[Shoreline evaluations, 1989].

Volume 9

Montague Island

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): GRAVEYARD POINT BLOCK

Includes Shoreline Segments: MN-01, MN-02

Submitted : Scott A. Neumann (for Exxon) Date: 8/23/89

ISCC Recommendation: Sharon K. Christopherson Date: 8/28/89

FOSC Approval: David Janes II Date: 8/28/89

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

(version 6/14/89)

Eagle Nest locations provided 8/25 RSW

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT MN-01

LOCATION: (see enclosed map) MONTAGUE ISLAND-NORTHWEST SIDE (GRAVEYARD POINT BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/17/89

Recommended Cleanup Activity(ies):
- Manually remove contaminated drift material (fucus).
- Use bioremediation if possible.
- No other cleanup recommended due to discontinuous, light oil and high wave exposure.

Priorities Considerations:
Class 4: Light oil
A: Resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. A cataloged anadromous stream (#17570) is located within this segment. Notify ADF&G and RAT forty eight hours prior to beginning cleanup activities. ~~An~~ two active bald eagle nest is located within this segment, see advisory. AVOID SETTING BIOREMEDIATION ~~SPRAY~~ IN INTERTIDAL POOLS. Recommend 100 meter buffer around anadromous fish stream and lagoon from bioremediation activity unless otherwise adjusted by ADF+G field rep.

SC 8/28/89
DRT 8.28.89

Archeological Constraints (from site survey):
Do not bioremediate historic features at the southern end of this 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.

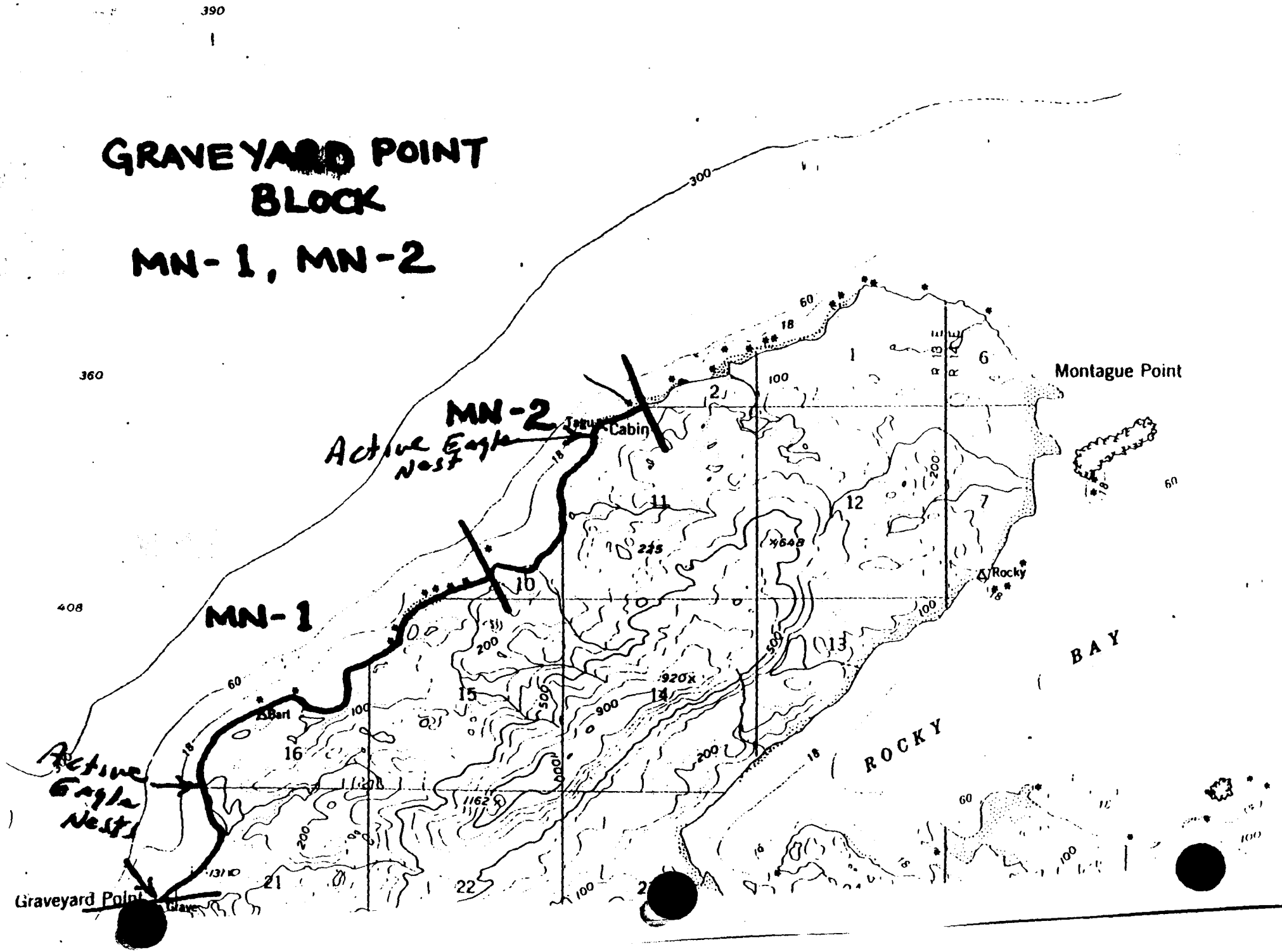
Robbe Buzzell
State Historic Preservation Officer * Date: 8/24/89

ISCC: Sharon K. Christopherson Date: 8/28/89

EXXON: Daniel D. Tyler Date: 8.28.89

FOSC: David Janoff II Date: 8/28/89

* Signature required to satisfy stipulations in Alaska DNR land


GRAVEYARD POINT
BLOCK
MN-1, MN-2
MN-2
Active Eagle Nest
MN-1
Active Eagle Nest
Graveyard Point
Montague Point
Rocky
ROCKY
BAY
Cabin
St Bart
390
360
408
300
60
18
100
200
500
900
1162
1310
920x
648
245
1
2
6
7
10
11
12
13
14
15
16
21
22
R 13 E

SHORELINE OIL EVALUATION

Date: Aug 17 89 Time: 07:00 AM Observer: Greg Chaney

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

LOCATION

LOCATION NW Montague Island SEGMENT NUMBER MN-1

LENGTH OF SHORELINE SEGMENT: 5300 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 70 % / C — % / P — % / G — % / S 10 % / M — % / R 20%

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

OIL

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

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

Max.

Continuous: Y/N % of Segment 5% Width of Band: 3 m

Sporadic: Y/N % of Segment 80%

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 15 cm

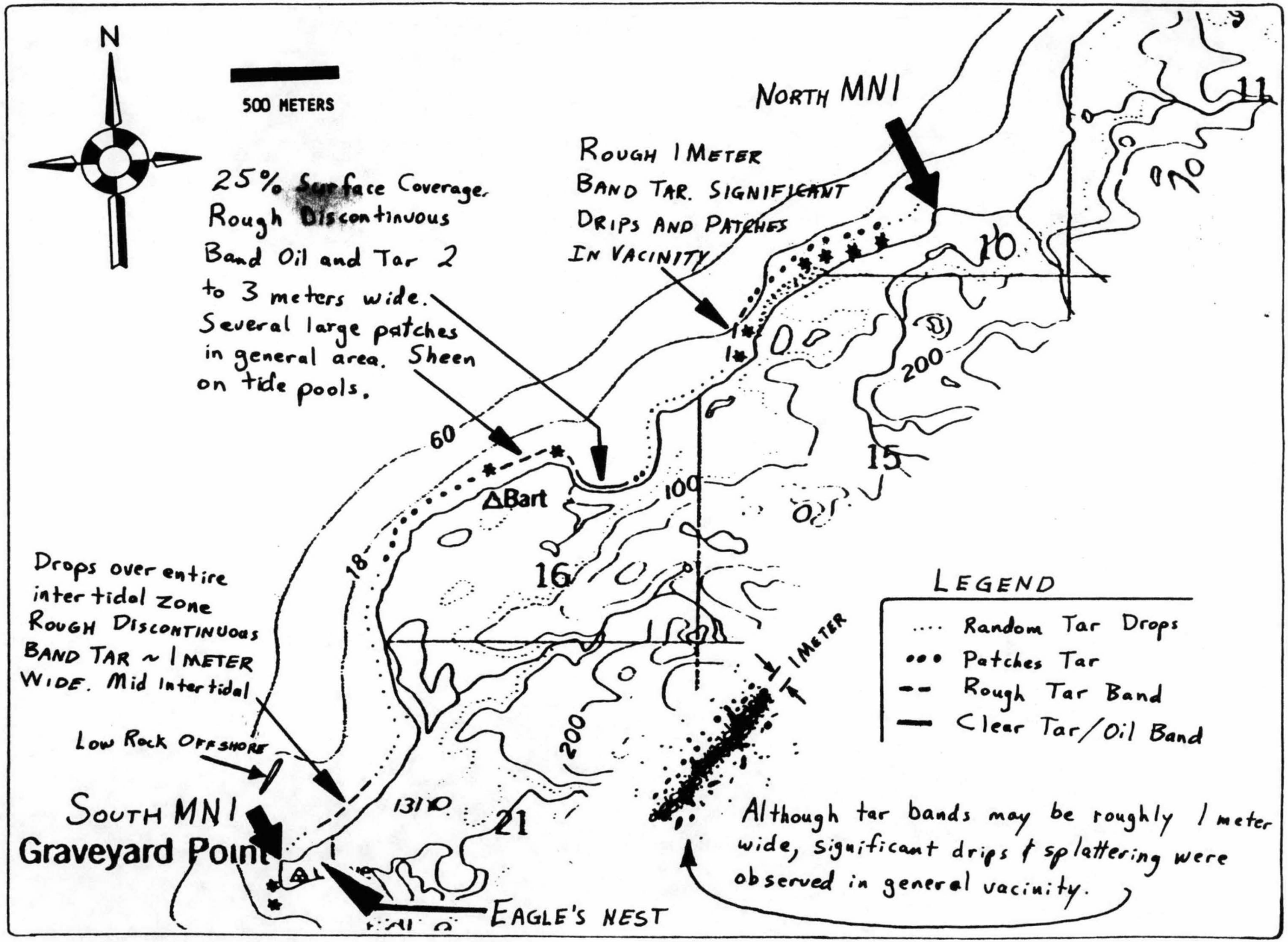
Pooled Oil: — % "Free" Oil: — % Coated: H 5 % /M 10 % /L 85 %

Fresh 5 % Mousse — % Tar Formation: 95 %

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

Comments:

This segment is dominated by a low bedrock wave cut terrace. The terrace is covered with a wide boulder layer but the bedrock is near the surface. Random drops of tar were observed along most of the beach. Portions of the segment which face due north recieved a greater amount of oil than any others. Bands of oil were rare but clusters of oil patches were more common. Little penetration was observed due to shallow bedrock.


N
500 METERS
NORTH MNI
ROUGH 1 METER BAND TAR. SIGNIFICANT DRIPS AND PATCHES IN VACINITY
25% Surface Coverage. Rough Discontinuous Band Oil and Tar 2 to 3 meters wide. Several large patches in general area. Sheen on tide pools.
Drops over entire inter tidal zone ROUGH DISCONTINUOUS BAND TAR ~ 1 METER WIDE. Mid Intertidal
Low Rock OFFSHORE
SOUTH MNI
Graveyard Point
EAGLE'S NEST
ΔBart
1 METER
LEGEND
Random Tar Drops
Patches Tar
Rough Tar Band
Clear Tar/Oil Band
Although tar bands may be roughly 1 meter wide, significant drips & splattering were observed in general vacinity.
11
10
10
200
60
15
100
18
16
200
13
10
21

Ecological Resource Map

S.C.A.T Team 4

Segment: MN-1

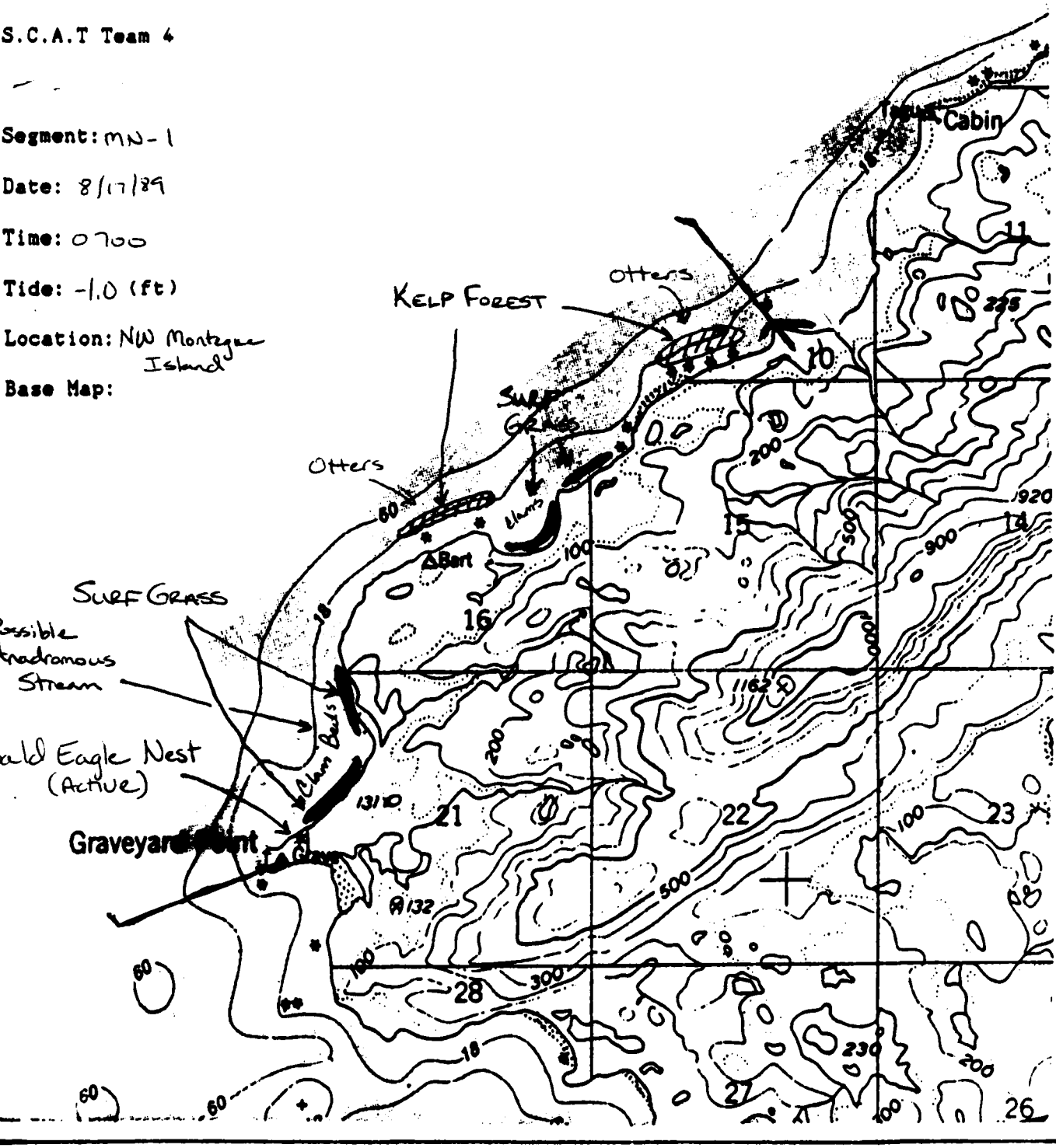
Date: 8/17/89

Time: 0700

Tide: -1.0 (ft)

Location: NW Montague Island

Base Map:



ECOLOGICAL EVALUATION

LOCATION: Montague Is. SITE: Graveyard Pt. and North OBSERVER: J. Tarpley

LOCATION PREFIX: MN SEG. NO.: 1 LENGTH: 5,300m (M)

DATE: 8/17/89 TIME (HHMM): 0645-1200 TIDE HT.: -1.0' → -2.3' → +7.0'

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

(Wide band throughout segment : Low ITZ rich & diverse with algae.

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

Patchy throughout segment and sparse when found - few areas are dense.

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

Primarily contin/sparse, but at Northend of segment forms dense band above Fucus. Both B. glandula & Semibalanus cariosus.

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.

Primarily Notoacmaea persona, also Tectura scutum.

OTHER OBSERVATIONS: Pycnopodia abundant; Pisaster common; Dermasterias rare; Kelp forests & surf grass beds offshore (see map). Very little water flowing through anadromous stream # 17570. Probably not active at this time.

CLEANUP PRECAUTIONS: Avoid streams, Eagle nest and further oil Contamination of healthy low ITZ.

MAMMALS: Sea Otters 20-30 Harbor Seals ___ Steller's Sea Lions 4 Whales ___

Other 2 Deer skeletons; Land Otter tracks

BIRDS: Active Eagle Nest at Graveyard Pt.! : 4 eagles, 3 Lesser Yellowlegs, 1 Oystercatcher, 8 Mergansers Gulls, Kittiwakes, Terrestrial birds

GENERAL OBSERVATIONS: Segment consists of low wave-cut terrace covered by boulders and cobble, in some areas (bays) sand. Oil coated rocks and splatter throughout segment. Heaviest concentrations on North facing beaches. The biota in segment is healthy even on most oiled beaches. Due to wide cobble boulder terrace and healthy biota surrounding the oil, bioremediation may be the best type of clean up for this area.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SEWARD (B-1) QUAD

Date 8/17/89 Location NW PART MONTAGUE I. Site _____

Location Prefix MN- Segment # 1 Length 5300 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (20%) (A - indicate on map

Ground ✓ (80%) (G - indicate on map)

Known cultural resources (AHRS #) SEW-204 NOMREY Data Source AHRS FILES

Oil conditions/beach visibility ZERO TO LIGHT OIL; GOOD BEACH VISIBILITY.

Width of beach zone surveyed 30-100 m Tree fringe surveyed 0-20 M

Cultural resources observed in beach zone (AHRS code) STP

Cultural resources observed in tree fringe (AHRS code) CROSS-CUT STUMPS

General observations justifying survey method and segment's site probability

Shore Profile LOW-MODERATE GRADIENT BOULDER/COBBLE BEACH W/COARSE SAND POCKETS.

Fresh Water Sources SEVERAL SMALL STREAMS

Sea Exposure OPEN TO PRINCE WILLIAM SOUND

Access/Safety ACCESS FOR BARGE/LCM IN CALM 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 —

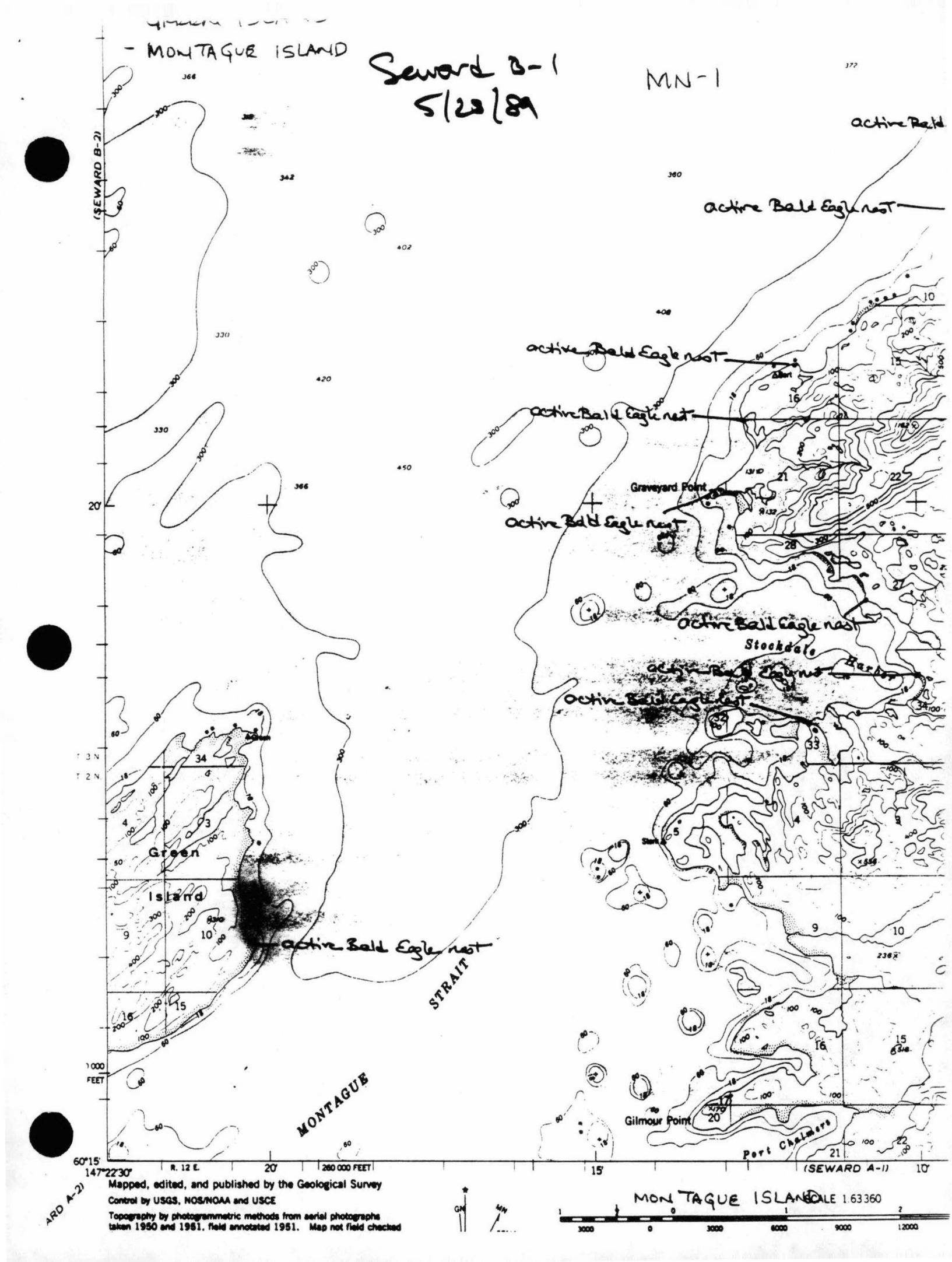
B/W Roll # PBSTMY-21 Frames 7-15

Observer(s) P. BUCK

Time survey started 0650 Time survey ended 1150

Cultural resource considerations/restraints:

SITE SEW-204 (AX-CUT TREES) IS NOT LOCATED IN MN-1 AND WILL NOT BE IMPACTED BY ANY CLEANUP OPERATIONS. STANDARD CONSTRAINTS HERE.


- MONTAGUE ISLAND
Seward B-1
5/23/89
MN-1
active Bald Eagle nest
Graveyard Point
Stockdale
Green
Island
STRAIT
MONTAGUE
Gilmour Point
Port Chalmers
(SEWARD B-2)
(SEWARD A-1)
(SEWARD A-2)
T 3 N
T 2 N
R. 12 E.
60°15'
147°22'30"
Mapped, edited, and published by the Geological Survey
Control by USGS, NOS/NOAA and USCE
Topography by photogrammetric methods from aerial photographs taken 1950 and 1951. field annotated 1951. Map not field checked
MONTAGUE ISLAND
SCALE 1:63360

S.C.A.T Team 4

Greg Chaney

Segment: MN-1

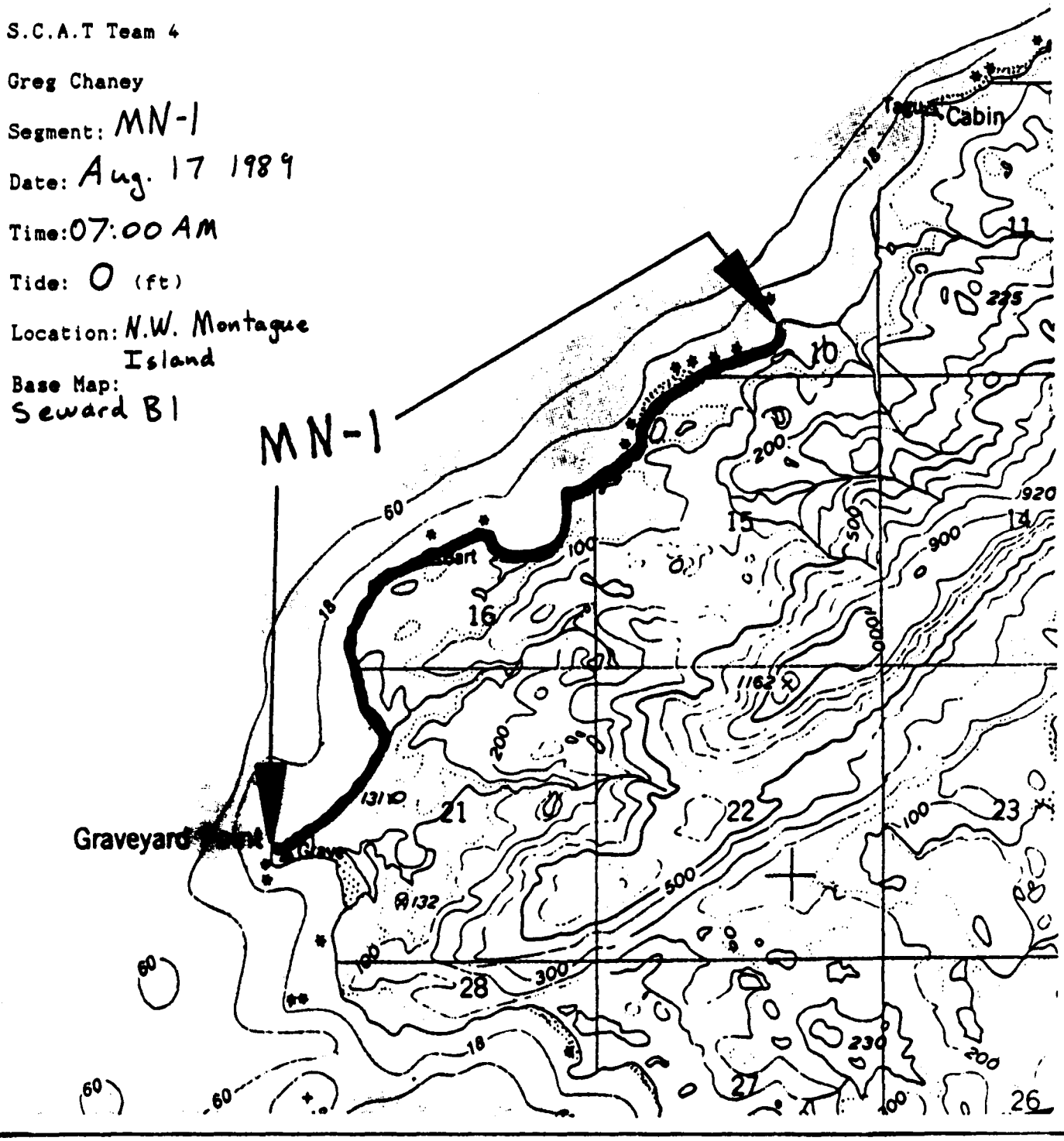
Date: Aug. 17 1989

Time: 07:00 AM

Tide: 0 (ft)

Location: N.W. Montague Island

Base Map: Seward B1



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT MN-02

LOCATION: (see enclosed map) MONTAGUE ISLAND-NORTHWEST SIDE

(GRAVEYARD POINT BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/17/89

Recommended Cleanup Activity(ies):
-Manually remove contaminated drift material and oiled containment boom.
-Use bioremediation if possible. Physically remove mobile oil if possible, prior to bioremediation.
-No other cleanup recommended at this time due to discontinuous oil and high wave exposure.

c 8/28/89 DLT 8.28.89

Priorities Considerations:
Class 2-4: Heavy to light oil
A: Resources present

Ecological Constraints (from site survey): Work at mid tide + or take appropriate measures to protect lower intertidal zone. There are two active bald eagle nests located within this segment, see advisory.. Do not bioremediate in vicinity of marsh at mouth of stream. or in tide pool areas.

c 8/28/89 DLT 8.28.89

Archeological Constraints (from site survey):
No access to uplands. 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.

Rolfe Russell Date: 8/24/89
State Historic Preservation Officer *

ISCC: Sharon K. Christopherson Date: 8/28/89

EXXON: Daniel D Tufts Date: 8.28.89

FOSC: David Janoski Date: 8/25/89

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

SHORELINE OIL EVALUATION

Date: Aug 17 '89 Time: 18:30 Observer: Greg Chaney

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

LOCATION

LOCATION NW Montague Pt. SEGMENT NUMBER MN-2

LENGTH OF SHORELINE SEGMENT: 2600 m

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

SHORELINE: limited — fair weather only

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

Wave Exposure: High/Med/Low

Sediment: B 70 % / C — % / P — % / G — % / S 10 % / M — % / R 20 %

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

OIL

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

Area of Beach Impact: SU / SP / H / M / L Max. Obs.

Continuous: Y/N % of Segment 5 % Width of Band: 6 m

Sporadic: Y/N % of Segment 90 %

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 10 cm

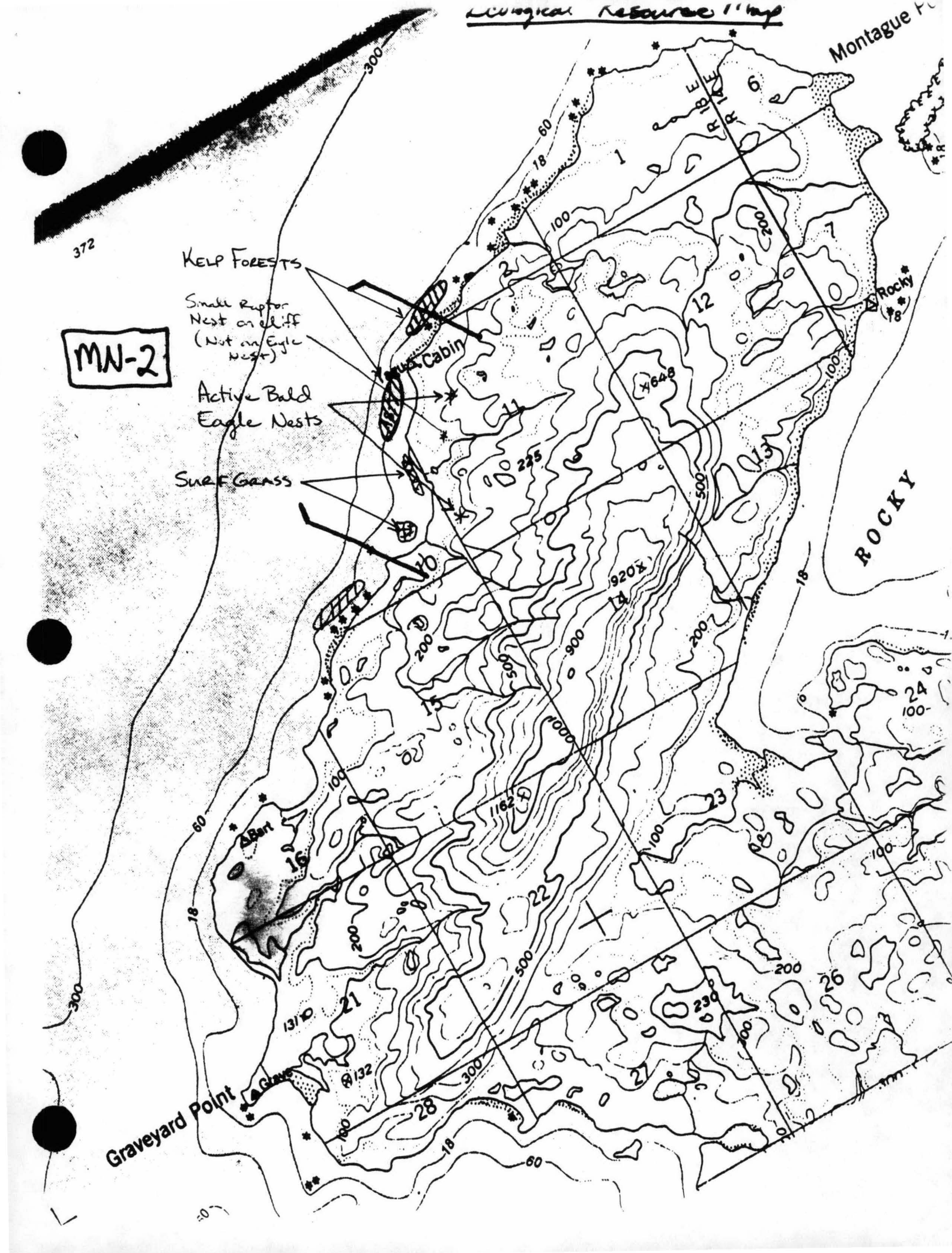
Pooled Oil: — % "Free" Oil: — % Coated: H 10 % / M 20 % / L 70 %

Fresh 10 % Mousse — % Tar Formation: 90 %

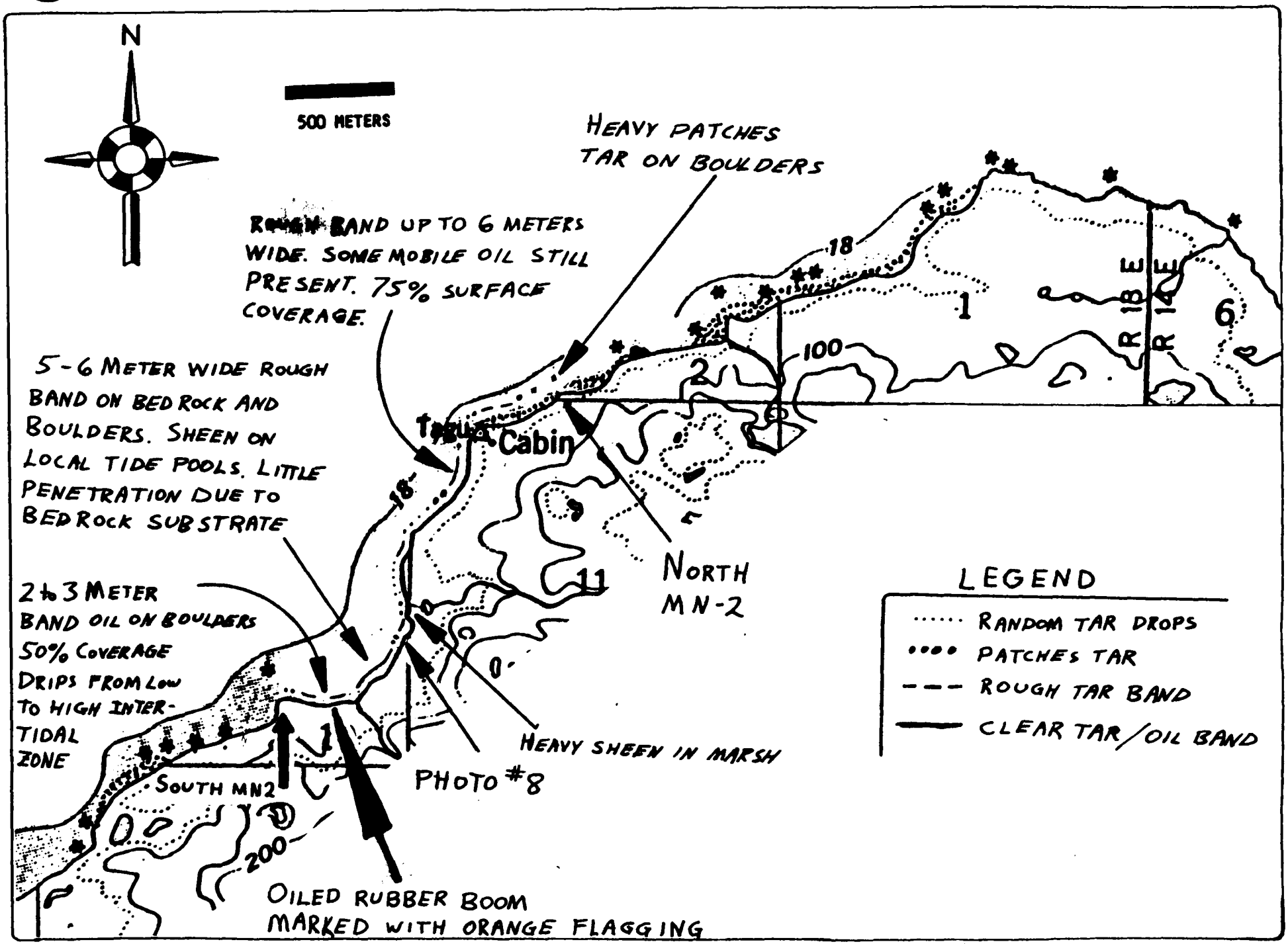
Drift Debris Oiled ? Yes/No Supra/Upper/Mid/Lower Amount: H/M/L

Comments:

This region is dominated by a long low wave cut terrace offshore. Several rocks dot the near inter tidal. Calm weather is required to land on this coast safely. Bands of oil were rough and coverage was usually less than 75% within the band. Some mobile oil was observed and sheen commonly occured in the vacinity of oiled bedrock & boulders.



Ecological Resource Map
MN-2
KELP FORESTS
Small Raptor Nest on cliff (Not an Eagle Nest)
Active Bald Eagle Nests
SURF GRASS
Cabin
Montague
ROCKY
Rocky
Bart
Graveyard Point
Grave


N
500 METERS
HEAVY PATCHES TAR ON BOULDERS
ROUGH BAND UP TO 6 METERS WIDE. SOME MOBILE OIL STILL PRESENT. 75% SURFACE COVERAGE.
5-6 METER WIDE ROUGH BAND ON BED ROCK AND BOULDERS. SHEEN ON LOCAL TIDE POOLS. LITTLE PENETRATION DUE TO BED ROCK SUBSTRATE
2 to 3 METER BAND OIL ON BOULDERS 50% COVERAGE DRIPS FROM LOW TO HIGH INTER-TIDAL ZONE
Cabin
NORTH MN-2
SOUTH MN2
PHOTO #8
HEAVY SHEEN IN MARSH
OILED RUBBER BOOM MARKED WITH ORANGE FLAGGING
18
100
200
11
1
2
6
R 13 E
R 14 E
LEGEND
RANDOM TAR DROPS
PATCHES TAR
ROUGH TAR BAND
CLEAR TAR/OIL BAND

ECOLOGICAL EVALUATION

LOCATION: Montague Island SITE: NW Peninsula OBSERVER: J. Tarpley

LOCATION PREFIX: MN SEG. NO.: 2 LENGTH: 2600 (M)

DATE: 8/17/89 TIME (HHMM): 1835-2030 TIDE HT.: +5.0' → +1.0' (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

Wide band of Fucus on terrace throughout the segment. Algal community rich in LIT

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

Patchy through out segment. Found on bedrock outcrops.

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

Margarites, Nucella also present and most affected by oil in mid to high ITZ area

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

Affected by oil in mid to high ITZ most.

OTHER OBSERVATIONS: Pisaster is common. 2 Active Eagle nests in segment and 1 other raptor (unidentified) nest on cliff - appears to be non-act.

CLEANUP PRECAUTIONS: Avoid Eagle nests - stay at least 300 ft from these nests. Avoid oil contamination of healthy low ITZ. Kelp forests and surf grass beds throughout segment.

MAMMALS: Otters ____ Harbor Seals ____ Sea Lions (Stellar's) 1 Whales ____
Other Land otter slides & tracks

BIRDS: 2 Bald Eagle Nests; 3 adult Eagles, 1 juv in nest; Gulls; Kittiwakes; 1 Oystercatcher; 4 Lesser Yellow

GENERAL OBSERVATIONS: Segment consists of wave-cut terrace covered with cobbles and boulders. Oiled zones primarily mid to high ITZ, except southern most oiled area within segment is mid to Low ITZ, ~50% Fucus oiled/dead, 25% oiled but live, 25% unoiled & healthy in this area. Barnacles & mytilus ~ 50/50 Limpets, Littorines, and Nucella appear healthy even though shells are oil coated. Lower ITZ below oiled zone appears unoiled, unaffected and healthy. — Oiled areas in mid to high ITZ show only Limpets and Littorines being affected and low ITZ organisms abundant and healthy.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/17/89 Location NW MONTAGUE ISLAND (SEWARD (B-1) QUAD) Site _____

Location Prefix MN- Segment # 2 Length 2600M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (40%) (A - indicate on map

Ground ✓ (60%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES 14(4)(1) MAPS

Oil conditions/beach visibility LIGHT - HEAVY OIL, FAIR BEACH VISIBILITY

Width of beach zone surveyed 15-100 m Tree fringe surveyed 0-20 M

Cultural resources observed in beach zone (AHRS code) HTD

Cultural resources observed in tree fringe (AHRS code) CBN, CMT(1)

General observations justifying survey method and segment's site probability

Shore Profile MODERATE GRADIENT BOULDER BEACH WITH SMALL COVES AND GRAVEL (SAND) POCKET BEACHES.

Fresh Water Sources SEVERAL SMALL STREAMS

Sea Exposure OPEN TO PRINCE WILLIAM SOUND

Access/Safety ACCESS POSSIBLE FOR SKIFFS IN CALM 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 —

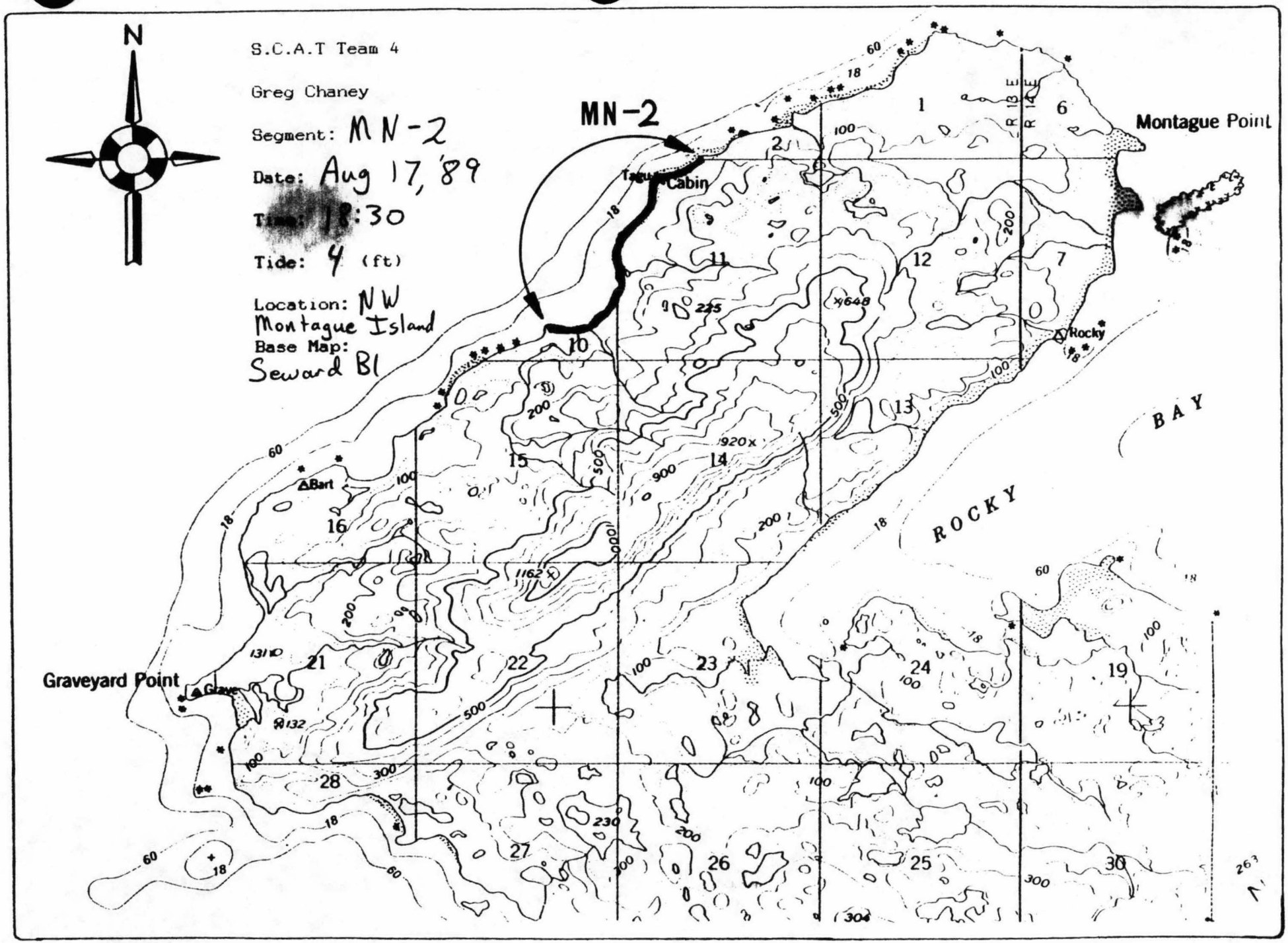
B/W Roll # PESTMY-21 Frames 12-22

Observer(s) A. BUCK

Time survey began 1133 - 1215, 1830 - 2013 Time survey ended _____

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS" + CLEANUP PERSONNEL SHOULD NOT BE ALLOWED IN TREE FRINGE IF CLEANUP IS PLANNED NE TAGV POINT.


N
S.C.A.T Team 4
Greg Chaney
Segment: MN-2
Date: Aug 17, '89
Time: 18:30
Tide: 4 (ft)
Location: NW Montague Island
Base Map: Seward B1
MN-2
Montague Point
Cabin
Rocky
BAY
ROCKY
Graveyard Point
Grave
Bart
1
2
6
7
10
11
12
13
14
15
16
19
21
22
23
24
25
26
27
28
30
60
18
100
200
500
900
1000
300
920x
1162
1310
R132
X648
235
230
263

SEG MN-01 INSPECTION #_ SEGMENT

DATE 89/09/09 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical_____
- ☐ Non-mechanical_____
- ☒ Other GARBAGE PICK-UP

Exxon

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

Comments SEGMENT MN-01 IS COMPLETE AND READY FOR DEMOBILIZATION AND DEPLOYMENT TO NEW SEGMENT

Signature Timothy W Turner Date: 89/09/09 Time: 14:50 HRS

Printed Name TIMOTHY W TURNER

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
<1	Heavy
<1	Medium
<1	Light
03	Very Light
97	None
100 %	

Subsurface Oil

☒ Yes (minimum) ☐ 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
<1	Heavy
<1	Medium
<1	Light
<1	Very Light
96	None
100 %	

Subsurface Oil

☐ Yes ☒ No

COMMENT BELOW

Reassessment

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

ADEC rep

Comments No treatment (wash) done in this segment, only one small band of oil which I recommend be cleaned 10ft x 200ft. Penetration 1" in gravel

Signature Michele Peep Date: 9/9/89 Time: 1504

Printed Name Michele Peep

FOSC rep **Demobilization approved/disapproved**

Comments Subsurface oil limited to scattered area 40 YDS LONG

Signature James R Porter MSTC Date: 9/9/89 Time: 1458

Printed Name JAMES R PORTER CHIEF MARINE SCIENCE TECHNICIAN

COPY: EXXON ADEC FOSC ISCC

25JUL89

SEG MN-02 INSPECTION # SEGMENT

DATE 89/09/09 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 MN-02 SEGMENT IS COMPLETE AN. READY FOR DEMOBILIZATION AND DEPLOYMENT TO NEXT SEGMENT

Signature Timothy W Turner Date: 89/09/09 Time: 15:11 HRS

Printed Name TIMOTHY W TURNER

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
<1	Heavy
2	Medium
1	Light
0	Very Light
97	None
100 %	

Subsurface Oil

[ ] Yes [X] No

COMMENT BELOW

Reassessment

[ ] Yes - necessary

[X] No - not necessary unless re-oiled

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil

Percent	Degree of Oiling
<1	Heavy
<1	Medium
1	Light
1	Very Light
96	None
100 %	

Subsurface Oil

[ ] Yes [X] No

COMMENT BELOW

Reassessment

[ ] Yes - necessary

[X] No - not necessary unless re-oiled

ADEC rep

Comments Gross contamination and mobile oil removed.

Signature Michael Pecp Date: 9/9/89 Time: 1521

Printed Name Michael Pecp

FOSC rep **Demobilization approved/disapproved**

Comments 50 YD SECTION OF SEGMENT WAS CLEANED

Signature James R Porter MSTR Date: 9/9/89 Time: 1517

Printed Name JAMES R. PORTER CHIEF MARINE SCIENCE TECHNICIAN

COPY: EXXON ADEC FOSC ISCC

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): POINT BAZIL NORTH ~~POINT~~ BLOCK

Includes Shoreline Segments: MN-03,

Submitted : W R Workman (for Exxon) Date: 8-23-89

ISCC Recommendation: Sharon K. Christopherson Date: 8-23-89

FOSC Approval: David Janosh Date: 8/25/89

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
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SHPO
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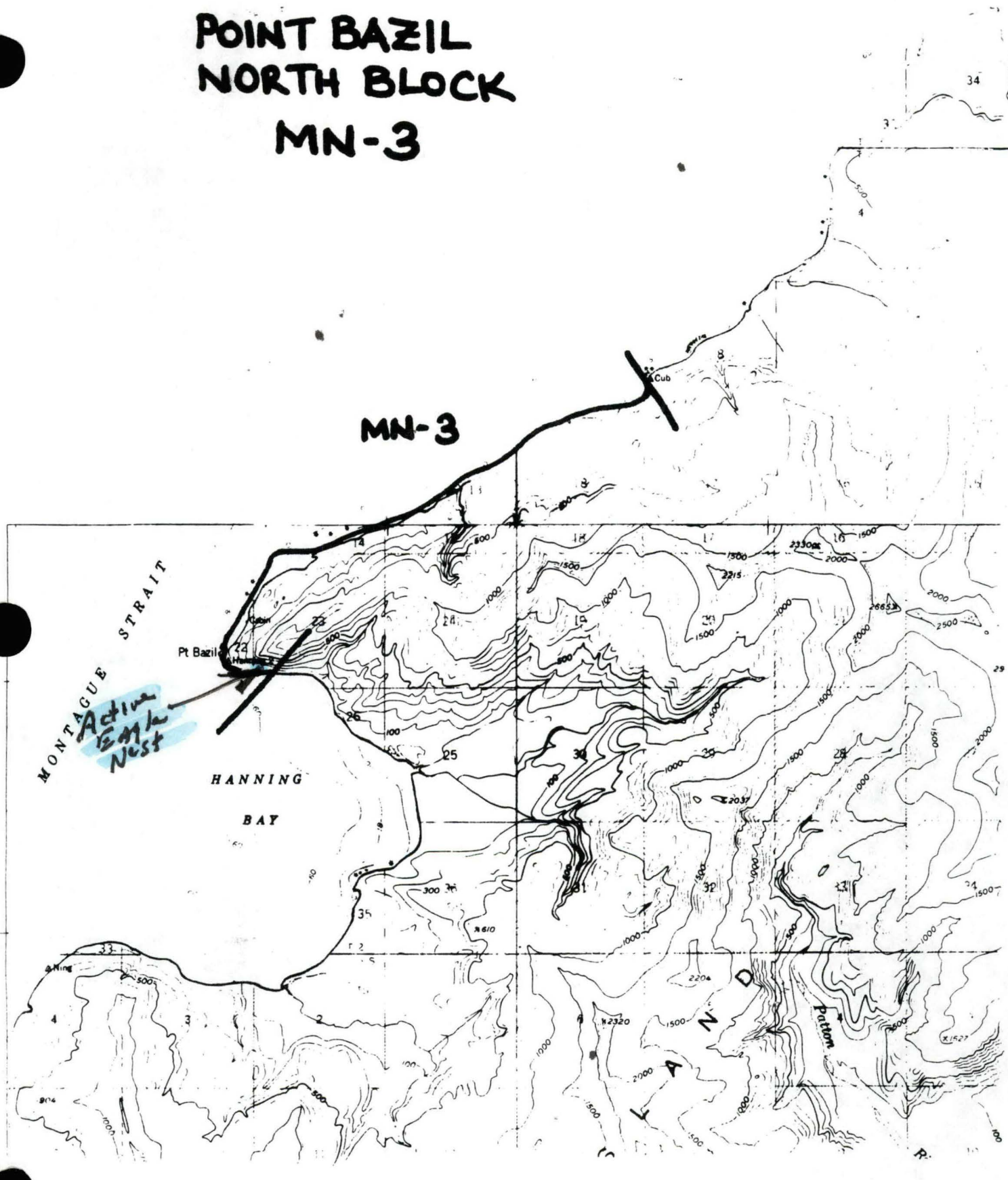
A.FG
A.DNR
CAC
PWSCA
USFS

POINT BAZIL
NORTH BLOCK
MN-3



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT MN-03

LOCATION: (see enclosed map) MONTAGUE ISLAND-NORTH OF HANNING BAY (POINT BAZIL NORTH BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/20/89

Recommended Cleanup Activity(ies):
-Manually remove contaminated drift material and oiled sorbant boom.
8/28/89 -Use bioremediation if possible. after mobile oil has been physically removed.
T 8.28.89 -No other cleanup recommended at this time due to discontinuous, light oil and high wave exposure.

Priorities Considerations:
Class 4: Light oil
A: Resources present

Ecological Constraints (from site survey):
Work at mid tide + or take appropriate measures to protect lower intertidal zone. ~~Two~~ cataloged anadromous ~~streams~~ located in this segment. Notify ADF&G and RAT forty eight hours prior to beginning cleanup activities. An active bald eagle nest is located in this segment, see advisory. Recommend 20 yard buffer on either side of streams if bioremediation occurs in vicinity.

[Nos. 17120 + 17130]

RAT 8.28.89

SC 8/28/89

Archeological Constraints (from site survey):
Do not bioremediate historic wooden feature (s) in the intertidal zone. 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: 8/24/89

ISCC: Sharon K Christopherson Date: 8/28/89

EXXON: Leonard L Tift Date: 8.28.89

FOSC: David Janosi Date: 8/29/89

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

SHORELINE OIL EVALUATION

Date: Aug 20, 89 Time 07:30 AM Observer: Greg Chaney

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

LOCATION

LOCATION Basil Pt. Montague Is SEGMENT NUMBER MN-3

LENGTH OF SHORELINE SEGMENT: 7250 m

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

SHORELINE: Fair weather

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

Wave Exposure: High/Med/Low

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

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

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: Up to 3 m

Sporadic: Y/N % of Segment 90% Max Observed

Est. Oil Thickness where > 1cm: — cm Est. Oil Penetration: 45 cm

Pooled Oil: — % "Free" Oil: — % Coated: H 10 % / M 10 % / L 80 %

Fresh 5 % Mousse — % Tar Formation: 95 %

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

Comments:

This segment is dominated by a low angle uplifted rock terrace. Heavy Kelp grows offshore. At all locations (other than B) barges would have a difficult time working due to numerous rocks and Kelp. Behind the beach is dominated by a wide alder band. Mobile oil was primarily observed near locations B & C but traces of tar were found throughout the segment.

ECOLOGICAL EVALUATION

LOCATION: Montague Island SITE: Pt. Bazil to Pt. Cub OBSERVER: J. Tarpley

LOCATION PREFIX: MN SEG. NO.: 3 LENGTH: 7250 m (M)

DATE: 8/20/89 TIME (HHMM): 0730-1230 TIDE HT.: +5.0' → -1.0' → +3.' (■)

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

Wide band of algae across ITZ. Other Algae includes: Cladophora, Neorhodomela, Leathesia, Laminarans → some Phyllospadix

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

Mytilus & Saxidomus shell debris throughout segment.

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

Margarites & Lacuna also present in ITZ.

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

OTHER OBSERVATIONS: Extensive & thick kelp forests offshore throughout the length of the segment. Numerous jellyfish (Pelagia?) on beach. Abundant algal drift. Amphipods abundant & healthy in algal drift.

CLEANUP PRECAUTIONS: Kelp Forests : Seal Haulouts : Eagle Nest : Avoid oil contamination of healthy low ITZ.

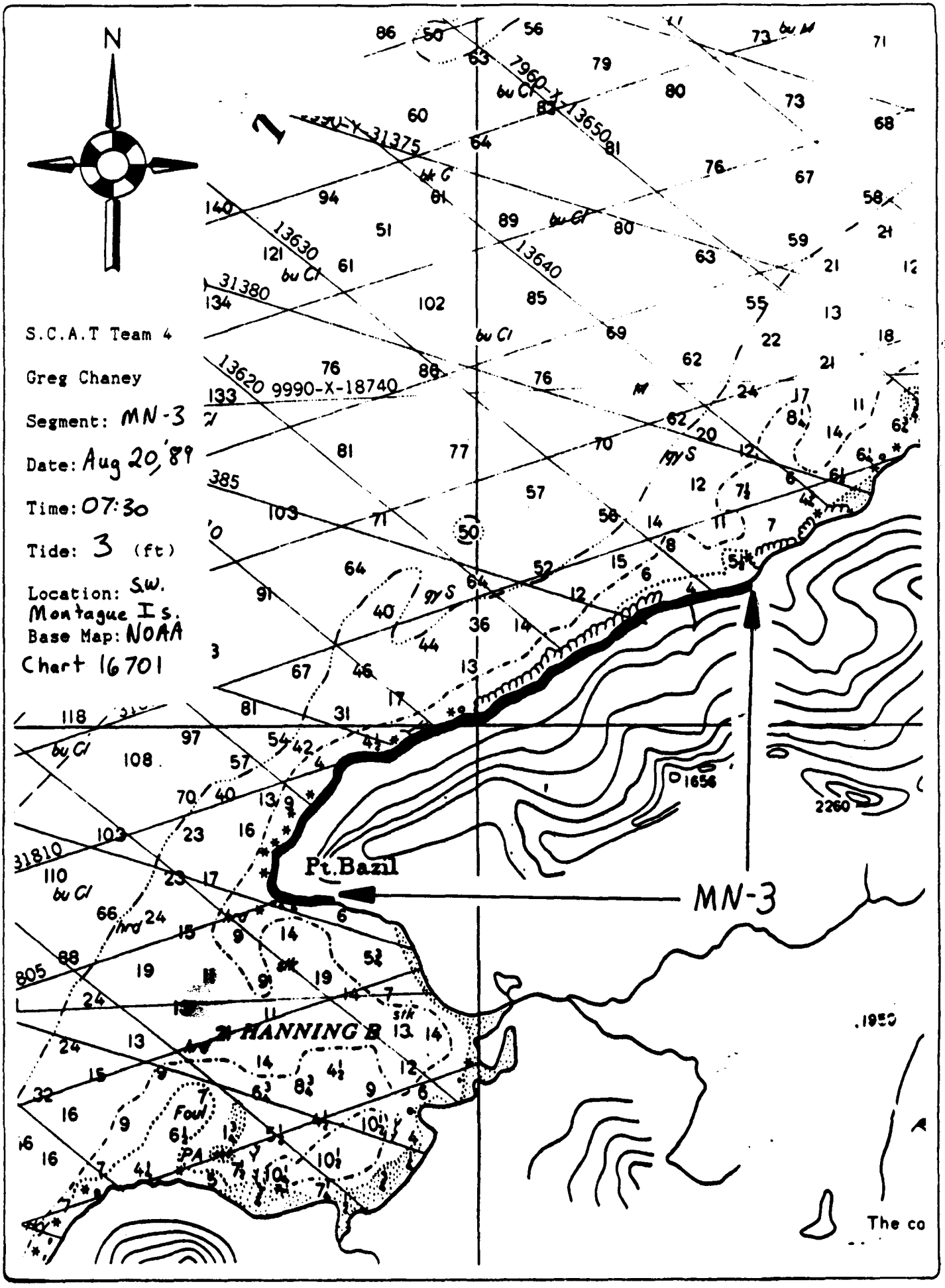
MAMMALS: Sea Otters 4 Harbor Seals 2 Sea Lions ____ Whales ____

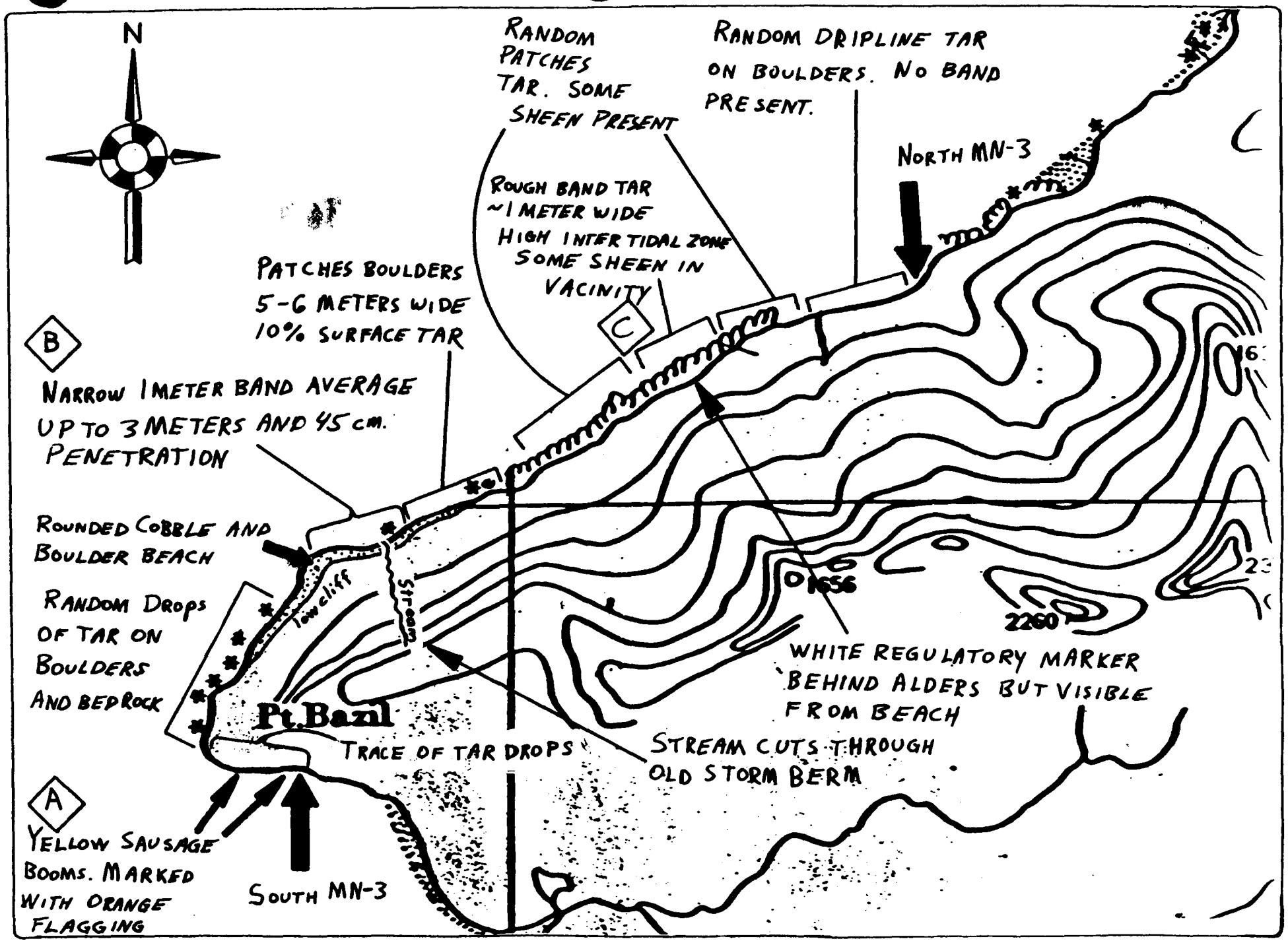
Other 1 dead Murre or murrelet!

BIRDS: 2 Bald Eagles + Nest! : 3 oystercatchers, Gulls, Kittiwakes, 22 Common Mergansers, Terrestrial bird

GENERAL OBSERVATIONS: ** 1 Dead Sea Otter at Pt. Bazil. Location has been marked w/orange flagging tape. Otter is in high ITZ drift line next to grass edge

* Possible anadromous stream located within segment.


N
S.C.A.T Team 4
Greg Chaney
Segment: MN-3
Date: Aug 20, '89
Time: 07:30
Tide: 3 (ft)
Location: SW. Montague Is.
Base Map: NOAA Chart 16701
Pt. Bazil
MN-3
HANNING B
Four
PA
1656
2260
1950
The co


N
RANDOM PATCHES TAR. SOME SHEEN PRESENT
RANDOM DRIPLINE TAR ON BOULDERS. NO BAND PRESENT.
NORTH MN-3
ROUGH BAND TAR ~1 METER WIDE HIGH INTERTIDAL ZONE SOME SHEEN IN VACINITY
C
PATCHES BOULDERS 5-6 METERS WIDE 10% SURFACE TAR
B
NARROW 1METER BAND AVERAGE UP TO 3 METERS AND 45 cm. PENETRATION
ROUNDED COBBLE AND BOULDER BEACH
RANDOM DROPS OF TAR ON BOULDERS AND BEDROCK
Low cliff
Stream
1656
2200
WHITE REGULATORY MARKER BEHIND ALDERS BUT VISIBLE FROM BEACH
Pt. Bazil
TRACE OF TAR DROPS
STREAM CUTS THROUGH OLD STORM BERM
A
YELLOW SAUSAGE BOOMS. MARKED WITH ORANGE FLAGGING
SOUTH MN-3

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/20/89 Location EW MONTAGUE ISLAND (BLYING SOUND (D-3) QUAD) Site _____

Location Prefix MN- Segment # 3 Length 7250 M

Survey Method:

Air _____ (A - indicate on map) Boat ✓ (50%) (A - indicate on map)

Ground ✓ (50%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source AHRS FILES

Oil conditions/beach visibility ZERO - LIGHT OIL; GOOD BEACH VISIBILITY.

Width of beach zone surveyed 50 m Tree fringe surveyed 0-10M

Cultural resources observed in beach zone (AHRS code) PLG(?)

Cultural resources observed in tree fringe (AHRS code) NONE

General observations justifying survey method and segment's site probability

Shore Profile LOW GRADIENT ✓BOULDER BEACH W/SOME ROCKY HEADLANDS AND COBBLE/GRAVEL POCKET BEACHES.

Fresh Water Sources MANY SMALL STREAMS & SEEPS

Sea Exposure OPEN TO LATOUCHE PASSAGE

Access/Safety ACCESS DIFFICULT FOR BARGE/LCM DUE TO ROCKS

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 # PEBTM4-21 Frames 23-27

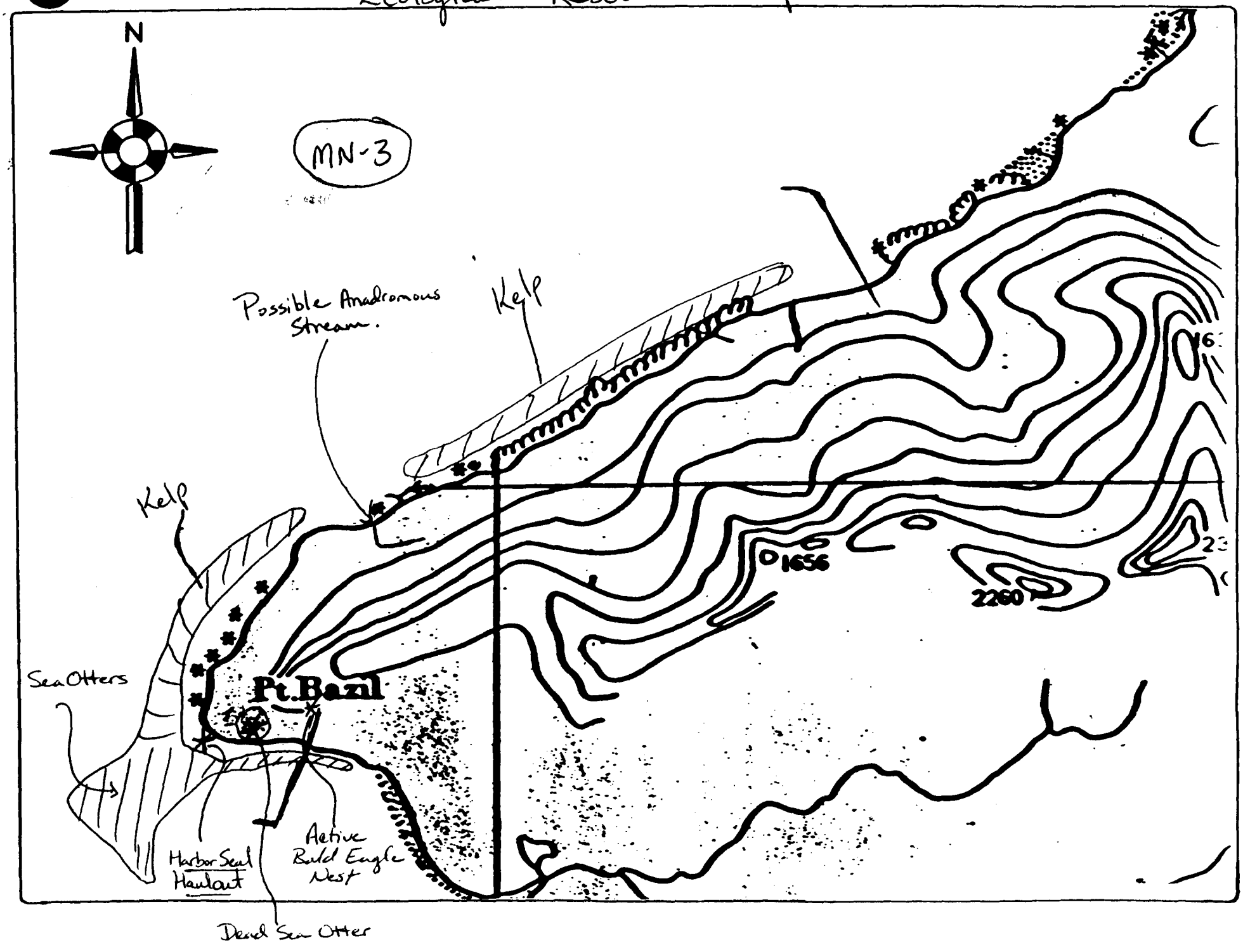
Observer(s) P. BUCK

Time survey began 0750 Time survey ended 1220

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

Ecological Resource Map



25JUL89

MN-3

DATE 9-7-89

SEGMENT INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Treatment of segment MN 3 is complete. Ready for demobilization + deployment to new segment.

Signature [signature] Date: 9/7/89 Time:

Printed Name Tommy Oulie

Existing Shoreline Condition As Visually Determined by USCG		Existing Shoreline Condition As Visually Determined by ADEC	
Surface Oil Percent	Degree of Oiling	Surface Oil Percent	Degree of Oiling
ø	Heavy	0	Heavy
1	Medium	1	Medium
1	Light	5	Light
0	Very Light	4	Very Light
98	None	90	None
100 %		100 %	

Subsurface Oil (USCG): [x] Yes [ ] No

COMMENT BELOW

Subsurface Oil (ADEC): [x] Yes [ ] No

COMMENT BELOW

Reassessment (USCG)
- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

Reassessment (ADEC)
- [x] Yes - necessary
- [ ] No - not necessary unless re-oiled

ADEC rep

Comments No mechanical treatment done. Hand pick-up. Viewed from aircraft. No visible gross contamination.

Signature [signature] Date: 9/9/89 Time: 11:10

Printed Name DALE GARDNER

FOSC rep **Demobilization approved/disapproved**

Comments NO GROSS CONTAMINATION SEEN DURING BY AIRCRAFT

Signature [signature] Date: 9/9/89 Time: 1105

Printed Name Paul Ray Cruz

COPY: EXXON ADEC FOSC ISCC

Copies Eagle Nest Locations 8/25 RSW

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): MONTAGUE POINT BLOCK

Includes Shoreline Segments: MN-04, MN-05

Submitted : Scott A. Neuman (for Exxon) Date: 8/23/89

ISCC Recommendation: Sharon K. Christopherson Date: 8/28/89

FOSC Approval: David Gaudin Date: 8/28/89

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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SHPO
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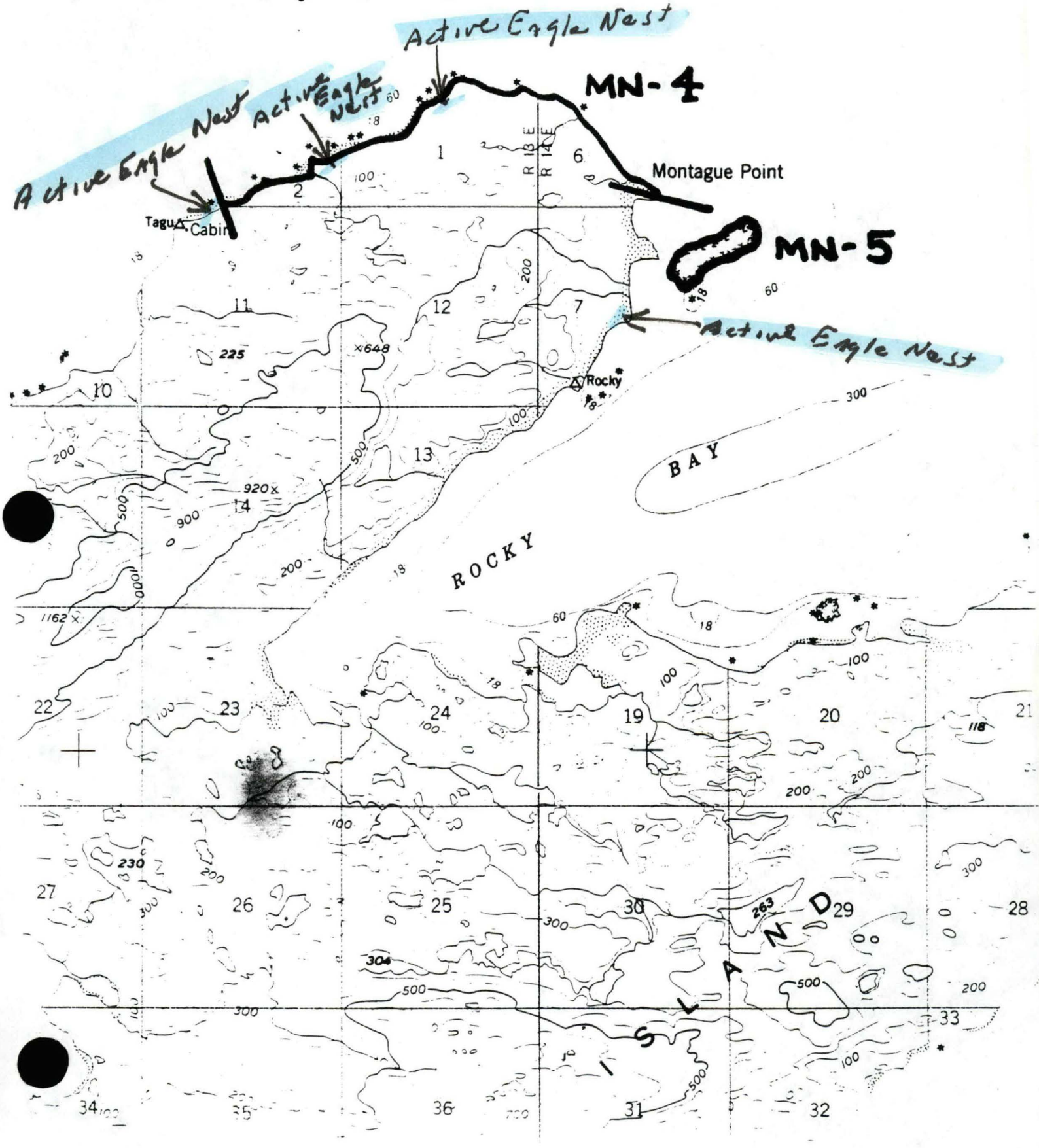
USDA (FS)
USFW
A.DEC
A.FG
A.DNR
CAC
PWSCA
USFS

3 active eagle nests on MN4
1 active eagle nest on MN5

MONTAGUE POINT BLOCK

MN-4 , MN-5



(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT MN-04

LOCATION: (see enclosed map) MONTAGUE ISLAND-NORTH END

(MONTAGUE POINT BLOCK)

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/21/89

Recommended Cleanup Activity(ies):

SC 8/28/89 DAT 8.28.89

-Use bioremediation if possible. If at all possible, recommend physical removal of mobile oil at ① prior to bioremediate.

-No other cleanup recommended at this time due to discontinuous, light oil and high wave exposure.

Priorities Considerations:
Class 4: Light oil
A: Resources present

Ecological Constraints (from site survey):

SC 8/28/89 DAT 8.28.89

Work at mid tide + or take appropriate measures to protect lower intertidal zone. ~~An~~ THREE active bald eagle nest is located in this segment, see advisory.

Archeological Constraints (from site survey):
No not bioremediate historic wooden feature(s) in the intertidal zone. 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.

Bruce Bussell Date: 8/24/89
State Historic Preservation Officer *

ISCC: Sharon K Christopherson Date: 8/28/89

EXXON: Daniel A Tufts Date: 8.28.89

FOSC: David Janka Jr. Date: 8/25/89

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

SHORELINE OIL EVALUATION

Date: Aug 21 '89 / Time: 09:00 AM Observer: GREG CHANEY

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

LOCATION

LOCATION North Montague Is. SEGMENT NUMBER MN-4

LENGTH OF SHORELINE SEGMENT: 4400 m

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

SHORELINE: off shore rocks may cause problems - fair weather only

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

Wave Exposure: (High)/Med/Low

Sediment: B 75 % / C 5 % / P — % / G — % / S — % / M — % / 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) Max Observed

Continuous: Y/N % of Segment 1% Width of Band: upto 6 m

Sporadic: Y/N % of Segment 95% Estimate

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

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

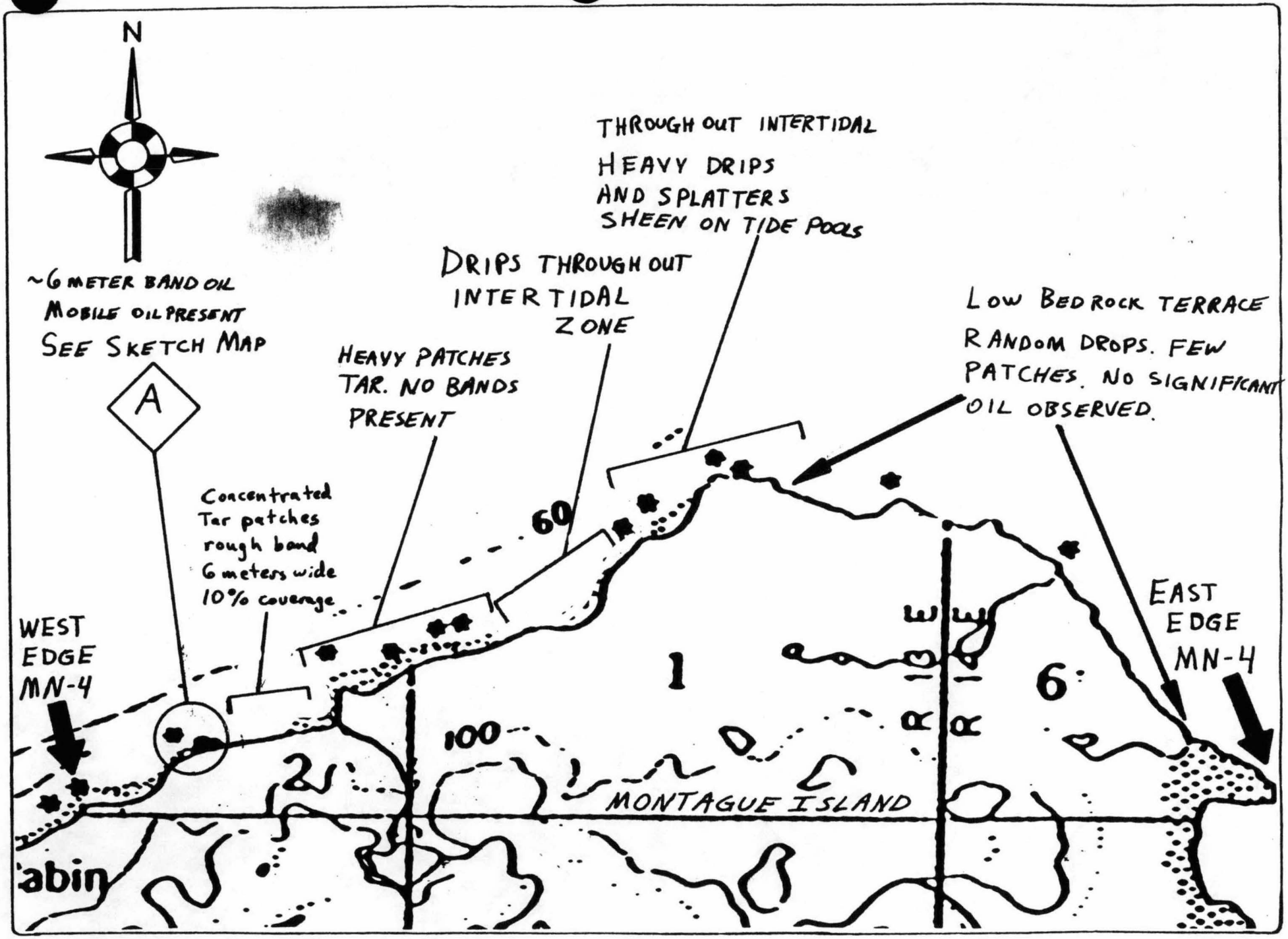
Fresh 5 % Mousse — % Tar Formation: 95 %

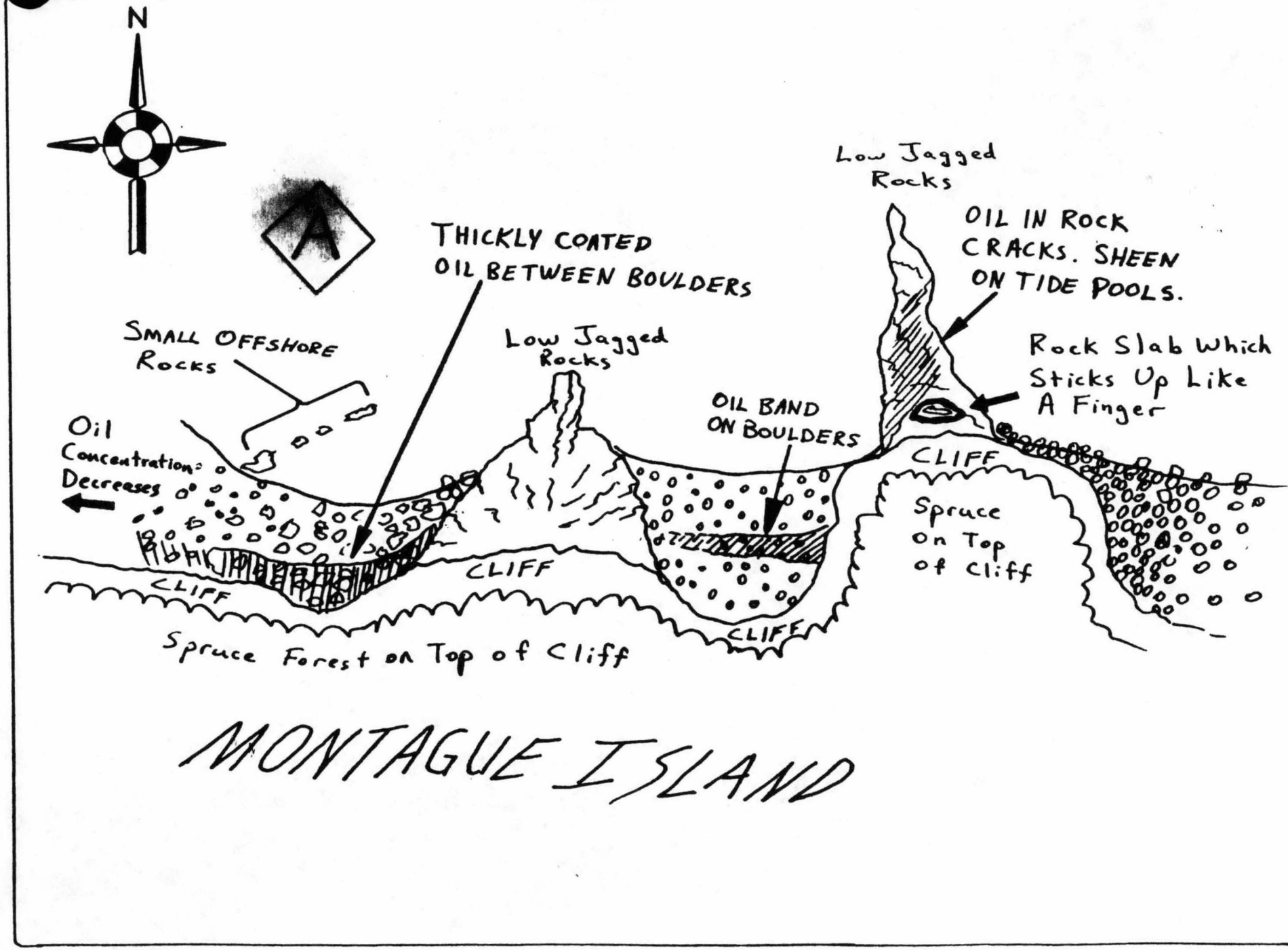
Drift Debris Oiled ? Yes/(No) Supra/Upper/Mid/Lower Amount: H/M/L/

Comments:

This segment is dominated by a long low angle wave cut terrace. This terrace is covered with a thin layer of coarse boulders. Oil at (A) is heavy but the majority of the segment has only random drops of tar. The majority of the tar appeared stable and is unlikely to refloat. Oil at location (A) covered a high percentage of the rock surface and still appeared mobile.

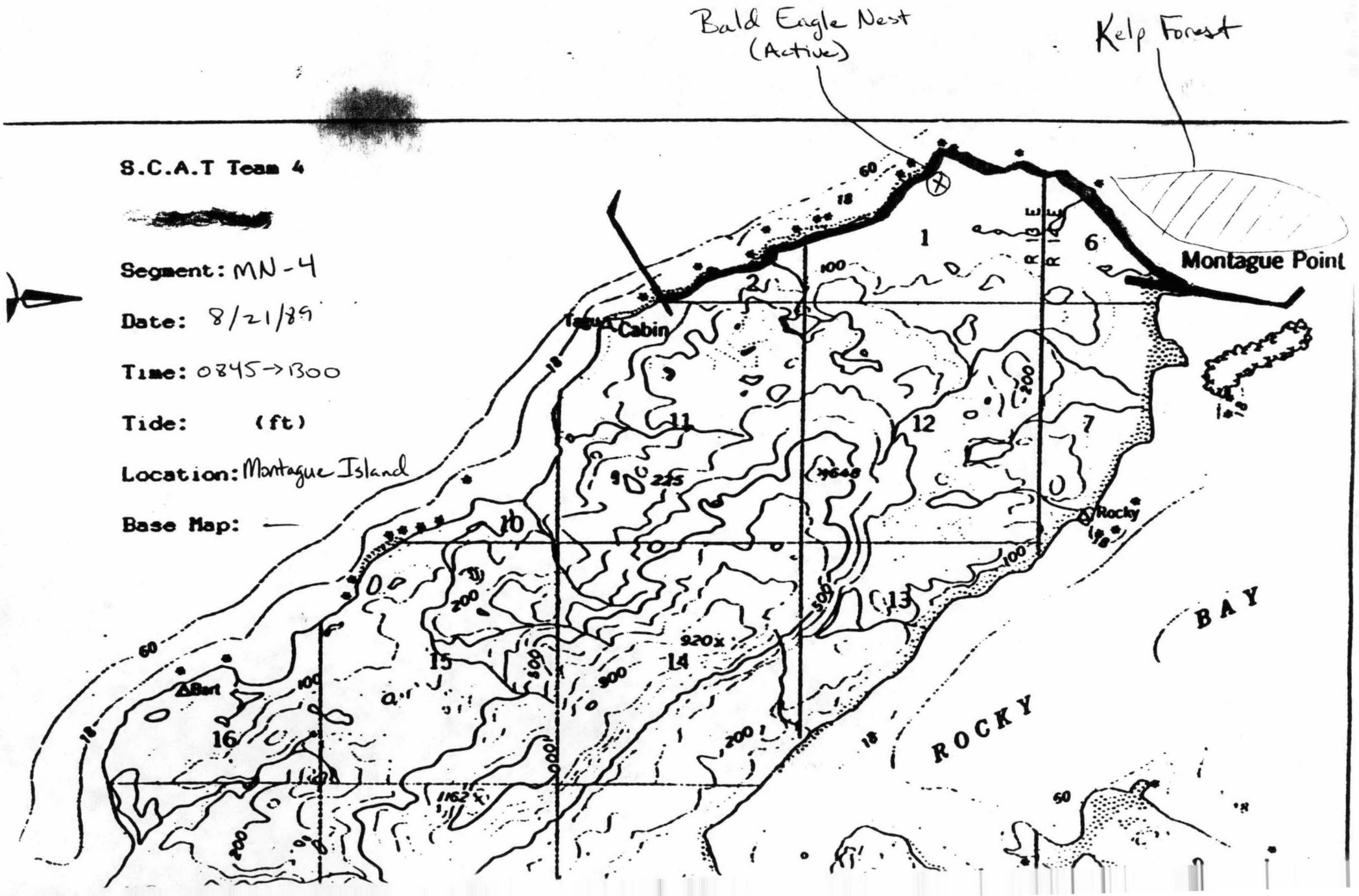
↑ EXXON SAYS they cannot remove since it is between boulders. Cannot wash away because exposed.


N
~6 METER BAND OIL
MOBILE OIL PRESENT
SEE SKETCH MAP
A
THROUGH OUT INTERTIDAL
HEAVY DRIPS
AND SPLATTERS
SHEEN ON TIDE POOLS
DRIPS THROUGH OUT
INTERTIDAL
ZONE
HEAVY PATCHES
TAR. NO BANDS
PRESENT
LOW BEDROCK TERRACE
RANDOM DROPS. FEW
PATCHES. NO SIGNIFICANT
OIL OBSERVED.
Concentrated
Tar patches
rough band
6 meters wide
10% coverage
WEST
EDGE
MN-4
EAST
EDGE
MN-4
60
100
1
6
2
R 13 E
R 14 E
MONTAGUE ISLAND
abin



MONTAGUE ISLAND

Ecological Resource Map



ECOLOGICAL EVALUATION

LOCATION: North Montague Is. SITE: North to Montague Pt OBSERVER: J. Tarpley

LOCATION PREFIX: MN SEG. NO.: 4 LENGTH: 4400 m (M)

DATE: 8 / 21 / 89 TIME (HHMM): 0845 → 1300 TIDE HT.: +5.0' → 0.0 → +3.-' (●)

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

Wide band throughout Lower ITZ: Other algae includes Halosaccion, Cladophora, Odonthal; Leathesia, Ralfsia, Corallines

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

Located on bedrock outcrops and inbetween cobbles.

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

Almost completely dead in heavily oiled areas.

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

Almost completely dead in heavily oiled areas

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

Affected in High ITZ in heavy oil areas.

OTHER OBSERVATIONS: Large kelp forest off Montague Pt. Dead Limpet, Littorina and Balanus found in heavy oiled areas in High ITZ. Below oiled zone is rich and healthy although a few Fucus at high edge of range were also de.

CLEANUP PRECAUTIONS: Kelp forest, Extensive rocky beach. Avoid Eagles nest and oil contamination of healthy low ITZ.

MAMMALS: Otters ___ Harbor Seals ___ Sea Lions ___ Whales ___
Other 2 deer skeletons; Deer Scat.

BIRDS: 1 dead Murrelet (little bit of oil): 4 Bald Eagles (1 juv. fledgling) + Nest: Gulls, Shorebs, Kittiwakes

GENERAL OBSERVATIONS: Segment is wave cut terrace covered with boulders & cobble. ITZ extensive with difficult access for large vessels.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/21/89 Location SEWARD (B-1) QUAD NE MONTAGUE ISLAND Site

Location Pr[redacted] MN- Segment # 4 Length 4400 M

Survey Method:

Air _____ (A - indicate on map) Boat √(25%) (A - indicate on map)

Ground √(75%) (G - indicate on map)

Known cultural resources (AHRS #) NONE Data Source 14(4)(1) MAPS MARS FILES

Oil conditions/beach visibility LIGHT OIL w/SPORADIC MODERATE PATCHES; GOOD BEACH VISIBILITY.

Width of beach zone surveyed 50 M m Tree fringe surveyed 0-10 M

Cultural resources observed in beach zone (AHRS code) SMP, HTI

Cultural resources observed in tree fringe (AHRS code) CMI, HTI

General observations justifying survey method and segment's site probability

Shore Profile MODERATE GRADIENT BOULDER BEACHES w/COBBLE POCKET BEACHES

Fresh Water Sources NUMEROUS SMALL STREAMS

Sea Exposure OPEN TO PRINCE WILLIAM SOUND

Access/Safety ACCESS INADVISABLE EXCEPT FOR SKIFF IN CALM 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 ———

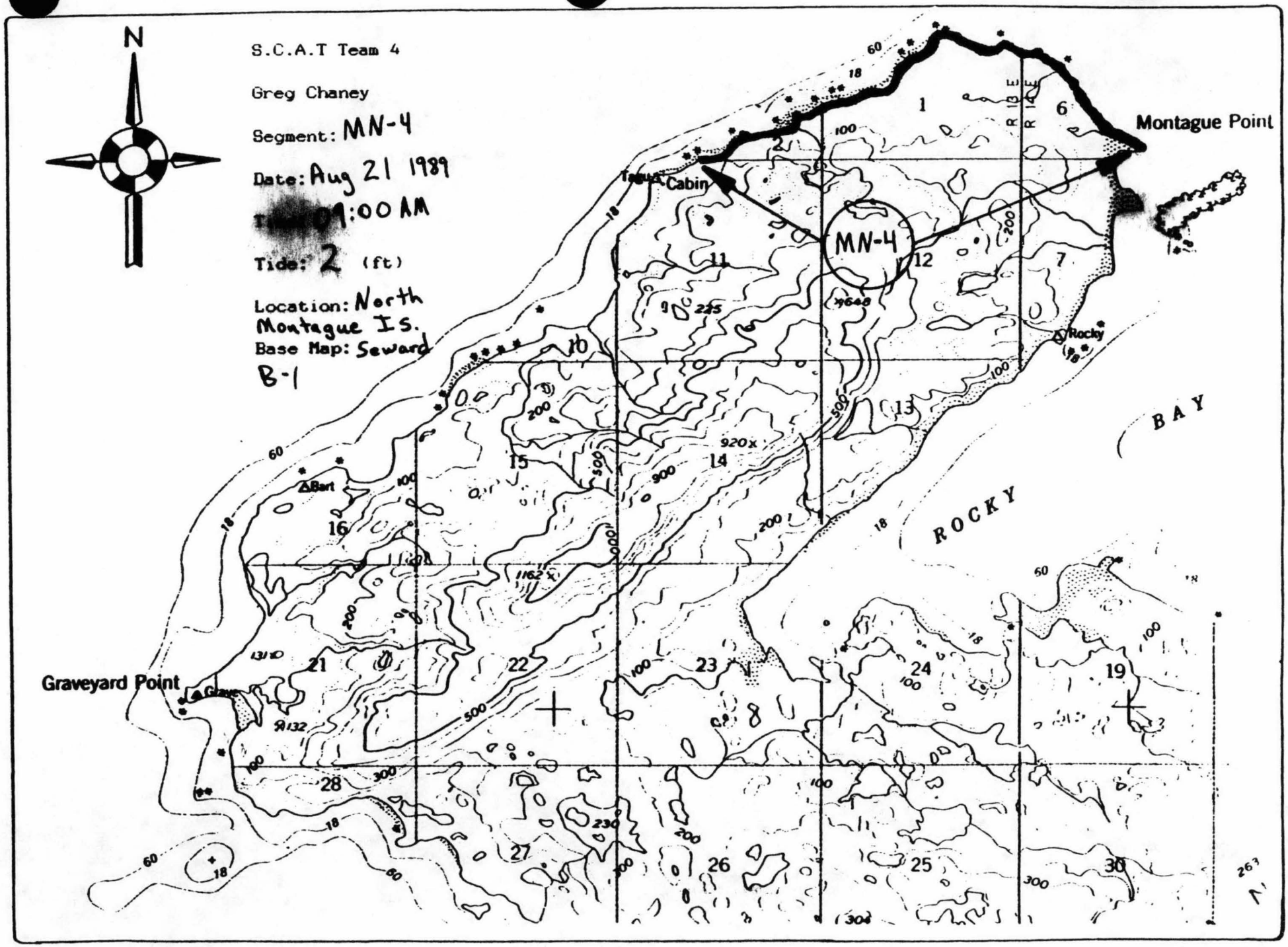
B/W Roll # PEBTM4-21 Frames 28-31

Observer(s) P. BUCK

Time survey [redacted] 0850 Time survey ended 1315

Cultural re[redacted] considerations/restraints:

"STANDARD CONSTRAINTS"


N
S.C.A.T Team 4
Greg Chaney
Segment: MN-4
Date: Aug 21 1989
[redacted]:00 AM
Tide: 2 (ft)
Location: North Montague Is.
Base Map: Seward
B-1
MN-4
Montague Point
Graveyard Point
Tent Cabin
Rocky
Bart
Grave
ROCKY BAY
T 1 S
R 13 E
R 14 E

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/23/89 SHORELINE SEGMENT MN-05

LOCATION: (see enclosed map) MONTAGUE ISLAND-REEF OFF NORTHEAST END (MONTAGUE POINT BLOCK)

ADEC NO. SHORELINE ASSESSMENT DATE: 8/21/89

Recommended Cleanup Activity(ies):
No cleanup recommended at this time (subject to FOSC reassessment at a later date), due to discontinuous, light oil, difficult access and high wave exposure.

Priorities Considerations:
Class 4: Light oil
A: Resources present

Ecological Constraints (from site survey):
DNT 8.28.89 None, since no cleanup recommended. If cleanup occurs, see Harbor Seal Advisory.
SC 8/28/89
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: 8/24/89

ISCC: Sharon K Christopherson Date: 8/28/89

EXXON: [signature] Date: 8.28.89

FOSC: [signature] Date: 8/25/89

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

SHORELINE OIL EVALUATION

Date: Aug 24 '89 Time: 14:00 Observer: Greg Chaney

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

LOCATION

LOCATION Reef near Montague Pt. SEGMENT NUMBER MN-5

LENGTH OF SHORELINE SEGMENT: 1000 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 10 % Width of Band: 2 m

Sporadic: Y/N % of Segment 90 %

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

Pooled Oil: — % "Free" Oil: — % Coated: H 10 % /M 30 % /L 60 %

Fresh — % Mousse — % Tar Formation: 100 %

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

Comments:

This reef is exposed to intense wave action and is submerged at high tide. Although waves have been working on the oil, a band of tar approximately 2 meters wide was observed near the center of the reef. No sheen was observed on any of the tide pools present. Although the tar is not likely to cause re-oiling, it may persist in its present form for some time.

ECOLOGICAL EVALUATION

LOCATION: Montague Is. SITE: Reef near Montague Pt OBSERVER: J. Tarpley

LOCATION PREFIX: MN SEG. NO.: 5 LENGTH: 1000 m (M)

DATE: 8/21/89 TIME (HHMM): 1350-1415 TIDE HT.: +7.- 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

Other algae includes Cladophora, Neorhodomela, Odonthalia

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

Primarily inbetween cobbles.

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

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

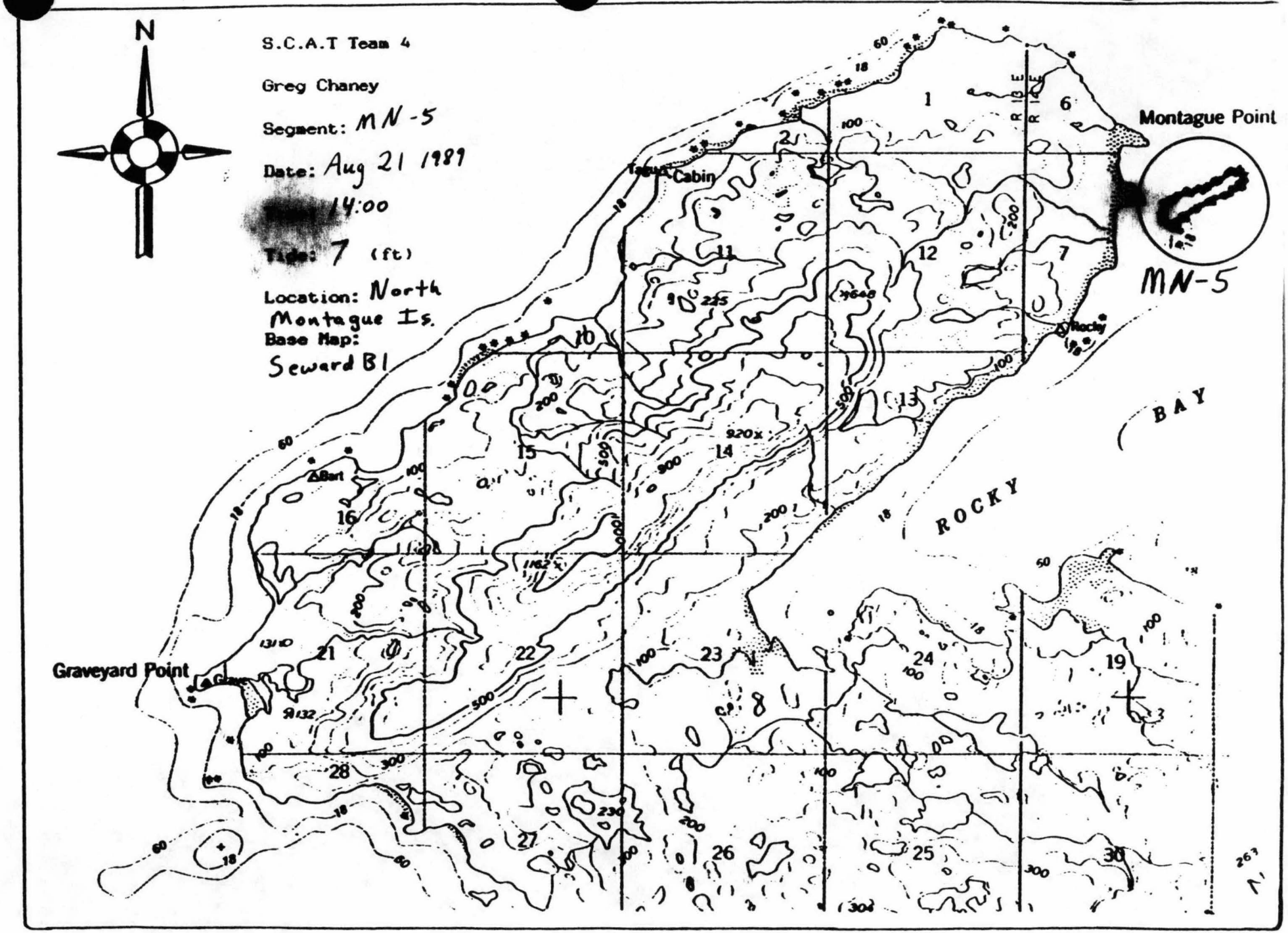
OTHER OBSERVATIONS: Tide was high and difficult to evaluate complete ITZ. Rocky Reef is a Harbor Seal Haulout site and sea otters are located in kelp forests surrounding the reef.

CLEANUP PRECAUTIONS: Kelp; Rocks : Sea Otters & Harbor Seals around Reef.

MAMMALS: Sea Otters 6 Harbor Seals 24+ Sea Lions ____ Whales ____
Other ____

BIRDS: Gulls, Kittiwakes, Cormorant.

GENERAL OBSERVATIONS: Light oil splatter across reef. Recommend that no cleanup be done due to Seal & otter use of the reef and surrounding area. Oil on high rocks and appears to have little impact on the surrounding biota.


N
S.C.A.T Team 4
Greg Chaney
Segment: MN-5
Date: Aug 21 1989
14:00
Tide: 7 (ft)
Location: North Montague Is.
Base Map:
Seward B1
Montague Point
MN-5
Graveyard Point
ROCKY
BAY
Cabin
Rocky
Bart
Grave

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

SEWARD (D-1) QUAD

Date 8/21/89 Location NE CORNER MONTAGUE I. Site _____

Location Prefix MN Segment # 5 Length 1000 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

Oil conditions/beach visibility ZERO TO LIGHT OIL; GOOD BEACH VISIBILITY

Width of beach zone surveyed 20 M m Tree fringe surveyed NONE

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 BOULDER/COBBLE REEF

Fresh Water Sources NONE

Sea Exposure OPEN TO PRINCE WILLIAM SOUND

Access/Safety ACCESS DIFFICULT DUE TO EXPOSURE AND ROCKS

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 _____

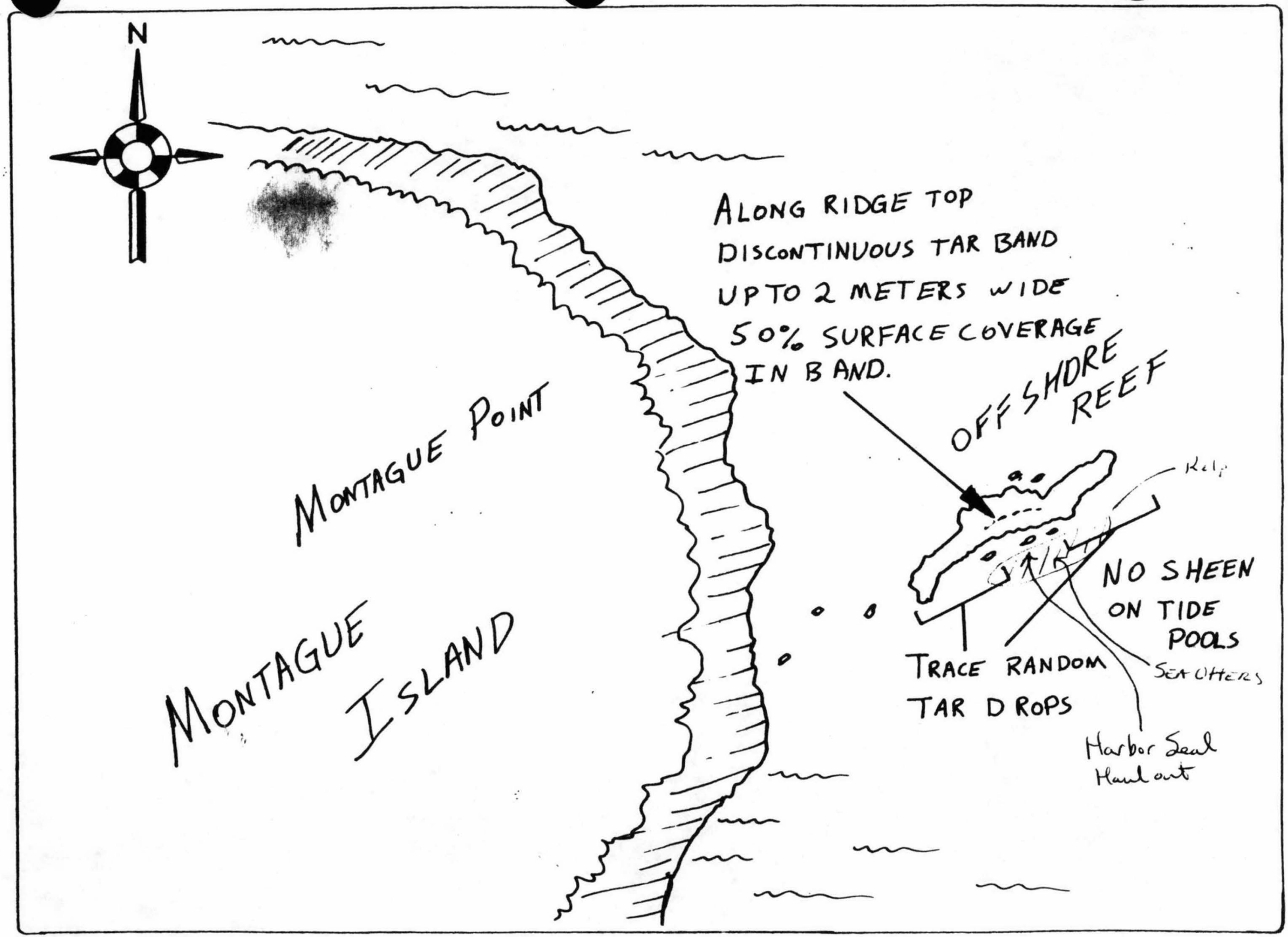
B/W Roll # _____ Frames _____

Observer(s) R. BUCK

Time survey began 1350 Time survey ended 1430

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"


N
ALONG RIDGE TOP
DISCONTINUOUS TAR BAND
UP TO 2 METERS WIDE
50% SURFACE COVERAGE
IN BAND.
OFFSHORE REEF
MONTAGUE POINT
MONTAGUE ISLAND
Kelp
NO SHEEN ON TIDE POOLS
TRACE RANDOM TAR DROPS
SEA OTTERS
Harbor Seal Haul out

SEG MN-05 INSPECTION # _____ SEGMENT

DATE 8910909 INSPECTION RECORD

Shoreline Treatment Process(es) Completed for this Segment

- ☐ Hot water wash
- ☐ Warm water wash
- ☐ Water deluge
- ☐ Mechanical _____
- ☐ Non-mechanical _____
- ☒ Other No TREATMENT REQUIRED

Exxon

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

Comments SEGMENT MN-05 IS COMPLETE AND READY FOR DEMOBILIZATION AND DEPLOYMENT TO NEW SEGMENT.

Signature Timothy W. Turner Date: 8910909 Time: 1515 HRS

Printed Name TIMOTHY W. TURNER

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

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
0	Heavy
5	Medium
0	Light
0	Very Light
150	None
100 %	

Subsurface Oil

☐ Yes ☒ No

COMMENT BELOW

Reassessment

☐ Yes - necessary

☒ No - not necessary unless re-oiled

ADEC rep

Comments I walked this segment thoroughly & found no oil. Have action must have cleaned it. Recommend (NO) Bioremediation

Signature Michele Prep Date: 9/9/89 Time: 1521

Printed Name Michele Prep

FOSC rep **Demobilization approved/disapproved**

Comments CONCUR WITH ADEC REPRESENTATIVE

Signature James R Porter Date: 9/9/89 Time: 1521

Printed Name JAMES R. PORTER, CHIEF MARINE SCIENCE TECHNICIAN

COPY: EXXON ADEC FOSC ISCC

(version 8/04/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): HANNING BAY SOUTHWEST BLOCK

(Montague Island-PWS)

Includes Shoreline Segments: MN-06

Submitted : W E Walstad (for Exxon) Date: 8-29-89

ISCC Recommendation: Sharon K Christopherson Date: 8-1-89

FOSC Approval: [signature] Date: 9-1-89

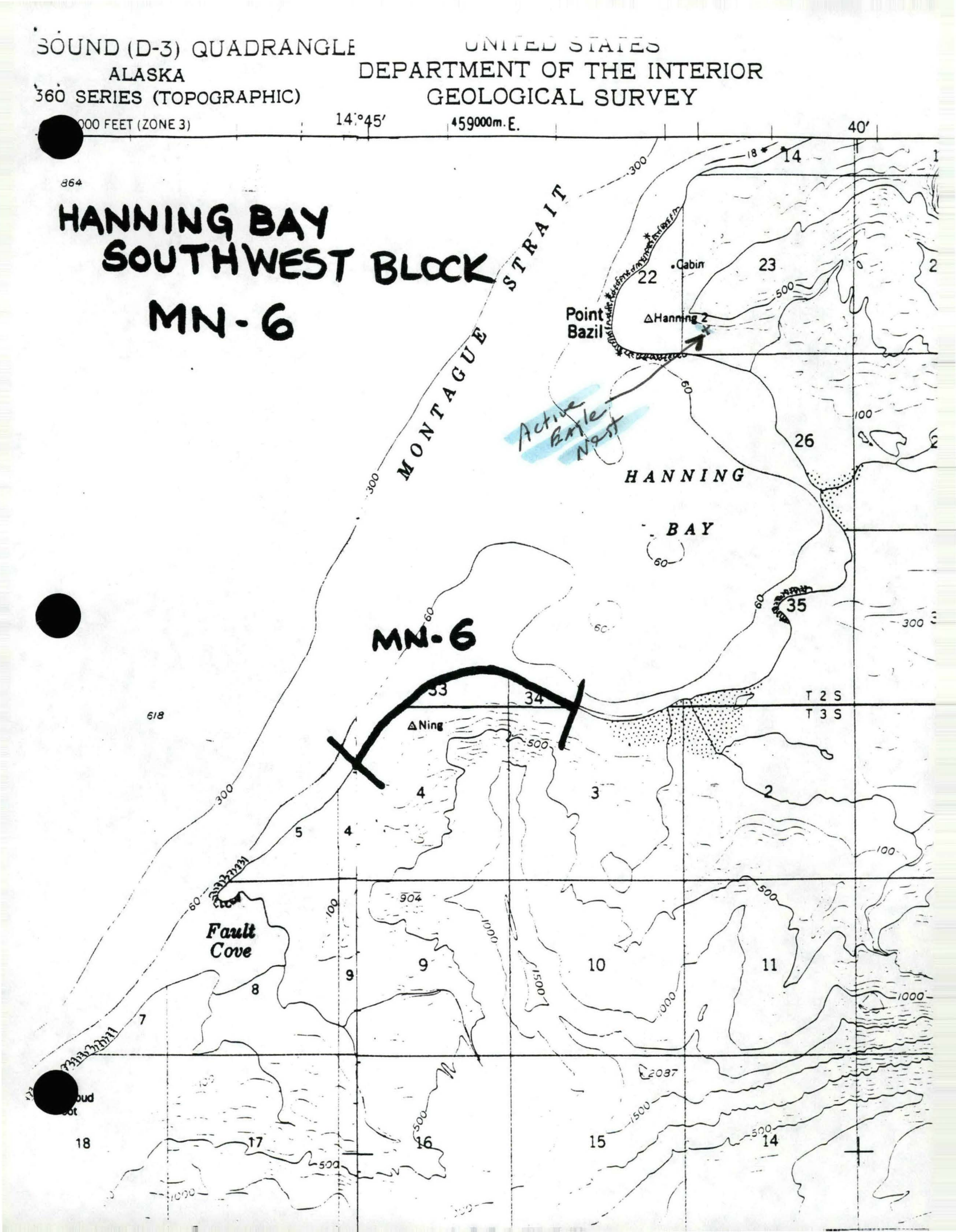
The cleanup procedures identified in the Shoreline Cleanup Program are recommended. Modifications to these systems can be made in the field. Exxon and other field personnel are encouraged to suggest innovations and productivity enhancements to the OSC's on-scene representative. The OSC's representative 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

Active bald eagle nest on opposite side of bay near Point Bazil.


SOUND (D-3) QUADRANGLE
ALASKA
360 SERIES (TOPOGRAPHIC)
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
000 FEET (ZONE 3)
14°45'
459000m. E.
40'
HANNING BAY
SOUTHWEST BLOCK
MN-6
MONTAGUE STRAIT
Point Bazil
Cabin
Hanning 2
Active Bald Eagle Nest
HANNING BAY
MN-6
Ning
Fault Cove
T 2 S
T 3 S
618
864
300
500
1000
1500
2087

(version 5/02/89)

SHORELINE CLEANUP PROGRAM

DATE 8/29/89 SHORELINE SEGMENT MN-06

LOCATION: (see enclosed map) MONTAGUE ISLAND-Southwest Hanning Bay

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 8/22/89

Recommended Cleanup Activity(ies):

Manually remove pooled oil.

DOT 9.1.89
SC 9/1/89

Bioremediate if possible. Available SCAT reports indicate the presence of little substrate suitable for bioremediation and/or no oil for most of this shoreline segment. Recommend BAT re-assess prior to bioremediation.

Priorities Considerations:

Class 4: Light 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.

Robert A. Judd
State Historic Preservation Officer * Date: Aug 29, 89

ISCC: Sharon K. Christopherson Date: 9-1-89

EXXON: Daniel A Tufo Date: 9.1.89

FOSC: C E Robbins Date: 9-1-89

By

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

********** 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.

SHORELINE OIL EVALUATION

Date: Aug 22 87 Time: 10:15 AM Observer: Greg Chaney

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

LOCATION

LOCATION SW Hanning Bay - Montague Is SEGMENT NUMBER MN-6

LENGTH OF SHORELINE SEGMENT: 2,300 m

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

SHORELINE:

several offshore rocks

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

Wave Exposure: (High)/Med/Low

Sediment: B 70 % / C 10 % / P — % / G — % / S — % / M — % / 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 20% Width of Band: up to 2 m

Sporadic: Y/N % of Segment 80%

Est. Oil Thickness where > 1cm: 1 cm Est. Oil Penetration: 15 cm

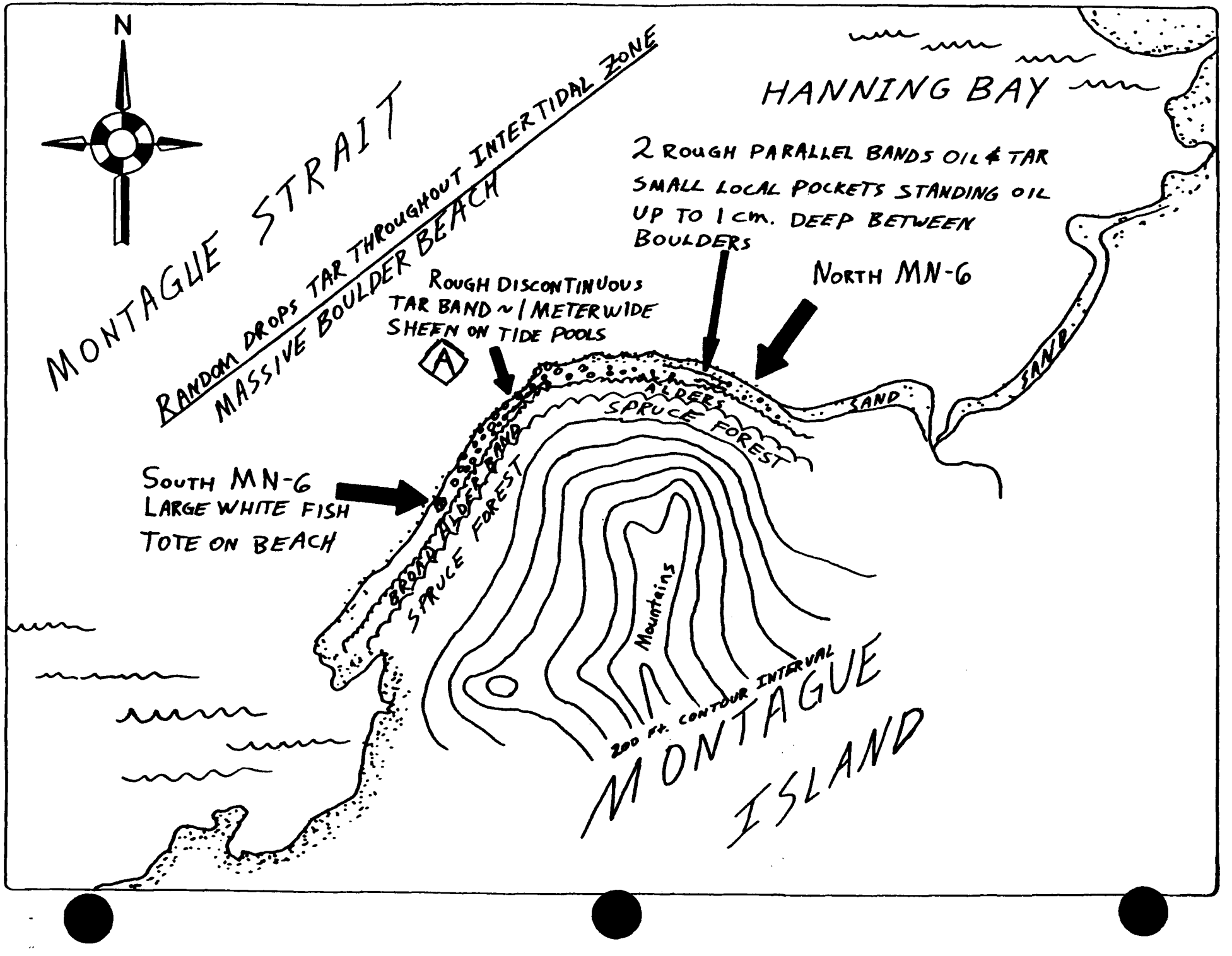
Pooled Oil: trace % "Free" Oil: Trace % Coated: H 10 % / M 30 % / L 60 %

Fresh 5 % Mousse — % Tar Formation: 95 %

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

Comments:

This segment is dominated by a wide low angle wave cut terrace. The north east portion of the segment has some rounded cobbles but the majority of the segment is bedrock overlain by a thin layer of boulders. Some sheen was observed on tide pools. Most of the oil was in the form of stable tar but at location (A) some small pools of standing oil were found between boulders. 2 rough bands of tar and oil were found near location (A). Both averaged 2 meters wide.


N
MONTAGUE STRAIT
RANDOM DROPS TAR THROUGHOUT INTERTIDAL ZONE
MASSIVE BOULDER BEACH
HANNING BAY
2 ROUGH PARALLEL BANDS OIL & TAR
SMALL LOCAL POCKETS STANDING OIL
UP TO 1 cm. DEEP BETWEEN
BOULDERS
NORTH MN-6
ROUGH DISCONTINUOUS
TAR BAND ~ 1 METER WIDE
SHEEN ON TIDE POOLS
A
ALDERS
SPRUCE FOREST
SAND
SAND
SOUTH MN-6
LARGE WHITE FISH
TOTE ON BEACH
BROAD ALDER BAND
SPRUCE FOREST
Mountains
200 Ft. CONTOUR INTERVAL
MONTAGUE
ISLAND

ECOLOGICAL EVALUATION

LOCATION: Montague Is. SITE: Hanning Bay OBSERVER: J. Tarpley

LOCATION PREFIX: MN SEG. NO.: 6 LENGTH: 2300 m (M)

DATE: 8/22/89 TIME (HHMM): 1018-1331 TIDE HT.: +3.0' → +1.7' → +5.0'

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 inside Hanning Bay

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

Primarily lodged between cobbles.

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, Margarites also present

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

OTHER OBSERVATIONS: Very extensive & thick kelp forest along outer coast of segment. Rocks, cobble, boulder outside bay, Cobbles & boulders inside bay.

CLEANUP PRECAUTIONS: Kelp forest extensive.

MAMMALS: Sea Otters 2 Harbor Seals ___ Stellar's Sea Lions 5 Whales ___
Other ___

BIRDS: Kittiwakes, Gulls, Oystercatchers, 50+ Northern Phalaropes

GENERAL OBSERVATIONS: ___

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 8/22/89 Location SW MONTAGUE ISLAND (BLYING SOUND 03 QUAD) Site _____

Location Prefix MN— Segment # 6 Length 2300 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 FILE (14 (4)(1) MAPS)

Oil conditions/beach visibility ZERO TO LIGHT OILING; GOOD BEACH VISIBILITY.

Width of beach zone surveyed 60 M m Tree fringe surveyed NONE

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/MODERATE GRADIENT COBBLE BEACH BACKED BY PRE-1964 RAISED BEACH

Fresh Water Sources SEVERAL SMALL STREAMS.

Sea Exposure OPEN TO MONTAGUE STRAIT

Access/Safety ACCESS TO BEACH/ROW O.K. IN CALM 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 # — Frames —

Observer(s) P. BUCK

Time survey started 1015 Time survey ended 1330

Cultural resource considerations/restraints:

"STANDARD CONSTRAINTS"

MN-46

DATE 9-7-89

Shoreline Treatment Process(es) Completed for this Segment

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

Exxon

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

Comments Treatment of segment was to be complete. Ready for demobilization and sign off to our agent

Signature [signature] Date: 9/7/89 Time:

Printed Name Tabetha Oulin

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil

Percent	Degree of Oiling
8	Heavy
8	Medium
0	Light
7	Very Light
(a)	None
100 %	

Subsurface Oil

☐ Yes ☑ No

COMMENT BELOW

Existing Shoreline Condition As Visually Determined by ADEC

Surface Oil

Percent	Degree of Oiling
0	Heavy
0	Medium
1	Light
0	Very Light
99	None
100 %	

Subsurface Oil

☐ Yes ☐ No

COMMENT BELOW

Reassessment

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

Reassessment

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

ADEC rep

Comments No Mechanical treatment done. Hand pick-up of debris. Viewed by aircraft No visible gross contamination

Signature [signature] Date: 9/9/89 Time: 11:20

Printed Name DALE GARDNER

FOSC rep **Demobilization approved/disapproved**

Comments [illegible] oil sighted, Survey Done By Aircraft

Signature [signature] Date: 9/9/89 Time: 1115

Printed Name [illegible]

COPY: EXXON ADEC FOSC ISEC