



EVOS
GC
1552
.P75
S42
1991
v.45

[Shoreline evaluations, 1991].

Prince William Sound GR-300 to IN-24

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ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-300 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	No constraint to manual pickup
5S	Shorebird/Waterfowl Concentration	No constraint to manual pickup.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum before 6/15 and after 8/15. Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

[Signature]

Date

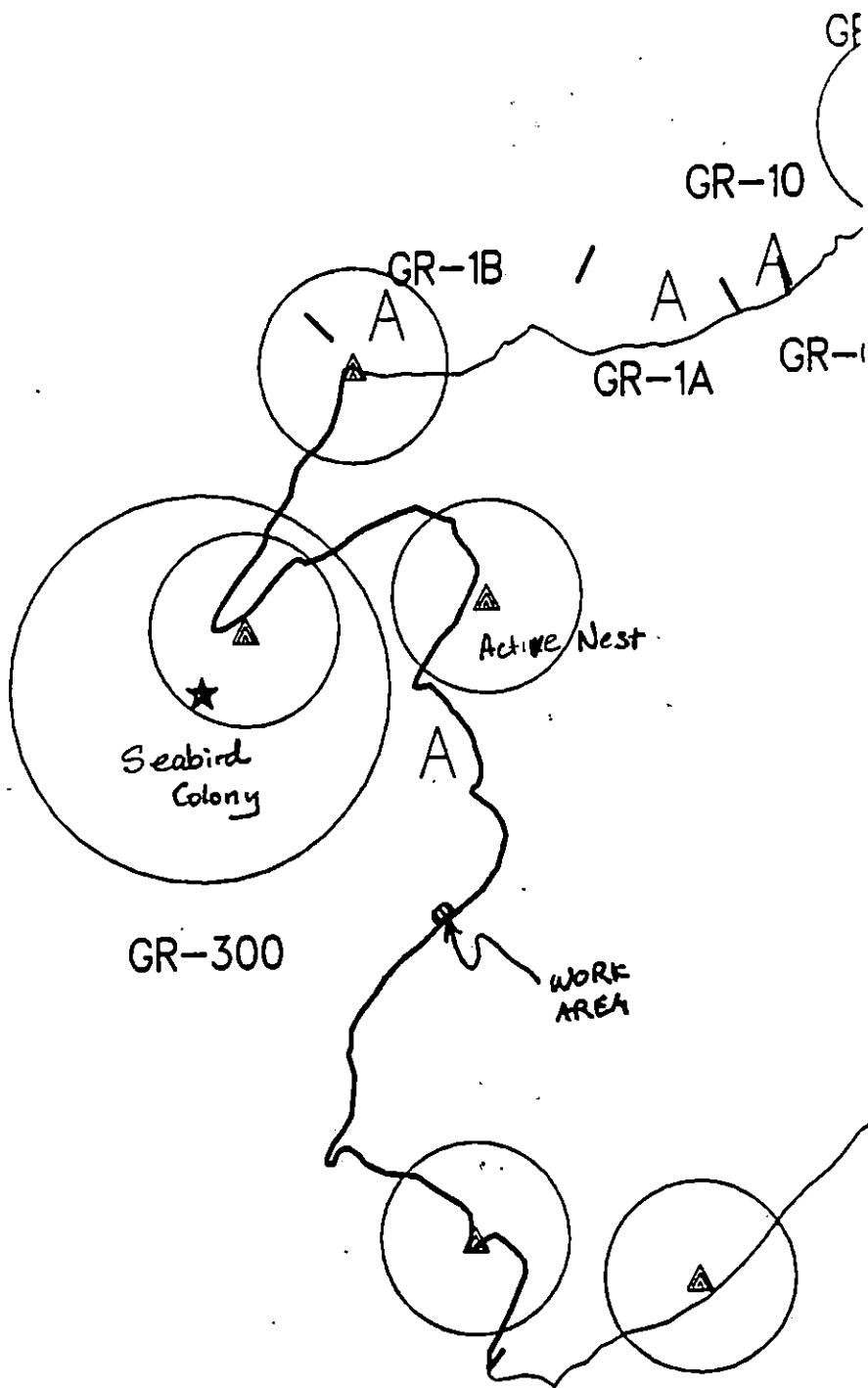
6/14/90

Prepared by

[Signature]

Date

6/14/90

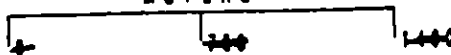


Exxon Company, USA
Map Key: PMS-GR-300
June 04, 1990



ECOLOGY MAP SEGMENT GR-300 SUBDIVISION A (L of L)

METERS



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



SHORELINE EVALUATION

SEGMENT ST/ GR-300 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-3 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Holman DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 43 m: No Oil 7378 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommend manual pick up of oiled log if >10% coverage and splash impact. Work should be conducted between 6/1 and 8/14 with USFWS permission due to eagle nest constraint.

TAG COMMENTS: MONITORS TO ASSESS LOGS AND DETERMIN NEED TO ADDRESS

TAG APPROVAL DATE: 4/21/90
ADEC LOTT KEMER
EXXON ANDY TEAL
NOAA Burt Wescott
USCG KENNETH KENNE

FOSC: ML DATE: 4-27-90

SHORELINE EVALUATION

SEGMENT ST/ GR-300 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

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5S Shorebird/Waterfowl concentration (4/1 to 5/15)
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SHPO SIGNATURE: *Charles E. Homan* DATE: 4/23/90

OILING CATEGORIZATION:

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Subsurface Oil Observed: Yes No X Maximum Depth

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<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
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<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u> </u> Tarmat: <u> </u> Breakup	<u> </u> Beach Cleaner
<u> </u> Removal	<u> </u> Other (see comments)

COMMENTS: Recommend manual pick up of oiled log if >10% coverage and splash impact. Work should be conducted between 6/1 and 8/14 with USFWS permission due to eagle nest constraint.

TAG COMMENTS: MONITORS TO ASSESS LOGS AND DETERMIN NEED TO ADDRESS

TAG APPROVAL DATE: 4/21/90
ADEC *Art Wescott*
EXXON *Andy Teal*
NOAA *Burt Wescott*
USCG *Kenneth Keane*

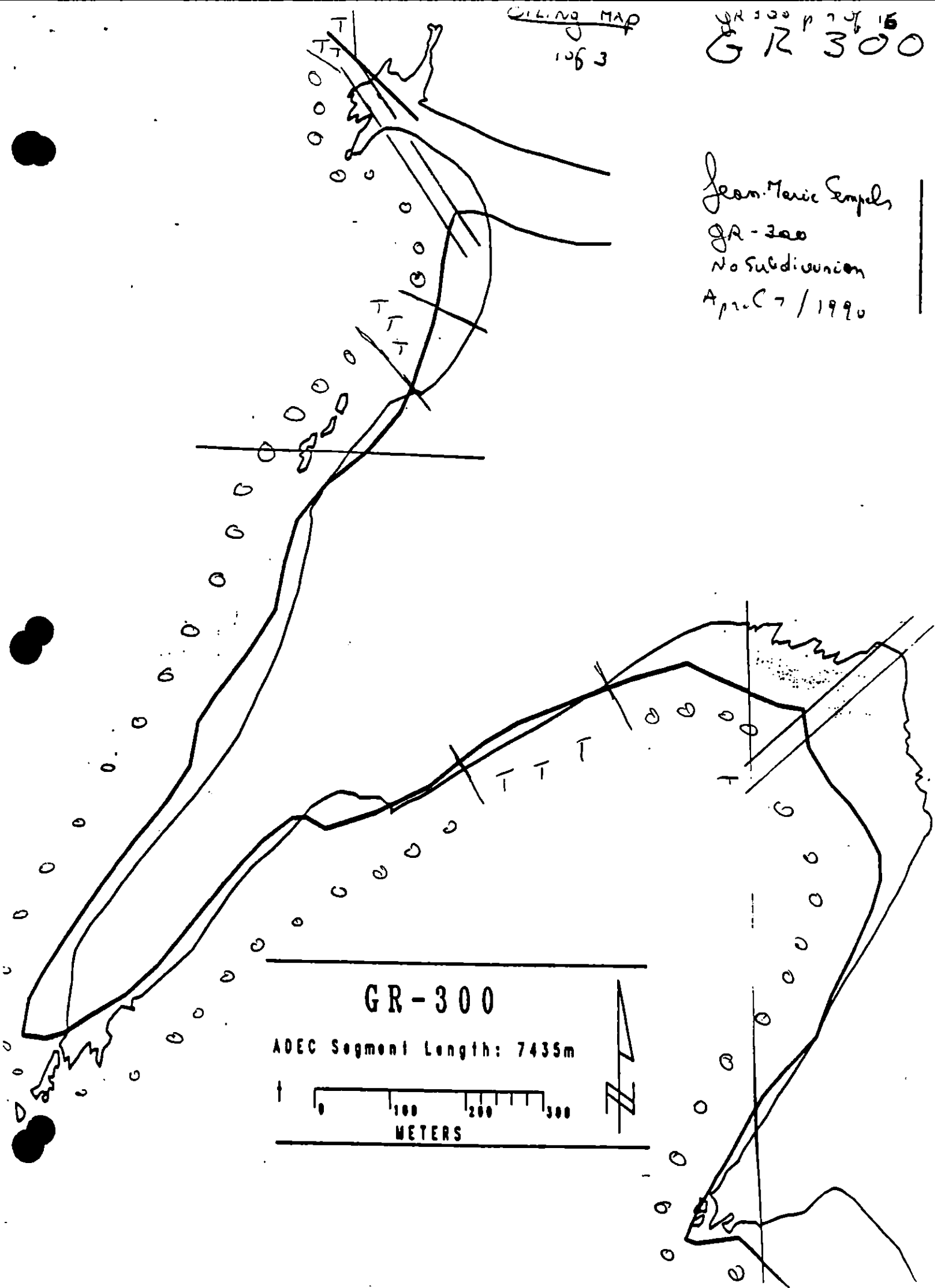
FOSC: *ML* DATE: 4-27-90

REVISION:03/24/90

CILING MAP
1063

GR 300 P 706 15
GR 300

Jean-Marie Sempels
GR-300
No Subdivision
Apr. C 7 / 1990



GR-300

ADEC Segment Length: 7435m



Dilling Map 2 of 3

GR 300, 6 of 16

from Marie Temple

segment GR-300

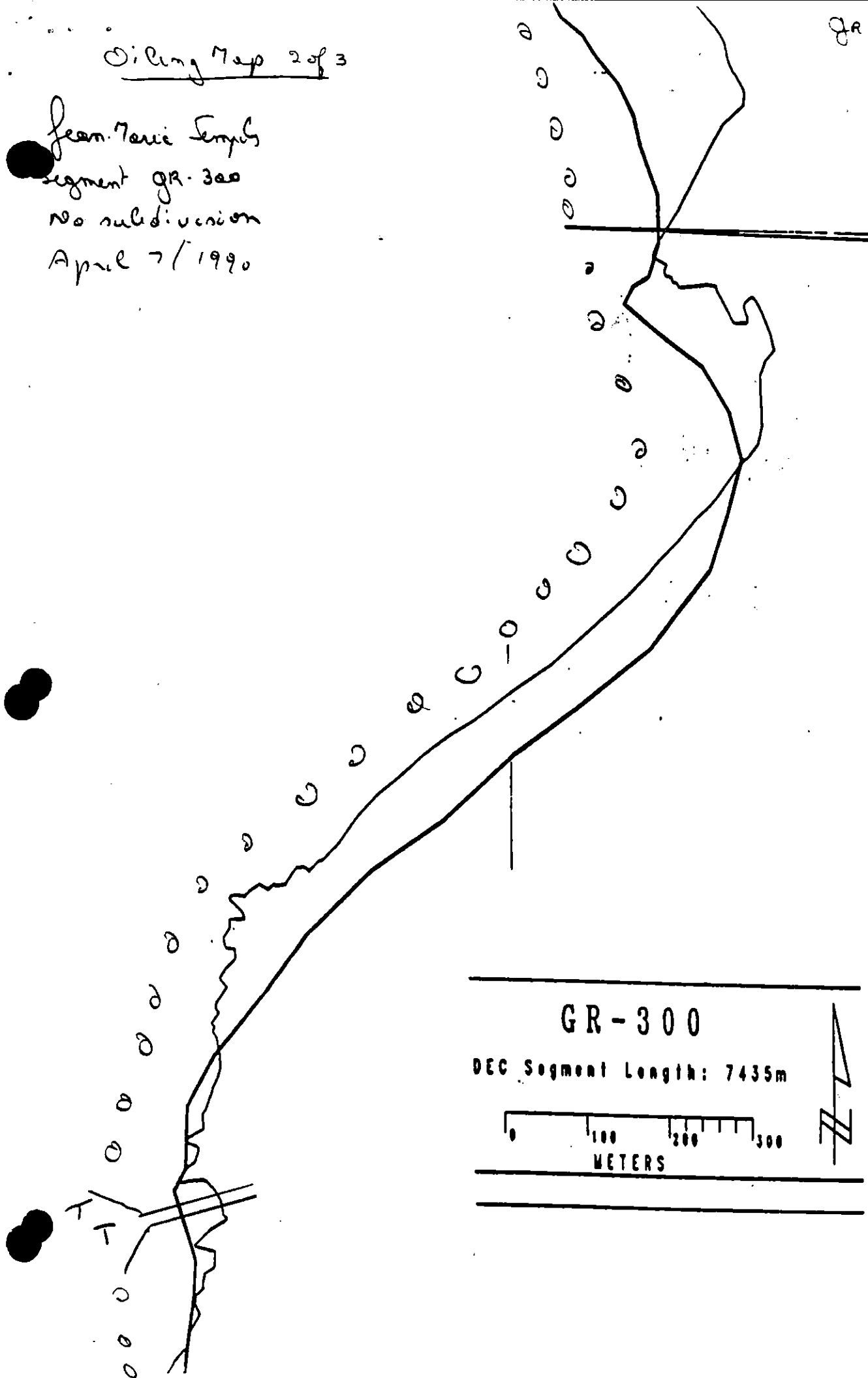
no subdivision

April 7/1990

GR-300

DEC Segment Length: 7435m

0 100 200 300
METERS

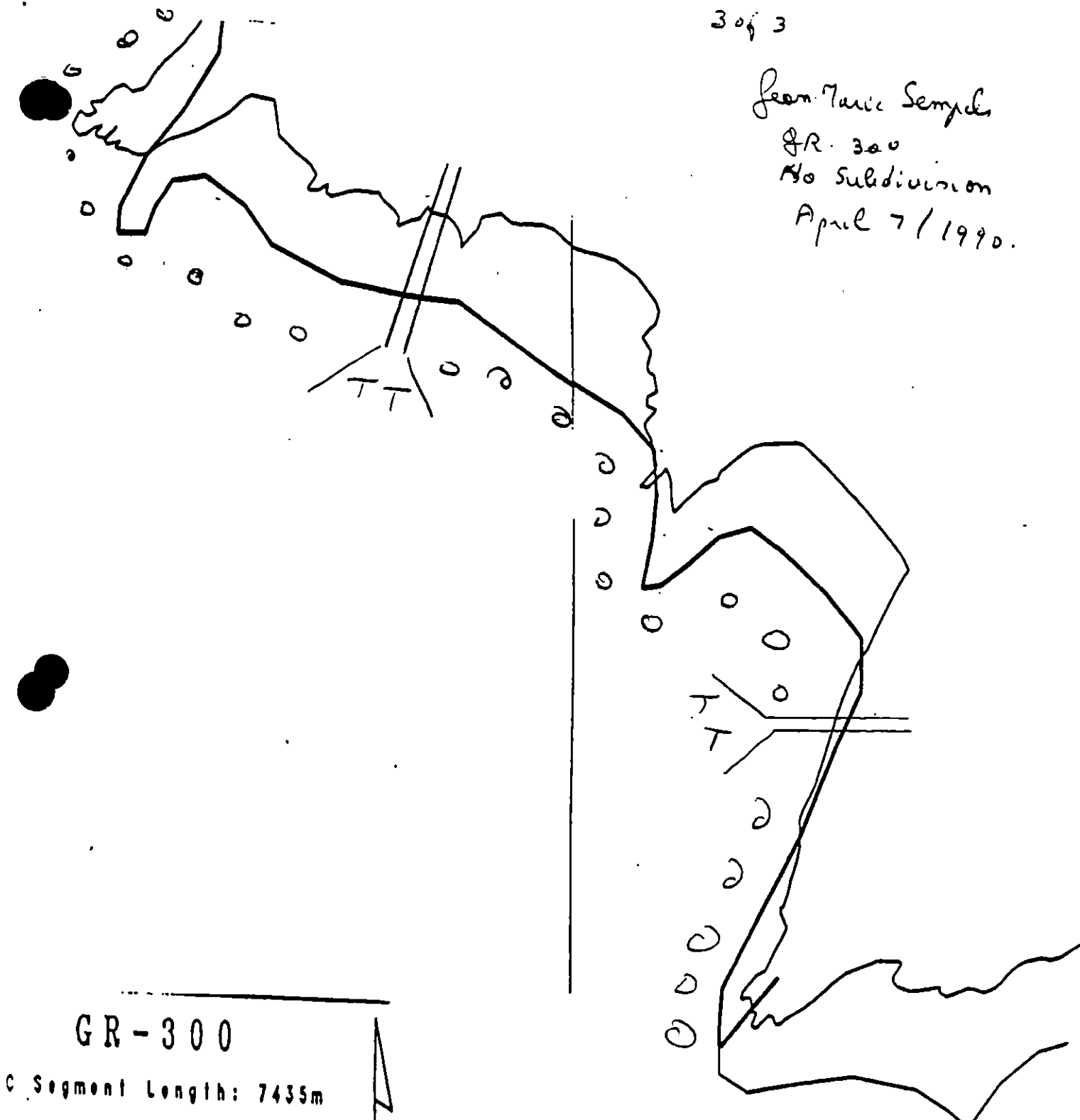


from Tactic Sempels

GR 300

No Subdivision

April 7/1990.



GR-300

C Segment Length: 7435m



REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-300

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-300 SUBDIVISION A (1 OF 1) DATE 4/7/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
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See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 43 m: No Oil 7378 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: _____ Breakup	☐ Beach Cleaner
☐ Removal	☐ Other (see comments)

COMMENTS: Recommend manual pick up of oiled log if >10% coverage and splash impact. Work should be conducted between 6/1 and 8/14 with USFWS permission due to eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

GR 300 p 6 1 6

SEGMENT ST / GR 300 SUBDIVISION: _____ DATE 4/7-8CG
NAME Robert G. Jensen SIGNATURE Robert G. Jensen☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Occassional splatters or drips.

ADEC
NAME Rowan T. Hudnall SIGNATURE Rowan T. Hudnall☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Splashes and drips. Scattered distribution

LAND MANAGERNAME U.S. Forest Service SIGNATURE Lee Kules☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Found scattered pockets of splatter, generally very small and broken up. - see Geogist Report
Continue Natural Cleaning

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG John Marie Simpson USCG Bob Jensen SEGMENT ST/ QR-300
 BIO John Dixon LAND REP Lee Kuehl (FS) SUBDIVISION A (1051)
 EXXON Jim Ellison ADEC Reagan Hudmirel TIME 15:50 to 20:00
 TEAM NO. 2 TIDE LEVEL: +6.5' to +1.5' DATE April 7 and 8/90
 EST. SUBDIVISION LENGTH: 9498 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☐ Boat ☐ Helo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 34 % B 26 % C 20 % P 10 % G 0 % S 10 % M 0 % V 0 %
 SLOPE: Lang 75 % Hang 25 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 405 m NO 9093 m

SURFACE OIL

Note Segment done April 7/90 1550-2000 +6.5' +1.5'
 April 8/90 0655-0902 +0.5' +2.5'

CHARACTER	DISTRIBUTION				OIL / FILM COLOR					IMPACTED ZONES			
	/C	/B	/P	/S	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	M	U
ASPHALT PAVEMENT													
POOLED													
COVER				X		X					X		
COAT		0		X		0 x					X 0		
STAIN				X		X					X		
MOUSSE													
PATTIES													
TARBALLS													
FILM													
NO OIL										X		x	Y

PAVEMENT: H F S (A30) sq. m by 0 cmPATTIES / TARBALLS (A30) BAGSNEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST-2-10 ST-2-11Frames 8-36 1-14

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY SL	DBR TL	LBR	SU	UI	M	U					
1	30					"	-									X			No	Pb / cb / Sol			
2	40					"	-									X			"	"			
3	35					"	-										X		"	"			
4	40					"	-											X	"	Pb / Sol / cb			
5	35					"	-										X		"	Pb / cb / Sol			
6	40					"	-											X	"	Pb / Sol			

COMMENTS

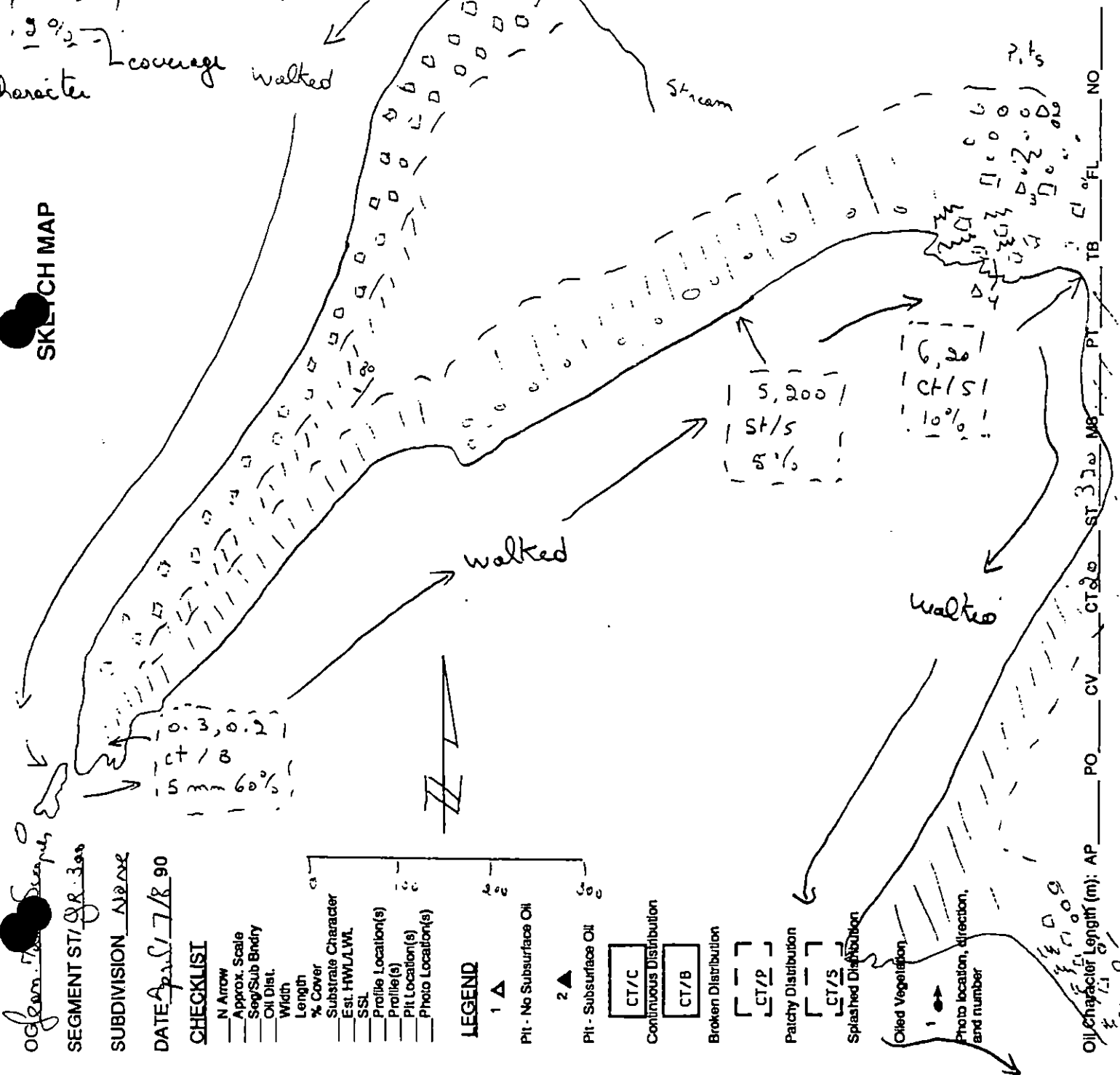
Legend

- Sub-surface / mps / talus
- Boulder / Cobble head
- Cobble / Cobble head
- Sand

width
length
10, 100

st/s - distribution
2% - coverage walked
Character

SKETCH MAP



OG from Sample
SEGMENT ST/ QA-300

SUBDIVISION NUM

DATE April 17/1990

CHECKLIST

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

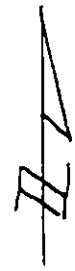
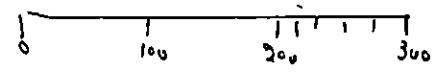
CT/S

Splashed Distribution

Oil Vegetation

1 ●

Photo location, direction, and number

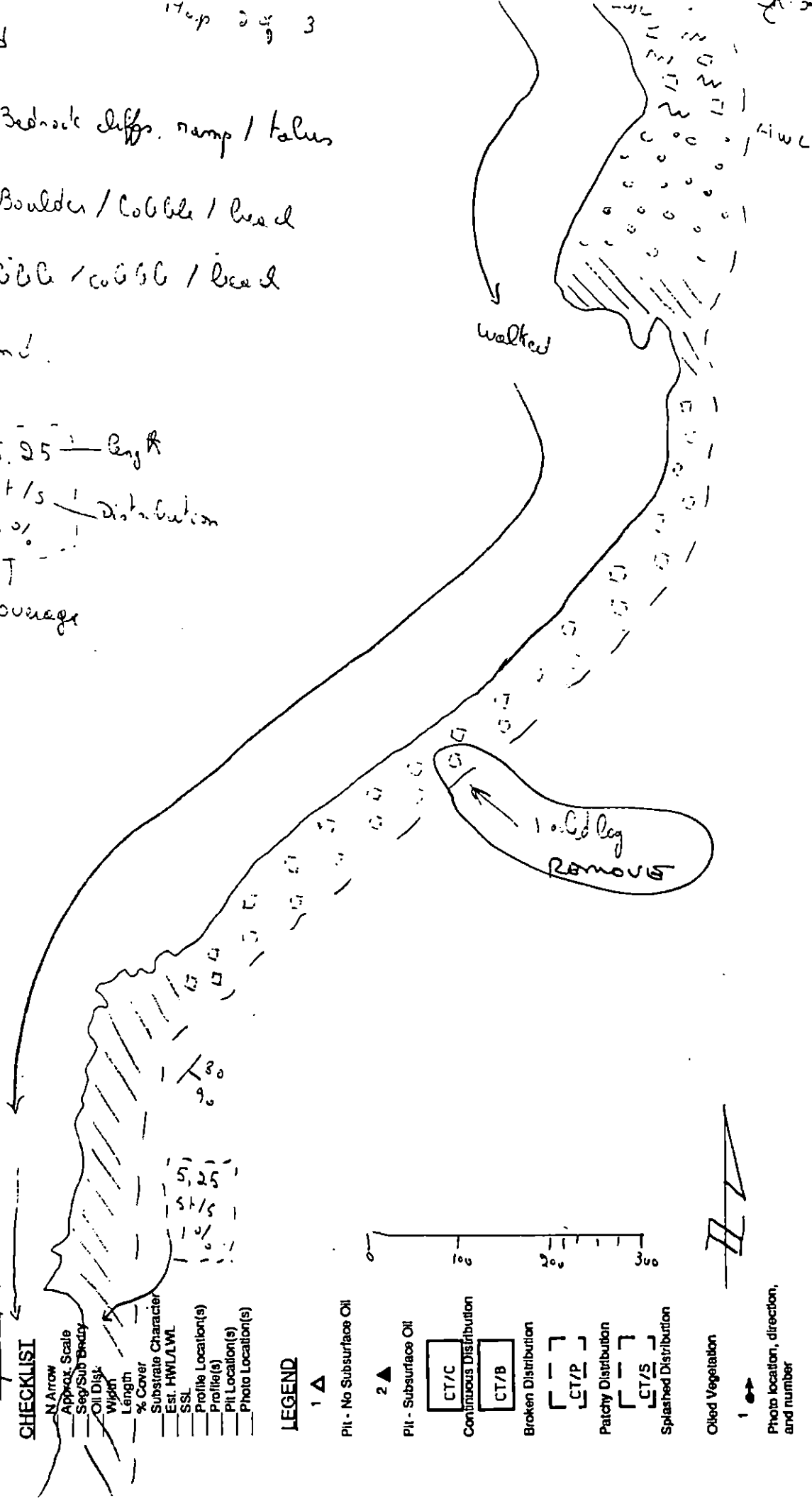


Legend

- 1. Bedrock cliffs, ramp / talus
- Boulder / Cobble / Beach
- 12 CCB / cobble / beach
- Sand

width 5.25 - 8m
character 1st / 5th Distribution
coverage

SKETCH MAP



1230-1-5 6

Green Island, GR-300, April 7, 1990

Segment GR-300 makes up the west coast of Green Island. It is a 9.5 km long section of shoreline exposed to a moderate (west) to long fetch (southwest). The shoreline is relatively indented with long projecting headlands composed of vertically tilted metamorphic rocks trending northeast. The same trend and dip was observed throughout the segment and in many places, it gives rise to bedrock ramps on the northwestern side ("top" side of dipping beds) and accumulation of boulders and cobbles on the southeastern side ("bottom" side of dipping beds) of southwesterly trending headlands. The vertical bedding also gave the bedrock intertidal ramps a very jagged surface. From north to south, the segment includes a series of bedrock headlands separated by bedrock ramps with some coarse sediments, or boulder beaches. The coves occurring between headlands are generally composed of boulders with accumulations of pebbles in the storm berm area, and in two occasions, substantial deposits of sand in the middle and lower intertidal area at the head of the cove.

Very little oil was found on this segment. Where it occurs, it consists mainly of stains and small patches of tarry coatings or splatters in the upper intertidal zone. No subsurface oil was found in the test pits that were dug on this segment.

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / GR-300 Subdivision N/A Date (mo / day / yr) 04/07/90 04/08/90

Time (24 hr) 0655-0702 Biologist John Dixon

(A) Substrate type and % of segments:
(1) Bedrock 34 (2) Boulder 26 (3) Cobble 20 (4) Pebble 10 (5) Sand 10 (6) Silt

(B) Overall % cover of biota (% of segment): Dense 23 Moderate 26 Low 51

(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-2-10 ST-2-11

Frames 9-12 17-20 1, 4, 9, 10, 14

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	X	X	X	2	2	X	
3	3	3	3	3	3	X	X	X	3	3	X	
4	4	4	4	4	4	X	X	X	4	4	X	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

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	X	X	X	2	2	X	
3	3	3	3	3	3	X	X	X	3	3	X	
4	4	4	4	4	4	X	X	X	4	4	X	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

ASTROPODS

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

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	X	X	X	2	2	X	
3	3	3	3	3	3	X	X	X	3	3	X	
4	4	4	4	4	4	X	X	X	4	4	X	
5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	

Wildlife Observations/ General Comments: Water line $\pm 5.5' - \pm 0.5'$ during observations. 12... on beach. Bald eagles over beach. Many oyster catches in intertidal. Small flock of Canadian geese on the beach. Winter wrens.

Ecological Considerations: Sonar/Turbidity: 7.11, 2M, 5T-3, 5S.

This 7.4 Km segment is made up of a variety of habitats, including rocky headlands, large talus, boulder/cobble beaches & sand/pebble beaches. The much freshwater runoff. Diversity & density is highest in areas of rock outcrop & talus. *Leptasterias* (many brooding), *Pycnogon*, *Idotea* N. etc. Tur. *Sipunculus* (*Phragdolemma*) & *Thermit* crabs common under rocks. On rocky beach in areas of freshwater runoff *Mytilus* is abundant in pebble matrix. The pillbug *Gnathosphaeroma* common under boulders in those areas. *Volutharia* locally abundant under boulders on headland. *Codium* present.

Sunday 4/8/90 0655 - 0902 (10.5 - 12.0) 15 10

GR-300 7.4 Km

This long segment is made up of a great variety of habitats and a heterogeneous assemblage of biotic communities. There are seven headlands or promontories composed of bedrock outcrops. Typically these grade into large talus and then boulders & cobbles of decreasing size as one proceeds from a point to an embayment. Toward the back of the embayments the beach slope decreases and there is considerable fresh water runoff. The runoff generally occurs over a wide, poorly delineated area but discrete streams discharge into two of the embayments. The areas of runoff tend to be sandy or gravelly with scattered cobbles & boulders.

The headlands support the most diverse and highest density biota. The bedrock outcrops tend to form large areas of relatively flat bench interspersed with more erosion resistant rock with considerable vertical relief. In the low intertidal there is typically ~80% cover of algae, mostly Fucus and Rhodanella but Tridacna & Edonthe may also be abundant. Unidentified filamentous reds and greens, Ulva & Alaria are often present. Bivalves are extremely rare on bedrock but may occur on small cobbles. Gastropods are also rare. Mussels are generally absent. Sea stars are often abundant, with Pycnopoda being most common in exposed locations. (non-cyprine)

In the middle intertidal (+2 - +7) there tends to be more open space and more horizontal areas with scattered boulders and cobbles. Fucus ranges from moderate densities in lower areas to sparse in higher locations. Barnacles tend to be sparse with B. carricornis most numerous. Mussels tend to occur on horizontal benches from around +5' to +8'. On these benches erosion has produced alternating high & low areas - ~ 30 cm ridges & troughs. Fucus & barnacles, B. carricornis & B. glandula tend to occur on the ridges, whereas Mytilus, Rhodomele, & Phyllospadix dominate the troughs. Under large boulders there are broadly Tegasteria, Idotea, large N. sentum, flatworms, Holothurians, Sipunculars, often dense aggregation of Forams, hermit crabs.

On the high shore along headlands cover is much more sparse. Fucus is sparse, Mytilus occurs in patches, but tend to be sparse to rare overall. Balanus carricornis give very typical B. glandula & sometimes Citharus. On the rock gastropods tend to be rare & sparse. usually small Turritidae & eroded limpet. Under boulders & cobbles gastropods are often moderate. On horizontal bed rock & P. patinae etc. attain very high densities.

61-500

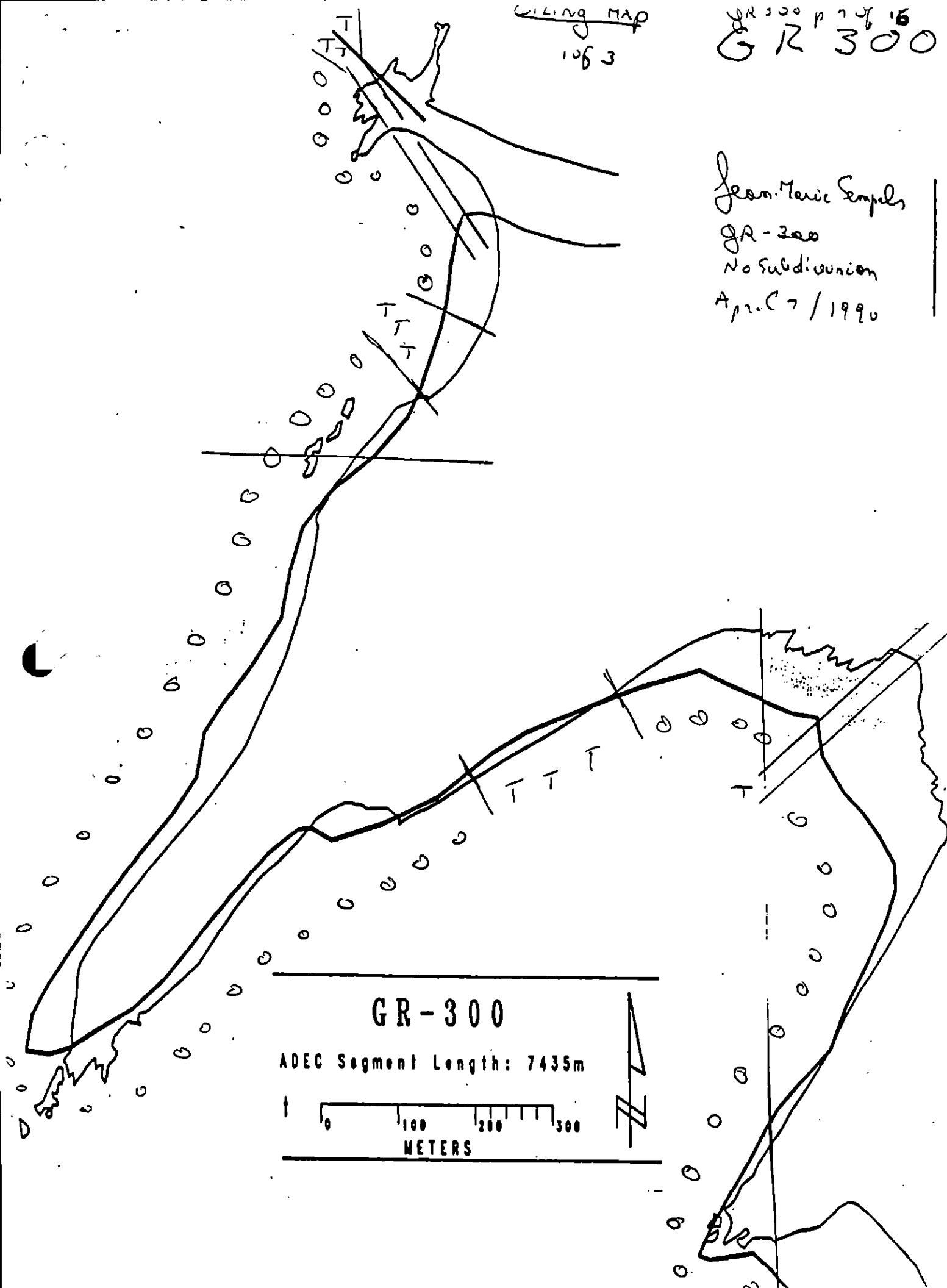
The biota on large tubes tends to be similar to that on bedrock. On boulder/cobble beaches density & diversity are much lower. If the rocks are red in a sand they may be very divergent. If the cobbles & pebbles are deep, they in fact are a fairly high density of gastropods (N. incerta, L. lithane) amphipods, hermit crabs, & blennies. In some areas Leptogobius, prob Leptogobius are common. As one moves up the shore littorine often replace limpets as the most abundant gastropods. On the lower shore there is usually a high cover of filamentous red & green algae.

Where the beach is made up of boulders & cobbles in a coarse sand/gravel matrix Mytilus are often very abundant in the middle & upper intertidal. This often is the case in areas of fresh water runoff. The small pillbox-like Ignorinospharisma is often dense under boulders in such locations.

WILSON MAP
1063

GR 300 p 7 of 16
GR 300

Jean-Marie Sempels
GR-300
No Subdivision
Apr. 7 / 1990



GR-300

ADEC Segment Length: 7435m

0 100 200 300
METERS

Oiling Map 2 of 3

GR 300 / 6 of 16

Leam. Taxis Temp.

Segment GR-300

No subdivision

April 7/1990

GR-300

DEC Segment Length: 7435m

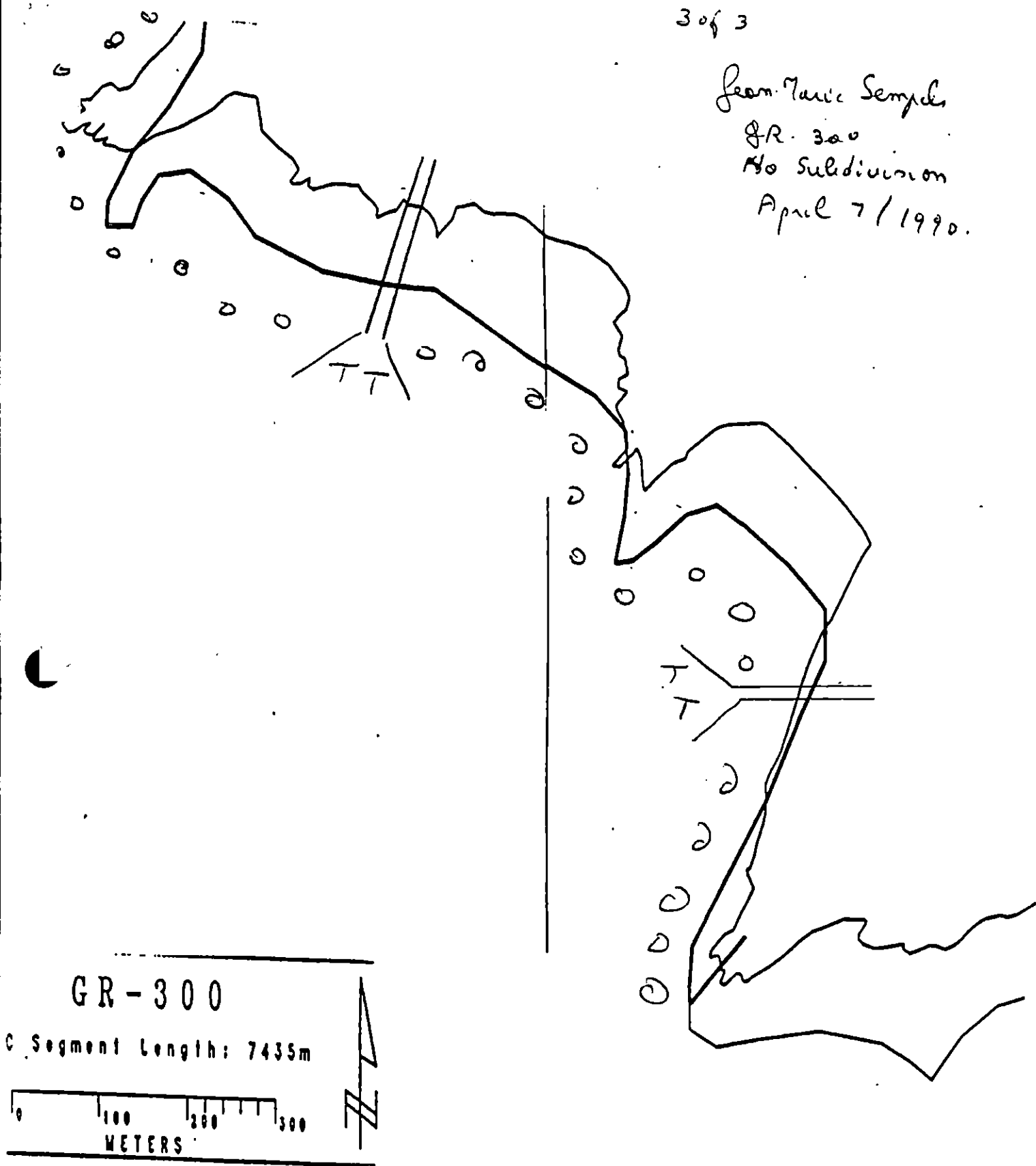


from Marie Semples

GR 300

No Subdivision

April 7 / 1990.



Segment: GR 301 Subd: B Site: 1 Date
PRE-Review 11 AUG 90

NTR

Recommended:

MANUAC PICKUP ASPHALT & MOUSSE

YES

NO

CG

YES/

NO

ADEC

YES

EXXON

NQ

YES

LAND MGR

NO

TAG 13 AUG 90

Manual Pick up mouse

HIGH PRIORITY

ASAP TAG REVIEW SHEET

Segment: GR 301 Subd: B Site: 2 Date
PRE-Review 11 AUG 90

Priority For Addressing In 1990

 HIGH MEDIUM X (see comment) LOW NTR

Treatment

Recommended:

~~MANUAL PICKUP AP~~

~~MANUAL PICKUP SPORATIC AP~~

Realistically should be NTR
BUT SINCE WORK BEING DONE
ON SITE I REC. ABOVE.

Priority Site For Reassessment In 1991

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

TAG 13 AUG
NTR

ASAP TAG REVIEW SHEET

Segment: GR 301 Subd: B Site: 3 Date
PRE-Review 11 AUG 90

Priority For Addressing In 1990

 HIGH MEDIUM LOW X NTR

Treatment
Recommended:

NO OIL — SPORADIC COAT

NTR

Priority Site For Reassessment In 1991

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

TAG 13 AUG 96
NTR

ASAP TAG REVIEW SHEET

Segment: GR 301 Subd: B Site: 4 Date
PRE-Review 11 AUG 90

Priority For Addressing In 1990

 HIGH MEDIUM LOW X NTR

Treatment
Recommended: _____

SPORADIC MOUSSE

NTR

Priority Site For Reassessment In 1991

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

TAG 13 AUG 90

Manual Pick up mousse

HIGH - PRIORITY

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT GR-301 SUBDIVISION B DATE 8/1/90

MODIFICATION CLASS I

1. REASON FOR MODIFICATION

Mousse was located in Area that was previously recommended for no work.
(SEE MAP)

2. SUGGESTED ADJUSTMENT TO WORK PLAN

MANUAL Removal of Mousse at UITE. Popweed & small boulders will have to be moved in some areas to expose mousse. Some Areas surface mousse is present.

- Orange flagging & small rock piles were constructed to locate areas for work crews.

3. TIMING ISSUES

ADEC

Wesley Ghormley 

EXXON

Ray Stitt

100AA

USCG

Art Weiner

LAND MANAGER

Taha F. Hall (if field rep is on scene)

WORK PLAN MODIFICATION RECOMMENDATION

SEGMENT GR-301 SUBDIVISION B (site #1) DATE 8/1/90

MODIFICATION CLASS I

1. REASON FOR MODIFICATION

LARGE AMOUNT OF MOUSSE WAS NOT WORKED during clean-

2. SUGGESTED ADJUSTMENT TO WORK PLAN

MANUAL Removal OF MOUSSE and small patches of asphalt.
USE AVAILABLE hand tools. Wipe oil Residue with pom-poms
upon Removal OF MOUSSE.

- Bands OF MOUSSE located on both sides of stream
- Some Areas mousse is present to 12 cm in depth.

3. TIMING ISSUES

ADEC

Wesley Sherman

EXXON

Ray Smith

VOA USCG

Art Weimer

LAND MANAGER

John Felt (if field rep is on scene)

FIELD SHORELINE COMMENT SHEET

SEGMENT AS/ GR-30 SUBDIVISION: B SITE: 1 DATE 8/1/90
 USCG/NOAA PSI Leo Bersalona USCG Leo Bersalona
 NAME ART WEINER SIGNATURE Art Weiner

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

All Mousse is ACCESSIBLE FOR REMOVAL USING MANUAL METHODS. IF ALL MATERIAL IS REMOVED, THERE WOULD BE NO NEED FOR A REASSESSMENT IN 1991.

ADEC
 NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991
 REASON: Additional manual work is recommended for 1990. Mousse to the depth of 12 cm is present. Reassessment is recommended to determine the effect of manual work and to determine the amount of oil if any, remains after additional work is completed.
 — Assessment should also be conducted in 1990 to see if additional work is in order after crew reworks area.

LAND MANAGER
 NAME John Abel SIGNATURE John Abel

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

Mousse is readily identified in zone which can be worked. Most tide cycles. However, cobbles may be hidden under grasses when green. Reassessment should be performed shortly after break-up.

EXXON
 NAME REY SOTELO SIGNATURE Rey Sotelo

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

This site was missed by clean-up crews while working on this subdivision. Manual pick-up of all mousse should be followed by application of custoblend. After all the manual work is done, there should be no need for reassessment in '91.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS GR-301 SUBDIVISION: B SITE: 2 DATE 8/1/90

USCG/NOAA PSI LEO Bersalona, USCG Les Bersalona

NAME ART WEINER SIGNATURE Art Weiner

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

REMAINING OIL IS NOT MOBILE, PRESENT IN VERY SMALL AMOUNTS + DOES NOT REPRESENT A THREAT TO RESOURCES. WEATHERING EFFECTS DURING THE WINTER WILL PROBABLY REMOVE MOST, OR ALL, OF THE REMAINING OIL.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Reassessment is required to determine the effects of winter storms on remaining oil

- No further treatment is recommended at this time -

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Site reassessment recommended, to evaluate effects of weathering on AP, PT/TS, but not reassessed as a priority.

EXXON

NAME Ray Soto SIGNATURE Ray Soto

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

No further treatment or reassessment is needed on this site. All work is completed.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS / GR-301 SUBDIVISION: B SITE: 3 DATE 8/1/90

USCG

NAME [illegible] SIGNATURE [illegible]

☐ YES ☐ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

[illegible handwritten text]

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

No further treatment at this time.

LAND MANAGER

NAME [illegible] SIGNATURE John Ebel

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

no oil observed.

EXXON

NAME Ray Sotelo SIGNATURE Ray Sotelo

☐ YES ☒ NO PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

No oiling observed that requires treatment or assessment.

FIELD SHORELINE COMMENT SHEET

SEGMENT AS GR-301 SUBDIVISION: B SITE: (NEW SITE) DATE 8/1/90

USCG/NOAA PSI Leo Bersalona USCG ^(SEE MAP) Leo Bersalona

NAME ART WEINGER SIGNATURE Art Weinger

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

IF ALL MOUSSE IS REMOVED FROM SITE, THERE WOULD BE NO REASON FOR REASSESSMENT. ALL MOUSSE APPEARS TO BE ACCESSIBLE.

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley



☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

During reassessment activities mousse was found in this area that was not slated for clean-up. A work modification form was made out. Manual Removal was recommended & reassessment is necessary upon completion of work in 1990. IN Addition Reassessment for 1991 is in order to determine any additional clean-up.

LAND MANAGER

NAME John Ebel SIGNATURE John Ebel

☒ YES

☐ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Mousse was identified beyond cobbles covered w/ grass. Reassessment should be completed before spring grasses develop, shortly after break up.

EXXON

NAME REY SOTELO SIGNATURE Rey Sotelo

☐ YES

☒ NO

PRIORITY SITE FOR REASSESSMENT IN 1991

REASON:

Manual removal of mousse between cobbles as indicated on sketch map. This site was found while looking for other sites in subdivision. After manual work is completed and assessed in '90, suggest application of customblend. There is no further action needed in '90.

SURFACE ON: Not Visible SITE 1: Not Visible SITE 2: Not Visible SITE 3: Not Visible

NOT VISIBLE

DISTRIBUTION						OILED ZONES
C	B	P	S	SB	LH	MH
			X	X	X	
						X
						100

No Pits were dug due to boulders.

[illegible]

Roll No. ASAP 2
Roll # 1
Frames 15, 16, 17

COMMENTS Site #1 did not appear to have been worked. 12 cm deep pockets of pooled mousse were observed on the U/TZ. Scattered SOR/I was located at site 2 but most of the oil seems to have

ASAP SHORELINE CILING SUMMARY

SEGMENT AS/ GR-301 SUBDIVISION B

SURFACE OIL (CONTINUED)

NEW SITE 4

CHARACTER	DISTRIBUTION				OILED ZONES			
	/C	/B	/P	/S	SURF	MR	LI	
ASPHALT								
S.O.R.								
POOLED								
COVER								
COAT								
STAIN								
MOUSSE			X		X			
PATTIES/T.B.								
FILM								
NO OIL					X		X	
EST. SITE LENGTH:					65			

SITE

[illegible]

SITE

[illegible]

SUBSURFACE OIL (CONTINUED)

[illegible]

COMMENTS The new area which was identified had a discontinuous band of MS/I along the VITZ which was partially covered with seaweed. The area is adjacent to a steep rock outcrop.

00

SEGMENT ST/GR-301

SUBDIVISION B

DATE 11/1/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Size
- ☐ Background
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. H/W/L/V/L
- ☐ S/L
- ☐ Photo Location(s)
- ☐ Photo(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND



Pt - No Subsurface Oil



Pt - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Sporadic Distribution

P/O

Older Vegetation

Photo location, direction,
and number

SKETCH MAP

AREA THAT NEEDS REWORK
-SEE SMALLER DETAILED MAP

Site #1

STREAM

MS/B/H

MS/B/I

REMOVE Mousse
MANUALLY

Large Driftlog

Steep Rock Outcrop

STREAM

STREAM

NOTE: THIS MAP WAS TRACED
FROM THE ORIGINAL

0 300 600 900

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

REVISION 20/04/90

NAME CHANEY
 SEGMENT ST-GR-301
 SUBDIVISION B

DATE Aug 1 90

CHECKLIST

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

LEGEND

- 1 Δ
 Pli - No Subsurface Oil
- 2 $\blacktriangle$
 Pli - Subsurface Oil
- $\boxed{CT/C}$
 Continuous Distribution
- $\boxed{CT/B}$
 Broken Distribution
- $\boxed{CT/P}$
 Patchy Distribution
- $\boxed{CT/S}$
 Splashed Distribution
- eee
 Oiled Vegetation
- 1 $\rightarrow$
 Photo location, direction,
 and number

GREEN ISLAND

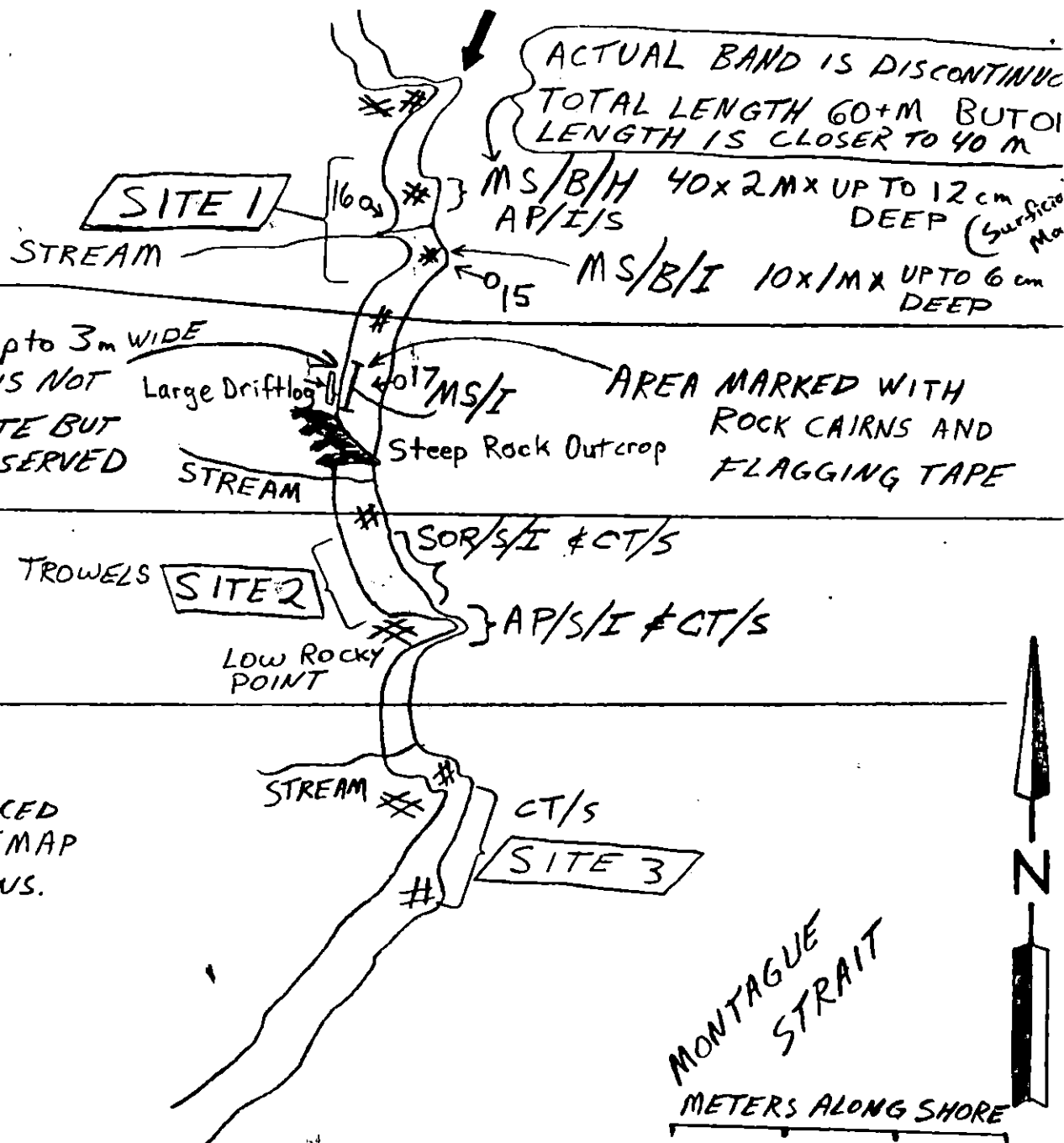
NEW SITE

MS/I
 65m long and up to 3m WIDE
 THIS REGION IS NOT
 IN A WORK SITE BUT
 MS/I WAS OBSERVED

SITE 2 WAS WORKED. 2 TROWELS
 WERE RECOVERED.

NOTE: THIS MAP WAS TRACED
 FROM THE ORIGINAL SSAT MAP
 WITH MINOR MODIFICATIONS.

ETCH MAP NORTH END OF SUBDIVISION



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

REVISION: 03/24/90

SECRET 17 GR-101

SUBDIVISION B (Site #1)

DATE 4/9/90

CHECKLIST

- ✓ 1. Area
- ✓ 2. Access
- ✓ 3. Elevation
- ✓ 4. Slope
- ✓ 5. Aspect
- ✓ 6. Orientation
- ✓ 7. Exposure
- ✓ 8. Soil
- ✓ 9. Public Land
- ✓ 10. Private Land
- ✓ 11. Other
- ✓ 12. Other
- ✓ 13. Other
- ✓ 14. Other
- ✓ 15. Other
- ✓ 16. Other
- ✓ 17. Other
- ✓ 18. Other
- ✓ 19. Other
- ✓ 20. Other

LEGEND

1A

1B

1C

1D

CT/C

CT/D

CT/E

CT/F

CT/G

CT/H

CT/I

CT/J

CT/K

CT/L

CT/M

CT/N

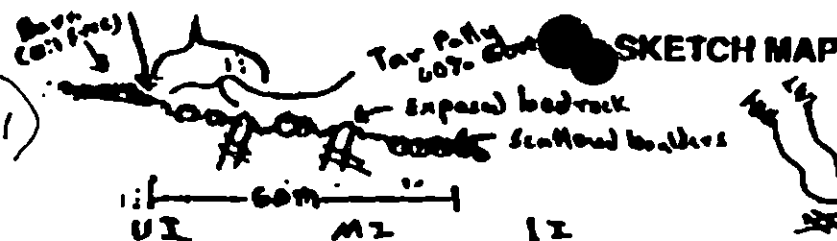
CT/O

CT/P

CT/Q

CT/R

CT/S



N. end of Subdiv. 301-U

8/1/90 ASAP TEAM #2
AREA THAT NEEDS REWORKED
- SEE SMALLER DETAILED MAP

* Exposed Bedrock

--- S.S. Lenses significantly different than HWL

Profile

Oil free
Hydrocarbon
Barn

CT/S

Scattered boulders

Exposed Bedrock

U1 M1

ANAKOON'S
STREAM

Profile

STREAM

Forest
Boulder Beach

No Oil

MANUALLY REMOVE
TAR BALLS AND PATIES

Bench consists
shallow or dry
bedrock with scatter

Meters (along shore)
0 300 600 900

ON CHARTER Length (m): AP 30 PO CV 27 CT ST 2160 MB PT 10 TB FL NO

REVISION 001

08 KEY

SEGMENT ST/ GR-301

SUBDIVISION B

DATE 7/1 90

CHECKLIST

- ☐ N Arrow
- ☐ Apert. (M)
- ☐ Seps (S) Endy
- ☐ CI DML
- ☐ WASH
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HVR/LVR
- ☐ SCL
- ☐ Photo Location(s)
- ☐ Photo(s)
- ☐ Photo Location(s)
- ☐ Photo Location(s)

LEGEND

1
 PH - No Substrate CI

2
 PH - Substrate CI

Continuous Distribution

Broken Distribution

Patchy Distribution

Spotted Distribution

Other Vegetation

Photo location, direction, and number

NOTE: THIS MAP WAS TRACED FROM THE ORIGINAL

SKETCH MAP

AREA THAT NEEDS REWORK
-SEE SMALLER DETAILED MAP

Site #1

STREAM

Large Driftlog

STREAM

Steep Rock Outcrop

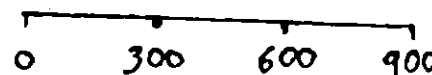
STREAM

MS/B/H

MS/B/I

REMOVE MOUSSE MANUALLY

ASAP TEAM #2



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

REVISION 02/90

TOTAL P.04

8/1/14

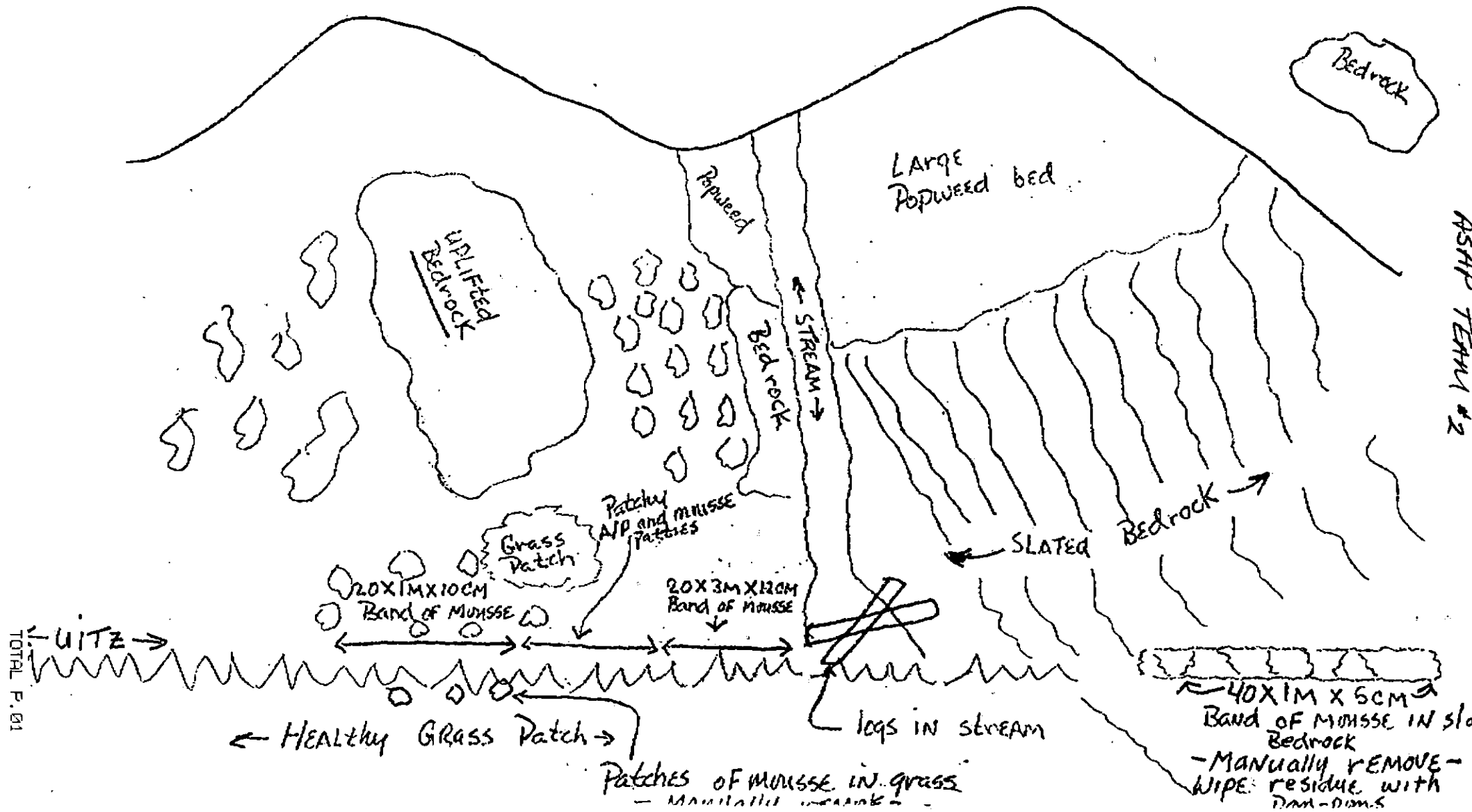
GR-501 Sub B. (site #1)

Wes Horming

Work Modification MAP -

TREATMENT RECOMMENDED - MANUAL REMOVAL OF MOUSSE, ALSO WIPING WITH Pom-poms to Remove any oil residue.

- AREA is located at the Northern most end of subdivision where manual treatment was recommended.



ASAP Follow-Up Recommendations
TAG Recommendations - August 13, 1990

SEGMENT

CH-09	B	Site 1	Manual pickup of tarmats, rake and bioremediate*	H.P.	<i>B.</i>
		Site 2	Manual pickup of tarmats, rake and bioremediate*	H.P.	
EL-52	B		NTR		
EL-55	A		Manual till - mop up mobile oil with snare and bioremediate - low priority		
EL-56	C		Storm berm relocation (mechanical if necessary)		
EL-58	C		NTR - Reassessment in '91		
EL-58	D		Customblen application and reassessment in '91		
ER-07	A	Site 1	NTR		
		Site 2	Manual pickup of tarmat and bioremediation (low priority)		
EV-05	A		Limited manual pickup followed by bioremediation - Customblen (low priority)		
EV-05	B		Manual pickup of mousse/AP followed by bioremediation. Manual till in heaviest areas if necessary (H.P.)		
EV-12	A		Access and remove heaviest concentration of AP/OP/HOR manual removal followed by bioremediate		
EV-15	A		Manual removal of MS/AP/OP/HOR where accessible - bioremediate (H.P.)		
EV-26	A		Manual removal of AP and bioremediate (M.P.)		
EV-37	A		Manual pickup of OP/HOR sediments (relocate armor to access)		
EV-39	A		Bioremediate		
FL-01	A		NTR - work done		
GR-301	B	Site 1	Manual pickup of mousse (H.P.)		
		Site 2	NTR		
		Site 3	NTR		
GR-301	B	New Site	Manual pickup of mousse (H.P.)		
KN-07	A		Manual pickup of AP/OP/mousse and bioremediate (H.P.) both areas		
KN-08	A		Manual pickup followed by bioremediation (L.P.)		
KN-201	A		Manual removal of AP followed by bioremediation (M.P.)		
KN-211	E	Site 1	Manual pickup of oiled debris at stream mouth next to small pool, use chain saw as necessary to access.		
		Site 2	NTR		
		Site 3	NTR		
		Site 4	NTR		
KN-400	A	Site 1	Manual removal of accessible AP followed by rake and bioremediation (L.P.)		
		Site 3	NTR		
KN-404	A		Bioremediate and assessment in '91		
KN-405	A		Further TAG evaluation - bioremediate and assessment in '91		
NK-02	A		Manual pickup AP/mousse - bioremediation (M.P.)		
PD-04	A		Manual pickup of mousse patties and bioremediation, Inipol and Customblen (M.P.)		
PN-01	A		Manual pickup of AP and bioremediation (L.P.)		

* ANADROMOUS STREAM CONSTRAINT

TAG

EXXON

ADEC

USCG

NOAA

DATED

Aug 15 1990
 (See attached Archaeological Constraintsheet) ^{wrk} 8/16/90

FOSC

DATED

17 August 1990

work with land manager in effecting the abn

00 KEY

SEGMENT ST/ GR-301

SUBDIVISION B

DATE Aug 1 90

CHECKLIST

N Arrow
Approx. Scale
Seg/Sub Bndry
On Dist.
Width
Length
% Cover
Substrate Character
Est. HWW/LWL
SSL
Profile Location(s)
Profile(s)
Pl. Location(s)
Photo Location(s)

LEGEND

1 Δ

PH: No Subsurface Oil

2 Δ

PH: Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

CT/S

Splashed Distribution

eee
Oiled Vegetation

1 →

Photo location, direction,
and number

GREEN ISLAND

NEW SITE

MS/I
65m long and up to 3m WIDE
THIS REGION IS NOT
IN A WORK SITE BUT
MS/I WAS OBSERVED

SITE 2 WAS WORKED. 2 TROWELS
WERE RECOVERED.

NOTE: THIS MAP WAS TRACED
FROM THE ORIGINAL SSAT MAP
WITH MINOR MODIFICATIONS.

STREAM

STREAM

Low Rocky
POINT

STREAM

ACTUAL BAND IS DISCONTINUOUS
TOTAL LENGTH 60+M BUT ON
LENGTH IS CLOSER TO 40 M

MS/B/H 40x2Mx UP TO 12cm
AP/I/S DEEP (Surface)

MS/B/I 10x1Mx UP TO 6cm
DEEP

AREA MARKED WITH
ROCK CAIRNS AND
FLAGGING TAPE

SOR/S/I & CT/S

AP/S/I & CT/S

CT/S

SITE 3

MONTAGUE STRAIT

METERS ALONG SHORE

0 300 600 900

Oil Character Length (m): AP PO CV CT ST MC PT TB FL NC

REVISION 10-20-90

1991 MAYSAP EVALUATION

SEGMENT: GR 301 SUB: B REGION: PWS SURVEY DATE: 5/22/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest,
Herring spawning, Anadromous stream, Subsistence - Deer harvest-
ing, Subsistence - Salmon harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

n

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC _____

FOSC _____

EXXON _____

USCG _____

NOAA _____

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

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

Subsistence - Salmon Harvesting: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

ADEC

NAME Wesley Ghorvley SIGNATURE Wesley Ghorvley

☒ NTR

☐ TREATMENT RECOMMENDED

- 20' of Large black NAVY SEA berm; 30' of un-oiled SNARE berm was recovered from Southern portion of subdivision that previous surveys showed NO oil. This is a good example that the entire segment should be covered.... Clean-up debris may be missed, if not covered by foot. ONE AREA of SOR (AD) to 20CM was collected removing 8 bags of heavy oil. The remainder of Collectable oil, I believe was removed. Remnants of SOR remains but should weather & degrade due to exposure. Past clean-up crews have done a decent job in work areas.

EXXON

NAME KEY SOTELC SIGNATURE Key Sotela

☒ NTR

Survey team picked up some of the SOR that remained after '90 cleanup in northern area of subdivision. Further work or treatment in this areas (a + g of 09 map) would be of no beneficial value since ~~these~~ ^{these} areas are located in a high energy area. Also any other treatment would only disrupt the regeneration of very healthy biota. No further treatment recommended.

LANDMANAGER

NAME DAVE BLANCHET OF USFS SIGNATURE J. David Blanchet

☒ NTR

EASTERN SIDE OF THIS SEGMENT HAS A COMBINATION OF BEDROCK HEADLANDS AND MODERATE WAVE Boulder/Cobble / BEDROCK SHREINING. OCCASIONAL PATCHES OF S.O.E / MORSE PATTERNS FORMED IN THIS PORTION. THESE WERE PICKED UP AND/OR BROKEN UP WHERE FOUND. THIS PORTION HAS SOME CAMPING POTENTIAL AT TOP OF STORM BEACHS, BUT DIFFICULT ACCESS ACROSS Boulders.

SOUTHERN EXPOSED PORTION OF THIS SEGMENT IS ALL Boulder, COBBLE, AND/OR GRAVEL BEACHES IN A MODERATELY HIGH ENERGY ENVIRONMENT. NO OIL WAS SEEN ON THIS PORTION. BEDROCK COMPOSITES ON GRAVEL BEACHES AT WEST END OF SEGMENT

USCG/NOAA

NAME MOONEY / DAHLIN SIGNATURE Timothy Mooney / Jeff Dahlin

☒ NTR

SHORELINE COMPRISED OF BEDROCK WITH Boulder, COBBLE AMOUR AT NORTHERN END AND GRAVEL, PEBBLE AT SOUTHERN END. NO OIL IN SOUTHERN PORTION AND SPORADIC SOR IN NORTHERN. (MOST OF THE SOR WAS REMOVED OR FILLED. THE SHORELINE IS A HIGH ENERGY AREA AND SHOULD CLEAN IT'S SELF.

TEAM NO. 5SEGMENT GR-301OG HARPERBIO STOKERSUBDIVISION 13ADEC GHORMLEYLANDMANAGER BLANCHET for USFSDATE 22 MAY 1991EXXON SOTELOUSCG/NOAA MOONEY / DAHLINTIME 15:00 to 17:00TIDE LEVEL 1.91' ft. to 2.99' ft.ENERGY LEVEL: ☒ H ☒ M ☐SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☒ SUN ☐ CLOUDS ☐ FOG ☐ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 6106 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 881 m NO 5195 m US 480 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE V H M L	AREA		ZONE				NOTES
	AP	MS	TB	SOF	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A	T			S		S					BCP	M	2	30		X			SOR/H SEE NOTE ON SKETCH PHOTO 23, 24
B		T			T						R	M	3	10			X		INCREASE ON VERTICAL EXPOSE
C						S					R	L	2	2			X		" " " " "
D		T									R	M	1	10		X			" " " " "
E				S							R, BC	A	0.5	5.0		X			" " " " "
F						T					R, B	M	0.5	5.0		X			
G				S							BC	M	1	10		X			SOR/H
H				T							BC/SG	M	1	1		X			REMAIN AFTER COLLECTION SOR/H PHOTO 2
I							T				BCR	M	3	200		X			
J							T				BCR	M	1	400		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-

3

19

25, 26

3

20

FRAMES/-3

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	35							X	-					X				P/S
2	20							X	-					X				C/P/S
3	25							X	-						X			C/S
4	25							X	-					X				PG/SP
5	25							X	-						X			PG/SP
6	25							X	-					X				PG/SP
7	25							X	-						X			PG/SP
8	30							X	-					X				PG/SG
9	30							X	-					X				PS/SG

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

OG COMMENTS: This segment has moderate to high wave exposure, primarily from fetches to the north east. Two distinct morphologies are present: (1) in the east the coast is primarily a rock platform with a thin veneer of cobble boulder material and (2) long, linear boulder/cobble beaches in the western 2/3 of the segment.

Most of the surface oiling is in the northeastern-most

OG 1 of 7
REVISED: F.W. 15/25/91

SERIAL NOTES

LOCATION A: REMNANTS OF
SOR/H & AP IN BEDROCK
CRACKS AND UNDERNEATH
BOULDERS - SOME GRASS
GROWING THRU SOR.

LOCATION G: NO OBVIOUS
OILING IN GRASS; COULDN'T
POKE AROUND DUE TO
EAGLE NEST

GREEN ISLAND

ABOUT 20
2x2cm POCKETS
IN CRACKS
IN SHALE

MS $\ll 1\%$
1X10
SOR/S
0.5X5

N1500
POM
POM

STREAM

GR-102A

UNSURVEYED
DUE TO NEST

SOME COLLECTED
SOR/H/S
AP/T
CT/S
2X30
SOME
ON
GRASS
#25, 26

CV-MB/T
3X10
MITE
IN SHALE

MAZ
CT/S
2X2

CT $\ll 1\%$
U.5X60
1 EVERY
5m APART

SOR/H/S-T
1X10

SOR/K
1X1
PHOTO
#2
MOSTLY COLLECTED
< 1% REMAINS

ST/T
3X200

ST $\ll 1\%$
1X400

NEST

STREAM

PHOTO

JOHN
BOY

BOOM

UNSURVEYED
DUE TO NEST

MONTAGUE
STRAIT

NO
OIL

0 400 800

GR-301A
22 MAY 91
~1500-1700H
TEAM 3 JIARAR

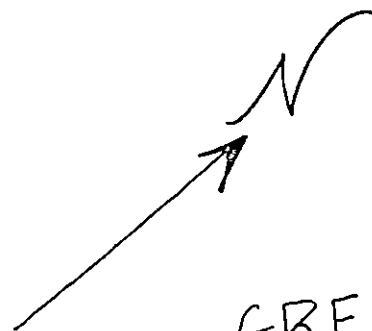
SHEET
1 OF 2

CONTINUED
ON
NEXT
SHEET

REVISED FIELD MAP 1042

REVIEWED: R.W. 6/85

06 30/7



GREEN ISLAND

SNARE BOOM

WALKED

CONTINUED ON

NEXT SHEET

NO

GR-300A

0 400 800

APPROX. SCALE

MONTAGUE STRAIT

GR-301A

22 MAY 91

~1500-1700h

TEAM 3 HARPER

SHEET

2 OF 2

REvised FIELD MAP 242

REVIEWED: F.W. SLA

OG 447

TEAM # 3 DATE 5/22/91
 SEGMENT # GR 301 TIDAL HEIGHT(Range) 2-3'
 SUBDIVISION B BIOLOGIST Stokor
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

Moderate to high energy mixed substrate beaches of pebble/cobble/boulder with rock outcrops and headlands.

Biota on bedrock includes generally dense Fucus, patchily dense barnacles with very dense spat (at least 2 settlements), clusters of small limpets and Littorina in crevices, patches of Phyllospadix, Nucella, and variable density patches of Mytilus. Some extensive patches of dense Mytilus found on low-angle vertically bedded shale.

Biota on cobble/boulder/bedrock beaches of the northern half of the subsegment is relatively abundant and diverse, consisting in general of patchily dense Fucus, algae, filamentous green and red and other algae, patches of Phyllospadix, patchily dense and extensive barnacles and spat, patchily dense limpets, dense to very dense Littorina with egg masses, clusters of small limpets, small Pagurus, isopods (Idotea, Gnorimosphaeroma), Scaevola, Nucella, ool blennies, commonly shells of Saxidomus and Protothaca, and patchily dense attached and/or interbedded Mytilus.

Biota on high exposure gravel/pebble/cobble beaches of the southern half of the subsegment is very sparse, generally limited to a few barnacles and Littorina. Biota on this southern shore increases on more stable cobble/boulder, but is rarely very abundant.

(cont. on attached sheet)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	10	
Seabirds	Gullwings - 1		
Waterfowl	Canada Geese - 8		
Gulls/Kittiwakes	1 or 2	few	
Shorebirds	unident - 6		
Corvids	Crows - 8		
Other Birds	Terns - 2		

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

Shoreline subdivision map showing important biological features attached.

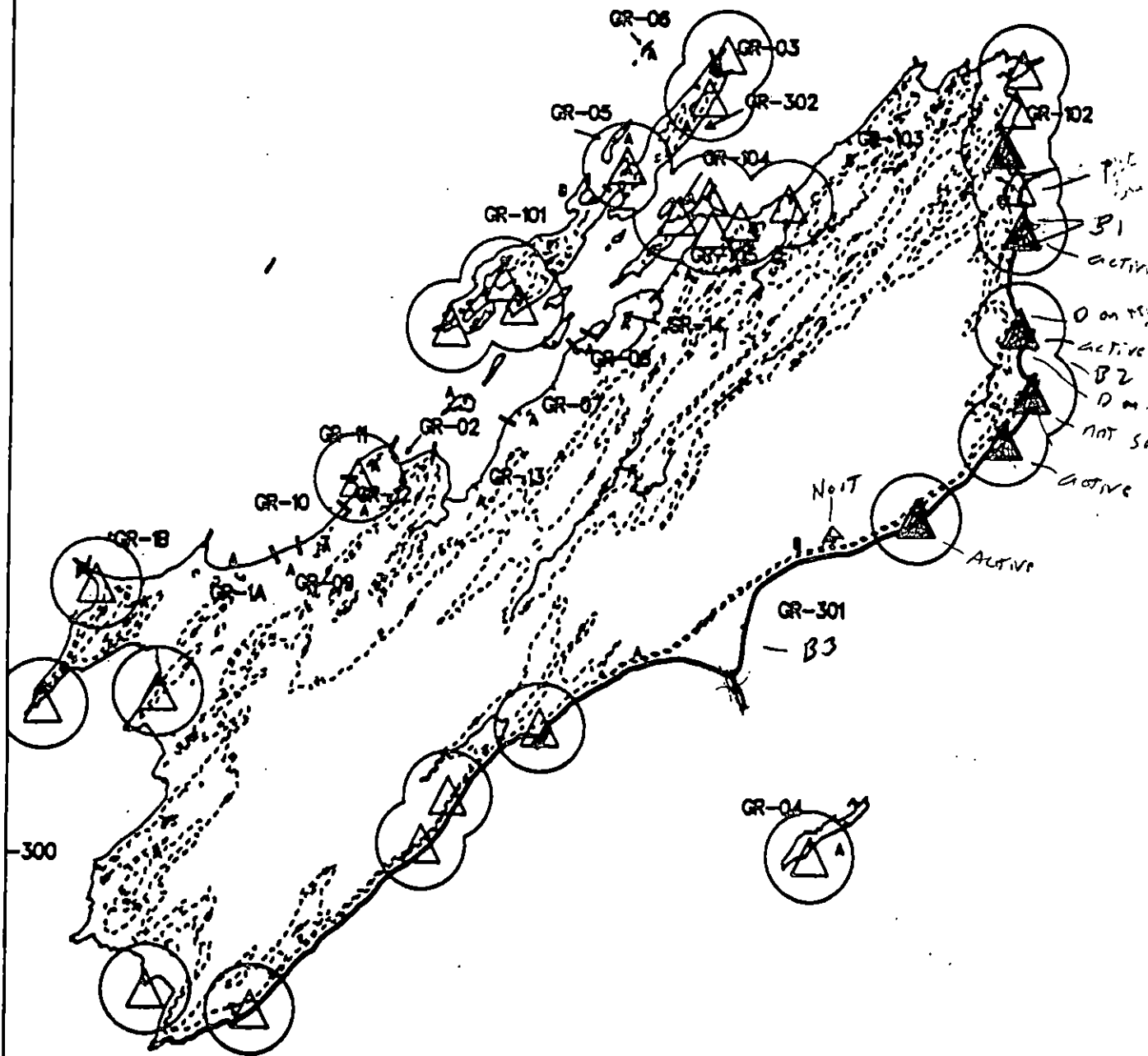
June 3, 1991 DM

A total of 10 adult eagles and 5 active nests observed. Due to the even more than usually sorry map provided for this segment, most locations are only approximations.

Other birds sighted or reported include Canada geese (8), Terns (2), crows (8), unidentified shorebirds (4), guillemot (1), and flamingos (2 reported by DEC observer).

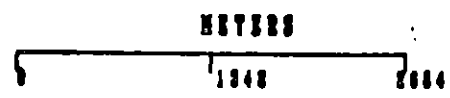
Biota within/proximal to residual surface oil locations A thru J is generally sparse or absent, as is usual in the high intertidal/supratidal, or consists of beach grass (particularly locations G and H). Grass in these areas is sprouting and appears normal. Downslope biota is relatively dense and diverse throughout this portion of the segment as described on preceding page for cobble/boulder/soil beaches. Dense and fairly extensive mussel beds occur downslope from locations G and H.

Biota appears healthy and normal for this type of substrate and exposure. Further cleaning will probably do little to aid biological recovery, and presents no biological threat. If more treatment is undertaken, precautions should be taken to not damage the healthy downslope biota, particularly mussel beds such as occur at locations G and H. All personnel and equipment should be restricted to the upper intertidal, above the upper level of such mussel beds, at these (or all) locations. Location G, by the way, is directly under an active eagle nest. Eagle remained on nest during survey.



GR 301

Segment Reference Map
Map Key: PUSGR301



US State Plane Zone 4
GR 301

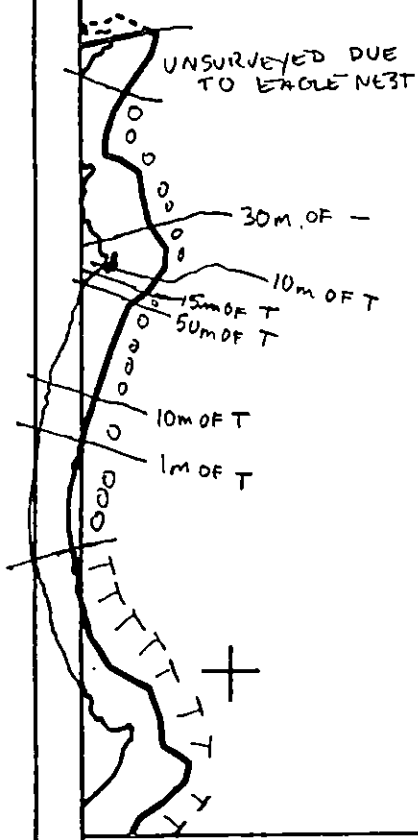


EAGLE NEST

S. Stoker 5/2/77

NOTE TO EXXON MAPPING
 EXXON SHORELINE
 MOSTLY MISSING - YOUR PROBLEM
 NOW!

GR-102



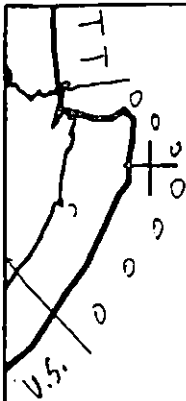
NARROW = 30
 V. LIGHT = 880
 N.O. = 5195 6106
 U.S. = 480

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

GR301 B
 ADEC Subsegment Length: 6586m
 METERS
 AK State Plane Zone 4
 pr301b4

Subdivision Field Map
 Map Key: PWSCR301Bd
 Name: HARPER
 Date: 22 MAY 91
 Date Entered:

06 54/7
 SUMMARY OILING MAP 1 of 3 REVISED: F.W. 5/25/91



see note
on sheet 1

ADEC
SHO-BEZINE

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

GR301 B
ADEC Subsegment Length: 6588m
METERS

AK State Plane Zone 4
per 301bb

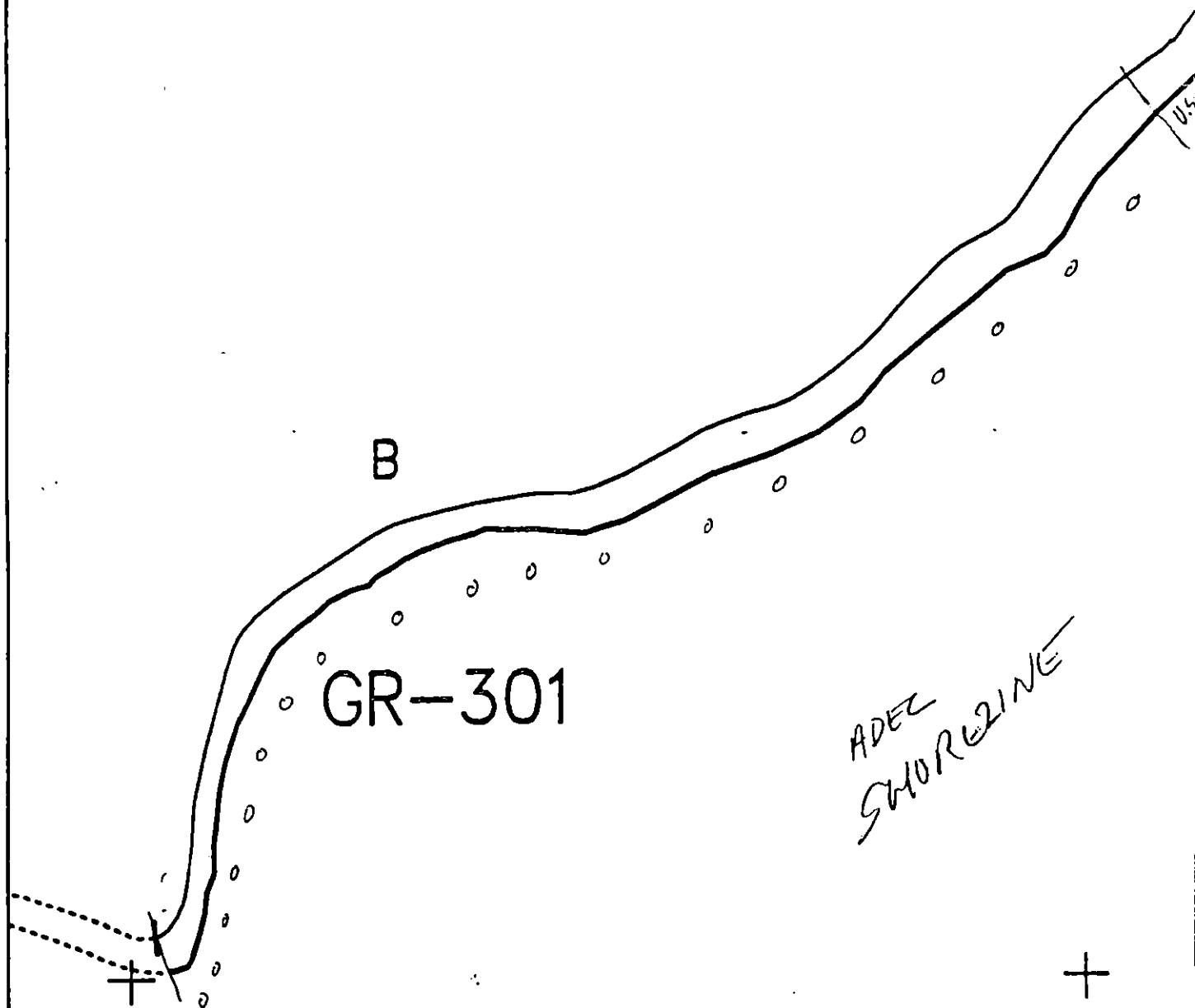


Subdivision Field Map
Map Key: PWSGR301Bb
Name: VRM

Date: 22 May 91
Date Entered:

SUMMARY OILING MAP 2 of 3

REVIEWED: F.W. 5/25/91
OG 6 of 7



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

GR301 B
 ADEC Subsegment Length: 6586m
 METERS

400 600
 AK State Plane Zone 4
 per 301ba



Subdivision Field Map
 Map Key: PWSGR301Ba
 Name: HARPER
 Date: 22 MAY 91
 Date Entered:

REVIEWED: F.W. 5/25/91

SUMMARY OILLINE MAP 3 of 3

UG 7 of 7

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

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

Anadromous Stream: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

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

Subsistence - Salmon Harvesting: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 3 SEGMENT GR-301 SUBDIVISION B DATE 5/22/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley

☒ NTR

☐ TREATMENT RECOMMENDED

- 20' OF Large black NAVY SEA berm ; 30' OF UN-oiled SNARE berm was recovered from Southern portion of subdivision that previous surveys showed NO oil. This is a good example that the entire segment should be covered.... clean-up debris may be missed, if not covered by foot. ONE AREA of SOR (AP) to 20CM was collected removing 8 bags of heavy oil. The remainder of collectable oil, I believe was removed. Remnants of sor remains but should weather & degrade due to exposure. Past clean-up crews have done a decent job in work areas.

EXXON

NAME KEY SOTELO SIGNATURE Key Sotelo

☒ NTR

Survey team picked up some of the SOR that remained after '90 cleanup in northern area of subdivision. Further work or treatment in this areas (a + g of og map) would be of no beneficial value since ~~these~~ ^{these} areas are located in a high energy area. Also any other treatment would only disrupt the rejuvenation of very healthy biota. No further treatment recommended.

LANDMANAGER

NAME DAVE BLANCHET OF USFS SIGNATURE J. David Blanchet

☒ NTR

EASTERN SIDE OF THIS SEGMENT HAS A COMBINATION OF BEDROCK HEADLANDS AND MODERATE WAVE Boulder/Cobble/Bedrock Shoreline. Occasional patches of S.O.E /Mousse patches found in this portion. These were picked up and/or broken up where found. This portion has some camping potential at top of storm beach, but difficult access across boulders.

Southern exposed portion of this segment is all Boulder, Cobble, and/or Gravel beaches in a moderately high energy environment. No oil was seen on this portion. Beautiful Campsites on Gravel beaches at West end of segment

USCG/NOAA

NAME MOONEY / DAHLIN SIGNATURE Tanya Mooney / Jeff Dahlin

☒ NTR

SHORELINE COMPRISED OF BEDROCK WITH Boulder, Cobble armour at northern end and Gravel, Pebble at southern end. NO OIL IN Southern portion and sporadic SOR in northern. (Most of the SOR was removed or killed. The shoreline is a high energy area and should clean it's self.

MAYSAP SHORELINE OILING SUMMARY

PAGE 1 OF 2

TEAM NO. 3OG HARPERBIO STOKERSEGMENT GR-301ADEC GHORMLEYLANDMANAGER BLANCHET for USFSSUBDIVISION BEXXON SOTELOUSCG/NOAA MOONEY / DAHLINDATE 22 MAY 1991TIME 15:00 to 17:00TIDE LEVEL 1.91' ft. to 2.99' ft.ENERGY LEVEL: ☒ H ☒ M ☐ LSURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELOWEATHER: ☒ SUN ☐ CLOUDS ☐ FOG ☐ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 6106 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 881 m NO 5195 m US 480 m

L O C	SURFACE OIL CHARACTER										SURFACE SEDIMENT TYPE	SHORE SLOPE VHML	AREA		ZONE				NOTES
	AP	MS	TB	SOP	CV	CT	ST	FL	DB	NO			WIDTH m	LENGTH m	S	UI	MI	LI	
A	T			S		S					BCP	M	2	30		X			SOR/H SEE NOTE ON PHOTO 25, 26
B		T			T						R	M	3	10			X		MINOR CRACKS ON VERTICAL SHALE
C						S					R	L	2	2			X		" " " " "
D		T									R	M	1	10		X			" " " " "
E				S							R/BC	M	0.5	5.0		X			" " " " "
F						T					R/B	M	0.5	5.0		X			
G				S							BC	M	1	10		X			SOR/H
H				T							BC/SG	M	1	1		X			REMAINANT AFTER COLLECTION SOR/H PHOTO 2
I							T				BCR	M	3	200		X			
J							T				BCR	M	1	400		X			

DISTRIBUTION: C = 81-100%; 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-

3 19 25, 26
3 20 FRAMES 1-3

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	35							X	-					X			P/S	
2	20							X	-					X			C/P/S	
3	25							X	-						X		C/S	
4	25							X	-					X			PG/SP	
5	25							X	-						X		PG/SP	
6	25							X	-					X			PG/SP	
7	25							X	-						X		PG/SP	
8	30							X	-					X			PG/SG	
9	30							X	-					X			PS/SG	

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

OG COMMENTS: This segment has moderate to high wave exposure, primarily from fetches to the north east. Two distinct morphologies are present: (1) in the east the coast is primarily a rock platform with a thin veneer of calcareous material and (2) long, linear boulders/caliche beaches in the western 2/3 rd of the segment.

Most of the surface oiling is in the northeastern-most

OG 1 of 7
REVISED: F.W. 5/25/91

DATE 22 / MAY / 81

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

The shallow bedrocks limited the potential for oil penetration into the subsurface. Oiled sediments recovered at location H included HOR subsurface oil and there may be a few isolated pockets of subsurface oil associated with the SOR areas but these are likely to be few and scattered (< 1 m² area).

OG 2 of 7
REVIEWED: F.W. 5/25

SERIAL NOTES

LOCATION A: REMNANTS OF
SOR/H & AP IN BEDROCK
CRACKS AND UNDERNEATH
BOULDERS - SOME GRASS
GROWING THRU SOR.

LOCATION G: NO OBVIOUS
OILING IN GRASS; COULDN'T
POKE AROUND DUE TO
EAGLE NEST

GREEN ISLAND

ABOUT 20
2x2cm POCKETS
IN CRACKS
IN SHALE

MS 221%
1x10
SOR/B
0.5x5

N 1500

POM POM

STREAM

GR-102A

UNSURVEYED
DUE TO NEST

SOME COLLECTED
SOR/H/S
AP/T
CT/S
2x30
SOME ON
GRASS
#25, 26

CV-MB/T
3x10
MITR
IN SHALE

CT/S
2x2

CT 221%
U.S.A.50
1 EVERY
5m PLATS

SOR/H/S-T
1x10

SOR/C
1x1
PHOTO
#2
MOSTLY COLLECTED
< 10% REMAINS

ST/T
3x200

ST 221%
1x400

JOHN'S
BODY

UNSURVEYED
DUE TO NEST

MONTAGUE
STRAIT

NO
OIL

0 400 800

APPROX. SCALE

GR-301A
22 MAY 91
~1500-1700h
TEAM 3 JARAR

SHEET
1 OF 2

CONTINUED
ON
NEXT
SHEET

REVISED FIELD MAP 1992

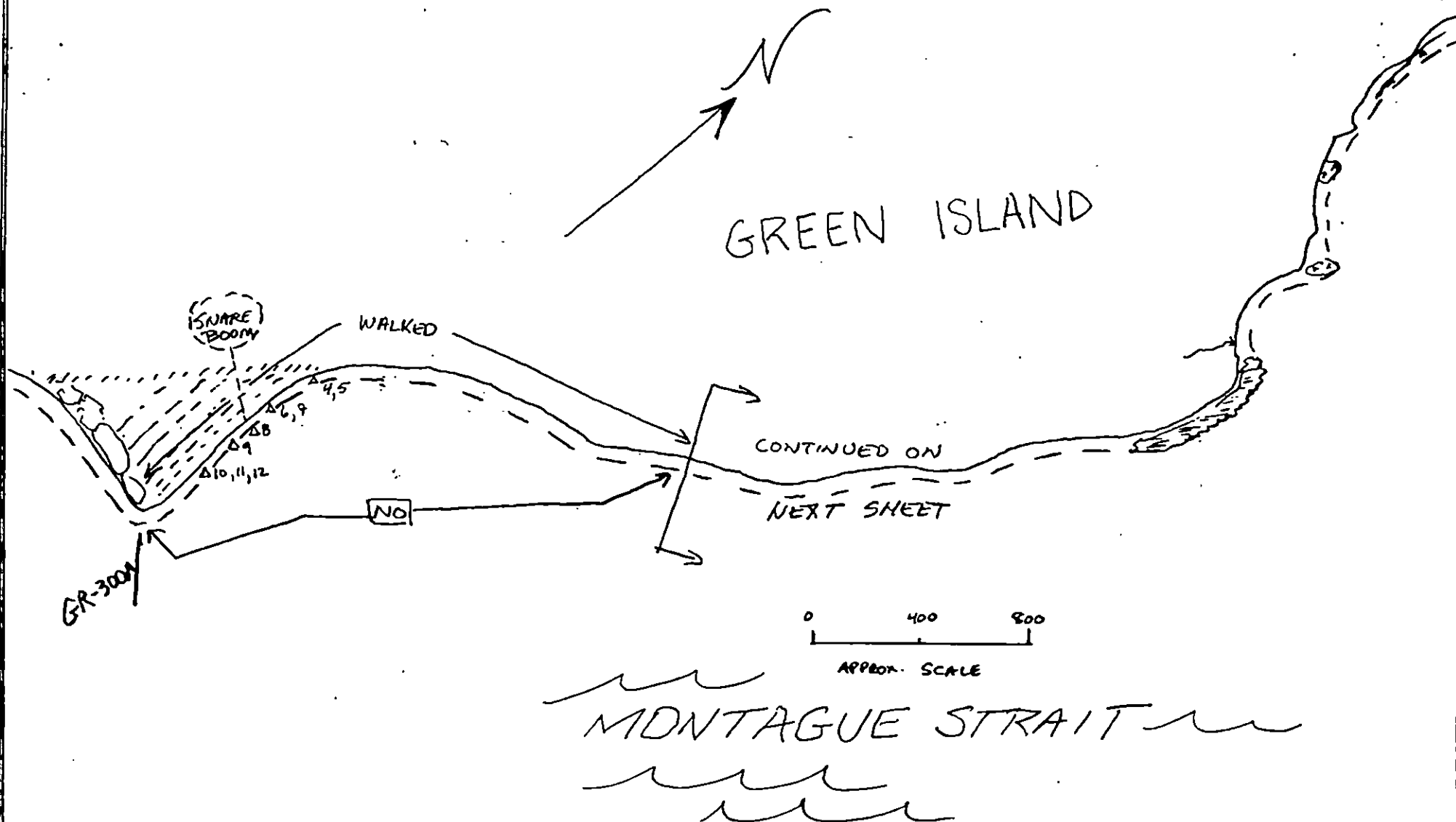
REVISED: P.W. ELASHA

OG 30/7

RE-USED FIELD MAP 2472

REVIEWED: F.W. STASIN

OG 4477



GR-301A
22 MAY 91
~1500-1700h
TEAM 3 HARPER

SHEET
20 of 2

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3 DATE 5/22/91
 SEGMENT # GR 301 TIDAL HEIGHT(Range) 2-3'
 SUBDIVISION B BIOLOGIST Stokor
 EA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

Moderate to high energy mixed substrate beaches of pebble/cobble/boulder with rock outcrops and headlands.

Biota on bedrock includes generally dense *Fucus*, patchily dense barnacles with very dense spat (at least 2 settlements), clusters of small limpets and *Littorina* in crevices, patches of *Phyllospadix*, *Nucella*, and variable density patches of *Mytilus*. Some extensive patches of dense *Mytilus* found on low-angle vertically bedded shale.

Biota on cobble/boulder/bedrock beaches of the northern half of the subsegment is relatively abundant and diverse, consisting in general of patchily dense *Fucus*, ulva, filamentous green and red and other algae, patches of *Phyllospadix*, patchily dense and extensive barnacles and spat, patchily dense limpets, dense to very dense *Littorina* with egg masses, clusters of small limpets, small *Pagurus*, isopods (*Idotea*, *Gnornomorphae*), *Scarlissa*, *Nucella*, eel blennies, commonly shells of *Saxidomus* and *Prosthaca*, and patchily dense attached and/or interbedded *Mytilus*.

Biota on high exposure gravel/pebble/cobble beaches of the southern half of the subsegment is very sparse, generally limited to a few barnacles and *Littorina*. Biota on this southern shore increases on more stable cobble/boulder, but is rarely very abundant.

(cont. on attached sheet)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	10	
Seabirds	Gulliforms - 1		
Waterfowl	Canada Geese - 8		
Gulls/Kittiwakes	1 or 2	few	
Shorebirds	Unident - 6		
Corvids	Crows - 8		
Other Birds	Terns - 2		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Deer	1
Pinnipeds (specify)	Sea lions - 2		
es (specify)			

Shoreline subdivision map showing important biological features attached.

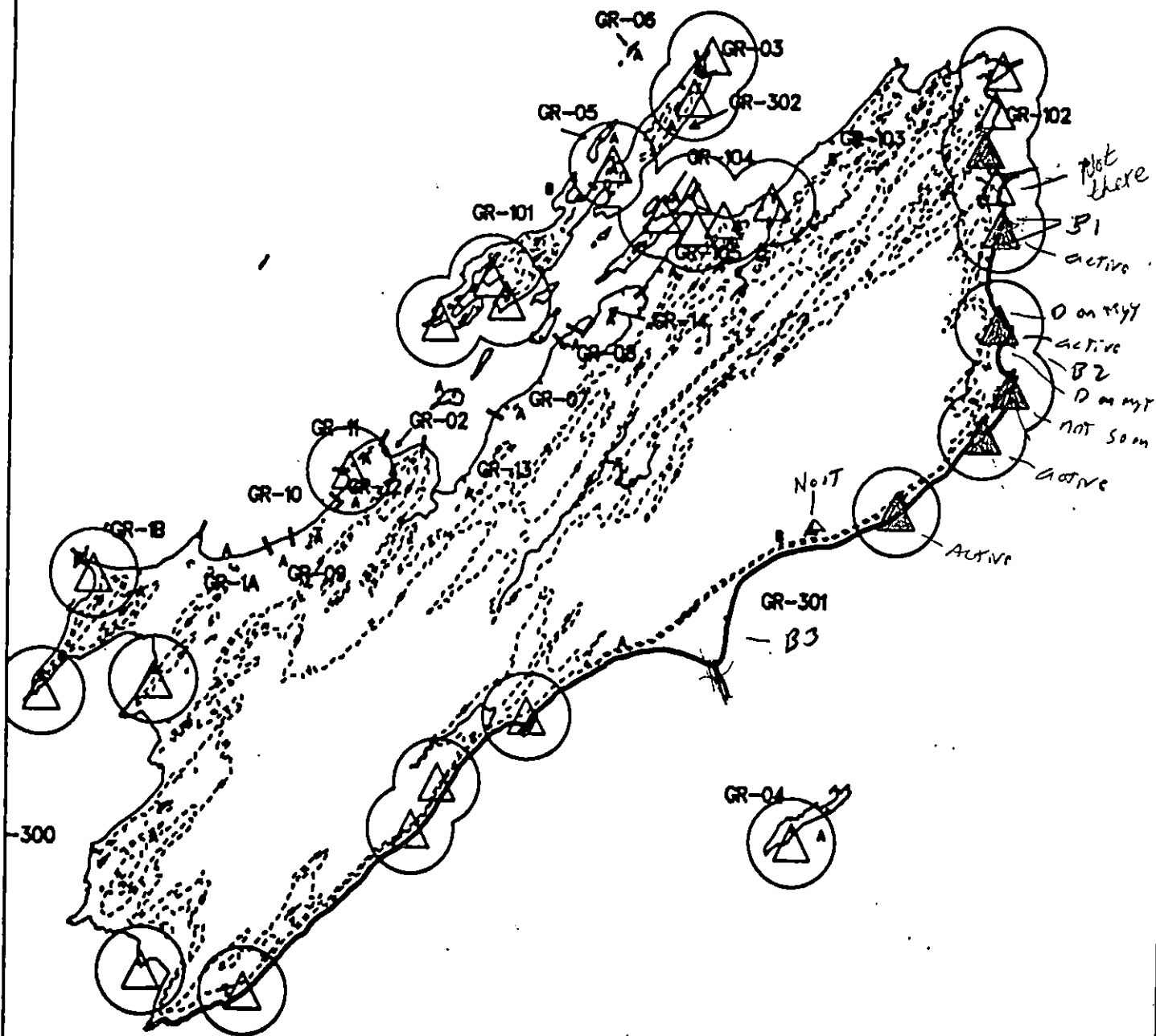
P. J. Stokor, Dm.

A total of 14 adult eagles and 5 active nests observed. Due to the even more than usually sorry map provided for this segment, most locations are only approximations.

Other birds sighted or reported include Canada geese (8), terns (2), crows (8), unidentified shorebirds (4), guillemot (1), and flamingos (2 reported by DEC observer).

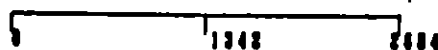
Biota within/proximal to residual surface oil locations A thru J is generally sparse or absent, as is usual in the high intertidal/supratidal, or consists of beach grass (particularly locations G and H). Grass in these areas is sprouting and appears normal. Downslope biota is relatively dense and diverse throughout this portion of the segment as described on preceding page for cobble/boulder/sodrock beaches. Dense and fairly extensive mussel beds occur downslope from locations G and H.

Biota appears healthy and normal for this type of substrate and exposure. Further cleanup will probably do little to aid biological recovery, and presents no biological threat. If more treatment is undertaken, precautions should be taken to not damage the healthy downslope biota, particularly mussel beds such as occur at locations G and H. All personnel and equipment should be restricted to the upper intertidal, above the upper level of such mussel beds, at these (or all) locations. Location G, by the way, is directly under an active eagle nest. Eagle remained on nest during survey.



GR301

METERS



AK State Plane Zone 4
GR301

Segment Reference Map
Map Key: PV8GR301



EAGLE NEST

S. Stoker 5/22/91

NOTE TO EXXON MAPPING

EXXON SHORELINE
MOSTLY MISSING - YOUR PROBLEM
NOW!

GR-102

UNSURVEYED DUE
TO EAGLE NEST

30m OF -

10m OF T

15m OF T
50m OF T

10m OF T

1m OF T

NARROW = 30
V. LIGHT = 880
N.O. = 5195 6106
U.S. = 480

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

GR301 B

ADEC Subsegment Length: 6586m

METERS

5 400 600

AK State Plane Zone 4
pgr301bd



Subdivision Field Map

Map Key: PWSCR301Bd

Name: HARPER

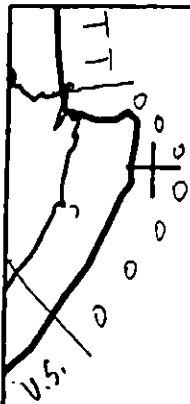
Date: 22 MAY 91

Date Entered:

SUMMARY OILING MAP 1 of 3

REVIS: F.W. 5/25/91

06 5 of 7



see note
on sheet 1

ADEC
SHORELINE

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

GR301 B

ADEC Subsegment Length: 8588m

METERS

5 100 200

AK State Plane Zone 4
pg301bb



Subdivision Field Map

Map Key: PWSGR301Bb

Name: VRM

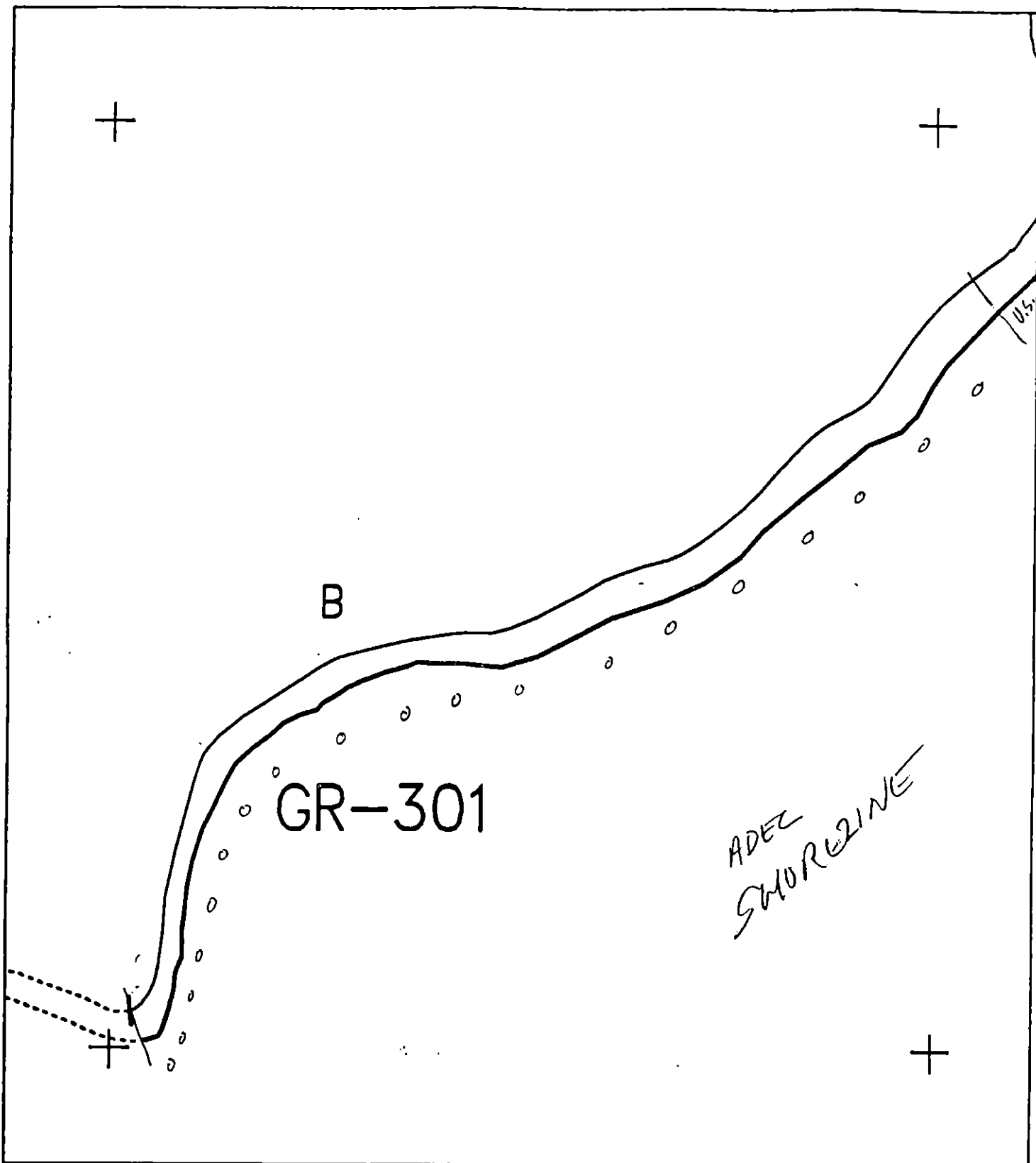
Date: 22 May 91

Date Entered:

SUMMARY OILING MAP 2 of 3

REVIEWED: F.W. 5/25/91

OG 6 of 7



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

GR301 B
 ADEC Subsegment Length: 6500m
 METERS
 0 400 600
 AK State Plane Zone 4
 pgr301ba



Subdivision Field Map
 Map Key: PWSGR301Ba
 Name: HARPER
 Date: 22 MAY 91
 Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-301 SUBDIVISION B (2 of 2)

WORK WINDOW

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

CLOSED

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

OPEN

* EXXON 'A' STUDY SITE # APB-19 - DO NOT REMOVE STAKES FROM BACK OF INTERIOR ZONE.

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M Herring Spawning

NO CONSTRAINT. Authorized by Evelyn Biggs/ADF&G on 5/17/90 to Exxon/Tom Kelley.

5S Shorebird/Waterfowl
Concentration

No constraint to manual pickup and tarmat removal after 5/15.

5T Bald Eagle Nest

USFWS 6/1/90 map indicates active nests in Subdivision B. Closed to manual pickup and tarmat removal within 400m of active nests. No constraint to manual pickup and tarmat removal more than 400m from active nests.

7II Subsistence: Deer Harvesting

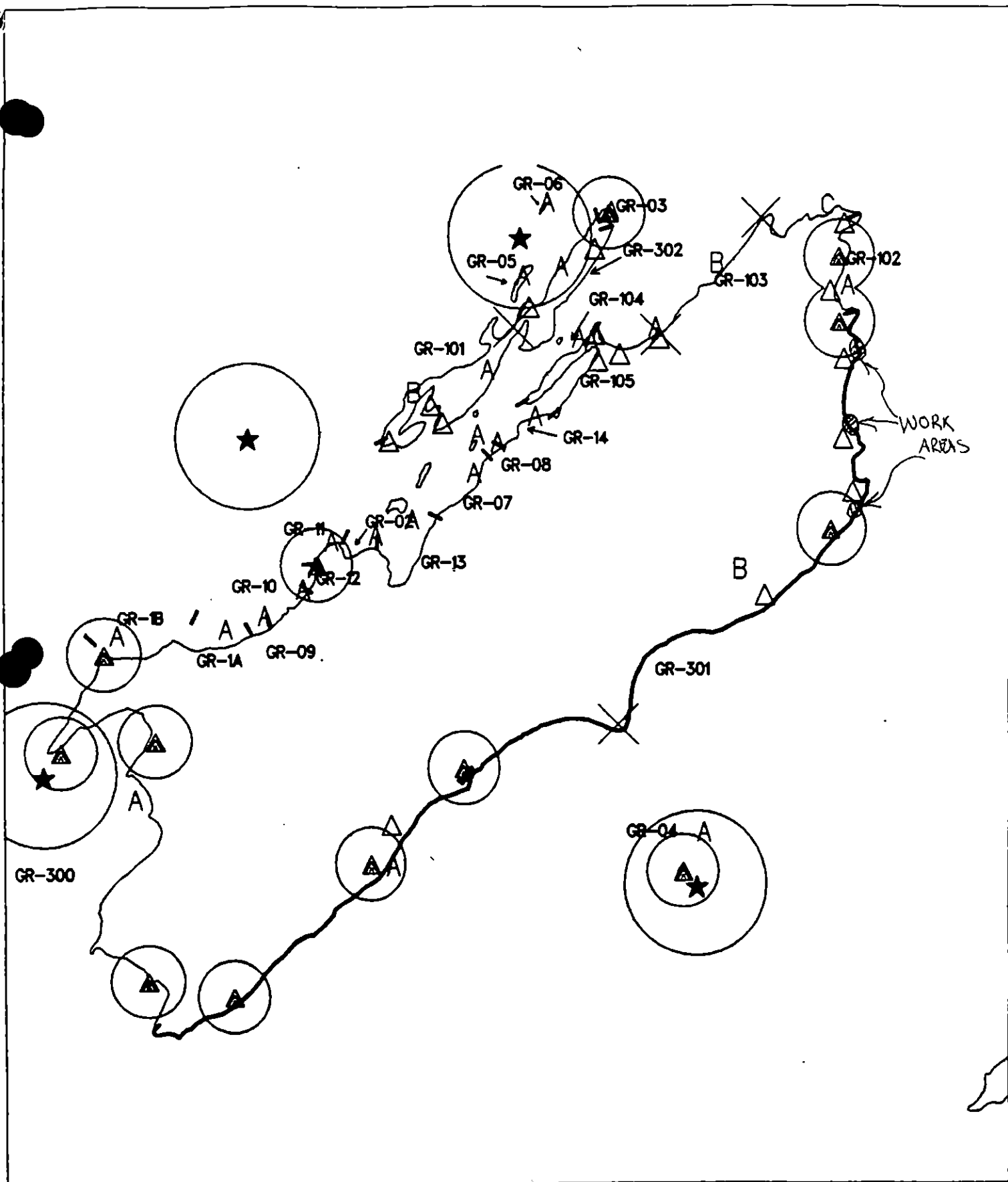
No constraint to manual pickup and tarmat removal.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC W L Date 6-12-90

Prepared by Tom P. Phillips Date 6/11/90



EXXON
Exxon Company, USA
Map Key: PWS-GR-301
June 09, 1990

ECOLOGY MAP
SEGMENT GR-301
SUBDIVISION B (2 of 2)
METERS
0 1464 2920

★	Seabird Colony
▲	Active Eagle Nest
△	Inactive Eagle Nest

1 inch = 4804 feet

SHORELINE EVALUATION

SEGMENT ST/ GR-301 SUBDIVISION B (2 OF 2) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
9CC Research Natural area
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Segment B has 7 bald eagle nests (see ecology map).

ARCHAEOLOGICAL CONSTRAINT: An Exxon archaeological monitor is required on-site during shoreline treatment.

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

SHPO SIGNATURE: Rachel de la Torre DATE: 5/23/90

OILING CATEGORIZATION:

Wide 37 m: Medium 0 m: Narrow 40 m: V.Light 1406m: No Oil 5104 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) manual removal of tarmat,
2) manual pick up of tar balls and patties. Work should be conducted
after 6/15 with approval of USFWS and ADF&G regarding eagle nests and
research natural area respectively.

SEE CONSTRAINTS ADDENDUM dated 6/11/90 JPP

TAG COMMENTS:

TAG APPROVAL DATE: 4/26/90

ADEC JOHN BAUST
EXXON ANDY TATE
NOAA GRACE POTRAE
USCG KENNETH KORMER

FOSC: [Signature]

DATE: MAY 25 1990

SHORELINE EVALUATION

SEGMENT ST/ GR-301 SUBDIVISION B (2 OF 2) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
9CC Research Natural area
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened biota and substrate. Segment B has 7 bald eagle nests (see ecology map).

ARCHAEOLOGICAL CONSTRAINT: An Exxon archaeological monitor is required on-site during shoreline treatment.

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

SHPO SIGNATURE: Rachel Dean Oate DATE: 5/23/90

OILING CATEGORIZATION:

Wide 37 m: Medium 0 m: Narrow 40 m: V.Light 1406m: No Oil 5104 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 Snare (pom poms)
<u>X</u> Manual Pickup	<u> </u> Absorbents (pads, rolls, etc)
<u> </u> Bioremediation	<u> </u> Spot Washing: <u> </u> Wands
<u>X</u> Tarmat: <u>X</u> Removal	<u> </u> Beach Cleaner
	<u> </u> Other (see comments)

COMMENTS: Recommended treatment includes 1) manual removal of tarmat,
2) manual pick up of tar balls and patties. Work should be conducted
after 6/1, with approval of USFWS and ADF&G regarding eagle nests and
research natural area respectively.

TAG COMMENTS:

TAG APPROVAL DATE: 4/26/90
ADEC JOHN BAUER
EXXON ANDY GEAR
NOAA GARY PETRAE
USCG KENNETH KERN

FOSC: [Signature] DATE: MAY 25 1990

SEGME. GR-301
 SUBDIVISION B
 DATE 4/9/90

CHECKLIST

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

LEGEND

1 Δ
 Pli - No Subsurface Oil

2 Δ
 Pli - Onsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

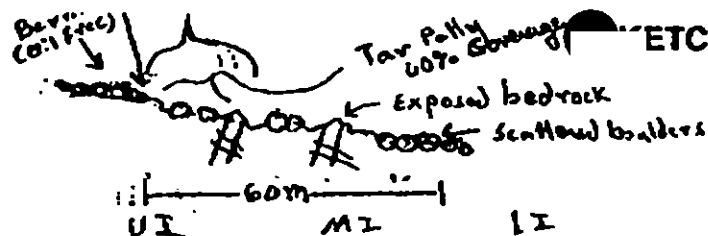
CT/P
 Patchy Distribution

CT/S
 Spattered Distribution

Oil Vegetation

Width → Length
 Photo location, direction, and number
 Thickness

* Exposed Bedrock
 - - - - SBL (where significantly different than HWL)



ETCH MAP

N. end of Subdivision

Profile
 Anadromous STREAM

PT/B
 W10 L8
 Th. 6cm
 RB/B
 W2 L30
 Th. 4cm

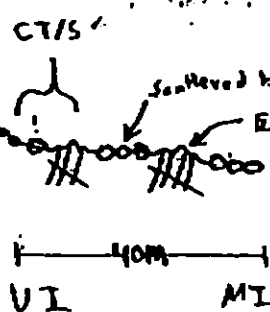
CT/S
 W15
 0%

CT/S
 W3-5
 1%

Located g'lobs...
 'HWL. Usually
 spattering boulder
 but also small
 "globs" saturating
 gravels between
 boulders or in
 cracks of
 bedrock. A
 few areas have
 heavier oiling
 as noted.

Profile

Oil Free
 Vegetated
 Berm



ANADROMOUS STREAM

Profile

STREAM

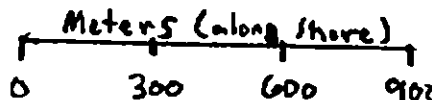
Forest

Boulder Beach

MANUALLY REMOVE
 TAR BALLS AND PATTIES

Bench consists of
 shallow or exposed
 bedrock with scattered boulders

No Oil



Oil Character Length (m): AP 30 PO CV 27 CT BT 2160 MS PT 10 TB FL NO

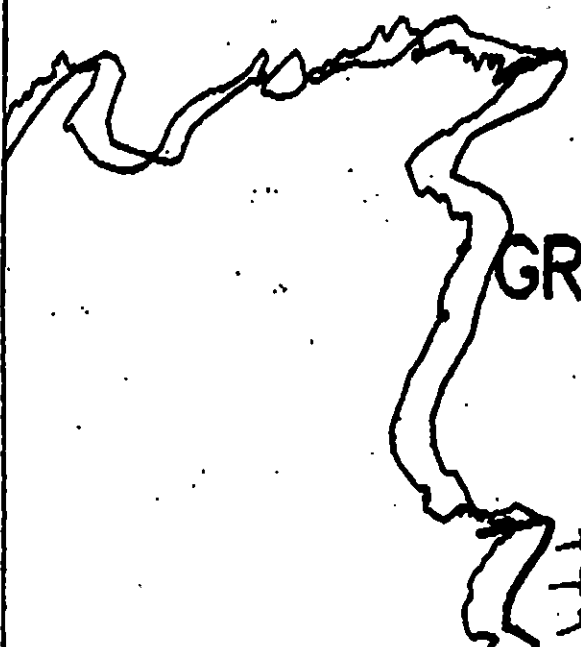
(Subdivision B
 Contains
 but is unsealed)

See GIS Map for Subdivision boundaries

REVISION 000000

Note

All areas walked
unless indicated.



GR-102

see "pasted" page

↓ PWS
261 F

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-301

ADEC Segment Length: 13417m

0 500 1000 1500 2000

Map Key: PWS-2611

Name: B. Berglund

Date: 4/9/90

GR-102

wide

NARROW

↓ PW'S 261 F

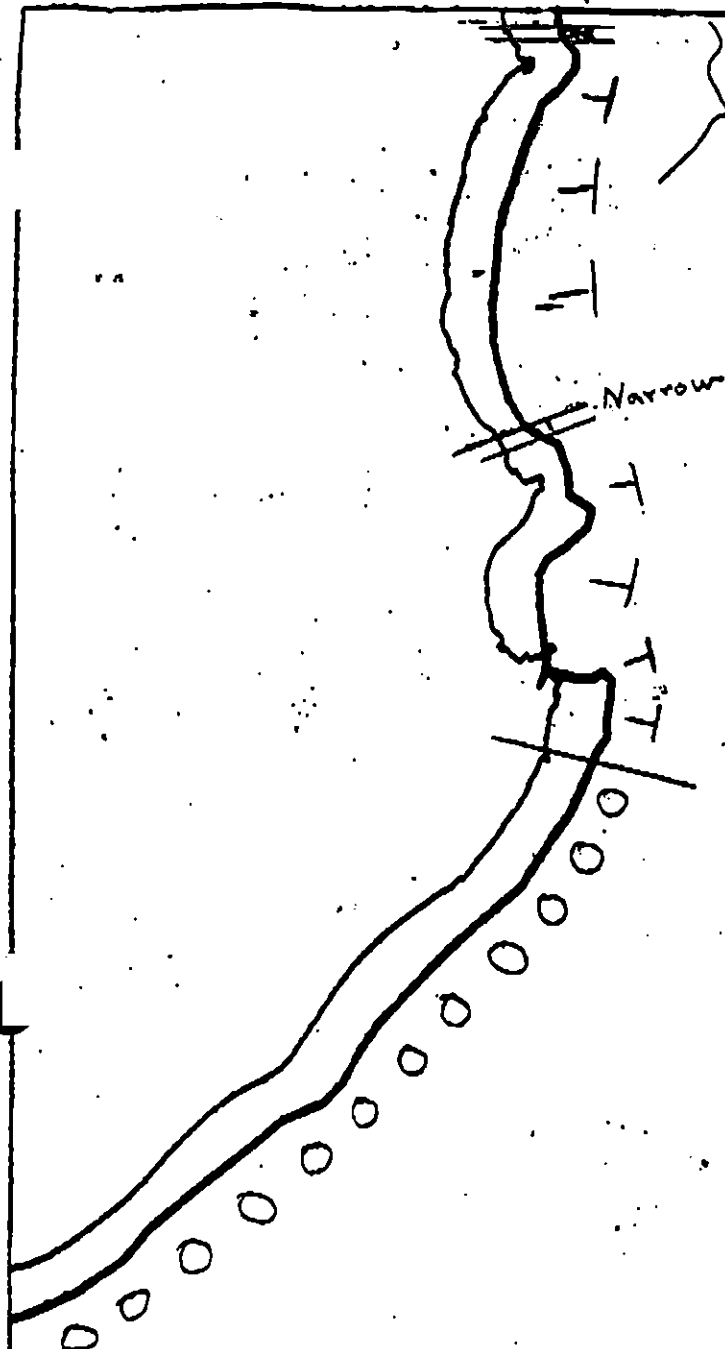
↑ PW'S 261 i

"Pasted" page

G-R-301

("Pasted" Page).

4/9/90
TB. Berglund



See pasted page.

↑
PWS 2611

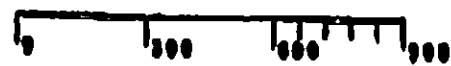
Narrow

← PWS
261E

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

GR-301

ADEC Segment Length: 13417m

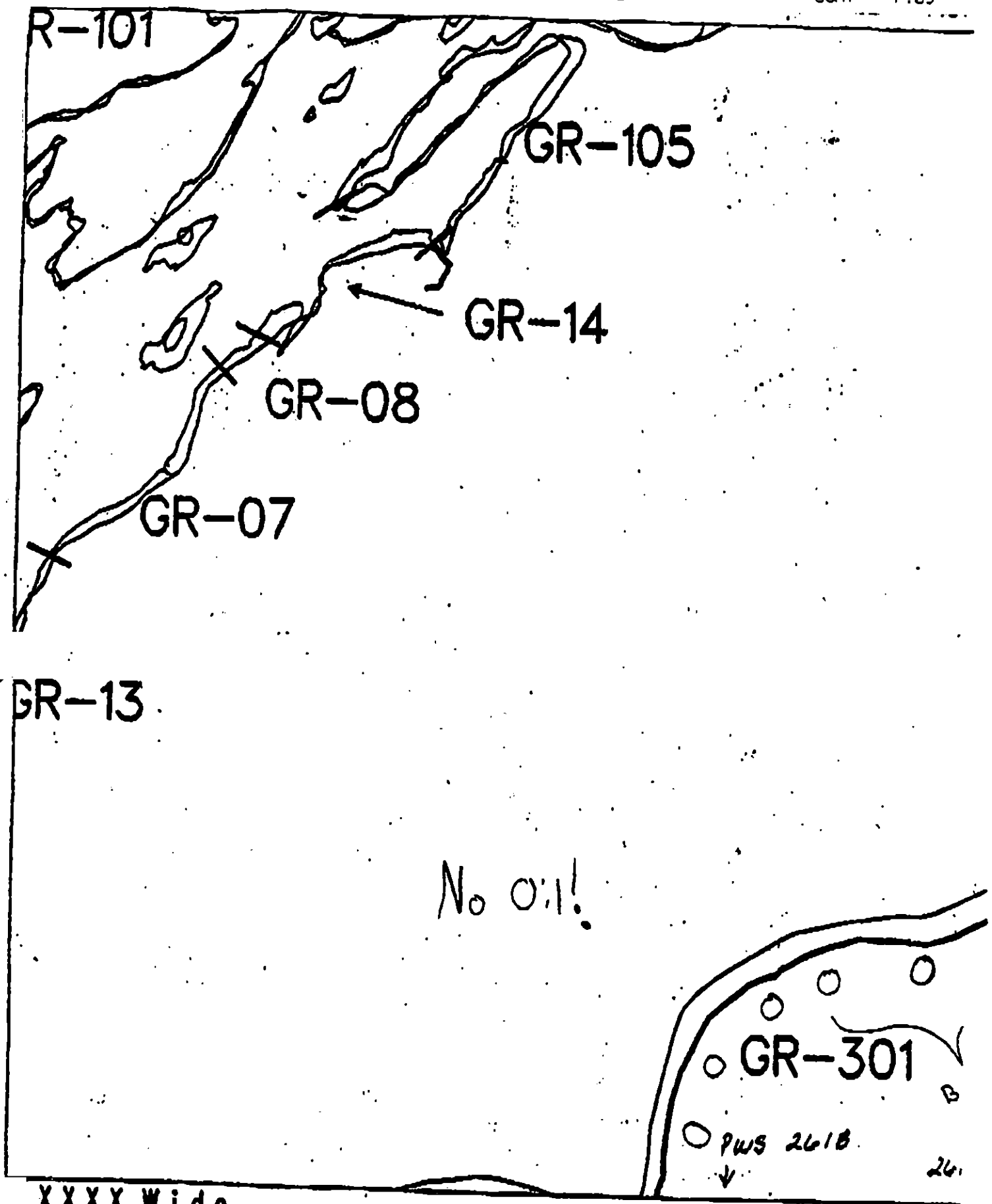


Map Key: PWS-2011

Name: T. Berglund

Date: 4/9/90

Date Entered:



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

GR-301

ADEC Segment Length: 13417m

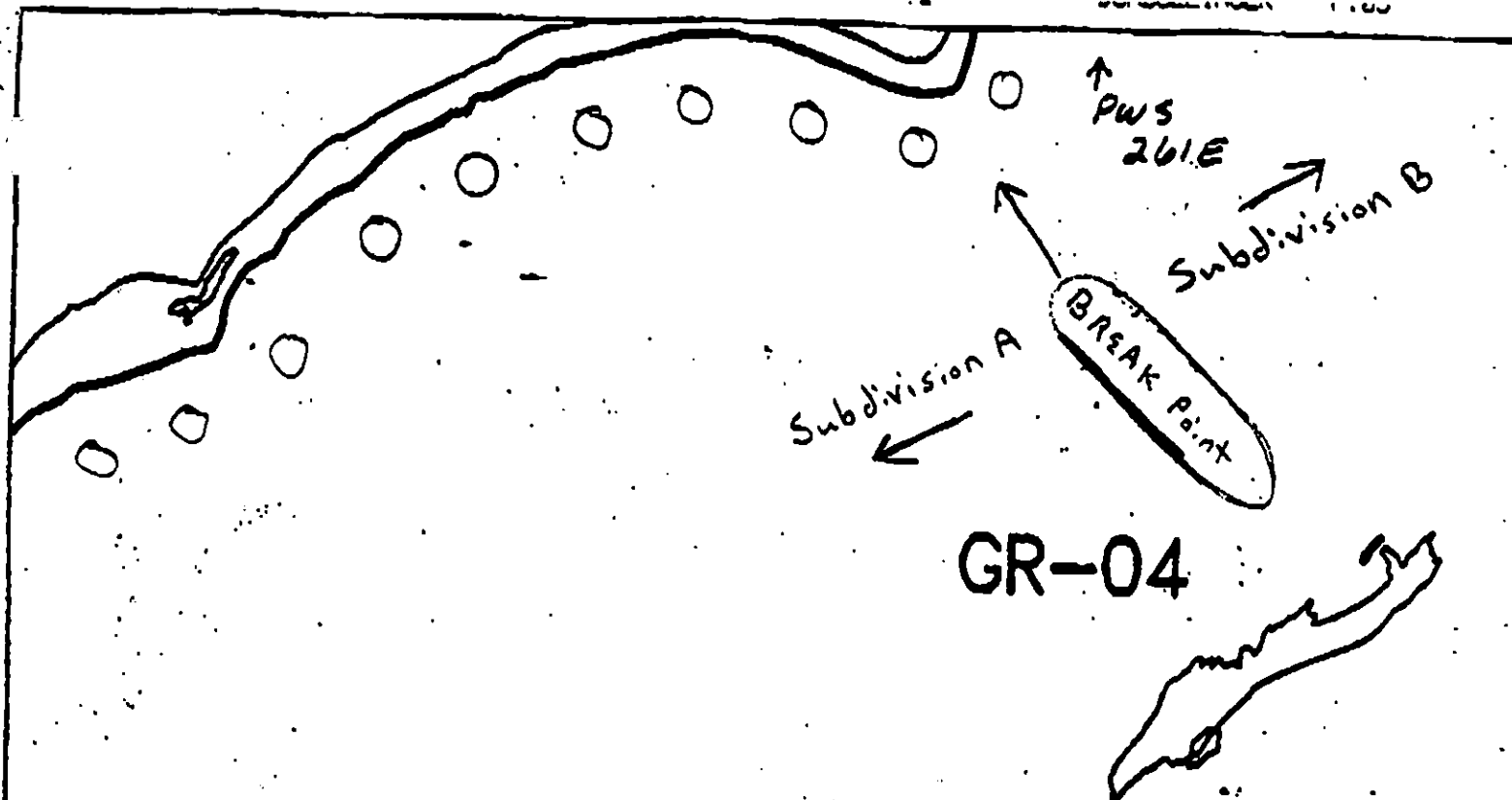
0 100 200 300



Map Key: PWS-261

Name: B. Bergal

Date: 4/9/90



← PWS
261A

.XXX Wide

//// Medium

--- Narrow

TTTT Very Light

GR-301

ADEC Segment Length: 13417m

Map Key: PWS-201b

Name: B. Berglund

Date: 4/8/90

GR-102

ECOLOGY MAP

▲ = Eagle Nests



Wide

NARROW

↓ PWS 261 F

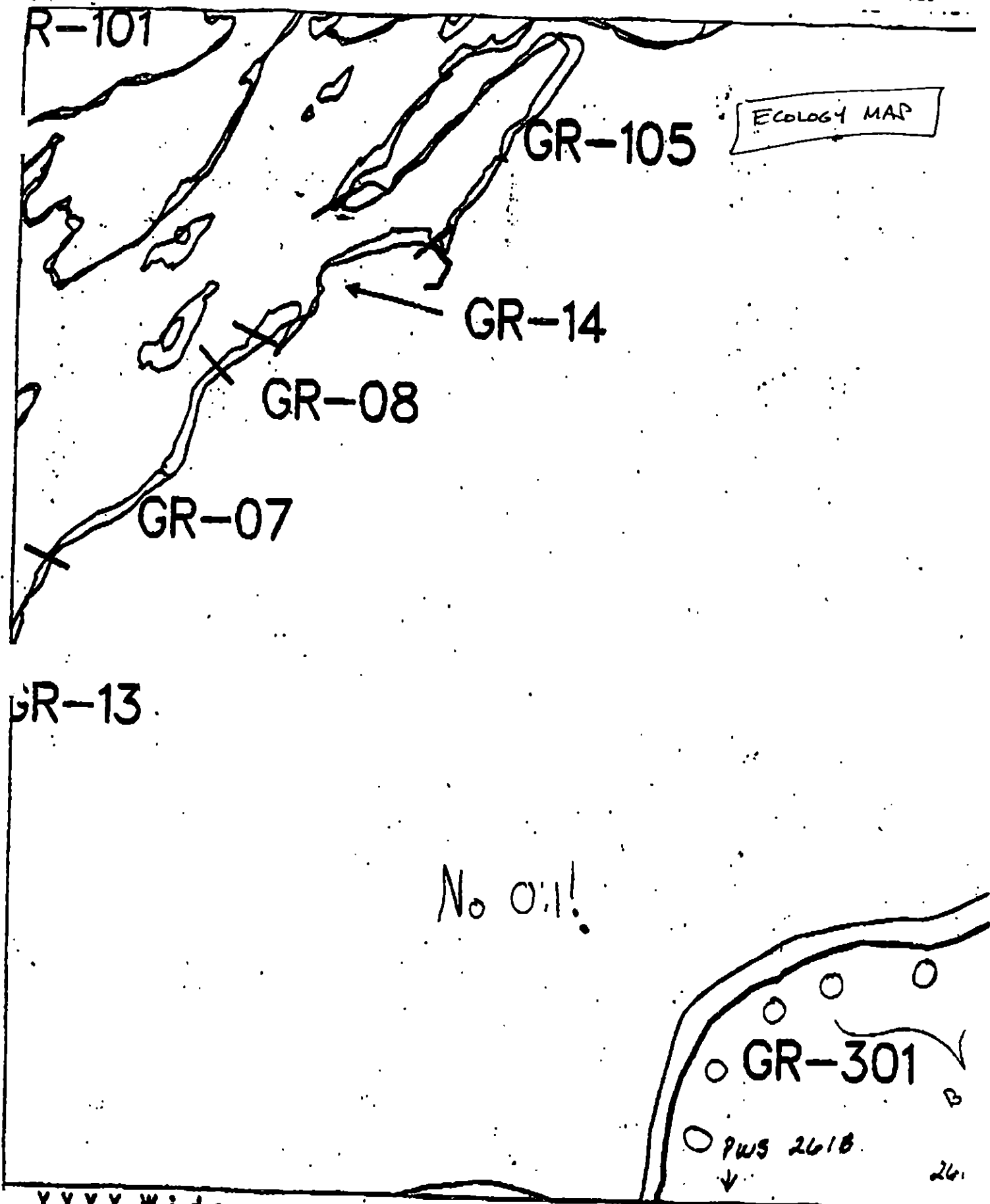
↑ PWS 261 i

"Pasted" page

GR-301

("Pasted" Page).

4/9/90
TB. Benglund



XXXX Wide

//// Medium

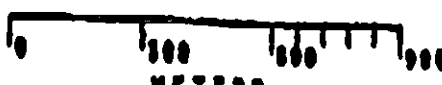
---- Narrow

TTTT Very Light

0000 No Oil

GR-301

ADEC Segment Length: 13417m

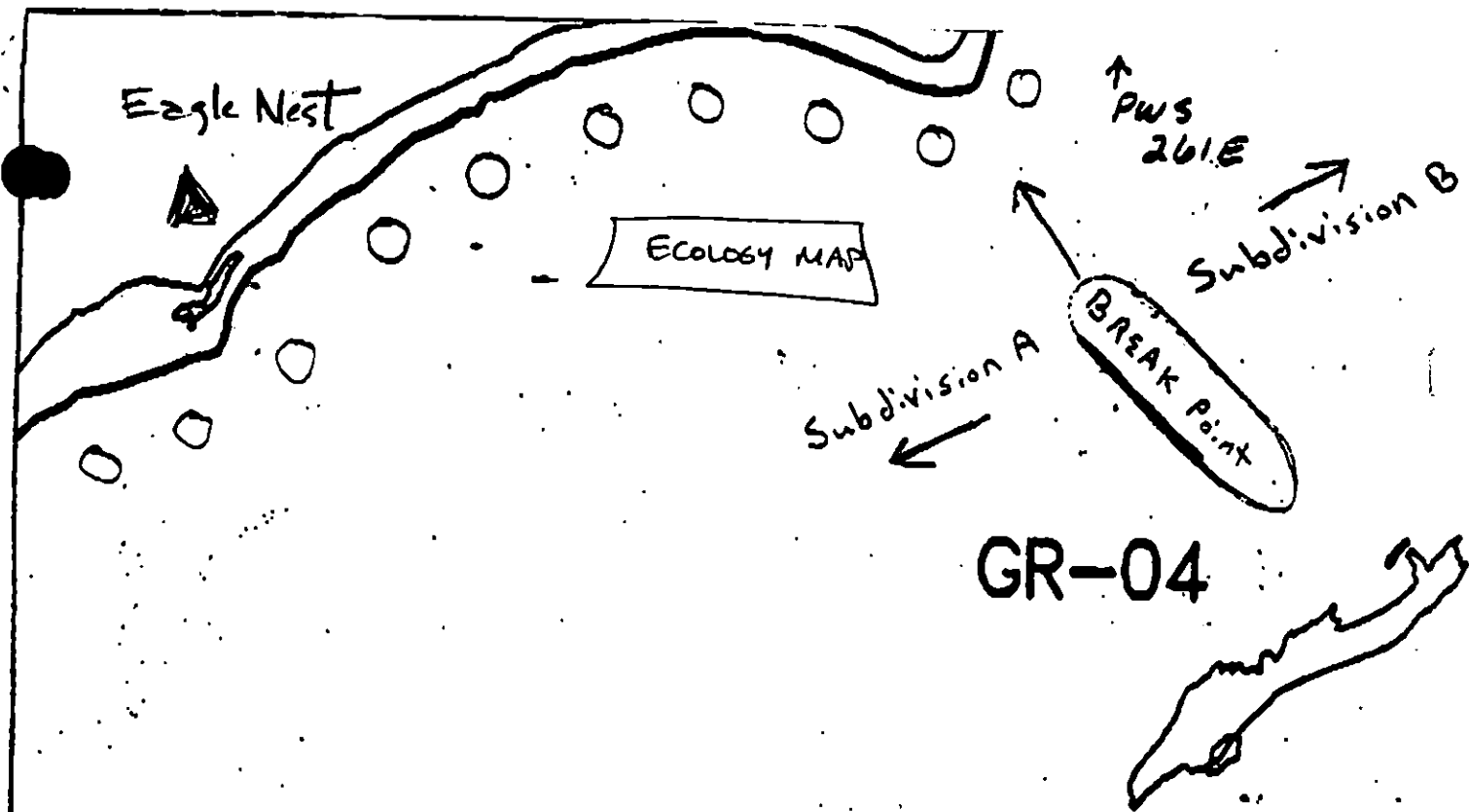


Map Key: PWS-261c

Name: B. Bergl

Date: 4/9/90

Data Entered:



← PWS
261A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

GR-301

ADEC Segment Length: 13417m



Map Key: PWS-201b

Name: B. Bengland

Date: 4/8/90

SHORELINE EVALUATION

SEGMENT ST/ GR-301 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-9 All bald eagle nests (3/1 to 6/1) - Active eagle nests (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
9CC Research Natural area - closed
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 6892 m
Subsurface Oil Observed: Yes No X Maximum Depth

RECOMMENDATIONS:

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

COMMENTS:

TAG COMMENTS:

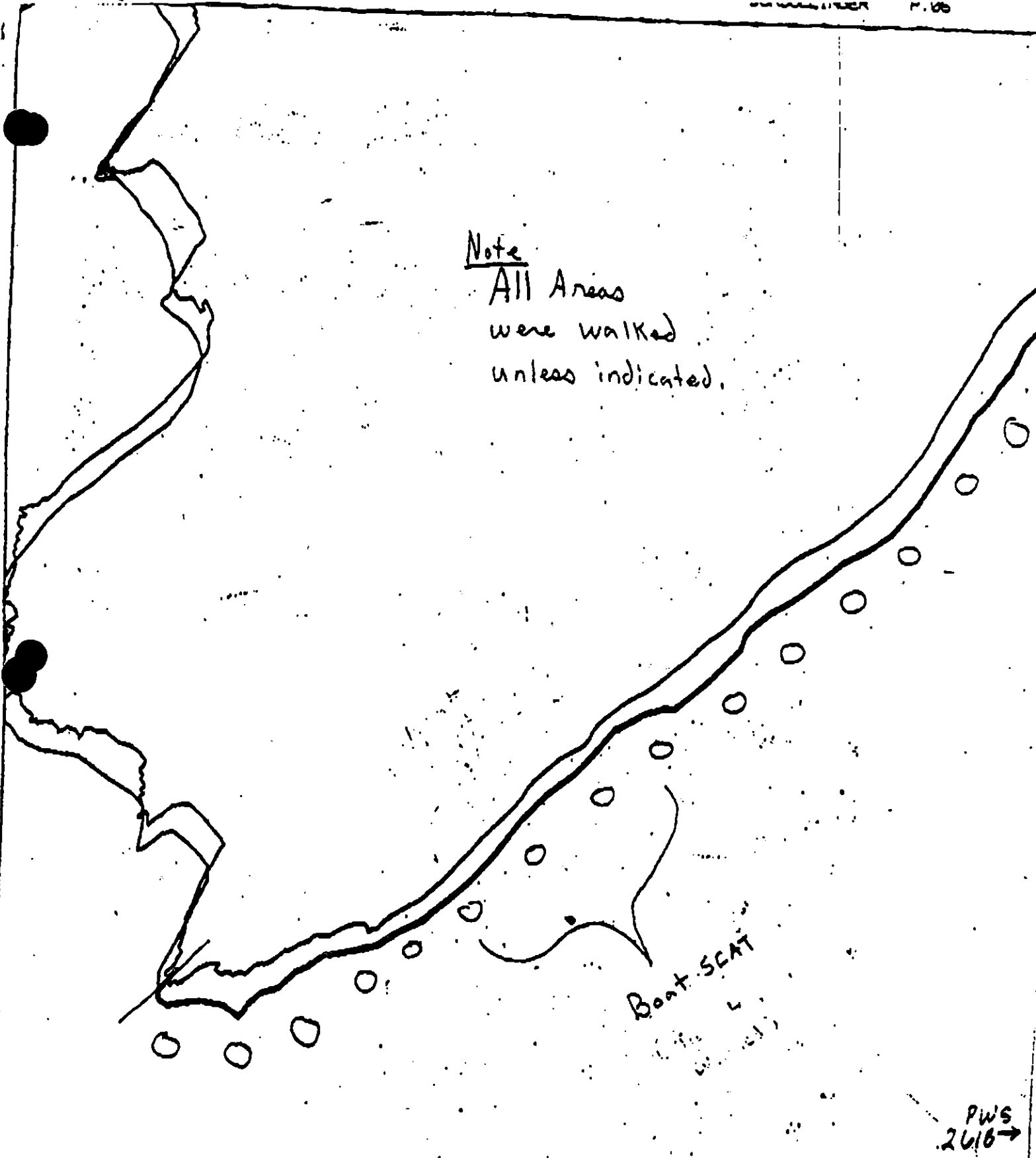
TAG APPROVAL DATE: 4/21/90

ADEC ART WEINER
EXXON ANDY TAYLOR
NOAA BILL WESCOTT
USCG KENNETH KEANE

FOSC: [Signature] DATE: 5-1-90

Note

All Areas
were walked
unless indicated.



PWS
2616→

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-301 (A)

ADEC Segment Length: 13417m

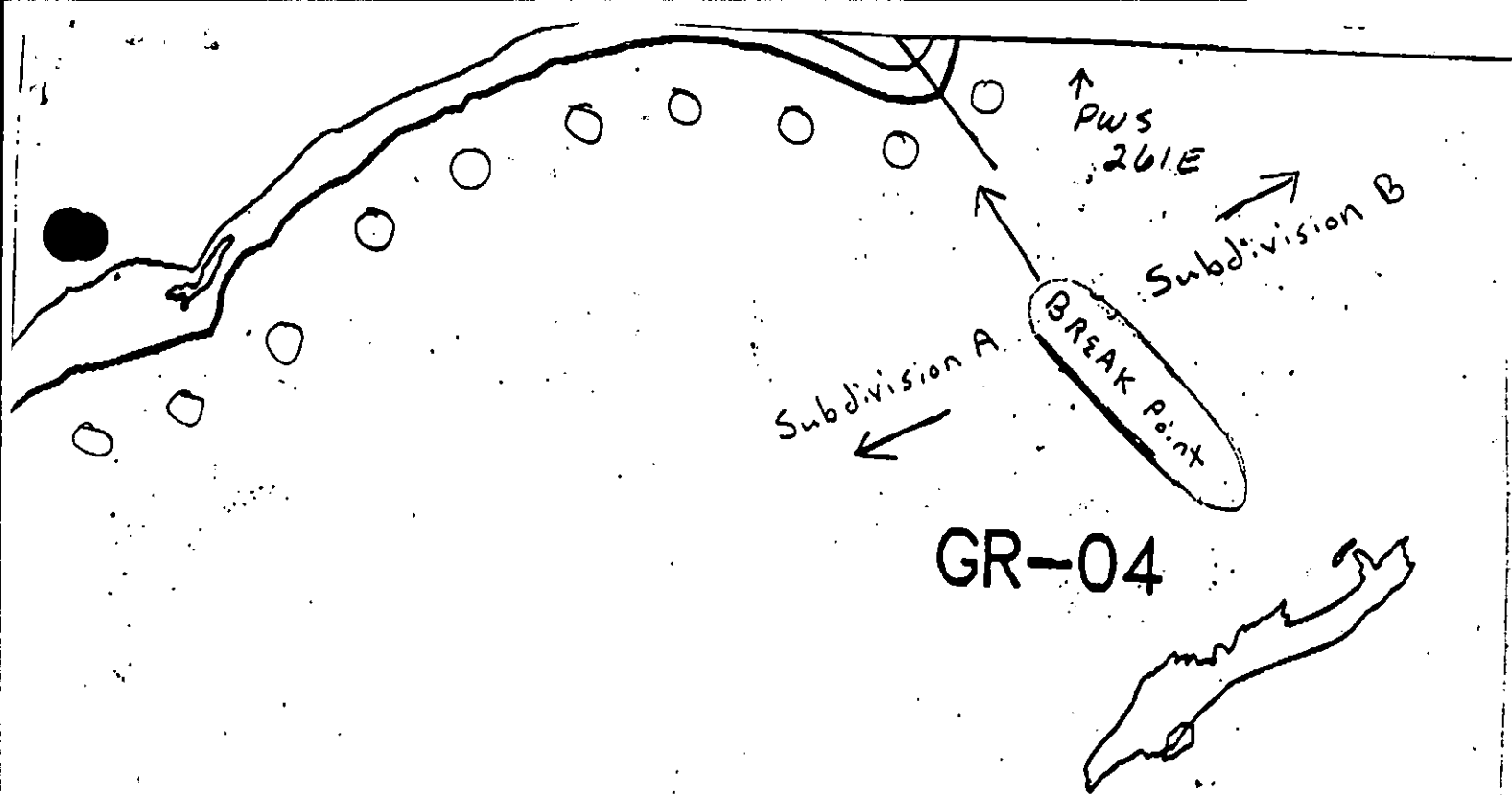


Map Key: PWS-2010

Name: B. Benglin

Date: 4/8/90

Date Entered:



GR-04

PWS
261A

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

GR-301 (A)

ADEC Segment Length: 13417m



Map Key: PWS-261b
 Name: B. Berglund
 Date: 4/8/90
 Data Entered:

P7 5 of 6

OILING LENGTHS
TO BE PROVIDED
AT A LATER DATE

GR-301B

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-301

SUBDIVISIONS: B (2 OF 2)

GR-301-A WAS SUBMITTED TO TAG ON 4/18/90

SHORELINE EVALUATION

SEGMENT ST/ GR-301 SUBDIVISION B (2 OF 2) DATE 4/9/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
9CC Research Natural area
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unoiled biota and substrate. Segment B has 7 bald eagle nests (see ecology map).

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 _____ m: Medium _____ m: Narrow _____ m: V.Light _____ m: No Oil _____ 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: Recommended treatment includes 1) manual removal of tarmat,
2) manual pick up of tar balls and patties. Work should be conducted
after 6/1, with approval of USFWS and ADF&G regarding eagle nests and
research natural area respectively.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / CR 301 SUBDIVISION: B DATE 4-9-90

SCG

NAME JAMES C. Gimbill SIGNATURE James C. Gimbill

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

TAR Patties 10m x 8m wide, crater rock water and saturated sediment at the UITE.
2m x 35m Dend of Tarry Asphalt. Splashes of oil 3.5m x 1m x 2cm off to UITE.
Splashes (2' x 25cm) mobile Patches

ADEC

NAME Brian K. FitzSimons SIGNATURE Brian K. FitzSimons

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Tar Patties occur intermittently along the base of the HITZ Berm on the northeast end of the segment to the headlands south of the second anadromous from the beginning. The largest tar patty is located adjacent to and to the north of the 1st stream on the NE end of 1st segment.

Suggested Treatment: Hand removal by shovel of tar patties - Start crew at one end of oiled area at HITZ and patrol & work beach till out of oiled zone

LAND MANAGER

NAME Carol S. Huber SIGNATURE Carol S. Huber

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Only N.E. half of this segment is oiled. There are some locally very thick tar patties (up to 5cm^{deep}) in a narrow band in the UITE. Oil very mobile (leaching out)

Possible anadromous streams in this area.
Note: listed as GCC "Research Natural Area" in data table
Resource sensitivities: deer harvesting (deer observed on beach), anchorage, bald eagle nests (eagles sighted),
herring spawning, 11 P.T.D.D., 11 P.T.D.D.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG B. Beraland USCG J. Gamble SEGMENT ST/ GR-301
 BIO S. Schreiner LAND REP C. Hughes (NES) SUBDIVISION B 205
 EXXON C. Levine ADEC B. Fritzsimons TIME 7:00 to 11:00
 TEAM NO.: 1 TIDE LEVEL: 2 to 6 DATE 4/9/90
 EST. SUBDIVISION LENGTH: 6300 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: NE to SW
 SURFACE SEDIMENTS: R 20 % B 50 % C 20 % P 0 % G 3 % S 1 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 38 m M 0 m N 27 m VL 2160 m NO 4075 m

SURFACE OIL

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

PAVEMENT: H (F) S 60 sq. m by 4 cmPATTIES / TARBALLS 10 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☒ YES ☐ NOTYPE Oiled Buckets#BAGS 1

Photographs:

Roll No. ST-1-3Frames 28-29

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm-0.05)	BELOW		OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	VO	1	2	3	4	SU	U	M	L		
1	20					X	-	X						X					P/G/S (Lower Beach)
2	30					X	-	X						X					P/G/S (Lower Beach)
3	20					X	-	X						X					G/S (Between Boulder)

COMMENTS

Only the NE half of this segment is oiled. The oiled sector of the beach consists of shallow or exposed bedrock with scattered boulders.

Oiling is very light, principally isolated splashy coats near the HWL (Next page).

GR-301-B (continued)

Surfaces of boulders are coated. Occasionally small "globbs" of oil ($\approx 3 \text{ cm}^2$) saturate the gravels between boulders (1 cm in thickness) or oil accumulations are present in cracks of the bedrock.

A few areas have heavier oiling (coat on pavement) as noted on the sketch map. Their distribution suggests they were isolated patches that washed up and were deposited near the HWL. Except in these areas deep oiling does not pose a problem (deep subsurface oiling being prevented by the shallow bedrock).

A storm berm is fairly continuous along this segment. It contains considerable vegetation but it is unoiled.

Note

Only a sketch map of the oiled sector was drawn.

SEGMENT TI GR-301SUBDIVISION BDATE 4/9/90

CHECKLIST

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

LEGEND

1 ▲

PH - No Subsurface Oil

2 ▲

PH - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patched Distribution

CT/S

Splashed Distribution

Oil Vegetation
 20 cm or
 1 m

Photo location, direction,
 and number

* Exposed Bedrock

- - - - SSL (where significantly different than HWL)

Profile

Oil Free
Vegetated
Berm

40m

VI MI

oiled zone
shaded

Thickness

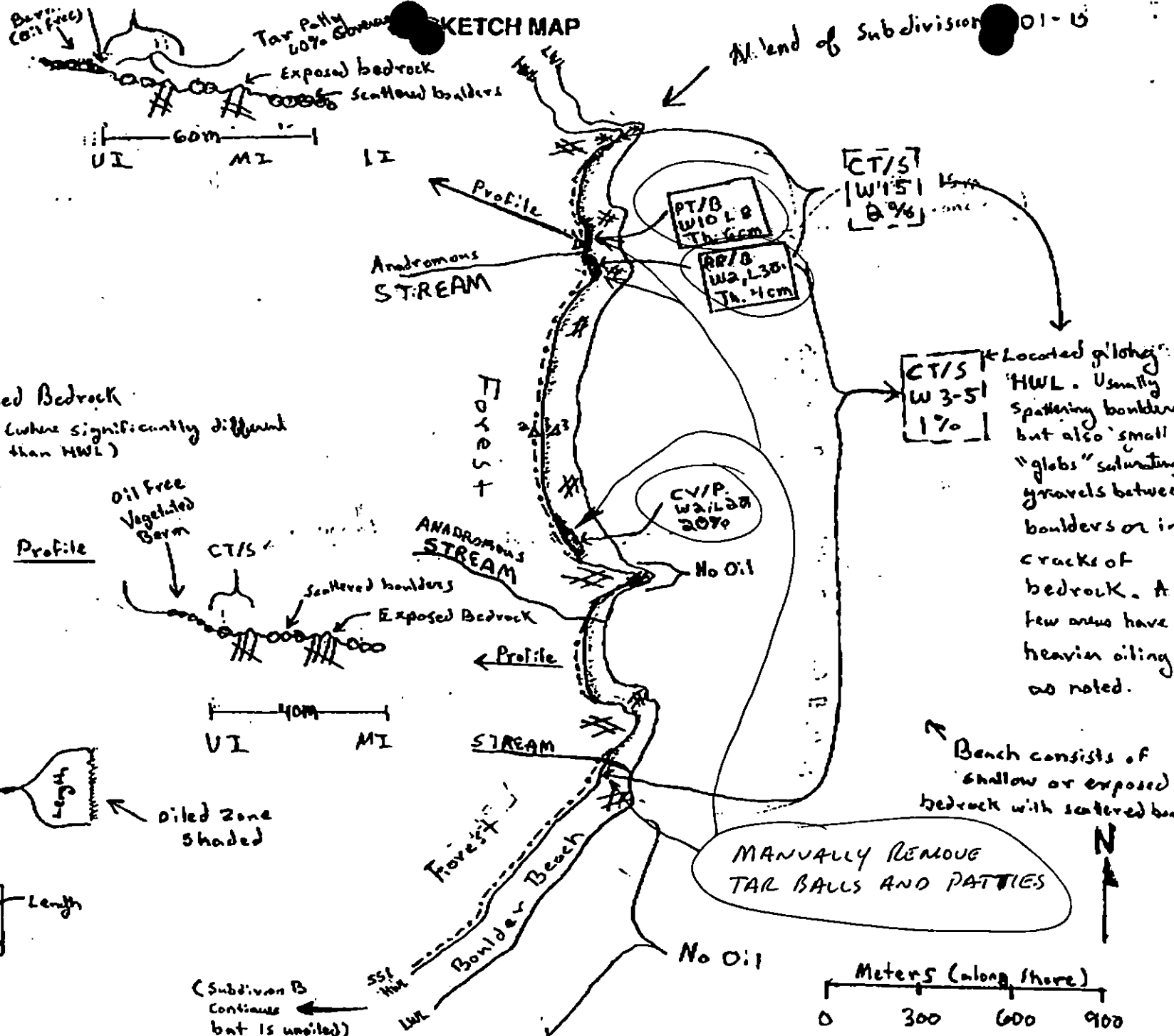
AP/D
 W2, L10
 Th. 4cm

Oil Character Length (m): AP 30 PO CV 27 CT ST 2160 MS PT 10 TB FL NO

(Subdivision B
 continues
 but is unoiled)

See G.T.C. Map for Subdivision B

SKETCH MAP



Located piloting
 'HWL'. Usually
 splashing boulder
 but also 'small
 "globs" saturating
 gravels between
 boulders or in
 cracks of
 bedrock. A
 few areas have
 heavier oiling
 as noted.

Bench consists of
 shallow or exposed
 bedrock with scattered boulders

MANUALLY REMOVE
 TAR BALLS AND PATTIES

Meters (along shore)
 0 300 600 900

NEWTON 0321400

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST GR301 Subdivision B Date (mo / day / yr) 4/9/90
 Time (24 hr) 0710 1100 Biologist S. Schroeter

Substrate type and % of segments:

(1) Bedrock 14 (2) Boulder 26 (3) Cobble 52 (4) Pebble 10 (5) Sand 5 (6) Silt 0

(B) Overall % cover of biota (% of segment): Dense 13 Moderate 21 Low 66

(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. N/AFrames None

BARNACLES

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

MYTILUS

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

TROPIDS

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:

NO priority or sensitivities

priorities & sensitivities same as GR301A
 wild life: 4 bald eagles, numerous sea lions
 ~10 spotted seals, many deer tracks & bear
 tracks & scat, 2 anadromous streams (see sketch
 map).

Ecological Considerations:

This subdivision is very similar to GR301A. It is predominantly a cobble/boulder beach where the primary biota are bryozoans, gastropods & sparse to rare fucus. The bedrock headlands are rock, but represent only about 1/4 of the shore line length. On these headlands, in the low & low-mid intertidal are phenomenally high densities of sea stars, primarily (2/m²) of *Pycnopoda* and *Patella*.

Segment: GR301 Subdivision: B Date: April 9, 1990
BIO: S. Schroeter OG: B. Berglund Tidal Range: > -0.3

This subdivision is similar to GR301A; predominantly a cobble and boulder beach (~80%) with widely spaced headlands making up about 20% of the shore. The predominant organisms on the cobble and boulder beaches are barnacles and gastropods (primarily littorines and *N. scutum*). *Fucus* also occurs, but is rare.

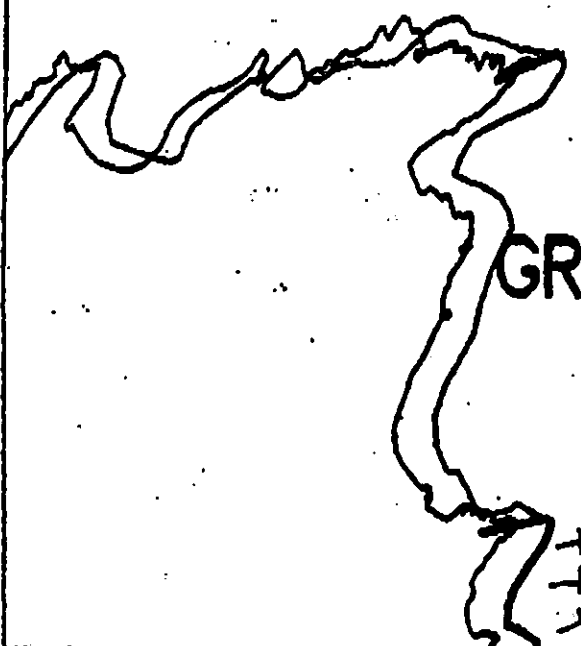
The biota on the headlands are dense in the low-middle and low intertidal. The low intertidal is predominated by leafy red algae (e.g. *Iridea*, *Odonthalia*, *Halosaccion*, *Rhodoglossum*), eelgrass (*P. scouleri*), and sparse concentrations of laminarians. *P. scouleri* beds border much of the subdivision in the low intertidal and shallow subtidal. Sea stars occur in particularly high densities (3 per m⁻² in some areas) in the low intertidal on and under boulders on the headlands. Most of the sea stars (~90%) are *Pycnopodia* that range in size from 2.5 to 14 cm in ray length. The other sea star species seen include: *Pisaster ochraceus*, *Henricia leviuscula*, *Eyasterias trochlii*, *Dermasterias imbricata*, and *Leptasterias hexactis*. About half of the *Pycnopodia* had ray lengths < 10 cm and may represent fairly recent recruits.

In two areas where streams ran across the intertidal there were sparse to medium densities of barnacles (primarily *B. glandula*) and mussels throughout the intertidal on boulder and cobble substrates. These "islands" of high concentrations may be refuges from predation, as predatory snails and sea stars are absent here. Similar substrates at the same tidal levels 2 - 5 meters from the streams had much higher densities of sea stars (primarily *L. hexactis*) and barnacles and mussels were rare.

P. H. F.  

Note

All areas walked
unless indicated.



GR-102

see "pasted" page.

↓ PWS
261 F

XXX Wide

/// Medium

--- Narrow ADEC Segment Length: 13417m

TTTT Very Light

GR-301

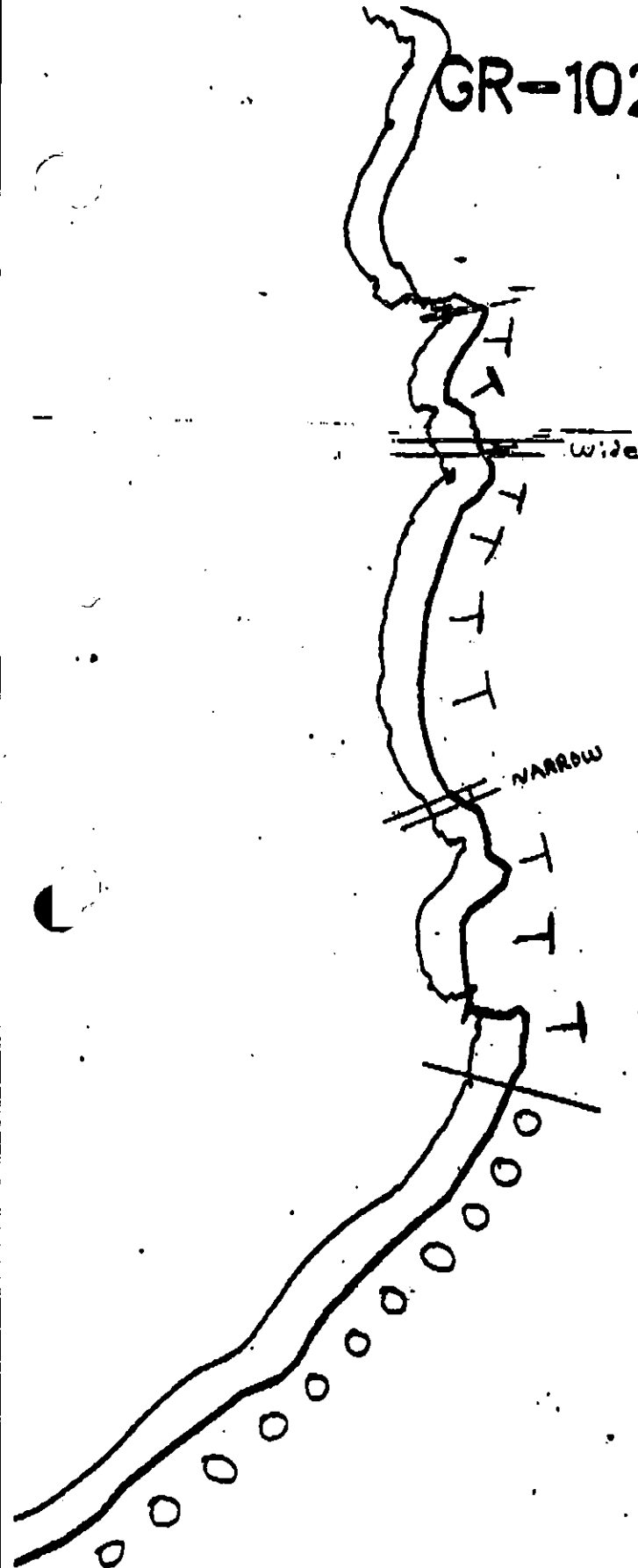
Map Key: PWS-2611

Name: B. Berglund

Date: 4/9/90

0 500 1000 1500 2000

GR-102



↓ PWS
261 F

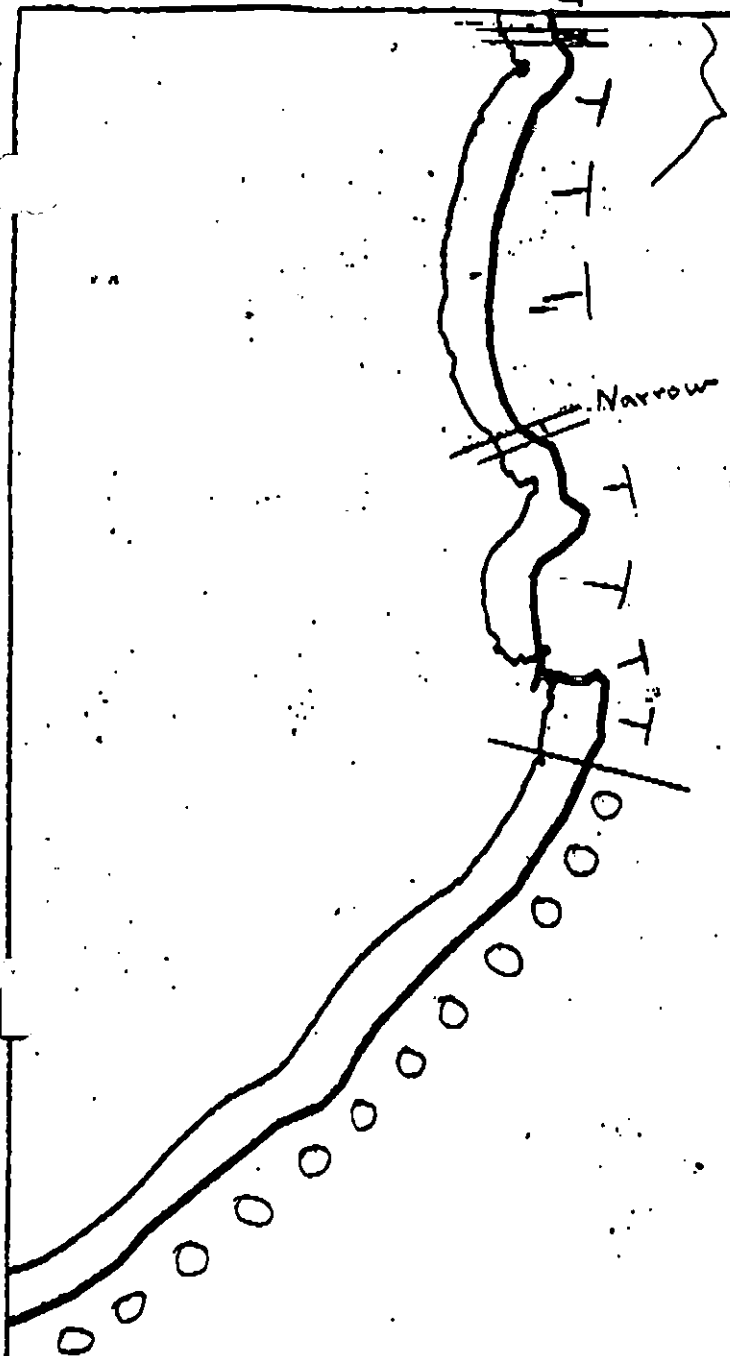
↑ PWS 261 i

"Pasted" page

GR-301

("Pasted" Page).

4/9/90
TB. Benglund



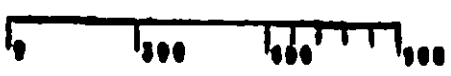
↑ PWS 2611
See pasted page.

← PWS 261E

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

GR-301

ADEC Segment Length: 13417m



Map Key: PWS-2011
Name: B. Berglund
Date: 4/9/90

R-101

GR-105

GR-14

GR-08

GR-07

GR-13

No Oil!

GR-301

PWS 2618

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

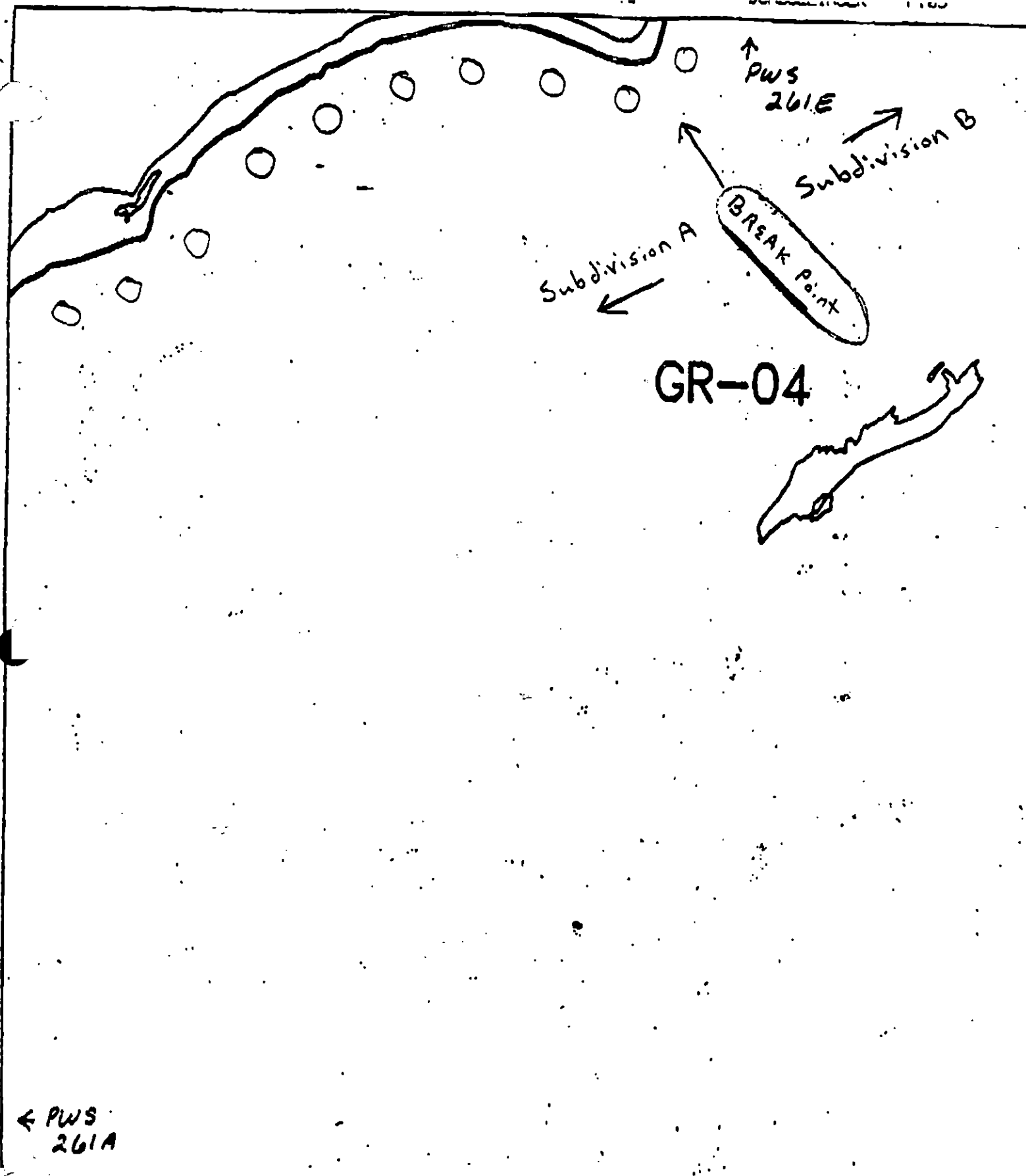
GR-301

ADEC Segment Length: 13417m

0 500 1000

Map Key: PWS-261c

Name: B. BergDate: 4/9/90



XXX Wide

/// Medium

--- Narrow

TTTT Very Light

GR-301

ADCC Segment Length: 13417m

Map Key: PWS-201b

Name: B. Bengtson

Date: 4/8/90

GR-102

ECOLOGY MAP

▲ = Eagle
Nests

wide

NARROW

↓ PWS
261 F

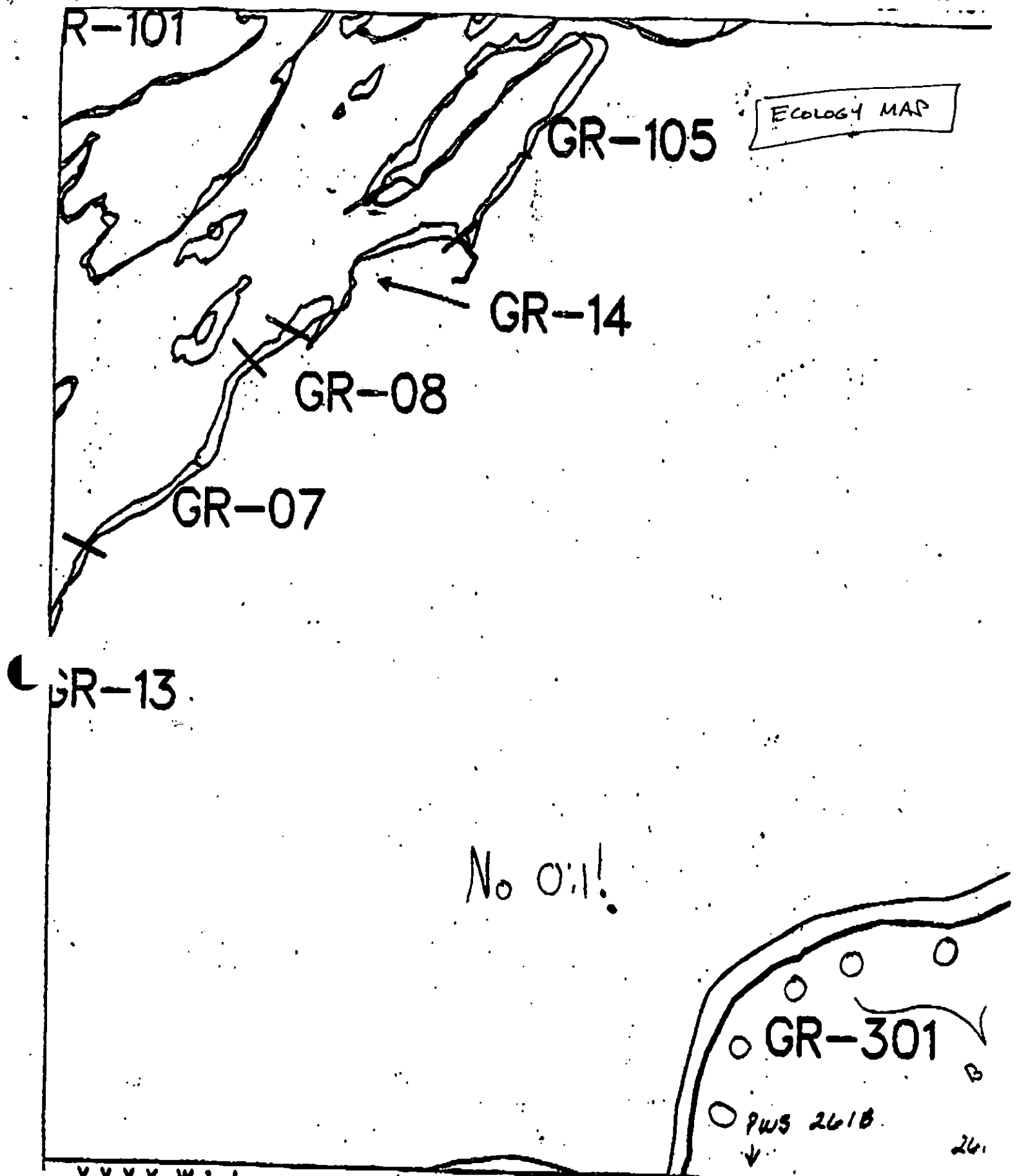
↑ PWS 261 i

"Pasted" page

GR-301

("Pasted" Page).

4/9/90
TB. Bernalund



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

GR-301

ADEC Segment Length: 13417m



Map Key: PWS-261

Name: B. Berg

Date: 4/9/90

Eagle Nest

ECOLOGY MAP

↑ PWS
261E

Subdivision B

Subdivision A

BREAK Point

GR-04

← PWS
261A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

GR-301

ADEC Segment Length: 13417m

Map Key: PWS-261b

Name: B. Bengtson

Date: 4/8/90

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-301

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-301 SUBDIVISION A (1 OF 1) DATE 4/8/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-9 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6V Recreation: Anchorages (6/1 to 9/15)
7II Subsistence area: Deer harvesting (8/15 to 2/28)
9CC Research Natural area - closed
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 0 m: V.Light 0 m: No Oil 6892 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: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream. Contact ADF&G Habitat Division prior to treatment for permits.
- 1C Salmon fry nursery area (4/31 to 7/31)
 1D Esther Hatchery release (4/15 to 6/1)
 1E Main Bay Hatchery release (4/20 to 5/10)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 For Codes 1C through 1L contact ADF&G for specific dates, locations and constraints.

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

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

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

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

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

- 6U Recreation: Tent sites (6/1 to 9/15)

- 6V Anchorages (6/1 to 9/15)

- 6W Forest Service cabins (6/1 to 9/15)

- 6X Lodge (6/1 to 9/15)

- 6Y Special use destination

- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)

- 7HH Finfish harvesting

- 7H Deer harvesting (8/15 to 2/28)

- 7JJ Invertebrate harvesting

For Codes 7Z through 7JJ contact ADF&G and Chenega Corporation for specific dates, locations, and constraints.

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / GR301 SUBDIVISION: A DATE 4-8-90

SCG
NAME James C. Gombell SIGNATURE James C. Gombell

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS no oil found

ADEC
NAME Brian K. FitzSimons SIGNATURE Brian K. FitzSimons

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS No oil observed within this subsegment.

LAND MANAGER
NAME Carol S. Huber SIGNATURE Carol S. Huber

☒ NO TREATMENT RECOMMENDED ☐ TREATMENT SUGGESTED
COMMENTS No oil observed.

OG B. Berglund USCG J. Gamble SEGMENT ST/ CR-301
 BIO S. Schreyer LAND REP C. Hubert (NES) SUBDIVISION A
 EXXON C. Levine ADEC Tb. Fitzsimons TIME 7:00 to 10:20
 TEAM NO.: 1 TIDE LEVEL: 2 to 6.0 DATE 4/1/90
 EST. SUBDIVISION LENGTH: 7274 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 5 % S 50 % C 22 % P 13 % G 7 % S 3 % M 0 % V 0 %
 SLOPE: Long 100 % Hang 0 % Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 0 m NO 7274 m

SURFACE OIL

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

PAVEMENT: H F S None sq. m by 0 cm

PATTIES / TARBALLS None BAGS

NEAR SHORE SHEEN? ☒ BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NO

TYPE 0

#BAGS 1

Photographs:

Roll No. ST-1-3

Frames 27

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR					PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	VO	1	2	3	4	5	SU	U	M	U		

COMMENTS

This subdivision is predominantly a boulder beach with a few sand gravel sections and exposed bedrock. Most of the beach was walked and no oil was found (A GIS Map is provided but no sketch map).

Segment: GR301 Subdivision: A
BIO: B. Schroeter OG: B. Berglund

Date: April 8, 1990
Tidal Range: >+0.2

This subdivision was composed largely (~80%) of boulder/cobble beaches where the density of the biota was sparse to low. The remaining 20% of shoreline consisted of boulder and shale bedrock headlands where densities were high to moderate in the low and mid intertidal, and sparse in the upper intertidal. There were few stars in the low and mid intertidal, and the only species seen was Pisaster ochraceus.

On the cobble and boulder beaches composing most of the subdivision, the most abundant organisms were Eucus, gastropods (primarily L. sitkana, L. acutulate, and N. scutum, and the red alga Rhodomyela larix. Rhodomyela was most abundant in the mid and upper-low intertidal on horizontal bedrock benches where cover of 50% to 70% is common. A variety of leafy and filamentous red algae were abundant in the low intertidal. Laminarians were not abundant in the low intertidal and shallow subtidal.

SHORELINE ECOLOGICAL SUMMARY.

Segment ST / GR 3d Subdivision A Date (mo / day / yr) 4/8/90
 Time (24 hr) 0700 Biologist S. Schroeter Tidal Range +0.2
 Revision: 08/22/88

- (A) Substrate type and % of segments:
 (1) Bedrock 11 (2) Boulder 23 (3) Cobble 26 (4) Pebble 31 (5) Sand 10 (6) Silt 0
- (B) Overall % cover of biota (% of segment): Dense 16 Moderate 17 Low 67
- (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: N/A
 Roll No. N/A
 Frames None

BARNACLES

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

NOT PRESENT

LITROPIDS

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

NOT PRESENT

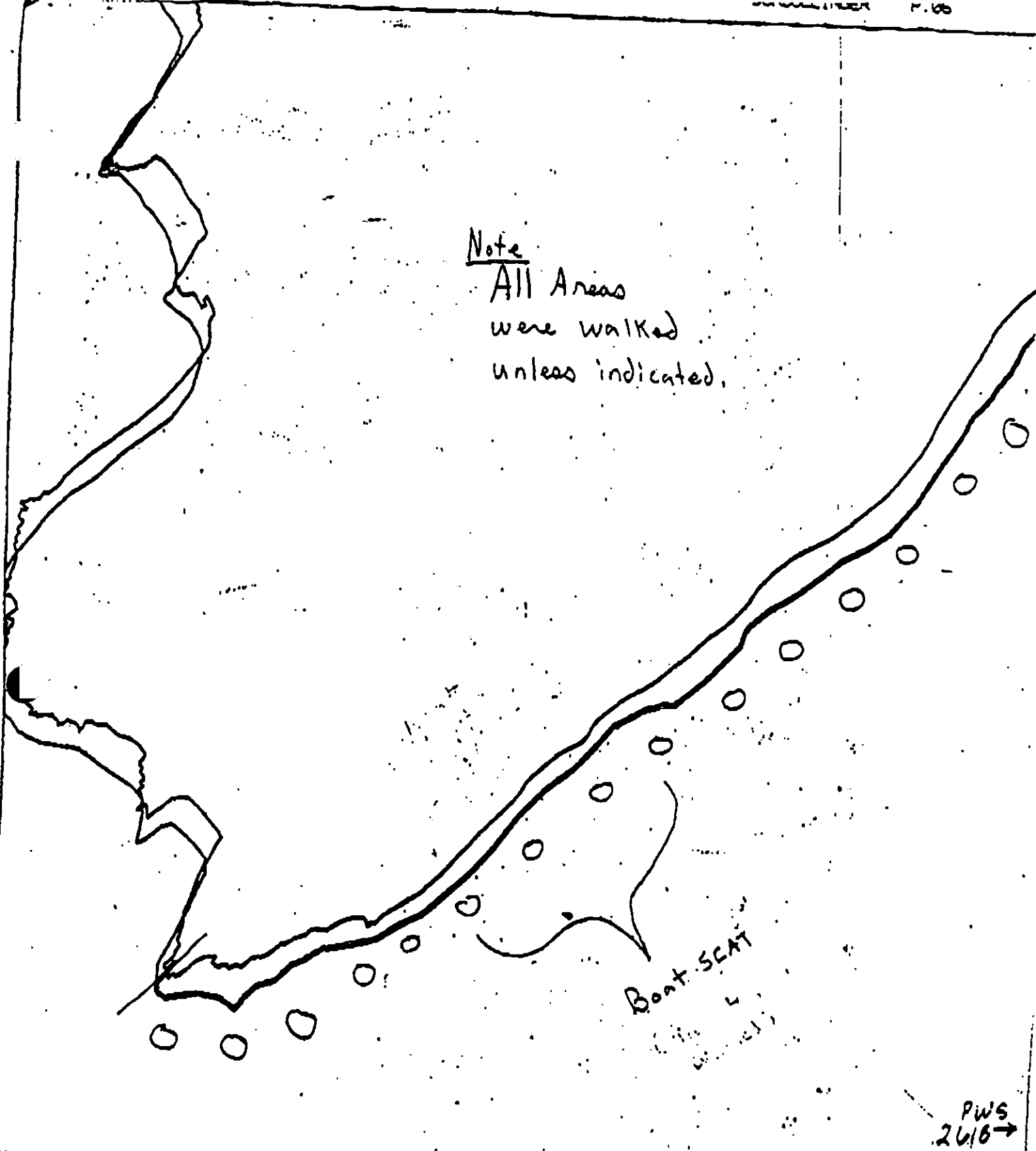
FUCUS

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

NOT PRESENT

Wildlife Observations/ General Comments: Kingfishers abundant; Otters + Spotted seals were seen occasionally; one adult + juv. bald eagle was also spotted; 1 apparent bear scat + dead tracks. 1 live seal at beginning of SCAT.

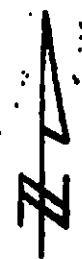
Ecological Considerations: Subdivision was largely composed of cobble/boulder beaches where the density of biota was low. About 20% of subdivision consisted of sand banks where biota was moderately dense in the lower & mid intertidal & sparse in the upper intertidal. There were very few sea stars in either the low or mid intertidal. Much of the lower shore was bordered by a sandy subtidal. Ectocarpus & gastropods (Littorina + P. Scutum) were the most abundant macrofauna & were found mainly in the mid intertidal. Rhodomeles was also abundant in the mid intertidal on bedrock boulders. A variety of land crabs



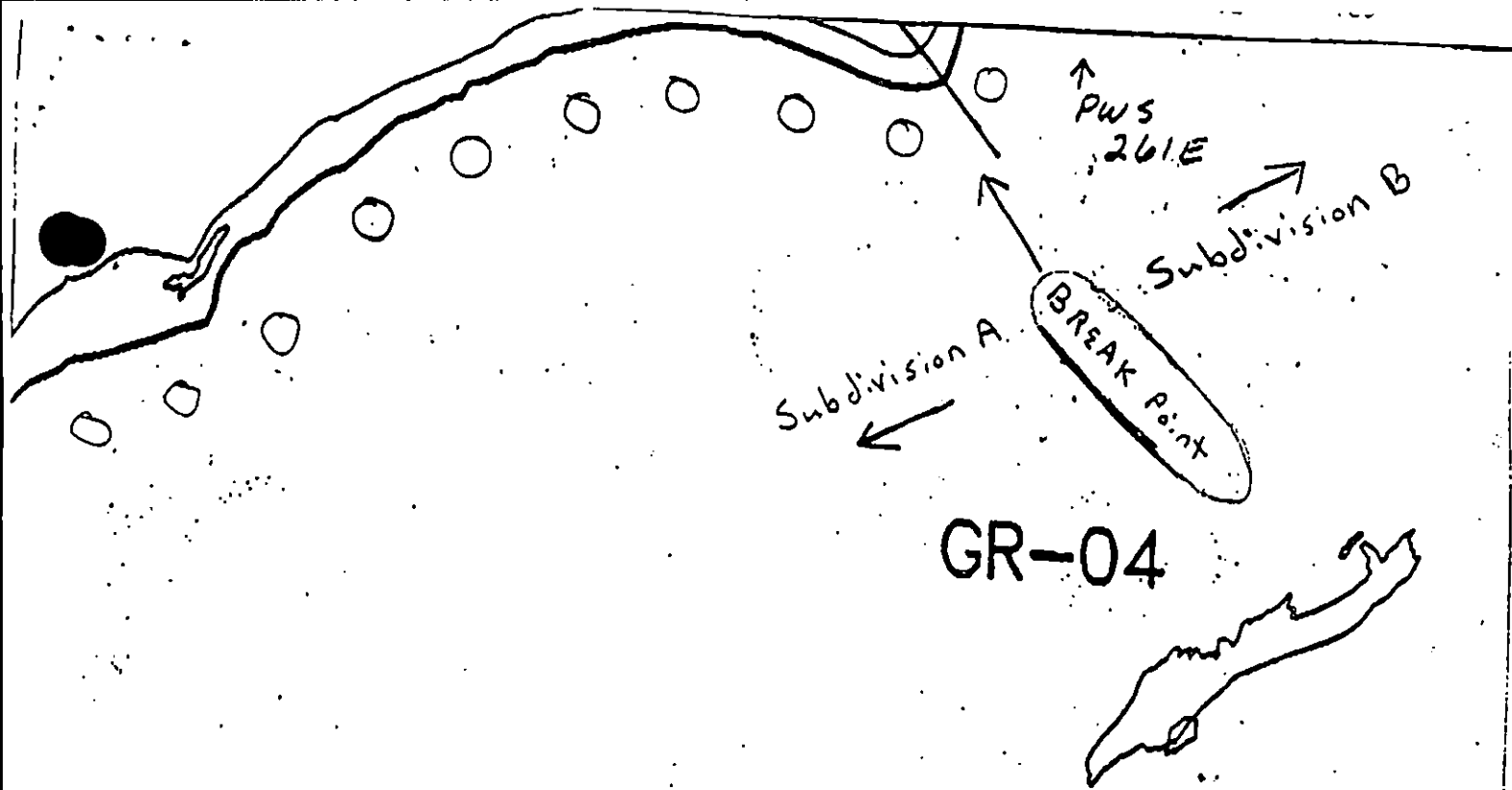
XXXX Wide
// Medium
--- Narrow
TTTT Very Light
0000 No Oil

GR-301 (A)

ADEC Segment Length: 13417m



Map Key: PWS-2010
Name: B. Benglin
Date: 4/8/90
Data Entered:



PWS
261A

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

GR-301 (A)

ADEC Segment Length: 13417m



Map Key: PWS-261b

Name: B. Berglund

Date: 4/8/90

Date Entered:

P₇ 506

SUPPLEMENTAL

1991 MAYSAP EVALUATION

SEGMENT: GR-302 SUB: A REGION: PWS SURVEY DATE: 6/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) Restricted 3/1 - 9/15

Ecological/Constraints (see page two for details) Seabird Colony, Pinniped Haulout, Eagle Nest, Herring Spawning, Subsistence - Deer Harvesting & Salmon Harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

MAYSAP FIELD SHORELINE COMMENT SHEET *supplementary*

TEAM NO. 1 SEGMENT GR-302 SUBDIVISION A DATE 6/26/91

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☒ NTR ☐ Treatment Recommended

coats, stains, HSOR. HSOR was removed or broken up. Not enough oil to warrant a major cleanup.

EXXON

NAME Mike Barker SIGNATURE Mike Barker

☒ NTR

Subdivision looks great. Virtually no oil present. It was either picked up or broken up. Lots of wildlife present. Eagles were fine.

LANDMANAGER

NAME / OF / SIGNATURE /

☐ NTR

ORIGINAL COPY

USCG/NOAA

NAME IVAN NANCE, LTJG, USCGA SIGNATURE Ivan Nance

☒ NTR

INSIGNIFICANT OIL PRESENT. ~~TWO~~ ^{ONE} BAG PICKED UP. NO FURTHER TREATMENT RECOMMENDED, THE OIL ENCOUNTERED WAS SO SCATTERED THAT BIOREMEDIATION MAY BE DIFFICULT (AREAS TOO SMALL AND DIFFICULT TO FIND).

PAGE 1 OF 1

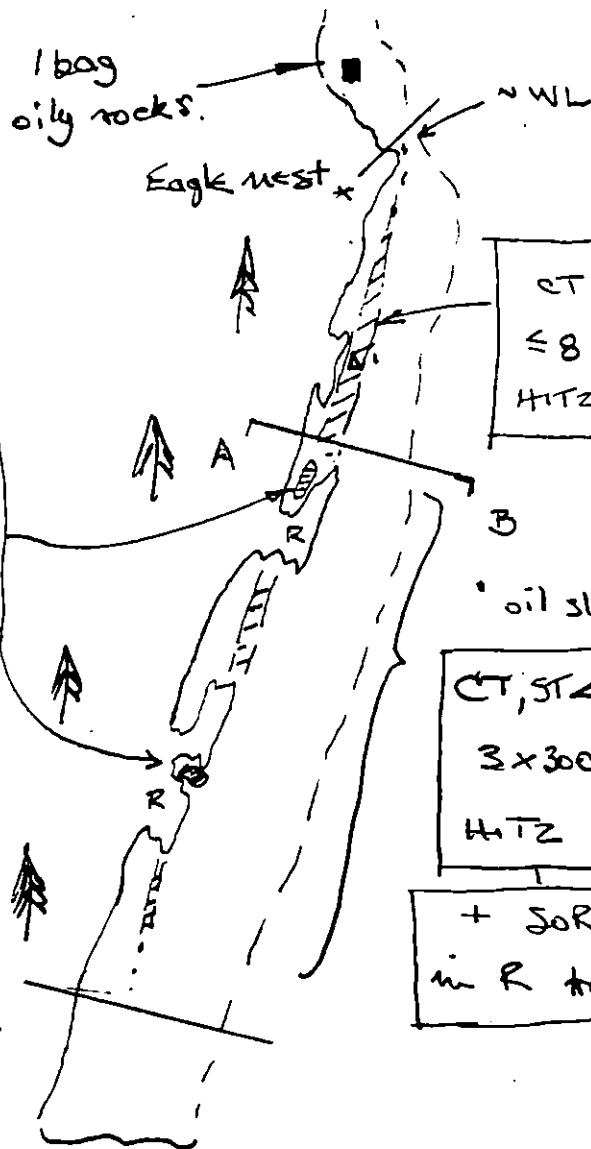
OG COMMENTS: Mod. angle B/R shore - steeply dipping bedrock w/
B annot. Surface oil only, as (i) CT/S @ up. HITZ, SUTZ
and (ii) 10 sofs behind B s/r traps, raked & broken up
during survey.

GR-302A
G. MACDONALD
6.26.91

supplementary.

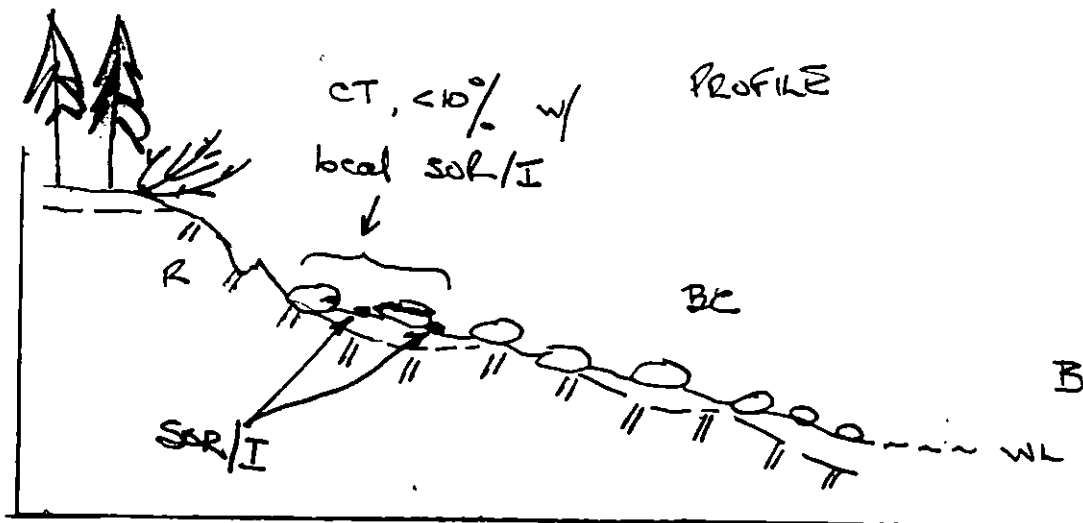


② SOR, hi s/b
4x10, $\leq 15\%$
HITZ
P.U.



mod L BCR beach.
~ 20 m wide.

A



MAYSAP BIOLOGICAL SUMMARY FORM

supplementary

TEAM # 00

DATE

6/26/91

SEGMENT # GR 302

TIDAL HEIGHT (Range) +2.9 ~ 0.2'

SUBDIVISION A

BIOLOGIST D. McCORMICK

SEA STATE Calm

WIND SPEED/DIRECTION None

PHOTOGRAPHS: ROLL # MAYSAP-00-04

FRAME # 1-5

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

(A) CT area in UTZ primarily black tichen band in this zone with a few limpets. Significant biota occurs well below oiled areas and includes moderately dense littorines, limpets, barnacles, and Fucus. Very dense littorine spat/juveniles on Fucus in the mid-lower zone.

(B) Same as (A) above.

(C) No biota within 4-5 meters of SOR in UTZ; Sparse littorines, limpets, and mussels on lower shore. Spat and juveniles common in mid-lower zones.

The oiled areas on this subdivision are well above the zones of significant biota. The mid and lower zones are robust and healthy. Many tidal pools occur throughout the subdivision - species seen in these include mussels, limpets (*Notoacmea*, *Gibbula*, *Acmaea*), anemones (*Tealia*, *Anthophora*), chitons (*Toxostoma*), hermit crabs, *Ulva* + branched red + brown algae.

The lower zone is nearly 100% algal-covered and includes: *Fucus*, *Ulva*, *Sargassum*, filamentous green algae, branched red and brown, *Halosaccion*, *Enteromorpha*, *Sargassum*. Juvenile gastropods moderately dense on algal cover.

hermit crabs (1) oystercatchers (3) gulls (17) 2 adult b.e. + 2 chicks in nest
magpies (2) crows (6) used ducks (12)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	4 + nest	tidal pool sculpins
Seabirds			
Waterfowl	1	12	
Gulls/Kittiwakes	1	17	
Shorebirds	1	3	
Corvids	2	8	
Other Birds	1	1	

LAND MAMMALS

SPECIES

OBSERVED

MARINE MAMMALS

OBSERVED

Sea Otters	2		
Pinnipeds (specify)			
fur seals	6		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

GR-302 A
BIO SKETCH

D. McCoemick
6.26.91

supplementary.



(C)

No biota in immediate vicinity of trace SOR; Black lichen and moss only; littorines and limpets 4-5 meters downshore; no impacts observed from remaining oil.

P.U.

1 bag oily rocks.

Eagle nest *

NWL

Occasional limpets, Continuous band of black lichen. No other biota. HITZ - SUTZ

(A)

"oil shadow"

Limpets are only gastropods extending into the UITZ, grazing in/near area of CT/st. Black lichen predominates. HITZ on B, R

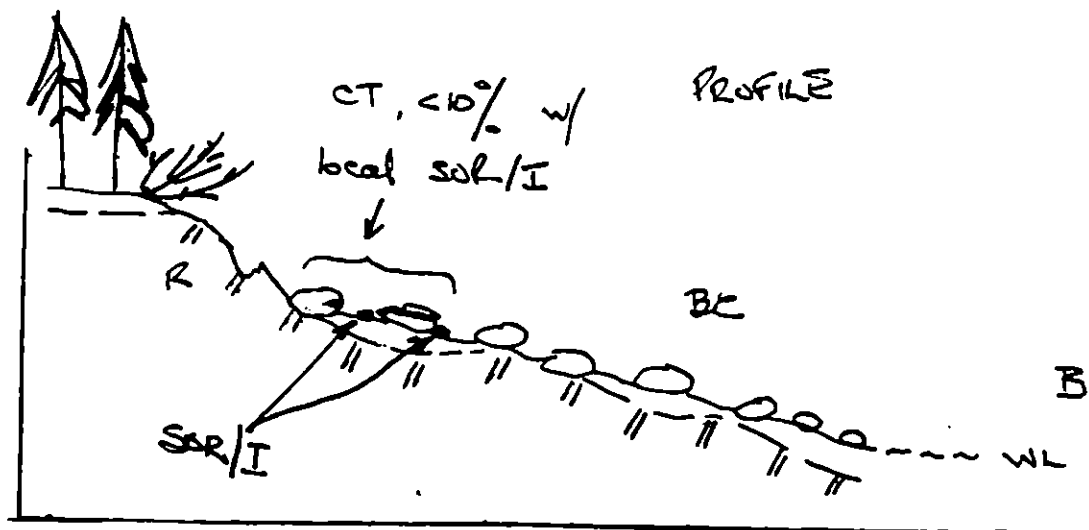
(B)

EOS
06:30

mod L BCR beach.

~ 20 m wide.

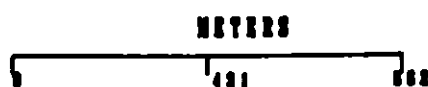
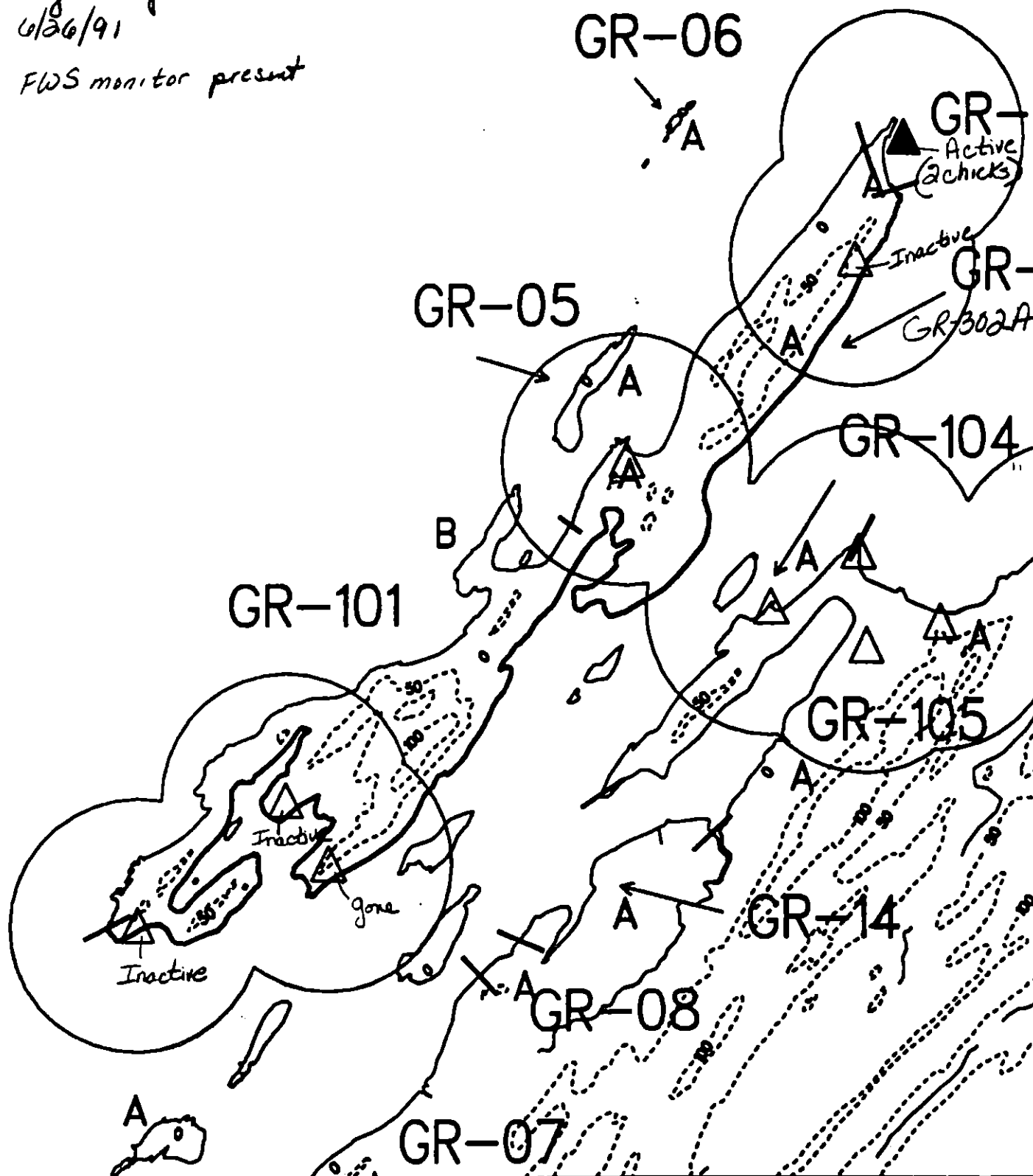
A



Eagle Map

6/26/91

FWS monitor present



AK State Plane Zone 4
687302

Segment Reference Map
Map Key: PWSGR302



EAGLE NEST

+

REF. MAR

6-26 SURVEY
GR-05

1 bag
oily rocks

GR-101

B

GR-

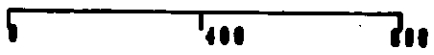
GR-10

GR-14

GR-08



GR302 A
supplementary
METERS



AK State Plane Zone 4
FGR30200

Subdivision Field Map

Map Key: PVSGR302Aa

Name: G.M.

Date: 6-26-91

+

A

GR-05

A

GR-

B

GR-101

GR-10

A

GR-14

A

GR-08

A

+

+

XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

GR302 A

ADEC Subsegment Length: 6408m
METERS

0 400 800

AK State Plane Zone 4
pg302a



Subdivision Field Map
Map Key: PWGR302Aa
Name: G.M
Date: 6.26.91
Date Entered:

SUPPLEMENTAL

1991 MAYSAP EVALUATION

SEGMENT: GR-302 SUB: A REGION: PWS SURVEY DATE: 6/26/91

RECEIVED

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) Restricted 3/1 - 9/15

JUL 18 1991

Ecological/Constraints (see page two for details) Seabird Colony,
Pinniped Haulout, Eagle Nest, Herring Spawning, Subsistence
Deer Harvesting & Salmon Harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith Date: 7/8/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

NNN

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE:

July 2 1991

FOSC APPROVAL DATE:

7/8/91

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.

Pinniped Haulout: Access restricted from 5/15 to 6/30 and 8/15 to 9/15 unless approved by NMFS. Maintain 1000' vertical and 1/2 mile (3 mile for sea lions at all times) 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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

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

Subsistence - Salmon Harvesting: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET supplementary

TEAM NO. 1 SEGMENT GR-302 SUBDIVISION A DATE 6/26/91

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☒ NTR ☐ Treatment Recommended

coats, stains, HSOR. HSOR was removed or broken up. Not enough oil to warrant a major cleanup.

EXXON

NAME Mike Barker SIGNATURE Mike Barker

☒ NTR

Subdivision looks great. Virtually no oil present. It was either picked up or broken up. Lots of wildlife present. Eagles were fine.

LANDMANAGER

NAME OF SIGNATURE

☐ NTR

USCG/NOAA

NAME IVAN NANCE, LTJG, USCGA SIGNATURE Ivan Nance

☒ NTR

INSIGNIFICANT OIL PRESENT. ~~TWO~~ ^{ONE} BAG PICKED UP. NO FURTHER TREATMENT RECOMMENDED, THE OIL ENCOUNTERED WAS SO SCATTERED THAT BIOREMEDIATION MAY BE DIFFICULT (AREAS TOO SMALL AND DIFFICULT TO FIND).

PAGE 1 OF 1

(supplementary)

BIO D. MCCORMICK

SEGMENT GL-302

LANDMANAGER _____ for _____

SUBDIVISION A

USCG/NOAA 1. NANCE

DATE 6 / 26 / 91

TIDE LEVEL +2.9 ft. to 0.2 ft.

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 400 m NO / m US / 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-_____-_____ FRAMES

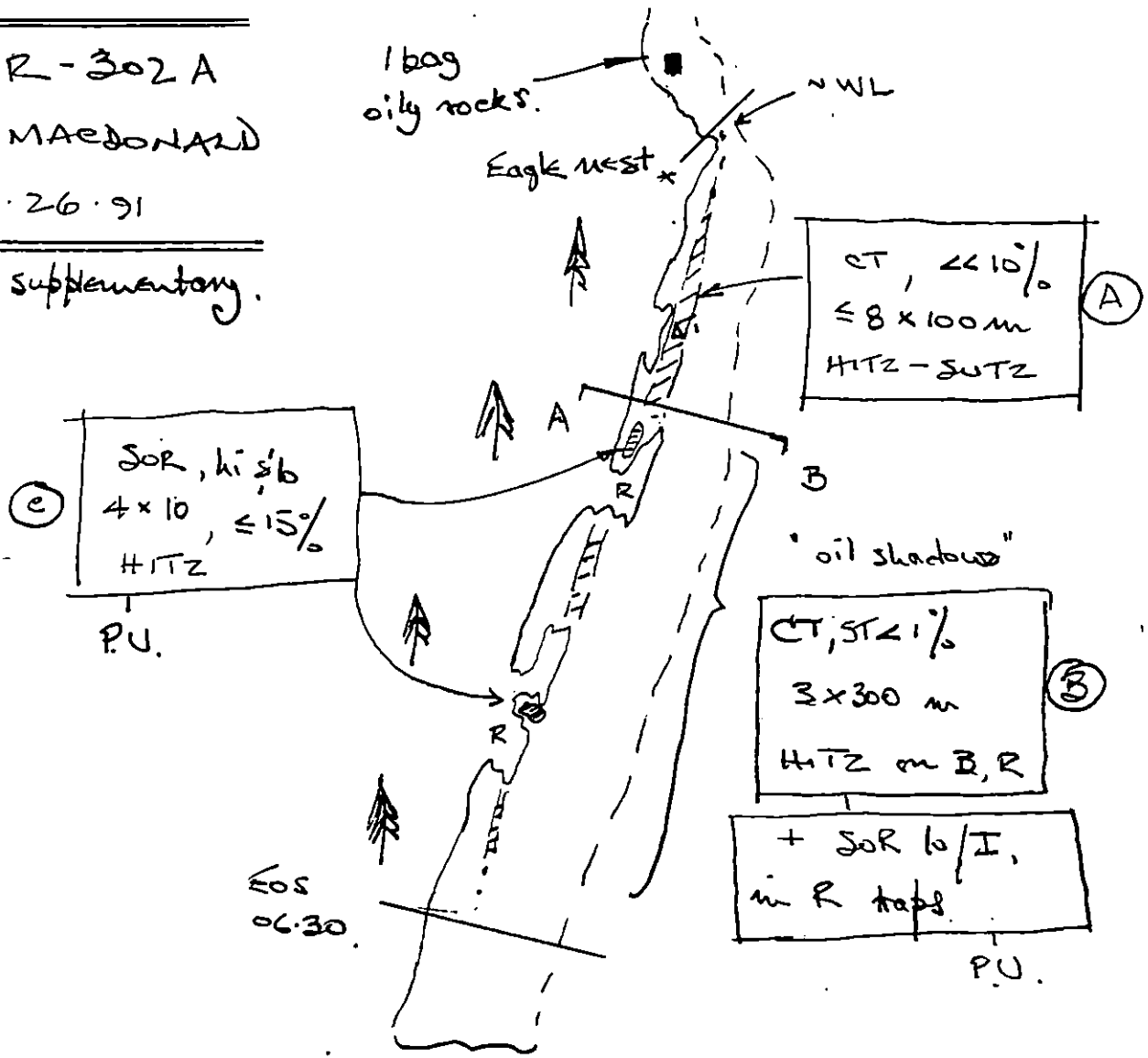
SHEEN COLOR: B = BROWN: R = RAINBOW: S = SILVER: N = NONE

OG COMMENTS: Mod. angle B/R shore - steeply dipping bedrock w/
B armor. Surface oil only, as (i) CT/S @ up. H/TZ, S/TZ
and (ii) 10 soR behind B s/r traps, raked & broken up
during survey.

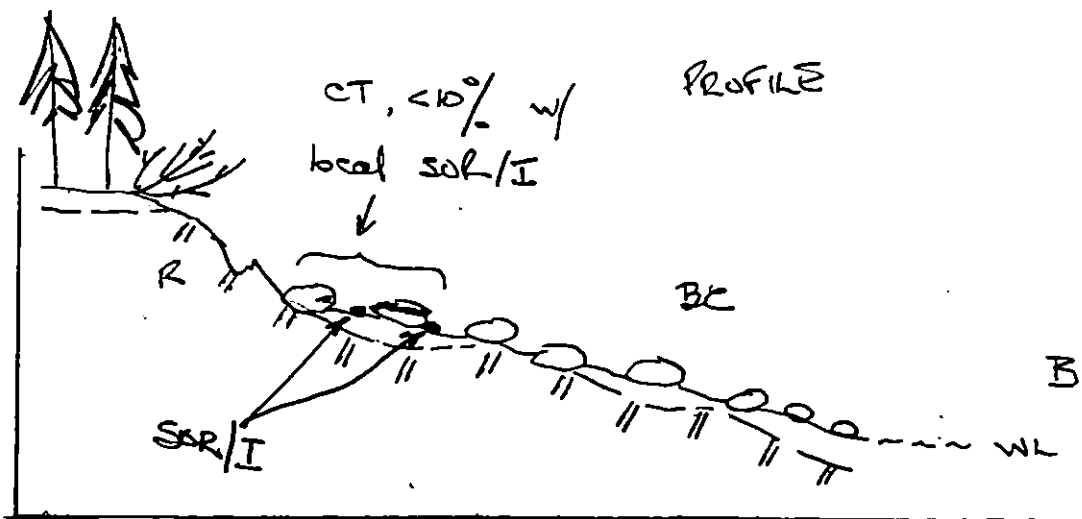
GR-302A
G. MACDONALD

6.26.91

supplementary.



A



MAYSAP BIOLOGICAL SUMMARY FORM

supplementary

TEAM # 00 DATE 6/26/91
 SEGMENT # GR 302 TIDAL HEIGHT (Range) +2.9 ~ 0.2'
 SUBDIVISION A BIOLOGIST D. McCORMICK
 SEA STATE Calm WIND SPEED/DIRECTION None
 PHOTOGRAPHS: ROLL # MAYSAP-00-04 FRAME # 1-5
 COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

- (A) CT area in UITZ primarily black lichen band in this zone with a few limpets. Significant biota occurs well below oiled areas and include moderately dense littorines, limpets, barnacles, and Fucus. Very dense littorine spot/juveniles on Fucus in the mid-lower zone.
- (B) Same as (A) above.
- (C) No biota within 4-5 meters of SDR in UITZ; Sparse littorines, limpets and mussels on lower shore. Spot and juveniles common in mid-lower zones.

The oiled areas on this subdivision are well above the zones of significant biota. The mid and lower zones are robust and healthy. Many tidal pools occur throughout the subdivision - species seen in these include mussels, limpets (*Notacmea*, *Gibbula*, *Acmaea*), anemones (*Tealia*, *Anthopleura*), chitons (*Tonitella*), hermit crabs, *Ulva* + branched red + brown algae.

The lower zone is nearly 100% algal-covered and includes: *Fucus*, *Ulva*, *Scytosiphon*, filamentous green algae, branched red and brown, *Halosaccion*, *Enteromorpha*, *Sargassum*. Juvenile gastropods moderately dense on algal cover.

hermit crabs (1) oystercatchers (3) gulls (17) 2 adult b.e. + 2 chicks in nest
 magpies (2) crows (6) unit ducks (12)

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	4 + nest	tidal pool sculpins
Seabirds			
Waterfowl	1	12	
Gulls/kittiwakes	1	17	
Shorebirds	1	3	
Corvids	2	8	
Other Birds	1	1	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters	2		
Pinnipeds (specify)			
fur seals	6		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

GR-302 A
BIO SKETCH

D. McCoemick
6.26.91

supplementary.



(C)

No biota in immediate vicinity of trace SOR; Black lichens and moss only; litterines and limpets 4-5 meters downshore; 10 impacts observed from remaining oil.

P.U.

1 bag oily rocks.

Eagle nest *

Occasional limpets, Continuous band of black lichen. No other biota. HITZ - SUTZ

(A)

"oil shadow"

Limpets are only gastropods extending into the HITZ, grazing in near area of CT/st. Black lichen predominates. HITZ on B, R

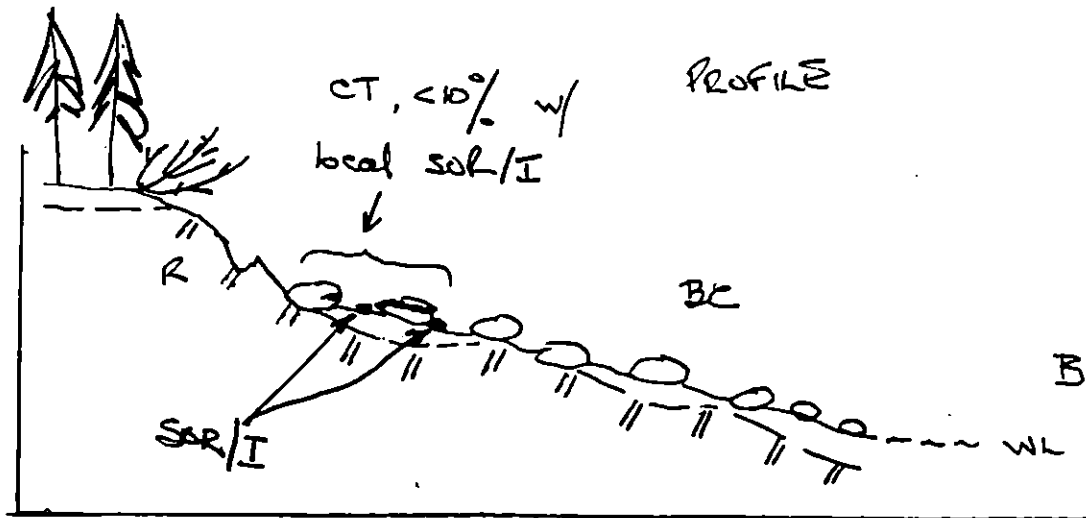
(B)

EOS
06:30

mod L BCR beach.

~ 20 m wide.

A



Eagle Map

6/26/91

FWS monitor present

GR-06

GR-05

GR-101

GR-104

GR-105

GR-14

GR-08

GR-07

GR302A

Segment Reference Map

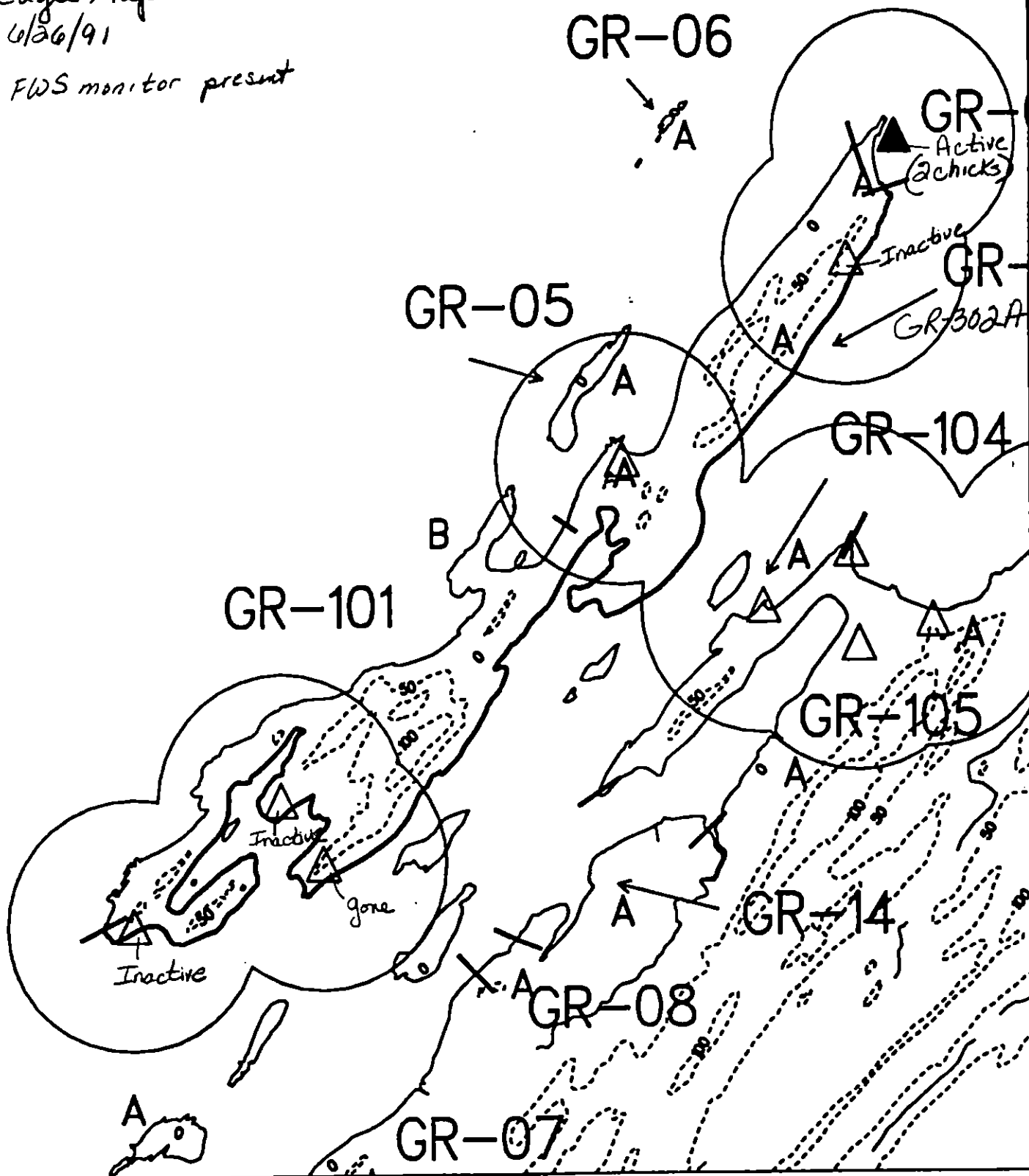
Map Key: PWSGR302

METERS

0 491 1002

AK State Plane Zone 4
PR302

EAGLE NEST



+

REF. MAP

6.26 SURVEY
GR-05

1 bag
oily rocks

GR-101

B

GR-

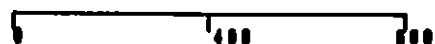
GR-10

GR-14

GR-08



GR302 A
supplementary
METERS



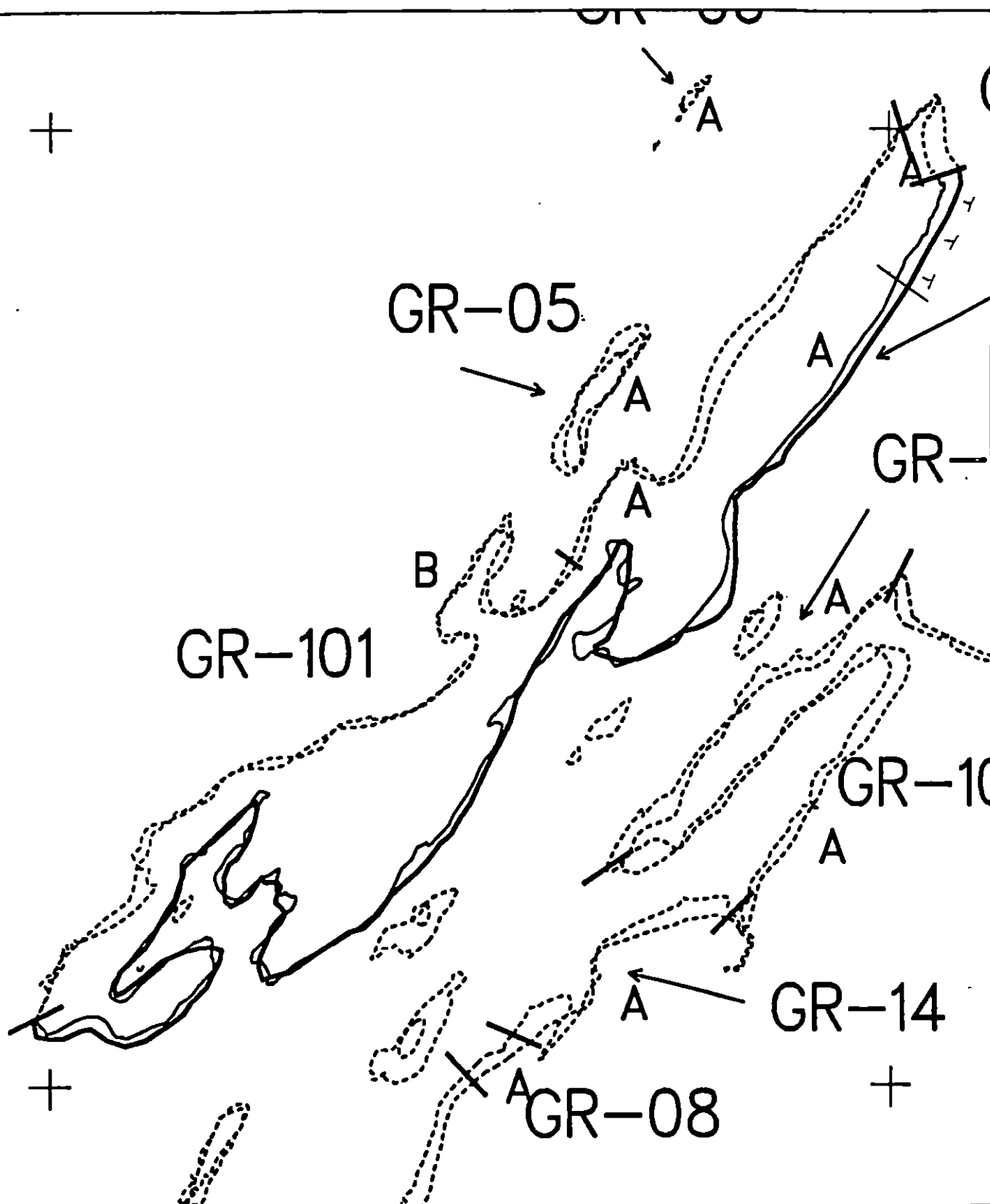
AK State Plane Zone 4
9930200

Subdivision Field Map

Map Key: PUSGR302Aa

Name: G.M.

Date: 6.26.91



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

GR302 A
 ADEC Subsegment Length: 6408m
 METERS
 0 400 800
 AK State Plane Zone 4
 pgr302aa



Subdivision Field Map
 Map Key: PW5GR302Aa
 Name: G.M
 Date: 6.26.91
 Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: GR 302 SUB: A REGION: PWS SURVEY DATE: 5/1/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Pinniped
haulout, Eagle nest, Herring spawning, Subsistence - Deer har-
vesting, Subsistence - Salmon harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: _____ Date: _____

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL: _____

TAG: _____

FOSC: _____

TAG APPROVAL DATE: _____

FOSC APPROVAL DATE: _____

ADEC

FOSC

EXXON

USCG

NOAA

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Pinniped Haulout: Access restricted from 5/15 to 6/30 and 8/15 to 9/15 unless approved by NMFS. Maintain 1000' vertical and 1/2 mile (3 mile for sea lions at all times) 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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

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

Subsistence - Salmon Harvesting: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. Three SEGMENT GR:300 SUBDIVISION A DATE 5/2/91

ADEC

NAME Wesley Ghormley SIGNATURE Wesley Ghormley☐ NTR ☐ TREATMENT RECOMMENDED (FINISH SURVEY)

N.E. Portion of segment was Not surveyed due to active Eagle Nest. Patties were collected / broken on remainder of segment it will require NO Further Treatment

— 1990 SSAT documented medium oiling in area of Eagle Nest
FINISH SURVEY ONCE Eagles have Fledged —

EXXON

NAME Jon P. Czarnecki SIGNATURE Jon Czarnecki

☒ NTR This segment is 3,000 m we dug 30 pits / had Her on the North End of the Island Some SOR found and broken up or picked up. No additional work required.

LANDMANAGER

NAME _____ OF _____ SIGNATURE _____

☐ NTR U.S. F.S. Rep- WAS ON board Complained of bad Attie - did not attend survey — JPC
Tungy Moog mki

USCG/NOAA

NAME MOONEY / BARATS SIGNATURE Tungy Moog / Tony Barats

☒ NTR Overall this segment had little oiling. However, one area of heavy SOR surface oiling was found, with OP 3x5m at 50% coverage. This area was manually tilled and broken up. It is highly unlikely that any subsurface oiling remains or that it exist in levels that further attention to this segment is needed. GMB

SEGMENT GR-302

SUBDIVISION A

4 30

DATE 5 / 1 / 1991

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

TOTAL LENGTH SHORELINE SURVEYED: 3040 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 0 m VL 640 m NO 2400 m US 3368 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- 3 - 07 FRAMES 9-15

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	25							X	-	Y	-	-		X			6/B	
2	25							X	-	Y	-	-			X		5G	
3	25							X	-	Y	20	N				X	P/S	
4	30							X	-	Y	-	-		X			5G	
5	30							X	-	Y	-	-			X		5G	
6	30							X	-	Y	-	-				X	5G	
7	15							X	-	Y	-	-		X			6/B	
8	30							X	-	Y	-	-			X		6/B	
9	30							X	-	Y	-	-				X	6/S	

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

OG COMMENTS: This unit comprises the entire SE slope of a small un-named island west of Green Island. Wave exposure varies from moderate at the north end to very low within several small embayments. Two of the embayments have marshes at the heads.

There is no surface oil on the southern half of the segment. Surface oiling on the northern part of the segment is generally non-existent to light except for a few monase patches. These

REVIEWED: MC 5/4/91

06 / of 7
Ex censed Man 4

[illegible]

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

OG COMMENTS:

mousse patches generally consist of discontinuous mousse patches (mapped as 50K/H); many of the isolated patches were broken-up and/or collected.

Only one area of subsurface oiling was found - this was documented as OP and associated with an SOR/H surface oiling; total area of the OP was $3 \times 5 \text{ m}$ @ 50% coverage (i.e. 7.5 m^2). The area was manually tilled and broken-up but could not be collected due to time constraints. It is highly unlikely that any significant subsurface oiling remains in the segment.

REVIEWED: MC/S/4/9/

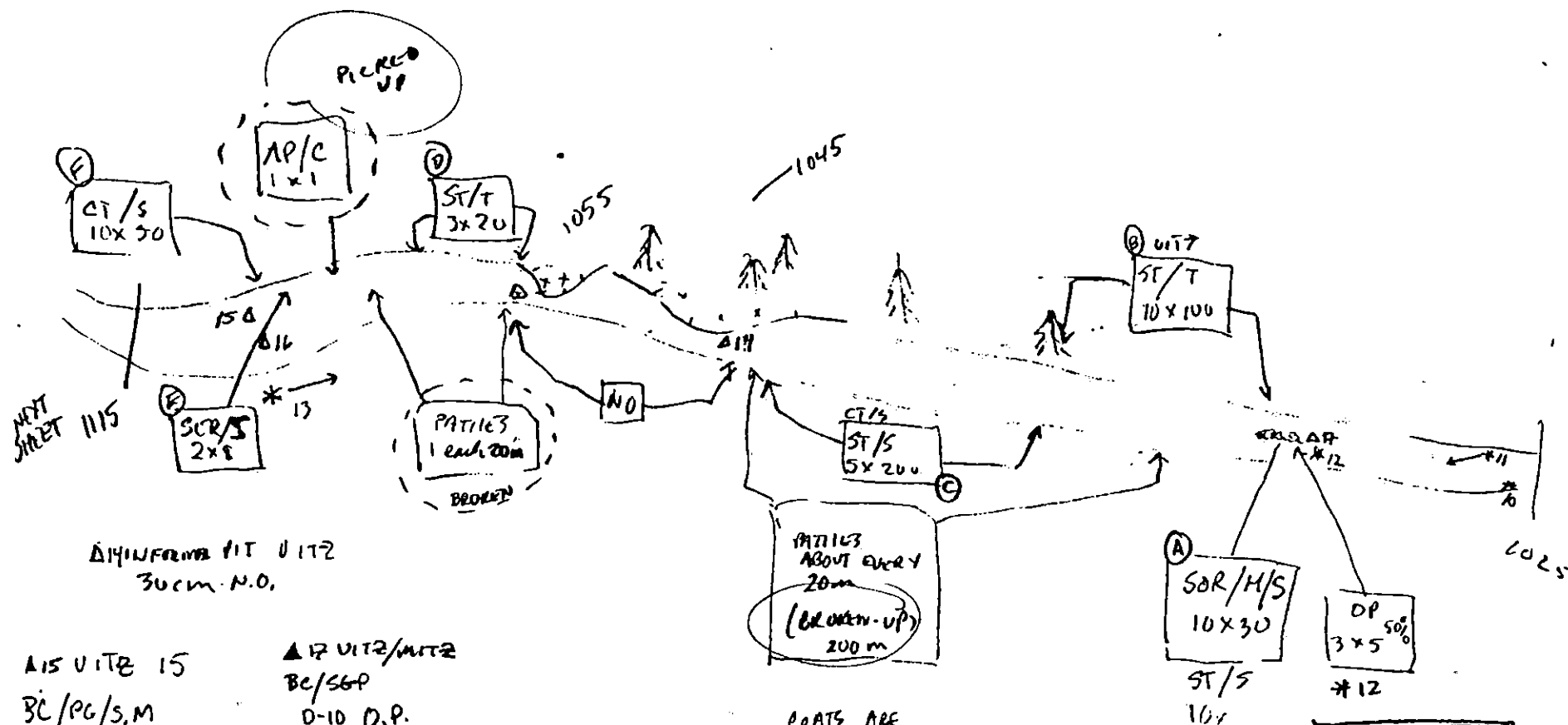
OG 2 of 7

Es revised

GR-302

1 MAY 91

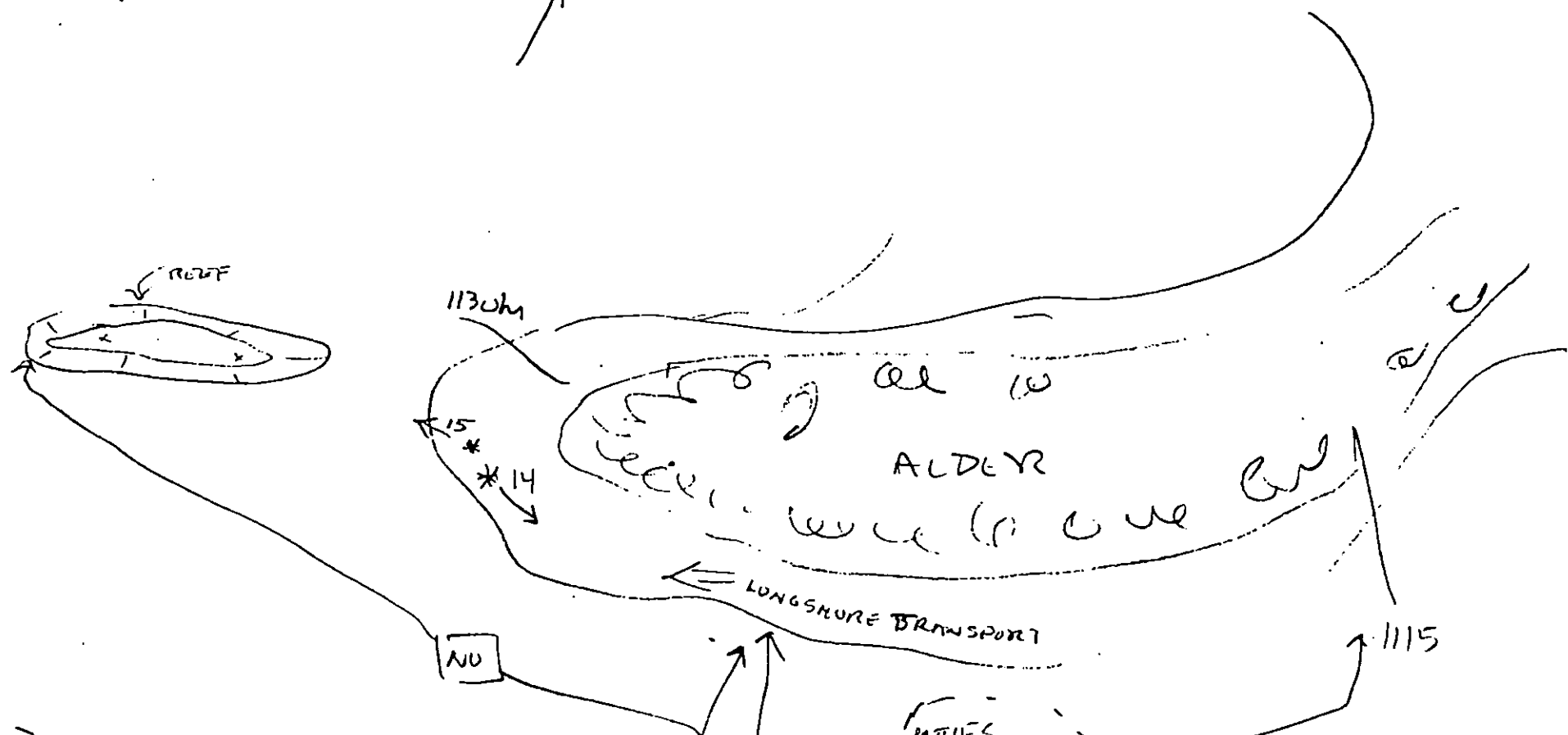
1025-1115
JLHARRP



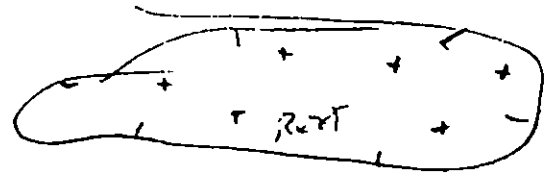
SKETCH
"A"

GR-302
1 MAY 91
1025-1115
JLHARRP

GR-302 1 MAY 91
1025-1115
JLHARRP



Revised: May 5/91
OG 5 of 7
35 removed, may



UTILES
SOL/L
1 every 35

PICKED UP
OR BROKEN
[MAP AS NO OIL]

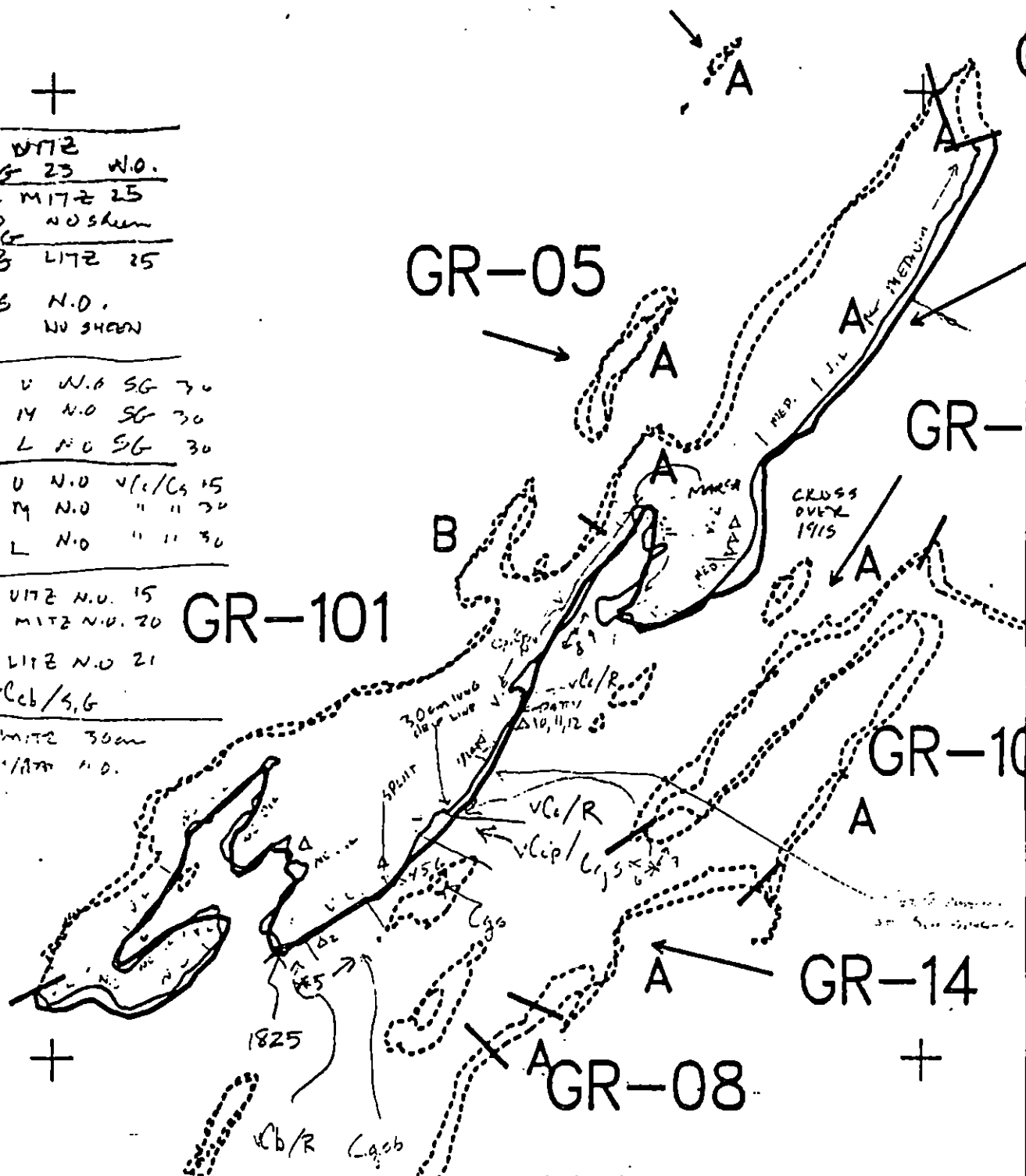
GR-302A
1 MAY 91
1115-1130
HARPER
SKETCH "B"

+
 Δ1 MITZ
 G/G 23 N.O.
 Δ2 MITZ 25
 N.O. NOSHEN
 Δ3 LITZ 25
 P/S N.O.
 NU SHON

Δ4 U N.O. SG 30
 Δ5 M N.O. SG 30
 Δ6 L N.O. SG 30
 Δ7 U N.O. V/C/G 15
 Δ8 M N.O. " " 30
 Δ9 L N.O. " " 30

Δ10 MITZ N.O. 15
 Δ11 MITZ N.O. 20
 Δ12 LITZ N.O. 21
 VCB/S, G

Δ13 MITZ 30m
 M/M/AM N.O.



XXXX	Wide	GR302 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 8408m	Map Key: PWSGR302Aa
----	Narrow	METERS	Name: _____
TTTT	Very Light	0 100 200	Date: _____
0000	No Oil	AK State Plane Zone 4 per 3020a	Date Entered: _____

FIELD MAP

Page 1 of 1
OG 6 of 7

56 revised Mo.

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3

DATE 4/30/91 - 5/1/91

SEGMENT # GR 302

TIDAL HEIGHT(Range) -1' to +4'

SUBDIVISION A

BIOLOGIST STOKER

SEA STATE 0-1

WIND SPEED/DIRECTION NE 15-20 / S-10

PHOTOGRAPHS: ROLL #

FRAME #

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

Exposure/wave energy ranges from low to high; beach varies from moderately steep cobble/boulder/bedrock to protected lagoon tide flats of cobbles/gobble and sand/gravel/silt.

Biota in the upper intertidal (MTE) is generally sparse. Mid to lower intertidal biota on steeper cobble/boulder/bedrock beaches characterized by variable (depending on exposure and substrate) distributions and densities of *Fucus*, *Ulva*, various red & brown algae, barnacles and spat, interbedded and attached *Mytilus* (many small individuals), *Littorina* (often dense clusters with egg masses), limpets (often dense clusters of juveniles), *Spirorbis*, *Pagurus* (often dense clusters), and sometimes eel blennies, amphipods, crabs (*Hemigrapsus*), *Leptasterias* and clam shells (*Saxidomus*, *Protothaca*).

Low energy tide flats characterized by clam beds (*Saxidomus*, *Protothaca*, *Macoma*, *Mya*), dense interbedded *Mytilus* (MTE), dense *Fucus* and filamentous algae, amphipods, and in most cases eel blennies, signenids, Nemertean, *Nucella*, *Littorina*, limpets, barnacles and spat (on larger cobbles) and small writhers.

Biota within or adjacent to oiled areas consists, for the most part, of early new-growth *Fucus*, barnacles and spat, moderate to dense *Littorina*, amphipods, and sparse *Mytilus*, with sea urchins in tide pools. Biota down-drift from oiled areas characterized by increased abundance of the same and additional taxa as described above for steeper cobble/boulder/bedrock shores.

If additional treatment is planned, care should be taken to minimize disturbance of established biota, which in general appears healthy, relatively abundant and diverse, and well on its way to recovery.

WILDLIFE OBSERVATIONS

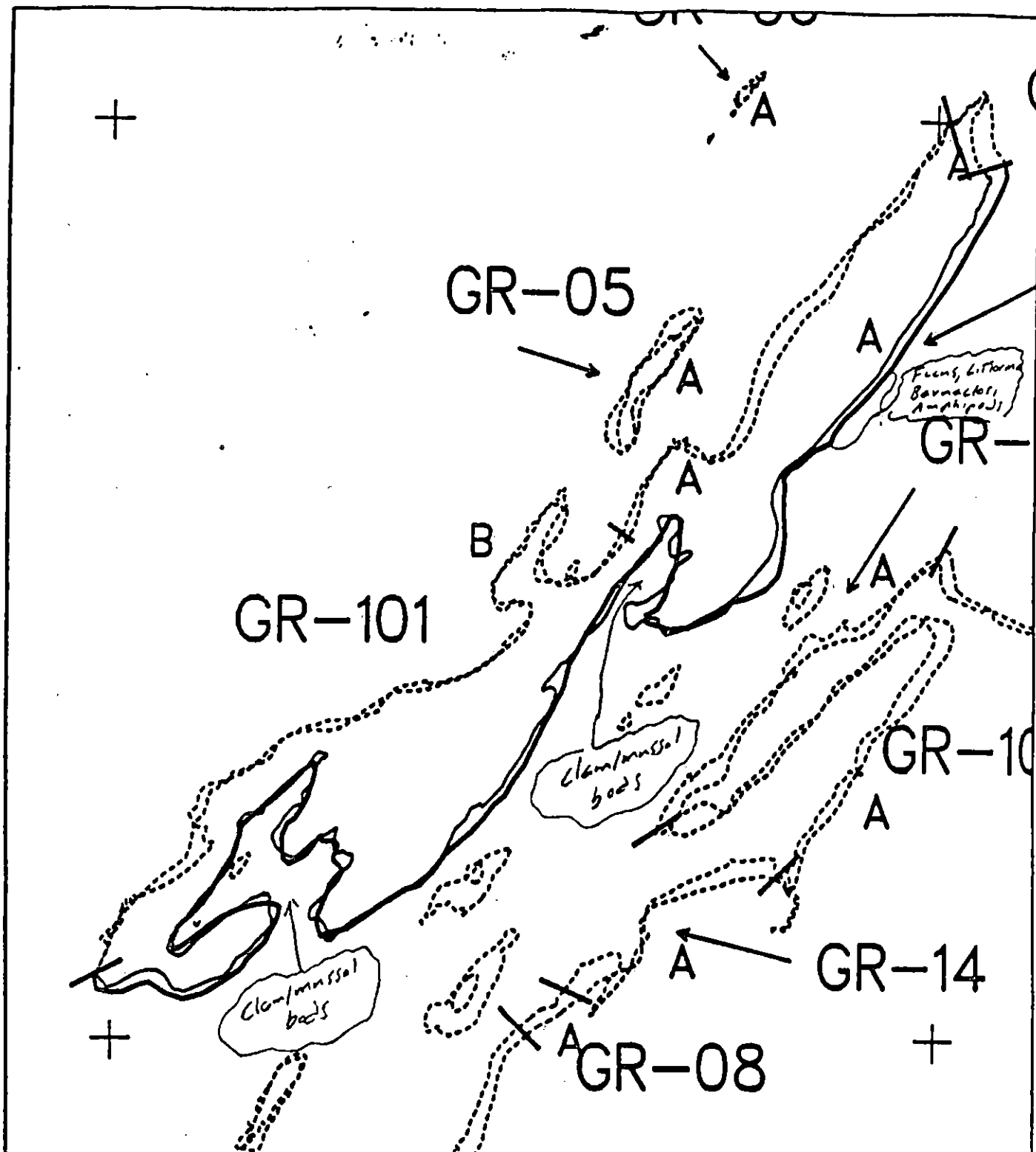
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3 + nest	sculpins
Seabirds	2	10-15	eel blennies
Waterfowl	2	10-15	
Gulls/kittiwakes	1	10-20	
Shorebirds	oystercatcher	2	
Corvids	crow	1	
Other Birds	kingfisher	1	

Numerous p.t.s. dug by otters in clam beds

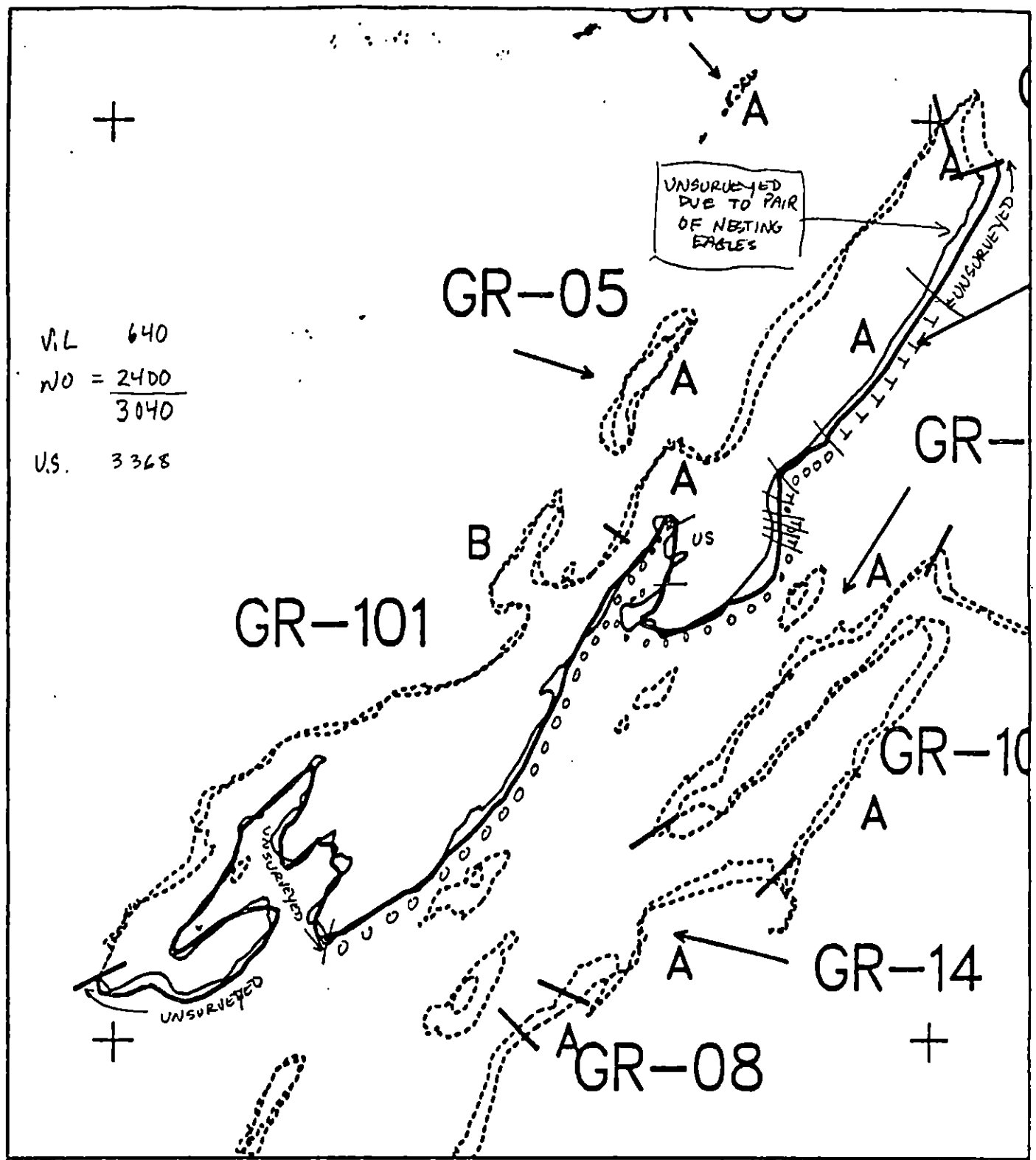
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	2	Deer	1
Pinnipeds (specify)			
les (specify)			

Shoreline subdivision map showing important biological features attached.



XXXX	Wide	GR302 A	Subdivision Field Map
////	Medium	ADEC Subsegment Length: 6408m	Map Key: PUSGR302Aa
----	Narrow	METERS	Name: <u>S. Stoker</u>
TTTT	Very Light	0 400 800	Date: _____
0000	No Oil	AK State Plane Zone 4 pg 302aa	Date Entered: _____

+
 V.L. 640
 NO = $\frac{2400}{3040}$
 U.S. 3368



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

GR302 A
 ADEC Subsegment Length: 8408m
 METERS
 0 400 800
 AK State Plane Zone 4
 prr30200



Subdivision Field Map
 Map Key: PWSGR302Aa
 Name: HARPER
 Date: 30 APR 91
 Date Entered: 1 MAY 91

SURFACE OILING SUMMARY

OG 7 of 7
 REVIEWED: MC 5/4/91
 L. Wines May 4

SHORELINE EVALUATION

SEGMENT ST/ GR-302 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature] DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 1102 m: Narrow 0 m: V.Light 2816 m: No Oil 2491 m
Subsurface Oil Observed: Yes X No Maximum Depth 35 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>X</u> Other (see comments)

COMMENTS: Manual pick up of oiled logs with >10% coverage and splash impact. Bioremediate subsurface oil (pit 1 location). Work between 6/1 and 8/14 with ADF&G and USFWS approval regarding eagle nest constraints and herring spawning.

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90

ADEC ART WERNER
EXXON AMY TENZ
NOAA Joseph Talbot
USCG KEANE, KENNETH

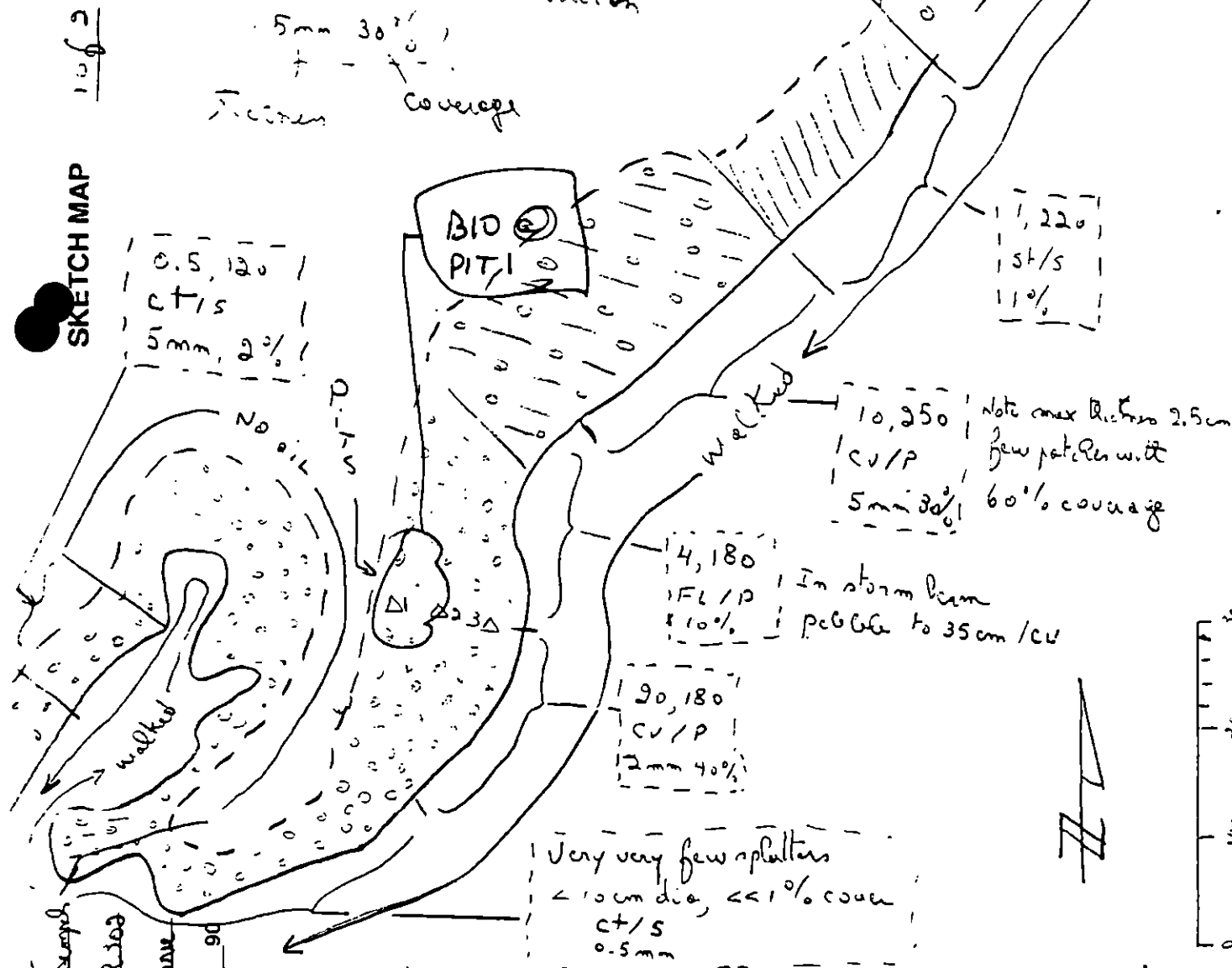
FOSC: [Signature] DATE: 4-27-90

Legend

- Cliffs and talus
Boulder beach on bedrock ramp
Boulder/cobble beach
c/p/c/sd (angular)

width: 10, 250 - length
character: c/p - distribution
5mm 30%
+ - - - -
Thickness Coverage

SKETCH MAP



OG from Sample
SEGMENT ST/GR 303
SUBDIVISION Name
DATE Apr 15/90

CHECKLIST

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

LEGEND

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

Oil Character Length (m): AP PO CV 99.2 CT 510 ST 220 MS PT TB FL 80 NO 660

OG from Sample
SEGMENT ST/ QR-302

SUBDIVISION None

DATE April 15/1990

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\square$ CT/C
Continuous Distribution

$\square$ CT/B
Broken Distribution

$\square$ CT/P
Patchy Distribution

$\square$ CT/S
Splashed Distribution

Oiled Vegetation

1 $\rightarrow$ 15,501
St/S
Photo location, direction, and number

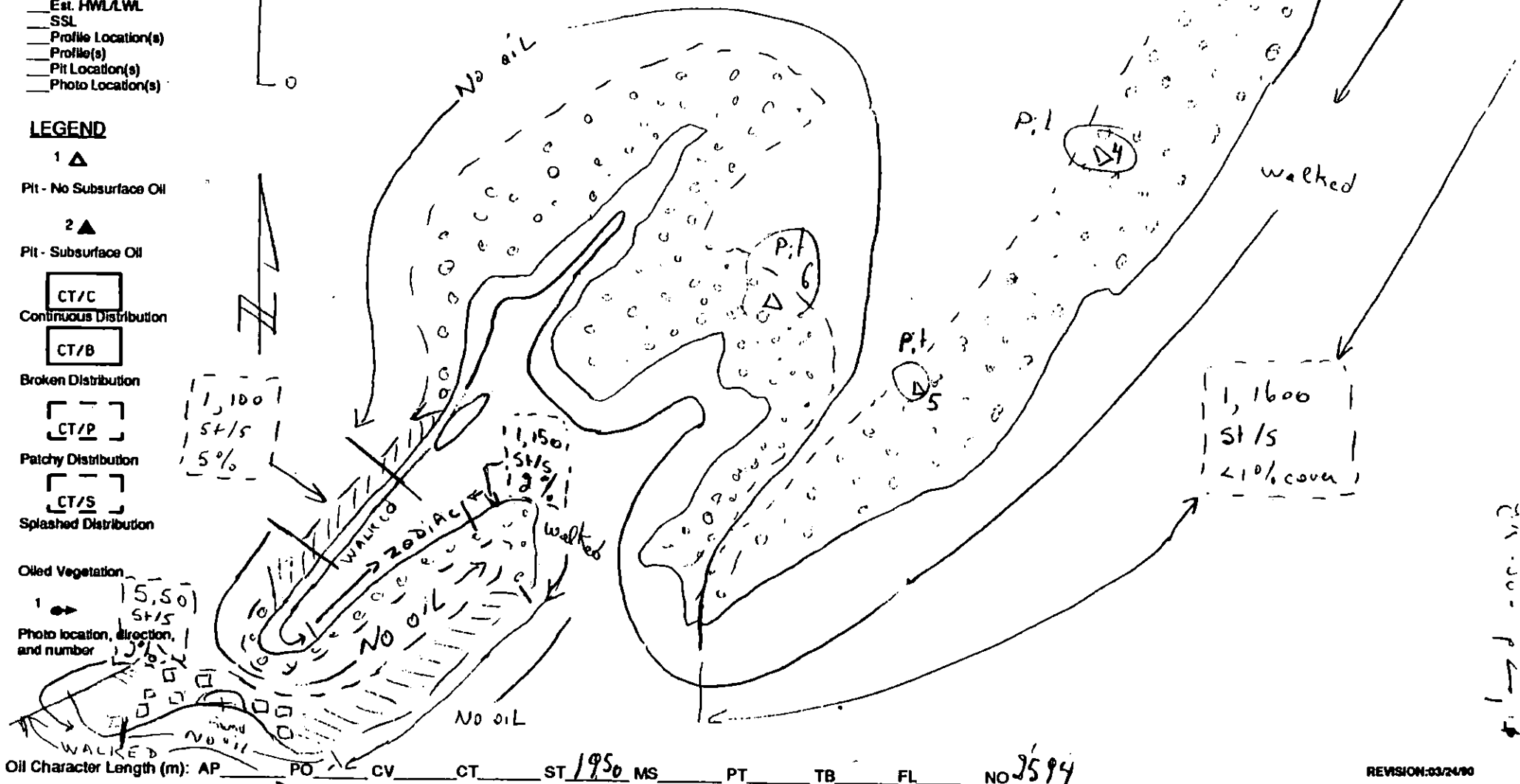
Legend

- $\square$ Cliffs and talus
- $\square$ Boulder beach on bedrock ramp
- $\square$ Boulder/cobble beach
- $\square$ Cattle/pellet/sand character

SKETCH MAP 2 of 2

Southern Half of Segment QR-302

width
15, 1600 $\rightarrow$ Length
1st/5 $\rightarrow$ distribution
10% $\rightarrow$ Coverage



Oil Character Length (m): AP PO CV CT ST 1950 MS PT TB FL NO 2594

REVISION: 03/24/90

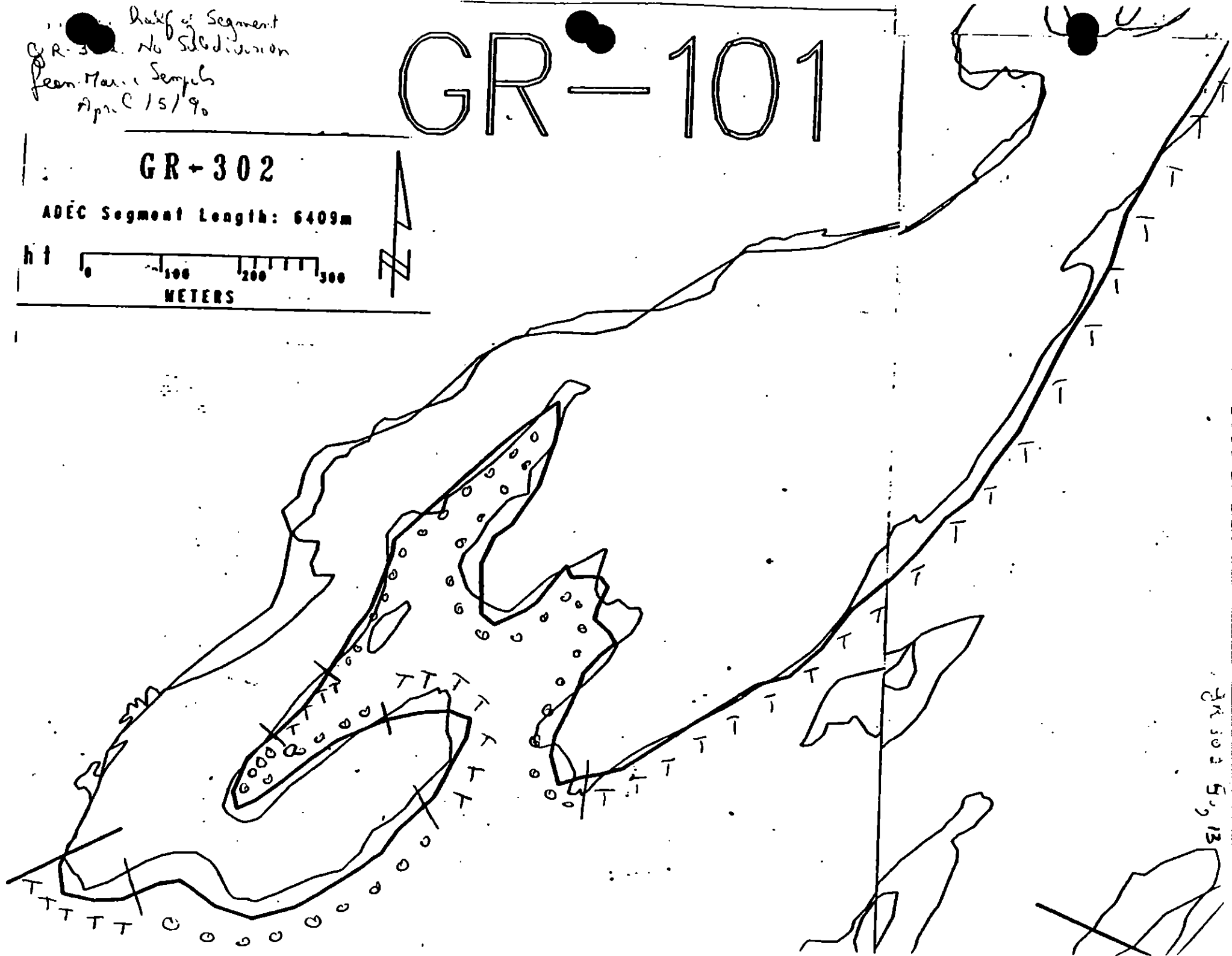
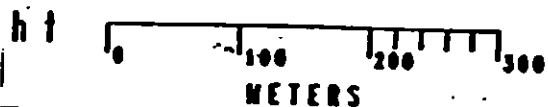
2594

Half of Segment
GR-302. No subdivision
Jean-Marie Sempels
Apr. C 15/90

GR-101

GR-302

ADEC Segment Length: 6409m



GR 302 5, 13

8

Don't know 2000 of
Sediment GP-302

GR-302

ADEC Segment Length: 6409m

June 11

April 5/90



5

GR-



1991 MAYSAP EVALUATION

SEGMENT: GR 302 SUB: A REGION: PWS SURVEY DATE: 5/1/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Pinniped haulout, Eagle nest, Herring spawning, Subsistence - Deer harvesting, Subsistence - Salmon harvesting

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Charles H. Jones Date: 5/10/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u> </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 10 1991 FOSC APPROVAL DATE: 5/14/91

ADEC [Signature] FOSC [Signature]

EXXON [Signature] E. E. PAGE, CDR, USCG

USCG [Signature] CHIEF OF STAFF, FOSC

NOAA [Signature]

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

Pinniped Haulout: Access restricted from 5/15 to 6/30 and 8/15 to 9/15 unless approved by NMFS. Maintain 1000' vertical and 1/2 mile (3 mile for sea lions at all times) 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.

Herring Spawning: No treatment before June 1. Avoid disturbance to kelp and eelgrass.

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

Subsistence - Salmon Harvesting: Unlimited treatment up to stream bank between May 15 and July 10. ADF&G approval required for work after July 10. Fish Habitat Permit required for instream work. ADF&G approval required for bioremediation within 100 meters of anadromous stream after July 10.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. Three SEGMENT G/R 300 SUBDIVISION A DATE 5/2/91

JEC
ME Wesley Ghormley SIGNATURE Wesley Ghormley

☐ NTR ☐ TREATMENT RECOMMENDED (FINISH SURVEY)

N.E. Portion of segment was not surveyed due to active Eagle Nest. Patties were collected / broken on remainder of segment it will require NO Further Treatment

— 1990 SSAT documented medium oiling in area of Eagle Nest
FINISH SURVEY ONCE Eagles have fledged —

EXXON
NAME Jon P Czarnecki SIGNATURE Jon Czarnecki

☒ NTR This segment is 3,000 m we dug 30 pits 1 had Her on the North End of the Island Some ~~for~~ found and broken up or picked up. No Additional work required.

LANDMANAGER
NAME _____ OF _____ SIGNATURE _____

☐ NTR U.S. F.S. Rep- was on board Complained of bad Ankle - did not attend survey — JPC
Tung Mooy mki

USCG/NOAA
NAME MOONEY / BARATS SIGNATURE Tung Mooy / [Signature]

☒ NTR Overall this segment had little oiling. However, one area of Heavy SOL SURFACE OILING was found, with OP 3x5m at 50% Coverage. This area was manually tilled and broken up. It is highly unlikely that any SUBSURFACE OILING REMAINS on that. I exist in levels that further attention to this segment is needed. (GMB)

PAGE 1 OF 2

06 / Apr 7
Ex revised May 4

PAGE 2 OF 2

TEAM NO. 3

SEGMENT GR-302

SUBDIVISION 4

DATE 5/1/91

[illegible]

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

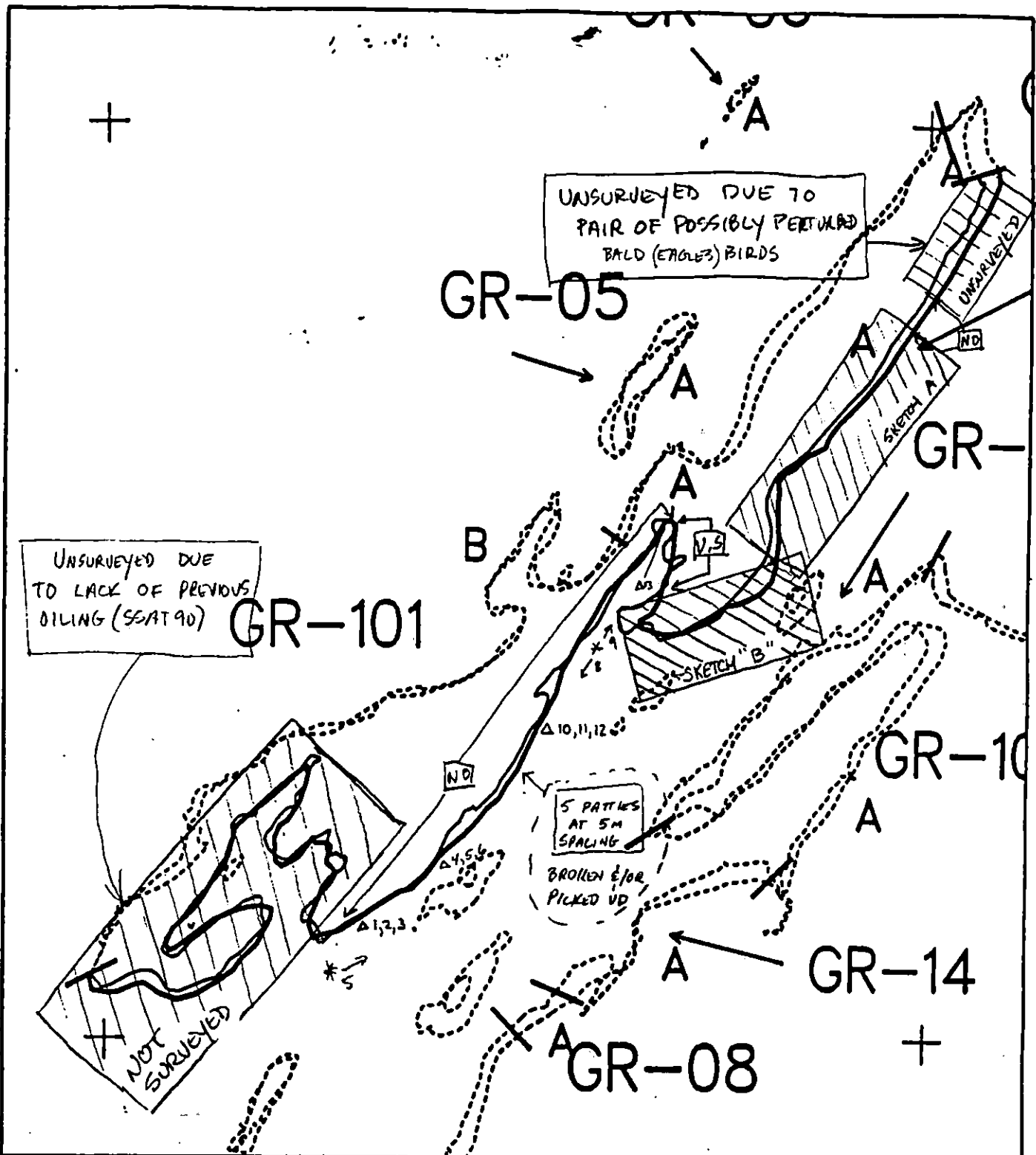
LOG COMMENTS:

mousse patches generally consist of discontinuous mousse patches (mapped as 50K/H); many of the isolated patches were broken-up and/or collected.

Only one area of subsurface oiling was found - This was documented as OP and associated with an SOR/H surface oiling; total area of the OP was $3 \times 5 \text{ m}$ @ 50% coverage (i.e. 7.5 m^2). The area was manually tilled and broken-up but could not be collected due to time constraints. It is highly unlikely that any significant subsurface oiling remains in the segment.

REVIEWED: MC/5/4/a/

OG 2 of 7
ES revised, May 4



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

GR302 A
 ADEC Subsegment Length: 8408m
 METERS
 0 400 800
 AK State Plane Zone 4
 pgr302a

Subdivision Field Map
 Map Key: PWSGR302Aa
 Name: HARPER
 Date: 30 APRIL
 Date Entered: 1 MAY

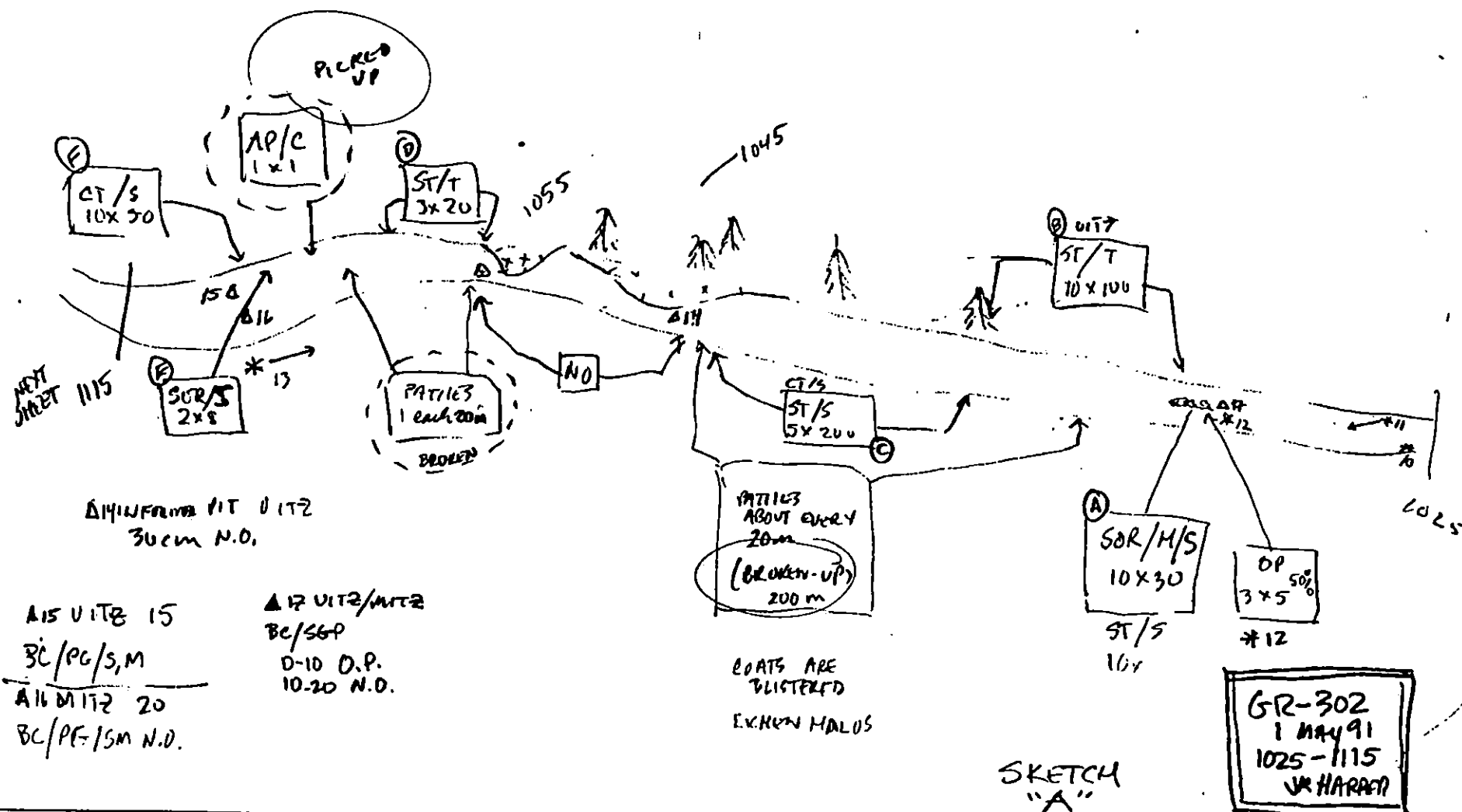
LOCATION MAP & SUMMARY OILING
 (SOUTH PART OF SEGMENT)

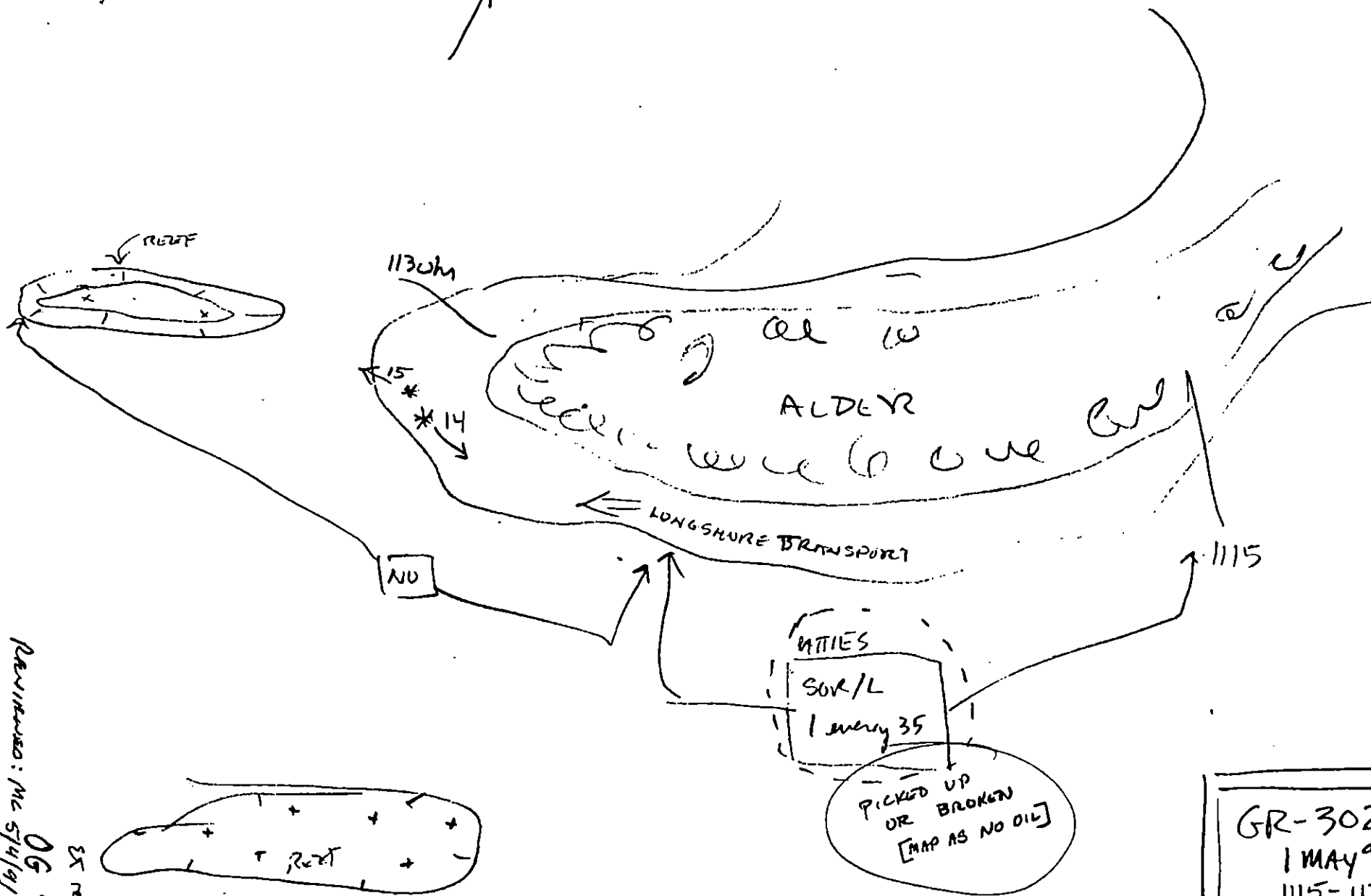
OG 3 of 7
 REVISION: 31E 5/4/91
 EG revised, May 4

GR-302

1 MAY 91

1025-1115
J. HARPER





Revised: Mc 5/4/91
OG 5 of 7
35 removed, May 4

GR-302A
1 MAY 91
1115-1130
HARPER
SKETCH "B"

PK reviewed May 4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 3

DATE 4/30/91 - 5/1/91

SEGMENT # GR 302

TIDAL HEIGHT (Range) -1' to +4'

BDIVISION A

BIOLOGIST STOKOR

SEA STATE 0-1

WIND SPEED/DIRECTION NE 15-20/5-10

PHOTOGRAPHS: ROLL #

FRAME #

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

Exposure/wave energy ranges from low to high; beach varies from moderately steep cobble/boulder/bedrock to protected lagoon tide flats of cobble/pobble and sand/gravel/silt.

Biota in the upper intertidal (UIZ) is generally sparse. Mid to lower intertidal biota on steeper cobble/boulder/bedrock beaches characterized by variable (depending on exposure and substrate) distributions and densities of *Fucus*, *Ulva*, various red & brown algae, barnacles and spat, interbedded and attached *Mytilus* (many small individuals), *Littorina* (often dense clusters with egg masses), limpets (often dense clusters of juveniles), *Spirorbis*, *Pagurus* (often dense clusters), and sometimes eel blennies, amphipods, crabs (*Haplogaster*), *Leptasterias* and clam shells (*Saxidomus*, *Protothaca*).

Low energy tide flats characterized by clam beds (*Saxidomus*, *Protothaca*, *Macoma*, *Mya*), dense interbedded *Mytilus* (MTZ), dense *Fucus* and filamentous algae, amphipods, and in most cases eel blennies, *Sipunculids*, *Nemertean*s, *Nucella*, *Littorina*, limpets, barnacles and spat (on larger cobbles) and small urchins.

Biota within or adjacent to oiled areas consists, for the most part, of mostly new-growth *Fucus*, barnacles and spat, moderate to dense *Littorina*, amphipods, and sparse *Mytilus*, with sculpins in tide pools. Biota down slope from oiled areas characterized by increased abundance of the same and additional taxa as described above for steeper cobble/boulder/bedrock shores.

If additional treatment is planned, care should be taken to minimize disturbance of established biota, which in general appears healthy, relatively abundant and diverse, and well on its way to recovery.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

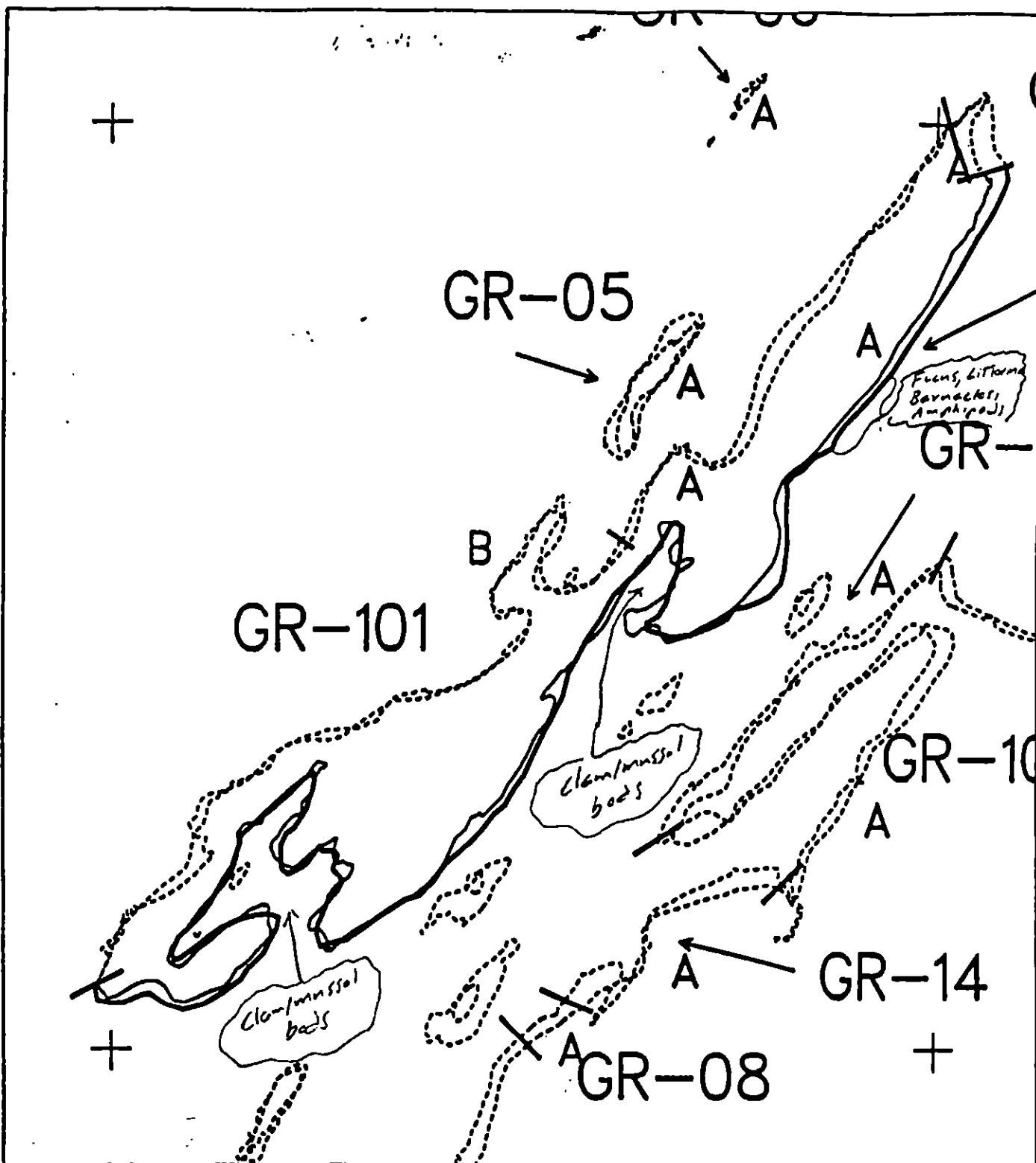
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	3 + nest	sculpins
Seabirds	2	10-15	eel blennies
Waterfowl	2	10-15	
Gulls/kittiwakes	1	10-20	
Shorebirds	Oystercatcher	2	
Corvids	Crow	1	
Other Birds	Kingfisher	1	

Numerous pits dug by otters in clam beds

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters	2	Deer	1
Pinnipeds (specify)			
les (specify)			

Shoreline subdivision map showing important biological features attached.



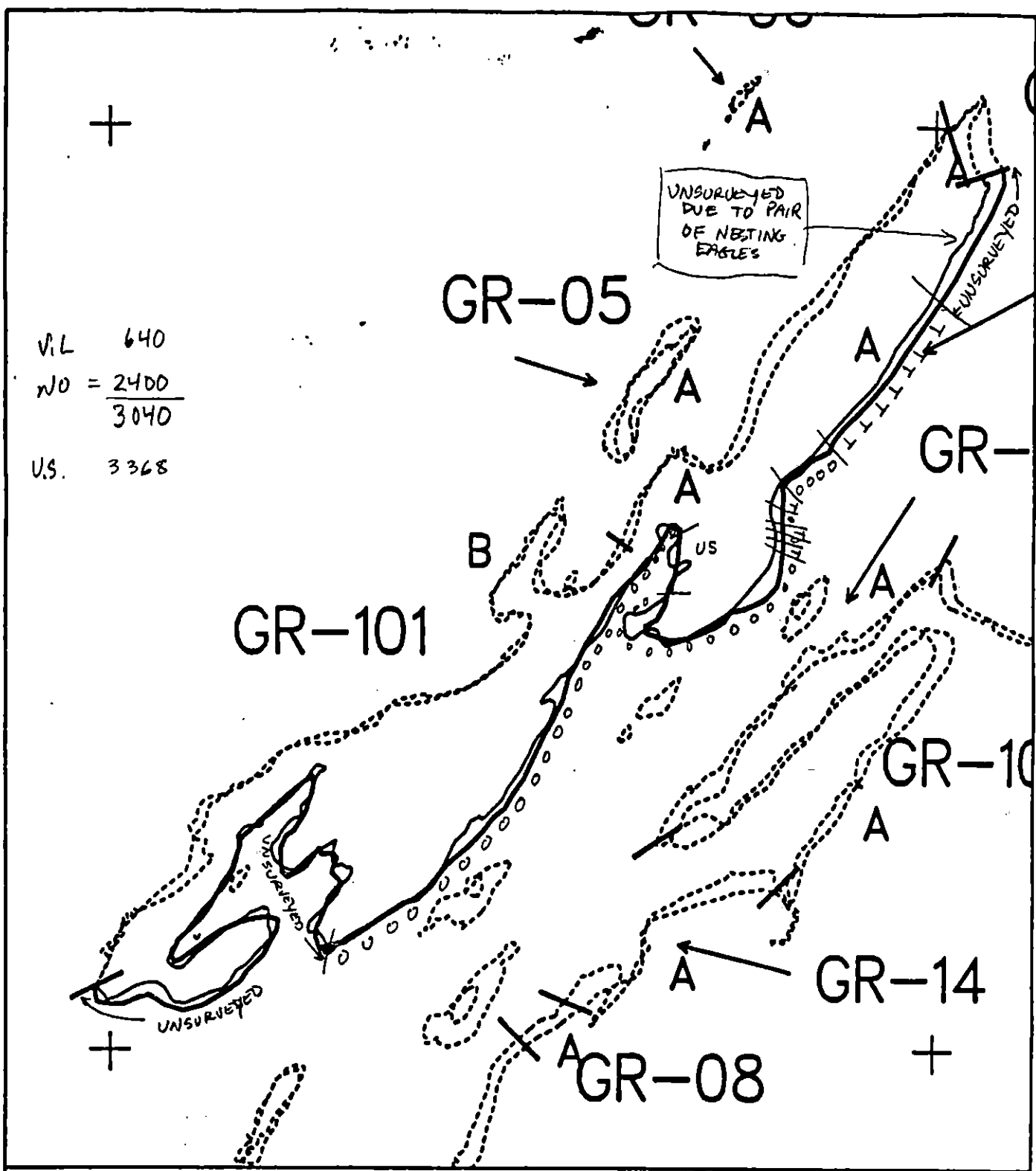
XXXX Wide
 //// Medium
 ---- Narrow
 TTTT Very Light
 0000 No Oil

GR302 A
 ADEC Subsegment Length: 6408m
 METERS
 0 400 800
 AK State Plane Zone 4
 pgr302aa



Subdivision Field Map
 Map Key: PWSGR302Aa
 Name: S. Stoker
 Date: _____
 Date Entered: _____

+
 V.L. 640
 NO = $\frac{2400}{3040}$
 U.S. 3368



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

GR302 A
 ADEC Subsegment Length: 6408m
 METERS
 0 400 800
 AK State Plane Zone 4
 pgr302a

Subdivision Field Map
 Map Key: PWSCR302Aa
 Name: SIARPER
 Date: 30 APR 91
1 MAY 91
 Date Entered:

SURFACE OILING SUMMARY

OG 7 of 7
 REVISION: MC 5/4/91
 LS revised, May 4

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/GR-302

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ GR-302 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 0 m: Medium 1102 m: Narrow 0 m: V.Light 2816 m: No Oil 2491 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 35 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 oiled logs with >10% coverage and splash impact. Bioremediate subsurface oil (pit 1 location). Work between 6/1 and 8/14 with ADF&G and USFWS approval regarding eagle nest constraints and herring spawning.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

GR 302 13 3/13

ST-2

SEGMENT ST/ GR 302 SUBDIVISION: _____ DATE 4/5/96NAME Robert Jensen SIGNATURE Robert Jensen☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Oil distribution is patchy for the first kilometer on the north side of this segment. It then reduces down to splashes post this location to very hard to find.

ADEC

NAME Rouann T. Hudnall SIGNATURE Rouann T. Hudnall☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

North end of segment has sporadic staining and coats. South end is very lightly oiled - hard to find splashes of stain

LAND MANAGER

NAME U.S. Forest Service SIGNATURE Lee Treley☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Forest oil was discontinuous band of splatter cover at North end of segment. ~~The~~ Band became less obvious as proceeded southward along segment. By time reached 1st small cove it was very broken and hard to find. By 2nd small lagoon area very scattered. Only small splatter found below lagoon.

SHORELINE OILING SUMMARY

REVISION NO. 03/22/90

OG John Jensen USCG 305 Jensen SEGMENT ST/ GR-302
 BIO John Jensen LAND REP Dee Keelen SUBDIVISION A
 EXXON John Jensen ADEC Roulette Hudson TIME 15:05 to 19:40
 TEAM NO. 2 TIDE LEVEL: +4.1 to +3.5 DATE April 5 / 1990
 ST. SUBDIVISION LENGTH: 7056 m ☐ Sun ☒ Clouds ☐ Fog ☒ Rain ☒ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☐ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: NE to SW
 SURFACE SEDIMENTS: R 13 % B 18 % C 30 % P 20 % G 0 % S 14 % M 5 % V 0 %
 SLOPE: Long 80% Hang 20% Vert 0 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 1020 m N 0 m VL 2850 m NO 3186 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	IC	IB	IP	IS	SBL BR	DBL RW	GY SL	DBR TL	LR	SU	UI	M	U			
ASPHALT PAVEMENT																
POOLED																
COVER			X			X					X					
COAT				X		X					X					
STAIN				X		X					X					
MOUSSE																
PATTIES																
TARBALLS																
FILM			X				X				X					
NO OIL										X		X	X			

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. ST2-8ST2-9Frames F7-34F1-7

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CM)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SBL BR	DBL RW	GY SL	DBR TL	LR	SU	UI	M	U					
1	40				X		0 - 35		X				X			X						No	Pb/C/Sd
2	30					X	-										X					"	"
3	35					X	-											X				"	"
4	40					X	-									X						"	"
5	35					X	-									X						"	"
6	40					X	-									X						"	"

COMMENTS

Legend:

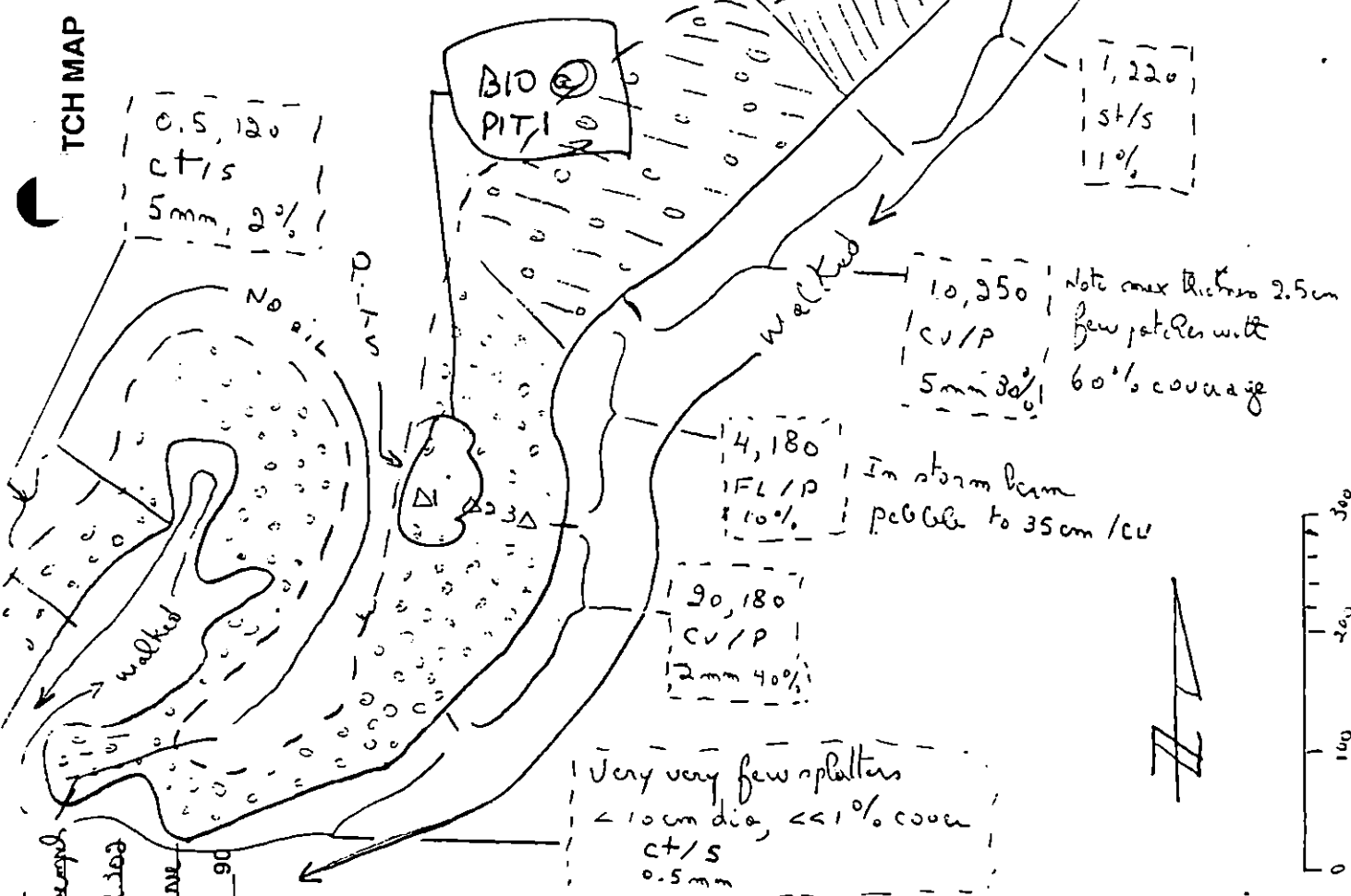
- Cliffs and talus
- Boulder beach on bedrock ramp
- Boulder/cobble beach
- c/p/c/sd (angular)

North Half of
Segment 98303

1062

TCH MAP

width: 10, 250 ← length
character: cv/p ← distribution
5mm 30%
+ - - -
Thickness Coverage



OG for Sample
SEGMENT ST/98303
SUBDIVISION 1062
DATE April 15/90

CHECKLIST

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

LEGEND

- 1 ▲
Pit - No Subsurface Oil
- 2 ▲
Pit - Subsurface Oil
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Splashed Distribution
- Oiled Vegetation

1 ●
Photo location, direction,
and number

Oil Character Length (m): AP PO CV 94 CT 510 ST 220 MS PT TB FL 180 NO 660

REVISION 03/24/90

OG James Scarp

SEGMENT ST/ GR-302

SUBDIVISION None

DATE April 5/1990

CHECKLIST

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

LEGEND

1 Δ
Pit - No Subsurface Oil

2 Δ
Pit - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

$\boxed{CT/P}$
Patched Distribution

$\boxed{CT/S}$
Splashed Distribution

Oiled Vegetation

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

Oil Character Length (m): AP PO CV CT ST 1950 MS PT TB FL NO 2594

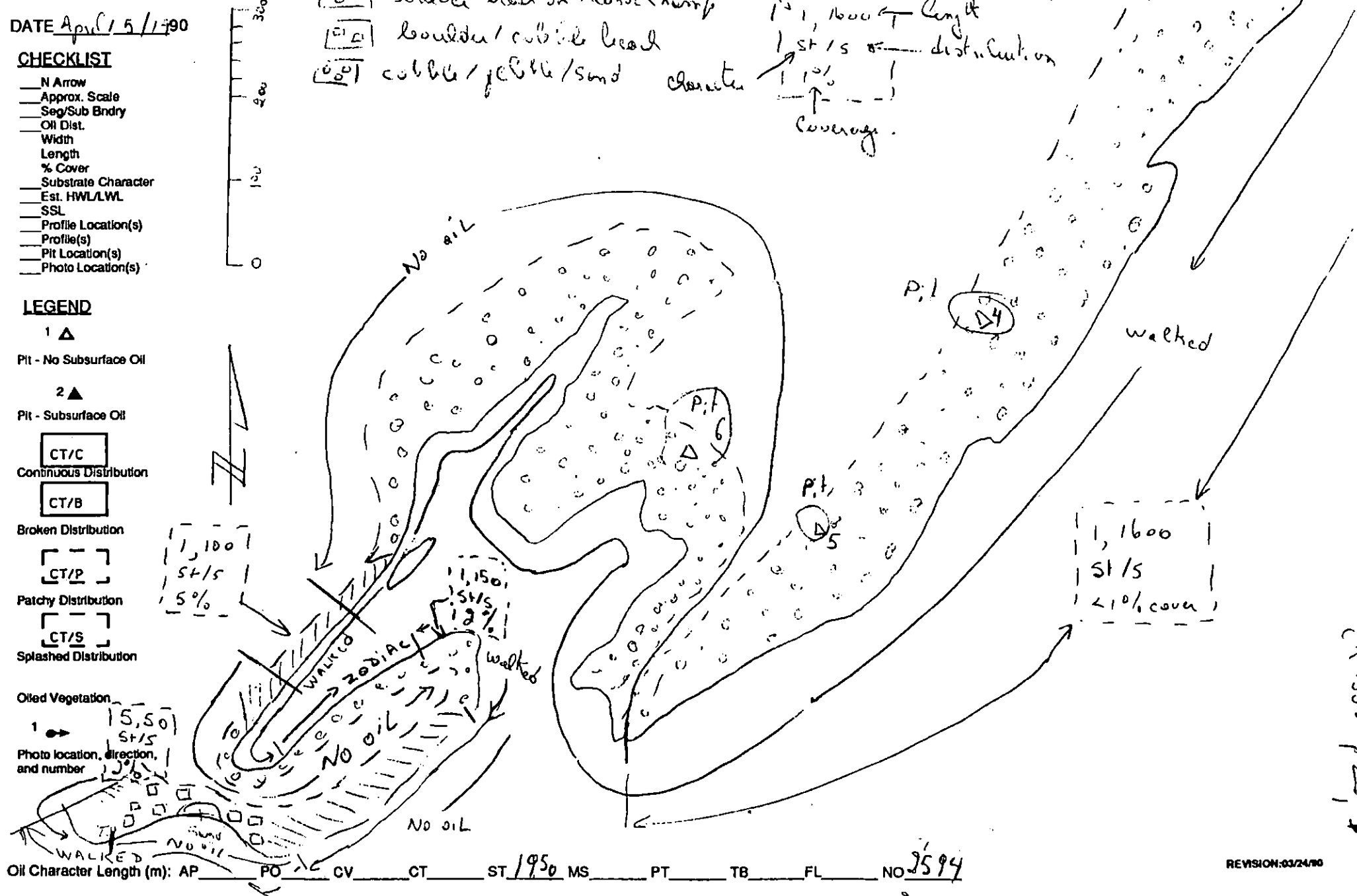
Legend

- $\boxed{1950}$ Cliffs and talus
- $\boxed{1950}$ Boulder beach on bedrock ramp
- $\boxed{1950}$ Boulder/cobble beach
- $\boxed{1950}$ cobble/pellet/sand character

TCH MAP 2 of 3

Southern Half of
Segment GR-302

width
1, 1600
Length
1 st/s
distribution
1, 10%
Coverage



REVISION: 03/24/90

Green Island, GR-302, April 5, 1990

Segment GR-302 is a 7 km long section of shoreline forming the south coast of a long barrier island located north of Green Island. Most of this segment is exposed to a short fetch, the width of the channel separating it from Green Island, except at its northeastern extremity where refraction of waves travelling from the northeast can impinge on the shoreline.

At its northeastern extremity, this segment consists of cliffs and talus with boulders in the lower intertidal zone. This section gives way to the south to a beach of angular boulders and cobbles. In these two section, oil occurs within a 12 m wide band as patchy covers with an average thickness of 3 mm and a surface coverage of 30%.

Further to the southwest, bedrock cliffs and talus form most of the intertidal zone. Here the oil decreases in coverage and forms stains of splatters with a coverage of only 1 % within a 1 m wide band of the upper intertidal zone. This unit is followed by another section of boulders on a bedrock ramp where the oil increases to form a 10 m wide band with 30% surface cover and 5 mm average thickness.

Further to the southwest, the intertidal zone increases in width and is composed of pebble/cobble. A film of oil surrounding sediments was detected in the storm berm of this area, down to depths of 35 cm, within a 4 m wide band with a 10% cover.

This type of beach continues to the southwest over a considerable distance including two large and complex embayments. Very little or no oil was found there; where present it consists mostly of very dispersed small splatters. Two short sections of the northwestern shoreline of the two embayments include narrow bands of stains and coats on the upper intertidal sediments. The southwestern end of this segment is made up of cliffs and talus and a

OK 300 7 13

cove including a pocket beach of boulder/cobble and sand in its center. No oil was found in this area, except at the southern extremity of the segment where stains of splatter occur within a 5 m wide band on the bedrock cliffs and boulders of the upper intertidal zone.

SHORELINE ECOLOGICAL SUMMARY

8-13

REVISION: 03/22/90

Segment ST / GR-302 Subdivision N/A Date (mo / day / yr) 04/05/90

Time (24 hr) 1505-1910 Biologist John Dixon

- (A) Substrate type and % of segments:
 (1) Bedrock 13 (2) Boulder 18 (3) Cobble 30 (4) Pebble 20 (5) Sand 14 (6) Silt 5
- (B) Overall % cover of biota (% of segment): Dense 11 Moderate 25 Low 64
- (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: ST 2-8
 Roll No. 57 2-8

Frames 7, 9, 13, 15,
23-26, 31-34

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: Many oyst. catchers working to intertidal at many recently eaten *Notodacna* scattered in general area.

Ecological Considerations: Sensitivities 8 BY, 7IL, 7Z, 2M, 5S. This area is made up of 3 habitat types: bedrock - where 6-8 (3) boulder/cobble beaches of various profiles slopes, and 3. Large areas with extensive sand flats. Most diverse biota is on bedrock - but 12 most diverse epibiota is on the sand flat. Many *Pyrosoma* in L.I. along shore.

Segment GR-302 6.4 Km

1505-1910 (+4' - +3')

This long segment is made up of three broad habitat types: ① bedrock outcrops & talus, ② boulder/cobble beaches of various profiles and slopes, and ③ lagoon or estuarine areas with extensive sand flats. The northern boundary of the segment is a rocky headland. Within about 200 m this grades into a predominantly boulder beach with large patches of bed rock outcrops with little relief. Mussels tend to occur on the outcrops in the higher areas (~ +5' - 8'). Barnacles & *Fucus* are most abundant on the larger, more stable rocks & gastropods tend to occur on boulders & cobbles on the mid to high shore. Many recently eaten *Notoacmea sentum* & *Voluthaya*. Looking down the

shore on a boulder-cobble beach one is aware of 3 bands of color. From +1' to ~ +3' there is a red-brown band composed of filamentous red algae & *Fucus*. Above this, from ~ +3' - ~ +7' there is a gray band of rock with sparse mussels & moderate densities of limpet & Littorina. From ~ +7' - ~ +12' there is a blue gray band of sparse mussels & barnacles & moderate densities of gastropods.

In the central & southern portions of the segment there are large indentations in

the shoreline where broad expanses of sand flat occur. The substrate is ^{muddy} ~~a sandy~~ with much rubble & shell debris. Siphon holes are ~ 120/m² & there are many dead clam shells (*Geukensia*?). There is moderate cover of red & green filamentous algae in the lower areas. In the southwest arm of the southern lagoon the shoreline steepens and sand & pebbles give way to bedrock, boulders & large cobbles. This substrate continues to the outer part of the island & grades into vertical bedrock cliffs. The southern boundary of the segment is a boulder cobble beach between two outcrops of bedrock & talus. The lower portion of this pocket beach is sand.

8

No. 252 24.10.01
GR-302

GR-302

ADEC Segment Length: 6409m



Jan 11
April 5/90

5



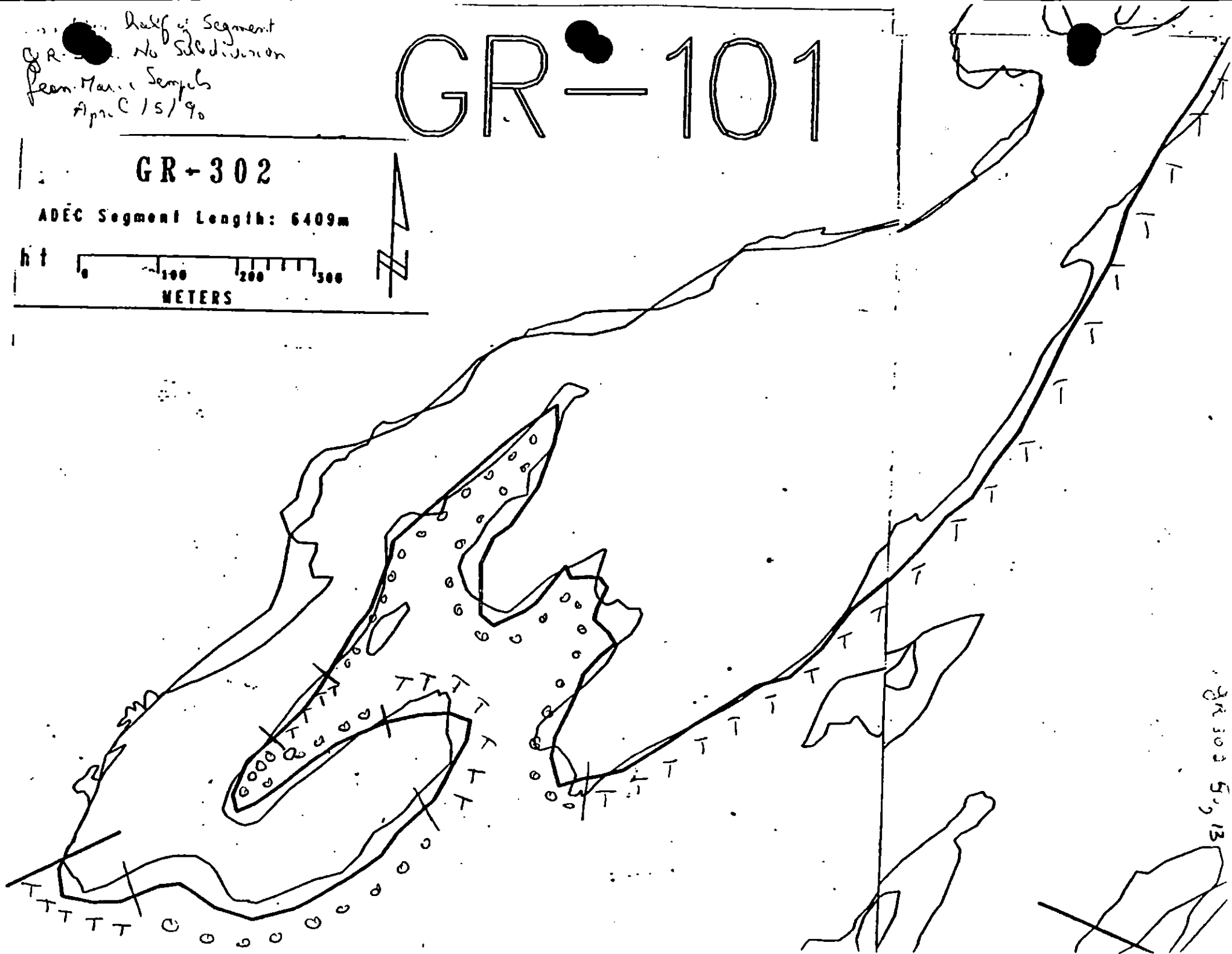
GR-

Half of Segment
GR-302. No Subdivision
from Marine Samples
April 15/90

GR-101

GR-302

ADEC Segment Length: 6409m



GR 302 5, 13

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT GR-302 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	WORK 6/15 to 7/1

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

2M	Herring Spawning	Closed to bioremediation prior to 6/15.
5S	Shorebird/Waterfowl Concentration	No constraint to manual pickup and bioremediation after 5/15.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15. No constraint to manual pickup.
7Z	Subsistence: Salmon Harvesting	Closed to bioremediation after 7/1. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

Avoid any unnecessary disturbance or damage to unrolled substrate and biota especially intertidal and subtidal algae and seagrass.

FOSC

[Signature]

Date

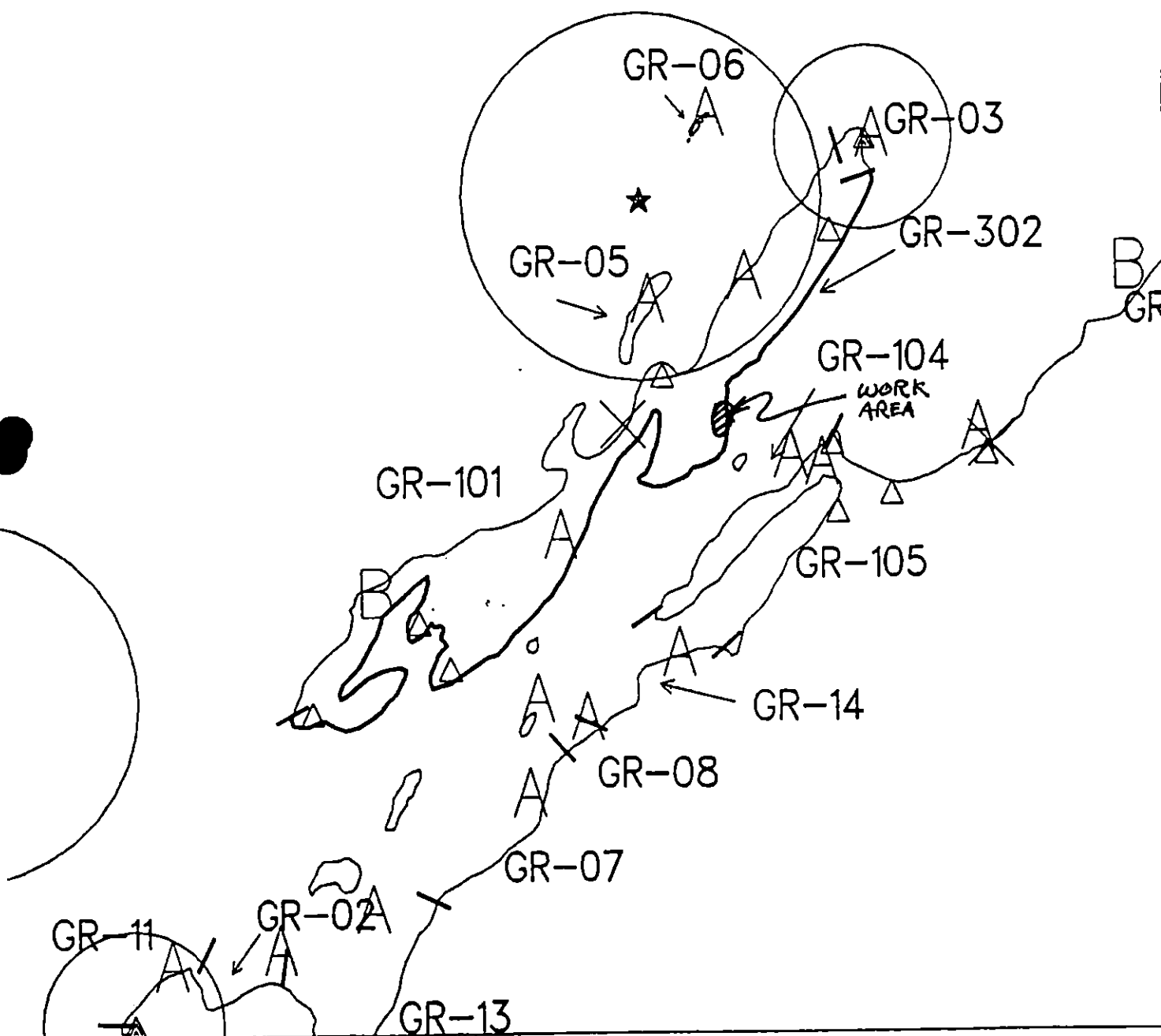
6/13/90

Prepared by

[Signature]

Date

6/12/90



Exxon Company, USA
 Map Key: PWS-GR-302
 June 04, 1990



ECOLOGY MAP
 SEGMENT GR-302
 SUBDIVISION A (1 of 1)
 METERS
 0 100 200

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

1 inch = 2000 feet

SHORELINE EVALUATION

SEGMENT ST/ GR-302 SUBDIVISION A (1 OF 1) DATE 4/5/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

2M Herring spawning (4/1 to 6/15)
5S Shorebird/Waterfowl concentration (4/1 to 5/15)
5T-4 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
7II Subsistence area: Deer harvesting (8/15 to 2/28)
7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: [Signature]

DATE: 4/23/90

OILING CATEGORIZATION:

Wide 0 m: Medium 1102 m: Narrow 0 m: V.Light 2816 m: No Oil 2491 m
Subsurface Oil Observed: Yes X No Maximum Depth 35 cm

RECOMMENDATIONS:

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

COMMENTS: Manual pick up of oiled logs with >10% coverage and splash impact. Bioremediate subsurface oil (pit 1 location). Work between 6/1 and 8/14 with ADF&G and USFWS approval regarding eagle nest constraints and herring spawning.

SEE CONSTRAINTS ADDENDUM dated 6/12/90

TAG COMMENTS:

TAG APPROVAL DATE: 4/23/90

ADEC ART WEINER
EXXON AMY TOLZ
NOAA Joseph Talbot
USCG KEANE, KENNETH

FOSC:

DATE: 4-17-90

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-24

SUBDIVISIONS: C (3 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION C (3 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL 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 14 m: V.Light 0 m: No Oil 950 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: Recommended treatment includes manual pickup of oiled debris as shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to 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 Evelyn Biggs 424-3235
- 30, 3Q Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. 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 (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 IN 24 SUBDIVISION: C DATE 4-26

USCG

NAME AEC Vandepelt SIGNATURE AEC Vandepelt

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michelle Bauer SIGNATURE M Bauer

☒ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

No oiling found on beaches.

LAND MANAGER

NAME Carol S Huber SIGNATURE Carol S Huber

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Recommend continued natural
clearing.

Resource sensitivity - Special Use Destination
Possible

SHORELINE OILING SUMMARY

DT-10-01-10-00-10-10

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-24
 BIO P. Crank LAND REP C. Huber SUBDIVISION C (13 OF 3)
 MON T. Temblin ADEC M. Ball TIME 11:20 11:45
 M NO. 5 TIDE LEVEL 14 7.5 1.0 DATE 04/25/90
 EST. SUBDIVISION LENGTH: 954 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: to
 SURFACE SEDIMENTS: R 80 % B 10 % C 5 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 10 % Hang 20 % Vert 70 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 10 m VL 0 m NO 944 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	A	B	C	D	1	2	3	4	SU	M	N	V
ASPHALT PAVEMENT												
POOLED												
COVER												
COAT		X			X					X		
STAIN												
MOUSSE												
PATTIES												
TARBALLS												
FILM										X	X	X
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	X		
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE 0

#BAGS 0

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	SYM	Y	SURFACE - SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		NO	OC	1	2	3	4	5	6	SU	M	N	V							
1	60					X	.	X								X										PG/PG
2	40					X	.	X									X									PG/PGS
3	30					X	.	X									X									PG/PG
4	45					X	.	X										X								CP/CP
5	40					X	.	X											X				N	30		P/PG

COMMENTS

7W 4/30/90

00 J. S. ~~inger~~
 SEGMENT ST/ IN-24
 SUBDIVISION C
 DATE 04/25/90

ETCH MAP



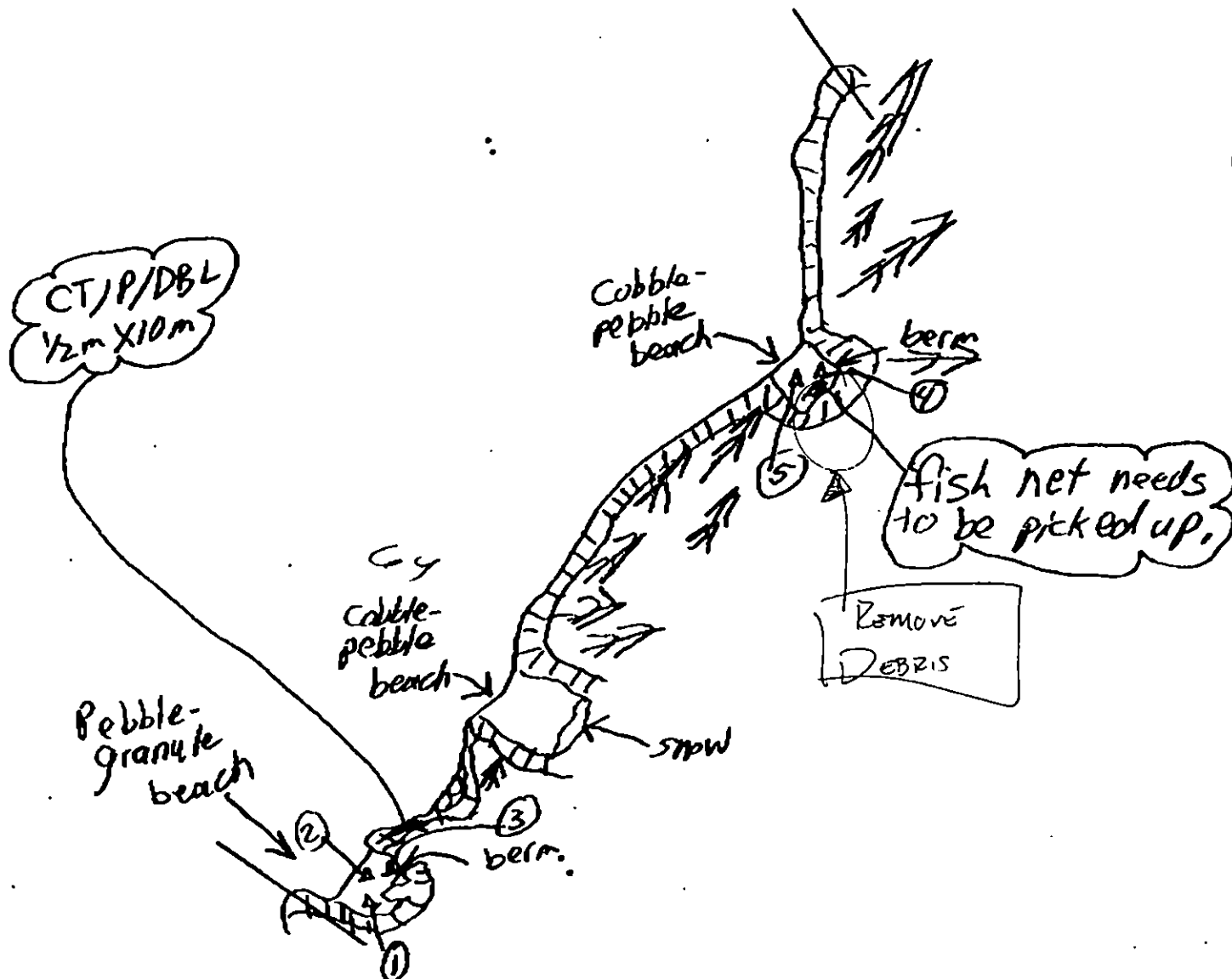
0 100.
 Approx

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Seg/Div Entry
- ☐ CI Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HW/LW
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PI Location(s)
- ☐ Photo Location(s)

LEGEND

- 1 Δ
- PI - No Substrate CI
- 2 Δ
- PI - Substrate CI
- CT/C
Continuous Distribution
- CT/B
Broken Distribution
- CT/P
Patchy Distribution
- CT/S
Sporadic Distribution
- lll
Clad Vegetation
- 1 Δ
Photo location, direction, and number



CI Character Length (m): AP _____ PO _____ CV _____ CT 10 ST _____ MS _____ PT _____ TD _____ FL _____ NO 944

SHORELINE ECOLOGICAL SUMMARY

Segment ST 1N24 Subdivision C Date (mo / day / yr) 4/25/90
 Time (24 hr) 1125-1145 Biologist Crank Tide Height: +4 to +6
 Length: 954 m

- (A) Substrate type and % of segments:
 (1) Bedrock 80 (2) Boulder 10 (3) Cobble 5 (4) Pebble 5 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense Moderate 50 Low 50
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)
- Photographs: No Photos
 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:

5- Bald Eagle
 13- Gulls
 1- Pigeon Guillemot
 1- Cormorant
 1- Crow
 1- Alcide (Murre?)
 1- Raven

Deer tracks in S&C
 School of fish -
 ~ 200 Herring

Ecological Considerations:

6Y. Special Yr. Disturbance

Segment: ST/IN24C Length: 954m Biologist: Crank
Date: 4/25/90 Time: 1125-1145 Tide Height: +4 → +6

General Comments

- LIT2 unexposed.
- Most of segment surveyed from skiff.
- Suspected concentration on rock: boulder
extrapolated from surfaces observed bordering
beaches.
- Beaches were rounded cobbles and pebbles -
low boulder.
- I suspect that the lower intertidal zone
is similar to IN24A.
- Mussels beginning to invade cobbles and pebbles surrounding
the rock and boulder.

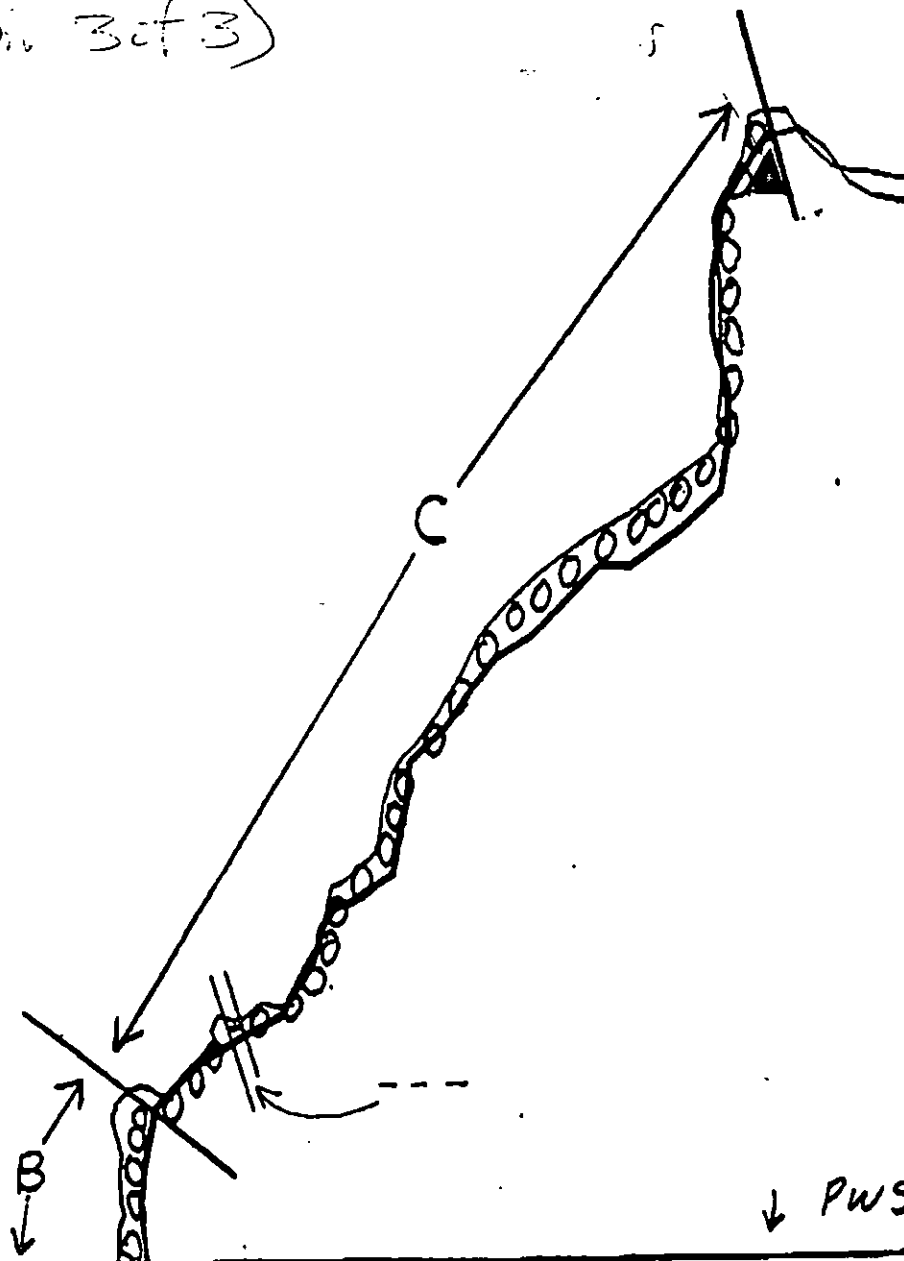
ECOLOGICAL CONSTRAINTS

ST-1

EY

BALD EAGLE
NEST

IN-24-C
(Subdiv 3 of 3)



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

IN-24

ADEC Segment Length: ~~2673m~~ 2582



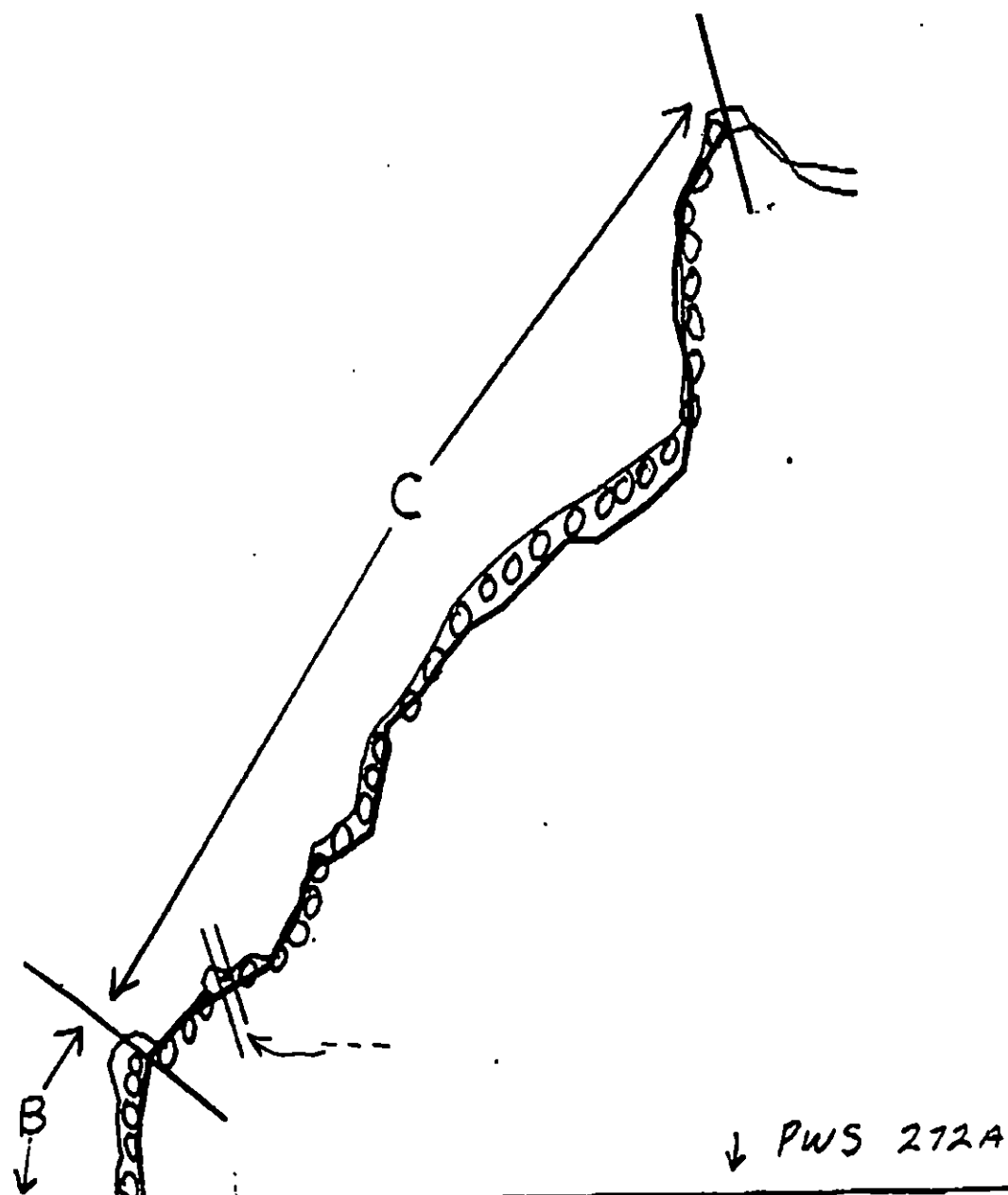
METERS

Map Key: PWS-272b

Name: James Spring

Date: 4/25/90

Date Entered:



SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: [Signature] DATE: 5/8/90

OILING CATEGORIZATION:

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

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </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: Recommended treatment includes bioremediation of broken coat area shown on sketch map with USFWS permission regarding the eagle nest.

TAG COMMENTS: MONITORS TO ASSES SUITZ DURING TREATMENT.

TAG APPROVAL DATE: 4/25/90

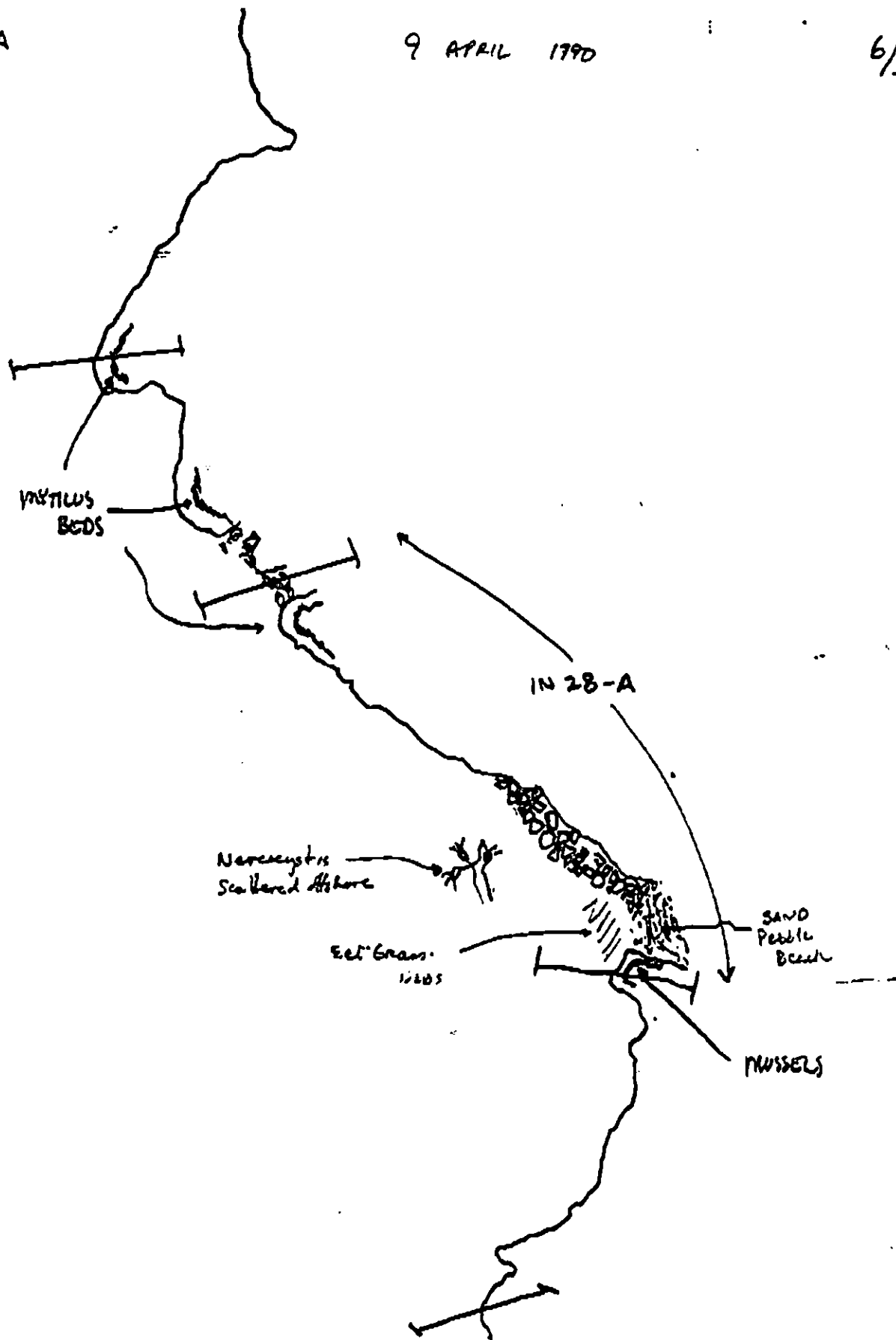
ADEC ART WENGER
EXXON ANDY TOLLETT
NOAA Joseph Talbott
USCG KENNETH KEANE

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

IN28-A

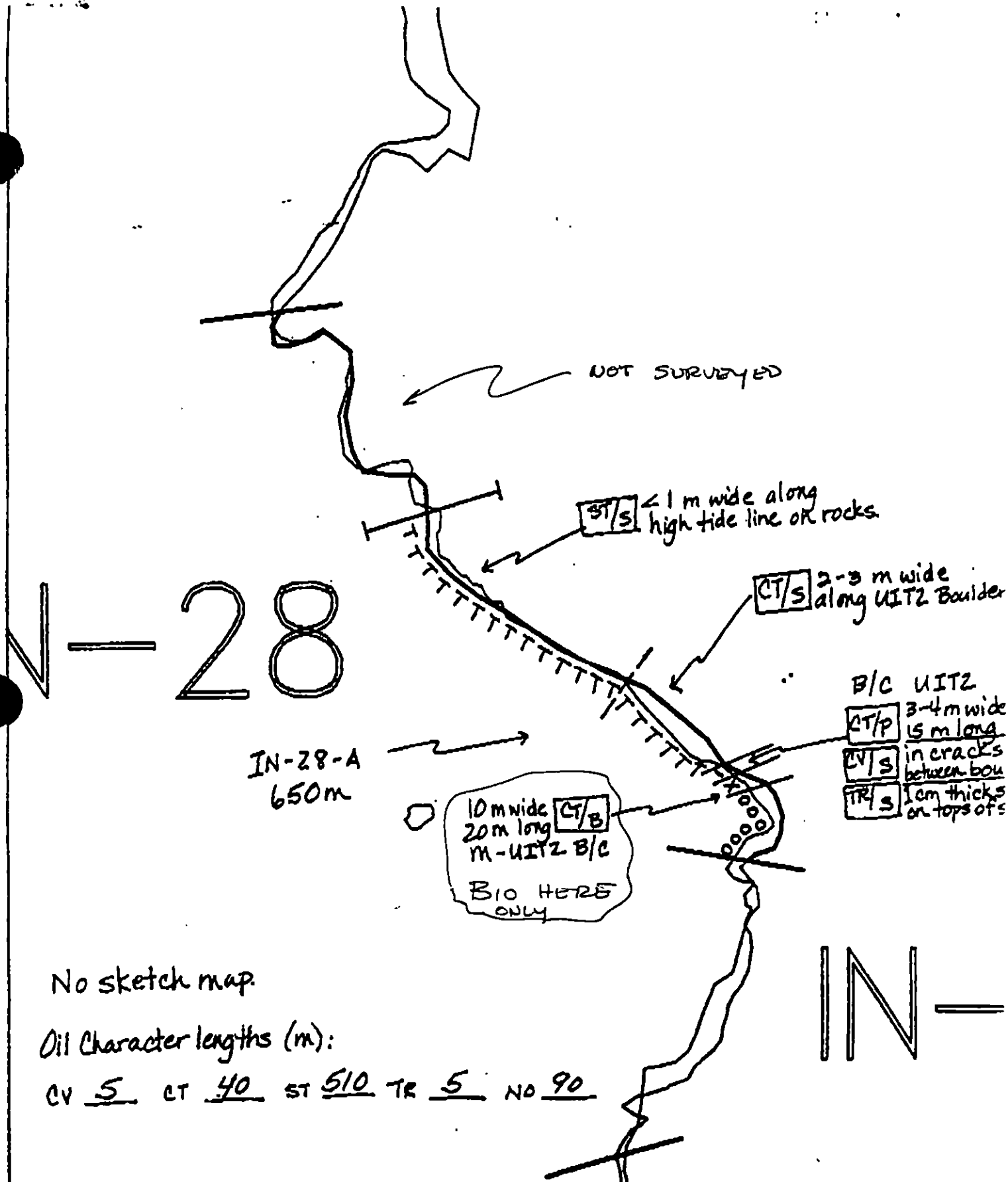
9 APRIL 1990

6/L



IN28-A

9 APRIL 1990



XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

IN-28

EXXON Segment Length: 1052m
ADEC Segment Length: 1044m

Map Key: PWS-273

Name: C. DILLONDate: 4/8/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

- SEGMENT IN-21 SUBDIVISION A (1 of 1)

WORK WINDOW	
Bioremediation, Manual Tilling Spot Washing, and Other Approved Treatment More Than 400m From Active Nest	OPEN
Bioremediation, Manual Tilling Spot Washing, and Other Approved Treatment Less Than 400m From Active Nest	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

USFWS 6/1/90 map indicates an active nest in Subdivision A. Closed to bioremediation, manual tilling, spot washing, and other approved treatment within 400m of 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 unloiled biota and substrate.

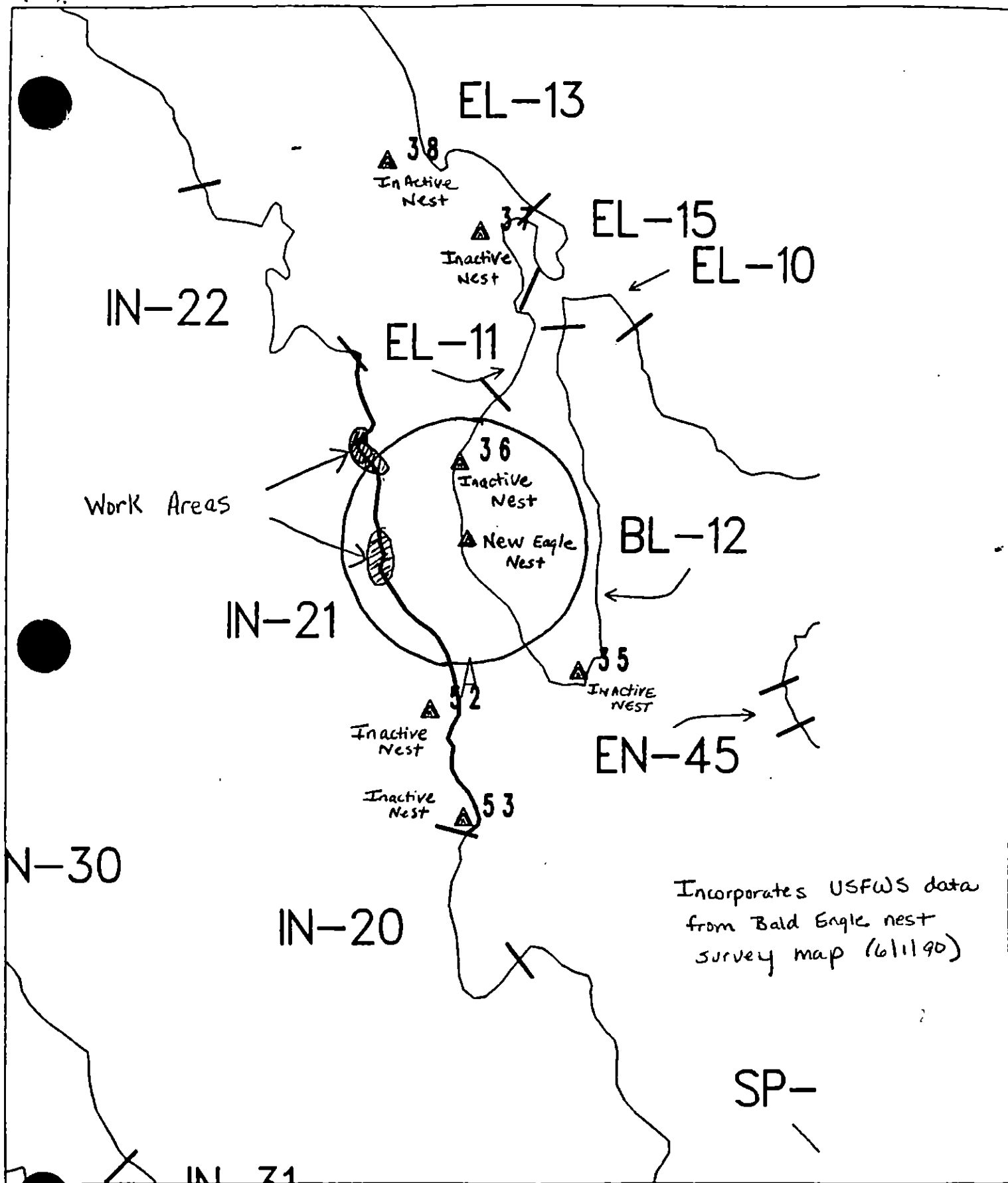
FOSC

DATE 6-10-90

Prepared By: WJK

Date

6/8/90



Exxon Company, USA
Map Key: KNI-IN-21

ECOLOGY MAP ^{6/3/90}
SEGMENT IN-21
SUBDIVISION A (1 of 1)
METERS

★	Seabird Colony
▲	Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ IN-21 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 All bald eagle nests (3/1 to 6/1) - Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Holmer DATE: 4/23/91

OILING CATEGORIZATION:

Wide 101 m: Medium 23 m: Narrow 54 m: V. Light 69 m: No Oil 1815 m
Subsurface Oil Observed: Yes X No Maximum Depth 25+ cm

RECOMMENDATIONS:

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

COMMENTS: Recommend 1) spot wash with pom poms, then 2) bioremediation
of oiled coat, cover and subsurface oil areas as indicated on sketch
map. Work should be conducted after 6/1 with approval of ADF&G and
USFWS regarding eagle nest constraint
MANUALLY TILL IN AREA OF PITS 1+2 IF FEASIBLE + SPOT WASH PRIOR TO BIO
See Constraint Addendum dated 6/8/90 wxc

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/21/90
ADEC Let Wanser
EXXON Andy Tom
NOAA Bull Wescott
USCG Keith Thomas

FOSC: DATE: 4-27-90

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-28

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

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

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL 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 32 m: Medium 0 m: Narrow 22 m: V.Light 468 m: No Oil 123 m
Subsurface Oil Observed: Yes _____ No X Maximum Depth _____

RECOMMENDATIONS:

☐ No Treatment Recommended	☐ Snare/Absorbent Booms
☒ 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: Recommended treatment includes bioremediation of broken coat area shown on sketch map with USFWS permission regarding the eagle nest.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / IN-28-A SUBDIVISION: A DATE 4/10/90

USCG

NAME David A. Schneider SIGNATURE David A. Schneider

PSS/USCGR

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No Treatment recommended for this subdivision.
Degree of oiling is very light and consists of only
very scattered cover, coat & stain among boulders
and on some surface sediments. Supra intertidal zone
should be re-evaluated after snowmelt.
No Sub surface oil was found in this subdiv. IB

ADEC

NAME Peter Montesano SIGNATURE Peter Montesano

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

The Supratidal was snow covered on beach at time of
inspection. The S beach has heavy interstitial runoff
down the middle.

LAND MANAGER

NAME JANETTA Pritchard SIGNATURE JANETTA Pritchard

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

OG C. DILLON USCG D. SCHNEIDER SEGMENT ST/ IN-28
 BIO ST. BARRY LAND REP J. PRITCHARD SUBDIVISION A (1 of 1)
 EXXON A. SNOOK ADEC P. MONTESANO TIME 17:30 to 18:15
 TEAM NO.: 6 TIDE LEVEL: +3 to +1 DATE 04/02/90
 EST. SUBDIVISION LENGTH: 650 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 45 % B 45 % C 5 % P 3 % G 2 % S 0 % M 0 % V 0
 SLOPE: Lang 40 % Hang 35 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 20 m M 0 m N 15 m VL 525 m NO 90 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	S	1	2	3	4	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER				X			X			X		
COAT		O	X	✓								
STAIN				X			X			X		
MOUSSE												
PATTIES												
TARBALLS				X		X				X		
FILM												
NO OIL	Snow on S'mast beach								S			X

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

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTE
☐ YES ☒ NOTYPE 0#BAGS 0

Photographs:

Roll No. NONEFrames 0SUBSURFACE OIL NO SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW				OIL / FILM COLOR				PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		VO	VC	1	2	3	4	5	6	SU	U	M	U		
							.														
							.														
							.														
							.														
							.														
							.														
							.														

COMMENTS OIL COAT IS HIGHLY WEATHERED AND IS ALMOST TAR. SPORADIC TAR SPOTS ARE UP TO 1 CM THICK SPLATTERS AFFIXED TO BOULDERS / COBBLES OIL IS ONLY ON SURFACE SEDIMENTS. THE COATING ON THE LANG BOULDERS AND COBBLES IS PRIMARILY ON THE SIDES AND UNDERSIDES WITH MOSTLY JUST A STAIN ON THE TOPS. ONE SMALL

Page 1 of 1 AREA HAS A SPORADIC COVER IN THE CREVICES BETWEEN LARGE BOULDERS. CRH DATE 4/11/90
4/13/90

SHORELINE ECOLOGICAL SUMMARY

Segment ST/ IN2B Subdivision A Date (mo/day/yr) April 8 1990
 Time (24 hr) 1730-1815 Biologist JIM BARRY Length 650 m

- (A) Substrate type and % of segments:
 (1) Bedrock YS (2) Boulder YS (3) Cobble 5 (4) Pebble 3 (5) Sand 2 (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 65 Low 5
- (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-6-5
 Frames 8-10

BARNACLES

Dense
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Moderate
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Sparse
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Rare
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

NOT PRESENT

MYTILUS

Dense
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Moderate
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Sparse
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Rare
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

NOT PRESENT

GASTROPODS

Dense
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Moderate
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Sparse
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Rare
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

NOT PRESENT

FUCUS

Dense
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Moderate
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Sparse
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

Rare
 1U 1M 1L
 2 2 2
 3 3 3
 4 4 4
 5 5 5
 6 6 6

NOT PRESENT

Wildlife Observations/ General Comments:

- 1 Seal
- 2 Common Merganser
- 3 Pigeon Guillemot

Ecological Considerations: 6 Y - Special use destination.

There are no special considerations for this segment that require specific changes in cleaning schedules or procedures.

IN28

APRIL 9 1990

2/6

START 1730 TIDE +5 → +2
 STOP 1815 WINDOW

General Comments

- A. IN28 is a short segment containing a pebble/cobble beach, a cobble/boulder beach/coastline, and vertical cliffs. Biota are of average density overall, with a moderate, ~~to~~ and patchy density of mussels. Barnacles and Puccins are moderate in abundance. Gastropods are moderate in general, but whelks are denser in most mid-to-low zones.
- B. Oil is sparsely distributed in the segment, and sparse or rare in the low to high zones. Several invertebrates are present as juveniles or spat. (Clams, many species of algae, and other invertebrates).

II Major Species.

- A. BARNACLES - Dense or moderate populations along most of the segment. Juveniles of *Balanus* (*Citharus* and *Semibalanus*)
- B. MYTILUS - sparse cover in most spots, but patches of higher densities, particularly on vertical cliffs.
- C. GASTROPODS - *Pernemulus* and *Luplets* are generally moderate in density, but whelks, specifically *Nucella emarginata*, is dense on most surfaces. (adults and juveniles)
- D. PUCCHINS - moderate - occasional high density of juveniles or *Sperlings* in upper and mid zones.

III Other Species

Most species typical of other locations, except highly exposed sites, are present in the segment. Filamentous algae are abundant at this site.

1N28-A

APRIL 9 1990

3/6

IV Species List

A. MARINE PLANTS

1) DIATOMS / BLUE GREEN ALGAE M-D 123

2) GREEN ALGAE - CHLOROPHYTES

ACROSIPHONIA D23

CLADOPHORA S12

ENTEROMORPHA M123

GREEN CRUST. R12

ULVA M123

ULROSPORA M23

3) RED ALGAE - RHODOPHYTES

BOSSIELLA R12

CALLIARTHRON R12

CORALLINA R12

CRYPTOSIPHONIA M231

ENDOCLASIA MURICATA S1

HALOSACCION GLANDIFORME M23

IRIDAEA S12

MASTOCARPUS S12

MEMBRANOPTERA S12

MICROCLADIA M123

LITHOTHAMNION PALIFICUM S12

PETROCELLIS MIDDENDORFFII S1

PORPHYRA spp. S12

RHODOMELA LAMINATA M213

RHOODYMENIA PALMATA R12

4) BROWN ALGAE - PHAEOPHYTES

ALARIA MARGINATA M41

AGARUM spp. M4

COSTARIA M1

FUCUS DISTICHUS M12

HEDOPHYLLUM SESSILE M4

HILDONBRANDIA M12

LAMINARIA M4

NEREOCYSTIS S12

RALEPSIA S12

SCYTOSIPHON COMENTARIA S12

A SPAT OR JUVENILES
PRESENT

D DENSE

M MODERATE

S SPARSE

R RARE

1 BEDROCK

2 BOULDER

3 COBBLE

4 PEBBLE

U. SUBTIDAL

1128-A

APRIL 9 1990

4/6

B MARINE INVERTEBRATES

1) ANEMONES

- EPIACTIS RITTERI ? S12*
- URTICINA CRASSICORNIS R1
- Anthopleura elegantissima R1
- A. antimissa S12
- A. kanthogrammica R1

2) Annelid Worms

- Polychaetes
- Nereidae S23
- Neptunidae S23
- Serpulidae
- Serpula M1*
- Cirratulus M1
- Spirorbidae
- Spirorbis D23*

3) Peanut Worms - Sipunculid

- PHASCOLOSOMA HERESITES S23*

4) MOLLUSCS

a) CHITONS

- CATHARINA TUNICATA S12*
- TONICELLA LINIATA S12*
- NOTALIA spp. R1

b) Snails - GASTROPODS

- LITTORINA SCUTULATA M123*
- L. SITKANA M123*
- NUCULLA LAMELLOSA M123*
- N. EMARGINATA D12*
- SCARLETTA DINA M23*
- AMPHISSA COLUMBIANA S23*
- TACHYCHONCHUS spp. R23

c) Nudibranchs

- LAMELLIDORIS FUSCA S12

d) Limpets

- LOTIA DIGITALIS M12*
- ACMAEA MITRA S12
- LOTIA PERSONA M123*

d) Limpets (cont)

- Tectura scutum M123
- T. persona S12
- Biphonarca thersites M12*
- Diadora aspera R1

e) Mussels

- Mytilus edulis M-D123

f) Clams

- Single - PODOCYSTUS GEPHO M1
- Hiatella spp. S23*
- Protothaca staminea S23*
- Macoma spp. R23

g) Crustaceans

1) BARNACLES

- Semibalanus cariosus D-M12
- Balanus glandula M123
- Chthamalus dalli M123

2) Crabs

- Haplogaster spp S23
- Hemigrapsus oregonensis R1
- Pagurus spp. S23*
- Hermid Crabs - Paguridae M

3) Beach Hopper

- ISOPODA - S23*
- AMPHIPODA
- Orchestoidea? M23*

h) Bryozoans

- Schizoporella spp? M23*

i) Echinoderms

- 1) Sea Stars
- D23* Pycnopoda helianthoid
- D23* Dermasterias imbricata
- M23* Leptasterias hexactis
- S23 Euryasterias trachelii
- R23 Orthasterias koehleri
- M12 Pisaster ochraceus.

SPECIES LIST (cont)

E Echinoderms (cont)

2) Brittle Stars

Ophiurus sp? R23

3) Sea Cucumbers

Cucumora miniata R23

3) Sea Urchins

Strongylocentrotus droebachiensis R23

C. Marine Invertebrates

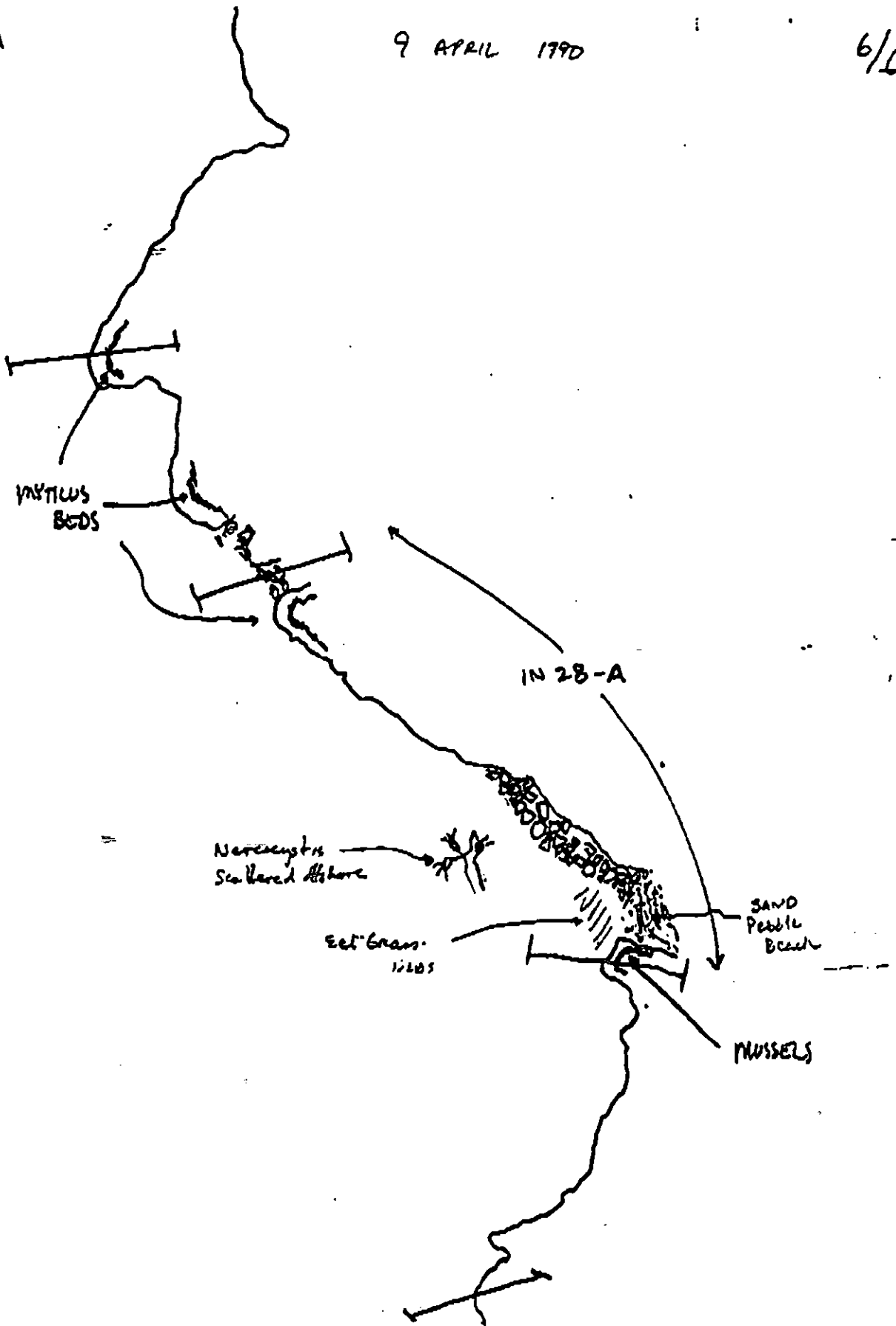
D FISH: PHOLIDAE M-D 234

COTTIDAE 5120

IN28-A

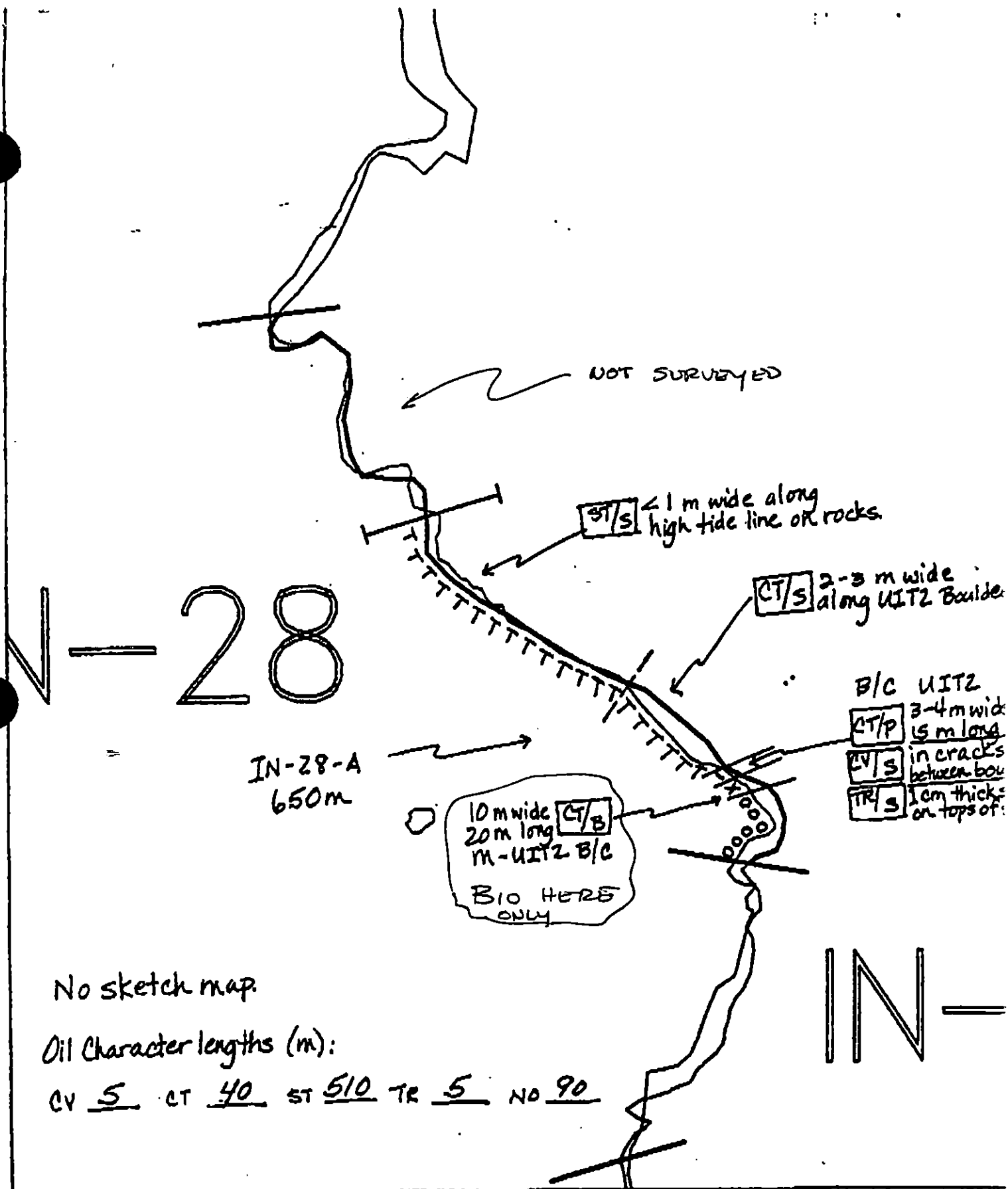
9 APRIL 1990

6/L



IN28-A

9 APRIL 1990



No sketch map.

Oil Character lengths (m):

CV 5 CT 40 ST 510 TR 5 NO 90

IN-

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

IN-28

Exxon Segment Length: 1052m
 ADEC Segment Length: 1044m



Map Key: PWS-273
 Name: C. DILLON
 Date: 4/8/90
 Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-24

SUBDIVISIONS: B (2 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION B (2 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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: _____ DATE: _____

OILING CATEGORIZATION:

Wide 144 m: Medium 0 m: Narrow 34 m: V.Light 38 m: No Oil 575 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 40+ 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of areas indicated on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 30, 3Q Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2208
- ✓ 5T⁹ All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (6/1 to 9/15)
 6V Anchorages (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / IN 24 SUBDIVISION: B DATE 4-26-90

USCG

NAME

AEC Vandepelt

SIGNATURE

AEC Vandepelt

☒ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

ADEC

NAME

Michelle Baer

SIGNATURE

MBaer

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

- 1) By pits #1-#3, OR layer ^{is} found behind lg. Rock. Oiling lies on the edge of a ^{100 m diameter} ~~50 m~~ Dames & Moore test site. Area needs re-evaluation before treatment is recommended to determine if its within test-site boundaries.
- 2) No oil found on North C.P.G beach.

LAND MANAGER

NAME

Carol S Huber

SIGNATURE

Carol S Huber

☐ NO TREATMENT RECOMMENDED

☐ TREATMENT SUGGESTED

COMMENTS

Recommend continued natural cleansing. Observed sign (South beach) marking Dames & Moore / Exxon Spill Study site - See bio report. Heavy oiling in this area. Rest of subdivision none to middle of Special Use Destination. Resource sensitivity - good tent sites as well.

OG J. Springer USCG R. Vandepels SEGMENT ST/ LN-24
 BIO P. Crank LAND REP C. Huber SUBDIVISION B 12 OF R
 EXXON T. Tomblin ADEC M. Baer TIME 10:30 to 11:00
 TEAM NO. 5 TIDE LEVEL +2 TO +3 1/2 DATE 04/25/90
 EST. SUBDIVISION LENGTH: 800 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 25 % B 15 % C 25 % P 15 % G 20 % S 0 % M 0 % V 0
 SLOPE: Long 35 % Hang 40 % Vert 25 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 200 m M 0 m N 30 m VL 30 m NO 540

SURFACE OIL

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

PAVEMENT H F S 0 sq m by 0

PATTIES / TARBALLS 0 BA

NEAR SHORE SHEEN? NO BR RW SL

OILED DEBRIS	AMOUNT			DID YOU COLLECT DEBRIS?
	SM	MD	LG	
Logs				YES ☐ NO ☒
Vegetation				
Trash				TYPE <u>0</u>
Debris				#BAGS <u>0</u>

Photographs:

Roll No. ST-5-7

Frames 20-23

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)	! (Y/N)	SURFA SUBSUR SEDIME
		OF	OR	OL	OF	NO		NO	UC	1	2	3	4	5	SU	M	N	U				
1	40		X				10-40	X						X	X					BR	15	P/PG
2	20		X				0-10	X						X	X							P/P
3	25				X		0-20	X						X	X							P/P
4	35					X	.	X							X							PG/H
5	45					X	.	X							X					N	43	P/I
							.															

COMMENTS ^{DEM} Ecological study area was not surveyed in detail.

REVIEWED 7/0 DATE 4/30/91

J. Springer

MENT ST/ IN-24

DIVISION B

TE 04, 25/90

TECHLIST

- W Area
- Approx. Scale
- Seg/Side Grid
- On Off
- Width
- Length
- % Cover
- Substrate Character
- Est. HW/LA/VL
- SSL
- Profile Location(s)
- Photo(s)
- Fl Location(s)
- Photo Location(s)

LEGEND

- 1 Δ
- 1- No Subsurface Oil

- 2 Δ
- 1- Subsurface Oil

CT/C

CT/B

Water Distribution

CT/P

Water Distribution

CT/S

Isolated Distribution

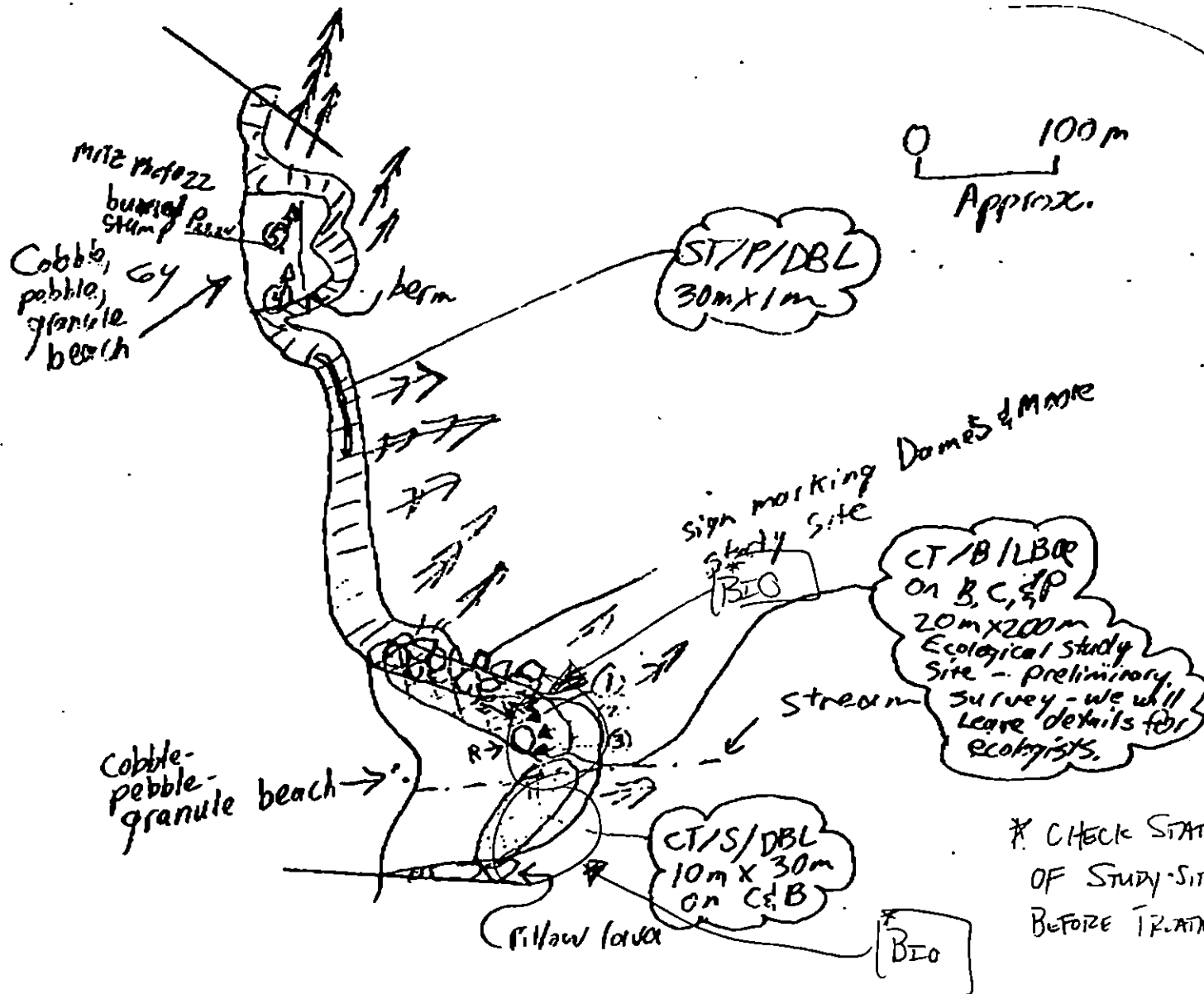
eee

Bed Vegetation

1 00

Photo location, direction, and number

SKETCH MAP



Character Length (m): AP _____ PO _____ CV _____ CT 230 ST 30 MS _____ PT _____ TB _____ FL _____ NO 540

SHORELINE ECOLOGICAL SUMMARY pg 10

Segment ST 1N 24 Subdivision B Date (mo/day/yr) 4/25/90
 Time (24 hr) 1020-1125 Biologist Crank Length: 800 m
 Tide Height +2 → +3 1/2 ft

- (A) Substrate type and % of segments:
 (1) Bedrock 25 (2) Boulder 15 (3) Cobble 25 (4) Pebble 15 (5) Sand 20 (6) Silt _____
- (B) Overall % cover of biota (% of segment): Dense _____ Moderate 60 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: ST-5-7
 Roll No. _____
 Frames 20-23

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:

3-Bald Eagle - Adult Otter Scat
 Deer Trails School Fish ≈ 50 ind. Tube Snails?

Ecological Considerations:

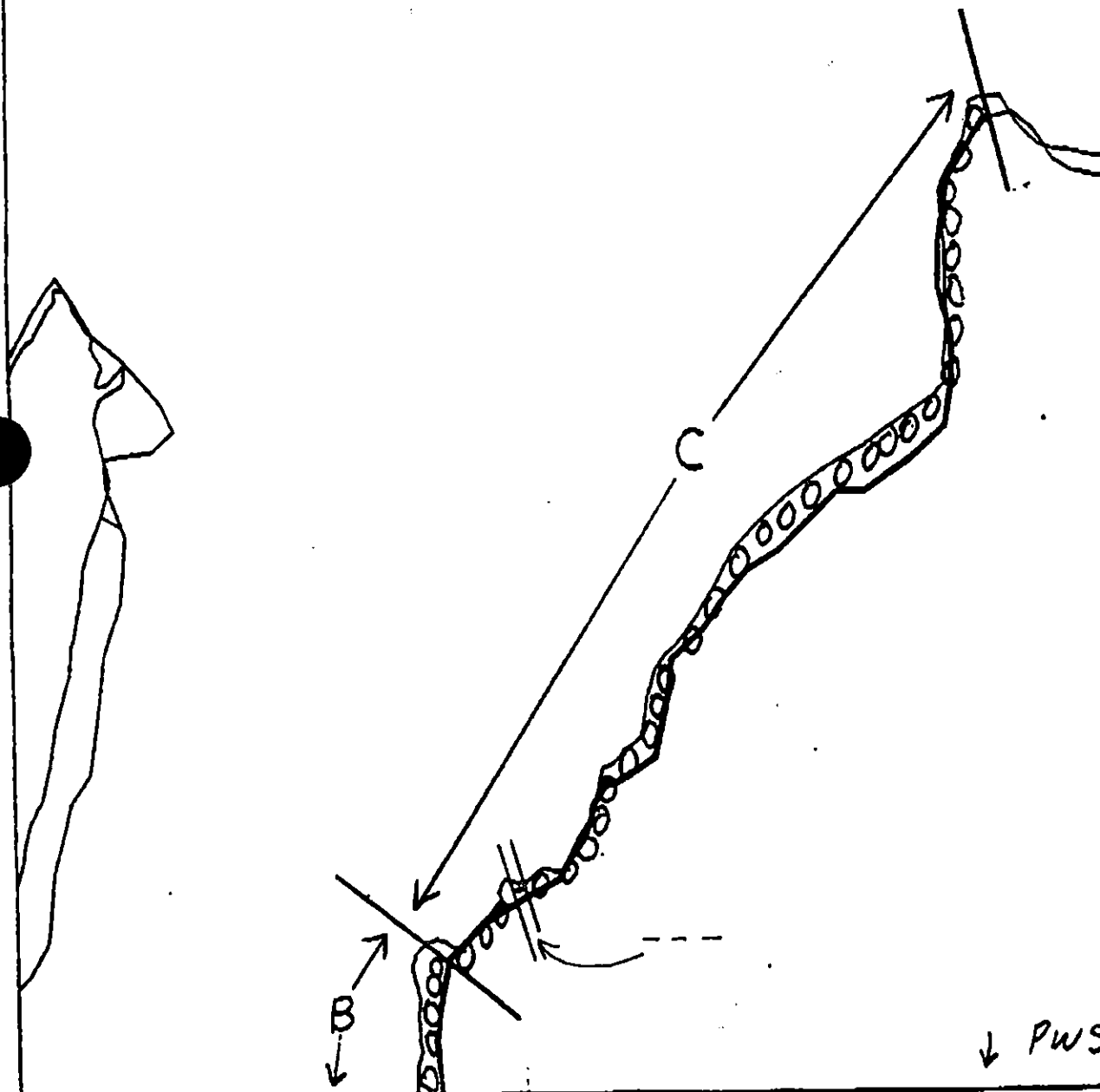
100 yd. Darnes; Moore / Exxon Oil Spill Study Site
 DO NOT DISTURB BEACH MATERIALS
 Questions call: (907) 562-3364

UY - Special Use Designation
 Tent Sites - not listed

Segment: ST/IN248 Length: 800m Biologist Crank 17-
Date: 4/25/90 Time: 1030-1125 Tide Height: +2 $\Rightarrow$ +4 ft

General Comments

- Beach 1 of subdivision is part of James and Moore study site - listed as 50 yds either side of marker. Found Rebar 100 yd from marker. Beach is low angle with small stones and large intergravel mussel bed. Site not walk so not to disturb beach materials. On edge of study site Gastropods dense in all zones on cobble. Clam bed in LITZ (*Hiatella*, *Saxidomus* and *Protothaca*)
- Beach 2 - Good Terrestrial Area in uplands. Beach is pebble with a few cobbles and boulders. Small mussel patches on land side of boulders. Mussels beginning to invade pebbles near boulders. Beach 2 appears healthy.
- Skiff survey between beaches from 10m - 25m out $\Rightarrow$ numerous rocks preventing closer survey.



↓ PWS 272A

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

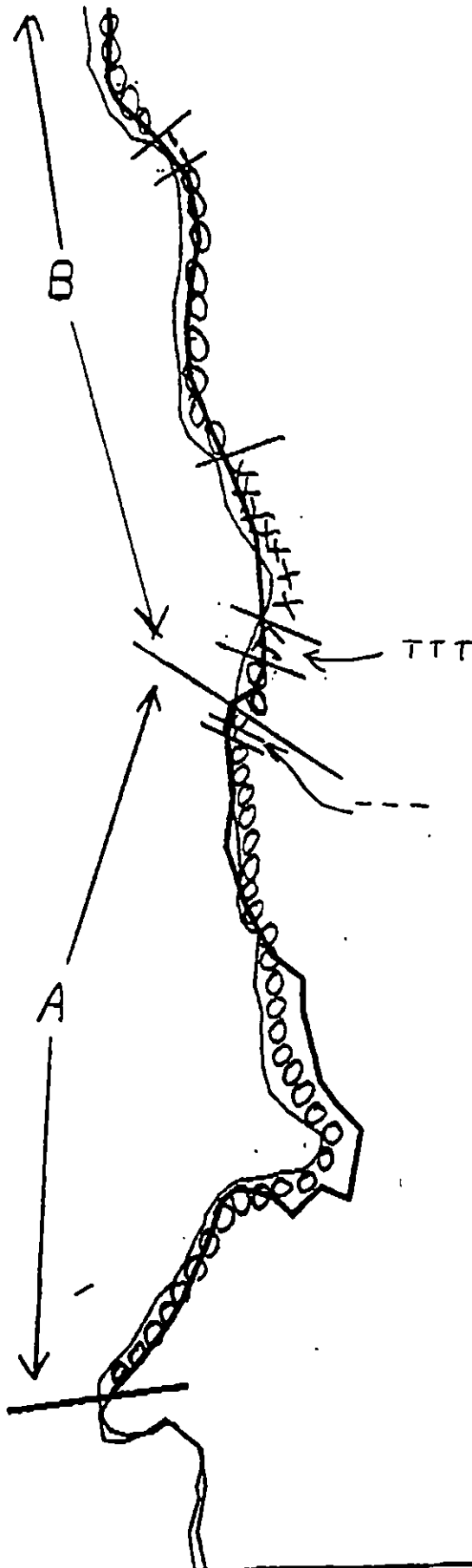
IN-24B

ADEC Segment Length: ²⁵⁸²~~2573~~m



Map Key: PWS-272b
 Name: James Spring
 Date: 4/25/90
 Date Entered:

↑ FWS
2725



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

IN-24B

ADEC Segment Length: ²⁵⁸²~~2573~~m

0 100 200 300

Map Key: PWS-272a

Name: James Spring

Date: 4/25/90

Data Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-29

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ IN-29 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6Y Recreation: Special use destination

Note adjacent segment with bald eagle nest >400 m from subject segment.
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 8 m: V.Light 274 m: No Oil 129 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 20 cm

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: _____

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
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 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- Q Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. 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
- 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)
 Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
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 7JJ Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST 1 IN-29 SUBDIVISION: A DATE 4/24/90

USCG

NAME William E. White

SIGNATURE William E. White

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

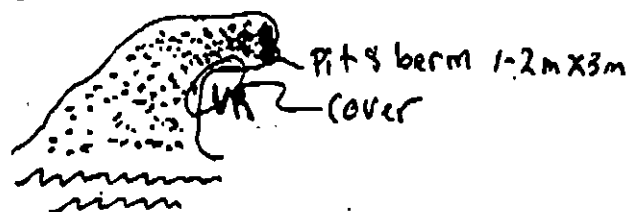
NAME Peter Montesano

SIGNATURE Peter Montesano

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Hand wipe cover off of Rock face^{pm} tucked back up off water leading to Pit #8. Pull down + Bio Small Pit #8 berm which is hidden and runs Perpendicular to beach.



LAND MANAGER - USDA - Forest Service

NAME Don J. Breitinget

SIGNATURE Don J. Breitinget

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

This ^{segment} ~~area~~ serves as a recreation special use destination area for the period 6/1 - 9/15.

Natural weathering appears to be the best form of treatment.

SHORELINE OILING SUMMARY

REVISION NO. 04-131

OG C. DILLON USCG PS1 E. WHITE SEGMENT STI IN-29
 BIO J. BARRY LAND REP D. BREITLAKER (NCS) SUBDIVISION A (1 OF 1)
 EXXON G. STILES ADEC P. MONTESANO TIME 07:15 to 08:30
 TEAM NO. 6 TIDE LEVEL -2 to -1 DATE 04/24/90
 EST. SUBDIVISION LENGTH: 493 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 40 % B 50 % C 5 % P 5 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 65 % Hang 25 % Vert 10 % WAVE EXPOSURE: ☐ Low ☐ Med ☒ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 10 m VL 353 m NO 120 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	N	E	S	W	1	2	3	4	SU	U	M	U
ASPHALT PAVEMENT												
POOLED												
COVER		X			X				X	X		
COAT			X	X	X					X		
STAIN				X				X		X		
MOUSSE												
PATTIES				X				X	X			
TARBALLS												
FILM												
NO OIL										X	X	

PAVEMENT H F S — sq. m by —(PATTIES) TARBALLS 1 BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

Photographs:

Roll No. ST-6-7Frames 2

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		UG	UC	1	2	3	4	SU	U	M	U				
1	30					X	.		X						X				N	—	P-P
2	10					X	.		X						X				N	—	B/C-P/G
3	10		X				0-3		X			X		X					N	—	R/B/C-P/G
4	10					X	.		X						X				N	—	C/B/P-P
5	30					X	.		X						X				N	—	P-P
6	35					X	.		X								X		N	—	P-G
7	5		X				0-4		X			X		X					N	—	B/C-P/G
8	25		X				0-20		X			X		X					N	—	P-P/Veg

ONLY SIGNIFICANT OILING IS A 1-2 m WIDE X 10 m LONG BROKEN, SHINY BLACK COVER ON A ROCK FACE AT THE SOUTH END OF THE SUBDIVISION. PIT 8 IS IN A PEBBLE BERM AT THE BASE OF THIS COVERED ROCK. THE OILED BERM AREA IS 1-2 m WIDE X 3 m LONG AND UP TO 20 cm DEEP. PIT 3 WAS DUG THROUGH A 15 cm sq. PATTY.

REVIEWED MILDATE 4-25-90

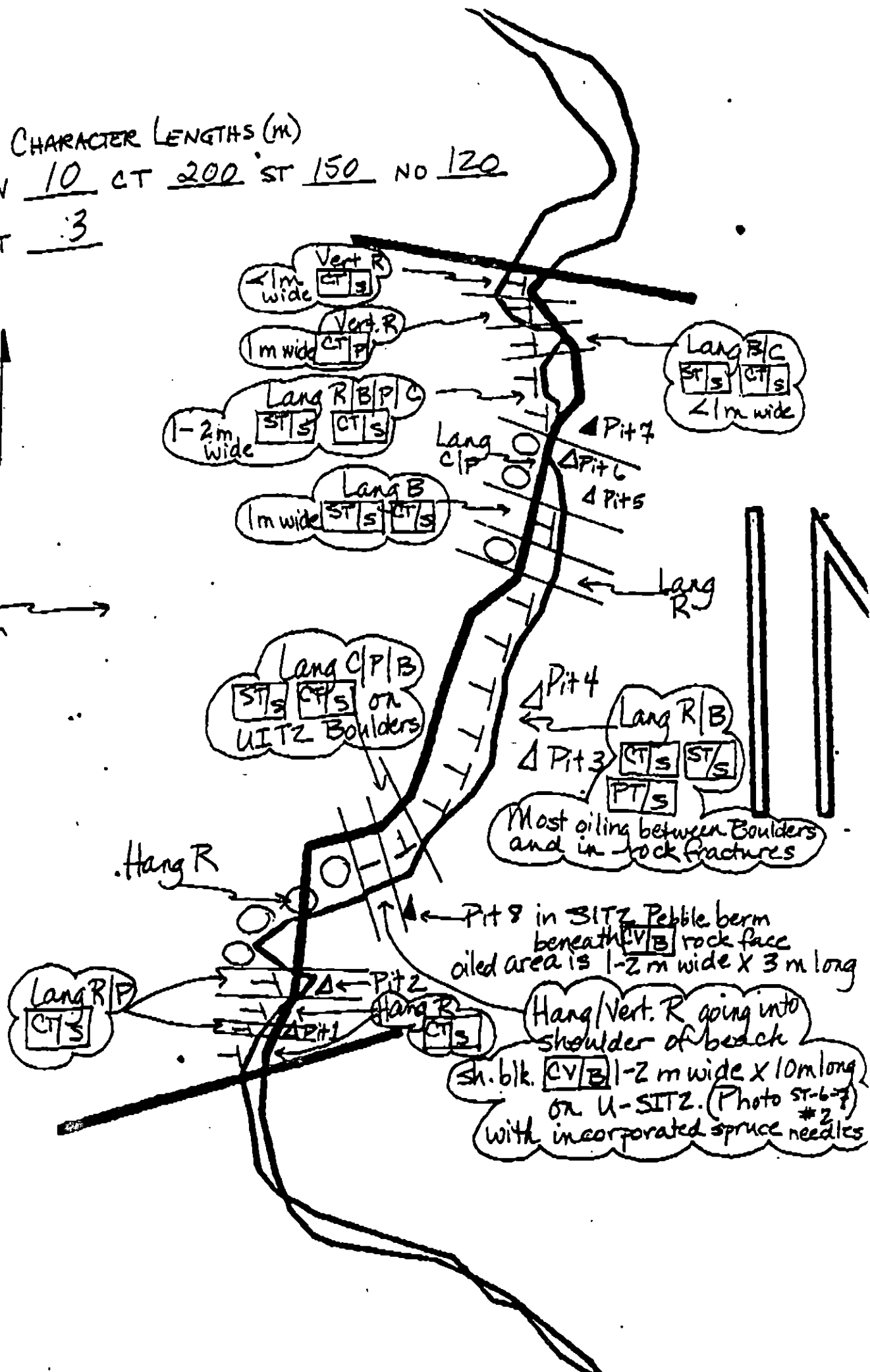
OIL CHARACTER LENGTHS (m)
CV 10 CT 200 ST 150 NO 120

PT 3

PT 3

N

IN-29-A →
483 m



SHORELINE ECOLOGICAL SUMMARY

REVISION: 08/22/90

Segment ST / 1N29 Subdivision A Date (mo / day / yr) 24 APRIL 1990

Time (24 hr) 0700 → 0825 Biologist Jim Barry Length = 483

1/7

- (A) Substrate type and % of segments:
 (1) Bedrock YO (2) Boulder 50 (3) Cobble 5 (4) Pebble 5 (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 (⊙)
- Photographs: ST-6-7
 Roll No. _____
 Frames 1

BARNACLES

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

MYTILUS

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

GASTROPODS

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

FUCUS

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

Wildlife Observations/ General Comments: Sea Otter - 1 HARBOR SEAL - 2 BARN EAGLE - 2
 Herring Gull - 3 Pelagic Cormorant - 2 Sea Otter Skull - 1 (badly decomposed)
 Glaucous-winged Gull - 2 Deer Skeleton - 1
 Pigeon Guillemot - 7

Ecological Considerations: ST - BARN EAGLE NEST IN SEGMENT ADJACENT TO 1N29.
 ST - SPECIAL USE DESIGNATION

* Sea Otter haul out site located in segment - see 06 map.

IN60T ISLAND : IN29A

APRIL 24 1990

2/7

TIME 0830-0830

TIDE -2 → -1

I General Comments

IN29 is located along a moderately exposed shore in upper passage. The main Habitat types are vertical bedrock cliffs and high angle bedrock shores, and cobble/pebble beaches.

A. HABITATS

1) Vertical Bedrock / High Angle Bedrock.

BIOTA are typical of habitat type, with patchy, & mussel density, overall moderate to sparse. Barnacles, mainly *Balanus* and *Chthamalus*, are dense in patches, but mostly moderate. *Semibalanus* is much less abundant than on more exposed segments. *Fucus* was moderate, with some withered thalli that may have been related to heat treatment last summer.

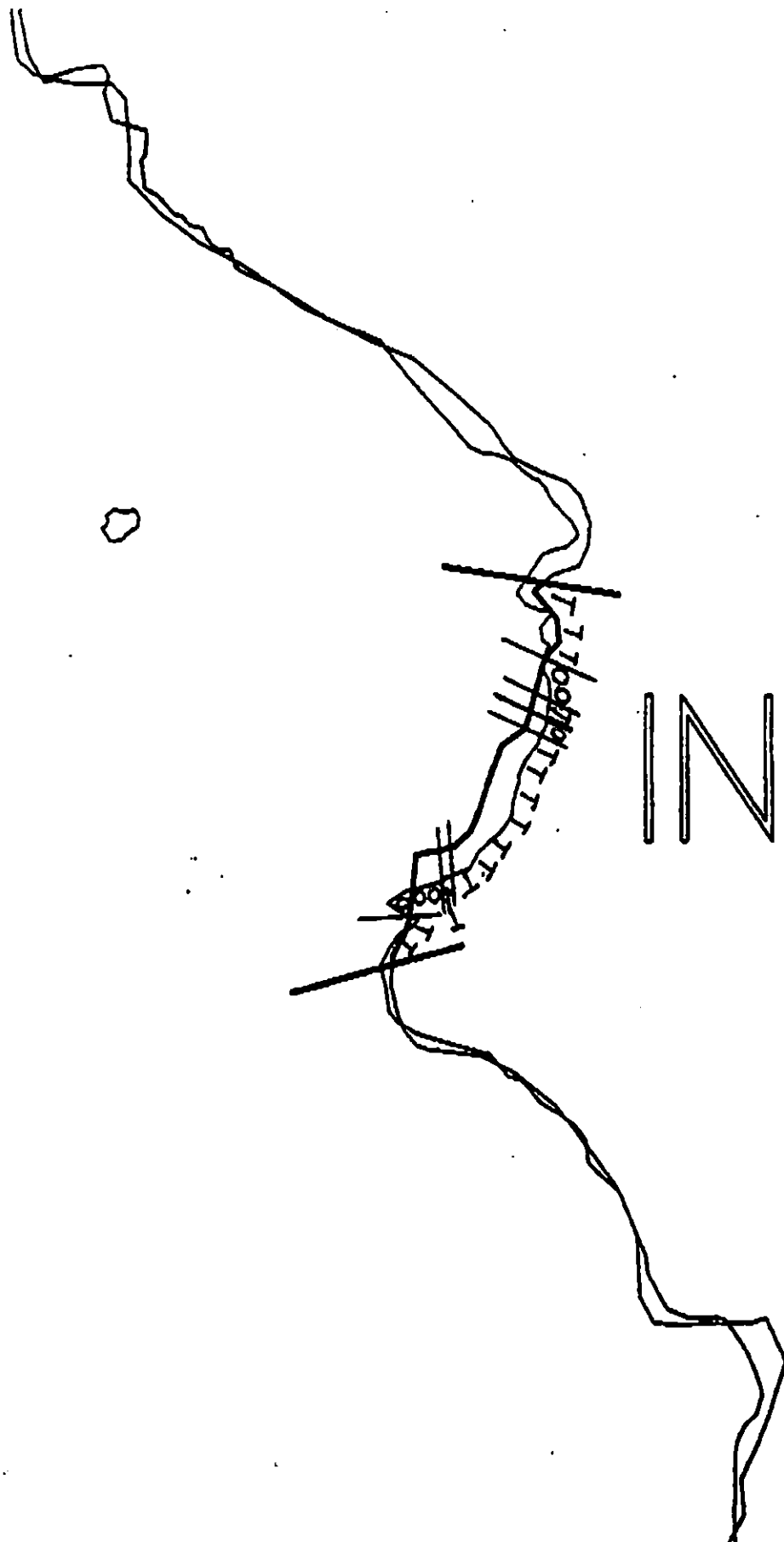
Sea stars were strikingly abundant in the low zone along this shore, ~~at~~ with *Pycnopodia*, *Pennasteres*, *Solaster* being most abundant. Densities reached 8/m² in some areas. Algal cover in the low zone was dense, with *Ulva* covering the middle to low zone in some sites. *Ocanthalia*, *Ptilota*, *Membranoptera*, and *Palmaria* cover nearly all the extreme low zone. Kelps are abundant in the subtidal.

2) COBBLE/PEBBLE BEACHES -

These beaches are exposed to moderate swell. Most of the kelp in the high to middle zones are killed, leaving only a cover of rapidly growing algae (filamentous greens) and some ~~in~~ Littorine snails. In the middle to low zone, larger cobble are densely covered w/ green algae, as well as sparse Fucus and other red algae. Littorines are moderate under & on these rocks. Beneath them, several species of intertidal fishes are abundant (pricklebacks, sculpins) @ ~ 5-10/m². Barnacles & mussels are rare.

B. Oil-Related Comments.

- 1) Oil cleanup is apparently very minor on this segment (see OG forms) and will have little impact on any ecological considerations. A bald eagle nest is located w/in 400 m of the segment.
- 2) Sea otters utilize one of the headlands as a haul out site (see OG map) and should not be disturbed or approached, if possible.



XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 N. 0:1

IN-29-A

Exxon Segment Length: 483m

ADEC Segment Length: 411m



Map Key: PWS-274

Name: C. DILLONDate: 4/24/90

Notes Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT IN-29 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation Manual Raking	WORK PRIOR TO 7/20

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1K	Purse Seine Hook-off	Closed to bioremediation and manual raking after 7/20. No constraint to manual pickup.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision A work site.
7II	Subsistence: Deer Harvesting	Closed to bioremediation and manual raking after 8/15. No constraint to manual pickup.

OTHER ECOLOGICAL CONSIDERATIONS

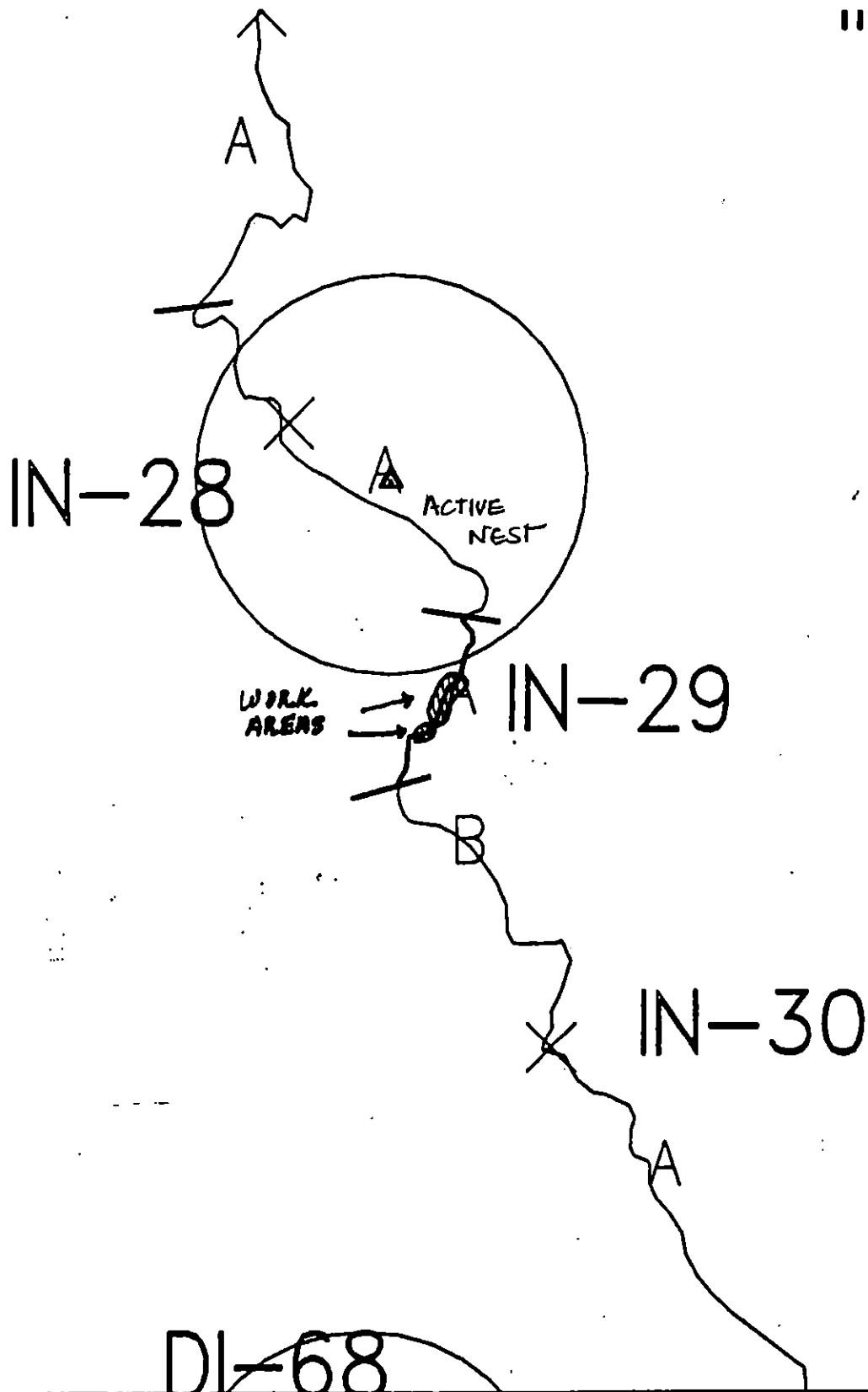
Restrict air traffic and all disturbance to essential minimum. No personnel or boat traffic within 400m of active nests. Air approach and takeoff from and to seaward only; maintain 400m horizontal, 300m vertical distance from active nests. Restrict boat and beach disturbance to essential minimum after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

FOSC

Date

Prepared by

Date



Exxon Company, USA
Map Key: PWS-IN-29
June 09, 1990



ECOLOGY MAP
SEGMENT IN-29
SUBDIVISION A (1 of 1)
METERS
0 337 673

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

1 inch = 1104 feet

SHORELINE EVALUATION

SEGMENT ST/ IN-29 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6Y Recreation: Special use destination
Note adjacent segment with bald eagle nest >400 m from subject segment.
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) or 229-1508 (24 hrs.)).

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

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 8 m: V.Light 274 m: No Oil 129 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

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: MANUAL PICKUP OF TAR PATCHES AS INDICATED ON SKETCH
MANUAL PICKING UP OF OIL SPILLS IN AREA OF TP 8 (SEVEN BEACH)
SEE CONSTRAINTS ADDENDUM dated 6/14/90 JPP

TAG COMMENTS:

TAG APPROVAL DATE: 5/1/90
ADEC ART WERNER
EXXON TIMOTHY TEAL
NOAA GARY POLLOCK
USCG KENNETH KEANE

FOSC: WJL DATE: 6-8-90

SHORELINE EVALUATION

SEGMENT ST/ IN-29 SUBDIVISION A (1 OF 1) DATE 4/24/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6Y Recreation: Special use destination

Note adjacent segment with bald eagle nest >400 m from subject segment.
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Rachel Lynn Darr DATE: 6/1/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 8 m: V.Light 274 m: No Oil 129 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

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)

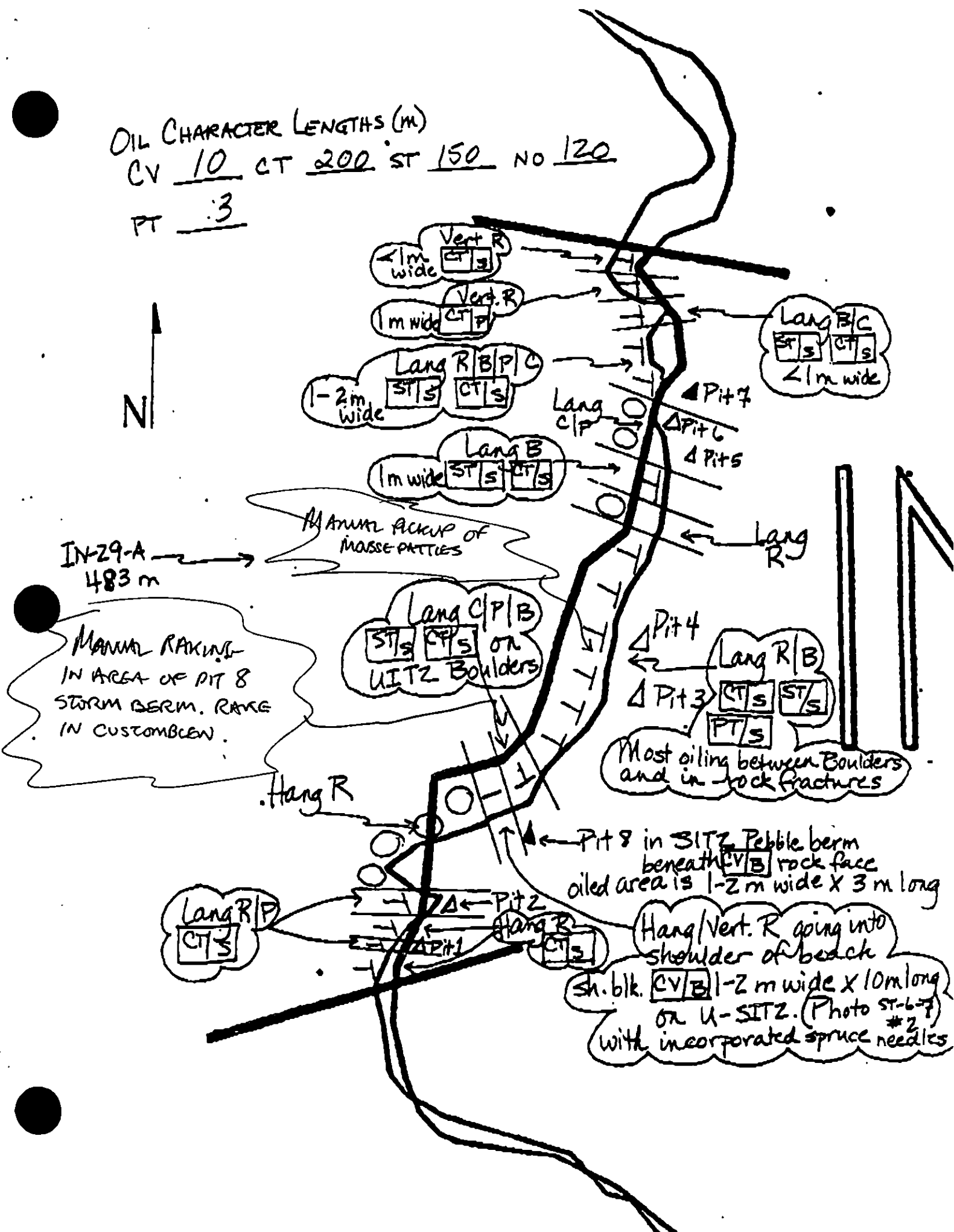
COMMENTS: MANUAL PICKUP OF TAR PATCHES AS INDICATED ON SKETCH
MANUAL PICKING UP OF CUSTODIAN IN AREA OF TP 8 (STORM BERM)

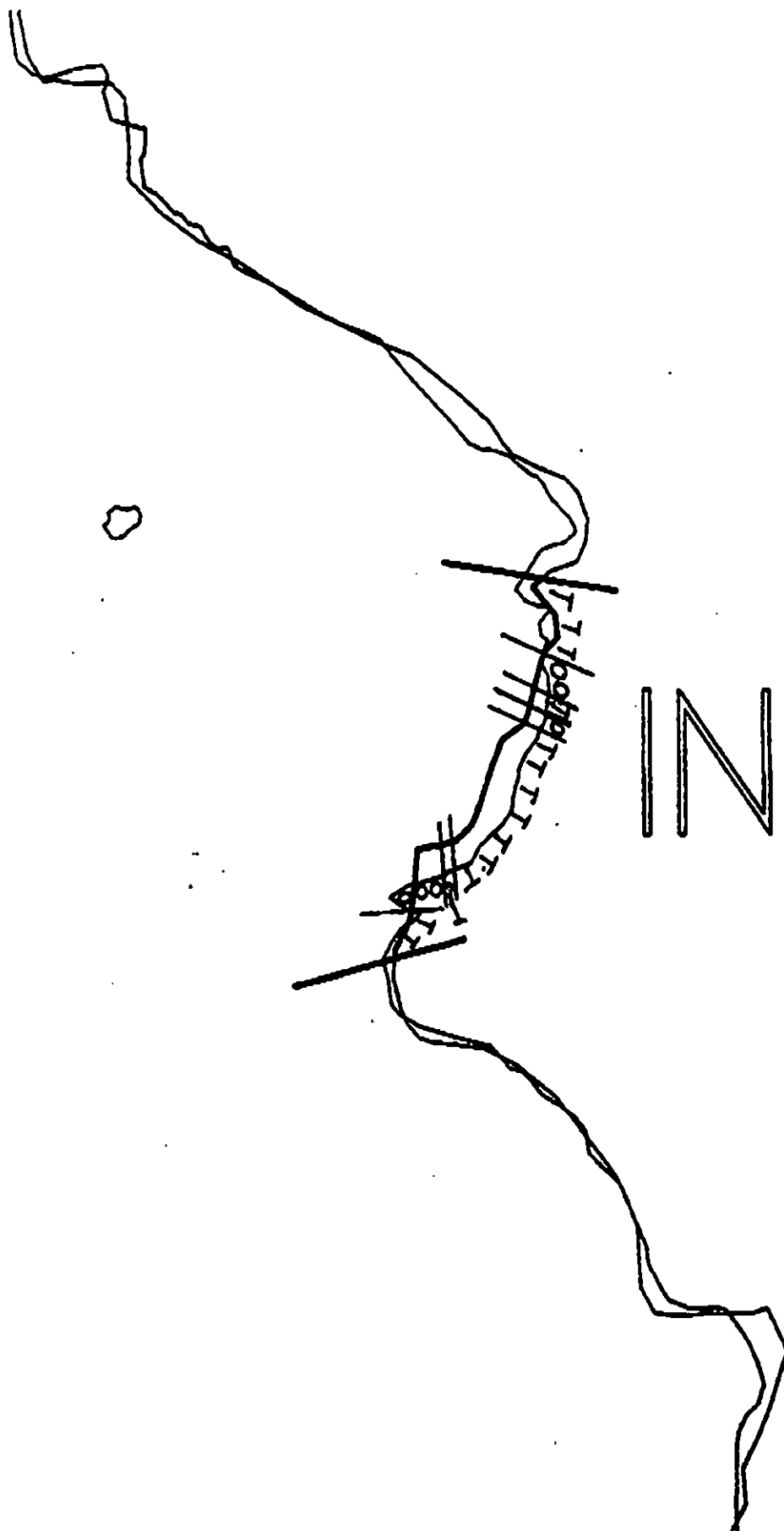
TAG COMMENTS:

TAG APPROVAL DATE: 5/1/90
ADEC ART WENGER Det. Williams
EXXON ANDY TEAL
NOAA GARY PETERSON
USCG KENNETH KEANE

FOSC: W L DATE: 6-8-90

OIL CHARACTER LENGTHS (m)

CV 10 CT 200 ST 150 NO 120PT 3



IN-29

IN

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

IN-29-A

EXXON SEGMENT LENGTH: 483m

ADEC Segment Length: 411m



Map Key: PWS-274

Name: C. DILLON

Date: 4/24/90

1991 MAYSAP EVALUATION

SEGMENT: IN 029 SUB: A REGION: PWS SURVEY DATE: 5/14/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN 29 SUBDIVISION A DATE 5/14 191

ADEC

NAME Peter MontesanoSIGNATURE [Signature]

☐ NTR ☐ TREATMENT RECOMMENDED

PIT #1 was in location of heaviest concentration of oil for ASAP and SSAT. The Remaining ms/SOR/AP (mapped as SOR) is barely retrievable around Boulders. The USCG Rep. never left the shift for the Southern 3/4 missing areas A,B,C,D.

EXXON

NAME C.M. KatsimpralisSIGNATURE C.M. Katsimpralis

☒ NTR OG & BIO REPORTS ARE ACCURATE. MOST OF THIS SHORELINE RELIEVES HIGH ENERGY. GOOD TEAM EFFORT HERE!

LANDMANAGER

NAME DENNIS S. Kennedy OF USFSSIGNATURE D.S. Kennedy

☒ NTR

Small amounts of stain & core/coat found.
High energy beach - no need for future treatments.

USCG/NOAA DEBRA SIMCEK-BEATTY NOAA

NAME BRIAN P. ZENONE USCGSIGNATURE Brian P. Zenone

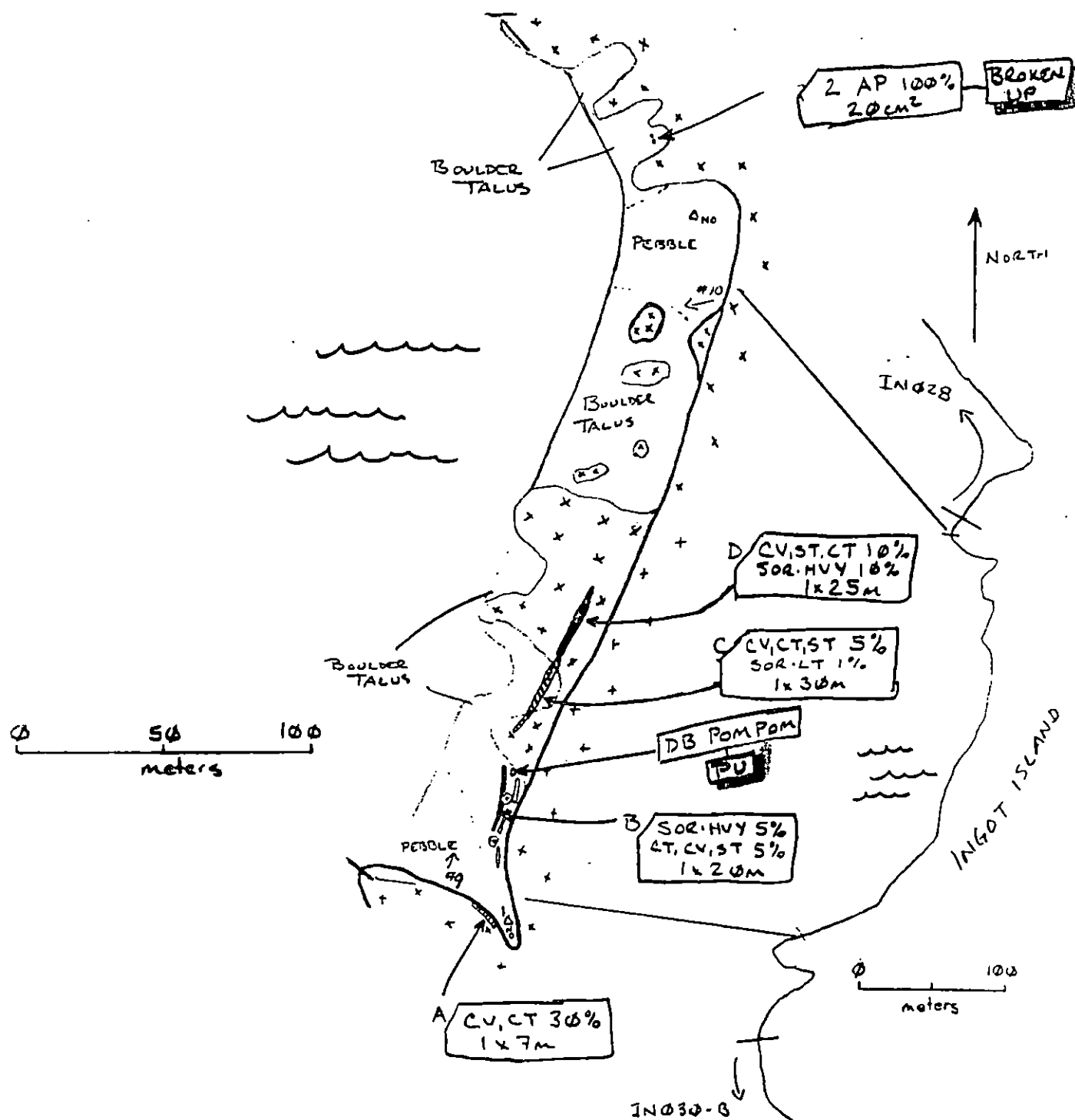
☒ NTR

Only very small amounts of surface oiling was observed on this segment. In general, most of the SOR occurred between the larger boulders and on high energy shoreline. OS-B

GG - Good Bio & OG Reports. No TREATMENT NECESSARY. 3.

reviewed 5.18.74
revised 5/19

CG SKETCH MAP
IN 029-A
14-MAY-91
0849-0929
BRYAN TRIMM



reviewed 5.18 91
revised 5/19

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 14 May 91
 SEGMENT # FN-29 TIDAL HEIGHT (Range) -3 to -1.5 ft
 SUBDIVISION A BIOLOGIST S.M. BAN
 SEA STATE Calm WIND SPEED/DIRECTION Calm
 PHOTOGRAPHS: ROLL # — FRAME # —

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

A: Oil is a band on rock face. *Urrharia* & mosses above oil on rocks. Rock face seaward of oil supports numerous egg laying *Nucula*. These egg cases should not be disturbed. *Tridacna* (red algae) dense below crevices along with *Fucus*.

B: SOR is high in ITZ - mosses and lichens are in this zone. Seaward the oil is a thick cover of *Urrharia*. Lower zones support *Dartia* etc. *Fucus*, and sparse *Littorinids* on the boulders. Pebble areas have no surface biota.

C & D: Oiled zones are high in ITZ with only lichen on boulders. *Urrharia* and other green algae in vicinity of oiled areas. Also sparse adult *Balanus*. The lower ITZ in this region has small *Fucus* recruits and recently settled *Balanus* spat.

E: Lichen in vicinity of oil. *Urrharia* immediately seaward. Lower zones support recent spat and *Littorinids*. Algae is dense and diverse at underline. *Ulva*, *Fucus*, *Halosaccaria*, *Tridacna*, *Laminaria* etc.

WILDLIFE OBSERVATIONS TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	Not in nest - did not move	①	sculpins #3
Seabirds			
Waterfowl			
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds			

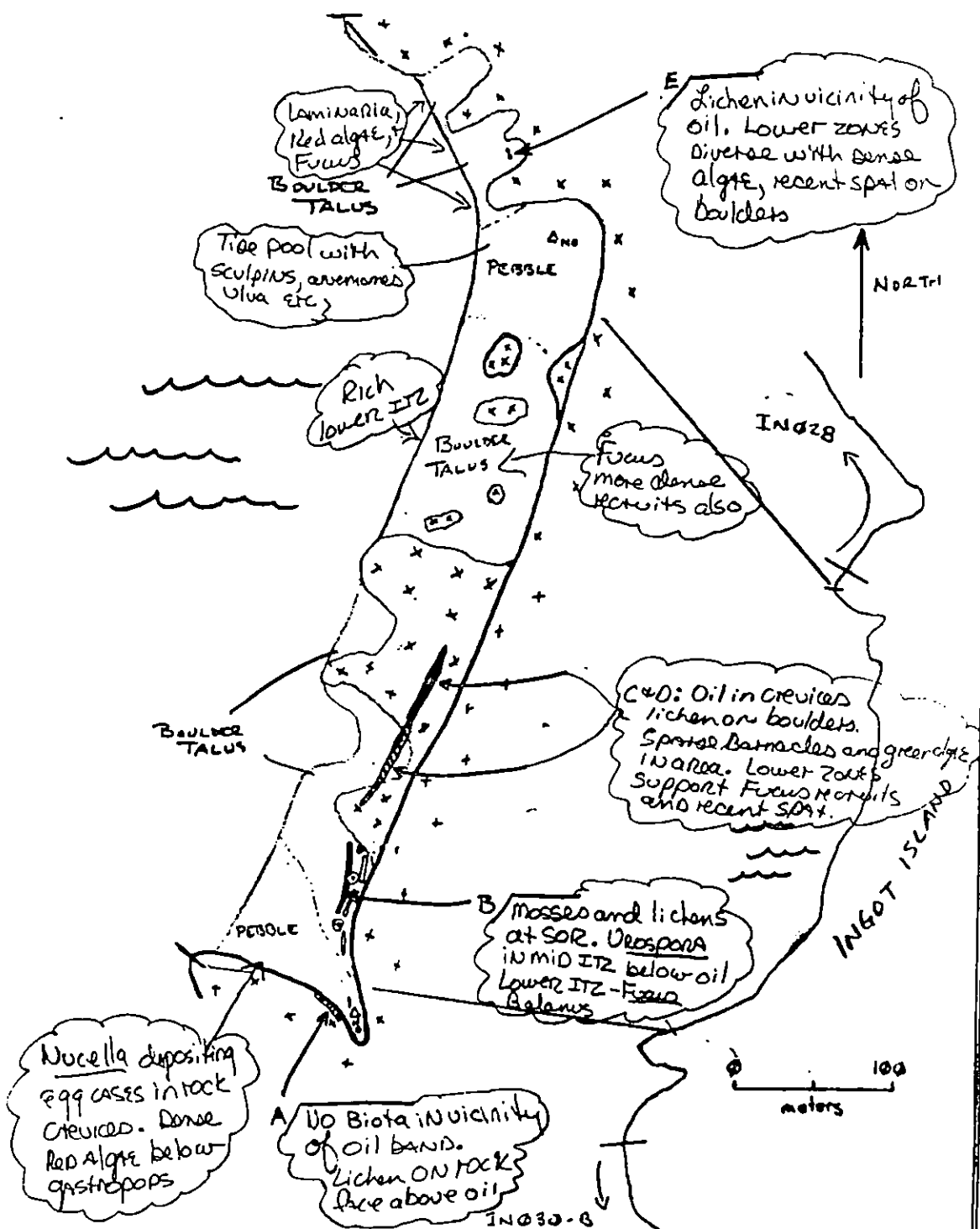
LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/18/91

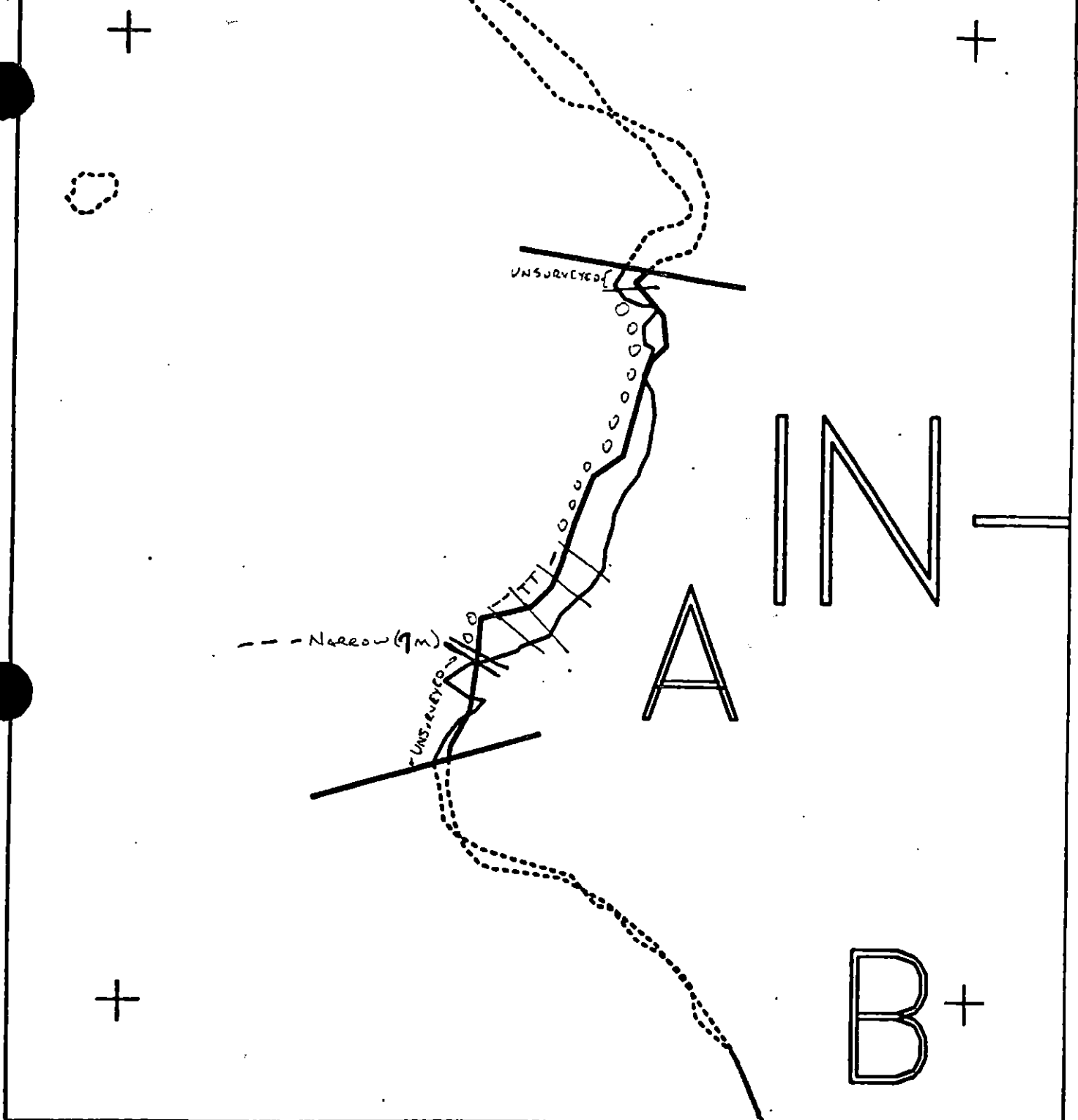
SKETCH MAP
IN 029-A
14-MAY-91
0849-0929



OMB

14 May 91

Reviewed M.B. 5/18



XXXX
////

TTTT
000

Wide
Medium
Narrow
Very Light
No Oil

IN029 A
ADEC Subsegment Length: 411m
METERS
AK State Plane Zone 4
610290

Subdivision Field Map
Map Key: KNIIN029A
Name: TRIMM
Date: 14 May-91
Date Entered:



— SURFACE OIL CATEGORY MAP —

revised 5.18 94
ES mwd 5/19

1991 MAYSAP EVALUATION

SEGMENT: IN 030 SUB: A REGION: PWS SURVEY DATE: 5/14/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

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.

TEAM NO. 2 SEGMENT IN30 SUBDIVISION A DATE 5/14/91

ADEC

NAME Peter Montasano

SIGNATURE

Peter Montasano

☒ NTR



TREATMENT RECOMMENDED

The oiling documented is either too light or too inaccessible to warrant treatment. The OR as documented by ASAP was unlocated.

EXXON

NAME

SIGNATURE



NTR

ON PAGE 2

MANAGER

NAME DENNIS S Kennedy OF USFS

SIGNATURE

D.S. Kennedy



NTR

Only small amounts of oil found, not treatable.

USCG/NOAA D. SINGCO - BOATY NOAA

NAME BMI M P ZENONE USCG

SIGNATURE

BMI M P ZENONE



NTR

As only trace amounts of oil were observed, no treatment is recommended. Do-B

CG- NO FURTHER TREATMENT RECOMMENDED

TEAM NO. 2 SEGMENT IN-030 SUBDIVISION A DATE 5/14/91

ADEC

NAME _____ SIGNATURE _____

☐ NTR

EXXON

NAME C. M. Katsunpalis SIGNATURE C. M. Katsunpalis

☒ NTR OIL CONCENTRATIONS DO NOT WARRANT TREATMENT.
MOSTLY COATS, COUR & STRAIN.

LANDMANAGER

ME _____ OF _____ SIGNATURE _____

☐ NTR

USCG/NOAA

NAME _____ SIGNATURE _____

☐ NTR

ADEC Peter Matesano

LANDMANAGER D. KENNEDY for USFS

SUBDIVISION A

EXON C. KATSIMPALIS

BRI ZENONE
USCG/NOAA D. SIMECEK - BEATTY

DATE MAY 14 191

TIME 09 : 34 to 11 : 21

TIDE LEVEL -1.23 ft. to 4.30 ft.

ENERGY LEVEL: ☒ H ☒ M ☐ L

SURVEYED FROM: ☒ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: 416 m

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

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 5 m VL 180 m NO 225 m US 940 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- 2 - 14 FRAMES 11-13

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	25							X	—	Y	—		X			PC-PC		
2	10							X	—	Y	—		X			CB-GSC		
3	20						X		—	Y	—	X				C-GPC	STAIN ON SURFACE	
4	12				X				5-12	Y	—		X			CPBG-GPC	V.LT LOR	
									-									
									-									
									-									
									-									
									-									

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

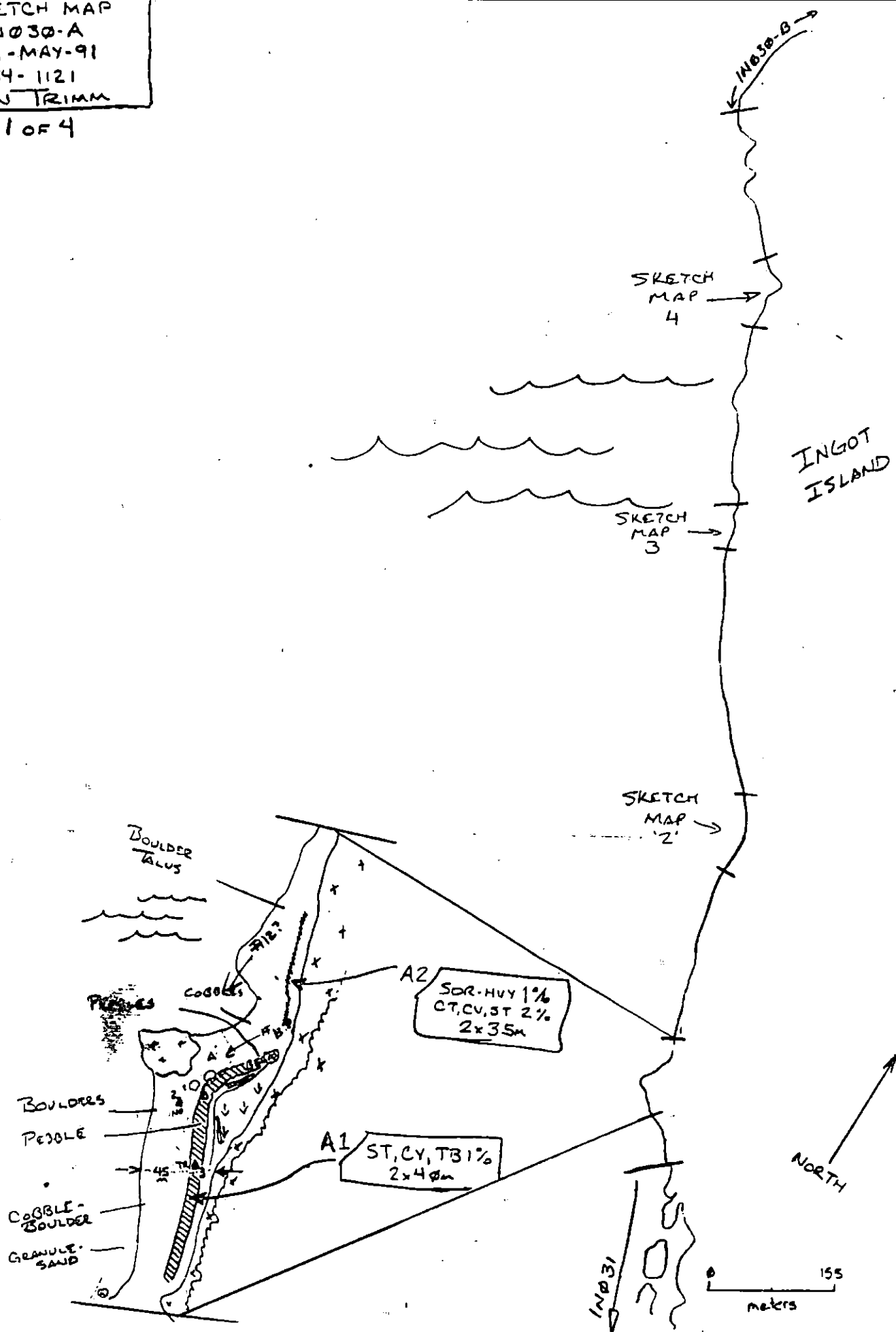
OG COMMENTS:

'SHORELINE IS COMPOSED OF BOULDER TALUS, HIGH ANGLED ROCK TO VERTICAL ROCK WITH SMALL POCKET BEACHES.

revised 5.21.94
REVIEWED: F.W. 5/22/94

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM

MAP 1 OF 4

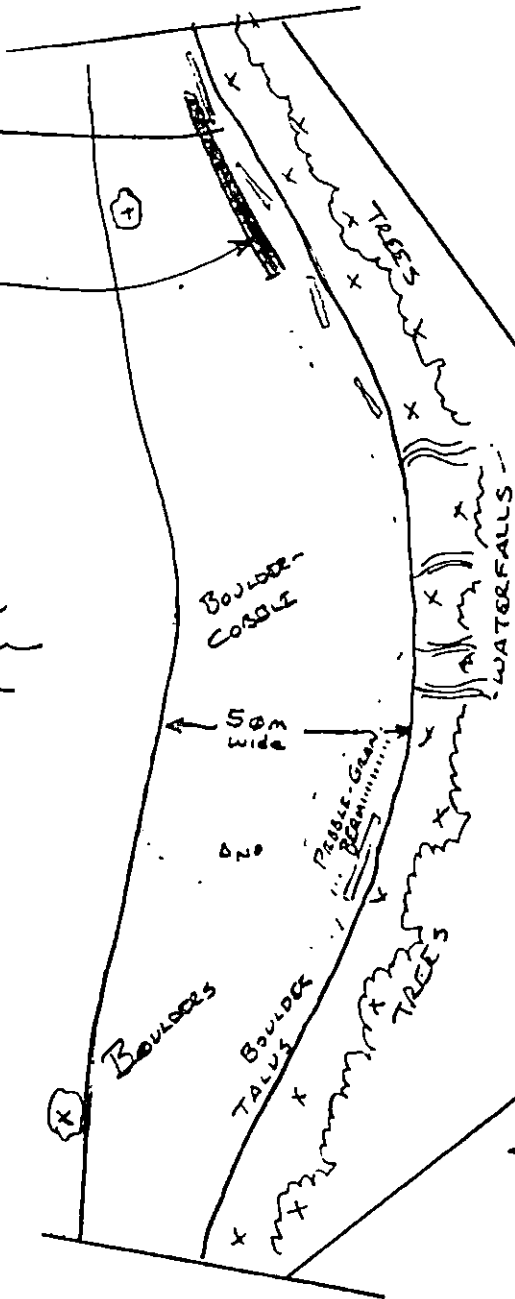


Reviewed S.21 GY
REVIEWED: R.W. 5/22/91

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM
MAP 2 OF 4

Boulder
Talus

B ST. CT < 1%
2 x 30m



SKETCH
MAP
4

SKETCH
MAP
3

SKETCH
MAP
1

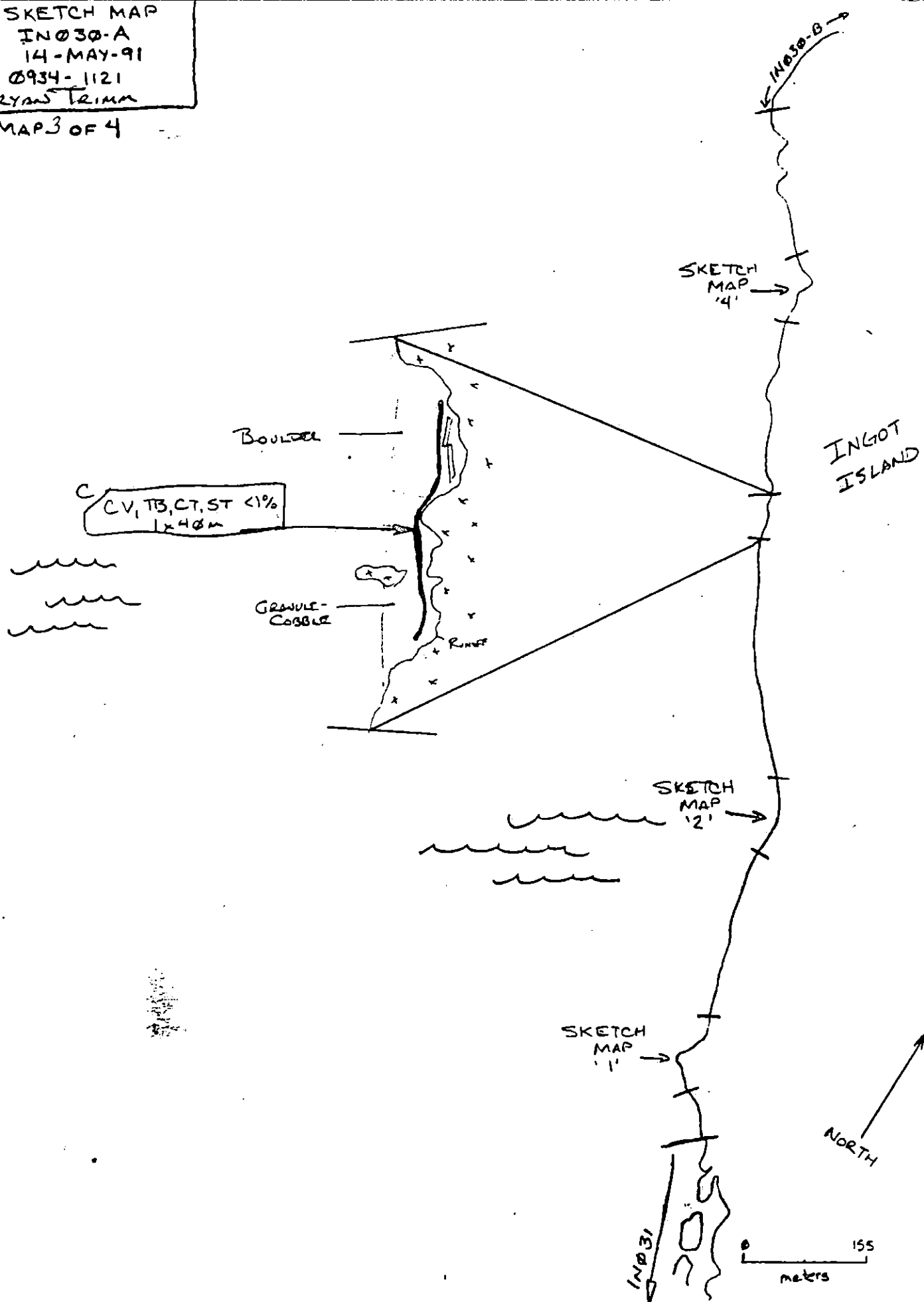
INGOT
ISLAND

NORTH

0 155
meters

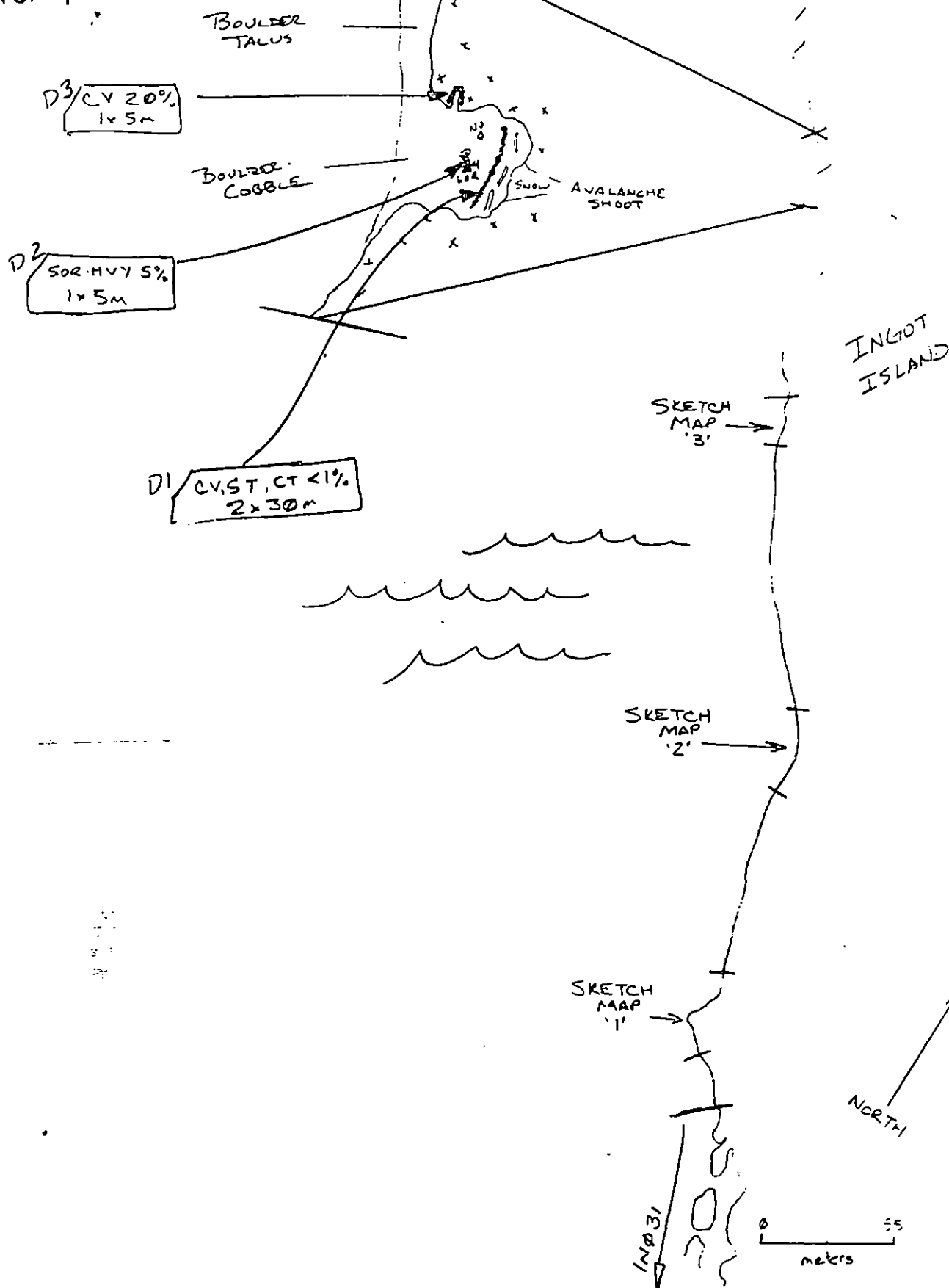
reviewed 5.21.94
REVIEWED: F.W. 5/22/91

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
Bryan Trim
MAP 3 OF 4



Reviewed S.21 94
REVIEWED: F.W. 5/22/91

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM
MAP 4 OF 4



reviewed S.29
REVIEWED: P.W. 5/22

TEAM # 2 DATE 14 May 91
 SEGMENT # IN 30 TIDAL HEIGHT (Range)
 SUBDIVISION A BIOLOGIST S M BAN
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: BOLL # FRAME #

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

- A1: Oil is high in ITZ - No intertidal biota was observed in oiled zone. Scattered Littorines and Fucus spore observed immediately seaward of lowest edge of oiled zone. Lowest intertidal algaes (united) support dense algal assemblage.
- A2: Oil found on rock face at back shore. No biota in vicinity of oil. Both recent and fall 1990 barnacle spot are high in the intertidal zone, immediately seaward of oiled zone.
- B: Oil coat and stain piecemeal in upper ITZ. Lichen observed on boulders, sparse and scattered barnacles and barnacle scars in lower edges of zone. Littorines and littorine egg masses observed seaward of oiled zone.
- C: In some areas, oil is found in lichen band, in other areas, barnacles are lower and barnacles and Fucus recruits are nearby. Oil does not extend into lower intertidal areas with dense Fucus littorines and limpets.
- D1: Lichen (Verrucaria) observed in oiled zone.
- D2: Green algae (Ulva) dense at Pit #4. Fucus recruits and recent barnacle spot observed seaward of Pit.
- D3: No biota in area of oil.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl	Pigeon guillemots	2	
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds	Sparrow, Crow	1 each	

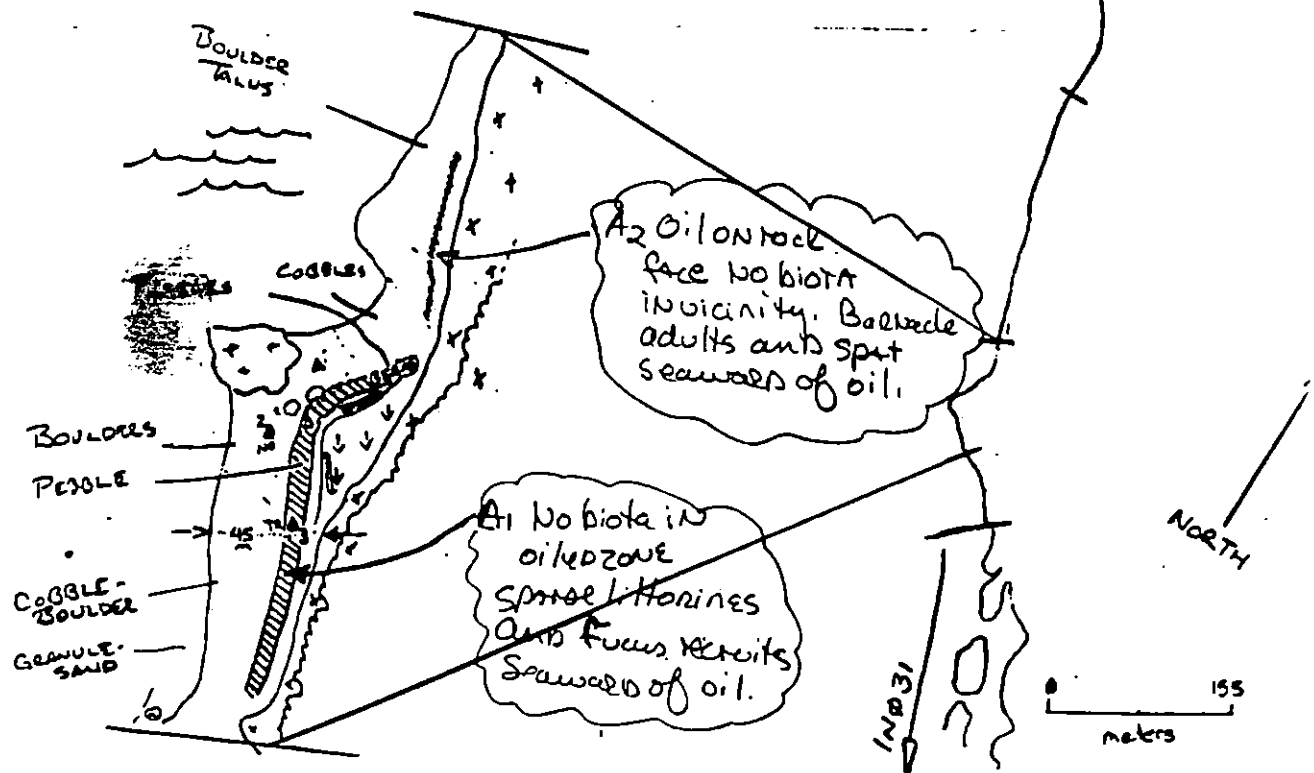
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			
Sealion	1		

Shoreline subdivision map showing important biological features attached.

SKETCH MAP
IN030-A
14-MAY-91
0934-1121

SMB 14 May 91

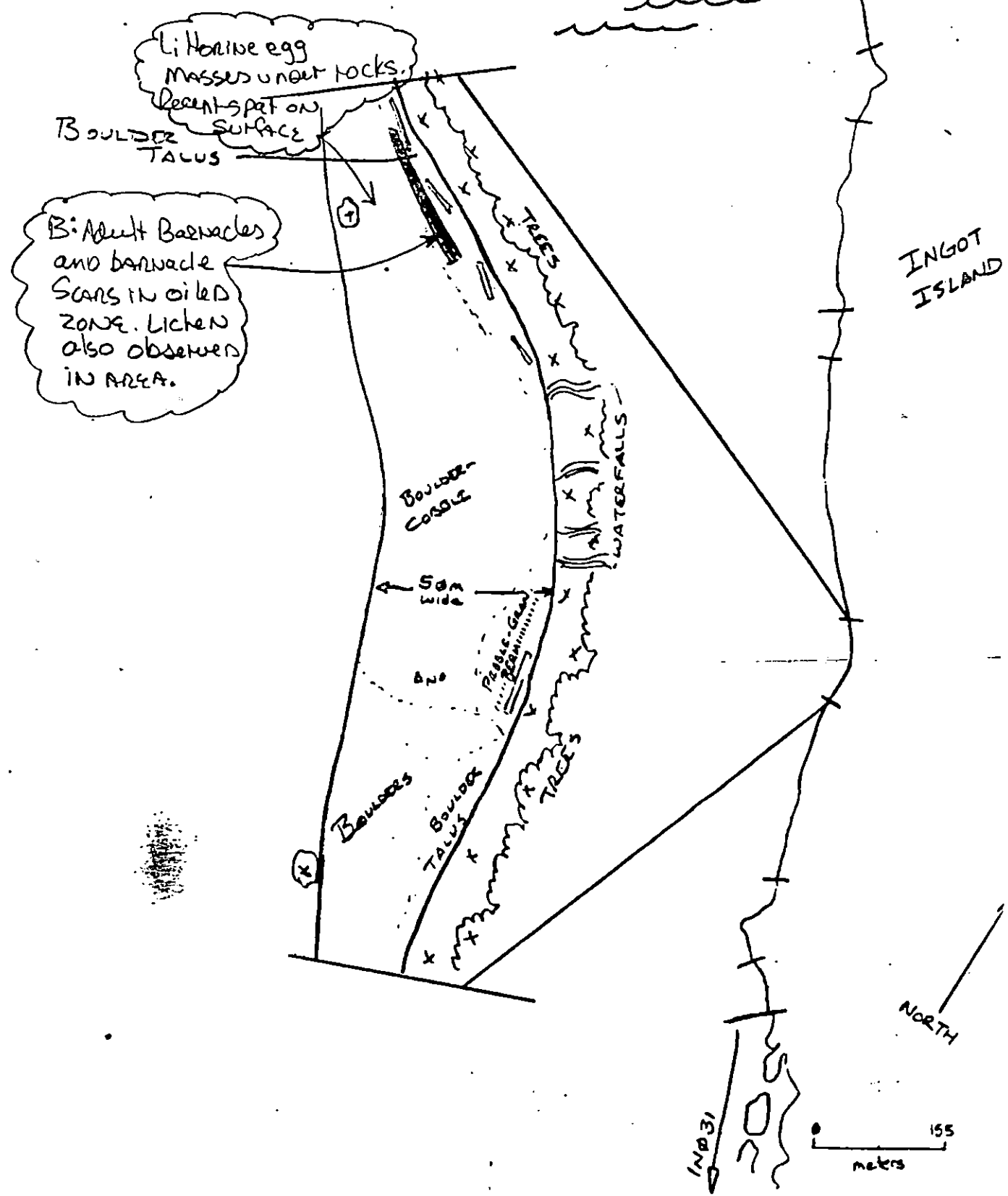
MAP 1 OF 4



SKETCH MAP
IN 030-A
14-MAY-91
0934-1121

SM 3 14 May 91

MAP 2 OF 4



SKETCH MAP
IN 030-A
14-MAY-91
0934-1121

SMB 14 May 91

MAP 3 OF 4

INGOT ISLAND

Q: oil is in a discontinuous band
present in the upper and
upper-mid ITZ.

Barrel
Sicken is found in high oiler
zones; barnacles
and focus spots
are found closer
in lower oiler
zones.

SKETCH
MAP
'4'

SKETCH
MAP
'2'

SKETCH
MAP
'1'

NORTH

155
meters

IN 031

SKETCH MAP
IN 030-A
14-MAY-91
0934-1101

SMB 14 May 91

MAP 4 OF 4

D3 No biote

BOULDER
TALUS

BOULDER
COBBLE

SNOW
AVALANCHE
SHOOT

D2 Dense green
algae in vicinity
of pit. Recent spot
near Focus spore
immediately seaward
of pit.

D1 Lichens in
oil zone. Limpets
under rocks seaward
of oil at south
end of sub-segment

SKETCH
MAP
'3'

INGOT
ISLAND

SKETCH
MAP
'2'

SKETCH
MAP
'1'

NORTH

0 155
meters

IN 031

IN-30

UNSURVEYED
V.L. (35m)
(5m) narrow

(40m)
A

(30m)
UNSURVEYED

A

IN-
B

+ DI-59

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

IN030 A
ADEC Subsegment Length: 1350m
METERS

AK State Place Zone 4
6100300

Subdivision Field Map
Map Key: KNIN030A
Name: Trim
Date: 14-May-91
Data Entered:



SURFACE OIL CATEGORY MAP

revised 5-21 94
REVIEWED F.W. 5/22/91

1991 MAYSAP EVALUATION

SEGMENT: IN 030 SUB: A REGION: PWS SURVEY DATE: 5/14/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

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

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

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE:

MAY 29 1991

FOSC APPROVAL DATE:

6/5/91

ADEC

FOSC

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN30 SUBDIVISION A DATE 5/14/91

ADEC

NAME

Peter Montesano

SIGNATURE

Peter Montesano☐ NTR

TREATMENT RECOMMENDED

The oiling documented is either too light or too inaccessible to warrant treatment. The OR as documented by ASAP was untreated.

EXXON

NAME

SIGNATURE



NTR

ON PAGE 2

MANAGER

NAME Dennis S Kennedy OF USFS

SIGNATURE

D.S. Kennedy☒ NTR

Only small amounts of oil found, not treatable.

USCG/NOAA D. SIMCEK - BEATTY NOAA

NAME Bruce P ZENONE USCG

SIGNATURE

Bruce P Zenone

NTR

As only trace amounts of oil were observed, no treatment is recommended. D-3

CG- NO FURTHER TREATMENT RECOMMENDED

NATURAL FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN-030 SUBDIVISION A DATE 5/14/91

ADEC

NAME _____ SIGNATURE _____

☐ NTR

EXXON

NAME C. M. Katsimpalis SIGNATURE C. M. Katsimpalis

☒ NTR OIL CONCENTRATIONS DO NOT WARRANT TREATMENT.
MOSTLY COATS, COVER & STAIN.

NDMANAGER

NAME _____ OF _____ SIGNATURE _____

☐ NTR

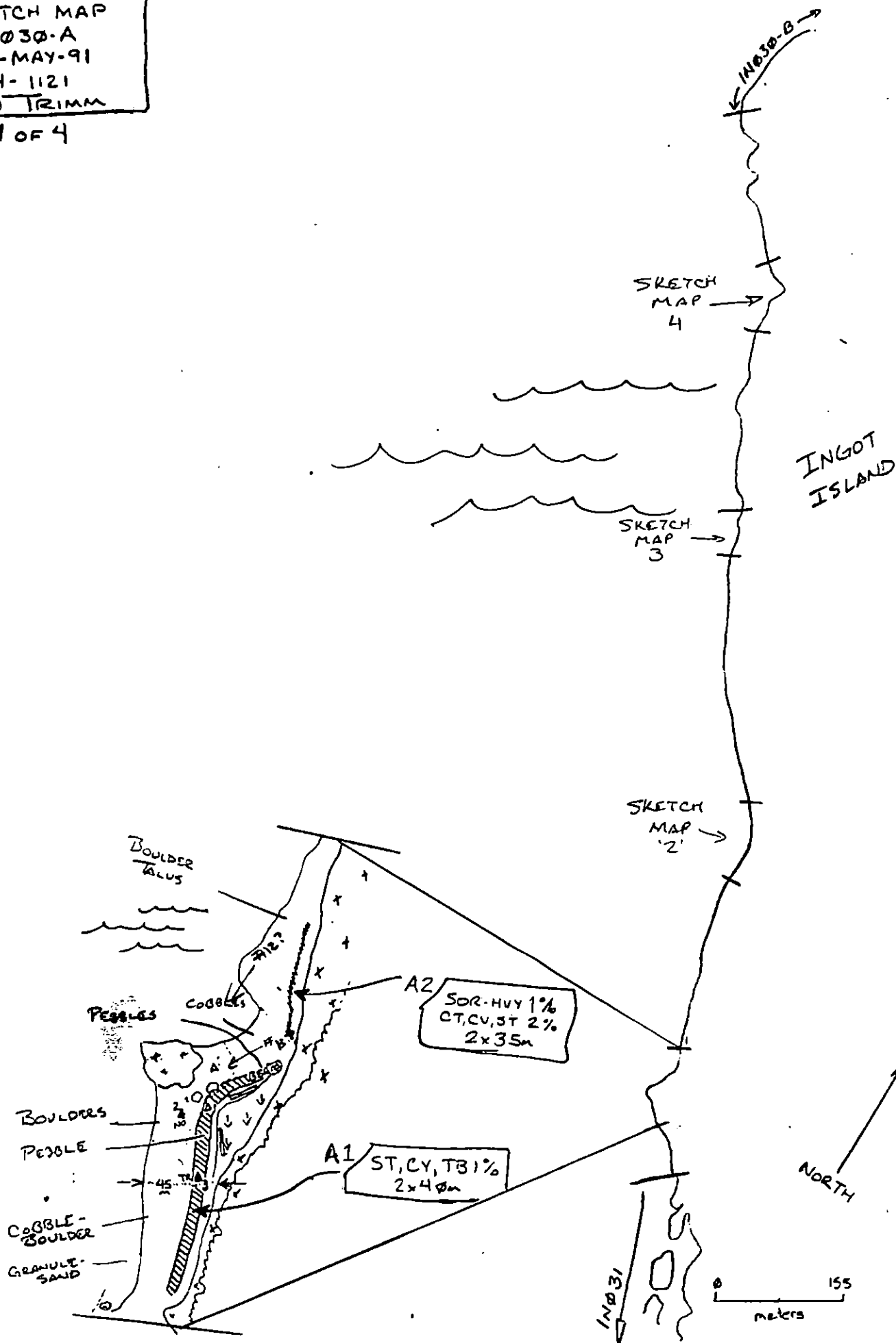
USCG/NOAA

NAME _____ SIGNATURE _____

☐ NTR

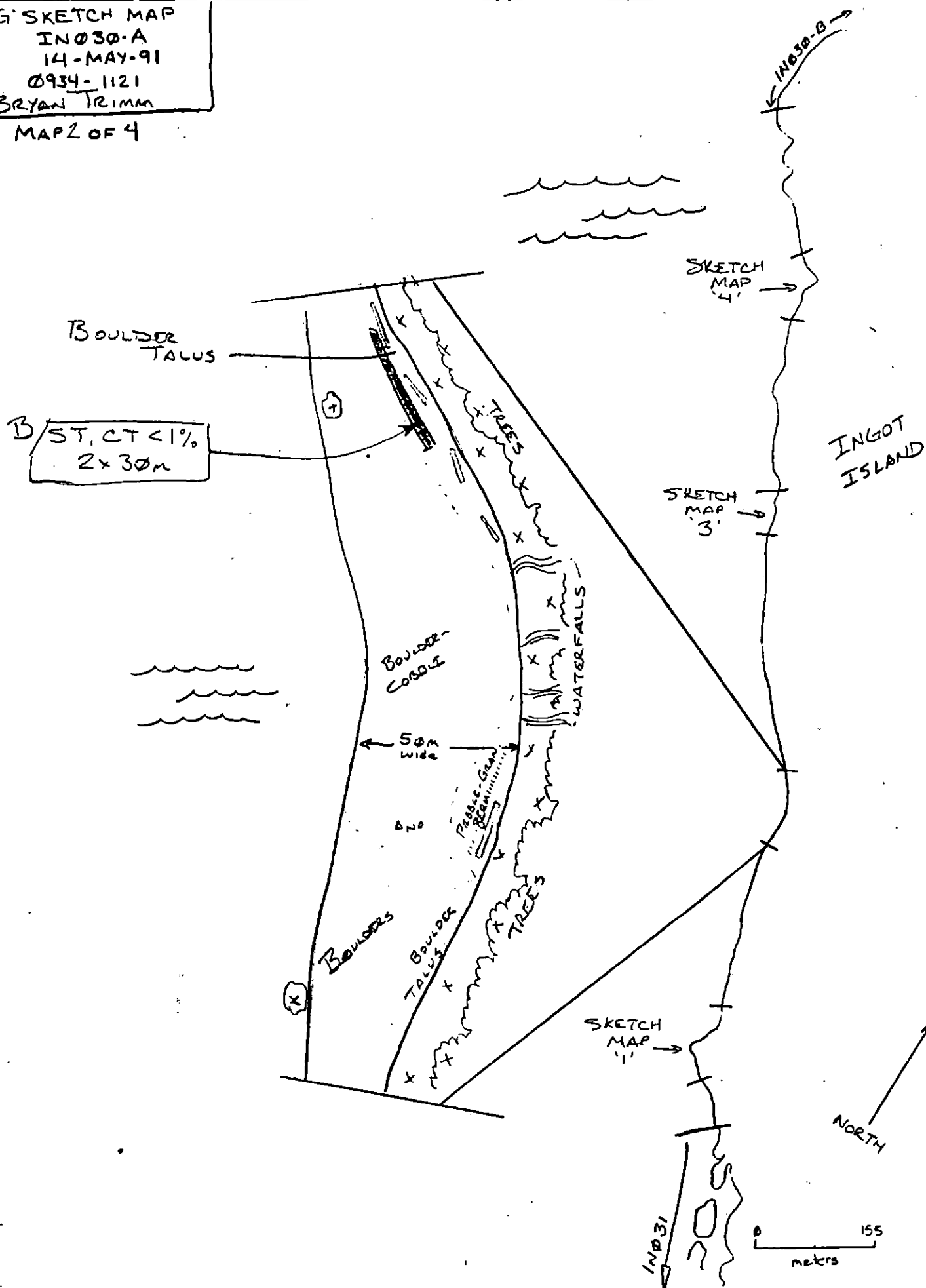
revised 5.21.94
Reviewed: F.W. 5/22/94

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM
MAP 1 OF 4



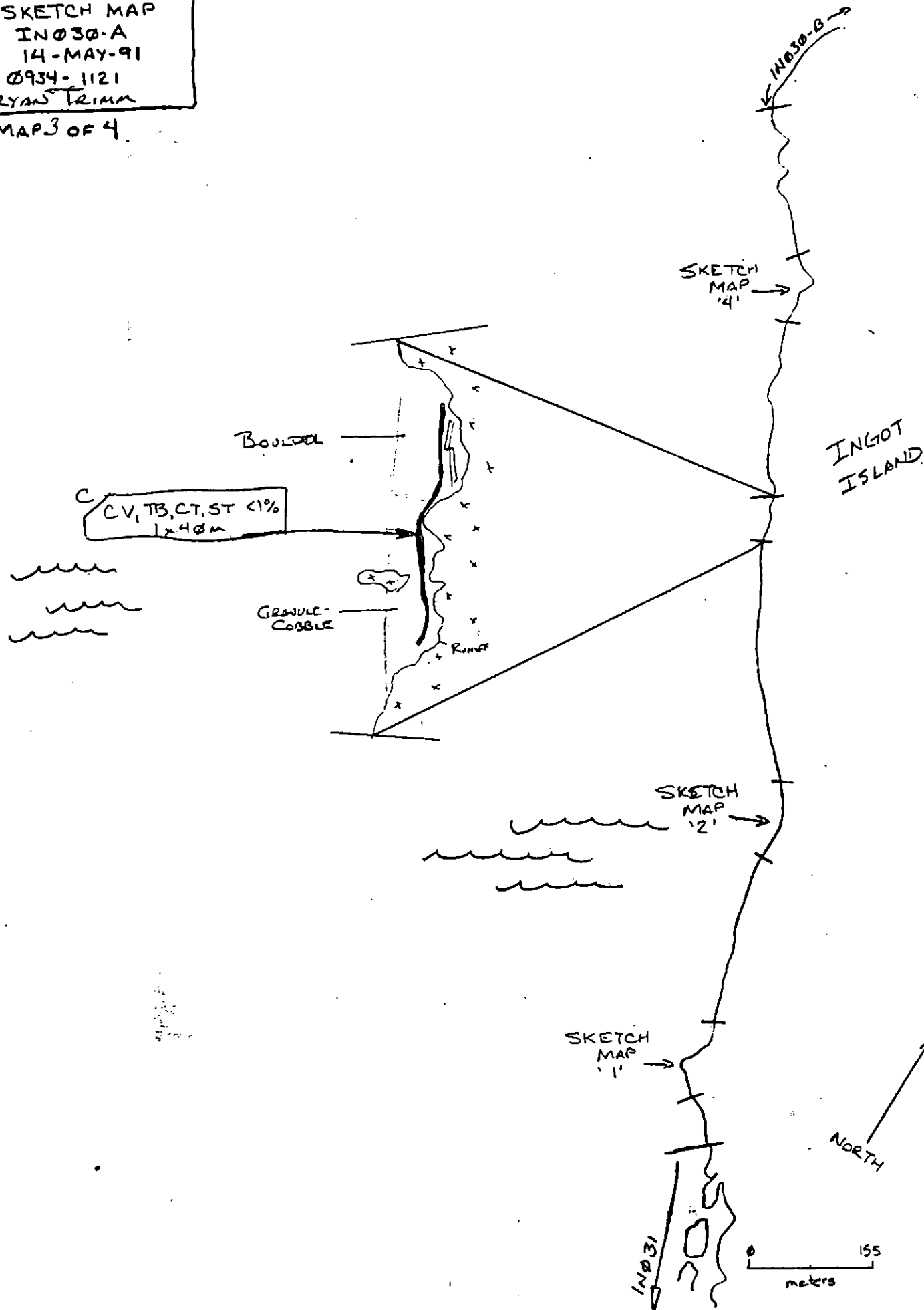
reviewed 5.21 94
REVIEWED: F.W. 5/22/91

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM
MAP 2 OF 4



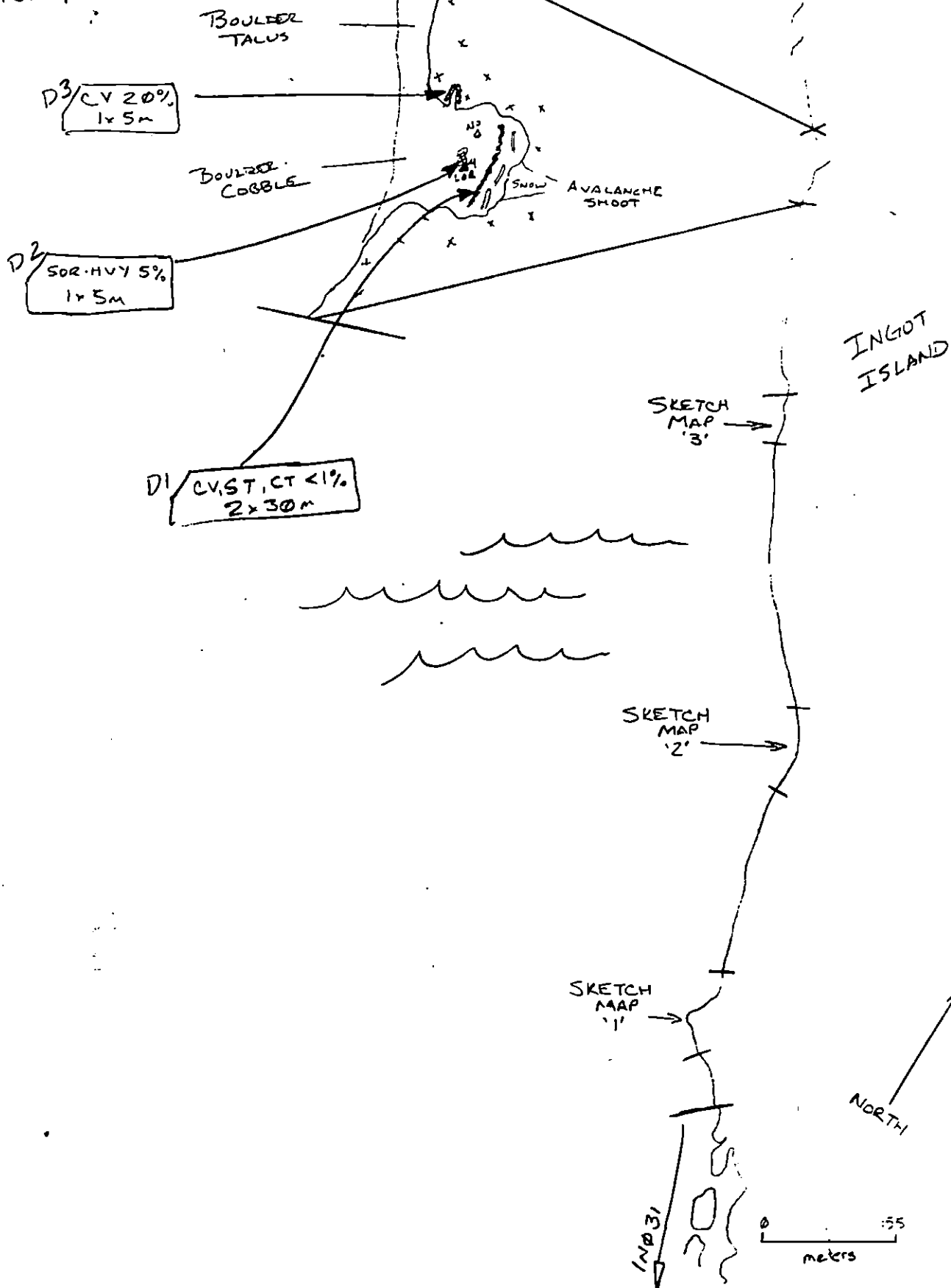
reviewed S.21.94
REVIEWED: F.W. 5/22/91

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM
MAP 3 OF 4



reviewed 5.21 gy
REVIEWED: F.W. 5/22/91

OG SKETCH MAP
IN 030-A
14-MAY-91
0934-1121
BRYAN TRIMM
MAP 4 OF 4



reviewed 5.2.94
REVIEWED: R.W. 5/22/94

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 **DATE** 14 May 91
SEGMENT # IN 30 **TIDAL HEIGHT (Range)**
SUBDIVISION A **BIOLOGIST** S M BAN
SEA STATE calm **WIND SPEED/DIRECTION** calm
PHOTOGRAPHS: ROLL # — **FRAME #** —

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

- A1: Oil is high in ITZ - No inter-tidal biota was observed in oiled zone. Scattered Littorines and Fucus spore observed immediately seaward of lowest edge of oiled zone. Lowest intertidal alga (united) support dense algal assemblage.
 A2: Oil found on rock face at back shore. No biota in vicinity of oil. Both recent and fall 1990 barnacle spot are high in the intertidal here, immediately seaward of oiled zone.
 B: Oil coat and stain piecemeal in upper ITZ. Lichen observed on boulders, sparse and scattered barnacles and barnacle scars in lower edges of zone. Littorines and littorine egg masses observed seaward of oiled zone.
 C: In some areas, oil is found in lichen band, in other areas, tar balls are lower and barnacles and Fucus recruits are nearby. Oil does not extend into lower intertidal areas with dense Fucus littorines and limpets.
 D1: Lichen (Verrucaria) observed in oiled zone.
 D2: Green Algae (Ulva sp.) dense at Pit #4. Fucus recruits and recent barnacle spot observed seaward of Pit.
 D3: No biota in area of oil.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles			
Seabirds			
Waterfowl	Pigeon guillemots	2	
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds	SParrow, Crow	1 each	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			
Sealion	1		

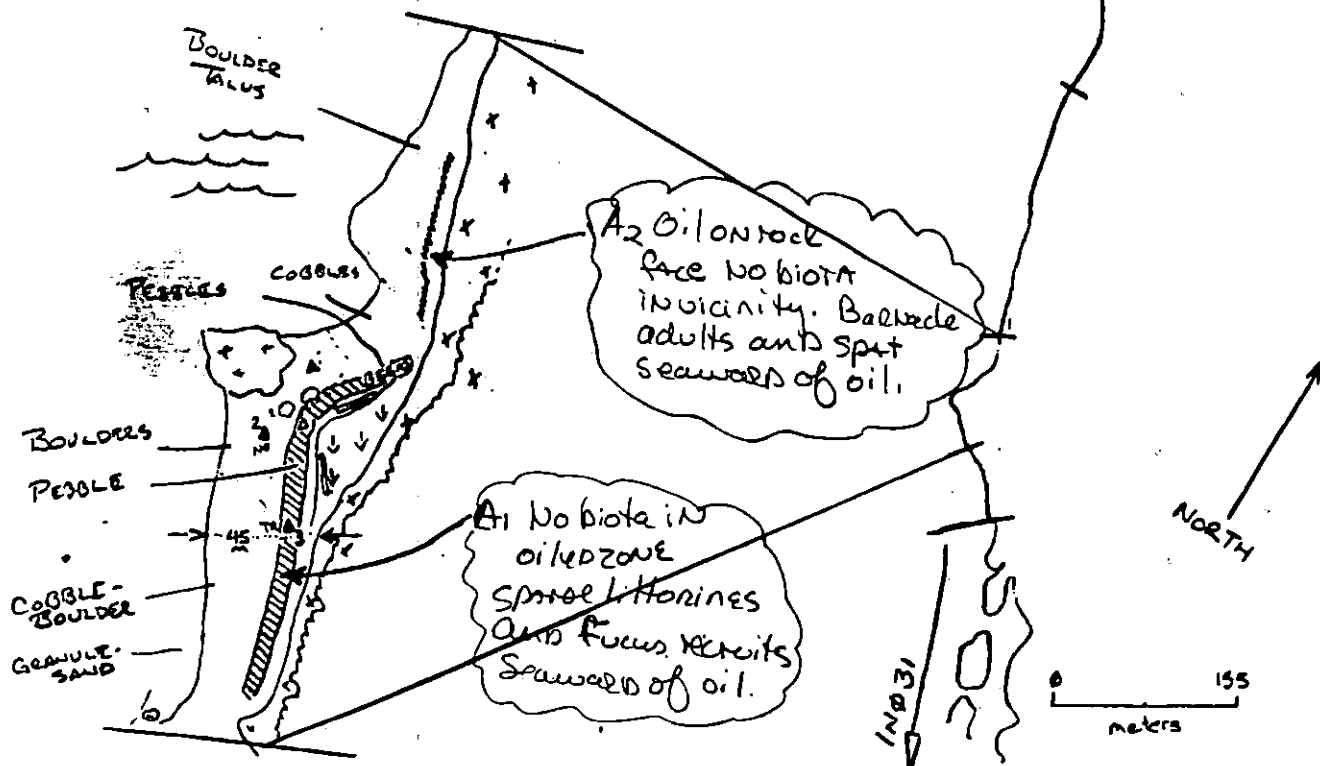
Shoreline subdivision map showing important biological features attached.

REVIEWED: F.W. 5/22/91
 Printed 5/31/91 PM

SKETCH MAP
IN030-A
14-MAY-91
0934-1121

SMB 14 May 91

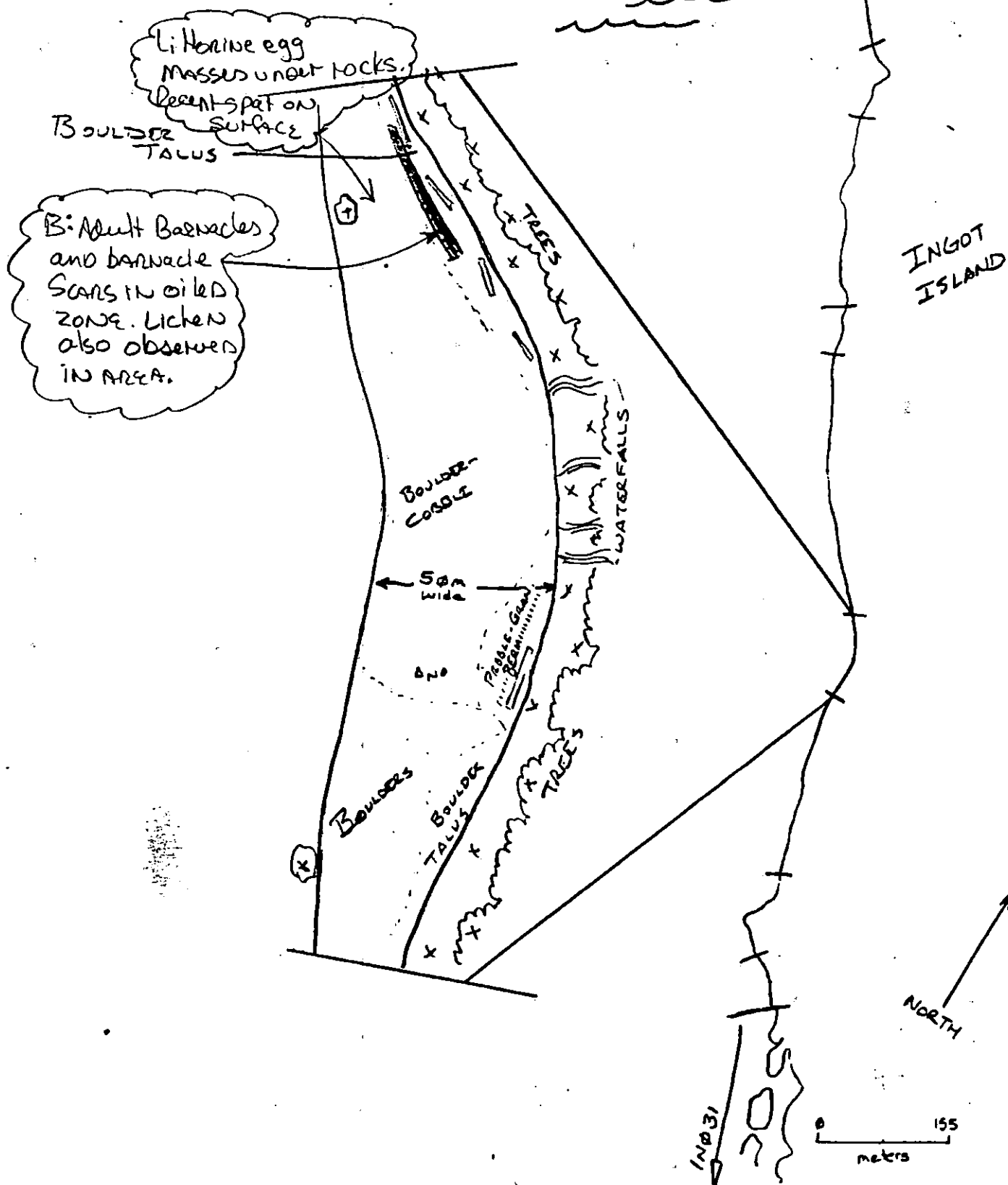
MAP 1 OF 4



SKETCH MAP
IN 030-A
14-MAY-91
0934-1121

SM3 14 May 91

MAP 2 OF 4



SKETCH MAP
IN 030-A
14-MAY-91
0934-1121

SMB 14 May 91

MAP 3 OF 4

INGOT
ISLAND

SKETCH
MAP
'4'

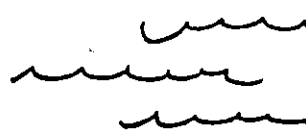
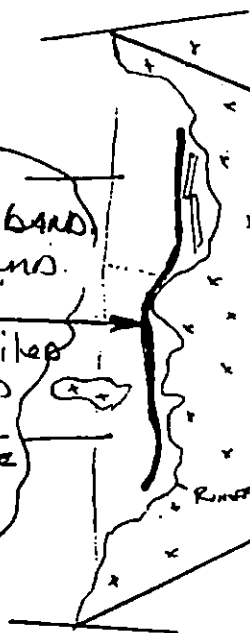
SKETCH
MAP
'12'

SKETCH
MAP
'1'

NORTH

155
meters

Border
Q: oil is in a discontinuous band
present in the upper and
upper-mid ITZ.
Sicken is found in high oiled
zones; barnacles
and focus spots
are found coarse
in lower oiled
zones.



SKETCH MAP
IN 030-A
14-MAY-91
0934-1121

SMB 14 May 91

MAP 4 OF 4

D3 No biof

BOULDER
TALUS

BOULDER
COBBLE

SNOW
AVALANCHE
SHOOT

D2 Dense green
algae in vicinity
of pit. Recent spilt
red Fucus spore
immediately seaward
of pit.

D1 Lichens in
oil zone. Limpets
under rocks seaward
of oil at south
end of sub-segment

SKETCH
MAP
'3'

SKETCH
MAP
'2'

SKETCH
MAP
'1'

INGOT
ISLAND

NORTH

0 155
meters

IN 031

IN-30

UNSUBERVED
V.L. (35m)
(5m) narrow

(40)
UNSUBERVED
A

(30m)
UNSUBERVED
A

A
DI-59

IN-
B

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

IN030 A
ADEC Subsegment Length: 1350m
METERS

0 200 400
AK State Plane Zone 6
61n030a



Subdivision Field Map
Map Key: KNIN030A
Name: Trim
Date: 14-May-91
Date Entered:

SURFACE OIL CATEGORY MAP

revised 5.21 QY
REVIEWED P.W. 5/22/91

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-50 SUBDIVISION B (2 of 3)

WORK WINDOW	
Tarmat Removal	OPEN
Bioremediation Spot Washing Other Approved Treatment	WORK 6/1 to 7/25

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	No constraint to tarmat removal; closed to bioremediation, spot washing, and other approved treatment prior to 6/1.
1K	Purse Seine Hook-off	No constraint to tarmat removal; closed to bioremediation, spot washing and other approved treatment after 7/25.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision B work site.
7II	Subsistence: Deer Harvesting	No constraint to tarmat removal; closed to bioremediation, spot washing, and other approved treatment after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to uncolled biota and substrate.

TAG APPROVAL DATE 6/04/90.

ADEC Ram Morris R. Morris

EXXON Amey TEAN Beal

NOAA Joseph Talbot J. Talbot

USCG G.A. KEITER G.A. Keiter

FOSC

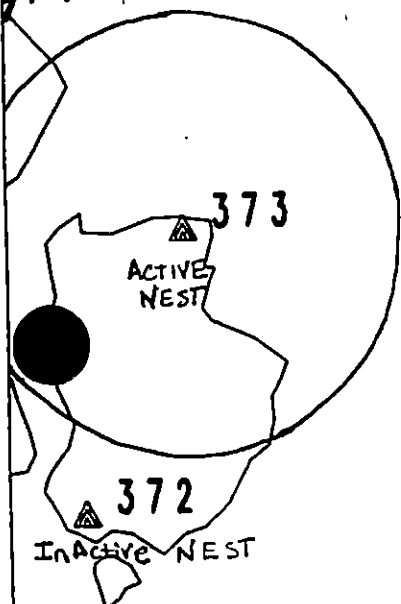
Date

Prepared by

Date

6/3/90

374

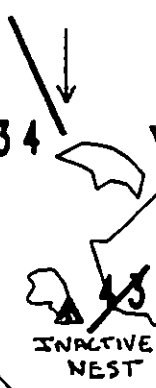


EV-51

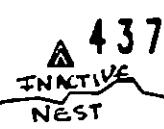
WORK
AREA



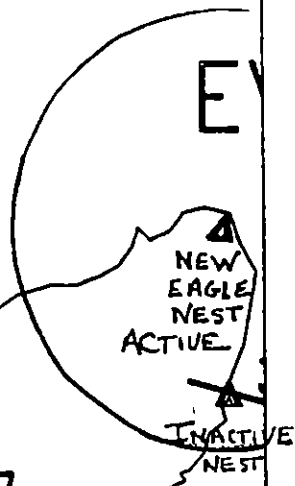
EV-54



EV-50



EV-52



ER-20

Incorporates USFWS eagle
nest survey data (6/1/90 map)



Exxon Company, USA
Map Key: PWS-EV-50
May 11, 1990



ECOLOGY MAP ^{6/3/90}
SEGMENT EV-50
SUBDIVISION B (2 of 3)



- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1203 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION B (2 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

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

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 Re-
source Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles Z. Adams DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 40 m: V. Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 8 cm

RECOMMENDATIONS:

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

COMMENTS: Spot wash area of cover using wands and absorbents.
Remove and remove tarmat. Bioremediate area of cover. Work after
6/1 based on constraints.

See Addendum dated 6/2/90 JPP

TAG COMMENTS: MONITORS TO ASSESS PRESENCE OF "TAR BLOB"
AS INDICATED ON SKETCH MAP FOR SUBDIVISION A

NOTE: FIELD COMMENTS SUGGEST COMBINING IT IS
FILLED OUT FOR A.B. & C. SUBDIVISIONS TOGETHER.

TAG APPROVAL DATE: 4/13/90

ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature] DATE: 4-20-90

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT EV-50 SUBDIVISION C (3 of 3)

WORK WINDOW

Bioremediation

WORK 6/1 TO 7/25

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

1F	Sawmill Bay Hatchery Release	Closed to bioremediation prior to 6/1.
1K	Purse Seine Hook-off	Closed to bioremediation after 7/25.
5T	Bald Eagle Nest	NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision C work site.
7II	Subsistence: Deer Harvesting	Closed to bioremediation after 8/15.

OTHER ECOLOGICAL CONSIDERATIONS

Restrict boat and air traffic to essential minimum after 7/25. Restrict beach disturbance to essential minimum after 8/15. Avoid any unnecessary disturbance or damage to uncollected biota and substrate.

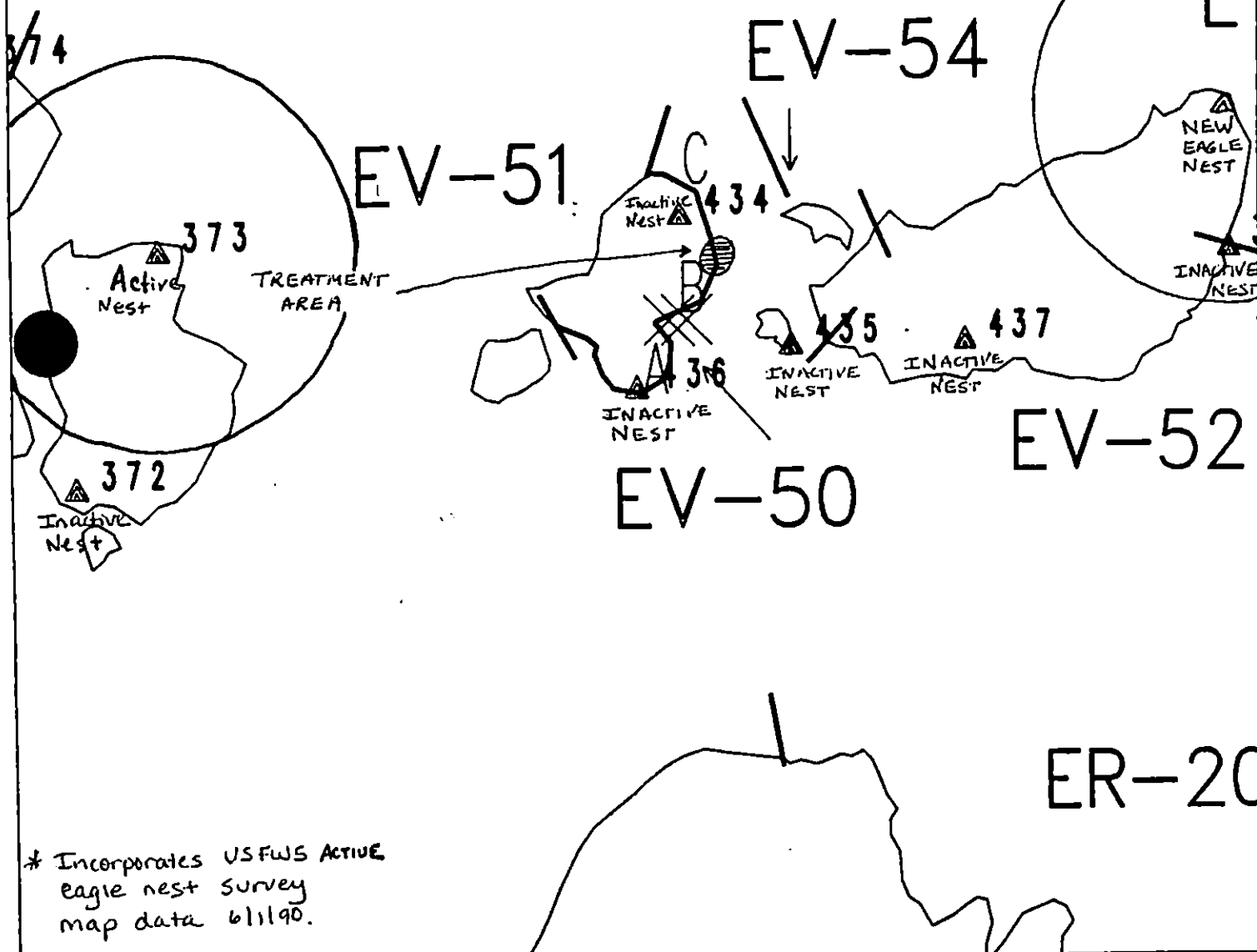
TAG APPROVAL DATE 6/04/90
ADEC Ray Mares R. Mares
EXXON Ann TSM Ann
NOAA Joseph Talbot Joseph
USCG W. J. BEITER W. J. Beiter

FOSC

DATE

Prepared By: Anda Meyer

Date 6/3/90



Exxon Company, USA
 Map Key: PMS-EV-50
 May 11, 1990



ECOLOGY MAP ^{4/3/90}
 SEGMENT EV-50
 SUBDIVISION C (3 of 3)
 METERS
 0 367 733

- ★ Seabird Colony
- ▲ Eagle Nest

1 inch = 1203 feet

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION C (3 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

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

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 Re-
source Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles E. Holmes DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 16 m: Medium 0 m: Narrow 296 m: V.Light 31 m: No Oil 70 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> </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 bioremediation of small area of surface cover.
Work after 6/1 based on constraints.

See Addendum dated 6/3/90 PP

TAG COMMENTS: FIELD COMMENTS SHEET FILLED OUT FOR A/B/C
SEE SKETCH MAP FOR ACTUAL LOCATION OF ASPHALT

TAG APPROVAL DATE: 4/13/90

ADEC John Bauer
EXXON ANDY BEN
NOAA Bull Weisheit
USCG G.A. HEITER

FOSC: DATE: 4-20-90

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION A (1 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

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

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

SHPO SIGNATURE: Charles E. Homan DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 138 m: V.Light 18 m: No Oil 359 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: NOTE: FIELD COMMENT SHEET WAS FILLED OUT FOR
ALL SUBDIVISIONS TOGETHER (A+B+C) SEE
SKETCH MAP FOR LOCATION OF TARMAT/HSARAT.

TAG APPROVAL DATE: 4/13/90

ADEC JOHN BAUER
EXXON ANDY TAYLOR FOSC: DATE: 4-20-90
NOAA Burt Wescott
USCG G.A. REITER

OG R. Marty

SEGMENT ST/ EV-50

SUBDIVISION

DATE 03/30/90

CHECKLIST

N Arrow
Approx. Scale
Geog. Sub. Brief
Oil Drill
Wharf
Length
% Cover
Substrate Character
Est. HML/ML
SSL
Profile Location(s)
Profile(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 ▲

Pit - No Substrates OK

2 ▲

Pit - Substrates OK

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Partial Distribution

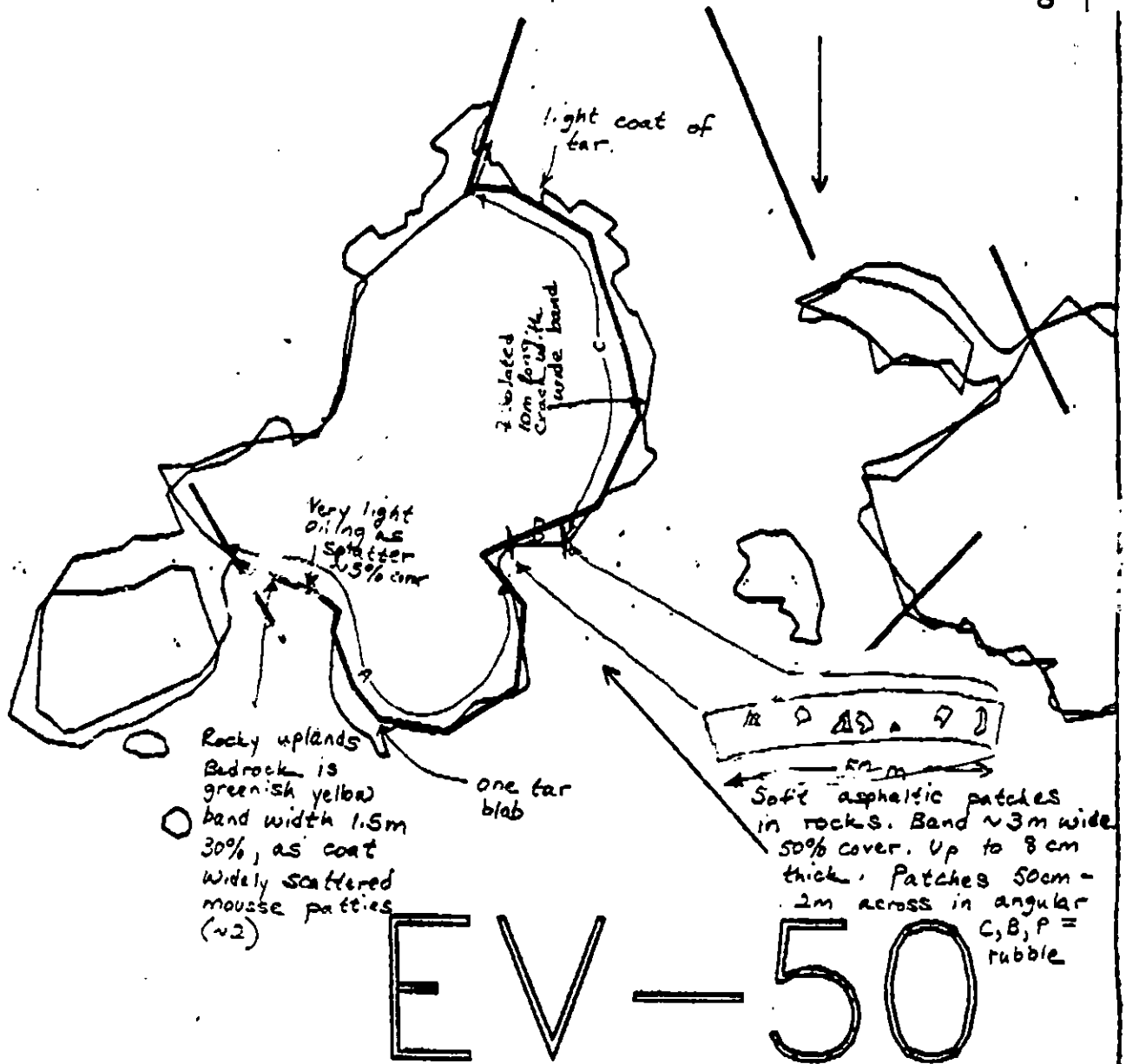
CT/S

Sparsely Distributed

Dead Vegetation

Photo location, direction,
and number

SKETCH MAP



EV-50

ADEC Segment Length: 1141m



Map Key: PWS-249

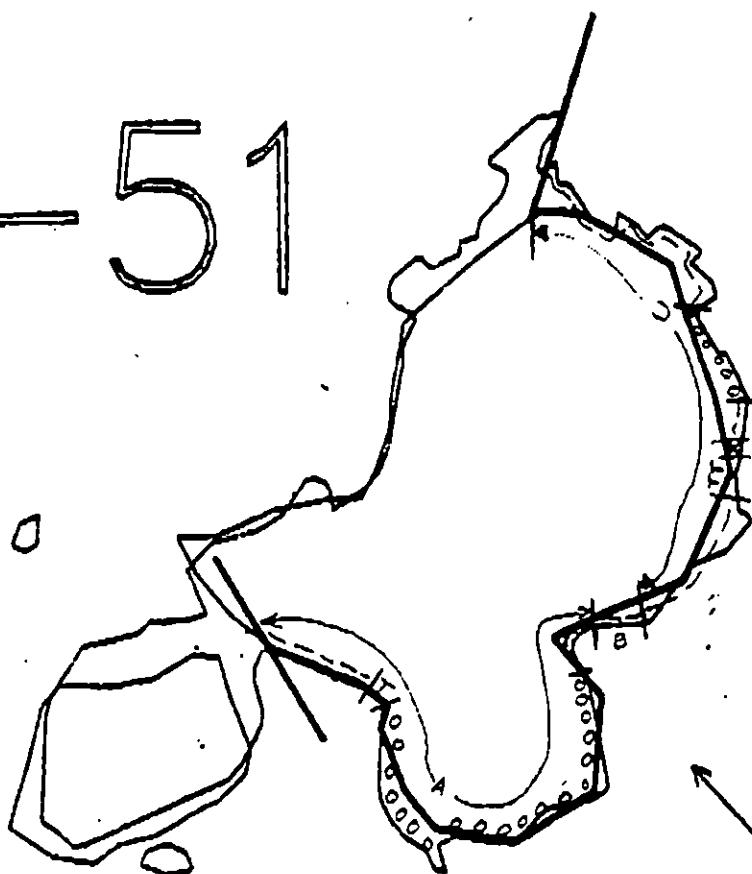
Name: Rich. Marty

Date: 03/30/90

Data Entered:

EV-

V-51



EXXON		MAP LENGTHS	
EV-50A			
Narrow	0.9	= 135	167
V. Light	0.15	= 22.5	28
No	1.8	= 270	334
EV-50B			
Narrow	0.2	= 30	37
EV-50C			
Wide	0.1	= 15	19
Narrow	2.4	= 360	445
V. Light	0.2	= 30	37
No	0.4	= 60	74
		<u>923</u>	<u>1141 m</u>

EV-50

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

EV-50

ADCC Segment Length: 1141m



Map Key: PWS-249
 Name: Richard Marty
 Date: 03/30/90
 Date Entered: 8

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION B (2 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

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

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 Re-
source Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles Z. Adams DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 40 m: V.Light 0 m: No Oil 0 m
Subsurface Oil Observed: Yes X No Maximum Depth 8 cm

RECOMMENDATIONS:

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

COMMENTS: Spot wash area of cover using wands and absorbents.
~~Breakup and~~ Remove tarmat. Bioremediate area of cover. Work after
6/1 based on constraints.

TAG COMMENTS: MONITORS TO ASSESS PRESENCE OF "TAR BLOB"
AS INDICATED ON SKETCH MAP FOR SUBDIVISION A.

NOTE: FIELD COMMENTS SUGGEST CONFUSING IT IS
FILLED OUT FOR AB + C SUBDIVISIONS TOGETHER.

TAG APPROVAL DATE: 4/13/90
ADEC [Signature]
EXXON ANDY BOK FOSC: [Signature] DATE: 4-20-90
NOAA Buyl Wesscott
USCG G.A. REITER

OG: R. Marty

SEGMENT ST/ EV-50

SUBDIVISION

DATE 03/30/90

CHECKLIST

N Area
Approx. Scale
Sagittal Band
Oil Dist
Width
Length
% Cover
Substrate Character
Est. HML/LWL
SSL
Profile Location(s)
Profile(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 A

Pit - No Subsurface Oil

2 A

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Pattern Distribution

CT/P

Patchy Distribution

CT/S

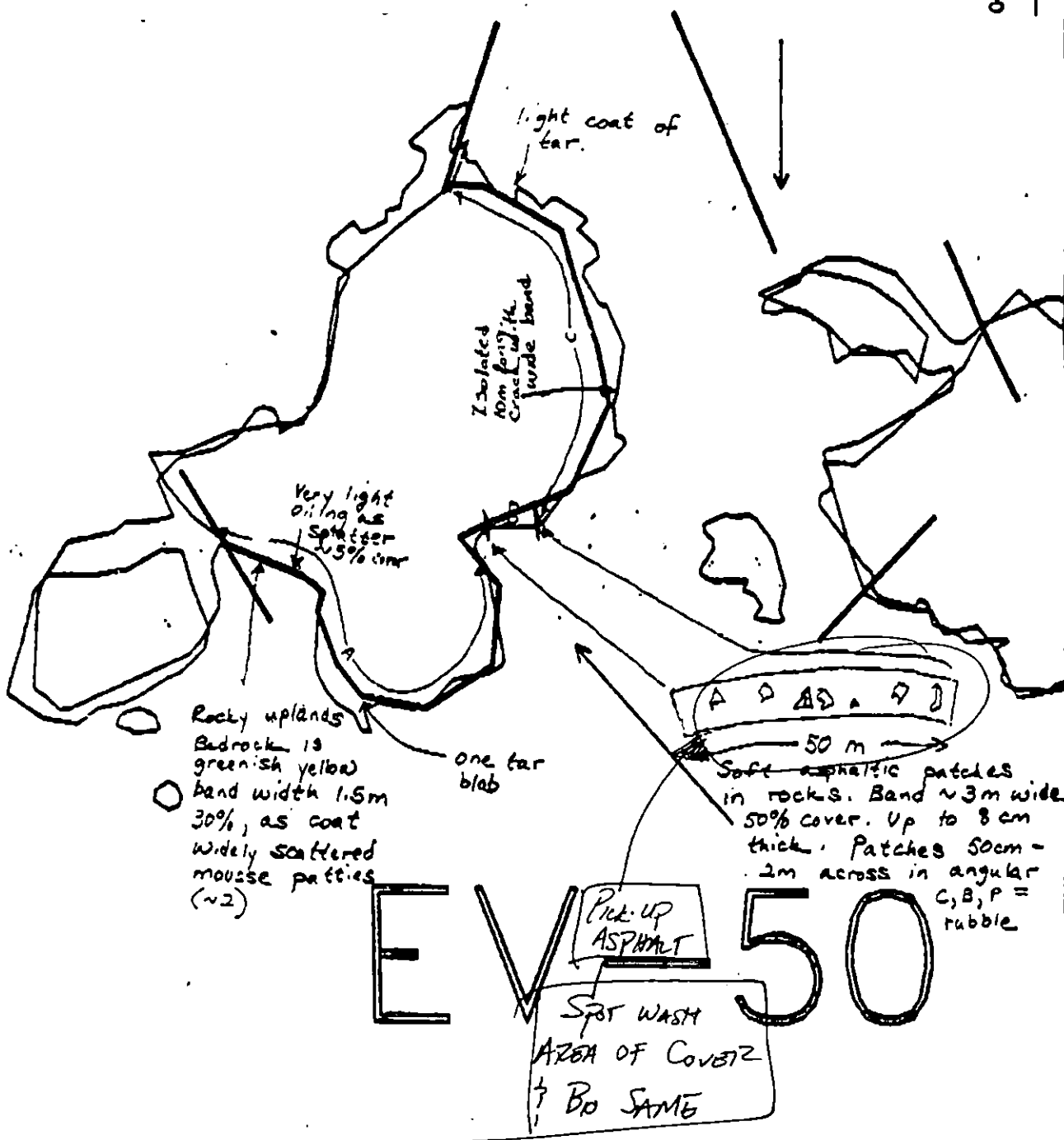
Splashed Distribution

Dead Vegetation

1

Photo location, direction,
and number

SKETCH MAP



EV-50

ADEC Segment Length: 1141m



Map Key: PWS-249

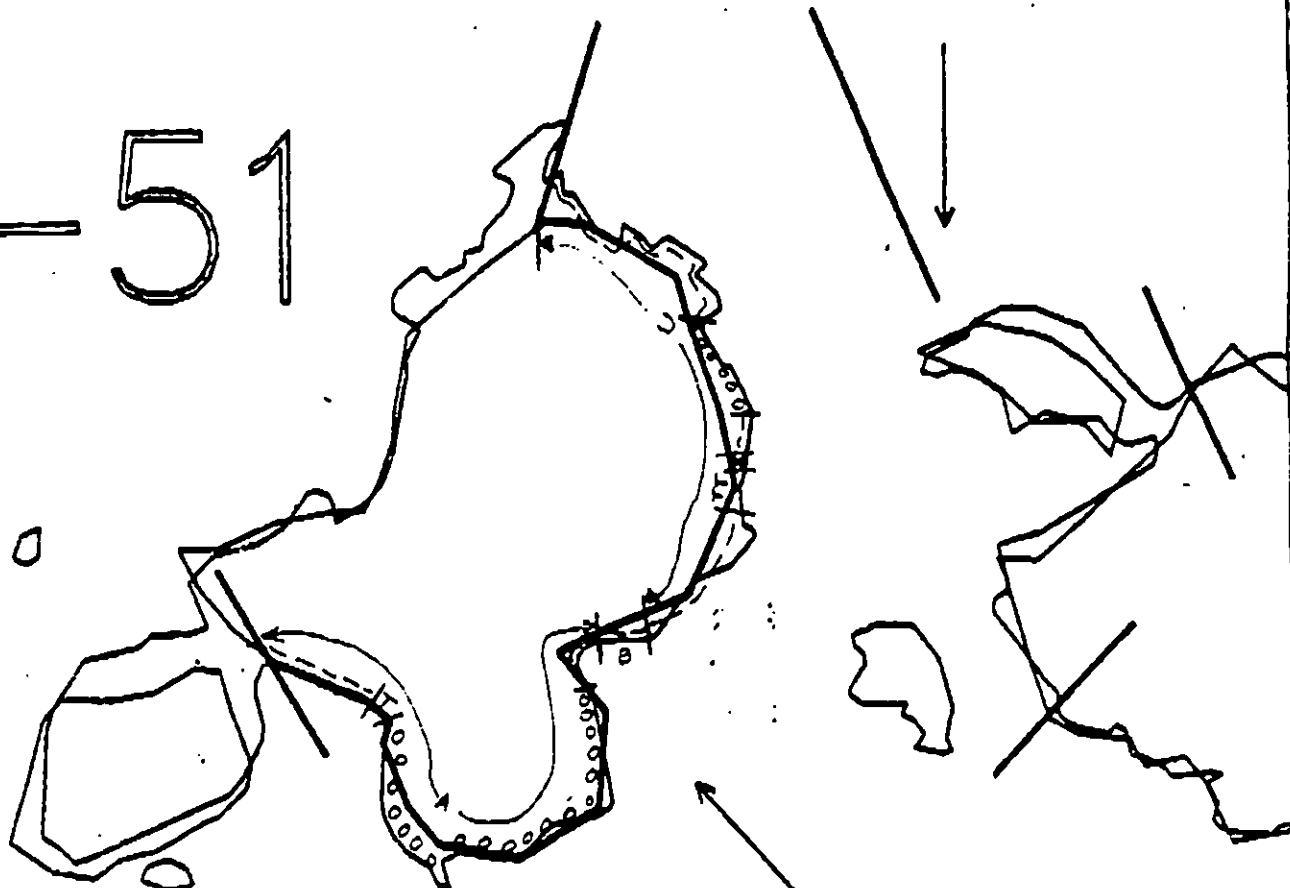
Name: Rich. Marty

Date: 03/30/90

Date Entered:

EV-51

V-51



EXXON	MAP LENGTHS	
EV-50A		
Narrow	0.9 = 135	167
V. Light	0.15 = 22.5	28
No	1.8 = 270	334
EV-50B		
Narrow	0.2 = 30	37
EV-50C		
Wide	0.1 = 15	19
Narrow	2.4 = 360	445
V. Light	0.2 = 30	37
No	0.4 = 60	74
	<u>923</u>	<u>1141 m</u>

EV-50

XXXX Wide

/// Medium

--- Narrow

TTTT Very Light

0000 No Oil

EV-50

APCC Segment Length: 1141m



Map Key: PWS-249

Name: Richard Marty

Date: 03/30/90

Date Entered:

(2)

SHORELINE EVALUATION

SEGMENT ST/ EV-50 SUBDIVISION C (3 OF 3) DATE 3/30/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

Sawmill Bay Hatchery release area (1F) - 4/15 to 6/1. Contact
ADF&G for exact dates. Deer harvesting (7II) - 8/15 to 2/28.

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

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 Re-
source Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: Charles J. Holmes DATE: April 14, 1990

OILING CATEGORIZATION:

Wide 16 m: Medium 0 m: Narrow 296 m: V.Light 31 m: No Oil 70 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> </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 bioremediation of small area of surface cover.
Work after 6/1 based on constraints.

TAG COMMENTS: FIELD COMMENTS SHEET FILLED OUT FOR A/B/C
SEE SKETCH MAP FOR ACTUAL LOCATION OF ASPHALT

TAG APPROVAL DATE: 4/13/90
ADEC JOHN BAUER
EXXON ANDY BELL FOSC: DATE: 4-20-90
NOAA Bull Wapcott
USCG G.A. FEETER

OG E. Marty

SEGMENT ST/ EV-50

SUBDIVISION

DATE 03/30/90

CHECKLIST

N Arrow
Appx. Scale
Geogrid Grid
Oil Dist
Width
Length
% Cover
Substrate Character
EM HML/WL
SSL
Profile Location(s)
Profile(s)
Pit Location(s)
Photo Location(s)

LEGEND

1 ▲

Pit - No Subsurface Oil

2 ▲

Pit - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Partial Distribution

CT/S

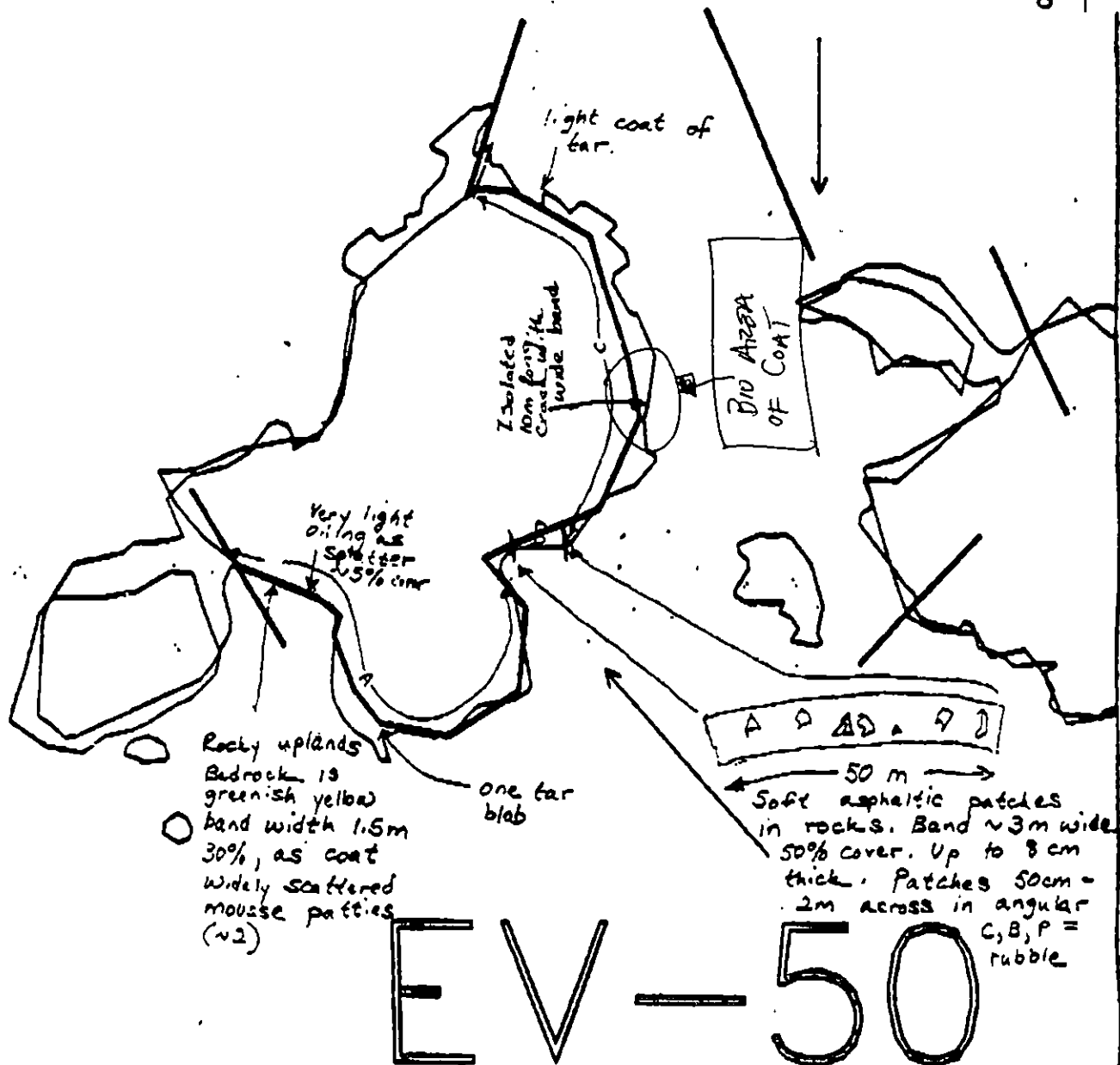
Spotted Distribution

Dead Vegetation

1

Photo location, direction,
and number

SKETCH MAP



EV-50

ADEC Segment Length: 1141m



Map Key: PWS-249

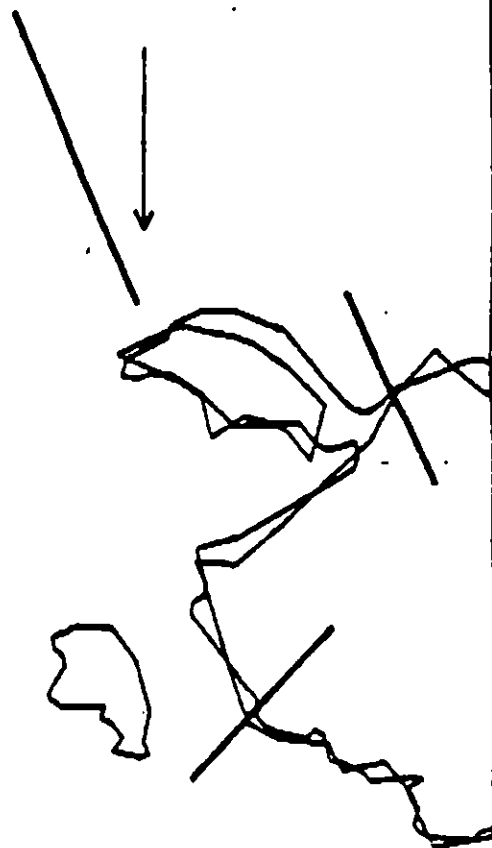
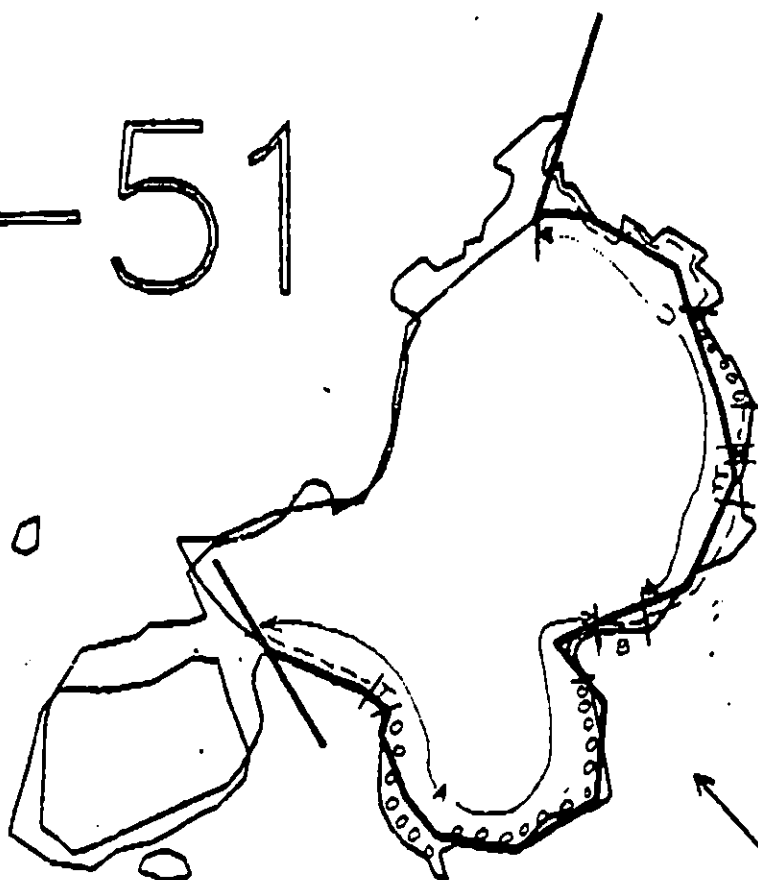
Name: Rich. Marty

Date: 03/30/90

Date Entered:

EV-51

V-51



EXXON MAP LENGTHS

EV-50A			
Narrow	0.9	= 135	167
V. Light	0.15	= 22.5	28
No	1.8	= 270	334
EV-50B			
Narrow	0.2	= 30	37
EV-50C			
Wide	0.1	= 15	19
Narrow	2.4	= 360	445
V. Light	0.2	= 30	37
No	0.4	= 60	74
		923	1141 m

EV-50

XXX Wide

/// Medium

--- Narrow

TTTT Very Light

OOOO No Oil

EV-50

APCC Segment Lengths 1141m



Map Key: PWS-249

Name: Richard Marty

Date: 03/30/90

Date Entered: 9

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-30

SUBDIVISIONS: A (1 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ IN-30 SUBDIVISION A (1 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to uncoiled 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 44 m: V.Light 197 m: No Oil 1109 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 45 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommended treatment includes bioremediation of areas of surface coat/stain in areas shown on attached sketch map. No specific ecological time constraints identified.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- P Harbor seal and sea lion pupping (5/15 to 7/1)
 Q 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 Subistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7II Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ IN 30 SUBDIVISION: A DATE 4-26-98**USCG**NAME AEC Vandepels SIGNATURE AEC Vandepels☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**NAME Michelle Baer SIGNATURE MBaer☐ NO TREATMENT RECOMMENDED
COMMENTS☒ TREATMENT SUGGESTED

Beach to SE of segment was included with IN-31 comments.

- 1) In B field, on headland, remove cobble to scrape out OR layer between the cobble and boulders (by pits # and #5).
- 2) By pit #9 of layer ~~should~~ ^{and OR should} be tilled to expose ^{oil} layer. Oil is light and the area of OF is small. Consider this pat. a low priority.

LAND MANAGERNAME Carol S Huber SIGNATURE Carol S Huber☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Recommend continued natural cleansing

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-30
 BIO P. Crank LAND REP C. Huber SUBDIVISION A (1 OF 2)
 EXXON T. Tomblin ADEC M. Baer TIME 07:30 09:15
 TEAM NO. 5 TIDE LEVEL -3 TO -2 DATE 04/25/90
 EST. SUBDIVISION LENGTH: 1360 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SE to NW
 SURFACE SEDIMENTS: R 10 % B 35 % C 40 % P 15 % G 0 % S 0 % M 0 % V 0
 SLOPE: Long 80 % Hang 20 % Vert % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 30 m VL 200 m NO 1130

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 0 BAG

NEAR SHORE SHEEN? ☒ NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash	X		
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE Plastic

#BAGS <1

Photographs:

Roll No. ST-5-7

Frames 20

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW	OIL / FILM COLOR					PIT ZONE				A N A	SHEEN (Y/N)	Y	SURFACE SUBSURFACE SEDIMENT
		CP	CR	CL	CF	NO			1	2	3	4	5	SU	M	M	U				
1	30					X	.		X								X				P/PG
2	50					X	.		X					X							P/P
3	30					X	.		X					X							P/P
4	20	X					10-12		X				X	X							BCP/K
5	25	X					23-25	X					X	X					BR	24	CP/CPE
6	25					X	.		X					X							P/PM

COMMENTS some subsurface oil beneath pebble beaches. A few splashes of coat and stain in boulder fields. /u

REVIEWED 7W DATE 4/30/90

SUBSURFACE OIL (CONTINUED)

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR						PIT ZONE				A	N	A	SHEEN	TYPE	↓	SURFACE SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		SO	SC	1	2	3	4	5	6	SU	U	M	L							
7	55					X	.		X																	
8	30					X	.		X																	BP/BF
9	50		X				15-17		X					X		X										P/P
9	50				X		17-45		X					X		X										CP/PGS
10	20					X	.		X					X		X										CP/PGS
11	30					X	.		X								X									CP/PGS
							.										X									CP/PGS
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COMMENTS

* Pit 9 had a 2 cm layer of OR underlain by 28 cm of OF. The bottom of the pit was clean.

REVIEWED

JW

DATE

4/30/90

SEGMENT S **[REDACTED]** V-30

SUBDIVISION A

DATE 04, 25/90

CHECKLIST

_____ **N Avenue**
 _____ **Approach, Slope**
 _____ **Sep/Tub Grids**
 _____ **CR Dist.**
 _____ **Width**
 _____ **Length**
 _____ **% Cover**
 _____ **Substrate Character**
 _____ **Eel Hgt./A/W**
 _____ **SSL**
 _____ **Profile Location(s)**
 _____ **Profile(s)**
 _____ **Pt Location(s)**
 _____ **Photo Location(s)**

LEGEND

10

PM - The Subsurface Of

24

PM - Subsurface Oil

CTAC

Confidential Discussion

CTAD

Broken Disruption

CT/P

Purity Distribution

CTAS

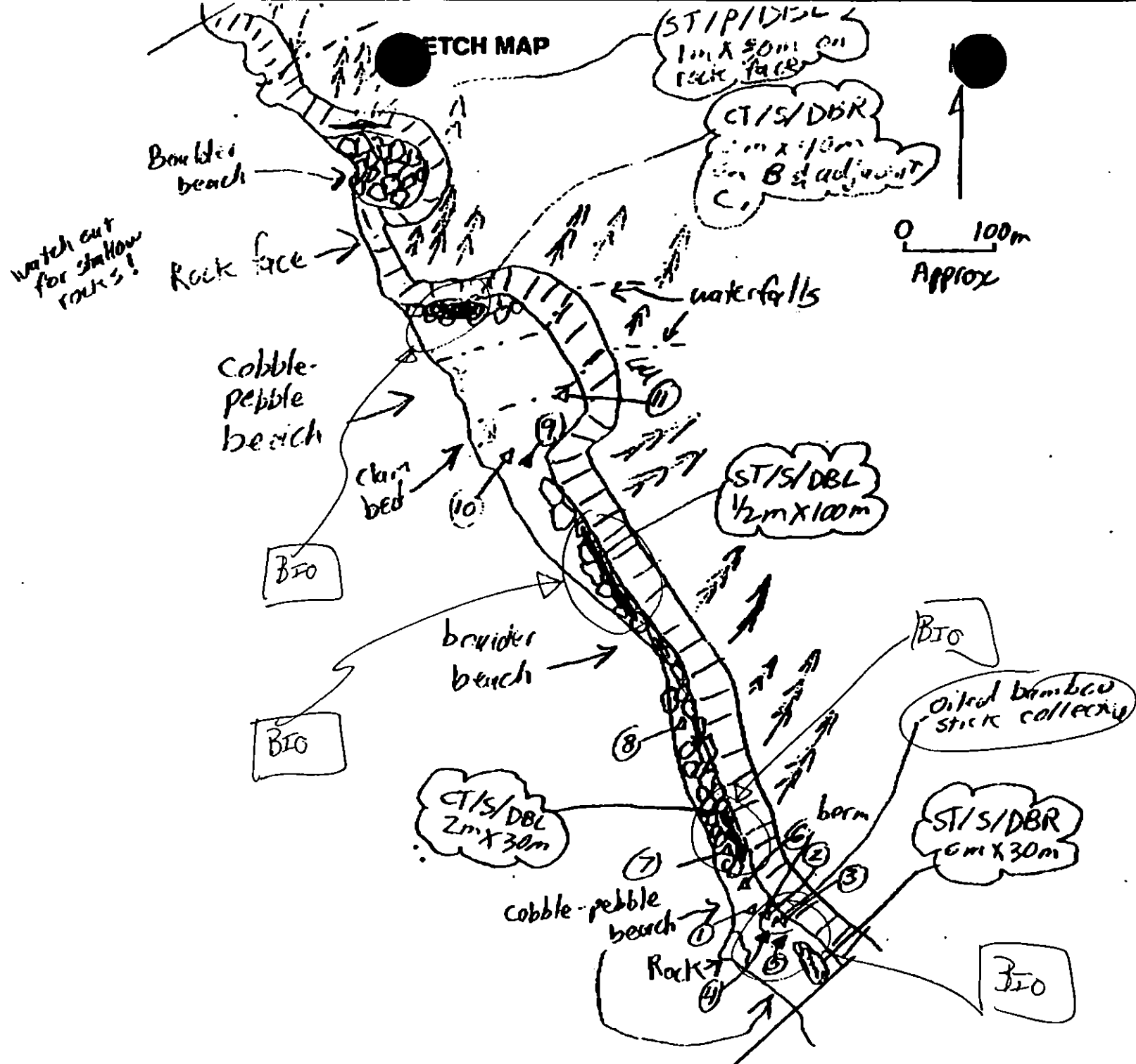
Systematic Observations

000

Old Vegetation

•

**File location, direction,
and number**



Of Character Length (in): AP _____ PO _____ CV _____ CT 70 ST 160 MS _____ PT _____ TB _____ FL _____ NO 130

RESEARCH DESIGN

Segment ST-1N-30 Subdivision A Date (mo/day/yr) 4/25/90
 Time (24 hr) 0740 Biologist Crank Length: 1360m
 Tide Height: -3 → -2 ft

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 35 (3) Cobble 40 (4) Pebble 15 (5) Sand (6) Sil
 (B) Overall % cover of biota (% of segment): Dense 30 Moderate 20 Low 50
 (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles / adults (X), new settlement (3)

Photographs:
 Roll No. ST-5-7

Frames 20

BARNACLES

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

NOT PRESENT

MYTILUS

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

NOT PRESENT

GASTROPODS

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

NOT PRESENT

FUCUS

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

NOT PRESENT

Observational General Comments:

1 - Magpie 4 - Alcids 2 - Sea Lions
 7 - Gulls 1 - Crow 1 - Harbor Seal

Ecological Considerations:

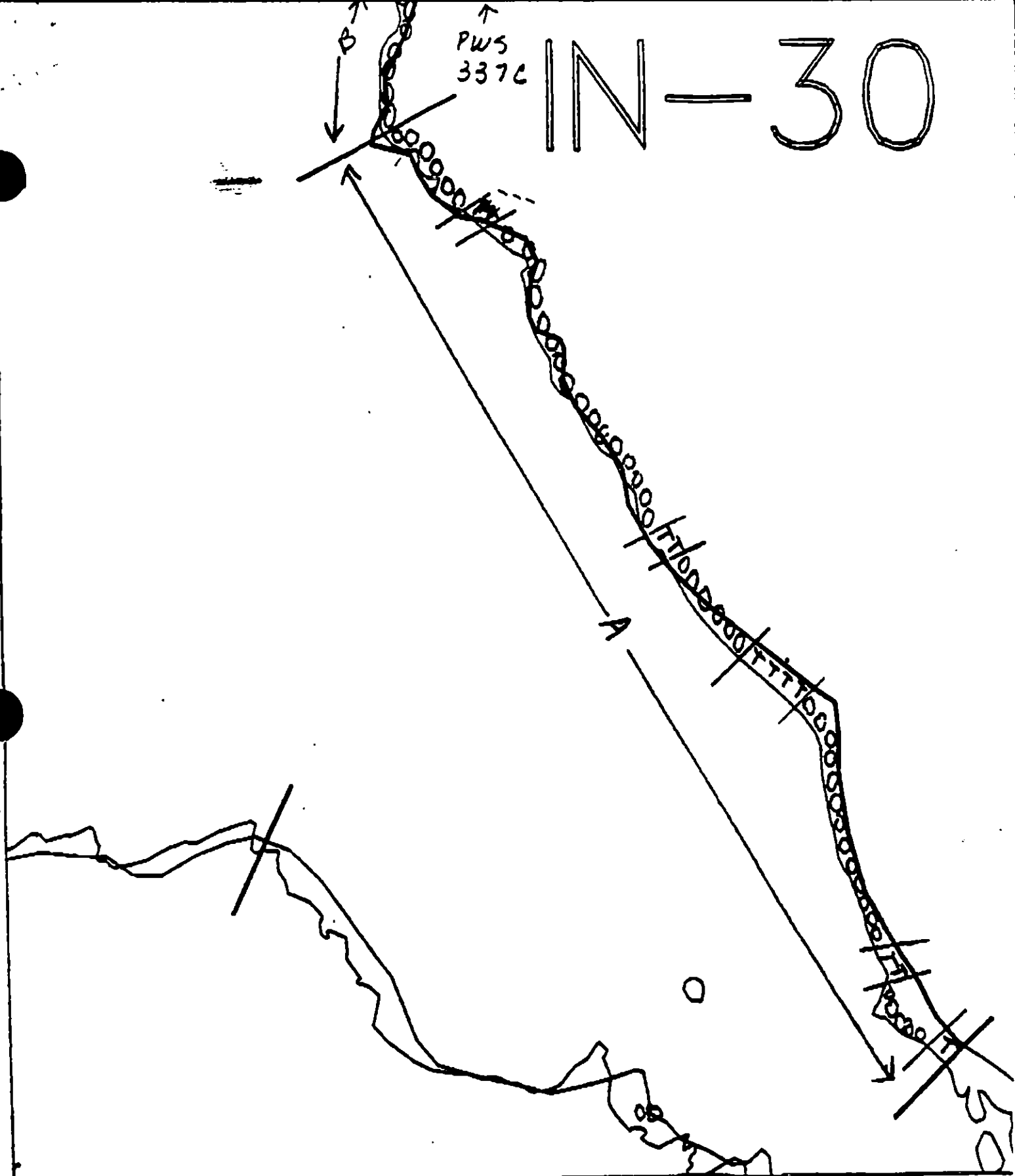
4U - Tuna Site
 Avoid disturbing clam bed (see OG Map)

General Comments -

- Pollen film on the water surface.
- Brown film on LITZ cobble - Diatoms?
- Below waterfall (see OG map) there is a column bed - Prototheca and Sarcodina
 $\approx 100m \times 10m$.
- Also below falls Thalassia is
continuous and moderate in
LITZ and MITZ cobble.
- At NW end of subdivision Mussels
form a moderate 200 x 4m band
in MITZ along rock face and along boulders.
- Mussels in small sporadic patches on MITZ Rock Boulder.
- In the lower intertidal, along the boulders
and rocks, biota is rich and dense;
space appears to be a limiting
factor for barnacles.
- Sparse Fucus band on MITZ boulder,
rare on rock.
- Subdivision appears healthy.

PWS
337C

IN-30



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

IN-30A

ADEC Segment Length: 2088m



Map Key: PWS-337a

Name: James Springe

Date: 4/25/90

Date Entered:

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-30

SUBDIVISIONS: B (2 OF 2)

SHORELINE EVALUATION

SEGMENT ST/ IN-30 SUBDIVISION B (2 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 125 m: V.Light 0 m: No Oil 652 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: _____

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- Harbor seal and sea lion pupping (5/15 to 7/1)
 Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom Roth 267-2206
- 5T All Bald Eagle nests (3/1 to 6/1)
 Active Bald Eagle nests (3/1 to 9/1)
 Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (8/1 to 9/15)
 6V Anchorages (8/1 to 9/15)
 6W Forest Service cabins (8/1 to 9/15)
 6X Lodge (8/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 7HH Finfish harvesting
 7I Deer harvesting (8/15 to 2/28)
 7JJ Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

FIELD SHORELINE COMMENT SHEET

SEGMENT ST/ IN 30 SUBDIVISION: B DATE 4-26-90**USCG**

NAME

AEC Vardepels SIGNATURE AEC Vardepels☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED**ADEC**

NAME

NAME Michelle Baer SIGNATURE M Baer☒ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Coating on cobble underlying B's is ^{sporadic} occasional.
B's are large and area underneath is difficult to
access.

LAND MANAGER

NAME

NAME Carol S Huber SIGNATURE Carol S Huber☐ NO TREATMENT RECOMMENDED
COMMENTS☐ TREATMENT SUGGESTED

Recommend continued natural cleansing

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-30
 BIO P. Crank LAND REP C. Huber SUBDIVISION B 12 OF 12
 EXXON T. Tenblin ADEC M. Baer TIME 09:15 to 09:45
 TEAM NO. 5 TIDE LEVEL -2 TO -1 DATE 04/25/90
 EST. SUBDIVISION LENGTH: 729 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SW to NE
 SURFACE SEDIMENTS: R 60% B 25% C 5% P 10% G 0% S 0% M 0% V 0%
 SLOPE: Long 25% Hang 25% Vert 50% WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 100 m VL 0 m NO 628

SURFACE OIL

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

PAVEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 0 B.

NEAR SHORE SHEEN? (NO) BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☒

TYPE 0

#BAGS 0

Photographs: No photos

Roll No.

Frames

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL	BELOW		OIL / FILM COLOR					PIT ZONE				AN A	SHEEN (Y/N)	↓	SURFA SUBSUR SEDIME
		OP	OR	OL	CP	NO		NO	DE	1	2	3	4	5	SU	M	N	U				
1	60					X	.	X							X							P/PC
2	30					X	.	X								X						CP/
							.															
							.															
							.															
							.															

COMMENTS

REVIEWED YW

DATE 4/30/90

00 Springer
 SEGMENT ST/ EN-30
 SUBDIVISION B
 DATE 04/25/90

SKETCH MAP

CHECKLIST

☐ N Area
☐ Approx. Scale
☐ Seg/Sub Study
☐ Oil Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. NWL/VL
☐ STL
☐ Profile Location(s)
☐ Photo(s)
☐ PI Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 PI - No Subsurface Oil

2 Δ
 PI - Subsurface Oil

CT/C
 Core/Cut Distribution

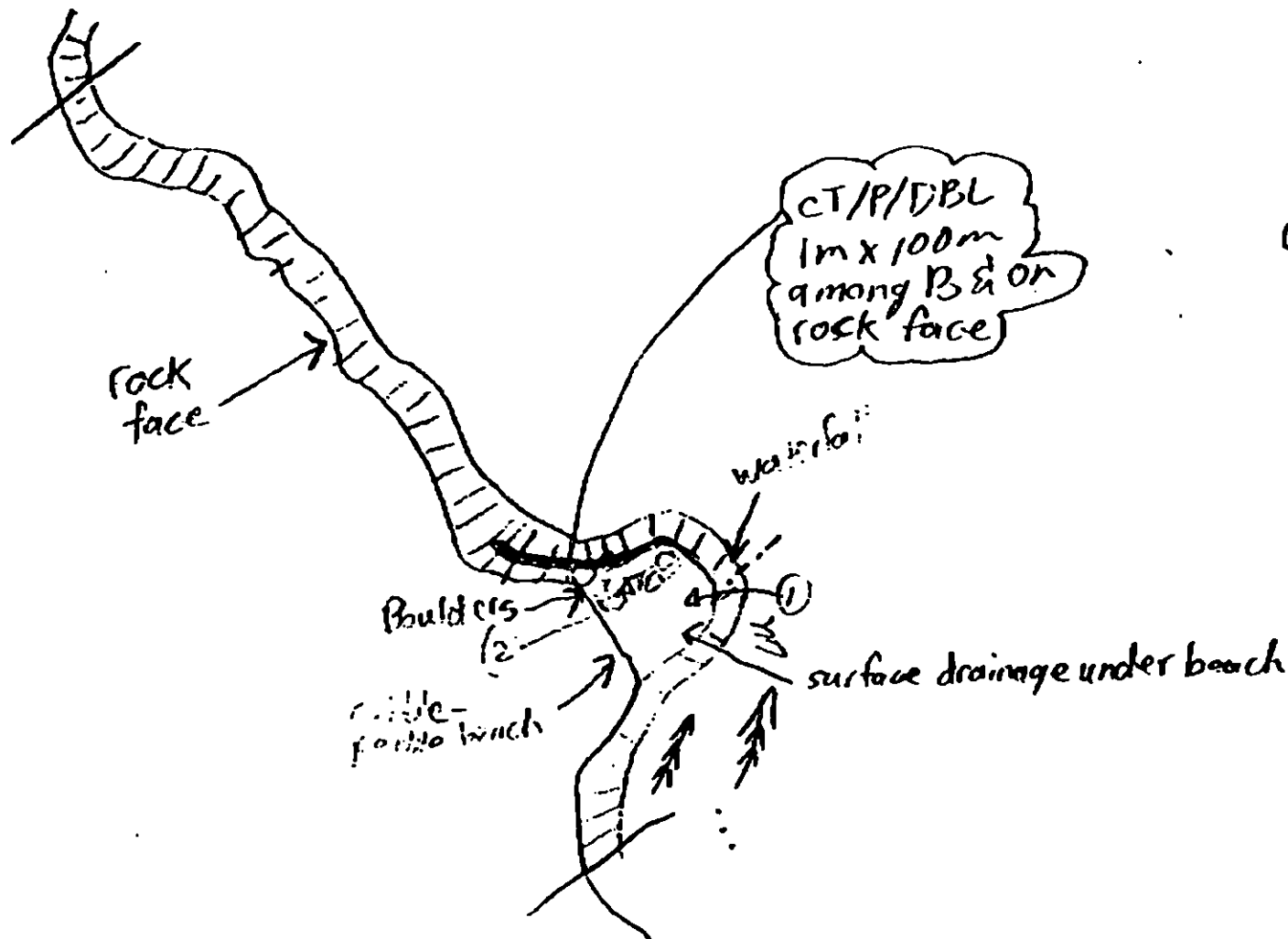
CT/D
 Broken Distribution

CT/P
 Patchy Distribution

CT/S
 Spotted Distribution

lll
 Oil Vegetation

1 ①
 Photo location, direction, and number



Segment ST 1 IN 30 Subdivision B Date (mo/day/yr) 4/25/90
 Time (24 hr) 0915-0955 Biologist Crank Length: 728 m
 Tide Height: -2 → -1

- (A) Substrate type and % of segments:
 (1) Bedrock 10 (2) Boulder 25 (3) Cobble 5 (4) Pebble 10 (5) Sand (6) Silt
- (B) Overall % cover of biota (% of segment): Dense 30 Moderate 20 Low 50
- (C) Density, substrate preference (by number from A, above), & vertical zonation of major taxa: (upper-U; mid-M; low tidal-L); juveniles/adults (X), new settlement (3)

Photographs: No photos
 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:

- 1- Bald Eagle
 1- Harbor Seal

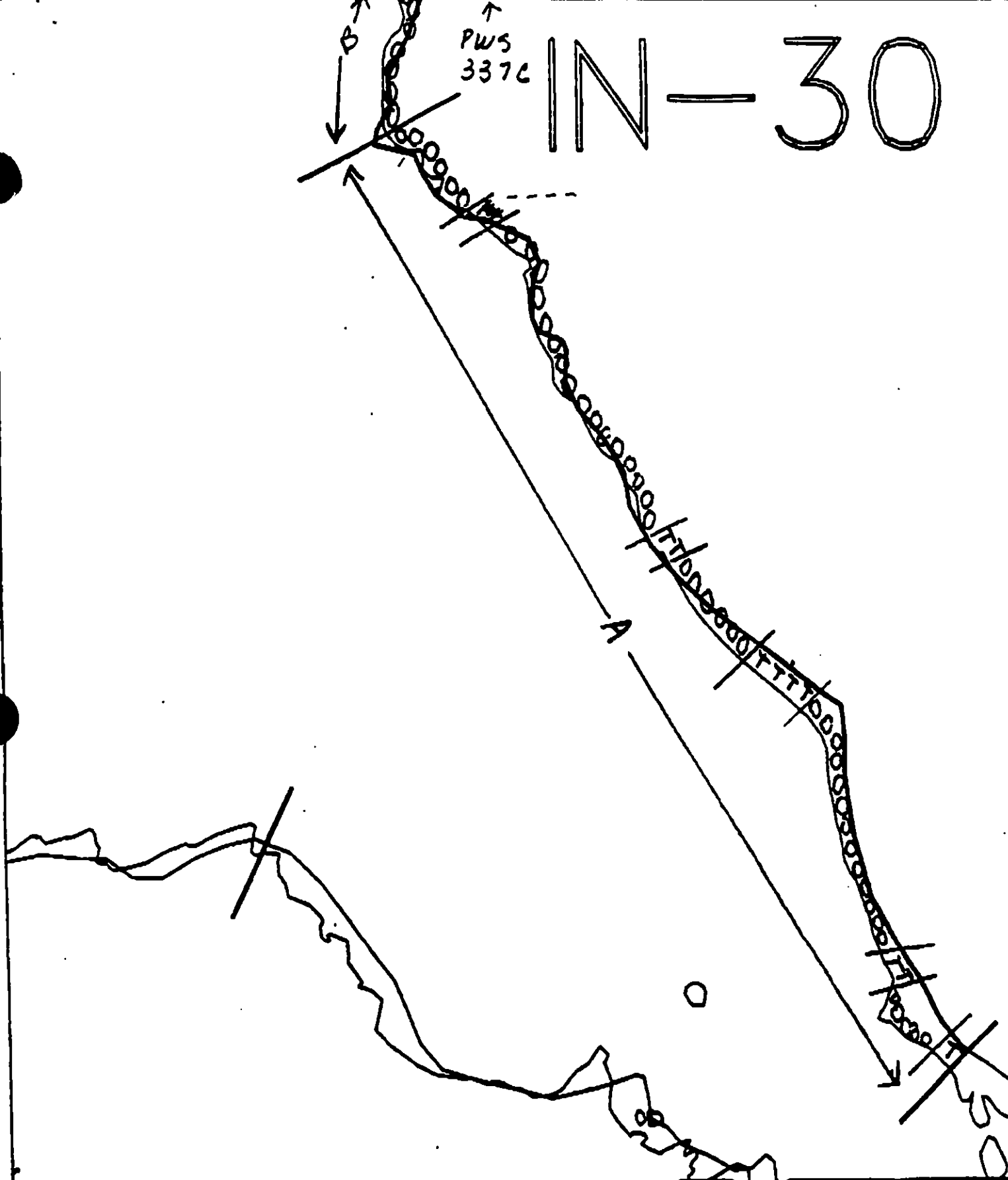
Ecological Considerations:

100% - Tint Sites

- Biologically, subdivision is a continuation of IN30A with same species list, coverage and distribution. L172 still appears to be sparse limited to barnacles.
- Pollen or organic debris covers H₂O surface.
- Dominant, no fertile patches.
- Subdivision appears healthy.

PWS
337C

IN-30



IN-29

PWS
↓ 337A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

IN-30B

ADEC Segment Length: 2088m



METERS

Map Key: PWS-337c

Name: James Springs

Date: 4/25/90

Date Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT IN-30 SUBDIVISION A (1 of 2)

WORK WINDOW

Bioremediation More Than 400m From Eagle Nest	OPEN
Bioremediation Less Than 400m From Eagle Nest	CLOSED

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274.

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T **Bald Eagle Nest** USFWS 6/1/90 map indicates an active nest in Subdivision B. Closed to bioremediation within 400m of active nest. No constraints more than 400m from active eagle 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.

TAG APPROVAL DATE _____

ADEC _____

EXXON _____

NOAA _____

USCG _____

FOSC _____

DATE 6-8-90

Prepared By: WJK

Date

6/7/90

SHORELINE EVALUATION

SEGMENT ST/ IN-30 SUBDIVISION A (1 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

BU Recreation: Tent sites (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Rachel Jean Doe DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 44 m: V.Light 197 m: No Oil 1109 m
Subsurface Oil Observed: Yes X No Maximum Depth 45 cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u>X</u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </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: Recommended treatment includes bioremediation of areas of surface coat/stain in areas shown on attached sketch map. No specific ecological time constraints identified.

See Constraint Addendum 6/7/90 w/c

TAG COMMENTS: NO BIO ON STAIN - USE CUSTOMBLEN IN AREAS OF SUBSURFACE LEWS AS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90
ADEC Art Wanner
EXXON Andy Ten
NOAA Gary Patrone
USCG D.D. Romie

FOSC:

DATE:

6/8/90

IN-28

IN-21

IN-29

IN-30

IN-20

TREATMENT
AREAS

DI-68

DI-67

DI-59

IN-31

DI-60

IN-32

DI-66

DI-65

DI-61



Exxon Company, USA

Map Key: PWS-IN-30

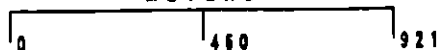
June 04, 1990

ECOLOGY MAP

SEGMENT IN-30

SUBDIVISION A (1 of 2)

METERS



Seabird Colony



Active Eagle Nest



Inactive Eagle Nest

1 inch = 1510 feet

SHORELINE EVALUATION

SEGMENT ST/ IN-30 SUBDIVISION A (1 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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

SHPO SIGNATURE: Rachel Dean Dan DATE: 5/25/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 44 m: V.Light 197 m: No Oil 1109 m
Subsurface Oil Observed: Yes X No Maximum Depth 45 cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> X </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </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: Recommended treatment includes bioremediation of areas of surface coat/stain in areas shown on attached sketch map. No specific ecological time constraints identified.

TAG COMMENTS: NO BIO ON STAIN - USE CUSTOMBLEN IN AREAS OF SUBSURFACE LEWS AS INDICATED ON SKETCH

TAG APPROVAL DATE: 5/12/90
ADEC Art Weiner
EXXON Andy Tom
NOAA Gary Petrone
USCG D.D. Rome

FOSC: [Signature] DATE: 6/8/90

SEGMENT 57 J.N-30

SUBDIVISION A

DATE 04, 25/6

CHECKLIST

- ___ **N Army**
- ___ **Approx. Date**
- ___ **Seg/Sub Grady**
- ___ **CR Dist.**
- ___ **Width**
- ___ **Length**
- ___ **% Cover**
- ___ **Substrate Character**
- ___ **Est. HMM/LWL**
- ___ **SNL**
- ___ **Profile Location(s)**
- ___ **Profile(s)**
- ___ **Pin Location(s)**
- ___ **Photo Location(s)**

LEGEND

10

FM - No Subsurface OF

2. **PM - Subsurface CH**

CTAC

Confidential Discussion

CT/0

Customer Orientation

CT/P

Patient Disposition

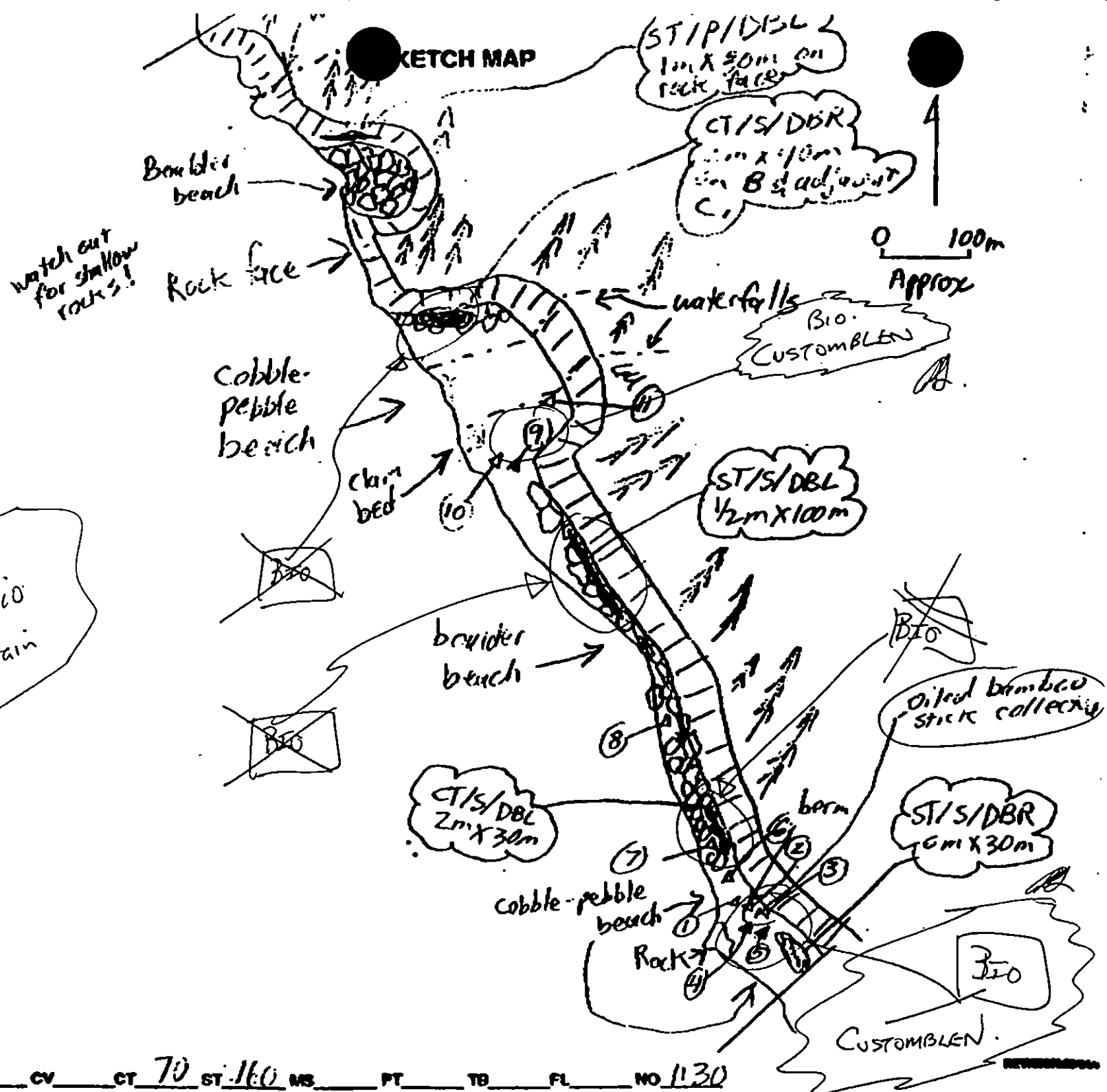
CTA

Abstract

000

Cured Vegetables

1

**Photo location, direction,
and number**

Oil Character Length (in): AP PO CV CT 70 ST 160 MS PT TB FL NO 130

SHORELINE EVALUATION

SEGMENT ST/ IN-30 SUBDIVISION B (2 OF 2) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

6U Recreation: Tent sites (6/1 to 9/15)

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: Charles E. Homan DATE: 5/14/90

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_125_m: V.Light_0_m: No Oil_652_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: _____

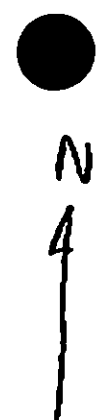
TAG COMMENTS: _____

TAG APPROVAL DATE: 5/12/90.
ADEC ART WEINER Art Weiner
EXXON ANDY TERN Andy Tern
NOAA GARY PETRAE Gary Petrae
USCG D.D. ROME D.D. Rome

FOSC: DATE: 5-15-90

00 J. Linger
 SEGMENT ST/ IN-30
 SUBDIVISION B
 DATE 04/25/90

SKETCH MAP



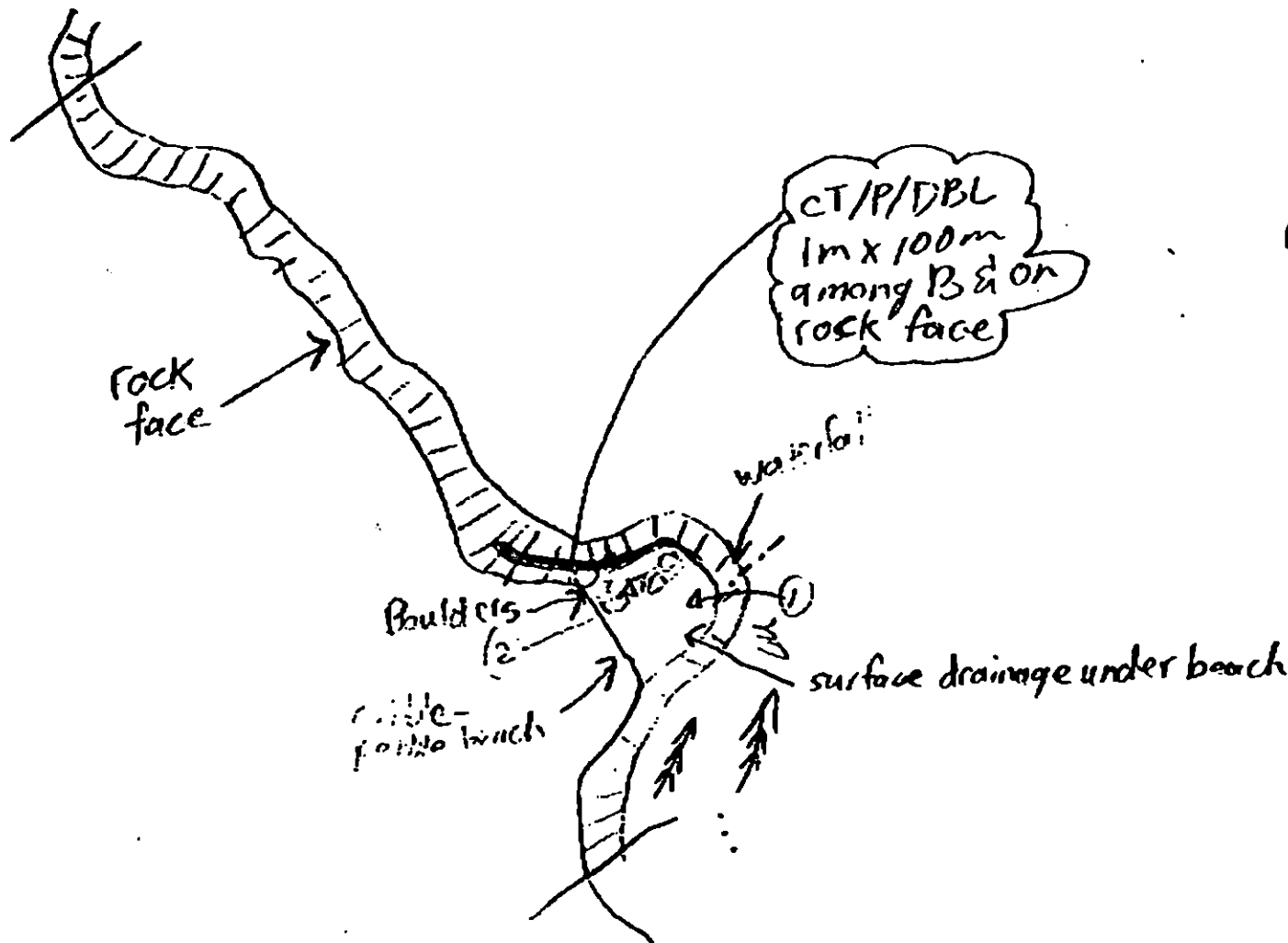
0 100m

CHECKLIST

- ☐ N Area
- ☐ Approx. Scale
- ☐ Day/Sea Entry
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. NWI/A/VL
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ PB Location(s)
- ☐ Photo Location(s)

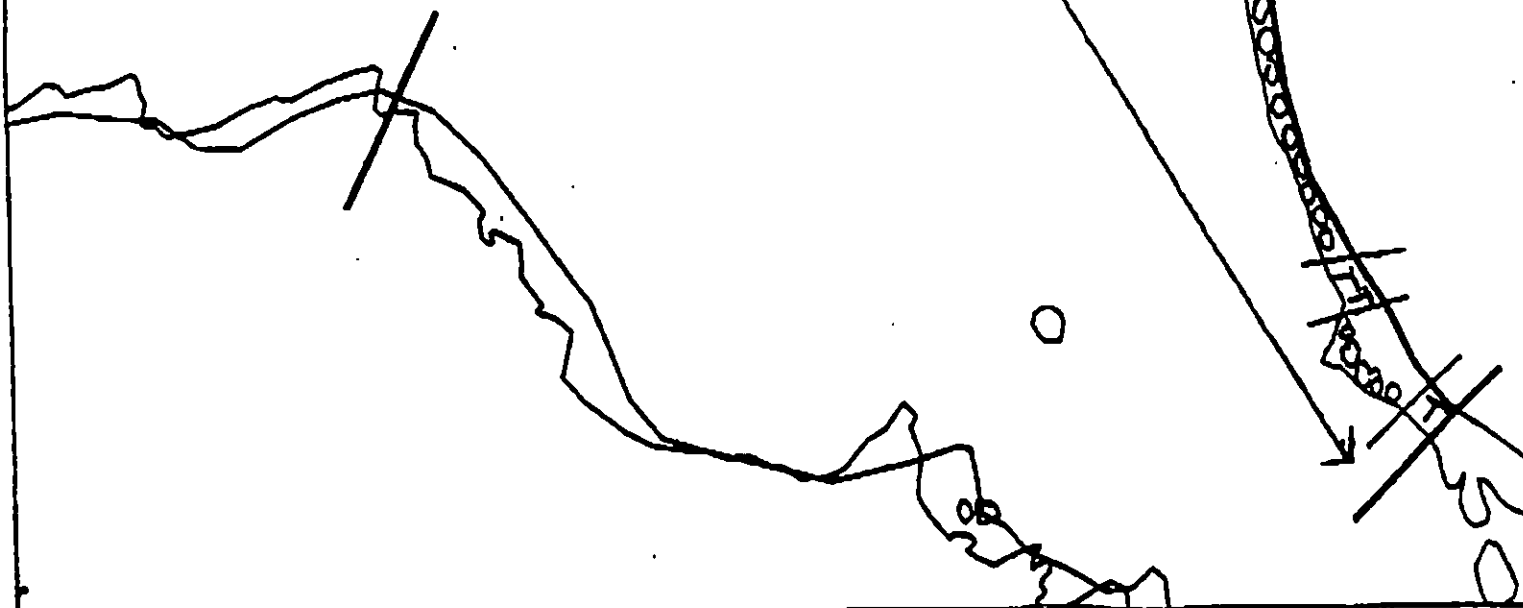
LEGEND

- 1 Δ
- PB - No Subsurface CP
- 2 Δ
- PB - Subsurface CP
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Spotted Distribution
- lll
- Old Vegetation
- 1 00
- Photo location, direction, and number



PWS
337C

IN-30



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

IN-30B

ADEC Segment Length: 2088m



METERS



Map Key: PWS-337c

Name: James Springe

Date: 4/25/90

Date Entered:

IN-29

PWS
↓ 337A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

IN-30B

ABEC Segment Length: 2088m

0 100 200 300

Map Key: PWS-337c

Name: James Spring

Date: 4/25/90

Notes: Entered.

1991 MAYSAP EVALUATION

SEGMENT: EV 051 SUB: A REGION: PWS SURVEY DATE: 5/24/91

ENVIRONMENTAL SENSITIVITIES:

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

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy Smith Date: 6/07/91

RECOMMENDATIONS:	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<u>N</u>	<u>N</u>	<u>Y</u>
Manual Pickup (Check as Req.)	<u>_____</u>	<u>_____</u>	<u>X</u>
Spot Washing	<u>_____</u>	<u>_____</u>	<u>_____</u>
Bio-Customblen Only	<u>_____</u>	<u>_____</u>	<u>X</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: DUE TO CONCERNS RAISED BY ADEC, CRC, + USFS + RECOVERABLE "AP" REMAINS AT SITES "A" + "E", TREATMENT IS APPROPRIATE. REMOVE AP + HSOL AT SITES "A" + "E" + APPLY CUSTOMBLN. CR

TAG APPROVAL DATE: JUNE 7 1991 FOSC APPROVAL DATE: 6/11/91

ADEC John Bauer FOSC E. E. PAGE, CDR, USCG

EXXON Abal CHIEF OF STAFF, FOSC

USCG Z. M. Mungby LT

NOAA John Bauer

The State will evaluate the need to treat this subdivision

**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.

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

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

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

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT EV-S1 SUBDIVISION A DATE 5/24/91

ADEC

NAME _____

SIGNATURE _____

☐ NTR

at Troutman Reservoir.
Good area for light manual pickup in areas A+E, accessible + part of the Better Island group.

EXXON

NAME _____

SIGNATURE _____

☒ NTR

No oil observed in recoverable quantities or character.

LANDMANAGER

NAME _____

OF CVC / FS

SIGNATURE _____

☐ NTR

Like sub oil - thick oil on but small area
Enough asphalt around sub. to warrant manual
pick-up. Chenega Local Response

NO BIO

USCG/NOAA

NAME _____

DEHER / GINE

SIGNATURE _____

Guo K. L. Deher

☒ ^{KRD} NTR

Observed small amounts of CV, CT, S; one or two very small pockets of AP in supra - no recoverable quantities. KRD

Oiling is confined mainly to CV + CT, although some AP patches exist. Little subsurface oil was located. Further work on this subdivision is probably unnecessary. DUC

PAGE ___ OF ___

DATE MAY 124 191

USCG/NOAA DREHER/CLINE

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 10 m N 12 m VL 493 m NO 559 m US — 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- 5 - 22 FRAMES 14-15

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

* OIL < 5cm DEEP IS NOT SUBSURFACE

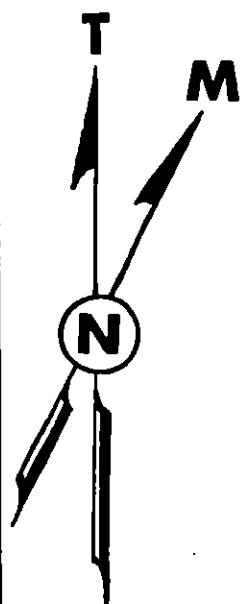
OG COMMENTS: PIT / THROUGH AP PATCH, OF DISCONTINUOUS DISTRIBUTION
SAME AS AP IN AREA (A).

RANDOM DROPS CT & CV ARE VERY HARD & PROBABLY PREDATE THE VALDEZ SPILL BUT THEY ARE MIXED WITH SOFT CT & CV WHICH LOOKS LIKE IT IS FROM THE VALDEZ SPILL.

(E) BEHIND OUTCROP, POCKET OF POORLY SORTED SEDIMENTS.
SMALL PATCHES OF AP.

Revised: MC 6/1/91 revised
5/30/91 ILG

MAY 24 1991
 OG SKETCH MAP
 GREG CHANEY
 TEAM 5
 SEGMENT: EV51A
 DATE: MAY 24 1991
 AIR P.#: PIMCOOS-122

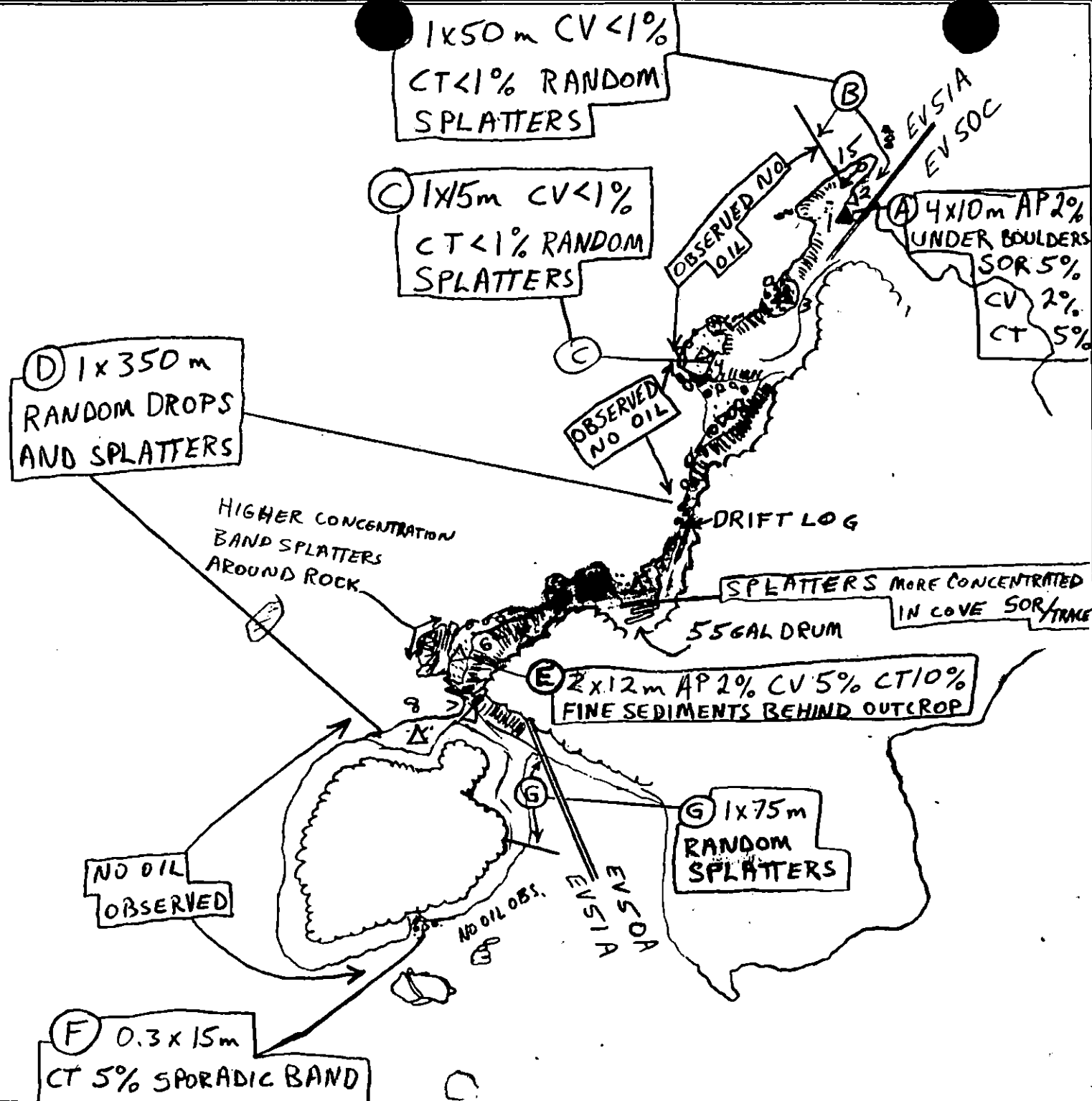


LEGEND

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

SCALE

85
 METERS



Revised: MC 6/1/91 Revised: S130191 R

MAYSAP BIOLOGICAL SUMMARY FORM

pg 1 of 2

TEAM # 5

DATE 24 May 1991

SEGMENT # EV-51

TIDAL HEIGHT (Range) +2 → +5

SUBDIVISION A

BIOLOGIST Crank

SEA STATE 1'

WIND SPEED/DIRECTION 5-15/NE

PHOTOGRAPHS: ROLL #

FRAME #

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

(A) Area is in the UITZ. Within the site, sparse concentrations of barnacles and rare concentrations of *Littorina*, limpets and mussels are present. Biota cover ~20%. The MITZ is a pebble beach. There is a moderately concentrated intertidal mussel bed. The bed appears to have had a dense concentration at one time. Many clam shells are present. There is a sparse concentration of barnacles and *Scytosiphon* (algae). Biota cover is ~30%.

(B) Area is located in the UITZ. Within the site, barnacles are the dominant species. They are sparse to moderately concentrated. *Littorina* and limpets are moderate with patches of dense concentration. *Fucus* is sparse and mussels are sparse to rare. Biota cover is 50%. In the MITZ on bedrock, algae covers 80% of the surface area.

(C) Area is in the UITZ. Barnacles cover ~20% of the surface sediments within the site. The MITZ is a pebble beach with low biota. Clam shells are abundant. On the rocky headlands algae cover is 40%.

(D) Area is in the UITZ. Rare concentrations of barnacles, *Fucus*, *Littorina* and limpets are present. Biota cover is 1%. In the MITZ, along boulders and headlands there are sparse to moderate concentrations of *Fucus*, *Littorina* and limpets. Biota cover is 50%. In the pocket beach biota cover is 30%.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1	1	Pink Salmon Fry
Seabirds			
Waterfowl			
Gulls/kittiwakes/tern	2	12	
Shorebirds			
Corvids	1	1	
Other Birds	1	1	

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters	4 (inc. 1 pup)		
Pinnipeds (specify)	1 Harbor Seal		
	5 Sealsions		
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

 REVIEWED: MC 6/1/91
 Reviewed: M.R. 5/30/91

Team # 5

Segment # EV-51

Subdivision A

Sea State 1'

Date 24 May 1991

Tidal Height T2 $\Rightarrow$ T5

Biologist Crank

Wind Speed / Direction 5-15/NE

pg 2 of 2

Comments (cont.)

(E) Area is a pocket above D, located in the SUPRA. Black and white lichen cover $\sim 60\%$ of the bedrock surface, rye grass is sprouting in the pebble/granul matrix, covering $\sim 10\%$ of the surface area.

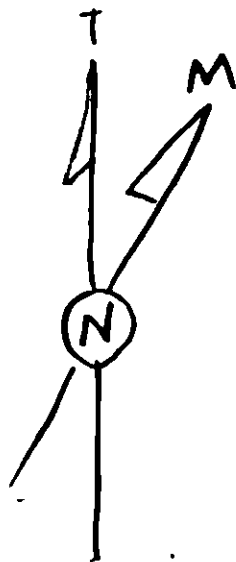
(F) Area is in the UITZ along a steep to vertical boulder shoreline. Ecological observations were made from the skiff. Within the site black lichen appeared to be the predominant species. Below the site, in the MITZ, there is a sparse concentration of barnacles and Fucus. Biota cover is $\sim 30\%$.

(G) Area is located in the UITZ and MITZ. High in the UITZ black lichen covers $\sim 50\%$ of the sediments. Low in the UITZ, there is a moderate to sparse concentration of Fucus; a sparse concentration of tur spot algae; a sparse to rare concentration of Littorina and limpets. Amphipods and isopods are present. Biota cover is $\sim 50\%$. In the MITZ, there are moderate Littorina and limpet concentrations and sparse Fucus, barnacle and mussel concentrations. Odonthalia and filamentous green algae are present. Biota cover is $\sim 30\%$.

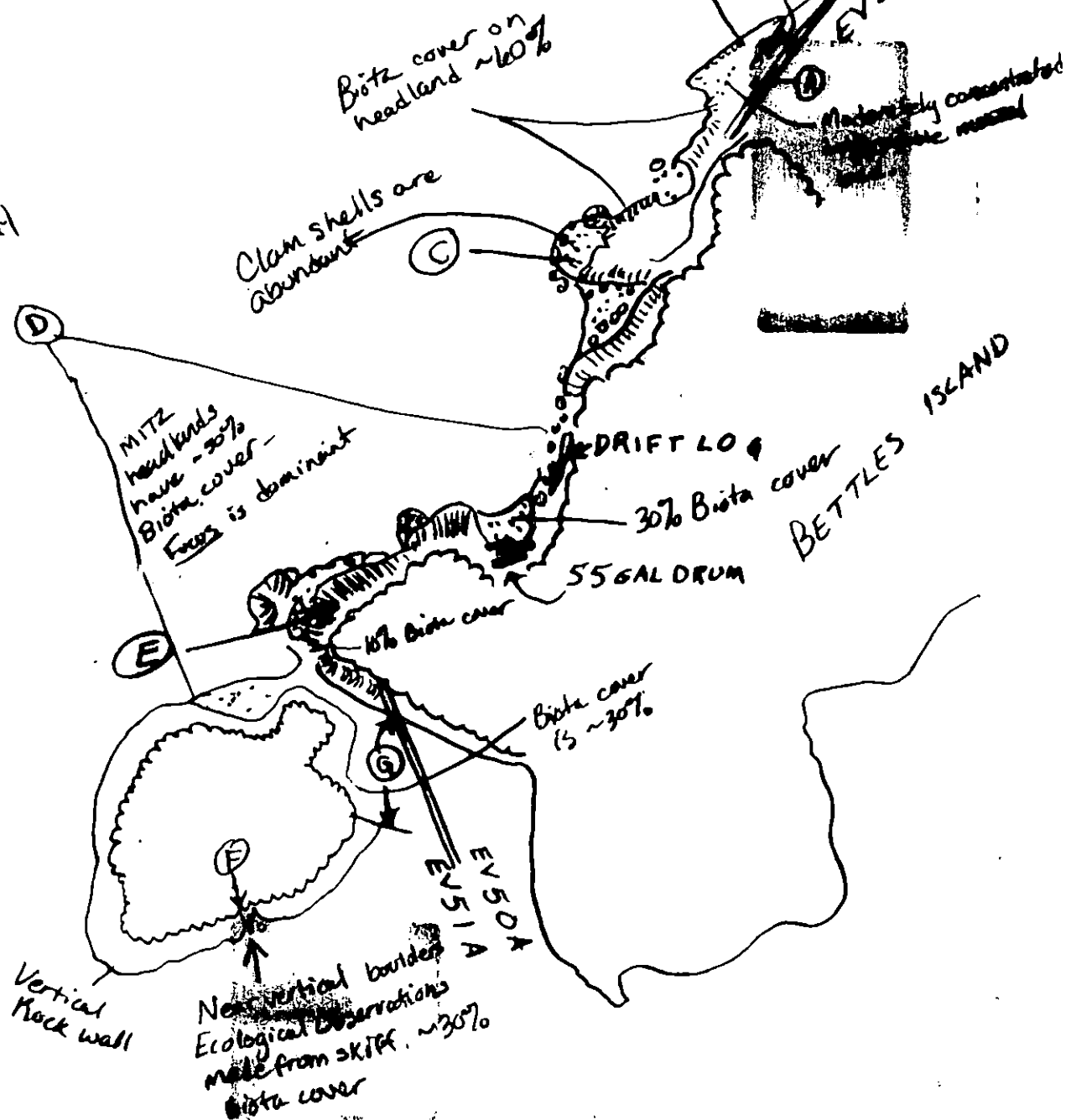
Reviewed: MC 6/1/91.

Reviewed M.B. 5/30/91.

MAP 1991
 BIO SKETCH MAP
 CHANEY & CRANK
 TEAM 5
 SEGMENT EV 51 A
 DATE MAY 24, 1991



SAWMILL BAY



85
 METERS

Reviewed M.B. 5/20/91

U.S. FISH AND WILDLIFE SERVICE (FWS)
SHORELINE ACTIVITY/BALD EAGLE IMPACT EVALUATION

Date 5/24/91 Shoreline Segment/Subdivision EV051A
Shoreline activity Assessment Team Survey
Time - Begin _____ Time - End _____
FWS Observer 4:15 PM 6:00 PM
Surveyors/workers _____

Nest in view/monitored: ☒ Y ☐ N Adult in nest: Y ☐ N ☐ Unk.
Adverse eagle response: Y ☒ N Adult left nest: Y ☒ N Unk.

Time	Type of human activity/eagle response
<u>4:20</u>	<u>No nests were found in EV051A.</u>
	<u>However, the nest located in EV050C</u>
	<u>was visible from the beach on EV051A.</u>
	<u>No birds were observed in the nest</u>
	<u>during the ground survey. However</u>
	<u>1 adult did land about 50 yds.</u>
	<u>from the nest as the crew was</u>
	<u>working its way out of range and</u>
	<u>sight of the nest.</u>

Survey/work activities completed: ☒ Y ☐ N

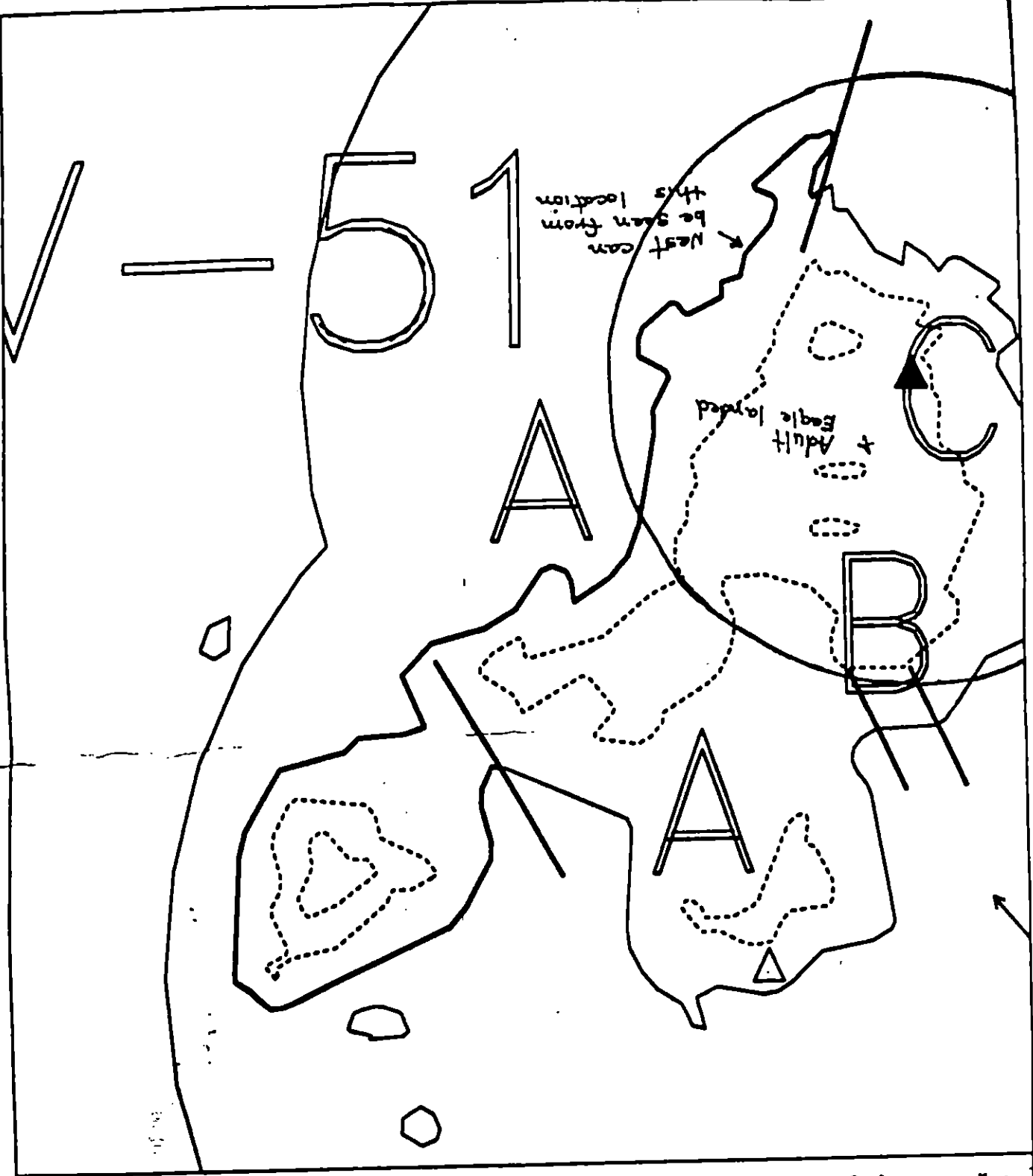
Personnel withdrawn due to eagle conflict: Y ☒ N

Recommendations: This site should have a monitor
because of the exposure to the beach, but
if a bird is nesting it is very well adapted
to its surroundings.

FWS Observer Mike Luke

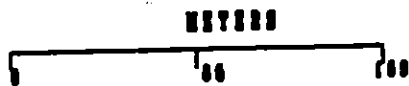
Date 5/24/91

Reviewed M.B. 5/30/91



EV051

Segment Reference Map
Map Key: PUS2V051

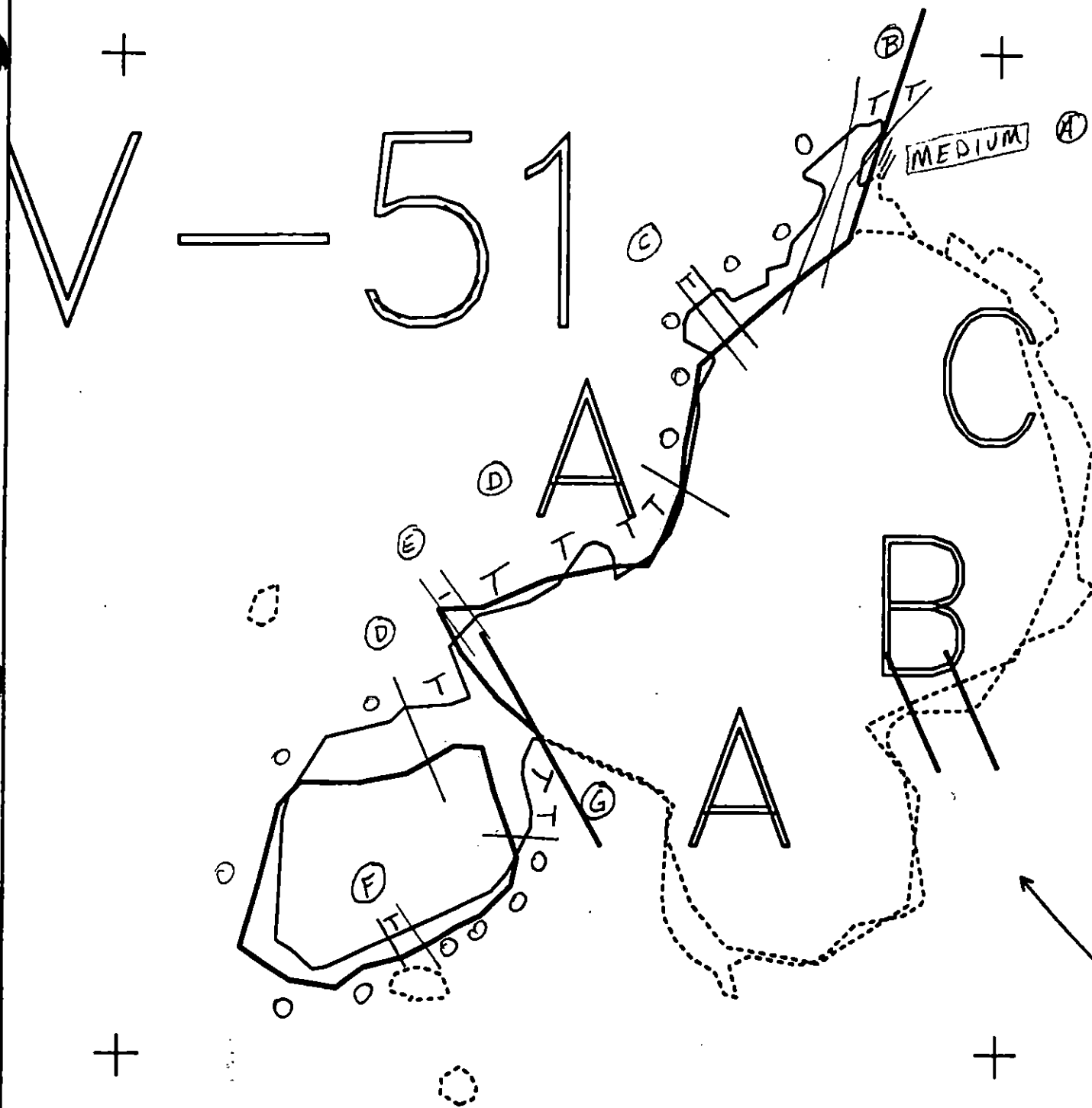


AK State Plane Zone 4
NAD83


EAGLE NEST

Surveyed by: Mike Luke
5/24/91

Reviewed M.B. 5/31/91



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

EV051 A
 ADEC Subsegment Length: 1074m
 METERS
 0 100 200
 AK State Plane Zone 4
 pwr051a

Subdivision Field Map
 Map Key: PWSEV051A
 Name: CHANEY
 Date: MAY 24 1991
 Date Entered:

Reviewed: mc 6/1/91
 reviewed 5/30/91 kg

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-20

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ IN-20 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ST-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment $\leq$ 500M.
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 a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: _____ DATE: _____

OILING CATEGORIZATION:

Wide 102m: Medium 286 m: Narrow 77 m: V.Light 0 m: No Oil 427 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 25 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommended treatment includes manual removal of cleanup debris (pom poms) in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
1B Salmon stream mouth - spawning (7/10 to 8/31)
No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
1E Main Bay Hatchery release (4/20 to 6/15)
1F Sawmill Bay Hatchery release (4/15 to 6/1)
1G Cannery Creek Hatchery release (4/21 to 6/1)
1H Remote release site
No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
1J Purse seine area (7/20 to 9/30)
1K Purse seine hook-off (7/20 to 9/30)
1L Set net sites (6/11 to 7/25)
Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unholed intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- P Harbor seal and sea lion pupping (5/15 to 7/1)
30, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
ADF&G Tom Rothy 267-2208
- ✓ 5T All Bald Eagle nests (3/1 to 6/1)
Active Bald Eagle nests (3/1 to 9/1)
Restrict air traffic and all disturbance to essential minimum. No personnel within 400m 3/1 to 6/1. Air approach and takeoff from and to seaward only; maintain 800m horizontal, 300m vertical distance from nests. Contact USFWS prior to treatment for confirmation of dates.
AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 6U Recreation: Tent sites (5/1 to 9/15)
6V Anchorages (6/1 to 9/15)
6W Forest Service cabins (5/1 to 9/15)
6X Lodge (6/1 to 9/15)
6Y Special use destination
- 7Z Subistence area: Salmon harvesting (5/1 to 9/30)
Finfish harvesting
Deer harvesting (8/15 to 2/26)
Invertebrate harvesting
U
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/ IN-20 SUBDIVISION: A DATE 4/23/90

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michele Baer SIGNATURE Michele Baer

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- 1) Remove mousse by pits #1 and #2 where possible. Lg. Limit access ~~to~~ to mousse in between.
- 2) On SW side of cove, there are areas of hand-size cobble amongst B's. In these areas (approx. 2 x 5 M) remove the cobble, shovel away mousse layers, most of which are anaerobic, down to clean layer then replace cobble, no treatment recommended on northernmost Boulder field.
- 3) Retrieve pom-poms from both sides of the beach (3 bags full)

LAND MANAGER

NAME Carol S Huber SIGNATURE _____

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

Recommend manual pick up of tar mats and oily debris. Snow melt water flowing across beach indicates oil is mobil by the abundant rainbow sheening. Resource values ~~substant~~ Tent sites might be feasible on the ~~two~~ largest pocket beaches.

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-20
 BIO P. Crank LAND REP C. Huber SUBDIVISION A (1 OF 1)
 EXXON T. Temblin ADEC M. Baer TIME 18:00 to 20:20
 TEAM NO. 5 TIDE LEVEL +1 TO +2 DATE 04/23/90
 EST. SUBDIVISION LENGTH: 1035 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: SE to NW
 SURFACE SEDIMENTS: R 15 % B 40 % C 15 % P 15 % G 10 % S 5 % M 0 % V 0
 SLOPE: Lang 50 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 90 m M 255 m N 40 m VL 40 m NO 650

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	C	S	P	B	BR	BL	GY	OR	PK	TR	YEL	GRN	SU	U	M	U
ASPHALT PAVEMENT																
POOLED																
COVER			X							X				X		
COAT		X	X	W	O			X	X					X	X	
STAIN																
MOUSSE				X						X				X		
PATTIES																
TARBALLS																
FILM																
NO OIL													X			X

PAVEMENT H F S 0 sq. m by 0

PATTIES / TARBALLS 0 BA

NEAR SHORE SHEEN? NO BR RW SL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs	X		
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐

TYPE trash

#BAGS 1

Photographs:

Roll No. 5T-5-7

Frames 6-11

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (CM-CH)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SHEEN (Y/N)	↓	SURFACE SUBSURF SEDIMENT
		OP	OR	OL	OF	NO		VO	UC	BR	BL	GY	OR	PK	TR	YEL	GRN	SU	U	M	U				
1	30	X					0-12		X									X					BR	28	B/PG
2	20	X					16-18		X											X			BR	18	BC/K
3	15					X	.		X												X		N	13	BC/PG
4	25			X			23-25		X		X									X					BC/PG
5	60					X	.		X											X					G/GC
6	35					X	.		X									X							PS/S

COMMENTS

MS on northeast-facing (cobble-boulder) beach has stronger petroleum odor than usual but is not anaerobic.

REVIEWED M/H

DATE 4-27-90

REVISION 04: 12/90

REVIEWED YH DATE 4-25

00 J Solinger

SEGMENT N-20

SUBDIVISION A

DATE 04 / 23 / 00

SKETCH MAP

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Say/Tab Backy
- ☐ Oil Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HWR/LMR
- ☐ SBL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

1 Δ

P/L - No Subsurface Oil

2 Δ

P/L - Subsurface Oil

CT/C

Continuous Distribution

CT/B

Broken Distribution

CT/P

Patchy Distribution

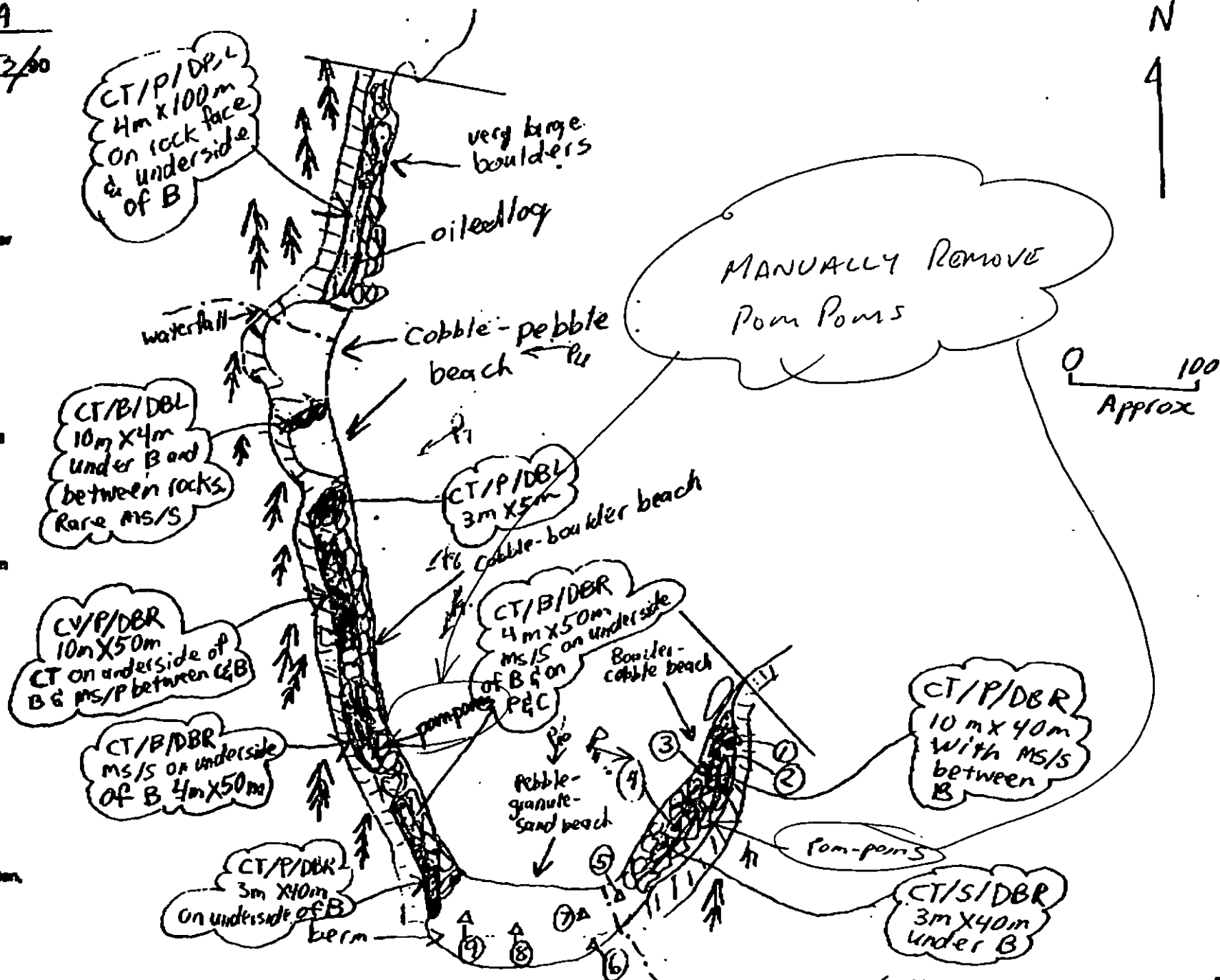
CT/S

Spashed Distribution


 Oil Vegetation

1 ●●

Photo location, direction, and number



Oil Character Length (m): AP PO CV 50 CT 335 ST MS PT TB FL NO 650

SHORELINE ECOLOGICAL SUMMARY

REVISION: 0022

Segment ST 1N 20 Subdivision A Date (mo / day / yr) 4/23/70

Time (24 hr) 1815-2030 Biologist Crunl pg 10 of 3

(A) Substrate type and % of segments:
(1) Bedrock 15 (2) Boulder 40 (3) Cobble 15 (4) Pebble 15 (5) Sand 10 (6) Silt

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

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

Photographs: Roll No. ST-5-7

Frames 6-11 overview:

5A:15

BARNACLES

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

MYTILUS

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

GASTROPODS

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

FUCUS

Dense
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Moderate
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Sparse
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

Rare
1U 1M 1L
2 2 2
3 3 3
4 4 4
5 5 5
6 6 6

NOT PRESENT

Wildlife Observations/ General Comments:

11- Ducks on H₂O

1- Bird- No ID (small)

3- Marbled Murrelets

1- Cormorant

2 Seals on

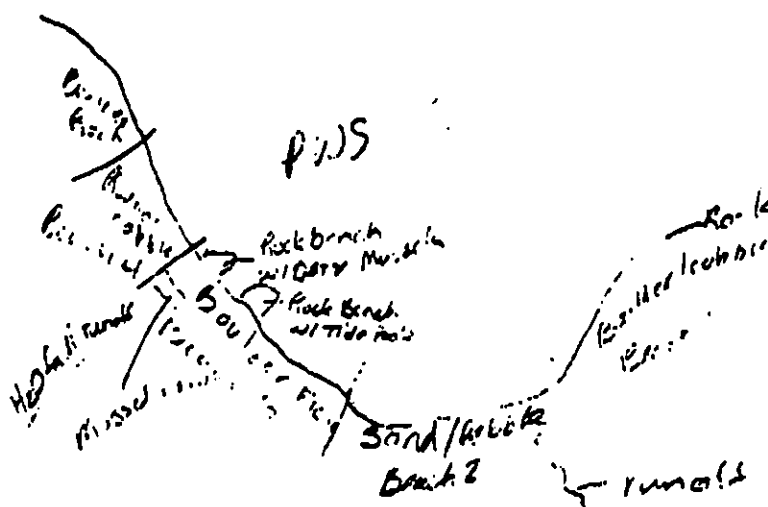
2 Gulls

1 Great Blue Heron

Ecological Considerations:

None

Segment: ST/IN20A Length: 1035 m Biologist: Crank
Date: 4/23/90 Time: 1815-2030 Tide Height: 11 → 12 ft



General Comments

Beach 1: Boulder/Cobble

- MITZ Boulder: 80% cover w/ Fucus, 60% in U1TZ, 20% in L1TZ
- Rare barnacle distribution in U1TZ; L1TZ. 1m band with moderate concentration of barnacle spat on boulders in MITZ - 20% mortality (many covered with algae)
- No Mussels observed
- Sparse number of Nucella found in L1TZ, 20% Littorina or Littorina
- 1/2 m bands with sparse concentration of Fucus with rare sporlings in L

Beach 2: Pebble/Sand Beach with some cobble

- Runoff stream
- 100% low tide
- Small (2cm long) segmented white worm under cobble

Beach 3: Boulder Field w/cobble: 2: rock benches

- Murella: - rare spotted on eastern side. Concentration increases to form a moderate band along the boulders. 10% mortality on unroiled substrate; 30% on oiled surfaces.
- Barnacles - moderate to dense in MITZ, dense in U1TZ, rare in L1TZ. 10% mortality in unroiled surfaces; 20% on oiled
- Fucus: There is a 1m band of moderate concentration in MITZ with sparse sporlings.
- 2 rock benches: eastern bench has several tidepools with diverse fauna; western bench has dense murella bed and a moderate concentration of Rotharia tunicata.

Beach 4: Rounded Cobble w/a few Boulders.

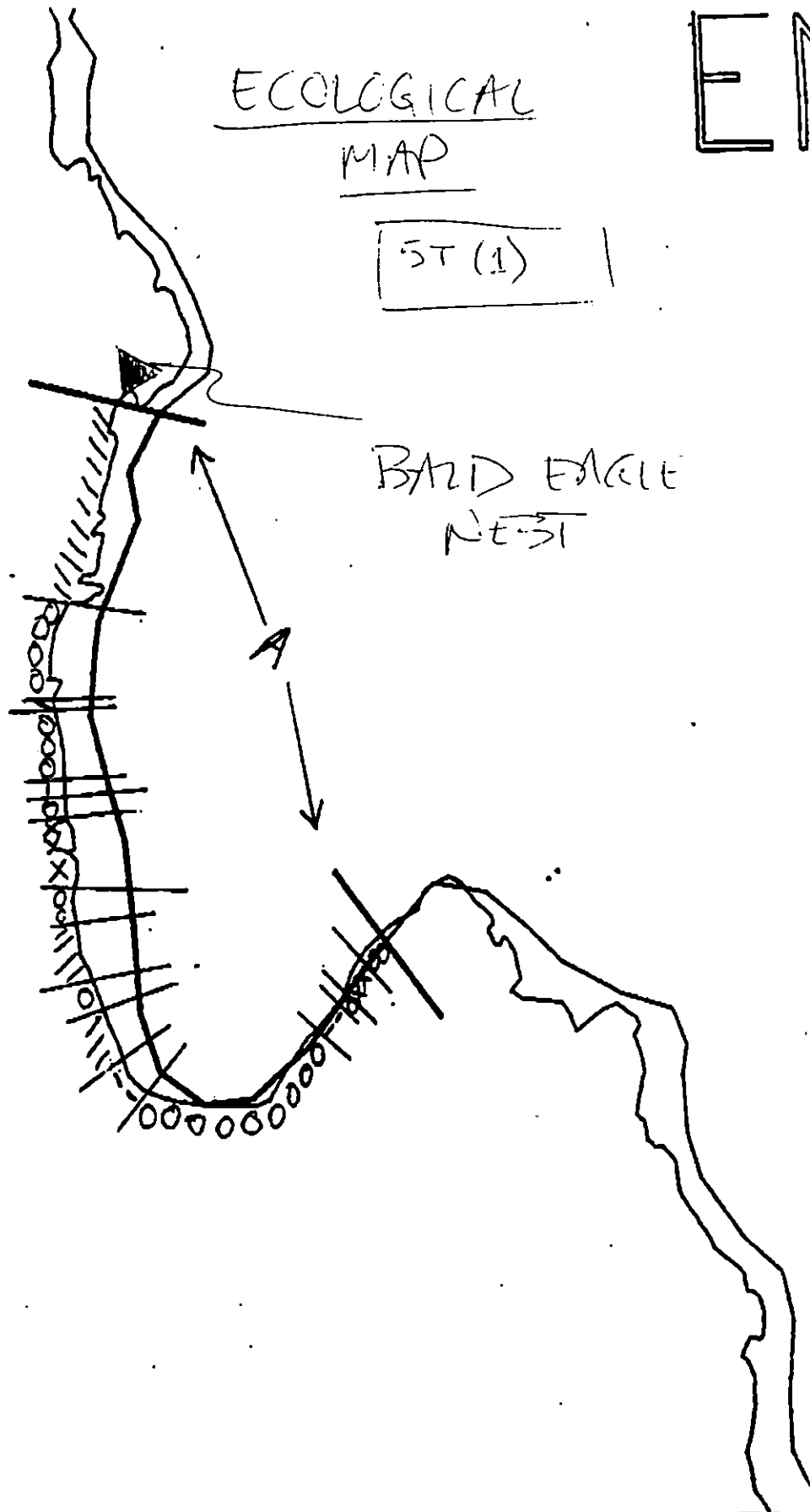
... Mussels (recruits in crevices) and rare barnacles (Murella)

E1

ECOLOGICAL MAP

ST (1)

BAD EAGLE
NEST



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

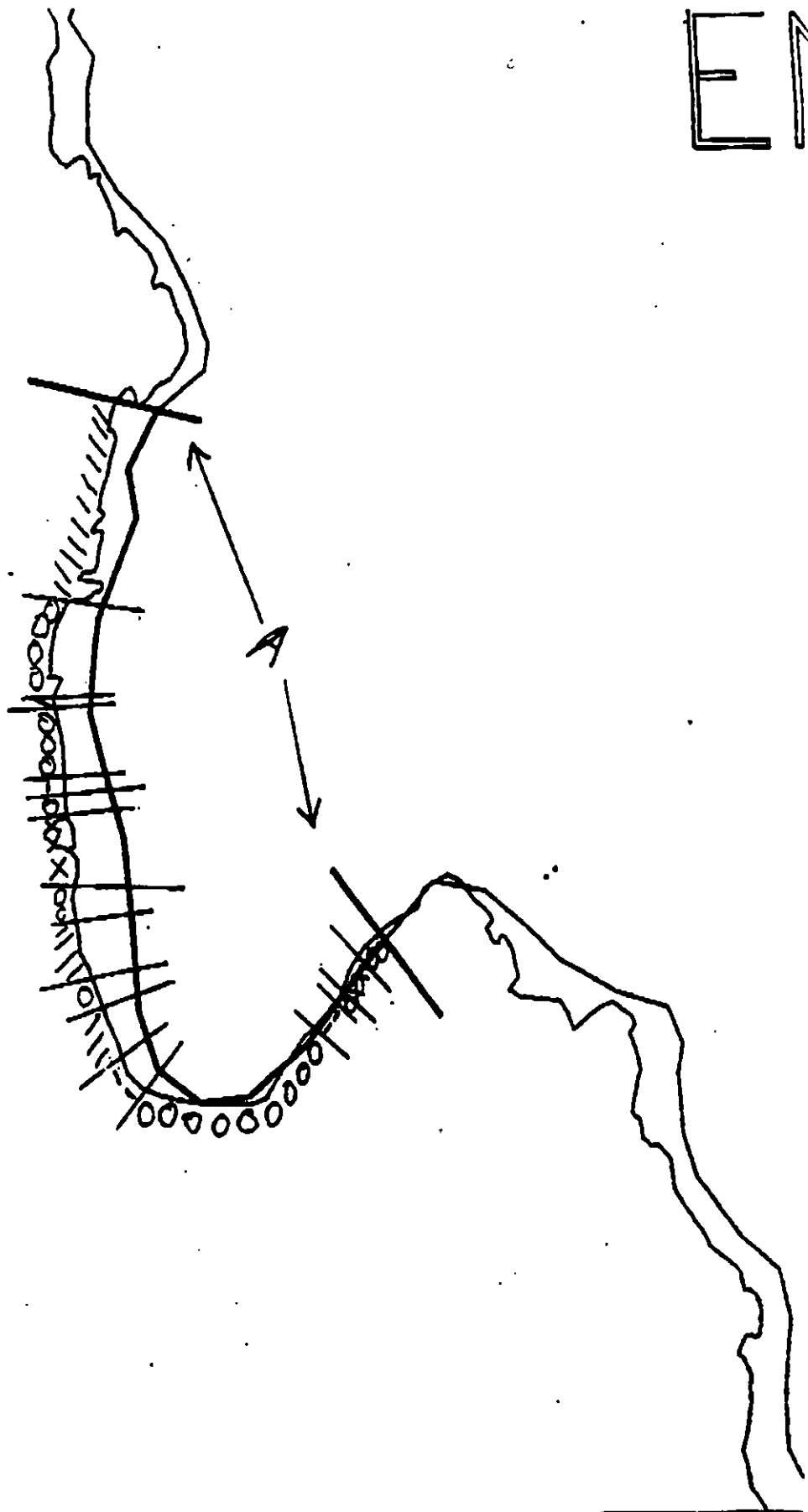
IN-20

ADEC Segment Length: ¹⁰³⁵~~772~~m



Map Key: PWS-268
 Name: James Springs
 Date: 4/23/90
 Data Entered:

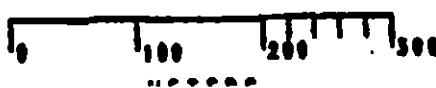
E1



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

IN-20

ADEC Segment Length: ¹⁰³⁵~~843~~m



Map Key: PWS-268
 Name: James Spring
 Date: 4/23/90
 Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT IN-20 SUBDIVISION A (1 of 1)

WORK WINDOW	
Manual Pickup	OPEN
Bioremediation	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. Bald eagle nests in adjacent Subdivision are inactive according to USFWS 8/1/90 survey map.

OTHER ECOLOGICAL CONSIDERATIONS

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

FOSC

DATE

6-10-90

Prepared By:

Andrew Meyer JPP

Date

6/5/90

IN-21

BL-12

New Eagle
Nest

55
INACTIVE
NEST

52
INACTIVE
NEST

EN-45

INACTIVE
NEST 53

IN-20

WORK AREAS

SP-4

IN-31

New Eagle
Nest

Incorporates
USFWS eagle nest
survey data.
(6/1/90 map)



Evans Company, USA

ECOLOGY MAP
SEGMENT IN-20

SUBDIVISION A (1 of 1)

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ IN-20 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

ST-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment $\leq$ 500M.
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 a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

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

OILING CATEGORIZATION:

Wide 102m: Medium 286 m: Narrow 77 m: V.Light 0 m: No Oil 427 m
Subsurface Oil Observed: Yes X No Maximum Depth 25 cm

RECOMMENDATIONS:

 No Treatment Recommended
X Treatment Recommended
X Manual Pickup
X Bioremediation
 Tarnat Removal

 Snare/Absorbent Booms
 Oil Snares (pom poms)
 Absorbents (pads, rolls, etc)
 Spot Washing: Wands
 Beach Cleaner
 Other (see comments) mw

COMMENTS: Recommended treatment includes manual removal of cleanup debris (pom poms) in areas indicated on sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

See ADDENDUM dated 6/5/90 JPP

TAG COMMENTS:

TAG APPROVAL DATE: May 5 1990

ADEC Art Wempe Art Wempe
EXXON Mark N. S. Herbert Mark N. S. Herbert FOSC: [Signature] DATE: 5-9-90
NOAA Gary Deane Gary Deane
USCG C.A. Butler C.A. Butler

SHORELINE EVALUATION

SEGMENT ST/ IN-20 SUBDIVISION A (1 OF 1) DATE 4/23/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
Eagle nest in adjacent segment $\leq$ 500M.
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 a member of Exxon's Cultural Resource Program immediately (564-3657; 564-3658 or 564-3276).

SHPO SIGNATURE: *Mark E. Adams* DATE: 5/5/90

OILING CATEGORIZATION:

Wide 102m: Medium 286 m: Narrow 77 m: V.Light 0 m: No Oil 427 m
Subsurface Oil Observed: Yes X No Maximum Depth 25 cm

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) Mousse and

COMMENTS: Recommended treatment includes manual removal of cleanup
debris (pom poms) in areas indicated on sketch map. Work should be
conducted after 6/1 with approval of USFWS regarding eagle nest con-
straint.

TAG COMMENTS:

TAG APPROVAL DATE: May 5 1990

ADEC ART WEINER Art Weiner

EXXON Mark N. Silber Mark N. Silber FOSC:

NOAA Gary Petros Gary Petros

USCG G.A. Reiter G.A. Reiter

DATE: 5-9-90

00 J. Salinger

SEGMENT STATION N-20

SUBDIVISION A

DATE 04 / 23 / 90

CHECKLIST

☐ N Area
☐ Approx. Scale
☐ Seg/Sub Entry
☐ Oil Dist.
☐ Wash
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. MW/LWL
☐ SBL
☐ Profile Location(s)
☐ Profile(s)
☐ Photo Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 P1 - No Subsurface Oil

2 Δ
 P1 - Subsurface Oil

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

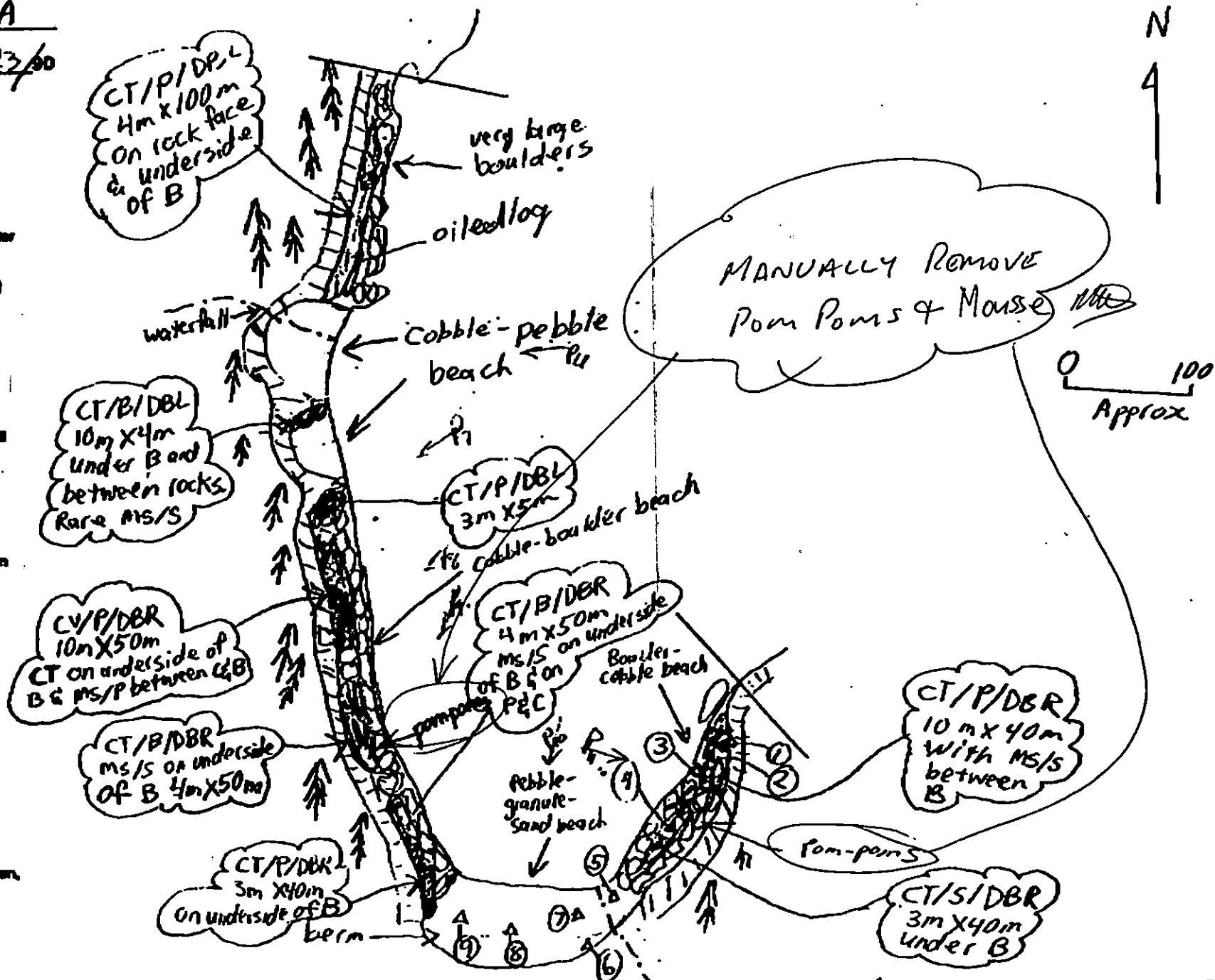
CT/P
 Patchy Distribution

CT/S
 Spashed Distribution

eee
 Oiled Vegetation

1 ●●●
 Photo location, direction,
 and number

SKETCH MAP



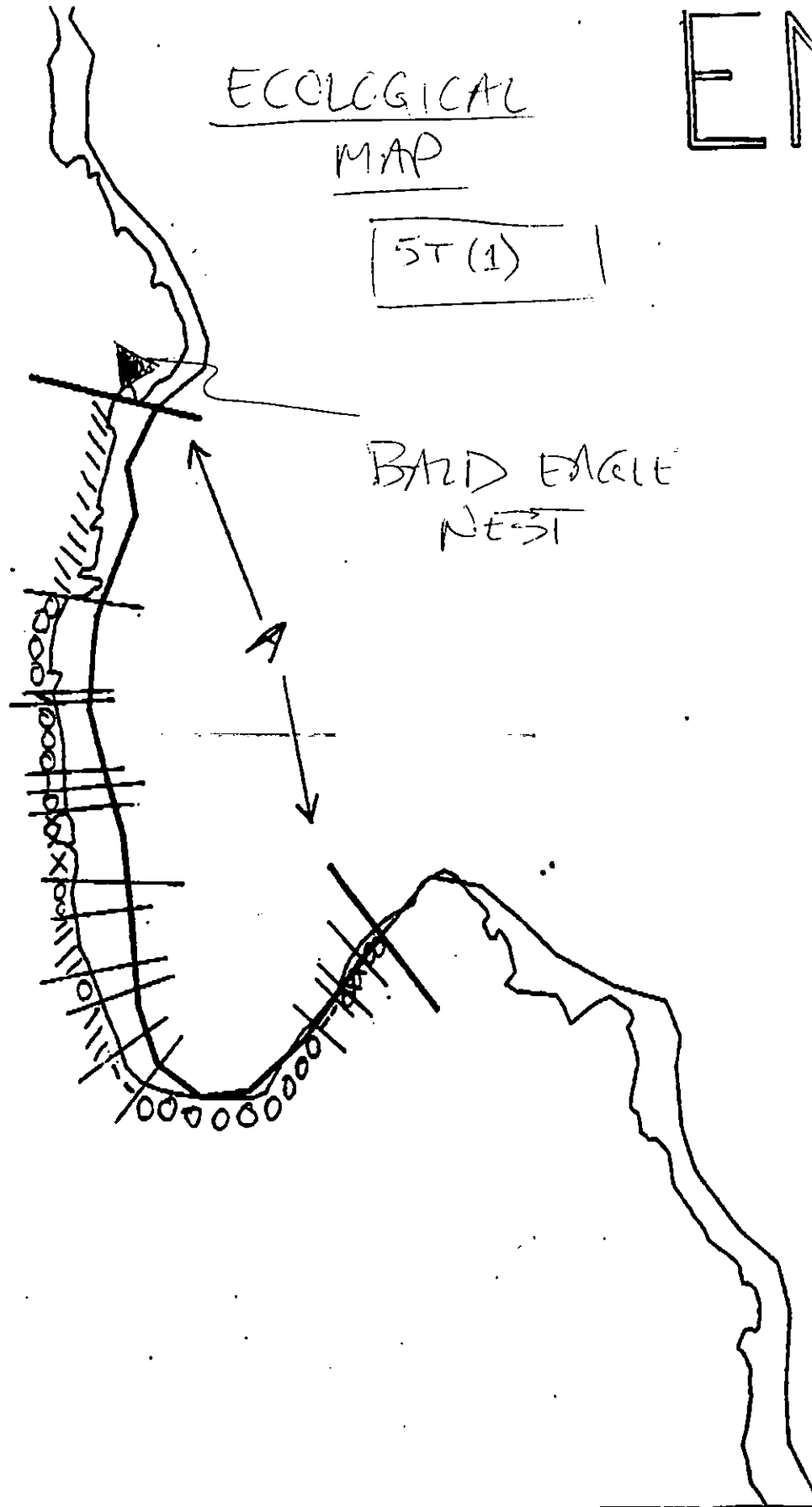
Oil Character Length (m): AP PO CV 50 CT 335 ST MS PT TB FL NO 650

REVISIONS

ECOLOGICAL MAP

ST (1)

BIRD EAGLE
NEST



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

IN-20

ADEC Segment Length: ¹⁰³⁵~~842~~m

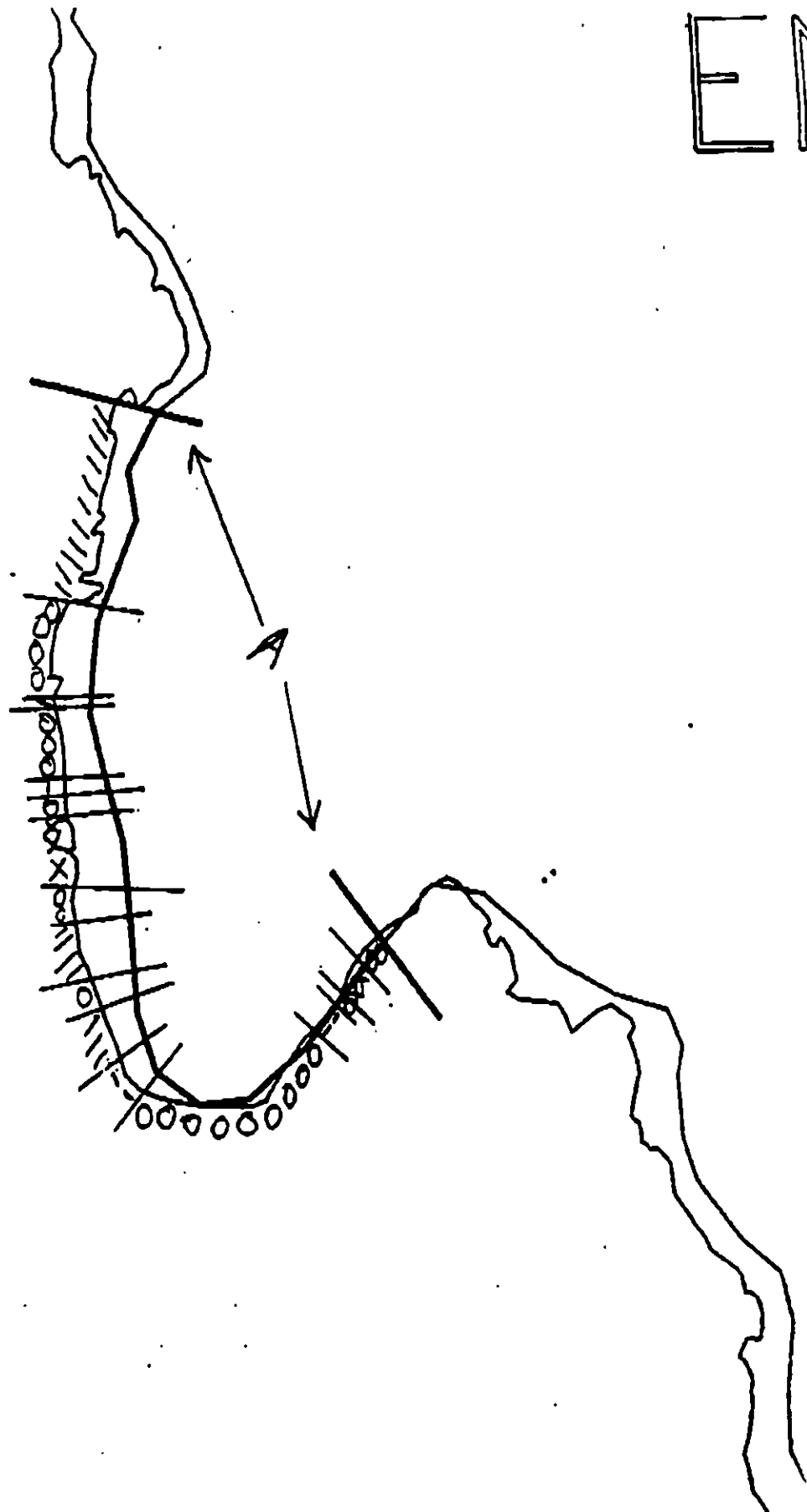
0 100 200 300
 METERS

Map Key: PWS-268

Name: James SpringDate: 4/23/90

Date Entered:

EI



XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

OOOO No Oil

IN-20

ADEC Segment Length: ¹⁰³⁵~~442~~m



Map Key: PWS-268

Name: James Spring

Date: 4/23/90

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: IN 021 SUB: A REGION: PWS SURVEY DATE: 5/24/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith Date: 6/07/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<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: JUNE 7 1991

FOSC APPROVAL DATE: 6/12/91

ADEC

FOSC

EXXON

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

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.

MEMORANDUM

To: Tag Members
From: Team No. 2.
Subject: Explanation of the addendum for segment IN-21-A.
Date: May 25, 1991

The survey of In 21-A when it was originally done was not complete. It was determined by this team in order to insure the integrity of the survey the rest of the remaining segment should be accessed. We surveyed the remainder of the segment on 5-22,91. Since this survey involved a different og, the og we had on the team completed an addendum to the original work.

Frank ABx

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN-021 SUBDIVISION A DATE 5/14/91

C Peter Montesano SIGNATURE Peter Montesano

☐ NTR ☒ TREATMENT RECOMMENDED

INCOMPLETE SURVEY

Only a small portion of this subdivision was surveyed. One beach out side of the ASAPSites where oil was found and broken up. The oiling which was broken up was thick enough to warrant removal (map #3). The oiling area B is largely in jagged sediments and would be difficult to remove. The oiling along area A is all easily accessed and removable in all of the small pocket beaches. The consistent deposits provides a high enough distribution for treatment. The necessary removal will be readily apparent at each pocket. The % coverage of the SOR for all of the areas is consistently lower than reality. Some of this SOR is mixed w/ MS. The LITZ was not observed.

EXXON

NAME C.M. Watson Davis SIGNATURE C.M. Watson Davis

☐ NTR SOME AREAS OF SOR HVY. COULD BE IMPROVED ON WITH MANUAL REMOVAL, BREAKUP. (BIOREMEDIATION MIGHT BE HELPFUL AFTER MANUAL TREAT.)

LANDMANAGER

NAME DENNIS S. Kennedy OF USFS SIGNATURE D.S. Kennedy

☐ NTR Some of the SOR in location [A] could be worked by hand. If worked care must be taken around the mussels & other biota. This location is protected from strong wave action.

USCG/NOAA USCGA D. SIMELCK-BEATTY R. Simelck-Beatty NOAA

NAME BMI M. P. ZENONE USCG SIGNATURE BMI M. P. Zenone

☐ NTR This segment is mostly scattered patches of SOR. Although section A5 contains the heavier concentrations of oil, the contaminated area is relatively small and between the boulders. The biologist has also noted that the lower intertidal zone contains a dense and diverse biota - A5-B3

REST OF SEGMENT CONTAINS SMALL ISOLATED PATCHES OF COAT + COVER AS SEEN LAST YEAR
AGREE W/ NOAA ON PERSPECTIVE TREATMENT. 3

MAYSAP FIELD SHORELINE COMMENT SHEET

* Supplement to
Survey of 5/14/91

TEAM NO. 2 SEGMENT IN-21 (sup) SUBDIVISION A DATE 5/22/91

EC Peter Montesano SIGNATURE [Signature]

☒ NTR ☐ TREATMENT RECOMMENDED

This portion of the segment is less ~~oiled~~ oiled than the portion previously surveyed. The area of MOR is shovel tillable, but the lens is thin and in a limited area.

This Supplement nullifies my "Incomplete Survey" noted on my previous comments.

EXXON NAME PPH Box SIGNATURE [Signature]

☒ NTR Nothing found on this portion of the segment that would warrant treatment.

LANDMANAGER NAME OS [Signature] OF US-ES SIGNATURE [Signature]

☐ NTR 1st comments still valid

USCG/NOAA NAME Bill Zealove USCG SIGNATURE [Signature]

☐ NTR Blessed are they who have nothing to say, and who can not be persuaded to say it.

CG - EXCEPT FOR PREVIOUS COMMENTS, FURTHER TREATMENT ON THE SECOND PORTION OF THIS SEGMENT IS NOT RECOMMENDED.

Continued →

MAYSAP SHORELINE OILING SUMMARY

TEAM NO. 2

— Done in 2 parts on 5/14 & 5/22, 1991 —

OG TRIMM/REIMER

BIO S. BAN

SEGMENT IN-21

ADEC P. MONTESANO

LANDMANAGER D. Kennedy for USFS

SUBDIVISION A

EXXON C. KATSIMPALIS/BOX

USCG/NOAA ZENONE/SIMECEK-BEATTY

DATE 5/14/91

TIME 17:58 ~~18:00~~ to 20:00 (5/14) TIDE LEVEL 5.23 ft. to 5.55 ft. (5/22) ENERGY LEVEL: ☐ H ☒ M ☐ L

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

TOTAL LENGTH SHORELINE SURVEYED: 1466 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 158 m VL 223 m NO 1070 m US 595 m

5-14-91

5-22

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	
A1				S	S	S	S				B	M	1	15		X			Hvy. SOR under Boulders
A2					S	S	S				B	M	0.5	15	X				
A3				S	S	S	S				BR	M	1	5		X			Hvy SOR under boulders
A4			T	S	S	S	S				BC	M	1.5	30		X			"
A5				B							B	M	1	4		X			"
A6					P	P					R	V	1	5		X			
A7				S	S	S	S				B	M	1	8		X			LT. SOR under Boulders
B1			S		S	S	S				CB	M	1.5	100		X			
B2				P							BC	M	2.5	30	X	X			Med. SOR under boulder/cobble
B3	S			P							B	M	2	12	X				Hvy. SOR & AP under boulders
4				S							C	M	1	25	X				Hvy. SOR under cobbles
21						T	T				B	M	1	30	X				
A						S					R	V	1	10		X			
B						S					R	V	1	15		X			
C					P	P					R	V	1	20	X				
D						P					R	V	1	5		X			

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP- 2-15 FRAMES 1-7

5/14

5/22

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER								OILED ZONE	CLEAN BELOW	H2O LEVEL	SHEEN COLOR	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO		cm-cm	Y/N	(cm)	B R S N	S	UI	MI	LI		
1	5							X		-	7	5	R		X			B - GSCP org	SOR on surface
1	18				X					12-17	Y	16	B		X			P - PG	
2	20									-					X			P - PG	
3	20									-					X			PC - P	
4	35									-					X			P - P	
5	18				X					15-18	Y				X			P - P	with bedrock
6	40									-					X			P - P	
7	40									-						X		P - PC	

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

REIMER 5/22

TRIMM 5/14

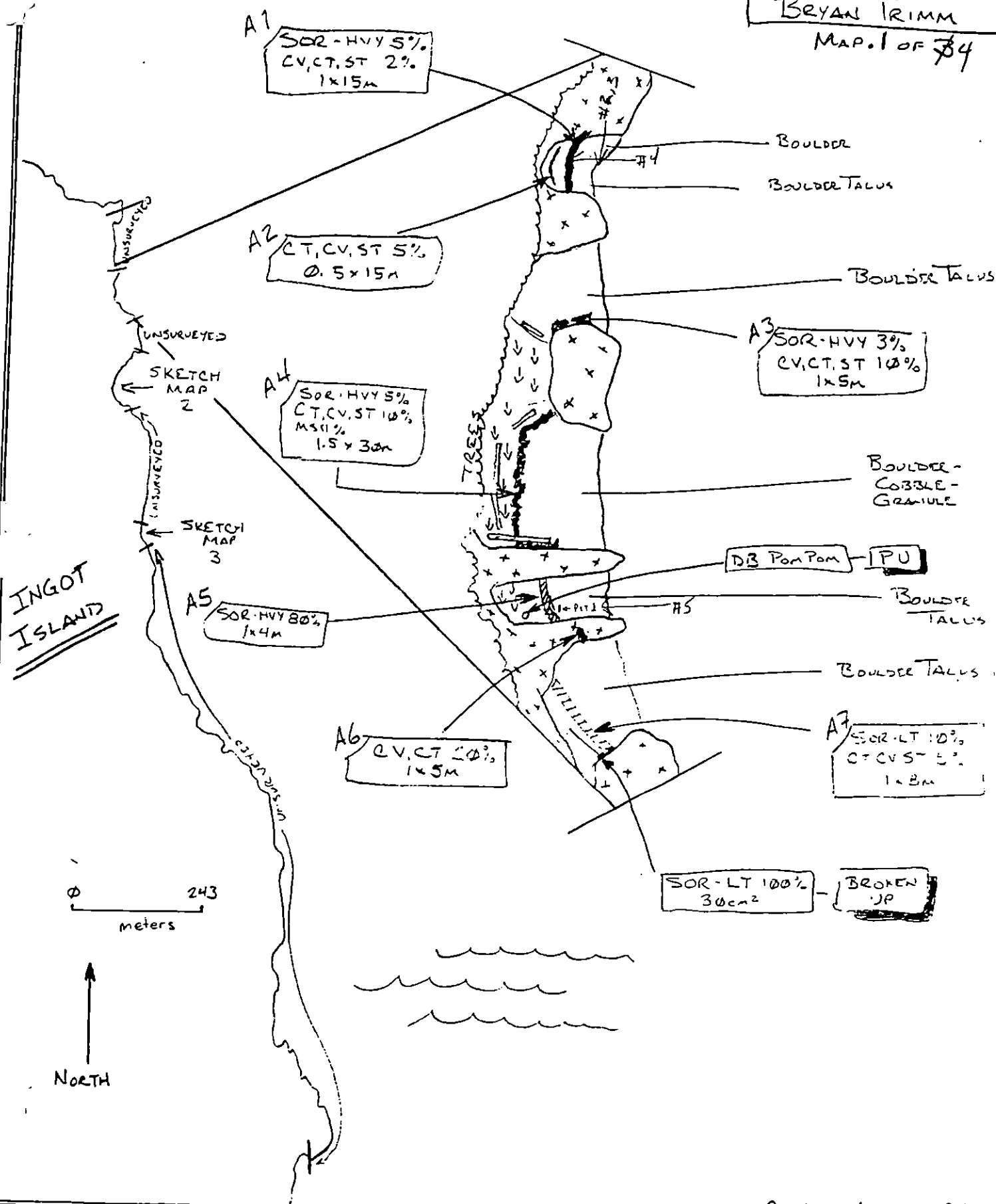
***OG COMMENTS:** This report is an addendum to the Maysap report of 5/14/91. This additional survey was done to fill in a section of shoreline which was originally unsurveyed. The information in this report covers ONLY the additional shoreline. The section of shoreline surveyed is predominantly vertical rock cliff with small pockets of boulders and boulder lag material. Discontinuous BTR was along the coast as indicated on sketch map. (P.D. Reimer 5.22.91)

Rock shore with pocket beaches.
SOR usually found between & underneath boulder, cobble veneer. (B. Trimm 5.14.91)

See comments on following page for explanation. REVISOR: MC 6/11/91

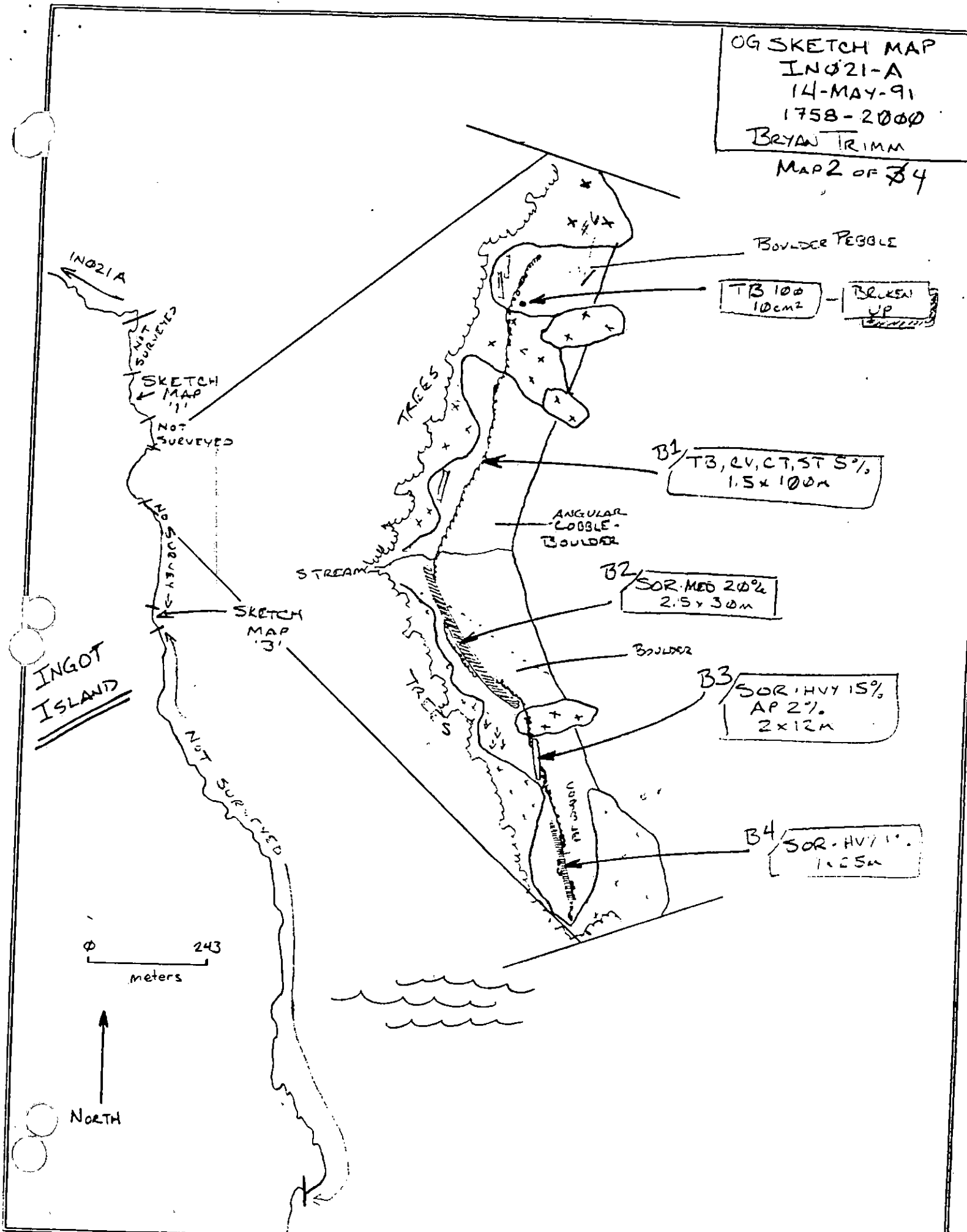
Reviewed: MC 6/1/91

OG SKETCH MAP
IN 021-A
14-MAY-91
1758-2000
BRYAN TRIMM
MAP. 1 OF 34



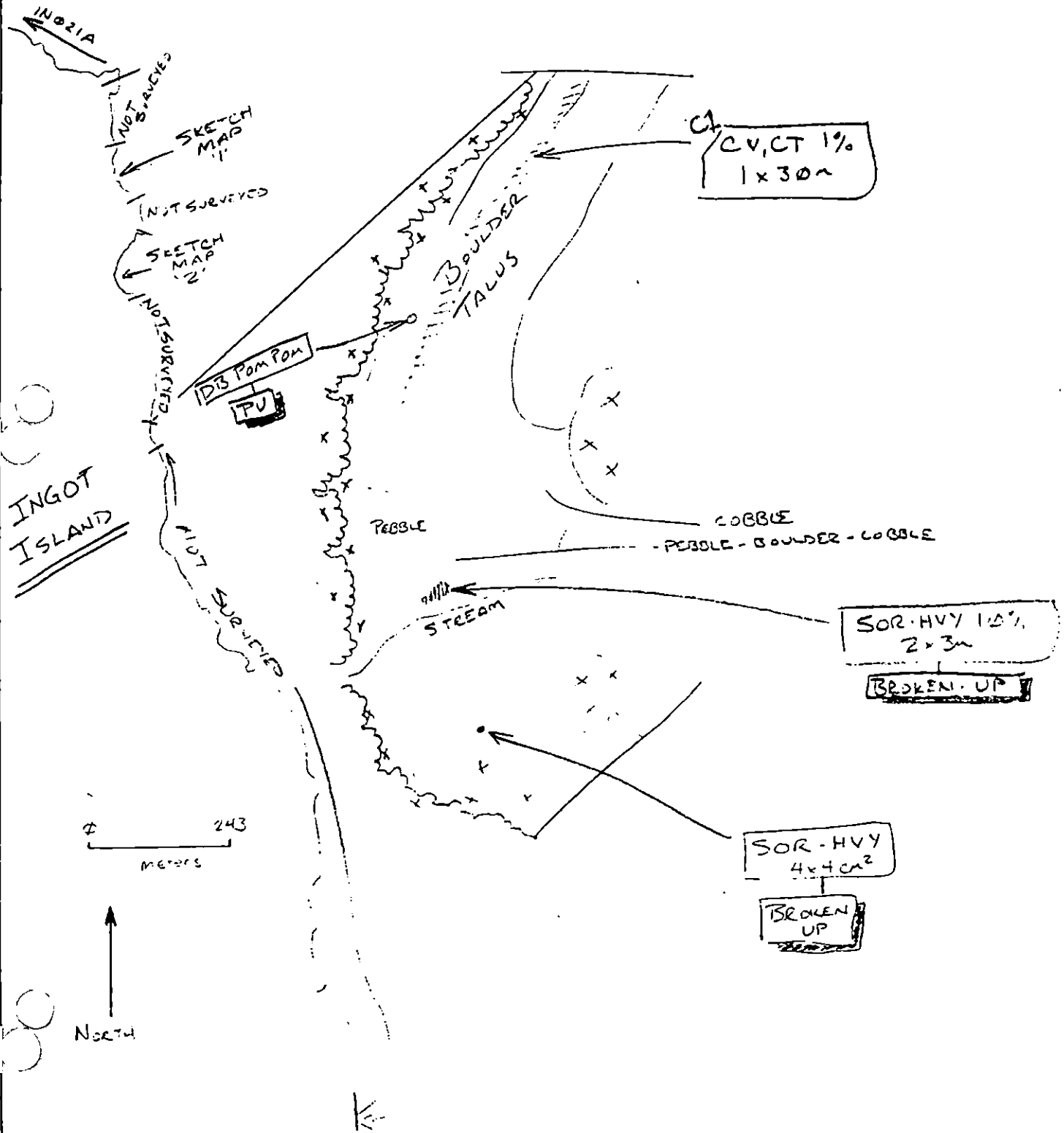
Reviewed 5.29 ggy
Reviewer: Mr. [unclear]

OG SKETCH MAP
 IN 021-A
 14-MAY-91
 1758-2000
 BRYAN TRIMM
 MAP 2 OF 34



reviewed 5.29.94
 R. W. W. S. M. C. 1.1.94.

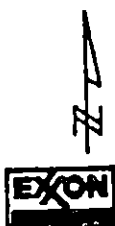
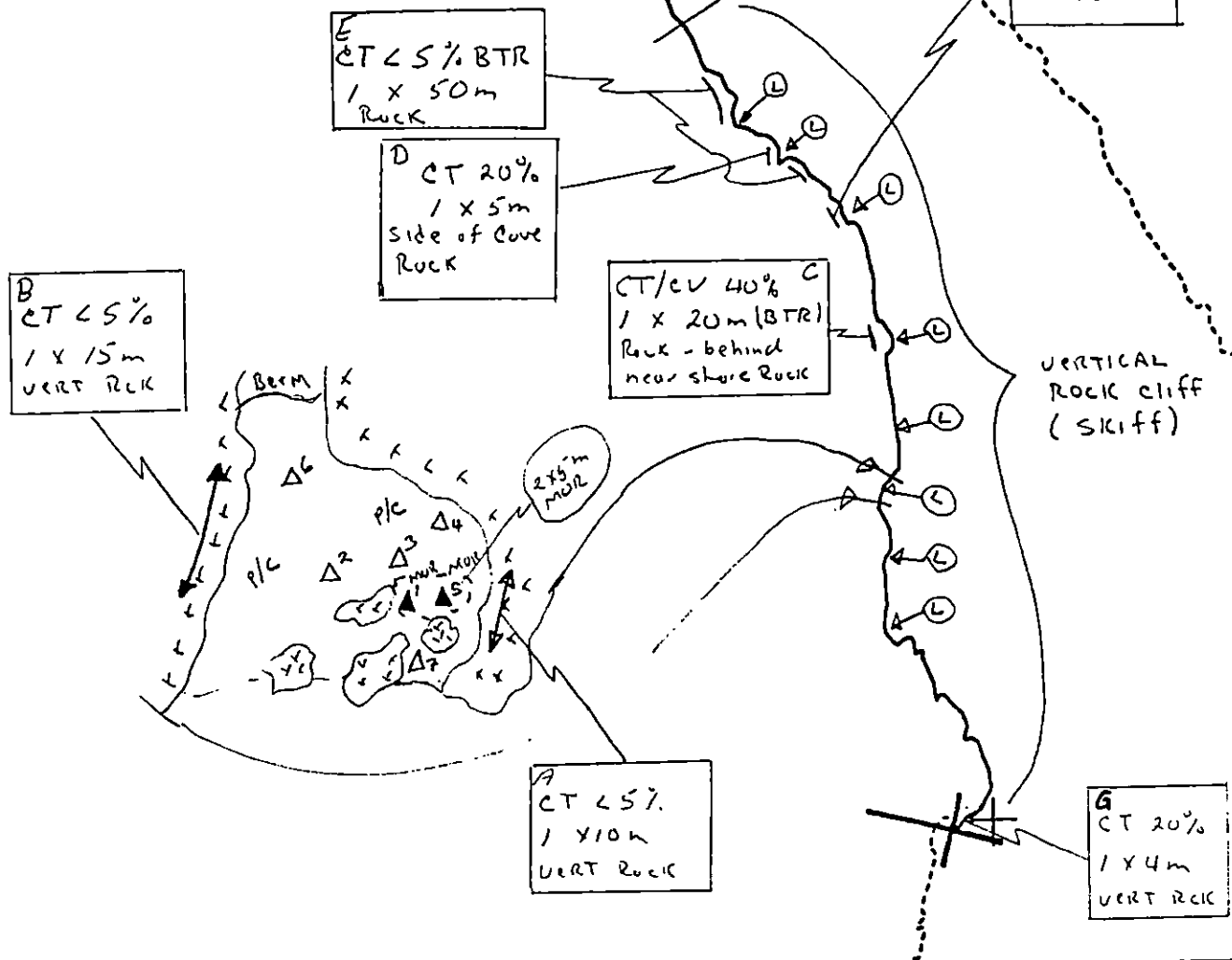
OG SKETCH MAP
INØ21-A
14-MAY-91
1758-2000
BRYAN TRIMM
MAP 3 OF 34



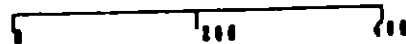
reviewed 5.29.94
REMARKS: MC 6/1/91

OG SKETCH (Addendum)
IN 21A
MAY 22, 1991
17:40 - 18:23
Doug Reimer

Ⓛ - Landing Site for
check on oiling.



IN 021 A
(ADDENDUM)
METERS



At Scale Plans, Zone 4
Elevation

Subdivision Field Map
Map Key: EN11N021Aa
Name: Reimer
Date: 5/22/91

Reviewed: MC 6/1/91

Sketch Map #4/4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 14 May 91
 SEGMENT # IN 21 TIDAL HEIGHT (Range) +2
 SUBDIVISION A BIOLOGIST S.M.BAN
 SEA STATE Calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # — FRAME # —

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

- A1: SOR BAND in Urosalpinx zone with scattered barnacles. Oligochaetes observed under rocks on oiled sediments. Dense barnacle spat limpets and mussels in lower ITZ of cove.
 A2 & 6: Stain is high in ITZ. Pichen & mosses in zone at each site.
 A3: Amphipods & Oligochaetes found on oiled sediments under rocks. Recent spat & Fucus recruits in adjacent lower ITZ.
 A5 & 7: Sparse barnacles & Fucus in oiled zone. No amphipods or oligochaetes observed under rocks in either zone. Lower intertidal in both coves is dense & diverse.
 B1: Oil is high in ITZ but tarballs found in zone with sparse Littorines and barnacles. These pocket beaches have dense populations of snails which have grazed the green algae cover.
 B2: No Littorines this high in ITZ. Green algae in oiled zone. Littorines & egg masses found lower on beach.
 B3: Oil is high in ITZ above green algae: lichens & mosses observed.
 B4: No biota but lower ITZ is diverse.
 C: Oil is at upper edge of barnacle zone in green algae zone. Lower intertidal supports mussels, Fucus, dense barnacles.
 ★ Stream has not been categorized as anadromous. Gravels at sides of stream produce sheen when disturbed. Tilling may be advised if done at high tide so lower zones are protected.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Innipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/29/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 22 May 91
 SEGMENT # IN-21 Addendum TIDAL HEIGHT(Range) 4 to 5 ft
 SUBDIVISION A BIOLOGIST S m B m
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

All oil was observed high in ITZ in the lichen zone. The beach below "A+B" was a naturally depauperate pebble area with dense Fucus, mussels & barnacles on outcrops in the lower ITZ.

Tide pools were encountered at many of the stops. The pools were dense with hitons, pagurids, paters, & sculpins. One pool contained a sea star (Pycnopodia) that was stalking an urchin (Strongylocentrotus drobachiensis).

Rock headlands below CT zone throughout the area supported dense patches of mussels, continuous Fucus & barnacles.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Flippers(specify)			
Whales(specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/24/91

SKETCH MAP
IN021-A
14-MAY-91
1758-2000

MAP. 1 of 3.

A1: Green algae and sparse scattered barnacles in silt zone. Oligochaetes under rocks in zone.

A2: Lichen and mosses only

A4: No biota in oiled zone.

A5: Sparse barnacles and spat + small amt. *Fucus*

A6: Lichen and moss only

A7: *Fucus* and barnacle adults scattered throughout zone

Boulder
limpets + mussels
BOULDER TALUS

Recent spat + *Fucus* recruits
BOULDER TALUS

A3: Amphipods and oligochaetes under rocks in oiled zone.

Recent spat
Fucus on boulders

BOULDER-Cobble-Gravels

BOULDER TALUS

BOULDER TALUS

0 243
meters

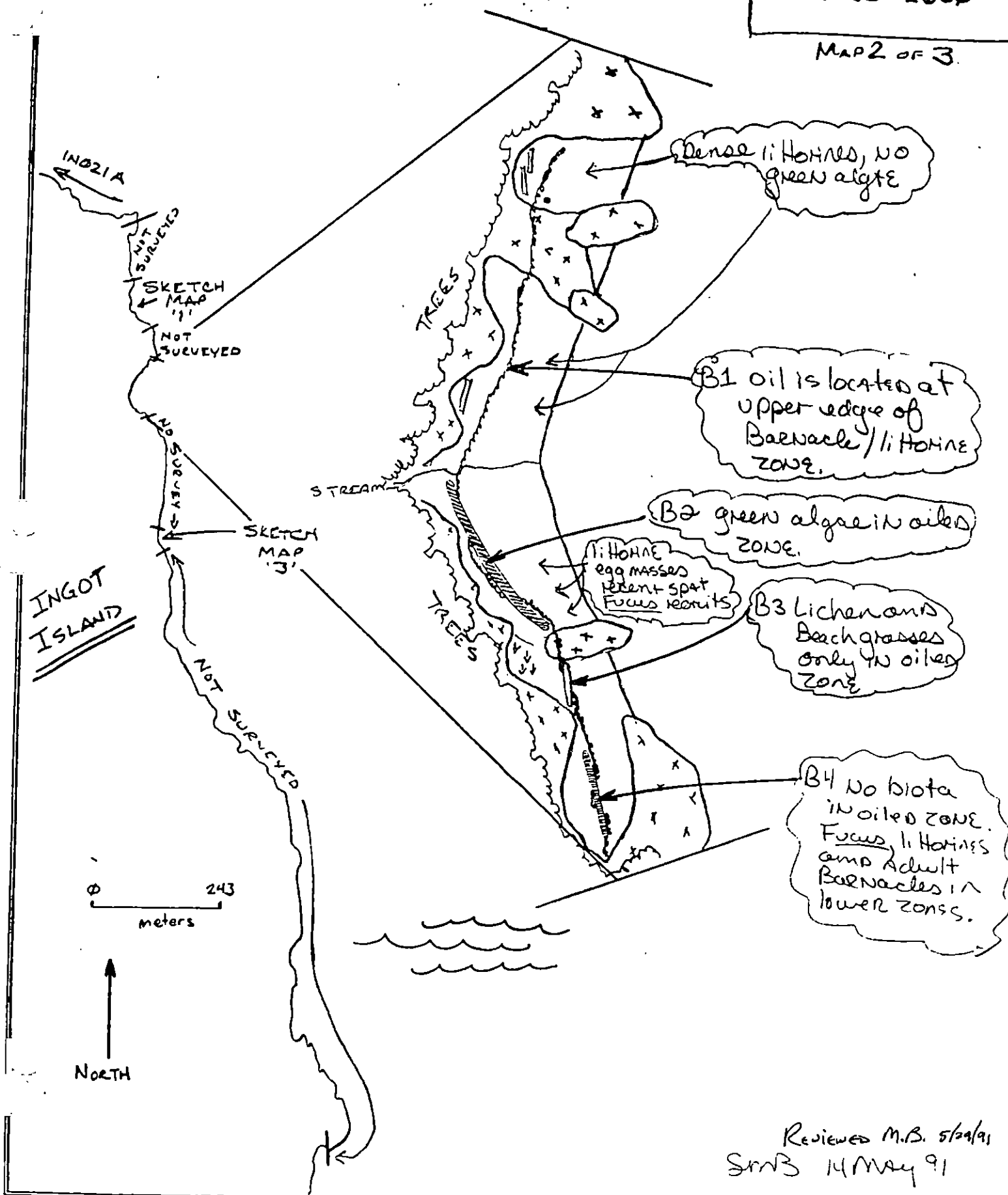
NORTH

INGOT ISLAND

Reviewed M.B. 5/24/91
SMB 14/1/91

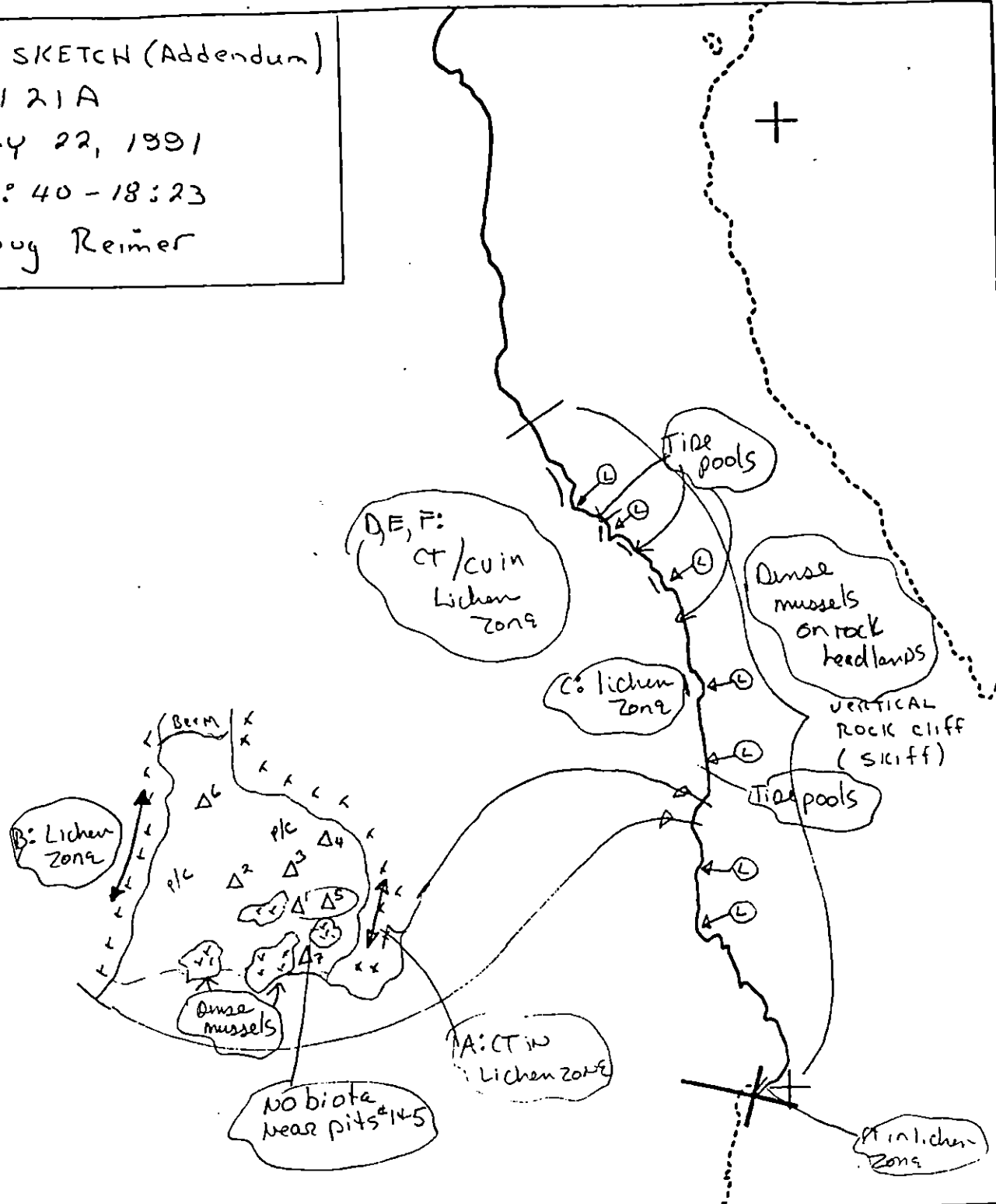
SKETCH MAP
IN021-A
14-MAY-91
1758-2000

MAP 2 OF 3

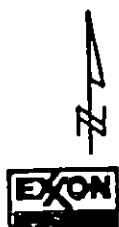


Reviewed M.B. 5/24/91
SrnB 14 MAY 91

OG SKETCH (Addendum)
IN 21A
MAY 22, 1991
17:40 - 18:23
Doug Reimer



IN021 A



METERS
0 100 200

At State Plane Zone 4
NAD83

Subdivision Field Map

Map Key: XN1IN021Aa

Name: Reimer/BAN

Date: 5/22/91

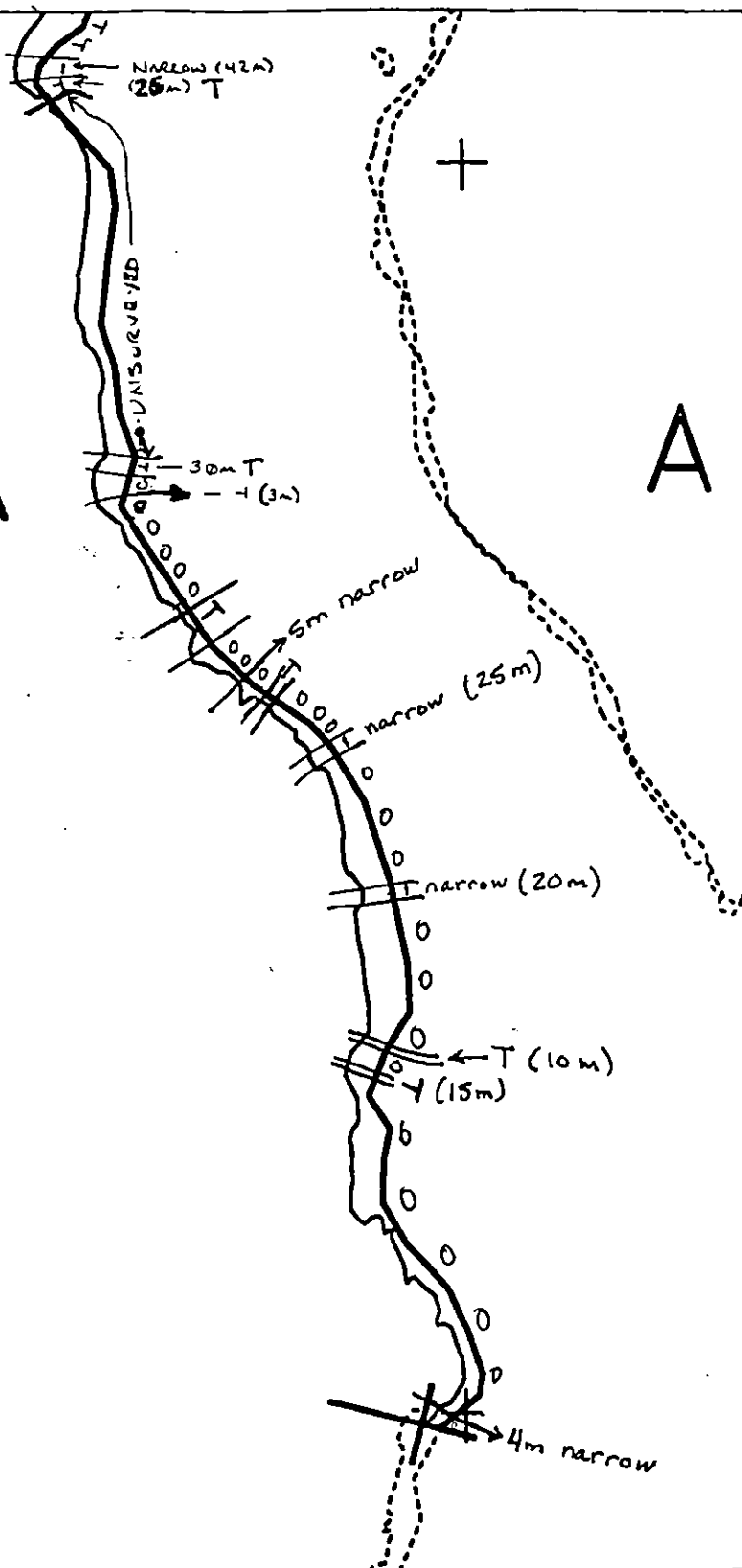
Reviewed M.B. 5/22/91

IN-21

map
1 of 2

A

A



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

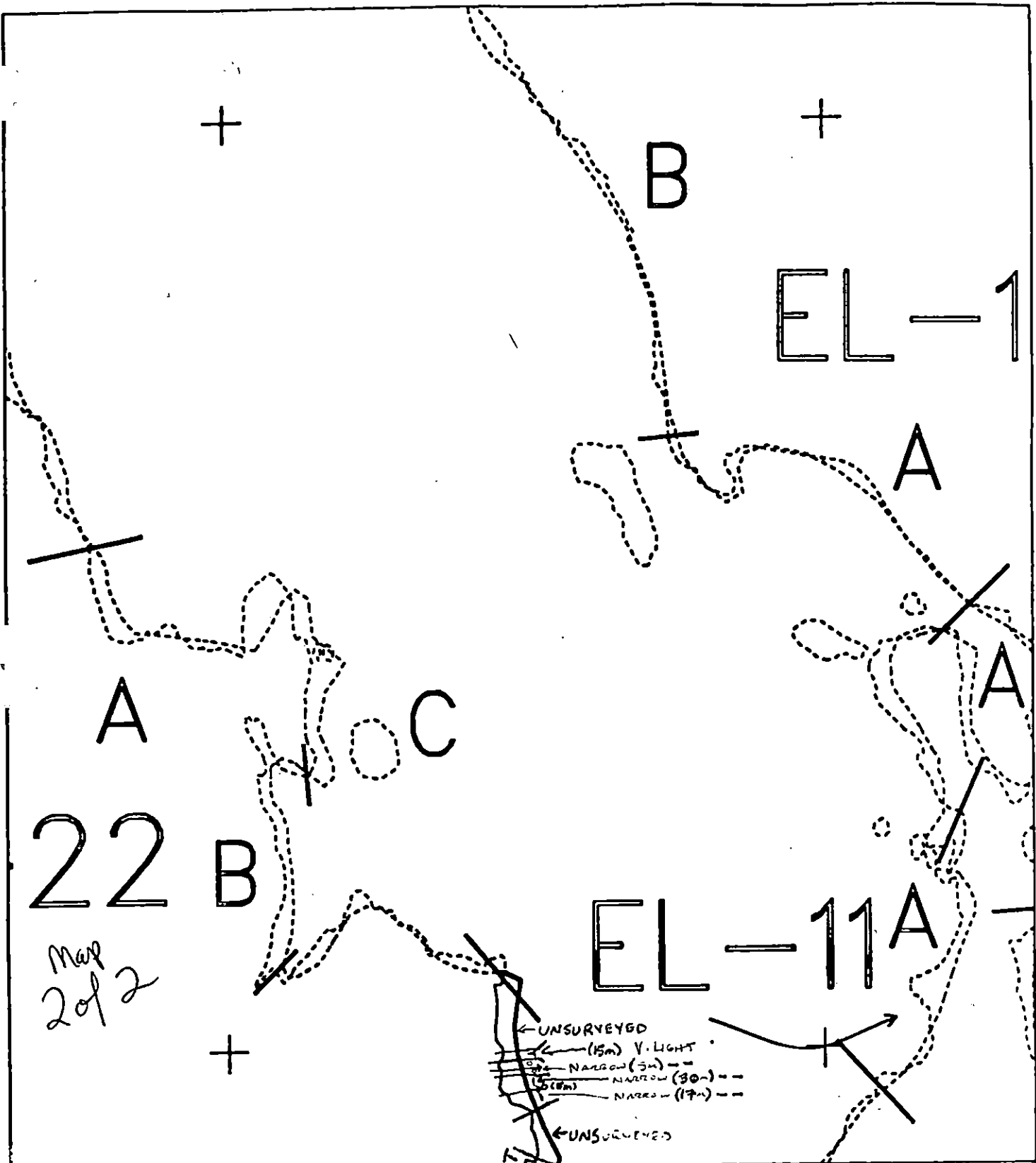
IN021 A
ADEC Subsegment Length: 2081m
METERS

AK State Plane Zone 4
41002100



Subdivision Field Map
Map Key: KNIIN021Aa
Name: TRIMM/Reimer
Date: 14-MAY-
Date Entered:

SURFACE OIL CATEGOR - MAP -
redone & Reviewed - MG 6/1
revised 5.29.94



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

IN021 A
 ADEC Subsegment Length: 2081m
 METERS

0 1200 400
 AK State Plane Zone 4
 kni021ab



Subdivision Field Map

Map Key: KNIIN021Ab

Name: TRIMM

Date: 14 MAY - 91

Date Entered:

- SURFACE OIL CATEGORY MAP -

Revised MC 6/1/91
 reviewed 5.29.98

1991 MAYSAP EVALUATION

SEGMENT: IN 021 **SUB:** A **REGION:** PWS **SURVEY DATE:** 5/24/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

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.

MEMORANDUM

To: Tag Members
From: Team No. 2.
Subject: Explanation of the addendum for segment IN-21-A.
Date: May 25, 1991

The survey of In 21-A when it was originally done was not complete. It was determined by this team in order to insure the integrity of the survey the rest of the remaining segment should be accessed. We surveyed the remainder of the segment on 5-22,91. Since this survey involved a different og, the og we had on the team completed an addendum to the original work.

Frank ABx

TEAM NO. 2 SEGMENT IN-21 (sup) SUBDIVISION A DATE 5/22/91

ADEC Peter Montesano SIGNATURE [Signature]

☒ NTR ☐ TREATMENT RECOMMENDED

This portion of the segment is less ~~oiled~~ oiled than the portion previously surveyed. The area of MOR is shovel tillable, but the lens is thin and in a limited area.

This Supplement nullifies my "Incomplete Survey" noted on my previous comments.

EXXON NAME PPM/Bex SIGNATURE [Signature]

☒ NTR Nothing found on this portion of the segment that would warrant treatment.

LANDMANAGER NAME [Signature] OF ES SIGNATURE [Signature]

☐ NTR ES comments still valid

USCG/NOAA NAME Bill ZENONE USCG SIGNATURE [Signature]

☐ NTR Blessed are they who have nothing to say, and who can not be persuaded to say, I USCG

EXCEPT FOR PREVIOUS COMMENTS. FURTHER TREATMENT ON THE SECOND PORTION OF THIS SEGMENT IS NOT RECOMMENDED. 3

Continued →

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN-021 SUBDIVISION A DATE 5/24/81

ADEC

ME

Peter Montesano

SIGNATURE

Peter Montesano☐ NTR

TREATMENT RECOMMENDED

INCOMPLETE SURVEY

Only a small portion of this subdivision was surveyed. Only beach out side of the ASAPSites where oil was found and broken up. The oiling which was broken up was thick enough to warrant removal (map #3).

The oiling area B is largely in jagged sediments and would be difficult to remove. The oiling along area A is all easily accessed and removable in all of the small pocket beaches. The consistent deposits provides a high enough distribution for treatment. The necessary removal will be readily apparent at each pocket. The % coverage of the SOR for all of the areas is consistently lower than reality. Some of this SOR is mixed w/ MS. The LITE was not observed.

EXXON

NAME

C. N. Hartsman

SIGNATURE

C. N. Hartsman☐ NTR

SOME AREAS OF SOR MAY. COULD BE IMPROVED ON WITH MANUAL REMOVAL, BREAKUP. (BIOREMEDIATION MIGHT BE HELPFUL AFTER MANUAL TREAT.)

LANDMANAGER

NAME

Dennis S. Kennedy OF USFS

SIGNATURE

D. S. Kennedy☐ NTR

Some of the SOR in location [A] could be worked by hand. If worked care must be taken around the mussels & other biota. This location is protected from strong wave action.

USCG/NOAA

NAME D. SIMONEK-BENTY

R. Linnell - Bentley NOAA

NAME

Bm M. R. ZENONE USCG

SIGNATURE

Bm M. R. Zenone☐ NTR

This segment is mostly scattered patches of SOR. Although section A5 contains the heavier concentrations of oil, the contaminated area is relatively small and between the boulders. The biologist has also noted that the lower intertidal zone contains a dense and diverse biota - D5-13

REST OF SEGMENT CONTAINS SMALL ISOLATED PATCHES OF COAT + COVER AS SEEN LAST YEAR
AGREE W/ NOAA ON PERSPECTIVE TREATMENT. 3

TEAM NO. 2

OG TRIMM/REIMER

BIO S. BAN

SEGMENT IN-21

ADEC P. MONTESANO

LANDMANAGER D. Kennedy for USFS

SUBDIVISION A

XON C. KATSIMPALIS/BOX

USCG/NOAA ZENONE/SIMECEK-BEATTY

DATE 5/14/91

TIME 17:58 17:40 to 20:00 (S/M) 20:23 (S/22) TIDE LEVEL 5.23 ft. to 5.55 ft. (S/22) ENERGY LEVEL: ☐ H ☒ M ☐ L

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

TOTAL LENGTH SHORELINE SURVEYED: 1466 m NEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONE

EST. OIL CATEGORY LENGTH: W 0 m M 0 m N 158 m VL 223 m NO 1070 m US 595 m

5-14-91

1

5/22

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	
A1				S	S	S	S				B	M	1	15		X			Hvy. SOR under Boulders
A2					S	S	S				B	M	0.5	15	X				
A3				S	S	S	S				B R	M	1	5		X			Hvy. SOR under boulders
A4		T		S	S	S	S				B C	M	1.5	30		X			"
A5				B							B	M	1	4		X			"
A6					P	P					R	V	1	5		X			
A7				S	S	S	S				B	M	1	8		X			LT. SOR under Boulders
B1			S		S	S	S				C B	M	1.5	100		X			
B2				P							B C	M	2.5	30	X	X			Med. SOR under boulder/cobb
B3	S			P							B	M	2	12	X				Hvy. SOR & AP under boulders
B4				S							C	M	1	25	X				Hvy. SOR under cobbles
					T	T					B	M	1	30	X				
						S					R	V	1	10		X			
						S					R	V	1	15		X			
					P	P					R	V	1	20	X				
D						P					R	V	1	5		X			

DISTRIBUTION: C = 91-100%; B = 51-90%; P = 11-50%; S = 1-10%; T = <1%
SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE PHOTO ROLL # MAYSAP- 2-15 FRAMES 1-7

5/14

5/22

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER								OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO	S					UI	MI	LI			
1	5							X	-	7	5	R		X			B - GSCP org	SOR on surface	
									-										
1	18			X					12-17	Y	16	B		X			P - PG		
2	20								-					X			P - PG		
3	20								-					X			PC - P		
4	35								-					X			P - P		
5	18			X					15 - 18	Y				X			P - P	with bedrock	
6	40								-					X			P - P		
7	40								-						X		P - PC		

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

REIMER
5/22

Trim
5/14

OG COMMENTS: This report is an addendum to the Maysap report of 5/14/91. This additional survey was done to fill in a section of shoreline which was originally unsurveyed. The information in this report covers ONLY the additional shoreline. The section of shoreline surveyed is predominantly vertical rock cliff with small pockets of boulders and boulder lag material. Discontinuous BTR was along the coast as indicated on sketch map. (P.D. Reimer 5.22.91)

Rock shore with pocket beaches.
SOR usually found between & underneath boulder, cobble veneer. (B. Trimm 5.14.91)
See comments on following page for explanation. REVISOR: MC 6/1/91

OG TRIMM | REIMER

BIO _____

SEGMENT IN-21

ADEC _____

LANDMANAGER _____ for _____

SUBDIVISION A

EXXON _____

USCG/NOAA

DATE 5 11/4/22 91

TIME _____ to _____ : _____

TIDE LEVEL 5.2 ft. to 5.4 ft.

ENERGY LEVEL: ☐ H ☐ M ☒ L

SURVEYED FROM: ☐ FOOT ☐ BOAT ☐ HELO

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

TOTAL LENGTH SHORELINE SURVEYED: _____ m

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

EST. OIL CATEGORY LENGTH: W_____m M_____m N_____m VL_____m NO_____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-

FRAMES

[illegible]

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

OG COMMENTS:

* This segment was surveyed in 2 parts, on 5/14 (Trimm),
aps 1, 2, & 3; and on 5/22 (Reimer), map # 4 (addendum). One oil
cover map was made from this information. (G. Young - 5/29/91)

Reviewed: MC 6/1/91

OG SKETCH MAP
 IN 021-A
 14-MAY-91
 1758-2000
 BRYAN TRIMM
 MAP. 1 of 34

NGOT
 ISLAND

A1
 SOR-HVY 5%
 CV, CT, ST 2%
 1x15m

A2
 CT, CV, ST 5%
 0.5x15m

A4
 SOR-HVY 5%
 CT, CV, ST 10%
 MS 11%
 1.5x30m

A5
 SOR HVY 80%
 1x4m

A6
 CV, CT 20%
 1x5m

A3
 SOR-HVY 3%
 CV, CT ST 10%
 1x5m

A7
 SOR-LT 10%
 C-CV ST 1%
 1x3m

SOR-LT 100%
 30cm² - BROKEN UP

Boulder

Boulder Talus

Boulder Talus

Boulder-Cobble-Granule

DB Pom Pom - IPU

Boulder Talus

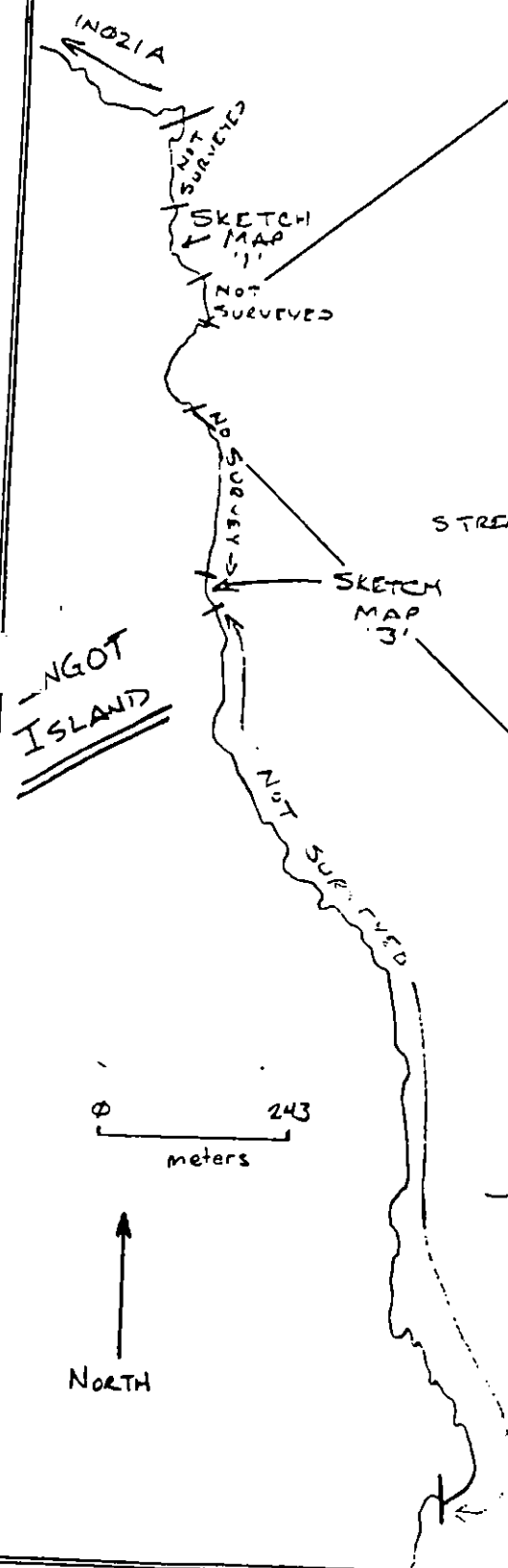
Boulder Talus

0 243
 meters

NORTH

Reviewed 5-29-94
 Reviewed: MC 6/1/94

CG SKETCH MAP
 IN 021-A
 14-MAY-91
 1758-2000
 BRYAN TRIMM
 MAP 2 OF 34



Boulder Pebble

TB 100
 10cm² - TB 151
 UP

B1 TB, CV, CT, ST 5%,
 1.5 x 100m

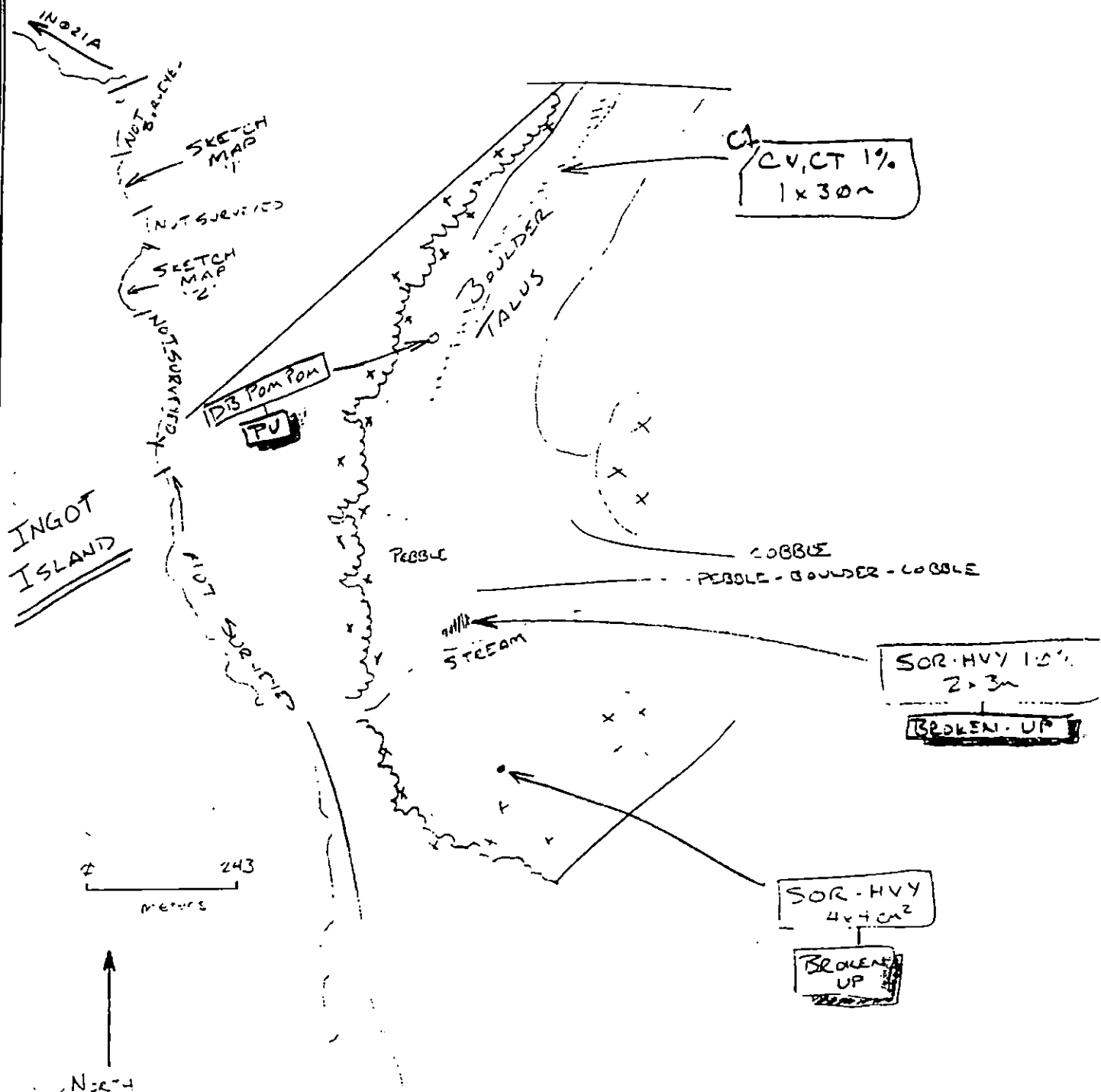
B2 SOR. MED 20%
 2.5 x 30m

B3 SOR. HVY 15%
 AP 2%
 2 x 12m

B4 SOR. HVY 1%
 1 x 5m

Reviewed S.29 Gy
 Reviewed: MC 61/1/91

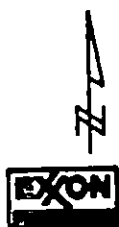
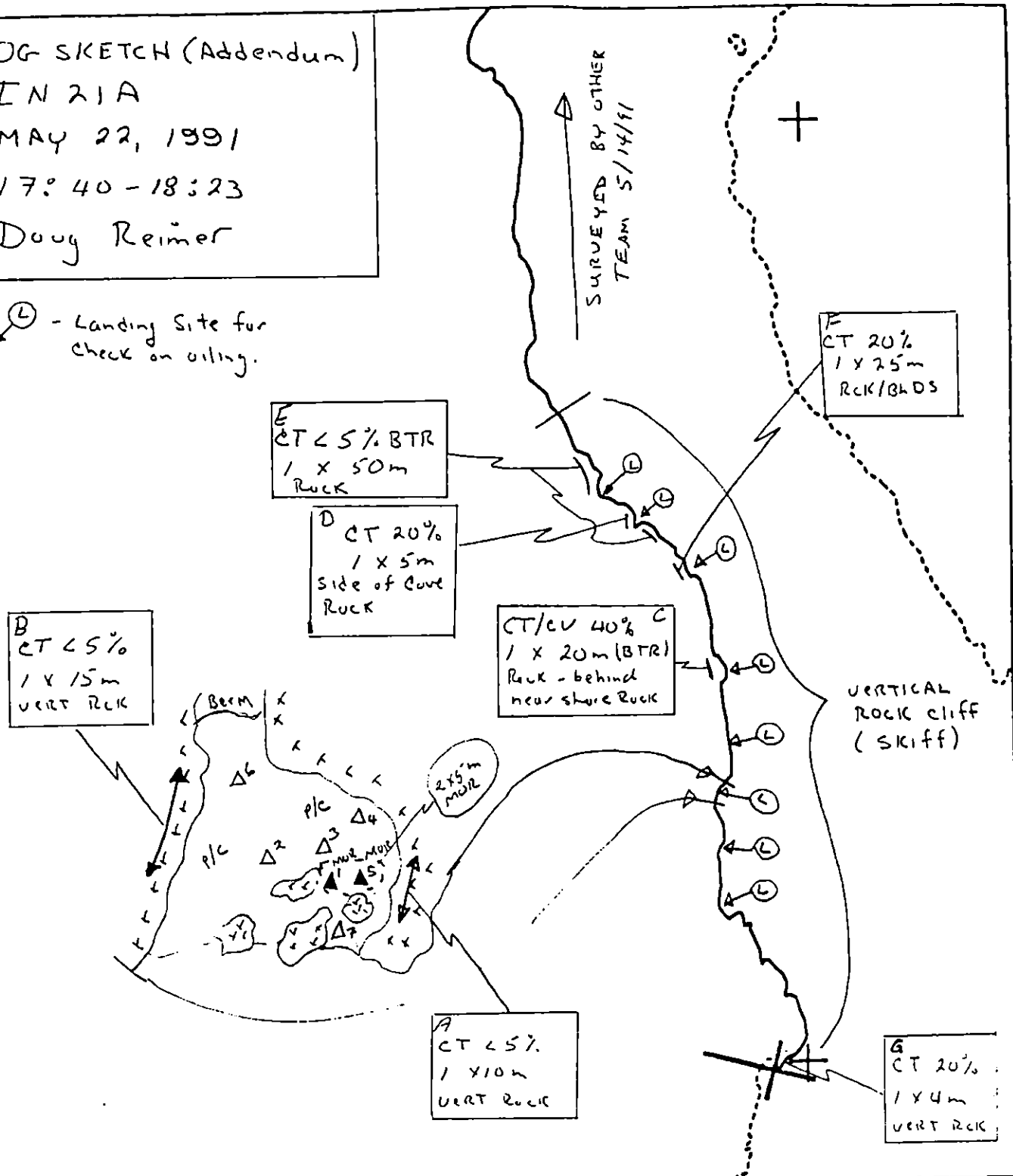
CG SKETCH MAP
INØ21-A
14-MAY-91
1758-2000
BRYAN TRIMM
MAP 3 OF 34



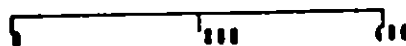
reviewed 5.29.94
REMARKS: MC 6/1/91

OG SKETCH (Addendum)
IN 21A
MAY 22, 1991
17:40 - 18:23
Doug Reimer

Ⓛ - Landing Site for
check on oiling.



IN021 A
(ADDENDUM)
METERS



AK State Plane Zone 4
NAD 83

Subdivision Field Map
Map Key: KNI/IN021Aa
Name: Reimer
Date: 5/22/91

Reviewed: MC 6/1/91

Sketch Map #4/4

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 14 May 91
 SEGMENT # IN 21 TIDAL HEIGHT(Range) +2
 SUBDIVISION A BIOLOGIST S.M.BAN
 SEA STATE Calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # — FRAME # —

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

- A1: SOR BAND in Urosalpinx zone with scattered barnacles. Oligochaetes observed under rocks on oiled sediments. Dense barnacle spat limpets and mussels in lower ITZ of cove.
 A26: Stain is high in ITZ. Lichen & mosses in zone at each site.
 A3: Amphipods & Oligochaetes found on oiled sediments under rocks. Recent spat & Fucus recruits in adjacent lower ITZ.
 A5 & 7: Sparse barnacles & Fucus in oiled zone. No amphipods or oligochaetes observed under rocks in either zone. Lower intertidal in both coves is dense & diverse.
 B1: Oil is high in ITZ but tarballs, found in zone with sparse Littorines and barnacles. These pocket beaches have dense populations of snails which have grazed the green algae cover.
 B2: No Littorines this high in ITZ. Green algae in oiled zone. Littorines & egg masses found lower on beach.
 B3: Oil is high in ITZ above green algae. Lichens & mosses observed.
 B4: No biota but lower ITZ is diverse.
 C: Oil is at upper edge of barnacle zone in green algae zone. Lower intertidal supports mussels, Fucus, dense barnacles.
 Stream has not been categorized as ANADROMOUS.
 Gravels at sides of stream produce sheen when disturbed.
 Tilling may be advised if done at high tide so lower zones are protected.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters	/	/	/
Pinipeds(specify)			
Carnivores(specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/29/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 122 May 91
 SEGMENT # IN-21 Addendum TIDAL HEIGHT(Range) 4 to 5 ft
 SUBDIVISION A BIOLOGIST S.M.B.
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

All oil was observed high in ETZ in the lichen zone. The beach below "A+B" was a naturally depauperate pebble area with dense *Fucus*, mussels & barnacles on outcrops in the lower ETZ.

Two pools were encountered at many of the stops. The pools were dense with hitons, pagurids, crabs, & sculpins. One pool contained a sea star (*Pycnopodia*) that was stalking an urchin (*Strongylocentrotus drobachensis*).

Rock hoodlands below CT zone throughout the area supported dense patches of mussels, continuous *Fucus* & barnacles.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Elipeds(specify)			
Elles(specify)			

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/24/91

SKETCH MAP
INGOT-A
14-MAY-91
1758-2000

MAP. 1 OF 3.

A1: Green algae and sparse scattered barnacles in SOR ZONE. Oligochaetes UNDER ROCKS IN ZONE.

A2: Lichen and mosses only

A4: No biota in oiled zone.

A5: Sparse Barnacles and spat + small amt. *Fucus*

A6: Lichen and moss only

A3: Amphipods and oligochaetes UNDER ROCKS IN OILED ZONE.

A7: *Fucus* and Barnacle adults scattered throughout zone

Boulder
limpets + mussels
BOULDER TALUS

Recent spat + *Fucus* recruits
BOULDER TALUS

BOULDER-Cobble-Gravels

Recent spat *Fucus* on boulders

BOULDER TALUS

BOULDER TALUS

TREE

INGOT ISLAND

UNSURVEYED
UNSURVEYED
SKETCH MAP 2
UNSURVEYED
SKETCH MAP 3

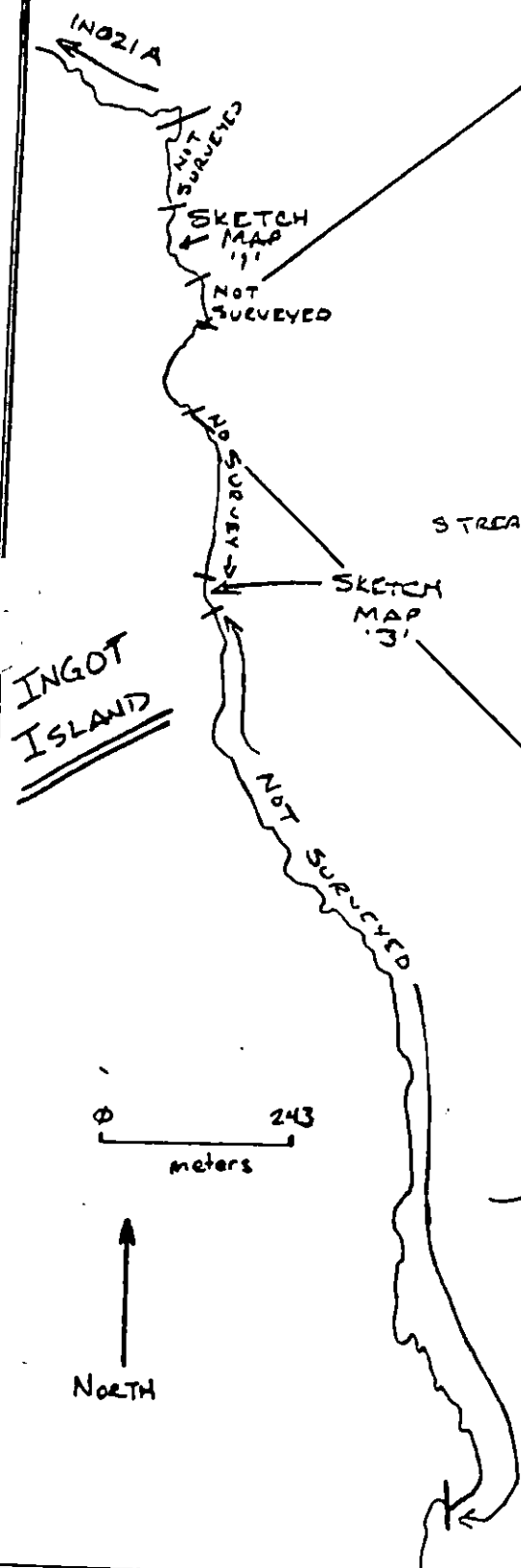
0 243
meters

NORTH

Reviewed M.B. 5/24/91
SMB 14 June 91

SKETCH MAP
IN021-A
14-MAY-91
1758-2000

MAP 2 OF 3



Dense *Littorina*, NO green algae

B1 oil is located at upper edge of Barnacle/*Littorina* zone.

B2 green algae in oiled zone.

Littorina egg masses
Recent spat
Fucus recruits

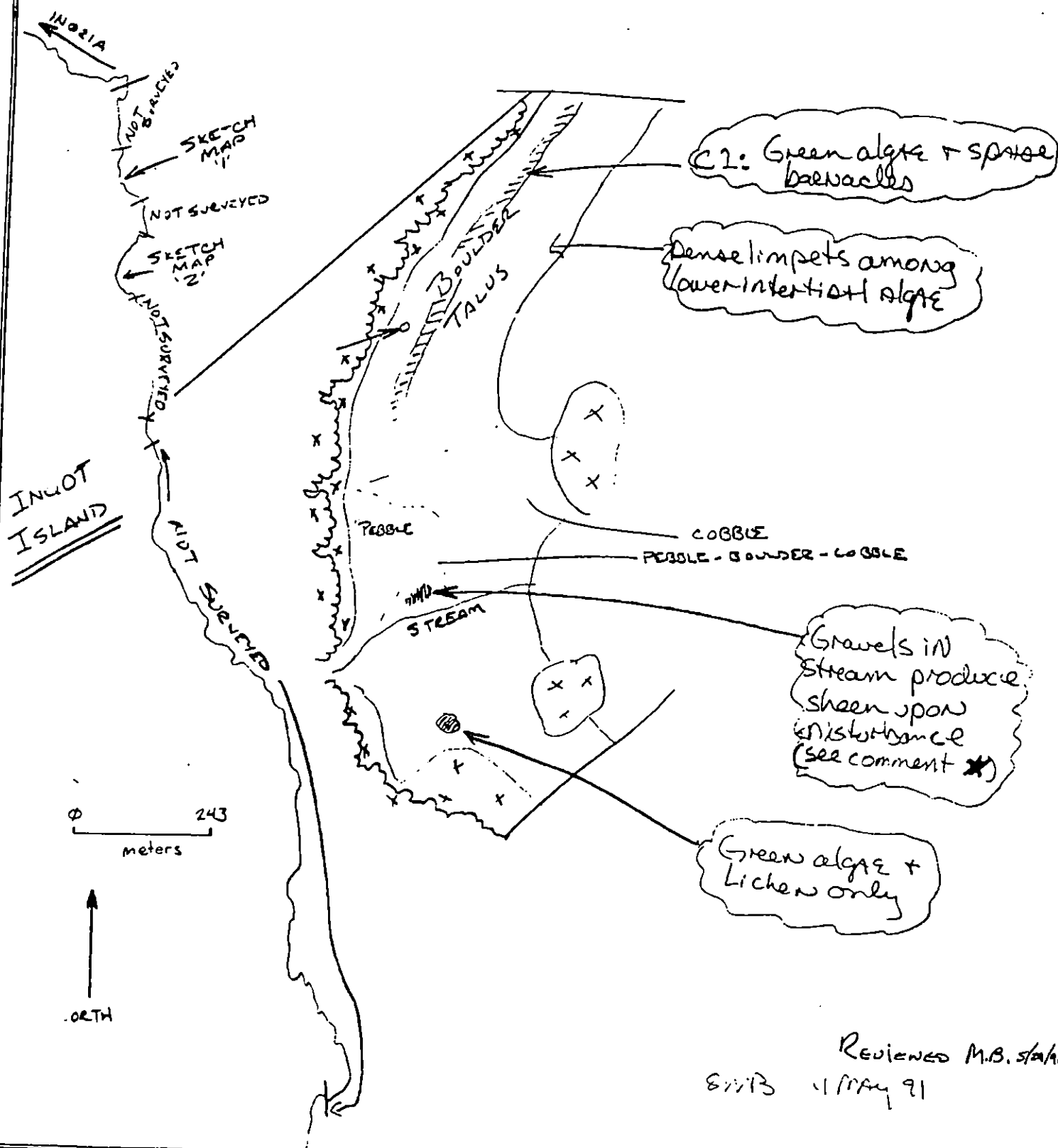
B3 Lichen and Beach grasses only in oiled zone

B4 No biota in oiled zone.
Fucus, *Littorina* and Adult Barnacles in lower zones.

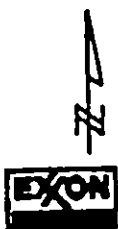
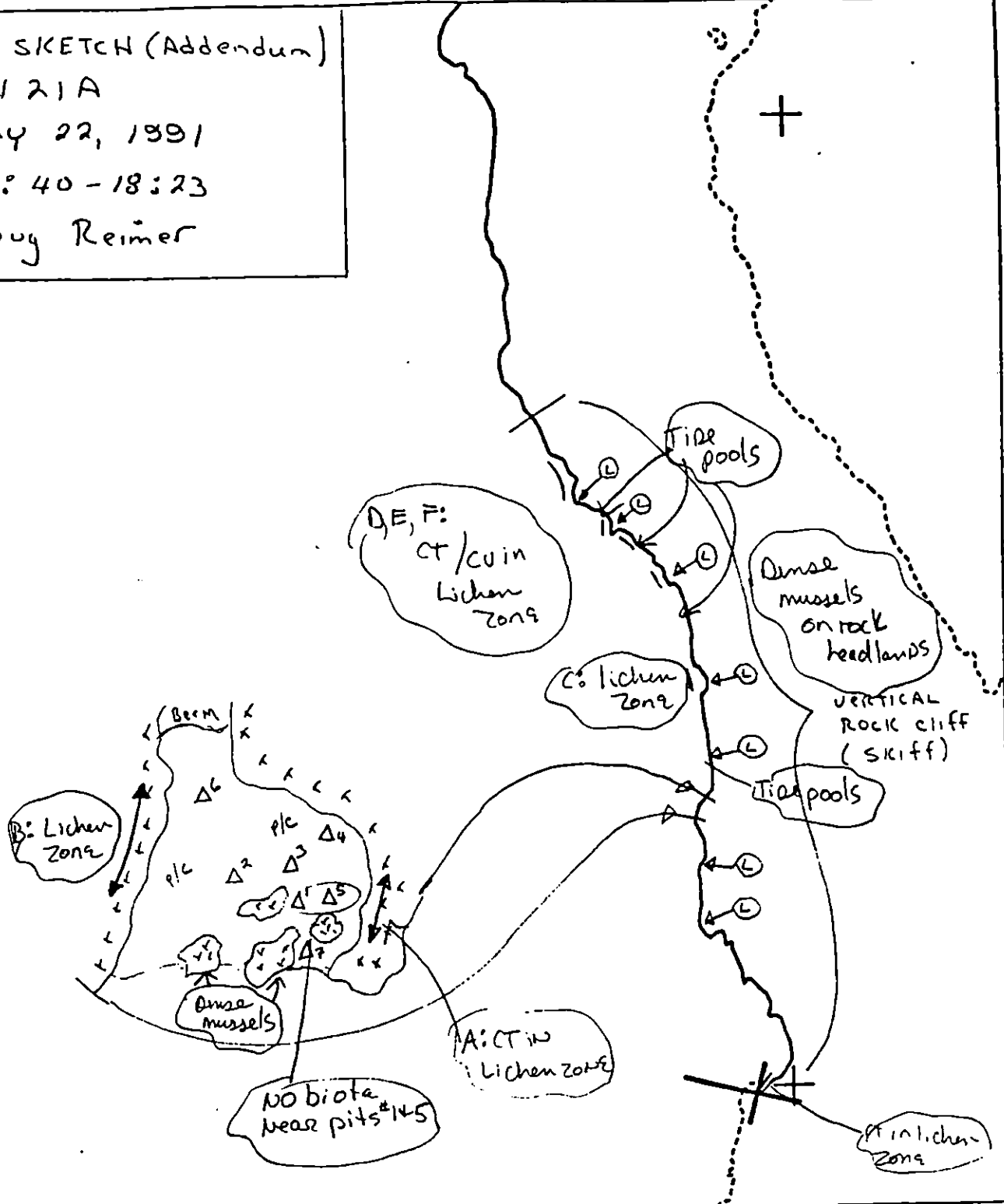
Reviewed M.B. 5/29/91
SMB 14 May 91

SKETCH MAP
IN021-A
14-MAY-91
1758-2000

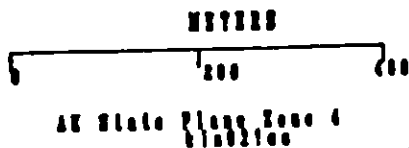
MAP 3 OF 3



OG SKETCH (Addendum)
 IN 21A
 MAY 22, 1991
 17:40 - 18:23
 Doug Reimer



IN021 A



Subdivision Field Map
 Map Key: IN1N021A
 Name: Reimer/BAN
 Date: 5/22/91

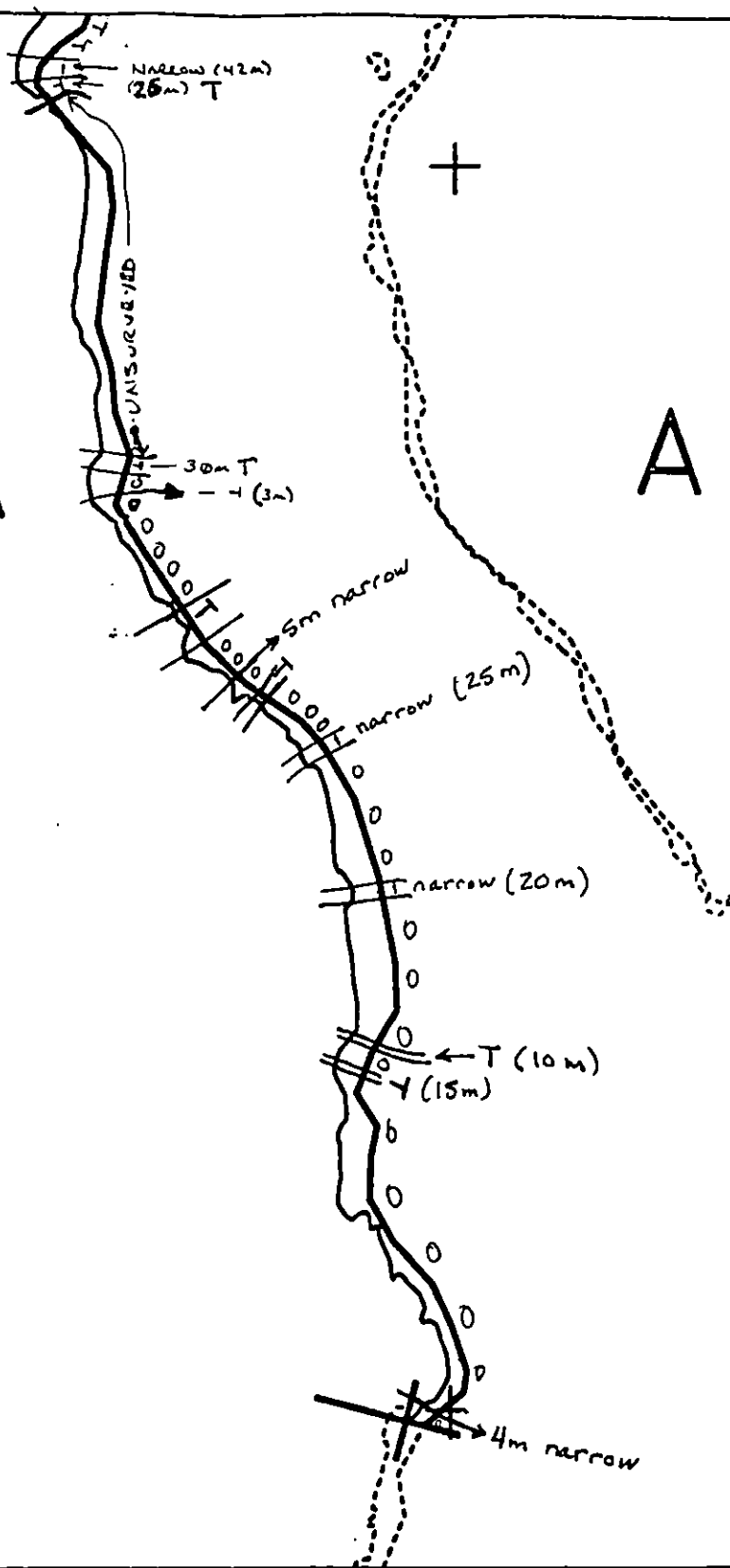
Reviewed M.B. 5/24/91

IN-21

map
1 of 2

A

A



XXXX

Wide

////

Medium

Narrow

TTTT

Very Light

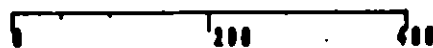
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No Oil

IN021 A

ADEC Subsegment Length: 2061m

METERS



AK State Plane Zone 4
41402100



Subdivision Field Map

Map Key: KN1IN021Aa

Name: TRIMM/Reimer

Date: 14-MAY-

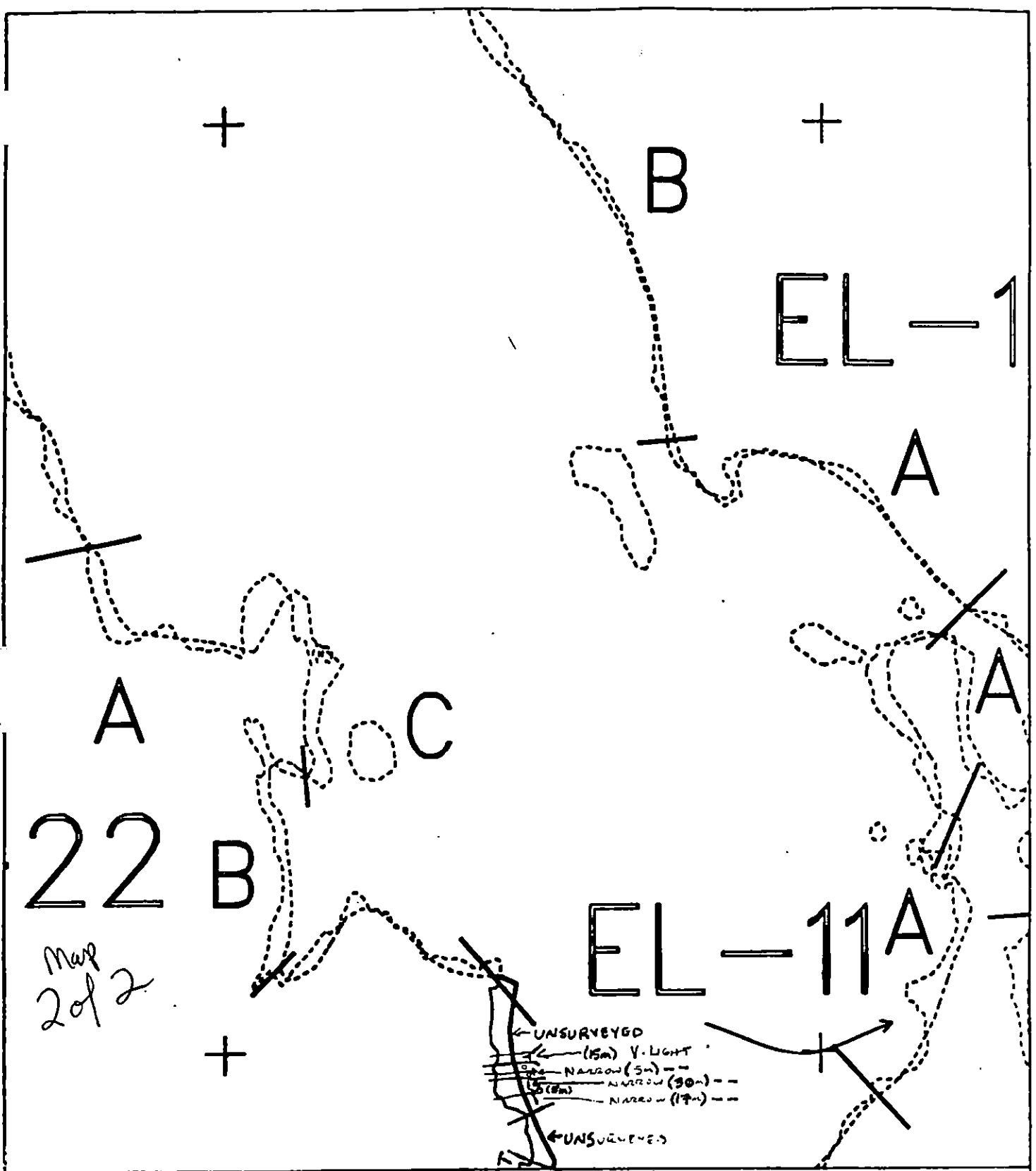
Date Entered:

- SURFACE OIL CATEGORY MAP -

redone &

REVISOR MG 611

reviewed 3.29.99



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

IN021 A
 ADEC Subsegment Length: 2081m
 METERS
 0 200 400
 AK State Plane Zone 4
 11N021ab

Subdivision Field Map
 Map Key: KN11N021ab
 Name: TRIMM
 Date: 14 MAY - 91
 Data Entered:



- SURFACE OIL CATEGORY MAP -

REMOVED MC 6/1/91
 reviewed 5.29.98

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-21

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ IN-21 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

If 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 101 m: Medium 23 m: Narrow 54 m: V.Light 69 m: No Oil 1815 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 25+ 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: Recommend 1) spot wash with pom poms, then 2) bioremediation
of oiled coat, cover and subsurface oil areas as indicated on sketch
map. Work should be conducted after 6/1 with approval of ADF&G and
USFWS regarding eagle nest constraint.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

FIELD SHORELINE COMMENT SHEET

SEGMENT ST / IN-21 SUBDIVISION: A(1 of 1) DATE 04-06-90

USCG

NAME AEC Vandepels SIGNATURE AEC Vandepels

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

I suggest the 20x40 M cobble beach 140 to 180 M from the northern most end of IN-21 needs hot water wash, till + bio. The 15x100 M cobble beach 250 to 350 M from the northern most end of this segment needs bio.

ADEC

NAME Michelle Paer SIGNATURE MPaer

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

The northernmost beach is C,P, low energy & very accessible. Till and bioremediate the area, manually scrub the wall and hand remove the mousse patches. On the 2nd C,P,G beach a CT of lies on the sides and under the ps. A fresh-water runoff goes through the beach and no subsurface oil was found. Manual wiping of coated area would be best. The adjoining plateau requires tilling and bioremediation, to remove or removal of the 5x15M CV/B with mousse under cobbles to 5cm in depth. I would not recommend treatment for the rest of the segment.

LAND MANAGER

NAME DAN LOGAN SIGNATURE Dan Logan

☐ NO TREATMENT RECOMMENDED

☒ TREATMENT SUGGESTED

COMMENTS

HAND TILL THE 2MX20M CV/C/LBR THEN APPLY FERTILIZER. HAND WIFE THE ROCKS. THE 15MX100M CT/B BEACH SHOULD BE HAND TILLED THEN FERTILIZER APPLICATION. THE 5MX15M SECTION SHOULD HAVE THE MOUSE REMOVED THEN HAND TILLED AND FERTILIZED.

71

SHORELINE OILING SUMMARY

REVISION NO. 06/22/90

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-21
 BIO P. Grant LAND REP D. Logan SUBDIVISION A (1 of 1)
 EXXON J. Tomblin ADEC M. Baer TIME 18:45 to 20:25
 TEAM NO.: 6 TIDE LEVEL: +1 to +4 DATE 04/06/90
 EST. SUBDIVISION LENGTH: 2197 m ☐ Sun ☒ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boal ☐ Halo WORKING DIRECTION: N to S
 SURFACE SEDIMENTS: R 70% B 10% C 10% P 5% G 5% S 0% M 0% V 0%
 SLOPE: Long 30% Hang 50% Vert 20% WAVE EXPOSURE: ☒ Low ☐ Med ☐ High
 OIL CATEGORY LENGTH: W 100 m M 15 m N 60 m VL 21 m NO 2001 m

SURFACE OIL

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

PAVEMENT: H F S 0 sq. m by 0 cPATTIES / TARBALLS 10 BAGSNEAR SHORE SHEEN? ☒ NO BR RW SL TL

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DEBRIS COLLECTED ☒ YES ☐ NOTYPE buoy#BAGS 10

Photographs:

Roll No. ST-5-4Frames 15

SUBSURFACE OIL

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER					OILED INTERVAL (cm)	BELOW		OIL / FILM COLOR								PIT ZONE				A N A	SUBSURFACE SEDIMENTS
		OP	OR	OL	OF	NO		UO	UC	SP	BP	ST	SL	TL	LR	BR	BL	SU	U	M	U		
1	15	X					0-15	X										X					CPG
2	25	X					5-25	X											X				PG
3	25					X	.		X									X					PGSM
4	20					X	.		X									X					CPGSM
							.																
							.																

COMMENTS

OG J. Springer

SEGMENT ST/ EN-21

SUBDIVISION A

DATE 04/06/90

CHECKLIST

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

LEGEND

1 Δ
PH - No Subsurface Oil

2 Δ
PH - Subsurface Oil

$\boxed{CT/C}$
Continuous Distribution

$\boxed{CT/B}$
Broken Distribution

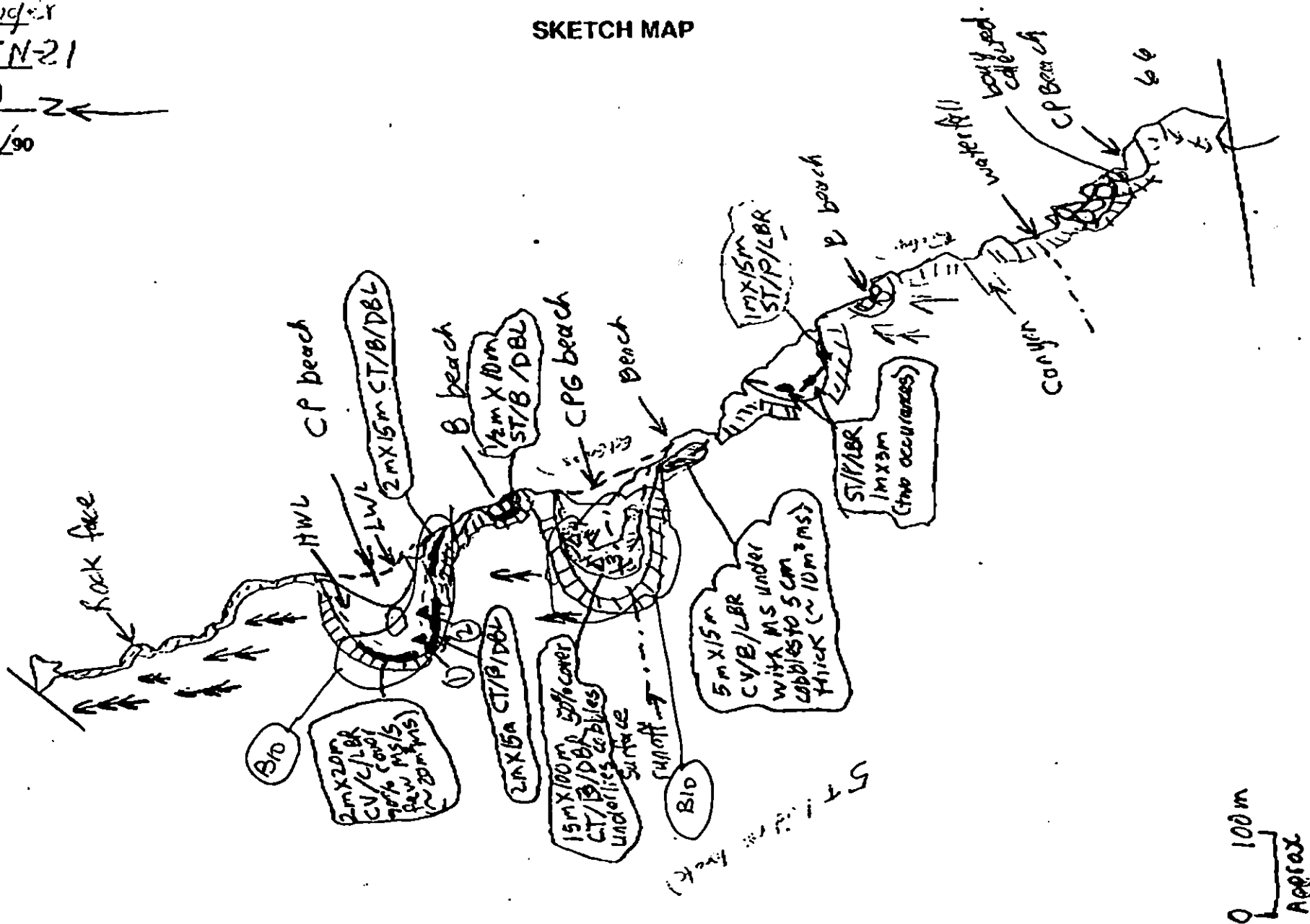
$\boxed{CT/P}$
Patchy Distribution

$\boxed{CT/S}$
Splashed Distribution

Oiled Vegetation

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

SKETCH MAP



Oil Character (m): AP _____ PO _____ CV 35 CT 130 ST 31 MS _____ PT _____ TB _____ FL _____ NO 2001

REVISION 08/91/00

SHORELINE ECOLOGICAL SUMMARY

pg 1 - f2

REVISION: 00/2

Segment ST / IN 21 Subdivision A Date (mo / day / yr) 4/6/90Time (24 hr) 1840-2025 Biologist CRANKLength 2197mTide Height +1 > +3 ft

(A) Substrate type and % of segments:

(1) Bedrock 70 (2) Boulder 10 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Silt(B) Overall % cover of biota (% of segment): Dense 40 Moderate 20 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. ST-5-4Frames 15

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 PRESEN

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 PRESEN

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 PRESEN

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 PRESEN

Wildlife Observations/ General Comments:

2 Mergansers

1 Bald Eagle - Adult

~ 200 Pink Salmon Smolts -

1 Hawk

Ecological Considerations:

ST-3 - Active Bald Eagle Nest
Did not locate

- There is 20-50% barnacle mortality in MITZ oil band. Heavy scarring.
- Cobble on beaches are angular, rich flora in MITZ - *Filicinaria* green w. dominant in MITZ cobble.
- There is moderate recruitment in this subdivision
- Clam habitat, clam shells on beach had gastropod drill holes. 69
- A 10x30m mussel bed on beach one.
- *Dicranella* *Eclypsa* bed in subtidal zone able to see funnel and collar through tide.

SEGMENT: ST/ IN 21 SUBDIVISION A LENGTH 2197m BIOLOGIST Crank

DATE 4/14/90 TIME 1840 - 2025 TIDE HEIGHT +1 → +3 ft

1 - BEDROCK 2 - BOULDER 3 - COBBLE 4 - PEBBLE 5 - SAND 6 - SILT

FLORA:

SPECIES	UNIT	MITZ	LITZ	COMMENTS
BOSSIELLA/CORALLINA				
CALLIARTHRON/CORALLINA				
CLADOPHORA SPP				
COSTARIA SPP				
ENDOCLADIA MURICATA				
FILAMENTOUS GREENS		123	123	
FILAMENTOUS REDS			1	
GLOIOPELTIS FURCATA		12		
HALOSACCION GLANDIFORME		1	1	
LAMINARIA SPP			23	under lit
LITHOTHAMNION				
NEREOCYSTIS SPP				
PORPHYRA SPP		123	123	
RALPHSIA/HILDENBRANDIA				
RHODOMELA LARIX			23	
RHODOMENIA PALMATA			1, 23	
SCYTOSIPHON SPP		123	1	
ULVA SPP			1, 2	
ZOSTERA MARINA			3	

FAUNA:

ANTHOPELURA SPP				
(SEM) BALANUS CARIOSUS		23	23	
B. GLANDULA	123	123	123	
BRYOZOANS				
CHITONS (OTHER THAN K. TUNICATU)				
CLAMS			3	Prototroca / Saxidomus
CRABS			3	Hemigrapsus
DERMASTRIAS IMBRICATA			3	under H ₂ O Penae 3/m ²
KATHARINA TUNICATA				
LEPTASTRIAS HEXACTIS			3	
LIMPETS	123	123	123	
LITTORINA SPP	123	123	123	
NUCELLA SPP		23	3	
PAGURUS SPP		3	3	
PISASTER OCHRACEUS				
POLYCHAETES				
PYDNOPODIA HELIANTHOIDES			1	
SEARLESIA DIRA		34	34	
SERPULIDS				
SIPHONARIA THERSITES				
TEALIA				
Juvonille Fed			3	
"				

EL-11

↓ PWS 269A

XXXX Wide

//// Medium

--- Narrow

TTTT Very Light

0000 No Oil

IN-21

ADEC Segment Length: ²¹⁹⁷~~200~~m

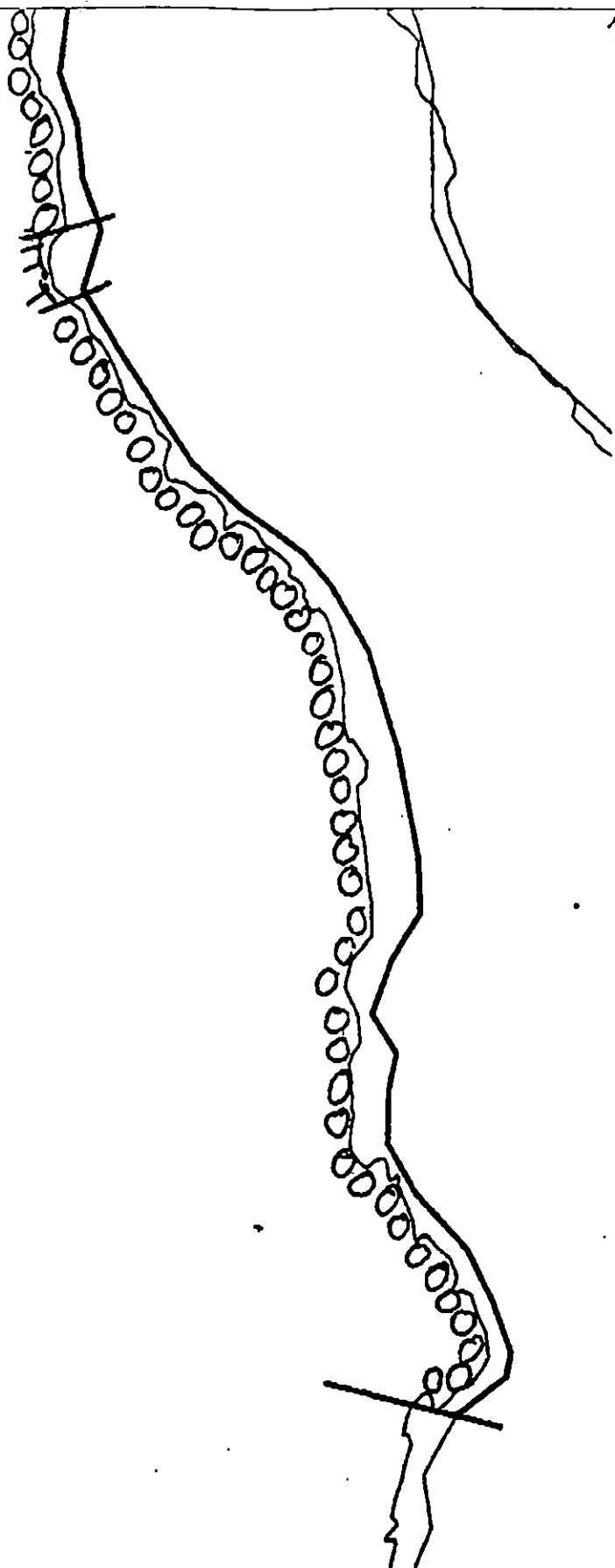
0 100 200 300
METERS

Map Key: PWS-269b

Name: J. Springer⁶⁸

Date: 4/4/90

Data Entered:



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

IN-21

ADEC Segment Length: ²¹⁹⁷~~2041m~~



Map Key: PWS-269a

Name: J. Springer

Date: 4/6/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ IN-21 SUBDIVISION A (1 OF 1) DATE 4/6/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-2 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
See attached Ecological Constraint sheet for specific constraints and
contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 E. Holmes DATE: 4/23/90

OILING CATEGORIZATION:

Wide 101 m: Medium 23 m: Narrow 54 m: V.Light 69 m: No Oil 1815 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 25+ 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: Recommend 1) spot wash with pom poms, then 2) bioremediation of oiled coat, cover and subsurface oil areas as indicated on sketch map. Work should be conducted after 6/1 with approval of ADF&G and USFWS regarding eagle nest constraint.

MANUALLY TILL IN AREA OF PITS 1+2 IF FEASIBLE + SPOT WASH PRIOR TO BIO

TAG COMMENTS: _____

TAG APPROVAL DATE: 4/21/90.
 ADEC Let Wiener Let Wiener
 EXXON Amor Teal Amor
 NOAA Bull Wescott Bull Wescott
 USCG Kenneth Keane Kenneth Keane

FOSC: DATE: 4-27-90

OG J. Springer

SEGMENT ST/ EN-21

SUBDIVISION A Z ←

DATE 04/06/90

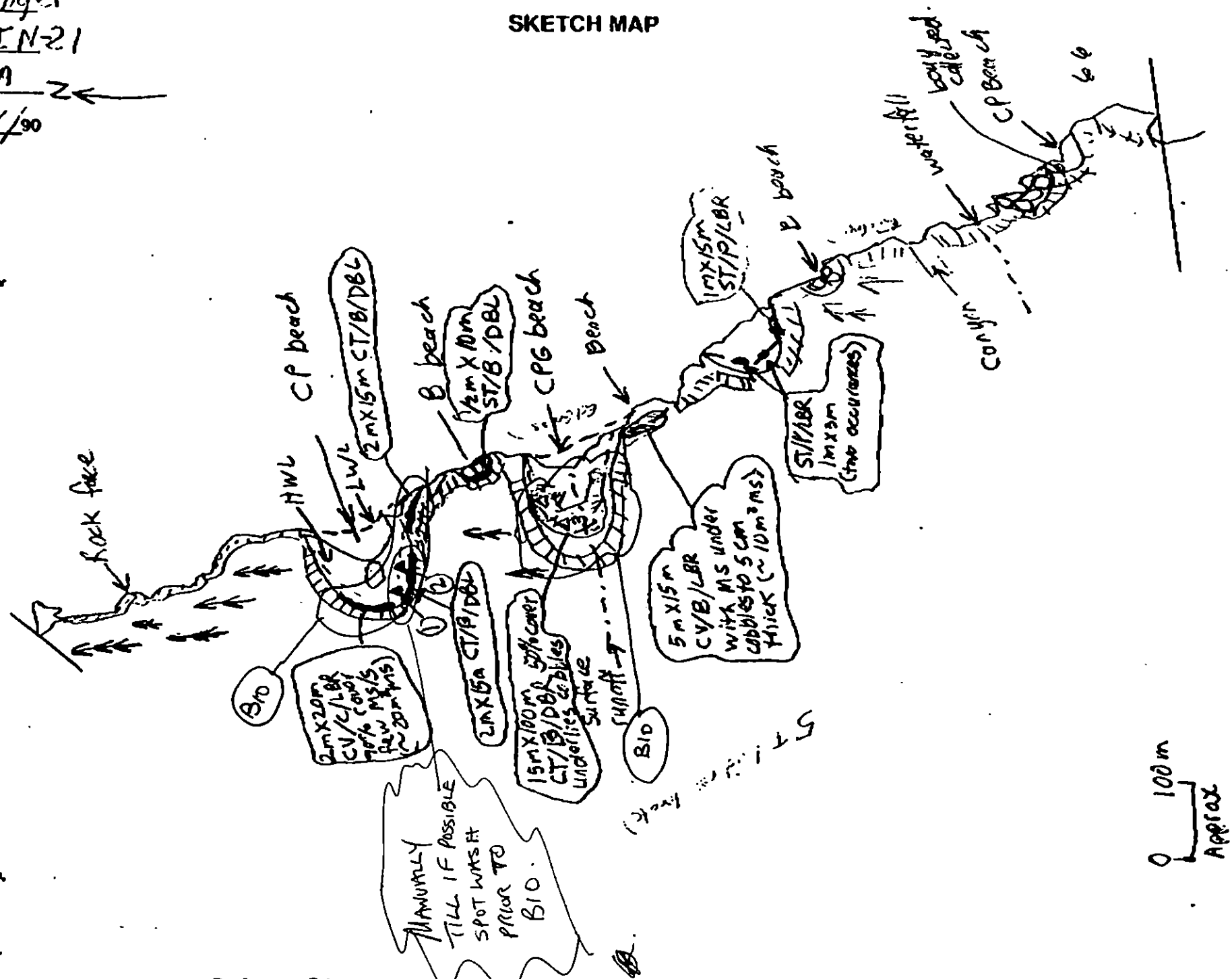
SKETCH MAP

CHECKLIST

- ☒ N Arrow
- ☒ Approx. Scale
- ☒ Bag/Sub Entry
- ☒ Oil Dir.
- ☒ Width
- ☒ Length
- ☒ % Cover
- ☒ Substrate Character
- ☒ Est. HWL/LWL
- ☒ SSL
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ PH Location(s)
- ☐ Photo Location(s)

LEGEND

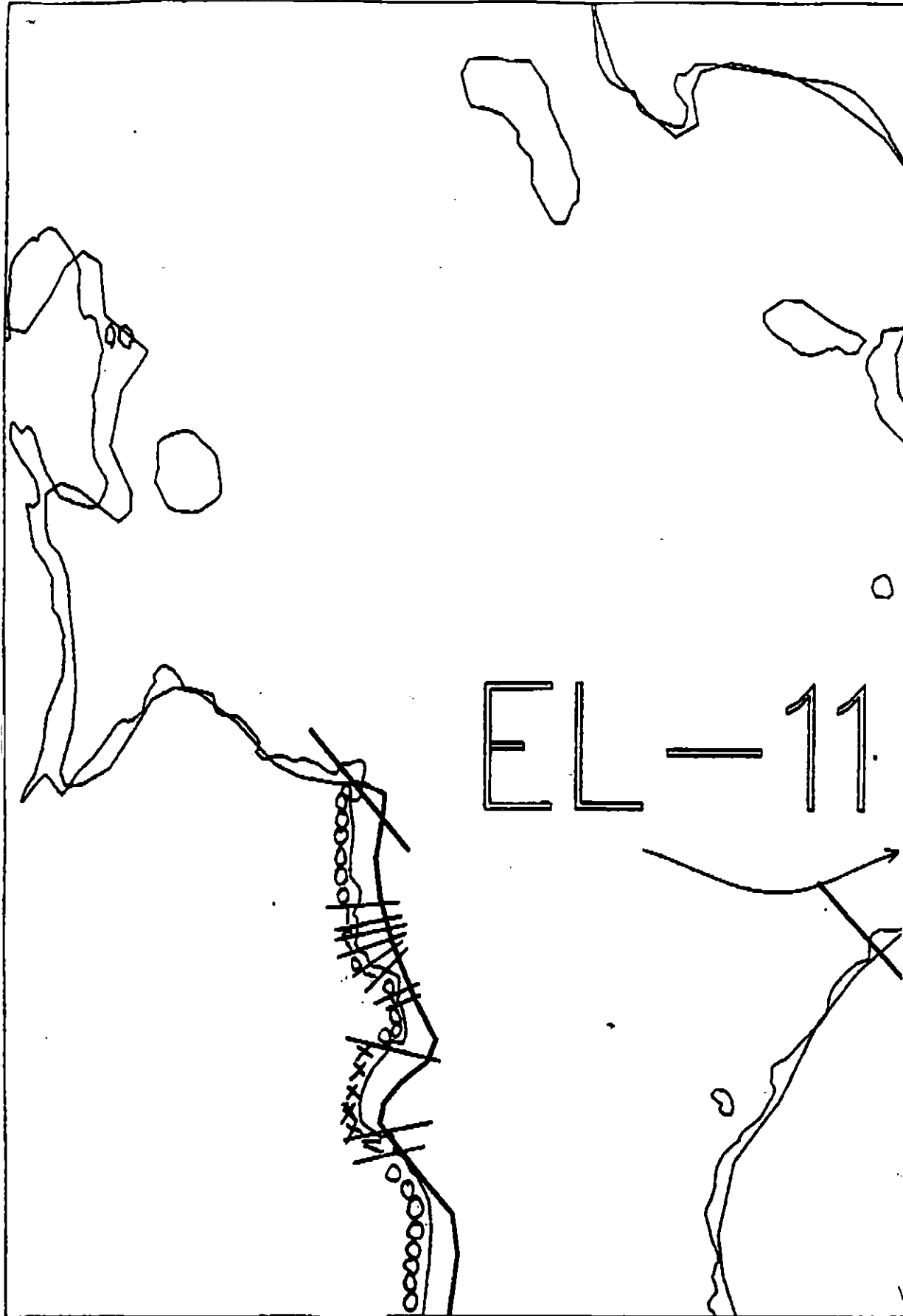
- 1 Δ
- PH - No Subsurface Oil
- 2 Δ
- PH - Subsurface Oil
- CT/C
- Continuous Distribution
- CT/B
- Broken Distribution
- CT/P
- Patchy Distribution
- CT/S
- Splashed Distribution
- Oil Vegetation
- 1 ●
- Photo location, direction, and number



0 100m
Approx

Oil Character Length (m): AP _____ PO _____ CV 35 CT 130 ST 31 MS _____ PT _____ TB _____ FL _____ NO 2001

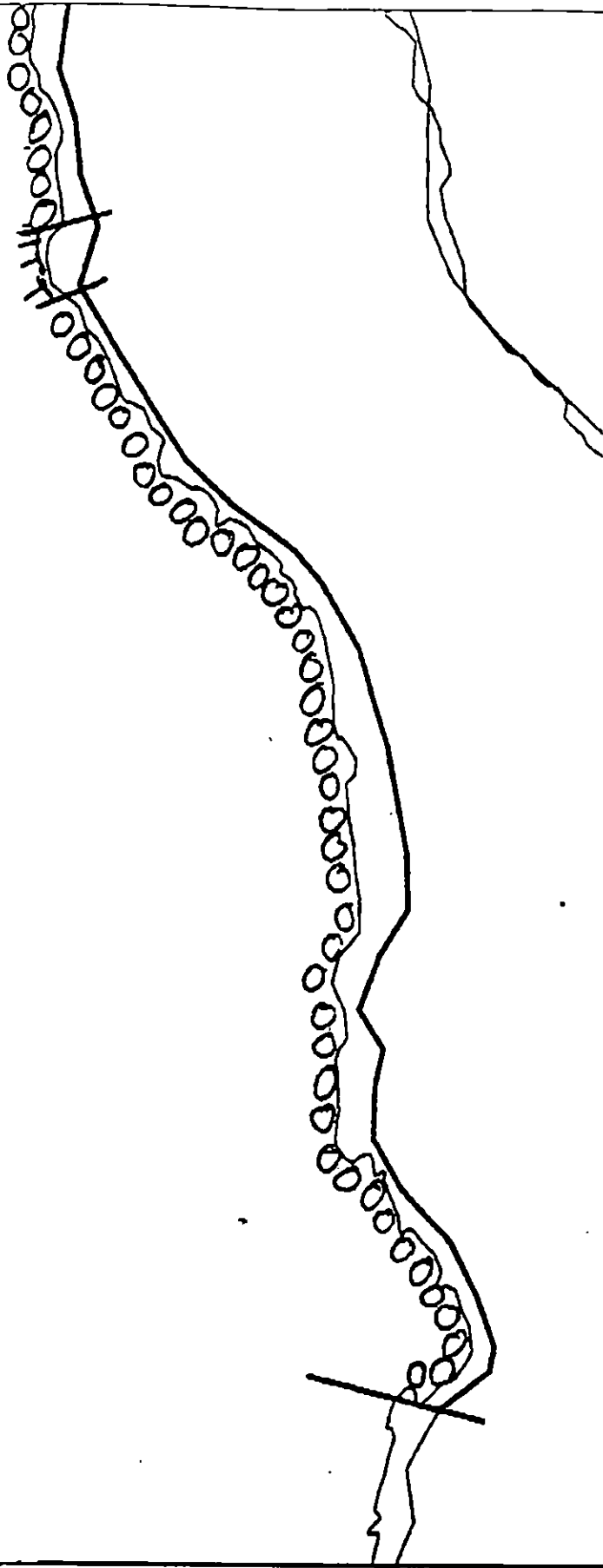
REVISION 00/2000



↓ PWS 269A

ADEC Segment Length: ^{2/97} ~~200~~ m





2255

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

IN-21

ADEC Segment Length: ²¹⁹⁷~~2061m~~



Map Key: PWS-269a
Name: J. Springer⁶²
Date: 4/6/90
Data Entered:

1991 MAYSAP EVALUATION

SEGMENT: IN 023 SUB: A REGION: PWS SURVEY DATE: 5/16/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

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**

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

MAR-19-1991 10:43 AM FROM: [illegible] MAYSAF FIELD SHORELINE COMMENT SHEET 1

TEAM NO. 2 SEGMENT IN-023 SUBDIVISION A DATE 5/16/91

ADEC NAME Peter Montesano

SIGNATURE

[Signature]

☒ NTR ☐ TREATMENT RECOMMENDED

the oiling was generally light and consistent w/ ASAP findings. Area C5 was in jagged sediments and not accessible for treatment. Many of the TBs along the way were broken up.

EXXON NAME C.M. Ketsinpalis

SIGNATURE

[Signature]

☒ NTR

NOTHING PRODUCTIVE TO WORK ON IN THIS SEGMENT.

LANDMANAGER

NAME DENNIS S Kennedy OF USFS

SIGNATURE

[Signature]

☒ NTR

This subdivision shows no treatable oil. There is signs of other research going on through out subdivision, rebar, flogging, etc.

USCG/NOAA NOAA D. SINGLEE-BERRY

NAME Bruce M. P. Zenone USCG

SIGNATURE

[Signature]

☐ NTR

Only scattered trace amounts of oil observed within a designated area. Some instances, interstitial oil was found between concrete and is unreachable. DSB

C6 - NO TREATMENT Needed. 3

TEAM NO. 2OG B. TRIMMBIO S. BANSEGMENT IN 023ADEC Peter MontesanoLANDMANAGER D. KENNEDY for USFSSUBDIVISION AEXXON C. KATSIMPALISBRI ZENONE
USCG/NOAA D. SIMCEK-BEATTYDATE MAY 16 1991TIME 07:08 to 09:39TIDE LEVEL 2.58 ft. to -3.31 ft.ENERGY LEVEL: ☒ H ☒ M ☐ LSURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELOWEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 1683 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W — m M 17 m N 7 m VL 122 m NO 1537 m US 0 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				B	H	1	4	X				
B1			T								B	H	1	10	X				
B2			T								B	H	1	10	X				
B3			T		T	T					B	H	1	5	X				
C1			T	S							B	M	1	10		X			LOR UNDER Boulder = SOR
C2					T	T					R	V	1	18		X			
C3					P	P	P				B	M	4	12		X			
C4					P	P	P				B	M	2	12	X				
C5		P		P							B	M	1	5		X			MOR UNDER TAWS
E1					T						RP	M	1	30		X			
E2					S						R	V	1	10		X			
E3					S						R	V	1	10			X		
E4			T		T	T					B	M	1	7		X			
F1			S	S	S	S					B	M	1	4		X			HVY SOR UNDER TAWS
F2			T			T					B	M	1	4		X			

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

2-17FRAMES 1-5

PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE-SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	12				X				0 - 12	N	-	-		X			B - PB Org	LOR = CV w/ organic + CUSTOM BLEND
2	27			X					15-20	Y	27	B		X			P - GFC	MOR = Buried SOR
3	51							X	---	Y	---	---		X			P - PLe2+	
4	40							X	---	Y	---	---			X		P - PGC	
									-									
									-									
									-									
									-									

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

OG COMMENTS:

- ACTIVE BURIAL ACTION COULD POSSIBLY BE OCCURRING IN THE VICINITY OF P.I. #2 (SEE SKETCH MAP #2).

 Reviewed: 5/17/91 mc
 revised 5.22 9y

DB 2 Per Poms
FO

SHOULDER

- Boulder Talus

Auguste Boulenger Talus

T13 - Broken up

LOW ANGLED
ROCK PLATFORM

C1
TB < 1%
LOR 5%
1 x 10M
LOR = 50R UN

0 200
meters
DB-LOG SPL
LOG

INGOT
ISLAND

.STREAM

TREES

ANGULAR
BOULDER &
BOULDER TALUS

PEBBLE-
BOULDER

Low ANGLE ROCK PLATFORM

Boulder Talus
Piney Beach

Boulder Talus
Pocket Beach

BOULDER TALKS
POCKET BEACH

B3 TB, CT, CV < 12
1x5m

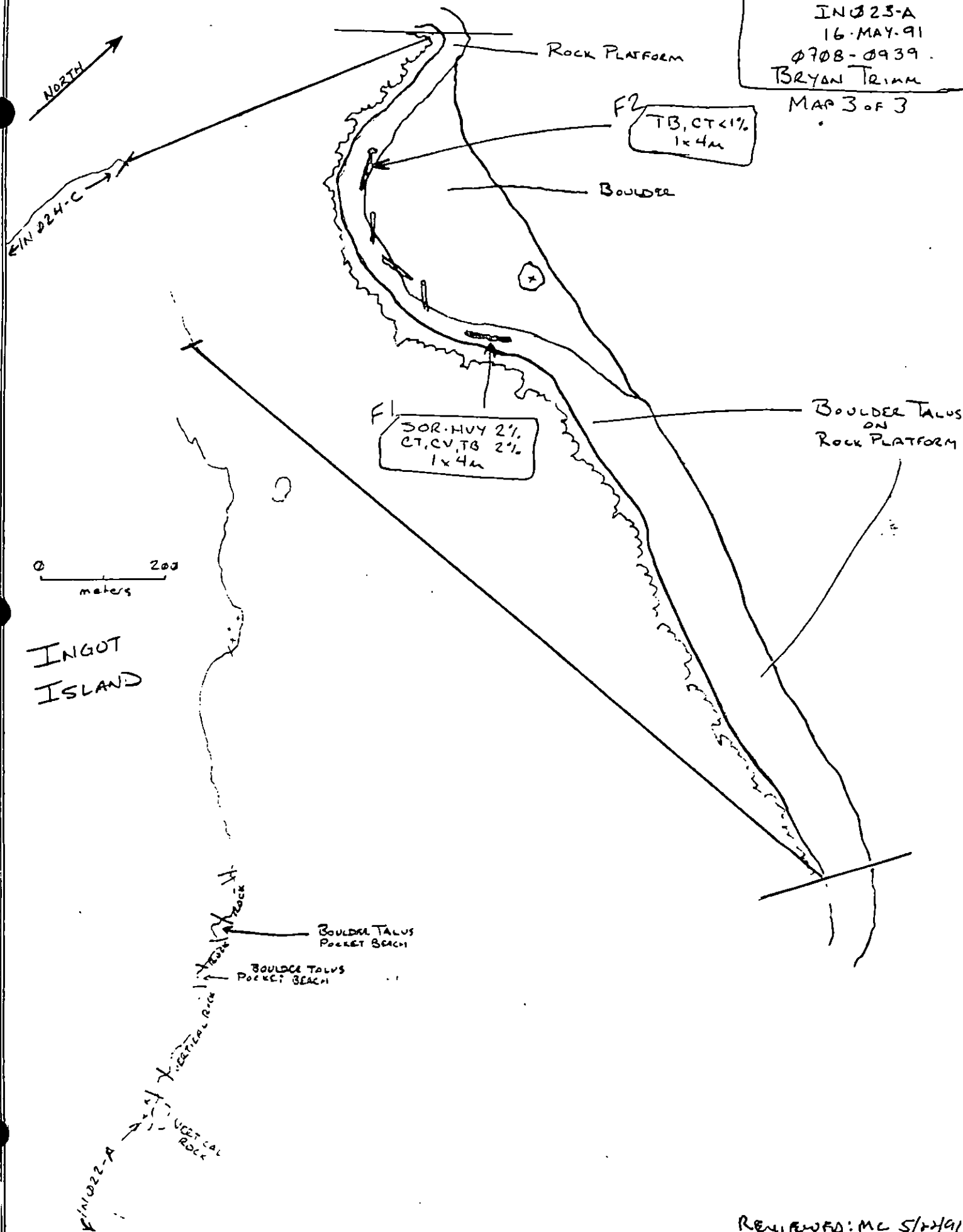
$$B2 \sqrt{TB} < 19$$

BL TBC 1% 1/10/24

ST, T3 1%
1x4m

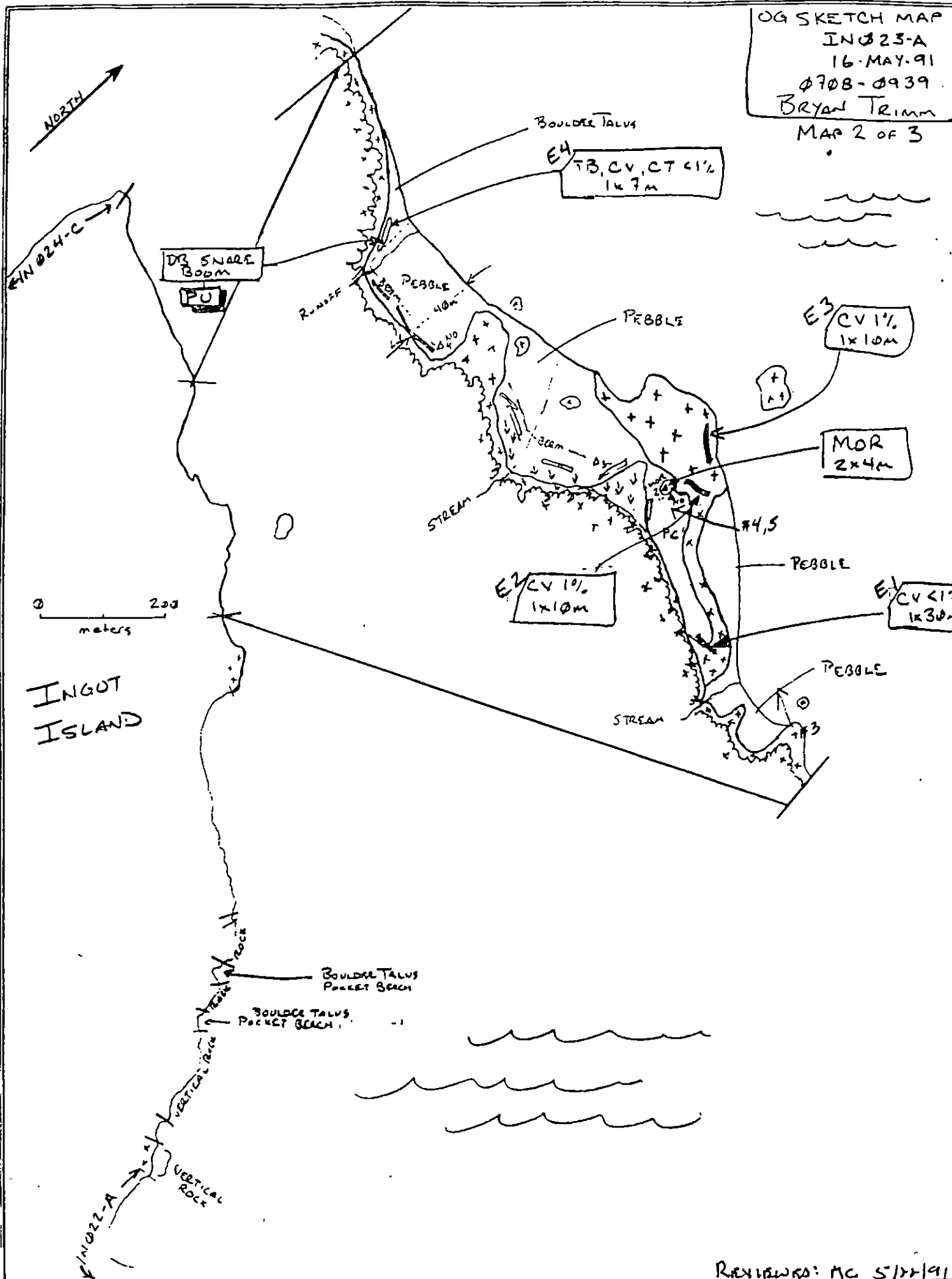
Reviewed: 5/22/91 ms
reviewed 5.22 94

OG SKETCH MAP
 IN 023-A
 16 MAY 91
 0708-0939
 BRYAN TRIMM
 MAP 3 of 3

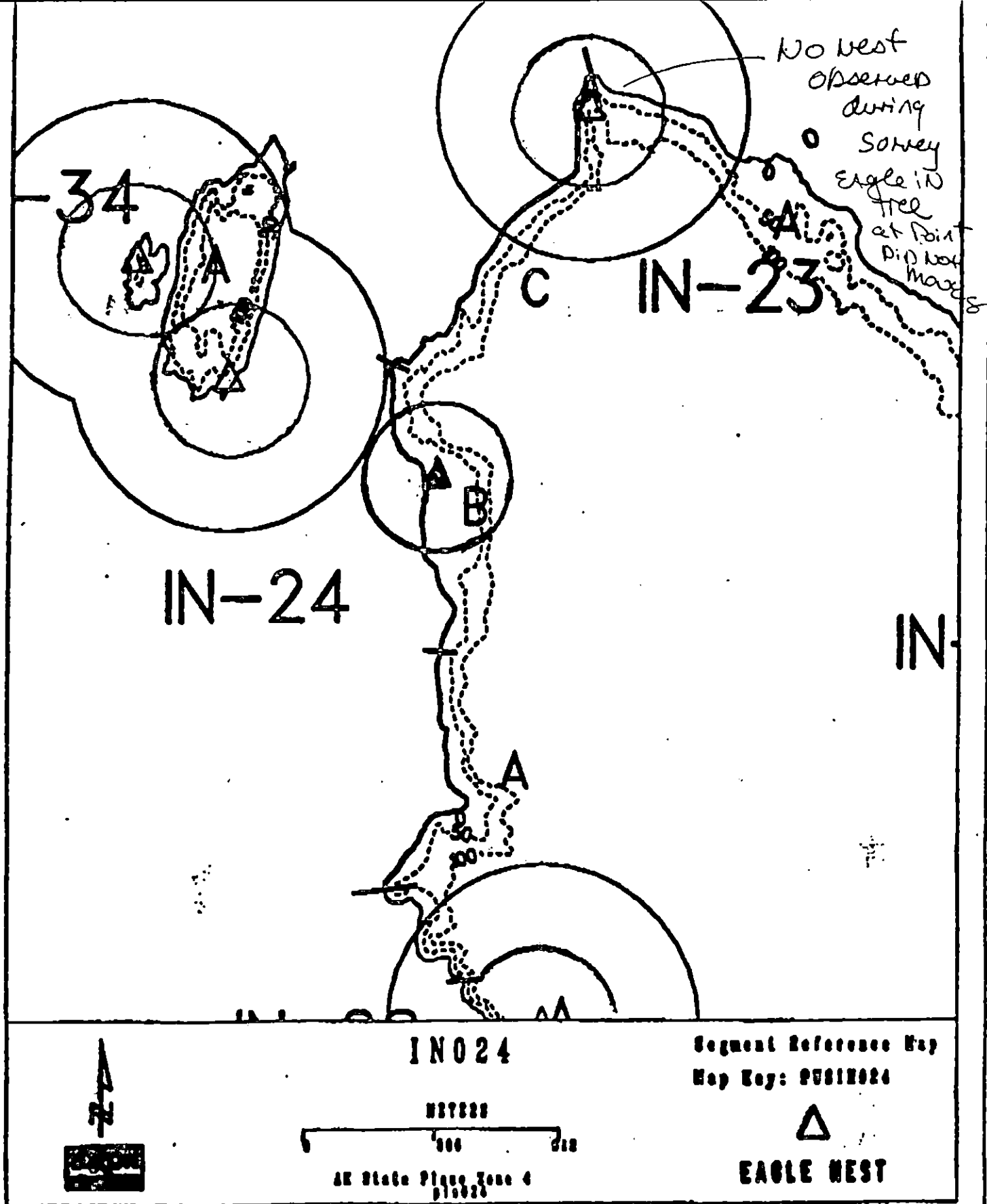


Reviewed: MC 5/22/91
 reviewed 5.22.91

OG SKETCH MAP
IN 023-A
16 MAY 91
0708-0939
Bryan Trimm
MAP 2 OF 3



REVIEWED: MC 5/22/91
reviewed 5.22.91



MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 16 May 91
 SEGMENT # IN 23 TIDAL HEIGHT (Range) 2.58 ft - 3.3 ft
 SUBDIVISION A BIOLOGIST S M BAN
 SEA STATE 4 ft WIND SPEED/DIRECTION 5-10 KTS
 PHOTOGRAPHS: ROLL # FRAME #

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

- A+B: Oil is high in lichen zone. Lower ITZ as shown plus dense algae
 C1: As shown on map oil is discontinuous reaching high into lichen zone and lower into littorine zone
 C2: Oil on rock platform with only moss & lichen nearby
 C3: The 4-m wide area of discontinuous CT, CV & ST extends from the upper focus zone to the lichen zone. The lower ITZ on this beach is dense & diverse with Ulva red algae, & Familia
 C4: Lichen only
 C5: Oil is under talus. Fucus littorines and barnacles are on top of rocks
 D1: oil extends from upper focus to lichen zones.
 D2 & D3: Lichen only
 E1: Green algae & sparse Fucus in oiled zone
 E2: Lichen & sparse barnacles in area with CT.
 F1: Oil is on basalt face immediately above tide pools containing Alveolones, poroliths, and littorines. Any clean up would likely disturb these pools
 F2: Lichen and moss in oiled zones. Lower zone support spat & small mussels & Littorines.

WILDLIFE OBSERVATIONS

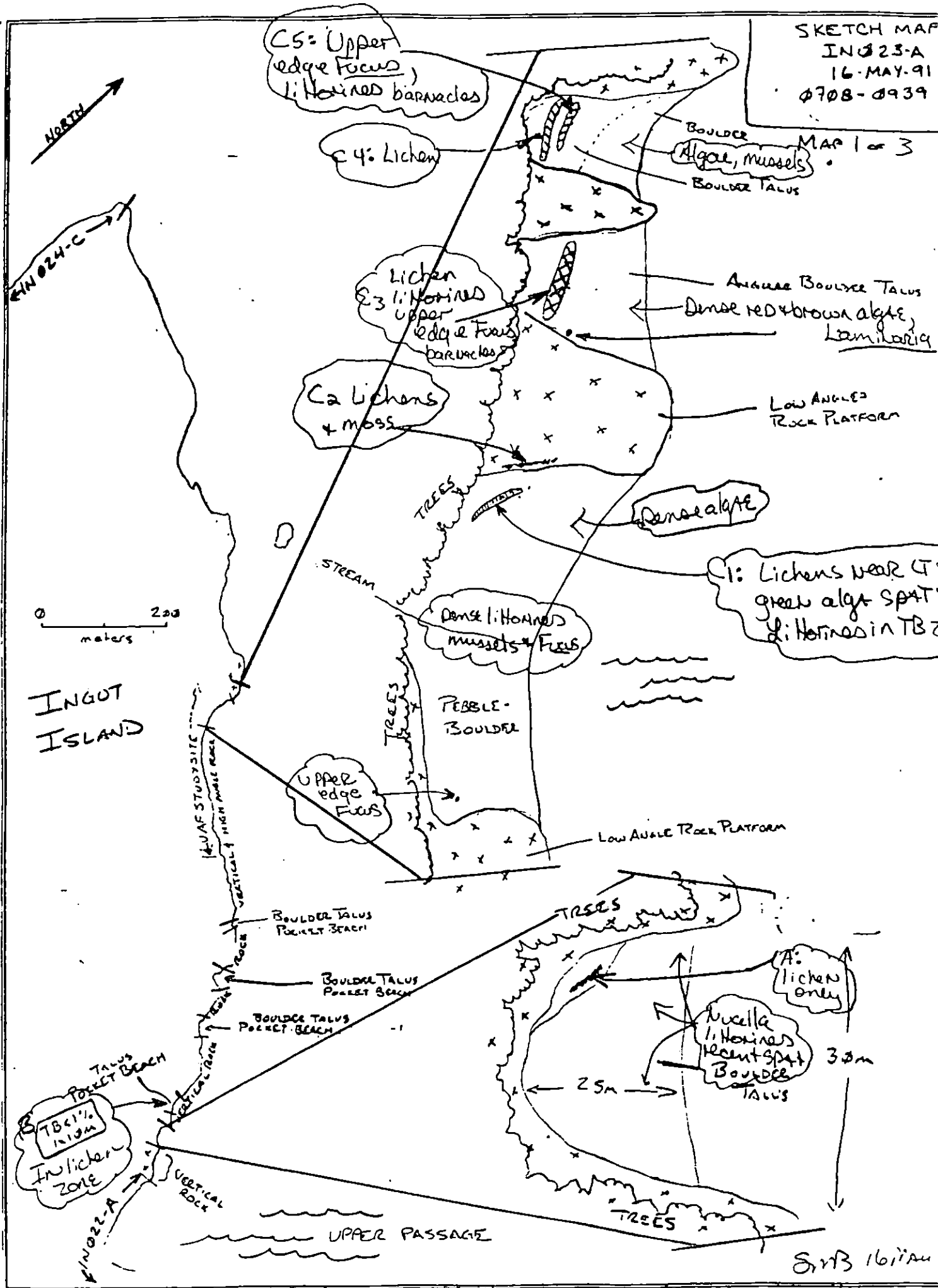
TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	Eagle in tree - did not move, no nest observed		
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids			
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Seal (specify)	1		

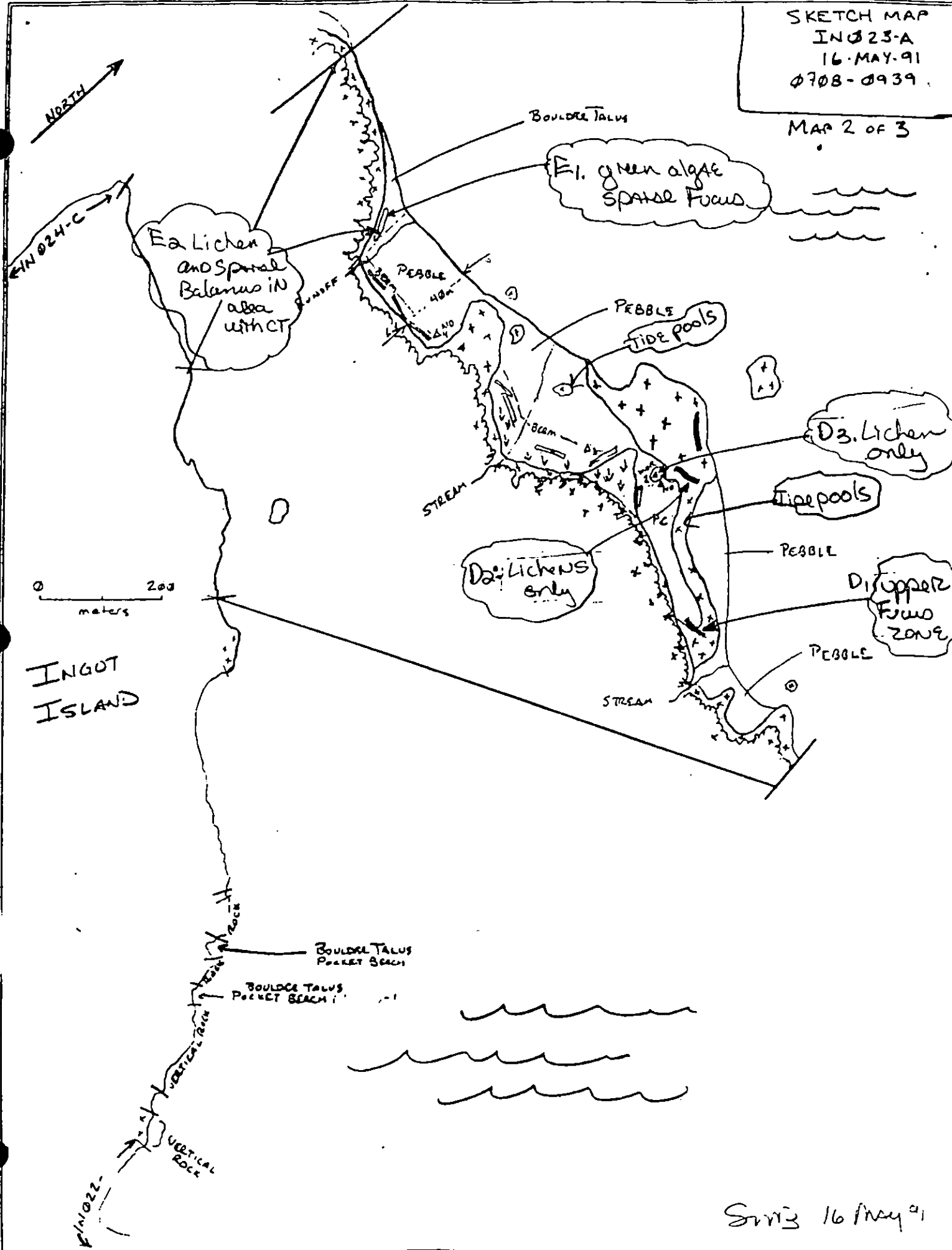
Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/22/91



SKETCH MAP
ING 23-A
16 MAY 91
0708-0939

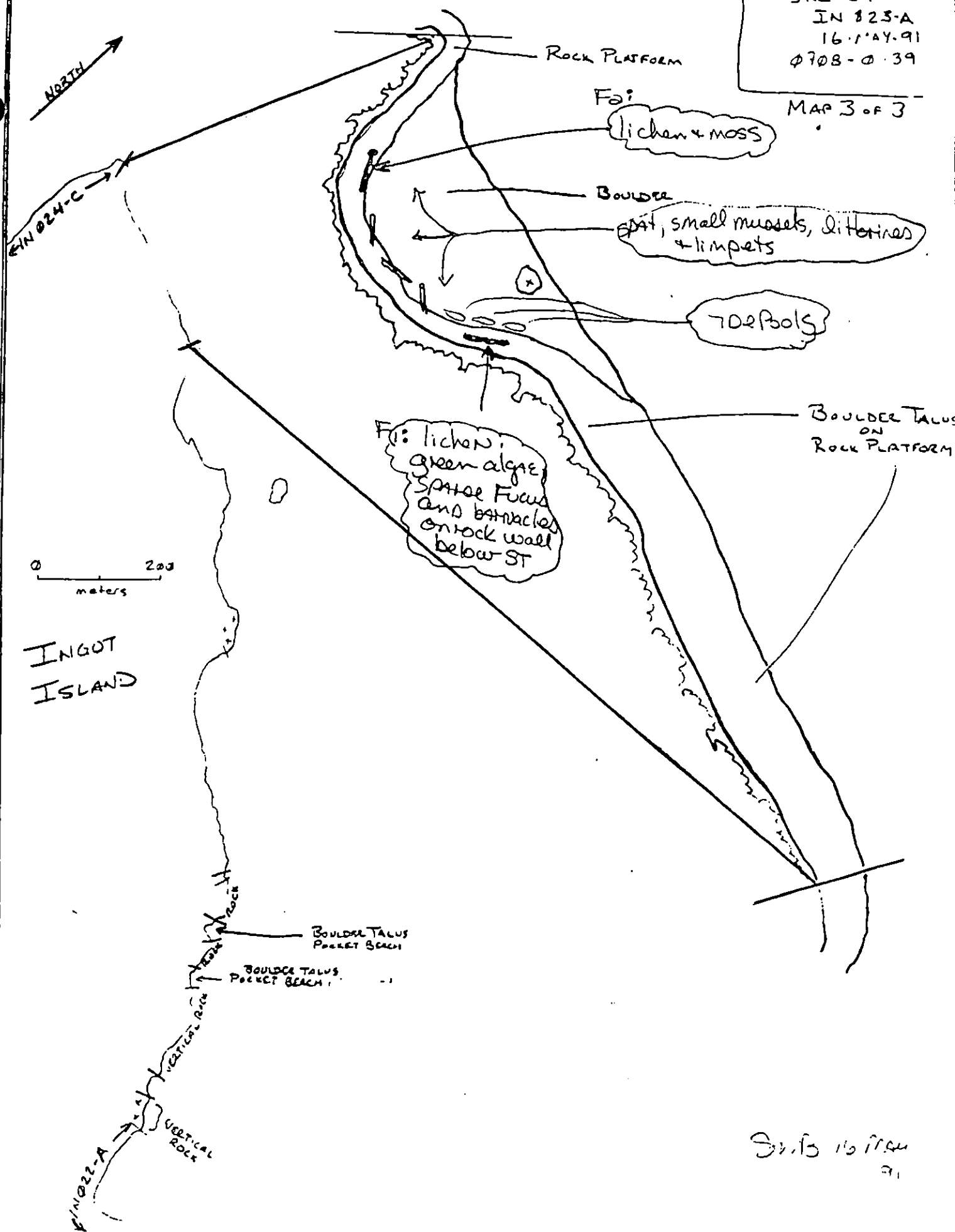
MAP 2 OF 3



Survey 16 May 91
Reviewed M.B. 5/28/91

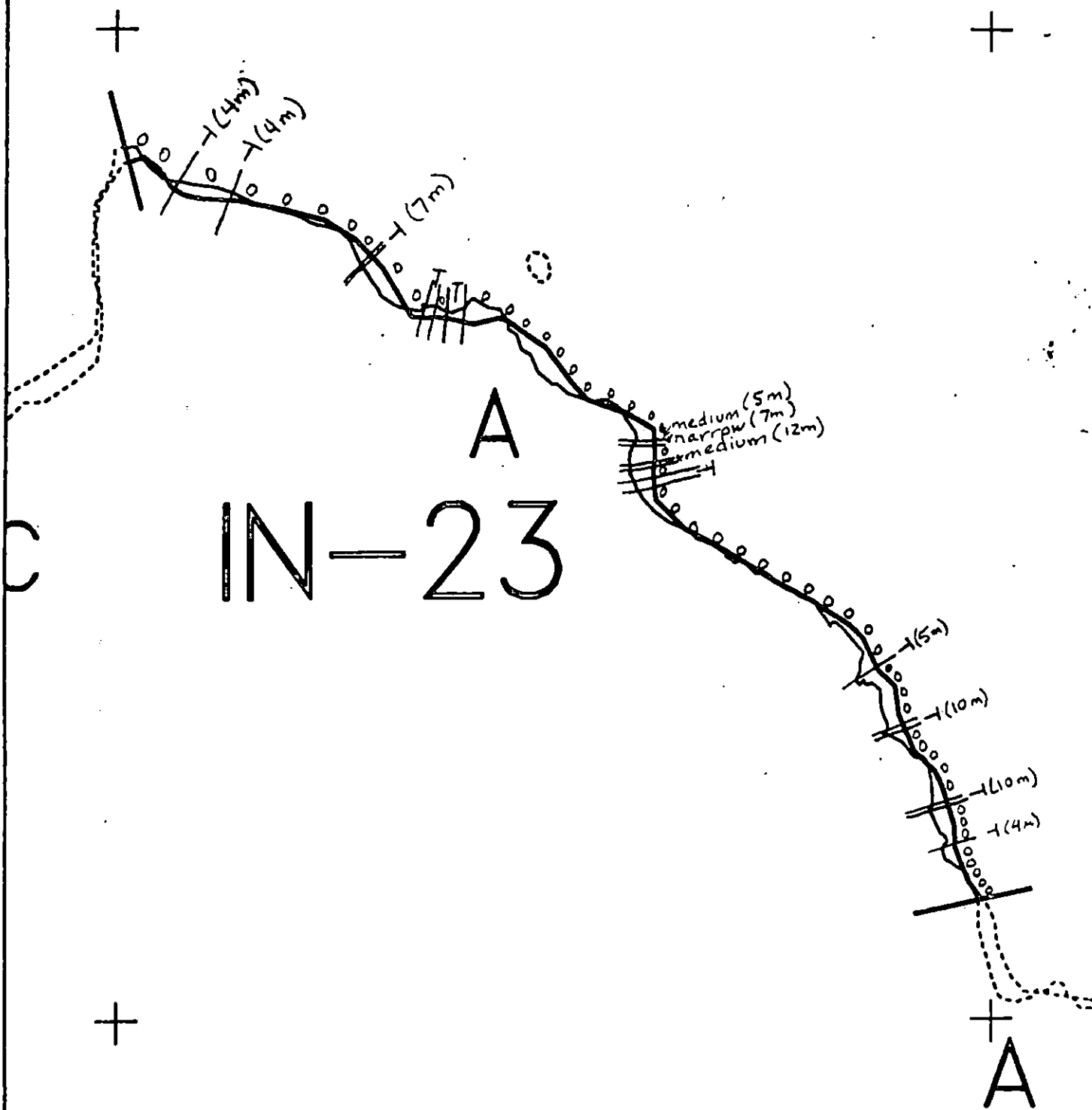
SKETCH MAP
IN 823-A
16 MAY 91
0708-039

MAP 3 of 3



Sketch 16 May 91

Reviewed M.B. 5/22/91



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

IN023 A
 ADEC Subsegment Length: 1083m
 METERS
 0 200 400
 AK State Plane Zone 4
 61-0230



Subdivision Field Map
 Map Key: KMIIN023A
 Name: TRIMM
 Date: 16-MAY-91
 Date Entered:

- SURFACE OIL CATEGORY MAP -

Reviewed: 5/24/91 MC
 reviewed 5.22 94

1991 MAYSAP EVALUATION

SEGMENT: IN 023 SUB: A REGION: PWS SURVEY DATE: 5/16/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy P. Smith

Date: 5/31/91

RECOMMENDATIONS:

INITIAL

TAG

FOSC

TREATMENT REQUIRED (Y or N)

N

N

N

Manual Pickup (Check as Req.)

Spot Washing

Bio-Customblen Only

Bio-Inipol/Customblen

Other

Other

COMMENTS:

INITIAL:

TAG:

FOSC:

TAG APPROVAL DATE: MM 3 1991

FOSC APPROVAL DATE: 6/8/91

ADEC

FOSC

EXXON

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

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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN-023 SUBDIVISION A DATE 5/16/91DEC NAME Peter MontesanoSIGNATURE *Peter Montesano*☐ NTR ☐ TREATMENT RECOMMENDED

the oiling was generally light and consistent w/ ASAP findings. Area C5 was in jagged sediments and not accessible for treatment. Many of the TBs along the way were broken up.

EXXON NAME C.M. KatsimpralisSIGNATURE *C.M. Katsimpralis*☒ NTR

NOTHING PRODUCTIVE TO WORK ON IN THIS SEGMENT.

LANDMANAGER

NAME Dennis S Kennedy OF USFSSIGNATURE *D.S. Kennedy*☒ NTR

This subdivision shows no treatable oil. There is signs of other research going on through out subdivision, rebar, flogging, etc.

USCG/NOAA NOAA D. JIMCEK-BERTY

NAME BM. M. P. ZENONE USCGSIGNATURE *BM. M. P. Zenone*☐ NTR

Only scattered trace amounts of oil observed within a designated area. No more extensive. interstitial oil was found between sandbars and is unreachable. DSB

CG - No TREATMENT Needed. 3

TEAM NO. 2OG B. TRIMMBIO S. BANSEGMENT IN023ADEC Peter MontesanoLANDMANAGER D. KENNEDY for USFSSUBDIVISION ABRI ZENONEDATE MAY 16 1991BY C. KATSIMPALISUSCG/NOAA D. STIMECEK-BEATTYTIME 07:08 to 09:39TIDE LEVEL 2.58 ft. to -3.31 ft.ENERGY LEVEL: ☒ H ☒ M ☐ LSURVEYED FROM: ☒ FOOT ☒ BOAT ☐ HELOWEATHER: ☐ SUN ☐ CLOUDS ☐ FOG ☒ RAIN ☐ SNOWTOTAL LENGTH SHORELINE SURVEYED: 1683 mNEAR SHORE SHEEN: ☐ BR ☐ RB ☐ SL ☒ NONEEST. OIL CATEGORY LENGTH: W — m M 17 m N 7 m VL 122 m NO 1537 m US 0 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				B	H	1	4	X				
B1			T								B	H	1	10	X				
B2			T								B	H	1	10	X				
B3			T		T	T					B	H	1	5	X				
C1			T	S							B	M	1	10		X			LOR UNDER BORDER = SOR
C2					T	T					R	V	1	18		X			
C3					P	P	P				B	M	4	12		X			
C4					P	P	P				B	M	2	12	X				
C5		P		P							B	M	1	5		X			MOR UNDER TALUS
E1					T						RP	M	1	30		X			
E2					S						R	V	1	10		X			
E3					S						R	V	1	10			X		
			T		T	T					B	M	1	7		X			
			S	S	S	S					B	M	1	4		X			HVY SOR UNDER TALUS
			T			T					B	M	1	4		X			

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

SLOPE: V = VERTICAL; H = HIGH ANGLE; M = MEDIUM ANGLE; L = LOW ANGLE

PHOTO ROLL # MAYSAP-

2-17FRAMES 1-5

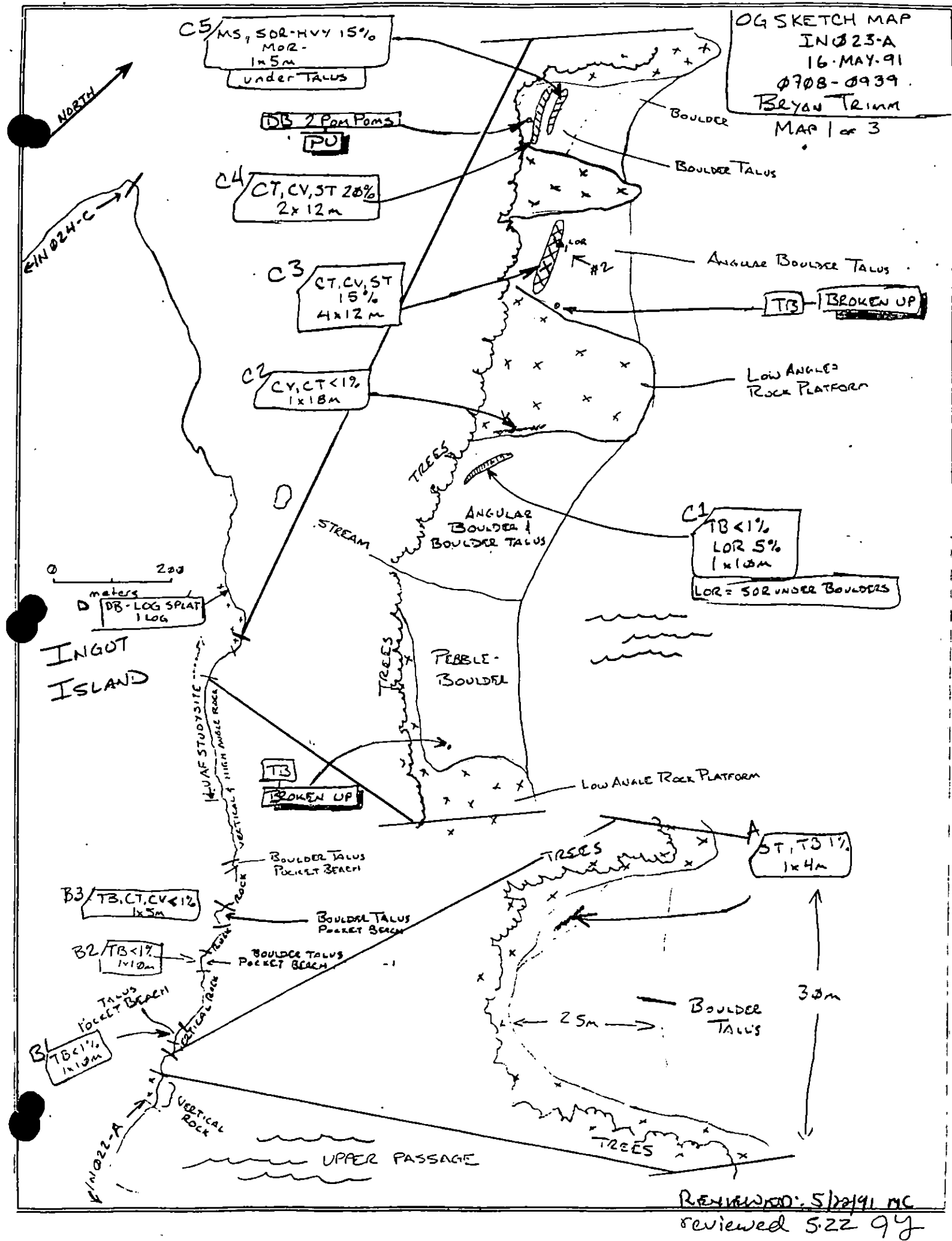
PIT NO.	PIT DEPTH (cm)	SUBSURFACE OIL CHARACTER							OILED ZONE cm-cm	CLEAN BELOW Y/N	H2O LEVEL (cm)	SHEEN COLOR B R S N	PIT ZONE				SURFACE- SUBSURFACE SEDIMENTS	NOTES
		OP	HOR	MOR	LOR	OF	TR	NO					S	UI	MI	LI		
1	12					X			0-12	N	—	—		X			B - PBorg	LOR = CVU/organic CUSTOMER
2	27			X					15-24	Y	27	B		X			P - GPC	MOR = Buried SOR
3	51							X	—	Y	—	—		X			P - PPG2+	
4	40							X	—	Y	—	—		X			P - PGC	
									—									
									—									
									—									
									—									

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

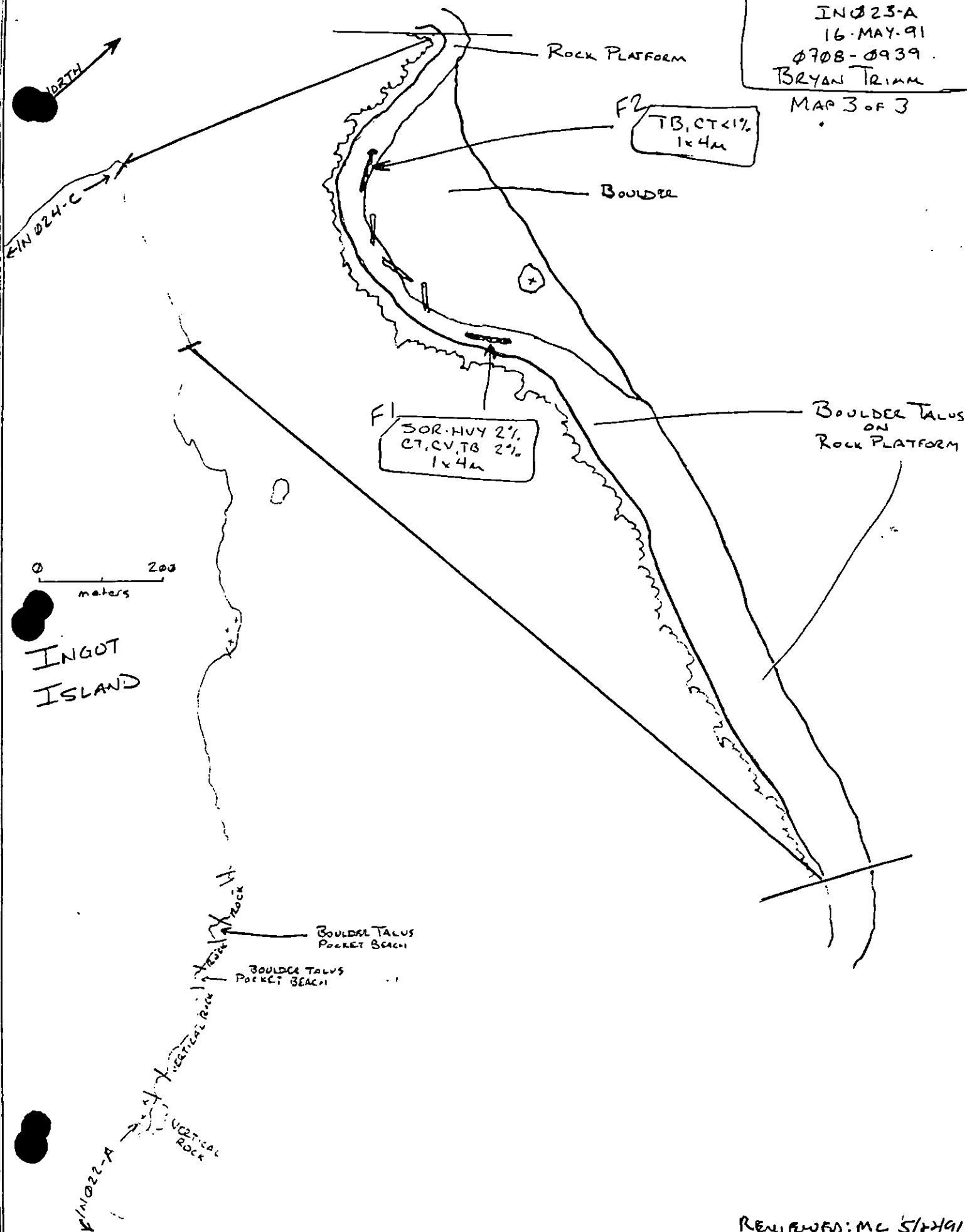
OG COMMENTS:

- ACTIVE BURIAL ACTION COULD POSSIBLY BE OCCURRING IN THE VICINITY OF PIT #2 (SEE SKETCH MAP #2).

Reviewed: 5/22/91 mc
revised 5.22 9y

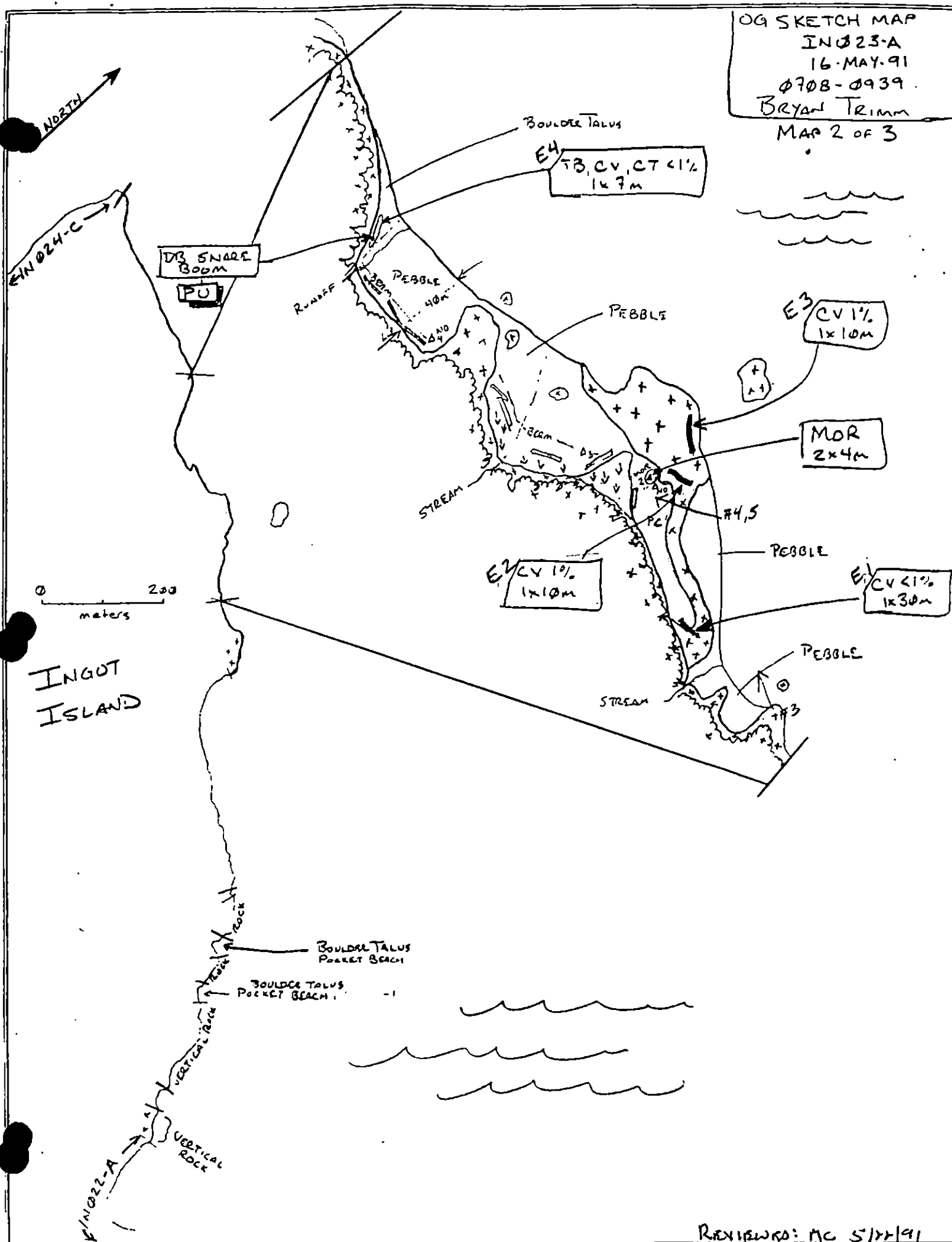


OG SKETCH MAP
IN 023-A
16 MAY 91
0708-0939
BRYAN TRIMM
MAP 3 of 3

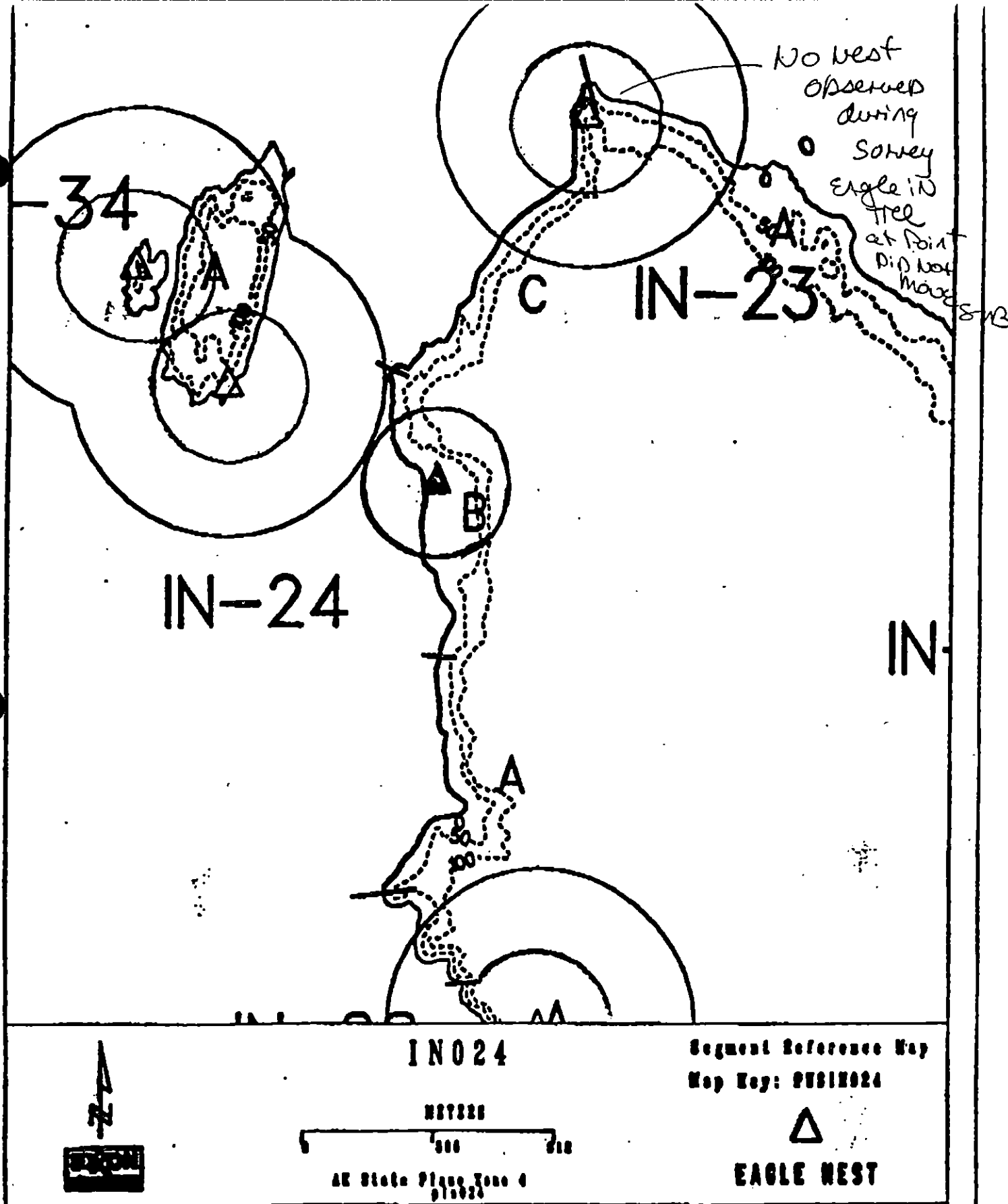


REVIEWED: MC 5/22/91
Reviewed 5.22.94

OG SKETCH MAP
 IN 023-A
 16-MAY-91
 0708-0939
 BRYAN TRIMM
 MAP 2 OF 3



Reviewed: MC 5/22/91
 reviewed 5.22.91



90118721502154 P.02/02

TO

EXXON SCAT ANCH

FROM

MAY-14-1991 09:55

Reviewed M.B. 5/22/91

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 16 May 91
 SEGMENT # IN 23 TIDAL HEIGHT (Range) 2.58 ft + - 3.3 ft
 SUBDIVISION A BIOLOGIST S M BAN
 SEA STATE 4/5+ WIND SPEED/DIRECTION 5-10 KTS
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

- A+B: Oil is high in lichen zone. Lower ITZ as shown plus dense algae.
 C1: As shown on map oil is discontinuous reaching high into lichen zone and lower into littorine zone.
 C2: Oil on rock platform with only moss & lichen nearby.
 C3: The 4-m wide area of discontinuous CT, CV & ST extends from the upper Fucus zone to the lichen zone. The lower ITZ on this beach is dense & diverse with blue red algae, & *Laminaria*.
 C4: Lichen only.
 C5: Oil is under Talus. Fucus littorines and barnacles are on top of rocks.
 D1: oil extends from upper Fucus to lichen zones.
 D2 & D3: Lichens only.
 E1: Green algae & sparse Fucus in oiled zone.
 E2: Lichen & sparse barnacles in area with CT.
 F1: Oil is on basalt face immediately above tide pools containing *Anemones*, *poroliths*, and *littorines*. Any clean up would likely disturb these pools.
 F2: Lichen and moss in oiled zones. Lower zone support sponges & small mussels & *Littorines*.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	Eagle in tree - did not move to nest observed		
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids			
Other Birds			

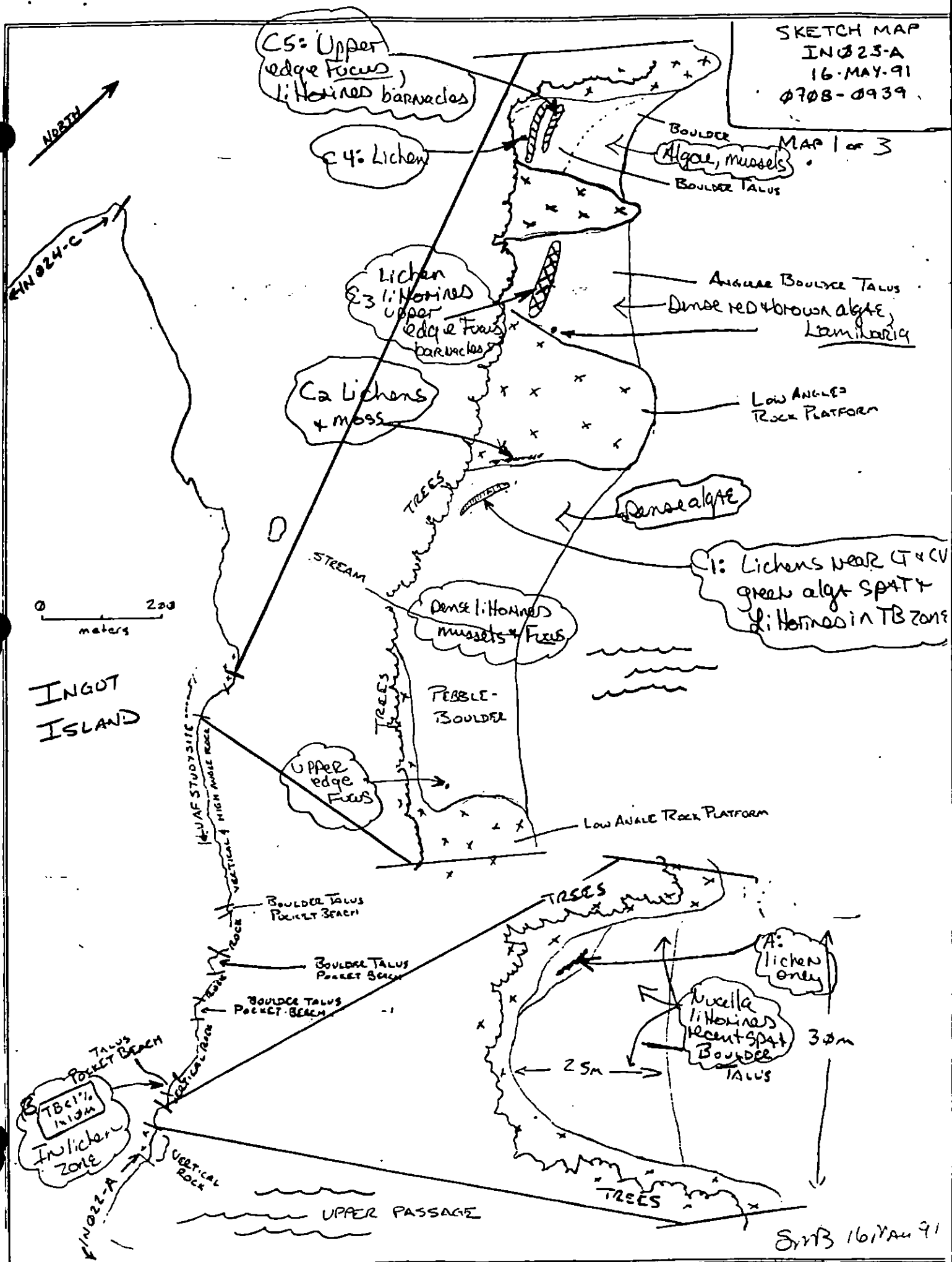
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Seal (specify)	1		

Shoreline subdivision map showing important biological features attached.

Reviewed M.B. 5/22/91

SKETCH MAP
IN 023-A
16-MAY-91
0708-0939

MAP 1 of 3

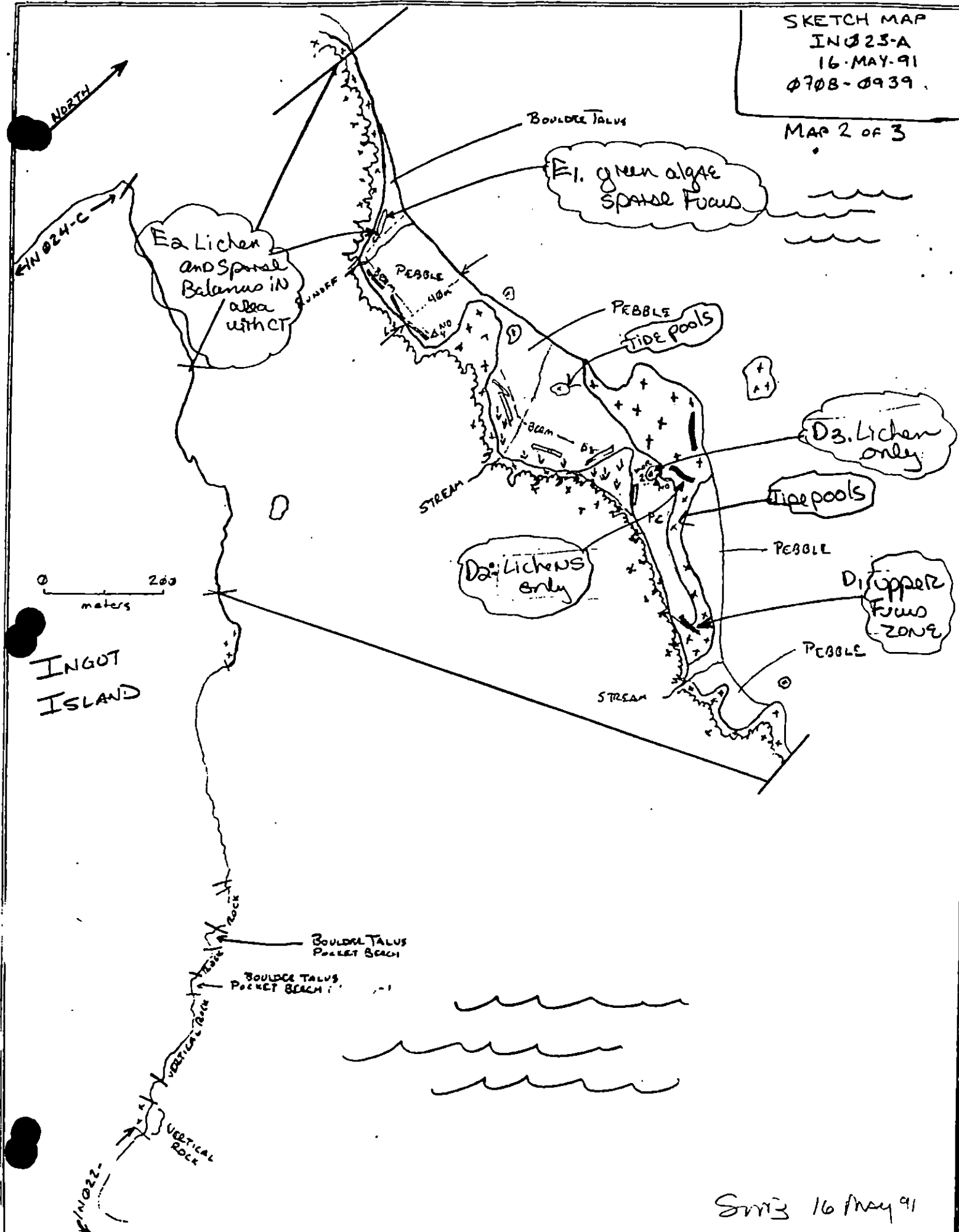


SM 16/Jan 91

Residence M.B. 5/22/91

SKETCH MAP
IN 025-A
16 MAY 91
0708-0939

MAP 2 OF 3

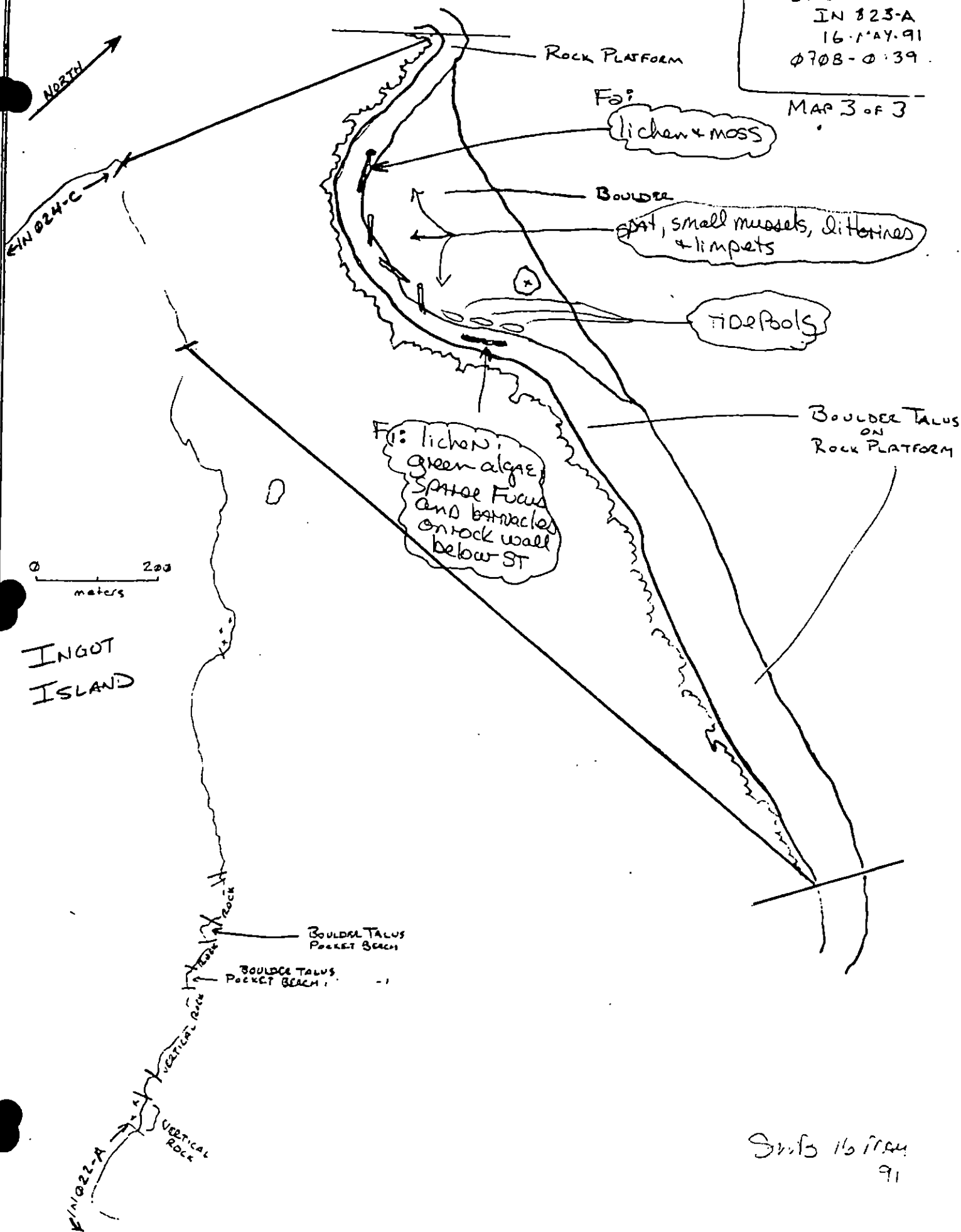


SMR 16 May 91

Reviewed M.B. 5/22/91

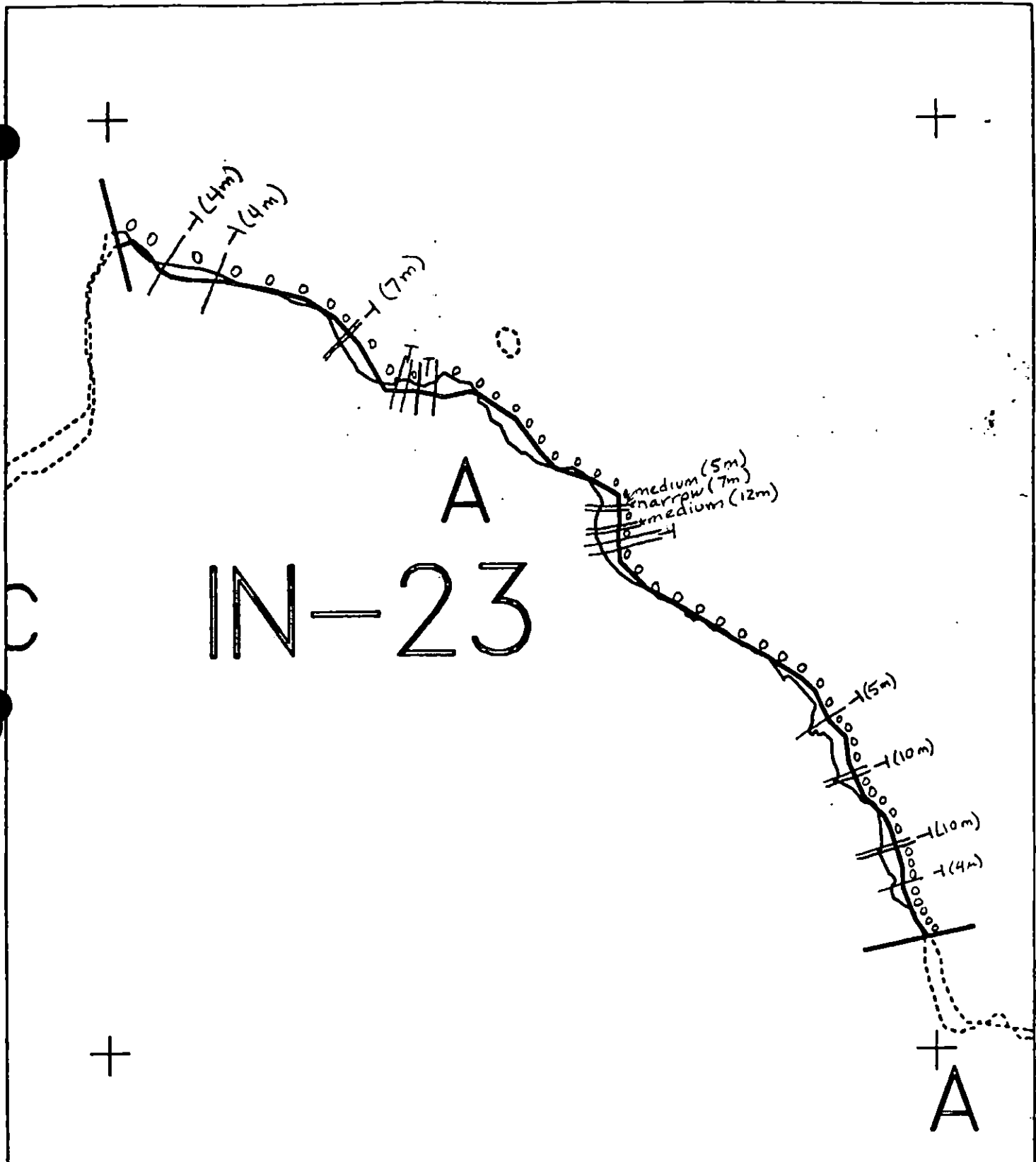
SKETCH MAP
IN 823-A
16 MAY 91
0708-039

MAP 3 of 3



Sketch 11/1/91
91

Reviewed M.B. 5/22/91



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

IN023 A
 ADEC Subsegment Length: 1683m
 METERS
 0 200 400
 AK State Plane Zone 4
 610230

Subdivision Field Map
 Map Key: KNIIN023A
 Name: TRIMM
 Date: 16-MAY-91
 Date Entered:



- SURFACE OIL CATEGORY MAP -
 Reviewed: 5/22/91 MC
 reviewed 5.22 91

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-23

SUBDIVISIONS: A (1 OF 1)

SHORELINE EVALUATION

SEGMENT ST/ IN-23 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
6U Recreation: Tent sites (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 31 m: Medium 23 m: Narrow 141 m: V.Light 852 m: No Oil 634 m
Subsurface Oil Observed: Yes X No _____ Maximum Depth 20 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 Removal	☐ Beach Cleaner
	☐ Other (see comments)

COMMENTS: Recommended treatment includes 1) removal of tarmat, 2) pick-up of debris, and 3) bioremediation of lang pocket beaches as shown on sketch map. Work should be conducted after 6/1 with USFWS approval based on eagle nest constraints.

TAG COMMENTS: _____

TAG APPROVAL DATE: _____

ADEC _____
EXXON _____
NOAA _____
USCG _____

FOSC: _____ DATE: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

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

1B Salmon stream mouth - spawning (7/10 to 8/31)

No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.

AGENCY CONTACT PERSON: ADF&G John Morison 267-2324

1C Salmon fry nursery area (4/31 to 7/31)

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.

AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214

1D Esther Hatchery release (4/15 to 6/15)

1E Main Bay Hatchery release (4/20 to 6/15)

1F Sawmill Bay Hatchery release (4/15 to 6/1)

1G Cannery Creek Hatchery release (4/21 to 6/1)

1H Remote release site

No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.

AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214

1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511

1I Gill net area (6/7 to 8/31)

1J Purse seine area (7/20 to 9/30)

1K Purse seine hook-off (7/20 to 9/30)

1L Set net sites (6/11 to 7/25)

Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.

AGENCY CONTACT PERSON: ADF&G James Brady 424-3212

2M Herring spawning (4/1 to 6/15)

Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to 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 Evelyn Biggs 424-3235

3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)

3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)

Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.

AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235

ADF&G Don Calkins 267-2403

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

Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

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

Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.

AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377

ADF&G Tom 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 Subistence area: Salmon harvesting (5/1 to 9/30)

Finfish harvesting

Deer harvesting (8/15 to 2/26)

Invertebrate harvesting

Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.

AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2350

FIELD SHORELINE COMMENT SHEET

SEGMENT ST IN-23 SUBDIVISION: A DATE 4/25/90

USCG

NAME William E. White

SIGNATURE

William E. White

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

SKETCH MAP # 1

(1) Bioremediate area

SKETCH MAP # 2

1. manual pickup of asphalt
2. Pick up oiled snare boom
3. Bioremediate area
4. Till surface layer

ADEC

NAME

Peter Montesano

SIGNATURE

Peter Montesano

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

- Pit #1 medium sized cobbles with NO finer sediments filling in between. Bro with granular since it seems that liquid would seep below oiled layer.
- Pit #2 - Easily hand tilled with shovel prior to bioremediation.
- Remove oiled snareline above beach
 - shovel up Ap at North end of Pit #3 & oiling prior to Bioremediation

Above comments parallel the Exxon "Operation Notes."

LAND MANAGER USDA - Forest Service

NAME Don J. Breitinger

SIGNATURE

Don J. Breitinger

☐ NO TREATMENT RECOMMENDED
COMMENTS

☒ TREATMENT SUGGESTED

This area is used for recreation, tents sites and as a special use destination area for the period 6/1 - 9/15.

I. Area near pit #1 should be bioremediated.

II. Area near pit #3 should have manual pickup of asphalt, fill surface layer and bioremediate area. Oiled pom-pom snare boom needs to be picked up.

The rest of the segment should be left natural.

SHORELINE OILING SUMMARY

REVISED NO. 04-12-90

OG C. DILLON USCG PS1 E. WHITE SEGMENT ST/ IN-23
 BIO J. BARRY LAND REP D. BREITINGER (NCS) SUBDIVISION A (LOFT)
 EXXON G. STILES ADEC P. MONTESANO TIME 10:15 to 11:45
 TEAM NO. 6 TIDE LEVEL +1 to +4 DATE 04/25/90
 EST. SUBDIVISION LENGTH: 1226 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☒ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☒ Foot ☒ Boat ☐ Helo WORKING DIRECTION: E to W
 SURFACE SEDIMENTS: R 80 % B 10 % C 5 % P 5 % G 0 % S 0 % M 0 % V 0 %
 SLOPE: Long 50 % Hang 45 % Vert 5 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 20 m M 15 m N 121 m VL 1070 m NO 600 m

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR				IMPACTED ZONES			
	R	B	P	N	W	M	N	VL	SU	U	M	U
ASPHALT PAVEMENT			X		X				X			
POOLED												
COVER												
COAT	✓	X	X	X	X				X		✓	
STAIN				X			X		X			
MOUSSE												
PATTIES												
TARBALLS												
FILM												
NO OIL									X			X

PAVEMENT H F (S) 8 sq. m by 4 cr

PATTIES / TARBALLS _____ BAGS

NEAR SHORE SHEEN? (NO) BR RW SL TL

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

DID YOU COLLECT DEBRIS?

YES ☒ NO ☐un-oiled tras
TYPE oiled from pavement#BAGS 1

Photographs:

Roll No. ST-6-7Frames 4-6

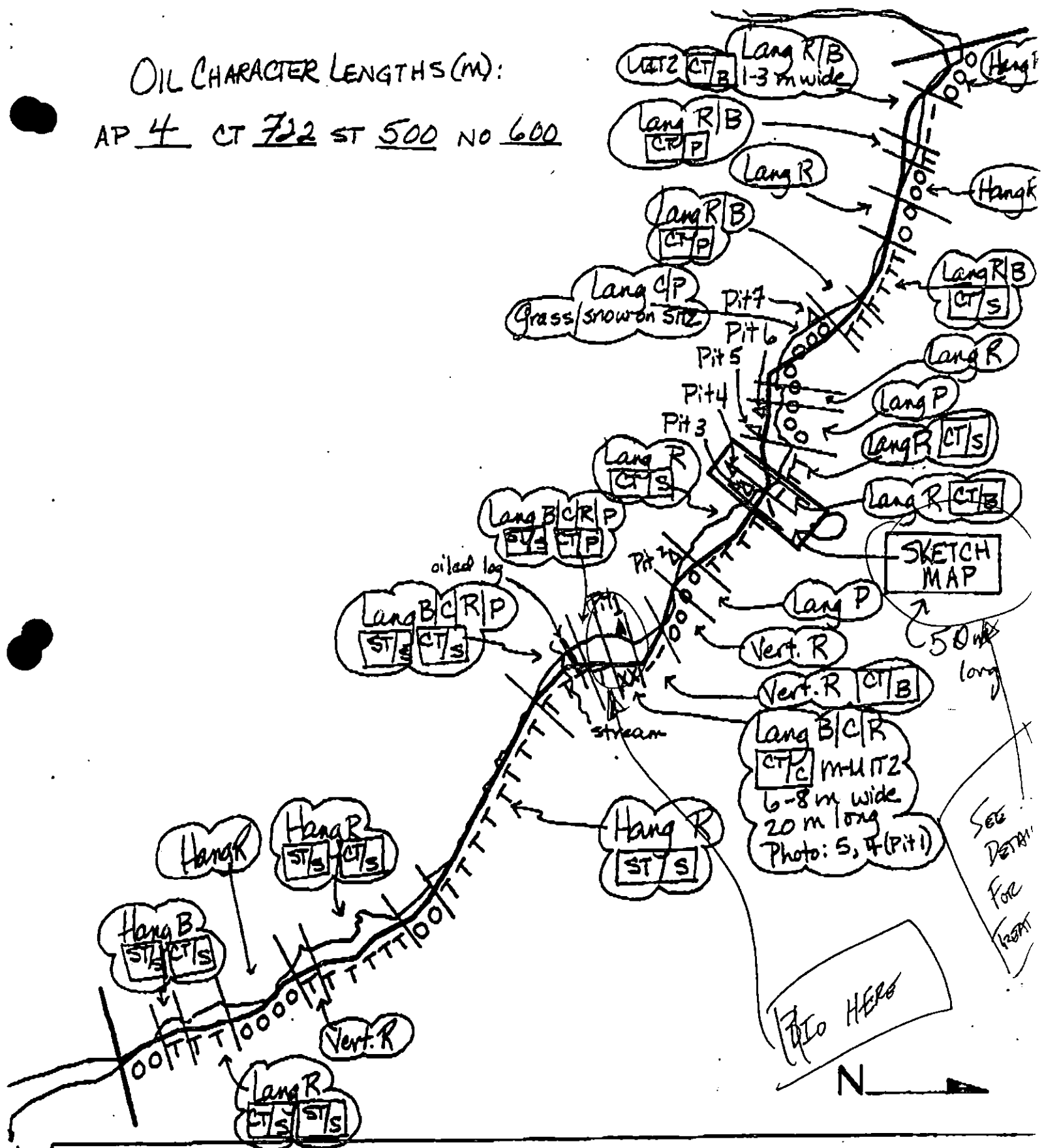
SUBSURFACE OIL

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		UO	UO	W	M	N	VL	SU	U	M	U				
1	23	X					0-20	X		X				X				N	-		B/C-C/Veg
2	40					X	.	X						X				N	-		P-P
3	10	X					0-3	X	X							X		N	-		C/P-P/G
4	15					X	.	X						X				N	-		P-P/G
5	60					X	.	X						X				N	-		P-P/G
6	25					X	.	X								X		N	15		C/P-P/G
7	30					X		X								X		N	-		P-P/G/s

REVIEWED YHDATE 4-26-90

OIL CHARACTER LENGTHS (M):
AP 4 CT 722 ST 500 NO 600

AP 4 CT 722 ST 500 NO 600



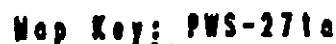
Medium

TTTT Very Light

IN-23-A

EXON Segment Length: 1826m
ADEC Segment Length: 1683m

ADEC Segment Length: 1683m



Name: C. DILLON

Date: 4/25/90

Data Entered:

00 C. DILLON TEAM 6

SEGMENT STATION -23

SUBDIVISION A

DATE 04/25/00

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Dig/Side Entry
- ☐ Oil Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. 100% LVL
- ☐ 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

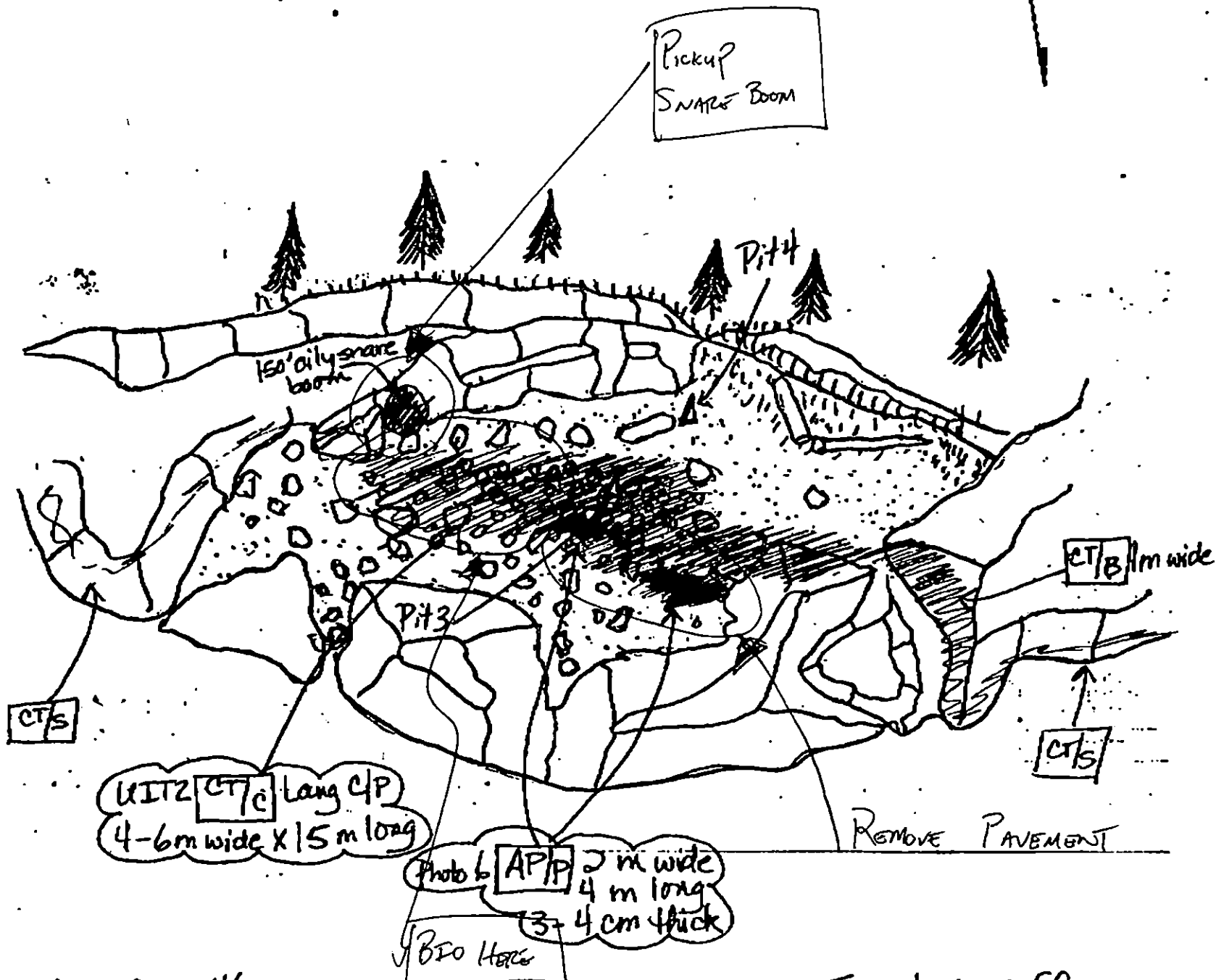
CT/P
Patched Distribution

CT/S
Splashed Distribution

eee
Old Vegetation

1 ●●●
Photo location, direction, and number

SKETCH MAP



Oil Character Length (m): AP 4 PO 0 CV 0 CT 46 ST 0 MS 0 PT 0 TB 0 FL 0 NO TOTAL LENGTH 50

SHORELINE ECOLOGICAL SUMMARY

REVISION: 03/22/90

Segment ST / 1N23 Subdivision A Date (mo / day / yr) 4/25/90Time (24 hr) 1030-1130 Biologist JIM BARRY Length 1826 1/7(A) Substrate type and % of segments:
(1) Bedrock 80 (2) Boulder 10 (3) Cobble 5 (4) Pebble 5 (5) Sand 0 (6) Silt 0(B) Overall % cover of biota (% of segment): Dense 60 Moderate 25 Low 25

(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-7Frames

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:

BALD EAGLE - 2 - 1 NEST WHITE WINGED SCOTER - 1 SEAL - 1
 PELAGIC CORMORANT - 3 CROW - 3 DEER TRACKS
 Herring Gull - 6 RAVEN - 1

Ecological Considerations:

EAGLE NEST AT JUNCTION OF 1N23, 1N24 - AVOID DISTURBANCE
 OTTER HAULOUT SITE - SEE MAP

TIME 1000 - 1130

TIDE +0 → +5

I General Comments

A. Exposure - Most of segment is moderate exposure: North end has a high exposure.

B. HABITATS

1) Vertical and High Angle bedrock & boulder shores

Biota are generally denser, due in part to the ~~the~~ high cover of filamentous and blotchlike algae. Fucos moderate density in general ~~low~~ in low to middle zones. Dominant algae in the middle to low zones are Ulva, Odonthalia, Ptilota, Polysiphonia?, and stipitate brown algae.

Fauna - Typical of exposure gradient. Pisaster, an exposed shore sea star, is abundant near the North end of the segment, and less abundant towards the South. Mytilus is very patchy, but generally moderate in patches. Littorines are dense on some cobble shores. Limpets are moderate to sparse and Anchids are moderate to sparse, with egg cases present throughout the segment. Barnacles are often dense in the upper zone, and Semibalanus is abundant (dense) near the north end.

2) Cobble and Cobble/Pebble beaches.

Beaches towards the South end have higher cover of algae, and denser biota in general, than one or 2 beaches at the north end which face Prince William Sound to the north. Mytilus are often moderate and dense in patches at the periphery of these beaches. Littorines are ~~often~~ dense on large cobble and boulders: on these beaches.

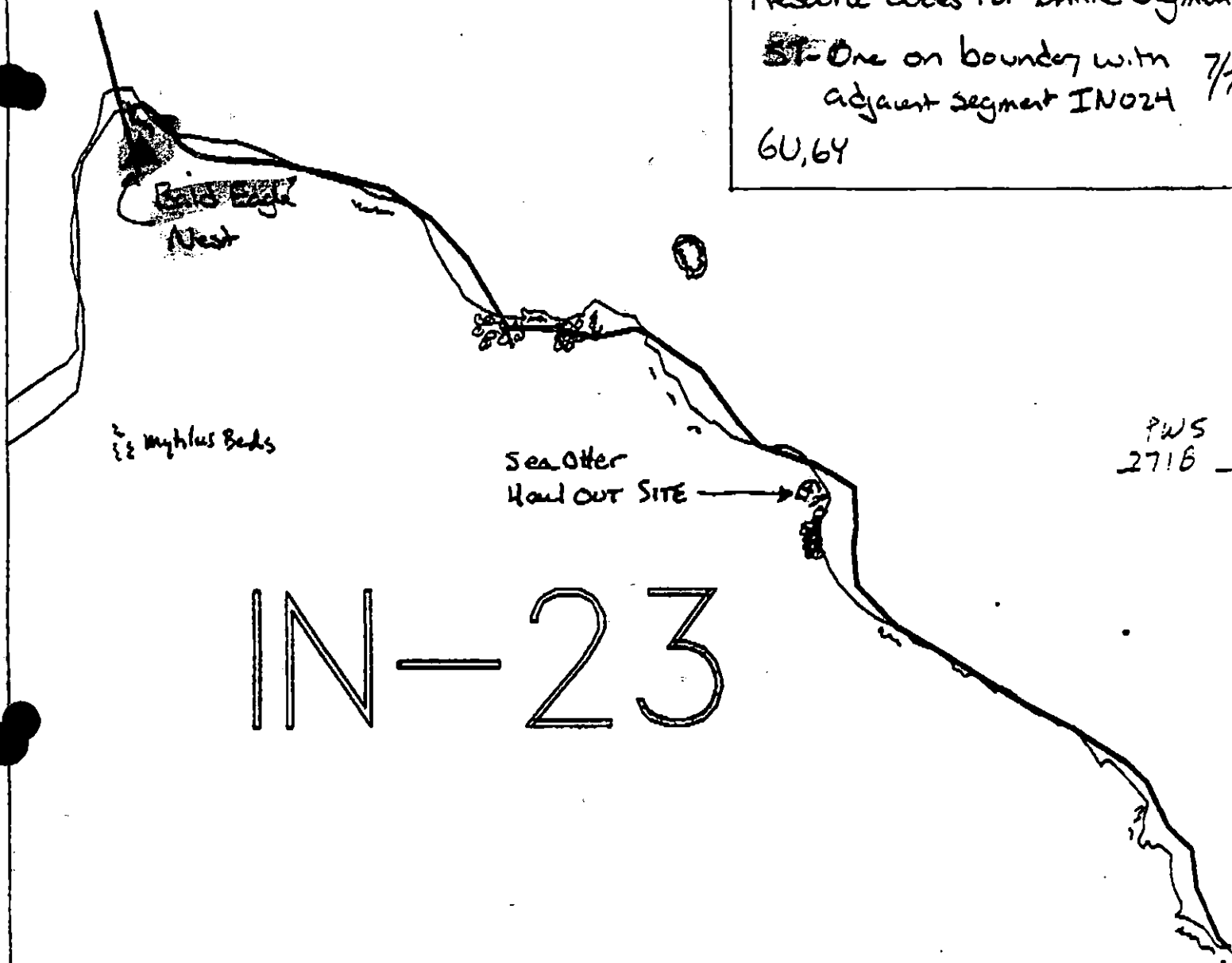
c. Oil Related Comments

3/7

- 1) Oil is light to very light throughout the segment. Some oil ~~at~~ related mortality is evident or probable for barnacles under a coat where mortality (% dead) is about 30-50%.
- 2) Sensitivities— Eagle nest at north end of segment. Otter haul out site on segment— see map. Cleanup crews should avoid prolonged visitation near these sites..

APRIL 25 1990

Ecology Map 1 of 2
Resource Codes For Entire Segment
~~ST~~-One on boundary with 7/7
adjacent segment IN024
6U,6Y



IN-23

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

IN-23

ADEC Segment Length: 1683m

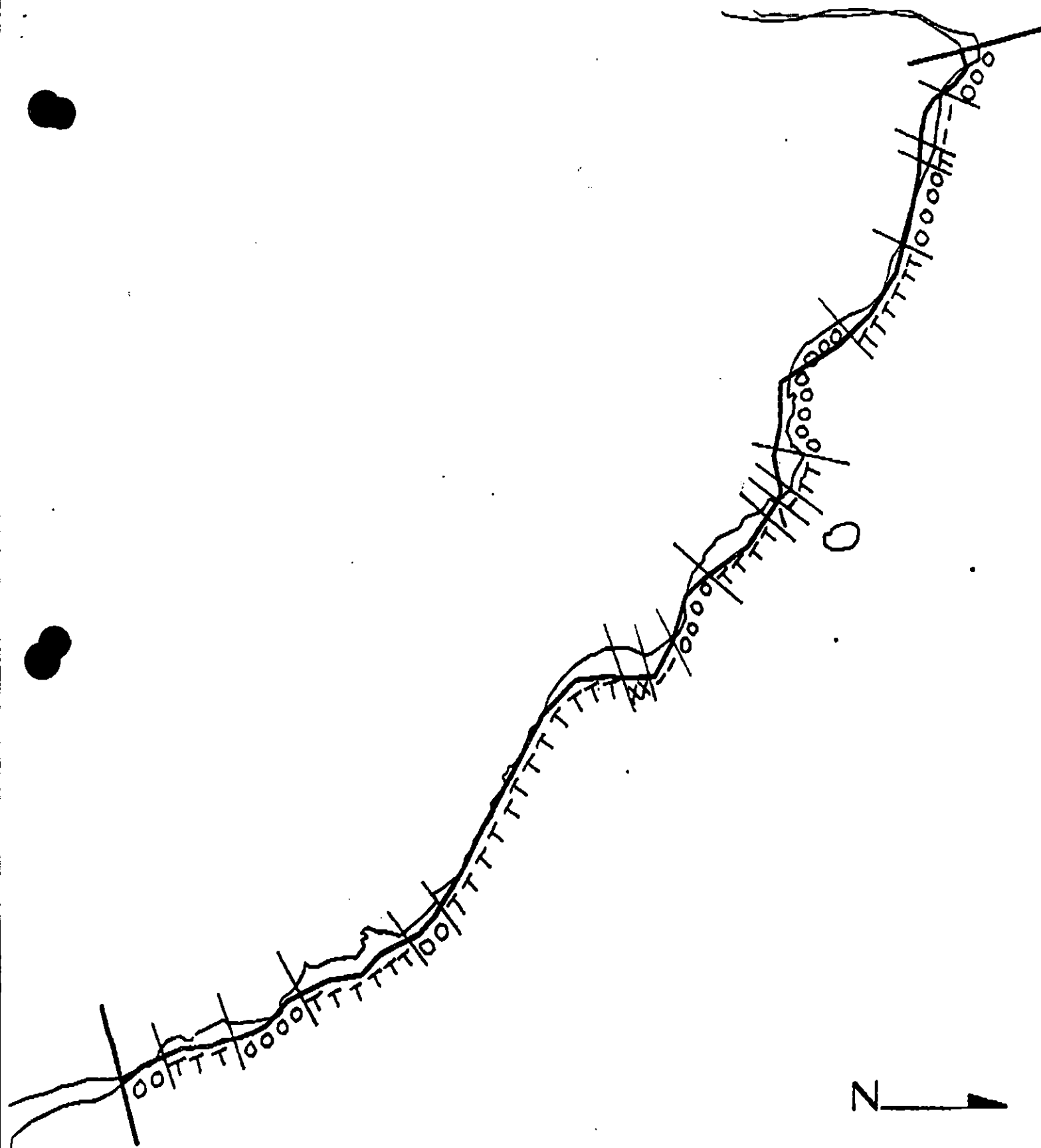


Map Key: PWS-271a

Name: _____

Date: _____

Data Entered: _____



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

IN-23-A

Exxon Segment Length: 1826m
 ADEC Segment Length: 1683m



Map Key: PWS-271a
 Name: C. Dillon
 Date: 4/25/90
 Data Entered:

SHORELINE EVALUATION

SEGMENT ST/ IN-23 SUBDIVISION A (1 OF 1) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
6U Recreation: Tent sites (6/1 to 9/15)
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

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 Z. Hume DATE: 5/5/90

OILING CATEGORIZATION:

Wide 31 m: Medium 23 m: Narrow 141 m: V.Light 852 m: No Oil 634 m
Subsurface Oil Observed: Yes X No Maximum Depth 20 cm

RECOMMENDATIONS:

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

COMMENTS: Recommended treatment includes 1) removal of tarmat, 2) pick-up of debris, and 3) bioremediation of lang pocket beaches as shown on sketch map. Work should be conducted after 6/1 with USFWS approval based on eagle nest constraints.

TAG COMMENTS: MONITORS TO ASSESS THE OILED LOG

TAG APPROVAL DATE: 5/4/90

ADEC Art Wenzel Art Wenzel

EXXON Andy Earl Andy Earl

NOAA Gary Petros Gary Petros

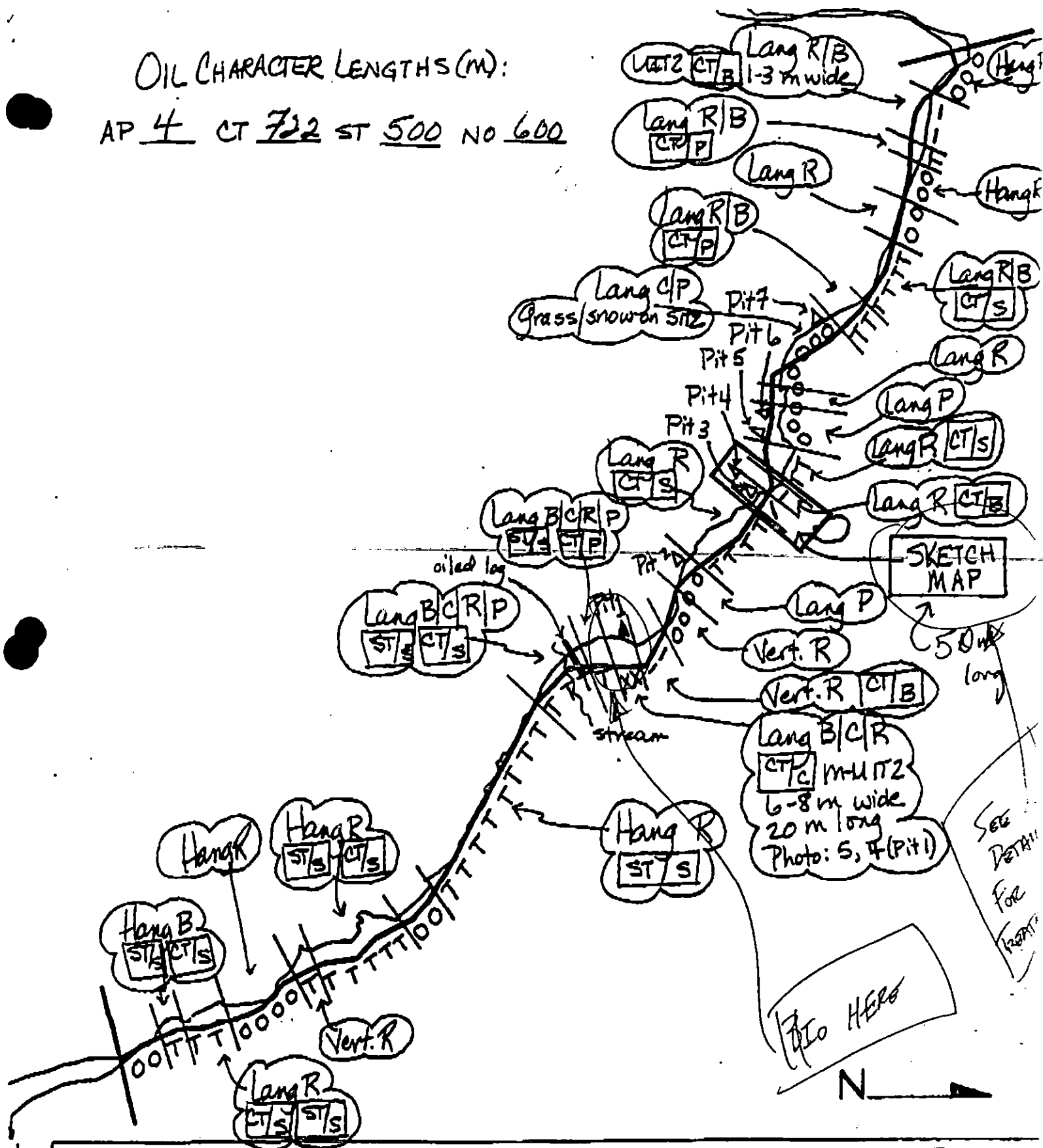
USCG G.A. Decker G.A. Decker

FOSC: WJL

DATE: 5-9-90

AP 4 CT 722 ST 500 NO 600

AP 4 CT 722 ST 500 NO 600



/// Medium

----- Narrow

TTTT Very Light

0000 No Oil

IN-23-A

Exon Segment Length: 1826m

ADEC Segment Length: 1683m



Map Key: PWS-271a

Name: C. DILLON

Date: 4/25/90

Date Entered:

00 C. Dillon TEAM 6

SEGMENT ST/AN-23

SUBDIVISION A

DATE 04/25/90

CHECKLIST

- ☐ N Arrow
- ☐ Approx. Scale
- ☐ Seg/Sub Entry
- ☐ Oil Data
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. 10W/L/WL
- ☐ 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

eee

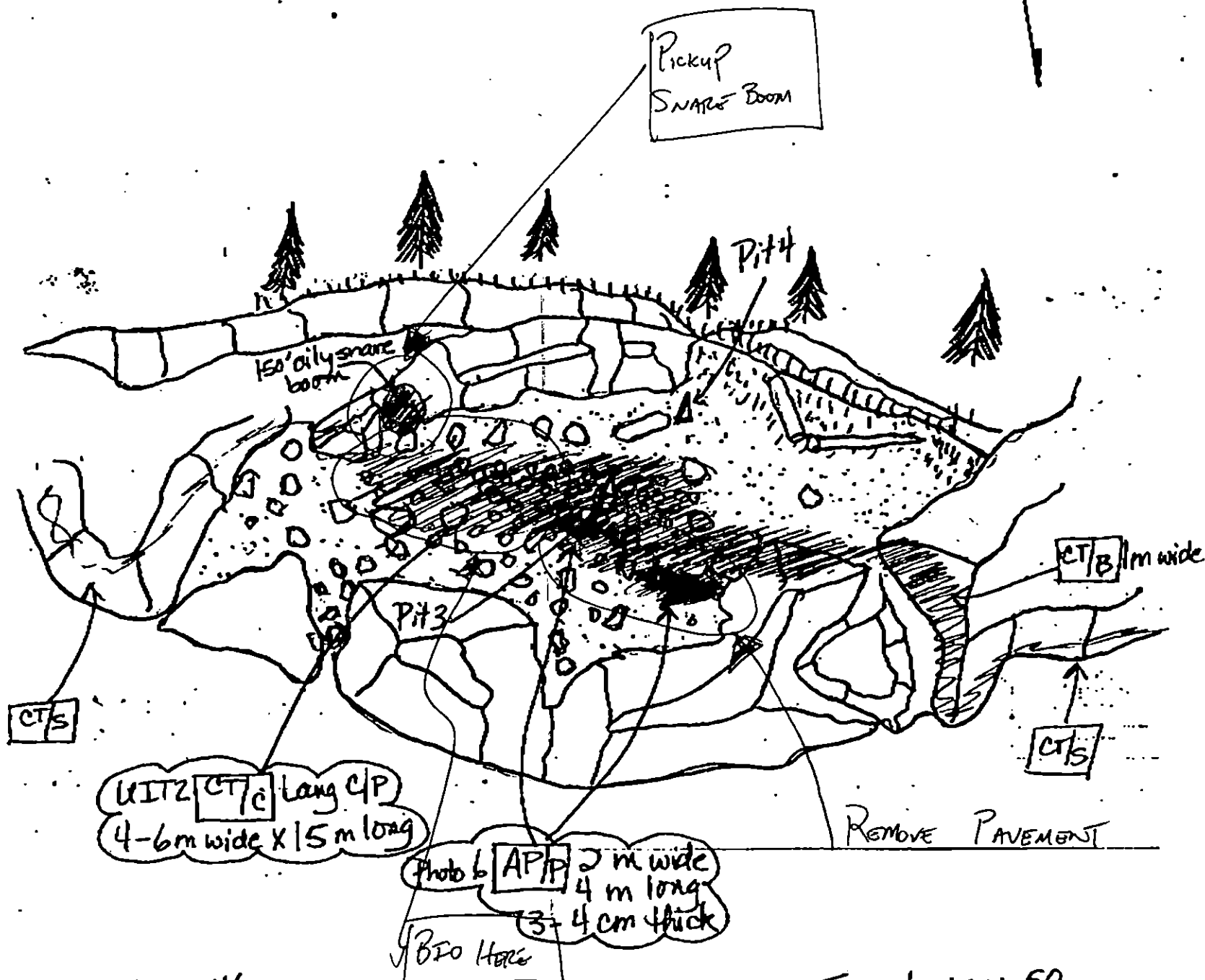
Dead Vegetation

1 ●→

Photo location, direction, and number

SKETCH MAP

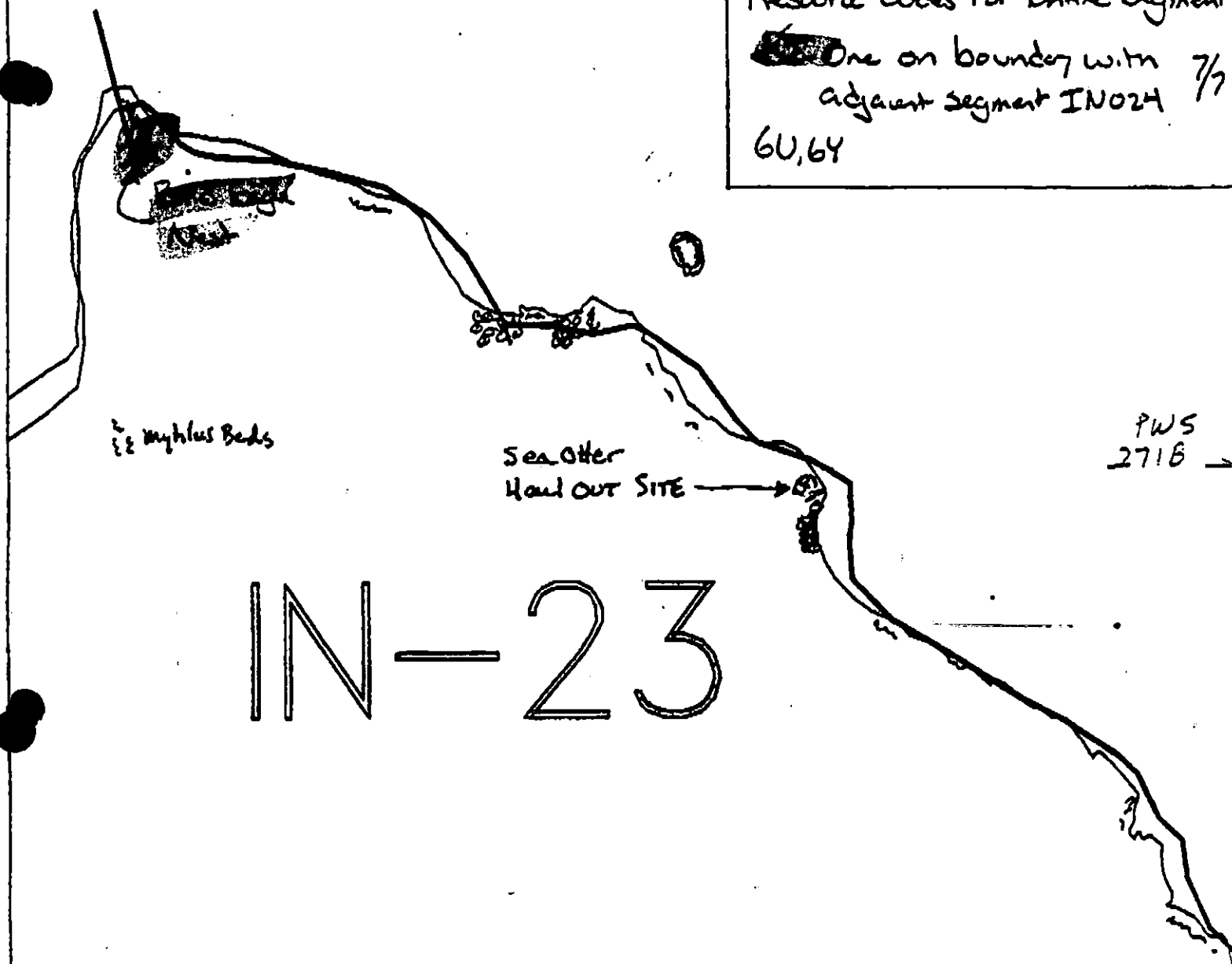
N



Oil Character Length (m): AP 4 PO 0 CV 0 CT 46 ST 0 MS 0 PT 0 TB 0 FL 0 NO TOTAL LENGTH 50

APRIL 25 1990

Ecology Map 1 of 2
Resource Codes For Entire Segment
~~One~~ One on boundary with 7/7
adjacent segment IN024
6U,6Y



PWS
2716 →

IN-23

XXXX Wide

//// Medium

---- Narrow

TTTT Very Light

0000 No Oil

IN-23

ADEC Segment Length: 1683m



METERS

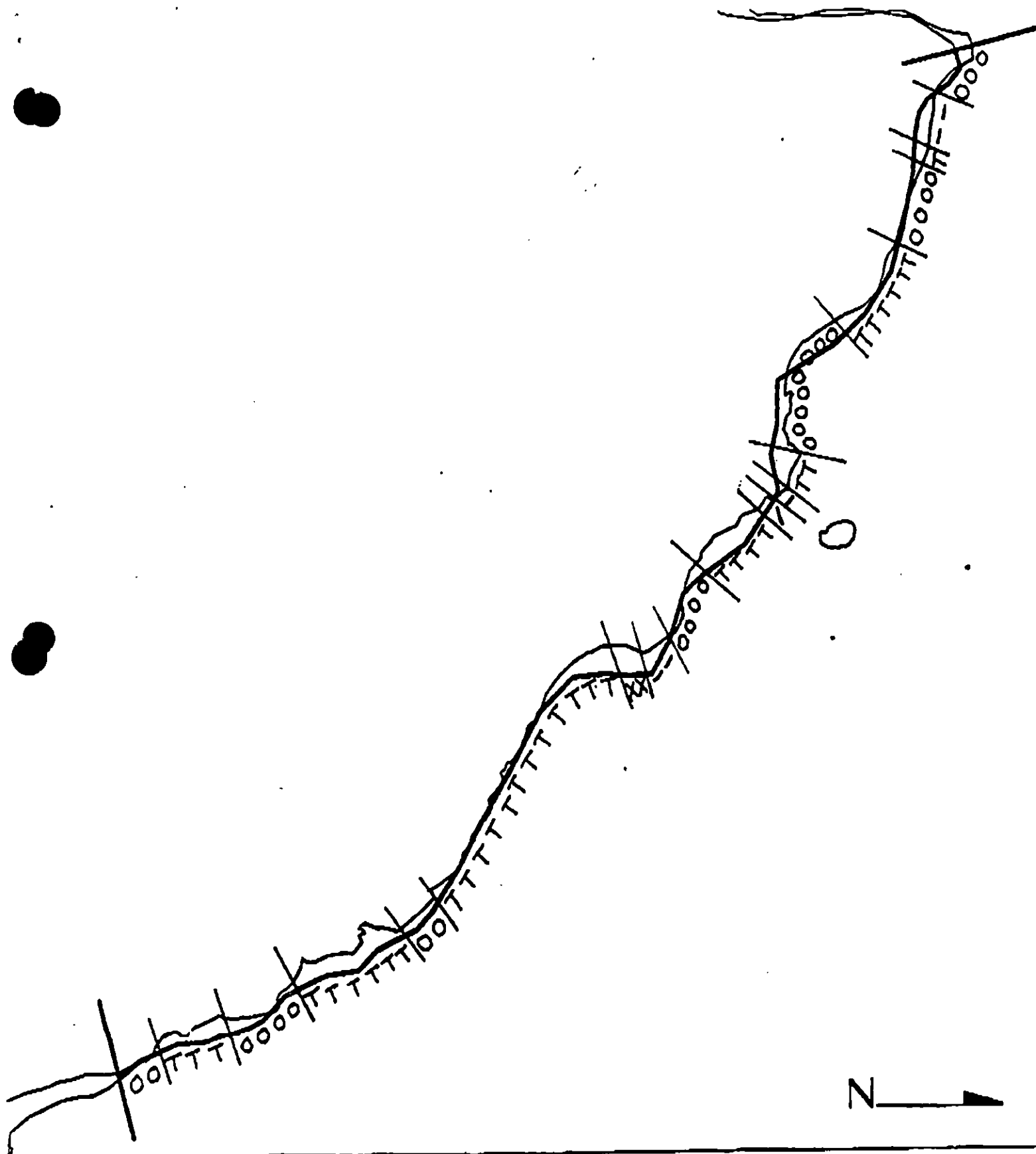


Map Key: PWS-271a

Name: _____

Date: _____

Data Entered: _____



N

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

IN-23-A

Exxon Segment Length: 1826m
ADEC Segment Length: 1683m



Map Key: PWS-271a

Name: C. Dillon

Date: 4/25/90

Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: IN-24 SUB: B REGION: PWS SURVEY DATE: 6/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) Restricted 3/1 -9/15

RECEIVED

JUL 18 1991

Ecological/Constraints (see page two for details) Eagle Nest

ANCHORAGE-A00/A

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith

Date: 7/12/91

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: July 2, 1991

FOSC APPROVAL DATE: 7/18/91

ADEC

FOSC

EXXON

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

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.

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT 12-24 SUBDIVISION B DATE 6/26/91

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☒ NTR ☐ Treatment Recommended

Subsurface LOR at areas of pit #2. Also coats. along bedrock outcroppings

EXXON

NAME Mike Barker SIGNATURE Mike Barker

☒ NTR

Minimal oil, some marine debris collected, Rich Intertidal Biota. Only 3 people surveyed due to nesting eagles. Based on OG report & ADEC comments, no treatment needed.

LANDMANAGER

NAME OF SIGNATURE

☐ NTR

USCG/NOAA

NAME EVAN NANCE, LTJG USCG SIGNATURE Evan Nance

☒ NTR

NO FURTHER TREATMENT RECOMMENDED, COATS AND ORUNG IN PIT TWO WERE INCONSEQUENTIAL,

PAGE 1 OF

DATE 6 / 26 / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

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

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

EST. OIL CATEGORY LENGTH: W 1m M 1m N 1m, VL 55m NO 745m US -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-

FRAMES

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

OG COMMENTS: Mod. exposed rocky shore w/ a beaches interspersed w/ steep & or massive B. Surface oil as CT/S, typically as dripline & sporadic narrow bands. Single locality of subsurface LOR, about 10 m² dia., ~10 cms. thick, trapped amongst muddy layer. (Eagle nest previously mislocated.)

(C) CT, <1%. sporadic 20cm
total 30m. dripline

(B) up. HTZ
CT, <10%
1/2 x 10.

BC pocket

NON-ANS tar
clumps.

H/E PC beach

IN-24B

G. MACDONALD

6.26.91

(A)

CT/I <10%
5x15; on
massive BC
up. HTZ

CB/R

CFB/R

RB

NWL

@ 10.00hrs

BPG beach

PS beach

stream

stream

* Eagle nest

steep R

SUBSURFACE
LOR ~ 10m²



0 90m

approx.

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 00 **DATE** 6/26/91
SEGMENT # IN-24 **TIDAL HEIGHT (Range)** 0.4' ~ 4.0'
SUBDIVISION B **BIOLOGIST** D. McCormick
SEA STATE 2/3 **WIND SPEED/DIRECTION** 5/N
PHOTOGRAPHS: ROLL # MAYSAP-00-04 **FRAME #** 12-14
COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

Pit 2: No biota on this beach. Sparse surface fauna begins in Mid-zone, >10 m below oiled area.

(A) CT area above most fauna (with exception of a few sparse barnacles).

Gastropods become moderate to very dense downslope including post juveniles and adults. Mussels are very dense in interstitial boulder/bedrock areas in M-LITZ. Predatory whelks (*Nucella* spp.) mostly seen on barnacles. Tarpot algae was very common M-LITZ. LITZ dominated by *Palmaria*, *Fucus*, *Ulva*, & filamentous green algal cover.

(B+C) Could not survey due to eagle presence but OG noted the biota was pretty much that described in (A) above. Higher-energy-exposed areas had slightly sparser concentrations, but diversity is prime.

Overall, a very healthy community showing no impacts from remaining oil. Eagle left the nest during survey; USFWS monitor allowed only 3 individuals to continue survey. (Eagle may have been incubating eggs). I returned to the nest only after all team members were gone from the site.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

LAND MAMMALS

MARINE MAMMALS	# OBSERVED	SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
Whales (specify)			

Shoreline subdivision map showing important biological features attached.

③ No bio survey due to perturbed eagle.

③ No Bio survey due to perturbed eagle.

BC pocket
Non-ANS tar clumps.
Hi E PC beach

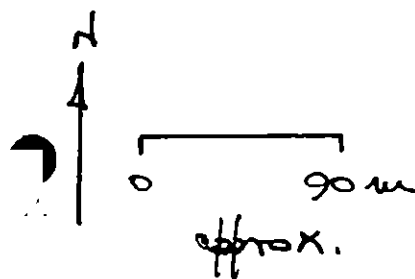
IN-243
D. McCoemick
BIO SKETCH
6.26.91

① Biota on steep rock faces & occasional barnacles in LITZ, as well as sparse filter-feeding limpets; all become denser downslope. Puccella common on barnacles. LITZ covered with several algal species.

No biota in the m-LITZ on this beach.

NWL
@ 10.00 hrs

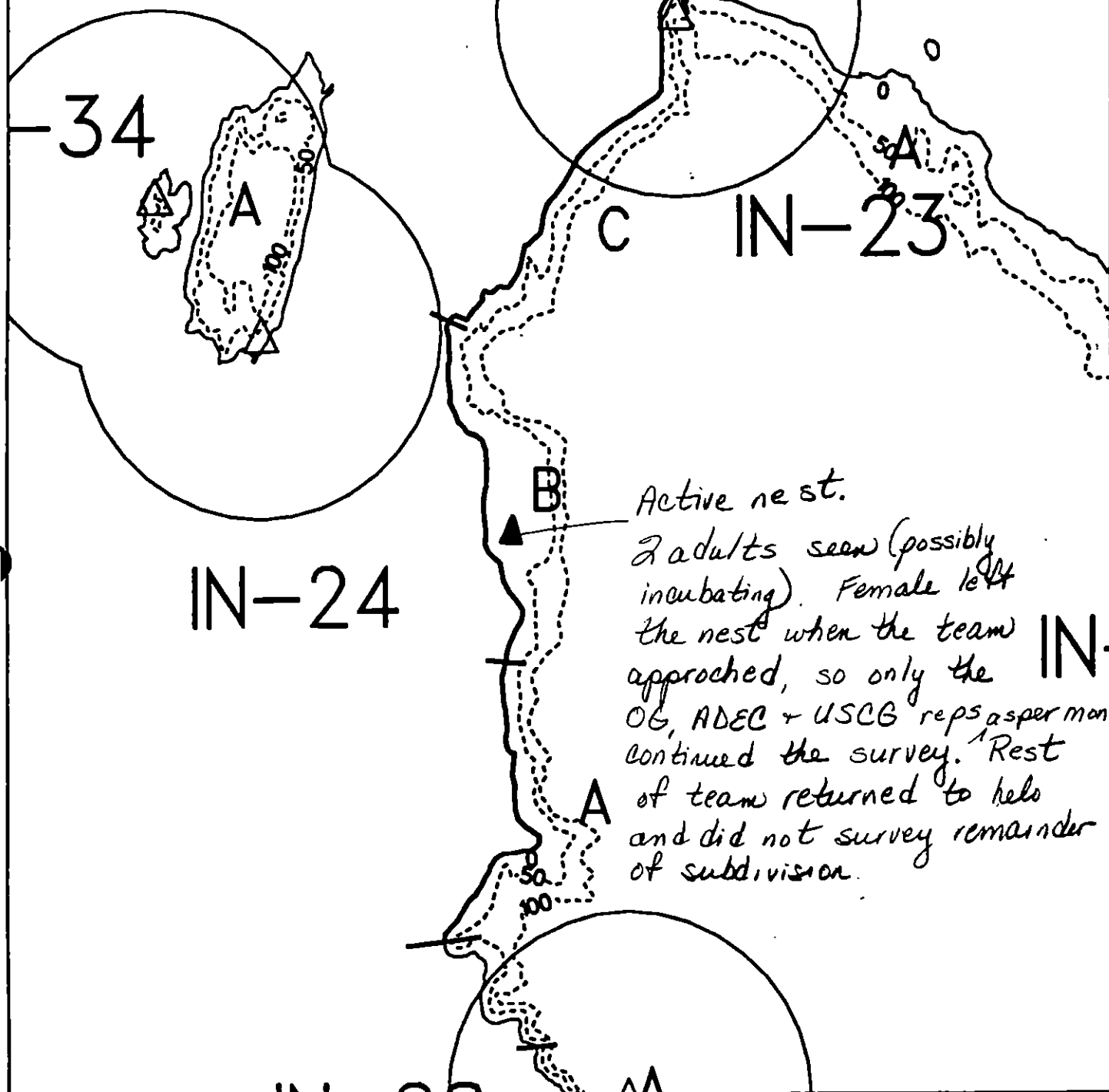
SUBSURFACE
LOR ~ 10m²



Eagle Map

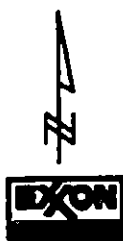
6/20/91

FWS monitor present



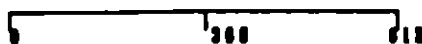
Active nest.

2 adults seen (possibly incubating). Female left the nest when the team approached, so only the OG, ADEC + USCG reps as per monitor continued the survey. Rest of team returned to helo and did not survey remainder of subdivision.



IN024B

METERS



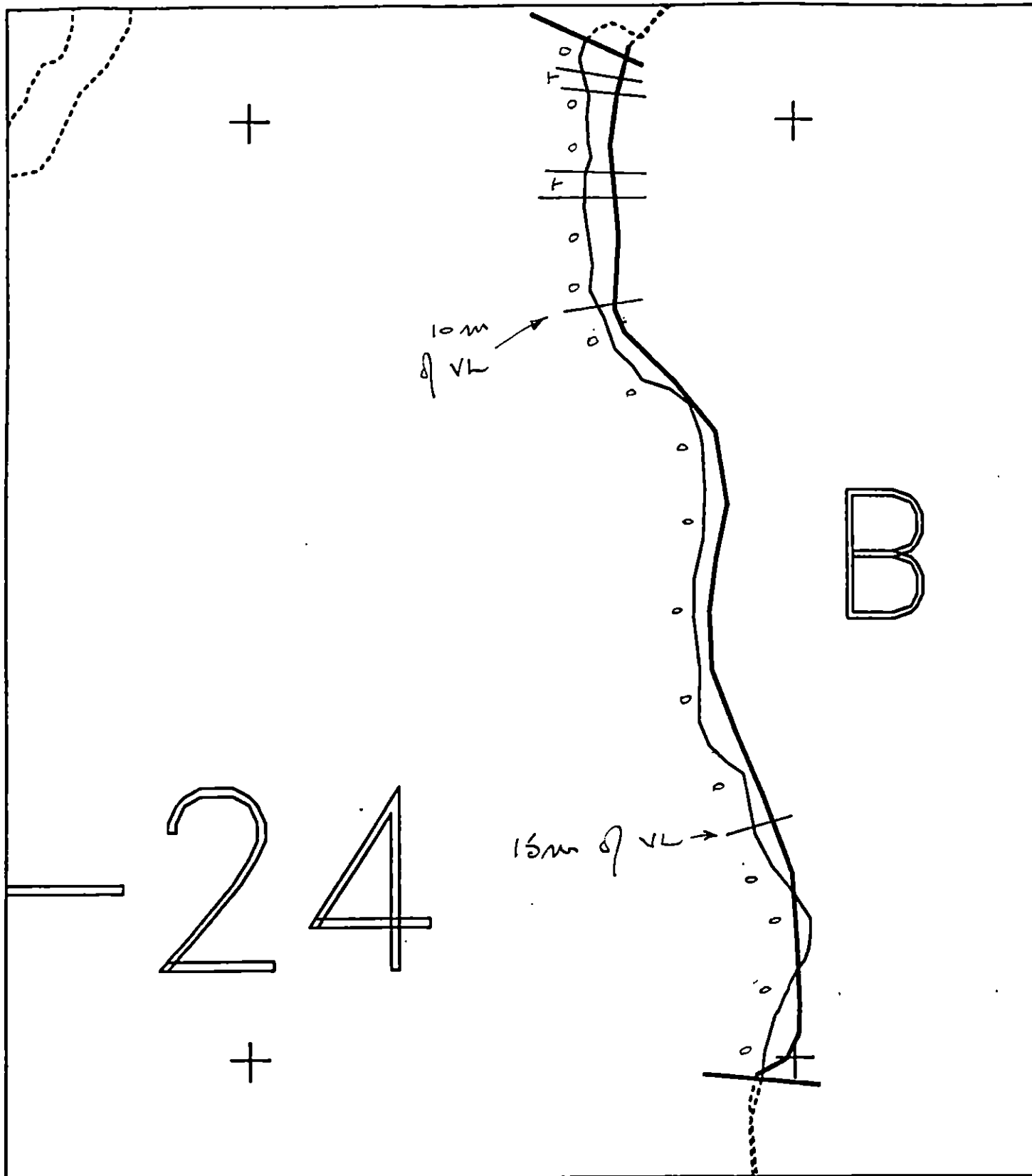
AK State Plane Zone 4
plane24

Segment Reference Map

Map Key: PVSIN024



EAGLE NEST



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

IN024 B
 ADEC Subsegment Length: 790m
 METERS
 0 100 200
 AK State Plane Zone 4
 41002400



Subdivision Field Map
 Map Key: KNIIN024B
 Name: G.M.
 Date: 6.26.91
 Date Entered:

1991 MAYSAP EVALUATION

SEGMENT: IN 024 SUB: A REGION: PWS SURVEY DATE: 5/16/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO Signature: Timothy A. Smith Date: 5/31/91

RECOMMENDATIONS:

	INITIAL	TAG	FOSC
TREATMENT REQUIRED (Y or N)	<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 31 1991

FOSC APPROVAL DATE: 6/18/91

ADEC John Bane

FOSC E. E. Page

EXXON

USCG Edmundo

NOAA

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

**ECOLOGICAL CONSTRAINTS
1991 FIELD ACTIVITIES**

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

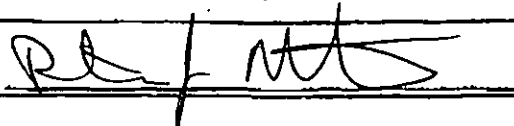
MATSAF FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN-024 SUBDIVISION A DATE 5/14/91

ADEC

NAME Peter Montesano

SIGNATURE

☐ NTR

TREATMENT RECOMMENDED

The area outside of "D" is relatively light and no treatment is warranted in those areas. The oil found in area "D" does not seem to be associated with the port as we found it last fall during ASAP. At low tide this area is atop an extended tidal flat with large tidal pools nearby. The oil in the pits is mobile and is perpetually letting off some film, as oil film is also peeling out of the tide above the area. This area would benefit greatly from a GENTLE till to be done ~~in~~ the rising tide inside of ~~SNATCHING~~ ~~the~~ concentration of biota in the affected area is light. There was freshly oiled vegetation at base of NYSC

EXXON

NAME C.M. LOTSIMPALIS

SIGNATURE

☐ NTR

AREA "D" CONTAINS MOR/HOR IN A PEAT BOG. SUGGEST TAG DETERMINE WHETHER FURTHER TREATMENT IS BENEFICIAL. DENSE BIOTA IN THIS AREA.

LANDMANAGER

NAME Dennis S. Kennedy OF USFS

SIGNATURE

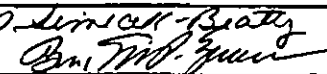
☐ NTR

at location [D] oil could be manually tilled and some oil collected. There is a stream which will continue to influence the amount of oiling. The area in and around [D] has numerous littorinis and mussels, some will be affected by any treatment, though new recruitment would be quick.

USCG/NOAA NOAA DESINETER-BEATTY

NAME BRI M.P. ZENONE USCG

SIGNATURE

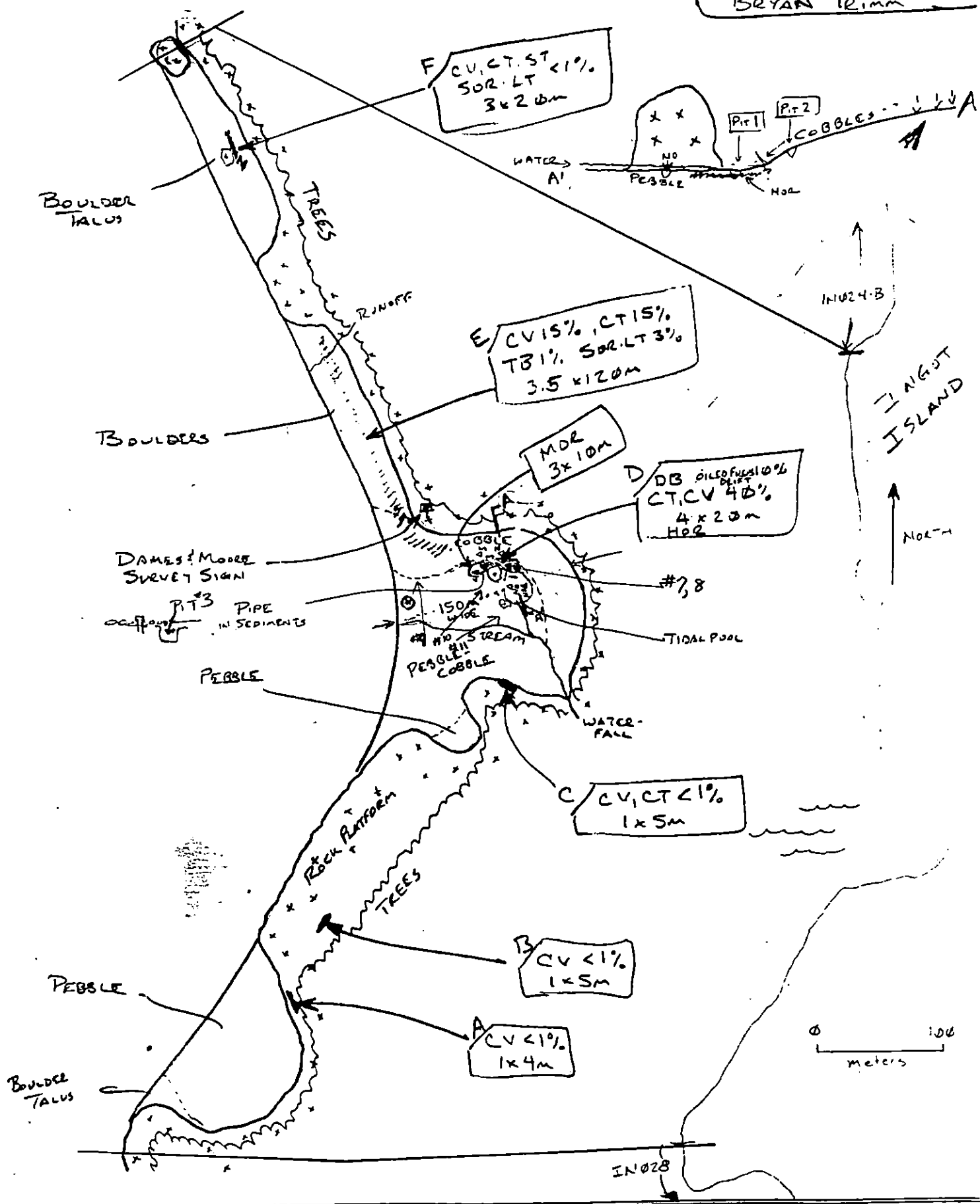
☐ NTR

The significant concentrations of oil were found in section D. As this section is in a low energy tidal flat, there is some surface as well as subsurface oiling. Tilling would result in bringing the oil to the surface. However, as this is a low energy area, it is not likely the tilled sediment would be reworked, proving to be unsightly. Perhaps it would be best to leave the area untouched. A major storm event would release and disperse the subsurface oil. - DS-B

601- FURTHER REMOVAL OPERATIONS WOULD CAUSE MORE ENVIRONMENTAL HARM THAN THE OIL TO BE REMOVED. IF TREATMENT IS BEING CONSIDERED BY TAG, A PERSONAL VISIT TO THIS AREA WOULD BE A PRE REQUISITE. EAGLE NEST (ACTIVE) CLOSE BY - 3-

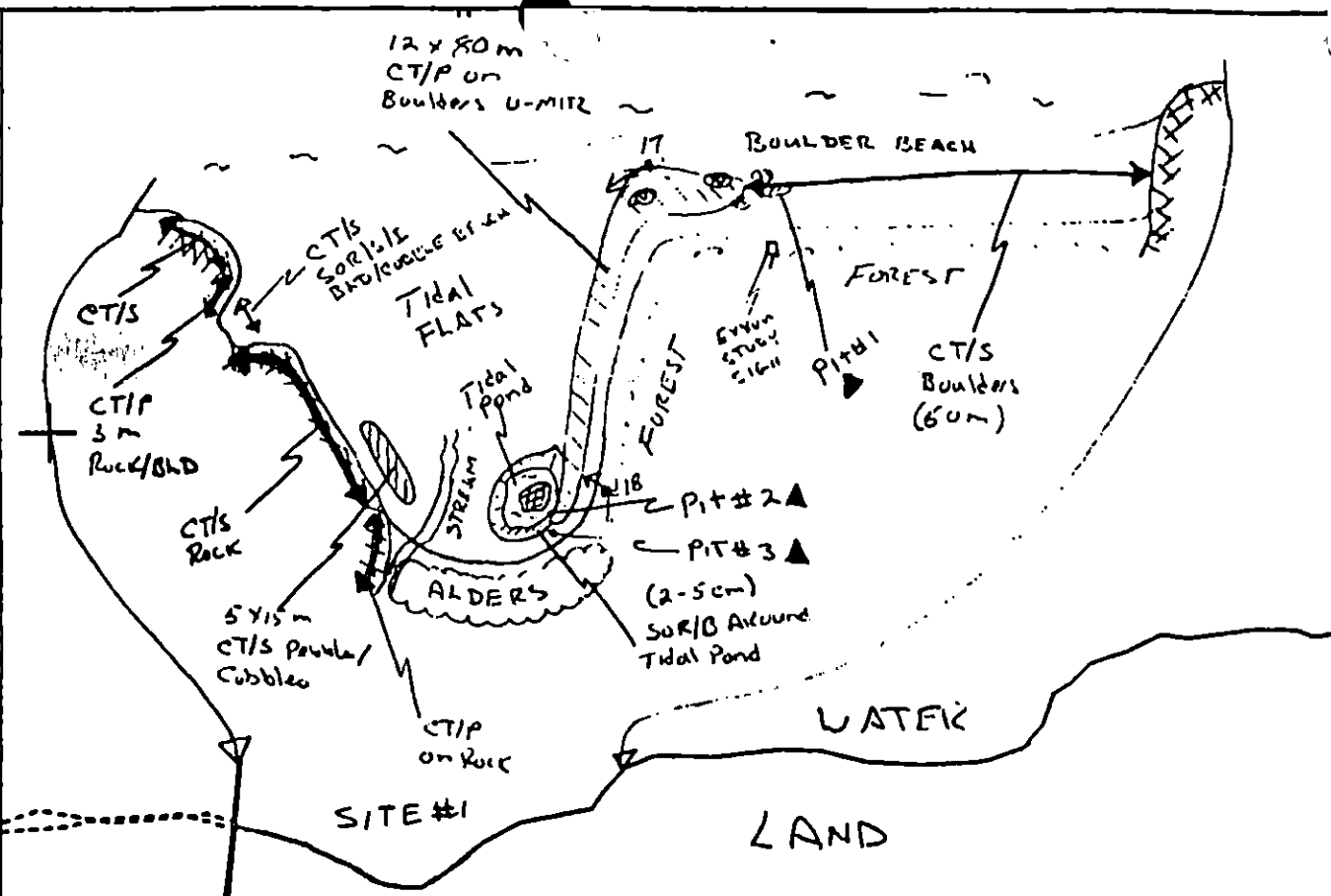
Reviewed S.21 Jy
Reviewed: F.W. 5/23/94

09 SKETCH MAP
IN 024-A
16-MAY-91
1110-1219
BRYAN Trimm



reviewed 5.21 91
REVIEWED: F.W. 5/23/91

ASAP OILING CONDITIONS
8/21/90



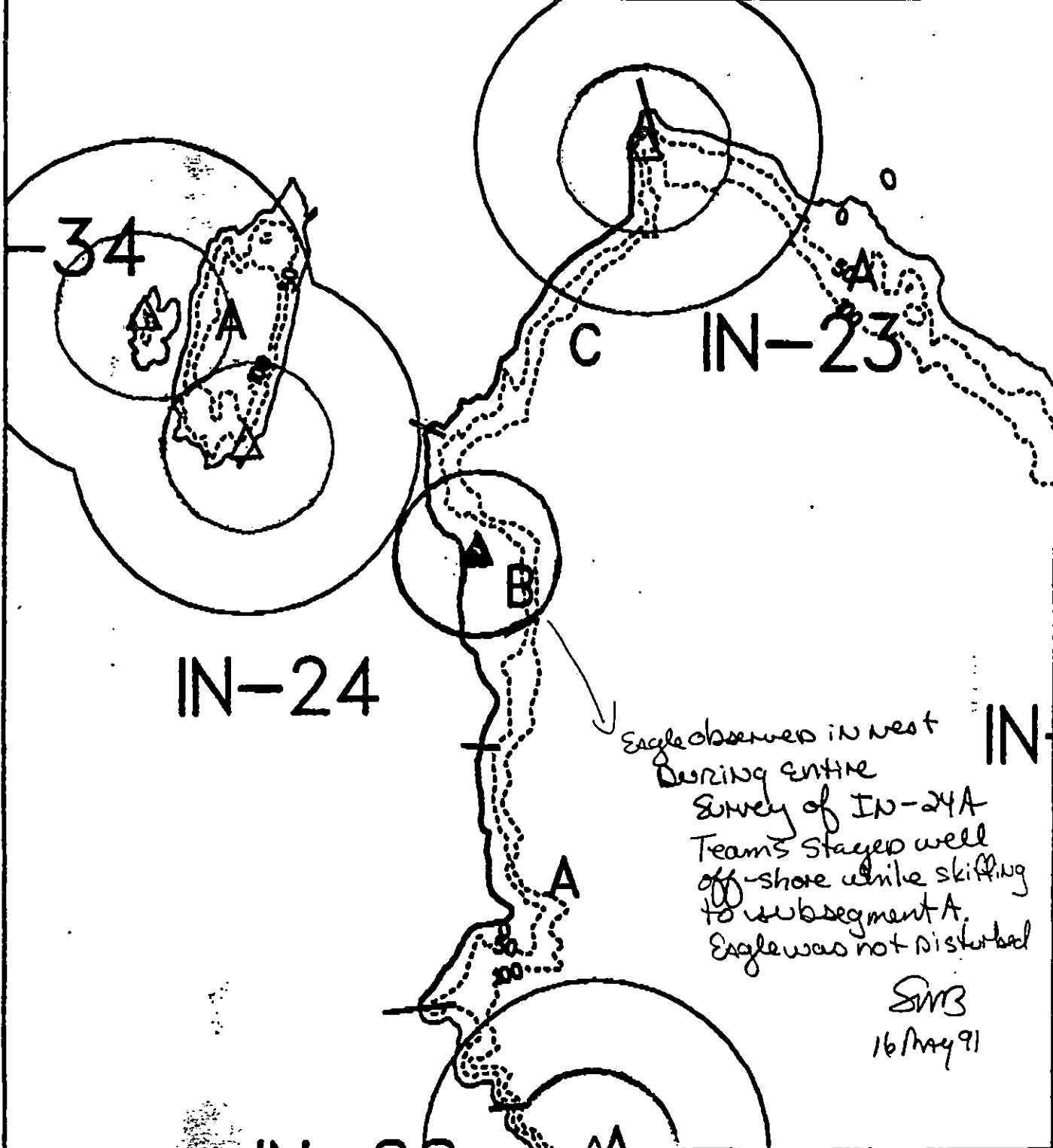
ASAP

XX Wide
/// Medium
--- Narrow
TTTT Very Light
DOO No Oil

IN-24 B
ADEC Subsegment Length: 700m
METERS
AR State Plane Zone 4 1:4000



Subdivision Field Map
Map Key: KNIN-24B
Name: 8/21/90
Date: Remo
Data Entered:



IN024

METERS

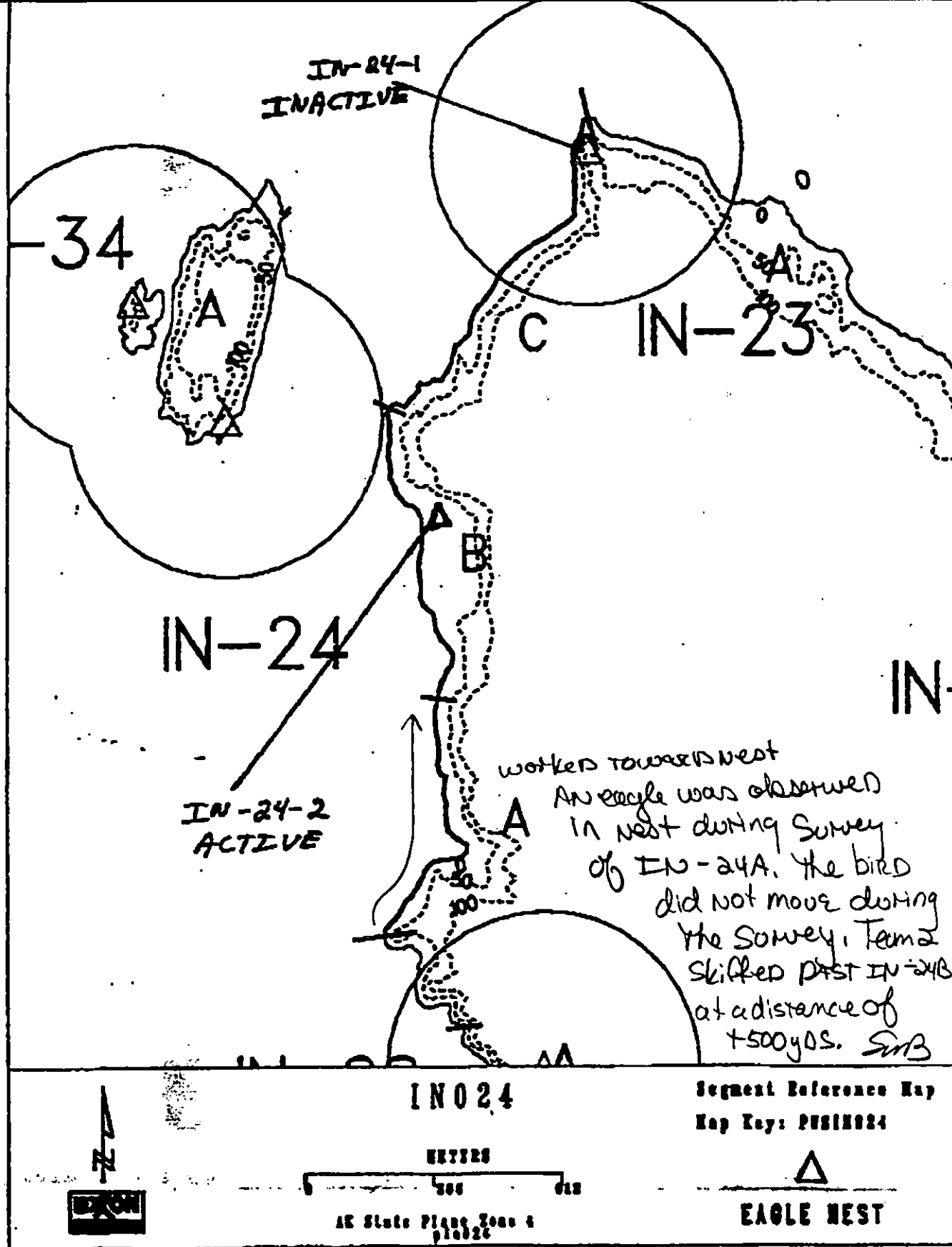


AK State Plane Zone 4
110024

Segment Reference Map
Map Key: PUSIN024



EAGLE NEST



ATTACHMENT 1

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 16 May 91
 SEGMENT # IN 24 TIDAL HEIGHT(Range) -1 to 2 ft
 SUBDIVISION A BIOLOGIST SMAN
 SEA STATE Calm WIND SPEED/DIRECTION Calm
 PHOTOGRAPHS: ROLL # — FRAME # —

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

ABC: oil is high on pillow basalt outcrop, ~~Habixia~~ or black lichen only.

D: This area composed of oiled gravel & pebbles. Littorines and mussels are within oiled zone and Littorine egg masses are nearby. Sheen produced when pits were dug. Lower intertidal (downstream). Supports dense patches of Fucus and recruits, mussel beds and gastropods (limpets & Littorines)

E: oiled area as characterized lower intertidal supports dense & diverse algal assemblage

F: Sparse Littorines in sor zone. Lichen in CT CV & ST zone. Lower ITZ as at "E".

➔ If tilling is recommended at area "D" care should be taken to disturb as small an area as is possible. Work should be done at high tide in order to minimize damage to healthy, diverse lower zones and to minimize impacts from remobilized oil.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

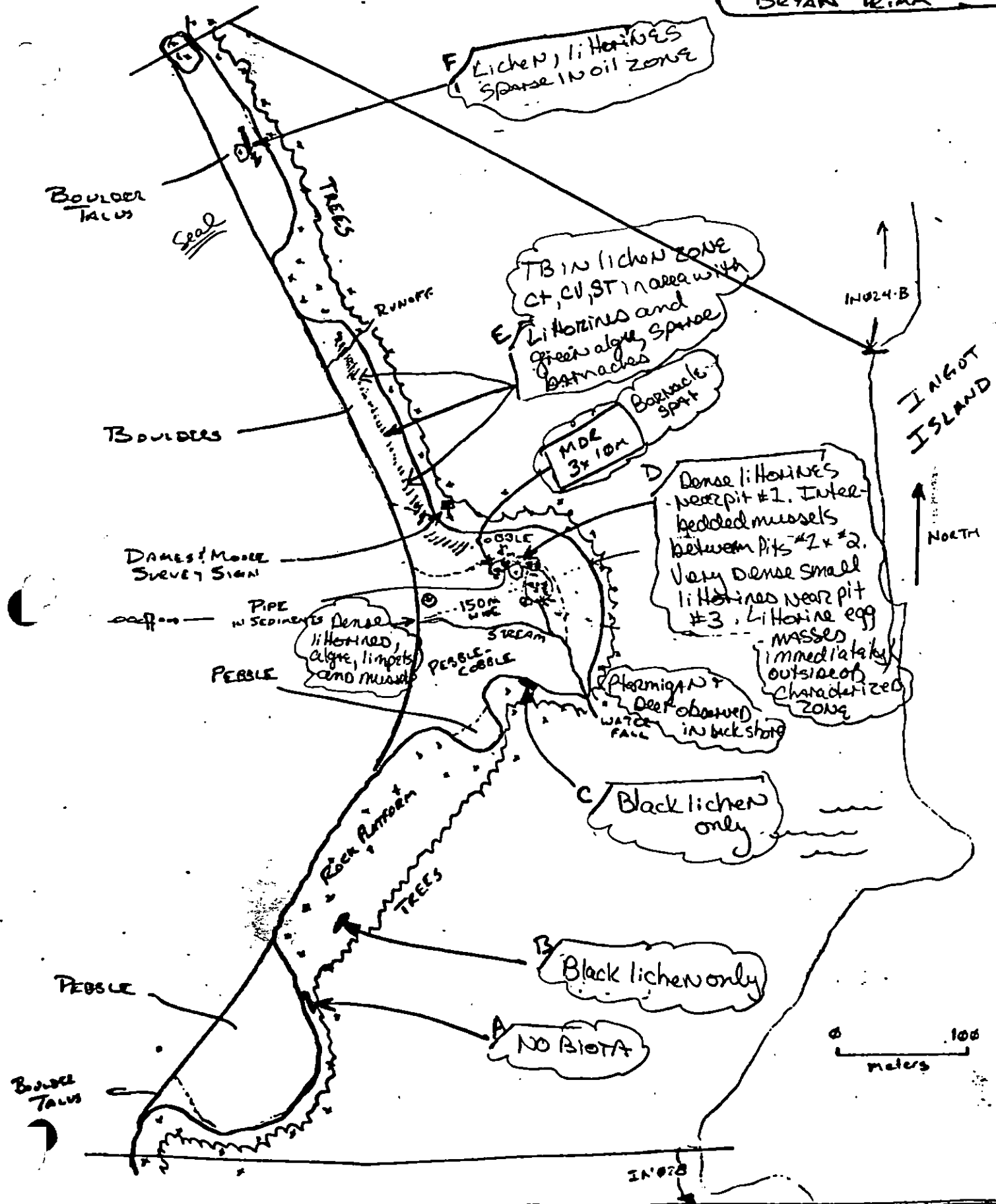
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles		3, 2 flying 1 in nest	/
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids			
Other Birds	Pharmigan Stellar's Jay		

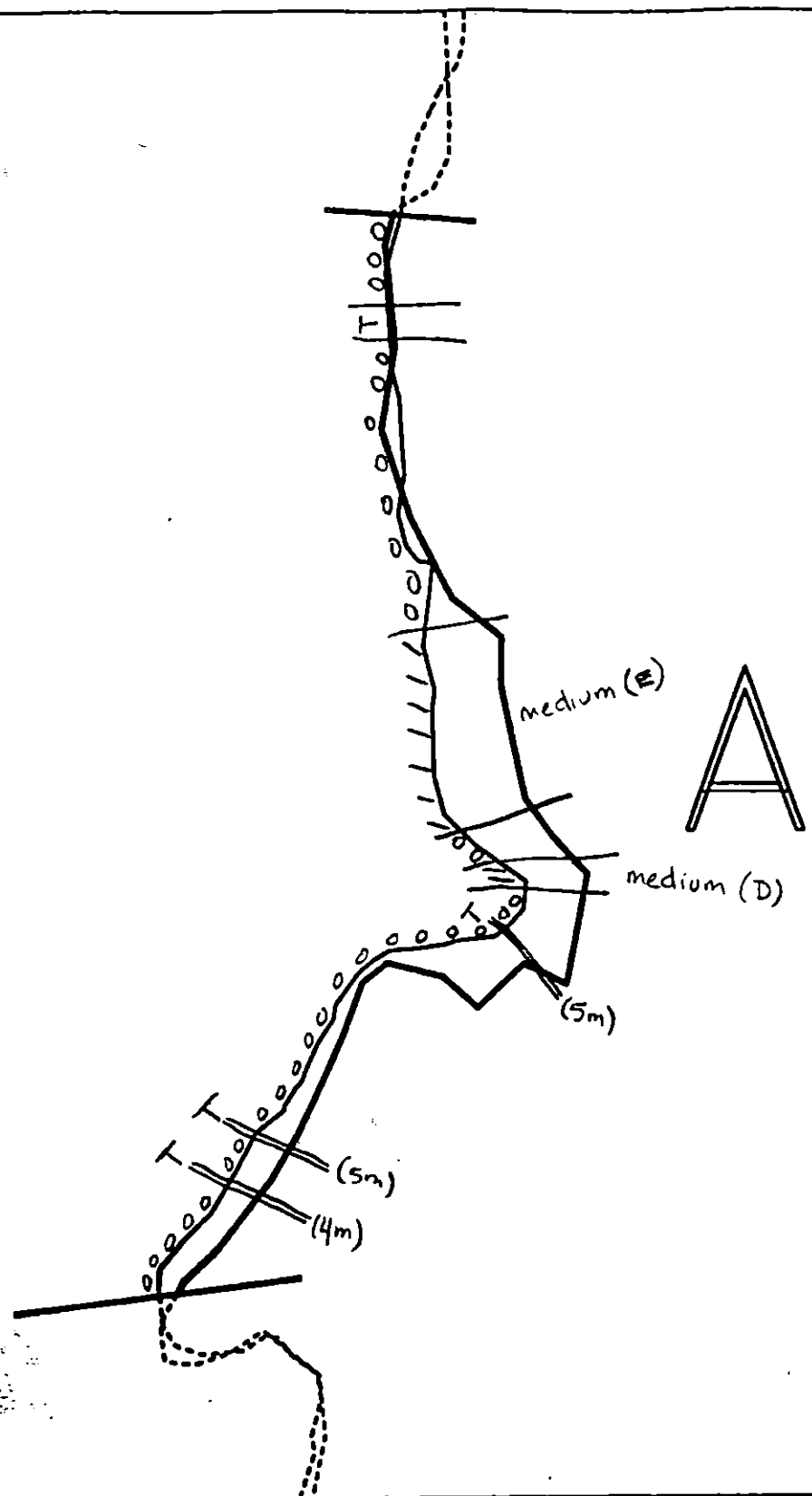
MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Deer (1)	/
Pinnipeds (specify)			
Seal (specify)	1		

Shoreline subdivision map showing important biological features attached.

Point 2/1/91 MAN

OK SEE CH MAP
 IN 024-A
 16-MAY-91
 1110-1219
 BRYAN Teim





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

IN024 A
 ADEC Subsegment Length: 818m
 METERS
 0 100 200
 AK State Plane Zone 4
 61N0240

Subdivision Field Map
 Map Key: KNIIN024A
 Name: TRIMM
 Date: 16-MAY-91
 Date Entered:



SURFACE OIL CATEGORY MAP

reviewed 5.21.94
 REVIEWED: 5/23/91 F.W.

1991 MAYSAP EVALUATION

SEGMENT: IN 024 SUB: C REGION: PWS SURVEY DATE: 5/16/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

ARCHAEOLOGICAL CONSTRAINTS:

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

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

<u>RECOMMENDATIONS:</u>	<u>INITIAL</u>	<u>TAG</u>	<u>FOSC</u>
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 29 1991 FOSC APPROVAL DATE: 6/5/91

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.

MATSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 2 SEGMENT IN-024 SUBDIVISION C DATE 5/26/91

ADEC

NAME Peter Montesano

SIGNATURE [Signature]

☒ NTR ☐ TREATMENT RECOMMENDED

light oiling over a well exposed shoreline.

EXXON

NAME C. M. Horsmehaus

SIGNATURE [Signature]

☒ NTR NO WORK HERE. MOSTLY COVERS OF VARYING DEGREE

LANDMANAGER

NAME DENNIS J. JENNEDY OF USFS

SIGNATURE [Signature]

☒ NTR *Light amount of oil, nothing treatable.*

USCG/NOAA

NAME DAVID SIMECEK BEATTY DAVID SIMECEK BEATTY

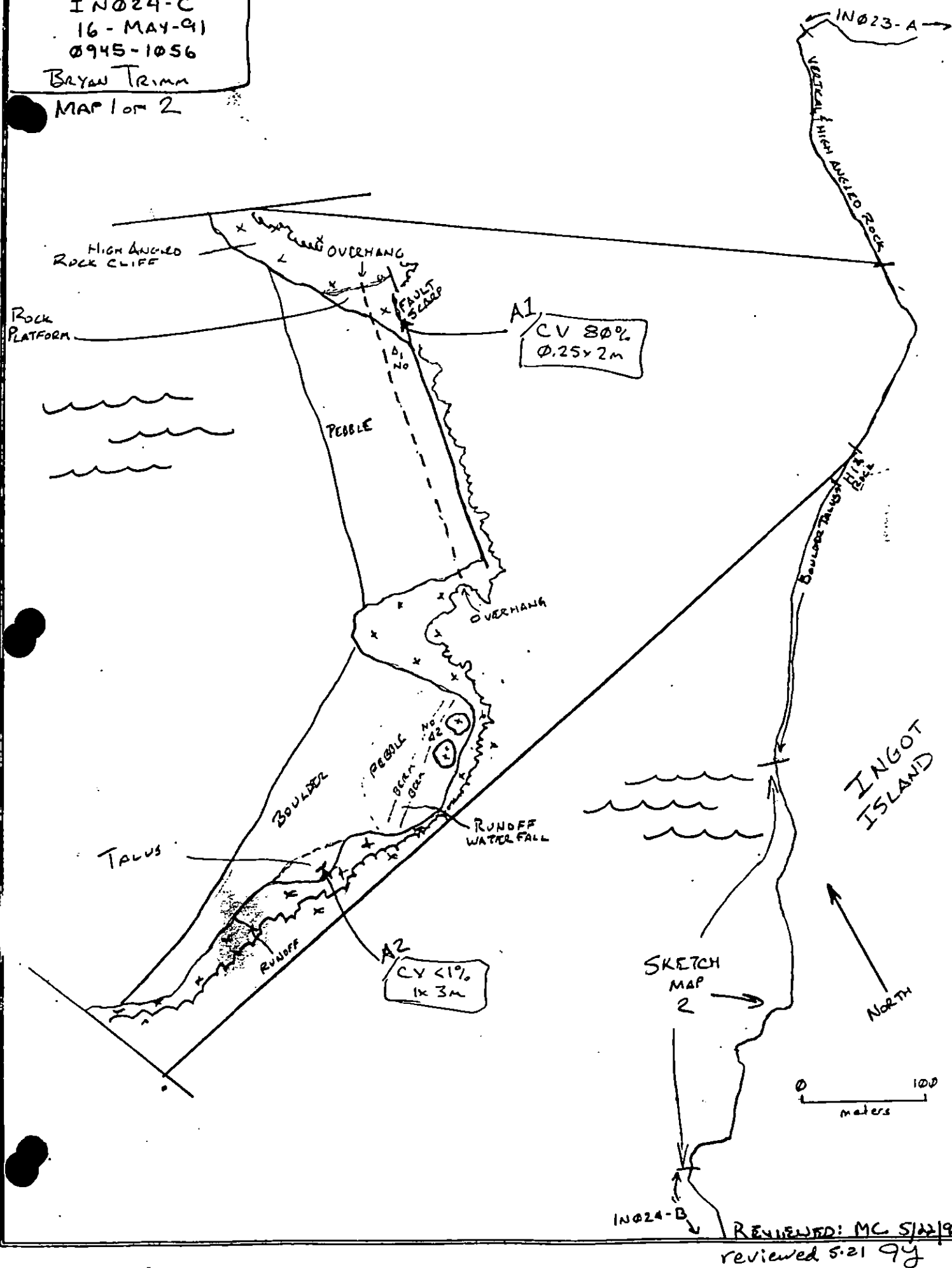
SIGNATURE [Signature]

☐ NTR *No treatment recommended - DS-B*

CG - NO TREATABLE OIL PRESENT. 3

REVIEWER: MG 5/22/91
reviewed 5.21 94

OG SKETCH MAP
IN 024-C
16 - MAY - 91
0945-1056
Bryan Trimn
MAP 1 of 2



REVIEWED: MC 5/22/91
reviewed 5.21.94

06 SKETCH MAP
IN 024-C
16-MAY-91
0945-1056
BRYAN TRIMM
MAP 2 OF 2

B1
CV 25%
1x3m

ANGULAR
COBBLE BOULDER

B2
CV 5%
1x7m

B3
CV < 1%
8.5x1m

B4
CV < 1%
0.5x4m



B5
CV, T3, SDR, LT < 1%
1x6m

ANGULAR
BOULDER

B6
CV < 1%
1x3m

PEBBLE

PEBBLE

BOULDER

BOULDER

PEBBLE

WATER-
FALL

IN 023-A

VERTICAL HIGH ANKLED ROCK

SKETCH
MAP
"1"

BOULDER TALUS

INGOT
ISLAND

NORTH

0 100
meters

IN 024-B

REVIEWED: MC 5/21/91

reviewed 5.21.91

NAVSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 16 May 91
 SEGMENT # IN-24 TIDAL HEIGHT (Range) -3 to -2 ft.
 SUBDIVISION C BIOLOGIST SM BAN
 SEA STATE calm WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # _____ FRAME # _____

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

A1: Oil is CV on rock face at back of platform. Numerous HAT pools are on platform. One pool immediately below oil supports a very dense population of juvenile littorines and several sea anemones. This pool (and the others) should not be disturbed.
 A2: CV is in the lichen & moss zone. Focus spot adjacent at same tide height.
 B1-B6: All oil here is discontinuous CV & TB high in the ITZ. Green algae, lichen & mosses. Lower zones in these areas are rich with algae, mussel, & littorines as shown.

→ Do not disturb HAT pools at "A1"

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 Eagle in tree - no nest visible		
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids	1 Crow	1	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
Pinnipeds (specify)			
_____ (specify)			

Shoreline subdivision map showing important biological features attached.

Spitz 16 May 91

A hand-drawn map of a coastal area, likely a study site. The map shows a coastline with several labeled features and a scale bar.

- Geological Features:**
 - High Angled Rock Cliff:** Located at the top left.
 - Rock Platform:** Located below the cliff.
 - Overhang:** Two locations are marked with arrows.
 - Fault Scar:** A dashed line with arrows indicating movement.
 - Pebble:** Two locations are marked with arrows.
 - Boulder:** A large area in the lower center.
 - Talus:** A shaded area in the lower left.
 - Ridge Water Fall:** Located near the boulder area.
 - Runoff:** A dashed line with arrows indicating water flow.
- Biological Features:**
 - Tide pool with Juvenile Lithothamnion immediately below oiled rock face:** A cloud-shaped note at the top right.
 - Naturally depauperate mid-upper ITZ:** A cloud-shaped note in the upper center.
 - Dense Nereis in mussel patches:** A cloud-shaped note in the lower left.
 - Lichen & moss Fucus & sp. + Agicent:** A cloud-shaped note in the lower center.
- Other Labels:**
 - INGOT ISLAND:** Located to the right of the main area.
 - North:** An arrow pointing towards the top right.
 - Scale:** A bar labeled "0" and "100 meters".
 - IN 024-B:** A label at the bottom center.

SKETCH MAP
IN 024-C
16-MAY-91
0945-1056

MAP 2 OF 2

B1 Lichen
+ mosses

Laminaria

ANGULAR
COBBLE. Boulder

Dense
mussel
patches
on
Boulders

Naturally
depauperate

PEBBLE

SKETCH
MAP
"1"

B2 Lichen + mosses

Dense
Fucus
Uva
+ Laminaria

Boulder

B3 lichen
zone

WATER-
FALL

B4 Lichen +
green algae

Littorines

Boulder

PEBBLE

Pebble
area naturally
depauperate

B5
green algae
+ Lichen

Dense Fucus
Laminaria
Uva etc
Anomalous
Boulder

B6 green algae

0 100
meters

INGOT
ISLAND

North

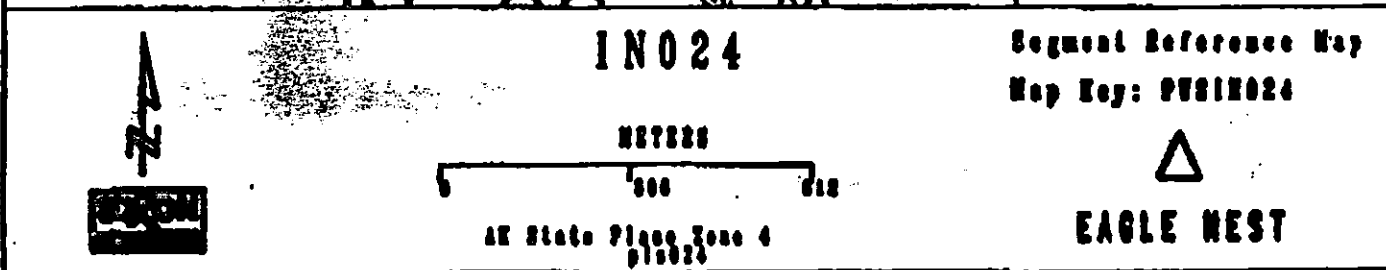
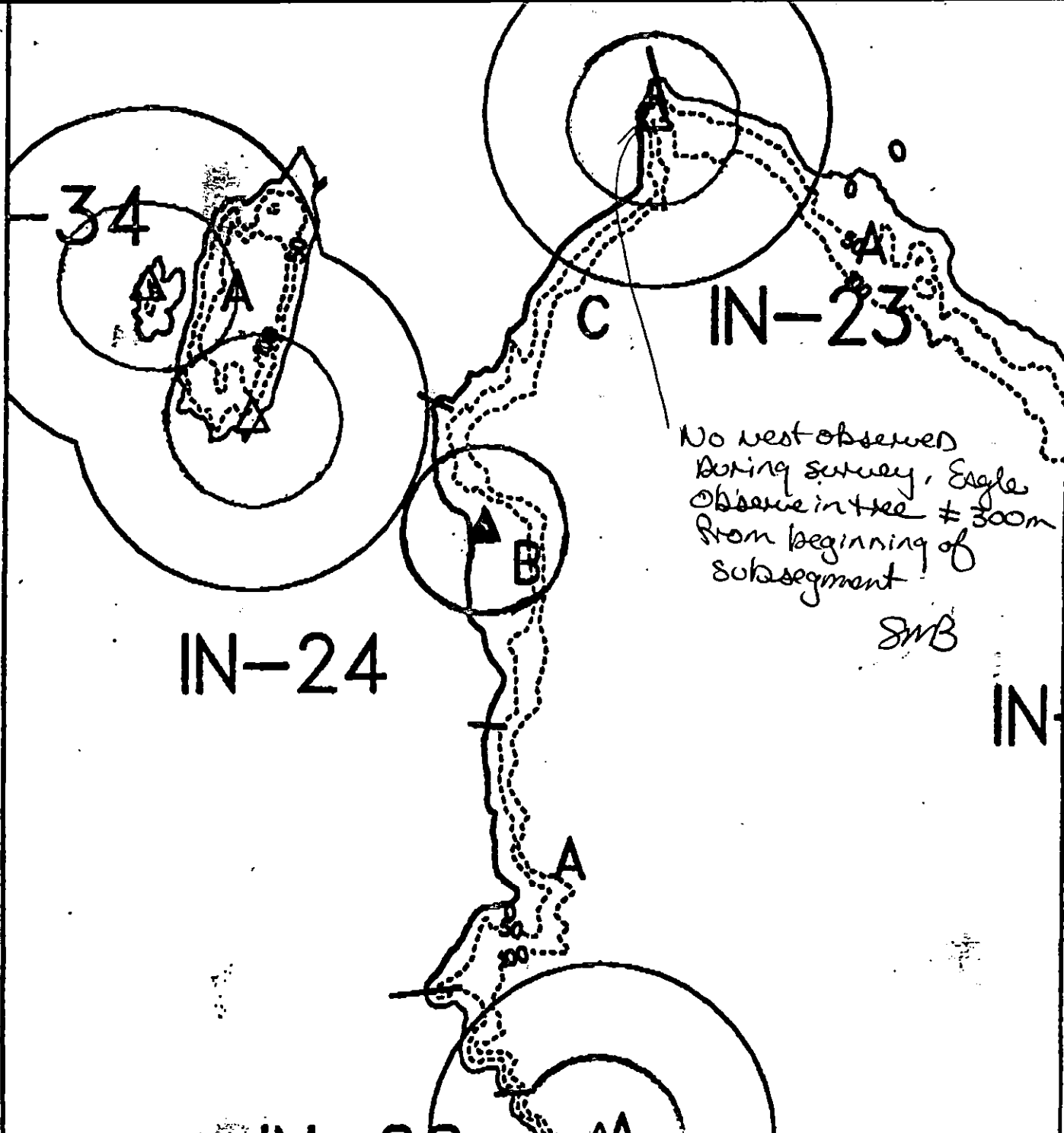
SMB 16 May 91

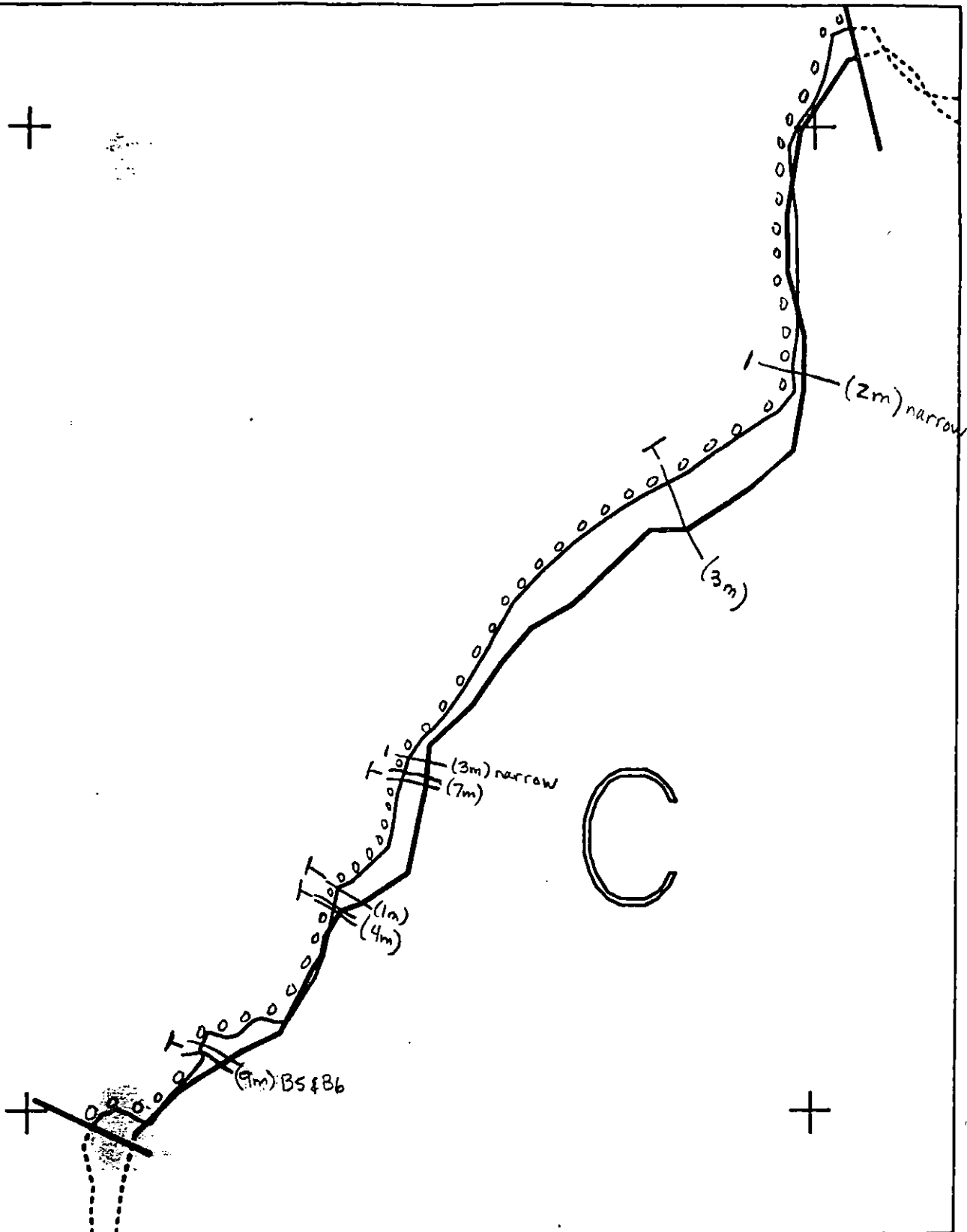
IN 024-B

IN 023-A

Vertical then angled Ridge

Boulder Talus





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

IN024 C
 ADEC Subsegment Length: 964m
 METERS
 0 100 200
 AK State Plane Zone 4
 41002400



Subdivision Field Map
 Map Key: KNIIN024C
 Name: TRIMM
 Date: 16-MAY-91
 Date Entered:



- SURFACE OIL CATEGORY MAP -

Reviewed: MC 5/22/91
 reviewed 5/21/94

1991 MAYSAP EVALUATION

SEGMENT: IN 024 SUB: C REGION: PWS SURVEY DATE: 5/16/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

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.

ADEC

NAME Peter Montesano

SIGNATURE

[Signature]

☒ NTR ☐ TREATMENT RECOMMENDED

light oiling over a well exposed shoreline.

EXXON

NAME C. M. Katsimpralis

SIGNATURE

[Signature]

☒ NTR

NO WORK HERE. MOSTLY COVERS OF VARYING DEGREE

LANDMANAGER

NAME Dennis S. Kennedy OF USFS

SIGNATURE

[Signature]

☒ NTR

light amount of oil, nothing treatable.

USCG/NOAA NOAA Simecek BEATTY P. Linnert-Beatty

NAME Bruce M. P. Zenoff USCG

SIGNATURE

[Signature]

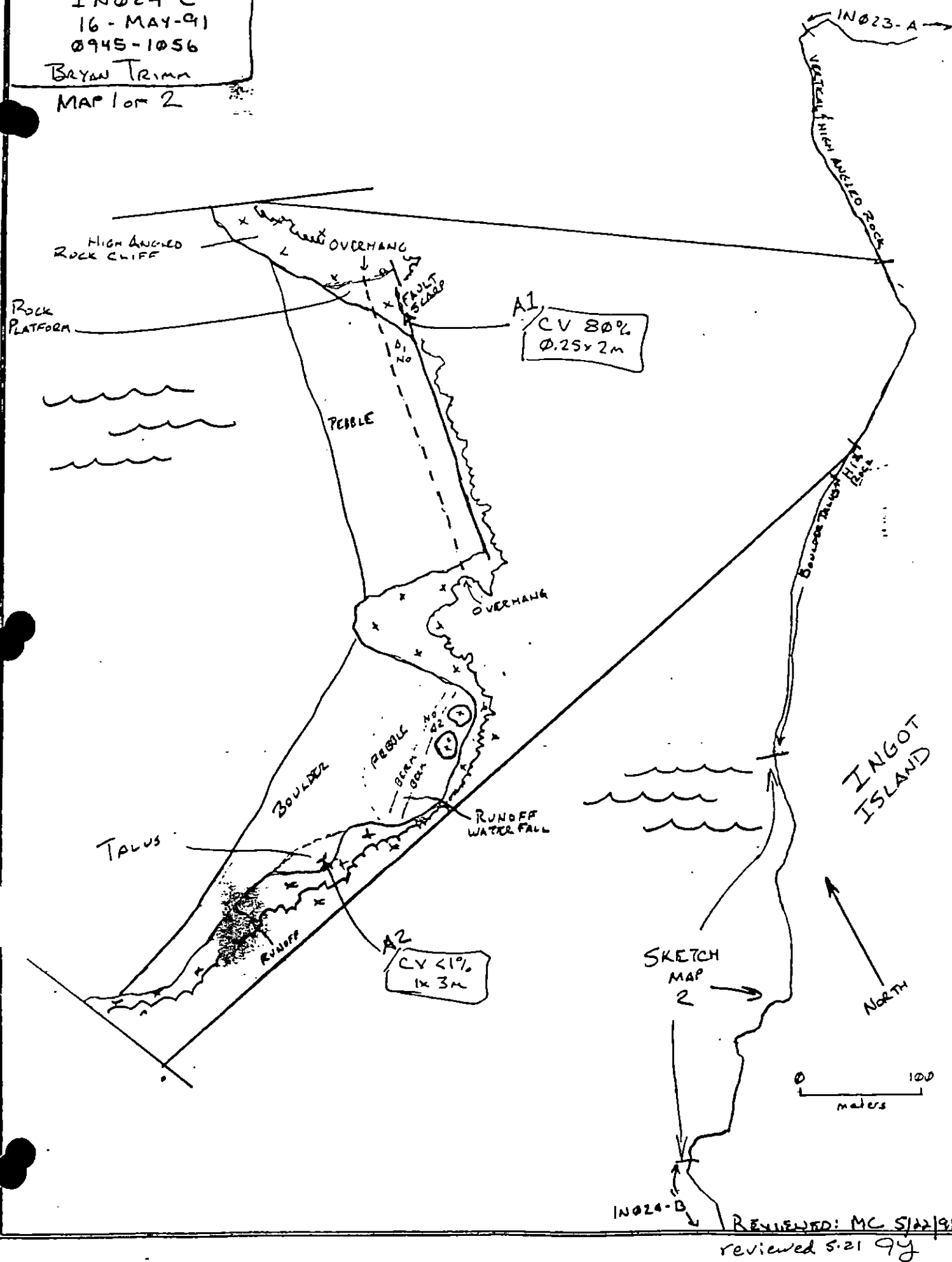
☐ NTR

No treatment recommended - DS-B

CG - NO TREATABLE OIL PRESENT. 3

REVIEWER: MC 5/22/91
reviewed 5.21.94

OG SKETCH MAP
IN 024-C
16-MAY-91
0945-1056
BRYAN TRIMM
MAP 1 of 2



04 SKETCH MAP
 IN024-C
 16-MAY-91
 0945-1056
 BRYAN TRIMM
 MAP 2 OF 2

B1
 CV 25%
 1x3m

ANGULAR
 COBBLE BOULDER

B2
 CV 5%
 1x7m

B3
 CV <1%
 0.5x1m

B4
 CV <1%
 0.5x4m

B5
 CV, T3, SDR, LT <1%
 1x6m

ANGULAR
 BOULDER

B6
 CV <1%
 1x3m

IN024-B

SKETCH
 MAP
 "1"

IN023-A
 VERTICAL HIGH ANGLE PHOTO

Boulder Talus

INGOT
 ISLAND

North

0 20
 meters

REVIEWED: MC 5/21/91
 reviewed 5.21.94

TEAM # 2 DATE 16 May 91
 SEGMENT # JN-24 TIDAL HEIGHT (Range) -3 to -2 ft
 SUBDIVISION C BIOLOGIST SM/BAW
 SEA STATE 0 WIND SPEED/DIRECTION calm
 PHOTOGRAPHS: ROLL # FRAME #

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

A1: Oil is CV on rock face at back of platform. Numerous tide pools are on platform. One pool immediately below oil supports a very dense population of juvenile littorines and several sea anemones. This pool (and the others) should not be disturbed.
 A2: CV is in the lichen & moss zone. Fucus sp. adjacent at same tidal height.
 B1-B6: All oil here is discontinuous CV & TB high in the ITZ. Green algae, lichen & mosses. Lower zones in these areas are rich with algae, mussel, & littorines as shown.

Do not disturb tide pools at "A1"

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles	1 eagle in tree - no nest visible		
Seabirds			
Waterfowl			
Gulls/kittiwakes			
Shorebirds			
Corvids	1 crow	1	
Other Birds			

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters			
PI-lipeds (specify)			
as (specify)			

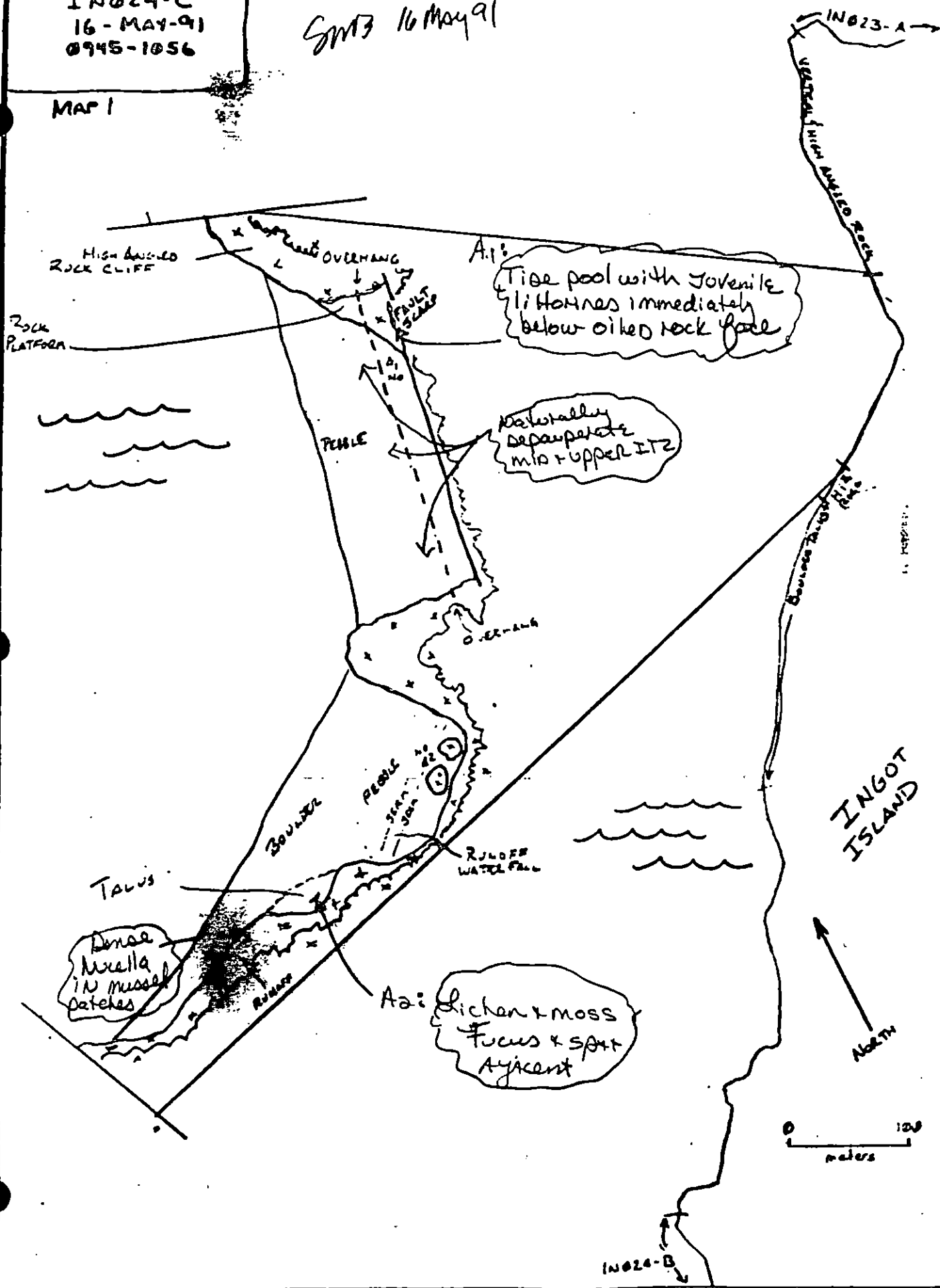
Shoreline subdivision map showing important biological features attached.

Revised 5/21/0 SM

SKETCH MAP
IN 024-C
16-MAY-91
0945-1056

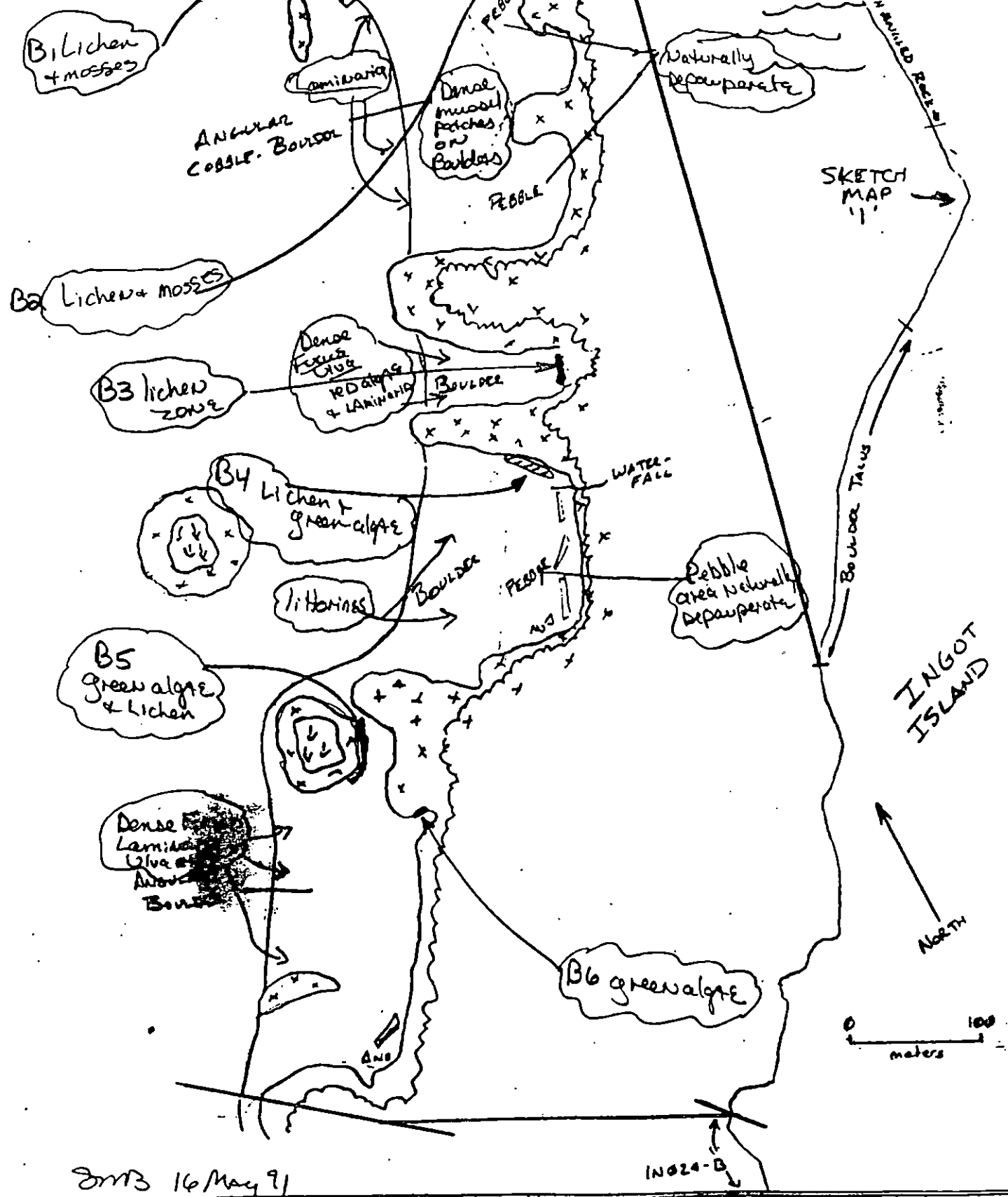
SMT 3 16 May 91

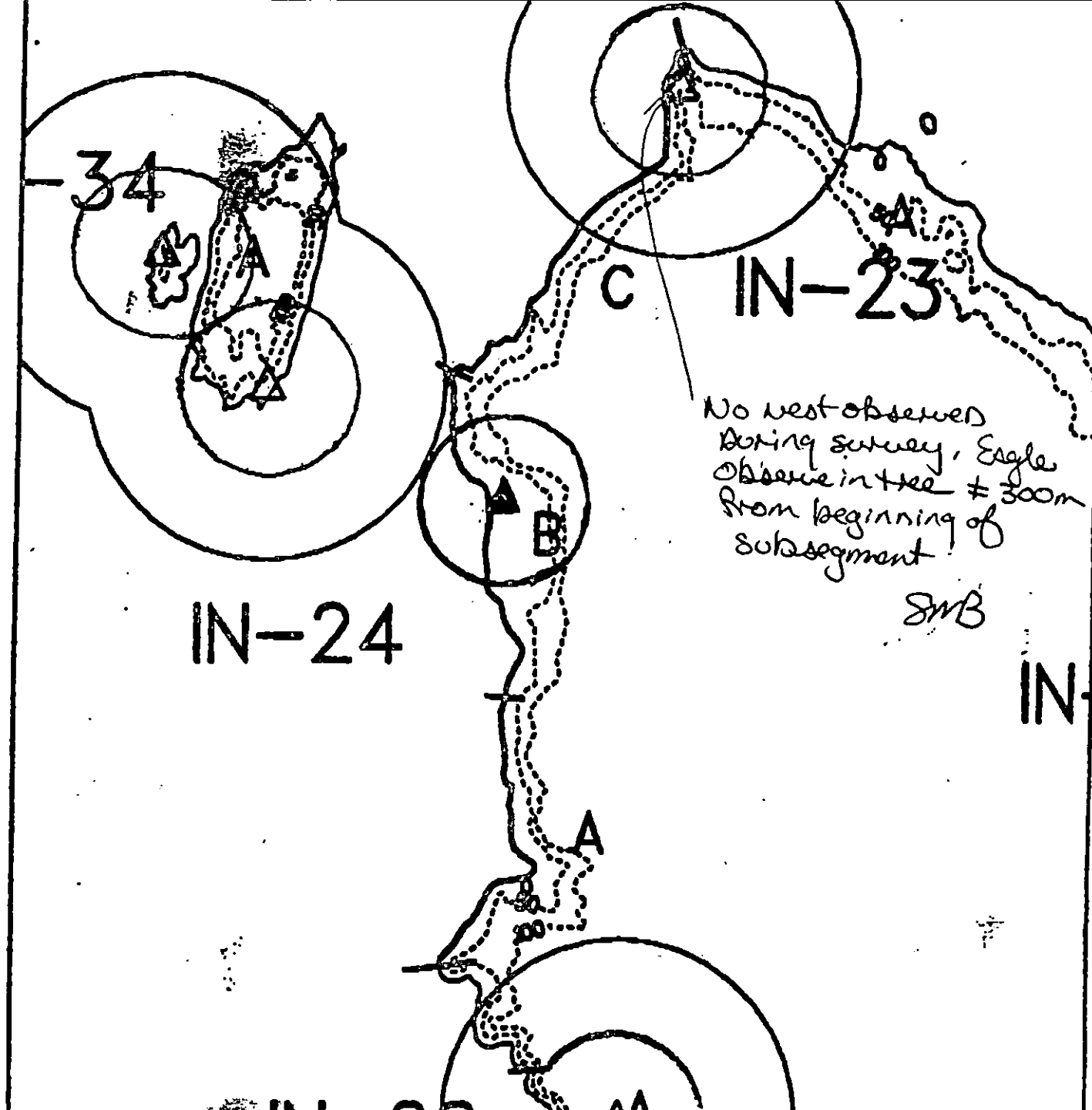
MAP 1



SKETCH MAP
IN 024-C
16-MAY-91
0945-1056

MAP 2 OF 2





No nest observed
 during survey, Eagle
 observed in tree ± 300m
 from beginning of
 subsegment
 SMB

IN024

METERS

0 500 1000

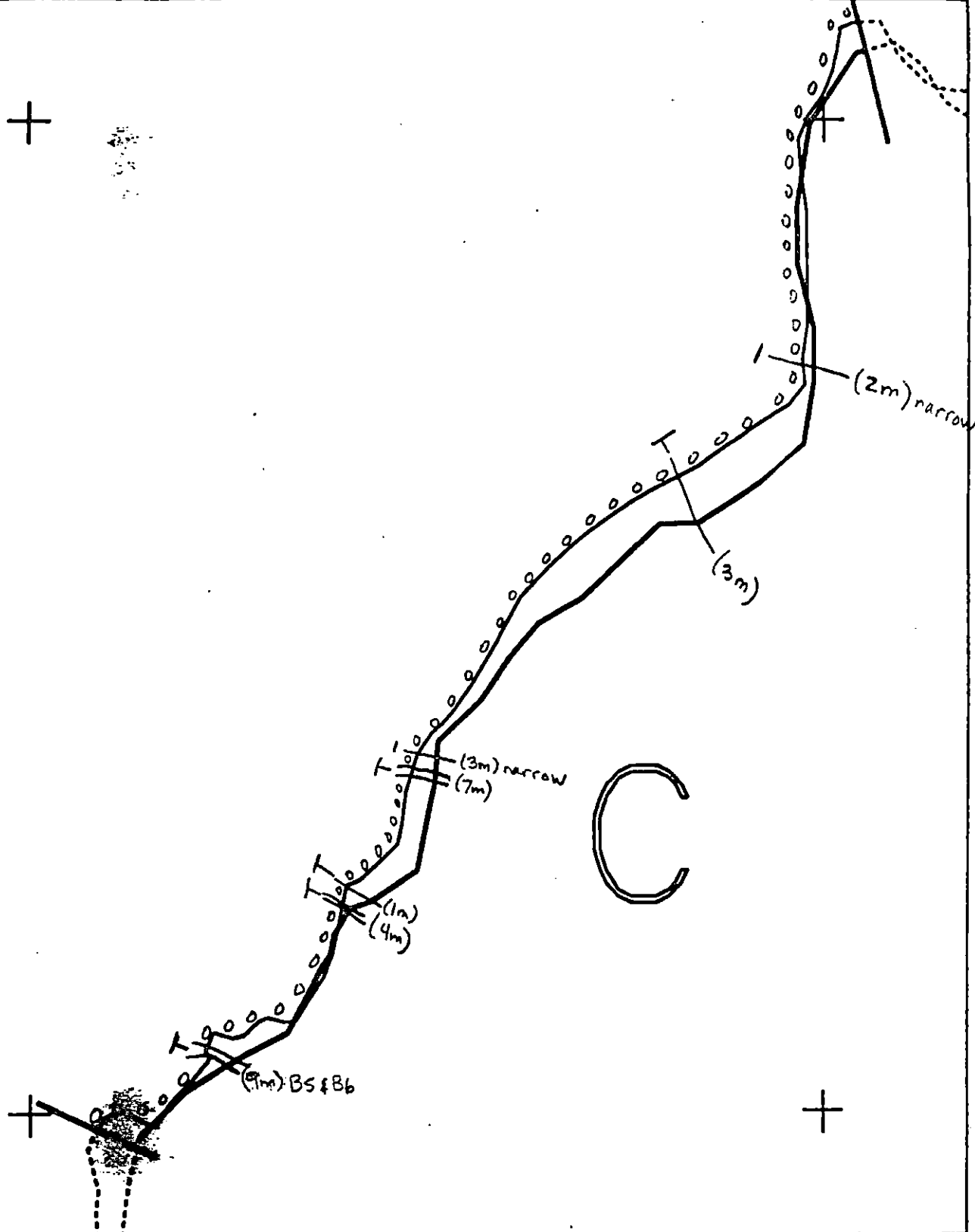
AK State Plane Zone 4

Segment Reference Map

Map Key: PUSIN024

△

EAGLE NEST



C

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

IN024 C
 ADEC Subsegment Length: 984m
 METERS
 0 100 200
 AK State Plane Zone 4
 61N02400



Subdivision Field Map
 Map Key: KNIIN024C
 Name: TRIMM
 Date: 16-MAY-91
 Date Entered:



- SURFACE OIL CATEGORY MAP -

Reviewed: MS 5/22/91
 reviewed 5.21.94

1991 MAYSAP EVALUATION

SEGMENT: IN-24 SUB: B REGION: PWS SURVEY DATE: 6/26/91

ENVIRONMENTAL SENSITIVITIES:

Work Window(s) Restricted 3/1 -9/15

Ecological/Constraints (see page two for details) Eagle Nest

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 _____

MAYSAP FIELD SHORELINE COMMENT SHEET

TEAM NO. 5 SEGMENT 12-24 SUBDIVISION B DATE 6/26/91

ADEC

NAME Dianne Munson SIGNATURE Dianne Munson

☒ NTR ☐ Treatment Recommended

Subsurface LOR at areas of pit #2. Also coats. along bedrock outcroppings

EXXON

NAME Mike Barker SIGNATURE Mike Barker

☒ NTR

Minimal oil, some marine debris collected, Rich Intertidal Biota. Only 3 people surveyed due to nesting eagles. Based on OG report & ADEC comments, no treatment needed.

LANDMANAGER

NAME OF SIGNATURE

☐ NTR

ORIGINAL COPY

USCG/NOAA

NAME EVAN NANCE, LTJG USCG SIGNATURE Evon Nance

☒ NTR

NO FURTHER TREATMENT RECOMMENDED, COATS AND OILING IN PIT TWO WERE INCONSEQUENTIAL,

PAGE 1 OF 1

DATE 6 / 26 / 91

ENERGY LEVEL: ☐ H ☒ M ☐ L

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

EST. OIL CATEGORY LENGTH: W 1 m M 1 m N 1 m VL 55 m NO 745 m US - m

DISTRIBUTION: C = 91-100%; S = 81-90%; P = 11-50%; G = 1-10%; T = <1%

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

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

OG COMMENTS: Mod. exposed rocky shore w/ c beaches interspersed w/ steep L or massive B. Surface oil as CT/S, typically as dripline & sporadic narrow bands. Single locality of subsurface LOB, about 10 m² dia., ~10 cm thick, trapped amongst muddy layer. (Eagle nest previously mislocated.)

0 90 m
N

NWL @ 10.00 hrs
SSL

SUBSOLFAKE
LOR ~ 10m²

(A)
CT/I < 10%
SxIS on
massive BC
up HTZ

11-24B
G. MACDONALD
6.76.51

HT = R beach

NON-ANS TAN
clumps.

BC pocket

(B)
up HTZ
CT, < 10%
1/2 x 10.

(C)
CT, < 10% sporadic zoom
dipline
total zoom

PS beach
BFG beach

* Eagle nest

stream

stream

steep R
LOR

CB/R

C+B/R

R8

SSL

MAYSAP BIOLOGICAL SUMMARY FORM

TEAM # 00 DATE 6/26/91
 SEGMENT # IN-24 TIDAL HEIGHT(Range) 0.4' ~ 4.0'
 SUBDIVISION B BIOLOGIST D. McCORMICK
 SEA STATE 1' WIND SPEED/DIRECTION 5/N
 PHOTOGRAPHS: ROLL # MAYSAP-00-04 FRAME # 12-14
 COMMENTS/OBSERVATIONS (to be completed in oiled subdivisions only):

Pit 2: No biota on this beach. Sparse surface fauna regions in Mid-zone, >10 m below oiled area.

(A) CT area above most fauna (with exception of a few sparse barnacles).

Gastropods become moderate to very dense downslope including post juveniles and adults. Mussels are very dense in interstitial shoulder/bedrock areas in M-LITZ. Predatory whelks (*Nucella* spp.) mostly seen on barnacles. Tarpot algae was very common M-LITZ. LITZ dominated by *Palmaria*, *Fucus*, *Ulva* + filamentous green algal cover.

(B+C) Could not survey due to eagle presence but OG noted the biota was pretty much that described in (A) above. Higher-energy exposed areas had slightly sparser concentrations, but diversity is same.

Overall, a very healthy community showing no impacts from remaining oil. ♀ eagle left the nest during survey; USFWS monitor allowed only 3 individuals to continue survey. (Eagle may have been incubating eggs). I returned to the nest only after all team members were gone from the site.

WILDLIFE OBSERVATIONS

TO BE COMPLETED IN ALL SUBDIVISIONS

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

MARINE MAMMALS

OBSERVED

LAND MAMMALS

SPECIES

OBSERVED

Sea Otters			
Planipeds (specify)			
Males (specify)			

Shoreline subdivision map showing important biological features attached.

(C) No bio survey due to perturbed eagle.

(B) No Bio survey due to perturbed eagle.

BC pocket

NON-ANS tar clumps.

H_i ∈ PC beach

BPG beach

PS beach

stream

stream

* Eagle nest

steep R

SUBSURFACE LOR ~ 10m²

(A)

Biota on steep rock faces & occasional barnacles in UITZ; as well as sparse littorines & limpets; all become denser downslope. Diadema common in barnacles. LITZ covered with several algal species.

C+B/R

No biota in the m-UITZ on this beach.

RS

NWL

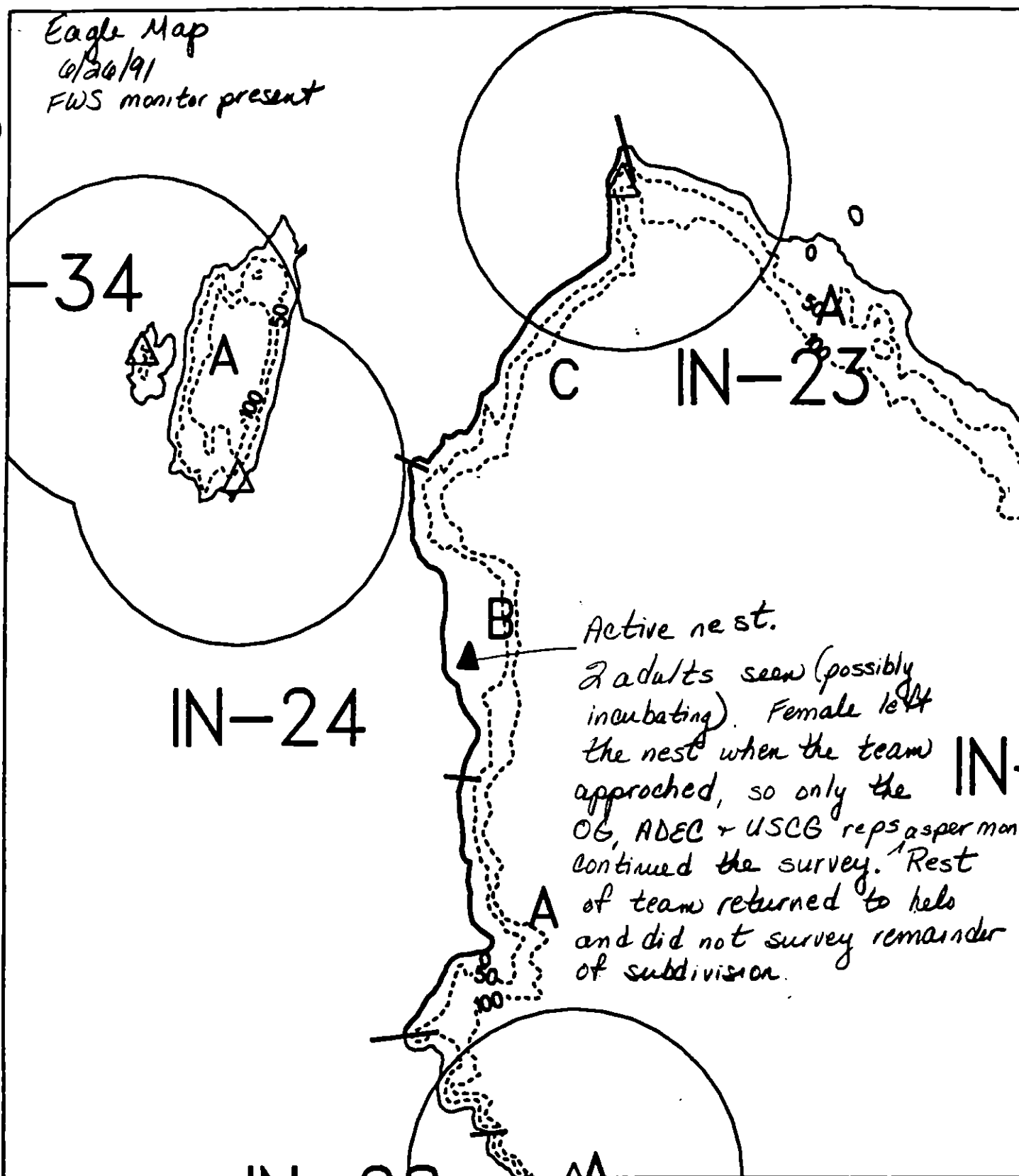
SSL

@ 10.00 hrs

0 90 m

approx.

Eagle Map
6/26/91
FWS monitor present



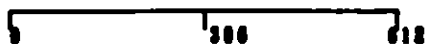
Active nest.

2 adults seen (possibly incubating). Female left the nest when the team approached, so only the OG, ADEC + USCG reps as per monitor continued the survey. Rest of team returned to helo and did not survey remainder of subdivision.



IN 024 B

METERS

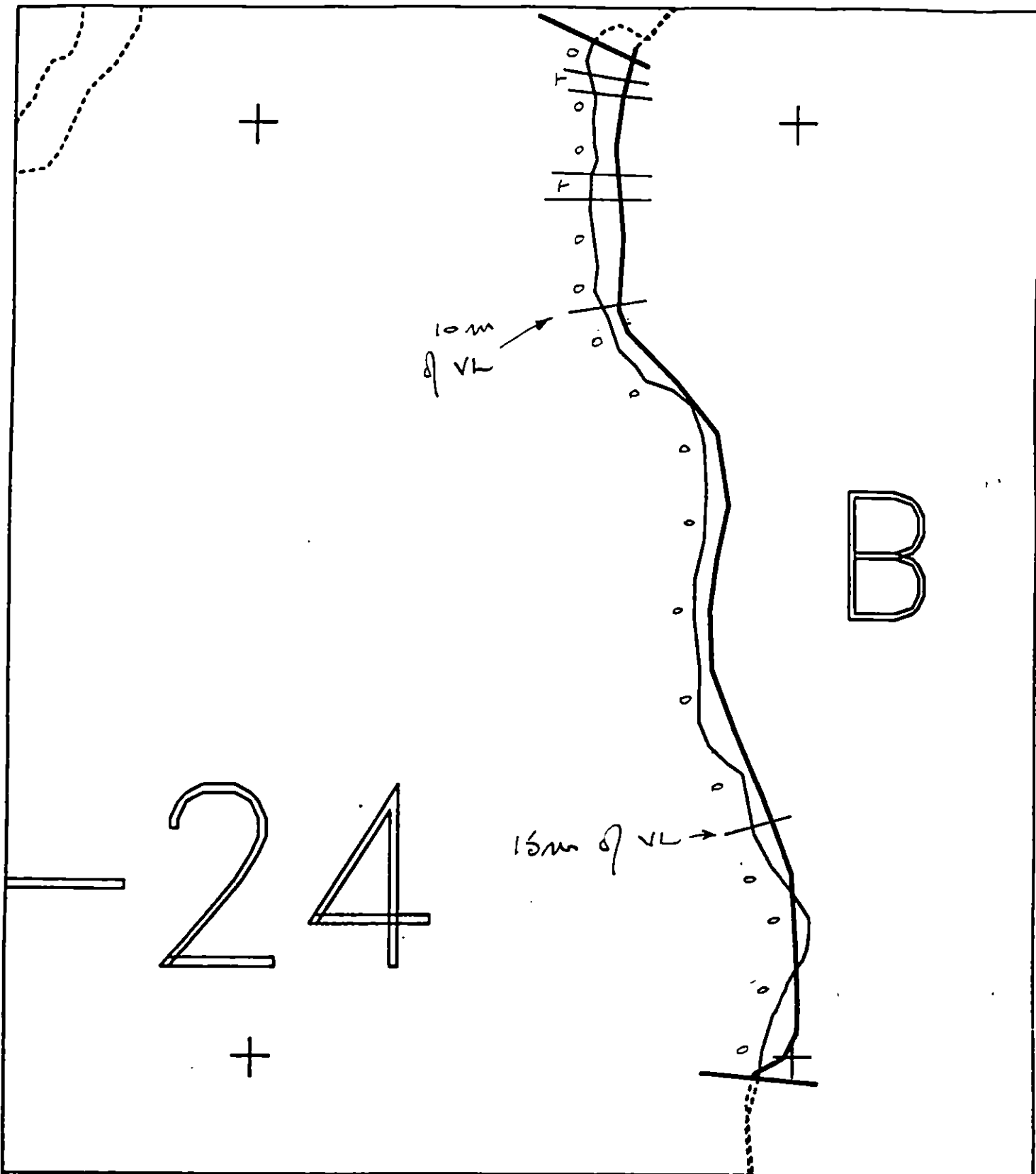


AK State Plane Zone 4
110024

Segment Reference Map
Map Key: PVSIN024



EAGLE NEST



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

IN024 B
 ADEC Subsegment Length: 700m
 METERS

0 100 200
 AK State Plane Zone 4
 81202400



Subdivision Field Map
 Map Key: KNIIN024B
 Name: G.M.
 Date: 6.26.91
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION A (1 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and
contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL CONSTRAINTS:

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

SHPO SIGNATURE: A. David McMahon DATE: 5/11/90

OILING CATEGORIZATION:

Wide_0_m: Medium_0_m: Narrow_12_m: V.Light_0_m: No Oil_806_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: 5/11/90

ADEC Art Weinger Art Green

EXXON Ampy Totl Deal

NOAA Joseph Talbot 10/1/88

USCG D.D. Rome DD Rome

FOSC: W W DATE: 5-15-80

00 J. Springer

SEGMENT ST/ 154-24

SUBDIVISION A

DATE 04/25/90

CHECKLIST

- ☐ H Area
- ☐ Approx. Size
- ☐ Top/Bottom Entry
- ☐ On Out
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Ext. H/W/L/A/B/L
- ☐ S/L
- ☐ Profile Location(s)
- ☐ Profile(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND



PH - No Substrate On



PH - Substrate On

CT/C

Continuous Distribution

CT/D

Broken Distribution

CT/P

Patchy Distribution

CT/S

Spaced Distribution

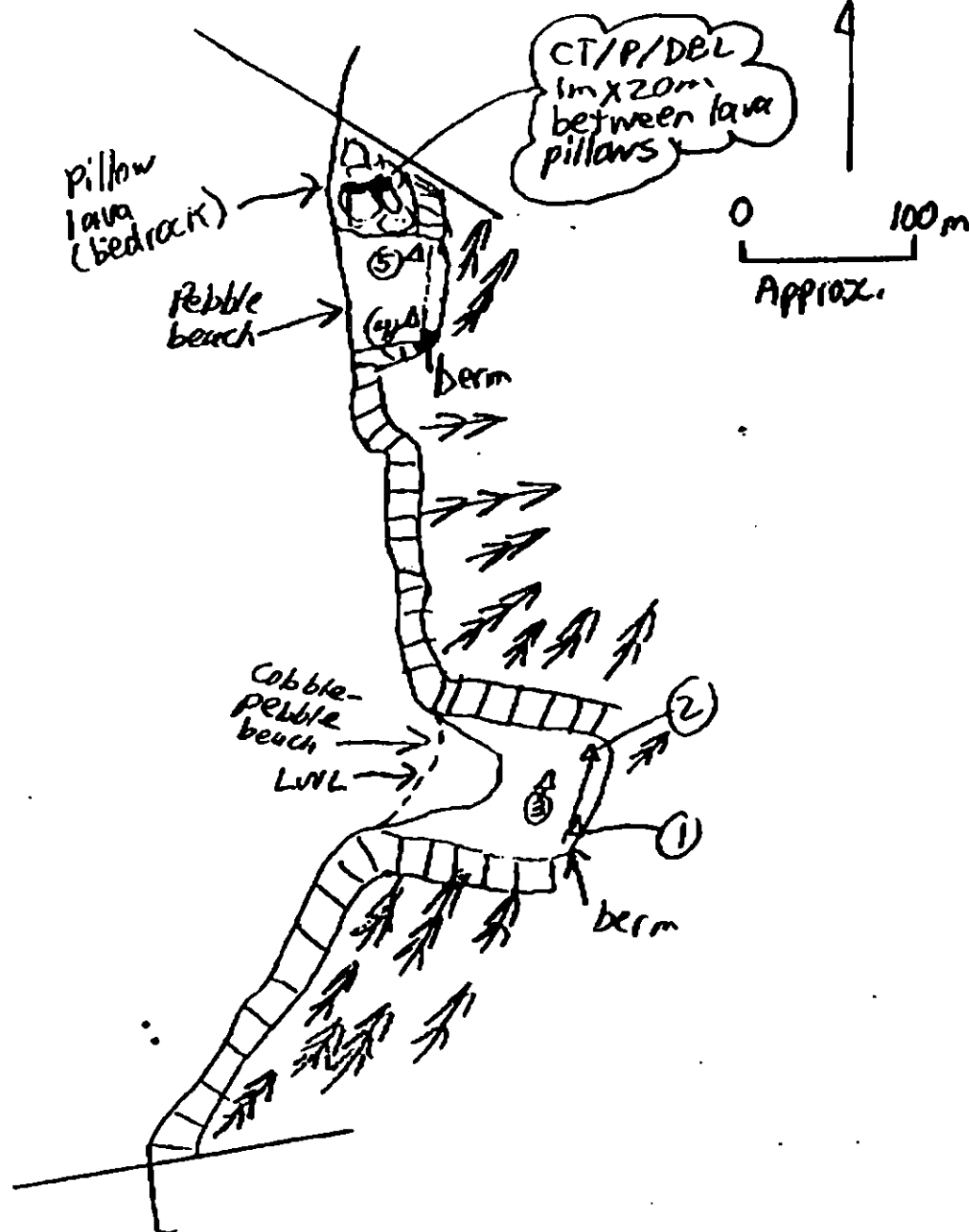
lll

Old Vegetation



Photo location, direction, and number

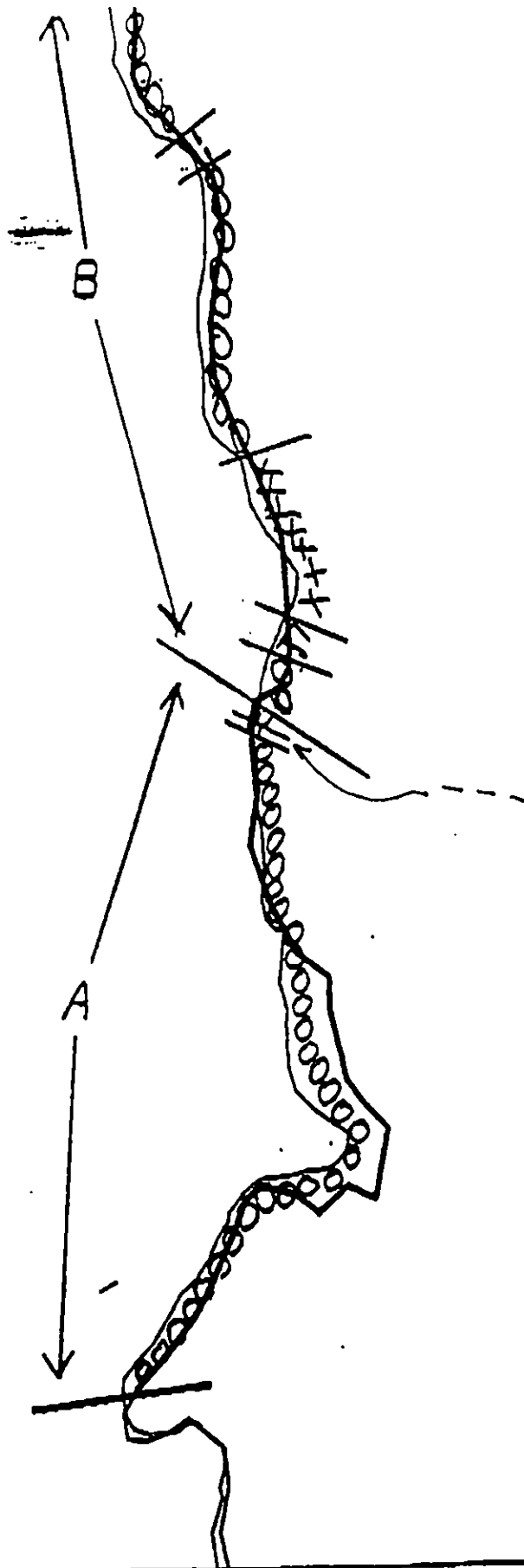
ETCH MAP



On Character Length (m): AP _____ PO _____ CV _____ CT 20 ST _____ MS _____ PT _____ TB _____ FL _____ NO 700

SEWING 0004

↑ FWS
2725



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

IN-24A

ADEC Segment Length: ²⁵⁸²~~2573~~m

0 100 200 300
METERS

Map Key: PWS-272a

Name: James Springs

Date: 4/25/90

Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION B (2 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to unopened 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: [Signature] DATE: 5/11/90

OILING CATEGORIZATION:

Wide 144 m: Medium 0 m: Narrow 34 m: V.Light 38 m: No Oil 575 m
Subsurface Oil Observed: Yes X No Maximum Depth 40+ cm

RECOMMENDATIONS:

<u> </u> No Treatment Recommended	<u> </u> Snare/Absorbent Booms
<u> X </u> Treatment Recommended	<u> </u> Oil Snares (pom poms)
<u> </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> X </u> Other (see comments) <u> </u>

COMMENTS: Recommended treatment includes bioremediation of areas indicated on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

TAG COMMENTS: MANUAL MAKE AREA OF TP1 PRIOR TO BIO IF FEASIBLE.

TAG APPROVAL DATE: 5/11/90
ADEC ART WERNER
EXXON ANDY TAYLOR
NOAA Joseph Kilbott
USCG D.D. ROME

FOSC: [Signature] DATE: 5-15-90

J. Springer
 GMENT ST/ IN-24
 DIVISION B
 DATE 04/25/90

SKETCH MAP

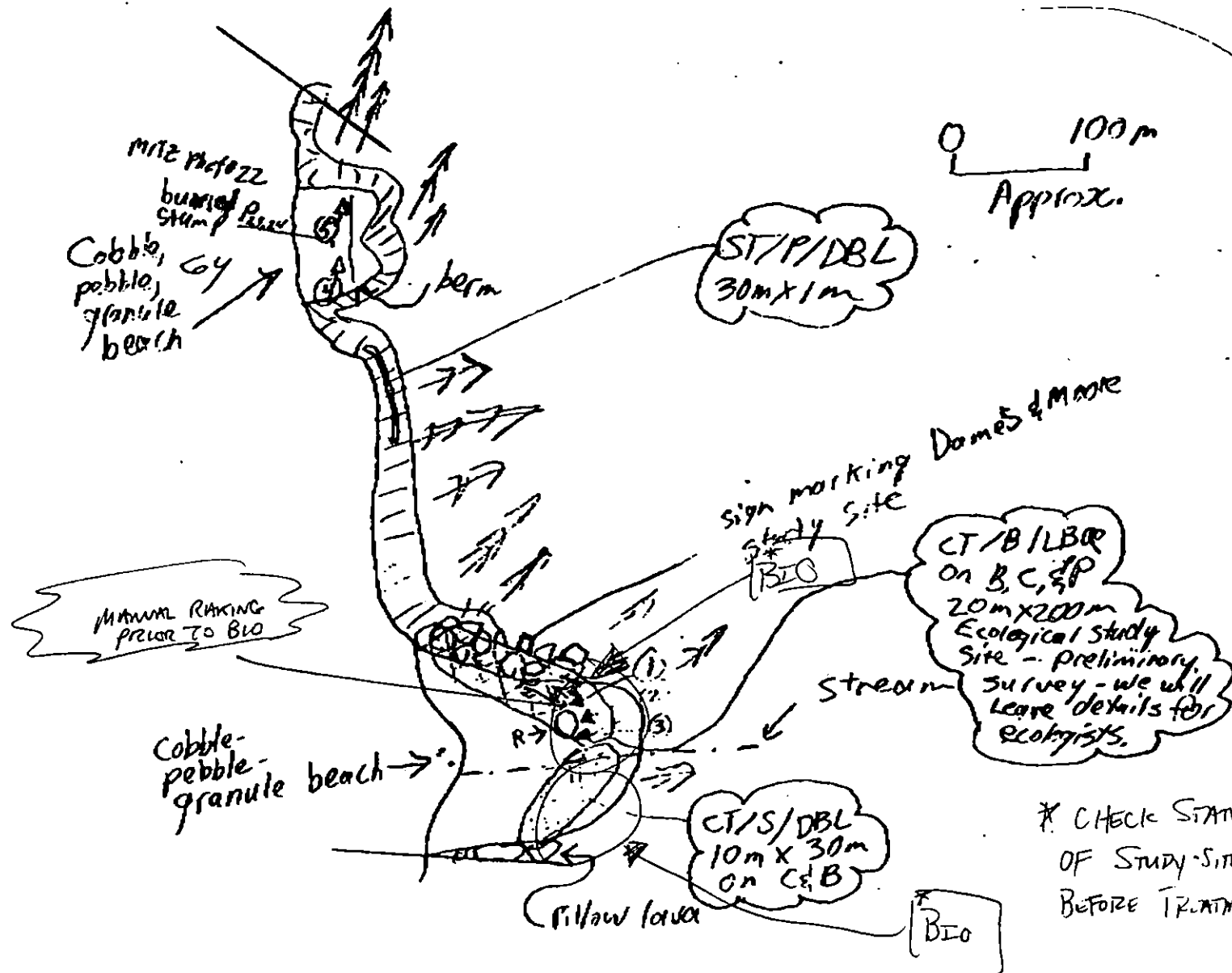


CHECKLIST

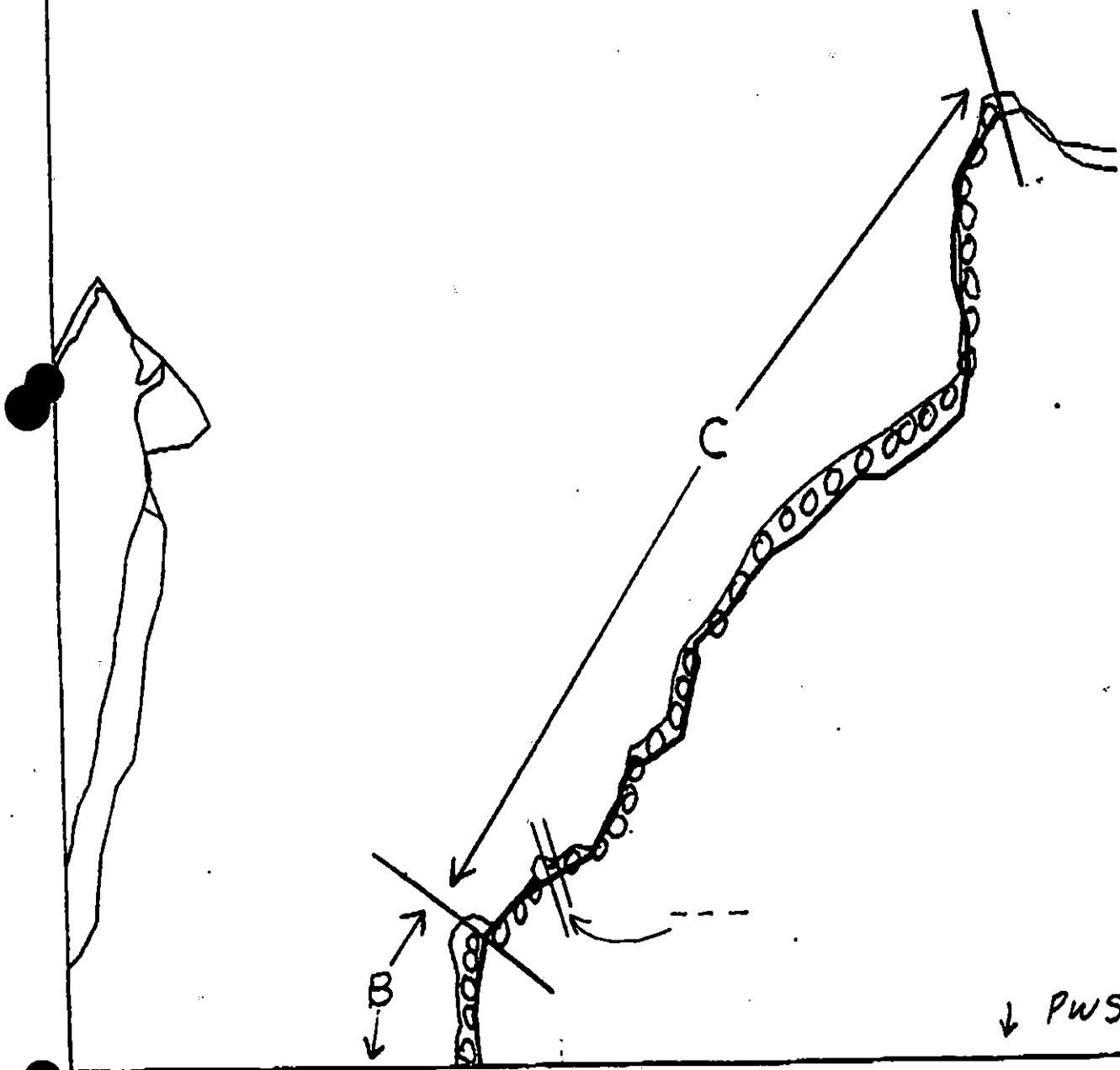
- ☐ H Auger
- ☐ Approx. Scale
- ☐ Seg/Sub Grid
- ☐ On Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ Est. HRR/LVL
- ☐ SSI
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ P/L Location(s)
- ☐ Photo Location(s)

LEGEND

- ☐ 1 Δ
- ☐ 2 Δ
- ☐ 3 Δ
- ☐ 4 Δ
- ☐ 5 Δ
- ☐ 6 Δ
- ☐ 7 Δ
- ☐ 8 Δ
- ☐ 9 Δ
- ☐ 10 Δ
- ☐ 11 Δ
- ☐ 12 Δ
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- ☐ 98 Δ
- ☐ 99 Δ
- ☐ 100 Δ



Character Length (m): AP _____ PO _____ CV _____ CT 230 ST 30 MS _____ PT _____ TB _____ FL _____ NO 540

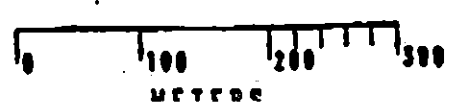


↓ PWS 272A

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

IN-24B

ADEC Segment Length: ²⁵⁸²~~2673m~~



Map Key: PWS-272b
 Name: James Spring
 Date: 4/25/90
 Date Entered:

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION C (3 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL 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: J. David McManis DATE: 5/11/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 14 m: V.Light 0 m: No Oil 950 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: Recommended treatment includes manual pickup of oiled debris as shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

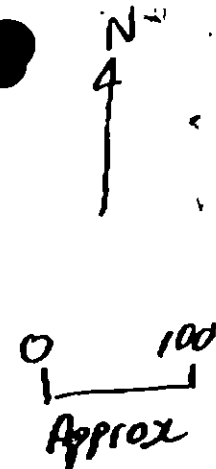
TAG COMMENTS:

TAG APPROVAL DATE: 5/11/90
ADEC Art Womack Art Womack
EXXON Amy Calk Deal
NOAA John Talbot
USCG D. D. Rome

FOSC: W L DATE: 5-15-90

00 J. Springer
 SEGMENT ST/ IN-24
 SUBDIVISION C
 DATE 04/25/90

SKETCH MAP

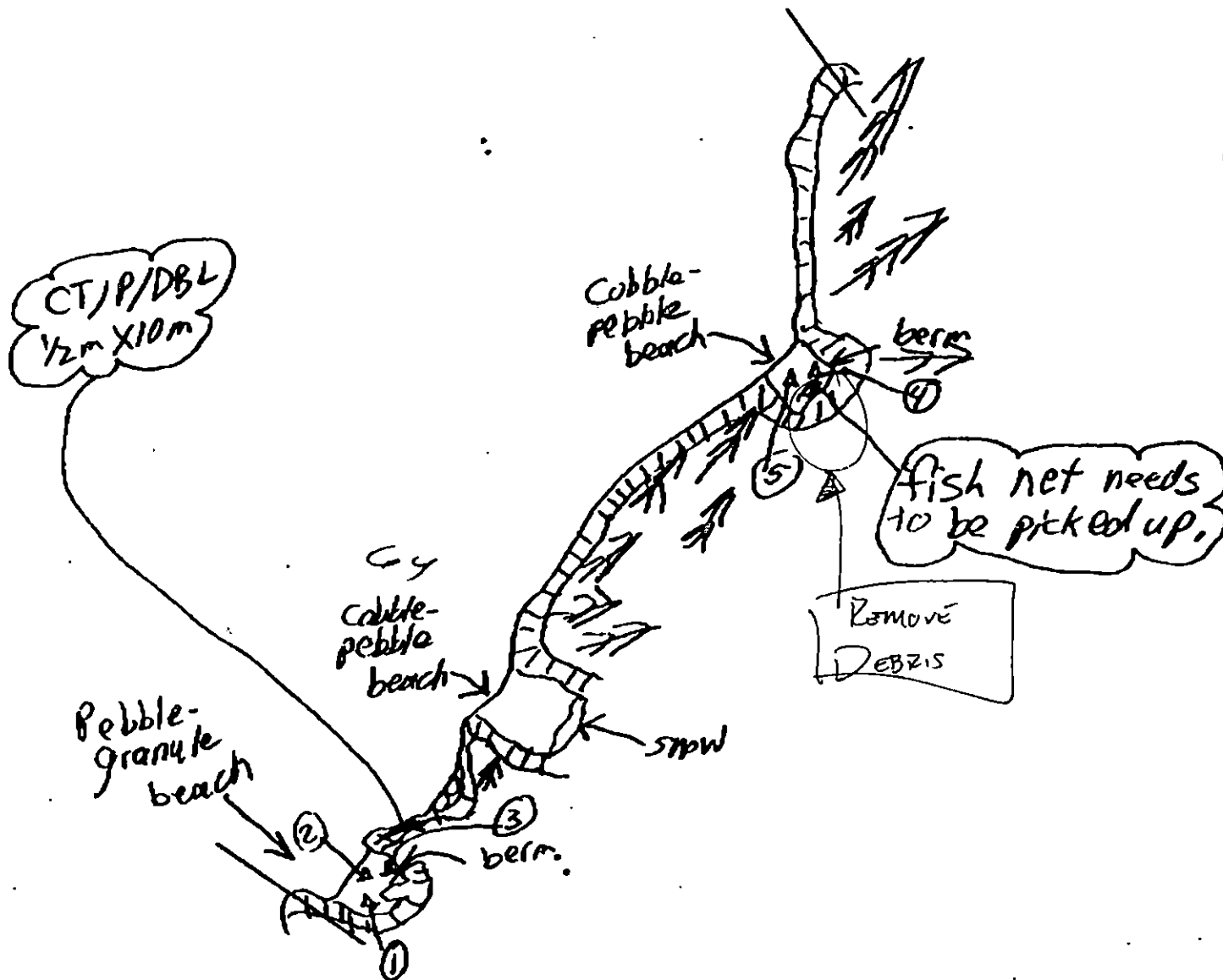


CHECKLIST

- ☐ H Area
- ☐ Approx. Size
- ☐ Substrate
- ☐ On Dist.
- ☐ Width
- ☐ Length
- ☐ % Cover
- ☐ Substrate Character
- ☐ E. of M. L. A. V. L.
- ☐ S. L.
- ☐ Profile Location(s)
- ☐ Photo(s)
- ☐ Photo Location(s)

LEGEND

- ! Δ
Pt - No Substrate Oil
- ? Δ
Pt - Substrate Oil
- CT/C
Coastal Distribution
- CT/S
Shore Distribution
- CT/P
Pebbly Distribution
- CT/S
Spashed Distribution
- eee
Clad Vegetation
- ! Δ
Photo location, direction, and number

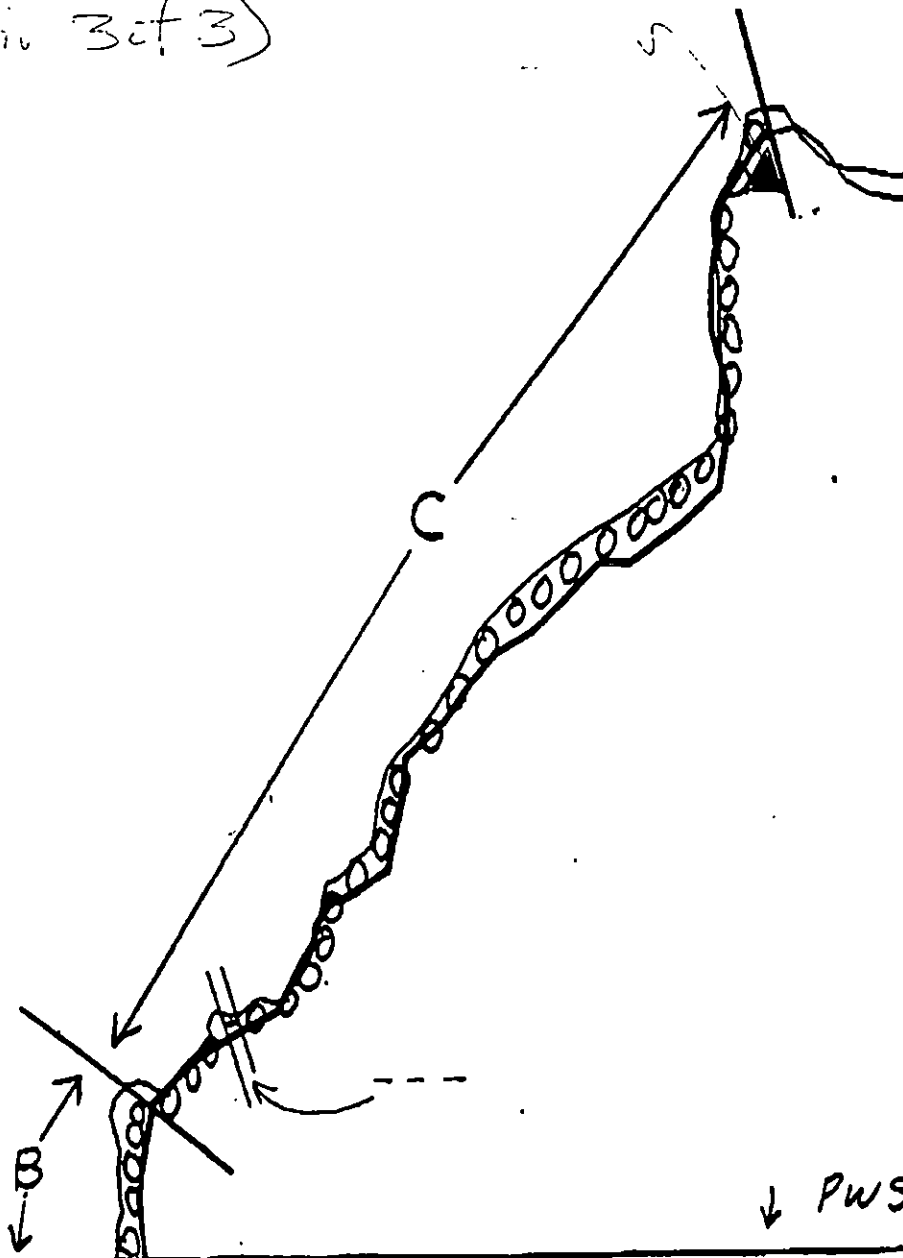


Cl Character Length (m): AP _____ PO _____ CV _____ CT 10 ST _____ MS _____ PT _____ TB _____ FL _____ NO 944

ST-1
EY

IN-24-C
(subdiv 3 of 3)

BAD
EAGLE
NEST



↓ PWS 272A

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

IN-24

ADEC Segment Length: ~~2173m~~ 2582

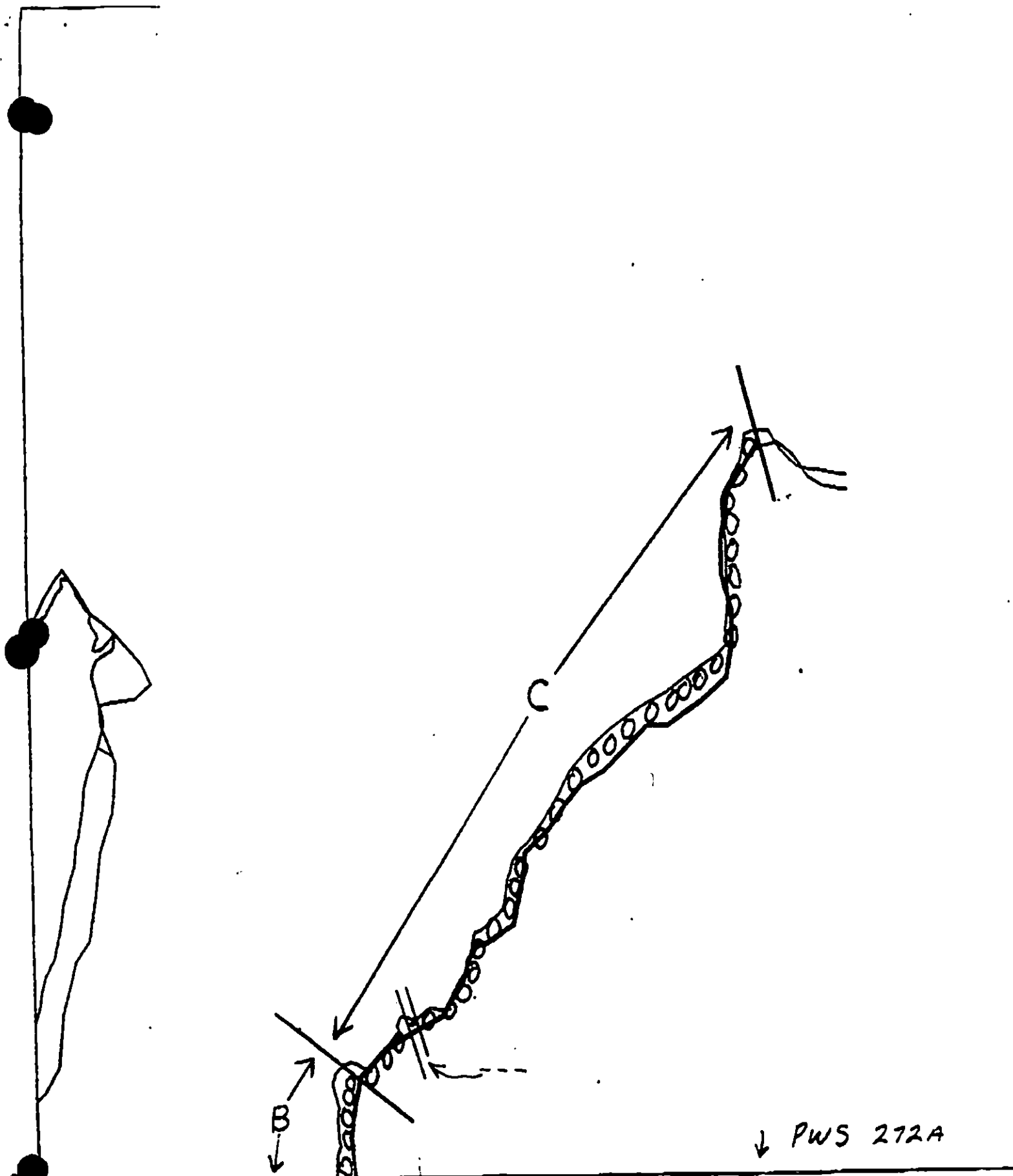


Map Key: PWS-272b

NAME: James Spring

Date: 4/25/90

Date Entered:



↓ PWS 272A

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

IN-24C

ADEC Segment Length: ²⁵⁸²~~2673m~~

0 100 200 300



Map Key: PWS-272b
 Name: James Spring
 Date: 4/25/90
 Note: Entered.

1991 MAYSAP EVALUATION

SEGMENT: IN 024 SUB: A REGION: PWS SURVEY DATE: 5/16/91

ENVIRONMENTAL SENSITIVITIES:

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

Ecological/Constraints (see page two for details) Eagle nest

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.

TEAM NO. 2 SEGMENT IN-024 SUBDIVISION A DATE 5/14/91

ADEC

NAME Peter Montesano

SIGNATURE

[Signature]

☐ NTR

TREATMENT RECOMMENDED

The area outside of "D" is relatively light and no treatment is warranted in those areas. The oil found in area "D" does not seem to be associated with the fact as we found it last fall during ASAP. AT low tide this area is atop an extended tidal flat with large ~~Tidal~~ pools nearby. The oil in the pits is mobile and is perpetually letting off some film, as oil film is also peeling out of the tide above the area. This area would benefit greatly from a ~~gentle~~ till to be done ~~in~~ the rising tide in side of ~~the~~ concentration of biota in the affected area is light. There was freshly oiled vegetation at base of rise

EXXON

NAME C. M. Latsimbalis

SIGNATURE

[Signature]

☐ NTR

AREA "D" CONTAINS MOR/HOR IN A POOR BOG. SUGGEST TAG DETERMINE WHETHER FURTHER TREATMENT IS BENEFICIAL. DENSE BIOTA IN THIS AREA.

LANDMANAGER

NAME Dennis S. Kennedy OF USFS

SIGNATURE

[Signature]

☐ NTR

at location [D] oil could be manually tilled and some oil collected. There is a stream which will continue to influence the amount of oiling. The area in and around [D] has numerous littorinis and mussels, some will be affected by any treatment, though new recruitment would be quick.

USCG/NOAA NOAA REMOVER-BETTY

NAME Ben M. P. ZENONE USCG

SIGNATURE

[Signature]

☐ NTR

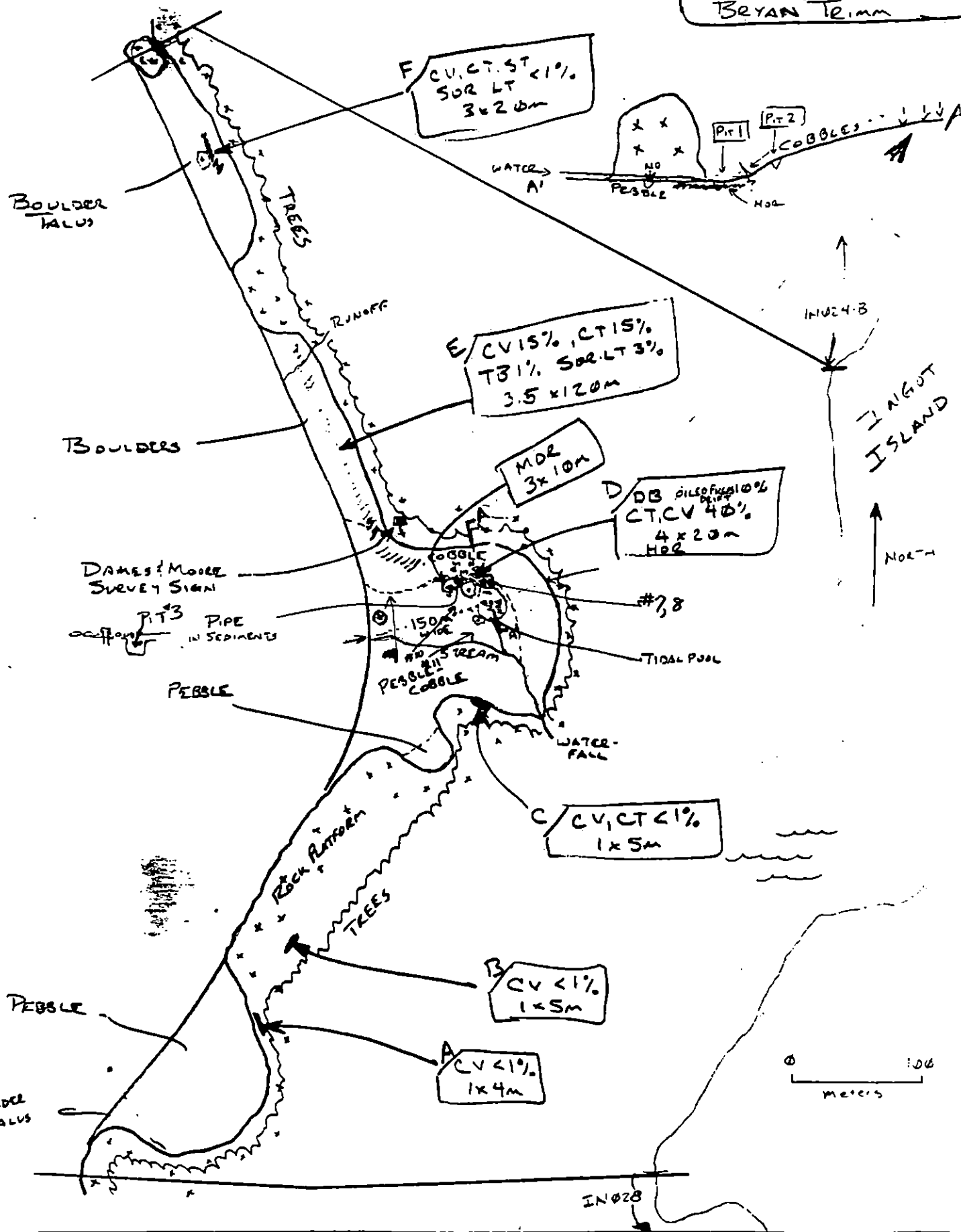
The significant concentrations of oil were found in section D. As this section is in a low-energy tidal flat, there is some surface as well as subsurface oiling. Tilling would result in bringing the oil to the surface. However, as this is a low-energy area, it is not likely the tilled sediment would be reworked, proving to be unsightly. Perhaps it would be best to leave the area untouched. A major storm event would release and disperse the subsurface oil. - DS-13

CG- FURTHER REMOVAL OPERATIONS WOULD CAUSE MORE ENVIRONMENTAL HARM THAN

THE OIL TO BE REMOVED. IF TREATMENT IS BEING CONSIDERED BY TAG A PERSONAL VISIT TO THIS AREA WOULD BE A PRE REQUISITE. EAGLE NEST (ACTIVE) CLOSE BY-3

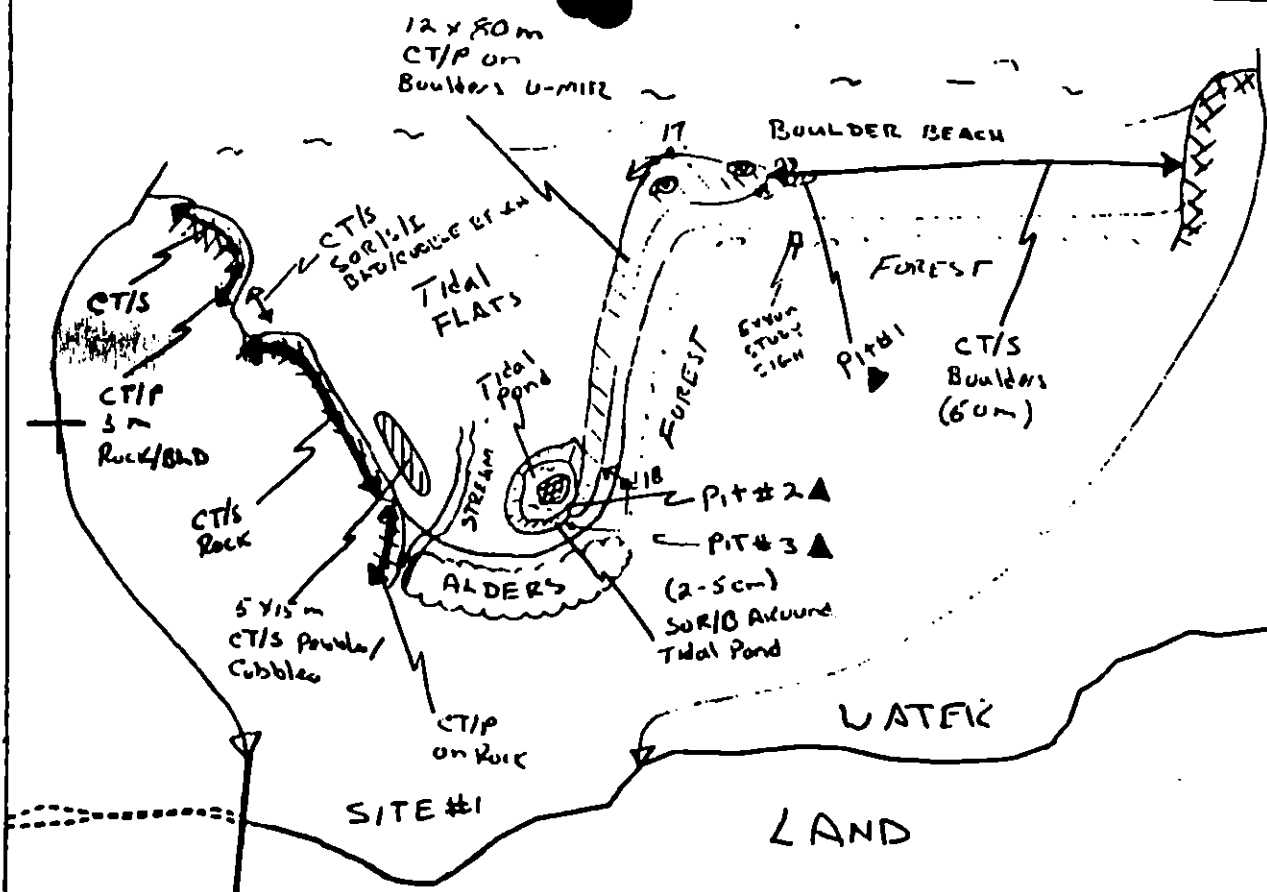
Reviewed S.21 Jy
Reviewed: F.W. 5/23/11

09 SKETCH MAP
IN 024-A
16-MAY-91
1110-1219
BRYAN TRIMM



Reviewed S. 21 Jy
REVIEWED: F.W. 5/23/91

ASAP OILING CONDITIONS
8/21/90



ASAP

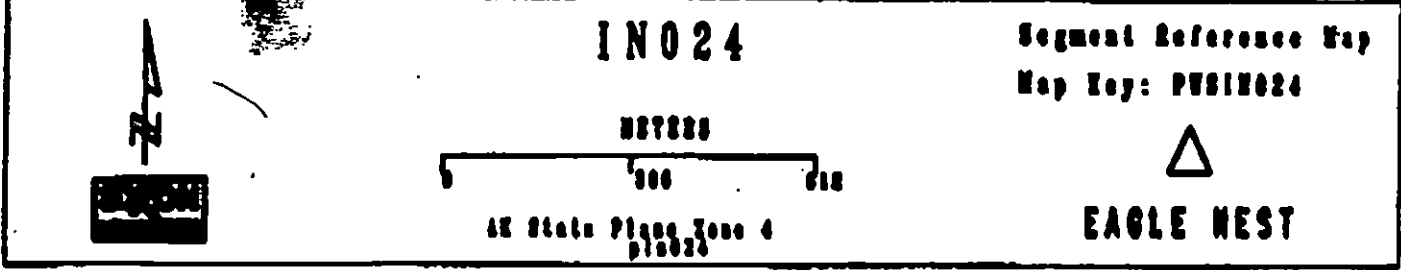
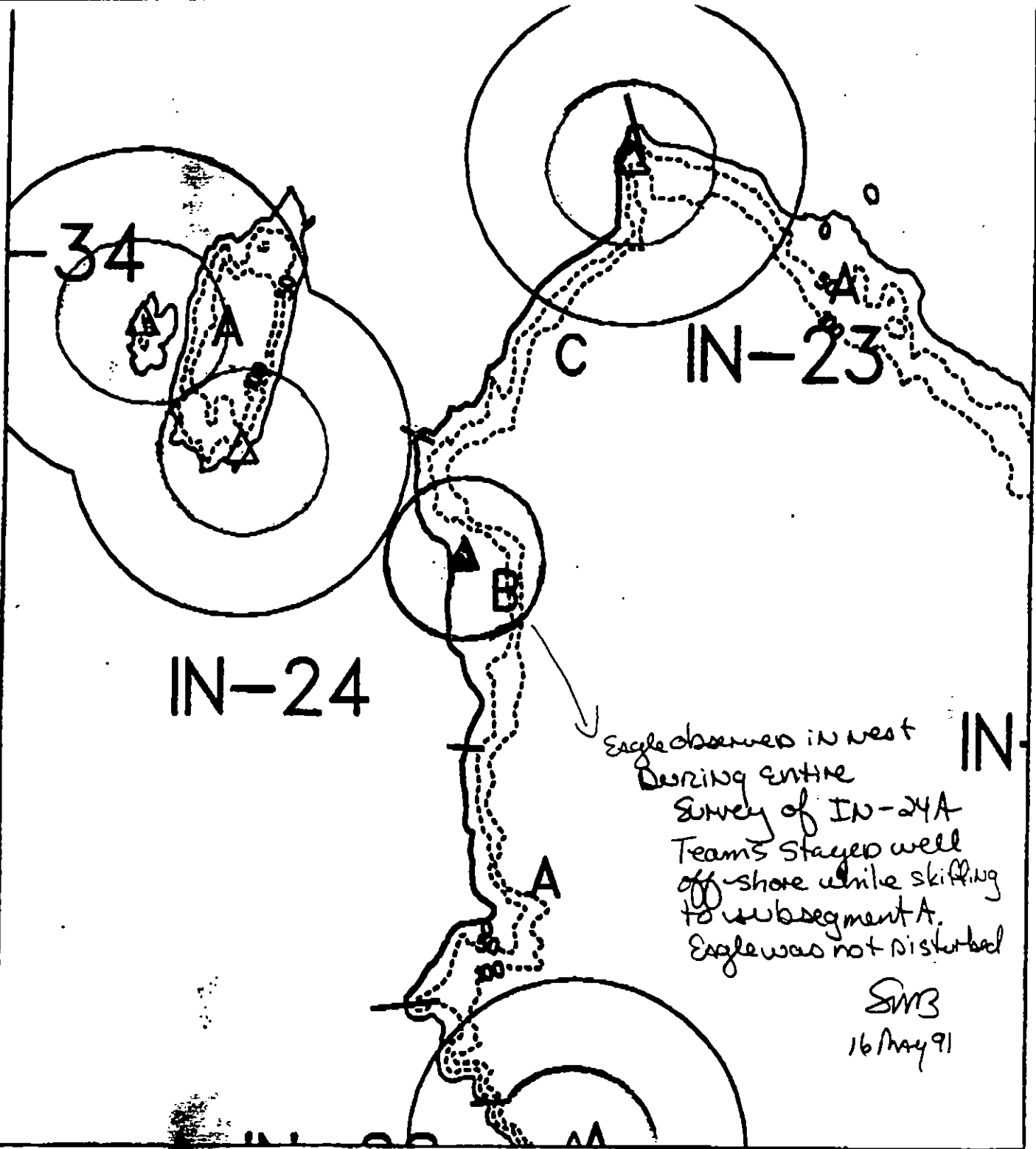
XX Wide
 M Medium
 N Narrow
 V Very Light
 000 No Oil

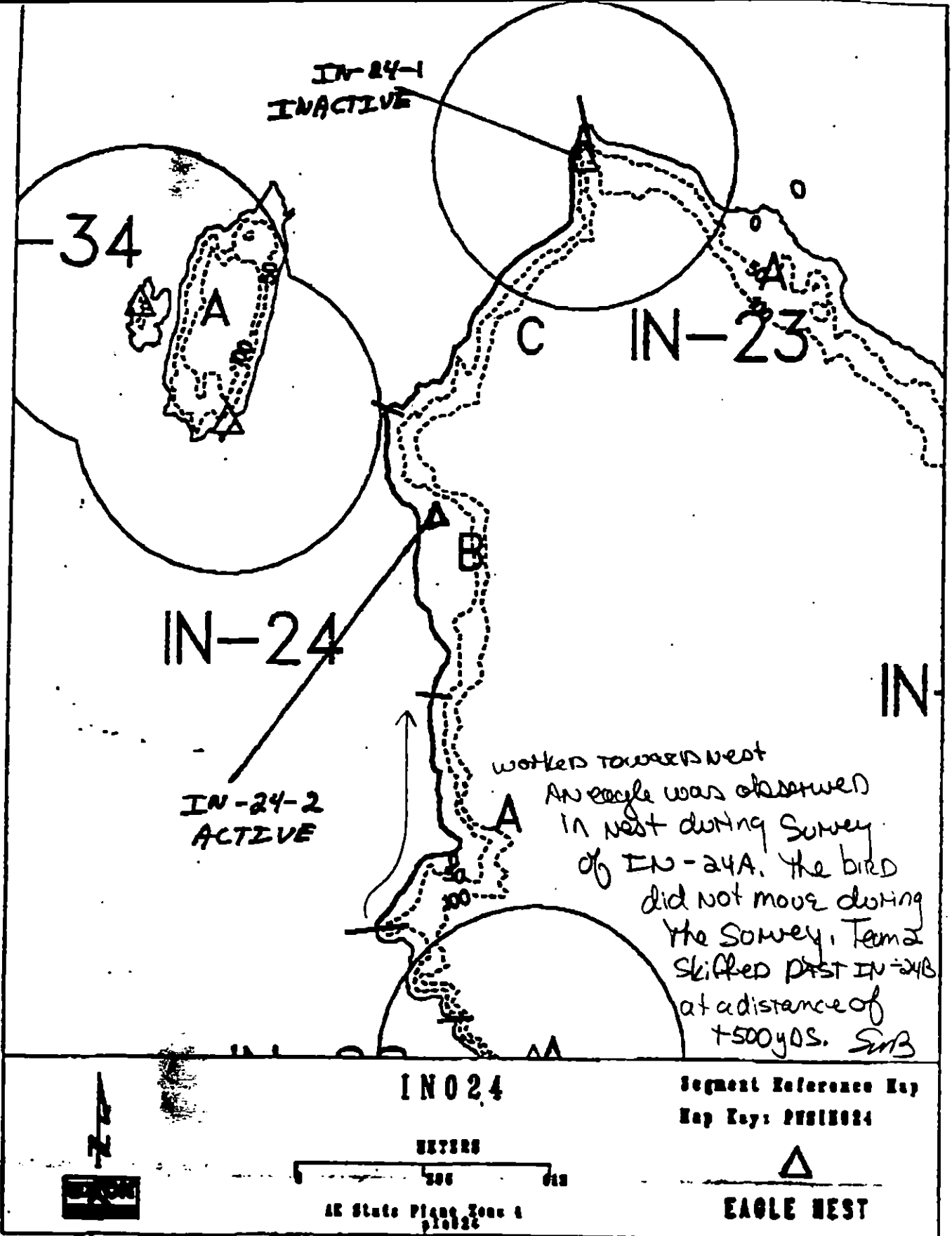
IN-24 B
 ADEC Subsegment Length: 700m
 METERS

Subdivision Field Map
 Map Key: KMLIN-248
 Name: 8/21/90
 Date: Reimer
 Date Entered:

AS State Plane Zone 4 1:4000

EXON





ATTACHMENT 1

NAVSAP BIOLOGICAL SUMMARY FORM

TEAM # 2 DATE 16 May 91
 SEGMENT # FN 24 TIDAL HEIGHT (Range) -1 to 2 ft
 SUBDIVISION BIOLOGIST SMB
 SEA STATE Calm WIND SPEED/DIRECTION Calm
 PHOTOGRAPHS: ROLL # FRAME #

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

A-B-C: Oil is high on pillow basalt outcrop, lichen or black lichen only.

D: This area composed of oiled gravel & pebbles. Littorines and mussels are within oiled zone and littorine egg masses are nearby. Sheen produced when pits were dug. Lower intertidal (downstream) supports dense patches of *Fucus* and recruits, mussel beds and gastropods (limpets & littorines).

E: oiled area as characterized lower intertidal supports dense & diverse algal assemblage

F: Sparse littorines in sor zone. Lichen in CT CV & ST zone. Lower ITZ as at "E".

➔ If tilling is recommended at area "D" care should be taken to disturb as small an area as is possible. Work should be done at high tide in order to minimize damage to healthy, diverse lower zones and to minimize impacts from remobilized oil.

WILDLIFE OBSERVATIONS

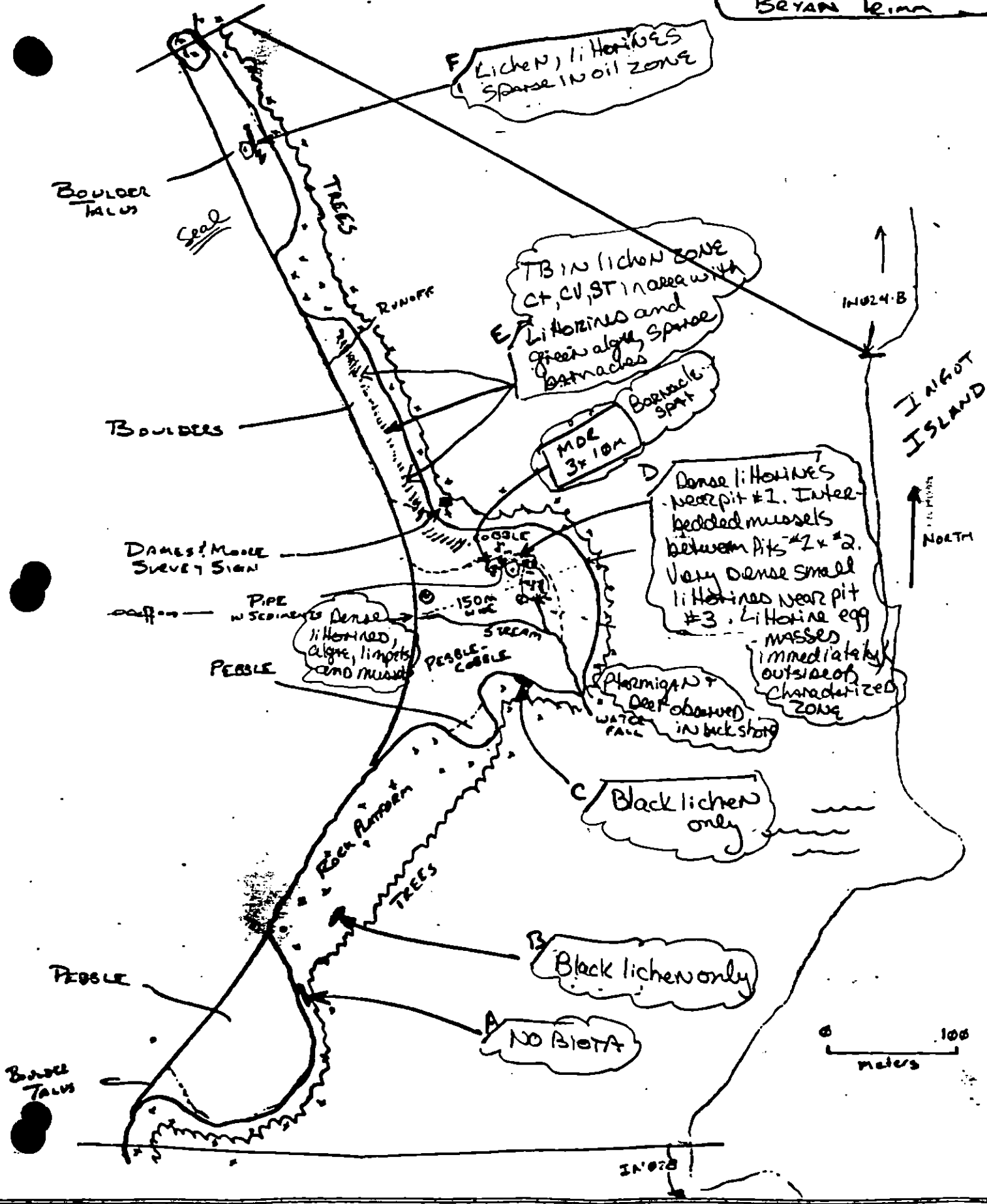
TO BE COMPLETED IN ALL SUBDIVISIONS

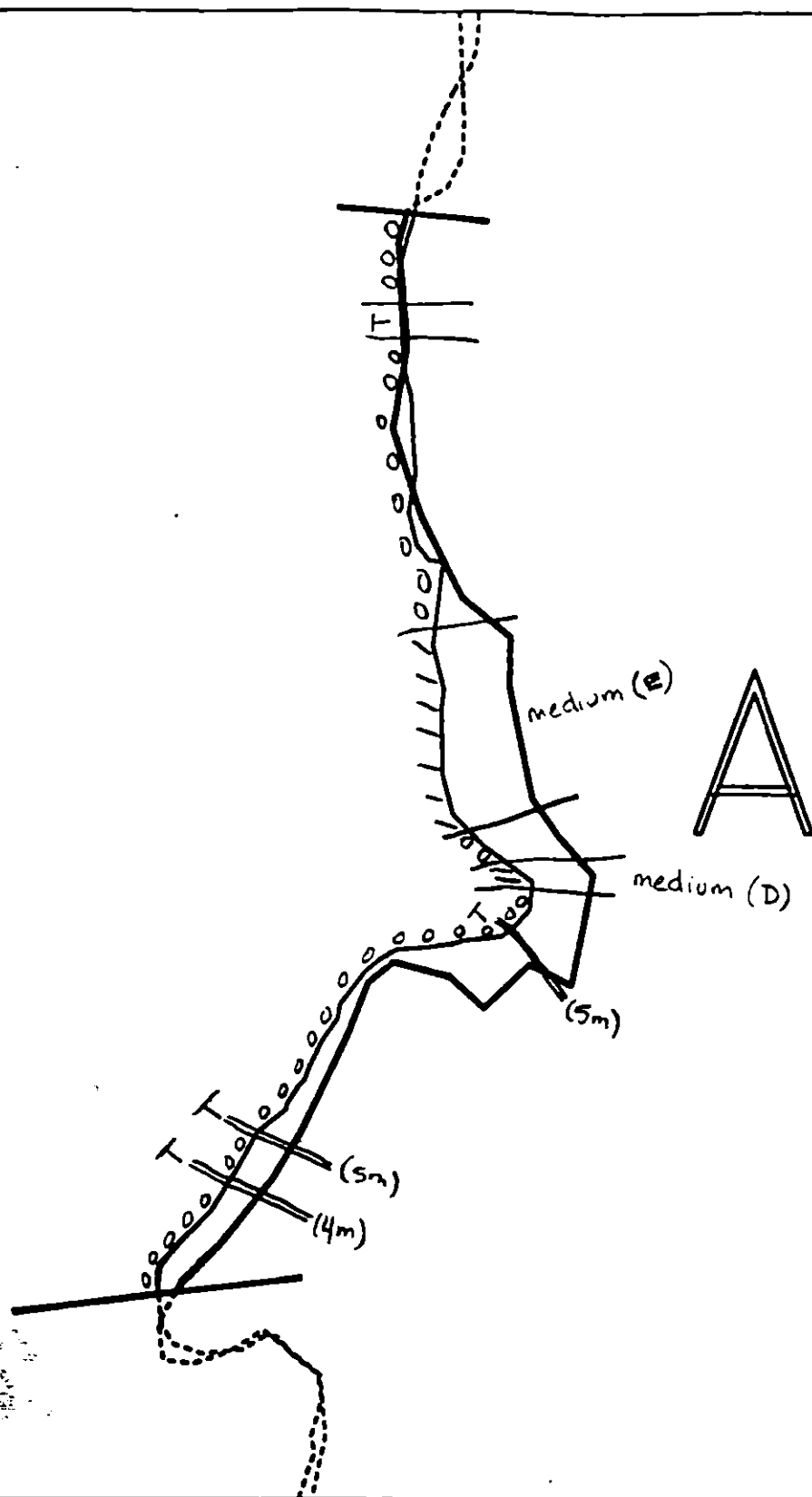
BIRDS	# OF SPECIES	TOTAL BIRDS	FISH OBSERVED SPECIES PRESENT
Eagles		3, 2 flying 1 in water	
Seabirds			
Waterfowl			
Gulls/Kittiwakes			
Shorebirds			
Corvids			
Other Birds	Phalarope Stellar Jay		

MARINE MAMMALS	# OBSERVED	LAND MAMMALS SPECIES	# OBSERVED
Sea Otters		Beetz (1)	
Pinnipeds (specify)			
Seal (specify)	1		

Shoreline subdivision map showing important biological features attached.

09 SKETCH MAP
IN 024-A
16-MAY-91
1110-1219
BRYAN Linn





XXXX
////

TTTT
0000

Wide
Medium
Narrow
Very Light
No Oil

IN024 A
ADEC Subsegment Length: 818m
METERS

0 100 200
AK State Plane Zone 4
210240



Subdivision Field Map
Map Key: KN11N024A
Name: TRIMM
Date: 16-MAY-91
Data Entered:

SURFACE OIL CATEGORY MAP

reviewed 5.21.94
REVIEWED: 5/23/91 F.W.

REGION: PRINCE WILLIAM SOUND

SEGMENT: ST/IN-24

SUBDIVISIONS: A (1 OF 3)

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION A (1 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination

See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

Avoid any unnecessary disturbance or damage to 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 12 m: V.Light 0 m: No Oil 806 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: _____

PWS, SEWARD AND HOMER ECOLOGICAL CONSTRAINTS

- 1A Salmon stream mouth - fry outmigration (3/1 to 5/15)
 1B Salmon stream mouth - spawning (7/10 to 8/31)
 No disturbance of stream bed or banks unless authorized by ADF&G. No beach flushing into stream drainage. No bioremediation or other chemical application within 100m of stream without authorization from ADF&G. No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G. Treatment which is not intrusive and which will not affect nearshore oil or toxicity levels, such as manual removal, can probably proceed without adherence to time constraints. In any case, contact ADF&G Habitat Division prior to treatment for consultation and/or permit application.
 AGENCY CONTACT PERSON: ADF&G John Morison 267-2324
- 1C Salmon fry nursery area (4/31 to 7/31)
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to July 31 unless authorized by ADF&G. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G prior to treatment for confirmation and advice.
 AGENCY CONTACT PERSON: ADF&G Larry Peltz 424-3214
- 1D Esther Hatchery release (4/15 to 6/15)
 1E Main Bay Hatchery release (4/20 to 6/15)
 1F Sawmill Bay Hatchery release (4/15 to 6/1)
 1G Cannery Creek Hatchery release (4/21 to 6/1)
 1H Remote release site
 No use of methods which might affect nearshore oil or toxicity levels, such as hot water wash or Inipol application, prior to at least July 1 unless authorized by ADF&G and/or PWS Aquaculture Association. Treatment which will not affect nearshore oil or toxicity levels, such as manual or mechanical removal, can probably proceed without adherence to time constraints. Contact ADF&G or PWS Aquaculture Association for confirmation and authorization.
 AGENCY CONTACT PERSON: 1E ADF&G Larry Peltz 424-3214
 1D 1F 1G PWS Aquaculture Association John McMillan or Bruce Suzumoto 424-7511
- 1I Gill net area (6/7 to 8/31)
 1J Purse seine area (7/20 to 9/30)
 1K Purse seine hook-off (7/20 to 9/30)
 1L Set net sites (6/11 to 7/25)
 Contact ADF&G for specific dates, locations and constraints. Restrict boat and air traffic to essential minimum. When set net sites are present (1L) restrict beach operations to essential minimum as authorized by ADF&G. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G James Brady 424-3212
- 2M Herring spawning (4/1 to 6/15)
 Contact ADF&G for confirmation - dates and locations may vary. Restrict boat traffic to essential minimum. Avoid damage to unopened intertidal and subtidal algae and seagrass. If plans for treatment include methods such as hot water wash or Inipol application which might affect nearshore oil or toxicity levels, contact ADF&G for consultation and authorization.
 AGENCY CONTACT PERSON: ADF&G Evelyn Biggs 424-3235
- 3N, 3P Harbor seal and sea lion pupping (5/15 to 7/1)
 3O, 3Q Harbor seal and sea lion molting (8/15 to 9/15)
 Restrict boat and air traffic to essential minimum. No personnel within 400m. Aircraft to maintain 800m horizontal and 300m vertical distance from haulouts. No application of Inipol within two weeks of arrival dates (work window at these sites is limited to 7/2 to 7/31). Contact ADF&G and USFWS prior to treatment for confirmation.
 AGENCY CONTACT PERSON: US National Marine Fisheries Service Steve Zimmerman 586-7235
 ADF&G Don Calkins 267-2403
- 5R Seabird colony (5/1 to 9/1)
 Restrict air and boat traffic to essential minimum. No personnel within 800m. Aircraft to maintain 800m horizontal, 300m vertical distance from colony. Contact USFWS prior to treatment.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
- 5S Shorebird/waterfowl concentration (4/1 to 5/15)
 Restrict all activity to essential minimum, especially air traffic. Contact USFWS and ADF&G for confirmation.
 AGENCY CONTACT PERSON: USFWS Jill Parker 786-3377
 ADF&G Tom 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 Anchorage (6/1 to 9/15)
 6W Forest Service cabins (6/1 to 9/15)
 ✓ 6X Lodge (6/1 to 9/15)
 6Y Special use destination
- 7Z Subsistence area: Salmon harvesting (5/1 to 9/30)
 H Finfish harvesting
 I Deer harvesting (8/15 to 2/28)
 J Invertebrate harvesting
 Contact ADF&G and appropriate Native Corporation for specific dates, locations, and constraints. Restrict boat and air traffic and beach disturbance to essential minimum. If plans for treatment include methods such as hot water wash or application of Inipol which might affect intertidal or nearshore oil or toxicity levels, contact ADF&G and appropriate Native Corporation for authorization - see Native Corporation Contact List for each Native Corporation's contact person.
 AGENCY CONTACT PERSON: ADF&G Jim Fall 267-2359

SEGMENT ST IN 24 SUBDIVISION: A DATE 4-26-9

USCG

NAME AEC Vandepols SIGNATURE AEC Vandepols

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

ADEC

NAME Michelle Baer SIGNATURE [Signature]

☒ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

No oiling found on P beaches, CT was minimal and localized on B field.

LAND MANAGER

NAME Carol S. Huber SIGNATURE Carol S. Huber

☐ NO TREATMENT RECOMMENDED
COMMENTS

☐ TREATMENT SUGGESTED

Recommend continued natural cleansing.
1 X 20m band of oil trapped in bedrock
appear stable - not leaching out.
Resource sensitivity - special use destination
Abundance clear sign noted at Southernmost
pocket beach.
Blue, colored staked in. U1T2 - Supra

OG J. Springer USCG R. Vandepels SEGMENT ST/ IN-24
 BIO P. Crank LAND REP C. Huber SUBDIVISION A (1 OF 3)
 EXXON T. Tomblin ADEC M. Baer TIME 09:45 to 10:30
 TEAM NO. 5 TIDE LEVEL -1 TO +2 DATE 04/25/90
 EST. SUBDIVISION LENGTH: 720 m ☒ Sun ☐ Clouds ☐ Fog ☐ Rain ☐ Snow
 UPLANDS DESCRIPTION: ☐ Grass ☒ Forest ☒ Rock
 SURVEYED FROM: ☐ Foot ☐ Boat ☐ Helo WORKING DIRECTION: S to N
 SURFACE SEDIMENTS: R 70 % B 10 % C 10 % P 5 % G 5 % S 0 % M 0 % V 0
 SLOPE: Long 50 % Hang 30 % Vert 20 % WAVE EXPOSURE: ☐ Low ☒ Med ☐ High
 OIL CATEGORY LENGTH: W 0 m M 0 m N 20 m VL 0 m NO 700

SURFACE OIL

CHARACTER	DISTRIBUTION				OIL / FILM COLOR								IMPACTED ZONES			
	W	M	N	VL	NO	1	2	3	4	5	6	7	SU	M	N	U
ASPHALT PAVEMENT																
POOLED																
COVER																
COAT																
STAIN																
MOUSSE																
PATTIES																
TARBALLS																
FILM																
NO OIL																

PAVEMENT H F S 0 sq m by 0

PATTIES / TARBALLS 0 BAG

NEAR SHORE SHEEN? NO BR RW SL T

OILED DEBRIS	AMOUNT		
	SM	MD	LG
Logs			
Vegetation			
Trash			
Debris			

DID YOU COLLECT DEBRIS?

YES ☐ NO ☐

TYPE Q

#BAGS 0

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)	Y	SURFACE SUBSURFACE SEDIMENT
		OP	OR	OL	OF	NO		NO	UC	1	2	3	4	5	6	7	8					
1	35					X	.		X									X				P/P
2	35					X	.		X									X		N	30	PV/PV
3	25					X	.		X											N	22	CP/PC
4	40					X	.		X									X				P/P
5	40					X	.		X													PG/PG
							.															

COMMENTS

REVIEWED YW DATE 4/30/90

00 J. Springer
 SEGMENT ST/ EN-24
 SUBDIVISION A
 DATE 04/25/90

CHECKLIST

☐ N Area
☐ Approx. Scale
☐ Top/Sub Entry
☐ On Dist.
☐ Width
☐ Length
☐ % Cover
☐ Substrate Character
☐ Est. NWLA/ML
☐ SGL
☐ Profile Location(s)
☐ Profile(s)
☐ PR Location(s)
☐ Photo Location(s)

LEGEND

1 Δ
 PH - No Subsurface CI

2 Δ
 PH - Subsurface CI

CT/C
 Continuous Distribution

CT/B
 Broken Distribution

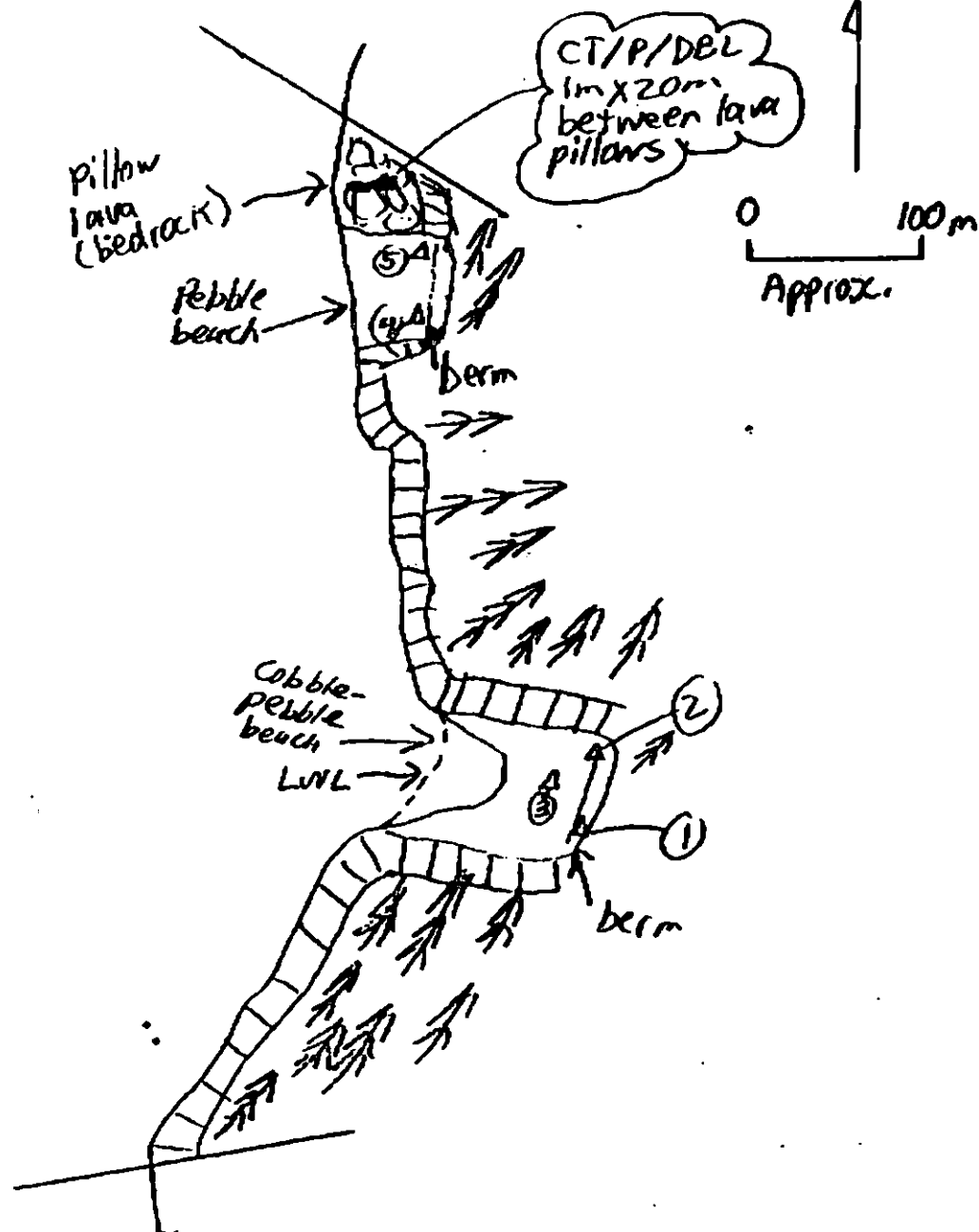
CT/P
 Patchy Distribution

CT/S
 Splashed Distribution

eee
 Old Vegetation

1 →
 Photo location, direction,
 and number

SKETCH MAP



On Character Length (m): AP _____ PO _____ CV _____ CT 20 ST _____ MS _____ PT _____ TB _____ FL _____ NO 700

REVISIONS

SHORELINE ECOLOGICAL SUMMARY

pg 1 of 12

Segment ST 11124 Subdivision A Date (mo/day/yr) 4/25/90
 Time (24 hr) 0955-1030 Biologist Crank Length: 720m
 Tide Height: -1 to 12 ft

- (A) Substrate type and % of segments:
 (1) Bedrock 70 (2) Boulder 10 (3) Cobble 10 (4) Pebble 5 (5) Sand 5 (6) Sh
- (B) Overall % cover of biota (% of segment): Dense 40 Moderate 20 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: No photos
 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

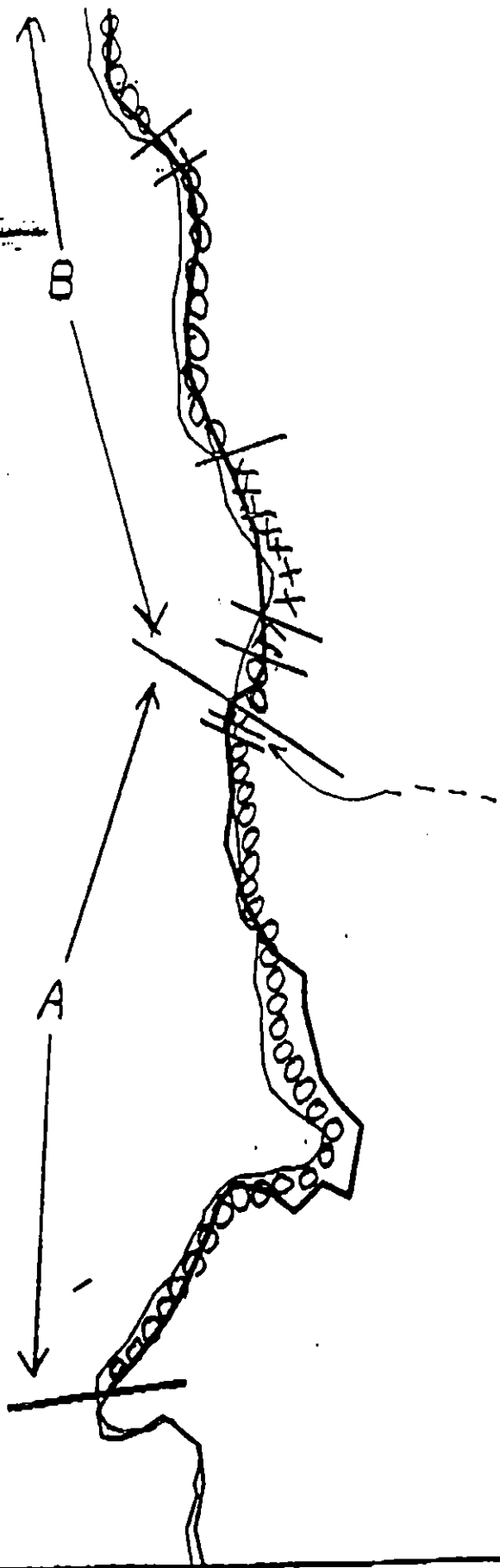
Wildlife Observations/ General Comments:

2 - Alcids 2 - Eagles
 3 - Sea Lions

Ecological Considerations:

4 - Special Use Destination

↑ FWS
272 5



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

IN-24A

ADEC Segment Length: ²⁵⁸²~~2573~~m



Map Key: PWS-272a
Name: James Springs
Date: 4/25/90
Data Entered:

ADDENDUM: SUBDIVISION CONSTRAINTS

SEGMENT IN-24 SUBDIVISION C (3 of 3)

WORK WINDOW	
Manual Pickup	OPEN

ARCHAEOLOGICAL STANDARD CONSTRAINT

If cultural resources are uncovered, PHONE 564-3274

APPLICABLE ECOLOGICAL TIME CONSTRAINTS

5T Bald Eagle Nest

NO CONSTRAINT. USFWS 6/1/90 map indicates no active nest within 400m of Subdivision C work site.

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 unopened blots and substrate.

TAG APPROVAL DATE

ADEC Ray Morris
EXXON Andy Tice
NOAA W. Kelley
USCG _____

FOSC

DATE 8 June 90

Prepared By:

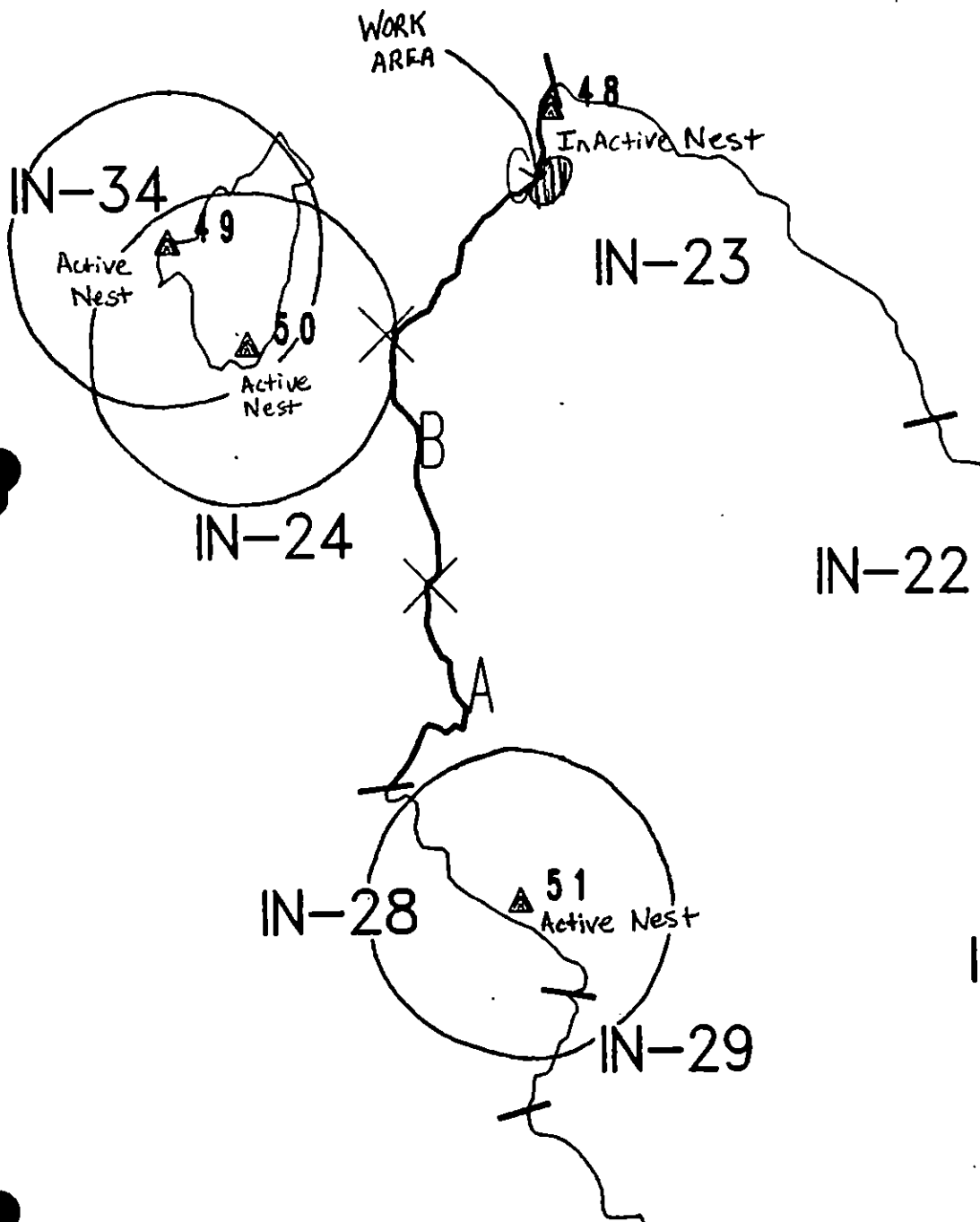
Andy Tice JPP

Date

6/5/90

EL-

EL-14



Exxon Company, USA
Map Key: KNI-IN-24

ECOLOGY MAP

SEGMENT IN-24

SUBDIVISION C (3 of 3)

METERS

- ★ Seabird Colony
- ▲ Eagle Nest

SHORELINE EVALUATION

SEGMENT ST/ IN-24 SUBDIVISION C (3 OF 3) DATE 4/25/90

SEGMENT ENVIRONMENTAL SENSITIVITIES AND TIME CONSTRAINTS:

5T-1 All bald eagle nests (3/1 to 6/1)-Active eagle nests (3/1 to 9/1)
6Y Recreation: Special use destination
See attached Ecological Constraint sheet for specific constraints and contacts.

SUBDIVISION ECOLOGICAL CONSTRAINTS:

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

ARCHAEOLOGICAL 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: [Signature] DATE: 5/11/90

OILING CATEGORIZATION:

Wide 0 m: Medium 0 m: Narrow 14 m: V.Light 0 m: No Oil 950 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: Recommended treatment includes manual pickup of oiled debris as shown on attached sketch map. Work should be conducted after 6/1 with approval of USFWS regarding eagle nest constraint.

See Addendum dated 6/5/90 [Signature]

TAG COMMENTS:

TAG APPROVAL DATE: 5/11/90
ADEC [Signature]
EXXON [Signature]
NOAA [Signature]
USCG [Signature]

FOSC: [Signature] DATE: 5-15-90

ARLIS
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