To: Leah Davis, NMFS Protected Resources Division

FROM: 2025 NMFS Arctic Peer Review Panel
Tiffini Brookens, Marine Mammal Commission
Earl Comstock, Alaska Eskimo Whaling Commission
Jenny Evans, Alaska Eskimo Whaling Commission
George Kaleak, Sr., Alaska Eskimo Whaling Commission
Lesley Hopson, Alaska Eskimo Whaling Commission
Sheyna Wisdom, Alaska Ocean Observing System

SUBJECT: 2025 Peer Review Report of Narwhal Exploration Activities in West Harrison Bay Marine Mammal Monitoring and Mitigation Plan

DATE: May 2, 2025

1 Project Specific Monitoring Recommendations

1.1 NMFS Guidance

- Include a succinct, but explicit, numbered list of the monitoring measures that the Panel is recommending be modified, added, or deleted for each of the applicants' monitoring plans.
- Provide concise recommendations that include enough detail to understand what is being recommended (i.e., include methodologies where necessary).
- Include a detailed rationale that describes why the additional or modified measures are considered necessary or an improvement over the original proposal and considers any points or potential barriers raised in the discussion.

1.2 Arctic Peer Review Panel (Panel) Recommendations

Following a review of the monitoring plan for Narwhal's exploration activities in West Harrison Bay, Alaska, the Panel makes the following recommendations.

1.2.1 Protected Species Observers (PSOs) for Open-water Activities

Narwhal has stated that observers would have the necessary experience and would be given no other duties during the time they are monitoring for marine mammals. The Panel recommends that the PSO team consist of one lead PSO (biologist) and at least one Iñupiat Observer, and that the lead PSO have at least one year of prior PSO experience, preferably on projects in Arctic Alaska. The lead PSO would be stationed directly on the source vessel and would be responsible for monitoring the Level A shutdown zone and for communications with the project manager when implementation of mitigation measures is necessary. The lead PSO would also oversee and coordinate the other PSOs. Given the

likelihood of 24-hour operations in the summer, the Panel understands that at least four PSOs will be needed during seismic activities.

The Panel recommends that Narwhal be strongly advised to hire at least one local Iñupiat Observer as the language in the monitoring plan states only that if an Iñupiat Observer is chosen as a PSO, he/she will be experienced in the region and familiar with marine mammals in the area. Given the extensive traditional knowledge of local Iñupiat on marine mammals and their behavior, the inclusion of a local Iñupiat Observer will enhance the monitoring data. In addition, given the requirement in the MMPA to avoid unmitigable adverse impacts on subsistence use, the presence of the local Iñupiat Observer will enable the vessel to be better informed of subsistence activities in the area and will facilitate communications with subsistence hunters in the area.

The Panel also recommends that NMFS require Narwhal to abide by its most recent PSO qualification requirements. Narwhal has stated that bunk space likely will be limited based on the vessels that it can contract, so vessel crew will be trained to act as observers and have no other duties while on watch. This is not acceptable. The Panel recommends that NMFS make it clear to Narwhal that vessel crew are not to be used as PSOs. Only experienced NMFS-qualified PSOs and local Iñupiat Observers should be used to satisfy the observer requirements.

The Panel further recommends that, if bunk space is limited, Narwhal should consider use of a third vessel for the PSOs and local Iñupiat Observers during the shallow hazard survey. This would provide ample bunk space for the appropriate number of observers to effectively monitor the zone during this higher sound level activity.

1.2.2 Timing of Openwater Activities

George Kaleak, Sr., a whaling captain from Kaktovik, shared that seismic sounds, even with a smaller airgun, propagate long distances and affect the migration of bowhead whales. In the fall, during the period of Narwhal's planned activities, bowhead whales are migrating east to west and will likely be impacted. The acoustic modeling provided by Narwhal meets NMFS's requirements to estimate behavior disturbance at the 160-dB re 1 µPa threshold, but it does not account for impacts that can occur below that threshold, including the effects observed by hunters. To avoid unmitigable adverse impacts on subsistence whaling activities, the Panel recommends that Narwhal be required to complete all seismic activities prior to August 25 to prevent diversion of migrating bowhead whales that would impact the subsistence bowhead hunt by Kaktovik, Nuiqsut, and Barrow whaling crews.

The Panel also recommends that staging of activities be completed as early as possible to reduce vessel traffic during the fall migration and hunt.

The Panel stresses that communication with local subsistence hunters will be key to preventing unmitigable adverse impacts on subsistence use, as required by the MMPA. The Panel notes that the Alaska Eskimo Whaling Commission (AEWC) has an established communications center protocol that provides an efficient means for communicating with subsistence whaling crews and other marine mammal subsistence hunters. Narwhal should be required to engage in daily communication with subsistence whaling crews and other marine mammal subsistence hunters to ensure that adverse impacts on subsistence hunting are avoided or minimized.

1.2.3 Seal Lair MonitoringMeasures during Sea Ice Road/Trail Construction and Use

Although Narwhal indicated in its monitoring plan that it would engage with the Ice Seal Committee regarding ringed seal detection along the Colville River Delta, it did not specify what methods it plans to use to detect sea lairs (e.g., opportunistic ground-based sightings, trained dogs, aerial surveys, infrared aerial sensors). It is prudent that Narwhal be able to detect ringed seal lairs effectively, as ice trail construction activities have the potential to result in injuries or mortalities of ringed seals that occupy lairs that have gone undetected in close proximity to those activities. Therefore, the Panel recommends that Narwhal be required to (1) engage local hunters through the Ice Seal Committee point of contact to gather recommendations on methods for ringed seal and lair detection along sea ice roads/trails within the exposure areas, (2) incorporate the Committee's recommendations into Narwhal's training materials provided to personnel responsible for monitoring for ringed seals and lairs along sea ice roads/trails, and (3) include the methods used for detection of seals and lairs in the final report. Similar measures were included in the final rule for Hilcorp Eni ice road activities.

1.2.4 SealLair Mitigation Measures during Sea Ice Road/Trail Construction and Use

Narwhal indicated that it would avoid approaching seals and seal lairs at a distance of 50 meters (m). That distance may be sufficient for seals themselves as they are mobile, but it is not sufficient for lairs that are fixed and serve as breathing holes and shelter for giving birth, nursing, and resting. The Panel recommends that ice road/trail construction and maintenance activities be restricted within 150 m of ringed seal lairs, vehicles be prohibited from stopping within 150 m of ringed seal lairs, and ice thickness testing be prohibited from occurring within150 m of a lair. Avoidance of lairs by 150 m is consistent with the final rules for Hilcorp Liberty and Hilcorp Eni ice road activities.

1.2.5 Aircraft Mitigation Measures

Helicopters and fixed-wing aircraft would be required to maintain an altitude of 457 m above ground level to avoid impacts on marine mammals and other species. However, aircraft should also be requested to follow flight paths 5 miles inland of the coast or 5

miles offshore of the coast to minimize impacts on subsistence hunting for marine mammals.

1.2.6 Use of Community Winter Trails (CWT) Program

The Panel cautions that, when using the CWT inland, Narwhal be aware of other wildlife such as caribou and polar bears per the whaling captains.

1.2.7 Plan of Cooperation

The Plan of Cooperation (Appendix D) of the IHA summarizes the engagement conducted thus far for Narwhal's proposed activities. The Panel notes that Narwhal has met with the AEWC and North Slope Borough Planning Commission in the last two years and provides a summary of these meetings in the Plan of Cooperation. However, it is unclear what concerns were shared and what measures Narwhal intends to incorporate in its plans to address these concerns. The Panel is concerned that Narwhal is using AEWC as blanket coverage for cooperating with these communities and notes that meetings should be coordinated with organizations representing interested and potentially impacted parties including but not limited to:

- Whaling Captains Associations of Barrow, Nuiqsut, and Kaktovik
- Native Villages of Barrow, Nuiqsut, and Kaktovik
- Kuukpik Corporation
- Inupiat Community of the Arctic Slope (ICAS)
- Other Co-Management Organizations: Ice Seal Committee, Alaska Nannut Co-Management Council, Beluga Whale Committee

The Panel questions Narwhal's commitment to community engagement and cooperation demonstrated by the lack of progress with scheduling meetings with interested parties and potentially impacted communities. The Panel recommends that meetings be scheduled as soon as possible to allow time for meaningful discussion and for concerns to be voiced and adequately addressed in Narwhal's Plan of Cooperation and final monitoring plan. The Panel further recommends that Narwhal work with each community to determine meeting dates that do not conflict with subsistence activities, ensuring greater participation and community input.

1.2.8 Reporting

For reporting measures, the Panel recommends that Narwal report the estimated distance to each observed lair, as well as each seal.

The Panel requests that NMFS provide the 90-day report when submitted by Narwhal for an initial review and for use in subsequent monitoring plan reviews. This will allow for continued improvements to monitoring plans, particularly for multi-year projects.

2 Broad Future Recommendations

2.1 NMFS Guidance

- Monitoring recommendations - Panelists may include broader recommendations that could apply to multiple applicants and could be added to the document.
- Process Recommendations/Reflections: As we work to modify the overall structure of the peer review Panel, please include any reflections on the changes that we have made that would inform future improvements (ex: ease of implementation of new Panel instructions, etc.)

2.2 Panel Recommendations

2.2.1 Timing of Peer Review

The Panel acknowledges that NMFS has very little control over the timing of application submission. However, to effectively incorporate feedback from Alaska Native Co-Management Organizations, the Panel recommends that NMFS include adequate time in the peer review process to make this possible.

2.2.2 90-day Reports and NMFS's Response to Panel Recommendations

The Panel recommends that NMFS provide all final 90-day reports to the Panel for review. In addition, the Panel would like to continue to receive NMFS's responses to and comments on the Panel's recommendations.