

1. NWRT Project number: 3-10-12

2. Title: Eclipse Sound Narwhal Study

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4. Summary: During the month of August narwhals will be caught in mesh nets (approx. 40 cm stretched mesh x 50 m long) set perpendicular to shore near the community of Mittimatalik. They will be restrained for a short period and have a satellite transmitter attached on their dorsal ridge, blood and measurements taken, be tested for reactions to various levels of saline water introduced to the tusk and released.

5. Project Objectives: Study the seasonal distribution and diving of Eclipse Sound narwhals in relation to management issues related to stock identity, the proposed Mary River activity in Milne Inlet, autumn ice entrapment, and wintering area of the stock.

6. Material and Methods: A camp was established in Tremblay Sound between August 9th and August 26th. Five narwhal (2 M, 3 F) were fitted with satellite transmitters. Heart and breathing rate, blood, skin/blubber and body measurements were collected from all animals over the course of their restraint. Tusk function tests were conducted on the two animals with tusks. Movement information is being collected and maps are being generated on a regular basis.

7. Project Schedule: Field work was successfully completed. Tagged whales are sending data on a regular duty cycle (every 4th day). Maps of movements and dive profiles will be made once all the transmitters fail. This project schedule is unchanged and on time.

8. Preliminary results/discussion: New movement information has been obtained from the tagged animals. Two males traveled in and out of Cumberland Sound during October. One male has spent the last several weeks in Greenland waters. Dive data is yet to be analysed. Interesting data has come from the tusk function experiments and is being analysed by Dr. Nweeia and others. Stress levels of the animals is being

analysed by Dr Black and is being added to a growing data base.

9. Reporting to communities/resource users: Movement information is being sent to interested parties on a regular basis. A letter was sent (emailed and faxed) the Pond Inlet HTO in November, requesting a meeting to discuss last year's results and support for next year's project. They have yet to reply to this request.