



Alaska Commercial Divers, Inc.

P.O. Box 9351 ♦ Ketchikan, AK 99901 ♦ e-mail: acd@ktn.net ♦ Phone (907) 247-0771 ♦ Fax (907) 225-0771

TLF Location: Salt Lake Bay
Subject: Log Transfer Facility Bark Monitoring Survey
Survey Date: September 9, 2000
Report Date: November 22, 2000

Survey Protocol and Analytical Methods:

The log transfer facility (LTF) was surveyed by a commercial diver for the extent and degree of lost bark as required by permit stipulation. Greg Updike of Alaska Commercial Divers, Inc; Ketchikan, Alaska was the diver for the LTF.

Five transect lines were established from the center of the entry point given to ACD, Inc. from the US Forest Service and the DGPS was noted. The transects radiated seaward with each transect arranged 30 degrees apart from one another. The transects were at bearings of 194°, 224°, 254°, 284°, and 314°. A compass bearing was established at the beginning of each transect. This bearing was followed until the end of the transect. Measurements of bark deposition depth, and percent of bark coverage was measured by the diver at 15 foot intervals along the transect. Bark depth was measured to the nearest centimeter at each station with a marked stick. If the bark was visible, but less than 1 centimeter deep, the depth was recorded as "trace". The percent of bark coverage was estimated within a 3' x 3' area in the immediate vicinity of the measuring station. Measurements were made along each transect until bark deposits were no longer visible, or until water depth exceeded 60 feet MLLW. The extent of the area covered by bark deposition is reflected by plotting the data on a scaled drawing and estimated by using the formula provided by the USFS.

request from USFS

- what is this? Is it consistent w/60 methods?

Observations and Conclusions:

The substrate type at this site consists of sand and gravel with some rocks. Foreign debris at Salt Lake Bay was limited to two transects. Cable was located on **Transects Three and Four** at a total of 5 measuring stations. Vegetation and Marine Species were recorded on all transects. Marine life was recorded on 37 of the 60 measuring stations.

Continuous cover of bark is calculated to be .34 acres and the discontinuous coverage of bark for this area is .254. The total area surveyed was .60 acres.

Reports Prepared by: Karen Updike
 Jeani Purdy
 Dives Performed by: Greg Updike

Karen B. Updike
Jeani R Purdy
Greg Updike

LTF Survey - Transect Data Form	
Location: Salt Lake Bay	
Latitude: 57° 58.35 N	Longitude: 135° 38.93 W
Date: 9-9-00	Time: 15:20 - 17:05

Transect # 1 <i>Bearing 194 °</i>

Distance (Feet)	Bark Depth Cm	Water Depth Ft	Bark Cover %	Substrate Type	Metal or Other Foreign Items	Marine Life
0	1	8	30	Rock	-	-
15	1	15	60	Gravel	-	Eel Grass, Urchin
30	1	15	60	Rock, Gravel	-	Kelp
45	2	15	100	Sand, Gravel	-	Sea Weed
60	2	19	100	Sand, Gravel	-	-
75	19	24	100	Sand, Gravel	-	-
90	1	25	100	Sand, Gravel	-	Sea Star, Clam Shells
05	2	28	40	Sand, Gravel	-	-
120	5	31	20	Sand, Gravel	-	-
135	2	34	60	Sand	-	Sea Stars
150	2	35	100	Sand	-	Clam Shells
165						
180						
195						
210						
225						
240						

Transect # 2
Bearing 224 °

Distance (feet)	Bark Depth Cm	Water Depth Ft	Bark Cover %	Substrate Type	Metal or Other Foreign Items	Marine Life
0	1	15	10	Rock	-	-
15	1	15	10	Sand/Gravel	-	Sea Star
30	1	18	10	Sand/Gravel	Cable	Kelp, Rockfish, Eels
45	1	18	60	Sand/Gravel	-	-
60	2	20	100	Sand/Gravel	cable	Kelp
75	5	22	100	Sand/Gravel	-	-
90	4	27	100	Sand/Gravel	-	-
105	3	30	100	Sand/Gravel	Cable	-
120	3	32	100	Sand/Gravel	-	-
135	1	40	100	Sand/Gravel	-	-
150	5	44	30	Sand/Gravel	-	-
165	1	50	100	Sand/Gravel	-	-
180	10	55	100	Sand/Gravel	-	Sea Star
195	10	60	100	Sand/Gravel	-	-
210						
225						
240						
255						
270						
285						
300						

Transect # 3
Bearing 254 °

Distance (Feet)	Bark Depth Cm	Water Depth Ft	Bark Cover %	Substrate Type	Metal or Other Foreign Items	Marine Life
0	-	10	0	Rock	-	-
15	-	10	0	Sand/Gravel	Ca-ble	Eel Grass
30	5	15	60	Sand/Gravel	-	Eel Gras
45	1	17	20	Sand/Gravel	Cables	Kelp
60	1	20	40	Sand/Gravel	-	-
75	10	24	100	Sand/Gravel	-	Kelp
90	15	30	100	Sand/Gravel	-	Sea Star
105	15	45	100	Sand/Gravel	-	Kelp, Sea Star
120	8	42	100	Sand/Gravel	-	Kelp, Eel Grass
135	15	45	100	Sand/Gravel	-	Kelp
150	10	55	100	Sand/Gravel	-	-
165	10	60	20	Sand/Gravel	-	Rock Cod
180						
195						
210						
225						
240						
255						
270						
285						
300						

Transect # 4
Bearing 284 °

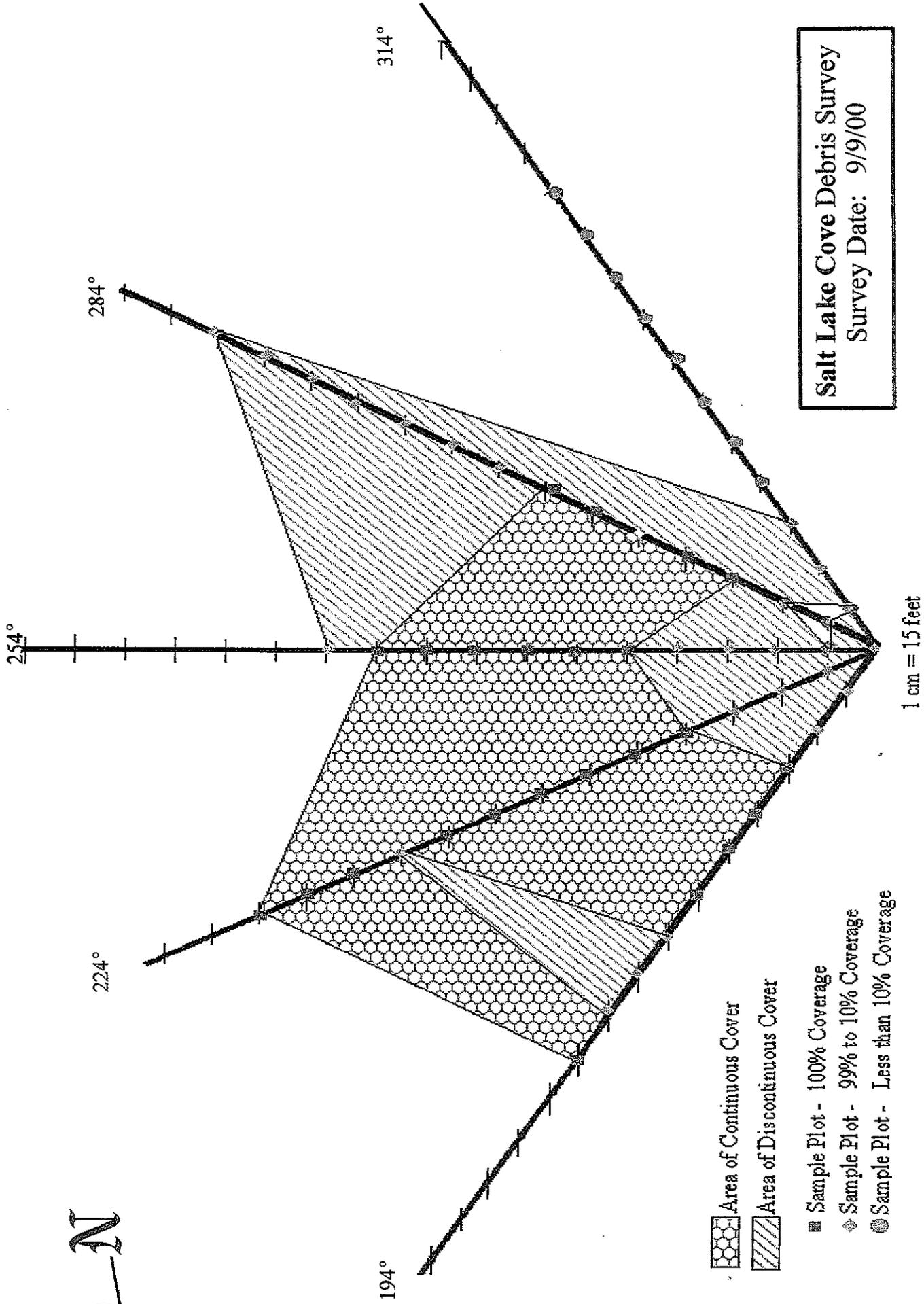
Distance (Feet)	Bark Depth Cm	Water Depth Ft	Bark Cover %	Substrate Type	Metal of Other Foreign Items	Marine Life
0	-	6	0	Rock	-	-
15	-	6	0	Sand/Gravel	-	Crab, Bull Head
30	-	9	0	Sand/Gravel	-	Eel Grass, Sea Weed
45	5	103	100	Sand/Gravel	-	Sea Star, Crabs
60	5	18	100	Sand/Gravel	-	-
75	5	21	60	Sand/Gravel	-	Crabs, Kelp
90	5	25	100	Sand/Gravel	-	-
105	15	30	100	Sand/Gravel	-	-
120	10	33	10	Sand/Gravel	-	-
135	15	37	20	Sand/Gravel	-	-
150	5	40	30	Sand/Gravel	-	-
165	5	45	30	Sand/Gravel	-	-
180	5	49	60	Sand/Gravel	Log	Sea Star, Cucumber
195	10	55	100	Sand/Gravel	-	Shrimp, Crab, Fish
210	5	60	70	Sand/Gravel	-	Shrimp, Small Crabs
225						
240						
255						
270						
285						
300						

Transect # 5

Bearing 314 °

Distance (feet)	Bark Depth Cm	Water Depth Ft	Bark Cover %	Substrate Type	Metal or Other Foreign Items	Marine Life
0	-	6	0	Rock	-	-
15	-	6	0	Sand/Gravel	-	Gum Boot, Small Fish
30	1	7	70	Gravel	-	Crabs, Shrimp
45	-	7	10	Sand/Gravel	-	Sea Star, Crabs
60	-	7	0	Sand/Gravel	-	Geoduck
75	-	7	0	Sand/Gravel	-	Geoduck Eel Grass, Crabs
90	-	8	0	Sand/Gravel	-	Geoduck, Sea Star
105	-	7	0	Sand/Gravel	-	Eel Grass, Geoduck
120	-	7	0	Sand/Gravel	-	Sea Star, Eel Grass
135	-	7	0	Sand/Gravel	-	Sea Star, Geoduck
150	-	7	0	Sand/Gravel	-	Geoduck, Sea Star
165	-	8	0	Sand/Gravel	-	Geoduck, Sea Star
180						
195						
210						
225						
240						
255						
270						
285						
300						

N



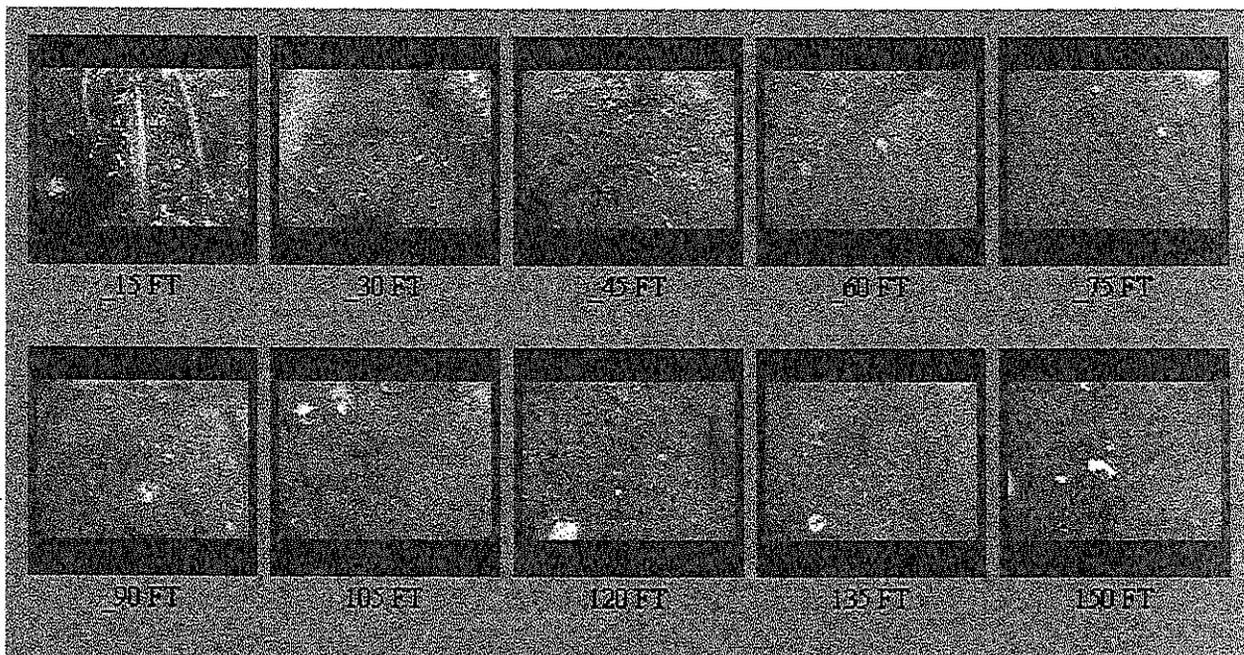
■ Area of Continuous Cover
▨ Area of Discontinuous Cover

■ Sample Plot - 100% Coverage
◆ Sample Plot - 99% to 10% Coverage
● Sample Plot - Less than 10% Coverage

1 cm = 15 feet

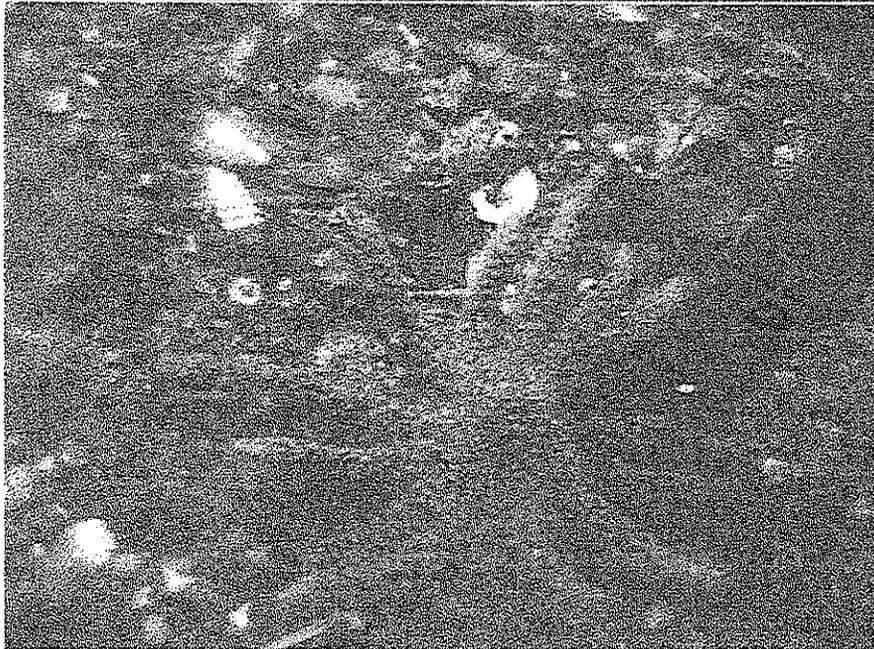
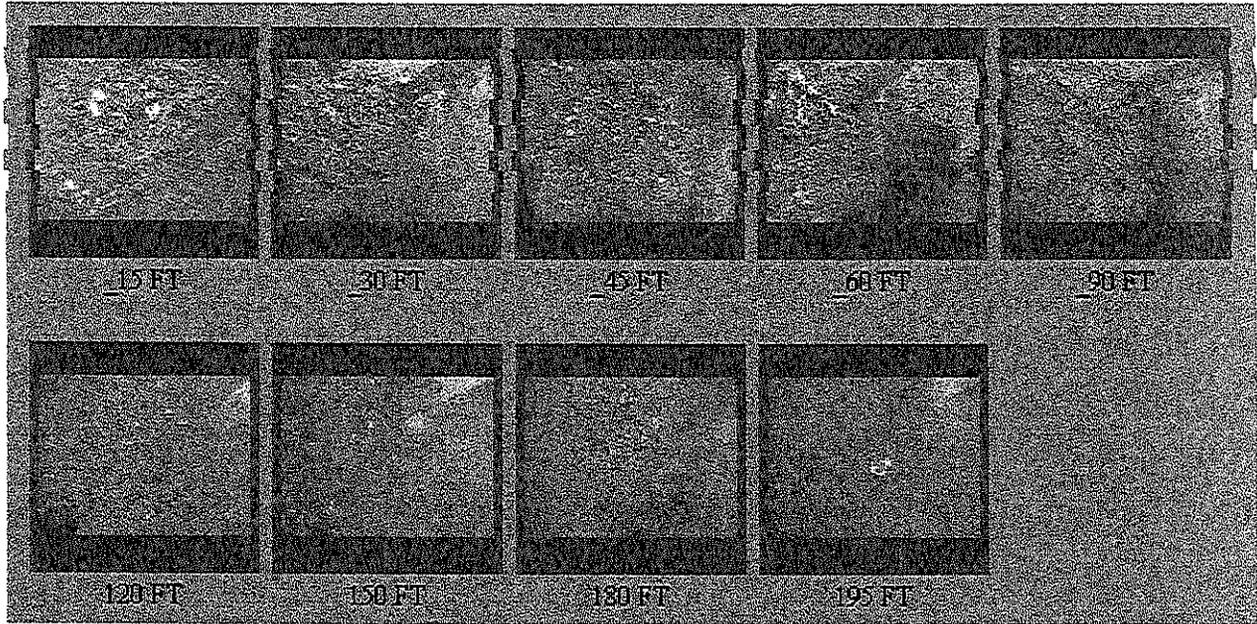
Salt Lake Cove Debris Survey
Survey Date: 9/9/00

Salt Lake Cove Transect #1
9/9/00



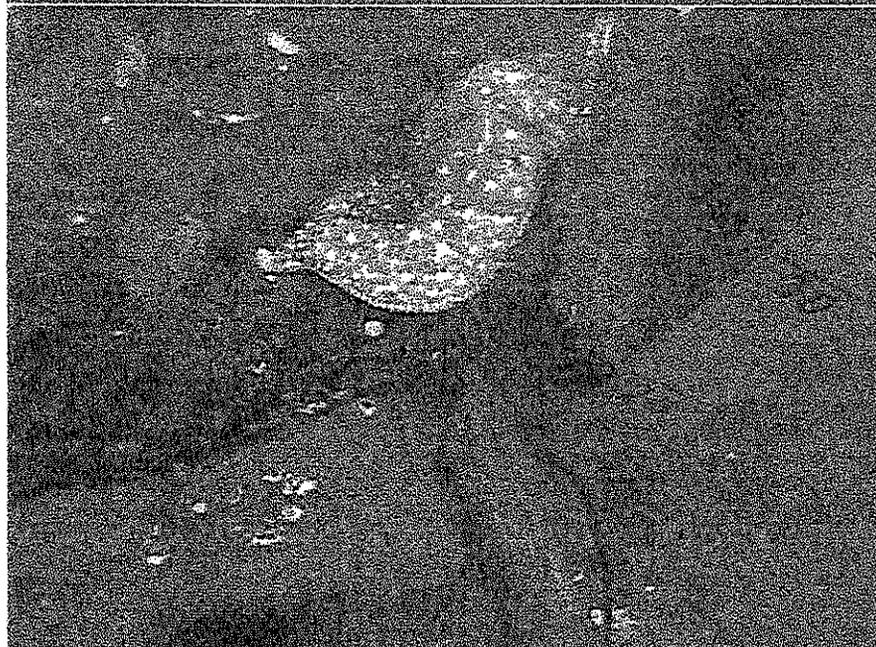
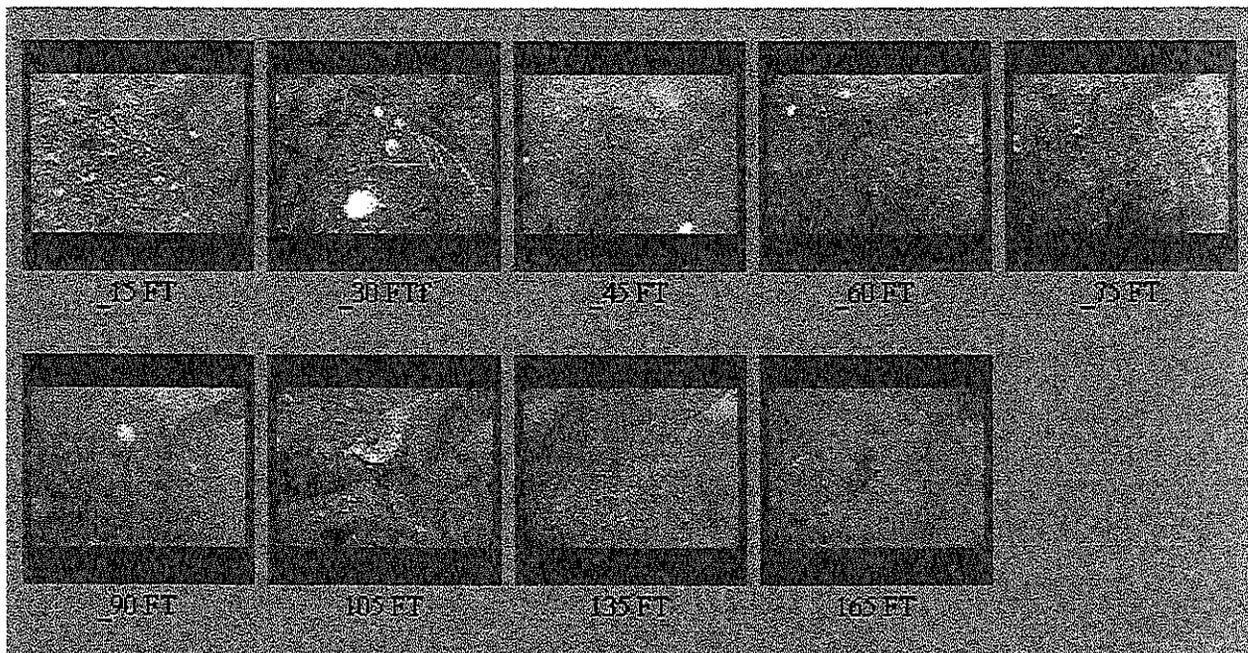
Observed at 15' measuring station.

Salt Lake Cove Transect #2
9/9/00



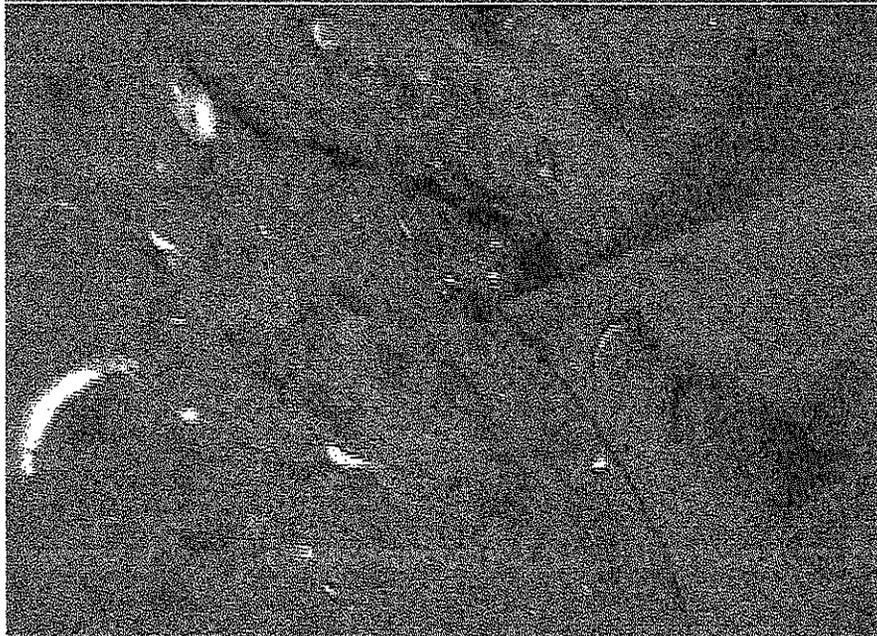
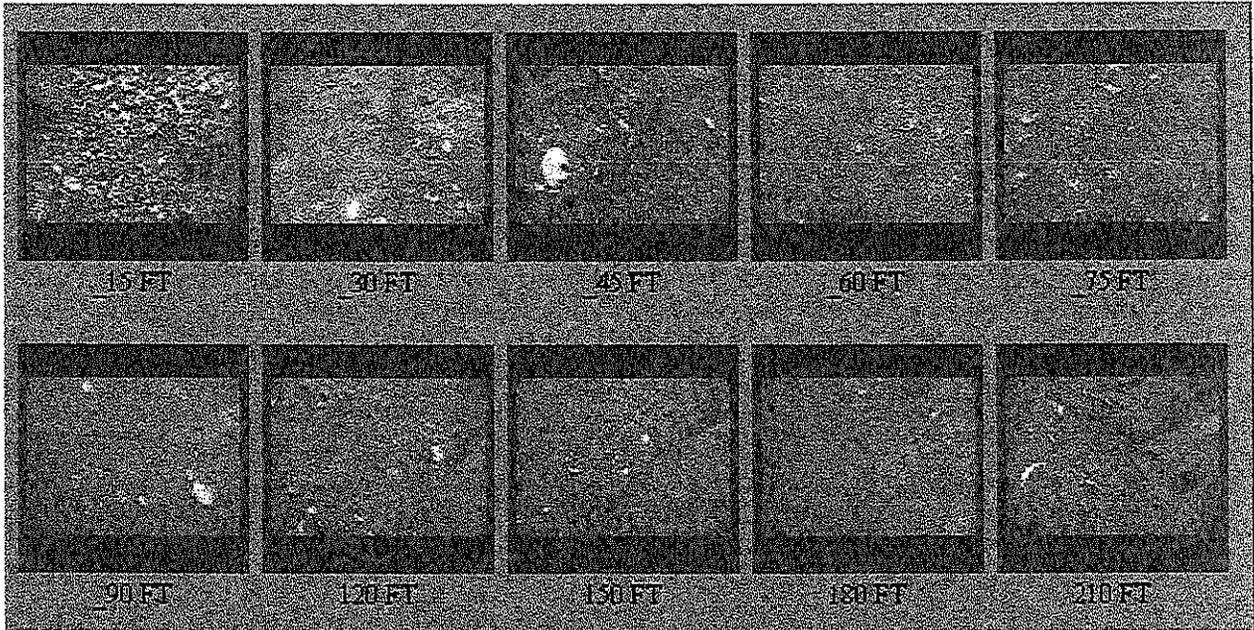
Observed at 15' measuring station.

Salt Lake Cove Transect #3
9/9/00



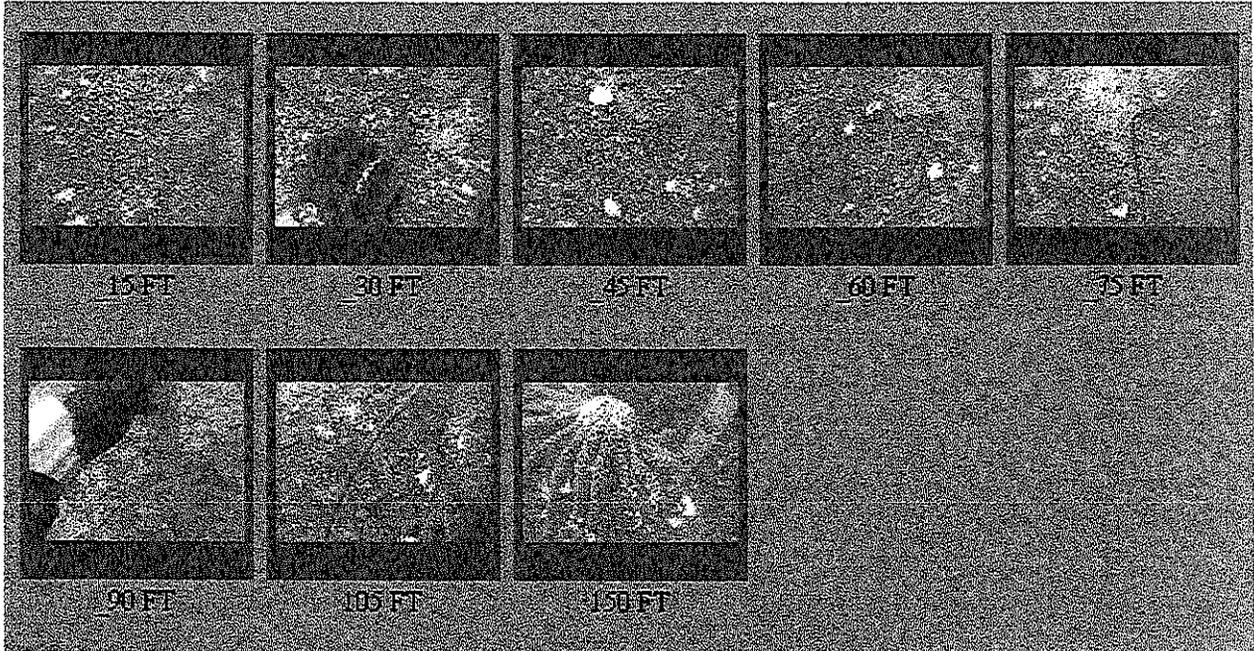
Observed at 105' measuring station.

Salt Lake Cove Transect #4
9/9/00



Log observed at 210'
measuring station.

Salt Lake Cove Transect #5
9/9/00



Sea Star observed at 150'
measuring station.