[Shoreline evaluations, 1989].

Volume 8

Lone Island

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ISLANDS (Locations)

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 vissible oil)

Sent to TR + OR 5/26

(received 5/18/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): LONE ISLAND EAST BLOCK

Includes Shoreline Segments: LN-1, LN-2, LN-3, LN-4, LN-5, LN-6, LN-7

Submitted : B A Johnson (for Exxon) Date: 5/22/89

FOSC Approval: David Rappaport Jr Date: 5/24/89

ISCC Recommendation: [signature] 5/26/89

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.

5/24 RAT recommend left beach on N end only one north clearing; other beaches showed great deal natural weathering

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
USPS
SHPO

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89 SHORELINE SEGMENT LN-1

LOCATION: (see enclosed map) LONE ISLAND

ADEC NO. SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

1) Hand cleanup of mousse accumulation and oiled debris. Cut oiled fugus algae off rocks.
2) Washing/flooding with warm/hot (up to 140°F) water at higher tides only.

Priorities Considerations:

Class 2: heavy oiling
Class B: resources absent

Ecological Constraints (from site survey):

1) Wash cobble/boulder substrate only at high tide to avoid oiling lower beach.
2) Cut-off fugus on heavily oiled rock faces. Leave fugus holdfasts intact.

Follow fucus guidelines. Follow eagle guidelines.

Archeological Constraints (from site survey):
No access to uplands by cleanup crews. 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
State Historic Preservation Officer * Date: May 22, 1989

EXXON: [signature] Date: May 26 /89

FOSC: [signature] Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 07:30 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-1

LENGTH OF SHORELINE SEGMENT: 1,200 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

Sediment: B 45 % / C 40 % / P 10 % / G ___ % / S ___ % / M ___ % / R 5 %

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 80 Width of Band: 10-15 m

Sporadic: Y/N % of Segment ___

Est. Oil Thickness where > 1cm: 2-4 cm Est. Oil Penetration: 15 cm

Pooled Oil: 5 % "Free" Oil: 5 % Coated: H 90 % /M ___ % /L ___ %

Fresh 90 % Mousse 5 % Tar Formation: 5 %

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

Comments:

- FOUR BEACHES (EACH 200-400 M LONG) BOUNDED BY ROCK HDS.
- THICK (10 CM) MOUSSE AT SOUTHEND OF BEACH 1.
- ACCESS TO BEACHES 3 AND 4 HINDERED BY SUB-TIDAL ROCKS
- SEE ATTACHED MAP OF SEGMENT LN-1 AND BEACH DESCRIPTIONS

ECOLOGICAL EVALUATION

LOCATION: Lone Island SITE: North OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 1 LENGTH: 1200 (M)

DATE: May 20 89 TIME (HHMM): 7:30-9:30 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

On large boulders and low portions of bedrock outcrops

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

in thick patches on bedrock outcrops

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

in bands on bedrock outcrops, scattered on boulders

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

some scattered in boulders

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

scattered in between boulders and on some rocks faces

OTHER OBSERVATIONS: Several Starfish; Shore birds were feeding in oiled kelp at high tide - possibly due to insects

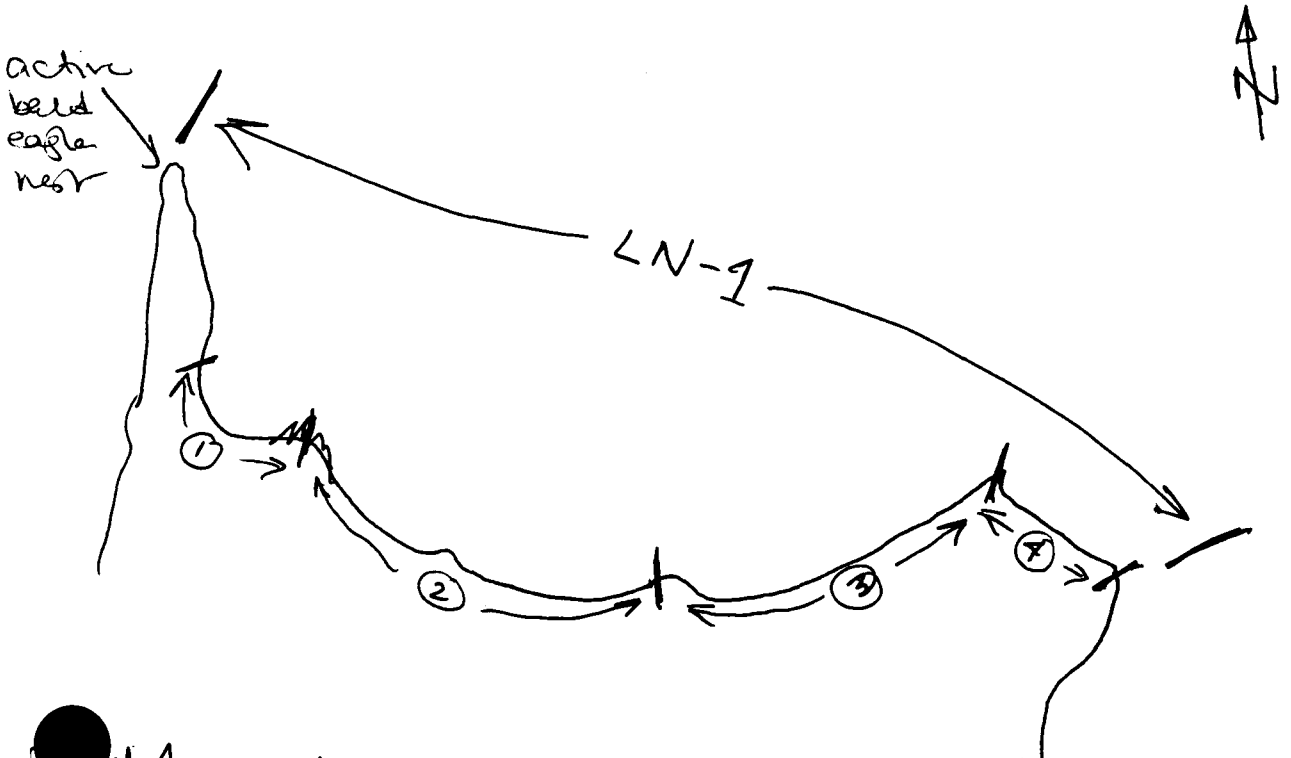
CLEANUP PRECAUTIONS: Try to wash at High Tide. Keep oil from spreading down to healthy intertidal community. Cut off fucus which is heavily oiled & gather oiled drift debri from high tide line

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

BIRDS: Probable Eagle Nesting Site at North Point, 4 ~~Gulls~~ Whimbrels, sparrows

GENERAL OBSERVATIONS: Intertidal organisms ~~that~~ appear healthy in the ~~inter~~ low intertidal but limpets detach in oiled rocks, Rocks offshore may make barge access very tricky in some locations.

SEGMENT LN-1 (NORTHEAST END, LONE ISLAND)



BEACH 1 (100M) - HEAVY OILING, MID-TIDE TO S.H.W.L.
- 1M WIDE ALGAE DEBRIS LINE (OILED)
- HEAVY MOUSSE OILING AT SOUTHEAST OILING

BEACH 2 (200M) - MODERATE OILING, MID-TIDE TO S.H.W.L.

BEACH 3 (300M) - LIGHT TO MODERATE OILING, 100% BOULDERS
- APPROACH BY BARGE HINDERED BY SUB-TIDAL BOULDERS

BEACH 4 (900M) - MODERATE TO HEAVY OILING
- ACCESS HINDERED BY ROCKS (ALL TIDES)

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location LONE ISLAND Site North & EAST SIDE

Location Prefix LN Segment # 1 Length 1200 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility moderate to heavy

Width of beach zone surveyed 20-40 m Tree fringe surveyed 10m.

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) HT1 (see notes)

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

Shore Profile medium to Large cobbles w/ moderate slope to steep slopes

Fresh Water Sources NO streams - Seeps

Sea Exposure Open to North

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 —

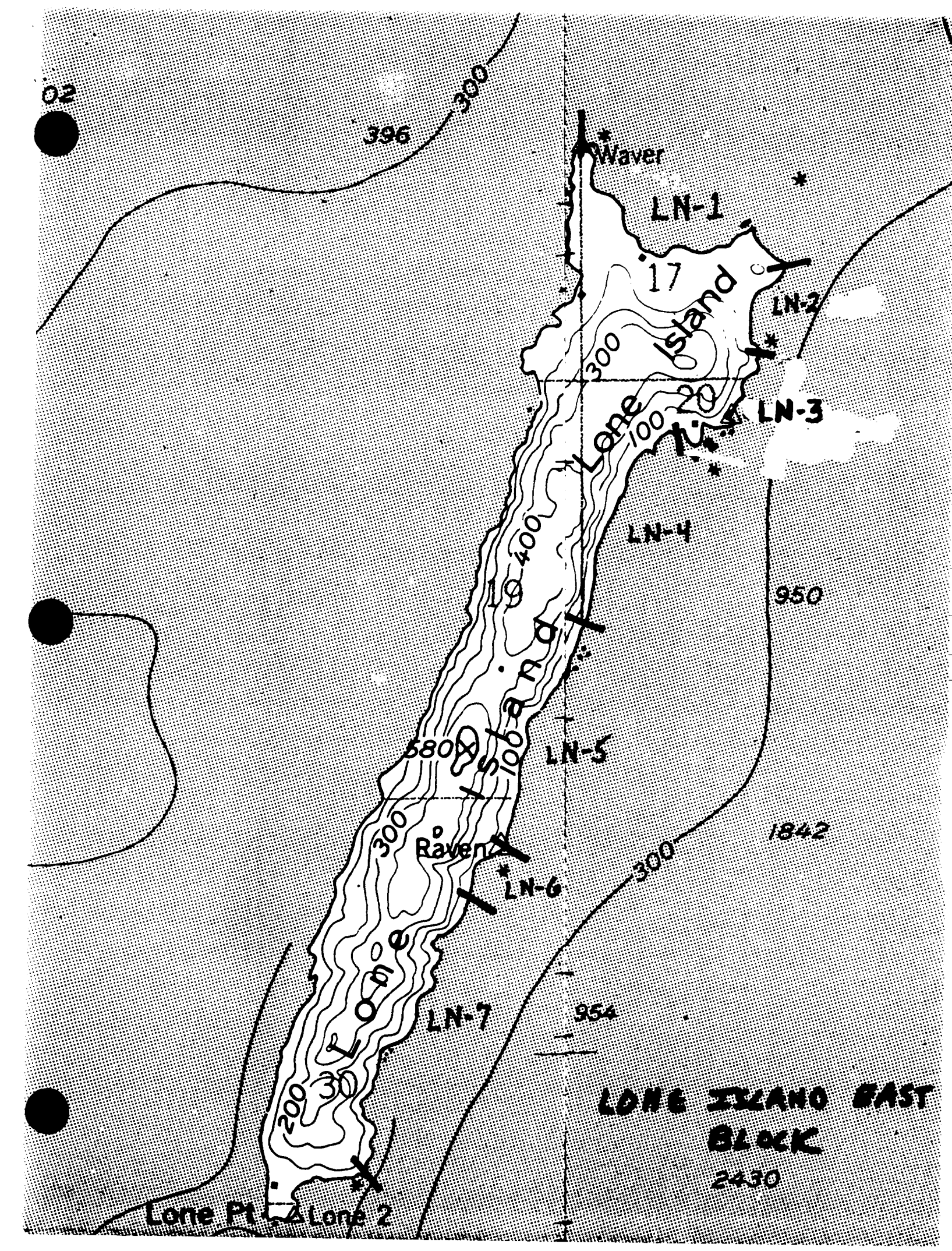
B/W Roll # C.W. 8 Frames 11, 12, 13

Observer(s) ANDREFSKY, C. WILSON

Time survey started 8:20 Time survey ended 9:30

Cultural resource considerations/restraints:

IF heretofore unidentified cultural material is discovered during cleanup notify Exxon archaeologist C. Mobley immediately


02
396
300
Waver
LN-1
17
Lone Island
LN-2
300
100
20
LN-3
Lone
400
LN-4
950
580
Long Island
LN-5
300
Raven
LN-6
1842
300
LN-7
954
20
30
Lone Pt
Lone 2
LONG ISLAND EAST
BLOCK
2430

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89 SHORELINE SEGMENT LN-2

LOCATION: (see enclosed map) Lone Island

ADEC NO. SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

1) Hand cleanup of oiled algae debris by pitchfork and rakes.

2) Washing/flooding with warm/hot (up to 140 F) water at higher tides only.

Priorities Considerations:

Class 3B.

Ecological Constraints (from site survey):

Wash cobble/boulder substrate only at high tide to avoid oiling lower beach.

Archeological Constraints (from site survey):
No access to inland historic feature by cleanup crews. 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.

Sheridan E. Hudson
State Historic Preservation Officer * Date: May 22, 1989

EXXON: [signature] Date: May 26 /89

FOSC: David Janoff Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 10:30 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-2

LENGTH OF SHORELINE SEGMENT: 400 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 40 % / C 50 % / P ___ % / G ___ % / S ___ % / M ___ % / R 10 %

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 30 Width of Band: 10 m

Sporadic: Y/N % of Segment _____

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

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % / M 50 % / L 50 %

Fresh 100 % Mousse _____ % Tar Formation: _____ %

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

Comments:

- 100 M BOULDER/COBBLE BEACH
- SUB-TIDAL BEDROCK REEFS
- POOR ACCESS

ECOLOGICAL EVALUATION

LOCATION: Lone Island SITE: North East tip OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 2 LENGTH: 400 (M)

DATE: May 20, 89 TIME (HHMM): 10:00 - 11:00 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

On large rocky headlands very thick sparse or nothing on cobbles

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

in thick patches on bedrock outcrops. none on smaller rocks

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

well defined bands on rocky headlands. Mortality observed in oiled zone

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

distributed above fucus line, between large boulders

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

scattered between rock faces and on some rock faces. Mortality observed in oiled zone

OTHER OBSERVATIONS: several starfish in low intertidal, hermit crabs and small fish, Rocky Headlands have oiled fucus

CLEANUP PRECAUTIONS: Try to wash at high tide. Keep oil from spreading to healthy intertidal community. Hand cut off heavly oiled fucus. Gather oiled drift debris from high tide line

MAMMALS: River Otters 3 Harbor Seals Ø Sea Lions Ø Whales Ø

Other

BIRDS: 2 Eagles, Shore birds

GENERAL OBSERVATIONS: dead limpets observed in oiled intertidal zone. Some lethargic crabs in oiled water, Helicopter traffic should be limited or restricted due to eagles

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location LONE ISLAND Site EAST SIDE (upper)

Location Prefix LN Segment # 2 Length 400 m

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility MODERATE

Width of beach zone surveyed 20-40 m Tree fringe surveyed 10 m.

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) FXF

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

Shore Profile VARIABLE, W/ SOME WIDE FLAT AREAS W/ GENTLE TO STEEP SLOPES

Fresh Water Sources SEEPS

Sea Exposure OPEN TO EAST

Access/Safety PROTECTED COVES AND ROCKY SHORES, POOR ACCESS

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

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

Photos: Color Roll # _____ Frames _____

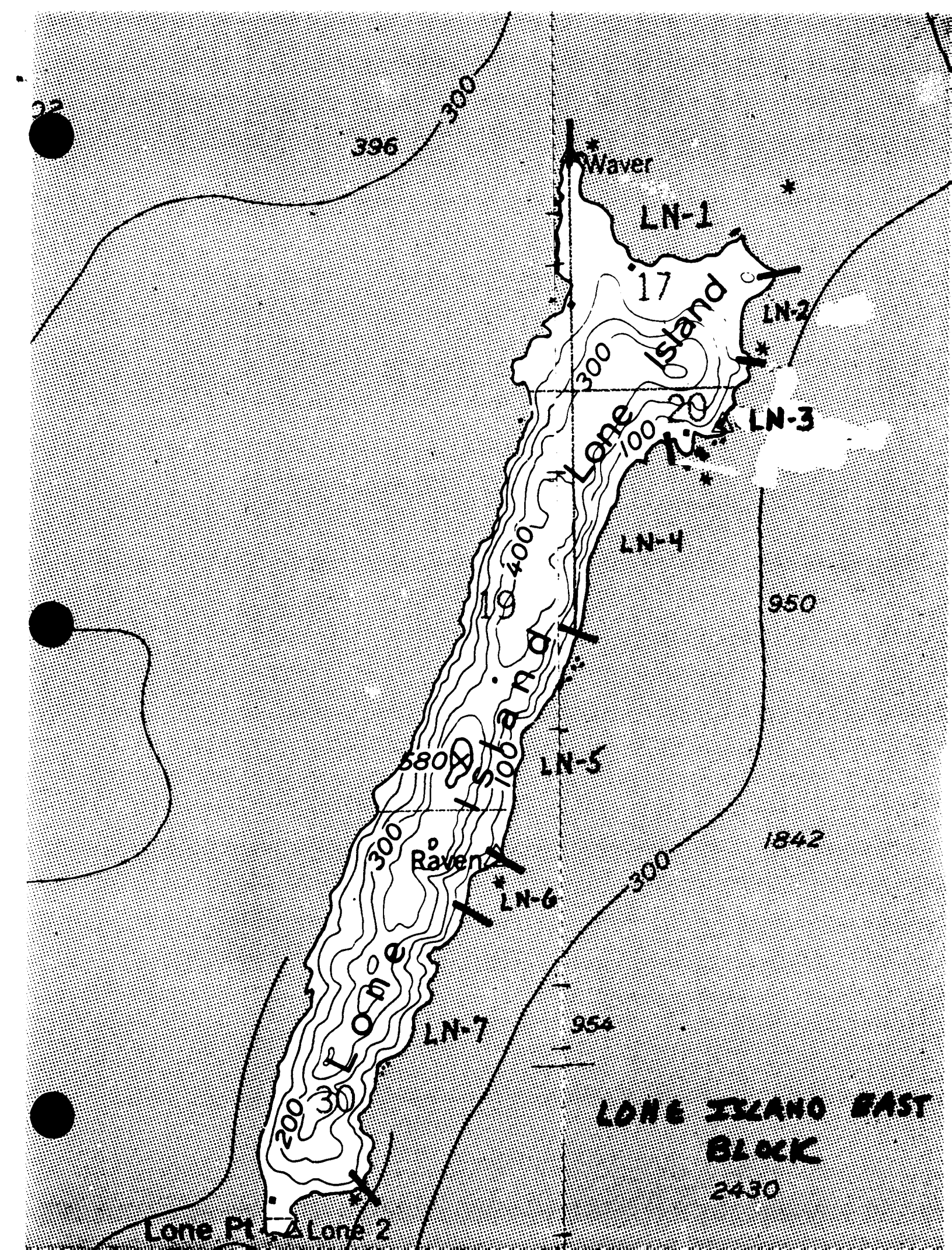
B/W Roll # C.W. 8 Frames 14-19

Observer(s) ANDREFSKY / C. WILSON

Time survey started 9:30 Time survey ended 10:30

Cultural resource considerations/restraints:

IF CLEAN-UP OCCURS, RESTRICT ACCESS TO "FXF", which is highly visible from shore.


22
300
396
Waver
LN-1
17
Island
LN-2
300
Lone
100
20
LN-3
LN-4
400
950
Island
580
100
LN-5
300
Raven
LN-6
1842
300
Lone
LN-7
954
20
30
LONG ISLAND EAST
BLOCK
2430
Lone Pt
Lone 2

(version 4/29/89)

SHORELINE CLEANUP AGREEMENT

DATE 5/22/89 SHORELINE SEGMENT LN-3

LOCATION: (see enclosed map) Lone Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE 5/10/89

Recommended Cleanup Activity(ies):
1) Locate small pocket beach at south end of segment.
2) Clean only by flooding/warm-hot (up to 140°F) water hoses.
3) Cut fucus algae off oiled rocks.
4) Access limited by narrow channel.

Priorities Considerations:

Class 2B

Ecological Constraints (from site survey):

High pressure hot water to clean rock faces at high tide only. ~~Protect trees from oil~~. Protect lower intertidal from oil. Follow eagle guidelines.

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 T. Adams
State Historic Preservation Officer * Date: May 22, 1989

EXXON: _____ Date: May 26/89

FOSC: David Janosko Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 10:53 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-3

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 20 % / C ___ % / P ___ % / G ___ % / S ___ % / M ___ % / R 80 %

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 10 Width of Band: 10 m

Sporadic: Y/N % of Segment ____

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

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

Fresh 100 % Mousse ____ % Tar Formation: ____ %

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

Comments:

- LIGHT OILING EXCEPT FOR COVE (MOD - HEAVY OIL) AT SOUTH END (NEAR "SAMBRO")
- ACCESS TO COVE BY NARROW (30M) DEEP CHANNEL

ECOLOGICAL EVALUATION

LOCATION: Lena Island SITE: North East tip OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 3 LENGTH: _____ (M)

DATE: May/20/89 TIME (HHMM): ± Noon 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

heavy concentrations on wave cut platforms - very low intertidal

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

heavy concentrations on vertical faces - mid intertidal

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

Barnacles in heavy concentrations at times

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

localized patches of "sea snails"

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

~~Fear pock~~ Individuals spread over the intertidal zone

OTHER OBSERVATIONS: only went ashore in one pocket beach. This area heavily impacted at highest tide water line

CLEANUP PRECAUTIONS: If possible, blast rock faces clean without washing oil onto rocks below - high tide open pocket beach it may be difficult to get both a skimmer & barge close to beach. Hot water flushing of ~~cobble~~ boulder beach recommended. Must not contaminate lower intertidal

MAMMALS: Otters 0 Harbor Seals 0 Sea Lions 0 Whales 0
Other _____

BIRDS: Eagle pair nest site probable

GENERAL OBSERVATIONS: rocky headlands are discontinuously oiled but the pocket beach is heavly oiled. Oil is ~~layered~~ spread on back side of rocky inlet.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location LONE ISLAND Site EAST SIDE (upper)

Location Prefix LN Segment # 3 Length 800 m

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility VARIABLE, LIGHT IN MOST CASES.

Width of beach zone surveyed 10-20 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 SOME cobble beaches, but mostly steep ROCK WALLS

Fresh Water Sources SEEPS

Sea Exposure OPEN TO EAST

Access/Safety POOR 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 —

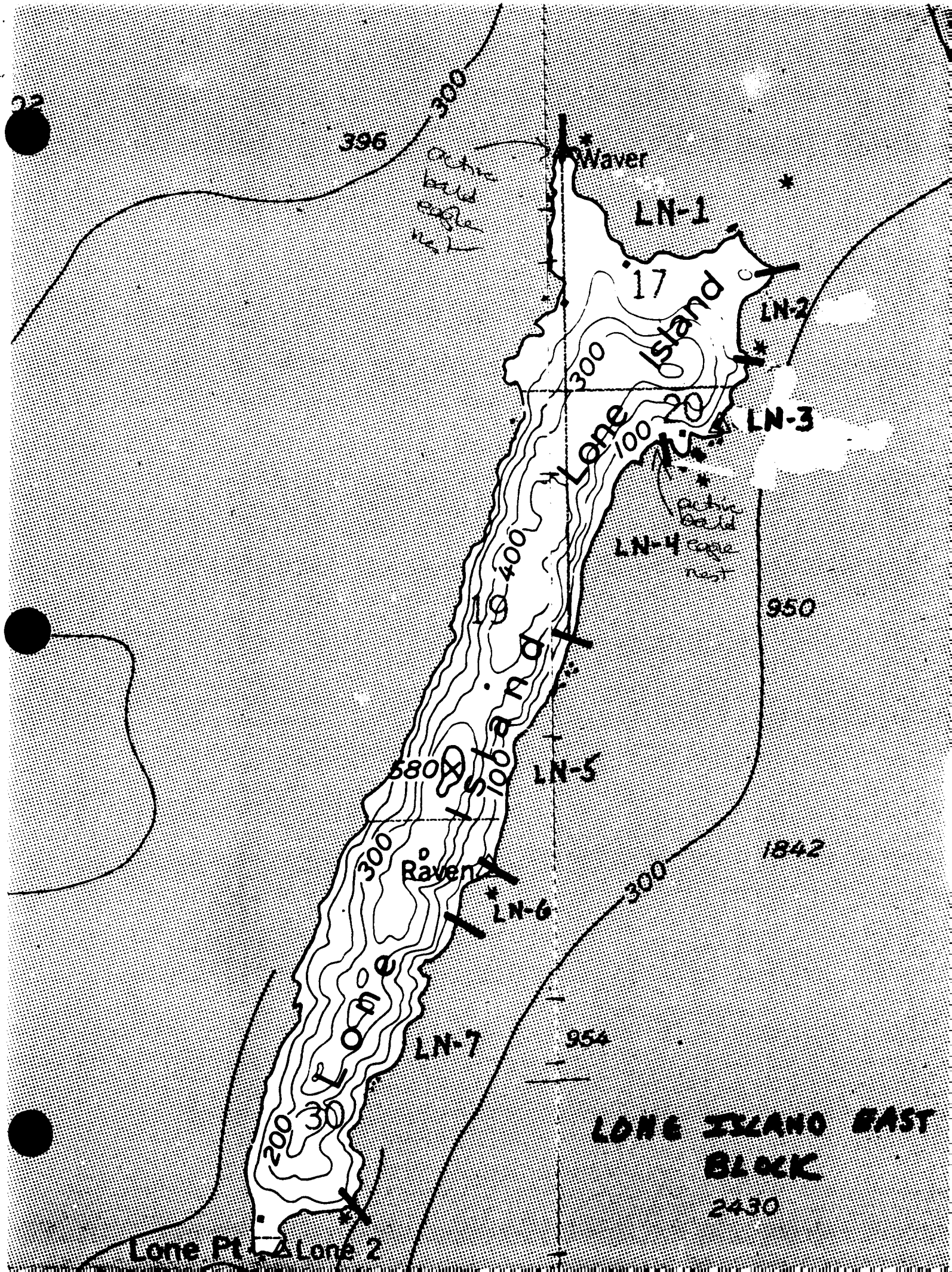
B/W Roll # — Frames —

Observer(s) ANDREFSKY / C. WILSON

Time survey started 10:30 AM Time survey ended 11:45 AM

Cultural resource considerations/restraints:

Low Probability of cultural Resources, but if heretofore unidentified cultural material is discovered during clean-up notify Exxon Archaeologist C. Mobley immediately.


22
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Waver
LN-1
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Island
LN-2
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Lone
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20
LN-3
Archie Boyd
LN-4
Eagle nest
400
950
Isobar
LN-5
580
300
Raven
LN-6
1842
300
LN-7
954
20
30
Lone
LONG ISLAND EAST BLOCK
2430
Lone Pt
Lone 2

(Version 5/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89 SHORELINE SEGMENT LN-4

LOCATION: (see enclosed map) Lone Island

ADEC NO. SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

1) Mechanical cleanup recommended for boulder cove and cobble/boulder beaches using washing/flooding with hot water (up to 140 F) at moderate pressure.

Priorities Considerations:

Class 2B/3B

Ecological Constraints (from site survey):

1) Cleanup at mid to high tide only if intertidal funa/flora present.

2) Avoid helicopters near eagle nest site.
Follow eagle guidelines.

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: May 22 1989

EXXON: Date: May 26 '89

FOSC: David Janoski Date: 5/22/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 15:23 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-4

LENGTH OF SHORELINE SEGMENT: 900 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 10 % / C 40 % / P 30 % / G ___ % / S ___ % / M ___ % / R 20 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type FUCUS 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 50 Width of Band: 12 m

Sporadic: Y/N % of Segment ___

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

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

Fresh 100 % Mousse ___ % Tar Formation: ___ %

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

Comments:

- ~~BEACH~~ OILED ABOVE 7FT TIDE LEVEL
- BOULDER COVE AND TWO COBBLE/BOULDER BEACHES BOUNDED BY HIGH BEDROCK CLIFFS
- SURFACE COBBLES HAVE BEEN CLEANED BY WAVE ACTION BUT 100% COATING AT DEPTH TO 30 CM.

GOOD ACCESS, DEEP WATER INSHORE.

ECOLOGICAL EVALUATION

LOCATION: Lone Island SITE: ~~LN-4~~ East side OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 4 LENGTH: ~~900~~ 900 (M)

DATE: May/20/89 TIME (HHMM): 3:30 pm TIME 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

attached to stable rock faces, oiled in some areas

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

growing in discrete bands along some rock faces

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

growing in bands on stable rock faces and smaller barnacles on large boulders

Littorina

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

found a few spots where sea snails were abundant on stable rocks

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

few observed none in oiled zone

OTHER OBSERVATIONS: several small fish in water just offshore

very light sheen observed in water

CLEANUP PRECAUTIONS: Minor areas where fucus should be removed from rock faces. Cleanup should proceed near high tide if in a region of intertidal life in low intertidal

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

Other

BIRDS: 2 eagles possible nest site

GENERAL OBSERVATIONS: Survey done at high tide. This was done because low tide observations showed no oil in lower tidal regions, day was calm and clear. Possible to see to lower tide level zone through water.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location Lone Island Site _____

Location Prefix LN Segment # 4 Length 900m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility moderate oil cover to Light

Width of beach zone surveyed 20-30 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 medium size cobbles on a gentle slope

Fresh Water Sources Seeps

Sea Exposure open to East

Access/Safety 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 # — Frames —

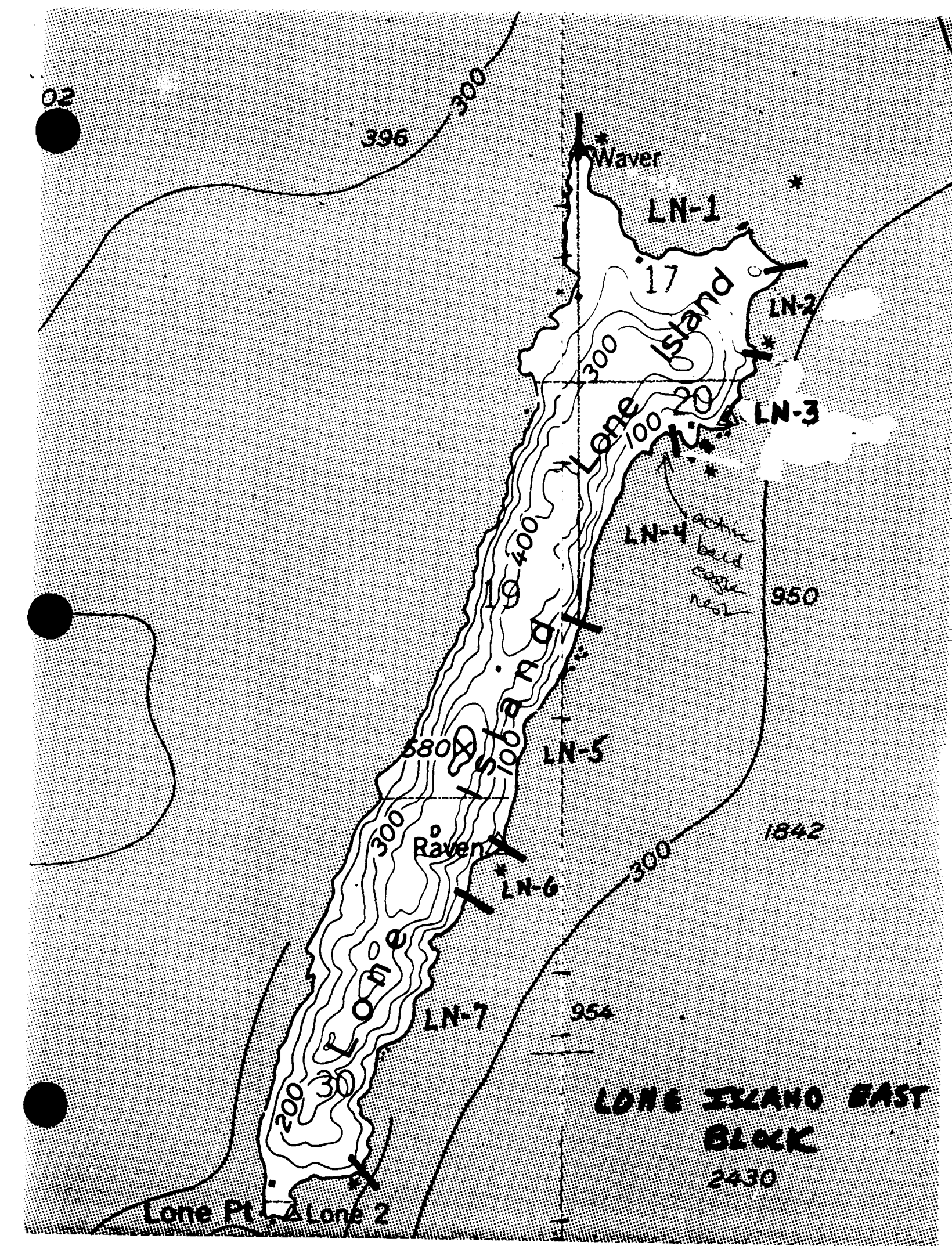
B/W Roll # — Frames —

Observer(s) ANDREESKY

Time survey started 3:30 pm Time survey ended 4:00 PM

Cultural resource considerations/restraints:

If heretofore undocumented sites are discovered contact Exxon Archaeologist immediately - C. Mobley.


02
396
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Waver
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Raven
LN-6
1842
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LN-7
954
20
30
Lone Pt
Lone 2
LONE ISLAND EAST BLOCK
2430

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89 SHORELINE SEGMENT LN-5

LOCATION: (see enclosed map) Lone Island

ADEC NO. SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

1) Low pressure warm water (up to 140 F) at high tide.

2) Washing/flooding moderate pressure for two small boulder coves.

Priorities Considerations:

Class 4B

Ecological Constraints (from site survey):

Use caution not to oil 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.

Charles E Holmes
State Historic Preservation Officer * Date: May 22, 1989

EXXON: [signature] Date: May 26 /89

FOSC: David Janosi Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 16:17 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-5

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 ___ % / P ___ % / G ___ % / S ___ % / M ___ % / R 90 %

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 5

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

Pooled Oil: ____ % "Free" Oil: ____ % Coated: H ____ % / M ____ % / L 5 %

Fresh 50 % Mousse 50 % Tar Formation: ____ %

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

Comments:

- TWO SMALL BOULDER COVES WITH MODERATE OILING (VERY LIMITED)
- ≈ 30 CM HIGH COATED OIL BAND NEAR HIGH TIDE.
- GOOD ACCESS, DEEP WATER CLOSE TO SHORE

ECOLOGICAL EVALUATION

LOCATION: Lone Island SITE: East Side OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 5 LENGTH: 900 (M)

DATE: May 20/89 TIME (HHMM): 4:00 pm 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

Growth in fairly continous band at base of rock face

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

Growth in fairly continous band at base of rock cliff

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

Growth fairly continous band above mussels

Littorina

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

Did not get close enough to observe these organisms (steep rock face)

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

Did not get close enough to observe these organisms (steep rock face)

OTHER OBSERVATIONS: Band about 1 ft high at highest high tide reach is oiled. Oil only adheres where mussels and barnacles provide a rough surface. Some/small patches of oiled fucus observed

CLEANUP PRECAUTIONS: Oil is concentrated along high intertidal, Caution should be used not to oil lower intertidal zone

MAMMALS: Otters 0 Harbor Seals 0 Sea Lions 0 Whales 0

Other

BIRDS: Sandpipers

GENERAL OBSERVATIONS: Some ~~hand~~ schools of "finger lings"

light sheen on water off shore

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location Lone Island Site _____

Location Prefix LN Segment # 5 Length 900 m

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility light oil cover

Width of beach zone surveyed no beach 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 no beach with very steep rock walls

Fresh Water Sources seeps, no streams

Sea Exposure open to east

Access/Safety water to rock wall, poor to fair 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 # — Frames —

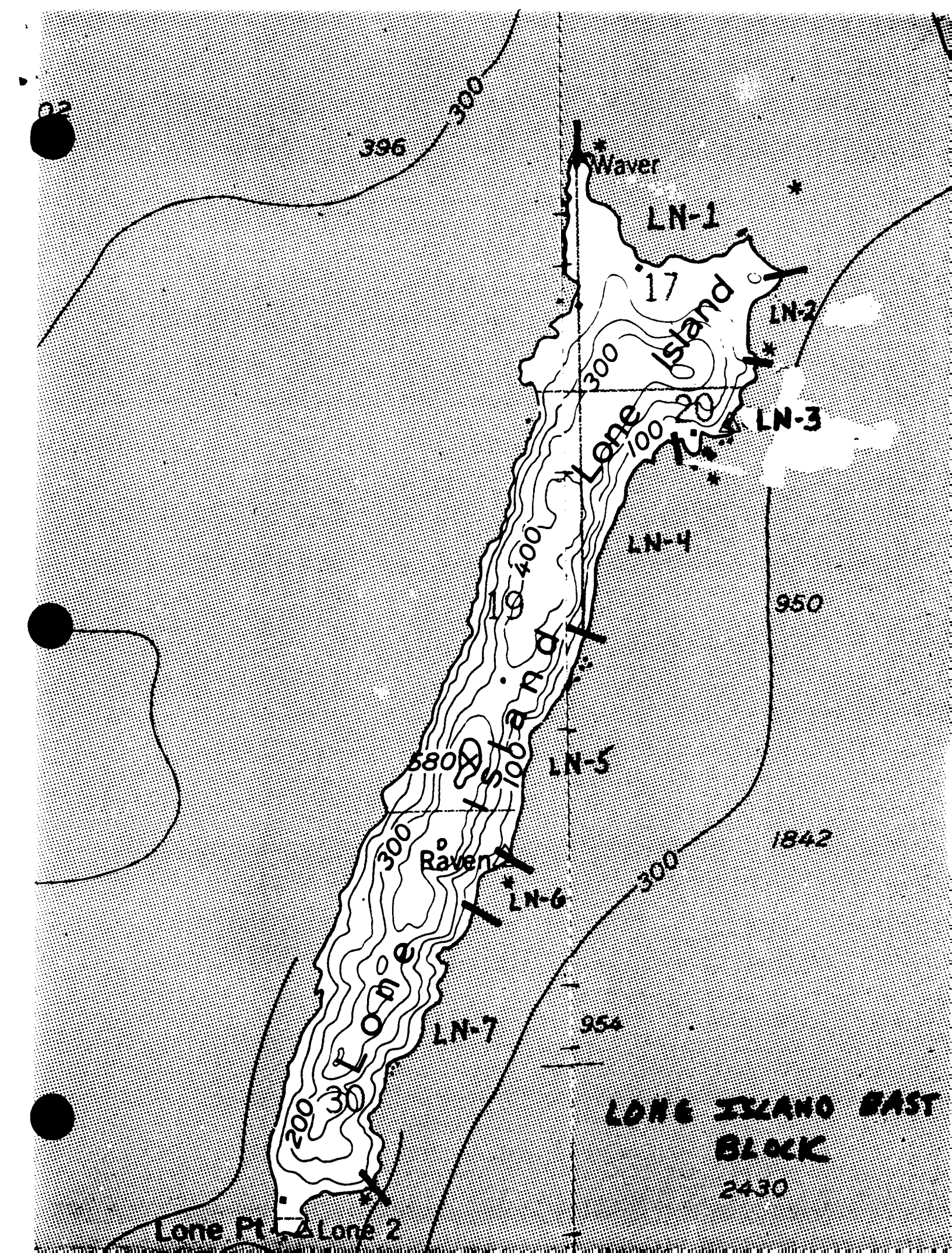
B/W Roll # — Frames —

Observer(s) Andrefsky

Time survey started 4:00 PM Time survey ended 4:20 PM

Cultural resource considerations/restraints:

If heretofore undocumented sites are discovered contact Exxon archaeologist Chuck Mobley immediately.


396
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Island
LN-2
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Lone
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LN-3
LN-4
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Island
580
100
LN-5
300
Raven
LN-6
1842
300
Lone
LN-7
954
200
30
LONE ISLAND EAST
BLACK
2430
Lone Pt
Lone 2

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89 SHORELINE SEGMENT LN-6

LOCATION: (see enclosed map) Lone Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

1) Vacuum cleanup of mousse pools at north end of beach
2) Washing/flooding with moderate pressure hot water (up to 140 F) at mid-tide level.
3) Hand cleanup of oiled debris prior to mechanical.

Priorities Considerations:

Class 2A (critical resources present) Seal Haulout

Ecological Constraints (from site survey):

Efforts should be made to avoid oiling low intertidal at southern portion of beach, rocks off shore are used as a seal haulout area. Steps should be taken to avoid harassing seals.

Archeological Constraints (from site survey):
Access to the uplands inside the treeline should be prohibited. 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
State Historic Preservation Officer * Date: May 22, 1989

EXXON: Real Date: May 26/89

FOSC: David Gaudette Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 17:00 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-6

LENGTH OF SHORELINE SEGMENT: 300 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 50 % / P 20 % / G ___ % / S 5 % / M ___ % / R ___ % FUCUS, KELP, 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 30 Width of Band: 10 m

Sporadic: (Y)/N % of Segment 30

Est. Oil Thickness where > 1cm: 10 cm Est. Oil Penetration: 30 cm

Pooled Oil: 5 % "Free" Oil: ___ % Coated: H 20 % / M 60 % / L 20 %

Fresh 90 % Mousse 10 % Tar Formation: ___ %

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

Comments:

- NORTH END OF BAY HEAVILY OILED FOR 100 M LENGTH
- POOLED MOUSSE AT NORTH END (HIGH TIDE)
- ACCESS HINDERED BY REEFS EXPOSED AT MID-TO-LOW TIDE
-

ECOLOGICAL EVALUATION

LOCATION: Long Island SITE: East side OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 6 LENGTH: ~~200~~ 300 (M)

DATE: May / 20 / 89 TIME (HHMM): 5:30 pm TIDE HT.: ~2 (M)

OILED ZONE: (Splash) High Medium Low

SUBSTRATUM: [Rocks Boulder Cobble Gravel Sand] Mud

LIVE BIOTA - ONLY NORTHERN END OF BEACH * SOUTH END NEARLY STERILE & little oil

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

Patches of heavily oiled fucus, already defoliated in some areas

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

Large patches of dead mussels in north section where oil is heavy

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

Barnacles are falling off rocks in heavily oiled section

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

few snails observed in oiled zone

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

Several dead limpets in ~~heavily~~ heavily oiled section

OTHER OBSERVATIONS: Oil Concentrated at northern portion of the beach. Efforts should be made to avoid oiling lower intertidal but region is of low biological productivity. Oiled drift debris should be picked up

CLEANUP PRECAUTIONS: Steps should be taken to avoid harrassing seals at rocky haulout just off shore - near southern end of beach

MAMMALS: Otters — Harbor Seals 10 Sea Lions — Whales —
Other

BIRDS: ~~Yellow legs~~ Lesser Yellowlegs

GENERAL OBSERVATIONS: Harbor Seals hauled out on rocks. One individual ~~grunting~~ grunting and flopping on the rock. Seemed very uncomfortable, cause unknown. Tail slapping on water by another. Definite seal haulout site

all observations from northern section of beach

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location Love Island Site _____

Location Prefix LN Segment # 6 Length ~~200~~ 300 m

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility variable from heavy to light

Width of beach zone surveyed 30-50 m Tree fringe surveyed 10 m.

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) FXF

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

Shore Profile gentle beach slope

Fresh Water Sources heavy seeps on either side of beach

Sea Exposure open to east

Access/Safety 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 # WA1-7 Frames 7,8,9

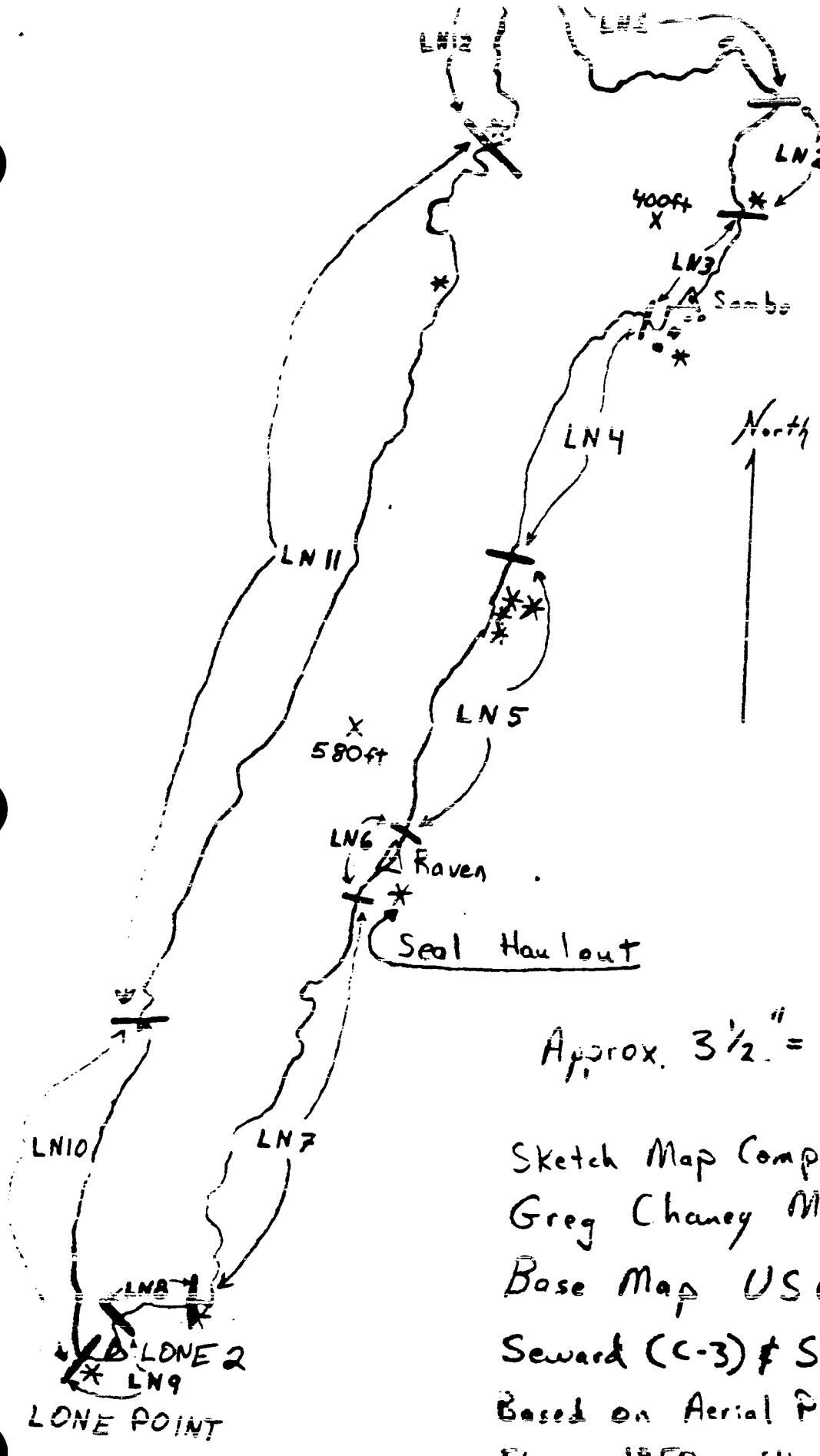
B/W Roll # — Frames —

Observer(s) ANDREFSKY

Time survey started 4:20 PM Time survey ended 6:00 PM

Cultural resource considerations/restraints:

Fox TRAP Feature is just off beach in Approximate center. This site should be protected where and if the beach is cleared. If heretofore undocumented sites are discovered contact Exxon Archaeologist Chuck Mobley immediately.



TEAM 5

LN 8 to LN 12

Surveyed May 21 [illegible]

9:00AM - 4:00PM

Approx. 3½" = 1 mile

Sketch Map Compiled by
Greg Chaney May 21 1989

Base Map USGS Quads
Seward (C-3) & Seward (C-2)
Based on Aerial Photography
Flown 1950, with updates from
1983 Aerial Photography

(version 4/30/89)

SHORELINE CLEANUP PROGRAM

DATE 5/22/89 SHORELINE SEGMENT LN-7

LOCATION: (see enclosed map) Lone Island

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/20/89

Recommended Cleanup Activity(ies):

Low pressure warm water at high tide.

Priorities Considerations:

Class 4B.

Ecological Constraints (from site survey):

Caution should be used not to oil 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.

Charles E Holmes
State Historic Preservation Officer *

Date: May 22, 1989

EXXON: _____

Date: May 26/89

FOSC: _____

Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/20/89 Time: 17:45 Observer: RICK GILLIE

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

LOCATION

LOCATION LONG ISLAND SEGMENT NUMBER LN-7

LENGTH OF SHORELINE SEGMENT: 1,400 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 10 % / C ___ % / P ___ % / G ___ % / S ___ % / M ___ % /R 90 %

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 5

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

Pooled Oil: _____ % "Free" Oil: _____ % Coated: H ___ % /M ___ % /L 5 %

Fresh 100 % Mousse _____ % Tar Formation: _____ %

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

Comments:

- MOST OF SEGMENT BEDROCK CLIFF
- TWO SMALL BOULDER COVES

ECOLOGICAL EVALUATION

LOCATION: Lone Island SITE: East Side OBSERVER: Greg Cheney

LOCATION PREFIX: LN SEG. NO.: 7 LENGTH: ~~1400~~ 1400 (M)

DATE: May 20 1989 TIME (HHMM): 6:00 pm TIDE HT.: ~1.5 (M)

OILED ZONE: (Splash) (High) Medium Low

SUBSTRATUM: (Rocks) Boulder Cobble Gravel Sand Mud

LIVE BIOTA small pocket beaches less than 10%

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

Growth in fairly continous band at base of rock cliff

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

Growth in fairly continous band at base of cliff face

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

Growth fairly continous in a band above mussels.

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

Did not approach close enough to observe snails (steep rock face)

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

Did not approach close enough to observe limpets (steep rock face)

OTHER OBSERVATIONS: Thin oil sheen on water, large schools of fish 2 to 5 cm.

CLEANUP PRECAUTIONS: If cleanup is attempted, rich lower tidal regions should be protected from oiling

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

BIRDS: Dippers?

GENERAL OBSERVATIONS: Small pocket beaches along major rock walls, one thinner oil thins toward the south

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-20-89 Location Love Island Site _____

Location Prefix LN Segment # 7 Length 1200 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility moderate oil on rock wall at high tide

Width of beach zone surveyed No beach 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 Rock walls occur right to water's edge

Fresh Water Sources Seeps, no stream

Sea Exposure open to east

Access/Safety Access is 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 —

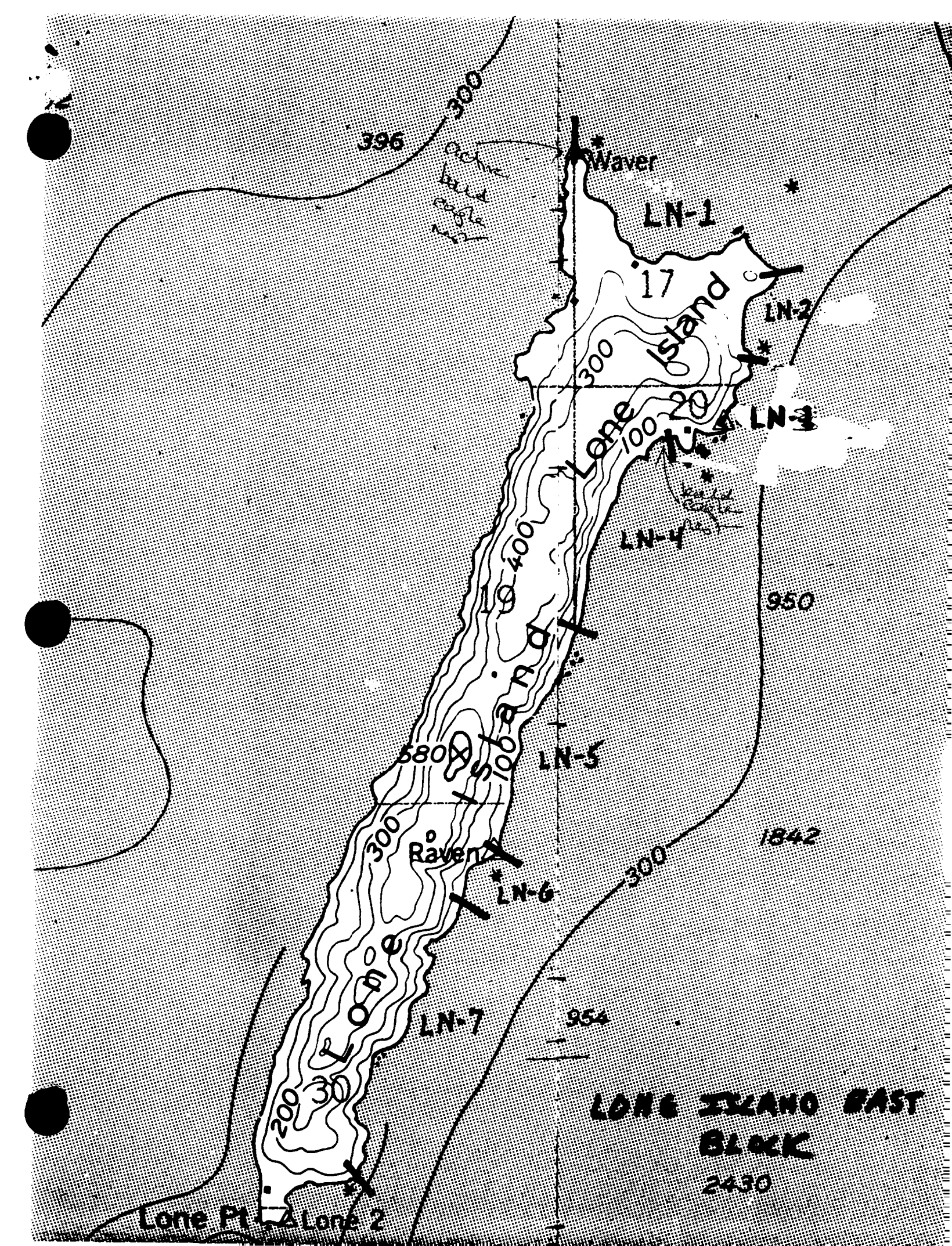
B/W Roll # — Frames —

Observer(s) Andreefsky

Time survey started 6:00 PM Time survey ended 6:20 PM

Cultural resource considerations/restraints:

If heretofore undocumented sites are discovered contact Exxon archaeologist Chuck Mobley immediately


396
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Waver
LN-1
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Long Island
LN-2
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LN-3
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Lone
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LN-4
950
580
100
LN-5
Raven
300
LN-6
1842
300
LN-7
954
20
30
Lone Pt
Lone 2
LONG ISLAND EAST BLOCK
2430

LN-1 [illegible]

DATE 8-19-89

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 Treatment of Segment LN-1 is Complete. Ready for Demobilization and Deployment to New Segment

Signature Harold A Russell Date: 8/19/89 Time: 1255

Printed Name Harold A Russell

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
	Heavy
Less than 1%	Medium
9%	Light
15%	Very Light
75%	None
100 %	

Subsurface Oil

☒ Yes ☐ No

COMMENT BELOW

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

Reassessment

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

ADEC rep

Comments ADEC rep unavailable - verbally approved on 8-17-89

Signature Date: / / Time:

Printed Name

FOSC rep **Demobilization approved/disapproved**

Comments to remove debris & containment boom ASAP

Signature Paul B. Gansle Date: 8/19/89 Time: 1315

Printed Name Paul B. Gansle, LT

COPY: EXXON ADEC FOSC ISCC

SEG LN-2 INSPECTION # ___ SEGMENT

DATE 8-12-89

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 No Treatment was required for Segment LN-2

Signature Harold A Russell Date: 8/12/89 Time: 14:20

Printed Name HAROLD A RUSSELL

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
____	Heavy
____	Medium
1 %	Light
1 %	Very Light
98 %	None
100 %	

Subsurface Oil

☒ Yes ☐ No

Comments Light in cobble area,

Reassessment

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

ADEC rep

Comments ADEC rep not available approved prior visit

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization approved/disapproved

Comments no gross contamination observed small area tarred - concur with SCAT 3

Signature Paul B. Hansel Date: 8/12/89 Time: 1435

SEG LN 3 INSPECTION # SEGMENT

DATE 8-12-89 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 No Treatment was required for segment LN 3

Signature Harold A Russell Date: 8/12/89 Time: 14:20

Printed Name Harold A Russell

Existing Shoreline Condition As Visually Determined by USCG

Surface Oil Percent	Degree of Oiling
	Heavy
	Medium
1%	Light
1%	Very Light
98%	None
100 %	

Subsurface Oil

☒ Yes ☐ No

Comments contained in one small beach area

Reassessment

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

ADEC rep Comments ADEC rep not available approved prior visit

Signature Date: / / Time:

Printed Name

FOSC rep **Demobilization approved/disapproved**

Comments Concur with SCOT 3 that no treatment required

Signature Paul B. Hanle Date: 8/12/89 Time: 1445

LN 6

DATE 11-12-89

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 No Treatment was required for segment LN 6

Signature Harold A Russell Date: 8/12/89 Time: 14:30

Printed Name Harold A Russell

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 ADEC rep not available. Approved prior visit

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization (approved)/disapproved

Comments

Signature Paul B. Gaude Date: 8/12/89 Time: 1445

Printed Name Paul B. Gaude LT

SEG LN 7 INSPECTION # ___ SEGMENT

DATE 8-12-89 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 No TREATMENT WAS required for segment LN7

Signature Harold A Russell Date: 8/12/89 Time: 14:30

Printed Name Harold A Russell

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 ADEC rep not available

Approved prior visit

Signature Date: / / Time:

Printed Name

FOSC rep Demobilization (approved) disapproved

Comments

Signature Paul B Hanes Date: 8/12/89 Time: 1450

Printed Name

(version 5/24/89)

SHORELINE PRE-CLEANUP ASSESSMENT BLOCK REPORT

Location (see enclosed map): LONE ISLAND WEST BLOCK

Includes Shoreline Segments: LN-8, LN-9, LN-10, LN-11, LN-12

Submitted : _____ (for Exxon) Date: 5/24/89

ISCC ~~Approval~~ Recommendation: _____ Date: 5/26/89

FOSC Approval: _____ Date: 5/27/89

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

BALD EAGLE ADVISORY

1. Aircraft:
a. All aircraft should avoid eagle nests by 1000 ft. horizontally & 500 ft. vertically.
b. All aircraft should avoid flying the shoreline or the treeline and should approach islands from a 90 degree angle to the shore.

2. Note location of live eagles that appear oiled. Report number, location & condition to RAT biologist, who will relay that information ASAP to USFWS Valdez.

3. Cleanup and support equipment should be located away from bald eagle nests to the extent possible. Support facilities should be at least 300 ft. away.

4. Bald eagle trees shold not be approached or climbed under any circumstances.

5. It is illegal to possess ANY bald eagle parts or feathers. give carcasses to RAT biologist. Leave isolated, unoiled feathers etc. where you found them.

Fucus Guidelines 5/26

Detached oiled popweed and kelp stranded on shorelines being cleaned should also be removed to prevent it being refloated.

Cutting of oiled popweed (fucus) still attached to the rock is generally not recommended. If it is deemed necessary by the field biologist to remove heavily oiled fucus to prevent redistribution of oil into the environment, a sufficient number of mature plants should be left in the area to facilitate recruitment. If this is not done, recruitment may not take place. The following guidelines should be used in making this decision of whether to cut or not:

a. If overstory plants are heavily oiled, but significant numbers of unoiled younger plants are present below them, make an effort not to disturb the younger plants. It is not necessary to leave the holdfast when cutting fucus plants.

b. In harvesting oiled fucus, leave sufficient numbers of mature plants (even if oiled) to facilitate recruitment. For best recruitment results, plants should be left within the mid-intertidal zone in patches or fringe 3-10 feet apart.

c. If oiling is so heavy that all young plants are also heavily oiled, and the cracks and crevices are filled with oil so new plants will not have much chance of surviving, it is especially important to leave sufficient numbers of mature plants. Hopefully, enough of the plants will survive to allow recruitment the following year when proper substrate may be less oiled.

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/24/89 SHORELINE SEGMENT LN-8

LOCATION: (see enclosed map) Lone Island, South end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/21/89

Recommended Cleanup Activity(ies):

Hand cleanup of oiled debris.
Flood/flush with warm to hot water (up to 140 F) only after clean areas of intertidal zone are covered by tide or sufficient protection measures are in place for mid; lower intertidal zone.

Priorities Considerations:

Class 3: moderate oil
Class B: resources absent

Ecological Constraints (from site survey):

Avoid oiling rich lower tidal region. Patches of oiled fucus should be hand cut and disposed of. Eagles nest may be present, crews should be aware of this possibility.
Follow attached Fucus guidelines.

Archeological Constraints (from site survey):
Restrict access to historic structure immediately at the edge of the tree fringe. 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
State Historic Preservation Officer * Date: May 24, 1989

EXXON: _____ Date: May 26/89

FOSC: _____ Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/21/89 Time: 9:06 Observer: RICK GILLIE

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

LOCATION

LOCATION LONG ISLAND SEGMENT NUMBER LN-8

LENGTH OF SHORELINE SEGMENT: 400 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 30 % / P 10 % / G ___ % / S ___ % / M ___ % / R 30 %

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: 20 m

Sporadic: Y/N % of Segment ____

Est. Oil Thickness where > 1cm: ____ cm Est. Oil Penetration: 10-20 cm

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

Fresh 100 % Mousse ____ % Tar Formation: ____ %

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

Comments:

- BOULDER SUBSTRATE AT LOW TO MEDIUM TIDE
- GRAVEL AT HIGH TIDE
- ACCESS UNOBSTRUCTED
- ADDITIONAL OIL ON ROCKS AT OTHER END OF COVE/BEACH

BIOLOGICAL EVALUATION

LOCATION: Lone Island SITE: South END OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 8 LENGTH: ~~200~~ 400 (M)

DATE: May 21 / 89 TIME (HHMM): 9:15 AM 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

low intertidal, mostly appears healthy, East end fucus in high intertidal is oiled

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

Mussels are restricted to stable rocky outcrops in east section, some mortality observed in oiled zone

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

few barnacles, seem to detach easily

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

Large number of snails observed in ~~[illegible]~~ lower tidal areas few in oiled zone

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

Few limpets observed, all dead

OTHER OBSERVATIONS: ~~South end~~ East end of beach at rock outcrop, fucus heavyly oiled in high intertidal, Rest of beach is mostly sterile in high tide zone

CLEANUP PRECAUTIONS: ~~Do~~ Beach cleanup should only be done at mid to high tide. Avoid oiling rich lower tidal region. Oiled fucus should be cut and disposed of

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

BIRDS: Bald Eagle sitting on tree near shore, possible nest in vicinity

GENERAL OBSERVATIONS: Oil sheen along shore line, lower inter tidal very rich, Starfish, numerous organisms

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-21-89 Location Lone Island Site _____

Location Prefix LN-8 Segment # 8 Length ~~350~~ 400 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility moderate oil cover

Width of beach zone surveyed 60 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 Gradual slope to the beach, various size cobbles

Fresh Water Sources Seeps, no streams

Sea Exposure Open to the Southeast

Access/Safety easy access to beach, fairly safe for boat

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) ANDREFSKY

Time survey started 7:00 AM Time survey ended 7:30 AM

Cultural resource considerations/restraints:

If heretofore cultural resources are discovered during cleanup contact Exxon archaeologist Chuck Mobley immediately.

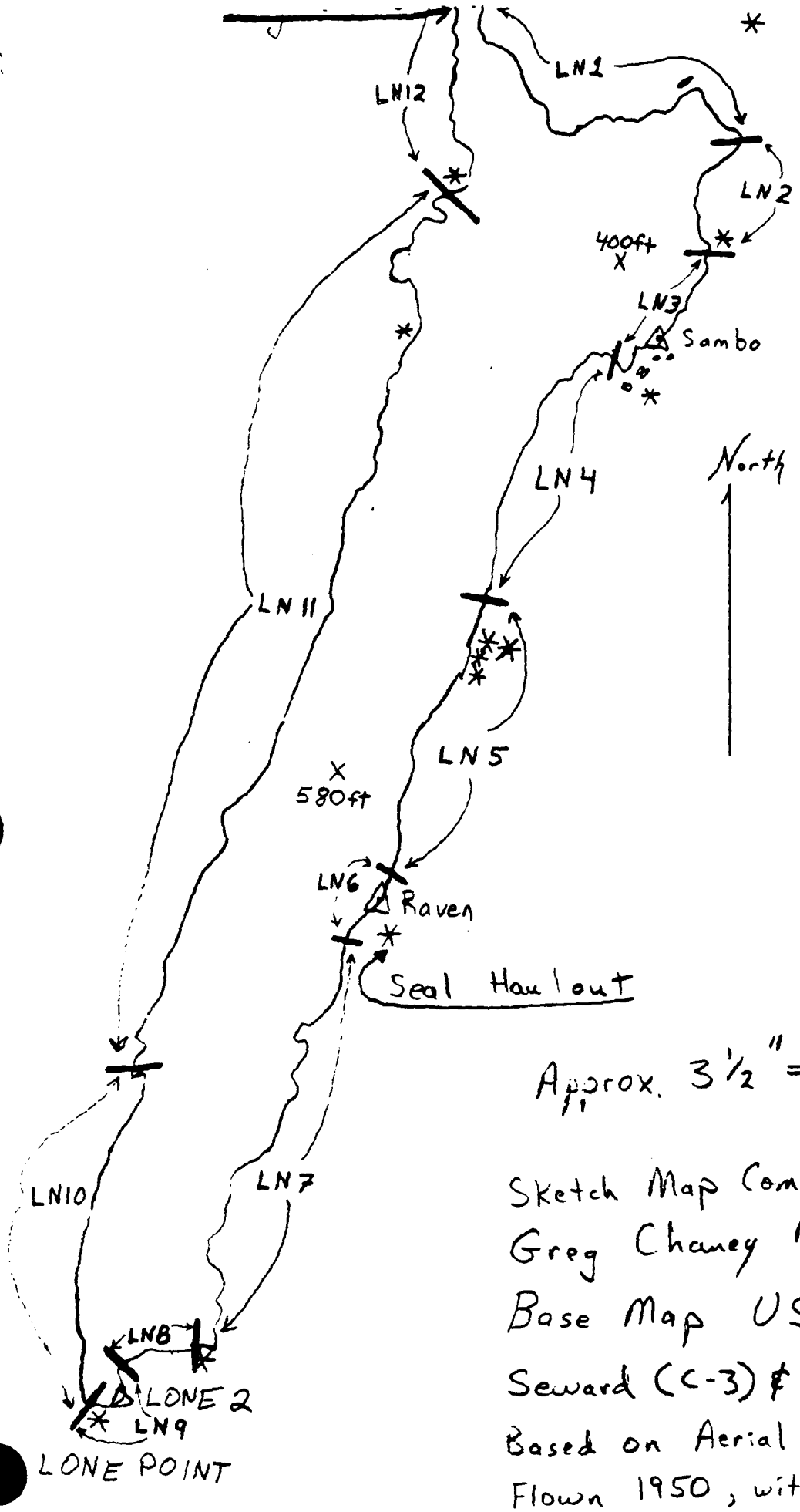
MAY 21 1989

TEAM 5

LN 8 to LN 12

Surveyed May 21 19

9:00AM - 4:00PM



Approx. 3½" = 1 mile

Sketch Map Compiled by
Greg Chaney May 21 1989

Base Map USGS Quads
Seward (C-3) & Seward (C-2)
Based on Aerial Photography
Flown 1950, with updates from
1983 Aerial Photography

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/24/89 SHORELINE SEGMENT LN-9

LOCATION: (see enclosed map) Lone Island, South end

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/21/89

Recommended Cleanup Activity(ies):

Flood/flush with warm to hot water (up to 140 F) on boulder beach only.

Priorities Considerations:

Class 4: low oil
Class B: resources absent

Ecological Constraints (from site survey): Cleanup should concentrate on small oiled notched section at the western portion of LN-9, which is relatively sterile at mid to high water or take appropriate measures to prevent oiling lower intertidal zone. No constraints for this small section. The vertical rock face is very rich in intertidal life. Highest tide line has little oil. Cleanup is not recommended in ~~this~~ area due to potential damage to lower organisms. The vertical rock face

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
State Historic Preservation Officer * Date: May 24, 1989

EXXON: [signature] Date: May 26/89

FOSC: [signature] Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: ~~FOF~~ 5/20/89 / Time: 10:01 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-9

LENGTH OF SHORELINE SEGMENT: 500 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 ___ % / P ___ % / G ___ % / S ___ % / M ___ % / R 90 %

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 5

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

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

Fresh 100 % Mousse _____ % Tar Formation: _____ %

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

Comments:

- HEADLAND AT SOUTHWEST TIP OF ISLAND
- SMALL COVE AT SOUTHWEST SIDE HAS 20 X 10 M AREA OF MODERATELY OILED BOULDERS, OTHERWISE LIGHT TO NO OIL PRESENT.

LOCATION: Lone Island SITE: South Tip OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 9 LENGTH: 500 (M)

DATE: May/21/89 TIME (HHMM): 9:30 TIDE HT.: ~ 10.0 (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

Very Thick Concentration, Extremely Lush Marine Vegetation Lower Intertidal

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

Continous Mussel Band, Mid to Higher Tide Level

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

Definite Band At Higher Tide Reaches

Littorina

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

Sea Snails observed throughout tide range

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

None observed but fucus is so thick they may have been present

OTHER OBSERVATIONS: Light oiling along high tide mark on steep rock faces, heaver concentration at north end of segment on SW corner of island in small gap in rock face

CLEANUP PRECAUTIONS: Clean only small section at north end of segment. Rest of shore is too rich in wild life and cleaning small band of light oil would probably impact intertidal life more than present oiling. At mid or high tide only

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

Other —

BIRDS: None Observed

GENERAL OBSERVATIONS: Very rich intertidal area, Thick schools of 3 to 5 cm fish off shore

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-21-89 Location Love Island Site _____

Location Prefix LN Segment # 9 Length 500 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility Very light oil cover

Width of beach zone surveyed No beach m Tree fringe surveyed 1-15 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 very steep rock wall all along shore

Fresh Water Sources NO streams, Fresh H_2O seeps

Sea Exposure OPEN to South

Access/Safety No landing on shore,

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) ANDREFSKY

Time survey started 7:30 AM Time survey ended 7:50 AM

Cultural resource considerations/restraints:

IF heretofore cultural resources are discovered during cleanup contact Exxon Archaeologist Chuck Mobley immediately.

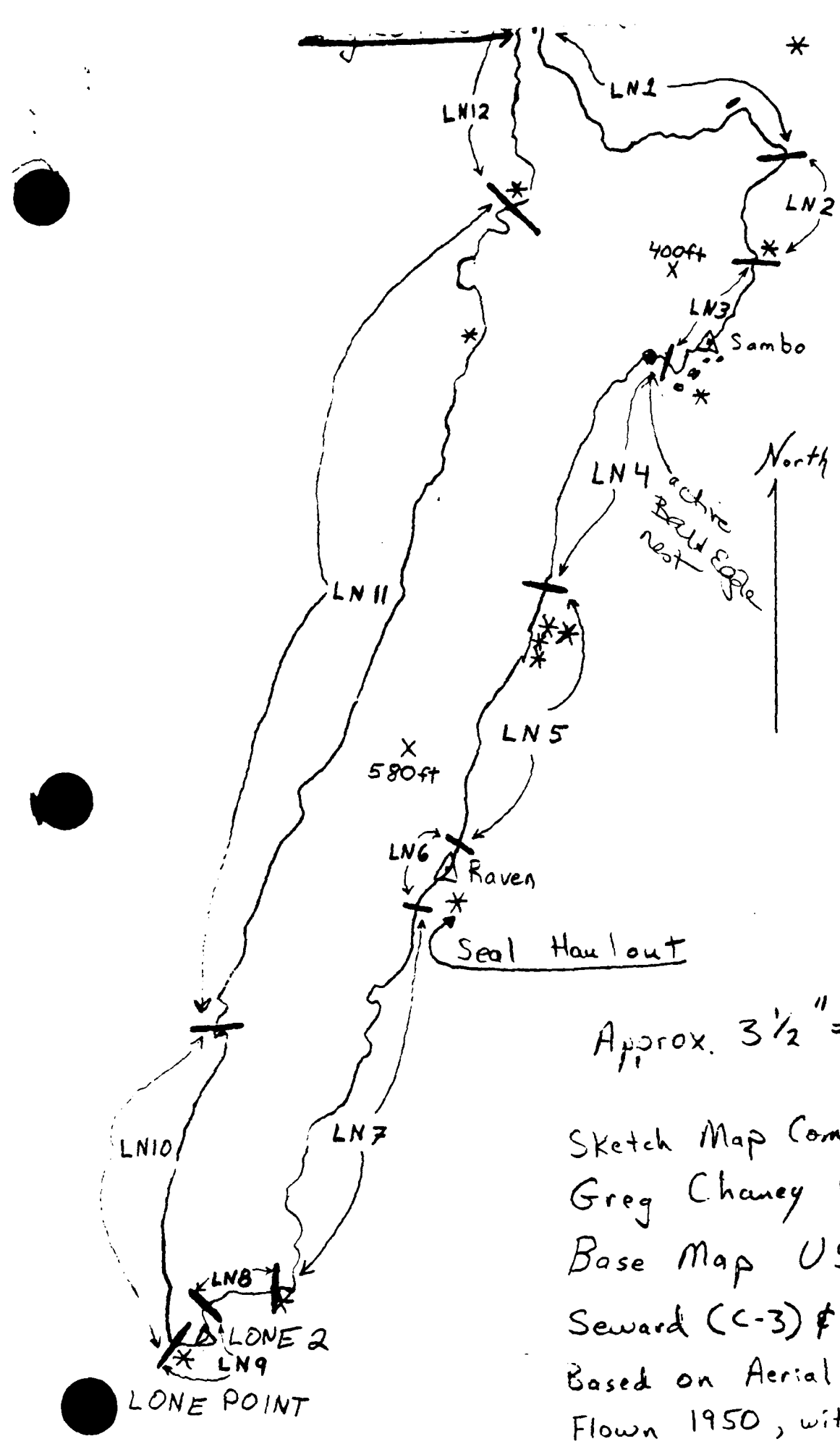
MAY 21 1989

TEAM 5

LN 8 to LN 12

Surveyed May 21 1989

9:00AM - 4:00PM



Approx. 3½" = 1 mile

Sketch Map Compiled by
Greg Chaney May 21 1989

Base Map USGS Quads
Seward (C-3) & Seward (C-2)
Based on Aerial Photography
Flown 1950, with updates from
1983 Aerial Photography

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/24/9 SHORELINE SEGMENT LN-1C

LOCATION: (see enclosed map) Lone Island, Southwest

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/21/89

Recommended Cleanup Activity(ies):

Hand cleanup of drift debris on small beach. Flood/flush with warm to hot water (up to 140° F) on beach at south end of segment at mid-tide.

Priorities Considerations:

Class 4: low oil
Class B: resources absent

Ecological Constraints (from site survey): Restrict cleanup and activities to the oiled beach at the south end of the segment. Avoid impacting rocky headlands with rich intertidal life adjacent to beach. The rocky headlands appear to be oil free.

Archeological Constraints (from site survey):
Access to historic structures in southern 1/5 of segment should be restricted. 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: May 24, 1989

EXXON: _____ Date: May 26/89

FOSC: _____ Date: 5/24/89

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

SHORELINE OIL EVALUATION

Date: 5/21/89 Time: 10:07 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-10

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 5 % / C ___ % / P 30 % / G 30 % / S ___ % / M ___ % / R 5 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type LOGS 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 5

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

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

Fresh 100 % Mousse _____ % Tar Formation: _____ %

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

Comments:

- LIGHT OIL PRESENT ON SOUTH END OF 100M LONG BEACH CLOSEST TO LN-9.
- OTHERWISE NO OIL

LOCATION: Lone Island SITE: South West OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 10 LENGTH: 900 (M)

DATE: May / 21 / 89 TIME (HHMM): 10:30 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

restricted to few ~~cap~~ rocky outcrops, mostly devoid of vegetation

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

restricted to few rocky outcrops, very few localized areas

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

Barnacles at north end of section - free from oil - very hard to detach

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

Sea Snails restricted to the few rocky headlands

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

More limpets on south end of beach on rocks, very hard to detach

OTHER OBSERVATIONS: Mostly pea or gravel beach, little intertidal life observed. Oiling restricted to southern end of unit. Large schools of 3-4 cm fish, Chitons on rocks in large numbers, most locally

CLEANUP PRECAUTIONS: Restrict cleanup to southern beach, restrict access from heavily vegetated rocky headlands nearby.

MAMMALS: Otters — Harbor Seals 1 Sea Lions — Whales —
Other

BIRDS: 8 sea gulls on beach

GENERAL OBSERVATIONS: Rocky outcrops harbor largest concentration of intertidal life. Very little intertidal life evident overall

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-21-89 Location Lone Island site _____

Location Prefix LN Segment # 10 Length 900 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility oil is very light.

Width of beach zone surveyed 20-40 m. m Tree fringe surveyed 10 m.

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) CBN, HTD, FXF

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

Shore Profile Gentle slope with some areas of jutting rock

Fresh Water Sources small stream & seeps

Sea Exposure Open to west

Access/Safety 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 # WA-1 Frames 10, 11, 12, 13, 14, 15, 16

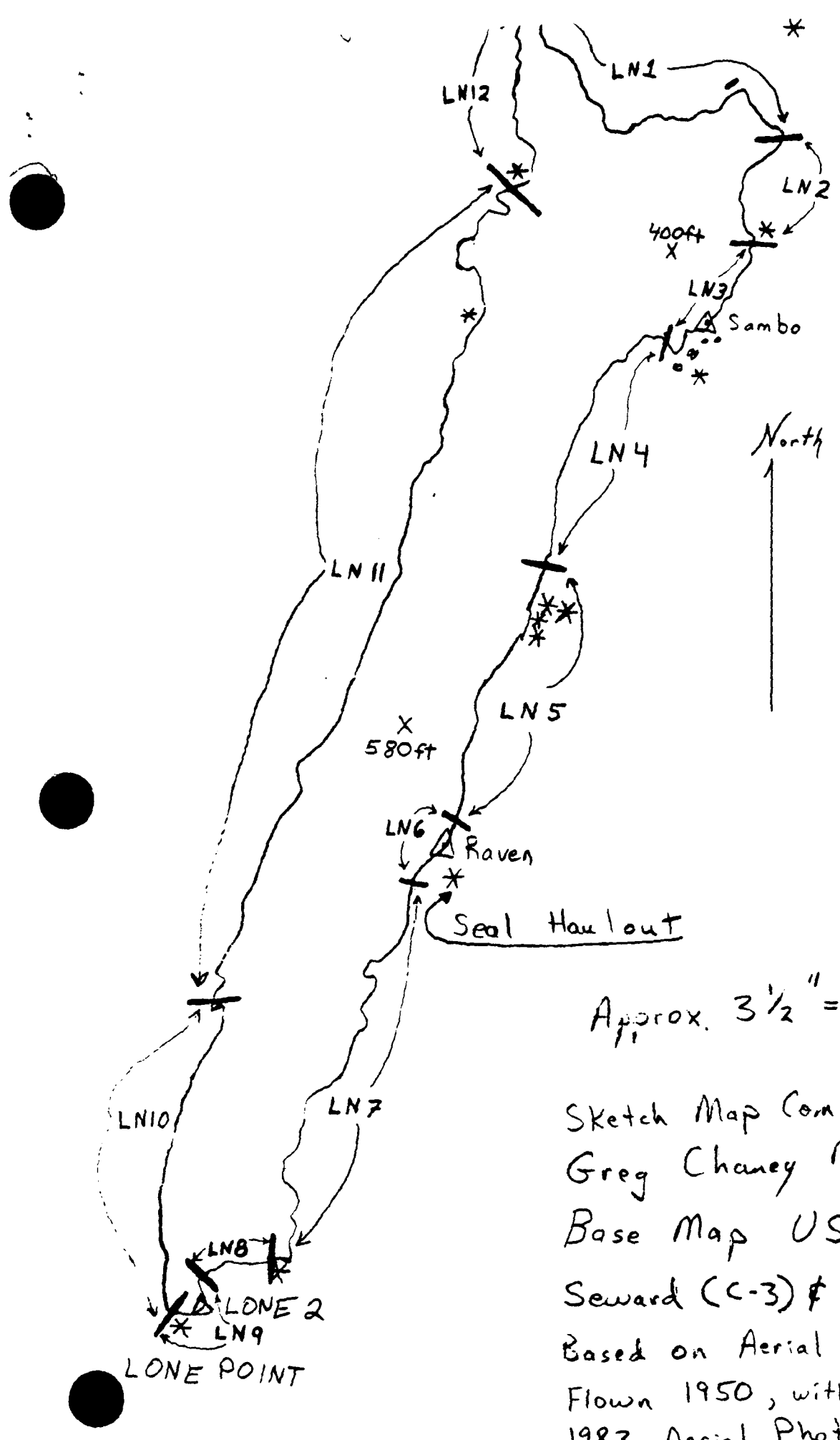
B/W Roll # — Frames —

Observer(s) ANDREFSKY

Time survey started 7:50 AM Time survey ended 11:45 AM

Cultural resource considerations/restraints:

If cleanup occurs work crews should AVOID the fox trap site and THE CABIN site. If heretofore cultural resources are discovered during cleanup contact Exxon archaeologist CHUCK MOBLEY immediately.



MAY 21 1989

TEAM 5

LN 8 to LN 12

Surveyed May 21 1989

9:00AM - 4:00PM

Approx. 3½" = 1 mile

Sketch Map Compiled by
Greg Chaney May 21 1989

Base Map USGS Quads
Seward (C-3) & Seward (C-2)
Based on Aerial Photography
Flown 1950, with updates from
1983 Aerial Photography

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/24/89 SHORELINE SEGMENT LN-11

LOCATION: (see enclosed map) Lone Island, West side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/21/89

Recommended Cleanup Activity(ies):

No cleanup recommended. No oil present.

Priorities Considerations:

None.

Ecological Constraints (from site survey):

Intertidal life healthy and oil free. No cleanup recommended.

Archeological Constraints (from site survey):
If no cleanup activity is planned in this segment, no cultural resource constraints are necessary.

Charles E. Holmes
State Historic Preservation Officer * Date: May 24, 1989

EXXON: _____ Date: May 26/89

FOSC: _____ Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/21/89 Time: 10:50 Observer: RICK GILLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-11

LENGTH OF SHORELINE SEGMENT: 3,000 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

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

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type LOGS 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 0 Width of Band: 0 m

Sporadic: Y/N % of Segment 0

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 ON SURFACE OR AT DEPTH IN BERMS
- NO OIL ON ROCKS.

ENVIRONMENTAL EVALUATION

LOCATION: Lone Island SITE: Western Shore OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 11 LENGTH: 3000 (M)

DATE: May 21 / 89 TIME (HHMM): 11Am - 2pm TIDE HT.: ~ +2.5 (M)

OILED ZONE: Splash High Medium Low - NONE

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 of Fucus on the few rocky outcrops

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

Continous band of mussels on the few rocky outcrops

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

Continous bands of barnacles above mussels on the few rocky outcrops

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

Sea Snails associated with rocky outcrops

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

Limpets observed in regions with barnacles, all collected healthy

OTHER OBSERVATIONS: Western side of Lone Island, is made up of rocky head lands and beaches.

CLEANUP PRECAUTIONS: No clean up recommended due to lack of oiling

MAMMALS: Otters — Harbor Seals 1 Sea Lions — Whales —
Other

BIRDS: 10 Pigeon Guillements (3), Harlequine Ducks, 3 Lesser Yellow Legs

GENERAL OBSERVATIONS: White flakes found at high tide line. These flakes are soap like in texture

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-21-89 Location Lone Island Site _____

Location Prefix LN Segment # 110 Length 3000 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility No oil on beach

Width of beach zone surveyed 10-30 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 variable profile from flat beaches to steep rock walls.

Fresh Water Sources some small streams and seeps

Sea Exposure Open to West

Access/Safety Access is 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 —

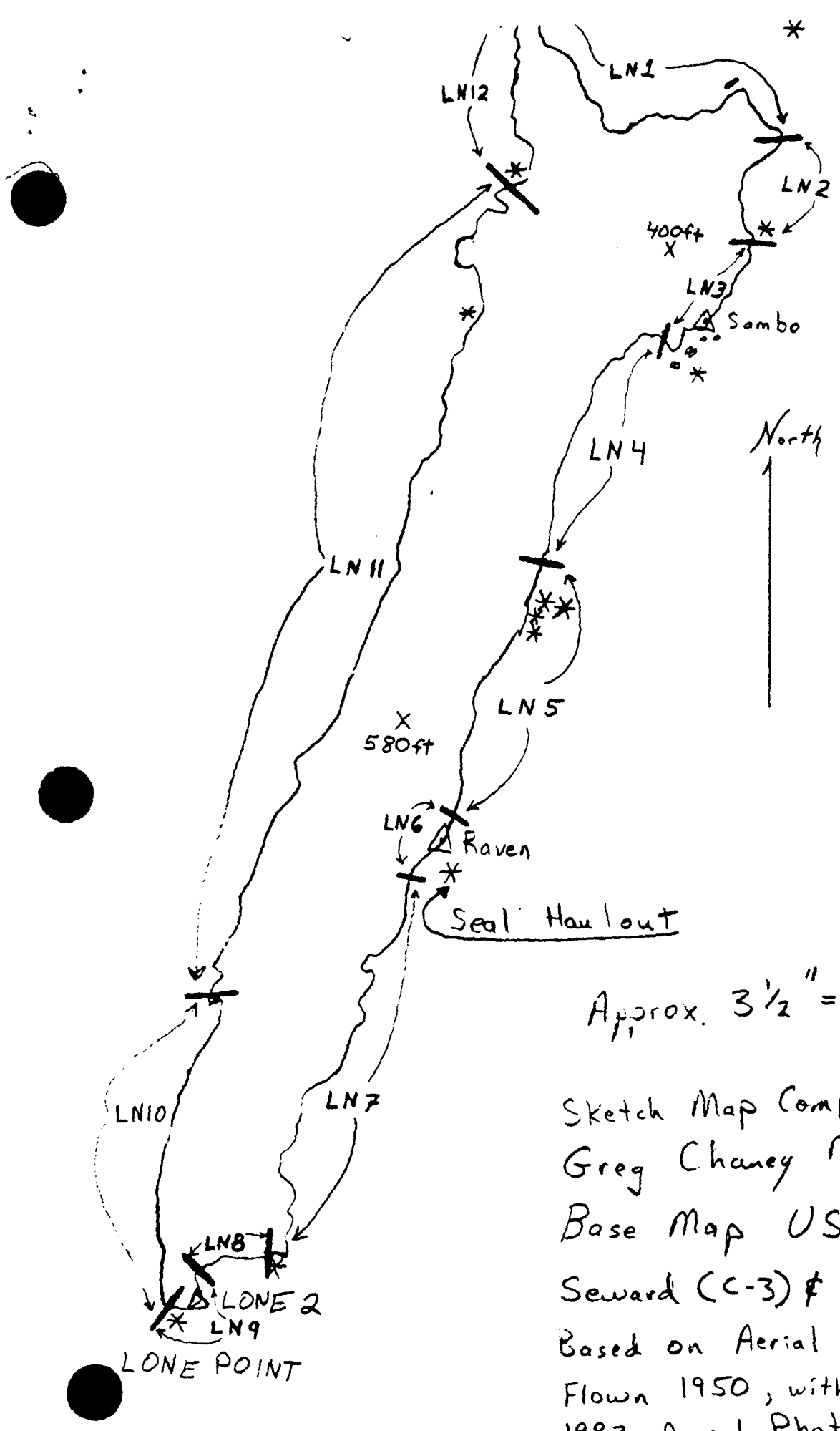
B/W Roll # — Frames —

Observer(s) ANDREFSKY

Time survey started 1:00 PM Time survey ended 3:15 PM

Cultural resource considerations/restraints:

IF heretofore cultural resources are discovered during cleanup contact EXXON archaeologist Chuck Mobley immediately.



MAY 21 1989

TEAM 5

LN 8 to LN 12

Surveyed May 21 1989

9:00AM - 4:00PM

Approx. 3½" = 1 mile

Sketch Map Compiled by
Greg Chaney May 21 1989

Base Map USGS Quads
Seward (C-3) & Seward (C-2)
Based on Aerial Photography
Flown 1950, with updates from
1983 Aerial Photography

(version 4/29/89)

SHORELINE CLEANUP PROGRAM

DATE 5/24/89 SHORELINE SEGMENT LN-12

LOCATION: (see enclosed map) Lone Island, Northwest side

ADEC NO. _____ SHORELINE ASSESSMENT DATE: 5/21/89

Recommended Cleanup Activity(ies):

Oil is sporadic. Flooding/flushing may be ineffective. Use of high pressure hot water (up to 140° F) with sorbant material to recover oil may be appropriate.

Priorities Considerations:

Class 4: low oil
Class B: resources absent

Ecological Constraints (from site survey):

Avoid use of high pressure on live species. Eagle's nest present near northern end of segment. Avoid disturbance of eagles.

Archeological Constraints (from site survey):
Access to historic structures in southern 1/4 of segment should be restricted. 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
State Historic Preservation Officer * Date: May 24, 1989

EXXON: _____ Date: 11 26/89

FOSC: _____ Date: 5/27/89

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

SHORELINE OIL EVALUATION

Date: 5/21/89 Time: 14:30 Observer: RICK GALLIE

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

LOCATION

LOCATION LONE ISLAND SEGMENT NUMBER LN-12

LENGTH OF SHORELINE SEGMENT: 700 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 ___ % / S ___ % / M ___ % / R 30 %

Drift Debris on Beach: (Yes)/No (Supra)/(Upper)/Mid/Lower Type LOOSE 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 5

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

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

Fresh 100 % Mousse _____ % Tar Formation: ✓ %

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

Comments:

1) OBSERVED MINOR TAR (HARD) ON ROCK.

2) BEACH AT SOUTH END OF SEGMENT IS ONLY LIGHTLY OILED AT NORTHEND.

3) LIGHT OIL ON BOULDERS TO NORTHWEST TIP OF ISLAND.

Lone Island

LOCATION: ~~LN12~~ SITE: Western Side OBSERVER: Greg Chaney

LOCATION PREFIX: LN SEG. NO.: 12 LENGTH: 700 (M)

DATE: May/21/1989 TIME (HHMM): ~3:00pm TIDE HT.: ~ +3.0 (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

small patches of oiled Fucus at high tide line, Dense growth on headlands

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

Continous mussel band, mid to higher tide level

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

Band at higher tide reaches on stable rock outcrops

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

Sea Snails abandant on rocks above barnacles near southern end of segment

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

Few observed

OTHER OBSERVATIONS: Oil is splattered in discontinous spots. Some areas have asphalt like patches. Rick Gillie suspects some of the oil may have come from an earlier spill. Unknown age.

CLEANUP PRECAUTIONS: Oil is very patchy and discontinous. Clean up should only use localized steam with sorbents under oiled rocks. Oil volume is so low that flushing will probably be ineffective

MAMMALS: Otters — Harbor Seals 2 Sea Lions — Whales —
Other

BIRDS: Eagle spotted sitting on northern end of island in nest, one in flight
Oyster Catcher

GENERAL OBSERVATIONS: Eagles nest must be considered when planning any operations. One harbor seal had a red eye.

(version of 4/29/89)

CULTURAL RESOURCE EVALUATION

Date 5-21-89 Location LONE ISLAND Site _____

Location Prefix LN Segment # 12 Length 700 m.

Survey Method:

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

Ground X (G - indicate on map)

Known cultural resources (AHRS #) _____ Data Source _____

Oil conditions/beach visibility Light oil on beach in patches (small)

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

Cultural resources observed in beach zone (AHRS code) NONE

Cultural resources observed in tree fringe (AHRS code) CBN

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

Shore Profile Rock beach in areas to steep walled slopes

Fresh Water Sources No streams, seeps

Sea Exposure Open to west

Access/Safety good access to small pocket 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 # W#1 Frames 17-21

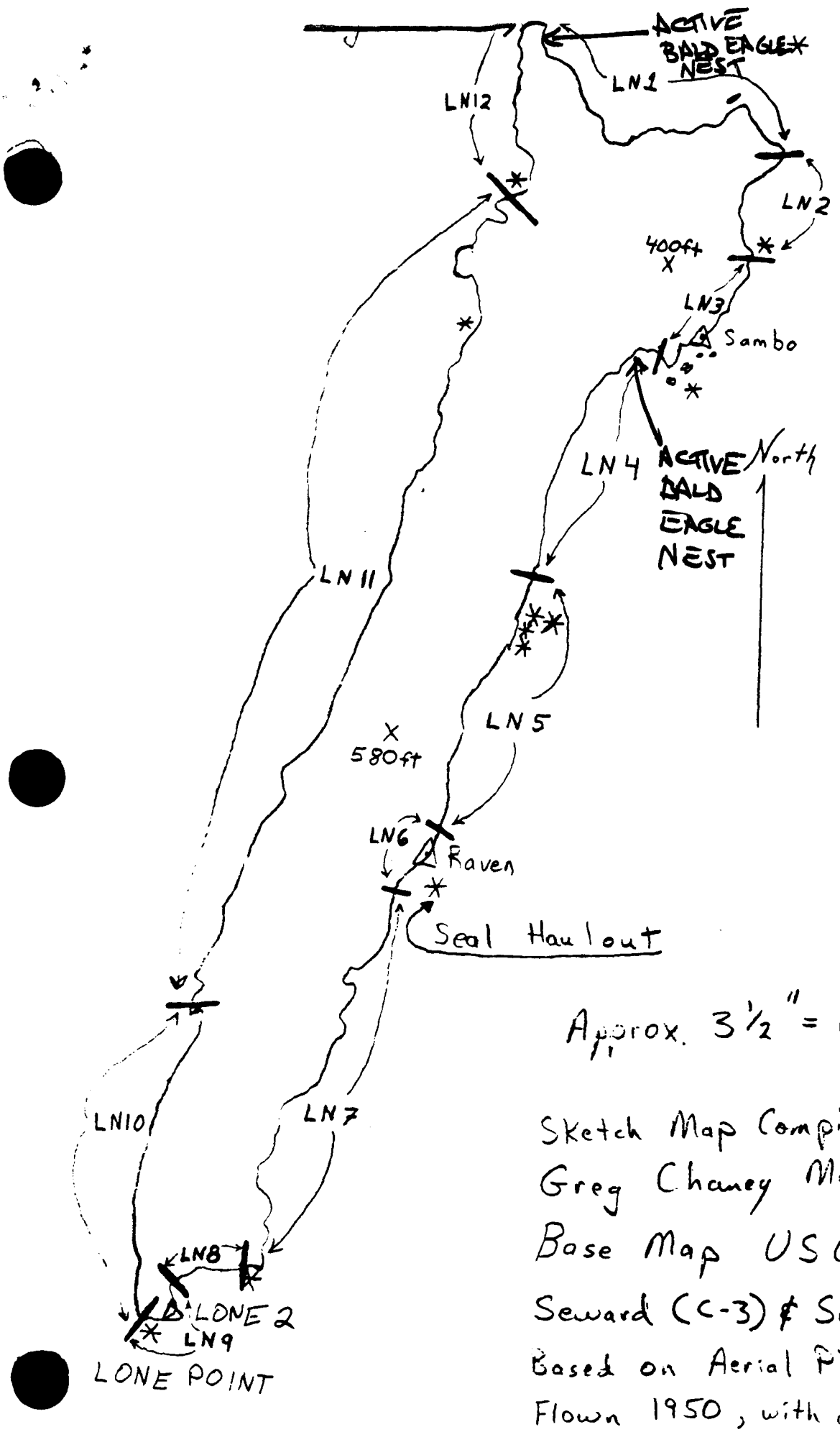
B/W Roll # _____ Frames _____

Observer(s) ANDREFSKY

Time survey started 3:15 PM Time survey ended 4:00 PM

Cultural resource considerations/restraints:

If cleanup is required AVOID cabin area off beach. If heretofore cultural resources are discovered during cleanup contact Exxon archaeologist Chuck Mobley immediately.



MAY 21 1989

TEAM 5

LN 8 to LN 12

Surveyed May 21 1989

9:00AM - 4:00PM

5/28/89

Approx. 3½" = 1 mile

Sketch Map Compiled by
Greg Chaney May 21 1989

Base Map USGS Quads
Seward (C-3) & Seward (C-2)
Based on Aerial Photography
Flown 1950, with updates from
1983 Aerial Photography

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LN-10

SHORELINE SEGMENT NAME Lone Island

SUBMITTED FOR APPROVAL 6/1/89

COMMENTS: Monitor for 3 to 5 days. Remove any oil that may accumulate in this time with absorbant boom & snare.

R C Adams 1911
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

No ADEC Rep Present

Signature of ADEC rep

Coast Guard Comments and Action.

N X Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment.

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

Richard G Lawless LT SCOT.
Signature of Coast Guard rep

6/1/89

XC: ADEC
EXXON
FSOC

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LN-11

SHORELINE SEGMENT NAME Lone Island

SUBMITTED FOR APPROVAL 6/1/89

COMMENTS: Monitor for 3 to 5 days. Remove any oil that may accumulate in this line with absorbant boom and snare.

R P Adams 1916
Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

NO ADEC Rep Present

Signature of ADEC rep

Coast Guard Comments and Action.

N X Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later date to determine future treatment.

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

Richard P. Lawson IT SCO
Signature of Coast Guard rep

6/1/89

XC: ADEC
EXXON
FSOC

EXXON VALDEZ

SHORELINE TREATMENT APPROVAL

SHORELINE SEGMENT NUMBER LN-12

SHORELINE SEGMENT NAME Lone Island

SUBMITTED FOR APPROVAL 6/1/89

COMMENTS: Monitor for 3 to 5 days remove any oil that may accumulate in the time with absorbant boom and Snare.

Signature of EXXON rep

ADEC comments on the condition of this shoreline segment and action recommendation.

NO ADEC Rep PRESENT

Signature of ADEC rep

Coast Guard Comments and Action.

X Completed removal of gross contamination to the extent that the oil will not migrate. Site will require reassessment at a later data to determine future treatment.

____ The majority of surface oil contamination has been removed. The site will require reassessment at a later date to determine future treatment.

____ All contamination has been removed. No further treatment required unless re-oiled.

Richard F. Loudon LT SCOTT

Signature of Coast Guard rep

6/1/89

CC: ADEC
EXXON
FSOC