

OIL SPILL PUBLIC INFO. CENTER



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[Shoreline evaluations, 1991].

Kodiak K0102 DI 015 to K0110 SI 003

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REGION: KODIAK

SEGMENT: ST/K01-02-SI-015

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION A (1 OF 1) DATE 5/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
5T-4 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4GG State Marine Park Alaska State Parks
900 Archaeological site
9BB Privately developed lands
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 144 m: No Oil 2058 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery releases
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 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 Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 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. 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 Subistence area: Salmon harvesting (8/1 to 9/30)
 Fish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 / K01-02-SI 015 SUBDIVISION: A

DATE 5/9/90

00A
USGS

NAME STEPHEN LEHMAN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

The east-northeast section of the segment/subdivision has some of the most biologically active intertidal areas I've seen. Large populations of mussels. Although there is some limited recoverable oil in this area, I recommend it not be treated. However, lagoon in the center of the segment subdivision has some no patterns that could be recovered.

ADEC

NAME Terry Ellsworth

SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

The oil in this segment is located along the northeast portion of the segment and on adjacent to the pebble beach. Oiling is primarily cover, coat, and stain with very little recoverable mousse. No treatment is recommended.

LAND MANAGER

NAME Mike Godwin

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision of this segment on Big Foot Island contained very small patches of mousse, some coat and some stain that is considered not worth treating due to environmental sensitivities such as eagle nesting sites that are active and shorebird populations in the immediate area. This segment could be included into Shuyak State Park if proposals are legislated into law in the near future.

SHORELINE OILING SUMMARY

REVISION NO. 04/13/90

OG OG HEYMAN NOAA S. LEHMANN SEGMENT ST/ K0102 S1015
 BIO L. SHARMAN LAND REP M. GOODWIN SUBDIVISION A (1 OF 3)
 EXXON F. BYARS ADEC T. ELLSWORTH TIME 10:50 to 13:00
 TEAM NO. 19 TIDE LEVEL +4 to +5 1/2 DATE 5/9/90
 ST. SUBDIVISION LENGTH: 2150 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: NE to SW
 SURFACE SEDIMENTS: R 25 % B 30 % C 30 % P 8 % G 2 % S 0 % M 0 % V 0 %
 SLOPE: Long 40 % Hang 50 % Vert 10 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 166 m NO 2084 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	60	65	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

 PAVEMENT H F S 0 sq. m by 0 cm

 PATTIES / TARBALLS 3 BAGS

 NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				
Debris				

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE —

 #BAGS —

Photographs:

 Roll No. ST-19(III)

 Frames 344

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (N/A)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	30	35	40	45	50	55	60	65					
1	18						X 0-0		X									X	N	-	-	P-C/PGC
2	15						X 0-0		X									X	N	-	-	G/GR
3	20						X 0-0		X									X	N	-	-	G/GR
4	20						X 0-0		X									X	N	-	-	P/PG
5	25						X 0-0		X									X	N	-	-	P/PG
6	25						X 0-0		X									X	N	-	-	P/PG-C
7	25						X 0-0		X									X	N	-	-	P/PG

COMMENTS

This segment lies along the southern shore of Big Fort Is.
 The segment consists of 2 NW-SE trending peninsulas separated by a pebble beach. The E shore of the eastern peninsula consists of bedrock cliffs above narrow boulder / bedrock platform. Oiling was observed only in protected pockets or on splatters / drips on rock faces. CV consistently contained embedded spruce needles. (continued)

 REVIEWED BA

 DATE 17 MAY 90

OG Comments. K 01 02 SI 015 A OG Heyman 5-9-80
(concluded)

Two narrow bands of oiling were observed in the subdivision, one on either side of the low angle pebble beach. To the east, a 1×10 m band of "mouse patties" with splatters of ST, CT & CV were observed. The patties were $< 1'$ in diameter & had DBL exteriors w/ soft shiny dark brown interiors. The ST, CT & CV splatters were < 2 cm in diameter. The CV was thicker due to the embedded spruce needles only. Total area of oiling in the band was 1-2%.

To the west, a 3×15 m band of "interstitial mouse" bound pebbles in the interstices of boulders. ST & CT/s were also observed as splatters. Total area of oiling was about 2% within the band.

OGDG. H. AN

SEGMENT STI K 01 02 SI 015

SUBDIVISION A

DATE 5 1 9 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Site Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NWLAWL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt 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

Spashed Distribution

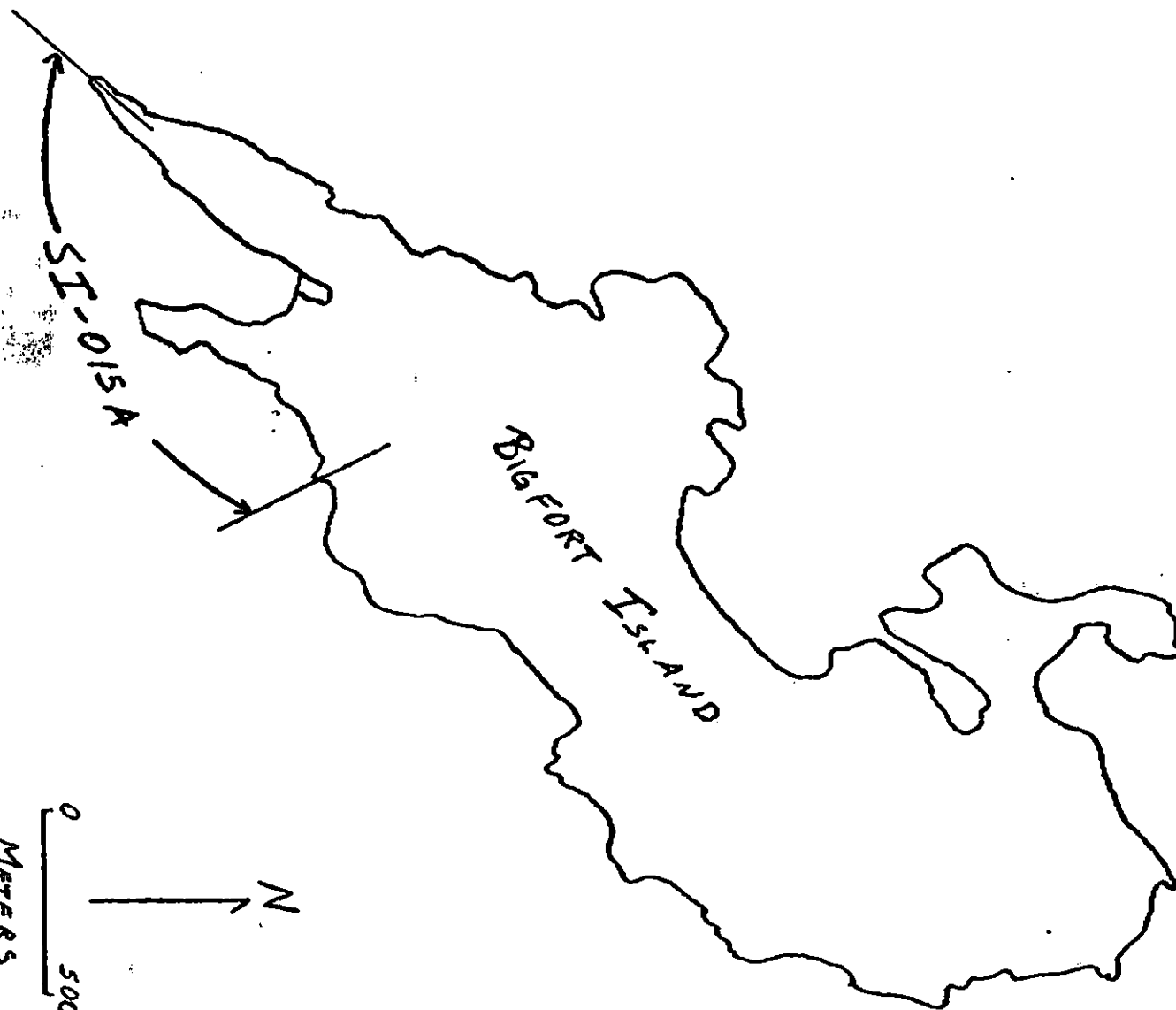
Oiled Vegetation

1 ➡

Photo location, direction,
and number

SCH MAP

LOCATION



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

REVISION: 032489

OG 0101 EXMAN

SEARCH MAP

SEGMENT ST/ K 01 02 SI 015

SUBDIVISION A

DATE 5 / 9 / 90

CHECKLIST

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

LEGEND

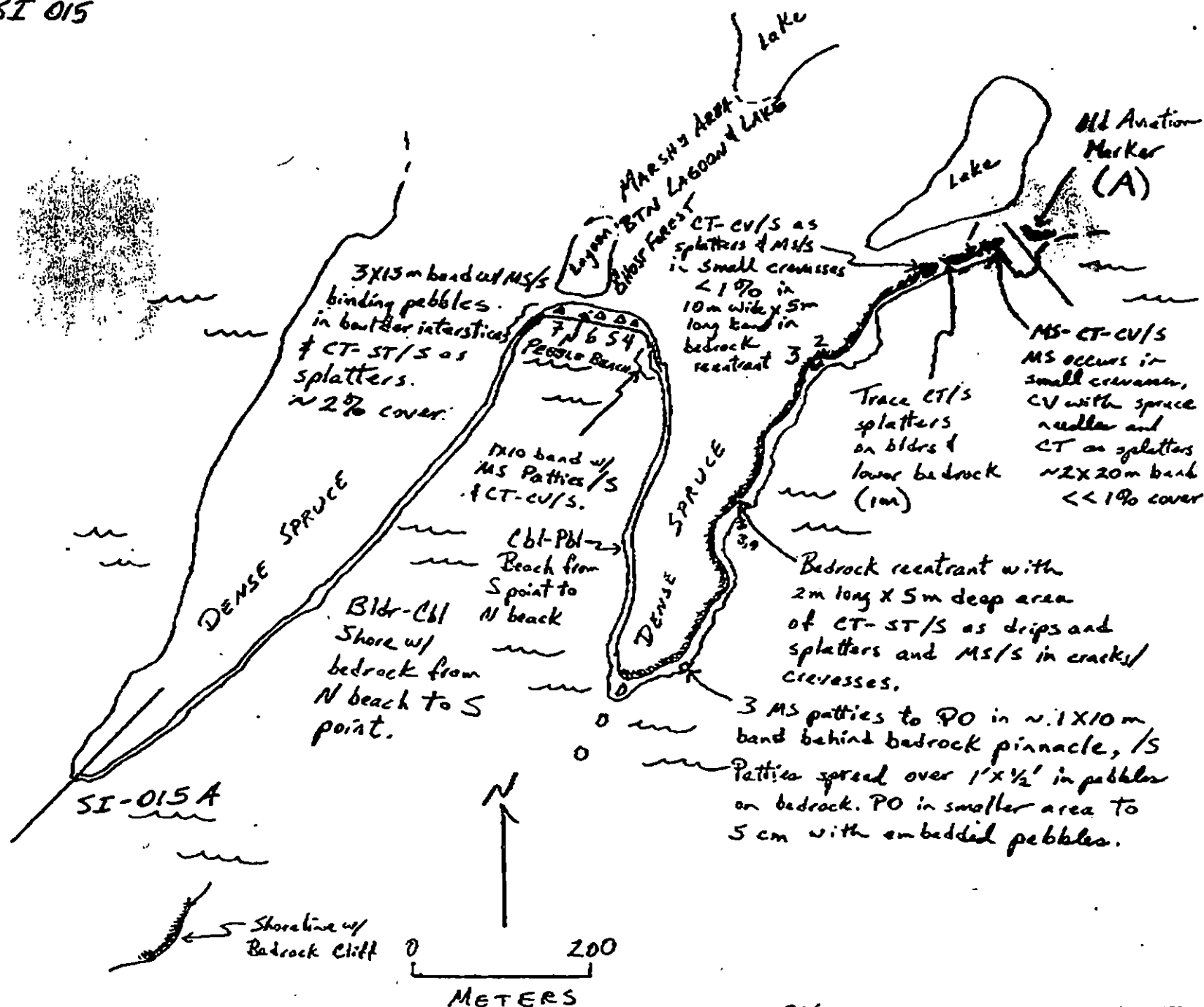
- 1 Δ
- Pit - No Subsurface Oil
- 2 Δ
- Pit - Subsurface Oil
- CT/C

Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- $\odot$
Oiled Vegetation
- $\odot$
Photo location, direction, and number



Oil Character Length (m): AP 1 PO 1 CV 12 CT 16 ST 15 MS 10 PT 12 TB 1 FL 1 NO 2084

REV 300M-03/2/90

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

REVISION: 08/2/90

 Segment ST / SI-15 Subdivision A Date (mo / day / yr) 5/9/90

 Time (24 hr) 1000-1300 Biologist SHARMAN

 (A) Substrate type and % of segment: SUBDIV.
 (1) Bedrock 25 (2) Boulder 30 (3) Cobble 30 (4) Pebble 8 (5) Sand 2 (6) SM gravel

 (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 (O)

 Photographs: Roll No. ST-19 (III) - 2

 Frames 3, 4

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 (ANCELA, LITTORINA, LYMAETA)

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: 4 juvenile eagles, 2 adult eagles tending an active nest (see Ecological Considerations below), 2 crows, 2 magpies, ~ 30 glaucous-winged gulls (incl. 20 on offshore rocks - see Ecological Considerations below), 1 pair black guillemots, 2 cormorants, 1 red-breasted murrelet, 2 cormorants, 3 fox sparrows (active in intertidal zone), song sparrows + hermit/warble throats singing in forest. (cont.)

Ecological Considerations:

Please see attached Eco. Map. 1 active eagle nest observed with one adult incubating and one nearby. There may be additional nests within the subdivision. There is an active glaucous-winged gull colony on the offshore rocks near the S. end of the subdivision - probably other seabirds are/will be nesting there soon (guillemots, cormorants, puffins). This is an exceedingly productive and diverse coast, both marine + terrestrial. Certainly the active eagle nest should not be disturbed. The very rich intertidal zone at the N. end of the subdivision is on low-angle bedrock platforms that are very easily impacted by trampling.

Sherman
3/9/90General Comments (cont.):

Pebble/gravel beach (see map) is backed by dense forest (probably '64 earthquake subindense). Deer tracks + scat in supra-/UTS. Brown bear & fox tracks in supra-/UTS. Red squirrels in forest. 1 river otter swimming and 1 river otter on beach. This subdivision has a generally very thick & healthy intertidal zone. The mid and upper zones have quite satisfactory Fucus coverage with locally excellent sporadic recruitment near established adult concentrations; the same is true for mussels. There is excellent barnacle spot/cyprid set, very dense even on pebbles. Locally there are extremely dense concentrations of MTS littorines, in depressions filled with littorines to a depth of 10 cm. Littorines appear to be recruiting very successfully. Extremely diverse LTS tidepools include: Odonthellia, Rhodomya, Filothalamus, foliacea corallina, Ptilota, Alaria, Laminaria, very abundant Katharina, Tonicella, Thalia, very abundant Epistia, Anthopleura (all 3 spp.), limpets, littorines, Margarita, Semibalanus cariosus, Pagurus, tidepool sculpins, Tectaria (under rocks), etc. Other LTS species, many found beneath boulders, include prickelbush, Medusa, Halosaccus, Halidondria, Halidonia, often large & with egg masses. Laetia, Scaloria, remortana, Enteromorpha, unidentified red foliose algae, Sargassum, Spirorbis (in pools), one Pycnospira, green filamentous algae (Acrocladia?), and finely dissected red algae (Polysiphonia/Parosiphonia?). The MTS includes abundant Odonthellia, Fucus, Gelidium, Sargassum. Nucella is occasional in the MTS. We observed 2 Ligia on UTS fractured bedrock, and an unidentified dark encrusting alga (Rafines/Petrochalis?) was quite common UTS → MTS. Not surprisingly, the pebble/gravel beach is quite depauperate.

ECOLOGY MAP

(1 of 1)

SI-15

(Page 3 of 3)

- ST - Eagle nests
- SB - Seabird colony
- - Archaeological site
- 4 BB - Privately developed lands

Not in this subdivision.

SI-14

USFWS documented eagle nests.
 Δ = presently active
 Δ = not observed on this survey.

Reble/gravel beach backed by dune forest.

SI-15

K1

Noting glaucous-winged gulls at this time.

USFWS documented eagle nest on pt. Not observed on this survey.

Subdivision "A"

USFWS documented seabird colony. Not observed on this survey.

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

SI-15

ADEC Segment Length: 13200m



Map Key: K00-173

Name: _____

Date: _____

Date Entered: _____

SI-14

SI-15

K1

1 m Very light
2 m Very light

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

Kø1ø2-SI-15A

ADEC Segment Length: 13200m

0 300 600 900
METERS

Map Key: K00-173

Name: OG HeymanDate: 5-9-90

Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION A (1 OF 1) DATE 5/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
5T-4 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4GG State Marine Park Alaska State Parks
900 Archaeological site
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Richard Dean Darr DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 144 m: No Oil 2058 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: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/24/20
 ADEC Aer Weiler Int'l Marine
 EXXON Andy Kerr Bank
 NOAA Bulwer Bulwer
 USCG M. J. Hall Mar

FOSC: *[Signature]* DATE: _____

OGDG, HENRY AN

SEGMENT STI K01 02 SI 015

SUBDIVISION A

DATE 5 1 9 90

CHECKLIST

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

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

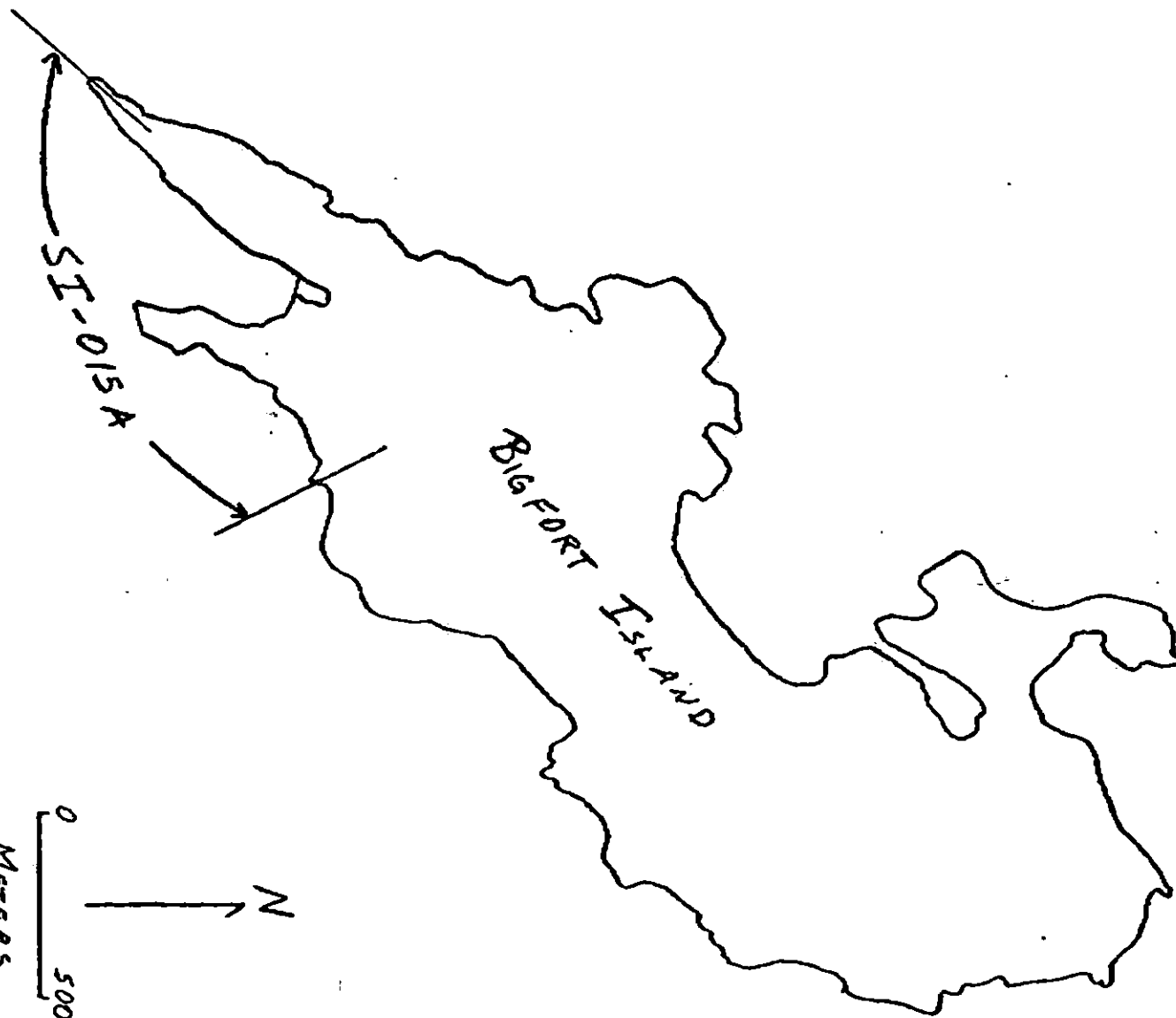
Oiled Vegetation

1 ➡

Photo location, direction,
and number

SKETCH MAP

LOCATION



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

REVISION: 03/24/90

OG OC MAN

SEGMENT ST/ KOL 02 SI 015

SUBDIVISION A

DATE 5/9/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bndry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWA/VL
- ☐ 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

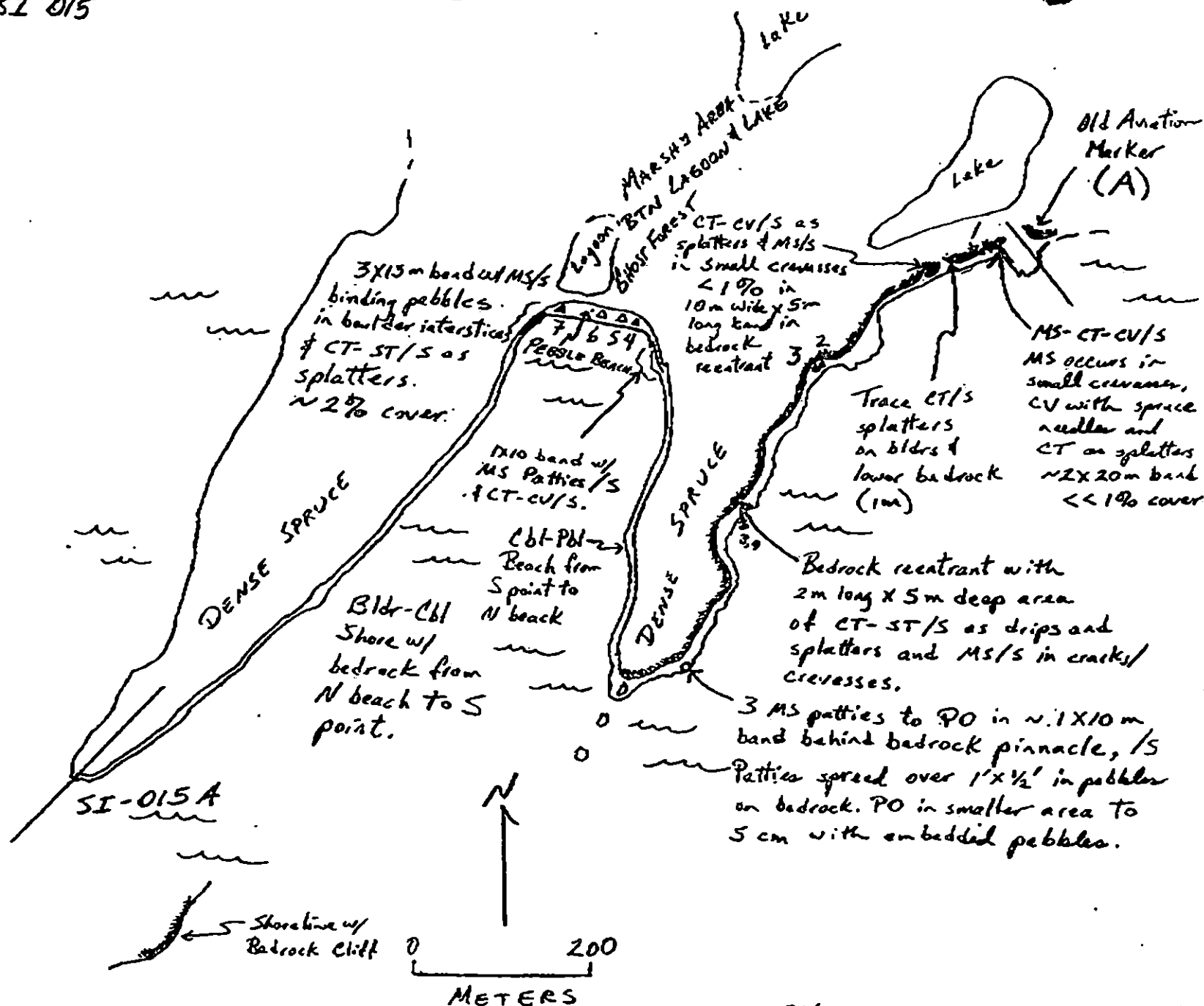
Continuous Distribution
- CT/B

Broken Distribution
- CT/P

Patchy Distribution
- CT/S

Splashed Distribution
- ☐ Oil Vegetation
- 1 $\rightarrow$
- Photo location, direction, and number

SEARCH MAP



Oil Character Length (m): AP — PO 1 CV 12 CT 16 ST 15 NS 10 PT 12 TB — FL — NO 2084

REVISION: 9/2/90

ECOLOGY MAP

SI-15

(1 of 1)

(Page 3 of 3)

- ST - Eagle nests.
- Subdivision "A"
- Seabird colony.
- Archaeological site.
- 9 BB - Privately developed lands.

Not in this subdivision.

SI-14

USFWS documented eagle nests.

▲ = presently active
△ = not observed on this survey.

Rubble/gravel beach backed by drowned forest.

SI-15

K1

Nesting glaucous-winged gulls at this time.

Subdivision "A"

USFWS documented eagle nest on pt. Not observed on this survey.

USFWS documented seabird colony. Not observed on this survey.

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

SI-15

ADEC Segment Length: 13200m

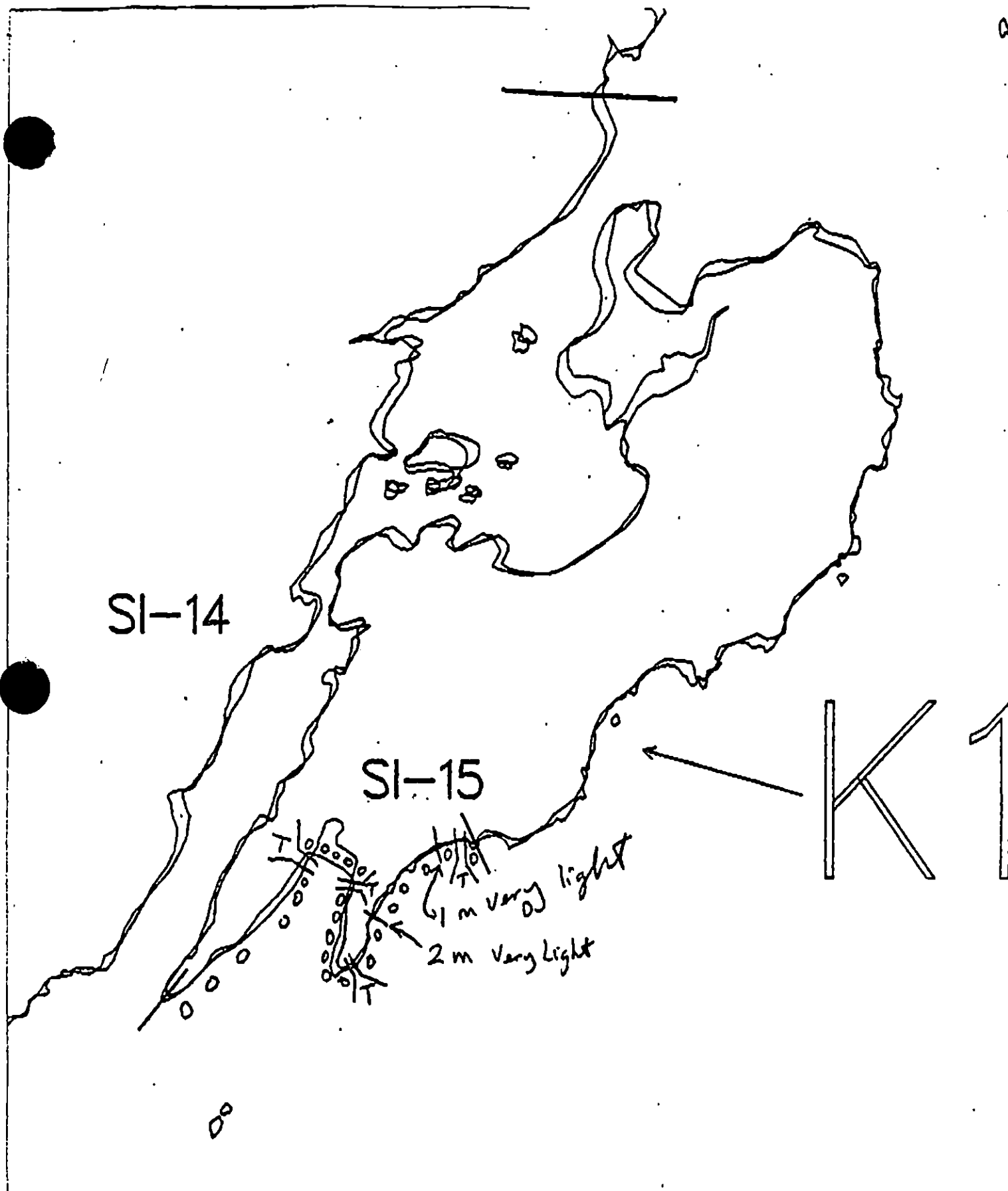


Map Key: KOD-173

Name: _____

Date: _____

Data Entered: _____



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

KØ1Ø2-SI-15A

ADEC Segment Length: 13200m



Map Key: X00-173

Name: DG Heyman

Date: 5-9-90

Data Entered:

5-8 4-4

REGION: KODIAK

SEGMENT: ST/K01-02-SI-015

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION B (2 OF 3) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-2 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m Medium 0 m. Narrow 0 m V. Light 179 m No Oil 3724 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: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommend treatment is manual pick up of mousse and boom as indicated by sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest constraint in adjacent subdivision (A) and ADF&G regarding Sea bird Colony in adjacent Subdivision A.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application
 AGENCY CONTACT PERSON ADF&G Ken Middleton 267 2299
- 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 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 Kotol Bay Hatchery release
 Pink salmon late May early June, Chum salmon June Sockeye salmon early July
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application 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 for confirmation and authorization
 AGENCY CONTACT PERSON ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation dates and locations may vary 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 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 Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 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 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
 6V Tent sites (6/1 to 9/15)
 6W Anchorages (6/1 to 9/15)
 6X Forest Service cabins (6/1 to 9/15)
 6Y Lodge (6/1 to 9/15)
 Special use destination
- 7Z Subistence area Salmon harvesting (6/1 to 9/30)
 Finfish harvesting
 Deer harvesting (6/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 / K0103 SI-15 SUBDIVISION: B DATE May 20/90

USCG NAME D.D. Haven Jr, 6M3 USC 6R SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

These areas of recoverable mousse are next to impossible to find, so I would also recommend that an experienced monitor accompany cleanup crew w/ SSAT map.

ADEC NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

Occasional splatters of coat or patties are found in the south half of this segment. Recoverable mousse occurs ~ 1000 meters North of the south segment boundary in a 10x3 meter area. Manual removal by a 2 or 3 person team is recommended if a crew is in the Andean Bay - Big Fort Island area.

LAND MANAGER NAME Mike Gordin/ADNR SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED ☒ TREATMENT SUGGESTED

COMMENTS

This subdivision contains uplands and tidelands MANAGED by DNR/DLWM. IT contains AN occupied state Mineral Lease with numerous buildings on site. This subdivision has been mapped and a reference made TO AN Archeological activity identified by D.W. Clark in 1956. Nothing was observed for this regard by SSAT during this Assessment. An Active Eagle Nest should be noted immediately adjacent to the West of the end of this subdivision on Stuyvesant Island. A distance of 250M across Baffin channel.

FIRLD SHORELINE COMMENT SHEET**Land Manager Comment, (Con't.)**

This subdivision has high recreational value based on its accessibility and protected waterway. Future land trade negotiations of this area may result in establishing it as part of Shuyak Island State Park.

This subdivision contains scattered patches of mousse identified as a 10m x 3m band that requires treatment by a small 2 to 3 person crew using hand removal techniques.

SHORELINE OILING SUMMARY

REVISION NO 56/1390

OGI Don DeLoe USCG Don DeLoe SEGMENT ST/ K102 - SE - 15
 BIO Don DeLoe LAND REP Mike DeLoe SUBDIVISION B (OF)
 XON — ADEC Don DeLoe TIME 1:31 10/20/90
 AM NO. 14 TIDE LEVEL 1.2 + 6 DATE May 12 / 90
 EST. SUBDIVISION LENGTH: 3960 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 10 % B 10 % C 20 % P 40 % G 10 % S 5 % M 5 % V 0 %
 SLOPE: Long 80 % Hang 0 % Vert 20 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 30 m NO 20 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	IC	IB	IP	IS	1	2	3	4	5	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT				X	X					X			
STAIN													
MOUSSE		X	X					X		X			
PATTIES			X		X					X			
TARBALLS													
FILM													
NO OIL										X		X	X

PAVEMENT H F S (NO) sq. m by — cmPATTIES / TARBALLS 90 BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS <u>No</u>	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Traash			
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 SEDIMENTS
		OP	OR	OL	OF	NO		US	UC	1	2	3	4	5	SU	U	M	U				
1	30					X	0-0	X							X							Pb
2	30					X	0-0	X								X						Pb
3	30					X	0-0	X									X					Pb

COMMENTS

REVIEWED BAT DATE 24 May 90

KI02-SI-15-B, Big Fort Island, May 20, 1990

Subdivision B of segment KI-102-SI-15 makes up the west shore of Big Fort Island located next to southeastern Shuyak Island. This 3.98 km long subdivision is exposed to a very low fetch in a direction perpendicular to the coast; it can nevertheless receive swell wave travelling parallel to it along the east coast of Shuyak Island. The subdivision was walked on May 20, 1990, between 1731h and 2055h and corresponding 2.0' to 6' tide level.

From south to north, the subdivision begins with a section of talus of angular boulders seaward of low bedrock cliffs. A few coats of splatters and one mousse patty were found in the upper intertidal zone of this area. To the north, the shoreline widens, becomes less steep, and gives way to a beach of subrounded pebbles and cobbles with a few coats of splatters in the upper intertidal zone. An area approximately 10 m long by 3 m wide of patchy mousse with 50% coverage and maximum thickness of 1 cm occurs on the southern part of this pebble/cobble beach along with 3 small patties; and 6 small mousse patties were found on the northern part of the beach.

Further north, the channel between Big Fort Island and the adjacent coast of Shuyak Island narrows considerably before forming a large cove to the east. Near the narrow part of the channel, the shoreline is made up of angular pebble/cobble/boulders and grades into a talus of angular boulders around the low cliffs leading to the large cove. No oil was found in this area but a boom is present accross the narrow part of the channel.

A large bay with a beach of angular shaly pebble/gravel/cobble devoid of oil leads to a deep, narrow and shallow northeasterly trending embayment that cuts across almost all of the northwestern part of the island. This last embayment has a shore made up of angular pebbles and cobbles in the upper intertidal zone and sand/pebble and mud in the lower intertidal zone.

No oil was found in this area.

OG Franklin Sempels
 SEGMENT K102-Si-15

SUBMISSION B

DATE May 121 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HAP/LA/VL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ PH 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

eee
 Oiled Vegetation

1 $\Rightarrow$
 Photo location, direction,
 and number

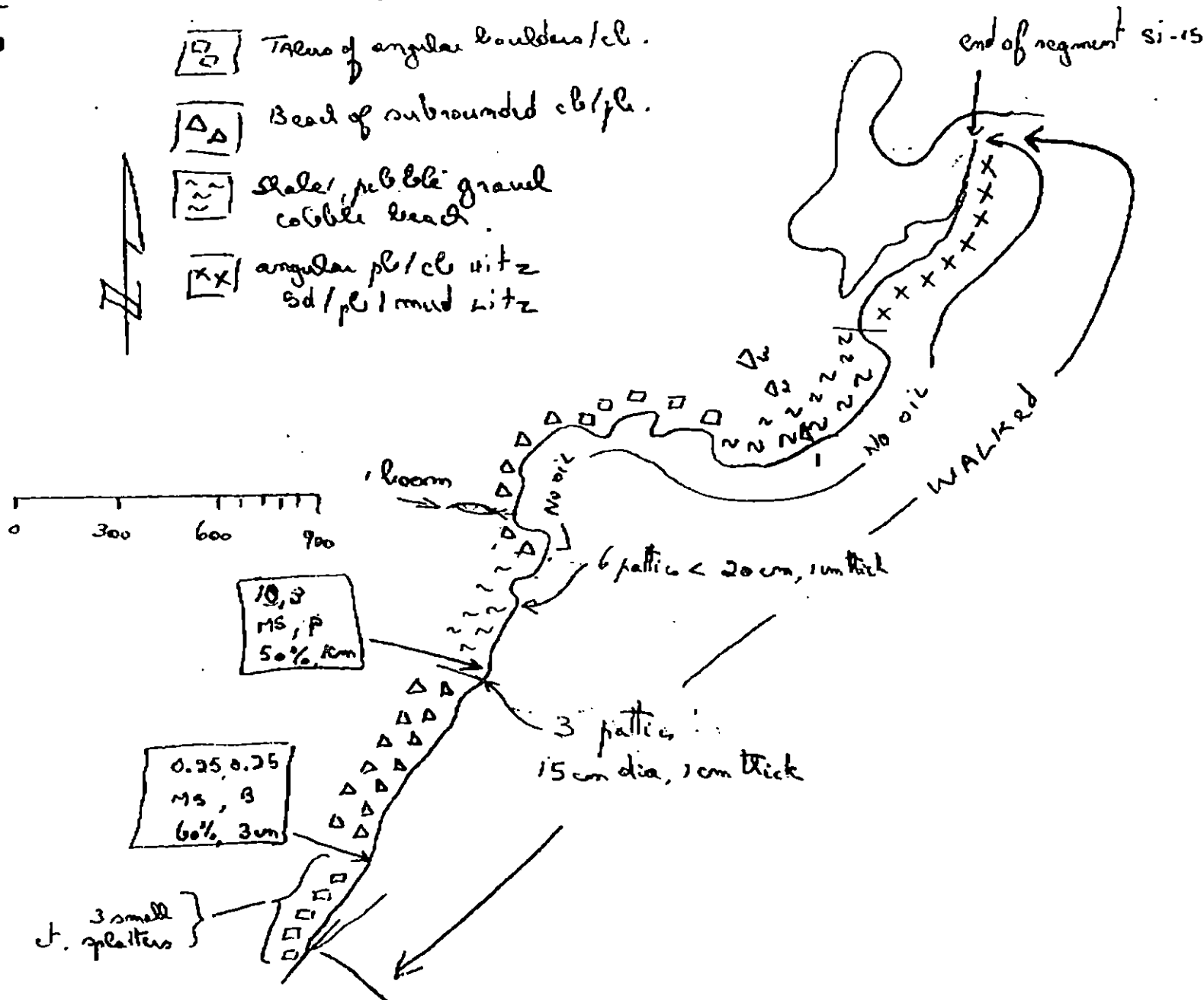
Legend

$\square$ Tails of angular boulders/cl.

Δ Beach of subrounded cb/pl.

$\sim$ Shale, pebbly gravel
 cobble beach

$\times$ angular pl/cl with
 sd/pl/mud litz



Oil Character Length (m): AP ϕ PO ϕ CV ϕ CT ϕ ST ϕ MS 10.25 PT 30 TB ϕ FL ϕ NO 3930

OG John J. Sempell

SEGMENT 102 - Si-15

SUBDIVISION 8

DATE 7/21/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ OS Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HAP/LA/VOL
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ PR Location(s)
- ☐ Photo Location(s)

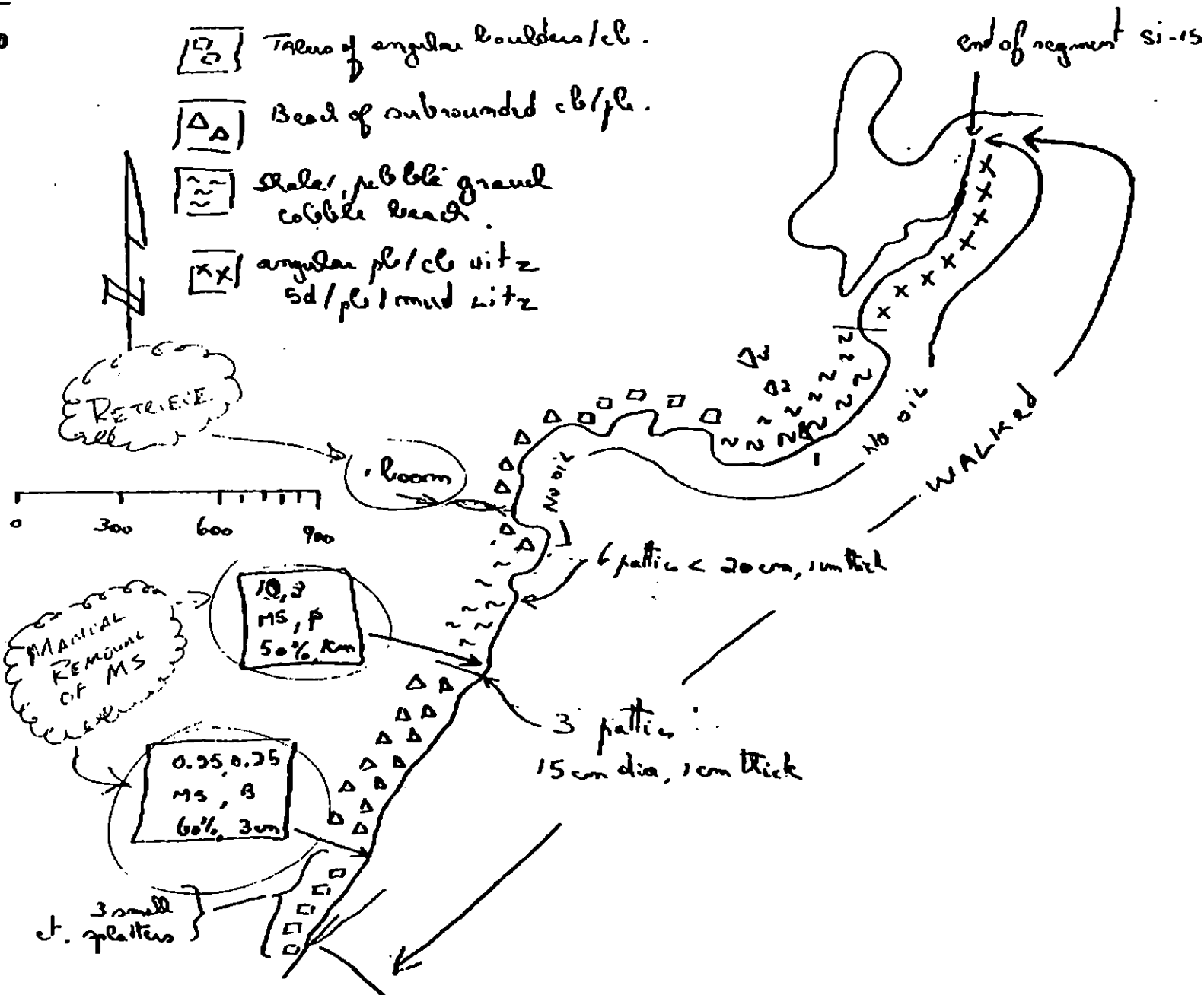
LEGEND

- ☐ 1 Δ
PR - No Subsurface OS
- ☐ 2 Δ
PR - Subsurface OS
- ☐ CT/C
Continuous Distribution
- ☐ CT/B
Broken Distribution
- ☐ CT/P
Patchy Distribution
- ☐ CT/S
Spotted Distribution
- lll
Oiled Vegetation
- ☐ 1 $\Rightarrow$
Photo location, direction, and number

SKETCH MAP

Legend

- ☐ $\square$ Talus of angular boulders/cl.
- ☐ Δ Beach of subrounded cb/pl.
- ☐ $\sim$ Shale, pebbly gravel cobble beach.
- ☐ $\times$ angular pl/cl with sd/pl/mud with



Oil Character Length (m): AP ϕ PO ϕ CV ϕ CT ϕ ST ϕ MS 10.25 FT 30 TB ϕ FL ϕ NO 3930

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K1-2/ST-15 Subdivision B Date (mo / day / yr) 5-20-90(24 hr) 17:30 Biologist David Cohen

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 10 (3) Cobble 20 (4) Pebble 40 (5) Sand 15 (6) Silt 5
- (B) Overall % cover of biota (% of segment): Dense 15 Moderate 30 Low 55
- (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. 1Frames 1

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 page 2

Ecological Considerations:

2 mature bald eagles observed in area. However, no nests were sited in Subdivision

SR
988
900

Shoreline Ecological Summary

Zoh2

Spot ST/KI-2/SI-15 Subdivision B 5-20-90

Biologist: David Lohse

Wildlife Observations/General Comments

present in low intertidal: Alaria, Halosauia, Rhodomela, Tridacn, Ulva, Cladophora, Leptasterias, unknown bryozoa, Scytosiphon
mid intertidal: Ulva, Scytosiphon, Pagurus, coralline algae, sculpin, Endocladia, unknown filamentous red algae (Dasya?), Ralfsia, Tridacn, Cladophora, Rhodomela, Rhodomela, Halosauia, Desmarestia, Gelidium (?), Gloiopeltis, Orchestoidea (under cobble)

1. No bedrock was exposed in low intertidal during ~~some~~ survey.
2. Except for southwest tip of the island (beginning of subdivision) most of subdivision consisted of pebble/cobble beaches with occasional boulder/bedrock headlands. Southwest tip was primarily boulders. Most of the above species listed above were found on boulders and bedrock.
3. One land otter spotted in area.
4. One stream located in subdivision (see ecology map for location). No information available on whether or not it is anadromous. No oil observed.
5. Littorina eggs found in low intertidal on Fuus and underneath high intertidal cobble.
6. Algal cover on low intertidal boulders was high, reaching 100%. In mid-intertidal algal cover on boulders reached ~75%.
7. Skeletal remains of one deer found above high tide line. No oil observed.
8. Mussels, mussel, and Fuus recruitment were all patchy.

Recruitment and Mortality Summary

Segment ST/K1-2/SI-15

Subdivision B

5-20-90

by: David Cohen

Recruitment of barnacles, mussels, and Fuus was patchy

Barnacle mortality in mid intertidal was ~10% on bedrock (2 sites observed), and ~15% on boulders (1 site surveyed). In high intertidal barnacle mortality ranged from 10-75% (2 sites surveyed).

Ecology Map 1 of 1
Resource codes for entire Segment

SR
9BB
900

SI-14

R Stream

Subdivision B

SI-15

Bald eagle
nest

Sea bird
colony

K1

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

KØ1Ø2 - SI-15

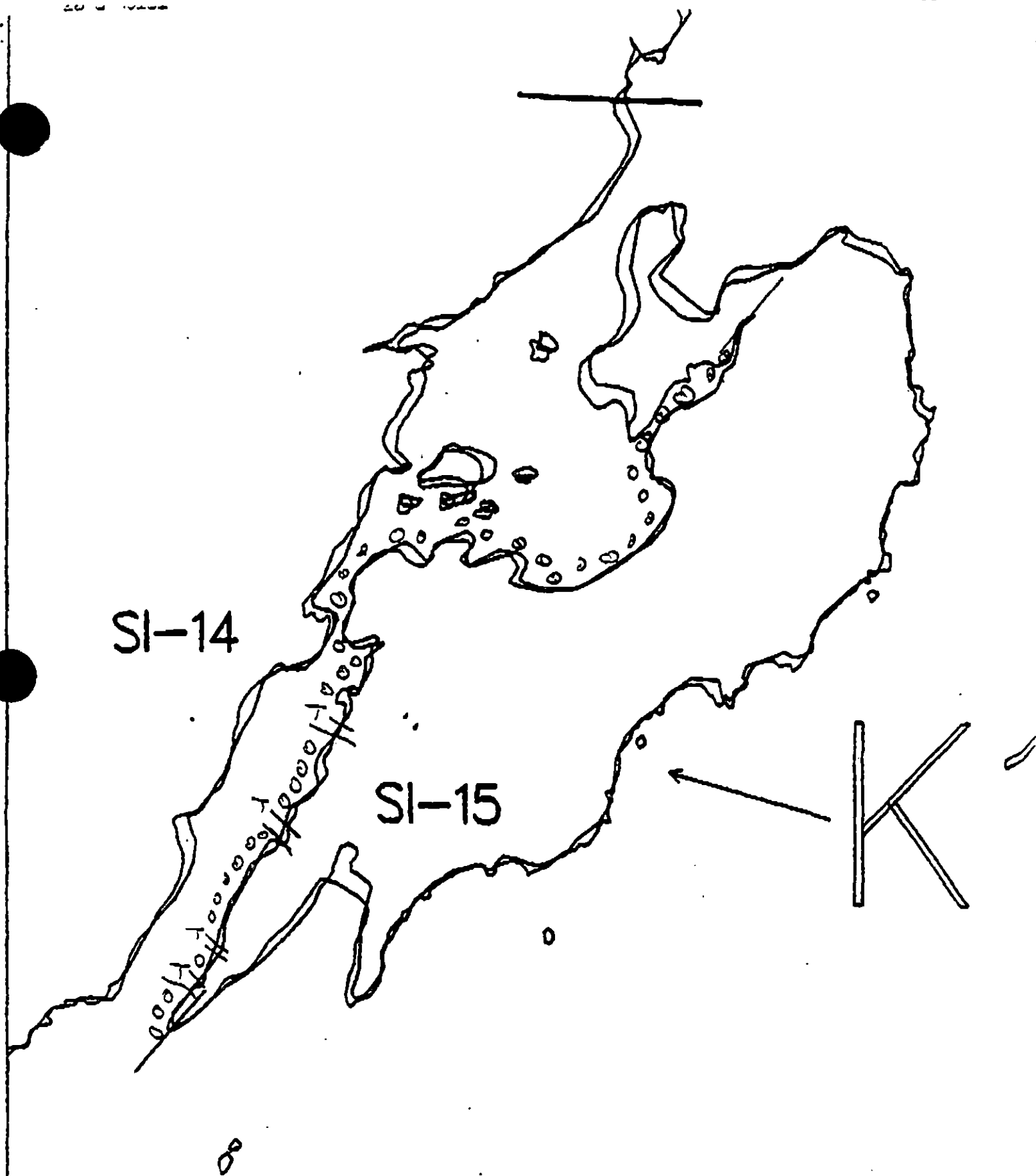
ADEC Segment Length: 13200m

1. ... 1.25 ... 1.5 ... 1.75 ... 2.0 ...

Map Key: K00-173

Name: Samples

Date: _____



XXXX Wide

//// Medium

--- Narrow

KØ1Ø2 - SI-15-B

ADEC Segment Length: 13200m

Map Key: KOD-173

Name: Jean Marie Seng

Date: May 22/90

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION B (2 OF 3) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-2 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Dean Dan

DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V. Light 179 m: No Oil 3724 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend treatment is manual pick up of mousse, and boom as indicated by sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest constraint in adjacent subdivision (A) and ADF&G regarding Sea bird Colony in adjacent Subdivision A.

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art Weiner Art Weiner

EXXON Amel Tan

NOAA John Talbot

USCG G.H. REITER

FOSC: Myk

DATE: 6-8-90

OG Jan 7 Sempul
SEGMENT SK 102 - Si 15

SUBDIVISION B

DATE May 121 90

CHECKLIST

☐ N Arrow
☐ Approx. Scale
☐ Seg/Sub Body
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. HSP/L/VIL
☐ SSL
☐ Profile Location(s)
☐ Profile(s)
☐ Ph 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
Patched Distribution

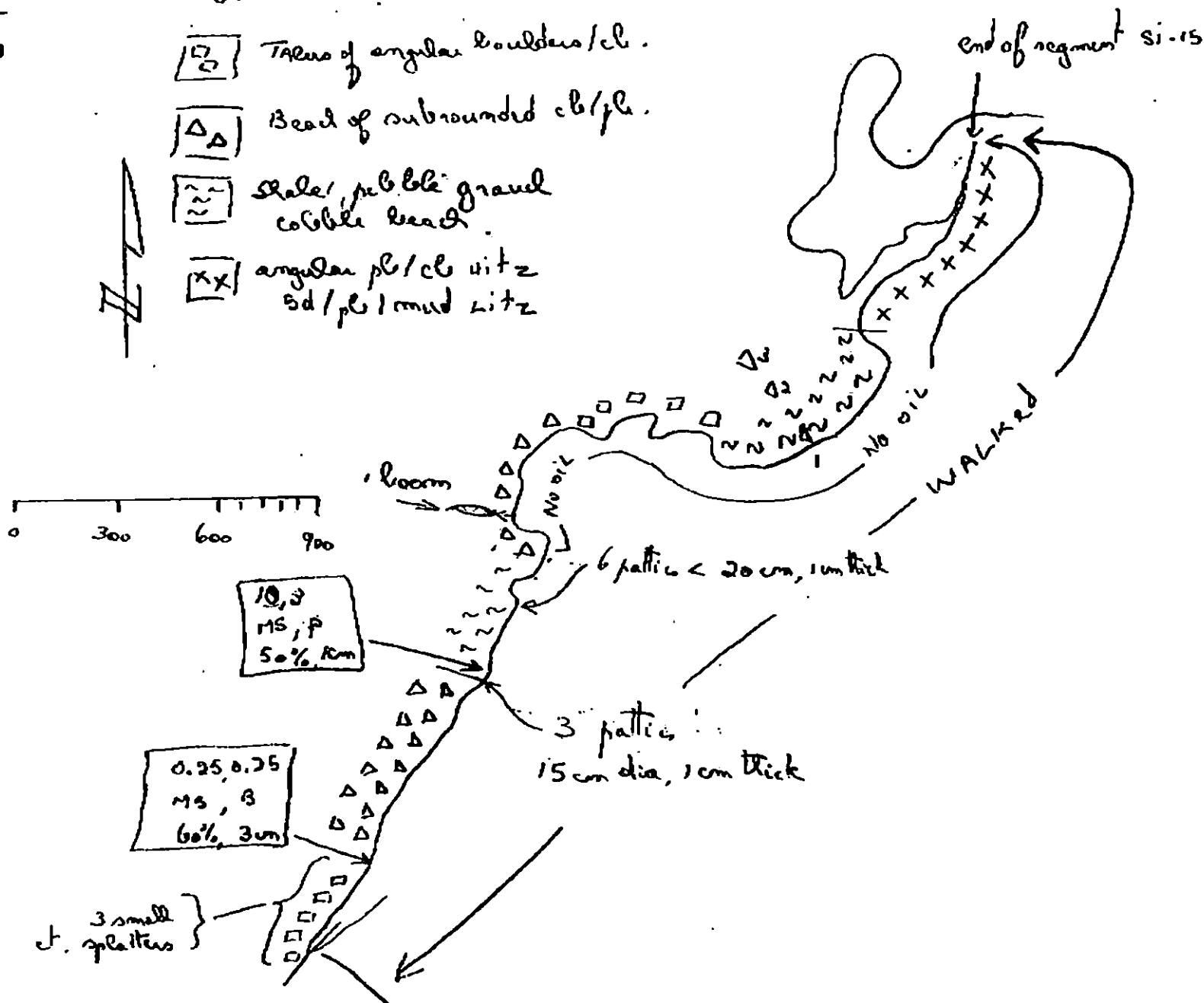
CT/S
Splashed Distribution

Oil Vegetation

1 $\Rightarrow$
Photo location, direction, and number

Legend

$\square$ Talus of angular boulders/cl.
 Δ Bead of subrounded cl/pl.
 $\sim$ Shale, pebble gravel
cobble beach
 $\times$ angular pl/cl with
sd/pl/mud with



Oil Character Length (m): AP ϕ PO ϕ CV ϕ CT ϕ ST ϕ MS 10.25 PT 30 TB ϕ FL ϕ NO 3930

OG Phase 7a: Sample
 SEGMENT STA 102 - Si-15
 SUBDIVISION 8

CP'S SKETCH MAP

Legend

- [□] Talus of angular boulders/cl.
- [ΔΔ] Beach of subrounded cl/pl.
- [~] Shale, pebbles, gravel
cobble beach.
- [x] angular pl/cl with
sd/pl/mud litz

DATE 7/21/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Body
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRR/LWR
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
 PH - No Subsurface Oil

2 Δ
 PH - Subsurface Oil

[CT/C]
 Continuous Distribution

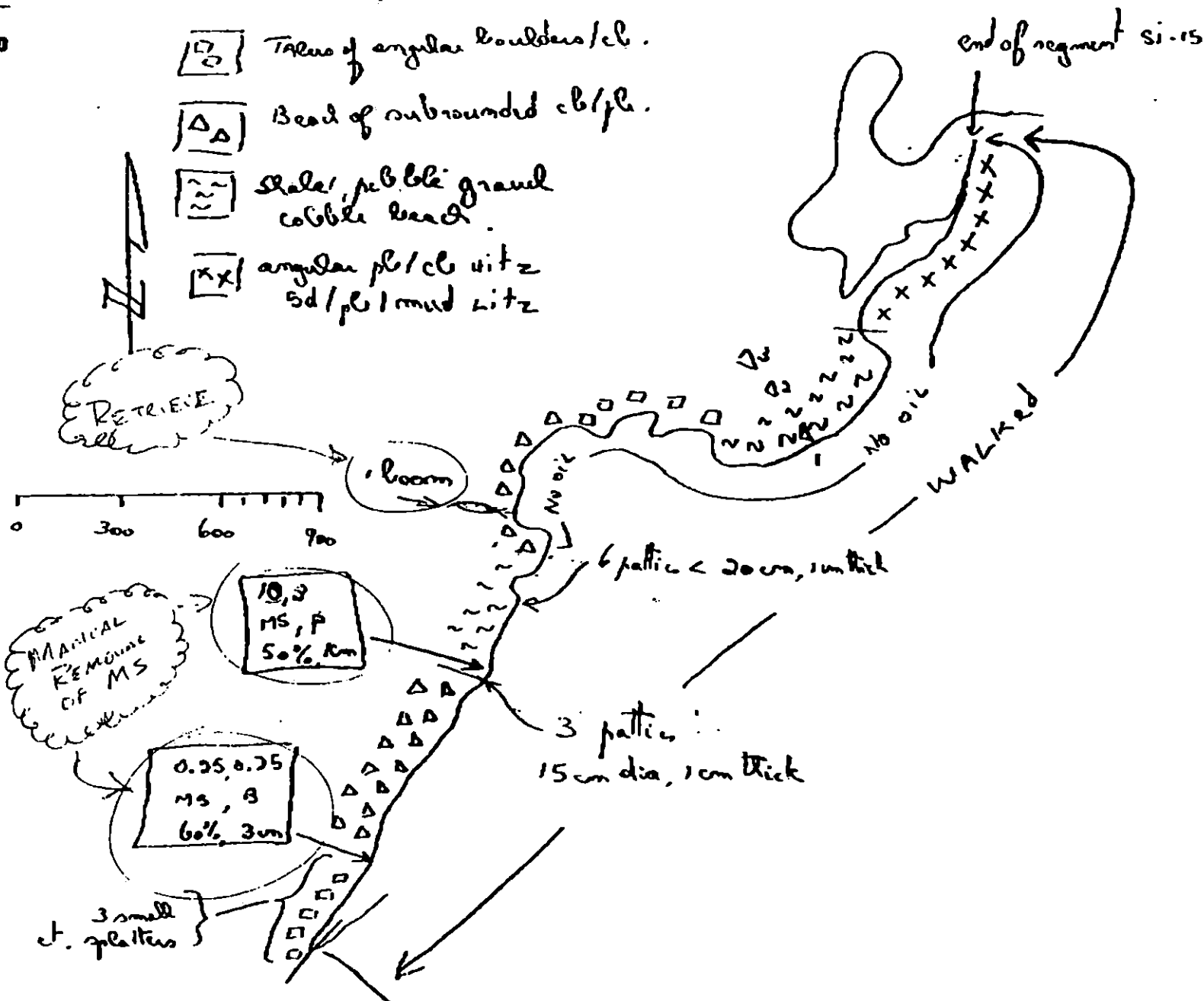
[CT/B]
 Broken Distribution

[CT/P]
 Patchy Distribution

[CT/S]
 Spashed Distribution

lll
 Oiled Vegetation

1 →
 Photo location, direction,
 and number



Oil Character Length (m): AP φ PO φ CV φ CT φ ST φ MS 10.25 PT 30 TB 1 FL 1 NO 3930

Eudogy Map 1 of 1
same codes for entire Segment

ST
SR
9BB
900

SI-14

SI-15

Stream

Subdivision B

Bald eagle
nest

Sea bird
colony

K1

XXXX Wide

//// Medium

--- Narrow

TTTTT

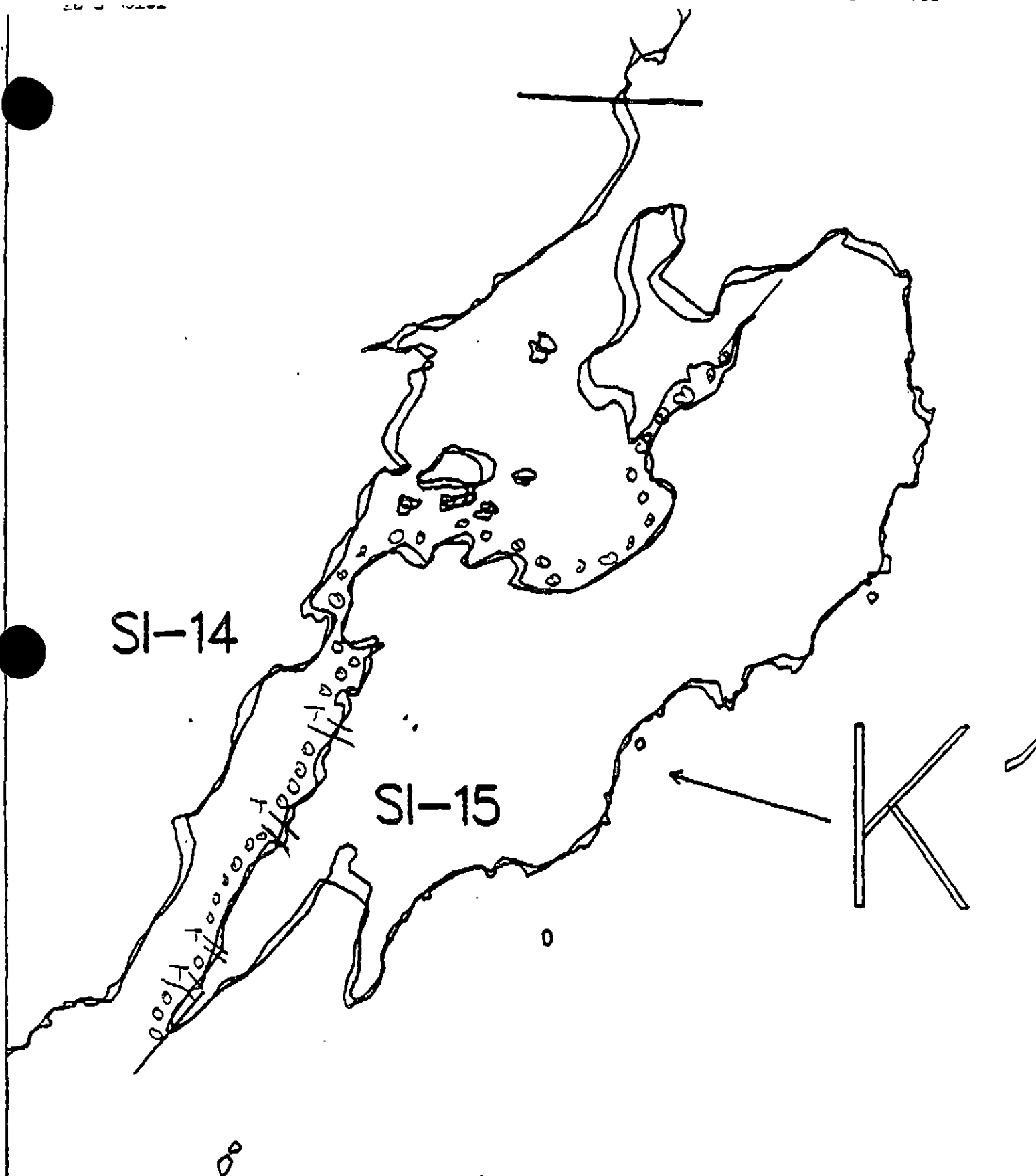
KØ1Ø2 - SI-15

ADEC Segment Length: 13200m

Map Key: K00-173

Name: Samples

Date: _____



XXXX Wide

//// Medium

---- Narrow

K0142 - SI-15-B

ADEC Segment Length: 13200m

Map Key: K00-173

Name: *John M. Sear*

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup More Than 800m From Seabird Colony	CLOSED DUE TO ACCESS PROBLEM
Manual Pickup Less Than 800m From Seabird Colony	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5R	Seabird Colony	Closed to manual pickup less than 800m from seabird colony. No constraint to manual pickup more than 800m from seabird colony, however, access to worksite denied by Mike Lockhart 6/3/90 due to eagle nest and seabird colony buffer zones.
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest.

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest and/or seabird constraint is removed, other ecological considerations will apply.

FOSC

Date

6-16-90

Prepared by

Date

6/15/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW		
Delete	Manual Pickup More Than 800m From Seabird Colony	CLOSED DUE TO ACCESS PROBLEM
	Manual Pickup Less Than 800m From Seabird Colony	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|-----------------|--|
| 5R | Seabird Colony | Closed to manual pickup less than 800m from seabird colony. No constraint to manual pickup more than 800m from seabird colony, however, access to worksite denied by Mike Lockhart 6/3/90 due to eagle nest and seabird colony buffer zones. |
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest. |

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

CW (eagle and/or seabird colony)

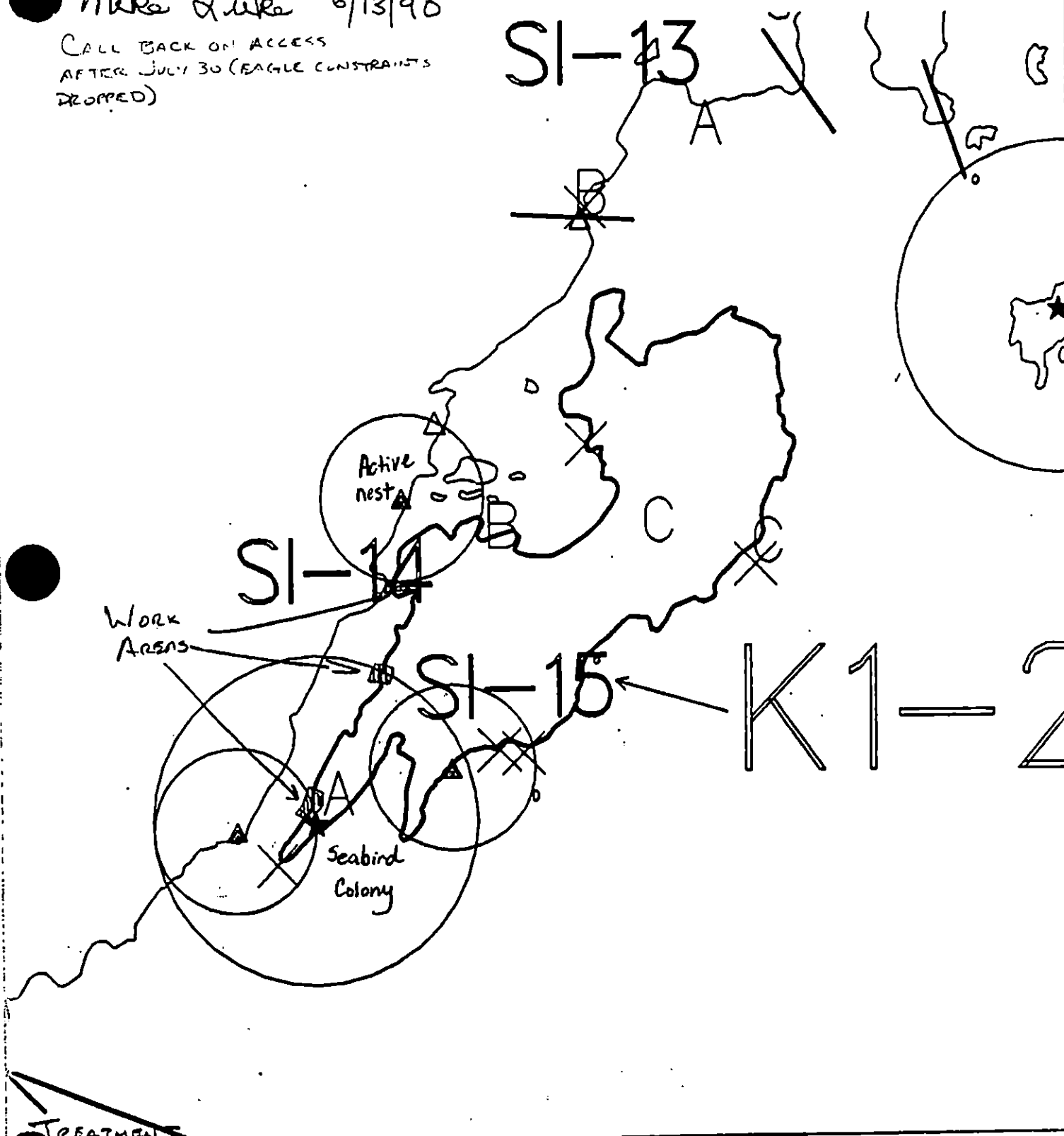
FOSC _____ Date _____

Prepared by _____ Date _____

Access denied

Mike Luke 6/13/90

CALL BACK ON ACCESS
AFTER JULY 30 (EAGLE CONSTRAINTS
DROPPED)



TREATMENT



Exxon Company, USA
Map Key: KOD-SI-15

ECOLOGY MAP
SEGMENT K1-2 SI-15
SUBDIVISION B (2 of 5)
METERS

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

1 inch = 2232 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION B (2 OF 3) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-2 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Don Dan DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 179 m: No Oil 3724 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend treatment is manual pick up of mousse, and boom as indicated by sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest constraint in adjacent subdivision (A) and ADF&G regarding Sea bird Colony in adjacent Subdivision A.

SHPO Constraints Appendix dated 6/15/90 JB

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90
ADEC Art Weiner Art Weiner
EXXON Andy Tan
NOAA John Kulbicki
USCG G.A. Reiter

FOSC: Myk DATE: 6-8-90

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW	
Manual Pickup More Than 800m From Seabird Colony	CLOSED (ACCESS DENIED)
More Than 400m From Eagle Nest	OPEN
Manual Pickup Less Than 800m From Seabird Colony	CLOSED
Less Than 400m From Eagle Nest	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|-----------------|---|
| 5R | Seabird Colony | Closed to manual pickup less than 800m from seabird colony. No constraint to manual pickup more than 800m from seabird colony, however, access to worksite denied by Mike Lockhart 6/3/90 due to seabird colony buffer zones. |
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest. Follow established USFWS transit route through Eagle Nest buffer zone as described on attached map. |

OTHER ECOLOGICAL CONSIDERATIONS

If eagle nest and/or seabird constraint is removed, other ecological considerations will apply.

FOSC W. L. Date 6-20-90

Prepared by P. Phillips Date 6/20/90

SI-13

Access Route
with small skiff
only.

Site SI-15

SI-14

OK to work in this
area, but no access
within buffer zone

OK to work just
inside buffer

Only these
two sites can
be worked without a monitor

SI-15

K1-2

Access denied
at this time
because of
seabird colony
constraints.

Mike Luke 6/14/90

Mike Luke (acc. Rb.) 6/19/90



Exxon Company, USA

ECOLOGY MAP
SEGMENT K1-2 SI-15
SUBDIVISION --- (--- of ---)

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

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION B (2 OF 3) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Seabird colony (5/1 to 9/1) in Subdivision A
ST-2 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachdon DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 179 m: No Oil 3724 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend treatment is manual pick up of mousse, and boom as indicated by sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest constraint in adjacent subdivision (A) and ADF&G regarding Sea bird Colony in adjacent Subdivision A.

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC Art Weimer Art Weimer

EXXON Andy

NOAA John

USCG G. A. BAKER

FOSC: Myk

DATE: 6-8-90

SEE COMMENTS ADDENDUM dated 6/15/90 JB

SEE REVISION 1, ADDENDUM dated 6/20/90

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-02-SI-015 SUBDIVISION B (2 of 3)

WORK WINDOW	
Manual Pickup More Than 800m From Seabird And More Than 400m From Active Nest	OPEN
Manual Pickup Less Than 800m From Seabird Colony	CLOSED*
Manual Pickup Less Than 400m From Active Nest	CLOSED

*With exception of area approved for treatment by Mike Luke, USFWS on 6/14/90 (see Map)

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|-----------------|---|
| 5R | Seabird Colony | Closed to manual pickup less than 800m from seabird colony unless otherwise specified by Mike Luke, USFWS on 6/14/90 (see map). No constraint to manual pickup more than 800m from seabird colony. |
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest. No constraint to manual pickup more than 400m from active nest. Follow established USFWS transit route through Eagle Nest buffer zone as described on attached map by Mike Luke, 6/18/90. |

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

FOSC

D. D. Rome

Date

6/24/90

Prepared by

J. Phillips

Date

6/22/90

SI-13

Access Route
with small skiff
only.

Site SI-15

SI-14

SI-15

K1-2

OK to work in this
area, but no access
within buffer zone

OK to work just
inside buffer

Only these
two sites can
be worked without a monitor

Access denied
at this time
because of
seabird colony
constraints.

Mike Luke 6/14/90

Mike Luke (access reb.) 6/19/90



Exxon Company, USA

ECOLOGY MAP
SEGMENT K1-2 SI-15
SUBDIVISION B (2.1-3)

- ★ Seabird Colony
- ▲ Active Eagle Nest
- △

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION B (2 OF 3) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

- Seabird colony (5/1 to 9/1) in Subdivision A
- ST-2 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
- Active Bald Eagle nests (3/1 to 9/1)
- 900 Archaeological Site Registered in Segment
- 4GG State Marine Park Alaska State Parks
- 9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Rachel Don Dan DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 179 m: No Oil 3724 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 Removal | <u> </u> Beach Cleaner |
| | <u> </u> Other (see comments) |

COMMENTS: Recommend treatment is manual pick up of mousse, and boom as indicated by sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest constraint in adjacent subdivision (A) and ADF&G regarding Sea bird Colony in adjacent Subdivision A.

SEE CONSTRAINTS ADDENDUM DATED 6/15/90

TAG COMMENTS:

SEE CONSTRAINTS ADDENDUM DATED 6/22/90

TAG APPROVAL DATE: 5/31/90

DEC Art Weirich
EXON Art Weirich
OAA John Tuboll
USCG G.A. BEITER

FOSC: Myk DATE: 6-8-90

REGION: KODIAK

SEGMENT: ST/K01-02-SI-015

SUBDIVISION: C (3 of 3)

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION C (3 OF 3) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-4 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 105 m: No Oil 5217 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: _____ Wands
☐ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled 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 Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 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. 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
- 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
- SS 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 (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 (6/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 / K-102-S1-15 SUBDIVISION: C DATE May 21/90

USCG

NAME L.D. Haven Jr. GM3/USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NTR

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

this segment contains very little recoverable mousse in the form of patties between cobbles located in an area ~50 meters long near the NW end of the Island (see sketch map).
No treatment recommended.

LAND MANAGER

NAME Mike Quinn / ADNR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision was observed to have very small amounts of oil in the form of an occasional mousse patty and a few splatters of coat. None of this minor amount of oil is recommended for treatment. However, an anchor chain, 15M long, located approximately at the NE tip of Big Ft. Island (see obj. map) used to anchor boom is suggested for

SHORELINE OILING SUMMARY

CG 1st Smp. Op USCG Don Haven SEGMENT ST/ K100 S115
 BIO Don Haven LAND REP M. K. O'Sullivan SUBDIVISION 6 OF 1
 EXXON — ADEC — TIME 5:45 to 20:30
 TEAM NO. 19 TIDE LEVEL 6.6' S. 5' DATE May 12 / 90
 EST. SUBDIVISION LENGTH: 5940 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: — to —
 SURFACE SEDIMENTS: R 60 % B 20 % C 10 % P 10 % G 5 % S — % M 5 % V — %
 SLOPE: Long 40 % Hang — % Vert 60 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W — m M — m N — m VL 60 m NO 5880 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	R	B	P	S	SL	SP	BP	BL	TL	UL	—	—	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X		X							X			
STAIN																
MOUSSE			X			X							X			
PATTIES			X			X							X			
TARBALLS																
FILM																
NO OIL													X		X	X

PAVEMENT H F S NO sq. m by — cm

PATTIES / TARBALLS 20 BAGS

NEAR SHORE SHEENT NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
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 (cm)	BELOW		OIL / FILM COLOR								PIT ZONE	A N A	SHEEN (Y/N)	!	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UG	UG	SL	SP	BP	BL	TL	UL	—	—					
1	20					X	0-0		X									X				Pb/c
2	25					X	0-0		X										X			Pb/c
3	30					X	0-0		X										X			Pb/c

COMMENTS

REVIEWED BAT DATE 24 MAY 90

K-102-SI-15-C, Big Fort Island. May 21, 1990

Subdivision C of segment K-102-SI-15 makes up the northern and eastern coast of Big Fort Island located nearshore southeastern Shuyak Island. Except for its northwestern extremity, this 5.94 km subdivision is exposed to a large fetch as it faces the Gulf of Alaska. The subdivision was walked on May 21, 1990, between 1545h and 2030h and corresponding 6.0' and 5.0' tidal levels. In a clockwise direction starting at its northwestern extremity, the subdivision begins with the north shore of a narrow, deep and shallow embayment. This section of shoreline is composed of angular pebbles and cobbles in the upper intertidal zone and sand/mud/pebbles in the lower intertidal zone and no oil was found in this area.

Going around the entrance of the bay, the shoreline changes to shaly pebble and gravel in the lower intertidal zone and angular pebble/cobble in the upper intertidal zone. One 5 cm patty was found around the entrance of the bay, and a 50 m long by 2 m wide area with 5% cover of patchy mousse was found near the northern part of this beach.

A short section of bedrock cliffs with a very small pocket beach of pebble forms the tip of the next headland before leading to a large cove with a beach of well rounded pebble/sand/cobble. One 5 cm mousse patty was found near the eastern extremity of the beach.

The remaining part of this subdivision consists of steep bedrock cliffs alternating with sections of bedrock ramps with some cobble/boulder/pebble. Walking had to be done over the sections of cliffs before being able to climb down to verify pocket beaches. Only a few splatters and one partly oiled piece of driftwood were found throughout this last area.

EGMENT ST/ Si-15
 UBDIVISION C

ATEY May 121 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Bdry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/V/L
- ☐ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PT Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ
 II - No Subsurface Oil

2 Δ
 II - Subsurface Oil

CT/C
 continuous Distribution

CT/B
 broken Distribution

CT/P
 rocky Distribution

CT/S
 washed Distribution

lll
 Red Vegetation

1 $\Rightarrow$
 note location, direction,
 rd number

0 50 100

Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 50 PT 10 TB 0 FL 0 NO 5880

SKETCH MAP

50, 2
 ms, p
 5%, 1cm

1 patty 5cm
 dia

Location
 of chain

Legend

[x x] angular pb/cb in witz
 sd/pb in witz

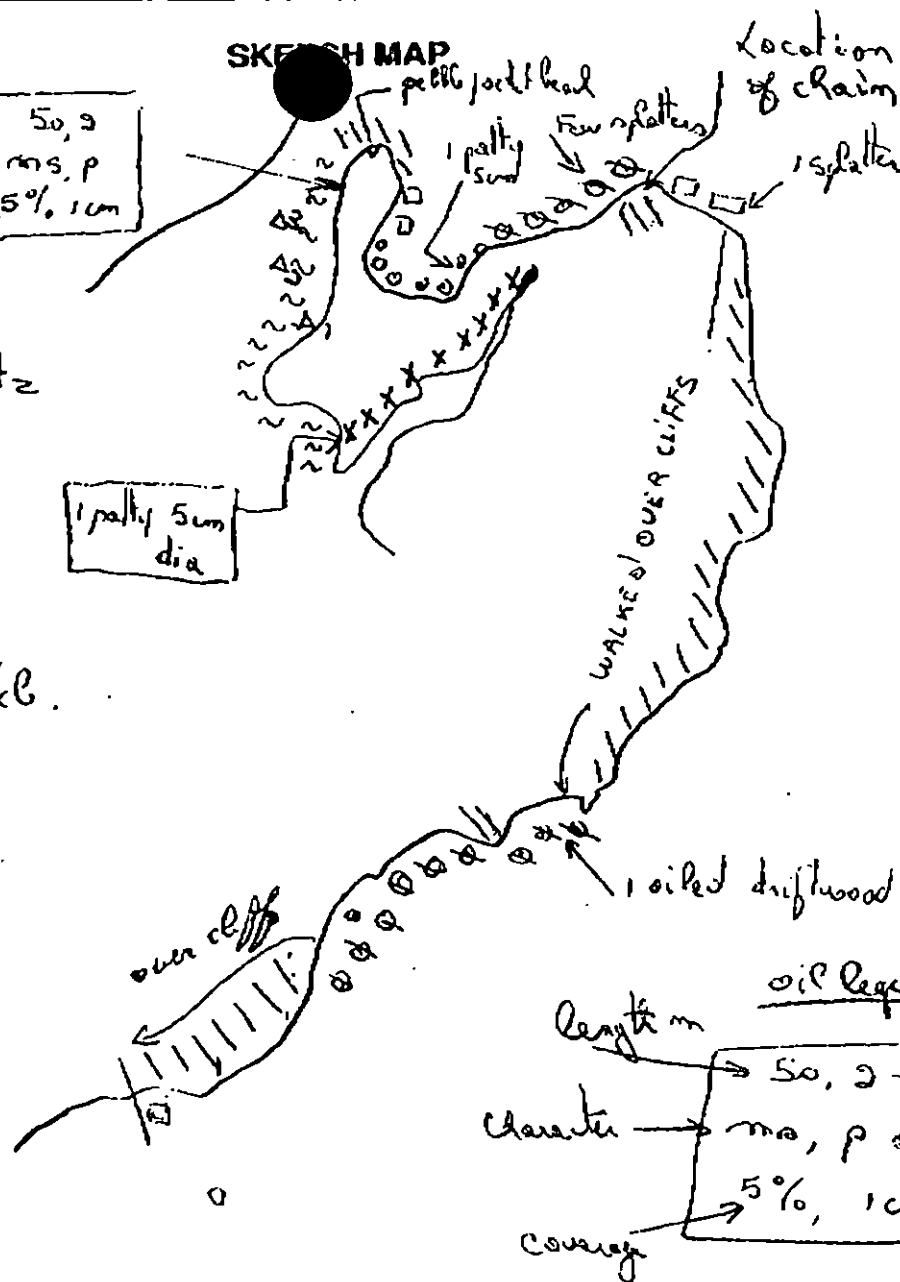
[~] shale pb/cb/cb
 beach

[//] cliffs

[u] Talus, angular bd/cb.

[oo] pebble beach

[e] cb/bd on bedrock
 ramp.



oil legend

length m
 width m
 character
 distribution
 coverage
 pictogram

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/KI-2/ST-15 Subdivision C Date (mo / day / yr) 5-21-90

Time (24 hr) 16:00 Biologist David Cohen

- (A) Substrate type and % of segments:
 (1) Bedrock (2) Boulder (3) Cobble (4) Pebble (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 50 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-19-100

Frames 1-6

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 page 2.

Ecological Considerations:

2 immature and 1 mature bald eagle spotted in area. However, no nests were ~~observed~~ observed in this subdivision.

SR-

900

Shoreline Ecological Summary

2 of 2

Segment ST/K1-2/SI-15

Subdivision C

5-21-90

Biologist: David Lohse

Wildlife Observations / General Comments

present in low intertidal: coralline algae, Alaria, Kathrina tunicata, Epiactus, Rhodometia, Haloscion, Desmarestia, Rhodomenia, unknown yellow sponge

mid-intertidal: Rhodometia, Endocladia, Gloiopeltis, Nuxella, Kathrina tunicata, Desmarestia, Epiactus, Anthopleura, Rhodomenia, Haloscion, coralline algae, Pagurus, sculpins, unknown yellow sponge, Ralfsia

high intertidal: Ulva, Ectocarpus, Ralfsia

2. One land otter, 1 sea otter, 3 porpoises, 2 plovers, 1 raven, 3 cormorants, and a flock of ~35 Vancouver geese spotted in area

3. Northern portion of island primarily consisted of pebble/cobble beaches with occasional boulder/bedrock headlands. Eastern side of island was primarily bedrock and boulders. ~~Most~~ Almost all of the additional species listed above were found on the boulders and bedrock.

4. Possible gull nest found on small, offshore island (see ecology map).

5. Littorina egg masses found underneath mid-intertidal cobble and on mid-intertidal bedrock

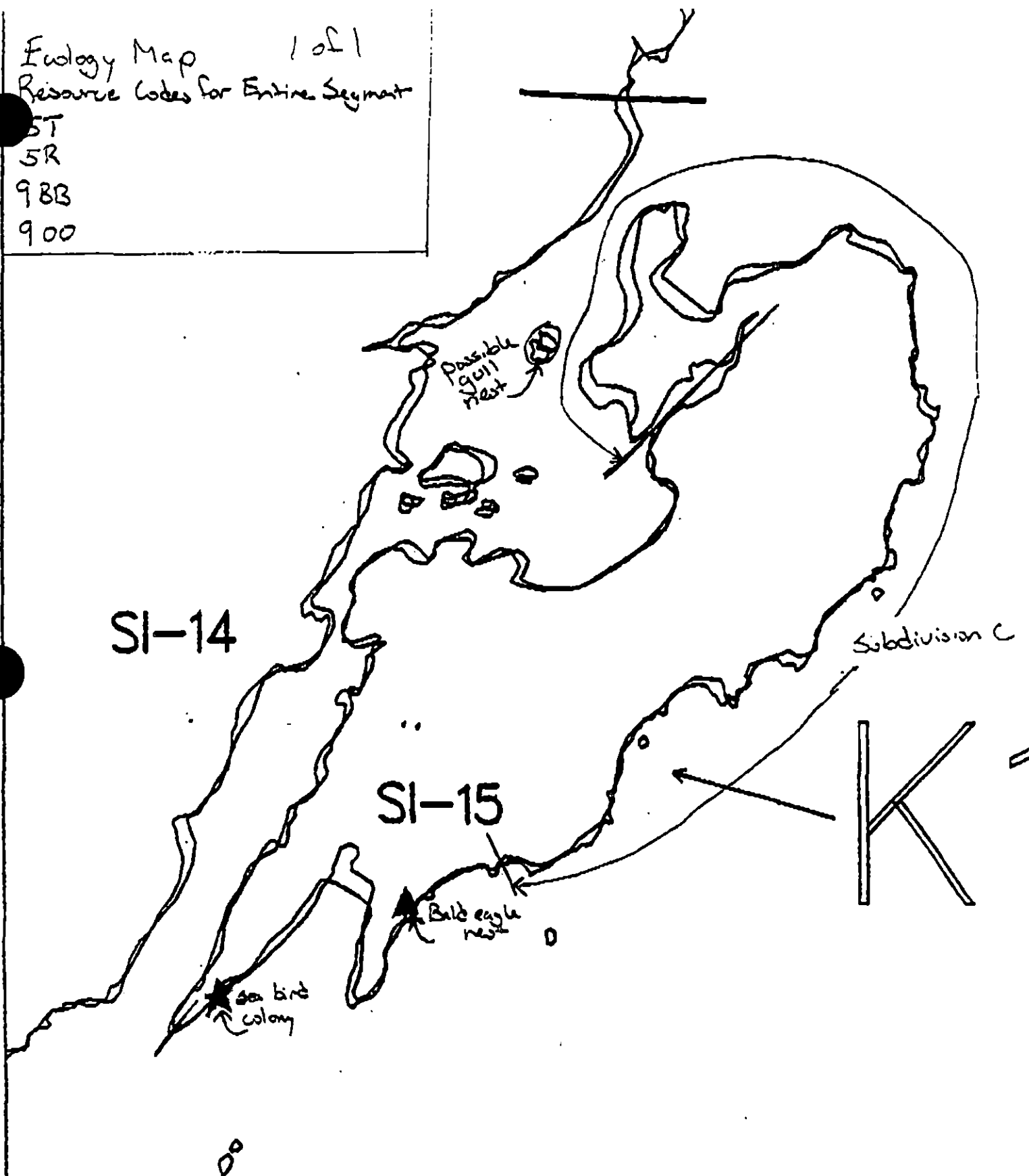
6. Algal cover on low intertidal boulders reached 75%.

7. Rhodometia was ~~very~~ abundant on mid-intertidal bedrock. In some areas it reached 30% cover.

8. Barnacle and Fucus recruitment were patchy.

Ecology Map 1 of 1
Resource Codes for Entire Segment

ST
SR
98B
900



XXXX Wide
//// Medium
--- Narrow

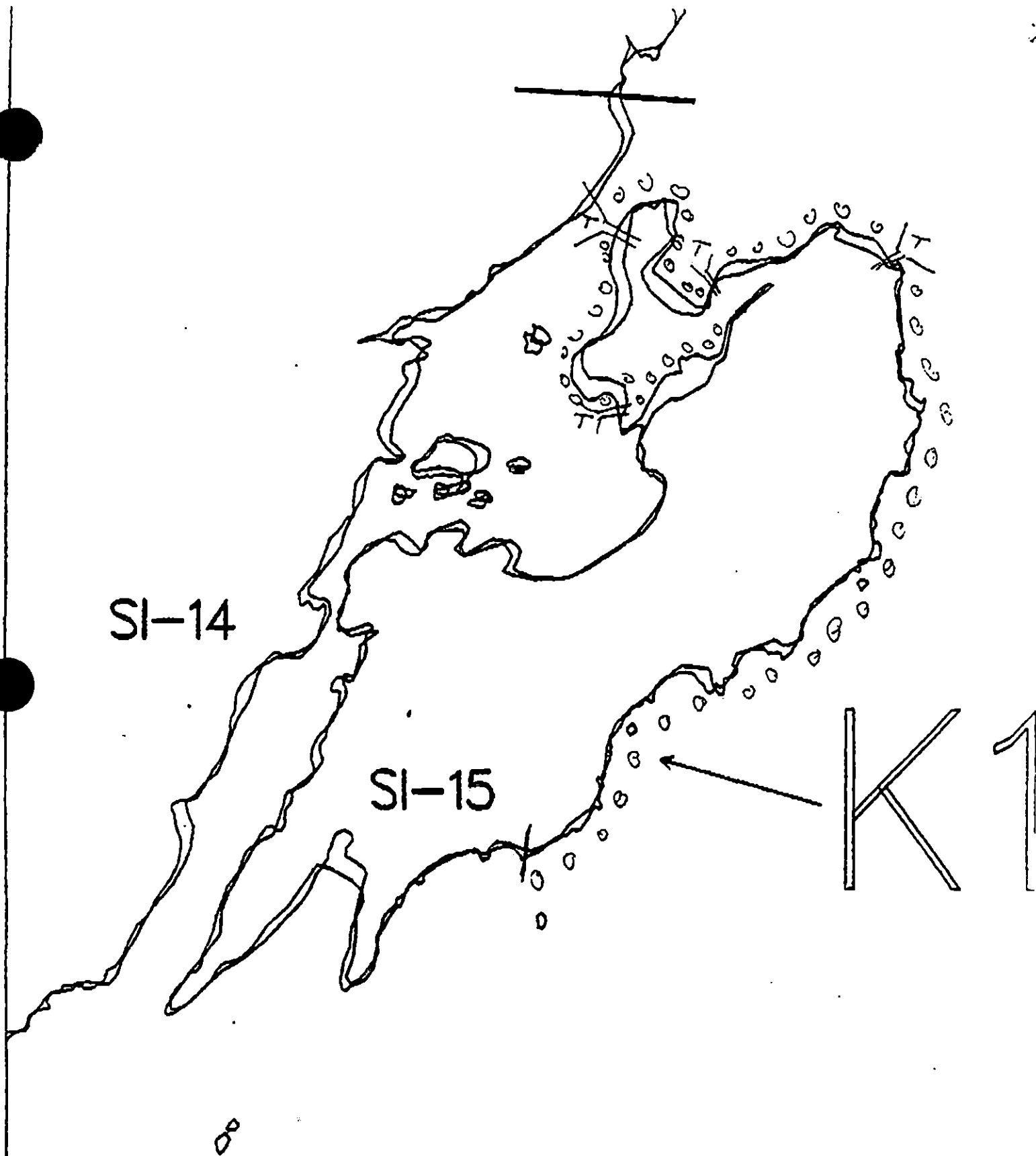
SI-15

ADEC Segment Length: 13200m

Map Key: KOD-173

Name: _____

DATE: _____



XXXX Wide

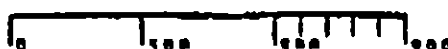
//// Medium

--- Narrow

TTTT Very Light

K0102-SI-15 C

ADEC Segment Length: 13200m



Map Key: K00-173

Name: K102-SI-15-C

Date: May 22/90

SHORELINE EVALUATION

SEGMENT ST/ K01-02-SI-015 SUBDIVISION C (3 OF 3) DATE 5/21/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1) in Subdivision A
5T-4 All Bald Eagle nests (3/1 to 6/1) in Subdivision A
Active Bald Eagle nests (3/1 to 9/1)
900 Archaeological Site Registered in Segment
4GG State Marine Park Alaska State Parks
9BB Privately developed lands
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Jean Dale DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 105 m: No Oil 5217 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90
ADEC Art Weimer
EXXON Amy Lee
NOAA Joseph Talbot
USCG G.A. Reiter
FOSC: W L DATE: 6-8-90

IT ST/ K/02-15

SION C

1/21/90

LIST

Scale
to Body

the Character
M.A.W.

Location(s)

ation(s)

Location(s)

R

surface Oil

face Oil

Distribution

tribution

tribution

tribution

tribution

on, direction,

Legend!

[x x] angular pb/cb in witz
sd/pb in LITZ

[~ ~] shale pb/cb/cb
beach

[//] cliffs

[□ □] Talus, angular cb/cb.

[○ ○] pebble beach

[□ □] cb/cb on bedrock
ramp.



SKETCH

50, 2
ms, p
5%, 1cm

1 patty 5cm
dia



oil legend

length m	50, 2	width m
character	ms, p	distribution
coverage	5%, 1cm	thickness

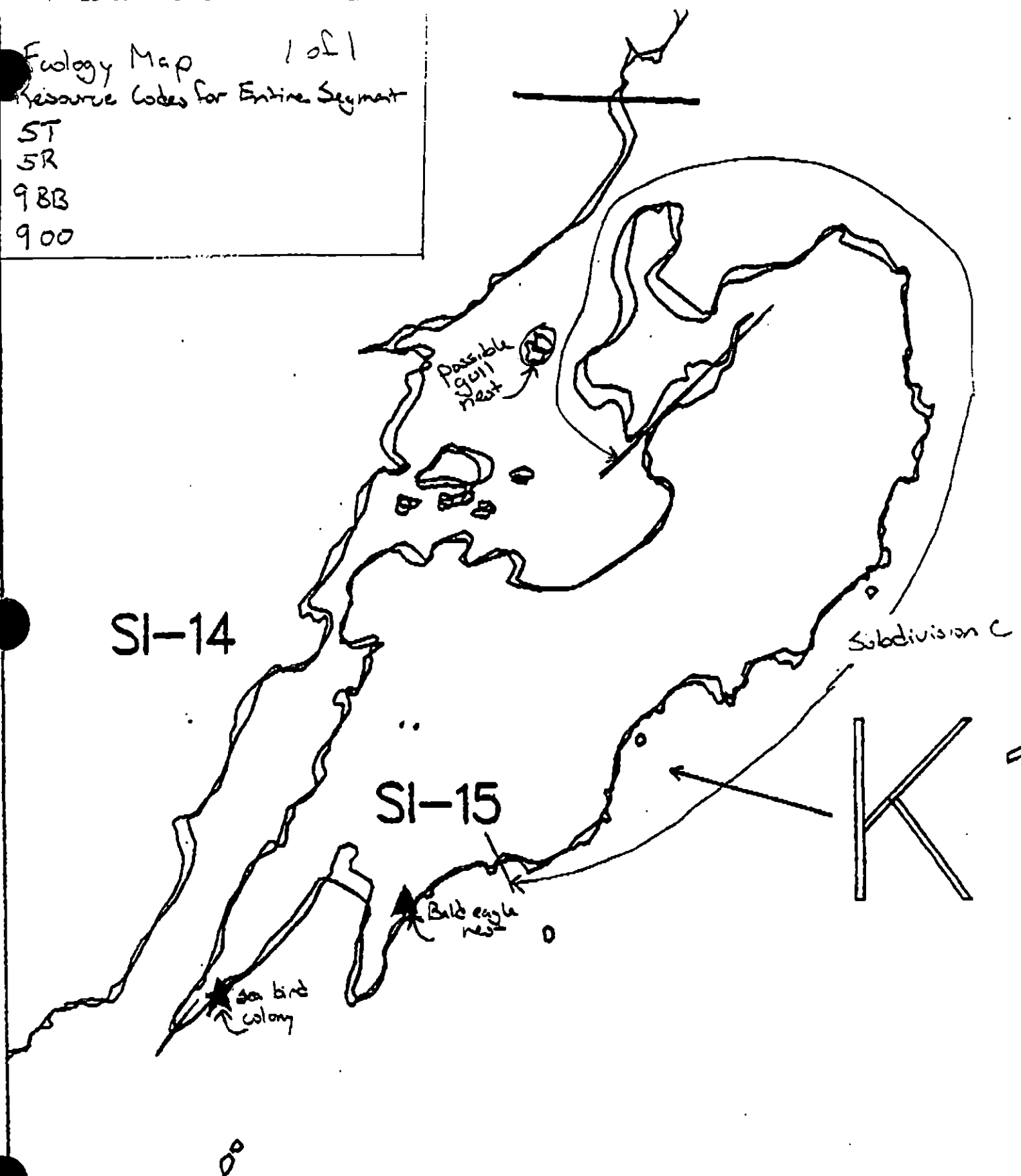
0 500 600 700

or Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 50 PT 10 TB 0 FL 0 NO 5000

REVISION 21/2498

Ecology Map 1 of 1
Resource Codes for Entire Segment

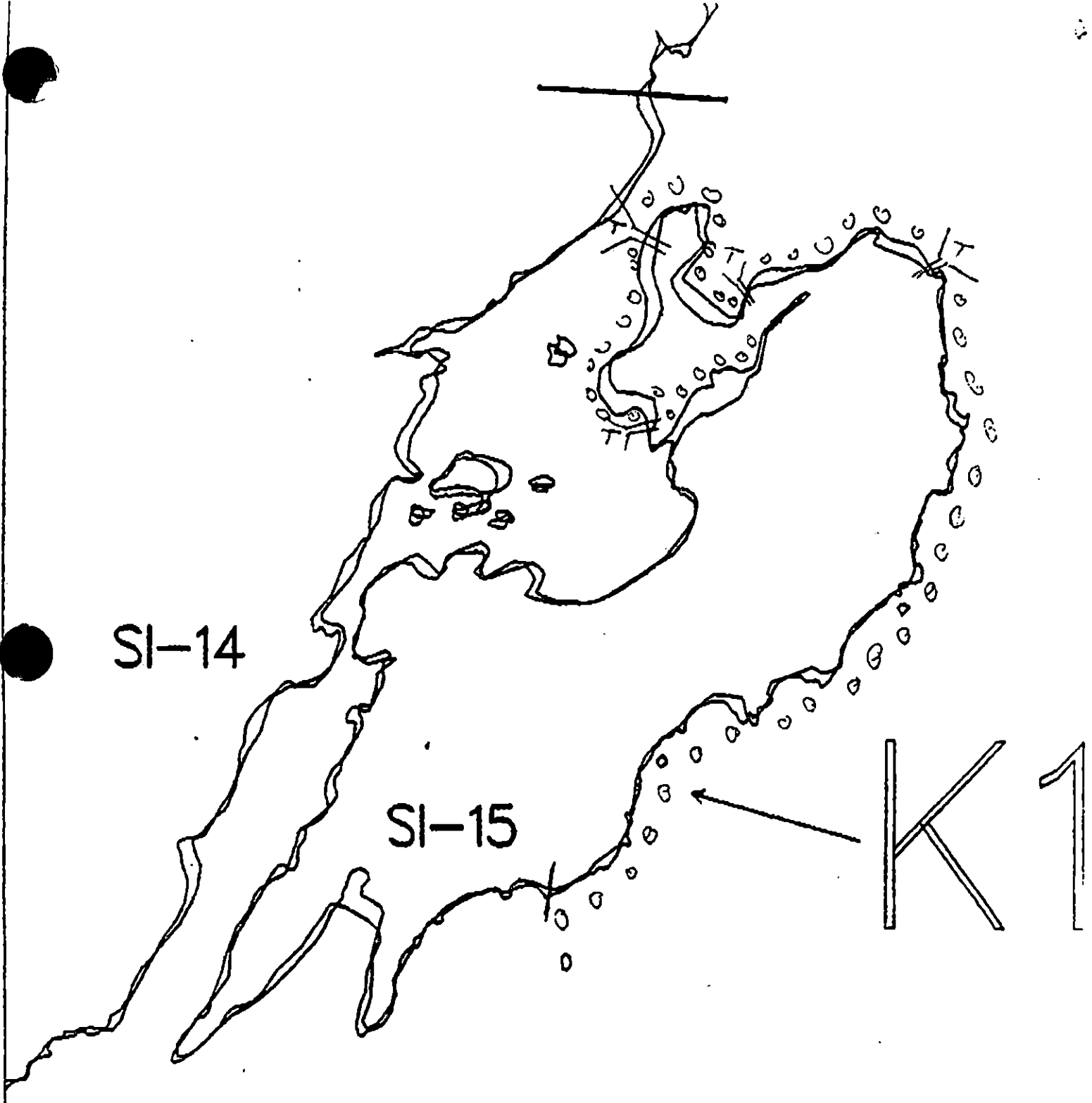
ST
SR
98B
900



XXXX Wide
//// Medium

SI-15

Map Key: KOD-173



XXXX Wide
 /// Medium
 --- Narrow

K0102-SI-15 C

ADEC Segment Length: 13200m

Map Key: K00-173

Name: K102-SI-15-1

REGION: KODIAK

SEGMENT: ST/K01-03-SS-002

SUBDIVISIONS: A (1 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION A (1 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

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

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 186 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0103/5502 SUBDIVISION: A DATE 4-3-90

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. Apparently the oil missed impacting the shoreline of the mouth of the bay, instead funneling inside the bay and impacting primarily the western side.

ADEC NAME SCOTT Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

No oil observed - High energy shore-based rock beaches. Impact locations found more inside Shuqyk Harbor N/West Shorelines.

LAND MANAGER

NAME _____ SIGNATURE _____

☐ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS

No Comments Available

SHORELINE OILING SUMMARY

REVISION NO. 03/22/98

OG Perland No. 44 Naughton SEGMENT ST/ K0133/33002
 BIO Spight LAND REP Burton ADNR SUBDIVISION A (1/3)
 EXXON Exxon ADEC Shelton TIME 16:11:10 19 90
 TEAM NO.: 19 TIDE LEVEL: +2 ft. to +4 ft. DATE 4/5/90
 EST. SUBDIVISION LENGTH: 275 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 50 % B 40 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 275 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IP	IS	1	2	3	4	5	6	7	8	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT: H F S 0 sq. m by 0 crPATTIES / TARBALLS 0 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. 19-4Frames -

SUBSURFACE OIL No Pits Dug

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	UC	1	2	3	4	5	6	7	8	SU	U	M	U		
0							.																
							.																
							.																
							.																
							.																
							.																
							.																

COMMENTS

• No oil observed, helicopter flyby, area is exposed and is relatively a higher energy environment than the interior harbor.

• No pits dug due to bedrock

SEGMENT TI/KO123/SS002

SUBDIVISION A

DATE 4/25/90

CHECKLIST

- ☒ A/L Area
- ☒ Approx. Scale
- ☒ Slope/Soil Erosion
- ☒ OA Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ E.L. HML/LML
- ☒ SS/L
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ P/L Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

PI - No Substrate OA

2 Δ

PI - Substrate OA

CT/C

Confiscated Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

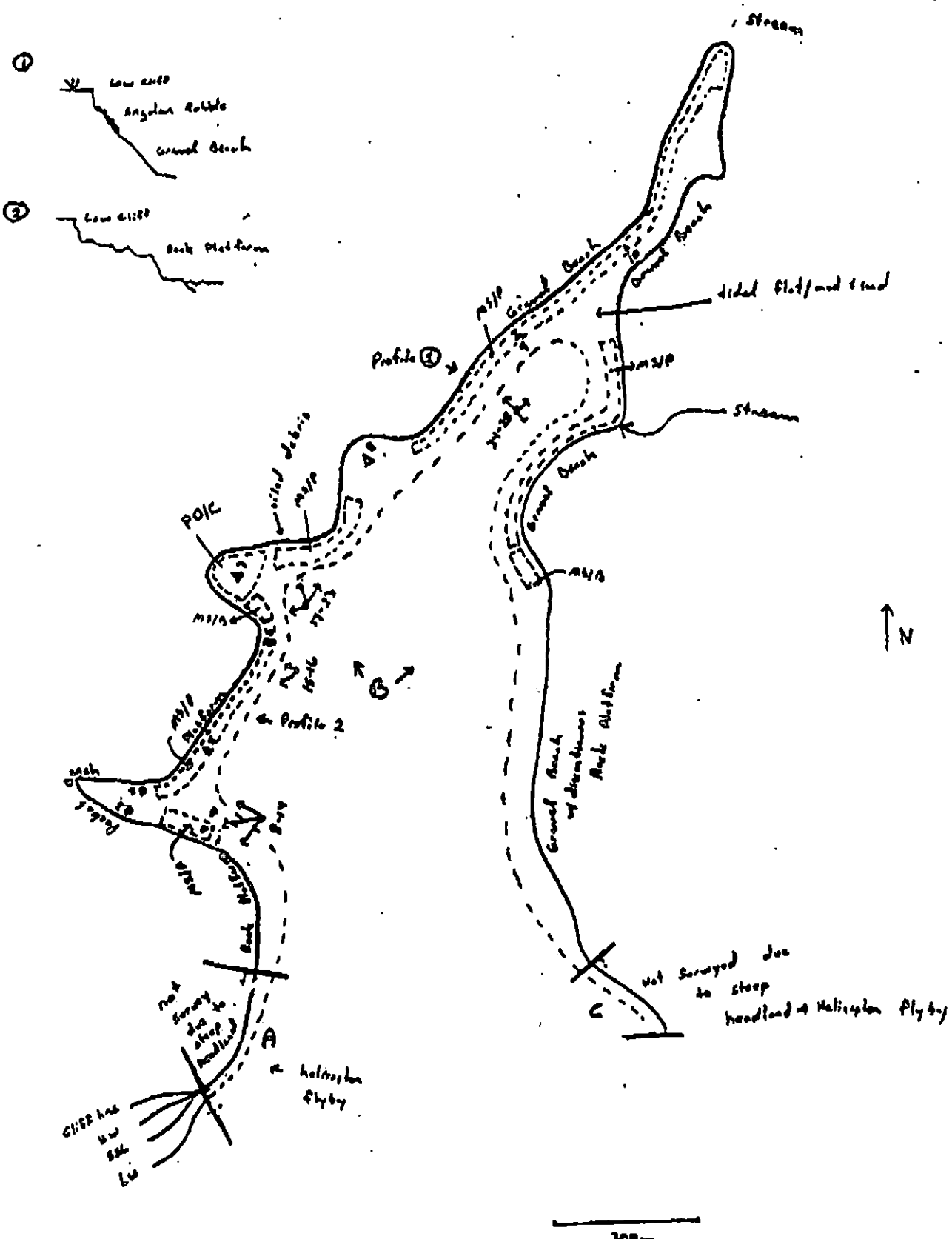
Splashed Distribution

Dead Vegetation

1 Δ

Photo location, direction, and number

SKETCH MAP



01 Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 275

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22

Segment ST/ SS-002 Subdivision A Date (mo / day / yr) 4/5/90Time (24 hr) _____ 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 _____

(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:

Subdivision Inaccessible - no observations

98B

↑
KOD 214 B

S

● XX Wide

//// Medium

--- Narrow

TTTT Very Light

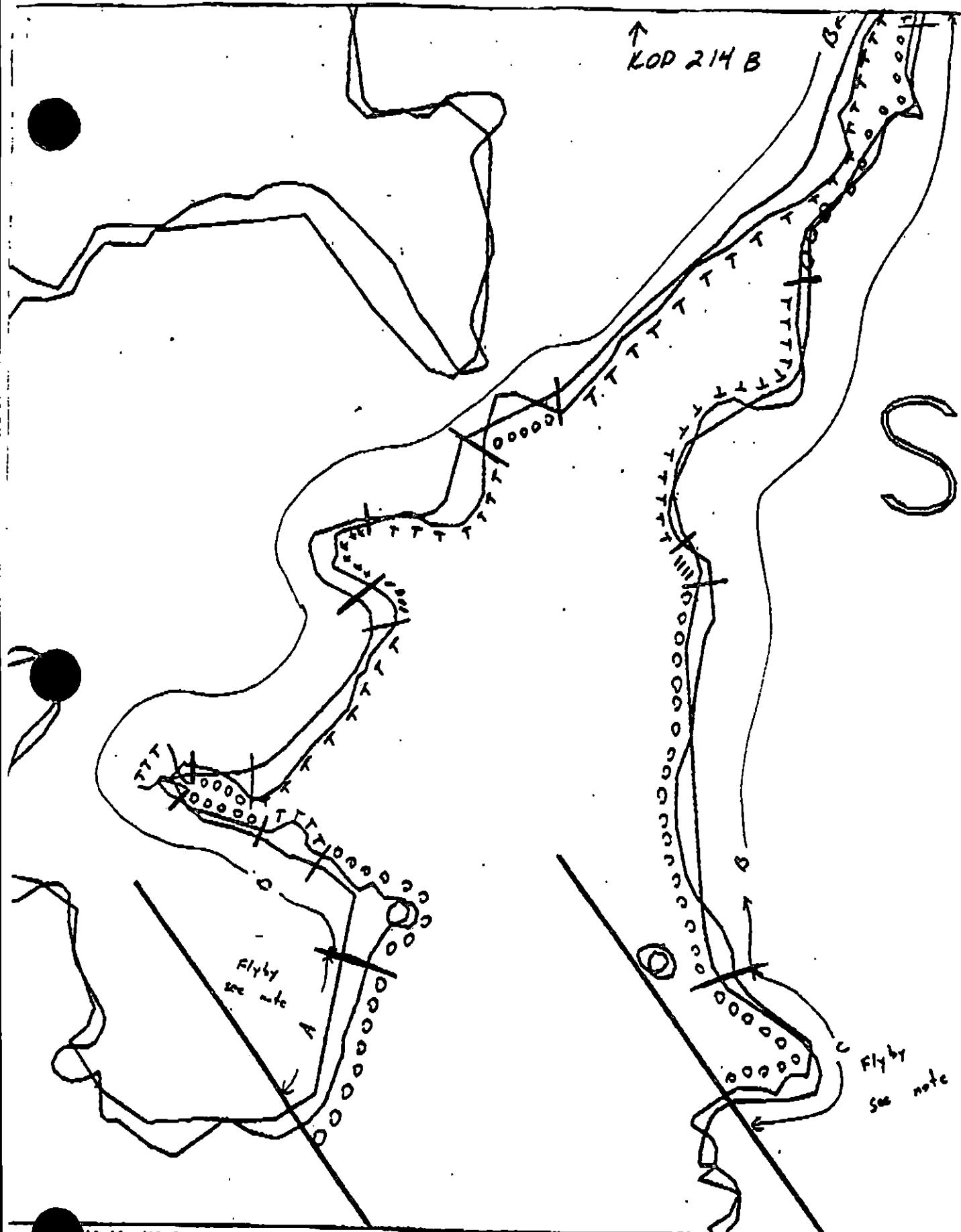
SS-2

ADEC Segment Length: 3818m

Map Key: KOD-214a

Name: Penland

Date: 4/2/05



SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION A (1 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

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

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

SHPO SIGNATURE: Charles E. Johnson DATE: 4/17/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 186 m
Subsurface Oil Observed: Yes No X Maximum Depth

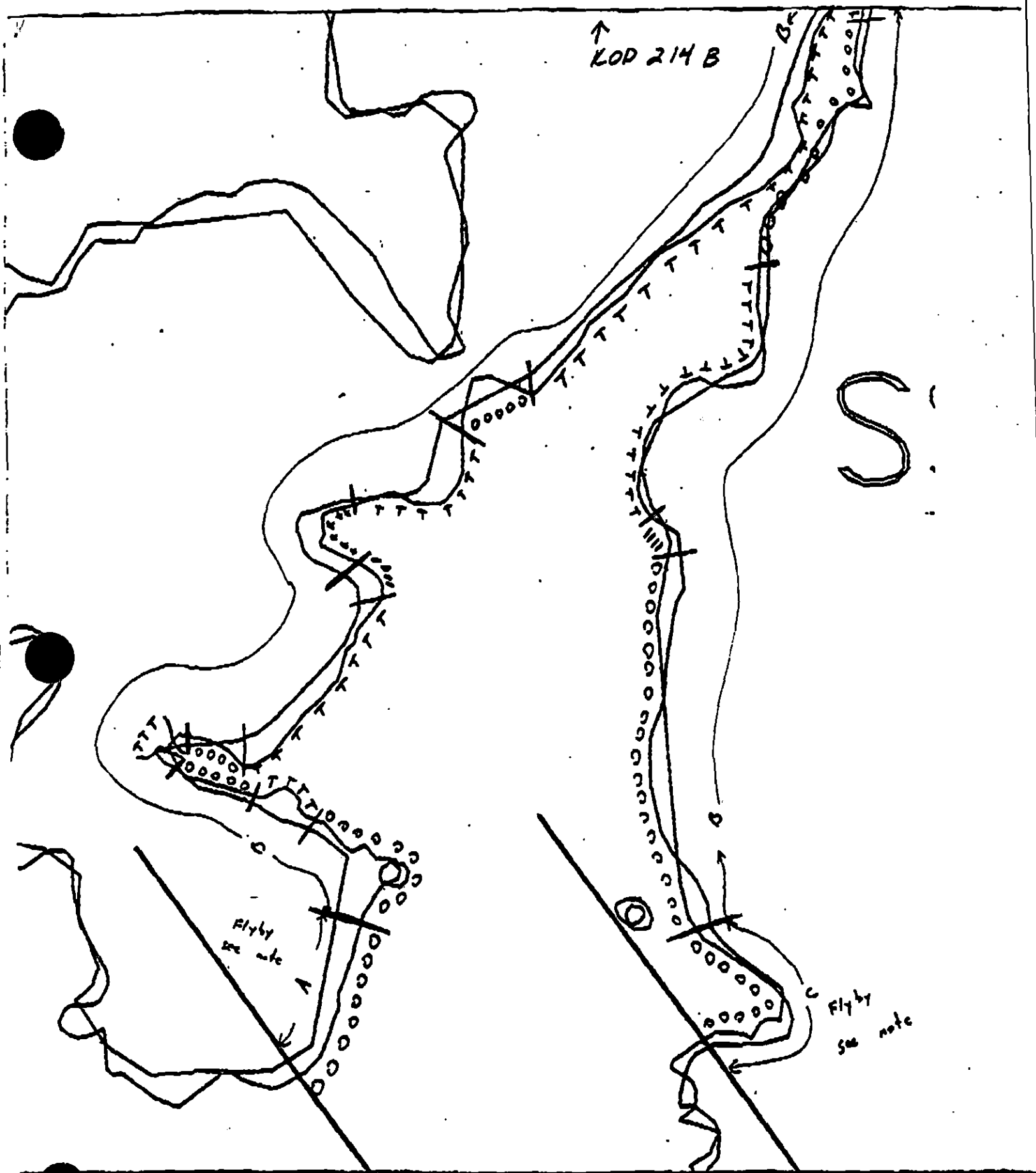
RECOMMENDATIONS:

<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> <u> </u> Removal	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90
ADEC Mr. K... ..
EXXON ANDY ISA... FOSC: DATE: 4-20-90
NOAA Burl Westcott
USCG G.A. REITER



XX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 SS-2
 ADEC Segment Length: 3818m

Map Key: KOD-214a
 Name: Penland
 Date: 4/3/92

REGION: KODIAK

SEGMENT: KO1-03-SS-002

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Privately developed land.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 170m: Medium 98 m: Narrow 0 m: V.Light 1554m: No Oil 1209 m.
Subsurface Oil Observed: Yes X No _____ Maximum Depth 10+cm

RECOMMENDATIONS:

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

COMMENTS: Manual pick up of pooled oil and mousse, followed with bioremediation of pooled oil area.

TAG COMMENTS:

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

SEGMENT ST / K0103 / SS02 SUBDIVISION: B DATE 4-3-90

USEC

NAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Oil to varying degrees found throughout this segment. Mousse in PO/C area particularly significant and should be manually removed (actually pooled oil). When cleanup crew in to clean up this area of pooled oil they should walk entire west side of bay and manually remove all oil which can be practically removed. One site on east side (MS/O) should also be cleaned up.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

Sub. B 3313 Meters walked by SSAT Members.

K0103/SS02 Shuyak Harbor North to NW Shore.

Oil impact observed throughout Subdivision B. Mousse sediment mix found in the upper tidal and middle tidal levels. Distribution is rather broken, sporadic band. Pooled distribution can also be observed. 10 pits NO subsurface oil observed, except pit 7 having oil in the pore spaces and sediments. Very light oil mousse sediment and sheening can be observed in the NW entrance lagoon of Shuyak Harbor. Type A manual cleanup could improve Shuyak Harbor greatly. Low energy sheltered bay with a SE exposure.

LAND MANAGER

NAME Ray Burger AONR SIGNATURE Ray Burger☐ NO TREATMENT RECOMMENDED☒ TREATMENT SUGGESTED

COMMENTS

West side needs manual pickup where mousse has coated cobbles + gone into interstitial spaces to mix with sediments. This is sporadic throughout upper tidal zone. Pooled oil + saturated sediments are in back of cove where hot water wash was used (Pit #7). This area is small + could be treated by manual removal.

Private lands in back half of Shuyak Harbor on west side.

East side has less oil, as identified, but still retrievable.

Small amount of oiled debris near hot water wash area can be easily retrieved.

This is a good area for camping + landing.

SHORELINE OILING SUMMARY

REVISION NO. 02/22/98

OG Penland NOAA 4666 Naughton SEGMENT ST/ K0103/55002
 BIO Spight LAND REP Guyon ADNR SUBDIVISION B (2/3)
 EXXON Byers ADEC Shelton TIME 16:11:10 18:30
 TEAM NO.: 19 TIDE LEVEL: +2 ft 10 + 4 ft DATE 4/3/90
 EST. SUBDIVISION LENGTH: 3313 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 50 % P 20 % G 10 % S 0 % M 0 % V 0 %
 SLOPE: Lang 50 % Hang 25 % Vert 25 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 230 m M 92 m N 0 m VL 2296 m NO 645 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	17	18	20	25	30	35	40	SU	U	M	U
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE		X					X				X		
PATTIES													
TARBALLS													
FILM													
NO OIL										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			
Vegetation			
Trash			
Debris			

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

Photographs:

Roll No. 57-19-4Frames 8-28

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	UC	20	25	30	35	40	SU	U	M	U		
1	30					X	-								X					cobble, gravel
2	30					X	-								X					cobble, gravel
3	30					X	-								X					cobble, gravel
4	30					X	-								X					cobble, gravel
5	30					X	-								X					cobble, gravel
6	30					X	-								X					cobble, gravel

COMMENTS

• oil distributed throughout Shuyok Harbor

• in the po/c area, sediments appear saturated with oil, sheen (oil) can be observed.

SEGMENT ST/ Kolo 3/3022 SUBDIVISION 6

SUBSURFACE OIL (CONTINUED)

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	VO	SP	SP	SP	SP	SP	SP	SP	SU	U	M	L				
7	10	X					0 - 10	X						X								X		Cobble, gravel
8	30					X	-														X			Gravel
9	20					X	-														X			Gravel
10	20					X	-														X			Gravel
							-																	
							-																	
							-																	
							-																	
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							-																	
							-																	

COMMENTS

- The oil in the PO/C area. extended throughout the interbedded zone.
- Please note, we did not have a ADEC base map for oiling, instead we used an earlier version of an ADEC

REVIEWED BAT DATE 7 Apr 90

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / SS002 Subdivision B Date (mo / day / yr) 4/3/90Time (24 hr) 16:13 Biologist SP16HT

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 10 (3) Cobble 20 (4) Pebble 50 (5) Sand 10 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X) , new settlement (3)

Photographs:

Roll No. _____

Frames _____

BARNACLES

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

MYTILUS

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

GASTROPODS

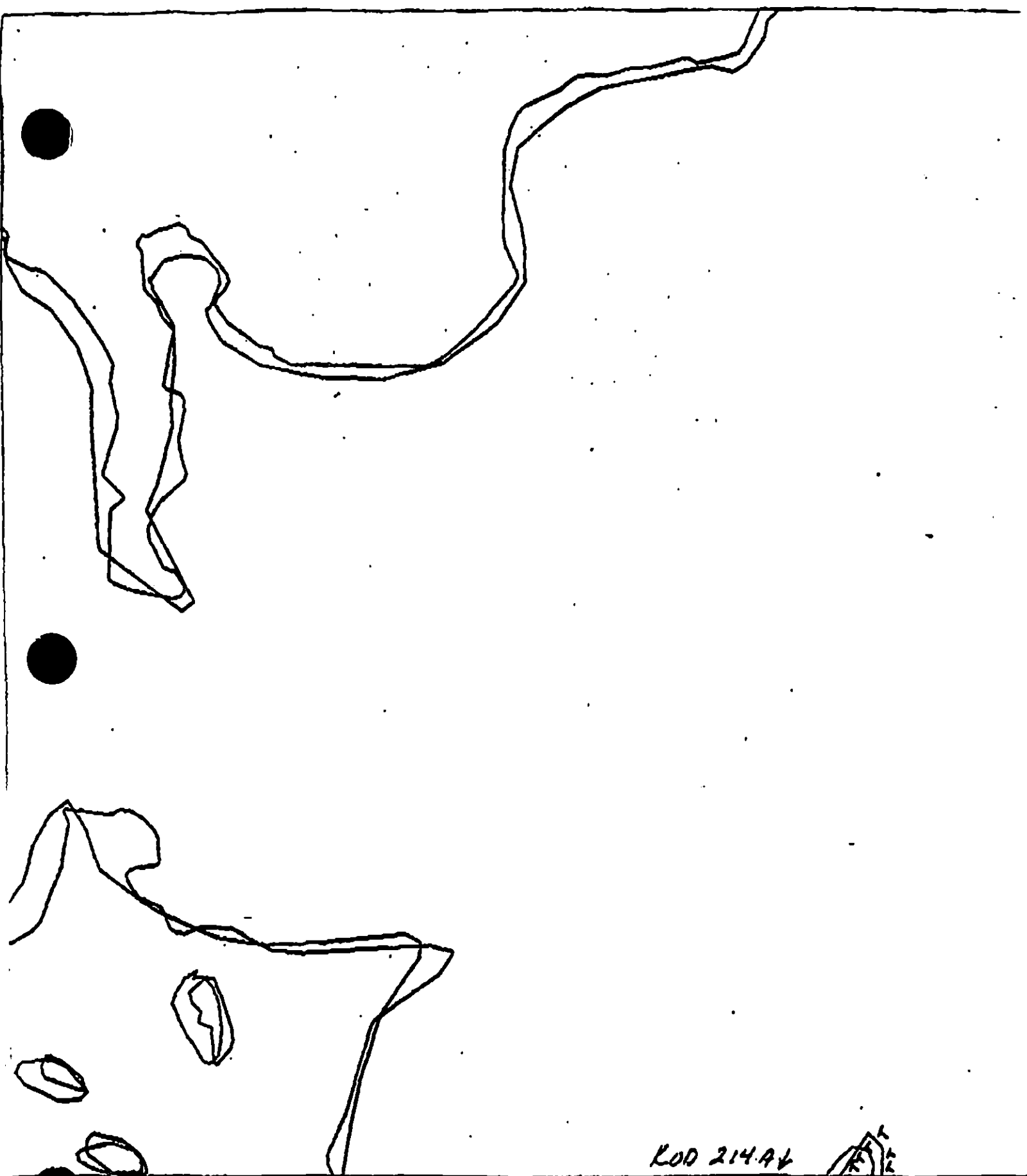
Dense			Moderate			Sparse			Rare			
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
X	X	X	2	2	2	2	2	2	2	2	2	NOT PRESENT
X	X	X	3	3	3	3	3	3	3	3	3	
X	X	X	4	4	4	4	4	4	4	4	4	
X	X	X	5	5	5	5	5	5	5	5	5	
X	X	X	6	6	6	6	6	6	6	6	6	
X	X	X										

FUCUS

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

Wildlife Observations/ General Comments:

Ecological Considerations: Usual patchy habitat. Estuarine areas of small cobble. Some extensive beds of Fucus (the lushest seen to date). Mussel beds on muddy grounds at head of bay (but not as dense as at Sk-5). 9BB



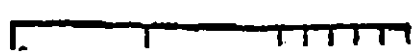
KOD 214A4



● XX Wide
//// Medium
--- Narrow
TTT Very Light

SS-2

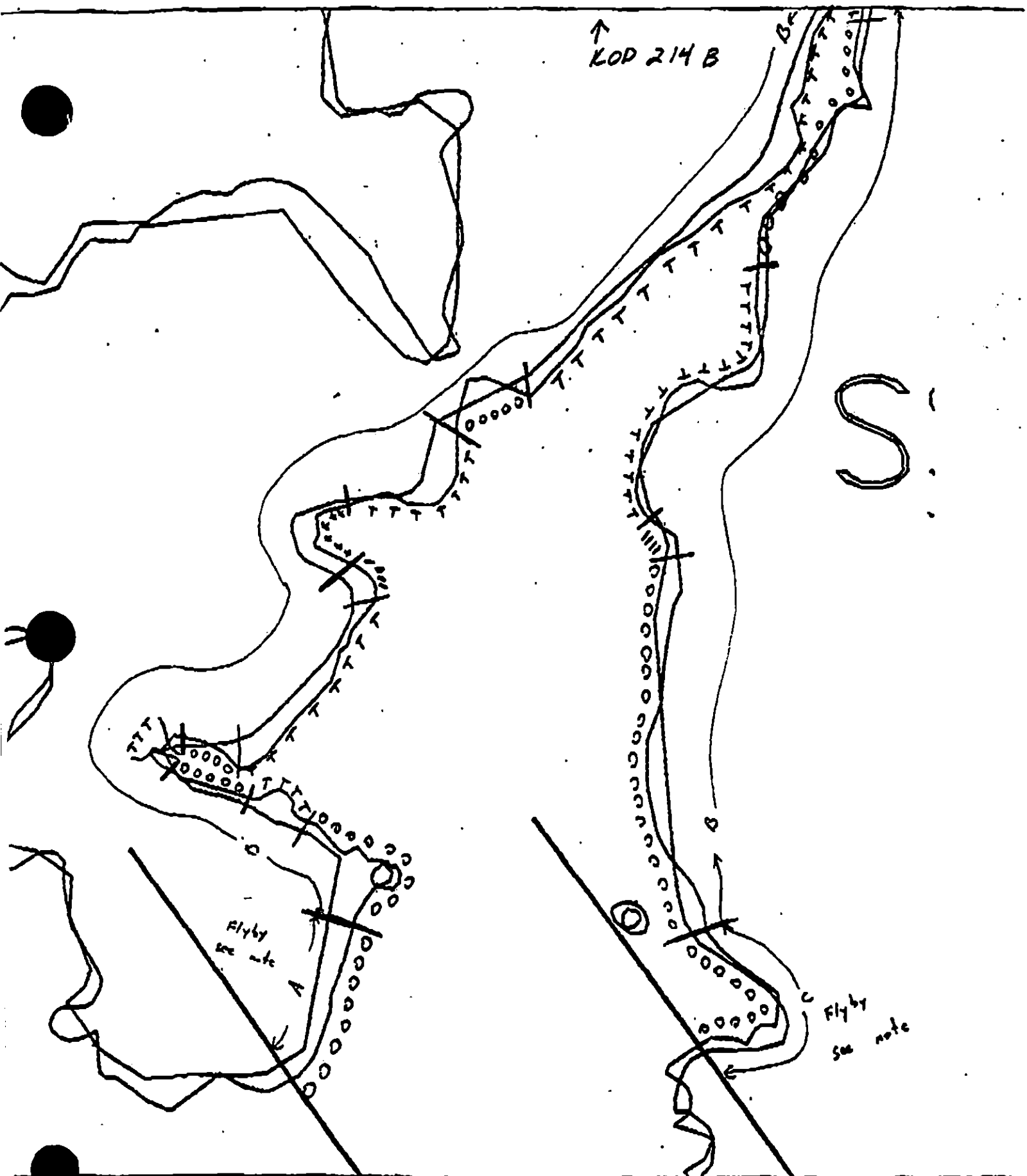
ADEC Segment Length: 3818m



Map Key: KOD-214b

Name: Penland

Date: 4/3/90



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

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-214a

Name: Penland

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Privately developed land.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to uncoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: Charles E. Adams DATE: 4/17/90

OILING CATEGORIZATION:

Wide 170m: Medium 98 m: Narrow 0 m: V.Light 1554m: No Oil 1209 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> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Manual pick up of pooled oil and mousse, followed with bioremediation of pooled oil area.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90.

ADEC Mr. Henson

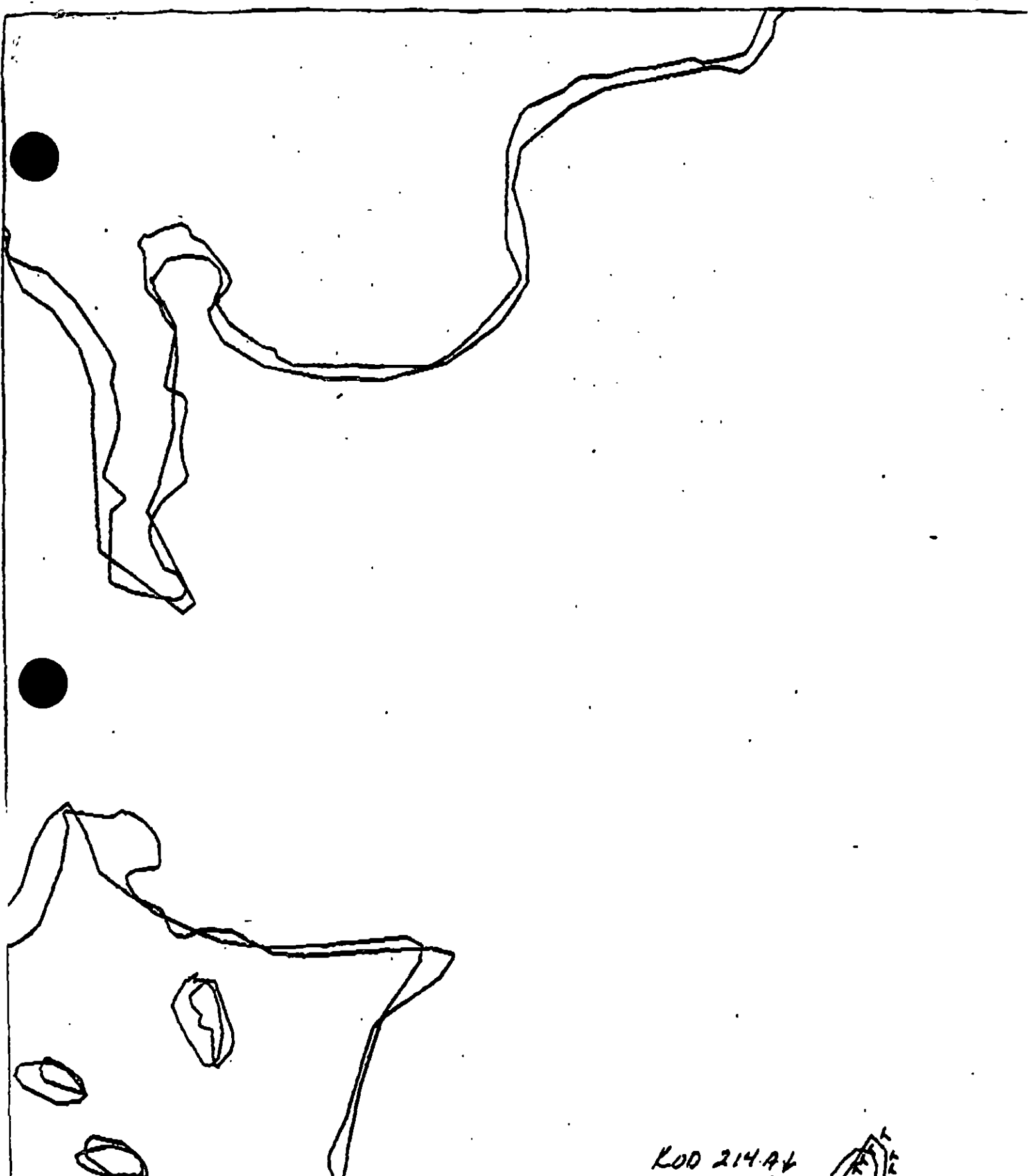
EXXON Andy Tate

NOAA Bruce Wescott

USCG G.A. Reiter

FOSC:

DATE: 4-20-90

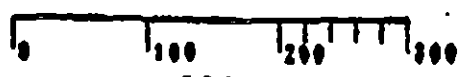


KOD 214.44



SS-2

ADEC Segment Length: 3818m



Map Key: KOD-214b

Name: Penland

Date: 4/3/90

Data Entered:

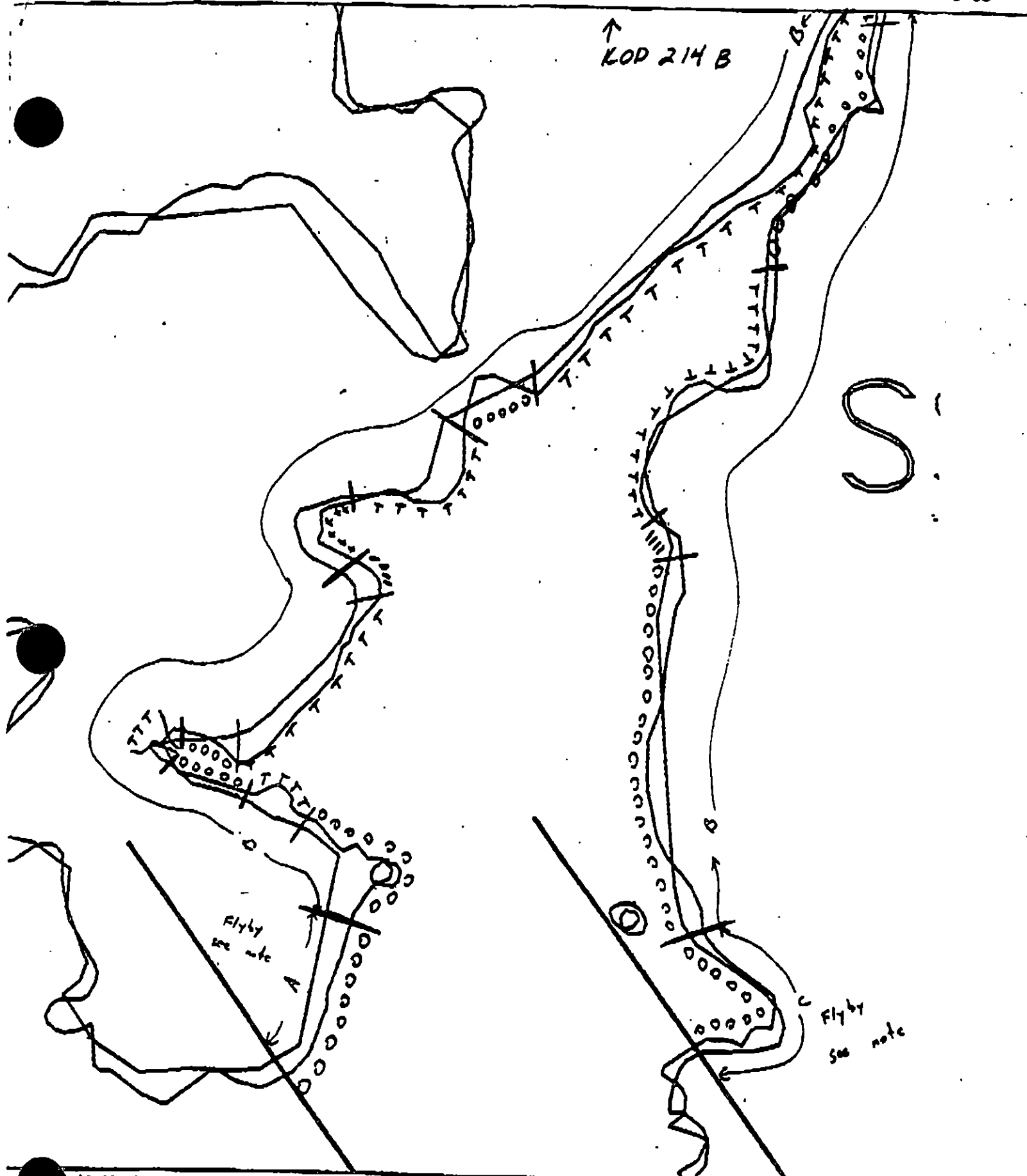
XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil



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

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-214a
Name: Penland
Date: 4/3/90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-03-SS-002 SUBDIVISION B (2 of 3)

WORK WINDOW	
Manual Pickup	CLOSED*
Bioremediation	CLOSED*

*NO ACCESS

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

- | | | |
|----|-----------------|--|
| 5T | Bald Eagle Nest | USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from nest. |
| 5R | Seabird Colony | Closed to manual pickup and bioremediation within seabird colony buffer zone. Open to manual pickup, and bioremediation outside buffer zone. However, USFWS map indicates active seabird colony buffer zone prevents access to all Subdivision B work areas. |

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony access constraint is removed, other ecological considerations will apply.

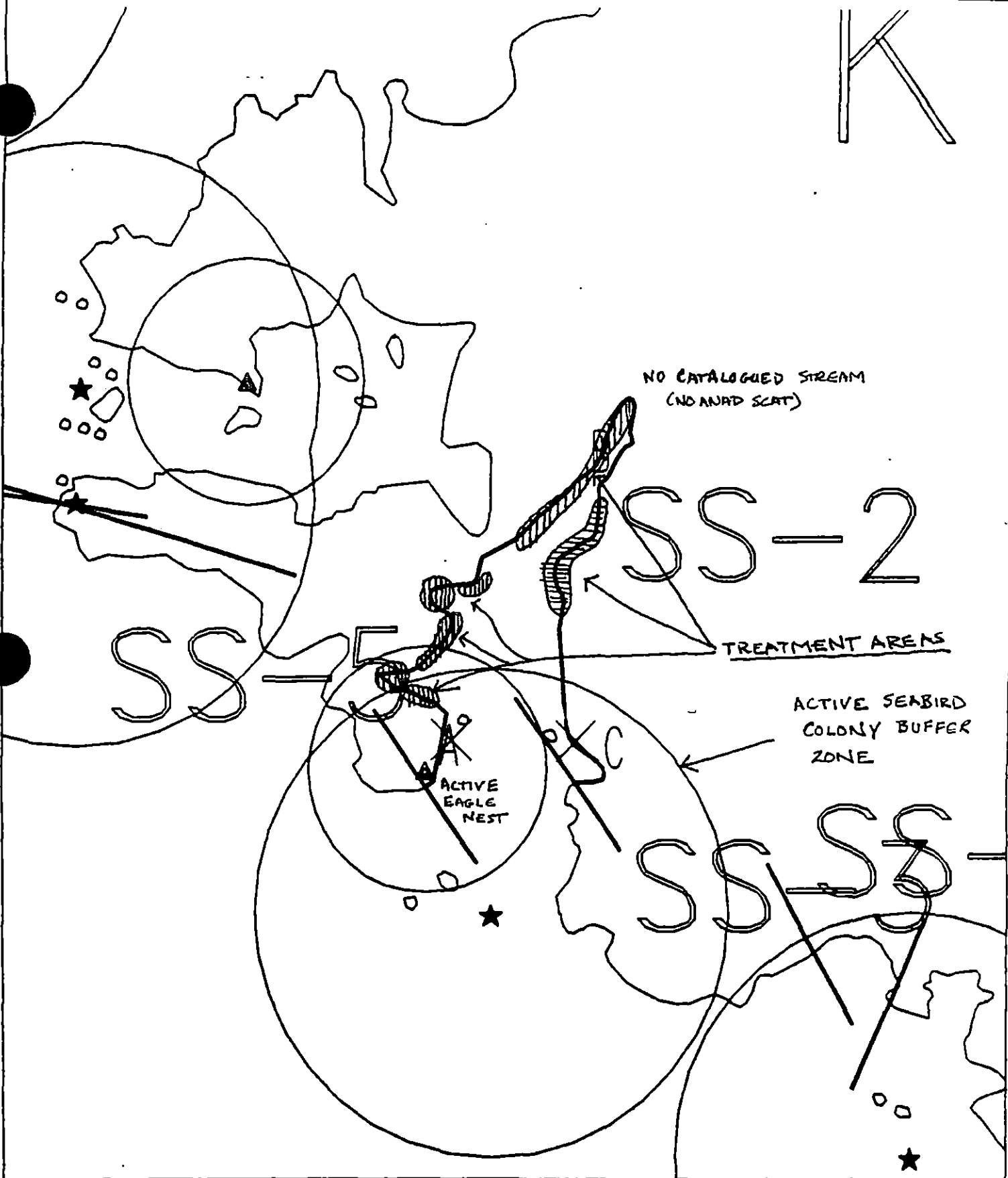
TAG APPROVAL DATE _____
ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC W L DATE 6-10-90

Prepared By: Reu R. Coulter

Date 06/10/90

K



Exxon Company, USA
Map Key: KOD-SS-2
May 17, 1990



ECOLOGY MAP
K01-03 - SEGMENT SS-2
SUBDIVISION B (2 of 3)
METERS
0 438 877

- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1438 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

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

ARCHAEOLOGICAL CONSTRAINTS:
Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: Charles J. Adams DATE: 4/17/90

OILING CATEGORIZATION:

Wide 170m: Medium 98 m: Narrow 0 m: V.Light 1554m: No Oil 1209 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> </u> Tarmat: <u> </u> Breakup	<u> </u> <u> </u> Beach Cleaner
<u> </u> <u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Manual pick up of pooled oil and mousse, followed with bioremediation of pooled oil area.

SEE CONSTRAINT ADDENDUM
DATED 06/10/90. Rex C.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90.

ADEC Mr. Housen

EXXON Andy Ten

NOAA Burt Wiegert

USCG C.A. REITER

FOSC: DATE: 4-1-90

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-03-SS-002 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup Less Than 800m From Seabird Colony and Less Than 400m Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Manual Pickup More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

Bioremediation Less Than 800m From Seabird Colony and Less Than 400m From Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Bioremediation More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision B. Open to manual pickup and bioremediation within 400m of active nest with USFWS monitor on scene. (Mike Luke/USFWS 6/18/90) No constraint to manual pickup and bioremediation more than 400m from nest.

5R Seabird Colony

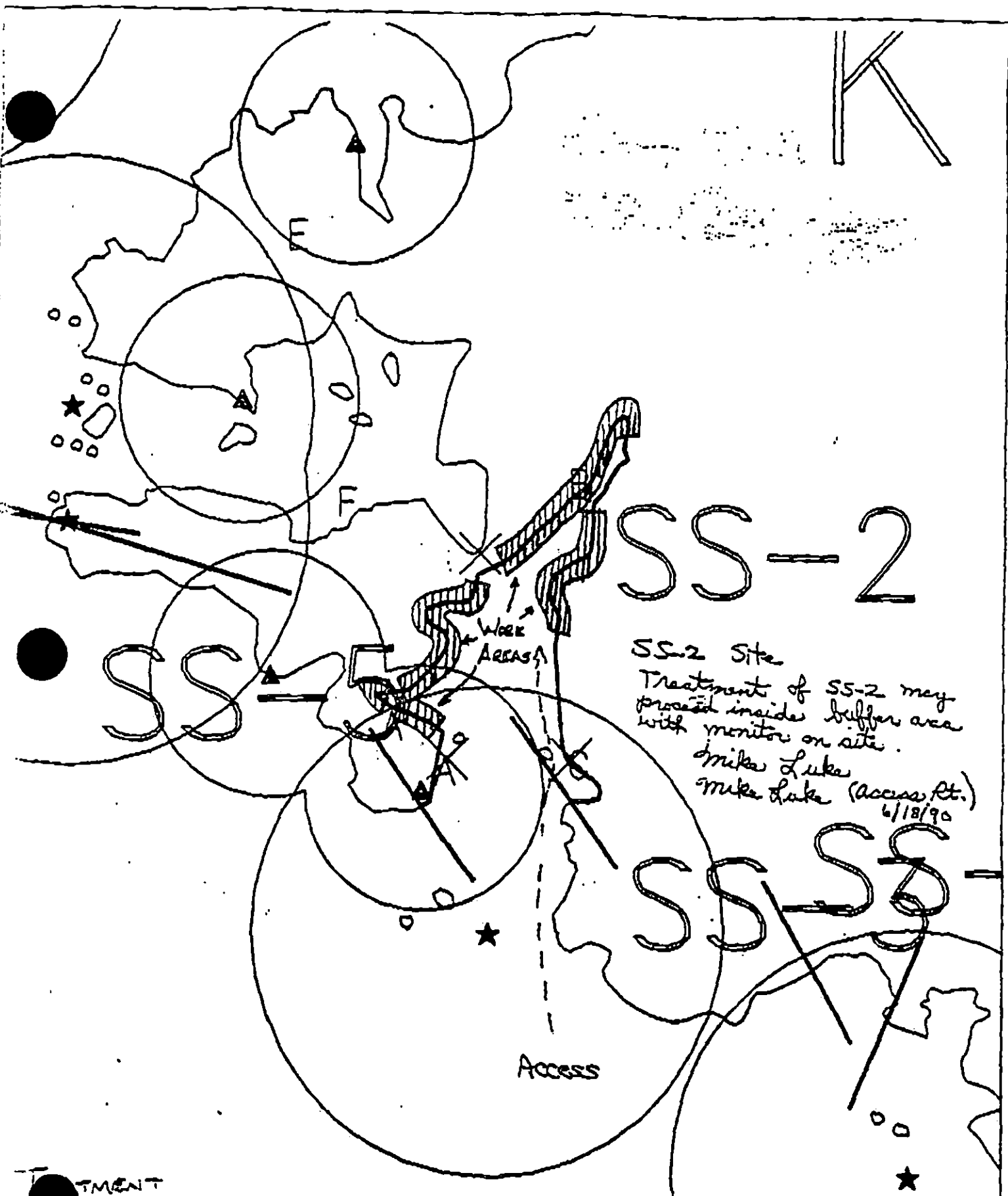
Open to manual pickup and bioremediation within seabird colony buffer zone with USFWS monitor on scene. Follow established USFWS transit route through Seabird Colony buffer zone as described on attached map. (Mike Luke/USFWS 6/18/90)

OTHER ECOLOGICAL CONSIDERATIONS

Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nest without USFWS Monitor on-site. Air approach and takeoff from and to seaward only. Avoid any unnecessary disturbance or damage to oiled biota and substrate.

FOSC W L Date 6-22-90

Prepared by J. P. Phillips Date 6/22/90



SS-2

SS-2 Site
 Treatment of SS-2 may proceed inside buffer area with monitor on site.
 Mike Luke
 Mike Luke (Access Pt.)
 6/18/90

SS-2

Access



Exxon Company, USA

ECOLOGY MAP
 SEGMENT K1-3 SS-2
 SUBDIVISION B (2 of 3)
 UCTEAE

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

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Privately developed land.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid disturbance/damage to unoiled biota and substrate.

ARCHAEOLOGICAL CONSTRAINTS:

Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: Charles Adams

DATE: 4/17/90

OILING CATEGORIZATION:

Wide 170m: Medium 98 m: Narrow 0 m: V.Light 1554m: No Oil 1209 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> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Manual pick up of pooled oil and mousse, followed with bioremediation of pooled oil area.

REVISION 1,
SEE CONSTRAINTS ADDENDUM DATED 6/22/90

SEE CONSTRAINT ADDENDUM
DATED 06/10/90. RxC.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90.

ADEC Mr. Housh

EXXON Andy Tetz

NOAA Buyl Wescott

USCG G.A. BEITER

FOSC:

DATE: 4-16-90

"REVISED" ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-03-SS-002 SUBDIVISION B (2 of 3)

WORK WINDOW

Manual Pickup Less Than 800m From Seabird Colony and Less Than 400m Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Manual Pickup More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

Bioremediation Less Than 800m From Seabird Colony and Less Than 400m From Active Eagle Nest **OPEN (USFWS MONITOR REQ.)**

Bioremediation More Than 800m From Seabird Colony and More Than 400m From Active Eagle Nest **OPEN**

ARCHAEOLOGICAL INSPECTION/CONSULTATION REQUIRED.

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

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/19/90 map indicates an active nest in Subdivision B. Open to manual pickup and bioremediation within 400m of active nest with USFWS monitor on scene. No constraint to manual pickup and bioremediation more than 400m from nest.

5R Seabird Colony

Open to manual pickup and bioremediation within seabird colony buffer zone with USFWS monitor on scene. Follow established USFWS transit route through Seabird Colony buffer zone as described on attached map.

OTHER ECOLOGICAL CONSIDERATIONS

If seabird colony access constraint is removed, other ecological considerations will apply.

FOSC

[Signature]

Date

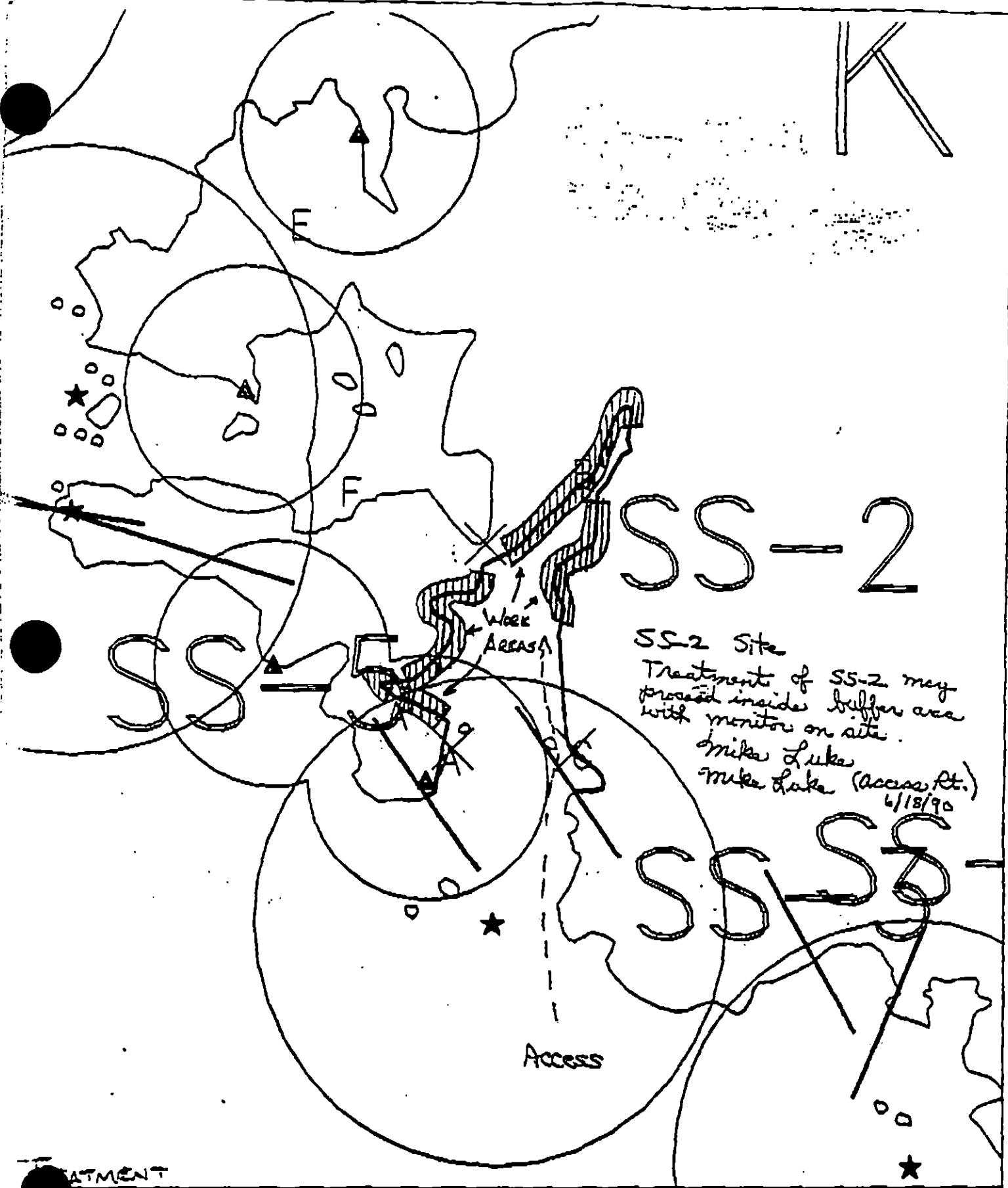
6/21/90

Prepared by

[Signature]

Date

6/20/90



Exxon Company, USA



ECOLOGY MAP
 SEGMENT K1-3 SS-2
 SUBDIVISION ___ (___ of ___)
 UCTPDE

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

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION B (2 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

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

ARCHAEOLOGICAL CONSTRAINTS:
Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

SHPO SIGNATURE: Charles J. Adams DATE: 4/17/90

OILING CATEGORIZATION:

Wide 170m: Medium 98 m: Narrow 0 m: V.Light 1554m: No Oil 1209 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> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Manual pick up of pooled oil and mousse, followed with bioremediation of pooled oil area.

REVISION 1,

SEE CONSTRAINTS ADDENDUM DATED 6/20/90 JP

SEE CONSTRAINT ADDENDUM
DATED 06/10/90. RxC.

TAG COMMENTS:

TAG APPROVAL DATE: 4/16/90.

ADEC He Hecum

EXXON Andy Tera

NOAA Bruce W. Wright

USCG G.A. BEITER

FOSC:

DATE: 4-1-90

REGION: KODIAK

SEGMENT: KO1-03-SS-002

SUBDIVISIONS: C (3 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION C (3 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

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

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 281 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K0103 / 5502 SUBDIVISION: C DATE 4-3-90

NOAA
USCG

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

No oil observed. However surveyed only by helicopter fly by. Because of oil found in subdivision B, suggest this area (subdivision C) be assessed by crews cleaning up B.

ADEC

NAME Scott Shepton SIGNATURE Scott Shepton

☒ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS K0103 / 5502

Subdivision C

No oil observed - MED. to High energy beach. Wave and weather exposure Westerly to S/W. Access to small pocket beach in this segment is difficult. Cliffs with vertical shores make foot assessment difficult. Helicopter sit down in this area is possible with L-206 not a 212. Subdivision C could be assessed by clean up crews during any clean up of Shuyak Harbor. Subdivision C post treatment reported Light to V. Light impact on Sand beach cover in the Fall of 89.

LAND MANAGER

NAME Ray Burger AONR SIGNATURE Ray Burger

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Not assessed due to impassable rocky headlands
Area had VL to L impact in Fall Walkathon assessment so should be looked at by cleanup crew when it is in Shuyak Harbor.
Beach looked good for landing small craft + camping.

SHORELINE OILING SUMMARY

REVISION NO. 08/22/98

OG Penland N/A Naughton SEGMENT ST/ K0103/33002
 BIO Spright LAND REP Buysse DNR SUBDIVISION C (3/5)
 EXXON Byant ADEC Shelton TIME 16:11 to 18:30
 EAM NO.: 19 TIDE LEVEL: +2 ft to +4 ft DATE 4/3/90
 EST. SUBDIVISION LENGTH: 230 m ☐ Sun ☐ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☒ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 50 % B 40 % C 10 % P 0 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 0 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 230 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	SU	U	M	L
ASPHALT PAVEMENT													
POOLED													
COVER													
COAT													
STAIN													
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL													

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

PATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE N/A

#BAGS 0

Photographs:

Roll No. 19-4

Frames —

SUBSURFACE 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
		OF	OR	OL	OP	NO		UC	UC	30	35	40	45	50	SU	U	M	L		

COMMENTS

- No Pits dug due to shallow occurrence of bedrock
- No oil observed on helicopter flyby, area is more exposed and possible has been cleaned naturally by wave action

us island
SEGN ST/KO/23/SS002

SUBDIVISION # C

DATE 4 / 20 / 90

CHECKLIST

✓ M Arrow
✓ Approx. Scale
✓ Bay/Salt Beach
✓ CI Dist.
Width
Length
% Cover
✓ Substrate Character
✓ E.R. H/W/L/W/L
✓ SR
Profile Location(s)
Profile(s)
PI Location(s)
Photo Location(s)

LEGEND

1 Δ

PI - No Subsurface CI

2 Δ

PI - Subsurface CI

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

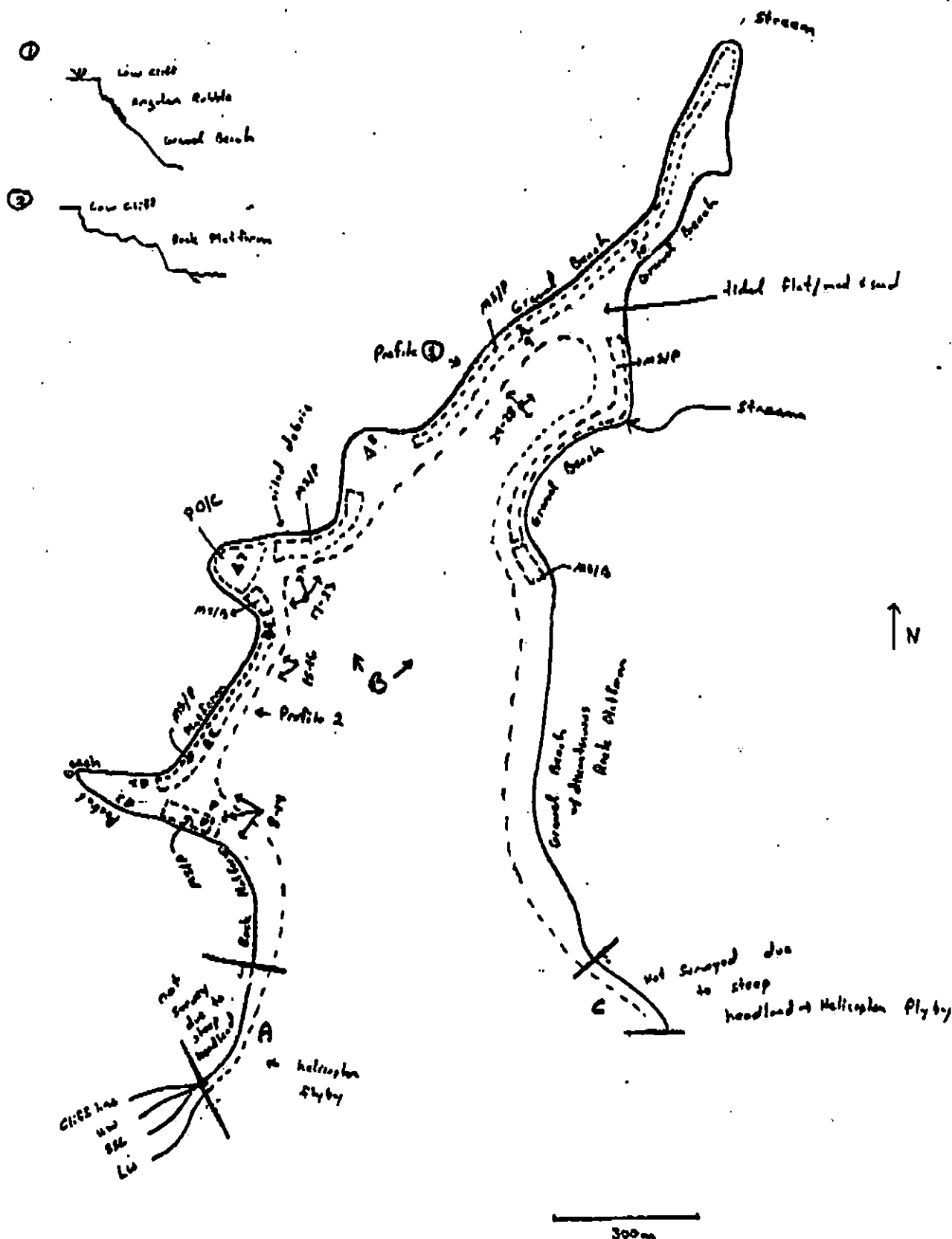
Spaced Distribution

Dead Vegetation

1 Δ

Photo location, direction,
and number

SKETCH MAP



Of Character Length (m): AP Δ PO Δ CV Δ CT Δ ST Δ NS Δ PT Δ TB Δ FL Δ NO 230

SHORELINE ECOLOGICAL SUMMARY

REVISION: 02/22/80

Segment ST / SS-002 Subdivision C Date (mo / day / yr) 4/5/90

Time (24 hr) _____ Biologist SPIGHT

- (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 (3)

Photographs:
 Roll No. _____

Frames _____

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

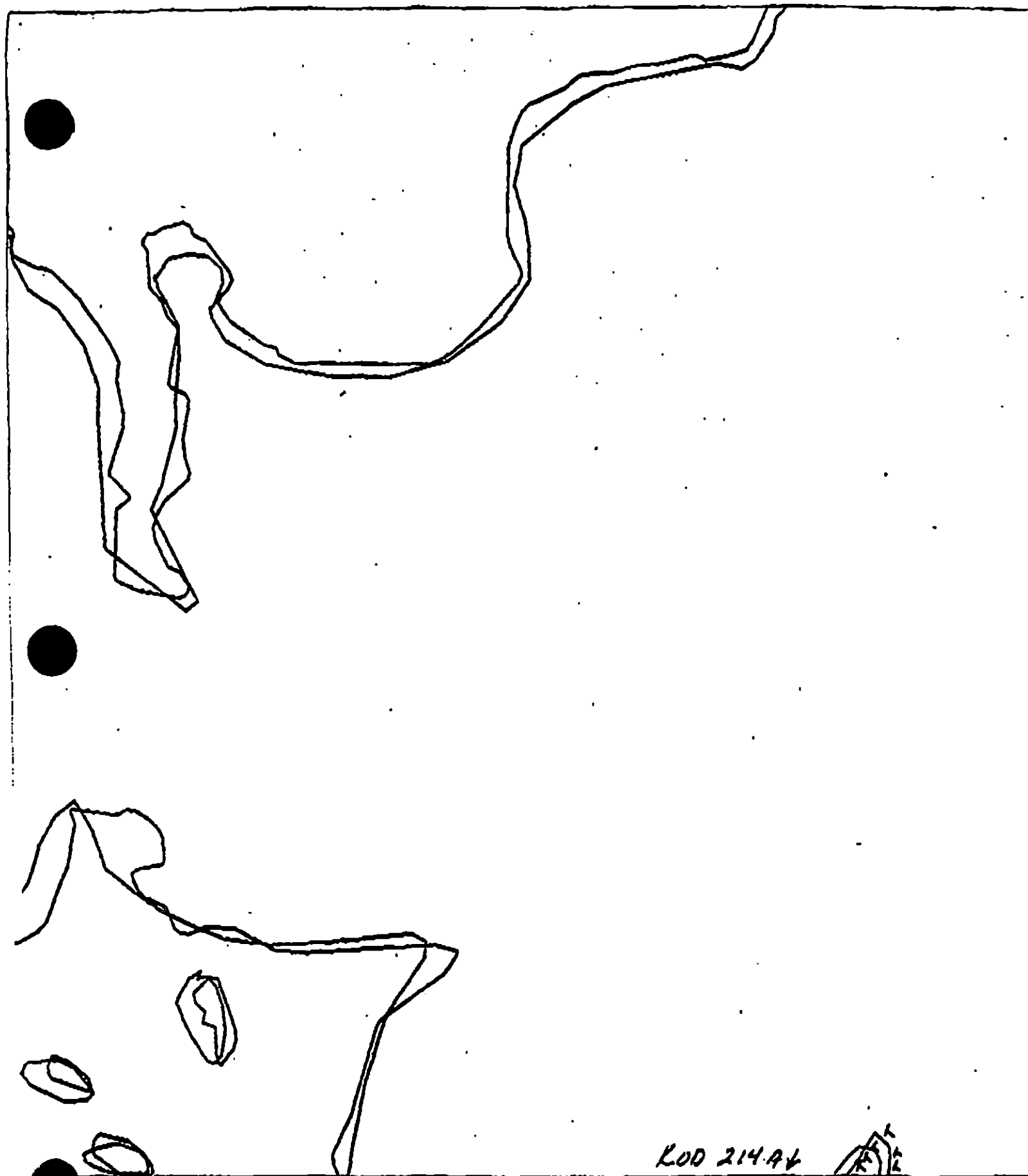
Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments:

Ecological Considerations:

Subdivision Inaccessible - no observations

933



KOD 214.94



SS-2

XXX Wide

//// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 3818m

Map Key: KOD-2146

Name: Penland

Date: 4/3/90

↑
KOD 214 B

S

Flyby
see note

Flyby
see note

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

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-214a

Name: Penland

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-002 SUBDIVISION C (3 OF 3) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:
Privately developed land.

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

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

SHPO SIGNATURE: *Shirley H. Hines* DATE: 7/12/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 281 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:

USCG + ADEC MONITORS TO ASSESS DURING TREATMENT
OF SHORELINES IN PROXIMITY

TAG APPROVAL DATE: 4/16/90

ADEC AL KODEN

EXXON ANDY TATE

NOAA Burt Westcott

USCG G.A. FREITER

FOSC:

DATE: 4-20-90

SEGMENT ST/ KO/23/ 55002

SKETCH MAP

SUBDIVISION 1 C

DATE 4 / 20 / 90

CHECKLIST

- ☒ Alt. Arrow
- ☒ Approx. Scale
- ☒ Regional Study
- ☒ Oil Well
- ☒ Wash
- ☒ Length
- ☒ N. Cover
- ☒ Substrate Character
- ☒ EEL H/W/L/T/M
- ☒ SBL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ PI Location(s)
- ☒ Photo Location(s)

LEGEND

1 Δ

PI - No Substrates On

2 Δ

PI - Substrates On

CT/C

Condition Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

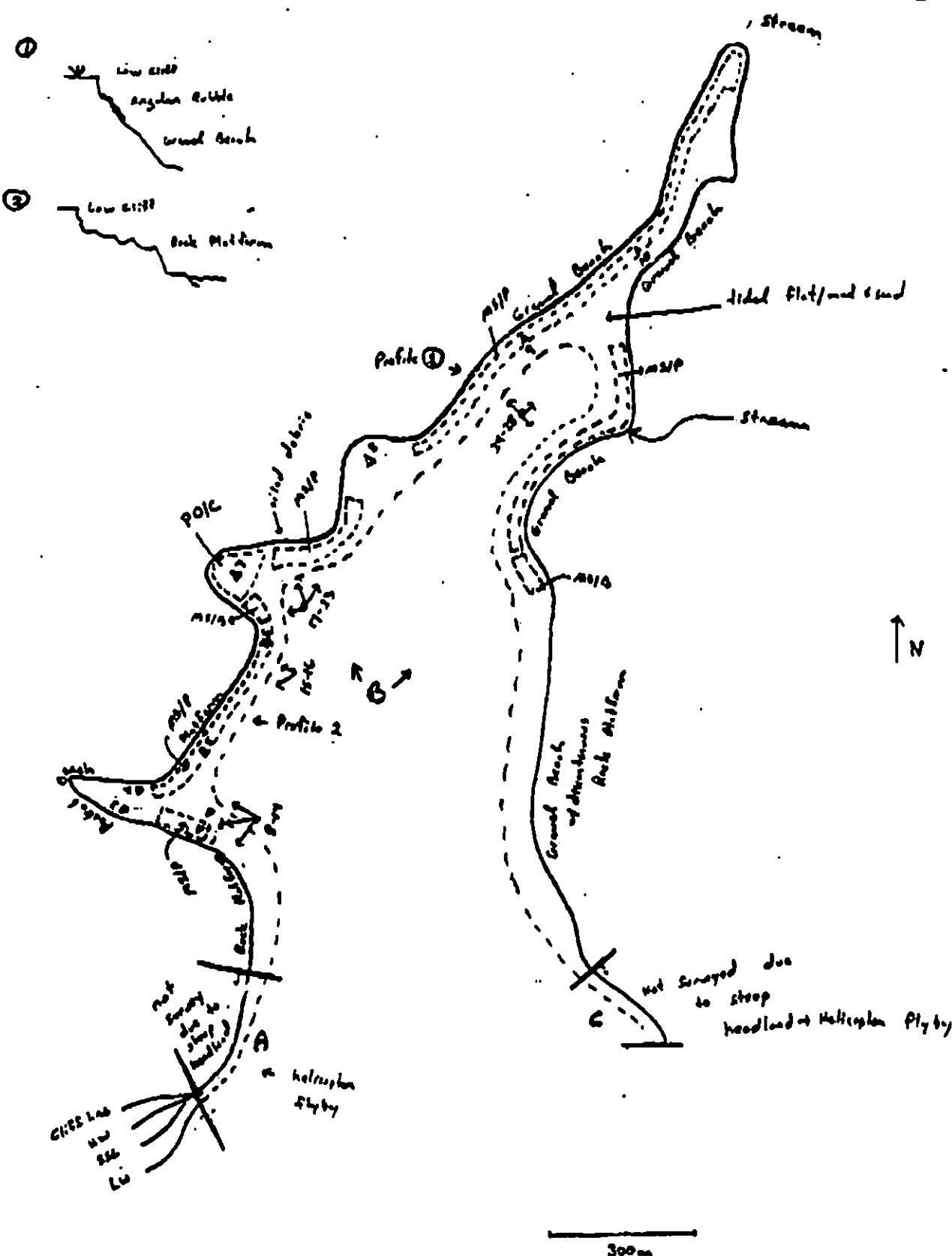
CT/S

Spotted Distribution

Dead Vegetation

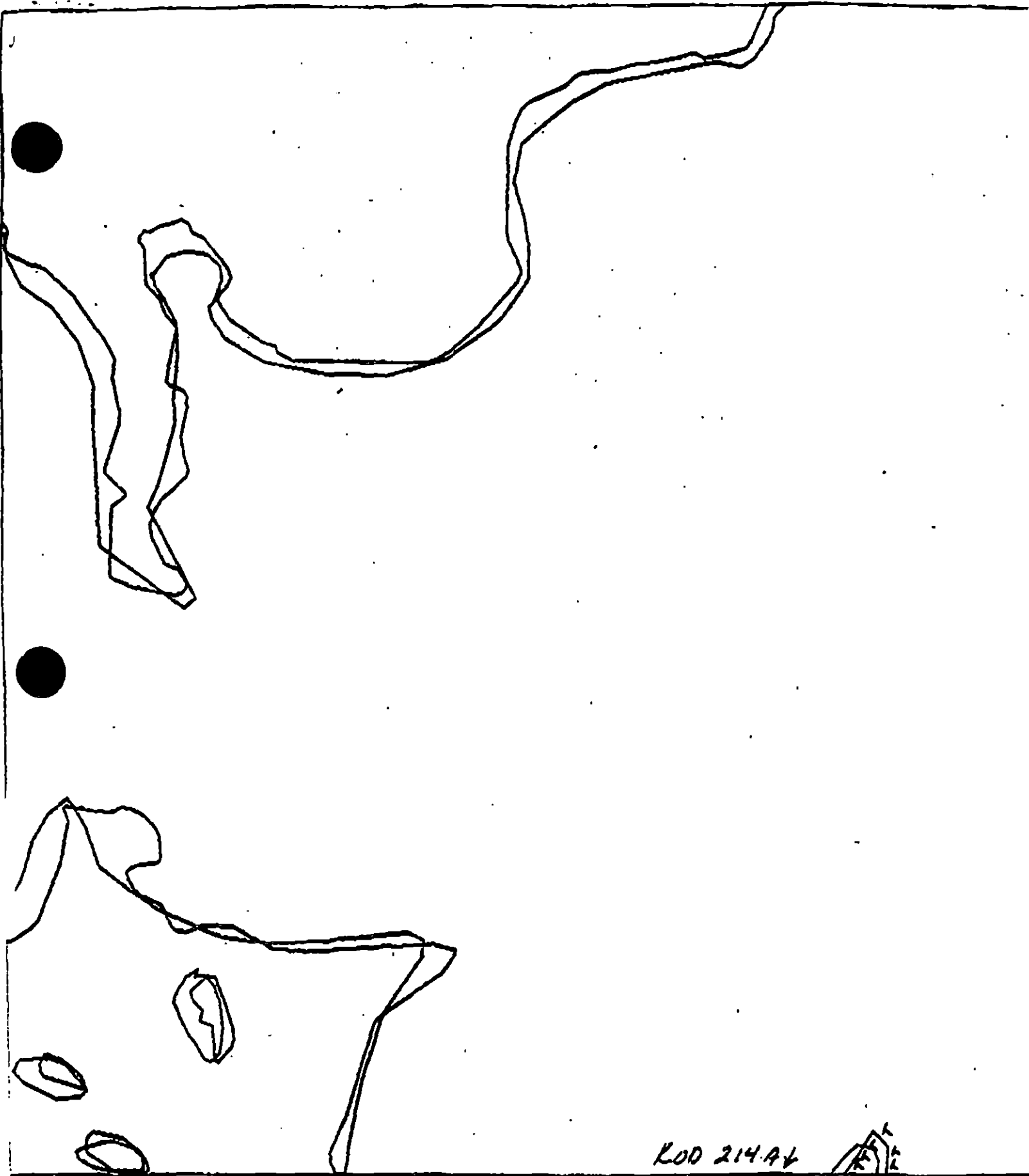
1 Δ

Photo location, direction, and number



Of Character L AP O PO O CV O CT O ST O MS O TB O FL O NO 230

REVISIONS



KOD 214.44



● XXX Wide
 /// Medium
 --- Narrow
 TTTT Very Light
 0000 No Data

SS-2

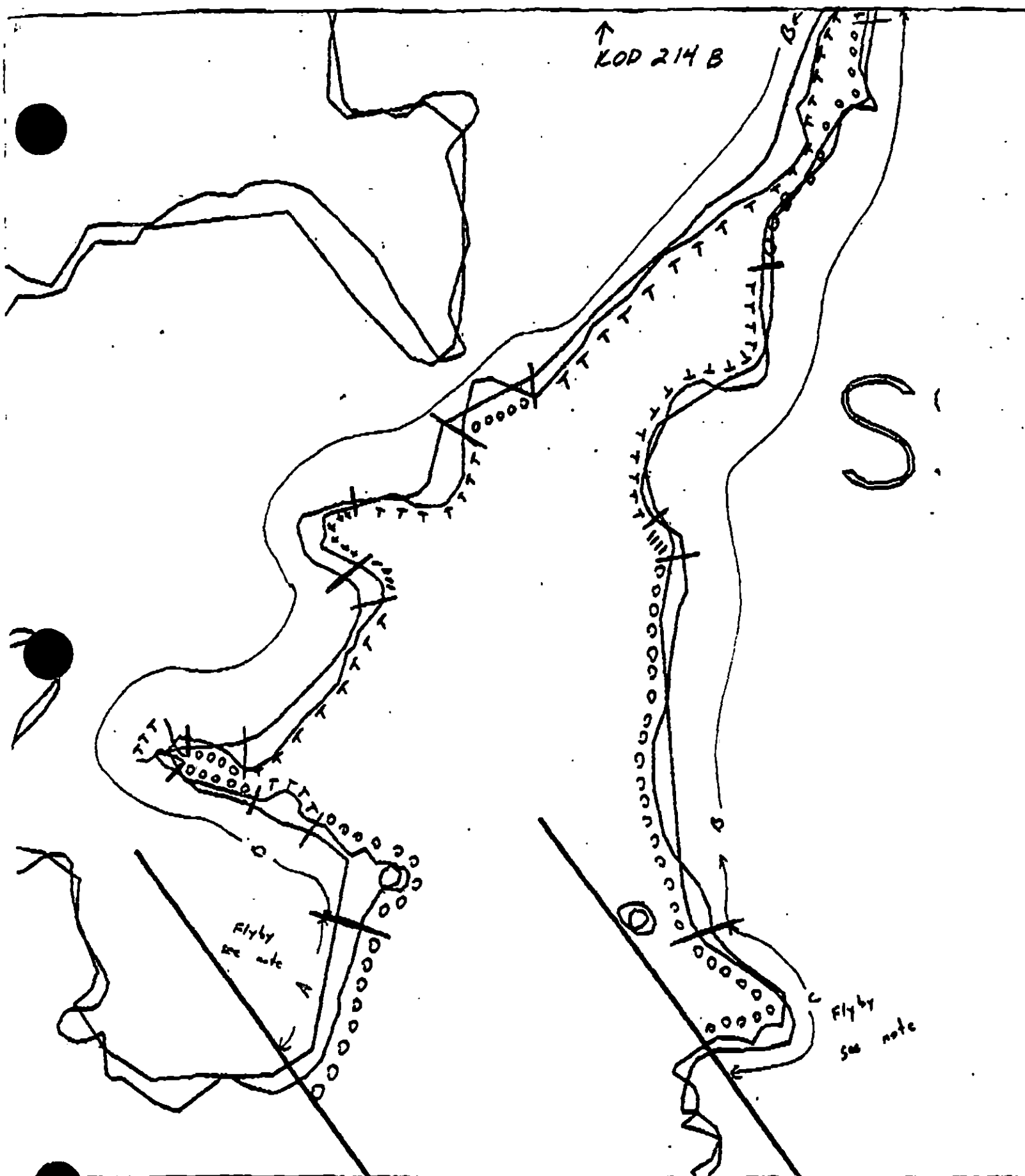
ADEC Segment Length: 3818m



Map Key: KOD-214b

Name: Pealand

Date: 4/3/92



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

SS-2

ADEC Segment Length: 3818m

Map Key: KOD-214a

Name: Penland

Date: 4/3/90

1991 MAYSAP EVALUATION

SEGMENT: K0103SS002 SUB: B REGION: KOD SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) **RESTRICTED 3/1 - 9/1**

Ecological/Constraints (see page two for details) Seabird colony,
Eagle nest, Fry release

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Rachel Ann Duen Date: 5/24/91

RECOMMENDATIONS:

INITIAL**TAG**

FOSC

TREATMENT REQUIRED (Y or N)

N

N

1

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Custombien

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE

TAG APPROVAL DATE: MAY 24 1991

FOSC APPROVAL/DATE:

FOSC APPROVAL/DATE: 5/29/19

ADEC

EXXON

USCG

NOAA

FOSC

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

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

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

Fry Release: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

ADEC

NAME J. RAKNHART SIGNATURE _____

- ☒ NTR K01-03 55002 Shuyak Harbor. Trace/splash SOR-MS, CV widely scattered in upper ITZ. VECO crew picked up approx 10-15 pounds of oil/oil sediment and two sorbent pads, where possible VECO crew removed oil. Some oil was broken up and remains on the beach as trace SOR-MS around cobbles and in cracks in bedrock. Very little oil could be removed by additional manual methods.

EXXON

NAME R. Coulter SIGNATURE REY R. Coulter

- ☒ NTR VERY DIFFICULT TO LOCATE ANY RESIDUAL OILING. THE OIL CONTENT OF THE SOR FOUND AND REMOVED WAS VERY LOW. FUTURE VISITS TO THIS SITE ARE UNNECESSARY.

LANDMANAGER

NAME K. Murphy OF ADNR SIGNATURE Keron Murphy

- ☒ NTR This area lies south of Shuyak Island State Park. Very little oil was observed here. Light coat and stain splattered in rocks in upper tidal zone.

USCG/NOAA

NAME Chief Jensen/G. SHIGENAKA SIGNATURE G. Shigenaka

- ☒ NTR 1/4 bag of mousse picked up. There is no longer any detectable oil present in the water, adjoining shorelines, or places where it is likely to reach the water again.

SURVEYED PORTION OF SEGMENT IS A LARGELY ROCKY AND IRREGULAR SHORELINE, WITH TWO SMALL EMBAYMENTS AND A PEBBLE BEACH. THE MORE NORTHERLY OF THE EMBAYMENTS EXAMINED WAS HOT WATER WASHED IN 1989, AND THERE WAS EVIDENCE OF CLAM MORTALITY. REMAINING OIL RESIDUAL WAS OBSERVED PRIMARILY IN THE TWO EMBAYMENTS, AND WAS REPRESENTED BY WEATHERED MOUSSE IN A ROCK MATRIX. THE OIL WAS REMOVED WHERE POSSIBLE AND BROKEN UP WHERE IT WAS NOT.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1TEAM NO. 6-HeloOG D. FITZGERALDBIO H. DAVISSEGMENT K-1-3
SS-2ADEC J. BARNHAATLANDMANAGER K. MURPHY for _____SUBDIVISION BEXXON R. CoulterUSCG/NOAA Chief JENSEN / G. SHIGENAKADATE 12 May 1991TIME 8:50 to 10:10TIDE LEVEL -1.5 ft. to -1.0 ft.ENERGY LEVEL: ☐ H ☐ M ☒ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 800 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W _____ m M _____ m N _____ m VL 119 m NO 681 m US 2231 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A				T		T	T				B-C-S	L	2	20			X		(SOR light) IN cracks + Betw clasts
B1				T		T	T				B-BR	H	2	15		X			
B2				T		T	T				BR-B	H	2	10		X			
B3				T		T	T				B-BR	H	2	10		X			
B4				T		T	T				B-BR	H	2	10		X			
B5				T		T	T				B-BR	H	2	10		X			
C1	T			T		T	T				B-C	H	2	4		X			
C2	T			T		T	T				B	H	2	25		X	X		
C3	T			T		T	T				B-BR	H	2	15		X			

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

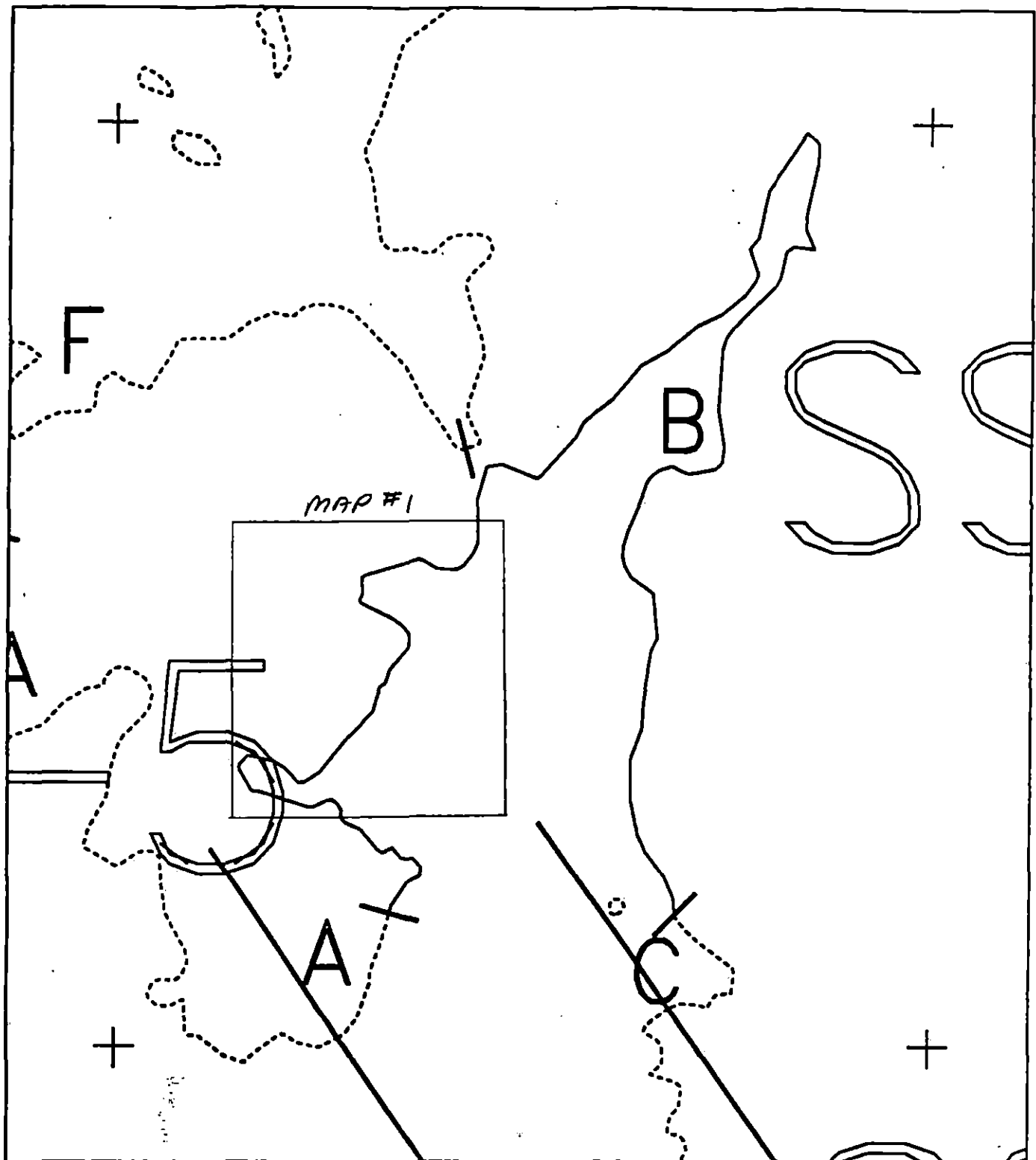
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6-12 FRAMES 8-11

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

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

OG COMMENTS: This site consists of a boulder-bedrock slope with a couple of small finer-grained, pocket beaches within Shuyak Harbor. The oiling condition within this low energy, highly indented embayment consist of SOR and highly weathered ms with some CT, all in trace amounts. Even within the designated oil areas on the sketch map the oiling is highly discontinuous and < 1%. The SOR is found mostly between clasts while the weathered mousse occurs primarily in bedrock cracks.

revised 5/15/91 KGB
ST revised 5/15



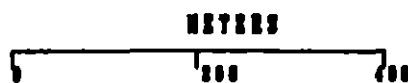
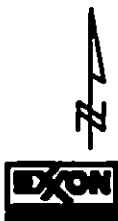
K0103 SS002 B

Subdivision Field Map

Map Key: 6040103SS002B

Name: D. Fitzgerald

Date: 12 May 1991



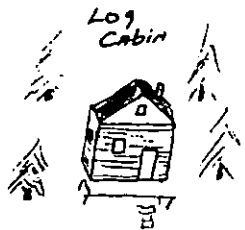
AK Style Plans, Zone 4,
00103SS002B

EC reviewed 5/15

 EVERGREENS
 Bedrock-boulder Slope
 PHOTO SITES

Sketch MAP
 SS-2-B
 D. FITZGERALD
 12 MAY 1991
 850 - 1010

LAGOON



From OG sheet and oiling map:
 (C1) 2 by 4m, <1%

* VECO WORKERS
 COLLECTED 1/4 bag
 of oiled sediment

C. SOR/MS
 CT/ST
 (C2) 2 by 25m, <1%
 (C3) 2 by 15m, <1%
 IN CRACK + CREVICES

SHUYAK ISLAND

B. SOR
 CT/ST
 (B1) 2 by 15m
 (B2) 2 by 10m
 (B3) 2 by 10m
 (B4) 2 by 10m
 (B5) 2 by 10m
 <1%
 IN CRACKS betw.
 bedrock + boulders

Boulder - Bedrock Slope

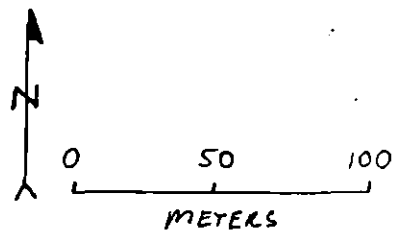
SHUYAK HARBOR

A. SOR
 CT/ST
 2 by 20m, <1%
 found betw
 C + B

Tidal Flat

MLW

UNSURVEYED



revised 5/15/91 KCG
 EC revised 5/15

 A EVERGREENS
 Bedrock-boulder
Slope
 PHOTO SITES.

Sketch Map
SS-2-B
D. FITZGERALD
12 MAY 1991
85D - 1010

Lagoon

Log Cabin



PHOTO SITES, SS-2B
ROLE 6-12, FRAMES 8 THRU 11

P-C Beach

UNSURVEYED

SHUYAK
ISLAND

SOR
CT/ST
2 by 15m
2 by 10m
2 by 10m
2 by 10m
2 by 10m

Boulder - Bedrock
Slope

SHUYAK
HARBOR

A. SOR
CT/ST
2 by 20m, <1%
found betw
C + B

Tidal
Flat

UNSURVEYED



0 50 100
METERS

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 12 1991

SEGMENT # SS-02

TIDAL HEIGHT(Range) -1.8 ft - 4 ft (8:50-10:10)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE 2-3 ft

WIND SPEED/DIRECTION 5 mph SE

PHOTOGRAPHS: ROLL # 6-12

FRAME # 8-11

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

The area of SS-02 B that was surveyed was a low energy boulder/bedrock cobble slope with occasional pocket beaches. At the top of the slope was drift, verrucaria, and some moss in crevices.

B+C. Below the SITZ was a wide band of moderately dense barnacles, littorina and limpets. There were a few sporadic clusters of mytilus. Nucella were very common and actively feeding. The SOR, CT/ST was located in this zone.

The Barnacle, littorina, limpet band extended down to the MLW where Fucus endocladia, scytosiphon and ulva were more common. Both littorina and Nucella were laying eggs throughout the HITZ and MITZ.

A. Site A was also in the Barnacle-littorina-limpet band but was small pocket beach instead of on the Bedrock-boulder slope.

Any clean up in this area would be more disruptive than productive.

On far side of harbor there were ≈ 40 waterfowl but I couldn't ID without being closer. Glaucous Winged Gulls (5) Kittiwakes (11) Eagle (1) Oystercatchers (2) Sparrow (2)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Sculpins
Seabirds			
Waterfowl	73?	≤ 40	
Gulls/Kittiwakes	2	16	
Shorebirds	1	2	
Corvids			
Other Birds sparrow sp.	1	2	

MARINE MAMMALS

OBSERVED

LAND MAMMALS

SPECIES

OBSERVED

Sea Otters	1	Deer Tracks	—
Pinnipeds (specify)	0	River Otter Tracks?	
	0		

Shoreline subdivision map showing important biological features attached.

-  EVERGREENS
-  Bedrock-boulder Slope
-  PHOTO SITES

Bio Map
N. Davis

Sketch MAP
SS-2-B
D. FITZGERALD
12 MAY 1991
85D-1010

LAGOON



Log Cabin

P-C Beach

UNSURVEYED

* VECO WORKERS
COLLECTED 1/4 bag
of oiled sediment

C. SOR/MS
CT/ST
2 by 25m, <1%
2 by 15m, <1%
IN CRACK + CAVITIES

SHUYAK
ISLAND

* C. all three sites were
located in the top third of
a fairly wide band of barnacles,
littorina and limpets. Fucus was bare
in this area. Nucella were common.
* Littorina + Nucella laying eggs B.

BI-5 SOR
CT/ST
2 by 15m
2 by 10m
2 by 10m
2 by 10m
2 by 10m
IN CRACKS betw.
bedrock + boulders

Boulder - Bedrock
Slope

SHUYAK
HARBOR

A. SOR
CT/ST
2 by 20m, <1%
found betw
C + B

Tidal Flat

min

Biological
Shore Transect

Drift logs, kelp
Venus shells

Barnacles, littorina
limpets, Nucella

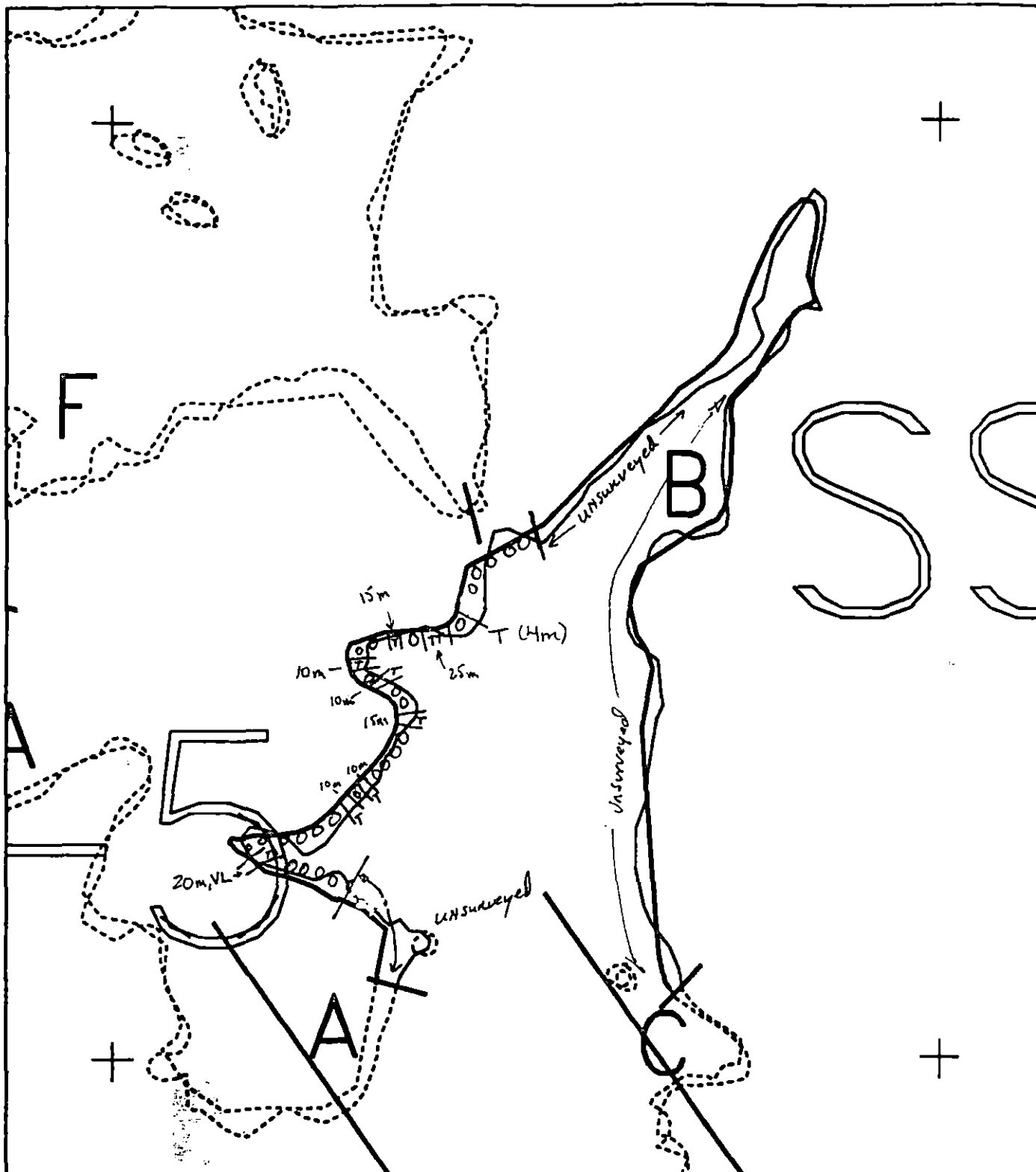
Fucus, endocladia
Scytosiphon
glacilaria
Ulva

Clinoecidium
protococcus
mysis shells

0 50 100
METERS

unsurveyed

II



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

K0103 SS002 B
 ADEC Subsegment Length: 303m
 METERS

AK State Plane Zone 4
 80103+002b- ...



Subdivision Field Map
 Map Key: 60AK0103SS002B
 Name: D. Fitzgerald
 Date: 12 MAY 1991
 Date Entered:

revised 5/15/91 KG
 ET revised 5/15

1991 MAYSAP EVALUATION

SEGMENT: K01038S002 SUB: B REGION: KOD SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 3/1 - 9/1

Ecological/Constraints (see page two for details) Seabird colony, Eagle nest, Fry release

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

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

Fry Release: Unlimited treatment unless otherwise directed by ADF&G. Sheen containment/recovery procedures required for mechanical treatment.

ADEC

NAME J. RAKNHART SIGNATURE _____

- ☒ NTR K01-03 55002 Shuyak Harbor. Trace / splash SOR-MS, CV widely scattered in upper ITL. VECO crew picked up approx 10-15 pounds of oil / oil sediment and two sorbent pads. Where possible VECO crew removed oil. Some oil was broken up and remains on the beach. as trace SOR-MS around cobbles and in cracks in bedrock. Very little oil could be removed by additional manual methods.

EXXON

NAME R. Coulter SIGNATURE REY R. Coulter

- ☒ NTR VERY DIFFICULT TO LOCATE ANY RESIDUAL OILING. THE OIL CONTENT OF THE SOR FOUND AND REMOVED WAS VERY LOW. FUTURE VISITS TO THIS SITE ~~ARE UNNECESSARY~~ ARE UNNECESSARY.

LANDMANAGER

NAME K. Murphy OF ADNR SIGNATURE Keron Murphy

- ☒ NTR This area lies south of Shuyak Island State Park Very little oil was observed here. light coat and stain splattered in rocks in upper tidal zone

USCG/NOAA

NAME Chief Jensen / G. SHIGENAKA SIGNATURE G. Shigenaka

- ☒ NTR 1/4 bag of mousse picked up. There is no longer any detectable oil present in the water, adjoining shorelines, or places where it is likely to reach the water again.

SURVEYED PORTION OF SEGMENT IS A LARGELY ROCKY AND IRREGULAR SHORELINE, WITH TWO SMALL EMBAYMENTS AND A PEBBLE BEACH. THE MORE NORTHERLY OF THE EMBAYMENTS EXAMINED WAS HOT WATER WASHED IN 1989, AND THERE WAS EVIDENCE OF CLAM MORTALITY. REMAINING OIL RESIDUAL WAS OBSERVED PRIMARILY IN THE TWO EMBAYMENTS, AND WAS REPRESENTED BY WEATHERED MOUSSE IN A ROCK MATEX THE OIL WAS REMOVED WHERE POSSIBLE AND BROKEN UP WHERE IT WAS NOT.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 1

TEAM NO. G-Helo

OG D. Fitzgerald

BIO H. DAVIS

SEGMENT K-13 SS-2

ADEC J. BARNHART

LANDMANAGER K. MURPHY for

SUBDIVISION B

EXXON R. Coulter

USCG/NOAA Chief JENSEN / G. SHIGENAKA

DATE 12 / May 1991

TIME 8:50 to 10:10

TIDE LEVEL -1.5 ft. to -1.0 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 800 m

NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W m M m N m VJ 119 m NO 681 m US 2231 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOR	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A				T		T	T				B-C-S	L	2	20			X		(SOR light) IN cracks + betw clss
B1				T		T	T				B-BR	H	2	15		X			
B2				T		T	T				BR-B	H	2	10		X			
B3				T		T	T				B-BR	H	2	10		X			
B4				T		T	T				B-BR	H	2	10		X			
B5				T		T	T				B-BR	H	2	10		X			
C1		T		T		T	T				B-C	H	2	4		X			
C2		T		T		T	T				B	H	2	25		X	X		
C3		T		T		T	T				B-BR	H	2	15		X			

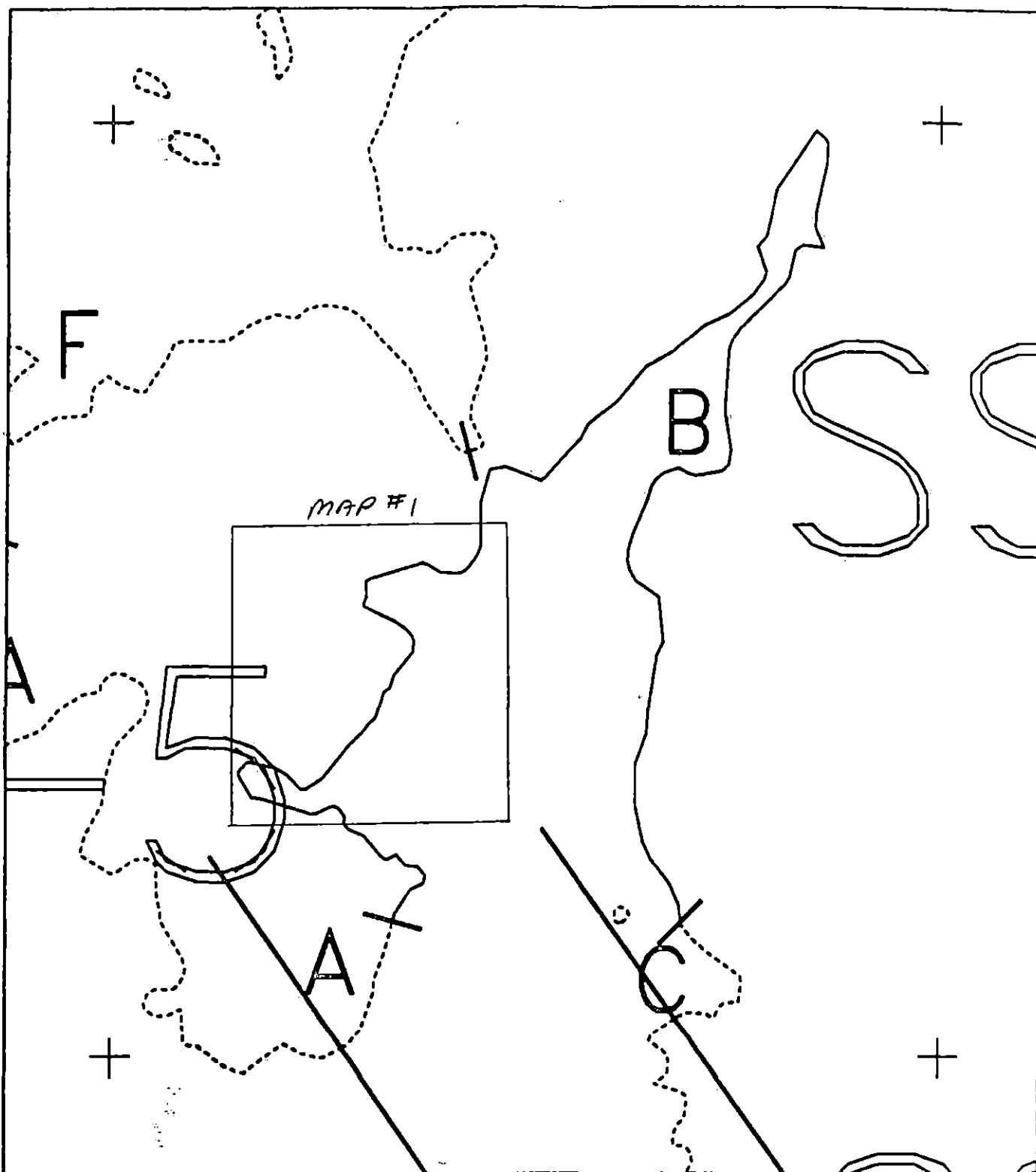
DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6-12 FRAMES 8-11

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

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

OG COMMENTS: This site consists of a boulder-bedrock slope with a couple of small finer-grained, pocket beaches within Shuyak Harbor. The oiling condition within this low energy, highly indented embayment consist of SOR and highly weathered ms with some CT, all in trace amounts. Even within the designated oil areas on the sketch map the oiling is highly discontinuous and < 1%. The SOR is found mostly between clast while the weathered mousse occurs primarily in bedrock cracks.



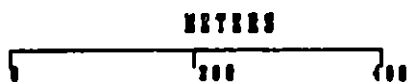
K0103 SS002 B

Subdivision Field Map

Map Key: 60400103SS002B

Name: D. Fitzgerald

Date: 12 May 199



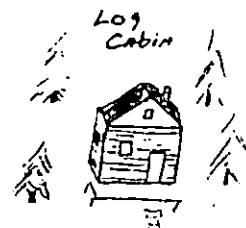
AS State Planning Zone, 4.
01030002b-1.15

SS reviewed 5.15

-  EVERGREENS
-  Bedrock-boulder Slope
-  PHOTO SITES:

SKETCH MAP
SS-2-B
D. FITZGERALD
12 MAY 1991
850-1010

LAGOON



From CG Survey and utility map
C1 2 by 4 m, < 1%

* VECO WORKERS
COLLECTED 1/4 bag
of piled sediment

C. SOR/ms
CT/ST
C2 2 by 25 m, < 1%
C3 2 by 15 m, < 1%
IN CRACK + CREVICES

SHUYAK
ISLAND

B. SOR
CT/ST
(S1/S2) (C1/C2)
2 by 15 m
2 by 10 m
2 by 10 m
2 by 10 m
2 by 10 m
< 1%
IN CRACKS betw.
bedrock + boulders

Boulder-Bedrock
Slope

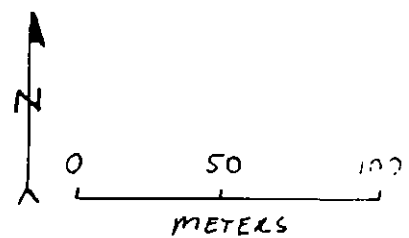
SHUYAK
HARBOR

A. SOR
CT/ST
2 by 20 m, < 1%
found betw
C + B

Tidal Flat

mev

UNSURVEYED



CG reviewed 5/15

EVERGREENS

Bedrock-boulder
Slope

PHOTO SITES

Sketch MAP

SS-2-B

D. FITZGERALD

12 MAY 1991

850-1010

LAGOON

Log
Cabin



PHOTO SITES, SS-2B
ROLE 6-12, FRAMES 8 THRU 11

P-C
Beach

UNSURVEYED

SHUYAK
ISLAND

SOK
CT/ST
2 by 15m
2 by 10m
2 by 10m
2 by 10m
2 by 10m

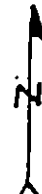
Boulder- Bedrock
Slope

SHUYAK
HARBOR

A. SOK
CT/ST
2 by 20m, <1%
found betw
C + B

Tidal
Flat

UNSURVEYED



0 50 100
METERS

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Hilo

DATE May 12 1991

SEGMENT # SS-02

TIDAL HEIGHT(Range) -1.8 ft - 4 ft (8:50-10:10)

SUBDIVISION B

BIOLOGIST H. Davis

SEA STATE 2-3

WIND SPEED/DIRECTION 5 mph SE

PHOTOGRAPHS: ROLL # 6-12

FRAME # 8-11

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

The area of SS-02 B that was surveyed was a low energy boulder/bedrock cobble slope with occasional pocket beaches. At the top of the slope was drift, verruca, and some moss in crevices.

B+C. Below the SITZ was a wide band of moderately dense barnacles, littorina and limpets. There were a few sporadic clusters of mytilus. Nucella were very common and actively feeding. The SOR, CT/ST was located in this zone.

The Barnacle littorina limpet band extended down to the MLW where Fucus endocladia, scylosiphon and ulva were more common. Both littorina and Nucella were laying eggs throughout the HITZ and MITZ.

A. Site A was also in the Barnacle-littorina-limpet band but was small pocket beach instead of on the Bedrock-boulder slope.

Any clean up in this area would be more disruptive than productive.

On far side of harbor there were $\approx$ 40 waterfowl but I couldn't ID without being closer. Glaucous Winged Gulls (5) Kittiwakes (11) Eagle (1) Oystercatchers (2) Sparrow (2)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Sculpins
Seabirds			
Waterfowl	? 3 ?	$\leq$ 40	
Gulls/Kittiwake	2	16	
Shorebirds	1	2	
Corvids			
Other Birds sparrow sp.	1	2	

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	1	Deer Tracks	—
Pinnipeds (specify)	0	River Otter Tracks ?	
les (specify)	0		

Shoreline subdivision map showing important biological features attached.

 EVERGREENS
 Bedrock-boulder Slope
 PHOTO SITES

Bio Map
H. Davis

Sketch Map
 SS-2-B
 D. Fitzgerald
 12 MAY 1991
 850-1010

LAGOON



P-C Beach

UNSURVEYED

* VECO WORKERS
COLLECTED 1/4 bag
of piled sediment

C.
 (C1-3)
 SOR/ms
 CT/ST
 2 by 25m, < 170
 2 by 15m, < 170
 IN CRACK + CREVICES

SHUYAK
ISLAND

A, B, + C. All three sites were
 located in the top third of
 a fairly wide band of barnacles,
 Littorina and limpets. Fucus was bare
 in this area. Nucella were common.
 * Littorina + Nucella lay in B.

B1-5
 SOR
 CT/ST
 2 by 15m
 2 by 10m
 2 by 10m
 2 by 10m
 2 by 10m
 < 170
 IN CRACKS betw.
 bedrock + boulders

A.
 SOR
 CT/ST
 2 by 20m, < 170
 found betw
 C + B

Boulder - Bedrock
Slope

SHUYAK
HARBOR

Biological
Shore Transect

Drift logs help
Vancouveria

Barnacles, Littorina
limpets, Nucella

Fucus, Endocladia
Scytosiphon
gracilaria
Ulva

Clinoecidium
protocladum
mya shells

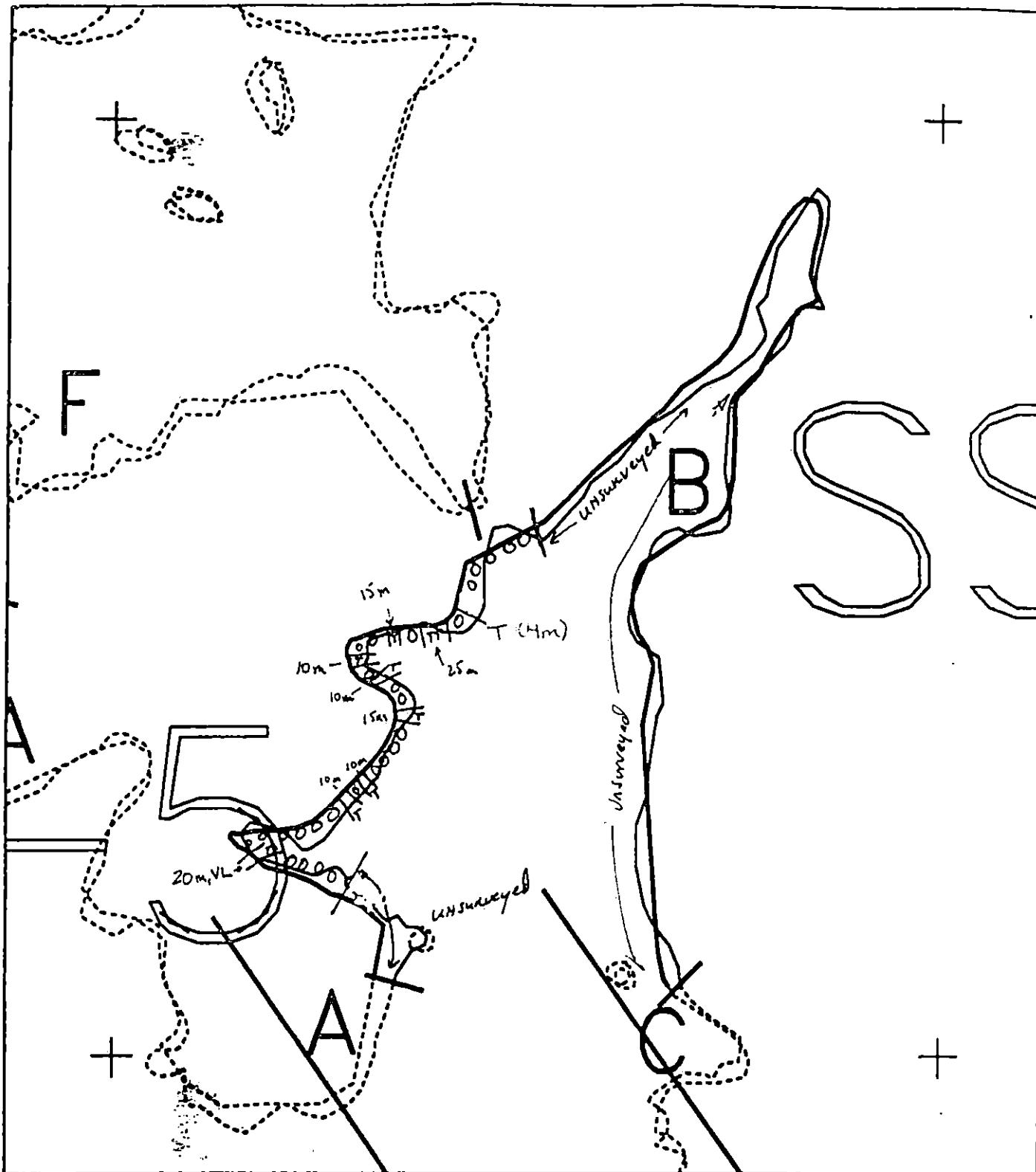
Tidal
Flat

min

unsurveyed

0 50 100
 METERS





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

K0103 SS002 B
 ADEC Subsegment Length: 303m
 METERS
 0 100 200
 AK State Plane Zone 4
 80103-8002b-1



Subdivision Field Map
 Map Key: 60AK0103SS002B
 Name: D. Fitzgerald
 Date: 12 May 1991
 Date Entered:

ET revised 5/15

REGION: KODIAK

SEGMENT: ST/K01-03-SS-005

SUBDIVISION: A (1 of 1)

SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-005 SUBDIVISION A (1 OF 1) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
(5R in adjacent segments SS-002 & NA-001)
5T-1 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4GG State Marine Park Alaska State Parks
9PP Sea Otter concentration
9BB Privately developed lands

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 89 m: No Oil 2077 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
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, 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 prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
1J Purse seine area
Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
East side Kodiak, East side Afognak (7/4 to 10/1)
1K Purse seine hook-off
1L Set net sites
Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled 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 Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)
3 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 Subistence area: Salmon harvesting (8/1 to 9/30)
Finfish harvesting
Deer harvesting (8/1 to 1/7)
Invertebrate harvesting
Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
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/ K0103-SS-5 SUBDIVISION: A DATE 5/20/90

USCG

NAME D.D. Haven Jr., GM3, USCGR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

NTR

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Only a few splatters of coat were found on this segment as well as a very small amount of oiled trash.
No treatment recommended.

LAND MANAGER

NAME Mike Baldwin/ADNR SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This subdivision from Cape Newland To the west entrance to Shuyak Harbor is a high energy segment in which only very small splatters of coat were observed. Because of this insignificant amount of oil no treatment is recommended. It should be noted that an active eagle nest was observed 200M outside the segment boundary at the S.E. end.

SHORELINE OILING SUMMARY

REVISION NO. 10

OGC Marie Sample USCG Don Haven SEGMENT ST/ 5103 SS-5
 10 Don Haven LAND REP Mike Gaudin ADP SUBDIVISION A (1 OF 1)
 EXXON --- ADEC --- TIME 6:00 to 6:52
 TEAM NO. 12 TIDE LEVEL 3.5' to 2.9' DATE May 12 1990
 EST. SUBDIVISION LENGTH: 3400 m ☒ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☒ Helo WORKING DIRECTION: W to E
 SURFACE SEDIMENTS: R 90 % B 2 % C 1 % P 4 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 0 % Vert 90 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 120 m NO 2200 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	1	2	3	4	5	6	7	8	SU	U	M	L
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT				X		X							X			
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL													X	X	X	

PAVEMENT H F S NO sq. m by --- cm

PATTIES / TARBALLS NO BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
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 (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	!	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NS		US	UC	1	2	3	4	5	6	7	8	SU	U	M	L				
1	20					X	3.0		X									X							Pb/cr
2	20					X	3.0		X										X						Pb/cr
3	20					X	3.0		X											X					Pb/cr

COMMENTS

REVIEWED BA7 DATE 24 May 90

K103-88-5, Shuyak Strait, May 20, 1990

Segment K103-88-5 forms the northwestern shore of Shuyak Strait and extends 2.4 km south east from Cape Newland. The segment is exposed to the width of Shuyak Strait and, to some extent the influence of Shelikof Strait to the west. The segment was surveyed on May 20, between 1608h and 1659h and corresponding 3.5' to 2.9' tidal level.

The shoreline consists of small pocket beaches of well sorted and rounded pebble/cobble beaches, with a well defined storm berm and occasional pockets of sand in the upper intertidal zone. These pocket beaches are small and they alternate with longer sections of steep inaccessible bedrock cliffs.

Proceeding east from Cape Newland, the first pocket beach was found to be free of oil, the second one includes 2 small coats of splatter less than 10 cm in diameter and very little oiled trash; and the third beach includes trash and driftwood but no oil. The last beach to the west consists of subrounded cobbles and boulders in the lower and middle intertidal zone and pebbles in the upper intertidal zone. A few coats of splatters were found in the upper intertidal zone of this last beach.

3 Jason T. Sempel
SEGMENT ST/ A SS-5

SKETCH MAP

DIVISION A

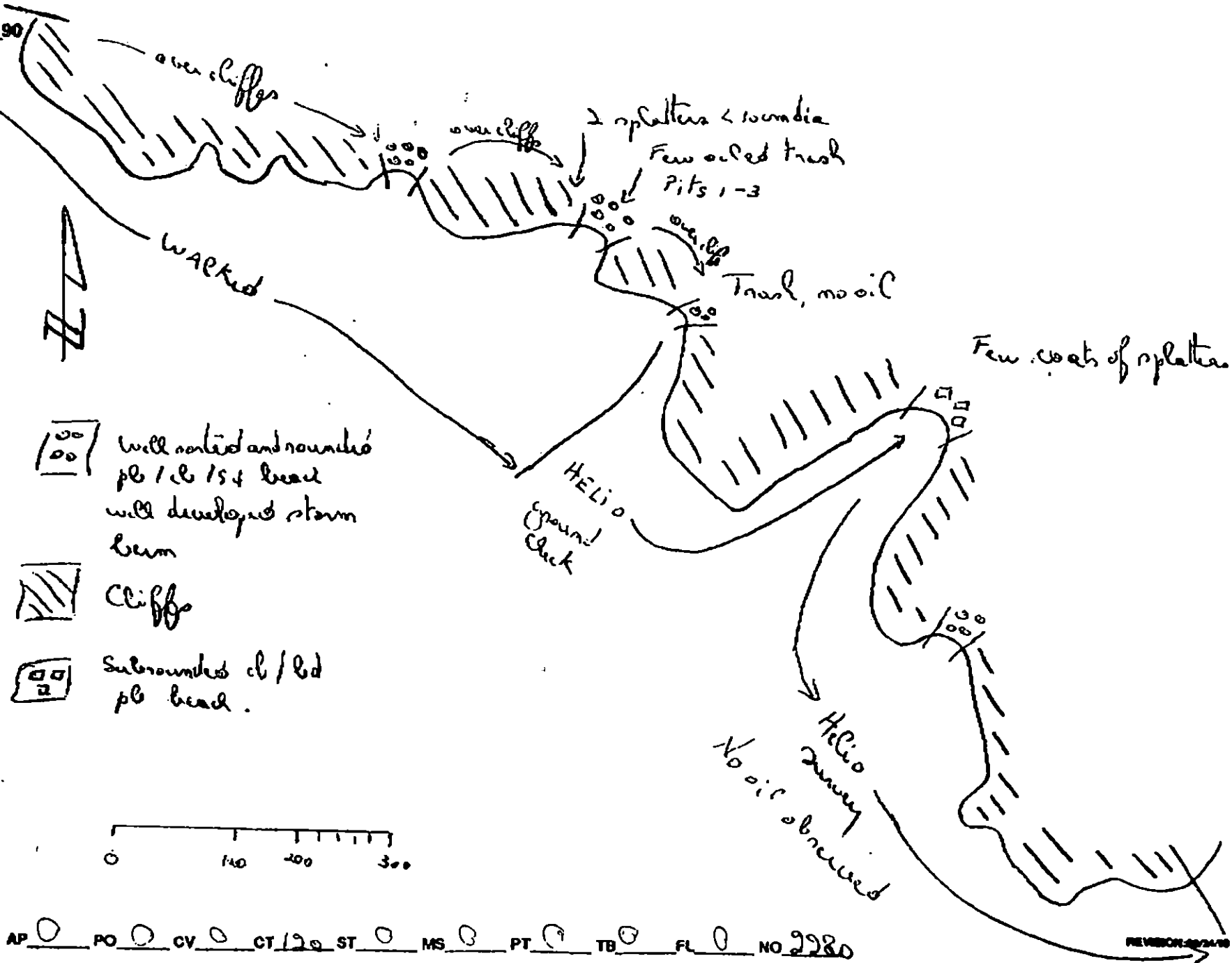
DATE May 1 20 90

CHECKLIST

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

LEGEND

- 1 No Subsurface Oil
- 2 Subsurface Oil
- CT/C Surface Distribution
- CT/B Area Distribution
- CT/P Edge Distribution
- CT/S Patch Distribution
- Reef
- See location, direction, number



REVISION 02/24/90

MAY-23-1990 13:22 FROM EXXON MOBILK TO 15043771 3.36

SHORELINE ECOLOGICAL SUMMARY

Segment ST/K1-3/SS-5 Subdivision A Date (mo / day / yr) 5-20-90(24 hr) 16:00 Biologist David Lohr(A) Substrate type and % of segments:
(1) Bedrock 90 (2) Boulder 2 (3) Cobble 4 (4) Pebble 4 (5) Sand (6) Silt (B) Overall % cover of biota (% of segment): Dense 20 Moderate 60 Low 20

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

Photographs:

Roll No. 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:

See page 2

Ecological Considerations:

1: One mature bald eagle sited in area. No nest was observed

SR: One on segment boundary with K1-4/US-1, and one in adjacent segment K1-3/SS-2.

9PP

Shoreline Ecological Summary

Lot 2

Segment ST/K1-3/SS-5

Subdivision A

5-20-90

Biologist: David Cohen

Wildlife Observations/General Comments

1. Present in low intertidal: *Alaria*, *Epiaulus*, *Katharina tunicata*, *Rhodanella*, *Halosquilla*
mid intertidal: *Anthopleura*, *Sculpins*, *Ralfsia*, *Tealia*, *Rhodanella*, *Desmarestia*, *Gloiopeltis*, *Alaria*, *Epiaulus*, *Katharina tunicata*, coralline algae, *Cladophora*, *Pagurus*
high intertidal: *Cladophora*
2. Several oystercatchers and gulls seen in area
3. Boulders in pocket beaches tended to be barren except for few barnacles, gastropods on protuberant sides. Boulders around headlands tended to be rich in species.
4. Barnacle recruitment was patchy, as was recruitment of Fuus.

Recruitment and Mortality Summary

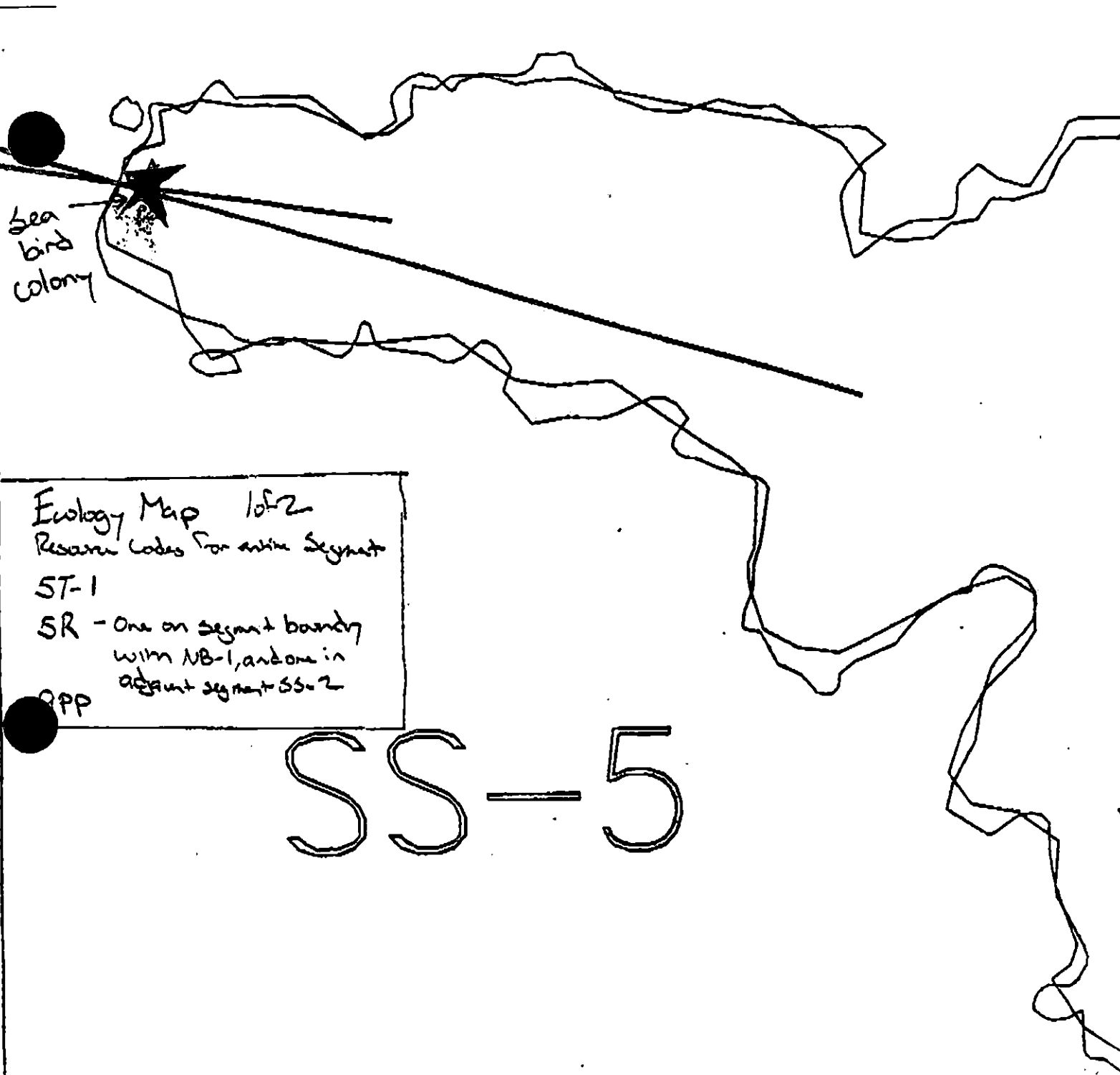
Segment ST/K1-3/SS-5

Subdivision A

S-20-90

Biologist: David Lohr

1. Recruitment of barnacles and Fuus was patchy
2. Barnacle mortality on bedrock was ~25% in mid-intertidal (one site surveyed) and ~40% in high intertidal (one site surveyed).



Sea
bird
colony

Ecology Map 10/2
Reserve Codes for entire Segment

ST-1

SR - One on segment boundary
with NB-1, and one in
adjacent segment SS-2

APP

SS-5

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

SS-5

ADEC Segment Length: 2582m

0 100 200 300

Map Key: GOA-58a

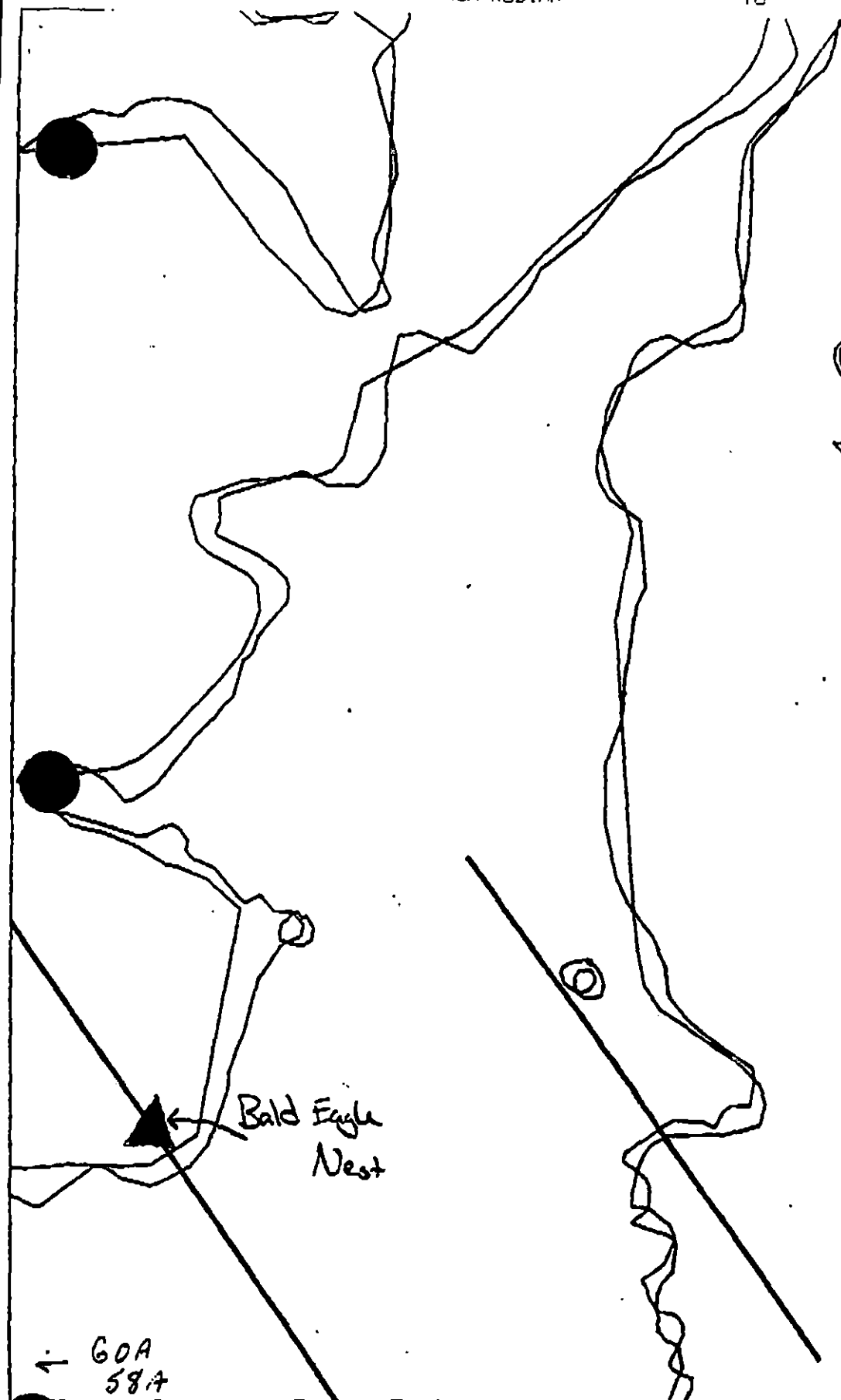
Name: _____

Date: _____

NOT ENTERED

SS-2

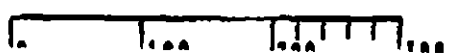
Ewing Map 2 of 2



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

SS-5

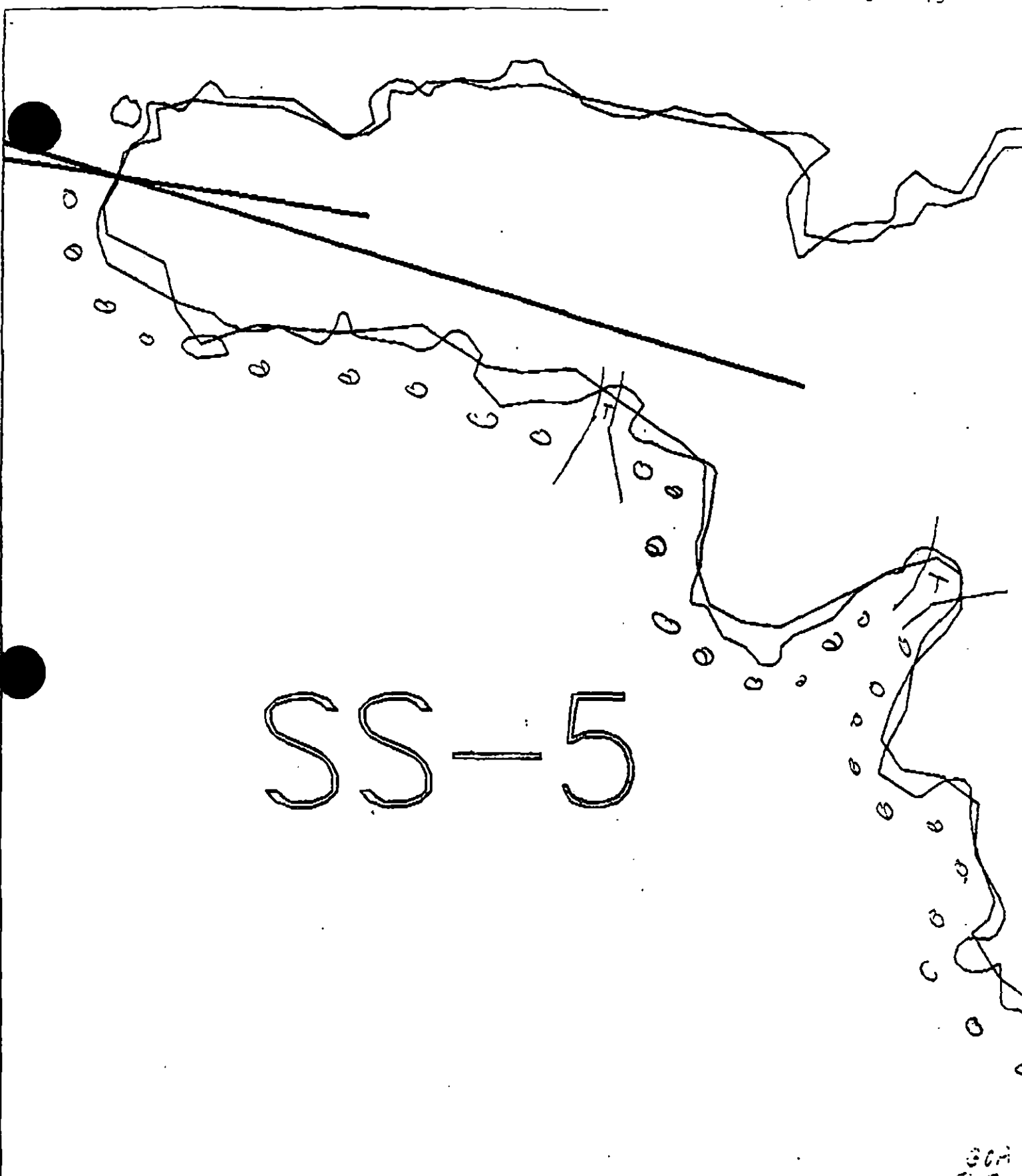
ADEC Segment Length: 2582m



Map Key: GOA-586

Name: _____

Date: _____



SS-5

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

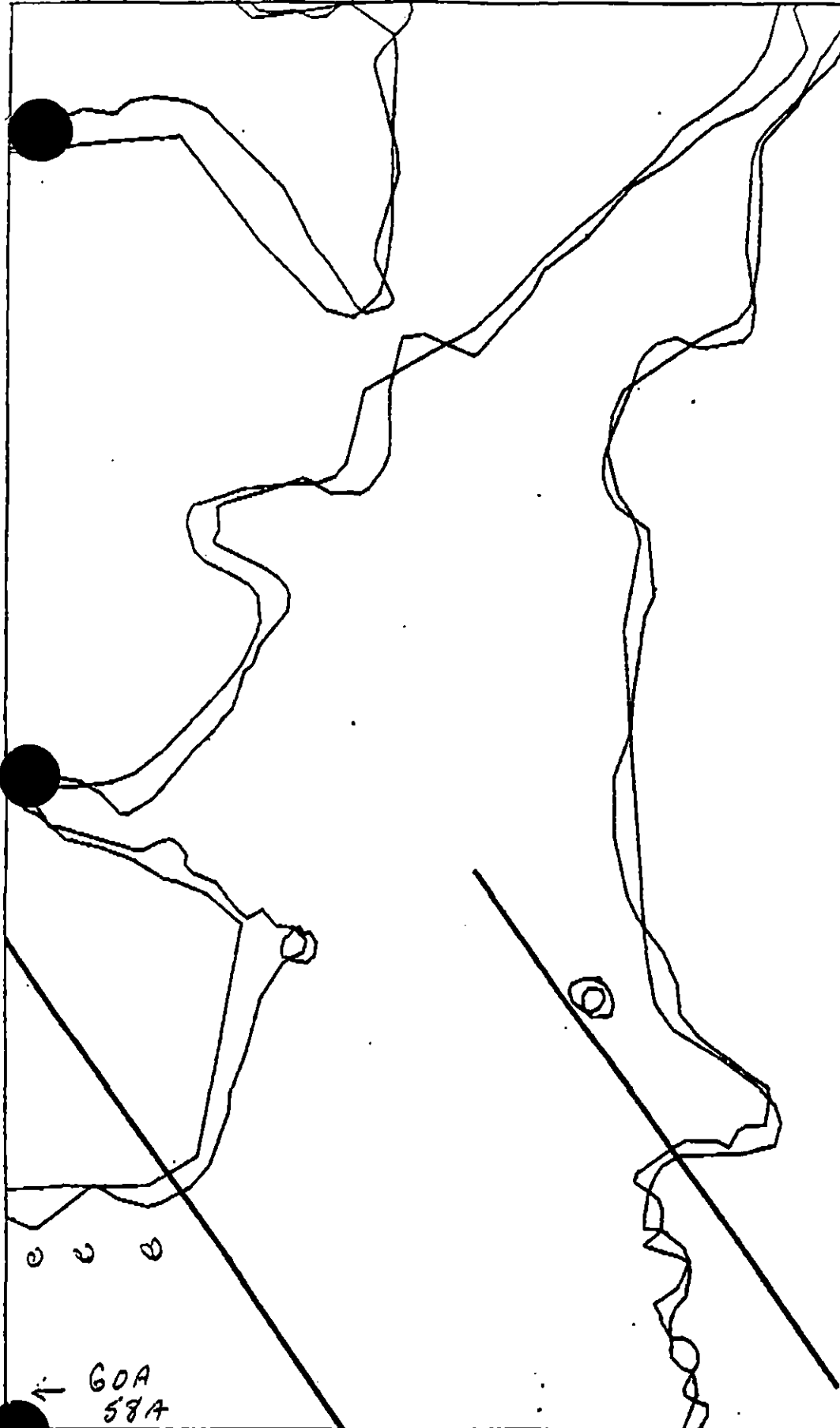
T-103 - SS-5

ADEC Segment Length: 2582m

Map Key GOA-58a

Name: Sam T. ...Date: May 20/92SCA
58B -

SS-2



GOA
584

XXXX Wide

//// Medium

--- Narrow

TTTT

KØ1Ø3-SS-5

ADEC Segment Length: 2582m

Map Key: GOA-58b

Name: *from Tare Sample*

Date: *May 20/90*

SEGMENT ST/K103 SS-5

SKETCH MAP

NTR

SUBDIVISION A

DATE May 12, 90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Study
- ☐ Oil Obs.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HML/LWL
- ☐ SST
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pit 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
Spatched Distribution

Oil Vegetation

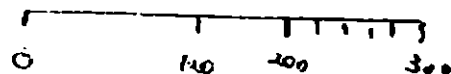
Oil Vegetation

1 ●
Photo location, direction,
and number

Will sorted and rounded
pb / cl / ss beach
will develop storm
bar

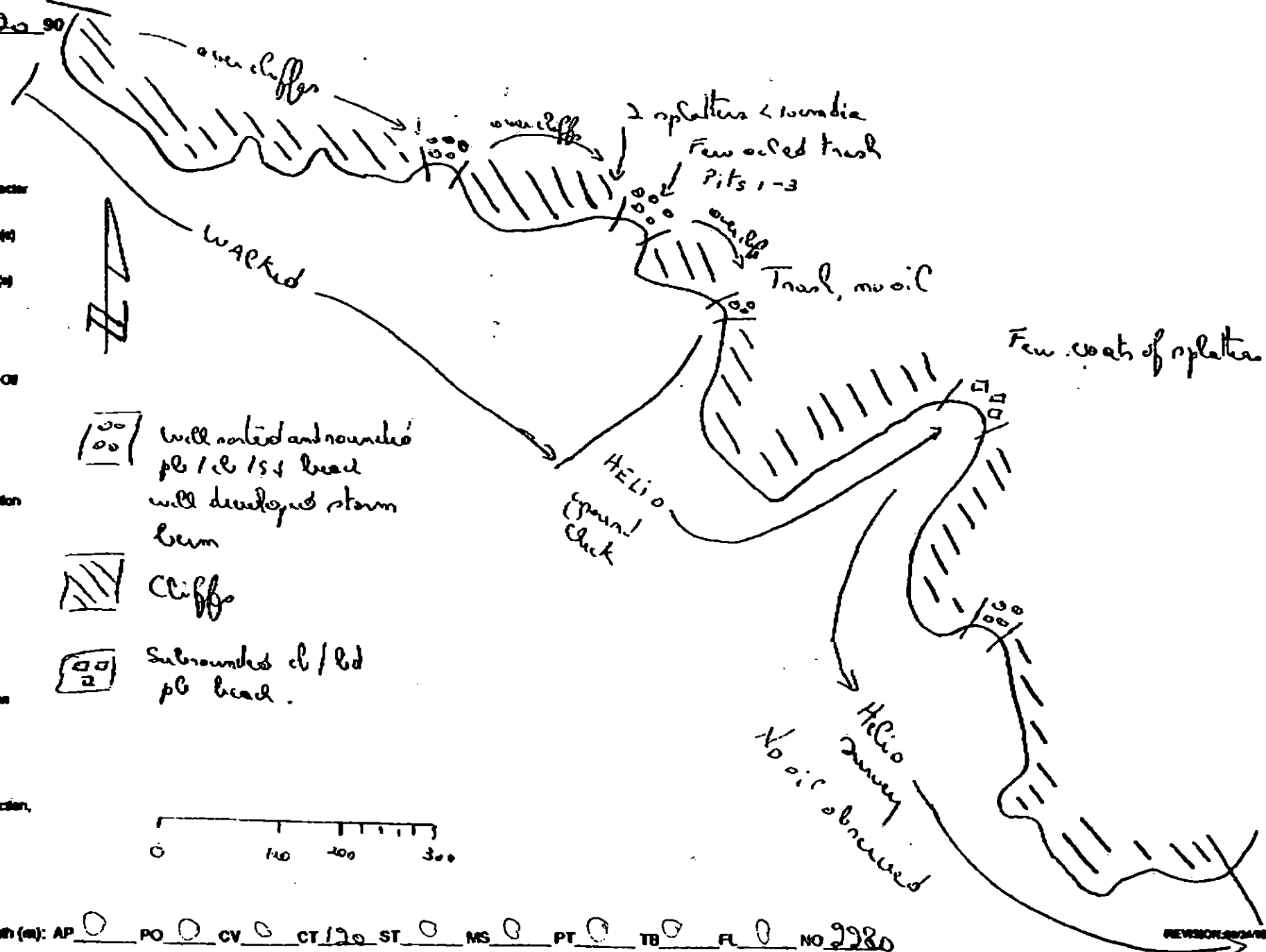
Cliffs

Subrounded cl / rd
pb beach.



Oil Character Length (m): AP 0 PO 0 CV 0 CT 20 ST 0 MS 0 PT 0 TB 0 FL 0 NO 2280

REVISION 002/00



SHORELINE EVALUATION

SEGMENT ST/ K01-03-SS-005 SUBDIVISION A (1 OF 1) DATE 5/20/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5R Seabird colony (5/1 to 9/1)
(5R in adjacent segments SS-002 & NA-001)
5T-1 All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
4GG State Marine Park Alaska State Parks
9PP Sea Otter concentration
9BB Privately developed lands
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Rachel Joan Over DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 89 m: No Oil 2077 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90
ADEC ART WEINER
EXXON Andy FOSC: My L DATE: 6-8-90
NOAA Joseph Talbot
USCG G.A. REITER

W. T. H. L. H.
IT ST/103

SKETCH

SION A

24 / 22 90

IST

Scale
to Body

Character
FLAV

Location(s)
i)
Name(s)
Location(s)

2

surface Oil

ice Oil

Distribution

Button

Button

tribution

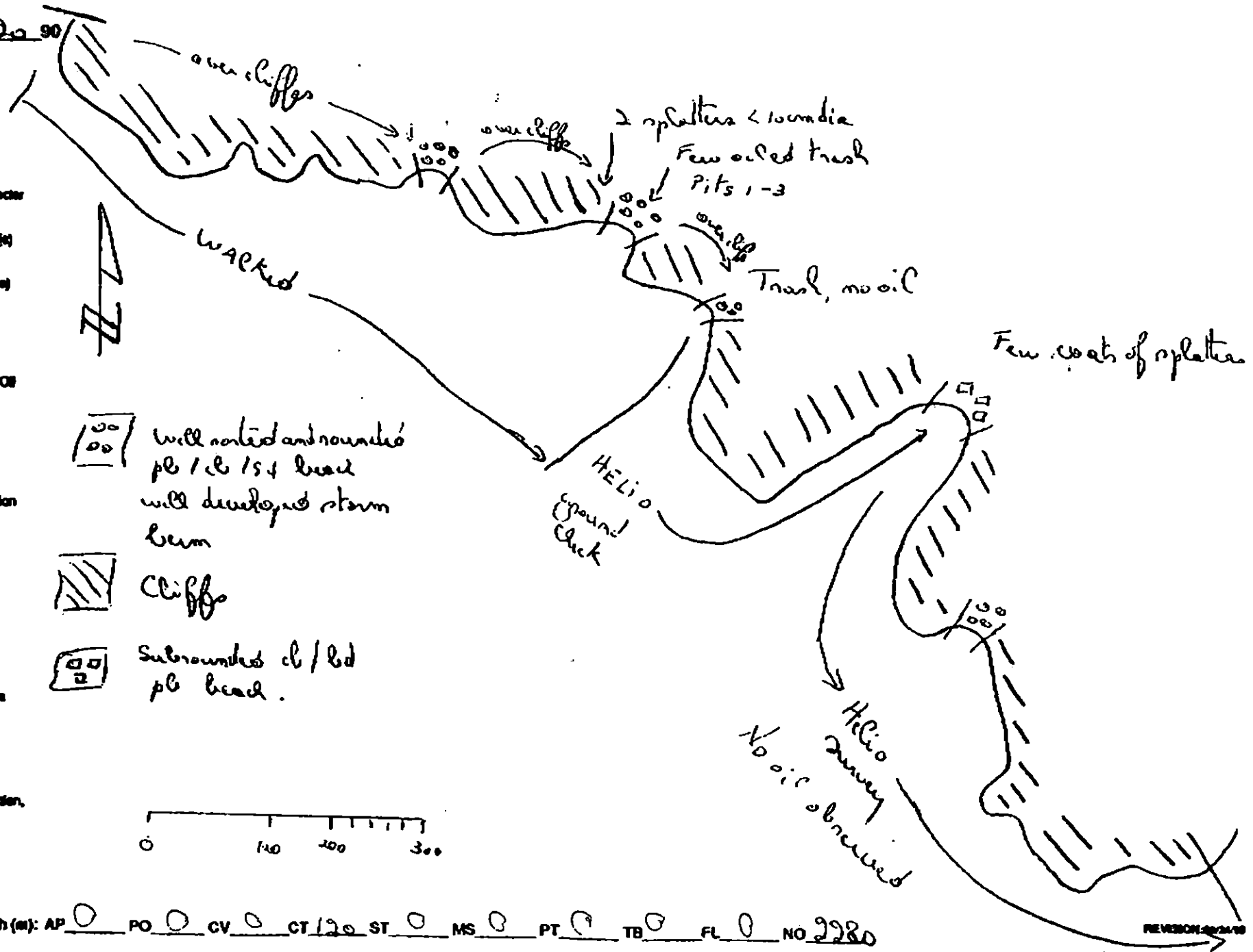
sign

in, direction

Length (m): AP ☐ PO ☐ CV ☐ CT 120 ST ☐ MS ☐ PT ☐ TB ☐ FL ☐ NO 2280

REVISION 2/24/88

MAY-23-1990 13:22 FROM EXON KODIAK TO 15643771 F.26



Sea
bird
colony

Ecology Map 1 of 2
Reserve Codes for active Segment

ST-1

SR - One on segment boundary
with NB-1, and one in
adjacent segment SS-2

pp

SS-5

XXXX Wide

//// Medium

--- Narrow

TTTT Very light

SS-5

ADEC Segment Length: 2582m

Map Key: GOA-58a

Name: _____

Date: _____

GOA
585 -

MAY-23-1990 13:25 FROM EXXON KODIAK

TO

15643771 P.15

SS-2

Ewlog Map 2 of 2

Bald Eagle
Nest

GOA
58.4

XXXX Wide
//// Medium

SS-5

ADEC Segment Length: 2582m

Map Key: GOA-58b

Name: _____

SS-5

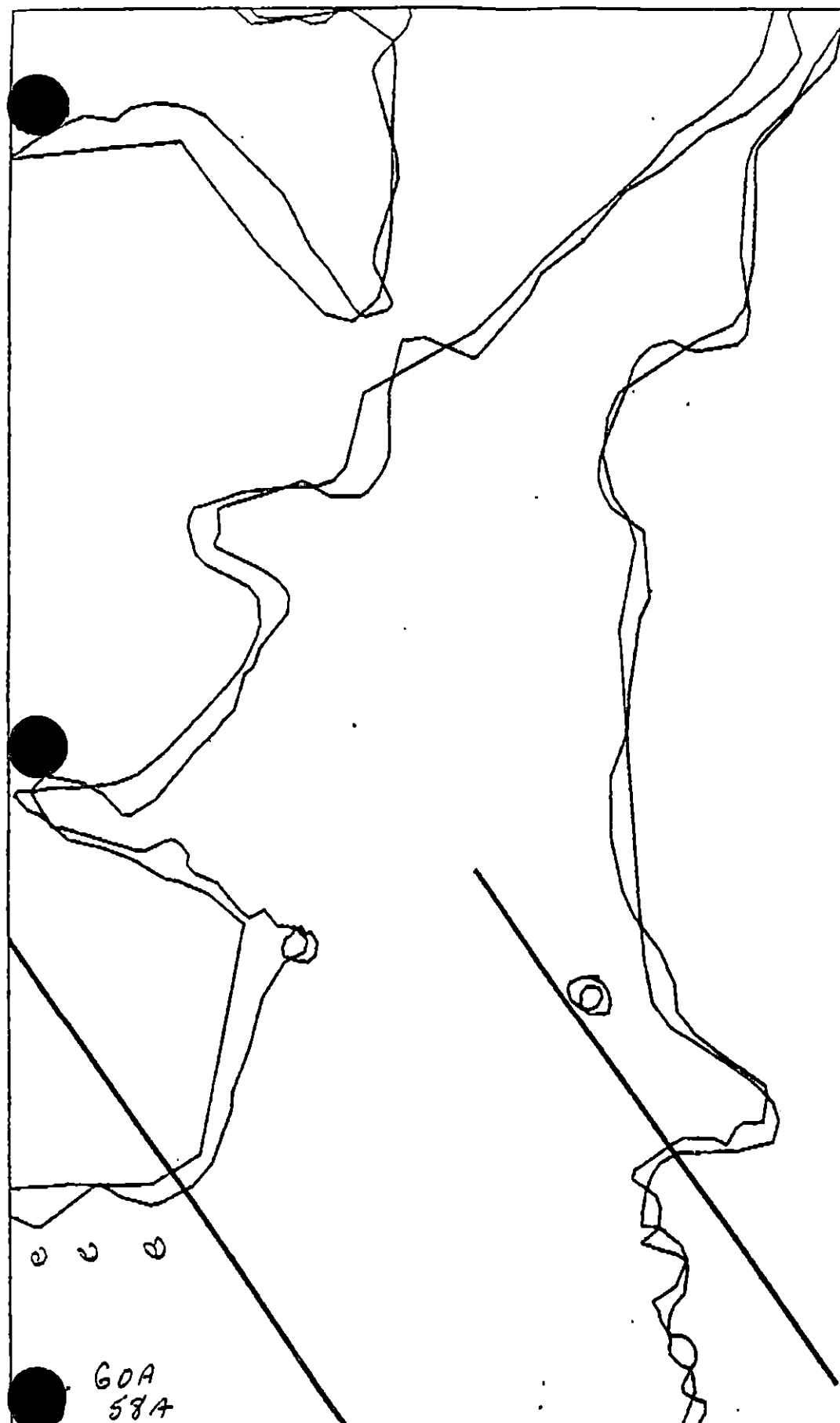
GOA
56B -

XXXX Wide 1703 - SS-5
//// Medium

ADEC Segment Length: 2582m

Map Key GOA-58a
Name: Benjamin S. S.

SS-2



XXXX Wide
 /// Medium
 --- Narrow

K0103-SS-5

ADEC Segment Length: 2582m

Map Key: GOA-58b

Name: *from Tamm-Sempel*

SEGMENT ST/10355-5

SKETCH MAP

SUBDIVISION A

DATE May 1 20 90

CHECKLIST

- ☐ H Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NW/NE/SE/SW
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pits Location(s)
- ☐ Photo Location(s)

LEGEND

1 No Subsurface Oil

2 Subsurface Oil

Continuous Distribution

Broken Distribution

Patchy Distribution

Splashed Distribution

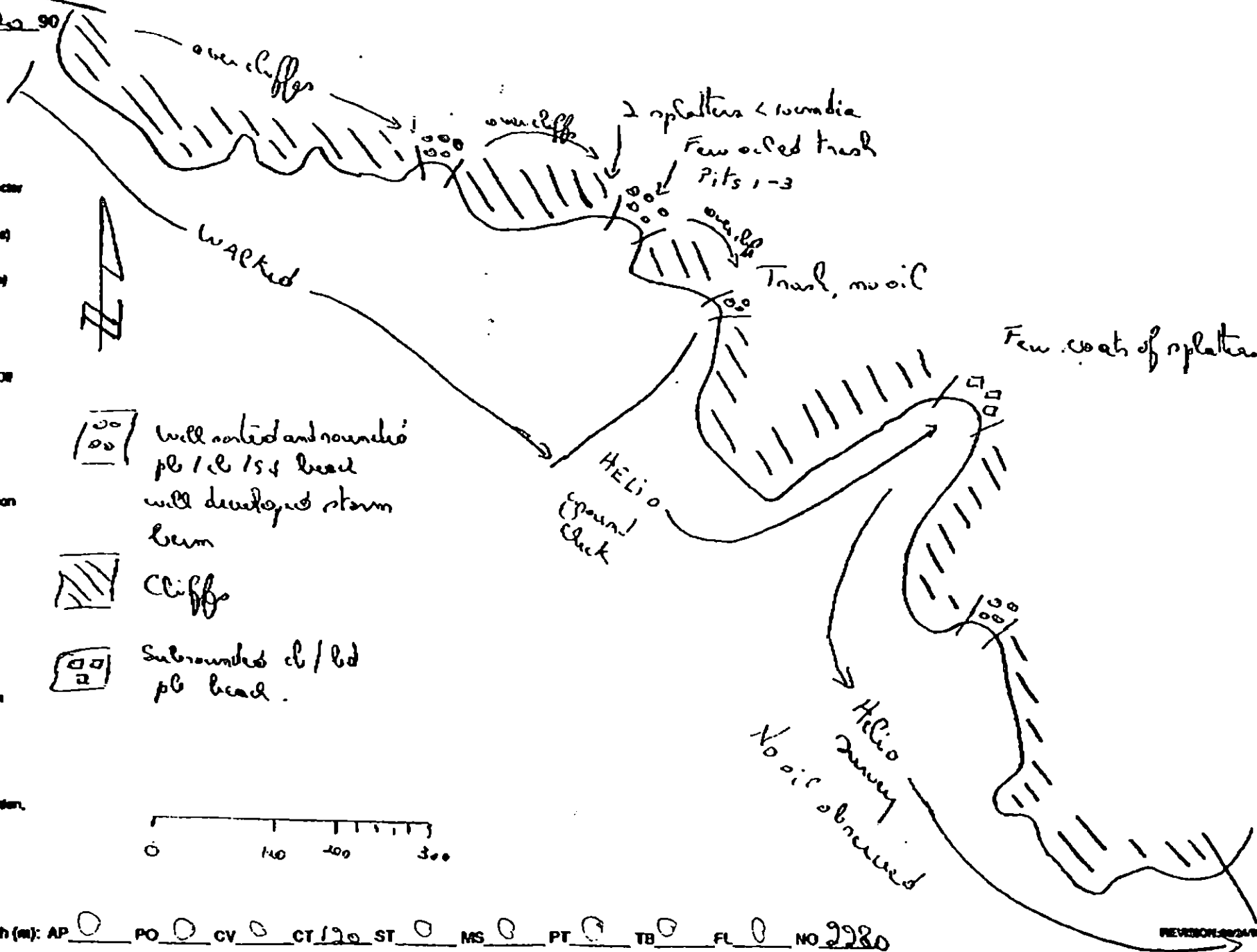
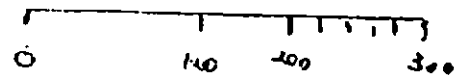
Oiled Vegetation

1 Photo location, direction, and number

Well sorted and rounded pb / cl / ss beach with developed storm berm

Cliffs

Subrounded cl / bd pb beach.



Oil Character Length (m): AP PO CV CT ST MS PT TB FL NO 2280

REVISION 0024/90

REGION: KODIAK

SEGMENT: ST/K01-04-NB-001

SUBDIVISION: A (1 of 6)

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION A (1 OF 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
9PP Seat Otter Concentration Agency Request
4GG State Marine Park Alaska State Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 59 m: No Oil 1291 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

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

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

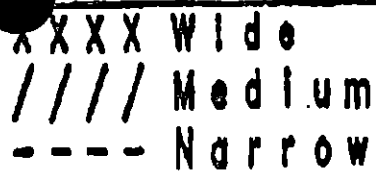
NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled 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 Larry Nicholson 486-4791
- Harbor seal and sea lion pupping (5/10 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. 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 (8/1 to 9/30)
 7H Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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



Approx. Segment Length: 26978

Name: DG Heyman

Ref: 5-10-67

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K1-4 SUBDIVISION: A DATE 5/10/90
NB-1
 NAME STEPHEN LETTMANN SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
 COMMENTS

☐ TREATMENT SUGGESTED

*Extremely light oiling - occasional coat and stain
 No treatment.*

ADEC
 NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☒ NO TREATMENT RECOMMENDED
 COMMENTS

☐ TREATMENT SUGGESTED

*Coat, stain or cover occurs in three small areas in the
 segment. No recoverable oil was observed. No treatment is
 recommended.*

LAND MANAGER
 NAME Mike Goodwin SIGNATURE Michael J. Goodwin

☒ NO TREATMENT RECOMMENDED
 COMMENTS

☐ TREATMENT SUGGESTED

*Very Light oiling condition of some coat and stain
 Along the subdivision exposed to a moderate wave energy.
 No recoverable oil was observed. Therefore treatment
 is NOT recommended. This area is within the
 legislatively designated Shavak State Park.*

SHORELINE OILING SUMMARY

REVISION NO. 04-13-90

OG OG HEYMAN ^{NOAA} USCG 5 LEHMANN SEGMENT ST/ KO104 NB001
 BIO L SHARMAN LAND REP M GORDWIN DNR SUBDIVISION A (1 OF 6)
 EXXON Not Present ADEC TELLSWORTH TIME 10:50 10/13/90
 TEAM NO. 19 TIDE LEVEL -34 to +2 DATE 5/10/90
 EST. SUBDIVISION LENGTH: 1900 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 25 % C 25 % P 20 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 60 % Hang 25 % Vert 15 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 13 m NO 1887 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	B	P	S	SP	BR	OR	OL	OF	NO	CM	IN	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 0 sq. m by 0 cmPATTIES / TARBALLS 0 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				
Debris				
				TYPE <u> </u>
				#BAGS <u> </u>

Photographs:

Roll No. Frames

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	UO	SP	BR	OR	OL	OF	NO	CM	IN	SU	U	M				
1	15					X	0-0		X									X			N	-	-	CP/P
2	15					X	0-0		X									X			N	-	-	PC/P
3	15					X	0-0		X									X			N	-	-	P/P
4	20					X	0-0		X									X			N	-	-	P/P
							.																	
							.																	

COMMENTS

This subdivision consists of a series of pocket beaches separated by metamorphic rock points. As shown on the sketch map, oil was observed in 3 locations. At all 3 locations, the oil was observed on bedrock faces or within crevasses in the bedrock. Coverage was < 1% of the total area at the 3 sites. No other oil was observed.

REVIEWED BATDATE 19 MAY 90

OG Map

EGMENT ST 104 NB-001

SKETCH MAP

Subdivision Location Map

UDIVISION A

WTE 5 110/90

CHECKLIST

- ☐ Area
- ☐ Approx. Scale
- ☐ Symbols Used
- ☐ Contour
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. Habitat
- ☐ Soil
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Profile Location(s)
- ☐ Profile Location(s)

LEGEND

1 A
1 - No Substrate CI

2 A
2 - Substrate CI

CT/C
C/T

CT/B
C/B

CT/P
C/P

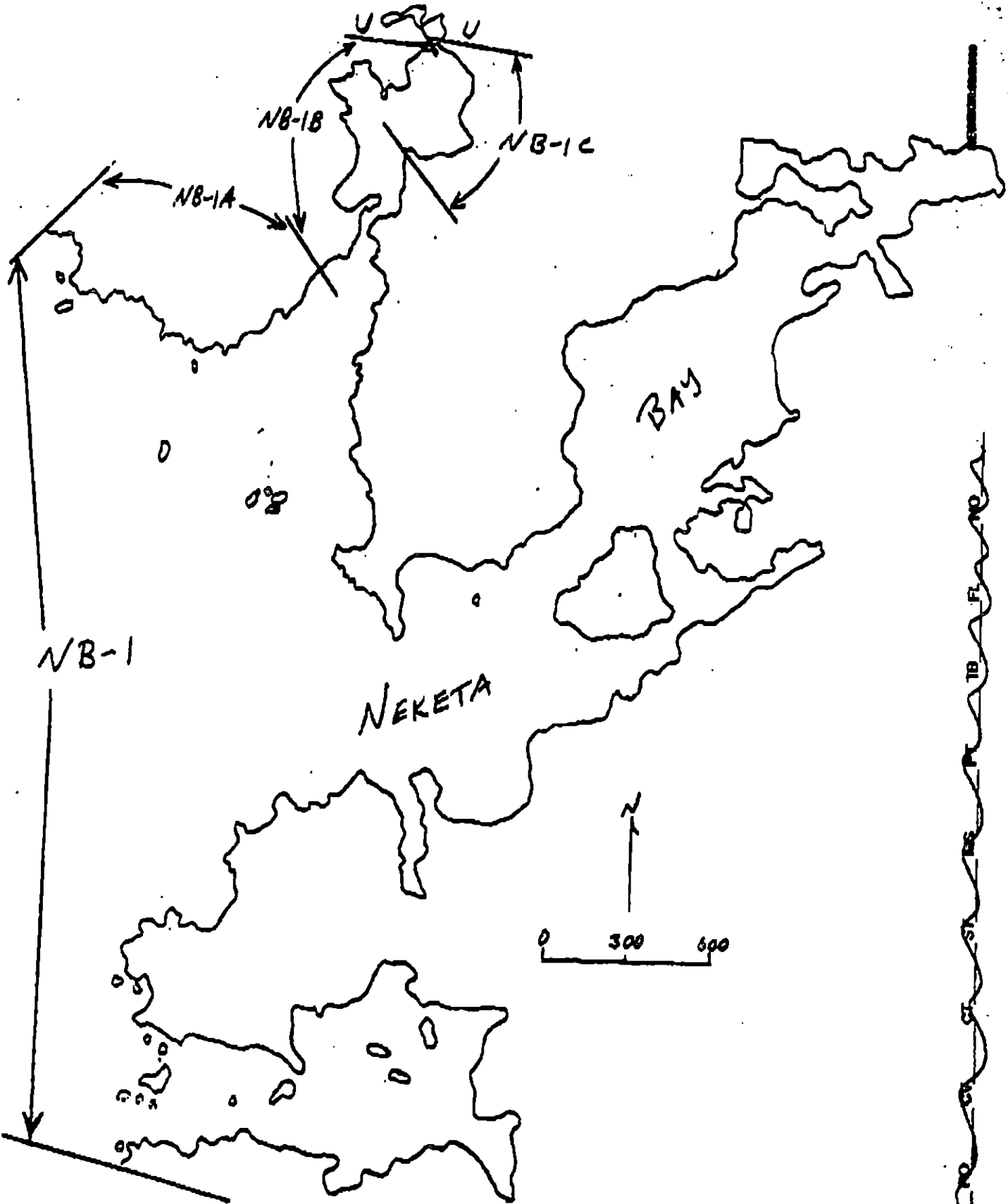
CT/S
C/S

CT/D
C/D

CT/V
C/V

CT/W
C/W

Scale 0 300 600



SHORELINE ECOLOGICAL SUMMARY (Page 2 of 3)

Segment ST / K1-4 Subdivision A Date (mo / day / yr) 5/10/90
Time (24 hr) 1050-1200 Biologist SHARMAN

- (A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 30 (2) Boulder 25 (3) Cobble 25 (4) Pebble 20 (5) Sand 0 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 35 Moderate 55 Low 10
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. _____
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	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 (ANCELA, LITTORINA, LIMAEAE)

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: 1 adult eagle (see comments re. active nest under Ecol. Considerations below), ~ 0 glaucous-winged gulls along subdivision shore (see comments re. gull colonies on nearshore islets under Ecol. Considerations below). 3 pairs oystercatchers, 4 pairs red-breasted mergansers, 1 red-faced cormorant, 4 pairs pigeon guillemots, 1 pair harlequin ducks, 1 red-throated loon. Varied and intermittent singing from forest, (cont.)

Ecological Considerations:

Please see Eco. Map. Note the previously undocumented active eagle nest (one adult incubating), as well as the documented seabird colonies on offshore islets and additional islets with glaucous-winged gulls (as well as probably oystercatchers, cormorants, etc.) presently nesting on them. In addition, this subdivision forms the W. entrance to a protected area of Yakutat Bay that is probably used periodically by sea otters as foraging habitat and as refuge during stormy periods. In general, the greatest ecological sensitivity for this subdivision relates to the active eagle nest and the breeding seabirds on offshore islets. These islets and other

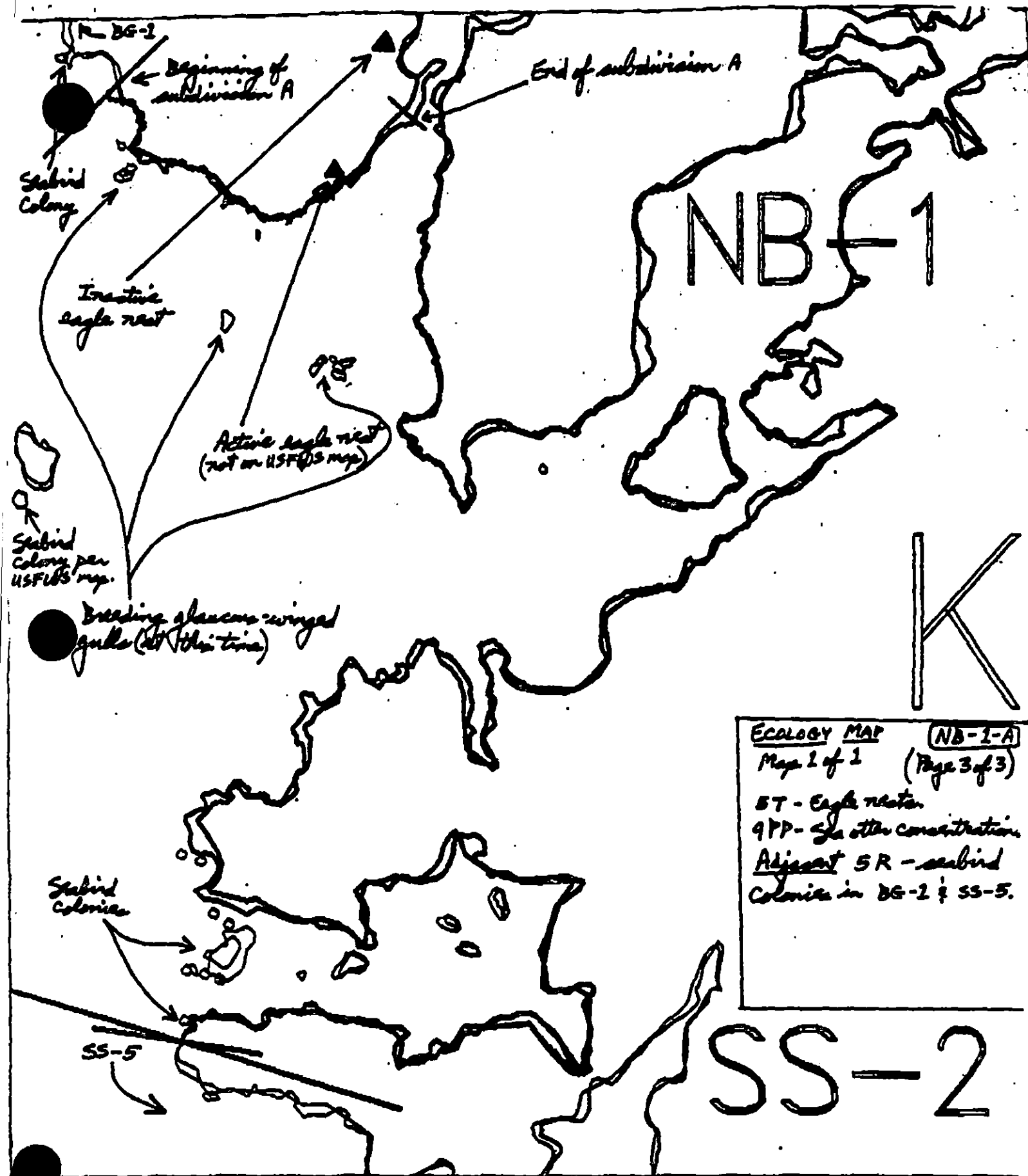
NB-1-A

Shoreline Ecological Summary (cont.)
(Page 2 of 3)Sharman
5/10/90General Comments (cont.):

song sparrows singing from supratidal and forest fringe vegetation. We saw 2 deer in the uplands as we flew in. Additionally deer tracks, scats, and trails are very abundant in the uplands + supratidal. Deer tracks were seen down to the MTE. 1 harbor seal, 1 sea otter. The general area apparently subsided a bit during the 1964 earthquake, as evidenced by narrow strips of drowned forest along low-lying portions of coast. Marine intertidal communities within this subdivision are varied and appear all to be healthy, productive, and normal. Barnacle recruitment, in particular, seems to be extremely high. On the exposed W. portions of the subdivision, there are locally very dense populations of Smilbalaria cariosa (mostly LTE), Fucus, mussels, Fammaria, Odonthalia, Seytoniophora, ulvaea, Enteromorpha, Porphyra, Gelidium, and Katharina. There is also filithamnium, foliose corallines, Halichondria, red foliose algal spp., fine reds (Polysiphonia/Pterisiphonia?), Taalie, Anthopleura (alagattissima, artemisia, xanthogramma), tidypool sculpin, etc. in tidypools - both MTE and LTE. Mytilus and Fucus are recruiting well locally where populations are established. There appear to be normally low levels of observable mortality among all species. Littorines are found locally in extremely high concentrations as aggregations between boulders (10,000's per m²) containing many recent recruits. Ptilota is locally common, and amphipods and Idotea are abundant beneath boulders.

Ecological Considerations (cont.):

tidal rocks + reefs in the area may also be important haulout sites for pupping/molting pinnipeds that could be disturbed by human intrusion during critical times (5/10 → 7/1 for pupping; 8/15 → 9/15 for molting).



XXXX Wide
 /// Medium
 --- Narrow

NB-1-A

Approx. Segment Length: 26978

Map Key: KOD-NB-1a

Name: _____

Date: _____

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION A (1 OF 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
9PP Seat Otter Concentration Agency Request
4GG State Marine Park Alaska State Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Reckel Jan Jan DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 59 m: No Oil 1291 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS:

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90
ADEC ART WEINER Art Weiner
EXXON Amor G. Al FOSC: my L DATE: 6-8-90
NOAA Joseph Talbot J. Talbot
USCG C.A. BELIER C.A. Belier

1000 1000 1000

SKETCH

NTSI/K01/108-001

G. Heyman

NOTES

5/10/90

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References

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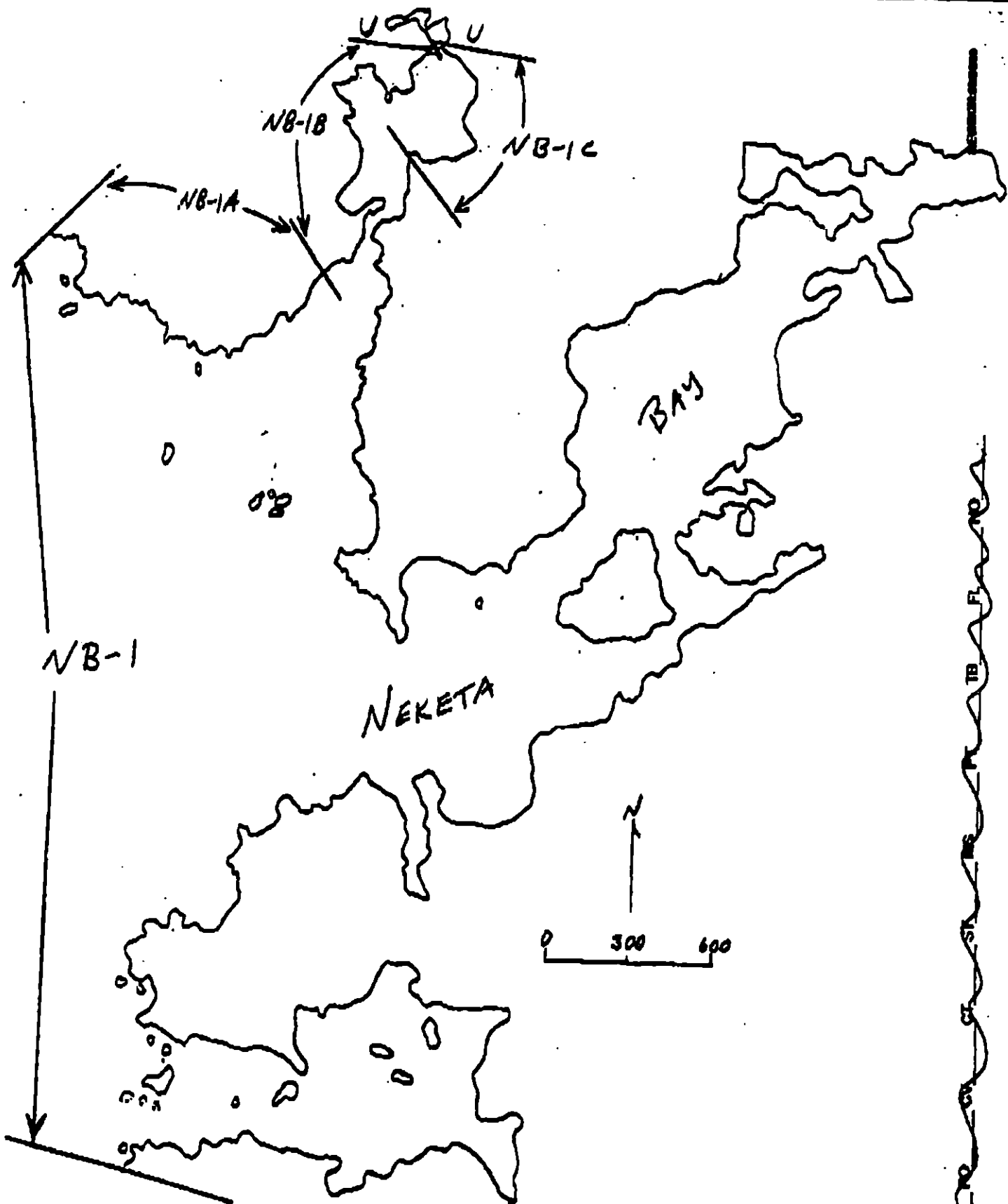
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1

1

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3



(Largest part) AP NO CU CT ST MS FC TB FL NO A

HEYMAN

SU KOL 04 150001

ON A

110/90

SI

Code
Body

Character
LWR

Notes

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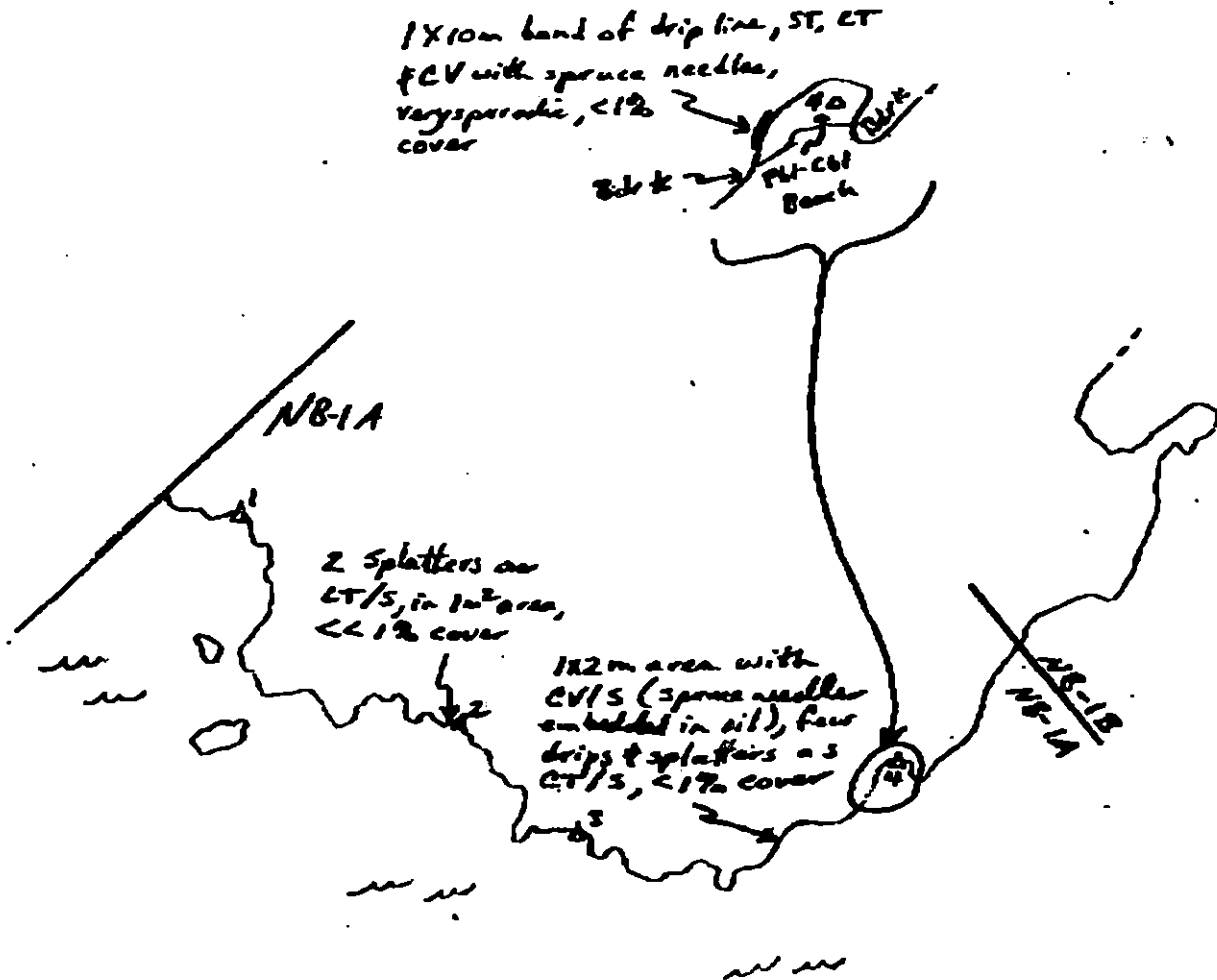
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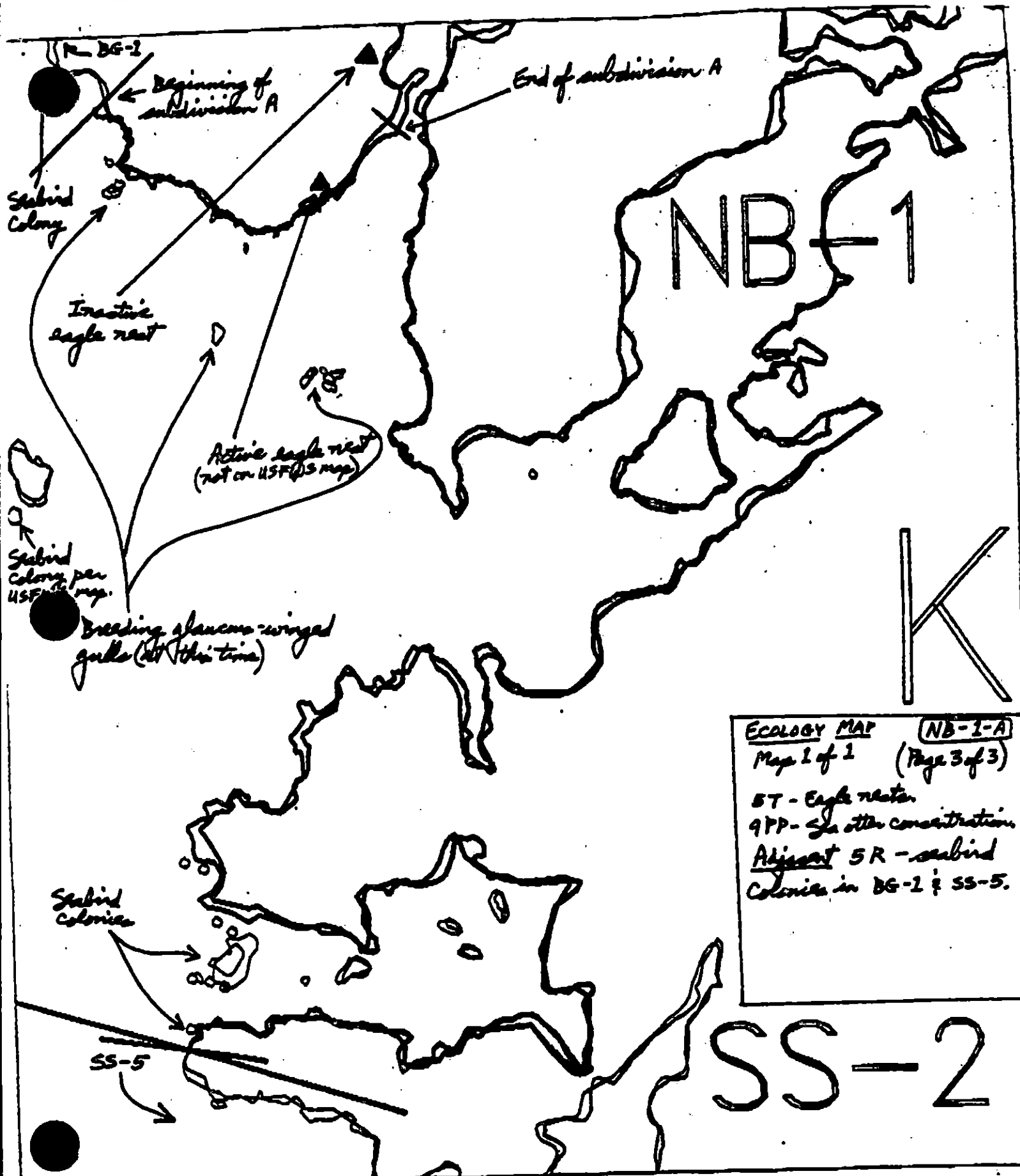
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Notes

SKETCH



right: AP 0 PO 0 CV 4 CT 3 ST 4 MS 0 PT 0 TB 0 FL 0 NO



XXXX Wide
 //// Medium

NB-1-A

Approx. Segment Length: 26978m

Map Key: K00-NB-1a

Name: _____

REGION: KODIAK

SEGMENT: ST/K01-04-NB-001

SUBDIVISIONS: B (2 OF 6)

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION B (2 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

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:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 37 m: Narrow 17 m: V.Light 315 m: No Oil 1195 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: _____ Wands
☒ Tarmat Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommend treatment is removal of mousse as indicated on sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest and Sea Bird Colony.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 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 Larry Nicholson 486-4791
- 3C Harbor seal and sea lion pupping (5/10 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. 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 (8/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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
- 7KK

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K1-4 SUBDIVISION: B DATE 5/10/90
NB-1

NOAA
 HSCG

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This is a difficult area to make a recommendation for. Oil exists in the form of recoverable size mouse patties in very localized areas. The areas are generally small. However, the lagoon is quite productive and presumably quite sensitive. Treatment is recommended, but only if it can be done with a small crew. Otherwise I would recommend against it.

ADEC

NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Interstitial mouse with entrained sediment and mouse patties and tarballs occur along the west entrance and near the small island at the mouth of the lagoon. This represents most of the recoverable oil in the segment. Manual removal is recommended in these areas. Note Active eagle nest near. Stain, coat, cover, mouse in bedrock crevices, tarballs and patties occur through out the remainder of the segment in limited amounts with only a small amount of recoverable oil. Because of the sensitive nature of the lagoon no treatment is recommended in the remainder of the segment.

LAND MANAGER

NAME Mike Godwin SIGNATURE Mike Godwin
ADNR

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This subdivision is contained within the Legislatively designated SNUYAK Island State Park. The oiling caption identified in this subdivision that is recommended for removal is described as a 13 x 60 M. band of mouse and cover mixed with the beach sediments that can be removed by manual methods. Treatment of very small amounts of oil within the lagoon are not recommended.

FIELD SHORELINE COMMENT SHEET**LAND MANAGER COMMENT CONTINUED**

It should be noted that an active eagle nest is located on the western shoreline of this segment at the entrance of the lagoon that lies to the north. Every effort should be given to avoid this wildlife sensitivity during the proposed treatment activity. This subdivision has high recreational values primarily for non-motorized boaters that frequent the area. The lagoon provides wildlife viewing opportunities and should not be entered with treatment crews operating motorized skiffs.

SHORELINE OILING SUMMARY

REVISION NO. 04/15/88

OG OG HERMAN NOAA USCG S LEHMAN SEGMENT ST/ K0104 N/R 001
NO 1 SHUMAN LAND REP H GOODMAN DNR SUBDIVISION B (2 OF 6)
EXON Her PERMIT ADEC T. ENGLISH TIME 12:00 10/13/90
TEAM NO. 19 TIDE LEVEL +2 +3.5 DATE 5/10/90
EST. SUBDIVISION LENGTH: 2375 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N (clockwise)
SURFACE SEDIMENTS: R 30 % B 3 % C 15 % P 10 % G 2 % S 30 % M 2 % V 2 %
SLOPE: Long 95 % Hang 3 % Vert 2 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
OIL CATEGORY LENGTH: W 0 m M 55 m N 30 m VL 270 m NO 2020 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	W	B	C	P	R	G	S	M	V	U	M	U
ASPHALT												
PAVEMENT												
POOLED												
COVER				X	X	X				X		
COAT				X	X					X		
STAIN												
MOUSSE			X	X		X				X		
PATTIES			X			X				X		
TARBALLS			X		X					X		
FILM										X		
NO OIL										X	X	X

PAVEMENT W B C 0 sq. m by 0 cm

PATTIES / TARBALLS 7 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs:

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	DEPT (cm)	↓	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	CL	OF	NO		UO	UG	R	G	S	M	U	U	M	U				
1	20					X	0-0		X					X				N	-	-	P/PS
2	25					X	0-0		X					X				N	-	-	P/S/SM

COMMENTS

OG COMMENTS K0104 NB 001B (20P6) OG HEYMAN 5-10-90

This subdivision consists of the western entrance, the small island at the mouth, and the western half of the prominent lagoon northwest of Neketa Bay. The entrance to the lagoon is formed by cobble-pebble beaches with $\leq 15\%$ boulders. The lagoon is ringed by a very narrow shore consisting of rock outcrops separated by fine grained soils eroding from the dense spruce forest surrounding the lagoon. A few pebble & fine grained pocket beaches also lie along the shore.

→ The largest oiled area was observed on the beach just southwest of the lagoon mouth. A $13 \times 50-60$ m band of MS, CT & CV lies along the lower UTE. CT & CV were observed in a similar band continuing 30-40 m to the SW. Random MS, CT & CV occur at a similar shore face level to the NE. One area of more concentrated MS was observed to be about 30×2 m.

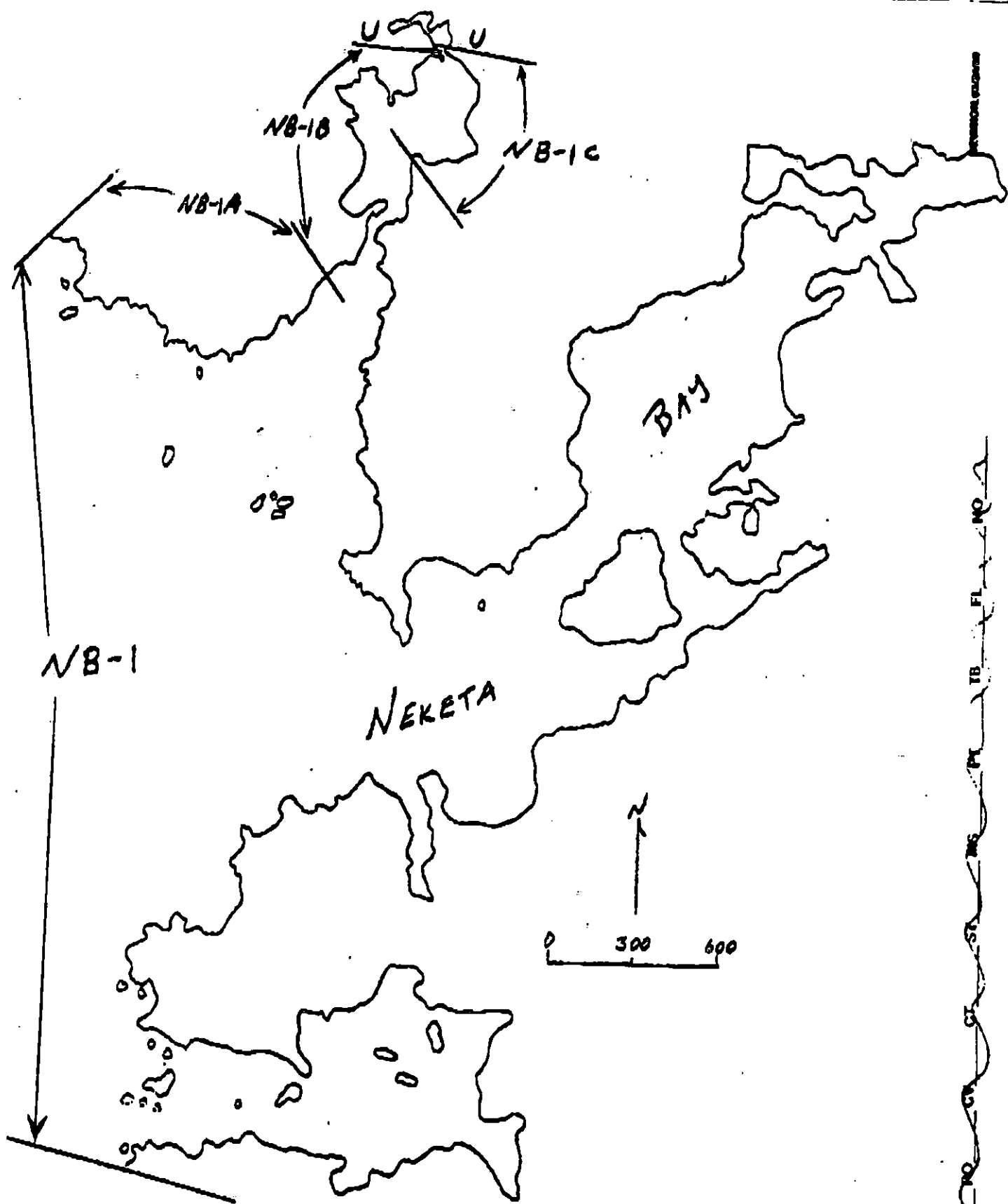
The MS in the area is interstitial to the cobbles and entrance pebbles, gravel & sand. The interstitial MS occurs in patches up to $1 \times \frac{1}{2}$ m & is generally not more than 1 cm thick. The MS is DBR on the outside than a shiny medium to dark brown interior that is very sticky and appears like it could become mobile at higher temperatures. The undersides of a few cobbles had a little MS cover, but most were clean. A layer of fine sand & silt with pebbles was observed beneath the cobbles which appeared to confine the MS to the surface. The middle 5 m of the band had a cover of 5 to 20%. Cover over the rest of the area varied from ≤ 1 to 10%.

Oiling along the west shore of the lagoon was generally limited to CT, CV with spruce needles bound by the oil, & MS in fractures & crevices and on the bedrock basalt splitters. A few MS patches & tar balls were also observed along the shore.

The small lagoon at the north end of the subdivision was not surveyed by group consensus. No oil was observed at the entrance, the area was very shallow, the tide window was closing, and the weather was slowly closing.

OG He
SEGMENT ST/ 04 NB-001
SUBDIVISION B
DATE 5 1 10/90

MAP
Subdivision Location Map



CHECKLIST

- ☐ M Area
- ☐ Approx. Scale
- ☐ Seg/Sub Grid
- ☐ Off Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. HMLA/WL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

PH - No Subsurface Oil

2 Δ

% - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Island Distribution

CT/P

Island Distribution

CT/S

Island Distribution

Red Vegetation

1 ●

Note location, direction, and number

Character Length (m) AP NO CT ST MS PT TB FL NO

Page 1 of 1
NO 0 CV 80 CT 95 ST 0 MS 435 FT 5 TB 40 FL 0 NO 2020

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 4)

REVISION: 03/22/90

Segment ST / K1-4 Subdivision B Date (mo / day / yr) 5/10/90

Time (24 hr) 1200-1300 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
(1) Bedrock 30 (2) Boulder 3 (3) Cobble 15 (4) Pebble 10 (5) Sand 32 (6) SM 8 + granular mud

(B) Overall % cover of biota (% of segment): Dense SUBDIV. Moderate X Low

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

Photographs: Roll No.

Frames

BARNACLES

Dense			Moderate			Sparse			Rare			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 (ANCELA, LITTORIALIA, LIMPAETS)

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: 4 pairs red-breasted mergansers, 3 pairs harlequin ducks, 1 pair widgers, 2 pairs green-winged teal, 1 unidentified loon, 1 pair oystercatchers, 2 pairs osprey. 2 aka otters. Occasional deer and other lonks scattered in intertidal zone not uncommon, 1 river otter skull. Very abundant deer tracks/scats/trails in forest + supratidal fringe; (cont.)

Ecological Considerations:

Please see Eco. Map. The primary concerns within this subdivision relate to the presently active eagle nest adjacent in subdivision "A" to the S. This nest should be considered operationally to occur within this subdivision "B" as well. Note also the other eagle nest which appeared inactive during this survey but is in very good repair. Additional consideration should be given to the general sensitivity of the lagoon proper, as a protected and productive area of important foraging habitat for many bird and terrestrial mammal species, as well as possibly for sea otters during occasional forays (also possibly

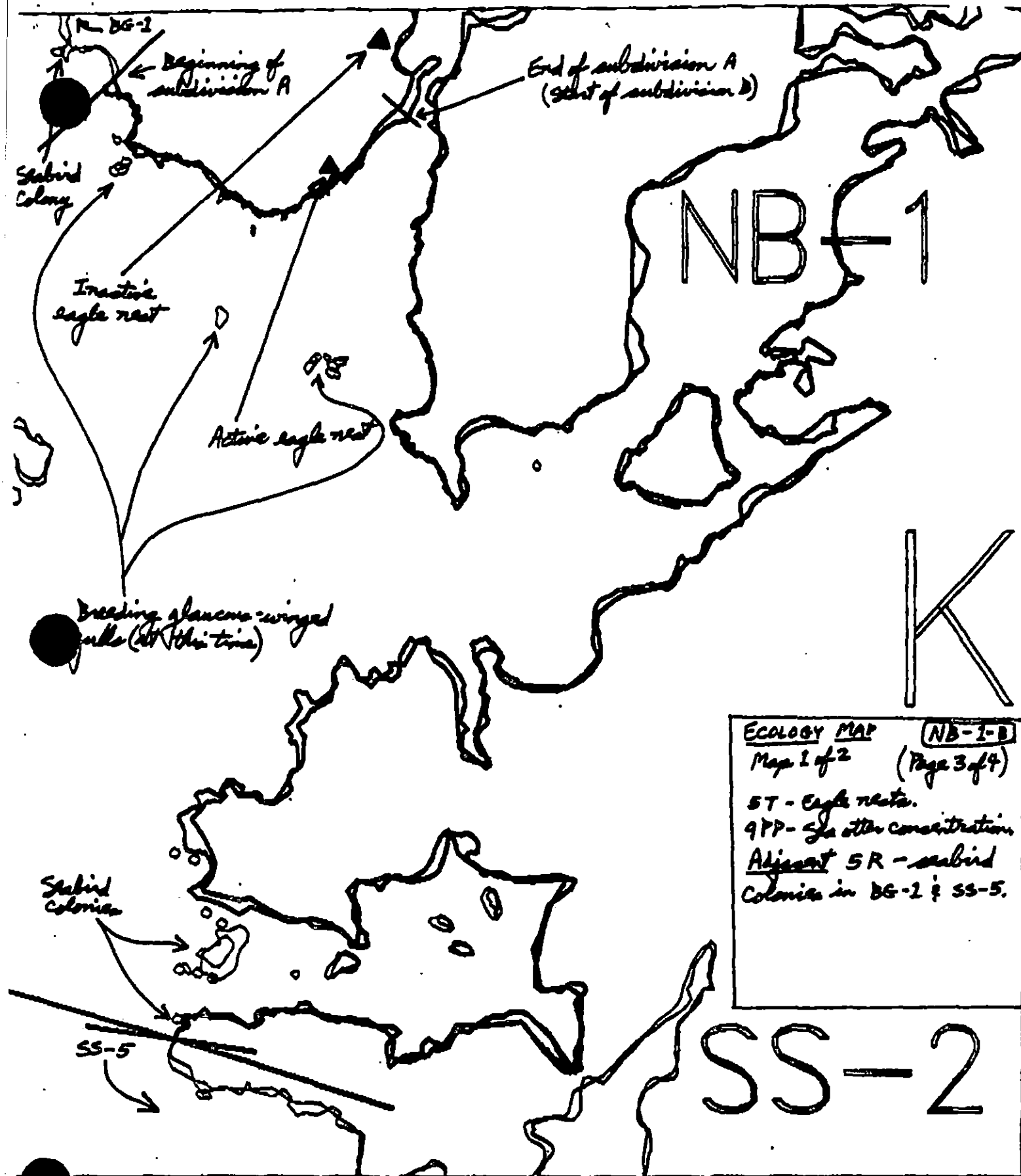
NB-1-B

Sloosline Ecological Summary (cont.)
(Page 2 of 4)

Shorman
5/10/90

General Comments (cont.):

some deer tracks in intertidal, down to MTE. Hermit and varied thrushes singing from the forest; red squirrels abundant in forest. Clearly the area supports a dense population of deer. Intertidal habitat in this subdivision is quite protected, low-energy, with a predominance of fine-grained sediments and infaunal biota. Apparently quite normal and healthy. Occasional low-elevation beaches blocked by drowned forests evidence the apparent subsidence of the area during the 1964 earthquake. Rocky beaches are moderately diverse, with sparse barnacles (good spring spat set), sea mussels, and Fucus, Odonthallia, Scytosiphon, and Enteromorpha. The S. portion of the subdivision is particularly rich + diverse, benefiting from relative protection + nourishing tidal racks at the narrow entrance to the lagoon. Species include coralline algae, Tunicella, Margarita, Agurac, and anemones and limpets. The inner lagoon proper is predominantly finer sediments, with discontinuous sparse stands of LTE Zostera. There are scattered shells of Saxidomus, Protothaca, Mya spp., and Macoma spp. on the surface. Also Clivocardium. There are many snail drill holes in some of these shells. Lugworms (Arenicola) and especially spoonworms (Echiurio) reside in the MTE and LTE sediments, with other unidentified worms and bivalves (mostly Mya / Macoma spp.).



ECOLOGY MAP

NB-1-B

Map 1 of 2

(Page 3 of 4)

ST - Eagle nests.

9PP - Sea otter concentration.

Adjacent SR - seabird colonies in BG-2 & SS-5.

XXX Wide

//// Medium

---- Narrow

TTTT Very Light

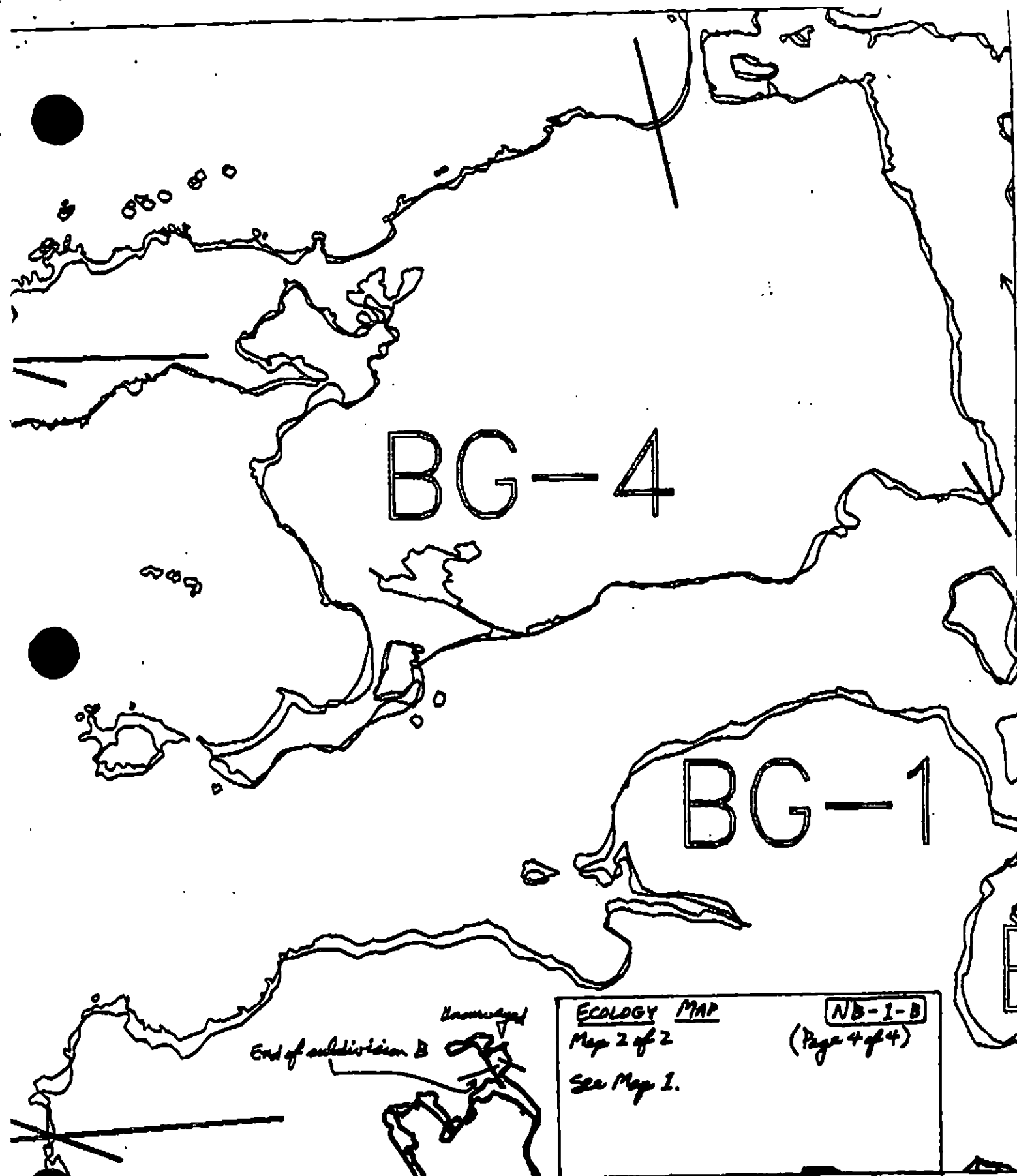
NB-1-B

Approx. Segment Length: 26978m

Map Key: KOD-NB-1a

Name: _____

Date: _____



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

NB-1-B

Approx. Segment Length: 26078m



Map Key: KOD-NB-1c

Name: _____

Date: _____

BG-4

BG-1

See blow up

XXXX Wide
 /// Medium
 --- Narrow

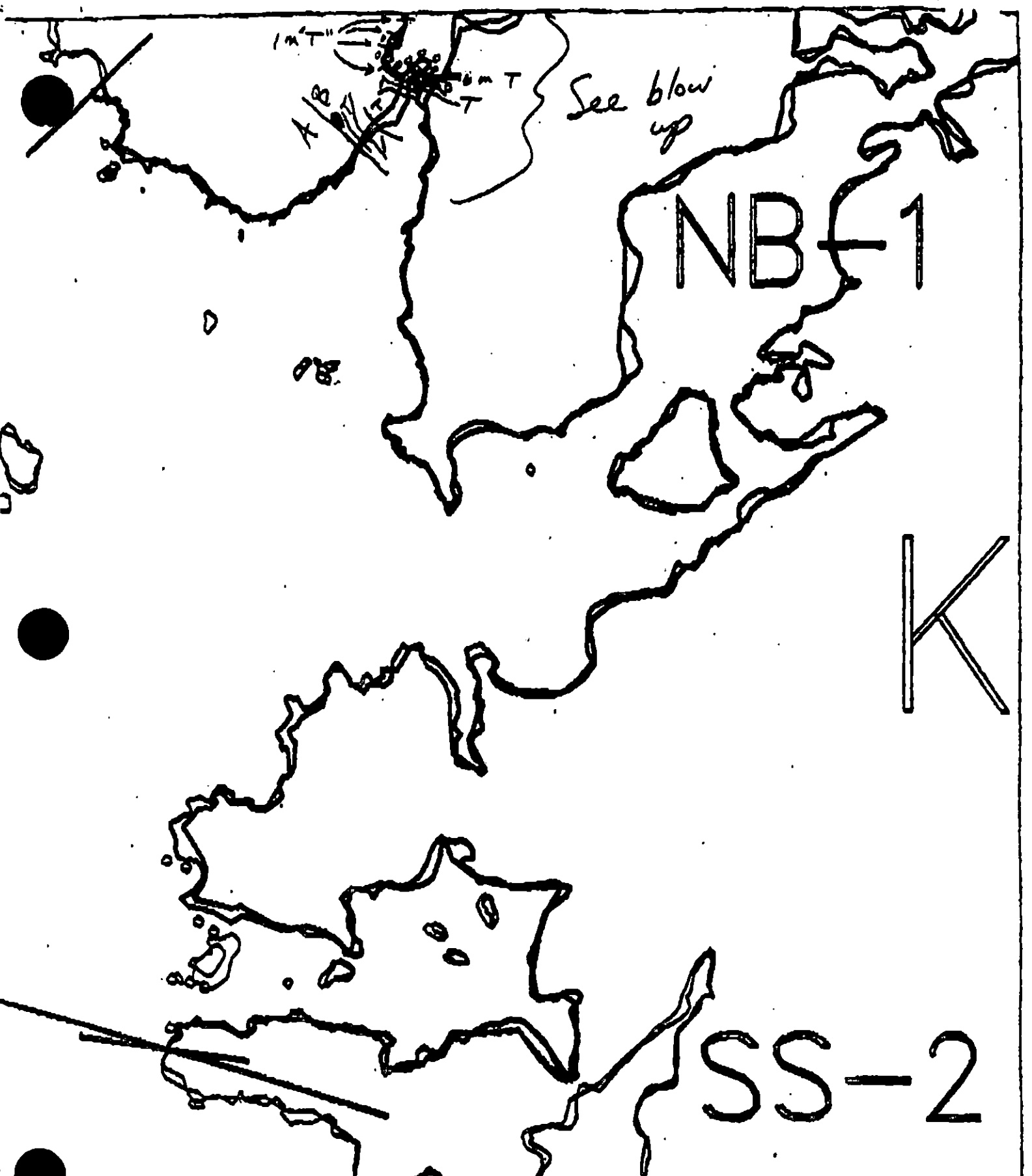
1m" 4m" KI-4-NB-1B

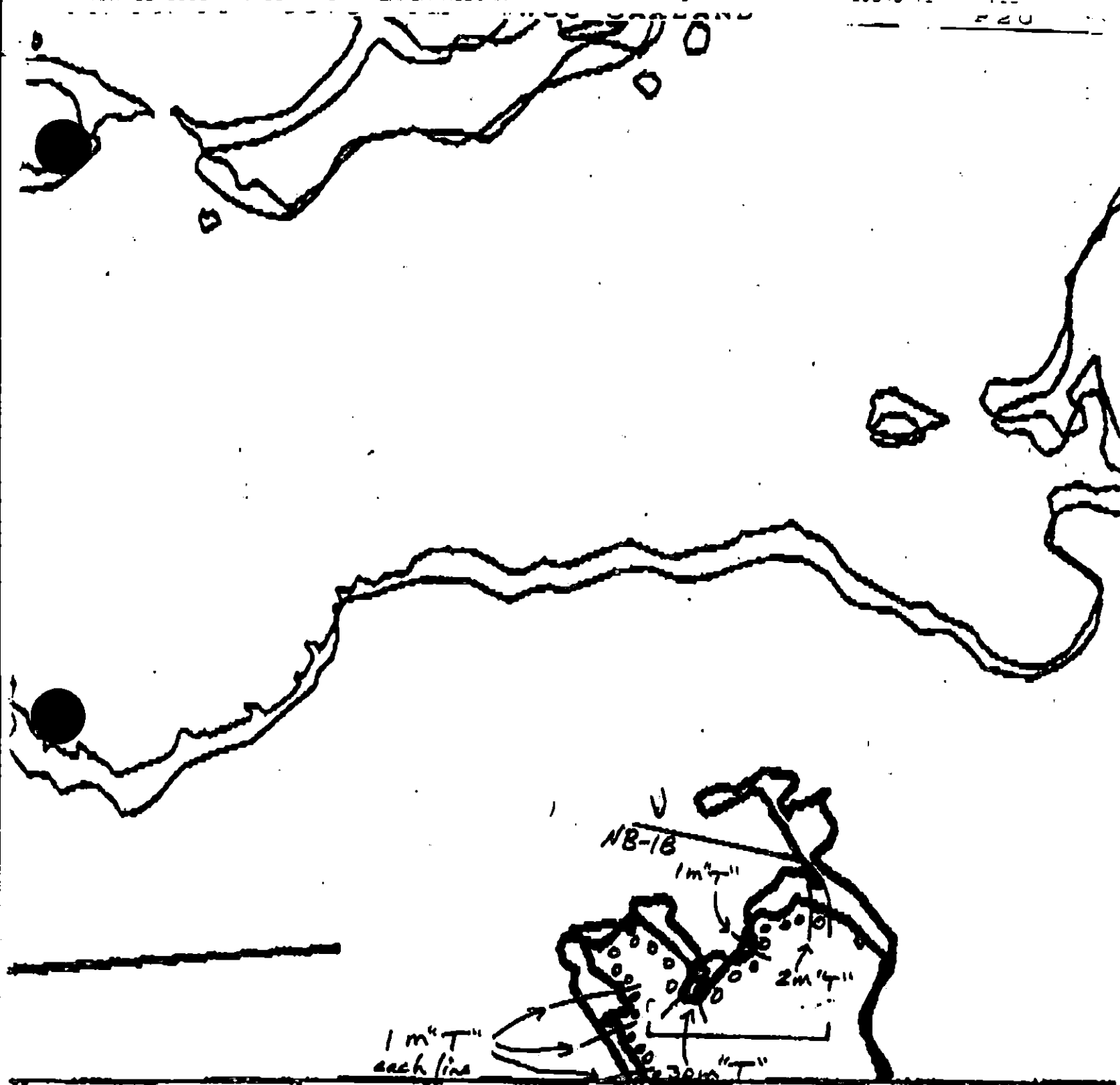
Approx. Segment Length: 2007m

Map Key: KOD-NB-10

Name: OG Kayman

Date: 5-10-70





Wide

Medium

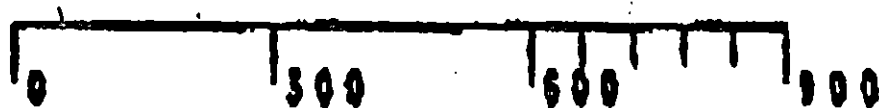
● Narrow

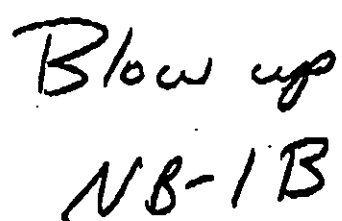
Very Light

NB-1B

Blow up

Approx. Segment Length: 26





SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION B (2 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
5R Seabird colony (5/1 to 9/1)
9PP Sea Otter concentration agency request
4GG State Marine Park Alaska State Parks
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINT: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) *ext* or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Charles J. Holmes

DATE: June 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 37 m: Narrow 17 m: V. Light 315 m: No Oil 1195 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 Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommend treatment is removal of mousse as indicated on sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest and Sea Bird Colony.

TAG COMMENTS:

TAG APPROVAL DATE: 5/31/90

ADEC ART WENNER Art Weimer

EXXON AMY CAR

NOAA Joseph Talbot

USCG G.A. REIFER G.A. Reiter

FOSC: W

DATE: 6-17-90

Notify State Parks Sewer (Kochak)
at least 24 hrs prior to cleanup.

SKETCH MAP

Subdivision Location Map

NB-1

NB-1A

NB-1B

NB-1C

NEKETA

BAY

0 300 600



VISION B

5 110/90

CHLISI

Arrow

Scale

Sub Area

Dist.

High

Other

Arrows

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

Location

LAGOON SURROUNDED
by SPRUCE FOREST

1/2 x 2 m MS
Splatters - 1 cm²
\$ 5.58 each

1A x 2A TR/S
load 1A x 2A
extruded, 1A x 2A
CT 4EV/S

CT on Wk
4418

L4500v

2x4m area w/
MS/2 ~ 5%
in very small
dike + terrace

58 CTR COMM/5

3 ms path's

1X5m w/
 < 1% slope

2 CV
splatters on
back

PA-10

MANUAL
RENEWAL
MS

198-16

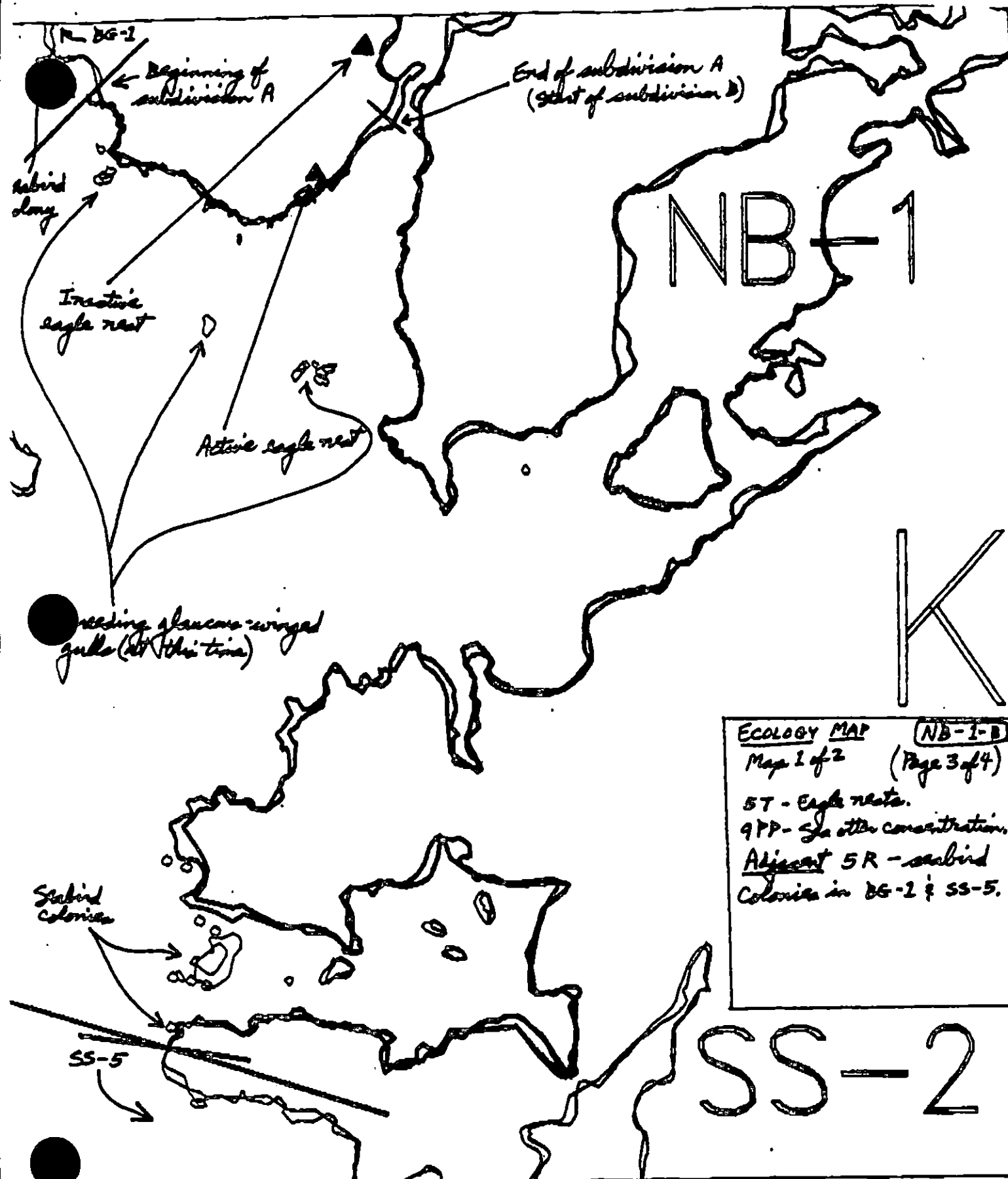
CHOS
SECRET

13x50-60m band,
Middle 3m has
20% cover of
interstitial MS with (MS)
CVACTIS, no line
between this with cbls
entrained w/ am thro.
TS sized up to 20-30cm
diameter. Outer 4m of
band has
1 to 10% cover.

CUCTO
Splatters,
21% cover

0 100
METERS
(APPROXIMATE)

WEEK NO 0 PO 0 CV 80 ET 95 ST 0 MS 135 PT 5 TB 40 FL 0 NO 2020



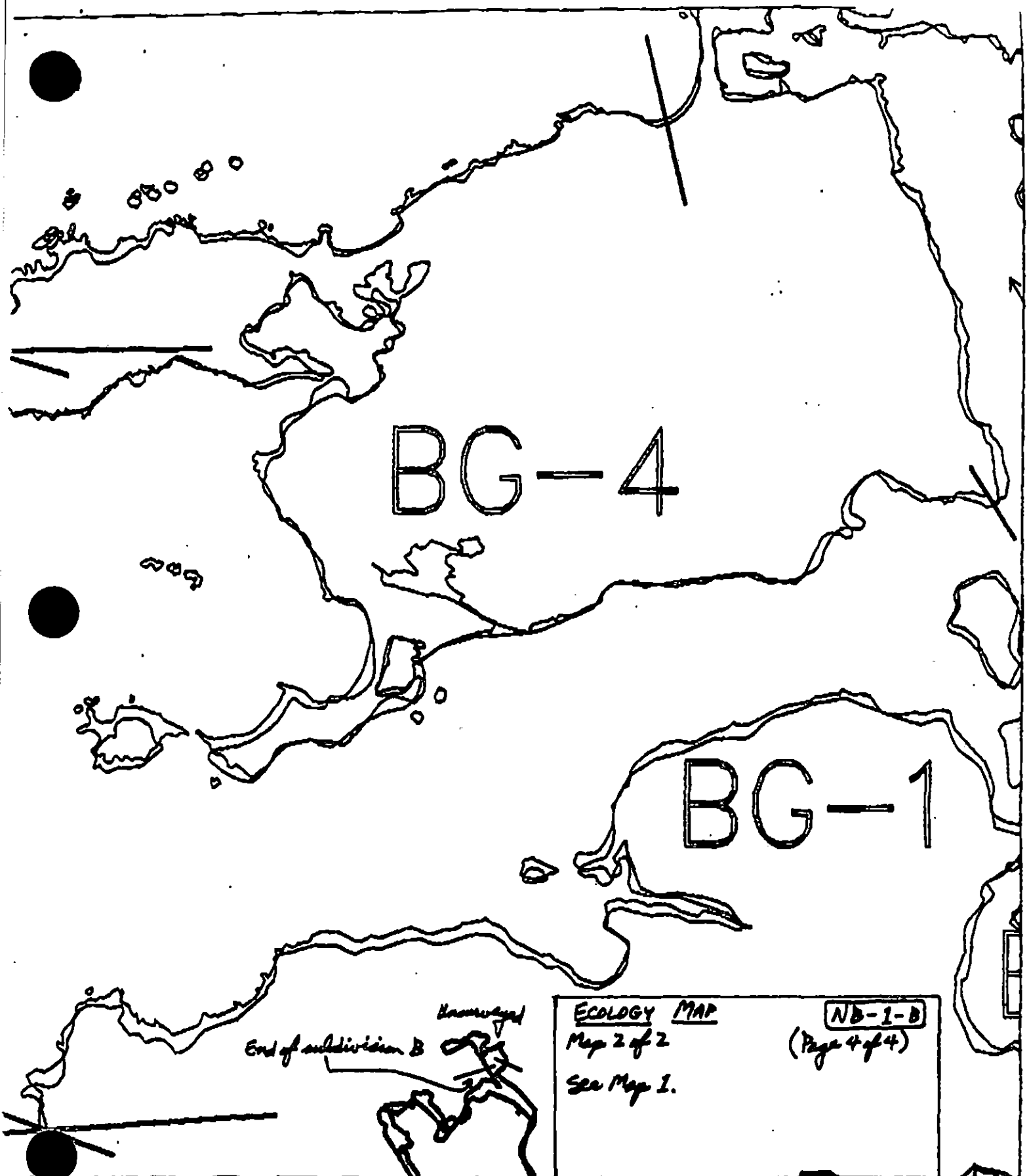
XXXX Wide
 /// Medium
 --- Narrow

NB-1-B

Approx. Segment Length: 26978

Map Key: KOD-NB-1a

Name: _____



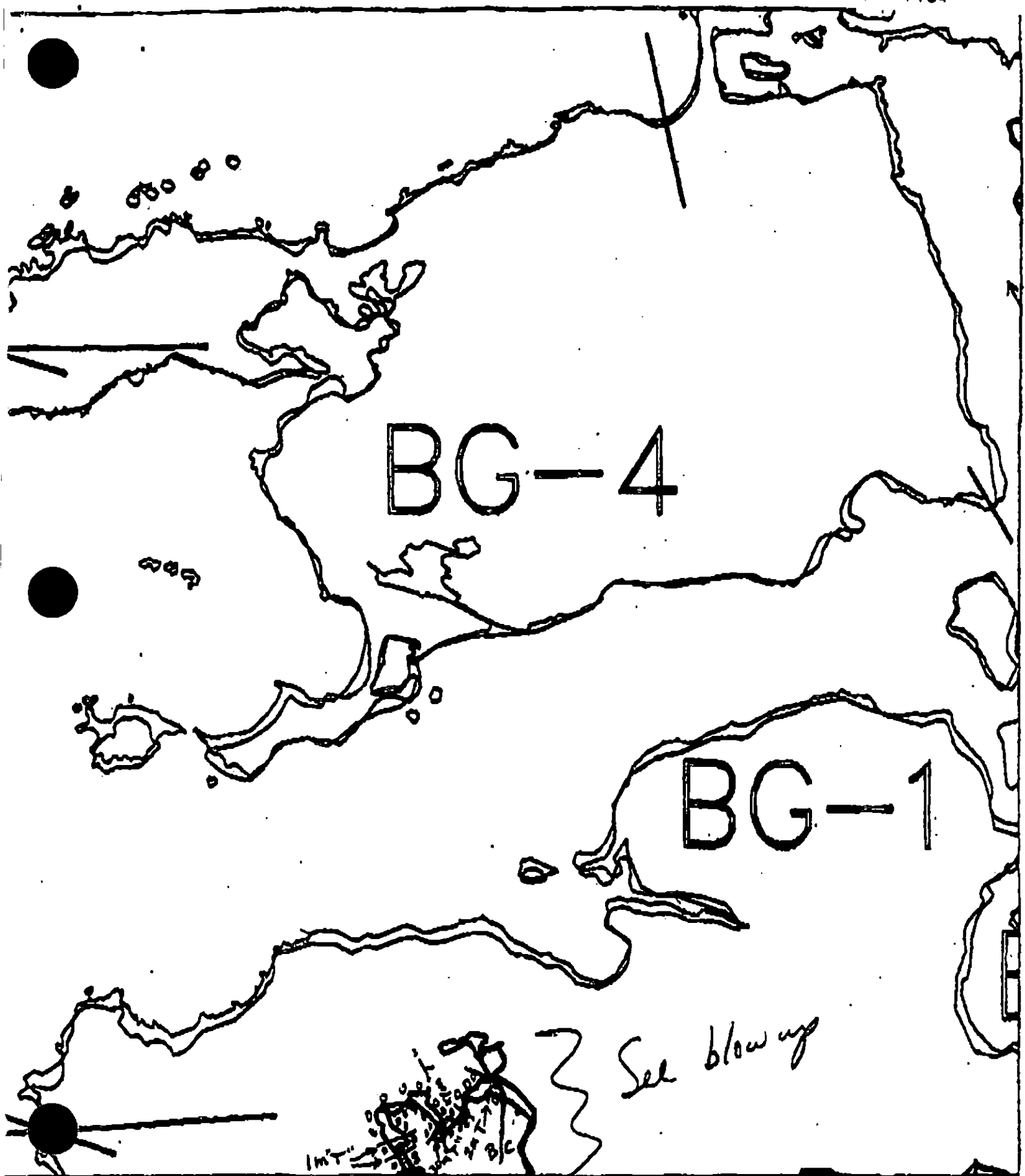
XXXX Wide
//// Medium
---- Narrow

NB-1-B

Approx. Segment Length: 26978m

Map Key: KOD-NB-1c

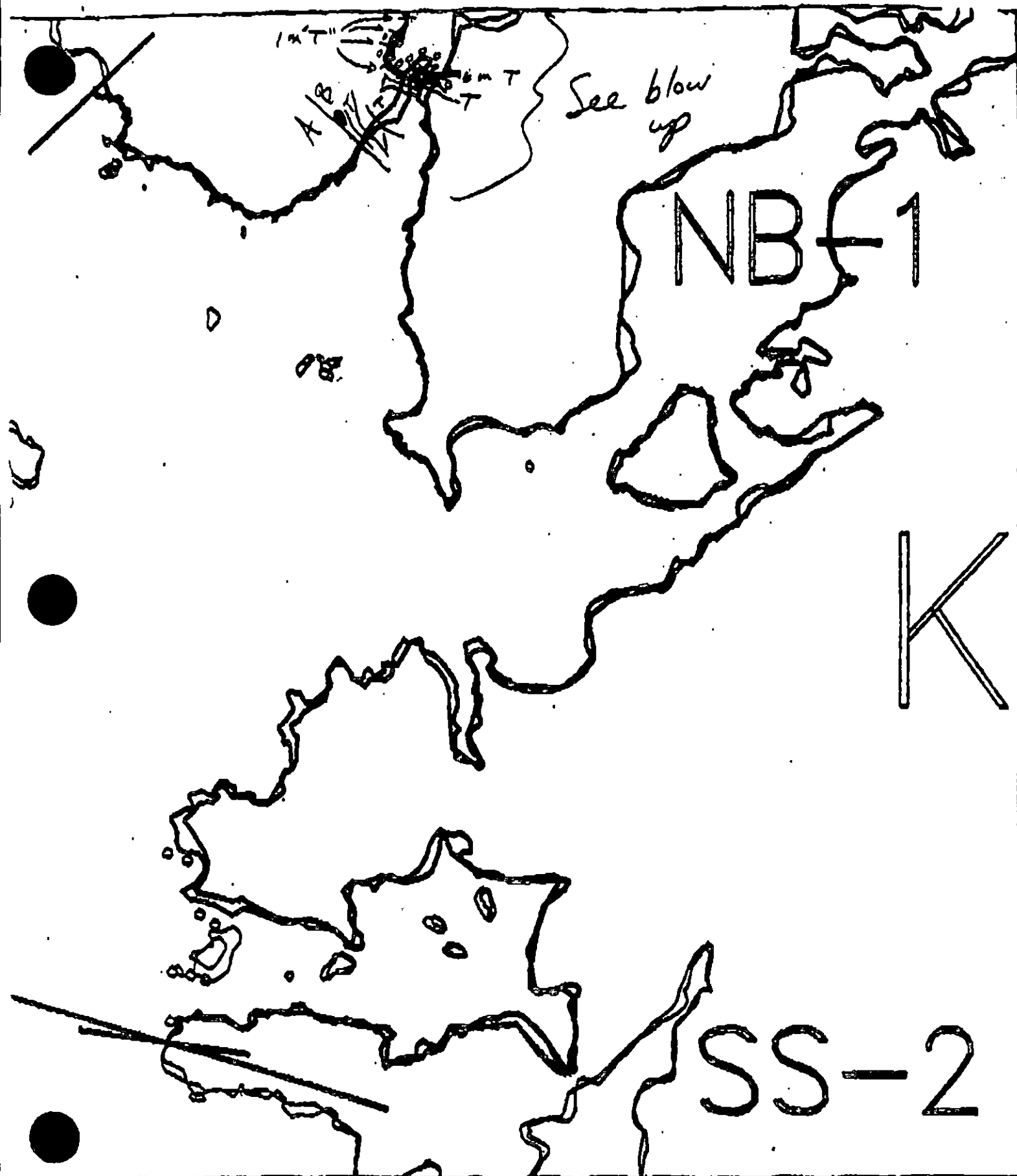
Name: _____



XXXX Wide
//// Medium

1m
4m
KI-4-NB-1B

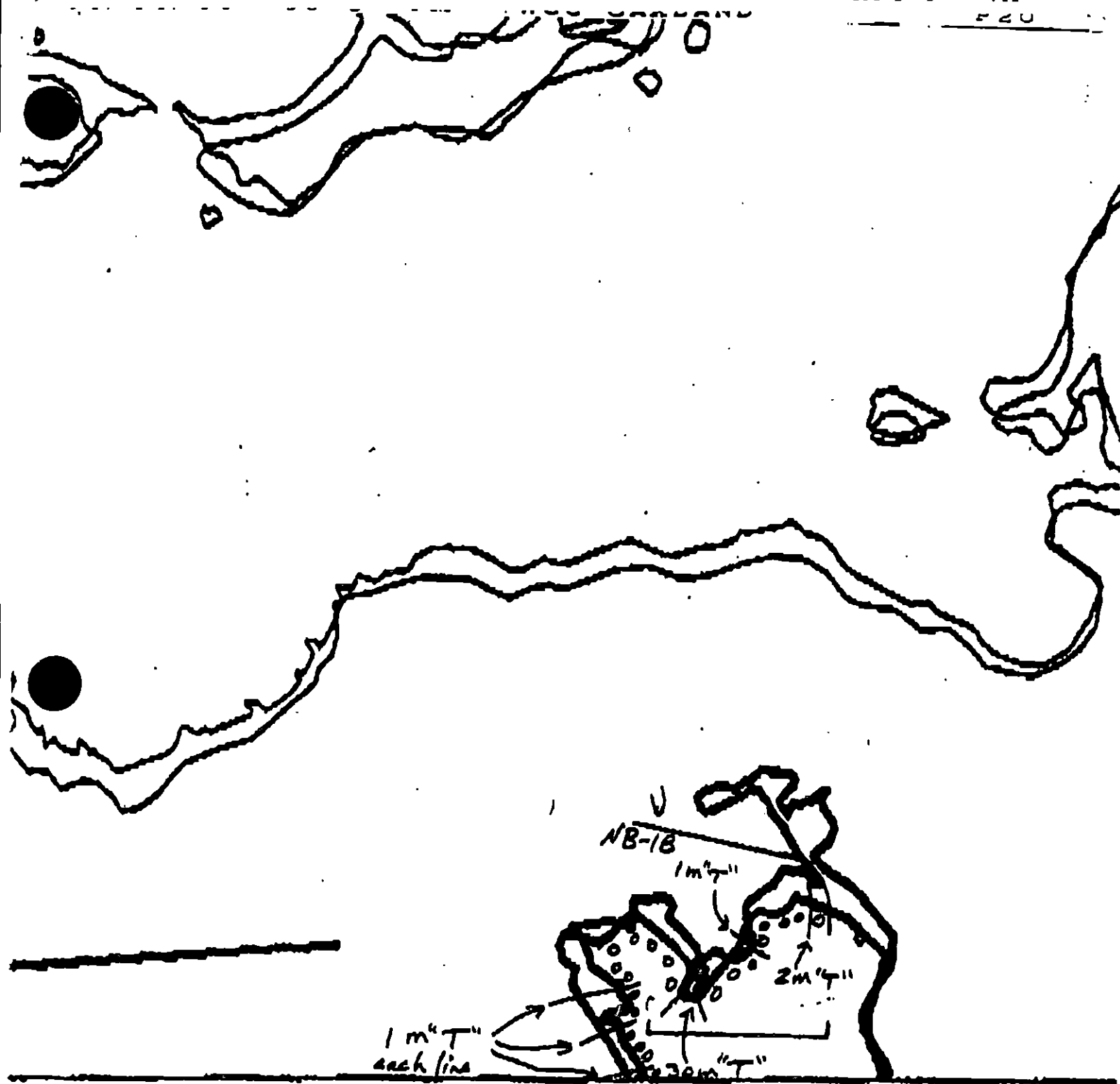
Map Key: KOD-NB-1c



XXXX Wide
//// Medium

KI-4 -NB-1 B

Map Key: KOD-NB-10



Wide

Medium

Narrow

Very Light

NB-1B

Blow up

Approx. Segment Length: 26



ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-04-NB-001 SUBDIVISION B (2 of 6)

WORK WINDOW	
Manual Pickup	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T	Bald Eagle Nest	USFWS 4/9/90 map indicates an active nest in Subdivision B. Closed to manual pickup within 400m of active nest.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

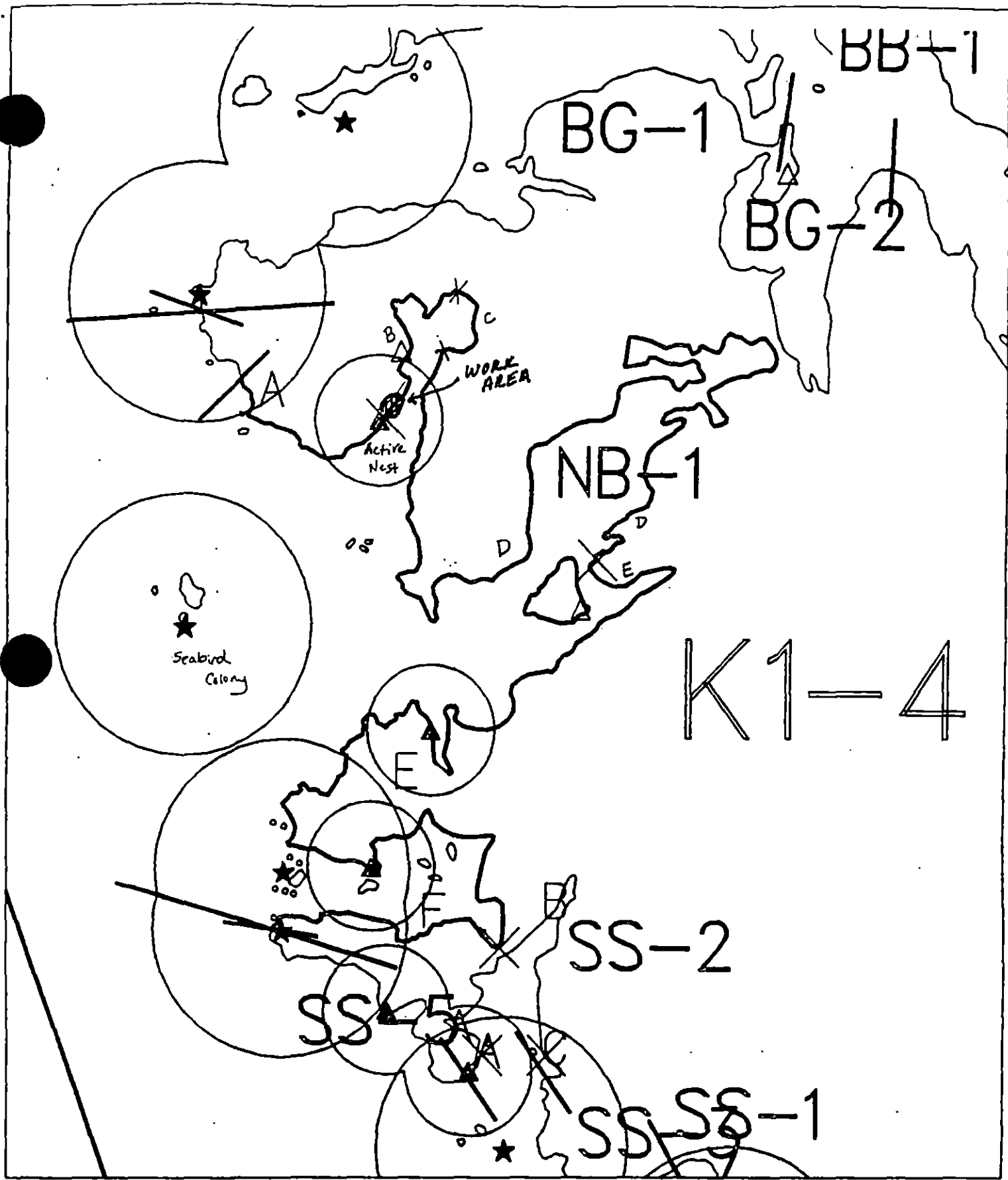
Date

6-22-90

Prepared by

Date

6/22/90



Exxon Company, USA
 Map Key: KOD-NB-1
 June 10, 1990



ECOLOGY MAP
SEGMENT K1-4 NB-1
SUBDIVISION B (2 of 6)
METERS
 0 1000 10000

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

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION B (2 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINT: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) *eat* or 229-1508 (24 hrs.)).

d
1

SHPO SIGNATURE: Mark 3 Holmes

DATE: June 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 37 m: Narrow 17 m: V.Light 315 m: No Oil 1195 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

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: Recommend treatment is removal of mousse as indicated on sketch map. Work after 6/1 with approval of USFWS due to Eagle Nest and Sea Bird Colony.

SEE CONSTRAINTS ADDENDUM DATED 6/22/90 *JP*

TAG COMMENTS: _____

TAG APPROVAL DATE: 5/31/90

ADEC Art Weiner *Art Weiner*

EXXON Andy Tan *Andy Tan*

NOAA Joseph Talbot *Joseph Talbot*

USCG G.A. Belter *G.A. Belter*

FOSC: W

DATE: 6-17-90

Notify State Parks Service (Kodiak) at least 24 hrs prior to cleanup.

REGION: KODIAK

SEGMENT: ST/K01-04-NB-001

SUBDIVISIONS: C (3 OF 6)

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION C (3 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 196 m: No Oil 373 m

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

X No Treatment Recommended

_____ Treatment Recommended

_____ Manual Pickup

_____ Bioremediation

_____ Tarmat Removal

_____ Snare/Absorbent Booms

_____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

_____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: _____

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled 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 Larry Nicholson 486-4791
- 30 Harbor seal and sea lion pupping (5/10 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. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Rothy 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (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 Subistence area: Salmon harvesting (8/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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 / K1-4 NB-1 SUBDIVISION: C DATE 5/10/90

NAME STEPHEN LEHMANN SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED - see comments.

The small amount of mousse is manually removable + treatable, but the same comments apply here that were expressed for the adjacent subdivision (NB1-B) - a small crew. A full size crew would cause more disturbance than the amount of oil merits.

ADEC NAME Terry Ellsworth SIGNATURE Terry Ellsworth

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Coat, cover, mousse in bedrock crevices, and mousse patties occur discontinuously from the north segment boundary for approximately 150 m and then sporadically over the rest of the segment. Total amount of recoverable oil is small. Manual removal is recommended only for the mousse patties at the southern boundary of the segment when treatment occurs on NB-1D. Due to the sensitive nature of the lagoon no treatment is recommended for most of the segment.

LAND MANAGER NAME Nick Godwin SIGNATURE Nick Godwin

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This subdivision is located within the legislatively designated SHUYAK ISLAND STATE PARK. The oil identified for removal is located on the southern most 200M of the subdivision. It was found as broken mousse patties that are recommended for manual removal. This area can be accessed by foot without operating skiffs into the environmentally sensitive lagoon. The active eagle nest to the west of the lagoon entrance should be disturbed.

SHORELINE OILING SUMMARY

REVISION NO. 04/12/88

OG OG HEYMAN ^{NOAA} 1800 S LEHMANN SEGMENT ST/ K 0104 NR 001
 BIO 2 SHARON LAND REP M Goodman DNR SUBDIVISION C (3 OF 6)
 EXXON Not Present ADEC T. Ellsworth TIME 13:00 to 14:00
 TEAM NO. 19 TIDE LEVEL +5.5 to +7.5 DATE 5/10/90
 EST. SUBDIVISION LENGTH: 800 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S (clockwise)
 SURFACE SEDIMENTS: R 50 % B 1 % C 1 % P 5 % G 0 % S 33 % M 10 % V 0 %
 SLOPE: Long 30 % Hang 60 % Vert 10 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 3 m VL 202 m NO 595 m

SURFACE OIL

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

PAVEMENT H F G 0 sq. m by 0 cm

PATTIES / TARBALLS 5 BAGS

NEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE

#BAGS

Photographs: ST-M(III)-1

Roll No.

Frames 5

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR				PIT ZONE				A	N	S	T	SURFACE - SUBSURFACE SEDIMENTS
		OF	OR	OL	OF	NO		UO	UO	1	2	3	4	SU	U	M	L					
1	20					X	0-0		X						X			N	-	-		P/P, N
2	15					X	0-0		X						X			N	-	-		P/P, N

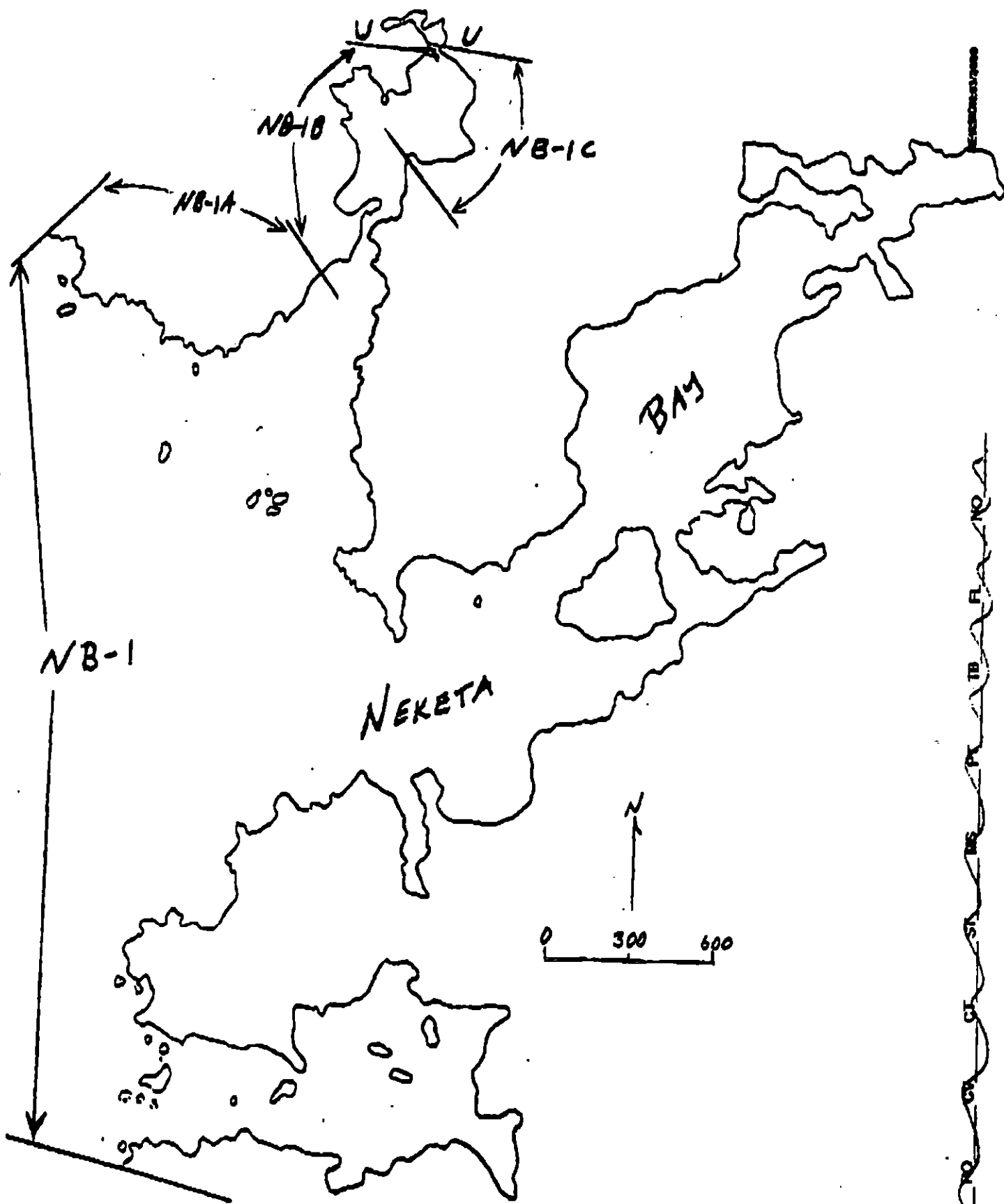
COMMENTS

OG COMMENTS K0104 PB 001 C OG HOGMAN 5-10-90

This subdivision consists of the east side of the prominent lagoon NW of Neketa Bay. The southern subdivision boundary is located where the team was when the helicopter pilot stopped work due to closing weather.

The subdivision shoreline is very narrow and is composed of bedrock at or above the water line at the time of the survey and very fine soil weathering from the bedrock and the spruce forest above. A few pocket beaches were encountered with pebbles and a few cobbles.

Oil along the subdivision was typically observed as splatters of CV> on bedrock faces or as MS in bedrock fractures & crevasses. A few turbidites & MS patties were also observed at random locations. More concentrated MS patties were observed in a 3m² area by the creek in the NE part of the subdivision and at the SW subdivision boundary. These patties were typically 2-3 ft in diameter.



OG He
 GMENT ST/K 8104 NB-001

REVISION C
 DATE 5/10/90

HECKLIST

- N Arrow
- Approx. Scale
- Sea/Side Boundary
- Off Dist.
- Whole
- Length
- % Cover
- Substrate Character
- F.M. 1981 A.M.
- S.S.I.
- Profile Location(s)
- Profile(s)
- Pt Location(s)
- Photo Location(s)

LEGEND

- 1 A - No Subsurface Oil
- 2 A - Subsurface Oil

CT/C
 Substrate Distribution

CT/B
 Area Distribution

CT/P
 City Distribution

CT/S
 Island Distribution

4 Vegetation

to location, direction, number

Handing Length (m) AP NO CT ST TB PL FL NO

SKETCH



Hezmar
100 R 401010
ON C (500?)
110/90

Length of AP 0 PO 0 CV 90 CT 48 ST 0 MS 50 PT 13 TB 4 R 0 NO 595

SHORELINE ECOLOGICAL SUMMARY (Page 1 of 3)

Segment ST / K1-4 Subdivision NA-1 Date (mo / day / yr) 5/10/90

Time (24 hr) 1300-1400 Biologist SHARMAN

(A) Substrate type and % of segments: SUBDIV.
 (1) Bedrock 50 (2) Boulder 1 (3) Cobble 1 (4) Pebble 5 (5) Sand 33 (6) Mud 10

(B) Overall % cover of biota (% of segment): Dense SUBDIV. 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 (O)
 Photographs: Roll No. ST-M(III)-1
 Frames 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 (ANCELLA, LITTORINA, LYMNAEAE)

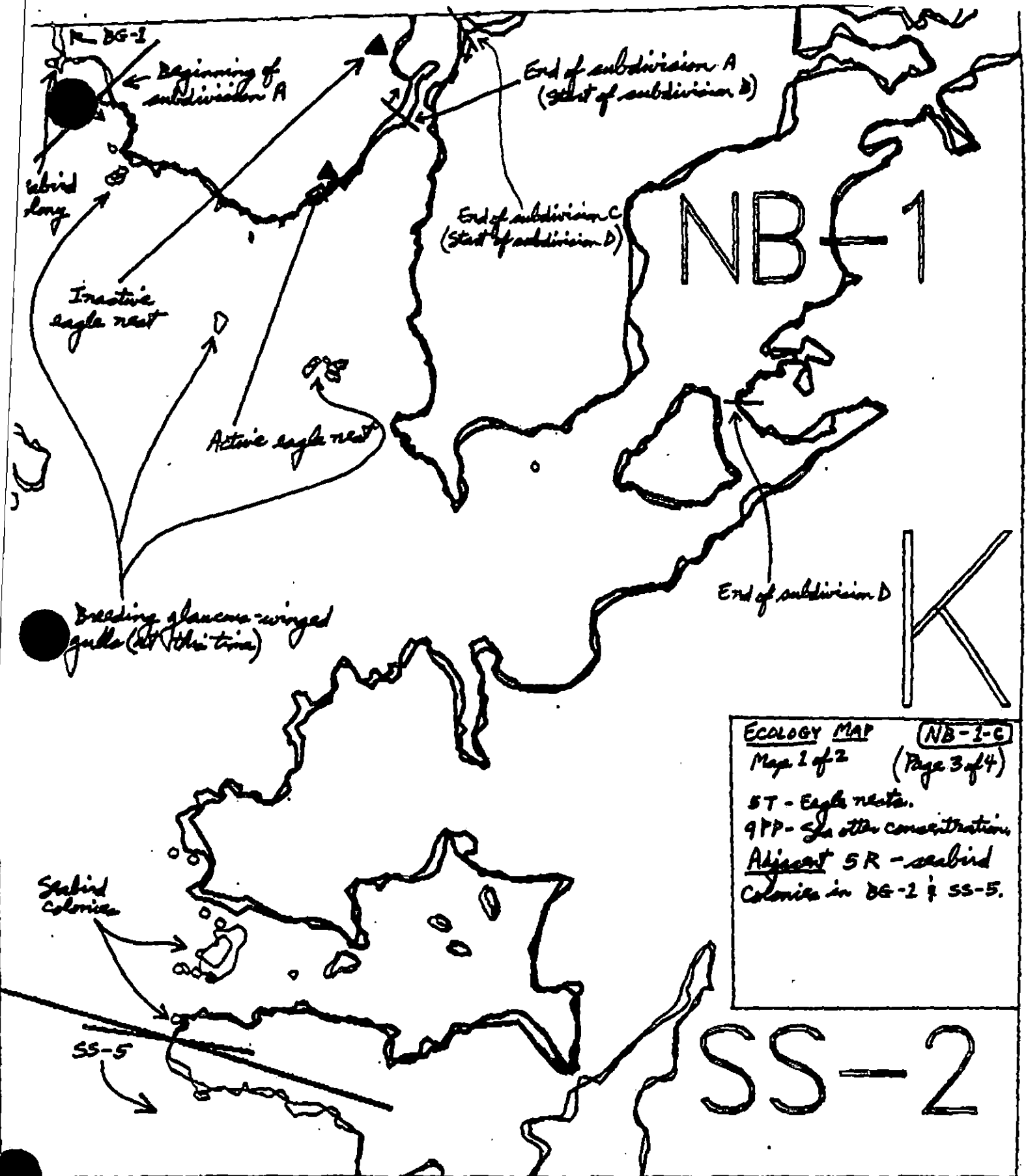
Dense			Moderate			Sparse			Rare			NOT PRESENT
1U	1M	1L	1U	1M	1L	1U	1M	1L	1U	1M	1L	
2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

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: 3 pairs red-breasted mergansers, 1 juvenile eagle, 1 pair oystercatchers. This segment subdivision is a continuation of subdivision "B", and the general comments are exactly the same. Please refer to this section of the subdivision "B" report re. marine and terrestrial biota observations and comments. In general, this subdivision contains a higher proportion of bedrock than does "B".

Ecological Considerations:
 Please refer to attached Eco. Maps. No particular specific sensitivities identified for this subdivision, but all sensitivities identified for subdivision "B" apply as well to this subdivision. Please refer to this section of the subdivision "B" report. Primary concerns relate to the general productivity and sensitive nature of the lagoon in general (and its importance to birds, terrestrial mammals, & sea otters), and the nearby eagle nests on the opposite (W.) side of the lagoon which should be considered operationally to occur in this subdivision as well.



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

NB-1-C

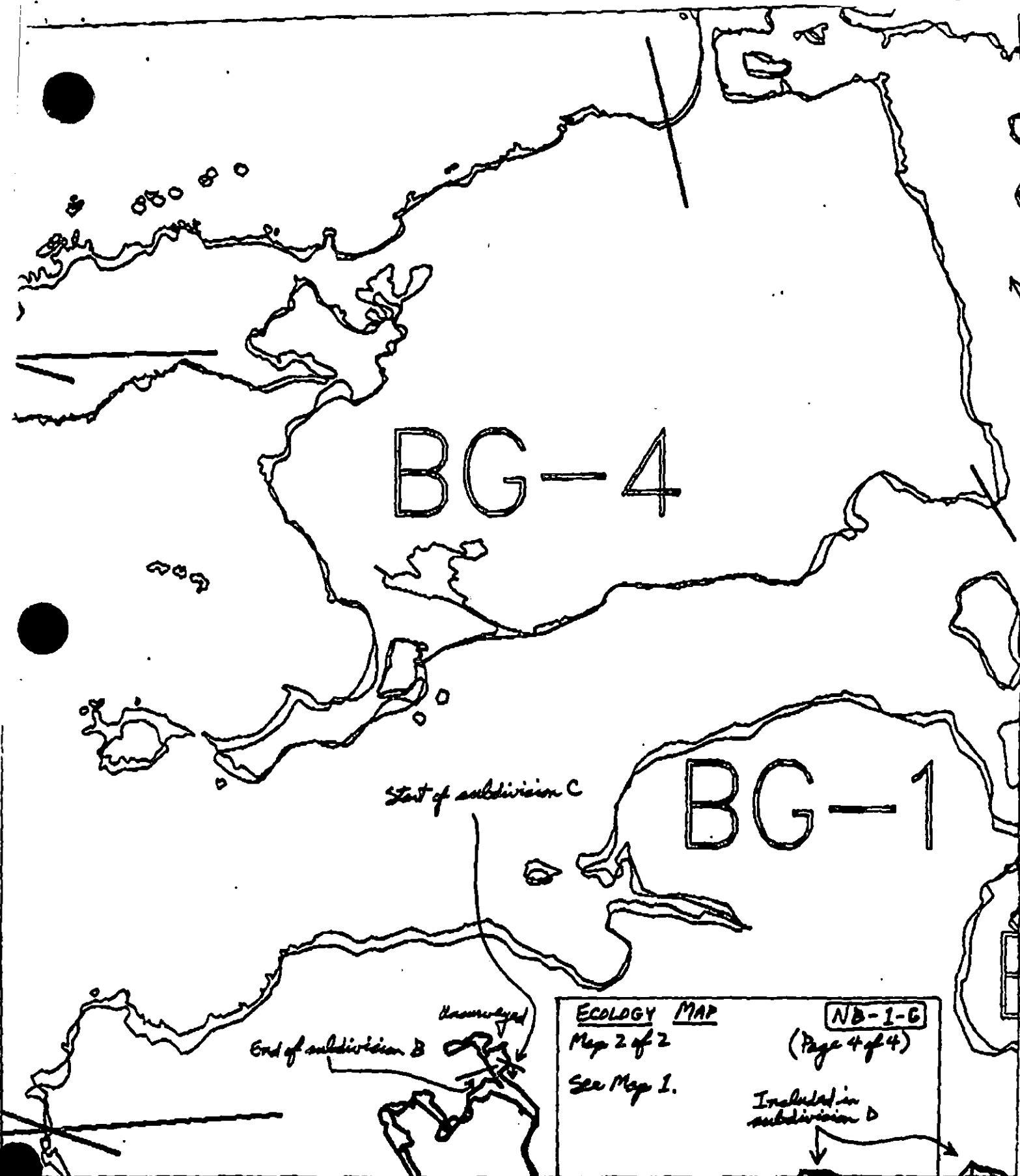
Approx. Segment Length: 26978m

Map Key: KOD-NB-1c

Name: _____

Date: _____

Not Colored:



XXXX Wide

//// Medium

--- Narrow

TTTT Very light

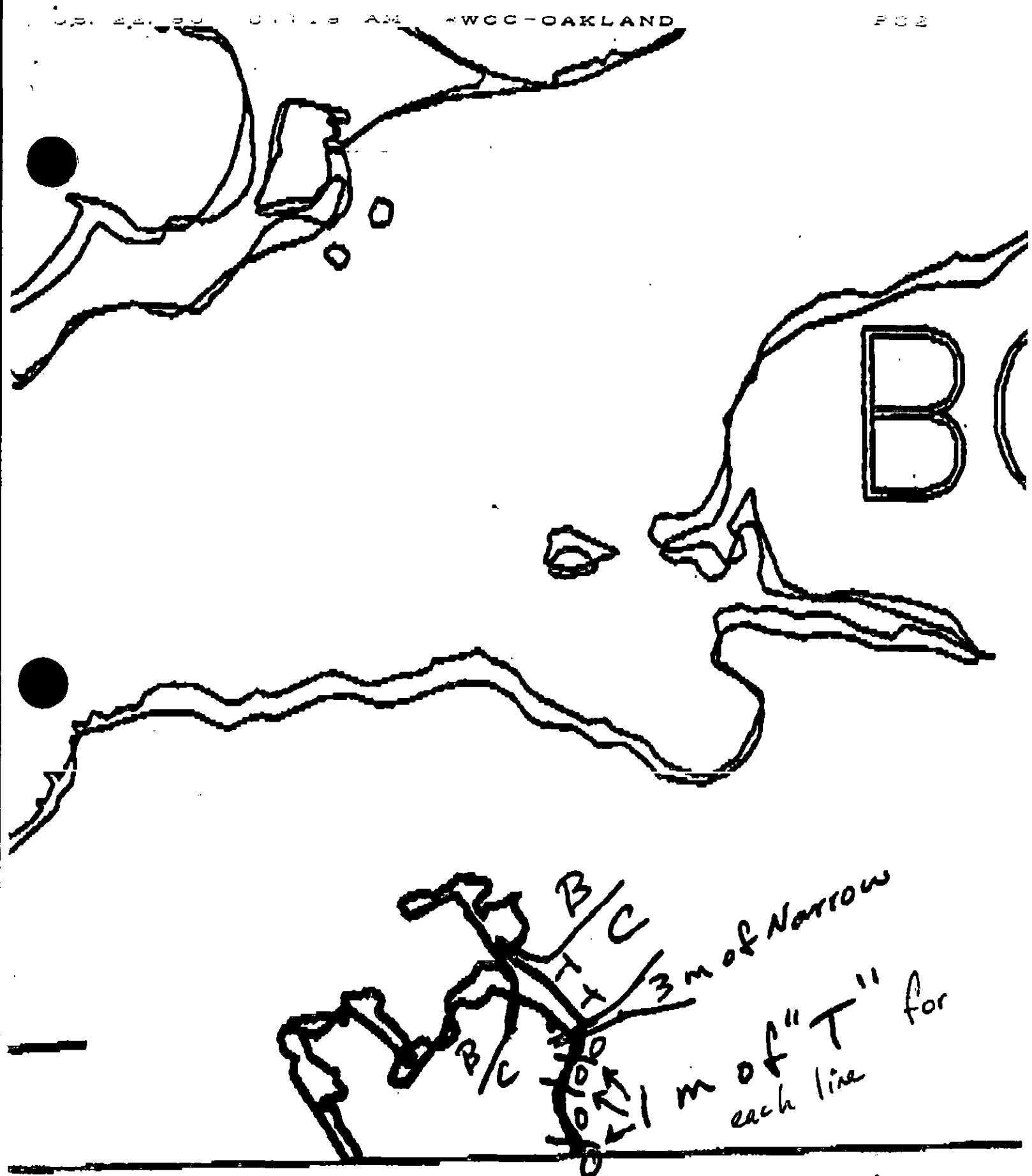
NB-1-c

Approx. Segment Length: 26976m

Map Key: KOD-NB-1c

Name: _____

Date: _____



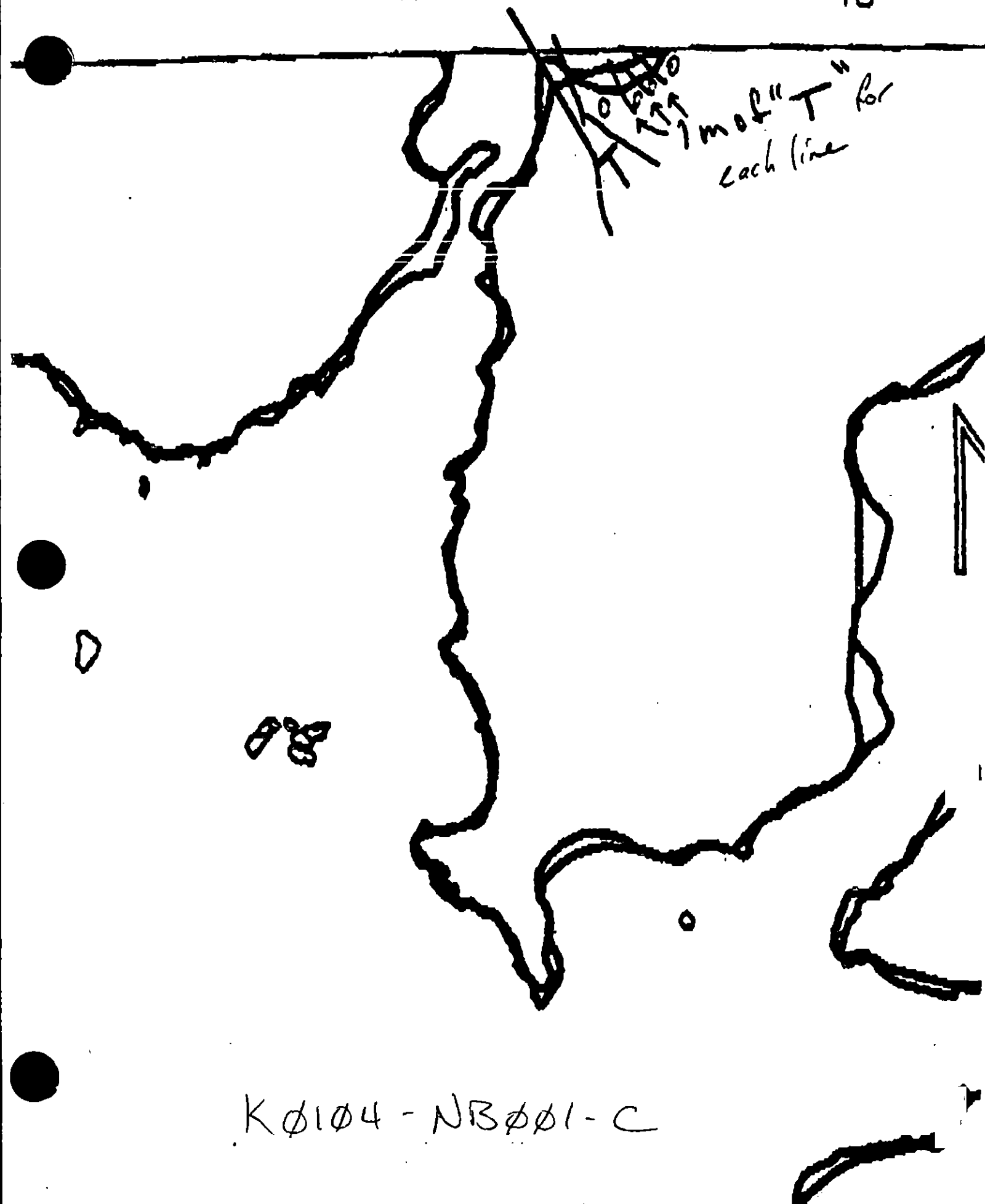
Kø1ø4 - NB-1C

Approx. Segment Length: 26978m

No
No

0 09:43 FROM EXXON

TO



K0104 - NB001 - C

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION C (3 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINT: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) ext or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Charles E. Holmes DATE: June 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 196 m: No Oil 373 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS:

TAG COMMENTS: MANUAL PICKUP OF TARBALLS / MOUSE AS INDICATED ON
SOUTH END OF LAGOON. - SEE SKETCH.

TAG APPROVAL DATE: 5/31/90.

ADEC ART WEINER Art Weiner

EXXON ANDY GOR Andy Gor

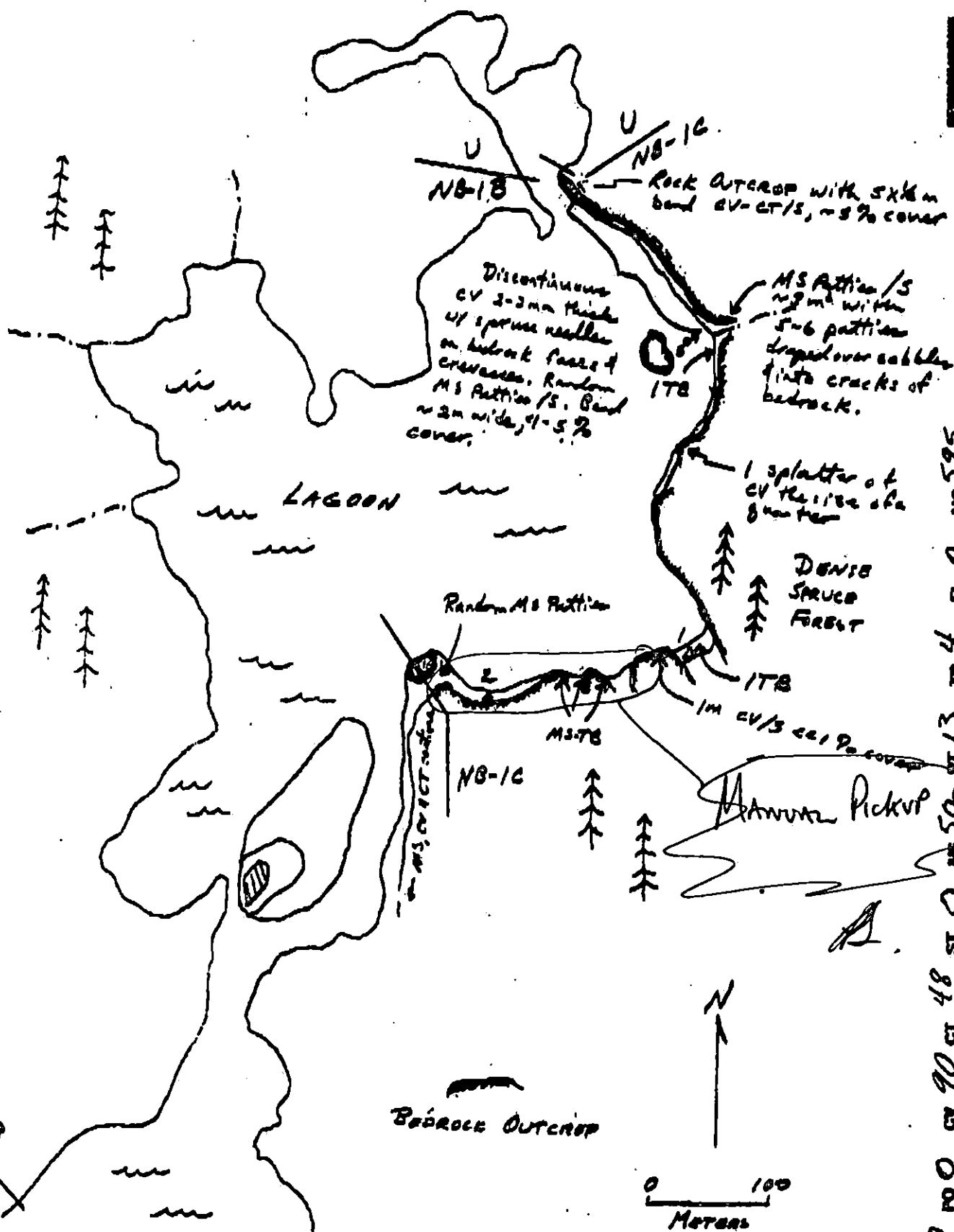
NOAA Joseph Takahashi Joseph Takahashi

USCG G.A. BECKER G.A. Becker

FOSC: DATE: 6-17-90

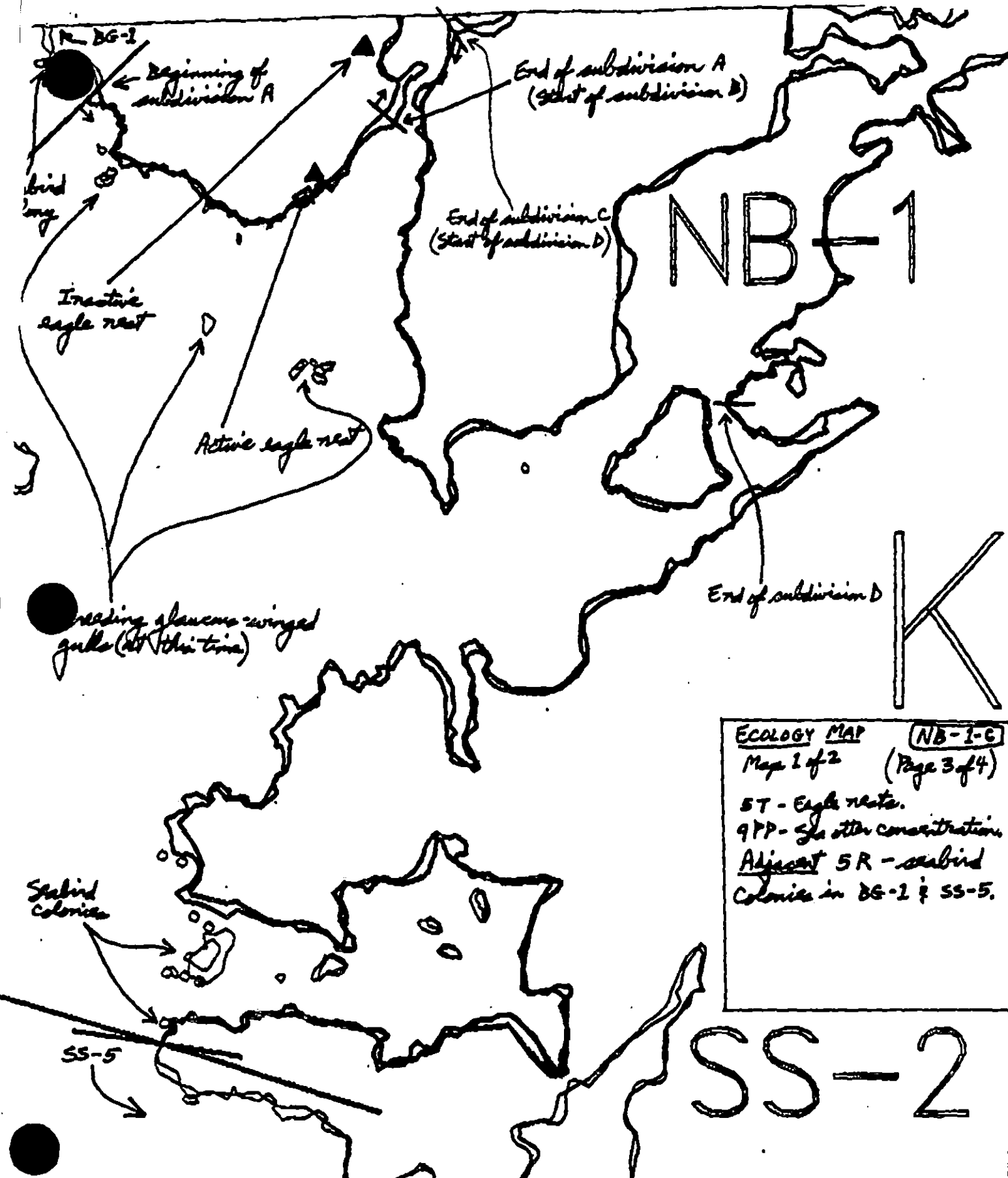
Notify State Park Service (Koolahak)
at least 24 hours prior to cleanup.

SKETCH MAP



2000
KODIAK NB-001
C (500?)
10/90

Int at 0 100 CV 90 CT 48 ST 0 MS 50 CT 13 TB 4 FL 0 NO 595



ECOLOGY MAP (NB-1-C)
 Map 1 of 2 (Page 3 of 4)
 ST - Eagle nests.
 GPP - Gull other concentrations.
 Adjacent SR - seabird colonies in BG-1 & SS-5.

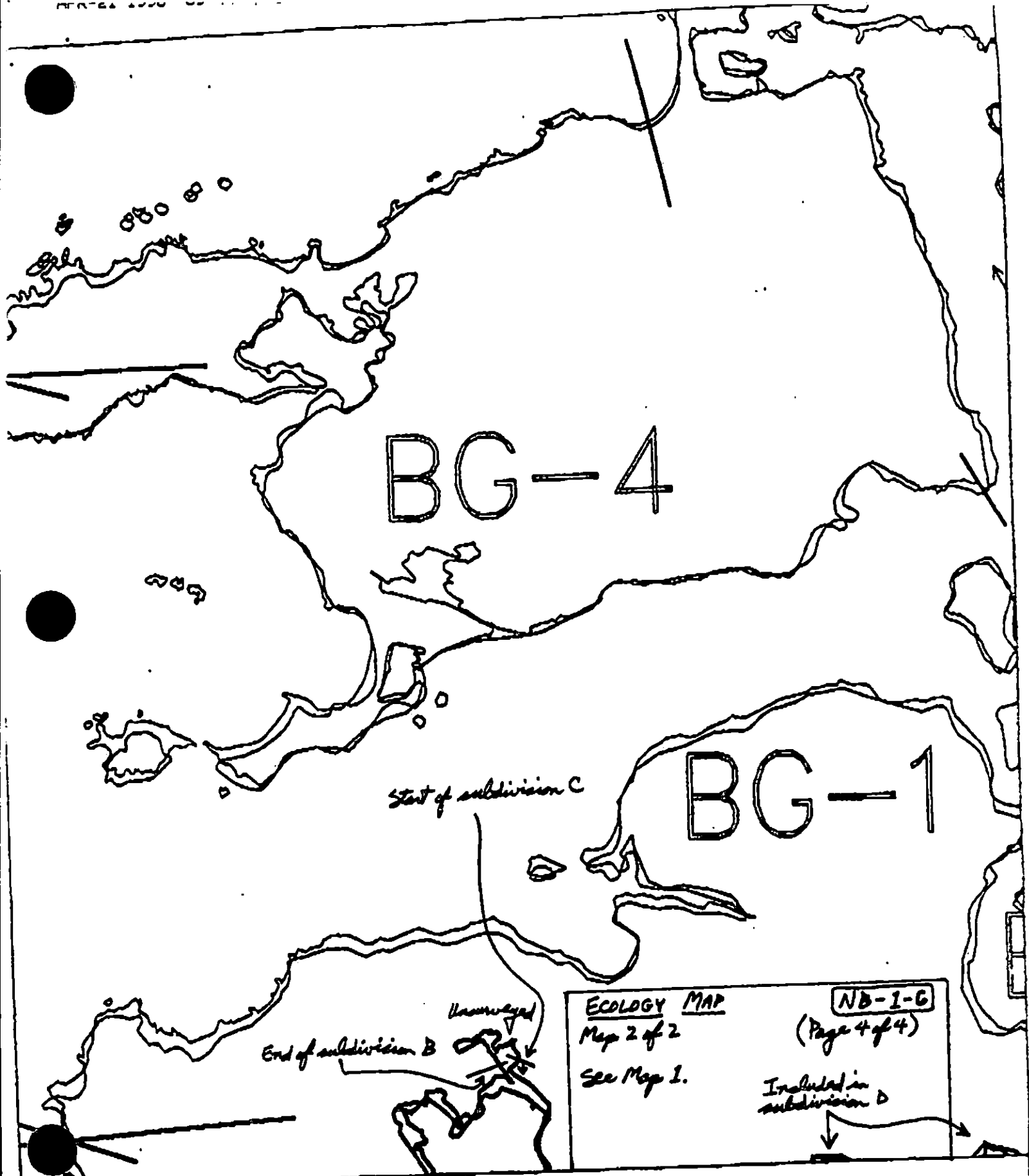
XXXX Wide
 /// Medium
 --- Narrow

NB-1-C

Approx. Segment Length: 26978m

Map Key: KOD-NB-1a

Name: _____



ECOLOGY MAP
Map 2 of 2
See Map 1.

NB-1-G
(Page 4 of 4)

Included in
subdivision D

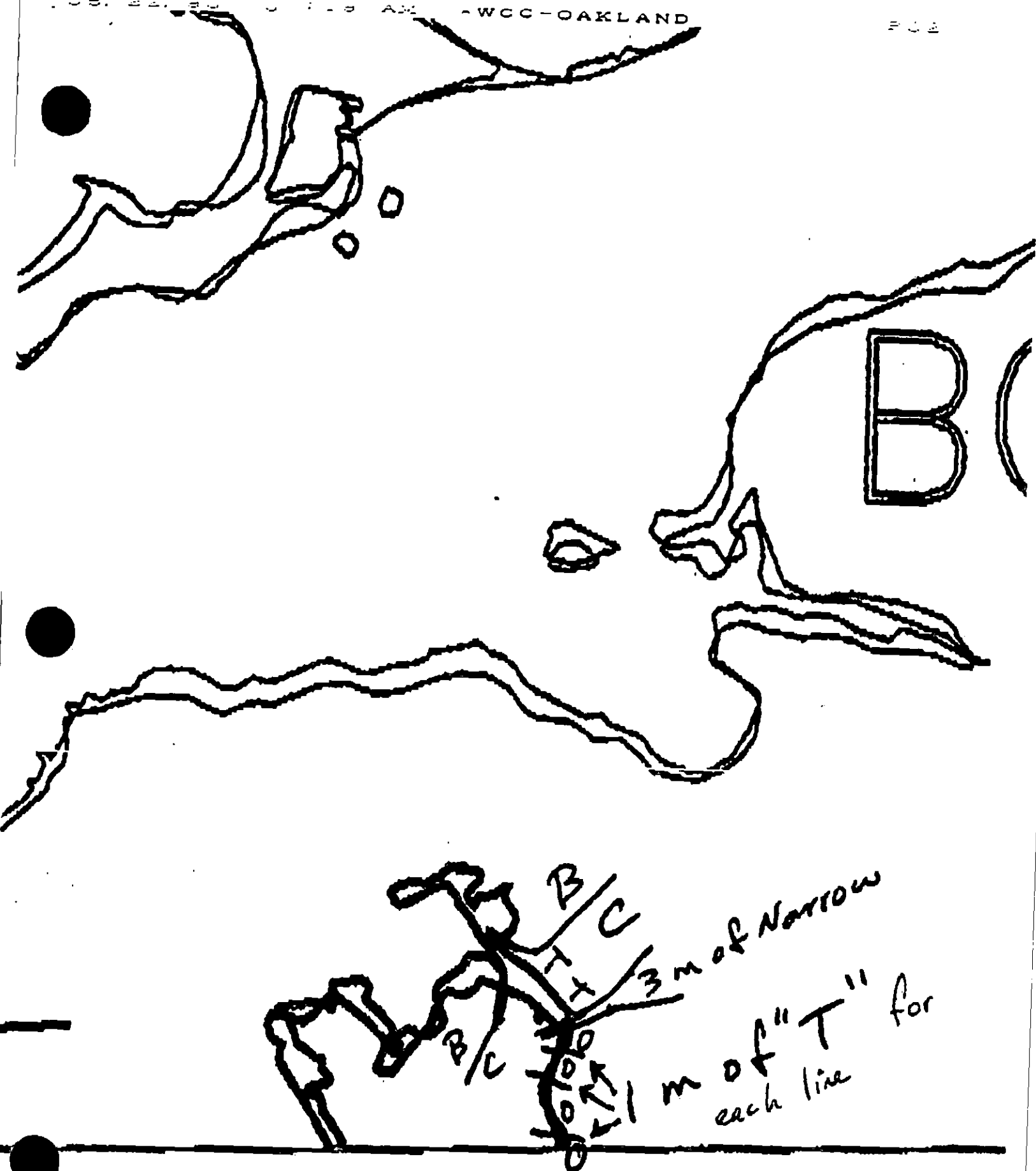
XXXX Wide
//// Medium
--- Narrow

NB-1-C

Approx. Segment Length: 26978m

Map Key: KOD-NB-1c

Name: _____



KØ1Ø4 - NB-1C

Ma

0 09:43 FROM EXXON

TO



K0104 - NB001 - C

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-04-NB-001 SUBDIVISION C (3 of 6)

WORK WINDOW	
Manual Pickup	CLOSED*

*No Access

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

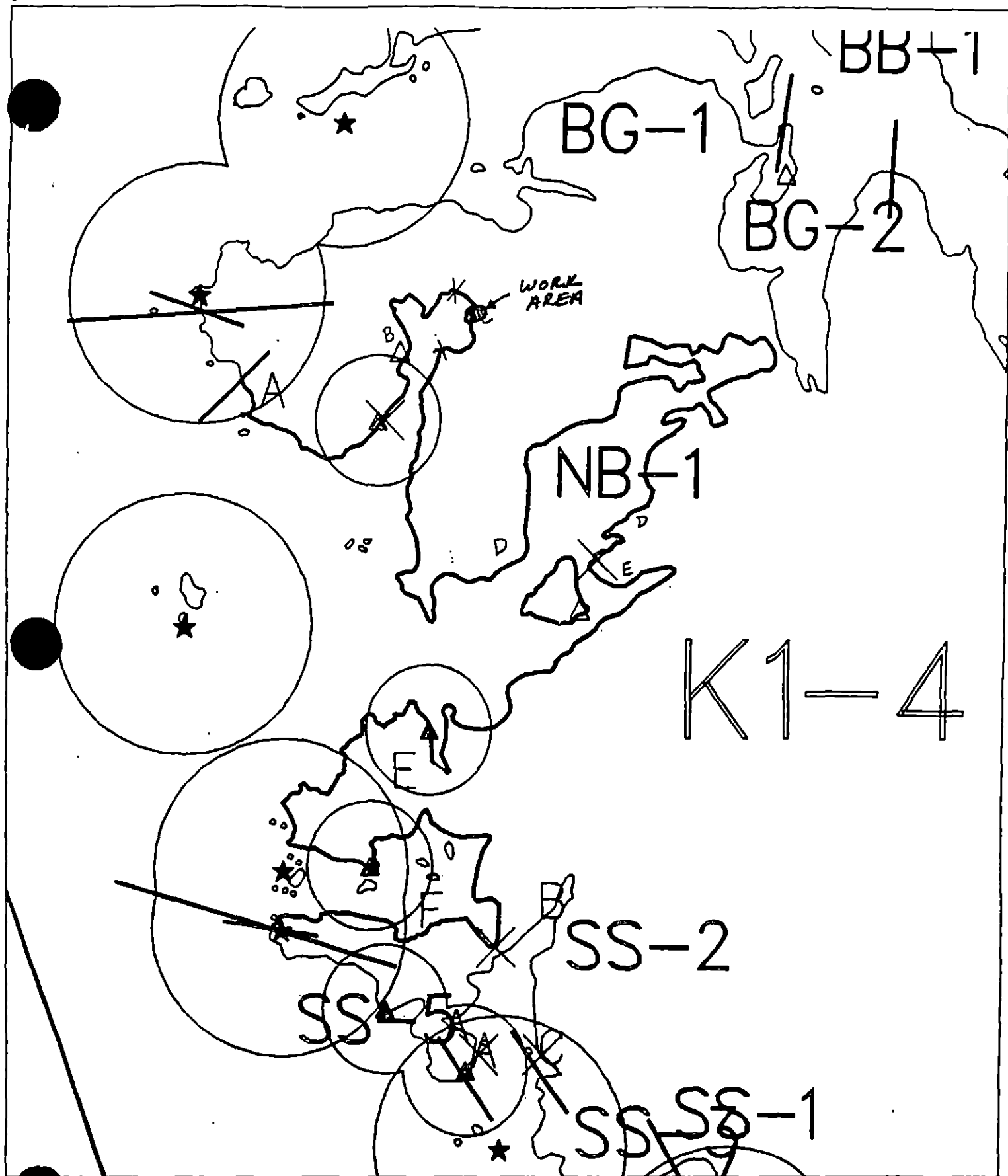
5T	Bald Eagle Nest	USFWS 4/9/90 map indicates no active nest within 400m of Subdivision C, however, bald eagle 400m buffer zone blocks access to work site.
5R	Seabird Colony	NO CONSTRAINT. Work site is more than 800m from seabird colony.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC W. L. Date 6-22-90

Prepared by J. P. Phillips Date 6/22/90



Exxon Company, USA
Map Key: KOD-NB-1



ECOLOGY MAP
SEGMENT K1-4 NB-1
SUBDIVISION C (3 of 6)
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION C (3 of 6) DATE 5/10/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINT: If cultural resources are uncovered during shoreline treatment, stop work in the vicinity, mark the location of the find and contact Exxon's Cultural Resource Program immediately (564-3274 (Anchorage) ext or 229-1508 (24 hrs.)).

SHPO SIGNATURE: Charles E. Homan DATE: June 12, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 17 m: V.Light 196 m: No Oil 373 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: SEE CONSTRAINTS ADDENDUM DATED 6/22/90 JPP

TAG COMMENTS: MANUAL PICKUP OF TARBALLS / MOOSE AS INDICATED ON
FOURTH END OF LAGOON - SEE SKETCH.

TAG APPROVAL DATE: 5/31/90.

ADEC ART WONG Art Wong

EXXON ANDY GIL Andy Gil

NOAA Joseph Talmi Joseph Talmi

USCG G.A. BECKER G.A. Becker

FOSC: W DATE: 6-17-90

Notify State Park Service (Kooluk) at least 24 hours prior to cleanup.

REGION: KODIAK

SEGMENT: ST/K01-04-NB-001

SUBDIVISIONS: D (4 OF 6)

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION D (4 of 6) DATE 5/13/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ST All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

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:

Cultural resource survey in progress. Shoreline treatment cannot proceed until field data have been assessed and a formal archaeological constraint entered on the shoreline evaluation form.

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 6258m: No Oil 3475 m

Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

_____ No Treatment Recommended

X Treatment Recommended

X Manual Pickup

X Bioremediation

_____ Tarmat Removal

_____ Snare/Absorbent Booms

_____ Oil Snares (pom poms)

_____ Absorbents (pads, rolls, etc)

_____ Spot Washing: _____ Wands

_____ Beach Cleaner

_____ Other (see comments)

COMMENTS: Recommend treatment includes 1) manual pick up tar patties and mousse 2) bioremediation of areas indicated on attached sketch map. Work should be conducted with the approval of USFWS and ADF&G regarding Eagle Nest and Sea Bird colony.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC: _____ DATE: _____

KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)
 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, 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 prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area
 1J Purse seine area
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay (6/9 to 10/1)
 East side Kodiak, East side Afognak (7/4 to 10/1)
 1K Purse seine hook-off
 1L Set net sites
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to uncoiled 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 Larry Nicholson 486-4791
- 3 Harbor seal and sea lion pupping (5/10 to 7/1)
 3 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 (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 (6/1 to 9/30)
 Finfish harvesting
 Deer harvesting (8/1 to 1/7)
 Invertebrate harvesting
 Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)
 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

K1-4

NB-1

MENT ST /

SUBDIVISION:

D

DATE

5/13/90

NAME Stephen Lehmann

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

Recoverable patches on NW end of the segment, the back of Nakata Bay and the east side of Nakata Bay (see OG map). This should be removed, if the crew size can be kept to a minimum, particularly within Nakata Bay. Manual, possibly followed by bio-rm., is treatment recommended.

ADEC

NAME Terry Ellsworth

SIGNATURE

☒ TREATMENT SUGGESTED

COMMENTS

This segment has two areas where removable mousse, patches, and tarballs occur in concentrations worthy of treatment. One area extends from the NW segment boundary to approximately 500m south. Within this area several patches of recoverable oil occur. The second area is in Nakata Bay approximately 1200m N of the SE segment boundary. Manual removal is recommended in these areas. Because of the active eagle nest near the NW segment boundary and the use of the area by sea otter personnel should be kept to a minimum.

LAND MANAGER

NAME Mike Godwin/ADIR

SIGNATURE

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

This subdivision of this segment is within the Legislatively designated STUYAK Island State Park. This natural area was established for its wilderness character. It contains very high scenic and recreational values. An Alaska State Parks Public Use Cabin exists in this subdivision within the NW 1/4 of Sec. 17, T19S, R20W of AFONAK (C-2) (C-3) Quadrangle. Based on pre-oil spill information surveys conducted April, 1989, Nakata Bay has a very high concentration of sea otters. This subdivision receives more (CONT.)

FIELD SHORELINE COMMENT SHEET

Continuation of Land Manager Comment.

recreational use than some areas within the park because of the presence of a public use cabin. This area is also accessible to the Pt. Williams Lodge which offers wildlife viewing and fishing charters in Neketa Bay. The three areas represented by the OG map attached shown as: 1.) a 4mx2m area ; 2.) a 10mx3m area and 3.) a 50mx3m area within the subdivision are recommended for manual removal of the mousse, patties and tar balls within those areas. Because of the wildlife sensitivities and recreational use within this subdivision it is recommended that small clean-up crews clean these areas to reduce the impact of human presence.

SHORELINE OILING SUMMARY

REVISION NO. 34-13-80

OG Texas Tame Samples USCG Stephen LEHMANN SEGMENT ST/ NA-1-D
 BIO Shannon SHerman LAND REP Mik Goodwin SUBDIVISION 2 (4 OF 6)
 EXXON — ADEC Terry E. O'Connell TIME 07:35 to 14:31
 TEAM NO. 19 TIDE LEVEL +7.5' to +5.0' DATE May 1/13/90
 ST. SUBDIVISION LENGTH: 10000 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 10 % B 10 % C 10 % P 10 % G 10 % S 30 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 40 % Vert — % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 6127 m NO 3213 m

SURFACE OIL

CHARACTER	DISTRIBUTION					OIL / FILM COLOR					IMPACTED ZONES			
	10	15	20	25	30	35	40	45	50	55	SU	U	M	U
ASPHALT PAVEMENT														
POOLED														
COVER														
COAT			X	1										
STAIN														
MOUSSE			X											
PATTIES			X											
TARBALLS			X											
FILM														
NO OIL											X		X	X

PAVEMENT H F S NA sq. m by 0 cmPATTIES / TARBALLS 5 BAGSNEAR SHORE SHEEN? NO BR RW SL TL

OILED ^{very} DEBRIS ^{little}	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs	X			YES ☐ NO ☒
Vegetation				
Trash				TYPE <u>—</u>
Debris				
				#BAGS <u>—</u>

Photographs:

Roll No. ST-19 (3)-1Frames 12-13

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		VO	UC	SOL 100	DR 100	DR 100	OL 100	DR 100	TL 100	SU	U	M	U						
1	20					X	0 . 0		X								X								Pb/g.
2	30					X	0 . 0		X									X							Pb/cl
3	20					X	0 . 0		X										X						Pb/g
							.																		
							.																		
							.																		

COMMENTS

REVIEWED BAT DATE 24 MAY 90

NB-1-D, Neketa Bay, May 13, 1990

Subdivision D of segment NB-1 includes shores of the headland located on the north side of Neketa Bay and half of the south shore of the same bay, on southwestern Shuyak Island. The subdivision is relatively long (~10 km) and includes many small pocket beaches, small coves, and large embayments on its northeastern side. As a result, some parts of this subdivision are exposed to the long fetch of Shelikof Strait while other sections are very sheltered and the shoreline sediment distribution show a corresponding complexity. This subdivision was observed on May 13, 1990, between 0735 and 1421 h, and corresponding 7.5' to 5.0' tidal levels.

At its northwestern extremity, the shoreline consists of very poorly sorted angular mixed sediments with a 1 m high bedrock bluff in the backshore. Oil is present as very discontinuous coatings on the sediments of the upper intertidal zone and a few small areas of weathered mousse/sediment patches, mostly within a 50 m long by 3 m wide band with an approximate 5% coverage. The maximum continuous patch size observed is less than 20 cm in diameter and less than 1 cm thick.

To the south, the above sediments are overlain by a thick (4 m) steep sided pebble bar deposit that restricts the entrance of the channel. Oil becomes very sporadic in this area and only a few small patties were found.

This bar deposit gives way to the south to a gently sloping intertidal zone of subrounded cobbles and pebbles with a well developed storm berm of pebbles. Coarse sediments are segregated to the middle and lower intertidal zones between low outcrops of bedrock. Oil was found on this section within a 20 m wide, 50 m long band of the upper intertidal zone. It occurs as discontinuous patches with maximum diameter of 1 meter, maximum thickness of 1 cm, and less than 1% coverage.

Between this location and the prominent cliffs forming the headland to the south, the shoreline consists of small bedrock headlands separating pocket beaches of pebble/cobble, often with angular boulders in the lower intertidal zone and a well defined storm berm of well sorted pebbles in the upper intertidal zone.

Oil was found in these pocket beaches within a 50 x 20 m and 20 x 8 m area. In both cases, coverage was equal to or less than 1% and maximum patch size and thickness were less than 20 cm and 1 cm respectively.

East of the prominent cliff headland, a long section of angular mixed sediments showed no oil except for a few patties and splatters at its northeastern extremity.

This section gives way to a long talus of angular boulders and a section of angular mixed sediments, both devoid of oil. Further to the east, the shoreline forms a well defined projection made up of a well sorted pebble/gravel beach with well a defined, steep storm berm, where a few small patties were found.

The shores of a large cove to the northeast show an intertidal zone of angular poorly sorted sediments including mud in the lower intertidal zone. A few patties were found scattered in the upper intertidal zone of this area.

Southwest of a small embayment forming the southern end of this cove, the shoreline consists of a talus of angular boulders landward of coarse sediments in the lower intertidal zone. A patch of tarry coating with small weathered mousse/sediment accumulations occur within a 2 x 2 m with 60% cover between the coarse sediments at this location along with 2 bands 20 cm wide by 1 m long and 1 cm thick. A similar area 3 x 2 m with 20% coverage was found in the upper intertidal zone at the head of a small embayment immediately to the southwest, and a 10 x 3 m area with 5% coverage occurs

further to the south.

The remainder of this subdivision includes a section of low cliffs followed by a longer section of poorly sorted angular mixed sediments where a few small splatters were found.

CHECKLIST

- ☒ N Arrow
☒ Approx. Scale
☒ Sep/Sub Entry
☒ Oil Char.
☒ Width
☒ Length
☒ % Cover
☒ Substrate Character
☒ Est. HW/LANE
☒ SGL
☒ Profile Location(s)
☒ Profile(s)
☒ Pn Location(s)
☒ Photo Location(s)

LEGEND

1 Δ
 Pn - No Subsurface Oil

2 Δ
 Pn - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

eee
 Oiled Vegetation

1 $\Rightarrow$
 Photo location, direction,
 and number

Legend

$\Delta \Delta$ angular mixed sediments

$\circ \circ \circ$ moderately to well sorted
 pl/c

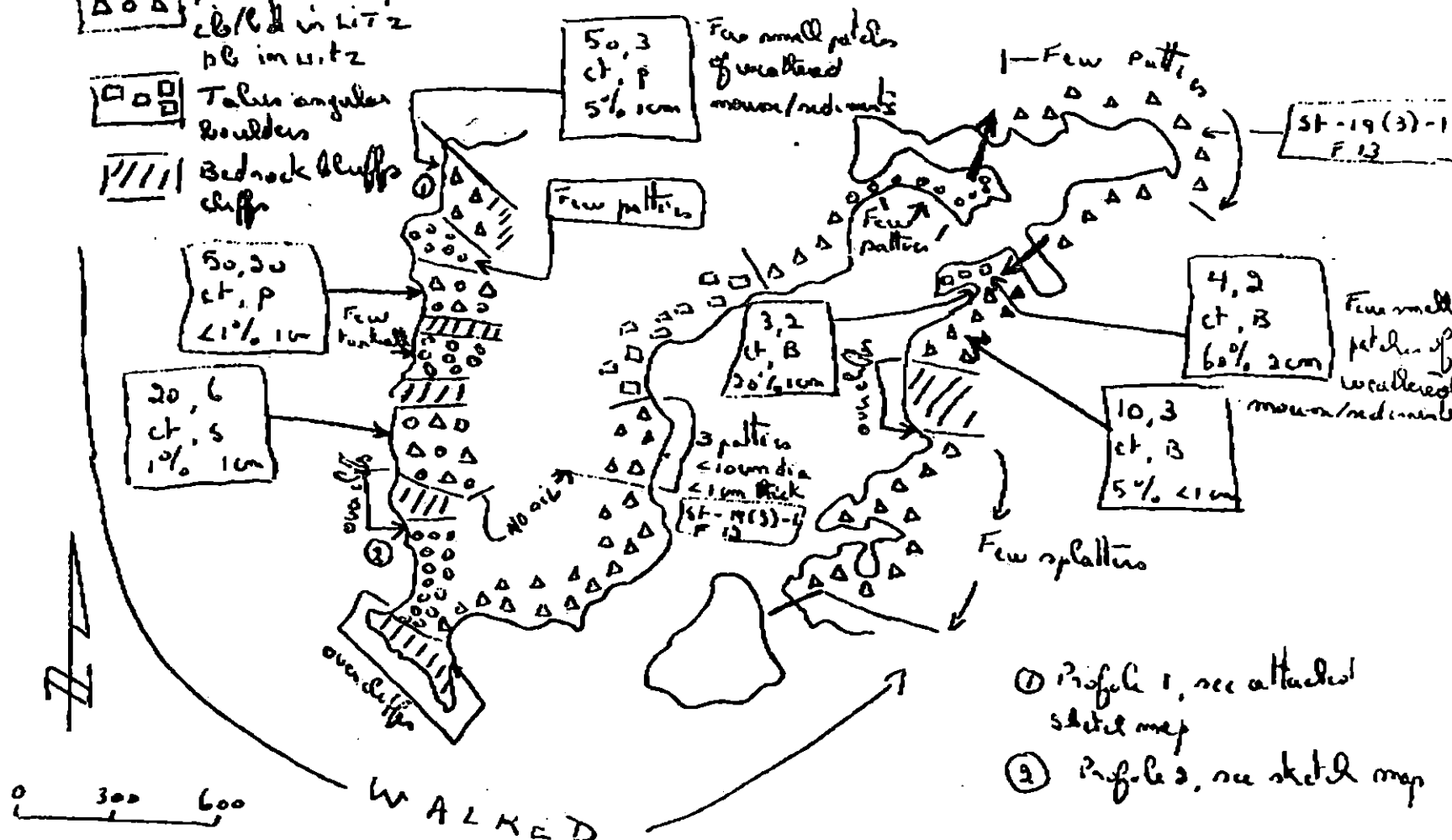
$\Delta \Delta \Delta$ poorly sorted pl/c/bd
 cl/bd in LTZ
 pl in LTZ

$\square \square \square$ Talus angular
 boulders

$|||||$ Bedrock bluffs
 cliffs

SKETCH MAP

length character coverage
 width distribution thickness (max)
 50, 3
 ct, 5
 5%, 1cm



① Profile 1, see attached sketch map
 ② Profile 2, see sketch map

OG from Tropic Sample

SEGMENT B-1

SUBDIVISION D

DATE May 11/3/80

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Sep/Sub Entry
- ☒ Oil Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HAZARD
- ☒ SCL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pit Location(s)
- ☒ Photo Location(s)

LEGEND

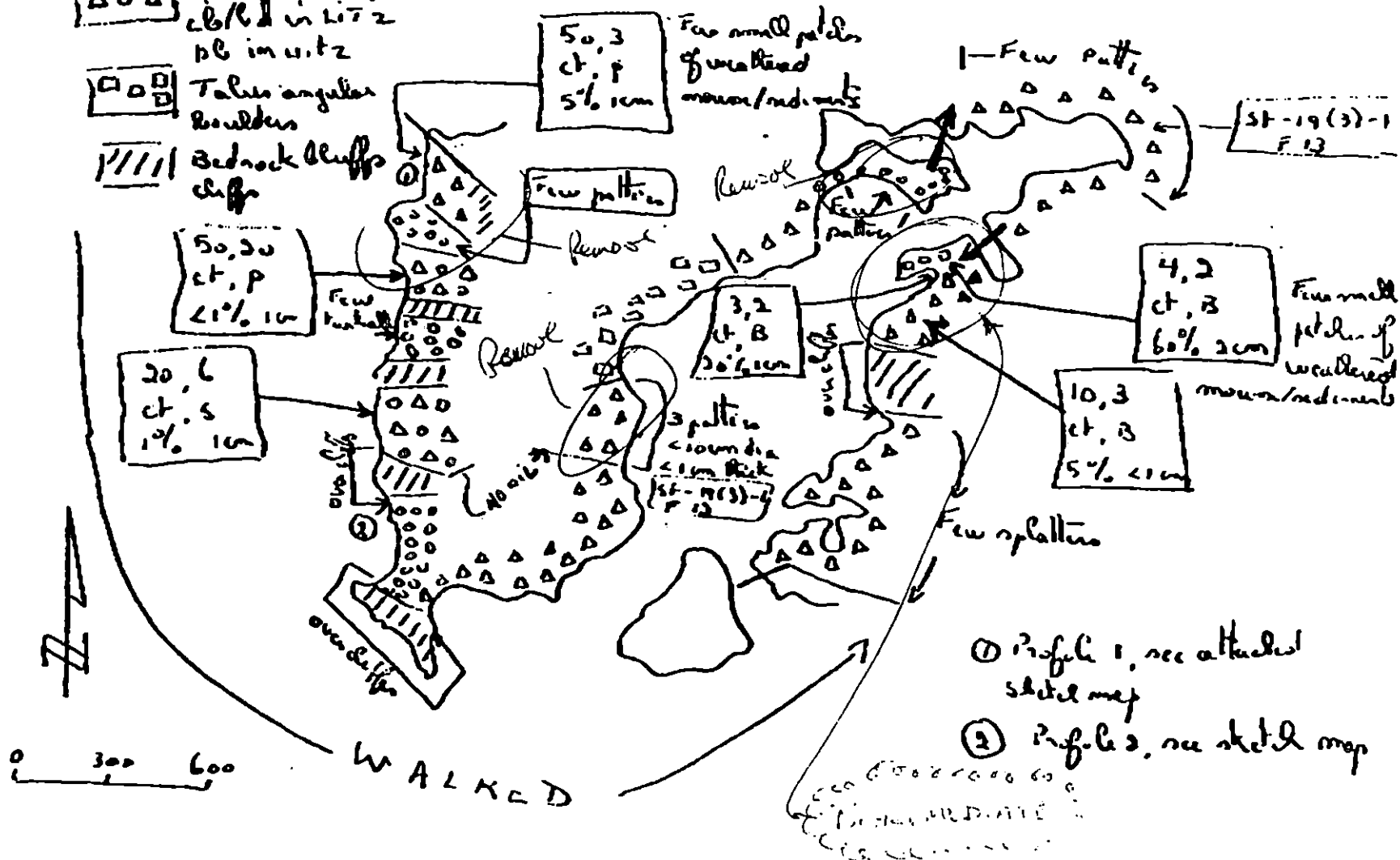
- 1 Δ
- PE - No Subsurface Oil
- 2 Δ
- PE - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splashed Distribution
- eee
- Old Vegetation
- 1 $\Rightarrow$
- Photo location, direction, and number

Legend

- $\Delta \Delta$ angular mixed sediments
- $\circ \circ \circ$ moderately to well sorted p.l.c.
- $\Delta \Delta \Delta$ poorly sorted p.l.c./l.d.
- $\Delta \Delta \Delta$ c.b./l.d. in u.t.z.
- $\Delta \Delta \Delta$ p.l. in u.t.z.
- $\square \square \square$ Talus angular boulders
- $||||$ Bedrock bluffs

SKETCH MAP

length	50, 3	width
character	ct, s	distribution
coverage	5%, 1cm	Thickness (max)



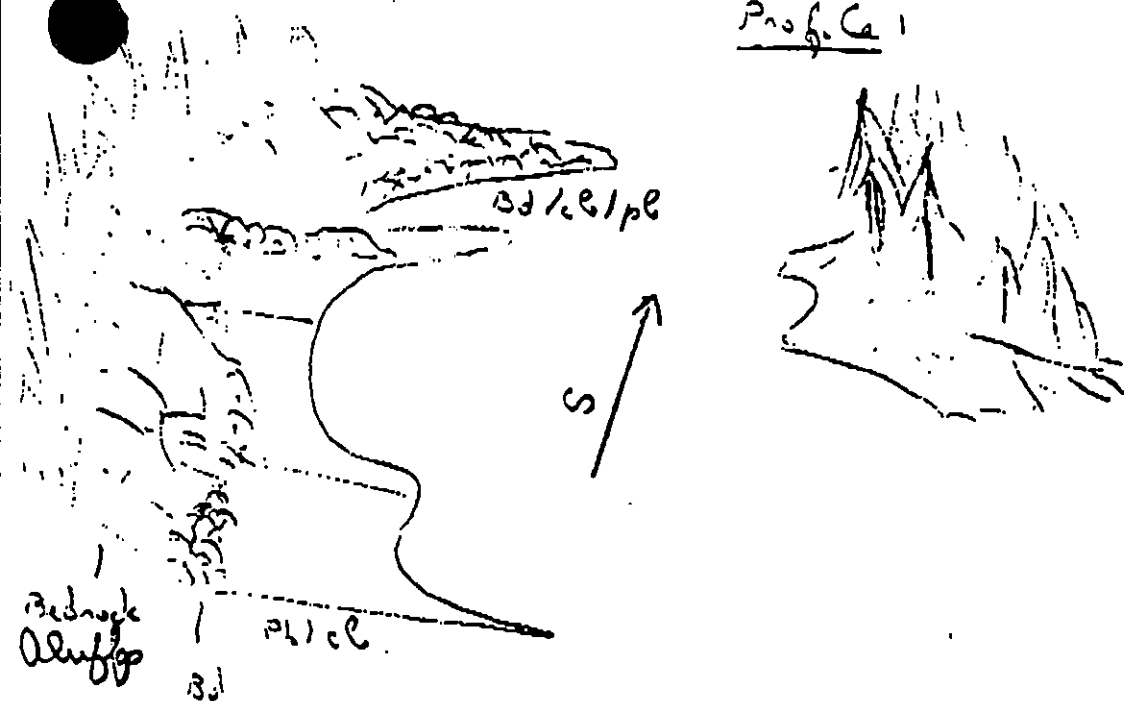
Oil Character Length (m): AP 0 PO 0 CV 0 CT 137 ST 0 MS 60 PT 50 TB 50 FL 0 NO 3863

REVISION 000000

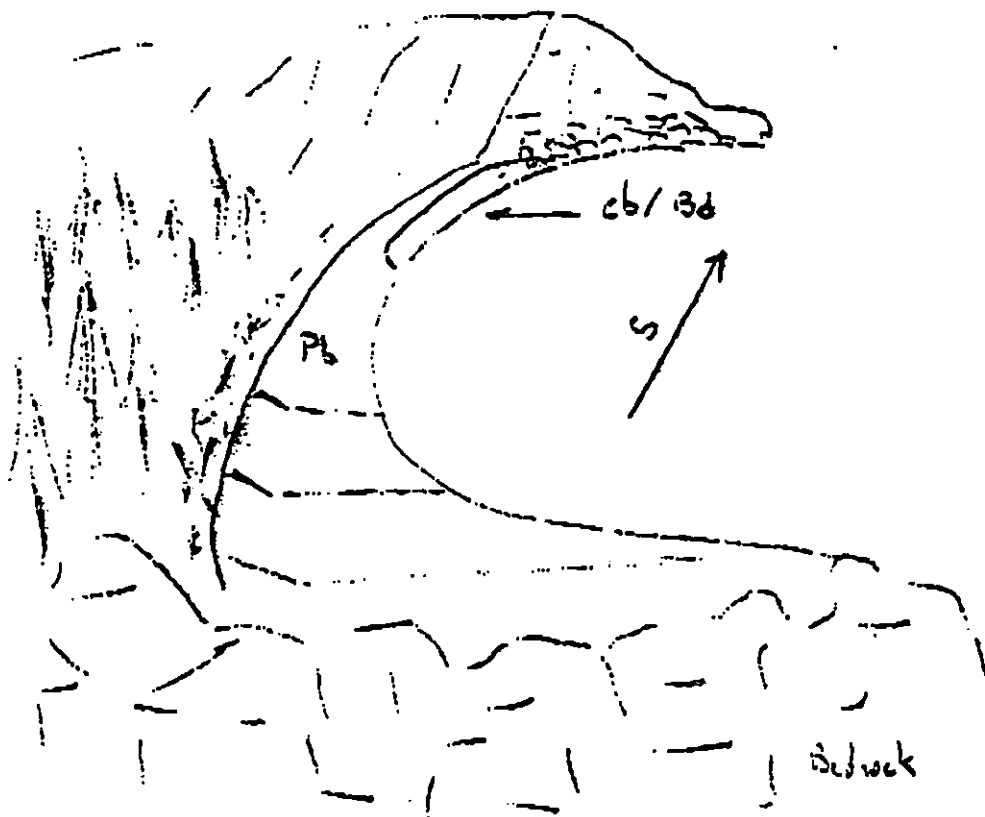
NB-1-D. May 13, 1990

lean Terr. Samples

Profile 1



Profile 2



Segment ST / K1-4 Subdivision D Date (mo / day / yr) 5/13/90

Time (24 hr) 0745-1420 Biologist SHARMAN

- (A) Substrate type and % of segment: SUBDIV.
 (1) Bedrock 10 (2) Boulder 10 (3) Cobble 10 (4) Pebble 40 (5) Sand 30 (6) Silt 0 ^{+ gravel}
- (B) Overall % cover of biota (% of segment): Dense 10 Moderate 85 Low 5
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-19(III)-1

Frames 12, 13

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 (NUCULA, LITTORINA, LIMAEAE)

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: 2 adult eagles, 1 subadult eagle, 4 pairs red-breasted mergansers, 4 Vancouver Canada geese, 4 semipalmated plovers, 12 least terns, ~40 glaucous-winged gulls, 2 pairs oystercatchers, 3 surf scoters, 5 pigeon guillemots, various & abundant shorebirds foraging in forest, for sparrows foraging in intertidal zone. Very abundant deer tracks & scat in forest on grassy bluff margin, both in supratidal & LTB. Deer bones are common (cont.)

Ecological Considerations:

Please see Eco. Map. No bald eagle nests observed in this subdivision, but there are nests nearby in subdivisions A + B, and at the extreme S. boundary of the segment. There are also presently active gull colonies on nearshore islets off the E. portion of the subdivision (it is likely that other seabird species are or will be nesting on these islets also). There are extremely productive LTB communities in the narrow "necks" at the upper reaches of the subdivision - these communities have developed in very protected lagoons that at the same time benefit from strong tidal races. The primary ecological sensitivity here is the apparently regular use (according to DNR rep Mike Goodwin) in the upper lagoons by less than very high concentrations (see previous section). That these mammals must have entered the area, possibly due to disturbance by us.

Sharman
5/13/90General Comments (cont.):

in the forest and on the beach. 1 bear scat in the forest, bear tracks in UTE sand. Rare scattered otter bones (old) in UTE, otter tracks + scat in the supratidal and UTE, as well as on bluff fringes. Red squirrels common in the forest. Fox scats occasional in the forest and on bluff fringes (one with deer hair), one set of fox tracks in UTE sand. 500cm² diggings, 10cm deep, for worms or clams, are common in the sand/mud flats (fox? bear? sea otter?). 2 harbor seals, ~ 30 sea otters (15 with pups). These otters were concentrated in the protected "lagoon" portion of the subdivision - see Eco. Map. Clearly, the sea otters are eating alot of cobbles here - perhaps even specializing on them. Cobble shell fragments are abundant in the intertidal zone. Occasional short, thin reaches of dwarfed forest along the shoreline indicate some amount of subsidence occurred here (as elsewhere on Shuyak Is. where we have been) during the 1964 earthquake. We found one sandbar strand on an intertidal cobble/pebble beach. The intertidal communities along this subdivision are varied, healthy, and productive. Typically they display quite successful recruitment, normal mortality, and seem to be perfectly normal in all respects. There is locally dense Fucus coverage with good recruitment where adults are well established. Same for barnacles, with excellent spring spat out (even on pebbles). Littorina are locally extremely dense (10,000's per m²) including many young-of-the-year. Joining Fucus on beach/large boulder shores are Monothallis and Chloropeltis (usually higher + on more exposed beaches). LTE dominant algae are Sargassum, Enteromorpha, Halosaccus, + ulvae - again primarily on the more exposed giant boulder/beach shores. Beneath MTE boulders are littorina with egg masses, limpets, amphipods, pricklebacks, Nephtys. Beneath LTE boulders are littorina with egg masses, limpets (many large Notogaster setum), amphipods, pricklebacks, Stomatopoda (some brooding), Katharina, and Halichondria. LTE tidepools contain the typical + new-familion assemblage of Fithothamnium, foliose corallina, Katharina, limpets, littorina, Monothallis, tidepool sculpin, Epicat, Anthopleura (artensis, elegantissima, xanthogramma), Pagurus, Margarita, Halichondria, Halidorea, etc. Mussels are generally rare overall in rocky portions, in thin discontinuous bands, but they are successfully recruiting where adults are established (MTE) - also in the rocky MTE are sparse Nucella and fine red algae (Polysiphonia/Parasiphonia?). Amongst the boulders are shells of Sepidomus, Mya spp., and Protolaea. In the upper, protected portions of the embayment, the beaches are predominantly fine-grained + low-angle. Often there is a MTE boulder/cobble band supporting Fucus / Enteromorpha / Sargassum / ulvae / Acrospora (?) / brown or red filamentous forms, subtended by sandy sediments supporting locally very dense populations of sparrowgrass (Echinia) and assorted brimble (mostly Mya spp. - also Protolaea, Sepidomus, small Clinocarpium) with discontinuous stands of sparse eelgrass. Anthopleura are common in the LTE sandy zone (attached to subsurface pebbles + cobbles). An extremely diverse LTE community exists in the narrow "necks" into the upper

Sherman
3/13/90

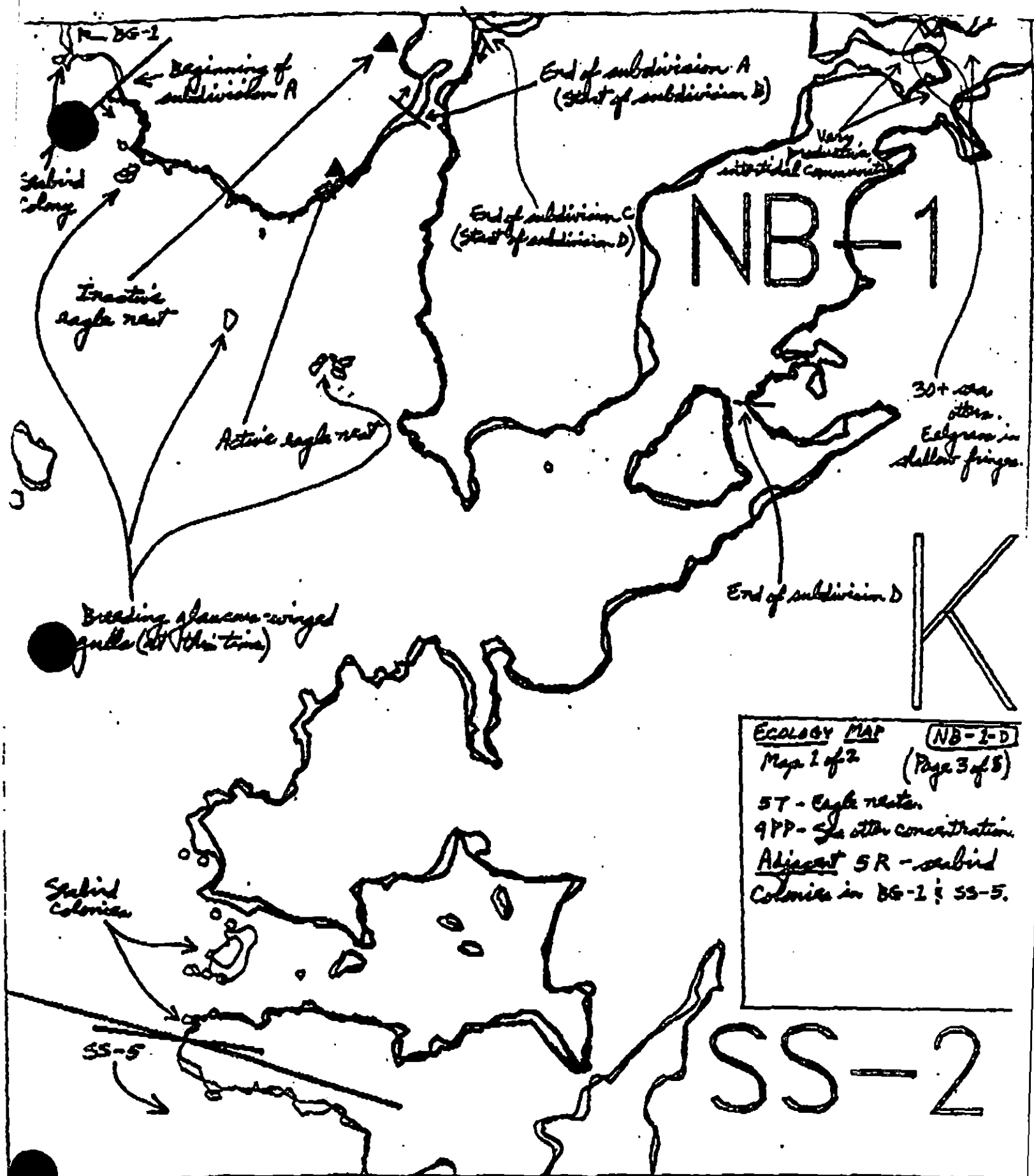
General Comments (cont.):

lagoon - well flushed by tidal races. Here there are all the usual LTZ species, plus hydroids, sponges, bryozoans (foliose species), and tunicate - and very lush with laminarians. In the drift line of this area were several large 10-20 cm dia. Annelids and abundant Talmanella carapaces/molts.

Addition to NTZ rocky zone comments: in several areas Nucella was quite abundant, with clusters of egg capsules not uncommon among boulders.

Ecological Considerations (cont.):

This is one of the densest sea otter concentrations (clearly a breeding population - with significant numbers of pups) I have seen during the 1990 SSAT. This protected and productive area is likely quite important to the regional otters for foraging, and probably protection during rough weather. They appear to be not particularly tolerant of human intrusion.



ECOLOGY MAP **NB-1-D**
 Map 1 of 2 (Page 3 of 5)
 ST - Eagle nests.
 9PP - Sea otter concentration.
 Adjacent SR - seabird colonies in SS-1 & SS-5.

XXXX Wide

//// Medium

--- Narrow

TTT V A light

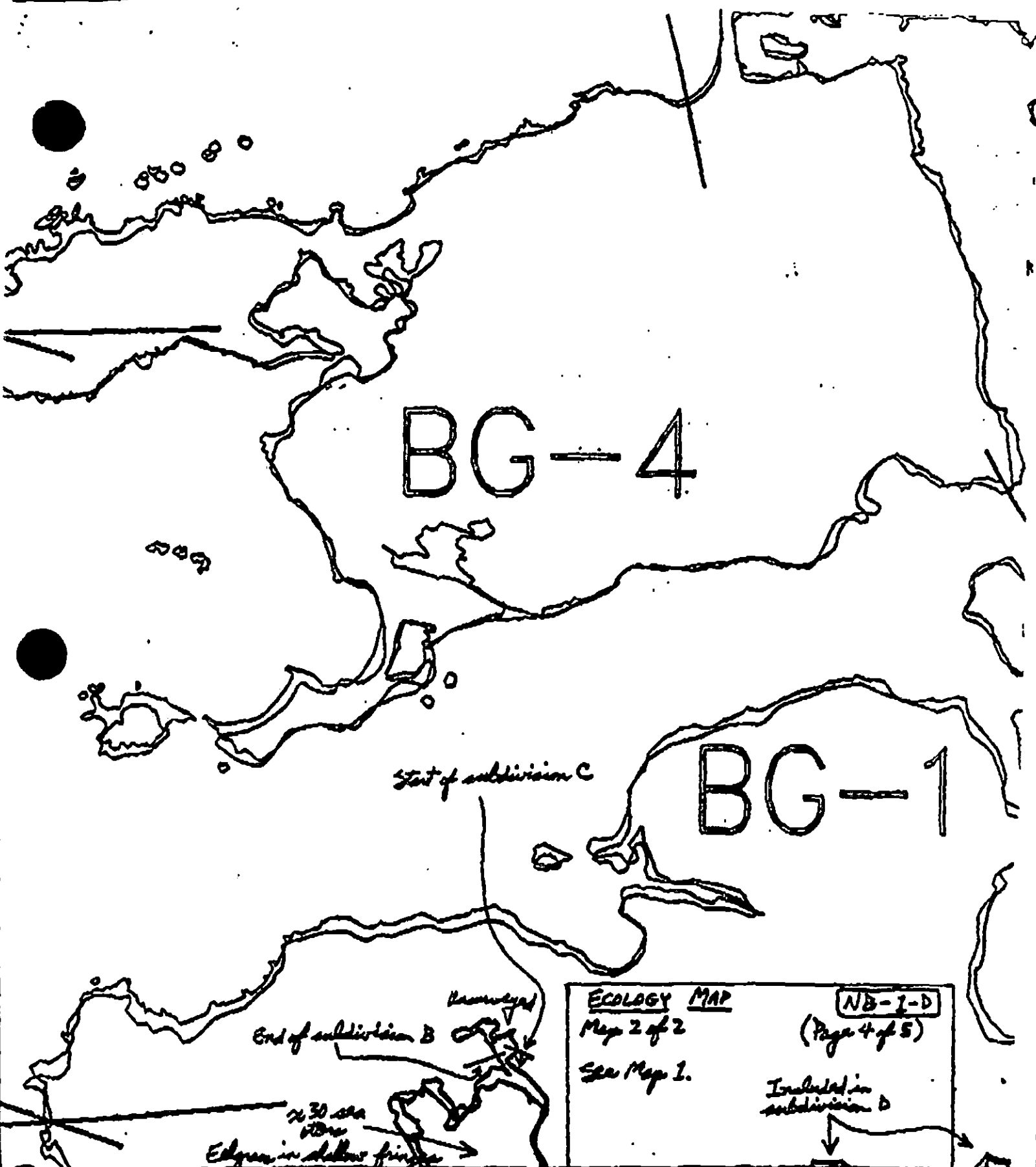
NB-1-D

Approx. Segment Length: 26978m

Map Key: K00-NB-1a

Name: _____

Date: _____



BG-4

BG-1

Start of subdivision C

End of subdivision B

Rampway

x 30 sea

Edges in shallow finger

ECOLOGY MAP

Map 2 of 2

See Map 1.

NB-1-D

(Page 4 of 5)

Included in
subdivision D

NB-1-D

Approx. Segment Length: 26978m

Map Key: K00-NB-1c

Name: _____

Date: _____

Date Entered: _____

XXX Wide

//// Medium

--- Narrow

TTTT Very Light



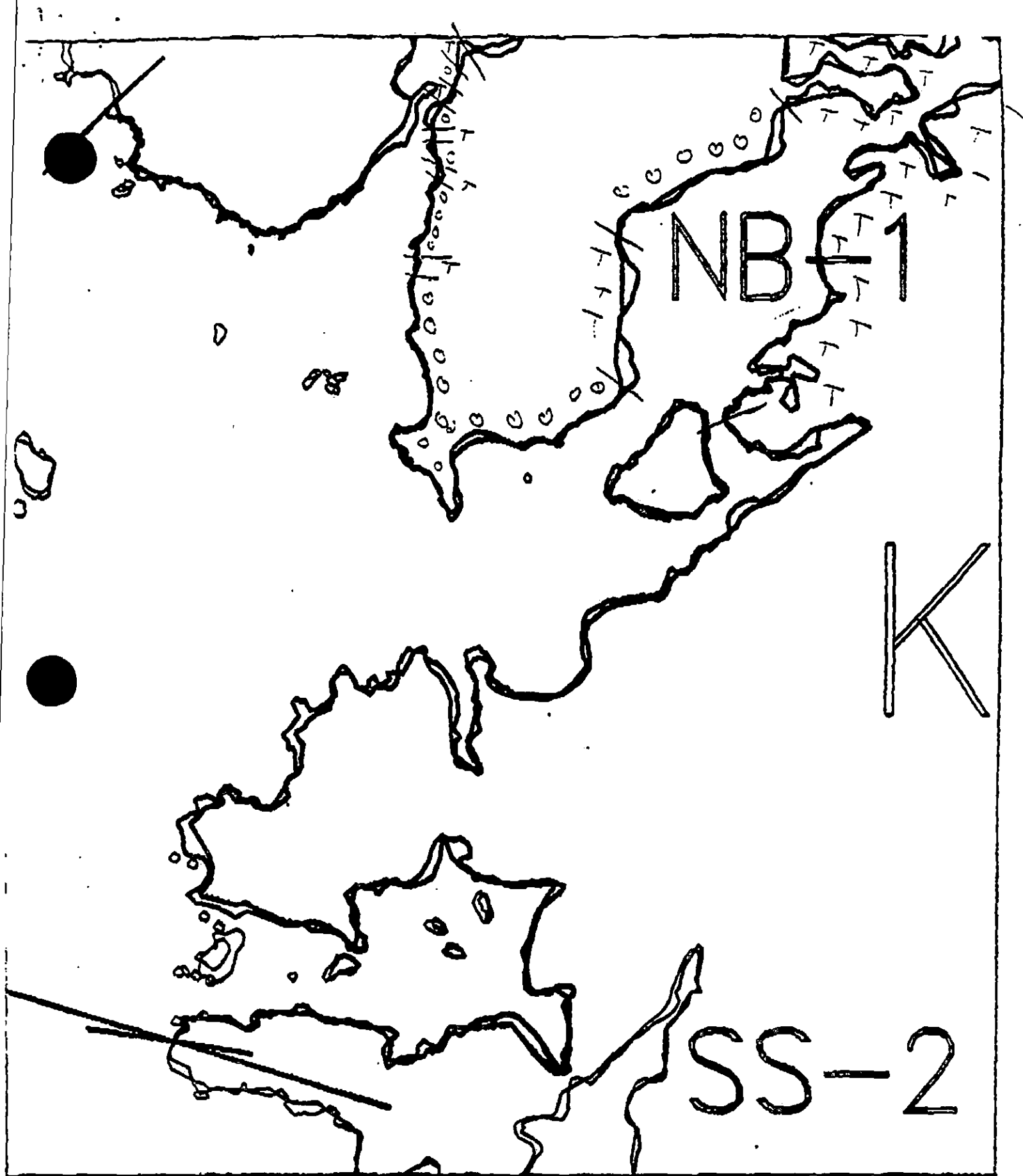
.....

LCS = SHARMAN

ROLL NO. ST-19(III)-1 FROM 5/4/90 TO _____
TEAM NO. 19 PWS / KENAI / KODIAK AK. PENINSULA

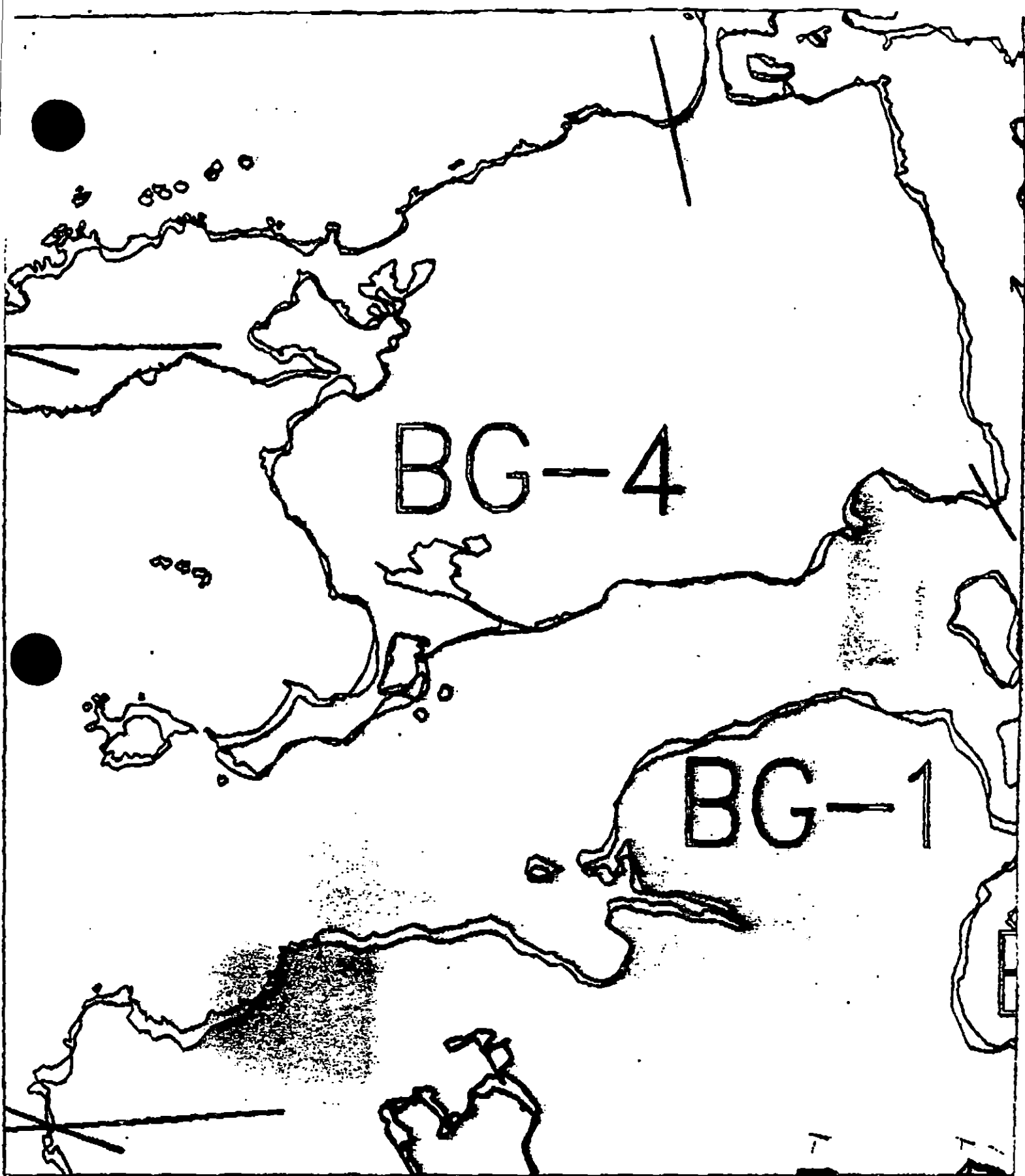
FRAME NUMBER	PHOTO GRAPHER	DATE	SITE ID	LOCATION/COMMENTS
-----------------	------------------	------	------------	-------------------

1	LCS	5/4/90	CC-4	Black mycelium growing through tarball.
2	LCS	5/5/90	CD-15	Last year's littering caught in HTA CT/CV on bedrock.
3	LCS	5/9/90	SI-15	Looking W. up into entrance of STA/HTA grotto where oil has accumulated. See also frame # 4.
4	LCS	5/9/90	SI-15	Closeup of mouse sequentia between boulders, behind large boulder in frame # 3.
5	LCS	5/10/90	NB-1	Mouse patty in HTA, head of Tule, Tugon.
6	LCS	5/11/90	AS-2	Mouse patty among surface cobbles/pebbles.
7	LCS	5/12/90	SB-5	Mouse beneath cobbles in HTA.
8	LCS	5/12/90	SB-5	Overview to W.
9	LCS	5/12/90	SB-5	Overview to E.
10	LCS	5/12/90	FB-10	Overview to W. (S. side). Vertical plate.
11	LCS	5/12/90	FB-10	Oil Coat (soft on warm day) on boulder surface, HTA.
12	LCS	5/13/90	NB-1-D	Mouse patty on surface cobbles/pebbles in HTA.
13	LCS	5/13/90	NB-1-D	Asphalt patty in HTA cobbles.



XXXX Wide	K0104-NB-1-D	Map Key: K00-NB-10
/// Medium	Approx. Segment Length: 26978	Name: <u>John M. S. S. S.</u>
--- Narrow		Date: <u>May 13/90</u>
TTTT Very Light		Date Entered:
0000 No		

0 500 1000 1500 METERS



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

~~~~~

K41d4- NB-1-D

Approx. Segment Length: 20978



Map Key: K08-NB-1c

Name: San Francisco Bay

Date: May 12/95

Date Entered:

REGION: KODIAK

SEGMENT: ST/K01-04-NB-001

SUBDIVISION: E (5 of 6)

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION E (5 OF 6) DATE 5/14/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

5T-2 All Bald Eagle nests (3/1 to 6/1)  
Active Bald Eagle nests (3/1 to 9/1)  
5R Seabird colony (5/1 to 9/1)  
5S Shorebird/waterfowl concentration (4/1 to 5/15)  
9PP Seat Otter Concentration Agency Request  
4GG State Marine Park Alaska State Parks  
See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 2589 m: No Oil 6882 m  
Subsurface Oil Observed: Yes \_\_\_\_\_ No X Maximum Depth \_\_\_\_\_

**RECOMMENDATIONS:**

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

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TAG COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TAG APPROVAL DATE: \_\_\_\_\_

ADEC \_\_\_\_\_  
EXXON \_\_\_\_\_  
NOAA \_\_\_\_\_  
USCG \_\_\_\_\_

FOSC: \_\_\_\_\_ DATE: \_\_\_\_\_

# KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)  
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)  
 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, 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 prior to treatment for consultation and/or permit application.  
 AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release  
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site  
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.  
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area  
 1J Purse seine area  
 Mainland, West side Kodiak, Shuyak & Moser/Oiga Bay (6/9 to 10/1)  
 East side Kodiak, East side Afognak (7/4 to 10/1)
- 1K Purse seine hook-off  
 1L Set net sites  
 Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)  
 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 Larry Nicholson 486-4791
- 3Q, 3Q Harbor seal and sea lion pupping (5/10 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. 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 Subistence area: Salmon harvesting (8/1 to 9/30)  
 7H Finfish harvesting  
 7I Deer harvesting (8/1 to 1/7)  
 7J Invertebrate harvesting  
 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)  
 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

ST K1-4

SEGMENT ST / NB-1 SUBDIVISION: E DATE May 14/90

NAME STEPHEN LEHMANN

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED  
COMMENTS

☐ TREATMENT SUGGESTED

Generally agree with ADEC's comments. Very little removable oil. No treatment is recommended

ADEC

NAME Terry Ellsworth

SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED  
COMMENTS

☐ TREATMENT SUGGESTED

Splatters of coat, stain and occasional tar balls and patties are found in this segment. Removable oil occurs in very small quantities and is scattered over a large area. No treatment is recommended.

LAND MANAGER

NAME OTTO FLORSCHUTZ

SIGNATURE [Signature]

☐ NO TREATMENT RECOMMENDED  
COMMENTS

☐ TREATMENT SUGGESTED

Removable resources widely scattered and agree with above ADEC recommendations — see attachment No. 2

**Attachment 2**

**U.S. Fish and Wildlife Service Shoreline Cleanup Disclaimer**

This comment sheet is based on current observations and is solely for the purpose of planning and scheduling of 1990 response treatment actions. It in no way implies that the State or Federal government will not in the future determine that further restoration or other treatment, or compensation is warranted regarding this area, or that the area is considered by the Federal or State government to be adequately "clean" or "restored" for the purpose of any claim which the State or Federal government has brought or may bring against Exxon, Incorporated or any other potentially responsible party.

## SHORELINE OILING SUMMARY

ST

REVISION NO 34-120

OG Jim M. Sempels USCG Stephen Leemann SEGMENT ST/ K1-4 NR-1  
 PIO Kevin Shearer LAND REP Otto F. Schmitz SUBDIVISION E (5 OF 6)  
 XON — ADEC Terry P. Mowatt TIME 08:12:10:15:54  
 TEAM NO. 19 TIDE LEVEL 7.5' to 7.0' DATE May 14 / 90  
 EST. SUBDIVISION LENGTH: 9200 m ☒ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow  
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock  
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S  
 SURFACE SEDIMENTS: R 20 % B 20 % C 20 % P 20 % G 10 % S 10 % M 0 % V 0 %  
 SLOPE: Long 50 % Hang 40 % Vert — % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High  
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 2480 m NO 6720 m

## SURFACE OIL

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

 PAVEMENT H F S 120 sq. m by 0 cm

 PATTIES / TARBALLS 20 BAGS

 NEAR SHORE SHEEN? (NO) BR RW SL TL

| OILED DEBRIS | AMOUNT |    |    |
|--------------|--------|----|----|
|              | SM     | MD | LG |
| Logs         |        |    |    |
| Vegetation   |        |    |    |
| Trash        |        |    |    |
| Debris       |        |    |    |

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE —

 #BAGS —

Photographs:

 Roll No. None

 Frames —

## SUBSURFACE OIL

(NO)

| 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 |                | UO    | UC | 1                | 2 | 3 | 4 | SU       | U | M | L |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                |       |    |                  |   |   |   |          |   |   |   |       |             |   |                                |

COMMENTS

REVIEWED

BAT

DATE 16 May 90

NB-1-E, Neketa Bay, May 14, 1990  
-----

Subdivision E of segment NB-1 includes the southern shore of the entrance to Neketa Bay and the north shore of a smaller bay north of Cape Newland on southwestern Shuyak Island. This subdivision is exposed to a fetch varying between very short at its northeastern and southern extremities to the width of Shelikof Strait in its central portion. The field work was carried out on May 14, 1990, between 0812 and 1554 h, and corresponding 7.5' to 7' tidal levels.

The island located in the entrance of Neketa Bay has a moderately sloping angular pebble/cobble intertidal zone on its eastern side, low bedrock cliffs at its western extremity, and talus of angular boulder/cobbles on its northern and southern sides. A few small coatings of splatters were found on the northeastern shore of the island.

Northeast of the island, the shore of the mainlan consists of talus followed by poorly sorted angular pebble/cobbles with several large areas of peat deposits around a stream outlet. A few small splatters were found throughout this area.

Southwest of this embayment, the shoreline shows a high (~4 m) deposit of relatively well sorted pebble/cobbles followed by a long beach of angular pebble/cobbles, both without oil. A beach of well sorted pebble/cobbles with a well defined storm berm of pebbles leads to a deep and narrow embayment with a cliffed bedrock entrance.

West of this embayment, the shore consists of alternating pocket beaches of well sorted pebbles with well defined and sometimes multiple storm berms separated by bedrock cliffs. This type of shore forms the south side of the entrance of Neketa Bay and very few small tarballs were found in this area.

The north shore of a cove located immediately north of Cape Newland consists

mainly of cliffs and talus at its western extremity and a steep talus of angular boulders and cobbles elsewhere. A area 80 m long by 5 m wide of patchy tar coatings was found on and around the small southward projection on the western part of this section. The maximum observed patch diameter was 1 meter and the maximum thickness was 2 cm. A few small bands of patties were also found further to the west, on the western side of a subtidal boulder/cobble tombolo that connect the neashore island to the mainland at low tide.

James T. ...

# SKETCH MAP

MENT ST/ 5+ R1-4 NB-1

DIVISION E

TE May 14 90

## CHECKLIST

N Arrow  
Approx. Scale  
Bag/Tube Entry  
Oil Dist.  
Width  
Length  
% Cover  
Substrate Character  
Est. HWA/LWL  
SSL  
Profile Location(s)  
Profile(s)  
PR Location(s)  
Photo Location(s)

## LEGEND

1 Δ  
No Subsurface Oil

2 Δ  
Subsurface Oil

CT/C  
Inland Distribution

CT/B  
on Distribution

CT/P  
by Distribution

CT/S  
shed Distribution

ee  
Vegetation

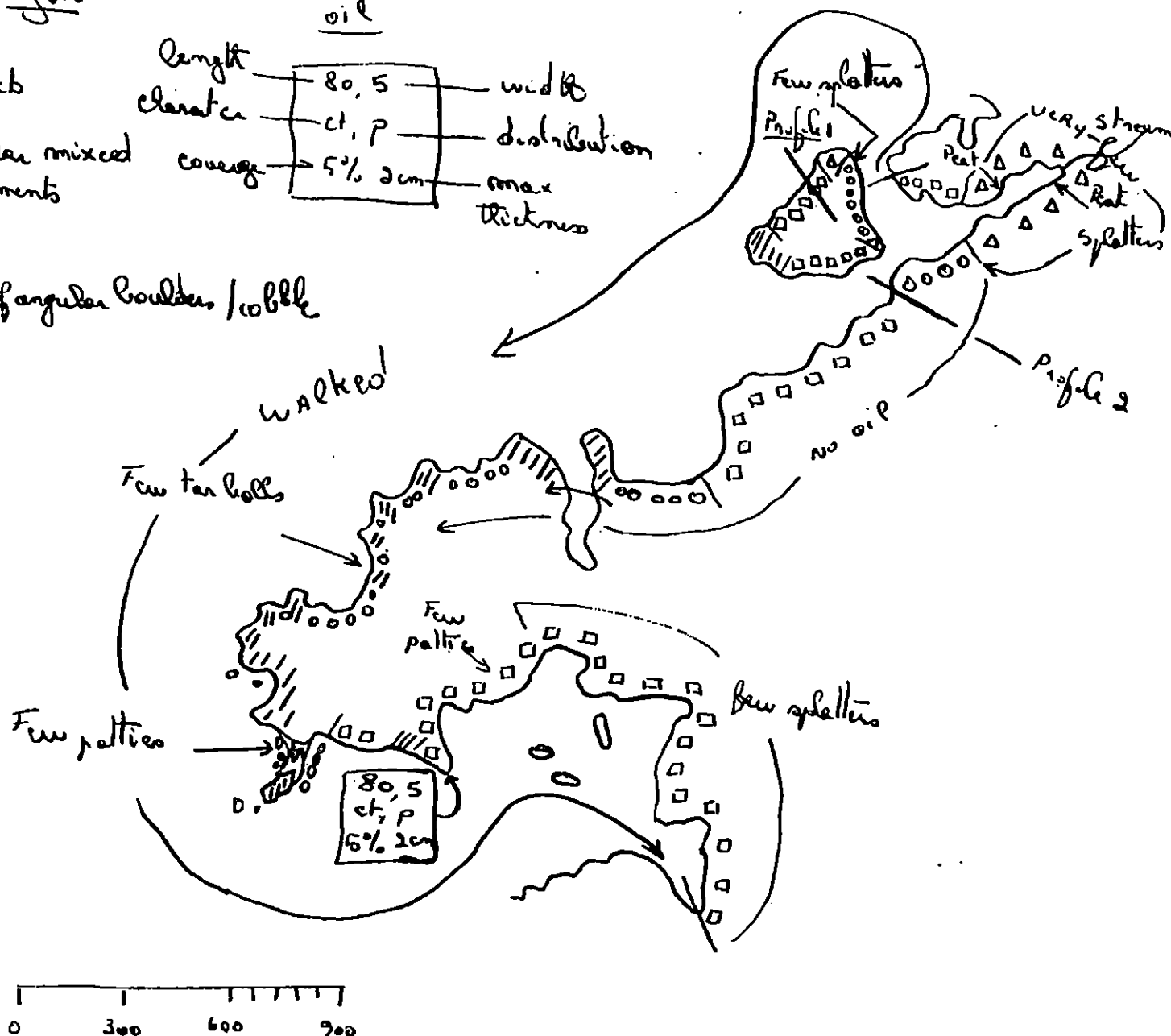
→  
location, direction,  
number

## Legend

oil

|           |        |               |
|-----------|--------|---------------|
| length    | 80, 5  | width         |
| character | cl, p  | distribution  |
| coverage  | 5% 2cm | max thickness |

ph/cb  
angular mixed sediments  
cliffs  
talus of angular boulders / cobble

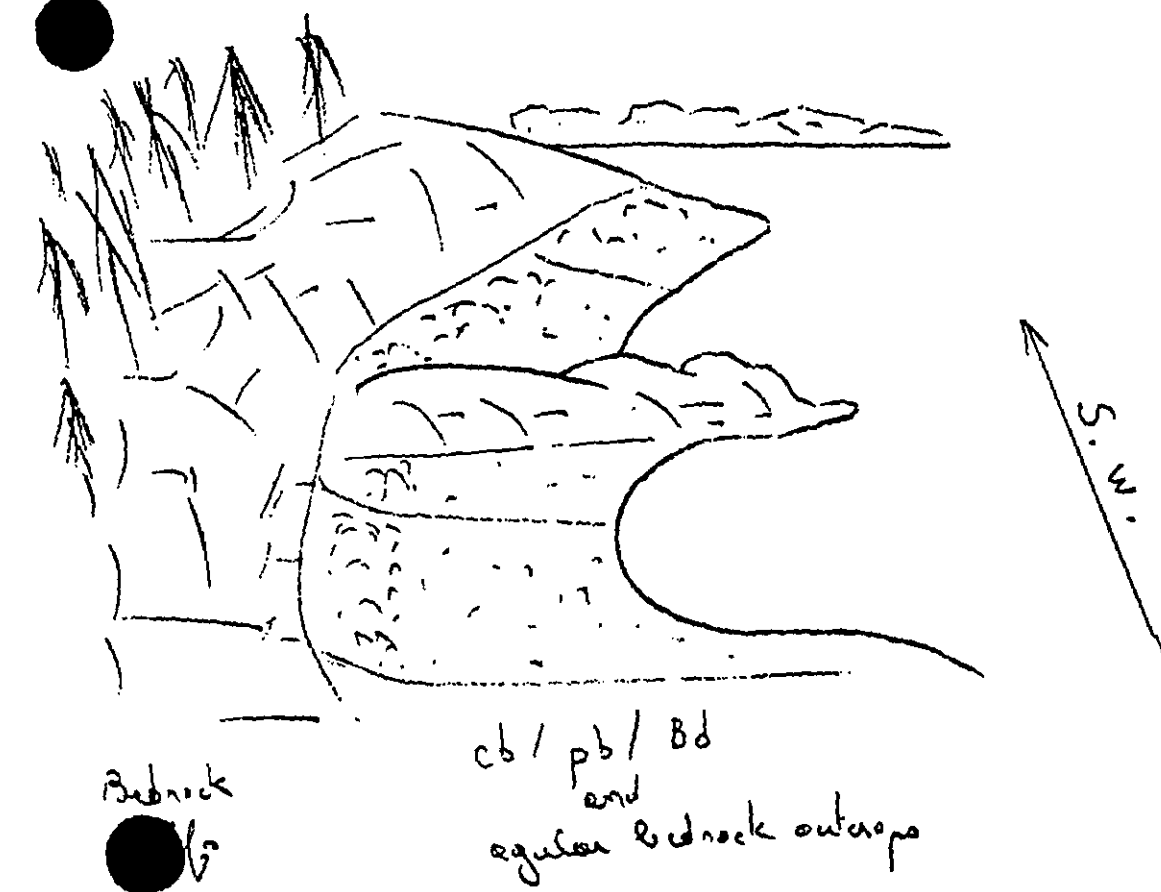
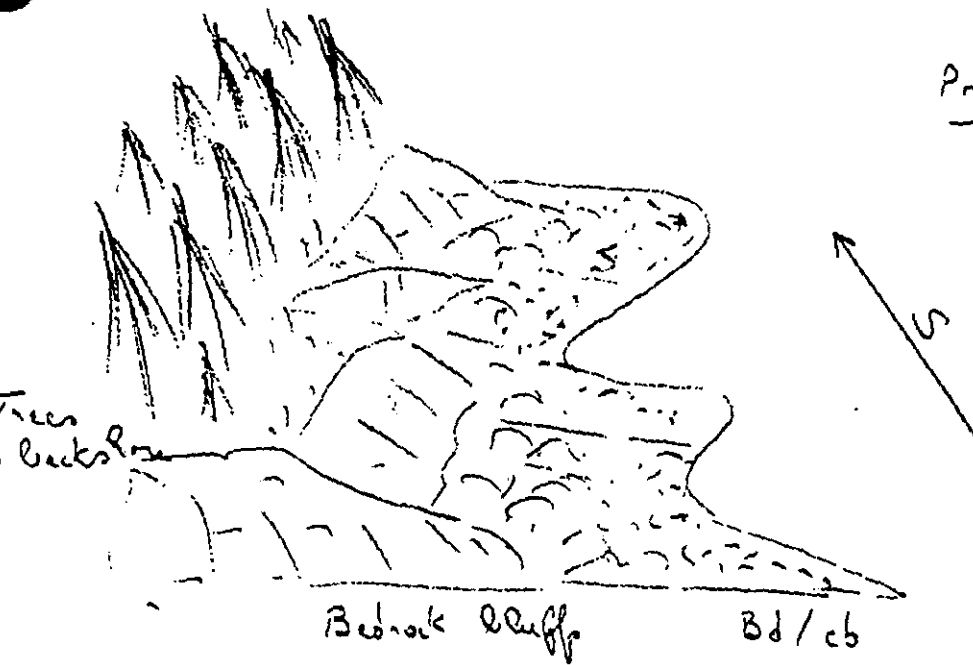


Character Length (m): AP PO CV CT 80 ST MS PT 2000 TB 400 FL NO 6720

REVISION 000000

100-1000' 101.5 440' 2500' 400'

San Juan Sempels



## K1-4 SHORELINE ECOLOGICAL SUMMARY (Page 1 of 5)

REVISION. 03/22/90

 Segment ST / NB-1 Subdivision E Date (mo / day / yr) 5/14/90

 Time (24 hr) 0830-1530 Biologist SHARMAN

- (A) Substrate type and % of segments: SUBDIV.  
 (1) Bedrock 20 (2) Boulder 20 (3) Cobble 20 (4) Pebble 20 (5) Sand 20 (6) Silt 0 <sup>+ granules</sup>
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 60 Low 10  
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 (O)

 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    | NOT PRESENT |
| 5 5 5    | 5 5 5    | 5 5 5    | 5 5 5    |             |
| 6 6 6    | 6 6 6    | 6 6 6    | 6 6 6    |             |

## 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    | NOT PRESENT |
| 5 5 5    | 5 5 5    | 5 5 5    | 5 5 5    |             |
| 6 6 6    | 6 6 6    | 6 6 6    | 6 6 6    |             |

 GASTROPODS (ANCELLA, LITTORINA, LIMPAETS)

| 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    | NOT PRESENT |
| 5 5 5    | 5 5 5    | 5 5 5    | 5 5 5    |             |
| 6 6 6    | 6 6 6    | 6 6 6    | 6 6 6    |             |

## FUCUS

| Dense    | Moderate | Sparse   | Rare     |             |
|----------|----------|----------|----------|-------------|
| 1U 1M 1L | 1U 1M 1L | 1U 1M 1L | 1U 1M 1L |             |
| 2 2 2    | 2 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    | NOT PRESENT |
| 5 5 5    | 5 5 5    | 5 5 5    | 5 5 5    |             |
| 6 6 6    | 6 6 6    | 6 6 6    | 6 6 6    |             |

Wildlife Observations/ General Comments: 1 adult eagle, 15 red-breasted noddies (mostly in pairs), ~20 harlequin ducks, 3 pigeon guillemots, ~25 glaucous-winged gulls (often nesting on nearshore rocks & islets), 1 pair red-throated loons, 12 pairs of oystercatchers (very serious nesting on exposed sandbars - don't concentrate! I've seen 1st, nesting in full swing), 1 pair murrelets, 1 green-winged teal, 1 large unidentified shorebird, 1 pair kest (East.)

## Ecological Considerations:

Please see Eco. Map. We did not observe the eagle nest documented by USFWS. However, there is another reported nest at the extreme S. boundary of the segment, possibly seen from the helicopter as we flew out. See report for subdivision "F" to be surveyed next. There are active seabird colonies (at least glaucous-winged gulls & oystercatchers at this time) on the nearshore islets; these may be important for juvenile haulouts along as the pupping/feeding season approaches. It is quite likely that the protected area at the S. end of the island is formed by the S. portion of the subdivision, periodically

**NB-1**

(Subdiv. E)

# Shoreline Ecological Summary (cont.) (Page 2 of 5)

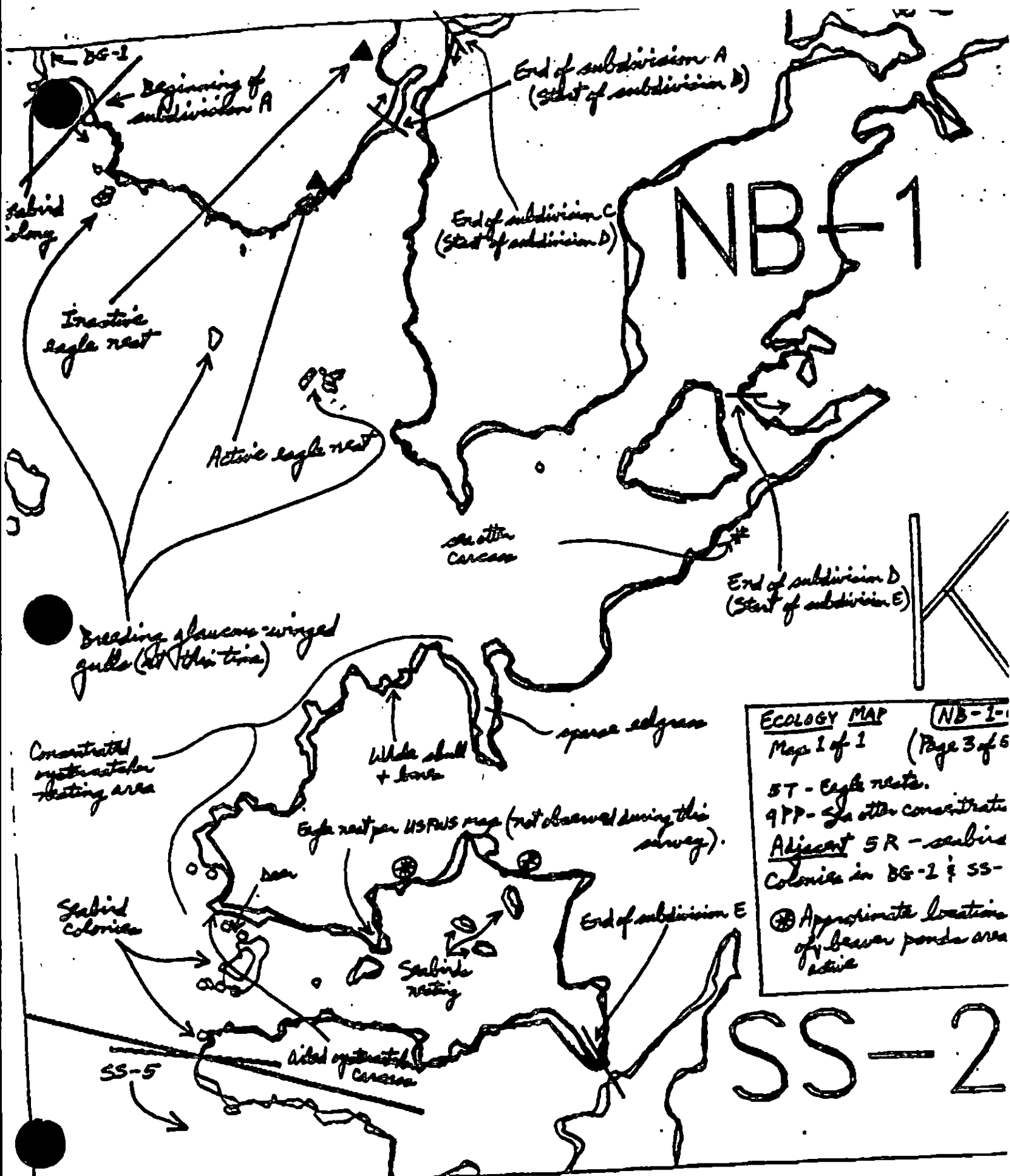
Slarman  
5/14/90

## General Comments (cont.):

sandpiper. Varied thrushes, hermit thrushes, and winter wrens singing in forest. Red squirrels not uncommon in forest. Deer scats + tracks very abundant in forest, on open bluff fringes, + in UTE + supratidal areas. Rarer other scats common on bluffs + at headland areas (contain primarily mussels + *Talmanella* crabs). 2 sea otters. As in subdivision "D", the otters here (in the protected, finer-sediment clam beaches) are eating lots of coebls - abundant *Chlorocardium* fragments on beaches. 1 sea otter carcass in UTE (no oil) - see attached USFWS form. 1 deer carcass in UTE (no oil) - young animal (tooth worn), poor long bone marrow condition implicates normal starvation-related witherbill. 1 oiled oystercatcher carcass on side of supratidal bluff (see USFWS form attached) - old, dried, very possibly from last summer. 1 oiled carcass of any bird I have seen this year (only one I've seen on entire M90 SSAT from late March). See Eco. Map for locations of otter + oystercatcher carcasses. Glaucous-winged gulls + oystercatchers are presently nesting on vegetated islets within the embayment at the S. end of the subdivision. There is a series of elevated beaver ponds parallel above the beach + just inside the forest along the N. shore of that embayment. Observed one large doe deer (probably pregnant) at the N. side entrance to the embayment, traversing from the island to Shuyah proper (see Eco. Map). There is an old great white (large - humphreys?) skeleton (skull + few bones) embedded in a cobbles/pebble storm berm above a high-energy beach backed by an enclosed lagoon (see Eco. Map) - appears to be at least a decade old. As throughout Tokata Bay, all subdivisions, the marine intertidal communities here are normal, productive, and healthy. The intertidal narrative for this subdivision is essentially identical to that for subdivision "D" - a very similar combination of habitats defined by exposure/grain size combination. Reference to this section of the Shoreline Ecological Summary for subdivision "D" should clearly describe the intertidal biotic component. There are rare high-energy spongey pebble pocket beaches, productive predominantly bivalve communities in protected low-angle finer-sediment embayments, exposed bedrock cliffy areas with very diverse + productive macroalgal assemblages in the UTE, typical bedrock tidepools (UTE + LTE), and very diverse + productive LTE communities on exposed large boulder substrata on + near headlands.

## Ecological Considerations (cont.):

important nesting/foraging habitat for concentrations of oystercatchers that are presently very actively displaying and nesting (we observed 2 eggs recently predated by gulls).



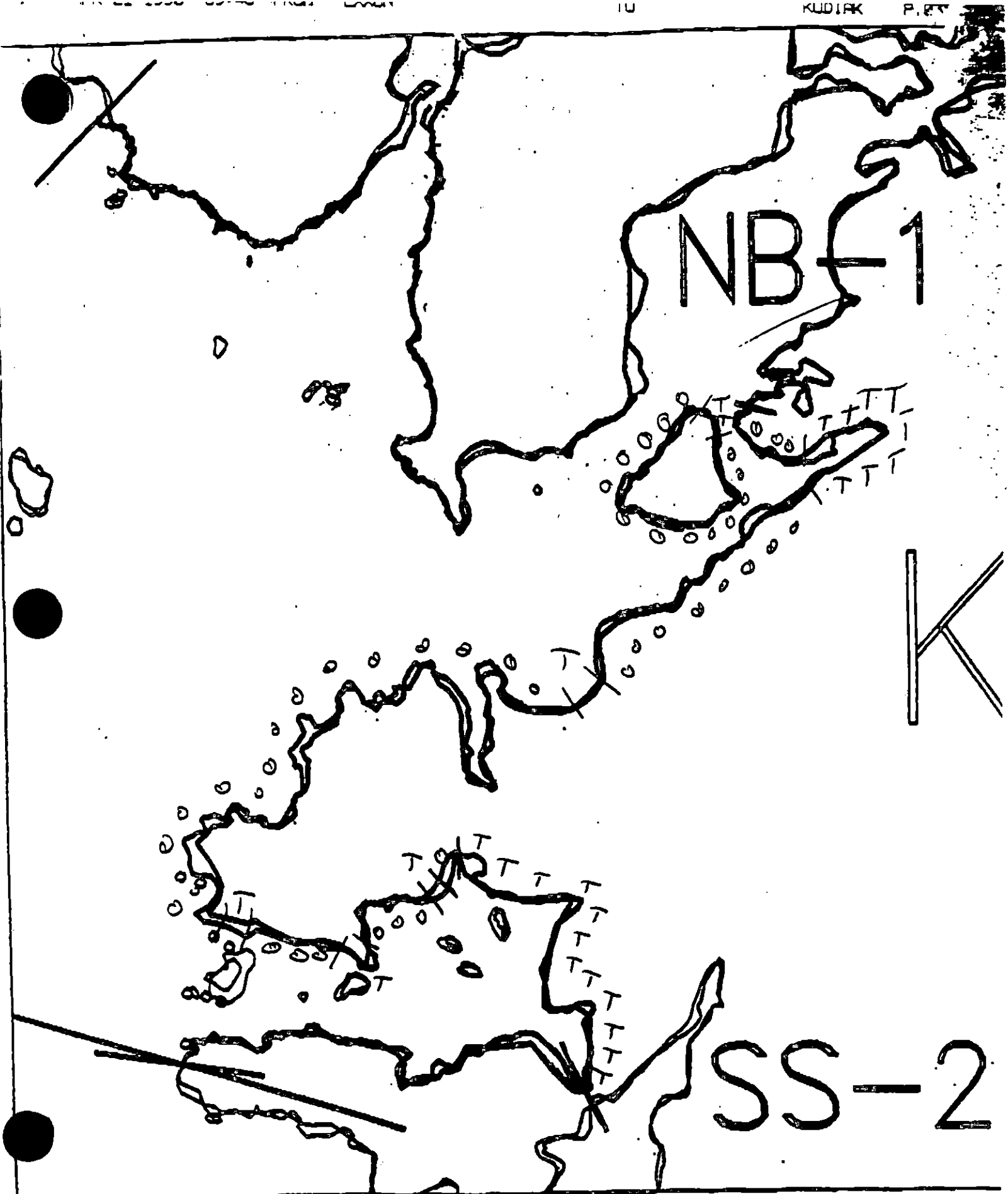
**ECOLOGY MAP** (NB-1-1)  
 Map 1 of 1 (Page 3 of 5)  
 ST - Eagle nests.  
 9PP - Seabird concentrated  
 Adjacent SR - seabird  
 Colonies in BG-2 & SS-  
 ⊕ Approximate location  
 of beaver ponds area  
 active

XXXX Wide  
 //// Medium  
 W A R A W

NB-1-E

Approx. Segment Length: 26978m

Map Key: K00-NB-1a  
 Name: \_\_\_\_\_



XXXX Wide  
//// Medium

NB-1-E

Map Key: KOD-NB-1e

## SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION E (5 OF 6) DATE 5/14/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

5T-2 All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

5S Shorebird/waterfowl concentration (4/1 to 5/15)

9PP Seat Otter Concentration Agency Request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: Rachel Ann Orr

DATE: 6/1/90

**OILING CATEGORIZATION:**

Side 0 m: Medium 0 m: Narrow 0 m: V.Light 2589 m: No Oil 6882 m

Subsurface Oil Observed: Yes \_\_\_\_\_ No X Maximum Depth \_\_\_\_\_

**RECOMMENDATIONS:**

X No Treatment Recommended

**Treatment Recommended**

Manual Pickup

## Bioremediation

## Tarmat Removal

## Snare/Absorbent Booms

Oil Snares (pom poms)

Absorbents (pads, rolls, etc)

Spot Washing:                      Wands

## Beach Cleaner

Other (see comments)

**COMMENTS:**

**TAG COMMENTS:**

TAG APPROVAL DATE:

DEC ART WEINER Art Weiner

EXXON *LARRY TEAL* *Reid*

NOAA: Tropical Tobacco - 1/1/1990

NOTED  
USCG

FOSC:                      DATE: 6-8-80

DATE: 6-8-80

D. Travis Smith

IT ST/ St 1 NA-1

SION E

ay 14 90

IST

Scale  
to Entry

if  
Character  
FLAME

Location(s)  
a)  
tion(s)  
cation(s)

2

surface Oil

ice Oil

Distribution

Butter

Butter

tribution

tion

n, direction

# SKETCH SP

Legend

oil

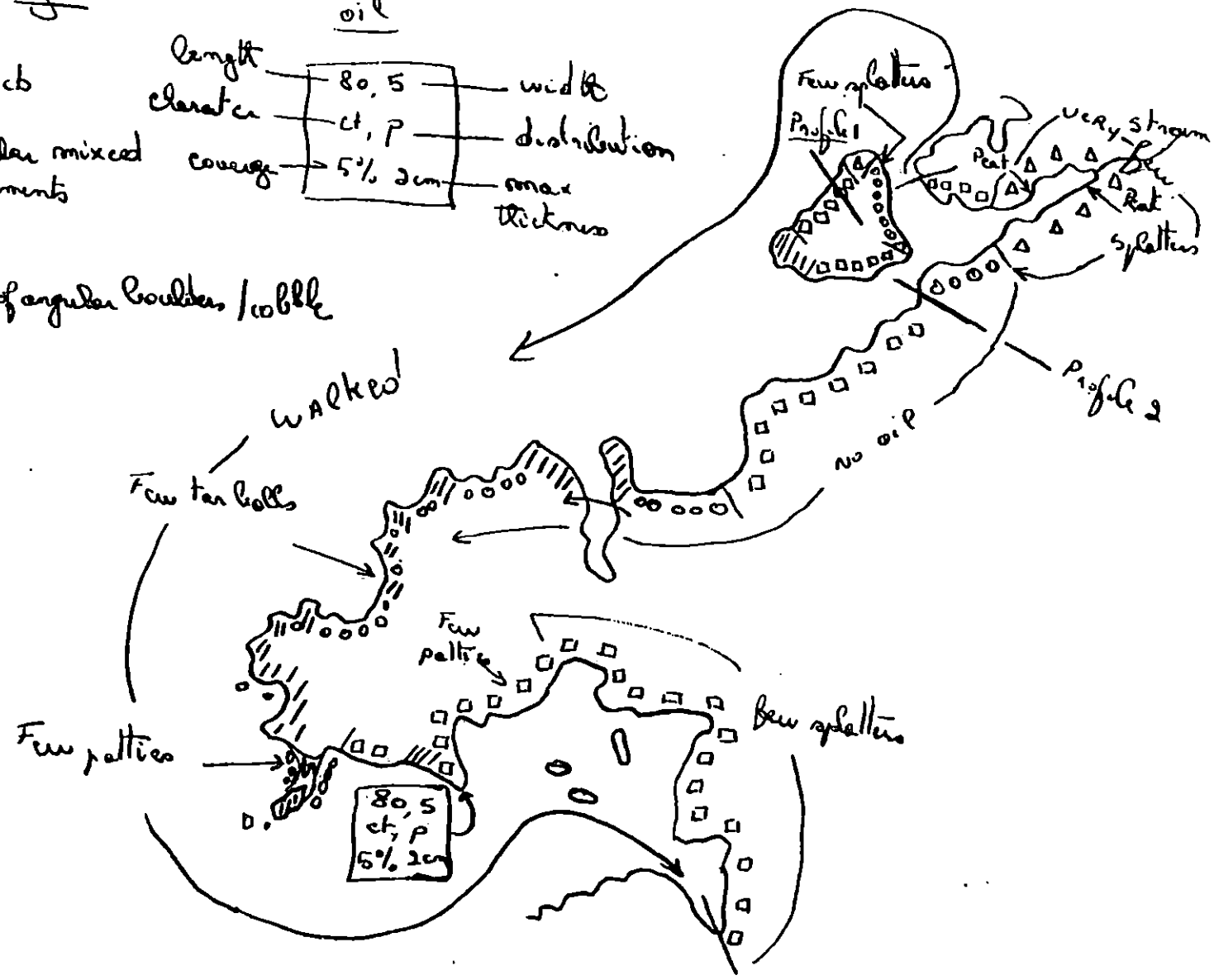
|           |        |               |
|-----------|--------|---------------|
| length    | 80.5   | width         |
| character | ch, p  | distribution  |
| coverage  | 5% 2cm | max thickness |

ph/cb

angular mixed sediments

cliffs

talus of angular boulders / cobble

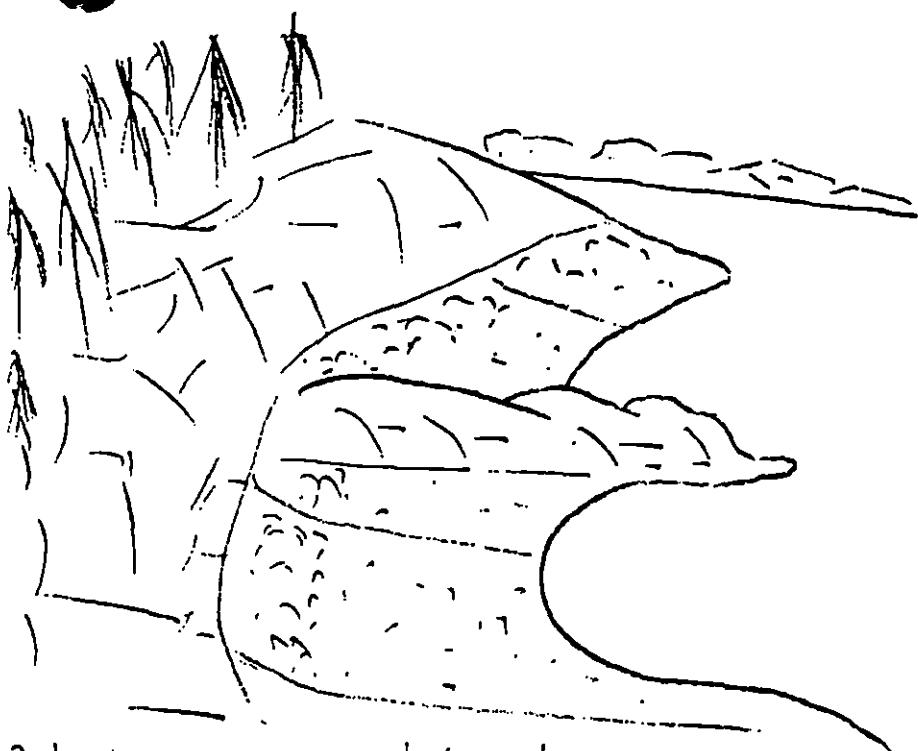
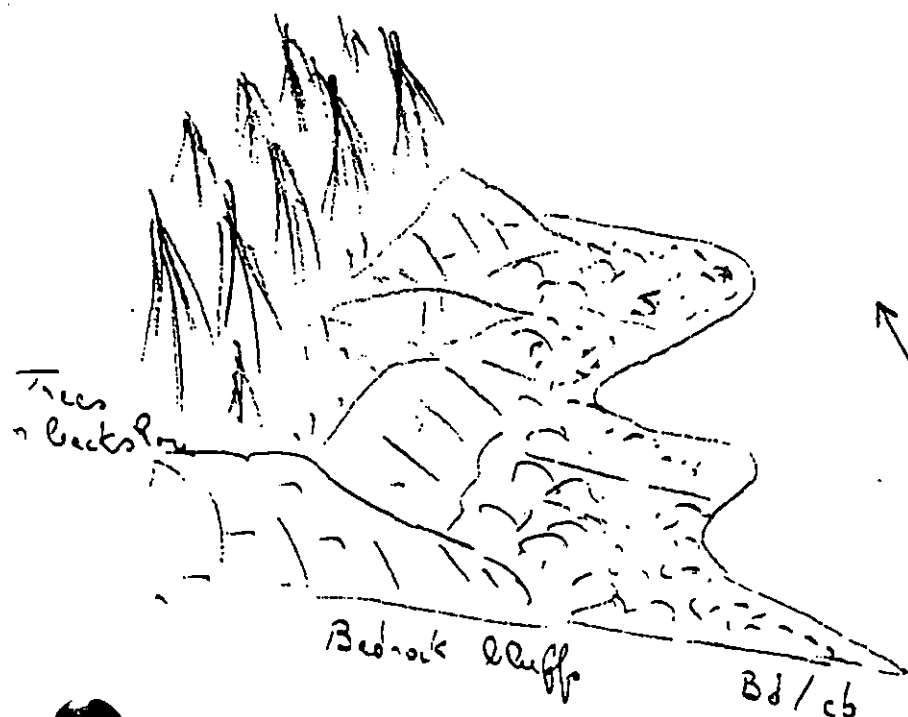


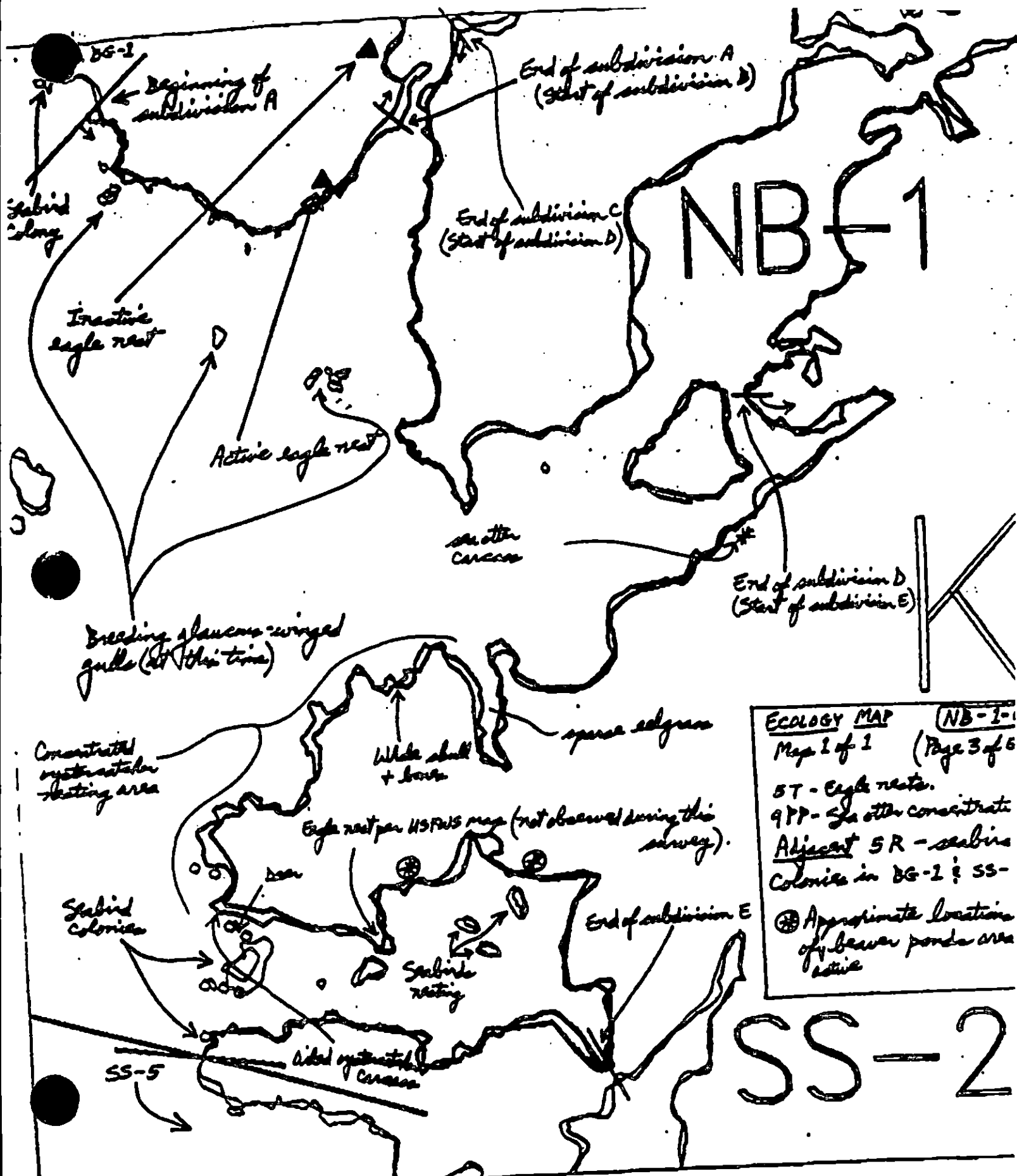
Length (m): AP PO CV CT 80 ST MS PT 2000 TB 400 FL NO 6720

NEVERMORE

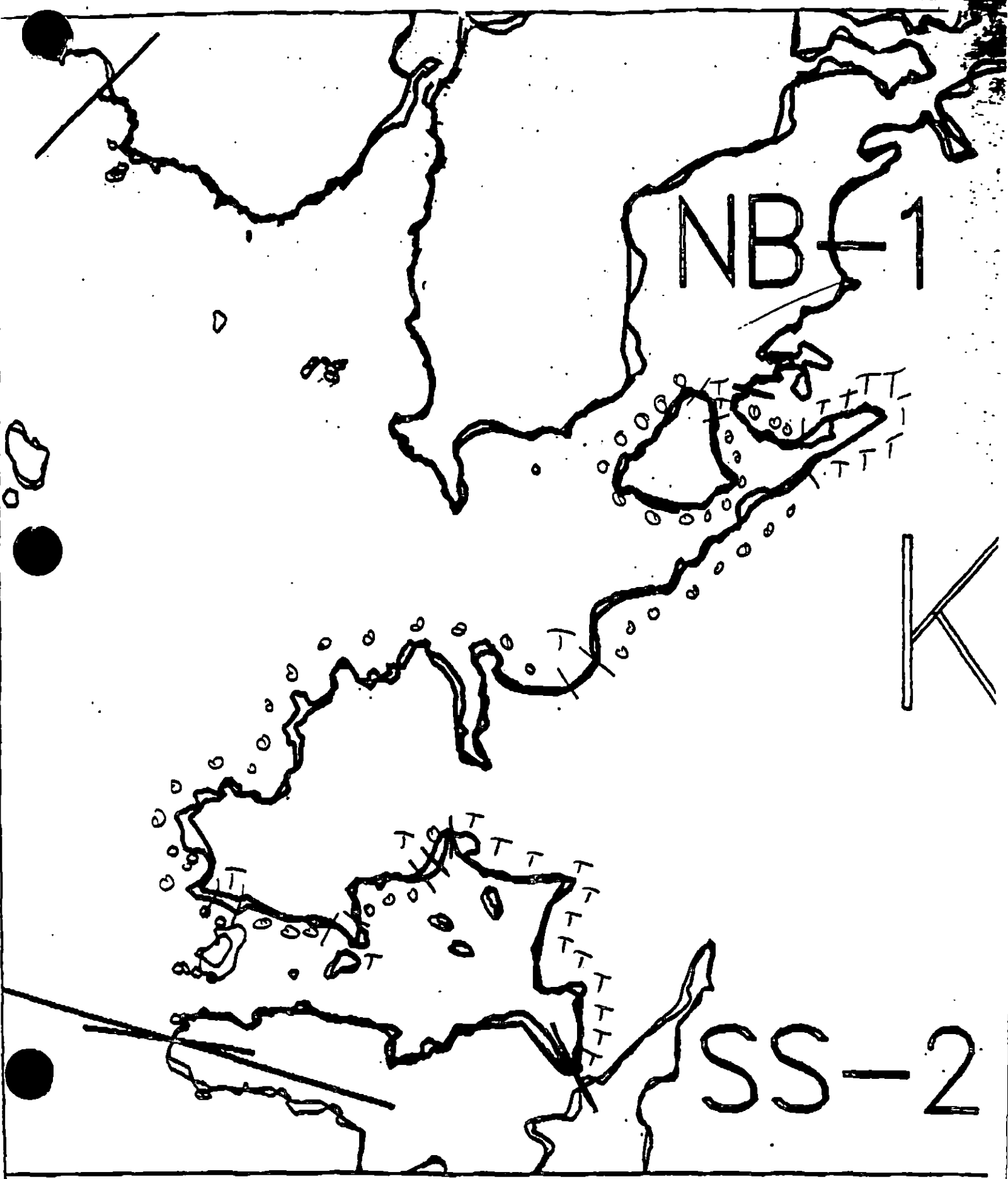
21-1-11 11:30 AM

# Taxi Samples





**ECOLOGY MAP** (NB-1-1)  
 Map 1 of 1 (Page 3 of 6)  
 ST - Eagle nests.  
 QPP - Scatter concentrated  
 adjacent SR - seabirds  
 Colonies in BG-1 & SS-  
 ⊕ Approximate location  
 of beaver ponds area  
 active



REGION: KODIAK

SEGMENT: ST/K01-04-NB-001

SUBDIVISION: F (6 of 6)

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION F (6 OF 6) DATE 5/20/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Seat Otter Concentration Agency Request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1082 m: No Oil 719 m  
Subsurface Oil Observed: Yes \_\_\_\_\_ No X Maximum Depth \_\_\_\_\_

**RECOMMENDATIONS:**

X No Treatment Recommended

\_\_\_\_\_ Treatment Recommended

\_\_\_\_\_ Manual Pickup

\_\_\_\_\_ Bioremediation

\_\_\_\_\_ Tarmat Removal

\_\_\_\_\_ Snare/Absorbent Booms

\_\_\_\_\_ Oil Snares (pom poms)

\_\_\_\_\_ Absorbents (pads, rolls, etc)

\_\_\_\_\_ Spot Washing: \_\_\_\_\_ Wands

\_\_\_\_\_ Beach Cleaner

\_\_\_\_\_ Other (see comments)

COMMENTS: \_\_\_\_\_

TAG COMMENTS: \_\_\_\_\_

TAG APPROVAL DATE: \_\_\_\_\_

ADEC \_\_\_\_\_

EXXON \_\_\_\_\_

NOAA \_\_\_\_\_

USCG \_\_\_\_\_

FOSC: \_\_\_\_\_ DATE: \_\_\_\_\_

# KODIAK ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)  
1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)  
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, 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 prior to treatment for consultation and/or permit application.  
AGENCY CONTACT PERSON: ADF&G Ken Middleton 267-2299
- 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, 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 Kotol Bay Hatchery release  
Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site  
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, 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 for confirmation and authorization.  
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1I Gill net area  
1J Purse seine area  
Mainland, West side Kodiak, Shuyak & Moser/Oiga Bay (6/9 to 10/1)  
East side Kodiak, East side Afognak (7/4 to 10/1)  
1K Purse seine hook-off  
1L Set net sites  
Contact ADF&G for confirmation - dates and locations may vary. 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 Larry Nicholson 424-4791
- 2M Herring spawning (4/15 to 6/30)  
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 Larry Nicholson 486-4791
- 3C Harbor seal and sea lion pupping (5/10 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. 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 (8/1 to 9/30)  
Finfish harvesting  
Deer harvesting (8/1 to 1/7)  
Invertebrate harvesting  
Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)  
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 1K01-04-NB-1 SUBDIVISION: F DATE 5/20/90

USCG

NAME D.D. Haven, Jr. GM3/USCG SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

*VL oil. Almost none is feasibly recoverable or treatable.*

ADEC

NAME Terry Ellsworth SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

*Very occasional splashes of coat occur throughout much of the segment with very little recoverable mousse occurring in one area. No treatment recommended.*

LAND MANAGER

NAME Michael Goodwin SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

*This subdivision begins on patented private land on which a cabin and outbuildings are located. Very minor oiling splashes of coat were observed along the length of the subdivision to Cape Newland. The oil observed is not significant. Therefore NO treatment is recommended. It should be noted that the small bay to the N. of the subdivision harbored 16 sea turtles and were*

## SHORELINE OILING SUMMARY

REVISION NO 24-12-90

OG Lean-Terr-Simp USCG Don Haven SEGMENT ST/ NB-1  
 BIO Dave Lohr LAND REP Mike Goodwin SUBDIVISION 5 (OF 1)  
 XXON Temp EOLG TIME 4:25 10/6:20  
 TEAM NO. 19 TIDE LEVEL 6.5 ft 3.5' DATE May 1 20 190  
 EST. SUBDIVISION LENGTH: 1860 m ☒ Sun ☒ Clouds ☐ Fog ☒ Rain ☐ Snow  
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock  
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: E to W  
 SURFACE SEDIMENTS: R 30 % B 40 % C 10 % P 10 % G 5 % S 5 % M 0 % V 0 %  
 SLOPE: Long 60 % Hang 0 % Vert 40 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High  
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 400 m NO 460 m

## SURFACE OIL

| CHARACTER        | DISTRIBUTION |    |    |    | OIL / FILM COLOR |     |     |     |     | IMPACTED ZONES |   |   |   |
|------------------|--------------|----|----|----|------------------|-----|-----|-----|-----|----------------|---|---|---|
|                  | AC           | AS | PS | IS | 100              | 200 | 300 | 400 | 500 | SU             | U | M | U |
| ASPHALT PAVEMENT |              |    |    |    |                  |     |     |     |     |                |   |   |   |
| POOLED           |              |    |    |    |                  |     |     |     |     |                |   |   |   |
| COVER            |              |    |    |    |                  |     |     |     |     |                |   |   |   |
| COAT             |              |    |    | X  |                  | X   |     |     |     |                | X |   |   |
| STAIN            |              |    |    |    |                  |     |     |     |     |                |   |   |   |
| MOUSSE           |              |    | X  |    |                  | X   |     |     |     |                | X |   |   |
| PATTIES          |              |    | X  |    |                  | X   |     |     |     |                | X |   |   |
| TARBALLS         |              |    |    |    |                  |     |     |     |     |                |   |   |   |
| FILM             |              |    |    |    |                  |     |     |     |     |                |   |   |   |
| NO OIL           |              |    |    |    |                  |     |     |     |     | X              |   | X | X |

PAVEMENT H F S NO sq. m by 0 cmPATTIES / TARBALLS 4.0 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 ---#BAGS 0

Photographs:

Roll No. ---Frames ---

## 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 | OP | NO |                     | UO    | UC | 100              | 200 | 300 | 400 | 500 | SU       | U | M | U |       |             |   |                                |
| 1       | 20             |                          |    |    |    | X  | 0-0                 |       | X  |                  |     |     |     |     |          | X |   |   |       |             |   | pl/sd                          |
| 2       | 30             |                          |    |    |    | X  | 0-0                 |       | X  |                  |     |     |     |     |          |   | X |   |       |             |   | pl/cl                          |
| 3       | 20             |                          |    |    |    | X  | 0-0                 |       | X  |                  |     |     |     |     |          |   |   | X |       |             |   | pl/cl                          |
|         |                |                          |    |    |    |    |                     |       |    |                  |     |     |     |     |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                     |       |    |                  |     |     |     |     |          |   |   |   |       |             |   |                                |
|         |                |                          |    |    |    |    |                     |       |    |                  |     |     |     |     |          |   |   |   |       |             |   |                                |

COMMENTS

REVIEWED BAT DATE 24 MAY 90

NB-1-F, Neketa Bay, May 20, 1990  
-----

Subdivision F of segment NB-1 forms the south shore of a small bay located immediately north of Cape Newland on southwestern Shuyak Island. The bay is oriented east-west and is exposed to the width of Shelikof Strait. It is, however, not very exposed as it is sheltered to the north and the south by the westward extensions of Shuyak and Afognak islands. This 1.86 km subdivision was surveyed on May 20, 1990, between 1425h and 1600h, and corresponding 6.5' to 3.5' tidal levels.

From east to west, the subdivision begins at the head of a small bay with a short beach of well sorted sand/gravel and a well defined storm berm. Three buildings are located just north of this beach; and no oil was found at this location.

Proceeding west, this sand beach gives way to a narrow and steep talus of angular boulders seaward of low cliffs. A few coats of splatters were found on the boulders and other rock surfaces in the upper intertidal zone along this talus. A short section of low bedrock cliffs forms a small headland to the west. Team 19 was unable to follow the shoreline at this point and we had to proceed west along the top of the bedrock cliffs until we could get back down on the beach again, near a small pond. At this location the shoreline consists of a narrow beach of angular pebble/cobble and boulders between low outcrops of bedrock. Patchy mousse covering an area of about 0.25 square meter occurs just west of the pond outlet.

To the west, a short section of angular boulder talus leads to a small bay with a beach of angular pebble/cobble/boulders and very few coats of splatters in the upper intertidal zone.

A short section of cliffs had to be by-passed before reaching a long segment of bedrock ramp with a talus of angular boulders in the upper intertidal

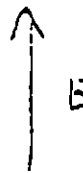
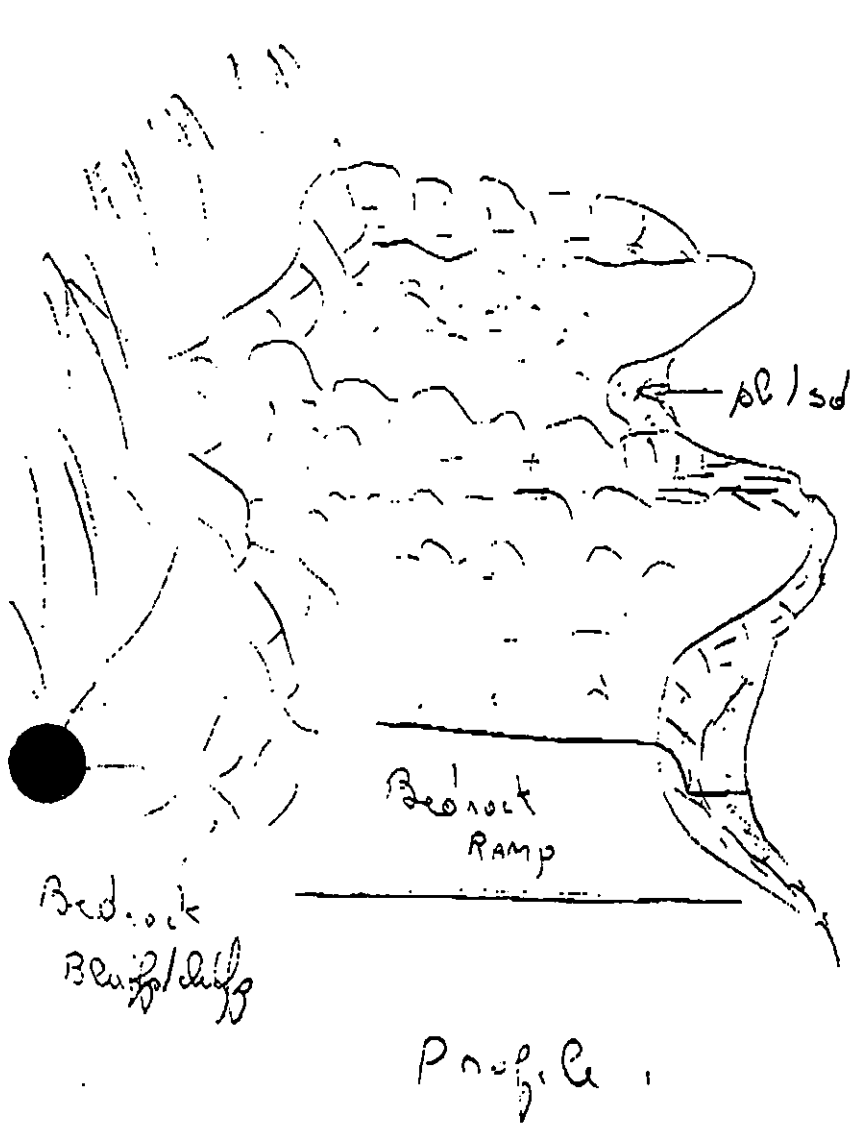
zone and pockets of pebble/cobbles in the lower intertidal zone. Very few small coats of splatters were found over this bedrock ramp.

The remaining part of this subdivision consists of bedrock cliffs that rise in elevation to the west. Two small pocket beaches of pebble/cobbles occur in fracture zones along the cliffs and were found to be free of oil.

REVISED: 2007

K1 - 4 NB-1 - f.

Lean Marine Samples May 20/1990.



# SHORELINE ECOLOGICAL SUMMARY

Segment ST/K14/NB-1 Subdivision F Date (mo / day / yr) 5-20-90

Time (24 hr) 14:30 Biologist David Lohse

- (A) Substrate type and % of segments:  
 (1) Bedrock 30 (2) Boulder 40 (3) Cobble 10 (4) Pebble 10 (5) Sand 10 (6) Silt
- (B) Overall % cover of biota ( % of segment ): Dense 30 Moderate 40 Low 30
- (C) Density, substrate preference ( by number from A, above ), & vertical zonation of major taxa: ( upper-U; mid-M; low tidal-L ); juveniles / adults (X) , new settlement (3)

Photographs:       
 Roll No.       
 Frames     

## 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:

See page 2

## Ecological Considerations:

- SR: One mature bald eagle sited in area. No nests in this subdivision
- SR: One colony in adjacent segment BG-1, one on segment boundary with SS-5, and one on nearby island. The colony on segment boundary was in portion of segment not surveyed.

## Shoreline Ecological Summary

Cot 2

Segment ST/KI-H/NB-1

Subdivision F

5-20-90

Biologist: David Lohse

## Wildlife Observations/General Comments

present in mid-intertidal: Ralfsia, Sargosiphon, Ulva, Cladophora, Halosaccin;  
Nucella, Nucella egg cases (empty), Endocladia, Desmarestia,  
Rhodometria, Gloiopeltis, unknown filamentous red alga (Desya?)

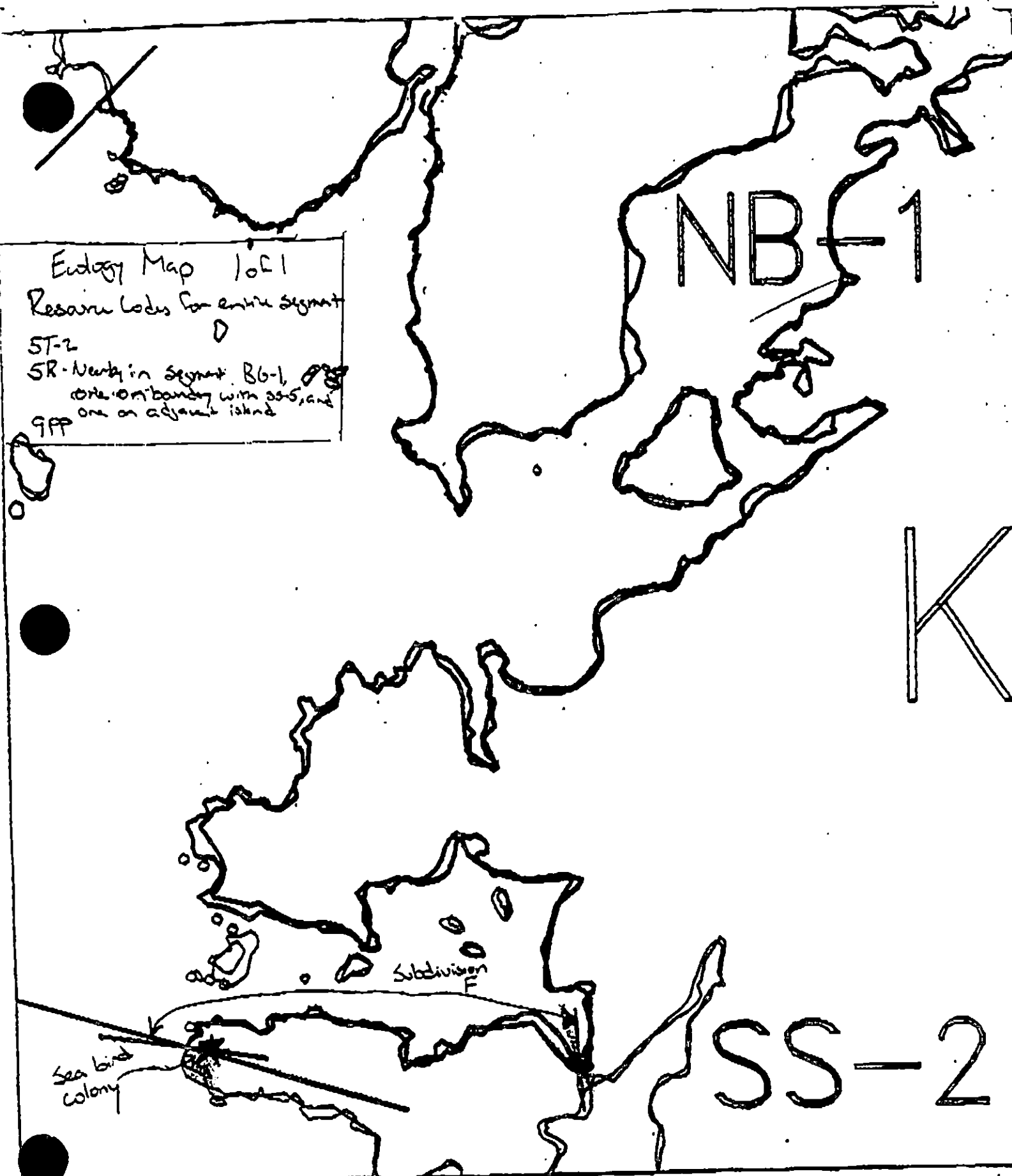
1. Low intertidal not sampled

2. 12 sea otters, several oystercatches, and many gulls were found in area

3. Last part of segment was not surveyed due to impassable cliffs and high waves. However, from the top of the cliffs it looked very rich in algal species.

4. A deer skeleton and the remains (a few bones and some fur) of an otter were found. No oil observed

5. When viewed on the scale of the entire subdivision boulder recruitment was patchy. However there were some short stretches where recruitment was continuous, and others where it was patchy.



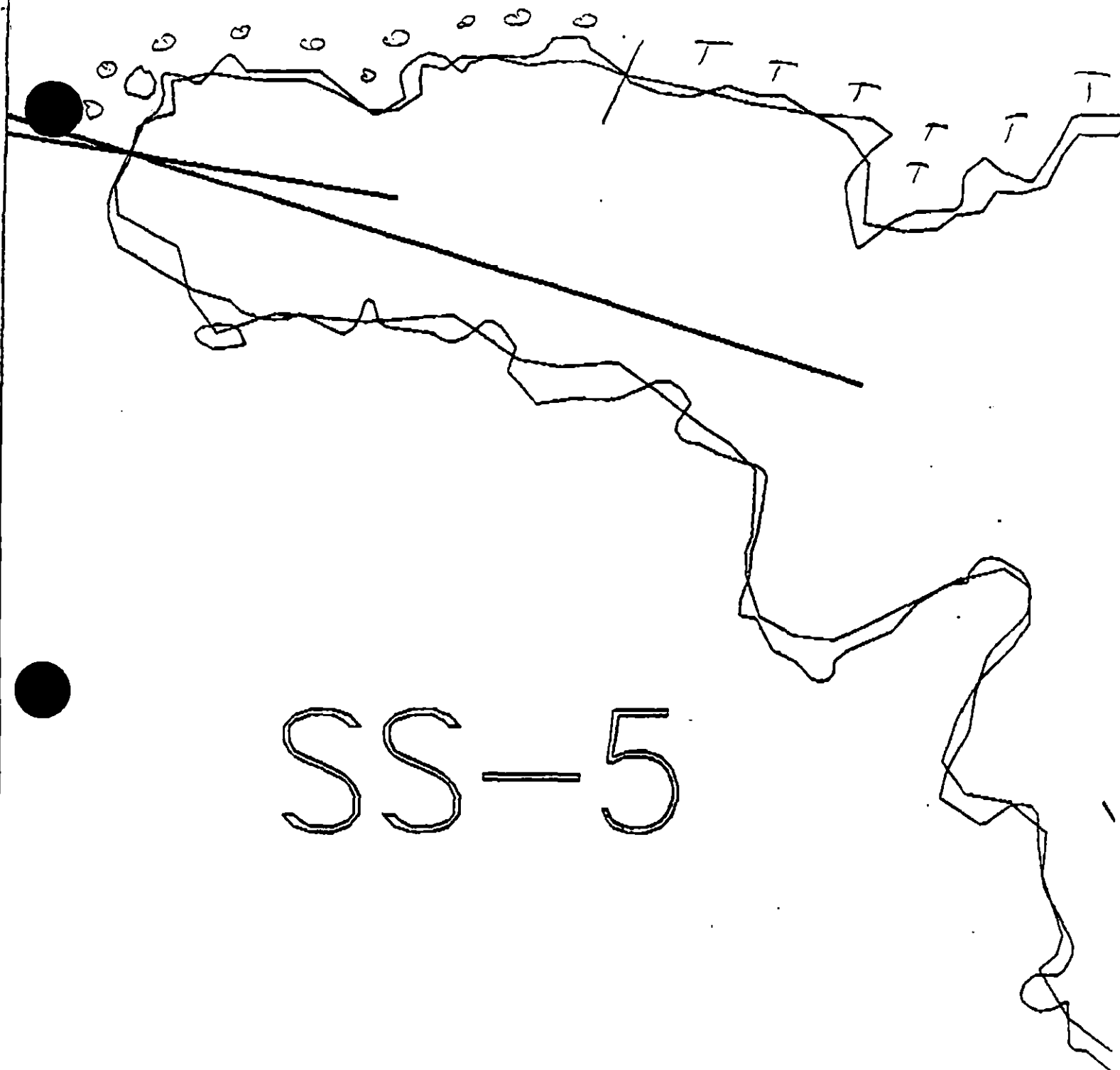
XXXX Wide  
 //// Medium  
 ---- Narrow

NB-1

Approx. Segment Length: 26978m

Map Key: K00-NB-1a

Names: \_\_\_\_\_



SS-5

565 →

K1-4 NB-1-1  
~~SS-5~~

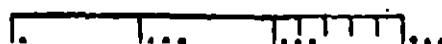
XXX Wide

//// Medium

--- Narrow

TTTT Very Light

ADEC Segment Length: 2582m



Map Key: GOA-58a

Name: San Jose Sempul

Date: May 20/90



SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION F (6 OF 6) DATE 5/20/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

5T All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Seat Otter Concentration Agency Request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: Rechel de la Rue DATE: 6/1/90

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 1082 m: No Oil 719 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 Removal        | <u>      </u> Beach Cleaner                     |
|                                     | <u>      </u> Other (see comments)              |

COMMENTS:         
        
      

TAG COMMENTS:         
        
      

TAG APPROVAL DATE: 5/31/90

DEC Art Weiner Art Weiner

XXON Art Weiner Art Weiner

NOAA Joseph Talbot Joseph Talbot

USCG G.A. Reiter G.A. Reiter

FOSC: h y L DATE: 6-8-90

Wetland Assessment  
 ELEMENT ST/1-4 - NA-1

SUBDIVISION B

DATE May 13/90

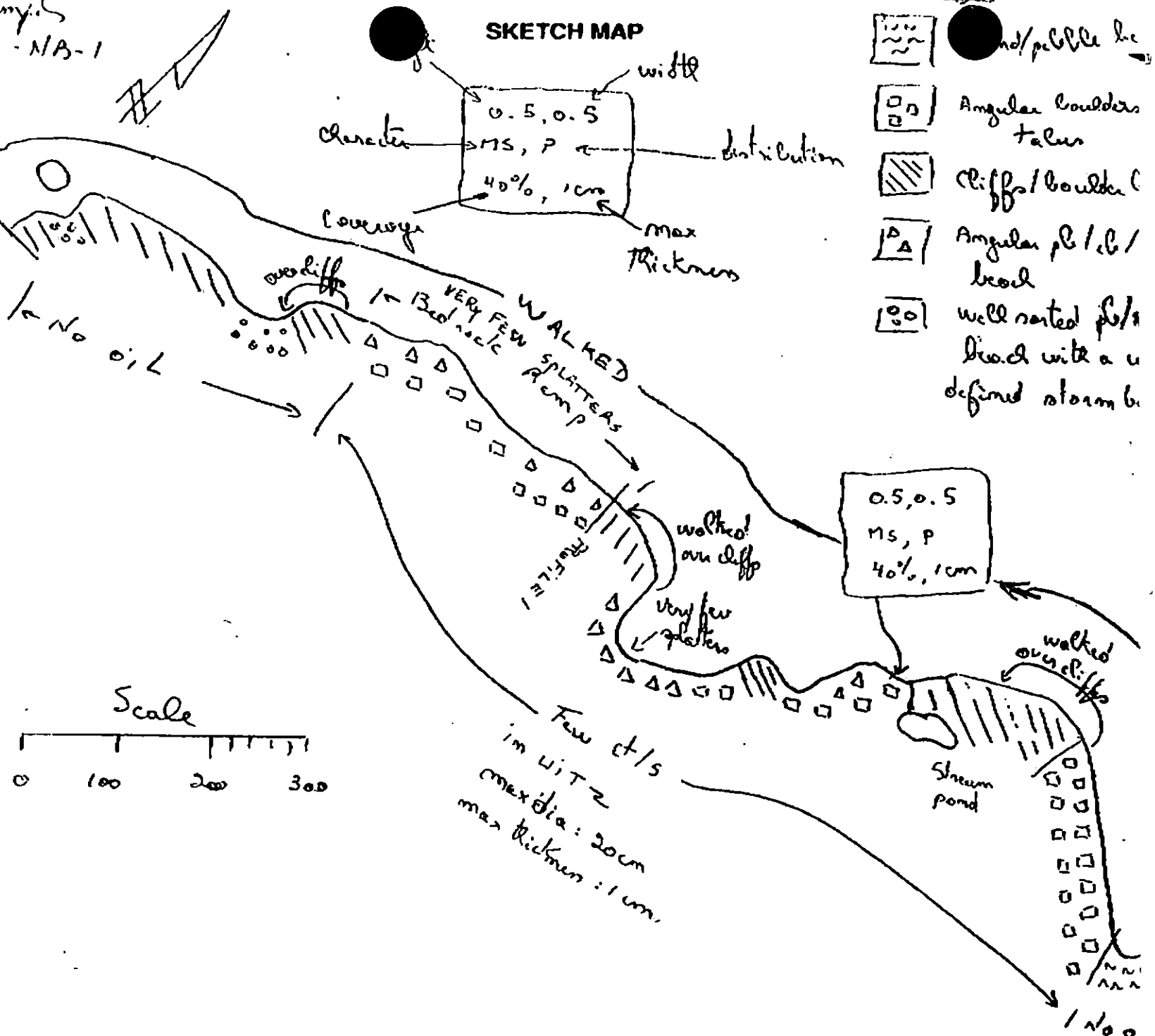
**CHECKLIST**

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

**LEGEND**

- 1  $\Delta$   
Pht - No Subsurface Oil
- 2  $\Delta$   
Pht - Subsurface Oil
- CT/C  
Continuous Distribution
- CT/B  
Broken Distribution
- CT/P  
Patchy Distribution
- CT/S  
Splashed Distribution
- lll  
Oiled Vegetation
- 1  $\bullet$   
Photo location, direction, and number

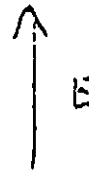
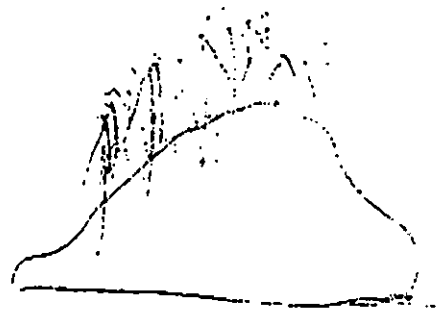
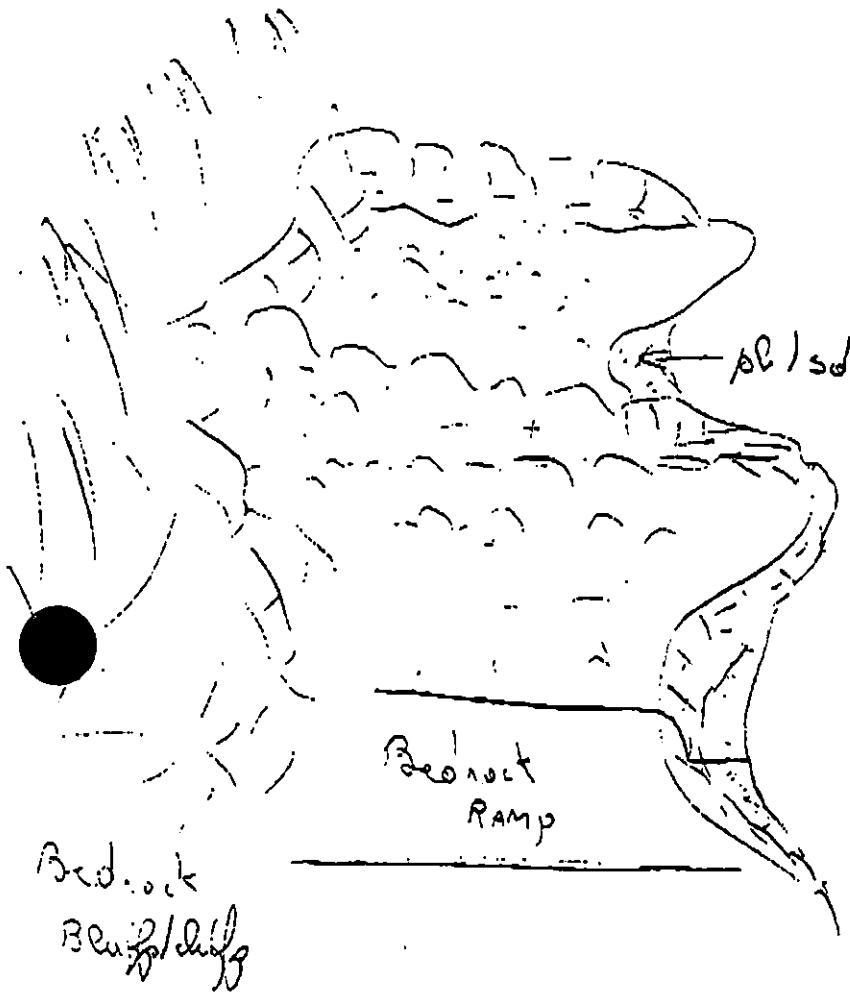
**SKETCH MAP**



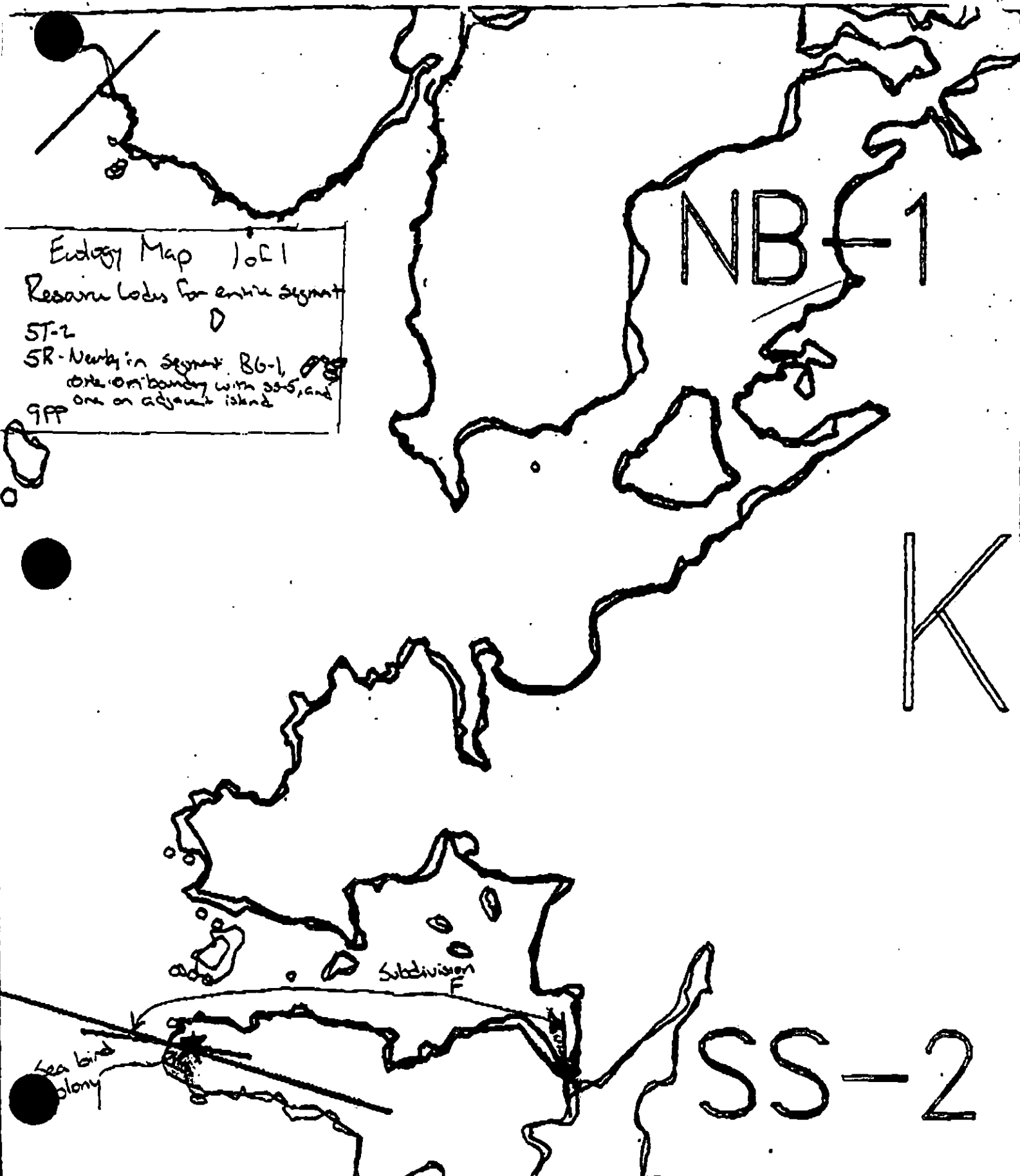
Oil Character Length (m): AP 0 PO 0 CV 0 CT 400 ST 0 MS 0.5 PT 0 TB 0 FL 0 NO 1/4/60

K1 - 0 NB-1 - f.

geom. Merc. Samples May 20/1990.



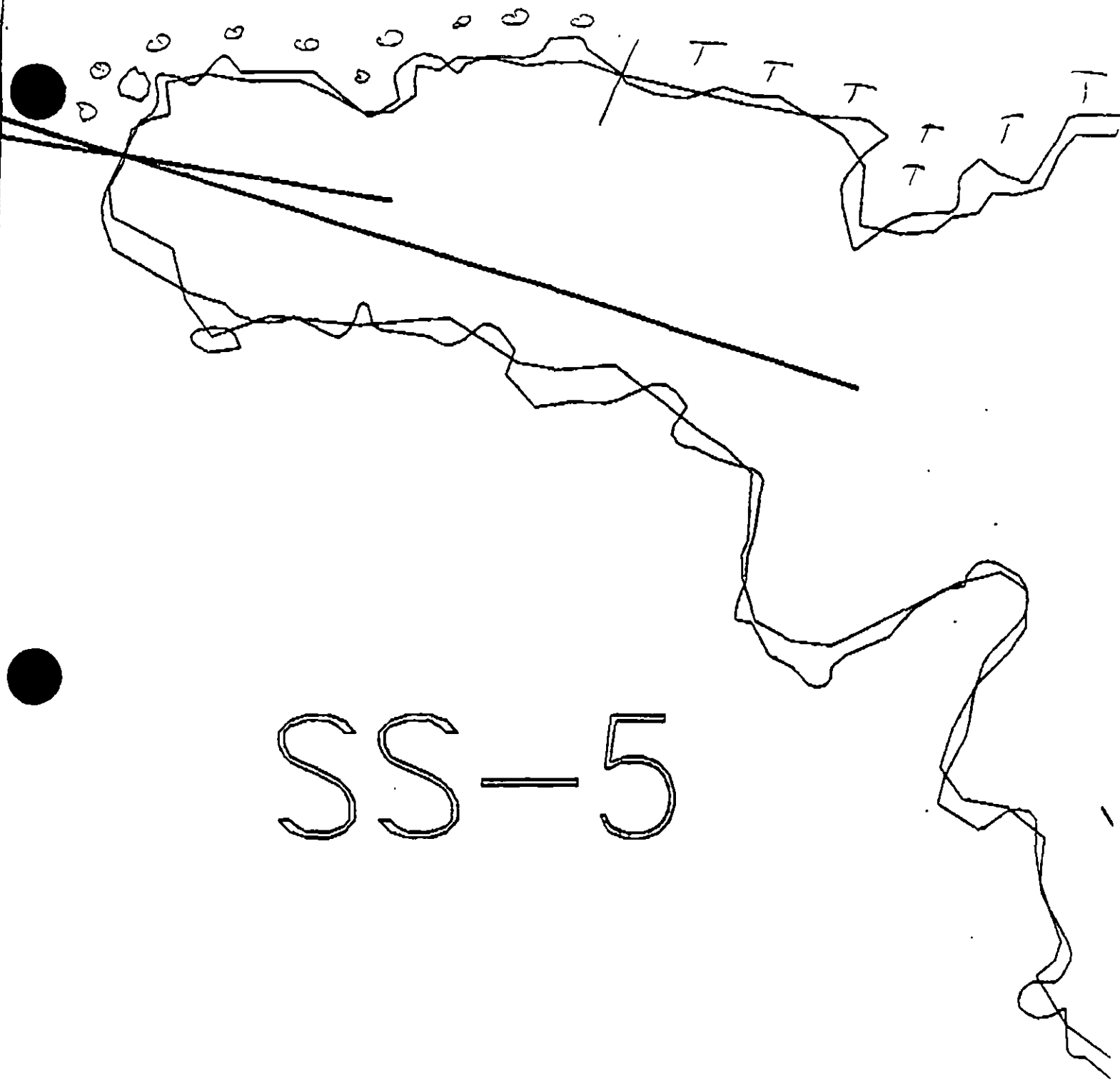
Profile 1



XXXX Wide

NB-1

Map Key: K00-NB-1a



SS-5

K1-4 NB-1-1

~~SS-5~~

XXXX Wide

//// Medium

---- Narrow

AOEC Segment Length: 2582m

Map Key: GOA-58a

Name: San Jose Temple

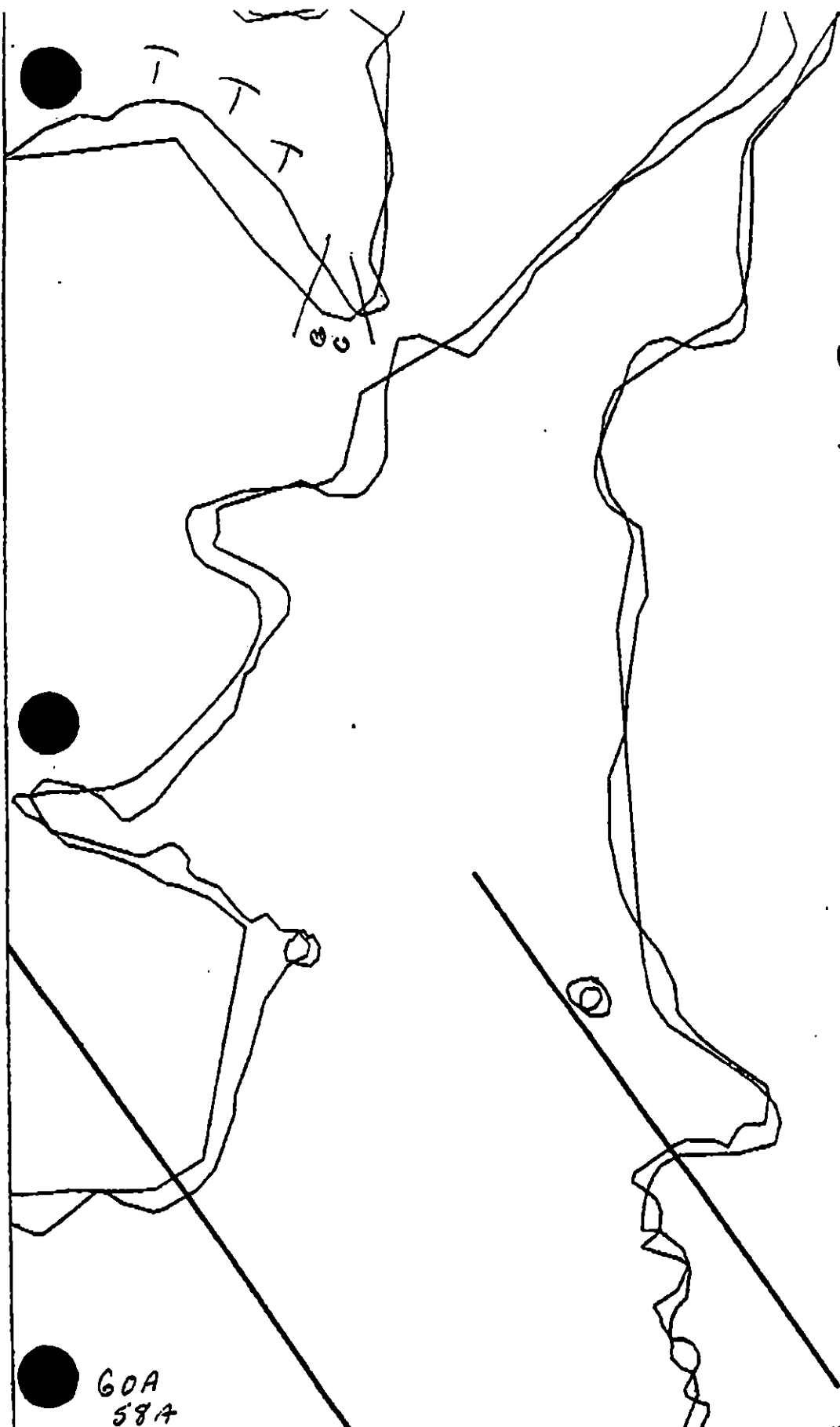
Date: Mar. 22/90

565 →

MAY-23-1990 13:22 FROM EXXON KODIAK

TO

15840771 P.10



SS-2

XXXX Wide  
//// Medium

KI-4 NA-6  
~~SS-5~~

Map Key: GOA-58b

Map Key: GOA-58b

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION D (4 of 6) DATE 5/13/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

ST All Bald Eagle nests (3/1 to 6/1)

Active Bald Eagle nests (3/1 to 9/1)

5R Seabird colony (5/1 to 9/1)

9PP Sea Otter concentration agency request

4GG State Marine Park Alaska State Parks

See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINT:** Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

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

SHPO SIGNATURE: Rechel Dan Daen DATE: 7/16/90

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 6258m: No Oil 3475 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>    </u> Tarmat Removal           | <u>    </u> Beach Cleaner                   |
|                                      | <u>    </u> Other (see comments)            |

COMMENTS: Recommend treatment includes 1) manual pick up tar patties, and mousse 2) bioremediation of areas indicated on attached sketch map. Work should be conducted with the approval of USFWS and ADF&G regarding Eagle Nest and Sea Bird colony.

TAG COMMENTS:     

TAG APPROVAL DATE: 5/31/90

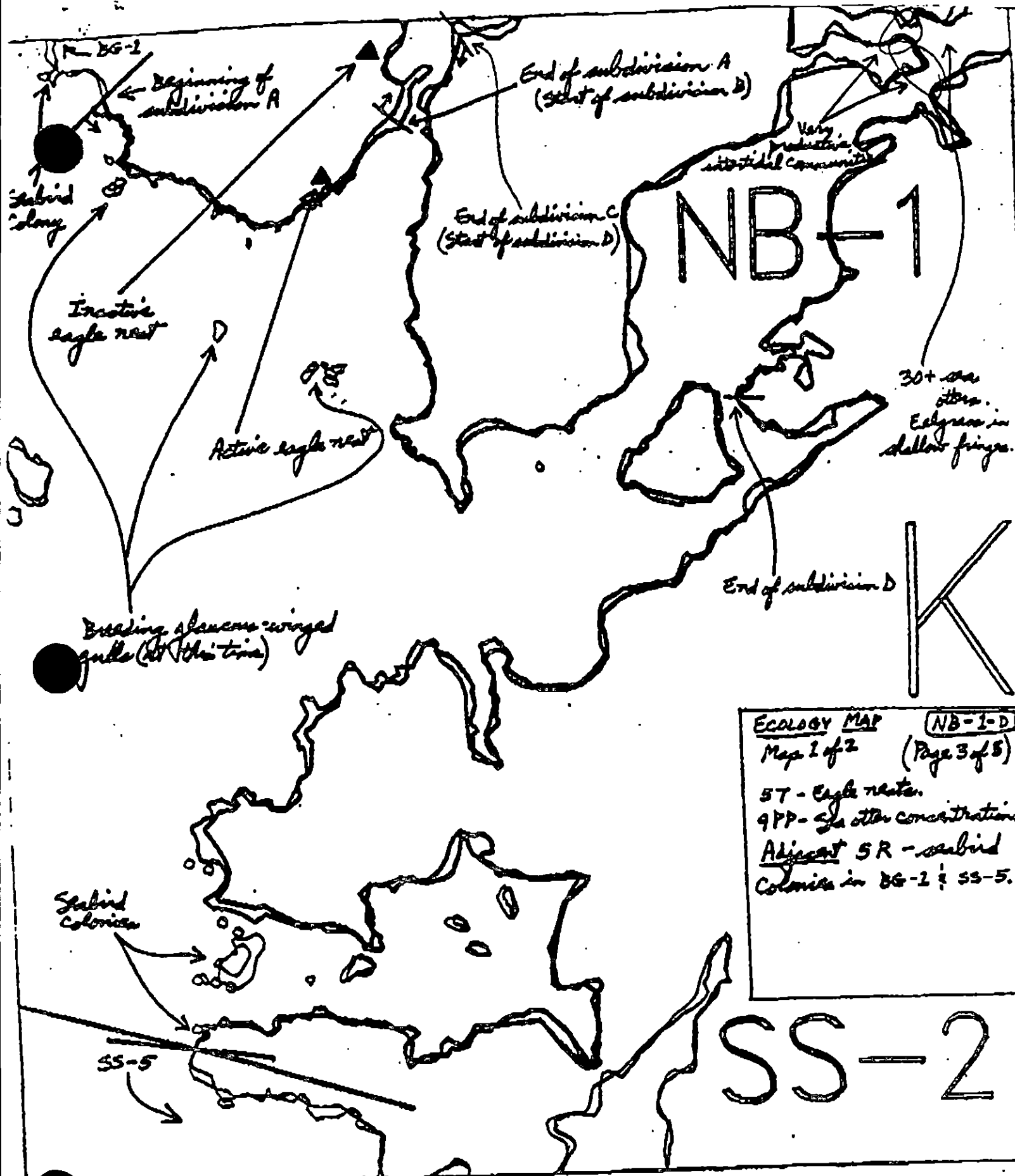
ADEC Art Weiner Art Weiner

EXXON Andy Tan

NOAA Jayen Talbott

USCG G.A. Reiter

FOSC:      DATE: 7-18-90



ECOLOGY MAP **NB-1-D**  
 Map 1 of 2 (Page 3 of 5)  
 ST - Eagle nests.  
 9PP - Sea otter concentration.  
 Adjacent SR - seabird  
 Colonies in 26-2 & 33-5.

XXX Wide

//// Medium

--- Narrow

TTTTV light

NB-1-D

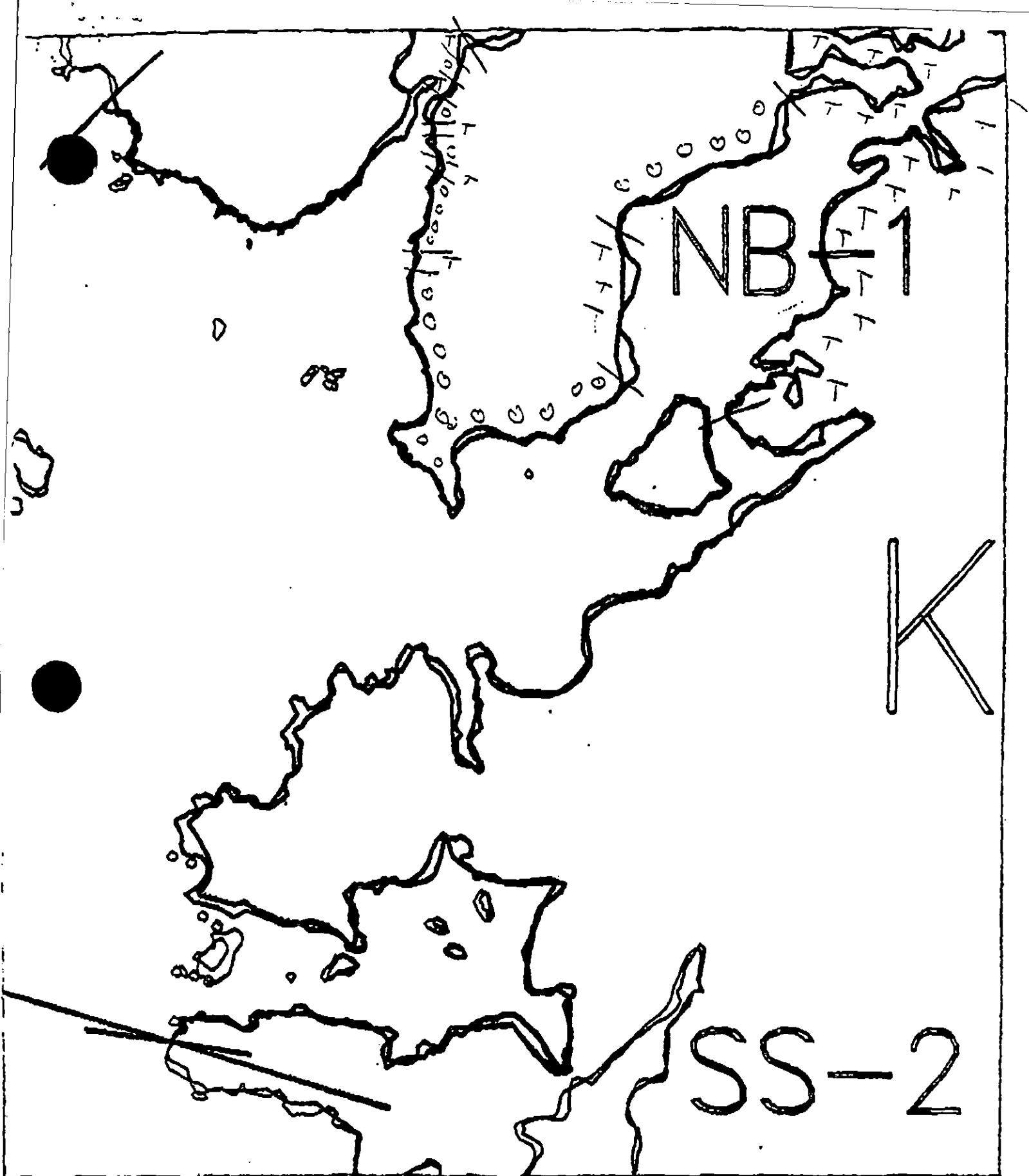
Approx. Segment Length: 26978m

Map Key: KOD-NB-1a

Name: \_\_\_\_\_

Date: \_\_\_\_\_





XXXX Wide

K0104-NB-1-D

/// Medium

Approx. Segment Length: 25978

--- Narrow

TTTT Very Light

OOOO No Oil

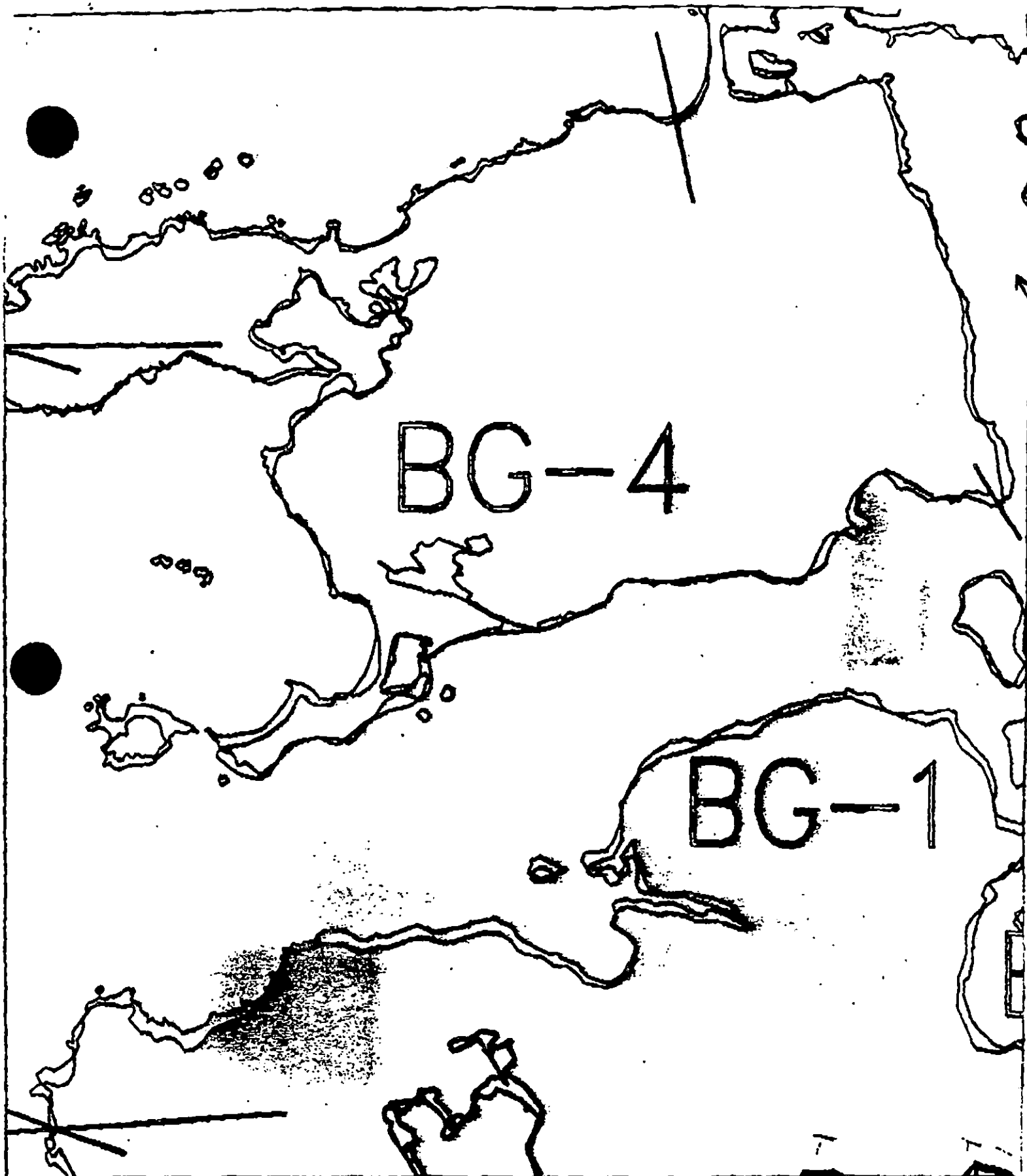


Map Key: K00-NB-1a

Name: San Juan Sound

Date: May 13/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Data

K4104- NB-1-D

Approx. Segment Length: 20978

0 100 200 300  
Nautical Miles

Map Key: K00-NB-1c

Name: San Francisco Bay

Date: May 12/50

Date Entered:

## ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT K01-04-NB-001 SUBDIVISION D (4 of 6)

### WORK WINDOW

|                                                |        |
|------------------------------------------------|--------|
| Manual Pickup Less Than 400m From Active Nest  | CLOSED |
| Manual Pickup More Than 400m From Active Nest  | OPEN   |
| Bioremediation Less Than 400m From Active Nest | CLOSED |
| Bioremediation More Than 400m From Active Nest | OPEN   |

**ARCHAEOLOGICAL CONSTRAINT:** Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

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

### APPLICABLE ECOLOGICAL TIME CONSTRAINTS

|    |                 |                                                                                                                                                                                                                       |
|----|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5T | Bald Eagle Nest | USFWS 4/9/90 map indicates an active nest in Subdivision D. Closed to manual pickup and bioremediation within 400m of active nest. No constraint to manual pickup and bioremediation more than 400m from active nest. |
| 5R | Seabird Colony  | NO CONSTRAINT. Work site is more than 800m from seabird colony.                                                                                                                                                       |

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

for EOSC

G.A. Leiter

Date

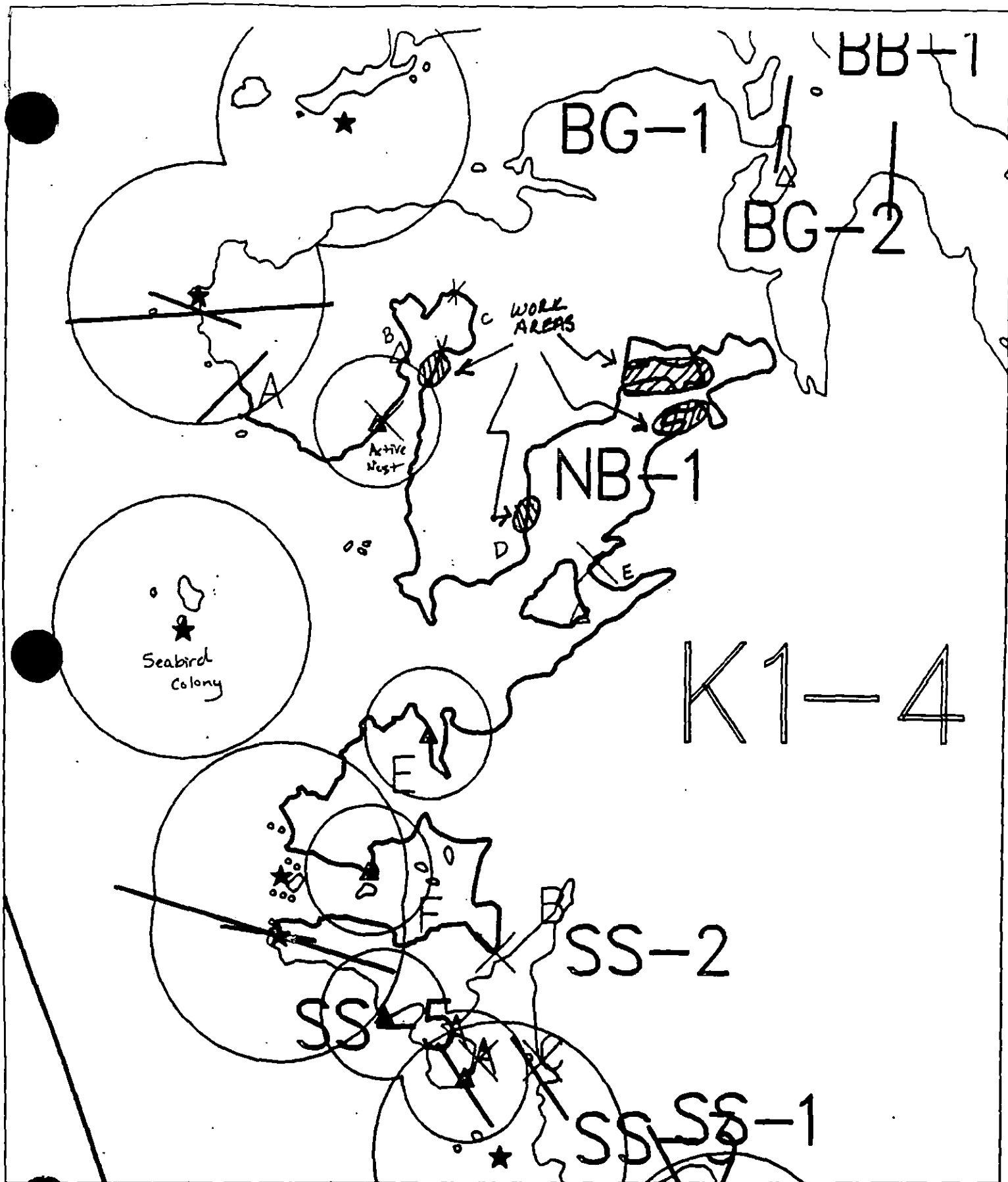
7/19/90

Prepared by

P.P. Phillips

Date

7/19/90



Exxon Company, USA  
Map Key: KOD-NB-1



**ECOLOGY MAP**  
SEGMENT K1-4 NB-1  
SUBDIVISION D (4016)  
METERS

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

SHORELINE EVALUATION

SEGMENT ST/ K01-04-NB-001 SUBDIVISION D (4 of 6) DATE 5/13/90

**ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

All Bald Eagle nests (3/1 to 6/1)  
Active Bald Eagle nests (3/1 to 9/1)  
5R Seabird colony (5/1 to 9/1)  
9PP Sea Otter concentration agency request  
4GG State Marine Park Alaska State Parks  
See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINT:** Consultation and inspection with an Exxon archaeologist is required prior to treatment. Specific on-site monitoring requirements will be determined at that time.

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

SHPO SIGNATURE: Richard Dorn DATE: 7/16/90

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 6258m: No Oil 3475 m  
Surface 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 Snare (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>    </u> Tarmat Removal           | <u>    </u> Beach Cleaner                   |
|                                      | <u>    </u> Other (see comments)            |

COMMENTS: Recommend treatment includes 1) manual pick up tar patties and mousse 2) bioremediation of areas indicated on attached sketch map. Work should be conducted with the approval of USFWS and ADF&G regarding Eagle Nest and Sea Bird colony.

TAG COMMENTS: SEE CONSTRAINTS ADDENDUM DATED 7/19/90 PP

TAG APPROVAL DATE: 5/31/90

ADEC Art Weiner  
FOSC John Tallant  
USCG G.A. Reiter

FOSC:      DATE: 7-18-90

1991 MAYSAP EVALUATION

SEGMENT: KO105BG004 SUB: A REGION: KOD SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 5/15 - 9/1

Ecological/Constraints (see page two for details) Eagle nest, seabird colony

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Rachel De Oca

Date: 5/24/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL:       

TAG:       

FOSC:       

TAG APPROVAL DATE: MAY 24 1991

FOSC APPROVAL DATE: 5/29/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

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

USCG [Signature]

NOAA [Signature]

ECOLOGICAL CONSTRAINTS  
1991 FIELD ACTIVITIES

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

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

# ADEC

NAME J. BARNHART SIGNATURE \_\_\_\_\_

- ☒ NTR K01-05 B6004A Trace SOR-ms on both the north and south shore lines at the entrance to the lagoon, mostly in the upper ITC. Veco crew removed approx 4 bags of o.i/o.i sediment, as well as breaking up the thin oil cover. O.i remains on the beach as trace SOR. Most of the oil that could be removed by manual methods was removed.

# EXXON

NAME Rex Coulter SIGNATURE Rex R Coulter

- ☒ NTR We picked up, removed and/or broke up several small, scattered areas of SOR. As in most other areas where SOR has been found, the SOR is primarily sediment and has a very weathered look. Both sides of the stream, in the LITE-MITZ, had oiling conditions similar in character and distribution. This subdivision should not need any further evaluation. Additional treatment here would require more search time than productive work time and there is very little to find.

# LANDMANAGER

NAME K. Murphy OF ADNR SIGNATURE Kern Murphy

- ☒ NTR This segment, managed by ADNR, lies within Shuyak Island State Park. An active Eagle nest is located on north end of segment. The segment has a tidal influenced lagoon on the west end. A 2 x 30 m band of weathered mousse was broken up and removed by Veco crew on northeastern side of the creek draining the lagoon. Scattered mousse patties were removed from south side of creek.

# USCG/NOAA

NAME Chief Jensen / G. SHIGENAKA SIGNATURE G. Shigenaka

- ☒ NTR Four bags of mousse & SOR picked up. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again.

SURVEYED PORTION OF THE SEGMENT REPRESENTS THE NORTH AND SOUTH SHORELINES OF AN EMBAYMENT, BETWEEN WHICH A RELATIVELY NARROW TIDAL CHANNEL IS LOCATED. AN EAGLE NEST IS LOCATED ON THE NORTHERN SHORE, AND MATURE EAGLES WERE OBSERVED IN THE AREA. WEATHERED MOUSSE/SOR WAS OBSERVED INFREQUENTLY IN THE MID TO UPPER INTERTIDAL IN BOULDER COBBLE SUBSTRATE, AND WHERE OBSERVED, WAS EITHER COLLECTED OR BROKEN UP. A SOMEWHAT HIGHER FREQUENCY OF OCCURRENCE WAS FOUND IN THE EASTERN PORTION OF THE NORTHERN SHORELINE. ALONG THE SOUTHERN SHORELINE OF THE EMBAYMENT ENTRANCE, OBSERVED OILING WAS EFFECTIVELY LIMITED TO ONE SECTION OF BOULDER COBBLE BEACH. WEATHERED MOUSSE HERE WAS AGAIN EITHER REMOVED OR BROKEN UP WHEN IT COULD NOT BE REMOVED.

PAGE 1 OF 1  
K-1-S

DATE 12 May 1961

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 150 m NO 250 m US 9078 m

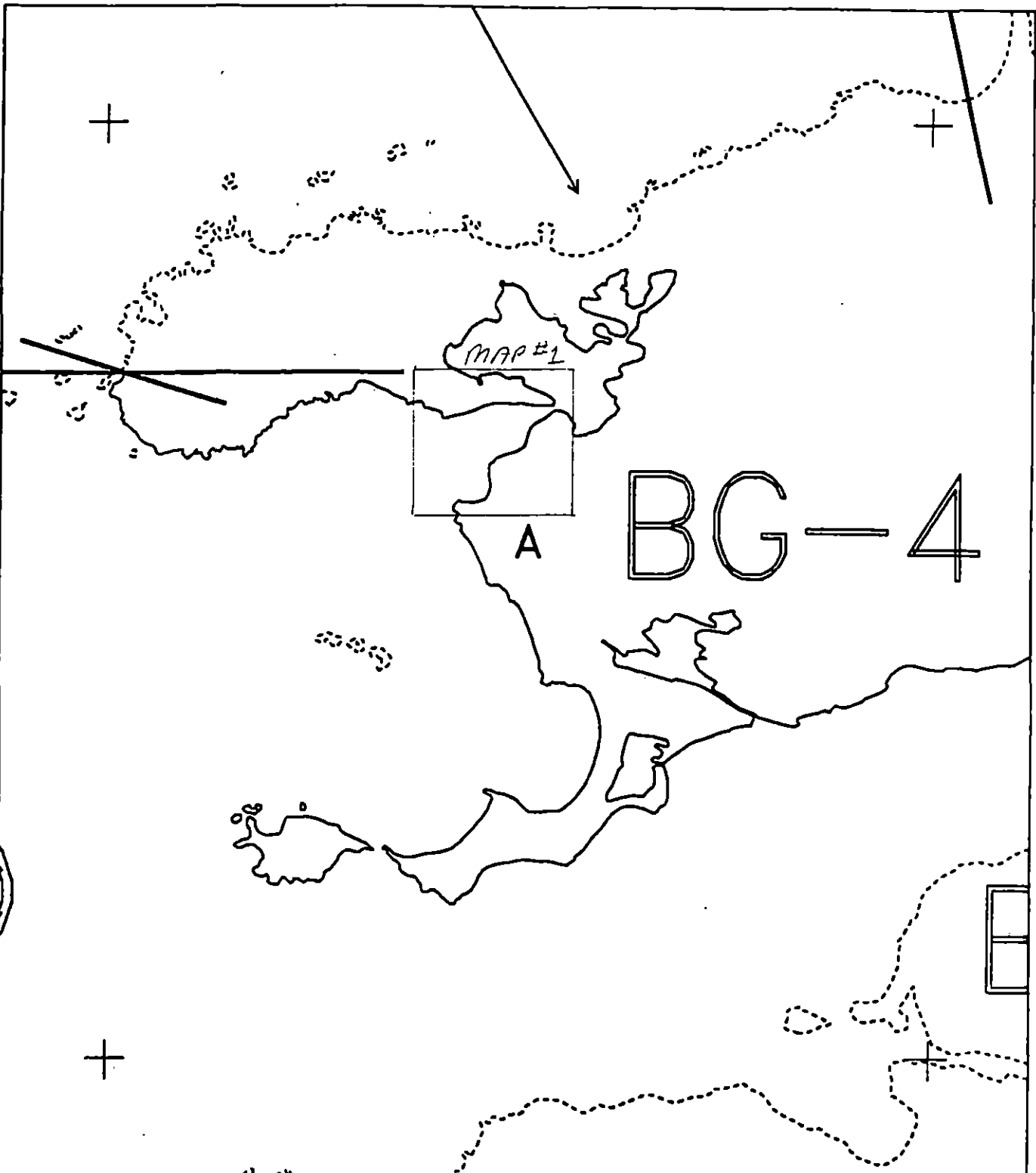
DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 12 FRAMES 1-7

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

**OG COMMENTS:** This area included the intertidal boulder and cobble areas on either side of the tidal channel leading to the lagoon. The oiling consists of SOR that occurs between and under the clasts. The Veco workers removed all the located and retrievable SOR and broke up the highly friable SOR. A total of 4 bags of oiled sediment were removed from this site.

reviewed 5/15/91 KG  
ET reviewed 5/15



K0105 BG004 A

METERS

0 100 200

AK State Plane Zone 4

Subdivision Field Map

Map Key: 60AK0105BG004A

Name: D. FITZGERALD

Date: 12 MAY 1991

SS reviewed S/H

Low bedrock cliff

Evergreens

Dead trees

Grassy area

Logs

PHOTO-SITES

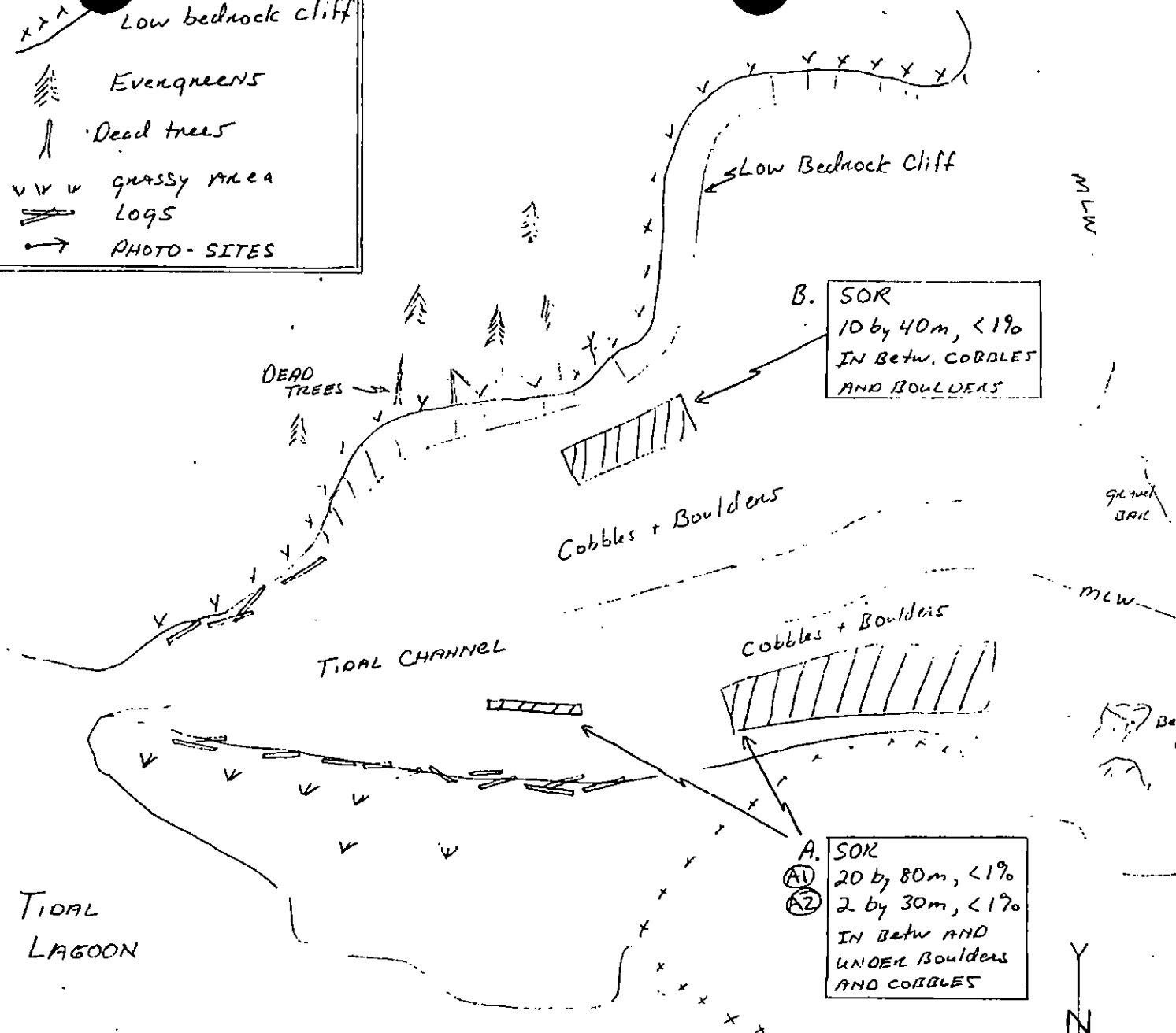
Sketch Map (OG)

BG-4-A

D. FITZGERALD

12 MAY 1991

700 - 805



\* 2 BAGS of oiled sediment collected on either side of the channel. Four bags in all. P.U.

\* SHEENING OCCURRED turning OVER Boulders due to RAIN

revised 5/15/91 kg

ES revised, 5/15

Low bedrock cliff

Evergreens

Dead trees

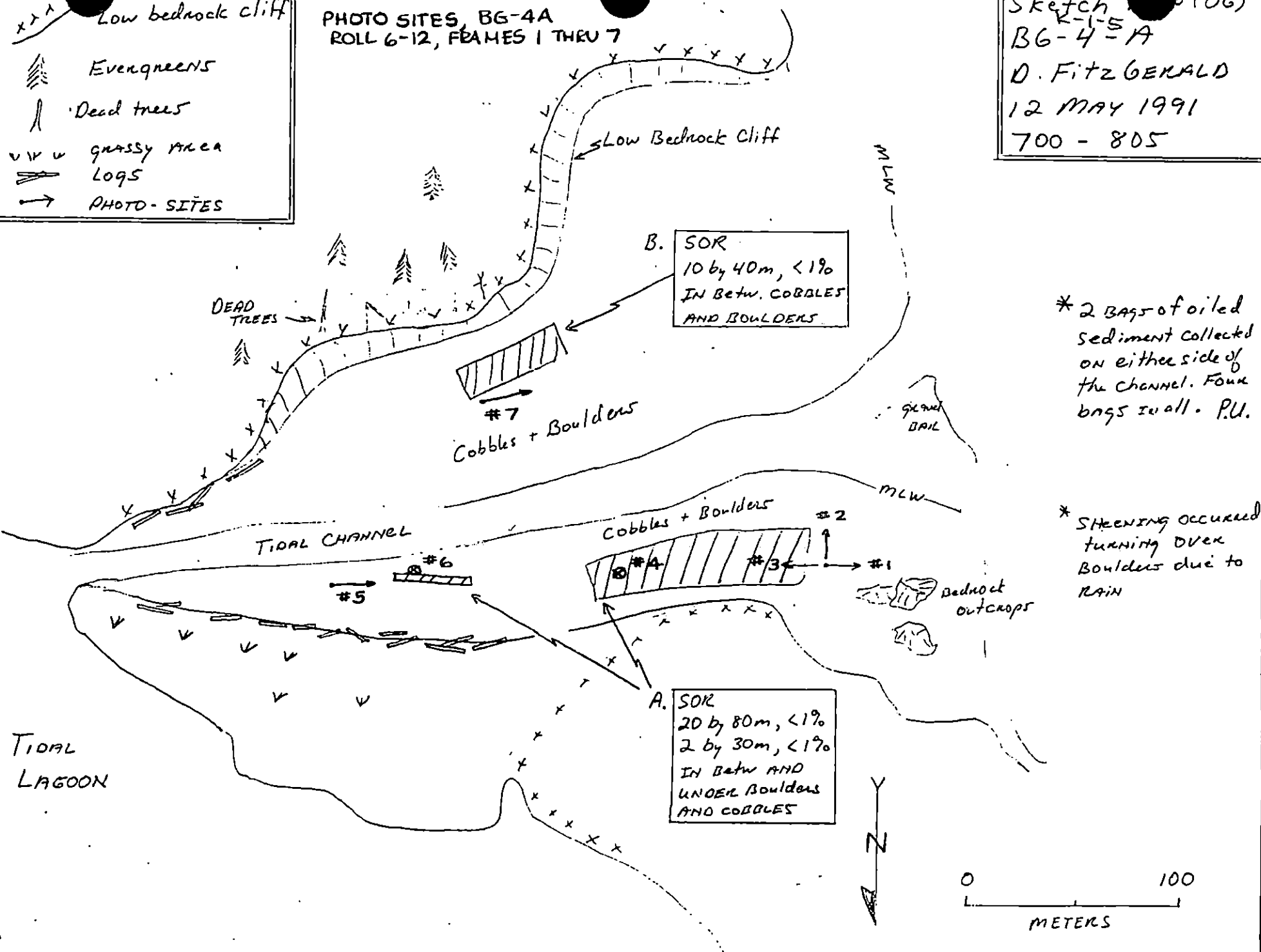
grassy area

Logs

PHOTO-SITES

PHOTO SITES, BG-4A  
ROLL 6-12, FRAMES 1 THRU 7

Sketch (106)  
K-1-5  
BG-4-A  
D. FITZGERALD  
12 MAY 1991  
700 - 805



# MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 12 1991

SEGMENT # BG-04 K-1-5

TIDAL HEIGHT (Range) 0ft - 1ft (7:00 - 8:05)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE  $\approx 2$  ft

WIND SPEED/DIRECTION 0-5 mph NW

PHOTOGRAPHS: ROLL # 6-12

FRAME # 1-7

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

A+B Both sites were located in areas of almost identical biota. This was a medium energy tidal flat on either side of a channel leading back to a lagoon. The substrate was Boulder (1-2ft) Cobble, Pebbles and gravel. There was a moderately dense cover of barnacles, Littorina, limpets, mytilus and a few Nucella. There were a few sporadic patches of Fucus towards the MITZ. The area was littered with shells from protothaca, saxidomus mya and cancer (Oregonensis sp?).

A - Almost directly in front of site A is an eagle nest. They were not in the area when we approached by Helicopter and flew in from the direction (SE) the other recorded nest. They circled us then sat between us and the nest. When we moved away from the area they appeared to lose interest in us and one left the area heading back to the (SE). I don't think they had laid but they were concerned about our presence.

Clean up in this area would be more disruptive than productive.

At the mouth of the Tidal Channel to either side are much denser and more diverse areas of rocky intertidal community.

Oystercatchers (5)

Eagles (2) Ducks (Pintails? Widgeons? mallards  $\approx 4$ ) Teal (?)  $\approx 20$  Kittiwakes (5) Glaucous-winged (3)

## WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

| BIRDS            | # OF SPECIES | TOTAL BIRDS     | FISH OBSERVED<br>SPECIES PRESENT |
|------------------|--------------|-----------------|----------------------------------|
| Eagles           | 1            | 2 adults + Nest | Sculpins                         |
| Seabirds         |              |                 |                                  |
| Waterfowl        | 3-4?         | 20              |                                  |
| Gulls/Kittiwakes | 2            | 8               |                                  |
| Shorebirds       | 1            | 6               |                                  |
| Corvids          |              |                 |                                  |
| Other Birds      |              |                 |                                  |

| MARINE MAMMALS      | # OBSERVED | LAND MAMMALS<br>SPECIES | # OBSERVED |
|---------------------|------------|-------------------------|------------|
| Sea Otters          | 1          | Deer, Deer Tracks       | 2          |
| Pinnipeds (specify) | 0          |                         |            |
| Ceals (specify)     | 0          |                         |            |

Shoreline subdivision map showing important biological features attached.

 Evergreens  
 Dead trees  
 grassy area  
 Logs  
 PHOTO-SITES

Low Bedrock Cliff

Sketch ~~100~~ (26)  
K-1-S  
BG-4-A  
~~0-FITZGERALD~~  
12 MAY 1991  
700 - 805.

Sea Otter  
off shore bay  
North pruned

Nereocystis Bedo

\* 2 Bags of oiled sediment collected on either side of the channel. Four bags in all - P.U.

\* STEERING OCCURRED  
TURNING OVER  
BOULDERS DUE TO  
RAIN

TIDAL  
LAGOON

A+B. A flat low energy area covered with Barnacles, littorina, limpet, some Nucella and a few Mytilus. There is a lot of shell hash (Pinctada, Saxidomus, Mya) between the boulders and cobbles. Very little algae (over in the area). Algal drift is mostly Fucus and Nerocystis.

B. SOR  
10 by 40m, < 1%  
IN Betw. CORALS  
AND BOULDERS

A. SOR  
20 by 80m, <1%  
2 by 30m, <1%  
IN betw AND  
UNDER Boulders  
AND COBBLES

Diverse  
Rock intertidal  
Community

W.L.

СИТУАЦИЯ  
ВРАЖДА

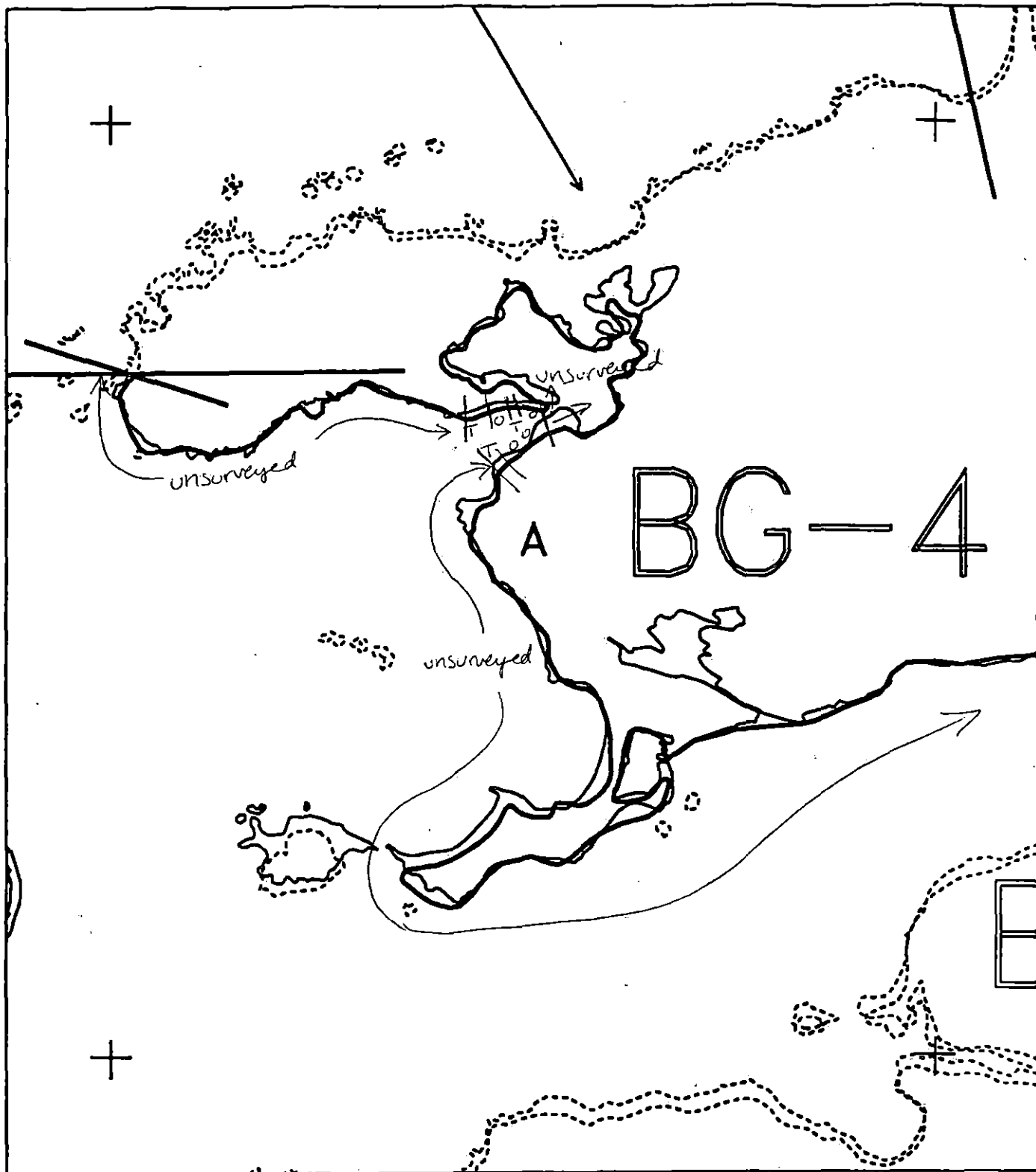
- Mr.

deduct  
outcrops

- Laminaria zone

{ Diverse + dense  
Rocky intertidal  
community }

A horizontal scale bar labeled "METERS" with markings at 0, 50, and 100.



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

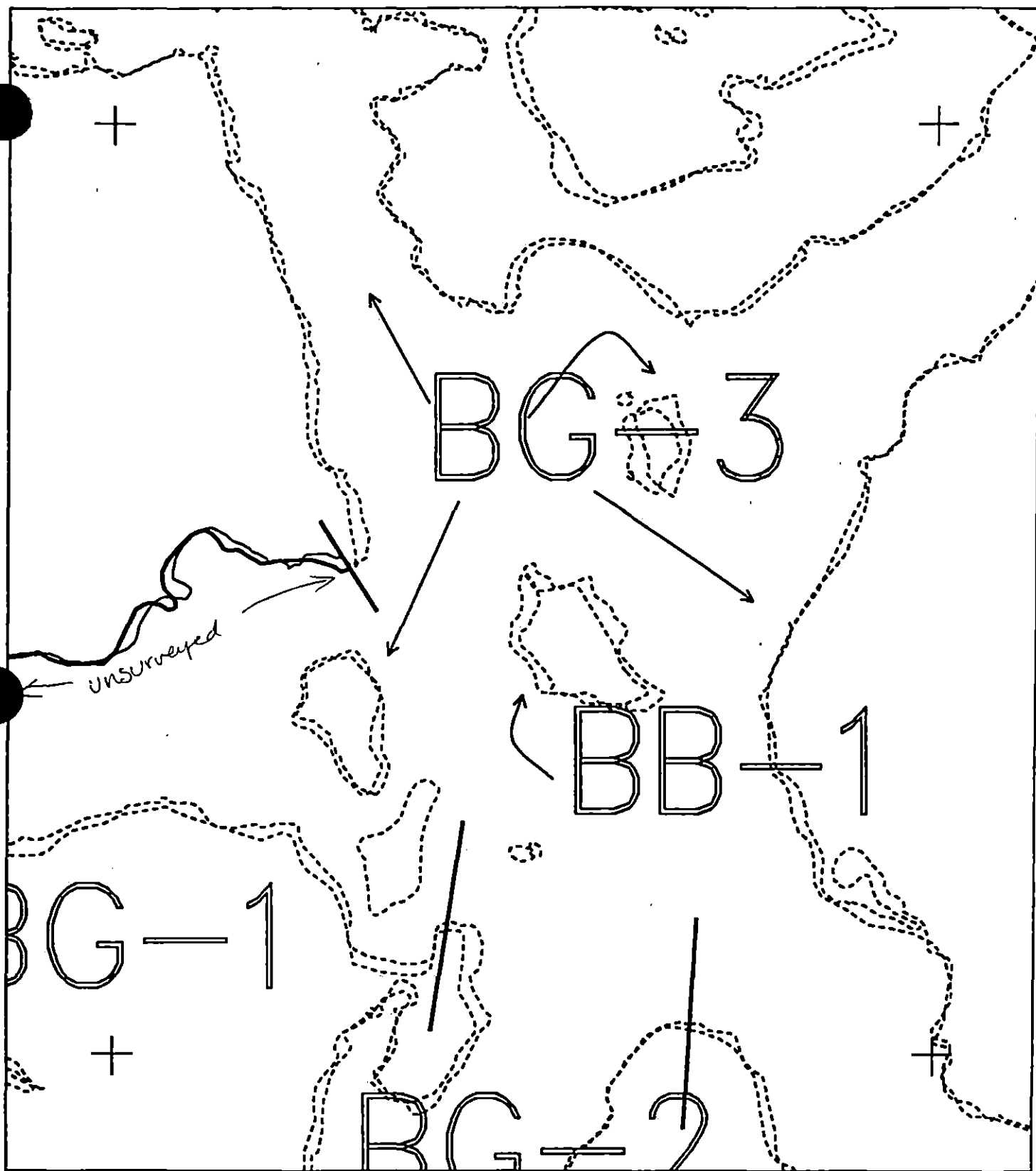
K0105 BG004 A  
 ADEC Subsegment Length: 9478m  
 METERS

AX State Plane Zone 4  
 90105bg004a...



Subdivision Field Map  
 Map Key: 60AX0105BG004A  
 Name: D. Fitzgerald  
 Date: 12 May 1991  
 Date Entered:

revised 5/15/91 KG  
 ET revised 5/15



XXXX  
 ////  
 ----  
 TTTT  
 0000

Wide  
 Medium  
 Narrow  
 Very Light  
 No Oil

K0105 BG004 A  
 ADEC Subsegment Length: 9478m  
 METERS

AK State Plane Zone 4  
 90105bg004ab



Subdivision Field Map

Map Key: 60AK0105BG004Ab

Name: D. Fitzgerald

Date: 12 May 1991

Date Entered:

revised 5/15/91 KG  
 EX renewed 5/15

1991 MAYSAP EVALUATION

SEGMENT: KO105BG004 SUB: A REGION: KOD SURVEY DATE: 5/12/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 5/15 - 9/1

Ecological/Constraints (see page two for details) Eagle nest, Seabird colony

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: \_\_\_\_\_ Date: \_\_\_\_\_

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: \_\_\_\_\_

TAG: \_\_\_\_\_

FOSC: \_\_\_\_\_

TAG APPROVAL DATE: \_\_\_\_\_

FOSC APPROVAL DATE: \_\_\_\_\_

ADEC

FOSC

EXXON

USCG

NOAA

ECOLOGICAL CONSTRAINTS  
1991 FIELD ACTIVITIES

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

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

TEAM NO. 6-Helo SEGMENT B6-4 SUBDIVISION A DATE 12 May 91

# ADEC

NAME J BARNHART SIGNATURE \_\_\_\_\_

- ☒ NTR K01-05 B6004A Trace SOR-ms on both the north and south shorelines at the entrance to the lagoon, mostly in the upper IZ. Veco crew removed approx 4 bags of o.i/o.i sediment, as well as breaking up the thin oil cover. O.i remains on the beach as trace SOR. Most of the oil that could be removed by manual methods was removed.

# EXXON

NAME Rex Coulter SIGNATURE Rex Coulter

- ☒ NTR We picked up, removed and/or broke up several small, scattered areas of SOR. As in most other areas where SOR has been found, the SOR is primarily sediment and has a very weathered look. Both sides of the stream, in the LITE-MITE, had oiling conditions similar in character and distribution. This subdivision should not need any further evaluation. Additional treatment here would require more search time than productive work time and there is very little to find.

# LANDMANAGER

NAME K. Murphy OF ADNR SIGNATURE Kenn Murphy

- ☒ NTR This segment, managed by ADNR, lies within Shuyak Island State Park. An active Eagle nest is located on north end of segment. The segment has a tidal influenced lagoon on the west end. A 2 x 30 m band of weathered mousse was broken up and removed by Veco crew on northeastern side of the stream draining the lagoon. Scattered mousse patties were removed from south side of stream.

# USCG/NOAA

NAME Chief Jensen / G. SHEGENAICA SIGNATURE Chief Jensen G. Shegenai

- ☒ NTR Four bags of mousse & SOR picked up. There is no longer any detectable oil present on the water, adjoining shorelines, or places where it is likely to reach the water again.

SURVEYED PORTION OF THE SEGMENT REPRESENTS THE NORTH AND SOUTH SHORELINES OF AN EMBAYMENT BETWEEN WHICH A RELATIVELY NARROW TIDAL CHANNEL IS LOCATED. AN EAGLE NEST IS LOCATED ON THE NORTHERN SHORE, AND MATURE EAGLES WERE OBSERVED IN THE AREA. WEATHERED MOUSSE/SOR WAS OBSERVED INFREQUENTLY IN THE MID TO UPPER INTERTIDAL IN BOULDER COBBLE SUBSTRATE, AND WHEN OBSERVED, WAS EITHER COLLECTED OR BROKEN UP. A SOMEWHAT HIGHER FREQUENCY OF OCCURRENCE WAS FOUND IN THE EASTERN PORTION OF THE NORTHERN SHORELINE. ALONG THE SOUTHERN SHORELINE OF THE EMBAYMENT ENTRANCE, OBSERVED OILING WAS EFFECTIVELY LIMITED TO ONE SECTION OF BOULDER COBBLE BEACH. WEATHERED MOUSSE HERE WAS AGAIN EITHER REMOVED OR BROKEN UP WHEN IT COULD NOT BE REMOVED.

PAGE 1 OF 1  
K-1.5

SEGMENT BG-4

SUBDIVISION   A  

DATE 12 1 Nov 1991

ENERGY LEVEL: ☐ H ☒ M ☐ L

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☒ RAIN ☐ SNOW

NEAR SHORE SHEEN: ☐ BR ☒ RB ☐ SL ☐ NONE

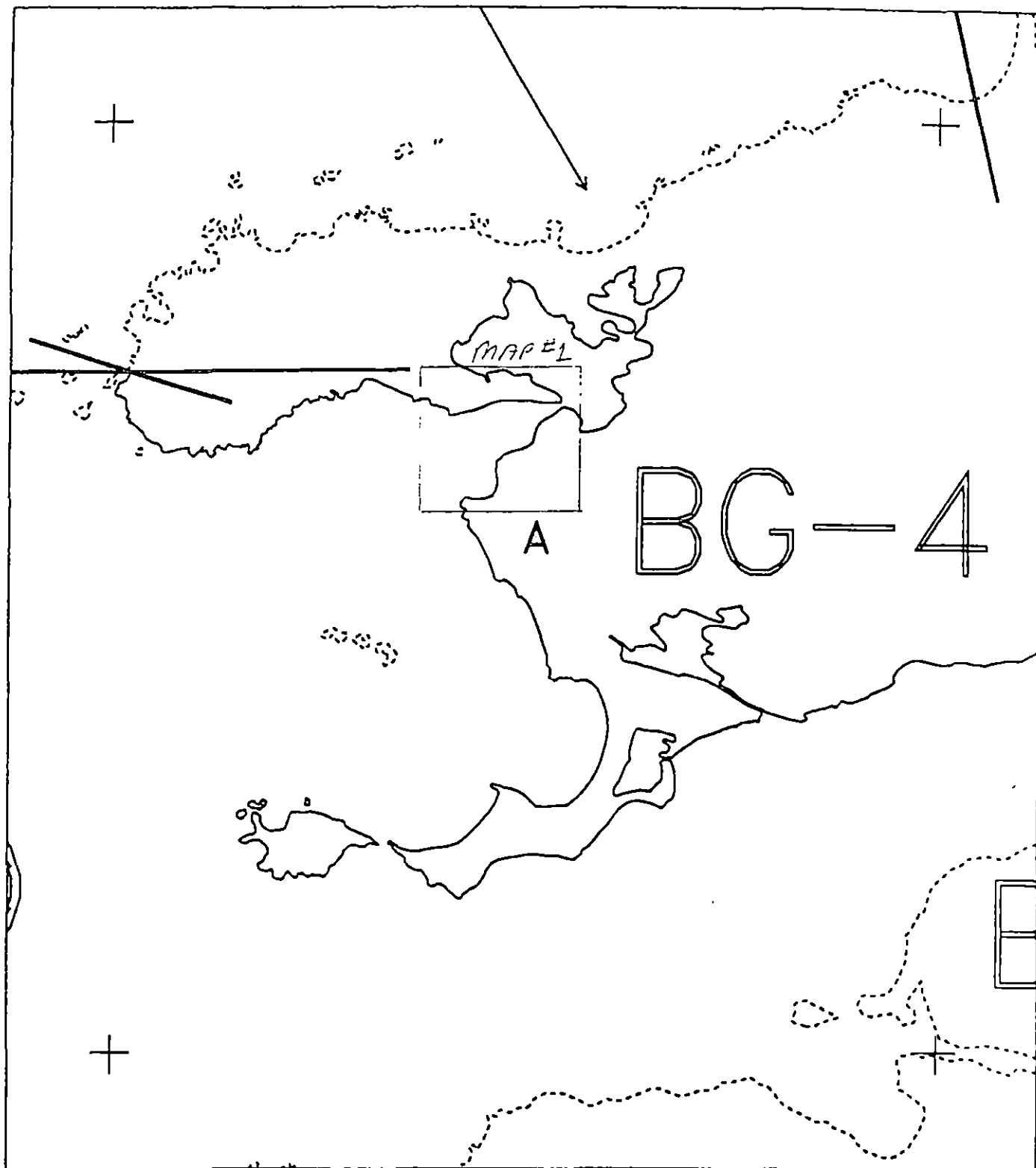
EST. OIL CATEGORY LENGTH: W — m M — m N — m VL 150 m NO 250 m US 9078 m

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 12 FRAMES 1-1

SHEEN COLOR: B - BROWN: R - RAINBOW: S - SILVER: N - NONE

**OG COMMENTS:** This Area Included the Intertidal boulder and cobble areas on either side of the tidal channel leading to the lagoon. The oiling operations SOR that occurs between and under the cloths. The Veco workers removed the located and retrievable SOR and broke up the highly friable SOR. A total of 4 bags of oiled sediment were removed from this site.



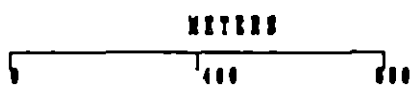
K0105 BG004 A

Subdivision Field Map

Map Key: G04X0105BG004A

Name: D. Fitzgerald

Date: 12 May 53



AK State Plane Zone 4  
90105bg004a-1

Reviewed 5/53

Low bedrock cliff

Evergreens

Dead trees

Grassy area

Logs

PHOTO-SITES

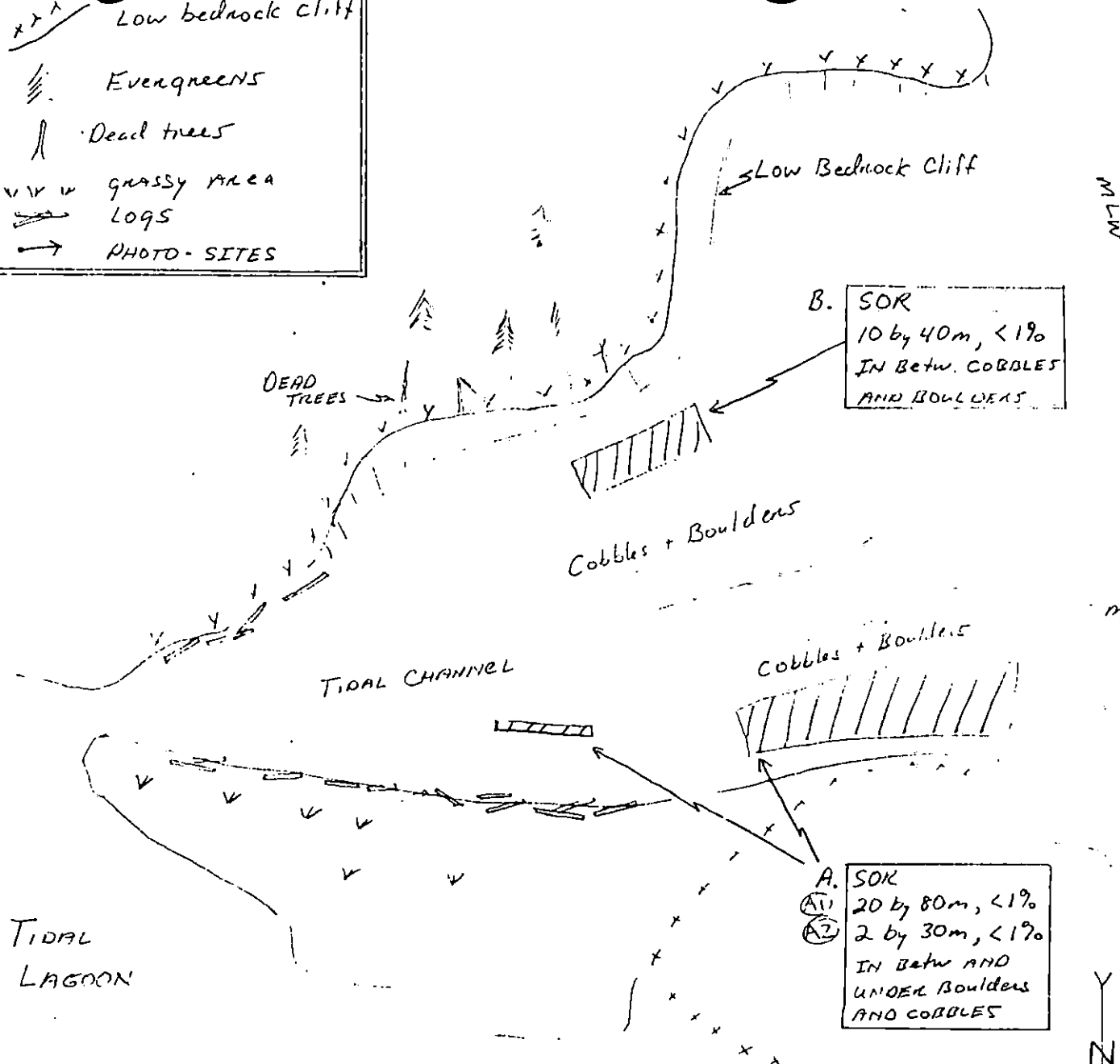
Sketch Map (OG)

K-1-S  
BG-4-A

D. FITZGERALD

12 MAY 1991

700 - 805



\* 2 BAGS of oiled sediment collected on either side of the channel. Four bags in all. P.U.

\* STEERING occurred turning OVER Boulders due to RAIN

TIDAL LAGOON

TIDAL CHANNEL

Cobbles + Boulders

Cobbles + Boulders

Low Bedrock Cliff

B. SOK  
10 by 40m, <1%  
IN Betw. COBBLES  
AND BOULDERS

A. SOK  
(A1)  
(A2)  
20 by 80m, <1%  
2 by 30m, <1%  
IN Betw AND  
UNDER Boulders  
AND COBBLES

grassy area

Bedrock outcrops

N  
Z

0

100

METERS

OG 1991-12-15

x x x Low bedrock cliff

Evergreens

Dead trees

v v v grassy area

logs

→ PHOTO-SITES

PHOTO SITES, BG-4A  
ROLL 6-12, FRAMES 1 THRU 7

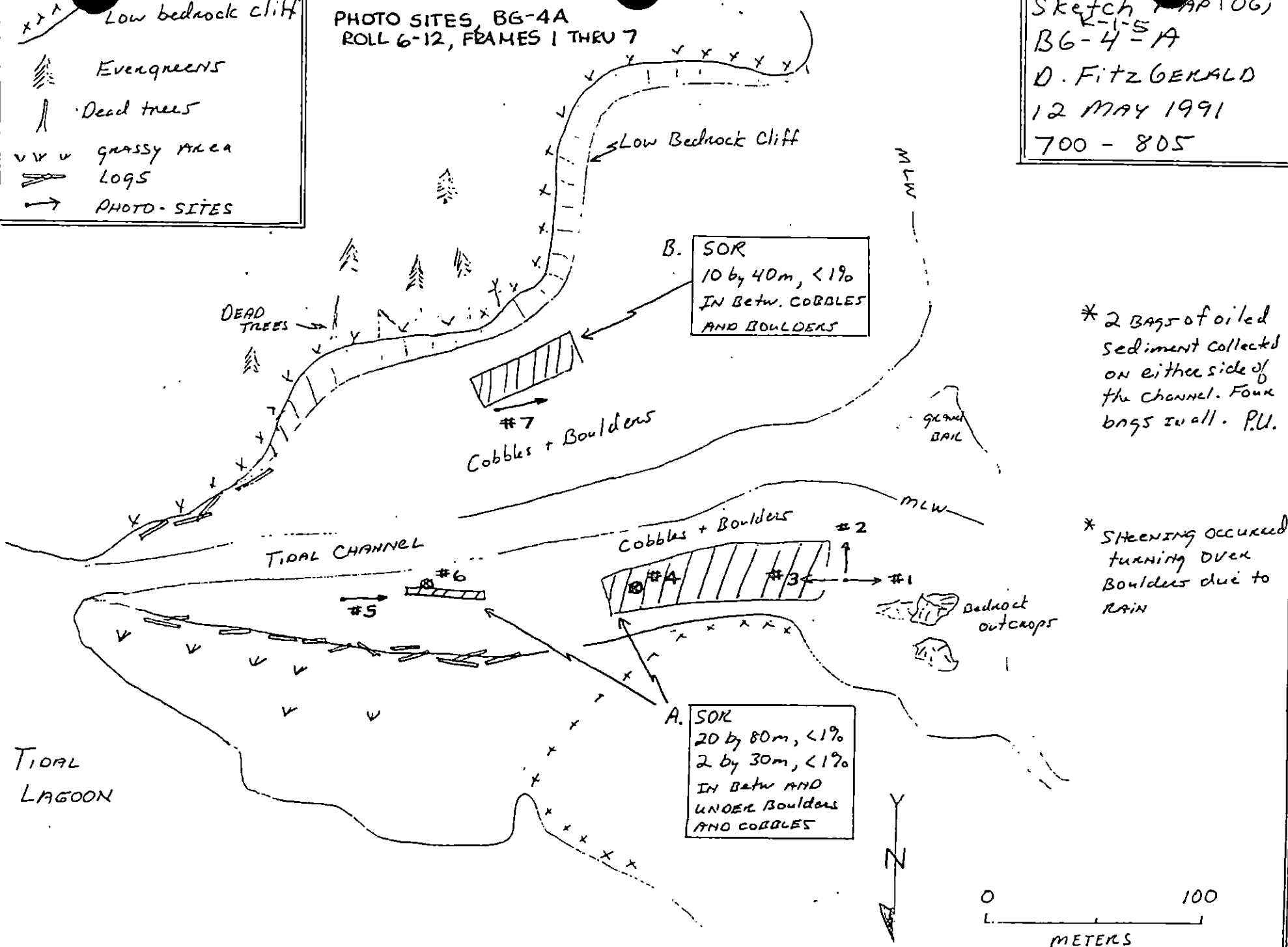
Sketch MAP 106,

BG-4-15A

D. FITZGERALD

12 MAY 1991

700 - 805



## MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 12 1991

SEGMENT # BG-04 K-1.5

TIDAL HEIGHT(Range) 0ft - 1ft (7:00-8:05)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE  $\approx 2$  ft

WIND SPEED/DIRECTION 0-5 mph NW

PHOTOGRAPHS: ROLL # 6-12

FRAME # 1-7

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

A+B Both sites were located in areas of almost identical biota. This was a medium energy tidal flat on either side of a channel leading back to a lagoon. The substrate was Boulder (1-2 ft), Cobble, Pebbles and gravel. There was a moderately dense cover of barnacles, littorins, limpets, murex and a few Nucella. There were a few sporadic patches of Fucus towards the MITZ. The area was littered with shells from protothaca, saxidomus, mya and cancer (Oregonensis sp?).

A - Almost directly in front of site A is an eagle nest. They were not in the area when we approached by Helicopter and flew in from the direction (SE) the other recorded nest. They circled us then sat between us and the nest. When we moved away from the area they appeared to lose interest in us and one left the area heading back to the (SE). I don't think they had laid but they were concerned about our presence.

Clean up in this area would be more disruptive than productive.

At the mouth of the tidal channel to either side are much denser and more diverse areas of rocky intertidal community.

## Oystercatchers (5)

Scaup (2) Ducks (Pintails? Widgeons? mallard ( $\approx 4$ ) Teal?)  $\approx 20$  Kittiwakes (5) Glaucous-winged (3)

## WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

| BIRDS            | # OF SPECIES | TOTAL BIRDS     | FISH OBSERVED SPECIES PRESENT |
|------------------|--------------|-----------------|-------------------------------|
| Eagles           | 1            | 2 adults + Nest | Sculpins                      |
| Seabirds         |              |                 |                               |
| Waterfowl        | 3-4 ?        | 20              |                               |
| Gulls/kittiwakes | 2            | 8               |                               |
| Shorebirds       | 1            | 6               |                               |
| Corvids          |              |                 |                               |
| Other Birds      |              |                 |                               |

| MARINE MAMMALS      | # OBSERVED | LAND MAMMALS SPECIES | # OBSERVED |
|---------------------|------------|----------------------|------------|
| Sea Otters          | 1          | Deer, Deer Tracks    | 2          |
| Amphipeds (specify) | 0          |                      |            |
| Whales (specify)    | 0          |                      |            |

Shoreline subdivision map showing important biological features attached.

Low bedrock cliff



Evergreens



Dead trees

grassy area



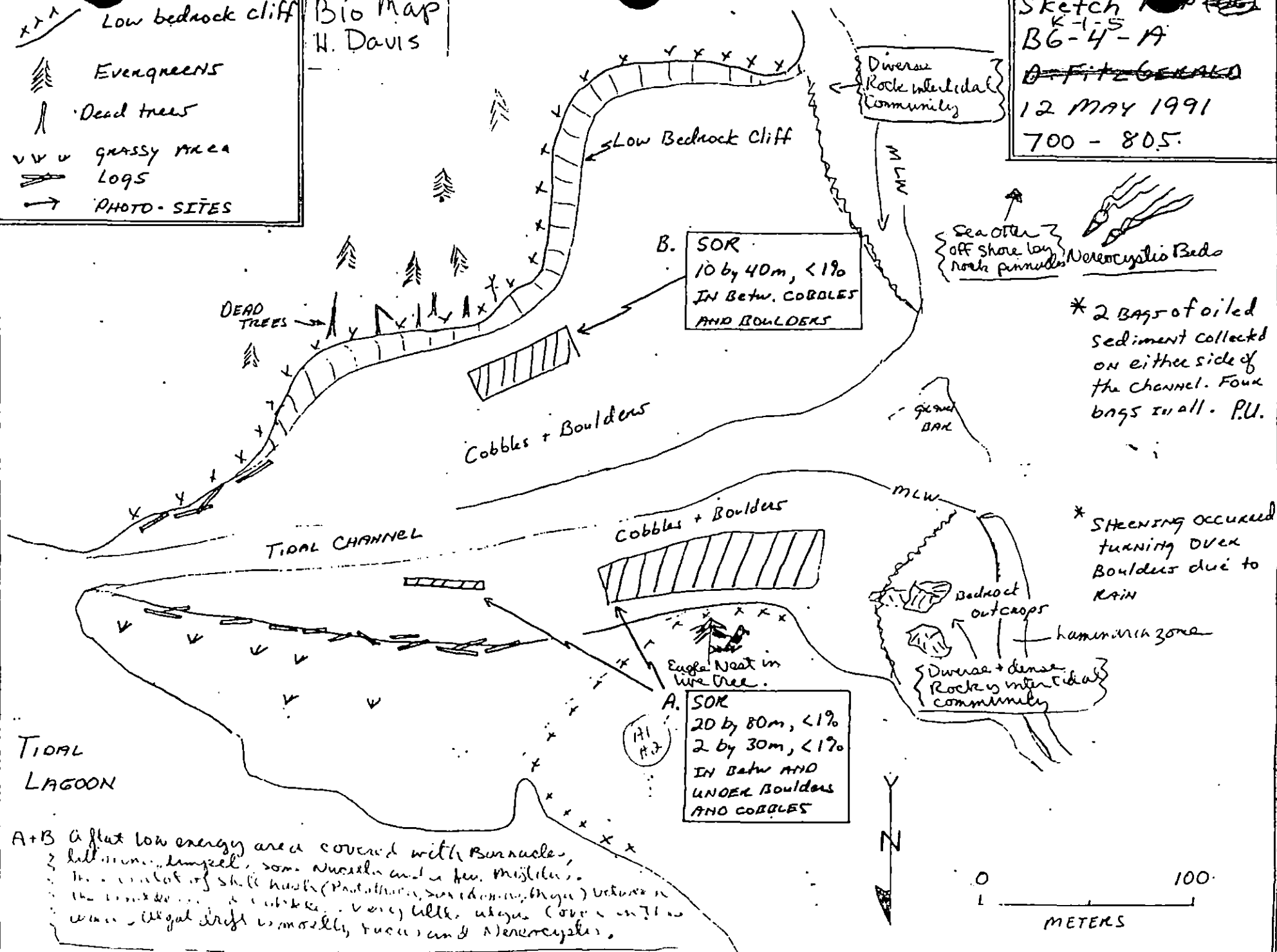
Logs



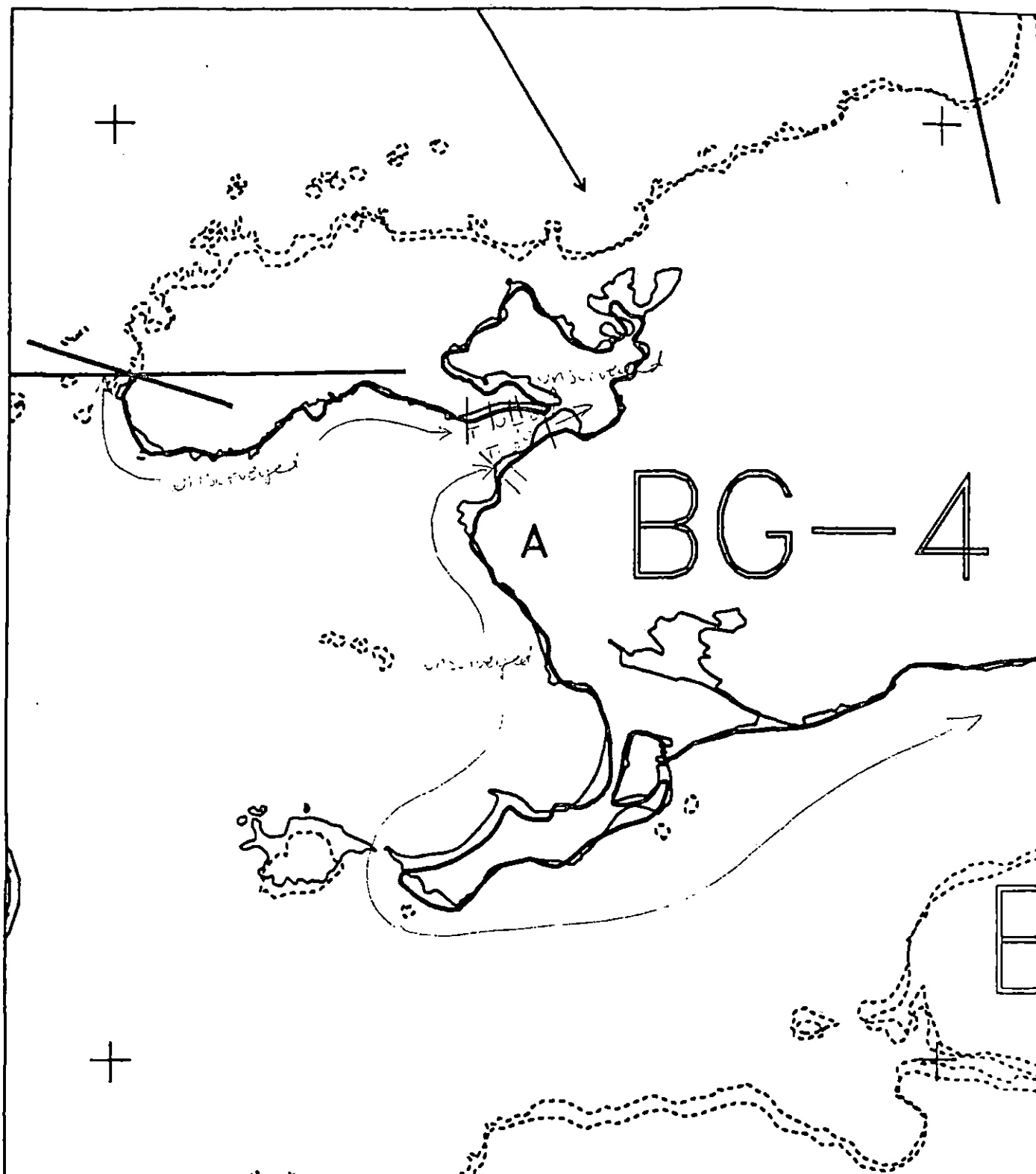
PHOTO-SITES

Big Map  
H. Davis

Sketch Map  
K-1-5  
BG-4-A  
~~D. Fitzgerald~~  
12 MAY 1991  
700 - 805.

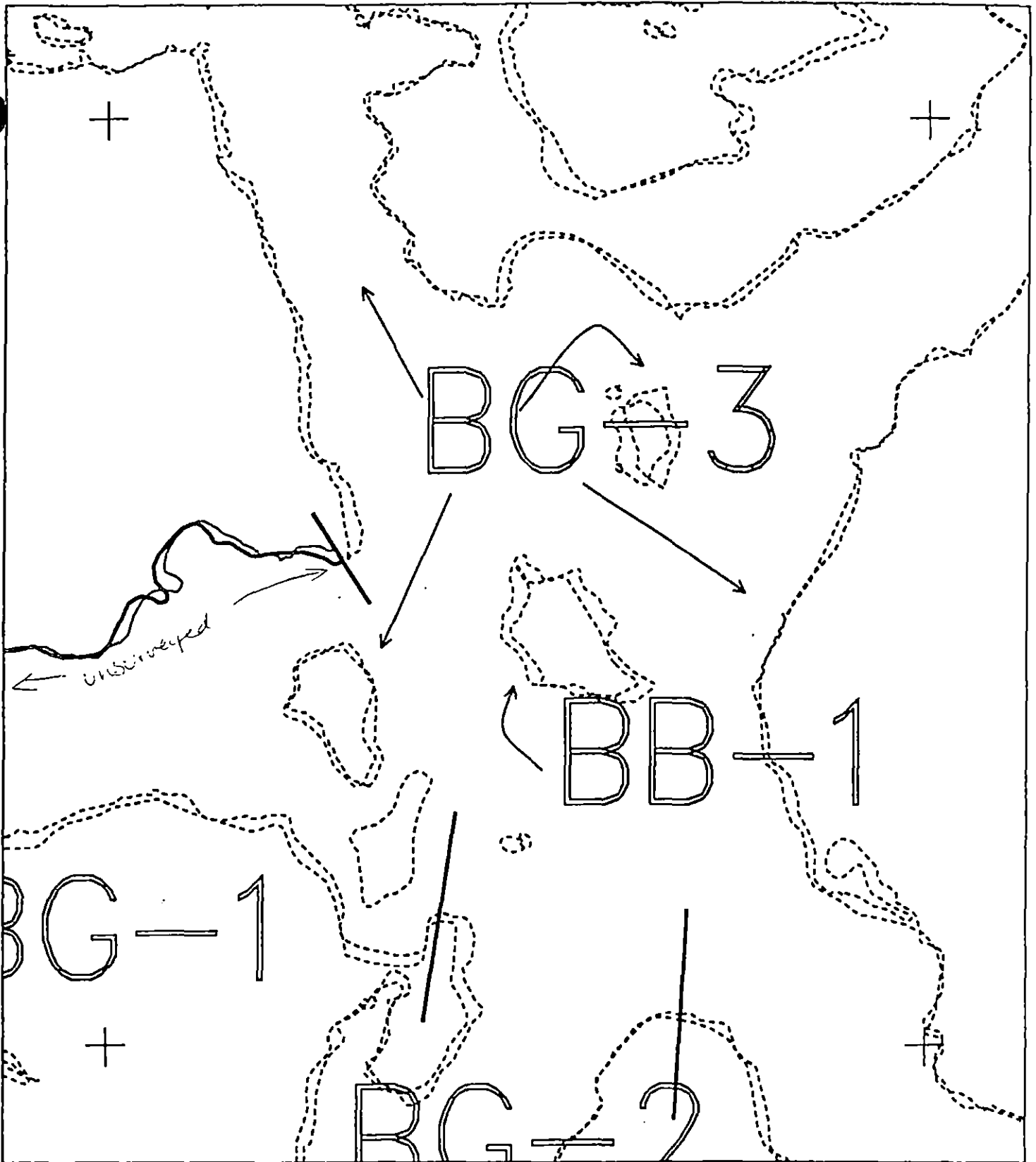


A+B A flat low energy area covered with Barnacles, limpets, limpet, some Nereocystis and a few mussels. The majority of shell hash (Pachydictyon, Saxidomus, Mytilus) between the boulders. Very little algae (other than Ulva) - Algal drift commonly, Fucoxanthin and Nereocystis.



|      |            |                               |                            |
|------|------------|-------------------------------|----------------------------|
| XXXX | Wide       | K0105 BG004 A                 | Subdivision Field Map      |
| //// | Medium     | ADEC Subsegment Length: 9478m | Map Key: 69AK0105BG004A    |
| ---- | Narrow     | METERS                        | Name: <u>D. Fitzgerald</u> |
| TTTT | Very Light | 400                           | Date: <u>12 May</u>        |
| 0000 | No Oil     | AK State Plane Zone 4         | Date Entered:              |

ET revised 5/15



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

K0105 BG004 A  
 ADEC Subsegment Length: 9478m  
 METERS

0 400 800

AK State Plane Zone 4  
 90105bg004ab



Subdivision Field Map

Map Key: 60AK0105BG004Ab

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date Entered: \_\_\_\_\_

**REGION: KODIAK**

**SEGMENT: ST/K01-07-DI-001**

**SUBDIVISIONS: A (1 OF 1)**

SHORELINE EVALUATION

SEGMENT ST/ K01-07-DI-001 SUBDIVISION A (1 OF 1) DATE 5/22/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

5R Seabird colony (5/1 to 9/1)

Restrict air and boat traffic to essential minimum contact USFWS if treatment is required.

See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 81 m: No Oil 4982 m  
Subsurface Oil Observed: Yes \_\_\_\_\_ No X Maximum Depth \_\_\_\_\_

**RECOMMENDATIONS:**

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

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TAG COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TAG APPROVAL DATE: \_\_\_\_\_

ADEC \_\_\_\_\_

EXXON \_\_\_\_\_

NOAA \_\_\_\_\_

USCG \_\_\_\_\_

FOSC: \_\_\_\_\_ DATE: \_\_\_\_\_

## FIELD SHORELINE COMMENT SHEET

SEGMENT ST 107-81-1 SUBDIVISION: A DATE May 22/90

~~USCG~~ NAME Stephen Lehmann SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED  
COMMENTS

☐ TREATMENT SUGGESTED

Very little oil observed. Some areas of coat and cover, but relatively small and impractical to remove.

ADEC NAME Terry Ellsworth SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED  
COMMENTS

☐ TREATMENT SUGGESTED

Sporadic stain, coat and cover are found primarily on the north and east side of Dark Island. Only one area,  $\approx 20 \times 5$  meters, located on the east side of the island contains any recoverable mousse. Because of the small amount of recoverable oil and the wildlife sensitivities, no treatment is recommended.

LAND MANAGER NAME Mike Sedwin SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED  
COMMENTS

☐ TREATMENT SUGGESTED

This entire segment is located within the legislatively designated SHUYAK Island State Park. It does receive recreational kayaking traffic during summer months. This area was generally observed to have a number of wildlife sensitivities such as nesting off shore birds, Vancouver grass, ground squirrels, stream snails, sea otters, and others and migratory

# SHORELINE OILING SUMMARY

REVISION NO. 04/12/90

OG Don Marie Smith USCG Stephen de la Motte SEGMENT ST/ K-27-D1-1  
 BIO Donna K. Smith LAND REP Mike Orosz SUBDIVISION A (1 OF 1)  
 EXXON — ADEC Tracy E. Johnson TIME 6:56 10:20:40  
 TEAM NO. 19 TIDE LEVEL 6.5' 2.0' DATE May 12 1990  
 EST. SUBDIVISION LENGTH: 9.91 Km ☐ Sun ☒ Clouds ☒ Fog ☒ Rain ☐ Snow  
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☐ Rock  
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: Counterclockwise  
 SURFACE SEDIMENTS: R 60 % B 10 % C 10 % P 10 % G 5 % S 5 % M 0 % V 0 %  
 SLOPE: Long 40 % Hang 0 % Vert 60 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High  
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 74 m NO 9836 m

## SURFACE OIL

| CHARACTER        | DISTRIBUTION |   |   |   | OIL / FILM COLOR |   |    |   | IMPACTED ZONES |   |   |   |
|------------------|--------------|---|---|---|------------------|---|----|---|----------------|---|---|---|
|                  | C            | E | P | S | SW               | W | OW | W | SU             | U | M | L |
| ASPHALT PAVEMENT |              |   |   |   |                  |   |    |   |                |   |   |   |
| POOLED           |              |   |   |   |                  |   |    |   |                |   |   |   |
| COVER            |              |   |   |   |                  |   |    |   |                |   |   |   |
| COAT             |              |   |   | X | X                |   |    |   | X              |   |   |   |
| STAIN            |              |   |   | X | X                |   |    |   | X              |   |   |   |
| MOUSSE           |              |   | X |   | X                |   |    |   | X              |   |   |   |
| PATTIES          |              |   |   | X | X                |   |    |   | X              |   |   |   |
| TARBALLS         |              |   |   | X | X                |   |    |   | X              |   |   |   |
| FILM             |              |   |   |   |                  |   |    |   |                |   |   |   |
| NO OIL           |              |   |   |   |                  |   |    |   | X              | X | X |   |

 PAVEMENT H F S A/D sq. m by — cm

 PATTIES / TARBALLS 10 BAGS

NEAR SHORE SHEEN? NO BR RW SL TL

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

DID YOU COLLECT DEBRIS?

 YES ☐ NO ☒

 TYPE —

 #BAGS 0

Photographs:

 Roll No. ST-19-100

 Frames F 8-11

## 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 |
|---------|----------------|--------------------------|----|----|----|----|---------------------|-------|----|------------------|---|----|---|----------|---|---|---|-------|-------------|------------------------------|
|         |                | OF                       | OR | OL | OF | NO |                     | UO    | UO | SW               | W | OW | W | SU       | U | M | L |       |             |                              |
| 1       | 20             |                          |    |    |    | X  | 0-3                 | X     |    |                  |   |    |   | X        |   |   |   |       |             | PB/CL                        |
| 2       | 20             |                          |    |    |    | X  | 0-0                 | X     |    |                  |   |    |   |          | X |   |   |       |             | PB/CL                        |
| 3       | 20             |                          |    |    |    | X  | 0-0                 | X     |    |                  |   |    |   |          |   | X |   |       |             | PB/CL                        |
|         |                |                          |    |    |    |    |                     |       |    |                  |   |    |   |          |   |   |   |       |             |                              |
|         |                |                          |    |    |    |    |                     |       |    |                  |   |    |   |          |   |   |   |       |             |                              |
|         |                |                          |    |    |    |    |                     |       |    |                  |   |    |   |          |   |   |   |       |             |                              |

COMMENTS

 REVIEWED BAT

 DATE 24 May 90

KI-7-DI-1, Dark Island, May 22, 1990  
-----

Segment KI-7-DI-1 makes up the entire coastline of Dark Island, a small island located north of Shuyak Island. The island is very exposed, particularly to the north and east and the shoreline reflect this well. The island consists essentially of alternating sections of bedrock cliffs; bedrock cliffs with an intertidal ramp and some boulder/cobble/pebble; talus of angular boulders; and pocket beaches of pebble/gravel/cobble. The pocket beaches located on the eastern and northern sides of the island all indicate high wave energy, with logs, driftwood and plastic debris projected high up on the backshore.

Oil was found on the northeastern, northwestern, and to a lesser extent, on the southern side of the island. Most consists of coats and stains of splatters, a few tarballs, a few oiled logs, and two small areas of very patchy coats and mousse on the eastern side of the island.

SCATTERED

10. 10.7.75 Sample  
 SEGMENT ST/ 07.75.1

# SKETCH MAP

Legend

SUBDIVISION A

DATE 1/22/90

## CHECKLIST

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

## LEGEND

- 1  $\Delta$
- 2  $\Delta$
- 3  $\Delta$  - No Subsurface Oil
- 4  $\Delta$  - Subsurface Oil
- 5  $\Delta$  - Subsurface Oil
- 6  $\Delta$  - Subsurface Oil
- 7  $\Delta$  - Subsurface Oil
- 8  $\Delta$  - Subsurface Oil
- 9  $\Delta$  - Subsurface Oil
- 10  $\Delta$  - Subsurface Oil
- 11  $\Delta$  - Subsurface Oil
- 12  $\Delta$  - Subsurface Oil
- 13  $\Delta$  - Subsurface Oil
- 14  $\Delta$  - Subsurface Oil
- 15  $\Delta$  - Subsurface Oil
- 16  $\Delta$  - Subsurface Oil
- 17  $\Delta$  - Subsurface Oil
- 18  $\Delta$  - Subsurface Oil
- 19  $\Delta$  - Subsurface Oil
- 20  $\Delta$  - Subsurface Oil
- 21  $\Delta$  - Subsurface Oil
- 22  $\Delta$  - Subsurface Oil
- 23  $\Delta$  - Subsurface Oil
- 24  $\Delta$  - Subsurface Oil
- 25  $\Delta$  - Subsurface Oil
- 26  $\Delta$  - Subsurface Oil
- 27  $\Delta$  - Subsurface Oil
- 28  $\Delta$  - Subsurface Oil
- 29  $\Delta$  - Subsurface Oil
- 30  $\Delta$  - Subsurface Oil
- 31  $\Delta$  - Subsurface Oil
- 32  $\Delta$  - Subsurface Oil
- 33  $\Delta$  - Subsurface Oil
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- 39  $\Delta$  - Subsurface Oil
- 40  $\Delta$  - Subsurface Oil
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- 42  $\Delta$  - Subsurface Oil
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- 69  $\Delta$  - Subsurface Oil
- 70  $\Delta$  - Subsurface Oil
- 71  $\Delta$  - Subsurface Oil
- 72  $\Delta$  - Subsurface Oil
- 73  $\Delta$  - Subsurface Oil
- 74  $\Delta$  - Subsurface Oil
- 75  $\Delta$  - Subsurface Oil
- 76  $\Delta$  - Subsurface Oil
- 77  $\Delta$  - Subsurface Oil
- 78  $\Delta$  - Subsurface Oil
- 79  $\Delta$  - Subsurface Oil
- 80  $\Delta$  - Subsurface Oil
- 81  $\Delta$  - Subsurface Oil
- 82  $\Delta$  - Subsurface Oil
- 83  $\Delta$  - Subsurface Oil
- 84  $\Delta$  - Subsurface Oil
- 85  $\Delta$  - Subsurface Oil
- 86  $\Delta$  - Subsurface Oil
- 87  $\Delta$  - Subsurface Oil
- 88  $\Delta$  - Subsurface Oil
- 89  $\Delta$  - Subsurface Oil
- 90  $\Delta$  - Subsurface Oil
- 91  $\Delta$  - Subsurface Oil
- 92  $\Delta$  - Subsurface Oil
- 93  $\Delta$  - Subsurface Oil
- 94  $\Delta$  - Subsurface Oil
- 95  $\Delta$  - Subsurface Oil
- 96  $\Delta$  - Subsurface Oil
- 97  $\Delta$  - Subsurface Oil
- 98  $\Delta$  - Subsurface Oil
- 99  $\Delta$  - Subsurface Oil
- 100  $\Delta$  - Subsurface Oil



cliffs

cliffs, bedrock ramp  
some ss/cb/pl.

Talus, angular boulders

pl/gv/cb beach

4 Tarballs

20, 5  
st, 5  
5%

20, 5  
MS, P  
10%, 1 cm

- 4 Few ct, 5 max 20 cm.
- 5 Few st, 5, few slightly oiled logs
- 6 1 splatter
- 7 Few ct, 5 max 10 cm.
- 8 Few pellets, < 20 cm, - Pit 3 1/2
- 9 3 partially oiled pieces of driftwood.

Character Length (m): AP 0 PO 0 CV 0 CT 30 ST 40 MS 20 PT 2 TB 2 FL 0

NOTES

REVISION 02/24/90

## SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/K1-7/DI-1 Subdivision A Date (mo / day / yr) 5-22-90(24 hr) 17:00 Biologist David Lohse

(A) Substrate type and % of segments:

(1) Bedrock 60 (2) Boulder 10 (3) Cobble 10 (4) Pebble 10 (5) Sand 10 (6) Silt     (B) Overall % cover of biota (% of segment): Dense 40 Moderate 40 Low 20

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

Photographs:

Roll No. ST-19-100Frames 8-11

## BARNACLES

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

## MYTILUS

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

## GASTROPODS

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

## FUCUS

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

Wildlife Observations/ General Comments:

See page 2

Ecological Considerations:

SP Many different species of birds were found in segment, some of which were quite abundant (see General Comment #2). However, no nests were observed.

## Shoreline Ecological Summary

LOT 72

Segment ST/KI-7/DI-1

Subdivision A

5-22-90

Biologist: David Lohr

## Shoreline Observations/General Comments

Present in low intertidal: *Nuxella*, *Halosaccus*, *Rhodometaria*, coralline algae, *Alaria*, *Rhodomenia*, *Laminaria*, *Katharina tunicata*, unknown yellow sponge, *Tealia*, *Cladophora*, *Ralfsia*, *Porphyra*, *Siphonaria*

mid intertidal: unknown yellow sponge, *Enteromorpha*, coralline algae, *Pagurus*, *Ulva*, *Halosaccus*, *Scytosiphon*, *Rhodomenia*, *Rhodometaria*, *Ralfsia*, *Endolatria*, *Siphonaria*, *Porphyra*, *Epiactis*, *Alaria*, *Gloiopeltis*, unknown plate-like brown alga

high intertidal: *Enteromorpha*, *Porphyra*

Many birds spotted in area. These included 2 immature and 1 mature bald eagle, one pair Scaups, 3 pairs Goldeneyes, ~25 Cormorants, 4 Eiders, 4 Canadian Geese, One Brant, and many gulls and oystercatchers (too numerous to count accurately).

One ground squirrel, one land otter, and ~10 sea lions in area

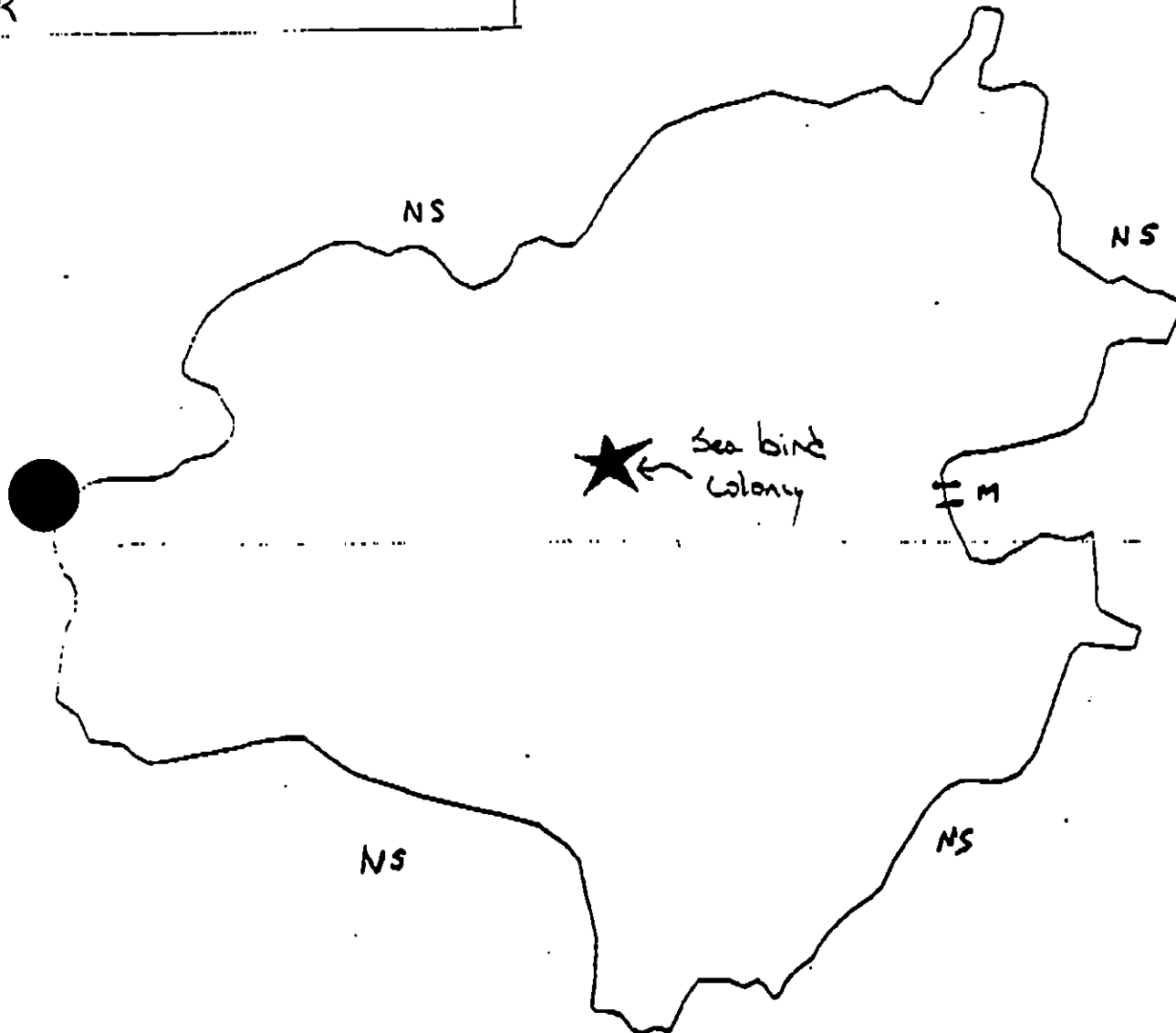
Segment consisted primarily of boulder/cobble beaches (with occasional bedrock outcrops) separated by bedrock headlands. In ~1/3 of these beaches the bedrock outcrops were rich in species while the boulders/cobbles were mainly barren except for a cover of *Enteromorpha* and some barnacles, fungi, gastropods in crevices and on protected sides. In other 2/3 both bedrock and boulders/cobble were rich in species. No apparent pattern to distribution of these two types of beaches

5. Algal cover in low intertidal was ~90% on bedrock, and ranged from 50-85% on boulders. In some areas much of this was due to high abundances of *Rhodomenia* (as high as 40%). In mid-intertidal algal cover ranged from 60-75% on bedrock, and 60-90% on boulders.

6. dead, heavily oiled bird was found above high tide line. It was retrieved and reported to US Fish and Wildlife Service by Mike Goodwin (ADNR).

● K0107-DI001

Ecology Map  
Source Codes For Entire Segment  
SR



500.0

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

ADOC Sep/Oct 1988 Survey

recruitment and mortality summary

segment ST/KI-7/DI-1

Subdivision A

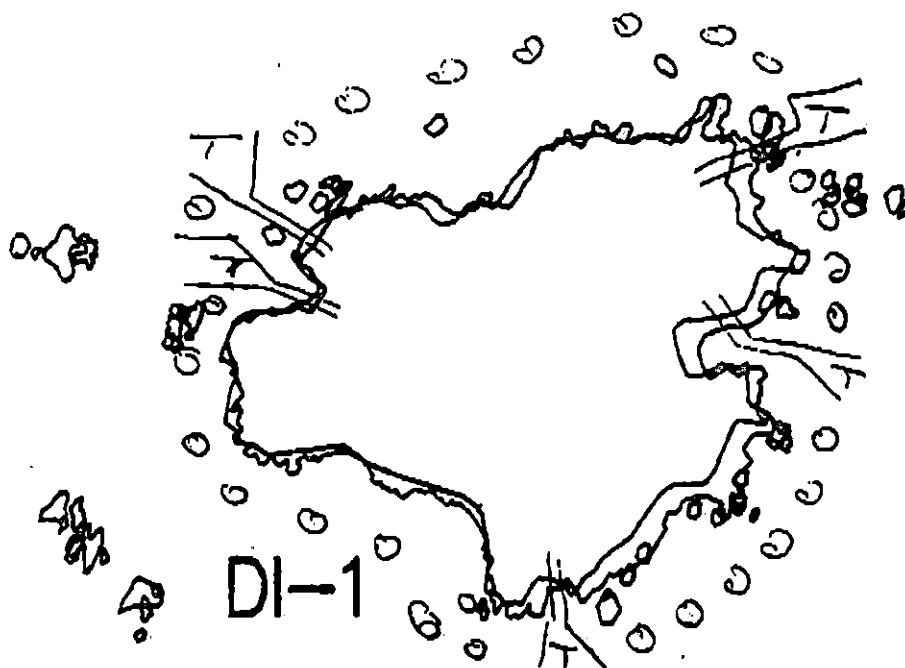
5-22-90

investigator: David Cohen

Barnacle and Fucus recruitment were patchy

- Barnacle ~~was~~ mortality in mid intertidal ranged from ~10-25% on bedrock (3 sites surveyed) and was ~5% on boulders (1 site estimated). In high intertidal mortality was ~25% on boulders (one site) and ~50% on bedrock (one site).

K1-7



DI-1

XXX Wide

/// Medium

--- Narrow

TTTT Very light

KØ1Ø7-DI-1-A

ADEC Segment Length: 9910m

Map Key: KOD-27

Name: *James Eric Sengul*Date: *May 22/90*

SHORELINE EVALUATION

SEGMENT ST/ K01-07-DI-001 SUBDIVISION A (1 OF 1) DATE 5/22/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

5R Seabird colony (5/1 to 9/1)

Restrict air and boat traffic to essential minimum contact USFWS if treatment is required.

See attached Ecological Constraint sheet for specific constraints and contacts.

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

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

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: Rachel Ann Darr DATE: 6/1/90

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 81 m: No Oil 4982 m  
Subsurface Oil Observed: Yes        No X Maximum Depth        8646 7/6

**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 Removal        | <u>      </u> Beach Cleaner                     |
|                                     | <u>      </u> Other (see comments)              |

COMMENTS:       

TAG COMMENTS:       

TAG APPROVAL DATE: 5/31/90

ADEC ART WEINER Art Weiner

EXXON Andr. K...

NOAA Joseph Talbott

USCG G.A. REITER G.A. Reiter

FOSC:        DATE: 6-8-90

Marie S. ...  
IT ST/ K. 0. 1

# SKETCH

## Legend

SION A

1/22/90

IST

Scale  
to Empty

Character  
VULM

Location(s)  
a)  
Location(s)

Q

surface of

face of

Distribution

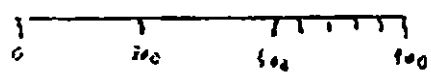
abundant

abundant

abundant

abundant

ion, direction,



or Length (m): AP 0 PO 0 CV 0 CT 30 ST 40 MS 20 PT 2 TB 2 FL 0

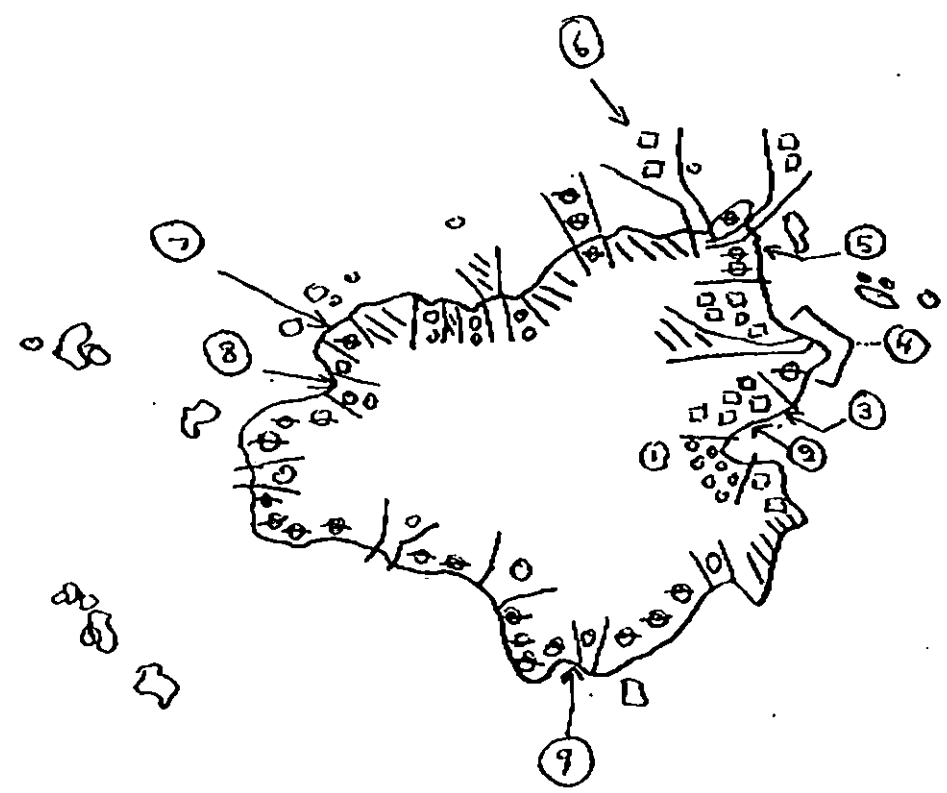
NO 7836  
283/6

cliffs

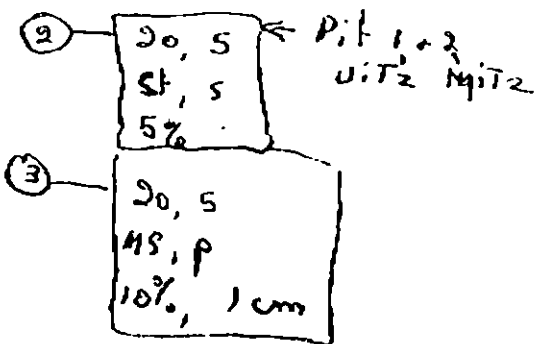
cliffs, bedrock ramp  
some ls/cb/pl.

Talus, angular boulder.

pl/gv/cb beach



1 4 Tarballs

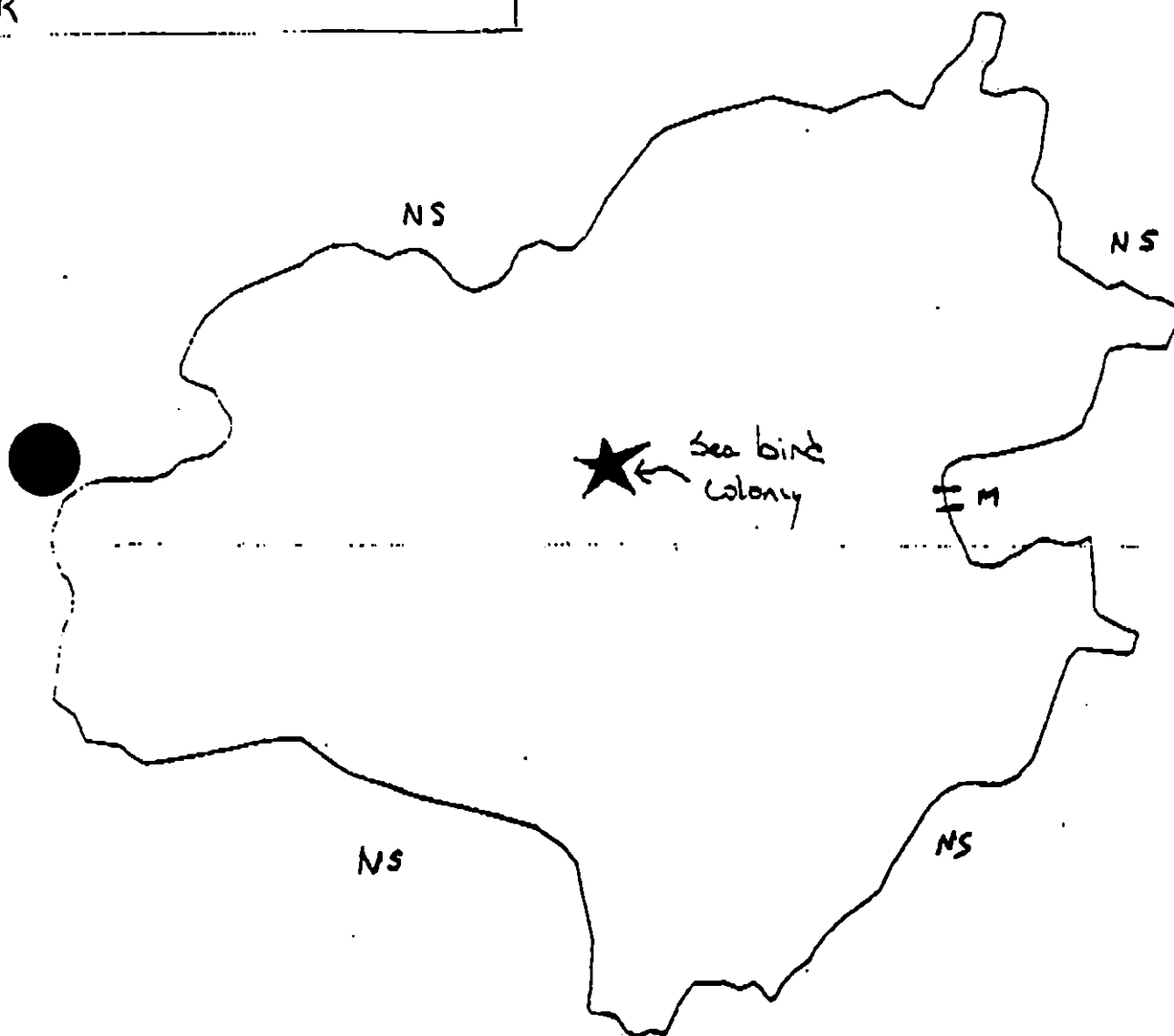


- 4 Few ct, s max 20 cm.
- 5 Few st, s, few slightly oiled logs
- 6 1 splatter
- 7 Few ct, s max 10 cm.
- 8 Few pellets, < 20 cm, - Pit 3 1/12
- 9 3 partially oiled pieces of driftwood.

REVISION 02/24/90

● K0107-DI001

Ecology Map  
Resource Codes For Entire Segment  
SR

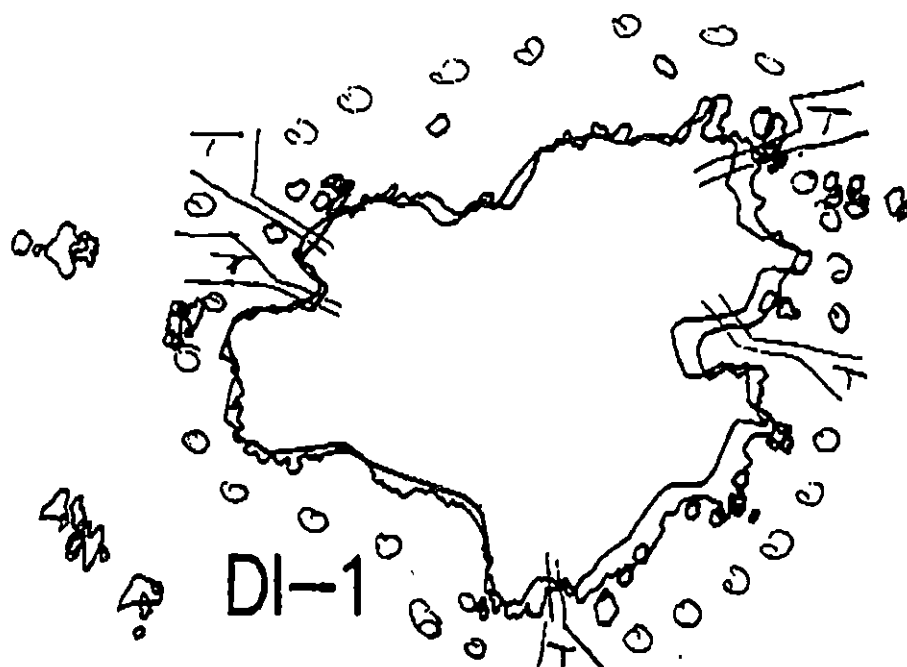


500.0

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

N

K1-7



DI-1

XXXX Wide  
 /// Medium  
 --- Narrow

K0107-DI-1-A

ADEC Segment Length: 9910m

Map Key: K00-27

Name: Chas. Teris Smith

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SB-001 SUBDIVISION A (1 OF 2) DATE 4/7/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

3N Harbor seal pupping (5/10 to 6/30)

3O Harbor seal molting (8/15 to 9/15)

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: Charles E. Adams DATE: 4/17/90

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 553 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: 4/16/90

ADEC AK KUGLER

EXXON ANDY TATE

NOAA Burt Wescott

USCG G.A. REITER

FOSC:     

DATE: 4-20-90

10 Pentland

SEGMENT 0110/50001

SEARCH MAP

SUBDIVISION A

DATE 4 / 7 90

# CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Substrate
- ☒ O. Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ E. S. H. W. L. W. L.
- ☒ S. S. I.
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Photo Location(s)
- ☒ Photo Location(s)

## LEGEND

1 Δ  
P1 - No Subsurface Oil

2 Δ  
P2 - Subsurface Oil

CT/C  
Continuous Distribution

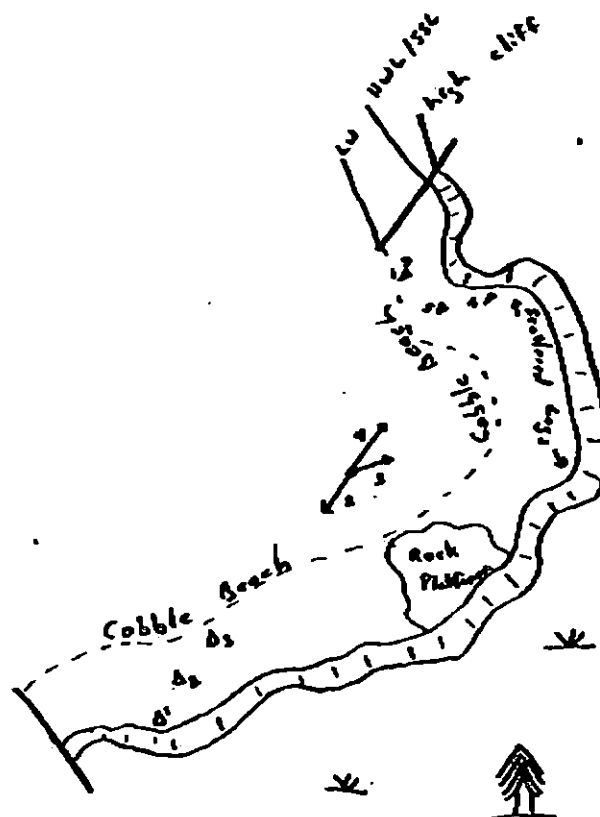
CT/B  
Broken Distribution

CT/P  
Patchy Distribution

CT/S  
Scattered Distribution

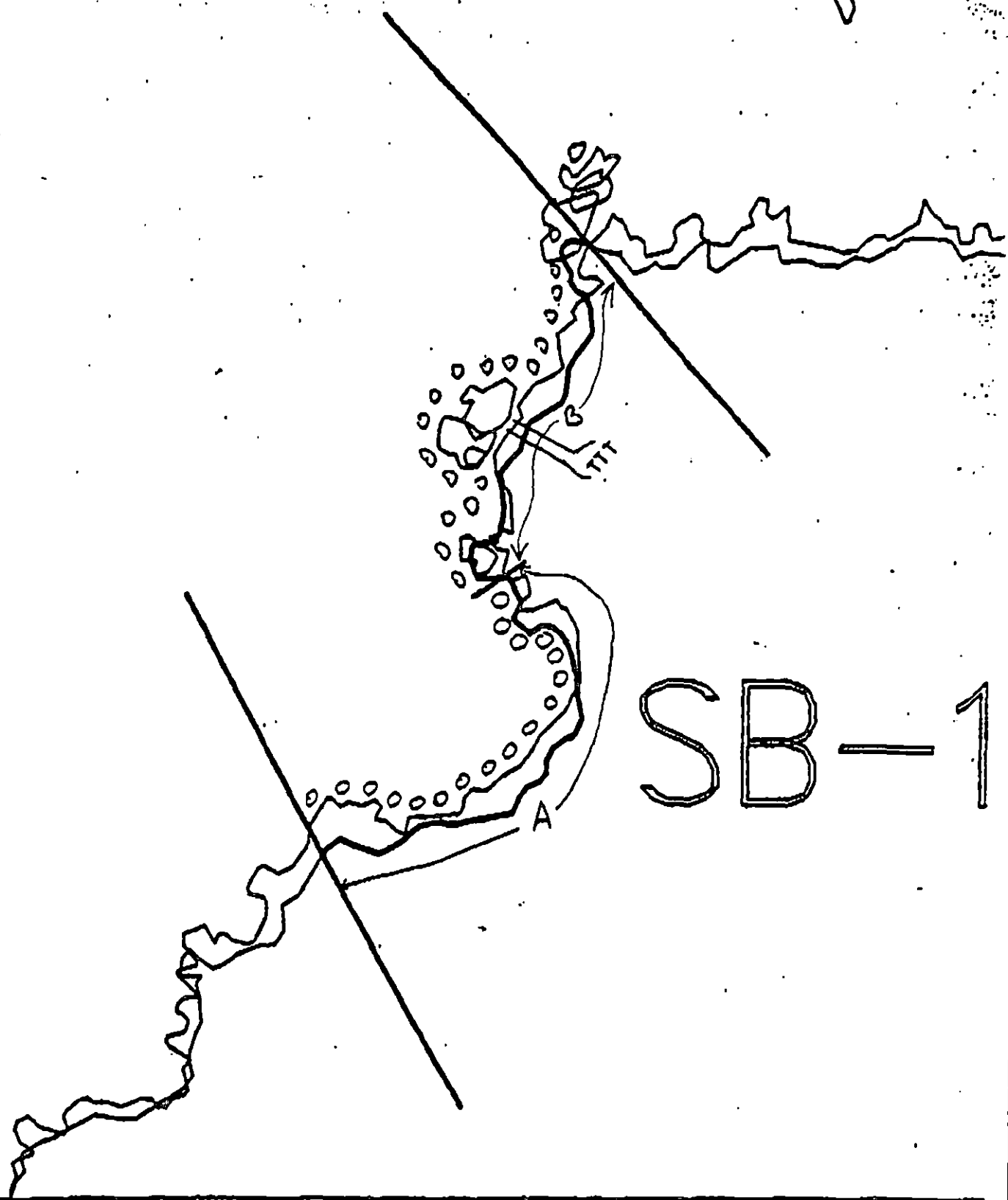
Over Vegetation

Photo location, direction,  
and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 542

REVISION: 007/1/90



SB-1

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

~~K0620~~ SB-1  
 K01-10 Rev C 4-11-90  
 ADEC Segment Length: 1277m



Map Key: GOA-238  
 Name: Shen Penland  
 Date: 4-7-90  
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SB-001 SUBDIVISION B (2 OF 2) DATE 4/7/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

3N Harbor seal pupping (5/10 to 6/30)

30 Harbor seal molting (8/15 to 9/15)

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: Charles E. Hines DATE: 4/17/90

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 11 m: No Oil 472 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: 4/16/90

ADEC Dr. K. K. K.

EXXON Amoy (SAL)

NOAA Burt Wescott

USCG G. A. REITER

FOSC:       

DATE: 4-20-90

G. Perland  
 SEGMENT ST/ Kelle/ 50001

# SKETCH MAP

SUBDIVISION B

DATE 4 / 7 90

## CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ On Dist.
- ☒ Width
- ☒ Length
- ☒ M. Cover
- ☒ Substrate Character
- ☒ Est. HML/LWL
- ☒ SSL
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Pq Location(s)
- ☒ Photo Location(s)

## LEGEND

1  $\Delta$   
 11 - No Subsurface Oil

2  $\Delta$   
 12 - Subsurface Oil

CT/C  
 Continuous Distribution

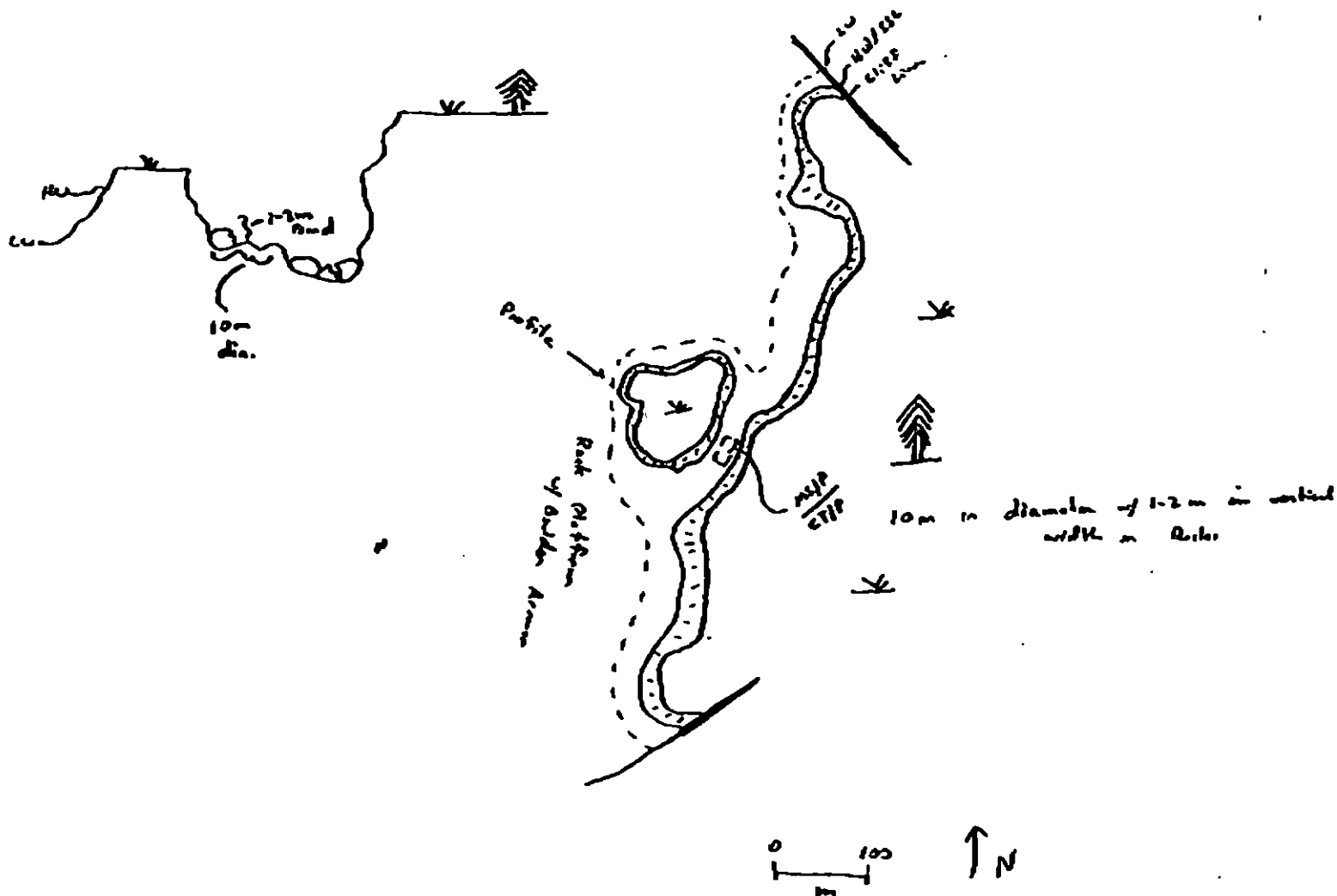
CT/B  
 Broken Distribution

CT/P  
 Patchy Distribution

CT/S  
 Stippled Distribution

3  $\Delta$   
 Mixed Vegetation

4  $\Delta$   
 Photo location, direction,  
 and number



Character Length (m): AP 0 PO 0 CV 0 CT 10 ST 0 MS 10 PT 0 TB 0 FL 0 NO 531

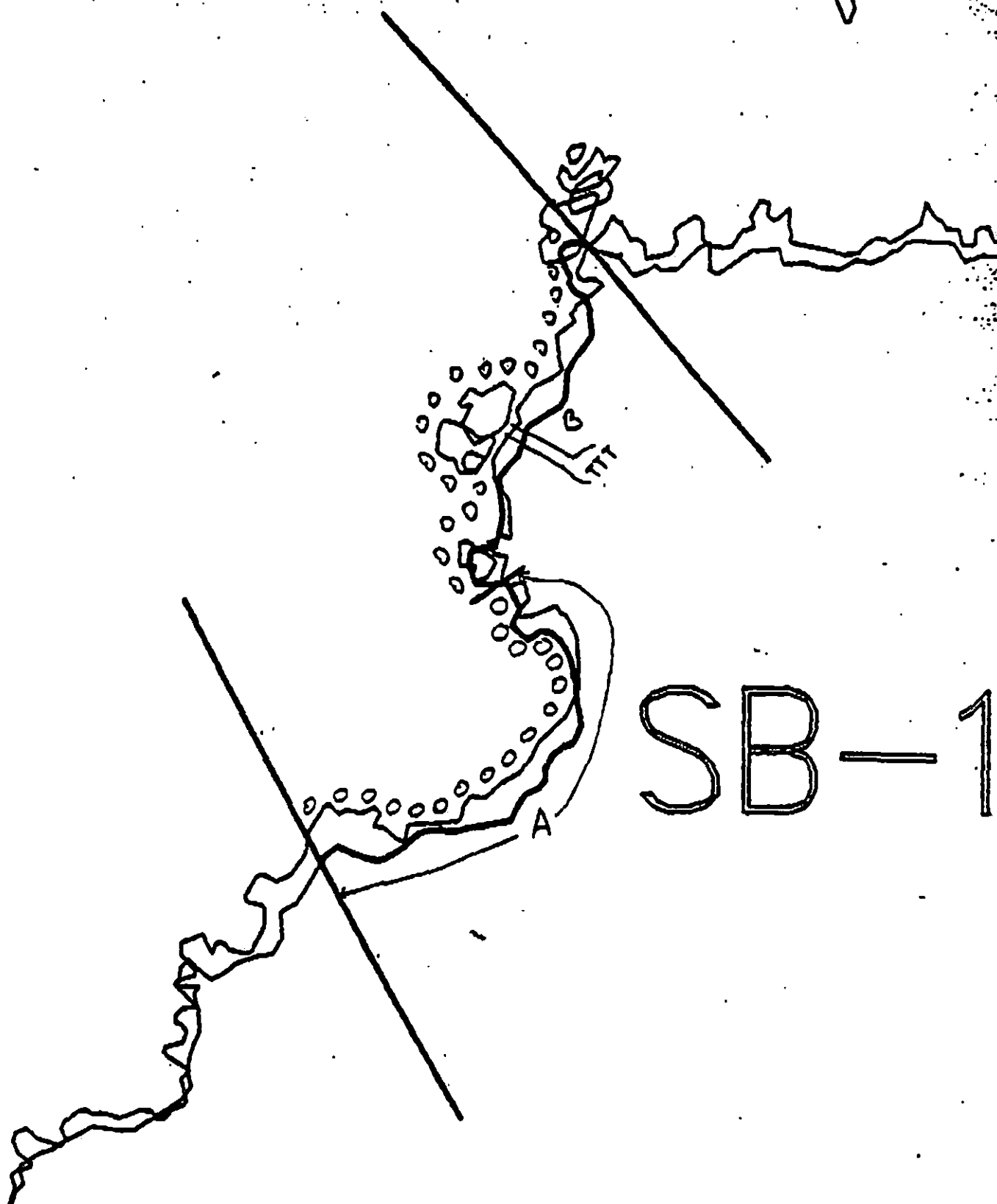
REVISION: 00/04/00

IFR-08-1550 14:43 FROM EXXON KODIAK

TO

15643771

P.09



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

~~K0620~~ SB-1  
 K01-10 REAC. 4-11-90  
 ADEC Segment Length: 1277m

0 100 200 300  
 METERS



Map Key: GOA-238

Name: Shoa Pealand

Date: 4-7-90

Date Entered:

REGION: KODIAK

SEGMENT: K01-10-SB-01

SUBDIVISIONS: A (1 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SB-001 SUBDIVISION A (1 OF 2) DATE 4/7/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

3N Harbor seal pupping (5/10 to 6/30)

3O Harbor seal molting (8/15 to 9/15)

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 553 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: \_\_\_\_\_

ADEC \_\_\_\_\_

EXXON \_\_\_\_\_

NOAA \_\_\_\_\_

USCG \_\_\_\_\_

FOSC: \_\_\_\_\_ DATE: \_\_\_\_\_

## FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K01101/50001 SUBDIVISION: A DATE 4-7-90AAA  
5666NAME John Naughton SIGNATURE John J. Naughton☒ NO TREATMENT RECOMMENDED  
COMMENTS☐ TREATMENT SUGGESTED

No oil observed in this subdivision. Deer on beach,  
apparently eating kelp.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTEDCOMMENTS K01101/50001 Sub. A. (542 meters Segment length)

No oil observed - 542 meters walked  
by Team Members. 6 pits were dug to the depth  
of 30 cm NO surface or subsurface oil observed.  
Med to High energy beach Bedrock cliffs, boulder  
cobble conditions. Access very limited. Weather exposure  
to NW - and northerly winds/waves.

LAND MANAGER

NAME Mike Goodwin SIGNATURE Mike Goodwin  
ADNR☒ NO TREATMENT RECOMMENDED☐ TREATMENT SUGGESTED

COMMENTS

This segment has high recreational significance and  
is adjacent to existing legislatively designated STATE  
PARK lands. Future expansion of the state park  
is being reviewed to include this segment. This  
segment is at the entrance to Shanghai Bay within  
Shuyak State Park. No oil observed in this  
segment. WLG

## SHORELINE OILING SUMMARY

REVISION NO. 03/22/98

OG Penland MAA Naughton SEGMENT ST/ Kellie/S0001  
 BIO Spight LAND REP Goodwin ADNR SUBDIVISION A  
 EXXON Avoca ADEC Shelton TIME 8:30 10:00  
 TAM NO.: 19 TIDE LEVEL: +1 ft 10 +2.5 ft DATE 4/7/90  
 EST. SUBDIVISION LENGTH: 542 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow  
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock  
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S 10 N  
 SURFACE SEDIMENTS: R 10 % B 20 % C 50 % P 0 % G 0 % S 0 % M 0 % V 0 %  
 SLOPE: Long 75 % Hang 20 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High  
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 542 m  
542

## SURFACE OIL

| CHARACTER | DISTRIBUTION |    |    |    | OIL / FILM COLOR |    |    |    |    |    | IMPACTED ZONES |   |   |   |
|-----------|--------------|----|----|----|------------------|----|----|----|----|----|----------------|---|---|---|
|           | 10           | 15 | 20 | 25 | 30               | 35 | 40 | 45 | 50 | 55 | SU             | U | M | U |
| ASPHALT   |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| PAVEMENT  |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| POOLED    |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| COVER     |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| COAT      |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| STAIN     |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| MOUSSE    |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| PATTIES   |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| TARBALLS  |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| FILM      |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |
| NO OIL    |              |    |    |    |                  |    |    |    |    |    |                |   |   |   |

PAVEMENT: H F B 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 0#BAGS 0

Photographs:

Roll No. ST-19-6Frames 1-4

## 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 |                        | UO    | UC | 30               | 35 | 40 | 45 | 50 | 55 | SU       | U | M | U |       |                      |
| 1       | 30             |                          |    |    |    | X  | -                      |       |    |                  |    |    |    |    |    | X        |   |   |   |       | Cobble, Boulder      |
| 2       | 30             |                          |    |    |    | X  | -                      |       |    |                  |    |    |    |    |    |          | X |   |   |       | Cobble, Boulder      |
| 3       | 30             |                          |    |    |    | X  | -                      |       |    |                  |    |    |    |    |    |          |   | X |   |       | Cobble, Boulder      |
| 4       | 30             |                          |    |    |    | X  | -                      |       |    |                  |    |    |    |    |    | X        |   |   |   |       | Cobble, Boulder      |
| 5       | 30             |                          |    |    |    | X  | -                      |       |    |                  |    |    |    |    |    |          | X |   |   |       | Cobble, Boulder      |
| 6       | 30             |                          |    |    |    | X  | -                      |       |    |                  |    |    |    |    |    |          |   | X |   |       | Cobble, Boulder      |

## COMMENTS

six pits were dug and random cobbles and boulders overturned  
 in order to inspect for oil, none was observed. Some silt/clay  
 can be seen in the small pools of water lying within the rocks.

KG Perles

# SKETCH MAP

SEGMENT ST/ KONO/50001

SUBDIVISION A

DATE 4 / 7 90

## CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ O. Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☒ Substrate Character
- ☒ E S L M V L A W L
- ☒ S S L
- ☒ Profile Location(s)
- ☒ Profile(s)
- ☒ Photo 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

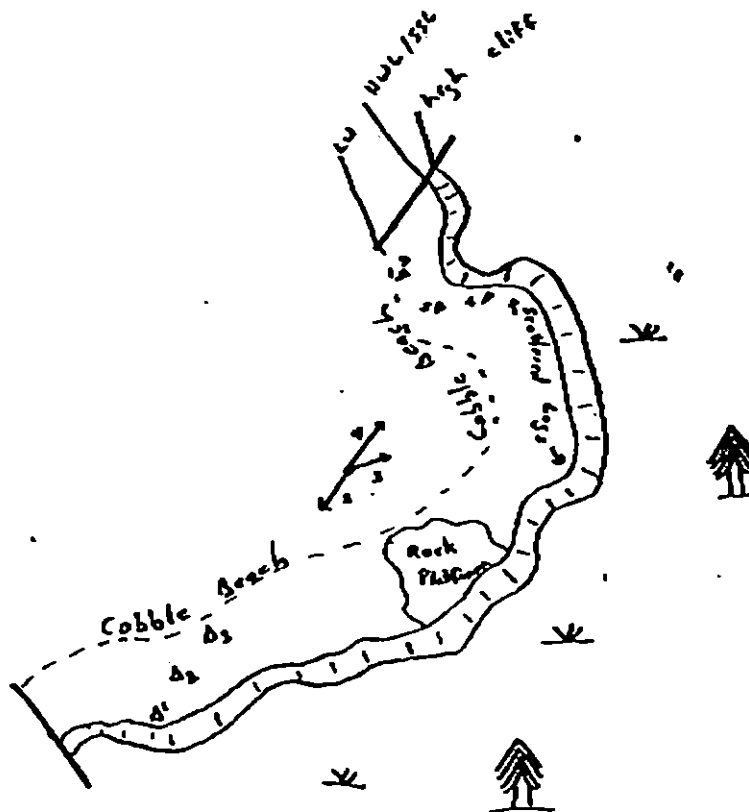
CT/S

Splashed Distribution

Oiled Vegetation

1 →

Photo location, direction, and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 0 ST 0 MS 0 PT 0 TB 0 FL 0 NO 542

## SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / SB-1 Subdivision A Date (mo / day / yr) 4/7/90Time (24 hr) 8:46 Biologist SPIGHT(A) Substrate type and % of segments:  
(1) Bedrock 10 (2) Boulder 20 (3) Cobble 50 (4) Pebble        (5) Sand        (6) Silt       (B) Overall % cover of biota (% of segment): Dense 20 Moderate 20 Low 60

(C) Density, substrate preference (by number from A, above), &amp; 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 | X     | X  | X  | X        | 2  | 2  | 2      | 2  | 2  | 2    | 2  | 2  | NOT PRESENT |
| 3 | X     | X  | X  | X        | 3  | 3  | 3      | 3  | 3  | 3    | 3  | 3  |             |
| 4 | 4     | 4  | 4  | 4        | 4  | 4  | 4      | 4  | 4  | 4    | 4  | 4  |             |
| 5 | 5     | 5  | 5  | 5        | 5  | 5  | 5      | 5  | 5  | 5    | 5  | 5  |             |
| 6 | 6     | 6  | 6  | 6        | 6  | 6  | 6      | 6  | 6  | 6    | 6  | 6  |             |
| 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  | X        | X  | 2  | 2      | 2  | X  | 2    | 2  | 2  | NOT PRESENT |
| 3 | 3     | 3  | 3  | X        | X  | 3  | 3      | 3  | X  | 3    | 3  | 3  |             |
| 4 | 4     | 4  | 4  | 4        | 4  | 4  | 4      | 4  | 4  | 4    | 4  | 4  |             |
| 5 | 5     | 5  | 5  | 5        | 5  | 5  | 5      | 5  | 5  | 5    | 5  | 5  |             |
| 6 | 6     | 6  | 6  | 6        | 6  | 6  | 6      | 6  | 6  | 6    | 6  | 6  |             |
| 6 | 6     | 6  | 6  | 6        | 6  | 6  | 6      | 6  | 6  | 6    | 6  | 6  |             |

## GASTROPODS

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

Wildlife Observations/ General Comments:

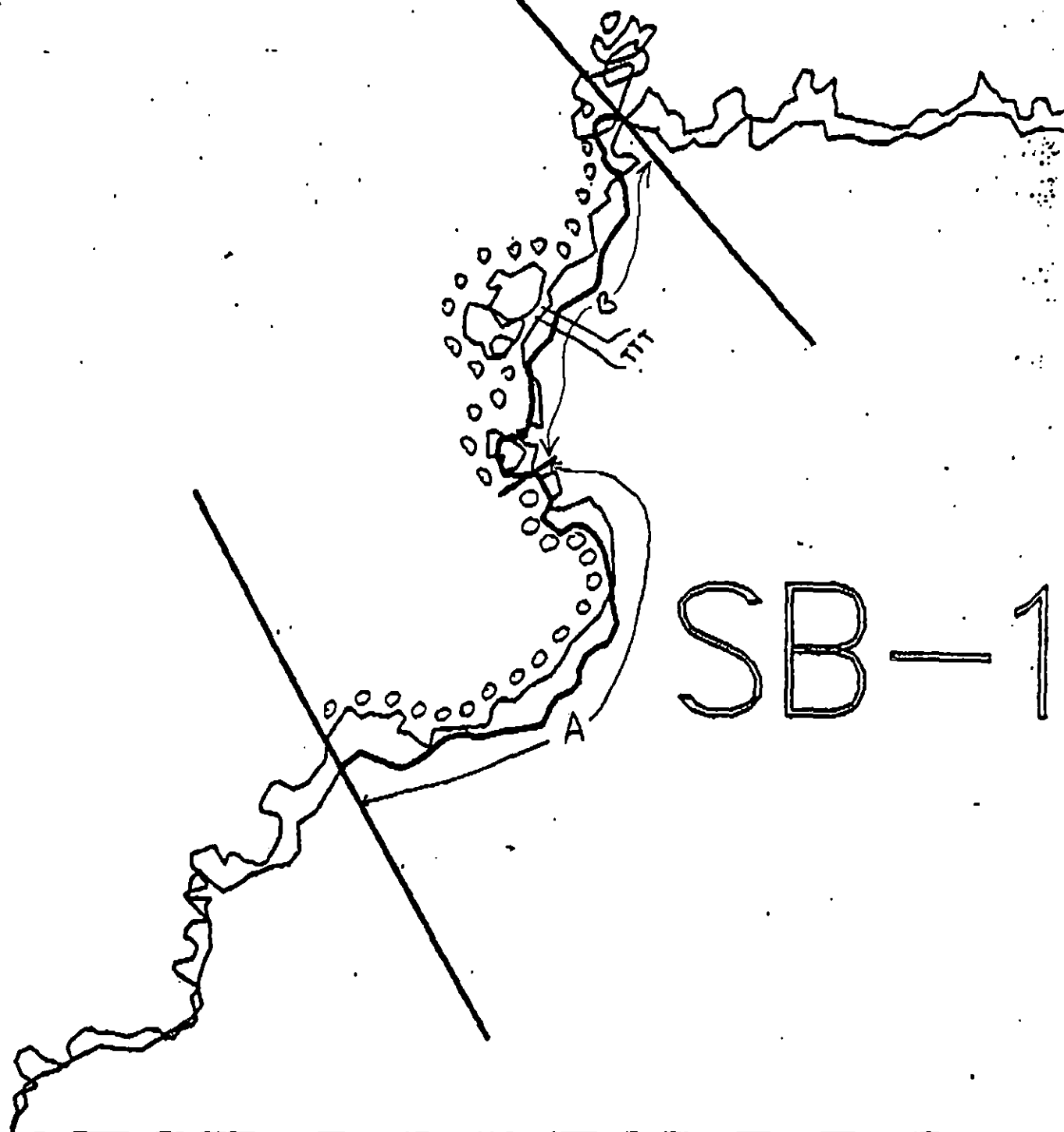
## Ecological Considerations:

Littorines active on tops of rocks so distribution + abundance can be assessed. They were extremely abundant, including at upper levels, in one of the four indentations 7Z, 3N, 3O

# KODIAK ECOLOGICAL CONSTRAINTS

10110-SB-001 A & B

- 1A Salmon stream mouth - fry outmigration (4/15 to 7/31)  
 1B Salmon stream mouth - spawning (7/15 to 9/10; PEAK 8/15)  
 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 Kotol Bay Hatchery release  
 Pink salmon - late May, early June; Chum salmon - June; Sockeye salmon - early July.
- 1H Remote release site
- 1I Gill net area
- 1J Purse seine area  
 Mainland, West side Kodiak, Shuyak & Moser/Olga Bay - 6/9 to 10/1.  
 East side Kodiak, East side Afognak - 7/4 to 10/1.
- 1K Purse seine hook-off
- 1L Set net sites  
 USFWS setnet uplands permit 5/15 to 9/15.  
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.
- 2M Herring spawning (4/15 to 6/30)  
 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 (5/10 to 6/30)  
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts.
- 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 8/31)  
 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 (6/1 to 9/30)
- 7HH Finfish harvesting
- 7II Deer harvesting (8/1 to 1/7)
- 7JJ Invertebrate harvesting
- 7KK Bear harvesting (4/1 to 5/15 and 10/25 to 11/30)  
 For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.



SB-1

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

~~K0620~~ SB-1  
 K01-10 Rev C 4-11-90  
 ADEC Segment Length: 1277m

0 100 200 300  
 METERS



Map Key: GOA-238

Name: Shea Penland

Date: 4-7-90

Data Entered:

REGION: KODIAK

SEGMENT: K01-10-SB-01

SUBDIVISIONS: B (2 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SB-001 SUBDIVISION B (2 OF 2) DATE 4/7/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**

3N Harbor seal pupping (5/10 to 6/30)

3O Harbor seal molting (8/15 to 9/15)

7Z Subsistence area: Salmon harvesting (6/1 to 9/30)

**SUBDIVISION ECOLOGICAL CONSTRAINTS:**

Avoid disturbance/damage to unoiled biota and substrate. See attached Ecological Constraint Sheet.

**ARCHAEOLOGICAL CONSTRAINTS:**

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

SHPO SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**OILING CATEGORIZATION:**

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 11 m: No Oil 472 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: \_\_\_\_\_

ADEC \_\_\_\_\_

EXXON \_\_\_\_\_

NOAA \_\_\_\_\_

USCG \_\_\_\_\_

FOSC: \_\_\_\_\_ DATE: \_\_\_\_\_

# FIELD SHORELINE COMMENT SHEET

SEGMENT ST / K01101 / SB001 SUBDIVISION: B DATE 4-7-90

NAME John Naughton SIGNATURE John J. Naughton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

## COMMENTS

Some mussels observed down in cracks and fissures of jagged rock shoreline. However high energy shoreline, best to allow natural weathering of this relatively small amount of oil.

ADEC NAME Scott Shelton SIGNATURE Scott Shelton

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

COMMENTS K01101 / SB001 Sub. B. 541 meters  
High energy shoreline - Crab observed less than 1mm thick / splashes in the upper tidal zones. Effected Area 10 meters diameter along a bed rock cliff impact in cracks and crevices. Forming a 1-2 meter vertical width band of staining as well. Access very limited, vertical cliffs, and lack of beaches. NO pits were dug due to the bed rock surface conditions.

LAND MANAGER NAME Mike Goodwin SIGNATURE Michael Goodwin

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED

## COMMENTS

This segment has high recreational significance and is adjacent to existing legislatively designated state park lands. Future expansion of the state park is being reviewed to include this segment. This segment is at the entrance to Shagin Bay within Shuyak State Park. The degree and amount of oil observed would not justify treatment.

## SHORELINE OILING SUMMARY

REVISION NO. 02/22/88

OG Penland NOAA USCG Naughton SEGMENT ST/ Kallio / 50201  
 BIO Spight LAND REP Goodwin ADNR SUBDIVISION A  
 EXXON Exxon ADEC Shelton TIME 8:30 to 10:00  
 AM NO.: 19 TIDE LEVEL: +1.4 to +3.5 DATE 4/7 / 90  
 EST. SUBDIVISION LENGTH: 541 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow  
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock  
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N  
 SURFACE SEDIMENTS: R 60 % B 20 % C 20 % P 0 % G 0 % S 0 % M 0 % V 0 %  
 SLOPE: Long 50 % Hang 50 % Vert 50 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High  
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 10 m NO 531 m

## SURFACE OIL

| CHARACTER        | DISTRIBUTION |   |   |   | OIL / FILM COLOR |   |   |   |   |   |   |   | IMPACTED ZONES |   |   |   |
|------------------|--------------|---|---|---|------------------|---|---|---|---|---|---|---|----------------|---|---|---|
|                  | N            | S | E | W | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SU             | U | M | U |
| ASPHALT PAVEMENT |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| POOLED           |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| COVER            |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| COAT             |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| STAIN            |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| MOUSSE           |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| PATTIES          |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| TARBALLS         |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| FILM             |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |
| NO OIL           |              |   |   |   |                  |   |   |   |   |   |   |   |                |   |   |   |

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         |        |    |    |
| Vegetation   |        |    |    |
| Trash        |        |    |    |
| Debris       |        |    |    |

DEBRIS COLLECTED

☐ YES ☒ NOTYPE DA#BAGS 0

Photographs:

Roll No. ST-19-6Frames S-19SUBSURFACE OIL No Pits dug

| PIT NO.  | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER |    |    |    |    | OILED INTERVAL (CM) | BELOW |    | OIL / FILM COLOR |   |   |   |   |   |   |   | PIT ZONE |   |   |   | A<br>N<br>A | SUBSURFACE SEDIMENTS |
|----------|----------------|--------------------------|----|----|----|----|---------------------|-------|----|------------------|---|---|---|---|---|---|---|----------|---|---|---|-------------|----------------------|
|          |                | OP                       | OR | OL | OF | NO |                     | UO    | UC | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | SU       | U | M | U |             |                      |
| <u>0</u> |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |
|          |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |
|          |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |
|          |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |
|          |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |
|          |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |
|          |                |                          |    |    |    |    |                     |       |    |                  |   |   |   |   |   |   |   |          |   |   |   |             |                      |

## COMMENTS

No pits dug due to shallow occurrence of bedrock.

A 10 m diameter of oil film within the bedrock at 42. Oil film in the cracks and fissures of the rocks. The band is 1-2 m. in width within the rocks.

OG Penland  
 SEGMENT ST/ K0110/58001

SKE MAP

SUBDIVISION B

DATE 4 / 7 90

# CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Seg/Sub Entry
- ☒ On Dist.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HFW/LVL
- ☒ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ Pt Location(s)
- ☐ Photo Location(s)

## LEGEND

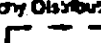
1   
 Pt - No Subsurface Oil

2   
 Pt - Subsurface Oil

  
 Continuous Distribution

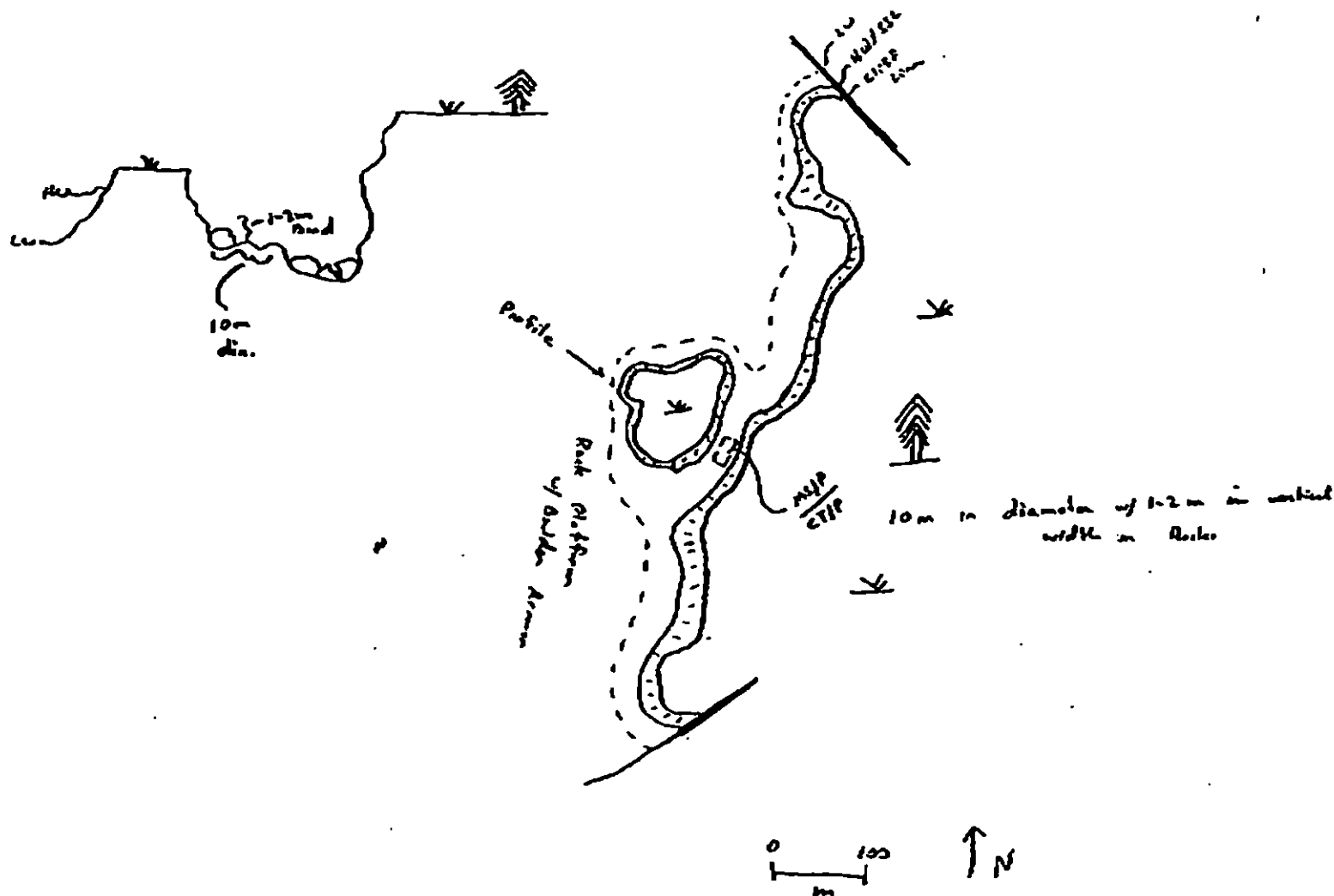
  
 Broken Distribution

  
 Patchy Distribution

  
 Splashed Distribution

Quid Vegetation

1   
 Photo location, direction,  
 and number



Oil Character Length (m): AP 0 PO 0 CV 0 CT 10 ST 0 MS 10 PT 0 TB 0 FL 0 NO 531

REVISION: 08/24/00

HR-08-1550 14:43 FROM EXXON KODIAK

TU

15643771

P.09

## SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST/ SB-1 Subdivision B Date (mo / day / yr) 4/7/90Time (24 hr) 9:12 Biologist SPIGHT

- (A) Substrate type and % of segments:  
 (1) Bedrock 60 (2) Boulder 20 (3) Cobble 20 (4) Pebble      (5) Sand      (6) Silt
- (B) Overall % cover of biota ( % of segment ): Dense 30 Moderate 30 Low 40
- (C) Density, substrate preference ( by number from A, above ), & vertical zonation of major taxa: ( upper-U; mid-M; low tidal-L ); juveniles / adults (X) , new settlement (3)

Photographs:  
Roll No.     Frames     

## BARNACLES

| Dense |    |    | Moderate |    |    | Sparse |    |    | Rare |    |    | NOT PRESENT |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|-------------|
| 1U    | 1M | 1L | 1U       | 1M | 1L | 1U     | 1M | 1L | 1U   | 1M | 1L |             |
| 2     | 2  | 2  | XU       | XM | XL | 2      | 2  | 2  | 2    | 2  | 2  |             |
| 3     | 3  | 3  | XU       | XM | XL | 3      | 3  | 3  | 3    | 3  | 3  |             |
| 4     | 4  | 4  | XU       | XM | XL | 4      | 4  | 4  | 4    | 4  | 4  |             |
| 5     | 5  | 5  | XU       | XM | XL | 5      | 5  | 5  | 5    | 5  | 5  |             |
| 6     | 6  | 6  | XU       | XM | XL | 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  | XU       | XM | XL | XU     | XM | XL | 2    | 2  | 2  |             |
| 3     | 3  | 3  | XU       | XM | XL | XU     | XM | XL | 3    | 3  | 3  |             |
| 4     | 4  | 4  | XU       | XM | XL | XU     | XM | XL | 4    | 4  | 4  |             |
| 5     | 5  | 5  | XU       | XM | XL | XU     | XM | XL | 5    | 5  | 5  |             |
| 6     | 6  | 6  | XU       | XM | XL | XU     | XM | XL | 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  | XU       | XM | XL | 2      | 2  | 2  | 2    | 2  | 2  |             |
| 3     | 3  | 3  | XU       | XM | XL | 3      | 3  | 3  | 3    | 3  | 3  |             |
| 4     | 4  | 4  | XU       | XM | XL | 4      | 4  | 4  | 4    | 4  | 4  |             |
| 5     | 5  | 5  | XU       | XM | XL | 5      | 5  | 5  | 5    | 5  | 5  |             |
| 6     | 6  | 6  | XU       | XM | XL | 6      | 6  | 6  | 6    | 6  | 6  |             |

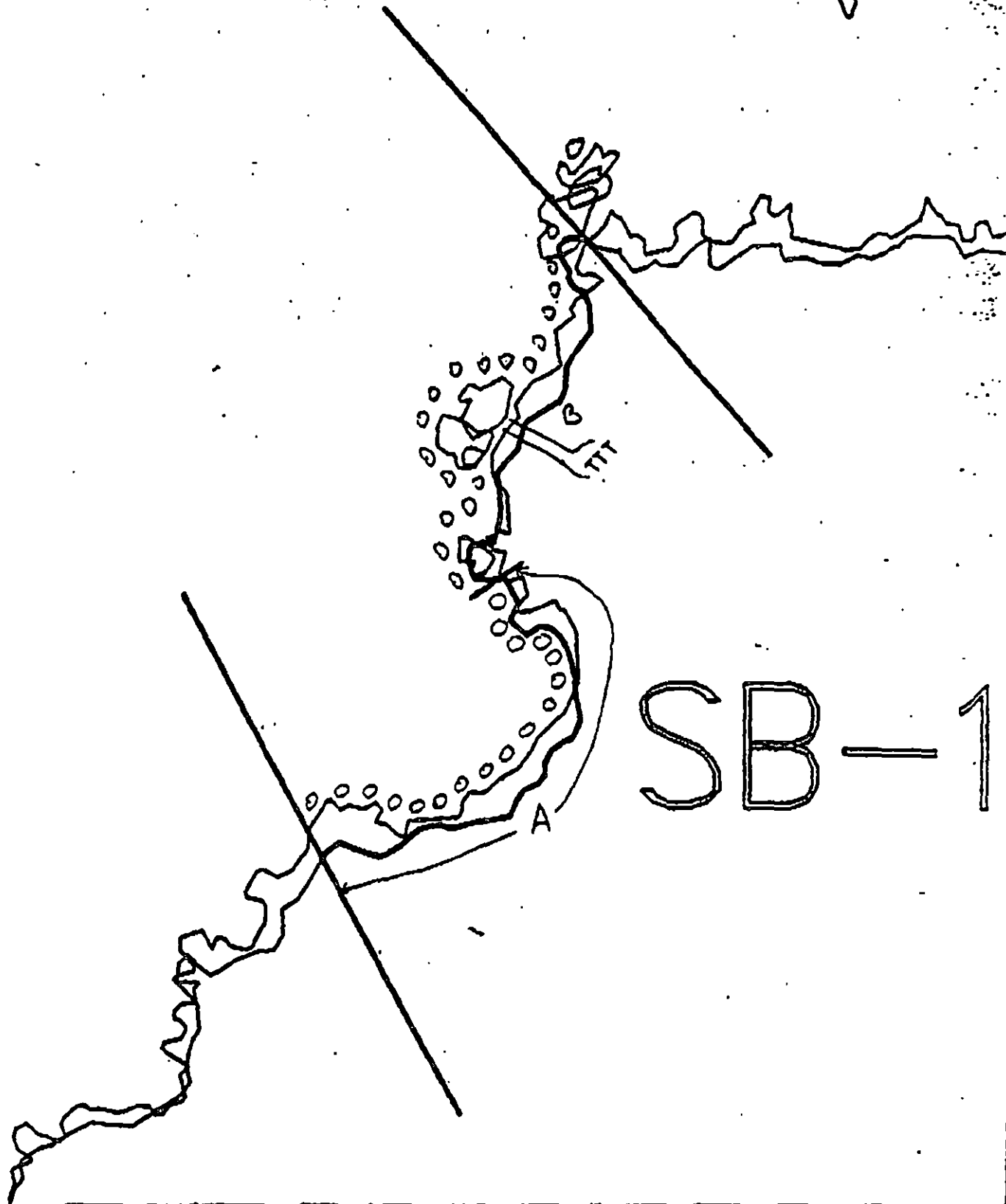
## FUCUS

| Dense |    |    | Moderate |    |    | Sparse |    |    | Rare |    |    | NOT PRESENT |
|-------|----|----|----------|----|----|--------|----|----|------|----|----|-------------|
| 1U    | 1M | 1L | 1U       | 1M | 1L | 1U     | 1M | 1L | 1U   | 1M | 1L |             |
| 2     | 2  | 2  | XU       | XM | XL | XU     | XM | XL | 2    | 2  | 2  |             |
| 3     | 3  | 3  | XU       | XM | XL | XU     | XM | XL | 3    | 3  | 3  |             |
| 4     | 4  | 4  | XU       | XM | XL | XU     | XM | XL | 4    | 4  | 4  |             |
| 5     | 5  | 5  | XU       | XM | XL | XU     | XM | XL | 5    | 5  | 5  |             |
| 6     | 6  | 6  | XU       | XM | XL | XU     | XM | XL | 6    | 6  | 6  |             |

Wildlife Observations/ General Comments:

Ecological Considerations:

7Z, 3N, 30



SB-1

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

~~K0620~~ SB-1

K01-10 REAC. 4-11-90

ADEC Segment Length: 1277m

0 100 200 300  
METERS



Map Key: GOA-238

Name: Shen PenlandDate: 4-7-90

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: K0110SI002 SUB: AM REGION: KOD SURVEY DATE: 5/11/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 5/15 - 9/1

Ecological/Constraints (see page two for details) Seabird colony

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Laurel Ann Dyer Date: 5/24/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MAY 24 1991

FOSC APPROVAL DATE: 5/29/91

ADEC

FOSC

EXXON

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

USCG

NOAA

ECOLOGICAL CONSTRAINTS  
1991 FIELD ACTIVITIES

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

**ADEC**

NAME J. BARNHART

SIGNATURE Jeff Barnhart

- ☒ NTR K01-10 SIOBAA. Low energy beach. Trace amounts SOR-MS in cracks of bedrock in upper ITZ. An area of AP approx .5m x .5m was removed by Veco crew. Oil remains on the beach as trace SOR. No pits dug in this segment. Additional manual removal would recover a very small quantity of oil.

**EXXON**

NAME R. COULTER

SIGNATURE Ray R. Coulter

- ☒ NTR

MOST OF THE SOR IS MADE UP OF FINE GRAIN SEDIMENTS. ALL SOR WAS REMOVED AND/OR BROKEN UP AT SITES. ONE SMALL SPLATTER OF "TAR" (APPROX. 4 CM<sup>2</sup>) WAS FOUND AND REMOVED. THIS SPLATTER OF TAR DID NOT RESEMBLE ANY OTHER SOR FOUND IN THE AREA. IT COULD HAVE BEEN A REFINED PETROLEUM PRODUCT, BUT ALMOST CERTAINLY NOT RELATED TO THE VALDEZ SPILL.

**LANDMANAGER**

NAME K. MURPHY

OF ADNR

SIGNATURE Kevin Murphy

- ☒ NTR This area managed by ADNR, lies just outside Shuyak Island State Park and may be added to state park lands in the future. The area has high scenic, recreational and wildlife values. Little oil was found here. One small patch of tar from an unknown origin was found and removed by Veco crew. Cleanup crew broke up and removed several small patches.

**USCG/NOAA**

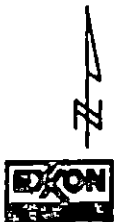
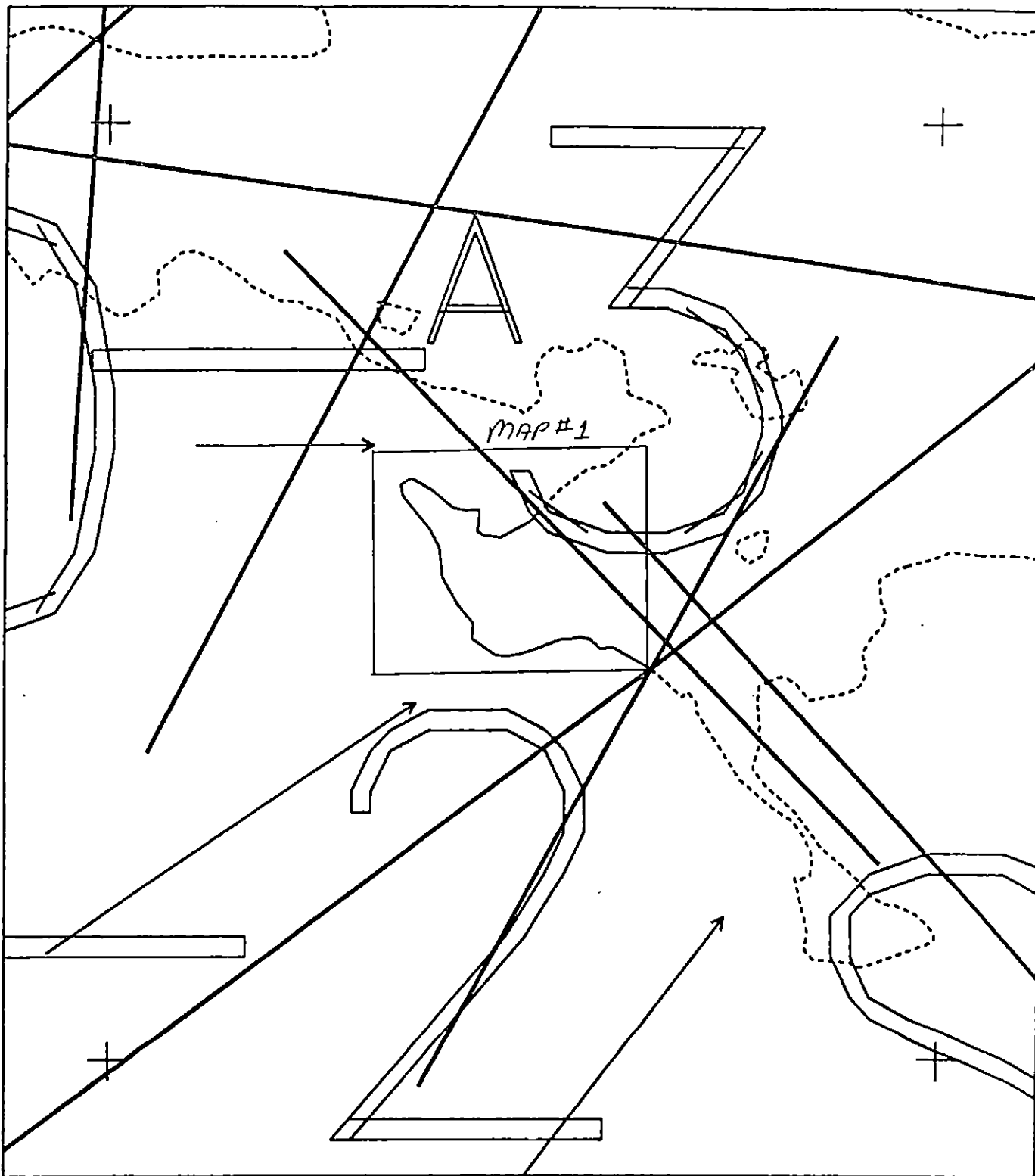
NAME Chief Jensen / G. SHIGENAKA

SIGNATURE Robert G. Jensen / Gary Shigenaka

- ☒ NTR V4 sack of mousse removed from segment. Further removal operations would cause more environmental harm than the oil removed.

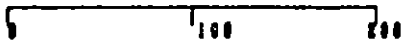
SEGMENT CONSISTS OF IRREGULAR SHORELINE THAT INCLUDES A RANGE OF SUBSTRATES FROM COBBLE-PEBBLE TO BEDROCK OUTCROPS AND BOULDERS. SOME SHEEN OBSERVED ALONG NORTHERN END OF SEGMENT. ONE LARGE TALMAT EMBEDDED IN AN ANGULAR COCK MIX WAS FOUND IN THE SEGMENT AND WAS RECOVERED/BROKEN UP TO THE EXTENT POSSIBLE. ONE FRESH GLOB OF TAR WAS FOUND AND PHOTOGRAPHED BUT WAS DETERMINED TO BE OF AN ORIGIN OTHER THAN EXXON VALDEZ.

reviewed 5.15.91 4y  
ET reviewed 5/15



K0110 S1002 A

METERS



AK State Plane Zone 4,  
601101002a-1

Subdivision Field Map

Map Key: 60AK0110S1002A

Name: D. Fitzgerald

Date: 11 May 1991

26 revised 5/15

xxxx Low bedrock cliff

vvv grassy area

↗ PHOTO SITES

Sketch MAP(06)

SI-2-A

D. Fitzgerald

11 May 1991

1610 - 1640

\* All loose oil was removed by VECO workers → 74 bag

B. ST  
ONE stained clast

A. SOR  
4 by 10m, <190  
Between clasts

\* Roofing tar  
was removed  
by VECO (4 cm<sup>2</sup>)

C. SOR  
6 by 10m, <190  
in cracks of bed-  
rock and clasts

LAGOON

Tidal FLAT

Bedrock + Boulder slope

0 25  
METERS

EG reviewed 5/15

 Low bedrock cliff  
 GRASSY AREA  
 PHOTO SITES

PHOTO SITES, SI-2A  
 ROLL 6-11, FRAMES 16 THRU 20

Sketch MAP(06)  
 SI-2-A  
 D. FITZGERALD  
 11 MAY 1991  
 1610 - 1640

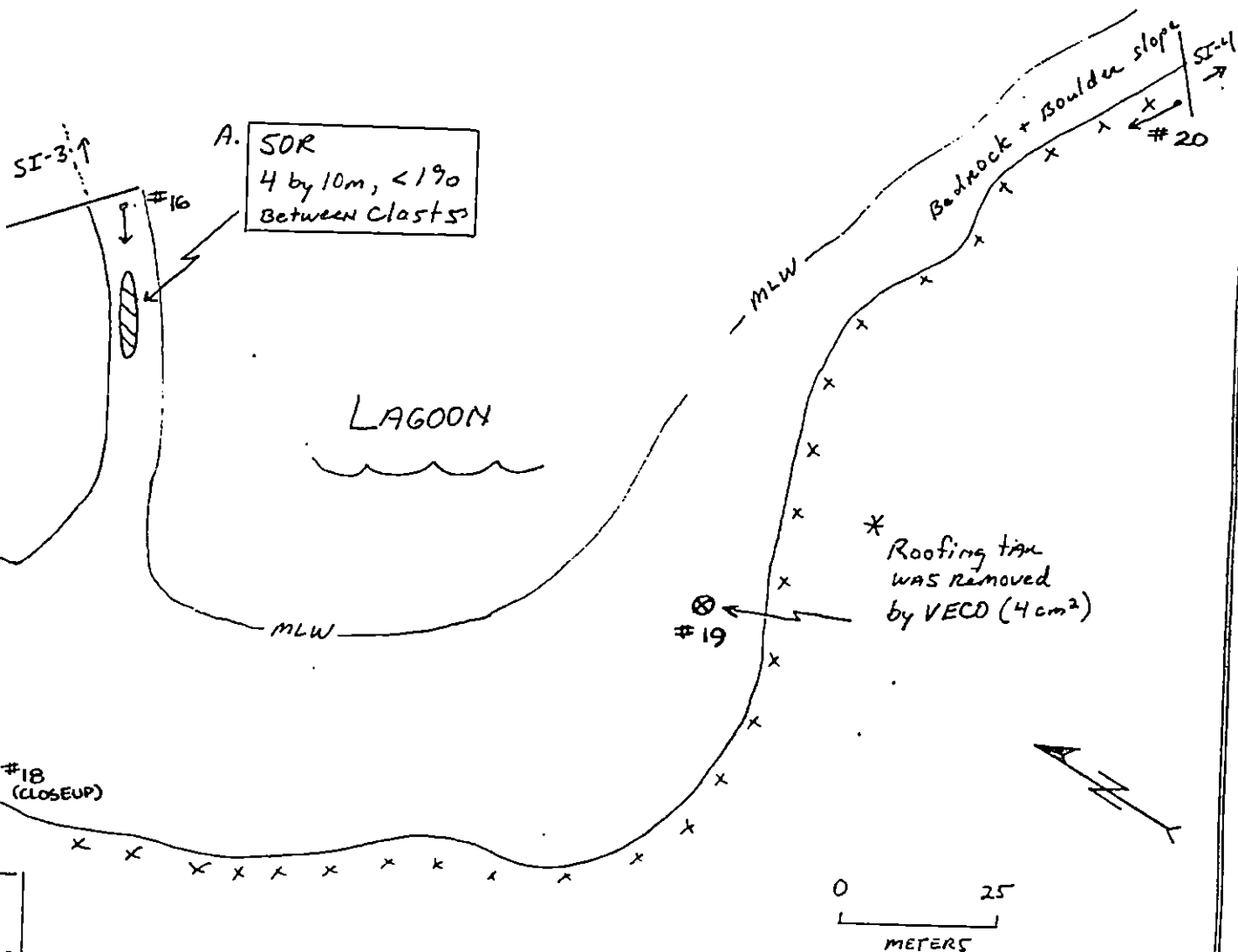
\* All loose oil was  
 removed by Veco  
 workers → 74 bag

B.  
 ST  
 ONE stained clast

A. SOR  
 4 by 10m, <190  
 Between clasts

\* Roofing tar  
 was removed  
 by VECD (4 cm<sup>2</sup>)

C. SOR  
 6 by 10m, <190  
 IN CRACKS OF BED-  
 ROCK AND CLASTS



DATE May 11 1991

SEGMENT # SI-02 K-1-10

TIDAL HEIGHT (Range) 6 ft - 5 ft (16:10 - 16:40)

**SUBDIVISION A**

BIOLOGIST H. Davis

SEA STATE 1-2 1/2

WIND SPEED/DIRECTION 45 mph SE

PHOTOGRAPHS: ROLL # 6-11

FRAME # 16-20

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

A. The SOR was located below the verrucaria band at the base of the MIZ. Barnacles, Littorina, limpets and porphyra were moderately dense. This area was above a band of Fucus that extended to the MIZ.

B, C. Sites Band C are on a low energy tidal flat made of cobbles and soft sediment. Near the sites sparse barnacles, mussels, limpets and a few patches of *Fucus* make up the majority of the biota. Drift in the area included *Nereocyrtis*, *Fucus*, *clinocardium* shells, *protocardium* shells and a few *mytilus* shells.

The amount of oil in this area is such that any clean up would be more disruptive than productive for the biota.

On the small island to the north of this area is a seabird colony.

Red marked Phalaropes (10) Kittiwakes (>10) Oystercatchers (4)

## WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

| BIRDS            | # OF SPECIES | TOTAL BIRDS | FISH OBSERVED<br>SPECIES PRESENT |
|------------------|--------------|-------------|----------------------------------|
| Eagles           | 0            |             |                                  |
| Seabirds         | 0            |             |                                  |
| Waterfowl        | 0            |             |                                  |
| Gulls/Kittiwakes | 1            | ( > 10 )    |                                  |
| Shorebirds       | 2            | 14          |                                  |
| Corvids          | 0            |             |                                  |
| Other Birds      |              |             |                                  |

| MARINE MAMMALS      |            | LAND MAMMALS |            |
|---------------------|------------|--------------|------------|
|                     | # OBSERVED | SPECIES      | # OBSERVED |
| Sea Otters          | 0          | Deer tracks  |            |
| Pinnipeds (specify) | 0          |              |            |
|                     |            |              |            |
| Whales (specify)    | 0          |              |            |
|                     |            |              |            |

Shoreline subdivision map showing important biological features attached.

0. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

x x x x Low bedrock cliff  
 w w w GRASSY AREA  
 ↗ PHOTO SITES

Bio Map  
 H. Davis

Sketch MAP (SI-2)  
 SI-2-A3  
 K-1-10  
~~0-1-10~~  
 11 MAY 1991  
 1610 - 1640

\* All loose oil was removed by Veco workers → 74 bag

B. ST. ONE stained clast

A. SOR  
 4 by 10m, <1%  
 Between clasts

A. SOR in an area of Barnacles, Littorina, limpets, some mytilus and porphyra. Above the area are verucaria covered boulders. Below are Fucus covered rocks.

LAGOON

Entomorphu/Peat Bed

Tidal FLAT B+C

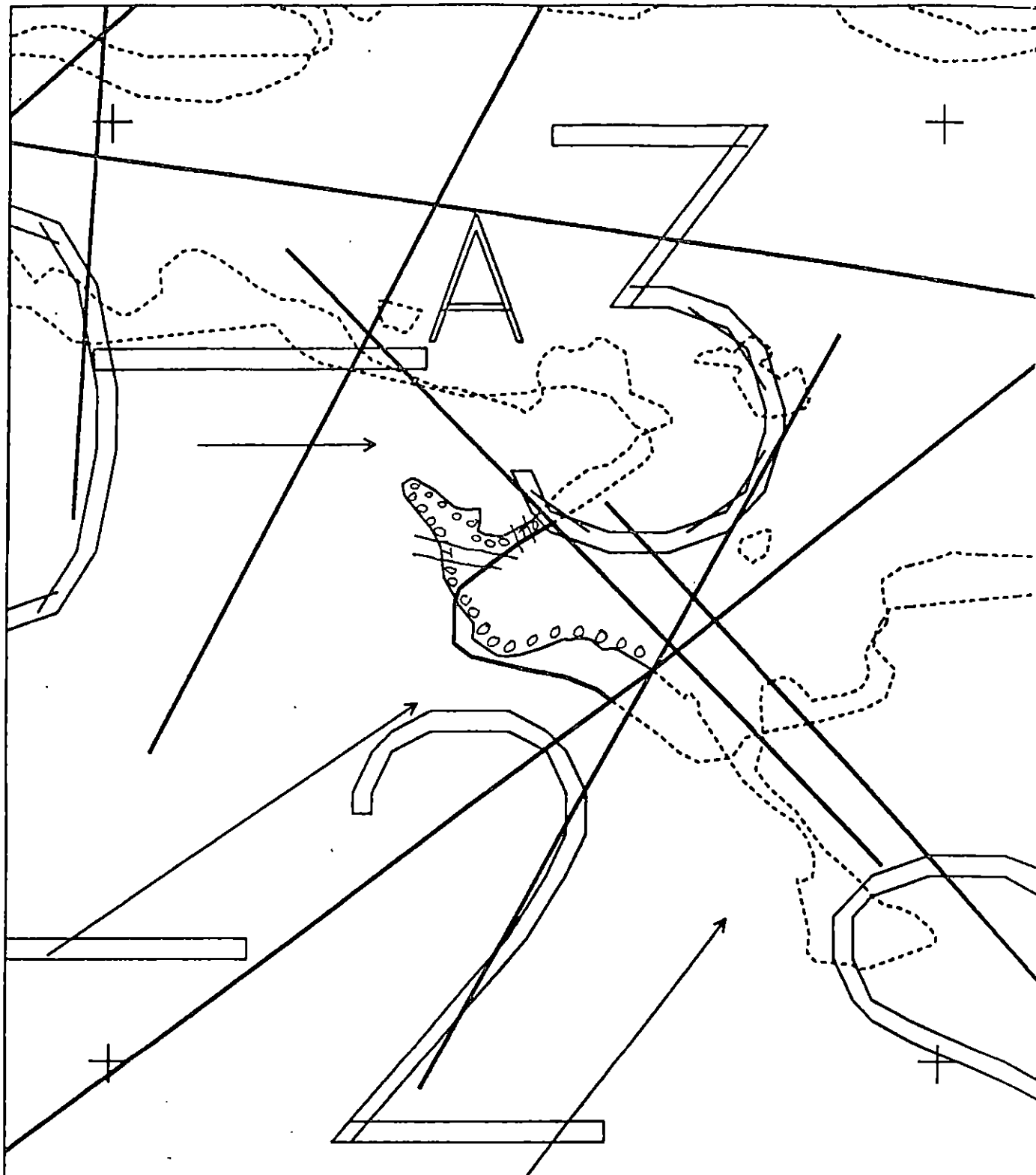
Barnacles, littorina, sparse limpets, and scattered mytilus cover the surface. Drift includes Nerocystis, Fucus, clinocordium, protobaca, Myca and some mytilus shells.

C. SOR  
 6 by 10m, <1%  
 IN cracks of bedrock and clasts

\* Roofing tax was removed by VECD (4 cm<sup>2</sup>)

0 25  
 METERS





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

K0110 S1002 A  
 ADEC Subsegment Length: 242m  
 METERS

5 100 200  
 AK State Plane Zone 4  
 90110,1002a-1 ...



Subdivision Field Map  
 Map Key: 60AK0110S1002A  
 Name: D. Fitzgerald  
 Date: 11 May 1991  
 Date Entered:

reviewed 5.15.91 94  
 ET reviewed 5/15

1991 MAYSAP EVALUATION

SEGMENT: K01108I002 SUB: A REGION: KOD SURVEY DATE: 5/11/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 5/15 - 9/1

Ecological/Constraints (see page two for details) Seabird colony

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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

COMMENTS:

INITIAL: \_\_\_\_\_

TAG: \_\_\_\_\_

FOSC: \_\_\_\_\_

TAG APPROVAL DATE: \_\_\_\_\_ FOSC APPROVAL DATE: \_\_\_\_\_

ADEC \_\_\_\_\_ FOSC \_\_\_\_\_

EXXON \_\_\_\_\_

USCG \_\_\_\_\_

NOAA \_\_\_\_\_

**ECOLOGICAL CONSTRAINTS  
1991 FIELD ACTIVITIES**

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

**ADEC**

NAME J. BARNHART

SIGNATURE Jeff Barnhart

- ☒ NTR K01-10 SIOBBA. Low energy beach. Trace amounts SOR-MS in cracks of bedrock in upper ITL. An area of AP approx .5m x .5m was removed by Veco crew. Oil remains on the beach as trace SOR. No pits dug in this segment. Additional manual removal would recover a very small quantity of oil.

**EXXON**

NAME R. COULTER

SIGNATURE Ray R. Coulter

- ☒ NTR

MOST OF THE SOR IS MADE UP OF FINE GRAIN SEDIMENTS. ALL SOR WAS REMOVED AND/OR BROKEN UP AT SITES. ONE SMALL SPLATTER OF "TAR" (APPROX. 4 CM<sup>2</sup>) WAS FOUND AND REMOVED. THIS SPLATTER OF TAR DID NOT RESEMBLE ANY OTHER SOR FOUND IN THE AREA. IT COULD HAVE BEEN A REFINED PETROLEUM PRODUCT, BUT ALMOST CERTAINLY NOT RELATED TO THE VALDEZ SPILL.

**LANDMANAGER**

NAME K. MURPHY

OF ADNR

SIGNATURE Kevin Murphy

- ☒ NTR This area managed by ADNR, lies just outside Shuyak Island State Park and may be added to state park lands in the future. The area has high scenic, recreational and wildlife values. Little oil was found here. One small patch of tar from an unknown origin was found and removed by Veco crew. Cleanup crew broke up and removed several small patties

**USCG/NOAA**

NAME Chief Jensen / G. SHIGENAKA

SIGNATURE Robert Jensen / G. Shigenaka

- ☒ NTR 1/4 sack of mussels removed from segment. Further removal operations would cause more environmental harm than the oil removed.

SEGMENT CONSISTS OF IRREGULAR SHORELINE THAT INCLUDES A RANGE OF SUBSTRATES FROM COBBLE-PEBBLE TO BEDROCK OUTCROPS AND BOULDERS. SOME SHEEN OBSERVED ALONG NORTHERN END OF SEGMENT. ONE LARGE TALMAT EMBEDDED IN AN ANGULAR ECC MATUX WAS FOUND IN THE SEGMENT AND WAS RECOVERED / BROKEN UP TO THE EXTENT POSSIBLE. ONE FRESH GLOB OF TAR WAS FOUND AND PHOTOGRAPHED BUT WAS DETERMINED TO BE OF AN ORIGIN OTHER THAN EXXON VALDEZ.

EXXON R. Coulter

BIO H DAVIS

LANDMANAGER K. Murphy for ADNR

USCG/NOAA Chief Jensen / G. SHIGENAKA

SEGMENT SI-2

SUBDIVISION A

DATE 11 / MAY / 91

TIME 16:10 to 16:40

TIDE LEVEL 4.0 ft. to 3.5 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

TOTAL LENGTH SHORELINE SURVEYED: 242 m

NEAR SHORE SHEEN: ☐ BR ☒ RB ☐ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W      m M      m N      m VL 20 m NO 222 m US      m

[illegible]

DISTRIBUTION: C = 91-100%; B = 51-80%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 11 FRAMES 16-20

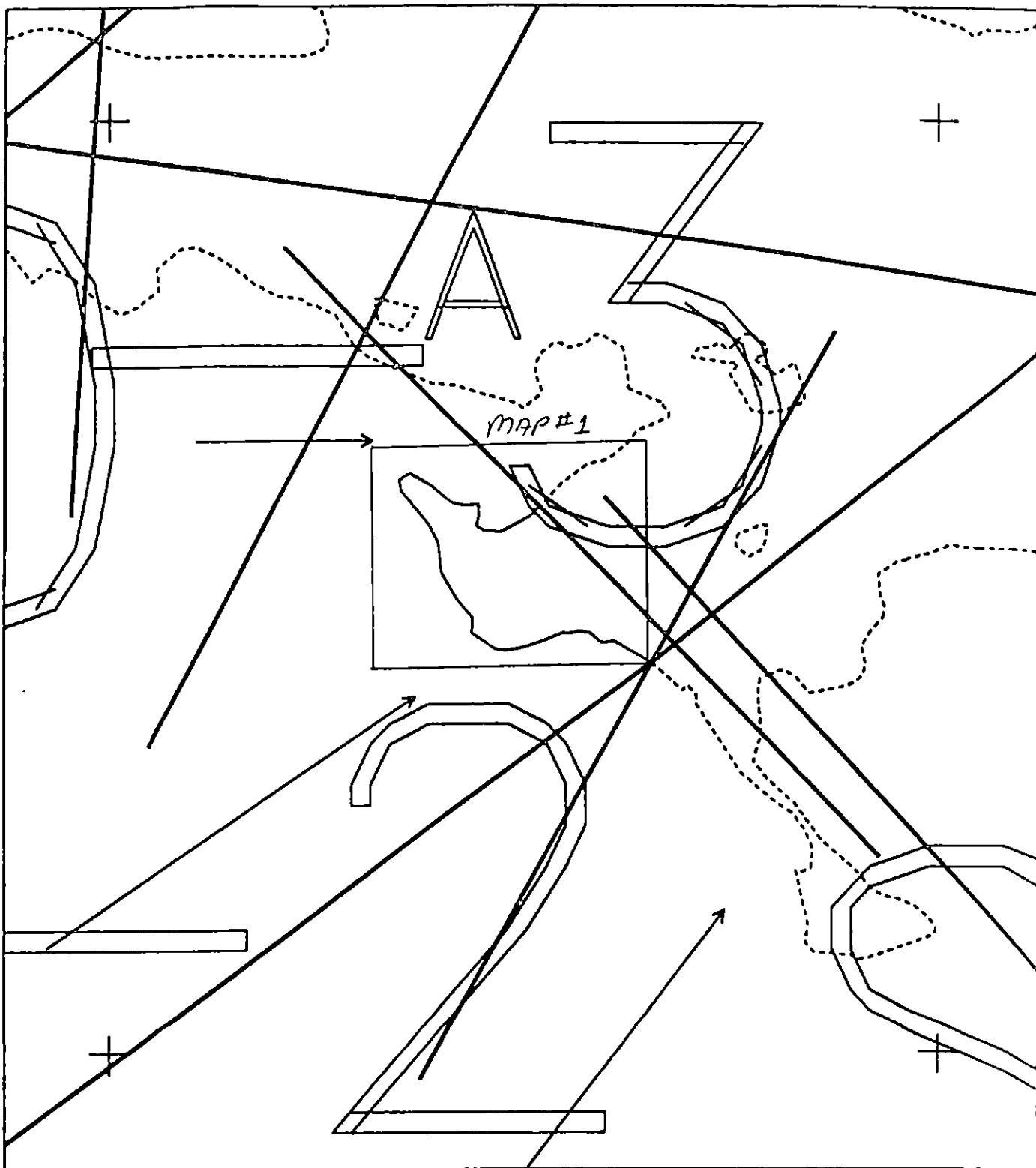
[illegible]

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

**OG COMMENTS:** This segment is a low energy beach/slope/tidal flat shoreline with little oil. The two oiled areas consisted of 50K in cracks and between clasts. All removed. oiled sediment was retrieved by VECO workers amounting to a 1/4 bag (10lbs).

reviewed 5.15.91

ET reviewed 5/15



K0110 S1002 A

Subdivision Field Map

Map Key: 60AX01101002A

Name: D. Fitzgerald

Date: 11 May 1991



METERS

0 100 200

AK State Planning Zone 4.  
601101002a

6/5 reviewed 5/15

xxx low bedrock cliff  
 w w w GRASSY AREA  
 ↗ PHOTO SITES

SKETCH MAP (06)  
 SI-A  
 D. FITZGERALD  
 11 MAY 1991  
 1610 - 1640

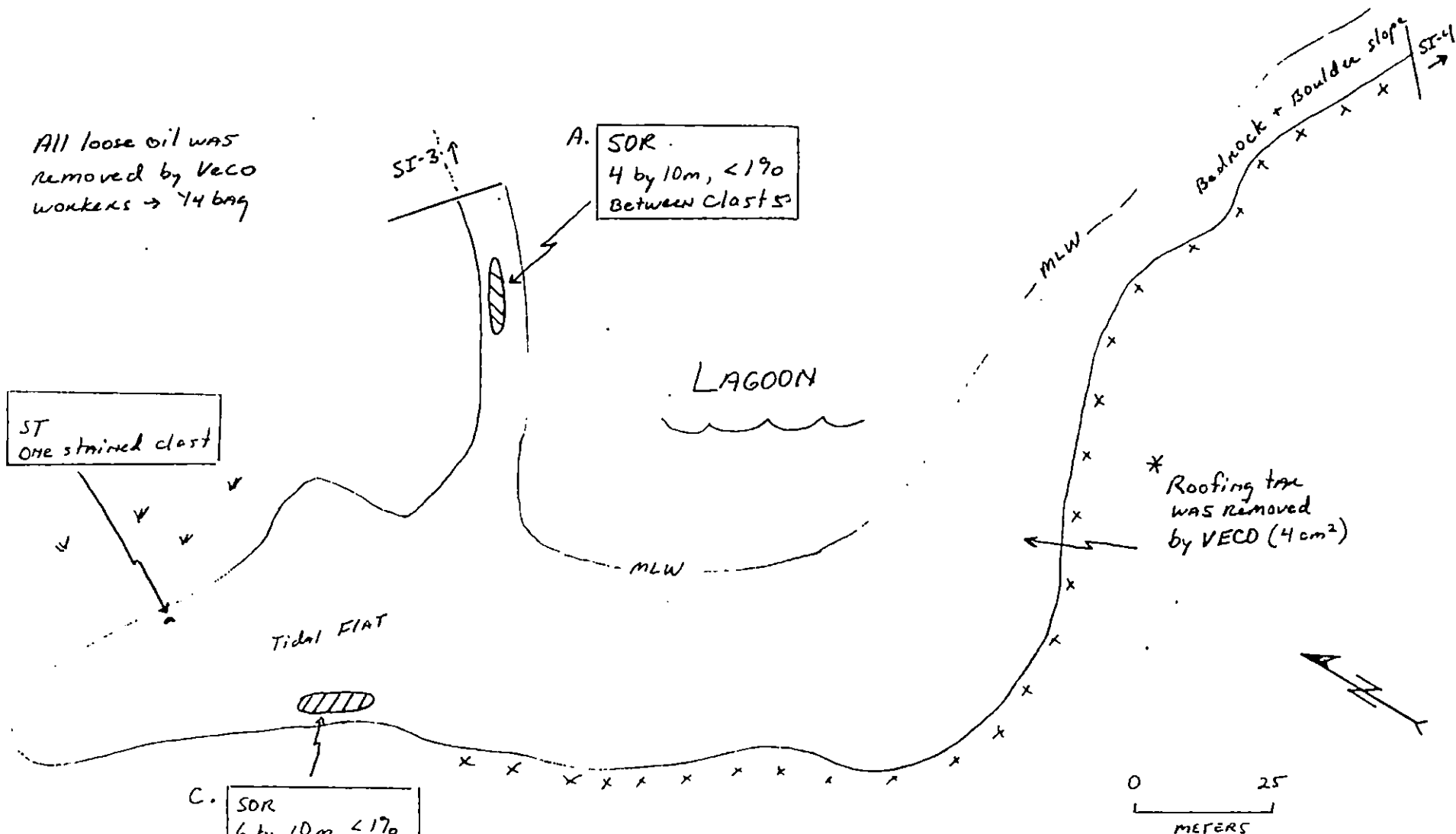
\* All loose oil was  
 removed by VECO  
 workers → 74 bag

B.  
 ST  
 ONE stained clast

A. SOR  
 4 by 10m, <190  
 Between clasts 5

\* Roofing tar  
 was removed  
 by VECO (4cm<sup>2</sup>)

C. SOR  
 6 by 10m, <190  
 in cracks of bed  
 rock and clasts



EG reviewed 5/15

 Low bedrock cliff  
 grassy area  
 PHOTO SITES

PHOTO SITES, 51-2A  
ROLL 6-11, FRAMES 16 THRU 20

atch MAP(06  
SI-2-A  
D Fitzgerald  
11 MAY 1991  
1610 - 1640

\* All loose oil was removed by VECO workers → 74 bag

B. ST  
one stirred clast

A. SOR  
4 by 10m, < 190  
Between clasts

LAGOON

Tidal FIAT

C. SDR  
6 by 10 m,  $< 170$   
in cracks of bed-  
rock and clasts

⑧  
# 19

\* Roofing tile was removed by VECD ( $4 \text{ cm}^2$ )

# HAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 11 1991

SEGMENT # SI-02 K-1-14

TIDAL HEIGHT (Range) 6 ft - 5 ft (16:10 - 16:40)

SUBDIVISION A

BIOLOGIST H. Davis

SEA STATE 1-2 ft

WIND SPEED/DIRECTION 5 mph SE

PHOTOGRAPHS: ROLL # 6-11

FRAME # 16-20

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

A. The SOR was located below the verrucaria band at the top of the MIZ. Barnacles, Littorina, limpets and porphyra were moderately dense. This area was above a band of Fucus that extended to the MIZ.  
B, C. Sites B and C are on a low energy tidal flat made of cobbles and soft sediment. Near the sites sparse barnacles, mytilus, limpets and a few patches of Fucus make up the majority of the biota. Drift in the area included Nereocystis, Fucus, clinocardium shells, protothaca shells and a few mytilus shells.

The amount of oil in this area is such that any clean up would be more disruptive than productive for the biota.

On the small island to the north of this area is a seabird colony.

Red necked Phalarope (10) Kittiwakes (>10) Oystercatchers (9)

## WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

| BIRDS            | # OF SPECIES | TOTAL BIRDS | FISH OBSERVED<br>SPECIES PRESENT |
|------------------|--------------|-------------|----------------------------------|
| Eagles           | 0            |             |                                  |
| Seabirds         | 0            |             |                                  |
| Waterfowl        | 0            |             |                                  |
| Gulls/Kittiwakes | 1            | (>10)       |                                  |
| Shorebirds       | 2            | 14          |                                  |
| Corvids          | 0            |             |                                  |
| Other Birds      |              |             |                                  |

| MARINE MAMMALS      | # OBSERVED | LAND MAMMALS<br>SPECIES | # OBSERVED |
|---------------------|------------|-------------------------|------------|
| Sea Otters          | 0          | Deer Tracks             |            |
| Pinnipeds (specify) | 0          |                         |            |
| Whales (specify)    | 0          |                         |            |

Shoreline subdivision map showing important biological features attached.

xxx bedrock cliff  
 w w w grassy area  
 ↗ PHOTO SITES

Bio Map  
 H. Davis

Sketch MAP  
 SI-1-10  
~~Oct 1-10~~  
 11 May 1991  
 1610 - 1640

\* All loose oil was removed by Veco workers → 74 bag

A. SOR  
 4 by 10m, <190  
 Between Clasts 5

A. SOR in an area of Barnacles, Littorina, limpets, some mytilus and periwinkle. Above the area are verucaria covered boulders. Below are Fucus covered rocks.

LAGOON

B. ST  
 One stained clast

Entomomorpha/Peat  
 Bed

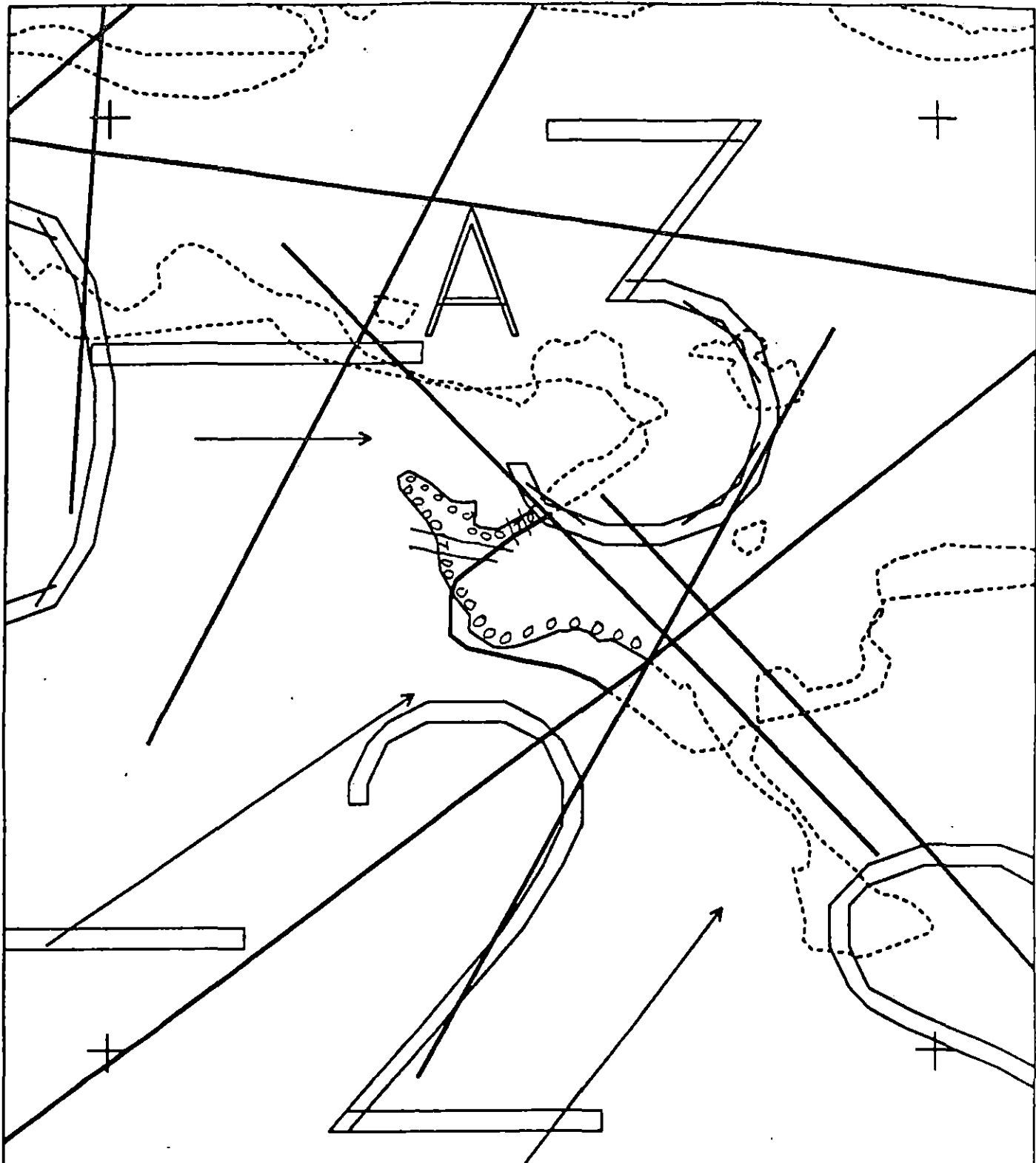
Tidal FLAT  
 B+C

Barnacles, littorina, sparse limpets, and scattered mytilus cover the surface. Drift includes Nerocystis, Fucus, Clinocardium, protolacca, Myca and some mytilus shells.

C. SOR  
 6 by 10m, <170  
 in cracks of bedrock and clasts

Bedrock + Boulder slope  
 MLW  
 \* Roofing tax was removed by VECD (4 cm<sup>2</sup>)

0 25  
 METERS



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

K0110 S1002 A  
 ADEC Subsegment Length: 242m  
 METERS

0 100 200  
 AK State Plane Zone 4  
 90110-1002a-...



Subdivision Field Map  
 Map Key: 60AK0110S1002A  
 Name: D. Fitzgerald  
 Date: 11 May 1991  
 Date Entered:

reviewed 5.15.91 -J-  
 25 reviewed 5/15

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SI-003 SUBDIVISION A (1 OF 1) DATE 3/30/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**  
No specific environmental sensitivities identified.

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

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

SHPO SIGNATURE: Charles J. Adams DATE: April 14, 1990

**OILING CATEGORIZATION:**

Wide 158m: Medium 0 m: Narrow 151 m: V.Light 0 m: No Oil 17 m  
Subsurface Oil Observed: Yes        No X Maximum Depth       

**RECOMMENDATIONS:**

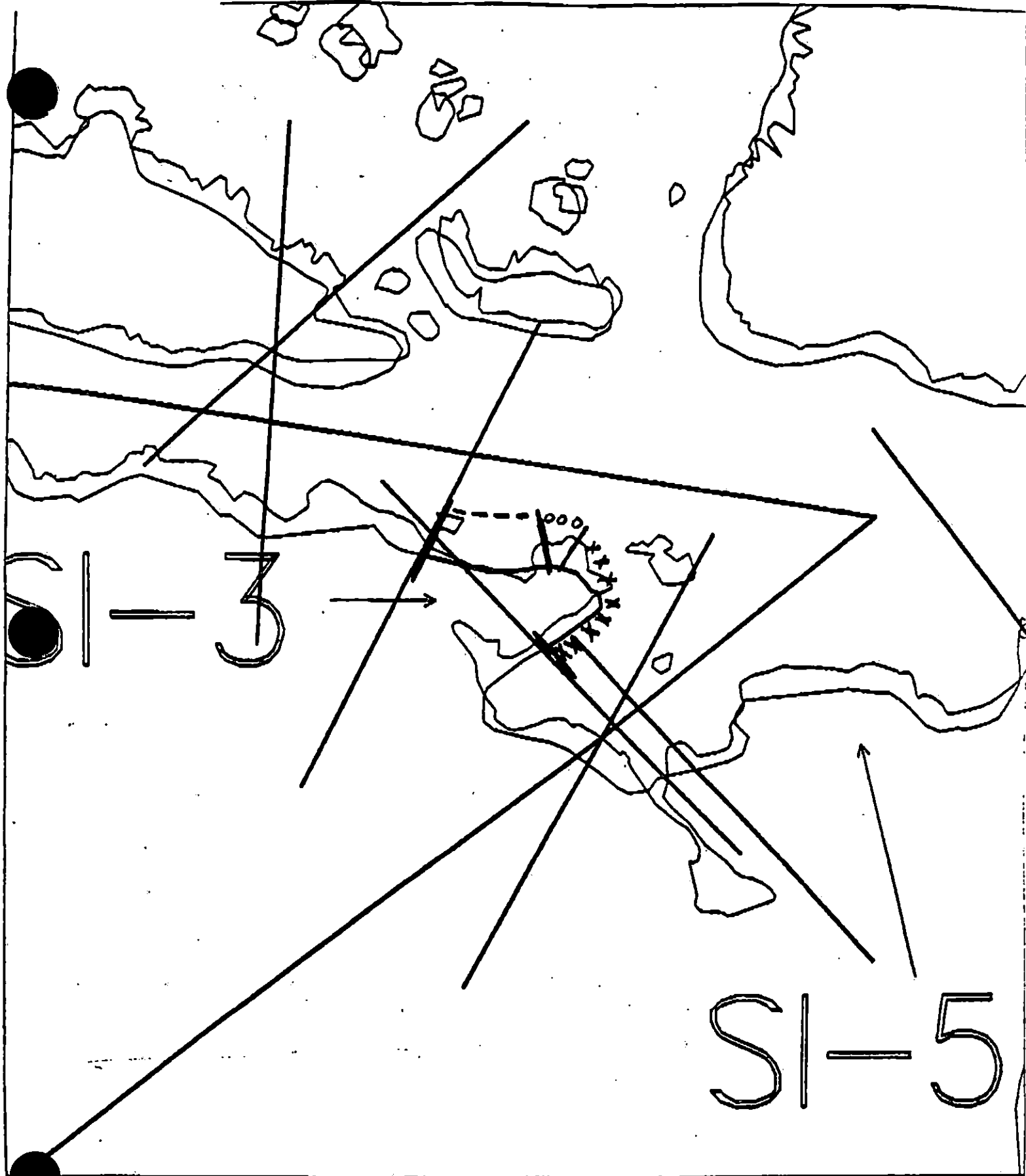
|                                             |                                                 |
|---------------------------------------------|-------------------------------------------------|
| <u>      </u> No Treatment Recommended      | <u>      </u> Snare/Absorbent Booms             |
| <u>X</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>      </u> Tarmat: <u>      </u> Breakup | <u>      </u> Beach Cleaner                     |
| <u>      </u> Removal                       | <u>      </u> Other (see comments)              |

COMMENTS: Recommend manual pick up of pooled oil followed by bioremediation, in areas shown on attached sketch map.

**TAG COMMENTS:**

TAG APPROVAL DATE: 4/14/90  
ADEC JOHN BAUER  
EXXON ANDY GALT FOSC: W L DATE: 5-1-90  
NOAA Bert Wescott  
USCG G.A. REITER B.A. Reiter





XXXX Wide

//// Medium

--- Narrow

TTTT Very light

SI-3

ADEC Segment Length: 424m



Map Key: GOA-15

Name: Perland

Date: 3-31-90

**SEGMENT K01-10-SI-003 SUBDIVISION A ( 1 of 1 )**

| WORK WINDOW    |        |
|----------------|--------|
| Manual Pickup  | CLOSED |
| Bioremediation | CLOSED |

ARCHAEOLOGICAL STANDARD CONSTRAINT

**If cultural resources are uncovered, PHONE 564-3274.**

### APPLICABLE ECOLOGICAL TIME CONSTRAINTS

## 5R Seabird Colony

**Closed to manual pickup and bioremediation; work site is within 800m of a seabird colony.**

### OTHER ECOLOGICAL CONSIDERATIONS

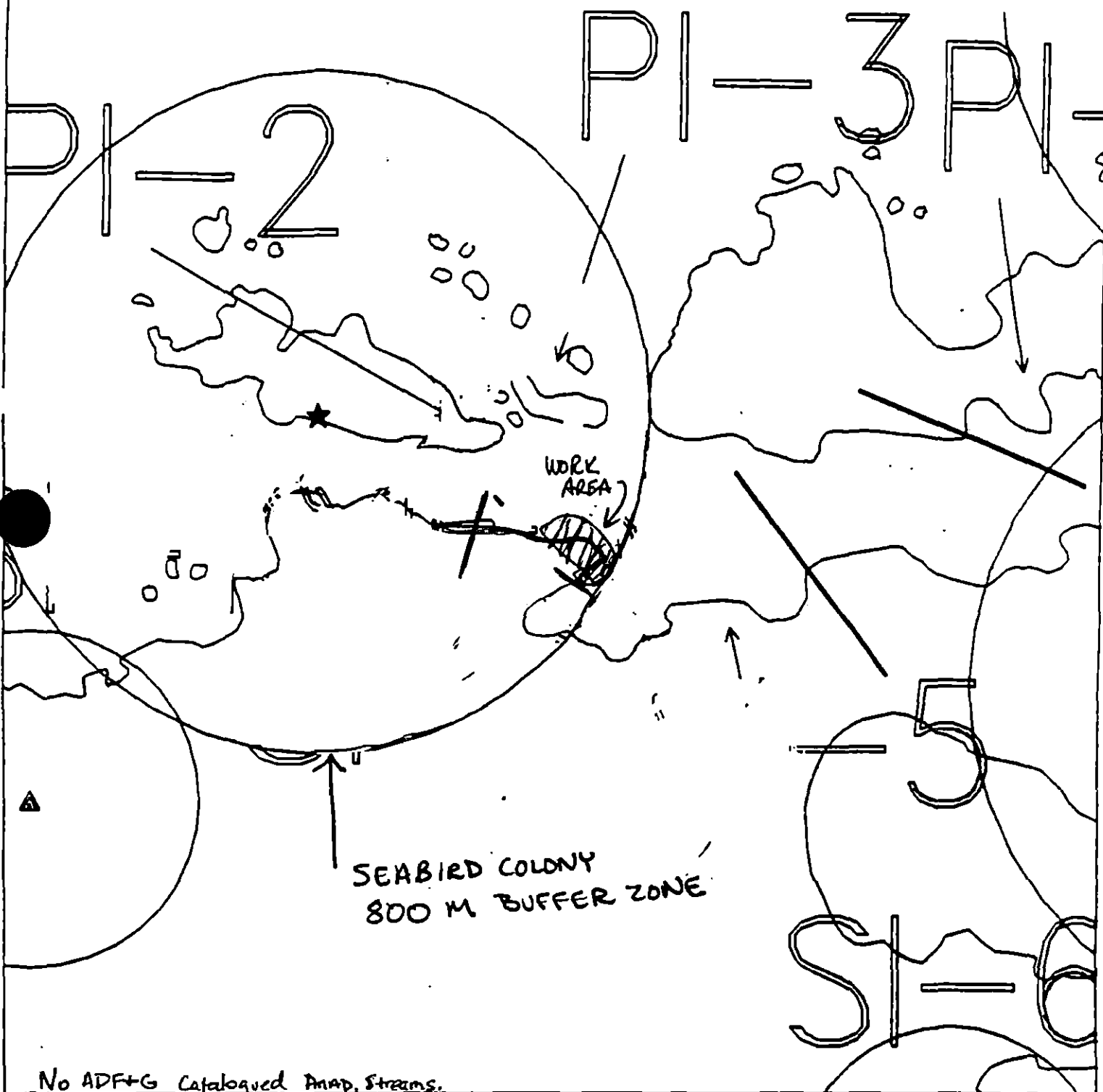
**Avoid any unnecessary disturbance or damage to unrolled blots and substrate.**

TAG APPROVAL DATE \_\_\_\_\_  
ADEC \_\_\_\_\_  
EXXON \_\_\_\_\_  
NOAA \_\_\_\_\_  
USCG \_\_\_\_\_

FOSC h y L DATE 6-10-90

Prepared By: Rae D. Conline

Date 06/10/90

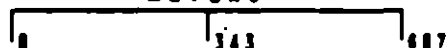


Exxon Company, USA

Map Key: KOD-SI-3

May 17, 1990

# ECOLOGY MAP SEGMENT SI-3 SUBDIVISION A (1 of 1) METERS



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

1 Inch = 1127 feet

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SI-003 SUBDIVISION A (1 OF 1) DATE 3/30/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**  
No specific environmental sensitivities identified.

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

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

SHPO SIGNATURE: Charles J. Hines DATE: April 14, 1990

**OILING CATEGORIZATION:**

Wide 158m: Medium 0 m: Narrow 151 m: V.Light 0 m: No Oil 17 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>      </u> Tarmat: <u>      </u> Breakup | <u>      </u> Beach Cleaner                     |
| <u>      </u> Removal                       | <u>      </u> other (see comments)              |

COMMENTS: Recommend manual pick up of pooled oil followed by bioremediation, in areas shown on attached sketch map.

SEE ATTACHED CONSTRAINT  
ADDENDUM DATED 06/10/90  
Rgx C.

**TAG COMMENTS:**

TAG APPROVAL DATE: 4/14/90  
ADEC JOHN BAUER  
EXXON ANDY GEAR FOSC: W L DATE: 5-1-90  
NOAA Paul Wescott  
USCG G.A. REITER

REGION: KODIAK

SEGMENT: K01-10-SI-03

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ K01-10-SI-003 SUBDIVISION A (1 OF 1) DATE 3/30/90

**SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:**  
No specific environmental sensitivities identified.

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

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

SHPO SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**OILING CATEGORIZATION:**

Wide 158m: Medium 0 m: Narrow 151 m: V.Light 0 m: No Oil 17 m  
Subsurface Oil Observed: Yes \_\_\_\_\_ No X Maximum Depth \_\_\_\_\_

**RECOMMENDATIONS:**

|                                                           |                                                        |
|-----------------------------------------------------------|--------------------------------------------------------|
| <input type="checkbox"/> No Treatment Recommended         | <input type="checkbox"/> Snare/Absorbent Booms         |
| <input checked="" type="checkbox"/> Treatment Recommended | <input type="checkbox"/> Oil Snares (pom poms)         |
| <input checked="" type="checkbox"/> Manual Pickup         | <input type="checkbox"/> Absorbents (pads, rolls, etc) |
| <input checked="" type="checkbox"/> Bioremediation        | <input type="checkbox"/> Spot Washing: _____ Wands     |
| <input type="checkbox"/> Tarmat: _____ Breakup            | <input type="checkbox"/> Beach Cleaner                 |
| <input type="checkbox"/> Removal                          | <input type="checkbox"/> Other (see comments)          |

**COMMENTS:** Recommend manual pick up of pooled oil followed by bioremediation, in areas shown on attached sketch map.

**TAG COMMENTS:**

**TAG APPROVAL DATE:** \_\_\_\_\_

ADEC \_\_\_\_\_  
EXXON \_\_\_\_\_  
NOAA \_\_\_\_\_  
USCG \_\_\_\_\_

FOSC: \_\_\_\_\_ DATE: \_\_\_\_\_

## FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ K0110/SI003 SUBDIVISION: A DATE 3-31-90AAA  
GGGNAME John Naughton SIGNATURE John J. Naughton☐ NO TREATMENT RECOMMENDED  
COMMENTS☒ TREATMENT SUGGESTED

Additional cleanup suggested at this segment, particularly pooled oil in section B. Apparently some recovery of biota in former warm water wash area.

ADEC

NAME Scott Shelton SIGNATURE Scott Shelton☐ NO TREATMENT RECOMMENDED  
COMMENTS☒ TREATMENT SUGGESTED

K01101/SI003 Observed weathered oil in the upper tidal zone Sub division (A) location. <sup>(oil)</sup> Cover on pore spaces and is obtainable K01101/SI003 (B) Former warm water wash area. Algae grow has increased in this area. Pooled oil in sediment can still be found in this area, patchy and sporadic. Sheen is present in the lower tidal zones.

A) Profile location.

3) Profile location

LAND MANAGER

NAME Ray Burger ADN SIGNATURE Ray Burger☐ NO TREATMENT RECOMMENDED  
COMMENTS☒ TREATMENT SUGGESTED

- Sporadic pooled oil among cobbles & gravel
- Patches of coat on bedrock at MHW near profile B
- Subsurface unassessed due to lack of tools - this was hot water treated beach
- Much deer & bear scat in uplands

## SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG Pealand USCG Naughton SEGMENT ST/ K0110/S1003  
 BIO Spight LAND REP Guyon SUBDIVISION A  
 EXXON Gyens ADEC Shelton TIME 12:20 to 13:00  
 TEAM NO.: 19 TIDE LEVEL: 0 to +2 ft DATE 3/30/90  
 EST. SUBDIVISION LENGTH: 424 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow  
 UPLANDS DESCRIPTION: ☒ Grass ☐ Forest ☒ Rock  
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: W to E  
 SURFACE SEDIMENTS: R 0 % B 20 % C 40 % P 40 % G 0 % S 0 % M 0 % V 0 %  
 SLOPE: Long 30 % Hang 40 % Vert 30 % WAVE EXPOSURE: ☒ Low ☐ Med ☐ High  
 OIL CATEGORY LENGTH: W 150 m M 0 m N 100 m VL 0 m NO 177 m

## SURFACE OIL

| CHARACTER        | DISTRIBUTION |    |    |    | OIL / FILM COLOR |    |    |    |    |    |    |    | IMPACTED ZONES |   |   |    |
|------------------|--------------|----|----|----|------------------|----|----|----|----|----|----|----|----------------|---|---|----|
|                  | 10           | 15 | 17 | 18 | 20               | 25 | 30 | 35 | 40 | 45 | 50 | 55 | SU             | U | M | LI |
| ASPHALT PAVEMENT |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| POOLED           | ✓            |    |    |    |                  | ✓  |    | ✓  |    |    |    |    | ✓              | ✓ | ✓ | ✓  |
| COVER            |              |    | ×  |    |                  | ×  |    | ×  |    |    |    |    | ×              | × |   |    |
| COAT             |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| STAIN            |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| MOUSSE           |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| PATTIES          |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| TARBALLS         |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| FILM             |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |
| NO OIL           |              |    |    |    |                  |    |    |    |    |    |    |    |                |   |   |    |

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         |        |    |    |
| Vegetation   |        |    |    |
| Trash        |        |    |    |
| Debris       |        |    |    |

DEBRIS COLLECTED  
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. 19-2Frames 26-31SUBSURFACE OIL No pits dug

| PIT NO. | PIT DEPTH (cm) | SUBSURFACE OIL CHARACTER |    |    |    |    | OILED INTERVAL (CM-CM) | BELOW |    | OIL / FILM COLOR |    |    |    |    |    |    |    | PIT ZONE |   |   |    | A<br>N<br>A | SUBSURFACE SEDIMENTS |
|---------|----------------|--------------------------|----|----|----|----|------------------------|-------|----|------------------|----|----|----|----|----|----|----|----------|---|---|----|-------------|----------------------|
|         |                | OP                       | OR | OL | OF | NO |                        | UO    | VO | 20               | 25 | 30 | 35 | 40 | 45 | 50 | 55 | SU       | U | M | LI |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |
|         |                |                          |    |    |    |    |                        |       |    |                  |    |    |    |    |    |    |    |          |   |   |    |             |                      |

## COMMENTS

- No pits dug due to boulder and bedrock conditions
- oil in profile A area is more weathered than in profile B where the oil is slummy and pool over the sedimented surface.

OG Ad

SEGMENT ST/ K0110 / SI003

SUBDIVISION A

DATE 3 / 31 / 90

### CHECKLIST

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

### LEGEND

1  $\Delta$

Pit - No Subsurface Oil

2  $\Delta$

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

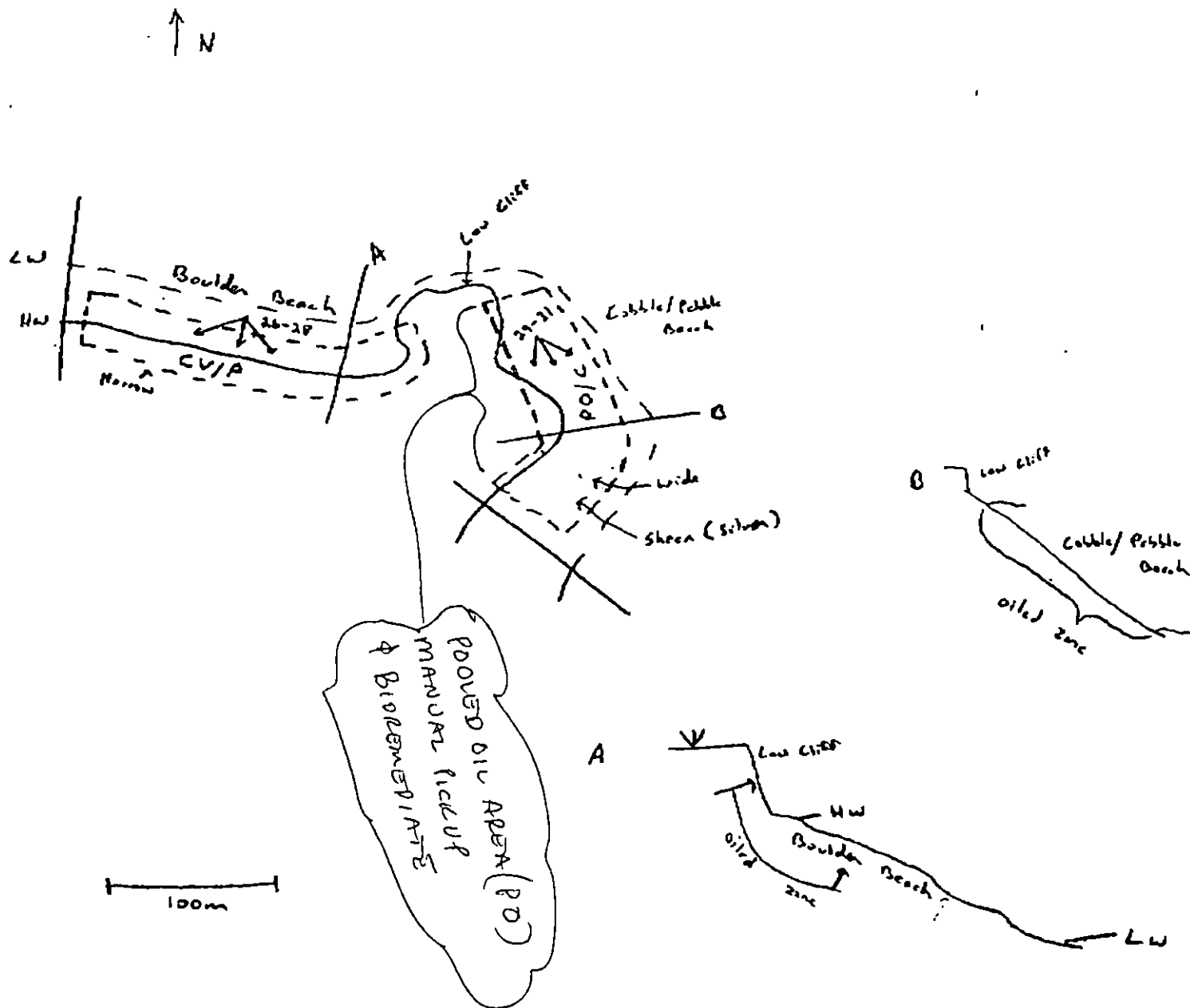
Splashed Distribution

Oiled Vegetation

1  $\rightarrow$

Photo location, direction, and number

### SKETCH MAP



Oil Character Length (m): AP \_\_\_\_\_ PO 150 CV 200 CT \_\_\_\_\_ ST \_\_\_\_\_ MS \_\_\_\_\_ PT \_\_\_\_\_ TB \_\_\_\_\_ FL \_\_\_\_\_ NO 74

REVISION: 00/2400

## SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/23/90

Segment ST / S1-3 Subdivision \_\_\_\_\_ Date (mo / day / yr) 3/31/90Time (24 hr) 12<sup>30</sup> Biologist SP6HT

(A) Substrate type and % of segments:

(1) Bedrock 0 (2) Boulder 20 (3) Cobble 40 (4) Pebble 40 (5) Sand 0 (6) SR 0

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

(C) Density, substrate preference (by number from A, above), &amp; 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

## STROPODS

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

Bio data applies only to portion south of beach profile B.

## Ecological Considerations: Area with transect markers

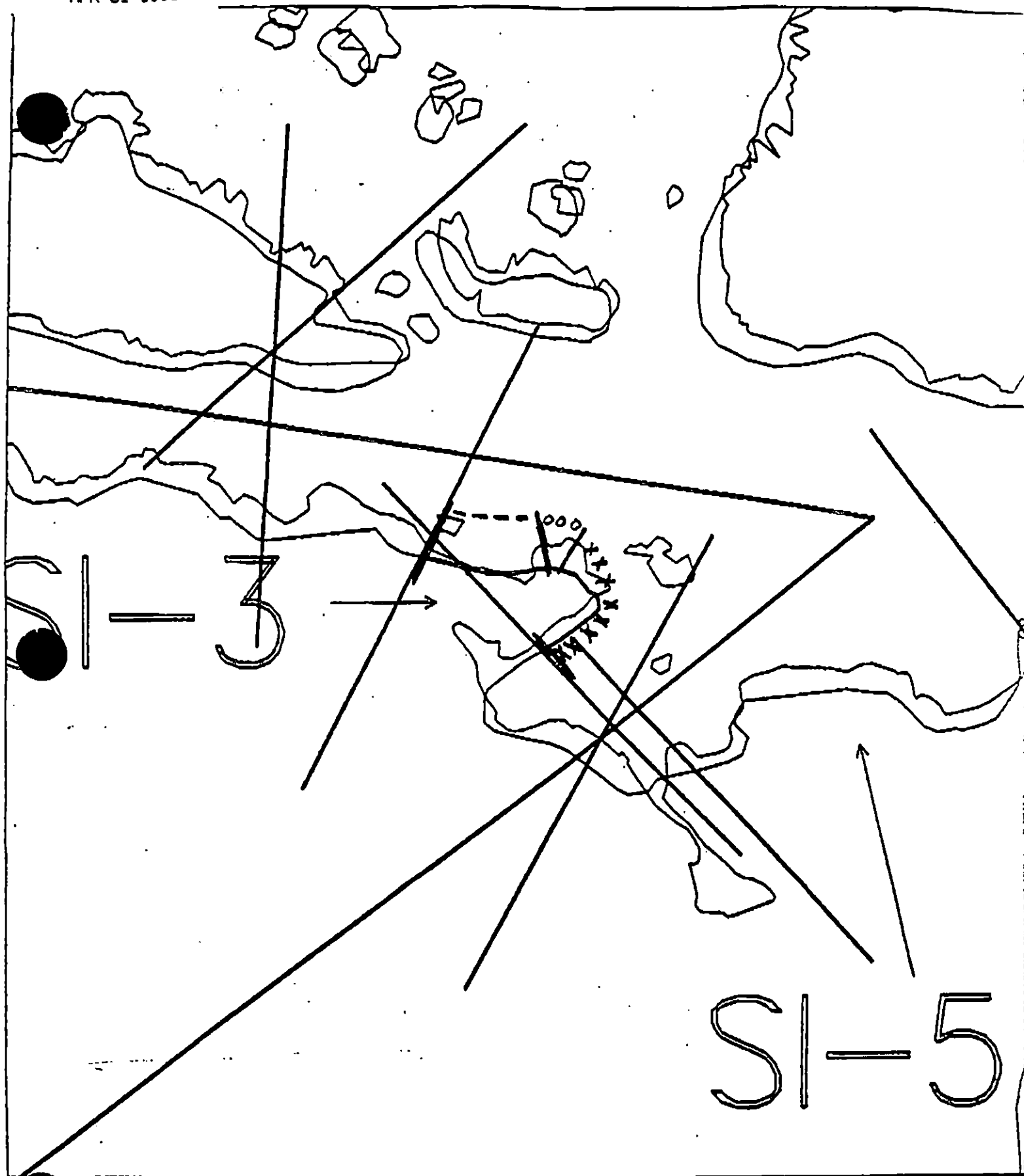
On upper, mid levels; only evident biota is filamentous algae.

Under stones Littorina, apparently more abundant lower

Also, an eel found under one lower mid-level stone.

At low levels, a dense algal cover, including some Fucus, snails.

This is the area that was not cleaned



SI-5

XXX Wide

/// Medium

----- Narrow

TTTT Very Light

**S I - 3**

**ADEC Segment Length: 424m**



Map Key: GOA-15

Name: Peeland

Date: 3-31-92

1991 MAYSAP EVALUATION

SEGMENT: K01108I003 SUB: A REGION: KOD SURVEY DATE: 5/11/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 5/15 - 9/1

Ecological/Constraints (see page two for details) Seabird colony

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: \_\_\_\_\_ Date: \_\_\_\_\_

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: \_\_\_\_\_

TAG: \_\_\_\_\_

FOSC: \_\_\_\_\_

TAG APPROVAL DATE: \_\_\_\_\_

FOSC APPROVAL DATE: \_\_\_\_\_

ADEC

FOSC

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS  
1991 FIELD ACTIVITIES**

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

**ADEC**

NAME J. BARNHART

SIGNATURE Jff Barnhart

- ☒ NTR K01-10 SI003A. Trace/splash 1-2% SOR, NS, CV, CT sporadic in cracks and crevices of bedrock and between boulders. Small amount of sheening in pools of water at the warm water wash site. Approximately one bag of oil/oil sediments removed by Veco crew using manual methods. Oil was also broken apart and remains on the beach as trace SOR. Additional removal of oil by manual methods would produce little tangible benefit. No pits dug in this segment.

**EXXON**

NAME R. Coulter

SIGNATURE Ray R. Coulter

- ☒ NTR

EVERYTHING FOUND WAS BROKEN UP WITH A <sup>WASH</sup> SHOVEL AND/OR REMOVED. AREA WHERE WARM WATER WAS DONE LOOKS GOOD. ALL OILING (SOR, CT, CV) WAS VERY SPORADIC.

**LANDMANAGER**

NAME K. MURPHY

OF ADNR

SIGNATURE Karin Murphy

- ☒ NTR This segment, managed by ADNR lies just outside Shuyak Island State Park and may be added to state park lands in the future. The area has high scenic, recreational and wildlife values. A tourism area on the north end of this segment was warm water washed last year. This spot still showed 2% gunk. Any further attempts to remove it would cause more harm than good. Veco crew broke up and removed some small patties.

**USCG/NOAA**

NAME CHIEF JENSEN / G. SHIGENAKA

SIGNATURE Chief Jensen / Guy Shigenaka

- ☒ NTR One has to look hard to find evidence of oil in this segment. Further removal operations would cause more environmental harm than the oil to be removed.

SEGMENT CONSISTS OF HIGHLY IRREGULAR, RUGGED SHORELINE, MOSTLY BEDROCK OUTCROPS OR LARGE ANGULAR COULURES. HEAVY FUCUS COVER AND NUMEROUS LITTORINE SNAILS IN MID-TO LOWER INTERTIDAL. OCCASIONAL PATCHES OF TAR OR TARKY MATERIAL WERE OBSERVED AND SUBSEQUENTLY RECOVERED BY VECO CREW. SEGMENT INCLUDES A COBBLE POCKET BEACH THAT WAS WARM WATER WASHED IN 1989 AND WHICH SHOWED INDICATIONS OF MUCH REDUCED RECOVERY (FUCUS GROWTH, LITTORINE SNAIL SIZE & NUMBERS). VECO CREW RECOVERED OR BROKE UP ALL TAR MATS AND PATTIES DISCOVERED.

SEGMENT SI-3

SUBDIVISION *A*

DATE 11 / May / 191

ENERGY LEVEL: ☐ H ☒ M ☐ L

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

NEAR SHORE SHEEN: ☐ BR ☒ RB ☐ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W — m M — m N — m VL <sup>83</sup> m NO <sup>244</sup> m US — m

[illegible]

DISTRIBUTION: C = 91-100%; B = 51-80%; P = 11-50%; S = 1-10%; T = <1%

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

6.1

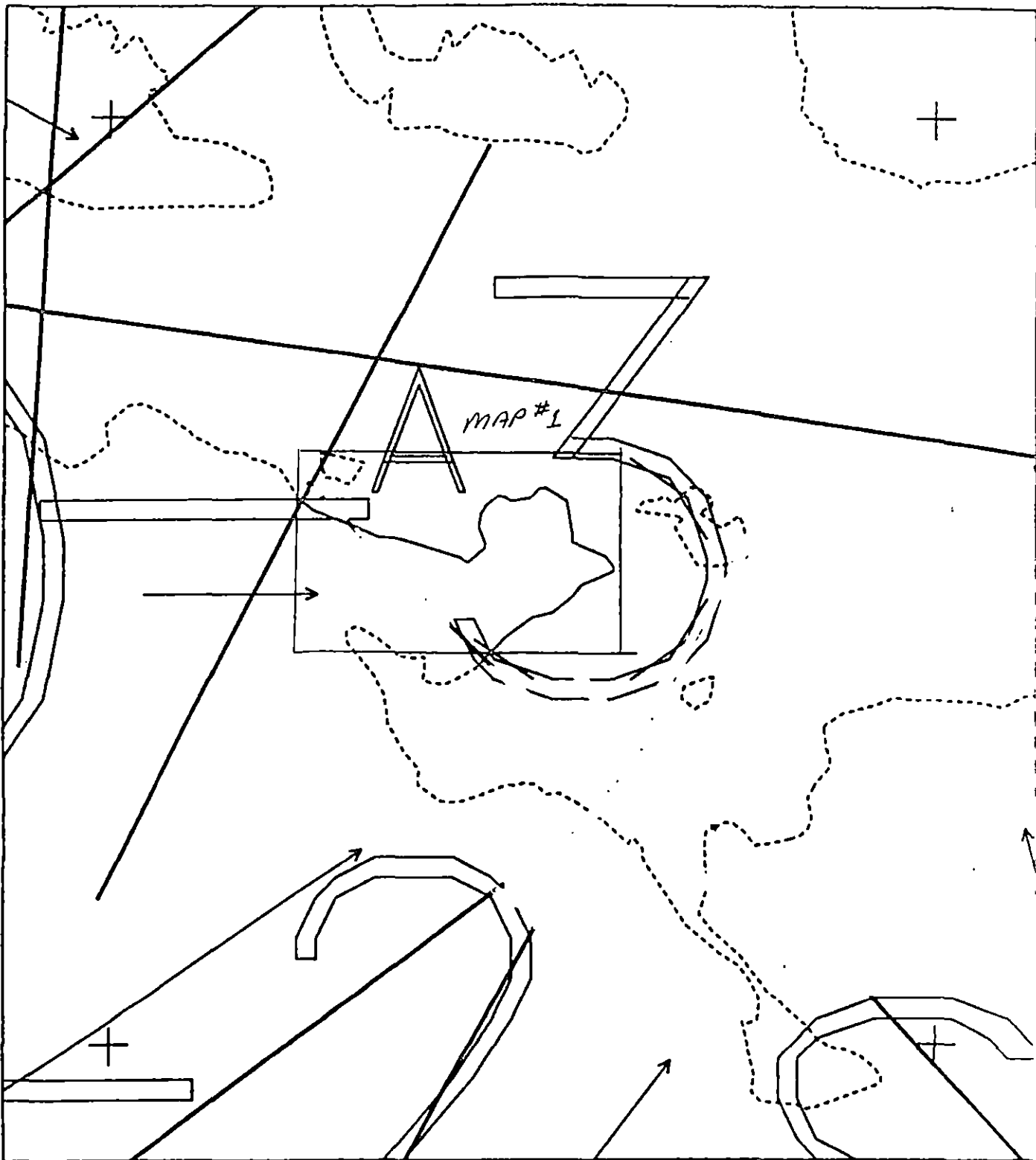
FRAMES 12-15

[illegible]

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

**OG COMMENTS:** This segment is a bedrock, boulder, cobble slope forming an irregular shoreline. The oiling is sporadic and in trace amounts consisting of SOR/MS in the cracks and crevices of bedrock and between boulders. Coats and stains are also present in trace amounts. The most concentrated oiling is found at the warm water washing site (E.) at the northwest end of the segment. The oil at this location as reported in the ASAP survey has significantly degraded from broken/patchy to trace amounts. SOR found in this pocket beach was removed and broken apart by VECO crew.

Reviewed 5/15



K0110 S1003 A

METERS

0 100 200

AS State Planning Zone 4  
0011011003A

Subdivision Field Map

Map Key: 604X0110S1003A

Name: D. Fitzgerald

Date: 11 MAY 1991

Reviewed 3.15

OCEAN

Low bedrock cliff

GRASSY AREA

PHOTO SITES

Sketch MAP (06)

SI-3-A

D. FITZGERALD

11 MAY 1991

1500 - 1610

STEVENSON ENTRANCE

\* 1 BAG of oil sediments  
was recovered from  
this segment. P.U.

F. CT/ST  
2 by 5m, < 1%  
IN MAJOR CAVE

E. MS/SOR  
CT/ST  
10 by 30m, < 1%  
RAINBOW SHEEN  
WARM WATER WASH SITE

D. CT/ST  
2 by 8m, < 1%  
ON BEDROCK & B

B. SOR/MS  
CT  
6 by 25m, < 1%  
IN CRACKS OF BR & B

Bedrock  
+ Boulder  
INTERSTITIAL  
ZONE

SEGMENT  
ENOS

A. SOR  
2 by 2m, < 1%  
OIL IN CRACKS OF  
BEDROCK AND BOULDERS

C. SOR  
4 by 8m, < 1%  
m to UFTZ

G. CT/ST  
2 by 5m, < 1%  
ON COBBLES +  
BOULDERS

0 25  
METERS

LAGOON

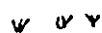
SI-2 BEGIN

SI-3-A  
SI-3-A  
SI-3-A

OCEAN



Low bedrock cliff



GRASSY AREA



PHOTO SITES

PHOTO SITES SI-3A  
FRAMES 12 THRU 15  
ROLL 6-11

STEVENSON ENTRANCE

Sketch MAP (06)

SI-3-A

D. FITZGERALD

11 MAY 1991

1500 - 1610

\* 1 BAG of oil sediments  
was recovered from  
this segment. P.U.

F. CT/ST  
2 by 5m, <1%  
IN major CAVE

E. MS/SOR  
CT/ST  
10 by 30m, <1%  
RAINBOW SHEEN  
WARM WATER WASH SITE

D. CT/ST  
2 by 8m, <1%  
ON Bedrock @ B

B. SOR/MS  
CT  
6 by 25m, <1%  
IN CRACKS of BR + B

Bedrock  
+ Boulder  
Intertidal  
ZONE

SEGMENT  
ENDS

A. SOR  
2 by 2m, <1%  
Oil in cracks of  
bedrock and boulders

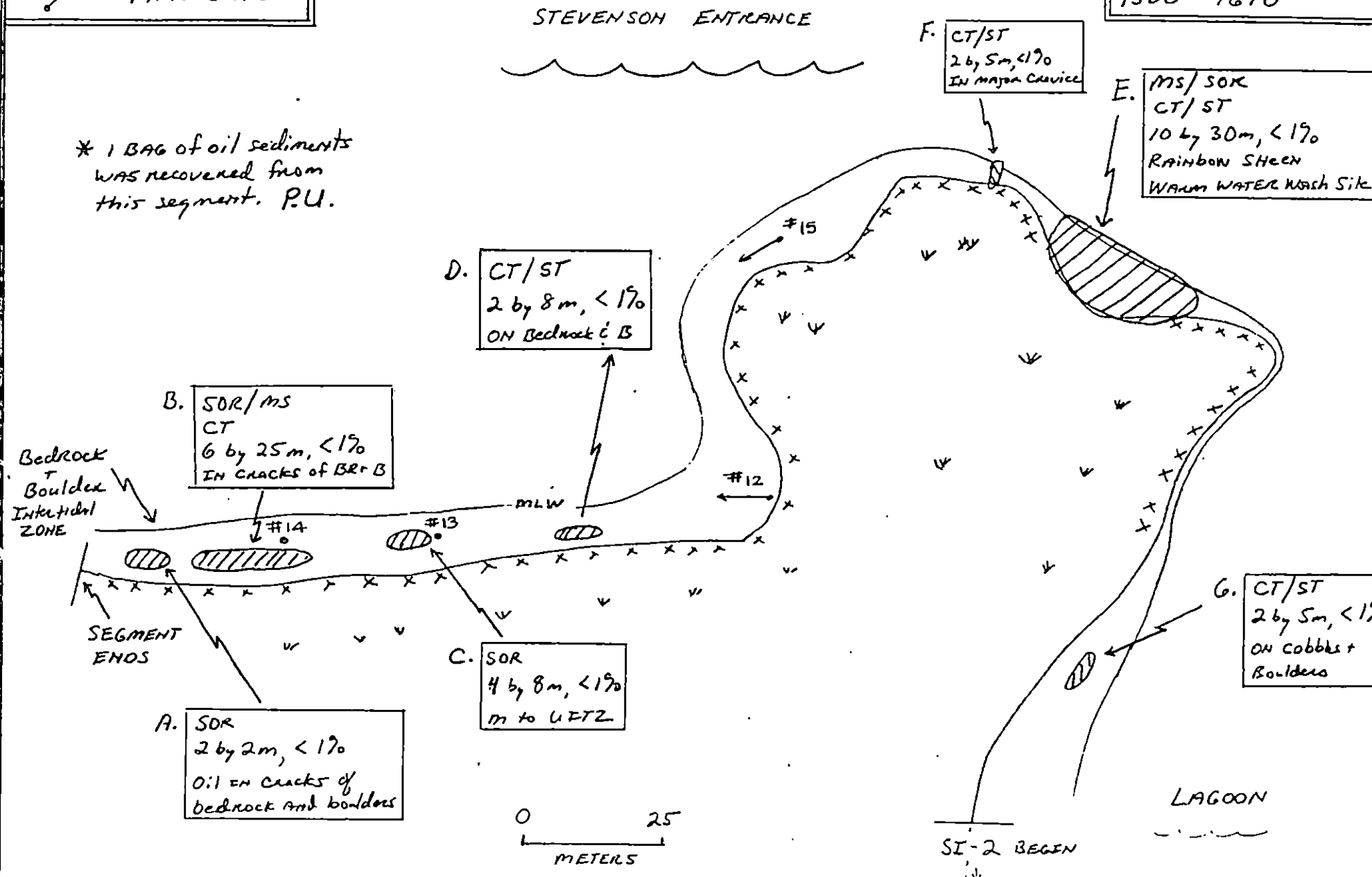
C. SOR  
4 by 8m, <1%  
m to UFTZ

G. CT/ST  
2 by 5m, <1%  
ON cobbles +  
Boulders

0 25  
METERS

SI-2 BEGEN

LAGOON



# MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 6 Helo

DATE May 11 1991

SEGMENT # SI-03

TIDAL HEIGHT (Range) 8 ft - 6 ft (15<sup>00</sup> - 16<sup>15</sup>)

SUBDIVISION A

BIOLOGIST H Davis

SEA STATE 1 ft - 2 ft

WIND SPEED/DIRECTION  $\approx$  5 mph SE

PHOTOGRAPHS: ROLL # 6-11

FRAME # 12-15

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

Site SI-03A is an irregular shoreline of bedrock covered with boulders and cobble. The substrate is continuous except for occasional pockets of gravel.

E+G The SITZ has drift logs and seaweed (*Fucus* + *Nereocystis*) against grassy overhang. *Verrucaria* covers the surfaces of the bed rock and boulders. Some littorina are in rock crevices. Kelp flies and amphipods are active on the drift logs.

B, C, F+G. In the MITZ dense littorina, sparse barnacles, sparse limpets (under rocks) and occasional patches of *Fucus* and *Porphyra* occur.

A, B, C. The MITZ has a wide dense covering of *Fucus*, most of which ( $\approx$  75%) is reproductive. There are patches of *Petrorhiza*, *Orithalia*, "Wet" green blade, and coralline algae. Under rocks limpets, *Sigambra*, littorina eggs, and anemones (*Aequorea* sp?) Nudibranchs were on the sides of boulders eating barnacles & the small mytilus.

E. Site E had been warm water washed the biota in this area differed visibly from its surroundings. The numbers of gastropods equaled the surrounding areas but the algal cover was greatly reduced. *Fucus* was not reproductive ( $\approx$  25%) and was mostly new growth from old bases. There were more empty barnacle shells ( $\approx$  90 empty) and no anemones were found under the rocks.

The oil in the intertidal is so patchy and hidden in cracks and crevices that removal efforts would be more disruptive than productive.

Countcatchers (4)

Glaucous-winged Gulls (5) Kittiwakes > 25 Red Necked Phalaropes (5) Sandpiper (1)

## WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

| BIRDS            | # OF SPECIES | TOTAL BIRDS | FISH OBSERVED<br>SPECIES PRESENT |
|------------------|--------------|-------------|----------------------------------|
| Eagles           | 1            | 1 adult     | Sculpin s.                       |
| Seabirds         |              |             |                                  |
| Waterfowl        |              |             |                                  |
| Gulls/Kittiwakes | 2            | > 30        |                                  |
| Shorebirds       | 3            | 10          |                                  |
| Corvids          |              |             |                                  |
| Other Birds      |              |             |                                  |

| MARINE MAMMALS      | # OBSERVED | LAND MAMMALS<br>SPECIES | # OBSERVED |
|---------------------|------------|-------------------------|------------|
| Sea Otters          | 0          | 2 Deer                  |            |
| Pinnipeds (specify) | 0          |                         |            |
| Whales (specify)    | 0          |                         |            |

Shoreline subdivision map showing important biological features attached.

OCA  
 Low bedrock cliff  
 GRASSY AREA  
 PHOTO SITES

Bio Map  
H. Davis

Sketch MAP (see)  
 SI-3-A  
~~SI-3-A~~  
 11 MAY 1991  
 1500 - 1610

There is a seabird colony on the island to the north west.

\* 1 BAG of oil sediments was recovered from this segment. P.U.

STEVENSON ENTRANCE

F. CT/ST  
2 by 5m, < 1%  
IN major crevice

E. MS/SOR  
CT/ST  
10 by 30m, < 1%  
RAINBOW SHEEN  
WARM WATER WASH SITE

E. See comments on Bio Form. Biota was different from surrounding area

D. CT/ST  
2 by 8m, < 1%  
ON bedrock & B

B. SOR/MS  
CT  
6 by 25m, < 1%  
IN CRACKS OF BR + B

Bedrock + Boulder  
Intertidal ZONE

SEGMENT ENOS

A. SOR  
2 by 2m, < 1%  
Oil in cracks of bedrock and boulders

C. SOR  
4 by 8m, < 1%  
m to UETZ

\* A.B.C.D.F.G.

SETZ - Drift logs, kelpwrack, amphipods + kelp plus *Verrucaria*, and a few limpets.

UETZ - Barnacles, littorines, some limpets, a few *Mytilus* and some patches of *Fucus*, and *Porphyra*.

MITZ - Wide band of *Fucus*, some *Ulva*, *Odonthalia*, *Petrocelia* and *Corallina*. limpets, barnacles, *Mytilus*, *Hydrozoa*, *Anemones*, *Nucella* and *Littorina*.

G. CT/ST  
2 by 5m, < 1%  
ON cobbles + Boulders

LAGOON

0 25  
METERS

SI-2 BEGIN



1991 MAYSAP EVALUATION

SEGMENT: K01108I003 SUB: A REGION: KOD SURVEY DATE: 5/11/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) RESTRICTED 5/15 - 9/1

Ecological/Constraints (see page two for details) Seabird colony

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Rachel Jan Dan Date: 5/24/91

RECOMMENDATIONS:

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

COMMENTS:

INITIAL:       

TAG:       

FOSC:       

TAG APPROVAL DATE: MAY 24 1991

FOSC APPROVAL DATE: 5/29/91

ADEC [Signature]

FOSC [Signature]

EXXON [Signature]

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

USCG [Signature]

NOAA [Signature]

ECOLOGICAL CONSTRAINTS  
1991 FIELD ACTIVITIES

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

**ADEC**

NAME J. BARNHART

SIGNATURE Jeff Barnhart

- ☒ NTR K01-10 SI003A. Trace/splash 1-2% SOR-MS, CV, CT sporadic in cracks and crevices of bedrock and between boulders. Small amount of sheening in pools of water at the warm water wash site. Approximately one bag of oil/oil sediments removed by VECO crew using manual methods. Oil was also broken apart and remains on the beach as trace SOR. Additional removal of oil by manual methods would produce little tangible benefit. No pits dug in this segment.

**EXXON**

NAME R. Coulter

SIGNATURE Ray R. Coulter

- ☒ NTR

EVERYTHING FOUND WAS BROKEN UP WITH A SHOVEL AND/OR REMOVED. AREA WHERE WARM WATER WAS DONE LOOKS GOOD. ALL OILING (SOR, CT, CV) WAS VERY SPORADIC.

**LANDMANAGER**

NAME K. Murphy

OF ADNR

SIGNATURE Kerin Murphy

- ☒ NTR This segment, managed by ADNR, lies just outside Shuyak Island State Park and may be added to state park lands in the future. The area has high scenic, recreational and wildlife values. A toxism area on the north end of the segment was warm water washed last year. This spot still showed 20% oiling. Any further attempts to remove it would cause more harm than good. VECO crew broke up and removed some small patties.

**USCG/NOAA**

NAME CHIEF JENSEN / G. SHIGENAKA

SIGNATURE Chief Jensen / G. Shigenaka

- ☒ NTR One has to look hard to find evidence of oil in this segment. Further removal operations would cause more environmental harm than the oil to be removed.

SEGMENT CONSISTS OF HIGHLY IRREGULAR, RUGGED SHORELINE, MOSTLY BEDROCK OUTCROPS OR LARGE ANGULAR BOULDERS. HEAVY FUCUS COVER AND NUMEROUS LITTORINE SNAILS IN MID-TO LOWER INTERTIDAL. OCCASIONAL PATCHES OF TAR OR TARKY MATERIAL WERE OBSERVED AND SUBSEQUENTLY RECOVERED BY VECO CREW. SEGMENT INCLUDES A COBBLE POCKET BEACH THAT WAS WARM WATER WASHED IN 1989 AND WHICH SHOWED INDICATIONS OF MUCH REDUCED RECOVERY (FUCUS GROWTH, LITTORINE SNAIL SIZE & NUMBERS). VECO CREW RECOVERED OR BROKE UP ALL TAR MATS AND PATTIES DISCOVERED.

SEGMENT SI-3

SUBDIVISION A

DATE 11 / May / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

WEATHER: ☐ SUN ☒ CLOUDS ☐ FOG ☐ RAIN ☐ SNOW

NEAR SHORE SHEEN: ☐ BR ☒ RB ☐ SL ☐ NONE

EST. OIL CATEGORY LENGTH: W      m M      m N      m VL 83 m NO 244 m US      m

[illegible]

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

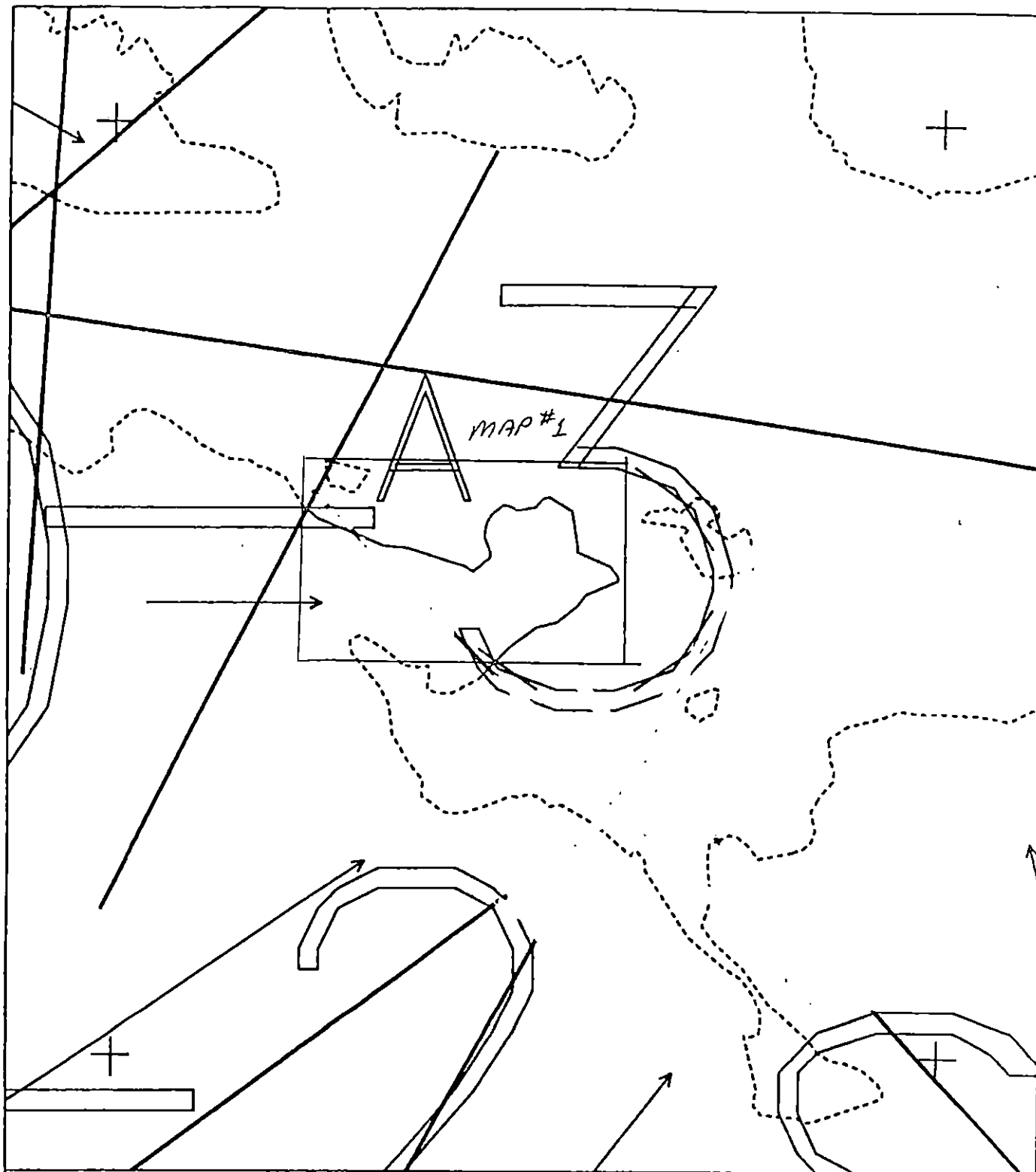
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 6 - 11 FRAMES 12-15

[illegible]

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

**OG COMMENTS:** This segment is a bedrock, boulder, cobble slope forming an irregular shoreline. The oiling is sporadic and in trace amounts consisting of SOR/fms in the cracks and crevices of bedrock and between boulders. Coats and stains are also present in trace amounts. The most concentrated oiling is found at the warm water washing site (E.) at the northwest end of the segment. The oil at this location as reported in the ASAP survey has significantly degraded from broken/patchy to trace amounts. SOR found in this pocket beach was removed and broken apart by VECO crew.

reviewed 5/15/91 RG  
 & reviewed 5/15



K0110 S1003 A

Subdivision Field Map

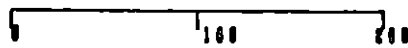
Map Key: COAX0110S1003A

Name: D. Fitzgerald

Date: 11 MAY 1991



METERS



AK State Plane Zone 4.  
901101003d-

ES reviewed 5/15

OCEAN

Low bedrock cliff

GRASSY AREA

PHOTO SITES

Sketch MAP (06)

SI - 3 - A

D. FITZGERALD

11 MAY 1991

1500 - 1610

STEVENSON ENTRANCE

\* 1 BAG of oil sediments  
was recovered from  
this segment. P.U.

F. CT/ST  
2 by 5m, < 1%  
IN MAJOR CRACKS

E. MS/SOR  
CT/ST  
10 by 30m, < 1%  
RAINBOW SHEEN  
WARM WATER WASH SITE

D. CT/ST  
2 by 8m, < 1%  
ON BEDROCK & B

B. SOR/MS  
CT  
6 by 25m, < 1%  
IN CRACKS OF BR & B

Bedrock  
+ Boulder  
Intertidal  
ZONE

SEGMENT  
ENOS

C. SOR  
4 by 8m, < 1%  
m to UFTZ

A. SOR  
2 by 2m, < 1%  
Oil in cracks of  
bedrock and boulders

G. CT/ST  
2 by 5m, < 1%  
ON COBBLES +  
Boulders

0 25  
METERS

LAGOON

SI-2 BEGIN

Reviewed 5/15/91  
SC reviewed 5/15

OCEAN



Low bedrock cliff



GRASSY AREA



PHOTO SITES

PHOTO SITES SI-3A  
FRAMES 12 THRU 15  
ROLL 6-11

STEVENSON ENTRANCE

Sketch MAP (06)

SI-3-A

D. FITZGERALD

11 MAY 1991

1500 - 1610

\* 1 BAG of oil sediments  
was recovered from  
this segment. P.U.

F. CT/ST  
2 by 5m, <1%  
IN major CRACK

E. MS/SOR  
CT/ST  
10 L, 30m, <1%  
RAINBOW SHEEN  
WARM WATER WASH SITE

D. CT/ST  
2 by 8m, <1%  
ON Bedrock @ B

B. SOR/MS  
CT  
6 by 25m, <1%  
IN CRACKS of BR+B

Bedrock  
+ Boulder  
Intertidal  
ZONE

SEGMENT  
ENOS

A. SOR  
2 by 2m, <1%  
Oil in cracks of  
bedrock and boulders

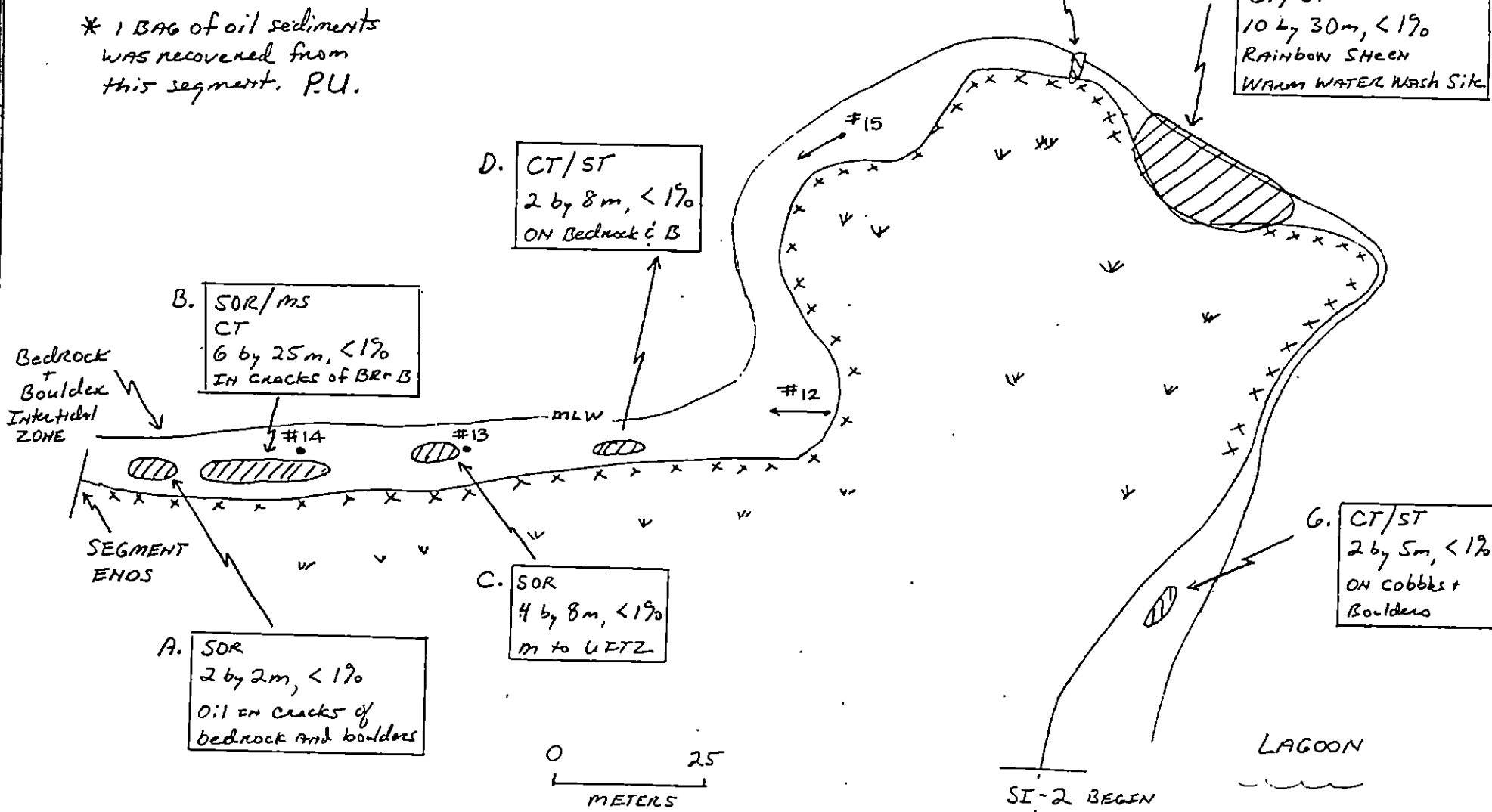
C. SOR  
4 by 8m, <1%  
m to UFTZ

G. CT/ST  
2 by 5m, <1%  
ON cobbles +  
Boulders

0 25  
METERS

SI-2 BEGIN

LAGOON



DATE May 11 1991  
TIDAL HEIGHT (Range) 8 ft - 6 ft (15<sup>00</sup> - 16<sup>10</sup>)  
BIOLOGIST H Davis  
WIND SPEED/DIRECTION  $\approx 5$  mph SE  
FRAME # 12-15

Site SI-03A is an irregular shoreline of bedrock covered with boulders and cobble. The substrate is continuous except for occasional pockets of gravel.

E+G The SETZ has drift logs and staves (*Fucus* + *Neorhizus*) against grassy overhanging. Verrucaria covers the surfaces of the bed rock and boulders. Some littorina are in rock crevices. Kelp thin and amphipods are active on the drift kelp.

B, C, F+G. In the U1T2 dense littorina, sparse barnacles, sparse limpets (under rocks) and occasional patches of Fucus and porphyra occur.

A, B, C. The MITZ has a wide dense covering of *Fucus*, most of which ( $\approx 75\%$ ) is reproductive. There are patches of petricellia, or onthalia, "ulva" green blade, and coralline algae. Under rocks limpets, sipunculids, littorina eggs, and anemones (*Aulastrea* sp?) Nudella were on the sides of droublers eating barnacles + the small mytilus.

E. Site E had been warm water washed the biota in this area differed visibly from its surroundings. The numbers of gastropods equalled the surrounding areas but the algal cover was greatly reduced. *Fucus* was not as reproductive ( $\approx 25\%$ ) and was mostly new growth from old bases. There were more empty barnacle shells ( $\approx 40\%$  empty) and no anemones were found under the rocks.

The oil in the intertidal is so patchy and hidden in cracks and crevices that removal efforts would be more disruptive than productive.

### Oystercatchers (4)

Glaucous-winged Gulls (5) Kittiwakes >25 Red Necked Phalaropes (5) sandpipers (1)

TO BE COMPLETED IN ALL SUBDIVISIONS

| BIRDS            | # OF SPECIES | TOTAL BIRDS | FISH OBSERVED<br>SPECIES PRESENT |
|------------------|--------------|-------------|----------------------------------|
| Eagles           | 1            | 1 adult     | Sculpins.                        |
| Seabirds         |              |             |                                  |
| Waterfowl        |              |             |                                  |
| Gulls/Kittiwakes | 2            | > 30        |                                  |
| Shorebirds       | 3            | 10          |                                  |
| Corvids          |              |             |                                  |
| Other Birds      |              |             |                                  |

| MARINE MAMMALS      |            | LAND MAMMALS |            |
|---------------------|------------|--------------|------------|
|                     | # OBSERVED | SPECIES      | # OBSERVED |
| Sea Otters          | 0          | 2 Deer       |            |
| Pinnipeds (specify) | 0          |              |            |
|                     |            |              |            |
| Whales (specify)    | 0          |              |            |
|                     |            |              |            |

Shoreline subdivision map showing important biological features attached.

P. 12 5/15/91 Kna

OCEAN

Low bedrock cliff

GRASSY AREA

PHOTO SITES

Bio Map  
H. Davis

Sketch MAP (SI-3-A)

SI-3-A

~~SI-3-A~~

11 MAY 1991

1500 - 1610

STEVENSON ENTRANCE

There is a seabird colony on the island to the north west.

\* 1 BAG of oil sediments  
was recovered from  
this segment. P.U.

F. CT/ST  
2 by 5m, < 1%  
IN major crevice

E. MS/SOR  
CT/ST  
10 by 30m, < 1%  
RAINBOW SHEEN  
WARM WATER WASH SITE

E. See comments on Bio  
Form. Biota was different  
from surrounding area

D. CT/ST  
2 by 8m, < 1%  
ON Bedrock & B

B. SOR/MS  
CT  
6 by 25m, < 1%  
IN cracks of BR & B

Bedrock  
+ Boulder  
Inter-tidal  
ZONE

SEGMENT  
ENOS

A. SOR  
2 by 2m, < 1%  
Oil in cracks of  
bedrock and boulders

C. SOR  
4 by 8m, < 1%  
m to UFTZ

\* A.B.C.D.F.G.

UFTZ - Drift logs, kelp, anemones, amphipods + kelp  
flus. Verrucaria, and a few limpets.

MITZ - Barnacles, Littorina, some limpets,  
a few mytilus and some patches of Fucus,  
and Porphyra.

MITZ - Wide band of Fucus, some  
Ulva, Odonthalia, Petroselinus and  
Corallina. limpets, barnacles, mytilus,  
sepiaculids, anemones, Nucella and  
Ulva.

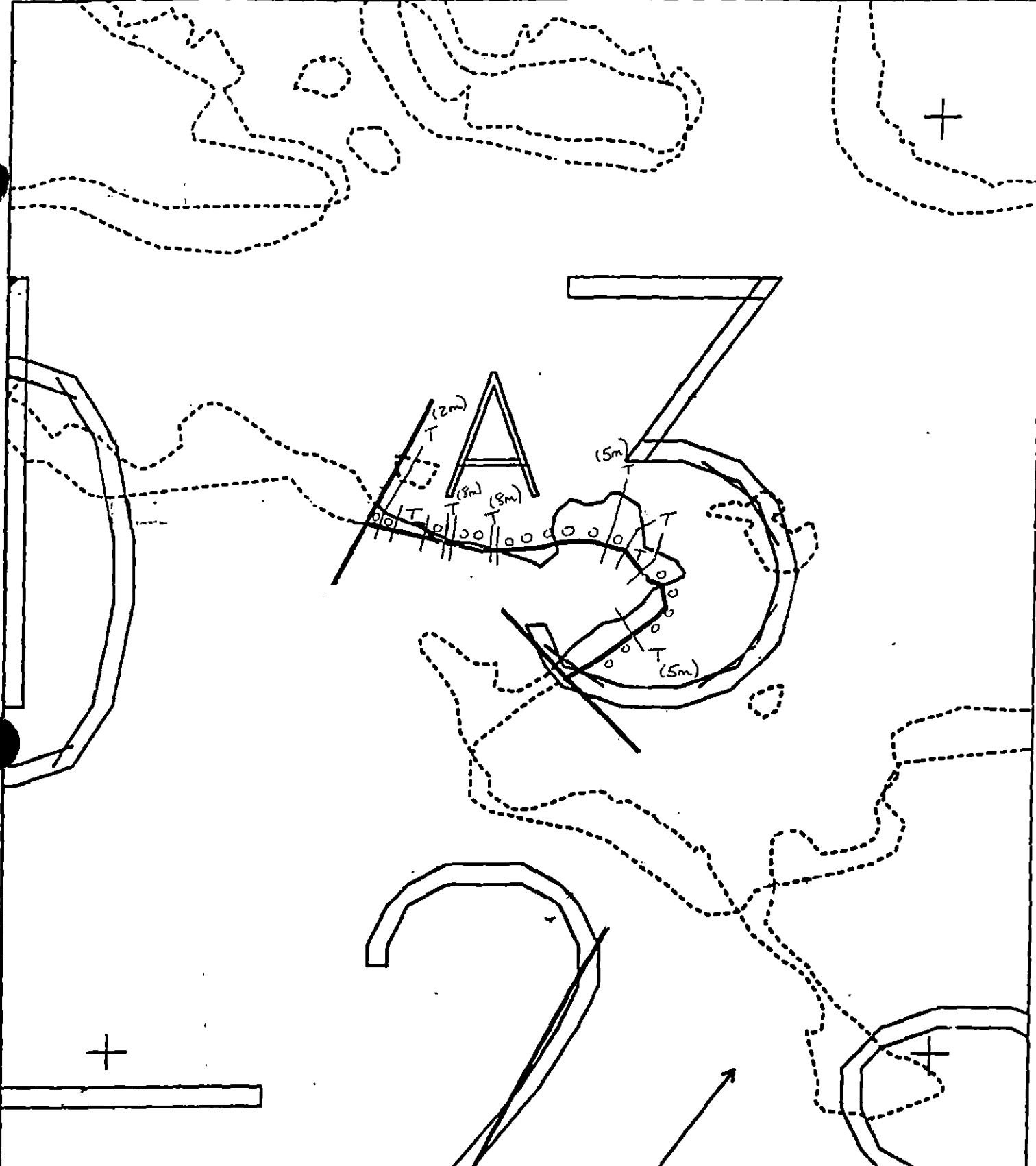
G. CT/ST  
2 by 5m, < 1%  
ON cobbles +  
Boulders

Red necked  
Phalaropes  
Feeding along  
Shore line.

LAGOON

0  
METERS

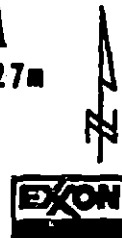
SI-2 BEGIN



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

**K0110 S1003 A**  
 ADEC Subsegment Length: 327m  
 METERS

5 100 200  
 AK State Plane Zone 4  
 901101003a



Subdivision Field Map  
 Map Key: 60AK0110S1003A  
 Name: D. FitzGerald  
 Date: 11 May 1991  
 Date Entered:

**ARLIS**  
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