



## SEALASKA TIMBER CORPORATION

2030 SEA LEVEL DRIVE, SUITE 202  
KETCHIKAN, ALASKA 99901  
(907) 225-9444  
FAX: 225-5736 Administration  
225-2196 Operations  
247-9444 Finance

In accordance with the EPA's General NPDES Permit AK-G70-1000,  
Section VI.C.8. Bark Monitoring and Reporting "Signatory Requirements",  
I certify that Sealaska Timber Corporation received this Bark Monitoring Survey  
from Diversified Diving Service as follows:

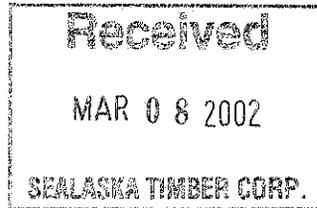
Facility: Tolstoi Bay Log Transfer Facility

Underwater Bark Monitoring Survey Date: February 22, 2002

Underwater Bark Monitoring Report Date: March 7, 2002

.71 ac

Date Completed Underwater Bark Monitoring Survey Report Received:



Principal Corporate or Executive Officer / General Proprietor:

Signature:

Robert L. Girt

Printed Name:

ROBERT L. GIRT

Date:

4-03-02

Title:  
Company:

Vice President of Operations  
Sealaska Timber Corporation



**Bark Debris Survey**  
**TOLSTOI LOG TRANSFER FACILITY**

**Submitted to: Sealaska Timber Corporation**

**Prepared by: Diversified Diving Service**

**12034 N. Tongass Hwy.**

**Ketchikan, Ak. 99901**

**February 22, 2002**

Pg.2

TOLSTOI

Feb. 22,2002

## Introduction

**This was an underwater survey to determine the extent of bark accumulation at the TOLSTOI LTF. The survey was performed on Feb. 22, 2002.**

## Methods:

A permanent reference point location is selected, ideally in the center of the log bundle input structure. The reference point is positioned as close as possible to the exact center of the structure (regardless of type: bulkhead with A-frame, drive-down ramp, low-angle slide, etc.) and close to the estimated Mean Low Low Water (MLLW) depth to facilitate relocation for future surveys. Initially, five transects are established, radiating from the reference point origin at 30-degree intervals. The center transect is located perpendicular to the face of a established reference point. An additional transect is added if 100% bark coverage extends more than 15 feet perpendicular to an edge transect. Magnetic compass bearings are selected for the transects by referencing the transects to the center of the log transfer device. The magnetic compass bearing is also the identifying label for that transect.

Each transect is sampled at 15-foot intervals starting from the origin at the permanent reference point. Debris depth measurements are made with a hand-held ruler at the sample point. The measurement is taken by vertically inserting the ruler into the debris until the natural substrate is felt or its location estimated as closely as possible. Periodically, when the confidence level in the measurement decreases due to the substrate type and/or bark amount, the bark depth is confirmed by digging by hand through the bark layer to the natural substrate. Percentage of area coverage by bark debris is

Determined by using the ruler, which is dropped at the sample point, is the base of a visually estimated 3-foot square. The percent cover is estimated by the amount of bark cover in that square.

Sample points are established along a transect, until a water depth of 60 feet MILL W is reached, or the measured bark debris depth becomes insignificant. (Usually interpreted to mean that less than one inch of bark depth, less than 10% cover, and a clear decreasing trend is apparent towards the end of the transect).

**Results:**

Weather conditions at survey time were clear skies with 15 –20 mile per hour northeast winds with air temperature in the lower 30's. A total of 69 sample points were taken on 5 transects. The survey started at 11:00 AM with a low tide at 1:09 PM and was concluded at 12:50 PM.

Bark Deposition Summary		
Total survey area	Area with continuous bark coverage.	Area with discontinuous bark coverage.
.86	.712	.15

**Observations and conclusions:**

Water clarity was 25 –30 feet, water temperature 37 degrees and there was no noticeable current. Transects 300, 330, 000 degrees slope fairly steeply into a silt/mud bottom. Transects 270 and 030 degrees are reefs that appear vibrant with marine and plant life. In my opinion as a commercial diver working in Southeast Alaska for 10 years the bottom and marine life in this area appears in good health.

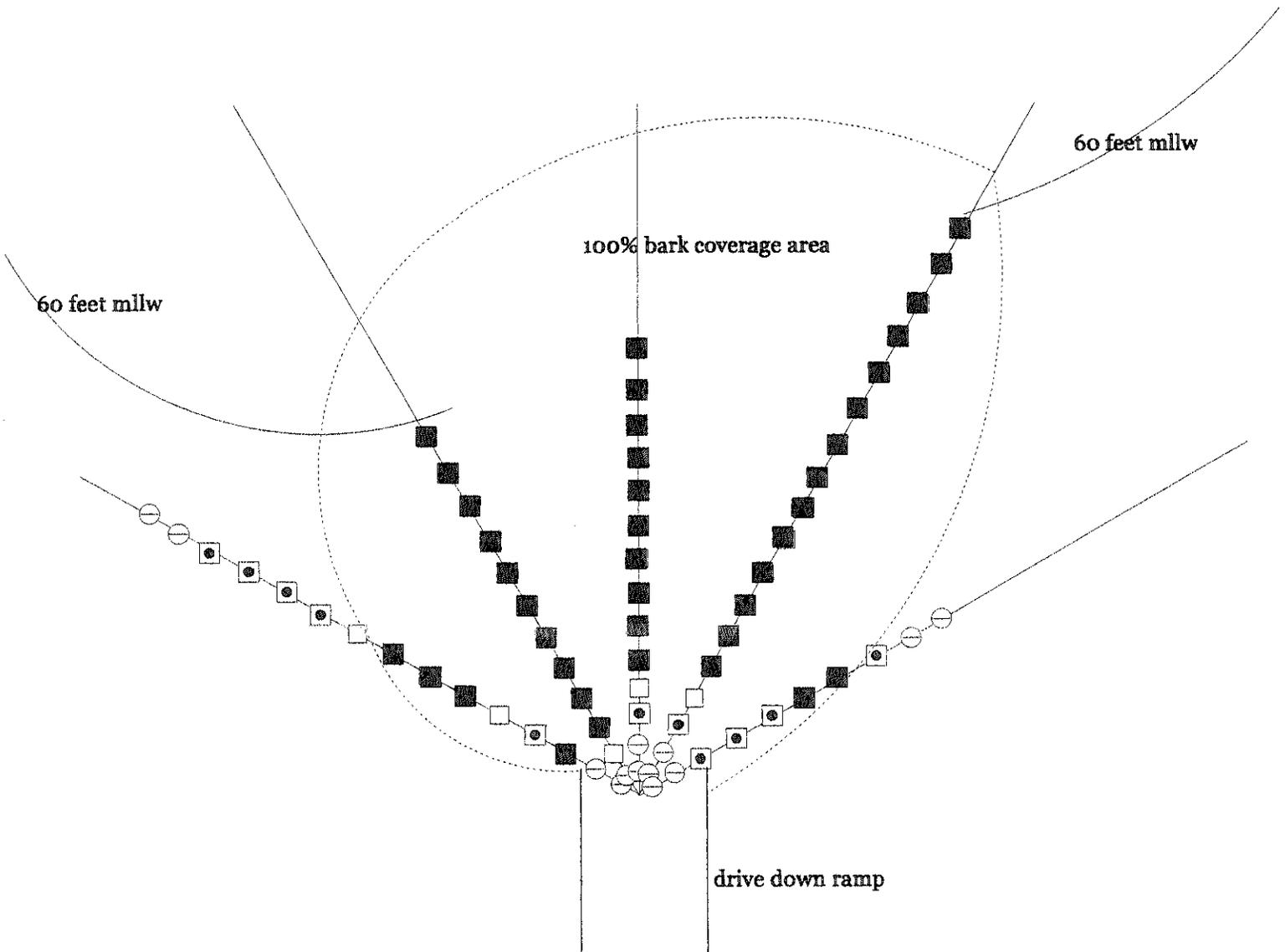
*Gregory S. Harrison* 7 Marc  
*Gregory S. Harrison*

*Steven Anderson*

*Steve Anderson* 3-7-02

Tolstoi LTF Surve  
February 22, 2002

- sample point w/ no bark
- ◐ sample point w/ minimal bark
- sample point w/ 100% coverage
- sample point w/ 100% coverage *over 4 inches*



## TRANSECT DATA TOLSTOI LTF FEB.22 2002

TRANS.SAMPLE PT	DEPTH MLLW	BARK DEPTH	% COVERAGE	SUBSTRATE
270/1	5	0	0	RK
270/2	8	0	0	
270/3	10	<1	BIG PIECES	BIG FILL RK
270/4	12	TRACE		TOP EDGE OF FILL
270/5	18	<1	70	
270/6	23	14	100	GR
270/7	24	23	100	
270/8	22	20	100	
270/9	20	<1	75	RK SI
270/10	22	<1	75	
270/11	22	<1	50	
270/12	23	<1	50	
270/13	20	<1	25	RK SI
270/14	18	TRACE	15	
270/15	20	0	0	
300/1	8	0	0	RK
300/2	10	<1	50	
300/3	13	14		TOP EDGE OF FILL
300/4	19	18	100	STEEP FILL
300/5	32	30	100	
300/6	40	26.00	100	SA GR SI
300/7	45	22	100	
300/8	49	14	100	
300/9	52	20	100	
300/10	57	16	100	
300/11	59	12	100	
300/12	64	8	100	
330/1	5	0	0	RK
330/2	8	0	0	
330/3	9	<1	TRACE	
330/4	11	<1	BIG PIECES	
330/5	13	<1	90	TOP EDGE OF FILL
330/6	17	8	100	STEEP FILL
330/7	29	24	100	
330/8	42	18	100	
330/9	51	8	100	
330/10	53	11	100	
330/11	58	12	100	



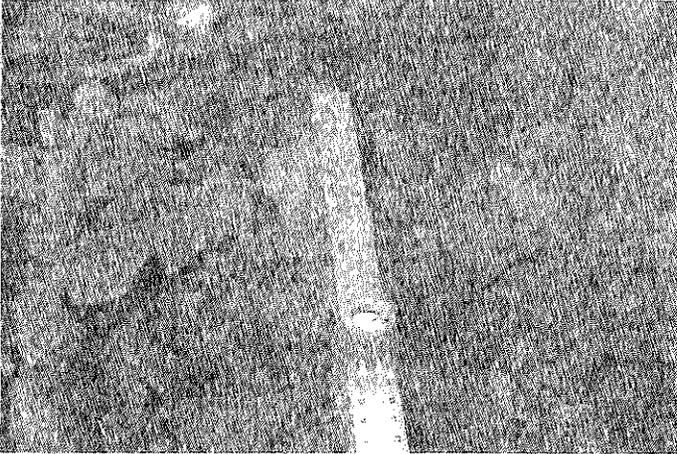
**PHOTO KEY**

TOLSTOI FEB 22,2002

PHOTO #	TRANSECT SAMPLE PT	DESCRIPTION
1	270/1	FILL RK W/CABLE
2	270/2	FILL RK
3	270/3	BIG PIECES IN RK
4	270/4	
5	270/5	THIN LAYER ON RK
6	270/6	100 % COVER
7	270/7	
8	270/8	
9	270/9	THIN BARK W/ KELP COVER
10	270/10	VERY THIN BARK IN RK
11	270/11	FINE BARK ON RK W/CUCUMBER
12	270/12	TRACE BARK IN KELP
13	270/13	MINIMAL BARK
14	270/14	NO BARK
15	330/1	FILL RK
16	330/2	TRACE ON BARK
17	330/3	BARK ON STEP FILL
18	330/4	
19	330/5	
20	330/6	100% BARK
21	330/7	
22	330/8	
23	330/9	
24	330/10	



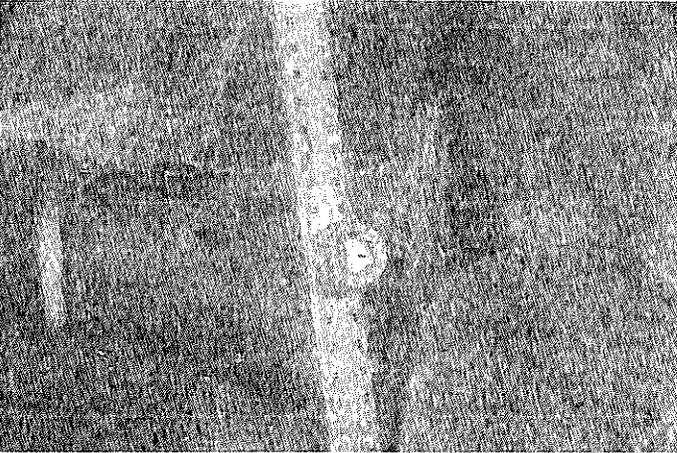
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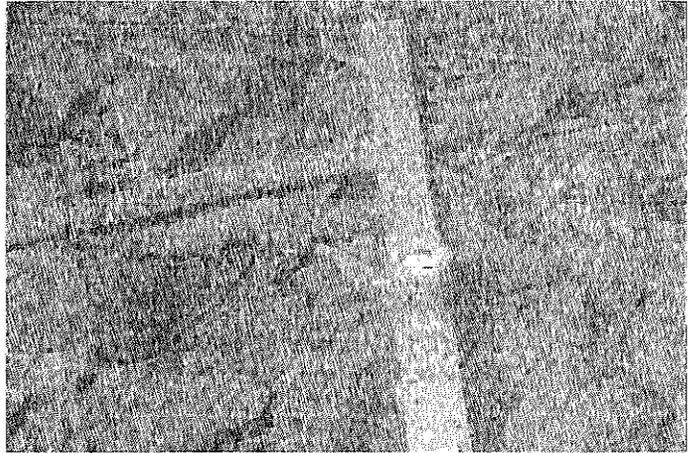
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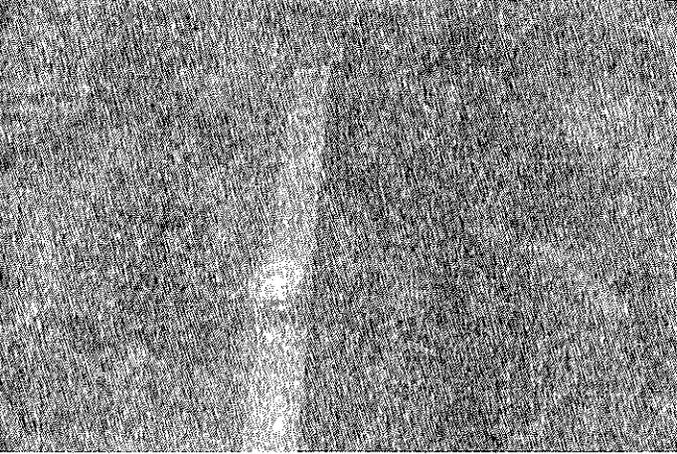
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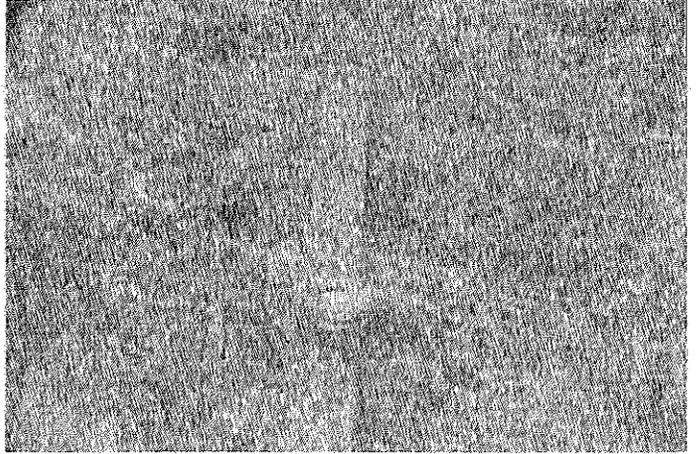
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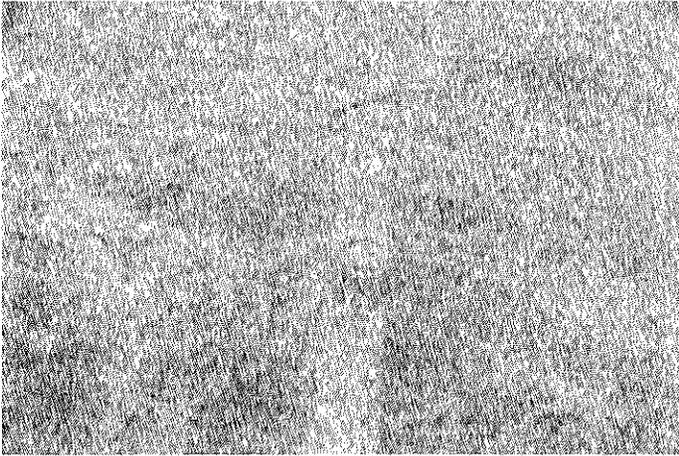
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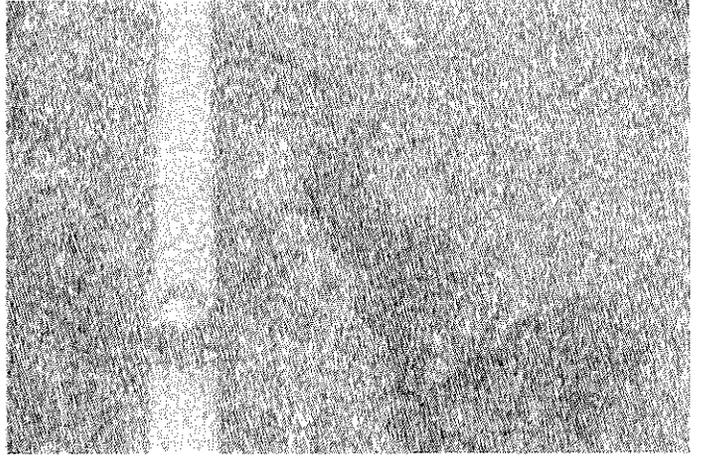
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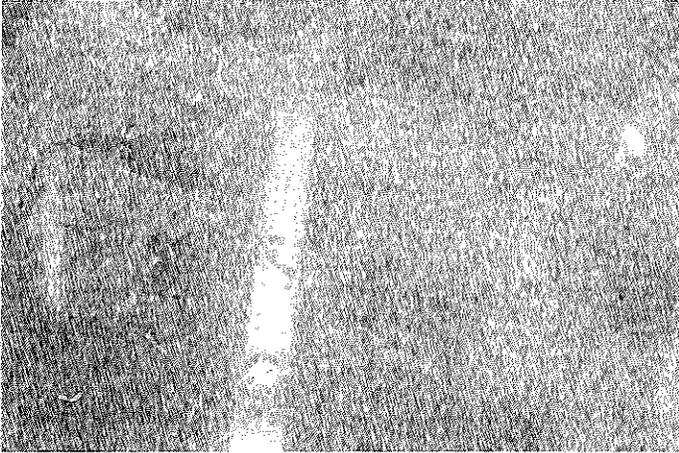
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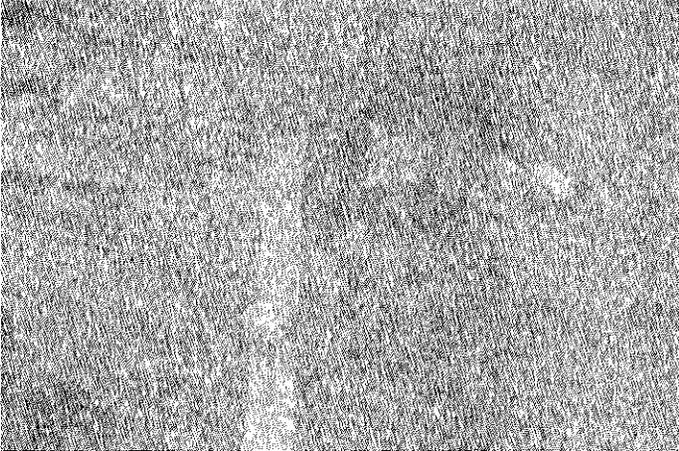
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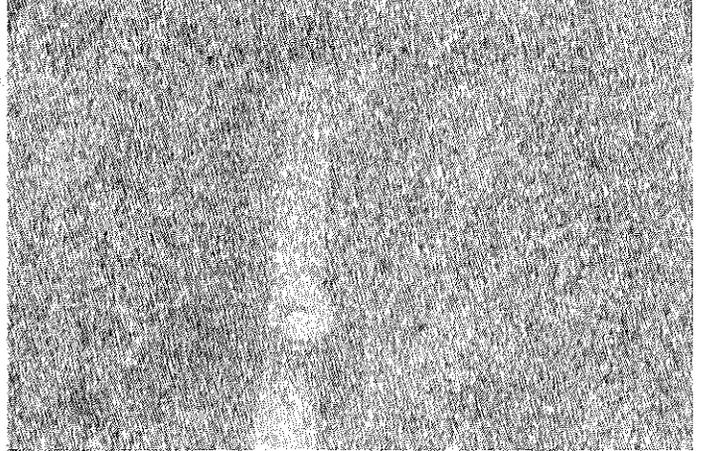
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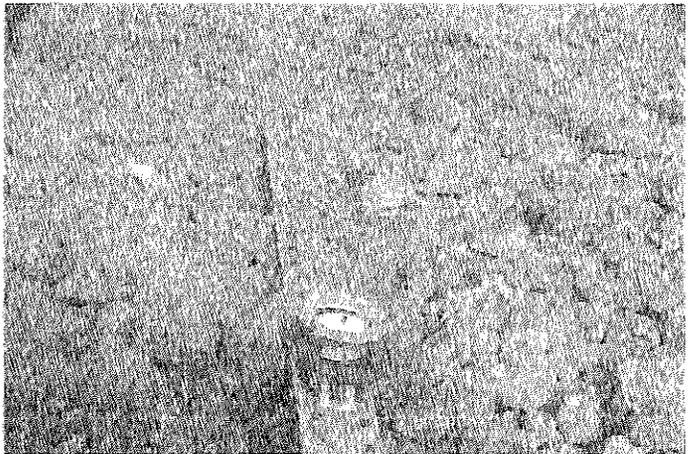
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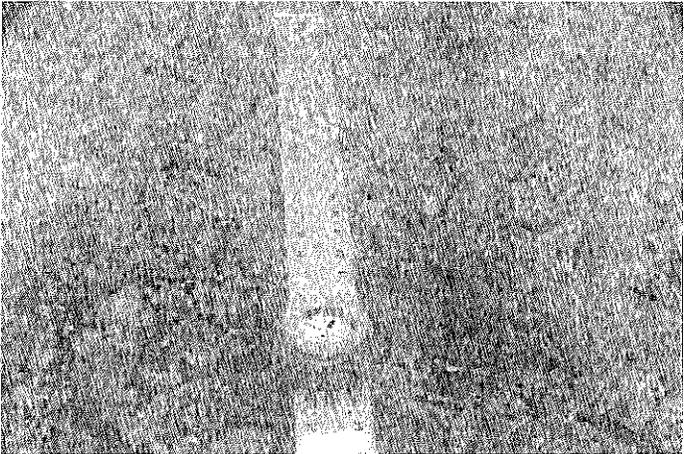
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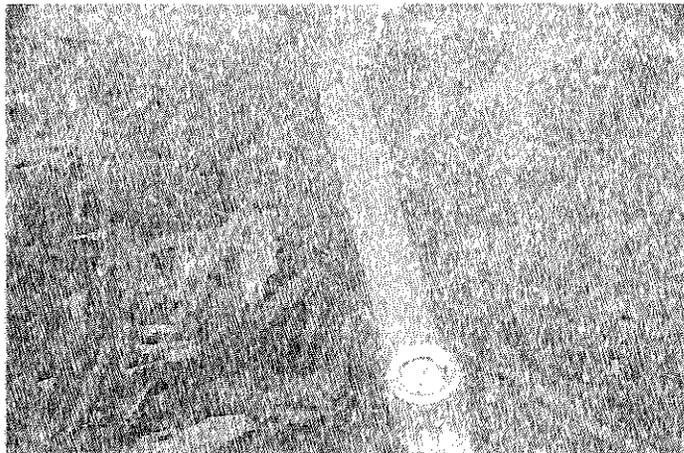
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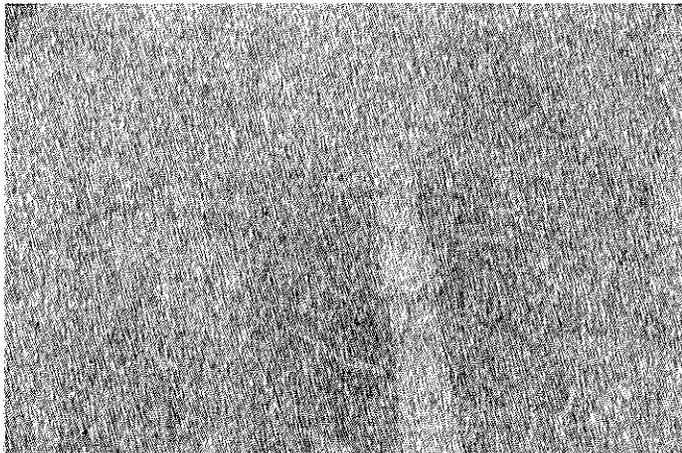
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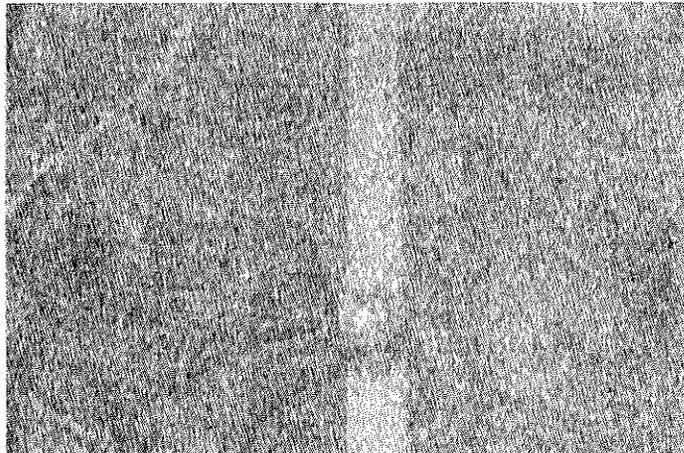
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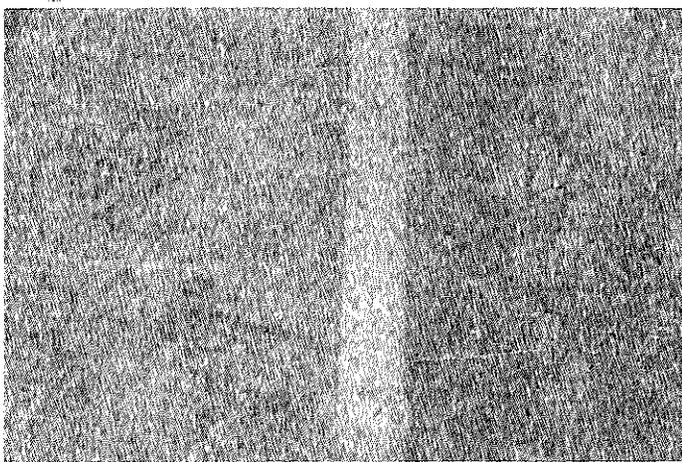
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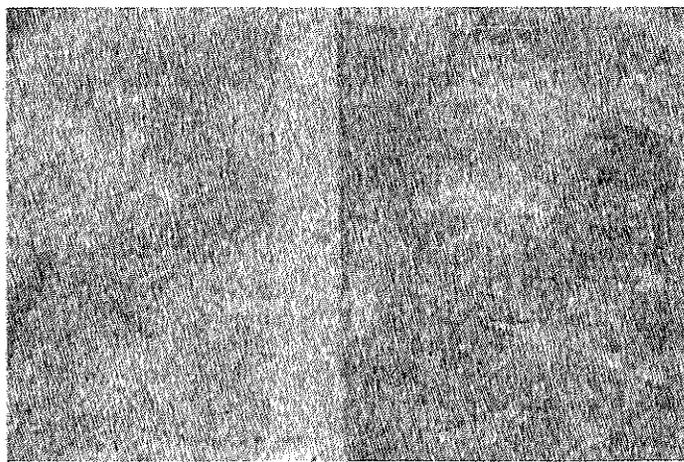
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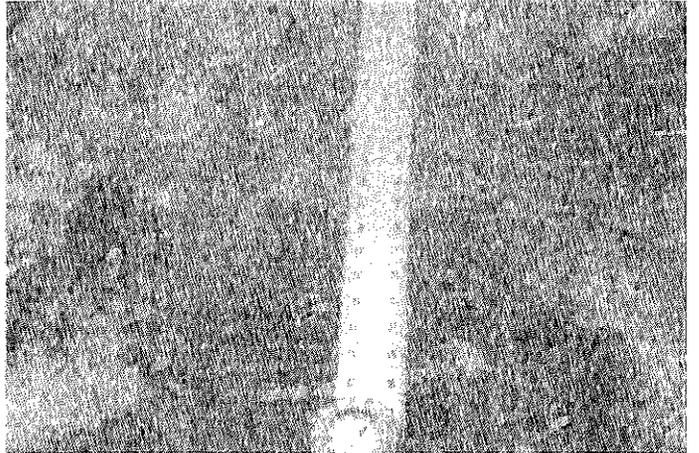
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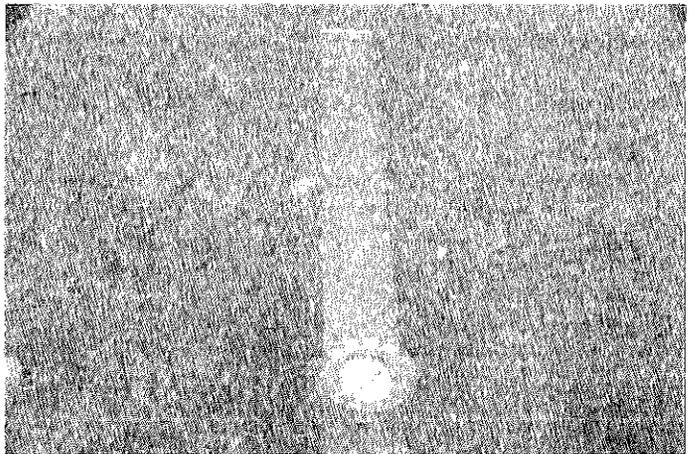
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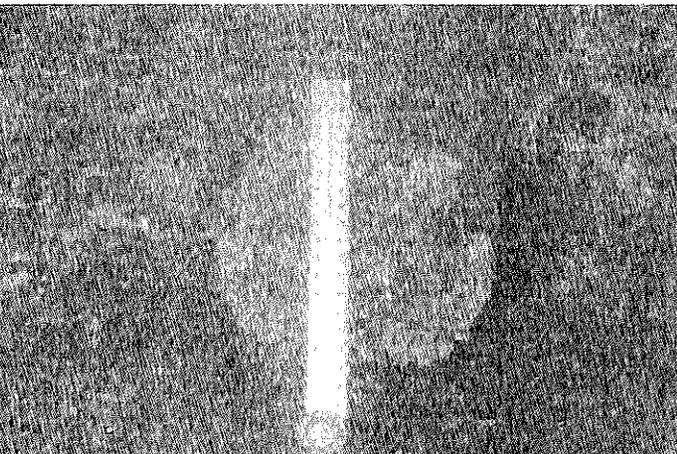
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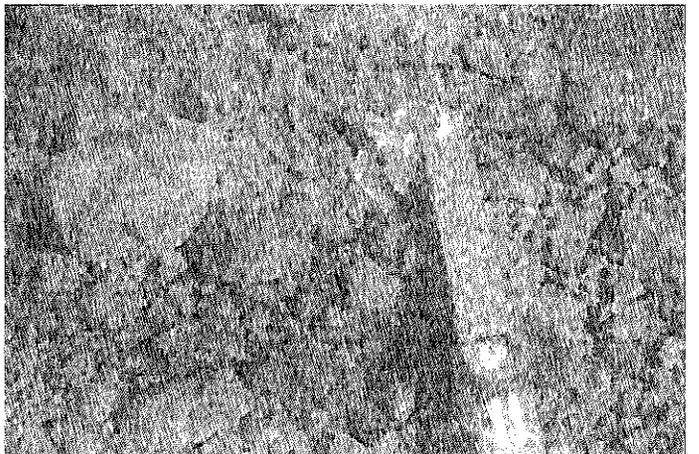
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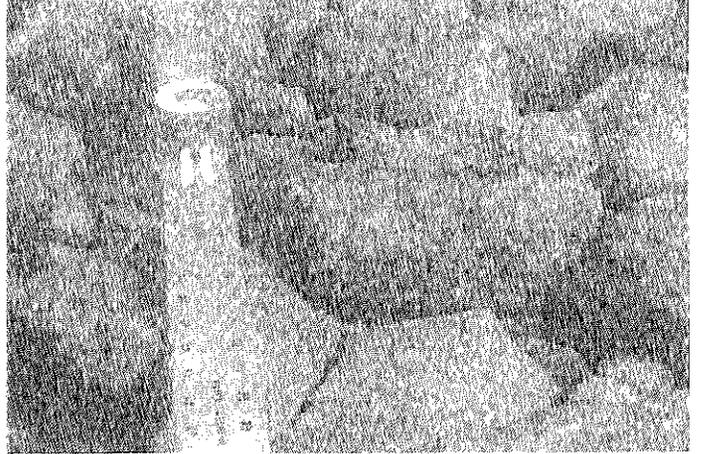
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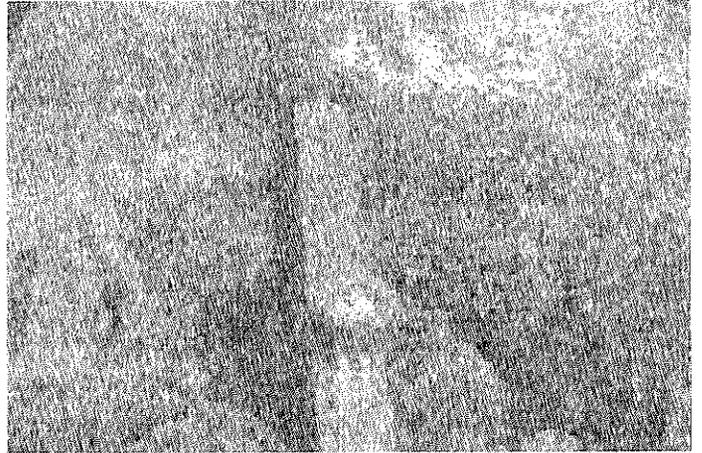
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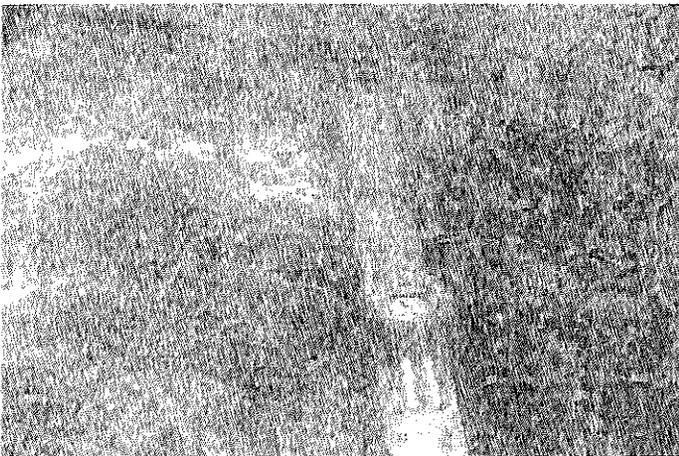
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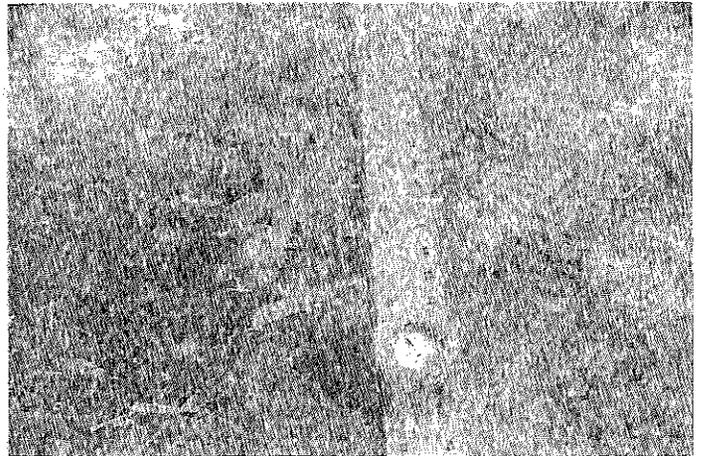
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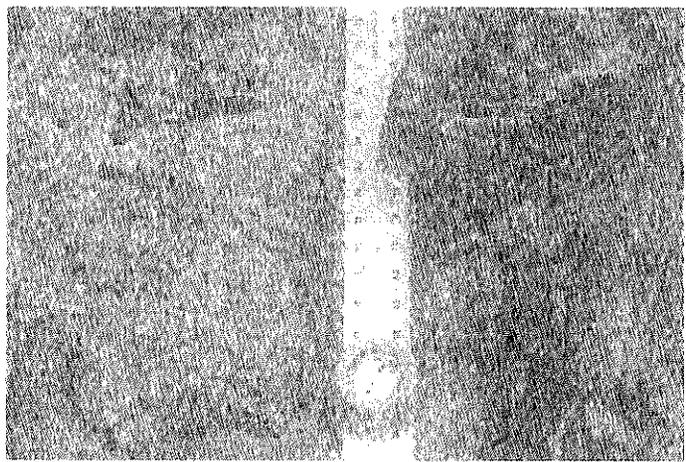
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