OIL SPILL PUBLIC INFO. CENTER
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EVOS
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1552
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S42
1989
v.19

[Shoreline evaluations, 1989].

Volume 19

Evans Island

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Naked Is.	NA
Peak Is.	PE
Stoney Is.	ST
Eleanor Is.	EL
Ingot Is.	IN
Block Is.	BL
Entrance Is.	EN
Sphinx Is.	SP
Disk Is.	DI
Knight Is.	KN
Smith Is.	SM
Seal Is.	SE
Applegate Is.	AP
Green Is.	GR
L. Green Is.	LG
Agnes (Bass) Is.	AB
L. Smith Is.	LS
Gore Point	GP
Montague Is.	MN
Aguliak Is.	AG
Squirrel Is.	SL
New Year Is.	NY
Murray Is.	MU
Squire Is.	SQ
Crafton Is.	CR
Pt. Nowell	PN
Junction Is.	JU
Chenega Is.	CH
Pleiades Is.	PL
Bainbridge Is.	BA
Flemming Is.	FL
Evans Is.	EV
Elrington Is.	ER
Latouche Is.	LA
Danger Is.	DA

GEOLOGIC SEDIMENT TYPE

Boulder (>256mm)	B
Cobble (64-256)	C
Pebble (4-64)	P
Granule (2-4)	G
Sand (0.06-2)	S
Mud (less 0.06)	M
Rock	R

** DEGREE OF OILING

Heavy	HV
Moderate	MD
Light	LT
No Oil	NO
Unobserved	UN

AREA OF BEACH IMPACT

Supratidal (+SHWL)	SU
HWL to SHWL	SP
Upper 1/3 ITZ	H
Middle 1/3 ITZ	M
Lower 1/3 ITZ	L

ADEC IMPACT SURVEY

Heavy	HVY
Moderate	MOD
Light	LT
No Oil	NO
Unobserved	UNOBS

SHORELINE TYPE

Beach	BEA
Cove	COV
High Angle	HANG
Low Angle	LANG
Vertical	VER
Headland	HLD
Spit	SPI

Comments:
* Multiple entry is acceptable, use decreasing order of type found. (ie. C/G/S where C is most predominant type and S is the least one.)

** Heavy (>6m wide and/or >1.0 cm thick)
Moderate (3-6m wide and/or 0.2-1.0 cm thick)
Light (0.1 -3m wide and/or <0.2 cm thick)
No Oil (free of visible oil)

File: \VALDEZ\KEYCODES.LST

RECEIVED
MAY 23 1991
A.R.L.I.S.
Est. 1997
FG-4-29-89
Oil Spill Public Information Center
645 G Street
Anchorage, AK 99501

BEACH LEVEL

SUPRATIDAL (+SHWL)	SU
HWL to SHWL	SP
UPPER 1/3 ITZ	H
MIDDLE 1/3 ITZ	M
LOWER 1/3 ITZ	L

SEDIMENT TYPE

BOULDER (> 256 mm)	B
COBBLE (64 - 256)	C
PEBBLE (4 - 64)	P
GRANULE (2 - 4)	G
SAND (0.06- 2)	S
MUD (< 0.06)	M
ROCK	R

Can use multiple entries e.g. C/G/S; in which case the first letter is the predominant sediment type and the following are in decreasing order

KEY

LOCATION PREFIX

NAKED IS	NA
PEAK IS	PE
STOREY IS	ST
ELEANOR IS	EL
INGOT IS	IN
BLOCK IS	BL
ENTRANCE IS	EN
SPHINX IS	SP
DISK IS	DI
KNIGHT IS	KN
SMITH IS	SM
SEAL IS	SE
APPELGA[redacted] IS	AP
GREEN I[redacted]	GR

LOCATION SUFFIX

A unique number which identifies the distinct segment described in this report.

C:\WP\DATA\SHOREVAL.1

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SHELTER BAY POINT NORTHWEST BLOCK

Includes Shoreline Segments: EV-1, EV-2, EV-3, EV-4

Submitted: Collis Boat (for Exxon) Date: 6/14/89

ISCC Reccomendation: Sharon K. Christopher Date: 6/16/89

FOSC Approval: J. W. Kime Date: 6/17/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

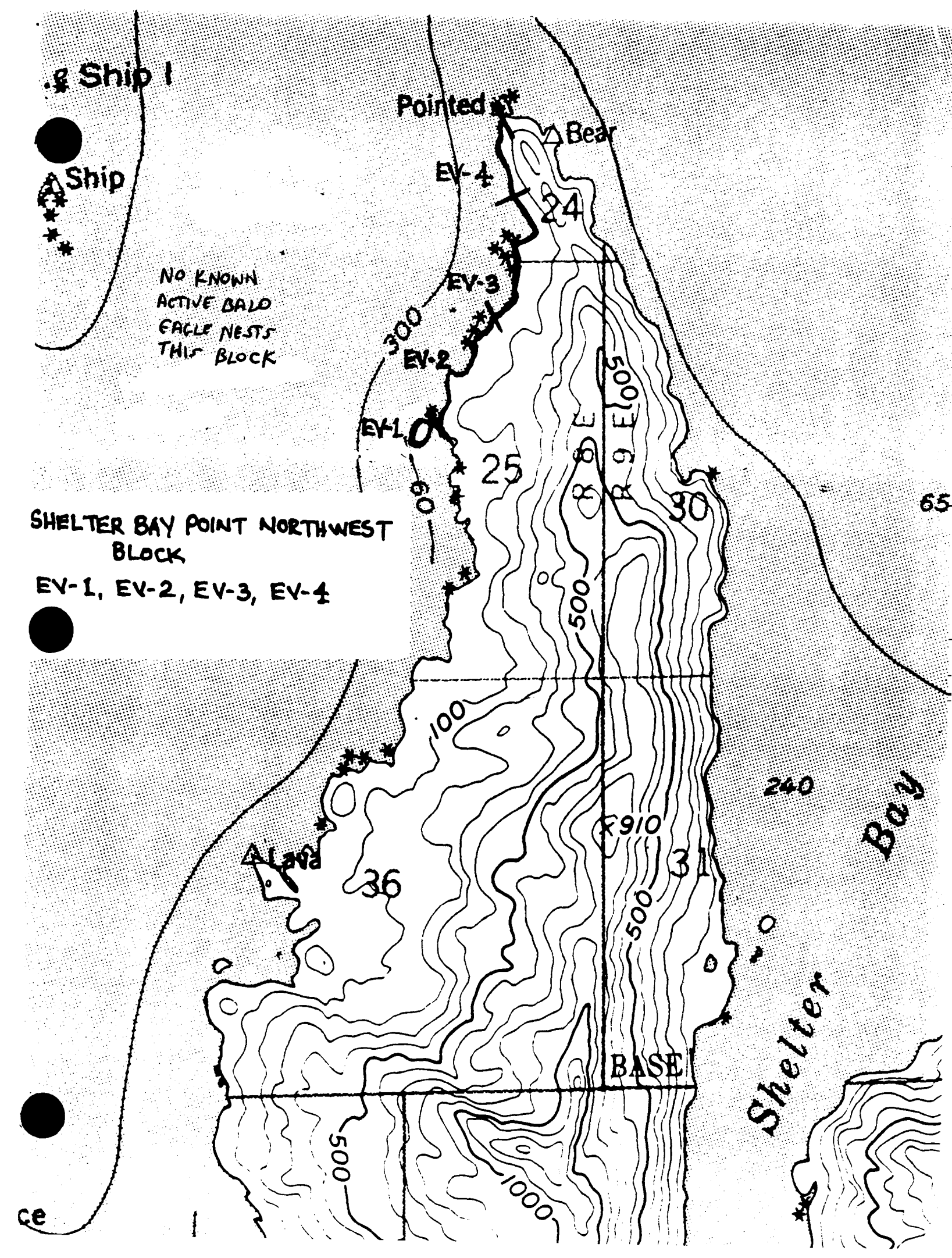
Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

******SCOT NOTE******

LANDS IN SHELTER BAY NORTHWEST BLOCK ARE PRIVATELY OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO THE UPLAND AREAS.


Ship I
Ship
Pointed
Bear
EV-4
24
EV-3
300
EV-2
EV-1
NO KNOWN
ACTIVE BALD
EAGLE NESTS
THIS BLOCK
SHELTER BAY POINT NORTHWEST
BLOCK
EV-1, EV-2, EV-3, EV-4
25
60
500
30
65
100
Lava
36
F910
31
240
Bay
BASE
Shelter
500
1000
ce

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-1

LOCATION: (see enclosed map) Evans Island-Southwest Shelter Bay Point

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/12/89

Recommended Cleanup Activity(ies):
Manually remove pooled and free oil.
Flood/flush with warm to hot water (up to 140 F) on low angle beach to north.
Use moderate to high pressure washing on rock.
Use other approved methods as approved.

Priorities Considerations:
Class 3: moderate oil/time sensitive.
Class A: resources present. SUBSISTENCE

Ecological Constraints (from site survey): Work at mid tide or take appropriate measures to protect lower intertidal zone. Particular attention should be paid to containing sheen. NOTE PRESENCE (FOR TREATMENT) OF SEINE HOOK OFF POINT ON SMALL ISLAND - SEE CHART.
Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6-19-89

EXXON: [signature] Date: June 16 - 89

FOSC: J. W. Kime Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/12/89 Time: 14:35 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) (Rain) Snow/Fog

LOCATION

LOCATION NORTHERN EVANS ISL. SEGMENT NUMBER EV-1

LENGTH OF SHORELINE SEGMENT: 300 m

ACCESS: Foot/Vehicle (Boat) (Barge) Helio (Float Plane)

SHORELINE: ISLET

Shoreline Type: SPI/BEA/COV/HLD (STRT) Slope: LANG (HANG) VER

Wave Exposure: High (Med) (Low)

Sediment: B 10 % / C 5 % / P ___ % / G ___ % / S ___ % / M ___ % / R 85 %

Drift Debris on Beach: Yes (No) Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy (Moderate) (Light) No Oil/Unobserved

Area of Beach Impact: SU (SP / H) (M) / L

Continuous: (Y) N % of Segment 75 Width of Band: 1.5 m

Sporadic: (Y) N % of Segment _____

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: ϕ cm

Pooled Oil: TR % "Free" Oil: TR % (Coated:) H ___ % / M 20 % / L 80 %

Fresh _____ % Mousse 80 % Tar Formation: 20 %

Drift Debris Oiled ? Yes (No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

SMALL ISLET CONNECTED TO EVANS ISL. @ LOW TIDE; LOCAL LOW ANGLE AREA (~ 10m x 5m) ON N. END HAS A TRACE OF "FREE" OIL AND TINY POOLS ON BEDROCK CRACKS AND CREVICES.

HOT MOD-HIGH PRESS. WASH OK. - SMALL AREA

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) T1-SMB-13

Sample Numbers Collected: None

6/12 14:30 NW Evans Sd.

steep rocky mod sheltered coastl. w/ occasional small coves w/ mix gvl-peb beaches;

SEGMENT EV-1 14:35 small rocky wall isle; vert. cliffs ≤ 10'; 100m x 30m; mod exposed to NW storms only, generally sheltered;

lt-mod. oil @ M-UHWL as 1/2 m wide contin. band, no penet"; < 0.5cm tk; mature mousse w/ zpt/young tar "pie" higher up; lt oil on W side, some pooled, mousse on NW bldr-cob-gvl; prob. tapped in bedrock crevices;

High-mod freeze wash, ± heat OK

END of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: EVANS IS. SITE: Shoreline N. of Hitva Bay OBSERVER: SM BAN

LOCATION PREFIX: EV SEG. NO.: 1 LENGTH: 300m (M)

DATE: 6/12/89 TIME (HHMM): 1440 TIDE HT.: 0 to -1 (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Oil band reaches to Fucus zone

Mytilus (Mussels): Patchy (Y)/N Contin./Y/N Dense Y/N Sparse Y/N None Y/N

Coated, Some predation by Nucella

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Also coated, heavy predation by Nucella

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Oiled

OTHER OBSERVATIONS: Ulva Laminaria and Filamentous red algae in low ITZ - Healthy

CLEANUP PRECAUTIONS: None

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other None observed

BIRDS: gulls

GENERAL OBSERVATIONS: Oil is in the process of ~~is~~ is expanding
From 1-3 feet - light to moderate

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 12, 1989 Location Evans Island Site NW shore; sm. isle

Location Prefix EV Segment # 1 Length 300 m.

Survey Method:

Air _____ (A - indicate on map) Boat X (80%) (A - indicate on map)

Ground X (20%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A.

Oil conditions/beach visibility light to moderate; fair visibility

Width of beach zone surveyed 5-15 m Tree fringe surveyed 20 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile steep rocky shore with a few beaches

Fresh Water Sources none

Sea Exposure semi-protected

Access/Safety fair to good access

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

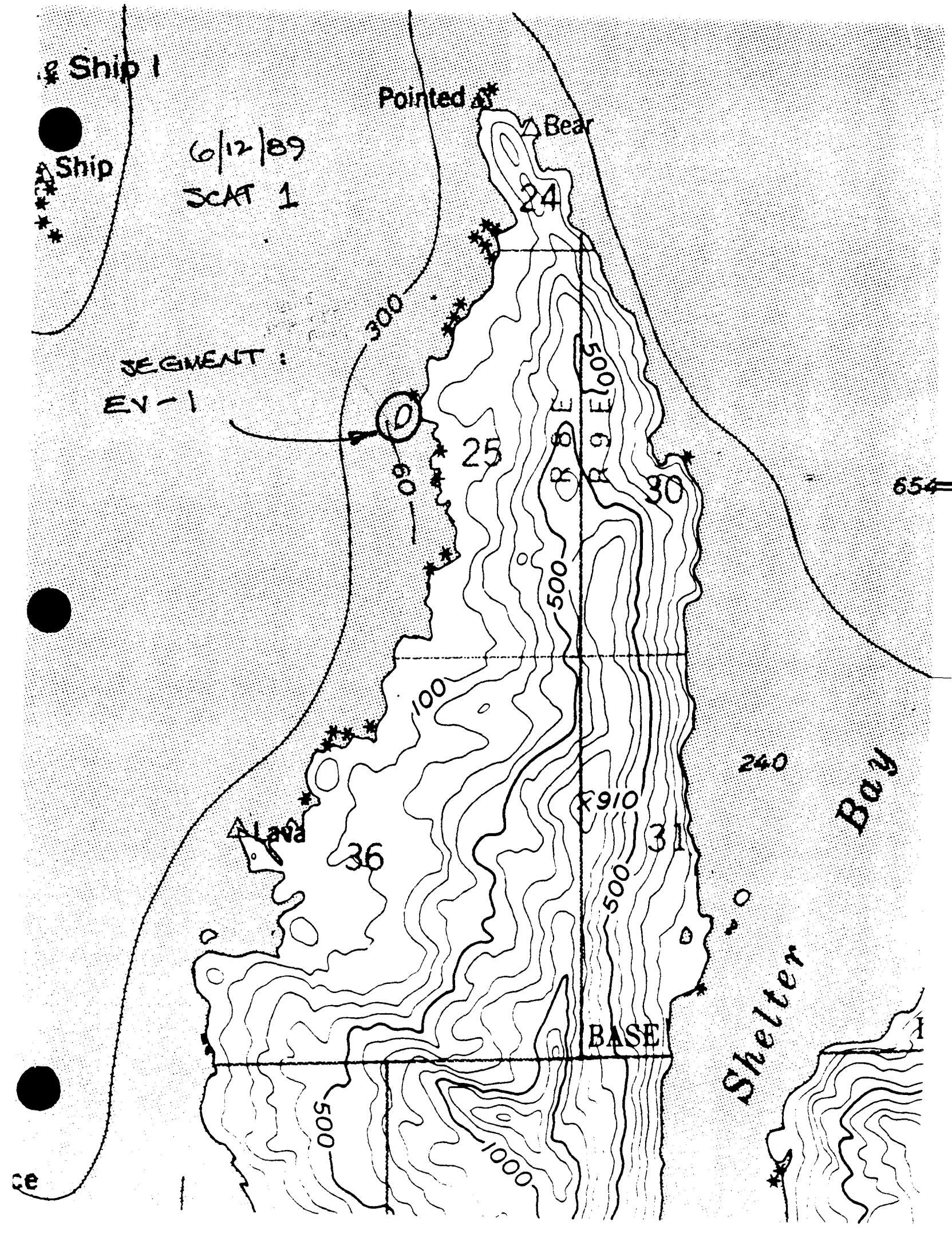
B/W Roll # none Frames N/A.

Observer(s) Jim Haggarty

Time survey started 1430 Time survey ended 1500

Cultural resource considerations/restraints:

Standard constraints


Ship I
Ship
Pointed
Bear
6/12/89
SCAT 1
24
300
SEGMENT:
EV-1
25
30
500
100
240
Lava
36
31
910
BASE
Shelter
Bay
1000
654

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-2

LOCATION: (see enclosed map) Evans Island-Southwest Shelter Bay Point

ADEC NO._____ SHORELINE ASSESSMENT DATE: 6/12/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) from beach #3.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 3: moderate oil/time sensitive.
Class A: ~~resources~~ SUBSISTENCE present.

Ecological Constraints (from site survey): Avoid washing unoiled, healthy vegetation. Work at mid tide or take appropriate measures to protect the lower intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles A. Holmes — Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 6-16-89

EXXON: [signature] — Date: June 16-89

FOSC: J. W. Lowe — Date: June 13, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/12/89 Time: 15:10 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) Rain/Snow/Fog

LOCATION

LOCATION NORTHERN EVANS ISL. SEGMENT NUMBER EV-2

LENGTH OF SHORELINE SEGMENT: 500 m

ACCESS: Foot/Vehicle (Boat) (Barge) Helio (Float Plane)

SHORELINE: ~20% ~80% 3 beaches low cliffline

Shoreline Type: SPI (BEA) COV/HLD (STRT) Slope: (LANG) HANG (VER)

Wave Exposure: High/Med (Low)

Sediment: B ≤5 % / C 5 % / P 5 % / G 5 % / STR % / M ___ % / R 80 %

Drift Debris on Beach: (Yes) No (Supra) Upper/Mid/Lower Type LOGS, FUCUS

OIL

on 3 beaches rock walls.

Degree of Oiling: Heavy (Moderate) (Light) No Oil/Unobserved

Area of Beach Impact: SU / SP / (H / M / L)

Continuous: (Y) N % of Segment 100 Width of Band: 1–10 m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: ~10 cm

Pooled Oil: TRACE % "Free" Oil: ≤5 % (Coated:) H ___ % / M 20 % / L 75 %

Fresh ____ % Mousse 80 % Tar Formation: 20 %

Drift Debris Oiled ? Yes (No) (Supra) (Upper) (Mid) Lower Amount: H/M (L)

MATURE

Comments:

3 SMALL MIXED BEACHES OVER WAVE-CUT PLATFORM W/ REMAINDER OF SEGMENT STEEP ROCK WALLS;

THIN COATING ON BEACHES BUT MODERATE IN EXTENT

HOT/WARM – HIGH MOD. PRESSURE WASH OK.

OIL IS MATURE MOUSSE AND BINDS COARSE SAND.

Map/Aerial photo marking segment boundaries Attached

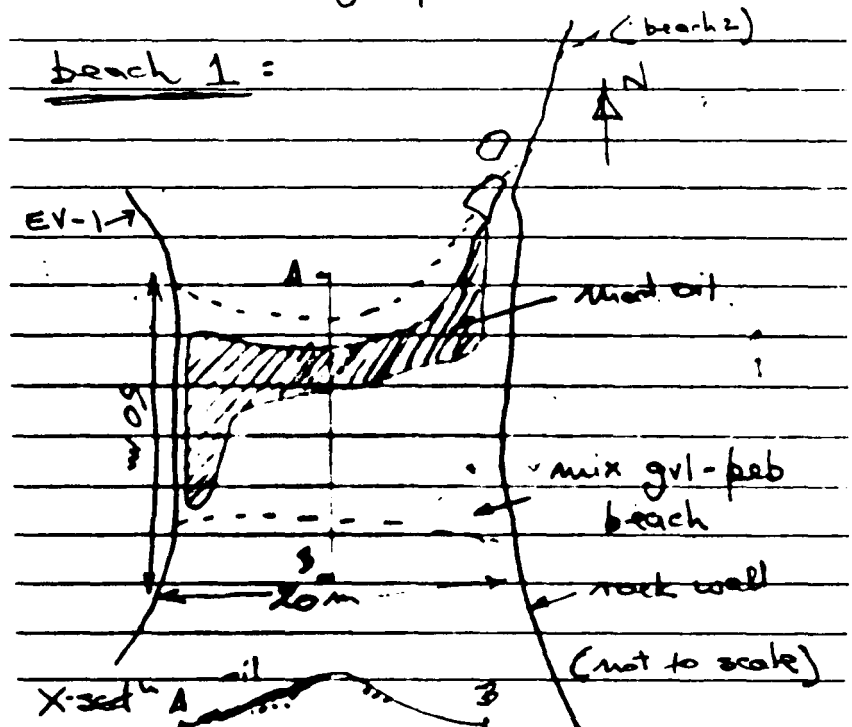
VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) TI-SMB-13

Sample Numbers Collected: None

15.10

EV-2 mod. sheltered rocky shore; steep, vert. bedded metasedts. w/ occas. mix gvl-peb beach.

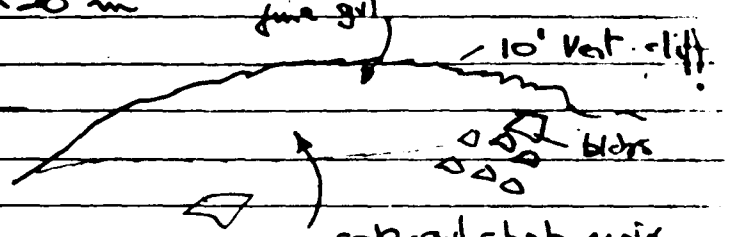


beach 1:

mod. oil ≤ 5 cm penetration due to presence of sands/silt layer under gvl. V. mature mousse as light coat <0.2 mm tk; bldr <5, cob 10 peb 30 gvl 50 sand & fines 5;

beach 2: bldr cob peb gvl mix; mod oil @ M-L tide level; mature mousse; lt. coat < 0.2 mm tk, penetr. ≤ 15 cm &

especially in sandy substrate. below
cob - peb @ LWL;
15 x 30 m

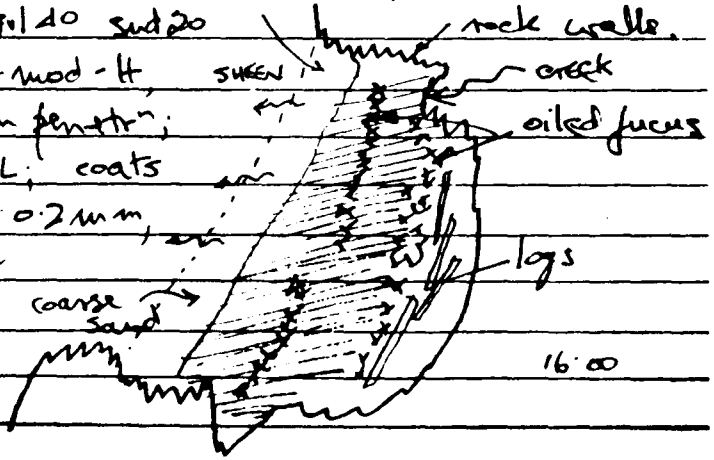


15:15

probably bedrock @ wave cut platform
oil viscous / tarry, binds coarse sand grains.

light oil as mousse splats to nil on rock walls.

beach 3; peb gvl beach; 23m x 23m
peb 40 gvl 40 snd 20
oil, mod - H, SHEEN
≤ 10cm penetrn;
M - HWL; coats
pebs < 0.2mm,
mousse
coarse sand



16:00

beach 3 small creek is flushing beach
& making sheen @ WL.

~ 500 m total.

16:10

No ecolog. constraints

END of SEGMENT
BV-2

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Is. SITE: SW of Shelter Bay Point OBSERVER: SM BAN

LOCATION PREFIX: EV SEG. NO.: 2 LENGTH: 500 (M)

DATE: 6/12/89 TIME (HHMM): 1510 TIDE HT.: 0 - 1 (M)

OILED ZONE: (Splash) High (Medium) Low

SUBSTRATUM: (Rocks) Boulder Cobble Gravel (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense patches on rocks. Areas in high ITZ oiled. Lower ITZ healthy

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense patches in gravel beach and on rock faces oiled 10% approx

most loose byssal threads

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Dense spat + adults on rocks. Several areas oiled. Oiled organisms being predated by Nucella

Littorina

Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Most orgs. oiled and feeding in oiled areas

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Most oiled

OTHER OBSERVATIONS: Anthopleura in rock pools - Nucella

Saxifraga - also Ulva and Ulothrix in lower ITZ on rocks - barnacles

Nucella in water

CLEANUP PRECAUTIONS: Avoid healthy ITZ on rocks Sensitive

the gravel, cobble beaches - NO cleaning on the beaches

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

Other Deer tracks at EV-2

BIRDS: Gulls eagles

GENERAL OBSERVATIONS: This segment consists of 3 beaches

Separated by boulders on rock face. Overall oiling is

light to moderate

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 12, 1989 Location Evans Island Site NW shore

Location Prefix EV Segment # 2 Length 500 m

Survey Method:

Air _____ (A - indicate on map) Boat x (75%) (A - indicate on map

Ground x (25%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility light and moderate; fair visibility

Width of beach zone surveyed 5-20 m Tree fringe surveyed 20 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability

Shore Profile steep, rocky shore with several small beach areas.

Fresh Water Sources several small streams

Sea Exposure semi-protected

Access/Safety fair to good (beaches) access.

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

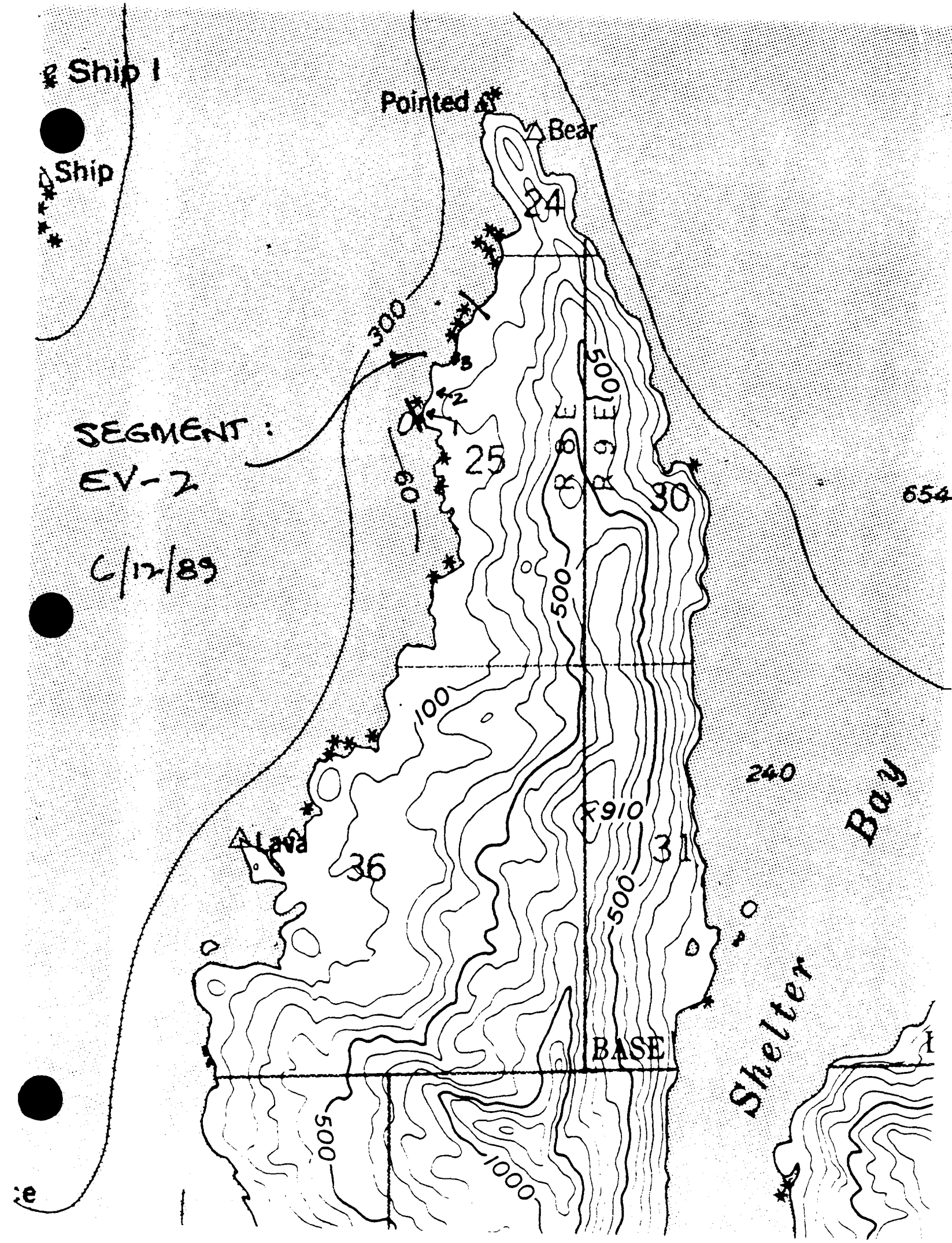
B/W Roll # none Frames N/A

Observer(s) Jim Haggarty

Time survey started 1510 Time survey ended 1610

Cultural resource considerations/restraints:

Standard constraints


Ship I
Ship
Pointed
Bear
24
300
SEGMENT :
EV-2
6/12/89
25
30
654
500
100
240
Bay
Lava
36
31
BASE
Shelter
1000
:e

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-3

LOCATION: (see enclosed map) Evans Island-Southwest Shelter Bay Point

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/12/89

Recommended Cleanup Activity(ies):
- Manually remove patches of mousse.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock.
  Use other approved methods appropriate.

Priorities Considerations:
Class 3: moderate oil/time sensitive.
Class A: resources present.- SUBSISTENCE USE.

Ecological Constraints (from site survey):Avoid washing unoiled, healthy vegetation. Work at mid tide or take appropriate measures to protect the lower intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes — Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 6-16-89

EXXON: [signature] — Date: June 16-89

FOSC: J. W. Kime — Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/12/89 Time: 16.15 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION NORTHERN EVANS ISLAND SEGMENT NUMBER EV-3

LENGTH OF SHORELINE SEGMENT: 500 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE: 80+% ≤ 20%

Shoreline Type: SPI/(BEA)/COV/HLD/(STRT) Slope: (LANG)/(HANG)/VER (beach, rock walls.)

Wave Exposure: High/Med/(Low)

Sediment: B 15 % / C 30 % / P 20 % / G 10 % / S 10 % / M ___ % / R 15 %

Drift Debris on Beach: (Yes)/No (Supra/Upper/Mid/Lower) Type LOGS, SOME FUCUS

OIL 80% 20%

Degree of Oiling: Heavy/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / (SP) / (H / M / L)

Continuous: (Y)/N % of Segment TRACE 90% Width of Band: 5-25 m

Sporadic: (Y)/N % of Segment 10% light oil.

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ≤ 10 cm

Pooled Oil: ___ % "Free" Oil: 10 % (Coated:) H ___ % / M 40 % / L 50 %

Fresh ___ % Mousse 90 % Tar Formation: ~ 10 %

Drift Debris Oiled ? (Yes)/No (Supra)/Upper/Mid/Lower Amount: H/M/(L)

Comments: as needles & leaves in mousse splats.

BROAD LOW ANGLE BOULDER - COBBLE - GRAVEL BEACH ON WAVE CUT? BEACH ; SOME EXPOSED BEDROCK ; OK. ANY WASH ; BEACH IS SELF FLUSHING W/ FLOODING TIDE.

(Map)/Aerial photo marking segment boundaries ATTACHED

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SIME-13

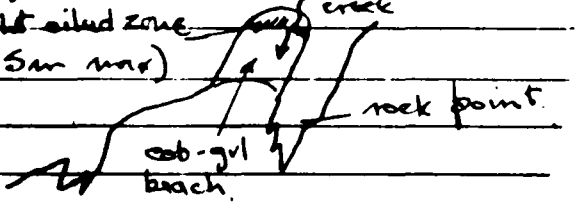
Sample Numbers Collected: None

EV-3 16·15 HRS; beach #1

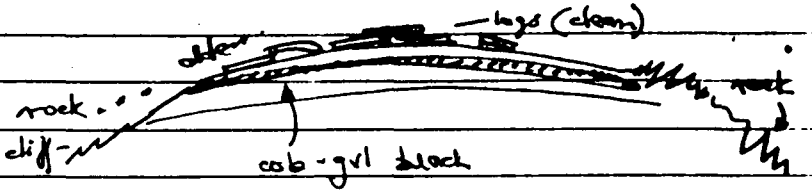
broad low angle mixed cob-peb-gvl beach; oil H-L tide level, mod. amount as coating on bldrs + cobs; binding fine gvls and lying in some exposed bedrock cracks + crevices; max width 25m; mousse + mature mousse, penetration ≤ 10cm; sheen @ WL; "free" oil under bldrs lying on wet pockets; bands of steam fucus same oiled beach; coating ≤ 0·5mm; oil is thick enough to bind fine gvls in places. (opposite comp)

trace of tarry / pure weathered laden mousse @ HWL / spray zone; strong sheen @ water level on tide flats; bedrock exposed and oiled in places.

beach 2; v small mix cob-gvl beach; continuous light oil, penetr^n ≤ 5cm, M-HWL,



beach 3 : mod. angled cob-gvl beach; sheltered; persistent light oil as thin mousse @M-HWL;



oil as thin coat < 0.2 mm and in gvl. interstices; slight sheen @ water edge;

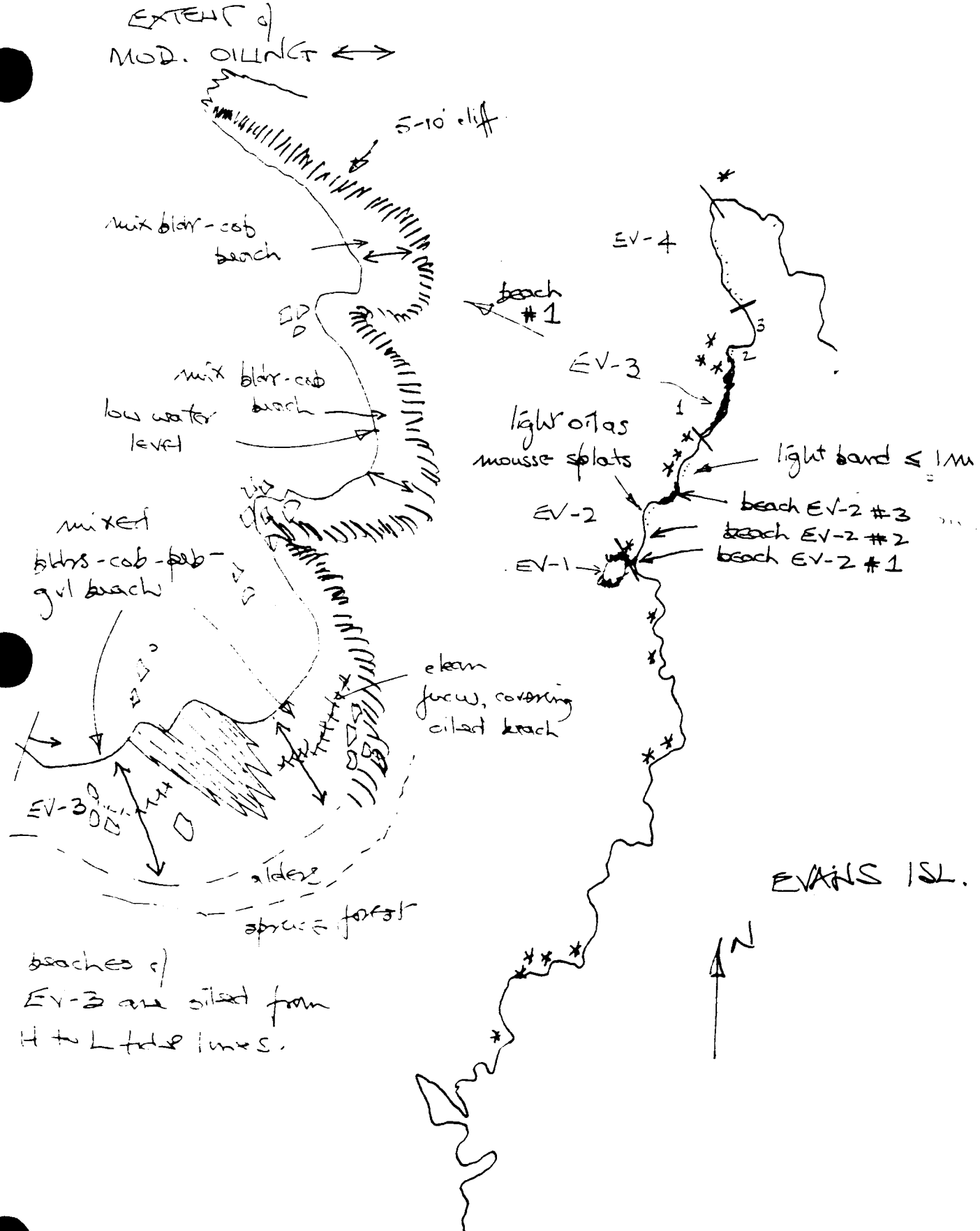
End of SEGMENT

17.00

EV-4 Shetland rocky shore, 5-10' high; light oil as continuous band, 0.5-1m wide, thin mousse coating steep rocky; @M-HWL; oil band thins northward - to < 0.5m conspicuous mousse line;

17.30 hrs Work above HWL zone.

End of SEGMENT


EXTENT of MOD. OILING
5-10' cliff
mix bldr-cob beach
beach #1
mix bldr-cob beach
low water level
mixed bldrs-cob-peb-gvl beach
EV-4
EV-3
light oil as mousse splats
light band ≤ 1m
EV-2
beach EV-2 #3
beach EV-2 #2
beach EV-2 #1
EV-1
clean fucus, covering oiled beach
EV-3
alders
spruce forest
EVANS ISL.
N
beaches of EV-3 are oiled from H to L tide lines.

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shoreline SW of Shelter Bay Pt. OBSERVER: SM Barn

LOCATION PREFIX: EV SEG. NO.: 3 LENGTH: 500 (M)

DATE: 6/12/89 TIME (HHMM): 1610 TIDE HT.: +1.02 (M)

OILED ZONE: (Splash) (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Continuous on rocks and rocklaces - healthy in lower ITZ.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense on cobble beaches - 10% gaping, covered patches are loosely attached by byssal threads

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense on rocks - several areas heavily oiled. Predation by Nucella on oiled and unoiled rocks.

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Some orgs. oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Some orgs. oiled

OTHER OBSERVATIONS: Drift Algae oiled, sheen on water

CLEANUP PRECAUTIONS: Avoid healthy organisms on rocks surrounding beaches, esp. at lower ITZ

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other None

BIRDS: None seen

GENERAL OBSERVATIONS: This segment consists of 3 beaches separated by rocks/boulders. Overall oil conditions are moderate

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 12, 1989 Location Evans Island Site NW shore

Location Prefix EV Segment # 3 Length 500 m

Survey Method:

Air _____ (A - indicate on map) Boat x (80%) (A - indicate on map)

Ground x (20%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility light and moderate; fair visibility

Width of beach zone surveyed 0-50 m Tree fringe surveyed 20 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile steep, rocky shore with several beach areas.

Fresh Water Sources several small streams

Sea Exposure semi-protected

Access/Safety fair to good access

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

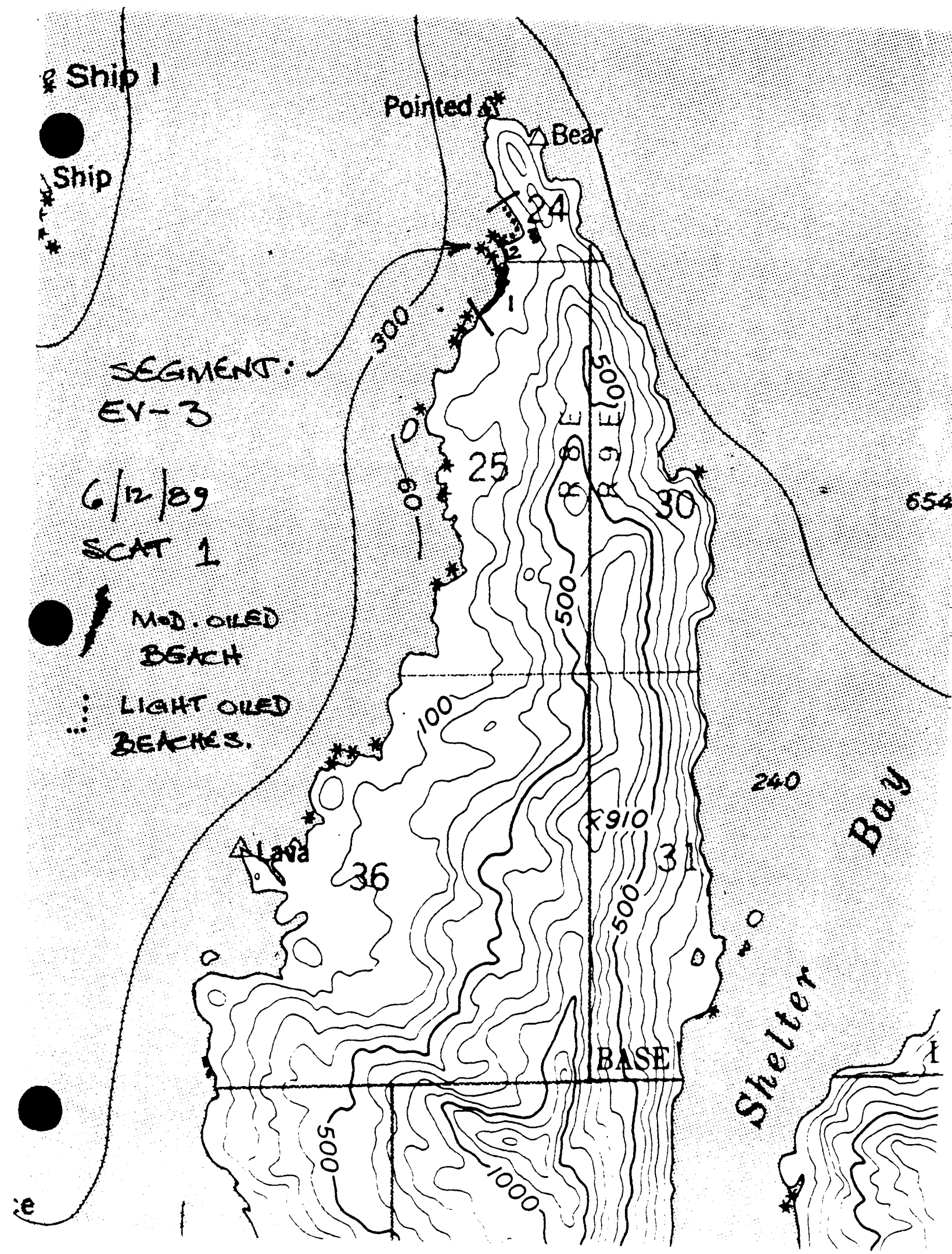
B/W Roll # none Frames N/A

Observer(s) Jim Haggerty

Time survey started 1615 Time survey ended 1650

Cultural resource considerations/restraints:

Standard constraints


Ship I
Ship
Pointed
Bear
24
25
30
31
36
654
240
300
100
500
1000
910
Lava
BASE
Shelter
Bay
SEGMENT:
EV-3
6/12/89
SCAT 1
MOD. OILED BEACH
LIGHT OILED BEACHES.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-4

LOCATION: (see enclosed map) Evans Island-Southwest Shelter Bay Point

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/12/89

Recommended Cleanup Activity(ies):
- Use moderate to high pressure washing on rocks.
  Use other approved methods as appropriate.

Priorities Considerations:
Class ~~4~~: light oil/time sensitive.
Class A: resources present. - SUBSISTENCE

Ecological Constraints (from site survey): Work at mid tide or take appropriate measures to protect the lower intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes — Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 6-16-89

EXXON: [signature] — Date: June 16 -89

FOSC: J.W. Kime — Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/12/89 Time: 17:00 Observer: G. MACDONALD

Surveyed From: Foot/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION NORTHERN EVANS ISL. SEGMENT NUMBER EV-4

LENGTH OF SHORELINE SEGMENT: 400 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/(STRT) Slope: LANG/HANG/(VER)

Wave Exposure: High/(Med)/(Low)

Sediment: B___% / C___% / P___% / G___% / S___% / M___% /R 100%

Drift Debris on Beach: Yes/(No) Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP /(H)/(M)/ L

Continuous: (Y)/N % of Segment 95 Width of Band: 0.5 - 1 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: _____cm Est. Oil Penetration: Ø cm

Pooled Oil: _____% "Free" Oil: _____%(Coated:) H____% /M____% /L 100%

Fresh _____% Mousse 95 % Tar Formation: 5 %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

LIGHTLY OILED MOD. SHELTERED ROCKY SHORE;

CONTINUOUS OIL BAND, LESSENING NORTHWARD;

ANY FLUSH/WASH OK.

(Map)/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) TJ-SMB-13

Sample Numbers Collected: None

17.00

EV-4 Shetland rocky shore, 5-10' high, light oil on continuous band, 0.3-1m wide, then manual coating sharp rocky @ M-HWL; oil band thins northward - to < 0.5m conspicuous manual line;

17.30 hrs Work above HWL zone.

End of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Is. SITE: Shoreline SW of Shelter Bay pt. OBSERVER: SMBam

LOCATION PREFIX: EV SEG. NO.: 4 LENGTH: 400 (M)

DATE: 6/12/89 TIME (HHMM): 1700 TIDE HT.: +3 (M)

OILED ZONE: (Splash) (High) (Medium) Low

SUBSTRATUM: (Rocks) Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Continuous on rock face - oiled

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Several patches at waterline; apparently unoiled, predation by Nucella

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Several stretches oiled - oiled barnacles preyed on by Nucella

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Feeding in oiled zone

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Feeding in oiled zone

OTHER OBSERVATIONS: Lethasterias in subtidal.

CLEANUP PRECAUTIONS: Do not tear Healthy Fucus or Mytilus from rocks during washing.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other None

BIRDS: None seen

GENERAL OBSERVATIONS: This segment consists of high angle and rock face with oil bands. The bands thins toward the North.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 12, 1989 Location Evans Island Site NW shore

Location Prefix EV-nw Segment # 4 Length 400 m

Survey Method:

Air _____ (A - indicate on map) Boat X (100%) (A - indicate on map)

Ground _____ (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility _____

Width of beach zone surveyed 0-8 m Tree fringe surveyed 0 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile all steep/vertical, shore with no beach areas.

Fresh Water Sources none

Sea Exposure semi-protected to exposed near N end of segment

Access/Safety fair to good depending on water conditions

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

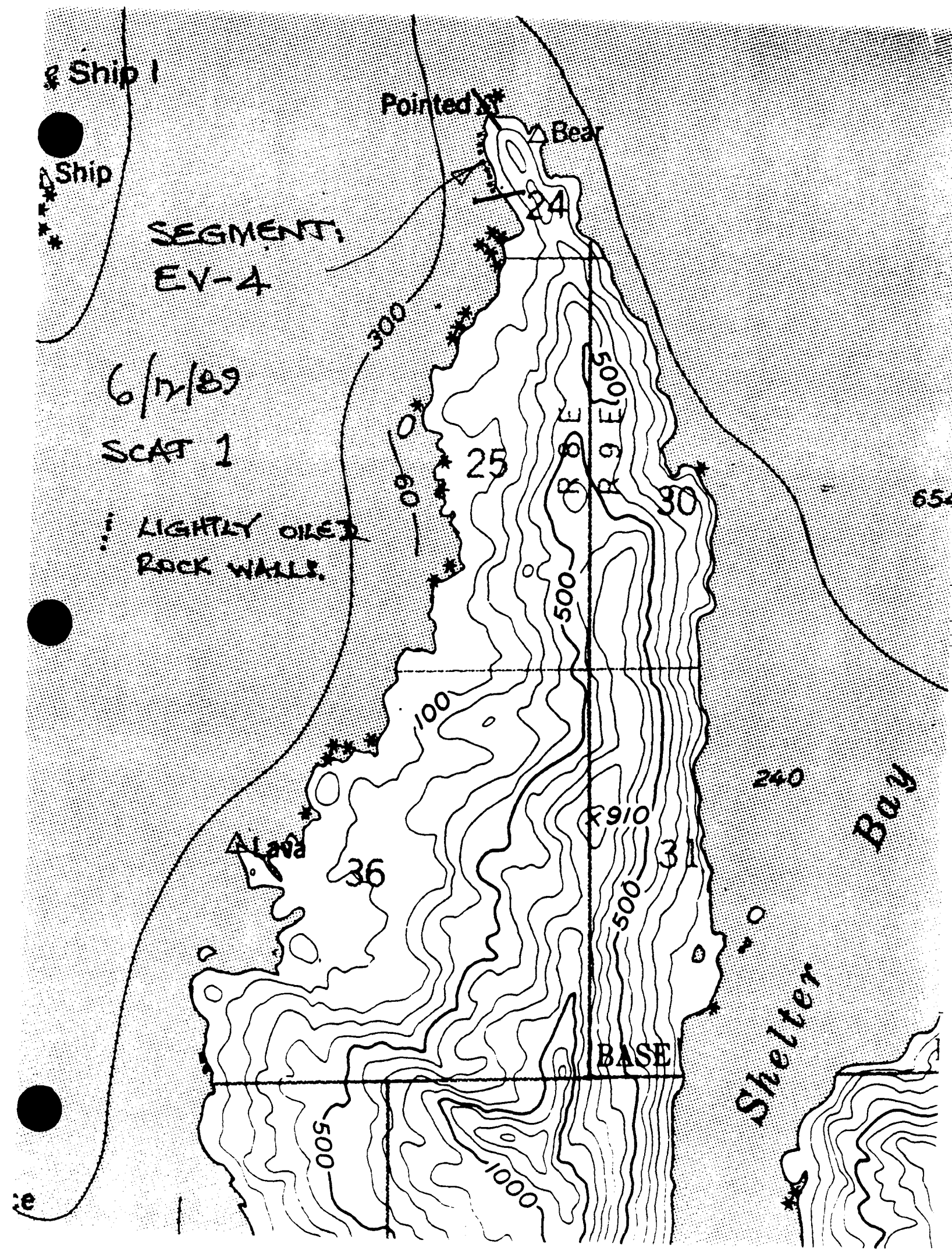
B/W Roll # none Frames N/A

Observer(s) Jim Haggerty

Time survey started 1700 Time survey ended 1725

Cultural resource considerations/restraints:

Standard constraints


Ship I
Ship
Pointed
Bear
24
SEGMENT:
EV-4
6/17/89
SCAT 1
LIGHTLY OILED
ROCK WALLS.
300
0
25
8 6 E
8 9 E
500
30
100
Lava
36
910
31
240
Bay
Shelter
BASE
1000

SEG EV-1 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-1 is completed. Ready for demob and deployment to new segments.

Signature [signature] Date: 7/28/89 Time: 1807

Printed Name Richard C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
15	Medium
25	Light
40	Very Light
20	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments No inspector provided

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments No Gross Contamination

Signature [signature] Date: 7/28/89 Time: 1811

Printed Name Arthur J Smith LTJG

SEG EV-2 INSPECTION # 1 SEGMENT
DATE 7/28/89 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-2 is completed. Ruby Lagoon decon and deployment to new segments.
Signature [signature] Date: 7/28/89 Time: 18:10
Printed Name Richard C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
20	Medium
25	Light
20	Very Light
35	None
100 %	

Subsurface Oil
☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments NO Inspector Provided

Signature Date: / / Time:
Printed Name

FOSC rep Demobilization approved/disapproved.
Comments NO Gross Contamination

Signature [signature] Date: 7/28/89 Time: 1813
Printed Name Arthur J Smith LTJG

TRAINING MANUAL, G-TSS

SEG EV-3 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-3 is completed. Ready for demob and deployment to new segments.

Signature [signature] Date: 7/28/89 Time: 17:10

Printed Name Richard C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
15	Medium
45	Light
20	Very Light
20	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No Inspector Provided

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization ~~approved~~/disapproved

Comments No Gross Contamination

Signature [signature] Date: 7/28/89 Time: 1815

Printed Name Arthur J Smith LTJG

7/24/89

EV 4

SEG EV-4 INSPECTION # 1

DATE 7/23/89

TREATMENT MANUAL 07/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-4 is completed. Ready for demob and deployment to next segment.

Signature R C Harrelson Date 7/23/89 Time 12:50

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
10	Light
5	Very Light
85	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments ADEC LEWIS SHACKMAN FROM THE RAAT BOAT OCEAN RANGER PRESENT, NO ADEC INSPECTOR PROVIDED

Signature Date / / Time

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature Date 7 23 89 Time 1758

Printed Name PAUL PETKAY CWO

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Lava North Block

Includes Shoreline Segments: EV-5

Submitted: Colleen Bartz (for Exxon) Date: 6/20/89

ISCC Reccomendation: Sharon K. Christopherson Date: 6/28

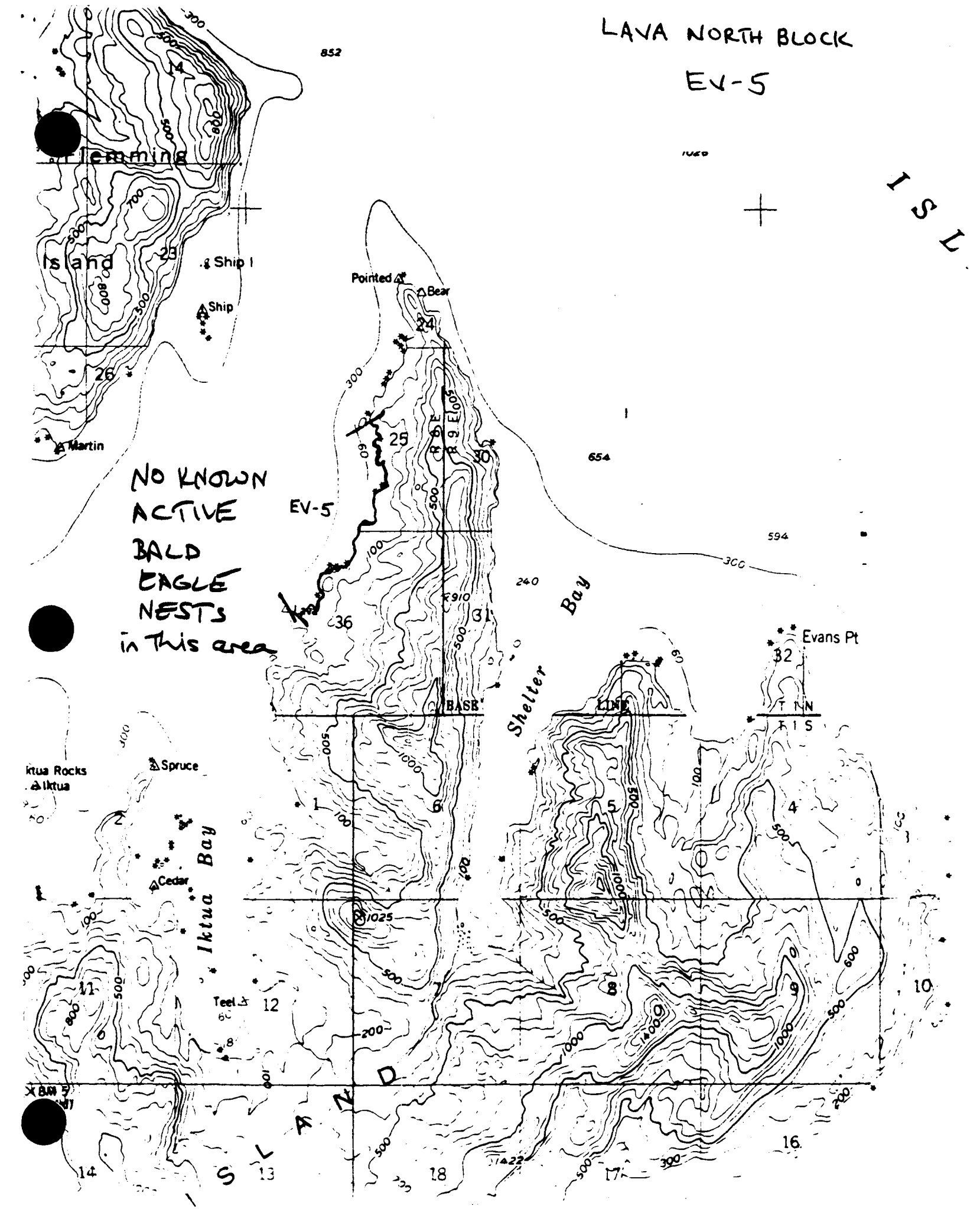
FOSC Approval: J. W. Kime Date: 6/29/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS


LAVA NORTH BLOCK
EV-5
NO KNOWN ACTIVE BALD EAGLE NESTS in This area
EV-5
Fleming
Island
Ship I
Ship
Martin
Pointed
Bear
Evans Pt
Shelter Bay
Iktua Bay
Iktua Rocks
Iktua
Spruce
Cedar
Teel
BASE
LINE
T 1 N
R 9 E
R 8 E
SLAND
852
654
594
240
1025
1422

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-5

LOCATION: (see enclosed map) Evans Island - Northwest Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-15-89

Recommended Cleanup Activity(ies):
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.
- Access to beaches have rock hazards.

Priorities Considerations:
Class: 4 ~~Low~~ LIGHT oil
Class: A Subsistence resources present.

Ecological Constraints (from survey):
Suspected anadromous streams exist at beaches 1 and 2. ~~Contact ADF&G and DAT 48 hours prior to beginning cleanup activities in this segment~~. Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 19, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6/28/89

EXXON: _____ Date: 6/28/89

FOSC: _____ Date: 6/29/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/15/89 Time: 17.30 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fog

LOCATION NW. EVANS

LOCATION ISLAND. SEGMENT NUMBER EV-5

LENGTH OF SHORELINE SEGMENT: 2,850 m

ACCESS: Foot/Vehicle/(Boat)(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/HLD/(STRT) Slope: LANG/(HANG)/VER

Wave Exposure: High/(Med)/(Low)

Sediment: B STRIKE % / C 5 % / P 10 % / G 5 % / S STRIKE % / M STRIKE % / R 80 %

Drift Debris on Beach: Yes/(No) Supra/Upper/Mid/Lower Type

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU /(SP)/(H)/(M)/ L

Continuous: (Y)/N % of Segment ≤ 25 Width of Band: ≤ 1.0 m

Sporadic: (Y)/N % of Segment 20

Est. Oil Thickness where > 1cm: cm Est. Oil Penetration: ≤ 1 cm

Pooled Oil: % "Free" Oil: % (Coated) H % /M 20 % /L 80 %

Fresh % Mousse 30 % Tar Formation: 70 %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

STEEP WALL (TO 3m) MOD. SHELTERED ROCKY SHORE W/ POCKET BEACHES AND SMALL EMBAYMENTS; OIL AS RARE MODERATE MOUSSE/TAR COATED BEACH PEBBLES AND ROCK WALLS @ BEACH 1 & 2 — AND DISCONTINUOUS LIGHT BAND @ HWL; CONSPICUOUS TAR FORMATION HERE ON FLUSHED SURFACE GRAVELS; NATURAL CLEANING EVIDENT

6/15 17:30

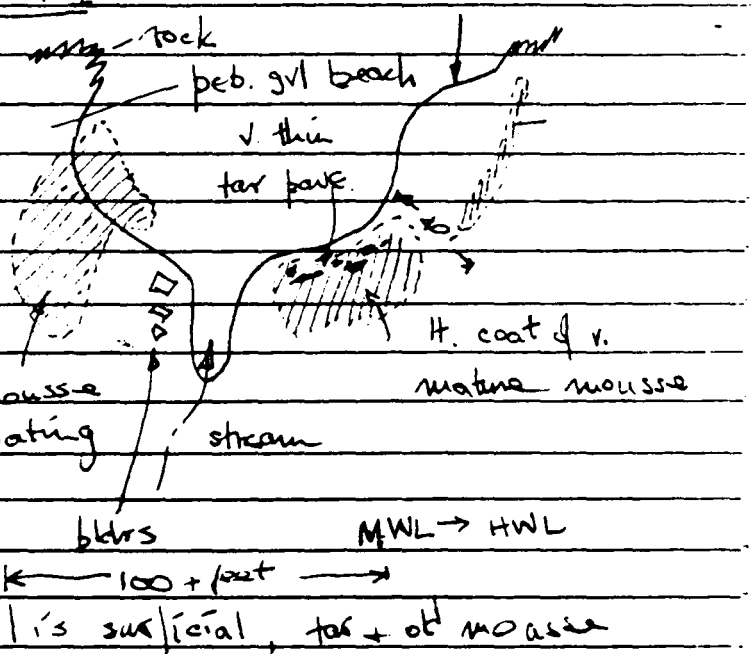
SEGMENT EV-5

Steep sheltered rocky shore, walls to 3 m, steep - o'hang;

Oil tacc tar band, < 0.2 m @ HWL small bldr stream embayments w/ H. oil band @ HWL ↑ ~1 m.; pocket beaches are clean; tacc splats in crevices

NOTE: Mousse @ EV-1 & 6/12/89 is now soft tar

beach 1:



Oil is surficial, tar + ol mousse

oil as mousse coat and tar in watery interstices, extends under current low water line; re-asses prior to cleanup;
high low-tide

beach #2 3 pocket beaches of rocky "spits" - mod. mousse oiling.

Δ LAVA 300 m long channel of light-tracc oil as mousse splat and coat to 250 m; tidal marsh.

19:30 2,850 m
END of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Lava Point OBSERVER: SMBAN

LOCATION PREFIX: EV SEG. NO.: 5 LENGTH: 2850 (M)

DATE: 6/15/89 TIME (HHMM): 1730 TIDE HT.: -1.40 +/- (M)

OILED ZONE: Splash (High Medium) Low ← at Beach 1

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Continuous on rock faces, some areas oiled. Clumps on gravel beaches. Some oiled high and mid. Sparse at Beach 1

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Found on rock faces and on gravel beaches. Oiled indiv. at Beach 1, not gaping.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Continuous on rock faces - some stretches oiled. Dense spat at Beach 1 Heavy predation by Nucella in oiled and unoiled areas.

Littorina Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense in Fucus and on rocks in lower ITZ at Beaches 1 and 2 Most not oiled

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Several unoiled individuals observed in Fucus zone

OTHER OBSERVATIONS: Aurelia, Pisaster, Solaster in subtidal Ulva and Ulothrix at water level.

CLEANUP PRECAUTIONS: Take appropriate measures to protect healthy lower ITZ on rock faces and beaches. Possible anadromous streams at Beaches 1, 2, and Channel N. of Lava Pt.

MAMMALS: Otters 1 Harbor Seals 1 Sea Lions ___ Whales ___
Other 1 River otter and 1 otter skull

BIRDS: Eagles (2) possible nest at beach 2 - NOT ACTIVE

GENERAL OBSERVATIONS: This segment consists of rock face, small coves and 3 distinct beaches. Oil conditions are variable but range from light on the rock faces to moderate in several beaches

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 15, 1989 Location Evans Island Site W. Shore

Location Prefix EV Segment # 5 Length 2,850 m

Survey Method:

Air _____ (A - indicate on map) Boat X (60%) (A - indicate on map)

Ground X (40%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility moderate to light; good visibility

Width of beach zone surveyed 15-20 m Tree fringe surveyed 30 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile steep rocky shore; mostly bedrock headlands; several pocket beach

Fresh Water Sources several small streams

Sea Exposure semi-protected → exposed

Access/Safety good depending on weather conditions

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

B/W Roll # JCH-1 Frames 14, 15, 16, 17, 18, 19, 20.

Observer(s) Peter Phippen / Jim Haggarty

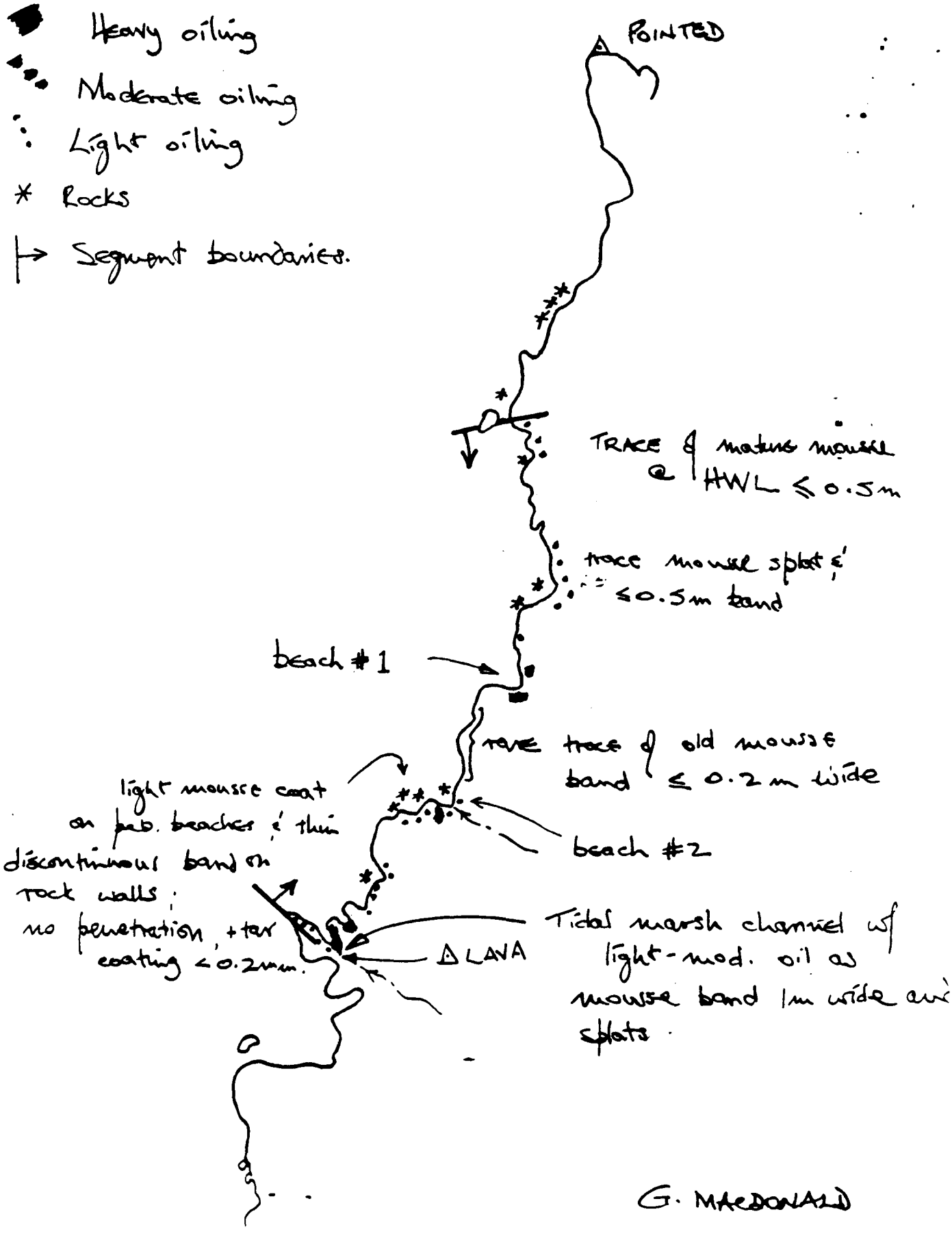
Time survey started 1730 Time survey ended 1930

Cultural resource considerations/restraints:

Standard constraints

6/15/89 p.m.

EV-5 SCAT 1



TREATMENT MANUAL 6/1/89

SEG EV-5 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-5 is complete Ready for demob and deployment to new segments

Signature Richard C Harrelson Date 7/28/89 Time 18:10

Printed Name Richard C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
10	Medium
25	Light
10	Very Light
55	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments NO INSPECTOR PROVIDED

Signature Date / / Time

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature Date 7/28/89 Time 1816

Printed Name Arthur J Smith LTJG

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Evans Island - Iktua Bay Block

Includes Shoreline Segments: EV-6, EV-7, EV-8, EV-9, EV-10

Submitted: Collis Boaten (for Exxon) Date: 6/23/89

ISCC Reccomendation: Sharon K. Christopher Date: 6/23/89

FOSC Approval: J. W. Kime Date: 6/25/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

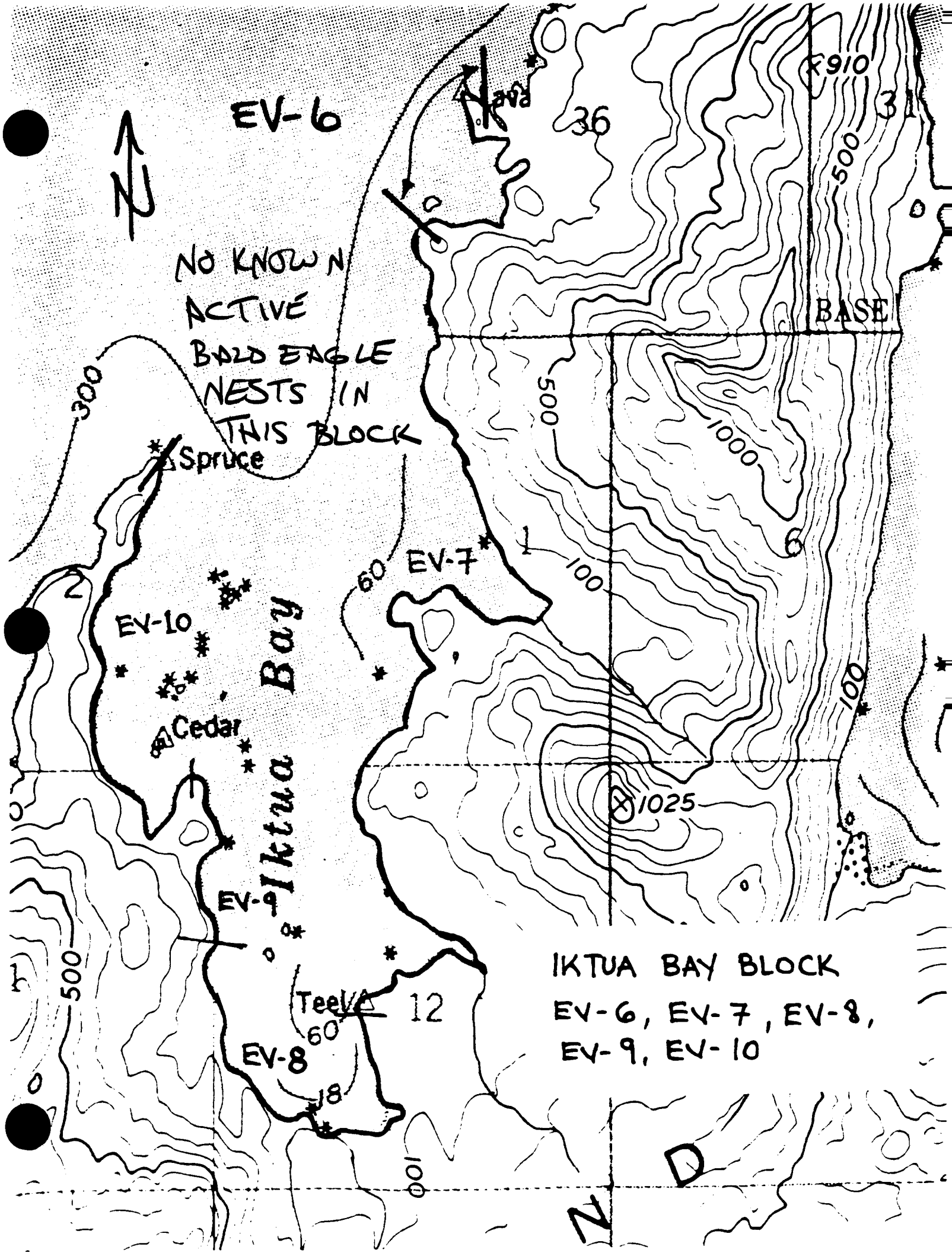
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

SHORELINE SEGMENTS WITHIN EVANS ISLAND - IKTUA BAY BLOCK ARE ON PRIVATELY OWNED LAND. NO ACCESS TO UPLAND AREAS.


EV-6
N
NO KNOWN ACTIVE BALD EAGLE NESTS IN THIS BLOCK
Nava
36
910
31
500
0
BASE
300
500
1000
6
Spruce
60
EV-7
1
100
2
EV-10
Bay
Iktua
Cedar
100
1025
EV-9
500
Teelva
12
60
EV-8
18
0
100
D
N
IKTUA BAY BLOCK
EV-6, EV-7, EV-8,
EV-9, EV-10

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-6

LOCATION: (see enclosed map) Evans Island - West side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) on beach No. 1.
- Use moderate to high pressure washing on rock on beach No.1 north of lava point only.
- No cleanup recommended at this time (subject to FOSC ~~approval~~ REASSESSMENT AT A LATER DATE.) on other areas of this segment due to no oil and ecological constraints.

Priorities Considerations:
Class: 3-4 moderate to light oil
Class: A resources present - subsistence

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect rich lower intertidal zone on beach No.1. High diversity and abundant biota in lower intertidal zone of beach No.3 No cleanup recommended.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 18, 1989
State Historic Preservation Officer *

ISCC: Sherm K. Christopherson Date: 6-23-89

EXXON: _____ Date: 89-06-23

FOSC: _____ Date: 6/05/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/16/89 Time: 07:10 Observer: RICK GILLIE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fo

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-6

LENGTH OF SHORELINE SEGMENT: 1,300 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPT/(BEA)/(COB)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/Med/(Low)

Sediment: B 10 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % / R 60 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type FUCUS

OIL

Degree of Oiling: (Heavy)/(Moderate)/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / (L)

Continuous: Y/(N) % of Segment 25 Width of Band: 1 m

Sporadic: Y/N % of Segment ___

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ___ cm

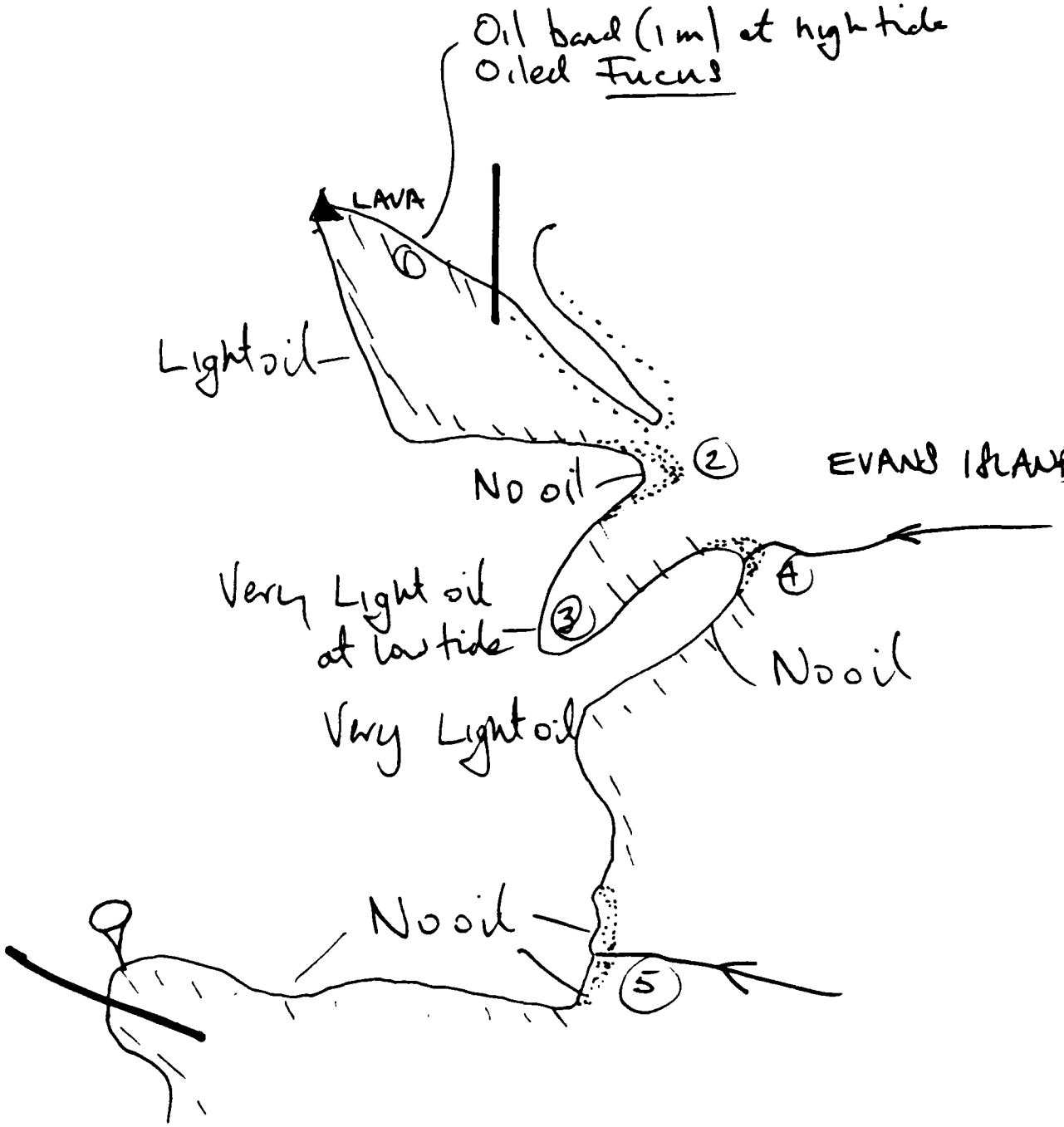
Pooled Oil: ___ % "Free" Oil: ___ % Coated: H ___ % / M 20 % / L 80 %

Fresh ___ % Mousse ___ % Tar Formation: 100 %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

EV-6



① Cleanup moderate oiled rock faces, oiled Fucus
② No cleanup, no oil
③ No cleanup due to very light oil and rich ecology.
④ No clean-up, no oil.
⑤ No clean-up, no oil.

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: Lava Point OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 6 LENGTH: 1300 (M)

DATE: 06 / 16 / 89 TIME (HHMM): 0700 TIDE HT.: 0.0 FT (M)

OILED ZONE: Splash (High) Medium (Low)

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Supporting large numbers of Littorina and limpets. Fucus generally healthy and not oiled.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Young mytilus on rockfaces between balanus

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Some oiled Balanus on vertical rockfaces; lots of spat in tidal zone

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Throughout fucus and on some cobble beaches; Nucella also patchy abundant on cobble beach and vertical rockface. NOT OILED

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Some dense areas of Limpets on cobble beaches and in fucus — not oiled.

OTHER OBSERVATIONS: Abundant and Diverse sea stars — Dermasterias, Evasterias, Pisaster Pycnopodia; Abundant Hermit Crabs in lower tidal rock crevices beneath fucus.

CLEANUP PRECAUTIONS: Site #3: low tide line of oiling not recommended for cleanup due to high diversity and abundant biota in area. Protect rich intertidal as much as possible while working on Site #1.

MAMMALS: Otters 4+ Pups Harbor Seals ____ Sea Lions ____ Whales ____
Other Land otter - 1

BIRDS: 98 Common Merganser Bald Eagle - 2

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/16/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-6 Length 1300 m

Survey Method:

Air _____ (A - indicate on map) Boat ✓ THE REST (A - indicate on map)

Ground ✓ 3 BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility none to light

Width of beach zone surveyed 15-20m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile moderately sloped beaches covered by gravel and vertical wall face

Fresh Water Sources Beaches two + three have streams

Sea Exposure west - open / southwest protected

Access/Safety beaches good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes/no

Photos: Color Roll # _____ Frames _____

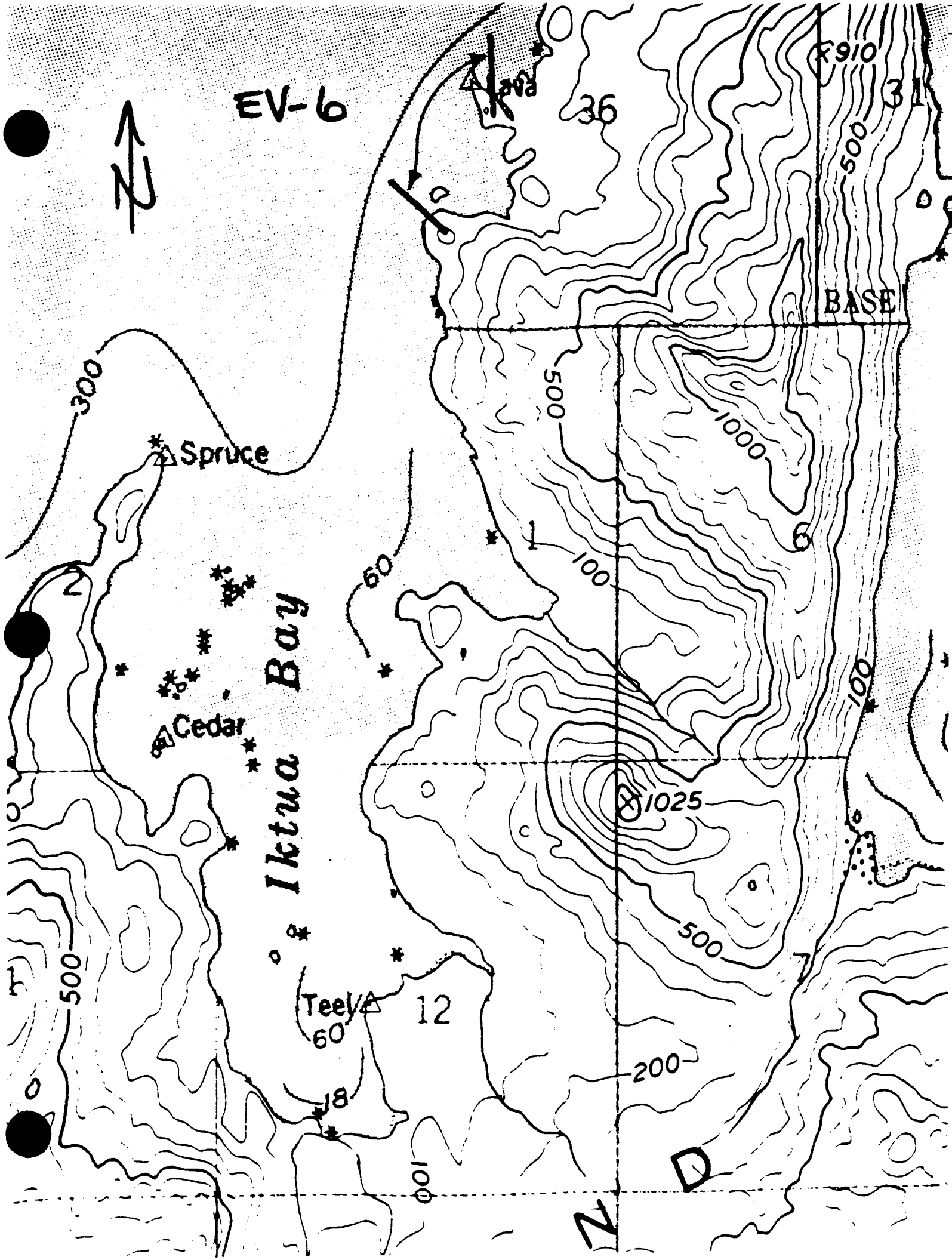
B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started 0700 Time survey ended 0800

Cultural resource considerations/restraints:

If heretofore undiscovered cultural material is found during cleanup contact Exxon archaeologist, C. Mobley, immediately


EV-6
N
Lava
36
910
3
500
0
BASE
300
Spruce
500
1000
6
1
100
60
Cedar
Iktua Bay
100
1025
500
500
Teel
60
12
200
18
100
0
N
D

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-7

LOCATION: (see enclosed map) Evans Island - West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material(fucus) and patches of mousse.
- Use other approved methods as appropriate.

Priorities Considerations:
Class: 4 light oil
Class: A Subsistence resources present.

Ecological Constraints (from site survey):
A suspected anadromous stream exists at beach No. 3 and two cataloged anadromous stream (catalog No. 166-24-16600) is located at beach No.2. NOtify ADF&G and RAT 48 hours prior to beginning cleanup activities on these beaches. Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: June 18, 1989

ISCC: Sharon K. Christopherson Date: 6-23-89

EXXON: _____ Date: 89-06-23

FOSC: _____ Date: 6/25/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/16/89 Time: 08:15 Observer: RICK GILLIE

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-7

LENGTH OF SHORELINE SEGMENT: 4,900 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/(Helio)/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/(HLD)/(STRT) Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/Med/(Low)

Sediment: B 10 % / C 5 % / P 5 % / G ___ % / S ___ % / M ___ % / R 80 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type Fucus

OIL

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / (H) / M / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment < 1 %

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

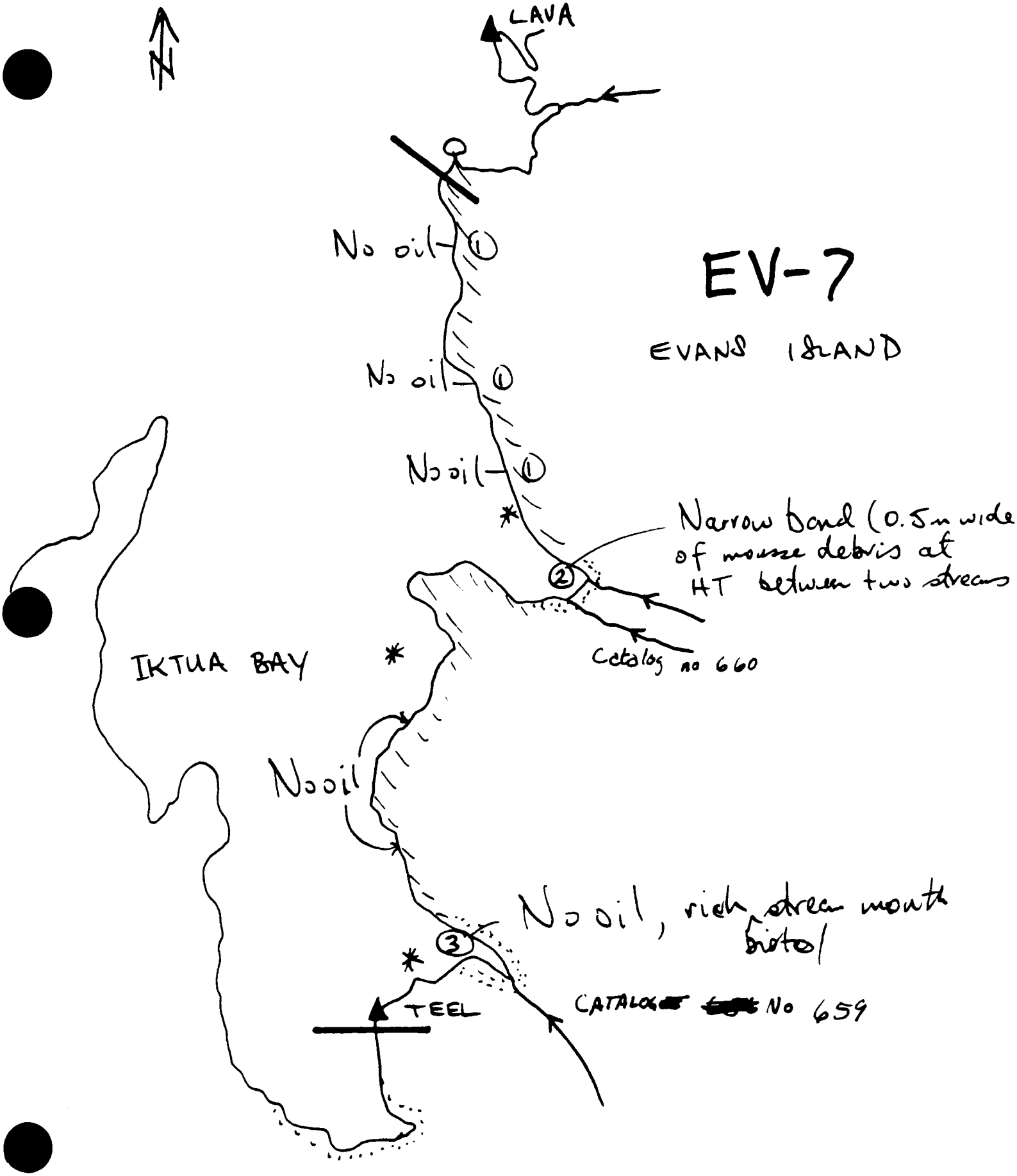
Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % / M ___ % / L 100 %

Fresh _____ % Mousse 100 % Tar Formation: _____ %

Drift Debris Oiled ? (Yes)/No Supra/Upper/Mid/Lower Amount: H/M/(L)

Comments:

- Site (2) 100m long narrow band of mousse debris at HT between two streams. Cobble/pebble substrate.


N
LAVA
No oil — ①
No oil — ①
No oil — ①
EV-7
EVANS ISLAND
Narrow band (0.5m wide of mousse debris at HT between two streams
②
Catalog no 660
IKTUA BAY
No oil
No oil, rich stream mouth biota
③
TEEL
CATALOG No 659

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: _____ OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 7 LENGTH: 4900 (M)

DATE: 06/16/89 TIME (HHMM): 0815 TIDE HT.: +.5 FT (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (cobble) (gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Some spat continuous

Littorina: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: _____

CLEANUP PRECAUTIONS: Check with ADF&G for status of stream in area (2) prior to cleanup; if anadromous stream notify ADF&G and RAT 48 hours prior to beginning any cleanup activity in area (2)

MAMMALS: Otters 9 group Harbor Seals ____ Sea Lions ____ Whales ____

Other Black Bear seen by Rick G at site #3

BIRDS: 9♂ Harlequin Duck, Oystercatcher-1; NW Crow-2; Common Merganser 3♂ 2♀;

GENERAL OBSERVATIONS: Streams on site (2) Not in ADF&G Anadromous Stream Catalogue; Stream on site (3) is Pink Spawning area (ADF&G).

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/16/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-7 Length 4900m

Survey Method:

Air _____ (A - indicate on map) Boat ✓ _____ (A - indicate on map)

Ground ✓ 2 headers (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light oil on one beach zone in the rest of the segment

Width of beach zone surveyed 15-20m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile headers, moderately sloped and gravel covered - to ext vertical bluff

Fresh Water Sources each beach has two streams

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes/no Collection yes/no

Photos: Color Roll # _____ Frames _____

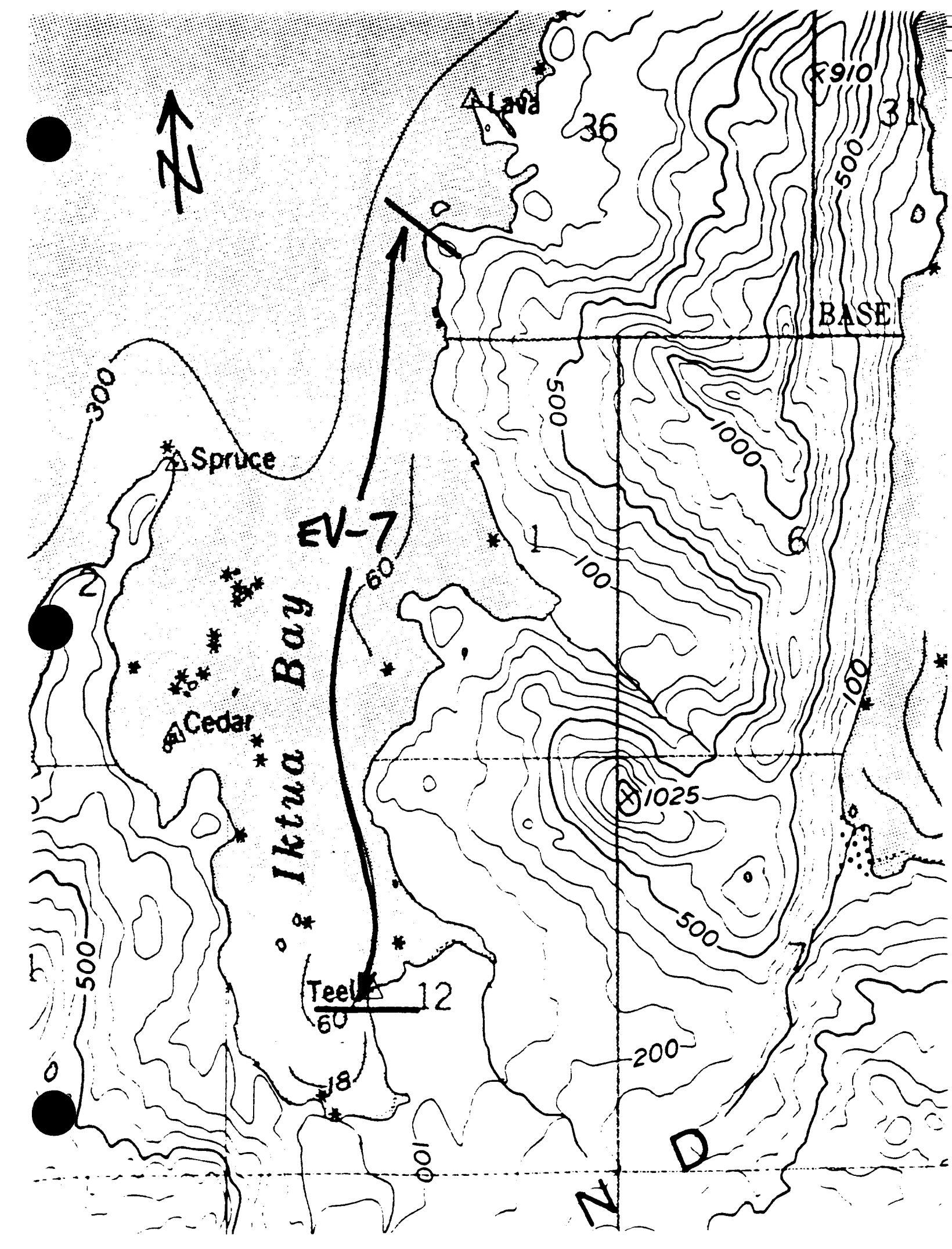
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 0800 Time survey ended 0930

Cultural resource considerations/restraints:

If heretofore undiscovered cultural material is uncovered during cleanup notify Exxon archaeologist, C Mobley, immediately.


N
Lava
910
35
31
500
0
BASE
300
500
1000
6
Spruce
EV-7
60
100
Cedar
Iktua Bay
100
1025
500
Teel
12
60
200
18
100
D
N

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-8

LOCATION: (see enclosed map) Evans Island - West Side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- Use other approved methods as appropriate.

Priorities Considerations:
Class: 4 light oil
Class: A Subsistence resources present

Ecological Constraints (from site survey):
~~TWO~~ ONE cataloged anadromous ~~stream~~ ~~is~~ located in the southern portion ~~of EV-8~~ of EV-8 (catalog NO 1659) Notify ADF&G and RAT 48 hours prior to beginning cleanup activities in this segment. work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archaeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

* State Historic Preservation Officer * Date: June 16, 1989

ISCC: Sharon K. Christopherson Date: 6-23-89

EXXON: _____ Date: 89-06-23

FOSC: _____ Date: 6/25/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/16/89 Time: 10:00 Observer: Rick Gillie

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fo

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-8

LENGTH OF SHORELINE SEGMENT: 1,600 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/(Helio)/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/(Med)/(Low)

Sediment: B 10 % / C 30 % / P 20 % / G ___ % / S ___ % / M ___ % / R 40 % Fucus

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / (H) / M / L

Continuous: (Y)/N % of Segment 10 Width of Band: 0.5 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: NONE cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H ___ % / M 30 % / L 70 %

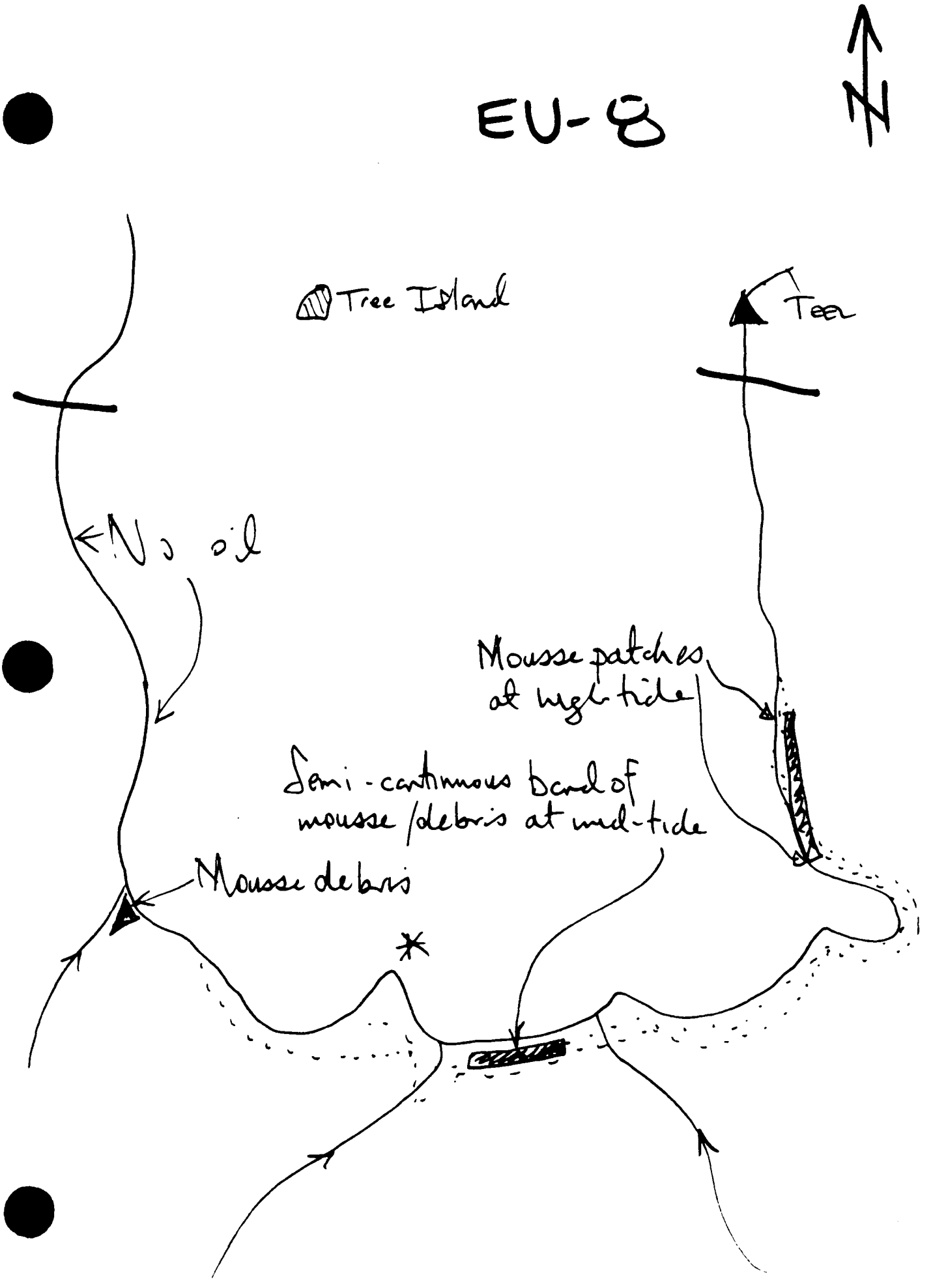
Fresh _____ % Mousse 60 % Tar Formation: 40 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

- Mousse band (0.5m wide) and patches at high ITZ on beaches (cobble/pebble substrate).

EU-8


N
Tree Island
Teel
No oil
Mousse patches at high tide
Semi-continuous band of mousse/debris at mid-tide
Mousse debris

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: _____ OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 8 LENGTH: 1600 (M)

DATE: 06/16/89 TIME (HHMM): 1000 TIDE HT.: +5 FT (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy (Y)/N Contin (Y)/N Dense (Y)/N Sparse Y/N None Y/N
Acorn, thatched and spat.

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Stream in segment listed in ADF&G Anadromous Stream Catalogue as Pink Salmon Spawning Area.

CLEANUP PRECAUTIONS: Advise ADF&G and RAT 48 hours prior to beginning any cleanup activities in this segment.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: Mousse patties both at 6 FT tide line and high tide areas.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/16/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-8 Length 1600

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed 20 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile broad, flat beach

Fresh Water Sources stream

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

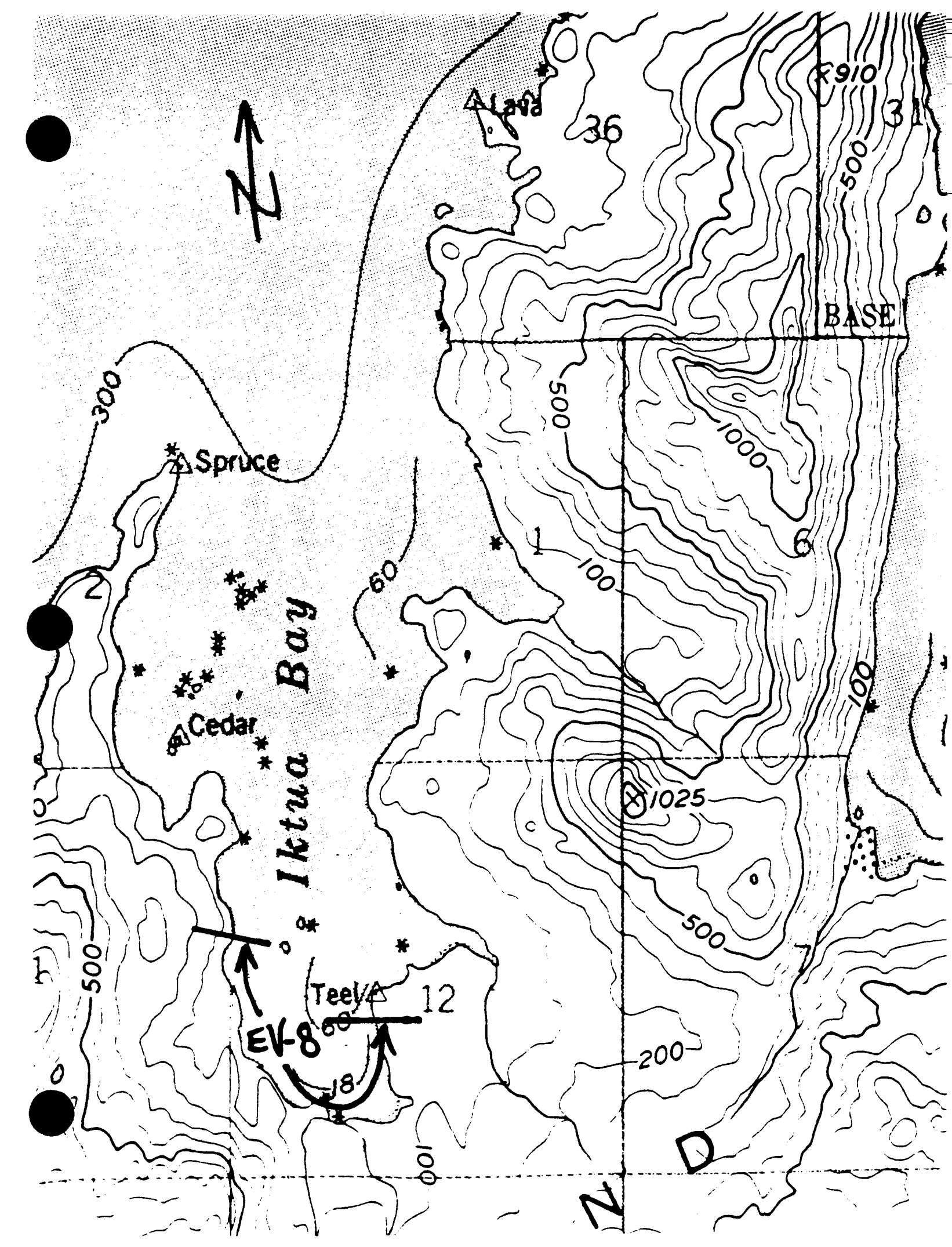
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 0930 Time survey ended 1030

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Lyon archaeologist, C. Mobley, immediately.


N
Lava
36
910
31
500
BASE
300
Spruce
500
1000
6
1
100
60
Cedar
Iktua Bay
100
1025
500
500
Teel
12
EV-8
18
200
100
D
N

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-9

LOCATION: (see enclosed map) Evans Island - Iktua Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class: 4 light oil
Class: # Subsistence resources present

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower to intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 16, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6-23-89

EXXON: _____ Date: 89-06-23

FOSC: _____ Date: 6/25/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/16/89 Time: 16:40 Observer: Rick Gillie

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-9

LENGTH OF SHORELINE SEGMENT: 900 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/Med/(Low)

Sediment: B 30 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % /R 50 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type Fucus Logs!

OIL

Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / M / L

Continuous: (Y)/N % of Segment 20 Width of Band: — m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H ___ % /M ___ % /L 100 %

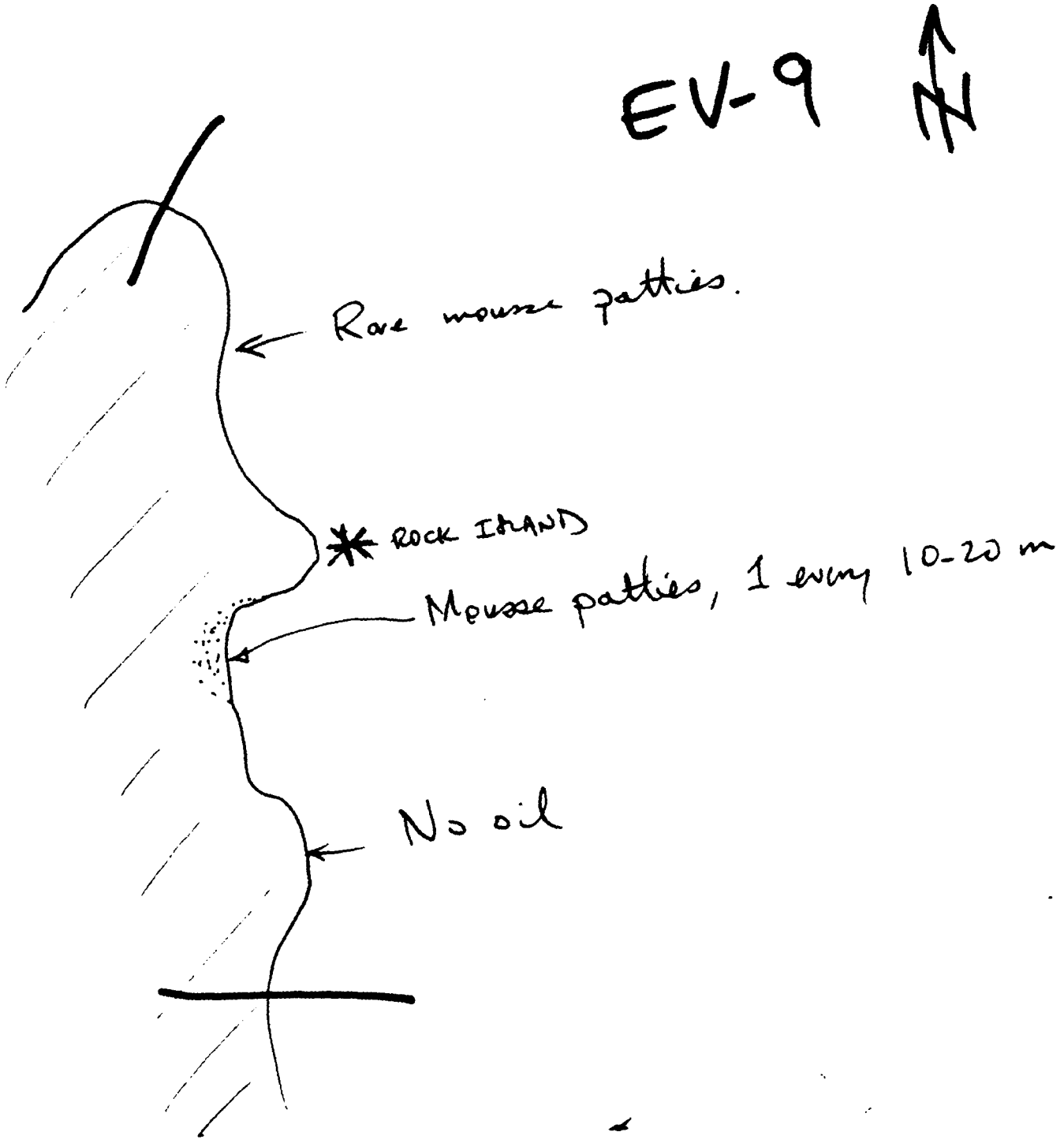
Fresh ____ % Mousse 100 % Tar Formation: ____ %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/M/(L)

Comments:

① Mousse patties, 1 every 10-20 linear m. of beach/shoreline.

EV-9


Rare mousse patties.
ROCK ISLAND
Mousse patties, 1 every 10-20 m
No oil

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: IKTUA BAY OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 9 LENGTH: 900 (M)

DATE: 06/16/89 TIME (HHMM): 1640 TIDE HT.: +4 FT (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin (Y)/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Patches of Nucella, mostly sparse.

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Young limpets abundant on cobbles, in fucus

OTHER OBSERVATIONS:

CLEANUP PRECAUTIONS: No constraints recommended.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other

BIRDS: Eagle - 1; Oystercatcher - 1;

GENERAL OBSERVATIONS:

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/16/89 Location Green Island Site _____

Location Prefix EV Segment # EV-9 Length 900 m

Survey Method:

Air _____ (A - indicate on map) Boat ✓ THE REST (A - indicate on map)

Ground ✓ BEACH (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light

Width of beach zone surveyed 7 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile beach is moderately sloped, watered and cobble surfaced.

Fresh Water Sources stream

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes/no

Photos: Color Roll # _____ Frames _____

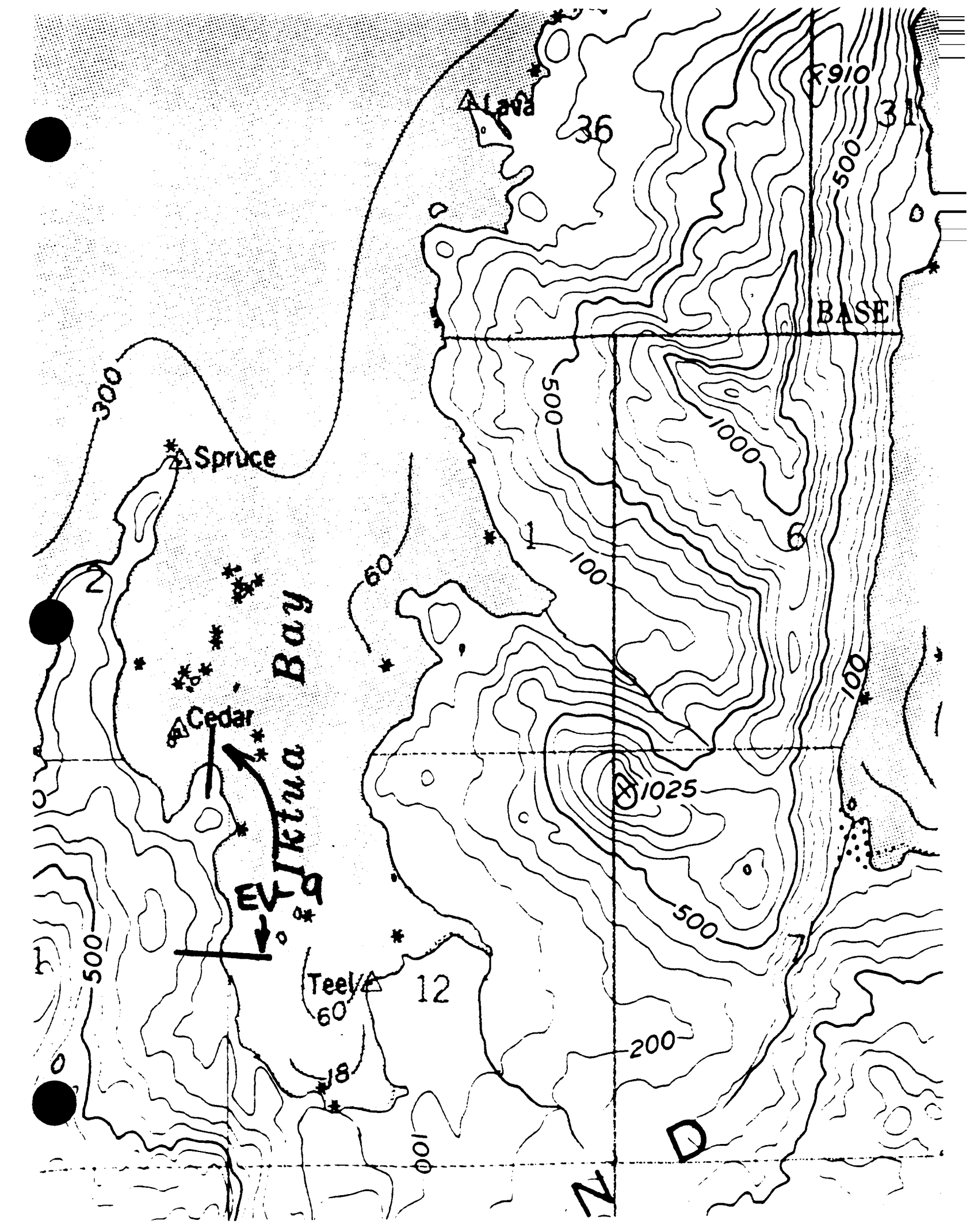
B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started ~~0440~~ 1640 Time survey ended 1800

Cultural resource considerations/restraints:

If heretofore undiscovered cultural material ~~remains~~ are uncovered during cleanup contact Peyton archaeologist, C Mobley, immediately


Lava
36
910
31
500
0
BASE
300
Spruce
500
1000
6
1
100
60
2
Cedar
Bay
Iktua
EV
1025
500
100
500
Teel
12
60
200
18
100
N
D

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-10

LOCATION: (see enclosed map) Evans Island - Iktua Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class: 3-4 moderate to light oil
Class: A Subsistence resources present.

Ecological Constraints (from site survey):
Do not disturb harbor seals in area.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 16, 1989
State Historic Preservation Officer *

ISCC: Sherman K. Christopherson Date: 6-23-89

EXXON: _____ Date: 89-06-27

FOSC: _____ Date: 6/25/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/16/89 Time: 17:40 Observer: Rick Gillie

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION Evans Island SEGMENT NUMBER EV-10

LENGTH OF SHORELINE SEGMENT: 1,800 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 10 % / P 10 % / G ___ % / S ___ % / M ___ % / R 50 % Fucus

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type Logs

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: Y/N % of Segment 10

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ___ cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % / M 10 % / L 90 %

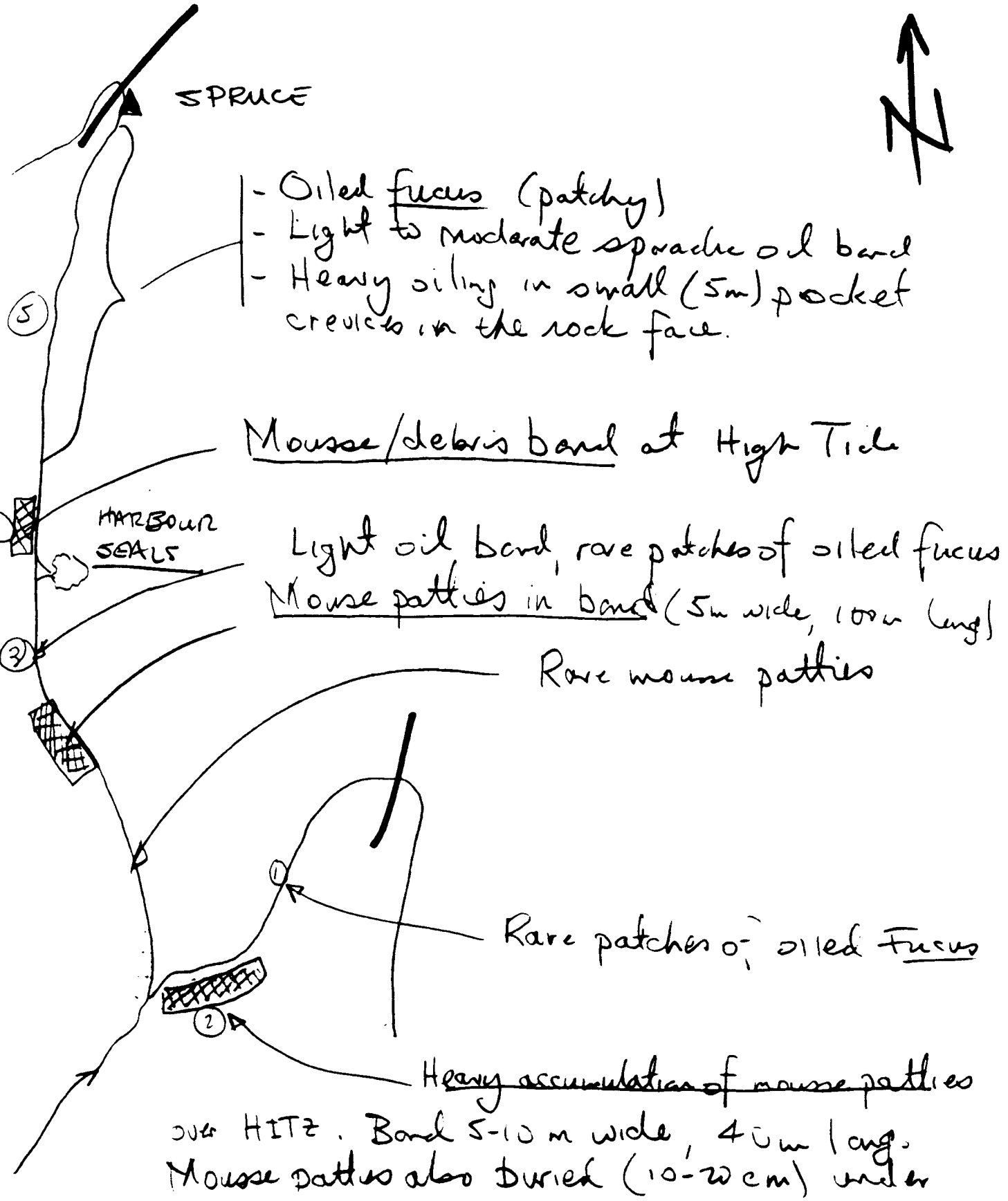
Fresh _____ % Mousse 90 % Tar Formation: 10 %

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

- See attached map. Generally light oil, except at 3 sites of accumulate mousse in bands 5-10m wide and 50-100m long

EV-10


SPRUCE
- Oiled fucus (patchy)
- Light to moderate sporadic oil band
- Heavy oiling in small (5m) pocket crevices in the rock face.
5
Mousse/debris band at High Tide
4
HARBOUR SEALS
Light oil band, rare patches of oiled fucus
Mousse patties in band (5m wide, 100m long)
3
Rare mousse patties
1
Rare patches of oiled Fucus
2
Heavy accumulation of mousse patties over HITZ. Band 5-10 m wide, 40m long. Mousse patties also buried (10-20 cm) under pebble beach at high tide

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Iktua Bay OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 10 LENGTH: 1800 (M)

DATE: 06/16/89 TIME (HHMM): 1740 TIDE HT.: +4 FT (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Some fucus patches oiled - see map.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Spat also on rockfaces and cobble beaches

Littorina Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Some nucella - abundant in patches.

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Dermasterias, Pycnopodia, not abundant. VERY Small stream in segment not shown in ADF&G Anadromous Stream Catalogue.

CLEANUP PRECAUTIONS: Disturb harbor seals in area as little as possible.

MAMMALS: Otters 2 Harbor Seals 7+ Sea Lions ____ Whales ____
Other 4 Harbor Seals on land point (see map); 3 off island - no pups

BIRDS: 8+ Bl legged Kittiwakes on island + probable nests; 2 Arctic Terns (probable nest), 2 Eagles

GENERAL OBSERVATIONS:

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/16/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-10 Length 1800m

Survey Method:

Air _____ (A - indicate on map) Boat ~~THERE~~ (A - indicate on map)

Ground ~~2 BEACHES~~ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light + patchy

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile both beaches are moderately sloped. Both are easy to walk on.

Fresh Water Sources 1 stream on beach 1

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes/no

Photos: Color Roll # _____ Frames _____

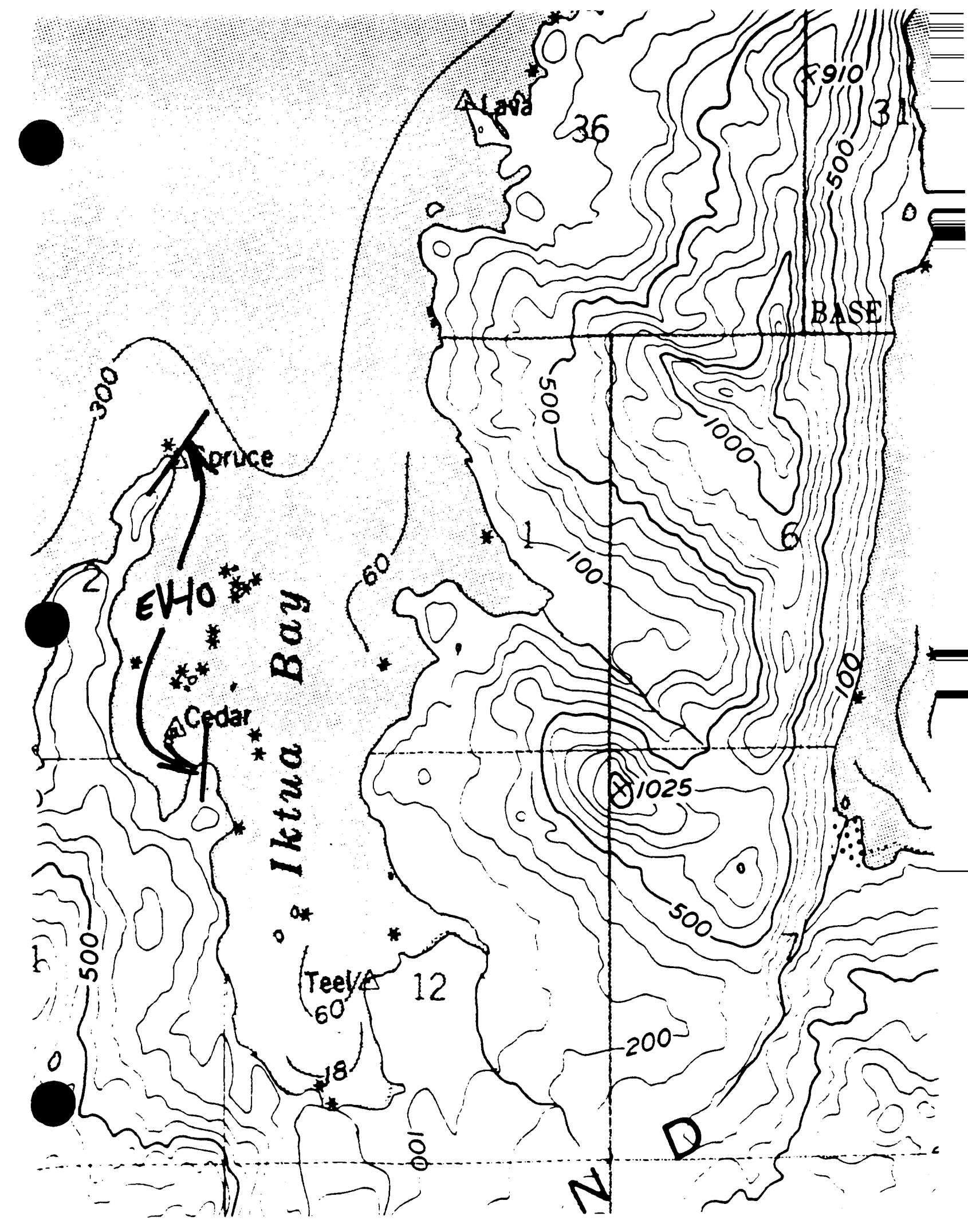
B/W Roll # _____ Frames _____

Observer(s) C. Mishor

Time survey started 1800 Time survey ended 1930

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archeologist, C Mishor, immediately


Lava
36
910
31
500
0
BASE
300
500
1000
6
Spruce
60
100
EVHO
Cedar
Iktua Bay
1025
500
100
Teely
12
60
18
200
500
0
100
N
D

TREATMENT MANUAL, 9/89

SEG EV-6 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☒ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-6 is complete. Ready for demob and deployment to new segment.

Signature Richard C Harrelson Date: 7/28/89 Time: 1811

Printed Name Richard C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
5	Light
10	Very Light
85	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments NO Inspectors Provided

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization ~~approved~~/disapproved

Comments NO Gross Contamination

Signature Date: 7/28/89 Time: 1818

Printed Name Arthur J Smith LTJG

TREATMENT MANUAL, 6/1/89

SEG EV-7 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual clean

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-7 is complete. Both Engelands and deployment to new segment.

Signature [signature] Date: 7 28 89 Time: 18:11

Printed Name Richard C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
3	Light
2	Very Light
95	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No Inspector Provided

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments No Gross Contamination Observed

Signature [signature] Date: 7 28 89 Time: 1819

Printed Name Arthur J Smith LTJG

SEG EV-8 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual cleanup

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-8 is complete. Ready for demob and deployment to new segments.

Signature [signature] Date: 7/28/89 Time: 1812

Printed Name Richard C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
5%	Medium
2%	Light
7%	Very Light
89	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No Inspector Provided

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments No Cross Contamination

Signature [signature] Date: 7/28/89 Time: 1821

Printed Name Arthur J Smith LTJG

SEG EV-9 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other No work required

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-9 is complete. Ready for demob and deployment to new segment.

Signature [signature] Date: 7/28/89 Time: 1615

Printed Name Richard C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5	Very Light
95	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No Inspector Provided

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature [signature] Date: 7/28/89 Time: 1822

Printed Name Arthur J Smith Jr

SEG EV-10 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical _____
- ☐ Non-mechanical _____
- ☒ Other No work required

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-10 is complete. Ready for demob and deployment to new segments.

Signature [signature] Date: 7/28/89 Time: 1815

Printed Name Richard C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
10	Very Light
90	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No Inspector provided

Signature _____ Date: / / Time: _____

Printed Name _____

FOSC rep Demobilization approved/disapproved

Comments No Gross Contamination

Signature [signature] Date: 7/28/89 Time: 1825

Printed Name Arthur J Smith LTJG

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): EVANS POINT EAST BLOCK

Includes Shoreline Segments: EV-11, EV-12, EV-13, EV-14, EV-15, EV-36, EV-37, EV-38, EV-39, EV-40

Submitted: Jerry H. Bailey (for Exxon) Date: 6-29-89

ISCC Reccomendation: [signature] Date: 7/5/89

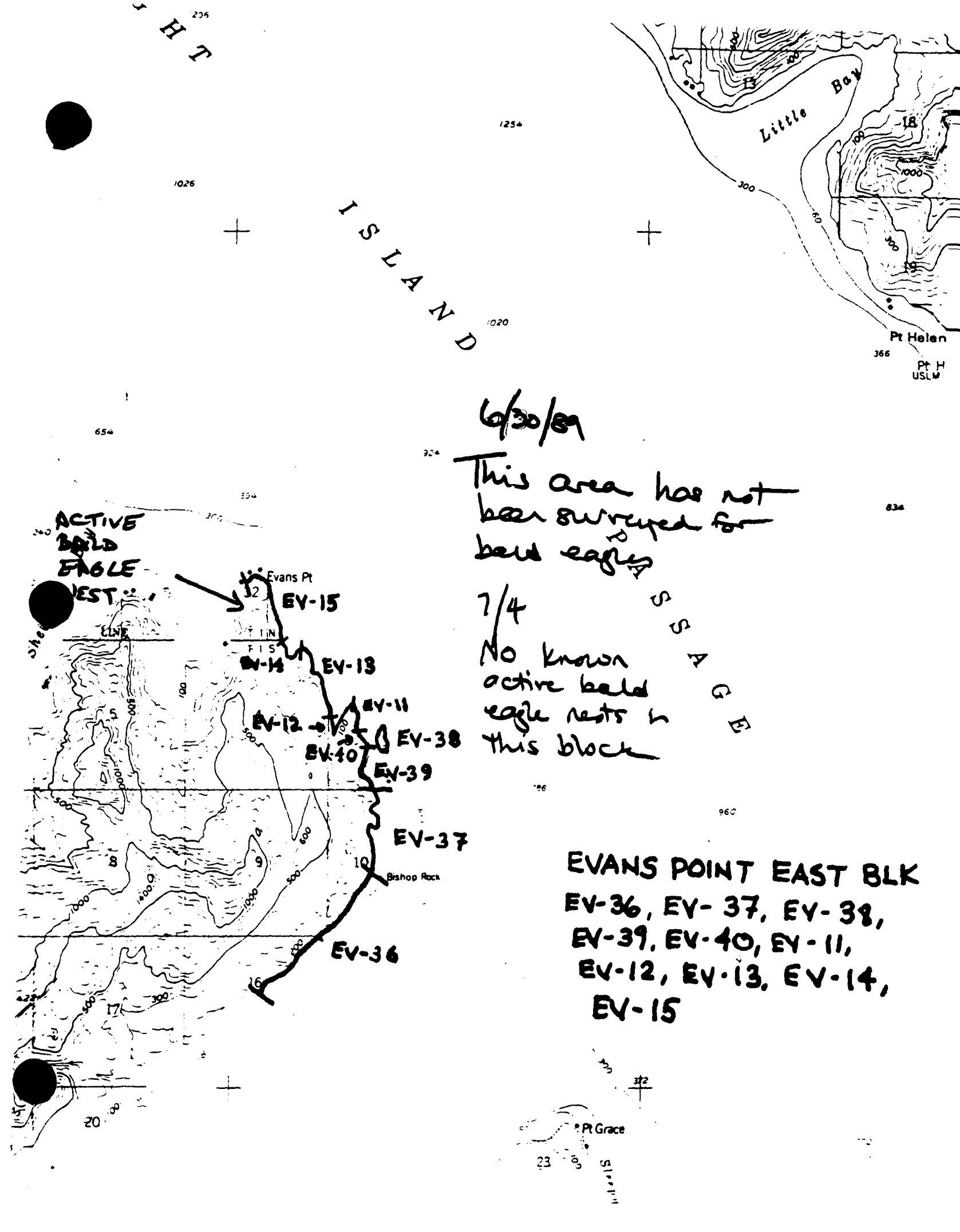
FOSC Approval: [signature] Date: 7-6-89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO



6/30/89

This area has not been surveyed for bald eagles

7/4

No known active bald eagle nests in this block

EVANS POINT EAST BLK

EV-36, EV-37, EV-38, EV-39, EV-40, EV-11, EV-12, EV-13, EV-14, EV-15

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/24/89 SHORELINE SEGMENT EV-11

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Difficult access may prohibit high pressure cleaning of rock surfaces and limit recoverable oil quantity.
Use high pressure hot water to clean the oil band and oil in rock crevices, if possible. May require the omniboom.
Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Time sensitive resources.
Class A: Near subsistence resources/ HATCHERY NEARBY. 7/3/89 jm

Ecological Constraints (from site survey):
No biological constraints.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacqueline Michael Date: 7/3/89

EXXON: [signature] Date: 7-4-89

FOSC: [signature] Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/17/1989 Time: 19:02 Observer: Rick Gillie

Surveyed From: Foot/(Boat)/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-11

LENGTH OF SHORELINE SEGMENT: 400 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/(STRT) Slope: LANG/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 40 % / C ___ % / P ___ % / G ___ % / S ___ % / M ___ % / R 60 %

Drift Debris on Beach: Yes/(No) Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment 30

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: — % "Free" Oil: — % Coated: H ___ % / M 20 % / L 80 %

Fresh — % Mousse — % Tar Formation: 10 %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

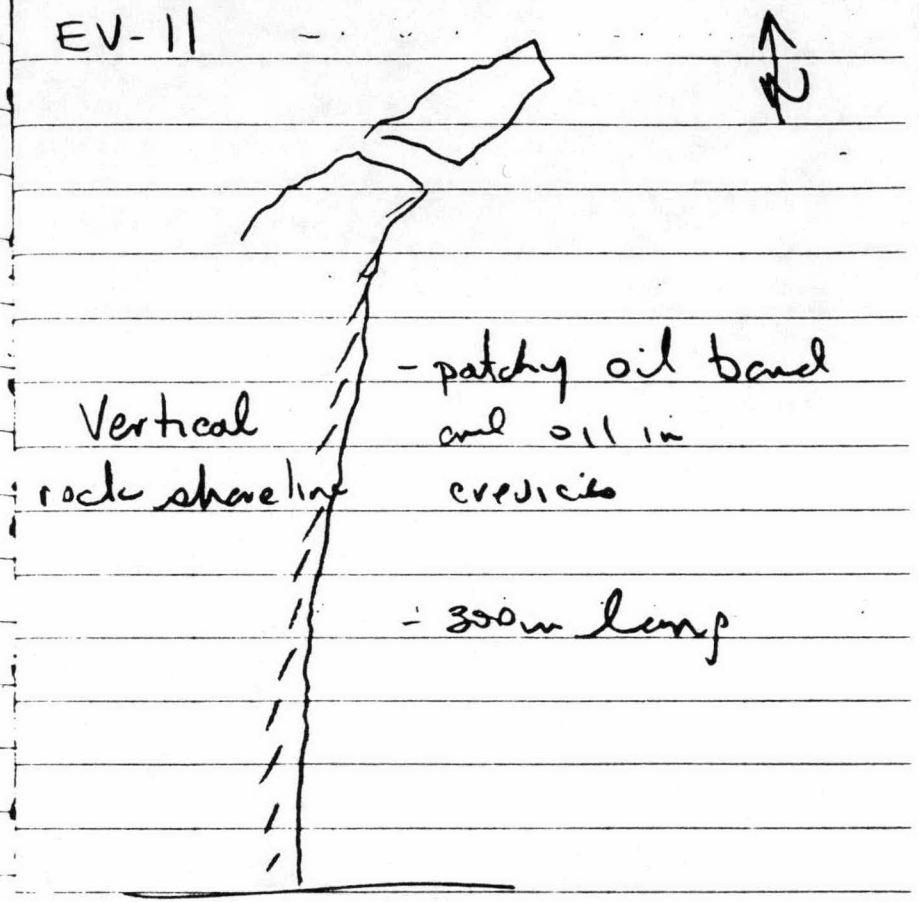
① SPORADIC OIL BAND AND OIL IN ROCK CREVICES

6/17/1989

Rick Grilla

SEGMENT EV-11

- 19:02
- Steep, HANG to VERT Rock shoreline
- Oil band on rock faces and oil in rock crevices.
- Generally sporadic oil
- Difficult access and will be difficult to work on.



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEIER

LOCATION PREFIX: EV SEG. NO.: 11 LENGTH: 400 (M)

DATE: 06/17/89 TIME (HHMM): 1900 TIDE HT.: +4FT (M)

OILED ZONE: Splash ~~High~~ Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

LTZ - unoiled fucus w/ many littorina + limpets; MTZ, HTZ - patches of oiled fucus.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

In oiled and unoiled fucus; shells coated w/ oil in oiled fucus but littorina seem healthy

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Present under fucus.

OTHER OBSERVATIONS: Hermit crabs abundant in tidal pools.

CLEANUP PRECAUTIONS: No biological constraints.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: Bald Eagles - 2 (no nest observed)

GENERAL OBSERVATIONS: Difficult access due to large boulders.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date ~~EV-11~~ 6/17/89 Location EVANS Island Site _____

Location Prefix EV Segment # EV-11 Length 400

Survey Method:

Air _____ (A - indicate on map) Boat ~ (A - indicate on map)

Ground _____ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to moderate

Width of beach zone surveyed 0 m Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile vertical wall

Fresh Water Sources none

Sea Exposure open to east

Access/Safety poor

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (NO) Collection yes (no)

Photos: Color Roll # _____ Frames _____

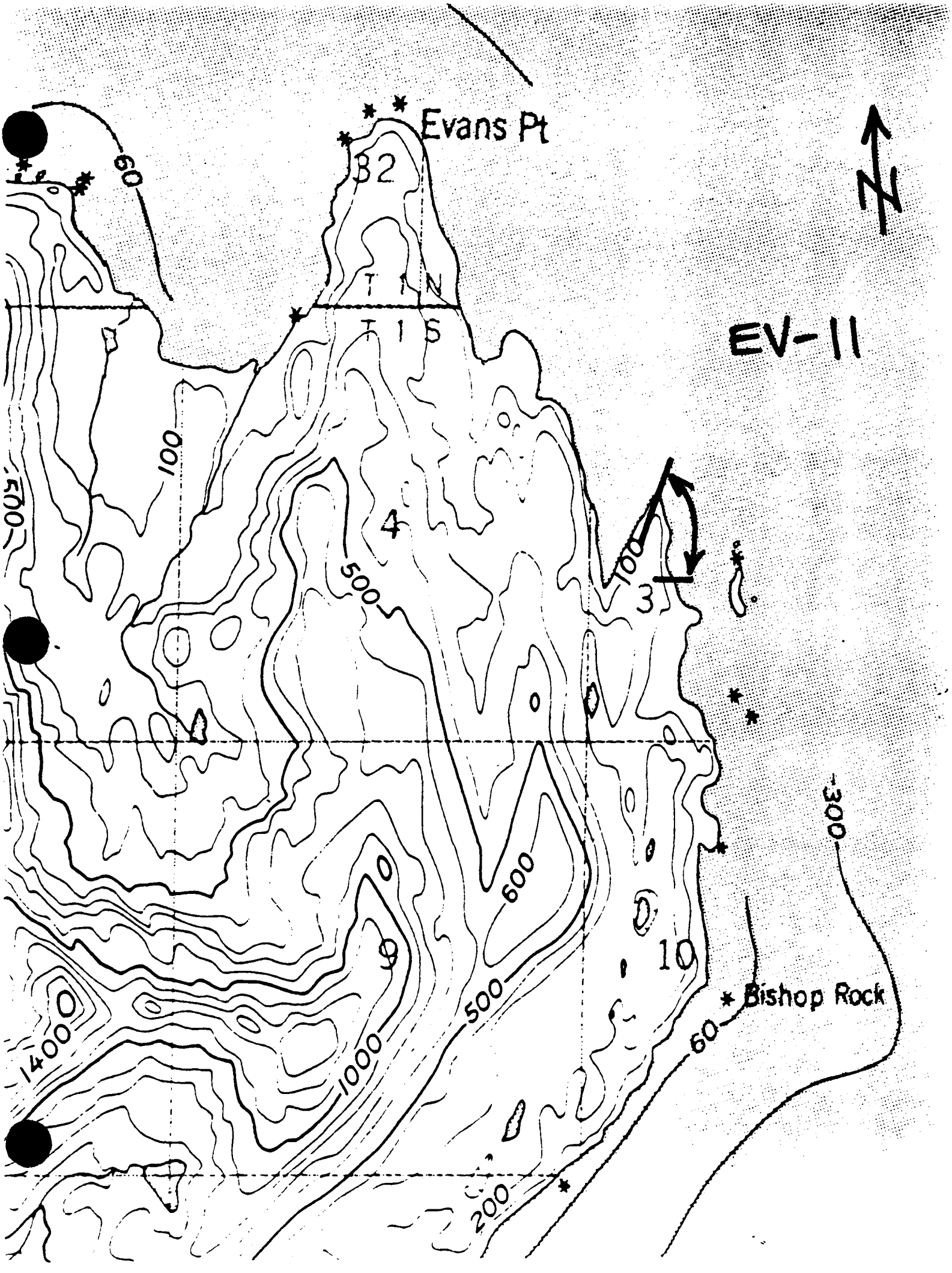
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1900 Time survey ended _____

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Lyon archeologist, C Mobley, immediately


Evans Pt
B2
T 1 N
T 1 S
EV-11
N
60
100
500
4
500
100
3
600
500
1000
1400
200
300
10
Bishop Rock
60

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/24/89 SHORELINE SEGMENT EV-12

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus).
Use moderate to high pressure washing on rock and oiled logs.
Use other approved methods as appropriate.

THIS TECHNIQUE IS NOT TO BE USED UNLESS SPECIFICALLY APPROVED BY THE ISCC and TRANSMITTED BY SCAT.

Relocate contaminated sediments (particularly from the storm berm) into unvegetated areas in the lower intertidal zone (above MLL mark and mussel beds) using front end loader. Treat sediments with hot water flush and manual agitation. A small trench below the area may facilitate recovery of oil. Trench is to be filled after treatment.
Beach stability will be reassessed and any necessary restoration work completed prior to demobilization PWS.

7/3/89 JAC

Priorities Considerations:
Class 1: Heavy oil/time sensitive.
Class A: Subsistence resources present/ HATCHERY PRESENT.

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. SPECIAL ATTENTION SHOULD BE PAID TO CONTAINMENT OF SHEEN.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacqueline Michael Date: 7/3/89

EXXON: [signature] Date: 7-4-89

FOSC: [signature] Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/17/89 Time: 13:00 Observer: RICK GILLE

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-12

LENGTH OF SHORELINE SEGMENT: 650 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/(Helio)/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 20 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % /R 50 % LOGS FLATS

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type _____

OIL

Degree of Oiling: (Heavy)/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / (L)

Continuous: (Y)/N % of Segment 100 Width of Band: 20-30 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: +30 cm

Pooled Oil: 1 % "Free" Oil: ___ % Coated: H 70 % /M 20 % /L 10 %

Fresh _____ % Mousse 5 % Tar Formation: 95 %

Drift Debris Oiled ? (Yes)/No (Supra)/(Upper)/(Mid)/(Lower) Amount: (H)/M/L/

Comments:

(1) MIGRATING BEACH RIDGE IN MTZ IS BURYING OILED COBBLE SURFACE AT MID TO HTZ.

(2) HEAVILY OILED ACCUMULATION OF BERM RIDGE DEPOSITS

Rick Gilfillan

6/17/1989

SEGMENT EV-12

18:00

- Moderate to Heavily oiled beach along entire segment.

- Heavily oiled tarballs deposits to 0.3m deep.

- Migrating granule / pebble ridge in MTZ is buring oiled cobble surface

- Moderately oiled boulders on both east and west sides of embayment overlying a wave-cut platform

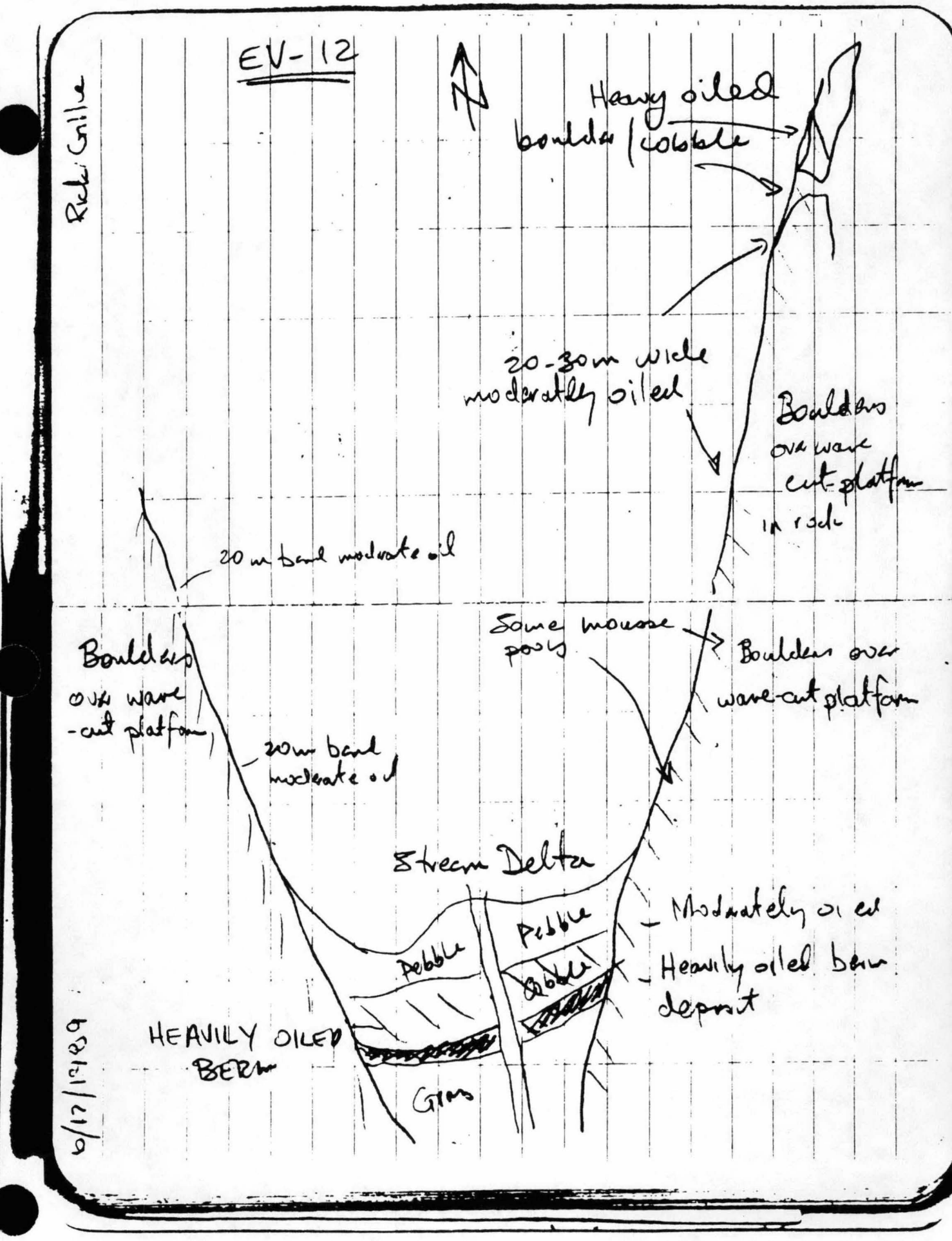
- Low to Mod wave energy

Recommended Cleanup

① Manual - debris / mousse
② High pressure - rocks
③ Flood / warm water on boulder / wave-cut platform on side of bay
④ Remove and clean beach sediments (heavily oiled) in beach berm
⑤ Other appropriate techniques.

There is alot of oil in this bay, which should be recovered.

⑥ Make effort to keep oil clean-up out of stream.


EV-12
Rick Grilla
Heavy oiled boulder/cobble
20-30m wide moderately oiled
Boulders over wave cut platform in rock
20m band moderate oil
Some mousse pools
Boulders over wave-cut platform
Boulders over wave-cut platform
20m band moderate oil
Stream Delta
Pebble
Pebble
Pebble
Pebble
Moderately oiled
Heavily oiled berm deposit
HEAVILY OILED BERM
Grass
9/12/1989

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 12 LENGTH: 650 (M)

DATE: 06 / 17 / 89 TIME (HHMM): 1800 TIDE HT.: +4FT (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) (Boulder) (Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Patches of fucus are oiled and unhealthy. Healthy and unoiled below oiled boulder/cobble area at east end of segment.

Mytilus (Mussels): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Some mytilus at LTZ are oiled, but alive.

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

Particularly along boulders at edges of beach. Spat in LTZ + MTZ.

Littorina Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

No nucella observed.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Stream in segment is small and unlikely to be an anadromous stream - it is not listed in the ADF&G anadromous stream catalogue.

CLEANUP PRECAUTIONS: Protect unoiled mussels in LTZ as much as possible. Check with ADF&G on potential salmon stream, and if it is an anadromous stream notify ADF&G and RAT 48 hours prior to beginning any cleanup in this segment.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____

Other ____

BIRDS: Bald Eagle - 1

GENERAL OBSERVATIONS: Not many sea stars observed - a few pisaster, pycnopodia at rock point on east edge of segment.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/07/89 Location Green Island Site _____

Location Prefix EV Segment # EV-12 Length 650

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate to heavy

Width of beach zone surveyed 30 m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile beach is broad, flat and gravel-covered.

Fresh Water Sources small stream

Sea Exposure protected to north

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 2 (3) 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

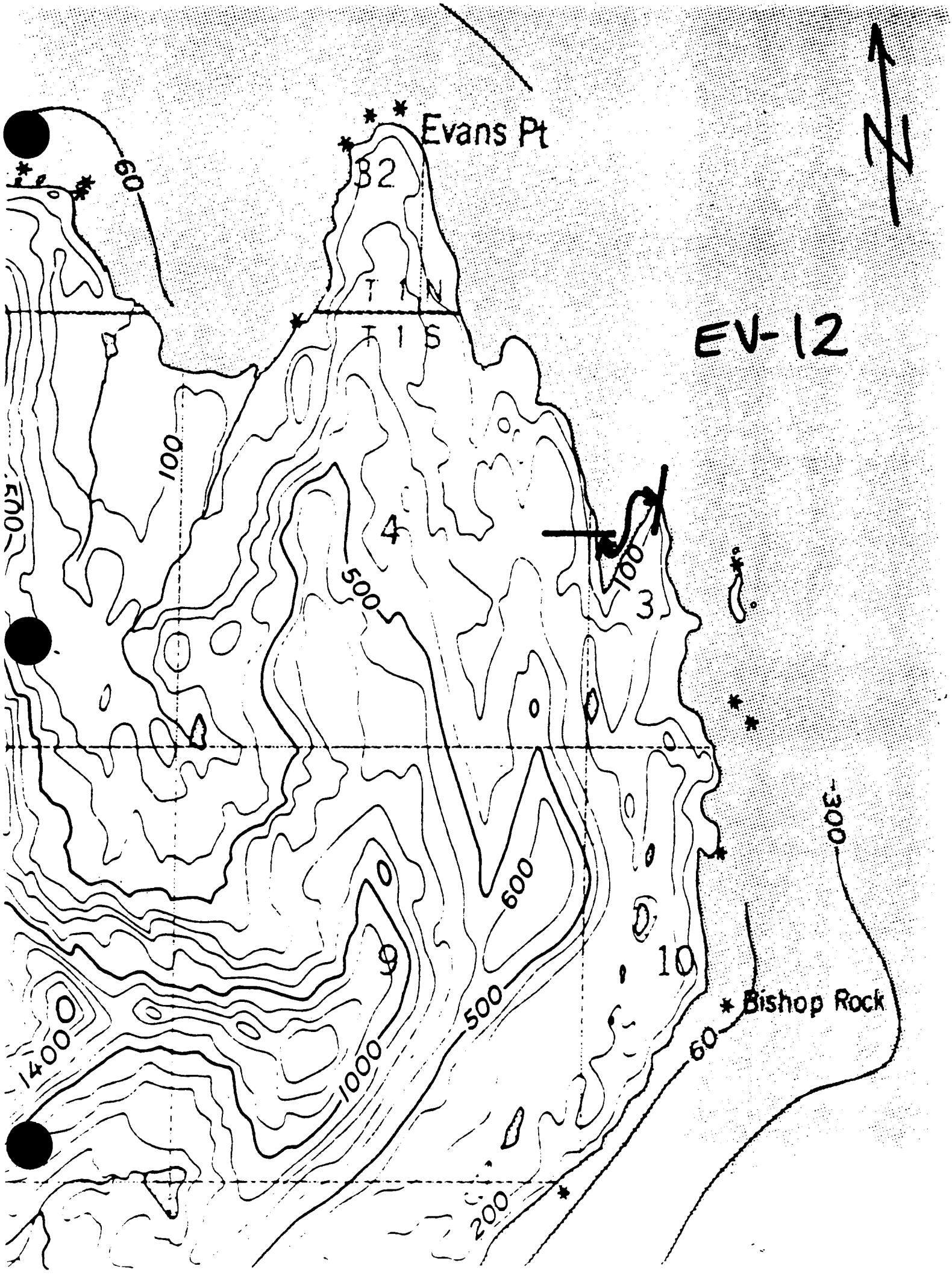
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started ~~1715~~ 1800 Time survey ended 1900

Cultural resource considerations/restraints:

If heretofore undiscovered cultural materials are uncovered during cleanup contact Egan archaeologist C. Mobley immediately


Evans Pt
B2
T 1 N
T 1 S
EV-12
N
60
100
500
4
100
3
600
10
500
1000
1400
200
300
60
Bishop Rock

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/24/89 SHORELINE SEGMENT EV-13

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus) on pocket beach.
Flood/flush with warm to hot water (up to 140°F) on the pocket beach, ~~and/or remove the sediments to the active surf zone, if appropriate, after the fall bird migration.~~ JM 7/3/89
Use moderate to high pressure washing on rocks and boulders if access is possible.
Use other approved methods as appropriate

Priorities Considerations:
Class 1: Time sensitive resource.
Class A: Subsistence resources present/ ~~HATCHERY~~ PRESENT.

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Harvest heavily oiled fucus.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacqueline Michael Date: 7/3/89

EXXON: C L Mitchell Date: 7-4-89

FOSC: C G Robbins Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/17/89 Time: 17:15 Observer: RICK GILLE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-13

LENGTH OF SHORELINE SEGMENT: 900 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/(STRT) Slope: LANG/(HANG)/(VER)

Wave Exposure: (High)/Med/Low

Sediment: B 20 % / C 5 % / P 5 % / G ___ % / S ___ % / M ___ % /R 70 % FUCUS

Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: (Heavy)/Moderate/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / (L)

Continuous: (Y)/N % of Segment 60 Width of Band: _____ m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: ____ cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H 30 % /M 50 % /L 20 %

Fresh _____ % Mousse 5 % Tar Formation: 95 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/M/(L)

Comments:

THREE UNITS AS SHOWN ON ATTACHED MAPS

UNIT 1 - 400 M, STEEP ROCK, 2 REENTRANT CREVICES

UNIT 2 - POCKET BEACH, 60 m

UNIT 3 - STEEP ROCK/BOULDER BEACH (400 m)

6/17/89

Rich Gilfillan

SEGMENT EV-13

- 17:15

UNIT #1

① North end of segment has HANG to VERT rock shoreline with large boulders. Two (2) rock re-entrants are present and are moderately oiled at their heads. Length ≈ 400 m

UNIT #2

② Pocket Beach

- length 60 m width 40 m
- heavily oiled at HTZ in a band 1 m wide, with oil buried and penetration to 0.3-0.5 m.

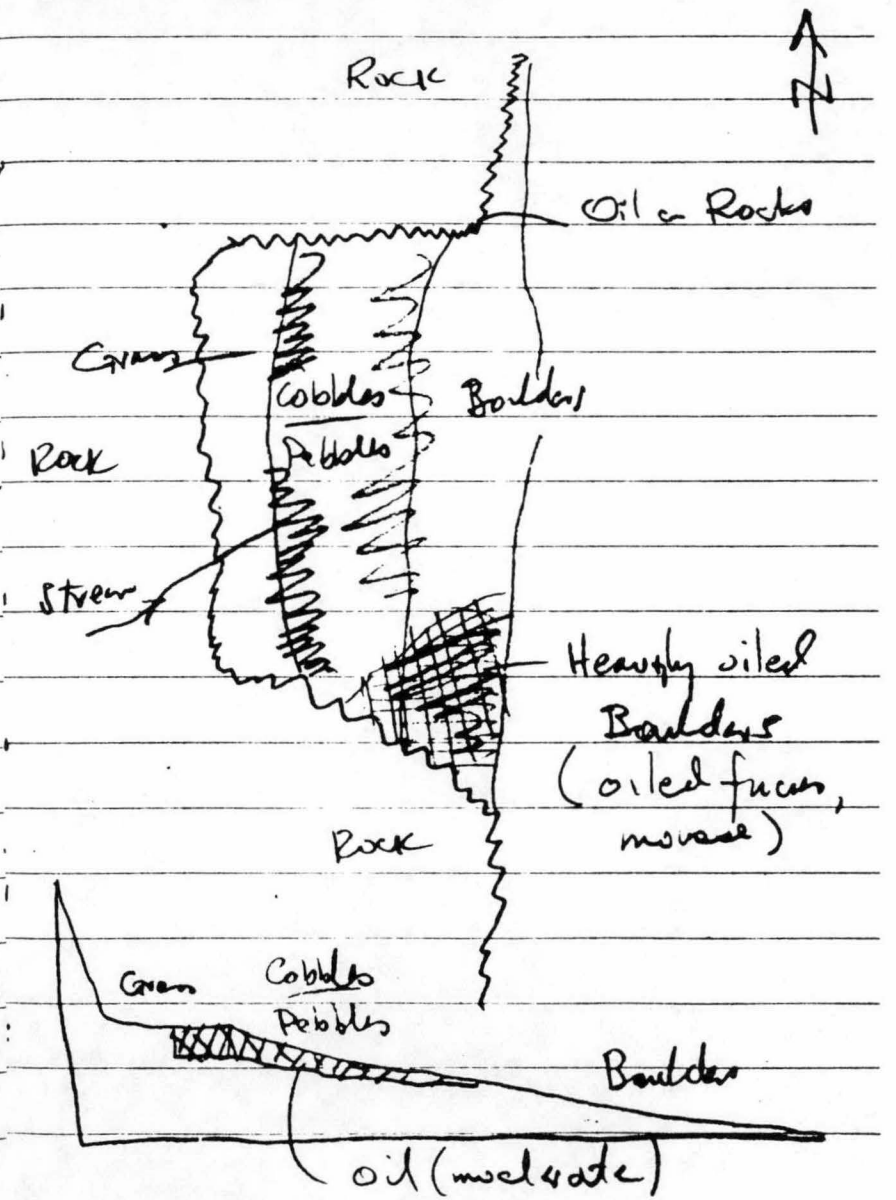
Recommend

① Manual

② High pressure or rocks

③ Flood/wash on/in move to surf zone

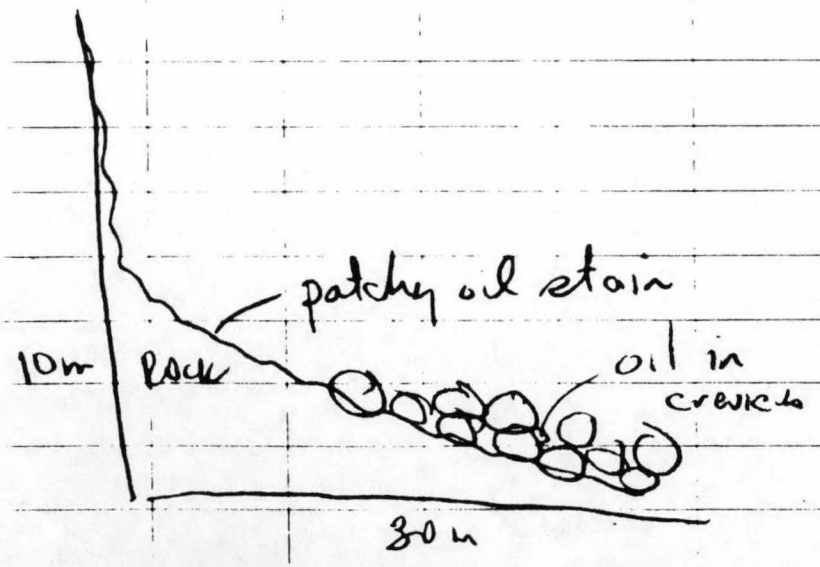
EV13 UNIT # 2 (Pocket Beach)



Rick Gillie

UNIT #3

- oil stain on rock face
- Oil in rock crevices
- Oil on large boulder beaches
- Light oil remaining
- Patchy... moderate oil remaining (not cleaned by natural beach abrasion)



- Oiled shoreline very steep and rugged
- No continuous oil, only patchy
- May not warrant clean-up.
- May be too hazardous for crews to work.

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 13 LENGTH: 900 (M)

DATE: 06 / 17 / 89 TIME (HHMM): 1715 TIDE HT.: +4.5 FT (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Both Units (2) and (3) have heavily moussed/oiled fucus which is dying.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Unit (3) has patches of oiled mytilus at 5' tide line.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Thatched and acorn barnacles present

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Oiled Littorina on (clean) rock top surfaces in oiled zone; littorina present in oiled and unoiled fucus, the more abundant in unoiled fucus. Nucella patchy in MTZ feeding on barnacles.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Some oiled.

OTHER OBSERVATIONS: In areas where fucus is heavily oiled, there is abundant adjacent fucus which is healthy and unoiled.

CLEANUP PRECAUTIONS: No biological constraints. Harvesting of the heavily oiled fucus is encouraged.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: ____

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/17/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-13 Length 900

Survey Method:

Air _____ (A - indicate on map) Boat THE REST (A - indicate on map)

Ground V 2 BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile two headers backed by steep wooded face - east of segment is vertical cliff

Fresh Water Sources None

Sea Exposure open to east

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

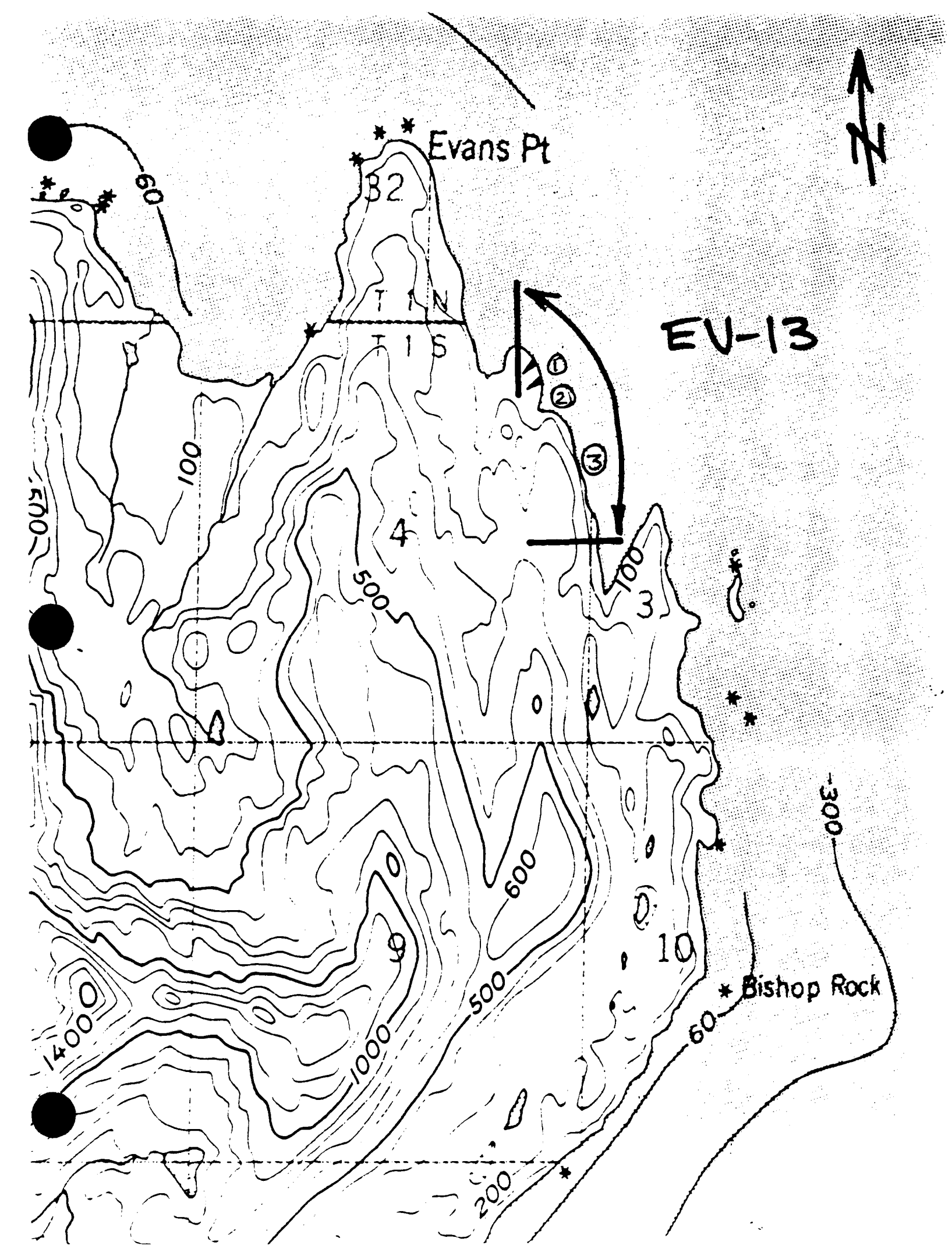
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1715 Time survey ended 1800

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archeologist, C. McKinley, immediately


Evans Pt
B2
T I N
T I S
EV-13
1
2
3
4
60
100
500
600
1000
1400
300
200
10
9
Bishop Rock
N

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/24/89 SHORELINE SEGMENT EV-14

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus) ~~and grass~~ at high intertidal zone.
Flood/flush with warm to hot water (up to 140°F) on low angle beaches in the middle and high intertidal zones.
Use moderate to high pressure washing on rock and oiled logs
Use other approved methods as appropriate

Priorities Considerations:
Class 1: Time sensitive resources.
Class A: Subsistence resources present / HATCHERY NEARBY. 7/3/89 jm

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Anadromous stream present in segment (#16640 on Anadromous Waters Catalogue, 2184). Notify ADF&G and RAT within 48 hours prior to beginning any cleanup in this segment.
WORK IN THE STREAM CHANNEL WILL REQUIRE A PERMIT FROM ADF&G WHICH WILL SPECIFY FLOWABLE WORK METHODS.
Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: _____ Date: 7/3/89

EXXON: _____ Date: 7-4-89

FOSC: _____ Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/17/89 Time: 10:20 Observer: Rick Gillie

Surveyed From: (Foot)/Boat/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-14

LENGTH OF SHORELINE SEGMENT: 600 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/(Helio)/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: (High)/Med/Low

Sediment: B 20 % / C 40 % / P 10 % / G 5 % / S ___ % / M ___ % / R 25 % LOGS

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type Fucus

OIL

Degree of Oiling: (Heavy)/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y)/N % of Segment 90 Width of Band: 10 m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 20 cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H 30 % / M 60 % / L 20 %

Fresh ____ % Mousse 5 % Tar Formation: 95 %

Drift Debris Oiled ? (Yes)/No (Supra)/(Upper)/Mid/Lower Amount: (H)/M/L/

Comments:

(1) Oil into stream banks up to 100 m from the beach

(2) Good access on barge

(3)

SEGMENT EV-14

10:20, 6/17/89

- Length = 600 m
- Cove/Bay bounded by BEDROCK headlands with a 300 m long 100 m wide beach and stream mouth
- Rock: 25 B: 20 C: 40 D: 10 G: 5
- Drift Debris - Logs / Popweed / Kelp
- Oil - Sheen Light - Heavy
  - Continuous
  - Mousse / Tar
- Oil into stream bank up to 100m from the stream mouth
- OIL from HT to MTZ
- Access - Good across
- Photos.

Recommended Clean-up

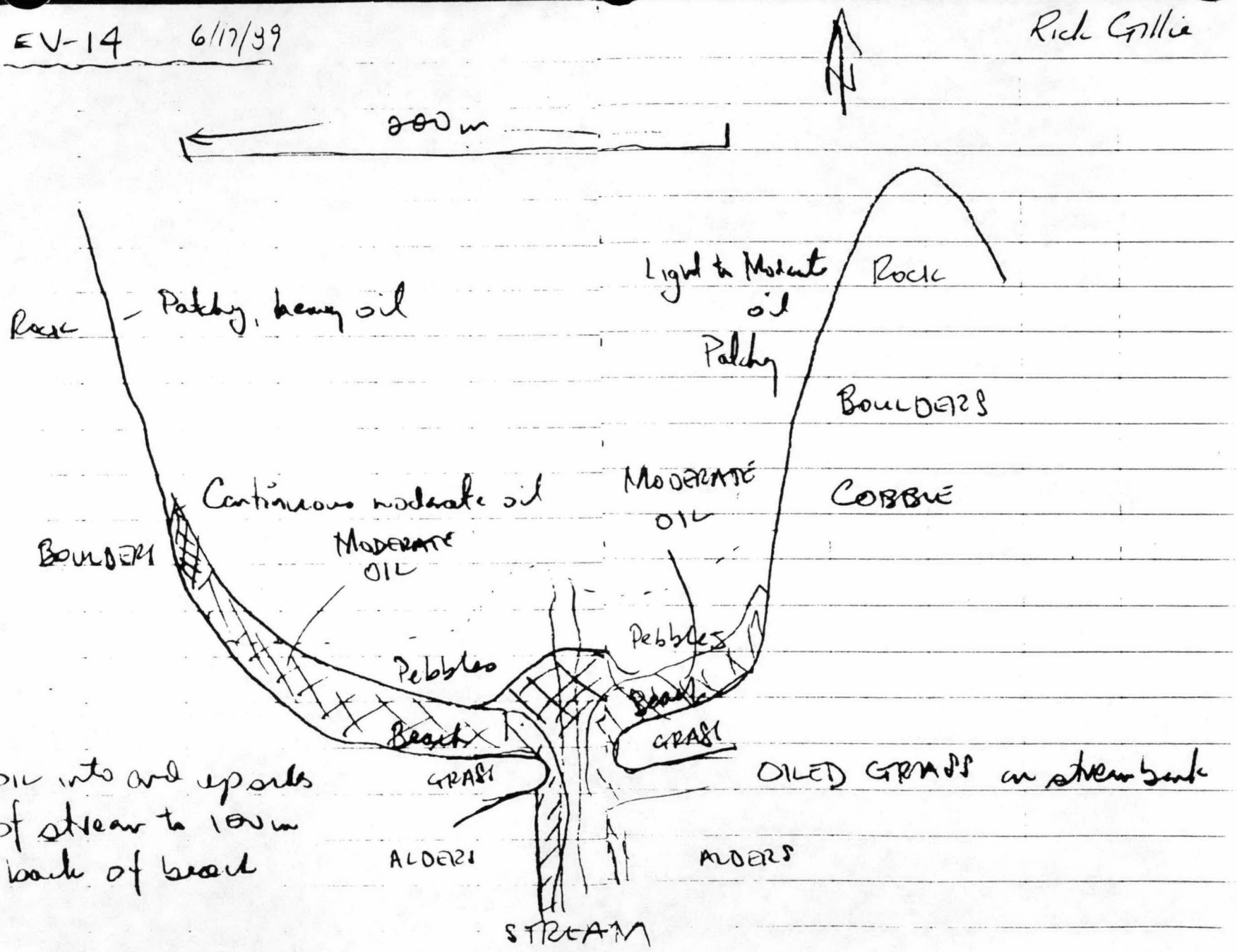
① Manual - popweed
  - oiled grass by stream

② Mechanical
  A - flood wash beach at HT
  B - Rock / boulders
    - high pressure

③ Potential salmon spawning stream

EV-14 6/17/99

Rick Gillie



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 14 LENGTH: 600 (M)

DATE: 06 / 17 / 89 TIME (HHMM): 1020 TIDE HT.: +3.5 FT (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Sparse and patchy on cobble/pebble beach, dense on rock headlands, oiled in this area.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Mussel band in gravel between boulders on west side

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Littorina Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Patches of baby littorina on cobbles, dense adults in some fucus. Nucella patchy on west headrock, feeding in oiled and unoiled barnacles.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Under fucus, on boulders.

OTHER OBSERVATIONS: Stream through center of segment, patches of mousse along stream banks and also in upland straw/grasses (oil line).

CLEANUP PRECAUTIONS: Stream not listed in ADF&G Anadromous Stream Catalogue — check with ADF&G for status, and notify both ADF&G and RAT 48 hours prior to beginning cleanup in this segment if it is shown to be an anadromous stream.

MAMMALS: Otters ____ Harbor Seals 1 Sea Lions ____ Whales ____

Other Deer tracks by stream

BIRDS: Pigeon Guillemot -1

GENERAL OBSERVATIONS: Lots of pygnopodea at stream mouth / fucus drift is subtidal.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/14/89 Location Green Island Site _____

Location Prefix EV Segment # EV-14 Length 600

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate

Width of beach zone surveyed 30 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) ~~None~~ RCS

General observations justifying survey method and segment's site probability:

Shore Profile broad, flat horseshoe shaped beach

Fresh Water Sources stream

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

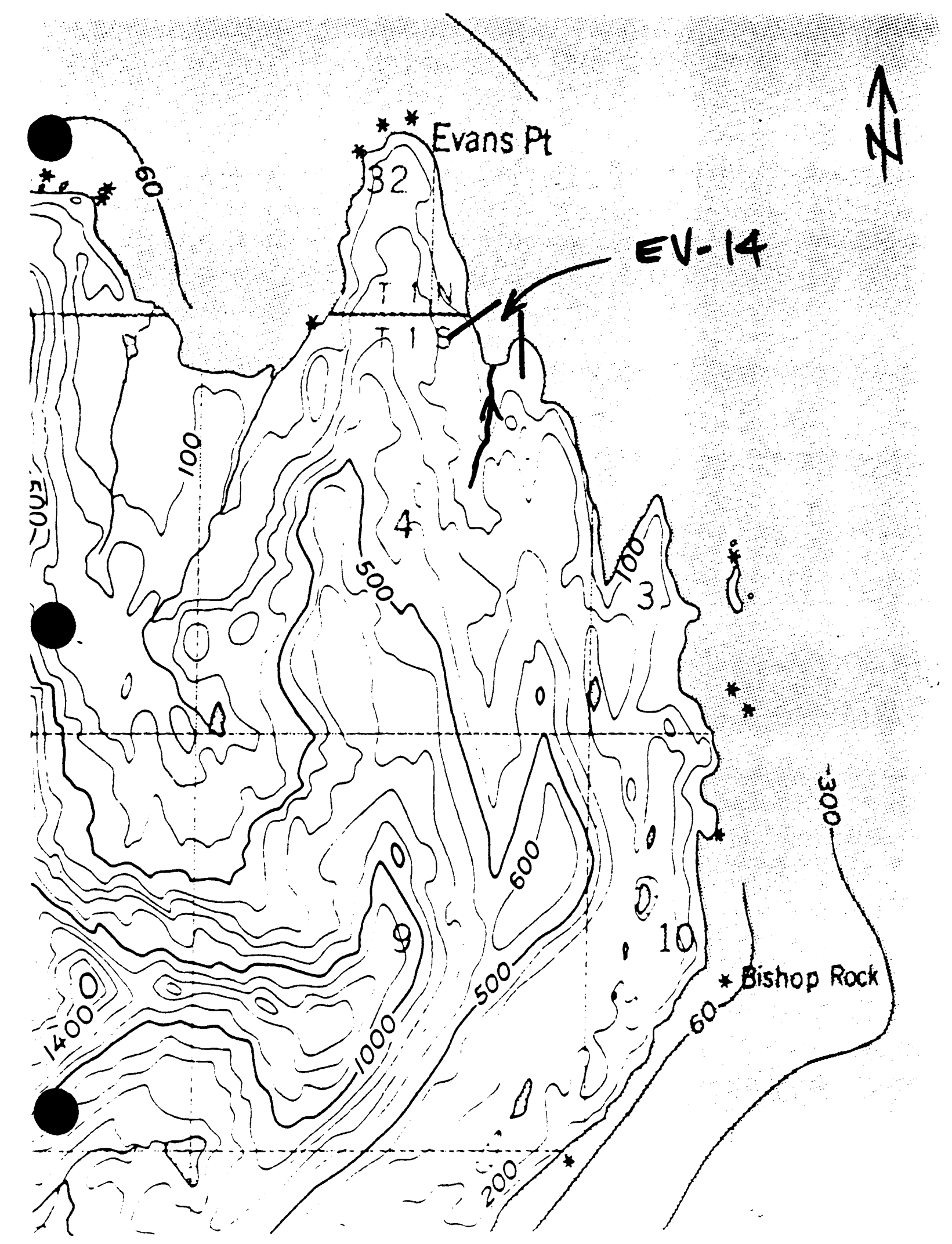
B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started 1000 Time survey ended 1100

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup notify Eppa archaeologist, C. Mobley, immediately.


Evans Pt
EV-14
T 1 N
T 1 S
N
60
100
500
600
1000
1400
300
200
Bishop Rock

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/24/89 SHORELINE SEGMENT EV-15

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended AND Cleanup Activity(ies): MANUALLY AND/OR VACUUM

- Manually remove contaminated drift material (fucus) and patches of mousse. Harvest oiled fucus off rocks per cleanup manual.
  Flood/flush with warm to hot water (up to 140 F) on beach units 1, 3, and parts of 4.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.
  For unit 4 beach, ~~consider relocation of high intertidal zone pebble sediments to surf zone past San Juan Fishery "cleanup restriction" after bird migration and anadromous fish stream time constraints~~. Unit should be reassessed prior to sediment movement. RELOCATION OF SEDIMENTS FOR TREATMENT MAY BE AN APPROPRIATE TECHNIQUE, BUT ONLY IF SPECIFICALLY APPROVED BY THE ISCC AND TRANSMITTED BY SCAT. 7/3/89 jm

Priorities Considerations:
  Class 1: Time sensitive resources.
  Class A: Subsistence resources present / HATCHERY NEARBY.

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. For unit 4, if high intertidal zone pebbles are relocated to surf zone as a cleanup method, do this after anadromous fish stream time constraint is complete (September) to minimize oil on the water during salmon migration. Restrict access and protect rich low tidal areas of rock outcrops AND TIDE POOLS in units 1 and 2.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Regalia — Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacqueline Michel — Date: 7/3/89

EXXON: [signature] — Date: 7-4-89

FOSC: C G Nobbin — Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land

SHORELINE OIL EVALUATION

Date: 6/17/1989 Time: 08:05 Observer: RICK GILLIE

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-15

LENGTH OF SHORELINE SEGMENT: 1,350 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPT/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % / R 60 % Popweed Logs

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment ___ Width of Band: ___ m

Sporadic: Y/N % of Segment 90

Est. Oil Thickness where > 1cm: 10 cm Est. Oil Penetration: 20-30 cm

Pooled Oil: 1 % "Free" Oil: ___ % Coated: H 60 % / M 30 % / L 10 %

Fresh ___ % Mousse 10 % Tar Formation: 90 %

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

① FOUR (4) UNITS WITHIN SEGMENT

UNIT	LENGTH	SUBSTRATE	OIL
1	150	2 beaches	Moderate at HTZ
2	500	Rock, crevices	Patchy to Heavy
3	200	Beach, pebbles	Moderate
4	400	Rock/pebble beach	Moderate to Heavy

6/17/1989

SEGMENT EV-15

08:05

Unit

[redacted] 1 (At Evans Pt)

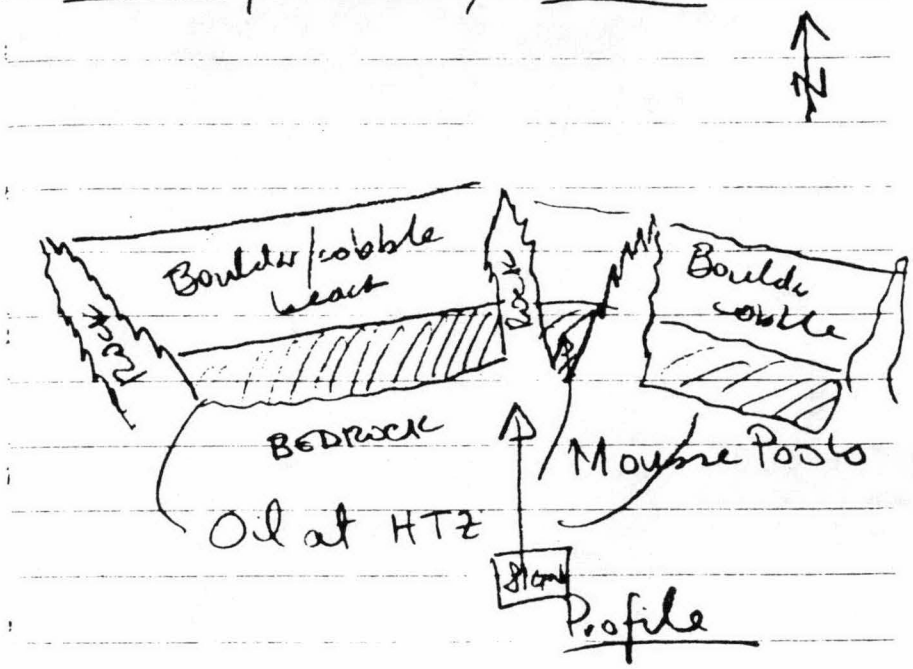
- bedrock/boulder/cobble beaches (2)
- 100m long, 50m long
- moderate oil at HTZ
- oiled Rockweed
- weathered oil / mousse
- Recommended clean up
  1. Vacuum mousse at HTZ
  2. Flood / wash beach
- Photo T4G-2 (Frame 19)
  3. Hand clean-up of oiled fucus debris
  4. Intact fucus / harvest
  5. High pressure / washing in rocks

SIGN - PORT SAN JUAN
FISH SIGN

R. Miller

UNIT #1

EV-15 [redacted] Plan View



UNIT #2 (EV-15) (08.30) 6/17/89

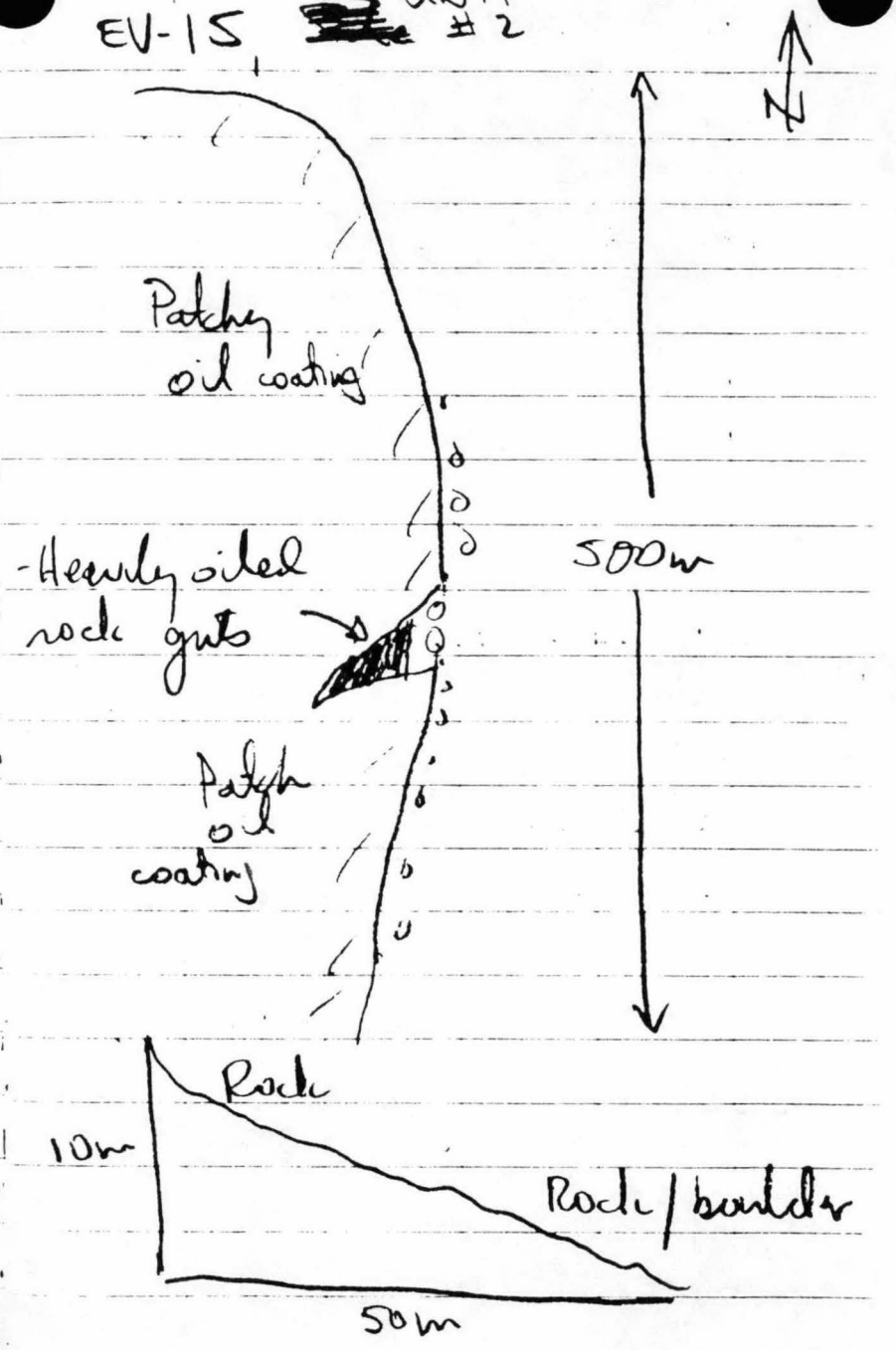
- 500m long, steep rock shore
- a couple of 20-30m guts with heavy oil
- mousse pools, heavy oil coating
- large boulder substrate / bedrock walls

- Recommended clean-up

① Oiled fucus - cut/collect
② Vacuum / wand mousse accumulations / pools
③ High pressure on rock faces
④ ~~Bio~~ Flood / wash 20-30m heavily oiled rock gut

Photos T4G-2 (

EV-15, UNIT #2



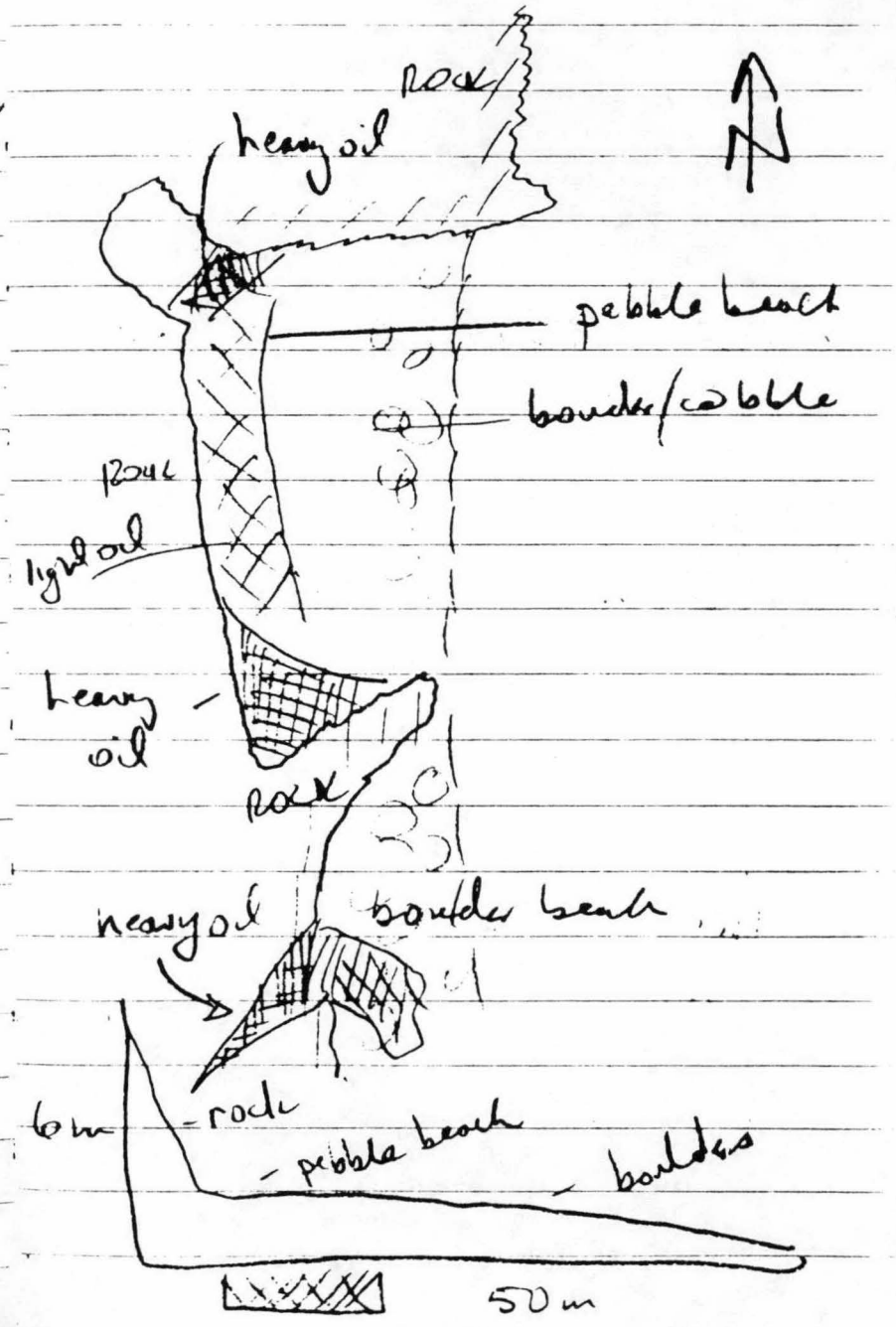
EV-15, Unit #3 (07.20) 6/17/99

- 200 m long
- 40 m wide
- boulder (20) cobble (30)
  gravel (20) rock (30)
- beach backed by rock cliff
- moderate to heavy oil at HTL.
- oil on rock faces, boulders and gravel beach sediments

- Recommended Clean-up

① Manual removal
② Wash / Vacuum
③ ~~Flood~~ Hi-pressure on rocks
④ Flood/wash at M-MH Tide

Access: nearshore rock/reefs
Photo: TAG-2, #17



EV-15, Unit #4, 10:00, 6/17/93 R. Gillie

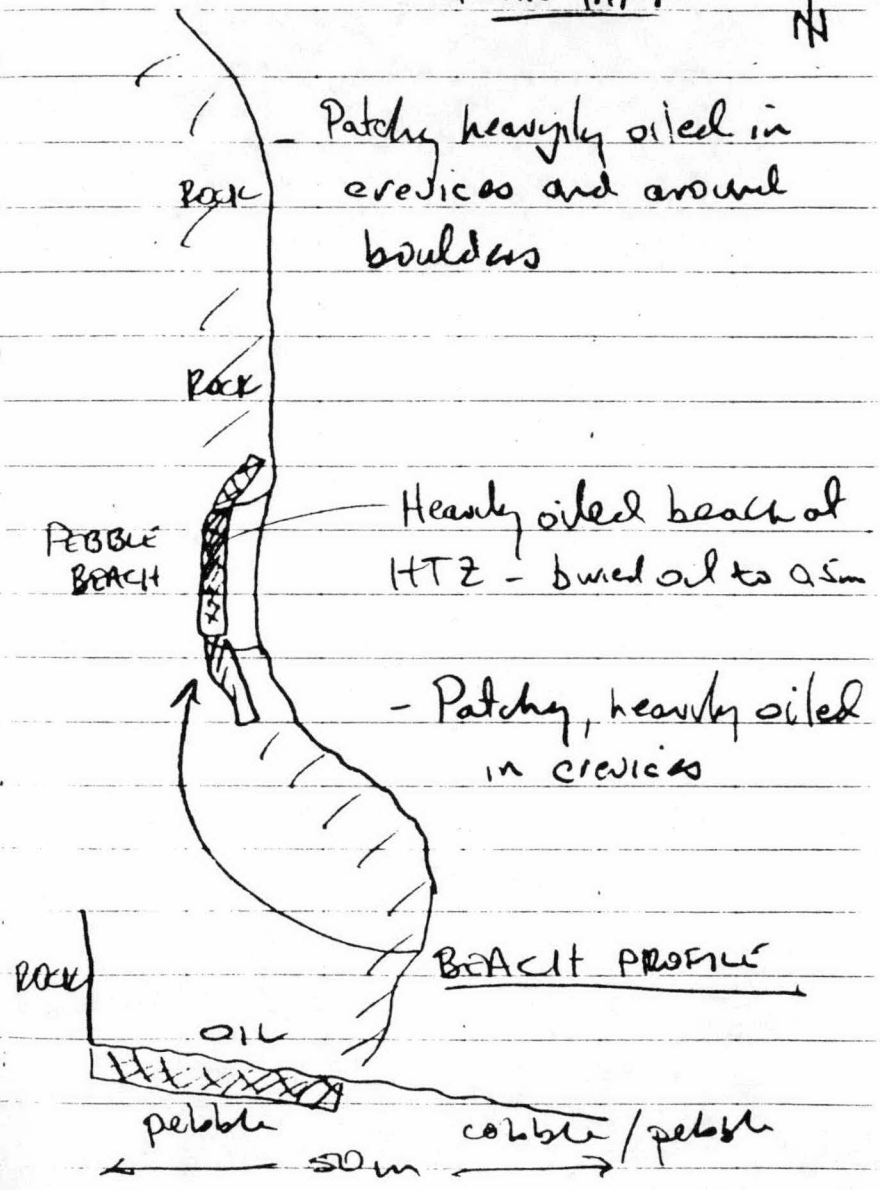
- 400m long
- predominantly rock/boulder
- two small gullies with heavy oil accumulation
- beach at south end (50m long)
  - HTZ - pebble
  - LTZ - cobble/boulder
- buried oil to 0.5m
- oiled popweed debris in HT beach berm
- oiled rocks at HT to MT

- Recommended Clean-up

① Manually remove oiled debris popweed
② High pressure rock wash
③ Flood/vac beach sediment and/or push to LTZ (after San Juan fishery)

Photo

PLAN MAP



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 15 LENGTH: 1350 (M)

DATE: 06/17/89 TIME (HHMM): 0800 TIDE HT.: -0.5 (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

Continuous on bedrock; patchy on beaches, sparse on units ③ & ④ (beaches in). Heavily oiled in some areas but always with abundant unoiled healthy fucus nearby. (MTZ, HTZ)

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Patchy and sparse throughout most of segment; bedrock of unit ② has denser beds (generally closed - alive) coated with oil in all 3 tidal zones.

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

Thatched barnacles patchy and sparse; acorn barnacles fairly continuous in MTZ, LTZ; spat present

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Littorina present, often feeding in fucus - abundant & alive also in patches of oiled fucus. Nucella patchy + abundant, sometimes feeding on barnacles on oiled rock faces

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Patchy abundance, feeding under oiled and unoiled fucus alike, also on unoiled cobbles/boulders.

OTHER OBSERVATIONS: Headlands (LTZ) and subtidal abundant and diverse sea stars - Pisaster, Pycnopod Dermasterias; Evasterias; Orthasterias; also green anemones. Stream (water trickle) in Unit ③ not anadromous

CLEANUP PRECAUTIONS: Unit ①: avoid rock outcrop/rich tide pools at east end of segment as much as possible

Unit ② - see diagram at bottom of page Unit ④ good candidate for moving oiled gravel/pebbles into active surf zone — To minimize steam in water do this after the salmon time restriction (September

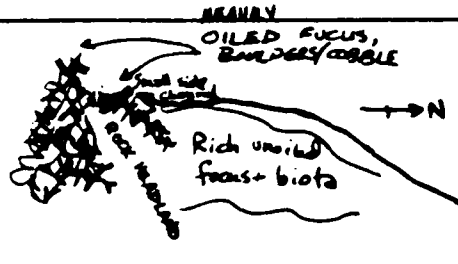
MAMMALS: Otters 2 Harbor Seals 1 Sea Lions ____ Whales 1 (minke off shore - possibly Fin whales)
Other ____

BIRDS: Black-legged Kittiwake - 2

GENERAL OBSERVATIONS: Abundant healthy adjacent Fucus to replace any oiled Fucus harvested.

Unit ②

Cleanup Precautions



As much as possible, drain mechanical wash technique through main oiled area, not small side channel on North side which drains over rich intertidal fucus + biota (marked). Possibly use rope skimmers, sorbents to stop flow of wash off there as much as possible. Focus effort on large rock unit.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/16/89 Location Green Island Site _____

Location Prefix EV Segment # EV-15 Length 1350 m

Survey Method:

Air _____ (A - indicate on map) Boat ~~3 BEACHES~~ THE REST (A - indicate on map)

Ground ~~3 BEACHES~~ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to moderate

Width of beach zone surveyed 10-15m Tree fringe surveyed 10

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile Mostly steep wall face. One beach is moderately sloped and boulder covered; the second is steep and boulder covered

Fresh Water Sources None

Sea Exposure open to north

Access/Safety four

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes/no

Photos: Color Roll # _____ Frames _____

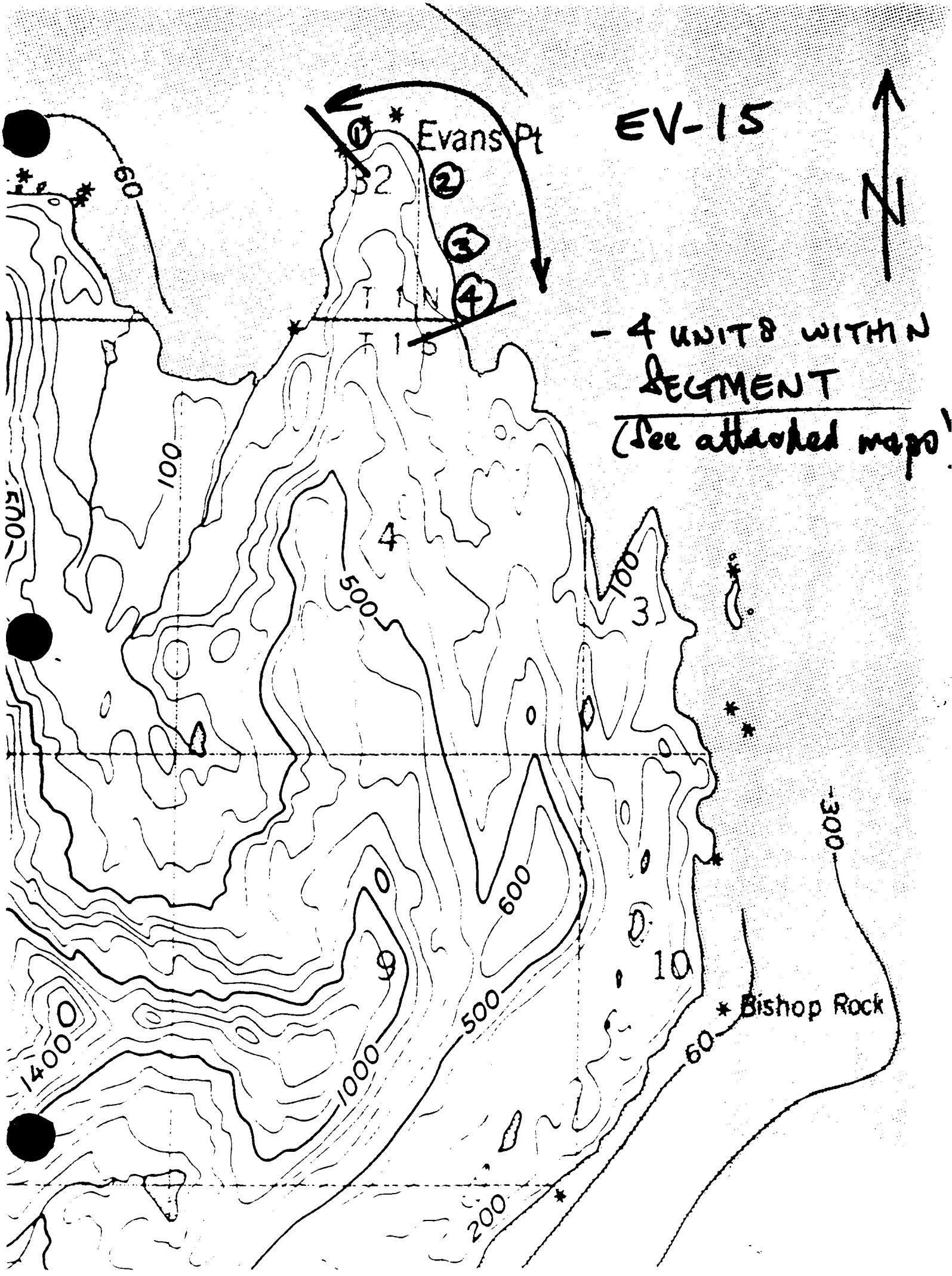
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 0815 Time survey ended 1000

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are identified during cleanup notify Copper area archaeologist, C. Mobley immediately.


EV-15
N
- 4 UNITS WITHIN SEGMENT
(See attached maps)
Evans Pt
Bishop Rock
T 1 N
T 1 S
1
2
3
4
32
60
100
500
600
1000
1400
200
300
4
3
9
10

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/24/89 SHORELINE SEGMENT EV-36

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/16/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
Use moderate to high pressure washing on rock.
Use other approved methods as appropriate

Priorities Considerations:
Class 1: Heavy to light oil/time sensitive.
Class A: Subsistance resources present/ HATCHERY NEARBY. jm 7/3/89

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: _____ Date: 7/3/89

EXXON: _____ Date: 7-4-89

FOSC: _____ Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/14/89 / Time: 09:40 Observer: RICK GILLE

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER ~~EV-06~~ EV-36

LENGTH OF SHORELINE SEGMENT: 1,900 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/MANG/VER

Wave Exposure: High/Med/Low

Sediment: B 30 % / C 10 % / P 5 % / G ___ % / S ___ % / M ___ % / R 50 % FINES

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment 5 Width of Band: 10 m

Sporadic: Y/N % of Segment 95

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ___ cm

Pooled Oil: ___ % "Free" Oil: ___ % Coated: H 10 % / M 80 % / L 10 %

Fresh ___ % Mousse 1 % Tar Formation: 99 %

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

- HEAVY OIL BAND CONFINED TO IMMEDIATELY SOUTH OF BISHOP ROCK
- GENERALLY LIGHT TO VERY LIGHT BAND / COATING CONFINED TO 1-2 m BAND IN HTZ.

6/18/1999 EV-36

~~SEGMENT EV-06~~

09:38

- South of Bishop Rock.
- ~~Light to heavy, light oil~~

- ① Heavy oil band (10m wide) in boulders at HTZ

② Photo 11 - view south

R-50 B-30 C-10 P5

③ Light-to very light oil band at HTZ
- 1-2m wide
- on Large boulder, rocks

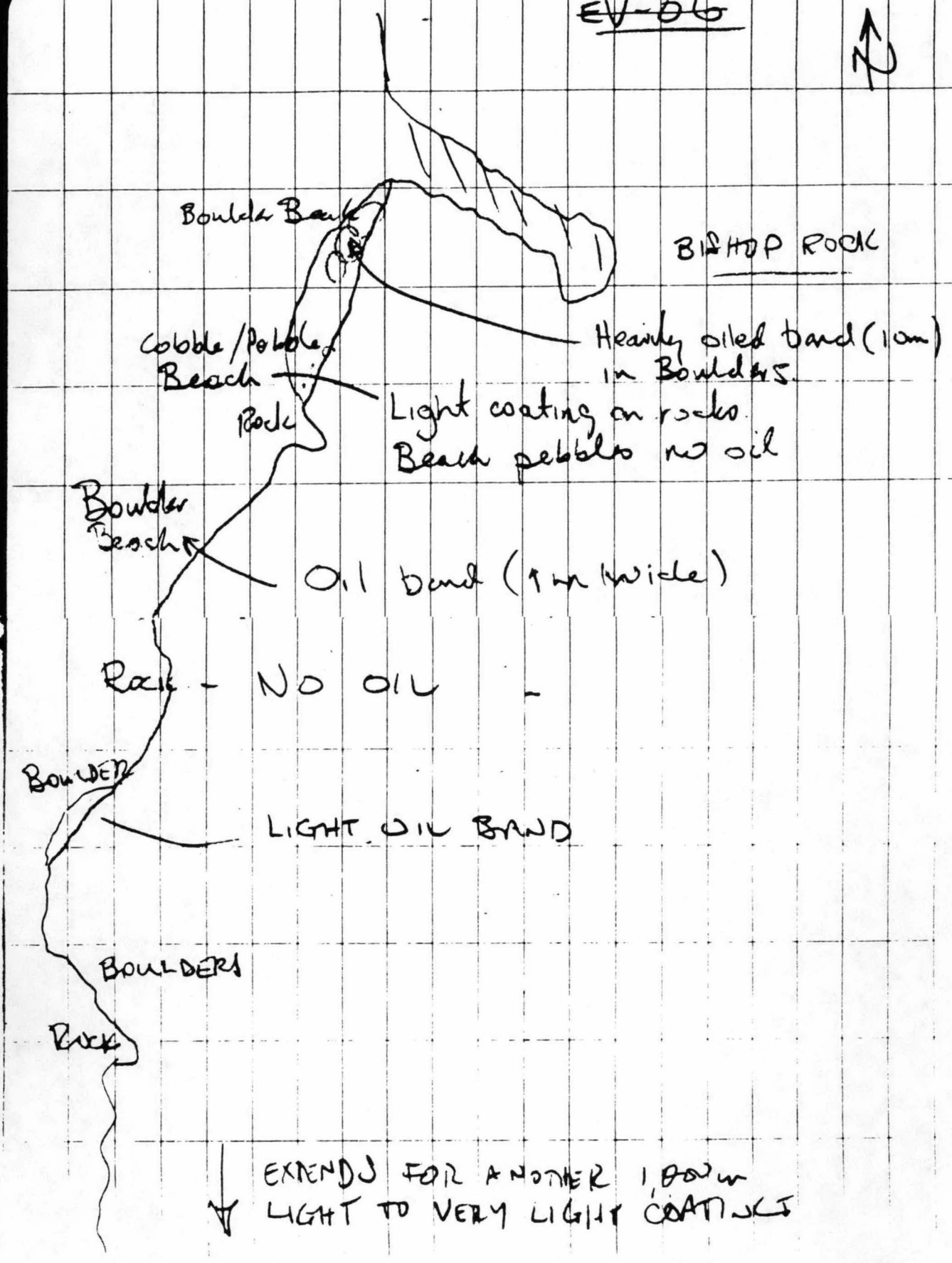
④ Recommend no-cleanup
- Very light oil band residual
- Natural abrasion of light coating on rocks

① Recommend steam w high pressure cleaning of rock faces and use of absorpat pads to recover oil. Otherwise, no cleanup is necessary.

10:40 finish survey at southeast EV-06

EV-36

~~EV-06~~


N
Boulder Beach
BISHOP ROCK
Heavily oiled band (10cm) in Boulders
Cobble/Pebble Beach
Rock
Light coating on rocks
Beach pebbles no oil
Boulder Beach
Oil band (1m wide)
Rock - NO OIL -
BOULDERS
LIGHT OIL BAND
BOULDERS
ROCK
EXTENDS FOR ANOTHER 1,000m
LIGHT TO VERY LIGHT COATING

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: Meyer

LOCATION PREFIX: EV SEG. NO.: 36 LENGTH: 1900 (M)

DATE: 06 / 18 / 89 TIME (HHMM): 0940 TIDE HT.: 0.0 FT (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Patchy mussel beds, few small mussels in Fucus

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

Littorina
Patchy (Y)/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

Tiny Littorina on cobble/pebble beach, adult littorina in fucus; patches of nucella in barnacles

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Limpets and hermit crabs dominant under fucus (not littorina); diverse sea stars: Pisaster, Pycnopodia; Evasterias, Permasterias; schools of small fish, possibly salmon fry.

CLEANUP PRECAUTIONS: No ecological constraints.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: NW Crow-1

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/15/89 Location Evans Island Site _____

Location Prefix EV Segment # EV36 Length 1900

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light + patchy

Width of beach zone surveyed 7-9 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile steep heavily cobbled beaches + vertical rock face

Fresh Water Sources None

Sea Exposure open to East

Access/Safety poor

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

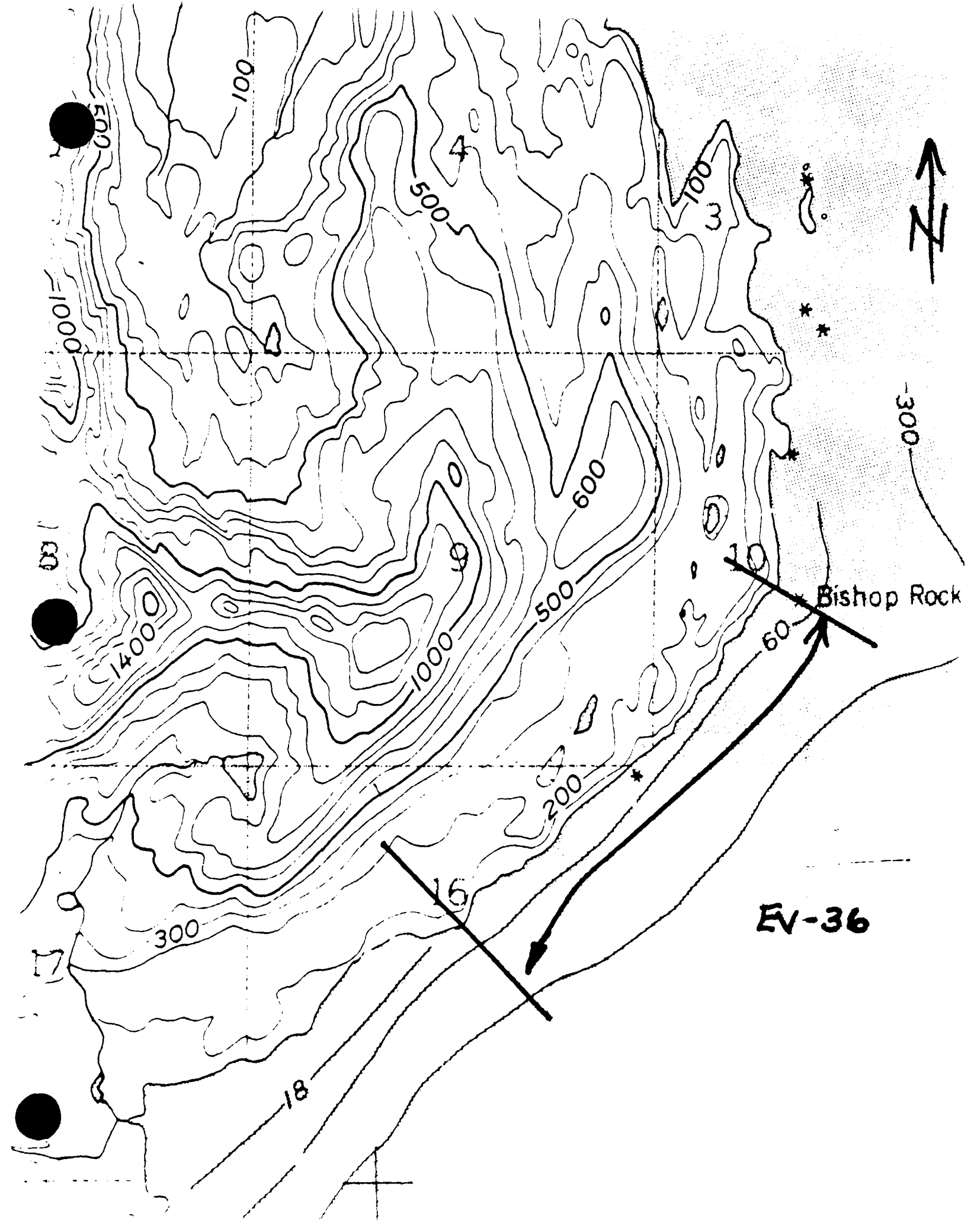
B/W Roll # _____ Frames _____

Observer(s) C. Mobley

Time survey started 0940 Time survey ended 1130

Cultural resource considerations/restraints:

If heretofore undiscovered cultural ~~site~~ materials are uncovered during cleanup contact Exxon archaeologist, C. Mobley, immediately


100
500
4
500
100
3
N
1000
300
600
0
9
8
1400
1000
500
10
Bishop Rock
60
200
16
EV-36
300
17
18

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/19/89 SHORELINE SEGMENT EV-37

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/18/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
  Flood/flush with warm to hot water (up to 140 F) on low angle cobble and pebble beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
  Class 1: Heavy to light oil/time sensitive.
  Class A: Subsistence resources present / HATCHERY NEARBY. jm 7/3/89

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect rich lower intertidal zone. Limit access to rock outcrop at northern end of unit 4 which is rich with intertidal biota. Do not use high pressure in this area. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
No disturbance of boat wreck in northern part of segment. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger Date: 6/29/89
State Historic Preservation Officer *

ISCC: Jacqueline Michel Date: 7/3/89

EXXON: L Hinton Date: 7-04-89

FOSC: C E Mollin Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/18/89 Time: 07:09 Observer: RICK GILLIE

Surveyed From: Foot/Boat/Helio/Plane Weather: Sun/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-37 EV-02

LENGTH OF SHORELINE SEGMENT: 1,100 m

ACCESS: Foot/Vehicle/Boat/Barge/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/STRT Slope: LANG/HANG/VER

Wave Exposure: High/Med/Low

Sediment: B 35 % / C 30 % / P 5 % / G ___ % / S ___ % / M ___ % / R 30 % FUELS LOG!

Drift Debris on Beach: Yes/No Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment 20 Width of Band: 20 m

Sporadic: Y/N % of Segment 80

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: 10-20 cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H 90 % / M 5 % / L 5 %

Fresh _____ % Mousse 10 % Tar Formation: 90 %

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

- FOUR UNITS AS DEFINED ON LOCATION MAP
- UNIT 1 - ROCK CLIFF/BOULDERS, LIGHT OIL
- UNIT 2 - BEACH - HEAVY OIL
- UNIT 3 - ROCK CLIFF/BOULDERS, LIGHT OIL
- UNIT 4 - BEACH - MODERATE TO HEAVY OIL

6/18/89 EV-37 Rick Gillie

SEGMENT EV-07

07:09

UNIT #1

① Rock / boulder cliff - very steep, patchy oil, limited to HTZ and rock crevices

② Would be hazardous to clean Light oiling overall

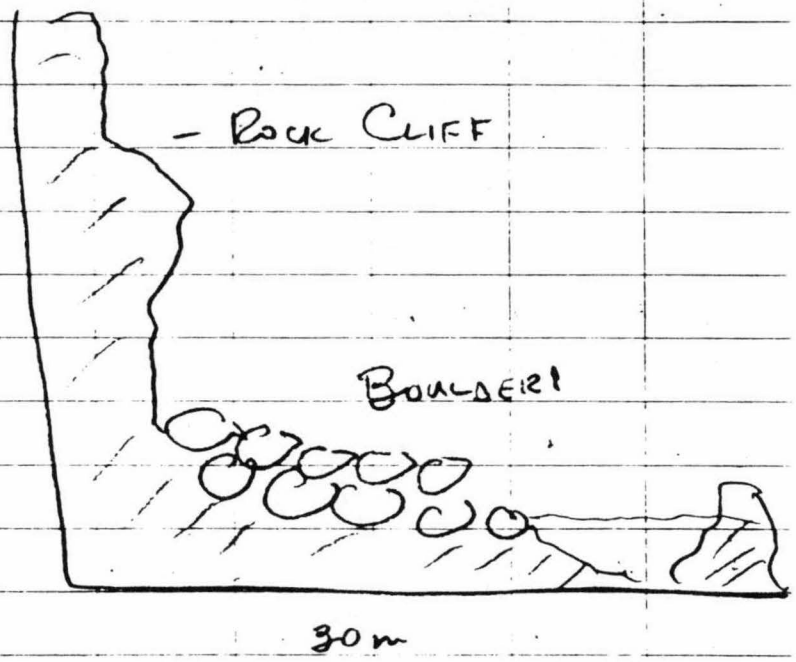
③ Oil bound on rocks

④ Approx 150m long

⑤ High energy exposure

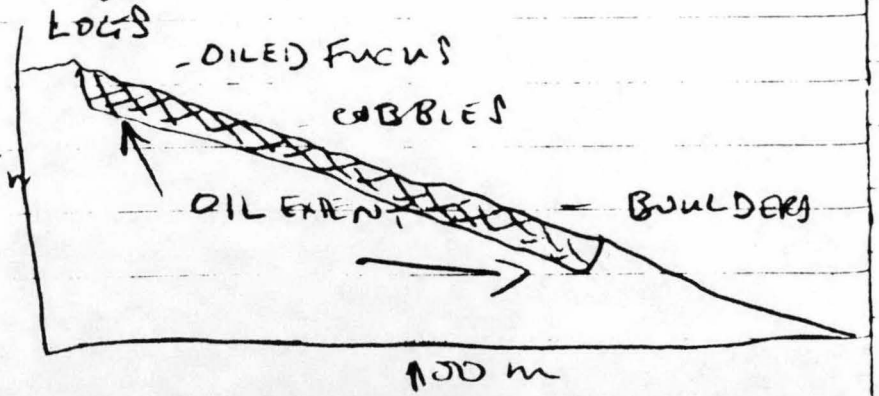
⑥ High potential for self cleaning

EV-07 UNIT #1

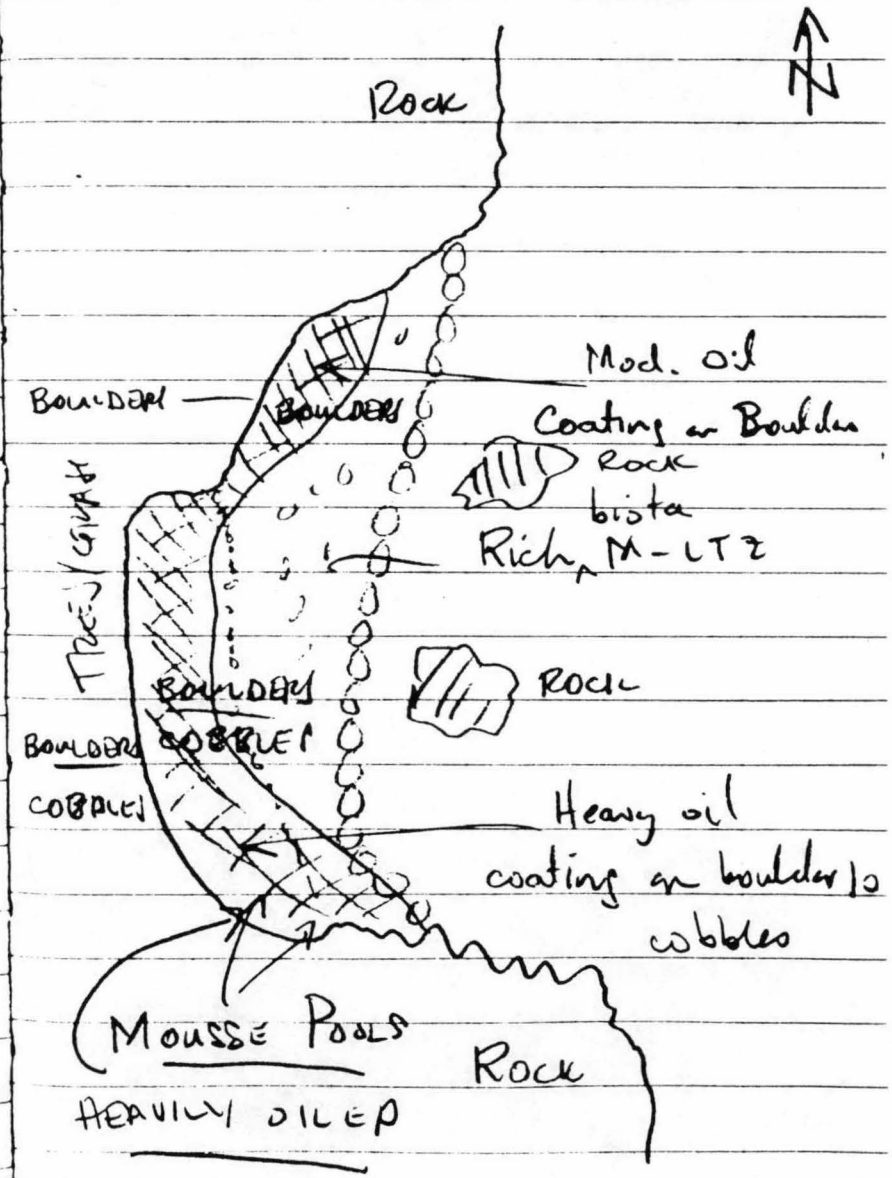


EV-37
~~EV-07~~ Unit #2 (07:48)

- Boulder/cobble pocket beach
- 200 m long
- Heavy oiling of rock headlands and beach boulders/cobbles from MTZ to HTZ
- Limited access due to rocks (large) in LTZ and nearshore
- Oiled Fucus, some oiled logs
- Somewhat protected from high energy wave action



EV-07, UNIT #2 Rich Gilfillan



EV-37

~~EV-07~~, Unit #3

- 08:15
- 150m length of steep, rock cliff
- similar to UNIT #2
- patchy oil
- oil confined to rock crevices in cliff face at HTZ

6/13/1989 Rick Gillie

~~EV-37~~
~~EV-02~~ Unit #4

08:26

- Approx 700m long

- Cobble / boulder beach overlying a wave-cut platform in bedrock

- R=30 B=35 C=30 P=5

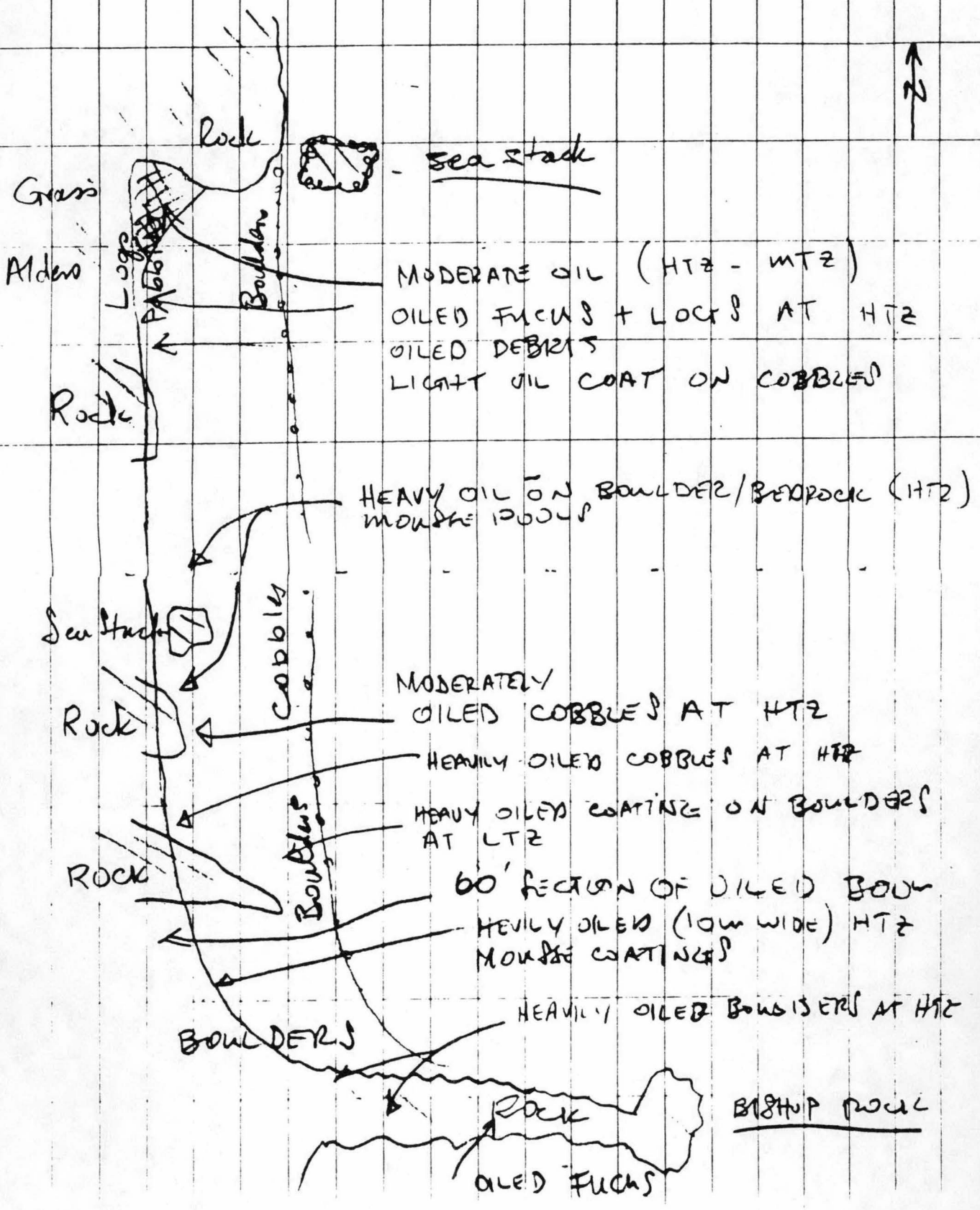
- Light to mod oil except for south end (Bishop's Rock)

Beach exposed to high energy and has undergone natural cleaning

- Heavily oiled in patches of 50-100m at Htz mostly

EV-37

~~EV-02~~ UNIT #4



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 37 LENGTH: 1100 (M)

DATE: 06 / 18 / 89 TIME (HHMM): 0715 TIDE HT.: -1.5 FT (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Majority of Fucus is unoiled and healthy, abundant. Unit ④, northern end has some heavily oiled + dying fucus

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Most oil free except Unit ④, northern end, where mytilus beds are coated with mousse.

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

Small and large acorn barnacles and thatched barnacles present. Spat also.

Littorina
Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Littorina in fucus, tiny littorina abundant on cobbles above fucus and into oiled zones. Nucella patchy, sometimes abundant.

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Limpets occassionally on cobbles in oiled zone (alive), also under unoiled fucus

OTHER OBSERVATIONS: Very rich lower and sub tidal zone throughout most of segment - dense pisaster, (9 seen on one rock area) pycnopodia; abundant dermasterias; Evasterias also present; Christmas tree worms (Teelia); abundant hermit crabs Unit ② had more hermit crabs than littorina in fucus.

Particularly Units ② and ④

CLEANUP PRECAUTIONS: Protect all areas of rich intertidal during cleanup. Limit access at Northern end of Unit ④ on rock outcrop which is rich with intertidal biota.

MAMMALS: Otters ___ Harbor Seals ___ Northern Sea Lions 2 Whales ___
Other ___

BIRDS: Pigeon Guillemots - 5 adults, 1 juvenile; Bald Eagle perched on Bishop Rock, two Bald Eagles later seen flying together along segment; 2 Common Mergansers; Black-legged Kittiwake - 1;

GENERAL OBSERVATIONS: NW Crows - 1

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/18/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-37 Length 1100

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ~ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source _____

Oil conditions/beach visibility heavy

Width of beach zone surveyed 10-15 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) HT1

General observations justifying survey method and segment's site probability:

Shore Profile Beach is heavily bouldered, but uplands are accessible

Fresh Water Sources None

Sea Exposure Open to east

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes/no Collection yes/no

Photos: Color Roll # _____ Frames _____

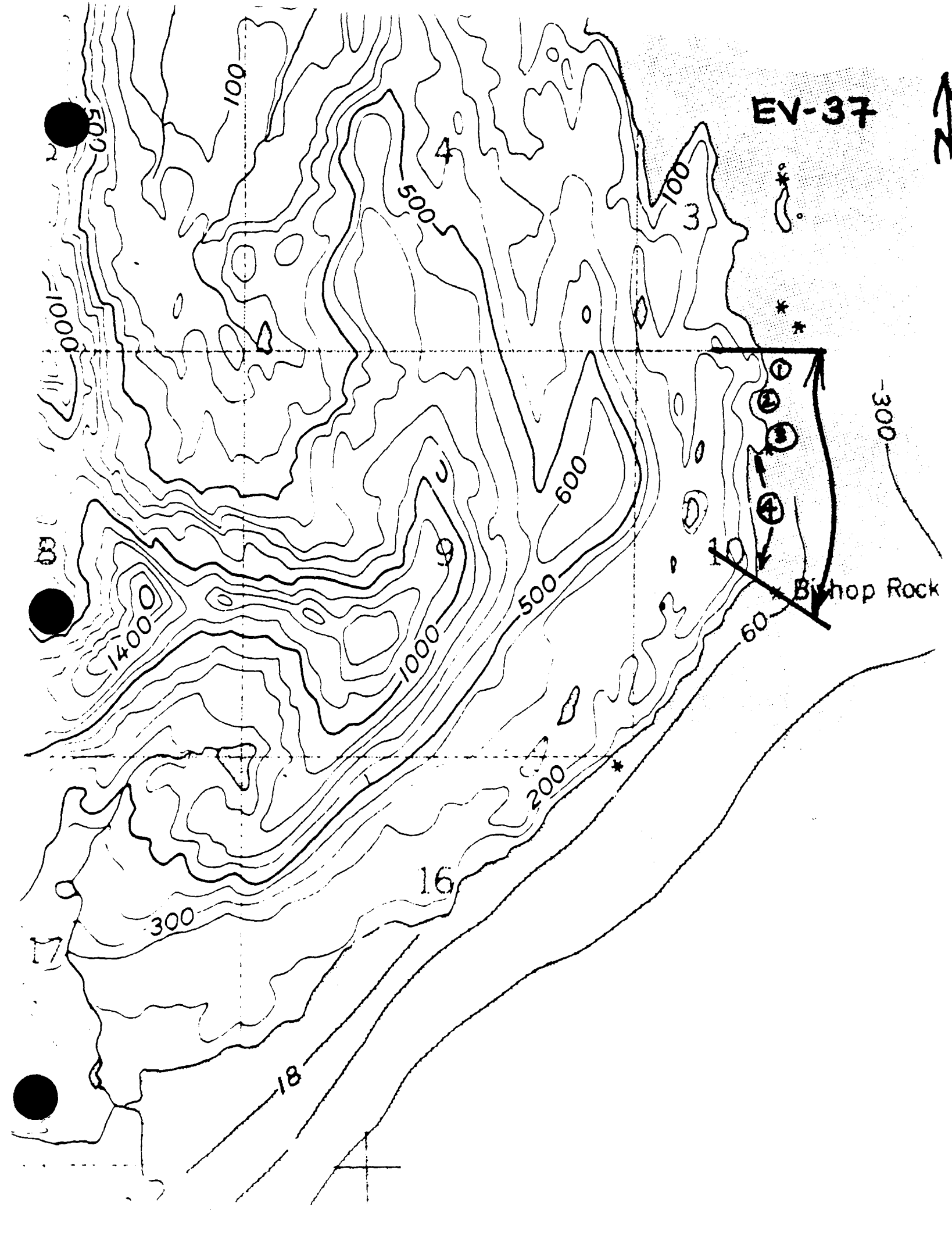
B/W Roll # T4-A-1- Frames 16-23

Observer(s) C. Mobley

Time survey started 0700 Time survey ended 0940

Cultural resource considerations/restraints:

Ensure access to northern uplands is restricted. If historic/prehistoric cultural resources are uncovered during cleanup contact Exxon archaeologist, C Mobley, immediately.


EV-37
N
100
500
1000
4
3
600
9
1400
1000
500
300
16
17
18
200
60
10
Bishop Rock

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT EV-38

LOCATION: (see enclosed map) EVANS ISLAND-SMALL UNAMED ISLAND NORTH OF BISHOP ROCK

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus).
Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
Use moderate to high pressure washing on rock.
Use other approved methods as appropriate.

Priorities Considerations: .
Class 1: Moderate oil/time sensitive.
Class A: Subsistence resources present/ HATCHERY NEARBY. jm 7/3/89

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Rogers
State Historic Preservation Officer * Date: 6/29/89

ISCC: Jacquelin Michael Date: 7/3/89

EXXON: C Watson Date: 7-5-89

FOSC: R E Robbins Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/17/09 Time: 20:20 Observer: Rick Gillie

Surveyed From: Foot/(Boat)/(Helio)/Plane Weather: (Sun)/(Cloud)/Rain/Snow/Foc

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV38

LENGTH OF SHORELINE SEGMENT: 600 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/(COV)/(HLD)/(STRT) Slope: LANG/(HANG)/(VER)

Wave Exposure: (High)/Med/(Low) "ISLAND"

Sediment: B 30 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % / R 60 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type Fresh

OIL

Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment 60

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H 20 % / M 60 % / L 20 %

Fresh _____ % Mousse 10 % Tar Formation: 90 %

Drift Debris Oiled ? (Yes)/No Supra/Upper/Mid/Lower Amount: H/M/(L)

Comments:

(1) SEAWARD SIDE OF ISLAND MOD. OIL ON BEACH AND ROCK FACE

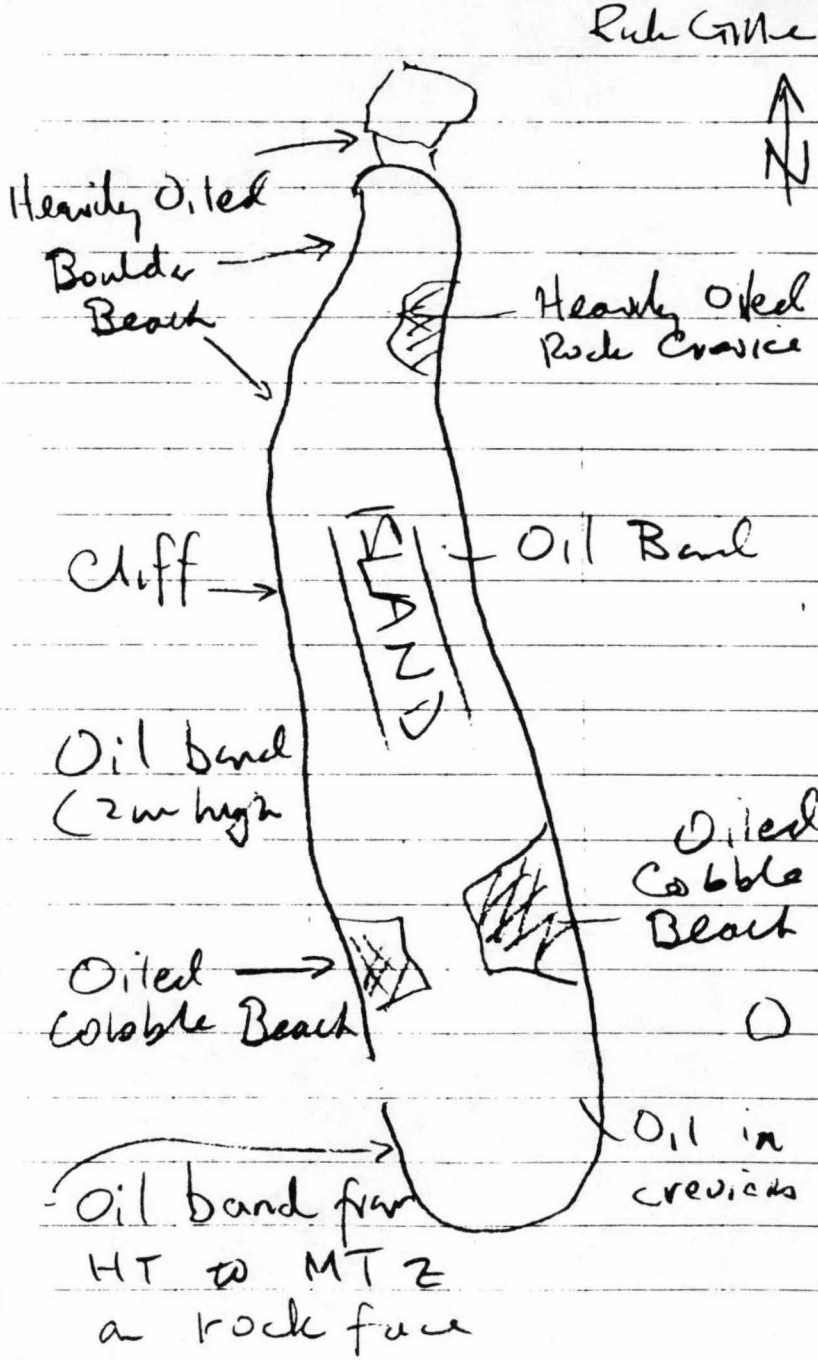
(2) OIL BAND ON SEAWARD SIDE

EV-38

SEGMENT ~~EV-08~~

- 20:20

- Possible OMNI-BOOM



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: ISLAND on NE side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 38 LENGTH: 600 (M)

DATE: 06/17/89 TIME (HHMM): 2020 TIDE HT.: +4.5 FT (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N
Littorina in fucus. Nucella present in patches on barnacles of vertical rockfaces.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Surveyed only from boat. Sea stars present include pycnopodia, pisaster, dermasterias

CLEANUP PRECAUTIONS: No ecological constraints.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: Bald Eagle - 2; NW Crow - 1

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/18/89 Location Evans Island Site _____

Location Prefix EV Segment # EV38 Length 600

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (A - indicate on map)

Ground _____ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility heavy to moderate

Width of beach zone surveyed 0 m Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile mostly vertical wall face with two small pocket beaches

Fresh Water Sources None

Sea Exposure protected to west / open north, east, south

Access/Safety fair

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

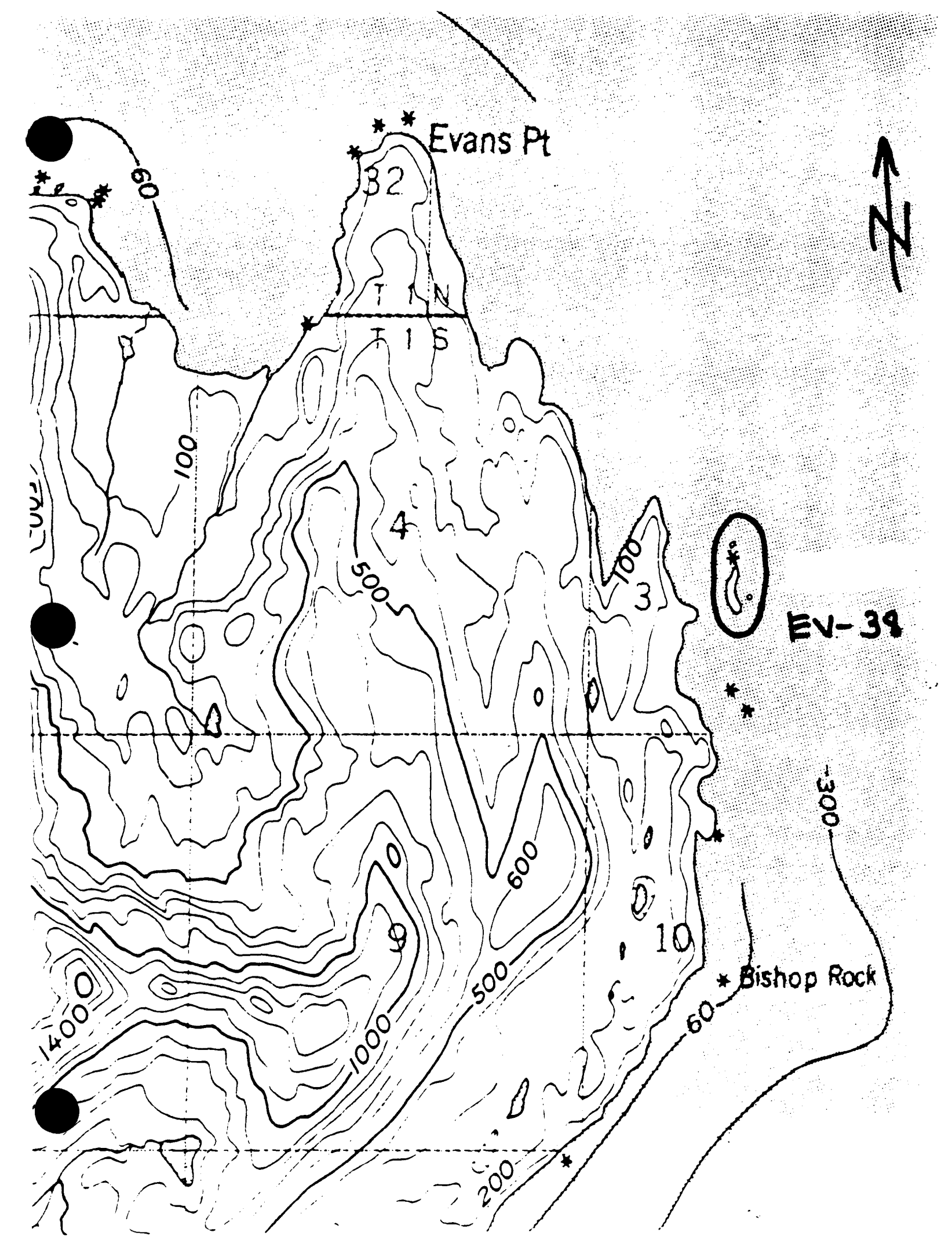
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1020 Time survey ended 1040

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archeologist, C Mobley, immediately.


Evans Pt
32
T 1 N
T 1 S
N
60
100
500
600
1000
1400
4
3
10
EV-39
300
Bishop Rock
60
200

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT EV-39

LOCATION: (see enclosed map) EVANS ISLAND-NORTHWEST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus) and pooled oil. ^and/or with vacuum
Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
Use moderate to high pressure washing on rock and oiled logs.
Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Heavy oil/TIME SENSITIVE
Class A: Subsistance resources present/HATCHERY NEARBY. 7/3/89 JM

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. ~~A suspected anadromous~~ stream ~~is~~ located in this segment. Contact ADF&G and RAT 48 hours prior to beginning cleanup activities in this segment. ~~There is~~

IS NOT A CATALOGED ANADROMOUS STREAM.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger
State Historic Preservation Officer * Date: 6/29/89

ISCC: Jacquelin Michael Date: 7/3/89

EXXON: L Watson Date: 7-4-89

FOSC: [signature] Date: 7-6-89

SHORELINE OIL EVALUATION

Date: 6/17/89 Time: 19:33 Observer: Rick Gilhe

Surveyed From: (Foot)/Boat/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-39

LENGTH OF SHORELINE SEGMENT: 780 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/Med/(Low)

Sediment: B 30 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % / R 40 % FUCUS LOGS

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type _____

OIL

Degree of Oiling: (Heavy)/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / (L)

Continuous: (Y)/N % of Segment 100 Width of Band: 30-80 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 30 cm

Pooled Oil: 2 % "Free" Oil: ____ % Coated: H 80 % / M 20 % / L ___ %

Fresh _____ % Mousse 10 % Tar Formation: 90 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: (H)/M/L/

Comments:

- HEAVILY OILED, ACCESS HINDERED BY NEARSHORE REEFS AND MARSHLANDS
- 2 UNITS (NORTH + SOUTH)

6/17/89 EV39 Rick Gillie

SEGMENT ~~EV 09~~

19:33

① Heavily oiled embayment bounded by rocky headlands

② Entire segment oiled from HT to LT and especially heavily oiled in the south portion.

③ A protected beach because of the offshore island which acts as a breakwater.

④ Oil penetration to + 0.3m

⑤ Access hindered by nearshore reefs and headlands.

Recommended Clean-up

① Manual

② Vacuum

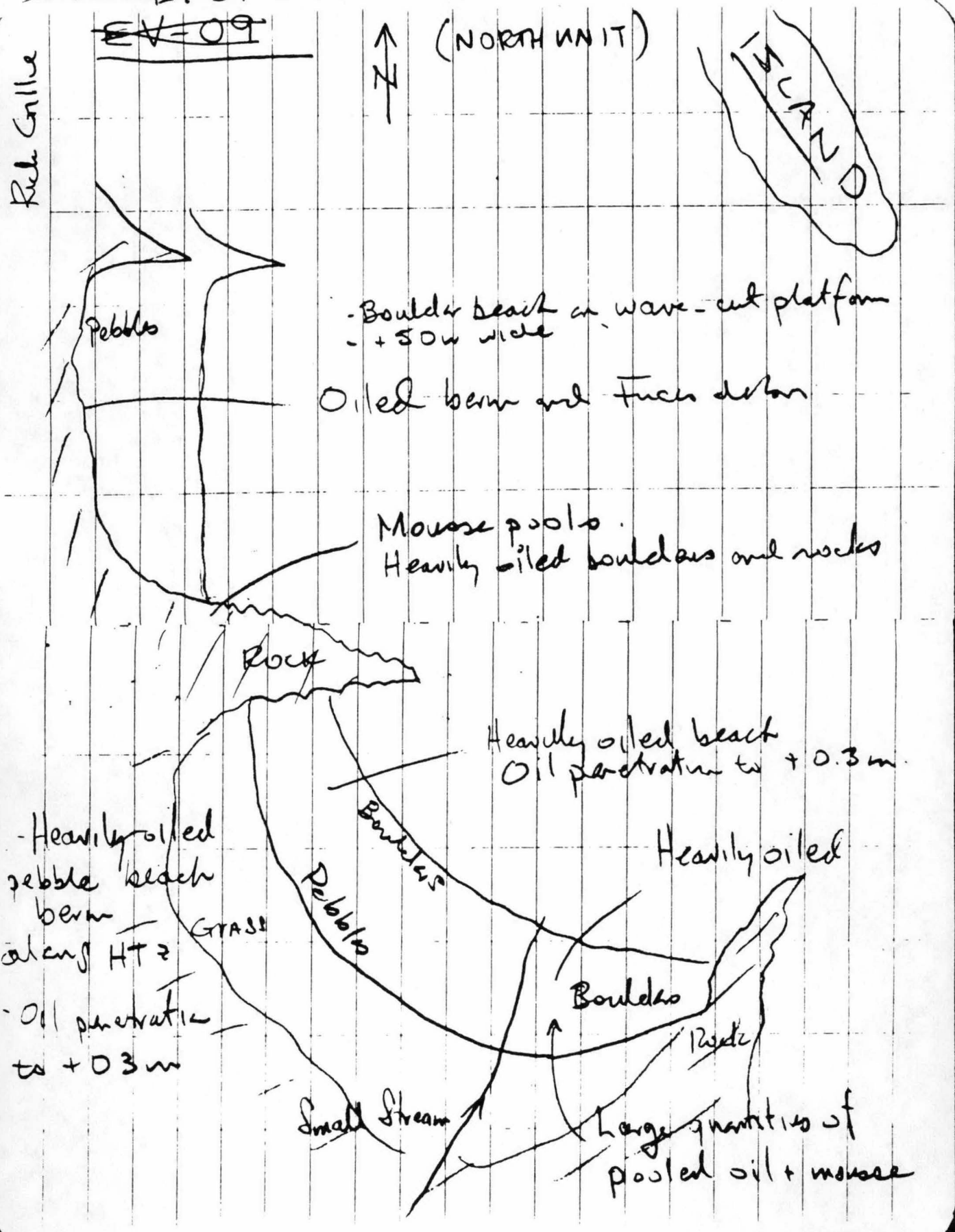
③ High pressure (rocks + boulders)

④ Flood / Wash (Warm/Hot water)

⑤

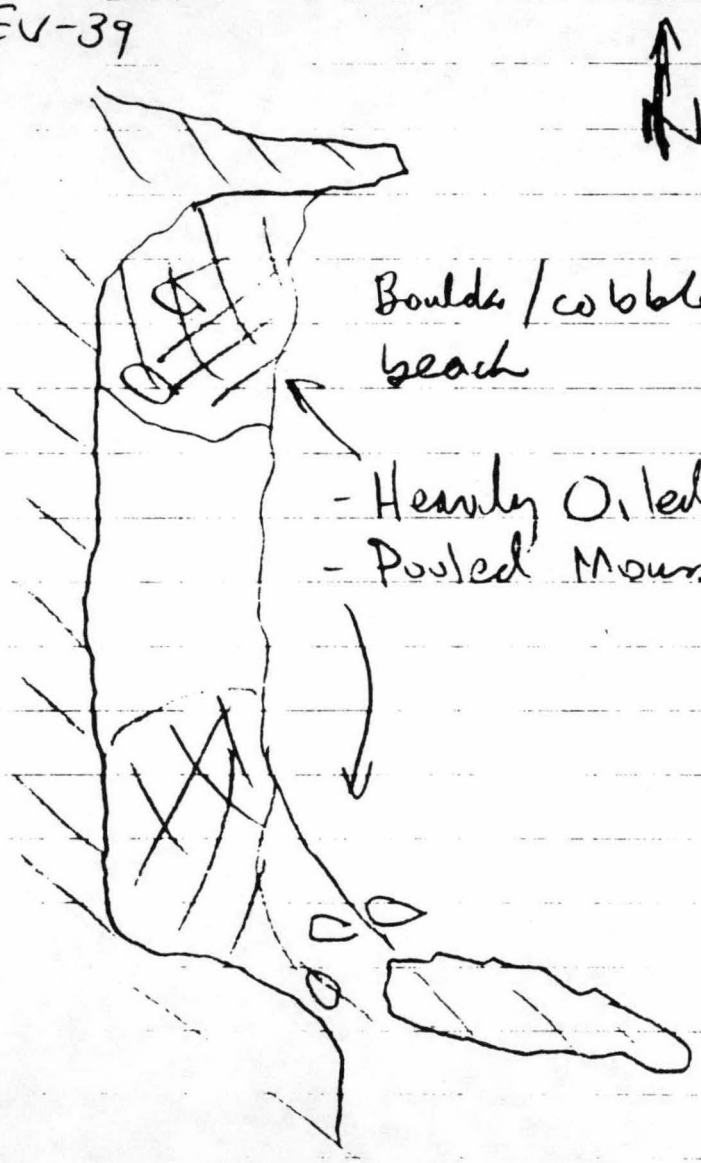
EV-27

~~EV-09~~


(NORTH UNIT)
N
Red Gillie
ISLAND
Pebbles
- Boulder beach on wave-cut platform
- +50m wide
Oiled berm and fresh debris
Mousse pools.
Heavily oiled boulders and rocks
Rock
Heavily oiled beach
Oil penetration to +0.3m
- Heavily oiled pebble beach berm along HTZ
- Oil penetration to +0.3m
Boulders
Pebbles
GRASS
Heavily oiled
Boulders
12yds
Small Stream
Large quantities of pooled oil + mousse

~~EV-09~~ (south unit)
EV-39

Rick Gillie



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 39 LENGTH: 700 (M)

DATE: 06 / 17 / 89 TIME (HHMM): 1940 TIDE HT.: 4 FT (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Fucus on median rock outcrop unoiled and healthy; fucus along edges of cobble beach heavily oiled.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Acorn barnacles patchy throughout segment, spat present

Littorina
Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Dense Littorina adults in lower stream runoff - like mussel beds; oiled adults throughout on oiled boulders. Baby Littorina abundant on boulders/cobbles. Nucella patchy @ LTZ on boulders, not oiled.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Stream is quite small, unlikely anadromous and not listed in the ADF&G anadromous stream catalogue. A large portion of the LTZ has no fucus, mytilis, etc

CLEANUP PRECAUTIONS: Check w/ADF&G on status of stream. If it is determined to be anadromous, notify ADF&G and PAT 48 hours prior to beginning cleanup in this segment.
Keep workers off unoiled bedrock areas - fucus, tidepools, etc.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other LAND OTTERS - 8 in one group (no pups observed)

BIRDS: Black-legged Kittiwake - 1; NW Crow - 1

GENERAL OBSERVATIONS: Sea stars fairly common off rock headlands - Pisaster, Pycnopodia, Evasterias

---

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/17/89 Location Evans Island Site _____

Location Prefix EV Segment # EV39 Length 700

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Sour None

Oil conditions/beach visibility moderate to heavy

Width of beach zone surveyed 10m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile Segment is a boulder beach

Fresh Water Sources none

Sea Exposure east - open

Access/Safety fair

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/no Collection yes/no

Photos: Color Roll # _____ Frames _____

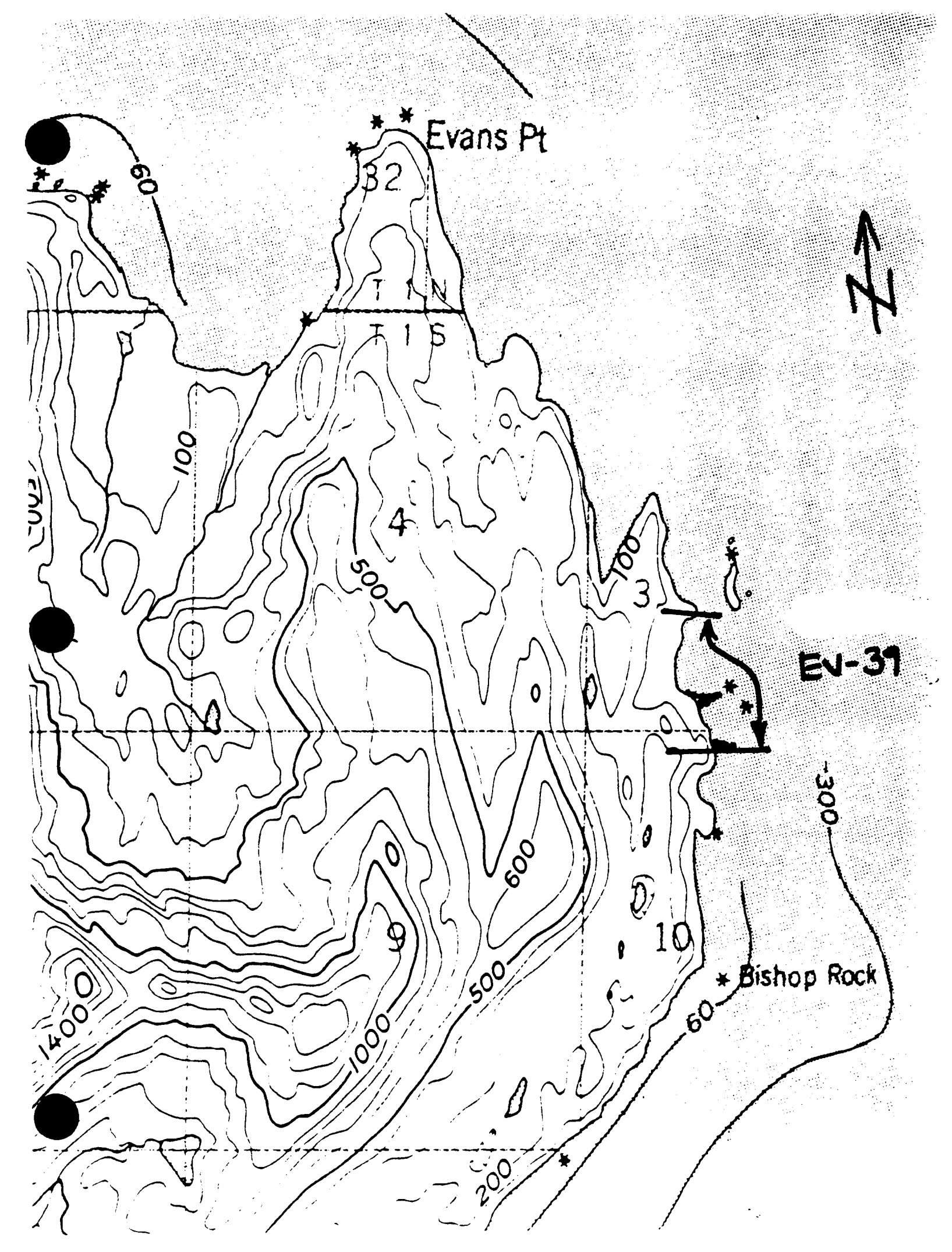
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1940 Time survey ended 2090

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Egan or archeologist, C. Holtey, immediately


Evans Pt
32
T 1 N
T 1 S
60
100
500
4
100
3
EV-37
0
600
10
300
Bishop Rock
60
1400
1000
500
200

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/28/89 SHORELINE SEGMENT EV-40

LOCATION: (see enclosed map) EVANS ISLAND-NORTHWEST SIDE

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/17/89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (fucus)
Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
Use moderate to high pressure washing on rock and oiled logs.
Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Heavy oil/time sensitive.
Class A: Subsistance resources present/ HATCHERY NEARBY. JM 7/3/89

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect unoiled fucus and associate biota in lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger
State Historic Preservation Officer * Date: 6/29/89

ISCC: Jacqueline Michael Date: 7/3/89

EXXON: [signature] Date: 7-4-89

FOSC: [signature] Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/17/89 Time: 19:21 Observer: Rick Gilfe

Surveyed From: (Foot)/Boat/Helio/Plane Weather: (Sun)/Cloud/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-40

LENGTH OF SHORELINE SEGMENT: 350 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/(BRA)/COV/(HLD)/STRT Slope: (LANG)/(HANG)/VER

Wave Exposure: High/Med/(Low)

Sediment: B 30 % / C 40 % / P 20 % / G ___ % / S ___ % / M ___ % / R 10 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type FUCUS LOGS

OIL

Degree of Oiling: (Heavy)/Moderate/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / (L)

Continuous: (Y)/N % of Segment 100 Width of Band: 40 m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: +30 cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H 50 % / M 50 % / L ____ %

Fresh ____ % Mousse ____ % Tar Formation: 100 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: (H)/M/L/

Comments:

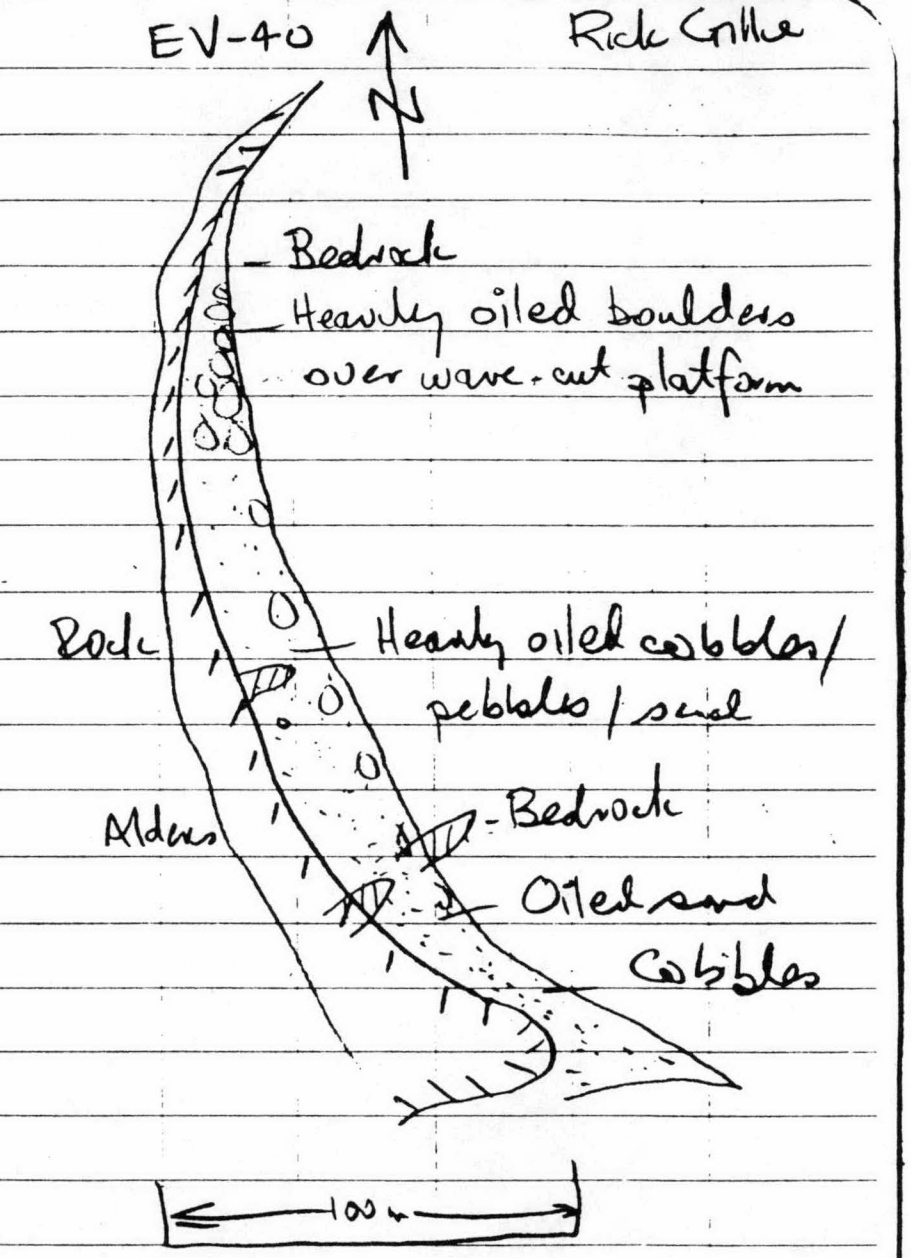
* ACCESS SOMEWHAT LIMITED BY NEARSHORE ROCKS

6/17/89

SEGMENT EV-40

-19:21

- heavily oiled, 300 m long from start of boulder beach on wave cut platform to sand spit shoreward of island
- ~~Good~~ Access limited by resistant rocks
- Oil penetration to + 0.30m
- Oiled band to 40m wide.
- Oiled Fucoid high tide



ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Northeast side OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 40 LENGTH: 350 (M)

DATE: 06/17/89 TIME (HHMM): 1920 TIDE HT.: 4 FT (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patches of oiled and unoiled Fucus.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Patchy mussels, oiled even in the LTZ when present.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy barnacles on boulders; little spat.

Littorina
Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

No Nucella observed.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

OTHER OBSERVATIONS: Littorina, Limpets, barnacles primarily on boulders.

CLEANUP PRECAUTIONS: Protect unoiled fucus in low tidal zone as much as possible.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: NW Crow - 1

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/18/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-40 Length 350

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility heavy

Width of beach zone surveyed 10 m Tree fringe surveyed 10

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile The beach is moderately sloped and gravel/cobble-covered

Fresh Water Sources None

Sea Exposure open to east

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

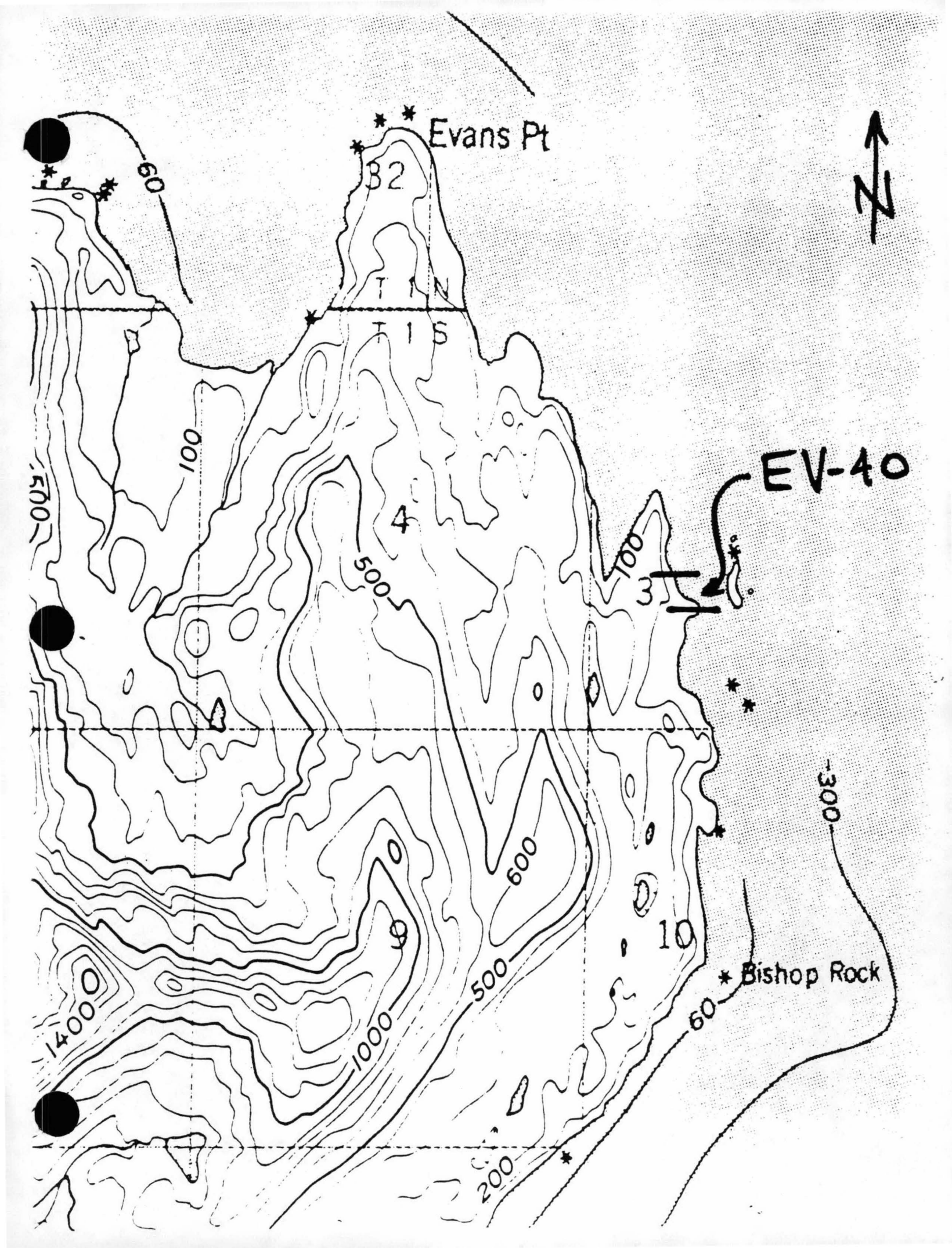
B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1930 Time survey ended 1940

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archeologist, C. Mobley, immediately


Evans Pt
32
T 1 N
T 1 S
N
EV-40
60
100
500
4
500
100
3
600
0
9
10
1400
1000
500
200
300
60
Bishop Rock

forestry

EU-11 Segment #1

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☒ Non-mechanical oiled debris removed
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments

Signature T. E. Fulkerson Date: 8-12-11 Time: 1155

Printed Name T. E. Fulkerson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
	Heavy
	Medium
	Light
less than 1%	Very Light
99%	None
100 %	

Subsurface Oil

☒ Yes small grouped area ☐ No

COMMENT BELOW

Reassessment

☐ Yes - necessary

☒ No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
	Heavy
	Medium
	Light
	Very Light
	None
100 %	

Subsurface Oil

☐ Yes ☐ No

COMMENT BELOW

Reassessment

☐ Yes - necessary

☒ No - not necessary unless re-oiled

ADEC rep

Comments No mobile oil observed.

Signature [signature] Date: 8 21 11 Time: 1237

Printed Name PAM KEYES

FOSC rep Demobilization (approved) disapproved

Comments area contains 35 small tarred rocks, no gross contamination

Signature Paul B. Gamole Date: 8/21/11 Time: 1240

Printed Name Paul B. Gamole, LT

COPY: EXXON ADEC FOSC INCC

4-25

Cleared For 6/28

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): EVANS POINT WEST BLOCK

Includes Shoreline Segments: EV-16, EV-17, EV-18

Submitted: Collin Baker (for Exxon) Date: 6/20/89

ISCC Reccomendation: _____ Date: _____

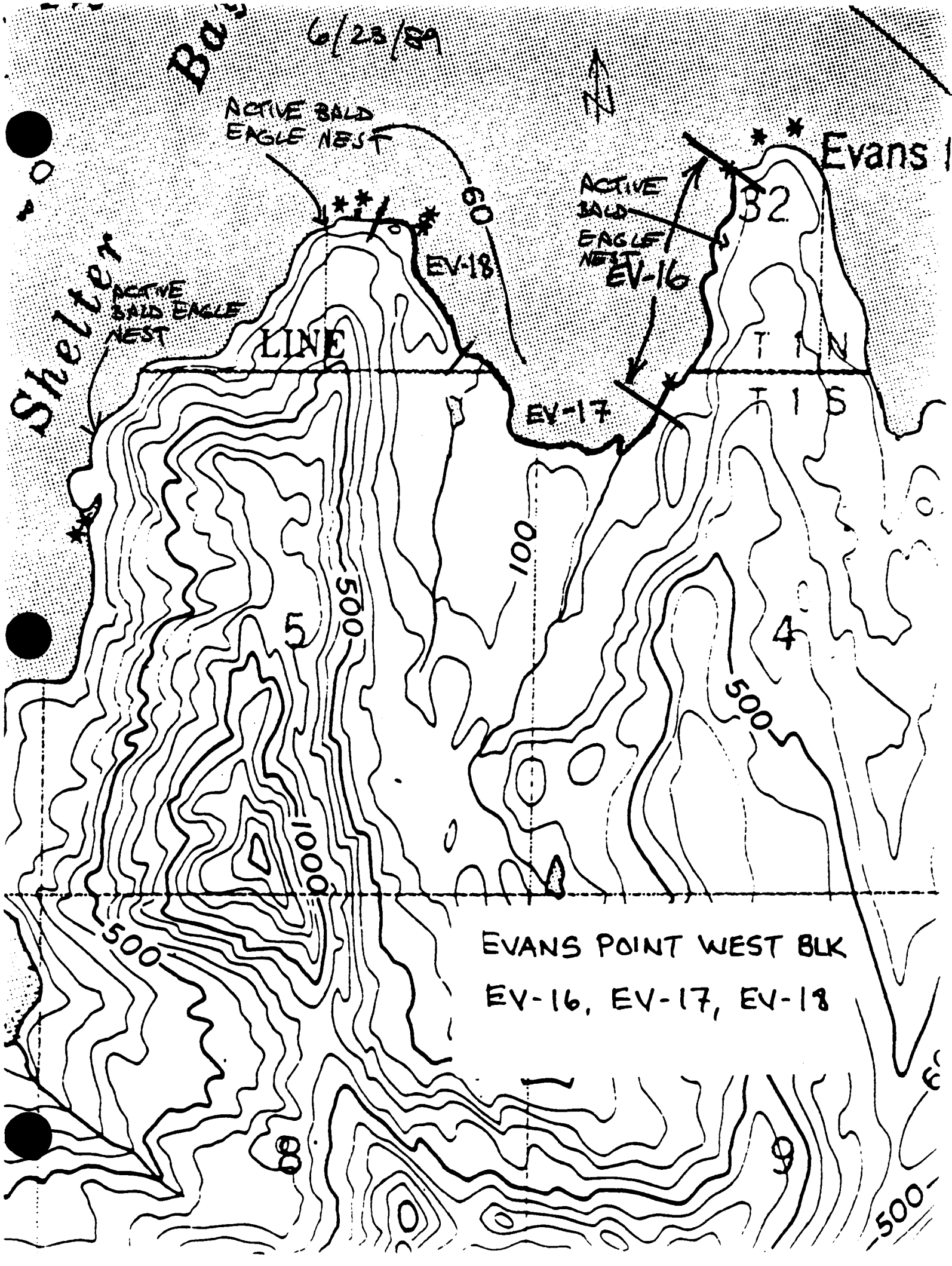
FOSC Approval: _____ Date: _____

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
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NOAA
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USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO


6/23/89
ACTIVE BALD EAGLE NEST
N
Evans
ACTIVE BALD EAGLE NEST
EV-18
EV-16
EV-17
LINE
T 1 N
T 1 S
32
100
500
5
4
1000
8
9
EVANS POINT WEST BLK
EV-16, EV-17, EV-18

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/17/89 SHORELINE SEGMENT EV-16

LOCATION: (see enclosed map) EVANS ISLAND-WEST OF EVANS POINT

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/14/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus)
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing (warm to hot water) on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
- Class ~~2-3:~~ heavy to moderate oil / time sensitive (fisheries)
  Class A: subsistence resources present.

Ecological Constraints (from site survey): Work at midtide + or take appropriate measures to protect lower intertidal zone. Active Bald Eagle nest on north end of segment, see advisory.
Minimize sheen movement into streams

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: June 20, 1989

ISCC: _____ Date: _____

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/14/89 Time: 08:50 Observer: RICK GILLIE

Surveyed From: Foot/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fo

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-16

LENGTH OF SHORELINE SEGMENT: 800 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPT/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 30 % / C 20 % / P 20 % / G ___ % / S ___ % / M ___ % / R 30 % Logo Fucus

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type

OIL

Degree of Oiling: (Heavy)/(Moderate)/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP (H) (M) (L)

Continuous: (Y)/N % of Segment 80 Width of Band: 30 m

Sporadic: Y/N % of Segment ___

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: 10-20 cm

Pooled Oil: 5 % "Free" Oil: ___ % Coated: H 40 % / M 50 % / L 5 %

Fresh 50 % Mousse 50 % Tar Formation: ___ %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

- Moderately oiled rocky shore with pocket beaches.

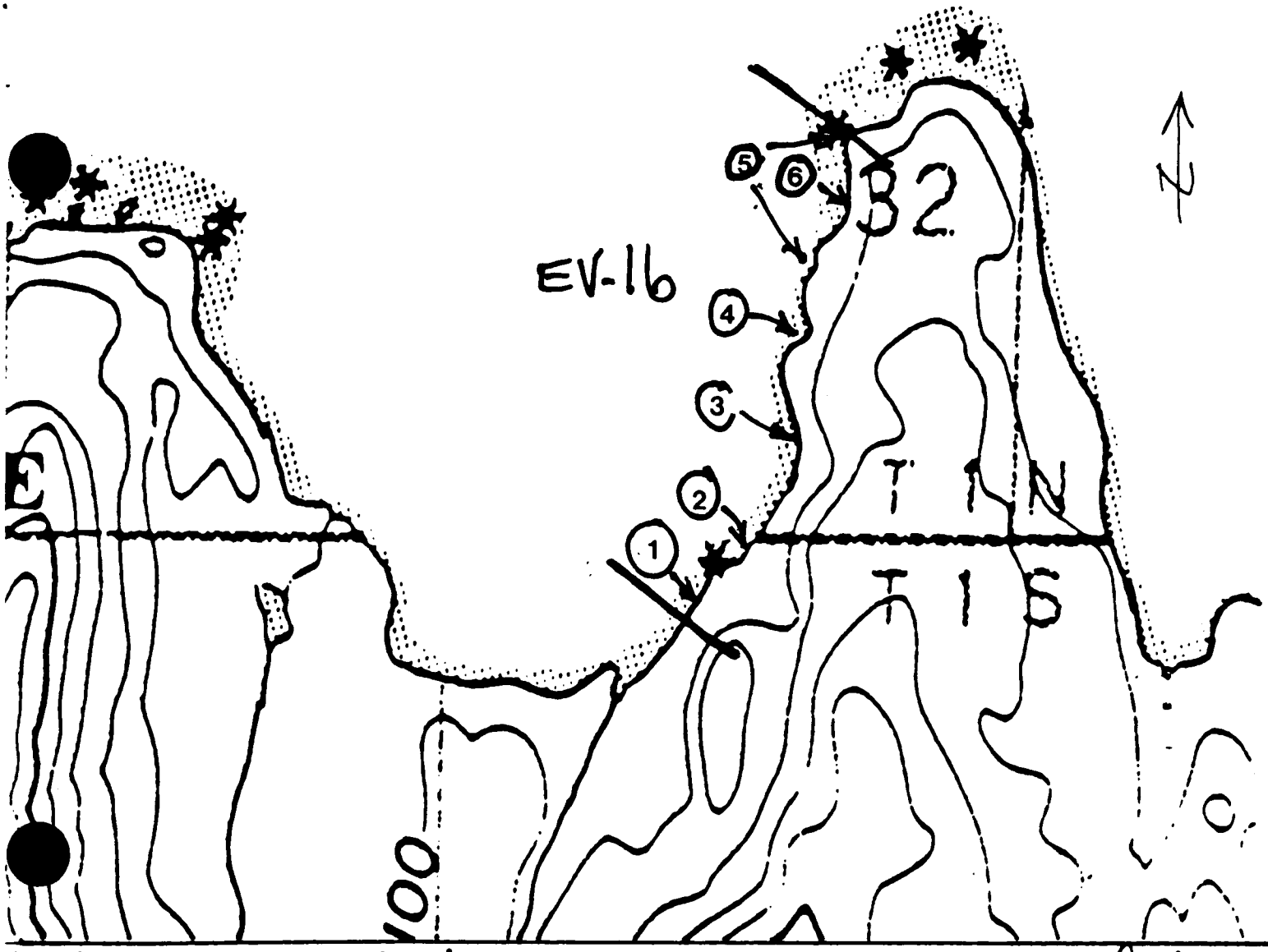
-

Map/Aerial photo marking segment boundaries EV-16, Attached map.

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) TAG-1

Sample Numbers Collected: N/A



① Moderately oiled, steep, boulder shore, mouse coating, 200 m long.

② Heavily oiled cobble/pebble beach. Oil penetration to 20-30 cm.

③ Moderately oiled boulder/rock shoreline

④ Heavy oil on small, 50 m long pocket beach. Mousse coated 10-30 cm penetration. Good access

⑤ Moderately oiled vertical rock shoreline. 100% mousse coating. ADFG fish sign.

⑥ Moderately oiled pocket beach, 80 m long

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: _____ OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 16 LENGTH: _____ (M)

DATE: 06/19/89 TIME (HHMM): 0850 TIDE HT.: 4 FT (M)

OILED ZONE: Splash ~~High~~ ~~Medium~~ ~~Low~~

SUBSTRATUM: ~~Rocks~~ ~~Boulder~~ ~~Cobble~~ ~~Gravel~~ Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Oiled Mytilus in Patches

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy Barnacles and some spat

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Littorina common, some Nucella

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Some sheen on water

CLEANUP PRECAUTIONS: None recommended

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: _____

GENERAL OBSERVATIONS: _____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/14/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-16 Length 800m

Survey Method:

Air _____ (A - indicate on map) Boat THE REEF (A - indicate on map)

Ground ✓ BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility heavy

Width of beach zone surveyed 5-15 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile beaches are cobble or cobble boulder
to cut is steep wood face

Fresh Water Sources None

Sea Exposure open to west

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

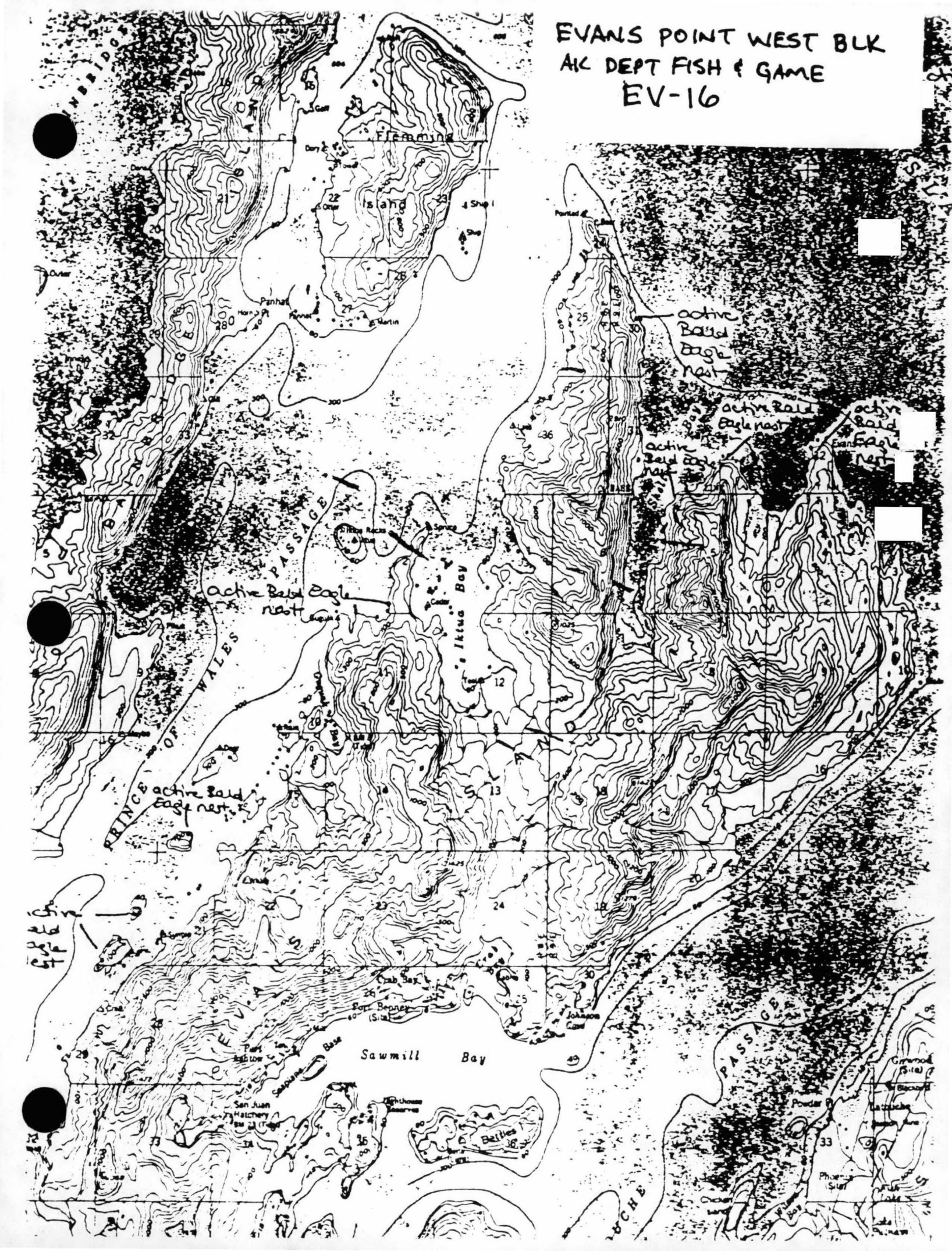
B/W Roll # _____ Frames _____

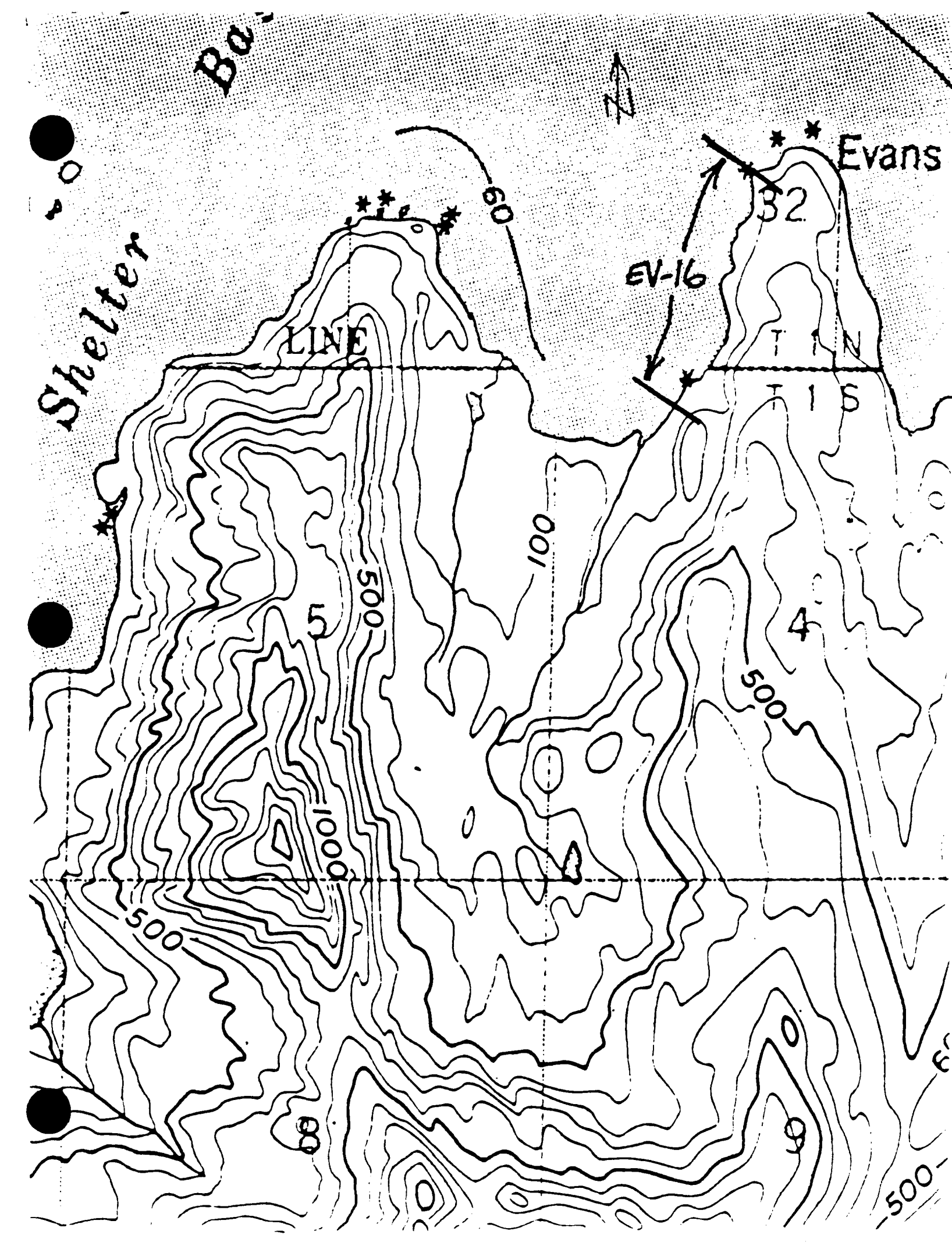
Observer(s) _____

Time survey started 0900 Time survey ended 0930

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup notify Elson archaeologist, C. Holly, immediately.


EVANS POINT WEST BLK
AIC DEPT FISH & GAME
EV-16
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
PRINCE OF WALES PASSAGE
Ikiua Bay
Sawmill Bay
Fleming Island
Port Bagon
Port Bagon (Site)
Johnson Cove
Crab Bay
San Juan Hatchery
Berthes
Girdwood (Site)
Powder
Phoenix (Site)
PASSAGE


Shelter
Evans
EV-16
LINE
T 1 N
T 1 S
32
60
100
500
1000
5
4
8
9

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/17/89 SHORELINE SEGMENT EV-17

LOCATION: (see enclosed map) EVANS ISLAND-WEST OF EVANS POINT

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/14/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus). Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
- Class ~~2-3~~: heavy to moderate oil/time sensitive. (fisheries)
  Class A: subsistence resources present.

Ecological Constraints (from site survey): Cataloged anadramous streams are present on beach 1 (# 1662) and beach 5 (# 1663). Advise ADF&G and RAT 48 hours in advance of cleanup activities on these beaches. Beach 4 contains an Exxon study site, treat unless otherwise advised by Coast Guard. Work at midtide + or take appropriate measures to protect lower intertidal zone. Minimize sheen movement into stream

No high pressure in stream channel = general guideline

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Out of stream by July 10 - permit expires

Robert D. Shaw
State Historic Preservation Officer * Date: June 20, 1989

ISCC: _____ Date: _____

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/14/89 Time: 07:00 Observer: RICK GILLIE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud) (Rain) Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-17

LENGTH OF SHORELINE SEGMENT: 850 m

ACCESS: Foot/Vehicle/(Boat) (Barge) Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA) (COV) (HLD) STRT Slope: (LANG) (HANG) VER

Wave Exposure: High/(Med)/Low

Sediment: B 10 % / C 40 % / P 40 % / G 10 % / S ___ % / M ___ % / R ___ % Logs

Drift Debris on Beach: (Yes) No Supra/(Upper) Mid/Lower Type Fucus

OIL

Degree of Oiling: (Heavy) (Moderate) Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) (M) (L)

Continuous: (Y) N % of Segment 80 Width of Band: 30 m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 10 cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H 50 % / M 30 % / L 20 %

Fresh 80 % Mousse 10 % Tar Formation: 10 %

Drift Debris Oiled ? (Yes) No Supra/(Upper) Mid/Lower Amount: H/(M)/L/

Comments:

- Moderate to Heavy oiled beaches around three streams

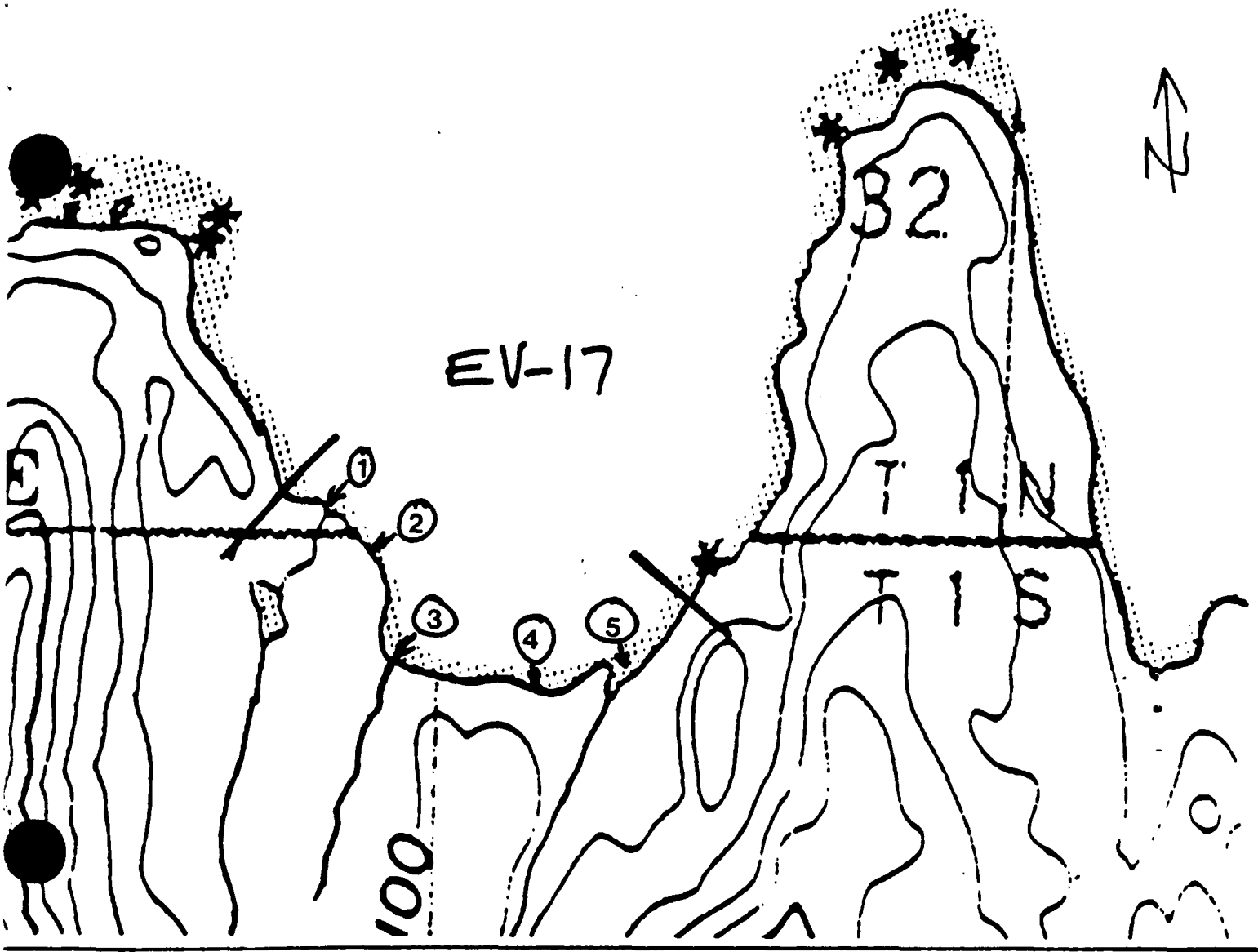
- 1

(Map)/Aerial photo marking segment boundaries EV-17, Attached Maj

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) T4G-1

Sample Numbers Collected: N/A



1) Moderately oiled band (20-30 m wide) of cobble/pebble substrate at mid to high tide zone.

2) Lightly oiled boulders

3) HEAVILY OILED stream mouth / beach. Oil band 50 m wide. Thick (30 cm) accumulations of oiled debris and gravel at high tide

4) Moderately oiled cobble/pebble shoreline.
N.B.- EXXON STUDY SITE Sign.

5) Heavy oil in 50m wide band on cobble/pebble substrate at ~~se~~ stream mouth. Penetration to 10cm Low angle beach.

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: _____ OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 17 LENGTH: 850 (M)

DATE: 06 / 14 / 89 TIME (HHMM): 0700 TIDE HT.: +3 FT (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Fucus beside stream in area ① lush and unoiled.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Band of mytilus on flat gravel and lower edge of cobbles in LTZ ③

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Area ① lots of spat in LTZ; Area ③ little spat, few barnacles.

Littorina
Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Tiny baby Littorina throughout LTZ, particularly ①

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

limpets in LTZ fucus.

OTHER OBSERVATIONS: Three streams in segment, two show on USGS map and in ADF&G anadromous stream catalogue (Pink Salmon Spawning areas). Stream in ①: water beaded on cobbles right to stream edge.

CLEANUP PRECAUTIONS: Advise ADF&G and RAT 48 hours prior to beginning any cleanup activities in subareas ①, ③ and ⑤. Exxon study site in area ④ must not be disturbed.

Also present: Pisaster, green anemones

MAMMALS: Sea Otters 1 Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: 3 murrelet sp.

GENERAL OBSERVATIONS: Subsection ④: Dames & Moore Site #65, NO DISTURBANCE 50 yards on either side of marker.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/14/89 Location Green Island Site _____

Location Prefix EV Segment # EV 17 Length 850m

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate to heavy

Width of beach zone surveyed 10-12 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile broad, flat beach

Fresh Water Sources three salmon streams

Sea Exposure open to north

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # None Frames _____

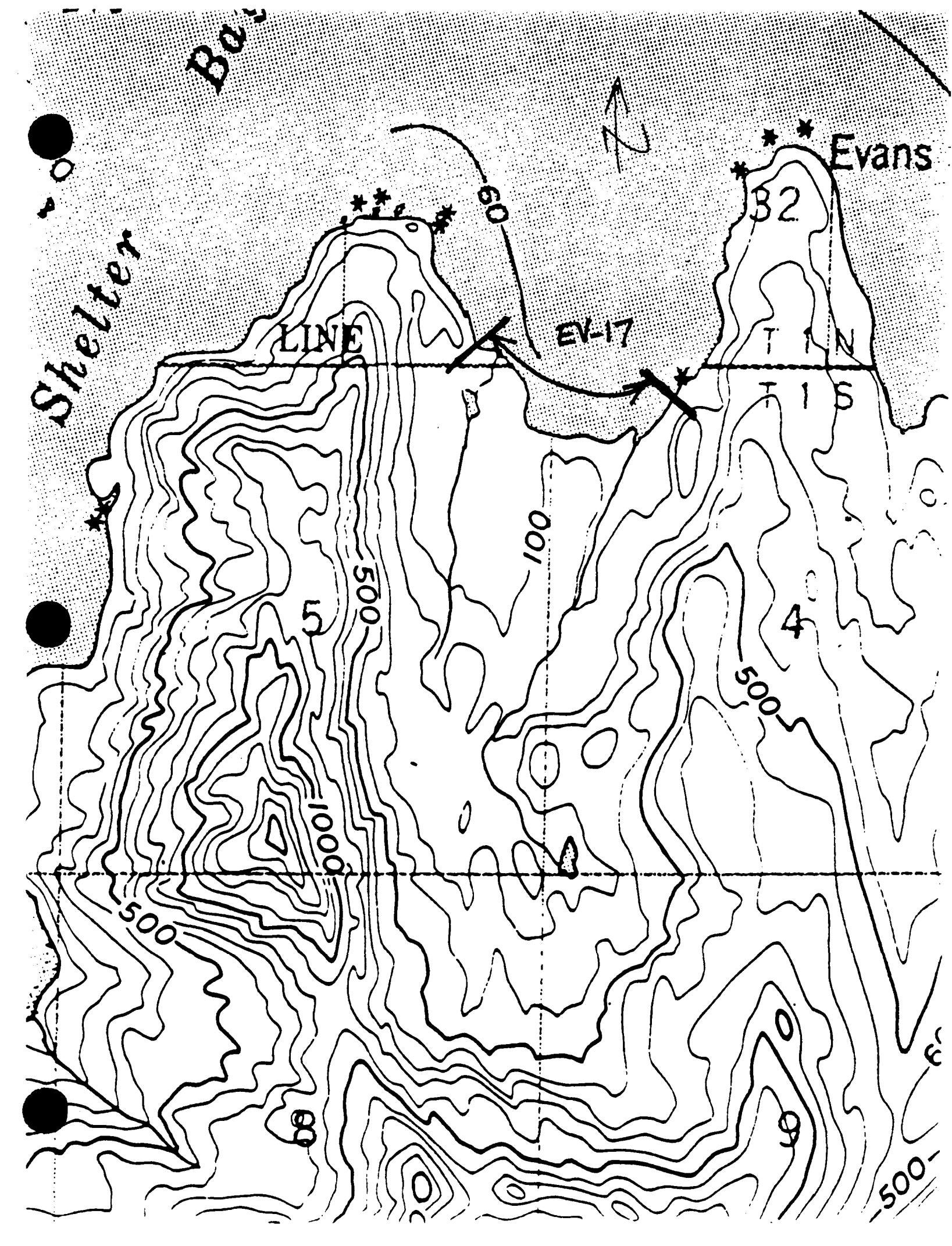
B/W Roll # _____ Frames _____

Observer(s) C Nelson

Time survey started 0705 Time survey ended 0855

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are identified during cleanup notify Logan and archaeologist, C Holley, immediately.


Shelter
Evans
B2
60
LINE
EV-17
T 1 N
T 1 S
100
500
5
4
1000
8
9
0

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/18/89 SHORELINE SEGMENT EV-18

LOCATION: (see enclosed map) EVANS ISLAND-WEST OF EVANS POINT

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/14/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods of appropriate.

Priorities Considerations:
- Class ~~2-3~~: heavy to moderate oil/time sensitive (fisheries)
  Class A: subsistence resources present.

Ecological Constraints (from site survey): Work at midtide + or take appropriate measures to protect lower intertidal zone.
Protect stream h bar of segment from oil sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Robert W. Shaw
State Historic Preservation Officer * Date: June 20, 1989

ISCC: _____ Date: _____

EXXON: _____ Date: _____

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/14/89 / Time: 06:05 Observer: RICK GILLIE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-18

LENGTH OF SHORELINE SEGMENT: 550 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPT/(BEA)/(COB)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: (High)/(Med)/Low

Sediment: B 50 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % / R 40 % Logs Fuels

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type _____

OIL

Degree of Oiling: (Heavy)/(Moderate)/Light/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / (L)

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment 80

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H 50 % / M 40 % / L 10 %

Fresh 90 % Mousse 10 % Tar Formation: _____ %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

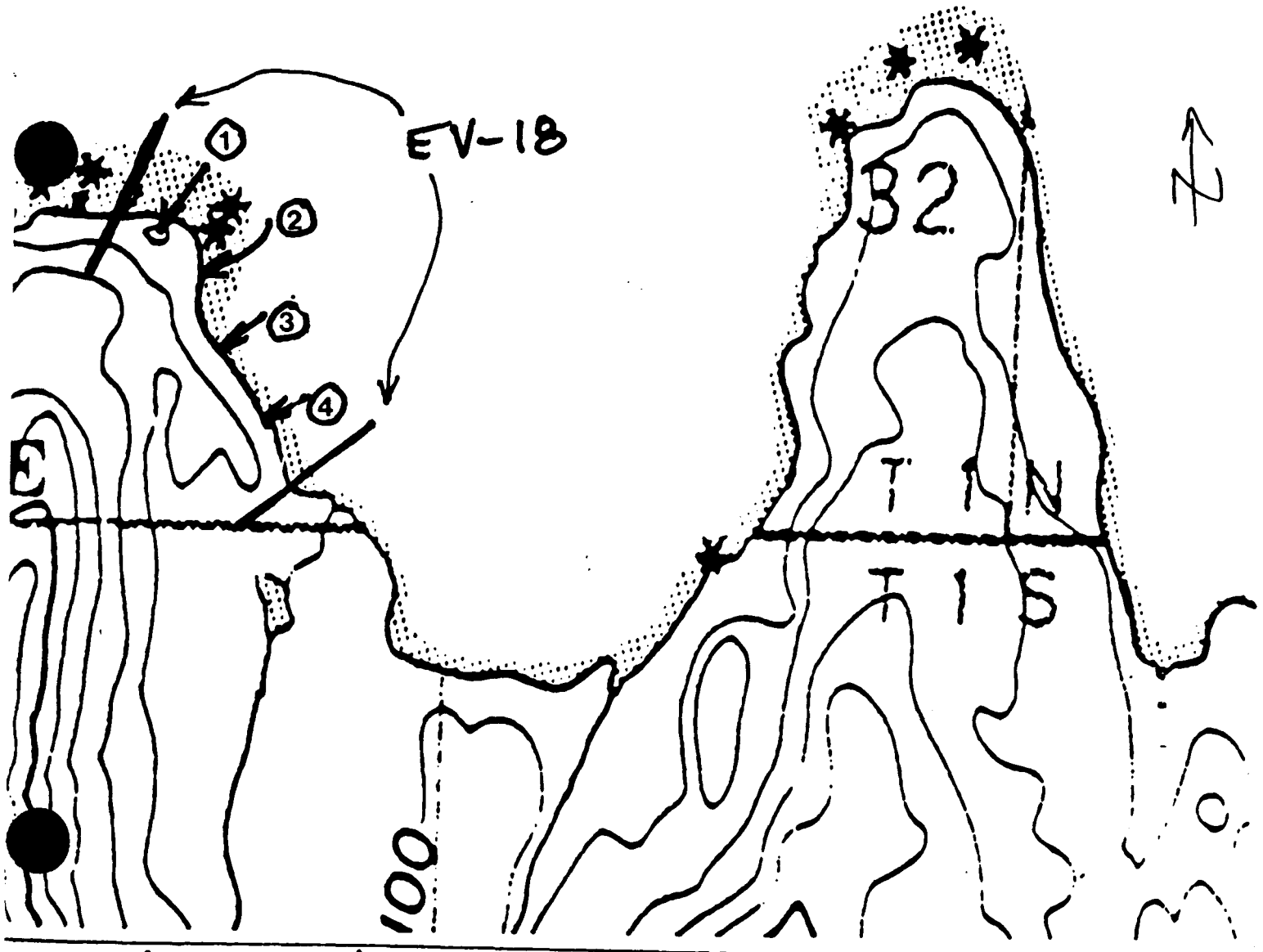
- Generally moderately oiled rock/boulder shoreline.
- Access limited at some sites by nearshore reefs.

Map/Aerial photo marking segment boundaries SEE ATTACHED

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) T4G-1

Sample Numbers Collected: N/A



① Light to moderate oiled boulder cobble beach. Oil at mid to high tide. Access hindered by nearshore rocks.

② Lightly oiled vertical bedrock, 100 m long.

③ Moderate to heavy oiled cobble/boulder beach. Oiled at mid to high tide level.

④ Moderately oiled rock platform with veneer of cobble/gravel.

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: _____ OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 18 LENGTH: _____ (M)

DATE: 06 / 14 / 89 TIME (HHMM): 0600 TIDE HT.: +2 FT (M)

OILED ZONE: Splash ~~High~~ ~~Medium~~ ~~Low~~

SUBSTRATUM: ~~Rocks~~ ~~Boulder~~ ~~Cobble~~ Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Much of Fucus significantly oiled; alive oiled Littorina throughout oiled fucus, unoiled littorina throughout unoiled Fucus LTZ Fucus unoiled OK on 2nd Beach

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Mytilus patchy and oiled throughout boulder/gravel flat substrate – still alive (mid/low tidal zone)

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Acorn and thatched barnacles oiled in MIZ, barnacle spat unoiled in LIZ

Littorina
Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Thousands of tiny baby Littorina on cobbles/boulders of lower intertidal; Nucella sparse. Adult Littorina throughout Fucus

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Limpets fairly common in lower Tidal Zone

OTHER OBSERVATIONS: Black Chiton (Katharina tunicata); patchy Pycnopodia, Pisaster, 6-Ray star, Evasterias in low tidal/subtidal

CLEANUP PRECAUTIONS: Protect unoiled fucus and related biota as much as possible; harvest heavily oiled fucus band as necessary

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: Common Merganser - 83; 1 loon heard; Black-legged Kittiwakes - 2;

GENERAL OBSERVATIONS: Some Areas oiled from low to high tide, sheen off shore

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/14/89 Location Evans Island Site _____

Location Prefix EV Segment # EV 18 Length 550m

Survey Method:

Air _____ (A - indicate on map) Boat the coast (A - indicate on map)

Ground V Beaches (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility moderate

Width of beach zone surveyed 15m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile moderately sloped beaches with cobbles and boulders

Fresh Water Sources steep uplands None

Sea Exposure open to north

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

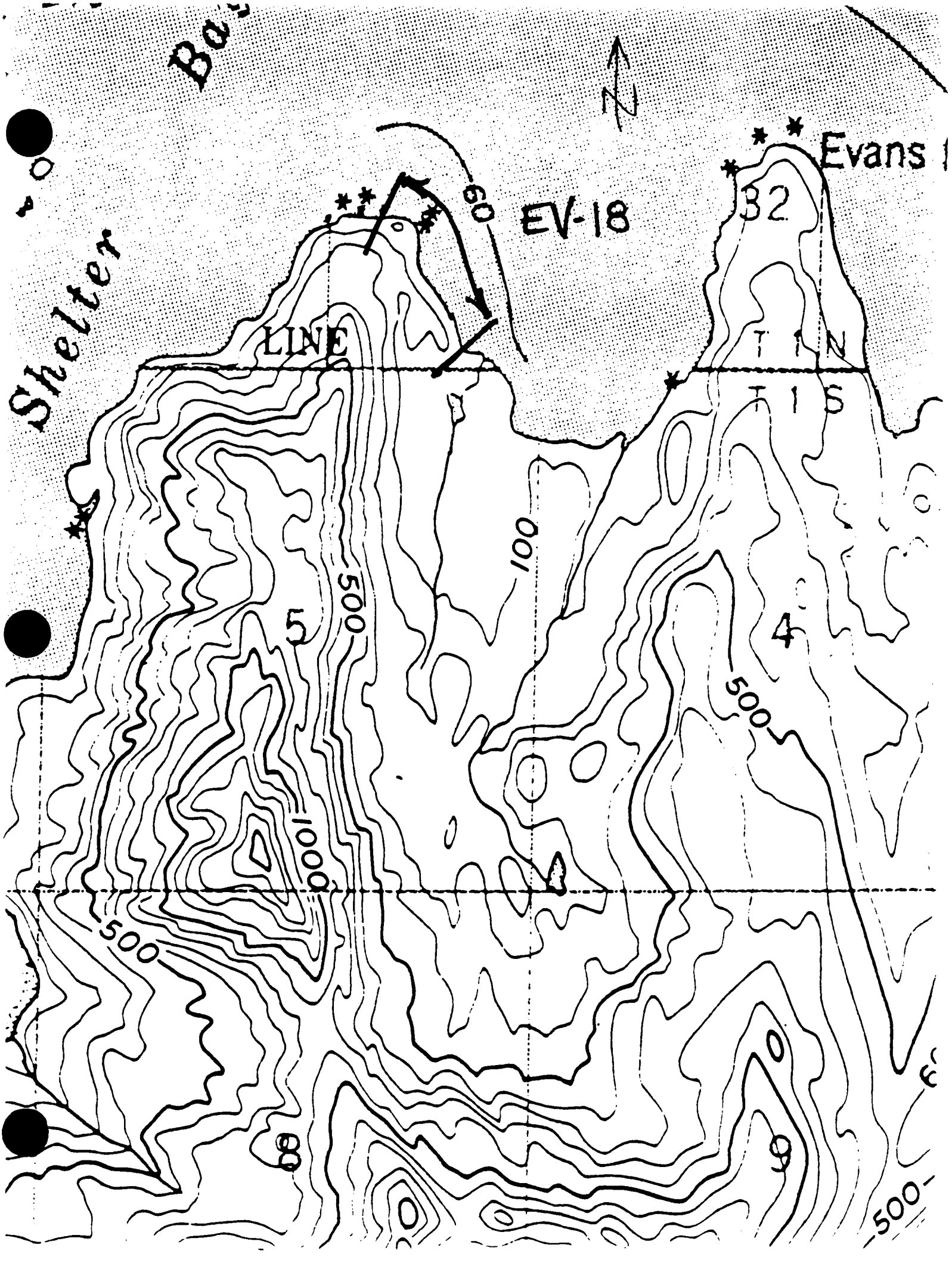
B/W Roll # _____ Frames _____

Observer(s) C. Mobley

Time survey started 0600 Time survey ended 0700

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archaeologist C Mobley, immediately


Shelter
N
Evans
EV-18
60
LINE
32
T 1 N
T 1 S
100
500
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500
8
9
500

11271 01

TREATMENT MANUAL, 6/15/89

SEG EV-16 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-16 is completed. Ready for demob & deployment to new segment

Signature RC Harrelson Date: 7 /23/89 Time: 22:45

Printed Name RC HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
10	Medium
60	Light
0	Very Light
30	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments ADEC Lewis shuttled from Katt Boat ocean Ranger Report, no ADEC inspector Provided.

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments No Gross contamination

Signature Date: 7 /23/89 Time 2300

Printed Name Ray Cruz

1124/91
456

TREATMENT MANUAL, 6/15/89

SEG EV-17 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-17 is completed. Ready for demob + deployment to new segment.

Signature RE Harrelson Date: 7/23/89 Time: 2250

Printed Name RE HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
~~40~~ 5	Medium
~~60~~ 20	Light
0	Very Light
~~30~~ 80	None
100 %	

Subsurface Oil

- [ ] Yes
- [x] No

Comments

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments ADEC LEWIS SHARMAN FROM THE ZAPT BOAT ACCOM RANGER PILOTAGE, NO ADEC INSPECTOR REQUIRED

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved disapproved

Comments NO CROSS CONTAMINATION, ANAEROBIOUS FISH STREAMS 226-40-16620, 226-40-16630, 266-40-16648 MONITORED.

Signature Date: 7/23/89 Time: 2300

Printed Name PAUL COSTELLO CWO

11-7-18 / 384

TREATMENT MANUAL, 6/15/89

SEG EV-18 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-18 is completed Ready for demob and deployment to new segment

Signature RC Harrelson Date: 7/23/89 Time: 2055

Printed Name RC HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
20	Light
0	Very Light
80	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments ADEC Cons. SHARMAN FROM THE TUG BOAT OCEAN RANGER PRESENT, NO ADEC INSPECTOR PRESENT.

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO CREWS ON SHORELINE

Signature Date: 7/23/89 Time: 2305

Printed Name

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SHELTER BAY EAST BLOCK

Includes Shoreline Segments: EV-19, EV-20, EV-21, EV-22, EV-23, EV-24, EV-25

Submitted: [signature] (for Exxon) Date: 6/14/89

ISCC Reccomendation: Sharon K. Christopherson Date: 6-16-89

FOSC Approval: J. W. Kime Date: 6/16/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

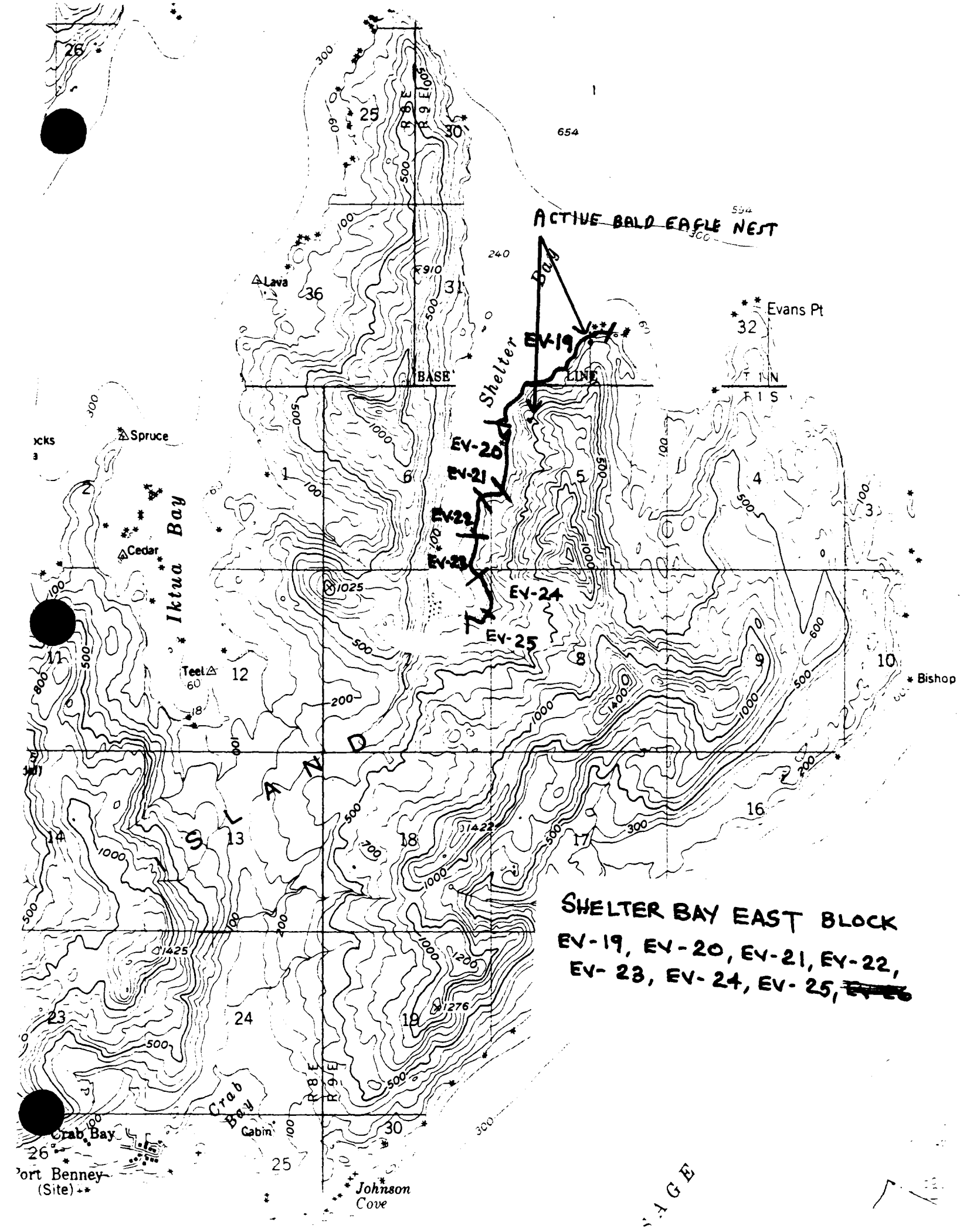
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

******SCOT NOTE******

LANDS IN SHELTER BAY EAST BLOCK ARE PRIVATELY OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO THE UPLAND AREAS.

PARTICULAR ATTENTION SHOULD BE PAID TO CONTAINING SHEEN DUE TO FISHERY CONCERNS OF HATCHERY IN SAWMILL BAY

DAMES AND MOORE STUDY SITE ON EV-21-TREAT SHORELINE UNLESS OTHERWISE NOTIFIED BY FOSC


ACTIVE BALD EAGLE NEST
Shelter Bay
EV-19
EV-20
EV-21
EV-22
EV-23
EV-24
EV-25
BASE LINE
Evans Pt
Lava
Spruce
Cedar
Teel
Iktua Bay
Bishop
Crab Bay
Crab Bay Cabin
Port Benney (Site)
Johnson Cove
SHELTER BAY EAST BLOCK
EV-19, EV-20, EV-21, EV-22,
EV-23, EV-24, EV-25, EV-26

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/14/89 SHORELINE SEGMENT EV-19

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and free/ pooled oil.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 1: moderate to light oil/time sensitive.
Class A: resources present.

Ecological Constraints (from site survey): Work at mid tide or take appropriate measures to protect lower intertidal zone. Particular attention should be paid to containing sheen. TWO ACTIVE BALD EAGLE NESTS (ONE AT NORTH END, ONE AT SOUTH END) - SEE ADVISORY IN CLEANUP MANUAL

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes — Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 6-16-89

EXXON: [signature] — Date: June 16-89

FOSC: J. W. Lowe — Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 5/18/89 Time: 16:00 - 18:00 Observer: RICK GILLIS

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud) (Rain) Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-19

LENGTH OF SHORELINE SEGMENT: 1,500 m

ACCESS: Foot/Vehicle/(Boat) (Barge) Helio/Float Plane

SHORELINE:

Shoreline Type: SPT/(BEA) (COV) (HLD) STRT Slope: LANG/(HANG) (VER)

Wave Exposure: High/(Med) Low

Sediment: B 25 % / C 10 % / P 5 % / G ___ % / S ___ % / M ___ % / R 60 % Logs Fucus

Drift Debris on Beach: (Yes) No (Supra) (Upper) Mid/Lower Type

OIL

Degree of Oiling: Heavy/(Moderate) (Light) No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) (M) L

Continuous: Y/N % of Segment ____ Width of Band: ____ m

Sporadic: Y/N % of Segment 20

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 10 cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H ____ % / M 30 % / L 70 %

Fresh 50 % Mousse 50 % Tar Formation: ____ %

Drift Debris Oiled ? (Yes) No Supra (Upper) Mid/Lower Amount: H/(M)/L/

Comments:

Sites ① to ⑥ on map are defined as followed:

① Moderate oiled rock/boulder cove. Band 2-3 m wide at mid to high tide

② Light oil on steep rocky shoreline. Oil coating on underside of boulders.

③ Moderate oil on 150m long cobble/gravel beach. Penetration to 10 cm depth

DOCUMENTATION: EV-19 See Attached

Map/Aerial photo marking segment boundaries

VTR: Y/N Tape Number(s)

Photography: Y/N Roll Number(s) T4G-1 (1,2,3)

Sample Numbers Collected: N/A

④ Lightly oiled boulder/cobble beach approx. 100 m long

⑤ Very lightly oiled steep rock shoreline

⑥ Cobble beach with sporadic moderate oiling. Residual oil behind and under rocks. Natural wave action has partly "cleaned" the exposed portions of the beach and boulders.

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 19 LENGTH: 1,500 (M)

DATE: 06 / 13 / 89 TIME (HHMM): 1600-1800 TIDE HT.: 4 FT (M)

OILED ZONE: Splash ~~High~~ (Medium) Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Patches of Fucus in oiled zone moderately oiled; Fucus debris at storm line not oiled.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Mytilus primarily on rock faces and boulders, many young ones; oiled zone mytilus closed but coated.

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Spat abundant in area; small acorn and giant barnacles

Littorina
Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina common feeding in fucus, some also in oiled fucus; Nucella common in much of segment, one boulder of eggs found.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Limpets common but sparse distribution

OTHER OBSERVATIONS: Verrucaria band fairly continuous on vertical rock

CLEANUP PRECAUTIONS: Protect unoiled fucus and biota as much as possible.

MAMMALS: Sea Otters 1 Harbor Seals ___ Sea Lions 1 Whales ___
Other Land Otters - 10+ in a group at point/end of segment

BIRDS: 2 Black-legged Kittiwakes;

GENERAL OBSERVATIONS: Occassional Pisaster, Pycnopodia, one Six-Rayed Star, green anemone

School of small fish off point @ end of segment

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/13/89 Location EV-19 Site _____

Location Prefix EV Segment # EV-19 Length _____

Survey Method:

Air _____ (A - indicate on map) Boat THE REST (A - indicate on map)

Ground ✓ BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to moderate

Width of beach zone surveyed 25-15 m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile beaches moderately sloped, ~~to~~ next to vertical wall face.

Fresh Water Sources none

Sea Exposure open to north

Access/Safety good at low tide

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # None Frames _____

B/W Roll # _____ Frames _____

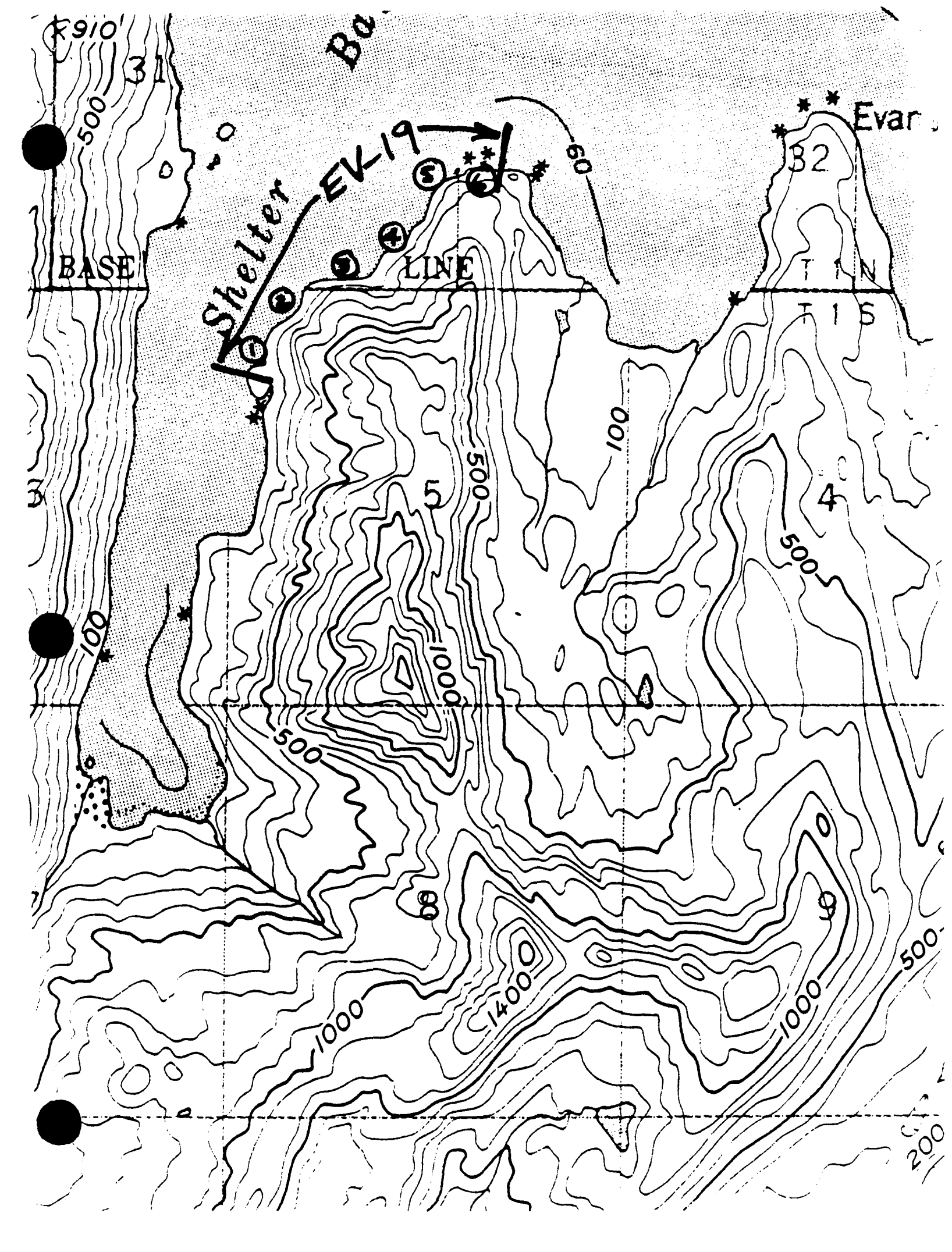
Observer(s) C Wilson

Time survey started 1600 Time survey ended 1800

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are identified during cleanup notify Upon archaeologist, C. Wilson, immediately.


active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
active Bald Eagle nest
Flemming Island
Panhat
Martin
Ship I
Ship
Otter
Tower
Dory
Gaff
Raft
Cape
Babe
Danae
Horn Pt
Gill
Pointed
Bear
Evans
Spruce
Cedar
Guguak
Pikuk
Maybe
Deer
Rain
Teela
Crab Bay
Port Bennett (Site)
Port Ashton
Sawmill Bay
Seaplane Base
San Juan Hatchery
BM 23 (Tidal)
Lighthouse Reserve
Battles
Crab
Simple
Johnson Cove
Powder Pt
Latouche
Beason Mine
Girwood (Site)
Phoenix (Site)
Chicken Islands
Lake Putnam
Iktua Rocks
Iktua Bay
Guguak Bay
BM 5 (Tidal)
PRINCE OF WALES ISLAND
PASSAGE
BASE LINE


F910'
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BASE
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Shelter
EV-19
100
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1

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-20

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and free/ pooled oil.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 1: light oil/time sensitive.
Class A: resources present.

Ecological Constraints (from site survey): Work at mid-tide or take appropriate measures to protect lower intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K Christopherson Date: 6-16-89

EXXON: _____ Date: June 16 89

FOSC: J. W. Lowe Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/13/89 Time: 13:45 Observer: G. MACDONALD

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISL. SHELTER BAY SEGMENT NUMBER EV-20

LENGTH OF SHORELINE SEGMENT: 900 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/HLD/(STRT) (rock walls; mixed beaches; rock walls + boulder coast) Slope: (LANG/HANG/VER)

Wave Exposure: High/(Med)/(Low)

Sediment: B 15 % / C 30 % / P 20 % / G 5 % / S ___ % / M ___ % / R 30 %

Drift Debris on Beach: (Yes)/No (Supra/Upper)/Mid/Lower Type SEAWEED

OIL

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y)/N % of Segment 85 Width of Band: 0.5 - 3.0 m

Sporadic: (Y)/N % of Segment 15 @ South end.

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ≤0.5 cm

Pooled Oil: ___ % "Free" Oil: ___ % (Coated:) H ___ % / M ___ % / L 100 %

Fresh ___ % Mousse 85 % Tar Formation: 15 %

Drift Debris Oiled ? (Yes)/No (Supra/Upper)/Mid/Lower Amount: H/M/(L)

Comments:

BEACH PROFILE CHANGES FROM STEEP ROCK WALL TO COBBLE-GRAVEL BEACH BUT CLEANING METHOD CAN STAY THE SAME.

MUD CONTENT PREVENTS OIL/WATER PERCOLATION DURING CLEANUP.

CV 20

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SMB-13

Sample Numbers Collected: None

6/13 13:45 HRS Shelter Bay

SEGMENT EV-20

Steep rocky coast; mod. exposed in N. end, becoming sheltered in S. Oil e light continuous band 0.5-3 m wide; mature dk. brown mousse e H-M tide zone; occas. bldr-cob covers ≤ 0.2 mm thick; persistent light sheen on water; rare pockets of grls in tiny coves are not oiled; low cliffs & boulder piles ~ 40°;

small cove w/ beach 1; light oil continues on bldrs @ head of beach w/ some mousse soiled fucus stranded on clean gravels — take up oily seaweed & maintain high-mod press wash/flush to prevent contamination of gravels. ∅ penetration in grls (muddy content in grl. preventing oil penetration & may prevent oil/water percolation during wash). mousse is @ UHWL e boulders @ head of cove. S. end of segment is boulder-cob. shore grades into mix cob-peb-grl. beach — same cleanup method OK End of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Is SITE: Shelter Bay OBSERVER: SM Bam

LOCATION PREFIX: EV SEG. NO.: 20 LENGTH: 900 (M)

DATE: 6/13/89 TIME (HHMM): 1345 TIDE HT.: +1½ (M)

OILED ZONE: (Splash High) Medium Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Continuous on rock face - Oiled Band of Fucus in upper zone

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Very sparse - those organisms seen are not oiled

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

SPAT Dense on beach #1

Oiled in upper zone. Some predation on oiled organisms by Nucella (also oiled). However, most Nucella are found below oil zone.

Littorina

Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Most not oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Among Fucus, most not oiled

OTHER OBSERVATIONS: Nucella - (3) subtidal, swimming. Solaster - large (± 12") Ulva in rock crevices. Pagurus at beach 1. Oiled debris at beach 1.

CLEANUP PRECAUTIONS: Avoid healthy lower ITZ. Do not blast healthy orgs. with hot water - Protect

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

Other None

BIRDS: None Seen

GENERAL OBSERVATIONS: This segment consists of rock face and high angle rocky beaches with one gravel cobble beach. Oil is light overall.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 13, 1989 Location Evans Island Site Shelter Bay, Eshore

Location Prefix EV Segment # 20 Length 900 m

Survey Method:

Air _____ (A - indicate on map) Boat X (80%) (A - indicate on map)

Ground X (20% (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility trace to light; good visibility

Width of beach zone surveyed 3-8 m Tree fringe surveyed 20 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile steep, rocky shore, some vertical faces, few beaches

Fresh Water Sources several small streams

Sea Exposure semi-protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggerty

Time survey started 1345 Time survey ended 1435

Cultural resource considerations/restraints:

Standard constraints

SEGMENT: EV-20

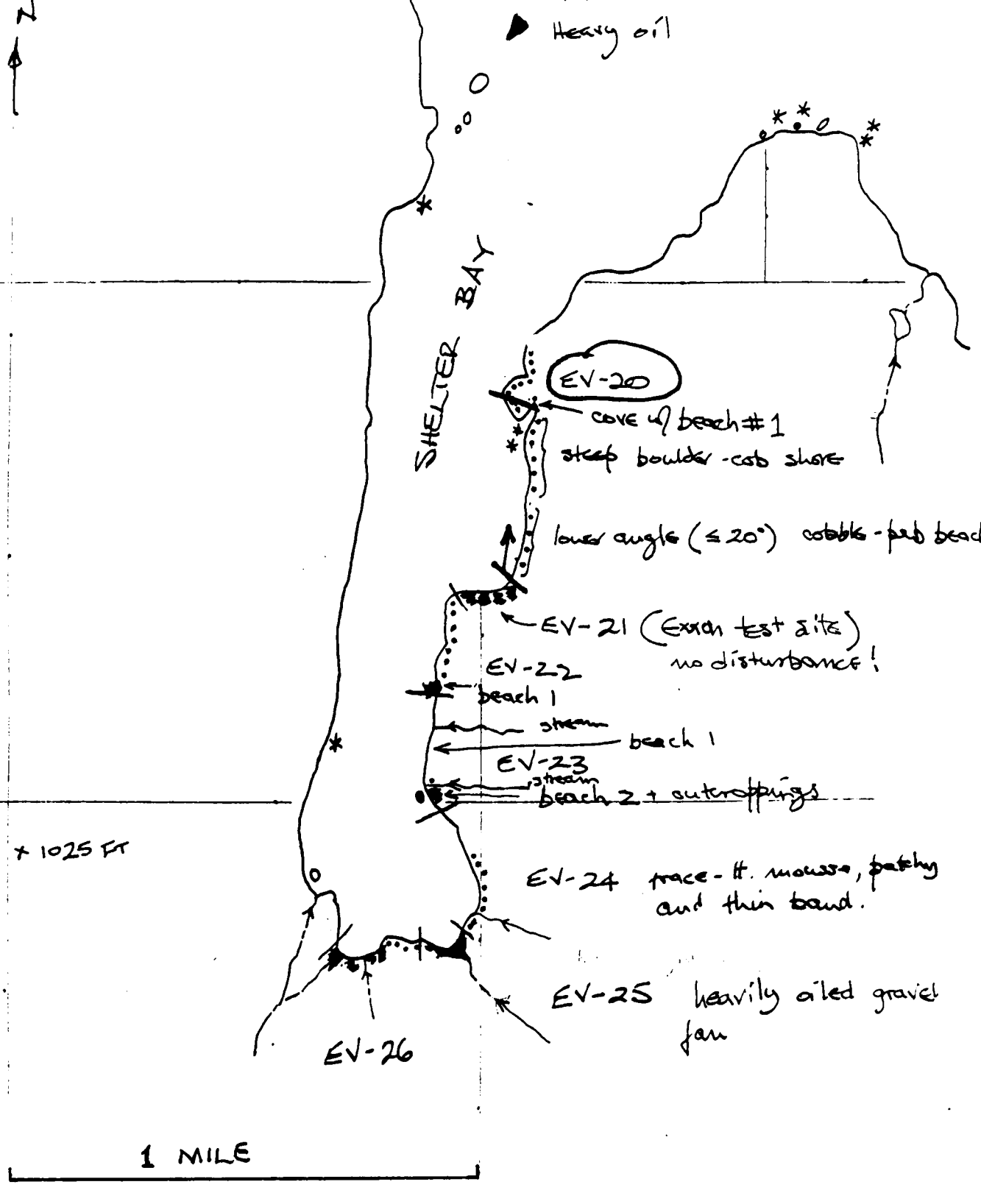
SHELTER BAY

EVANS ISL. 6/13/89

... Light oil

Moderate oil

Heavy oil



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-21

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and free/ pooled oil.
  Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 1: moderate oil/time sensitive.
Class A: resources present.

Ecological Constraints (from site survey): This beach is an Exxon/Dames and Moore test site (#6). ~~Contact (907) 258-0066 before cleanup~~ TREAT UNLESS OTHERWISE NOTIFIED BY COAST GUARD. Clean at mid tide or take appropriate measures to protect lower intertidal zone. Particular attention should be paid to containing sheen. TREAT STREAM AREA IF NECESSARY.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6-16-89

EXXON: _____ Date: June 16-89

FOSC: _____ Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land

SHORELINE OIL EVALUATION

Date: 6/13/89 Time: 14:40 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) Rain/Snow/Fog

LOCATION EVANS ISL.

LOCATION SHELTER BAY SEGMENT NUMBER EV-21

LENGTH OF SHORELINE SEGMENT: 100 m

ACCESS: Foot/Vehicle (Boat) (Barge) Helio (Float Plane)

SHORELINE:

Shoreline Type: SPI (BEA) COV/HLD/STRT Slope: (LANG) HANG/VER

Wave Exposure: High/(Med)/(Low)

Sediment: B TR % / C 10 % / P 30 % / G 40 % / S 10 % / M 10 % / R ___ %

Drift Debris on Beach: (Yes) No (Supra/Upper) Mid/Lower Type LOGS & SEAWEED

OIL

Degree of Oiling: Heavy (Moderate) Light/No Oil/Unobserved

Area of Beach Impact: (SU) (SP / H / M / L)

Continuous: (Y) N % of Segment 80 Width of Band: ≤ 15 m

Sporadic: (Y) N % of Segment 20

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ≤ 5 cm

Pooled Oil: 10 % "Free" Oil: 10+ % (Coated): H TRACE % / M 50 % / L 30 %

Fresh ___ % Mousse 80 % Tar Formation: 20 %

Drift Debris Oiled ? (Yes) No (Supra/Upper) Mid/Lower Amount: (H) (M) L/

Comments:

THIS BEACH IS AN EXXON | DAMES & MOORE TEST SITE #6; tel # is (907) 562 3366; NO DISTURBANCE ALLOWED.

OIL AS THIN GRAVEL-BINDING "SHEETS" – NEGLIGIBLE PENETRATION

EV-21

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SMB-13

Sample Numbers Collected: None

6/13 14:40 HRS

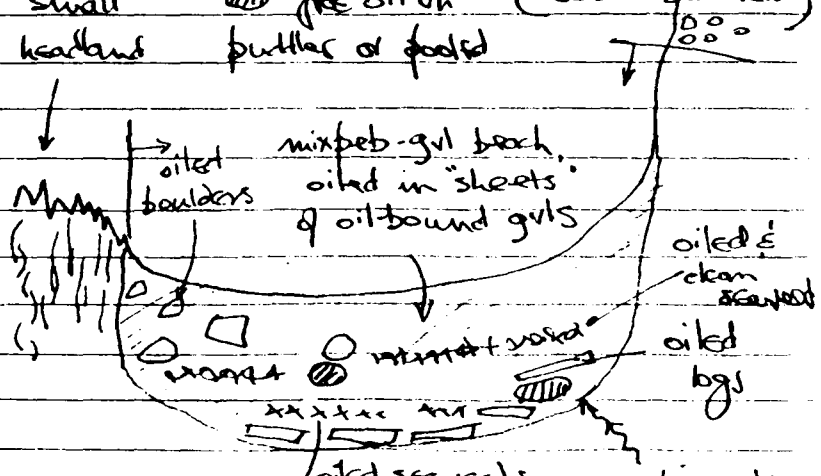
SEGMENT EV-21

low angle mix cob-peb-gvl. beach; mod. ~~exposed to~~ N. storms only; ~ 100 m long x 20 m wide

oil is sticky mature mousse; binding fine gvls together in broad thin (≤5 cm) sheets; L-UHWL; includes oiled seaweed belts; penetration ≤ 5 cm; moderate oiled logs & debris @ splash zone / storm strand line has pooled & pooled thick mousse & free oil on water puddles; boulders on W end are coated w/ ≤0.5 mm mature mousse.

DAMES & MOORE TEST SITE # 6 (562-3366 tel.)

small headland



END of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM Ban

LOCATION PREFIX: EV SEG. NO.: 21 LENGTH: 100 (M)

DATE: 6/13/89 TIME (HHMM): 1440 TIDE HT.: +1 (M)

OILED ZONE: Splash (High) (Medium) (Low)

SUBSTRATUM: Rocks (Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy on cobbles, oiled on rocks.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Sparse on Rocks, Coated with oil, most gaping

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense on rocks bordering beach - oiled band, Predation of oiled eggs. by Nucella

Littorina
Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense in Fucus Not oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Some seen in Fucus band - not oiled

OTHER OBSERVATIONS: Dames + Moore Research site - notify before Cleaning. Oiled Scytha on rocks in lower ITZ. Oiled debris in upper ITZ.

CLEANUP PRECAUTIONS: Avoid healthy ITZ on rocks at beach margin. No constraints on gravel/pebble beach.

MAMMALS: River Otters 1 Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: None seen

GENERAL OBSERVATIONS: This segment consists of one gravel pebble beach. Overall oiling is moderate

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 13, 1989 Location Evans Island Site Shelter Bay, E shore

Location Prefix EV Segment # 21 Length 100 m

Survey Method:

Air _____ (A - indicate on map) Boat X (A - indicate on map)

Ground X (100%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility ~~slight~~ moderate; fair visibility

Width of beach zone surveyed 15 m Tree fringe surveyed 15 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile gently sloping beach (Exxon Study Site #6)

Fresh Water Sources sm stream

Sea Exposure protected to semi-exposed

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggarty

Time survey started 1440 Time survey ended 1510

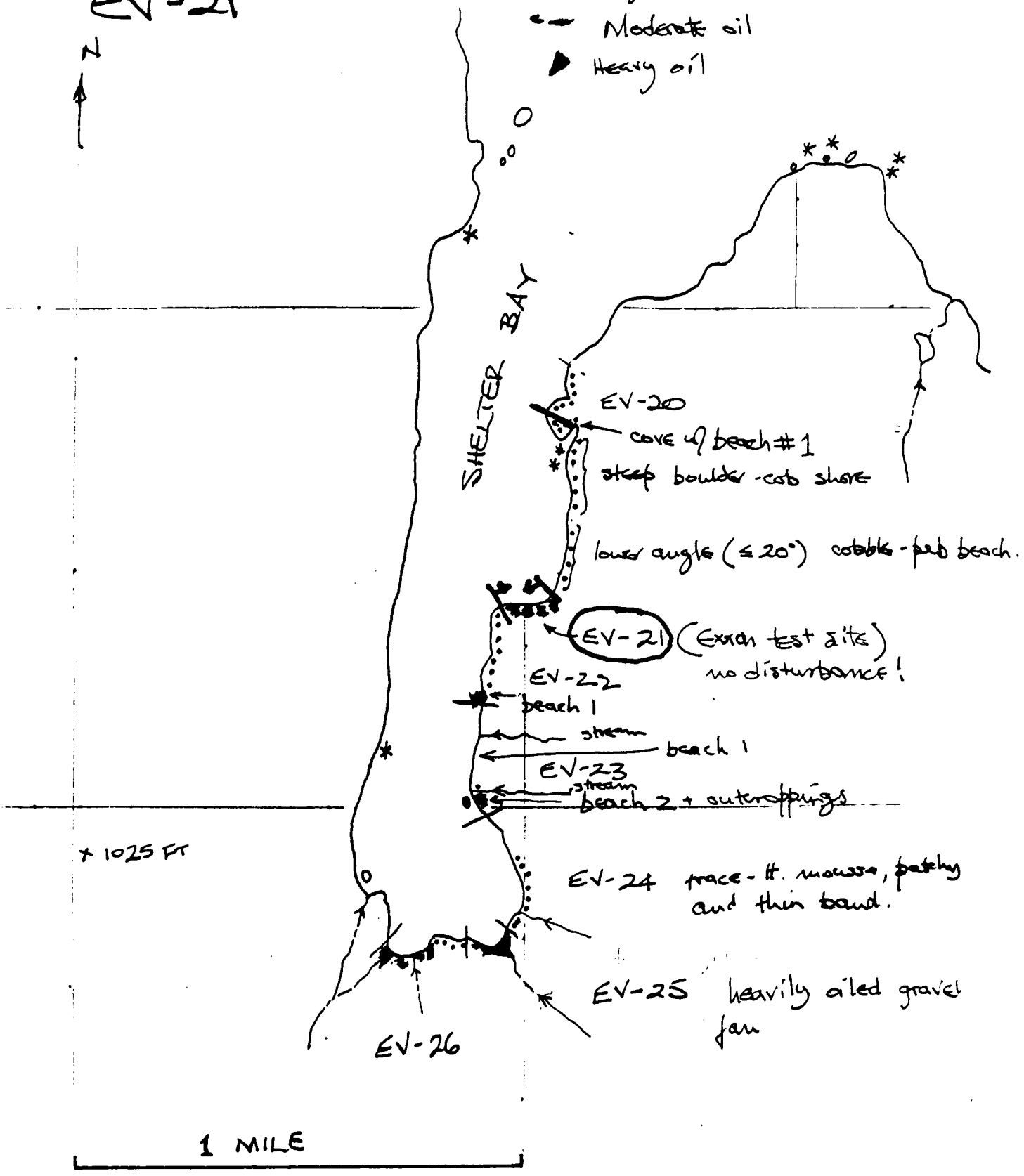
Cultural resource considerations/restraints:

Standard constraints

SHELTER BAY
EVANS ISL. 6/13/89

SEGMENT:
EV-21

... Light oil
-- Moderate oil
▶ Heavy oil



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-22

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material.
  Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 1: light oil/time sensitive.
Class A: resources present.

Ecological Constraints (from site survey): Work at mid tide or take appropriate measure to protect intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6-16-89

EXXON: _____ Date: June 16-89

FOSC: _____ Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/13/89 Time: 15-05 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) Rain/Snow/Fog

LOCATION N. EVANS ISLAND.

LOCATION SHELTER BAY SEGMENT NUMBER EV-22

LENGTH OF SHORELINE SEGMENT: 400 m

ACCESS: Foot/Vehicle (Boat) (Barge) Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD (STRT) Slope: (LANG) HANG (VER)

(bldr-cob. shore) (rock walls)

Wave Exposure: High/Med (Low)

Sediment: B 30 % / C 20 % / P 10 % / G ___ % / S ___ % / M ___ % / R 40 %

Drift Debris on Beach: (Yes) No (Supra) Upper/Mid/Lower Type TIMBER & SEAWEED

OIL

Degree of Oiling: Heavy/Moderate (Light) No Oil/Unobserved

Area of Beach Impact: (SU) / (SP) / (H) / M / L

Continuous: (Y) N % of Segment 60 Width of Band: ≤ 2.0 m

Sporadic: (Y) N % of Segment 40 as mousse splats

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ≤ 5 cm

Pooled Oil: ___ % "Free" Oil: TRACE % (Coated:) H ___ % / M 10 % / L 90 %

Fresh ___ % Mousse MATURE 0 % Tar Formation: TRACE %

Drift Debris Oiled ? (Yes) No (Supra/Upper) Mid/Lower Amount: H (M) L/

@ BEACH 1 ONLY

Comments:

LIGHTLY OILED ROCKY SHORE WITH SMALL BEACH #1 WITH MOD-LIGHT OILED MID-UHWL TIDE ZONE; SOME FREE MOUSSE LYING ON TIGHT BEACH PEBBLE/GRAVELS — BEACH = 25 m x 40 m.

DOCUMENTATION: EV-22

Map/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SMB-13, T1-SMB-14

Sample Numbers Collected: None

6/13 15.05 HRS

SEGMENT EV-22

sheltered rocky shoreline; steep rock walls to 5m. max; ≤ 2 ft. oil as contin. mottled mousse band @ HWL; becomes patchy-φ as splats on boulder-cobble shore (10-25°) + bedrock; small beach 1. has "free" oil on gvls @ strand line w/ oiled timbers + fucus; mod-H oil as old mousse @ up. mid-HWL; ≤ 5cm penet"; max. width @ beach = 25m x 40m long;

END of SEGMENT

clean debris, warm-hot mod. press wash w/ flushing; substrate is "tight" + well flushed; some mods;

15 45

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SMBAN

LOCATION PREFIX: EV SEG. NO.: EV-22 LENGTH: 400 (M)

DATE: 6/13/89 TIME (HHMM): 1530 TIDE HT.: 0 to -1 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N
continuous on rock face. Dense clumps on beach - Healthy in lower ITZ.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N
Not oiled

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N
Some areas oiled, Predation by Nucella even on oiled orgs.

Littorina
Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N
Dense in Ulva, unoiled for the most part

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N
Not oiled

OTHER OBSERVATIONS: Ulva in lower ITZ, oiled debris at strand line, Beach grasses above strand.

CLEANUP PRECAUTIONS: Fucus healthy in lower ITZ - Avoid on both rock face and beach areas.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other None

BIRDS: None seen

GENERAL OBSERVATIONS: This segment consists of rock face with moderately oiled beach. The rock face has a light to very light oil band

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 13, 1989 Location Evans Island Site Shelter Bay, E shore

Location Prefix EU Segment # 22 Length 400 m

Survey Method:

Air _____ (A - indicate on map) Boat (80%) (A - indicate on map)

Ground X (20%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility light to moderate; fair-good visibility

Width of beach zone surveyed 3-10 m Tree fringe surveyed 5 m.

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile steep, rocky (bedrock-boulder) shore, few beaches

Fresh Water Sources several small streams

Sea Exposure protected

Access/Safety good to fair

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggarty

Time survey started 0915 Time survey ended 1540

Cultural resource considerations/restraints:

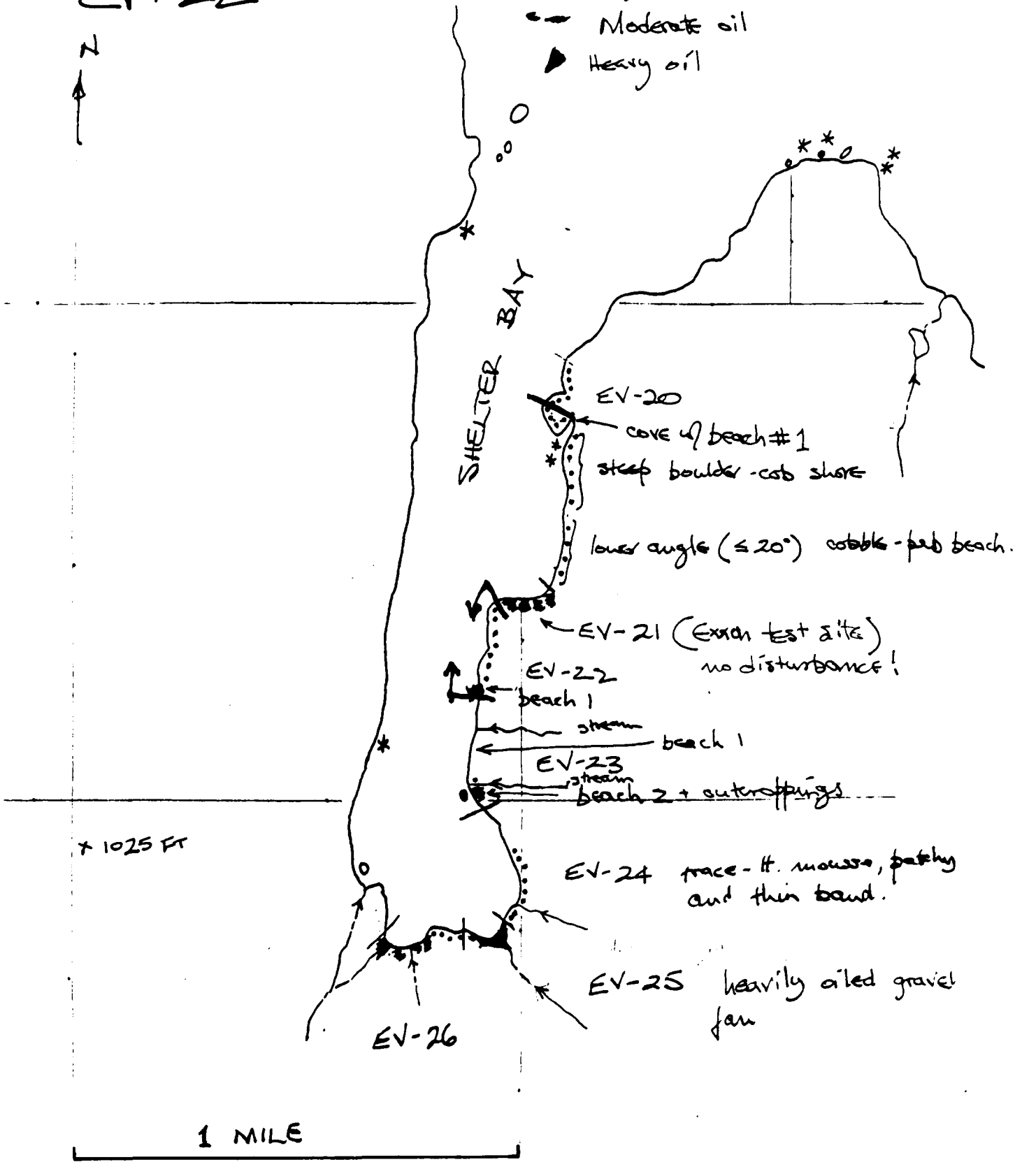
Standard constraints

SHELTER BAY
EVANS ISL. 6/13/89

SEGMENT 7

EV-22

... Light oil
-- Moderate oil
▶ Heavy oil



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 14, 1989 SHORELINE SEGMENT EV-23

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies): * SUBJECT TO FOSC REVIEW

- No cleanup recommended at this time on beach 1A, due to ecological constraints.
  Manually remove free oil on beach 2.
  Flood/flush with warm to hot water (up to 140°F) on low angle beach (beach 2).
  Use moderate to high pressure washing on rock (beach 2).
  Use other appropriate.

Priorities Considerations:
Class 1: light oil/time sensitive.
Class A: resources present.

Ecological Constraints (from site survey): Rich healthy intertidal community on beach 1 woul dmost likely be negatively affected by cleanup. Work at mid tide or take appropriate measures to protect lower intertidal zone at beach 2. Avoid contaminating stream at beach 2. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes — Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K Christopherson — Date: 6-16-89

EXXON: [signature] — Date: June 16 -89

FOSC: J. W. Lane * Subject to SCOT review. JWL — Date: June 16, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/13/89 Time: 15:45 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) Rain/Snow/Fog

LOCATION

LOCATION N. EVANS ISLAND - SHELTER B. SEGMENT NUMBER EV-23

LENGTH OF SHORELINE SEGMENT: 450 m

ACCESS: Foot/Vehicle (Boat) (Barge) Helio (Float Plane)

SHORELINE:

Shoreline Type: SPI (BEA) COV/HLD/STRT Slope: (LANG) HANG/VER

Wave Exposure: High/Med (Low)

Sediment: B 10 % / C 20 % / P 30 % / G 15 % / S 5% / M ___ % / R 20 %

Drift Debris on Beach: Yes (No) Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate (Light) (No Oil) Unobserved

Area of Beach Impact: SU / (SP / H) / M / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: (Y) N % of Segment ≤20 @ beach #2 w/ outcrop & islet.

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: ≤2 cm

Pooled Oil: _____ % "Free" Oil: 25 % (Coated:) H ___ % / MTRACE % / L 100 %

Fresh _____ % Mousse 95 % Tar Formation: 5 %

Drift Debris Oiled ? Yes (No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

CLEAN BEACH W/ MOD-LT OILED OUTCROP WHICH FORMS SMALL BEACH #2; SMALL PARTIALLY SUBMERGED ROCK HAS LIGHT MOUSSE OILING @ HWL. BEACH #2 HAS FREE MOUSSE ON BEDROCK + CRACKS & CREVICES.

EU-23

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SMB-14

Sample Numbers Collected: None

15.15 HRS 6/13

SEGMENT EV-23

mod. - low angle, sheltered mix gvl-pob. beach w/ intermittent boulders; some sand & mud - beach #1 :

R ≤ 5, B 10, C 20, P 30 G 25 S/M 10

raised beach ≃ 10' rise in land level, recent; granite float in beach; no - bare trace oil as small splats mousse;

beach + outcroppings 2 - mod. oil & H-UHW < 2cm penetration; "free" mousse on surface puddles and fine gvls; max. width 7m; boulders coated w/ dk. brown mousse < 1mm thk, but free oil on bedrock in cracks, crevices and necks between boulders; light oiled islet opposite beach;

oil - H to trace @ end of seg.

END of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM Barn

LOCATION PREFIX: EV SEG. NO.: 23 LENGTH: 450 (M)

DATE: 6/13/89 TIME (HHMM): 1540 TIDE HT.: +1 to 0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Healthy & unoiled in lower ITZ. Some oiled clumps at beach 2

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

those organisms seen were unoiled

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Very dense spat intertidally and subtidally at beach 1
Beach 2 - less dense - some oiled - Predation by Nucella

Littorina
Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense in Fucus

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Some found amongst Fucus

OTHER OBSERVATIONS: Sculpins in water at Beach 2 - unoiled
Amphipods (Orchestia) in Fucus beds

CLEANUP PRECAUTIONS: No clean up at Beach 1; Avoid healthy lower ITZ. Do not wash oil into stream at Beach 2

MAMMALS: River Otters X Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: None seen

GENERAL OBSERVATIONS: This segment consists of a clean beach and an oiled beach/rock outcrop area. Oil on the beach is moderate with some pooling in rock crevices.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 13, 1989 Location Evans Island Site Shelter Bay, Lisbon

Location Prefix EV Segment # 23 Length 450 m

Survey Method:

Air _____ (A - indicate on map) Boat X (80%) (A - indicate on map)

Ground X (20%) (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility light to moderate oil; fair-good visibility

Width of beach zone surveyed 3-10 m Tree fringe surveyed 5 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile gentle sloping cobble to gravel beach

Fresh Water Sources several small streams

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggarty

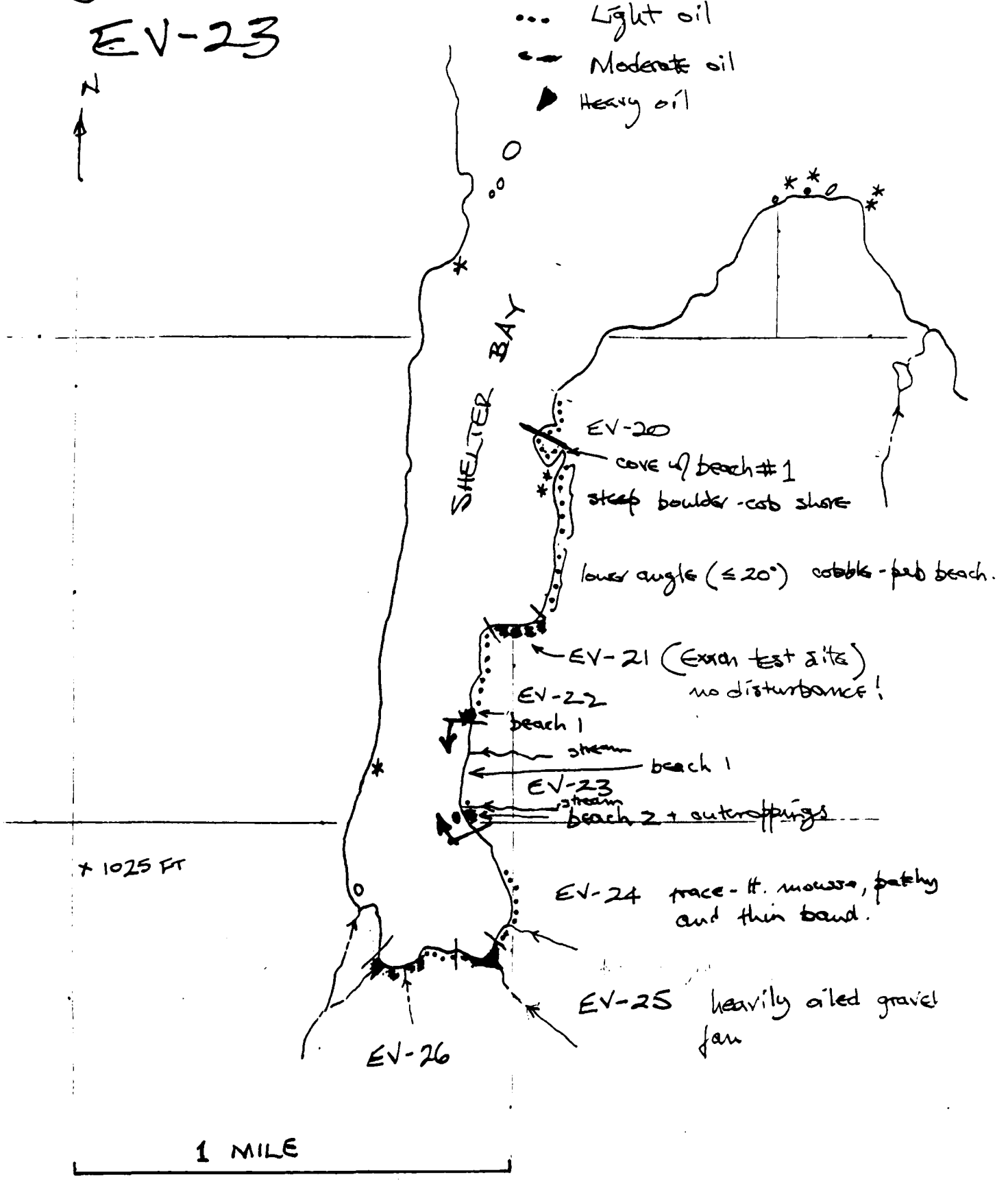
Time survey started 1540 Time survey ended 1610

Cultural resource considerations/restraints:

Standard constraint

SHELTER BAY
EVANS ISL. 6/13/89

SEGMENT:
EV-23



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/14/89 SHORELINE SEGMENT EV-24

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies):
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
  Use moderate to high pressure washing on rock.
  Use other approved methods as appropriate.
  ~~Avoid using high pressure on fine sediments~~.

Priorities Considerations:
  Class 1: light oil/time sensitive.
  Class A: resources present.

Ecological Constraints (from site survey): Do not wash healthy vegetation on rocks. Work at mid tide or take appropriate measures to protect lower intertidal zone. Particular attention should be paid to containing sheen.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6-16-89

EXXON: _____ Date: June 16-89

FOSC: J. W. Kime Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/13/89 Time: 6:15 Observer: G. MACDONALD

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION N. EVANS ISLAND

LOCATION SHELTER BAY SEGMENT NUMBER EV-24

LENGTH OF SHORELINE SEGMENT: 575 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (LANG)/HANG/VER

Wave Exposure: High/Med/(Low)

Sediment: B 5 % / C 60 % / (P 35 % / G ___ %) / STR % / M ___ % / R ___ %

Drift Debris on Beach: Yes/(No) Supra/Upper/Mid/Lower Type ___

OIL

Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP / H / (M) / L

Continuous: Y/(N) % of Segment 30 Width of Band: < 3 m

Sporadic: (Y)/N % of Segment 30

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: < 2 cm

Pooled Oil: ___ % "Free" Oil: ___ % (Coated:) H ___ % / M ___ % / L 100 %

Fresh ___ % Mousse 100 % Tar Formation: ___ %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

ROCK TYPE CHANGES HERE TO A V. DARK SLATE GREY SHALEY METASEDIMENT — WEATHERS EASILY TO FLAT PLATES AND FRAGMENTS; OIL COATING [redacted] CAN BE ON BOTH TOP & BOTTOM OF THESE PLATES.

EV-24

DOCUMENTATION:

Map/Aerial photo marking segment boundaries Attached

VTR: Y/N Tape Number(s) None

Photography: Y/N Roll Number(s) TI-SMB-14

Sample Numbers Collected: None

6/13 16-15

SEGMENT EV-24 mod - low angle sheltered mix cob.-gvl beach; v. lt. trace oil — ϕ; rocks Δ colour to dark slate grey; lt. discon. mousse @ U Mid tide zone, <3 m wide, <2 m penetration as v. light coat <0.5 mm; occasional small mousse splat. low - mod. fresh. warm wood.

End of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM BAN

LOCATION PREFIX: EV SEG. NO.: 24 LENGTH: 575 (M)

DATE: 6/13/89 TIME (HHMM): 1615 TIDE HT.: +1 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

Continuous on rocky steep beaches - some oiled patches

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Very sparse, NO organisms seen were oiled

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense adults on large rocks (band), dense spat on gravel, intertidally and subtidally. Predation by dense Nucella on adults

Littorina Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Few organisms observed. None oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Same as above

OTHER OBSERVATIONS: Take appropriate measures to protect healthy lower ITZ and areas of healthy vegetation on rocks

CLEANUP PRECAUTIONS: Large (±15") polaster in subtidal

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other None

BIRDS: None seen

GENERAL OBSERVATIONS: This segment is mostly steep beaches with some gravel/cobble areas. Overall oiling is light

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 13, 1989 Location Evans Island Site Shelter Bay, E shore

Location Prefix EV Segment # 24 Length 575 m

Survey Method:

Air _____ (A - indicate on map) Boat X (90%) (A - indicate on map)

Ground X (20%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility trace to light tail; good visibility

Width of beach zone surveyed 3-12 m Tree fringe surveyed 5 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile moderate to low angle gravel beach

Fresh Water Sources several small streams

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggerty

Time survey started 1615 Time survey ended 1630

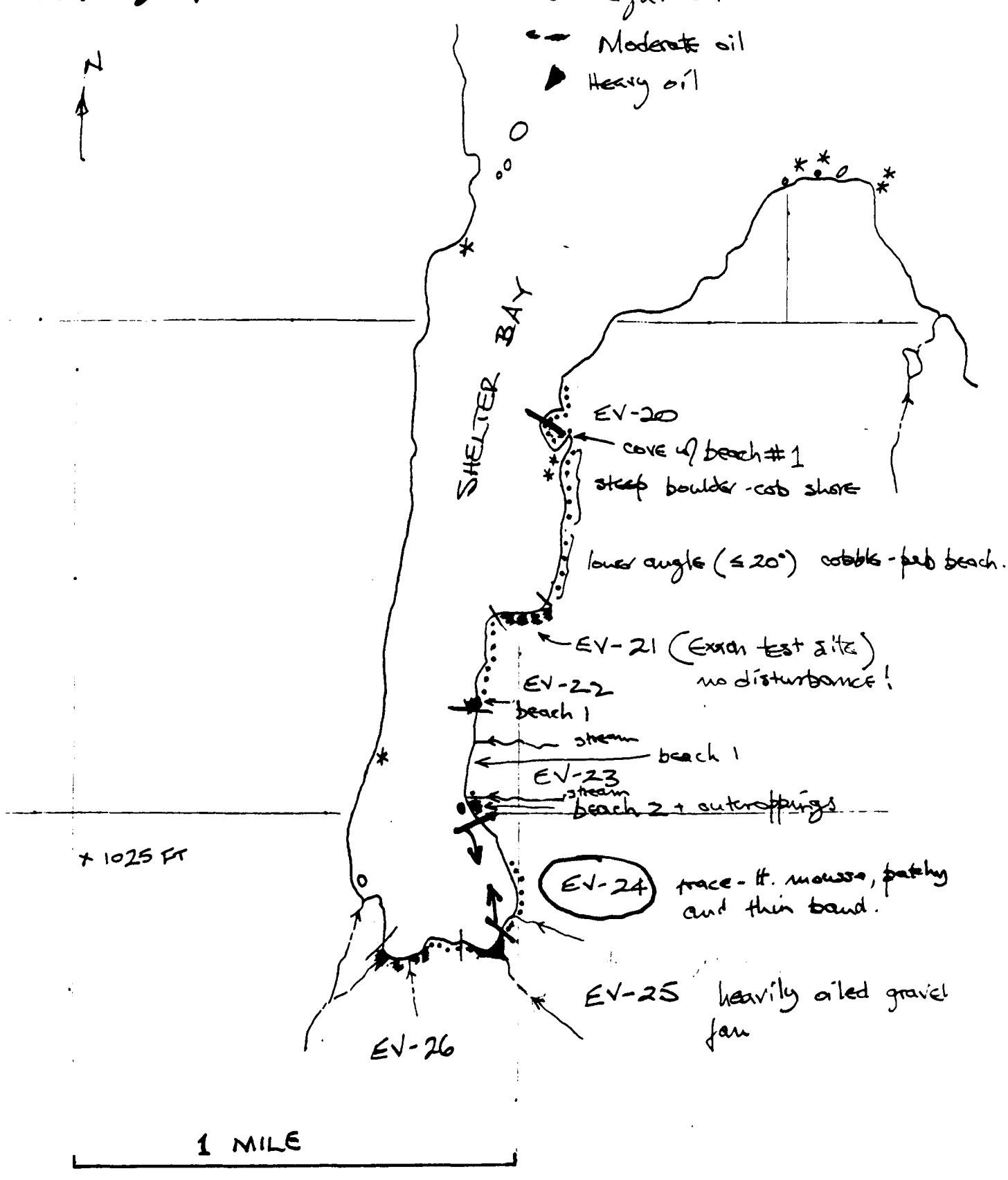
Cultural resource considerations/restraints:

Standard constraints

SEGMENT:

EV-24

SHELTER BAY
EVANS ISL. 6/13/89



(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 6/14/89 SHORELINE SEGMENT EV-25

LOCATION: (see enclosed map) Evans Island-Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6/13/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
  Flood/flush with warm water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock.
  Use other approved methods as appropriate.
  AVOID USE OF HIGH PRESSURE ON FINE SEDIMENTS.

Priorities Considerations: - SUBSISTENCE USE,
  class 1: moderate oil, time sensitive.
  Class A: resources present.

PROTECT CATALOGED ANADROMOUS FISH STREAM IN SOUTHWEST CORNER OF SHELTER BAY (SUCH AS WITH ABSORBENT BOOMS).

Ecological Constraints (from site survey): Take appropriate measures to keep oil out of stream mouth. Work at mid tide or take appropriate measures to protect lower intertidal zone. Particular attention should be paid t containing sheen. ~~TAKE APPROPRIATE MEASURES TO KEEP OIL OUT OF STREAM MOUTH; CATALOGED ANADROMOUS FISH STREAM IN SOUTHWEST CORNER OF SHELTER BAY~~

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes — Date: June 14, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 6-16-89

EXXON: [signature] — Date: June 16-89

FOSC: J. W. Kime — Date: June 17, 1989

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/13/89 Time: 16:40 Observer: G. MACDONALD

Surveyed From: (Foot)/Boat/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION N. EVANS ISL.

LOCATION SHELTER BAY SEGMENT NUMBER EV-25

LENGTH OF SHORELINE SEGMENT: 200+ m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/(Helio)/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (LANG)/HANG/VER

Wave Exposure: High/(Med)/(Low) WIND ⇒ WAVE.

Sediment: B 15 % / C 10 % / P ___ % / G ___ % (, 60% plus organics) / S 10 % / M 15 % / R ___ %

Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type SEAWEEDS

OIL

Degree of Oiling: (Heavy)/(Moderate)/Light/No Oil/Unobserved (STRAND LINE)

Area of Beach Impact: (SU)/(SP)/ H / M / L

Continuous: (Y)/N % of Segment 75 Width of Band: 60 m

Sporadic: (Y)/N % of Segment 25

Est. Oil Thickness where > 1cm: ϕ cm Est. Oil Penetration: ≤ 2 cm

Pooled Oil: 10 % "Free" Oil: 35 % (Coated) H 10 % / M 40 % / L 50 %

Fresh ___ % Mousse 90 % Tar Formation: 10 %

Drift Debris Oiled ? (Yes)/(No) (Supra/Upper)/(Mid)/Lower Amount: (H/M)/L/

Comments:

HEAVILY OILED ALLUVIAL FAN ; V. LOW ANGLE "BEACH" ; WORST OILING IS ABOVE HWL, ON STRAND LINE AND BOULDERS ; MODERATE-LIGHT OIL IS FOUND OVER THE REMAINDER OF THE BEACH, BINDING FINE GRAVELS AS "SHEETS" ; ONE STIFF, FRIABLE PANCAKE OF ~~GRAVEL~~ ASPHALT-BOUND GRAVEL WAS NOTED HERE.

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SMB-14

Sample Numbers Collected: None

6/13 16·40 HRS

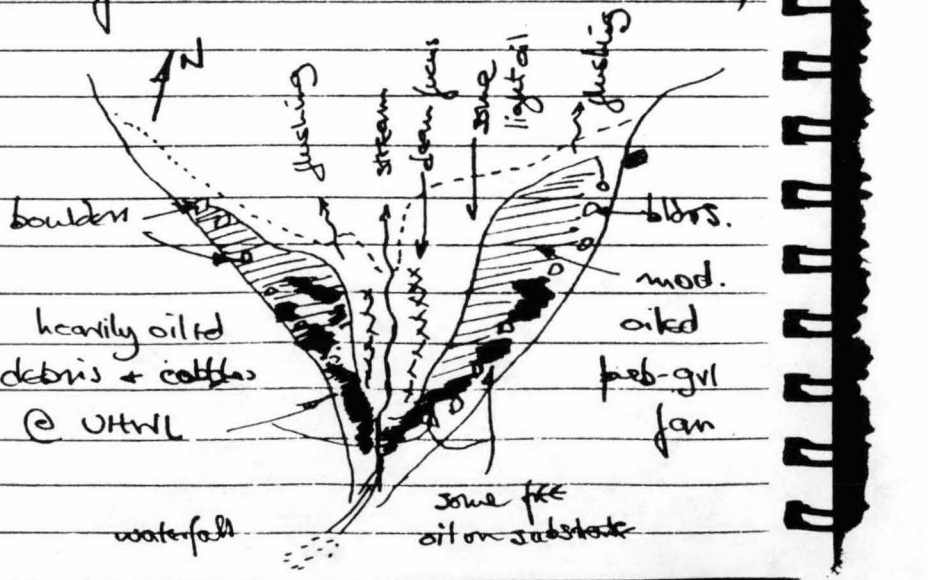
SEGMENT EV-25

sheltered, V. low angle mix peb-gvl fan w/ stream;

1 asphalt + gvl pancake;

Mod - heavy oiling - mature mousse @ M - UHWL + oiled seaweed @ strand line and along upper stream banks @ waterfall!

mousse binds fine gvls; coats most of mid & up. tide zone w/ fresh oil covering impermeable stretches of u. beach; slight flush effect by stream, tight substrate w/ muds/fines + org. penetration ≤ 2 cms; slatey rocks; clean fucus lines @ base stream course;



version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM Barn

LOCATION PREFIX: EV SEG. NO.: 25 LENGTH: _____ (M)

DATE: 6/13/89 TIME (HHMM): 1330 TIDE HT.: +2 (M)

OILED ZONE: (Splash High Medium) Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y, N None Y/N

Healthy clumps in lower ITZ and lower stream margins
Some oiled patches at beach margins and in high ITZ.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Beds in subtidal area - Not oiled

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense adults on rocks, Dense spat on gravel/cobble subtidally.
Some oiling of Balanus on rocks in high ITZ.

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

More may be found among Fucus clumps - generally uncoiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Same as Littorina

OTHER OBSERVATIONS: Oiled debris at high tide line. Mousse under water and at the stream margins.

CLEANUP PRECAUTIONS: Take appropriate measures to keep oil out of stream as much as is possible during cleaning. Stream may be anadromous, and if oil is washed into stream, all traces must be removed

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other None seen

BIRDS: None seen

GENERAL OBSERVATIONS: There is heavy oil/mousse directly up to the stream margins in the high intertidal.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 13, 1989 Location Evans Island Site Shelter Bay S. shore

Location Prefix EV Segment # 25 Length 200 + m

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground x (100%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility moderate to heavy oil; poor visibility

Width of beach zone surveyed 80 m Tree fringe surveyed 5m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile stream channel & delta

Fresh Water Sources single stream

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # none Frames N/A

B/W Roll # none Frames N/A

Observer(s) Jim Haggerty

Time survey started 1630 Time survey ended 1730

Cultural resource considerations/restraints:

Standard constraints

7/24/89
456

TREATMENT MANUAL, 6/15/89

SEG EV-19 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [x] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-19 is completed. Ready for demobilization and deployment to new segment

Signature R. C. Harrelson Date: 7/23/89 Time: 17:05

Printed Name R. C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
8	Light
0	Very Light
92	None
100 %	

Subsurface Oil

- [ ] Yes
- [x] No

Comments

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments no ADEC Present

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization (approved) disapproved

Comments no Press conference

Signature Date: 7/23/89 Time: 1711

Printed Name

7/24/89

TREATMENT MANUAL, 6/15/89

SEG EV-20 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [X] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-20 is completed. Ready for demob and deployment to new segment

Signature R. C. Harrelson Date: 7/23/89 Time: 17:12

Printed Name R. C. Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
10	Light
2	Very Light
88	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments NO ADEC PRESENT

Signature Date: / / Time:

Printed Name

FOSC rep **Demobilization approved/disapproved**

Comments NO GROSS CONTAMINATION

Signature Date: 7/23/89 Time: 1711

Printed Name PAUL [illegible] CRUZ

7/24/89

TREATMENT MANUAL, 6/15/89

SEG EV-21 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-21 is completed. Ready for demobe and deployment to new segment

Signature R C Harrelson Date: 7/23/89 Time: 17:15

Printed Name R. C. HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
75	Light
0	Very Light
25	None
100 %	

Subsurface Oil

- [ ] Yes
- [ ] No

Comments LIGHT CONTAMINATED SAND AREAS

Reassessment

- [ ] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments NO ADEC REP REQUIRED

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature Date: 7/23/89 Time: 1715

7/24/89
SGA

TREATMENT MANUAL, 6/15/89

SEG EV-22 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-22 is completed. Ready for demob and deployment to new segment

Signature R C Harrelson Date: 7/23/89 Time 17:25

Printed Name R. C. HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
4	Heavy
16	Medium
16	Light
0	Very Light
80	None
100 %	

Subsurface Oil

- [ ] Yes
- [x] No

Comments

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments NO ADEC REP AVAILABLE

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature Date 7/23/89 Time 1135

Printed Name [illegible]

7/24/89
BSD

TREATMENT MANUAL, 6/15/89

SEG EU-23 INSPECTION # 1
DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EU-23 is completed. Ready for demob and deployment to new segment.

Signature R. C. Harrison Date: 7/23/89 Time: 17:20

Printed Name R. C. HARRISON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
1	Light
0	Very Light
99	None
100 %	

Subsurface Oil

- [ ] Yes
- [x] No

Comments

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments no ADEC REP PRESENT

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments no GROSS CONTAMINATION

Signature Cruz Date: 7/23/89 Time: 1728

Printed Name PAUL RICHARD CRUZ

7/24/89
BSC

TREATMENT MANUAL, 6/15/89

SEG EU-24 INSPECTION # 7
DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EU-24 is completed Ready for demob. and deployment to new segment.
Signature R. C. Harrelson Date: 7/23/89 Time: 17:25
Printed Name R. C. HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
10	Light
0	Very Light
90	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments NO ADEC REP PRESENT

Signature Date: / / Time:
Printed Name

FOSC rep Demobilization (approved) disapproved

Comments NO CROSS CONTAMINATION

Signature Date: 7/23/89 Time 1726
Printed Name PAUL PUTNEY

7/24/89 BSD

TREATMENT MANUAL, 6/15/89

SEG EU-25 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EU-25 is completed. Ready for demob and deployment to new segment.

Signature R. C. Harrelson Date: 7/23/89 Time: 17:35

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
0	Very Light
100	None
100 %	

Subsurface Oil

☐ Yes ☐ No

Comments

Reassessment

☐ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments ADEC LEWIS SHARMAN FROM THE RMAT AND RANGER PEARSON, NO ADEC INSPECTOR PROVIDED.

Signature Date: / / Time:

Printed Name

FOSC rep **Demobilization approved/disapproved**

Comments NO GROSS CONTAMINATION, SOUTHERN AREA WAS WITHIN THE ~~EXPECTATIONS~~ AREA WHERE WORK IS ALMOST IN SEMANTIC REPORT 40

Signature Date 7 23 89 Time 17

Printed Name PAUL PUTNEY CWO

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Shelter Bay Southwest Block

Includes Shoreline Segments: EV-26, EV-27, EV-28,

Submitted: Collins Boat (for Exxon) Date: 6/20/89

ISCC Reccomendation: Sharon K. Christopherson Date: 6/28/89

FOSC Approval: J.W. Kime Date: 6/29/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

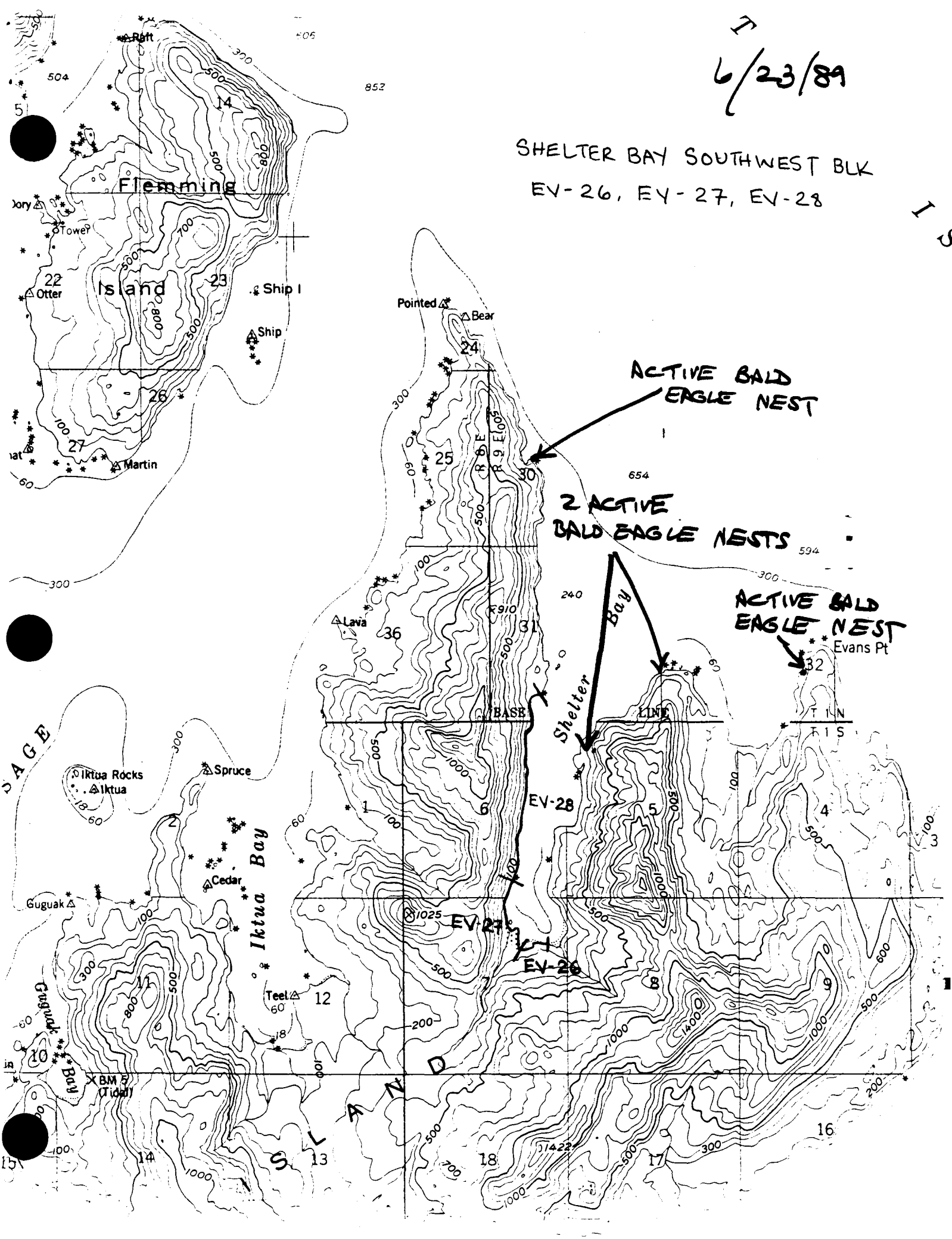
Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

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PWSCA
USFS
SHPO

6/23/89

SHELTER BAY SOUTHWEST BLK
EV-26, EV-27, EV-28



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-26

LOCATION: (see enclosed map) Evans Island - Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-14-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse. HIGH PRIORITY IN THE AREA OF THE STREAM.
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches
- Use moderate to high pressure washing WITH WARM TO HOT WATER on rock and oiled logs.
- Use other approved methods as appropriate.
- AVOID HIGH PRESSURE IN STREAM CHANNEL. PROTECT ~~STREAM~~ STREAM FROM ~~STREAM~~. SHEEN.

Priorities Considerations:
Class: 4 light oil
Class: A Subsistence resources present

Ecological Constraints (from site survey):
A ~~suspected~~ CATALOGED anadromous stream is located in this segment. (NO. 16610) ~~Notify ADF&G and RAT 48 hours prior to beginning cleanup in this segment.~~
Work at midtide + or take appropriate measures to protect lower inter tidal zone. NOTIFY ADF&G AND RAT 48 HOURS PRIOR TO BEGINNING CLEANUP IN THIS SEGMENT.

Archeological Constraints (from site survey):
No activity in upper intertidal zone within 200m of the stream in EV-27. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 20, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6/28/89

EXXON: _____ Date: 6/29/89

FOSC: _____ Date: 6/29/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

Date: 6/14/89 Time: 06:10 Observer: G. MACDONALD

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fo

LOCATION N. EVANS ISLAND

LOCATION SHELTER BAY SEGMENT NUMBER EV-26

LENGTH OF SHORELINE SEGMENT: 600 m

ACCESS: (Foot/Vehicle/Boat/Barge/Helio/Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (LANG)/HANG/VER

Wave Exposure: High/(Med)/(Low) NORTHERLY STORMS ONLY.

Sediment: B 10 % / C 25 % / P 20 % / G 35 % / S 15% % / M ___ % / R 5 %

Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type LOGS, SOME SEAWEED

OIL

Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved

Area of Beach Impact: SU /(SP)/(H)/(M)/ L

Continuous: (Y)/N % of Segment 10 Width of Band: ≤ 1.0 m

Sporadic: (Y)/N % of Segment 50

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ≤ 1 cm

Pooled Oil: ___ % "Free" Oil: 15 % (Coated): H ___ % / M ___ % / L 100 %

Fresh ___ % Mousse 100 % Tar Formation: ___ %

Drift Debris Oiled ? (Yes)/No (Supra)/Upper/Mid/Lower Amount: H/M/(L)

Comments: TRACE OILY SEAWEED @ ADJACENT TO STREAM.

PATCHY OIL AT MOUSSE SPLATS AND TRACE OF MOUSSE AS FAINT BAND @ E. END OF SEGMENT.

SOME MOUSSE SPLATS @ MID-TIDE ZONE ON BLDRS. & COBBLES.

EV-26

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) _____

Photography: (Y)/N Roll Number(s) T1-SMB-14

Sample Numbers Collected: None

6/14 EV-26 06:10

sheltered low-mod angled cob-gvl beach
w/ river outwash fan @ W end.

oil as light patchy splats @ HWL on
blder cobbs; especially mid section;
also oiled fucus & grassy bank adjacent
to stream. Some fre mousse as splats
and clumps; penetration ≤ 1cm;
beach is R5, B10, C25 P20 C35 SM 15
stream is clean and not affected;
easy access to all craft;
rake up oily debris
wash mousse clumps w/ mod-hi P.

END of SEGMENT

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM BAN

LOCATION PREFIX: EV SEG. NO.: 26 LENGTH: 600 (M)

DATE: 6/14/89 TIME (HHMM): 0610 TIDE HT.: 0-1 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense on rocks at beach margin, clumps on gravel to lower ITZ Mostly unoiled.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Sparse on cobble boulder beach margins, Also found among gravels on beach, mostly unoiled.

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Sparse on rocks and gravel - Not oiled

Littorina

Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense on Fucus fronds in lower ITZ - unoiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Found in Fucus zone

OTHER OBSERVATIONS: Some lightly oiled debris along stream margin

CLEANUP PRECAUTIONS: Stream is probably ANADROMOUS Notify ADF&G 48 hrs prior to clean up activities. Take appropriate measures to protect healthy lower ITZ organisms

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___

Other None

BIRDS: gulls

GENERAL OBSERVATIONS: Lightly oiled along stream margins

Some mousse in Rock crevices high in ITZ

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 14, 1989 Location Evans Island Site Shelter Bay, W. shore

Location Prefix EV Segment # 26 Length 600 m

Survey Method:

Air _____ (A - indicate on map) Boat X (50%) (A - indicate on map)

Ground X (50%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A.

Oil conditions/beach visibility light to moderate oil; good visibility

Width of beach zone surveyed 60 m Tree fringe surveyed ~~300~~ 40 m

Cultural resources observed in beach zone (AHRS code) HTI

Cultural resources observed in tree fringe (AHRS code) HTI

General observations justifying survey method and segment's site probability:

Shore Profile steep, rocky shore & extensive alluvial fan deposits

Fresh Water Sources several small streams

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

B/W Roll # JCH, Rl-1, 4 Frames 4

Observer(s) Jim Haggarty / Peter Pheppin

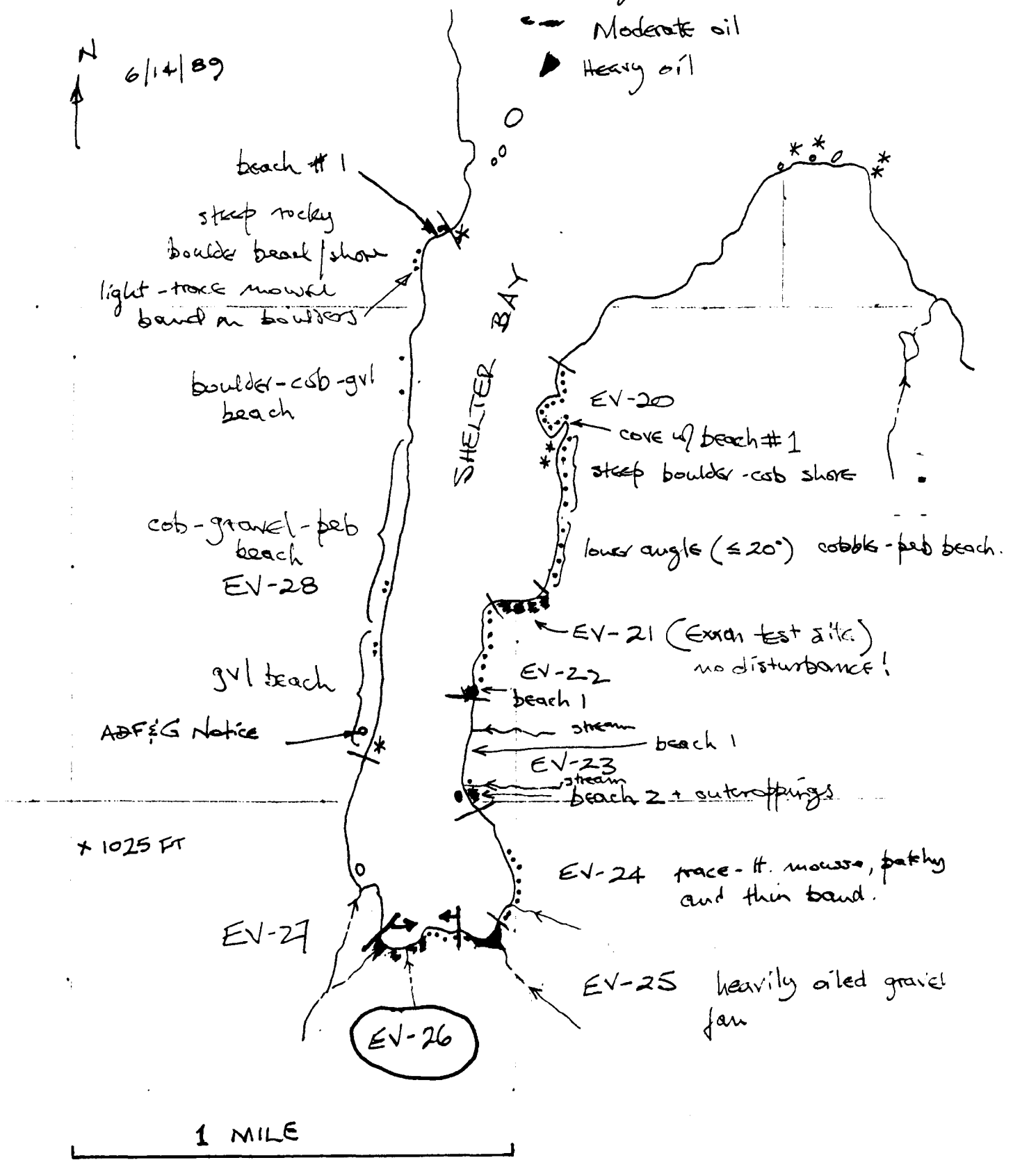
Time survey started 0620 Time survey ended 0640

Cultural resource considerations/restraints:

Standard constraints; cultural material occurs in the intertidal & forest zones W. of creek mouth where no oil occurs. Clean up activity should be restricted to creek mouth area only.

SHELTER BAY
EVANS ISL. 6/13/89

SEGMENT EV-26



G. MACDONALD

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-27

LOCATION: (see enclosed map) Evans Island - Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-14-89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC ~~approval~~) ~~due to no oil~~. reassessment at a later date)

Priorities Considerations:
~~No oil~~ present
MINIMAL OIL

Ecological Constraints (from site survey):
A ~~possible~~ CATALOGED anadromous stream (NO 16610) is located in this segment. ~~Access should be restricted~~. If cleanup is to be conducted, notify ADF&G and RAT 48 hours prior to any activities in this segment.

Archeological Constraints (from site survey):
No activity in upper intertidal zone within 200m of the stream. If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: June 21, 1989

ISCC: Sharon K. Christopherson Date: 6/28/89

EXXON: _____ Date: 6/28/89

FOSC: _____ Date: 6/29/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

Date: 6/14/89 Time: 06:45 Observer: G. MACDONALD

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fo

LOCATION

LOCATION N. EVANS ISLAND SHELTER BAY SEGMENT NUMBER EV-27

LENGTH OF SHORELINE SEGMENT: 900 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (LANG)/HANG/VER

Wave Exposure: High/Med/(Low)

Sediment: B 15 % / C 30 % / P ___ % / G ___ % / S 20 % / M 10 % / R TR % (25%)

Drift Debris on Beach: Yes/(No) Supra/Upper/Mid/Lower Type _____

OIL

Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % /M ___ % /L ___ %

Fresh _____ % Mousse _____ % Tar Formation: _____ %

Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

VERY RARE TRACE of MOUSSE AS SMALL SPOTS BETWEEN COBBLES & AS FAINT SHEEN ON SEAWEEDS AND H.W.L GRAVEL.

NO OIL!

VERY SHALLOW WATER @, SOUTH SEGMENT.

EV-27

DOCUMENTATION:

(Map)/Aerial photo marking segment boundaries Attached

VTR: Y/(N) Tape Number(s) None

Photography: (Y)/N Roll Number(s) T1-SMB-14

Sample Numbers Collected: None

6/14 06.45 WED
SEGMENT EV-27

Sheltered low angle river outwash, grading into low-mod. angled fcb-gvl beachline, w/ trace blders & cobs;

oil as light trace on HWL gvls / fucus patchy, ϕ penetr^n & sheen; coat; no oil, tiny mousse spots.
END of SEGMENT

6/14 07.00 EV-28

(Extension of 27)

Gravel-fcb-sand-blder beach, mod-low angle;

trace oil as thin mousse coat @ HWL rare small splats on beach & thin "watery" line on occas. blder; spots of sheen on water throughout, beach 1 - continuous light oil on NE end of beach, mousse w/ oiled seaweed, 2½ m x 30 m, w/ thin band on adjacent boulders & rock;

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM Barn

LOCATION PREFIX: EV SEG. NO.: 07 LENGTH: 900 (M)

DATE: 6/14/89 TIME (HHMM): 0640 TIDE HT.: +1 (M)

OILED ZONE: Splash High Medium Low No oil

SUBSTRATUM: Rocks (Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Not continuous - clumps found in lower ITZ not oiled

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Spot dense only in lower ITZ on gravel bar. Adults sparse on rocks

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense spat on gravel lower ITZ and subtidal - not oiled

Littorina
Patchy Y/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Dense adults and spat among Fucus fronds - not oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Several organisms among Fucus not oiled

OTHER OBSERVATIONS: Sedges, seaweeds and grasses high intertidal Dense Cyanea (Jellyfish) subtidally - Adults & juveniles

CLEANUP PRECAUTIONS: No clean up recommended. No Access to beach due to probable ANADROMOUS nature of stream

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other Deer tracks on beach

BIRDS: None seen

GENERAL OBSERVATIONS: No oil on this segment which consists of a large beach with alluvial fan followed by a stretch of steep cobble pebble beaches.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 14, 1989 Location Evans Island Site Shelter Bay W. shore

Location Prefix EV Segment # 27 Length 900 m.

Survey Method:

Air _____ (A - indicate on map) Boat X (50%) (A - indicate on map)

Ground X (50%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility no oil; good visibility

Width of beach zone surveyed 60 m Tree fringe surveyed 300 m.

Cultural resources observed in beach zone (AHRS code) HTI

Cultural resources observed in tree fringe (AHRS code) HTI

General observations justifying survey method and segment's site probability:

Shore Profile low angle alluvial fan grading into pebble-gravel beach

Fresh Water Sources one small creek with distributary channel.

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # PGP #2 Frames ~~1/9~~ 3-8

B/W Roll # JCH, Roll 1 Frames 5, 6, 7

Observer(s) Jon Haggarty / Peter Phippen

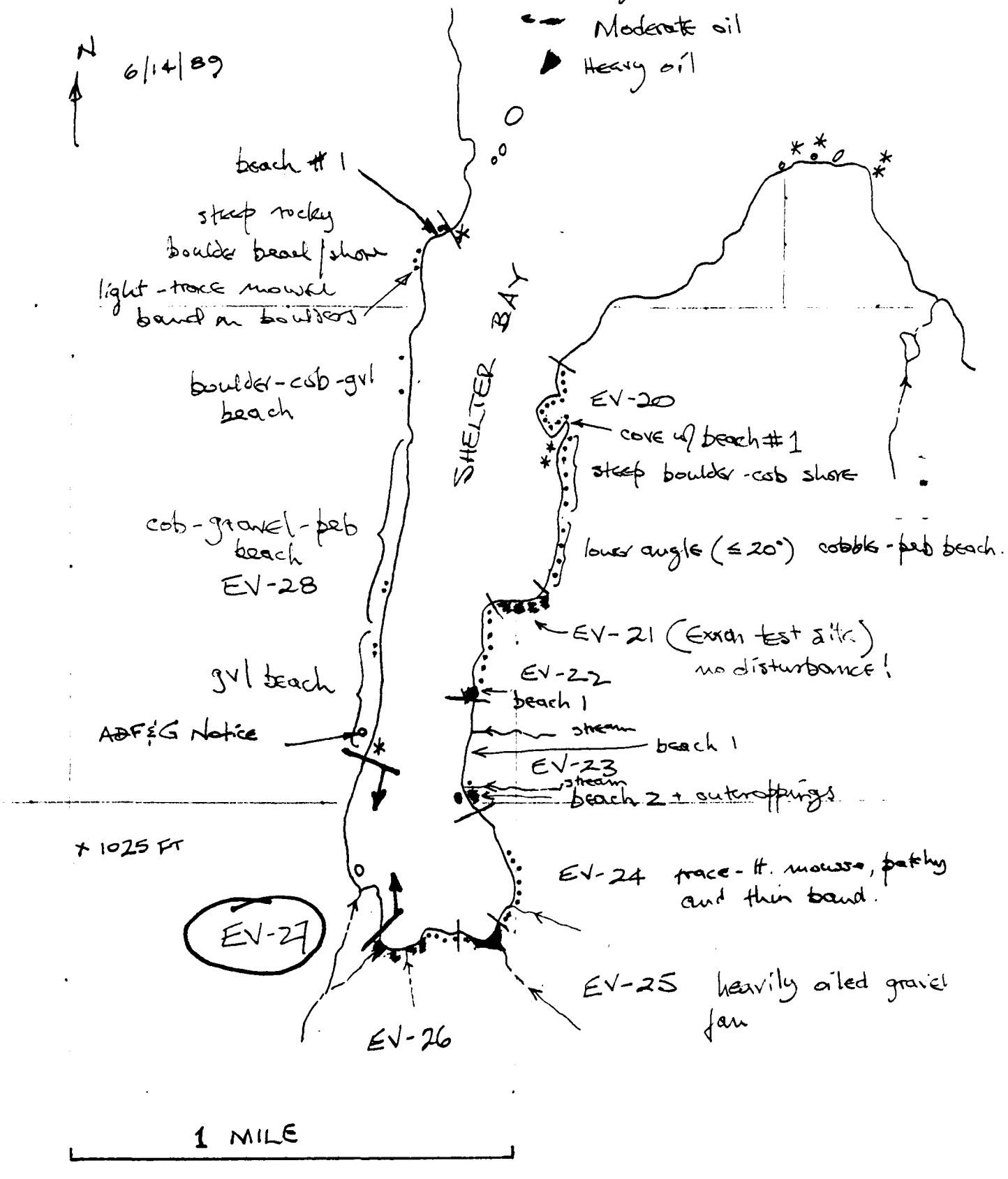
Time survey started 0645 Time survey ended 0715

Cultural resource considerations/restraints:

No archaeological constraints since site is not recommended for clean-up. If beach becomes oiled or is scheduled for clean-up, constraints should be reconsidered and a Cultural Resources survey recommended.

SHELIER BAY
EVANS ISL. 6/13/89

SEGMENT EV-27



G. MACDONALD

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-28

LOCATION: (see enclosed map) Evans Island - Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Flood/flush with warm to hot water (up to 140°F) on low angle beach No.1.
- Use moderate to high pressure washing on rock Beach No.1.
- Use other approved methods as appropriate.

Priorities Considerations:
Class: 4 light oil
Class: A Subsistence resources present.

Ecological Constraints (from site survey):
Work at midtide + or take appropriate measures to protect healthy lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 20, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 6/28/89

EXXON: _____ Date: 6/28/89

FOSC: _____ Date: 6/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

Date: 6/14/89 Time: 07:00 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fc

LOCATION N. EVANS ISLAND

LOCATION SHELTER BAY. SEGMENT NUMBER EV-28

LENGTH OF SHORELINE SEGMENT: 2,200 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SOME ROCKY AREAS - MAY BE HAZARD.

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/(STRT) Slope: (LANG)/(HANG/VER)

beach 1 boulder shore & rock

Wave Exposure: High/Med/(Low)

Sediment: B 20 % / C 15 % / P 15 % / G 20 % / S 15 % / M ___ % / R 15 %

Drift Debris on Beach: Yes/(No) (Supra)/Upper/Mid/Lower Type LOG/TREE

TRACE TREES.

OIL

BEACH #1

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / (SP) / (H) / M / L

Continuous: (Y)/N % of Segment < 1 Width of Band: 2½ m

Sporadic: (Y)/N % of Segment ≤ 3

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: ____ cm

Pooled Oil: ____ % "Free" Oil: TRACE % (Coated): H ___ % / M ___ % / L 100 %

Fresh ____ % Mousse 100 % Tar Formation: ____ %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

BEACH #1 @ N. END of SEGMENT HAS 2½ m x 30 m band OF CONTINUOUS LIGHT MOUSSE, AS COATING ROCK, BOULDERS AND PEB-GVL. BEACH — OIL IS RESTRICTED TO N. END of BEACH.

6/14 06.45 WED

SEGMENT EV-27

Sheltered low angle river outwash, grading into low-mod. angled pebble-gvl beaching w/ trace blders & cobbs;

oil as light trace on HWL gvls / fucus patchy, & penetr^ & sheen; coat; no oil, tiny mousse spots.

END of SEGMENT

6/14 07.00 EV-28

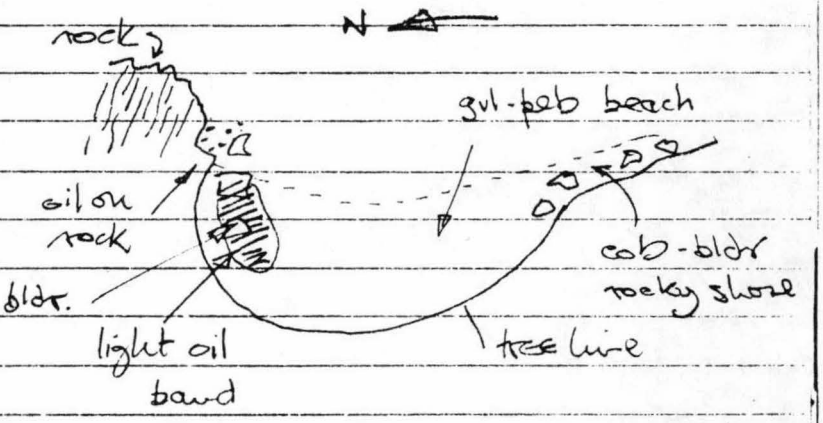
(Extension of 27);

Gravel-pebble-sand-blder beach, mod-low angle;

trace oil as thin mousse coat @ HWL rare small splats on beach & thin "watery" line on occas. blder; spots of sheen on water throughout, beach 1 - continuous light oil on NE end of beach, mousse & oiled seaweed, 2½ m X 30 m, w/ thin band on adjacent boulders & rock;

EV-28 contd;

beach 1 08·00



high press. wash, clean seaweed; wash/flush/float gvls;

END of SEGMENT.

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Shelter Bay OBSERVER: SM Baum

LOCATION PREFIX: EV SEG. NO.: 28 LENGTH: 2,200 (M)

DATE: 6/14/89 TIME (HHMM): 0720 TIDE HT.: 1 to 2 (M)

OILED ZONE: (Splash) High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)N None Y/N

Sparse Clumps on gravel/cobble/pebble beaches, more dense on rocks and boulders. Some oiled patches on beach 1.

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)N None Y/N

Some clumps on boulders - unoiled & healthy

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense (Y)N Sparse Y/N None Y/N

Spat very dense on cobbles. Predation by Nucella heavy on boulders

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)N None Y/N

Found among Fucus. Not oiled

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)N None Y/N

Found on beach 1 in Fucus clumps

OTHER OBSERVATIONS: Drift seaweed on beach 1 is unoiled. Pisaster, Solaster, and Lethasterias dense subtidally. Dense juvenile cyanea in water. Ulva dense lower to subtidal. Pagurus in subtidal.

CLEANUP PRECAUTIONS: Lower ITZ on cobble beaches and rocks is healthy. Take appropriate measures to protect

MAMMALS: Otters X Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: Kingfisher gulls, juvenile bald eagle

GENERAL OBSERVATIONS: This segment consists of cobble, pebble gravel high angle beaches ending in a gravel SAND mod. angle beach. Oiling is generally light.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 14, 1987 Location Evans Island Site Kelly Bay, W. shore

Location Prefix EU Segment # 28 Length 2200 m.

Survey Method:

Air _____ (A - indicate on map) Boat X (95%) (A - indicate on map)

Ground X (5%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility trace of oil; good visibility

Width of beach zone surveyed 5-8 m Tree fringe surveyed 6 m.

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile moderately sloping boulder-gravel beach; some bedrock

Fresh Water Sources several small creeks.

Sea Exposure protected → semi-exposed.

Access/Safety good.

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames _____

B/W Roll # JCH, Rl. 1 Frames 10

Observer(s) Jim Haggarty / Peter Phippen

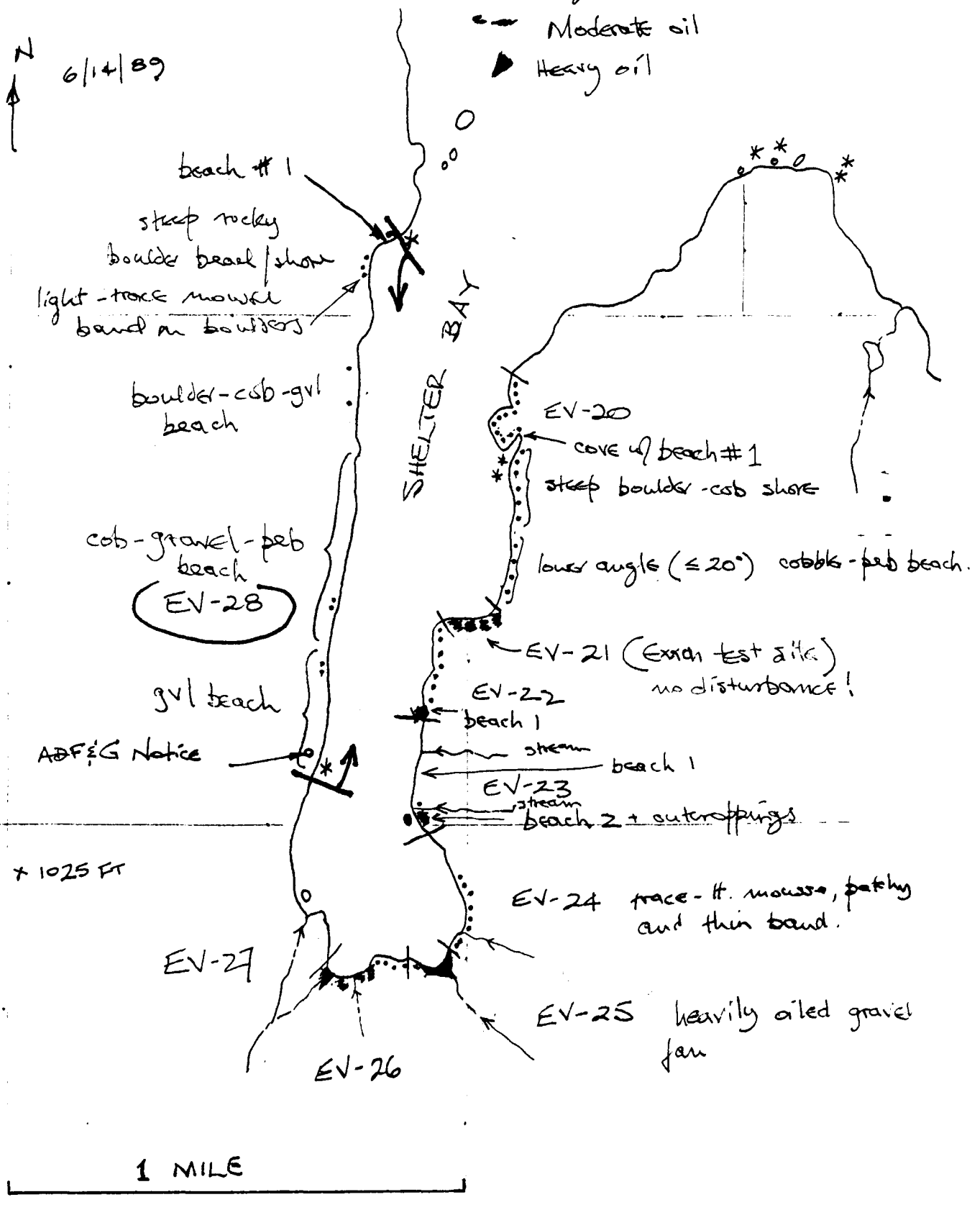
Time survey started 0720 Time survey ended 0900

Cultural resource considerations/restraints:

Standard Constraints

SEGMENT EV-28

SHELICK BAY
EVANS ISL. 6/13/89



G. MACDONALD

7/24/89
SSG

TREATMENT MANUAL, 6/15/89

SEG EV-26 INSPECTION # 1
DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-26 is completed. Ready for demob and deployment to new segment

Signature RC Harrelson Date: 7/23/89 Time: 17:36

Printed Name R.C. HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
25	Light
0	Very Light
75	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [X] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments ADEC LEAVES STATIONED FROM THE RAFT BOAT OCCUPIED RANGER PRESENT, NO ADEC INSPECTOR PRESENT.

Signature Date: / / Time:

Printed Name

FOSC rep **Demobilization approved/disapproved**

Comments NO GROSS CONTAMINATION EXCLUDING THE FISH STREAM AND THAT WILL BE NOTED IN A SEPARATE REPORT

Signature Cruz Date: 7/23/89 Time: 1750

Printed Name Paul Tracy Cruz

7/24/89
BJG

TREATMENT MANUAL, 6-15.90

SEG EU-27 INSPECTION # 1
DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [ ] Warm water wash
- [ ] Water deluge
- [ ] Mechanical
- [ ] Non-mechanical
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment is completed. Ready for demob and deployment to next segment

Signature R C Harrelson Date 7/23/89 Time 1730

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
0	Very Light
100	None
100 %	

Subsurface Oil

- [ ] Yes
- [X] No

Comments

Reassessment

- [ ] Yes - necessary
- [X] No - not necessary unless re-oiled

ADEC rep Comments ADEC LEWIS SHACKMAN FROM THE EXXON BAY OCEAN RANGER PRESENT, NO ADEC INSPECTOR PROVIDED.

Signature Date / / Time

Printed Name

FOSC rep Demobilization approved / disapproved

Comments NO CROSS CONTAMINATION, EXCLUDING THE FISH STREAM THAT WILL BE HANDLED IN A SEPERATE RESPONSE

Signature Date 7 23 89 Time 1800

Printed Name PAUL FEHRY CWO

7/24/89
SBF

TREATMENT MANUAL 6/15/89

SEG EU-28 INSPECTION # 1

DATE 7/23/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☒ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EU-28 is completed. Ready for demob and deployment to next segment.

Signature R C Harrison Date 7 23 89 Time 17:38

Printed Name R C HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
0	Very Light
100	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☐ Yes - necessary ☒ No - not necessary unless re-oiled

ADEC rep Comments ADEC LEWIS SHACKMAN FROM THE BOAT OCEAN RANGER PRESENT, NO ADEC INSPECTOR PROVIDED

Signature Date Time

Printed Name

FOSC rep Demobilization approved disapproved

Comments NO GROSS CONTAMINATION

Signature Date 7 23 89 Time 1755

Printed Name PAUL KELLY CWO2

EU 36 Inspection #1

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☒ Non-mechanical Natural Debris Removal
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments

Signature T.E. Fulkerson Date: 8/12/1 Time: 10^00

Printed Name T. E. Fulkerson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
	Heavy
2%	Medium
	Light
5%	Very Light
93%	None
100 %	

Subsurface Oil

☒ Yes isolated gravel area ☐ No

COMMENT BELOW

Reassessment

- ☐ Yes - necessary
- ☒ No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil Percent	Degree of Oiling
	Heavy
	Medium
	Light
	Very Light
	None
100 %	

Subsurface Oil

☐ Yes ☐ No

COMMENT BELOW

Reassessment

- ☐ Yes - necessary
- ☒ No - not necessary unless re-oiled

ADEC rep

Further treatment not recommended due to possible contamination of non-oiled areas.

Signature [illegible] Date: 8 21 89 1237

Printed Name PAM [illegible]

FOSC rep Demobilization (approved) disapproved

Comments Barge A area strictly rear - further cleanup not recommended

Signature Paul B. Gansle Date: 8/21/89 Time: 1245

Printed Name Paul B. Gansle, LT

COPY: EXXON ADEC FOSC ISCC

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): BETTE LIGHT BLOCK

Includes Shoreline Segments: EV-50, EV-51

Submitted: [signature] (for Exxon) Date: 6/17/89

ISCC Reccomendation: Sharon K. Christopherson Date: 6-19-89

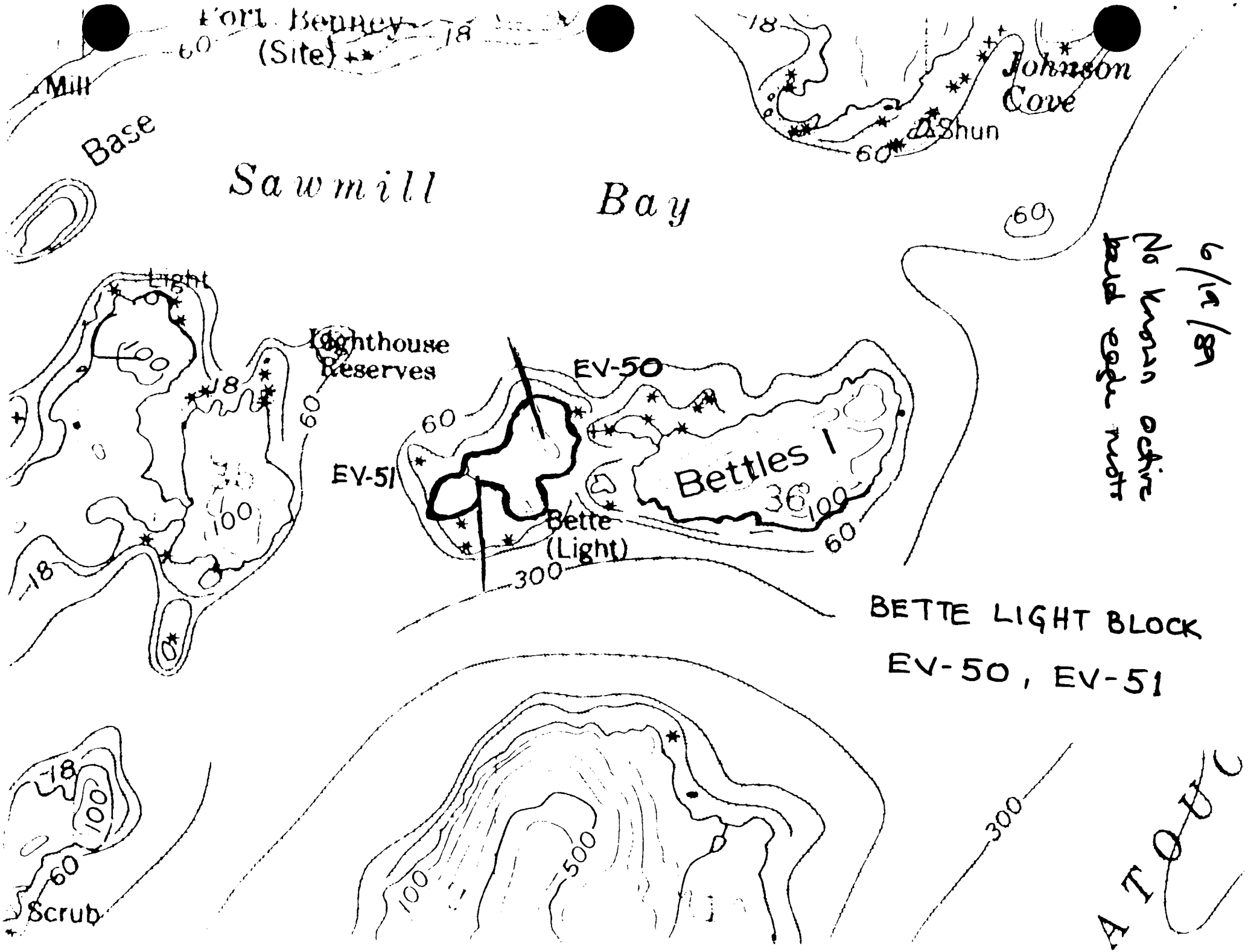
FOSC Approval: J. W. Kime Date: 6-20-89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO



No known active bald eagle nest 6/12/84

BETTE LIGHT BLOCK

EV-50, EV-51

ATOUC

(Version 5/02/89)

[illegible] SHORELINE TREATMENT RECOMMENDATION

DATE: [illegible] 17,1989 SHORELINE SEGMENT: EV-50

LOCATION: (see enclosed map) EVANS ISLAND- [illegible] ISLAND WEST OF [illegible] ISLAND

NOAC NO. SHORELINE ASSESSMENT DATE: 6-13-89

Recommended Cleanup Activity(ies) :
-Manually remove contaminated drift material (focus) and patches of oil.
-Flood/flush with warm to hot water (up to 140 f) on low angle beach
-Use moderate to high pressure washing on rock cobble
-Use other approved methods as appropriate

Priorities Considerations:
Class: 1- Moderate to light oil/tire sensitive
A- Subsistance resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[signature] Date: 17 June 89

[illegible] Historic Preservation Officer *

[illegible]: Date:

[illegible]: Date:

* Signature required to satisfy stipulations in Alaska land use permits for tide and submerged lands .

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE June 17, 1989 SHORELINE SEGMENT EV-50

LOCATION: (see enclosed map) EVANS ISLAND- SMALL UNNAMED ISLAND WEST OF BETTLES ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-15-89

Recommended Cleanup Activity(ies) :
-Manually remove contaminated drift material (fucus) and patches of mousse.
-Flood/flush with warm to hot water (up to 140 f) on low angle beach
-Use moderate to high pressure washing on rock cobble
-Use other approved methods as appropriate

Priorities Considerations: HIGH RECREATION USE.
Class: 1- Moderate to light oil/time sensitive
A- Subsistance resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 17, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson 6-19-89

EXXON: W. F. Workamp Date: 6-19-89

FOSC: J. W. Kime Date: 6-20-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/15/89 Time: 16:06 Observer: RICK GILLIE

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fog HEAVY!

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-50

LENGTH OF SHORELINE SEGMENT: 900 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: LANG/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 10 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % / R 80 % Fucus

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type _____

OIL

Degree of Oiling: (Heavy)/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / L

Continuous: (Y)/N % of Segment 100 Width of Band: 2 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: 15 cm

Pooled Oil: ___ % "Free" Oil: ___ % Coated: H 30 % / M 50 % / L 20 %

Fresh _____ % Mousse 10 % Tar Formation: 90 %

Drift Debris Oiled ? (Yes)/No (Supra)/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

- One small boulder beach, otherwise rock / boulders.
- Very angular (sharp) rock.
-

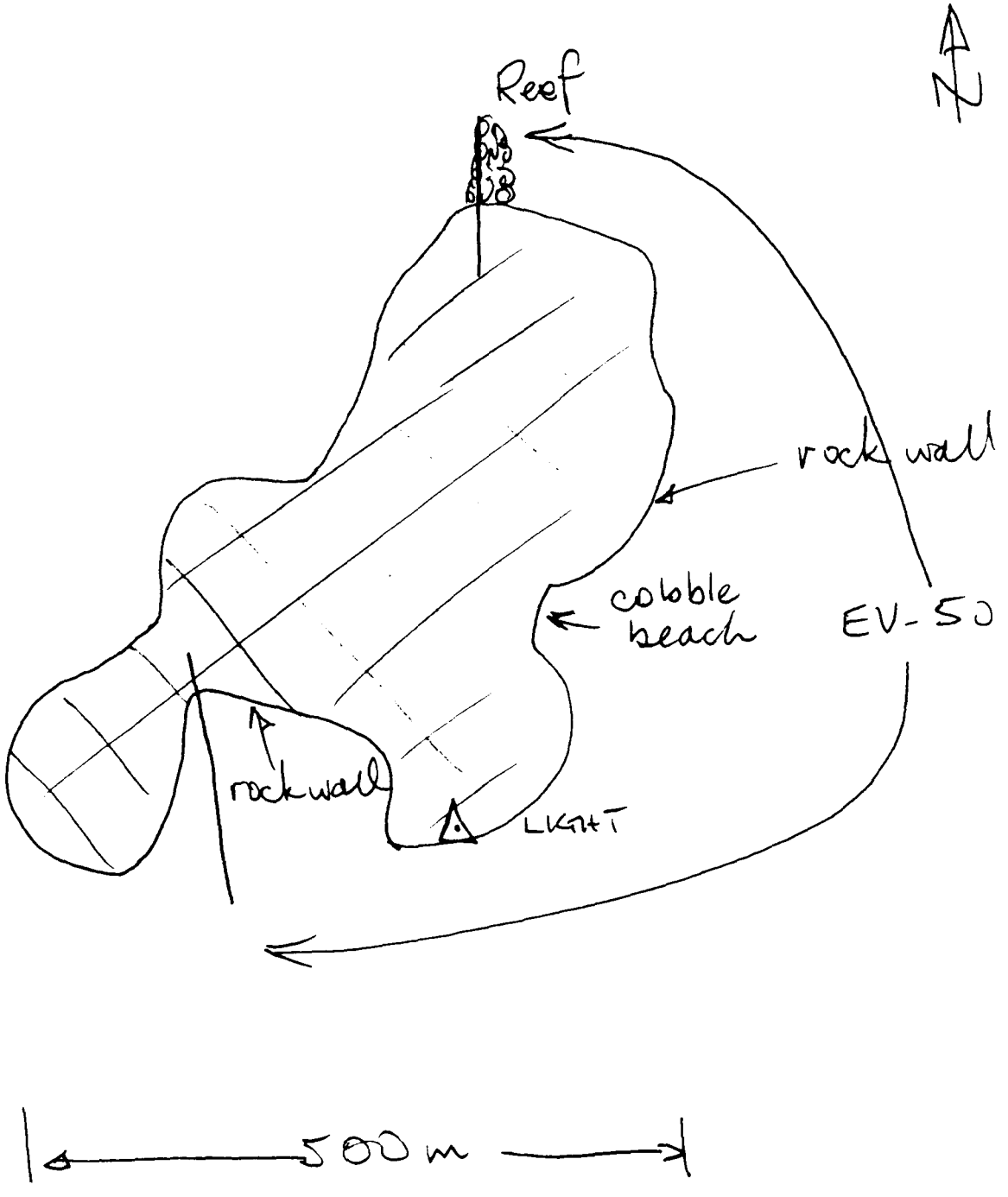
DOCUMENTATION:

Map/Aerial photo marking segment boundaries EV-50

VTR: Y/N Tape Number(s) _____

Photography: Y/N Roll Number(s) _____

Sample Numbers Collected: N/A



ECOLOGICAL EVALUATION

LOCATION: South of Evans Island SITE: Small unnamed island OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 50 LENGTH: 900 (M)

DATE: 06 / 15 / 89 TIME (HHMM): 1615 TIDE HT.: + 5 FT (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Most of Fucus unoiled, the Fucus in oiled zone is often heavily moussed

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Spat patchy; barnacles often present on oiled rockfaces

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Littorina common on barnacles, in fucus - patchy. Sparse Searlesia present on barnacles - patchy. Nucella also present, abundant in some areas, occassionally scattered throughout even oiled zone.

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Common in some areas with barnacles on large cobbles, boulders. Not oiled.

OTHER OBSERVATIONS: Verrucaria (Black Lichen) present in fairly constant band above oiled zone

CLEANUP PRECAUTIONS: NONE RECOMMENDED. [illegible]

[illegible]

MAMMALS: Otters 1 Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: NW Crow - 1

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/15/89 Location small, unnamed island south of Evans Site _____

Location Prefix EV Segment # EV-50 Length 900

Survey Method:

Air _____ (A - indicate on map) Boat ✓ THE PEST (A - indicate on map)

Ground ✓ BEACHES (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light + patchy

Width of beach zone surveyed 5-7 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile beaches are moderately sloped but boulder/cobble surface

Fresh Water Sources none

Sea Exposure protected

Access/Safety none

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

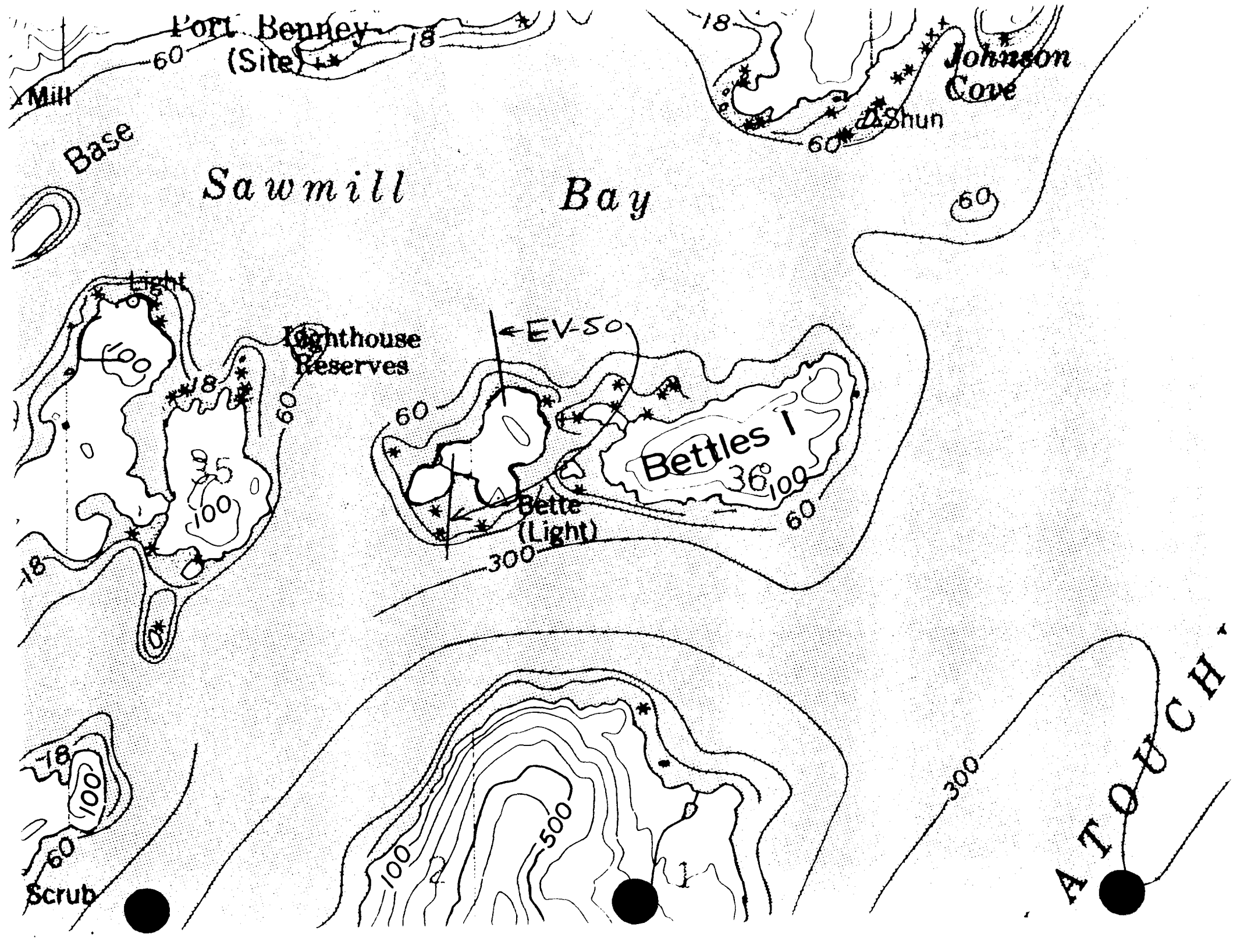
B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started 1615 Time survey ended 1700

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are discovered during cleanup contact Exxon archaeologist, C. Mobley, immediately.


Port Bennett
(Site)
Mill
Base
Sawmill Bay
Johnson Cove
Ashun
Light
Lighthouse Reserves
EV-50
Bettles I
Bette (Light)
Scrub
ATOUCH
60
18
100
300
500
36
35

(Version 5/03/89)

[illegible]

DATE June 17, 1989 SHORELINE SEGMENT EV-51

LOCATION: (Site Specific Map) EVANS ISLAND - SMALL UNNAMED ISLAND WEST OF [illegible] ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-13-89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material and patches of mousse.

Priorities Considerations:
Class: 1-Light oil/tide sensitive
2- subsistance resources present

Ecological Constraints (from site survey):
Work at midtide or take appropriate precautions to protect lower intertidal zone.

Archeological Constraints (from site survey):
If hereatofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[signature] Date: 17 June 89
State Historic Preservation Officer *

EXXON: _____ Date: _____

ADEC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE June 17,1989 SHORELINE SEGMENT EV-51

LOCATION: (see enclosed map) EVANS ISLAND - SMALL UNNAMED ISLAND WEST OF BETTLES ISLAND

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-15-89

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material and patches of mousse.

Priorities Considerations: HIGH RECREATIONAL USE.
Class: 1-Light oil/time sensitive
A- subsistence resources present

Ecological Constraints (from site survey):
Work at midtide or take appropriate precautions to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: June 17, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson 6-19-89

EXXON: W E Washburn Date: 6-19-89

FOSC: J. W. Kime Date: 6-20-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/15/89 Time: 17:00 Observer: RICK GILLIE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud) (Rain) Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-51

LENGTH OF SHORELINE SEGMENT: 800 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 10 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % /R 80 %

Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type Fucus Mousse

OIL

Degree of Oiling: Heavy/Moderate/(Light)/No Oil/Unobserved Very Light

Area of Beach Impact: SU / SP / (H) / M / L

Continuous: Y/N % of Segment _____ Width of Band: _____ m

Sporadic: (Y)/N % of Segment < 5

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ___ cm

Pooled Oil: ___ % "Free" Oil: ___ % Coated: H ___ % /M ___ % /L 0 %

Fresh _____ % Mousse 50 % Tar Formation: 50 %

Drift Debris Oiled ? (Yes)/No (Supra)/Upper/Mid/Lower Amount: H/M/(L)

Comments:

- MINOR QUANTITIES OF OILED DRIFT FUCUS AND SMALL PATCHES OF MOUSSE

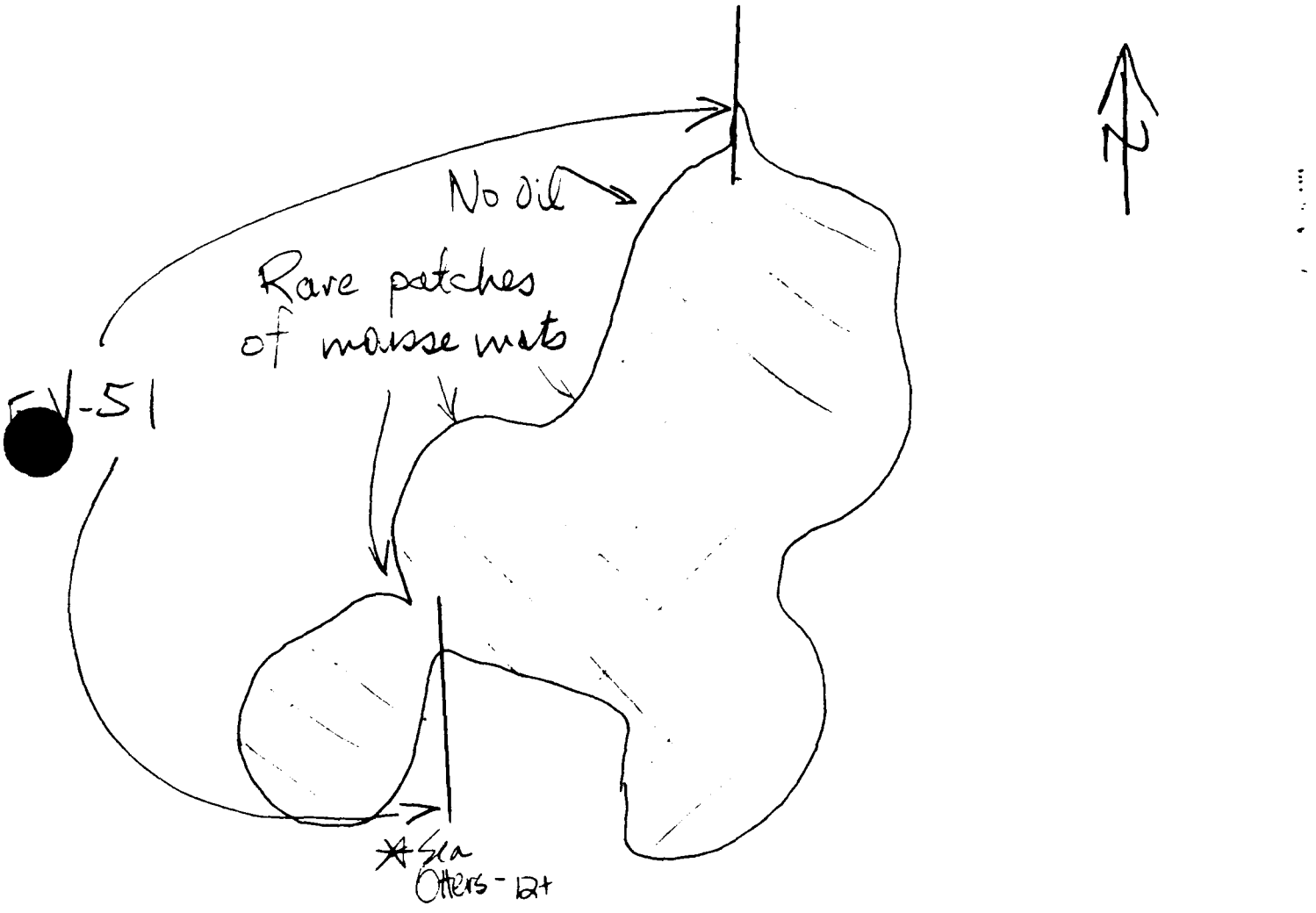
DOCUMENTATION:

Map/Aerial photo marking segment boundaries EV-51

VTR: Y/N Tape Number(s) —

Photography: Y/N Roll Number(s) —

Sample Numbers Collected: N/A



ECOLOGICAL EVALUATION

LOCATION: South of Evans Island SITE: Small unnamed island OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 51 LENGTH: 800 (M)

DATE: 06/15/89 TIME (HHMM): 1705 TIDE HT.: 4 FT (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: ~~Rocks~~ ~~Boulder~~ ~~Cobble~~ Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Most fucus unoiled and healthy -

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

Fairly continuous band of Balanus, generally found in any MTZ oiled areas.

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Feeding on Fucus and Balanus; Nucella patchy, less abundant than littorina, when present in oiled zone area, equal distribution in oil and oil free band.

Limpets: Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N (Feeding in oiled barnacles)

Often on barnacles

OTHER OBSERVATIONS: Low tidal and subtidal abundant with sea stars - Pisaster, Pycnopodia, Dermasterias (9 on one boulder); Small sheen on water in patches; small schools of fry-size fish

CLEANUP PRECAUTIONS: NONE RECOMMENDED.

MAMMALS: Otters 12±3 Harbor Seals ____ Sea Lions ____ Whales ____
Other Otters all in one group - marked on map

BIRDS: NW Crow - 1

GENERAL OBSERVATIONS: Verrucaria (Black Lichen) sometimes adjoining "bathtubring" oil stain; the black algae Petrocelis ("Tar Spot") also fairly common

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/15/89 Location small, unnamed island south of Bronx Site _____

Location Prefix EV Segment # EV-51 Length 800m

Survey Method:

Air _____ (A - indicate on map) Boat ~~THE REST~~ (A - indicate on map)

Ground ~~BEACH~~ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light & scattered

Width of beach zone surveyed 10 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile beaches steep & bouldered

Fresh Water Sources none

Sea Exposure protected

Access/Safety good

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

B/W Roll # _____ Frames _____

Observer(s) C Lubbon

Time survey started 1705 Time survey ended 1800

Cultural resource considerations/restraints:

If heretofore undiscovered cultural materials are uncovered during cleanup contact Exxon archeologist, C. Mobley, immediately.


Fort Benney
(Site)
Mill
Base
Sawmill
Bay
Johnson
Cove
Shun
Light
Lighthouse
Reserves
Bettles I
EV-51
Bette
(Light)
Scrub
ATOUC
18
60
100
300
500
36

SEG GV-50 INSPECTION # 1 SEGMENT

DATE 7/13/89 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [ ] Hot water wash
- [x] Warm water wash
- [x] Water deluge
- [ ] Mechanical
- [x] Non-mechanical Burned oiled Fucus & Debris
- [ ] Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Environmentally Clean

Signature C F Duggins Date: 7/13/89 Time: 1300

Printed Name C. F. Duggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
20	Medium
50	Light
0	Very Light
30	None
100 %	

Subsurface Oil

- [x] Yes
- [ ] No

Comments w medium Mats.

Reassessment

- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep Comments NOT AVAILABLE. ADEC observation Team Leader Pam Kayes escorted.

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments no cross contamination

Signature Date: 7/13/89 Time: 1503

Print or Type Name Captain

COPY: [illegible] FOSC [illegible]

TREATMENT MANUAL, 6/15/89

SEG GV-5 / INSPECTION # 1

DATE 7/13/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☒ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☒ Non-mechanical Removal oiled kelp
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Environmentalist - (Paul)

Signature C. F. Duggins Date: 7/13/89 Time: 1300

Printed Name C. F. Duggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
25	Light
0 25 0	Very Light
75	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments NOT AVAILABLE ADEC observation Team Leader Pam Lowe escorted.

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments NO CLAMS CONTAMINATION

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): BETTLES ISLAND BLOCK

Includes Shoreline Segments: EV-52

Submitted: William Stirling (for Exxon) Date: 6/17/89

ISCC Reccomendation: Sharon K. Christopherson Date: 6-19-89

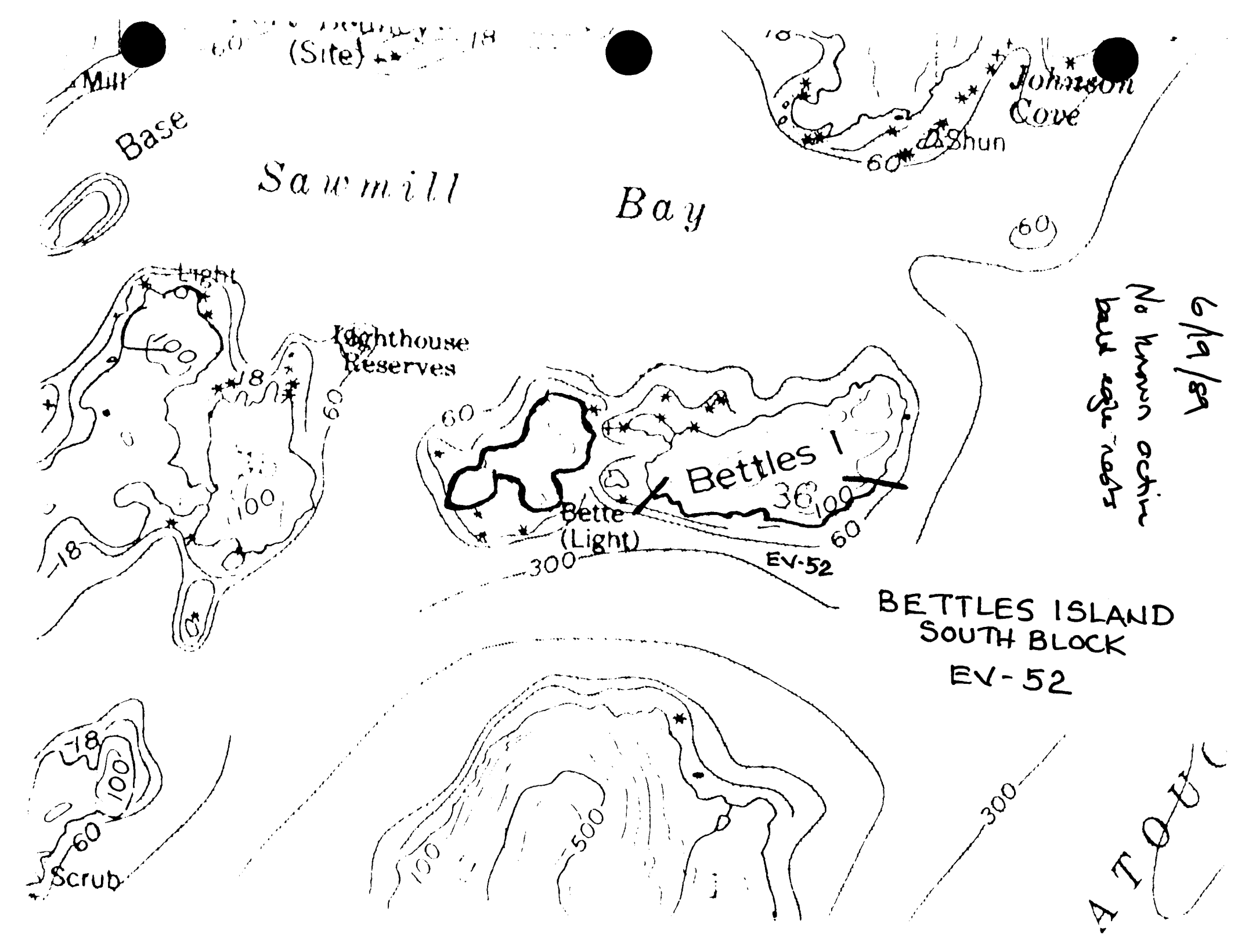
FOSC Approval: J. W. Kime Date: 6-20-89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

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(Site)
Mill
Base
Sawmill
Bay
Johnson
Cove
Shun
60
Light
Lighthouse
Reserves
600
18
100
60
18
60
Bettles I
36
100
Bette
(Light)
60
300
EV-52
6/19/89
No known ochre
bald eagle nests
BETTLES ISLAND
SOUTH BLOCK
EV-52
18
100
60
Scrub
100
500
300
60

(version 6/14/89)

SHORELINE CLEANUP RECORD

DATE June 17, 1989 SHORELINE SEGMENT SV-52

LOCATION: (see enclosed map) Evans Island - South side of Bettles Island

AOSC NO. SHORELINE ASSESSMENT DATE: June 13, 1989

Recommended Cleanup Activity(ies):
Manually remove contaminated drift material (focus).
Flood/flush with warm to hot water (up to 140 degrees F) on small low angle cobble beaches.
Use moderate to high pressure washing on rock
Use other approved methods as appropriate

Priorities Considerations:
Class: 1 - moderate oil/tize sensitive
A - substance t source present

Ecological Constraints (from site survey):
Work at midtide or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/31/89 as amended.

State Historic Preservation Officer * Date: 17 June 89

USCG: Date:

EXXON: Date:

AOSC: Date:

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

TOTAL P.14

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 17, 1989 SHORELINE SEGMENT EV-52

LOCATION: (see enclosed map) Evans Island - South side of Bettles Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: June 15, 1989

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140 degrees F) on small low angle cobble beaches.
- Use moderate to high pressure washing on rock
- Use other approved methods as appropriate

Priorities Considerations: HIGH RECREATIONAL USE.
- Class: 1 - moderate oil/time sensitive
- A - subsistence resource present

Ecological Constraints (from site survey):
- Work at midtide+ or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: June 17, 1989

ISCC: Sharon K. Christopherson Date: 6-19-89

EXXON: W R Wakeman Date: 6-19-89

FOSC: J. W. Kime Date: 6-20-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE June 17, 1989 SHORELINE SEGMENT EV-52

LOCATION: (see enclosed map) Evans Island - South side of Bettles Island

ADEC NO._____ SHORELINE ASSESSMENT DATE: June 15, 1989

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140 degrees F) on small low angle cobble beaches.
- Use moderate to high pressure washing on rock
- Use other approved methods as appropriate

Priorities Considerations:
- Class: 1 - moderate oil/time sensitive
  A - subsistence resource present

Ecological Constraints (from site survey):
- Work at midtide+ or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date:_____
State Historic Preservation Officer *

ISCC:_____ Date:_____

EXXON:_____ Date:_____

FOSC:_____ Date:_____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 6/15/89 Time: 18:00 Observer: Rick Gillie

Surveyed From: Foot/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION EVANS ISLAND SEGMENT NUMBER EV-52

LENGTH OF SHORELINE SEGMENT: 1050 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/Float Plane

SHORELINE:

Shoreline Type: SPI/BEA/(COV)/(HLD)/(STRT) Slope: LANG/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 20 % / C 10 % / P ___ % / G ___ % / S ___ % / M ___ % / R 70 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/Mid/Lower Type Fucus

OIL

Degree of Oiling: (Heavy)/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / L

Continuous: (Y)/N % of Segment 80 Width of Band: 2-3 m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: ___ cm Est. Oil Penetration: ___ cm

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H 30 % / M 60 % / L 10 %

Fresh ____ % Mousse 20 % Tar Formation: 80 %

Drift Debris Oiled ? (Yes)/No Supra/Upper/Mid/Lower Amount: H/M/(L)

Comments:

- OILED FUCUS ON ROCKS
- OIL STAIN / LIGHT - MODERATE OIL BAND ON ROCKS,
- UNIFORMLY ROCK COAST, ONE MINOR BEACH

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: BETTLES ISLAND OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 52 LENGTH: 1050 (M)

DATE: 06/15/89 TIME (HHMM): 1800 TIDE HT.: +4.5FT (M)

OILED ZONE: Splash ~~High~~ (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)N Sparse Y/N None Y/N

Not much Fucus impacted by oil.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None (Y)N

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

Nucella also present in patches, fairly dense in places. All snails generally not oiled.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: Fairly abundant sea stars - Pisaster, Pycnopodea, Dermasterias. Schools of small fish (fry); particulate white substance on water in area.

CLEANUP PRECAUTIONS: NO PRECAUTIONS RECOMMENDED.

MAMMALS: Otters 3 Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: 2 Eagles, Magpie-1

GENERAL OBSERVATIONS: Oiled rockface ("stain") generally fucus-free.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 6/15/89 Location Beaches I and II south of Bligh Island Site _____

Location Prefix EV Segment # EV-52 Length 1050

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (A - indicate on map)

Ground _____ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to moderate

Width of beach zone surveyed 0 m Tree fringe surveyed 0

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) None

General observations justifying survey method and segment's site probability:

Shore Profile vertical walls and steep boulder fields

Fresh Water Sources None

Sea Exposure south / south east

Access/Safety poor

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/no

Photos: Color Roll # _____ Frames _____

B/W Roll # _____ Frames _____

Observer(s) C Wilson

Time survey started 1800 Time survey ended 1830

Cultural resource considerations/restraints:

If heretofore undiscovered cultural resources are uncovered during cleanup contact Exxon archaeologist, C. Mobley, immediately.

7/17/89

TREATMENT MANUAL, 6/15/89

SEG EV-52 INSPECTION # 1

DATE 16 Jul 89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☒ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☒ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Environmentally Clean

Signature C.E. Duggins Date: 7/16/89 Time: 1645

Printed Name C.E. Duggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
10	Light
0	Very Light
90	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No gross surface contamination. Only light staining noted.

Signature Douglas H. Dasher Date: 7/16/89 Time: 1645

Printed Name DOUGLAS H. DASHER, EE III, ADEC

FOSC rep **Demobilization approved/disapproved**

Comments NO GROSS CONTAMINATION

Signature [signature] Date: 7/16/89 Time: 1640

(version 5/13/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Bettles Island North Block

Includes Shoreline Segments: EV-53, EV-54

Submitted : Scott A. Neuman (for Exxon) Date: 7/2/89

ISCC ~~Approval~~ Recommendations: Jacqueline McCabe Date: 7/5/89

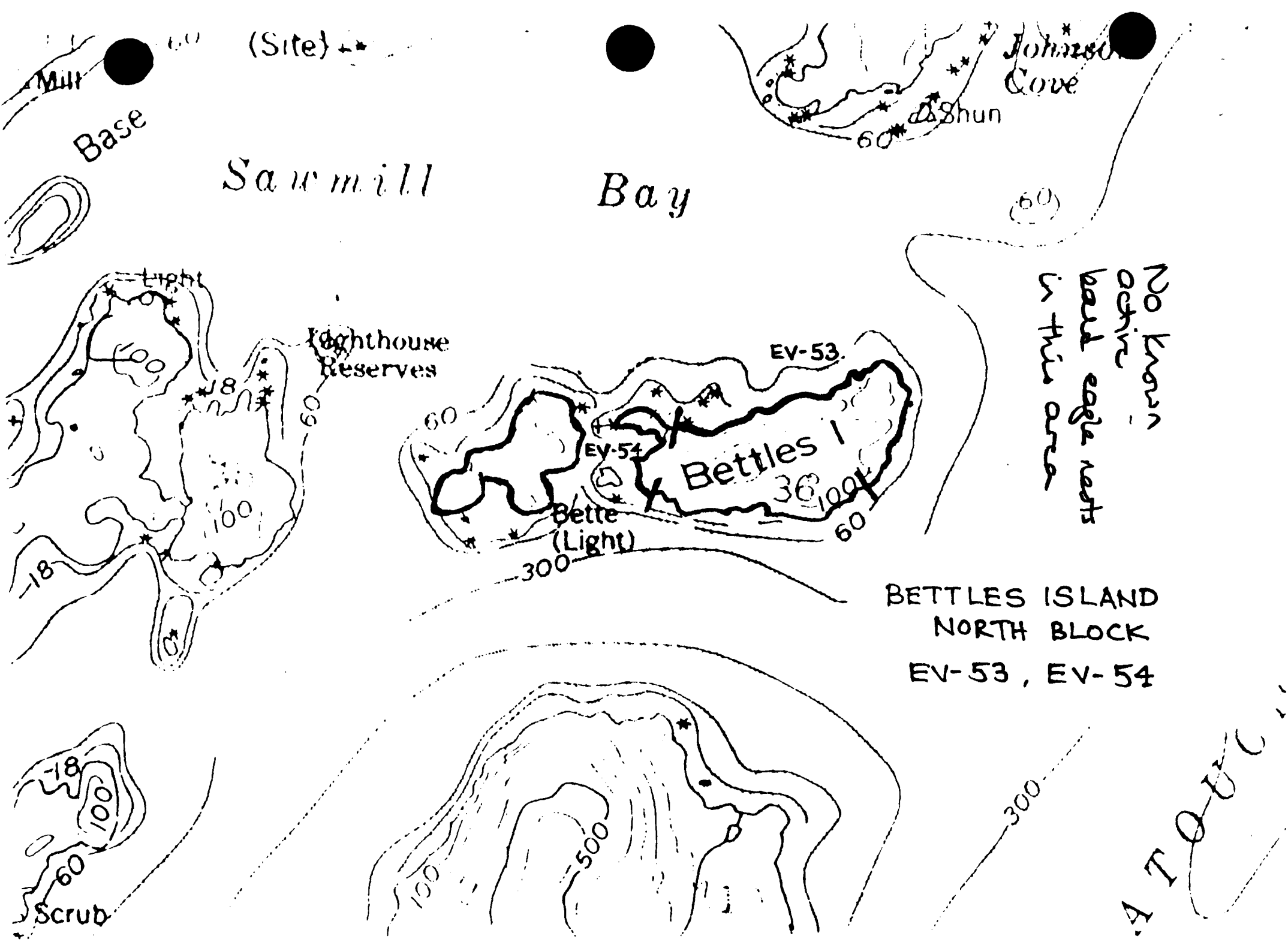
FOSC Approval: T E Robbins Date: 7/6/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

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PWSCA
USFS
SHPO


(Site)
Mill
Base
Sawmill
Bay
Johnson
Cove
Shun
60
Light
Lighthouse
Reserves
60
18
100
18
60
EV-53.
EV-54
Bettles I
36
100
60
Bette
(Light)
300
No known
active
bald eagle nests
in this area
BETTLES ISLAND
NORTH BLOCK
EV-53, EV-54
18
100
60
Scrub
100
500
300

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

SPECIAL PRECAUTIONS SHOULD BE TAKEN TO CONTAIN SHEEN BECAUSE OF CLOSE PROXIMITY OF HATCHERY IN SAWMILL BAY

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89 SHORELINE SEGMENT EV-53

LOCATION: (see enclosed map) Bettles Island - Northeast side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-30-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus) and patches of mousse.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class ~~2~~ 1 ~~4~~: Heavy to light oil / TIME SENSITIVE
A: Subsistence resources present. / HATCHERY VERY NEARBY

jmc 7/5/89

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone and eelgrass beds.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E Holmes Date: July 2, 1989
State Historic Preservation Officer *

ISCC: Jacquelyn Michael Date: 7/5/89

EXXON: _____ Date: July 5 1989

FOSC: _____ Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/30/89 Time: 5:30-8:50 Observer: KAROLIEN DEBUSSCHERE

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION N-SE OF BETTLES ISLAND SEGMENT NUMBER EV-53

LENGTH OF SHORELINE SEGMENT: 1550 m

ACCESS: Foot/Vehicle/(Boat)/Barge/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: (High)/(Med)/(Low)

Sediment: B 15 % / C 10 % / P 5 % / G 5 % / S 5 % / M — % / R 60 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type ALGAE & LOGS

OIL

Degree of Oiling: (Heavy)/(Moderate)/(Light)/(No Oil)/Unobserved

Area of Beach Impact: (SU)/(SP)/(H)/(M)/ L

Continuous: (Y)/N % of Segment 75 Width of Band: .2 — 8 m

Sporadic: (Y)/N % of Segment 25

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 1-15 cm

Pooled Oil: 0 % "Free" Oil: 25 % Coated: H 40 % /M 15 % /L 20 %

Fresh 40 % Mousse 30 % Tar Formation: 30 %

Drift Debris Oiled ? (Yes)/No (Supra)/(Upper)/(Mid)/Lower Amount: (H)/(M)/L/

Comments:

THE OIL DISTRIBUTION IS VERY VARIABLE BUT CONSISTENT WITH CONFIGURATION OF SHORELINE. THE COVES WITH MAINLY BOULDER BEACHES ARE IMPACTED MOST HEAVILY. THE CLIFFS FACING EAST ARE ALSO HEAVILY IMPACTED; W-FACING SECTIONS HAVE LITTLE OR NO OIL. ONLY COVES ARE RELATIVELY ACCESSIBLE

THE LOWER TIDAL ZONE IS VERY PRODUCTIVE

6/30/89 M. DEBUSSCHERE

EMERGENCY REASSIG. TO FINISH BETTIES IS NEAR SAW MILL BAY.

5:30 → SKIFFED AROUND IS : RECONN & LOCATION OF ALREADY FINISHED SEGM.

EV-53 6:00 SKIFF

* CLIFFS W OIL SPOTS & CONT LINE AT HIGH WATER LINE
CLIFFS: SOME HAVE BEACH POCKETS W VERY ANGULAR ROCKS AT BOTTOM
OIL SOMETIMES HARD TO DISTINGUISH FROM LICHEN !! → A LOT OF LICHEN!!

& LOCATION (1) NOT ACCESSIBLE
HIGH LYING BEACH: BOULDERS & COBBLES, DRIFTWOOD
OIL I 7 M ?? PENETRATION

* E-WARD FROM (1)
CLIFFS - AGAIN OIL ON HIGH WATER LINE ± 5-25 CM
ALSO: IN SOME CREVICES: OIL, THICKER & HIGHER FROM SWASH

* LOCATION (2) WALK
LITTLE COVE AT LOW TIDE I 40M LONG & 30M WIDE
VERY THICKLY COATED OIL IN A CONT. 10-15 M BAND I 30% MOUSSE
- MID TIDE: TAR-THICK
- HIGH H_2O: MOUSSE / SOME FREE OIL / OILED DRIFT
- SPRING TIDE: TAR-THICK & THIN SPLASH ON DRIFT
- SPRAY: TAR SPLASHES

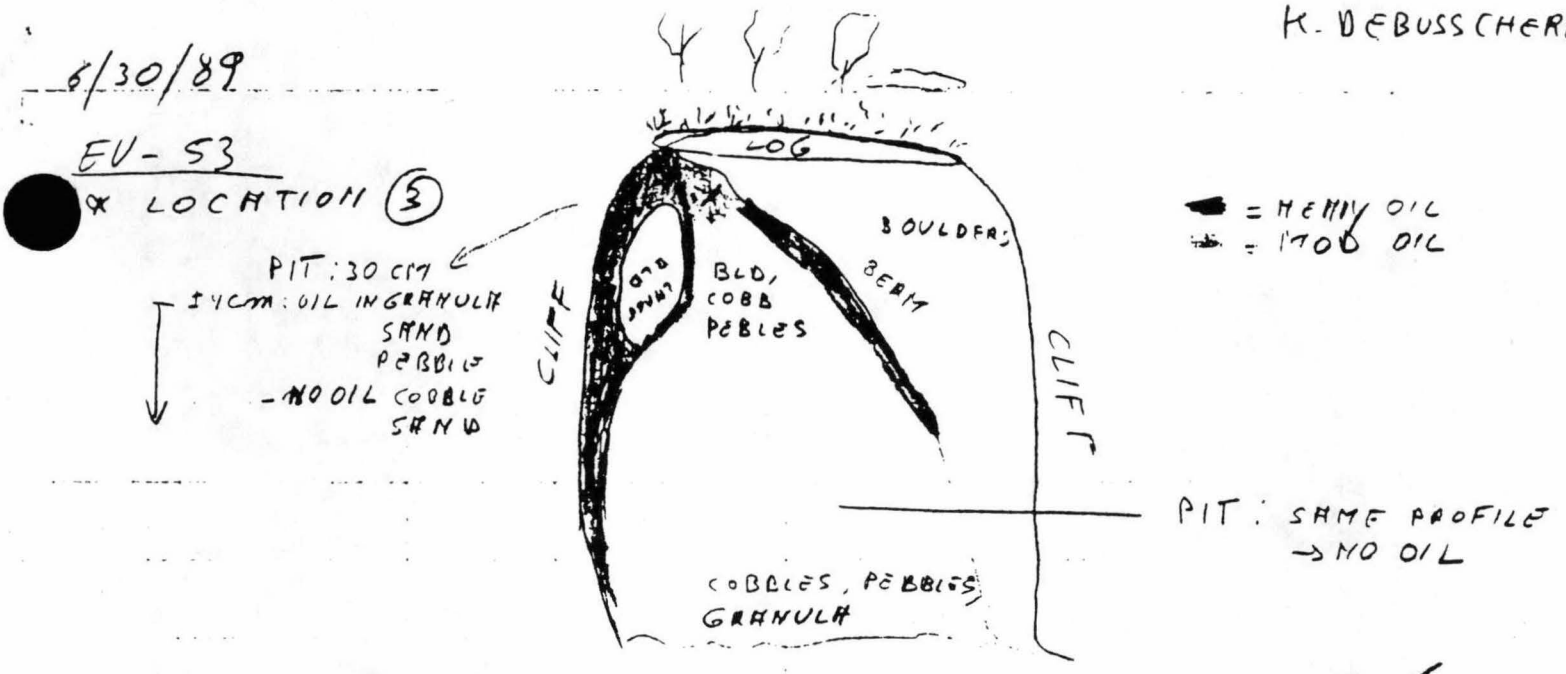
PHOTOGRAPH:
P (12) ± 6:37 AT LOCATION 2 → MOUSSE & DEBRIS MIX ON HIGH / SPLASH ON W-SIDE
P (13) ± 6:38 AT LOC 2 → TAR-THICKLY COATED ANGULAR ROCKS ON E-SIDE
P (14) ± 6:39 MOUSSE & SOME FREE OIL STRAIGHT AHEAD / COATED DRIFTWOOD
P (15) ± 6:41 LOCATION PHOTO OF (2)

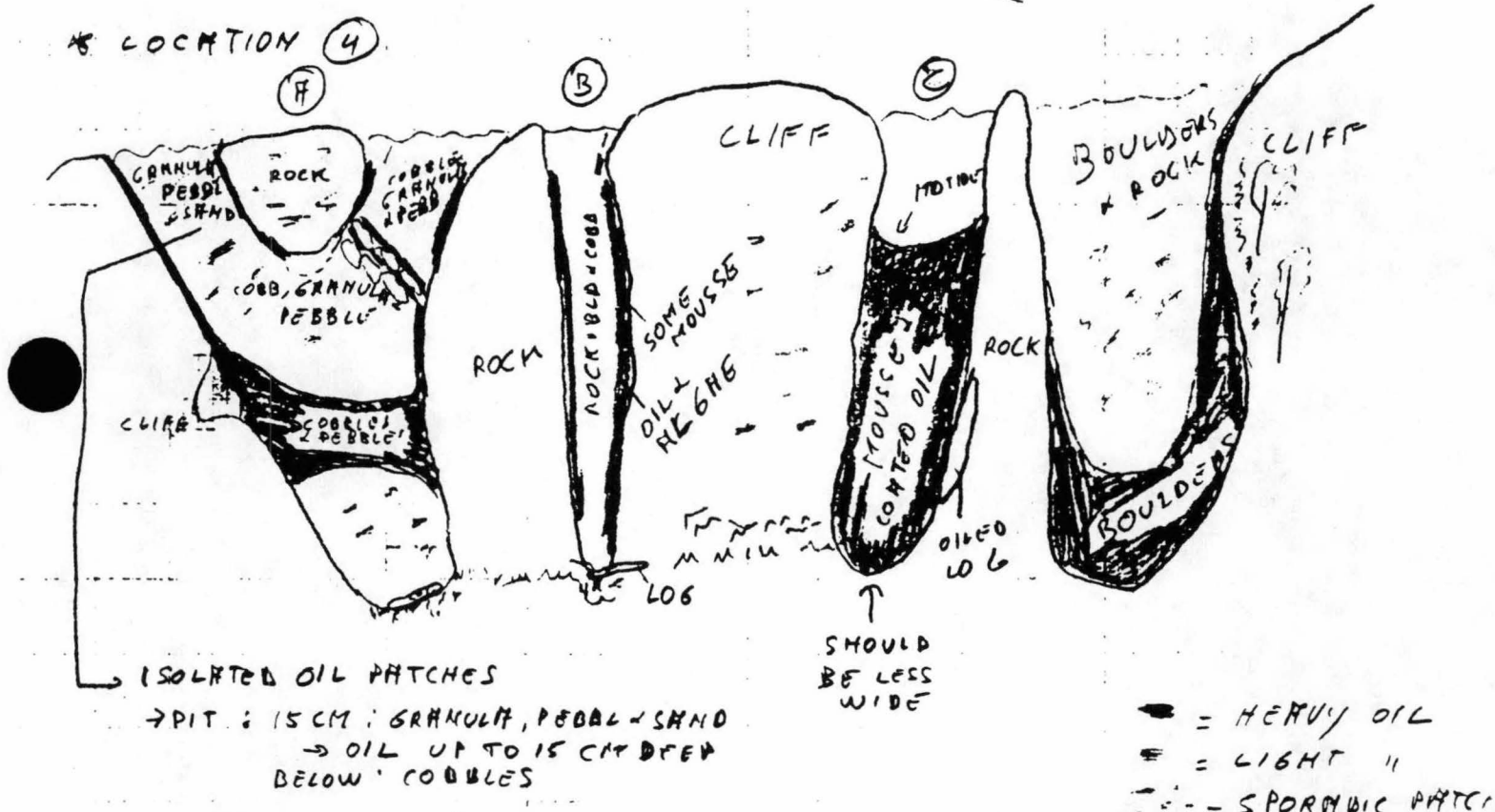
* NNE-WARD - SKIFF
AGAIN CLIFFS W OIL RING
OIL IS VERY THIN, MOST BLACK IS LICHEN!!

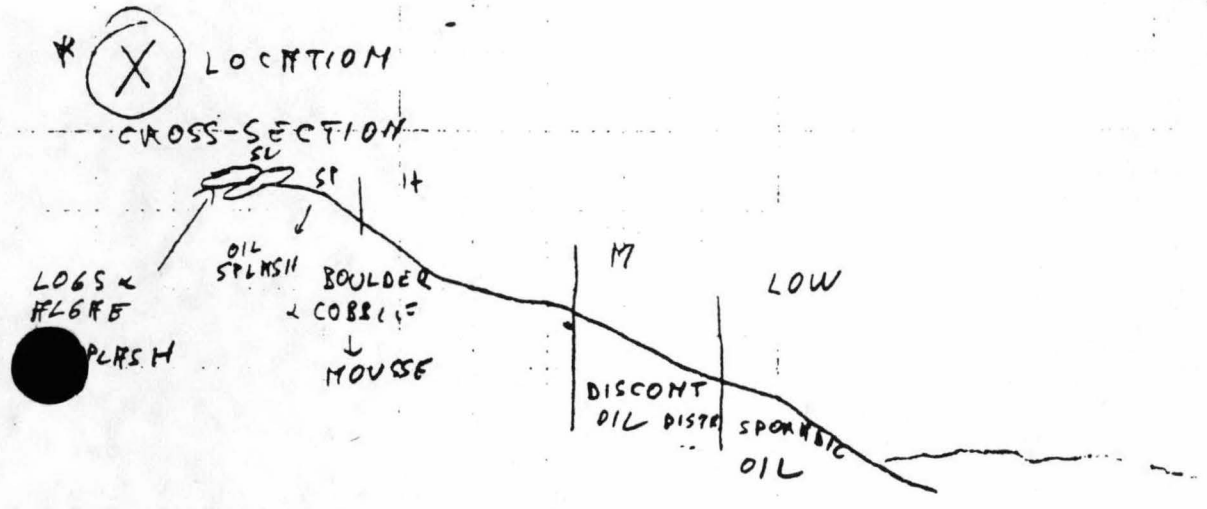
K. DEBUSSCHERE

6/30/89

EV-53







6/30/89 K. DEBUSSCHERE

EV-53 - CONT'

* LOCATION (3) WALK

AGAIN LITTLE COVE → SEE SKETCH

OIL IS MOSTLY ON E-SIDE, MODERATE ON W-SIDE

- IN HIGH TIDAL ZONE

→ HEAVILY COATED

→ SOME MOUSSE

OILED ALGAE & DRIFTWOOD ON HIGHWATER MARK

SOME OIL ON SP

* W-WARD ON N-SIDE OF ISLAND SKIFF

AGAIN CLIFFS

→ HAVE MORE OIL THAN BEGINNING OF SEGMENT

ESPECIALLY IN CREVICES HEAVILY COATED

ON LOWER OUT CROPS → NO-LITTLE OIL

OIL IS MOSTLY AT HIGHWATER

* LOCATION (4) WALK

NETWORK OF COVES AND LONG INLAND CREVICES VERY THICKLY OILED → SEESKETCH

(A) MOST OF DL IS HIGH TIDAL ZONE → SOME FREE

SOME IN MID-" " → ISOLATED PATCHES WHERE OIL HAS PENETRATED DEEP

(B) MOSTLY THICKLY COATED OIL & SOME MOUSSE

(C) ALSO SU OIL SPLASHES

OVER WHOLE SECTION: LOW TIDAL ZONE IS ECOLOG. VERY PRODUCTIVE: NO OIL!!

PHOTOGRAPHS ON (4)

P(16) 7:53: OIL ON CLIFF IN (A) OF WORST ACCUMULATION

P(17) 8:04: VIEW OF OIL IN CREVICE (B): MOUSSE

THEN SEAWARD

→ SKIFF ALONG CLIFF / WALK ON BEACH

* WESTWARD OF LOCATION (4) 2 MORE BEACHES WITH CLIFF IN BETWEEN → 1ST ± 60M FROM (4) & 2ND ± 60M FROM 1ST

SEE (X) FOR SKETCH OF BOTH

→ BROAD BEACHES WITH ± HIGH GRADIENT

→ VERY THICKLY COATED OIL

→ SOME FREE OIL

EV-53 - CONT 2 K. DEBUSSCHERE

PHOTOGRAPH

P (18) 8:27 : X SECTION ON (X) → MOUSSE AT HIGH TIDE

P (19) 8:29 : " " " " " " "

* LOCATION (5) SKIFF

ALTERNATING CLIFFS W SMALL BEACH AREAS IN BETWEEN

→ OILED AT HIGH TIDE LOCATIONS

* LOCATION (6) AND ON W-WARD ON N-SHORE OF IS.

CLIFFS & BEACHES ALTERNATE

- BEACHES = AS X-SECTION (X) LARGE BOULDERS

OIL ON CONT BAND 2-3 M WIDE W MOUSSE

- CLIFFS HAVE LITTLE OIL ON E-SIDES

OIL IS MOSTLY ON EASTERLY FACING WALLS ON HIGH TI

!! ALL ALONG SECTION CLIFFS HAVE OIL RING ON HIGH WATER, RARELY W/O OIL

FREQUENTLY THEY HAVE 2 RINGS ± 50CM APART

→ OIL MUST HAVE COME IN ON 2 TIDES

8:50 END 53

EV-54 - 8:50

* LOCATION (1) WALK

COBBLE & PEBBLE BEACH ACROSS TO BAY ON SW-SIDE OF ISLAND

PENINSULA IS TO THE EAST

SURFACE IS OILED I CONT: HEAVY COATING ± 3-4CM DEEP

SURFACE OF BEACH = MIDTIDE → ALGAE

BEACH FACING CLIFFS ON PENNINS. : OIL ON HIGH TIDE

OILED & ALGAE "

PHOTOGR.

P (20) BEACH AT (1)

* W-WARD ALONG PENINSULA SKIFF

→ SAME AS EV-53!! CLIFFS & BEACHES - SOME DEEP COV

→ SAME CLEANING TECHNIQUE

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd. SITE: Bettle Is OBSERVER: E. R. White

LOCATION PREFIX: EV SEG. NO.: 53 LENGTH: 1550 (M)

DATE: 06 / 30 / 89 TIME (HHMM): 0500-0830 TIDE HT.: -0.3 - +0.3 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

- good growth on all rock faces also Cladophora sp.; Enteromorpha sp.
- complete cover of Gigartina & Ptilota

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

- some dense colonies on rock faces; also large areas with sparse cover

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

continuous sparse B. cariosus in low intertidal; patchy sparse B. glandula in high intertidal

Littorina
Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

littorina - discontinuous in high intertidal; most of the segment supports populations of Nucella.

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: - low intertidal gravel beaches are very productive
infauna include hermit crabs; chitons; gunnels; amphipods & scale worms.
- also offshore eelgrass beds were observed at west end of segment.

CLEANUP PRECAUTIONS: - protect unoiled low intertidal areas from oiling
and. do not ~~was~~ re-introduce hydrocarbons to the water in vicinity of eelgrass beds.

MAMMALS: Otters 15-20 (sea otters) Harbor Seals 2 Sea Lions ____ Whales ____
Other ____

BIRDS: 2 bald eagles; 4 crows; 3 ravens

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION
PRINCE WILLIAM SOUND (C-3 AOGA)

Date 6/30/89 Location KETTLE ISLAND/SAWMILL BAY Site _____

Location Prefix EV- Segment # 53 Length 1550 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (80%) (A - indicate on map)

Ground ✓ (20%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility GENERALLY MODERATE - HEAVY OIL, FAIR VISIBILITY.

Width of beach zone surveyed 0-40 M m Tree fringe surveyed 5 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability:

Shore Profile ROCKY HEADLANDS W/ SMALL BOULDER/COBBLE POCKET BEACHES

Fresh Water Sources NONE SEEN

Sea Exposure MODERATELY PROTECTED TO OPEN

Access/Safety BOAT ACCESS DIFFICULT

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

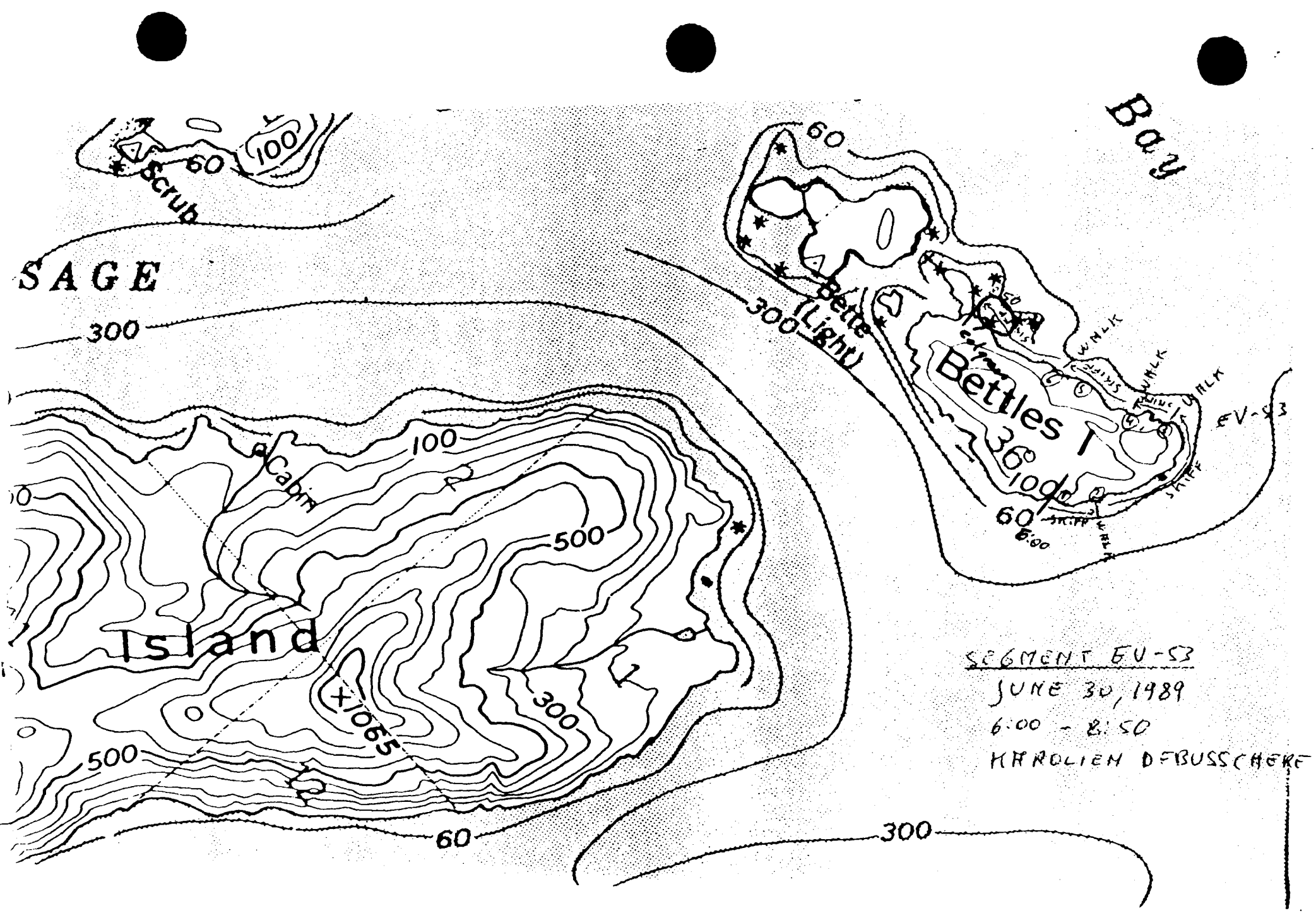
B/W Roll # PENTAX 5 Frames 12-24

Observer(s) R. BUCK

Time survey started 0530 Time survey ended 0645

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"



SEGMENT EV-53
JUNE 30, 1989
6:00 - 8:50
KAROLIEN DEBUSSCHERE

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7-2-89 SHORELINE SEGMENT EV-54

LOCATION: (see enclosed map) Bettles Island - West end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-30-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), tar balls and patches of mousse.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure washing on rock and oiled logs.
  Use other approved methods as appropriate.

Priorities Considerations:
Class 1: Moderate oil / TIME SENSITIVE
A: Subsistence resources present / HATCHERY VERY NEARBY 7/5/89 jm

Ecological Constraints (from site survey): Work at mid tide and/or take appropriate measures to protect lower intertidal zone. Crews should avoid walking on mussel beds.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charles E. Holmes Date: July 2, 1989
State Historic Preservation Officer *

ISCC: Jacqueline Michael Date: 7/5/89

EXXON: [signature] Date: July 5 1989

FOSC: C E Robbins Date: 7-6-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

SHORELINE OIL EVALUATION

Date: 6/30/89 Time: 8:50-9:10 Observer: CAROLIEN DEBUSSCHER

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION W-END OF BETTLES ISLAND SEGMENT NUMBER EV-54

LENGTH OF SHORELINE SEGMENT: 740 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Helio)/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 10 % / C 10 % / P 10 % / G 5 % / S 5 % / M — % / R 60 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type LOGS & HLGHG

OIL

Degree of Oiling: Heavy/(Moderate)/Light/No Oil/Unobserved

Area of Beach Impact: SU /(SP)/(H)/(M)/ L

Continuous: (Y)/N % of Segment 35 Width of Band: .2-5 m

Sporadic: (Y)/N % of Segment 65

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: — % "Free" Oil: 2 % Coated: H 30 % /M 40 % /L 28 %

Fresh 55 % Mousse 15 % Tar Formation: 30 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/(Mid)/Lower Amount: H/(M)/L/

Comments:

THE COVES ARE IMPACTED MOST HEAVILY; NEXT EAST-FACING WALLS. THE S-SIDE OF PENNINSULA IS ALMOST TOTALLY OIL FREE. MEN HAS RELATIVELY EASY ACCESS. THE BEACH IN BETWEEN PENNINSULA & MAIN ISL IS VERY DISTINCTIVE; OIL COULD BE SCRAPED OF.

DOCUMENTATION:

Map/Aerial photo marking segment boundaries ATTACHED

VTR: Y (N) Tape Number(s) _____

Photography: (Y) N Roll Number(s) 1

Sample Numbers Collected: —

FIELD NOTES

EV-53 - CONT 2 6/20/07 K. DEBUSSCHERE

PHOTOGRAPH

P (18) 8:27 : X SECTION ON (X) → MOUSSE AT HIGH TIDE

P (19) 8:29 : " " " " " " "

* LOCATION (5) SKIFF

ALTERNATING CLIFFS W SMALL BEACH AREAS IN BETWEEN

→ OILED AT HIGH TIDE LOCATIONS

* LOCATION (6) AND ON W-WARD ON N-SHORE OF IS.

CLIFFS & BEACHES ALTERNATE

- BEACHES = AS X-SECTION (X) LARGE BOULDERS

OIL ON CONT. BAND 2-3 M WIDE W MOUSSE

- CLIFFS HAVE LITTLE OIL ON E-SIDES

OIL IS MOSTLY ON EASTERLY FACING WALLS ON HIGH TIDE

!! ALL ALONG SECTION CLIFFS HAVE OIL RING ON HIGH WATER, RARELY W/O OIL

FREQUENTLY THEY HAVE 2 RINGS ± 50CM APART

→ OIL MUST HAVE COME IN ON 2 TIDES

8:50 END 53

EV-54 - 8:50

* LOCATION (1) WALK

COBBLE & PEBBLE BEACH ACROSS TO BAY ON SW-SIDE OF ISLAND

PENINSULA IS TO THE EAST

SURFACE IS OILED I CONT: HEAVY COATING ± 3-4CM DEEP

SURFACE OF BEACH = MIDTIDE → ALGAE

BEACH FACING CLIFFS ON PENNINS. : OIL ON HIGH TIDE

OILED & ALGAE "

PHOTOGR.

P (20) BEACH AT (1)

* W-WARD ALONG PENINSULA SKIFF

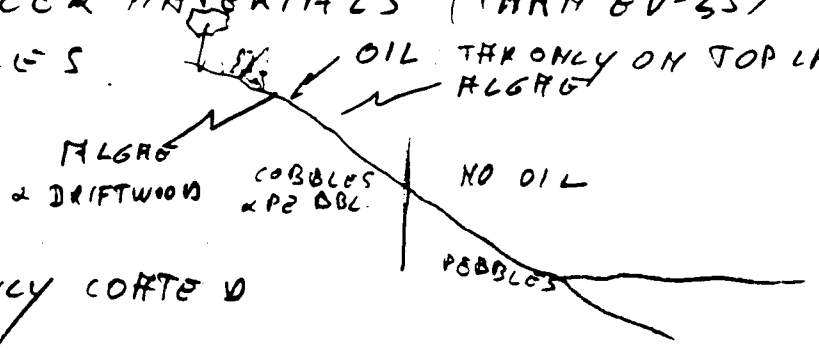
→ SAME AS EV-53!! CLIFFS & BEACHES - SOME DEEP COV

→ SAME CLEANING TECHNIQUE

EV-54 - CONT'D K. DE BUSSCHERE

* SOUTHSIDE OF PENNIN: SPORADICALLY SOME OIL ON HIGH WATER MARK MOSTLY OIL FREE. EAST-FACING SLOPE OF NW-SIDE OF PENNINSULA HEAVILY CORTED

* LOCATION (2) WALK
BEACHES HAVE SMALLER MATERIALS (THAN EV-53)
→ PEBBLES & COBBLES



OIL IS OVER 4-5 M BAND AT HIGH TIDE
CLIFFS ARE VERY HEAVILY CORTED & SOME HAVE MOUSSE

* LOCATION (3) SKIFF
HEAVY OIL → TOP OF LOWER OUTCROP IS OIL

* LOCATION (4) SKIFF
SMALL PATCHES OF OIL AT MID-TIDE - SOME FREE OIL
→ TYPE A : ABSORB

9:10 END

P (21) 8:59 : LOCATION (2)
P (22) 9:02 : WEST END OF BEACH LOOKING TOWARDS (3) : OIL & DEBRIS AT HIGH TIDE

EV-55 9-10
RE TO EV-52 → SAME - OIL
- GEOM
- ECOL.
- ARCH.

END 9:30

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Bettle Is OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 54 LENGTH: 740 (M)

DATE: 06/30/89 TIME (HHMM): 0900-0930 TIDE HT.: 1.3 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

- on bed rock outcrops & larger cobbles - Gigartina & Ulva subtidally

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

- dense mussel bed throughout upper beach faces / scattered colonies on rock faces

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

some spat on rock in high intertidal; B. cariosus on rock faces.

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

- on larger cobbles & rock faces.

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

- throughout lower beach & rock

OTHER OBSERVATIONS: _____

CLEANUP PRECAUTIONS: protect unoiled mussel beds & unoiled lower intertidal

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other _____

BIRDS: 3 crows

GENERAL OBSERVATIONS: _____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION
PRINCE WILLIAM SOUND (C-3) QUAD

Date 6/30/89 Location BETTLES ISLAND/SAWMILL BAY Site _____

Location Prefix EV- Segment # 54 Length 740 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (80%) (A - indicate on map)

Ground ✓ (20%) (G - indicate on map)

Known cultural resources (AHRS #) AHRS FILES UNAVAILABLE Data Source —

Oil conditions/beach visibility LIGHT - MODERATE OIL; GOOD BEACH VISIBILITY

Width of beach zone surveyed 5 - 30 m Tree fringe surveyed 10 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability:

Shore Profile ROCKY HEADLANDS WITH SOME GRAVEL/COBBLE BEACHES

Fresh Water Sources NONE SEEN

Sea Exposure MOSTLY PROTECTED

Access/Safety ACCESS DIFFICULT EXCEPT FOR SKIFFS

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

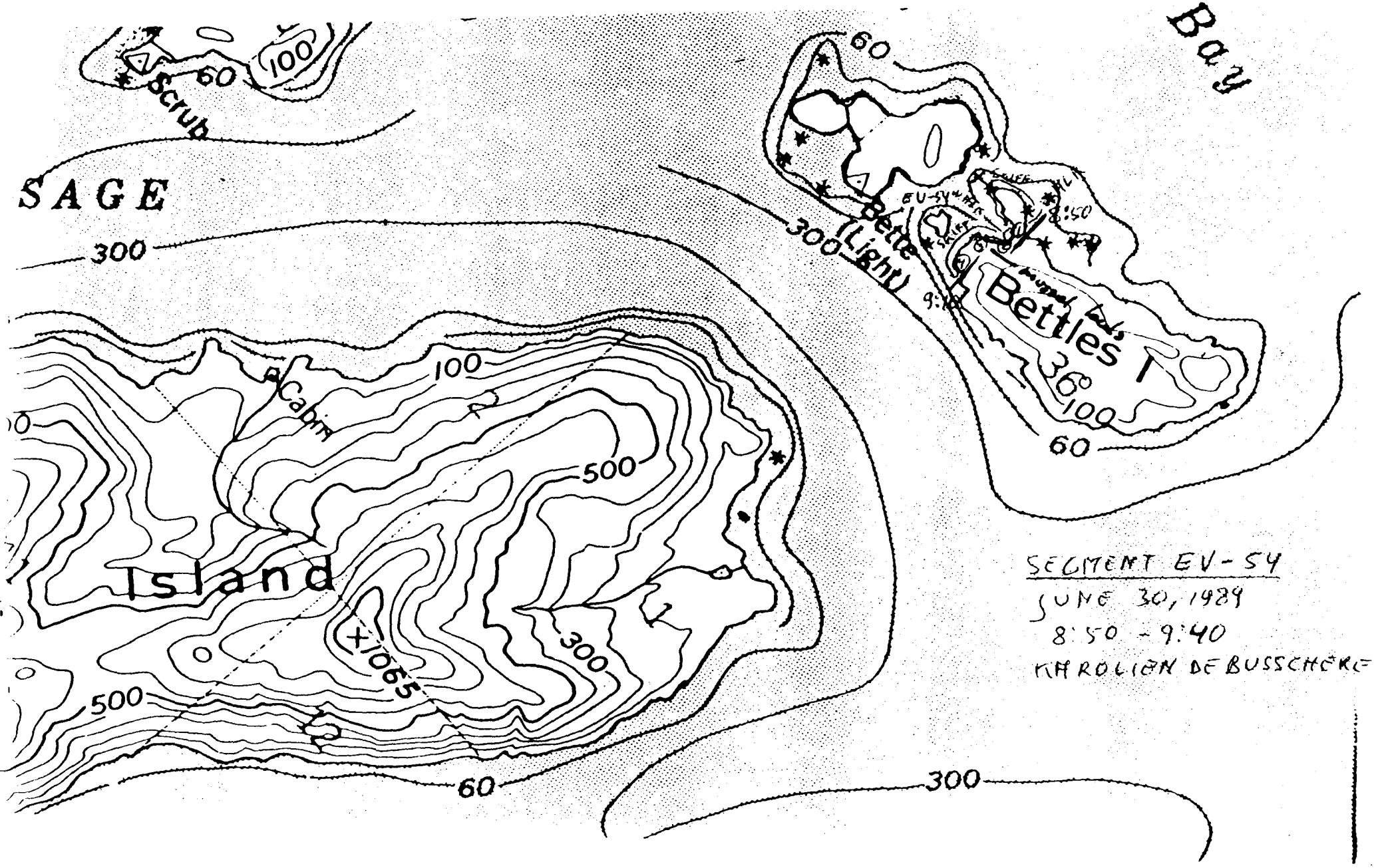
B/W Roll # PEDTM4 5 Frames 25, 26

Observer(s) P. BUCK

Time survey started 0845 Time survey ended 0935

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"



SEGMENT EV-54
JUNE 30, 1989
8:50 - 9:40
KAROLIEN DE BUSSCHERE

FINAL ASSESSMENT LOG

SEGMENT EV 53 DATE 9/17/09

1. COVERAGE BY SURFACE OIL

- [ ] NONE
- [X] LIGHT (<10%)
- [ ] HEAVY (>50%)
- [ ] INTERMITTENT
- [ ] MODERATE (10-50%)

DESCRIPTION: ONLY IN ROCK CREVICES IN HIGH TIDAL ZONE - SOME MOUSSE

2. SUBSURFACE OIL DEPTH: UNK INCHES
NOTES: OBSERVATION MADE OFF SHORELINE DUE TO SEA CONDITIONS

3. SHEEN IN AREA? [ ] YES [X] NO
NOTE:

4. OBVIOUS DAMAGE

FLORA	[ ] YES	[X] NO
FAUNA	[ ] YES	[X] NO
ARCHAEOLOGICAL	[ ] YES	[X] NO

NOTES:

5. DEBRIS FOR PICKUP [ ] YES [X] NO
DESCRIPTION:

6. COMMENTS:

SIGNATURE

SCAT Commander
POSITION

TREATMENT MANUAL, 6/15/89

SEG EV-53 INSPECTION # 1 SEGMENT
DATE 16 JUL 89 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☒ Water deluge
- ☐ Mechanical
- ☒ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Environmentally clean

Signature C. F. Duggins Date: 7/16/89 Time: 1635

Printed Name C. F. Duggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
15	Heavy
20	Medium
0	Light
0	Very Light
0	None
100 %	

Subsurface Oil

☑ Yes ☐ No

Comments

Reassessment

☑ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments Gross surface contamination - pooled oil in small cove removed with deep tarry subsurface. Recirculation & SOP for further treatment.

Signature Douglas H. Dasher Date: 7/12/89 Time: 1640

Printed Name DOUGLAS H. DASHER, EETII, ADEC

FOSC rep Demobilization approved/disapproved

Comments Demobilization approved IAW exxon's and Seldovia Bay Fish Hatchery — one week from 15 Jul to 01 Aug, requires reassessment on or about 1 Sep.

Date: 7/16/89 Time: 1635

FINAL ASSESSMENT LOG

SEGMENT EV 54 DATE 9/17/89

1. COVERAGE BY SURFACE OIL

- [ ] NONE
- [ ] INTERMITTENT
- [X] LIGHT (<10%)
- [ ] MODERATE (10-50%)
- [ ] HEAVY (>50%)

DESCRIPTION: SCATTERED POCKETS OF MOUSSE IN ROCK CREVICES IN HIGH TIDAL ZONE. HEAVIEST ON NORTHER SHORELINE OF ROCK SPIT OF N.W. PORTION OF ISLAND

2. SUBSURFACE OIL DEPTH: ONE INCHES

NOTES: THIS WAS ONLY IN A FEW LARGER CREVICES IN AREA NOTED ABOVE

3. SHEEN IN AREA? [ ] YES [X] NO

NOTE: OBSERVED AT LOWER TIDE

4. OBVIOUS DAMAGE

FLORA	[ ] YES	[X] NO
FAUNA	[ ] YES	[X] NO
ARCHAEOLOGICAL	[ ] YES	[X] NO

NOTES: SCATTERED SKELETAL REMAINS OF AN ANIMAL OBSERVED IN A COVE JUST BELOW ROCKY SPIT ON N.W. CORNER. REMAINS WERE IN LOWER TIDAL ZONE. SKELETON NOT COMPLETE.

5. DEBRIS FOR PICKUP [ ] YES [X] NO

DESCRIPTION:

6. COMMENTS:

J. Kenson
SIGNATURE

SCAT Commander
POSITION

7/17/89

EV-54

TREATMENT MANUAL, 6/15/89

SEG EVS-3A1 INSPECTION # 1 SEGMENT

DATE 16 Jul 89

INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☒ Water deluge
- ☒ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Environmentally Clean

Signature C. F. Duggins Date: 7/16/89 Time: 1550

Printed Name C. F. Duggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
5	Heavy
20	Medium
0	Light
0	Very Light
75	None
100 %	

Subsurface Oil

☒ Yes ☐ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments Cross surface contamination - pooled oil in pockets and under logs. Some heavy subsurface. Recommend SCAT for further treatment.

Signature Douglas H. Dasher Date: 7/16/89 Time: 1630

Printed Name DOUGLAS H. DASHER, EE III, ADEC

FOSC rep **Demobilization approved/disapproved**

Comments DEMOBILIZATION APPROVED I AM IN VERBAL AND SATELLITE CONTACT WITH ADEC REPRESENTATIVE REGARDING REASSESSMENT NOT TO EXCEED FROM 15 JUL TO 01 SEP. REQUIRES REASSESSMENT ON OR ABOUT 1 SEP.

Signature Capt Date: 7/16/89 Time: 1627

Capt

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): SAWMILL BAY SOUTH BLOCK

Includes Shoreline Segments: EV-56, EV-57, EV-58

Submitted : _____ (for Exxon) Date: 7/12/89

ISCC ~~Approval~~ Recommendation: Sharon K Christopherson Date: 7/19/89

FOSC Approval: C E Robbins Date: 7/21/89

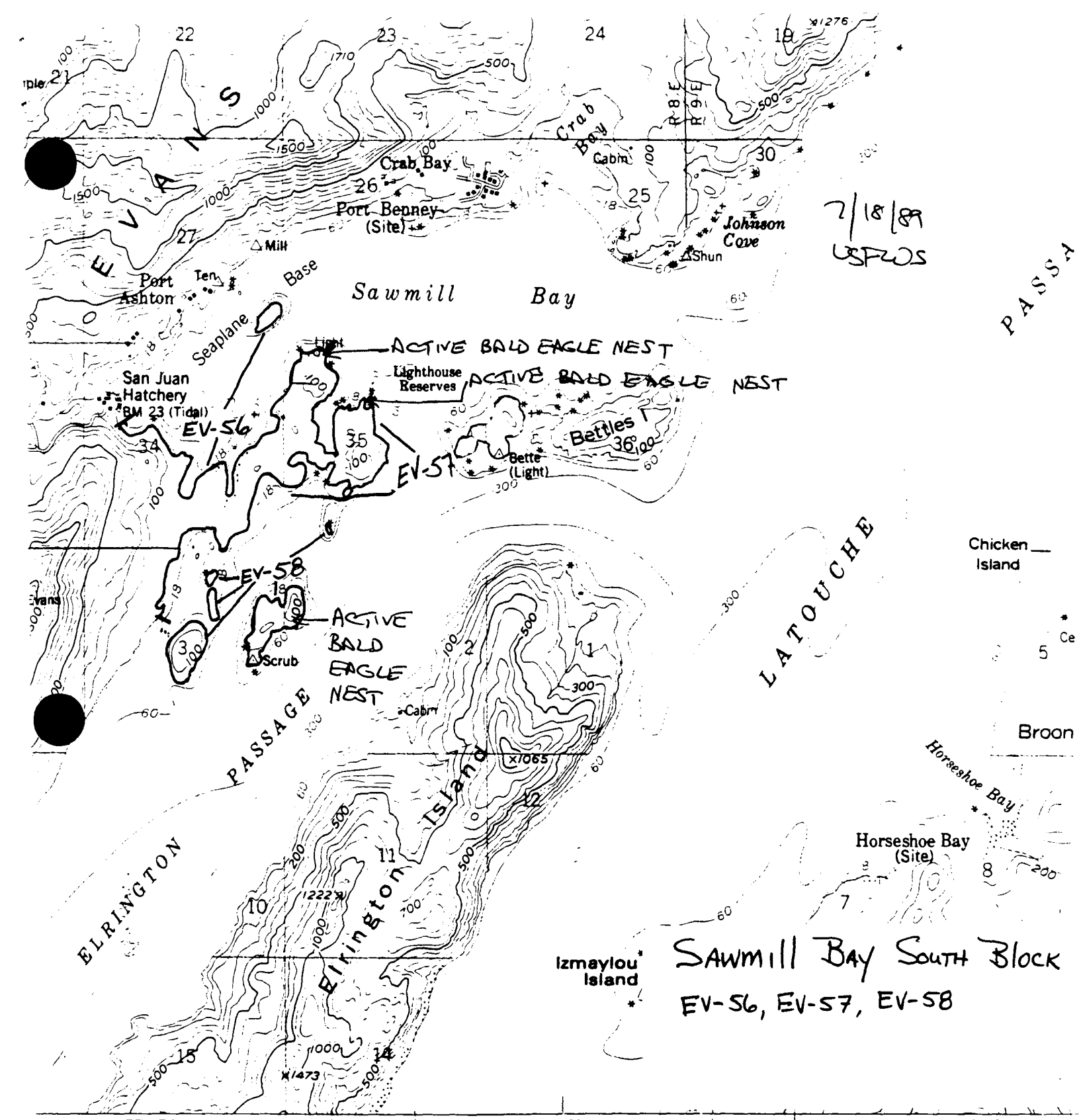
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

- Exxon Shoreline Coordinator
- Exxon Shoreline Supervisor
- Exxon SCAT file
- FOSC
- CDFU
- NOAA
- EPA
- USDA (FS)
- USFW
- A.DEC
- A.FG
- A.DNR
- CAC
- PWSCA
- USFS

SCAT: Chenega Village Corp. lands on EV56 & on half of EV 57

ACA 7/21


ACTIVE BALD EAGLE NEST
ACTIVE BALD EAGLE NEST
ACTIVE BALD EAGLE NEST
EV-56
EV-57
EV-58
7/18/89
USFWS
SAWMILL BAY SOUTH BLOCK
EV-56, EV-57, EV-58
Sawmill Bay
Port Ashton
Port Benney (Site)
Crab Bay
Johnson Cove
San Juan Hatchery
Lighthouse Reserves
Bettles
Bette (Light)
Chicken Island
Horseshoe Bay (Site)
Izmaylou Island
Elrington Island
PASSAGE
LATOUCHE
ELRINGTON
EVANS
120 000 FEET (ZONE 3)
148°
(BLYING SOUND
SCALE 1:63360
UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF MAP
DIAGRAM IS APPROXIMATE
0°49'
15 MILS
25°
444 MILS
CONTOUR INTERVAL 100
NATIONAL GEODETIC VERTICAL DA
DEPTH CURVES AND SOUNDINGS IN FEET

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/08/89 SHORELINE SEGMENT EV-56

LOCATION: (see enclosed map) EVANS ISLAND-SAWMILL BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/02/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to no oil.

Priorities Considerations:
No oil. High use recreational area. PRIVATE TIDE LAND PRESENT (ALASKA TIDAL SURVEY # 232) SC 7/19/89 @ 8907A

Ecological Constraints (from site survey):
ACTIVE BALD EAGLE NEST. SEE ADVISORY AND ATTACHED MAP. SC 7/19/89 @ 8907A

Archeological Constraints (from site survey):
If cleanup is to be conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Charla Z Hoffman
State Historic Preservation Officer * Date: July 10, 1989

ISCC: Sharon K Christopher Date: 7/19/89

EXXON: [signature] Date: 8907-19

FOSC: C E Dobbin Date: 7/21/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 8/2/89 Time: 18:00 Observer: K. DEBUSSCHERE

Surveyed From: (Foot) (Boat) /Helio/Plane Weather: (Sun) (Cloud) /Rain/Snow/Fog

LOCATION

LOCATION SAW MILL BAY / SAN JUAN HARTHEN SEGMENT NUMBER EV-5 /

LENGTH OF SHORELINE SEGMENT: 3500 m

ACCESS: Foot/Vehicle/(Boat)/Barge/(Helio)/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COB)/(HLD)/STRT Slope: (LANG)/(HANG)/VER

Wave Exposure: High/Med/(Low)

Sediment: B 15 % / C 20 % / P 15 % / G 15 % / S 10 % / M 5 % /R 20 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type (LIGHT)/(WOOD)/PLASTIC

OIL

Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment ~ Width of Band: ~ m

Sporadic: Y/N % of Segment ~

Est. Oil Thickness where > 1cm: ~ cm Est. Oil Penetration: ~ cm

Pooled Oil: ~ % "Free" Oil: ~ % Coated: H ~ % /M ~ % /L ~ %

Fresh ~ % Mousse ~ % Tar Formation: ~ %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

NO OIL WAS OBSERVED [EXCEPT] ON PIECES OF TIMBER IN SP-ZONE MOST LIKELY THE RESULT OF CREOSOTE TREATMENT.

* THE WHOLE SEGMENT IS PROTECTED BY BOOMS!!

EV -56 18:00

LOC (1)

LOW AMOLE BEACH

P/G/S

ALGAE & WOOD IN M/H/UP

PLASTIC...

OIL ON TIMBER → CREOSOTE

LOC (2) - STEEP BEACH (ACROSS FROM HATCHERY)

C/CB/P/G

NORTH-WARD

CLIFFS & POCKET BEACHES

END 20:30

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 56 LENGTH: 3500 (M)

DATE: 07 / 02 / 89 TIME (HHMM): 1800-2000 TIDE HT.: 1.6-1.3 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

-scattered clumps of Fucus on beaches; continuous dense cover on rock also Halosaccion & Enteromorpha & Smithora in lower intertidal

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

-some extensive colonies exist in the mid tide level beach faces.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

-some dense populations on rock faces & on some beach faces.

Littorina
Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

-also Nucella lamellosa & Scaleariia lira

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: -shallow subtidal areas have complete coverage of eelgrass

CLEANUP PRECAUTIONS: -do not contaminate oiled intertidal & eelgrass beds.

MAMMALS: Otters 1 Harbor Seals 2 Sea Lions ____ Whales ____
Other ____

BIRDS: 2 bald eagles; 3 crows; 40-60 gulls in the bay.

GENERAL OBSERVATIONS: segment is adjacent to the San Juan hatchery. The upper beaches blend into estuarine sedge meadows in some areas. There were numerous salmonid fry observed in the near shore waters.

(version of 4/29/89)

SEW (A-3)

CULTURAL RESOURCE EVALUATION

BERING SOUTH (—) QUAD

Date 7/2/89 Location S. SIDE SAWMILL BAY Site _____

Location Prefix EV— Segment # 56 Length 3500 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (70%) (A - indicate on ma

Ground ✓ (30%) (G - indicate on map)

Known cultural resources (AHRS #) SEW-362 Data Source AHRS FILE

Oil conditions/beach visibility ZERO TO V. LIGHT, GOOD BEACH VISIBILITY

Width of beach zone surveyed 30 M m Tree fringe surveyed 5 M

Cultural resources observed in beach zone (AHRS code) PLG, HTI,

Cultural resources observed in tree fringe (AHRS code) HTI

General observations justifying survey method and segment's site probability

Shore Profile ROCKY HEADLANDS AND VARIABLED SLOPE BOULDER/COBBLE/GRAVEL BEACHES

Fresh Water Sources NONE SEEN

Sea Exposure PROTECTED

Access/Safety BARGE ACCESS POSSIBLE

Probability of undiscovered sites in beach zone (circle one) 1 2 3 (4) 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames _____

B/W Roll # BEBTM4 6 Frames 24-28

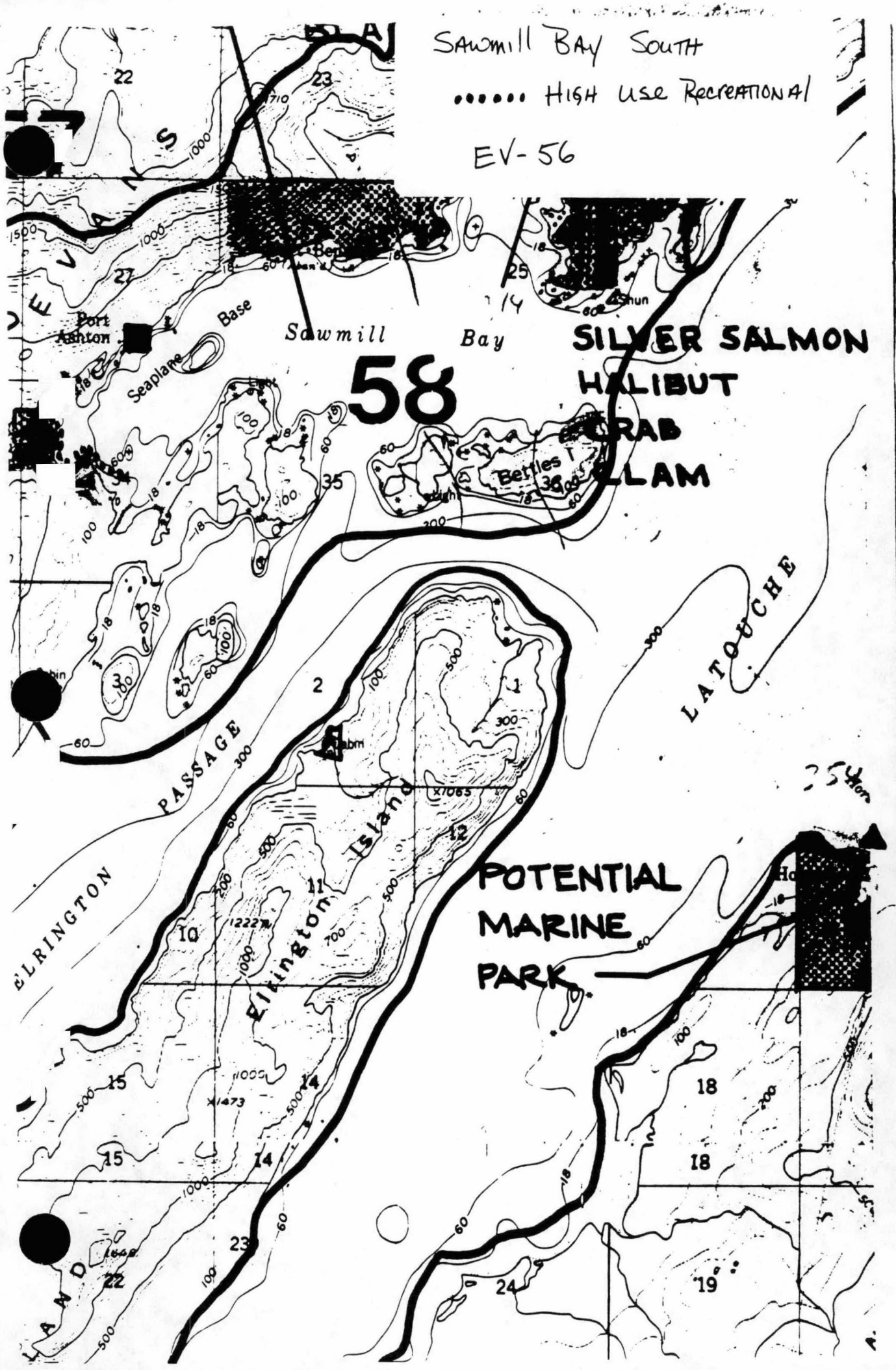
Observer(s) P. BUCK, M. MOSS, J. ERLANDSON

Time survey started 1800 HRS Time survey ended 2015

Cultural resource considerations/restraints:

MAKE SURE THAT CLEAN-UP CREW DOES NOT DISTURB HISTORIC CANNERY DEBRIS ON BEACH IN WESTERN PART OF SEGMENT. OTHERWISE STANDARD CONSTRAINTS.

Sawmill
Base
Mill
Port Ashton
Ten
Seaplane
San Juan Hatchery
BM 23 (Tidal)
Lighthouse Reserves
Bette (Light)
SEGMENT EX-56
JULY 2, 1988
18:00 -20:30
KAROLIEN DEBOSSCH
Scrub
Evans
PASSAGE
1000
500
300
100
60
18


Sawmill Bay South
..... High use Recreational
EV-56
Port Ashton
Base
Seaplane
Sawmill
Bay
58
SILVER SALMON
HALIBUT
CRAB
CLAM
Berries I
PASSAGE
LATOUCHE
Elrington Island
ELRINGTON
POTENTIAL
MARINE
PARK

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/08/89 SHORELINE SEGMENT EV-57

LOCATION: (see enclosed map) EVANS ISLAND-SAWMILL BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/03/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus and driftwood), free oil and patches of mousse.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure warm to hot water washing on rocks.
  Use other approved methods as appropriate.
  Access is difficult in most areas.

Priorities Considerations:
  Class 1: Moderate to light oil/time sensitive.
  Class A: Subsistence resources present.

CO 8907A sc 7/19/89

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone, sedge meadows and eel grass beds. A ~~possible~~ CATALOGED anadromous stream (#226-40-16695) is located at the south end of the segment. Contact ADF&G and RAT 48 hours prior to beginning cleanup in this area. AFK HATCHERY sc 7/19 PRESENT. CONSULT HATCHERY MANAGER 48 HOURS PRIOR TO CLEANUP. ACTIVE CO 8907A BALD EAGLE NEST - SEE ADVISORY AND ATTACHED MAP.

Archeological Constraints (from site survey):
An archaeological monitor is required prior to and during cleanup. Cleanup is to avoid historic and prehistoric material (to be flagged with an approximately 20m buffer) in the intertidal zone, as per direction of on-site monitor. No access to the forest zone during cleanup.

Charles E Holmes — Date: July 10, 1989
State Historic Preservation Officer *

ISCC: Sherri K Christopherson — Date: 7/19/89

EXXON: [signature] — Date: 8907-19

FOSC: [signature] — Date: 7/21/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/3/89 Time: 7:00 - 11:20 / 18:00 - 21:30 Observer: CAROLIEN DEBUSSCHERE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: (Sun) (Cloud) Rain/Snow/Fog

LOCATION

LOCATION SPIT AT SAN JUAN HATCHERY - EVANS ISLAND SEGMENT NUMBER EV-57

LENGTH OF SHORELINE SEGMENT: 6750 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: (SPI) (BEA) COV/HLD/STRT Slope: (LANG) (HANG) VER

Wave Exposure: High/(Med)/(Low)

Sediment: B 15 % / C 15 % / P 10 % / G 10 % / S 2.5 % / M 25 % / R 45 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type ALGAE/WOOD

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y)/N % of Segment 10 Width of Band: .2 - 6 m

Sporadic: (Y)/N % of Segment 90

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: 0 % "Free" Oil: 5 % Coated: H 15 % / M 30 % / L 50 %

Fresh 5 % Mousse 0 % Tar Formation: 95 %

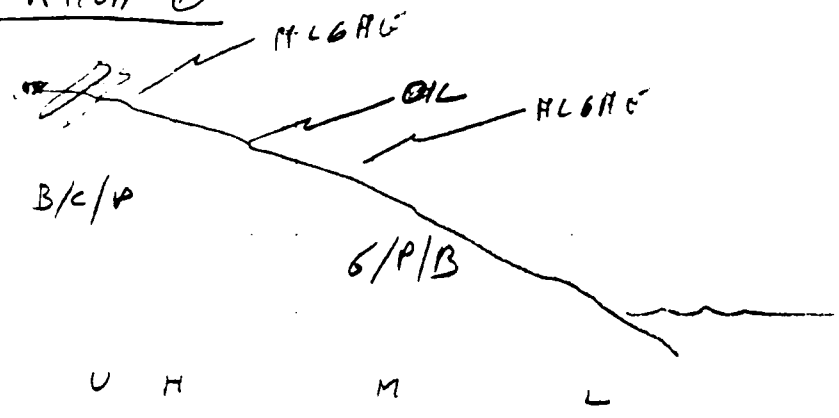
Drift Debris Oiled ? (Yes)/No Supra/(Upper)/(Mid)/Lower Amount: H/M/(L)

Comments:

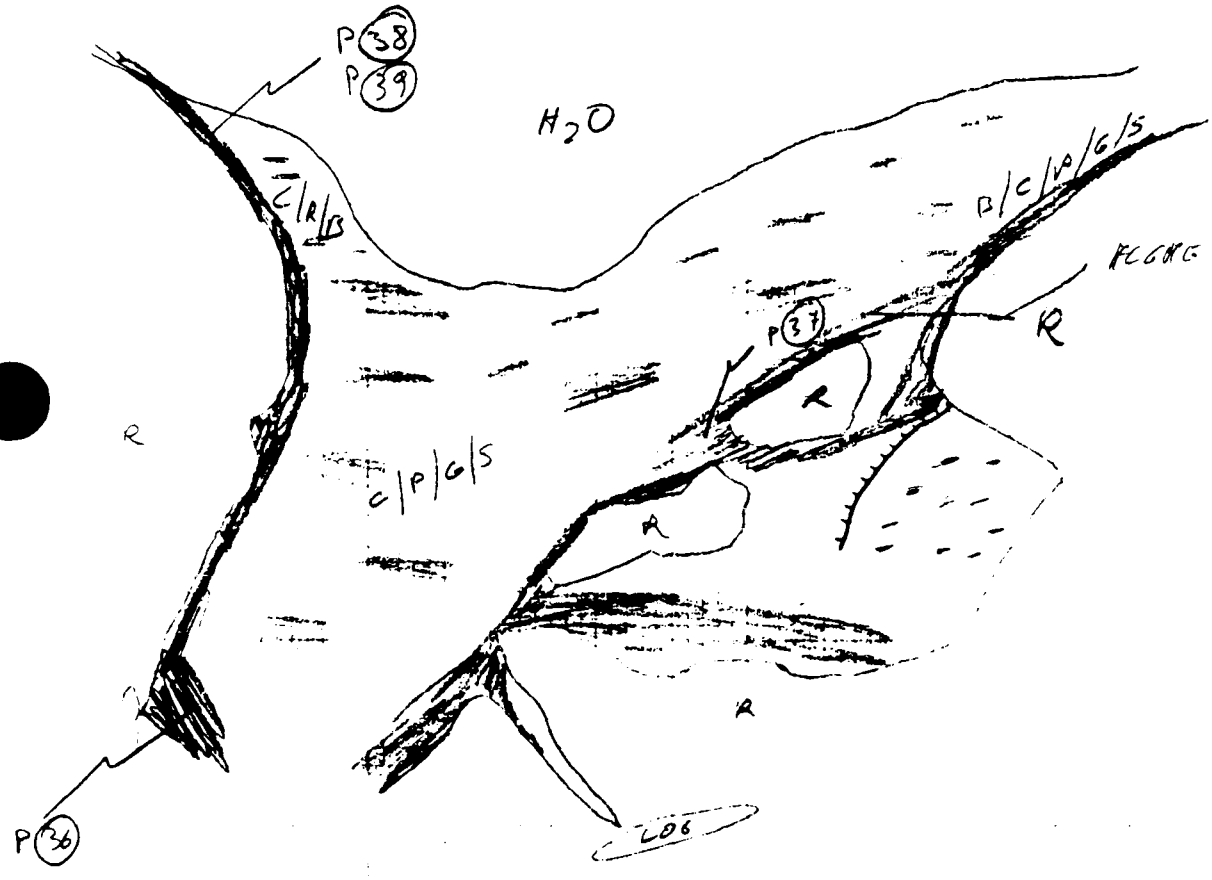
MOST OF SEGMENT, IF OILED, IS LIGHTLY OILED, ONLY 3 SPECIFIC SPOTS WITH MORE OIL WERE OBSERVED (SEE SKETCH + LOCATION MAP). BECAUSE OF EXPOSURE TO WAVE ACTION AND SHAPE OF MAT. THE LIKELIHOOD OF OIL BEING WASHED NATURALLY IS SLIM. MOST OF THE AREA IS INACCESSABLE FOR CLEANUP

TIME CUT R. DEBUSSCHERE

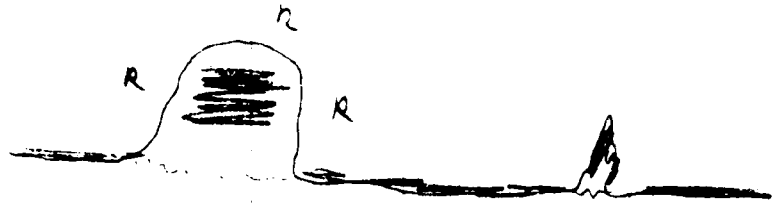
LOCATION ①



LOCATION ③



R LOCATION ④



HEAVY COAL
SHORMOIC OIL

EV-57

5: 30 → BOAT TROUBLE → 1 SKIFF W 5 PEOPLE → TERRY

START SEGMENT AT 7:20 (CLOSE TO SHORELINE)

LOCATION (1)

LOW ANGLE BEACH: ANGULAR SAND & GRAVEL

DRIFTWOOD & ALGAE AT HAU & M

OIL SPLASHES (THIN) ≤ 4-6 mm wide

* WALK EAST FROM LOC (1)

ALL ALONG SPORADIC OIL SPLASHES & CONT RING "BATHTUB"

MAT. IS OUTCROP & MOSTLY COBBLES

MUD UNDER GRANULE

→ VERY PROTECTED AREA; MAY WASH OF OIL IS VERY UNLIKELY

* LOCATION (2)

STILL A LITTLE OIL; MOSTLY ON EAST FACING WALLS

SOME CRUDE OIL SPLASHES

CONNECTS TO SMALL BAY; CLOSE TO HATCHERY BUT OUTSIDE BOOMS

* LOCATION (3)

MORE OIL THAN PREVIOUS AREAS!!

OIL IN M, H, U ON CLIFFS & IN LITTLE POCKET BEACH

ALGAE & DRIFTWOOD ARE OILED ... SOME FREE OIL

PHOTO'S

P (36) 10:19 - DETAIL OF OIL IN G (SEE SKETCH MAP)

P (37) 10:20 - OIL IN CREVICE " " "

P (38) 10:21 - OIL ON R ON CLIFF " " "

P (39) 10:22 " " " " " " "

* WALKING FURTHER E-WARDS LOCATION (4)

1 MORE LITTLE POCKET BEACH (SMALLER THAN (2))

1 CREVICE

→ BOTH W RELATIVELY MORE OIL THAN REST OF SEGMENT

* HE-WARD AGAIN LESS OIL (AS < (3))

* FROM (5) ON → SKIFF

* IN BAY: GRAVEL BEACH - LOW GRADIENT

* NOT END OF SEGMENT WILL START AT AFTERNOON TIDE AT LOC (1) GOING SE!!

EV-57 CONT-1

19:00

* SE OF (1) IS SAME AS 1
* SHIT IS CLIFF
* LOCATION (7)
  CREEK COMES OUT IN BAY
  VERY SPORADIC OIL SPLASHES IN M & H -
  - ALGAE - WOOD
  SLATE IN BAY
* LOCATION (8)
  → ARCHEOLOGY SITE
* LOCATION (9)
  3 CREEKS IN BAY - NO OIL

— ALL ALONG SEGMENT:
  → BAY'S ARE SLATE
  → OUTCROPS SANDS
- IN BAYS OVER MOST OF BE A C
  6 / P/C / B
  IN LOWER TIDAL : MUD & SAND

END OF SEGMENT
END 21:30

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd. SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 57 LENGTH: 6700 (M)

DATE: 07/03/89 TIME (HHMM): 0730 - 1100 TIDE HT.: +1.3 - -1.0 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) (Mud)

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

- intermittent clumps on beaches / continuous dense cover on rock Paces

other alga include Enteromorpha / Cladophora / Halosaccion / Alaria & Gigartina

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y,

mussels sparse on rock Paces / some extensive & dense colonies in beach Paces

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y,

continuous light occurance of B. glandula @ high tide level / some dense colonies of B. cariosus in mid/low tide level otherwise sparse throughout.

Littorina

Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

- continuous throughout segment also. Nucella lamellosa & Searlesia dira

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

OTHER OBSERVATIONS: lower intertidal of protected coves in extremely productive extensive clam beds & eelgrass beds were observed infauna include tube worms (2 s clams (4 spp) shore crabs (2 spp) hermit crabs (2 spp) polychaete worms (3 spp) etc

CLEANUP PRECAUTIONS: - do not contaminate unoiled lower intertidal zone / do n. disturb eelgrass beds & do not re-introduce hydrocarbons to water in those areas

2 river otters / 6 sea otters.

MAMMALS: (Otters) ___ Harbor Seals ___ Sea Lions ___ Whales 2 humpback Range

Other

BIRDS: 1 immature merganser / crows / gulls & alcids offshore

GENERAL OBSERVATIONS: - small coves are extremely productive biologically & are likewise very sensitive to human disturbance

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SEWARD (A-3) ~~BLYING SOUND (C-3)~~ QUAD

Date 7/3/89 Location S. END OF SAWMILL BAY Site _____

Location Prefix EV- Segment # 57 Length 6758 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (A - indicate on ma

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) SEW-77 Data Source AHRS - FILES

Oil conditions/beach visibility LIGHT OIL; GOOD BEACH VISIBILITY

Width of beach zone surveyed 40 M m Tree fringe surveyed 0 - 50 ~

Cultural resources observed in beach zone (AHRS code) PAS, FCR, HG, HTI, PAG

Cultural resources observed in tree fringe (AHRS code) ~~SFB*~~, EMT

General observations justifying survey method and segment's site probabilit

Shore Profile ROCKY HEADLANDS, COBBLE/GRAVEL BEACHES/LAGOONS

Fresh Water Sources YES - SMALL STREAMS.

Sea Exposure PROTECTED

Access/Safety BARGE ACCESS POSSIBLE NEAR SAN JUAN HATCHERY,

Probability of undiscovered sites in beach zone (circle one) 1 2 3 4 (5)

Monitoring during cleanup needed (yes)/no Collection yes/(no)

Photos: Color Roll # — Frames —

B/W Roll # ~~FEBTMY 7~~ FEBTMY 6 Frames 1 — 30 29-36

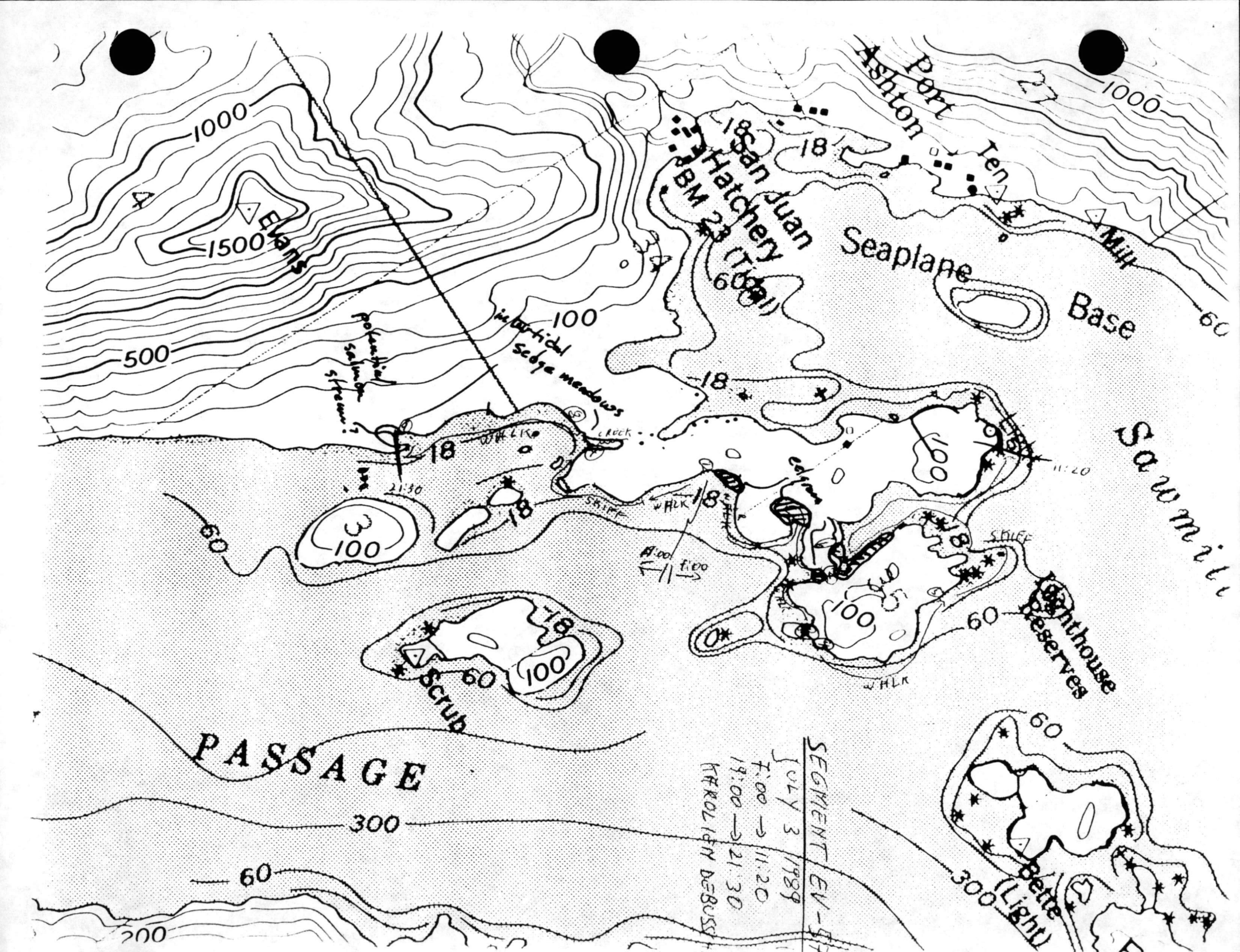
Observer(s) P. BUCK, M. MOSS, J. ERLANDSON

Time survey started 7/3/89 0600 - 1130, 1900 - 2030 Time survey ended 6 HRS TOTAL

Cultural resource considerations/restraints:

CULTURAL RESOURCES UBIQUITOUS IN EV-57. AN ARCHAEOLOGICAL MONITOR SHOULD BE PRESENT AT ANY AREA OF EV-57 RECOMMENDED FOR EITHER MANUAL OR MECHANICAL CLEANUP, OR ACCESS TO UPLANDS.

SFB* = SLAB FIRE BOX, WHICH IS INFERRED TO BE A RECENT CAMP SITE WITH HEARTH CONSTRUCTED IN TRADITIONAL CHUGACH FASHION (SEE DE LAGUNA 1956:48)


Port Ashton
San Juan
Hatchery
BM 23 (Total)
Seaplane Base
Evans
potential salmon stream
intertidal sedge meadows
PASSAGE
Scrub
Lighthouse Reserves
Bette (Light)
Saw mill
SEGMENT EV-
JULY 3 1989
7:00 → 11:20
18:00 → 21:30
KAROLIEN DEBUSS

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/08/89 SHORELINE SEGMENT EV-58

LOCATION: (see enclosed map) EVANS ISLAND-SMALL ISLANDS SOUTH OF SAWMILL BAY

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/04/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus and driftwood), free oil and patches of mousse.
  Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
  Use moderate to high pressure warm to hot water washing on rocks.
  Use other approved methods as appropriate.
  Access is difficult in most areas.

Priorities Considerations:
  Class 1: Moderate to light oil/time sensitive.
  Class A: Subsistence resources present.

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. These islands ae used by sea otters. Disturbance should be kept to a minimum. Avoid eel grass beds. AFK HATCHERY IN AREA. NOTIFY HATCHERY MANAGER 48 HRS PRIOR TO CLEANUP. ACTIVE BALD EAGLE NEST - SEE ADVISORY AND ATT. MAP

USFWS ok sc 7/19/

Archeological Constraints (from site survey):
An archaeological monitor is required prior to and during cleanup. Cleanup is to avoid historic and prehistoric material (to be flagged with an approximately 20m buffer) in the intertidal zone, as per direction of on-site monitor. No access to the forest zone during cleanup.

Charles E Holmes — Date: July 10, 1989
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/19/89

EXXON: [signature] — Date: 89-07-19

FOSC: C E Mobley — Date: 7/21/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/4/89 Time: 6:45 - 12:00 Observer: K. DEBUSSCHERE

Surveyed From: (Foot) (Boat) / Helio / Plane Weather: Sun / (Cloud) / Rain / Snow / (Fog)

LOCATION

LOCATION ISLANDS SOUTH OF SHUMIGAN BAY IN EKLINGTON PASSAGE SEGMENT NUMBER EV-58

LENGTH OF SHORELINE SEGMENT: 4475 m

ACCESS: Foot / Vehicle / (Boat) / Barge / Helio / (Float Plane)

SHORELINE:

Shoreline Type: SPI / (BEA) / (COV) / (HLD) / STRT Slope: (LANG) / (HANG) / (VER)

Wave Exposure: (High) / (Med) / (Low)

Sediment: B 10 % / C 10 % / P 10 % / G 5 % / S 25 % / M 25 % / R 60 %

Drift Debris on Beach: (Yes) / No Supra / (Upper) / (Mid) / Lower Type WOOD / ALGAE

OIL

Degree of Oiling: Heavy / (Moderate) / (Light) / (No Oil) / Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y) / N % of Segment 40 Width of Band: .1 — 4 m

Sporadic: (Y) / N % of Segment 60

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: .1 - 5 cm

Pooled Oil: 0 % "Free" Oil: 5 % Coated: H 25 % / M 30 % / L 40 %

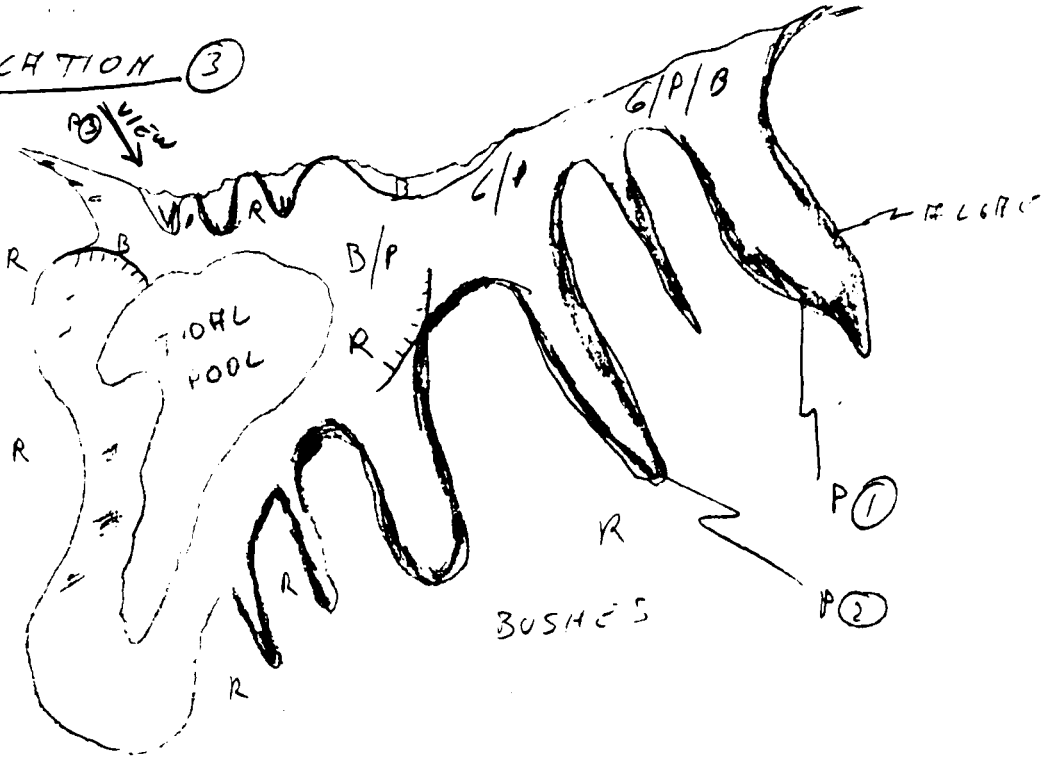
Fresh 5 % Mousse 0 % Tar Formation: 5 %

Drift Debris Oiled ? (Yes) / No Supra / (Upper) / (Mid) / Lower Amount: H / (M) / (L)

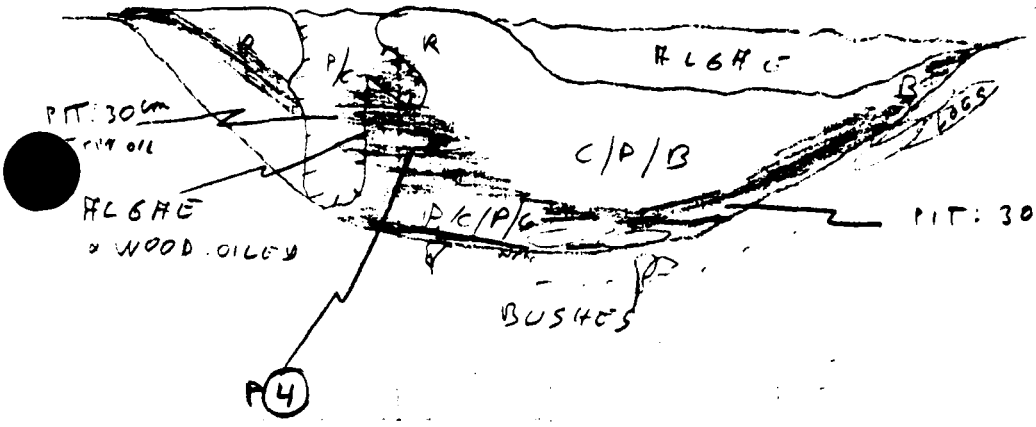
Comments:

MOST OF THE ISLANDS' SHORELINES ARE INACCESSIBLE; OIL DISTRIB. IS VERY SPORADIC AND LIGHT EXCEPT FOR CERTAIN AREAS (CFR SKETCH MAP & LOCATION MAPS) LARGE SECTIONS OF THE ISLANDS WERE ONLY OBSERVED BY SKIFF (NOT POSSIBLE TO WALK) SO THAT IT IS POSSIBLE THAT NOT ALL OIL WAS ... OBSERVED.

LOCATION (3)

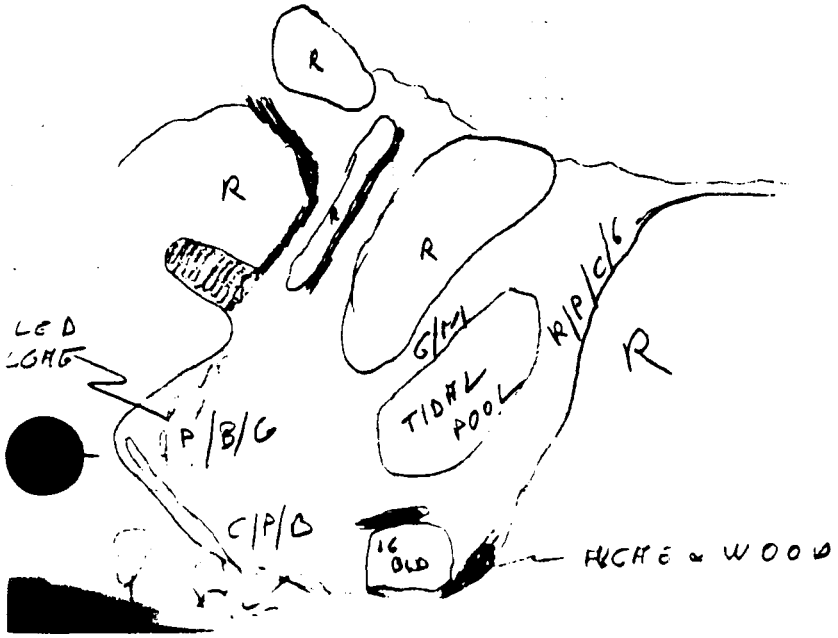


LOCATION (4)



LOCATION (5)

EASTERN MOST COVE



EV-58 645

→ ISLAND I

ISLAND HAS SPORADIC OIL AT H ; MOSTLY ON NE FACING WALL

ISLAND IS MOSTLY OUTCROP

LOC ①

COVE : C/B/D

↳ WALLED

REST OF ISLAND WAS SKIFFED → MOSTLY R

OIL = 100 % TAR

→ ISLAND II

SKIFF : CLIFF

* LOC ②

OIL SPLASH AT M/H ZONE → VERY LITTLE OIL DRIFTA ALG.

* LOC ③ IS OILED

OIL : AT M < H

MODERATE TO HEAVILY COATED ON BEDROCK & GRAVEL BEACH

VERY ANGULAR FRACTURE PLANES ON BEDROCK

ALGAE IS OILED

ROLL # 2

P ① 8:07 : WORST SPOT OF OIL (SEE SKETCH)

P ② 8:10 : OIL SPLASHES ± "BATHTUB RING" (" ")

P ③ 8:15 : VIEW OF OIL RING & TIDAL POOL (" ")

↳ HEALTHY → ECOL. CONSTI

* LOC ④

LITTLE BAY - LOW ANGLE BEACH

HEAVIEST OILED AREA YET ON THESE ISLANDS

→ ± CONT BAND 2-4 M WIDE IN G. BEACH → UP TO 5cm DEEP

UNDERLYING MUD IS PROBABLY PREVENTING PENETRATION

OPEN TO WAVES BUT LOW ENERGY

OIL IS ON M < H TIDAL ZONE SOME FREE OIL P ④ 8:51 SEE MAP

↳ HEAVILY OILED

* LOC ⑤

2 COVES → OIL SPLASH ON H TIDE IN W - COVE

IN EASTERN ONE MORE OIL → SEE SKETCH

OIL IN M & H ZONE ROCKA BLD ARE COATED SOME FREE

EV-58 CONT-1

→ ISLANDS III & IV SKIFF

MOSTLY R ; STEEP C/B BEACHES

SOME OIL IN H TIDAL ZONE

SOME ACCUMULATION IN CREVICES - MINIMAL

→ IF OIL ⇒ ON NE FACING WALLS

NO ACCESS TO MOST AREAS

→ ISLAND (5)

* WALKED N-END OF ISLAND

→ G/S BEACH ; PROTECTED BY OTHER ISLANDS -

IN H-TIDAL ZONE SOME OIL SPLASHES (TAR) BEACH ALL ALONG W.

* S-END OF ISLAND:

OIL IN M-ZONE ON ANGULAR BLD'S

BEACH HAD GRADUALLY STEEPENED ~ LARGER SIZE IN AT

GOING S ; AT S-END: STEEP BLD

→ OIL IN M-ZONE: OILED FUCUS & DRIFTWOOD

→ GOING N ALONG E → OIL RING (3x) AT H

EAST SIDE IS VERY STEEP CLIFFS W OIL SPLASH...

SOMETIMES ± 1.5 M WIDE.

END:

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd **SITE:** Evans Is. **OBSERVER:** E.R. White

LOCATION PREFIX: EV **SEG. NO.:** 58 **LENGTH:** 4475 (M)

DATE: 07/04/89 **TIME (HHMM):** 0645-1130 **TIDE HT.:** 0.4 - -0.7 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) (Sand) (Mud)

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

generally continuous/dense algal cover except on beaches with finer sediments
other algae observed included Gigartina; Alaria; Enteromorpha; Hulosacton; Ulva

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y,

mussels patchy & sparse on rock however middle beach faces may have dense beds & extensive beds.

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y,

all islands have cont/sparse B. glandula at high tide level & there may be dense colonies of B. cariosus at mid/low tide elevations.

Littorina
Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

littorina occur on all intertidal substrates also Nucella lamellosa; N. canaliculata & Searlesia dira

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

generally continuous/sparse limpets except & on fine-sediment beaches & may occur on larger cobbles of such beaches

OTHER OBSERVATIONS: lower intertidal life is abundant & diverse - inhabs of beaches includes tubeworms/hermit crabs (2 spp)/amphipods/eelgrass beds - including several establis in large tide pools.

CLEANUP PRECAUTIONS: protect lower intertidal from disturbance & contamination/No traffic - foot/vehicular or boat - through eelgrass beds. this area is an obvious feeding area for seabirds & mammals ⇒ minimize disturbance.

MAMMALS: Otters 2 - river otters; 20-25 sea otters, some with pups Harbor Seals ____ Sea Lions ____ Whales 3 harbour porpoise

Other 3 harbour porpoise; 2 mink

BIRDS: 3 common mergansers; 1 bald eagle; 40-60 black-legged kittiwakes

GENERAL OBSERVATIONS: segment is a series of islands - outer less protected shores are generally rock with some cobble - support 150% algal cover over entire intertidal zone; inner more protected shores have c/g/s/m sediments and support 30-60% algal cover.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SEWARD (A-3) ~~Blying Sound (C-3)~~ QUAD

Date 7/4/89 Location Island South of Sawmill Bay Site _____

Location Prefix EV Segment # 58 (Erlington Passage) Length 4475 M

Survey Method:

Air No (A - indicate on map) Boat 50 % (A - indicate on ma

Ground 50 % (G - indicate on map)

Known cultural resources (AHRS #) None Data Source _____

Oil conditions/beach visibility generally light, good visibility

Width of beach zone surveyed 20 m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) prehistoric feature (FCR + Charcoal)

Cultural resources observed in tree fringe (AHRS code) CMT, trap, slab fireb

General observations justifying survey method and segment's site probabilit

Shore Profile We walked cobble/boulder beaches, motored @ vertical bedrock

Fresh Water Sources no streams on 5 islands in this segment

Sea Exposure fairly protected

Access/Safety Barge access would be very limited, perhaps only 1 landing place

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed (yes)/no Collection yes/(no)

Photos: Color Roll # — Frames —

B/W Roll # PEB TMY 7 + 8 Frames 7: 31-36 ; 8: 1-6

Observer(s) Moss, Buck, Erlandson

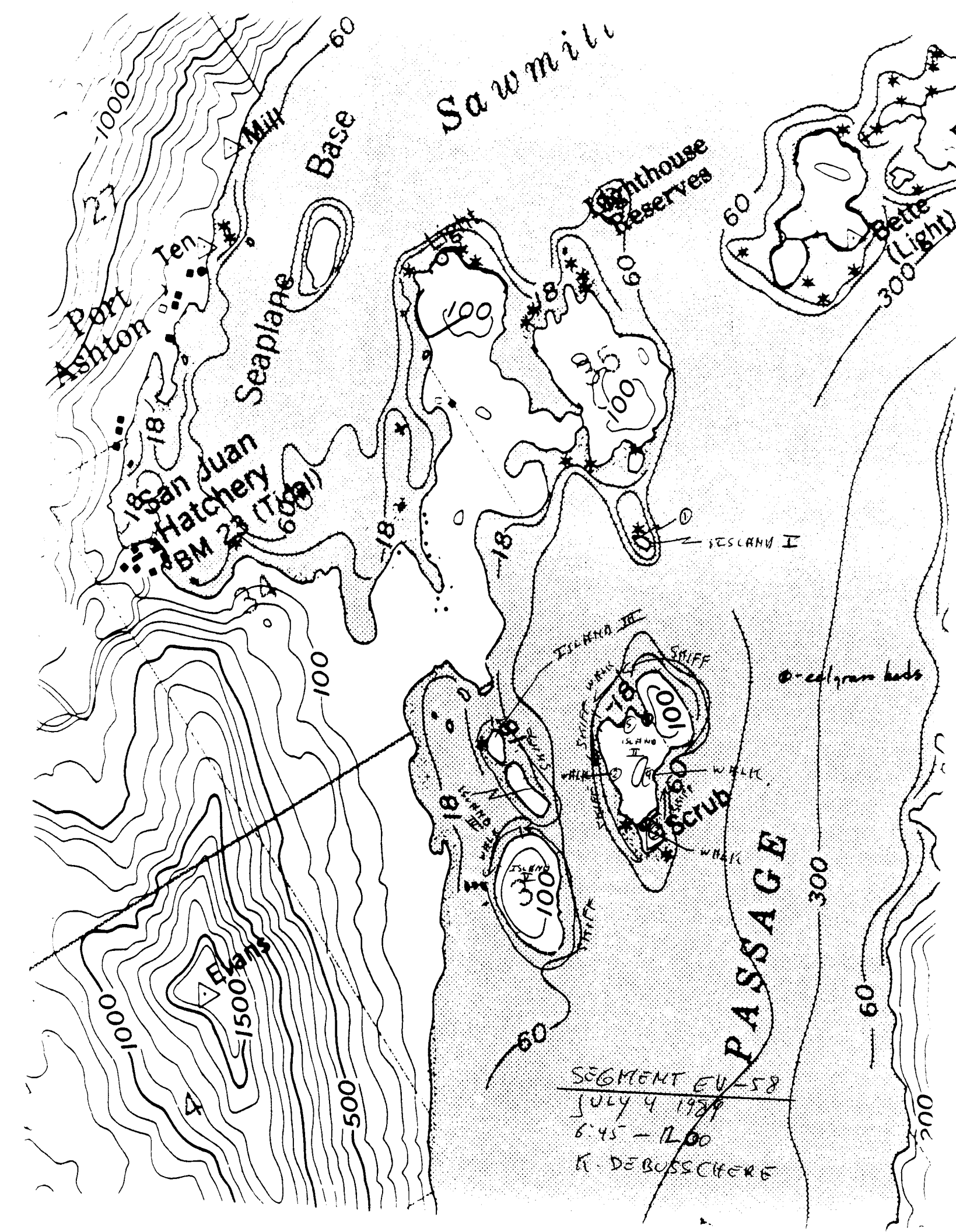
Time survey started 6:45 Time survey ended 12:15

Cultural resource considerations/restraints:

Standard constraints. Monitoring and/or data recovery from "Lottsa Otter" site if area is to be cleaned

---

* surface feature observed was very much like subsurface features described by de Laguna (1956:48)


Sawmill
Base
Seaplane
Port Ashton
San Juan Hatchery
BM 23 (Tidal)
Mill
Ten
Lighthouse Reserves
Bette (Light)
ISLAND I
ISLAND II
ISLAND III
SKIFF
WALK
Scrub
PASSAGE
Evans
1000
1500
500
300
100
60
18
SEGMENT EU-58
JULY 4 1969
6:45 - 12:00
K. DEBUSSCHERE

NO CAMSO RECORDS?
PWS RECORDS?

TREATMENT MANUAL, 6/15/89

SEG EV-56 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical _____
- ☐ Non-mechanical _____
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-56 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time:

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
0	Very Light
100	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Oiling very hard to find in this segment inside booned off bay. Clean vessels only have been allowed inside booms. Recommend demob, move to heavier impacted segm

Signature [signature] Date: 8/5/89 Time: 1637

Printed Name Denny R Timmons, Envr Engr, ADEC

FOSC rep Demobilization approved/disapproved

Comments No Gross Contamination, No Oil observed, Area booned off

Signature [signature] Date: 8/5/89 Time: 1628

Printed Name Arthur J Smith LTJG

8/6/89 MLS

TREATMENT MANUAL. 6/15/89

SEG EV-57 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical _____
- ☐ Non-mechanical _____
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-57 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time:

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
1	Light
3	Very Light
96	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

FOSC rep [illegible]

Comments Contamination found. Recommend mooring to segments of heavy oiling.

Signature Denny R Timmons Date: 8/5/89 Time: 1640

Printed Name Denny R Timmons, Envr Engr, ADEC

FOSC rep Demobilization approved/disapproved

Comments No Gross Contamination

Signature [signature] Date: 8/5/89 Time: 1632

Printed Name Arthur J Smith LTJG

8/6/89
RLB

TREATMENT MANUAL, 6/15/89

SEG EV-5S INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-5F IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time:

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
3	Light
1	Very Light
96	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Concur w/ % and demob approval. No gross contamination observed. Recommend demob & deployment to heavier oiled segment.

Signature [signature] Date: 8/5/89 Time: 1635

Printed Name Denny R. Timmons, Envr Engr, ADEC

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature [signature] Date: 8/4/89 Time: 1634

Printed Name [illegible] USCG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Evans Island South Block

Includes Shoreline Segments: EV-59, EV-61, EV-62, EV-63, EV-64, EV-65, EV-66, EV-67, EV-68, EV-100

Submitted : _____ (for Exxon) Date: 7/17/89

ISCC ~~Approval~~ Recommendation: Sharon K. Christopherson Date: 7/26/89

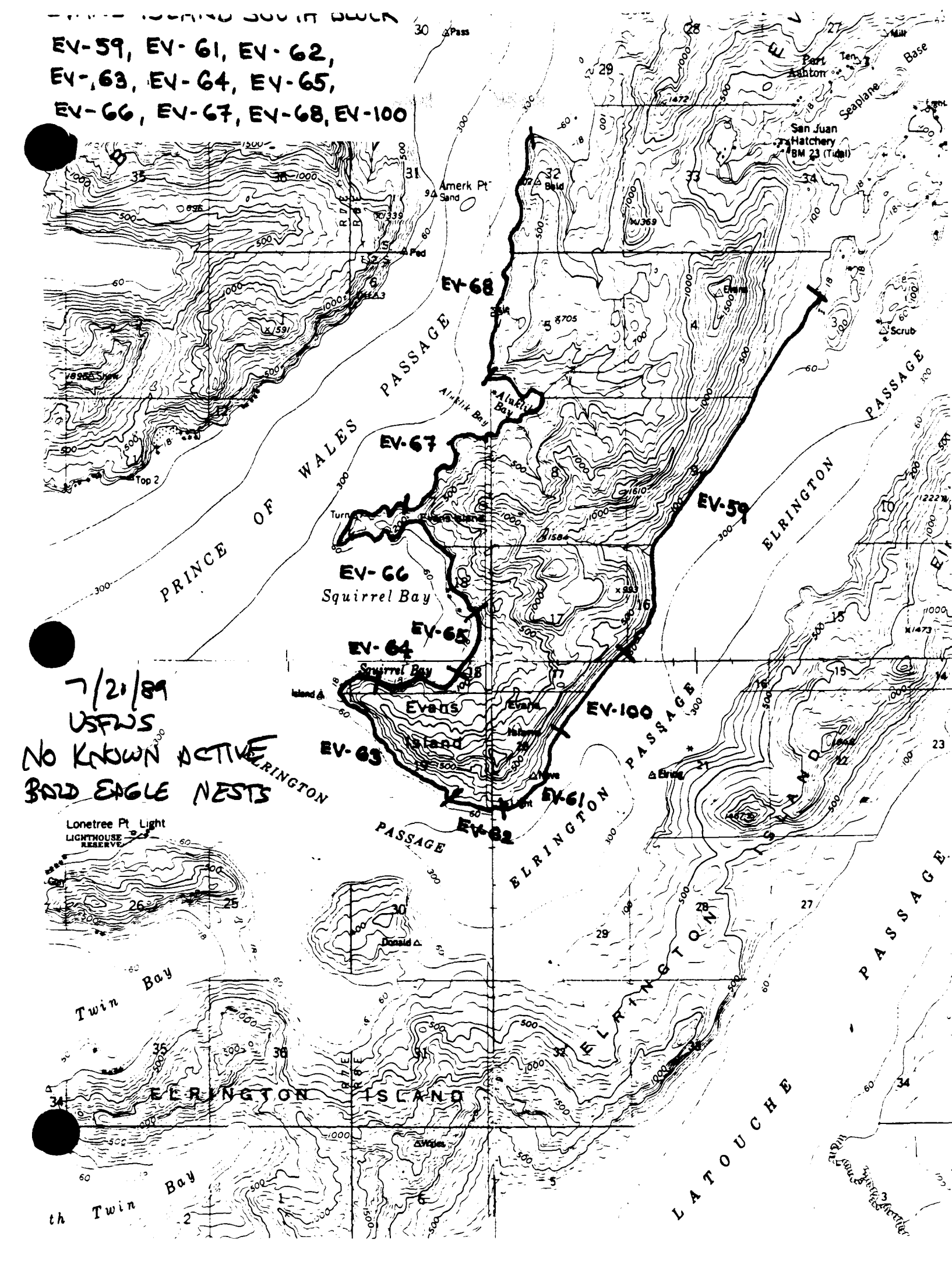
FOSC Approval: A. C. Alejandro, by dir Date: 7/27/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
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CAC
PWSCA
USFS
SHPO


EV-59, EV-61, EV-62,
EV-63, EV-64, EV-65,
EV-66, EV-67, EV-68, EV-100
EV-68
EV-67
EV-66
Squirrel Bay
EV-65
EV-64
Squirrel Bay
EV-59
EV-100
EV-63
EV-61
EV-62
7/21/89
USFWS
NO KNOWN ACTIVE
BALD EAGLE NESTS
PRINCE OF WALES PASSAGE
ELRINGTON PASSAGE
ELRINGTON ISLAND
LATOUCHE PASSAGE
Evans Island
Twin Bay
Lonetree Pt Light
LIGHTHOUSE RESERVE
Port Ashton
San Juan Hatchery
Seaplane Base
Amerk Pt
Alutiiq Bay
Scrub
Donald
Evans

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-59

LOCATION: (see enclosed map) East Central Evans Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/5/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- At location 4, limit cleanup to lower and middle intertidal zones as high intertidal zone is ecologically productive and uncontaminated. Could use flood/flush with warm water at location 4 if access permits.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 3-5: moderate to no oil
Class A: resources present

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone. (EXCEPT IN LOCATION 4).
Do not disturb uncontaminated portion of this segment. Protect unoiled ~~upper and lower~~ intertidal areas form disturbance and contamination.
IF REMOVAL OF FUCUS IS NECESSARY TO TREAT "FREE OIL" IN LOCATION #4, SEE MANUAL ADVISORY ON FUCUS AND CONSULT WITH RAT IF POSSIBLE.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: _____
State Historic Preservation Officer *

ISCC: Sharon K Christopherson Date: 7/26/89

EXXON: _____ Date: 89-02-21

FOSC: D.C. Allejandro, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/5/89 / Time: 7:00 10-45 Observer: KAROLIEN DEBUSSCHER

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fog)

LOCATION

LOCATION EAST CENTRAL EVANS ISLAND SEGMENT NUMBER EV-S9

LENGTH OF SHORELINE SEGMENT: 5200 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/(HLD)/(STRT) Slope: (LANG)/(HANG)/VER

Wave Exposure: High/(Med)/Low

Sediment: B 20 % / C 15 % / P 20 % / G 20 % / S 15 % / M 5 % / R 5 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/(Lower) Type COBBLE/GRAVEL

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / (L)

Continuous: (Y)/N % of Segment 1 Width of Band: 2.5 m

Sporadic: (Y)/N % of Segment 99

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 5 cm

Pooled Oil: 0 % "Free" Oil: 75 % Coated: H 1 % / M 4 % / L 20 %

Fresh 75 % Mousse 1 % Tar Formation: 24 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/(L)

Comments:

→ FREE OIL STILL BEING RELEASED IN H_2O

HEAVIEST OIL IMPACT WAS AT LOCATION (9); A CONTINUOS BAND IN THE LOWER/MID TIDAL ZONE WAS COVERED WITH OIL (PENETRATION TO 15 CM). MOST OF THIS SECTION IS COVERED BY FUCUS. ACCESS IS RELATIVELY EASY BUT MID TIDE HAS HEALTHY MUSSEL BED! FUCUS COVERING OIL IS H HEAVY

IN THE REST OF THE SEGMENT THE OIL DISTRIBUTION IS VERY SPORADIC AND NOT ALWAYS ACCESSIBLE. OIL COVERAGE IS MINIMAL.

EV-59 F:00 K. DEBUSSCHERE

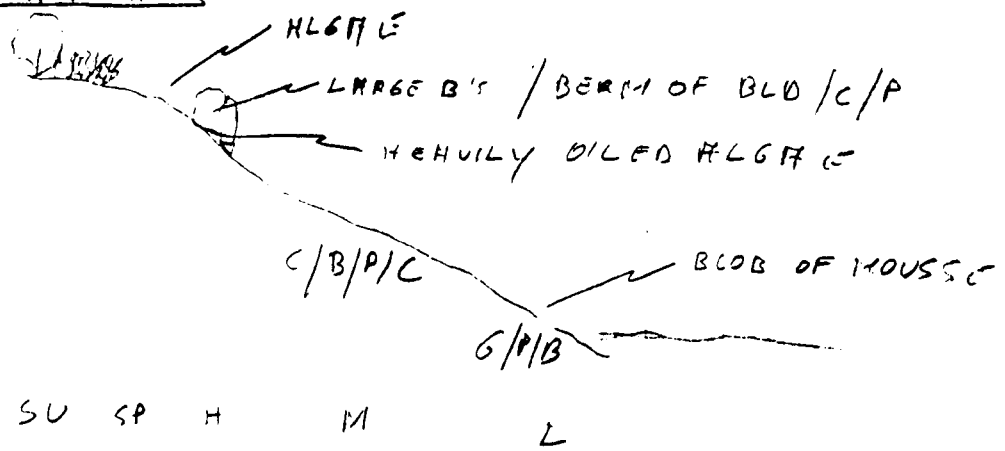
* LOCATION (1)
BEDROCK CLIFF W SLATE BEACH AT BOTTOM
LOW ANGLE C/P/C/B CREEK COMING OUT
DRIFTWOOD & ALGAE A MXH & U
OIL SPLASHES AT M. TIDE & SOME OIL AT HIGH
* GOING S - VERY SPORADIC OIL
* LOCATION (2)
HIGHER GRADIENT BEACH WITH B/C/P AT M-TIDE & IN LOWER TID
P/C/C/B
- OILED ALGAE M H/U
- BLOB OF MOUSSE AT L/T
→ VERY ISOLATED PATCHES; VERY SPORADIC
* LOCATION (3)
BAY - MEDIUM ANGLE BEACH (NO CHANGE IN ANGLE) W LG. COBBL
SIZE MAT (SLATE) OIL - SPLASHES
SOME LARGER TREES IN H/UP
* SKIFF SOUTH — SAME SLATE BEACH AT BOTTOM OF CLIFF
* LOCATION (4)
OIL SPLASHES AT M TIDE
SLATE ALG G/P/C/B
OIL IN MID TO LOW TIDE → OIL IS COVERED W FUCUS → ESCAPE IN G
OIL IS STILL FREE - OOZES OUT, COULD RETURN IN H_2O
* SKIFF SOUTH (CLIFF)
* LOCATION (5)
AT LARGE CREEK - MUSSELBEDS
① LG BLD'S AGAINST CLIFF → G/C ATH$_2$O (8)
OIL SPLASHES AT M. TIDE
ALGAE & WOOD DRIFT SU/UP/H/AT
* WALKED S
MORE BLD AT H & U / COBBLES AT L/T
* SKIFF S
SOME CLIFFS
OUTCROPS
END 10:45

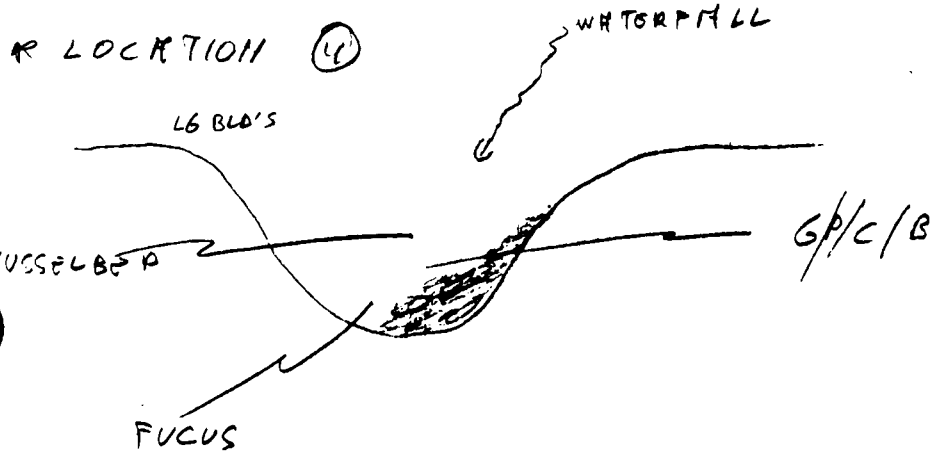
TIDE OF

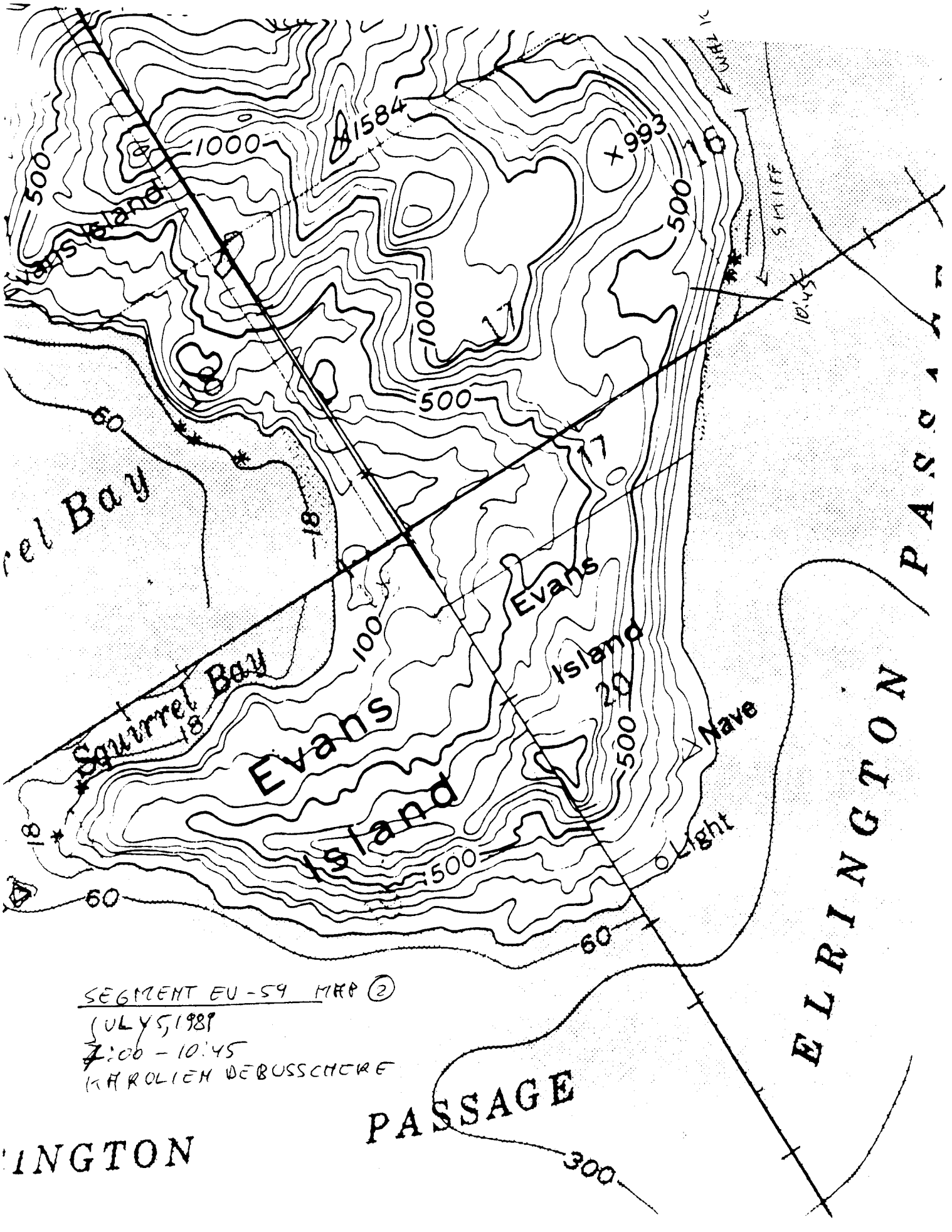
K. DEBOSSCHERE

EV-59

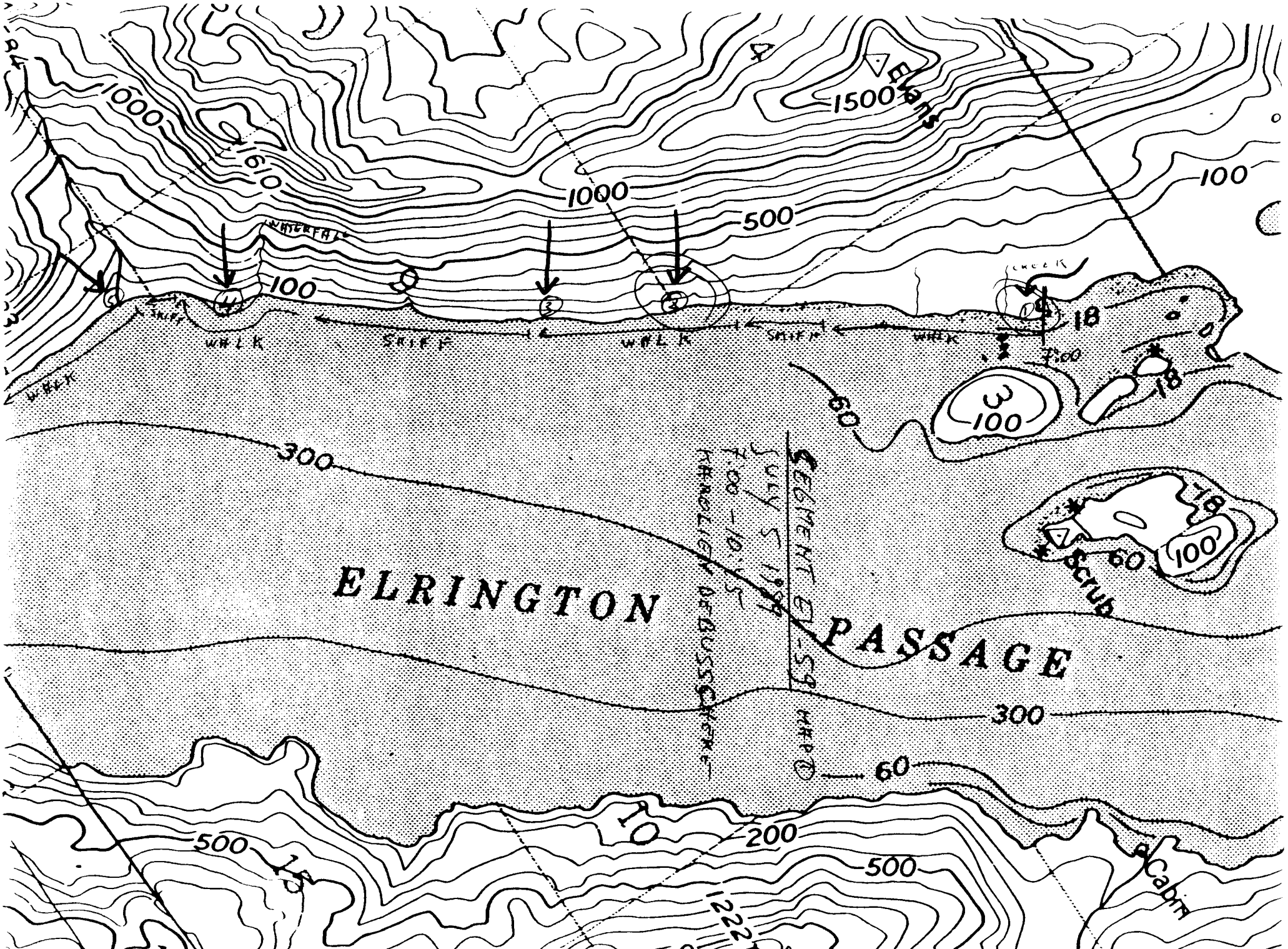
LOCATION (2)







SEGMENT EU-54 MAP ②
JULY 5, 1989
7:00 - 10:45
KAROLIEN DEBUSSCHERE


ELRINGTON PASSAGE
1000
1500
500
100
300
60
200
18
0
3
100
SHIFF
WALK
WHARF
CHECK
SCRUB
CABIN
SEGMENT 2-SG
SEGMENT 1-SG
HARRIGAN DISCUSSION
LUCY ISLAND
MAP 1
MAP 2

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd. SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 59 LENGTH: 5200 (M)

DATE: 07 / 05 / 89 TIME (HHMM): 0700-1045 TIDE HT.: 1.2 - -0.7 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

- scattered Fucus on beaches / continuous algal cover on rock & over lower intertidal

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/

- continuous sparse colonization of rock / occaisional (scattered) extensive dense colonies in beach fucus.

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/

- continuous/sparse B. glandula @ high intertidal / occaisional dense colonies of B. cariosus on large boulders or rock in lower intertidal

Littorina
Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

- continuous occurance / occaisionally dense also N. lamellosa & N. canaliculata.

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

- continuous occurance especially under ~~rocks~~ cobbles on lower beach

OTHER OBSERVATIONS: occaisional shrimp with coring clam shell in lower intertidal / lower beach face supports a dense & diverse infauna inc. nere worms / hermit crabs / gunnels / amphipods & starfish.

CLEANUP PRECAUTIONS: minimize disturbance to unoiled portions of this segment / clean up operations should be limited to type A / do not contaminate unoiled lower intertidal (seaw)

MAMMALS: Otters 2 Harbor Seals ___ Sea Lions 1 Whales ___
Other ___

BIRDS: 8 Glaucous-winged gulls / 3 mergansers - 1 ♀ with 3 chicks / 1 bald eagle

GENERAL OBSERVATIONS: ___

(version of 4/29/89)

SEW-A-3 Quad

CULTURAL RESOURCE EVALUATION

Date 7/6/89 Location SE SIDE ~~[illegible]~~ Site _____

Location Prefix EV- Segment # 59 Length 5200 m

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (65%) (A - indicate on map)

Ground ✓ 35% (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source 14/4/1 MAP AHRS FILES

Oil conditions/beach visibility ZERO TO V. LIGHT OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 25 m m Tree fringe surveyed 0-10 m

Cultural resources observed in beach zone (AHRS code) HTI

Cultural resources observed in tree fringe (AHRS code) CMT

General observations justifying survey method and segment's site probability

Shore Profile MODERATE GRADIENT BOULDER/COBBLE

Fresh Water Sources SEVERAL SMALL STREAMS

Sea Exposure OPEN TO ELLINGTON PASSAGE

Access/Safety GOOD BOAT ACCESS IN MOST PLACES.

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames _____

B/W Roll # PERTIMY 8 Frames 1-15

Observer(s) P. BUCK, M. MOSS

Time survey started 0700 HRS Time survey ended 1045

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-61

LOCATION: (see enclosed map) Southeast Evans Island north of Light

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/6/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), free oil.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches where access permits.
- Use other approved methods as appropriate

Priorities Considerations:
Class 2-3: heavy to moderate oil
Class A: resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: July 17

ISCC: Sharon K Christopherson Date: 7/26/89

EXXON: _____ Date: 89 07-26

FOSC: D.C. Alexander, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/6/89 Time: 7:50-9:20 Observer: CAROLIEN DEBUSSCHER

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION SE END OF EVANS ISLAND N. OF LIGHT SEGMENT NUMBER EV-61

LENGTH OF SHORELINE SEGMENT: 1430 m

ACCESS: Foot/Vehicle/(Boat)/Barge/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/HLD/STRT Slope: LANG/(HANG)/(VER)

Wave Exposure: (High)/(Med)/Low

Sediment: B 25 % / C 45 % / P 20 % / G 10 % / S 10 % / M 0 % / R 10 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/(Mid)/Lower Type KLGTFD WOOD & TRASH

OIL

Degree of Oiling: (Heavy)/(Moderate)/Light/No Oil/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y)/N % of Segment 60 Width of Band: 1-10 m

Sporadic: (Y)/N % of Segment 40

Est. Oil Thickness where > 1cm: - cm Est. Oil Penetration: 7 cm

Pooled Oil: 0 % "Free" Oil: 90 % Coated: H 50 % / M 20 % / L 10 %

Fresh 60 % Mousse 5 % Tar Formation: 35 %

Drift Debris Oiled ? Yes/No Supra/(Upper)/Mid/Lower Amount: H/M/(L)

Comments:

SEGMENT CONSISTS OF STEEP ROCKSE (LG. MAT.) BEACHES & CLIFFS. OIL IMPACT IS EXTENSIVE, MOSTLY IN HIGH TIDE ACCESS IS NOT ALWAYS AVAILABLE

EV-61

7:00 BOAT!!

ESO

ROCK OUTCROPS W B-BENCHES AT BOTTOM

→ STEEP BEACH & CLIFF

ALGAE & LOGS AT M, H & SP SPORADIC OIL (TAR) AT H TIDE

*LOCATION (1)

LOW ANGLE P/C/G/B

WOOD AT H. TIDE & TARMAT / ALGAE AT H & M

* GOING S: STEEPER: B/C/P/G

SOME FRESH OIL & MOUSSE IN PT/M & H/SP

OILED ALGAE AT H/SP

* LOCATION (2)

REL. H. ANGLE BEACH → CONT BAND OF OIL (S-WATHO) FRESH & TAR

SOME TAR. SPLASH IN M/SP — WOOD IS OILED IN H

* S, IN BAY AREA 1-2 cm OIL

PIT IN MIDTIDE: NO OIL

PIT IN HIGHTIDE: 30 CM — P & C (5 cm) } 7CM OF OIL
6 & P (25 cm)

⇒ 2 COVES W BEACH; IN B/W & AT EDGES OF BAYS CLIFFS W STEEP G BEACH AT FOOT

* OIL INCREASES S → IN 2nd BEACH OIL IS ± 10M WIDE →
H TO MIDTIDE (FRESH & TAR)
OIL CONT ALONG CLIFF (FUCUS)

P (6) 8:53: OIL ON STEEP BEACH AT BAY } RIGHT NEXT TO EACH OTHER
P (7) 8:54: " IN BAY

P (8) 8:56 ON S-WALL OF BAY: CLIFF W. LITTLE COVE

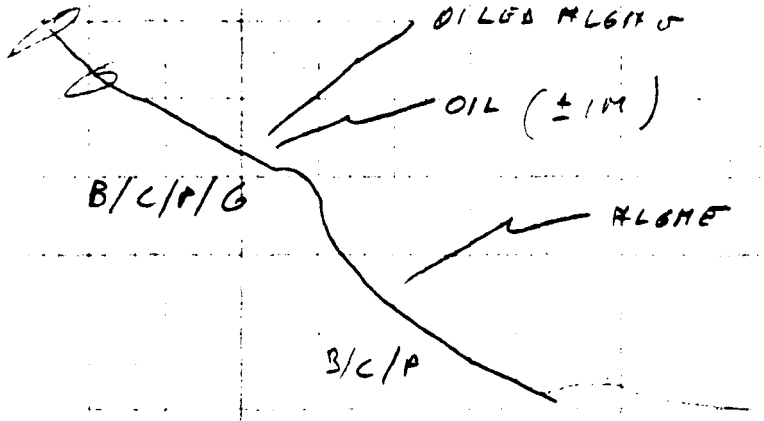
* ONE MORE BEACH GOING INTO COVE RIGHT AT THE LIGHT (SKIFFED)

END 9:20

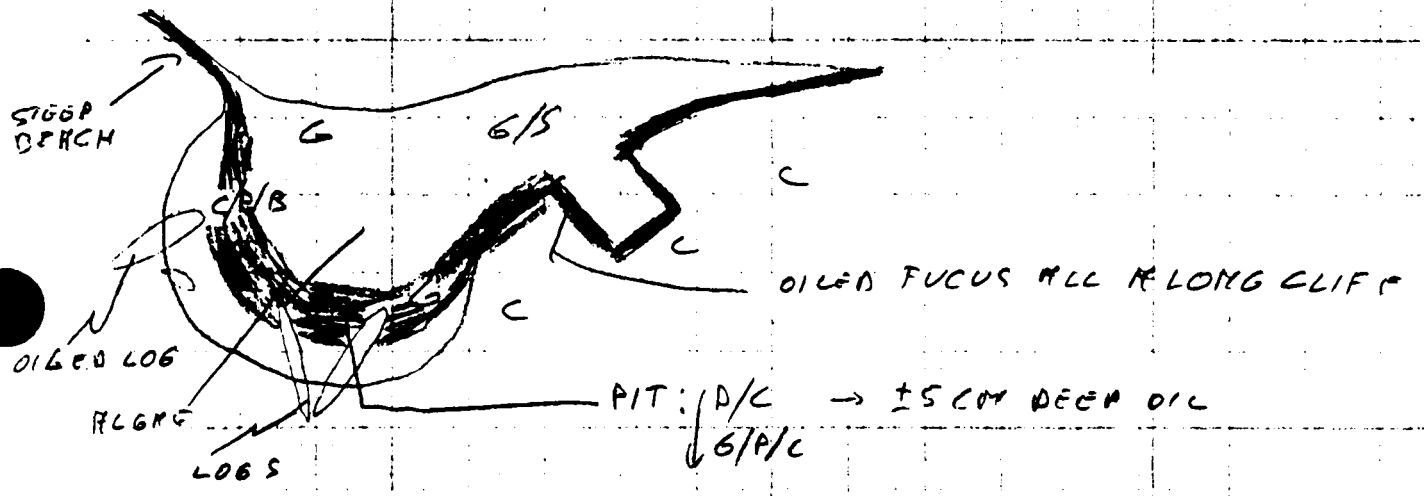
7/6/87 K. DEBUSSCHERE

EV-11

LOCATION ②



2ND BEACH S. OF ②



LOCATION: Prince William Sd SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 61 LENGTH: 1430 (M)

DATE: 07 / 06 / 89 TIME (HHMM): 0800-0920 TIDE HT.: 1.0-0.0 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

scattered Fucus on upper beaches / continuous dense algal cover in lower intertidal throughout & over entire intertidal on cliffs.

Mytilus (Mussels): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

- occasional dense mussel beds in middle beach faces

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

B. glandula cont/sparse throughout mid/high tide range / occasional dense colonies of B. cariosus on larger rocks & cliffs of lower intertidal zone.

Littorina

Patchy Y/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

also Nucella lamellosa

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

- especially on larger cobbles of lower intertidal

OTHER OBSERVATIONS: schools of small (8-15 cm) shiner-type fish immediately off shore. / infauna of lower beaches diverse & abundant

CLEANUP PRECAUTIONS: protect unoiled lower beach faces from contamination.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions 1 Whales ___

Other ___

BIRDS: ___

GENERAL OBSERVATIONS: segment is composed of steep bedrock cliffs & medium gradient coarse sediment beaches. Generally there is a steep drop off immediately off shore.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/6/89 Location Southeast Evans Island Blying Sound D-3 Site _____

Location Prefix EV Segment # 61 Length 1430 m

Survey Method:

Air ——— (A - indicate on map) Boat 33% (A - indicate on map)

Ground 66% (G - indicate on map)

Known cultural resources (AHRS #) None Data Source _____

Oil conditions/beach visibility moderate oil, but visibility is reasonably good

Width of beach zone surveyed 20 m m Tree fringe surveyed 5-10 m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CMT, FBX

General observations justifying survey method and segment's site probability:

Shore Profile medium gradient boulder/cobble/gravel beach

Fresh Water Sources water dripping off 20m + high cliff just within tree fringe

Sea Exposure fairly protected by Elrington Island -

Access/Safety access is possible

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # ——— Frames ———

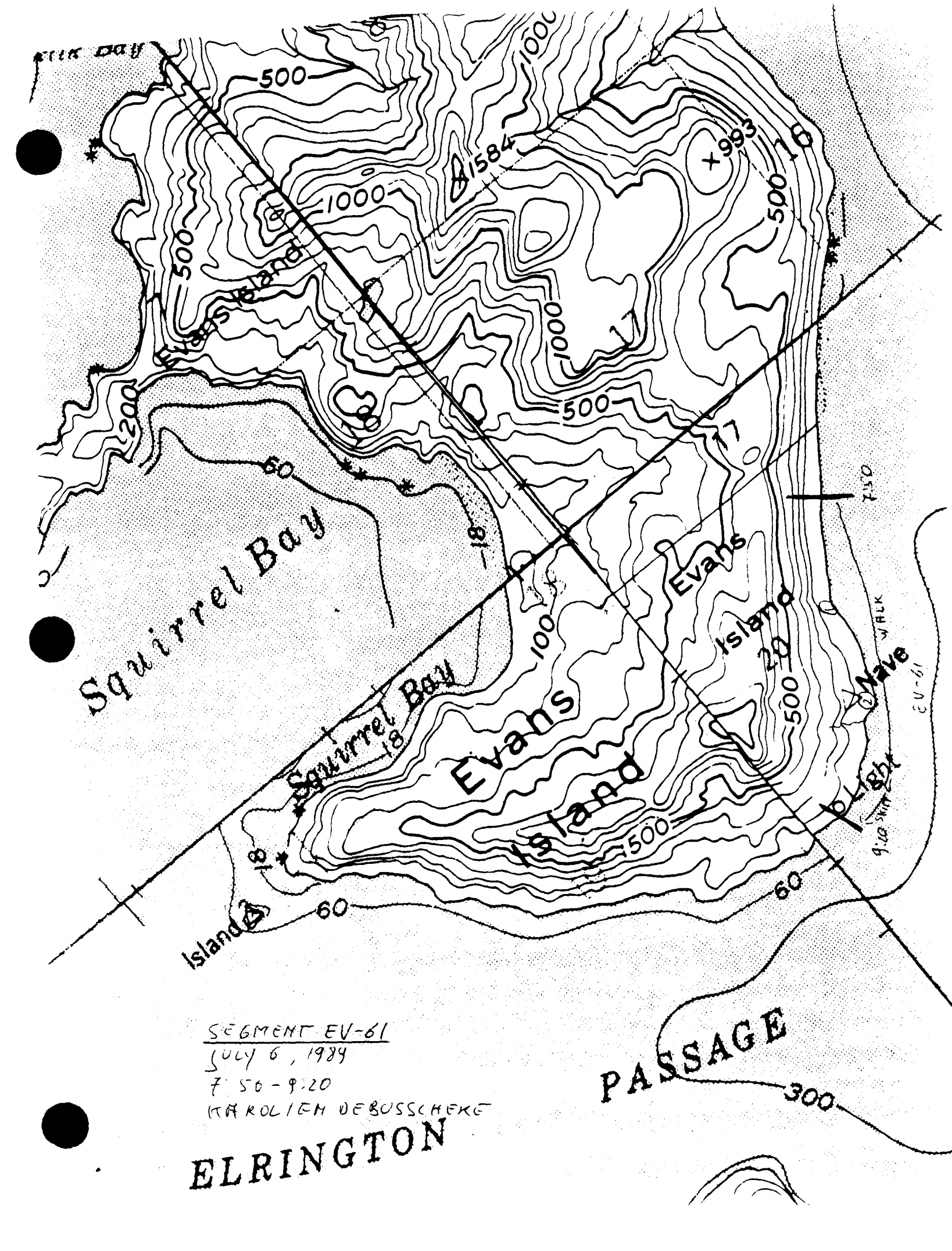
B/W Roll # PEB TMY 8 Frames 21 - 25

Observer(s) Moss + Buck

Time survey started 7:45 Time survey ended 9:20

Cultural resource considerations/restraints:

Standard Constraints.



SEGMENT EV-61
JULY 6, 1984
7:50 - 9:20
KAROLIEN DEBUSSCHERE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-62

LOCATION: (see enclosed map) Southeast Evans Island southwest of Light

ADEC NO. SHORELINE ASSESSMENT DATE: 7/6/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Flood/flush with warm water (up to 140 F) on low angle, coarser grained beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.
- ~~For fine grained beaches, disking or relocating the oiled sediments into the active surf zone would accelerate cleaning. This is a moderately exposed beach in which the sediments would be reworked and redistributed back up the intertidal zone.~~ ~~ISCC DOES NOT RE~~ DISKING NOT RECOMMENDED ON THIS SEGMENT. SC 7/26

Priorities Considerations:
Class 2-3: heavy to moderate oil
Class A: resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: July 17

ISCC: Sharon K. Christopherson Date: 7/26/89

EXXON: Date: 89-02-26

FOSC: R. C. Alejandro, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/6/89 Time: 9:20-11:15 Observer: KAROLIEN DEBUSSCHERE

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION SE BURNS ISLAND W. OF LIGHT SEGMENT NUMBER EU-62

LENGTH OF SHORELINE SEGMENT: 700 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane) (HOME)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/HLD/STRT Slope: (LANG)/HANG/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 10 % / C 10 % / P 10 % / G 30 % / S 30 % / M 0 % /R 10 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/(Mid)/Lower Type LOGS & KELP

OIL

Degree of Oiling: (Heavy)/(Moderate)/Light/No Oil/Unobserved

Area of Beach Impact: SU /(SP)/(H)/(M)/ L

Continuous: (Y)/N % of Segment 80 Width of Band: 2-10 m

Sporadic: (Y)/N % of Segment 20

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 10 cm

Pooled Oil: 0 % "Free" Oil: 15 % Coated: H 15 % /M 5 % /L 5 %

Fresh 80 % Mousse 0 % Tar Formation: 20 %

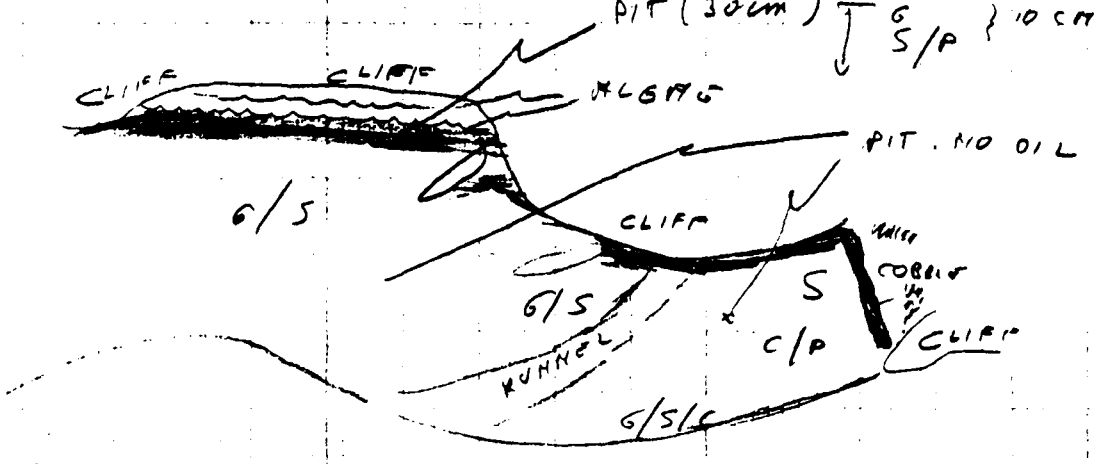
Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

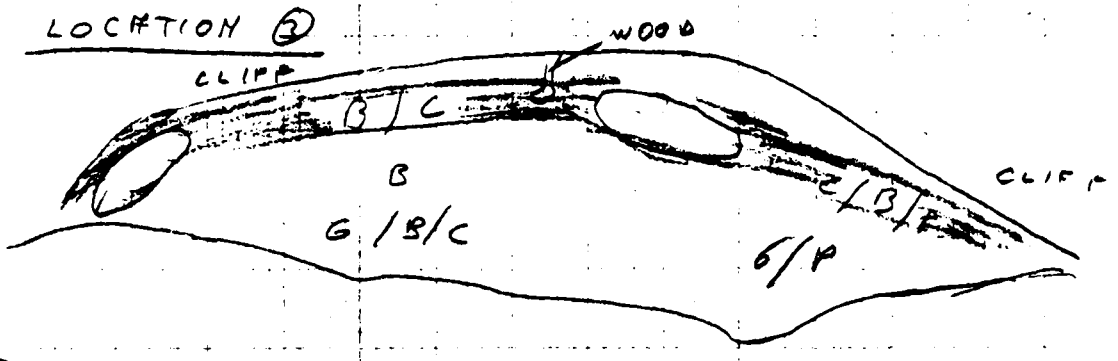
LARGE "FINE" GRAINED BEACHES INTERMITTENT W CLIFFS FORM THIS SEGMENT. OIL IMPACT IN BEACHES FORMS A CONT. BAND AT HIGH TIDE OIL IS MOSTLY FREE & HAS PENETRATED BELOW SURFACE. NATURAL WASHING IS UNLIKELY. ACCESS IS GOOD OIL ON CLIFFS IS CONCENTRATED AT HIGH TIDE (MOSTLY TAR) ACCESS IS HARD

EV-62

LOCATION ①



LOCATION ②



EV-62 9:20

* LOCATION (1)
  LARGE SAND BEACH AREA
  OIL AT HIGH TIDE LOGS & ALGAE LIGHTLY OILED
  P (9) : 9:50 : LOCATION SHOT OF (1)
* OILED CLIFF
* LOCATION (2)
  BEACH IS SMALLER W WATERFALL
  LOW GRADIENT G & P
  SAME DISTRIBUTION OF OILINESS (1) & SOME OIL AT MC
* CLIFFS & OUTCROP OILED
* LOCATION (3)
  SAME SITUATION FOR BEACH; LARGER AT AT H. TIDE THAN (1) & (2)
  -> OILED → 10 CM WIDE BAND W. OIL (L. BLD'S)
  OIL SPLASH AT SP
  P (10) & (11) 10:37 OIL IMPACT AT L. BLD BEACH
  W-SIDE OF BEACH IS VERY LARGE AT → OILED
* FURTHER W OIL ON CLIFF W L. BLD AT FOOT & G/P AT H.D
* W IN SKIFF : OILED CLIFFS.
  END 11:15

.co

LOCATION: Prince William Sd SITE: Evans. Is OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 62 LENGTH: 700 (M)

DATE: 07/06/89 TIME (HHMM): 0925-1400 TIDE HT.: 0. -0.35' (M)

OILED ZONE: (Splash) (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

algal growth limited to large cobbles, boulders & rock faces / where it occurs such growth is diverse & abundant.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/

dense colonies in protected micro environments in mid / high inter tidal

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/

limited to stable rock faces (be they boulder or bedrock) occaisionally very dense.

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

sparse on cobbles / continuous on rock / occaisional dense colonies at cliff / beach inter face.

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

- cont/sparse on rock & boulders.

OTHER OBSERVATIONS: other epifauna of cliffs & boulders includes Bryozoans

CLEANUP PRECAUTIONS: do not contaminate lower intertidal zone

MAMMALS: Otters 2 Harbor Seals ___ Sea Lions 2 Whales ___
Other ___

BIRDS: 30 Glaucous-winged gulls / 2 mergansers.

GENERAL OBSERVATIONS: segment composed of wide shallow gradient fine sediment beaches & bedrock cliffs & stacks; west end of segment has boulder cover on beaches. The fine sediments do not support much life directly however the large rocks & cliff faces support an abundant & diverse ecosystem.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/6/89 Location Blying Sound D-3 + D-4 South end Evans Island Site _____

Location Prefix EV Segment # 62 Length 700 m

Survey Method:

Air _____ (A - indicate on map) Boat 15% (A - indicate on map)

Ground 85% (G - indicate on map)

Known cultural resources (AHRS #) None Data Source —

Oil conditions/beach visibility moderate oil penetrating gravels - visibility still OK

Width of beach zone surveyed 30 m Tree fringe surveyed 20 m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CMT

General observations justifying survey method and segment's site probability:

Shore Profile finer grained, higher energy beach where Elrington Passage opens out

Fresh Water Sources at least 3 rivulets draining down cliffs

Sea Exposure moderately protected, some minor swell

Access/Safety could be rough in bad weather

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # _____ Frames _____

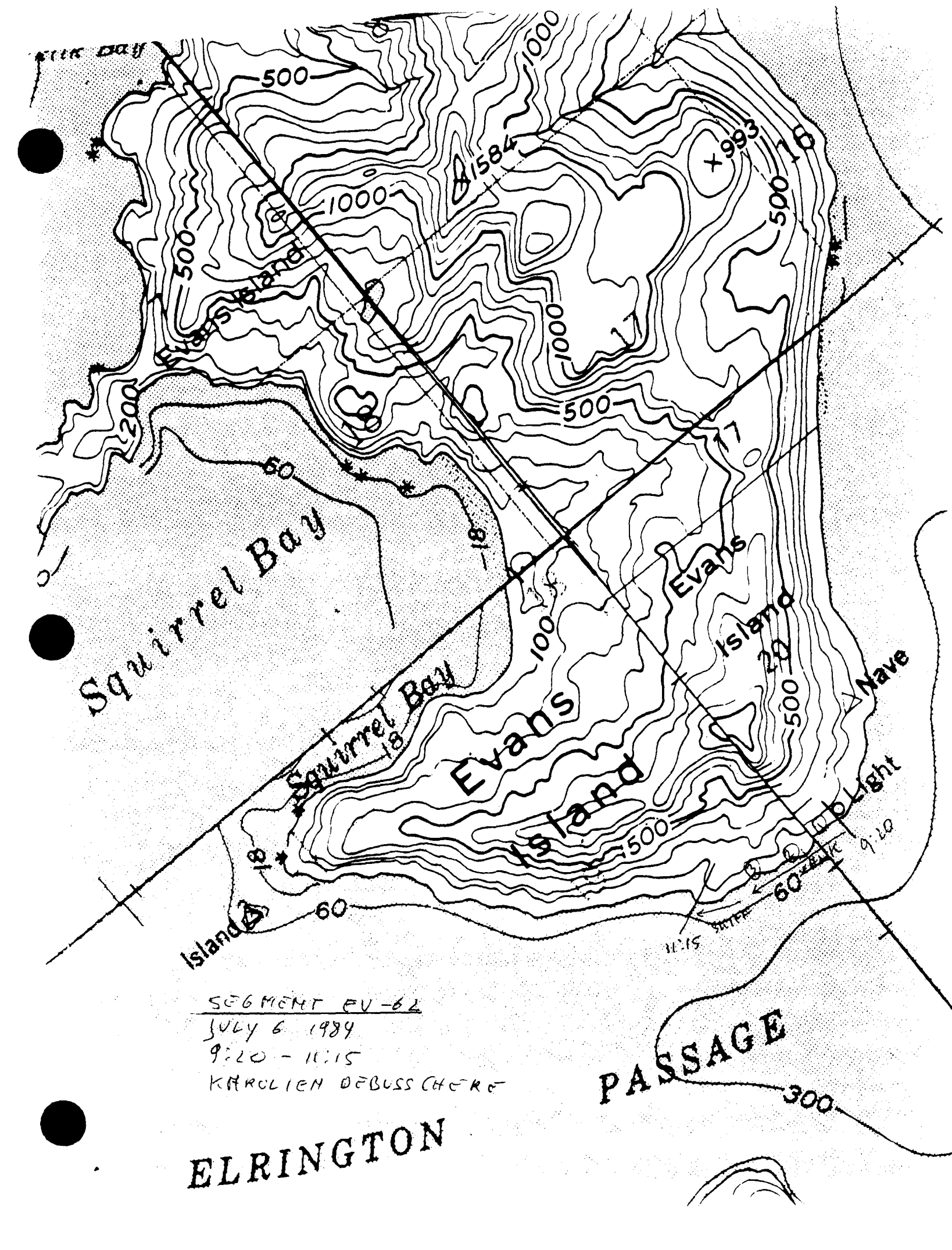
B/W Roll # PEB-TMY 8 Frames 26-33

Observer(s) Moss + Buck

Time survey started 9:20 Time survey ended 11:15

Cultural resource considerations/restraints:

Standard Constraints



SEGMENT EV-62
JULY 6 1989
9:20 - 11:15
KAROLIEN DEBUSSCHERE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-63

LOCATION: (see enclosed map) Southwest end of Evans Island (spit)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/6/89

Recommended Cleanup Activity(ies):
This area has difficult access due to high wave exposure and rocky shore. If access for cleanup is possible:

- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate

Priorities Considerations:
Class 3-5: moderate to no oil
Class A: resources present, including moderate recreational use

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid disturbing offshore kelp beds in general and extensive, dense kelp beds northwest, of point in particular.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: July 17, 89
State Historic Preservation Officer *

ISCC: Shawn K. Christopherson Date: 7/26/89

EXXON: _____ Date: 89-07-26

FOSC: A.C. Alejandro, by dr. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/6/89 / Time: 11:15-12:25 Observer: KAROLIEN DEBUSSCHERE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) /Rain/Snow/Fog

LOCATION

LOCATION SW SPIT OF EVANS ISLAND SEGMENT NUMBER GV-63

LENGTH OF SHORELINE SEGMENT: 2330 m

ACCESS: Foot/Vehicle (Boat) Barge/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: (SPI) (BEA) COV/HLD/STRT Slope: LANG/(HANG)/VER

Wave Exposure: (High)/Med/Low

Sediment: B 30 % / C 25 % / P 20 % / G 10 % / S 0 % / M 0 % /R 15 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/(Mid)/Lower Type WOOD & ALGAE

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU /(SP)/(H)/(M)/ L

Continuous: (Y)/N % of Segment 30 Width of Band: ≤ 5 m

Sporadic: (Y)/N % of Segment 70

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: 0 % "Free" Oil: 5 % Coated: H 30 % /M 40 % /L 25 %

Fresh 5 % Mousse 0 % Tar Formation: 95 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/(Mid)/Lower Amount: H/M/(L)

Comments:

MOST OF SEGMENT WAS SHIELDED B/C ACCESS WAS IMPOSSIBLE. OIL OBSERVED WAS MOSTLY TAR & MOSTLY SPORADIC OVER A BAND AT HIGH TIDE. OIL DISTRIBUTION REMAINED OVER SEGMENT BUT LESSENED TOWARDS W. POTENTIAL FOR NATURAL WASHING OF OILED PATCHES.

F/6/89

EV-63 11:15

R LOCATION (1) MED. ANGLE BEACH

SAND AGAINST CLIFF ON E-SIDE ; NO OIL

W: ROCKS ; OILED AT H.TIDE ; OILED DRIFT WOOD & ALGAE

OIL SPLASH IN SP & W

→ CONT. BAND OF 4-5 CM WIDE

R FURTHER W: VERY LG. BL & STEEPER BEACH W OIL

P (12) 11:29 EG OF LG. BLD W. OIL

SOME OIL IS FRESH ; MOSTLY COATING (TAR & FRESH)

R CLIFFS & OUTCROP

R LOCATION (2)

B. - BEACH - LOGS ON SP ; ALGAE IN H.W.

OIL IS LESS BUT SAME DISTRIBUTION - MOSTLY TAR

P (15) 11:41 → OIL DISTRIB. IN (2)

P (14) 11:47 → OIL " " " (H/17/SP)

EV-63 -CONT

OIL IS 4-5 IN WIDE

ALGAE IN MID IS OILED

" " HIGH " "

MIDTIDE IS HEAVILY OILED ON L. BLD ON SW-FACING WALL OF BLD

↳ SPORADIC

* LOCATION ③

P_ BEACH

FROM ③ ON → MORE SPORADIC OIL

→ LITTLE POCKET BEACHES (6) B/W CLIFFS

WAVE ACTION IS TOO HIGH TO LAND

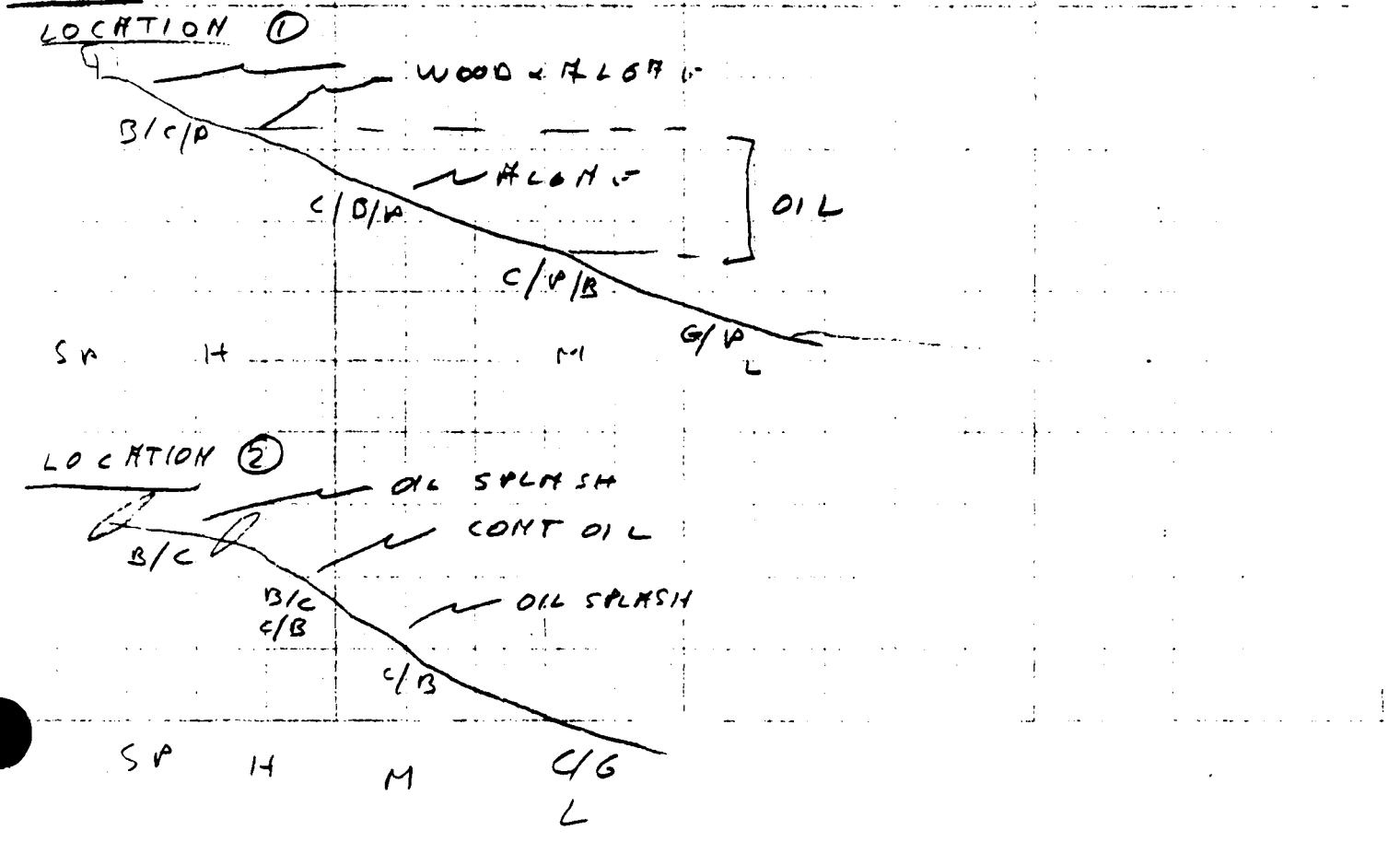
VISIBLE OIL IS SPORADIC ON BEACHES; MOSTLY TAR

*LITTLE ISLAND → ONLY ONE SIDE IS ALL

END OF 63 12:25

7/6/89

EV-63


LOCATION ①
WOOD + ALGAE
B/C/P
ALGAE
C/B/P
OIL
C/P/B
G/P
L
SP
H
M
LOCATION ②
OIL SPLASH
CONT OIL
B/C
B/C
C/B
OIL SPLASH
C/B
SP
H
M
C/G
L

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Evans Is. OBSERVER: E R. White

LOCATION PREFIX: EV SEG. NO.: 63 LENGTH: 2330 (M)

DATE: 07 / 06 / 89 TIME (HHMM): 1120-1220 TIDE HT.: 0.35- 1.0 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) Boulder (Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)N Dense (Y)/N Sparse Y/N None Y/N

Fucus cover intermittent / dense in mid/high intertidal / algal cover 100% in low + subtidal zones - kelp bed offshore

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/

- occasional dense colonies in protected micro environments otherwise sparse

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/

some dense colonies of B. cariosus in low/mid tide zone otherwise continuous & sometimes dense B. glandula in upper intertidal zone

Littorina

Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

dense colonies (?) in cracks of rock & at cliff sediment interface

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N also. Notoacmea lamellosa & Scutellastra dira

continuous sparse throughout lower intertidal

OTHER OBSERVATIONS: lower intertidal life diverse & abundant - infauna include isopods / clingfish / nereis worms / calcareous tube worms / hermit crabs / chitons

CLEANUP PRECAUTIONS: minimize disturbance to offshore kelp beds; especially on lee side of point. / do not contaminate lower intertidal zone

MAMMALS: Otters ____ Harbor Seals 2 (1 pup) Sea Lions 2 Whales ____ 20-30 sea otters in dense kelp near point. Feeding offshore

Other ____

BIRDS: 100-150 Black-legged Kittiwakes on islet off point / 3 pidgeon guillemots / 1 bald eagle.

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/6/89 Location BLYING SOUND (D-4) QUAD SW END EVANS ISLAND Site _____

Location Prefix EV — Segment # 63 Length 2330 m

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (90%) (A - indicate on map)

Ground ✓ (10%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(H)1 FILES

Oil conditions/beach visibility LIGHT OIL; GOOD BEACH VISIBILITY

Width of beach zone surveyed 40 m m Tree fringe surveyed ~ 1 m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability:

Shore Profile LOW GRADIENT SAND BEACH / BOULDER + COBBLE BEACH / ROCKY BLUFF

Fresh Water Sources SMALL STREAM

Sea Exposure EXPOSED TO ELRINGTON PASSAGE

Access/Safety BARGE ACCESS POSSIBLE IN PLACES

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

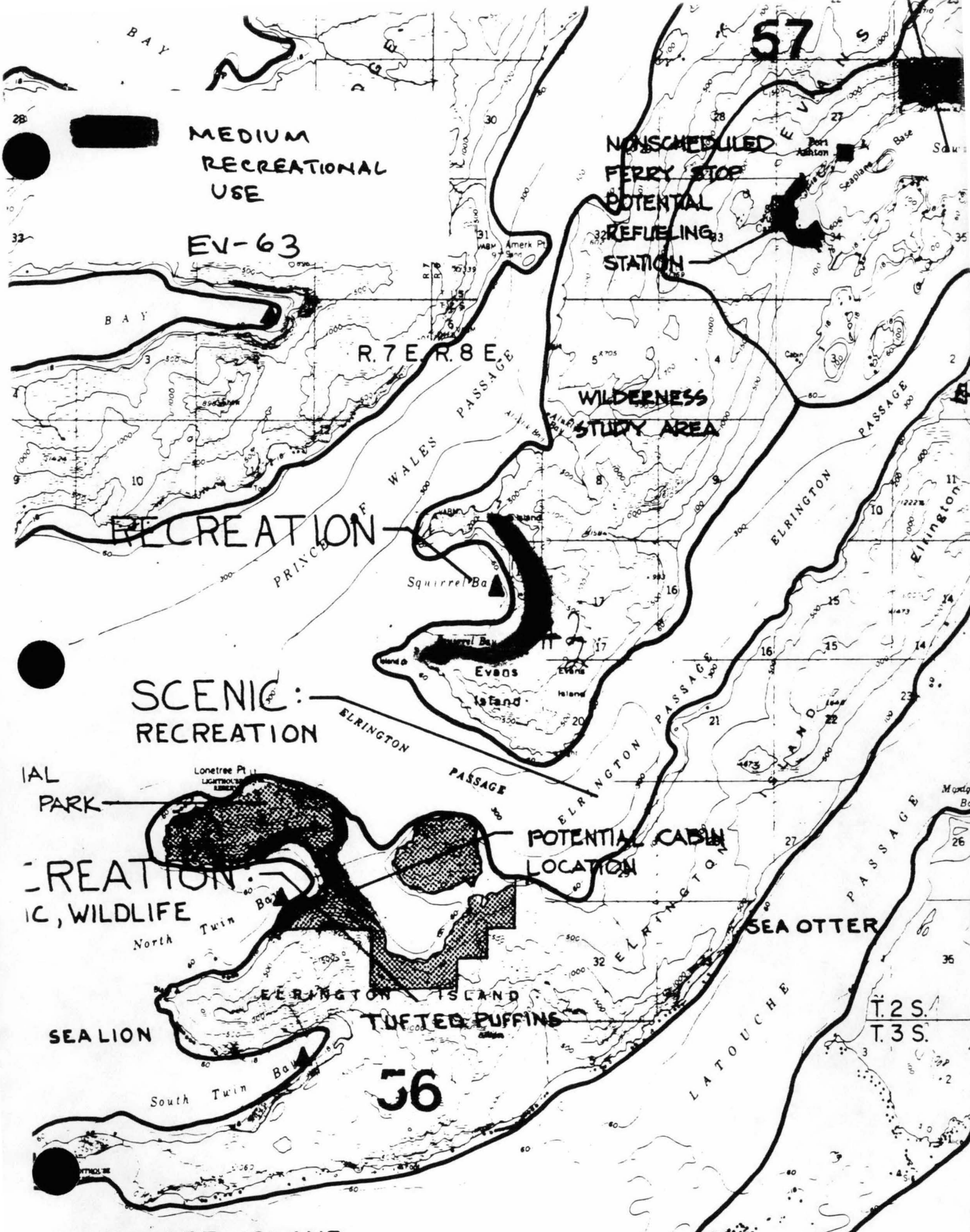
B/W Roll # PBTIM4 8 Frames 34, 35

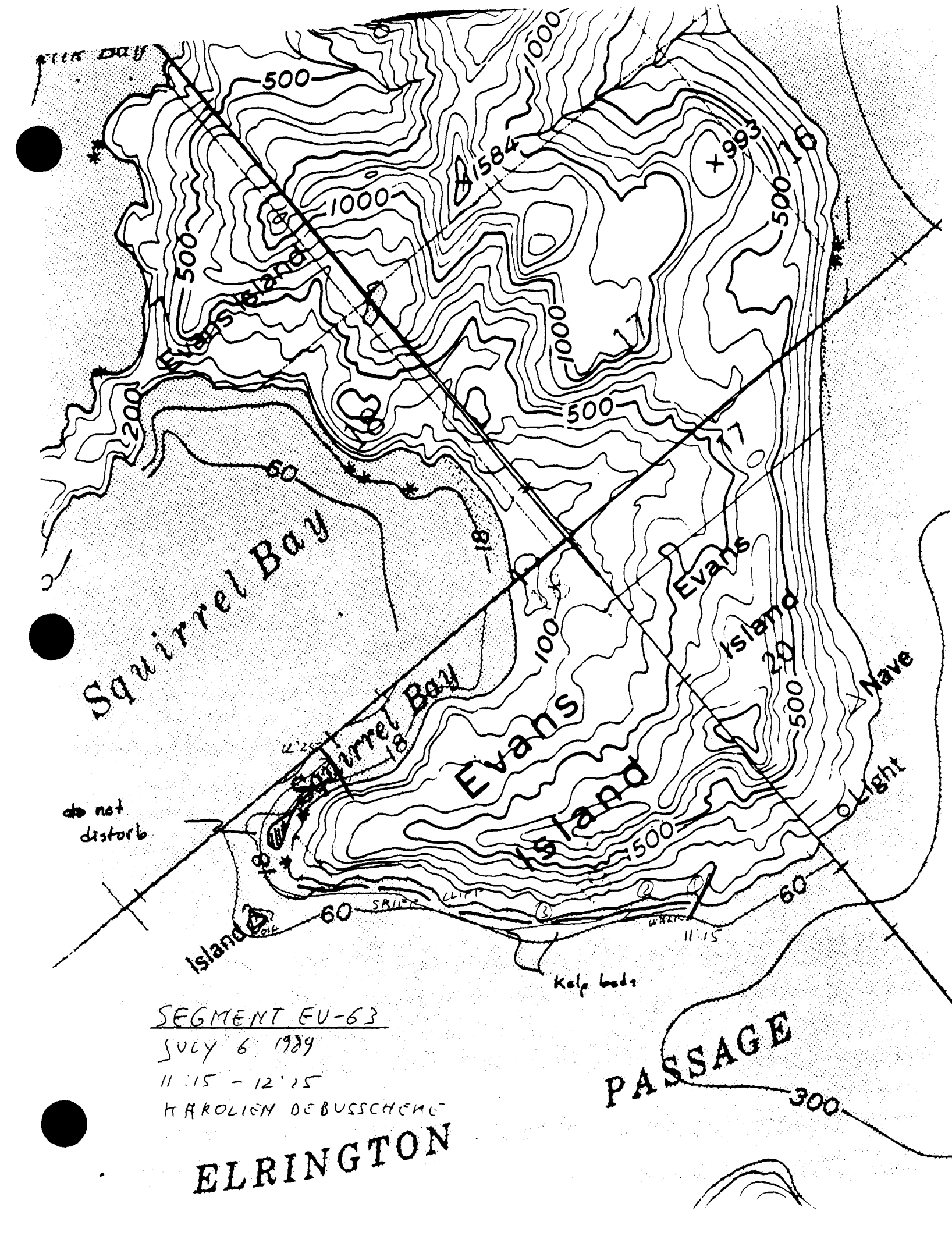
Observer(s) P. BUCK, M. MOSS

Time survey started 1110 HRS Time survey ended 1220 HRS

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


MEDIUM RECREATIONAL USE
EV-63
NONSCHEDULED FERRY STOP
POTENTIAL REFUELING STATION
R.7E. R.8E.
WILDERNESS STUDY AREA
RECREATION
SCENIC: RECREATION
ELRINGTON PASSAGE
PARK
POTENTIAL CABIN LOCATION
SEA OTTER
SEA LION
TUFTED PUFFINS
T.2S.
T.3S.
DANGER ISLAND
RECREATION & WILDLIFE
57
56
Evans Island
Danger Island
Lonetree Pt
North Twin Bay
South Twin Bay
Squirrel Ba
Amerk Pt
Seaplane Base
Port Ashton
LATOUCHE



SEGMENT EU-63

JULY 6 1989

11:15 - 12:25

HAROLIEN DEBUSSCHERE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-64

LOCATION: (see enclosed map) South Squirrel Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/6 & 7/7/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Flood/flush with warm water on low angle cobble and boulder beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate

Priorities Considerations:
Class 3-4: moderate to light oil
Class A: resources present, recreation area

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Robert A. Stanley — Date: July 17, 89
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson — Date: 7/26/89

EXXON: [signature] — Date: 89-07-26

FOSC: A. C. Alejandro, by dir. — Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/6/89 / 7/7/89 Time: 12:25-1:30 / 8:00-9:10 Observer: KAROLIEN DEBUSSCHERE

Surveyed From: (Foot)/Boat/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Fog

LOCATION

LOCATION SOUTH SQUIRREL BAY SEGMENT NUMBER GI-64

LENGTH OF SHORELINE SEGMENT: 980 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/VER

Wave Exposure: (High)/(Med)/Low

Sediment: B 25 % / C 25 % / P 20 % / G 15 % / S 5 % / M 0 % / R 10 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type WOOD & ALGAE

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y)/N % of Segment 15 Width of Band: 2 m

Sporadic: (Y)/N % of Segment 85

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: 0 % "Free" Oil: 5 % Coated: H 30 % / M 20 % / L 45 %

Fresh 25 % Mousse 1 % Tar Formation: 74 %

Drift Debris Oiled ? (Yes)/No Supra/Upper/(Mid)/Lower Amount: H/M/(L)

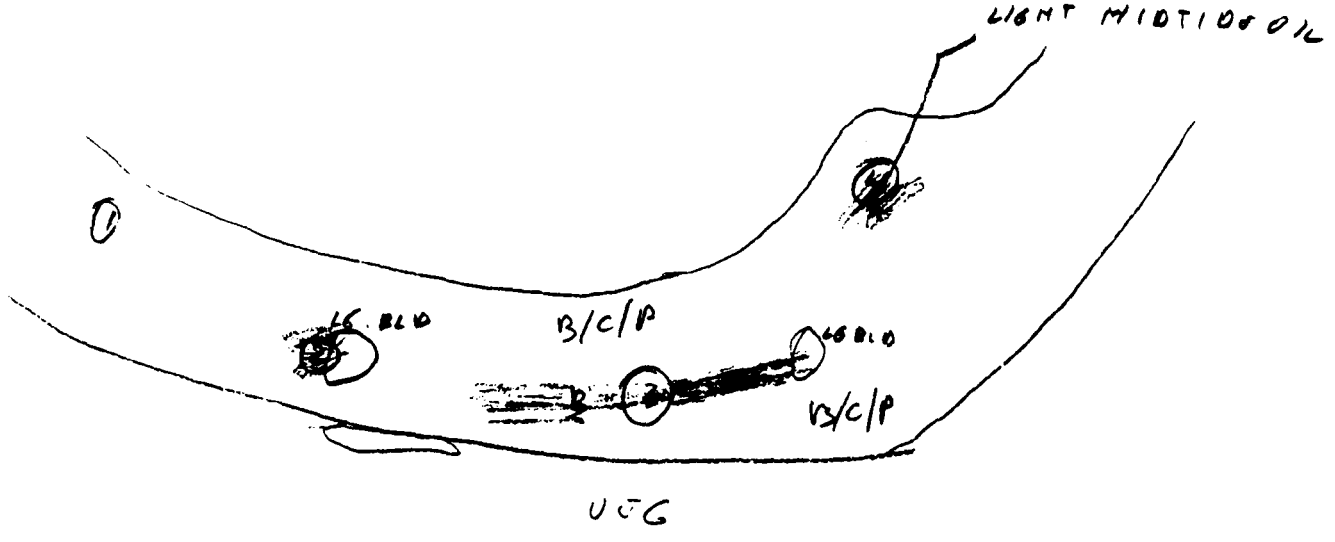
Comments:

OIL COVERAGE WAS MOSTLY SPORADIC. WHERE OIL WAS CONTINUOUS IT WAS HEAVILY COATED. POTENTIAL FOR NATURAL WASHING OF OIL EXITS. ACCESS TO OUTCROPS IS MINIMAL

L OILED ROCK OFFSHORE & ALONG SHORELINE (CFR. MAP)

SPORADIC NATURE OF OIL COVERAGE MIGHT LIMIT EFFICIENCY OF MECHANICAL CLEANUP

7/6/89
EU-64



EV-64 7/6/80 12:25

* LOCATION ①

REL. MED. GRADIENT BEACH B/C/P

OIL SPLASH IN MID TIDE ; SPORADIC OIL IN HIGH TIDE

DRIFT IN SP : LOG & ALGAE

IN IT : ALGAE

* LOCATION ②

± AT VERY LARGE BLD DEMCH : B/C/P

→ OIL ACCUMULATION AT HIGH TIDE - SPORADIC

* LOCATION ③

CONT BAND OF OIL : FRESH & SOME TAR → M TO H. TIDE

MOSTLY BOULDERS

WOOD IN UPPER/SU ; ALGAE IN U/M/LT

↳ OILED IN M

SOME MOUSSE (VERY LITTLE) & MOST FRESH

* LOCATION ④

TAR SPLASH ATTACH — VERY SPORADIC

* BAY TO E OF ④ : REL LOW-MED BEACH C/P/A/S SPORADIC IN M

OIL ON VERY LG BLD'S AT END OF BAY

— 1:30

EV-64 CONT 8:00

* LOCATION (5)

COBBLE/BLD/BEACH MED ANGLE

OIL AT M/M/SP; SOME PATCHES OF I HEAVY OILING AT MIDTIDE STARTING

± 75 ME OF CLIFF → ± CONT ↳ SOME FRESH

R AT LARGE ROCK/OUTCROP → CHANGES TO MORE PEBBLE BEACH

→ LOCATION (6) WHERE OIL IS LESS & MORE SPORADIC

OIL SPLASH IN M/H/SP → TAR ↳ PATCHES OF TAR AT M/

LOGS IN UPPM; ALGAE IN H & SP

MED. ANGLE BEACH

→ C/B/P AT HIGH TIDE

→ P/C/B/G/S AT MID & LOW

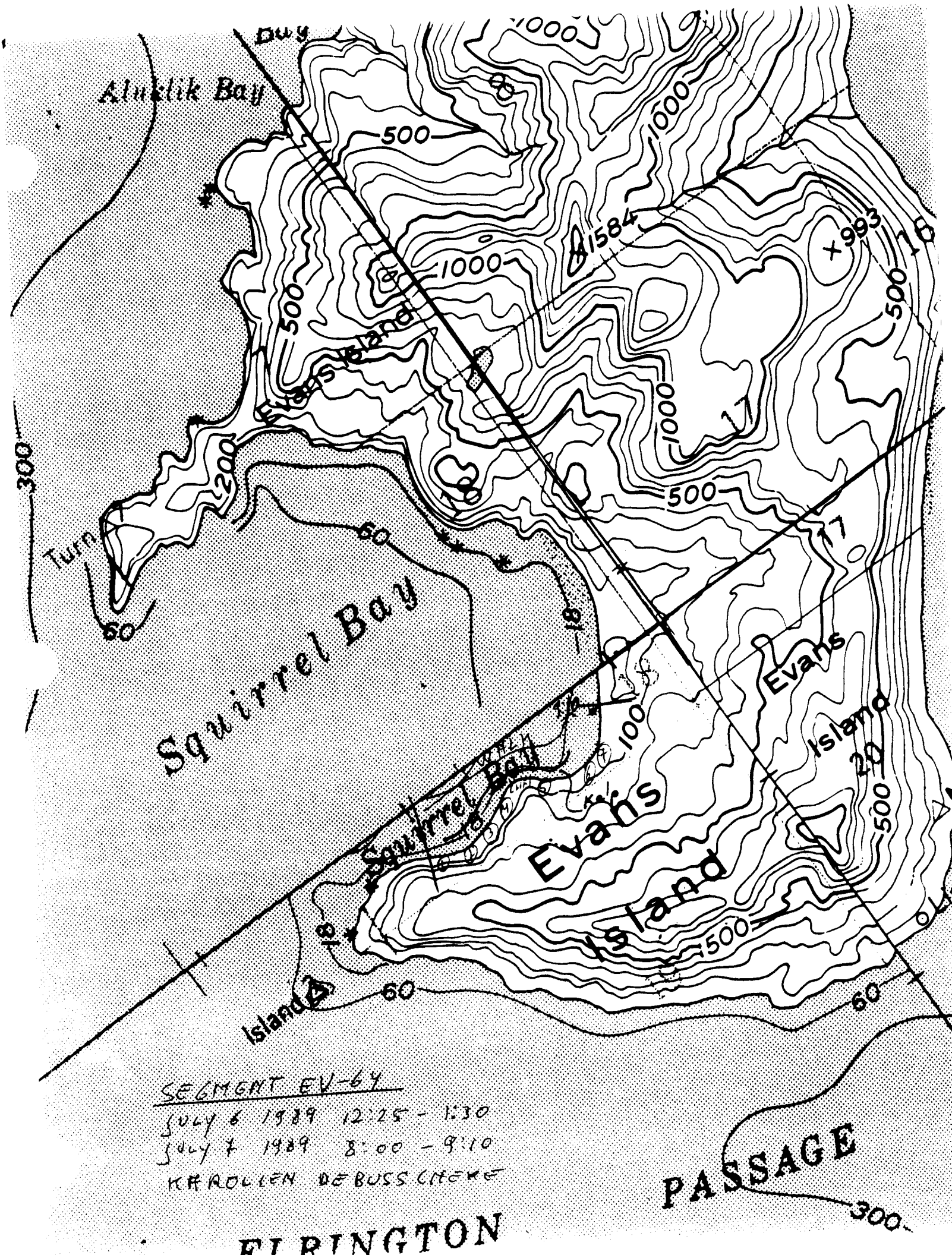
MUTUAL WASHING?

P (15) 8:50 : LOOKING W AT LEFT EXTREME OF PICT WHERE BEACH ≠ FROM (5) - (6)

R LOTS OF S & G IN PEBBLE BEACH.

LESS OIL FROM (9) ON → VERY SPORADIC OIL TO WHERE SEGMENT ENDS : LARGE OUTCROP IN M,O W. CONT. BAND OF G

END 9:10



SEGMENT EV-64
JULY 6 1989 12:25 - 1:30
JULY 7 1989 8:00 - 9:10
KATHOLIEN DEBUSSCHERE

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: E4 SEG. NO.: 64 LENGTH: 980 (M)

DATE: 07/07/89 (07 06 89) TIME (HHMM): 0830-0930 (1230 - 1330) TIDE HT.: 1.0 - 0.3 (1.0 - 1.3) (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

dense on rocks / missing on loose sediments / continuous algal cover @ low tide zone

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y,

in protected micro environments only - where they form dense beds.

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y,

- on larger boulders / cobbles - B. glandula predominate

Littorina

Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

- on larger material / L. lamellosa on rocks Pacco

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

- on larger beach material & rock Pacco.

OTHER OBSERVATIONS: - offshore kelp bed fronts most of this segment; there is no obvious inflowing in this beach

CLEANUP PRECAUTIONS: minimize disturbance to kelp bed / protect upper lower intertidal if possible

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____

Other ____

BIRDS: ____

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/6/89 Location Blying Sound D-4 South Squirrel Bay Site ____

Location Prefix EV Segment # 64 Length 980 m

Survey Method:

Air — (A - indicate on map) Boat — (A - indicate on map)

Ground 100% (G - indicate on map)

Known cultural resources (AHRS #) None Data Source —

Oil conditions/beach visibility moderate oil, visibility OK

Width of beach zone surveyed 25 m Tree fringe surveyed 5 m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) 3 CMT

General observations justifying survey method and segment's site probability:

Shore Profile rounded boulders + cobbles, medium gradient

Fresh Water Sources water falling off face of the vertical cliff back from shoreline

Sea Exposure north facing beach, some swell up Prince of Wales Passage

Access/Safety could be rough in a storm

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

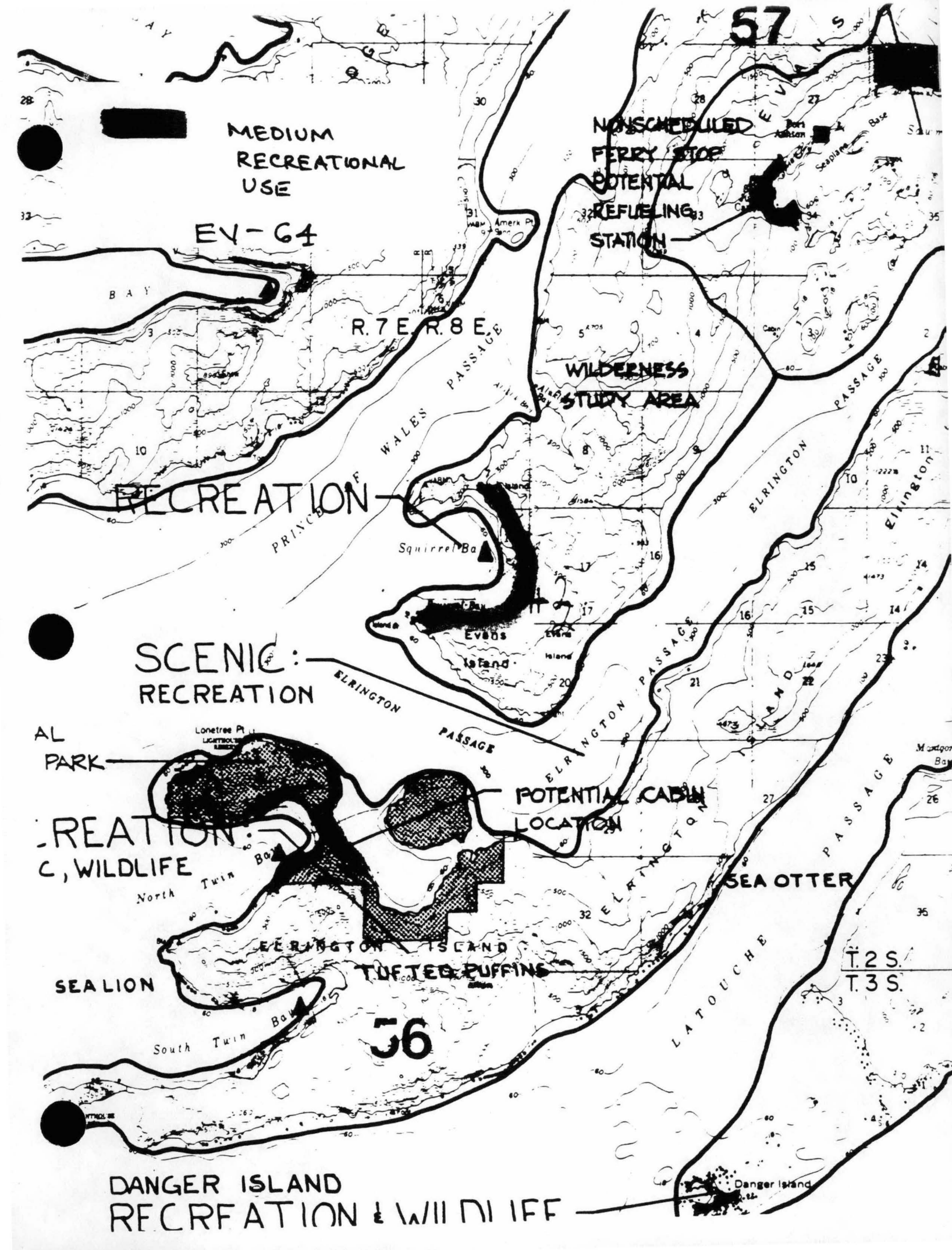
B/W Roll # PEB TMY 9 Frames 1-4

Observer(s) Moss, Buck

Time survey started 12:30 Time survey ended 13:45

Cultural resource considerations/restraints:

Standard Constraints


MEDIUM RECREATIONAL USE
EV-64
NONSCHEDULED FERRY STOP
POTENTIAL REFUELING STATION
57
R.7E. R.8E.
WILDERNESS STUDY AREA
RECREATION
SCENIC: RECREATION
ELRINGTON PASSAGE
AL PARK
POTENTIAL CABIN LOCATION
REATION:
C, WILDLIFE
SEA OTTER
ELRINGTON ISLAND
TUFTED PUFFINS
SEA LION
56
T. 2 S.
T. 3 S.
DANGER ISLAND
RECREATION & WILDLIFE

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-65

LOCATION: (see enclosed map) Central Squirrel Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/7/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment at a later date). No oil observed.

Priorities Considerations:
- Medium recreational use

Ecological Constraints (from site survey):
No ecological constraints

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Robert A. Shaw
State Historic Preservation Officer * Date: July 17 '89

ISCC: Sharon K. Christopherson Date: 7/26/89

EXXON: [signature] Date: 8907-26

FOSC: D.C. Alexandre, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/7/89 Time: 9:10-9:50 Observer: KAROLIEN DEBUSSCHERE

Surveyed From: (Foot)/Boat/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/Foc

LOCATION

LOCATION CENTRAL SQUIRREL BAY SEGMENT NUMBER EV-65

LENGTH OF SHORELINE SEGMENT: 770 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/(Helio)/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/STRT Slope: (LANG)/HANG/VER

Wave Exposure: High/(Med)/Low

Sediment: B 0 % / C 5 % / P 5 % / G 0 % / S 85 % / M 0 % /R 5 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type ALGAE & WOOD ATRASH

OIL

Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / H / M / L

Continuous: Y/N % of Segment — Width of Band: — m

Sporadic: Y/N % of Segment —

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: — % "Free" Oil: — % Coated: H — % /M — % /L — %

Fresh — % Mousse — % Tar Formation: — %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

NO OIL WAS OBSERVED IN THIS SEGMENT. BEACH IS PREDOMINANTLY SAND. SEVERAL PITS WERE DUG - NO EVIDENCE OF OIL. BORDERING SEGMENTS HAVE (SPORADIC) OIL → OIL COULD BE PRESENT BUT NOT VISIBLE

EV-65 9:10

SHADY BEACH - MOSTLY SAND SOME P/C, R LAND IN WHICH TOWARDS N RUNS ALL S.

(16) 9:12 : VIEW OF OF BEACH

DRIFT WOOD AT M/H/SP/SU ; ALGAE AT M/H/SP

SEVERAL PITS (~40 cm) TO P/C → NO OIL OBSERVED IN PITS OR ON P/C/R

DIGGING A TRENCH ALONG WHOLE PROFILE WAS IMPOSSIBLE; MSSUIT DISTRIBUTION WAS SOMETIMES GOOD, (SPORADIC) EVEN IF OIL WOULD BE PRESENT FINDING IT IN A RANDOM TRENCH IS QUESTIONABLE

→ OIL COULD BE BURIED BY SAND ??

(CFR 66 → OIL PRESENT BUT AS GOOD - SPORADIC!)

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 65 LENGTH: 770 (M)

DATE: 07/07/89 TIME (HHMM): 0930-1000 TIDE HT.: 0.3-0.0 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)/N

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)

Littorina
Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)/N

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None (Y)/N

OTHER OBSERVATIONS: one eyeopodia washed up on beach /

CLEANUP PRECAUTIONS: ϕ

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: 2 pidgeon guillemots / 5 glaucus winged gulls

GENERAL OBSERVATIONS: This is a wide shallow gradient beach with little/no visible epifauna or infauna

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/7/89 Location BLYING SOUND (D-4) QUAD SQUIRREL BAY - EVANS I SEWARD (A-4) QUAD Site

Location Prefix EV- Segment # 65 Length 770 M

Survey Method:

Air _____ (A - indicate on map) Boat _____ (A - indicate on map)

Ground ✓ (100%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(H)11 FILES

Oil conditions/beach visibility ZERO TO V. LIGHT OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 70 M m Tree fringe surveyed 30 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) CMT, FBX*

General observations justifying survey method and segment's site probability:

Shore Profile GENTLE GRADIENT FINE SANDY BEACH

Fresh Water Sources 2 SMALL STREAMS

Sea Exposure PROTECTED

Access/Safety NO BARGE ACCESS - SHALLOW WATER

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames _____

B/W Roll # PBSTM9 9 Frames 5-12

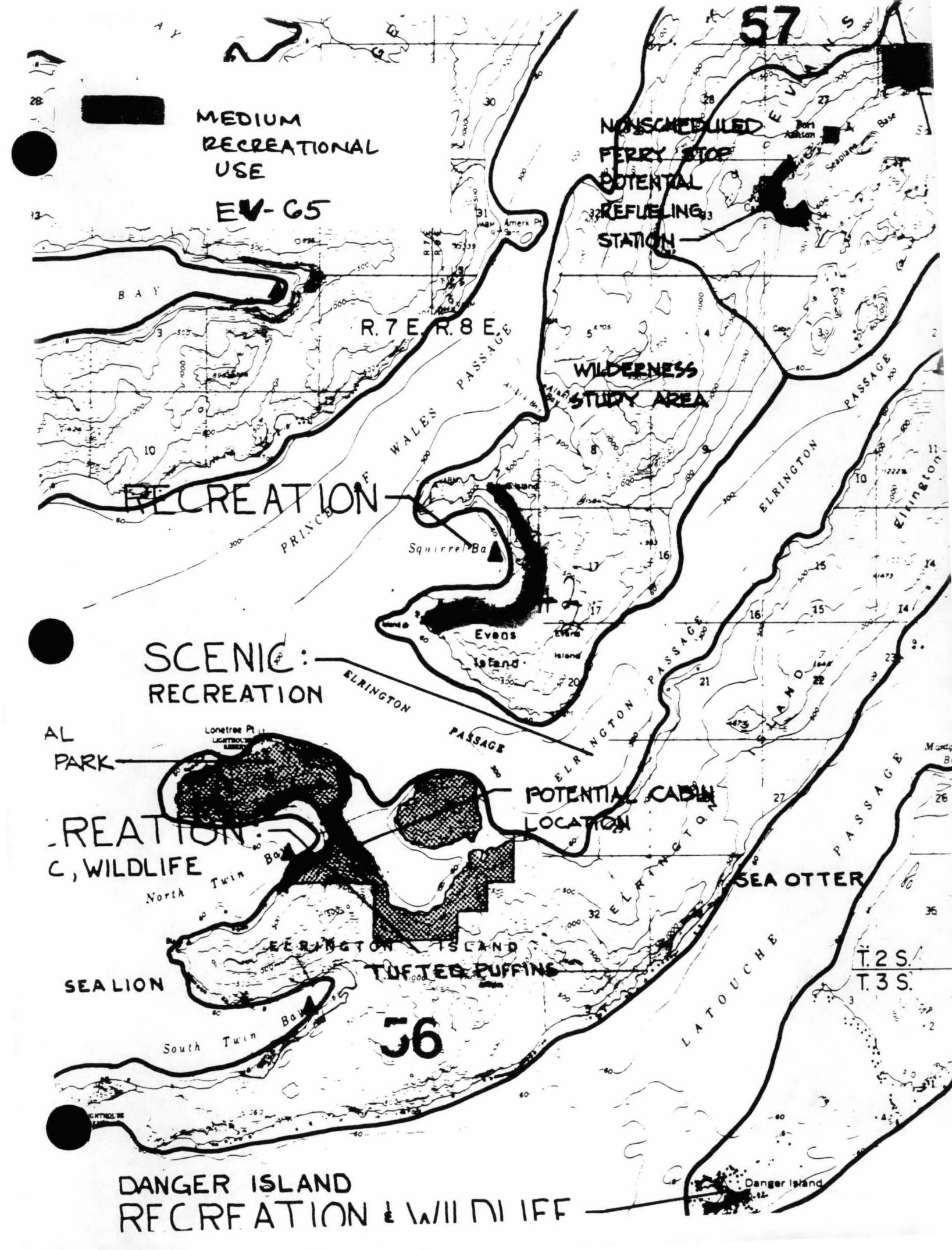
Observer(s) P. BUCK, M. MOSS

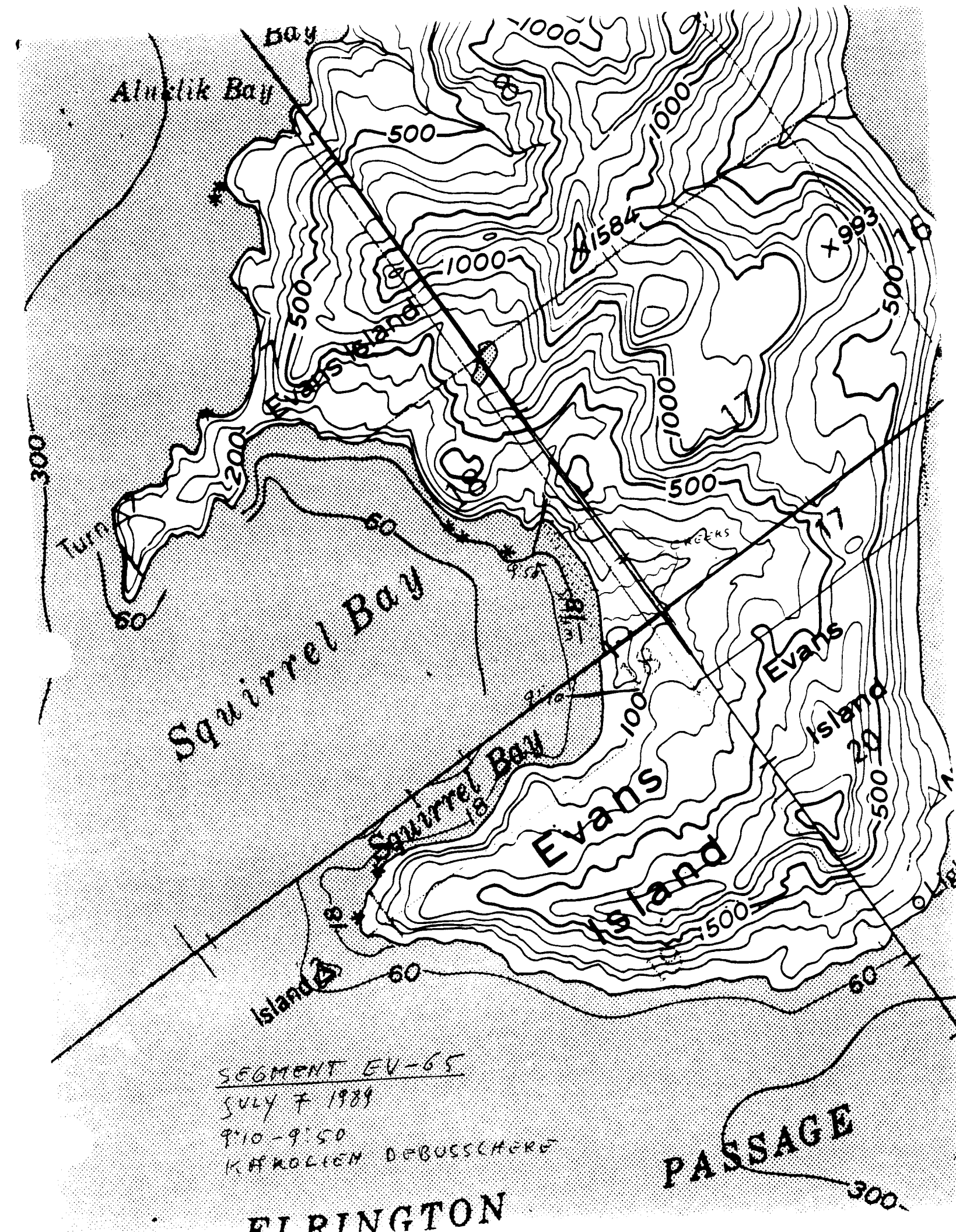
Time survey started 0910 HRS Time survey ended 1000 HRS

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

FBX* = (SEE DELAGUNA 1956 FOR DESCRIPTION)


MEDIUM RECREATIONAL USE
EV-65
NONSCHEDULED FERRY STOP
POTENTIAL REFUELING STATION
WILDERNESS STUDY AREA
R.7E.
R.8E.
RECREATION
SCENIC:
RECREATION
AL PARK
REATION
C, WILDLIFE
POTENTIAL CABIN LOCATION
SEA OTTER
SEA LION
TUFTED PUFFINS
T.2S.
T.3S.
DANGER ISLAND
RECREATION & WILDLIFE
PRINCE OF WALES PASSAGE
ELRINGTON PASSAGE
Evans Island
Squirrel Ba
North Twin Ba
South Twin Ba
Lonetree Pt
Danger Island
57
56


Bay
Aluklik Bay
1000
500
1584
X993
Evans Island
1000
500
1000
500
300
200
60
Squirrel Bay
Squirrel Bay
Evans
Island
Evans
Island
500
60
60
Island
PASSAGE
300
SEGMENT EV-6S
JULY 7 1989
9:10-9:50
KAROLIEN DEBUSSCHERE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-66

LOCATION: (see enclosed map) North Squirrel Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/7/89

Recommended Cleanup Activity(ies):
Access is limited due to high energy, rocky shore. Where access is possible:

- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Flood/flush with warm water on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 2-4: heavy to light oil
Class A: resources present, recreational use

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid disturbance of offshore kelp beds.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: July 1 9

State Historic Preservation Officer *

ISCC: Sharon K Christopherson Date: 7/26/89

EXXON: _____ Date: 8907-26

FOSC: A C. Alexander, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/7/89 Time: 9:50 - 13:40 Observer: KAROLIEN VENUSSCHEK

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun (Cloud) Rain/Snow/Fog

LOCATION

LOCATION M. SQUARREC BAY SEGMENT NUMBER EV-66

LENGTH OF SHORELINE SEGMENT: 3700 m

ACCESS: Foot/Vehicle/(Boat)/Barge/Helio/(Float Plane) (MONG)

SHORELINE:

Shoreline Type (SPI) (BEA) (COV) (HLD) STRT Slope: LANG (HANG) (VER) (MANG)

Wave Exposure: (High) (Med) Low

Sediment: B 20 % / C 20 % / P 15 % / G 5 % / S 5 % / M 0 % / R 35 %

Drift Debris on Beach: (Yes)/No (Supra) (Upper) (Mid) Lower Type BLOCKS & WOOD

OIL

Degree of Oiling: (Heavy) (Moderate) (Light) No Oil (Unobserved)

Area of Beach Impact: SU / (SP) / (H) / (M) / L

Continuous: (Y)/N % of Segment 40 Width of Band: .5 - 10 m

Sporadic: (Y)/N % of Segment 60

Est. Oil Thickness where > 1cm: - cm Est. Oil Penetration: - cm

Pooled Oil: 1 % "Free" Oil: 5 % Coated: H 34 % / M 40 % / L 20 %

Fresh 40 % Mousse 0 % Tar Formation: 60 %

Drift Debris Oiled ? (Yes)/No Supra (Upper)/Mid/Lower Amount: H/(M)/(L)

Comments:

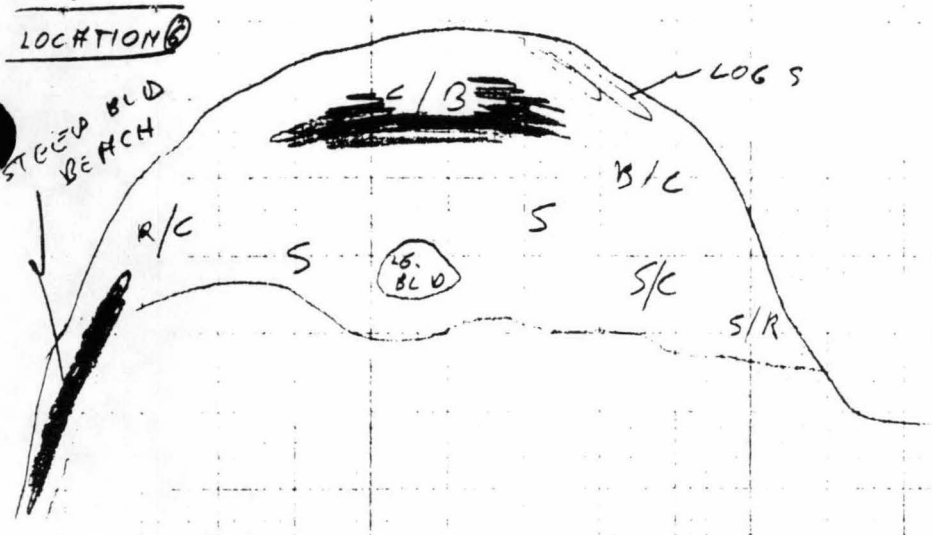
MOST OF SEGMENT WAS SURVEYED BY SKIFF USING BINO'S → MOST OF SEGMENT IS CLIFFS/OUTCROPS AND LITTLE POCKET BEACH THAT WERE INACCESSABLE. HEAVIEST OIL COVER OBSERVED WAS ON BEACHES (SEE LOCATION SKETCHES). ON STEEP BEACHES BORDERING THESE MED ANGLE BEACHES EXTENSIVE OIL COVERAGE WAS SOMETIMES PRESENT → INACCESSABLE FOR LARGE CREWS

7/7/87

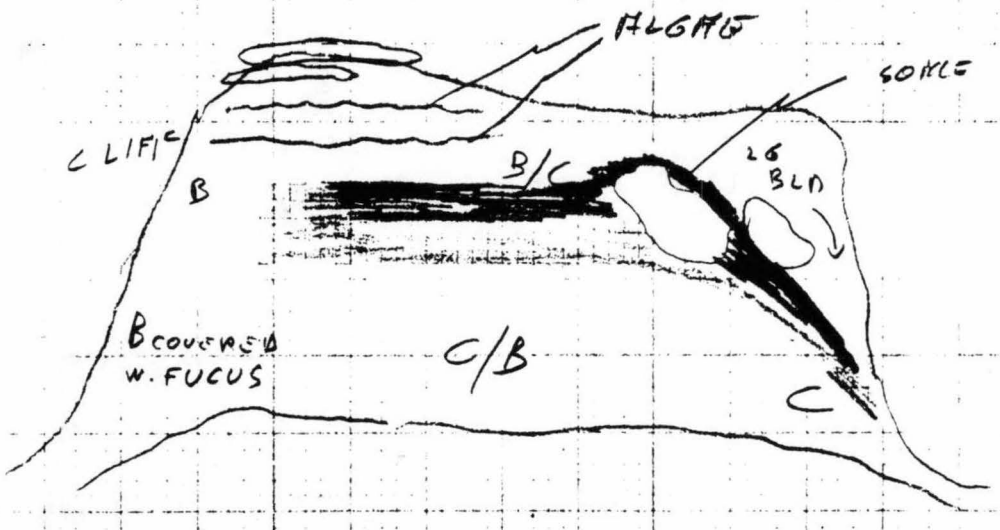
K. DEBUSSCHERE

EV-66

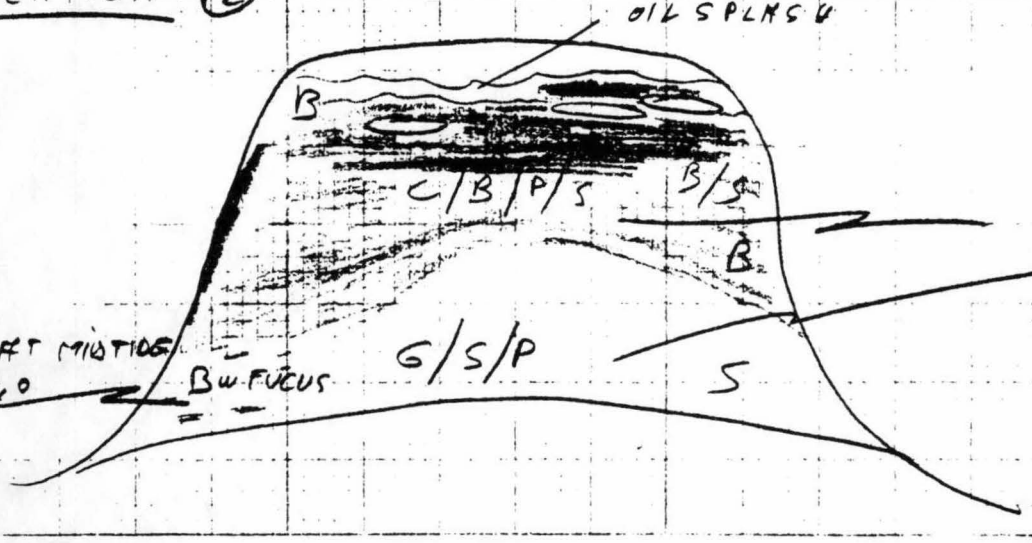
LOCATION (9)



LOCATION (10)



LOCATION (12)



EU-66 9:50

R. OUT.CROP AT END OF SHADY BEACH & LG BLD'S → SPORADIC OIL SPASHES AT H & M → TAR
ALGAE AT M & H

R LOCATION (1) → (SKIEF)
AROUND CLIFF → B/C/P BEACH & LG BLD → SOME OIL VISIBLE
DRIFT WOOD & ALGAE AT H

R LOCATION (2)
HOLD → VERY LARGE BLD - VERY STEEP BEACH
OIL AT H.TIDE I CONT RING

R LOCATION (3)
CLIFF W BLD'S AT FOOT LITTLE OIL
FURTHER N: JUST CLIFF

R LOCATION (4)
C/B BEACH - VERY STEEP - DRIFTWOOD AT H OIL?
LG BLDS AT W-SIDE

R LOCATION (5)
CLIFF - VERY SPORADIC OIL
↳ VERTICAL

R LOCATION (6) WALK
MEDIUM RANGE BEACH
R. IN BEACH AT W-END
ALGAE AT H. TIDE; WOOD AT HOLD & H
OIL SPLASH - VERY SPORADIC AT H & S.B - TAR → VERY LIGHT
HEAVY OIL IN CENTER OF BAY M & H
→ HIGH ENERGY BEACH → OIL WILL PROBABLY WASH OF NATURA
P(17) 11:09 → VIEW OF BEACH
ON STEEP BLD BEACH AT W-END → WOOD + MARK / ALGAE S.U/H
→ OILED ALGAE → ± CONT AT H.TIDE
→ HEAVILY COATED OIL IN INTERST; SOME FRESH OIL SPLASH. III
P(18) 11:24 → LOOKING N → OIL ON BLD BEACH → COMMONLY SE
OIL SPLASH
P(19) 11:26 : DETAIL OF OIL IN INTERS.
R START (SKIFFING) → CLIFF → LITTLE BEACH
R LOC. (7) : CLIFF

EV-66 CONT

RLOC (8) LITTLE COBBLE BEACH OIL?

* LOC (9) : CLIFF : CONT OIL

P (20) 11:42 → OIL ON CLIFF AT (9) (FROM SKIFF)

→ LICHEN & OIL

* AROUND HOLD → SPORADIC OIL

* LOCATION (10) WALK

MED. RANGE BEACH → OILED AT M & H IGM W/ OC-

ALGAE AT M/H & SP → OILED AT HWM

WOOD AT H

HEAVY COATED OIL IN H SOME TAR

SPORADIC OIL AT M ± CONT BUT LIGHT

MOST OIL IS ON NO FACING WALL

ACCESS IS MINIMAL

* LOCATION (11) WALK

VERY SMALL B/C BEACH → VERY SPORADIC OIL AT L/M → A FEW

SPLASHES OF FRESH OIL //

WOOD AT M/H/SP

ALGAE AT M & H

* SKIFF E → CLIFFS W SOME OIL

* LOCATION (12)

MED. ANGLE BEACH → HEAVY COATING ON C/B

FRESH OIL, MOSTLY TAR

* LOCATION (13)

VERY STEEP BLD BEACH & CLIFF

→ OIL IS HEAVILY COATED BUT SPORADIC → BLOBS OF

OIL IN B/W INTERST.

END 13:40 → TIDE TOO HIGH → COVERING OIL /// (M)

→ CHECK

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd SITE: Evans Is OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 66 LENGTH: 3700 (M)

DATE: 07/07/89 TIME (HHMM): 1000-1230 TIDE HT.: -0.35 - +0.35 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

- continuous dense algal cover on rock faces / occasional tufts on large cobbles of beaches.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y

- occurs in dense colonies in protected micro environment of cliffs - occasional occurs in beds in beach sediments when beach is protected

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y

- B. glandula is continuous & dense on rock faces / sparse on larger cobbles of beaches / B. cariosus occurs in dense colonies

Littorina

Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

continuous on stable substrates / occasional on larger cobbles on beaches

Limpets: Patchy (Y)/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

occur on stable substrates only

OTHER OBSERVATIONS: offshore kelp occurs intermittently throughout this segment. especially in sheltered coves.

CLEANUP PRECAUTIONS: minimize disturbance to offshore kelp beds / protect unoiled lower intertidal zone from contamination

MAMMALS: Otters 4 sea otters. Harbor Seals 1 - pup on shore Sea Lions ____ Whales ____

Other 1 mink

BIRDS: 2 pidgeon guillemots / Glaucous-winged gulls / 2 marbled murrelets

GENERAL OBSERVATIONS: This segment consists of bedrock cliffs with pocket beaches. The stable substrate supports a diverse & abundant epifauna w/ the mobile substrates (pocket beaches) are relatively sterile.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/6/89 Location SEWARD (A-4) QUAD N. SIDE SQUIRREL BAY Site _____

Location Prefix EV— Segment # 66 Length 3700 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ 90% (A - indicate on map)

Ground ✓ (10%) (G - indicate on map)

Known cultural resources (AHRS #) NONE 14 (M)1 MILES Data Source AHRS FILES

Oil conditions/beach visibility ZERO TO MODERATE OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 30 M m Tree fringe surveyed 20 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability:

Shore Profile ROCKY HEADLAND AND STEEP POCKET BOULDER BEACHES

Fresh Water Sources SEVERAL SMALL STREAMS

Sea Exposure OPEN TO PRINCE OF WALES AND ELRINGTON PASSAGE

Access/Safety ACCESS ALMOST IMPOSSIBLE - DANGEROUS TIDE RIPS AND CURRENTS

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # — Frames —

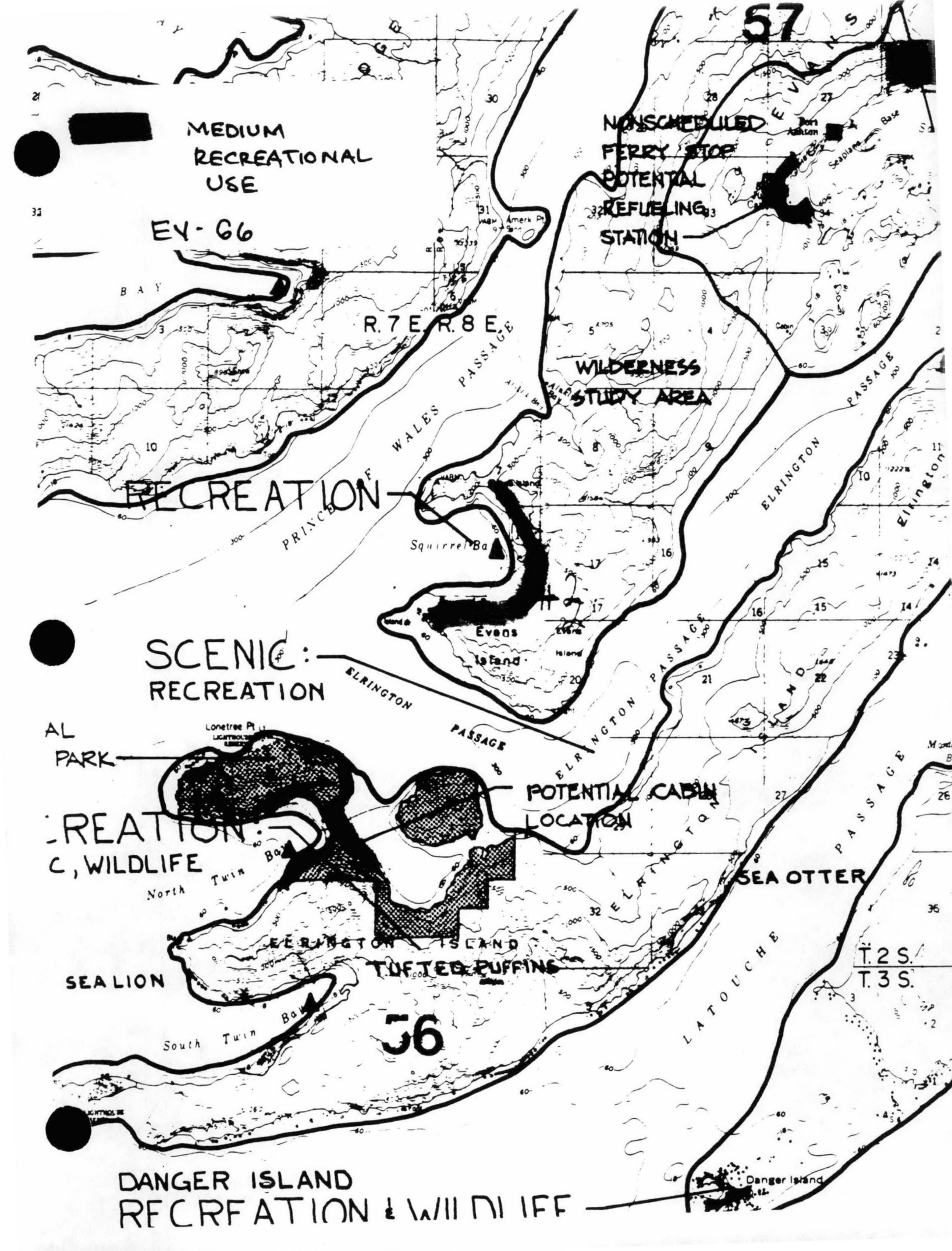
B/W Roll # PEBTMY 9 Frames 13 - 17

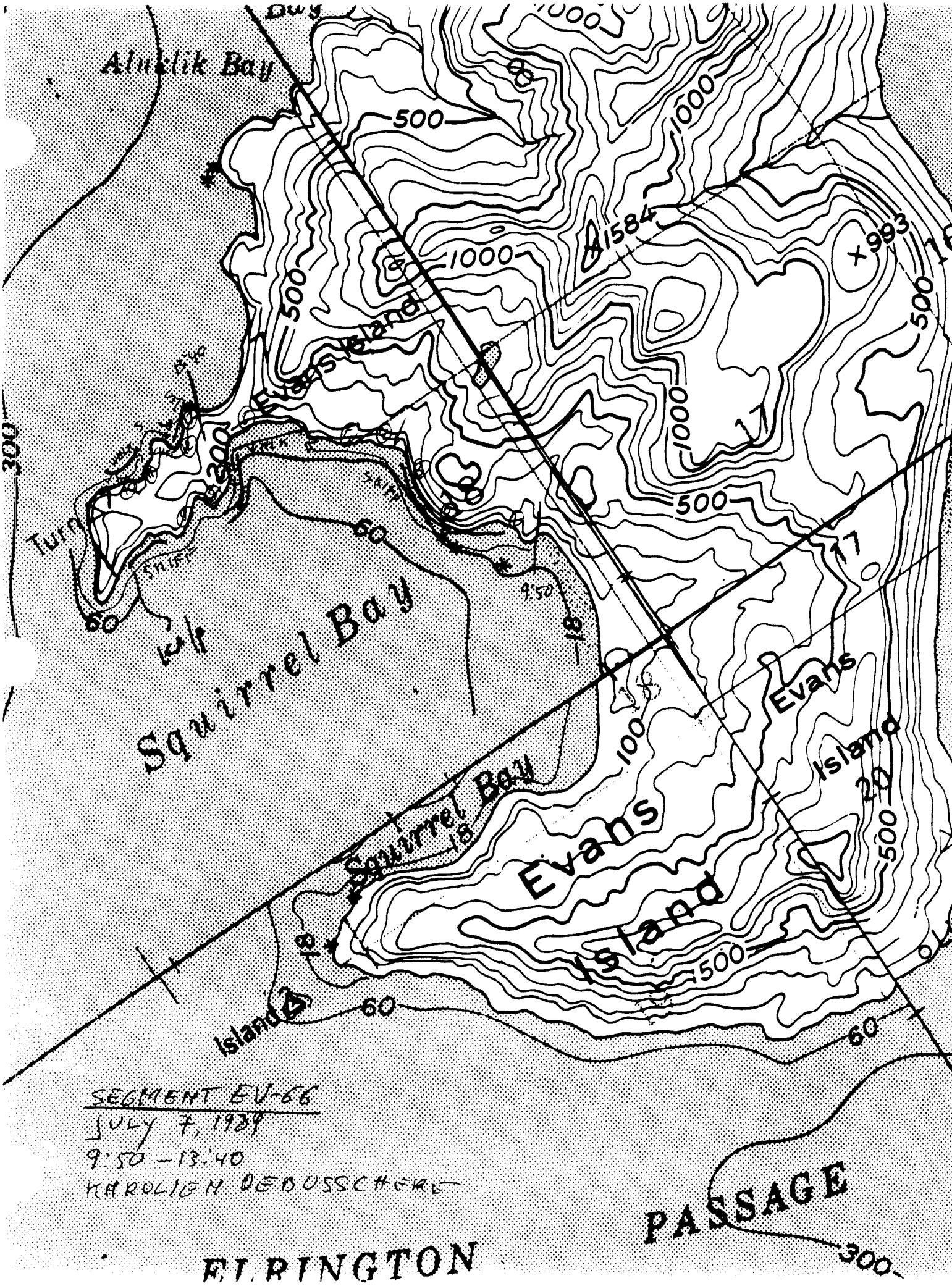
Observer(s) P. BUCK, M. MOSS

Time survey started 1000 Time survey ended 1325

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


MEDIUM RECREATIONAL USE
EV-66
NONSCHEDULED FERRY STOP
POTENTIAL REFUELING STATION
WILDERNESS STUDY AREA
R.7E. R.8E.
RECREATION
SCENIC: RECREATION
POTENTIAL CABIN LOCATION
SEA OTTER
TUFTED PUFFIN
SEA LION
T. 2 S.
T. 3 S.
57
56
PRINCE OF WALES PASSAGE
ELRINGTON PASSAGE
ELRINGTON ISLAND
LATOUCHE PASSAGE
Evans Island
Squirrel Ba
North Twin Ba
South Twin Ba
Lonetree Pt
Danger Island
DANGER ISLAND
RECREATION & WILDLIFE


Aluklik Bay
Squirrel Bay
Squirrel Bay
Evans Island
Evans Island
PASSAGE
ELRINGTON
500
1000
1584
993
60
100
17
18
20
SEGMENT EV-66
JULY 7, 1939
9:50 - 13:40
KAROLIEN DEBUSSCHERE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-67

LOCATION: (see enclosed map) Aluklik Bay area south of bay, Evans Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/8/89

Recommended Cleanup Activity(ies):
Where access is possible:

- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate

Priorities Considerations:
Class 2-3: heavy to moderate
Class A: resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. Avoid disturbing offshore kelp beds. Stream at head of Aluklik Bay has the potential to support spawning salmon. ~~check with ADF&G~~. SC 7/27 CO 8/4

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: July 17, 89

ISCC: Sharon K Christopherson Date: 7/26/89

EXXON: _____ Date: 89-07-26

FOSC: A.C. Alexander, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/8/89 / Time: 8:30 - 12:45 Observer: KAROLIEN DEBUSSCHERE

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fog)

LOCATION

LOCATION KLUKLIK BAY AREA & SOUTH OF BAY - EVANS ISL. SEGMENT NUMBER EV-67

LENGTH OF SHORELINE SEGMENT: 3420 m

ACCESS: Foot/Vehicle/(Boat)/Barge/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: (LANG)/(HANG)/(VER)

Wave Exposure: (High)/(Med)/Low

Sediment: B 25 % / C 15 % / P 10 % / G 10 % / S 10 % / M 0 % / R 30 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type FLAGS & LOGS ABSORBANT BOOM.

OIL

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / (L)

Continuous: (Y)/N % of Segment 1 Width of Band: 1 m

Sporadic: (Y)/N % of Segment 99

Est. Oil Thickness where > 1cm: - cm Est. Oil Penetration: 0 cm

Pooled Oil: 0 % "Free" Oil: 0 % Coated: H 20 % / M 30 % / L 50 %

Fresh 20 % Mousse 0 % Tar Formation: 80 %

Drift Debris Oiled ? (Yes)/No (Supra)/(Upper)/(Mid)/Lower Amount: H/M/(L)

Comments:

OIL COVER IS VERY SPORADIC AND LIGHT. SOME AREAS (SEE NOTES) HAVE RELATIVELY HEAVIER OIL COVERAGE. - POTENTIAL FOR NATURAL WASHING! MOST SECTIONS WILL ALSO BE HARD TO ACCESS

* LOCATION ①

GRAVEL BEACH - MEDIUM ANGLE

DRIFTWOOD AT M/H/SP & ALGAE AT H/L → NO OIL OILED ABSORBENT BOOM AT H

SPORADIC OIL ON PEBBLES AT H

" " " " & COBBLES AT E-END OF GRAVEL BEACH IN L/M ZONE → SHEEN CURLING OF → NATURAL WASHING

→ ALL OIL ON BEACH IS TAR

- SEVERAL PITS ALONG X-SECTION PROFILE → NO OIL OBSERVED

* LOCATION ② GRAVEL BEACH RUNS INTO STEEP LGB BEACH AGAINST CLIFF

→ SPORADIC OIL PATCHES AT M/H - ZONE → FRESH / COATING

* LOCATION ③

LESS STEEP B/P/C BEACH W OIL AT M

DRIFTWOOD & ALGAE AT H/SP ; M LOG AT M

→ VERY SPORADIC OIL PATCHES - TAR

AGAIN BEACH RUNS INTO STEEP B-BEACH AT CLIFF & THEN CLIFF

& CLIFF - NO OIL OBSERVED

* LOCATION ④

LOW ANGLE B/C BEACH - SOME S

DRIFT LOGS IN M/H/SP/SU ; ALGAE IN M/H/SP → NOT OILED

→ VERY SPORADIC OIL (FRESH) ALONG M/H BOUNDARY

TOWARDS W : CLIFF

TOWARDS E : STEEP B BEACH : OIL AT M/H : FRESH OIL IN INTERST (DEEP CAVITY)

→ RUNS INTO :

* LOCATION ⑤

STEEP B BEACH → RUNS INTO C/G/S BEACH W TAR RING - SPORADIC - LIMIT

ON LGBLD AT END

→ RUNS INTO STEEP B BEACH W SOME OIL IN INTERST. - VERY LITTLE

* LOCATION ⑥

CLIFF W VERY STEEP & SMALL LGBLD'S COVES → STIFF

* LOCATION ⑦

MED GRADIENT B-BEACH W SOME C/P

WOOD & ALGAE AT M/SP

± CONT BAND OF FRESH OIL W SOMETAR AT M/H BOUNDARY ; SPORAD. OIL IN H (SPLASH),

BAND OF OIL IS ITS M LONG → TAPERS OUT AT BOTH ENDS

↳ IN CENTRAL SECTION OF BEACH

* LOCATION (9)

P/G/S BEACH W P/C/B IN M/H TIDE

→ WOOD DRIFT + ALGAE IN M/H/SP → NO OIL

WATERFALL

NO OIL OBSERVED

→ RUNS MAIN IN INTO B BEACH AT E-END

2) IN COVES W CLIFF

UP TO THIS POINT LITTLE OIL; IF OIL VERY SPORADIC.

* STEEP CLIFF

* LOCATION (9)

MED ANGLE B BEACH W C/P/G/S; ALGAE IN M/H/SP

NO OIL OBSERVED

* STEEP CLIFF: SPORADIC OIL SPLASH AT H ("BATHTUB RING")

* LOCATION (10)

LOW ANGLE BEACH G/S/P - HIGH WAVE ACTION

ALGAE AT M/H/SP; WOOD AT M/H

CREEK COMING OUT

BEACH IS BORDERED BY CLIFF & STEEP BANKS

→ NO OIL OBSERVED

* LOCATION (11)

STEEP → CLIFF

* LOCATION (12)

LARGE LOW ANGLE S/G/P BEACH - BORDERED BY C/B BEACH -

" " STEEP B " W CLIFF

WATERFALL & LG CREEK

ALGAE IN M/H/SP/ LOGS IN H/SP

SEVERAL PITS IN SAND AREA → NO OIL OBSERVED

NO OIL ON P/G IN MAIN BEACH AREA (S/G/P BEACH) AT H TIDE

SPORADIC OIL ON C/B AT N-END OF BAY

→ MOSTLY OILED ALGAE → DRIFTED IN?

P(21) 12:03 : COBBLES WHERE OILED ALGAE IS

P(22) 12:04 " " " " " TO THE LEFT

TO THE RIGHT → WHERE TRANSITION IS FROM S/G → C

OIL COULD BE PRESENT (BURIED) ON BEACH ?!

* SKIFF : CLIFFS W. POCKET BEACHES OF LG B

→ OIL PATCHES ON CLIFFS & OFFSHORE OUTCROPS

*LOCATION (L3)

SMALL B/C BEACH W. SOME § GOING INTO ↑ REL STEEP LG B. BE

ALGAE AT H/H/L ; WOOD AT SP

± CONT BAND OF OIL OIY FACES @ LG BLD'S & IN INTERST IM H. 20

→ TAPERS OUT TOWARDS EDGES OF BEACH TOWARDS VERY STEEP B

BEACHES → VERY SPORADIC OIL SPLASHES (TAR)

→ MOST OIL IS TAR

- H - ENERGY BEACH

R SKIFF CLIFFS W OIL SPLASH

OUTCROP AT END OF BAY → OIL PATCHES

END 12:45

LOCATION: Prince William Sd. SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 67 LENGTH: 3420 (M)

DATE: 07 / 08 / 89 TIME (HHMM): 0830-1230 TIDE HT.: 1.3 - 0.0 (M)

OILED ZONE: Splash (High) (Medium) Low

SUBSTRATUM: (Rocks) (Boulder) (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N

rock substratum is 100% covered with diverse algal community / large cobbles on beach faces may support fucus.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/

- dense, scattered colonies occur in protected micro climates

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/

continuous, sometimes dense, B. glandula in mid/high intertidal / scattered & sometimes extensive dense colonies of B. cariosus in mid/low.

Littorina

Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

often occurs in high intertidal of cobble beaches; may form dense colonies also. L. lanellosa & L. cannaliculata.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse (Y)/N None Y/N

sometimes extensive but sparse on cobbles & rock; other times missing.

OTHER OBSERVATIONS: discontinuous kelp beds offshore throughout segment lower beach faces & in protected bays very productive / stream at head of ~~Aloklik~~ Aluklik Bay could be a salmon stream.

CLEANUP PRECAUTIONS: do not disturb offshore kelp beds / do not contaminate unoiled lower intertidal zone

MAMMALS: Otters 1 sea otter Harbor Seals 1 Sea Lions 3. Whales ____

Other ____

BIRDS: marbled murrelets (7) / pidgeon guillemots (4) / harlequin ducks (7) / gulls (15-30)

GENERAL OBSERVATIONS: The rock faces are generally more productive than the beaches of this segment except for protected cobble beaches (esp. @ head of Aloklik Bay) which are very productive

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SEWARD (A-3 & A-4) QUAD

Date 7/8/89 Location ALUKLIK BAY - EVANS I. Site _____

Location Prefix EV — Segment # 67 Length 3420 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (80%) (A - indicate on map)

Ground ✓ (20%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(H) 1 FILE

Oil conditions/beach visibility ZERO TO VERY LIGHT OIL, GOOD BEACH VISIBILITY

Width of beach zone surveyed 30 M m Tree fringe surveyed 0-20 M

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) CMT

General observations justifying survey method and segment's site probability:

Shore Profile ROCKY HEADLANDS / STEEP COULDER BEACHES / SAND & GRAVEL BEACH

Fresh Water Sources SMALL STREAM COMMON

Sea Exposure VARIABLE; SMALL COVES PROTECTED

Access/Safety LARGE ACCESS GENERALLY UNSAFE; SKIFF / FLOAT PLANE / HELO POSS

Probability of undiscovered sites in beach zone (circle one) 1 2 (3) 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

B/W Roll # PERTMY 9 Frames 18-25

Observer(s) R. BUCK

Time survey started 0830 Time survey ended 1245

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"



SEGMENT EV-67
JULY 8 1989
3:30 - 12:45
CARLIEM DEBOSSCHERE

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-68

LOCATION: (see enclosed map) North of Aluklik Bay, west Evans Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/8/89

Recommended Cleanup Activity(ies):
Where access is possible:
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 4-5: light to no oil
Class A: resources present

Ecological Constraints (from site survey): No ecological constraints for manual cleanup as shoreline is generally inaccessible. NORTHERN HALF OF SEGMENT IS OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO UPLANDS AT ANY TIME. sc 7/2 0894

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

[signature] Date: July 27 89
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 7/26/89

EXXON: [signature] Date: 89-07-26

FOSC: A.C. Alejandro, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/8/89 / Time: 12:45-1:30 Observer: KARLIEN DEBUSSCHERE

Surveyed From: (Foot) (Boat) /Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fog)

LOCATION

LOCATION W-EVANS IS N. OF ALLIGATOR BAY SEGMENT NUMBER EV-68

LENGTH OF SHORELINE SEGMENT: 3120 m

ACCESS: Foot/Vehicle/(Boat)/Barge/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/STRT Slope: LANG/(HANG)/(VER)

Wave Exposure: (High)/Med/Low

Sediment: B 30 % / C 15 % / P 10 % / G 5 % / S 0 % / M 0 % /R 40 %

Drift Debris on Beach: (Yes)/No Supra/(Upper)/(Mid)/Lower Type ALGAE & WOOD

OIL

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / SP /(H)/(M)/ L

Continuous: Y/(N) % of Segment — Width of Band: — m

Sporadic: (Y)/N % of Segment 100

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: 0 % "Free" Oil: 0 % Coated: H 0 % /M 5 % /L 95 %

Fresh 0 % Mousse 0 % Tar Formation: 100 %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

OIL IS VERY SPORADIC; MOST OF THE SEGMENT, NO OIL WAS OBSERVED. MOST OF SEGMENT IS INACCESSABLE → WAVE ACTION IS TOO HIGH

EV-68 -12:45 7/8/89

* CLIFFS: OIL RING - TAR ± 10 CM

* LOCATION ①

BEACH B/W MAINLAND & ISLAND → WATERFALL AT N-END

→ ROUNDED C/P/D BEACH - NO SAND

ALGAE AT M/H/SP

DRIFTWOOD AT M & SP

→ VERY HIGH WAVE ACTION

FEW PEBBLES WASHED AT H & SPORADIC AT M → NATURAL WASHING ??

* SHELF: VERTICAL CLIFFS ALTERNATING W POCKET BEACHES WB - VERY STEEP

→ 2 LITTLE BEACHES W COBBLES

→ HIGH WAVE ACTION → NO ACCESS

→ VERY SPORADIC OIL ON CLIFFS

END 1:30

LOCATION: Prince William Sd SITE: Evans Is OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 68 LENGTH: 3120 (M)

DATE: 07 / 08 / 81 TIME (HHMM): 1230-1330 TIDE HT.: 07 -1.3 (M)

OILED ZONE: Splash (High) Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

- continuous / diverse algal cover through intertidal; especially productive lower intertidal

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y

- dense colonies occur in protected micro environments

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y

- continuous dense B glandula @ high/mid intertidal / dense colonies of B. cariosus in lower intertidal

Littorina
Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

limited to protected high intertidal / may occur on cobbles

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

limited to mid / low intertidal

OTHER OBSERVATIONS: intermittent offshore kelp beds throughout this segment

CLEANUP PRECAUTIONS: none - shore zone is inaccessible

MAMMALS: Otters 25-30 sea otters Harbor Seals ___ Sea Lions ___ Whales ___
Other ___

BIRDS: pidgeon guillemots (3)

GENERAL OBSERVATIONS: kelp beds are forage habitat for sea otters / lower intertidal zone is very productive

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/8/89 Location SEWARD (A-3 QUAD) EVANS I. NORTH OF ALUKLIK BAY Site _____

Location Prefix EV- Segment # 68 Length 3120 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (99%) (A - indicate on map)

Ground ✓ (1%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(MI) RADIUS

Oil conditions/beach visibility ZERO TO V. LIGHT OILING, GOOD BEACH VISIBILITY

Width of beach zone surveyed 0-20 m m Tree fringe surveyed 10 m

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability:

Shore Profile ROCKY HEADLANDS / SHEER ROCK CLIFFS / RARE POCKET BOULDER BEACH

Fresh Water Sources SMALL STREAMS

Sea Exposure OPEN TO PRINCE OF WALES PASSAGE

Access/Safety BARGE ACCESS EXTREMELY DIFFICULT

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames _____

B/W Roll # — Frames —

Observer(s) P BUCK

Time survey started 1245 Time survey ended 1515

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

JULY 8, 1984
12:45 - 1:30
HAROLIEM DEBUSSCHAERE



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/16/89 SHORELINE SEGMENT EV-100

LOCATION: (see enclosed map) Southeast Evans Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/5/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus), pooled oil and patches of mousse.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:
Class 3-4: moderate oil
Class A: resources present

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

_____ Date: _____
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 7/26/89

EXXON: _____ Date: 5707-2

FOSC: R. C. Alejandro, by dir. Date: 7/27/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 7/5/89 Time: 10:45 - 12:00 Observer: M. DEBUSSCHERE

Surveyed From: (Foot)/(Boat)/Helio/Plane Weather: Sun/(Cloud)/Rain/Snow/(Fo

LOCATION

LOCATION SOUTH-EAST EVANS ISLAND SEGMENT NUMBER EV-60 100

LENGTH OF SHORELINE SEGMENT: 1050 m

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane) (NONE)

SHORELINE:

Shoreline Type: SPI/(BEA)/(COV)/(HLD)/(STRT) Slope: LANG/(HANG)/(VER)

Wave Exposure: High/(Med)/Low

Sediment: B 30 % / C 30 % / P 20 % / G 10 % / S — % / M — % /R 10 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/(Mid)/Lower Type LOGS & ALGAE

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/No Oil/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / L

Continuous: (Y)/N % of Segment 80 Width of Band: 1-2 m

Sporadic: (Y)/N % of Segment 20

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: — cm

Pooled Oil: 0 % "Free" Oil: 30 % Coated: H 60 % /M 5 % /L 5 %

Fresh 40 % Mousse 0 % Tar Formation: 60 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/(Mid)/Lower Amount: H/(M)/L/

Comments:

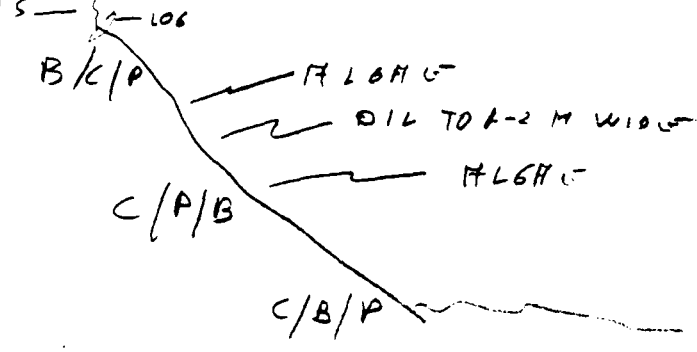
HEAVIEST OIL COVER IS TOWARD N-END OF SEGMENT - CONT. BAND UP TO 2 M WIDE. MOST OF THE SEGMENT IS HARD TO ACCESS WITH HEAVY/LARGE EQUIPMENT. DISTANCE FROM OIL IMPACT TO CLIFF (LAND INWARD) IS 2 TO 6 M! MOST OF THE BEACHFACE IS STEEP.

100

EV ~~50~~ 10:45

* LOCATION (1)

HIGH GRADIENT BEACH LARGE MAT → SEE X-SECTION



DRIFT IN U/H/M (ALGAE WOOD)

OIL COATING MID TO HIGH TIDE; OIL SPLASH IN SP

SOME FREE OIL → IF HEATED OOZES OIL SPLASH IN MID & FM

OIL COATING IS CONT ALONG BEACH FACE

ACCESS: STEEP CLIF 1-2 M LANDWARD FROM OIL

P (5) 11:01 DETAIL OF OIL SHOWING LOCAL EXTENT OF [illegible]

P (6) 11:05 LOOKING N → OIL DISTR. ON BEACH FACE

* WALKING S

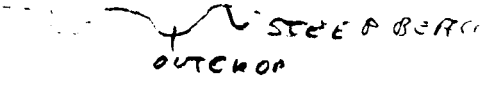
OILED DRIFT IN H & U (WOOD)

" " " " " M (ALGAE

* LOCATION (2)

VERY STEEP SLOPE → LG BLD'S

WOOD IN SUPRA; ALGAE IN IT



* LESS FRESH OIL GOING S → MORE TAR

SOME ON CLIFF BEDROCK (2 ≠ LAYERS I 30 CM APART)

LITTLE CAVES W LESS OIL

OIL TAPERS OUT TO S

END 12:00

ECOLOGICAL EVALUATION

LOCATION: Prince William Sd. SITE: Evans Is. OBSERVER: E.R. White

LOCATION PREFIX: EV SEG. NO.: 600/100 LENGTH: 1050 (M)

DATE: 07/05/89 TIME (HHMM): 1045-1145 TIDE HT.: 0.7 (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Scattered clumps @ mid/high intertidal / 100% algal cover @ low intertidal
low intertidal community diverse Entermorpha/Halosaccion/Alaria/Gigartina

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y

continuous sparse occurance on large boulders / some dense colonies in beach Pacc

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y

generally continuous & sparse with occasional dense colonies of B. cariosus on large boulders.

Littorina
Patchy Y/N Contin. (Y)/N Dense Y/N Sparse (Y)/N None Y/N

also N. lamellosa

Limpets: Patchy Y/N Contin. (Y)/N Dense Y/N Sparse Y/N None Y/N

continuous throughout also N. lamellosa & N. canaliculata

OTHER OBSERVATIONS: lower beach very productive infauna include nemertean worms / hermit crabs / starfish (3 sp) / gunnels / shore crabs & chiton

CLEANUP PRECAUTIONS: protect unoiled lower intertidal areas

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions ____ Whales ____
Other ____

BIRDS: 2 mergansers / glaucous-winged gulls / crows.

GENERAL OBSERVATIONS: ____

(version of 4/29/89)

SEWARD - A-3

CULTURAL RESOURCE EVALUATION

Blying Sound D-3

Date 7/5/89 Location Southeast Evans Island Site _____

Location Prefix EV Segment # 100 Length 1050 m

Survey Method:

Air ——— (A - indicate on map) Boat 60% (A - indicate on map

Ground 40% (G - indicate on map)

Known cultural resources (AHRS #) None Data Source _____

Oil conditions/beach visibility moderate - visibility still good

Width of beach zone surveyed 15 m m Tree fringe surveyed up to 20 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) CMT

General observations justifying survey method and segment's site probability

Shore Profile Steep gradient, boulders - cobbles - gravel

Fresh Water Sources lots of water dripping off face of rock cliff

Sea Exposure open to Elrington Passage, but protected from Gulf

Access/Safety steep shoreline - good access to barge

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # ——— Frames ———

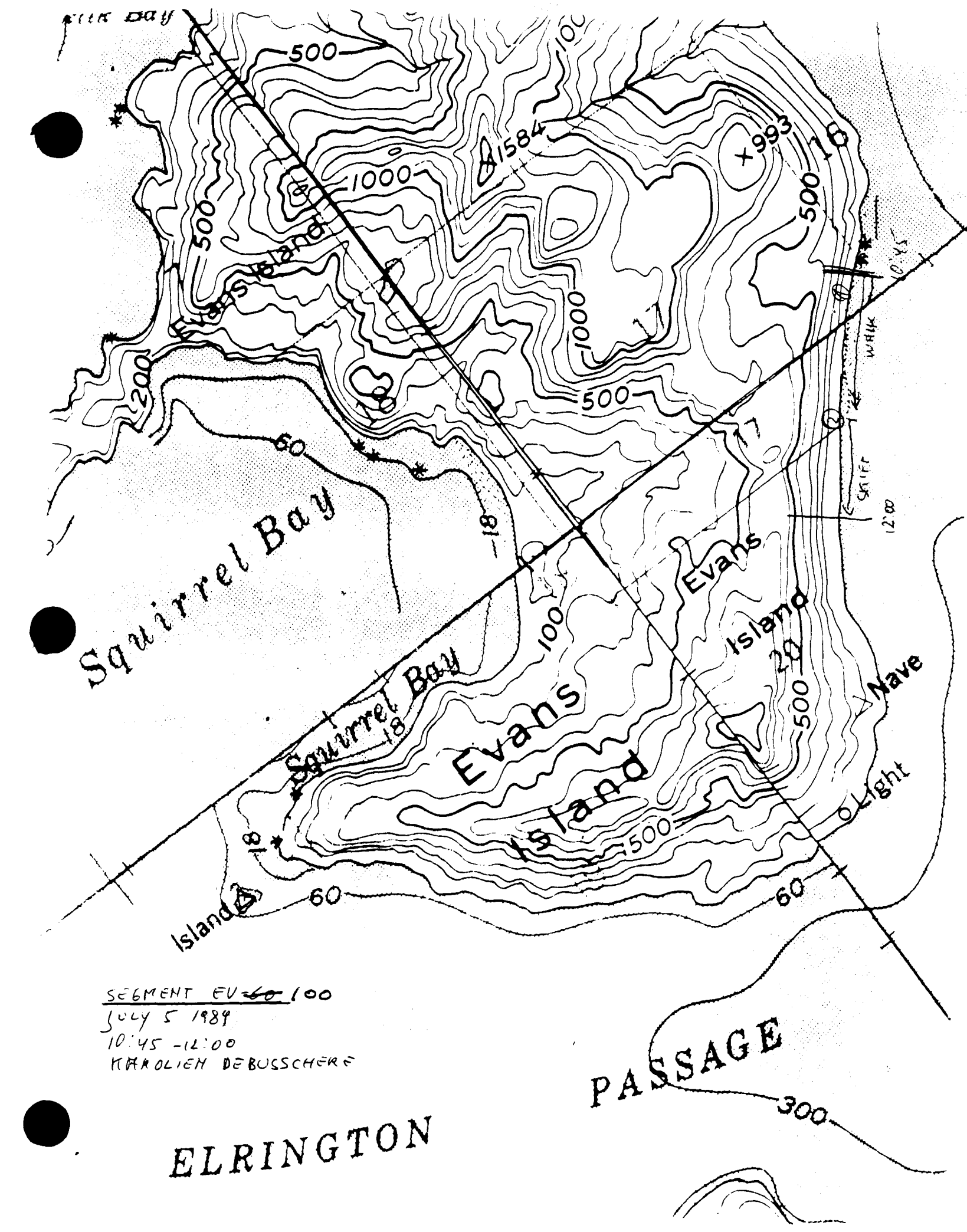
B/W Roll # PEB TMY 8 Frames 16-18

Observer(s) Moss, Buck

Time survey started 10:45 Time survey ended 12:00

Cultural resource considerations/restraints:

Standard Constraints.



SEGMENT EV ~~60~~ 100
July 5 1989
10:45 - 12:00
KAROLIEN DEBUSSCHERE

TREATMENT MANUAL. 6/15/89

SEG EV-59 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical _____
- ☐ Non-mechanical _____
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-59 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time: 16:28

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
0	Light
5%	Very Light
0	None
100 %	

Subsurface Oil

☒ Yes ☐ No

Comments _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments- Concur w/ % and demob approval. No gross contamination found. Recommend deploying to segments heavily impacted w/ oil.

Signature [signature] Date: 8/5/89 Time: 1641

Printed Name Denny R Timmons Envr Engr, ADEC

FOSC rep Demobilization ~~approved~~/disapproved

Comments No Gross Contamination

Signature [signature] Date: 8/6/89 Time: 1636

Printed Name [illegible]

8/6/89

TREATMENT MANUAL, 6/15/89

SEG EV-61 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-61 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time: 16:30

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
2	Light
1	Very Light
97	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Concur w/ TO and demob. No gross contamination found. Recommend deploying to segment w/ heavier oil impact on shoreline.

Signature [signature] Date: 8/5/89 Time: 1644

Printed Name Denny R Timmons, Env Engr, ADEC

FOSC rep **Demobilization ~~approved~~/disapproved**

Comments NO GROSS CONTAMINATION

Signature [signature] Date: 8/14/89 Time: 1640

Printed Name Arthur J Smith, LTJG

8/6/89 GCD

TREATMENT MANUAL, 6/15/89

SEG EV-62 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-62 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time: 1830

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
2	Light
2	Very Light
96	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments- Concur w/ TO and demob approval. No gross contamination found. Recommend deploying to heavier impacted segment at this time.

Signature [signature] Date: 8/15/89 Time: 1645

Printed Name Denny R Timmons, Envr Engr, ADEC

FOSC rep Demobilization ~~approved~~/disapproved

Comments NO GROSS CONTAMINATION

Signature [signature] Date: 8/14/89 Time: 1641

Printed Name [illegible]

8/6/89 dcf

TREATMENT MANUAL, 6/15/89

SEG EV-63 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-__ IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature _____ Date: 8/5/89 Time: 16:31

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
12	Light
21	Very Light
67	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments- Concur w/ % and demob approval. Light to V.L. oil but no gross contamination found. Recommend deploying to a heavily impacted shoreline at this time.

Signature Dennis R Timmons Date: 8/5/89 Time: 1647

FOSC rep Demobilization approved/disapproved

Comments NO GROSS CONTAMINATION

Signature Arthur J Smith Date: 8/5/89 Time 1643

Printed Name Arthur J Smith

8/6/89 ARB

TREATMENT MANUAL. 6/15/89

SEG EV-64 INSPECTION # 1 SEGMENT
DATE 8/5/89 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removed

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-64 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time: 1635

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
2	Light
3	Very Light
95	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Concur w/ To 2nd demob approval. No gross contamination found. Recommend deploying to 2 heavily impacted shoreline at this time.

Signature Denny R Tamman Date: 8 15 89 Time: 1648

Printed Name Denny R. TAMMONS Env Engr, ADEC

FOSC rep Demobilization approved/disapproved

Comments No Gross Contamination

Signature [signature] Date: 8 14 89 Time 1646

TREATMENT MANUAL. 6/15/89

SEG EV-65 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-65 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature [signature] Date: 8/5/89 Time: 18:24

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
3	Light
15	Very Light
82	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Concur w/ To 2nd demob approval. No gross contamination found. Recommend deploying to a heavily impacted segment at this time.

Signature [signature] Date: 8/5/89 Time: 1650

Printed Name Denny R Timmons Envr Engr, ADEC

FOSC rep Demobilization approved/disapproved

Comments NO Gross Contamination

Signature [signature] Date: 8/14/89 Time: 1647

Printed Name Arthur J Smith CTJG

8/6/89 wkb

TREATMENT MANUAL, 6/15/89

SEG EV-66 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other: Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments: TREATMENT OF SEGMENT EV-66 IS COMPLETE. READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT.

Signature: [signature] Date: 8/5/89 Time: 16:37

Printed Name: RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil: Percent	Degree of Oiling
0	Heavy
0	Medium
2	Light
9	Very Light
89	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments: _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Concur w/ 7a and demob approval. Recommend deployment to heavily impacted segment at this time. No gross contamination found.

Signature: Denny R Timmons Date: 8/5/89 Time: 1651

Printed Name: Denny R. Timmons, Env Engr, ADEC

FOSC rep Demobilization ~~approved~~/disapproved

Comments: NO GROSS CONTAMINATION

Signature: [signature] Date: 8/5/89 Time: 1649

TREATMENT MONITORING

SEG EV-67 INSPECTION # 1

DATE 8-10-89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Removed oiled Debris

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments

Signature C. F. Duggins Date: 8/10/89 Time:

Printed Name C. F. Duggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil		Subsurface Oil
Percent	Degree of Oiling	☐ Yes ☒ No
_____	Heavy	Comments
_____	Medium	
_____	Light	
_____	Very Light	
100%	None	
100 %		

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments REQUESTED BUT UNAVAILABLE FOR INSPECTION AMP

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments OBSERVED NO OIL WITHIN THIS SEGMENT

Printed Name [illegible] USCG

TREATMENT MANAGEMENT

SEG EV-6B INSPECTION # 1 SEGMENT

DATE 8-10-89 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☒ Other Burned oiled Debris

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments

Signature C E Diggins Date: 8/10/89 Time:

Printed Name C. E. Diggins

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
	Heavy
	Medium
	Light
	Very Light
100%	None
100 %	

Subsurface Oil: ☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments REQUESTED FOR BUT UNAVAILABLE FOR INSPECTION T&R

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments OBSERVED NO OILING IN THIS SEGMENT.

Signature Thomas D. Jarman Date: 8/10/ Time: 1754

Printed Name Thomas D. Jarman LT USCG

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Northwest Spruce Block

Includes Shoreline Segments: EV-60

Submitted: Collis Boston Jr. (for Exxon) Date: 6/23/89

ISCC Reccomendation: Sharon K. Christopherson Date: 6/23/89

FOSC Approval: J. W. Kime Date: 6/25/89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

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********** SCOT NOTE **********

gpm 6/25

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

gpm 6/25

SHORELINE SEGMENTS WITHIN NORTHWEST SPRUCE BLOCK ARE ON PRIVATELY OWNED LAND. NO ACCESS TO UPLAND AREAS.

Ikpa Rocks
Iktua
18
60
EV-60
NO KNOWN
ACTIVE BALD
EAGLE
NESTS
IN
THIS
BLOCK
Tugugak
Cape Cedar
Bay
Tuktu
Teela
60
12
100
500
300
800
14
Grayrock
60
10
Bay
XBM
(Tidal)
Rain
200
100
1000
500
1025
60
18

(Version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 6-18-89 SHORELINE SEGMENT EV-60

LOCATION: (see enclosed map) Evans ISland - West of Iktua Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 6-16-89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
- Use moderate to high pressure washing on rock.
- Use other approved methods as appropriate.

Priorities Considerations:
Class: 4 light oil
Class: A Subsistence resources present.

Ecological Constraints (from site survey):
A suspected anadromous stream exists in this segment. Notify AD&G and RAT 48 hours prior to beginning cleanup activities in this segment. Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: June 18, 1989

ISCC: Sharon K. Christopherson Date: 6-23-89

EXXON: _____ Date: 89-06-23

FOSC: _____ Date: 6/25/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands .

Date: 6/16/89 Time: 08.00 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: Sun/(Cloud) (Rain)/Snow/F

LOCATION

LOCATION NW. EVANS ISL. SEGMENT NUMBER EV-60

LENGTH OF SHORELINE SEGMENT: 3,400 m (MEASURED FROM USGS TOPO ENLARGEMENT).

ACCESS: Foot/Vehicle/(Boat)/(Barge)/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA)/COV/HLD/(STRT) Slope: LANG/(HANG)/(VER)

Wave Exposure: High/(Med)/(Low) NW WINDS ONLY

Sediment: B TRACE % / C 5 % / P ___ % / G ___ % / S ___ % / M TRACE % / R 85 %

Drift Debris on Beach: (Yes)/No 10% Supra/(Upper)/Mid/Lower Type LEAVES, SEAWEED

OIL

Degree of Oiling: Heavy/Moderate/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / (SP) / (H) / M / L

Continuous: Y/(N) % of Segment ≥ 60 Width of Band: ANG. ≤ 1 m

Sporadic: (Y)/N % of Segment 20

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 0-30 cm

Pooled Oil: ____ % "Free" Oil: ____ % (Coated): H ___ % / M ___ % / L 100 %

Fresh ____ % Mousse 60 % Tar Formation: 40 %

Drift Debris Oiled ? (Yes)/No Supra/(Upper)/Mid/Lower Amount: H/M/(L)

Comments:

LIGHT DISCONTINUOUS MOUSSE & TAR COAT OILING @ HWL. ONLY BEACHES 1 & 2 HAVE OIL COVERAGE LARGE ENOUGH TO REQUIRE CLEANUP — SMALL CREW ONLY; FETCH IS SUFFICIENT TO GENERATE WAVE ENERGY TO CLEAN BEACHES & ROCK WALLS; ONLY BEACH 1 SHOWED SIGNIFICANT OIL PENETRATION; OILY DEBRIS @ STRAND LINE COULD BE EASILY REMOVED MANUALLY.

6/16 EV-60 08:00

steep mod. sheltered rocky shore w/ glacial polishing.

Oil as light band ≤ 2m wide; mousse + trace tar; < 0.5mm coat;

beach 1 - mod, oiled dun coloured mousse w/ some tar, penetration > 20cm, strand line rootlets, grass & seaweed drift oiled; gvl - bldr beach, mod angle; > 30m wide; coating

lee rock walls & windward pocket beaches.

faint - lt coat on grvl cobs; trace of tar development; no penetration - narrow fetch angle, looks like natural wave cleaning here

beach 2 mod - heavy band of mousse on gvl - bldr beach, well flooded & self cleaning, faint coat of dun coloured mousse M-Hvy, penetration ~ 10cm. tar present - v thin coat

flowing tide & pocket covers could be edities which act as natural oil/debris traps.

conspicuous sheen on water here - probably oil liberated off shore by tide.

stranded oiled small diameter boom @ end of segment -

10:00 End of SEGMENT.

version: 4/24/89

ECOLOGICAL EVALUATION

LOCATION: Evans Island SITE: Spruce Pt. OBSERVER: SM Bam

LOCATION PREFIX: EV SEG. NO.: 60 LENGTH: 3400 (M)

DATE: 6/16/89 TIME (HHMM): 0800 TIDE HT.: +1 (M)

OILED ZONE: Splash (High Medium) Low

SUBSTRATUM: (Rocks Boulder Cobble Gravel Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Continuous on rockwalls - oiled in patches. Clumps of Fucus on boulder beaches - oiled in high ITZ. Very sparse on gravel beaches.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense in more protected areas of Rock wall. Not oiled. Patches in gravel beaches - also. MOST NOT gaping. Heavy predation by Nucella on mollusc eggs

Balanus (Barnacles): Patchy Y/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N

Dense spat in coves - Not oiled. Adults on rockwalls & boulders COATED in oil zone. Heavy predation by Nucella even in oiled zones.

Littorina

Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Dense in Fucus zone on cobble - boulders. Mostly unoiled

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Somewhat dense in cobble/boulders. Lower ITZ. Oiled

OTHER OBSERVATIONS: Pisaster and Solaster sparsely. Also Cucumaria, Katharina, Anthopleura, [illegible] and Strongylocentrotus at base of cliffs.

CLEANUP PRECAUTIONS: Avoid streams or banks of streams. One possible anadromous stream. Also protect healthy lower ITZ.

MAMMALS: Otters 2 Harbor Seals ___ Sea Lions ___ Whales X

Other ___

BIRDS: Eagles crows glaucous gulls

GENERAL OBSERVATIONS: [illegible] about 75% rock face with two fairly large coves, and many small coves. Overall oiling is light.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date June 16, 1989 Location Evans Island Site Spruce Pt. S.

Location Prefix EV Segment # 60 60 Length 3,400 m

Survey Method:

Air _____ (A - indicate on map) Boat X (70%) (A - indicate on map)

Ground X (30%) (G - indicate on map)

Known cultural resources (AHRS #) none Data Source N/A

Oil conditions/beach visibility light to moderate; good visibility

Width of beach zone surveyed 5-20 m Tree fringe surveyed 5-10 m

Cultural resources observed in beach zone (AHRS code) none

Cultural resources observed in tree fringe (AHRS code) none

General observations justifying survey method and segment's site probability:

Shore Profile steep rocky shore, vertical bedrock & several beaches

Fresh Water Sources several small streams

Sea Exposure semi-protected

Access/Safety good to fair depending on sea conditions

Probability of undiscovered sites in beach zone (circle one) (1) 2 3 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # none Frames N/A

B/W Roll # JCH-1 Frames 21-23

Observer(s) Peter Pfeifer / Jim Haggarty

Time survey started 0800 Time survey ended 1030

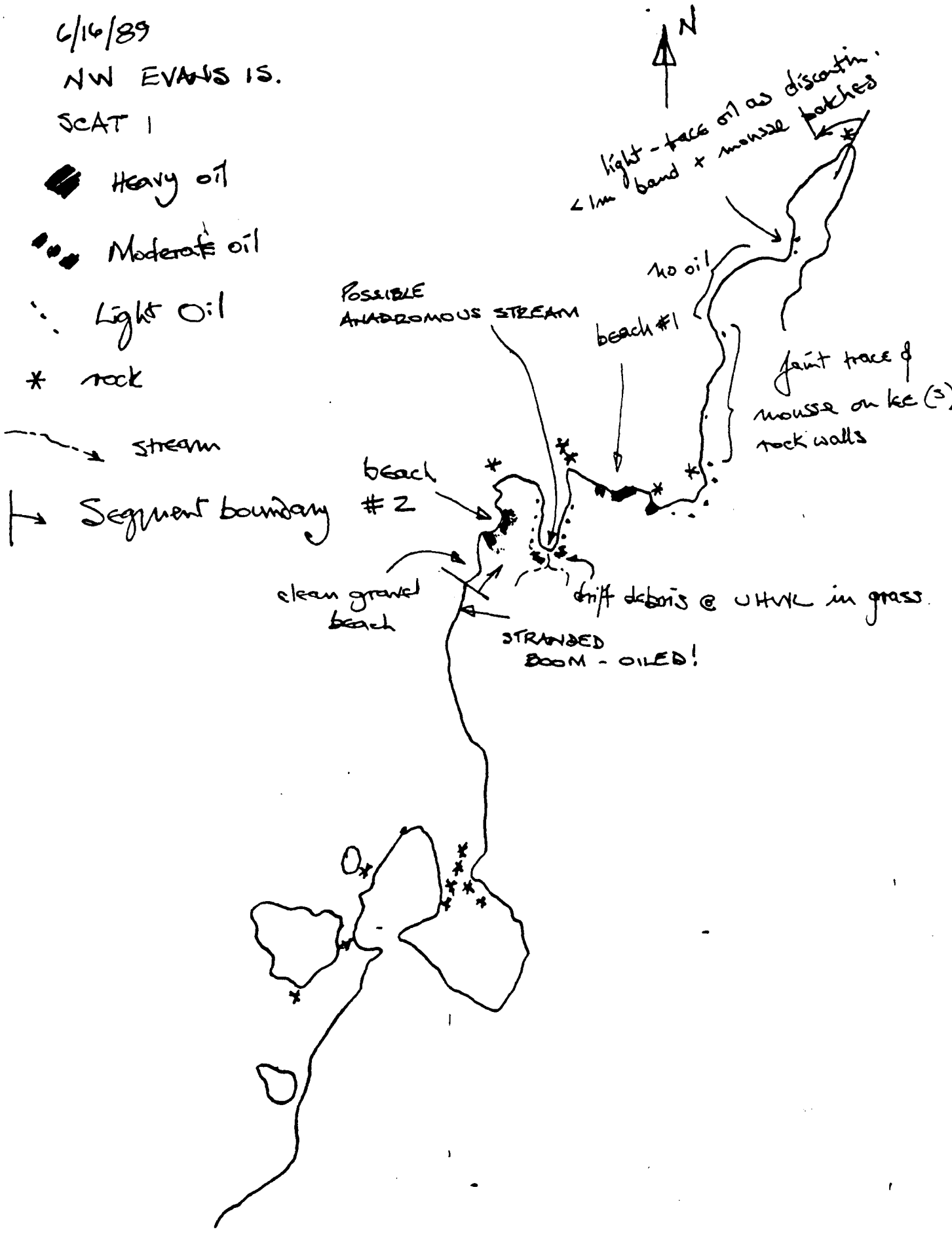
Cultural resource considerations/restraints:

Standard constraints

6/16/89

NW EVANS IS.

SCAT 1



TREATMENT MANUAL, 6/15/89

SEG EV-60 INSPECTION # 1

DATE 7/28/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☒ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical
- ☐ Non-mechanical
- ☐ Other

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments Treatment of Segment EV-60 is complete. Ready for demob and deployment to new segments.

Signature Richard C Harrelson Date: 7/28/89 Time: 1715

Printed Name Richard C Harrelson

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
0	Heavy
3	Medium
15	Light
5	Very Light
77	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments No Inspector provided

Signature Date: / / Time:

Printed Name

FOSC rep Comments Demobilization approved/disapproved. No Gross Contamination

Signature Arthur J Smith Date: 7/28/89 Time: 1827

Printed Name Arthur J Smith LTJG

(version 5/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): GUGUAK BAY SOUTH BLOCK

Includes Shoreline Segments: EV-70, EV-71

Submitted : W R Workhamp (for Exxon) Date: 8-1-89

ISCC ~~Approval~~ Recommended: Sharon K. Christopherson Date: 8-4-89

FOSC Approval: C S Robin Date: 8-5-89

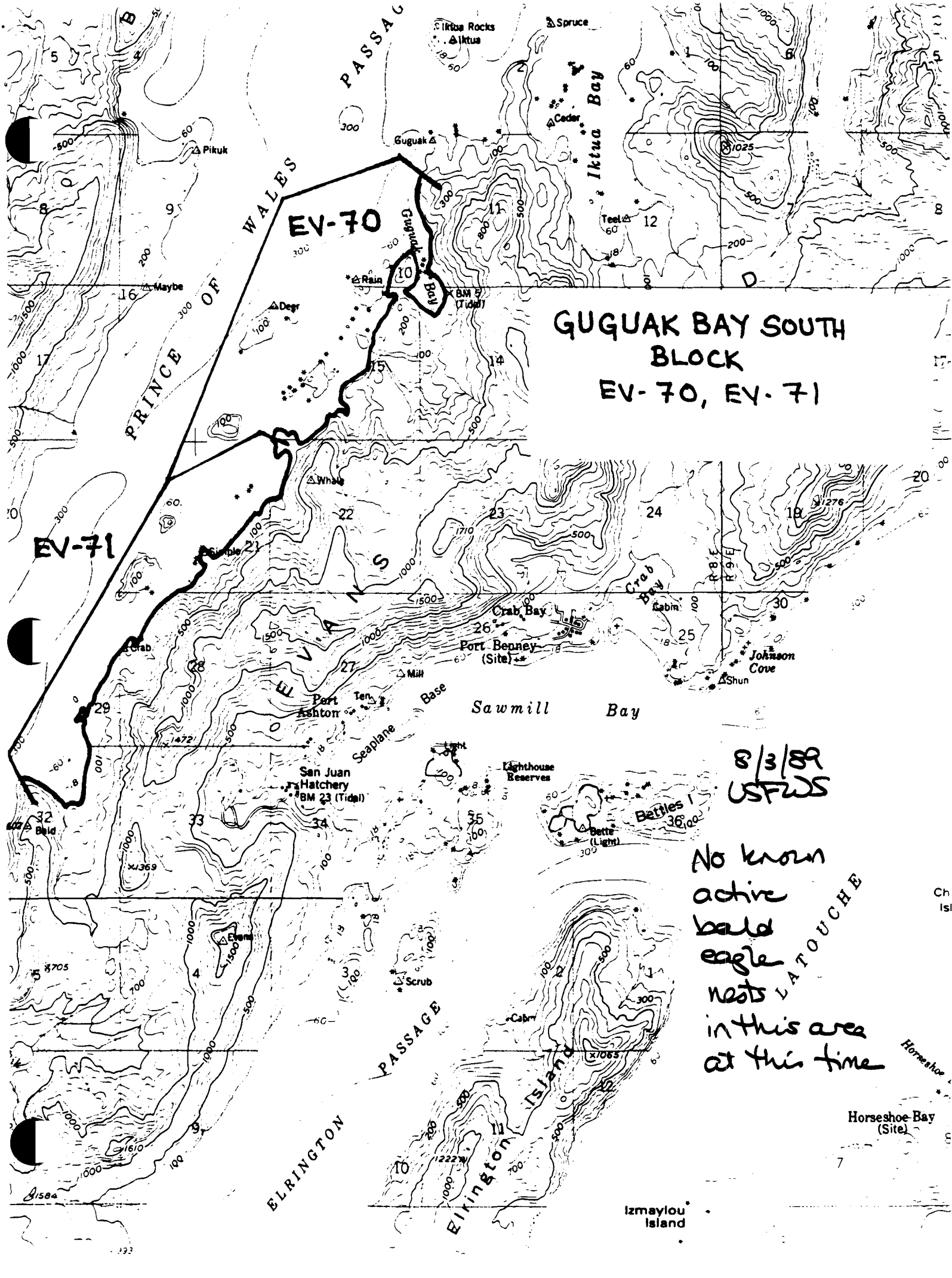
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

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CAC
PWSCA
USFS

ACA 5/5


EV-70
EV-71
GUGUAK BAY SOUTH
BLOCK
EV-70, EV-71
8/3/89
USFWS
No known
active
bald
eagle
nests
in this area
at this time
PRINCE OF WALES
PASSAGE
Iktua Bay
Guguak Bay
Crab Bay
Port Ashton
Port Bennett
(Site)
Sawmill Bay
Seaplane Base
San Juan
Hatchery
BM 23 (Tidal)
Lighthouse
Reserves
Bettles
Bette
(Light)
ELRINGTON PASSAGE
LATOUCHE
Elrington Island
Horseshoe Bay
(Site)
Izmaylou
Island
Iktua Rocks
Iktua
Spruce
Cedar
Guguak
Pikuk
Maybe
Degr
Rain
BM 5
(Tidal)
Teel
Whale
Simple
Crab
Cabin
Mill
Ten
Light
Bald
Evans
Scrub
Cabin
Johnson
Cove
Shun

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

SHORELINE SEGMENTS WITHIN GUGUAK BAY SOUTH BLOCK ARE ON LANDS SELECTED FOR CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO UPLAND AREAS AT ANY TIME.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/24/89 SHORELINE SEGMENT EV-70

LOCATION: (see enclosed map) Evans Island - West side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/18 & 19/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus and driftwood) and patches of mousse.
- Harvest oiled fucus.
- Flood/flush with warm to hot water (up to 140 F) on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 2-4: Heavy to light oil
Class A: Subsistence resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

Archeological Constraints (from site survey):

sc 8/4/89
0898804

No access ~~to cleanup crew~~ above the storm tide mark. If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Robert Bissell Date: 7-31-89
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 8-4-89

EXXON: _____ Date: August 4, 1989

FOSC: _____ Date: _____

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

18th: 0928-1149, 1916-2105 hr
19th 0715-1202, 1900-2117 hr

Date: 18 July / 19 July Time: A Observer: Mann

Surveyed From: (Foot/Boat)/Helio/Plane Weather: (Sun/Cloud)/Rain/Snow/Fog

LOCATION

LOCATION northwest shoreline of Evans Island, SEGMENT NUMBER EV-70

LENGTH OF SHORELINE SEGMENT: 12 K m (7.5 miles)

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA/COV/HLD)/STRT Slope: (LANG/HANG/VER)

Wave Exposure: High/(Med/Low)

Sediment: B 50 % / C 10 % / P 10 % / G <1 % / S 0 % / M 0 % /R 30 %

Drift Debris on Beach: (Yes)/No (Supra/Upper/Mid)/Lower Type wood, sea weed

OIL

Degree of Oiling: (Heavy/Moderate/Light/No Oil)/Unobserved

Area of Beach Impact: SU / (SP / H / M) / L

Continuous: (Y)/N % of Segment 40 Width of Band: 0.25 - 10 m

Sporadic: (Y)/N % of Segment 60

Est. Oil Thickness where > 1cm: 4 cm Est. Oil Penetration: to 30 cm

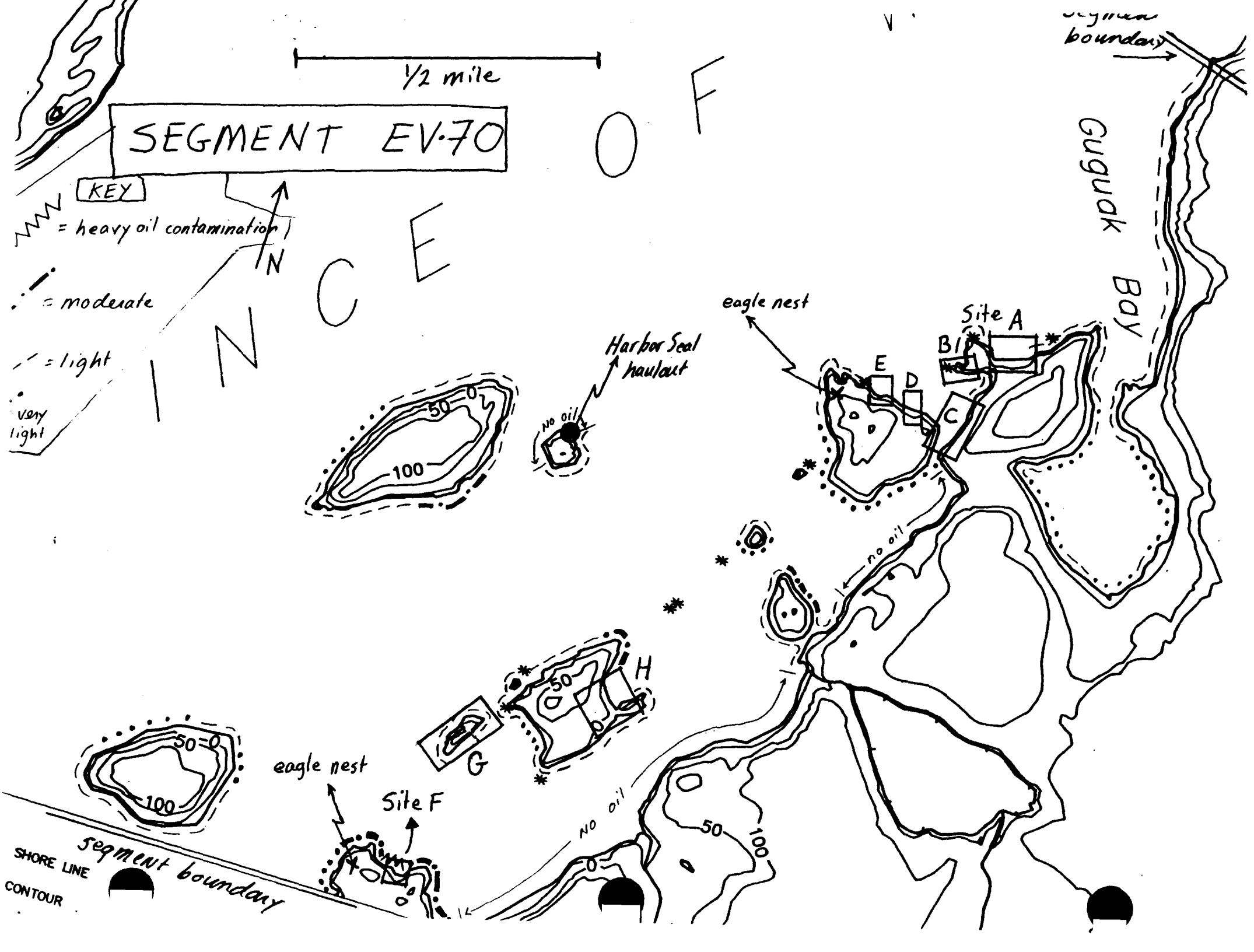
Pooled Oil: <1 % "Free" Oil: <1 % Coated: H 10 % /M 60 % /L 30 %

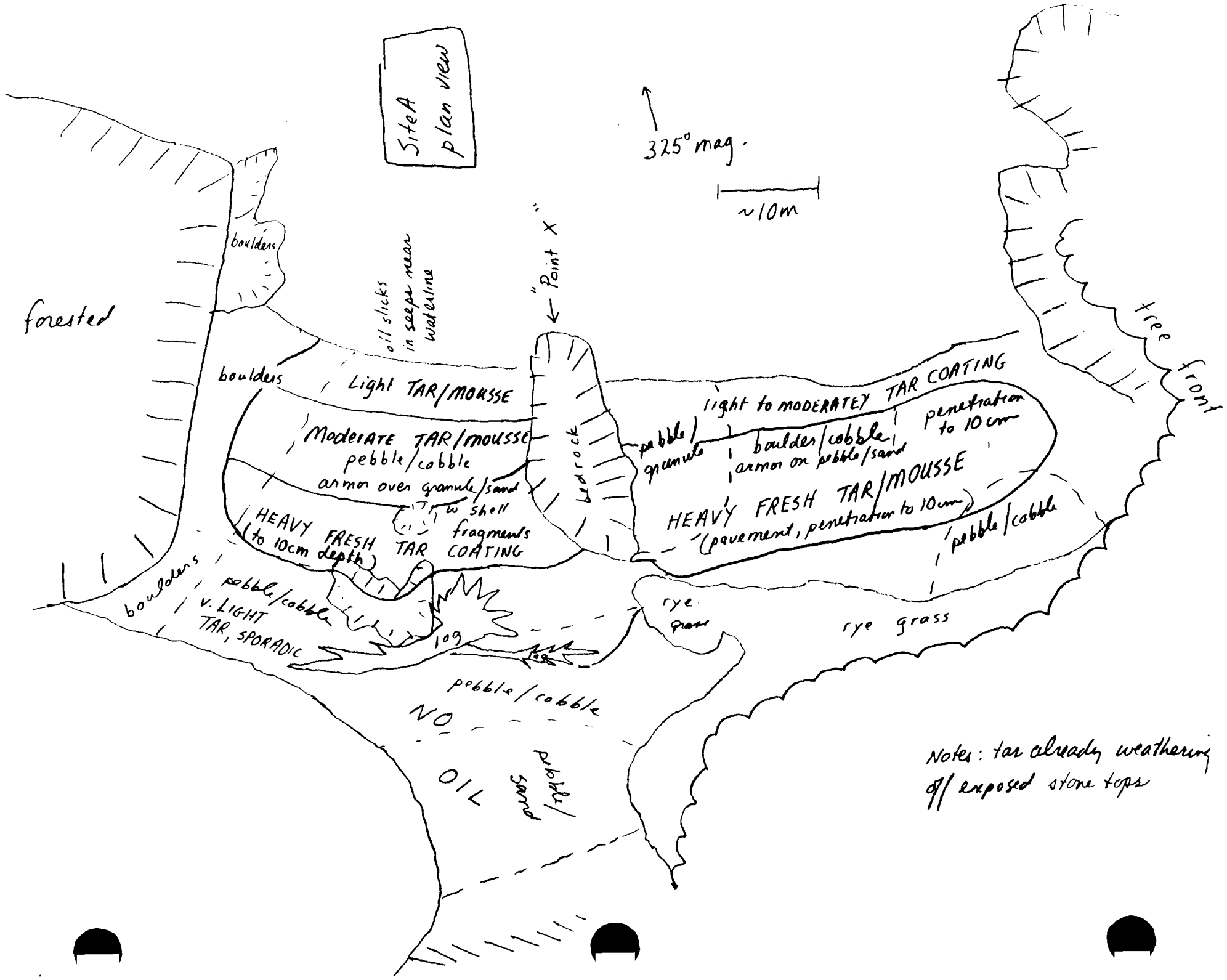
Fresh 0 % Mousse 2 % Tar Formation: 98 %

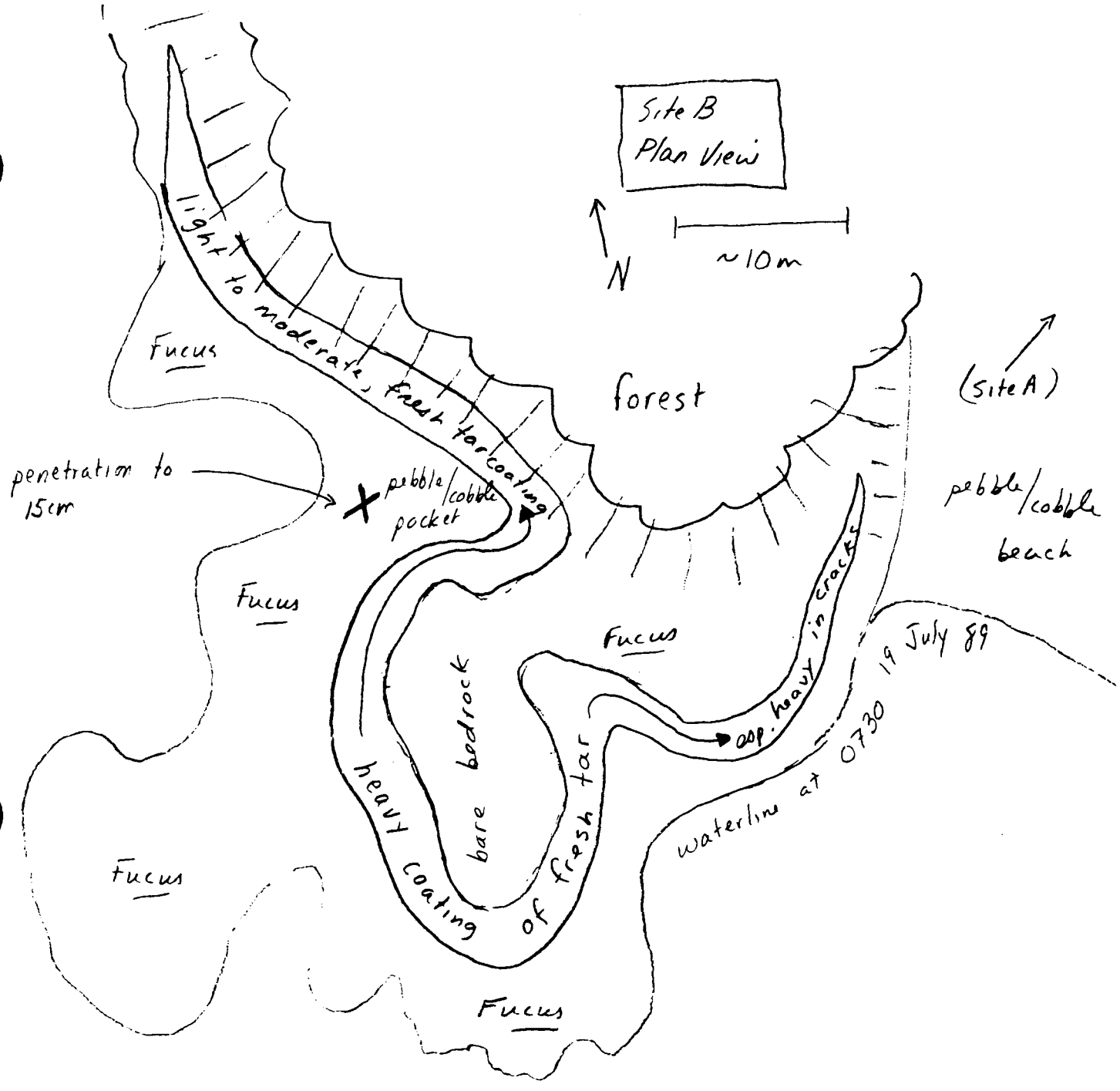
Drift Debris Oiled ? (Yes)/No (Supra/Upper/Mid)/Lower Amount: H/(M)/L/

Comments:

A complicated shoreline geography has resulted in a complex pattern of oil contamination. Hardest hit were north-facing pocket beaches. Steep, bedrock faces show abundant evidence for self-cleaning in the form of eroding tar coatings. Heavily oiled sites probably contain relatively little recoverable oil using current technology. I would stress manual techniques (debris cleanup and downslope transfer of tarry berms and incipient pavements into surf zones) in the cleanup of this shoreline.

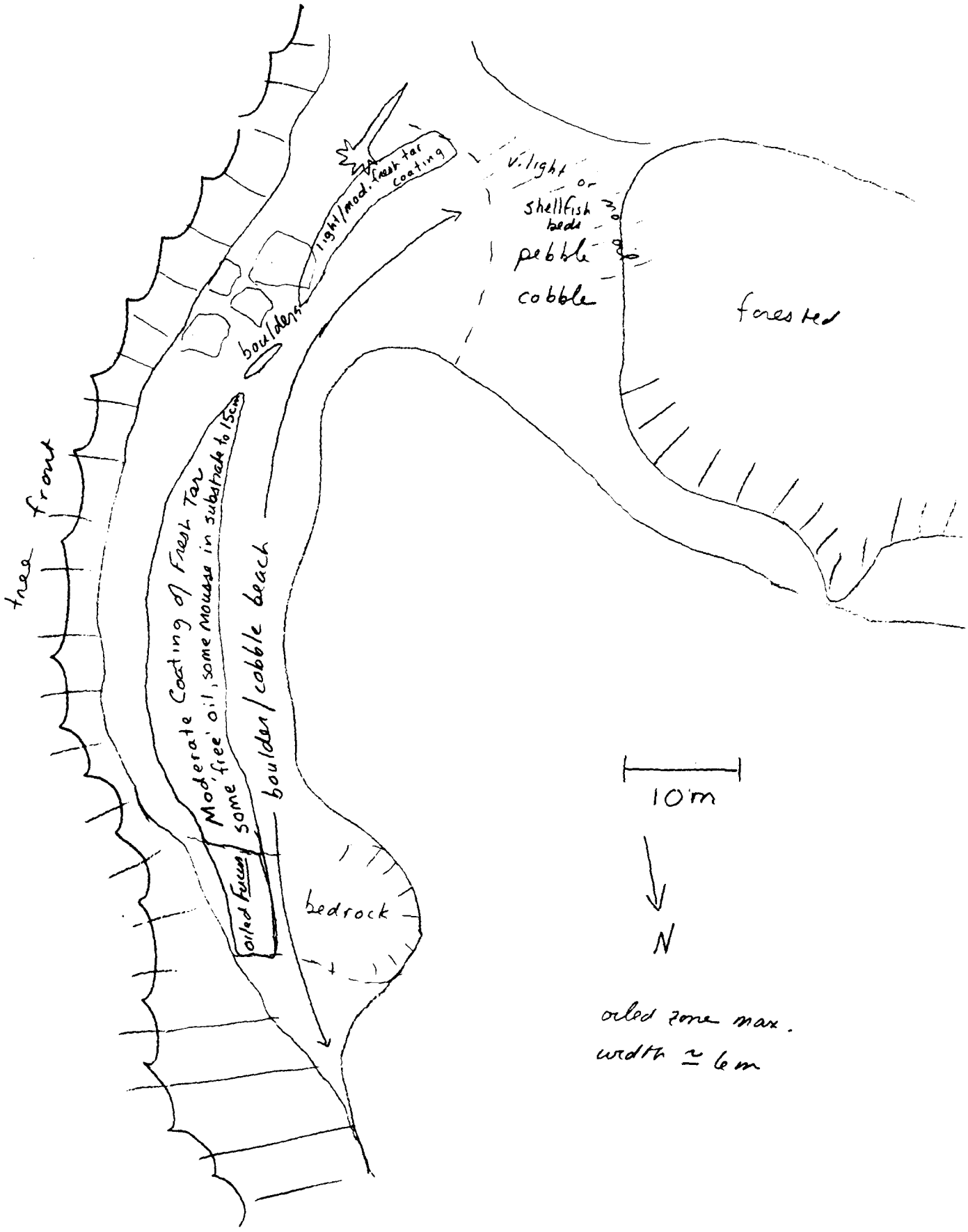

1/2 mile
SEGMENT EV-70
KEY
= heavy oil contamination
= moderate
= light
very light
N
Gugyak Bay
eagle nest
Harbor Seal haulout
No oil
Site A
B
C
D
E
50
0
100
no oil
H
G
eagle nest
Site F
segment boundary
SHORE LINE
CONTOUR


Site A
plan view
325° mag.
~10m
forested
boulders
oil slicks
in seep near
waterline
"Point X"
bedrock
tree front
boulders
Light TAR/MOUSSE
Moderate TAR/mousse
pebble/cobble
armor over granule/sand
few shell
fragments
HEAVY FRESH TAR COATING
(to 10cm depth)
light to MODERATE TAR COATING
pebble/
granule
boulder/cobble
armor on pebble/sand
penetration
to 10 cm
HEAVY FRESH TAR/MOUSSE
(pavement, penetration to 10cm)
pebble/cobble
boulders
pebble/cobble
v. LIGHT
TAR, SPORADIC
109
rye
grass
rye grass
pebble/cobble
NO
OIL
sand
pebble/cobble
Notes: tar already weathering
off exposed stone tops

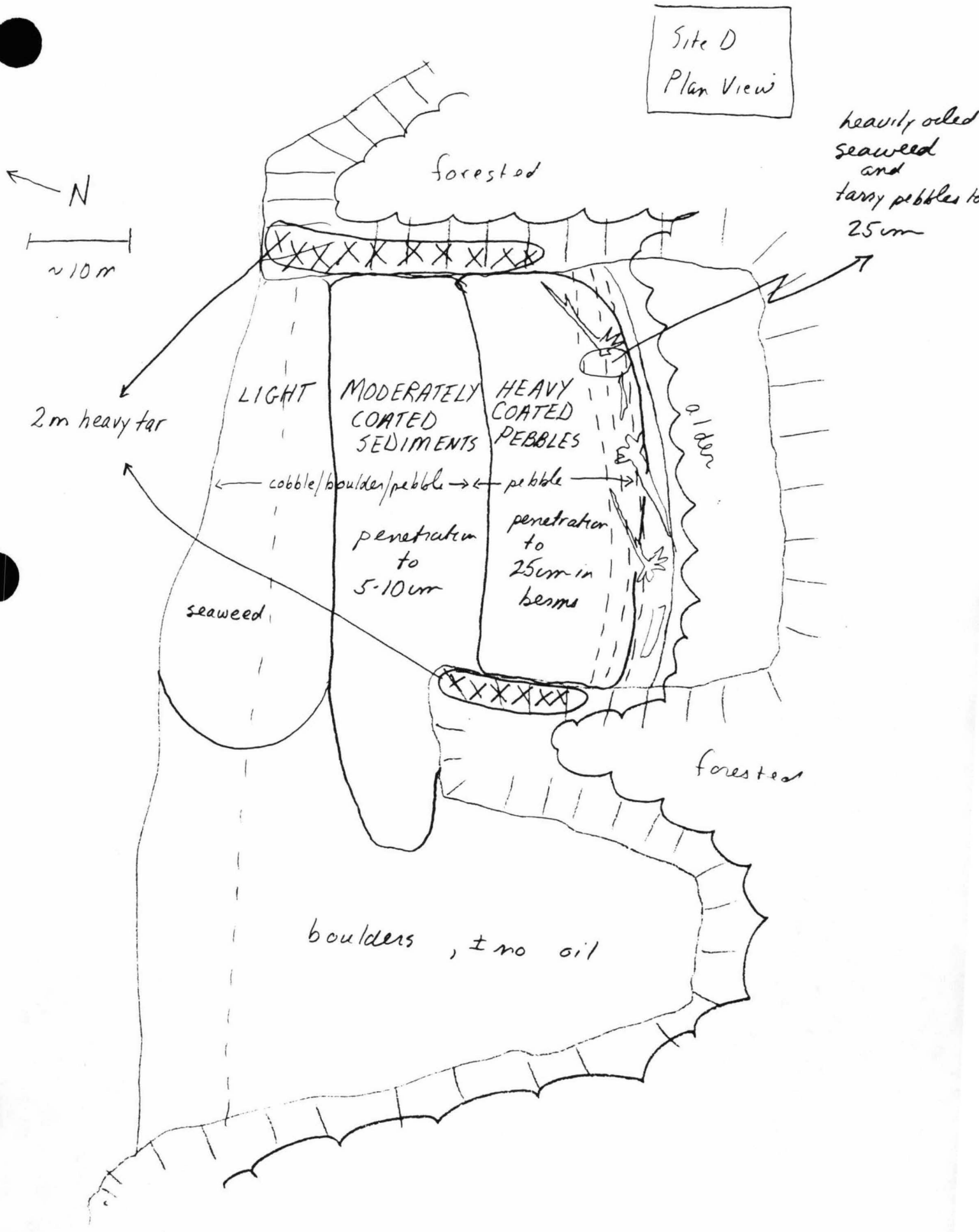


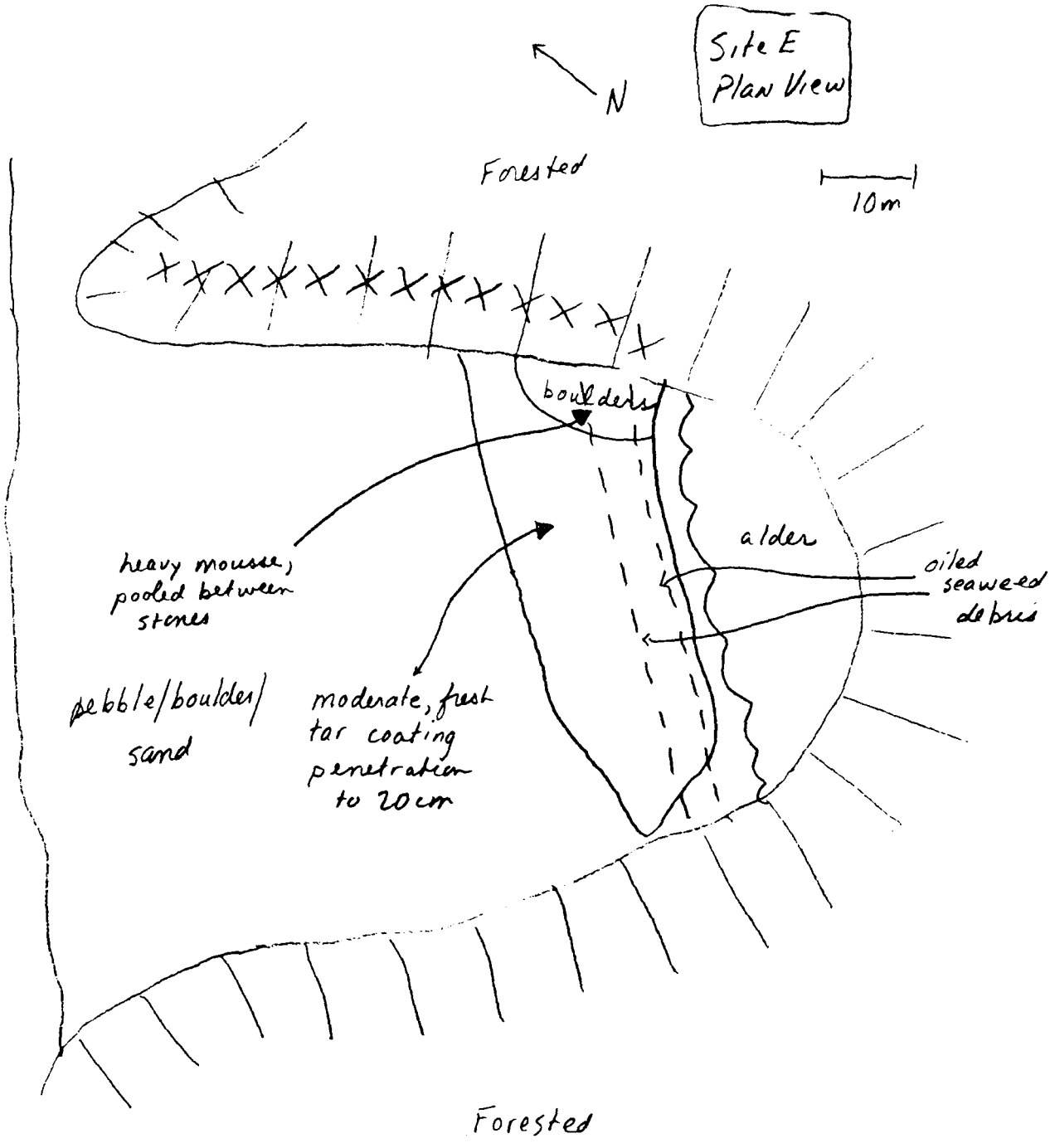
occasional oil slicks below heavily oiled band

Site C
plan view

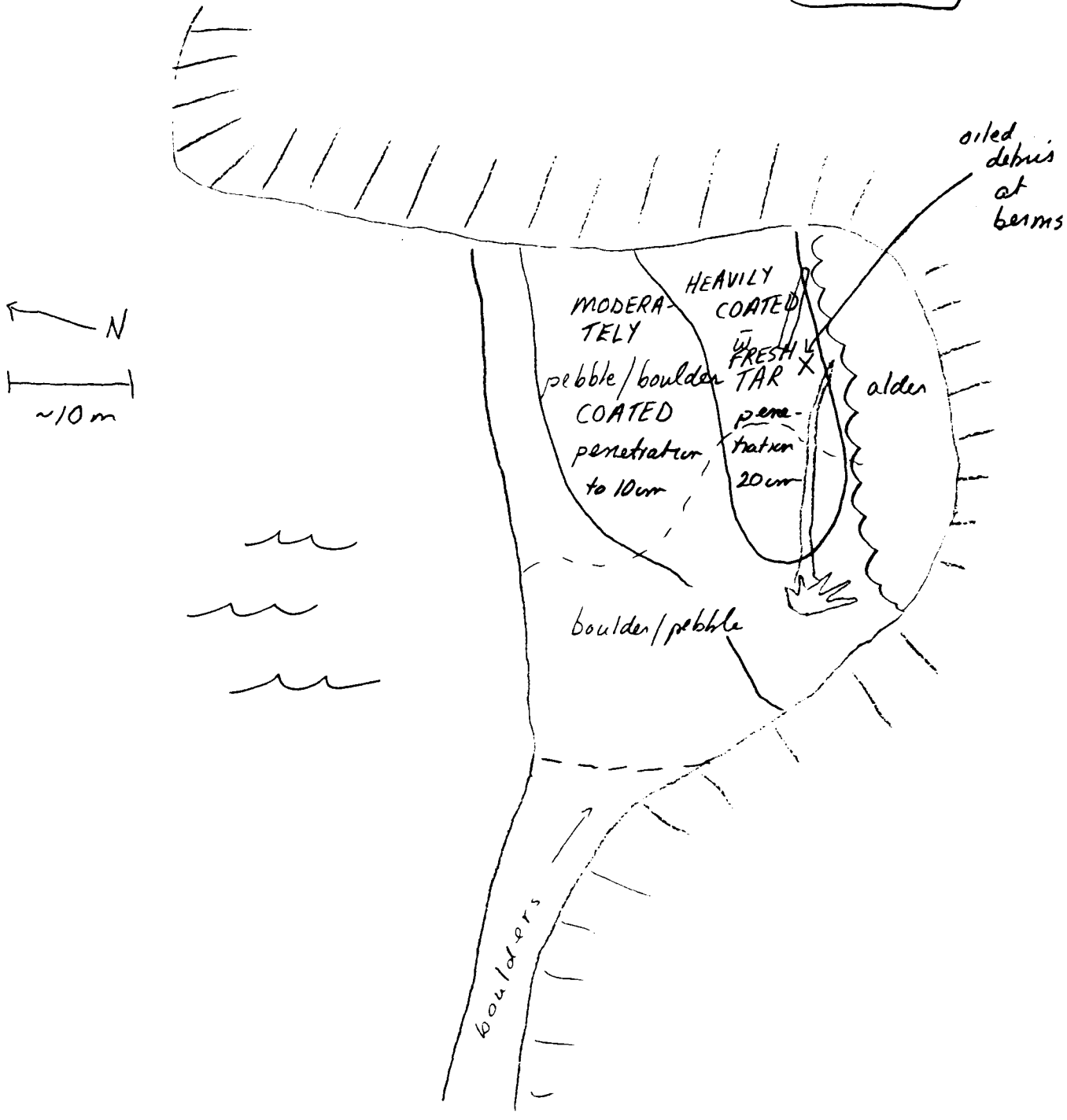


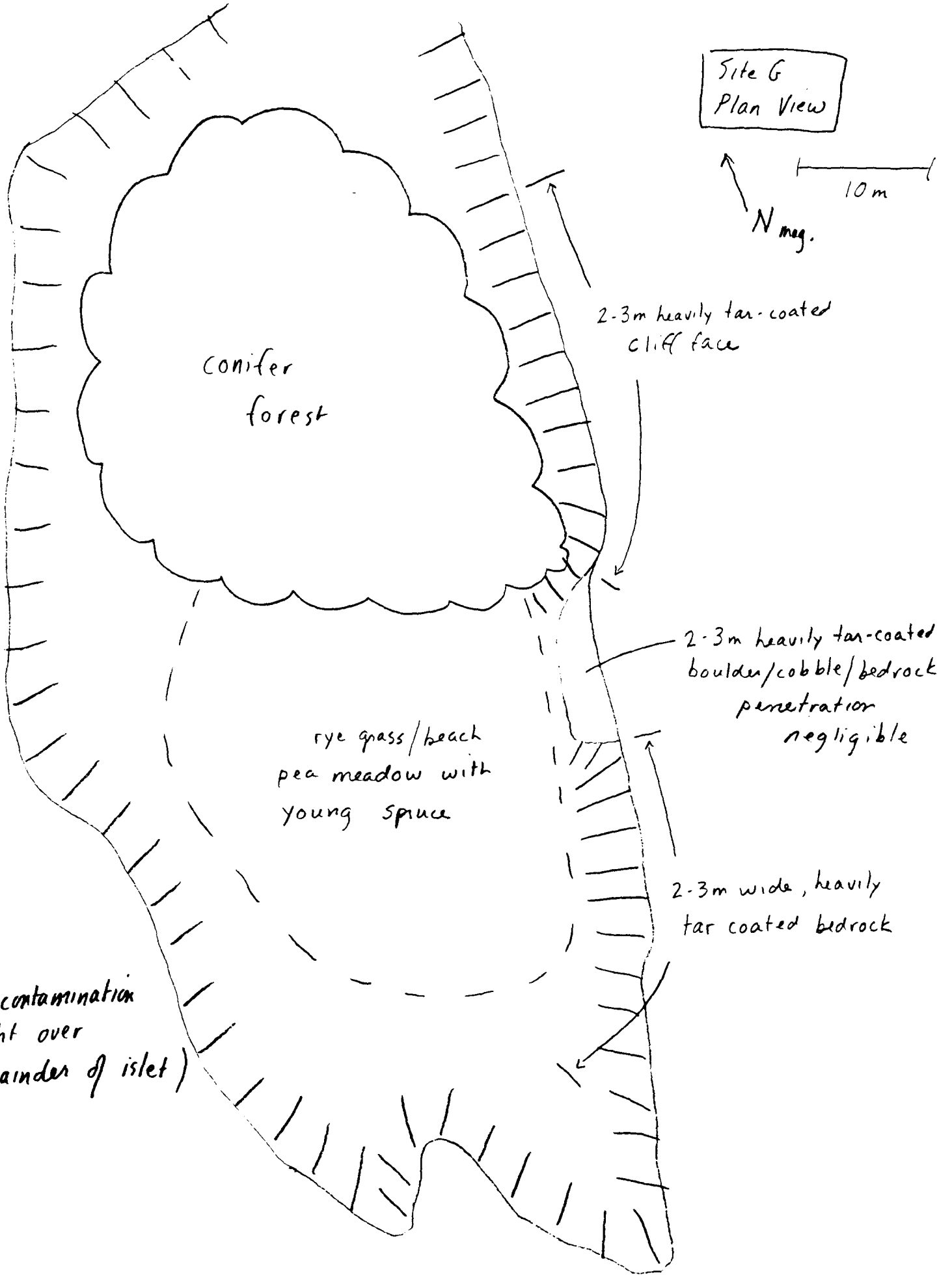
oiled zone max. width ≃ 6m

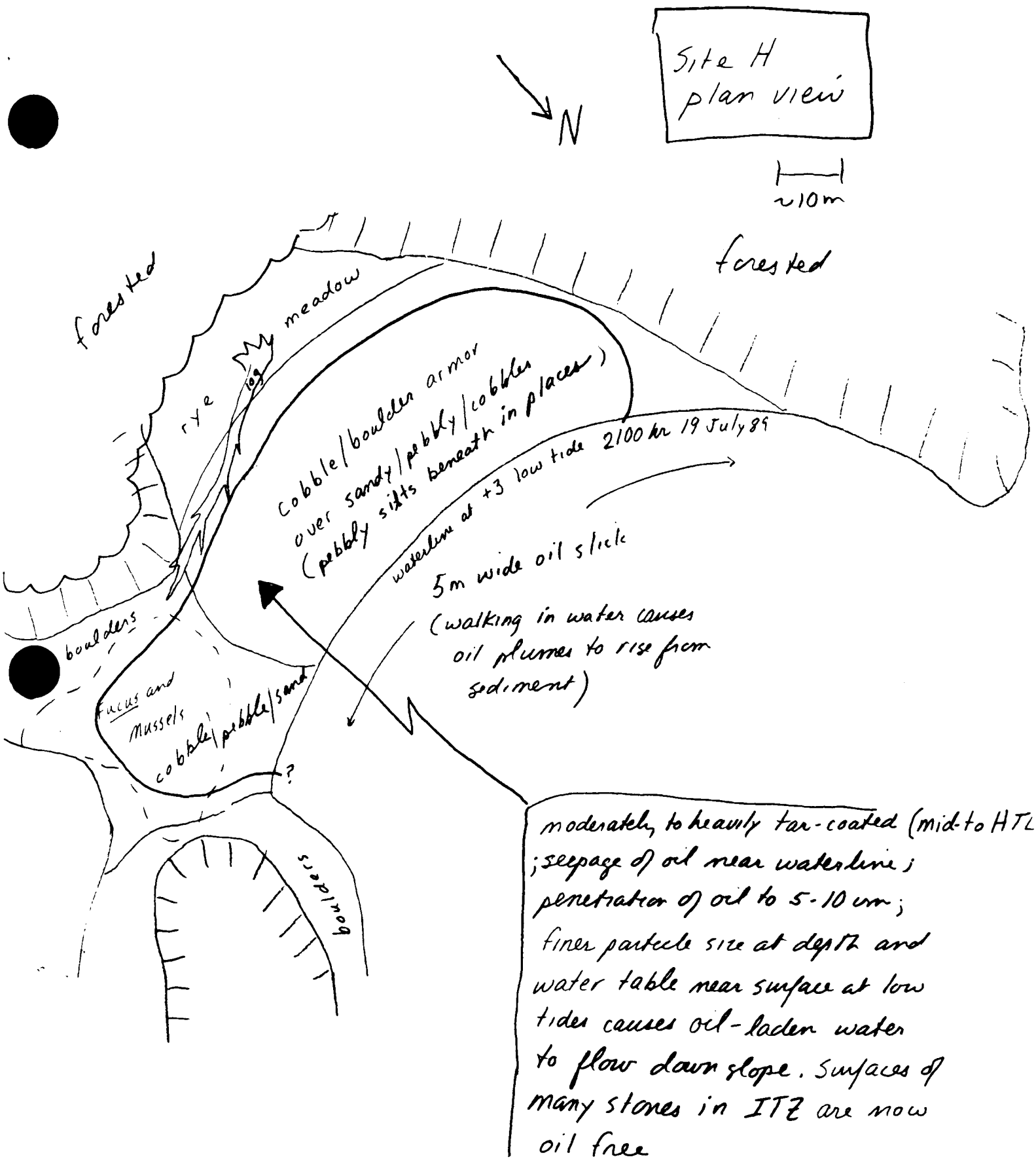

Site D
Plan View
N
~10 m
forested
heavily oiled seaweed and tarry pebbles to 25 cm
2 m heavy tar
LIGHT
MODERATELY COATED SEDIMENTS
HEAVY COATED PEBBLES
cobble/boulder/pebble
pebble
penetration to 5-10 cm
penetration to 25 cm in berms
seaweed
oiled
forested
boulders, ± no oil


Site E
Plan View
N
Forested
10m
boulders
heavy mousse, pooled between stones
alder
oiled seaweed debris
pebble/boulder/ sand
moderate, fresh tar coating penetration to 20cm
Forested

Site F
Plan View




Site G
Plan View
10 m
N mag.
2-3m heavily tar-coated cliff face
conifer forest
2-3m heavily tar-coated boulder/cobble/bedrock penetration negligible
rye grass/beach pea meadow with young spruce
2-3m wide, heavily tar coated bedrock
(oil contamination light over remainder of islet)


Site H
plan view
N
~10m
forested
forested
meadow
rye
Cobble/boulder armor
over sandy/pebbly/cobbles
(pebbly silts beneath in places)
waterline at +3 low tide 2100 hr 19 July 89
5m wide oil sheet
(walking in water causes
oil plumes to rise from
sediment)
boulders
Fucus and
mussels
cobble/pebble/sand
?
boulders
moderately to heavily tar-coated (mid-to HTL
; seepage of oil near waterline;
penetration of oil to 5-10 cm;
finer particle size at depth and
water table near surface at low
tides causes oil-laden water
to flow down slope. Surfaces of
many stones in ITZ are now
oil free

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: NW Shore, PWS OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 70 LENGTH: 12 KM (M)

DATE: 07/18/89 07/19/89 TIME (HHMM): 0930; 1915 0715; 1900 TIDE HT.: -2.0 to +5.0 FT (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None (Y)/N

Fairly continuous and dense on rock and boulder, top 1 m oiled in several of the oiled zones. Patchy, sparse or absent from cobble/pebble beaches.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Patchy aggregates or absent from most of segment; several small beds in beach gravel, on rock outcrop.

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N

Fairly continuous band above Fucus, sometimes oil-stained; some spat concentrations; stretched barnacles scatter

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Adult primarily in Fucus, tiny scattered in Fucus and across cobble/pebble beach; in oiled and unoiled Fucus alike, with oil coated shells in oiled zone. Nucella common in patches; small clumps of Nucella eggs present.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Generally in low mid/lower tidal zone or under Fucus; many small limpets (<2cm).

OTHER OBSERVATIONS: Dermasterias, Evasterias, Leptasterias most common sea stars; one Pisaster, few Evasterias. Several beaches had abundant shells scattered (clam, scallop, jingle, cockle) with occasional live small clams found (Hiatella, Butter). Crabs, hermit crab, blennies, sculpin, worms, amphipods common. Orchestia

CLEANUP PRECAUTIONS: Juvenile in Halosaccion and Fucus. Cod fish offshore and some eelgrass beds.
↳ Harvesting of Fucus when oiled is strongly recommended to minimize recontamination of rich intertidal. No ecological constraints on recommended cleanup techniques.

MAMMALS: Otters 1+2 pups Harbor Seals 3+4 pups Sea Lions 1 Whales 2 (Minke?)
Other (Whale with Fin, no tail shown during deep dive, relatively small size)

BIRDS: Eagles - 5 plus 2 Nests; Oystercatcher - 8; Murrelet - 14; Wandering Tattler - 1; Black-legged Kittiwake - 12; Glaucous-winged Gull - 3; Mew Gulls - 3; Arctic Terns - 4.

GENERAL OBSERVATIONS:

Several small streams in segment were free of oil and not listed on the ADF&G Anadromous Stream Catalogue Maps.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/19/89 Location Evans Island Site

Location Prefix EV Segment # EV-70 Length 12km

Survey Method:

Air ____ (A - indicate on map) Boat ✓ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light, moderate and none

Width of beach zone surveyed 5-20m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) HTI

Cultural resources observed in tree fringe (AHRS code) CMT, FBX, [redacted]*

General observations justifying survey method and segment's site probability:

Shore Profile beaches are flat to moderately sloped the rest is wall face and boulder fields

Fresh Water Sources several streams

Sea Exposure various

Access/Safety beaches - good

Probability of undiscovered sites in beach zone (circle one) 1 2 (3) 4 5

Monitoring during cleanup needed (yes)/no Collection yes (no)

Photos: Color Roll # ____ Frames ____

B/W Roll # CW 10 Frames 22-87

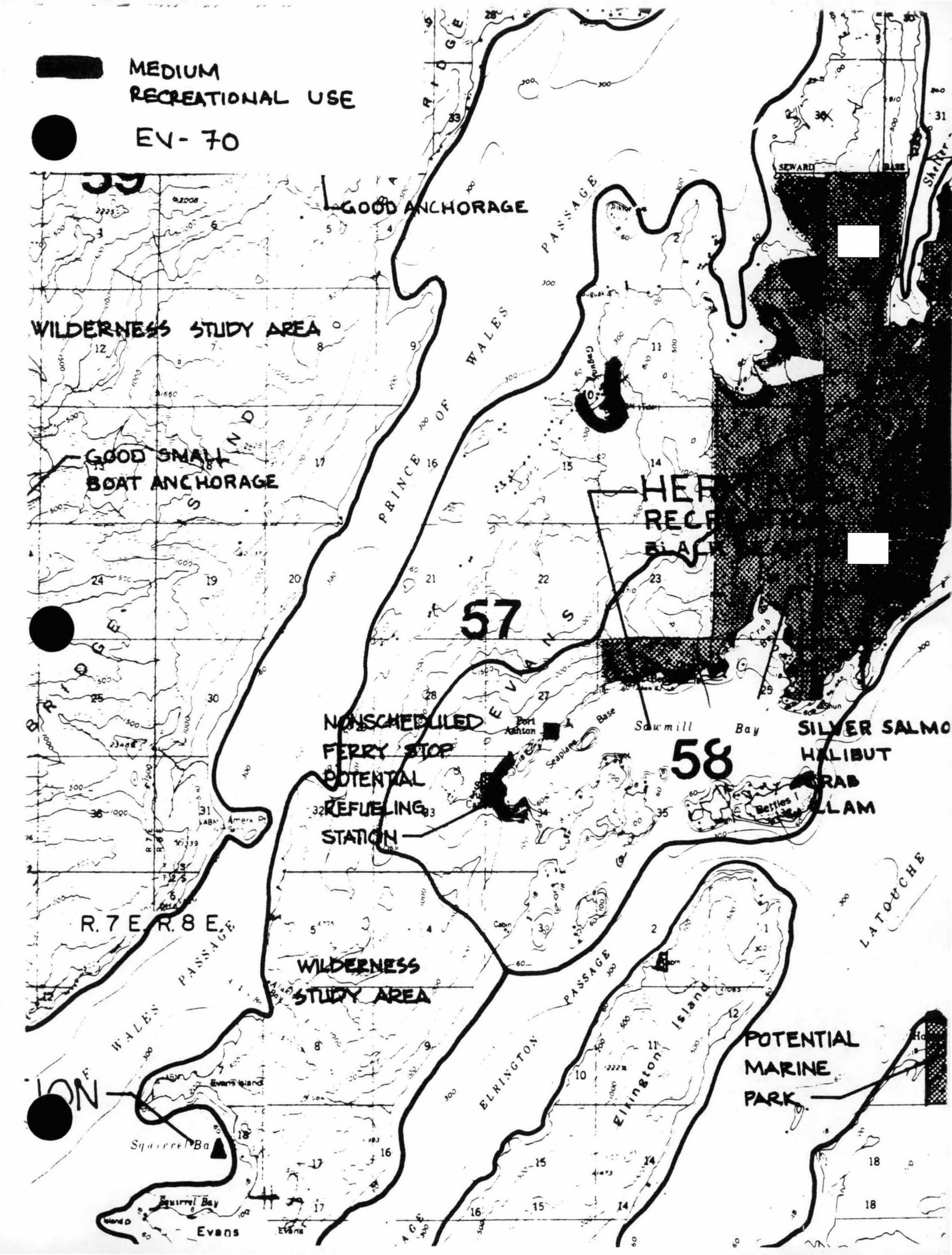
Observer(s) C. Wilson

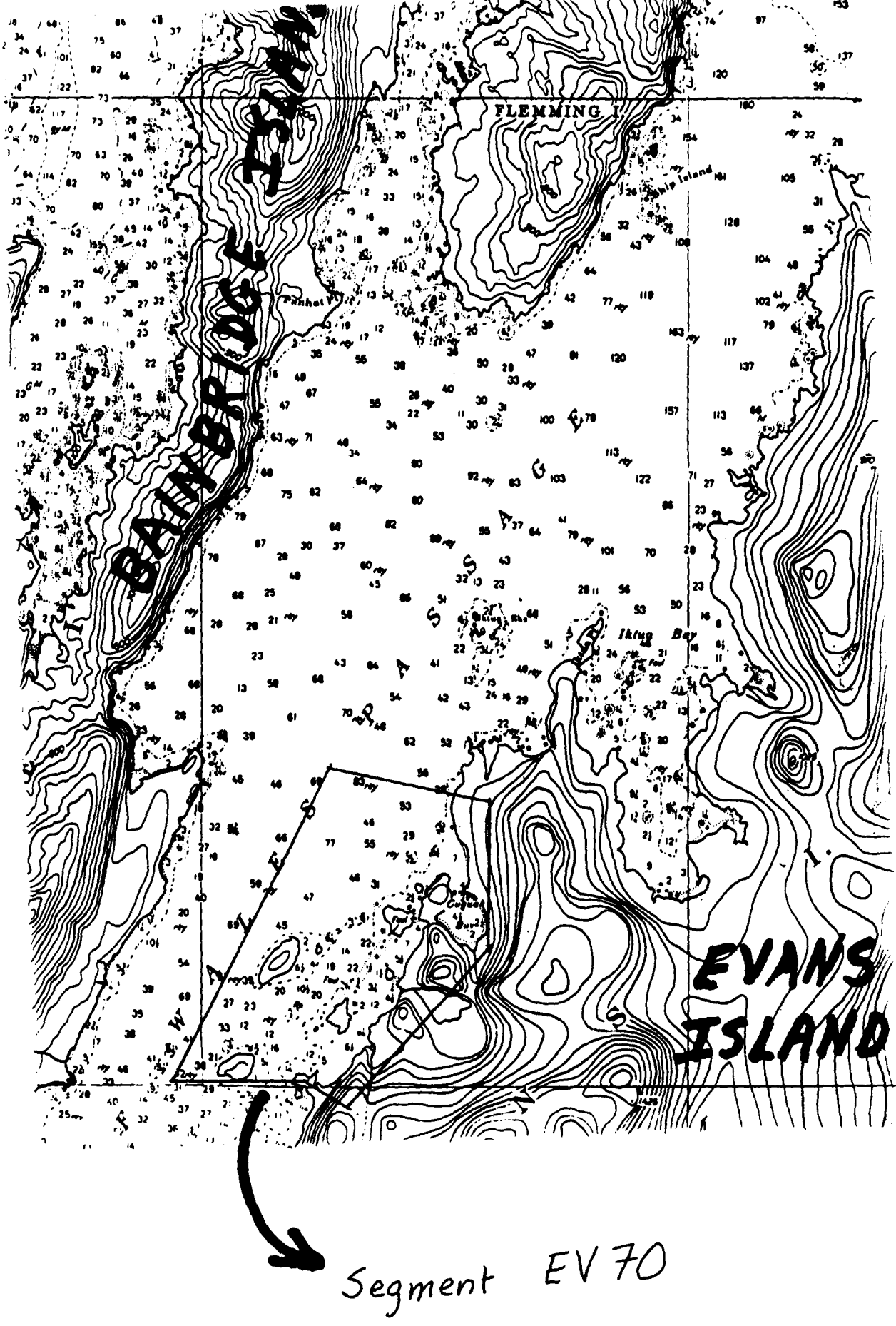
Time survey started 0915 7/18 Time survey ended 2145 7/19

Cultural resource considerations/restraints: insufficient resources to justify archaeological monitoring. C. Hobley 7/24/89

~~A monitor should be present during cleanup of area 9. Standard restraint clauses except where the HTI should be removed if cleanup occurs~~

* NO AHRS CODE ON LIST


MEDIUM
RECREATIONAL USE
EV- 70
GOOD ANCHORAGE
WILDERNESS STUDY AREA
GOOD SMALL
BOAT ANCHORAGE
NONSCHEDULED
FERRY STOP
POTENTIAL
REFUELING
STATION
WILDERNESS
STUDY AREA
POTENTIAL
MARINE
PARK
SILVER SALMO
HALIBUT
RAB
LLAM
57
58
R. 7 E.
R. 8 E.
PRINCE OF WALES PASSAGE
ELLINGTON PASSAGE
EVANS
Sawmill Bay
Port Ashton
Seaplane Base
Elrington Island
Evans Island
Squirrel Ba
Squirrel Bay
Evans
LATOUCHE
SEWARD


BAINBRIDGE ISLAND
FLEMMING I.
Ikiug Bay
EVANS ISLAND
Segment EV 70

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 7/24/89 SHORELINE SEGMENT EV-71

LOCATION: (see enclosed map) Evans Island - West shore

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/20/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment at a later date) due to light oil and medium wave exposure.

Priorities Considerations:
Class 4-5: Light to very light oil
Class A: Resources absent

Ecological Constraints (from site survey):
If cleanup is conducted ecological constraints must be reconsidered.

Archeological Constraints (from site survey): NO ACCESS TO UPLANDS. SC 8/4/89 CO 8/8/89
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: 7-31-89

ISCC: Sharon K. Christopher Date: 8-4-89

EXXON: _____ Date: August 4, 1989

FOSC: _____ Date: 8-5-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 20 July 89 Time: (0735-1100 hr / 1939-2105 hr) Observer: MANN

Surveyed From: (Foot/Boat)/Helio/Plane Weather: Sun/(Cloud)/(Rain)/Snow/Fog

LOCATION

LOCATION west shore of EVANS ISLAND SEGMENT NUMBER EV-71

LENGTH OF SHORELINE SEGMENT: 8.5 K m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA/COV/HLD/STRT) Slope: (LANG/HANG)/VER

Wave Exposure: High/(Med/Low)

Sediment: B 30 % / C 20 % / P 20 % / G 5 % / S 5 % / M 0 % / R 20 %

Drift Debris on Beach: (Yes)/No (Supra/Upper/Mid)/Lower Type logs + seaweed

OIL

Degree of Oiling: Heavy/(Moderate)/(Light)/(No Oil)/Unobserved

Area of Beach Impact: SU / SP / (H) / (M) / L

Continuous: (Y)/N % of Segment .5 Width of Band: 0.05-3 m

Sporadic: (Y)/N % of Segment 95

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: _____ cm

Pooled Oil: 0 % "Free" Oil: 0 % Coated: H <1 % / M 25 % / L 75 %

Fresh 0 % Mousse 0 % Tar Formation: 100 %

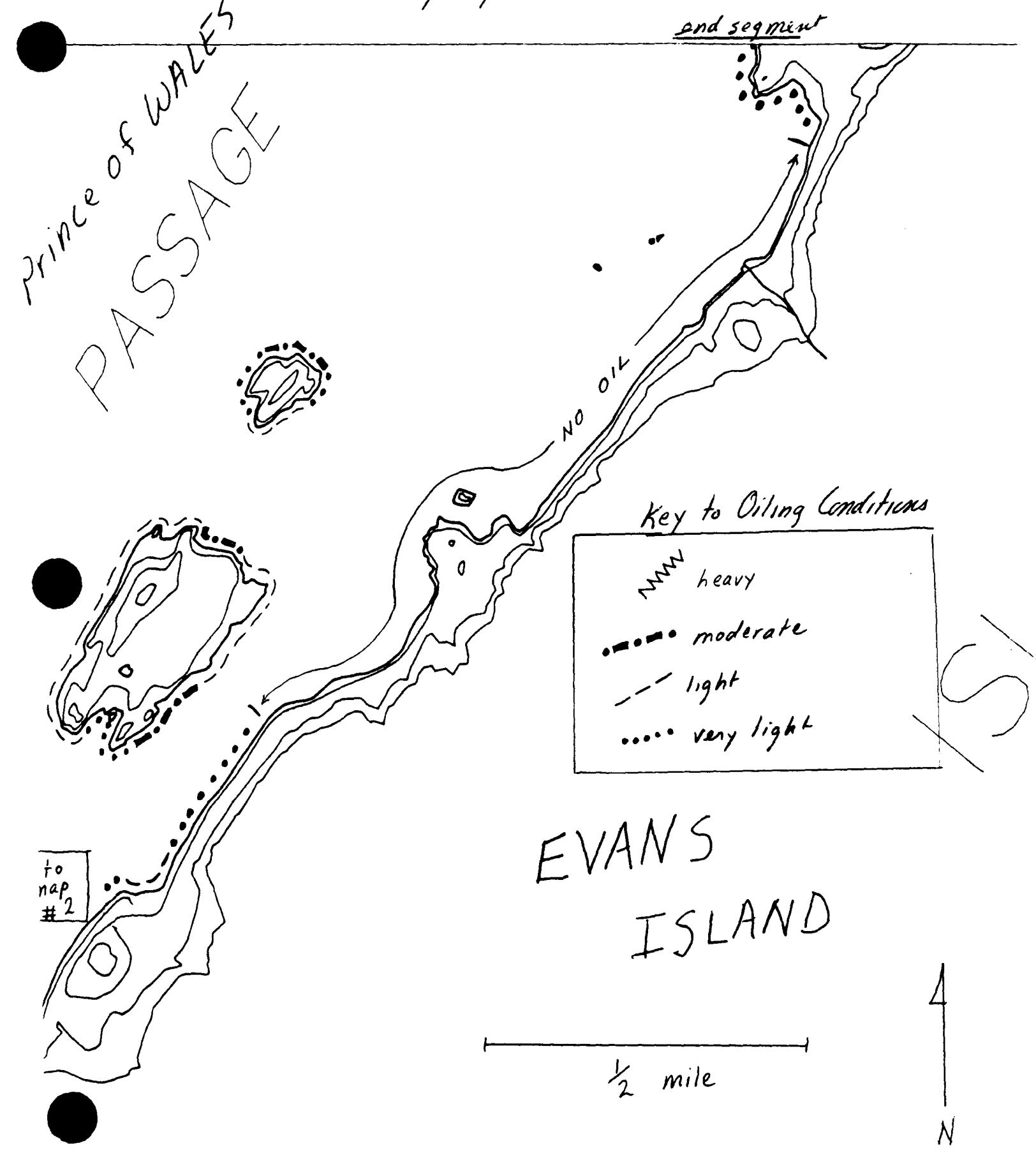
Drift Debris Oiled ? (Yes)/No (Supra/Upper)/Mid/Lower Amount: H/M/(L)

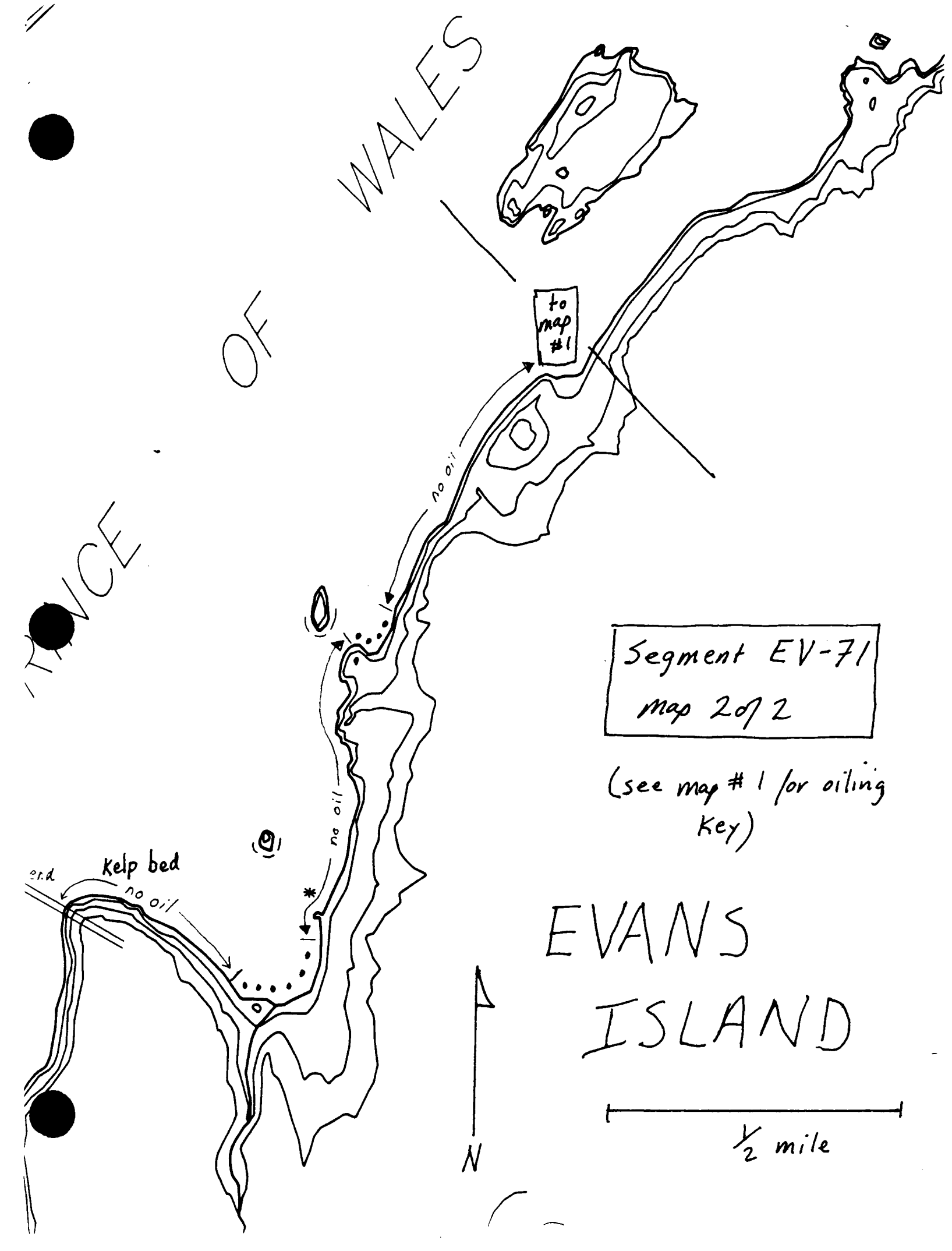
Comments:

Except for 2 patches of oiling (each less than 15m in length) on the 2 largest islands in this segment, this shoreline has little oil contamination. Some thin slicks (~25 m²) were observed offshore of this segment.

LOCATION OF SEGMENT EV-71

map 1 of 2




PRINCE OF WALES
to map #1
no oil
no oil
no oil
Kelp bed
end
Segment EV-71
map 2 of 2
(see map # 1 for oiling key)
EVANS ISLAND
N
½ mile

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: West Shore, PWS OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 71 LENGTH: 8.5 KM (M)

DATE: 07/20/89 TIME (HHMM): 0730 1930 TIDE HT.: -2.5 to +5.0 FT (M)

OILED ZONE: Splash ~~High~~ ~~Medium~~ Low

SUBSTRATUM: ~~Rocks~~ ~~Boulder~~ Cobble ~~Gravel~~ ~~Sand~~ Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None (Y)/N

Fucus continuous and dense along rock and boulder, generally sparse or absent on cobble/pebble beaches.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Small aggregations patchy throughout segment; some larger beds in gravel pockets near freshwater runoff

Balanus (Barnacles): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Small oiled (stained) patches occasionally above Fucus; thatched barnacles common in mid tidal zone

Littorina
Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse (Y)/N None Y/N

Adults common in Fucus, tiny littorina scattered on cobbles of beaches. Nucella common and dense in patches on barnacles and mussels; eggs present.

Limpets: Patchy (Y)/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Most common at low tide zone and beneath Fucus.

OTHER OBSERVATIONS: Ryanopodia, Orthasterias, Dermasterias, Leptasterias all more common than Pisaster. Low tide/sub tide zone diverse - several species anemones, sponges, Chitons; under rocks abundant crab, hermit crab, blennies, sea urchins, amphipods, worms. Several orange hematocrins observed.

CLEANUP PRECAUTIONS: No cleanup currently recommended for this lightly oiled/oil free segment. If in the future cleanup is recommended, ecological constraints need to be reconsidered.

MAMMALS: Otters ~9 + 2 pups Harbor Seals ~4 (at least 1 pup) Sea Lions 1 Whales _____
Other Deer with 2 Fawns on Island

BIRDS: Murrelets - 24; Black-legged Kittiwakes on rock island ~43; Kingfisher - 1; Harlequin Ducks - 15; 8 Common Mergansers plus 4 offspring; Eagle - 2; Glaucous-winged Gull - 3; Mew Gull - 6; Stellar Jay - 1; Crows - 2

GENERAL OBSERVATIONS:

Generally abundant laminaria in subtidal. Potential salmon stream at end of segment not marked on ADF&G Anadromous Stream Catalogue Map, but stream area is entirely oil-free.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/20/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-71 Length 8.5 km

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility light to none

Width of beach zone surveyed 5-25 m Tree fringe surveyed 10

Cultural resources observed in beach zone (AHRS code) HT1

Cultural resources observed in tree fringe (AHRS code) CMT

General observations justifying survey method and segment's site probability:

Shore Profile Beaches range from flat to moderately steep

Fresh Water Sources two large streams

Sea Exposure protected to the west

Access/Safety beaches good

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

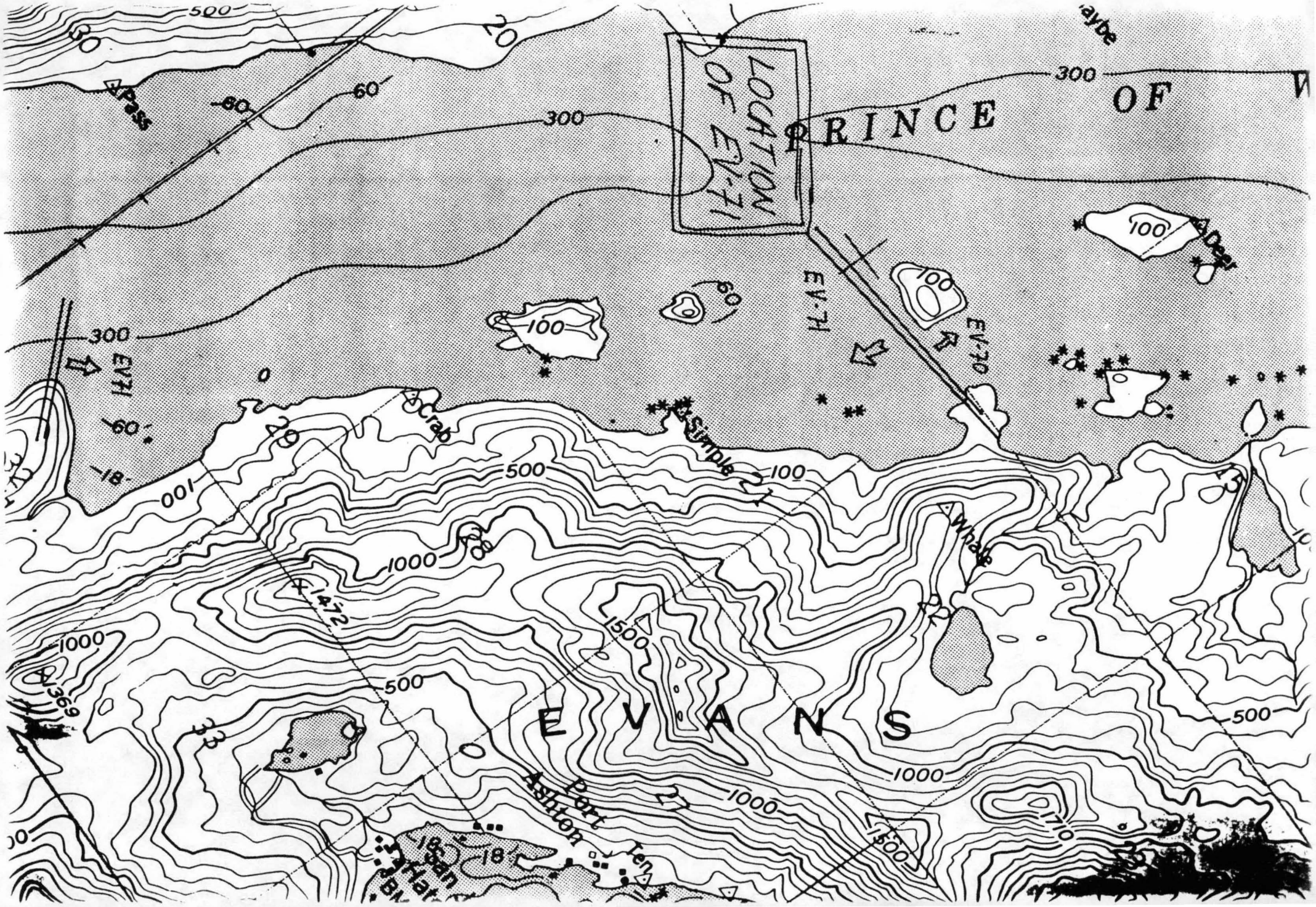
B/W Roll # CW10- Frames 28-32

Observer(s) Clubon

Time survey started 0720 Time survey ended 1130

Cultural resource considerations/restraints:

Standard


LOCATION OF EV-71
PRINCE
OF
EVANS
EV-71
EV-70
Pass
Crab
Simple
Deep
Whale
Port Ashton
Ten
Sea
Hat
500
300
100
60
20
1000
1500
1472
369

(version 6/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): Shelter Bay Point Northeast Block

Includes Shoreline Segments: EV-72,

Submitted: _____ (for Exxon) Date: 7/24/89

ISCC Approval: Sharon K. Christopherson Date: 7/26/89

FOSC Approval: _____ Date: 7/26/89

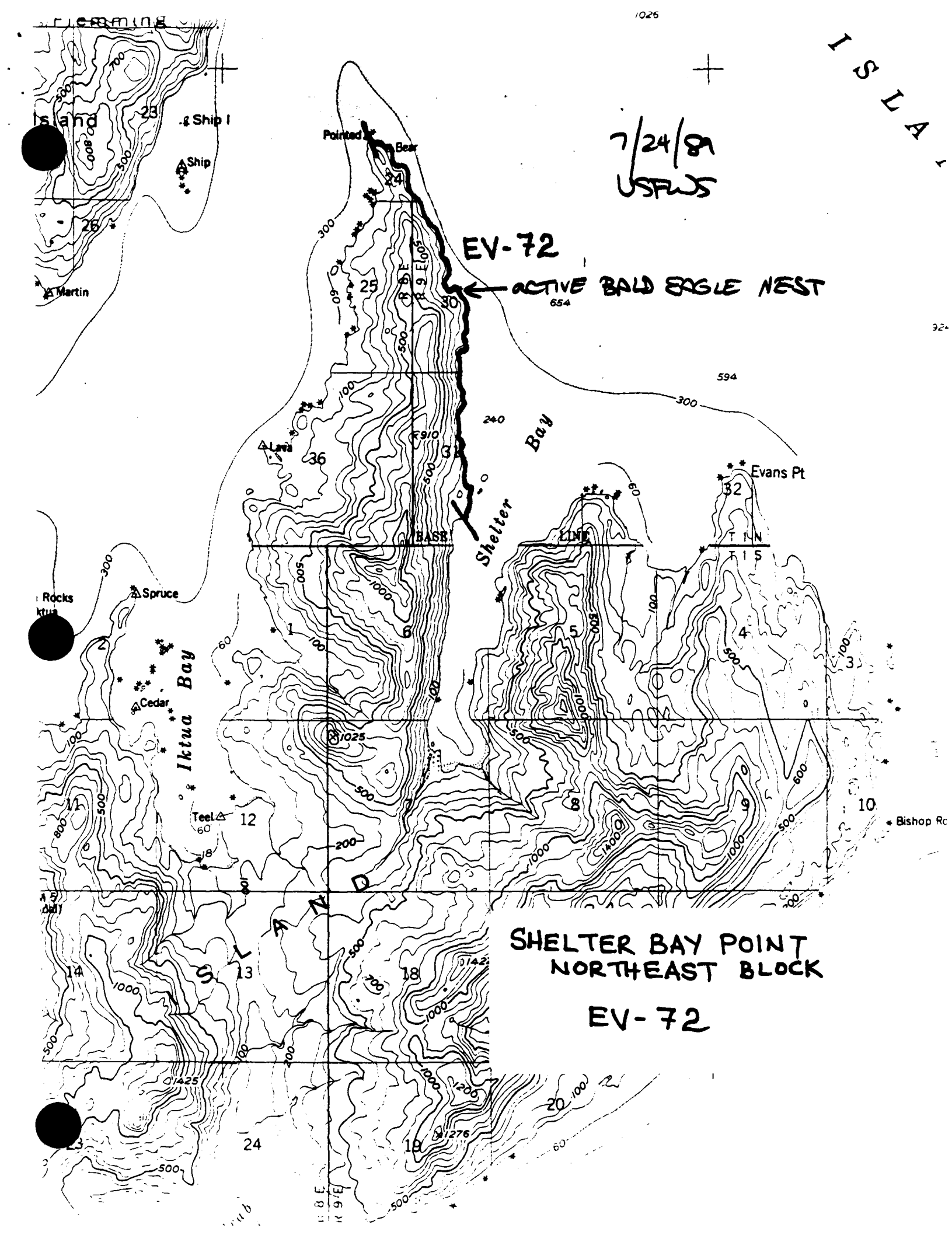
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS
SHPO

SCOT:
Chenega Village Corps.
land - restrict access


7/24/89
USFWS
EV-72
ACTIVE BALD EAGLE NEST
Pointed
Bear
Ship I
Ship
Martin
Lava
Evans Pt
Shelter Bay
BASE LINE
Rocks
Spruce
Cedar
Ikutua Bay
Teel
Bishop Rc
ISLAND
SHELTER BAY POINT
NORTHEAST BLOCK
EV-72

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

NOTE THAT THE UPLANDS IN SHORELINE SEGMENTS CONTAINED IN THE SHELTER BAY POINT NORTHEAST BLOCK ARE OWNED BY THE CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO UPLANDS AT ANY TIME.

(version 6/14/89)

SHORELINE CLEANUP PROGRAM

DATE 7/23/89 SHORELINE SEGMENT EV-72

LOCATION: (see enclosed map) Evans Island-West side of Shelter Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 7/21/89

Recommended Cleanup Activity(ies):

- Manually remove contaminated drift material (fucus).
- Flood/flush with warm to hot water (up to 140°F) on low angle beaches.
- Use moderate to high pressure warm to hot water washing on rock and oiled logs.
- Use other approved methods as appropriate.

Priorities Considerations:

Class 3-4: Moderate to light
Class A: Subsistance resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone.

- An active bald eagle nest is located in this segment. See advisory.

Archeological Constraints (from site survey):
If heretofore undiscovered cultural materials are uncovered during cleanup, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

Douglas Reger — Date: 7/23/89
State Historic Preservation Officer *

ISCC: Sharon K Christopherson — Date: 7/26/89

EXXON: [signature] — Date: 8907-26

FOSC: C E Robbins — Date: 7/26/89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

SHORELINE OIL EVALUATION

Date: 21 July / Time: 0712 - 1310 hr Observer: Mann

Surveyed From: (Foot/Boat)/Helio/Plane Weather: Sun/(Cloud/Rain)/Snow/Fog

LOCATION

LOCATION north tip of Evans Island SEGMENT NUMBER EV-72

LENGTH OF SHORELINE SEGMENT: 4.8 K m

ACCESS: Foot/Vehicle/(Boat/Barge/Helio/Float Plane)

SHORELINE:

Shoreline Type: SPI/(BEA/COV/HLD)/STRT Slope: (LANG/HANG/VER)

Wave Exposure: High/(Med)/Low (high for the Sound)

Sediment: B 25 % / C 25 % / P 10 % / G 5 % / S 5 % / M 0 % / R 30 %

Drift Debris on Beach: (Yes)/No Supra/Upper/Mid/Lower Type logs and seaweed

OIL

Degree of Oiling: Heavy/(Moderate/Light)/No Oil/Unobserved

Area of Beach Impact: SU / (SP / H / M) / L

Continuous: (Y)/N % of Segment 90 Width of Band: 0.5 - 10 m

Sporadic: (Y)/N % of Segment 10

Est. Oil Thickness where > 1cm: NA cm Est. Oil Penetration: 5-50 cm

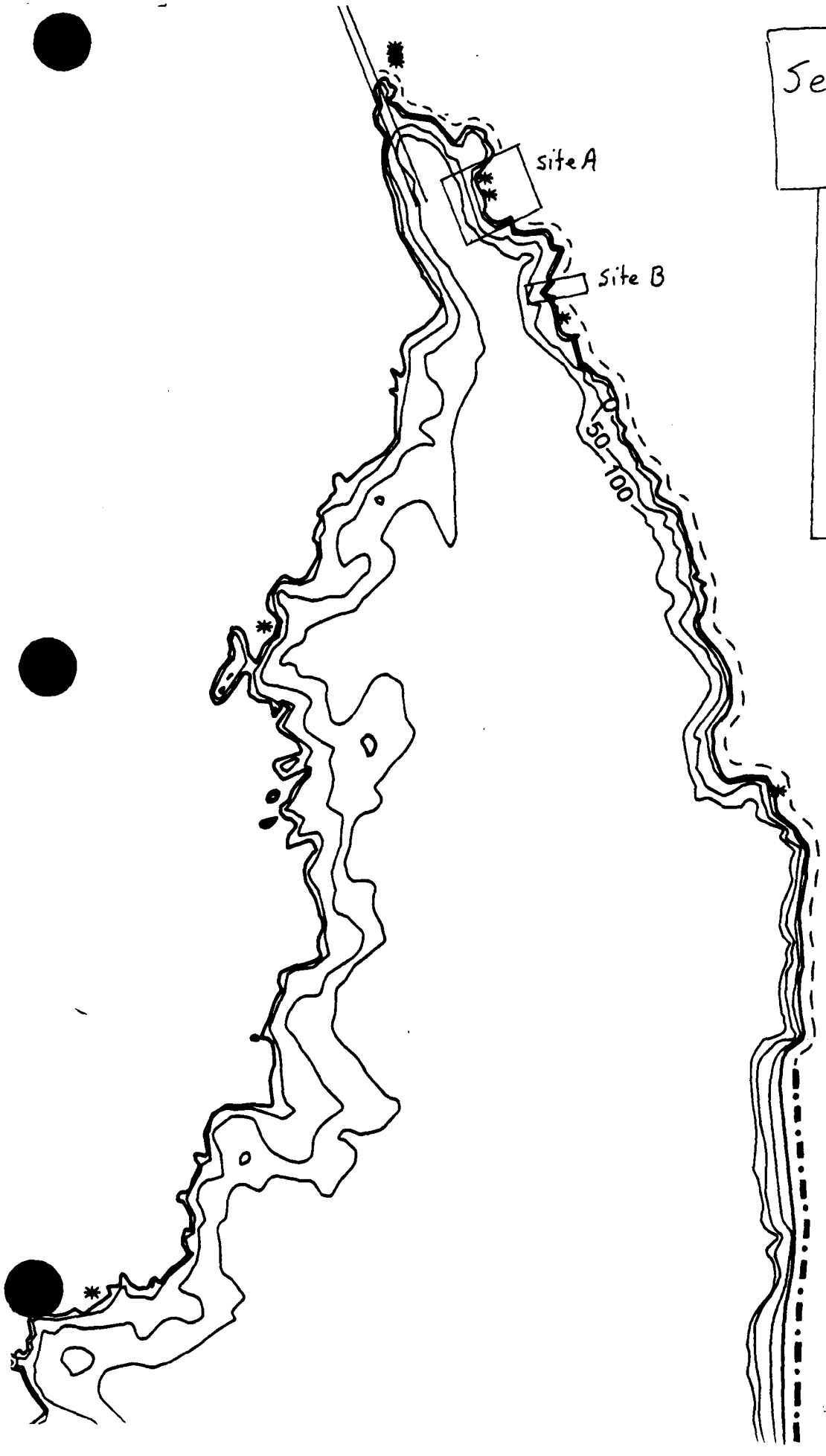
Pooled Oil: 0 % "Free" Oil: 0 % Coated: H 20 % / M 30 % / L 50 %

Fresh 0 % Mousse 10 % Tar Formation: 90 %

Drift Debris Oiled ? (Yes)/No (Supra/Upper)/Mid/Lower Amount: H/(M)/L/

Comments:

Recoverable oil will be scarce from the 3 sites judged here to require cleanup. Access to Sites A and B will be difficult for cleanup boats. At very least, manual pickup of oily debris should be done. This is a relatively high energy beach for PW Sound so natural cleanup will be relatively effective here.



Segment EV-72
Sheet 1 of 2

Key to Oiling Contamination

= heavy

= moderate

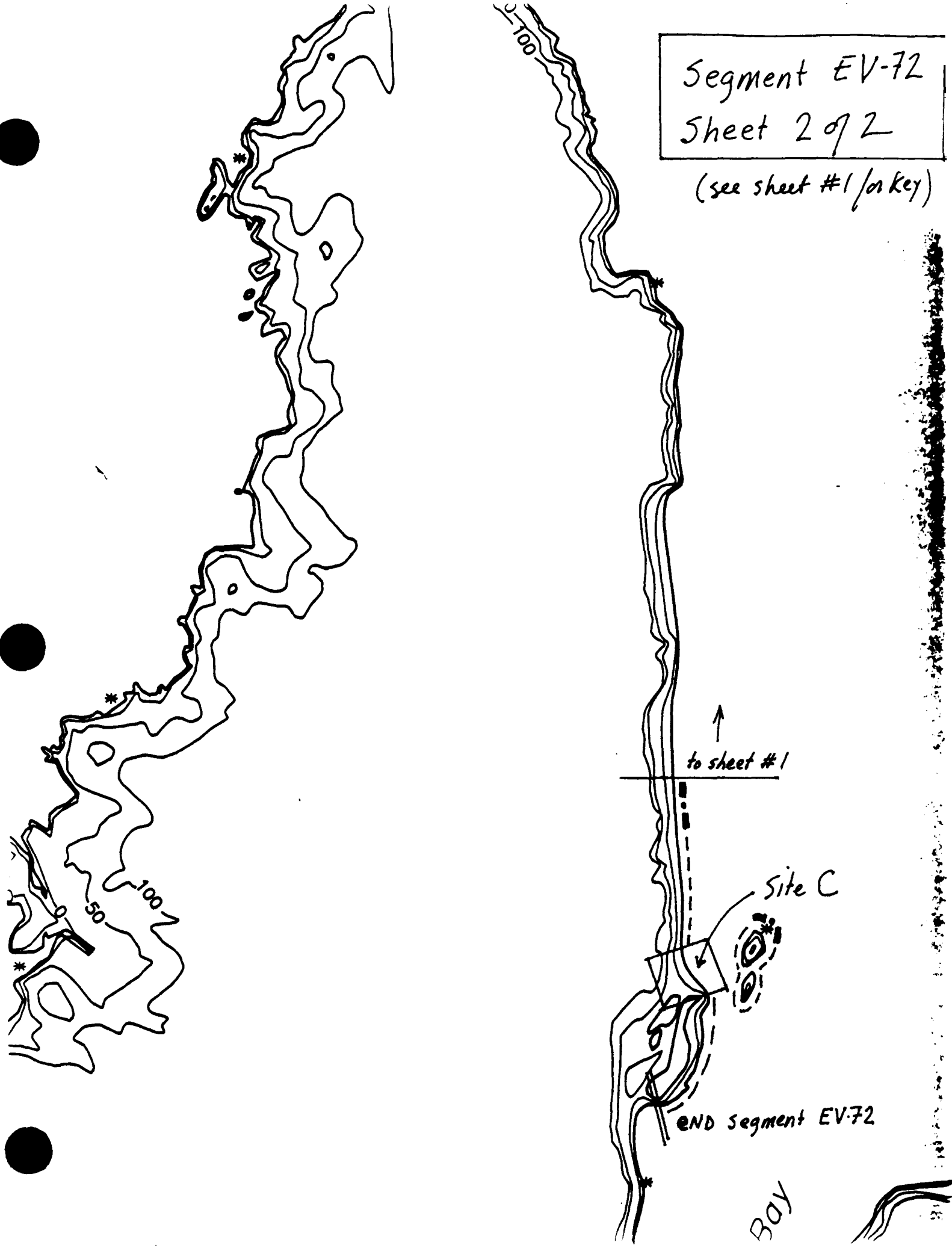
= light

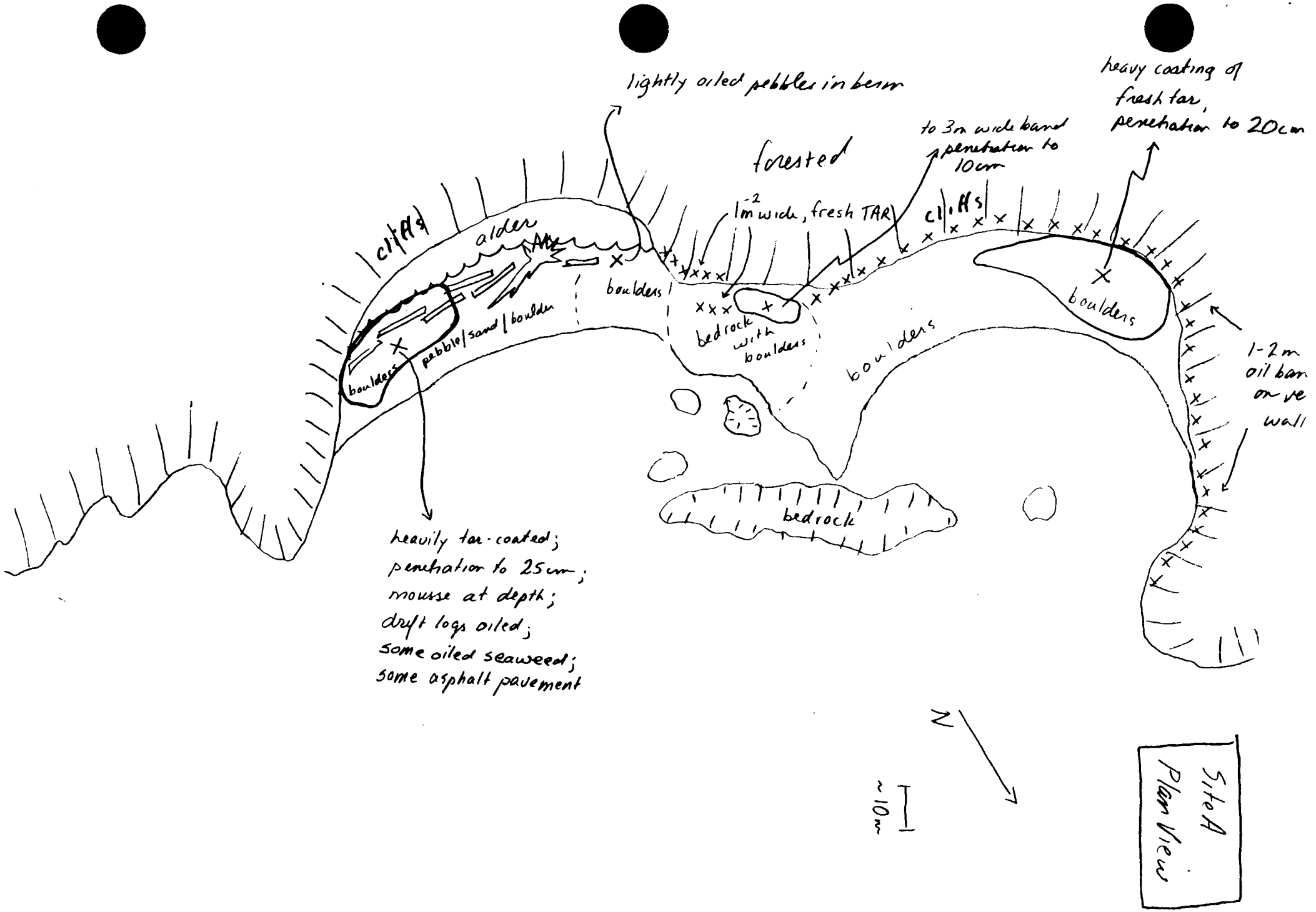
= very light

(continued on sheet 2

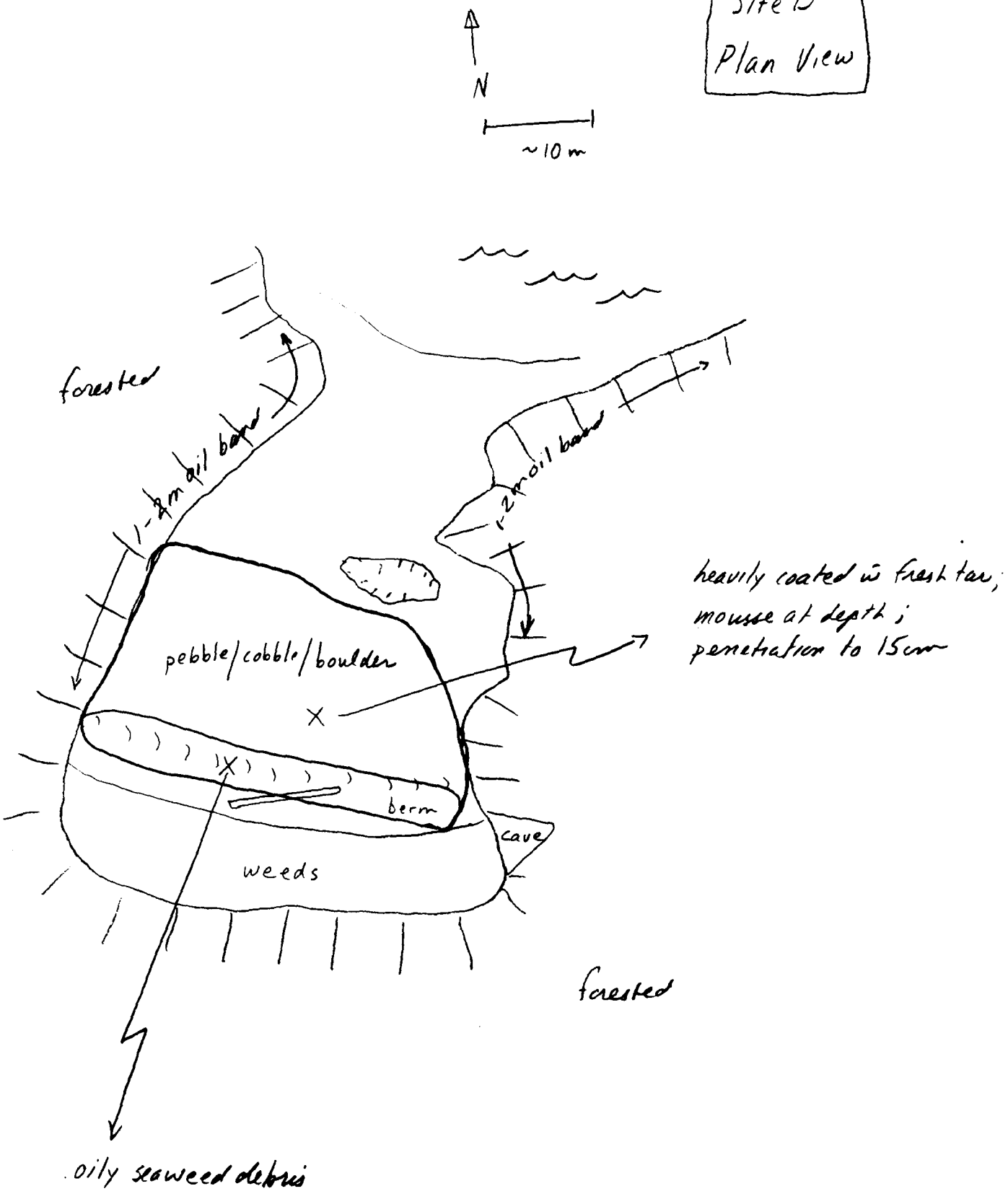
Segment EV-72
Sheet 2 of 2

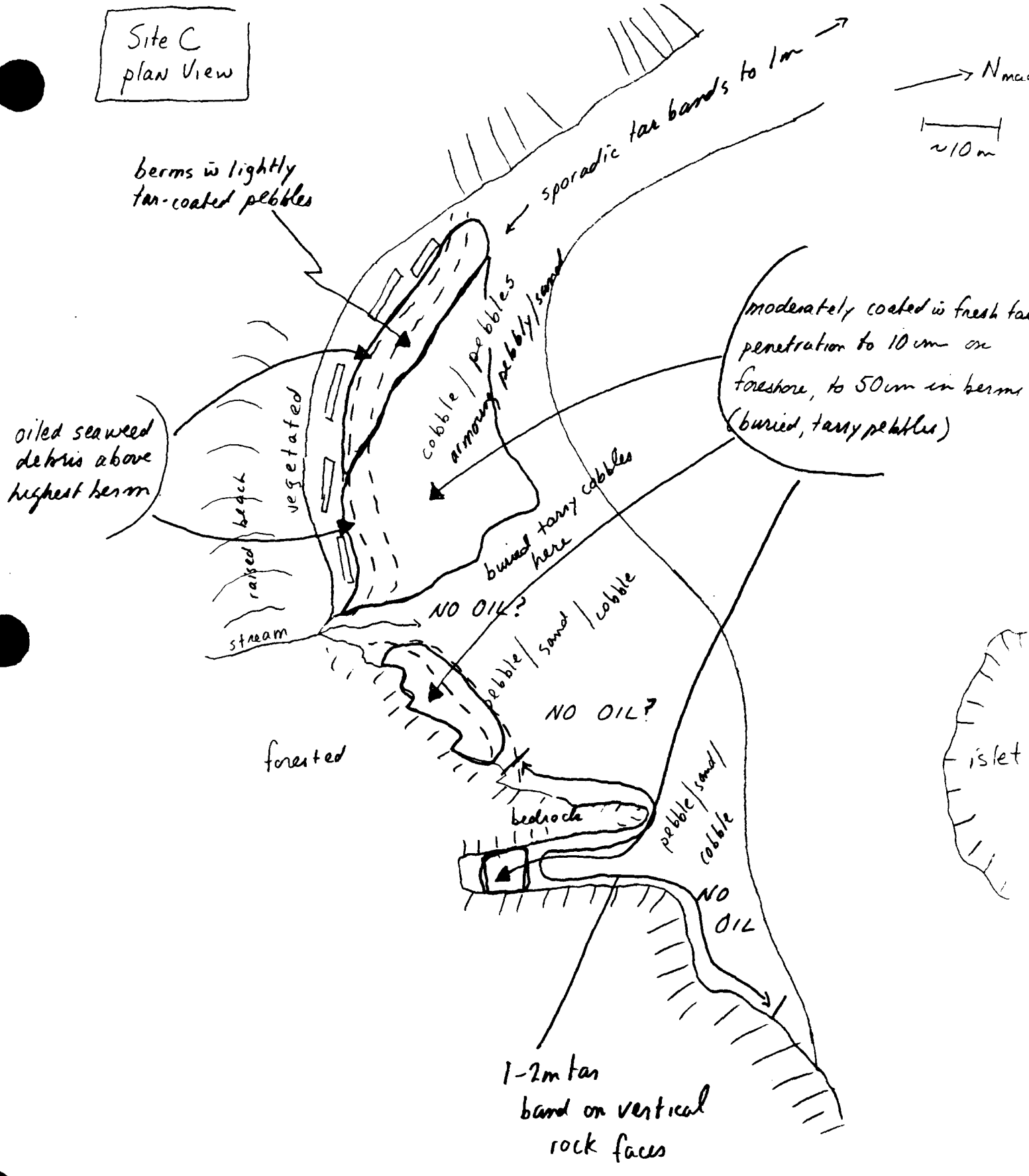
(see sheet #1 for key)




lightly oiled pebbles in berm
heavy coating of fresh tar, penetration to 20cm
to 3m wide band penetration to 10cm
forested
1m⁻² wide, fresh TAR
cliffs
alder
cliffs
boulders
bedrock with boulders
boulders
boulders
boulders
pebble/sand/boulder
1-2m oil ban on ve wall
heavily tar-coated;
penetration to 25cm;
mousse at depth;
drift logs oiled;
some oiled seaweed;
some asphalt pavement
bedrock
N
~10m
Site A
Plan View

Site B
Plan View




Site C
plan View
sporadic tar bands to 1m
~10m
berms w lightly tar-coated pebbles
moderately coated w fresh tar
penetration to 10cm on
foreshore, to 50cm in berms
(buried, tarry pebbles)
oiled seaweed debris above highest berm
raised beach
vegetated
cobble | pebbles
armoring pebbly/sand
buried tarry cobbles here
NO OIL?
stream
pebble | sand | cobble
NO OIL?
forested
bedrock
pebble | sand | cobble
NO OIL
islet
1-2m tar band on vertical rock faces

ECOLOGICAL EVALUATION

LOCATION: EVANS ISLAND SITE: Northern tip (PWS) OBSERVER: MEYER

LOCATION PREFIX: EV SEG. NO.: 72 LENGTH: 4.8 KM (M)

DATE: 07 / 21 / 89 TIME (HHMM): 0700 TIDE HT.: -2.3 to 5.0 FT (M)

OILED ZONE: Splash High Medium Low

SUBSTRATUM: Rocks Boulder Cobble Gravel Sand Mud

LIVE BIOTA

Fucus (algae): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Generally sparse/absent below cobble beach, continuous + dense on boulders + rock. Some patches heavily oiled

Mytilus (Mussels): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy distribution of small mussel aggregates on boulders, rock outcrops, and small beds in gravel, particularly near fresh water runoff. Some mussels are coated but alive in oiled zone

Balanus (Barnacles): Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Patchy distribution throughout segment, some stained by oil.

Littorina Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Littorina adults in Fucus; Nucella common in some areas, feeding on oiled and unoiled barnacles/mussels alike.

Limpets: Patchy Y/N Contin. Y/N Dense Y/N Sparse Y/N None Y/N

Fairly continuous distribution in low mid-tide zone and under Fucus.

OTHER OBSERVATIONS: Pisaster common as well as Evasterias (Red, brown, tan, green); Dermasterias, crabs, hermit crabs, many worms, Chitons common.

CLEANUP PRECAUTIONS: NONE.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other No mammals seen: Clean-up crews in area and lots of boat traffic.

BIRDS: ~21 Black-legged Kittiwakes; Pigeon Guillemot-1; Eagle-1; Mew Gull-1

GENERAL OBSERVATIONS: Site A: Eastern portion: little Fucus, subtidal sounds. Harvest heavily oiled Fucus, particularly from Site B. Site C also is generally barren below oiled zone and requires no ecological constraints. Small pond in uplands of Site C trickles underground at the beach area.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 7/21/89 Location Evans Island Site _____

Location Prefix EV Segment # EV-72 Length 4.8 km

Survey Method:

Air _____ (A - indicate on map) Boat ~ (A - indicate on map)

Ground ~ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source None

Oil conditions/beach visibility none to moderate

Width of beach zone surveyed 5-15 m Tree fringe surveyed 10m

Cultural resources observed in beach zone (AHRS code) None

Cultural resources observed in tree fringe (AHRS code) CMT (2 locations)

General observations justifying survey method and segment's site probability:

Shore Profile Beaches are moderate to steep and very eroded

Fresh Water Sources one very small stream

Sea Exposure open to east

Access/Safety good on beaches

Probability of undiscovered sites in beach zone (circle one) 1 (2) 3 4 5

Monitoring during cleanup needed yes (no) Collection yes (no)

Photos: Color Roll # _____ Frames _____

B/W Roll # _____ Frames _____

Observer(s) C. Wilson

Time survey started 0715 Time survey ended 1300

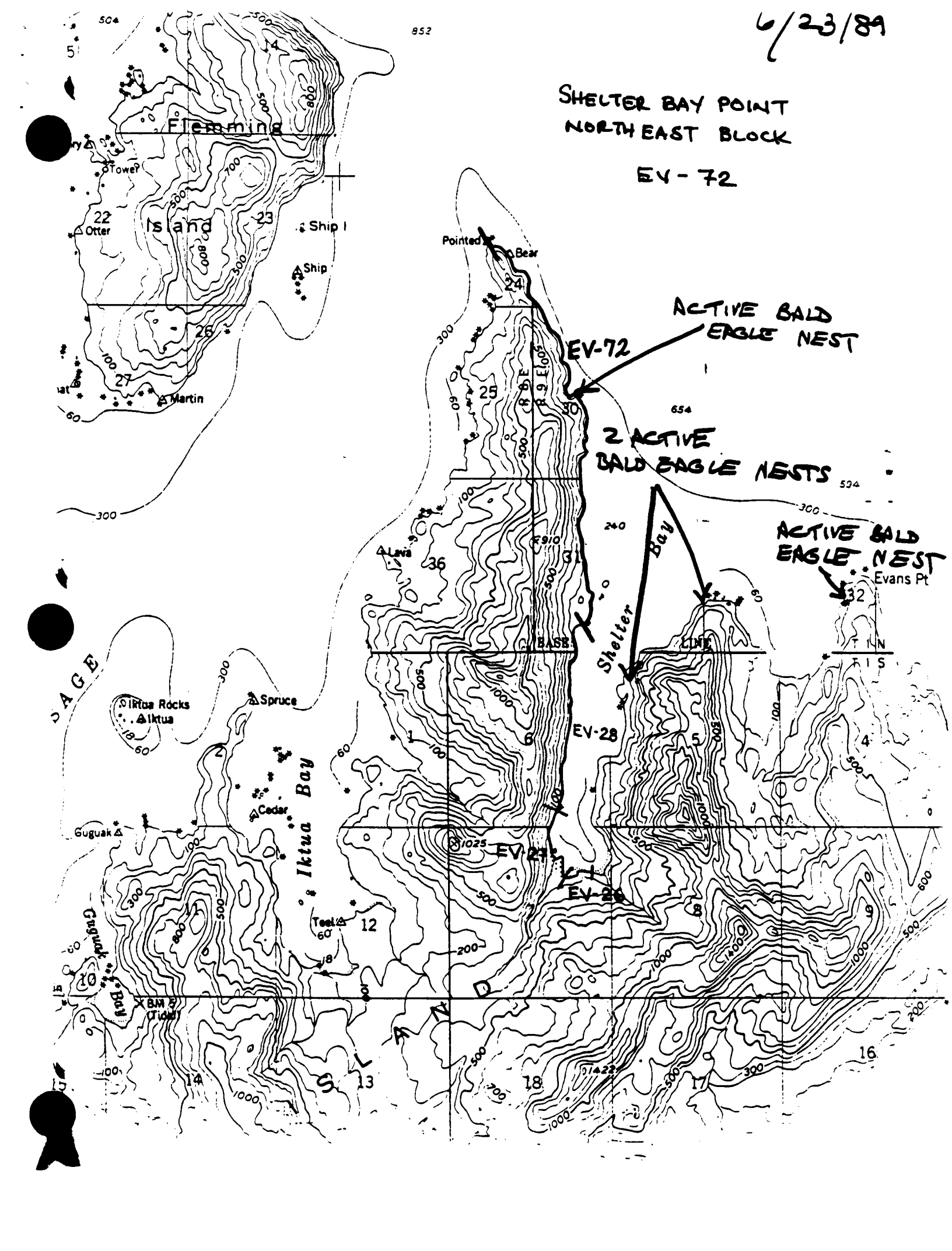
Cultural resource considerations/restraints:

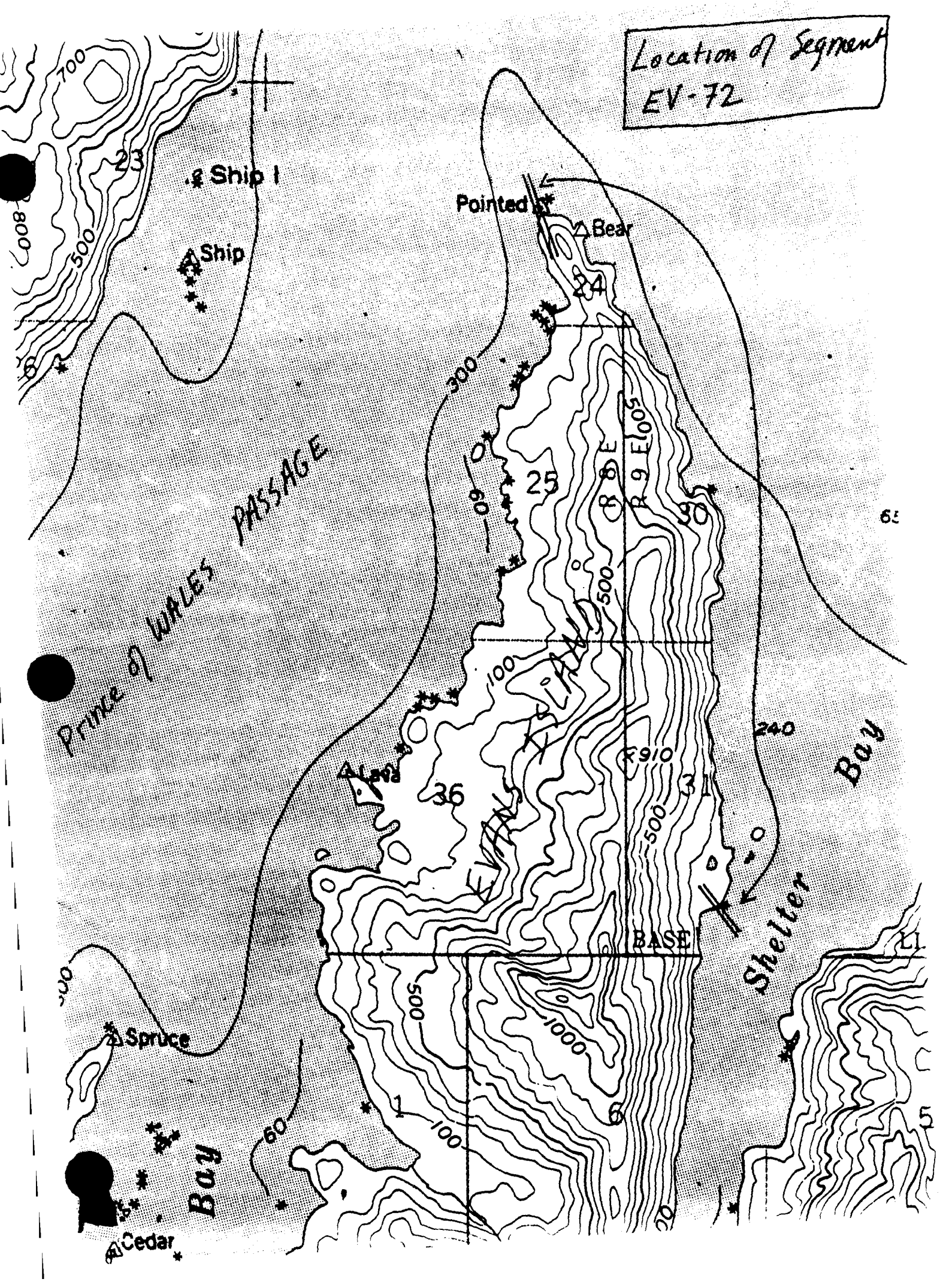
Standard

6/23/89

SHELTER BAY POINT
NORTHEAST BLOCK

EV-72




Location of Segment
EV-72
Ship I
Ship
Pointed
Bear
PASSAGE
Prince of WALES
Bay
Shelter
Bay
Spruce
Cedar
BASE
700
500
800
300
100
1000
60
240

TREATMENT MANUAL

SEG EV 72 INSPECTION # 1

DATE 8-10 89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- [X] Hot water wash
- [X] Warm water wash
- [X] Water deluge
- [ ] Mechanical
- [X] Non-mechanical Pom-pom / Squeegees
- [X] Other Oiled Debris Removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments 2 - Sections of Boom NOT Removed Prior to inspection due to Bad Weather on 8-9-89 will remove ASAP

Signature C. E. Dufficy Date: 8/10/89 Time: 1830

Printed Name C. E. Dufficy

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
1	Light
2	Very Light
97	None
100 %	

Subsurface Oil

[X] Yes [ ] No

Comments Very light coating in several cove areas containing cobble & gravel

Reassessment

- [ ] Yes - necessary
- [X] No - not necessary unless re-oiled

ADEC rep Comments Concur w/ Ltjg and demobilization approval. Treatment has stabilized. No gross contamination observed. Recess this segment for recoiling.

Signature Denny R. Timmons Date: 8/10/89 Time: 1942

Printed Name Denny R. Timmons, Envr Engr, ADEC

FOSC rep Demobilization (approved) disapproved

Comments Boom to be removed ASAP

Signature Rod B Hamm Date: 8/11/89 Time 1940

8/6/89 dlb

TREATMENT MANUAL. 6/15/89

SEG EV-100 INSPECTION # 1

DATE 8/5/89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical _____
- ☐ Non-mechanical _____
- ☒ Other Manual debris removal

Exxon

Treatment as indicated above has been completed. Request demobilization from this segment.

Comments TREATMENT OF SEGMENT EV-100 IS COMPLETE READY FOR DEMOB & DEPLOYMENT TO NEW SEGMENT

Signature [signature] Date: 8/5/89 Time 16:33

Printed Name RICHARD HARRELSON

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
0	Heavy
0	Medium
2	Light
3	Very Light
95	None
100 %	

Subsurface Oil

☐ Yes ☒ No

Comments _____

Reassessment

☒ Yes - necessary ☐ No - not necessary unless re-oiled

ADEC rep Comments: Concur w/ % and demob approval. No gross contamination found. Recommend deploying to segment with heavier oiling impact.

Signature [signature] Date: 8 15 89 Time 1642

Printed Name Denny R. Timmons Envir Engr, ADEC

FOSC rep Demobilization approved/disapproved

Comments [signature] No Gross Contamination

Signature [signature] Date: 8.9.89 Time 1638

Printed Name Arthur J Smith

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): EVANS ISLAND NORTHEAST BLOCK

Includes Shoreline Segments: EV-900

Submitted : W R Wolfkamp (for Exxon) Date: 8-29-89

ISCC Recommendation: Sharon K. Christopherson Date: 9-1-89

FOSC Approval: [signature] Date: 9-1-89

The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative has the authority to approve on-site modifications. The Field Resource Team should be consulted if these actions do not fit within the Ecological Constraints of the Shoreline Cleanup Program. Requirements for safety and the protection of cultural material must be observed.

Distribution:

Exxon Shoreline Coordinator
Exxon Shoreline Supervisor
Exxon SCAT file

SHPO
FOSC
CDFU
NOAA
EPA
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS

********** SCOT NOTE **********

THERE ARE ITEMS OF GREAT CONCERN IN THIS APPROVAL BLOCK THAT AFFECT THE DEPLOYMENT OF CREWS AND EQUIPMENT.

READ THIS FIRST

ALL SHORELINE SEGMENTS WITHIN THE EVANS ISLAND NORTHEAST BLOCK ARE ON LANDS OWNED BY CHENEGA VILLAGE CORPORATION. PERMIT NO ACCESS TO UPLAND AREAS AT ANY TIME.

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/27/89 SHORELINE SEGMENT EV-900

LOCATION: (see enclosed map) EVANS ISLAND-NORTHEAST OF SAWMILL BAY (EVANS ISLAND NORTHEAST BLOCK)

ADEC NO. SHORELINE ASSESSMENT DATE: 8/22/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to discontinuous, light oil and high wave exposure.

Priorities Considerations:
Class 4: Light oil
A: Resources present

Ecological Constraints (from site survey):
Rich intertidal life may be adversely effected by cleanup activities, therefore, no cleanup recommended. Two anadromous streams (#16650 and #16652) are located in this segment. If cleanup is planned notify ADF&G and RAT forty eight hours prior to beginning cleanup activities.

Archeological Constraints (from site survey):
If cleanup is conducted and heretofore undiscovered cultural materials are uncovered, contact Exxon's Archeological Field Director and take actions prescribed in the Operational Guidelines for Shoreline Cleanup dated 4/21/89 as amended.

State Historic Preservation Officer * Date: Aug. 29, 89

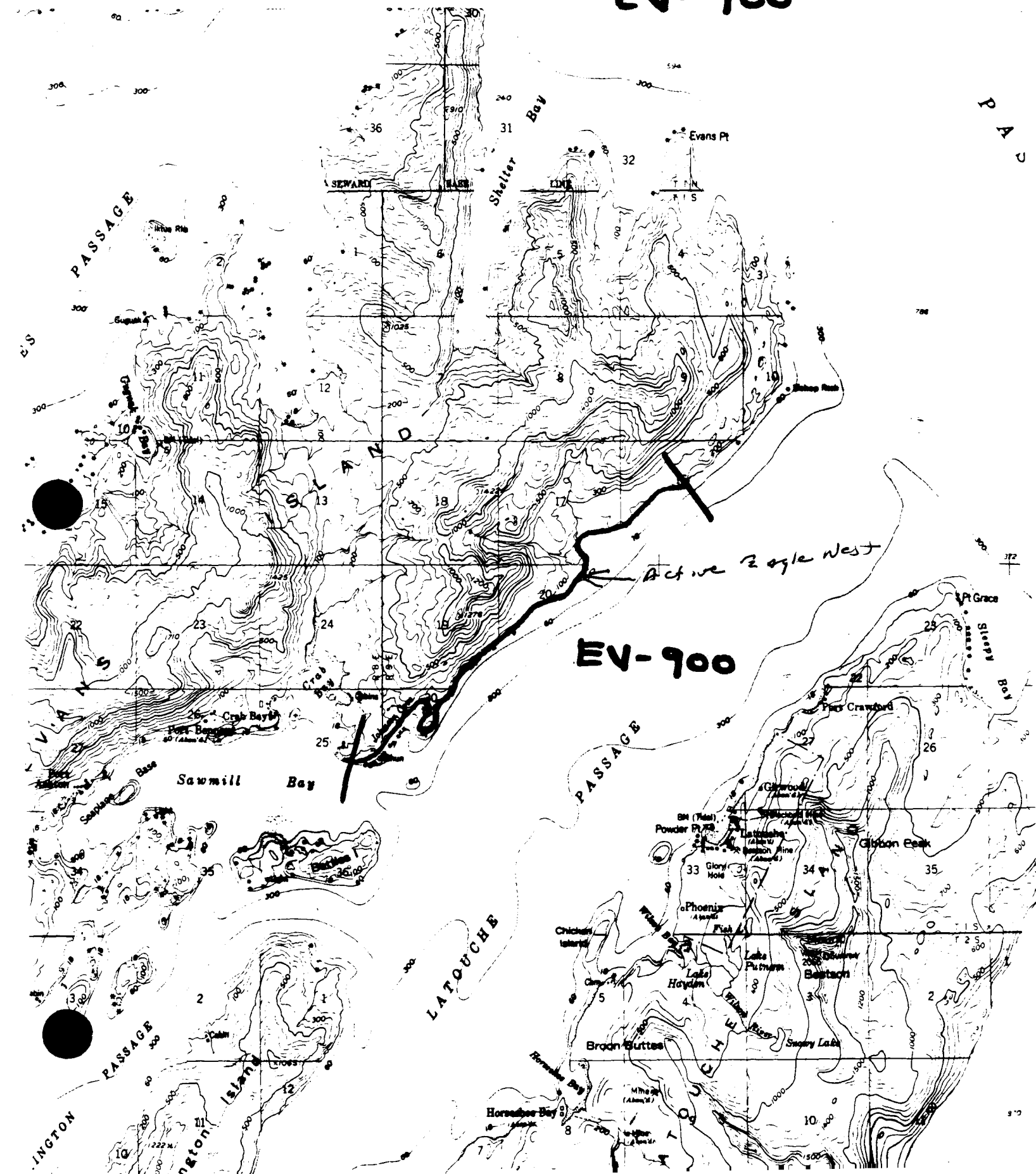
ISCC: Shawn K. Christopherson Date: 9-1-89

EXXON: Daniel D. Tyler Date: 9-1-89

FOSC: C. E. McCain Date: 9-1-89

* Signature required to satisfy stipulations in Alaska DNR land use permits for tide and submerged lands.

EVANS ISLAND
NORTHEAST BLOCK
EV-900



SHORELINE OIL EVALUATION

Date: 8/22/89 Time: 08:55 Observer: G. MACDONALD

Surveyed From: (Foot) (Boat) Helio/Plane Weather: (Sun) Cloud/Rain/Snow/Fog

LOCATION Evans Island,

LOCATION NE of Sawmill Bay. SEGMENT NUMBER EV-900

LENGTH OF SHORELINE SEGMENT: 7,000 m

ACCESS: Foot/Vehicle/(Boat)/Barge/Helio/(Float Plane)

SHORELINE:

Shoreline Type: SPI/BEA/COV/HLD/(STRT) Slope: LANG/(HANG)/VER

Wave Exposure: (High)/Med/Low 5%

Sediment: B 20 % / C < % / P < % / G < % / S STRKE % / M STRKE % / R 75 %

Drift Debris on Beach: (Yes)/No (Supra)/Upper/Mid/Lower Type scattered

OIL

Degree of Oiling: Heavy/Moderate/Light/(No Oil)/Unobserved/(TRACE)

Area of Beach Impact: SU / (SP) / (H) / M / L

Continuous: Y/(N) % of Segment _____ Width of Band: < 0.1 m

Sporadic: Y/N % of Segment _____

Est. Oil Thickness where > 1cm: _____ cm Est. Oil Penetration: < 3 cm

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H____ % /M____ % /L 50 %/TRACE 50

Fresh _____ % Mousse _____ % Tar Formation: 100 %

Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

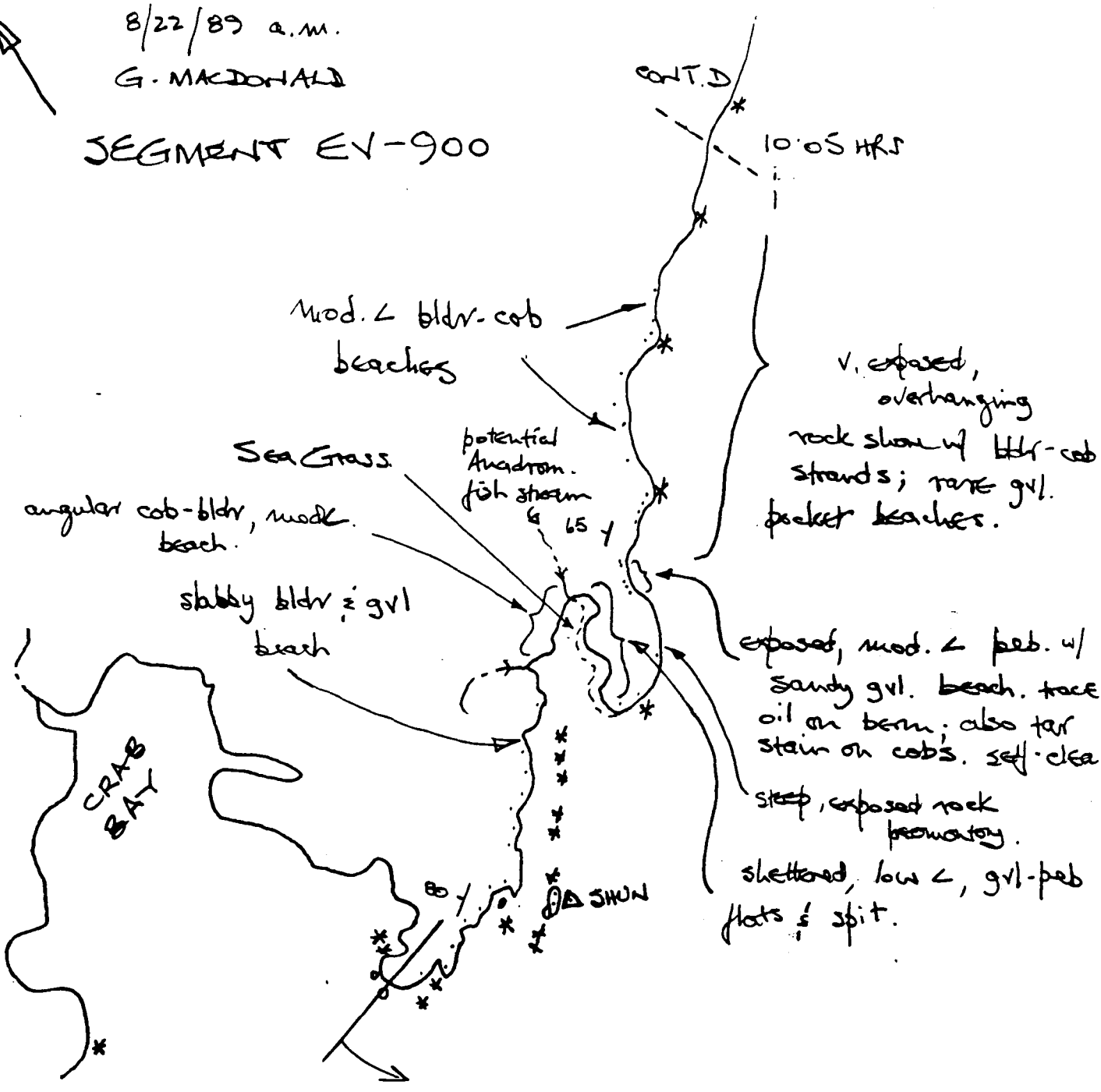
Exposed rocky shore; light → heavy oiling has been reduced by self-cleaning to trace/light oiling. Smaller sized gravels which may have been oiled or been level, have been washed downbeach.

Page 2:

N

8/22/89 a.m.
G. MACDONALD

SEGMENT EV-900



KEY

∴ trace oil.

* submerged rock

stream.

steep rocky shore, exposed, thin tar lines, ≤3cm e up. HTIZ-SP. occas. fractured/shattered peb-gvl. pocket beaches.

1 mile

Map 2 of 2.

8/22/89 a.m.
G. MACDONALD



SEGMENT EV-900

EV-36

KEY

trace oil. (<0.1m wide)

light oil. (0.1m - 3m wide)

stream.

blocky-gloggy bldr. beach.

mod-low angle, exposed, bldr-cob-gvl; faint drip line @ up. HITZ.

juvenile eagle sited

wave-worn platform; v. shallow.

v. exp., mod. ∠, boulder-cob beach w/ bedrock outcrops.

Anadromous fish streams w/ sea-grass nearshore

trace tar tips and soft thin footprint patches @ up. HITZ; self-cleaning.

v. exposed low angle cob-bldr-peb. flats" w/ some sand & gvl. — over bedrock.

oil as self-cleaning heavy band, now faint & light oil; traces & light oil over 10 m width, on cobs & bedrock; occas. massive ball; @ up. HITZ.

overhanging rock promontory; no oil.

State of Ak, CERCLA Study site

bldr "flats" & small lagoon. rare debris-laden tar balls.

oil as thin tar bands or drip line, faint & wave worn. < 10 cms. width.

v. exposed rocky shore — mod. ∠, boulder veneer over bedrock

10.05 HRS

1 mile

8/22/89 SEGMENT EV-900
08.55

steep, exposed rocky shore - vertically bedded sheared sediments & greenstones.

trace - continuous thin tar lines, < 3cms wide; c up. HTZ → SP;

rocky coast - becoming v. exposed northward; any tar line is wave worn & faint; cobs. w/ tar are self-cleaning eg at CERCLA site.

trace s/f tar pavement patches, binding grls, c "flats"

raised beach throughout segment.

12.00 HRS

END of SEGMENT.

ECOLOGICAL EVALUATION

LOCATION: Prince William Sound SITE: Evans Island, NE Sawmill Bay. OBSERVER: S. Dearn

LOCATION PREFIX: _____ SEG. NO.: Ev-900 LENGTH: 7,000 (M)

DATE: 08/22/89 TIME (HHMM): 0900-1200 TIDE HT.: 6.0 - 2.0 ft

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) Boulder (Cobble) (Gravel) (Sand) Mud

LIVE BIOTA

Fucus (algae): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N
Dense + continuous on large rocky outcroppings, vertical walls of rocks + near anadromous fish stream mouths. Plants were present in patchy clumps on cobble / boulder beaches. Some plants were oiled in the upper high ITZ.

Mytilus (Mussels): Patchy (Y)/N Contin. Y/N Dense (Y)/N Sparse Y/N None Y/N
Clustered in small patches along ridges + cracks of rocks. On exposed rocky outcroppings, ~~##~~'s increase considerably + form bands 6-8 ft wide

Balanus (Barnacles): Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse Y/N None Y/N
Dense + continuous on large boulders + rocky outcroppings, and vertical walls of rocks. Barnacles were also scattered on tops of cobbles / boulders across beach areas. Some individuals were oiled.

Littorina
Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N
Scattered across HITZ amongst upper range of barnacles. Several aggregations present in association w/ ~~a single~~ pieces of drift brown algae.

Limpets: Patchy (Y)/N Contin. (Y)/N Dense (Y)/N Sparse (Y)/N None Y/N
Many individuals (all sizes) clustered in spaces on rocks amongst barnacles, especially in exposed rocky headlands. Scattered across cobble / boulder beaches.

OTHER OBSERVATIONS: Anadromous fish Streams # 16650 16652 located w/in segment. Deer tracks present on sand / gravel beach. Zostera (seagrass) beds are dense just nearshore, especially near fish streams. Pink Salmon jumping out of water, going upstream into the above numbered fish stream + also gathering in large schools near Johnson Cove. SEE MAP
Lichen Bands are very distinct in areas of this segment + are relatively deceptive in that they appear very similar to oil. The presence of

CLEANUP PRECAUTIONS: Juvenile eagles, seagrass beds + anadromous fish streams make this area very ecologically sensitive. Considering the negligible amounts of oil present, no clean up is recommended as it would greatly disturb the valuable resources present.

MAMMALS: Otters 3 Harbor Seals ____ Sea Lions ____ Whales ____
Other _____

BIRDS: 2 Bald eagles (1 adult, 1 juvenile > 1 yr), 3 oyster catchers, 4 Harlequin ducks, many Glaucous-winged + Mew gulls, ~50 Mew Gulls, crows foraging intertidally.

GENERAL OBSERVATIONS: Some organisms particularly the barnacles + Fucus have been affected by the oil but the majority of intertidal organisms appear healthy.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8-22-89 Location Evans Is, East Site _____

Location Prefix EV Segment # EV-900 Length _____

Survey Method:

Air _____ (A - indicate on map) Boat — (A - indicate on map)

Ground ✓ (G - indicate on map)

Known cultural resources (AHRS #) None Data Source AHRS file

Oil conditions/beach visibility Light to Trace, good visibility

Width of beach zone surveyed 10 m Tree fringe surveyed 30 m

Cultural resources observed in beach zone (AHRS code) HT1

Cultural resources observed in tree fringe (AHRS code) CMT, HTD, HT-1.

General observations justifying survey method and segment's site probability:

Shore Profile Steep rocky coast, boulder slab to sand-pebble beach

Fresh Water Sources 1 Anad. stream, several smaller streams (~5)

Sea Exposure Mod. energy to semi-protected.

Access/Safety good access, safe.

Probability of undiscovered sites in beach zone (circle one) 1 2 (3) 4 5

Monitoring during cleanup needed yes/(no) Collection yes/(no)

Photos: Color Roll # — Frames —

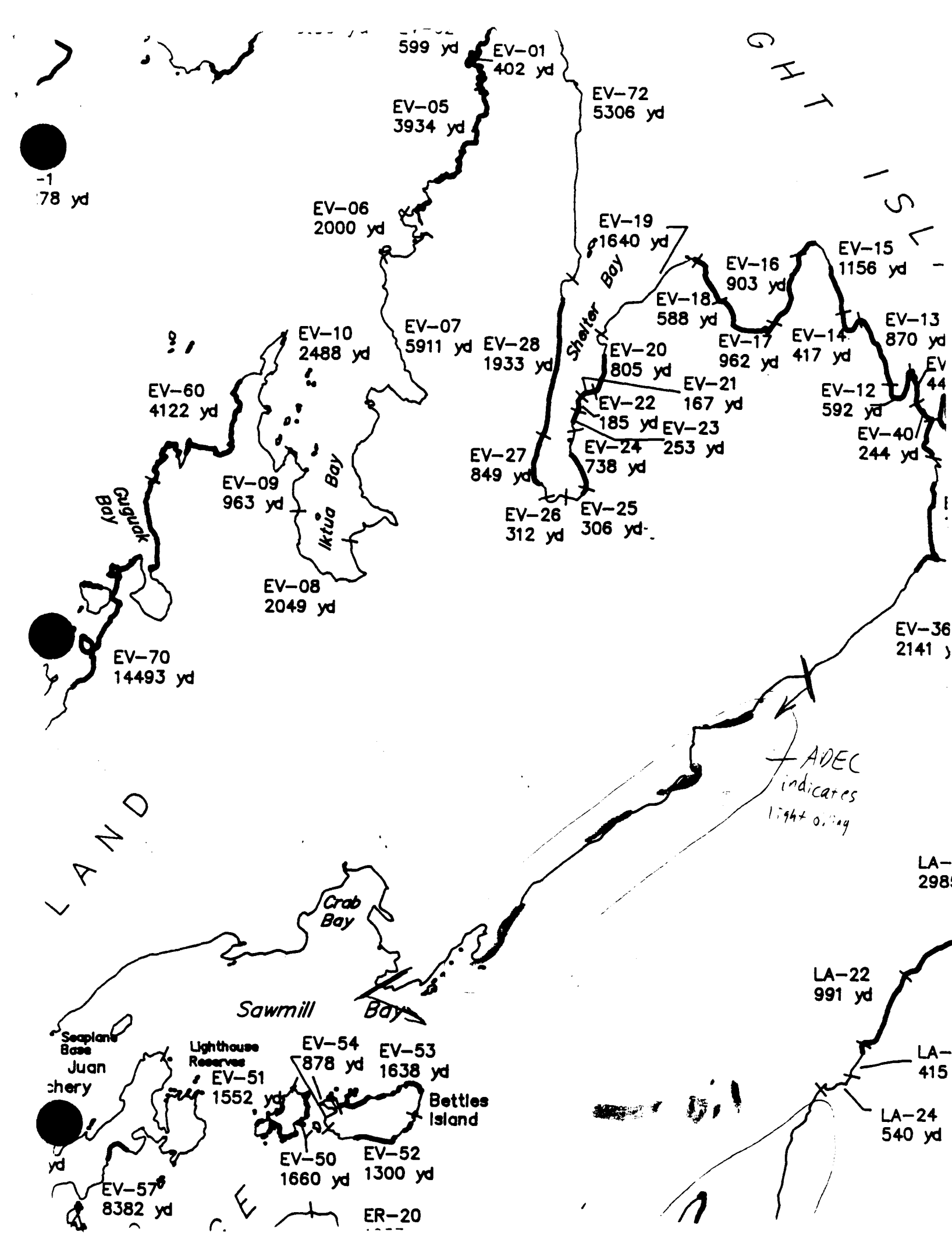
B/W Roll # PGP #15 Frames 30-32

Observer(s) P.G. Phippen

Time survey started 0855 Time survey ended 1200

Cultural resource considerations/restraints:

Standard Constraints


599 yd
EV-01
402 yd
EV-72
5306 yd
EV-05
3934 yd
-1
78 yd
EV-06
2000 yd
EV-19
1640 yd
EV-16
903 yd
EV-15
1156 yd
Shelter Bay
EV-18
588 yd
EV-13
870 yd
EV-10
2488 yd
EV-07
5911 yd
EV-28
1933 yd
EV-20
805 yd
EV-17
962 yd
EV-14
417 yd
EV-60
4122 yd
EV-21
167 yd
EV-12
592 yd
EV-22
185 yd
EV-23
253 yd
EV-40
244 yd
EV-24
738 yd
EV-27
849 yd
EV-09
963 yd
Ikiua Bay
Cugyak Bay
EV-26
312 yd
EV-25
306 yd
EV-08
2049 yd
EV-70
14493 yd
EV-36
2141
ADEC
indicates
light o.
LAND
Crab Bay
Sawmill Bay
LA-22
991 yd
LA-24
540 yd
Seaplane Base
Juan
chery
Lighthouse Reserves
EV-51
1552 yd
EV-54
878 yd
EV-53
1638 yd
Bettles Island
EV-50
1660 yd
EV-52
1300 yd
EV-57
8382 yd
ER-20

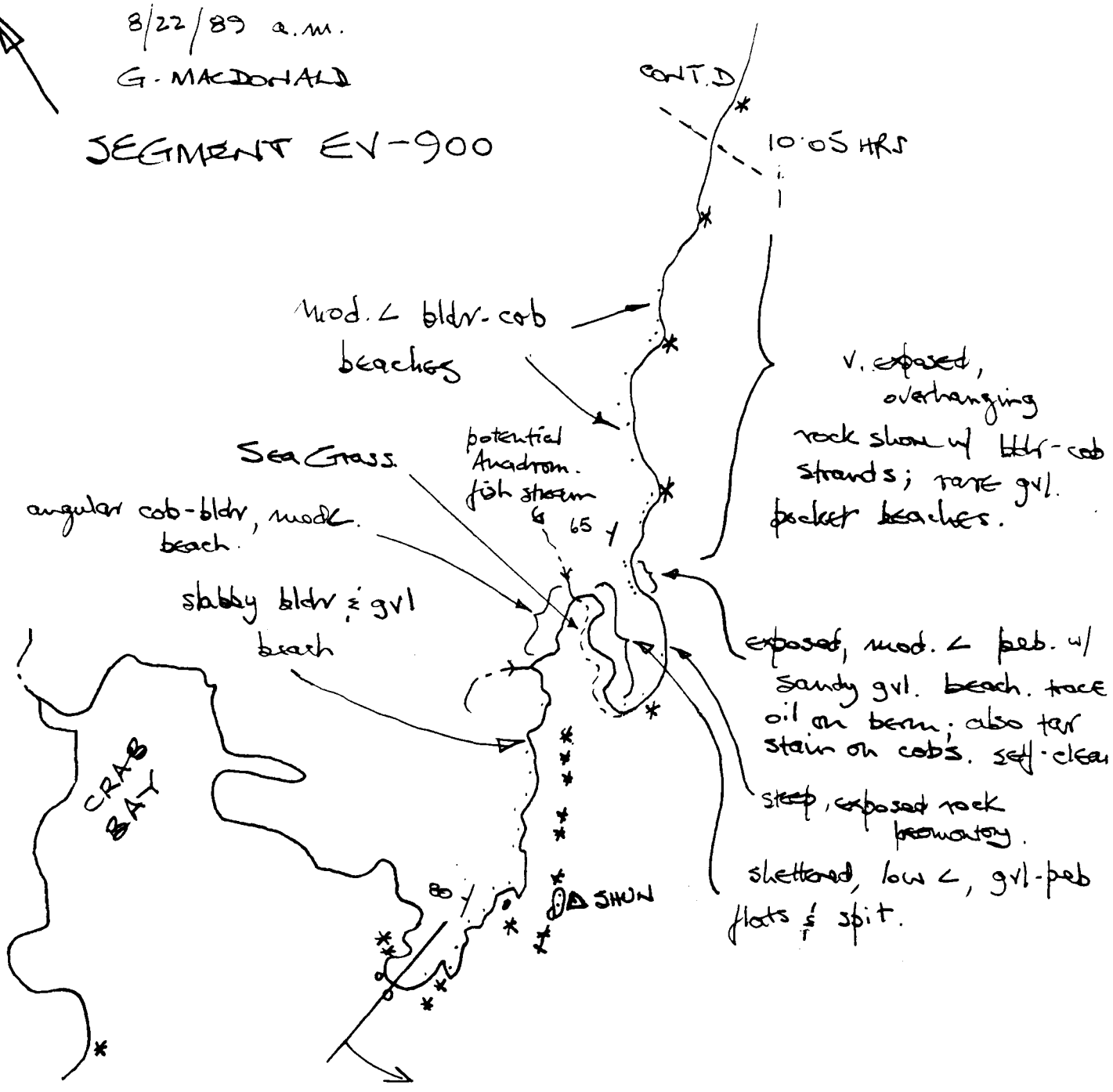
Map 1 1/2

N

8/22/89 a.m.

G. MACDONALD

SEGMENT EV-900



KEY

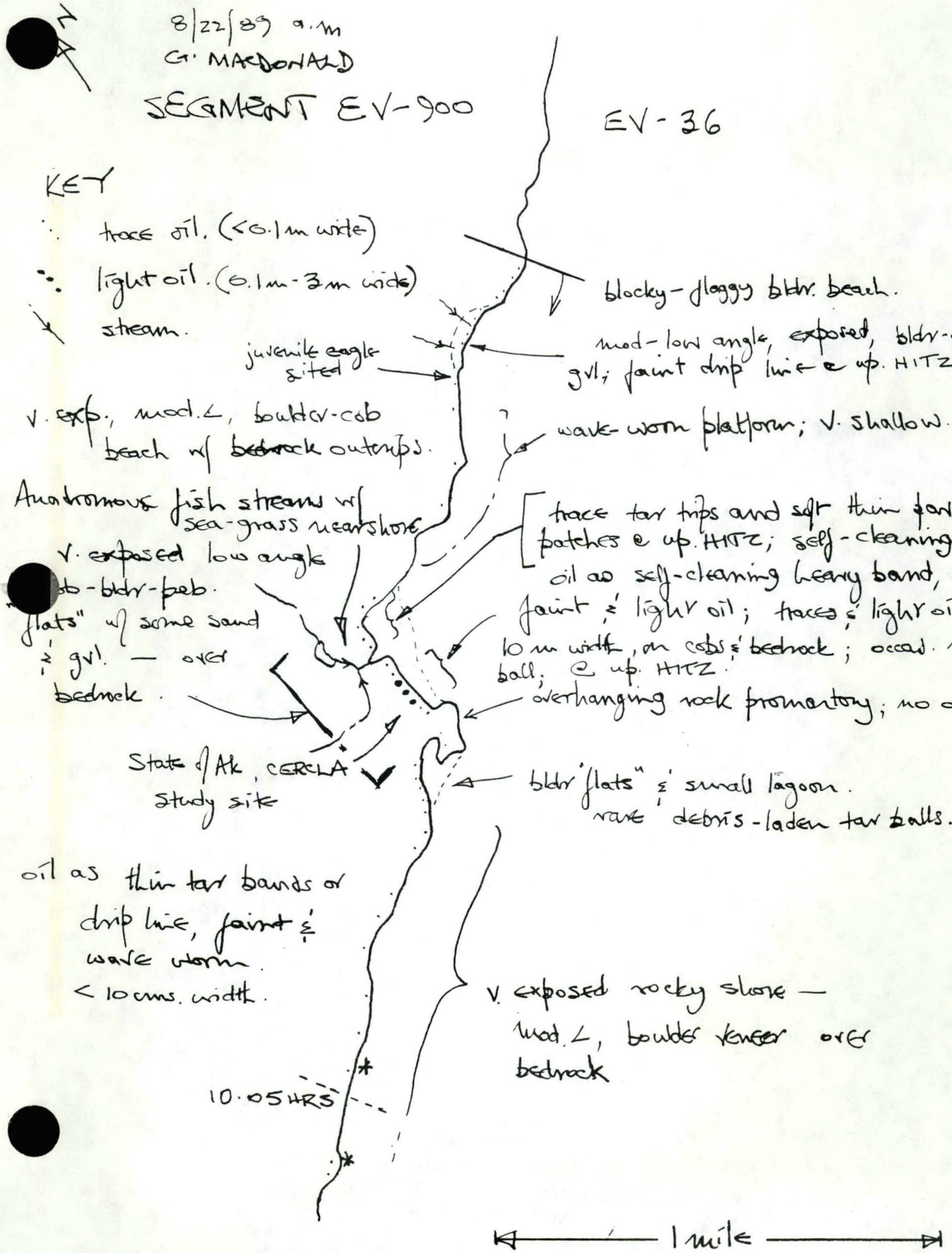
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SEGMENT EV-900
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1 mile