra Meyer RxC.

Date

5/28/90

Incorporates Information from
USFWS Bald Eagle Survey 5/19/90



Exxon Company, USA

ECOLOGY MAP
SEGMENT WB-2

SUBDIVISION B (2 of 6)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ WB-02 SUBDIVISION C (3 OF 6) DATE 4/1/90

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

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

SHPO SIGNATURE

Charles E. H. Jones

DATE:

4/20/90

OILING CATEGORIZATION:

Wide 58 m: Medium 162 m: Narrow 61 m: V. Light 240 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and manual pick up of mousse, oiled debris and oiled trash (see sketch map for specific locations). Bioremediate areas with coated sediments as indicated on sketch map.
SPOT WASH AS REQUIRED, HOWEVER AVOID MOUSSE BEGS

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90.

ADEC

Art Weikert

EXXON

Arroy Gatz

NOAA

Burt Weisrott

USCG

Kenneth Keane

FOSC:

WJL

DATE:

5-12-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST WB-002 SUBDIVISION: C DATE 4-1-90**USCG**NAME R. BRYAN HIRTLE SIGNATURE R. Bryan Hirtle☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I agree with The findings of The Shoreline Diling
Summary sheet for WB-002 subdivision C

ADECNAME Russell Kuribe SIGNATURE Russell Kuribe☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

see attached 1 sheet

LAND MANAGERNAME Patrick Norman SIGNATURE Patrick Norman☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

recomend manual pick up of potties, mats and asphalted layers in
subdivision C cold or warm water flushing to break up heavy concentration,
is recommended also. follow up with Bio remediation.

Segment WB-2 Subdivision C Date 4/1/90

ADEC Russell Kunibe Signature *Russell Kunibe*

Description:

The oiling which remains in this subdivision is weathered mousse in the sediments around and under the boulders and cobbles. This oil is found on the pocket beaches in the UITZ. The area in sketch map #5 has been flagged off as the area where the logging company will fill and placing a dock.

Recommendations:

Manual pick up and break up of the mousse and tar mats where possible. Because the mousse is under and around small boulders and cobbles washing may be needed. This would be especially true if the mousse-asphalt becomes more mobile in warmer weather. After much of the gross contamination has been removed bioremediation may be needed.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/88

OG Randy Siegel USCG Bryan SEGMENT ST/ WR-2
 BIO Mike Gwilt LAND REP Pat Dorman (PWC) SUBDIVISION C (52 of 4) 3 of 6
 EXXON John Dean ADEC Russell Kunze TIME 14:00 10:15:00
 TEAM NO.: 17 TIDE LEVEL: +1.2 to +3.1 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 500 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 15 % B 60 % C 10 % P 10 % G 4 % S 1 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 60 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 45 m M 140 m N 85 m VL 230 m NO N/A m

SURFACE OIL

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

PAVEMENT: H (B) S 350 sq. m by 1 cmPATTIES / TARBALLS 50 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE —#BAGS 0

Photographs:

Roll No. ST-17-3Frames (1-2)

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM CLR)	BELOW		OIL / FILM COLOR							PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	SU	U	M	V		
1	20		X				0-2		X						X		X					C, G
							.															
							.															
							.															
							.															
							.															

COMMENTS

This subdivision was very similar to Subdivision A. Narrow (<10 meters) stretches of bedrock/boulder beaches beneath low-angle cliffs, with pocket beaches occasionally incised into the bedrock. Oiling typically was concentrated in the pocket beaches in a band along the UI. This subdivision included the area to be used for logging operations. Forest-clearing was being performed in this area during our survey. Difficult to dig pits due to i

SUBDIVISION C

DATE 4 / 1 90

CHECKLIST

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

LEGEND

1.

P11 - No Subsurface Oil

2 ▲

Plt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

Patchy Distribution

1

Splashed Distribution

Cut Vegetation

1. **Photo location, direction,
and number**

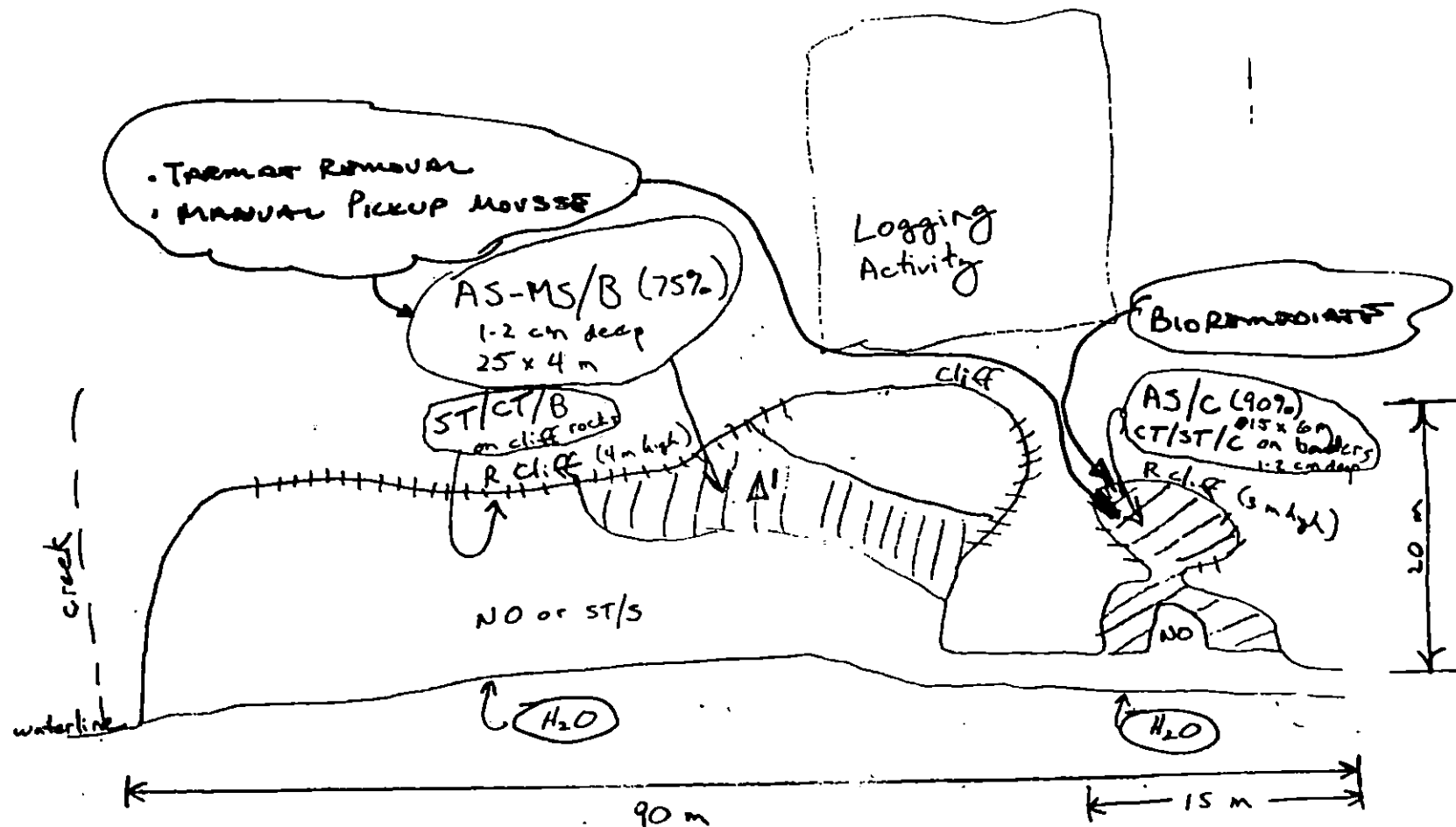
N
↑

$2\text{ cm} = 10\text{ m}$
App. Scale

SKETCH MAP

#5

Part of Subdivision C



Oil Character Length (m): AP 40 PO N/A CV N/A CT 70 ST 70 MS 30 PT 30 TB 30 FL N/A NO N/A

REVISION: 03/24/00

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/7

Segment ST / WB 002 Subdivision C Date (mo / day / yr) 4 / 1 / 90
 Time (24 hr) 1330-1500 Biologist M.H. Fawcett

- (A) Substrate type and % of segments:
 (1) Bedrock 15 (2) Boulder 60 (3) Cobble 10 (4) Pebble 14 (5) Sand 1 (6) Silt 0 (incl. gravel)
- (B) Overall % cover of biota (% of segment): Dense Moderate ✓ Low
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-17-3

Frames 18-21

BARNACLES

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

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

see attached sheets

Ecological Considerations:

No sensitivities listed

WB 002 A, B, C
Windy Bay

M. Fawcett

1 April 90

P. 1 of 2

Wildlife Observations

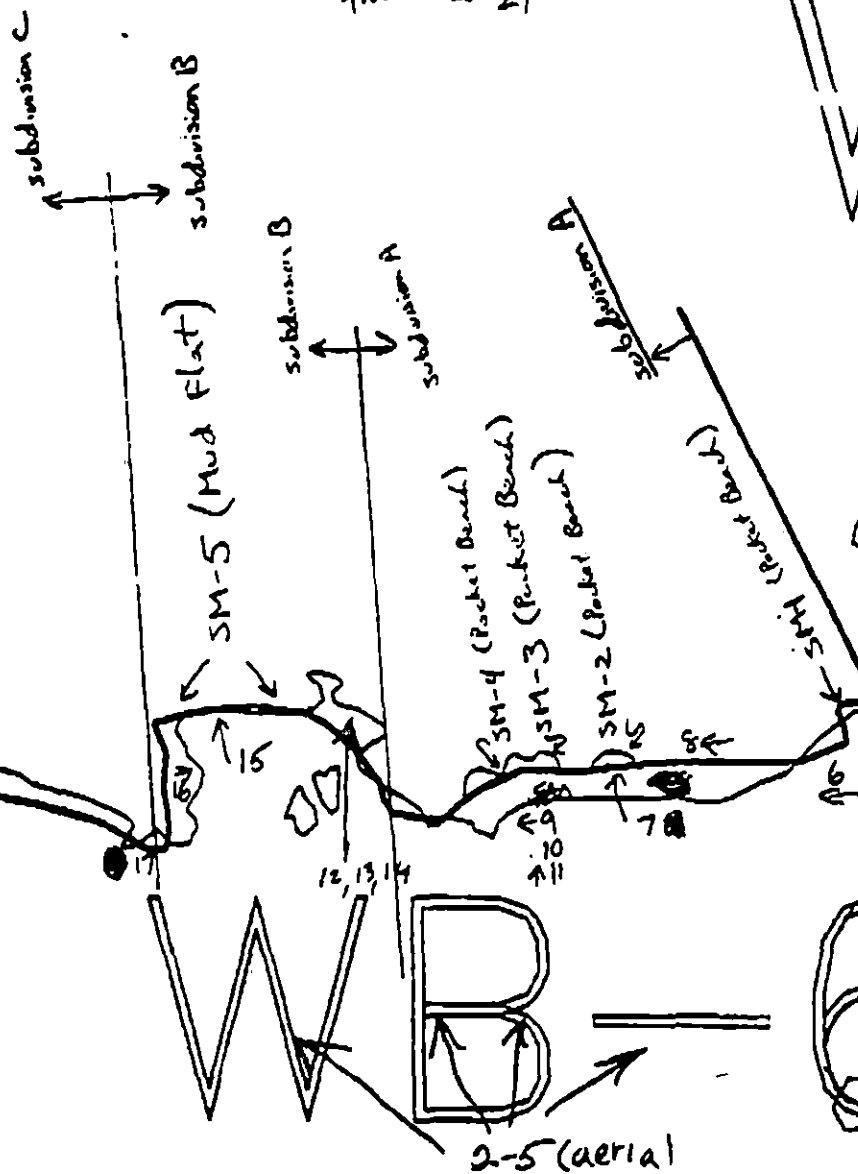
This segment consists of vertical faces and large boulder outcrops separated by pocket beaches comprised of boulders, cobbles, and pebbles, with sand/silt matrix beneath. In the mid- and low intertidal zones on the beaches a well-developed infaunal community lives buried below the boulders and cobbles (clams, echinoids, worms, etc.). There is also a rich infaunal community in the low intertidal mudflat indicated on the sketch map for subsection B. Numerous craters in mudflat indicate sea otters have been digging clams recently. There are high densities of mussels and barnacles on bedrock and boulders in the mid-intertidal, especially on the more exposed outcrops. There are also locally dense areas of *Fucus*. Other than *Fucus*, algae are sparse and not very diverse in this area, as is typical of quiet bays. The mussels mainly range from 2 to 6 or 7 mm in length, the smaller ones probably representing settlement from last summer or fall. In middle and upper zones, *Balanus glandula* often very dense, *B. cariosus* locally dense in lower zone. On one cobble beach about 120m west of seaward end of

on top of a heavy layer of mousse embedded in the surface sand at about the +6-7ft tide level. Removal of this mousse would require destruction of the mussels. Some barnacles (B. glandula) in upper intertidal zone on bedrock faces in subsections B and C of the segment are heavily coated with weathered oil. Barnacle scars on rock indicate up to about 50 percent mortality in small patches at upper fringe of distribution, but the causes of mortality could be either suffocation by oil or natural physical factors (weather extremes) which typically have the greatest effect on barnacles near the upper limit of their vertical distribution. The stream at the western end of subsection C appears too small for use by anadromous fish. Few birds seen, possibly owing to clearcut logging operation underway just above the shoreline in section C.

SM-1 = see sketch Map 1

Photos
ST-17-3

frames 2-21



← KEN
145A

WB-2

XXX Wide
/// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 2232m

Map Key: KEN-145b

Name: _____

Date: _____

SM-1 = see sketch Map 1

Photos
ST 17-3
frames 1-21

subdivision C
subdivision B
subdivision B
subdivision A

SM-4 (Mud Flat)

A, 1, 2, 3, 4, 5

SM-3 (Pocket Beach)

SM-2 (Pocket Beach)

SM-1 (Pocket Beach)

(Long 1000) 1455

Pocket beach (40 x 15m)
AS-MS/B (75%)
x 8m ...
CT/P (75%)
boulders and cobbles

Pocket beach
30m x 15m --
ST-CT/C on
cliff faces and
ST-CT/B on
boulders (75%)
(15 x 8m)

Pocket Beach = 30m x 15m
ATMS/TB-PT/P
under B on beach
6 x 1m to 1 cm deep

pocket beach
25m x 10m
AS/TP/S
on R+B

← KEN
145A

WB-2

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

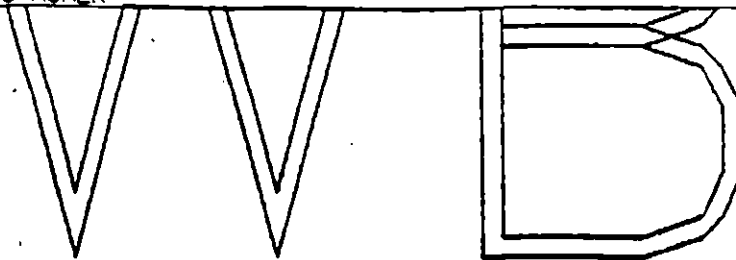
ADEC Segment Length: 2232m

0 100 200 300

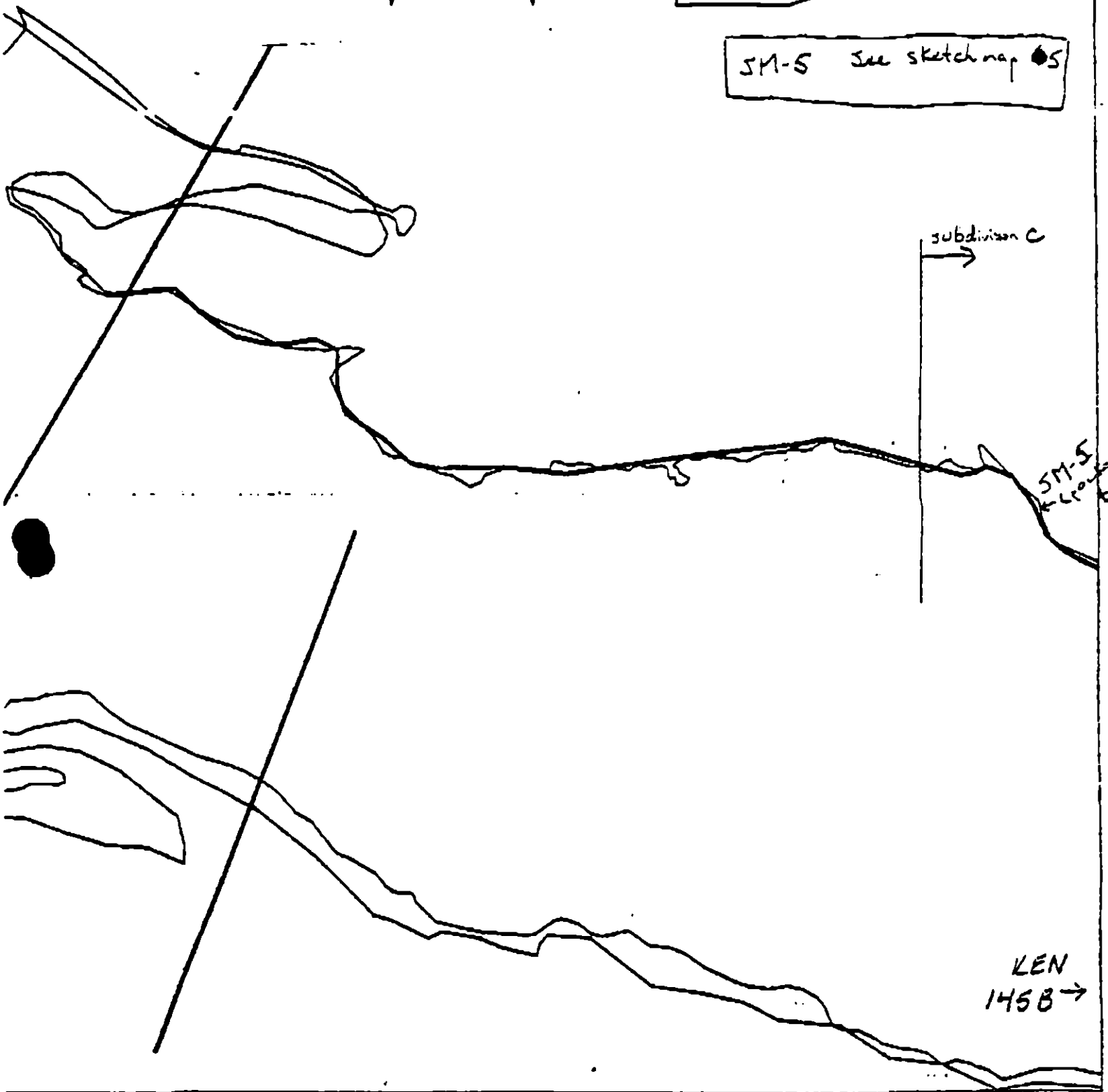
Map Key: KEN-145b

Name: *by hand*

Date: 4/1/90



SM-5 See sketch map 05



XXXX Wide

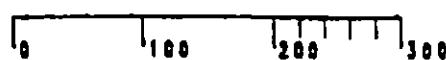
/// Medium

--- Narrow

TTTT Very Light

WB-2

ADEC Segment Length: 2232m



Map Key: KEN-145a

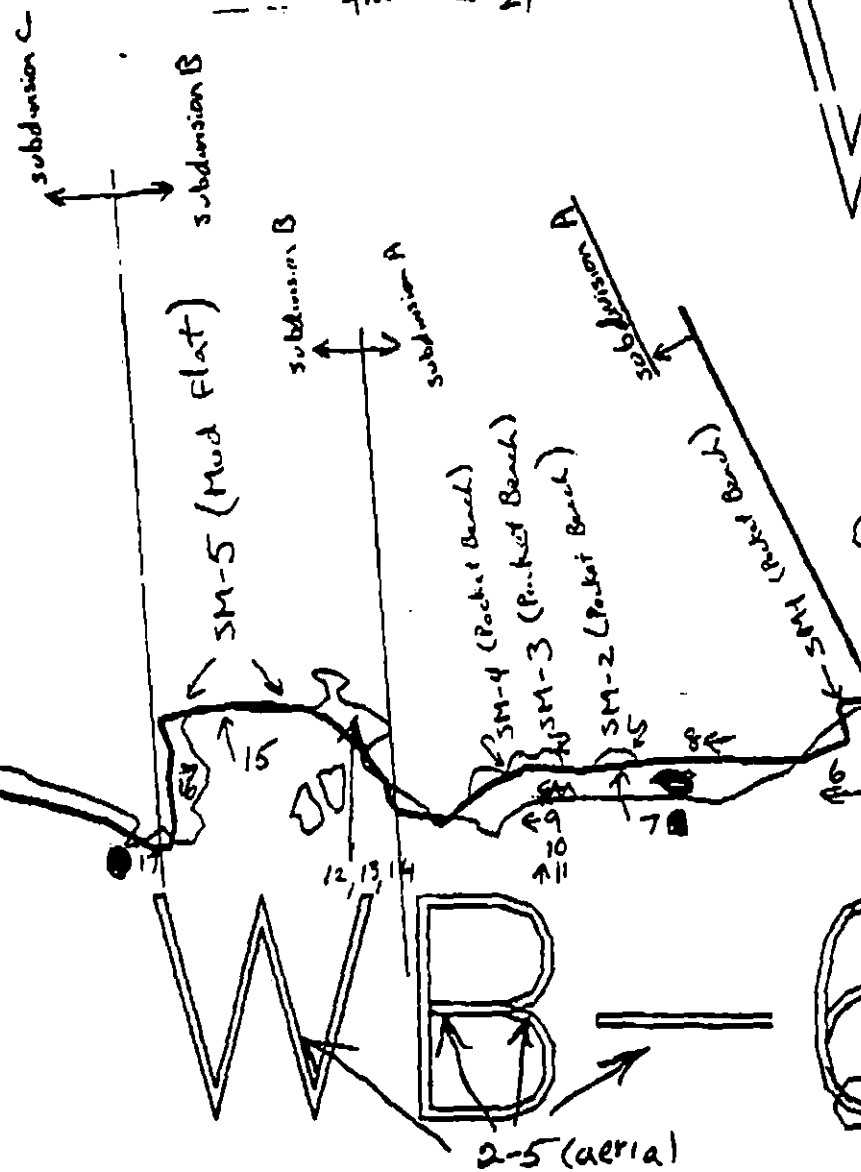
Name: Andy Siegel

Date: 4/1/90

SM-1 = see sketch Map 1

Photos
ST-17-3

frames 2-21



← KEN
145A

WB-7

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

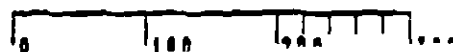
WB-2

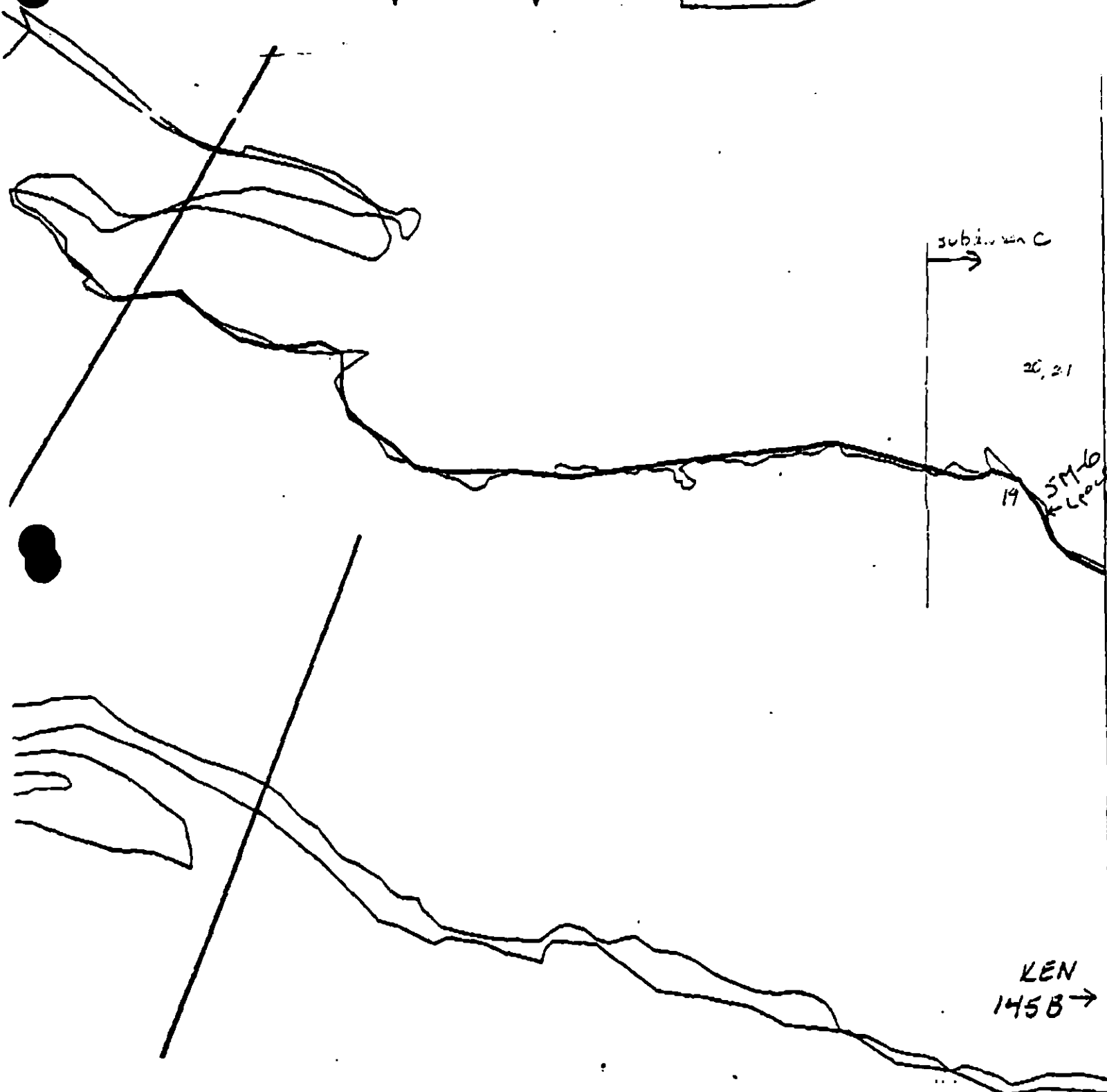
ADEC Segment Length: 2232m

Map Key: KEN-145b

Name: _____

Date: _____





WB - 2

ADEC Segment Length: 2232m

A

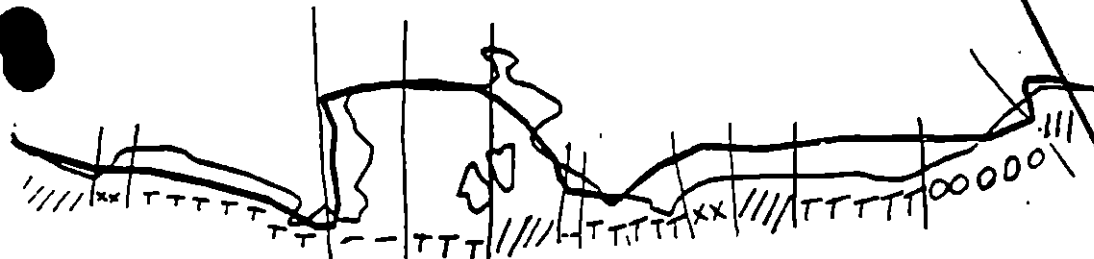
Map Key: KEN-145a

Name: _____

Date: _____

W W E

- subdivision C - subdivision B - subdivision A -



WB-6

WB-7

← KEN 145A

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

WB-2

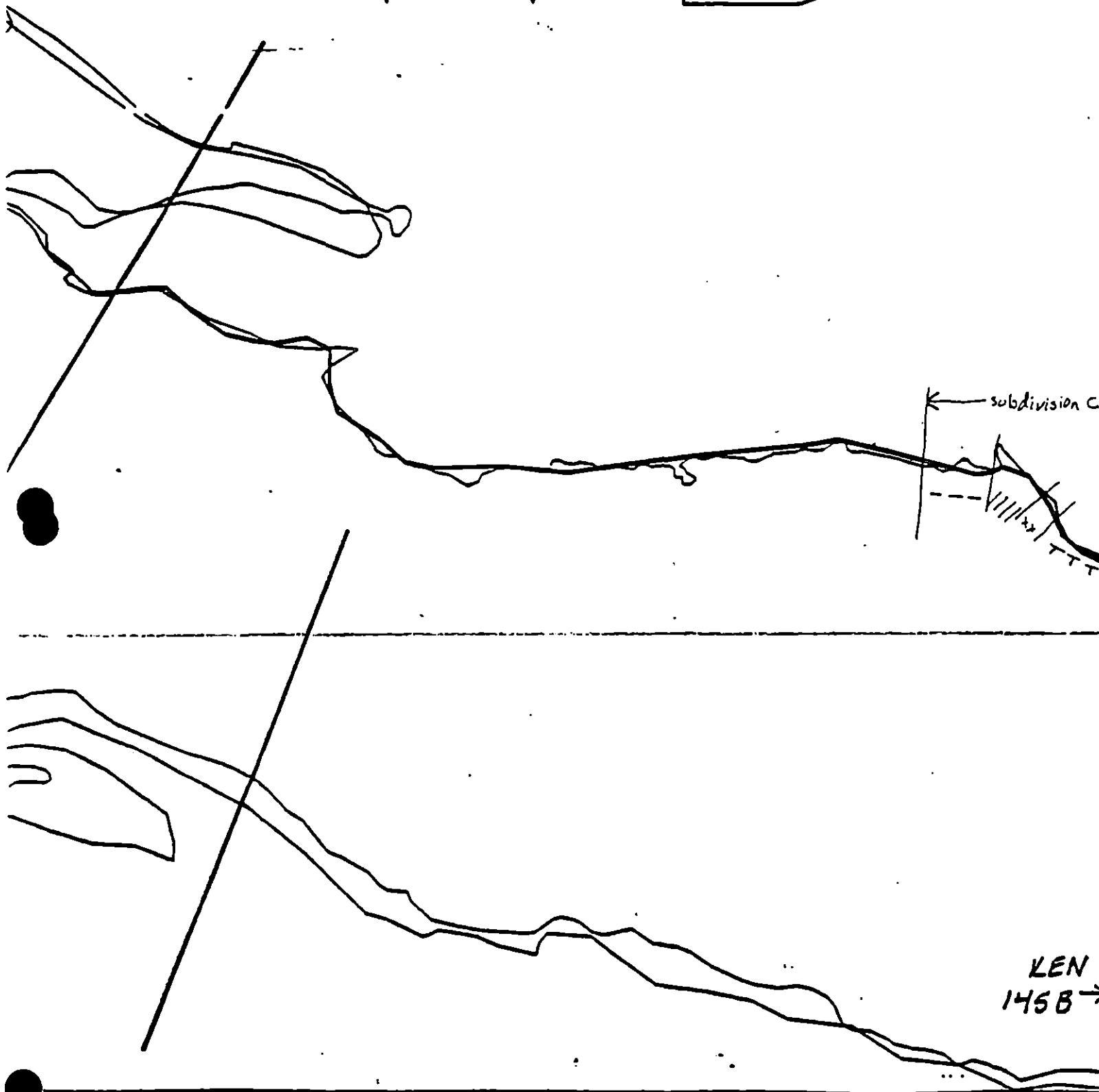
ADEC Segment Length: 2232m



Map Key: KEN-145b
Name: Andy Siegel
Date: 4/1/90

V V D

—



XXX Wide

//// Medium

--- Narrow

TTTT Very Light

WB-2

ADEC Segment Length: 2232m

Map Key: KEN-145a

Name: Ruby Angel

Date: 4/1/90

ASAP FOLLOWUP RECOMMENDATIONS

Segment: ASI WB02 Subd.: C Site: _____ Date: Aug 8 1990

Conditions Observed: Duboisia C of WB02 is on both sides of the dock it has mouse and soft asphalt in a medium concentration. It appears to be under the rock and cobble.

Followup Recommendations: manually pick up the asphalt patches. The majority is concentrated in the middle hull range. It's pick up mouse another application of coarse mag help

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC Clara S. Crosby Clara S. Crosby
(name) (signature)

Comments: Consider this a high priority for 1990 - Significant & consistent band of ASP/H30R. Should be removed throughout Segment.

Exxon Jon CZARNECKI Jon Czarnicki
(name) (signature)

Comments: There is about a days work for a small crew of manual pick up. Probably about 2 super sacks of debris to pick up

USCG AEC Vandepelt AEC Vandepelt
(name) (signature)

Comments: Recommend removal (pick up) 60 M east and west of log dock this year

Land Rep. Patrick NORMAN Patrl Norman
(name) (signature)

Comments: substance gathering area (small) bird activities, misse

FIELD SHORELINE COMMENT SHEET

SEGMENT AS1 WB-02 SUBDIVISION: WB-02 SITE: C DATE 07 Aug '90

SCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Band of AP/MS extends 60 M east and west of log dock. Recommend manual and bio.(inpot) again this year. Reassess in '91.

ADEC

NAME Clara Crosby SIGNATURE Clara S. Crosby

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: Work order modification requested for '90. Priority site for reassessment in '91. This subsegment has a consistent band of MS/AP → ranging from surface to subsurface. OP. (note photos). The oiling is easily accessible by rolling B/C - or using shovel to move sm.C. High priority for reassessment in '91.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: requested additional work on C segment for 1990: st. ins exposed and unexposed subsurface oil. The surface oil has to be picked up in 1990, and the segment reassessed to see if any more subsurface oil has become exposed. subsistence gathering area.

EXXON

NAME John Garnecki SIGNATURE John Garnecki

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON: on both sides of the log dock there is quite a bit of AP/MS, and OR. Because of the use of this area it needs to be checked next spring

ASAP SHORELINE OILING SUMMARY

TEAM NO 04 EXXON on Czarnecki SEGMENT AS, WB-02
 OG Rich Marty USGS USCG AEC Vandepols SUBDIVISION C
 ADEC Chen Crosby LAND REP Pat Norman (P.Gr) TOTAL NO. SITES 1
 DATE 07 Aug 190 TIME 9:15 to 10:10 TIDE LEVEL -1.75' to -0.3'
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 370 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W — m M 135 m N — m VL 255 m NO 20 m US — m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	IC	IB	IP	IS	SU	UI	MI	LI
ASPHALT	—	U I	U I	U I	—	U I	U I	—
S.O.R.								
POOLED								
COVER	X				X			
COAT								
STAIN								
MOUSSE	U	U I	U I	X	—	U I	U I	X
PATTIES/T.B.								
FILM								
NO OIL					X			
EST. SITE LENGTH					370			

SITE 2

CHARACTER	DISTRIBUTION				OILED ZONES			
	IC	IB	IP	IS	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	IC	IB	IP	IS	SU	UI	MI	LI
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL								
EST. SITE LENGTH								

SUBSURFACE OIL

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

Photographs: ASAP-04-02-00
 Roll No. 04-03-CC
 Cal 02-32-36
 Frames 03-1-4

COMMENTS There is quite a bit of mousse remaining interstitial to (between) and under large cobbles and boulders. This material would be quite difficult to recover.

OG Randy Siegel
SEGMENT ST/ WB-2
SUBDIVISION C

DATE 4 / 1 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HMLAWL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
Pit - No Subsurface Oil
- 2 Δ
Pit - Subsurface Oil
- $\overline{\text{CT/C}}$
Continuous Distribution
- $\overline{\text{CT/B}}$
Broken Distribution
- $\overline{\text{CT/P}}$
Patchy Distribution
- $\overline{\text{CT/S}}$
Splashed Distribution
- Oiled Vegetation
- 1 $\odot$
Photo location, direction, and number

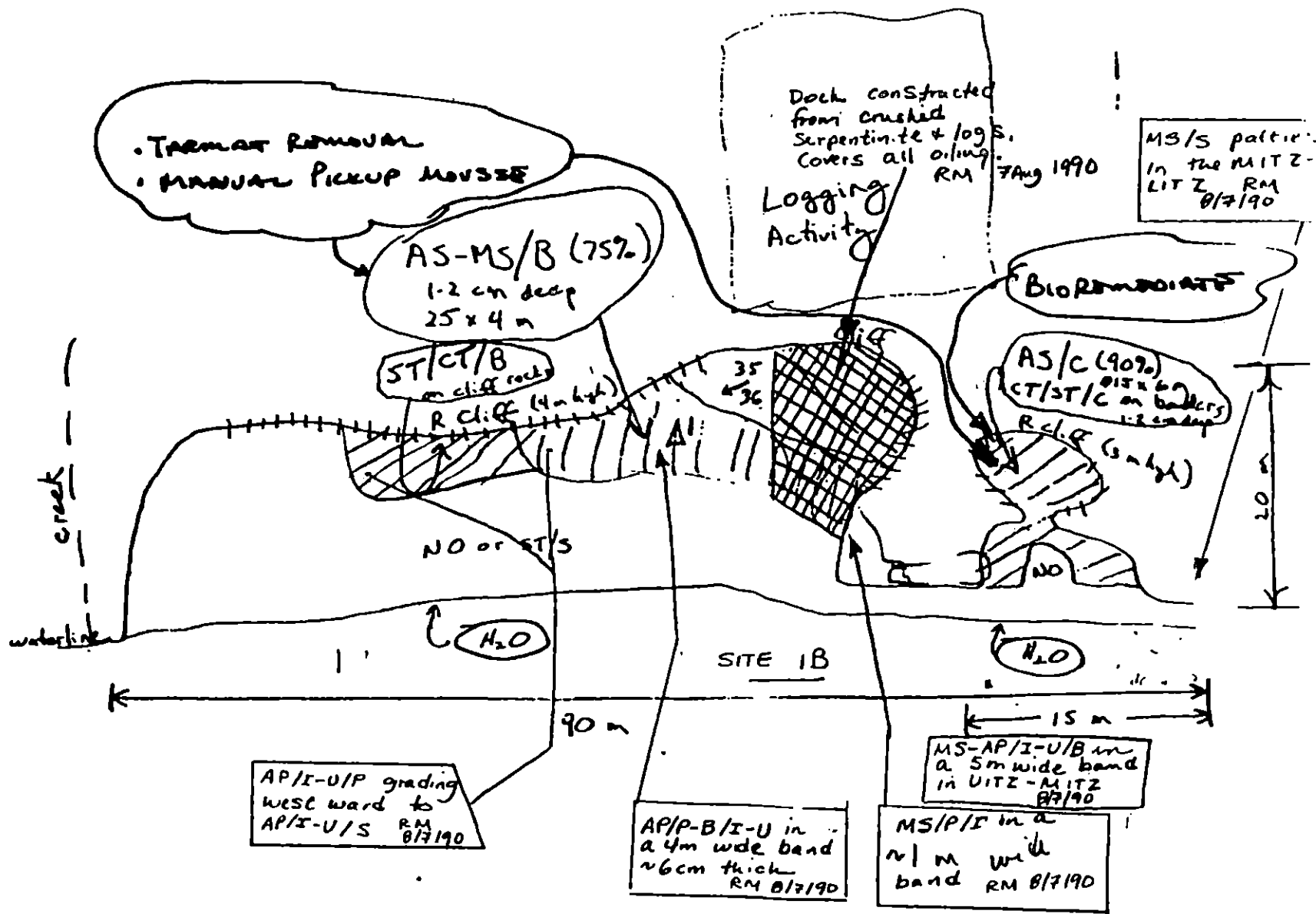


2 cm = 10 m
App. Scale

SKETCH MAP #5

Part of Subdivision C

ASAP
Annotations 08/07/90
R. Marty



Oil Character Length (m): AP 100 PO 50 CV 50 CT 50 ST 50 MS 350 PT 50 TB 50 FL 50 NO 20 -ASAP-

Incorporates information from
USFWS Bald Eagle Survey 5/28/90

ASAP sketch map
for a portion
of WB-2c
(East)

MS/C/V
~2.5 wide
CV/C on rock
in a 1.5m wide
band
RM 08/07/90

MS/I/P in R
1m wide band
RM 08/07/90

32,33

SITE 1A

WB-02 WB-01

Active
Nest

Inactive
Nest

Active
Nest

WORK
Area

Inactive
Nest

NO NEST
Found

WB-04



Exxon Company, USA

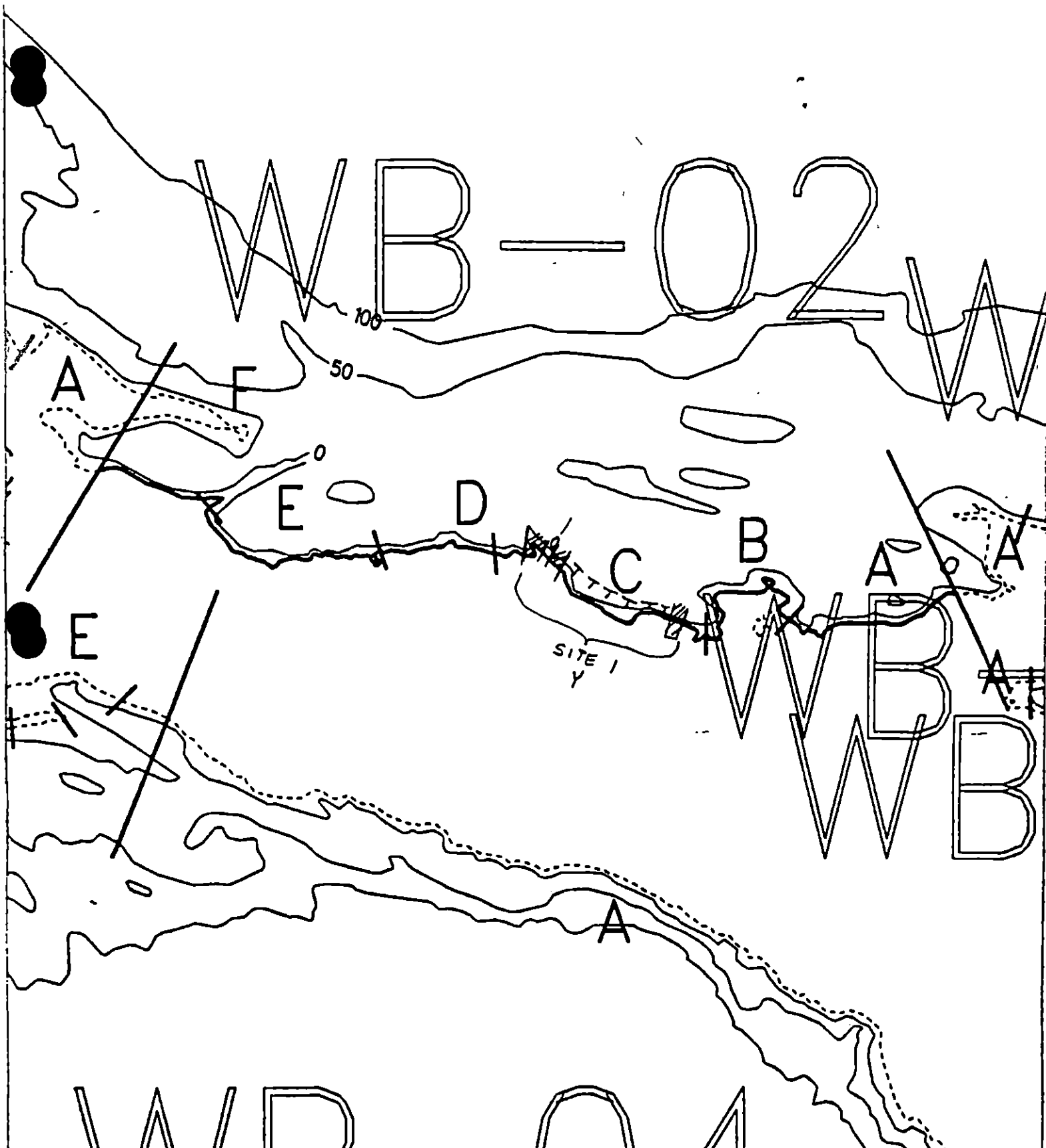
ECOLOGY MAP

SEGMENT WB-2

SUBDIVISION C (3.016)

METERS

★ Seabird Colony
▲ Eagle Nest



SEGMENT WB-2

OIL INTENSITY
METERS MAP

Segment Location Map

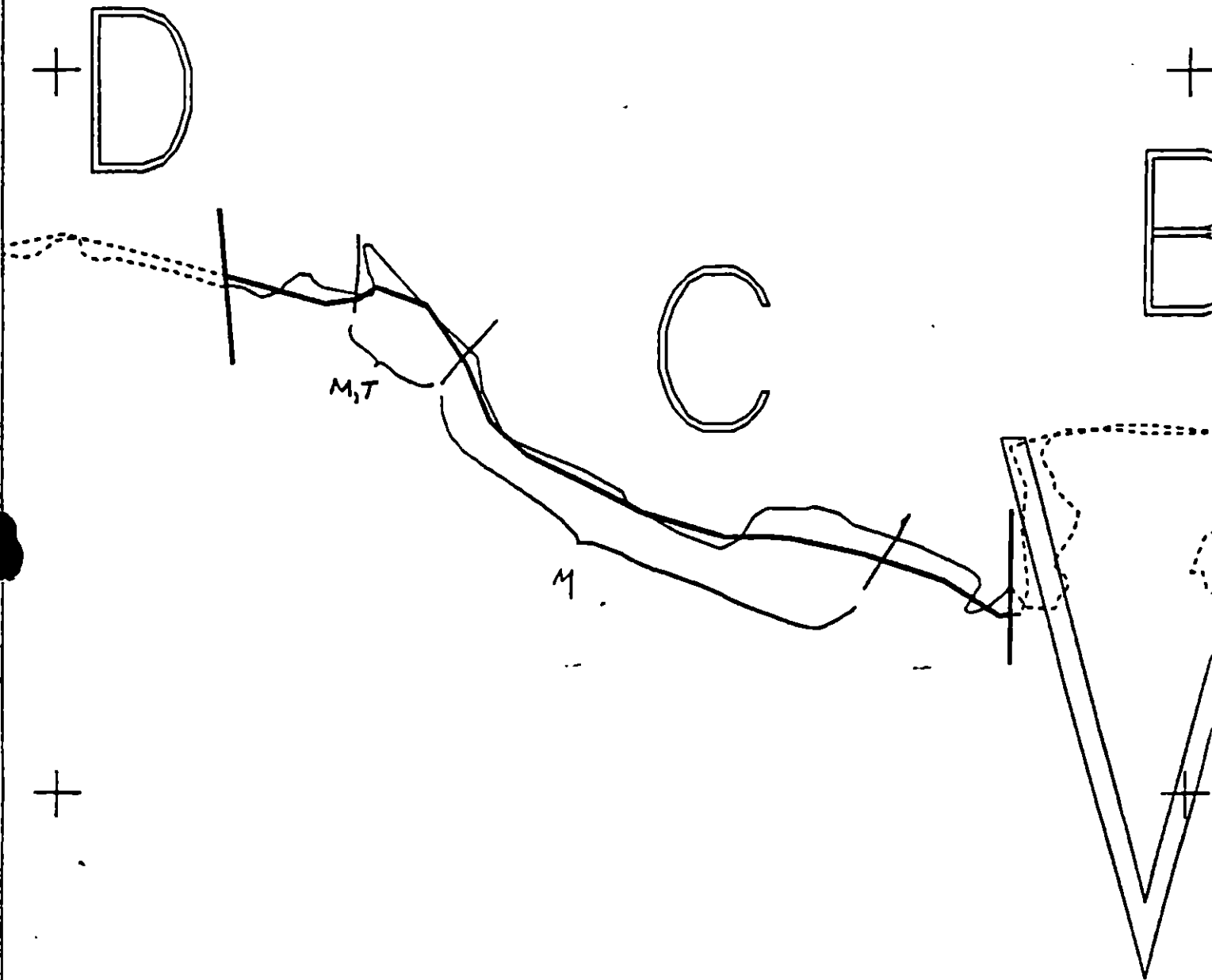
Map Key: KENWB-2

July 18, 1990

1:11134

0 283 566





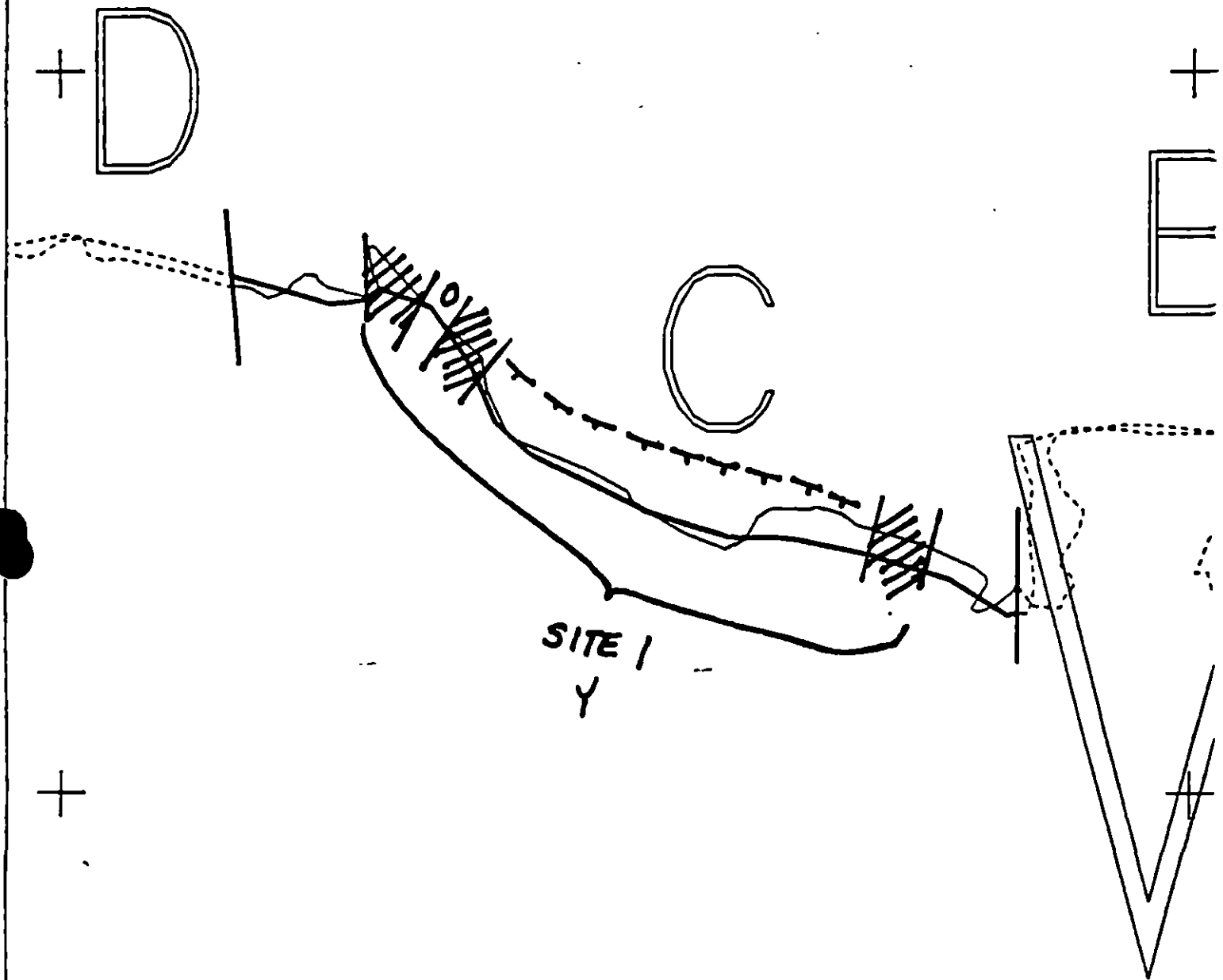
"SIGNIFICANT" OILING

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

WB-2 C
 ADEC Subsegment Length: 520m
 METERS
 0 80 170
 AK State Plane Zone 4 1:3505
 nwb-2c

Subdivision Field Map
 Map Key: KENWB-2C
 Name: R. Marty
 Date: 11 Aug 1990
 Date Entered:





XXXX
 ////

 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

WB-2 C

ADEC Subsegment Length: 520m

METERS

0 50 170

AK State Plane Zone 4 1:3505
 nwb-2c



Subdivision Field Map
 Map Key: KENWB-2C
 Name: R. Marty
 Date: 11 Aug 1990
 Data Entered:

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: WBO2 SUBDIV: C SITE: 1PIT # 0 PIT DEPTH 0 OIL CHARACTER OIL INTVAL: FROM TO
CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG *NO PITS DUG THIS SEGMENT*PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LI SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

GENERAL DATA

SEG ID: 10B02 SBDV: C SITE: 1 TEAM: 4 DATE: 7/aug/90
SITE LGTH 370 OIL CATEGORIES: W — M 135 N — VL 255 NO 20 U —
1991 REASSESSMENT: USCG: Y ADEC: Y LDMGR: Y EXXON: Y

SURFACE DATA

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT — BRKN U PTCH U SPLH U
TIDAL ZONE: SU — UI U MI U LI —

CHAR #: 2 OIL CHAR: CC OIL DIST: CONT X BRKN — PTCH — SPLH X
TIDAL ZONE: SU — UI X MI — LI —

CHAR #: 3 OIL CHAR: MS OIL DIST: CONT U BRKN U PTCH I SPLH X
TIDAL ZONE: SU — UI U MI U LI X

CHAR #: 4 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-2 SUBDIVISION C (3 of 6)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation Spot Washing	WORK PRIOR TO 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1J	Purse Seine Area	No constraint to manual pickup and tarmat removal; closed to bioremediation and spot washing after 7/1.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS bald eagle impact assessment completed on 5/19/90 by Mary Portner indicates no active nests within 400m of the work area.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/1. Avoid mussel beds and disturbance or damage to unrolled biota and substrate.

TAG APPROVAL DATE 5/29/90
ADEC Art Wilson
EXXON Andy Ehl
NOAA B. Wescott
USCG G.A. Reiter

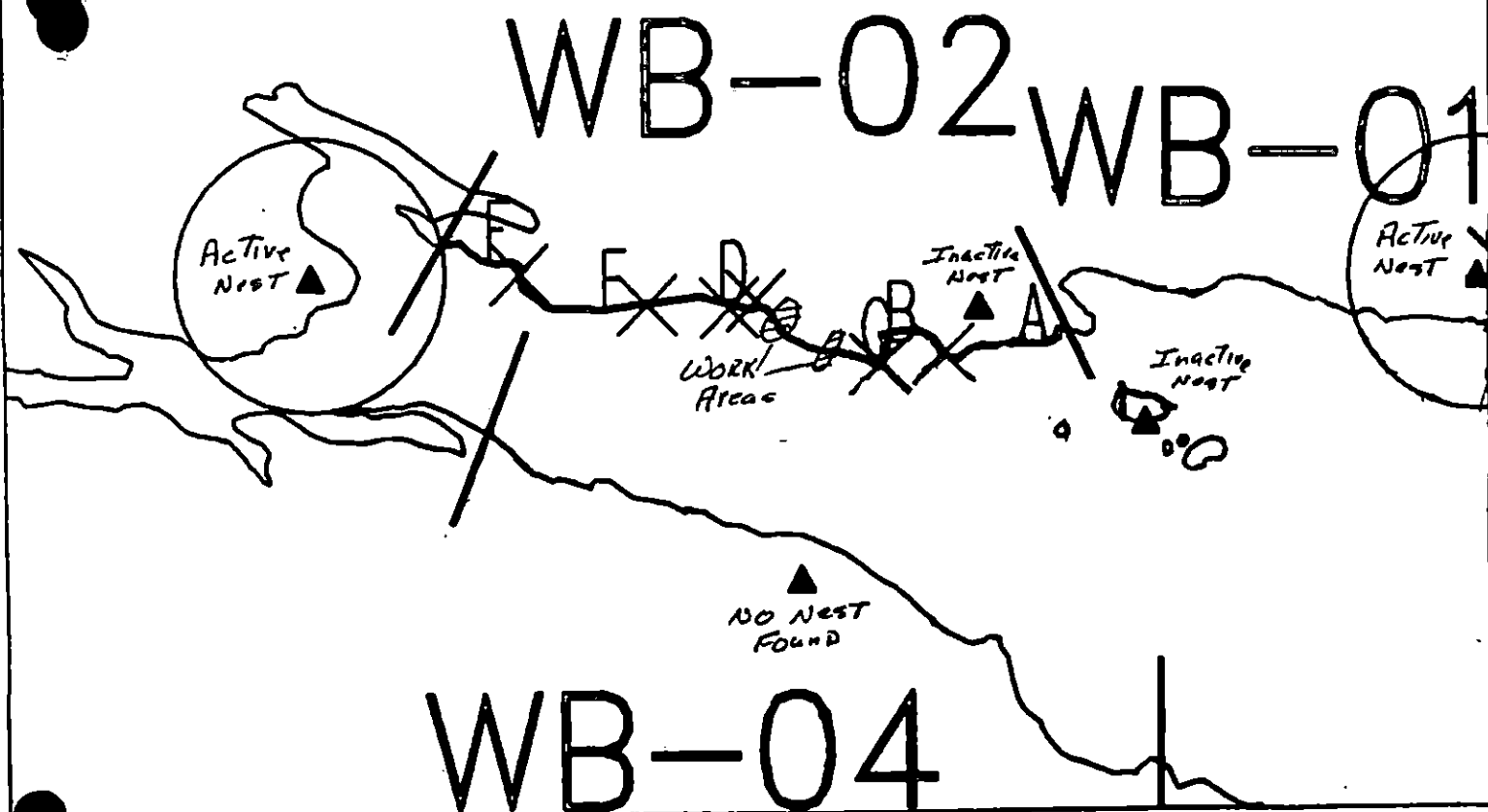
FOSC [Signature]

DATE 5/29/90

Prepared By: Anders Meyer Rex C.

Date 5/28/90

Incorporates information from
FWS Bald Eagle Survey 5/28/90



Exxon Company, USA

ECOLOGY MAP
SEGMENT VB-2
SUBDIVISION C (3 of 6)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

Segment: WB02 Subd: C Site: + Date PRE-Review 14 Aug 90

_____ HIGH X MEDIUM _____ LOW _____ NTR X None

M/p + BID
Asphalt, MODUR

YES ~~CG~~ NO YES ~~ADEC~~ NO YES ~~EXXON~~ NO YES ~~LAND MGR~~ NO

TRG 15 AUG 90

~~ONE~~ Manual pickup of
AP and mouse where of
accessible (one day max.)
followed by BIO
Medium Priority

SHORELINE EVALUATION

SEGMENT ST/ WB-02 SUBDIVISION D (4 OF 6) DATE 4/6/90

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

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

SHPO SIGNATURE: Charles E. Dimes DATE: 4/20/90

OILING CATEGORIZATION:

Wide 13 m: Medium 40 m: Narrow 93 m: V. Light 107 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and manual pick up of mousse, oiled trash, vegetation, and debris as indicated on sketch map. Bioremediation of two small areas also recommended.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90

ADEC Art Weiner Art Weiner
EXXON Andy G.H. [Signature]
NOAA Burl Weir [Signature]
USCG Kenneth K. [Signature]

FOSC: My L DATE: 5-12-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-2 SUBDIVISION: D DATE 4/6/90USCGNAME R. BRYAN HURTE SIGNATURE R. Bryan Hurte DCI☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I agree with the findings of the Shoreline
oiling summary sheet for WB-002 subdivision D

ADECNAME Russell Kunze SIGNATURE Russell Kunze☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

The oiling in this subdivision was a broken band of cover, coat and stain on the rock faces that was from 1/2 m. wide to 3 m. wide. The pocket beaches had patchy bands of asphalt and mousse from 3 m. to 12 m. wide. These beaches were predominantly medium sized boulders.

Recommended treatment: Manual pickup of the asphalt and mousse appears to be the best method although because of the size of the sediments this would leave much of the oiling and other alternatives may need to be considered.

On the rock faces scraping or spot washing of the oil coating is recommended.

LAND MANAGERNAME Patrick Norman SIGNATURE Patrick Norman☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

manual pickup of asphalt layers and patches on surface. manual
water flushing to get the oil down larger boulders.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/90

OG Randy Siegel USCG Bryan H. Hittle SEGMENT ST/ WB-2
 BIO Mike Fawcett LAND REP Pat Varnan SUBDIVISION 0
 EXXON John Deere ADEC Russell K. Mabe TIME 48:42 to 1:15
 TEAM NO.: 17 TIDE LEVEL: +0.6 to +3.8 DATE 4/6/90
 EST. SUBDIVISION LENGTH: 2.59 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 15 % B 60 % C 10 % P 5 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Long 75 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 25 m M 44 m N 60 m VL 130 m NO 0 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	R	B	P	S	SP	OR	OL	OP	NO	SU	U	M	L
ASPHALT PAVEMENT		✓	+					✓	+	✓	+		
POOLED													
COVER													
COAT		+	✓		✓					✓			
STAIN		+	✓		✓	+				✓			
MOUSSE		✓	+	X						✓	+	X	
PATTIES													
TARBALLS													
FILM				X				X		X	X		
NO OIL										X			

PAVEMENT: H (F) 3 sq. m by 2 cmPATTIES / TARBALLS 60 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-17-4Frames 31-36

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		VO	UC	SP	OR	OL	OP	NO	SU	U	M	L		
1	12	X		X			2.9	X						X	X					G,S
2	20		X				0.3	✓							X					S
3	25					X	0.0	✓							X					G,R
4	25				X		2.9	✓				✓			✓					S,G
5	25					X	0.0	✓							✓					S,G
6	15			X			2.6	✓				X				X				S,G

COMMENTS

This subdivision consists of south-facing shoreline ^{with pocket beaches} covered predominantly with boulders. MS-AP collected beneath the boulders in a bank of variable width across much of the subdivision. ST-CT was observed in much of the cliff walls. Some subsurface oiling was observed in April 1989 in 2 of the pocket beaches but presence of boulders made oil level investigation difficult.

10 Randy Siegel

SEGMENT ST/UB-2

SUBDIVISION D

DATE 4/6/90

CHECKLIST

- HAZARD
- Approx. Scale
- Seg/Sub Body
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HAZARD
- SSR
- Profile Location(s)
- Profile(s)
- PI Location(s)
- Photo Location(s)

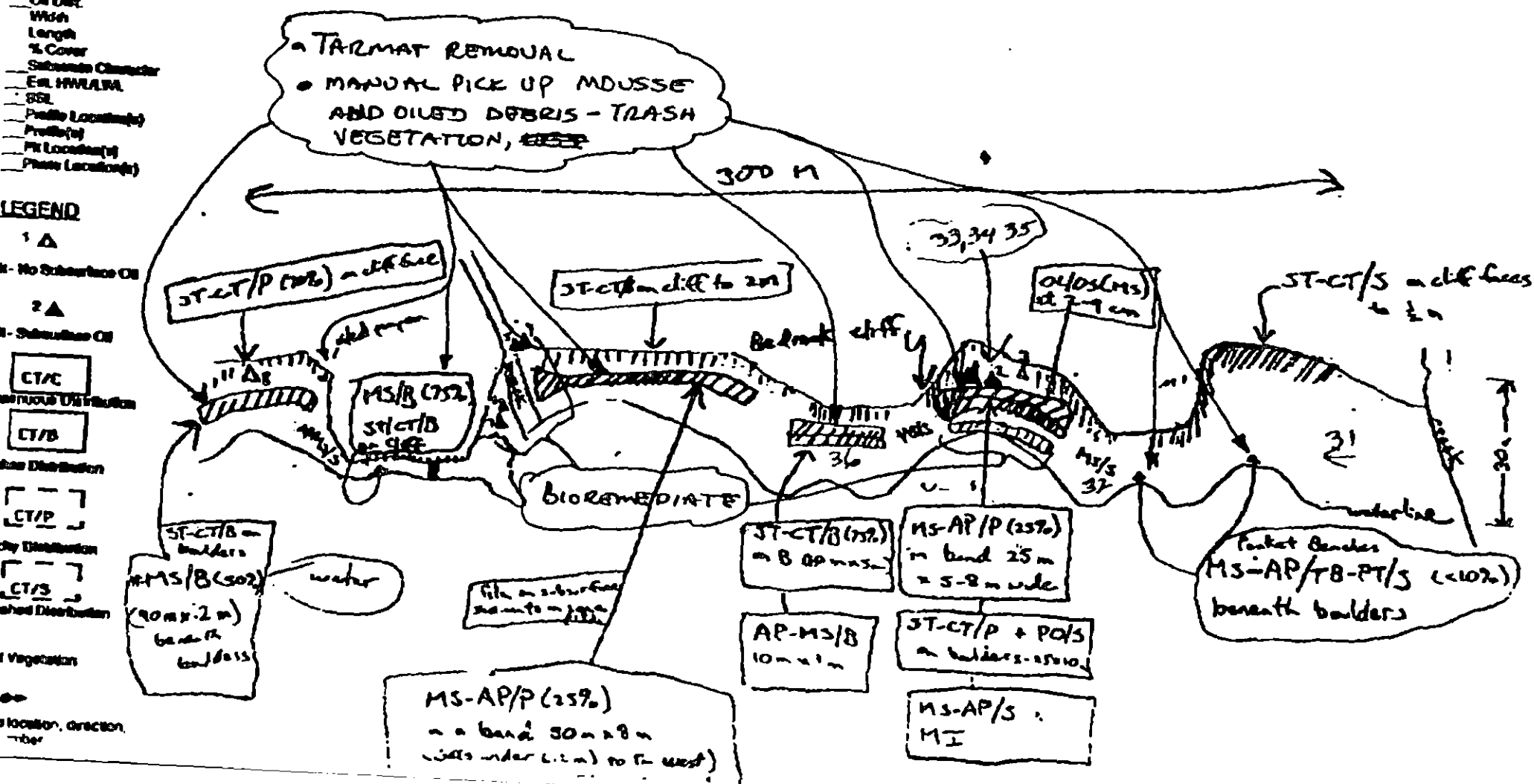
LEGEND

- 1 Δ
- 2 Δ
- 3 Δ
- 4 Δ
- 5 Δ
- 6 Δ
- 7 Δ
- 8 Δ
- 9 Δ
- 10 Δ
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- 13 Δ
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- 97 Δ
- 98 Δ
- 99 Δ
- 100 Δ

SKETCH MAP #1

Subdivision D

Photos ST-17-4 #31-36



OG Randy Siegel
 SEGMENT ST/UB-2
 SUBDIVISION D
 DATE 4/6/90



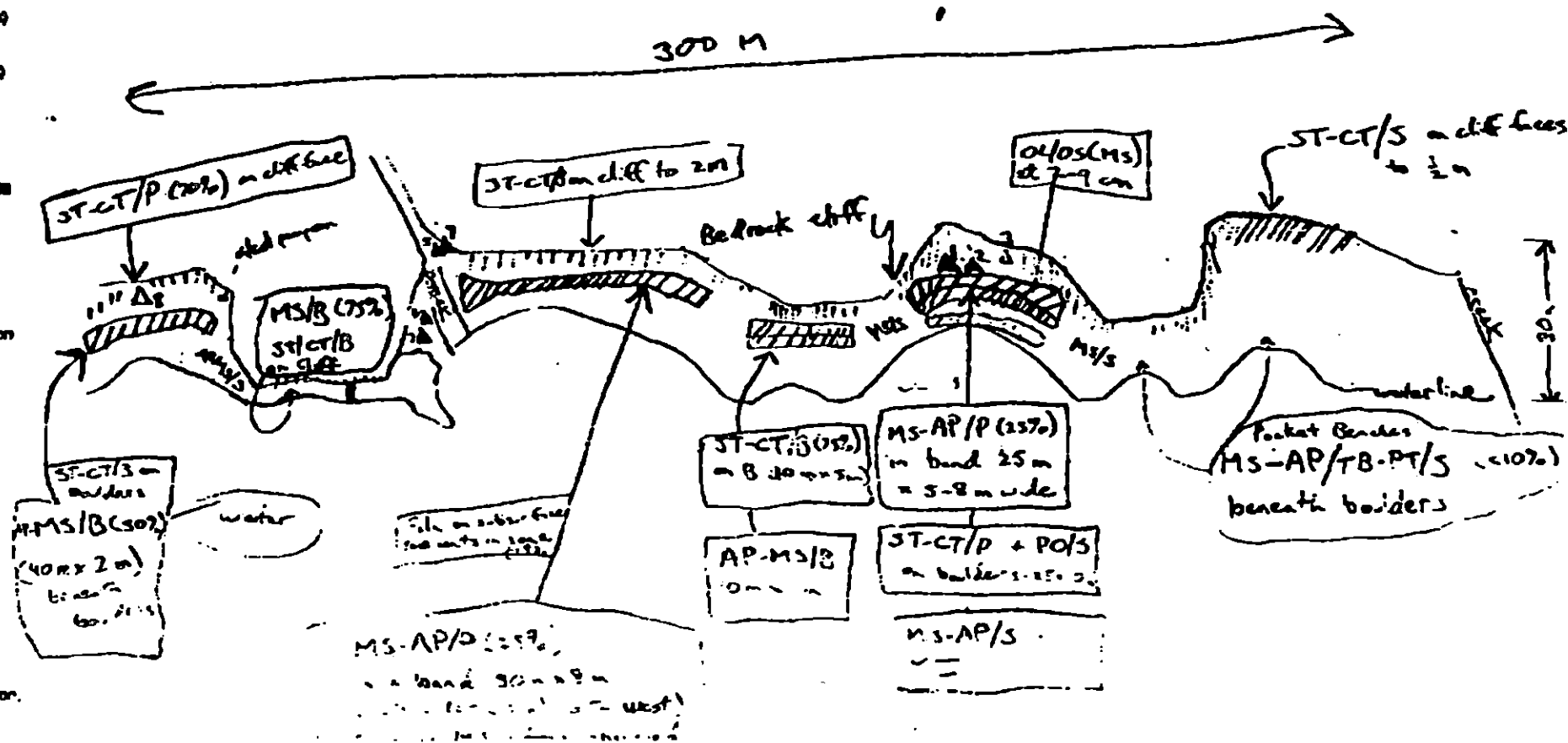
SKETCH MAP #1
 Subdivision D

CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

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



SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Subdivision NK 2 D Date (mo / day / yr) 4 / 6 / 90
 1835-2000 Biologist M. Fawcett

Substrate type and % of segments:

(1) Bedrock 15 (2) Boulder 60 (3) Cobble 10 (4) Pebble 5 (5) Sand 10 (6) Silt 0
 (incl. gravel)

Overall % cover of biota (% of segment): Dense ✓ Moderate Low

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

LES

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

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

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

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

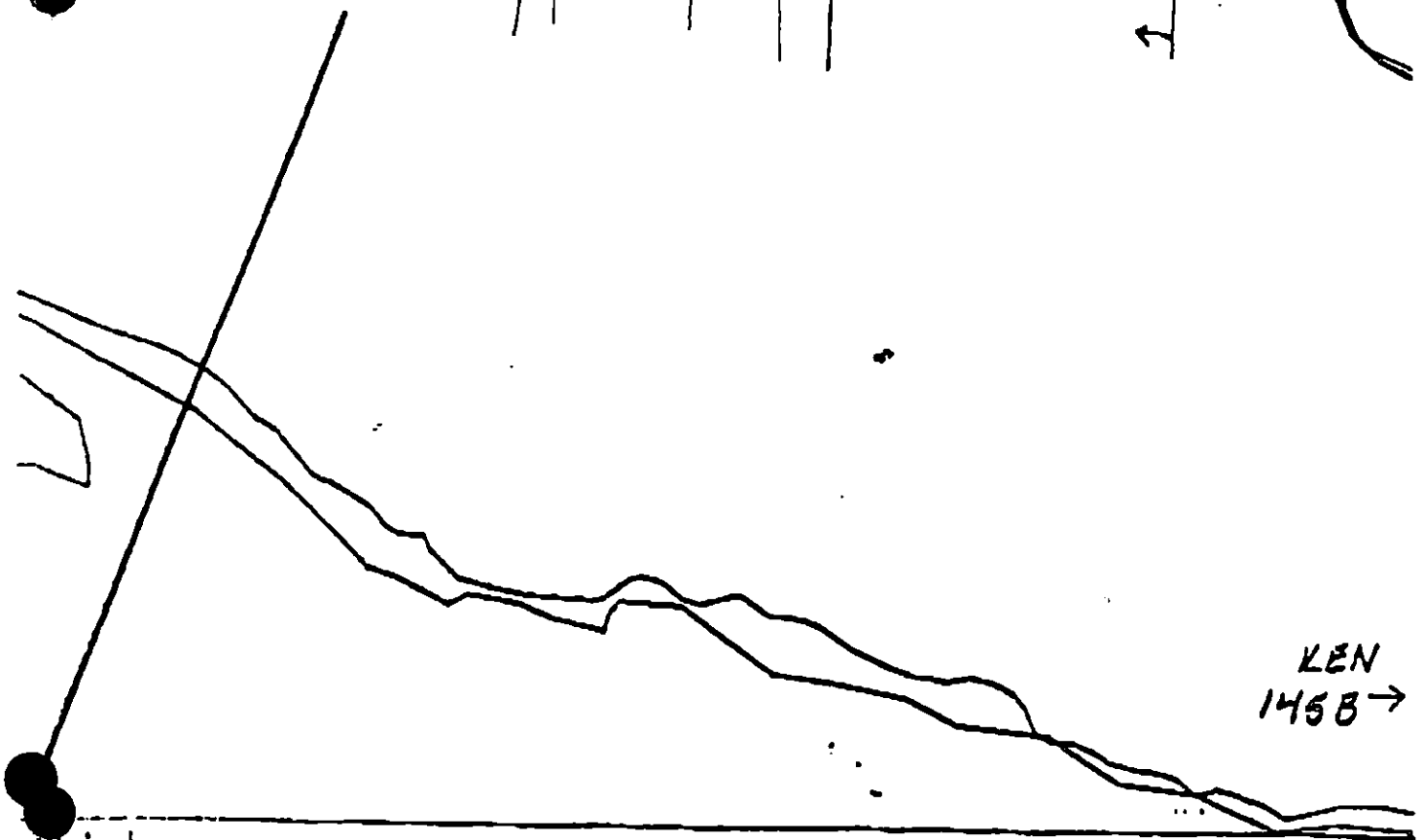
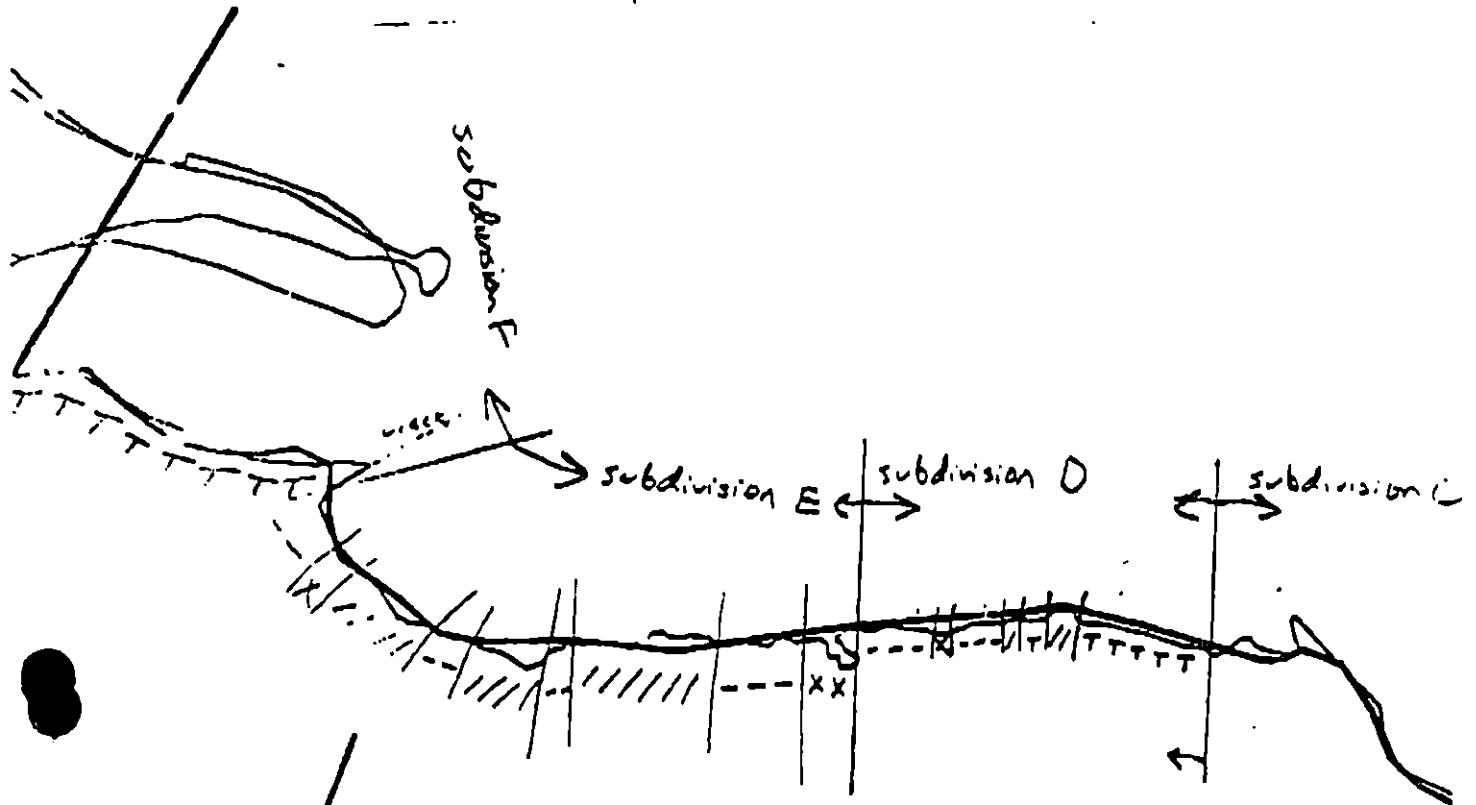
Observations/ General Comments:

weathered oil coating some barnacles in UTZ - most alive, some dead
 100% *Thais marginata* laying eggs, MTZ. *T. lamellosa* and *I. cancellata*
 small blob of herring (or similar) eggs under boulder,
 in a piece of weathered mousse.

activities listed

V V

D



KEN
1458 →

Wide
Medium
Narrow

WB-2

ADEC Segment Length: 2232m

Map Key: KEN-145a

Name: *Edy Angel*

WORK PLAN ADDENDUM

Segment WB 002

Subdivision D

Dated 6/20/90

MODIFICATION

1. REASON FOR MODIFICATION

- TAG FIELD EVALUATION

2. ADJUSTMENT TO WORK PLAN

- BIOREMEDIATION TEAM "OG" TO CLARIFY AREAS FOR BIO BEYOND THAT INITIALLY INDICATED ON SSAT PACKAGE. ALL AREAS WITHIN THIS SUBDIVISION WHERE OIL REMAINS SHOULD BE BIOMEDIATED.
- MINOR PREP WORK PRIOR TO BIO (PICK UP ANY MOUSSE PATTIES) SHOULD BE CONDUCTED PRIOR TO BIO.
- SITE TO BE EVALUATED PRIOR TO FISHING SEASON

SHPO APPROVAL NEEDED YES ✓
NO X

SHPO SIGNATURE Mark E. Holmes 6/22/90

TAG APPROVAL DATE 6/20/90

ADEC Ray Morris R. Morris

EXXON ANDY TEAL

NOAA Jaco - Talbot

USCG G.A. REITER G.A. Reiter

FOSC Janaschi DATE 7/5/90

7/20/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-2 SUBDIVISION D (4 of 6)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Bioremediation	WORK PRIOR TO 7/23

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

COMMERCIAL PURSE SEINE AREA
CLOSED THROUGH 7/23. NO CONSTRAINT
TO BIOREMEDIATION AS PER CONVERSATION
W/ LEE CUNN, ADF
ON 7/20 JPP

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- 1J Purse Seine Area No constraint to manual pickup and tarmat removal; closed to bioremediation after 7/23.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/23. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

TAG ADDENDUM DATE 5/18/90
ADEC Art Weisner Art Weisner
ECHO Amy Tol Amy Tol
NOAA Joseph T. Elliott Joseph T. Elliott
USCG S.A. Beiter

FOSC

DATE 5-18-90

Prepared by:

Andrea Meyer WK

Date: 5/17/90

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS1WB02 Subd.: R Site: _____ Date: Aug - 8 1990

Conditions Observed: Notes of oil about 2 1/2 Super sacks of
clothes remain on this segment. When we cleared up
there some this summer looks better than expected.
There is oil on top and between the rocks & bottle
the mousse is underlying on a lens about 1 1/2 "inches"
thick

Followup Recommendations: Manually remove the oil & sediment
that are covered. Then inspect the area

Completed by Pickup Crew: ☒ YES ☐ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☐ Low

ADEC

Clara S. Crosby
 (name)

Clara S. Crosby
 (signature)

Comments: Manually remove AP & H50R within segment.
Roll B/C to access oil/MS/AP seams when possible.
This segment can be worked in conjunction w/ E & C.

Exxon

Jon Czarnecki
 (name)

Jon Czarnecki
 (signature)

Comments: The 4 man crew that I have on board will
spend about 7 to 9 hrs on this site before we leave
the Ber term is here. Between them it should look better
before we leave.

USCG

AEC Vandepelt
 (name)

AEC Vandepelt
 (signature)

Comments: We will have our crew work this area
while we are here. Reassess in 91. This is one
of 2 areas in Windy Bay where oil "soaks" from bedrock.

Land Rep.

Patrick Norman
 (name)

Patrick Norman
 (signature)

Comments: Asphalt and mousse layers have become exposed
since the crew worked this segment last. can be picked up
with little effort.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS1 WB-2 SUBDIVISION: D SITE: 01 DATE 07 Aug 1990

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Our crew will work this beach area while we are here. Reassess in '91. This was one of the areas looked at by CDR. Bitter to use corexit.

ADEC

NAME Clara Crosby SIGNATURE Clara S Crosby

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Work modification request for further work in '90. Areas of MS & AP remains under easily rolled B/C.

LAND MANAGER

NAME FATICK NORMAN SIGNATURE Fatrick Norman

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Subsurface mousse and debris layers could be exposed over the winter.

subsurface gathering area, snails, bird droppings, mussels.

EXXON

NAME Jon Czarnowski SIGNATURE Jon Czarnowski

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This area has sub surface oil on and into the bed rock area. Sheel has MS + AP we worked this area while here and removed an additional 5000 gal.

TEAM NO 04 EXCON Jon Czarnecki SEGMENTAS WB-2
CG Rich Narty USGS USCG AEC Vandepols SUBDIVISION 3
ADEC Chas Crosby LAND REP Pat Nerman (P.Gr) TOTAL NO. SITES 1
DATE 07 Aug 90 TIME 10:10:10:30 TIDE LEVEL -3 to +0.3
TOTAL EST LENGTH OF SHORELINE SURVEYED: 250252m EM 8/11/90
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
OIL CATEGORY LENGTH: W — m M 108 m N 144 m VL — m NO — m US — m

SITE 1

SITE 2

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT		I _U	U _I			I _U		
S.O.R.			I _U					
POOLED								
COVER								
COAT								
STAIN	X	—	—	—	—	X	—	—
MOUSSE	—	I _U	I _U	—	—	I _U	—	—
PATTIES/T.B.								
FILM								
NO OIL					X	-	X	X
EST. SITE LENGTH					250 m			

[illegible][illegible]

SUBSURFACE OIL

252m RM 8/11

[illegible]

Photographs: ASAP-04-03
Roll No. -CC
Frames 5-15

COMMENTS

Major oiling type consists of a mousse pavement which is beginning to solidify into asphalt. This generally occurs between & beneath large cobbles & boulders and does not appear to be easily recoverable.

OG Randy Siegel

SEGMENT ST/UB-2

SUBDIVISION D

DATE 4/6/90

CHECKLIST

ASAP Annotations

08/07/90

R. Marty

- ☐ 10 Areas
- ☐ Aquatic Strata
- ☐ Sap/Sed Strata
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. MML/ARE
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

P/L - No Subsurface Oil

2 Δ

P/L - Subsurface Oil

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spotted Distribution

And Vegetation

•

Photo Location, Orientation, & Scale

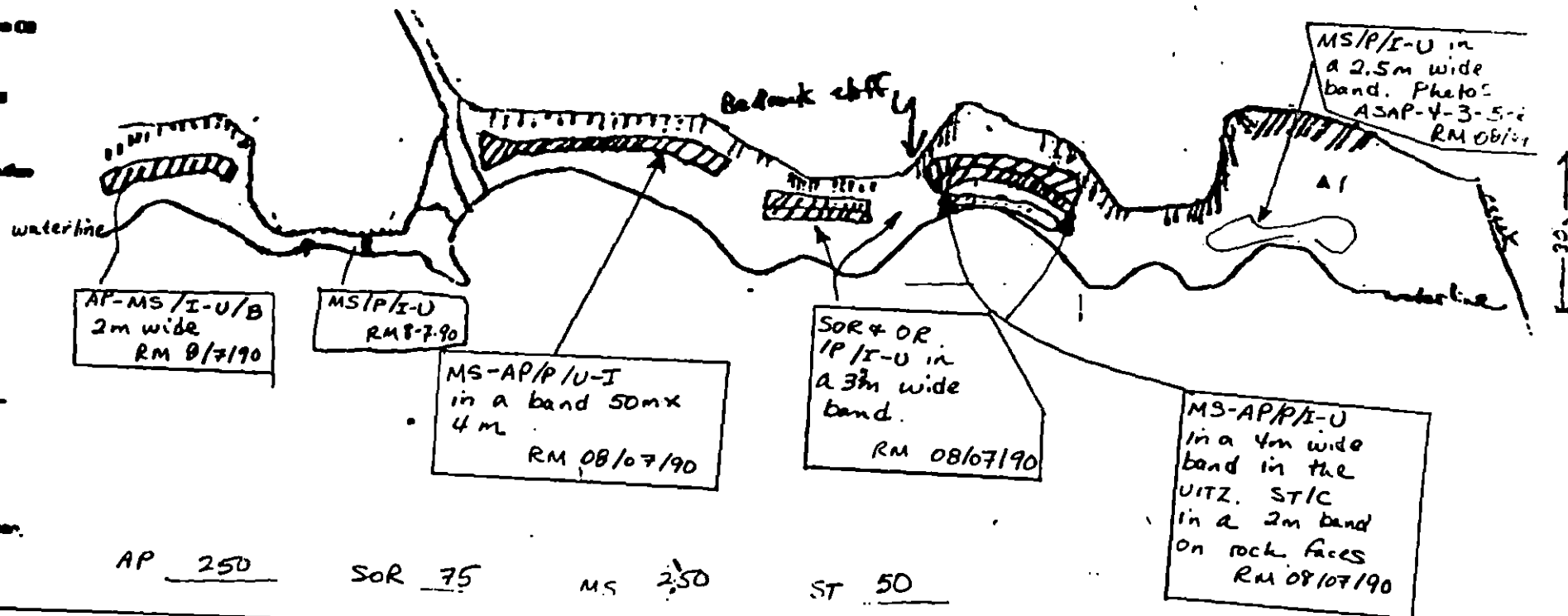
SKETCH MAP

Subdivision D

N
↑

A1 OP 8-17cm
Y TD=18cm
BCP/SGBC

300 M

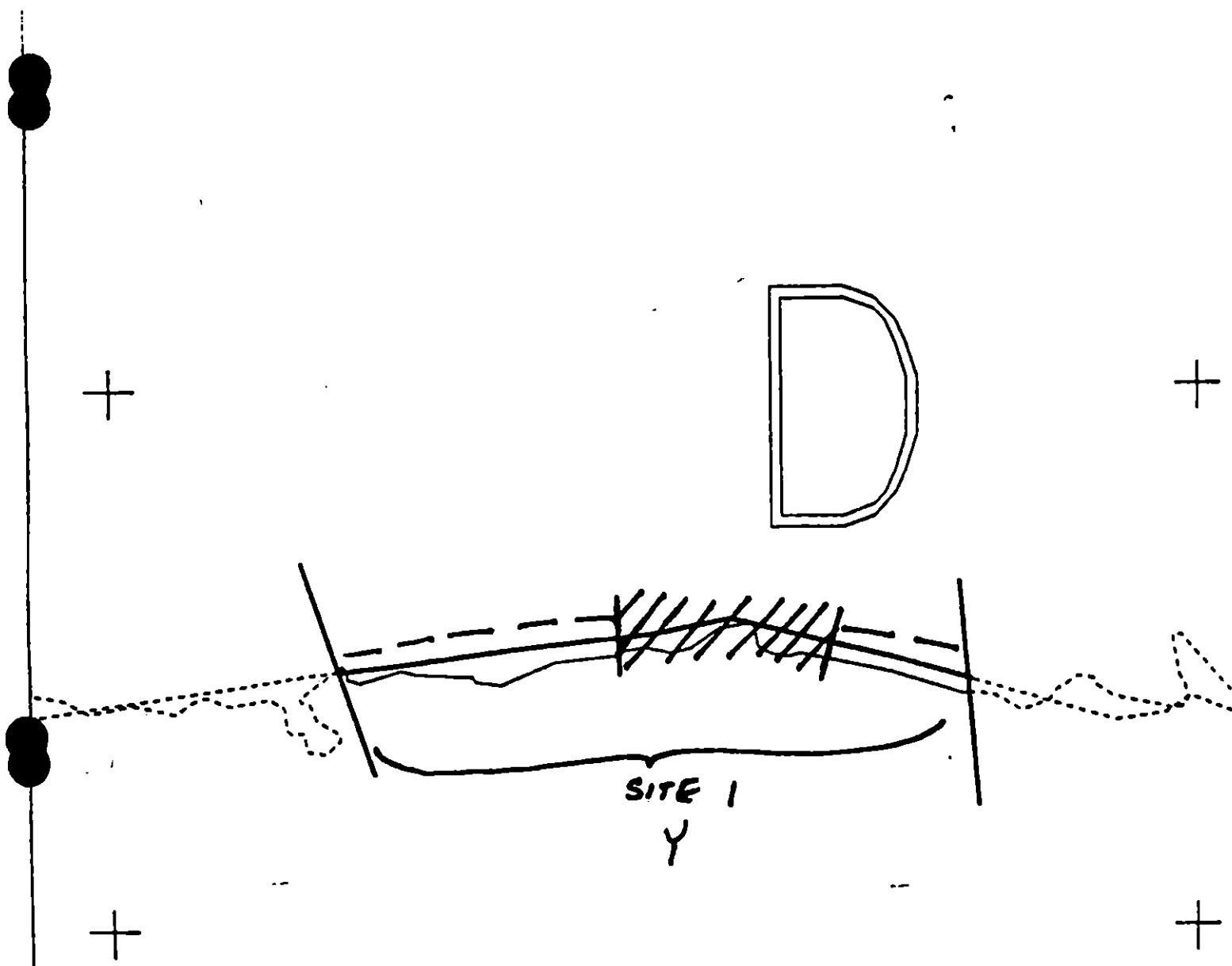


AP 250

SOR 75

MS 250

ST 50



XXXX

Wide

////

Medium

Narrow

TTTT

Very Light

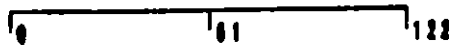
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No Oil

WB-2 D

ADEC Subsegment Length: 252m

METERS



AK State Plane Zone 4 1:2300



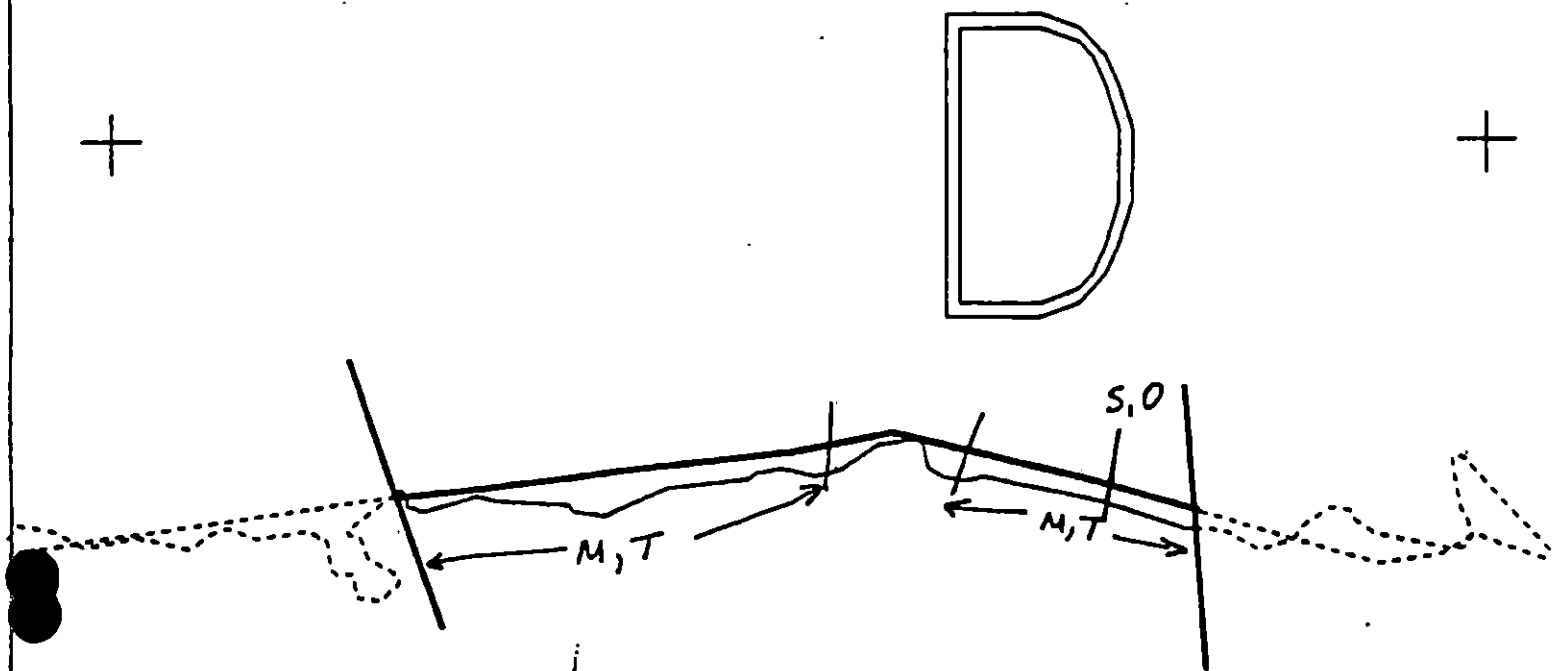
Subdivision Field Map

Map Key: KENWB-20

Name: R. Marty

Date: 11 Aug '90

Data Entered:



"SIGNIFICANT" OILING

XXX
///

TTT
0000

Wide
Medium
Narrow
Very Light
No Oil

WB-2 D
ADEC Subsegment Length: 252m
METERS
0 61 122
AK State Plane Zone 4 1:2500



Subdivision Field Map
Map Key: KENWB-2D
Name: R. Marty
Date: 11 Aug 1990
Data Entered:

ASAP DATA ENTRY FORM

PAGE 02 OF 2GENERAL DATA

SEG ID: WBO2 SBDV: D SITE: 1 TEAM: 4 DATE: 8/7/90
SITE LGTH ²⁵³250 OIL CATEGORIES: W — M 108 N 412 VL — NO — U —
1991 REASSESSMENT: USCG: Y ADEC: Y LDMGR: Y EXXON: Y

SURFACE DATA

CHAR #: 1 OIL CHAR: ^{AP}~~AP~~ OIL DIST: CONT — BRKN IU PTCH UI SPLH —
TIDAL ZONE: SU — UI IU MI — LI —

CHAR #: 2 OIL CHAR: SO OIL DIST: CONT — BRKN — PTCH IU SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: 3 OIL CHAR: ST OIL DIST: CONT X BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI X MI — LI —

CHAR #: 4 OIL CHAR: MS OIL DIST: CONT — BRKN IU PTCH IU SPLH —
TIDAL ZONE: SU — UI IU MI — LI —

CHAR #: 5 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI X LI X

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2

SEGMENT ID: WUB02 SUBDIV: D SITE: 1

PIT # 1 PIT DEPTH 18cm OIL CHARACTER OP OIL INTVAL: FROM 8 TO 17
 CLEAN BELOW: X PIT ZONE: SU UI X MI LI
 SUBSURF SEDIMENT: BRK BLD X COB X PEB X GRN X SAN X MUD VEG

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

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

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

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

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

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

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

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

ASAP TAG REVIEW SHEET

Segment: WB02 Subd: D Site: +

Date
PRE-Review 14 Aug 90

Priority For Addressing In 1990

 HIGH MEDIUM LOW NTR

X None

Treatment
Recommended:

MP + BIO

Asphalt, Soil, ADUJR

Priority Site For Reassessment In 1991

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

TAG 15 AUG 90

Re bio (already Sched)
Reassess 91

SHORELINE EVALUATION

SEGMENT ST/ WB-02 SUBDIVISION E (5 OF 6) DATE 4/4/90

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

SUBDIVISION ECOLOGICAL CONSTRAINTS:
Avoid disturbance or damage to uncoiled biota and substrate.

SHPO SIGNATURE: Charles E. Adams DATE: 4/20/90

OILING CATEGORIZATION:

Wide 72 m: Medium 238 m: Narrow 140 m: V. Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 15 +cm

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of tarmat and manual removal of
mousse, patties and tar balls. + DEBRIS / TRASH
SPOT WASH AS REQUIRED FOR AREAS INACCESSIBLE FOR MANUAL REMOVAL OF
MOUSSE

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/19/90.
ADEC ART WEINER
EXXON ANDY TEAL
NOAA BILL WALCOTT
USCG KENNETH KEANE

FOSC: WJL DATE: 5-12-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-2 SUBDIVISION: E DATE 4/4/90

USCG

NAME R. Bryan Hirtz SIGNATURE R. Bryan Hirtz DCI

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I agree with the findings of the Shoreline
Oiling Summary sheet for segment WB-001-
subdivision E

ADEC

NAME RUSSELL KIMIRE SIGNATURE Russell Kimire

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

See attached 1 page.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Agreed with oiling summary sheet for WB-2 - Subdivision E.
Recommend manual pickup of surface and subsurface oil.
Oiling will need to do additional worm water flushing to get
majority of the oil.

SEGMENT WB-2

SUBDIVISION: E

DATE: 4/4/90

ADEC

Russell Kunibe

Signature

Russell Kunibe

Treatment Suggested

The finding of the shoreline oiling summary accurately describe the oiling. In sketch map #1 the buried oil was under small boulders cobbles and gravel which could be moved. The pooled mousse in the segment was usually in the cracks of bedrock and around the base of the boulders.

Recommended clean up

Manual pick up of the mousse, asphalt and patties, including the buried mousse saturated lens in sketch map #1. Scraping or spot washing of the oil cover on the rock faces. Possible flood washing of the pocket beaches if the mousse and asphalt becomes less viscous in the warm weather. Deployment of snare booms if sheen develops during treatment. Bioremediation of the pocket beaches after they have been checked to insure that the gross contamination has been removed.

REVISION NO: 025228

SURFACE OIL

Frames 5-12

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CE)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	20-29	30-39	40-49	50-59	60-69	70-79	80-89	SU	U	M		
1	15			X			6-15	X							X		X				G
2	12	X					0-7		X						X		X				G
3	10		X	X			6-7		X						X			X			G
4	12		X	X			6-7		X						X			X			G
5	15					X	0-0		X										X		G

COMMENTS This subdivision consists of shoreline with large boulders covering much of it. A band of oiling was observed along the UI across much of the subd. m. Some areas consisting of ST-CT-CV, TB-PT, or an AP layer. The oil is typically 3 meters in width. A buried layer of mousse - thickness and dip in various ~~positions~~ was observed on the largest pocket beach in this subdivision.

UG Field

SEGMENT ST/ W2-2

SUBDIVISION E

DATE 4 / 1 / 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAV/LAV
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
P/L - No Subsurface Oil

2 Δ
P/L - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patched Distribution

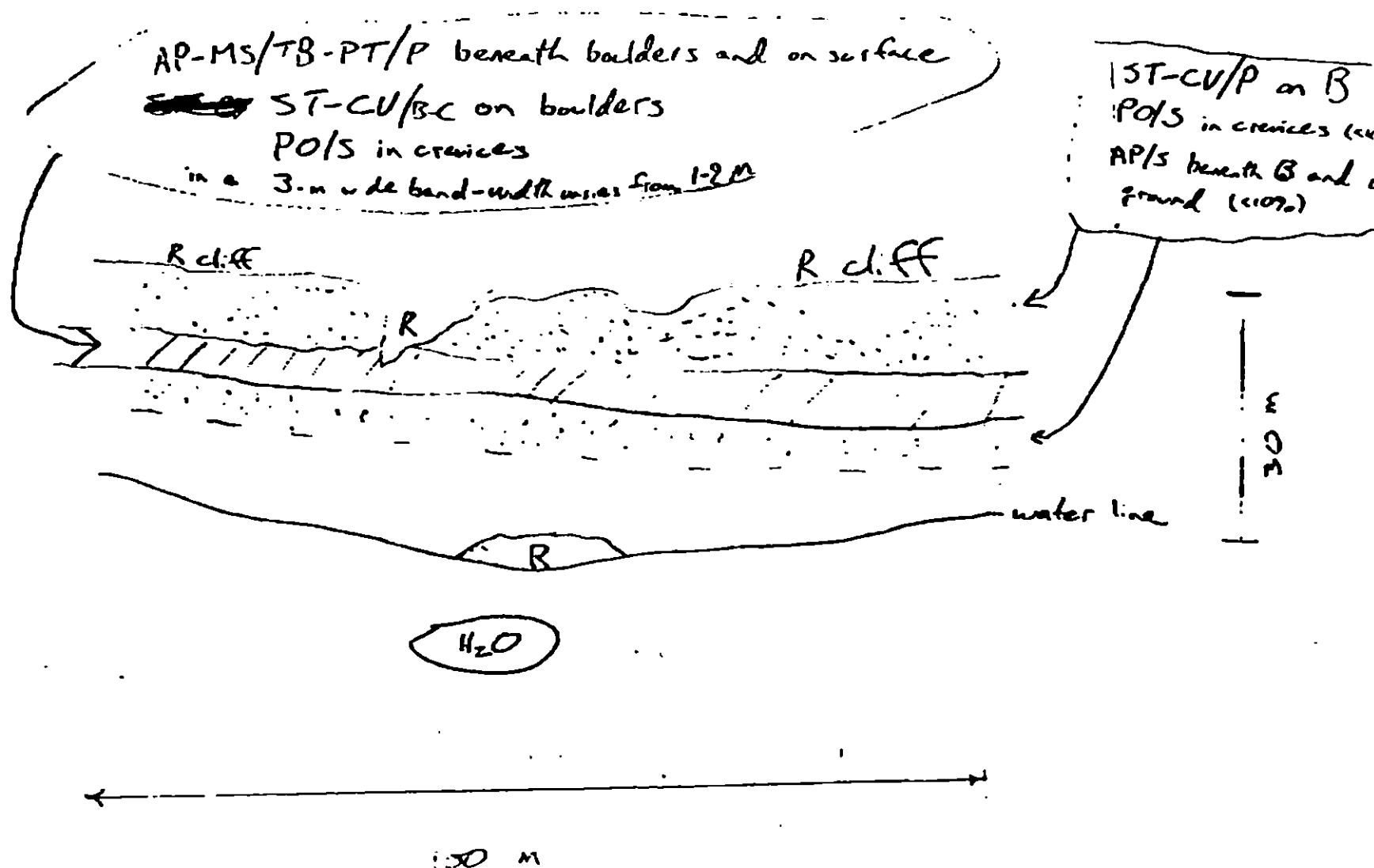
CT/S
Splashed Distribution

Oil Vegetation

1 →
Photo location, direction,
and number

SKETCH MAP

2



H Character Length (m) AP 75 PO 1 CV 25 CT 1 ST 1 MS 75 PT 75 TB 75 FL 1 NO 1

REVISION 03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISED: 03/22/88

Segment ST / WR-2 Subdivision E Date (mo / day / yr) 4/4/90Time (24 hr) 1805-1900 Biologist Fawcett

- A) Substrate type and % of segments: (incl. gravel)
 (1) Bedrock 10 (2) Boulder 45 (3) Cobble 30 (4) Pebble 15 (5) Sand 0 (6) Silt 0
- B) Overall % cover of biota (% of segment): Dense ✓ Moderate ✓ Low ✓ (barnacles)
- 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-17-4Frames 5-12

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

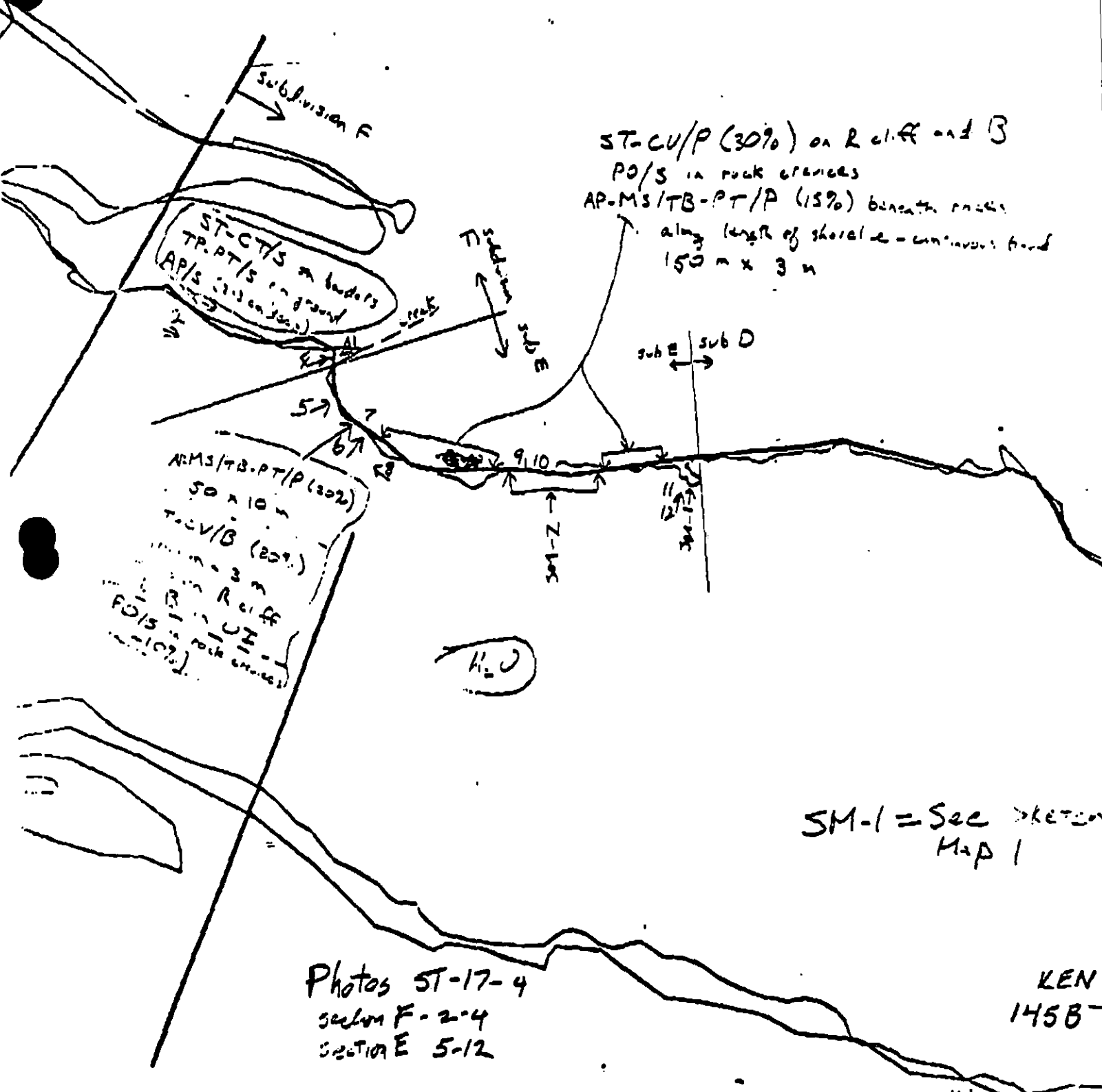
Locally dense beds of mussels among pebbles in mini-cove areas. Dense cover is on flat at mouth of small non-anadromous creek. Pat Norman, 10/1/89 (USFWS Corp.) confirms that fish do not use creek. Very little algae in creek.

Ecological Considerations:

Whole subsection, other than Fucus and patches of Enteromorpha. Limpets moderately abundant among boulders & cobble. No birds or mammals seen.

none listed

V V D



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

WB-2

ADEC Segment Length: 2232m

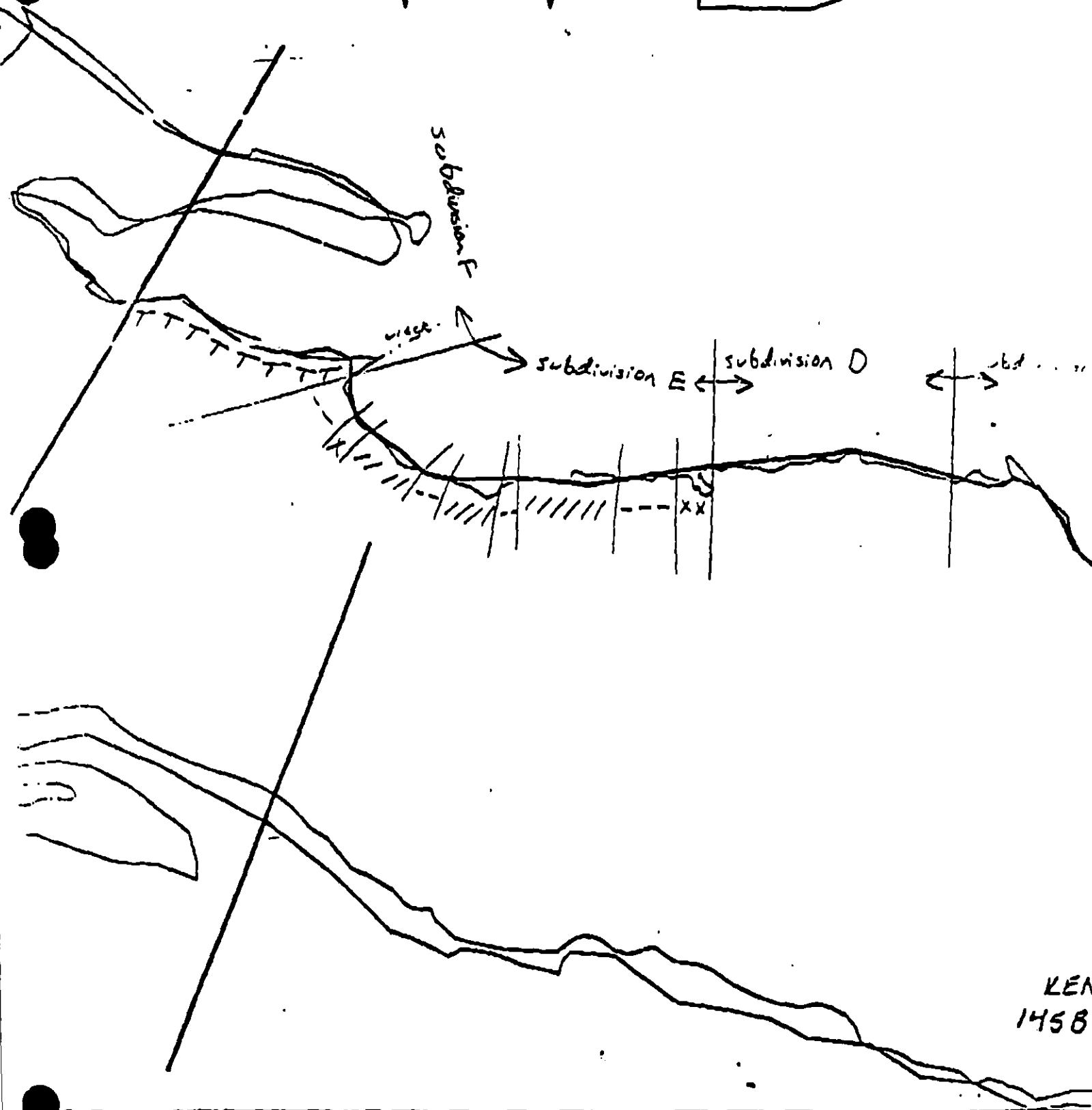
Map Key: KEN-145a
Name: Ladyburg
Date: 4/4/90

11-11-60 11-11-60 11-11-60

F. 09

V V V

D



XXX Wide
//// Medium
---- Narrow
TTTT

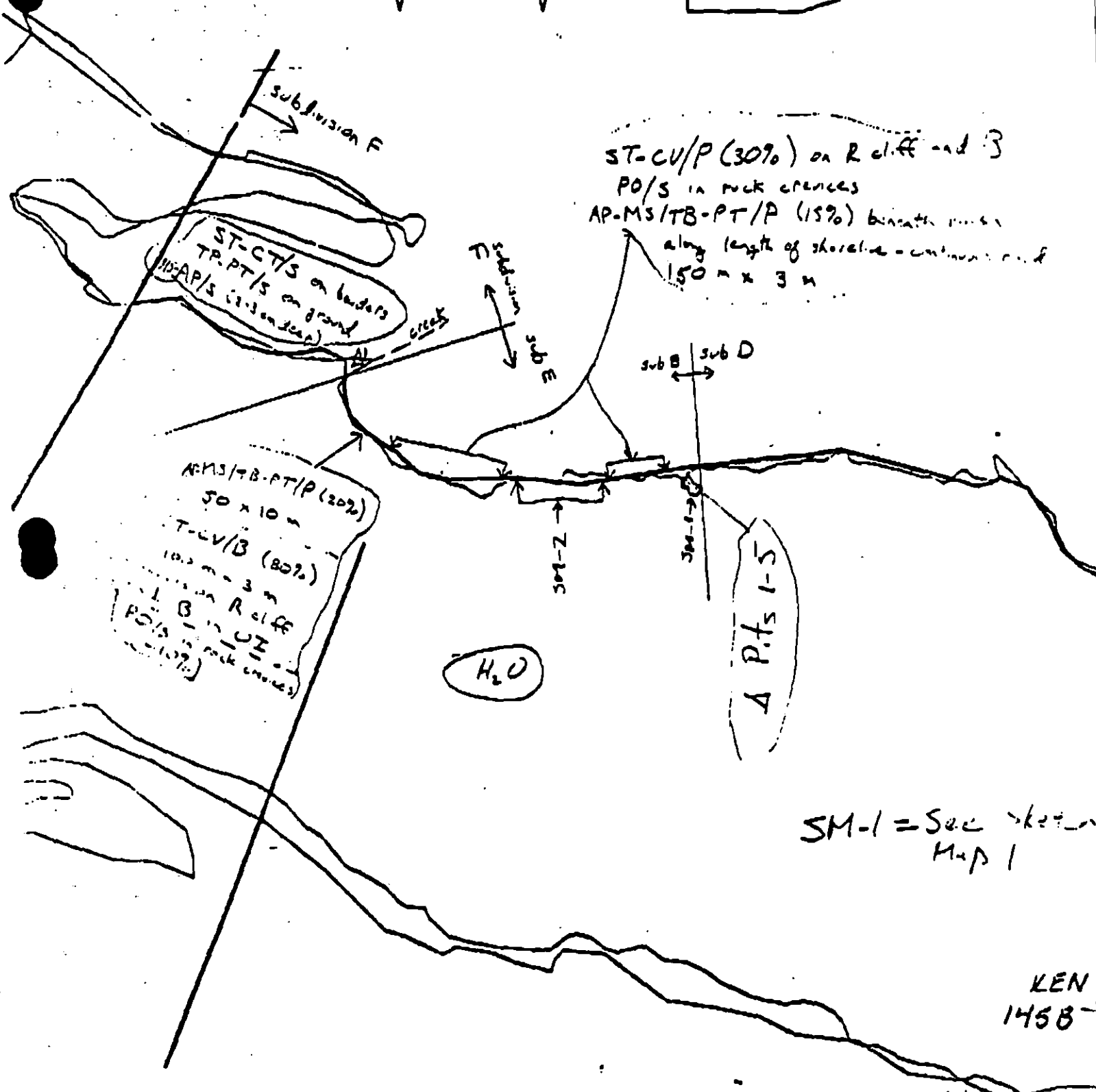
WB-2

ADEC Segment Length: 2232m

Map Key: KEN-1450

Name: Edy 100-10

VVD



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

WB-2

ADEC Segment Length: 2232m

Map Key: KEN-1450

Name: Andy Dwyer

Date: 4/4/10

WORK PLAN ADDENDUM

Segment WB 002

Subdivision E

Dated 6/20/90

MODIFICATION

1. REASON FOR MODIFICATION

• TAG FIELD EVALUATION

2. ADJUSTMENT TO WORK PLAN

- BIOREMEDIATION TEAM "OG" TO CLARIFY AREAS FOR BIO BEYOND THAT INITIALLY INDICATED ON SSAT PACKAGE. ALL AREAS WITHIN THIS SUBDIVISION WHERE OIL REMAINS SHOULD BE BIOREMEDIATED.
- MINOR PREP WORK PRIOR TO BIO (PICK UP ANY MOUSE PATTERNS SHOULD BE CONDUCTED PRIOR TO BIO.
- SITE TO BE EVALUATED PRIOR TO FISHING SEASON.

SHPO APPROVAL NEEDED YES ✓
NO X

SHPO SIGNATURE Chuck Z. Hoffman 6/22/90

TAG APPROVAL DATE 6/20/90

ADEC Ray Morris R. Morris

EXXON AMY TSE

NOAA Jason Talbot JCT

USCG G.A. REITER, G.A. Reiter

FOSC R. Zenski DATE 7/5/90

7/20/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-2 SUBDIVISION E (5 of 6)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN
Spot Wash & bioremediation	WORK PRIOR TO 7/23

COMMERCIAL PURSE SEINE AREA
CLOSED THROUGH 7/23. NO CONSTRAINT
TO BIUREMEDIATION AS PER CONVICTION
OF TUM MANAWA W/LEE GLENN,
ADFG ON 7/20 PPP

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 584-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1J Purse Seine Area No constraint to manual pickup and tarmat removal; closed to spot washing after 7/9.
23

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/9. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.
23

TAG ADDENDUM DATE 5/18/90
ADEC Art Weintra
EOXON Andy GSA
NOAA Jason Tolbert
USCG G.A. Britton

FOSC

DATE 5-18-90

Prepared by: Anda Meyer WTS

Date: 5/17/90

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/WB02 Subd.: E. Site: _____ Date: Aug 8 1990

Conditions Observed: Some oil under lying the rocks and
leaching to the surface in small asphalt patches.
The oil appears to go to the bedrock layer below
and leak up around as the top layers get removed.

Followup Recommendations: Manually pick up and
dispose of ADF+6 with allow.

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☒ High ☐ Mod. ☐ Low

ADEC

CLARA S. Crosby
(name)

Clara S. Crosby
(signature)

Comments: Exposed hrs & AP recovery - when possible the crew should
follow beams & remove
Work this segment in conjunction of D.C.

Exxon

TON CORSECKI
(name)

TON CORSECKI
(signature)

Comments: Manually remove the small consolidation of
asphalt which is cracking up around from the
bedrock.

USCG

AFC Vandevote
(name)

AFC Vandevote
(signature)

Comments: Manually remove AP & bio this year.
This is one of 2 areas in Windy Bay that
oil "oozes" from bedrock.

Land Rep.

Patrick Norman
(name)

Patrick Norman
(signature)

Comments: The oil that has become exposed can be picked
up manually by a crew.
substance gathering area,

SEGMENT AS1 WB-02 SUBDIVISION: E SITE: 01 DATE 07 Aug '90USCGNAME AEC Vandepels SIGNATURE AEC Vandepels☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Found 2x4 M area of AP/MS on eastern most pocket beach. This was an area looked at by GDR letter to use corexit. Recommend manual & bio again this year. Western most pocket beach had 5 1x2 M areas of AP/MS that also needs manual and bio this year. Classified in 91.

NAME Clara S. Crosby SIGNATURE Clara S. Crosby☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Work modification request for further Cleanups in '90. High priority site for reassessment in '91.

There are pockets of mousse remaining under ^{some} easily rolled B/C armor.

LAND MANAGERNAME Patrick Norman SIGNATURE Pat Norman☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

unexposed subsurface oil in E segment should become exposed over the winter and needs to be reassessed in 1991

Additional work requested on exposed mousse layers 8-3-90. also all of E segment is a subsistence gathering area. (E) snails, birds, etc.

EXXONNAME Jon Carnecki SIGNATURE Jon Carnecki☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This area is one that correct was discussed to remove the oil. It bleeds as wear and worm up. MB, AP, CR are highly visible on this sub segment.

ASAP SHORELINE OILING SUMMARY

TEAM NO 24 EXXON Jon Czarnecki SEGMENT AS WB-1
 CG Rich Marty USGS USCG AEC Vandepels SUBDIVISION E
 DEC Claire Crosby LAND REP Pat Norman (PGR) TOTAL NO. SITES 1
 DATE 07 Aug 1990 TIME 10:30 to 10:45 TIDE LEVEL +0.3' to +0.3'
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 360-449m RM 8/11/90
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W — m M 60m N 300m VL — m NO — m US — m
75 374 RM 8/11/90

SURFACE OIL

SITE 1

SITE 2

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT	—		I _U	I _U	—	I _U	I _U	—
S.O.R.	—		X	—	—	X	X	—
POOLED								
COVER								
COAT								
STAIN								
MOUSSE	—		I _U	I _U	—	I _U	I _U	—
PATTIES/T.B.								
FILM								
NO OIL					X	—	—	X
EST. SITE LENGTH					<u>360m</u>			

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

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

SUBSURFACE OIL

449m RM 8/11/90

SITE NO.	PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER				OILED INTERVAL (cm)	CLEAN BELOW (Y/N)	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS
			OP	OR	OF	NO			SU	UI	MI	LI	
	<u>NO</u>	<u>PITS</u>					.	.					
							.						
							.						
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Photographs: ASAP-04-03
 Roll No. -CC
 Frames 16-24

COMMENTS Most of the remaining oil consists of a mousse pavement which is solidifying to asphalt. This oil is found between & beneath cobbles, boulders & rubble & has associated SOR. The remaining oil will not be easily recovered.

UG 6-24
 SEGMENT ST/ W3-2
 SUBDIVISION 1
 DATE 4/1/80

SKETCH MAP

2
 of western area



CHECKLIST

- ☐ 30 Areas
- ☐ Approx. Scale
- ☐ Map/Chart Entry
- ☐ OB Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HABITAT
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
 P1 - No Subsurface OB

2 Δ
 P1 - Subsurface OB

CT/C
 Common Distribution

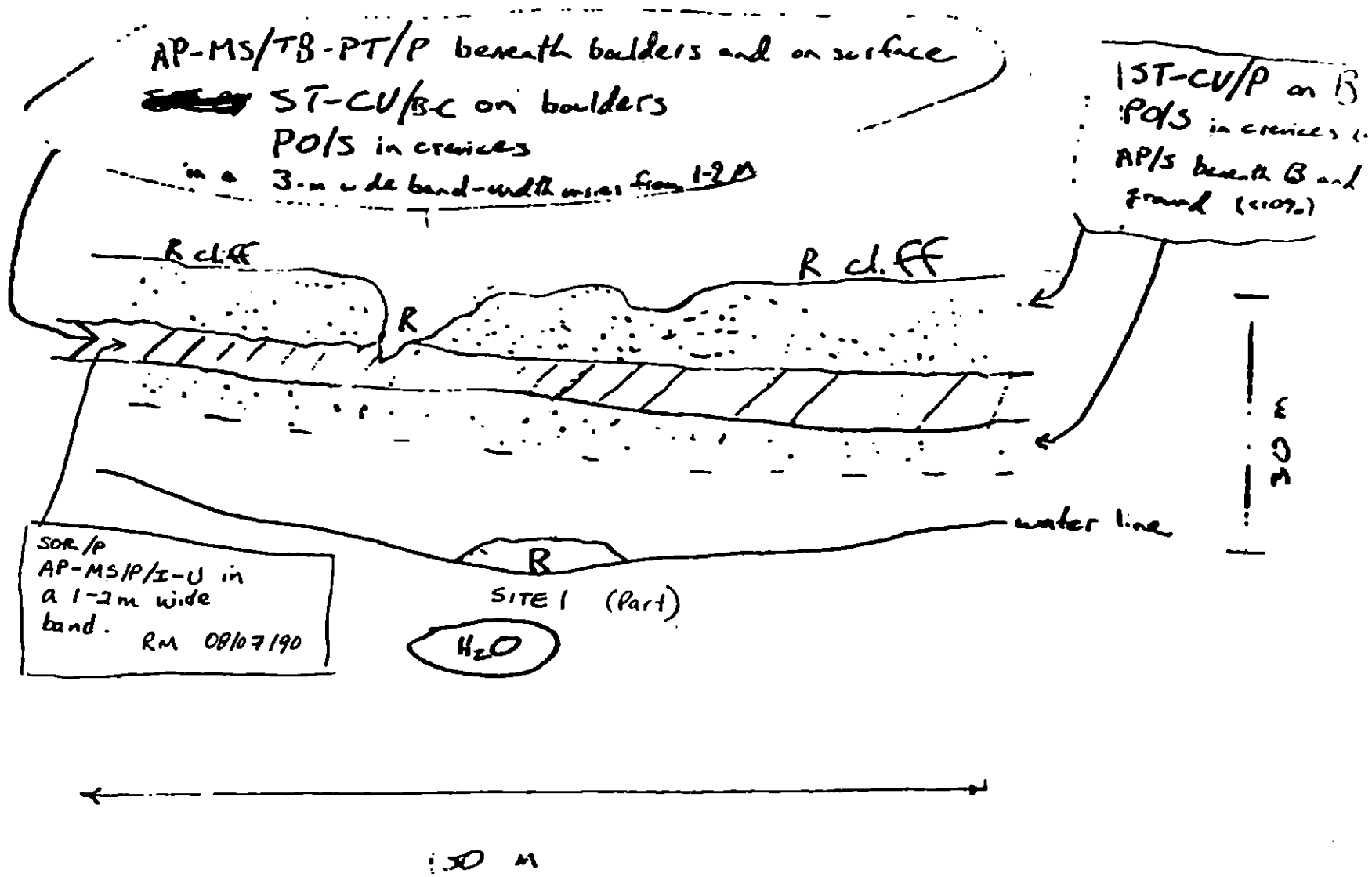
CT/B
 Substrate Distribution

CT/P
 Width Distribution

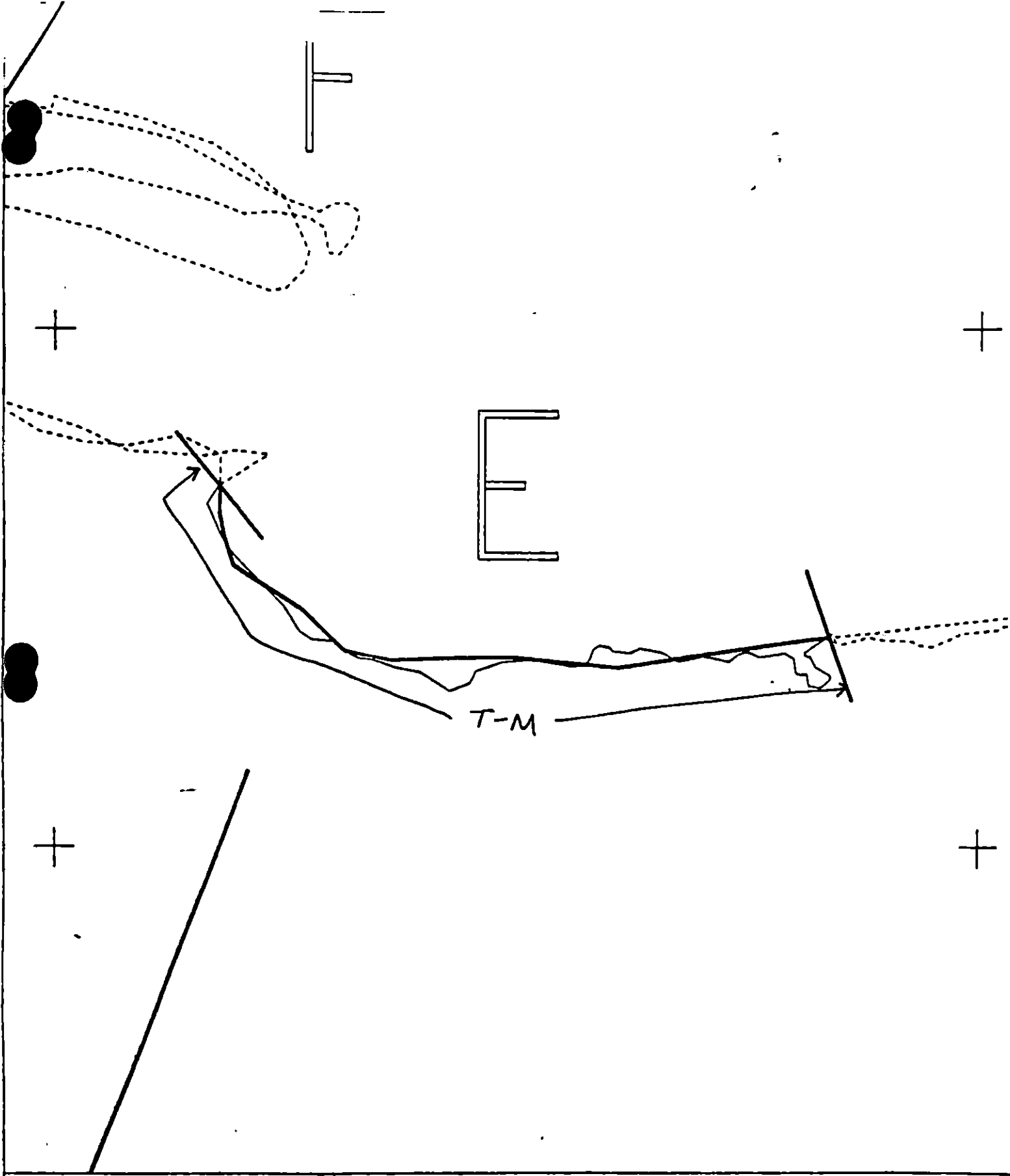
CT/S
 Plotted Distribution

Red Vegetation

1 →
 (no location, direction, or number)



Character Length (m) AP PO CV CT ST MS PT TB FI

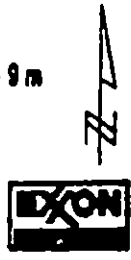


XXX
 ///

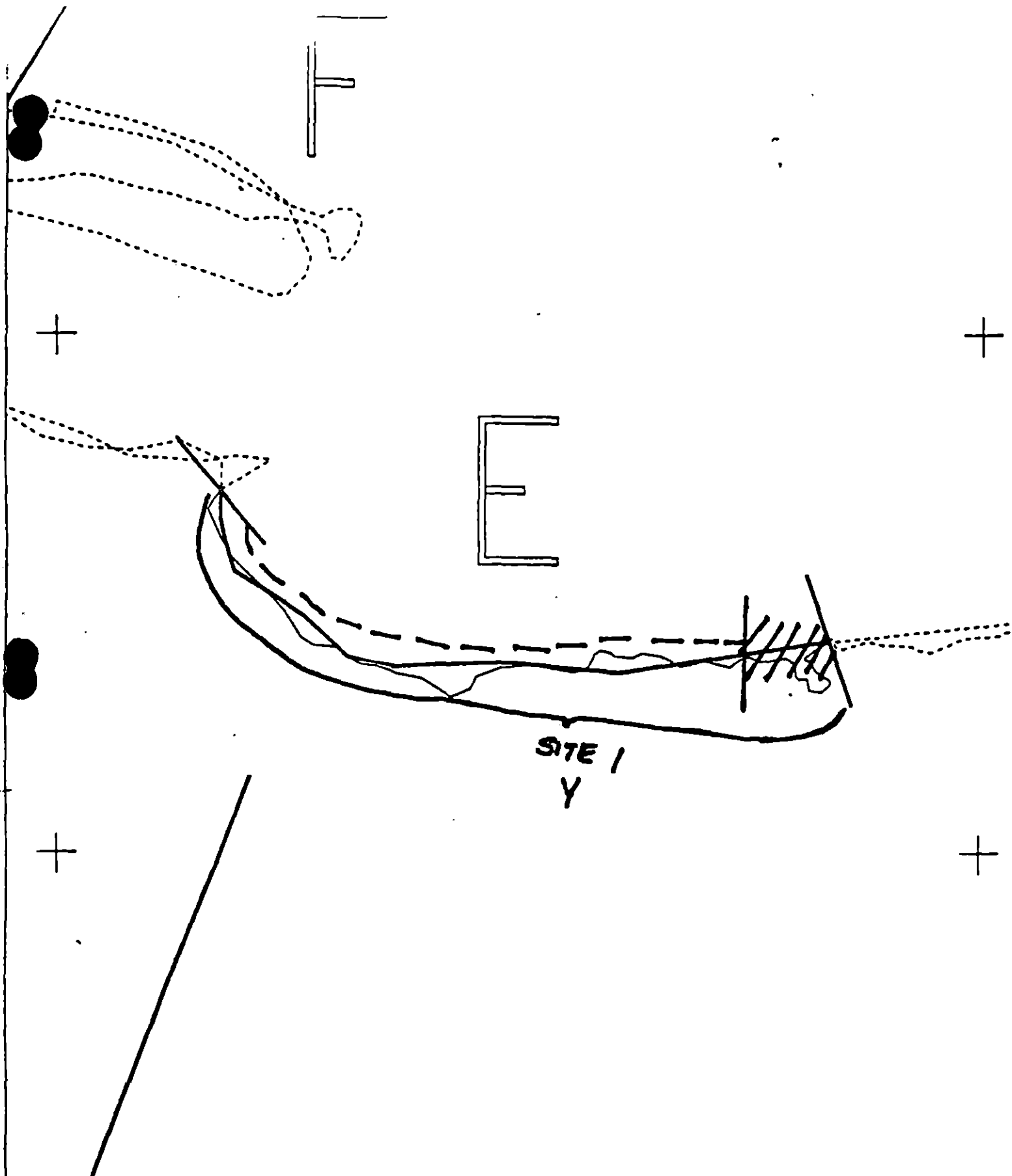
 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

WB-2 E
 ADEC Subsegment Length: 449m
 METERS
 0 51 102
 AR State Plane Zone 4 1:3183
 sub-7a



Subdivision Field Map
 Map Key: KENWB-2E
 Name: R. Marty
 Date: 11 Aug 1990
 Data Entered:



XXXX
 ////

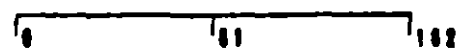
 TTTT
 0000

Wide
 Medium
 Narrow
 Very Light
 No Oil

WB-2 E

ADEC Subsegment Length: 449m

METERS



AK State Plane Zone 4 1:3183



Subdivision Field Map

Map Key: KENWB-2E

Name: R. Marty

Date: 11 Aug 1990

Date Entered:

ASAP DATA ENTRY FORM

PAGE 1 OF 2GENERAL DATA

SEG ID: WBO3 SBDV: E SITE: 1 TEAM: 4 DATE: Aug 7-1990
SITE LGTH 360⁴⁴⁹ OIL CATEGORIES: W — M 60⁷⁵ N 30³³ VL — NO — U — RM 8/11/9
1991 REASSESSMENT: USCG: Y ADEC: Y LDMGR: Y EXXON: Y

SURFACE DATA

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT — BRKN — PTCH I_U SPLH I_U
TIDAL ZONE: SU — UI I_U MI I_U LI —

CHAR #: 2 OIL CHAR: SD OIL DIST: CONT — BRKN — PTCH X SPLH —
TIDAL ZONE: SU — UI X MI X LI —

CHAR #: 3 OIL CHAR: MS OIL DIST: CONT — BRKN — PTCH I_U SPLH I_U
TIDAL ZONE: SU — UI I_U MI I_U LI —

CHAR #: 4 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI — LI X

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: W302 SUBDIV: e SITE: 1PIT # 0 PIT DEPTH 0 OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

100 Pits Dig this Subsegment.

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

PIT # _____ PIT DEPTH _____ OIL CHARACTER _____ OIL INTVAL: FROM _____ TO _____
CLEAN BELOW: _____ PIT ZONE: SU _____ UI _____ MI _____ LI _____

SUBSURF SEDIMENT: BRK _____ BLD _____ COB _____ PEB _____ GRN _____ SAN _____ MUD _____ VEG _____

ASAP TAG REVIEW SHEET

Segment: WB02

Subd: E Site: 1

Date
PRE-Review 14 Aug 90

Priority For Addressing In 1990

☒ HIGH

☒ MEDIUM

☐ LOW

☐ NTR

Treatment
Recommended:

m/p - f - A - D

Asphalt, soil, rubble

Priority Site For Reassessment In 1991

YES ☒ NO ☐
/ CG —

YES ☒ NO ☐
/ ADEC —

YES ☒ NO ☐
/ EXXON —

YES ☒ NO ☐
/ LAND MGR —

TAB 15 AUG 90

NTR

reassess 91

SHORELINE EVALUATION

SEGMENT ST/ WB-02 SUBDIVISION F (6 OF 6) DATE 4/4/90

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

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

SHPO SIGNATURE: J. David McMahon DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 271 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

MANUAL PICKUP OF TARMATS, DEBRIS + TRASH.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/20.
ADEC Art Weiner
EXXON ANDY GAL
NOAA Bert Warratt
USCG KENNETH KEANE

FOSC: WJL DATE: 5-8-90

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ WB-2 SUBDIVISION: F DATE 4/4/90

USCG

NAME R. BRYAN HIRTE SIGNATURE R. Bryan Hirte

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

I agree with The findings of The Shoreline
Oiling Summary sheet for Segment WB-001
Subdivision E

ADEC

NAME Russell Kunibe SIGNATURE Russell Kunibe

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

The oiling in this subdivision consisted of
scattered splashes along the high tide line. Oil
recovery would be minimal in this area.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Agree with oiling summary sheet for WB-2 - Subdivision
F.

SHORELINE OILING SUMMARY

REVISION NO. 03-72 70

OG Randy Siegel USCG Bryan Little SEGMENT ST/ JB-2
 BIO Mr. Ke. Fawcett LAND REP Pat Norman (Crew) SUBDIVISION E
 EXXON John Deas ADEC Russell Kunkle TIME 12:00 to 12:00
 TEAM NO.: 17 TIDE LEVEL: +1.6 to +3.9 DATE 4/4/90
 1ST SUBDIVISION LENGTH: 270 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 10 % B 75 % C 5 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 444 m M 444 m N 444 m VL 270 m NO 444 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	C	N	P	S	SP	OR	OL	OF	NO	SU	U	M	U
ASPHALT PAVEMENT				X	X	X	X			X			
POOLED													
COVER													
COAT				X	X	X	X			X			
STAIN				X	X	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 5 sq. m by 2 cmPATTIES / TARBALLS 3 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

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

DEBRIS COLLECTED

☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 3T-17-4Frames 2-4

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	OR	OL	OF	NO	SU	U	M	U		
1	25					X	0-0		X						X					S, S
							.													
							.													
							.													
							.													
							.													

COMMENTS

This subdivision consists of south-facing beach covered largely by boulders. A creek with gravel flood banks occurs at the east end of the subdivision. Very light oiling was observed across the length of the subdivision - occasional splashes on boulders, or isolated MS-AP patties/tarballs.

* Sheen on water in intertidal pools.

SHORELINE ECOLOGICAL SUMMARY

REVISION 0322 85

Segment ST / WB-2 Subdivision F Date (mo / day / yr) 4/4/90Time (24 hr) 1730-1800 Biologist M. Fawcett

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 75 (3) Cobble 5 (4) Pebble 10 (5) Sand 0 (6) Silt 0
 (B) Overall % cover of biota (% of segment): Dense ✓ Moderate Low
 (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (⊙)

Photographs:
Roll No. ST-17-4Frames 2-4

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

ASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

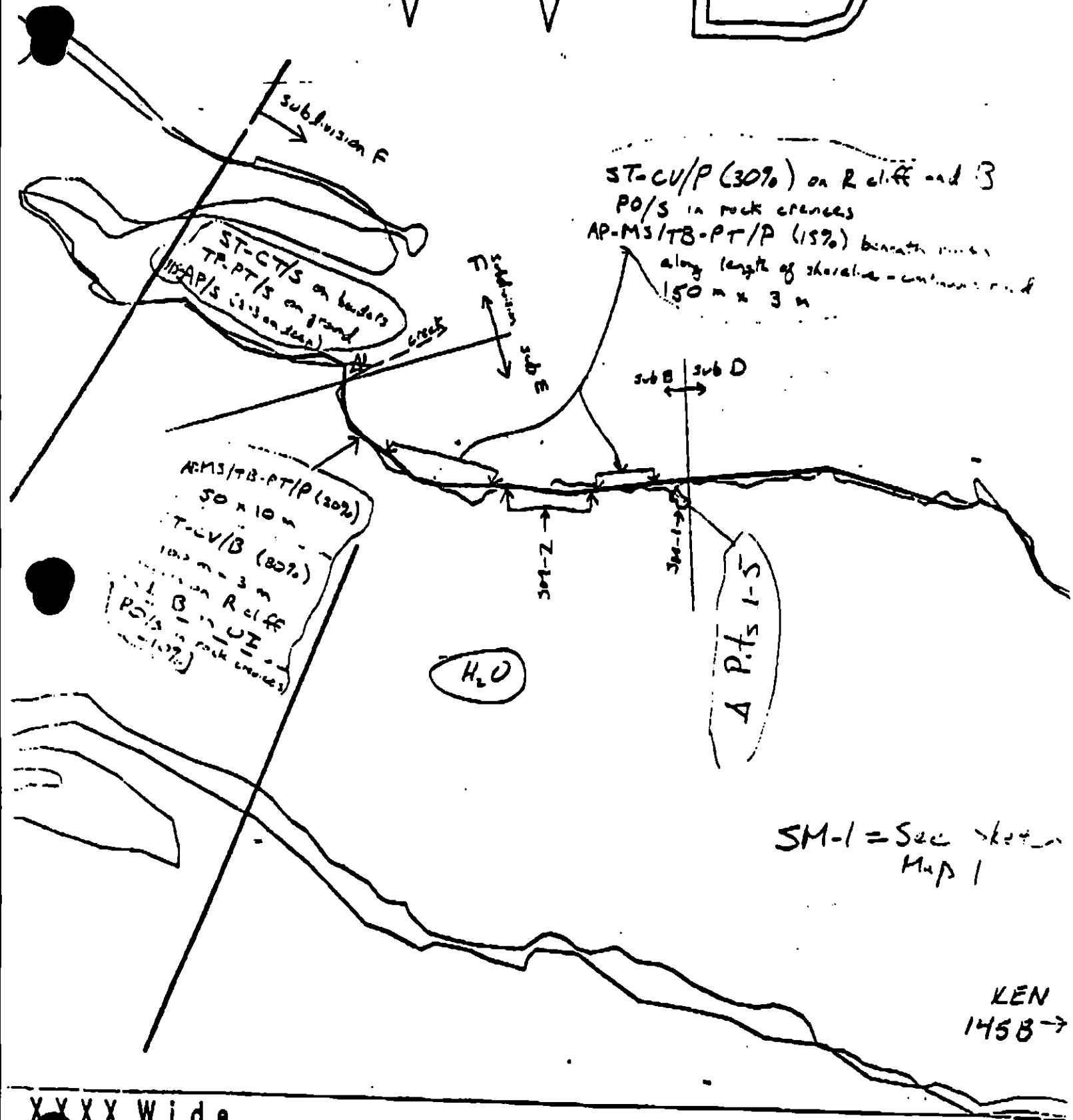
Wildlife Observations/ General Comments:

Ulva and *Enteromorpha* were the only macro-algae observed (above + 1 ft tide level - low intertidal zone underwater). No birds or mammals seen.

Ecological Considerations:

No sensitivities listed.

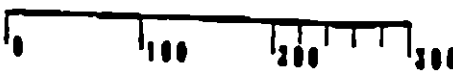
V V D



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

WB-2

ADEC Segment Length: 2232m



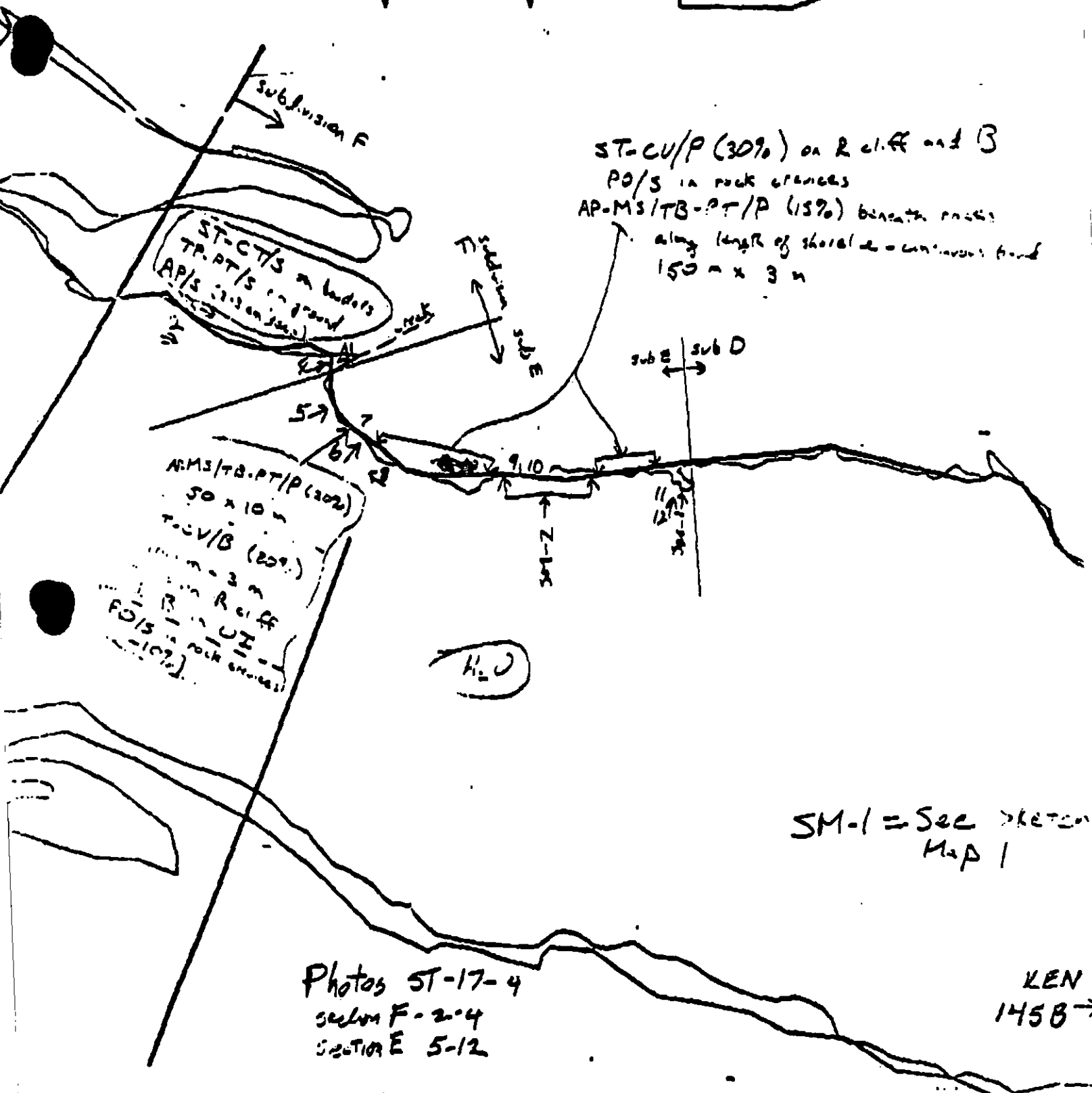
Map Key: KEN-1450

Name: Andy L. L. L.

Date: 4/4/70

Notes: ...

V V D



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

WB-2

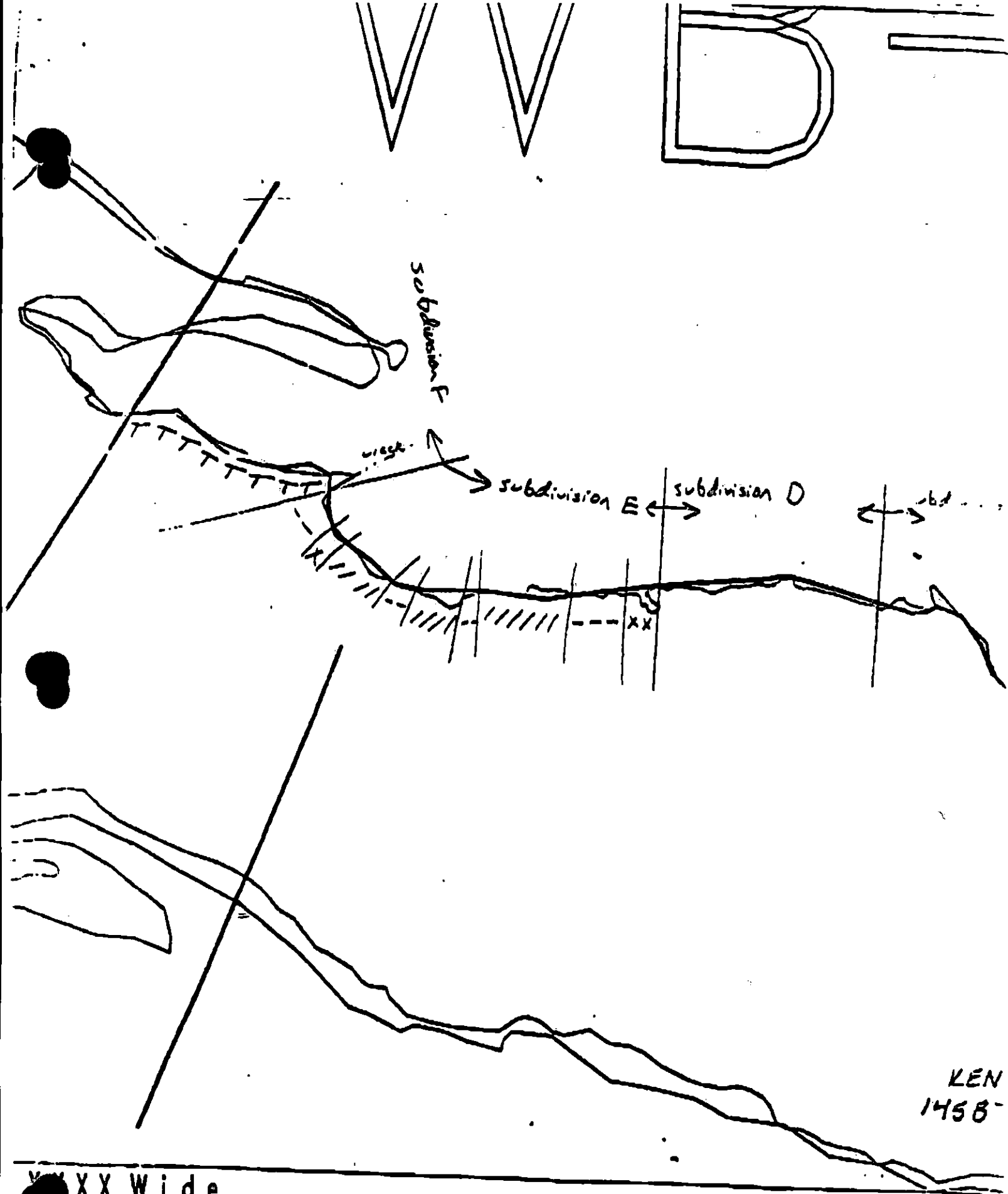
ADEC Segment Length: 2232m



Map Key: KEN-145a
 Name: Large Lagoon
 Date: 4/4/90



V V B



KEN
145B

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

WB-2

AOEC Segment Length: 2232m



Map Key: KEN-1450
Name: Bay Area 145
Date: 4/4/70

SHORELINE EVALUATION

SEGMENT ST/ WB-03 SUBDIVISION A (1 of 5) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All Bald Eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
8AA Sensitive Estuary
7JJ Invertebrate harvesting
See attached Ecological Constraint sheet for specific constraints and contacts.

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

SHPO SIGNATURE: [Signature] DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 169 m: V.Light 1364 m: No Oil 928 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and pick-up of mousse, and tarballs from areas indicated on the field sketch. Bioremediation is recommended for broken coat areas. Treatment should be limited to the period from 6/2 to 7/10 and should be cleared with ADF&G due to possible presence of bald eagle nests. Sorberent boom + OILED VEG.

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90.
ADEC ART WENGER
EXXON ANDY TATE FOSC: [Signature] DATE: 5-18-90
NOAA Joseph Talbot
USCG KENNETH KEANE

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-3 SUBDIVISION: A DATE 4/6/90

USCG
NAME R. Bryan HIRZLE SIGNATURE R. Bryan Hirtle

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS

I agree with the findings of The Shoreline Oiling
Summary Report For WB-3 subdivision A

ADEC
NAME Russell Kunibe SIGNATURE Russell Kunibe

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Overall the oiling in this area was very light. There was asphalt, mousse and sediment patties on the sandy spit at the beginning of the segment near WB-2. There were a few asphalt patches at the head of the first lagoon and a splashy dist. of asphalt and mousse in the MITZ and KITZ along the north shore to the east of the mouth of the stream in the boulders and cobbles.
Recommended treatment: Manual pick up of all of asphalt and mousse patties in this area. The asphalt and mousse on the spit and at the head of the lagoon was in fine sediments, making pick up easy. Pat Norman of the Port Graham Village Association informed me that the mud flats were used by the natives for subsistence gathering of clams and mussels.

LAND MANAGER
NAME Patrick Norman SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED
COMMENTS

Manual pick up of asphalt and mousse patties can be done
throughout subdivision A

SHORELINE OILING SUMMARY

REVISION NO. 03/22/88

OG Randy Siegel USCG Bryan Hirtle SEGMENT ST/ WR-3
 BIO M. E. Fawcett LAND REP Pat Norman (PGVC) SUBDIVISION A
 EXXON John Dean ADEC Russell Knabe TIME 14:00 10:15 :00
 TEAM NO.: 17 TIDE LEVEL: +6.0 10 + 5.2 DATE 4 / 6 / 90
 EST. SUBDIVISION LENGTH: 350 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 10 % B 40 % C 35 % P 5 % G 5 % S 5 % M 5 % V 0 %
 SLOPE: Lang 80 % Hang 20 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 ~~N/A~~ m M 0 ~~N/A~~ m N 20 m VL 230 m NO 100 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	S	P	B	SB BL	DBL FW	GY	SL DBL	TL LR	SU	U	M	L	
ASPHALT PAVEMENT			✓	X				✓	X		X	✓	X	
POOLED														
COVER														
COAT				X		X		X			X			
STAIN				X		X		X			X			
MOUSSE			✓	X				✓	X		X	✓	X	
PATTIES			✓	X				✓	X		✓	X	X	
TARBALLS			✓	X				✓	X		X	✓	X	
FILM				X			X				X			
NO OIL											X			X

PAVEMENT: H (F) S 10 sq. m by 2 cmPATTIES / TARBALLS 25 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. ST-17-4Frames 13-20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS	
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL BW	GY BL	DBR TL	LBR	SU	U	M	L				
1.	25					X	0-0		X							X						S
2	25					X	0-0		X							X						S
							.															
							.															
							.															
							.															

COMMENTS

This subdivision surrounded tidal bay. - Beach was covered with boulders, cobbles and finer sediments. Generally light oiling across shoreline, with occasional MS-AP patties and tarballs. One band of AP observed. A few areas had no observable oiling.

OG R. Spiegel

SEGMENT ST/ WB-3

SUBDIVISION A

DATE 4 / 6 / 90

CHECKLIST

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

LEGEND

1 Δ

Pli - No Subsurface Oil

2 Δ

Pli - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

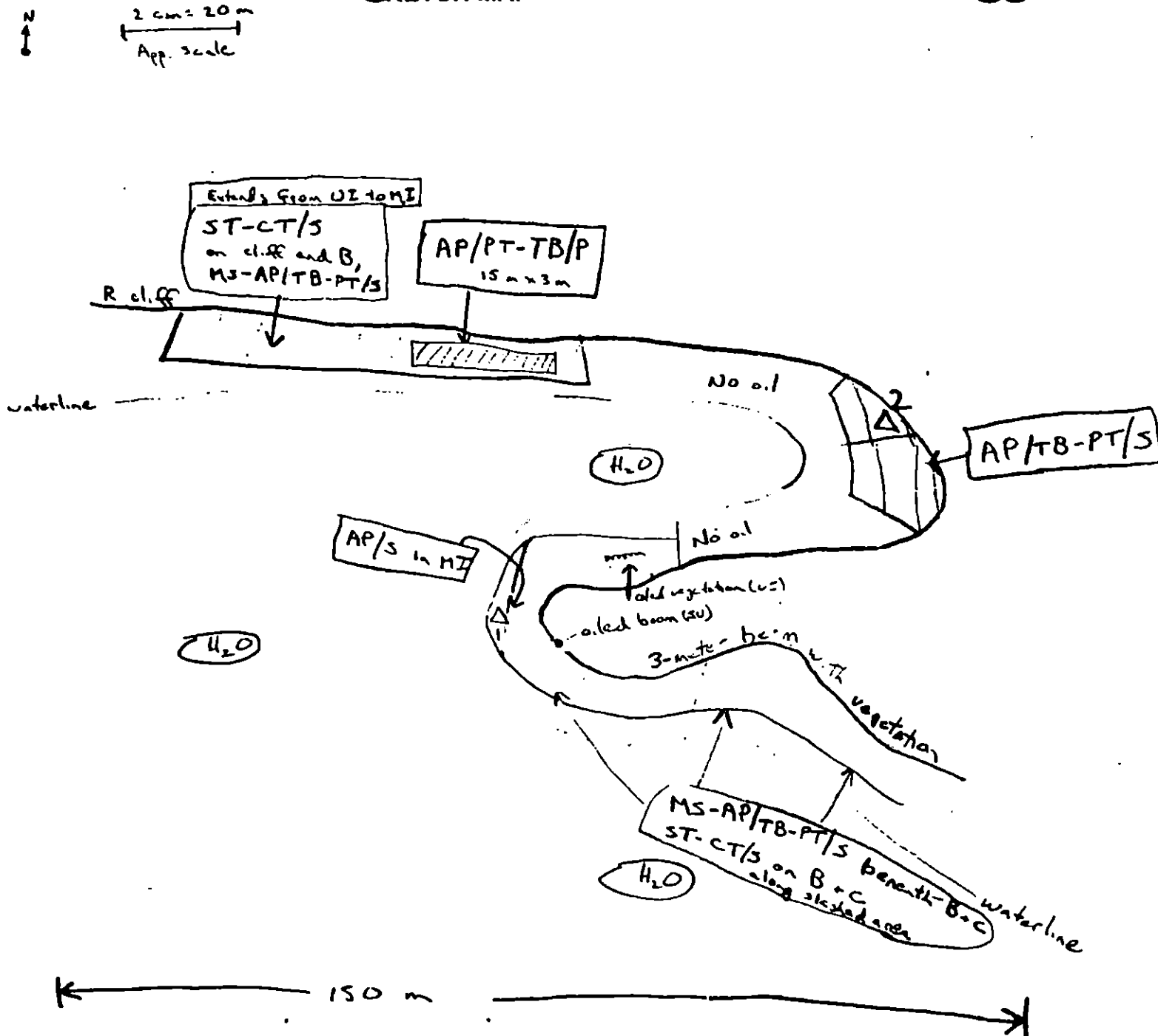
Splashed Distribution

Oiled Vegetation

1 $\Rightarrow$

Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 15 PO 0 CV 0 CT 200 ST 270 MS 15 PT 100 TB 100 FL 0 NO 100

REVISION: 03/24/90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/1

Segment ST/W B3 Subdivision A Date (mo / day / yr) 4 / 6 / 90Time (24 hr) 1500-1600 Biologist M. H. Fawcett

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 40 (3) Cobble 35 (4) Pebble 5 (5) Sand 5 (6) Silt 5(B) Overall % cover of biota (% of segment): Dense Moderate Low ✓

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

Photographs:

Roll No. ST-17-4Frames 13-20

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See Attachment

Ecological Considerations:

7JJ5T8AA1A1B

WB3A Windy Bay M. Fawcett 4/6/90

Wildlife Observations & Comments

At the east end of WB3A, on the relatively exposed side of the spit, the mid-intertidal zone has dense Fucus, moderately abundant mussels and barnacles, and sparse limpets (Aipersona), littorines, and whelks (Thais emarginata). Moving around to the leeward side of the spit and into the dead-end cove, mussels become rare, barnacles are restricted to isolated small cobbles in the mid-intertidal, Fucus occurs in sparse patches among pebbles and gastropods are sparse. The lower intertidal is soft mud with sparse clams, and sparse burrowing shrimp, worms, etc., overlain by fairly dense Ulva. This is a very quiet water area.

Birds observed: 15 swans
~25 mallards
6 bufflehead
+ several small flocks of
ducks on water, too far
away to identify

Subdivision A

VB-03

WB-



WB-0

Wide
Medium
Narrow
Very Light
No Oil

WB-3

ADEC Segment Length: 8154m



Map Key: KEN-127

Name: Randy Siegel

Date: 4/6/10

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-3 SUBDIVISION A (1 of 5)

WORK WINDOW

Manual Pickup and Tarmat Removal
Less Than 400m From Active Nest

CLOSED

Manual Pickup and Tarmat Removal
More Than 400m From Active Nest

OPEN

Bioremediation and Other Approved Treatment
Less Than 400m From Active Nest

CLOSED

Bioremediation and Other Approved Treatment
More Than 400m From Active Nest

WORK PRIOR TO 7/10

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (242-20-10160, 242-20-10170, and 242-20-10180) are present in Segment WB-3. No constraint to manual pickup, tarmat removal, bioremediation and other approved treatment. The work area is more than 100m from the nearest anadromous stream.

1J Purse Seine Area

No constraint to manual pickup and tarmat removal. Closed to bioremediation and other approved treatment after 7/10.

5T Bald Eagle Nest

USFWS bald eagle impact assessment conducted on 5/19/90 by Mary Portner indicates an active nest within 400m of the work area. Closed to manual pickup, tarmat removal, bioremediation and other approved treatment within 400m of eagle nest buffer zone. No constraint to manual pickup, tarmat removal, bioremediation, and other approved treatment more than 400m from eagle nest buffer zone.

7JJ Subistence: Invertebrate Harvesting

No constraint to manual pickup, tarmat removal, bioremediation and other approved treatment.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

Date

Prepared by

Date

6/16/90

6/11/90

SHORELINE EVALUATION

SEGMENT ST/ WB-03 SUBDIVISION B (2 of 5) DATE 04/06/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All Bald Eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
8AA Sensitive Estuary
7JJ Invertebrate harvesting
See attached Ecological Constraint sheet for specific constraints and contacts.

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

SHPO SIGNATURE: J. Daniel McManis DATE: 5/9/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 1228 m: V.Light 502 m: No Oil 171 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of mousse, tarballs, patties, and oiled debris, (debris, trash, vegetation). Work should be conducted between 6/1 and 7/9 with USFWS Service permission due to eagle constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90.
ADEC ART WEAVER
EXXON ANDY TOL FOSC: DATE: 5-15-90
NOAA Joseph J. J. J.
USCG KENNETH KEANE

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ WB-3 SUBDIVISION: B DATE 4-6-90

USCG

NAME

R. Bryan Hulse

SIGNATURE

R. Bryan Hulse

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

AgREE with the findings of Shoreline
Oiling summary sheet for WB-3 subdivision B

ADEC

NAME

Russell Kunibe

SIGNATURE

Russell Kunibe

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

See attached 1 page.

LAND MANAGER

NAME

Patrick Norman

SIGNATURE

Patrick Norman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

recommend manual pickup of Asphalt and mousse patches in subdivision
B of WB-3

SEGMENT: WB-3

SUBDIVISION: B

DATE: 4/6/90

ADEC COMMENTS:

Russell Kunibe, EFOII ADEC Signature Russell Kunibe

This segment includes the mouth of an anadromous stream and the salt marsh adjacent to the stream. There was a continuous asphalt band 1/2 M. wide and 50 M. long along the north shore of the salt marsh. A small 5 cm. mousse ball was noted sheening on the mud along the bank of a small branch of the stream which also had salmon fry in it. There were a few thin patties of mousse on the mud between the grass in the grassy salt marsh. I also noted a small asphalt area in the gravel along the stream bank.

South of the creek there is a long cobble, pebble, gravel beach which is above a large mud flat. There was a splashy distribution of asphalt between the cobbles and mousse under the cobbles. Sheen was observed in the runoff water and on the mud flats just below the cobble, pebble, gravel area.

Recommended treatment:

Manual pick up is recommended for the oil contamination along the stream and in the salt marsh and for the mousse and asphalt in the beach above the mud flats. This subdivision is both an anadromous stream and a subsistence clam gathering area.

SHORELINE OILING SUMMARY

REVISION NO 037290

OG Randy Siegel USCG Brynn Hittle SEGMENT ST/ WB-3 (S sub 1-1)
 BIO H.K. Fawcett LAND REP Pat Norman (PGUC) SUBDIVISION B (2nd of 4)
 EXXON John Ogan ADEC Russell Kunze TIME 15:00 10/16/90
 TEAM NO.: 17 TIDE LEVEL: +3.2 10+3.6 DATE 4/6/90
 FST. SUBDIVISION LENGTH: 825 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 10 % B 10 % C 10 % P 30 % G 15 % S 15 % M 20 % V 0 %
 SLOPE: Long 75 % Hang 25 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 400 m MO 100 m N 650 m VL 50 m NO 125 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	N	SP	BP	OP	GP	LP	TP	LP	LP	SU	U	M	U
ASPHALT PAVEMENT	X			X	X								X			
POOLED																
COVER																
COAT				X	X								X			
STAIN				X	X								X			
MOUSSE				X	X				X				X			
PATTIES				X	X				X				X			
TARBALLS				X	X				X				X			
FILM				X					X				X	X	X	
NO OIL													X			

PAVEMENT: H (F) S 40 sq. m by 2 cm

PATTIES / TARBALLS 20 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED

☐ YES ☒ NO

TYPE N/A

#BAGS 0

Photographs:

Roll No. ST-17-4

Frames 13-22

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP OR	BP OR	OP OR	GP OR	LP OR	TP OR	SU	U	M	U				
1	25					X	0-0		X								X						S, g
2	25					X	0-0		X								X						S, g
3	15					X	0-0		X								X						S, g
4	30					X	0-0		X								X						G, S
5	15					X	0-0		X									X					S
6	15					X	0-0		X														

COMMENTS

This area contains a tidal inlet with extensive mud flats. A number of stream channels (2 to 15 meters in width) cut through this area and discharge into the tidal inlet. Oiling was generally light within the subdivision. A few isolated patties/tarballs were found on the stream banks. This is an anadromous area.

* slur seen on oil pooled water in UO, UC, GP zones.

SEGMENT ST 03-3

SUBDIVISION B

DATE 4 16 90

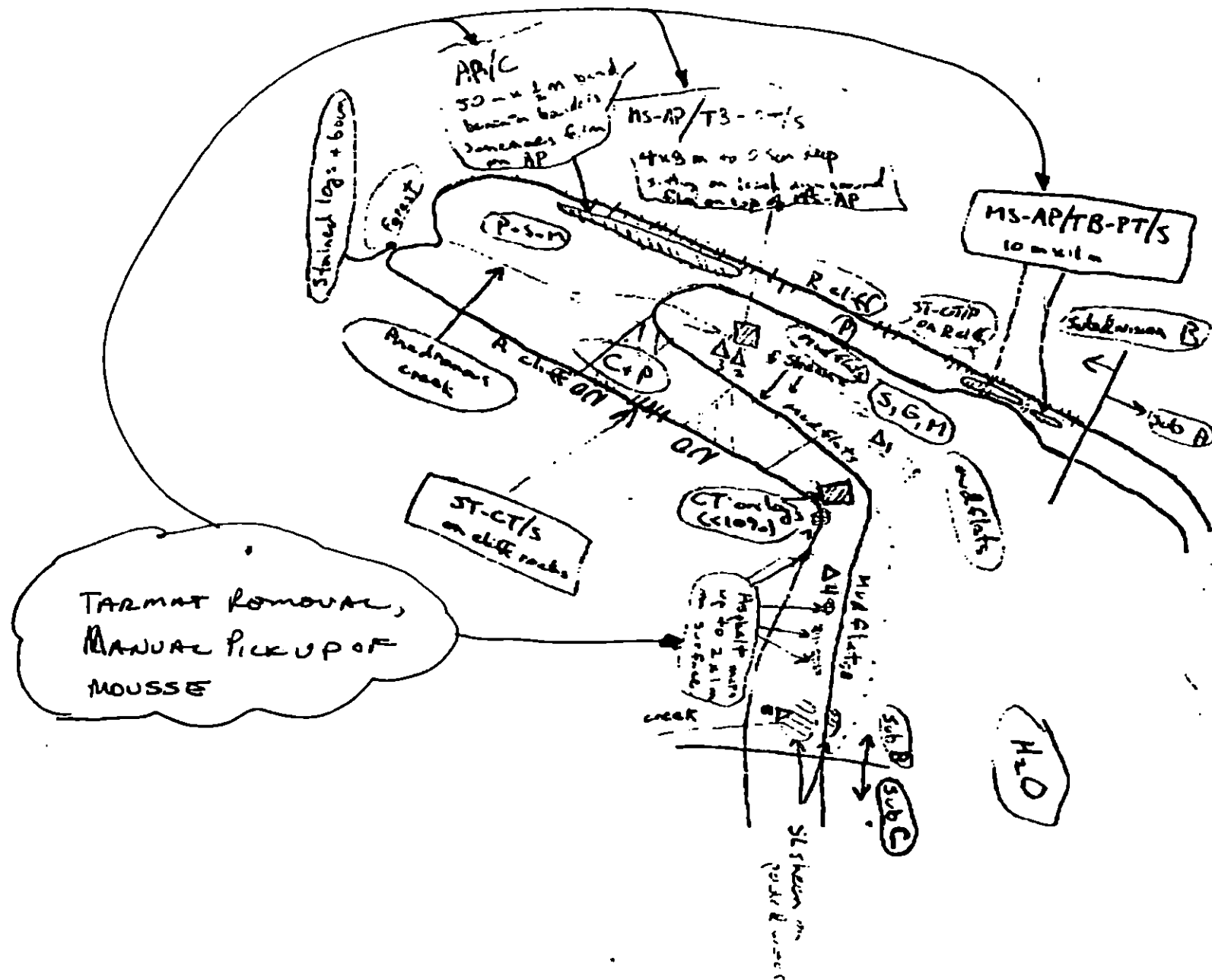
CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Of Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HML/VL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pk Location(s)
- ☐ Photo Location(s)

LEGEND

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

SKETCH MAP



OH Character Length (m) AP 50 PO NA CV 4/A CT 300 ST 300 MS 30 PT 30 TB 30 FL NA NO 1

REVISION 00/24/90

SEGMENT ST-13-3

SUBDIVISION B

DATE 4/16/90

CHECKLIST

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

LEGEND

1 Δ
PR - No Subsurface Oil

2 Δ
PR - Subsurface Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

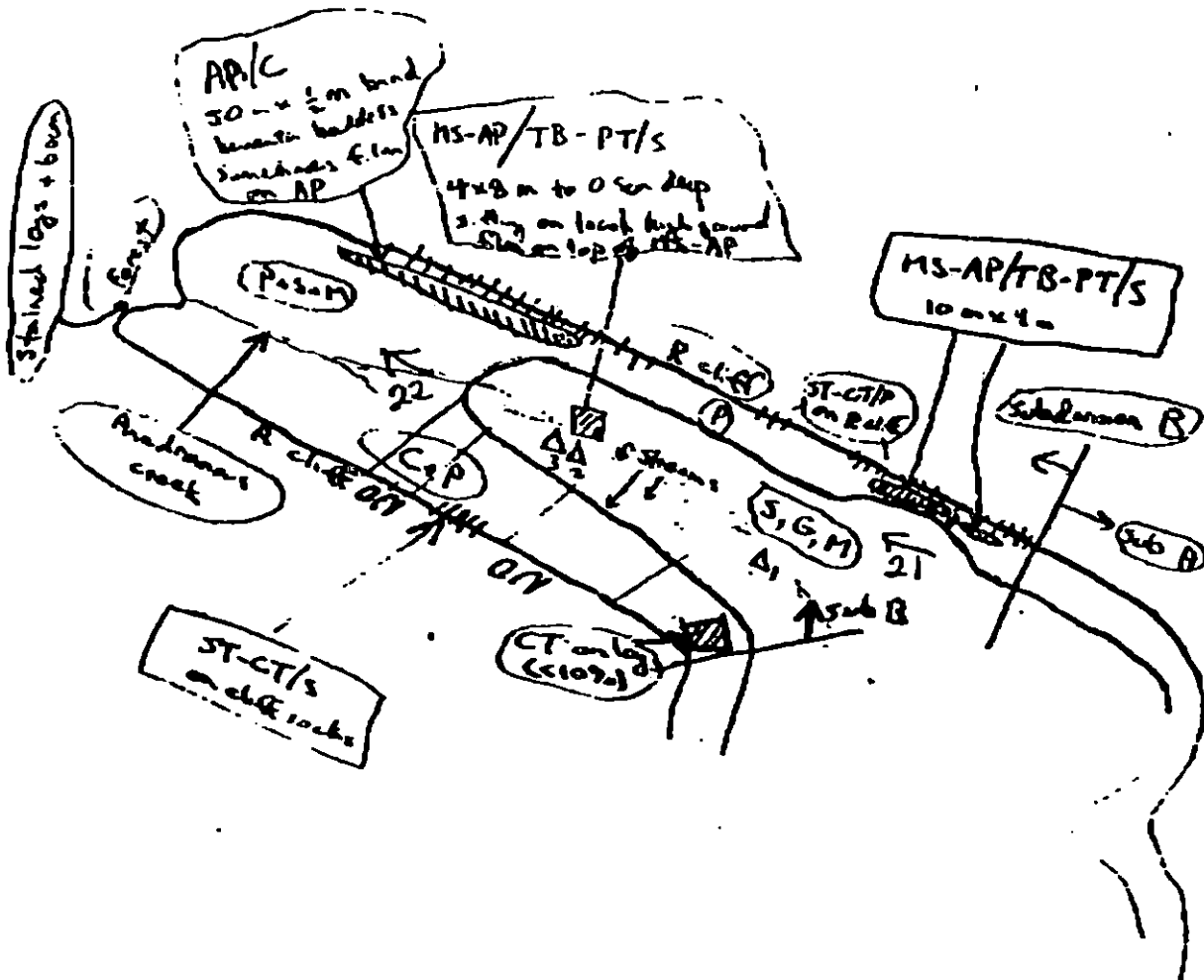
CT/P
Patchy Distribution

CT/S
Splashed Distribution

Oil Vegetation

1 ●→
Photo location, direction,
and number

SKETCH MAP



Photos

ST-17-4

frames 13-16 (aerial)
+ 21-22

13-16 aerial

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02721

Segment ST / WB3 Subdivision B Date (mo / day / yr) 4/6/90Time (24 hr) 1600-1745 Biologist M. Fawcett

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 10 (3) Cobble 10 (4) Pebble 20 (5) Sand 30 (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate Low ✓

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

Photographs:

Roll No. ST-17-4Frames 21-23

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

See Attached sheet

birds: 1 belted Kingfisher
10 magpies
2 ravens

Ecological Considerations:

7JJ
ST
BAA
1A
E

WB3B Windy Bay

M. Fawcett

4/6/90

Wildlife Observations and Comments

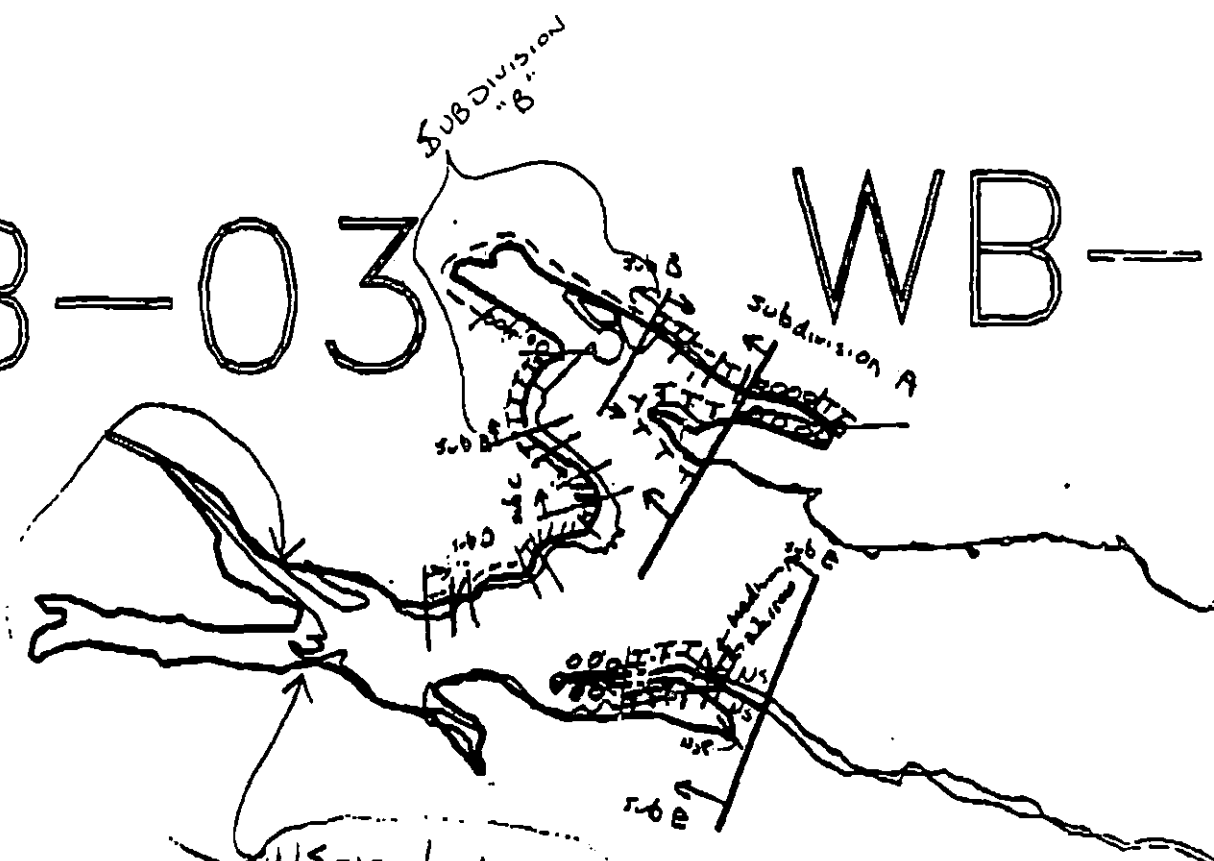
This subsection includes an anadromous fish stream used by Pink, chum, and silver salmon and holly varder (according to Pat Norman). We observed 50-60 salmon fry in a small side channel on the north side of the stream mouth, next to the base of the hill. Buried mousse, splatters and oil sheen were found along the north bank of this small channel (2-6 ft wide channel). At the mouth of the main stream is a deltaic mudflat containing clams and other infauna. Fucus, barnacles, and a just bed of mussels covering 100% of the surface in one area about 60' x 10' at the +3-4 ft tide level. ^(Photo ST-17-4, #23) Most of the mussels are adults (size range 5-30 mm). Besides Fucus, the only attached algae observed were patches of Endocladia, Ulva, and some filamentous greens.

note: original of this sheet destroyed
by copy machine

~~ADONIS~~

WB-03

WB-



NS-no oil observed
during ADEC 1989
survey, so not surveyed
during 1990 SSAT.

WB-0

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

WB-3

ADEC Segment Length: 8134m



Map Key: KEN-127

Name: Randy S. SmithDate: 4/8/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-3 SUBDIVISION B (2 of 5)

WORK WINDOW	
Manual Pickup Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (242-20-10160, 242-20-10170, and 242-20-10180 are in WB-3. No constraint to manual pickup and tarmat removal.

1J Purse Seine Area

No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

USFWS bald eagle impact assessment conducted on 5/19/90 by Mary Portner indicates an active nest within 400m of the work area. USFWS has granted limited access to Subdivision B through active eagle nest buffer zone as outlined on map (Mary Portner, 6/7/90)

7JJ Subsistence: Invertebrate Harvesting

No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or banks. Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Restrict boat and beach disturbance to essential minimum. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

SEE ANADROMOUS FISH STREAM EVALUATION ADDENDUM (STREAM 242-20-10160)
FOR ADDITIONAL CONSTRAINT INFORMATION

FOSC

[Signature]

Date

6/6/90

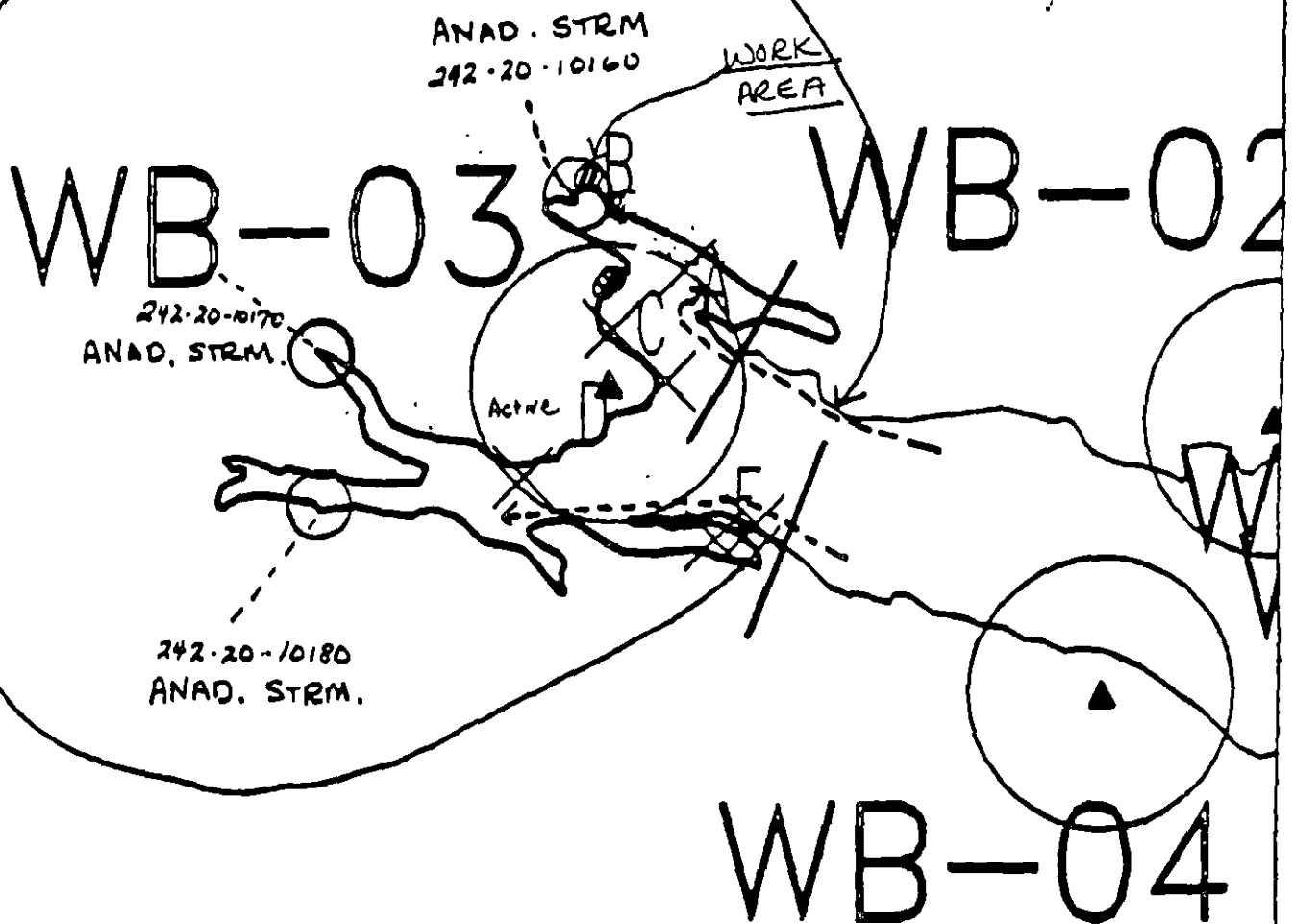
Prepared by

[Signature]

Date

6/14/90

Access routes approved to minimize
disruption of nearby eagle nest
(USFWS 6/7/90, Mary Portner)



ANADROMOUS STREAM EVALUATION



Dixon Company, USA
Map Key: 104-18-3



ECOLOGY MAP ^{6/2/90}
SEGMENT WB-3
SUBDIVISION B (-2.01.5.)
METERS



★	Seabird Colony
▲	Eagle Nest

1 inch = 1887 feet

ANADROMOUS FISH STREAM EVALUATION ADDENDUM

CONSTRAINTS FOR STREAM NO. 242-20-10160

SEGMENT WB-3 SUBDIVISION B

WORK WINDOW

Manual Pickup
Tarmat Removal

OPEN

Bioremediation Less Than 100m From Stream **WORK PRIOR TO 7/1
(ADF&G MONITOR REQ.)**

Bioremediation More Than 100m From Stream **WORK PRIOR TO 7/1**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous stream (242-20-10160) is present in Subdivision B. No constraint to manual pickup and tarmat removal. This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream.

1J Purse Seine Area

No constraint to manual pickup and tarmat removal. Closed to bioremediation after 7/10.

5T Bald Eagle Nest

No constraint to manual pickup, tarmat removal and bioremediation. USFWS (Mary Portner, 6/7/90) has granted access to Subdivision B through eagle nest buffer zone (see map).

7JJ Subsistence: Invertebrate Harvesting

No constraint to manual pickup, tarmat removal, and bioremediation per conversations of Pat Norman/Port Graham Village Corp. with Rex Coulter/Exxon on 6/11/90.

OTHER ECOLOGICAL CONSIDERATIONS

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

**SEE SUBDIVISION CONSTRAINT ADDENDUM WB-3B
FOR ADDITIONAL CONSTRAINT INFORMATION.**

FOSC

[Signature]

Date

6/16/90

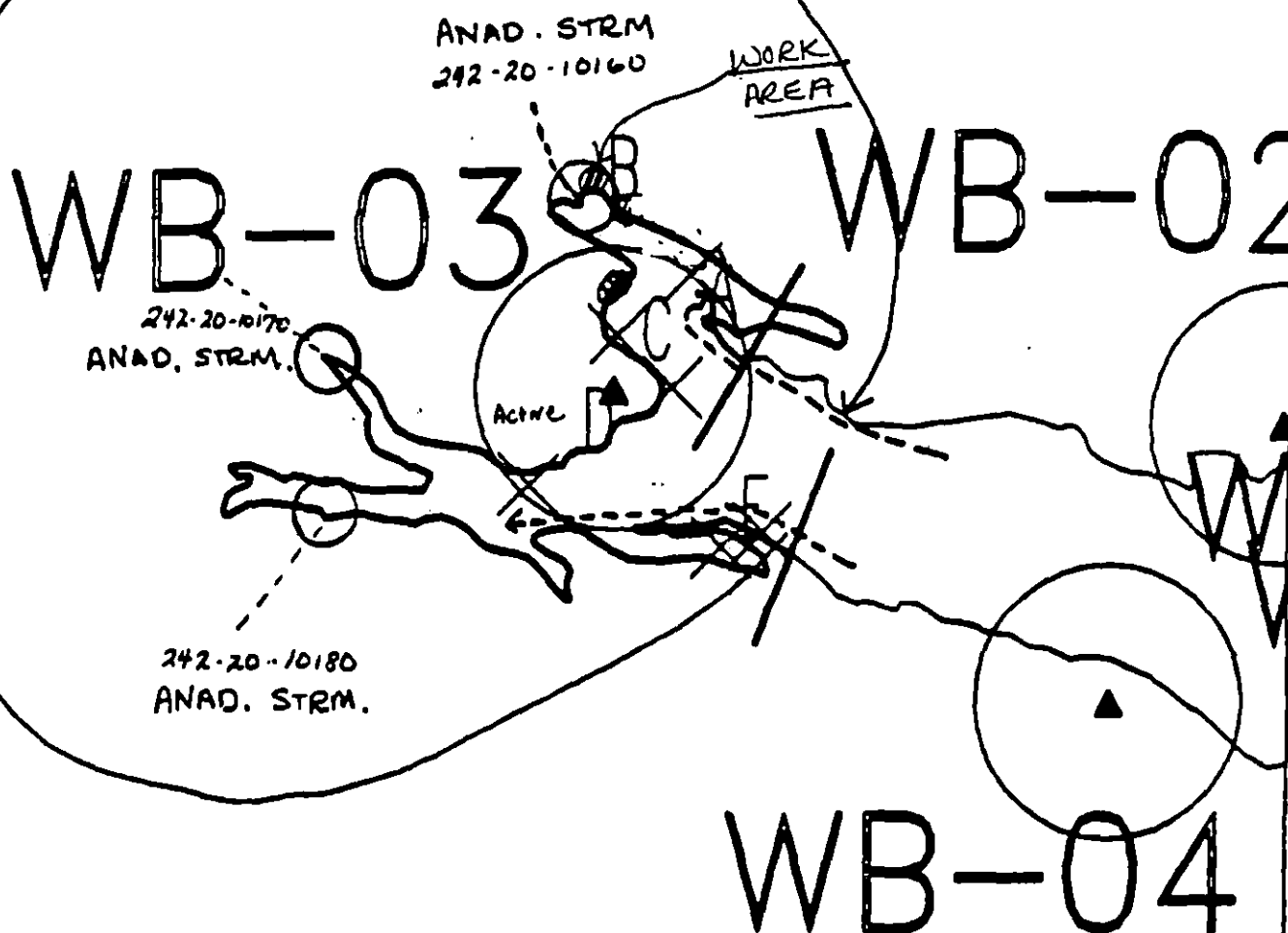
Prepared by

[Signature]

Date

6/14/90

Access routes approved to minimize
disruption of nearby eagle nest
(USFWS 6/7/90, Mary Portner)



ANADROMOUS STREAM EVALUATION



ECOLOGY MAP 6/2/90

SEGMENT WB-3

SUBDIVISION B (2 of 5)

METERS

- ★ Seabird Colony
- ▲ Eagle Nest

Exxon Company, USA
Map Key: EN-WB-3

SHORELINE EVALUATION

SEGMENT ST/ WB-03 SUBDIVISION C (3 of 5) DATE 04/06/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All Bald Eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
8AA Sensitive Estuary
7JJ Invertebrate harvesting
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 136 m: Narrow 182 m: V.Light 129 m: No Oil 0 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and manual pick up of mousse, tarballs and oiled debris (trash, vegetation debris) as indicated in the attached sketch map. Work should be conducted between 6/1 and 7/9, USFWS permitting, due to eagle constraint.

TAG COMMENTS: FOLLOWING MANUAL PICKUP BIOREMEDIATION DURING LOW TIDE
BUT NOT AT A MINUS TIDE LEVEL

TAG APPROVAL DATE: 4/23/90

ADEC ART WEINER
EXXON ANDY TEE
NOAA JOHN LABOTT
USCG KENNETH KEANE

FOSC: [Signature]

DATE: 5-18-90

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ W B-3 SUBDIVISION: C DATE 4-6-90

USCG

NAME R. Bryan Hirth SIGNATURE R. Bryan Hirth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

I agree with the Shoreline Oiling Summary sheet

ADEC

NAME Russell Kunibe SIGNATURE Russell Kunibe

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

The oiling in this subdivision consisted of a splashy to broken distribution of black coat, cover and stain on the rocks and boulders and asphalt and mussels between the rocks along the mud flats.
Recommended treatment: manual pick up of the asphalt and mussels. Following this treatment bio remediation may be appropriate.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recommend manual pickup of Asphalt and mussel patches in subdivision C. Manual pickup should pick up some of the oil but not all of it, so it needs to be looked at very closely to determine other means of collecting remaining oil in subdivision C.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Randy Siegel USCG Bryan Hirtle SEGMENT ST/ WB-3 (S subdivision)
 BIO Mikel Fawcett LAND REP Pat Norman (OGUC) SUBDIVISION C (3rd of 5)
 EXXON John Dean ADEC Russell Kuebler TIME 16:00 to 16:30
 TEAM NO.: 17 TIDE LEVEL: +3.6 to +0.6 DATE 4/16/90
 EST. SUBDIVISION LENGTH: 200 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NW to SE
 SURFACE SEDIMENTS: R 10% B 10% C 60% P 5% G 5% S 5% M 5% V 0%
 SLOPE: Long 50% Hang 50% Vert 0% WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M 80 m N 80 m VL 40 m NO N/A m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR						IMPACTED ZONES			
	C	B	P	S	SB BR	DB RW	GY SL	DB TL	LR	SU	U	M	L	
ASPHALT PAVEMENT		X	X			X		X			X			
POOLED														
COVER														
COAT			X			X		X			X			
STAIN			X			X		X			X			
MOUSSE		X		X				X			X	X		
PATTIES														
TARBALLS		X		X				X			X	X		
FILM				X			X	X			X	X	X	
NO OIL										X				

PAVEMENT: H (F) S 200 sq. m by 2 cmPATTIES / TARBALLS 80 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. ST-17-4Frames 23-30

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BA	OBL BW	GY SL	TBL TL	LBR LR	SU	U	M	U					
1	30				X		0.5		X			X				X						S	
2	30				X		0.5		X			X					X					S	
3	30				X		0.5		X			X					X					S	
							.																
							.																
							.																

COMMENTS

This subdivision consists of a beach covered largely with boulders. ~~oil~~
 oil generally increased from north to south across the beach. A band
 of MS or AP was observed along most of the beach along the UZ,
 but staining of rocks and a silver sheen were observed in the MZ and
 Zones towards the south end. on collected interstitial water

NG Segel
 SEGMENT S1: WB-3
 SUBDIVISION C
 DATE 4/6/90

SKETCH MAP

CHECKLIST

☐ N Area
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HW/LWL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Photo Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 PR - No Subsurface Oil

2 Δ
 PR - Subsurface Oil

CT/C
 Continuous Distribution

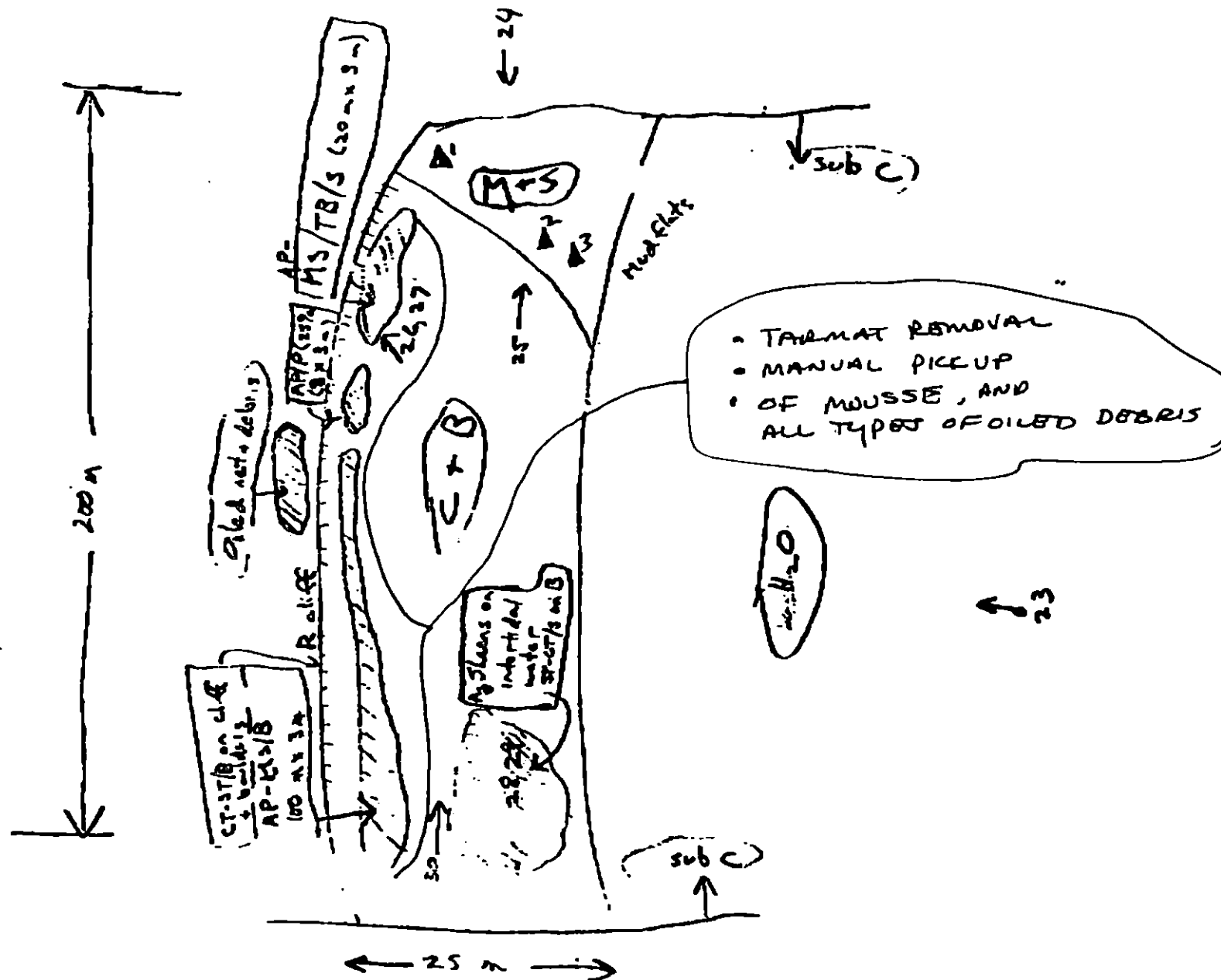
CT/D
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

Oil Vegetation

1 04
 Photo location, direction,
 and number



Oil Character Length (m): AP ¹²⁰ PO N/A CV N/A CT 130 ST 130 MS 120 PT 120 TB 20 FL 20 NO N/A

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST WB3 Subdivision C Date (mo / day / yr) 4/6/90Time (24 hr) 1745-1830 Biologist M. Fawcett

(A) Substrate type and % of segments:

(1) Bedrock 10 (2) Boulder 10 (3) Cobble 10 (4) Pebble 5 (5) Sand 10 (6) Silt 5
incl. gravel(B) Overall % cover of biota (% of segment): Dense _____ Moderate ✓ Low _____

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

Photographs:

Roll No. ST-17-4Frames 24-30

BARNACLES

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

MYTILUS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

LTZ mudflat has moderately abundant clams, Gunnels, echinoids, hermit crabs, littorines beneath MTZ boulders. Observed and photographed a 15 in. diameter moussa patty covered with film of green algae, and with numerous young, vigorous Fucus germlings sprouting up through it (Photo ST-17-4-26,27).

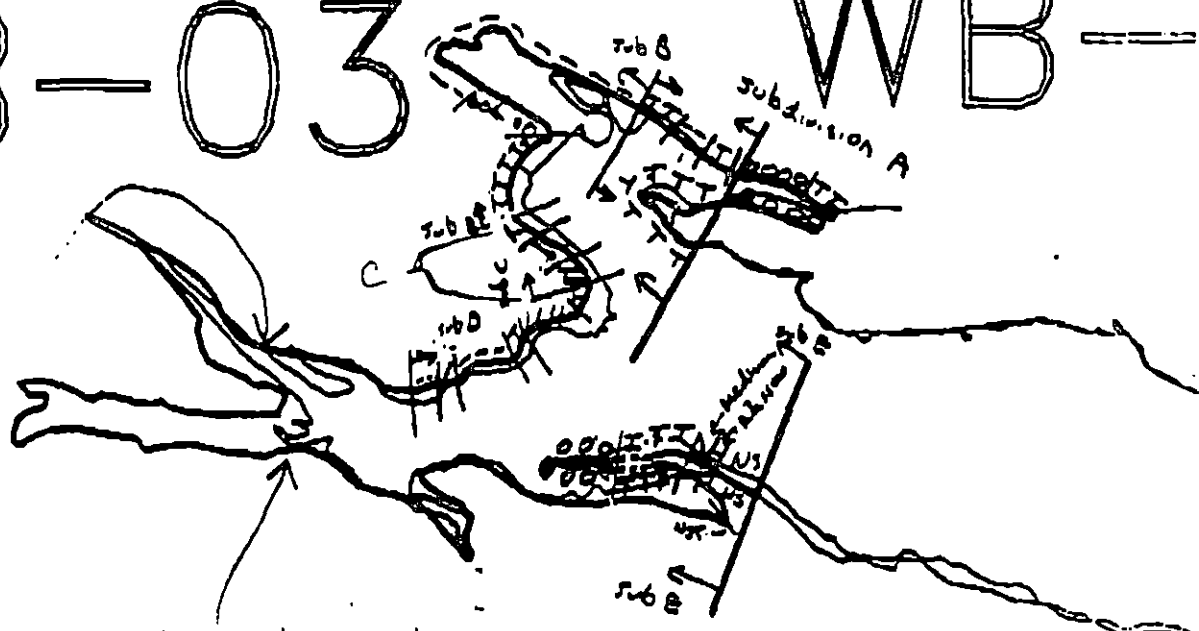
Ecological Considerations:

7JJ
5T
8AA

~~XXXXXX~~

WB-03

WB-



NS-No oil observed
during ADEC 1989
survey, so not surveyed
during 1990 SSAT.

WB-C

XXXX Wide

//// Medium

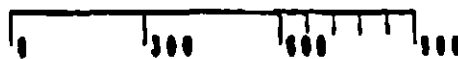
---- Narrow

TTTT Very Light

OOOO No Oil

WB-3

ADEC Segment Length: 8154m



Map Key: KEN-127

Name: Randy S. S. S.Date: 4/8/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-3 SUBDIVISION C (3 of 5)

WORK WINDOW	
Manual Pickup Tarmat Removal	CLOSED
Bioremediation	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	NO CONSTRAINT. ADF&G catalogued anadromous streams (242-20-10160, 242-20-10170, and 242-20-10180) are in Segment WB-3. The work area is more than 100m from the nearest anadromous stream.
1J	Purse Seine Area	Closed to bioremediation after 7/10 No constraint to manual pickup and tarmat removal.
5T	Bald Eagle Nest	USFWS bald eagle Impact assessment conducted on 5/19/90 by Mary Portner indicates an active nest within 400m of the work area. Closed to manual pickup, tarmat removal, and bioremediation.
7JJ	Subsistence: Invertebrate Harvesting	No constraint to manual pickup, tarmat removal, and bioremediation.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

A. Zanghi

Date

6/13/90

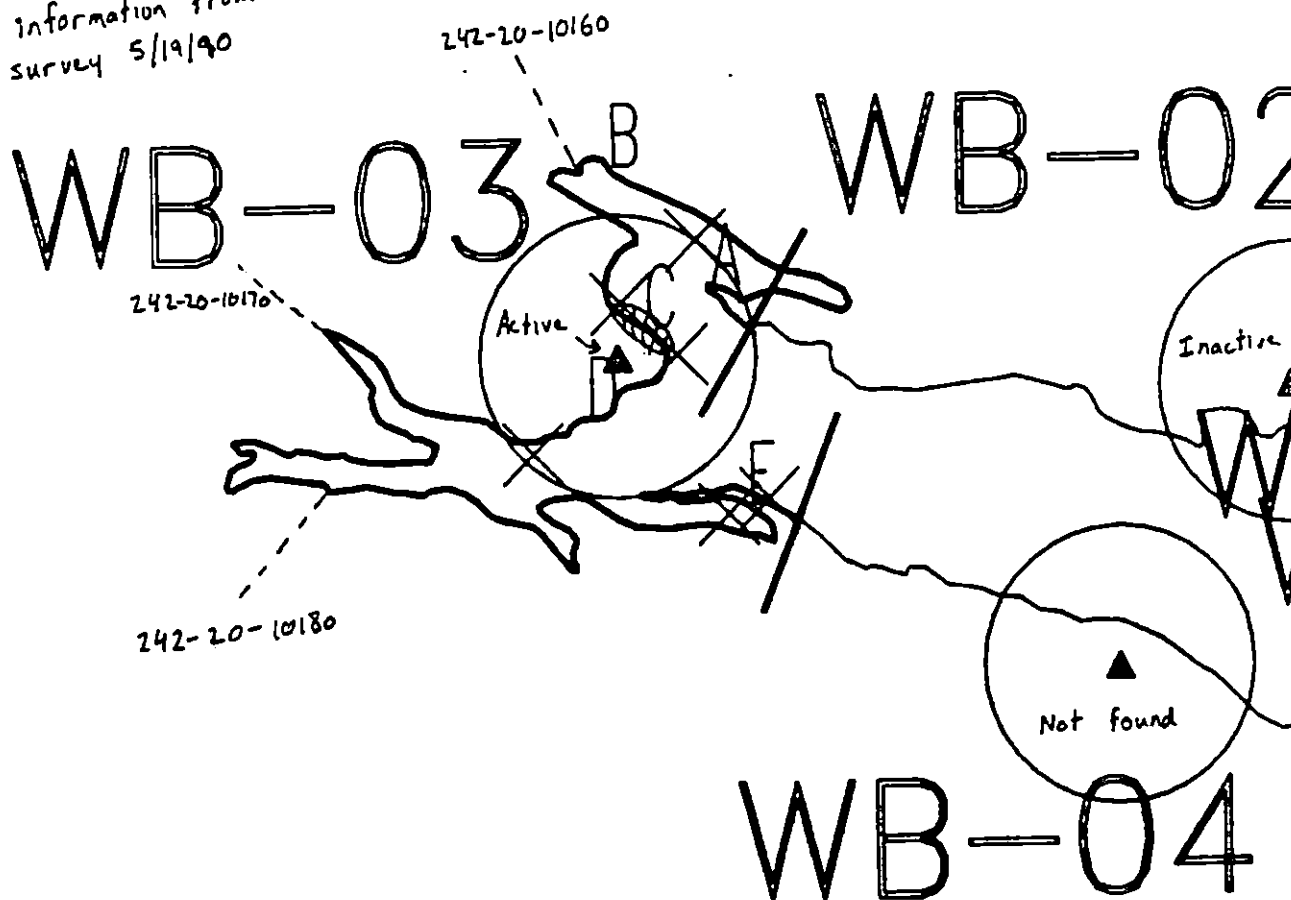
Prepared by

J. Phillips

Date

6/14/90

Incorporates information from USFWS
bald eagle survey 5/19/90



Exxon Company, USA
Man Kevi KEN-WB-3



ECOLOGY MAP
SEGMENT WB-3
SUBDIVISION C (3 of 5)
METERS



Seabird Colony



Eagle Nest

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-3 SUBDIVISION C (3 of 5)

WORK WINDOW

Manual Pickup
Tarmat Removal

* OPEN
CLOSED

Bioremediation

* OPEN TO 7/23
CLOSED

*USFWS EAGLE MONITOR REQUIRED ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

NO CONSTRAINT. ADF&G catalogued anadromous streams (242-20-10160, 242-20-10170, and 242-20-10180) are in Segment WB-3. The work area is more than 100m from the nearest anadromous stream.

1J Purse Seine Area

Closed to bioremediation after 7/23. No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

USFWS bald eagle impact assessment conducted on 5/19/90 by Mary Portner indicates an active nest within 400m of the work area. Closed to manual pickup, tarmat removal, and bioremediation.

7JJ Subsistence:
Invertebrate Harvesting

No constraint to manual pickup, tarmat removal, and bioremediation.

OTHER ECOLOGICAL CONSIDERATIONS

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

COMMERCIAL PURSE SEINE AREA
CLOSED UNTIL 7/23 AS PER
CONVERSATION OF TIM MINAHAN
W/ LEE GUINN, ADF&G ON 7/20.
NO CONSTRAINT TO BIOREMEDIATION.
JPP

OPEN AS PER USFWS SURVEY
OF 7/18.
USFWS
MONITOR
REQUIRED.
JPP

G.A. Reiter
for FOSC

FOSC

Date

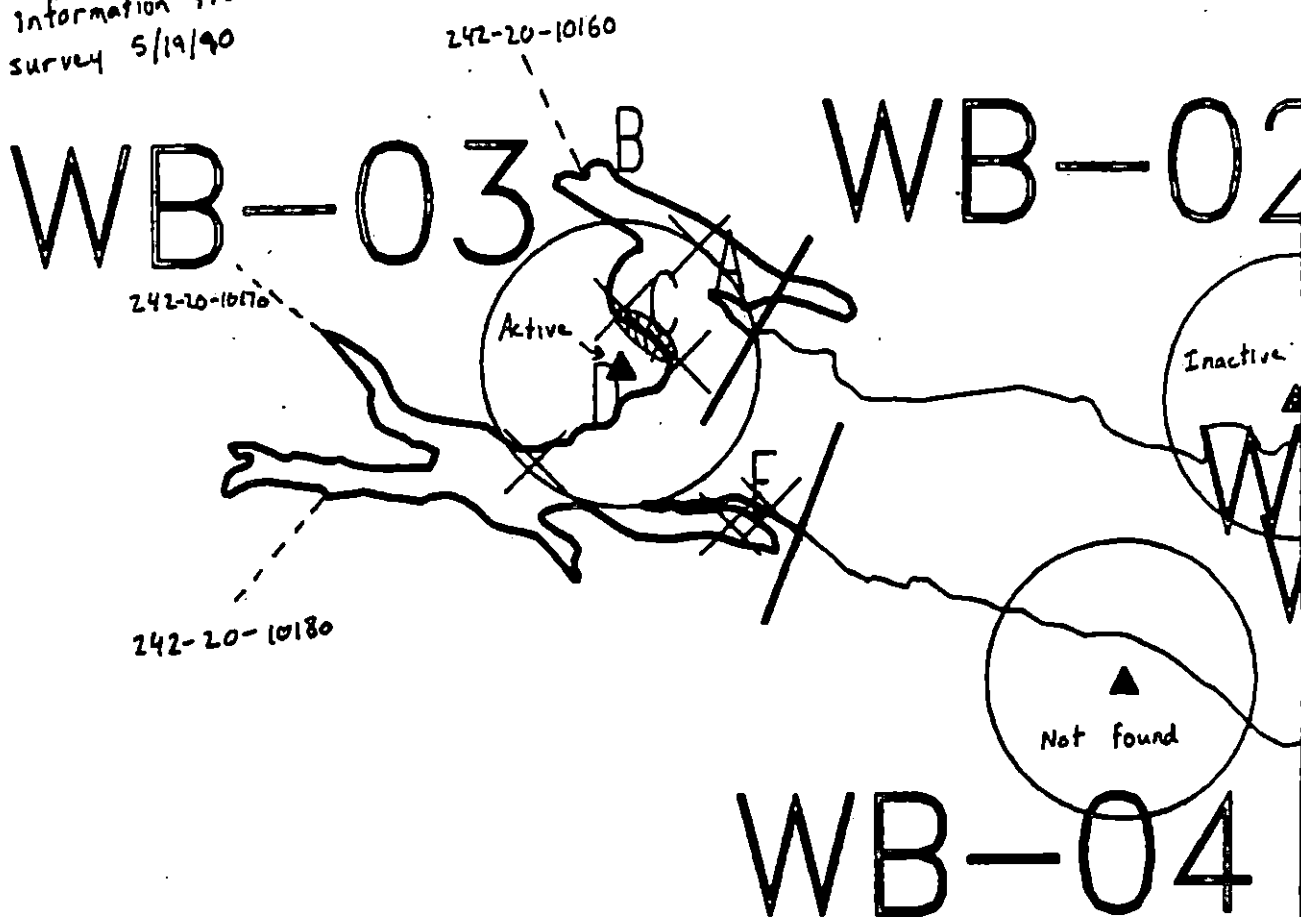
6/15/90

Prepared by

Date

6/14/90

Incorporates information from USFWS
bald eagle survey 5/19/90



Exxon Company, USA

ECOLOGY MAP SEGMENT WB-3

SUBDIVISION C (3 of 5)
METERS



Seabird Colony



Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ WB-03 SUBDIVISION D (4 of 5) DATE 04/06/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All Bald Eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
8AA Sensitive Estuary
7JJ Invertebrate harvesting
See attached Ecological Constraint sheet for specific constraints and contacts.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 429 m: Narrow 434 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 7 cm

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and manual pick up of mousse, tar-
balls and oiled debris (trash, vegetation debris) as indicated in the
attached sketch map. Work should be conducted between 6/1 and 7/9,
USFWS permitting, due to eagle constraint.

TAG COMMENTS: BIOREMEDIATE COASTS AND REMAINING OIL IN AREAS
OF MANUAL REMOVAL

TAG APPROVAL DATE: 4/23/90

ADEC Art Wenzel
EXXON Amy Bat
NOAA Joseph Tallant
USCG Kenneth Keane

FOSC: M L DATE: 5-18-90

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ WB-3 SUBDIVISION: 9 DATE 4-7-90

USCG

NAME R. Bryan Hirtle SIGNATURE R. Bryan Hirtle DCI☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

I agree with the findings of the Shoreline
Ciling Summary Sheet for WB-003 subdivision
D

ADEC

NAME Russell Kuribe SIGNATURE Russell Kuribe☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

There was asphalt and some moss in between the boulders on
the beach near the point between the two anadromous streams at the head of the bay.
The asphalt at the west end of this segment was in fine sediments or in rubble, or both. It is
limestone.

Recommended treatment: Manual pick up of the moss and asphalt.

LAND MANAGER

NAME Patricia Norman SIGNATURE Patricia Norman☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Manual pickup of Asphalt and moss patches should work in this area.
The west end of the subdivision may require some other type of clean up along
with the manual pickup. The east end extends into a Archeological site and
will the Asphalt and moss needs to be picked up.

SHORELINE OILING SUMMARY

REVISION NO. 05-78

OG Randy Siegel USCG Bryan Hirtle SEGMENT ST/ WB-3 LS subd. 1000
 BIO Mike Fawcett LAND REP Pat Norman (Devo) SUBDIVISION D (4th of 5)
 EXXON John Dean ADEC Russell Runbe TIME 0:845 to 10:20
 TEAM NO. 17 TIDE LEVEL: +1.2 to +5.0 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 575 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 15 % B 75 % C 5 % P 3 % G 2 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 30 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M 210 m N 305 m VL 60 m NO N/A m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	R	SP	BP	OP	BP	OP	BP	OP	BP	SU	U	M	U
ASPHALT PAVEMENT	X	+		✓		X		X					X		✓	✓
POOLED				X				X					X			
COVER																
COAT		X	✓			X		X					X		✓	
STAIN		X	✓			✓							✓		✓	
MOUSSE				X						X			X			
PATTIES			✓	X		X				X			X			
TARBALLS			✓	X		X				X			X			
FILM				✓			✓	✓					✓	✓	✓	
NO OIL													✓			

PAVEMENT: H (F) S 210 sq. m by 2 cmPATTIES / TARBALLS 100 BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. ST-17-5Frames 1-3

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW	OIL / FILM COLOR								PIT ZONE	A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			SP	BP	OP	BP	OP	BP	OP	BP			
1	10		X				1-3	X					X		X				G, R
2	10		X				1-3	X					X		X				G, R
3	20		X				0-7	X					X		X				G
4	30					X	0-0	X							X				G
							.												
							.												

COMMENTS

This subdivision consists primarily of boulder-covered beaches with rock cliffs above. A band of oiling, usually asphalt, extended along the UI, either as 1C, 1B, or 1S. Splashes of AP were present in narrow band in the MI and LI. Subdivision D is separated from Subdiv. to the east by about 4300 meters on "No Oil" shoreline from ADEC's 1989 survey and therefore not surveyed for the 4/90 SSAT.

* Shown on collected water.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 032276

Segment ST / WB3 Subdivision D Date (mo / day / yr) 4/7/90Time (24 hr) 0850-1020 Biologist M. Fawcett

(A) Substrate type and % of segments:

(1) Bedrock 15 (2) Boulder 25 (3) Cobble 5 (4) Pebble 3 (5) Sand 2 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense ✓ Moderate Low

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

Photographs:
Roll No. ST-17-5Frames 1-3

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

44 bufflehead
20 white-winged scoter 2 belted kingfisher42 veng
42-3 P. 85

Ecological Considerations:

7.55

3.7

8AA

DATE 4 / 7 80

CHECKLIST

- ☐ N Arrow
☐ Approx. Scale
☐ Seg/Side Ratio
☐ Oil Dia.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Chemistry
☐ Est. HPA/LVL
☐ SCL
☐ Profile Location(s)
☐ Priority(s)
☐ PE Location(s)
☐ Photo Location(s)

LEGEND

- 1 A

- 2 **▲**
PM - Subsurface Oil

CT/C
Continued on next page

CTAB

Abstract

CT/P

Party Discussion

CT/9
Expanded Distribution

Old Vegetation

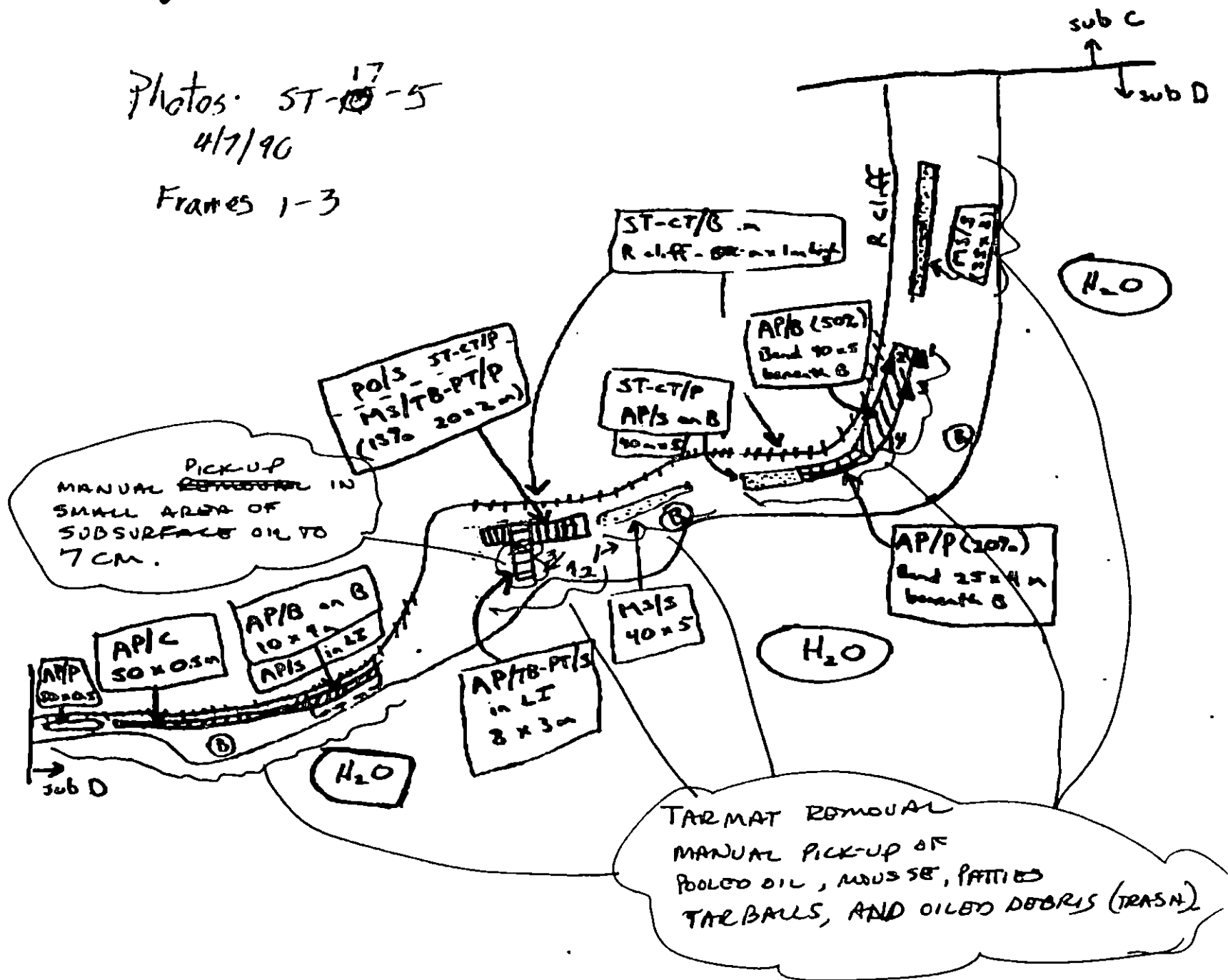
- Photo location, direction,
and number

Oil Character Length (in) AP 130 PO 20 CV N/A CT 500 ST 500 MS 100 PT 500 TB 500 FL N/A NO N/A

PERMISSION 100726-100

SKETCH MAP

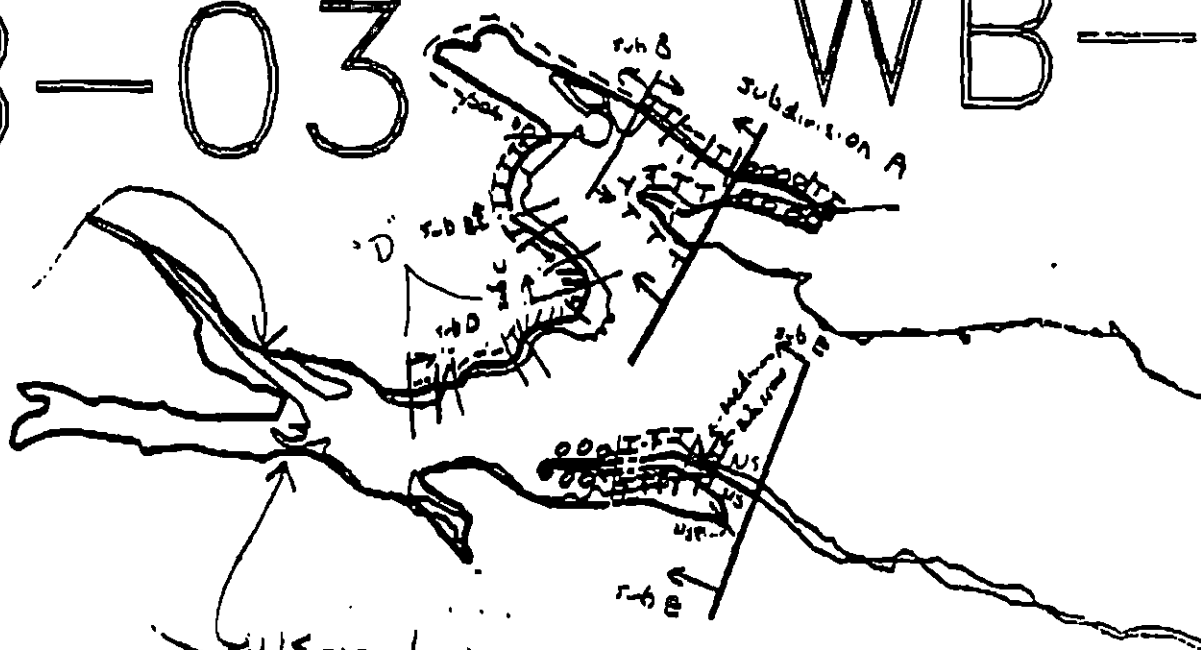
Photos ST-~~10~~¹⁷-5
4/7/96
Frames 1-3



~~XXXXXXXXXX~~

WB-03

WB-



NS-no oil observed
during ADEC 1989
survey, so not surveyed
during 1990 SSAT.

WB-0

XXXX Wide

//// Medium

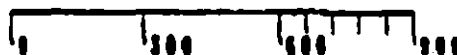
---- Narrow

TTTT Very Light

OOOO No Oil

WB-3

ADEC Segment Length: 8134m



Map Key: KEH-127

Name: Randy ...

Date: 4/8/90

Note Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-3 SUBDIVISION D (4 of 5)

WORK WINDOW	
Manual Pickup Tarmat Removal	CLOSED
Bioremediation	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B	Salmon Stream	ADF&G catalogued anadromous streams (242-20-10160, 242-20-10170, and, 242-20-10180) are in Segment WB-3. No constraint to manual pickup, tarmat removal, and bioremediation. The work area is more than 100m from the nearest anadromous stream.
1J	Purse Seine Area	Closed to bioremediation after 7/10. No constraint to manual pickup and tarmat removal.
5T	Bald Eagle Nest	USFWS bald eagle impact assessment conducted on 5/19/90 by Mary Portner indicates an active nest within 400m of the work area. Closed to manual pickup, tarmat removal, and bioremediation.
7JJ	Subsistence: Invertebrate Harvesting	No constraint to manual pickup, tarmat removal, and bioremediation.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6/15/90

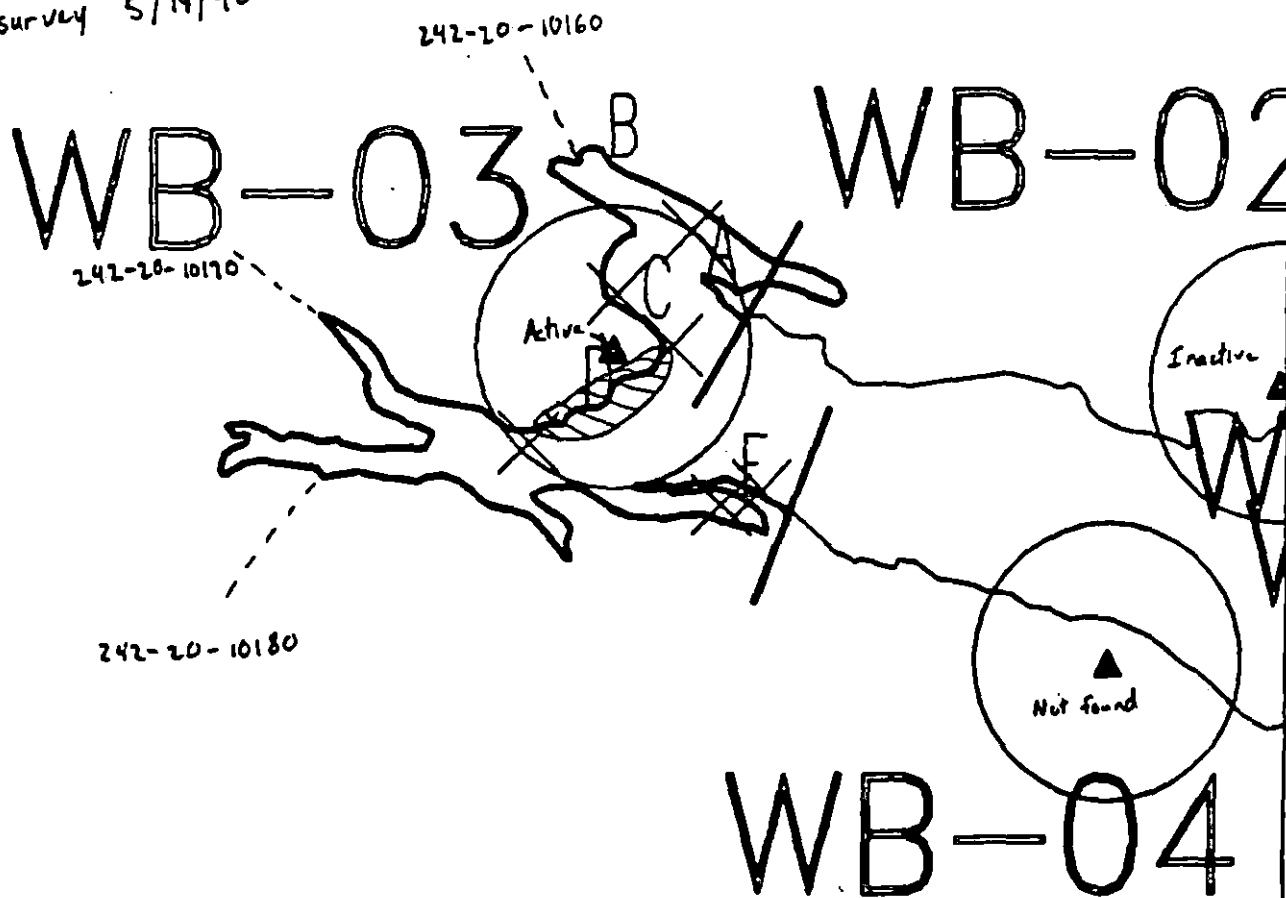
Prepared by

[Signature]

Date

6/14/90

Incorporates information from USFWS
bald eagle survey 5/19/90



Exxon Company, USA

ECOLOGY MAP SEGMENT WB-3

SUBDIVISION D (4 of 5)

METERS



Seabird Colony



Eagle Nest

REVISION 1
7/21/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-3 SUBDIVISION D (4 of 5)

WORK WINDOW	
Manual Pickup Tarmat Removal	* OPEN CLOSED
Bioremediation	* OPEN TO 7/23 CLOSED

* USFWS REGULAR MONITORING REQUIRED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A,1B Salmon Stream

ADF&G catalogued anadromous streams (242-20-10160, 242-20-10170, and, 242-20-10180) are in Segment WB-3. No constraint to manual pickup, tarmat removal, and bioremediation. The work area is more than 100m from the nearest anadromous stream.

1J Purse Seine Area

Closed to bioremediation after 7/23. No constraint to manual pickup and tarmat removal.

5T Bald Eagle Nest

USFWS bald eagle impact assessment conducted on 5/19/90 by Mary Portner indicates an active nest within 400m of the work area. Closed to manual pickup, tarmat removal, and bioremediation. OPEN AS PER USFWS SURVEY

7JJ Subsistence: Invertebrate Harvesting

No constraint to manual pickup, tarmat removal, and bioremediation. OF 7/18. USFWS

MONITOR
REQUIRED.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

[Signature]

Date

6/15/90

Prepared by

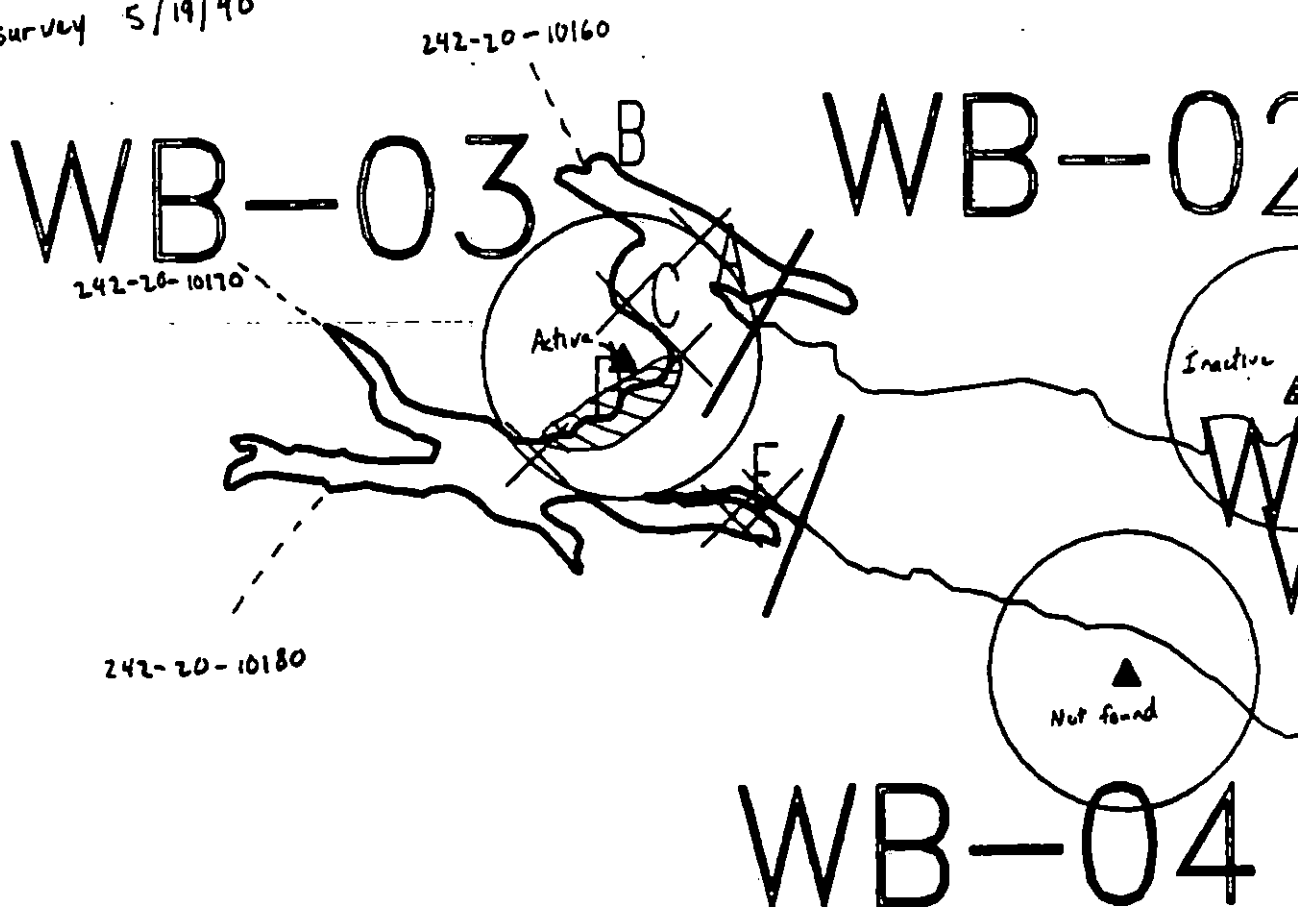
[Signature]

Date

6/14/90

G.A. Ritten
for FOSC

Incorporates information from USFWS
bald eagle survey 5/19/90



Exxon Company, USA
The Koval KPH-WB-3



ECOLOGY MAP
SEGMENT WB-3
SUBDIVISION D (4 of 5)
METERS



Seabird Colony



Eagle Nest

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/ WB003 Subd.: D Site: 102 Date: 8/08 1990

Conditions Observed: Asphalt & Mousse = 4 m Band - U-I/P
Asphalt & Mousse / U-I/P 3.5 m Band - Site #1
MS & SOR/P in VITE & MITE / U-I as a 2 meter Band at
Site #2 -

Followup Recommendations: Manual Removal of Mousse & Asphalt

Completed by Pickup Crew: ☐ YES ☒ NO

Priority for Addressing in 1990: ☐ High ☐ Mod. ☒ Low

ADEC

Clara Crosby
(name)

Clara L. Crosby
(signature)

Comments: I feel that work ^{cc.} was incomplete - Bands
are relatively easily recovered & while work crews are
in Windy Bay - mod. request for CDE - these subdivisions can
be addressed via well.

Exxon

CZARNACKI
(name)

Jon Czarnacki
(signature)

Comments: the oil what remains is about 1 1/2 days work for
a 9 man crew. Could be picked up in 1 Super sachs

USCG

(name)

(signature)

Comments:

Land Rep.

Patrick Norman
(name)

Patrick Norman
(signature)

Comments: Asphalt and mousse is mostly exposed and
can be picked up.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS / W 8-3 SUBDIVISION: D SITE: 01/12 DATE 07 Aug 1990

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

*Some AP/MS found on segment.
Reassess in 91.*

ADEC

NAME Clara S. Crosby SIGNATURE Clara S. Crosby

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Manual removal of AP & MS incomplete. It is adjacent to an anadromous stream. Subsurface oiling was observed in the burn @ pit site #2. A thorough reassessment & delineation & treatment of subsurface oiling is needed. Area has been Bioremediated.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

The western end of this segment still has subsurface mousse, pad is on Archeological site that is important to us also a subsistence area

EXXON

NAME Jon Carnecki SIGNATURE Jon Carnecki

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

This area is next to an active salmon stream and used for subsistence fishing reassessment in 91 would be ~~helpful~~ helpful.

ASAP SHORELINE CILING SUMMARY

TEAM NO 04 EXXON Jon Czarniecki SEGMENT AS WP--
CG Rich Marty USGS USCG AEC Vanderpol SUBDIVISION D
ADEC Chris Crosby LAND REP Pat Norman (FGr) TOTAL NO. SITES 1
DATE 07 Aug 190 TIME 19:05 to 19:35 TIDE LEVEL +4' to +3'
TOTAL EST LENGTH OF SHORELINE SURVEYED: 516 m
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
OIL CATEGORY LENGTH: W — m M 269 m N 194 m VL 54 m NO — m US — m

SURFACE OIL

SITE 1

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT	—	—	₂ U	I	^U _I	^U _I	^U _I	—
S.O.R.	—	—	—	H	—	H ^x	^U _I	—
POOLED								
COVER								
COAT								
STAIN								
MOUSSE	—	—	₂ U	I	^U _I	^F _U	^F _U	—
PATTIES/T.B.	—	—	—	X	—	X	X	—
FILM								
NO OIL						—	—	X
EST. SITE LENGTH					421 m			

SITE 2

DISTRIBUTION				OILED ZONES			
/C	/B	/P	/S	SU	UI	MI	LI
—		ν_I	—		ν_I	ν_I	—
—		ν_I	—		ν_I	ν_I	—
				X	—		X
				95m			

SITE 3

[illegible]

SUBSURFACE OIL

[illegible]

Photographs: ASAP-04-
Roll No. 03-CC
Frames 25-32

COMMENTS All comments are presented on the annotated sketch.

SEGMENT SI WB-3

SUBDIVISION D

DATE 8/17/90

CHECKLIST

- ☐ H. Auger
- ☐ Approx. Scale
- ☐ Map/Photo Ratio
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. MSL/VL
- ☐ SCL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
Pt - No Substrate Oil

2 Δ
Pt - Substrate Oil

CT/C
Continuous Distribution

CT/B
Broken Distribution

CT/P
Patchy Distribution

CT/S
Scattered Distribution

CT/T
Oiled Vegetation

CT/V
Photo location, direction,
and number

CT/W
Oiled Vegetation

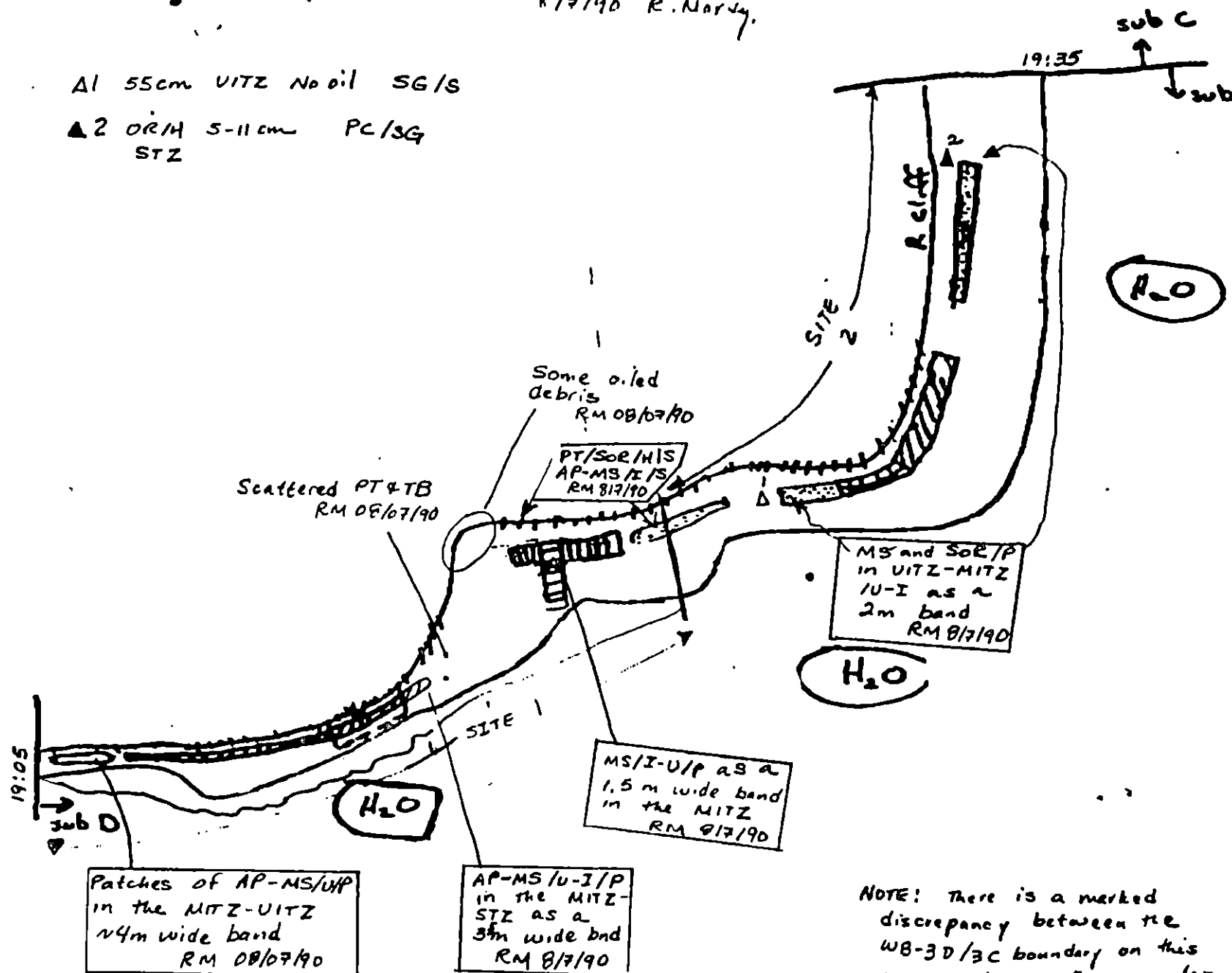
CT/X
Photo location, direction,
and number

SKETCH MAP

ASAP Annotations
8/17/90 R. Narby

A1 55cm VITZ No oil SG/S

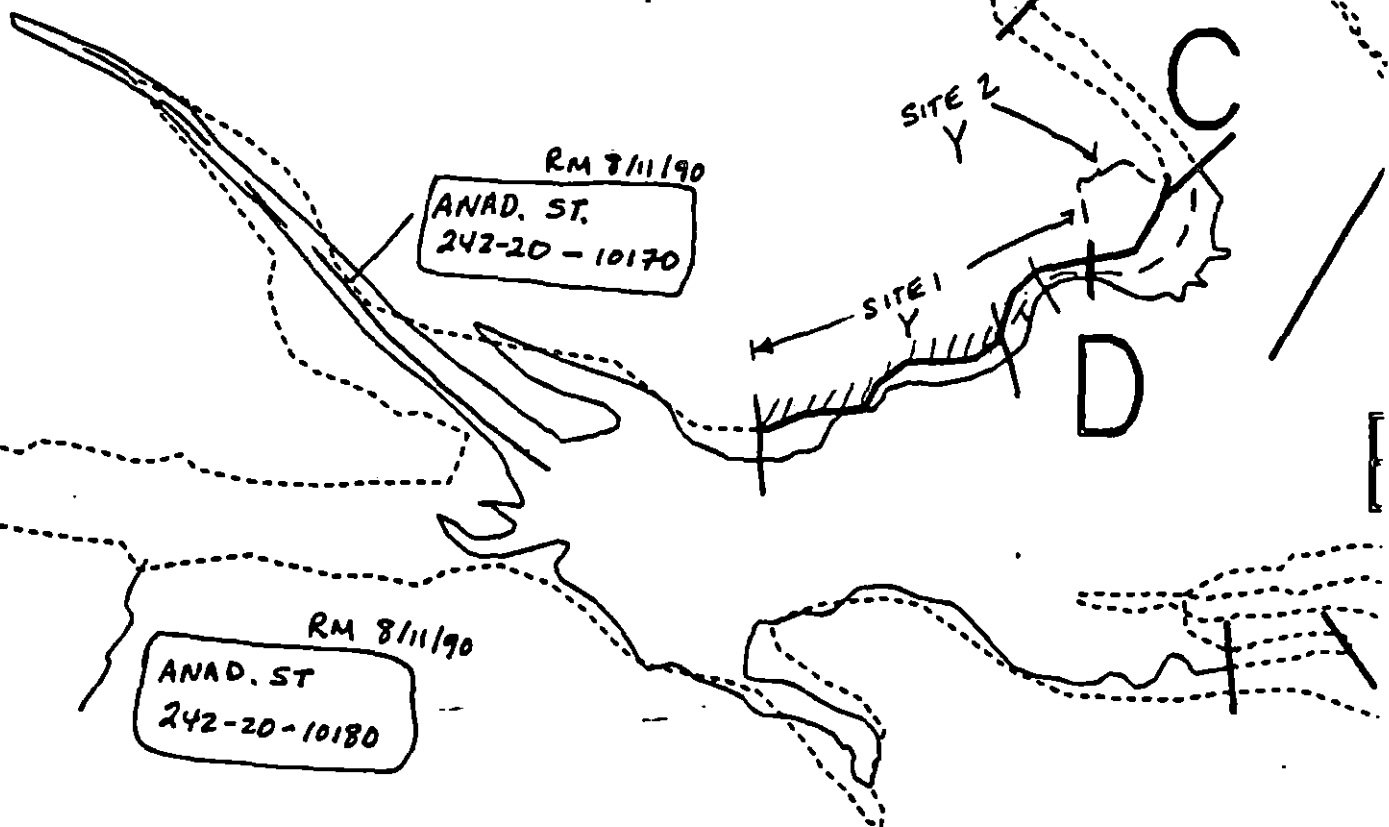
A2 OR/H 5-11cm PC/SG
STZ



Oil Charac (m) AP PO CV CT ST MS PT TB FL NO

REVISION: 1

03



				Site 1	Site 2
VL	0.25	47	54	54	0
L	0.9	170	194	99m	p.5" 95m
M	1.25	236	268	268m	0
		453	516	421m	95m

OILING SEVERITY

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

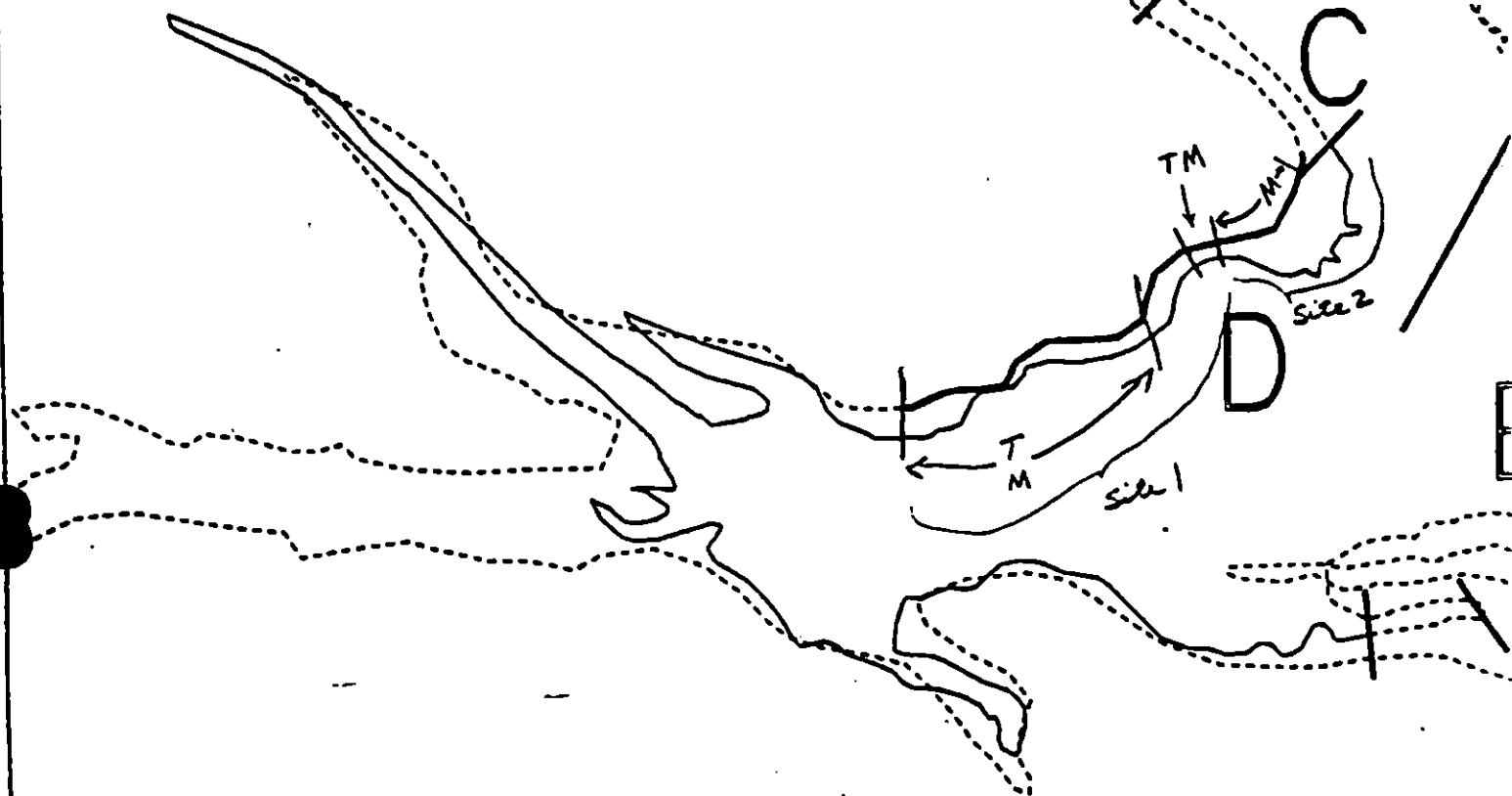
WB-3 D
 ADEC Subsegment Length: 516m
 METERS

0 100 370
 AR State Plane Zone 4
 1:7438
 nvb-3d



Subdivision Field Map
 Map Key: KENWB-3D
 Name: R. Marty
 Date: 8/7/90
 Date Entered:

03



DISTRIBUTION OF "SIGNIFICANT" OILING

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

WB-3 D

ADEC Subsegment Length: 516m

METERS



AK State Plane Zone 4
avb-3d

1:7430



Subdivision Field Map

Map Key: KENWB-3D

Name: R. Narty

Date: 8/7/90

Date Entered:

ASAP DATA ENTRY FORM

PAGE 1 OF 4GENERAL DATA

SEG ID: WBO3 SBDV: D SITE: 1 TEAM: 4 DATE: 8/8/90
SITE LGTH 421 OIL CATEGORIES: W — M X²⁵⁰ N 194 VL 54 NO —U
1991 REASSESSMENT: USCG: Y ADEC: Y LDMGR: — EXXON: Y

Rm 81111

SURFACE DATA

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT — BRKN — PTCH I^V SPLH I
TIDAL ZONE: SU VI UI VI MI VI LI —

CHAR #: 2 OIL CHAR: SO OIL DIST: CONT — BRKN — PTCH — SPLH H
TIDAL ZONE: SU — UI H^X MI U LI —

CHAR #: 3 OIL CHAR: MS OIL DIST: CONT — BRKN — PTCH I^U SPLH I
TIDAL ZONE: SU VI UI I^U MI I^U LI —

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

CHAR #: 5 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI X

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE ____ OF ____

SEGMENT ID: NB03 SUBDIV: D SITE: 1

PIT # 1 PIT DEPTH 55 OIL CHARACTER NO OIL INTVAL: FROM ____ TO ____
 CLEAN BELOW: Y PIT ZONE: SU UI X MI LI

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN X SAN X MUD ____ VEG ____

NO more PITS.

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

PIT # ____ PIT DEPTH ____ OIL CHARACTER ____ OIL INTVAL: FROM ____ TO ____

CLEAN BELOW: ____ PIT ZONE: SU ____ UI ____ MI ____ LI ____

SUBSURF SEDIMENT: BRK ____ BLD ____ COB ____ PEB ____ GRN ____ SAN ____ MUD ____ VEG ____

GENERAL DATA

SEG ID: WBO3 SBDV: D SITE: 2 TEAM: 4 DATE: 8/8/90
SITE LGTH 95 OIL CATEGORIES: W M N X VL NO U
1991 REASSESSMENT: USCG: ADEC: X LDMGR: EXXON: X

SURFACE DATA

CHAR #: 1 OIL CHAR: SO OIL DIST: CONT BRKN PTCH UI SPLH
TIDAL ZONE: SU UI UI MI UI LI

CHAR #: 2 OIL CHAR: MS OIL DIST: CONT BRKN PTCH UI SPLH
TIDAL ZONE: SU UI UI MI UI LI

CHAR #: 3 OIL CHAR: NO OIL DIST: CONT BRKN PTCH SPLH
TIDAL ZONE: SU X UI MI LI X

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

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

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

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

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

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

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

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 4 OF 4SEGMENT ID: 10003 SUBDIV: D SITE: 2

PIT # 1 PIT DEPTH 12 OIL CHARACTER OR OIL INTVAL: FROM 5 TO 11
CLEAN BELOW: X PIT ZONE: SU X UI MI LI
SUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

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

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

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

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

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

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

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

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

ASAP TAG REVIEW SHEET

Segment: WB03 Subd: D Site: 1 Date
PRE-Review 14 Aug 90

Priority For Addressing In 1990

 HIGH MEDIUM X LOW NTR

Treatment
Recommended:

m/p + BJO

Asphalt, SDR-H

mouse, TB-patio

Priority Site For Reassessment In 1991

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

TAG 15 AUG 90
manual pickup mouse & AP
BIO

(Low Priority)

ASAP TAG REVIEW SHEET

Segment: WB03 Subd: D Site: 2 Date
PRE-Review 14 Aug 90

Priority For Addressing In 1990

☐ HIGH ☐ MEDIUM ☒ LOW ☐ NTR

Treatment
Recommended:

~~AIIR~~
SOR, mobile
Reassessment
Only

Priority Site For Reassessment In 1991

YES NO YES NO YES NO YES NO
☒ CG ☒ ADEC ☒ EXXON ☒ LAND MGR

TAB 15 AUG 90
Same as
Site 1

SHORELINE EVALUATION

SEGMENT ST/ WB-03 SUBDIVISION E (5 of 5) DATE 04/07/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
5T All Bald Eagle nests (3/1 to 6/1)-Active eagle nest (3/1 to 9/1)
8AA Sensitive Estuary
7JJ Invertebrate harvesting

See attached Ecological Constraint sheet for specific constraints and contacts.

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

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

OILING CATEGORIZATION:

Wide 0 m: Medium 72 m: Narrow 58 m: V.Light 788 m: No Oil 447 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual removal of patties, tarballs, and tarmat
as shown on attached sketch map. Work should be conducted between
6/2 and 7/10 with USFWS permission (active eagle nest).

TAG COMMENTS:

TAG APPROVAL DATE: 4/27/90
ADEC JOHAN BAUER John
EXXON AMY TELL AMY FOSC: DATE: 5-18-90
NOAA Joseph Tallett JOE
USCG KENNETH KEANE KEANE

PWS ECOLOGICAL CONSTRAINTS

1A
1B

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

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

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.

1C

Salmon fry nursery area (4/31 to 7/31)

1D

Esther Hatchery release (4/15 to 6/1)

1E

Main Bay Hatchery release (4/20 to 5/10)

1F

Sawmill Bay Hatchery release (4/20 to 5/10)

1G

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

1H

Remote release site

1I

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

1J

Purse seine area (7/21 to 9/30)

1K

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

1L

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

For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

2M

Herring spawning (4/1 to 6/15)

Restrict boat traffic to essential minimum. Avoid damage to uncoiled intertidal and subtidal algae and seagrass. Contact ADF&G for specific dates and locations.

3N, 3P
3O, 3Q

Harbor seal and sea lion pupping (5/15 to 7/1)

Harbor seal and sea lion molting (8/15 to 9/15)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.

5R

Seabird colony (5/1 to 9/1)

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

5S

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

Restrict all activity to essential minimum, especially air traffic.

5T

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

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

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

6U

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

6V

Anchorage (6/1 to 9/15)

6W

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

6X

Lodge (6/1 to 9/15)

6Y

Special use destination

7Z

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

7HH

Finfish harvesting

7II

Deer harvesting (8/15 to 2/28)

7JJ

Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-3 SUBDIVISION: E DATE 4-7-90

USCG

NAME

R. Bryan HIRTLE SIGNATURE R. Bryan Hirtle☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Agree with the Shoreline Oiling Summary
sheet for WB-003, E

ADEC

NAME

Russell Kuntze SIGNATURE Russell Kuntze☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

There was asphalt along the high tide line on the sand and gravel
spit in sandy distribution. There were some pockets of asphalt in the
boulders and cobbles along the south shore of Windy Bay to the east of the
spit.
Recommended treatment: Manual pick up of the asphalt out.

LAND MANAGER

NAME

Patrick Norman SIGNATURE Pat Norman☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

manual pick up of Asphalt and mousse patches should collect the
majority of oil found in this subdivision.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Randy Siegel USCG Bryan Hirtle SEGMENT ST/ WB-3 (5 subdivisions)
 BIO Mike Fawcett LAND REP Pat Norman (RVC) SUBDIVISION E (ST of S)
 EXXON John Deere ADEC Russell Kumbie TIME 10:20 to 11:15
 TEAM NO.: 17 TIDE LEVEL: +S.0 to +6.2 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 790 ~~450~~ m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 10 % B 10 % C 5 % P 5 % G 10 % S 60 % M 0 % V 0 %
 SLOPE: Long 90 % Hang 10 % Vert 0 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M 10 m N 30 m VL 150 m NO 600 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	ME	U
ASPHALT PAVEMENT		✓		X		X		✓			X	✓		
POOLED														
COVER														
COAT				X		X					X			
STAIN				X		X					X			
MOUSSE														
PATTIES				X				X			X			
TARBALLS				X				X			X			
FILM														
NO OIL											X		X	X

PAVEMENT: H (F) S 430 sq. m by 2 cmPATTIES / TARBALLS 25 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris	X		

DEBRIS COLLECTED
☐ YES ☒ NOTYPE N/A#BAGS 0

Photographs:

Roll No. ST-17-5Frames 4, 5, 7, 8

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY SL	DBR TL	LBR		SU	UI	ME	U		
1	40					X	0-0		X							X					G
2	30		X				0-2		X				X			X					G
3	30					X	0-0		X							X					G, P
							.														
							.														
							.														

COMMENTS This subdivision consists largely of a sand spit about 30-40 meters in width. The spit extends inland and becomes wider - groundcover changes to R + B. The easternmost 80 m on each side of the spit were not surveyed due to high tide. Minor oiling was observed on the sand spit - a few TB and PT. Further inland, two areas contained heavier oiling, although the presence of kelp in one of areas prevented thorough surveying. This subdivision is separated from Subdivision D to the west by about 9300 meters of shoreline which did not contain observable oil during ADEC's 1989 survey, and was therefore not surveyed for this U/S. A.M.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0322 90

Segment ST / WB 3 Subdivision E Date (mo / day / yr) 4/7/90

Time (24 hr) 1040-1115 Biologist M. Fawcett

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

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

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

Photographs:
Roll No. ST-17-5

Frames 4-5

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

The main part of spit is unstable gravel/pebble bar, no attached biota
 Far out top toward east has dense Fucus/barnacle cover in MTZ
 7-8 white-winged scoter 1 harbor seal - magpies

Ecological Considerations:

755
 31
 31A

DATE 4/17 80

CHECKLIST

- ___ N Arrow
- ___ Approx. Scale
- ___ Seg/Sub Entry
- ___ Off Dist.
- ___ Width
- ___ Length
- ___ % Cover
- ___ Substrate Character
- ___ Est. HAV/LVL
- ___ SSL
- ___ Profile Location(s)
- ___ Profile(s)
- ___ Pit Location(s)
- ___ Photo Location(s)

LEGEND

Fig. - No Subsurface Oil

2 ▲
FM - Subsurface Oil

CT/C
Confidential Distribution

CT/B

Product Distribution

CT/P

Industry Distribution

CT/S
Selected Distribution

Old Vegetation

Photo location, direction,
and number

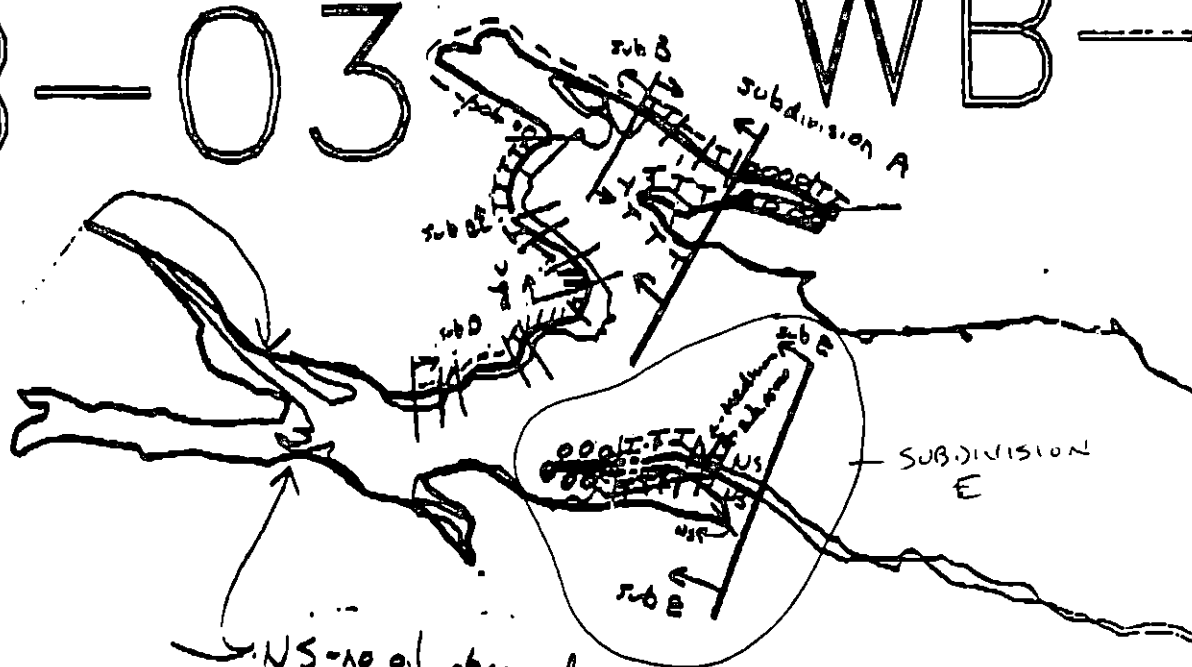
Oil Character Length (in) AP 30 PO N/A CV N/A CT 60 ST 60 MS N/A PT 140 TB 140 FL N/A NO 600 ~~TS 160~~

0177-0458/96/0005-0000\$05.00/0

11/11/11

WB-03

W B



NS-no oil observed
during ADEC 1989
survey, so not surveyed
during 1990 SSAT.

WB-C

XXXX Wide

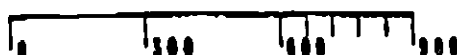
//// Medium

Narrow

TTTT Very Light

WB-3

ADEC Segment Length: 6154m



Map Key: KEN-127

Name: R. L. Sizer

Date: 4/3/20

References

ANADROMOUS FISH STREAM EVALUATION

SEGMENT ST/ WB-003 STREAM NO: 242-32-10160 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 (7/1 TO 8/31)
7JJ Subsistence area: Invertebrate harvesting
8AA Sensitive estuary
5T 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:

Subject stream is located within subdivision B (2 of 5). Eagle nest within 400m of stream no. 242-32-10160

SHPO SIGNATURE: Rachel Dan Owe DATE: 5/22/90

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

+ TARBALLS

COMMENTS: Recommend manual removal of pavement and oiled vegetation as indicated on attached sketch map. Work from 6/2 to 7/1 with approval of USFWS regarding eagle nests.

TAG COMMENTS: BIUREMEDIATE (CUSTOMER) AS REQUIRED FOLLOWING TARMAT REMOVAL

TAG APPROVAL DATE: 5/18/90.

ADEC ART WEINER Art Weiner

EXXON ANDY TGAZ Andy TGAZ

NOAA GARY PETRAE Gary Petrae

VSCG G.A. BEITER G.A. Beiter

FOSC: ML

DATE: 6-June 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 Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened 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)
 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- 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 Subistence area: Salmon harvesting (5/1 to 9/30)
 7H Finfish harvesting
 7I Deer harvesting (9/15 to 2/28)
 7J 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.1 WB-003 SUBDIVISION: ASC# 22 242-20-10160 DATE 29 APR 90

USCG

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

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Type A manual removal.

~~ADEC~~ → ADF&G

NAME LEE GLENN

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Manual pick up is recommended for oil along the east side of stream and salt marsh. Oil extends 250 meters up this side. Remove patches of oil in grass flats located approx 250 meters from stream mouth. Remove mouse and asphalt along north beach. The subdivision area is also a subsistence food gathering area.

Contact Lee Glenn prior to work so that ADF&G can place an observer on site.

The attached ADEC assessment completed on 4/7/90 has not changed from the

LAND MANAGER → NONE

4-29-90 Amed Scott Survey

NAME

SIGNATURE

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

GROUP A

ADFG MULTI-ASSESSMENT DATA FORM

Prescreening

1 SURVEY TYPE: AS PER ANAD. CAT OF 4/28/90 - SEE MAP

2 REGION: SP, CI K, AP

3 DATE: 4/2/90

15 HIGH TIDE TIMES: 1

21 TEAM RECORDER: Doug Hill

4 START TIME: 0825

16 HIGH TIDE HTS: 1

22 OBSERVERS: Lee Gilman

5 STOP TIME: 0925

17 LOW TIDE TIMES: 0702.1

23 AGENCY: ADFG

6 SEGMENT #: WB-003

18 LOW TIDE HTS: 1.3

24 PHOTOS TAKEN: 0 N

7 STATION #:

19 TIDE HT AT SURVEY:

Roll #: 10-00H-021 Frame: 11, 12, 13

8 K-UNIT:

Ebb Stack (Flow) Stack

25 VIDEO TAKEN: Y (N) TAPE:

9 STAT AREA: 242-20

20 USCG QUAD: SELDOWIA A-5

Starts: Ends:

10 LAT: 59°13'30"

11 LONG: 151°30'30"

26 SAMPLES TAKEN: (N) Number:

12 SOURCE: (P) Loran

Oil: _____

13 LOCATION: AFS# 242-20-10160; HEAR of Windy Bay

Sediment: _____

14 DESCRIPTION: North Shore, Right Hand Pier

Biological: _____

Water: _____

EXTENT OF OIL

	SHORELINE				STREAM			
	L	M	H	N	L	M	H	N
27 SURFACE COVERAGE								

36 CATALOGED ANAD. FISH SKELETAL (Y) N

28 PENETRATION								
----------------	--	--	--	--	--	--	--	--

37 CATALOG #: 242-20-10160

30 OVERALL OIL IMPACT: N VL L M N

40 OIL ON STREAM BANKS? (Y) N

31 OIL TYPE: Pooled House (Tar) Asphalt (Seal) (Seal)

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

(within 50 meters)

32 OILED DEBRIS? Y (N)

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

Where: _____

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

43 ANADROMOUS FISH PRESENT? (Y)

Lagoon Marsh

34 WAVE EXPOSURE: High Moderate (Low)

44 ANADROMOUS FISH OBSERVATION

35 SUBSTRATE TYPE: Bedrock Boulder 10 Cobble 30

Species Aerial Ground

Gravel 30 Sand 20 Mud/silt 10

Chum? FRY 60

_____ _____ _____

_____ _____ _____

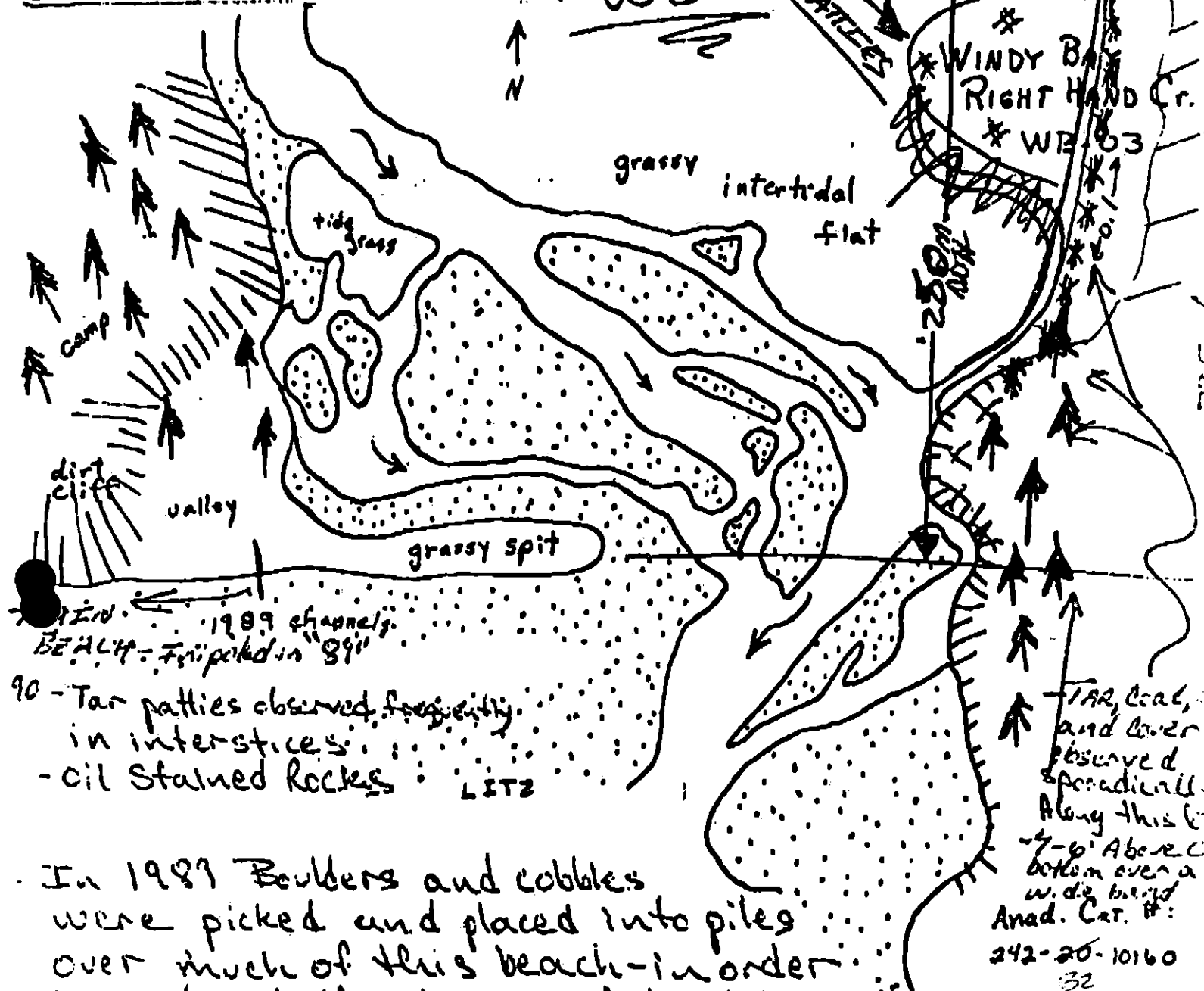
_____ _____ _____

COMMENTS: Chum, Pink and Coho River, Flats used by after/pen
and River, Moose, Migratory waterfowl utilize this
area, Bald Eagles frequent (nest within 1/2 mile). Eelgrass
and clam bed at mouth of stream.

Douglas Hill

Revisions as per Anadiscut of 4/28/90

ADSCAT - Recommended



- 90 - Tar patties observed frequently in interstices.
- oil Stained Rocks

In 1989 Boulders and cobbles were picked and placed into piles over much of this beach - in order to get at the heavy soaked oil beneath and in the interstices. Crews were later told to cease moving rocks (changing the beach morphology) - As NOAA/Exxon stated concerns that it could cause an erosional problem.

In 1990 none of the cairn/graveyard-like piles were evident - only a uniform random natural looking

Seg ID: WB-003 Subdiv: 242-20-10160
Survey Date: 4/29/90
Comments by: Ken Critchlow

The area surveyed was behind the main beach berm. Most of the oil observed was located in two areas. One area, characterized by dead and new emerging grass, contained several areas of scattered patties and tarballs. Some of these oiled spots were staked and flagged to facilitate relocation; in one or two weeks the oil would be very difficult to find. The other oiled area was located along the east side of the site adjacent to a small stream channel. Oil in this location was located in a broken band of stain and asphalt pavement in the MITZ and UITZ.

I recommend that patties and tarballs in both oiled areas be removed by shovel for disposal. No other treatment is recommended.

KR Critchlow

SUBJECT: FIREWALL:

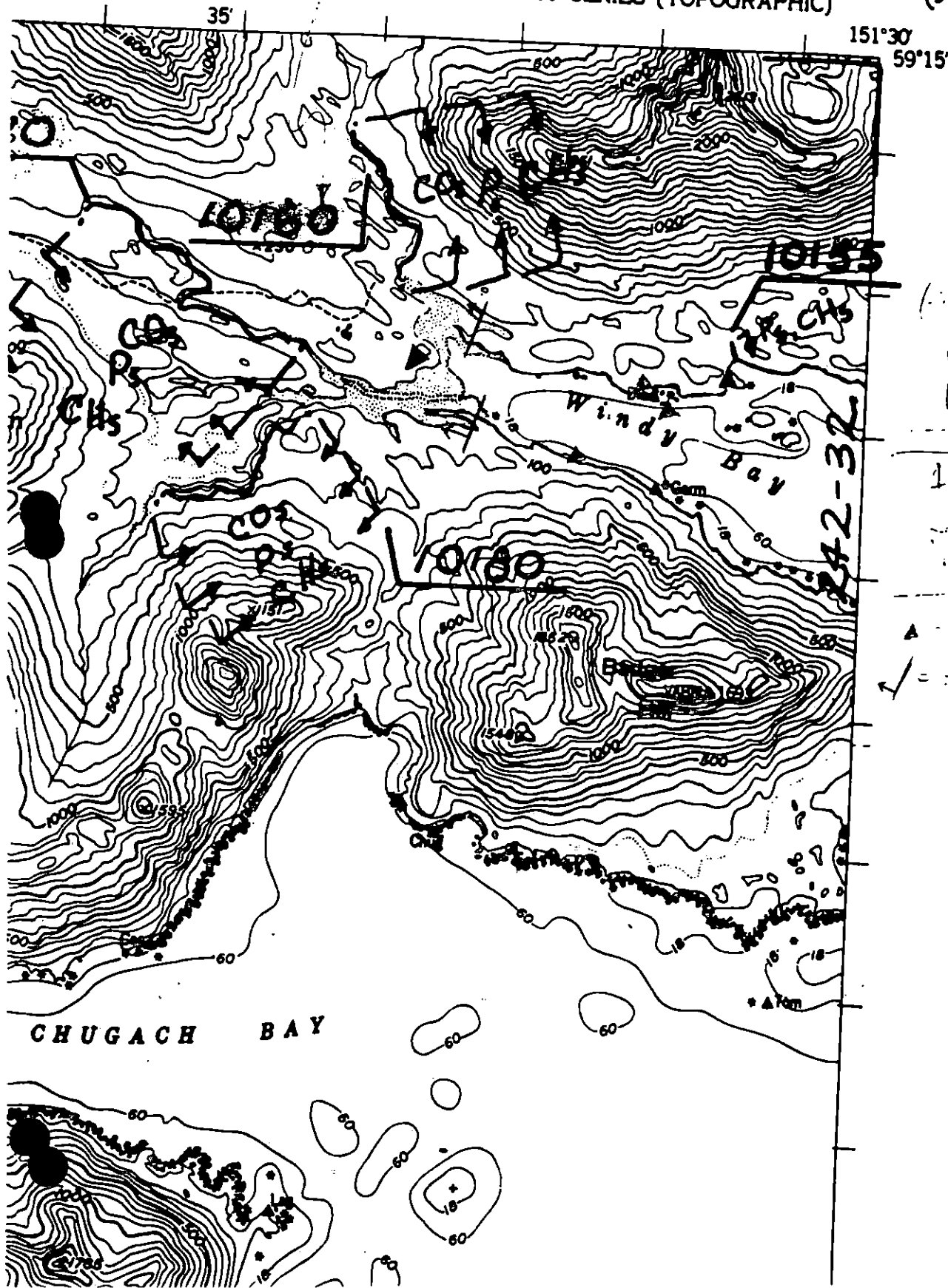
= 742-32-10160 (1:63,360 Series)

SELDOVIA (A-5) QUADRANGLE

ALASKA-THIRD JUDICIAL DIVISION

1:63 360 SERIES (TOPOGRAPHIC)

(SELDOVIA B-4)



WB-CE
P. 101.5
ECOLOGICAL
MAP

1A 1.5 LT

1.5 6/11

A - BATHYGRAPHY

✓ = SEGMENT 101.5

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

1J Purse seine area (7/1 to 8/31)
5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE:

DATE:

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 394 m: V.Light 767 m: No Oil 1317 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

☐ 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: Recommended treatment includes manual removal of tarmats in areas indicated on sketch map. Work should be conducted between 6/1 and 7/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 5/11/90
ADEC Art Wouter Art Wouter
EXXON Amy Ten Amy Ten
NOAA Joseph C. Tuller JCT
USCG D.D. Rome D.D. Rome

FOSC:

DATE: 6 June 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

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 Suzumoto 424-7511

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

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

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

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

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

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

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

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened 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)

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

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

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

ADF&G Don Calkins 267-2403

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom Roth 267-2206

5T All Bald Eagle nests (3/1 to 6/1)

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

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

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

6U Recreation:

Tent sites (8/1 to 9/15)

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

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

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

6Y Special use destination

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

7H Finfish harvesting

7I Deer harvesting (8/15 to 2/28)

7J 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 / WB-04 SUBDIVISION: A-1 of 1 DATE 04/28/9

USCG

NAME

David S. Thomas SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

ADEC

NAME

Clara S. Crosby SIGNATURE Clara S. Crosby☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

*Suggest removal of AP at western end of
segment — easily recovered.*

LAND MANAGER

NAME

Dick Madden SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 24-13-88

OG RICK GILLIE USCG DAVE THOMAS SEGMENT ST/ WB-04
 BIO DAVE LOHVE LAND REP DICK MOONIN (NG) SUBDIVISION A (1 OF 1)
 EXXON FRANK BOX ADEC CLARA CROSSBY TIME 07:240 11:00
 TEAM NO. 13 TIDE LEVEL +6 to -3 DATE 04/28/90
 EST. SUBDIVISION LENGTH: 2535 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 50 % B 20 % C 20 % P 10 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 400 m VL 800 m NO 1335 m

SURFACE OIL

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

PAVEMENT H F (S) 40 sq. m by 5 cmPATTIES / TARBALLS 1 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ . NO ☐TYPE Pure Foam#BAGS 1

Photographs:

Roll No. PT-13-05Frames 33-37

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SHEEN (Y/N)	!	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OP	NO		US	US	1	2	3	4	SU	U	M	V				
1	30					X	.		X						X						S-J
2	40					X	.		X						X						S-J
3	20					X	.		X							X					S-P, G
4	30					X	.		X						X						P-D, S
5	20					X	.		X						X						S-P, P
6	25					X	.		X						X						S-P, P

COMMENTS

GEOGRAPHY: PREDOMINANTLY NARROW RUBBLE BEACHES BACKED BY VERTICAL CLIFF (5m HIGH). 3 LARGER BEACHES (200m LONG) CORAL/PEBBLE

OILING: AREA OF "NARROW" AT WEST END COMPRISING ASPHALT PAVEMENT BANDS IN HT&E AT TWO SITES

REVIEWED BAZ DATE MAY 90

SHORELINE OILING SUMMARY (PAGE 2)

REVISION 05-13-88

SEGMENT ST/ WB-04 SUBDIVISION A (1 OF 1)

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	S W E E N (Y/N)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SL	BL	BR	BL	BR	SL	BU	UM	EM	LU				
7	20					X	.		X							X							P-S, P
8	30				✓		5-10		X	X						X							P-S, PG
9	20					X	.		X							X							P-S, G
10	25					X	.		X							X							C-P, G
11	25					X	.		X							X							C-P, G
12	25					X	.		X							X							C-P, G
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

REVIEWED BAT DATE 1 May 90

OG RICK GALLIE
 SEGMENT ST/ WB-04
 SUBDIVISION A-1 of 1
 DATE 04, 28/90

CHECKLIST

- ☒ H Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Grid
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LVL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
Pt - No Subsurface Oil
- 2 Δ
Pt - Subsurface Oil
- CT/C
Continuous Distribution
- CT/D
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Oil Vegetation
- 1 $\Rightarrow$
Photo location, direction, and number

**SKETCH MAP
WEST PART**

0 100 200 300 m

MANUALLY
REMOVE
TARMATS

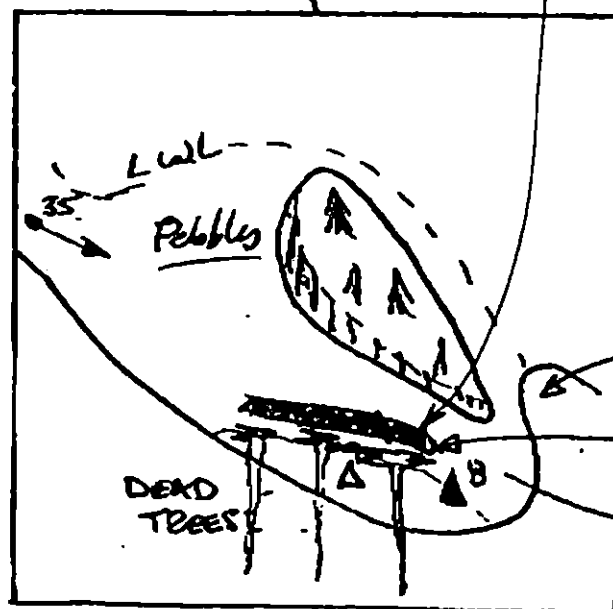
Windy Bay

VERTICAL ROCK,
NARROW ANGULAR BOWDER/COBBLE
BEACHES

AP/P (30% COVER), TB/S
3x50m, 2-8 CM THICK
MITZ
COBBLES OVER PEBBLES

CT/C, <10M LONG
ON ROCK FACES

CT/S (<1% COVER)
BAND <1M HIGH ON
SHeltered ROCK FACES



AP/S, TB/S IN BDRK/COBBLE

AP/P (20% COVER), MITZ
1x50m, 2 CM THICK
(POSSIBLE BURIAL >30CM)?

OG RICK GILLIE

SEGMENT ST/ WB-04

SUBDIVISION A-1 of 1

DATE 04,29/90

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Bdry
- ☒ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAVLA/VOL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☒ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

Pit - No Subsurface Oil

2 Δ

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

Oil on Vegetation

1 ➡

Photo location, direction, and number

SOUTH MAP
EAST PART

0 100 200 300 m



WEST
PART

CT/S (< 1%)
ON ROCK FACES

ROCK
CLIFF

PEBBLE BEACH

NARROW RUBBLE BEACHES
VERTICAL ROCK BACKSHORE

Windy Bay

Oil Character Length (m): AP 20 PO 0 CV 0 CT 100 ST 0 MS 0 PT 0 TB 5 FL 0 NO 2410

(FOR ENTIRE SEGMENT)

REVISION: 00/00/00

HP-20-1530 01:18 PM/11 SEP 1990 EXD0855917 P.05

RICK LIE

MENT ST/ WB.04

ADIVISION A.

ITE 04, 2, 90

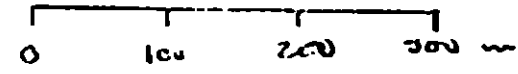
HECKLIST

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

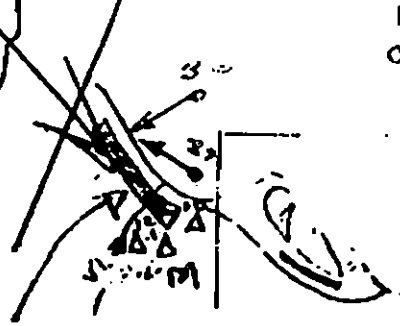
EGEND

- 1 Δ No Subsurface Oil
- 2 Δ Subsurface Oil
- CT/C Reduced Distribution
- CT/B Low Distribution
- CT/P Dry Distribution
- CT/S High Distribution
- d Vegetation
- to location, direction, number

SKETCH MAP



Manual
Bivalve
of Tarns



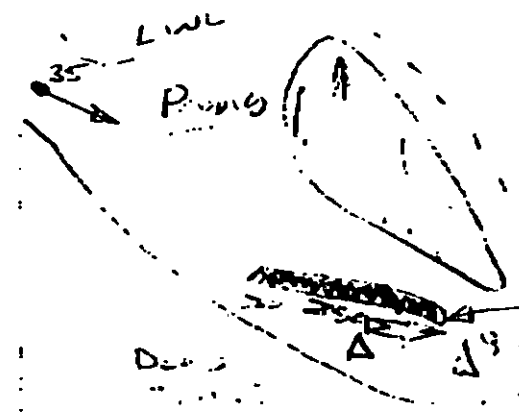
Windy Bay

VERTICAL ROCK,
NPT: C HNGHAR BOUNDER/COSS.
BLP 100

AP: (3) 100, T3
3x20m
LT?
CIBBU

CT/C, KIM LONG
ON ROAD

CT/S < 1% cover,
BAND < 1M thick ON
DISTURBED ROCK FACES



AP: - 3/2 IN BDRK CIBBU

AP: 10, 20% cover, MITZ
x 50m, 2 CM thick
PUB. 300? ARIAL > 30' A?

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/91

Segment ST / WBOOH Subdivision A Date (mo / day / yr) 4-28-90Time (24 hr) 7:15 Biologist David Lohse(A) Substrate type and % of segments:
(1) Bedrock 50 (2) Boulder 20 (3) Cobble 20 (4) Pebble 10 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 45 Moderate 35 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 (O)

Photographs:

Roll No. ST-13-5Frames 33-37

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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	

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	NOT PRESENT
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

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
3	3	3	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	

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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:

See page 2

Ecological Considerations:

One commercial salmon fishing regulatory marker was posted at the western boundary of this segment. Unknown how far ~~the~~ any anadromous streams are from this segment boundary.

Shoreline Ecological Summary

Lot L

Segment ST-WB004

Subdivision A

4-28-90

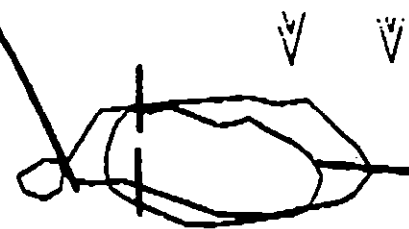
Biologist: David Lohse

Wildlife Observations / General Comments

- 1. Present in low intertidal: Halosaccion, Alaria, Nuella, Ulva, Enteromorpha, unknown red algal "branch" (~~Rh~~ Rhodomenia?), unknown yellow sponge, Anelopus, Scytosiphon, Kathrina tunicata, Pycnopodia, Laminaria
- mid intertidal: Scytosiphon, Ulva, coralline algae, Anemone, Kathrina tunicata, Sulpis, Pagurus, Halosaccion, Nuella, Porphyra, unknown red algal "branch" (~~Rh~~ Rhodomenia?), Tealia Metridium, Alaria, Endocladia
- high - Cladophora
- 2. 2 cormorants, 1 squirrel, and many ducks were observed in the area.
- 3. A few, small (less than 100 cm²) patches of byssal threads were found on mid-intertidal bedrock
- 4. Algal cover in low intertidal was 75% on boulders (2 estimates), 75% on bedrock (1 estimate), and 80% on cobble (2 estimates).
- 5. Barnacle mortality on mid intertidal boulder was ~5% (estimate of one site), 10% on mid intertidal bedrock (1 site), and 5-25% on high intertidal bedrock (2 sites).
- 6. One stream located in segment. Unknown whether or not it is anadromous. See OG map for location.
- 7. A commercial salmon fishing regulatory marker was posted at the western boundary of this segment.

WB-6

6



WB-7

OPS MAP← KEN
128AEAST PART

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

WB-4

ADEC Segment Length: 2465m

Map Key: KEN-1286

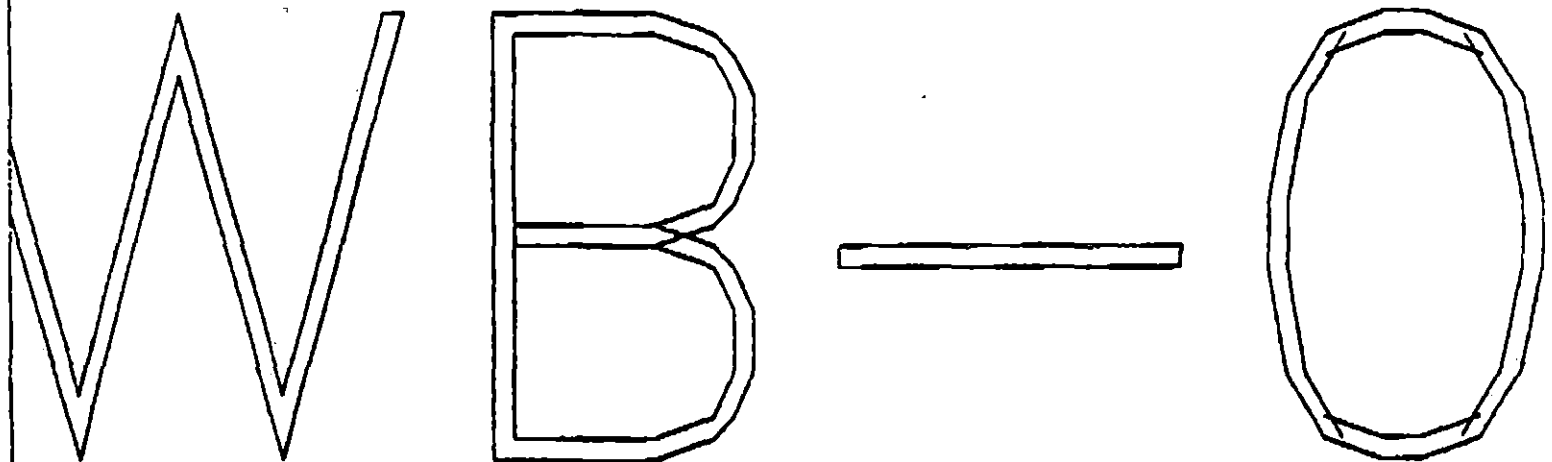
Name: Rick GrilleDate: 04/23/90



OPS MAP

WEST PHASE

LEN
255 -



XXXX Wide

//// Medium

--- Narrow

TTT

WB-4

ADEC Segment Length: 2465m

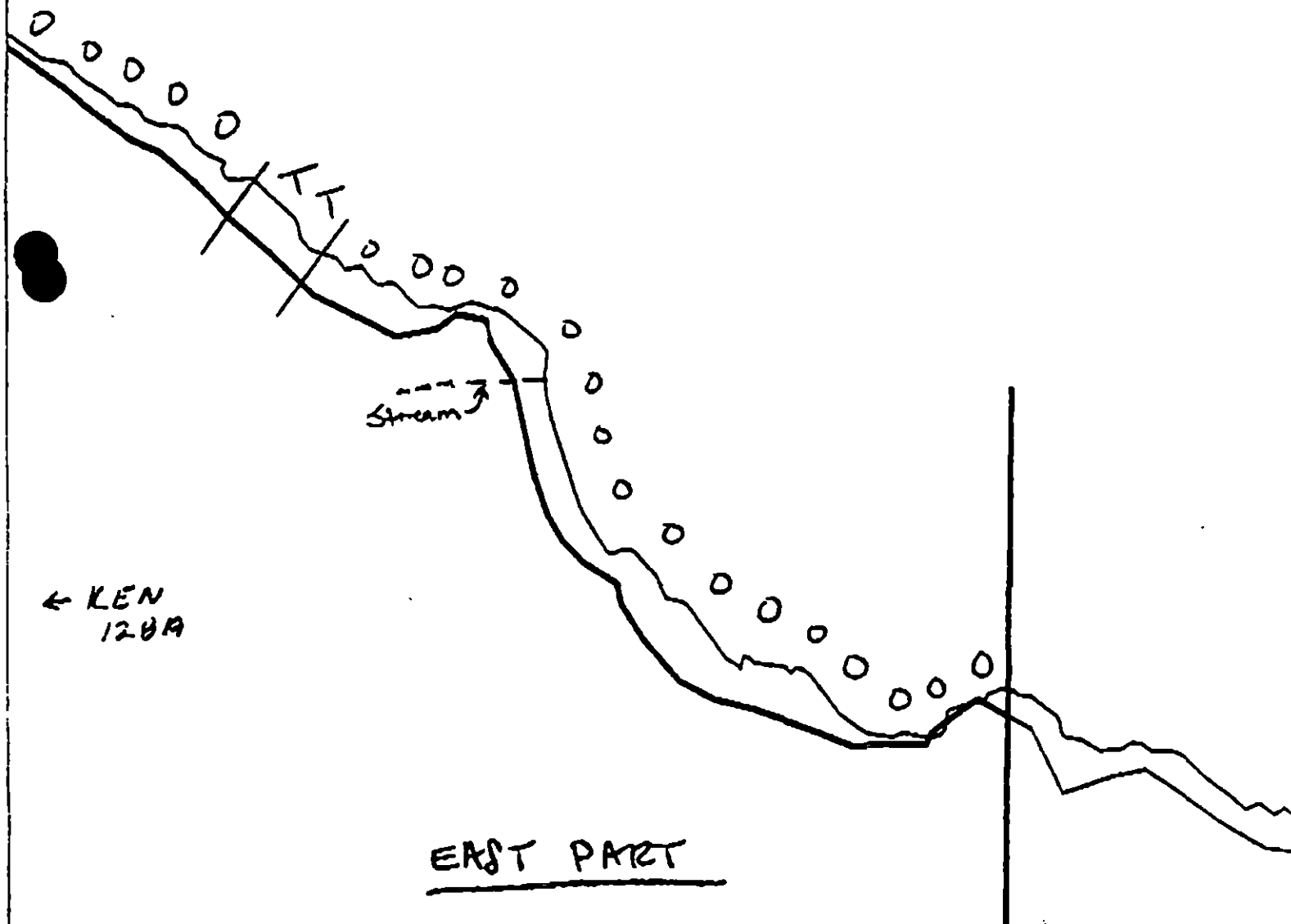
Map Key: KEN-128a

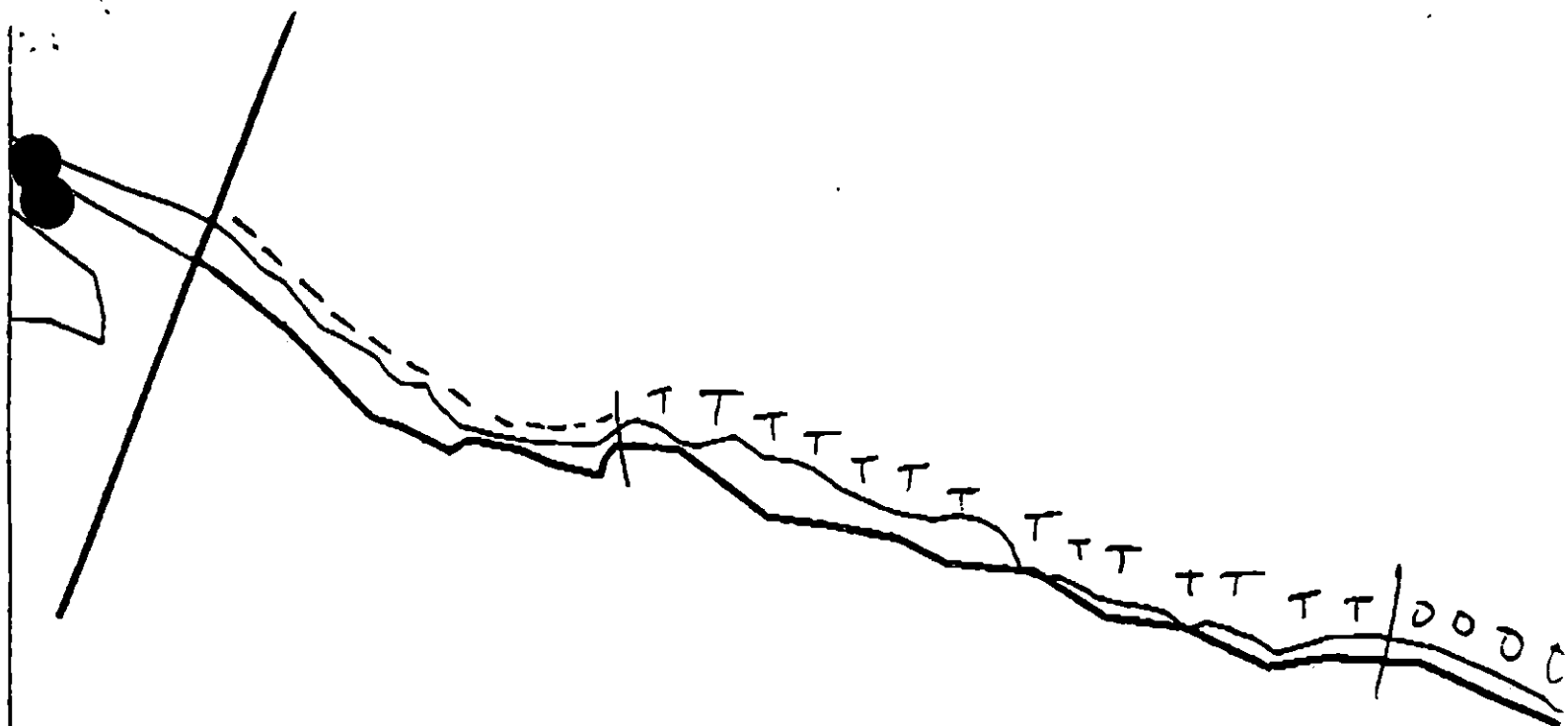
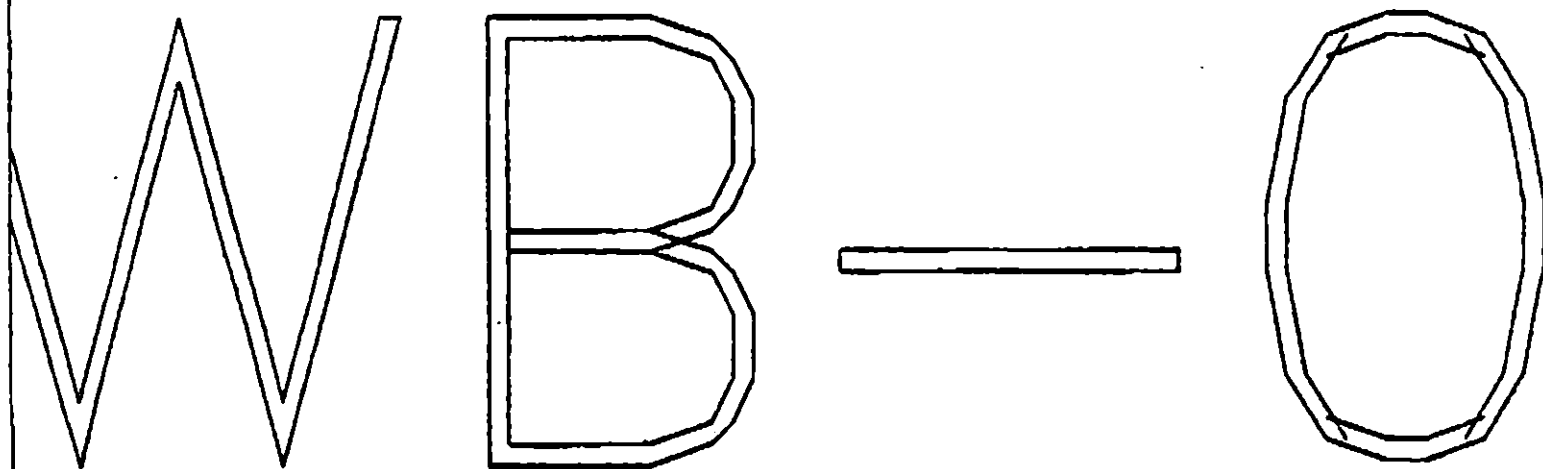
Name: Rick Griller

Date: 04/28/90

WB-6

WB-7



WEST PARTLEN
1288 →

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

WB-4

ADEC Segment Length: 2465m

Map Key: KEN-128a

Name: Rick GillieDate: 04/28/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WB-4 SUBDIVISION A (1 of 1)

WORK WINDOW	
Tarmat Removal	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1J	Purse Seine Area	No constraint to tarmat removal.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.

OTHER ECOLOGICAL CONSIDERATIONS

1
Restrict boat and air traffic to essential minimum after 7/1. Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

FOSC Date 6-19-90

Prepared by Date 6/16/90

WB-02 WB-01

WB-08 WB-09
WB-02 WB-03

WB-04

WORK
AREA

CD 02



Exxon Company, USA
Mr. Karl KEN-WB-4



ECOLOGY MAP
SEGMENT WB-4
SUBDIVISION A (1 of 1)
METERS

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ WB-07 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5S Shorebird/Waterfowl concentration (4/25 to 5/15)

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: Charles E. Holmes

DATE: 4/20/90

OILING CATEGORIZATION:

Wide 13 m: Medium 116 m: Narrow 0 m: V.Light 27 m: No Oil 14 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

X Tarmat: Breakup

X Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommend tarmat removal, manual pick up of pooled oil and
mousse and bioremediation of oil cover, coat and pooled oil areas (see
attached sketch map for locations). Work should be conducted after
5/15 due to shorebird/waterfowl constraint.

TAG COMMENTS:

TAG APPROVAL DATE: 4/19/90

ADEC ART WEINER Art Weiner

EXXON ANDY GIL Andy Gil

NOAA BILL WERNER Bill Werner

USCG KENNETH KEANE Kenneth Keane

FOSC:

DATE: 5-72-90

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST WB-7 SUBDIVISION: A DATE 4/2/90

USCG
NAME R. Bryan Hirtle SIGNATURE R. Bryan Hirtle DCI

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

agree with Shoreline Oiling Summary
sheet

ADEC
NAME Russell Kumble SIGNATURE Russell Kumble

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

There were bands of asphalt and mastic between the
boulders. The surfaces of the rocks in these areas had a sticky
black coat.

LAND MANAGER

NAME Patrick Norman SIGNATURE Patrick Norman

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Some manual pickup in this area will get some oil out. But
warm water flushing of the rock surfaces will improve the experience.
The area and collect more of the oil at the same time.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/70

OG Randy Siegel USCG Bryan H. Hittle SEGMENT ST/ A WB-7 (1 subdivision)
 BIO Mike Fawcett LAND REP Pat Harmon SUBDIVISION A (1st of 1)
 FFXON John Dean ADEC Russell TIME 17:10 to 17:40
 TEAM NO.: 17 TIDE LEVEL: +3.5 to +1.4 DATE 4/7/90
 EST. SUBDIVISION LENGTH: 123 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 30 % B 50 % C 10 % P 5 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 50 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 10 m M 20 m N 10 m VL 25 m NO 8 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	R	P	B	1	2	3	4	5	6	7	8	BU	U	M	U
ASPHALT PAVEMENT		X		✓					X	✓			X	✓		
POOLED			X								X		X			
COVER		X	✓			X	✓						X			
COAT		X	✓			X	✓						X			
STAIN		X	✓			X	✓						X			
MOUSSE		X											X			
PATTIES				X		X							X			
TARBALLS				X		X							X			
FILM																
NO OIL													✓			✓

PAVEMENT: H (F) S 400 sq. m by 3 cmPATTIES / TARBALLS 100 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED

☐ YES ☒ NOTYPE —#BAGS 0Photographs: (None)Roll No. ST-17-5Frames 99, 10, 16, 17, 18SUBSURFACE OIL No pits dug due to the presence of large boulders

PIT NO	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	1	2	3	4	5	6	7	8	BU	U	M	U		
0.							.																
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

This segment contains only 1 subdivision. It consists of a south-facing
 shore line largely covered with boulders. Boulders are very large. High
 cliffs overlie beach. An 80-meter long band of asphalt occurred across the
 UZ of the beach, and ranged in width from 4-6 meters. Several
 areas of lesser oiling were observed. The size of the boulders
 prevented digging pits, and largely concealed much of the asphalt.

REVIEWED

DATE 12 Apr 90

SEGMENT ST 3-7

SUBDIVISION

DATE 11-90

SKETCH MAP

CHECKLIST

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

LEGEND

1 Δ

PI - No Subsurface Oil

2 Δ

PI - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

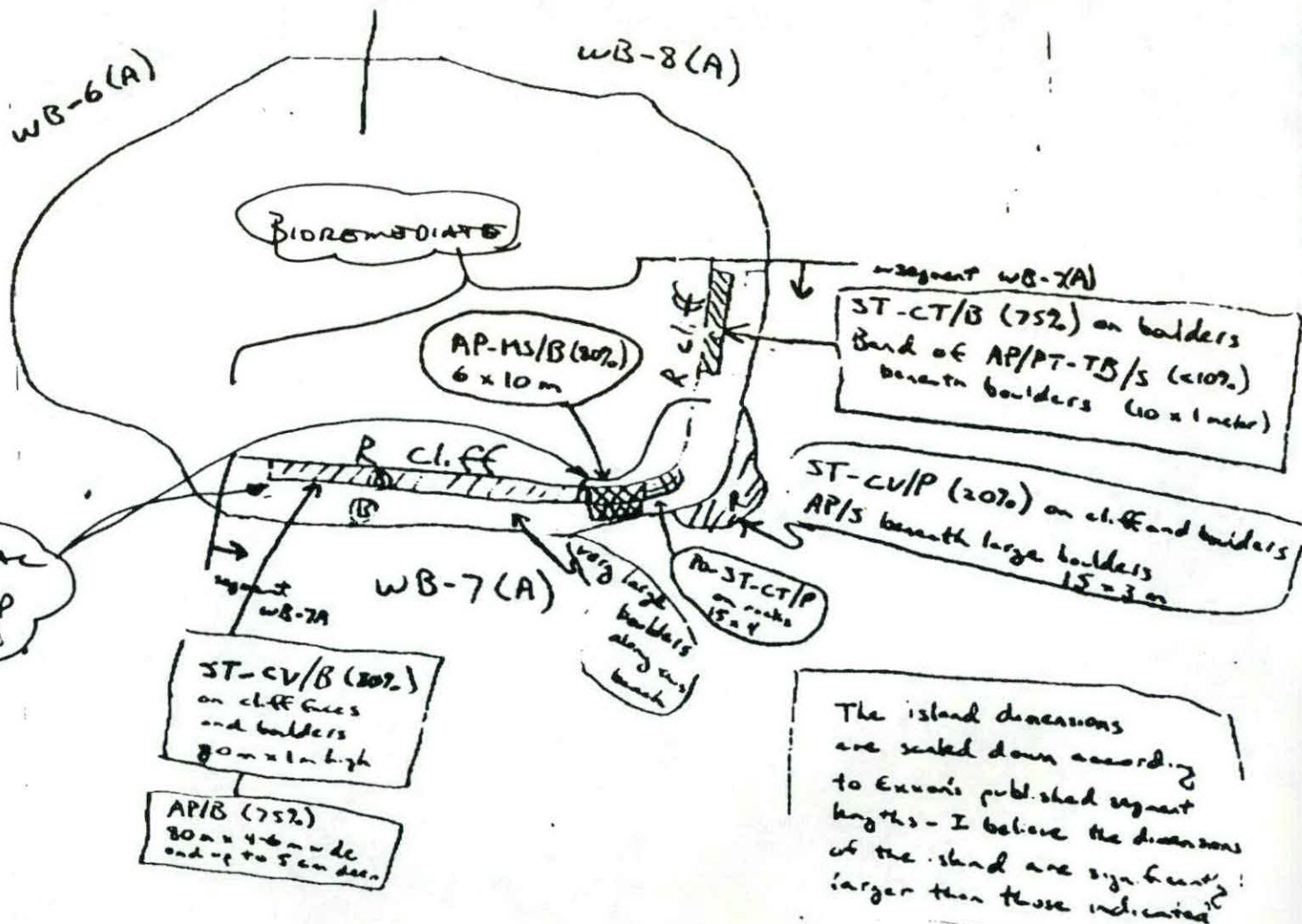
Patchy Distribution

CT/S

Isolated Distribution

Mixed Vegetation

1

Tree location, direction,
and number

Character Length (m): AP 105 PO 15 CV 95 CT 105 ST 05 MS N/A PI 10 TB 10 FL N/A NO. 8

REVISION 12/01/00

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/72/98

Segment ST / WB 7 Subdivision A Date (mo / day / yr) 4 / 7 / 90

Time (24 hr) 1735-1800 Biologist M. H. Faulcett

- (A) Substrate type and % of segments:
 (1) Bedrock 30 (2) Boulder 50 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt 0
 (B) Overall-% cover of biota (% of segment): Dense ✓ Moderate Low
 (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-17-5

Frames 6, 9, 10, 16-18

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments:

Dense large Balanus cariosus in LTZ, ^{dense} Chthamalus spat throughout MTZ & UTZ.
 1. 40-60 tons and limpets abundant in LTZ.

2. Oystercatchers

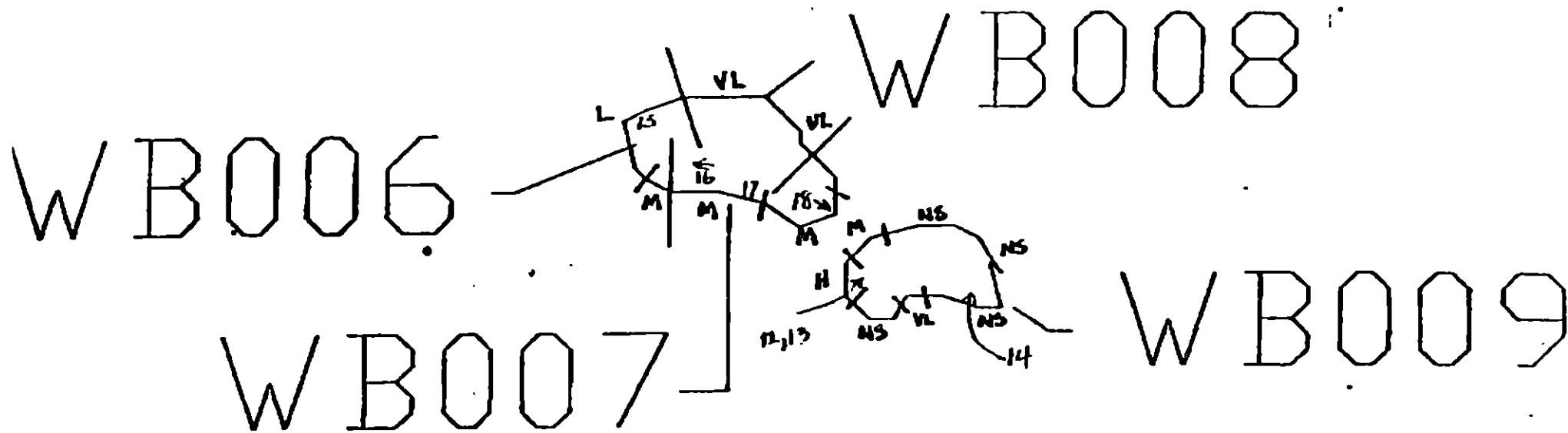
Ecological Considerations:

5-5 Bird concentration area

Photos: 57-17-5

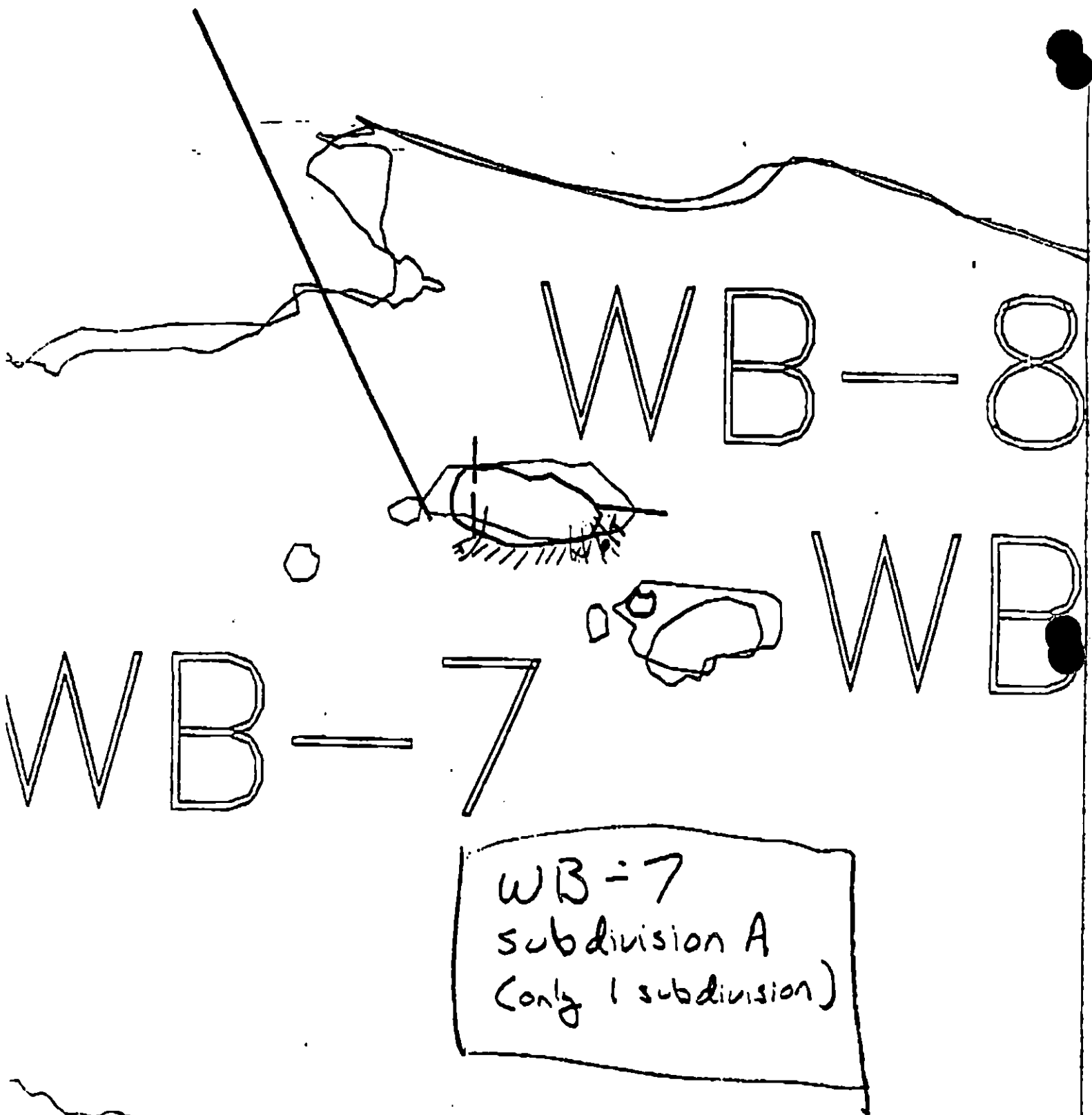
~~Frames 6, 9, 10, 16, 17, 18~~

~~41110~~
Frames 6, 9, 10, 16, 17, 18



OILING	
■	Heavy
■	Moderate
■	Light
■	Very Light
■	None
■	Not Surveyed
Distance In Meters	
Map/Out 180	

500.0



XXXX Wide

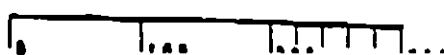
//// Medium

--- Narrow

TTTT Very Light

WB-X7

ADEC Segment Length: 513m



Map Key: KEN-149

Name: Randy Langel

Date: 4/7/90

SHORELINE EVALUATION

SEGMENT ST/ WB-08 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

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: 4/20/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 23 m: No Oil 127 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend tarmat removal and manual pick up of mousse. Work should be conducted after 5/15 based on above bird constraints.

TAG COMMENTS:

TAG APPROVAL DATE: 4/18/90
ADEC [Signature]
EXXON [Signature] FOSC: [Signature] DATE: 5-8-90
NOAA [Signature]
USCG KENNETH KEANE

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ WB-8 SUBDIVISION: A. DATE 4/7/90

USCG

NAME R. Bryan Hirtle SIGNATURE R. Bryan Hirtle DCI

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

I agree with the finding of the
Shoreline Oiling Summary sheet

ADEC

NAME Russell Kunibe SIGNATURE Russell Kunibe

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

~~there was~~ Only a small 1m x 3m area of asphalt and mousse
was found between the boulders and cobbles

LAND MANAGER

NAME Patrick Norman SIGNATURE Pat Norman

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

SHORELINE OILING SUMMARY

REVISION NO. 0002 78

OG P. A. Siegel USCG Bryan Hirtle SEGMENT ST/ WB-8
 BIO M. K. Gullett LAND REP Pat Norman SUBDIVISION A
 EXXON John Dean ADEC Russell Kunze TIME 12:40 to 18:00
 TEAM NO.: 17 TIDE LEVEL: +1.4 to +0.9 DATE 4/7/90
 EST SUBDIVISION LENGTH: 127 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: SE to NW
 SURFACE SEDIMENTS: R 40 % B 50 % C 5 % P 3 % G 2 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 80 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W N/A m M N/A m N N/A m VL 10 m NO 117 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	R	SP	BR	OR	OL	OF	NO	TL	TR	SU	U	M	L
ASPHALT																
PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H ☒ S 1 sq. m by 2 cm cm

PATTIES / TARBALLS 1 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE ---

#BAGS 0

Photographs: ↑[None]

Roll No. 3T-17-5

Frames 6, 9, 10

SUBSURFACE OIL No pits dug due to presence of large boulders.

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP OR	SO FW	OR CL	TR TL	LR	SU	U	M	L			
C							.														
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS

This segment consists of north-facing beach on an island. The beach is quite rugged and ~~contains~~ contains primarily bedrock outcrops and large boulders. Steep cliffs lie above the beach. No oiling was observed over most of this segment. No pits were dug due to ~~large~~ present large boulders on beach. Only 1 subdivision in this segment.

OG. Dr. H. Siegel

SEGMENT ST/ WB-8

SUBDIVISION A

DATE 4/7/90

CHECKLIST

- ☐ Name
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/LWL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PR Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PR - No Subsurface Oil

2 Δ

PR - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Belted Distribution

CT/P

Patchy Distribution

CT/S

Spotted Distribution

Other Vegetation

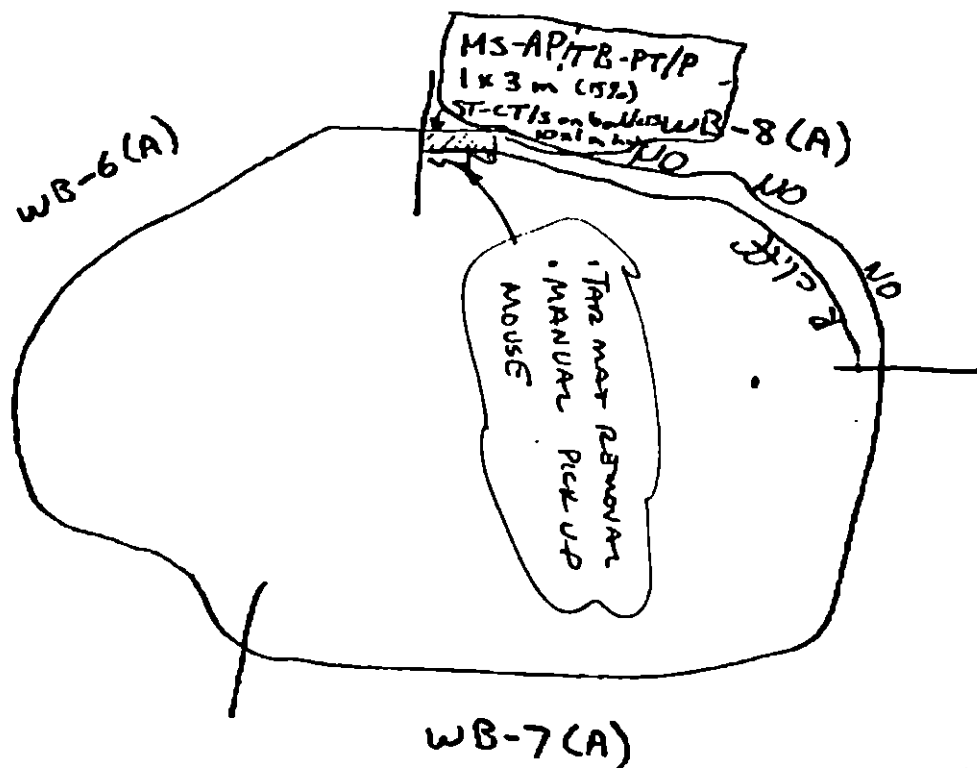
1 $\rightarrow$

Photo location, direction,
and number

2 cm = 16 m
App Scale

2 $\leftarrow$

SKETCH MAP



The island dimensions
are scaled down according
to Exon's published segment
lengths - I believe the dimensions
of the island are significantly
larger than those indicated.

I Off Character Length (m). AP 13 PO 14 CV 14 CT 10 ST 10 MS 13 PT 3 TB 3 FL 14 HG 117

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03-22-90

Segment ST WB 8 Subdivision A Date (mo / day / yr) 4 / 7 / 90Time (24 hr) 1800-1825 Biologist M. H. Fawcett

- (A) Substrate type and % of segments:
 (1) Bedrock 40 (2) Boulder 50 (3) Cobble 5 (4) Pebble 3 (5) Sand 2 (6) Silt 0
 (incl. gravel)
- (B) Overall % cover of biota (% of segment): Dense Moderate Low
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
Roll No. ST-17-5Frames 6, 9, 10

BARNACLES

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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	
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	NOT PRESENT
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	
6	6	6	6	6	6	6	6	6	6	6	6	

ASTROPODS

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

FUCUS

Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	NOT PRESENT
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	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

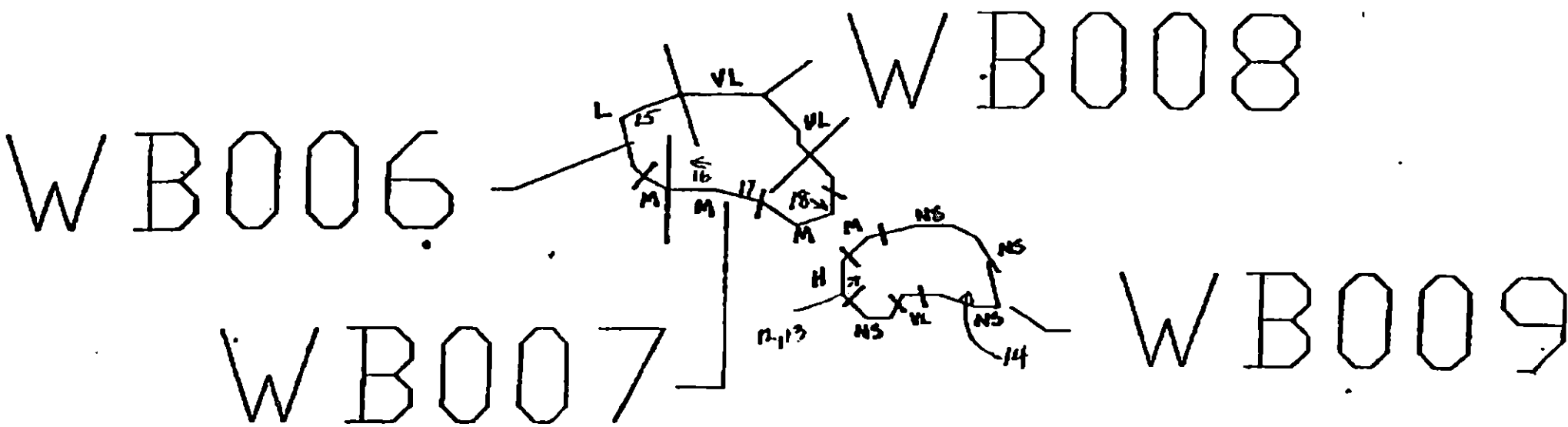
Algae generally more dense and diverse on this side than on other side of island

1. MT2 (Evasterias trocheli)

Ecological Considerations:

5 = bird concentration area

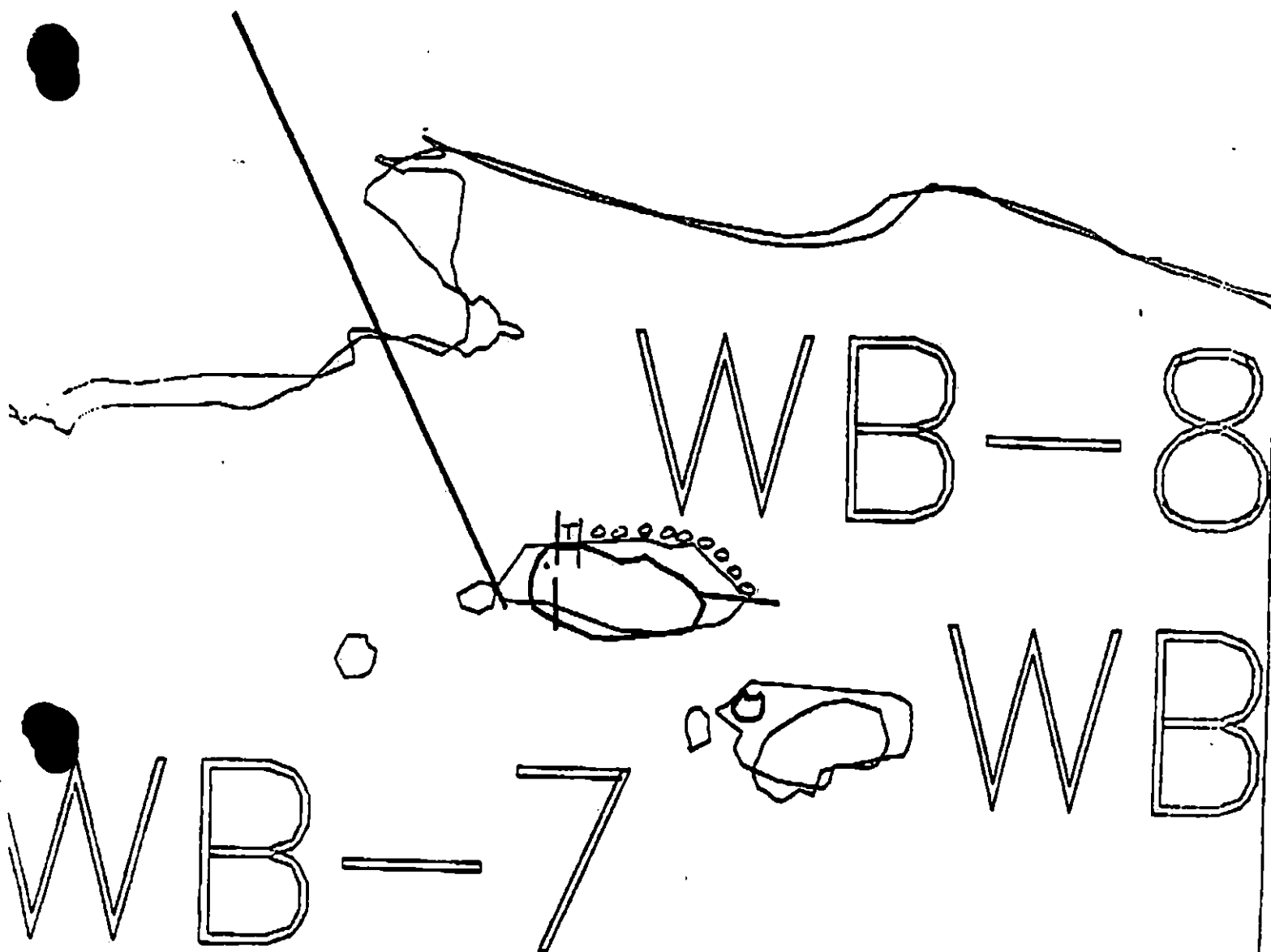
Photo: 51-17-5
frames: 6, 9, 10, ~~11~~
4/7/90



↑ ↑ ↑
6, 9, 10 (aerial)
1000'

500.0

OILING	
-	Heavy
-	Moderate
-	Light
-	Very Light
-	None
-	Not Surveyed
Distance In Meters	
1000 Survey	



WB-8
subdivision A
(only 1 subdivision)

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

WB-8

ADEC Segment Length: 513m



Map Key: KEN-149

Name: Randy Lenz

Date: 4/7/90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ WB-09 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE [Signature] DATE: 4/18/90

OILING CATEGORIZATION:

Wide 116m: Medium 9 m: Narrow 0 m: V.Light 137 m: No Oil 22 m
Subsurface Oil Observed: Yes X No Maximum Depth 10 cm

RECOMMENDATIONS:

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

COMMENTS: The recommended treatment includes, 1) tarmat removal, 2) manual pick up of mousse, patties, oiled debris and vegetation, and 3) bioremediation of subsurface oil in UITZ (see attached sketch map). Work should be conducted after 5/15 based on above bird constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: 7-11-90
 ADEC JOHN BAUER
 EXXON ANDY GER FOSC: ny L DATE: 5-12-90
 NOAA Burt Westcott
 USCG G.A. Reister

PWS ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WB-9 SUBDIVISION: A DATE 4/7/90

USCG NAME R. Bryan Hirt SIGNATURE R. Bryan Hirt (DC)

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Agree with the Shoreline Oiling Summary Sheet For WB-009 - subdivision A

ADEC NAME Russell Nunbe SIGNATURE Russell Nunbe

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS The main band of oiling on this area is an area 20m x 25m. The oiling was predominantly asphalt and mousse saturated sediments around and under the cobbles. The beach found 1/2 inch is big. The oiling extended to the MITZ and was found along some of the shoreline. Additionally, there were some smaller areas that had asphalt between the cobbles and boulders.

Recommended treatment:

Manual pick up and breakup of the asphalt and mousse saturated sediments. Spray hose if oiling develops during treatment. Alternatively, washing may be more appropriate in the larger oiled area. Bioremediation is recommended as a follow up treatment.

LAND MANAGER

NAME Gabrick Norman SIGNATURE Pat Norman

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Manual pick up of Asphalt and mousse concentrations should be done on WB-9-A. This will take a lot of man hours to do based on the work we did last year on this Island. Washing with heated water would do more for the appearance, and also remove more of the oil I feel.

SHORELINE OILING SUMMARY

REVISION NO 0522 78

OG. Pandy Siegel USCG Bryan Hirtle SEGMENT ST/ WR-9 (1 subdivision)
 BIO M. K. Fawcett LAND REP Pat Norman (AGVS) SUBDIVISION A (1 of 1)
 EXXON John Dren ADEC Russell Kumbie TIME 15:30 10:16:30
 TEAM NO. 17 TIDE LEVEL: -6.2 10 + 4.0 DATE 4/7/90
 EST SUBDIVISION LENGTH: 639 m 239 ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 ISLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: Island - Counter-clockwise
 SURFACE SEDIMENTS: R 60 % B 20 % C 5 % P 5 % G 5 % S 5 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 60 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 25 m M 4 m N 10 m VL 160 m NO 50 m
~~W 3400~~

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	C	S	P	B	SP	OP	OL	NO	SU	U	M	U
ASPHALT PAVEMENT	X	+	✓	!					X	✓	✓	✓
POOLED												
COVER			X			X			X			
COAT			X			X			X			
STAIN			X			X			X			
MOUSSE		X		✓					X	X		
PATTIES				X		X			X			
TARBALLS				X		X			X			
FILM				X		X			X	X	X	
NO OIL									X			

PAVEMENT: H (F) S 600 sq. m by 2 cmPATTIES / TARBALLS 100 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE _____

#BAGS 0

Photographs:

Roll No. ST-17-5Frames 6, 9, 10, 12, 13, 14

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-DM)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			SP	OP	OL	NO	TL	SU	U	M	U		
1	25				X		5-10	X				X		X					G, C, G
2	25					X	0-0	X						X					G

COMMENTS

This segment contains only 1 subdivision. The segment is on island, much of which was inaccessible due to steep cliffs. A west-facing beach, covered largely in boulders and cobbles, contained a continuous asphalt mat (25 x 20 meters) at a distance of about 20 meters from the shore. The asphalt became patchy closer to the shore (MZ + LZ) and my representative smelt from the continuous mat above.

* Film on pooled water in B, LZ, MZ, UZ

BAT

12 Nov 90

SHORELINE ECOLOGICAL SUMMARY

REVISION 05/22/90

Segment ST / WB 9 Subdivision A Date (mo / day / yr) 4 / 7 / 90Time (24 hr) 1540 - 1700 Biologist M. Fawcett

(A) Substrate type and % of segments:

(1) Bedrock 60 (2) Boulder 20 (3) Cobble 5 (4) Pebble 5 (5) Sand 10 (6) Silt 0
(small gravel)(B) Overall % cover of biota (% of segment): Dense ✓ Moderate Low

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

Photographs:

Roll No. ST-17-5Frames 6, 9-14

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments:

1 eagle, nature
1 white-winged scoters

see attached sheet

Ecological Considerations:

SS bird concentration area

WB 9

M. H. Fawcett 4/7/90
Wildlife Observations & Comments

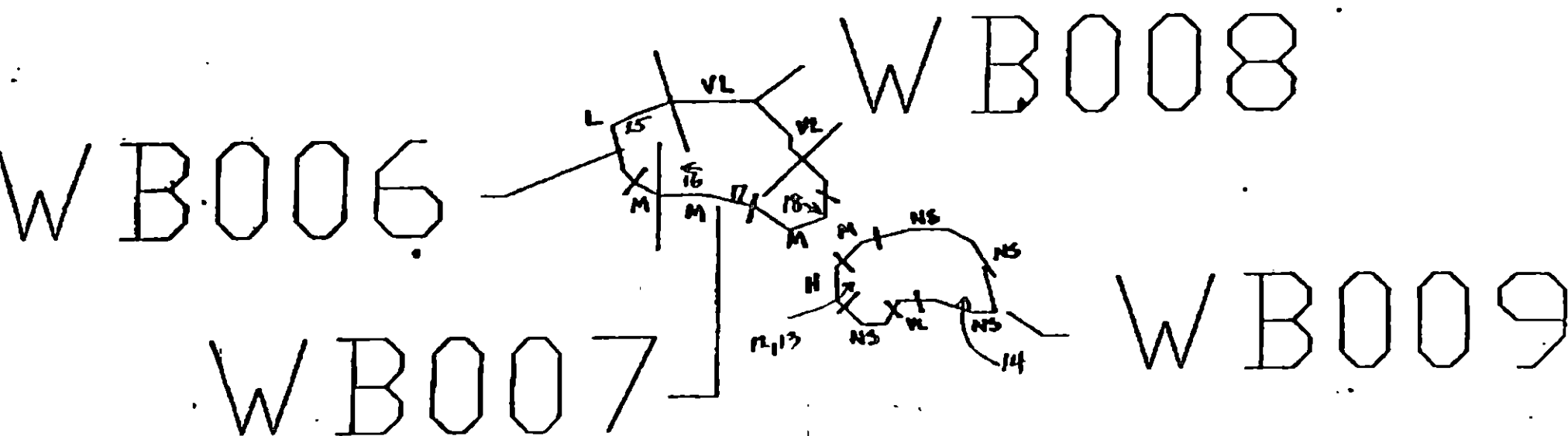
The boulder field on the west side of the island had considerable surface oil remaining in the middle and upper intertidal areas. Below the main oiled zone there is a dense bed of mussels and a well-developed community including Fucus, littorines & limpets (Notoacmaea scutum). Some sheen was seeping downshore into the mussel bed.

On the north east (exposed) side of the island and on around to the southwest side, the small brown acorn barnacle (Chthamalus sp.), has recently settled in vast numbers blanketing the upper and middle shore levels from about +3 to +11 ft, mainly on vertical faces and large boulders. I also observed one small patch (~20 x 40 cm) of newly settled mussels on the NE side. There are dense beds of juvenile mussels (3-12 mm) as well, mainly on the north and east sides. Large anemones (Tealia), chitons Katharina and limpets (Notoacmaea) are common in the low intertidal zone on the north and east sides of the island.

Photos: ST-17-5

frames: 6, 9, 10, 12-14

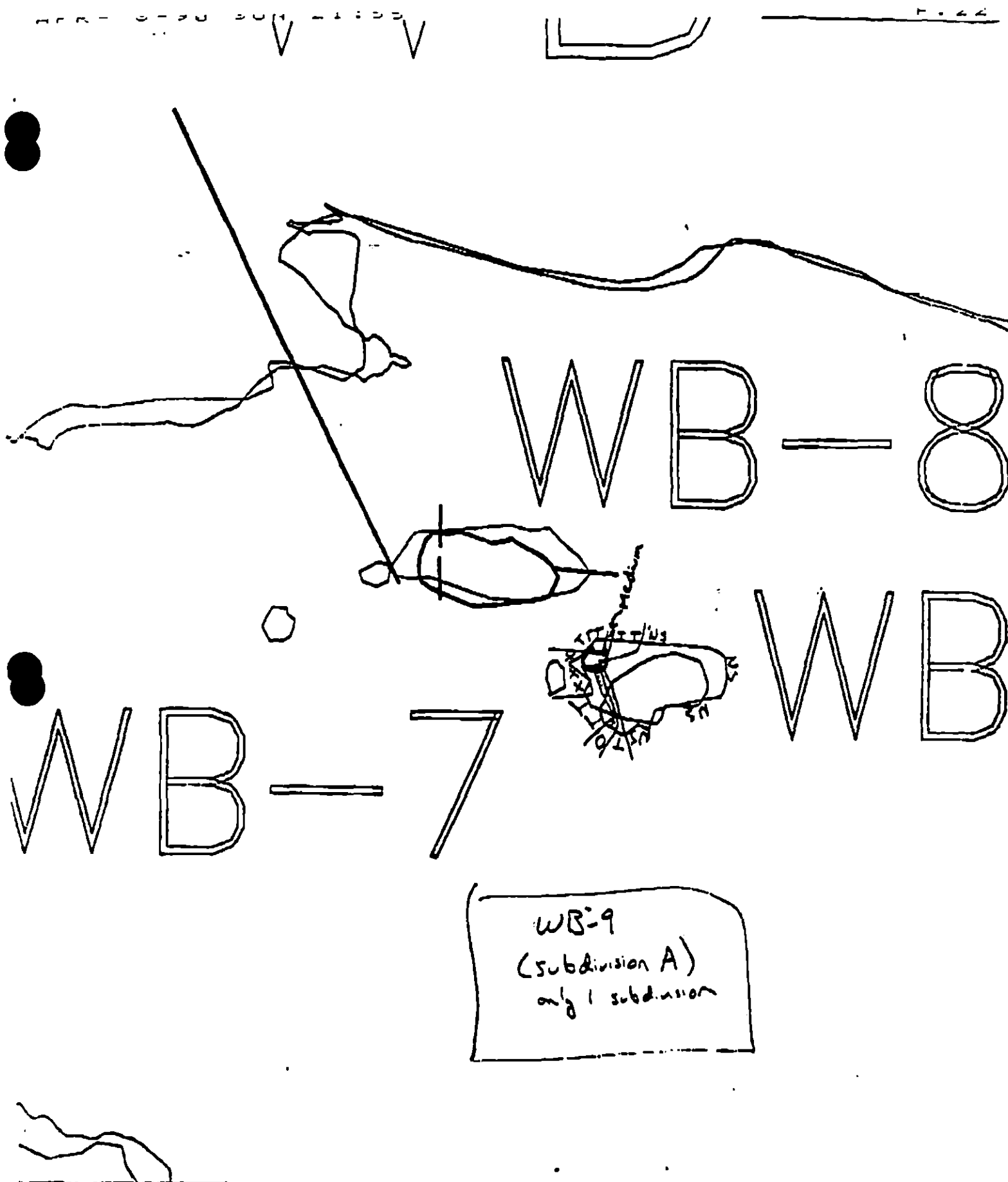
4/7/90



OILING	
Heavy	
Moderate	
Light	
Very Light	
None	
Not Surveyed	
Distance in Meters	

↑ ↑ ↑
6, 9, 10 (aerial)
1000'

500.0



SEGMENT AS1 WB-09 SUBDIVISION: A SITE: 01 DATE 06 Aug '90**USCG**NAME AEC Vandepels SIGNATURE AEC Vandepels☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

*No manual work
present. Reassess in '91. Should bio. with Inpol.
again this year.*

ADECNAME CLARA S. Crosby SIGNATURE Clara S. Crosby☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

*Reassess in '91 - H/SOR - L/SOR - obs.
Manual removal of Heavy residual oiling and reapply
inipol/customblend in '90.*

LAND MANAGERNAME Patrick Norman SIGNATURE Patrick Norman☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

*Heavy residual oiling still remaining at study area -
to be looked at in spring to assess when the winter
treatment was done also what the oil treatment was
like.*

EXXONNAME Jon Carnecki SIGNATURE Jon Carnecki☒ YES☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

*Area needs to be brood again and then check to
see how it did next spring - This place is covered with
heavy SOR.*

ASAP FOLLOWUP RECOMMENDATIONS

Segment: AS/ WBO9 Subd.: A Site: 1 Date: 7 Aug 1990

Conditions Observed:

LOTS of heavy SOR AND MOUSSE on beach After Clean
UP. Area was just closed the week of July 23, 1990.

Followup Recommendations: Check Again before Summer ends
And do a follow Application of Bio

Completed by Pickup Crew: ☒ YES ☐ NO

Priority for Addressing in 1990: ☒ High ☐ Mod. ☐ Low

ADEC

MARA Crosby
(name)

Mara Crosby
(signature)

Comments: Manual removal of H SOR. & MS. before reapplication
of insect.

Boston

Jon Czarnocki
(name)

Jon Czarnocki
(signature)

Comments:

This needs to be done again this year & make
a large difference by next Spring.

USCG

AEC Vandepols
(name)

AEC Vandepols
(signature)

Comments: Bio. Appl again this year + reseed in 91.

Land Rep.

Patrick Noeman
(name)

Patrick Noeman
(signature)

Comments: Another Application of Bio could help with
the remaining SOR & mg

ISAP SHORELINE CORING SUMMARY

NAME CG LOCATION USCGC USCGC REC Hancock Pt SEGMENT AS WB-1
 CG Cock Party USGS USEG REC Hancock Pt SUBDIVISION A
 ADEC Clean Beach LAND REP Pot Nerman (FGr) TOTAL NO. SITES 1
 DATE 06 Aug 190 TIME 19 45 to 20 15 TIDE LEVEL +3.5' to +2.2'
 TOTAL EST LENGTH OF SHORELINE SURVEYED: 60 m
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WEATHER: ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 OIL CATEGORY LENGTH: W — m M 60 m N — m VL — m NO — m US — m

SURFACE OIL

SITE 1

SITE 2

SITE 3

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SU	UI	MI	LI
ASPHALT	—	—	I	—	—	I	—	—
S.O.R.	—	H	I	—	—	I	H	—
POOLED								
COVER	—	—	X	—	—	—	X	—
COAT								
STAIN								
MOUSSE								
PATTIES/T.B.								
FILM								
NO OIL					X	—		X
EST. SITE LENGTH					60 m			

[illegible][illegible]

SUBSURFACE OIL

[illegible]

Photographs: ASAP-04-02
Roll No. -CC
Frames 07-11

COMMENTS A significant quantity of oil remains on this beach.
Signs of oiling are readily identifiable.

W. R. Alar

SKETCH MAP
SITE 1

SEGMENT ST/ASAP/WB-09

SUBDIVISION A

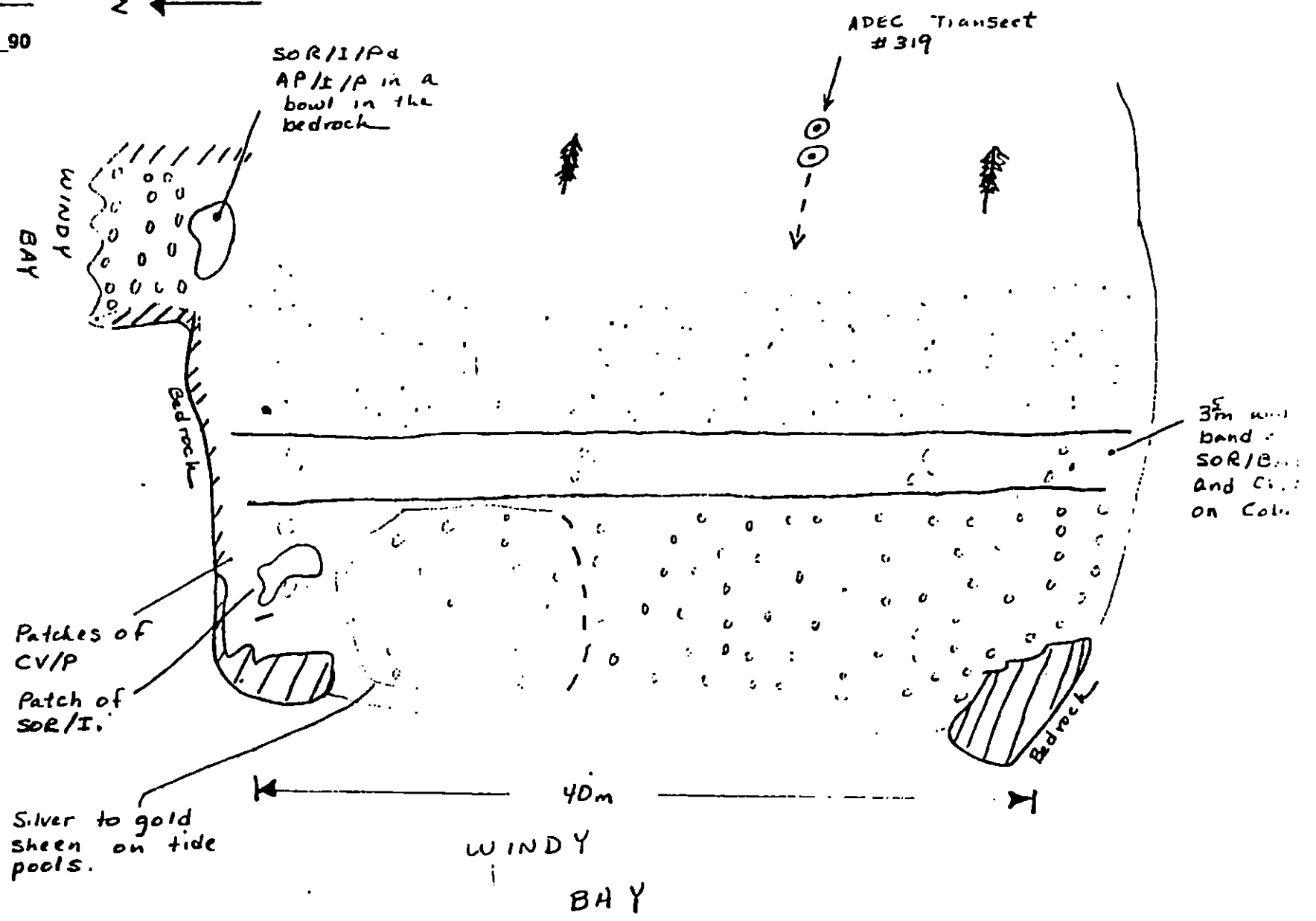
DATE CG 1 Aug 90

CHECKLIST

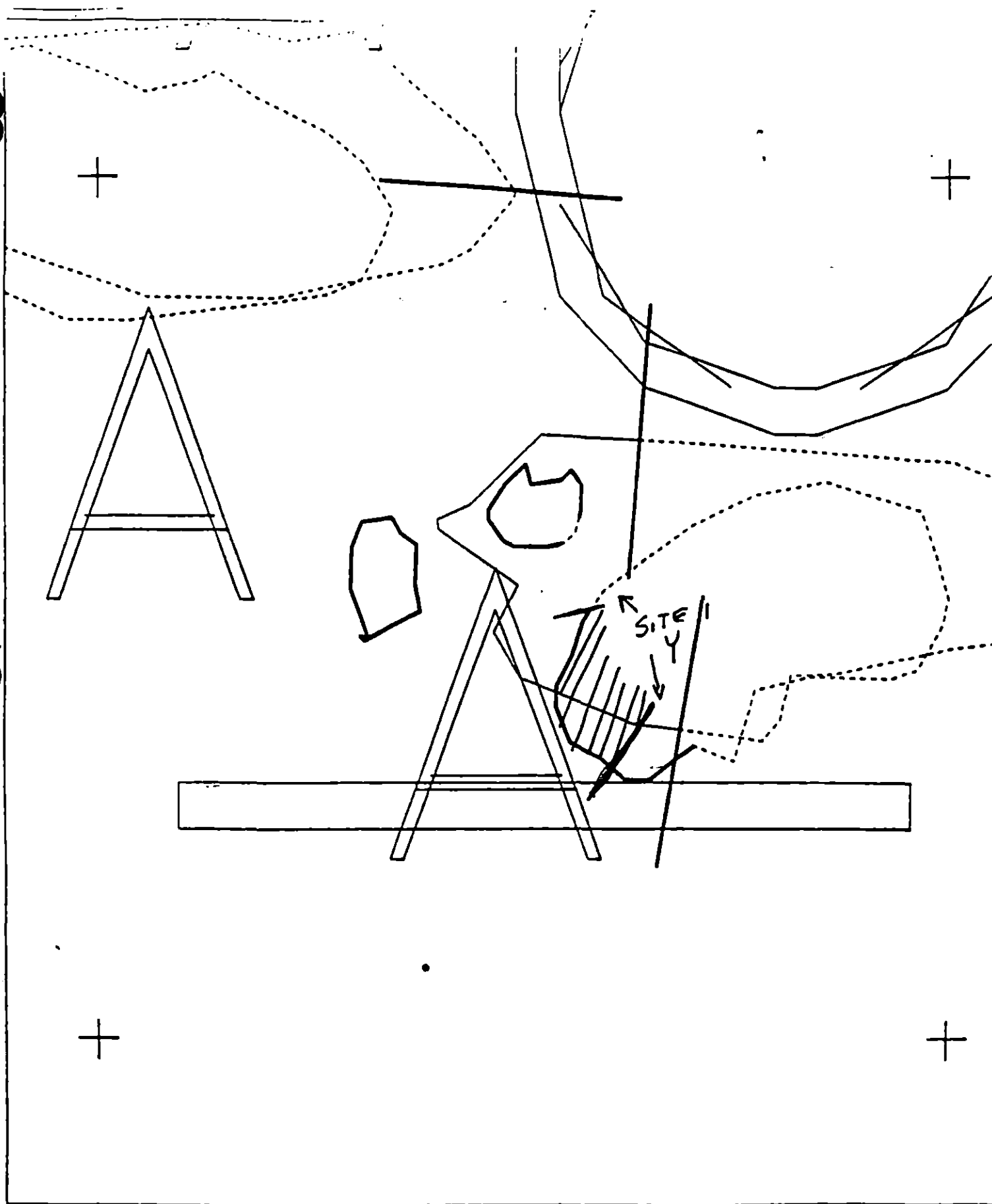
- N Arrow
- Approx. Scale
- Seg/Sub Bndry
- Oil Dist.
- Width
- Length
- % Cover
- Substrate Character
- Est. HML/LWL
- SSL
- Profile Location(s)
- Profile(s)
- PH Location(s)
- Photo Location(s)

LEGEND

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



Character Length (m): AP 10 PO CV 20 CT ST MS PT TB FL NO SOR 50



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

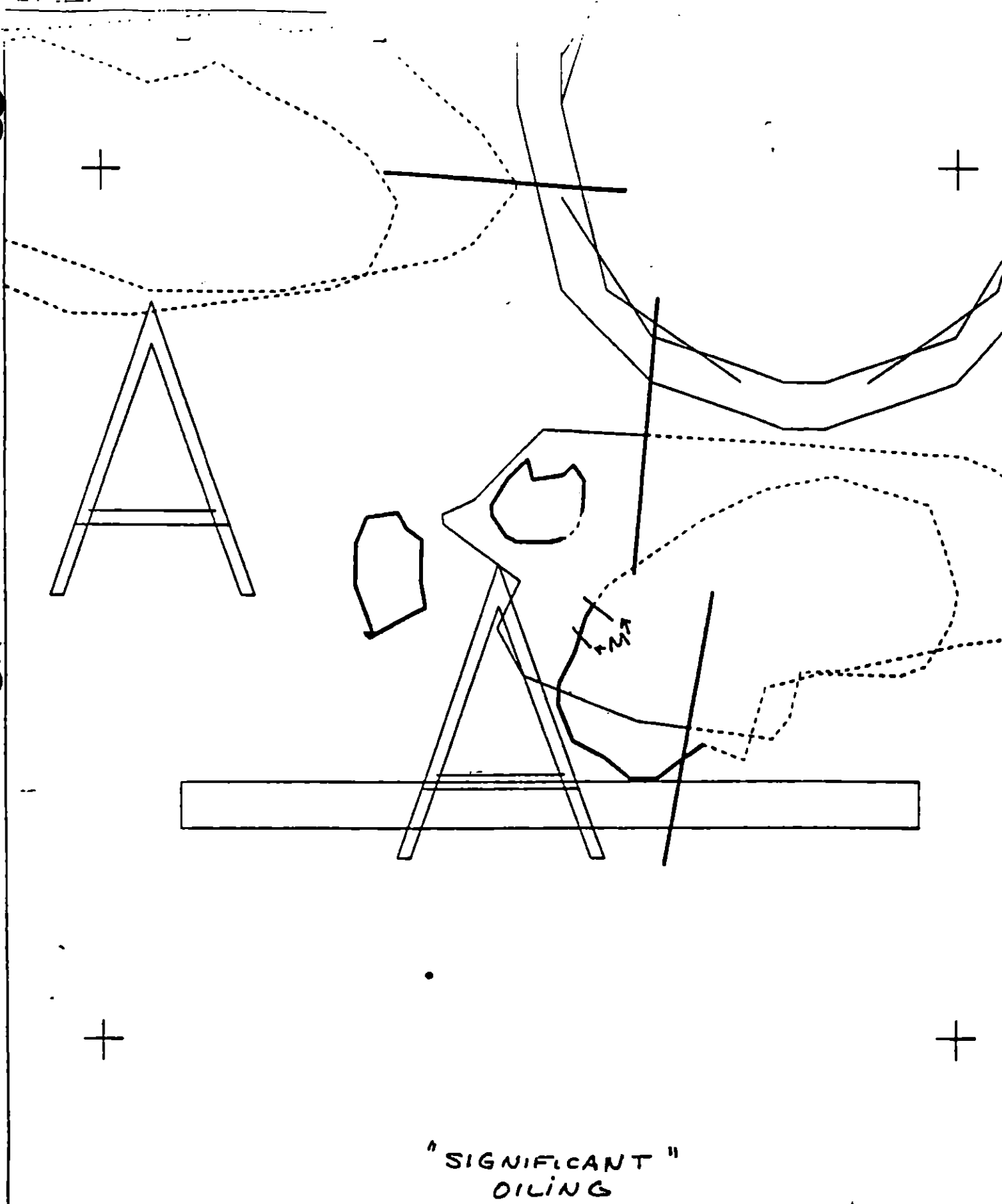
WB-9 A
 ADEC Subsegment Length: 283m
 METERS

0 42 84



Subdivision Field M
 Map Key: KENWB-9A
 Name: _____
 Date: _____

EX-100



XXXX
////

TTTT
AAAA

Wide
Medium
Narrow
Very Light
M. A. I.

WB-9 A
ADEC Subsegment Length: 283m
METERS

0 42 84

EXON



Subdivision Field M:
Map Key: KENWB-9A
Name: _____
Date: _____

ASAP DATA ENTRY FORM

PAGE 1 OF 1GENERAL DATA

SEG ID: WBO9 SBDV: A SITE: 1 TEAM: 4 DATE: 06 AUG 90
SITE LGTH 60 OIL CATEGORIES: W — M 60 N — VL — NO — U —
1991 REASSESSMENT: USCG: ✓ ADEC: ✓ LDMGR: ✓ EXXON: ✓

SURFACE DATA

CHAR #: 1 OIL CHAR: AP OIL DIST: CONT — BRKN — PTCH I SPLH —
TIDAL ZONE: SU — UI I MI — LI —

CHAR #: 2 OIL CHAR: SO OIL DIST: CONT — BRKN — PTCH I SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: 3 OIL CHAR: CO OIL DIST: CONT — BRKN — PTCH X SPLH —
TIDAL ZONE: SU — UI — MI X LI —

CHAR #: 4 OIL CHAR: NO OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU X UI — MI — LI X

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

CHAR #: — OIL CHAR: — OIL DIST: CONT — BRKN — PTCH — SPLH —
TIDAL ZONE: SU — UI — MI — LI —

ASAP DATA ENTRY FORM

SUBSURFACE DATA

PAGE 2 OF 2SEGMENT ID: WB09 SUBDIV: A SITE: 1PIT # 0 PIT DEPTH 0 OIL CHARACTER 0 OIL INTVAL: FROM 0 TO 0
CLEAN BELOW: 0 PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG*NO PNE clay this segment*PIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEGPIT # PIT DEPTH OIL CHARACTER OIL INTVAL: FROM TO CLEAN BELOW: PIT ZONE: SU UI MI LISUBSURF SEDIMENT: BRK BLD COB PEB GRN SAN MUD VEG

ASAP TAG REVIEW SHEET

Segment: WB09

Subd: A Site: 1

Date
PRE-Review 14 Aug 90

Priority For Addressing In 1990

☒ HIGH

☒ MEDIUM

☐ LOW

☐ NTR

Treatment
Recommended:

M/P + BDD

H - 528 - 1000

Reassess 9/1

Priority Site For Reassessment In 1991

YES NO
☒ CG ☐

YES NO
☒ ADEC ☐

YES NO
☒ EXXON ☐

YES NO
☒ LAND MGR ☐

TAG 15 AUG 90
Reapply B10

LOW PRIORITY

SHORELINE EVALUATION

SEGMENT ST/ WH-03 SUBDIVISION A (1 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-20-16321, 16320, 16322.

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

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

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 2189 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

X No Treatment Recommended

 Treatment Recommended

 Manual Pickup

 Bioremediation

 Tarmat: Breakup

 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: 4/23/90

ADEC Art Wanner Det. Green

EXXON Andy Talar Det. Green

NOAA Joseph C. Talbot Jr. Det. Green

USCG Kenneth K. K. Det. Green

FOSC: [Signature] DATE: 4-27-90

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WH-3 SUBDIVISION: A DATE 4/1/90USCGNAME GARY OTTSIGNATURE *[Signature]*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADECNAME MICHAEL J. EBELSIGNATURE *[Signature]*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDWH-3-ALAND MANAGER - U.S.D.A. - FOREST SERVICENAME DON J. BREITINGERSIGNATURE *[Signature]* 4/1/90☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

50614

SHORELINE OILING SUMMARY

REVISION NO. 000000

00 Randy McEide NORA Gary Ott SEGMENT ST/ WH-3
 BIO L. S. C. Shawman LAND REP Don Breiteneger SUBDIVISION A
 EXXON L. S. C. Shawman ADEC Mike E. Hall TIME 14:50 to 15:25
 TEAM NO.: 12 TIDE LEVEL: +3.0 to +4.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 1995 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: South to North
 SURFACE SEDIMENTS: R 45 % B 45 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 5 % Hang 70 % Vert 25 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 1995 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	SW	SE	NE	NW
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT												
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL												XXXX

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NO
 TYPE 0
 #BAGS 0

Photographs:

Roll No. No photosFrames No photos

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR						PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	NC	1	2	3	4	5	6	SW	LS	MS	LI		
							.														
							-														
							.														
							-														
							.														
							.														
							.														

COMMENTS

No oiling - no pits ^{dug} due to subdivision being dominated by rock cliffs. No photos

SHORELINE ECOLOGICAL SUMMARY

REVISION: 002/00

Segment ST / WH-3 Subdivision A Date (mo / day / yr) 4/1/90Time (24 hr) 1450-1530 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.(1) Bedrock 40 (2) Boulder 40 (3) Cobble 15 (4) Pebble 5 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

(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-12-2Frames None

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

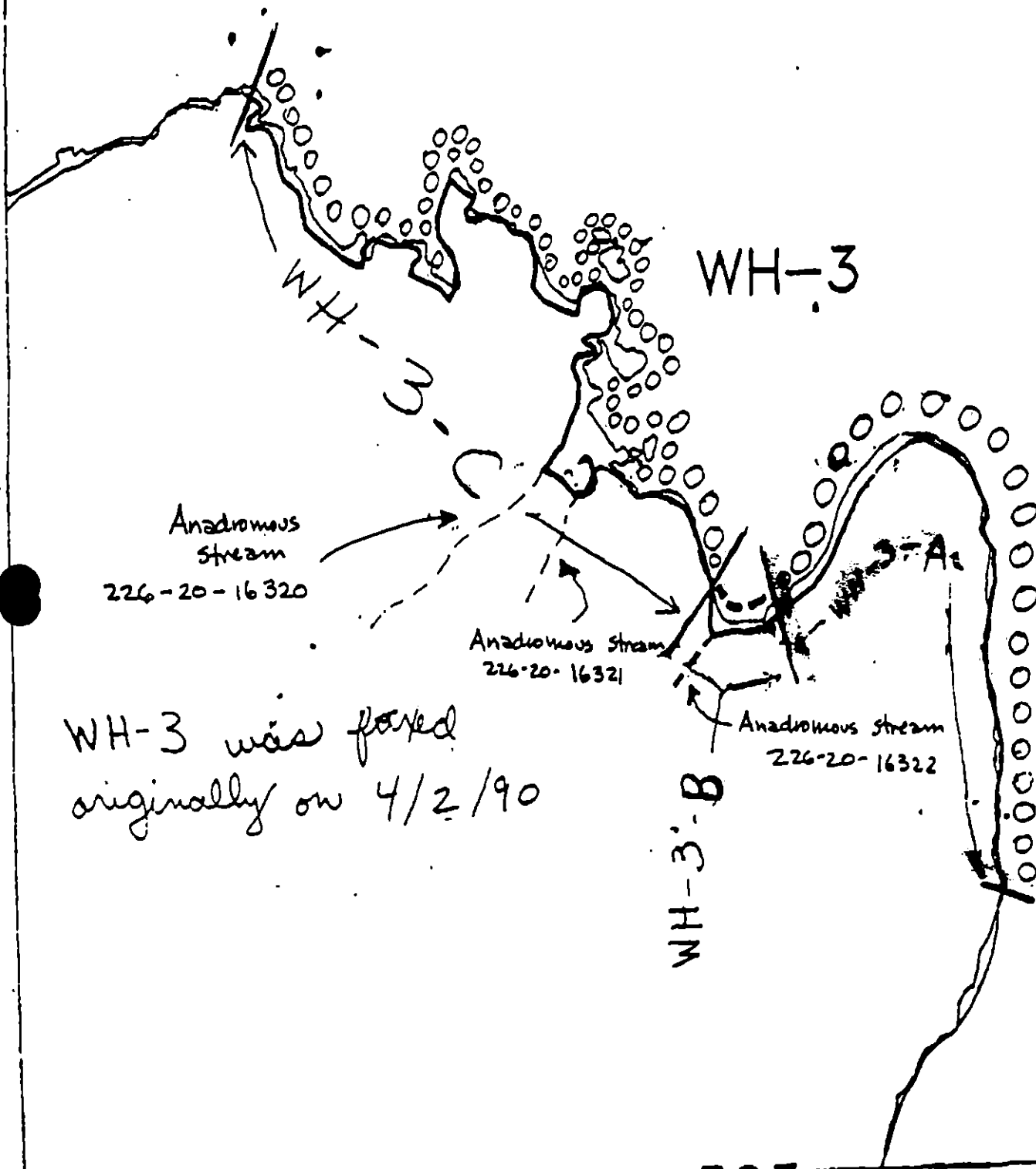
Dense			Moderate			Sparse			Rare		
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6

NOT PRESENT

Wildlife Observations/ General Comments: 7 pairs gulf scoters, 6 pairs goldeneyes, 1 adult eagle, 1 osprey, 2 fox sparrows. Abundance of barnacle mounds in water nearshore. Possible a local plankton bloom here - water is turbid greenish-brown, low transparency, high in suspended particulate. No oil observed in this subdivision. Healthy, normal intertidal community.

Ecological Considerations: For the entire WH-3 segment, Priority 1 was assigned with a pre-7/10 work window. The primary ecological constraint is for the salmon spawning stream (Code 1B) with a constraint of 1-2 to give a treatment priority of 1. The stream is in subdivision WH-3-C.

ECOLOGY MAP



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

WH-3

ADEC Segment Length: 6647m

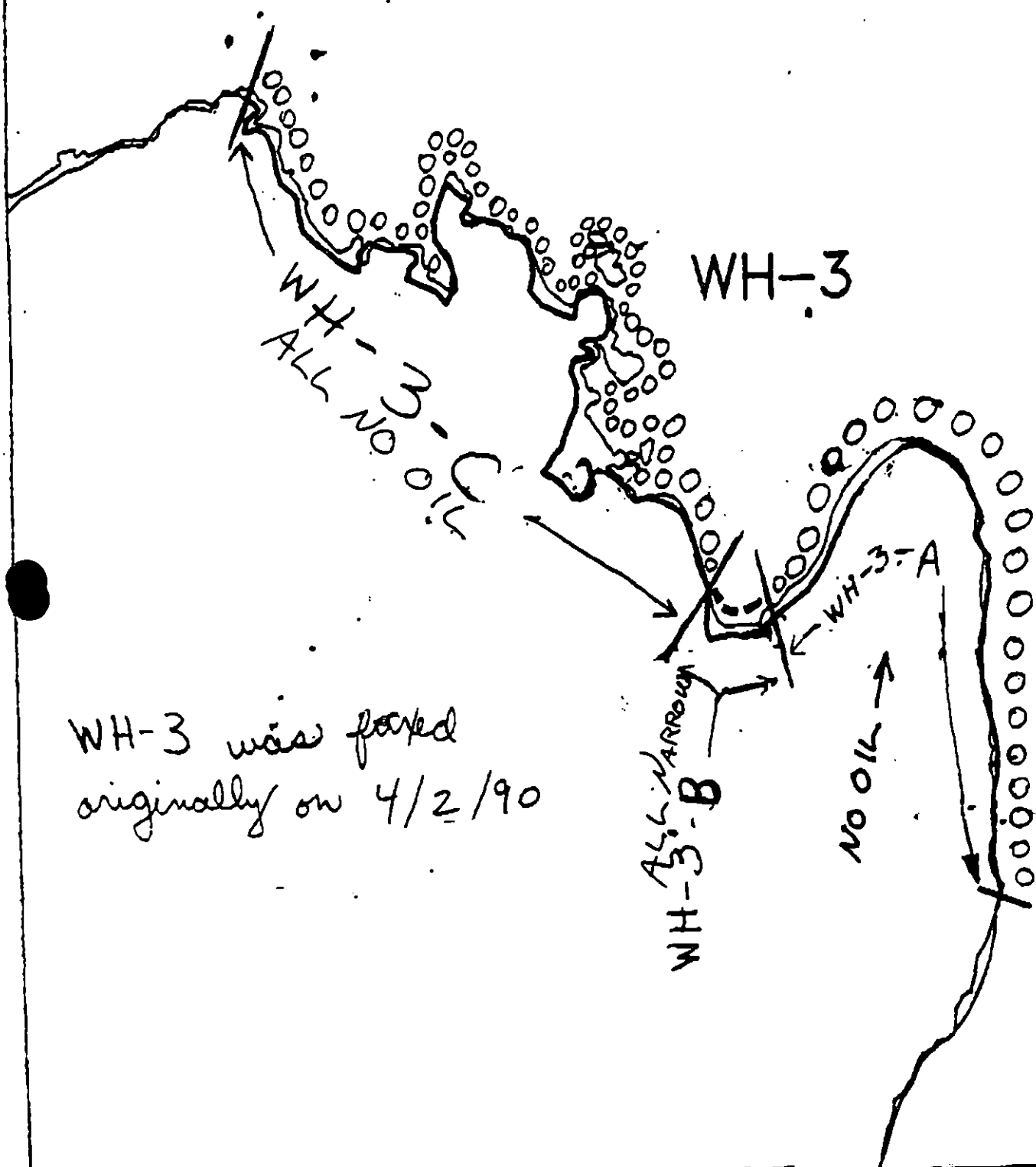


Map Key: PWS-725

Name: Randy McBride

Date: 4/25/90

Date Entered:



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

WH-3

ADEC Segment Length: 6647m



Map Key: PWS-725
 Name: Randy McBride
 Date: 4/05/90
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ WH-03 SUBDIVISION B (2 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-20-16321, 16320, 16322.

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

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

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Anadromous stream 226-20-16322 in Subdivision B.

SHPO SIGNATURE: J. Paul McManis

DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 363 m: V.Light 0 m: No Oil 0 m

Subsurface Oil Observed: Yes X No Maximum Depth 30+ cm

RECOMMENDATIONS:

 No Treatment Recommended

X Treatment Recommended

 Manual Pickup

X Bioremediation

 Tarmat: Breakup

 Removal

 Snare/Absorbent Booms

 Oil Snares (pom poms)

 Absorbents (pads, rolls, etc)

 Spot Washing: Wands

 Beach Cleaner

 Other (see comments)

COMMENTS: Recommended treatment includes 1) bioremediation of areas
shown on attached sketch map. No bioremediation within 100m of anad-
romous stream. Work should be conducted between 5/15 and 7/10 based on
salmon constraints. Stream is scheduled for ANAO Scar.

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90

ADEC Art Wener Art Wener

EXXON Andy Kim Andy Kim

NOAA Joseph Talbot Joseph Talbot

USCG Kenneth Keane Kenneth Keane

FOSC: W L

DATE: 4-27-90

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WH-3 SUBDIVISION: B DATE 4/1/90USCG
NAME GARY OTT SIGNATURE [Signature]☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADEC
NAME MICHAEL J. EBEL SIGNATURE [Signature]☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTEDNote: most of contamination in subsurf
was confined to a small area
ca. 1.5 m²

WH-3-B

The western side of the beach face had a narrow band that tapered in width from ^{2.15m} at the widest to ^{0.46m} at the narrowest. The subsurface blackish to dark-brown coating (at this uniphenol cliff) partially filling the pore spaces tapered along the Z axis from 30 cm to .75 cm following the length of the band (31m). A work crew is

LAND MANAGER - U.S.D.A. - FOREST SERVICE in the area & recommend removal of sediment

NAME DON J. BREITINGER SIGNATURE [Signature] 4/1/90☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

10 of 14

SHORELINE OILING SUMMARY

REVISION NO. 06/22/90

OG Randy McBride USCG NOAA Cont Off SEGMENT ST/ WH-3
 BIO Lewis Shalman LAND REPL/SES Don Blalock SUBDIVISION B
 EXXON Leonard Hattest ADEC Mike Ebel TIME 15:32 to 16:44
 TEAM NO.: 12 TIDE LEVEL: +0.1' to -6.8' DATE 04/01/80
 EST. SUBDIVISION LENGTH: 52 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: East to West
 SURFACE SEDIMENTS: R 5 % B 20 % C 35 % P 35 % G 3 % S 2 % M - % V - %
 SLOPE: Long - % Hang 90 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W - m M - m N 352 m VL - m NO - m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	N	E	S	W	1	2	3	4	5	BU	U	M	L
ASPHALT PAVEMENT POOLED													
COVER													
COAT	X	O	•		X	•				O	X	•	
STAIN		X			X						X		
MOUSSE													
PATTIES													
TARBALLS													
FILM		X			X						X		
NO OIL												X	X

PAVEMENT: H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE -#BAGS -

Photographs:

Roll No. ST-12-2Frames 13-20

SUBSURFACE OIL * Sheen on water in pit 1, origin uncertain

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	UC	1	2	3	4	5	BU	U	M	U		
# 1	18				X		CANNOT DETERMINE		X			X			X					P, G
2	25					X	- - -		X							X				C, P, G
3	30	X					5-30	X				X			X					C, P, G
4	15					X	- - -		X						X					
							.													
							.													

COMMENTS

A narrow band of oil (range 45-250 cm wide) lies along the upper to supratidal zone and is characterized by a continuous to blocky coat. This band is about 80 m. long. Four pits were dug and #3 (west side) was characterized by subsurface oil down to at least 30 cm and probably further. Digging below 30 cm was hampered by cobbles. The snow pack/avalanche sheet transported the oil left in mounds like end moraines. Coated sediment seaward much like a glacier oiled sediment were

REVIEWED 4/9/90 DATE PH

61120

OG Bird
 SEGMENT ST/ NH-3
 SUBDIVISION B
 DATE 4.1.90

SKETCH MAP WH-3-B

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Loc. Sub Body
- ☒ Loc. Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWA/MR
- ☒ SSI
- ☒ Profile Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ
 P1 - No Subsurface Oil

2 Δ
 P1 - Subsurface Oil

CT/C
 Continuous Distribution

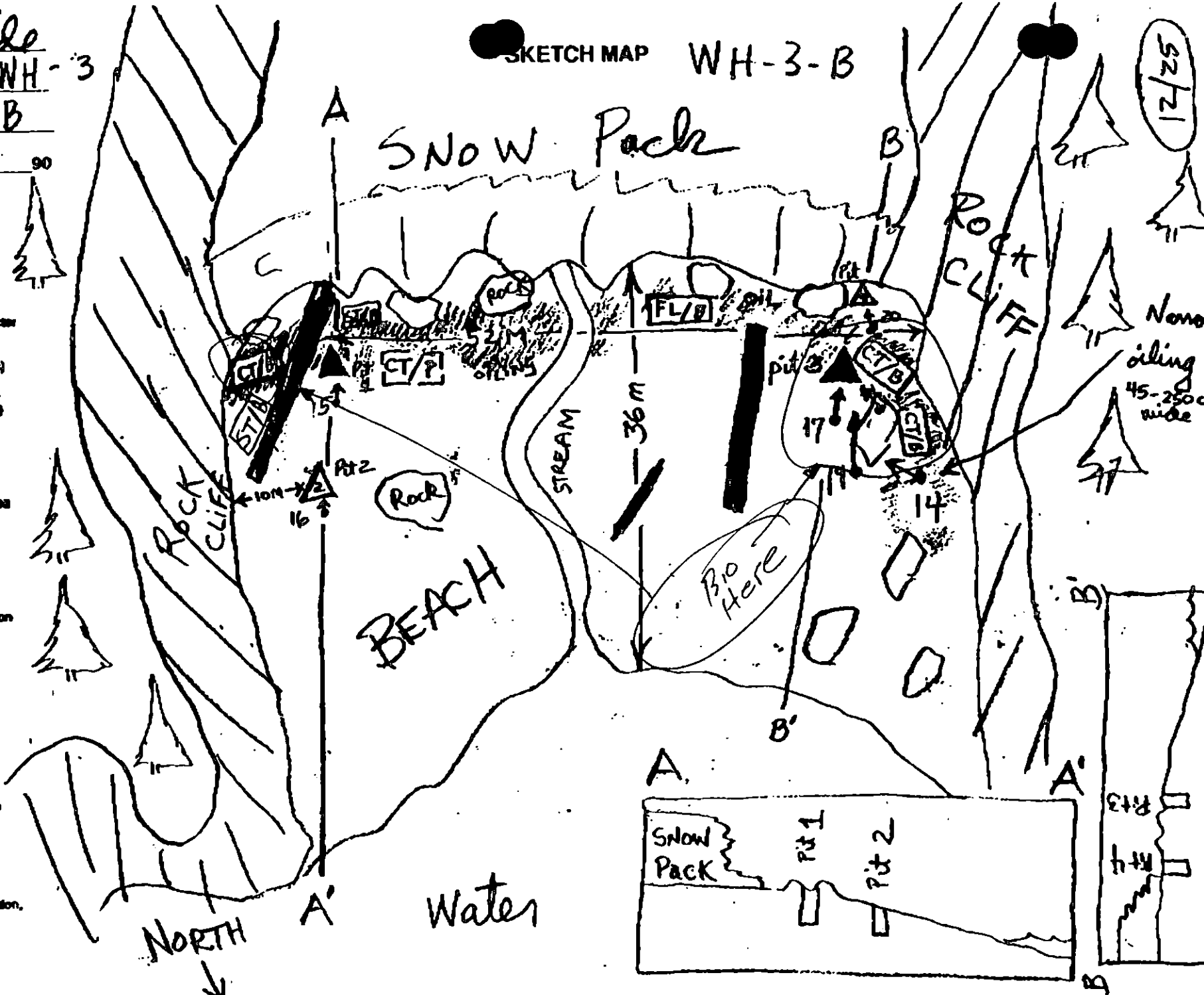
CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Spotted Distribution

Oiled Vegetation

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



Oil Character Length (m): AP _____ PO _____ CV _____ CT 52 ST _____ MS _____ PT _____ TB _____ FL 52 NO _____

REVISION: 01/00

SHORELINE ECOLOGICAL SUMMARY

REVISION: 000000

Segment ST / WH-3 Subdivision B Date (mo / day / yr) 4/1/90Time (24 hr) 1600-1600 Biologist SHAARMAN(A) Substrate type and % of segments:
(1) Bedrock 5 (2) Boulder 20 (3) Cobble 35 (4) Pebble 35 (5) Sand 5 (6) Silt 5 ^{+ gravel}(B) Overall % cover of biota (% of segment): 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. ST-12-2Frames 13-20

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

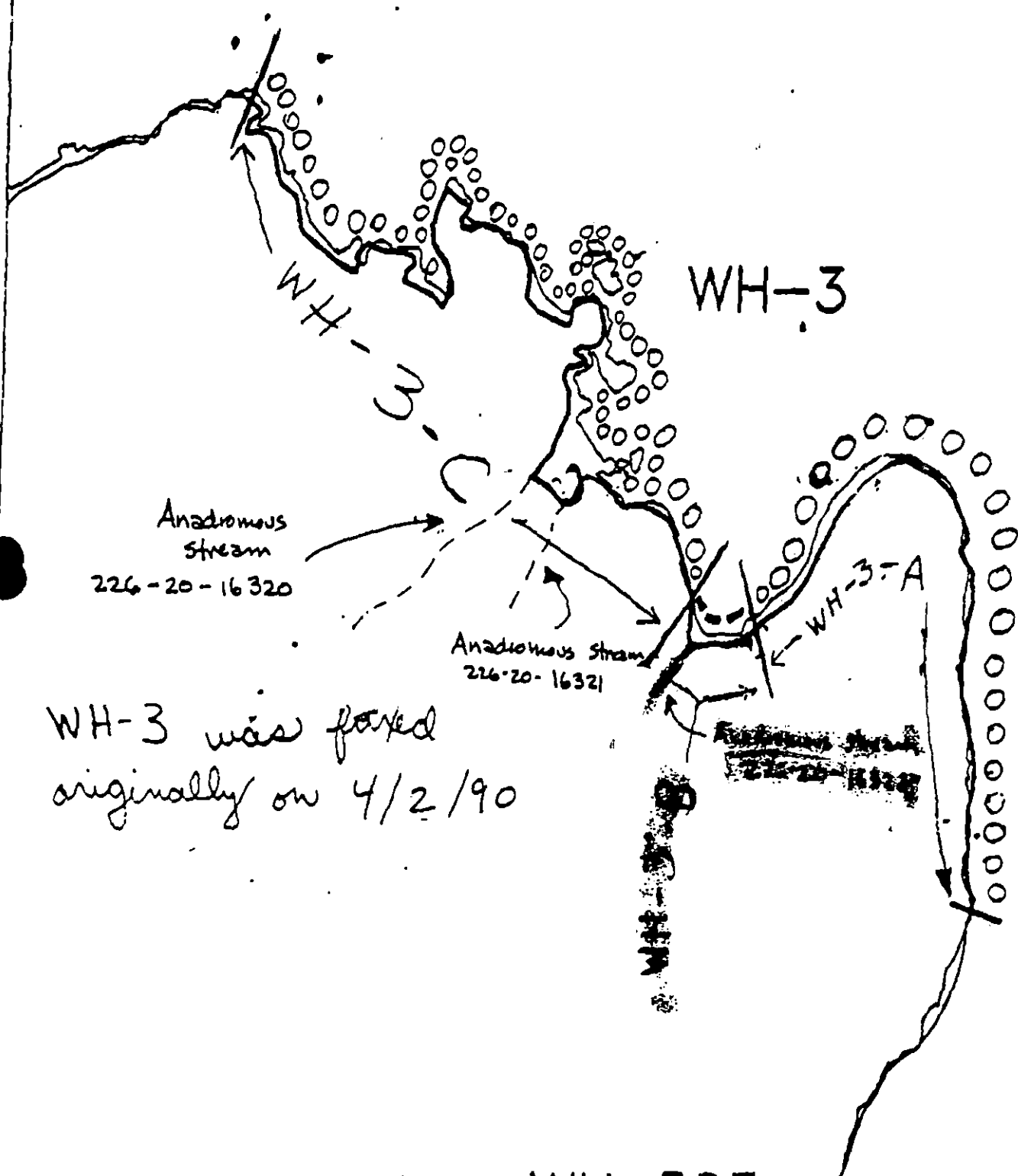
NOT PRESENT

Wildlife Observations/ General Comments: *Could not observe LTB. 3 sea otters, 5 pairs goldeneyes, 1 adult eagle. Similar possible plankton bloom conditions to WH-3-A. Narrow band of oiling in UTE does not appear to have affected intertidal community - appears normal.*

Ecological Considerations: *See consideration for WH-3-A. Primary ecological sensitivity Code is 2B (salmon spawning stream), but stream is in subdivision WH-3-C.*

8614

ECOLOGY MAP



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

WH-3

ADEC Segment Length: 6647m

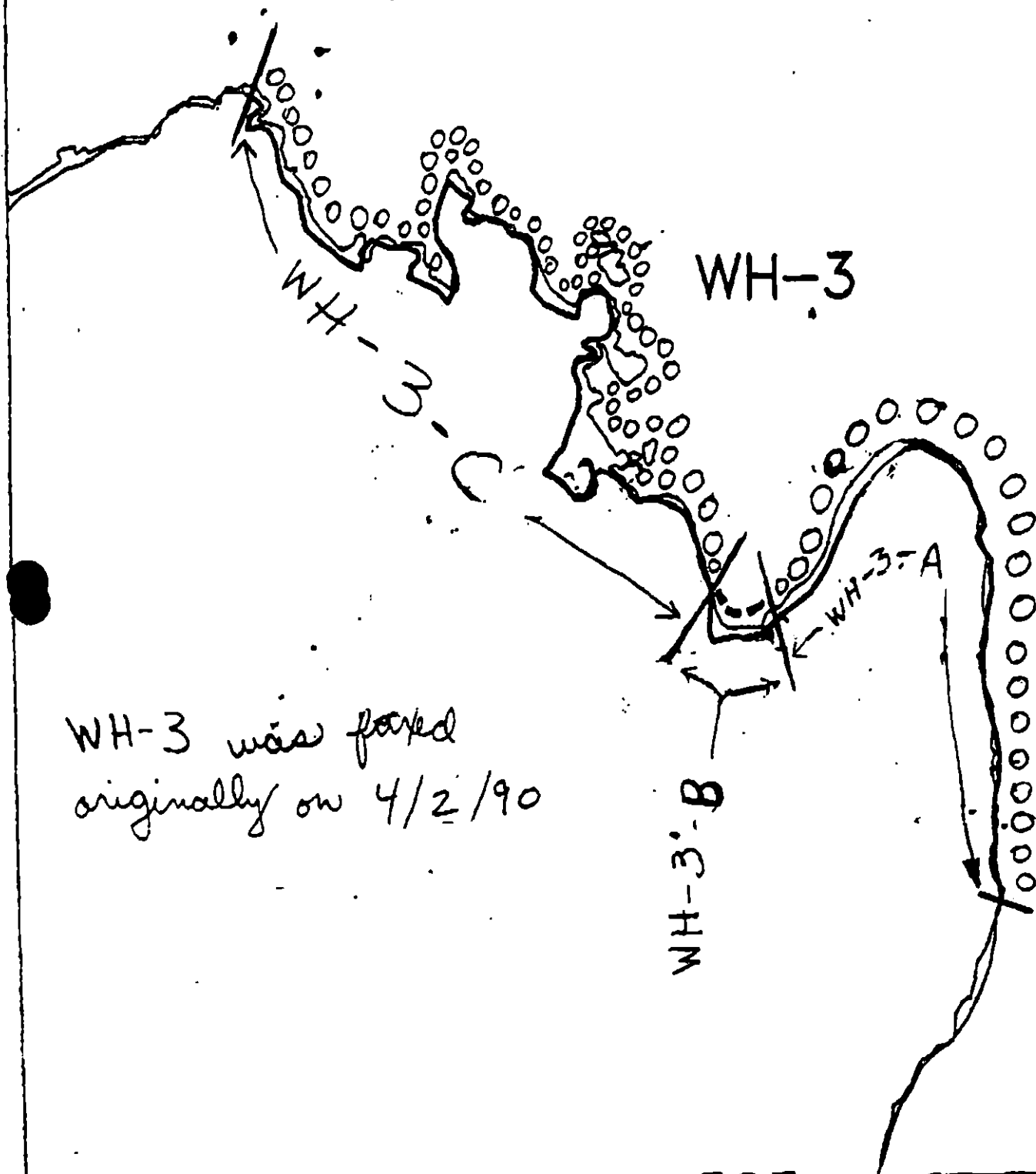


Map Key: PWS-725

Name: Randy McBride

Date: 4/05/90

Date Entered:



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

WH-3

ADEC Segment Length: 6647m



Map Key: PWS-729

Name: Randy McBride

Date: 4/05/90

Date Entered:

WORK PLAN ADDENDUM

Segment WH 3Subdivision BDated 7/5/90

MODIFICATION

1. REASON FOR MODIFICATION

Request from field monitors

2. ADJUSTMENT TO WORK PLAN

Add manual pickup of pavement prior to bioremediation

SHPO APPROVAL NEEDED YES X
NO SHPO SIGNATURE Charles E. Adams 7/6/90TAG APPROVAL DATE 7/06/90ADEC Ray Mearis, Ray H. H. H.EXXON Amix TenaNOAA Burkhardt Bar/WescottUSCG G.A. Reiter G.A. ReiterFOSC G. Garofoli DATE 7/7/90Notify CAL 72 hrs prior
beginning work.
df

OG McBride
SEGMENT ST/ NH-3
SUBDIVISION B
DATE 4.1.80

CHECKLIST

- ✓ N Arrow
- ✓ Approx. Grade
- ✓ Along Club Entry
- ✓ Soil Dist.
- Width
- Length
- % Cover
- ✓ Silicate Character
- ✓ E.L. HWM/LWL
- ✓ SCL
- ✓ Profile Location(s)
- ✓ Photo(s)
- ✓ Loc. Location(s)
- ✓ Tree Location(s)

LEGEND

- 1 A
24 - No Substantive CR

- 2A
#1 - Submarine Oil

CTAC

CTAB

Downloaded from <http://www.jstor.org/stable/2346123>

CT/P

Property Distribution

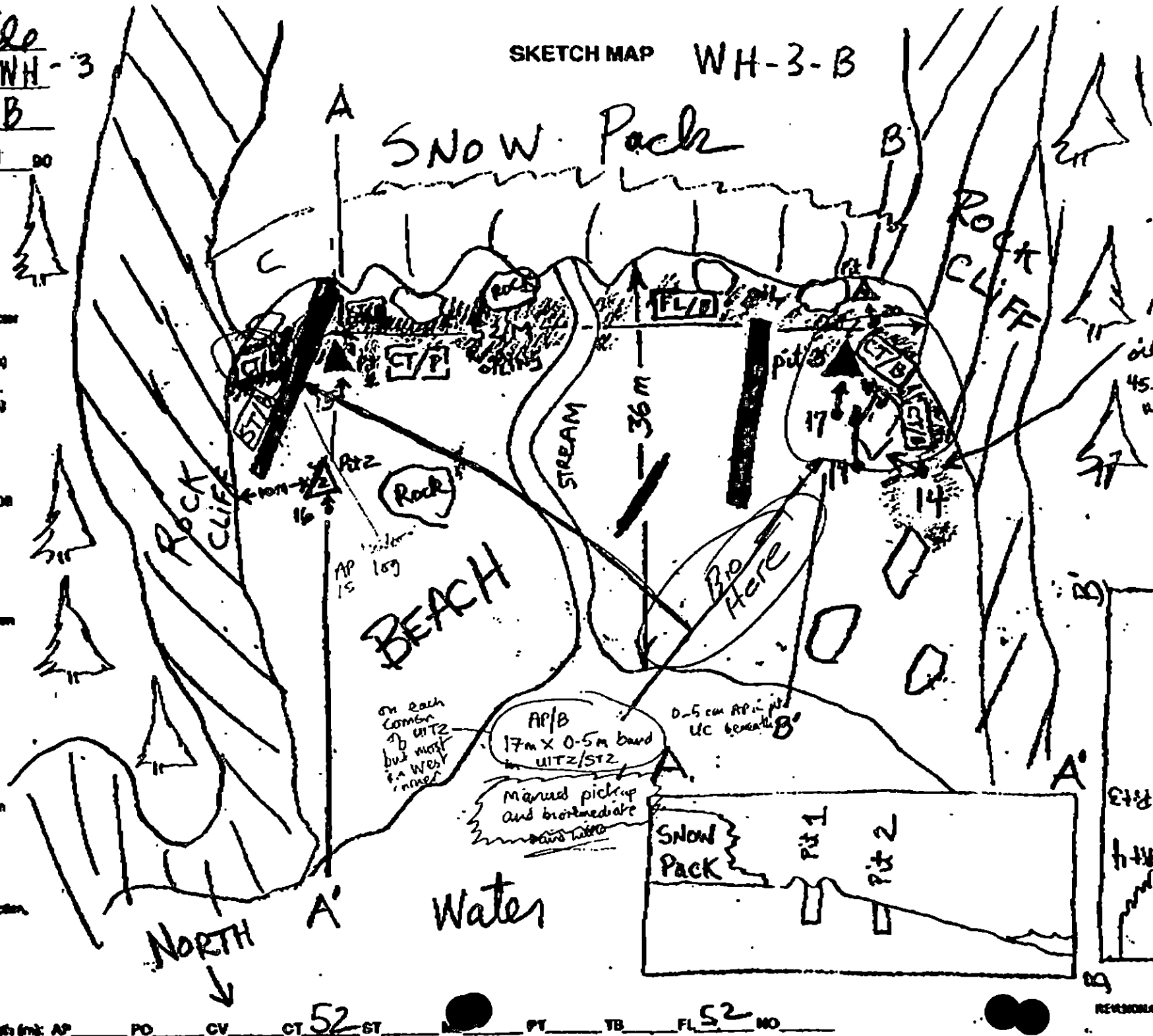
CT/S

Expanded Offerings:

Older Vegetables

Photo location, direction,
and number

SKETCH MAP WH-3-B



08 Character Length (in): AP _____ PO _____ CV _____ CT 52 ST _____ MT _____ PT _____ TB _____ FL 52 NO _____

References

SHORELINE EVALUATION

SEGMENT ST/ WH-03 SUBDIVISION C (3 OF 3) DATE 4/1/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ADF&G anadromous stream no. 226-20-16321, 16320, 16322.

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

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

6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Two anadromous stream are in subdivision C: 226-20-16320; 226-20-16321.

SHPO SIGNATURE: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 3875 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90

ADEC [Signature]

EXXON [Signature]

NOAA [Signature]

USCG [Signature]

FOSC: [Signature] DATE: 4-27-90

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / WH-3 SUBDIVISION: C DATE 4/1/90USCGNAME GARY OTTSIGNATURE *[Signature]*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDADECNAME MICHAEL J. EBELSIGNATURE *[Signature]*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTEDWH-3-CLAND MANAGER - U.S.D.A. - FOREST SERVICENAME DON J. BREITINGERSIGNATURE *[Signature]*☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

14 of 14 plus 1

SHORELINE OILING SUMMARY

REVISION NO. 000000

OG Randy McBride NOAA Gary Ott SEGMENT ST/ WH-3
 BIO Louis Sherman LAND REP Dan Breitingen SUBDIVISION C
 EXXON Leonard Harbor ADEC Mile E of TIME 18:44 to 19:34
 TEAM NO.: 12 TIDE LEVEL: +5.8 to +7.1 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 3608 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: east to west
 SURFACE SEDIMENTS: R 20 % B 40 % C 25 % P 10 % G 5 % S 0 % M 0 % V 0 %
 SLOPE: Long 20 % Hang 60 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 3608 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	SW	SE	NE	NW	SW	SE	NE	NW
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 mPATTIES / TARBALLS 0 BAGSNEAR SHORE SHEENT? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. No photosFrames No photos

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO			SW	SE	NE	NW	U						
1	40					X	-	X						X					C PG
2	30					X	-	X						X					PG

COMMENTS

No oiling in subsurface or along surface.
 Please send shoreline computer map for
WH-3 We didn't have a set in box.
 No photos! 11 of 14

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/80

Segment ST / WH-3 Subdivision C Date (mo / day / yr) 4/1/90Time (24 hr) 1645-1730 Biologist SHARMAN(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 40 (2) Boulder 40 (3) Cobble 15 (4) Pebble 5 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense Moderate X Low
SUBDIV.

(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-12-2Frames None

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

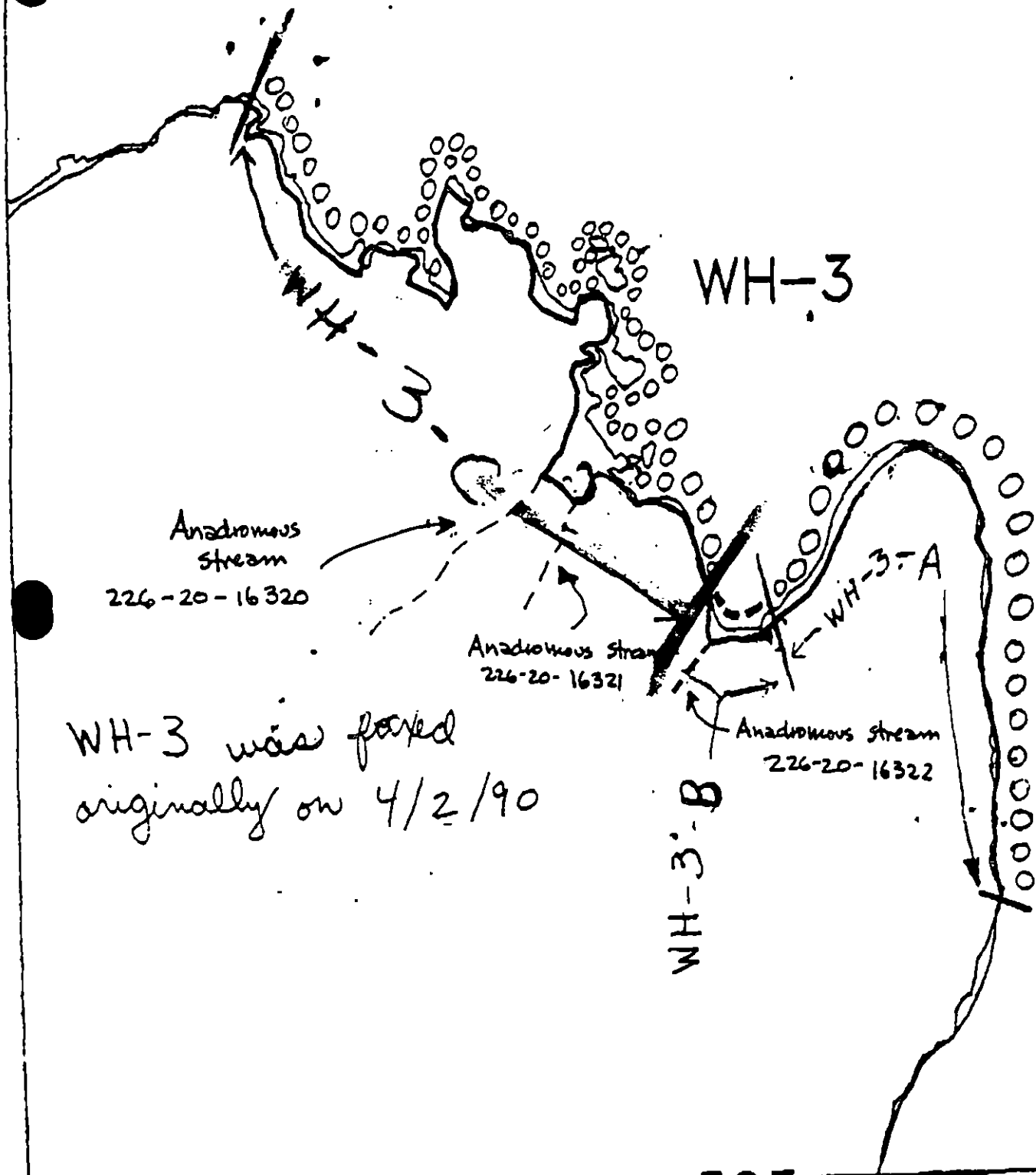
Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: Could not observe LTZ, but no oil observed in remainder of intertidal zone, and the intertidal community appears to be normal. Similar possible plankton bloom conditions to WH-3-A. More pre-earthquake barnacles uplifted to 2m vertically (see comments BA-1-A). Pair of adult eagles close to nest, but nest does not appear active yet. Stellar's jay, wolverine tracks, 1 otter, 2 pairs surf scoters, 4 pairs goldeneyes.

Ecological Considerations.

Priority 1 assigned this subdivision because of salmon spawning stream (Code 1B) with a constraint of 1-2 to give a treatment priority of 1. Stream is clean, unaltered. Entire subdivision is in a rich, productive area, sensitive to human disturbance because of spawning stream, potentially active eagle nest, wolverine use.

ECOLOGY MAP



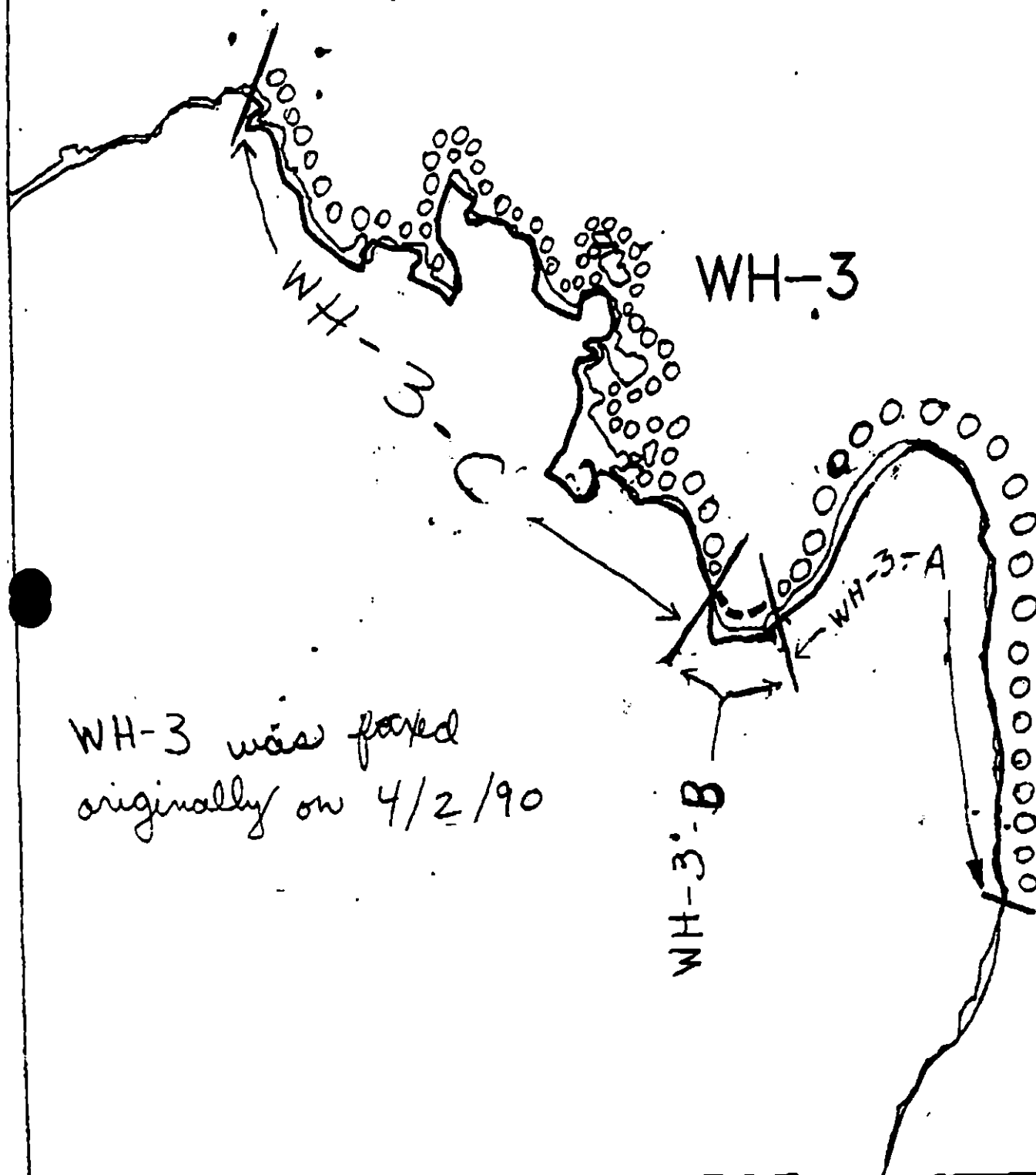
XXXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 OOOO No Oil

WH-3

ADEC Segment Length: 6647m



Map Key: PWS-725
 Name: Randy McBride
 Date: 4/05/90
 Data Entered:



XXXX Wide

WH-3

//// Medium

ADEC Segment Length: 6647m

---- Narrow

TTTT Very Light

0000 No Oil



Map Key: PWS-725

Name: Randy McBrideDate: 4/25/90

Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT WH-3 SUBDIVISION B (2 of 3)

WORK WINDOW

Bioremediation More Than 100m From Stream **OPEN**

Bioremediation Less Than 100m From Stream **WORK PRIOR TO 7/10
(ADF&G MONITOR REQ.)**

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1A, 1B Salmon Stream

ADF&G catalogued anadromous stream is present in Subdivision B (226-20-16322). This subdivision is closed to bioremediation less than 100m from stream 7/10 to 8/31. Before 7/10, bioremediation is permitted less than 100m from stream with on-site ADF&G monitor or ADEC alternate present. No constraint to bioremediation more than 100m from stream.

OTHER ECOLOGICAL CONSIDERATIONS

No disturbance to stream bed or bank. No flushing of pollutants or sediments into stream drainage. Avoid any unnecessary disturbance or damage to unrolled biota and substrate.

TAG ADDENDUM DATE 6/04/90
ADEC Ran Movers
EXXON Amot Tsal
NOAA Joseph Tullotti
USCG G. H. Becker

FOSC [Signature] DATE 6/7/90

Prepared by: [Signature]

Date: 6/4/90

* Incorporates USFWS 6/1/90
ACTIVE EAGLE NEST SURVEY
MAP

WH-2

WH-3

ANADROMOUS STREAM
(226-20-16322)

TREATMENT
AREA

WH-503



Exxon Company, USA
Map Key: PIS-WH-3
Mar 11, 1990



ECOLOGY MAP
SEGMENT WH-3
SUBDIVISION B (2 of 3)
METERS



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 2069 feet

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