



SEALASKA TIMBER CORPORATION

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(907) 225-9444
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April 26, 1994

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, WD-135
Seattle, WA 98101

Re: NPDES Permit No. AK-004784-8 (Tolstoi Bay 1). Oil sheen report.

Dear Sir or Madam:

On March 30, 1988 your agency issued the above referenced National Pollutant Discharge Elimination System (NPDES) Permit to Sealaska Corporation for a log transfer facility (LTF) located in Tolstoi Bay on the east side of Prince of Wales Island. Production in this facility started in May 1992. This annual report covers the fiscal year 1994 (April 1, 1993 to March 31, 1994).

Sealaska has submitted a plan for the daily monitoring and reporting of oil sheens for LTFs. The U.S. Environmental Protection Agency accepted these procedures were as meeting NPDES permit requirements. During the current reporting period, no oil sheens were observed. The routine weekly oil sheen forms for the period are on file in our office.

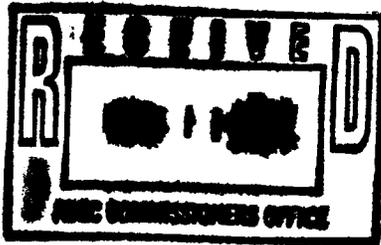
This fulfills our reporting obligations for the period. If additional information is required, please do not hesitate to call our offices. Thank you.

Sincerely,

Sealaska Timber Corp.

Bob Girt

Engineering Manager



cc. Rick Harris, SC, Juneau
ADEC, Juneau
File



Craig's Dive Center
107 Main St./PO Box 796
Craig, AK 99921
(907)826-3481 (phone/Fax)

Sealaska Timber Corporation
2030 Sea Level Dr., suite 202
Ketchikan, AK 99901
(907)225-9444

April 19, 1994

Subject: 1994 Tolstoi LTF log debris survey.

Abstract:

The requested underwater survey to determine the extent of log debris accumulation at the Tolstoi Log Transfer Facility (LTF), Prince of Wales island, was made on March 15, 1994. To standardize methods with those used during the LTF siting process, the survey method was changed from that of previous surveys.

Protocol for operating a bark monitoring program are given in the LTF Siting, Construction, Operation and Monitoring/Reporting Guidelines, 1985.

Methods:

The survey technique used this time was changed from that of the previous reports to follow the method used by the National Marine Fisheries Service (NMFS) when they evaluate a site for possible use as an LTF. This standardized technique provides a better comparison with baseline data collected prior to LTF use and focuses the survey on the log bundle entry area while providing coverage of adjacent grounds.

A permanent reference point location is selected, ideally in the center of the bundle entry structure and located measurably close to an essentially permanent structure so that the location can be relocated in the future for continuation of the monitoring program. Using the outer horizontal face of the entry structure as a reference plane, magnetic compass headings for five transects in 30 degree intervals are selected with the permanent reference point as the origin for each of the five transects. The middle transect is perpendicular to the face of the entry structure.

Each transect is sampled at five meter intervals starting from the origin at the permanent reference point. Sample points continue to be established along a transect until a water depth of 60 feet Mean Low Low Water (MLLW) is reached or the measured bark debris depth becomes insignificant. At each sample point several data are recorded by the diver; water depth, debris depth (measured in centimeters), percent coverage of debris (estimated by randomly dropping

the meter stick at the sample point and noting amount of contact with debris), debris composition and character, substrate type, general algal and animal types and condition, abiotic factors such as direction and strength of current (if present) and the presence of any notable manmade debris. Transects are labelled with their magnetic compass heading for identification purposes.

On a subsequent dive 35mm photographs are taken of some of the sample points to document substrate, bark debris and representative algal and animal life.

Results:

The permanent reference point was established in the center of the drive down ramp and located at a depth estimated to be close to zero feet MLLW. A total of 69 sample points were taken on the five transects. Of these, fourteen (20%) had a measured debris depth of ten centimeters or greater and an estimated 100% coverage. Sample points with the greatest bark depth are in the immediate vicinity of the input point at the base of the ramp's fill rock slope. The surface area covered by a continuous layer of bark debris extends out to the cutoff depth where sampling is terminated and was calculated to be approximately 2 acres.

Observations:

Weather conditions at survey time were overcast with occasional light rainshowers, winds southeasterly at ten knots, air temperature in the low forties. The diving started at 0932 and took place during a flooding tide cycle. A low slack tide occurred at 0822 of 0.0 feet (corrected to subordinate station #1461, Hadley, and based on the Ketchikan tables) and the next high tide was at 1438 at 14.9 feet. A moderate tidal exchange of 14.9 feet produced light east to west current, the dominant flow pattern as noted in previous surveys. Water temperature was measured to be in the low forties, visibility was estimated at approximately 40 feet and possibly greater but for the low light conditions of an overcast day.

On the fill rock slopes of the ramp the bark debris was composed primarily of large chunks (>10.2 cm) and chips (between 1.3 cm and 10.2 cm) (photograph 3, 4). At the base of the fill rock on the natural bottom, the zone immediately about the base periphery had a uniform layer of fine bark dust (<1.3 cm) (photograph 5, 6).

Factors such as the location of the LTF near the mouth of a small bay well up into the larger Tolstoi bay and the prominent reefs extending out from shore in the vicinity of transects 020 and 050 help create an east to west current pattern regardless of ebb or flood tide conditions. This prevailing current causes a debris deposition plume in a westerly direction. An example of the current can be seen in photograph 16 where ripples have been formed in the sand perpendicular to the current direction. The white material in the photograph is a dense layer of

bacterial growth.

Other than the accumulation of bark debris itself, no visible signs of an unhealthy ecosystem were observed. Decomposition products appear to be accumulating rapidly around large chunks of wood and sunken logs (photograph 8, 9, 10, 14) indicating an active decay system. An overall shift of ecosystem feeding strategy from that of filter feeding to that of benthic detrital feeders and scavengers has occurred. There was no sign of the debris acting as a barrier to oxygen exchange leading to anaerobic conditions; no gas bubble evolution was observed and no black, anaerobic layers were found when random sample trenches were dug by hand in the debris layer.

Marine life was observed throughout the entire sample area. In areas of uniform bark debris the predominant species were Sea stars, Sea cucumbers and hermit crabs. Where rocky substrate was available encrusting organisms typical of the area were plentiful.

No significant manmade debris was observed.

If there are any questions about the survey or this report, please call us at (907)826-3481. Thank you for allowing Craig's Dive Center to be of service.

Report by:



Craig Sempert

Table 1

Transect Location

Transects	Reference Point Location
290	Centered in the middle of the drive down ramp at a depth estimated to be close to zero feet MLLW (actual = 1 ft), still on the main road bed.
320	
350	
020	
050	

Table 2

Transect Data

Transect-Sample Pt.	Depth from MLLW	Debris Depth (cm)	Percent Coverage
Ref.	1	0	0
290/1	4	<2.5	25
290/2	14	7.6	75
290/3	23	<2.5	10
290/4	34	20.3	100
290/5	39	15.2	100
290/6	45	10.2	100
290/7	50	7.6	100
290/8	55	5.1	100
290/9	59	5.1	100
290/10	64	5.1	100
320/1	6	<2.5	10
320/2	18	22.9	100
320/3	28	27.9	100
320/4	35	5.1	100
320/5	42	7.6	100

Table 2 (cont.)

Transect-Sample Pt.	Depth from MLLW	Debris Depth (cm)	Percent Coverage
320/6	48	7.6	100
320/7	55	5.1	100
320/8	61	5.1	100
350/1	15	15.2	90
350/2	23	20.3	100
350/3	27	25.4	100
350/4	31	15.2	100
350/5	34	7.6	100
350/6	37	7.6	100
350/7	40	10.2	100
350/8	41	5.1	100
350/9	43	7.6	100
350/10	47	5.1	100
350/11	54	5.1	100
350/12	50	<2.5	75
350/13	52	<2.5	75
350/14	64	5.1	100
020/1	6	<2.5	10
020/2	14	10.2	90
020/3	18	22.9	100
020/4	17	15.2	100
020/5	17	25.2	100
020/6	15	10.2	100
020/7	11	2.5	50
020/8	14	10.2	75
020/9	20	7.6	100
020/10	23	7.6	100
020/11	25	5.1	100
020/12	28	5.1	100
020/13	36	7.6	100
020/14	44	5.1	100
020/15	49	2.5	90
020/16	56	5.1	75
020/17	64	2.5	75
050/1	5	<2.5	10
050/2	11	10.2	90
050/3	16	15.2	100
050/4	18	<2.5	50

Table 2 (cont.)

Transect-Sample Pt.	Depth from MLLW	Debris Depth (cm)	Percent Coverage
050/5	18	<2.5	50
050/6	13	2.5	75
050/7	9	<2.5	25
050/8	15	<2.5	25
050/9	21	5.1	90
050/10	25	5.1	100
050/11	27	7.6	100
050/12	33	7.6	100
050/13	39	5.1	100
050/14	43	5.1	100
050/15	47	2.5	75
050/16	50	2.5	75
050/17	54	5.1	90
050/18	57	2.5	90
050/19	61	2.5	75

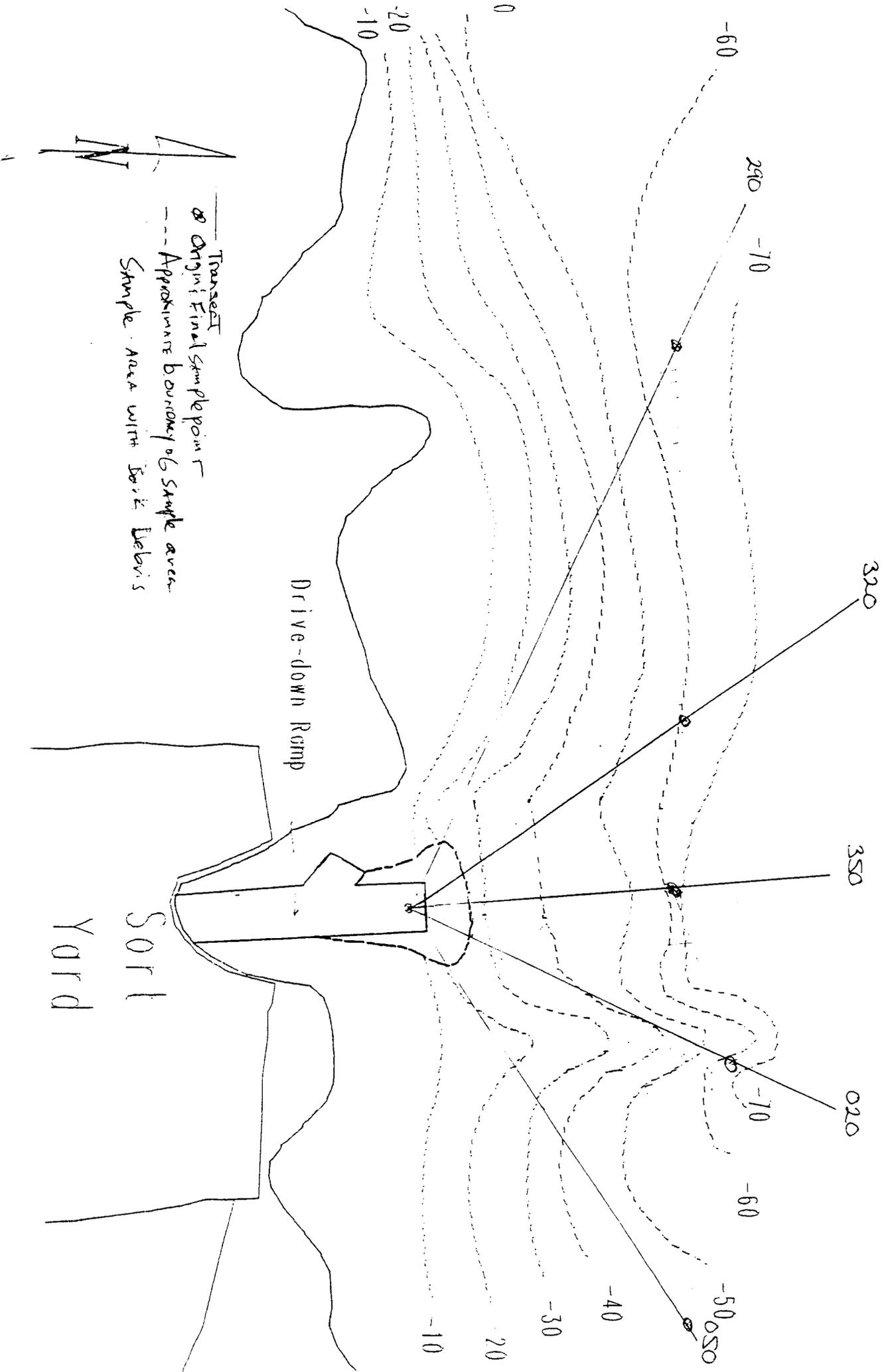
Table 3

Photograph Key

Photo #	Transect-Sample Pt.	Description
1	Ref.	Ramp gravel, filamentous diatoms
2	320/1	Ramp edge, side of concrete anchor
3	290/3	Fill rock, large debris, bundle wire
4	320/2	Debris accumulation on fill slope
5	290/5	Fill slope base, fine bark dust
6	290/6	Zone of uniform fine bark dust
7	290/7	Bundle wire, stake #21, some larger debris
8	Near 290	Sunken log w/ Sea cuke, decay products
9	Near 290	Branch near same log, Sea stars
10	Near 290	Stake #18, fine debris w/ larger pieces
11	350/4	Fairly uniform debris w/ light bacteris
12	350/6	Bundle cable w/ more bark chunks
13	350/7	Edge of reef and debris covered flats
14	Near 350	End of log w/ decay products
15	050/3	Uniform debris w/ chunks, bacteria
16	050/5	Sand w/ bacterial mat, light debris

10/15/11
3/15/14

Rafting grounds



Transect
Original Final sample point
Approximate boundary of Sample area
Sample Area with Sort Yards

Drive-down Ramp

Sort Yard

