REPORT

Chapter 1.0 Program Overview

2024 Milne Port Marine Environmental Effects Monitoring Program (MEEMP) and Non-Indigenous Species/Aquatic Invasive Species (NIS/AIS) Monitoring Program

Submitted to:

Baffinland Iron Mines Corporation

360 Oakville Place Drive, Suite 300
Oakville, Ontario, L6H 6K8
Canada

Submitted by:

WSP Canada Inc.

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Executive Summary

Baffinland Iron Mines Corporation (Baffinland) owns and operates an open pit iron ore mine (the Project) located in the Qikiqtani Region of North Baffin Island, Nunavut, in accordance with Terms and Conditions of its Project Certificate (PC) No. 005. Ore is transported to market during the open water season by chartered vessels that receive the ore in Milne Port, located at the head of Milne Inlet at the western end of Eclipse Sound. Shipping commenced in 2015 and is expected to continue for the life of the Project (20+ years).

As a part of regulatory commitments, Baffinland has developed and implemented a multi-disciplinary Marine Environmental Effects Monitoring Program (MEEMP). The MEEMP is designed to evaluate potential Project-related effects on the marine environment as predicted in the Final Environmental Impact Statement (FEIS) and FEIS addenda (Baffinland 2012, 2013). The MEEMP includes monitoring of marine water and sediment quality, marine benthic invertebrates, marine vegetation, and fish and fish habitat. The sampling design is generally based on the Metal Mining Environmental Effects Monitoring (EEM) technical guidelines (Environment Canada 2012) and includes statistical approaches for detecting potential Project-induced impacts on the marine environment. The Non-Indigenous Species/Aquatic Invasive Species (NIS/AIS) Monitoring Program is an integral component of the MEEMP and is designed to address the potential risks of species introductions to the marine environment from ship ballast water and hull biofouling.

This report presents the results of the MEEMP and NIS/AIS monitoring programs conducted in Milne Inlet during the 2024 open-water season, the tenth consecutive year of monitoring.

MARINE WATER QUALITY (CHAPTER 2.0)

The marine water quality component of the MEEMP involves monitoring of water quality in the Milne Inlet receiving environment to confirm that site discharges are in compliance with requirements outlined in the Type A Water License and satisfy Project Certificate (PC) Conditions No. 76, 83(a), 87, 89 and 99(a). Water quality samples are collected at four sampling stations in Milne Inlet downstream from the primary discharge point (MP-05), as well as four sampling stations downstream from a second discharge point (MP-06) at Milne Port. These receiving environment stations are distributed in a radial design up to approximately 250 m from each discharge point to monitor for potential changes in water quality due to site drainage and operational discharges, including iron ore stockpile run-off.

In 2024, reported analytical results for water quality parameters (i.e., major ions, nutrients, metals, hydrocarbons, and polycyclic aromatic hydrocarbons [PAHs]) were generally within ranges observed during previous MEEMP sampling programs (2015 to 2023). In fact, a substantial proportion of parameters analyzed in the water samples from Milne Inlet were not detected at all in downstream sampling stations. All parameters were below relevant water quality guidelines (i.e., Canadian Council of Ministers of the Environment Water Quality Guidelines; CCME WQGs).

Collectively, measured concentrations of metals, nutrients, hydrocarbons were either not detected or were present at low concentrations, such that adverse impacts to the biota in the Milne Inlet receiving environment are unlikely to occur. Increased iron deposition in the marine environment as a result of Project activities is of primary interest to local Inuit. Given that CCME marine WQGs for iron have not been developed, 2024 data were compared to iron

data collected during previous MEEMP programs (2017 to 2023) to evaluate whether increases in production at Milne Port have led to associated increases in iron concentrations. Mean and maximum total iron concentrations in marine water samples collected in 2024 were below the mean and maximum concentrations measured in previous years in the receiving environments of the MP-05 and MP-06 site discharges. Dissolved iron concentrations were below detection limits in each of the samples collected in 2024, meaning the majority of detectable iron concentrations were driven by the particulate form and less bioavailable for uptake by aquatic biota.

Results of the trend analysis for MP-05 indicated that there was no significant temporal trend in total iron concentration. In general, 2024 MP-05 values were lower than 2023 and most previous years. Year-to-year changes in iron concentrations ranged from a reduction of 25% in concentrations between 2023 and 2024 to an increase of 12% between 2020 and 2021. Concentrations recorded in 2023 and 2024 were similar to those measured in 2019 and 2020.

Results of the trend analysis for MP-06 indicated that there was a significant difference in total iron concentrations between previous years. Total iron concentrations at the MP-06 ENE station were significantly higher (600% increase) in 2024 when compared to 2023, however, this was due to the very low values recorded in 2023 and the high variability of data in other years. No significant temporal differences were found for the remaining three stations, and 2024 values were similar to or lower than most previous years.

In the 2024 sampling program, mean total copper concentrations were 3.0 µg/L, roughly 2.5-times greater than those measured in 2023 (1.2 µg/L), while lower than those measured in 2022 (3.5 µg/L). In 2024, total copper concentrations were within the historical range of measured concentrations. Maximum total copper concentrations (20.1 µg/L) were measured at the MP-06 Source location on 30 July 2024. This maximum was roughly 4.5-times greater than the 2023 maximum of 4.5 µg/L, however dissolved copper concentrations from the same sample were 20-times lower with concentrations of 1.04 µg/L, meaning the majority of detectable copper concentrations were driven by the particulate form which is less bioavailable for uptake by aquatic biota. In addition, dissolved copper concentrations were below detection limits in 31 of the 40 samples collected.

Results of the water quality assessment above were screened against the TARP criteria. The ‘Low Risk’ threshold was not triggered in 2024 because the 30-day mean for each water quality indicator was less than 75% of the applicable CCME water quality guideline for the protection of aquatic life.

Overall, results indicate that, to date, water discharged from site into the marine receiving environment meets the requirements of the Type A Water License and that water quality parameter concentrations remain below thresholds of harm for marine biota. Moving forward, continued compliance monitoring for water quality is recommended.

MARINE SEDIMENT QUALITY (CHAPTER 3.0)

Sediment sampling in Milne Inlet was conducted to satisfy PC Conditions No. 83(a) and 99(a). In 2024, a reduced sediment quality and benthic infauna sampling program was conducted. The full-scale joint radial transect benthic and sediment sampling program, consisting of 60 stations monitored on a three-year cycle, was conducted in 2023, and will be implemented in 2026.

The 2024 sediment (and benthic infauna) program focused on the eight Capesize sampling stations (SW-1 through SW-4, SE18-1, SNW-1, SCV-1 and SCV-2) established in 2023. The Capesize sampling program was implemented to monitor for scouring effects on sediment and benthic infauna for three years after the initial use of large (Baby Cape and Capesize) ore carriers in fall 2023. Capesize vessel effects monitoring commenced in August 2023 (4-19 August 2023) with the intention of documenting existing conditions for sediment quality prior to the use of the larger ore carriers. The first Capesize vessel arrived in Milne Port on 29 August 2023 after completion of the 2023 sampling program. In total, there were five Capesize (including Baby Cape) voyages to Milne Port in 2023. In 2024, representing Year 1 of the monitoring program, analyses of the physical and chemical composition of sediments were conducted on samples collected from the eight Capesize sampling stations for particle size, metals, and organic parameters. Concentrations of sediment quality indicators were determined to be lower than available sediment quality guidelines and concentrations of organic parameters were largely not detected in the sediments sampled.

As demonstrated through statistical analyses, there was a significant reduction in the proportion of fine sediments at the Capesize stations between 2023 and 2024. The variability of the physical composition of sediments among stations along with the time series data for percent fines show that although most stations showed some level of decrease in fines between 2023 and 2024, for some stations the actual decrease in percent fines is minimal and reflects a continuing trend of low fines content evident since before 2024 which represent existing conditions for this 2024 assessment. Based on the Capesize vessel Ship Wake and Propeller Wash Assessment (WSP 2023), this study predicted a scouring impact at five of the eight Capesize sampling stations. For the three stations not predicted to be impacted by scouring by the modelling study, a station offshore from the Ore Dock in deeper water (SCV-1) did not appear to show signs of scouring in 2024; whereas, nearshore stations in shallower water along the Western Transect towards Phillips Creek either remained low in fines (SW-3) or showed a decrease in fines in 2024 relative to 2023 (SW-4). It is however recognised that these nearshore stations could be subject to the ongoing influence of natural coastal processes and variations in morphology, and/or sediment transport to the inlet via Phillips Creek to some extent, as well as the potential influence of propeller wash from vessel traffic. Moreover, it is important to note, that regardless of potential propeller wash influence, benthic infauna densities at SW-3 and SW-4 were not significantly different in 2024 and 2023, and both stations continue to support diverse benthic invertebrate communities.

In 2024, concentrations of metals in sediments sampled at the Capesize stations were below applicable CCME guidelines for the protection of aquatic life (CCME 1999) and NOAA sediment benchmarks (Buchman 2008). As found in previous MEEMP years, PAHs and hydrocarbons were not detected in sediments sampled from Milne Port in 2024. Iron concentrations in Milne Inlet have been flagged by Inuit to be of concern due to the potential for increased deposition of iron ore in the form of dust or in runoff from storage stockpiles. Marine sediment guidelines for iron are not currently available and, as such, the Capesize station sediment data for iron were evaluated using a similar statistical approach used to evaluate the proportion of fine sediments at the eight Capesize stations, consistent with previous MEEMP reports. There was an overall statistically significant decrease in iron concentration at the Capesize vessel stations between 2024 and existing conditions in 2023 prior to the use of Capesize vessels. As observed for the fines content of the sediments, while the 2024 MEEMP sampling found that spatial trends in the sediment iron continued to differ between the stations, more subtle temporal trends were evident over time.

The 2024 results of the Capesize sediment quality assessment were screened against the TARP criteria (Table 3-2). The ‘Low Risk’ threshold was not triggered for sediment quality for the 2024 MEEMP focussed on comparing the Year 1, 2024 Capesize sampling station results with the existing 2023 results for these stations.

Monitoring results for 2024 remained within original FEIS predictions and subsequent addenda, which forecasted no significant residual effects on sediment quality. Given that continued use of larger ore carriers (Baby Cape and Capesize) at Milne Port is expected, Baffinland has committed to a frequency of annual sampling of the Capesize monitoring stations for a minimum of three years following the initial use of larger ore carriers, to identify Project-related effects due to the change in vessel types. In order to gain a better understanding of potential scouring effects outside of the predicted zone of influence for the Capesize vessels versus influence from natural coastal processes, a consideration would be to extend the 2025 Capesize vessel sampling program along the West Transect to include SW-5 and SW-6, for a total of ten stations for sediment quality and benthic infauna sampling.

Overall, results indicate that, to date, marine sediment quality results remain within FEIS predictions and subsequent addenda, which forecasted no significant residual effects on sediment quality but indicated the potential for minor localized sediment disturbance associated with propeller wash, which is expected to stabilize over time. The TARP 'Low Risk' threshold was not triggered and the Capesize sampling program will continue to monitor for scouring effects on sediment and benthic infauna.

BENTHIC INFAUNA (CHAPTER 4.0)

Benthic infauna sampling in Milne Inlet was conducted in 2024 to satisfy PC Conditions No. 83(a) and 99(a). In 2024, a reduced sediment quality and benthic infauna sampling program was conducted. The full-scale joint radial transect benthic and sediment sampling program, consisting of 60 stations monitored on a three-year cycle, was conducted in 2023, and will be implemented in 2026.

The 2024 MEEMP benthic infauna (and sediment) program focused on the eight Capesize sampling stations (SW-1 through SW-4, SE18-1, SNW-1, SCV-1 and SCV-2) established in 2023. The Capesize sampling program was implemented to monitor for scouring effects on sediment and benthic infauna for three years after the initial use of large (Baby Cape and Capesize) ore carriers in fall 2023. Capesize vessel effects monitoring commenced in August 2023 (4-19 August 2023) with the intention of documenting existing conditions for sediment quality prior to the use of the larger ore carriers. The first Capesize vessel arrived in Milne Port on 29 August 2023, following completion of the 2023 sampling program. In total, there were five Capesize (including Baby Cape) voyages to Milne Port in 2023.

The 2024 benthic sampling program was conducted to assess potential changes in marine sediment and benthic infaunal community indices associated with potential impacts of Baby Cape and Capesize ore carriers utilizing the Ore Dock. The FEIS predictions forecasted no significant residual effects on sediment quality but indicated the potential for minor localized sediment disturbance associated with propeller wash, which is expected to stabilize over time, as well as the potential for minor localized increases in nutrients, metal, or hydrocarbon concentrations that could impact benthic invertebrate communities. Subsequent to the FEIS, WSP conducted a Ship Wake and Propeller Wash Assessment to address possible project effects on the marine physical environment related to shipping activities associated with increased large vessel traffic (WSP 2023). This assessment predicted some scour to occur over most of the berthing area for Capesize vessels with predicted depths of scour ranging from 5 cm over the broader berthing area to 50 cm in a more localized area adjacent to the Ore dock. The 2024 sediment quality assessment evaluated sediment quality down to 5 cm sediment depth consistent with the MEEMP and sampling at the Capesize stations in 2023. This sediment depth is also the most relevant to the assessment of benthic infauna communities.

In 2024, representing Year 1 of the monitoring program, benthic infaunal community samples were collected from the eight Capesize sampling stations processed in the field, and preserved for laboratory analysis. Infaunal organisms were subsequently identified to the lowest practical taxonomic level and enumerated by experienced marine benthic taxonomists at Biologica Environmental Services Ltd. (taxonomic laboratory). As observed in previous years, benthic infauna communities at the Cape Size stations were mainly dominated by polychaetes. A higher proportion of malacostracans, predominantly amphipods and cumaceans, were found at some West Transect stations, whereas bivalves represented a higher proportion at stations not along this transect. Statistical analysis was focused on four key benthic infauna endpoints – invertebrate density, richness, diversity, and evenness – consistent with previous MEEMP years.

The 2024 benthic infauna results remained within predictions of the FEIS and subsequent addenda, which forecasted the potential for localized sediment disturbance associated with propeller wash and temporary effects on benthic infaunal community indicators. In 2024 the eight Capesize stations continued to support diverse benthic invertebrate communities. Overall density and richness were not significantly different between Year 1 (2024) and under existing conditions in 2023; however, the benthic infaunal community continued to show variability between stations in 2024 with observed decreases in density and richness from 2023 to 2024 at stations in close proximity to the Ore Dock. These observations are partly supported by changes in the proportion of fines content in the area over time as well as natural variability seen within benthic communities. Scouring effects were previously observed in 2020 at station SW-2 due to propeller wash from smaller ore carriers and tugs. Subsequent monitoring years indicated that the benthic infaunal community at that station later recovered, and that the effects were temporary and localized.

Results of the 2024 benthic infauna assessment did not trigger the TARP ‘Low Risk’ threshold given that benthic performance indicators were not significantly different in Year 1 (2024) compared to existing conditions in 2023 and any visual decreases in benthic performance indicators appeared to be within Port-related effects predicted by FEIS and subsequent addenda.

Given that there will be continued use of larger ore carriers (Baby Cape and Capesize) at Milne Port, Baffinland has committed to a frequency of annual sampling of the Capesize monitoring stations for a minimum of three years following the initial use of larger ore carriers to identify Project-related effects due to the change in vessel types. As noted for sediment quality in Chapter 3.0, in order to gain a better understanding of potential scouring effects outside of the predicted zone of influence for the Capesize vessels versus influence from natural coastal processes, a consideration would be to extend the 2025 Capesize Vessel sampling program along the West Transect to include SW-5 and SW-6, for a total of ten stations for sediment quality and benthic infauna sampling.

Overall, results indicate that, to date, marine benthic infauna results remain within FEIS predictions and subsequent addenda, which forecasted no significant residual effects on sediment quality but indicated the potential for minor localized sediment disturbance associated with propeller wash, which is expected to stabilize over time. **The TARP ‘Low Risk’ threshold was not triggered and the Capesize sampling program will continue to monitor for scouring effects on sediment and benthic infauna.**

SUBSTRATE, MACROALGAE, AND BENTHIC EPIFAUNA (CHAPTER 5.0)

Sampling of substrate, macroalgae, and benthic epifauna fulfills PC Condition No. 99(a) and (c) and is relevant to PC Conditions No. 76, 83(a), 84 and 87. To evaluate potential project-related effects on substrate, macroalgae, and benthic epifauna, standardized underwater visual census methods were employed by SCUBA-based

scientific divers to survey macroalgae, invertebrate, and fish species and to record habitat type within a series of survey quadrats permanently installed on the seafloor in both an exposure area and a reference area in Milne Port. Specimens were opportunistically collected and sent to an accredited taxonomy laboratory (Biologica Environmental Services Ltd.) for taxonomic identification. Indicators included percent cover (%) of substrate type, benthic macroalgae, and sessile benthic epifauna, density (counts) for motile epifauna, and diversity indices (i.e., taxa richness and Simpson's Diversity Index [SDI]) for macroalgae and epifauna.

In 2024, the benthic environment of the exposure and reference areas mainly consisted of soft substrate, primarily silt and sand, consistent with previous years. Interannual differences were observed in the proportion of the bottom covered by soft substrate but pairwise comparisons found no significant differences between 2024 and any other year. There was no significant difference in soft substrate coverage between the exposure and reference area in 2024. Similar macroalgae and epifaunal taxa composition were observed in 2024 as in previous years (2021-2023). Community indicators (percent cover or density, taxa richness, and SDI) were variable among quadrats, but were not significantly different between the exposure and reference areas in 2024 for any community indicator, and the interaction of area x year was significant for density of motile epifauna. Depth or proportion of soft substrate in the quadrat were significant covariables for several epifaunal indicators but were not significant for macroalgae indicators. The effect of year was significant for macroalgae and sessile epifauna indicators. Seven of the eight significant differences (out of a total 54 comparisons of 2024 against other years, 46 of which showed no significant difference) indicated higher values of community indicators in 2024 compared to years 2021 or 2022 and only one indicated a lower value in 2024 compared to 2021. There were no significant differences between 2023 and 2024 in community indicators. Percent cover of macroalgae was 69% higher in the exposure area and 91% higher in the reference area in 2024 compared to 2021, and it was 59% higher in the reference area in 2024 compared to 2022. Macroalgal taxa richness was significantly higher in both the exposure (51%) and reference (67%) areas in 2024 compared to 2022. Macroalgae taxa richness was 51% higher in 2024 in the exposure area compared to 2022 but 2024 did not significantly differ from other years. Macroalgae SDI was not significantly different in the exposure area in 2024 compared to other years but was 78% higher in 2024 compared to 2022 in the reference area. Percent cover and taxa richness of sessile epifauna in the exposure and reference areas were no different in 2024 than in other years. Sessile SDI was 69% higher in the exposure area in 2024 compared to 2022 but no different in any year in the reference area. Motile epifauna density decreased by 149% in the exposure area, comparing 2021 and 2024. Motile epifauna density was 63% higher in the reference area in 2024 compared to 2022. There were no significant differences detected for year, area, or the year x area interaction for motile epifauna taxa richness or SDI.

As was done in previous years, effect size was explored using a power analysis to detect Project-related change based on levels of observed variability among quadrats. Large effect sizes (>50%) were required to attain sufficient statistical power for most analyses of soft substrate, epifauna and macroalgae. Given the low statistical power to detect effect sizes that may be of biological relevance, going forward, it is recommended that conclusions are not made based on strict adherence to statistical significance. Instead, effect size, uncertainty, and statistical significance and power should be considered together before ruling out spatial and temporal changes in benthic infauna.

Overall, macroalgae and benthic epifaunal community assemblages were comparable between exposure and reference areas. Interannual variations in some indicators were likely driven by regional environmental factors. Monitoring efforts to date revealed no evidence of spatial or temporal trends that might be associated with Project-induced effects. Monitoring of macroalgae and benthic epifauna assemblages is recommended to continue, using the same sampling and statistical design, with a modification to include the tops of the metal crossbars and outer

frame in analyses due to increased observations of habitat formation and colonization of these hard surfaces within many quadrats in 2024. This modification will affect the ability to compare results interannually but will not affect between-area comparisons. Two quadrats closest to Phillips Creek were not located in 2024 and are presumed lost. It is recommended that these quadrats not be replaced due to dynamic nature of the bottom in that area. Further, it is recommended to increase collections of unknown taxa, when possible, for analyses and identification. Where possible, such taxa should be collected outside but adjacent to the permanent quadrats to minimize impacts on measures of community composition within the quadrats.

Overall, while noting the statistical limitations of this component (i.e., high variability leading to generally low statistical power), the 2024 survey results indicated that Project activities to date have not resulted in adverse effects on macroalgae and epifaunal communities in Milne Port.

MARINE FISH COMMUNITY (CHAPTER 6.0)

To satisfy PC Conditions No. 99(b)(ii), 99(c), 113, and 114, sampling was conducted to assess the relative abundance of Arctic Char (*Salvelinus alpinus*) and other fish species in the Milne Port area. Multiple sampling methodologies (e.g., angling-jigging, gill nets, hoop nets, and trawling) were used to target different fish species and habitat types. Collected fish were identified to the lowest practicable taxonomic level, typically to species level, before being released. Fish not identified to species level in the field were retained for subsequent identification by an accredited taxonomic laboratory. Fish community composition (diversity), abundance, and catch per unit effort (CPUE) were compared among years and CPUE was compared between two fishing areas (FAs) defined for Milne Port: Direct Project Footprint (DPF) and Indirect Project Footprint (IPF), delineated by habitat features and their proximity to existing port infrastructure and operational activities.

A total of 633 fish belonging to ten known taxa were recorded in Milne Port from 88 fishing events (efforts) using a combination of methods during the 2024 open water survey season. Similar to previous sampling years, Arctic Char, Fourhorn Sculpin (*Myoxocephalus quadricornis*), and Shorthorn Sculpin (*Myoxocephalus scorpius*) were the most abundant species. Other fish captured included Pacific Cod (*Gadus macrocephalus*), Arctic Staghorn Sculpin (*Gymnocanthus tricuspis*), Ribbed Sculpin (*Triglops pingelii*), Arctic Alligatorfish (*Aspidophoroides olrikii*), Spatulate Sculpin (*Icelus spatulata*), an Atlantic Spiny Lumpsucker (*Eumicrotremus spinosus*), unidentified sculpins (Family Cottidae) and unidentified juvenile cod (Gadidae indet.). This was the second consecutive year where the Atlantic Spiny Lumpsucker was recorded as part of the fish community monitoring program, following its first capture in 2023.

The composition and abundance of the fish community captured in 2024 were generally comparable to those of the 2020-2023 monitoring programs. Species richness remained consistent with previous years at ten known taxa (comparable to 10-12 taxa in 2020-2023), and abundance, uncorrected for fishing effort, was higher than in 2023 (633 individuals compared to 422 in 2023) and within the abundance range of years 2020-2022 (482-852 individuals).

Results of statistical analyses of the CPUE (i.e., catch rates corrected for fishing effort) supported the conclusion that existing mitigation measures were functioning as intended and that current Project activities were not resulting in adverse effects on the local marine fish communities in Milne Port. No reduction in fish abundance was associated with activities in the DPF; fish CPUE in the DPF was generally higher or no different than the CPUE in the IPF. Analyses of total CPUE (all fish species combined) in 2024 showed higher CPUE in the DPF compared to the IPF for gill net and hoop net catches, consistent with trends observed in previous years. Total

CPUE for angling-jigging in 2024 showed a reverse trend, with higher catch in the IPF compared to the DPF, differing from previous years where catch in the DPF was higher than in the IPF.

For Arctic Char, there was a significant interaction effect between year and area for gill nets, the only fishing method that could be analyzed. CPUEs observed in both FAs were similar from 2020 to 2022; however, in 2023, CPUE of Arctic Char in the IPF was significantly lower than in the DPF, dropping to the lowest CPUE for Arctic Char recorded in the time series. In 2024, Arctic Char CPUE in the IPF was significantly higher than in 2023, more closely resembling 2020-2022 CPUE values while 2024 CPUE values in the DPF remained generally consistent with 2020, 2022, and 2023. Gill net CPUE of Arctic Char was higher in the IPF compared to the DPF in 2024.

For Fourhorn Sculpin, area comparisons of CPUE were conducted for angling-jigging, gill net, and hoop net fishing methods and, for all methods, CPUE was higher in the DPF compared to the IPF. This may relate to the use of constructed rocky reef habitat around the project's Ore and Freight docks by Fourhorn Sculpin. Additionally, Fourhorn Sculpin gill net CPUE within the IPF was significantly lower in 2024 compared to years 2020-2022 but was higher than values seen in 2023.

Modifications to the monitoring program for the fish community over the past several years have focused on improving the statistical power of the monitoring. A key strategy in 2024 included the elimination of fishing methods that yielded relatively lower catches (i.e., Fukui traps and angling-trolling), allowing effort to be concentrated on more effective methods. As in previous years, angling-jigging, gill nets, and hoop nets were effective fishing methods in 2024. Gill nets were particularly effective for capturing Arctic Char, which were rarely caught by other methods. In most years, the majority of Fourhorn Sculpin were caught via angling-jigging and gill nets. Hoop nets were retained as a fishing method to replace Fukui traps after a four-year trial indicated higher capture rates for hoop nets. Trawling, while often not resulting in a high CPUE unless a school of fish were encountered, often captured taxa not sampled by the other methods used in this program. Effort numbers of methods in 2024 were comparable to or surpassed 2023 effort numbers, with only moderate increases in effort numbers in 2024 due to increased time spent outside of Milne Port by the fish sampling team in support of the MEEMP fish health sampling program (see Chapter 7.0 Fish Health and Tissue Chemistry) and weather delays.

Measures recommended for the 2025 MEEMP sampling program include the following:

- The sampling methods utilized in 2024 (angling-jigging, gill nets, hoop nets, and trawl) provide comparable results for detection of fish diversity as observed in previous years (when additional fishing methods were included in the program) and are recommended for use going forward.
- As power analyses continued to indicate the statistical power of the performed analyses was relatively low, due to the high variability of fish catch, consideration may be given to assessing differences between FAs using effect sizes rather than a strict adherence to statistical significance.

Overall, fishing methods were deemed effective in characterizing the marine fish community in terms of species presence and relative abundance. The program continues to improve its methodology with regard to efficiencies of capture, characterization of the fish community, and statistical power, and the delineation of FAs and standardization of measures of fishing effort time series that commenced in 2020 will continue to allow for ongoing assessments of interannual or interarea change in relative fish abundance and distribution at Milne Port.

FISH HEALTH AND TISSUE CHEMISTRY (CHAPTER 7.0)

To satisfy PC Conditions No. 76, 83 (a), 99 (a), 113, and 114, sampling was conducted to assess fish health and tissue chemistry in Milne Port. Fish health endpoints were assessed in two species, Fourhorn Sculpin (*Myoxocephalus quadricornis*), a marine fish, and wrinkled rock-borer (*Hiatella arctica*), a marine bivalve. The two species were collected from Milne Port and two reference areas, Koluktoo Bay and Tugaat River Estuary. Koluktoo Bay served as the reference area for Fourhorn Sculpin and Tugaat River Estuary served as the reference area for *H. arctica.* Arctic Char (*Salvelinus alpinus*) was also included in the fish health and tissue chemistry monitoring program but was collected opportunistically from Milne Port only. *Hiatella arctica* was collected from benthic infauna samples. Tissue chemistry was assessed in Fourhorn Sculpin, *H. arctica*, and Arctic Char. Fish health assessments included endpoints for survival, growth, condition, and reproduction, and considered species separately. Statistical comparisons of fish health endpoints were completed between Milne Port and the reference areas for Fourhorn Sculpin and *H. arctica* using data collected in 2024, as well as recent sampling years (i.e., 2020, 2021, 2022, 2023, and 2024) for all species.

In total, 40 Fourhorn Sculpin from Milne Port and 39 Fourhorn Sculpin from the Koluktoo Bay reference area were processed in 2024. Differences in fish health endpoints were observed for female and male Fourhorn Sculpin between Milne Port and Koluktoo Bay. Females from Milne Port had significantly greater size-at-age, exceeding the critical effect size (CES), but lower relative total weight, compared to female fish from Koluktoo Bay. For male fish, size-at-age was significantly greater and relative liver weight was significantly lower in Milne Port compared to Koluktoo Bay. Differences in size-at-age and relative liver weight exceeded the CES for male fish, and exceeded the TARP ‘Low Risk’ threshold. No other TARP thresholds were exceeded. Fish health endpoints varied significantly among sampling years for both female and male Fourhorn Sculpin from Milne Port, but few consistent trends were observed. An exception was relative liver weight for female Fourhorn Sculpin from Milne Port, which appeared to be increasing consistently over time.

In 2024, 40 *H. arctica* were collected from Milne Port, and 23 *H. arctica* were collected from Tugaat River Estuary reference area. Growth and condition were lower in Milne Port when compared to the reference area. Observed differences in whole animal wet weight, relative total weight, and relative shell weight were considered to exceed the TARP ‘Low Risk’ threshold as a conservative assessment in the absence of CES values. When evaluating fish health endpoints for *H. arctica* within Milne Port among sampling years, differences were observed for length-frequency, whole animal wet weight, relative total weight, and mantle somatic index. No consistent trends in differences were observed for any endpoint, suggesting interannual variability as the main contributor to observed differences.

A total of 13 incidental mortalities of Arctic Char were analyzed in 2024. Age ranged from 7 to 16 in 2024, which was similar to 2021, 2022, and 2023. Condition factor of Arctic Char varied among sampling years with no consistent temporal trends observed

A total of 38 tissue samples were submitted for metals analysis in 2024. This included eight Arctic Char, eight Fourhorn Sculpin, and eight *H. arctica* samples from Milne Port, and eight Fourhorn Sculpin and six *H. arctica* samples from the reference areas. Constituents of potential concern (COPCs) were identified based on the primary constituents of the Project iron ore (i.e., aluminum, magnesium, and iron), as well as metals with existing regulatory guidelines for fish tissue (i.e., mercury and selenium). Concentrations of COPCs were not different between sampling areas for Fourhorn Sculpin. For *H. arctica*, concentrations of COPCs were generally not different between sampling areas, with the exception of aluminum and selenium, which were significantly lower in samples from Milne Port compared to Tugaat River Estuary. The magnitudes of effects, 49% and 14%,

respectively, were below the CES. Significant increasing trends in aluminum and iron concentrations were observed in Arctic Char tissue samples. Median concentrations of both metals exhibited appreciable interannual variability but have generally been increasing over time. For Fourhorn Sculpin, significant increasing trends were observed for aluminum. For *H. arctica*, no significant increasing trends were observed. No TARP thresholds were exceeded for Fourhorn Sculpin or *H. arctica* tissue chemistry.

Mercury and selenium concentrations in all Arctic Char and Fourhorn Sculpin samples collected in Milne Port were below Health Canada's Maximum Levels for Chemical Contaminants in Foods mercury consumption guideline of 0.5 mg/kg ww (Health Canada 2015) and the BC Ministry of Environment selenium concentration guideline of 4 mg/kg dw (BC MOE 2014), respectively. One Fourhorn Sculpin captured in the Koluktoo Bay reference area had a selenium concentration (4.20 mg/kg dw) that exceeded the BC guideline.

A total of eight Fourhorn Sculpin and eight Arctic Char samples from Milne Port were analyzed for polycyclic aromatic hydrocarbons (PAHs) in 2024; no *H. arctica* samples were analyzed for PAHs in 2024 due to limited sample volumes. Concentrations of all PAHs in Arctic Char and Fourhorn Sculpin were below reported detection limits (<0.050 mg/kg ww).

Assessments of fish health and tissue chemistry in 2024 for Fourhorn Sculpin, *H. arctica*, and Arctic Char indicated low magnitude differences in endpoints over time and among sampling areas, suggesting inherent interannual variability in endpoints. All results are within FEIS predictions, which indicated the potential for low magnitude effects on marine fish health and tissue chemistry. There was no evidence for Project-related effects beyond the magnitude of FEIS predictions on fish health or tissue chemistry in 2024.

NON-INDIGENOUS SPECIES AND AQUATIC INVASIVE SPECIES (NIS/AIS) MONITORING (CHAPTER 8.0)

This chapter presents the results of comprehensive sampling conducted in the marine environment of Milne Inlet to monitor for the presence of non-indigenous species (NIS) and aquatic invasive species (AIS), fulfilling PC Conditions No. 87, 89, and 91. The sampling program included both targeted (e.g., benthic grabs, settlement substrates, and zooplankton tows) and general (e.g., screening all species identified through MEEMP components, such as fish, benthic fauna and macroflora surveys) sampling efforts. The observed and sampled taxa were compared to a taxonomic inventory, which included the taxa previously detected in Milne Inlet and annual updates. Species composition in the region is relatively unknown and it is expected that each year this sampling program will detect taxa that were not previously recorded. Literature reviews were performed on taxa that were not part of the inventory to investigate their biogeographic range on record; in addition, these taxa were cross-referenced against both global and domestic databases of known invasive taxa. Taxa were also cross-referenced with the Program-specific Watch List (taxa flagged for ongoing monitoring and re-assessment) comprised of taxa assessed within the Low, Moderate, or High risk categories, described below. When a detected taxon was not identifiable to species level, other 'representative species' in the taxon were investigated as proxy species, targeting those with potential to establish in the Arctic (exclusively tropical or subtropical taxa were excepted but all other taxa were considered).

Species were assigned to the following risk categories:

No risk: A species is considered to be “No Risk” if it is:

- present in the Canadian Arctic prior to Project operations (2015). A species may also be considered “No Risk” where records exist from the Canadian Arctic in areas outside the Project’s area of influence, or distribution in waters adjacent to the Canadian Arctic provides high certainty that its range includes the Canadian Arctic.

AND

- not listed on AIS databases, or if listed, it is native to Canadian Arctic or the representative species is/are unlikely to establish in the Arctic (e.g., exclusively tropical/subtropical)

Low risk: A species is considered to be “Low Risk” if it is:

- not reported from the Canadian Arctic, or reported with high uncertainty, or species is not associated with shipping vectors (e.g., species presence is likely due to range expansion related to climate change)

AND

- not listed on AIS databases, or if listed (or in the case of higher taxon identification, with one or more representative species listed on an AIS database) the representative species is/are unlikely to establish in the Arctic (e.g., tropical/subtropical), or, if listed as introduced to an area with similar conditions, the species is cryptogenic to the area of potential introduction,

AND

- not showing invasive behaviours in Milne Inlet.

Moderate risk: A species is considered to be “Moderate Risk” if it is:

- not reported to be present in the Canadian Arctic, or reported with high uncertainty

AND

- capable of using shipping vectors

AND

- listed as an AIS in other areas, with no potentially serious behaviours reported in ecosystems similar to Milne Port

AND

- has shown no invasive behaviours in Milne Inlet

High risk: A species is considered to be “High Risk” if it is:

- not reported to be present in the Canadian Arctic, or reported with high uncertainty

AND

- capable of using shipping vectors

AND

- listed as an AIS in other areas

AND

- well-documented as having potentially serious invasive behaviours in ecosystems similar to Milne Inlet, and/or has shown invasive behaviours in Milne Inlet.

Taxa placed on the Watch List include taxa that have met the criteria for Low-, Moderate- and High-risk taxa as defined above. Additionally, taxa may be placed on the Watch List as a precaution if they require more supportive data, e.g., to confirm their identity or determine population trends. Should High-risk taxa be identified that are considered potentially introduced via Project shipping activities, they would be added to the Trigger List (a list of species that "trigger" development of a Rapid Response Plan outlining responsive actions that will be species-specific and proportional to the risk). The literature review for the species is repeated annually for all Moderate and High Risk taxa on the Watch List and Trigger List, and for Low Risk Taxa in years where additional specimens are identified, to update information on the taxa. The collection data for each taxon are reviewed for indications of potential changes in population size or dispersal within Milne Port, and the status of the species on the relevant list is reevaluated. This may result in no change in status, a change in risk level, removal from the Watch List, or placement on the Trigger List.

The 2024 surveys resulted in 54 new additions to the taxonomic inventory for Milne Inlet (i.e., taxa that had not been observed in previous surveys). The majority of new taxa had records of occurrence in the Canadian Arctic or described ranges that were likely to include the Project area. However, directed literature review of newly observed taxa in 2024 resulted in five taxa being added to the Project Watch List for increased monitoring effort:

- The polychaete *Chaetozone anasima* was identified in benthic samples and flagged for review due to the lack of a range description that included the Eastern Canadian Arctic. The genus *Chaetozone* has regularly been detected in Milne Inlet since baseline studies complex but recent taxonomic publications have allowed further resolution of some species. The specimens collected in 2024 and identified as *Chaetozone anasima* may represent a refining of the previous identification, rather than a new identification for Milne Port. *Chaetozone anasima* was placed on the Watch List as Low Risk as a precautionary measure.
- The green filamentous algae *Chaetomorpha* sp. 3GWS is an undescribed taxon initially sequenced from samples collected in Maine. No further information is available for this taxon, and it was precautionarily placed on the Watch List as a Low Risk taxon.
- Molecular examination of Milne Port algae specimens indicated the presence of *Desmarestia ligulata* however, the identification was flagged as a potential laboratory contamination. No records of this species exist in the Canadian Arctic, and it is present on at least one AIS database, and therefore this species was placed on the Watch List as a Low Risk taxon as a precautionary measure.
- Sequences generated from scrapings of settlement substrates and rocks and were tentatively matched to *Antithamnion sparsum*, an Asian species that is considered NIS to Nova Scotia and does not have an Arctic range on record. Due to the method of sample collection, morphological confirmation could not be made. The lab considered these results as a potential false positive, however, *Antithamnion* cf. *sparsum* was precautionarily flagged for further review and was placed on the Watch List as a Low Risk taxon.

- A scraping from a settlement plate was a genetic match to *Polysiphonia kapraunii*, which is a recently described species from North Carolina. Genetic work reveals some uncertainty in the taxonomic designation, indicating that it forms a clade with at least one closely related species with a broader range, and may not be its own species. While the identification in 2024 was not considered a false positive, the result was flagged as uncertain due to the method being limited in distinguishing between closely related species. Due to the lack of a range description that includes Arctic waters, *Polysiphonia kapraunii* was flagged for further review and was placed on the Watch List as a Low Risk taxon as a precaution

Additionally, NIS/AIS monitoring in 2024 collected one species that was placed on the Watch List in previous years due to uncertainties in its natural range and because it was listed in an existing AIS database (the polychaete *Paramphitrite birulai*). This species had been previously sent for independent verification with a specialist and the newly collected specimens were not submitted for additional taxonomic confirmation given the taxon had been previously confirmed. Distribution and abundance of *P. birulai* collected in 2024 were compared to previous years and there were no meaningful trends in abundance or distribution since the taxon was first observed in Milne Port that may signal the onset of invasive behaviours. No change in the status of this taxon on the Watch List was recommended. No taxa were removed from the Watch List in 2024.

Invertebrate specimens representing target taxa, including *Marenzelleria* sp., tunicates, and bryozoans collected for DNA in 2023 were sent to CCDB for sequencing. Results for *Marenzelleria* sp. were a match to unidentified sequences from a presumed *Spio* sp., however the phylogenetic tree placed the Milne Port specimens closer to *Marenzelleria* than to *Spio*. The taxonomic laboratory indicated this may be a result of a misidentified reference specimen in the CCDB database. The Milne Port sequences were closely matched to specimens collected from Svalbard in 2018 and from Churchill in 2008. The close genetic match to specimens collected in the eastern Canadian Arctic/subarctic prior to Project operations suggest that these Milne Port specimens would not represent a taxon of concern for Milne Port regardless of a confirmed identification of *Spio* sp. or *Marenzelleria* sp. DNA sequencing of tunicate specimens resulted in the identification of two species: *Ascidia callosa* and *Boltenia echinata. Ascidia callosa and Boltenia echinata* have been documented in the Eastern Canadian Arctic and previously in Milne Port, including in baseline surveys.

While NextGen Sequencing was able to generate sequences for five of the bryozoan specimens, results were inconclusive, reflecting limitations in the methods and with DNA identification for Arctic bryozoans. As a result, no specimens were able to be resolved further than the phylum level and the comparative taxa are not considered potential identifications for Milne Port.

The Watch List now consists of thirteen taxa and there are no species on the Trigger List.

The Baffinland NIS/AIS monitoring program represents the most comprehensive monitoring program for NIS/AIS conducted by a marine port in Canada. Approximately 1,204 taxa have been identified in Milne Inlet through monitoring to date, which includes 499 unique macroflora, zooplankton, benthic invertebrates, and fish species. The identification and risk assessment of individual taxa out of the hundreds identified in Milne Inlet indicated this surveillance program was effective and functioning as intended. The majority of these taxa have been designated as "No Risk" and are not considered to be of concern.

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2024 ᖃᖏᕐᐊᓂ ᑐᓴᓴᕐᓂᒃ ᑕᕆᐅᔨᑦ ᐊᓂᒍᕆᔨᓄᑦ ᐊᓇᑐᐃᓂᓄᑦ ᖃᐅᔨᓴᖅᓯᕐᓚᐊᖏᓐᓇᖅ ᕿᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ(MEEMP) and ᑕᒫᓂᕐᒥᐅᑕᐅᖏᑦᑐᑦ ᐅᒪᔪᑦ(NIS) / ᑎᑭᔨᔨᓇᑦᑐᑦ ᐅᒪᔪᓂᒡᓗᑦ (AIS) ᖃᐅᔨᓴᖅᓯᕐᓚᐊᖏᓐᓇᖅ ᕿᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ

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360 ᐅᖅᐃᐅᓪ ᐃᓂᖓ ᐊᖅᑐᑦ, ᑎᑎᕐᕋᐃᖅ 300
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CA0026317.6821-053-R-Rev0-86000

ᐊᐃᕐᓚᓪ 24, 2025

ᐊᐅᓚᑦᑎᔨᓂᖔᖅᑐᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ

ᐹᕝᕙᓪᓕᓐ ᓴᕕᒃᓴᓂᒃ ᐅᔭᕋᖕᓂᐊᖅᑏᑦ ᑯᐊᐳᕇᓴᖓ (ᐹᕝᕙᓪᓕᓐ) ᓇᖕᒥᓂᖃᖅᑐᑦ ᐊᐅᓚᑦᑎᓪᓗᑎᓪᓗ ᐃᑎᖅᓴᓕᐊᒥᒃ ᓴᕕᒃᓴᓂᒃ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒥ (ᐱᓕᕆᐊᖅ) ᐃᓂᖃᖅᐳᓂ ᕿᑭᖅᑕᓂ ᓄᓇᖁᑖᓂ ᐅᐊᖕᓇᖕᓂ ᕿᑭᖅᑖᓘᑉ, ᓄᓇᕗᒻᒥ, ᒪᓕᒃᐳᑎᒃ ᑕᐃᒎᓯᕐᓂᒃ ᒪᓕᒋᐊᓕᖕᓂᒃ ᐅᔭᕋᖕᓂᐊᕈᓐᓇᐅᑎᒥ (PC) ᓈᓴᐅᑖ 005. ᓴᕕᒃᓴᖅ ᐅᓯᔭᐅᖃᑦᑕᖅᑐᑦ ᓂᐅᕐᕈᓯᕐᕕᖕᒍᑦ ᓯᑯᖃᙱᑎᓪᓗᒍ ᓵᑕᖅᑕᐅᓯᒪᔪᑎᒍᑦ ᐅᒥᐊᕐᔪᐊᑎᒍᑦ ᐅᓯᓕᖅᑕᐅᕙᒃᑐᑦ ᓴᕕᒃᓴᓂᒃ ᕿᙵᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ, ᐃᓂᖃᖅᑐᑦ ᕿᙵᖕᓕᓂ ᕿᙵᐊᑕ ᐱᓇᖕᓇᔾᔭᖕᓕᓂ ᐃᓯᐊᓂ ᑕᓯᐅᔭᐅᑉ. ᐅᒥᐊᕐᔪᐊᖃᖃᑦᑕᓯᒋᐊᓚᐅᖅᑐᑦ 2015-ᒥ ᐊᒻᒪᓗ ᓂᕆᐅᔾᔨᐅᓪᓗᓂ ᑲᔪᓯᓂᐊᕐᓂᖕᓂᒃ ᐅᔭᕋᖕᓂᐊᕐᓂᓗᒃᑖᖑᓂᖕᓂ (20+ ᐊᕐᕌᒍᐃᑦ).

ᐃᓚᒋᔭᐅᓪᓗᓂ ᒪᓕᒐᓕᕆᓂᕐᒧᑦ ᐱᓂᐊᕐᓂᕋᕈᑎᓂ, ᐹᕝᕙᓪᓕᓐᑯᑦ ᐱᕝᕙᓕᐊᑎᑦᑎᓯᒪᔪᑦ ᐊᑐᓕᖅᑎᑦᑎᓯᒪᓪᓗᑎᓪᓗ ᐊᒥᓱᓕᓚᖕᓂᒃ-ᑯᕆᐊᕈᑎᓂᒃ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂᒃ (MEEMP). ᑖᓇ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ (MEEMP) ᐋᖅᑭᒃᓯᒪᔪᖅ ᖃᐅᔨᓴᖃᑦᑕᕐᑯᓗᒋᑦ ᐱᑕᖃᑐᐃᓇᓇᐊᓕᖕᓂᒃ ᐱᓕᕆᐊᒧᑦ-ᐊᒃᑐᐊᔪᓂᒃ ᐊᒃᑐᐃᓂᕐᓂᒃ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓂ ᒥᒃᓴᐅᓴᒃᑕᐅᓯᒪᑎᓪᓗᒋᑦ ᑕᐃᑲᓂ ᑭᖑᓪᓕᖅᐹᒥᑦ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐊᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓂ (FEIS) ᐊᒻᒪᓗ ᑭᖑᓪᓕᖅᐹᒥᑦ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐊᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᑦ (FEIS) ᐅᐃᒍᓕᓂ (ᐹᕝᕙᓪᓕᓐ 2012, 2013). ᑖᓇ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ (MEEMP) ᐱᖁᔭᐅᔾᔨᔪᖅ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒥᒃ ᑕᕆᐅᐸ ᐃᒪᖕᒥᓂᒃ ᐃᓱᕐᓂᐅᐸ ᖃᓄᐃᑦᑑᓂᖕᒥᓂᒃ, ᑕᕆᐅᒥ ᕿᒥᕐᓗᖃᙱᑦᑐᑦ ᑯᒪᕈᕋᓛᓂᒃ, ᑕᕆᐅᒥ ᐱᕈᖅᑐᓂᒃ, ᐃᖃᓗᖕᓂᒃ ᐊᒻᒪᓗ ᐃᖃᓗᐃᑦ ᓇᔪᒐᖕᒋᓇᓂᒃ. ᖃᐅᔨᓴᕐᑲᓐᓂᕐᓂᕐᒧᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᑦ (ᐊᕙᑎᓕᕆᓃᑯᑦ ᑲᓇᑕᒥ 2012) ᐊᒻᒪᓗ ᐱᖁᔭᐅᔾᔨᓯᒪᓪᓗᓂ ᓈᓴᐅᓯᕆᔾᔪᑎᓄᑦ ᐊᑐᖅᑕᐅᓇᓱᐊᖅᑐᓂᒃ ᖃᐅᔨᓴᐅᕐᑯᓗᒋᑦ ᐱᑕᖃᑐᐃᓇᓇᐊᓖᑦ ᐱᓕᕆᐊᒥ-ᓴᖅᑭᑕᐅᔪᑦ ᐊᒃᑐᐃᓃᑦ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ. ᑕᓖᓂᕐᒥᐅᑕᙳᕆᑦᑐᑦ ᐆᒪᔪᕋᓛᑦ ᐊᔾᔨᕚᙱᕆᐊᕐᔪᒃᑐᑦ/ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᓂᒃ (NIS/AIS) ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᖅ ᐃᓚᒋᔭᐅᔪᖅ ᐃᓗᓕᖕᒋᓇᓂ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ (MEEMP) ᐊᒻᒪᓗ ᐋᖅᑭᒃᓯᒪᓪᓗᓂ ᑲᒪᒋᔭᐅᕐᑯᓗᒋᑦ ᐅᓗᕆᐊᓇᑐᐃᓇᓇᐊᓖᑦ ᐆᒪᔪᑦ ᐊᔾᔨᕚᙱᕆᐊᕐᔪᒃᑐᑦ ᓴᖅᑭᓪᓗᑎᒃ ᑕᕆᐅᐸ ᐅᒥᐊᕐᔪᐊᑦ ᐃᒥᖕᒋᓂ ᐃᒃᑕᖅᑯᑕᐅᕝᕕᒥ ᐊᒻᒪᓗ ᓯᕗᓂᐊᓂ ᓂᐳᖃᑦᑕᖅᑐᓂ.

ᑖᓇ ᐅᓂᒃᑳᖅ ᓴᖅᑮᔪᖅ ᖃᐅᔨᓴᐅᔪᓂᒃ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ (MEEMP) ᐊᒻᒪᓗ ᑕᓖᓂᕐᒥᐅᑕᙳᕆᑦᑐᑦ ᐆᒪᔪᕋᓛᑦ ᐊᔾᔨᕚᙱᕆᐊᕐᔪᒃᑐᑦ/ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᓂᒃ (NIS/AIS) ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖑᔪᓯᒪᔪᑦ ᕿᙵᐊᓂ 2024-ᒥ ᓯᑯᖃᙱᑎᓪᓗᒍ ᓯᓚᒥ ᐱᓕᕆᓇᒥ, ᖁᓕᓂᑦ ᐊᕐᕌᒍᓂ ᑭᖑᓕᕇᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᖅᑎᓪᓗᒋᑦ.

ᑕᕆᐅᐸ ᐃᒪᖓ ᖃᓄᐃᑦᑑᓂᖓ (ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 2.0)

ᑕᕆᐅᐸ ᐃᒪᖓ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᐃᓗᓕᖕᒋᓐ ᑕᐃᑲᓂ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ (MEEMP) ᐱᖁᔭᐅᔾᔨᔪᖅ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒥᒃ ᐃᒪᖓ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᕿᑐᕐᖓᓂ ᑯᕕᓯᕚᐅᔪᕐᒥ ᓇᓗᓇᐃᖅᑕᐅᕐᑯᓗᒋᑦ ᑕᒪᒃᑯᐊ ᐃᓂᒥ ᑯᕕᓯᓃᑦ ᒪᓕᖕᓂᖕᒋᓐᓄᑦ ᐱᑕᖃᕆᐊᓕᖕᓄᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᓂ ᖃᓄᐃᑦᑑᓂᖓ ᐃ ᐃᒥᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᐊᒻᒪᓗ ᓈᒻᒪᒃᓗᑎᒃ ᐅᔭᕋᖕᓂᐊᕈᓐᓇᐅᑎᒥ (PC) ᒪᓕᒃᑕᐅᔭᕆᐊᓖᑦ 76, 83(ᐃ), 87, 89 ᐊᒻᒪᓗ 99(ᐃ). ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᖃᐅᔨᓴᕚᒃᓴᑦ ᑲᑎᑕᐅᓯᒪᔪᑦ ᑎᓴᒪᓂ ᖃᐅᔨᓴᕚᒃᓴᓕᐅᕐᕕᖕᓂ ᕿᑐᕐᖓᓂ ᑰᓚᓛᖕᓂ ᑯᕕᓯᕚᐅᓗᐊᑕᖅᑐᒥ (MP-05), ᐊᒻᒪᓗᑦᑕᐅᖅ ᑎᓴᒪᓂ ᖃᐅᔨᓴᕚᒃᓴᓕᐅᕐᕕᖕᓂ ᑰᓚᓛᖕᓂ ᑭᖑᓪᓕᖅ ᑯᕕᓯᕚᐅᔪᒃᑐᖅ (MP-06) ᕿᑐᕐᖓᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ. ᑕᒪᒃᑯᐊ ᑯᕕᓯᕚᐅᔪᒃᑐᑦ ᐊᕙᑎᖕᒋᓐ ᖃᐅᔨᓴᖅᑳᑦ ᐃᓕᐅᖅᑲᖅᑕᐅᓯᒪᔪᑦ ᐋᖅᑭᒃᓯᒪᓪᓗᑎᒃ ᐊᖕᒪᓗᖅᑐᑎᑐᑦ ᐅᖓᓯᒌᖕᓂᖅᑳᖅᓗᑎᒃ 250 ᒦᑕᐸᓗᖕᓂᒃ ᐃᒻᒥᖕᓄᑦ ᑯᕕᓯᕚᐅᔪᒃᑐᓂ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᖅᑕᐅᕐᑯᓗᖕᒋᑦ ᐊᓯᔾᔨᑐᐃᓇᓇᐊᓖᑦ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖕᓂᒃ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒥ ᑯᕕᓯᖃᑦᑕᕐᓂᕐᓂᑦ ᐊᒻᒪ ᐊᐅᓚᓂᕐᓂᑦ ᑯᕕᓯᓂᐅᔪᓂ, ᐱᖁᔭᐅᑎᓪᓗᒋᑦ ᓴᕕᒃᓴᓂᒃ ᑲᑎᖅᓱᐃᕝᕕᖕᒥ ᐊᐅᒃᐸᓪᓕᐊᔪᑦ.

2024-ᒥ, ᐅᖃᐅᓯᐅᓯᒪᔪᑦ ᓈᓴᐅᓯᕆᓂᕐᒥ ᖃᐅᔨᓴᐅᔪᑦ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑭᒡᓕᐅᔪᓄᑦ (ᓲᕐᓗ ᐆᒻᒥᖅᑯᑎᖃᓗᐊᕐᓃᑦ, ᓂᕿᑦᑎᐊᕙᑦ, ᓴᕕᕋᔭᑦ, ᐅᖅᓱᐊᓗᒃᓴᓃᑦ, ᐊᒻᒪᓗ ᐅᖅᓱᐊᓗᒃᓴᓃᑦ [PAHs]) ᐃᓗᐊᓃᑦᑐᐃᓇᐅᓚᐅᖅᑐᑦ ᐅᔾᔨᕆᔭᐅᓯᒪᔪᓂ ᑭᖑᓂᖕᒋᑦᑎᓐᓂ ᑕᕆᐅᐸ ᐊᕙᑎᖕᒥᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖕᒋᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ (MEEMP) ᖃᐅᔨᓴᕚᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂᑦ (2015-ᒥ 2023-ᒧᑦ). ᐃᒪᐃᓐᓂᓗ, ᐊᖏᔪᖅ ᐃᓚᖏᓐᓂ ᑭᒡᓕᐅᔪᓂ ᕿᒥᕐᕈᔭᐅᔪᑦ ᐃᒪᖅ ᖃᐅᔨᓴᕚᒃᓴᓕᐅᖅᑕᐅᓯᒪᔪᓂ ᕿᑐᕐᖓᓂ ᖃᐅᔨᓴᐅᔪᖃᓚᐅᙱᑦᑐᖅ ᐊᑦᑕᕐᓂᖅᑐᓂ ᑰᒃᑐᓂ ᖃᐅᔨᓴᕚᒃᓴᓕᐅᕐᕕᐅᔪᓂ. ᑭᒡᓕᐅᔪᓗᒃᑖᑦ ᑐᖕᓕᓃᓚᐅᖅᑐᑦ ᐊᒃᑐᐊᔪᑦ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖕᓂᒃ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᑦ (ᓲᕐᓗ ᑲᓇᑕᒥ ᑲᑎᒪᔩᑦ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᖃᐅᔨᒪᔾᔪᑏᑦ; CCME WQGs).

ᐃᓅᓐᓇᑎᒃ, ᐆᒃᑐᕋᖅᑕᐅᓯᒪᔪᑦ ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᓴᕕᕋᔾᔪᑦ, ᓂᕿᑦᑎᐊᕙᑦ, ᐅᖅᓱᐊᓗᒃᓴᑦ ᖃᐅᔨᓴᐅᔪᖃᑕᐅᙱᑦᑐᖅ ᐅᕝᕙᓘᓐᓃᑦ ᐱᑕᖃᑕᐅᙱᑦᑐᖅ ᐱᑕᖄᕐᔪᒃᑐᓂᓪᓘᓐᓃᑦ, ᓖᕐᓗ ᐊᒃᑐᐃᓂᕐᓗᓐᓃᑦ ᐆᒪᔪᖃᕐᕕᐅᔪᓂ ᕿᙵᐊᓂ ᑰᕕᓯᕗᕕᐅᕙᒃᑐᒥ ᑕᐃᒪᐃᓐᓇᔭᙱᑦᑐᒃᓴᐅᔪᑦ. ᓴᕕᒃᓴᖃᓇᐊᓪᓚᓕᕐᓂᖓ ᑕᒪᐅᑉ ᐊᕙᑎᖓ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐱᓕᕆᐊᒥ ᐱᓕᕆᓃᑦ ᐱᔪᒥᒋᓴᐅᓪᓗᐊᑕᖅᑐᑦ ᓄᓇᖃᖅᑐᓂ ᐃᓄᖕᓂ. ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᑲᓇᑕᒥ ᑲᑎᒪᔩᑦ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ (CCME) ᑕᕝᕙᓂ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᖃᐅᔨᓴᔾᔪᑏᑦ (WQG) ᓴᕕᒃᓴᓄᑦ ᐱᕙᓪᓕᐊᑎᑕᐅᓯᒪᙱᑦᑐᖅ. 2023-ᒥ ᑎᑎᖅᑲᖁᑏᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᖕᒪᖔᑕ ᓴᕕᒃᓴᑦ ᑎᑎᖅᑲᖁᑎᖏᓐᓄᑦ ᑲᑎᑕᐅᓯᒪᔪ ᑭᖑᓂᖓᑦᑎᓐᓂ ᑕᕝᕙᐅᖅ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ (MEEMP) (2017-ᒥᑦ 2022-ᒧᑦ) ᖃᐅᔨᓴᖅᑕᐅᖁᓪᓗᒋᑦ ᐅᔭᕋᖕᓂᐊᕆᐊᓪᓚᖓᓂᖅ ᕿᙵᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᐊᒃᑐᐊᓂᖃᕐᒪᖔᑦ ᓴᕕᒃᓴᖃᕐᓂᖅᓴᐅᓕᕐᓂᕐᒧᑦ. ᑲᑎᙵᓕᑦ ᓴᕕᒃᓴᖃᕐᓃᑦ ᑕᕝᕙᐅᖅ ᐃᒪᖓᓂ ᖃᐅᔨᓴᓚᒃᓴᓕᐅᕐᓂᕐᒥ ᑲᑎᑕᐅᔪᑦ 2023-ᒥ ᑐᓴᕐᓂᓚᐅᖅᑐᑦ ᐱᑕᖃᕐᕕᐅᔪᒧᑦ ᐆᒃᑐᕋᖅᑕᐅᓯᒪᔪᑦ ᑭᖑᓂᖓᑦᑎᓐᓂ ᐊᕋᒍᓂ ᑐᕕᓯᕗᕕᐅᕙᒃᑐᒥ ᑕᐃᑲᓂ MP-05-ᒥ ᐊᒻᒪᓗ MP-06-ᒥ ᑰᕕᓯᕗᕕᐅᕙᒃᑐᓂ. ᑖᖕᒋᖅᑭᓐᓂᖅᑐᑦ ᓴᑯᒃᓴᖅᑲᕐᕕᐅᔪᒥ ᑐᓴᕐᓂᓚᐅᖅᑐᑦ ᖃᐅᔨᓴᐅᖃᑦᑕᕐᓂᕐᒧᑦ ᑭᓪᓕᐅᔪᓄᑦ ᐊᑐᓂ ᖃᐅᔨᓴᓚᒃᓴᓂ ᑲᑎᑕᐅᔪᓂ 2023-ᒥ, ᑐᑭᑖᖅᓯᒪᓪᓗᓂ ᐊᒥᓲᓂᖅᓴᑦ ᖃᐅᔨᓴᐅᔪᓐᓇᖅᑐᑦ ᓴᕕᒃᓴᖃᕐᓃᑦ ᐱᔾᔪᑕᐅᓚᐅᖅᑐᑦ ᒥᑭᔪᕋᓛᒃᑯᑦ ᐊᒻᒪᓗ ᑎᒥᒧᐊᑭᓐᓇᕐᓂᖏᑦ ᐃᒪᕐᒥᐅᑕᓂ ᐆᒪᔪᖃᕐᕕᐅᔪᓂ.

ᖃᐅᔨᓴᐅᔪᑦ ᖃᓄᐃᓕᕙᓪᓕᐊᓂᓕᓴᐅᔪᓂᒃ ᖃᐅᔨᓴᕐᓂᕐᒥᒃ MP-05–ᒧᑦ ᓇᓗᓇᐃᖅᓯᓚᐅᖅᐳᖅ ᐅᓵᕐᓇᖅᑐᒻᒪᕆᖕᒥᒃ ᖃᓄᐃᓕᕙᓪᓕᐊᓂᕆᓴᐅᔪᒥᒃ ᑲᑎᕐᓗᒋᑦ ᓴᕕᒃᓴᐃᑦ ᐱᑕᖃᙱᓐᓂᖏᓐᓂᒃ. ᑕᒪᐃᑎᒎᑦ, 2024 MP-05 ᓈᓴᐅᑎᖏᑦ ᑐᙵᓂᓚᐅᖅᑐᑦ 2023–ᒥᓂᑦ ᐊᕐᕋᒎᓚᐅᖅᑐᓗᒃᑖᕐᐸᓗᖕᓂᓪᓗ. ᐊᕐᕋᒍᒥᑦ–ᐊᕐᕋᒍᒧᑦ ᐊᓯᔾᔨᕐᐸᓪᓕᐊᓂᖏᑦ ᓴᕕᒃᓴᓂᒃ ᐱᑕᖃᕐᕕᐅᔪᑦ ᐊᔾᔨᐅᖃᑦᑕᙱᑦᑐᑦ ᐊᒥᓲᔪᓐᓃᖅᐹᓪᓕᐊᓪᓗᑎᒃ 25 ᐳᓴᓐᑎᒥᑦ ᐱᑕᖃᕐᓂᐅᔪᓂ 2023–ᒥ 2024–ᒥ ᐅᓄᖅᓯᕆᐊᖅᓯᒪᔪᑦ 12%–ᒥᒃ 2020-ᒥ ᐊᒻᒪ 2023-ᒥ. ᐱᑕᖃᕐᕕᐅᔪᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᒎᑦ 2023-ᒥ 2024-ᒥ ᐊᔾᔨᐸᓗᒋᓚᐅᖅᐸᖏᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᓄᑦ 2019–ᒥ ᐊᒻᒪ 2020–ᒥ.

ᖃᐅᔨᓴᐅᔪᑦ ᖃᓄᐃᓕᕙᓪᓕᐊᓂᓕᓴᐅᔪᓂᑦ ᕿᒥᕐᕈᓂᕐᒥ MP-06-ᒧᑦ ᓇᓗᓇᐃᖅᓯᓚᐅᖅᐳᖅ ᐊᖏᔪᑳᓪᓚᖕᒥᒃ ᐊᔾᔨᒌᙱᓐᓂᖅᑕᖃᕐᓂᖓᓂᒃ ᑲᑎᕐᓗᒋᑦ ᓴᕕᒃᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᓐᓂ ᐊᕐᕋᒎᔅᓴᖅᑐᓂ. ᑲᑎᕐᓗᒋᑦ ᓴᕕᒃᓴᐃᑦ ᐱᑕᖃᕐᓂᖏᓐᓂ MP-06 ENE ᖃᐅᔨᓴᕐᕕᐊᓂ ᖁᑦᑎᖕᓂᖅᓴᓪᓚᑕᐅᓚᐅᖅᐳᑦ (600% ᐅᓄᖅᓯᕆᐊᖅᑐᑦ) 2024–ᒥ ᒥᒃᓴᐅᓪᓗᒋᑦ 2024–ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᒋᑦ 2023-ᒧᑦ, ᑭᓯᐊᓂ, ᐱᔾᔪᑕᐅᓚᐅᖅᐳᖅ ᐅᓄᙱᖢᐊᕐᓂᖏᓐᓄᑦ ᓈᓴᐅᑏᖏᑦ ᑎᑎᕋᖅᑕᐅᓚᐅᖅᑐᑦ 2023–ᒥ ᐊᒻᒪ ᐊᔾᔨᒌᙱᑦᑕᕐᔪᐊᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕈᑏᑦ ᐊᓯᖏᓐᓄᑦ ᐊᕐᕋᒍᓄᑦ. ᐅᔾᔨᕐᓇᕐᔪᐊᖅᑐᓂᒃ ᓛᓐᓇᓚᐅᑲᒃ ᐊᔾᔨᒌᙱᓐᓂᐅᔪᓂᒃ ᓇᓂᓯᔪᖃᑕᐅᙱᑦᑐᖅ ᐊᒥᐊᒃᑯᓄᑦ ᐱᖓᓱᓂ ᐱᓕᕆᐊᕕᖕᓄᑦ, ᐊᒻᒪ 2024–ᒥ ᓈᓴᐅᑏᑦ ᐊᔾᔨᐸᓗᒋᓪᓗᓂᒋᑦ ᐊᑦᑎᖕᓂᖅᓴᐅᓗᑎᓪᓗᓐᓃᑦ ᑭᖑᓂᖓᑦᑎᓐᓂ ᐊᕐᕋᒍᓂ.

2024–ᒥᑦ ᖃᐅᔨᓴᓚᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ, ᓈᓴᐅᑕᐅᓚᔪᒃᑐᖅ ᑲᑎᕐᓗᒋᑦ ᑲᓐᓄᔪᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ ᐃᒪᓐᓇᑎᒋᐅᓚᐅᖅᑐᑦ 3.0 μg/L, 2.5–ᖏᖅᑯᓪᓗᐊᖅᑐᒥᑦ ᐊᒥᒎᓂᖅᓴᐅᓚᐅᖅᑐᑦ 2023–ᒥᑦ (1.2 μg/L), ᐊᑦᑎᖕᓂᖅᓴᐅᓗᑎᒃ 2022–ᒥᑦ (3.5 μg/L). 2024–ᒥ, ᑲᑎᕐᓗᒋᑦ ᑲᓐᓄᔭᐃᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐃᒻᒪᓂᓴᕐᐃᑦ ᖃᓄᐃᓕᖕᓚᕙᖕᓂᖏᓐᓄᑦ ᐃᓗᐊᓃᓚᐅᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᔪᓂᑦ ᑲᑎᓯᒪᔪᓂᑦ. ᐊᖏᓛᖓ ᑲᑎᕐᓗᒋᑦ ᑲᓐᓄᔭᐃᑦ (20.1 μg/L) ᐆᒃᑐᕋᖅᑕᐅᓚᐅᖅᑐᑦ MP-06-ᒥᑦ ᔪᓚᐃ 30, 2024-ᒥᑦ. ᑖᓐᓇ ᐊᖏᓛᖑᔪᖅ ᐃᒪᓐᓇᐸᓗᒃ 4.5-ᖏᖅᑯᕐᓗᓂ ᐊᖏᓂᖅᓴᐅᓚᐅᖅᑐᖅ 2023 ᐊᖏᓛᖑᓪᓗᓂ 4.5 μg/L, ᑭᓯᐊᓂᓕ ᑖᖕᒋᖅᑭᓐᓂᖅᓯᒪᔪᑦ ᑲᓐᓄᔭᐃᑦ ᑲᑎᓯᒪᔪᑦ ᑕᐃᑲᙵᑦᑕᐃᓐᓇᖅ ᖃᐅᔨᓴᓚᒃᓴᒥᑦ 20-ᖏᖅᑯᕐᓗᓂ ᐊᑦᑎᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᑲᑎᑎᓯᒪᔪᓄᑦ 1.04 μg/L, ᑐᑭᖃᖅᑐᖅ ᐅᓄᕐᓂᖅᓴᑦ ᖃᐅᔨᓴᐅᔪᓐᓇᖅᑐᑦ ᑲᓐᓄᔭᐃᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ ᐊᐅᓚᑕᐅᓗᑎᒃ ᐃᓚᐅᕈᑎᓕᖕᒥᑦ ᐱᑕᖃᙱᓐᓂᖅᓴᐅᓗᓂ ᑕᒪᒃᑯᓄᖓ ᐃᒫᓃᓲᓂ ᐆᒪᔪᓂᙳᖅᑐᓂ. ᐊᒻᒪ ᓱᓕ, ᑖᖕᒋᖅᑭᓐᓂᖅᓯᒪᔪᑦ ᑲᓐᓄᔭᐃᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ ᑐᙵᓂᓚᐅᖅᑐᑦ ᖃᐅᔨᓴᐅᔪᓐᓇᖅᑐᓄᑦ ᑭᓪᓕᐅᔪᓄᑦ 31–ᓂᑦ 40-ᐅᔪᓂᑦ ᖃᐅᔨᓴᓚᒃᓴᓂᑦ ᓄᐊᑕᐅᔪᓂᑦ.

ᖃᐅᔨᓴᐅᔪᑦ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᕿᒥᕐᕈᓃᑦ ᖁᓛᓃᑦᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᑦ ᑖᒃᑯᓄᖓ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ᒪᓕᒃᑕᐅᕙᒃᑐᓄᑦ. 'ᐊᒃᐸᓯᒃᑐᑦ ᐅᓗᕆᐊᓇᕈᓇᕿᓃᑦ' ᖃᓄᐃᓕᔪᖅᖄᖅᑎᓇᒍ ᑭᓪᓕᐅᔪᑦ ᐱᒋᐊᖅᑎᑕᐅᓯᒪᙱᑦᑐᑦ 2024–ᒥ ᓯᖅᑲᐃᓪᒪ 30–ᓄᑦ ᐅᓪᓗᓄᑦ ᑐᑭᖃᕐᒪᑦ ᐊᑐᓂ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᓇᓗᓇᐃᖅᓯᔾᔪᑎᑦ ᑐᙵᓂᓚᐅᕐᒪᑕ 75% ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᓂ ᑲᓇᑕᒥ ᑲᑎᒪᔩᑦ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ (CCME) ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᕙᒃᑐᑦ ᓴᐳᔾᔭᐅᓯᒪᕐᖁᓪᓗᒋᑦ ᐃᒫᓂ ᐃᓅᓱᑦ.

ᐊᑕᖏᖅᑯᕐᒋᑦ, ᖃᐅᔨᓴᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐃᒪᓐᓇ, ᐅᓪᓗᒥᒧᑦ, ᐃᒥᖅ ᑰᕕᔭᐅᖃᑦᑕᖅᑐᖅ ᐅᔭᕋᖕᓂᐊᕐᕕᖓᒥ ᑕᕝᕙᐅᖅ ᐊᕙᑎᖓᓄᑦ ᑎᑭᐅᒪᔪᖅ ᐱᑕᖃᓇᐊᓂᖕᓄᑦ ᖃᓄᐃᑦᑑᓂᖓ ᐱ ᐃᒥᕐᒧᑦ ᓚᐃᓴᓐᓯᐅᔪᒧᑦ ᐊᒻᒪᓗ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑭᓪᓕᐅᔪᓄᑦ ᐱᑕᖃᕐᕕᐅᔪᑦ ᓱᓕ ᑐᙵᓂᑦᑐᑦ ᖃᓄᐃᓕᔪᖅᖄᖅᑎᓇᒍ ᑭᓪᓕᐅᔪᓄᑦ ᓯᕋᐃᓇᔭᖅᑐᓄᑦ ᑕᕝᕙᒥ ᐆᒪᔪᖃᕐᕕᐅᔪᒥ. ᓯᕗᓪᓕᐊᒃᐸᓪᓕᐊᑎᓪᓗᑕ, ᒪᓖᓐᓇᕐᓂᕐᒧᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᓄᑦ ᐃᒪᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᐊᑐᓕᕐᖁᔭᐅᓯᒪᔪᑦ.

ᐃᒫᓂᒥ ᐃᓱᕐᓃᑦ ᖃᓄᐃᑦᑑᓂᖏᑦ (ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 3.0)

ᐃᓱᕐᓂᕐᒥ ᖃᐅᔨᓴᖅᓯᓚᐅᕐᓃᑦ ᕿᒻᒧᐊᓂᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᖅ ᓈᒻᒪᕐᑯᓪᓗᒋᑦ ᐅᔭᕋᖕᓂᐊᕈᓐᓇᐅᑎᒥ ᒪᓕᒃᑕᐅᔪᑎᐊᓖᑦ ᓈᓴᐅᑖ 83(ᐃ) ᐊᒻᒪᓗ 99(ᐃ). 2024–ᒥ, ᐱᓗᐊᕈᓐᓃᖅᓯᒪᔪᑦ ᐃᓱᕐᓃᑦ ᖃᓄᐃᑦᑑᓂᖏᑦ ᐊᒻᒪ ᐃᖅᑲᕐᒥᐅᑕᑦ ᐆᒪᔪᓂᒃ ᖃᐅᔨᓴᖅᓯᓚᐅᕐᓂᖅ ᐱᓕᕆᐊᖑᓚᐅᖅᐳᖅ. ᐊᑕᖐᓯᓚᔪᖅ ᑲᑐᑦᔾᔨᖃᑎᒌᖕᓂᒃᑯᑦ ᕿᑎᐊᓂᑦ ᓯᓚᒻᒧᖔᖅ ᐃᖅᑲᖓᓂ ᐊᒻᒪ ᐃᓱᕐᓂᕐᒥᒃ ᖃᐅᔨᓴᖅᓯᓚᐅᕐᓂᒧᑦ ᐱᓕᕆᐊᖅ, ᐱᑕᖃᕐᕕᐅᔪᖅ 60-ᓂᒃ ᖃᐅᔨᓴᕐᕕᖕᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᖅᑕᐅᔪᓂᒃ ᐊᕐᕌᒍᓄᑦ-ᐱᖓᓱᓄᑦ ᐋᖅᑭᒃᓯᒪᕚᒃᑐᑦ, ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ 2023-ᒥ, ᐊᒻᒪ ᐊᑐᓕᖅᑎᑕᐅᓂᐊᖅᓱᑎᒃ 2026-ᒥ.

2024–ᒥ ᐃᓱᕐᓂᒃᒧᖅ (ᐊᒻᒪᓗ ᐃᖅᑲᕐᒥᐅᑕᑦ ᐆᒪᔪᑦ) ᐱᓕᕆᐊᖅ ᐱᔾᔪᑎᖃᓪᓗᐊᑕᓚᐅᖅᐳᑦ 8–ᓂᒃ ᐊᖏᔪᕐᔪᐊᓂᒃ ᐅᒥᐊᕐᔪᐊᓂᑦ ᖃᐅᔨᓴᕐᕕᖕᓂ (SW-1–ᒥ SW-4–ᒧᑦ, SE18-1, SNW-1, SCV-1 ᐊᒻᒪ SCV-2) ᐋᖅᑭᒃᑕᐅᓚᐅᖅᓯᒪᔪᖅ 2023–ᒥ. ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᖃᐅᔨᓴᖅᓯᓄᑦ ᐱᓕᕆᐊᖅ ᐊᑐᓕᖅᑎᑕᐅᓚᐅᖅᐳᖅ ᖃᐅᔨᓴᖅᑕᐅᕐᑯᓪᓗᒋᑦ ᐊᒃᑐᐃᔾᔪᑕᐅᓗᑦ ᑭᓂᖅᑎᖅᑕᐅᔪᓄᑦ ᐊᒻᒪ ᐃᖅᑲᕐᒥᐅᑕᑦ ᐆᒪᔪᑦ ᐊᕐᕌᒍᓄᑦ ᐱᖓᓱᓄᑦ ᐊᑐᖅᑕᐅᓚᐅᖅᑎᓪᓗᒋᑦ ᐊᖏᔪᑦ (ᒥᑭᓂᖅᓵᕐᔪᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᖅ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ) ᓴᕝᒃᓴᓂᒃ ᐅᓯᔾᔨᑦ ᐅᑭᐊᒃᓵᒃᑯᑦ 2023–ᒥ. ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᒃᑐᖅᑕᐅᓂᖏᓐᓂᒃ ᖃᐅᔨᓴᕐᓂᖅ ᐱᒋᐊᓚᐅᖅᓯᒪᔫᖅ ᐋᒡᒌᓯ 2023–ᒥ (4-19 ᐋᒡᒌᓯ 2023) ᑐᕌᒐᖃᖅᓱᑎᒃ ᑎᑎᕋᖅᐸᓪᓕᐊᔪᒪᓪᓗᑎᒃ ᖃᓄᐃᓕᖓᓂᕆᔭᖏᓐᓂᒃ ᑭᓂᓗᐊᔾᔭᐃᒃᑯᑎᓂᒃ ᐊᑐᖅᑕᐅᓯᒋᐊᓚᐅᙱᓐᓂᖏᓐᓂᒃ ᐊᖏᓂᖅᓴᑦ ᓴᕝᒃᓯᕆᔾᔩᑦ. ᓯᕗᓪᓕᖅ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᖅ ᑎᑭᓚᐅᖅᑐᖅ ᕿᒻᒧᐊᑦ ᑐᓚᒃᑕᕐᕕᖕᒧᑦ 29 ᐋᖓᔅᑦ 2023–ᒥᑦ ᐱᐊᓂᒃᑕᐅᓚᐅᖅᑎᓪᓗᒍ 2023–ᒥᑦ ᖃᐅᔨᓴᖕᓂᖕᒧᑦ ᐱᓕᕆᐊᖅ. ᑲᑎᕐᓱᒋᑦ, ᑖᓪᓕᒪᓂᒃ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ (ᐃᓚᒋᔭᐅᓪᓗᓂ ᒥᑭᓂᖅᓵᕐᔪᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᖅ) ᐃᖏᕐᕋᑲᑕᓚᐅᖅᑐᑦ ᕿᒻᒧᐊᑦ ᑐᓚᒃᑕᕐᕕᖕᒧᑦ 2023–ᒥ. 2024–ᒥ, ᑭᒡᒐᖅᑐᐃᓪᓗᓂ ᐊᕐᕌᒍ 1–ᒥ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᐱᓕᕆᐊᖑᔪᒥ, ᖃᐅᔨᓴᕐᓃᑦ ᑎᒥᖏᓐᓂ ᐃᓚᐅᕈᑎᖏᑕᓗ ᖃᓄᐃᓕᖓᓂᖏᓐᓂᒃ ᐱᓕᕆᐊᖑᓚᐅᖅᐳᑦ ᖃᐅᔨᓴᖅᓯᓄᑦ ᑲᑎᑕᐅᔪᓄᑦ 8–ᓂᑦ ᐅᖓᑎᓕᖕᒥᑦ ᖃᐅᔨᓴᖅᓯᓂᑦ ᐃᓂᓂᑦ ᐃᓚᐅᕝᕕᐅᓪᓗᑎᒃ ᐊᖏᓂᖏᓐᓄᑦ, ᓴᕙᕋᔾᔨᖕᓄᑦ, ᓄᓇᒥᓗ ᐃᓂᒋᔭᐅᔪᓄᑦ ᑭᒡᓕᒋᔭᐅᔪᓄᑦ. ᐱᑕᖃᕐᓂᖏᑦ ᑭᓂᖅᑐᑦ ᐱᐅᓂᖏᓐᓄᑦ ᓇᓗᓇᐃᖅᓯᔾᔪᑏᑦ ᓇᓗᓇᐃᖅᑕᐅᓚᐅᖅᑐᑦ ᐊᑦᑎᓂᖅᓴᐅᓗᑎ ᐊᑐᐃᓐᓇᐅᔪᓂᑦ ᑭᓂᖅᑎᕈᑎᓂᑦ ᐱᐅᓂᖏᓐᓄᑦ ᐊᑐᐊᒐᕐᓂᑦ ᐊᒻᒪ ᑲᑎᑎᖅᓯᒪᔪᑦ ᐱᕈᖅᑐᐃᑦ ᑭᒡᓕᖏᑦ ᖃᐅᔨᔭᐅᓚᐅᖏᑦᑐᑦ ᖃᐅᔨᓴᖅᓯᓂᑦ.

ᑕᑯᒃᓴᐅᑎᑕᐅᓗᓂ ᓈᓴᐅᓯᕆᓂᒃᑯᑦ ᕿᒥᕐᕈᓂᒃᑯᑦ, ᐅᔾᔨᕐᓇᖅᑐᒻᒪᕆᖏᒃ ᐅᓄᕈᓃᕆᐊᖅᑐᖃᓚᐅᖅᐳᖅ ᐃᓚᖓᓄᑦ ᒥᑭᔪᕋᓛᑦ ᐃᓱᕐᓃᑦ ᑖᒃᑯᓇᓂ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐃᓂᖏᓐᓂ 2023 ᐊᒻᒪᓗ 2024. ᐊᔾᔨᒌᙱᑦᑕᕐᓂᖏᓐᓄᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐃᓱᕐᓃᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂ ᐃᓚᒋᔭᐅᓗᑎᒃ ᖃᖓᒃᑰᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕈᑏᑦ ᐳᔪᕋᕋᓛᓄᑦ ᓴᖅᑮᔭᖅᑎᑦᑎᔪᖅ ᑕᒪᒃᑯᐊ ᖃᐅᔨᓴᕐᕕᓗᒃᑖᐸᓗᑦ ᓴᖅᑮᔭᖅᑎᑦᑎᔪᑦ ᐃᓚᖓᓂᒃ ᐅᓄᕈᓃᖅᐸᓪᓕᕐᓂᐅᔪᓂᒃ ᒥᑭᔪᕋᓛᑦ ᐊᑯᓂᖓᓂ 2023 ᐊᒻᒪ 2024, ᐃᓚᖏᓐᓄᑦ ᖃᐅᔨᓴᕐᕕᖕᓄᑦ ᐅᕈᓃᓪᓚᑦᑖᕐᓂᐅᔪᑦ ᐳᓴᓐᑎᑦ ᒥᑭᔪᕋᓛᓂ ᐅᓄᙱᒃᑲᓗᐊᖅᑎᓪᓗᖏᑦ ᐊᒻᒪ ᓴᖅᑮᔭᖅᑎᑦᑎᔪᑦ ᖃᓄᐃᓕᕙᓪᓕᐊᖏᓐᓇᕐᓂᖏᑦ ᐅᓄᙱᑦᑐᑦ ᒥᑭᔪᕋᓛᑦ ᐃᓗᓕᖏᑦ ᓇᓗᓇᐃᕈᑎᖃᖅᑐᑦ 2024-ᖑᓚᐅᖅᑎᓇᒍ ᓴᖅᑮᔭᖅᑎᑦᑎᓕᓱᑎᓪᓗ ᐱᑕᖃᖅᐸᕇᖅᑐᓂᒃ ᑕᒪᑐᒧᖓ 2024-ᒥ ᕿᒥᕐᕈᓂᕐᒥ. ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᐅᓕᖏᑦ ᐊᒻᒪ ᐊᖑᑎᖏᓐᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᕚᒃᑐᓂᒃ ᕿᒥᕐᕈᓃᑦ (WSP 2023), ᑕᒪᓇ ᖃᐅᔨᓴᕐᓂᖅ ᓇᓚᐅᑦᑖᖅᑐᑦ ᐃᖅᑲᖓᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᔪᓄᑦ ᐊᒃᑐᐃᓃᑦ ᑖᓪᓕᒪᓂ ᐊᕐᕕᓂᓛᑦ ᒪᕐᕈᒃᓗ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔨᓴᖅᓯᓚᐅᕐᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᕕᖏᓐᓂ. ᐱᖓᓱᓂ ᖃᐅᔨᓴᕐᓂᖕᓂ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᙱᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓂᕐᒧᑦ ᐃᖅᑲᖓᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᓂᕐᒧᑦ ᐋᖅᑭᒻᒧᐊᖅᑕᐅᓯᒪᔪᓄᑦ ᖃᐅᔨᓴᕐᓂᕐᒧᑦ, ᖃᐅᔨᓴᕐᕖᑦ ᐃᒪᐃᓐᓇᕐᒥ ᓴᕝᒃᓴᓂᒃ ᐅᓯᓕᖅᓱᐃᑉᕚᖕᒥ ᐃᑎᓂᖅᓴᓂ (SCV-1) ᓴᖅᑮᔭᖅᑎᑦᑎᓯᒪᙱᑦᑐᑦ ᐅᔾᔨᕐᓇᐅᑎᓂᒃ ᐃᖅᑲᖓᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᔪᓂᒃ 2024-ᒥ; ᐃᒪᐃᒻᒪᑦ, ᓱᓪᔭᒥ ᖃᐅᔨᒪᕐᕖᑦ ᐃᒃᑲᓐᓂᖅᓴᒥ ᐃᒫᓂ ᑕᐅᕗᓇ ᐱᓇᖕᓇᖖᒐᖑᑦ ᑕᐅᕗᖓ ᑰᓚᓐᖓᓄᑦ ᖃᓄᑐᐃᓐᓇᖅ ᑕᐃᒪᐃᓕᖓᐃᓐᓇᖅᑐᑦ ᐅᓄᙱᕈᑎᒃ ᒥᑭᔪᕋᓛᑦ (SW-3) ᐅᕝᕙᓘᓐᓃᑦ ᓴᖅᑮᔭᖅᑎᑦᑎᓗᑎᒃ ᐅᓄᕈᓃᖅᐸᓪᓕᕐᓂᖏᓐᓂᒃ ᒥᑭᔪᕋᓛᑦ 2024-ᒥ ᐊᑐᐊᓂᖃᖅᑐᑦ 2023-ᒧᑦ (SW-4). ᑭᓯᐊᓂᓕ ᐃᓕᓴᕆᔭᐅᓯᒪᔪᖅ ᑖᒃᑯᐊ ᓱᓪᔮᑦᑐᑦ ᖃᐅᔨᓴᕐᕖᑦ ᐱᔾᔪᑕᐅᑐᐃᓐᓇᕆᐊᓖᑦ ᐊᒃᑐᐃᓂᐅᖏᓐᓇᖅᑐᓄᑦ ᑕᐃᒪᐃᑐᐃᓐᓇᖃᑦᑕᖅᑐᑦ ᓱᓪᔭᒥ ᐱᕙᓪᓕᐊᓂᐅᕚᑐᓂ ᐊᒻᒪ ᐊᔾᔨᒌᒃᑕᖃᑦᑕᙱᓐᓂᖏᓐᓂᒃ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ, ᐊᒻᒪ/ᐅᕝᕙᓘᓐᓃᑦ ᐃᓱᕐᓃᑦ ᐃᖏᕐᕋᑲᑦᑕᕐᓂᖏᓐᓄᑦ ᑲᖏᖅᓱᖕᒧᑦ ᑰᓚᓐᑯᑦ ᐃᓚᖓᒍᑦ, ᐊᒻᒪᓗᒃᑕᐅᖅ ᐊᒃᑐᐃᓂᖃᖅᑕᕆᐊᑐᐃᓐᓇᕆᐊᓕᒃ ᐊᖑᑏᑦ ᐃᖅᑲᖓᓂ ᐊᐅᓚᔾᔭᒃᑎᑦᑎᖃᑦᑕᕐᓂᖏᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕐᕋᑲᑦᑕᖅᑎᓪᓗᖏᑦ. ᐊᒻᒪᓗᒃᑲᓂᖅ, ᐱᒻᒪᕆᐅᔪᖅ ᐅᔾᔨᕆᔭᐅᓗᓂ, ᑕᒪᓇ ᑕᐃᒪᐃᒃᑲᓗᐊᖅᑎᓪᓗᒍ ᐱᑕᖃᐃᓐᓇᕆᐊᖃᖅᑐᖅ ᐊᖑᑎᓂᑦ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᓂᕐᒧᑦ ᐊᒃᑐᖅᑕᐅᓃᑦ, ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᑦ ᐱᑕᖃᕐᓂᓪᓚᕆᖏᑦ ᑕᐅᕙᓄ SW-3-ᒥ ᐊᒻᒪ SW-4-ᒥ ᐊᔾᔨᒌᙱᓐᓂᖃᕐᔪᐊᖅᓯᒪᙱᑦᑐᑦ 2024-ᒥ ᐊᒻᒪ 2023-ᒥ, ᑕᒪᐃᓐᓂᒃ ᖃᐅᔨᓴᕐᕖᑦ ᐃᑲᔪᖅᑕᐅᖏᓐᓇᖅᑐᑦ ᐊᔾᔨᒌᙱᑦᑐᓂ ᐃᖅᑲᖓᓂ ᕿᒥᕐᓗᖃᙱᑦᑐᓂ ᐱᑕᖃᕐᕕᐅᔪᓂ.

2024-ᒥ, ᐱᑕᖃᕐᓂᐅᔪᑦ ᓴᕝᒃᓴᓂᒃ ᐃᓱᕐᓂᕐᒥ ᖃᐅᔨᓴᖅᓯᓚᐅᖅᑕᐅᓯᒪᔪᑦ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᖃᐅᔨᓴᕐᕕᐊᓂ ᑐᖖᒌᓂᓚᐅᖅᑐᑦ ᑲᓇᑕᒥ ᑲᑎᒪᔩᑦ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ (CCME) ᖃᐅᔨᒪᔾᔪᑕᐅᕚᒃᑐᓂ ᓴᐳᔾᔭᐅᓯᒪᕐᑯᓪᓗᒋᑦ ᐃᒫᓂ ᐆᒪᔪᑦ (ᑲᓇᑕᒥ ᑲᑎᒪᔩᑦ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ (CCME) 1999) ᐊᒻᒪ NOAA ᐃᓱᕐᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᕐᕕᐅᔪᓇᖅᑐᑦ (ᐸᒃᒪ 2008). ᖃᐅᔨᔭᐅᓯᒪᓕᓱᑎᒃ ᑭᖑᓂᖔᑦᑎᓐᓂ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ (MEEMP) ᐊᕐᕌᒍᖏᓐᓂ, PAHs ᐊᒻ ᓱᖅᓯᐊᓗᒃᓴᑦ ᖃᐅᔨᔭᐅᓯᒪᙱᑦᑐᑦ ᐃᓱᕐᓂᕐᓂ ᖃᐅᔨᓴᖅᓯᓚᐅᖑᔪᓂ ᕿᒻᒧᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ 2024-ᒥ. ᓴᕝᒃᓴᖃᐅᕐᓃᑦ ᕿᒻᒧᐊᓂ ᑕᐃᔭᐅᓯᒪᔪᑦ ᐃᓄᖕᓂᑦ

ᐃᓱᒫᓅᑕᐅᓪᓗᑎᒃ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐅᓄᖅᓯᕙᓪᓕᐊᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓄᑦ ᓯᐊᒪᒃᐸᒃᑐᖅ ᓴᕕᒃᓴᖅ ᐳᔪᕋᐅᓗᓂ ᐅᑦᕙᓘᓐᓃᑦ ᑰᒃᑐᓂ ᑐᖅᑯᐃᕝᕕᐅᕙᒃᑐᓂ ᑲᑎᑦᑎᕝᕕᖕᒥ. ᑕᕆᐅᒥ ᐃᓱᕐᓂᕐᒧᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᕙᒃᑐᑦ ᓴᕕᒃᓵᒧᑦ ᒫᓐᓇ ᐊᑐᐃᓐᓇᐅᙱᑦᑐᑦ ᐊᒻᒪᓗ, ᑕᐃᒪᐃᓐᓂᖓᓄᑦ, ᐊᕐᒥᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔮᓴᕐᕖᑦ ᐃᓱᕐᓂᕐᒧᑦ ᖃᐅᔮᓴᕈᑏᑦ ᓴᕕᒃᓴᓂ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᑦ ᐊᑐᖅᖢᑎᒃ ᐊᔾᔨᐸᓗᙱᓐᓂᒃ ᓈᓴᐅᓯᕆᓂᖅᑎᒍᑦ ᐊᑐᖅᑕᐅᓇᓱᐊᖅᑐᑦ ᐊᑐᖅᑕᐅᓪᓗᑎᒃ ᕿᒥᕐᕆᕈᔭᐅᓗᑎᒃ ᐃᓚᖏᑦ ᒥᑭᔫᓖᑦ ᐃᓱᕐᓃᑦ ᐊᕐᕕᓂᓖᑦ ᒪᕐᑑᖕᓂ ᐊᕐᒥᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔮᓴᕐᕕᖕᒥ, ᒪᓕᑐᐃᓐᓇᖅᑐᑦ ᑭᖑᓂᖔᑦᑎᓐᓂ ᑕᕆᐅᐸ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ (MEEMP) ᐅᓂᒃᑳᓄᑦ. ᐱᑕᖃᖅᓯᒪᔪᖅ ᐊᑕᕐᕖᓯᒪᔪᓂᒃ ᓈᓴᐅᓯᕆᓂᕐᒧᑦ ᐅᓄᕈᓐᓂᖅᐹᓪᓕᕐᔪᐊᕐᓂᕐᓂᒃ ᓴᕕᒃᓴᓂᒃ ᐱᑕᖃᕐᓂᐅᔪᓂ ᐅᖓᓯᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᖃᐅᔮᓴᕐᕕᖕᒋᓐᓂ ᐊᑯᓐᓂᖓᓂ 2024 ᐊᒻᒪ ᐱᑕᖃᖅᐸᓖᖅᑐᑦ 2023-ᒥ ᓯᕗᓂᐊᒍᑦ ᐊᑐᖅᑕᐅᓕᖅᑳᖅᑎᓐᓇᒋᑦ ᐅᖓᓯᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ. ᐅᔾᔨᕆᔭᐅᓯᒪᔪᖅ ᑕᒪᒃᑯᓄᖓ ᒥᑭᔫᓖᓄᑦ ᐱᑕᖃᕐᕕᐅᔪᓂ ᐃᓱᕐᓂᕐᒥ, 2024-ᒥ ᑕᕆᐅᐸ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ (MEEMP) ᖃᐅᔮᓴᕈᑎᒃᓴᐃᑦ ᖃᐅᔨᓯᒪᕙᓪᓗᐊᖅᑎᓪᓗᒋᑦ ᐊᕐᒋᔅᑯᑦ ᐱᐅᓯᐅᕙᒃᑐᓂ ᐃᓱᕐᓂᕐᒥ ᓴᕕᒃᓴᖅ ᓱᓕ ᐊᔾᔨᒋᔭᐅᖃᑦᑕᙱᑦᑐᑦ ᑖᒃᑯᓇᓂ ᖃᐅᔮᓴᕐᕕᐅᔪᓂ, ᐅᔾᔨᕐᓇᕐᓂᖅᓴᐃᑦ ᒫᓐᓇᓚᐅᒃᑲᒃ ᐱᐅᓯᐅᕙᒃᑐᑦ ᓇᓗᓇᕈᓐᓃᖅᓯᒪᔪᑦ ᐱᓕᕆᐊᕐᒍᕙᓪᓕᐊᑎᓪᓗᒋᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ.

2024-ᒥ ᖃᐅᔨᓴᐅᔪᑦ ᐅᖓᓯᕐᔪᐊᓂ ᐅᒥᐊᕐᔪᐊᑦ ᐃᓱᕐᓃᒃ ᖃᓄᐃᑦᑑᓂᕐᒋᓐᓂᒃ ᕿᒥᕐᕐᑯᓂᖅᓴᑦ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᑦ ᑖᒃᑯᓄᖓ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ᒪᓕᒃᑕᐅᔭᕆᐊᓕᖓᓄᑦ (ᑎᑎᕋᖅᓯᒪᔪᖅ 3-2). ᑕᒪᓐᓇ ‘ᐊᒃᐸᓯᒃᑑᔪᖅ ᐅᓗᕆᐊᓇᕈᓐᓇᕐᓂᖓ’ ᐱᒋᐊᕈᑕᐅᔪᖅ ᖃᓄᐃᓕᖁᖅᑳᖅᑎᓐᓇᒍ ᐱᒋᐊᖅᑎᑕᐅᓯᒪᙱᑦᑐᑦ ᐃᓱᕐᓃᑦ ᖃᓄᐃᑦᑑᓂᕐᒋᓐᓄᑦ ᑕᒪᑐᒧᖓ 2024-ᒥ ᑕᕆᐅᐸ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ (MEEMP) ᑐᕌᒐᖅᑯᑎᒃ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᔭᐅᓗᑎᒃ ᑖᒃᑯᓄᖓ ᐊᕐᕌᒍ 1-ᒧᑦ, 2024-ᒥ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓂᒃ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐅᕐᕖᑦ ᓴᖀᓯᒪᔪᑦ ᑕᒪᒃᑯᓄᖓ ᐱᑕᖃᖅᐸᖕᓂᖅᑐᓄᑦ 2023-ᒥ ᖃᐅᔨᓴᐅᔪᑦ ᑖᒃᑯᓈᓖᑦ ᖃᐅᔮᓴᕐᕕᐅᔪᓂ.

ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᓂᕐᒥ ᖃᐅᔨᓴᐅᔪᑦ 2024-ᒥ ᓱᓕ ᐃᓗᐊᓃᑦᑐᑦ ᑎᑎᕋᕆᐊᙵᖅᑕᐅᓯᒪᔪᑦ ᑭᖑᓪᓕᖅᐹᖑᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓂ (FEIS) ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂ ᑭᖑᓂᐊᒍᓪᓗ ᐅᐃᒍᕐᓂ, ᒥᒃᓴᐅᓴᐃᓯᒪᔪᑦ ᐊᖏᔪᒥᒃ ᐊᒥᐊᒃᑯᓂᒃ ᐊᒃᑐᐃᓂᖅᑕᖃᙱᓐᓇᓂᖓᓂᒃ ᐃᓱᕐᓂᐅᐸ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ. ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐊᑐᖅᑕᐅᙱᓐᓇᓕᕐᓂᕐᒋᓐᓂᓄᑦ ᐊᖏᓂᖅᓴᑦ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔫᑦ ᐅᒥᐊᕐᔪᐊᑦ (ᒥᑭᓂᖅᓘᔪᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᖅ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ) ᕿᙵᒍᐊᓂ ᓂᕆᐅᒋᔭᐅᔪᑦ, ᐹᕙᓛᓐᑯᑦ ᐱᓂᐊᕐᓂᕋᖅᓯᒪᔪᑦ ᐊᑯᓚᐃᓐᓂᖏᑦ ᐊᕐᕌᒍᑕᒫᑦ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐅᕐᓂᕐᓂᒃ ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᕕᐅᔪᓂ ᐅᓄᙱᓵᖑᔪᓇᕐᓗᑎᒃ ᐱᖓᓱᓄᑦ ᐊᕐᕌᒍᓄᑦ ᓯᕗᓪᓕᖅᐹᒥ ᐊᑐᓯᒋᐊᖅᑕᐅᓚᐅᕐᓂᕐᒋᑦ ᐊᖏᓂᖅᓴᑦ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔪᒃᓴᑦ ᐅᒥᐊᕐᔪᐊᑦ, ᓇᓗᓇᐃᖅᑕᐅᕐᑯᓪᓗᒋᑦ ᐱᓕᕆᐊᒧᑦ-ᐊᑐᐊᒧᑦ ᐊᑐᐃᓐᓂᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐊᓯᔾᔨᕐᓂᖏᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᖏᓕᓈᖕᓂᖏᑦ. ᑐᑭᓯᐅᑎᐊᕐᑯᓗᖏᑦ ᐃᖅᑲᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᕙᒃᑐᑦ ᓯᓚᑖᓂ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᑮᓕᐅᔪᖅ ᐊᒃᑐᖅᑕᐅᔪᓄᑦ (ZOI) ᑕᒪᒃᑯᓈᙵᑦ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᓂᑦ ᑐᑯᖃᓯᐅᑎᓪᓗᒋᑦ ᐊᒃᑐᐃᓃᑦ ᑕᐃᒪᐃᑐᐃᓐᓇᖅᑐᑦ ᓯᒃᔭᖓᓂ ᐱᕙᓪᓕᐊᓂᐅᕙᒃᑐᑦ, ᐃᓯᒪᕆᖃᓯᐅᑎᓗᒋᑦ ᐅᖓᕙᓇᐊᕐᓗᒍ 2025-ᒧᑦ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓂᑦ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᑕᐅᕗᓇ ᐱᓇᓐᓇᕚᓐᖓᒍᑦ ᑐᑭᓕᐊᓕᖅᑎᓯᒪᔪ ᐱᖃᓯᐅᔾᔨᓗᑎᒃ SW-5-ᒥᒃ ᐊᒻᒪ SW-6-ᒥᒃ, ᑲᑎᑦᓗᒋᑦ ᕿᓪᓕᑦ ᖃᐅᔮᓴᕐᕖᑦ ᐃᓱᕐᓃᑦ ᖃᓄᐃᑦᑑᑕᐅᓂᕐᒋᓐᓄᑦ ᐊᒻᒪ ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᓂ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐅᕐᓂᕐᒧᑦ.

ᐊᑕᕐᕿᖅᓯᒪᔪᓂ, ᖃᐅᔨᓴᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐃᒪᓐᓇ, ᐅᓪᓗᒥᒧᑦ, ᐃᒫᓂ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᖃᐅᔨᓴᐅᔪᑦ ᐃᓗᐊᓃᑦᑐᑦ ᓱᓕ ᑭᖑᓪᓕᖅᐹᖑᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓂ (FEIS) ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂ ᐊᒻᒪ ᑭᖑᓂᐊᒍᑦ ᐅᐃᒍᕐᓂ, ᓇᓚᐅᑦᑖᖅᓯᒪᓪᓗᑎᒃ ᐊᖏᔪᒥᒃ ᐊᒥᐊᒃᑯᓂᒃ ᐊᒃᑐᐃᓂᖅᑕᖃᙱᓐᓇᓂᖓᓂᒃ ᐃᓱᕐᓂᐅᐸ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑭᓯᐊᓂᓕ ᓇᓗᓇᐃᖅᓯᓪᓗᑎᒃ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓂᒃ ᒥᑭᑦᑐᓂᒃ ᓄᓇᖓᓂᑐᐊᖅ ᐃᓱᕐᓂᕐᒥ ᐸᕕᓴᐃᓃᑦ ᐊᒃᑐᐊᓂᖃᖅᑐᑦ ᐊᖑᑏᓂᑦ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᕙᒃᑐᓂ, ᓂᕆᐅᒋᔭᐅᓪᓗᓂᓗ ᐋᖅᑭᒍᑎᓂᐊᕐᓂᖓᓂᒃ ᐊᑯᓂᐅᔪᒃᑯᑦ. ᑕᒪᓐᓇ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ‘ᐊᒃᐸᓯᒃᑐᓂᒃ ᐅᓕᕆᐊᓇᕈᓐᓇᕐᓂᕐᒧᑦ’ ᖃᓄᐃᓕᖁᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᑦ ᐱᒋᐊᖅᑎᑦᑎᓯᒪᙱᑦᑐᑦ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓂᒃ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᐱᕙᓪᓕᐊᕐᒋᐊᓕᕐᓂᐊᖅᑐᑦ ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᓗᑎᒃ ᐊᖑᑏᓂᑦ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᕙᒃᑐᓄᑦ ᐊᒃᑐᐃᓂᕐᓂ ᐃᓱᕐᓂᕐᒧᑦ ᐊᒻᒪ ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᓄᑦ.

ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᑦ (ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 4.0)

ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᓂᑦ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐅᕐᓃᑦ ᕿᙳᐊᓂ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ 2024-ᒥ ᓈᒻᒪᒃᓯᒪᓯᕐᑯᓪᓗᒋᑦ ᐅᔭᕋᙱᐊᕈᓐᓇᐅᑎᒥ ᒪᓕᒋᐊᓕᒃ ᓈᓴᐅᑖ 83(ᐃ) ᐊᒻᒪᓗ 99(ᐃ). 2024-ᒥ, ᐅᓄᕈᓐᓂᖅᐹᓪᓕᖅᓯᒪᔪᑦ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᐊᒻᒪ ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᓂᒃ ᖃᐅᔮᓴᕐᕕᒃᓴᓕᐊᑦ ᐱᓕᕆᐊᓄᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ. ᐊᑕᕐᕖᓯᒪᔪᑦ ᑲᑐᔾᔨᐅᔪᑦ ᕿᑎᐊᓂ ᓯᓚᑖᓄᑦ ᑐᑭᓕᐊᖅᑐᓂ ᐃᖅᑲᓐᓂ ᐊᒻᒪ ᐃᓱᕐᓂᕐᒥ ᖃᔮᐅᓴᕐᕕᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ, ᐃᓗᓕᖃᖅᑐᑦ 60-ᓂ ᖃᐅᔮᓴᕐᕕᖕᓂ ᖃᐅᔮᓴᖅᐸᓪᓕᐊᕐᒋᐊᓕᕐᓂᕐᒧᑦ ᐱᖓᓱᓄᑦ-ᐊᕐᕌᒍᓄᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᓄᑦ, ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ 2023-ᒥ, ᐊᒻᒪ ᐊᑐᓕᖅᑎᑕᐅᓂᐊᖅᑐᑎᒃ 2026-ᒥ.

ᑖᒃᑯᐊ 2024-ᒥ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᕐᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ (MEEMP) ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᕐᓂᒃ (ᐊᒻᒪ ᐃᓱᕐᓂᕐᒧᑦ) ᐱᓕᕆᐊᑦ ᑐᕌᒐᔪᑦ ᐊᕐᕕᓂᓕᖕᓄᑦ ᒪᕐᕈᖕᓄᓪᓗ ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔨᓴᒐᒃᓴᓄᑦ ᖃᐅᔨᓴᕐᕕᒃᓂ (SW-1 ᑕᐃᑯᖓᓱᖓᖅ SW-4, SE18-1, SNW-1, SCV-1 ᐊᒻᒪ SCV-2) ᓴᖅᑭᑕᐅᓯᒪᔪᑦ 2023-ᒥ. ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓂᒃ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ ᐊᑐᓕᖅᑎᑕᐅᓯᒪᔪᖅ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᖅᑕᐅᕐᑯᓪᓗᖏᑦ ᐊᕝᒌᑎᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᔪᑦ ᐃᖅᑲᖓᓂ ᐊᒃᑐᐃᓃᑦ ᐃᓱᕐᓂᕐᒧᑦ ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᕐᓄᑦ ᐱᖓᓯᓄᑦ ᐊᕐᕆᒍᓂᑦ ᓯᕗᓪᓕᖅᐸᒥ ᐊᑐᖅᑕᐅᓕᓚᐅᖅᑎᓪᓗᒋᑦ ᐊᖏᔪᕐᔪᐊᑦ (ᒥᑭᓂᖅᓵᕐᔪᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᖅ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ) ᓴᕕᒃᓴᓂᒃ ᐅᓯᕙᒃᑐ ᐅᒥᐊᕐᔪᐊᑦ ᐅᑭᐊᒃᓵᖓᓂ 2023. ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᑲᔪᓯᑎᐊᓚᐅᖅᑐᑦ ᐋᒡᒌᓯ 2023-ᒥ (4-9 ᐋᒡᒌᓯ 2023-ᒥ) ᐱᓂᐊᕐᓂᖃᕈᒪᓪᓗᑎᒃ ᑎᑎᕋᖅᓯᕙᓪᓕᐊᓂᕐᒥᒃ ᐱᑕᖃᖅᐸᕐᒌᖅᑐᓄᑦ ᖃᓄᐃᓕᖓᓂᐅᔪᓄᑦ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑦ ᐊᑐᖅᑕᐅᓯᒋᐊᖅᑳᖅᑎᓐᓇᒋᑦ ᐊᖏᓂᖅᓴᑦ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔫᒃᓴᑦ ᐅᒥᐊᕐᔪᐊᑦ. ᓯᕗᓪᓕᖅᐹᑦ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᑎᑭᓚᐅᖅᑐᑦ ᕿᖠᒍᐊᓄᑦ ᑐᓚᒃᑕᕐᕕᖕᒧᑦ 29 ᐋᒡᒌᓯ 2023-ᒥ, ᑭᖑᓂᐊᒍᓪᓗ ᐱᔭᕇᖅᑕᐅᓪᓗᑎᒃ 2023-ᒥ ᖃᐅᔨᓴᒐᒃᓴᐅᓕᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ. ᑲᑎᖕᒋᑦ, ᐱᑕᖃᖅᑐᖅ ᑕᓪᓕᒪᓂᒃ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ (ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᒥᑭᓂᖅᓵᕐᔪᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᖅ) ᐃᖏᕐᕋᖃᑦᑕᖅᑐᑦ ᕿᖠᒍᐊᓄᑦ ᑐᓚᒃᑕᕐᕕᖕᒧᑦ 2023-ᒥ.

2024-ᒥ ᐃᖅᑲᖓᓂ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ ᕿᒥᕐᕈᔭᐅᕐᑯᓪᓗᒋᑦ ᐊᓯᕐᔨᖅᓯᒪᑐᐃᓐᓇᕆᐊᓖᑦ ᑕᕆᐅᒥ ᐃᓱᕐᓃᑦ ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᕐᓂ ᐱᑕᖃᕐᕕᐅᔪᓄᑦ ᓇᓗᓇᐃᔭᐅᑏᑦ ᐊᒃᑐᐊᓂᓛᑦ ᐊᒃᑐᐃᓂᐅᑐᐃᓐᓇᕆᐊᓕᖕᓄᑦ ᒥᑭᓂᖅᓵᕐᔪᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᓂᑦ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᓂ ᐅᒥᐊᕐᔪᐊᓂᑦ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔫᒃᓴᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐊᑐᖅᑐᑦ ᓴᕕᒃᓴᒥᒃ ᐅᓯᓕᖅᓯᐃᕝᕕᐅᔪᒥ. ᑖᒃᑯᐊ ᑭᖑᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓂ (FEIS) ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᒥᒃᓴᐅᓴᐃᓯᒪᔪᑦ ᐊᒥᐊᒃᑯᓂᒃ ᐊᒃᑐᐃᓂᕐᔪᐊᖅᑕᖅᑲᖏᓐᓂᖓᓂᒃ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑭᓯᐊᓂᓕ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓂᒃ ᒥᑭᑦᑐᒥᒃ ᓄᓇᖓᓂᑐᐊᖅ ᐃᓱᕐᓂᕐᒧᑦ ᐸᒡᕕᓴᐃᓂᕐᓂᒃ ᐊᒃᑐᐊᓂᖃᖅᑐᑦ ᐊᕝᒌᑎᓂᑦ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᕙᒃᑐᑦ ᐃᖅᑲᖓᓂ, ᓂᕆᐅᒋᔭᐅᓪᓗᓂ ᓱᕋᔪᓐᓃᕐᓂᐊᕐᓂᖓᓂᒃ ᐊᑯᓂᐅᔪᒃᑯᑦ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓂᒃ ᓄᓇᖓᓂᑐᐊᖅ ᐃᒥᒃᑐᒥᒃ ᐱᕙᓪᓕᐊᓂᖅᑖᖃᕐᔪᓪᓗᓂ ᓂᕿᑎᐊᕙᖃᖅᑐᓂᒃ, ᓴᕗᕋᔭᖕᓂᒃ ᐅᕝᕙᓘᓐᓃᑦ ᐅᖅᓯᐊᓕᒃᓴᓂᒃ ᐱᑕᖃᕐᓂᐅᔪᓂᒃ ᐊᒃᑐᐃᑐᐃᓐᓇᕆᐊᓕᖕᓂᒃ ᐃᖅᑲᖓᓂ ᕿᒥᕐᓗᖃᖏᑦᑐᓂᒃ ᐱᑕᖃᕐᕕᐅᔪᓂᒃ. ᑭᖑᓂᐊᒍᑦ ᑖᒃᑯᓄᖓ ᑭᖑᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓄᑦ (FEIS), WSP–ᑯᑦ ᐱᓕᕆᐊᖃᖅᓯᒪᔪᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᐅᓕᖕᒋᓐᓂ ᐊᒻᒪ ᐅᖁᑎᖕᒋᓐᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᓲᑦ ᐃᖅᑲᖓᓂ ᕿᒥᕐᕈᓂᕐᒥᒃ ᑲᒪᒋᔭᐅᕐᑯᓪᓗᒋᑦ ᐱᓕᕆᐊᒥ ᐊᒃᑐᐃᓂᐅᑐᐃᓐᓇᕆᐊᓖᑦ ᑕᕆᐅᒥ ᑕᖏᓕᖕᓄᑦ ᐊᕙᑎᐅᔪᓄᑦ ᐊᒃᑐᐊᓂᖅᑐᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐱᓕᕆᖅᑦᑕᕐᓂᖏᑦ ᐊᒃᑐᐊᓂᓛᑦ ᐅᓄᖅᓯᒋᐊᕐᓂᖏᓐᓄᑦ ᐊᖏᔩᑕᐅᓂᖕᓴᑦ ᐅᒥᐊᕐᔪᐊᑦ ᐃᖏᕐᕋᖃᑦᑕᖅᑐᑦ (WSP 2023). ᑕᒪᓐᓇ ᕿᒥᕐᕈᓂᕐᒥ ᒥᒃᓴᐅᓵᑕᐅᓯᒪᔪᖅ ᐃᓚᖓᓂᑦ ᐃᖅᑲᖓᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᔪᖅᑲᖅᑖᕐᔪᕐᓂᐊᖅᑐᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ ᑐᓚᕝᕕᐅᕙᒃᑕᒥ ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᓚᓇᐅᑦᑖᖅᑕᐅᓪᓗᑎᒃ ᐃᑎᓂᖅᑐᑦ ᐃᖅᑲᖓᓂ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᔪᑦ ᐊᔾᔨᖃᑦᑕᕐᓕᓪᓗᑎᒃ 5 ᓯᐊᓐᑎᒦᑕᒥᑦ ᑕᐅᕙᓂ ᑐᓚᕝᕕᐅᕙᒃᑐᒥ 50 ᓯᐊᓐᑎᒦᑕᒧᑦ ᓄᓇᖓᓂᑐᐊᕈᔩᓂᖕᓴᖅ ᖃᓂᒋᔮᓂ ᓴᕕᒃᓴᓂᒃ ᐅᓯᓕᖅᓯᐃᕝᕕᐅᔪᒥ. 2024-ᒥ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓂᒃ ᕿᒥᕐᕈᓃᑦ ᕿᒥᕐᕈᓯᒪᔪᑦ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑎᑭᕗᒍ 5 ᓯᐊᓐᑎᒦᑕᑦ ᐃᓱᕐᓂᕐᒥ ᐃᓗᐊᓄᑦ ᒪᓕᑐᐃᓐᓇᖅᑐᑦ ᑖᒃᑯᓇᖓ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ (MEEMP) ᐊᒻᒪ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᖃᐅᔨᓴᕐᕕᖏᓐᓂ 2023-ᒥ. ᑕᒪᓐᓇ ᐃᓱᕐᓃᑦ ᐃᓗᐊᓄᑎᒋᐅᓂᖓ ᐊᒃᑐᐊᓂᖃᓪᓚᖓᒥᔪᖅ ᕿᒥᕐᕈᔭᐅᓂᖏᓐᓄᑦ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᖃᕐᕕᐅᔪᓂ.

2024-ᒥ, ᑭᒻᒪᖅᑐᐃᔪᖅ ᐊᕐᕋᒍ 1 ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ, ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᕐᓂ ᐱᑕᖃᕐᕕᐅᔪᓂᒃ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓃᑦ ᑲᑎᑕᐅᓚᐅᖅᑐᑦ ᐊᕐᕕᓂᓖᑦ ᒪᕐᕉᓪᓗ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᕕᖕᒋᓐᓂ ᑲᒪᒋᔭᐅᓪᓗᑎᒃ ᑕᐅᕙᓂ, ᐊᒻᒪ ᓱᑉᐳᔭᐃᖅᑕᐅᓪᓗᑎᒃ ᖃᐅᔨᓴᕐᕕᖕᒥ ᖃᐅᔨᓴᖅᑕᐅᕐᑯᓪᓗᒋᑦ. ᐱᕈᖅᑐᓂ ᐆᒪᔪᕋᑦ ᑭᖑᓂᐊᒍᑦ ᓇᓗᓇᐃᖅᑕᐅᓚᐅᖅᑐᑦ ᐅᓄᕐᓂᕈᑎᓪᓗᒋᑦ ᐆᒪᔪᕈᔪᐃᑦ ᖃᓄᑎᒋᐅᓂᖏᓐᓄᑦ ᐊᒻᒪ ᓈᓴᖅᑕᐅᓪᓗᑎᒃ ᐱᓕᕆᓕᒪᔪᒧᑦ ᐃᒪᕐᒥᐅᑕᓂᒃ ᐃᖅᑲᕐᒥᐅᑕᓂᒃ ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᕙᖕᓂᖏᓐᓄᑦ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐱᔾᔪᑎᖃᕐᐅᑎᓄᑦ ᓕᒥᑎᑦᑯᓐᓂ (ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᕐᕕᒃ). ᐅᔾᔨᕆᔭᐅᓯᒪᓪᓗᑎᒃ ᑭᖑᓂᖕᒫᑦᑎᓐᓂ ᐊᕐᕋᒎᔪᓂ, ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᖃᕐᕕᐅᔪᓂ ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔨᓴᕐᕖᑦ ᐱᑕᖃᕐᕕᐅᓪᓗᐊᑕᓚᐅᖅᑐᑦ ᖁᐱᕐᕈᑯᑖᓂᒃ. ᐊᒥᓲᓂᖅᓴᑦ ᐃᓚᖏᑦ ᑭᖑᐃᑦ, ᐱᓗᐊᖅᑐᒥᒃ ᑭᖑᕋᓛᑦ ᐊᒻᒪ ᑭᖑᐃᑦ, ᑕᑯᔭᐅᒃᑲᑕᓚᐅᖅᑐᑦ ᐃᓚᖏᓐᓂ ᐱᓇᖕᓇᖖᖓᓂ ᑐᑭᓕᐊᖅᑐᓂ ᖃᐅᔨᓴᕐᕕᐅᔪᒥ, ᐃᒪᐃᒻᒪᓪᓗ ᐅᕙᓗᐃᑦ ᐱᑕᖃᕐᓂᖅᓴᐅᓚᐅᖅᑲᑎᒃ ᐊᒥᓲᓂᖅᓴᐅᓪᓗᑎᒃ ᐃᓚᖏᓐᓂ ᖃᐅᔨᓴᕐᕕᓂ ᑕᐅᑦᓭᓇᙳᕆᑦᑐᑦ ᑐᑭᓕᕇᓂ. ᓈᓴᐅᑎᑎᒍᑦ ᕿᒥᕐᕈᓃᑦ ᑐᕌᒐᖅᓯᒪᔪᑦ ᑎᓴᒪᓂᒃ ᐱᓪᓗᐊᑕᓂᒃ ᐃᖅᑲᖓᓂ ᑯᒪᕈᕐᓂ ᐃᓱᓕᔾᔪᑕᐅᔪᓂ - ᕿᒥᕐᕈᖃᙳᕆᑦᑐᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ, ᐊᒥᓲᓂᖏᑦ, ᐊᔾᔨᒌᙳᕆᑦᑕᕐᓂᖏᑦ ᐊᒻᒪ ᓇᓕᒧᕿᖕᓂᖏᑦ - ᒪᓕᑐᐃᓐᓇᖅᑐᑦ ᑭᖑᓂᖕᒫᑦᑎᓐᓂ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ (MEEMP) ᐊᕐᕋᒎᓯᒪᔪᓄᑦ.

2024-ᒥ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᕐᓂᑦ ᖃᐅᔨᔭᐅᔪᑦ ᓯᓚ ᐃᓗᐊᓃᑦᑐᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓄᑦ ᑕᐃᑲᓂ ᑭᖑᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓄᑦ (FEIS) ᐊᒻᒪ ᑭᖑᓂᐊᒍᑦ ᐅᐃᒍᕐᓂ, ᓇᓚᐅᑦᑖᖅᓯᒪᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᓄᓇᖓᓂ ᐃᓱᕐᓃᑦ ᐸᒡᕕᓴᒃᑕᐅᓂᖏᓐᓄᑦ ᐊᒃᑐᐊᓂᓛᑦ ᐊᕝᒌᑎᓂᑦ ᐊᐅᓚᔾᔭᒃᑎᑕᐅᔪᑦ ᐃᖅᑲᖓᓃᑦᑐᑦ ᐊᒻᒪ ᒫᓐᓇᓚᐅᒃ ᐊᒃᑐᐃᓃᑦ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᖃᕐᕕᐅᔪᓂᑦ ᓇᓗᓇᐃᒃᑯᑕᓄᑦ. 2024-ᒥ ᐊᕐᕕᓂᓖᑦ ᒪᕐᕈᓪᓗ ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔨᓴᕐᕖᑦ ᐃᑲᔪᖅᑐᐃᖏᓐᓇᓚᐅᖅᑐᑦ ᐊᔾᔨᒌᙳᕆᕈᔫᔭᖅᑐᓄᑦ ᐃᖅᑲᖓᓂ

ᑭᒥᕐᕈᖃᙳᑦᑐᓂ ᐱᑕᖃᕐᕕᐅᔪᓂ. ᑕᒪᐃᓐᓄᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ ᐊᒻᒪ ᐱᑕᖃᑦᑎᐊᕐᓂᖏᑦ ᐊᔾᔨᒌᙱᓐᓂᖃᕐᔪᐊᓚᐅᙱᑦᑐᑦ ᑖᒃᑯᓇᓂ ᐊᕐᕌᒍ 1 (2024) ᐊᒻᒪ ᐊᑐᖅᑕᐅᕙᒌᖅᑐᓂ ᒪᓕᒋᐊᓕᖕᓂ 2023-ᒥ; ᑭᓯᐊᓂᓕ, ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᖃᕐᕕᐅᔪᑦ ᓴᖅᑮᔭᖅᑎᑦᑏᓐᓇᓚᐅᖅᑐᑦ ᐊᔾᔨᒌᒃᑕᖃᑦᑕᙱᓐᓂᖏᓐᓂᒃ ᖃᐅᔨᓴᕐᕕᐅᔪᓂ 2024-ᒥ ᐅᔾᔨᕆᔭᐅᓪᓚᕆᒃᓯᒪᔪᑦ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᕐᓂᖏᓐᓄᑦ ᐊᒥᓲᓂᖏᑦ ᐊᒻᒪ ᐱᑕᖃᑦᑎᐊᕐᓂᖏᓐᓄᑦ 2023-ᒥ ᐊᒻᒪ 2024-ᒥ ᖃᐅᔨᓴᕐᕕᖕᓂ ᖃᓂᒋᔭᖏᓐᓂ ᓴᕕᒃᓴᓄᑦ ᐅᓯᓕᖅᓱᐃᕝᕕᐅᔪᓂ. ᑕᒪᒃᑯᐊ ᐅᔾᔨᕆᔭᐅᔪᑦ ᐃᓚᖓᒍᑦ ᐃᑲᔪᖅᑐᖅᑕᐅᔪᑦ ᐊᓯᔾᔨᐅᑎᓄᑦ ᐃᓚᖏᓐᓄᑦ ᒥᑭᔪᕋᓛᑦ ᐃᓗᓕᖏᓐᓄᑦ ᑕᐅᕙᓂ ᐊᑯᓂᐅᔪᒃᑯᑦ ᐊᒻᒪᓗᑦᑕᐅᖅ ᑕᐃᒪᐃᓕᖓᓂᐅᑐᐃᓐᓇᖅᐸᒃᑐᑦ ᐊᔾᔨᒌᒃᑕᖃᑦᑕᙱᑦᑐᑦ ᑕᑯᔭᐅᓯᒪᔪᑦ ᑕᒪᒃᑯᓇᓂ ᐃᖅᑲᖓᓂ ᐱᑕᖃᕐᕕᐅᔪᓂ. ᐊᖑᑎᓂᑦ ᐊᐅᓚᔅᓴᒃᑎᑕᐅᔪᓄᑦ ᐊᒃᑐᐃᓂᑦ ᑭᖑᓂᖖᑦᑎᓐᓂ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ 2020-ᒥ ᑕᐃᑲᓂ ᑲᐅᔨᓴᕕᖓᒥ SW-2 ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐊᖑᑎᓂᑦ ᐊᐅᓚᔅᓴᒃᑎᑕᐅᔪᑦ ᐃᖅᑲᖓᓂ ᒥᑭᓐᓂᖅᓴᓂ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔫᒃᓴᓂᒃ ᐅᒥᐊᕐᔪᐊᓂᑦ ᐊᒻᒪ ᓯᑲᐅᓂᑦ. ᑭᖑᓂᐊᒍᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐊᕐᕌᒍᓂ ᓇᓗᓇᐃᖅᓯᔪᑦ ᑖᒃᑯᐊ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᑦ ᐱᑕᖃᕐᕕᖏᑦ ᑕᐃᑲᓂ ᖃᐅᔨᓴᕐᕕᖓᒥ ᑭᖑᓂᐊᒍᑦ ᐅᑎᖅᐸᓪᓕᐊᓕᓚᐅᖅᑐᑦ, ᐊᒻᒪ ᑕᒪᓐᓇ ᐊᒃᑐᐃᓂᖅ ᒫᓐᓇᓚᐅᑲᓪᓗᓂ ᐊᒻᒪ ᓄᓇᖓᓂᑐᐊᖑᓪᓗᓂ.

ᖃᐅᔨᓴᐅᔪᑦ 2024-ᒥ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᓂᒃ ᑭᒥᕐᕈᓃᑦ ᐱᒋᐊᖅᑎᑦᑎᓯᒪᙱᑦᑐ ᑕᒪᒃᑯᓂᖓ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ‘ᐊᒃᐸᓯᒃᑐᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᕐᓂᖏᑦ’ ᖃᓄᐃᓪᓕᔪᖃᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᑦ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐃᖅᑲᖓᓂ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᕐᒧᑦ ᓇᓗᓇᐃᕈᑏᑦ ᐊᖏᔪᕐᔪᐊᖑᓯᒪᙱᓐᓂᖏᓐᓄᑦ ᐊᔾᔨᙱᓐᓂᖏᑦ ᐊᕐᕌᒍ 1-ᒥ (2024) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ ᐱᑕᖅᐸᕇᖅᑐᓄᑦ ᖃᓄᐃᓕᖓᓂᐅᔪᓂᑦ 2023-ᒥ ᐊᒻᒪ ᖃᓄᑐᐃᓐᓇᖅ ᑕᑯᒃᓴᐅᔪᑎᒍᑦ ᐅᓄᕈᓐᓃᖅᐊᓪᓕᐊᓂᖏᑦ ᐃᖅᑲᖓᓂ ᖃᓄᐃᑉᐸᓪᓕᐊᓂᕐᓄᑦ ᓇᓗᓇᐃᒃᑯᑕᑦ ᐃᒪᐃᖅᑰᔾᔪᓪᓗᑎᒃ ᐃᓗᐊᓃᕗᑎᒃ ᑐᓚᒃᑕᕐᕕᖓᒧᑦ-ᐊᒃᑐᐊᔪᑦ ᐊᒃᑐᐃᓃᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᑭᖑᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓄᑦ (FEIS) ᐊᒻᒪ ᑭᖑᓂᐊᒍᑦ ᐅᐃᒍᓂᑦ.

ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐊᑐᖅᑕᐅᓂᖏᓐᓇᕐᓂᐊᖅᑐᒃᓴᐅᓂᖏᑦ ᐊᖏᓂᖅᓴᐅᔪᑦ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔫᒃᓴᑦ ᐅᒥᐊᕐᔪᐊᑦ (ᒥᑭᓐᓂᖅᓵᕐᔫᒃ ᐊᖏᔪᕐᔪᐊᓂᑦ ᐅᒥᐊᕐᔪᐊᖅ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᑦ) ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖓᒥ, ᐹᕙᓛᓐᑯᑦ ᐊᖏᖅᓯᒪᓪᓚᕆᒃᑐᑦ ᐊᑯᓂᐅᓂᕐᓂᖕᓄᑦ ᐊᕐᕌᒍᑕᒫᑦ ᖃᐅᔨᓴᒃᓴᓕᐅᕐᓂᕐᓄᑦ ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᖃᐅᔨᓴᕐᕕᖕᓂ ᐅᓄᙱᓛᖑᓗᑎᒃ ᐊᕐᕌᒍᑦ ᐱᖓᓱᑦ ᑭᖑᓂᐊᒍᑦ ᓯᕗᓕᖅᐹᒥᒃ ᐊᑐᖅᑕᐅᓕᕐᓂᖏᓐᓄᑦ ᐊᖏᓂᖅᓴᐅᔪᑦ ᓴᕕᒃᓴᓂᒃ ᐅᓯᔫᒃᓴᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᕐᑯᓪᓗᒋᑦ ᐱᓕᕆᐊᒧᑦ-ᐊᒃᑐᐊᔪᑦ ᐊᒃᑐᐃᓃᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ. ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓪᓗᑎᒃ ᐃᓱᕐᓂᖅ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 3.0-ᒥ, ᑐᑭᓯᔭᐅᑦᑎᐊᒃᑲᓐᓂᕐᑯᓪᓗᒋᑦ ᐊᖑᓂᑎ ᐊᐅᓚᔅᓴᒃᑎᑕᐅᕙᒃᑐᑦ ᐃᖅᑲᖓᓂ ᐊᒃᑐᐃᓃᑦ ᓯᓚᑖᓂ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᑭᒡᓕᐅᔪᖅ ᐊᒃᑐᖅᑕᐅᔪᓄᑦ (ZOI) ᐊᖏᔪᕐᔪᐊᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ ᑕᑯᓗᒋᑦ ᐊᒃᑐᐃᓃᑦ ᑕᐃᒪᐃᑐᐃᓐᓇᖅᐸᒃᑐᑦ ᓯᙵᖓᓂ ᐱᕙᓪᓕᐊᓂᐅᕙᒃᑐᑦ, ᐃᓱᒪᒋᖃᓯᐅᔾᔨᓃᑦ ᐅᖓᕙᕆᐊᖅᑕᐅᓗᑎᒃ 2025-ᒥ ᐅᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓂᒃ ᖃᐅᔨᓴᕝᕙᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᑕᐅᔑᓇ ᐱᓇᓐᓇᖠᖓᒍᑦ ᑐᑭᓕᓇᑦ ᐱᖃᓯᐅᔾᔨᓯᒪᓗᑎᒃ SW-5 ᐊᒻᒪ SW-6, ᑲᑎᕗᖏᑦ ᖁᓖᑦ ᖃᐅᔨᓴᕐᕖᑦ ᐃᓱᕐᓂᐅᑉ ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᓂᒃ ᖃᐅᔨᓴᕝᕙᓕᐅᕐᓃᑦ.

ᑕᒪᐃᓐᓅᖓᔪᑦ, ᖃᐅᔨᓴᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᐃᒪᓐᓇ, ᐅᓪᓗᒥᒧᑦ, ᑕᕆᐅᒥ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᑦ ᖃᐅᔨᓴᐅᔪᑦ ᔨᓕ ᐃᓗᐊᓃᑦᑐᑦ ᑭᖑᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓂ (FEIS) ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂ ᐊᒻᒪ ᑭᖑᓂᐊᒍᑦ ᐅᐃᒍᓂ, ᒥᒃᓴᐅᓴᐃᓯᒪᔪᑦ ᐊᖏᔪᒥᒃ ᐊᒥᐊᒃᑯᓂᒃ ᐊᒃᑐᐃᓂᕐᓂᒃ ᐃᓱᕐᓂᐅᕐ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ ᑭᓯᐊᓂᓕ ᓇᓗᓇᐃᖅᓯᓪᓗᑎᒃ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖓᓂᒃ ᒥᑭᑦᑐᒥ ᓄᓇᖓᓂ ᐃᓱᕐᓃᑦ ᐸᒡᕕᓭᒃᑕᐅᓂᖏᓐᓄᑦ ᐊᒃᑐᐊᓂᓖᑦ ᐊᖑᑎᓂᑦ ᐊᐅᓚᔅᓴᒃᑎᑕᐅᕙᒃᑐᑦ, ᓂᕆᐅᒋᔭᐅᔪᑦ ᓱᕋᔾᔮᓐᓂᕐᓂᐊᕐᓂᖏᓐᓂᒃ ᐊᑯᓂᐅᔪᒃᑯᑦ. ᑕᒪᓐᓇ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ‘ᐊᒃᐸᓯᒃᑐᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᕐᓂᖏᑦ’ ᖃᓄᐃᓪᓕᔪᖃᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᑦ ᐱᒋᐊᖅᑎᑕᐅᓯᒪᙱᑦᑐᑦ ᐊᒻᒪ ᐊᖏᔪᕐᔪᐊᑦ ᐅᒥᐊᕐᔪᐊᓂᒃ ᖃᐅᔨᓴᕝᕙᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᓂᑦ ᑲᔪᓯᓂᐊᖅᑐᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓗᑎᒃ ᐊᖑᑎᓂᑦ ᐊᐅᓚᔅᓴᒃᑎᑕᐅᕙᒃᑐᓂᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᐃᓱᕐᓂᕐᒧᑦ ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᓄᑦ.

ᐃᖅᑲᖓ, ᕿᖅᑯᐊᑦ, ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐱᕈᖅᑐᑦ (ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 5.0)

ᖃᐅᔨᓴᕝᕙᓕᐅᕐᓂᑦ ᐃᖅᑲᖓᓂ, ᕿᖅᑯᐊᓂᒃ, ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐱᕈᖅᑐᓂᒃ ᓈᒻᒪᒃᓯᑎᑦᑎᓯᒪᔪᑦ ᐅᔾᔨᕆᓂᐊᕈᓐᓇᐅᑎᓂ ᒪᓕᒃᑕᐅᔭᕆᐊᓕᒃ ᓈᓴᐅᑖ 99(ᐃ) ᐊᒻᒪ (ᑎ) ᐊᒻᒪ ᐊᑐᐊᓂᖃᖅᓱᓂ ᐅᔾᔨᕆᓂᐊᕈᓐᓇᐅᑎᒧᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᓕᒃ ᓈᓴᐅᑎᓖᑦ 76, 83(ᐃ), 84 ᐊᒻᒪ 87. ᑭᒥᕐᕈᔭᐅᖁᔪᓐᓂᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᓖᑦ ᐱᓕᕆᐊᒧᑦ-ᐊᒃᑐᐊᔪᑦ ᐊᒃᑐᐃᓃᑦ ᐃᖅᑲᖓᓄᑦ, ᕿᖅᑯᐊᓄᑦ, ᐊᒻᒪ ᐃᖅᑲᖓᓂ ᐱᕈᖅᑐᓄᑦ, ᐊᑐᖅᑕᐅᓚᖕᒃᑐᑦ ᐃᒪᓂ ᑕᑯᔭᐅᔪᓐᓇᖅᑐᑦ ᐊᖏᖃᑎᒋᒍᑕᐅᓯᒪᔪᑦ ᐱᓕᕆᔪᑏᑦ ᐊᑐᖅᑕᐅᓯᒪᔪᑦ ᑖᒃᑯᓐᓈᓐ ᐊᖃᐅᒪᓲᓂᑦ-ᐊᑐᖅᓱᑎᒃ ᑭᒡᓕᓯᓂᐊᖅᑏᑦ ᐊᖃᐅᒪᔩᑦ ᖃᐅᔨᓴᖅᑐᖏᑦ ᕿᖅᑯᐊᓂᒃ, ᑭᒥᕐᓗᖃᙳᑦᑐᓂᒃ, ᐊᒻᒪ ᐃᖃᓗᐃᑦ ᖃᓄᐃᑦᑑᓂᖏᑦ ᐆᒪᔪᑦ ᐊᔾᔨᙱᐊᕐᔪᑦ ᐊᒻᒪ ᑎᑎᕋᖅᑕᐅᓗᑎᒃ ᓇᔪᒪᐃᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ ᐊᔾᔨᙱᓕᓪᓚᒃᑐᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂ ᑭᐸᖏᓐᓇᒃᑐᓂ ᐋᖅᑭᒃᑯᕕᒃᓯᒪᔪᑦ ᐃᖅᑲᖓᓂ ᑕᒪᐃᓐᓂᒃ ᓴᖅᑮᔭᖅᑐᒥ ᐊᒻᒪ ᖃᐅᔨᓴᕆᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖓᒥ. ᖃᐅᔨᓴᕝᕙᐃᑦ ᐱᔪᐅᔪᓐᓇᕐᖓᒥᒃ ᐱᔭᐅᖃᑦᑕᓚᐅᖅᑐᑦ ᐊᒻᒪ ᓇᒃᓯᐅᔾᔭᐅᓪᓗᑎᒃ

ᐃᓕᓭᕆᔮᐅᓯᒪᔪᓄᑦ (ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐱᔨᑦᑎᕋᐅᑎᓄᑦ ᓕᒥᑎᑦᑯᓐᓄᑦ) ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᓂᖏᓐᓄᑦ. ᓇᓗᓇᐃᕈᑏᑦ ᐱᖃᓯᐅᑦᔾᔪᑦ ᐳᓭᓐᓯᒥᒃ (%) ᐱᑕᖃᕐᕕᐅᔪᓄᑦ ᐃᖅᑲᖓᑕ ᖃᓄᐃᑦᑑᓂᖓᓄᑦ, ᐃᖅᑲᖓᓂ ᕿᖅᑯᐊᑦ, ᐊᒻᒪ ᓅᑦᑐᓇᙱᑦᑐᑦ ᐃᖅᑲᖓᓂ ᐱᔪᖅᑐᑦ, ᐱᑕᖃᐅᕐᓂᖏᑦ (ᓈᓴᖅᑕᐅᓯᒪᓂᖏᑦ) ᓅᑦᑐᓇᖅᑐᑦ ᐃᔪᖅᑐᑦ, ᐊᒻᒪ ᐊᔾᔨᒌᙱᑦᑐᕈᓘᔭᕐᓂᖏᓐᓄᑦ ᓇᓗᓇᐃᕈᑏᑦ (ᓘᕐᓗ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐱᐅᓂᖏᑦ ᐊᒻᒪ ᓯᓪᓭᓐ ᐊᔾᔨᒌᙱᑦᑐᕈᓘᔭᖅᑐᓄᑦ ᓇᓗᓇᐃᔭᙳᑎᖓ [SDI]) ᕿᖅᑯᐊᓄᑦ ᐱᔪᖅᑐᓄᓪᓗ.

2024-ᒥ, ᐃᖅᑲᖓᑕ ᐊᕙᑎᖓ ᓴᖅᑭᔮᖅᑐᓄᑦ ᐊᒻᒪ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᓄᑦ ᐱᑕᖃᕐᕕᐅᓪᓗᐊᑕᓚᐅᖅᑐᑦ ᐊᕿᑦᑐᒥᒃ ᐃᖅᑲᖓᓂ, ᒪᕋᐳᔪᓪᓗᐊᑕᖅ ᐊᒻᒪ ᓯᐅᕋᖅ, ᒪᓕᑐᐃᓐᓇᖅᑐᑦ ᐊᕐᕋᒎᓯᒪᔪᓂ. ᐊᕐᕋᒎᒥᑦ ᐊᕐᕋᒍᒧᑦ ᐊᔾᔨᒌᙱᖅᑲᑦᑕᖅᑐᑦ ᐅᔾᔨᕆᔭᐅᓯᒪᔪᑦ ᐃᓚᖓᓂ ᐃᖅᑲᖓᓂ ᐊᕿᑦᑑᔪᖅ ᑭᓯᐊᓂᓕ ᒪᕐᕉᑦᑕᖅᓱᑎᒃ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᕿᒥᕐᕈᓃᑦ ᖃᐅᔾᔭᐅᕕᐅᓚᐅᙱᑦᑐᑦ ᐊᔾᔨᒌᙱᓐᓂᖏᓐᓂᒃ ᑖᒃᑯᓇᓂ 2024-ᐊᒻᒪ ᐊᓯᖏᓐᓄᑦ ᓇᓕᐊᖕᓄᑐᐃᓐᓇᖅ ᐊᕐᕋᒎᓯᒪᔪᓄᑦ. ᐊᔾᔨᒌᙱᓐᓂᖅᑕᖃᕐᔪᐊᙱᑦᑐᑦ ᐊᕿᑦᑐᓂ ᐃᖅᑲᖓᓂ ᐊᒻᒪ ᓴᖅᑭᔮᖅᑐᓂ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥᓗ ᐃᓂᒥ 2024-ᒥ. ᐊᔾᔭᐸᓗᖏᑦ ᕿᖅᑯᐊᓂ ᐊᒻᒪ ᐆᒪᔪᕋᓛᓂ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ 2024-ᒥ ᓘᕐᓗ ᑭᖑᓂᖓᑕᕐᓂ ᐊᕐᕋᒎᓯᒪᔪᑦ (2021-2023). ᐱᑕᖃᕐᕕᐅᔪᓂ ᓇᓗᓇᐃᒃᑯᑕᑦ (ᐳᓴᑎᑦ ᐱᑕᖃᕐᓂᐅᔪᑦ ᐱᑕᖃᐅᕐᕕᐅᔪᑦ, ᐆᒪᔪᑉ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐱᑕᖃᑦᑎᐊᕐᓂᖏᑦ, ᐊᒻᒪᓗ SDI) ᐊᔾᔨᒌᒃᑕᙱᑦᑐᑦ ᑖᒃᑯᓇᓂ ᑭᐸᒌᕆᒃᑐᓂ ᐃᖅᑲᖓᓐᑐᓂ, ᑭᓯᐊᓂᓕ ᐊᔾᔨᒌᙱᓐᓂᖅᑲᕐᔪᐊᙱᑦᑐᑦ ᑖᒃᑯᓇᓂ ᐱᑕᖃᕐᕕᐅᔪᓂ ᐊᒻᒪ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᓂ 2024-ᒥ ᓇᓕᐊᖕᓄᑐᐃᓐᓇᖅ ᐱᑕᖃᕐᕕᐅᔪᓄᑦ ᓇᓗᓇᐃᕈᑎᓄᑦ, ᐊᒻᒪ ᑕᑯᒃᑕᑦᑕᐅᑎᒃᑕᑦᑕᕐᓂᖏᑦ ᐃᓂᒥ ᐊᕐᕋᒍᒧᑦ ᐊᖏᔫᓯᒪᙱᑦᑐᑦ ᐱᑕᖃᕐᓂᖓᓕᕆᓐᓂᖅ ᓅᑦᑐᓇᙱᑦᑐᓄᑦ ᐆᒪᔪᕋᓛᓄᑦ. ᐃᑎᓂᖓ ᐅᖅᑯᓴᓐᓂᑦ ᐃᓚᖓ ᐊᕿᑦᑐᖅ ᐃᖅᑲᖓᓂ ᑭᐸᒌᕆᒃᑐᓂ ᐊᔾᔨᒌᒃᑕᑎᖃᙱᓚᕆᒃᓯᒪᔪᖅ ᐆᒪᔪᕋᓛᓄᑦ ᓇᓗᓇᐃᕈᑎᓄᑦ ᑭᓯᐊᓂᓕ ᐊᔾᔨᒋᙱᑦᑎᐊᖅᓯᒪᙱᑦᑕᖏᑦ ᕿᖅᑯᐊᓄᑦ ᓇᓗᓇᐃᒃᑯᑕᑦ. ᐊᒃᑐᐃᓃᑦ ᐊᕐᕋᒍᐊᓂ ᐊᖏᔫᓯᒪᔪᑦ ᕿᖅᑯᐊᓄᑦ ᐊᒻᒪ ᐆᒪᔪᕋᓛᓄᑦ ᓅᑦᑐᓇᙱᑦᑐᓄᑦ ᓇᓗᓇᐃᒃᑯᑕᕐᓄᑦ. ᐊᕝᕙᓂᓛᑦ ᒪᕐᕉᓪᓗ ᐊᕝᕙᓂᓛᑦ ᐱᖓᓱᓂ ᐊᔾᔨᒌᙱᓐᓂᖅᑲᕐᔪᐊᖅᓯᒪᔪᑦ (ᑖᒃᑯᓇᓂ 54-ᓂ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᕿᒥᕐᕈᓗᒋᑦ 2024-ᒥ ᑖᒃᑯᓄᖓ ᐊᕐᕋᒎᓯᒪᔪᓄᑦ, 46-ᖑᔪᑦ ᓴᖅᑭᔮᖅᑎᑦᑎᓯᒪᔪᑦ ᐊᓯᔾᔨᕐᓂᖅᑕᖅᑲᐊᖏᓐᓂᖓᓂᒃ) ᐊᒻᒪ ᖁᕝᕙᓯᖕᓂᖅᓴᐃᑦ ᓈᓴᐅᑏᑦ ᐱᑕᖃᕐᓂᕐᓄᑦ ᓇᓗᓇᐃᒃᑯᑕᑦ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᐊᕐᕋᒍᓄᑦ 2021-ᒧᑦ ᐅᖓᓯᓐᓂᑦ 2022-ᒧᑦ ᐊᒻᒪ ᐊᑕᐅᓯᑐᐊᖅ ᓇᓗᓇᐃᖅᓯᓯᒪᓪᓗᓂ ᐊᒃᐸᓯᖕᓂᖅᓴᒥᒃ ᓈᓴᐅᑎᖃᕐᓂᖓᓂᒃ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2021-ᒥ. ᐊᔾᔨᒌᙱᓐᓂᖅᑲᕐᔪᐊᖅᑕᖃᙱᑦᑐᖅ ᑖᒃᑯᓇᓂ 2023 ᐊᒻᒪ 2024-ᒥ ᐱᑕᖃᕐᕕᐅᔪᑦ ᓇᓗᓇᐃᒃᑯᑕᖏᓐᓂ. ᐳᓴᑎᒃᑯᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ ᐃᖅᑯᐊᑦ 69%-ᒥᒃ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᐱᑕᖃᕐᕕᐅᔪᒥ ᐃᓂᒥ ᐊᒻᒪ 91% ᖁᕝᕙᓯᖕᓂᖅᓴᐃᑦ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥ ᐃᓂᒥ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2021-ᒥ, ᐊᒻᒪ 59%-ᒥᒃ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᔪᑦ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᑦ ᐃᓅᑦ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2022-ᒧᑦ. ᕿᖅᑯᐊᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐱᐅᓂᖏᑦ ᖁᕝᕙᓯᖕᓂᖅᓴᕐᔪᐊᖑᓯᒪᔪᑦ ᑕᒪᐃᓐᓂᒃ ᐱᑕᖃᕐᕕᐅᔪᓂ (51%) ᐊᒻᒪ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥ (67%) ᐃᓂᓂ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2022-ᒧᑦ. ᕿᖅᑯᐊᓂ ᐆᒪᔪᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ ᐱᐅᓂᖏᑦ 51%-ᒥᒃ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ 2024-ᒥ ᐱᑕᖃᕐᕕᐅᔪᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2022-ᒧ ᑭᓯᐊᓂᓕ 2024-ᒥ ᐊᔾᔨᒌᙱᓐᓂᖅᑲᕐᔪᐊᙱᑦᑐᑦ ᐊᓯᖏᓐᓄᑦ ᐊᕐᕋᒎᓯᒪᔪᓄᑦ. ᕿᖅᑯᐊᑦ SDI ᐊᔾᔨᒌᙱᓐᓂᖅᑲᕐᔪᐊᖅᓯᒪᙱᑦᑐᑦ ᐱᑕᖃᕐᕕᐅᔪᒥ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᒋᑦ ᐊᓯᖏᓐᓄᑦ ᐊᕐᕋᒎᔪᓄᑦ ᑭᓯᐊᓂᓕ 78%-ᒥ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᒧᑦ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᒋᑦ 2022-ᒥ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᓂ ᐃᓂᓂ. ᐳᓴᑏᑦ ᐱᑕᖃᕐᓂᖏᓐᓄᑦ ᐊᒻᒪ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐱᐅᓂᖏᑦ ᓂᒪᑦᑐᓇᙱᑦᑐᑦ ᐆᒪᔪᕋᓛᑦ ᐱᑕᖃᕐᕕᐅᔪᒥ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥᓗ ᐊᔾᔨᒌᙱᓐᓂᖅᓯᒪᙱᑦᑐᑦ 2024-ᒥ ᐊᓯᖏᓐᓄᑦ ᐊᕐᕋᒎᓯᒪᔪᓄᑦ. ᓅᑦᑐᓇᙱᑦᑐᑦ SDI 69%-ᒥ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᐱᑕᖃᕐᕕᐅᔪᒥ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᒋᑦ 2022-ᒧᑦ ᑭᓯᐊᓂᓕ ᐊᔾᔨᒌᙱᓐᓂᖅᑲᙱᑦᑐᑦ ᓇᓕᐊᖕᓄᑐᐃᓐᓇᖅ ᐊᕐᕋᒍᓄᑦ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᓄᑦ ᐃᓂᓄᑦ. ᓅᑦᑐᓇᖅᑐᑦ ᐆᒪᔪᕋᓛᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ ᐅᓄᕈᓐᓃᖅᐸᓕᐅᖅᓯᒪᔪᑦ 149%-ᒥᒃ ᐱᑕᖃᕐᕕᐅᔪᓂ ᐃᓂᓂ, ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2021-ᒧᑦ ᐊᒻᒪ 2024-ᒧᑦ. ᓅᑦᑐᓇᖅᑐᑦ ᐆᒪᔪᕋᓛᑦ ᐱᑕᖃᐅᕐᓂᖏᑦ 63%-ᒥᒃ ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓯᒪᔪᑦ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥ ᐃᓂ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 2022-ᒧᑦ. ᐊᔾᔨᒌᙱᓐᓂᖅᑲᕐᔪᐊᖅᓯᒪᙱᑦᑐᑦ ᖃᐅᔨᓴᐅᔪᓂᒃ ᐊᕐᕋᒍᒧᑦ, ᐃᓂᒧᑦ, ᐅᖅᑯᓴᓐᓂᑦ ᐊᕐᕋᒍ ᐃᓂᒧᑦ ᑕᑯᒃᑕᑦᑕᐅᑎᖁᕕᐅᔪᓂ ᓅᑦᑐᓇᖅᑐᓄᑦ ᐆᒪᔪᕋᓛᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ ᐅᖅᑯᓴᓐᓂᑦ SDI-ᒧᑦ.

ᐱᓕᕆᐊᖑᓯᒪᓪᓗᓂ ᐊᕐᕋᒎᓯᒪᔪᓂ, ᐊᒃᑐᐃᓃᑦ ᖃᓄᑎᒋᐅᓂᖏᑦ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᖅ ᐊᑐᖅᓱᑎᒃ ᓴᙱᓕᓃᓂᒃ ᕿᒥᕐᕈᓂᖅ ᖃᐅᔨᔭᐅᖁᓪᓗᒋᑦ ᐱᓕᕆᐊᒧᑦ-ᐊᒃᑐᐊᓂᓖᑦ ᐊᔾᔨᖅᑐᑦ ᑐᙵᕕᒋᓪᓗᒋᑦ ᖃᓄᑎᒋᐅᓂᖏᑦ ᐅᔾᔨᕆᔭᐅᔪᑦ ᐊᔾᔨᖅᑕᖅᑐᓂ ᑖᒃᑯᓇᓂ ᑭᐸᒌᕆᒃᑐᓂ ᐃᖅᑲᖓᓐᑐᓂ. ᐊᒃᑐᐃᓂᕐᔪᐊᑦ ᐊᖏᑎᒋᓂᖏᑦ (>50%) ᐱᑕᖃᕆᐊᖃᖅᑎᑦᑎᓯᒪᔪᑦ ᓈᓚᒃᑐᒥᒃ ᐱᔪᓇᕐᓗᑎᒃ ᓈᓴᐅᓯᕆᓂᖅᑎᒍᑦ ᓴᙱᓂᐅᔪᓂᒃ ᐊᑕᖏᐸᓗᒃᓱᒋᑦ ᕿᒥᕐᕈᓂᕐᒧᑦ ᐊᕿᑦᑐᓂ ᐃᖅᑲᑲᖅᑐᓂ, ᐆᒪᔪᕋᓛᓂ, ᐊᒻᒪ ᕿᖅᑯᐊᓂ. ᐱᔾᔪᑎᒋᓗᒋᑦ ᐊᒃᐸᓯᒃᑐᑦ ᓈᓴᐅᓯᕆᓂᕐᒧᑦ ᓴᙱᓂᐅᔪᑦ ᖃᐅᔨᓴᐅᖁᓪᓗᒋᑦ ᐊᒃᑐᐃᓃᑦ ᐊᖏᑎᒋᓂᖏᑦ ᐃᒪᐃᑦᑑᓅᑐᐃᓐᓇᕆᐊᓖᑦ ᐆᒪᔪᕕᓂᕐᓄᑦ ᐊᒃᑐᐊᓂᖃᕐᓗᑎᒃ, ᓯᕗᓪᒧᐊᕐᕕᒋᑎᓗᑕ, ᐃᒪᕐᑯᔭᐅᓯᒪᔪᖅ ᑕᒪᒃᑯᐊ ᐃᓯᓕᔾᔪᑕᐅᓯᒪᔪᖅ ᐋᖅᑭᒃᑕᐅᙳᐊᓗᑎᒃ ᒪᓕᒋᐊᖃᓪᓚᑦᑖᕐᓂᖏᓐᓄᑦ ᓈᓴᐅᓯᕆᓂᖅᑎᖑᒧᑦ ᐊᖏᔫᓂᖏᑦ. ᐃᒪᓐᓇᖔᕐᓕ, ᐊᒃᑐᐃᓃᑦ ᖃᓄᑎᒋᐅᓂᖏᑦ, ᓇᓗᓇᕐᓂᖏᑦ, ᐊᒻᒪ ᓈᓴᐅᓯᕆᓂᖅᑎᒍᑦ ᐊᖏᓂᖏᑦ ᐊᒻᒪ ᓴᙱᓂᖏᑦ ᐃᓱᒪᒋᖃᓯᐅᔾᔭᐅᓗᑎᒃ ᑲᑎᙵᓗᑎᒃ ᐊᑐᕈᓐᓃᖅᑎᑕᐅᖄᖅᑎᓇᒍ ᐊᖏᑎᒋᓂᖓ ᐊᒻᒪ ᒫᓐᓇᓚᐅᑲᐅᔪᑦ ᐊᔾᔨᖅᑐᑦ ᐃᖅᑲᖓᓂ ᐆᒪᔪᕋᓛᑦ.

ᑕᒪᐃᓐᓄᑦ, ᕿᖅᑯᐊᑦ ᐊᒻᒪ ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᑦ ᐱᑕᖃᕐᓂᕐᓂᑦ ᐋᖅᑭᒃᓯᒪᓂᖏᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᕿᒥᕐᕈᔭᒃᓴᐅᔪᑦ ᑖᒃᑯᓇᓂ ᐱᑕᖃᕐᕕᐅᔪᓂ ᐊᒻᒪ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᓂ ᐃᓂᓂ. ᐊᕐᕌᒍᒥᑦ ᐊᕐᕌᖕᒍᒧᑦ ᐊᓯᔾᔨᖅᑕᑦᑕᕐᓂᖏᑦ ᐃᓚᖏᓐᓂ ᓇᓄᓇᐃᕈᑎᓂ ᐱᔾᔪᑎᖃᖅᑐᒃᓴᐅᔪᑦ ᓄᓇᓂ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᐊᕙᑎᒥ ᐱᔾᔪᑕᐅᔪᓂᒃ. ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕋᓱᖕᓂᑦ ᐅᓪᓗᒥᒧᑦ ᓴᖅᑮᓯᒪᔪᑦ ᓇᓄᓇᐃᕈᑎᑕᖅᖏᓐᓂᖓᓂᒃ ᐊᖏᔫᒃᑯᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐃᓕᖅᑯᓯᐅᓕᖅᐸᒃᑐᑦ ᐊᒃᑐᐊᓂᖃᑐᐃᓐᓇᕆᐊᓖᑦ ᐱᓕᕆᐊᒥ-ᓴᖅᑭᑕᐅᓯᒪᔪᑦ ᐊᒃᑐᐃᓃᑦ. ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᖅ ᕿᖅᑯᐊᓂᒃ ᐊᒪ ᐃᖅᑲᓐᓂ ᐆᒪᔪᕋᓛᑦ ᐋᖅᑭᒃᓯᒪᓂᖏᑦ ᐊᑐᐃᓐᓇᕐᑯᔭᐅᓯᒪᔪᑦ, ᐊᑐᕐᓗᑎᒃ ᑖᒃᑯᓂᔅᓴᐃᓐᓇᖅ ᖃᐅᔨᓴᒃᓴᓕᐅᕈᑎᓂᒃ ᐊᒻᒪ ᓈᓴᐅᑎᑎᒍᑦ ᐋᖅᑭᒃᓯᒪᓂᐅᔪᓂᒃ, ᐋᖅᑭᒋᐊᕌᕐᔫᒃᓯᒪᓗᓂᑦ ᖄᖓᓂ ᓴᕕᕋᔭᖕᓂ ᐋᖅᑭᒃᓯᒪᔪᑦ ᐊᒻᒪ ᓯᓚᑖᓂ ᐊᕙᓗᐊ ᕿᒥᕐᕈᓂᕐᒥ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐅᔾᔨᕐᓇᖅᓯᒋᐊᖅᓯᒪᕐᑯᓪᓗᑎᑦ ᓇᔪᒐᑦ ᐋᖅᑭᒃᐸᓪᓕᐊᓂᕆᕚᑕᕆᑦ ᐊᒻᒪ ᐱᑕᖃᕐᓂᐅᔪᑦ ᑕᒪᒃᑯᓇᓂ ᑎᓯᔪᓂᒃ ᖄᖃᖅᑐᓂ ᐃᓗᐊᓂ ᐊᒥᓯᑦ ᑭᑉᐹᓇᒃᑐᑦ ᐋᖅᑭᒃᓯᒪᔪᑦ ᐃᖅᑲᓐᓂ 2024-ᒥ. ᑕᒪᓐᓇ ᐋᖅᑭᑎᐊᕐᓂᖅ ᐊᒃᑐᐃᓂᐊᖅᑐᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓂᒃ ᕿᒥᕐᕈᔪᓐᓇᕐᓂᕐᓂᒃ ᖃᐅᔨᔭᐅᔪᓂᒃ ᐊᕐᕌᒍᒥᑦ ᐊᕐᕌᒍᒧᑦ ᑭᓯᐊᓂᓕ ᐊᒃᑐᐃᔾᔮᖏᑦᑐᑦ ᑖᒃᑯᓇᓂ-ᐃᓂᓂ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᕿᒥᕐᕈᓂᕐᓂᒃ. ᒪᕐᕈᒃ ᑭᑉᕌᓇᒃᑑᒃ ᐃᖅᑲᓐᓂ ᐋᖅᑭᒃᓯᒪᔫᒃ ᖃᓂᓛᑦ ᑯᓚᓛᕐᒧᑦ ᓇᓂᔭᐅᓚᐅᖏᑦᑑᒃ 2024-ᒥ ᐊᒻᒪ ᐊᓯᐅᓯᓇᓯᒋᔭᐅᓕᖅᓗᑎᒃ. ᐃᒪᓐᓇᐅᓇᓯᒋᔭᐅᔪᖅ ᑕᒪᒃᑯᐊ ᐃᖅᑲᓐᓂ ᑭᑉᐹᓇᒃᑐᐃᑦ ᐋᖅᑭᒃᓯᒪᔪᑦ ᑭᖑᕝᕕᑦᑕᐅᔾᔮᖏᑦᑐᑦ ᐃᕙᓪᓕᐊᓪᓚᑦᓯᒪᓂᖓᓄᑦ ᖃᓄᐃᓕᖓᓃᑦ ᐃᖅᑲᓐᓂ ᑕᐅᕙᓂ. ᓱᓕᒃᑲᓐᓂᖅ, ᐊᑐᓕᕐᑯᔭᐅᔪᖅ ᐅᓄᖅᓯᒋᐊᕐᓗᑎᑦ ᑲᑎᑕᐅᓯᒪᓂᖏᑦ ᖃᐅᔨᒪᔭᐅᙱᑦᑐᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ, ᐊᔪᕐᓇᙱᑐᐊᕐᕌᖕᒐᑦ, ᕿᒥᕐᕈᓂᕐᒧᑦ ᐊᒻᒪ ᓇᓄᓇᐃᔭᖅᑕᐅᓂᕐᒧᑦ. ᐊᔪᕐᓇᙱᑐᐊᕐᕌᖕᒐᑦ, ᑕᒪᐃᑦᑐᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑲᑎᑕᐅᓂᐊᖅᑐᑦ ᓯᓚᑖᓄᑦ ᑭᓯᐊᓂᓕ ᖃᓂᒋᔭᖕᓂ ᐋᖅᑭᕕᒃᓯᒪᔪᑦ ᐃᖅᑲᖕᓂ ᑭᑉᐹᓇᒃᑐᑦ ᐋᖅᑭᒃᓯᕕᐅᓯᒪᔪᓂ ᐊᒃᑐᐃᓗᐊᕐᑯᓇᖏᑦ ᐆᒃᑐᕋᖅᑕᐅᕙᖕᓂᖏᑦ ᐱᑕᖃᕐᕕᐅᔪᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᐃᓗᐊᓂ ᑕᒪᒃᑯᐊ ᐃᖅᑲᖕᓃᑦᑐᑦ ᑭᑉᐹᓇᒃᑐᑦ.

ᑕᒪᐃᓐᓄᑦ, ᓇᓗᓇᐃᖅᓯᓯᒪᒐᓗᐊᖅᑎᓪᓗᒋᑦ ᓈᓴᐅᓯᕆᓂᒃᑯᑦ ᑭᓪᓕᐅᔪᓂᒃ ᑕᒪᒃᑯᐊ ᐃᓗᓕᖏᓐᓄᑦ (ᓘᕐᓗ ᐊᔾᔨᒌᙱᕐᔪᐊᖃᑦᑕᕐᓂᖏᓐᓄᑦ ᑎᑭᐅᑎᓪᓗᑎᒃ ᑕᒪᐃᓐᓂᓄᒃᑖᖅ ᐊᒃᐸᓯᒃᑑᓪᓗᑎᒃ ᓈᓴᐅᓯᕆᓂᕐᒧᑦ ᓴᙱᓂᐅᔪᑦ), 2024-ᒥ ᖃᐅᔨᓴᕐᓂᕐᒥ ᖃᐅᔨᔭᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᔪᑦ ᑕᒃᑯᐊ ᐱᓕᕆᐊᒥ ᐱᓕᕆᓃᑦ ᐅᓪᓗᒥᒧᑦ ᓴᖅᑮᓯᒪᙱᑦᑐᑦ ᐊᒃᑐᐃᓂᕐᓗᖏᓂᕐᓂᒃ ᕿᖅᑯᐊᓄᑦ ᐊᒻᒪ ᑯᒪᕈᐃᑦ ᐱᑕᖃᕐᓂᐅᓂᖏᓐᓂᒃ ᕿᙳᐊᓂ ᑐᓪᓚᑦᑕᕐᕕᖕᒥ.

ᑕᕆᐅᒥ ᐃᖃᓗᐃᑦ ᐱᑕᖃᕐᕕᖏᑦ (ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 6.0)

ᓈᒻᒪᒃᓯᕐᑯᓪᓗᖏᑦ ᐅᔭᕋᖕᓂᐊᕈᓐᓇᐅᑎ ᓈᓴᐅᑖᖅ 99(ᐱ)(ii), 99(ᑎ), 113, ᐊᒻᒪᓗ 114, ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓃᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ ᕿᒥᕐᕈᔪᒪᓪᓗᑎᒃ ᐊᒃᑐᐊᓂᓕᖕᓂᒃ ᐊᓯᓘᓂᖏᓐᓄᑦ ᑕᕆᐅᕐᒥᐅᑕᑦ ᐃᖃᓗᐃᑦ (*Salvelinus alpinus*) ᐊᒻᒪᓗ ᐊᓯᖏᑦ ᐃᖃᓗᐃᑦ ᐆᒪᔪᑦ ᐊᔾᔨᖏᙱᕐᔪᐊᕐᔪᒃᑐᑦ ᕿᙳᐊᓂ ᑐᓪᓚᑦᑕᕐᕕᖕᒥᕈᔫᒃ. ᐊᒥᓯᑦ ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᔾᔪᓯᐅᕙᒃᑐᑦ (ᓘᕐᓗ ᐊᐅᓚᓴᕐᓃᑦ, ᒪᑎᑦᑕᕐᓃᑦ, ᐃᓗᖅᑲᖅᑐᑦ ᒪᑎᑕᐅᑎᐅᔭᑦ, ᐊᒻᒪ ᑲᑎᑕᐅᓰᑦ ᒪᑎᑦᑕᐅᑏᑦ) ᐊᑐᖅᑕᐅᓯᒪᔪᑦ ᑐᕌᒐᖅᖁᑎᒃ ᐊᓯᔾᔨᙱᕐᔪᑎᑦᑐᓂᒃ ᐃᖃᓗᖕᓂᒃ ᐆᒪᔪᑦ ᐊᓯᔾᔨᙱᕐᔪᐊᕐᔪᒃᑐᑦ ᐊᒻᒪ ᓇᔪᒐᖏᑦ ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ. ᑲᑎᑕᐅᔪᑦ ᐃᖃᓗᐃᑦ ᓇᓄᓇᐃᔭᖅᑕᐅᓯᒪᔪ ᐊᒃᐸᓯᒃᑐᒥᒃ ᐊᔪᕐᓇᙱᓛᒃᑯᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓄᑦ ᖃᓄᑎᕆᐅᓂᖏᑦ, ᐱᓗᐊᖅᑐᒥᒃ ᐆᒪᔪᑦ ᐊᔾᔨᖏᙱᕐᔪᐊᕐᔪᒃᑐᑦ ᖃᓄᑎᕆᐅᓂᖏᑦ, ᐅᑎᖅᑎᑕᐅᖅᑳᖅᑎᓐᓇᕆᑦ. ᐃᖃᓗᐃᑦ ᓇᓄᓇᐃᖅᑕᐅᓯᒪᙱᑦᑐᑦ ᐆᒪᔪᑦ ᐊᔾᔨᙱᕐᔪᐊᕐᔪᒃᑐᑦ ᖃᓄᑎᕆᐅᓂᖏᑦ ᑕᐅᕙᓂ ᐱᔭᐅᓯᒪᔪᑦ ᑭᖑᓂᐊᒍᑦ ᓇᓄᓇᐃᔭᖅᑕᓚᐅᖅᑎᓪᓗᖏᑦ ᐃᓕᓵᔭᐅᓯᒪᔪᓄᑦ ᐆᒪᔪᑦ ᖃᐅᔨᓴᕐᕕᖕᓂ. ᐃᖃᓗᖃᖅᑐᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ (ᐊᔾᔨᙱᑦᑑᑏᑦ), ᐊᒥᓲᓂᖏᑦ, ᐊᒻᒪ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓯᕐᓂᕐᒧᑦ (CPUE) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑖᒃᑯᓇᓂ ᐊᕐᕋᒎᔪᓂ ᐊᒻᒪ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓯᕐᓂᕐᒧᑦ (CPUE) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑖᒃᑯᓇᓂ ᒪᕐᕉᖕᓂ ᐃᖃᓗᓚᓯᓪᕕᐅᔪᓂ ᐃᓂᓂ (FAs) ᓇᓄᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᕿᙳᐊᓂ ᑐᓪᓚᑦᑕᕐᕕᖕᒥ: ᑕᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF) ᐊᒻᒪ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF), ᓴᙳᓯᒪᓪᓗᑎᒃ ᓇᔪᒪᐃᑦ ᑕᐅᑦᑐᖏᓐᓄᑦ ᐊᒻᒪ ᖃᓂᒋᔭᖏᓐᓂ ᐱᑕᖅᐸᕇᖅᑐᑦ ᑐᓪᓚᑦᑕᕐᕕᖕᒥ ᐱᕐᑯᑎᕐᔪᐊᓂ ᐊᒻᒪ ᐊᐅᓚᓂᕐᒥ ᐱᓕᕆᓂᐅᔪᓄᑦ.

ᑲᑎᖦᖢᒋᑦ 633 ᐃᖃᓗᐃᑦ ᐃᓂᖃᖅᑐᑦ ᖁᓕᓄᑦ ᖃᐅᔨᒪᔭᐅᔪᓄᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᕿᙳᐊᓂ ᑐᓪᓚᑦᑕᕐᕕᖕᒥ ᑖᒃᑯᓇᓂ 88-ᓂ ᐃᖃᓗᓚᓯᖕᓂᐅᓯᒪᔪᓂ (ᐱᓕᕆᐊᖑᓯᒪᔪᑦ) ᐊᑐᖅᖢᑎᒃ ᑲᑎᖅᓱᐃᖕᓂᒃ ᐱᓕᕆᔾᔪᑎᓂᒃ 2024-ᖑᑎᓪᓗᒍ ᓯᑯᖃᙱᑎᓪᓗᒍ ᖃᐅᔨᓴᕐᓂᕐᒥ ᐱᓕᕆᓐᓇᐅᔪᒥ. ᐊᔾᔨᒋᓗᒋᓪᓗᒋᑦ ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓂᐅᓚᐅᖅᓯᒪᔪᓄᑦ ᐊᕐᕌᒍᓄᑦ, ᑕᕆᐅᕐᒥᐅᑕᑦ ᐃᖃᓗᐃᑦ, ᑎᒪᓯᓂᒃ ᓇᒃᔪᓕᑦ ᑲᓇᔪᑦ (Myoxocephalus quadricornis), ᐊᒻᒪ ᑲᓇᔪᐃᑦ (Myoxocephalus scorpius) ᐊᒥᓲᓛᖑᖃᑦᑕᖅᓯᒪᔪᑦ ᐊᔾᔨᙱᕐᔪᐊᕐᔪᒃᑐᓂ ᐆᒪᔪᓂ. ᐊᓯᖏᑦ ᐃᖃᓗᐃᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ ᐱᖃᓯᐅᔾᔨᓯᒪᔪᑦ ᐆᒐᕐᓂᒃ (Gadus macrocephalus), ᐅᑭᐅᖅᑕᖅᑐᒥ ᑲᓇᔪᖅ (Icelus spatulata), ᐊᑦᓛᓐᑎᒃ ᐃᖃᓗᒃᓚᐃᑦ (Eumicrotremus spinosus), ᓇᓗᓇᐃᖅᑕᐅᓯᒪᙱᑦᑐᖅ ᑲᓇᔪᖅ (Family Cottidae) ᐊᒻᒪ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᙱᑦᑐᖅ ᑲᓇᔪᕋᓛᖅ (Gadidae indet.). ᑕᒪᓐᓇ ᑐᓪᓕᓂᓕᖅᑕᖓ ᑭᖑᓪᓕᕇᓂ ᐊᕐᕋᒍᓂ ᑖᒃᑯᐊ ᐊᑦᓛᓐᑎᒃ ᕿᖃᓗᒃᓚᐃᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᓪᓗᑎᒃ ᐃᖃᓗᒃᖃᖅᑐᓂ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ, ᑭᖑᓂᐅᔪᑦ ᓯᕗᓪᓕᖅᐹᒥ ᐃᖃᓗᒃᑕᐅᓚᐅᖅᑎᓪᓗᒋᑦ 2023-ᒥ.

ᖃᓄᐃᓕᖓᓂᖏᑦ ᐊᒻᒪ ᐊᒥᓲᓂᖏᑦ ᐃᖃᓗᖃᐅᖅᑐᓂ ᐃᖃᓗᒃᑕᐅᔪᑦ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᕿᒥᕐᕈᔭᐅᑐᐃᓐᓇᓚᐅᖅᑐᑦ ᑕᐃᒃᑯᓄᖓ 2020-2023-ᒥ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ. ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐱᐅᓂᖏᑦ ᓱᓕ ᒪᓕᒃᓯᒪᑐᐃᓐᓇᖅᑐᑦ ᑭᖑᓂᖓᓪᓕᑎᓐᓂ ᐊᕐᕌᒍᓄᑦ ᖁᓕᓄᑦ ᖃᐅᔨᒪᔭᐅᔪᓄᑦ ᐆᒪᔪᓄᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ (ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ 10-12 ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᒃ 2020-ᒥᑦ 2023−ᒧᑦ), ᐊᒻᒪ ᐱᑕᖃᐅᕐᓂᖏᑦ, ᐋᖅᑭᐊᖅᑕᐅᓯᒪᙱᑦᑐᑦ ᐃᖃᓗᒐᓱᒋᓐᓂᕐᒧᑦ, ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ 2023-ᒥ (633 ᐃᓛᒃᑰᖅᑐᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ 422-ᖑᔪᑦ 2023-ᒥ), ᐊᒻᒪ ᐃᓗᐊᓃᓗᑎᒃ ᐊᒥᓲᓂᖏᓐᓄᑦ ᖃᓄᑎᒋᐅᖃᑦᑕᖅᓯᒪᓂᖏᑦ ᐊᕐᕌᒍᓂ 2020-ᒥᑦ 2022-ᒧᑦ (482-852 ᐃᓛᒃᑰᖅᑕᖅᑐᑦ).

ᖃᐅᔨᔭᐅᔪᑦ ᓈᓴᐅᓯᕆᓂᕐᒥ ᕿᒥᕐᕈᓂᒃᑯᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) (ᓲᕐᓗ ᐊᖑᓂᒃᑕᐅᔪᑦ ᖃᓄᑎᒋᐅᓂᖏᑦ ᐋᖅᑭᒋᐊᖅᓯᒪᔪᑦ ᐃᖃᓗᒐᓱᒋᓐᓂᕐᒧᑦ) ᐃᑲᔪᖅᑐᖅᑕᐅᔪᑦ ᐱᔭᕇᖅᑕᐅᑎᓪᓗᒋᑦ ᐱᑕᖃᖅᐸᕌᖅᑐᓄᑦ ᐸᓚᐅᒪᑎᑦᑎᓇᓲᑎᓄᑦ ᐊᐅᓚᓂᐅᓯᒪᔪᑦ ᐱᓂᐊᕐᓂᖃᕈᒪᓪᓗᑎᒃ ᐊᒻᒪ ᑕᒪᓐᓇ ᒫᓐᓇ ᐅᔾᔪᕆᖕᓂᐊᕐᓂᒥ ᐱᓕᕆᓂᖅ ᓴᖅᑮᓯᒪᙱᑦᑐᑦ ᐊᒃᑐᐃᓂᕐᓗᖕᓂᕐᓂᒃ ᓄᓇᖓᓂ ᑕᕆᐅᒥ ᐃᖃᓗᐃᑦ ᐱᑕᖃᕐᕕᖕᒋᓐᓂᒃ ᕿᙵᐊᓂ ᑕᓚᒃᑕᕐᕕᖕᒥ. ᐅᓄᕈᓐᓃᖅᑎᑦᑎᕆᐊᖅᓯᒪᓂᖅᑕᖃᙱᑦᑐᑦ ᐃᖃᓗᐃᑦ ᐊᒥᓲᓂᖏᓐᓄᑦ ᐊᒃᑐᐊᔪᓂ ᐱᓕᕆᓂᕐᓂ ᑕᐃᑲᓂ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF); ᐃᖃᓗᐃᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE); ᐃᖃᓗᐃᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᐅᕙᓂ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF) ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐊᔾᔨᙳᕆᓐᓂᖅᓴᐅᓂᖃᙳᕆᓗᓂ ᑖᒃᑯᓇᙵᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᐃᑲᓂ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF). ᕿᒥᕐᕈᓃᑦ ᑲᑎᙵᕆᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) (ᐃᖃᓗᓗᒃᑖᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᑲᑎᙵᕆᑦ) 2024-ᒥ ᓴᖅᑮᔭᖅᑎᑦᑎᔪᑦ ᖁᕝᕙᓯᖕᓂᖅᓴᒥᒃ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᐅᕙᓂ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓪᓗᒋᑦ ᑖᒃᑯᓄᖓ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF) ᒪᑦᑎᑦᑕᕐᓂᕐᒧᑦ ᐊᒻᒪ ᐃᒃᐱᐊᕐᔫᔭᖃᖅᑐᓄᑦ ᒪᑦᑎᑦᑕᐅᑎᓄᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ, ᒪᓕᑐᐃᓐᓇᖅᓯᒪᔪᑦ ᐱᐅᓯᐅᕙᒃᑐᓄᑦ ᐅᔾᔨᕆᔭᐅᔪᓄᑦ ᐊᕐᕌᒍᓯᒪᔪᓂ. ᑲᑎᙵᕆᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᐊᐅᓚᓯᕐᓂᕐᒧᑦ 2024-ᒥ ᓴᖅᑮᔭᖅᑎᑦᑎᓯᒪᔪᑦ ᑭᓪᓗᒧᖓᓚᖅ ᐱᐅᓯᐅᕙᒃᑐᓂᒃ, ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓪᓗᑎᒃ ᐊᖑᓂᒃᑕᐅᔪᑦ ᑕᐃᑲᓂ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ ᑖᒃᑯᓄᖓ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF), ᐊᔾᔨᒌᙱᓐᓂᖃᕈᑎᒃ ᑭᖑᓂᖓᓪᓕᑎᓐᓂ ᐊᕐᕌᒍᔪᓂ ᐊᖑᓂᒃᑕᐅᔪᑦ ᑕᐃᑲᓂ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF) ᖁᕝᕙᓯᖕᓂᖅᓴᐅᖃᑦᑕᓚᐅᖅᑎᓪᓗᒋᑦ ᑖᕝᕙᙵᓪᓗᑦ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF).

ᑕᕆᐅᕐᒥᐅᑕᓄᑦ ᐃᖃᓗᙵᓄᑦ, ᑕᑯᖃᑦᑕᐅᑎᓂᕐᒧᑦ ᐊᒃᑐᐃᓂᖅᑕᖃᕐᔪᐊᓚᐅᖅᑐᖅ ᑖᒃᑯᓇᓂ ᐊᕐᕌᒍᔪᓂ ᐊᒻᒪ ᐃᓂᓂ ᒪᑦᑎᑦᑕᐅᑎᓄᑦ, ᐃᖃᓗᒐᓱᒍᓯᑐᐊᖅ ᕿᒥᕐᕈᔭᐅᔪᓐᓇᓚᐅᖅᑐᖅ. ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ ᑕᒪᐃᓐᓂᒃ ᐃᖃᓗᒐᓱᒡᕕᐅᔪᓂ ᐃᓂᓂ (FAs) ᐊᔾᔨᐸᓗᒋᓚᐅᖅᑕᖏᑦ 2020-ᒥ 2022-ᒧᑦ; ᑭᓯᐊᓂᓕ, 2023-ᒥ, ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᕆᐅᕐᒥᐅᑕᑦ ᐃᖃᓗᐃᑦ ᑕᐃᑲᓂ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF) ᐊᒃᐸᓯᖕᓂᖅᓴᕐᔪᐊᖑᓚᐅᖅᑐᑦ ᑕᐃᑲᙵᓂᑦ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF), ᐅᓄᙱᓛᖑᓯᒪᓪᓗᑎᒃ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᕆᐅᕐᒥᐅᑕᓄᑦ ᐃᖃᓗᙵᓄᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂ ᐊᖓᒃᑰᖃᑦᑕᖅᓯᒪᓂᖏᓐᓄᑦ ᐋᖅᑭᒃᓱᖅᓯᒪᔪᓄᑦ. 2024-ᒥ, ᑕᕆᐅᕐᒥᐅᑕᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᐃᑲᓂᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF) ᖁᕝᕙᓯᖕᓂᖅᓴᕐᔪᐊᖑᓯᒪᔪᑦ 2023-ᒥ, ᖃᓂᒋᓪᓚᕆᒡᓗᑎᒃ ᐋᖅᑭᓱᖅᑭᒃᑕᐅᓂᖏᑦ 2022-ᒥ 2022-ᒧᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᓈᓴᐅᑎᖏᑦ ᑕᒪᒃᑯᐊ 2024-ᒥ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᓈᓴᐅᑎᖏᑦ ᑕᐃᑲᓂ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥᑦ (DPF) ᓱᓕ ᒪᓕᑐᐃᓐᓇᖅᑐᑦ 2020-ᒥ, 2022-ᒥ, ᐊᒻᒪᓗ 2023-ᒥ. ᒪᑦᑎᑦᑕᕐᓂᒃᑯᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᐅᓄᕐᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᖏᑦ ᑖᒃᑯᓄᖓ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒧᑦ (DPF) 2024-ᒥ.

ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᕐᓄᑦ ᑲᓇᔪᕐᓄᑦ, ᐃᓃᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᒋᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ ᐊᐅᓚᓯᕐᓂᕐᒧᑦ, ᒪᑦᑎᑦᑕᕐᓂᒃᑯᑦ, ᐊᒻᒪ ᐃᒃᐱᐊᕐᔫᔭᓕᖕᓄᑦ ᒪᑦᑎᑦᑕᐅᑎᓄᑦ ᐱᓕᕆᔾᔪᑎᖅᑎᒍᑦ ᐊᒻᒪᓗ, ᐱᓕᕆᔾᔪᓯᓗᒃᑖᓄᑦ, ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᖁᕝᕙᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᖅ ᑖᕝᕙᓂᓪᓚᑦᑖᖅ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒧᑦ (DPF) ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓗᒋᑦ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒧᑦ (IPF). ᑕᒪᓐᓇ ᐊᒃᑐᐊᓂᖃᑐᐃᓐᓇᕆᐊᓕᒃ ᐊᑐᖅᑕᐅᓂᖏᓐᓄᑦ ᐋᖅᑭᒃᓱᖅᑕᐅᓯᒪᔪᑦ ᐃᒃᑲᕈᙳᖅᑎᑕᐅᓯᒪᔪᑦ ᖃᓂᒋᔭᖓᓂ ᐱᓕᕆᕝᕕᐅᑉ ᓴᕕᒃᓴᓂᒃ ᐊᒻᒪ ᑎᑭᓴᖅᑕᐅᓯᒪᔪᓄᑦ ᐃᒃᓴᕐᕖᑦ ᑎᓴᒪᓄᑦ ᓇᒡᔪᓕᕐᓄᑦ ᑲᓇᔪᕐᓄᑦ. ᖄᒃᑲᓂᐊᒍᑦ ᑎᓴᒪᓄᑦ ᓇᒡᔪᓕᕐᓄᑦ ᑲᓇᔪᕐᓄᑦ ᒪᑦᑎᑦᑕᐅᑎᒃᑯᑦ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ (CPUE) ᐃᓗᐊᓂ ᐊᒃᑐᐊᓂᖃᓪᓚᑦᑖᙱᑦᑐᑦ ᐱᓕᕆᐊᒥ ᐃᓂᐅᔪᒥ (IPF) ᐅᓄᙱᓐᓂᖅᓴᒻᒪᕆᐅᓚᐅᖅᑐᑦ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᓪᓗᑎᑦ ᐊᕐᕌᒍᓄᑦ 2020-ᒥ 2022-ᒧᑦ ᑭᓯᐊᓂᓕ ᐅᓄᕐᓂᖅᓴᐅᓚᐅᖅᑑᒃ ᖃᔅᓯᐅᓂᖏᑦ ᑕᑯᔭᐅᓯᒪᔪᑦ 2023-ᒥ.

ᐋᖅᑭᐊᖅᑕᐅᓂᖏᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ ᐃᖃᓗᖃᖅᑐᓄᑦ ᐊᓂᒍᖅᑐᓂ ᐊᕐᕌᒍᓚᖓᓂ ᑐᕌᒐᖃᖅᓯᒪᔪᑦ ᐱᐅᓯᕆᐊᖅᑕᐅᓗᑎᒃ ᓈᓴᐅᓯᕆᓂᕐᒧᑦ ᓴᙱᓃᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ. ᖃᓄᖅᑑᕈᑕᐅᓪᓗᐊᑕᖅᓯᒪᔪᖅ 2024-ᒥ ᐱᖃᓯᐅᔾᔨᔪᑦ

ᐲᖅᑕᐅᓂᖏᑦ ᐃᖃᓗᓕᕆᔾᔪᑏᑦ ᓴᖅᑮᓯᒪᔪᑦ ᐊᒃᑐᐊᓂᓕᖕᓄᑦ ᐅᓄᙱᓐᓂᖅᓴᓂᒃ ᐊᖑᓂᖕᓂᕐᓂᒃ (ᓲᕐᓗ ᐃᒃᐱᐊᕐᔫᔭᓖᑦ ᐃᓱᕐᕕᐅᔪᓐᓇᖅᑐᑦ ᒪᑦᑎᑦᑕᐅᑎᐅᔾᔭᑦ ᐊᒻᒪ ᐊᐅᓚᓴᐅᑎᓂᒃ ᑲᓕᖅᑖᕐᓃᑦ), ᐱᔪᓐᓇᖅᓯᑎᑦᑎᓪᓗᑎᒃ ᐱᓕᕆᐊᒃᑲᓐᓂᕋᓱᖕᓂᕐᓂᒃ ᑐᕌᓚᖅᑳᕐᓂᖅᓴᐅᓗᑎᒃ ᐊᑐᑎᖃᖅᑐᓂᒃ ᐱᓕᕆᔾᔪᓯᕐᓂᒃ. ᐊᕐᕌᒎᓯᒪᔪᓂ, ᐊᐅᓚᓴᕐᓃᑦ, ᒪᑦᑎᑦᑕᕐᓃᑦ, ᐊᒻᒪ ᐃᒃᐱᐊᕐᔫᔭᓖᑦ ᒪᑦᑎᑦᑕᐅᑎᐅᔾᔭᑦ ᐊᑑᑎᖃᑦᑎᐊᖅᓗᑎᒃ ᐃᖃᓗᓕᓲᑕᐅᓯᒪᔪᑦ 2024-ᒥ. ᒪᑦᑎᑦᑕᕐᓂᖅ ᐱᓗᐊᖅᑐᒥᒃ ᐊᑑᑎᖃᑦᑎᐊᖅᓯᒪᔪᖅ ᐃᖃᓗᓕᓲᒃᑎᓪᓗᙱᑦ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᐃᖃᓗᖕᓂᒃ, ᐃᖃᓗᒃᑕᐅᓚᔪᖃᑦᑕᖅᓯᒪᙱᑦᑐᑦ ᐊᓯᖏᓐᓂᒃ ᐊᑐᖅᓱᑎᒃ ᐱᓕᕆᔾᔪᓯᕐᓂᒃ, ᒫᓐᓇᓕᓵᖅ ᐊᕐᕌᒍᓂ, ᐊᒥᓲᓂᖅᓴᑦ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᐃᑦ ᐊᖑᓂᒃᑕᐅᑲᑦᑕᖅᓯᒪᔪᑦ ᐊᑐᖅᓱᑎᑦ ᐊᐅᓚᓴᕐᓃᑦ ᐊᒻᒪ ᒪᑦᑎᑦᑕᐅᑏᑦ. ᐃᒃᐱᐊᕐᔫᔭᓖᑦ ᒪᑦᑎᑦᑕᐅᑏᑦ ᐊᑐᖅᑕᐅᖏᓐᓇᖅᓯᒪᔪᖅ ᐃᖃᓗᓕᓲᑕᐅᓪᓗᓂ ᑭᖑᕚᓪᓗᓂ ᐃᓱᖅᑕᐅᔪᓐᓇᖅᑐᓂᒃ ᒪᑦᑎᑦᑕᐅᑎᐅᔾᔭᕐᓂᒃ ᑎᓴᒪᓄᑦ-ᐊᕐᕌᒍᓄᑦ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑎᓪᓗᒋᑦ ᓇᓗᓇᐃᖅᓯᓯᒪᔪᑦ ᐅᓄᕐᓂᖅᓴᓂᒃ ᐊᖑᓂᖃᑦᑕᕐᓂᖏᓐᓂᒃ ᐃᒃᐱᐊᕐᔫᔭᓖᑦ ᒪᑦᑎᑦᑕᐅᑎᐅᔾᔭᑦ. ᑲᓕᖅᑖᕐᓂᖅ, ᓴᖅᑮᓚᔪᙱᒃᑲᓗᐊᖅᑎᓪᓗᒥ ᖁᕝᕙᓯᒃᑐᒥᒃ ᐊᖑᓂᒃᑕᐅᔪᑦ ᐊᑐᓂ ᐊᖑᓇᓱᙱᕐᓂᕐᒧᑦ (CPUE) ᑭᓯᐊᓂᓕ ᑲᑎᙵᐅᖅᑐᑦ ᐃᖃᓗᐃᑦ ᐊᐳᖅᑕᐅᓂᕌᖓᑕ, ᐊᖑᓂᓚᔪᖃᑦᑕᓚᐅᖅᑐᑦ ᐆᒪᔪᓂᒃ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᖃᐅᔨᓴᐅᑎᓕᐊᖑᓯᒪᙱᑦᑐᓂᒃ ᐊᓯᖏᓐᓂ ᐱᓕᕆᔾᔪᓯᕐᓂ ᐊᑐᑕᐅᔪᓂ ᑕᕝᕗᓂ ᐱᓕᕆᐊᒥ. ᐱᓕᕆᓇᓱᖕᓂᕐᒧᑦ ᓈᓴᐅᑎᖏᓐᓂᒃ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᔭᐅᓪᓗᑎᒃ ᐅᕝᕙᓘᓐᓃᑦ ᐅᖓᑕᐅᔾᔨᓯᒪᔪᑦ 2023-ᒥ ᐱᓕᕆᓇᓱᖕᓂᕐᒧᑦ ᓈᓴᐅᑎᖏᓐᓂᒃ, ᕿᑎᖃᖅᓯᒪᔪᒥᒃ ᐅᓄᖅᓯᕆᐊᖅᓯᒪᔪᑦ ᐱᓕᕆᓇᓱᖕᓂᕐᒧᑦ ᓈᓴᐅᑎᓂ 2024-ᒥ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐱᕕᖅᑯᖅᑐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᓯᓚᑖᓂ ᕿᙳᐊᓂ ᑐᓚᒃᑖᕝᕕᒥ ᐃᖃᓗᖕᓂᒃ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᖅᑏᑦ ᐱᓕᕆᖃᑎᖏᑦ ᐃᑲᔪᖅᑐᖅᑕᐅᕐᑯᓗᑦ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᒥ (MEEMP) ᐃᖃᓗᖕᓂᒃ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓂᒃ ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ (ᑕᑯᓗᒍ ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 7.0 ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᑦ ᐊᒻᒪ ᓂᕿᖏᑦ ᑭᓱᒃᓴᖅᑲᒪᖕᓖᑕ) ᐊᒻᒪ ᓯᓚᒨᑦ ᑭᖑᕙᕈᑕᐅᕙᒃᑐᑦ.

ᐱᓕᕆᔾᔪᒦᑦ ᐊᑐᓕᖁᔭᐅᔪᑦ 2025-ᒥ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖅ (MEEMP) ᖃᐅᔨᓴᒐᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᐅᑯᐊ:

- ᖃᐅᔨᓴᒐᒃᓴᐅᓕᕈᔫᑦ ᐊᑐᖅᑕᐅᔪᑦ 2024-ᒥ (ᐊᐅᓚᓴᕐᓃᑦ, ᒪᑦᑎᑦᑕᕐᓃᑦ, ᐃᒃᐱᐊᕐᔫᔭᓖᑦ ᒪᑦᑎᑦᑕᐅᑎᐅᔾᔭᑦ, ᐊᒻᒪ ᑲᓕᖅᑖᕐᓃᑦ) ᐊᑐᐃᓐᓇᐅᑎᑦᑎᔪᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓂᒃ ᕿᒥᕐᕈᔪᓐᓇᕐᓂᕐᒥᒃ ᖃᐅᔨᔭᐅᔪᓂᒃ ᖃᐅᔨᔭᐅᖁᓪᓗᑎᒃ ᐃᖃᓗᐃᑦ ᐊᔾᔨᒌᙱᑦᑕᖅᑐᑦ ᐅᔾᔨᕆᔭᐅᔪᑦ ᑭᖑᓂᖕᒑᑦᑎᓐᓂ ᐊᕐᕌᒎᓯᒪᔪᓂ (ᐃᓚᓕᑎᓪᓗᖏᑦ ᐃᖃᓗᓕᓱᒍᓯᕐᓂᒃ ᐱᖃᓯᐅᔾᔭᐅᓯᒪᔪᑦ ᐱᓕᕆᐊᒥ) ᐊᒻᒪ ᐊᑐᓕᖁᔭᐅᓪᓗᑎᒃ ᐊᑐᖅᑕᐅᓂᖏᑦ ᓯᕗᓪᓗᐊᓚᓱᒃᑎᓪᓗᒋᑦ.

- ᓴᙱᓂᖏᓐᓂᒃ ᕿᒥᕐᕈᓂᖅ ᓱᓕ ᓇᓗᓇᐃᖅᓰᓐᓇᖅᑐᑦ ᓈᓴᐅᓯᕆᓂᖅᑎᒍᑦ ᓴᙱᓂᖏᑦ ᐱᓕᕆᐊᖑᓯᒪᔪᑦ ᕿᒥᕐᕈᓂᕐᒥ ᐊᒃᑐᐊᓂᖅᑲᖅᑐᑦ ᐊᒃᐸᓯᒃᑑᓪᓗᑎᒃ, ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᖁᕝᕙᓯᓗᐊᕐᓂᖏᓐᓄᑦ ᐊᔾᔨᒌᒃᑕᑦᑕᙱᓐᓂᖏᓐᓄᑦ ᐃᖃᓗᒃᑕᐅᔪᑦ, ᐃᓱᒪᕆᖅᓯᐅᔾᔨᓃᑦ ᐃᓱᒪᒋᔭᐅᓂᐊᖅᑐᒃᓴᐅᔪᑦ ᕿᒥᕐᕈᓗᒋᑦ ᐊᔾᔨᒌᙱᑦᑕᖅᑲᑦᑕᕐᓂᖏᓐᓄᑦ ᑖᒃᑯᓇᓂ ᐃᖃᓗᓕᕐᕕᐅᔪᓂ ᐃᓂᓂ (Fas) ᐊᑐᖅᐸᓗᑎᑦ ᐊᒃᑐᐃᓂᕐᒧᑦ ᐊᖏᓕᓈᑦ ᐃᒪᐃᓐᓇᐅᙱᖕᒫᖅᑐᑦ ᒪᓕᓪᓚᓇᓪᓗᑎᒃ ᓈᓴᐅᑎᑎᒍᑦ ᐱᒻᒪᓇᐅᔪᓂᒃ.

ᑕᒪᐃᓐᓅᖓᔪᓄᑦ, ᐃᖃᓗᖕᒐᓖᓰᑦ ᐊᑑᑎᖃᕐᓂᖃᖅᑕᐅᔪᑦ ᐊᕕᒃᑐᐃᓇᓱᒃᑎᓪᓗᒋᑦ ᑕᓇᐅᒥ ᐃᖃᓗᖅᑲᖅᑐᓂ ᐃᓱᒪᒋᓪᓗᒋᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐱᑕᖃᕐᓂᖏᑦ ᐊᒻᒪ ᐊᒃᑐᐊᓂᓕᖕᓄᑦ ᐊᒥᓲᓂᖏᓐᓄᑦ. ᐱᓕᕆᐊᖅ ᐱᐅᓯᕙᓪᓕᐊᖏᓐᓇᖅᑎᑦᑎᔪᖅ ᐱᓕᕆᔾᔪᓯᕐᓂᒃ ᐃᓱᒪᒋᓪᓗᒋᑦ ᐊᑑᑎᖃᕐᓂᖏᑦ ᐃᖃᓗᒃᑕᐅᖃᑦᑕᕐᓂᖏᓐᓄᑦ, ᐊᕕᒃᑐᐃᓂᕐᒧᑦ ᐃᖃᓗᒃᑲᖅᑐᓂᒃ, ᐊᒻᒪ ᓈᓴᐅᓯᕆᓂᖅᑎᒍᑦ ᓴᙱᓂᐅᔪᑦ, ᐊᒻᒪ ᓴᖑᔨᒪᓂᖏᓐᓂᒃ ᐃᖃᓗᓕᕐᕕᐅᔪᓂ ᐃᓂᓂ (FAs) ᐊᑐᖅᑕᐅᓚᐅᖅᑐᖅ ᐱᓕᕆᔾᔫᑦ ᐃᖃᓗᓕᓱᐊᕐᓂᕐᒧᑦ ᖃᖓᖅᑯᑦᑕᕐᓂᖏᑦ ᐱᕙᓪᓕᐊᓯᒪᓕᖅᑐᑦ 2020-ᒥ ᐊᒻᒪ ᐱᔪᓐᓇᖅᑎᑦᑎᓐᓇᕐᓂᐊᖅᑐᑦ ᕿᒥᕐᕈᔭᐅᕙᓪᓕᐊᖏᓐᓇᖅᑐᖅ ᐊᕐᕌᒍᒥᑦ ᐊᕐᕌᒍᒧᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐃᓂᒥᑦ ᐃᓂᒧᑦ ᐊᓯᔾᔨᖅᑕᖅᑐᑦ ᐊᒃᑐᐊᓂᓕᖕᓄᑦ ᐃᖃᓗᐃᑦ ᐊᒥᓲᓂᖏᓐᓄᑦ ᐊᒻᒪ ᓇᓃᖅᑲᑦᑕᕐᓂᖏᓐᓄᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑖᕝᕕᒥ.

ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᑦ ᐊᒻᒪ ᓂᕿᖏᑦ ᑭᓱᒃᓴᖅᑲᒪᖕᓖᑕ (ᐃᓛᒃᑰᖅᑕᖅᑐᑦ 7.0)

ᓈᒻᒪᒃᓯᓯᒪᖅᑯᓪᓗᒍ ᐅᔭᕋᖕᓂᐊᕈᓇᐅᑎᒥ ᒪᓕᒃᑕᐅᔭᕆᐊᓖᑦ ᓈᓴᐅᑎᖏᓐᓄᑦ 76, 83 (Δ), 99 (Δ), 113, ᐊᒻᒪᓗ 114, ᖃᐅᔨᓴᒐᒃᓴᐅᓕᕈᓂᖅ ᐱᓕᕆᐊᖑᔪᒪᔪᖅ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᑦ ᐊᒻᒪ ᓂᕿᖏᓐᓂ ᑭᓱᒃᓴᖅᑕᖅᑲᒪᖕᓖᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑖᕝᕕᒥ. ᐃᖃᓄᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐃᓱᓕᒃᑕᐅᔪᑦ ᕿᒥᕐᕈᓯᒪᔪᑦ ᒪᕐᕈᖕᓂᒃ ᐊᔾᔨᒌᙱᑦᑐᐊᕐᔪᒃᑐᓂ ᐆᒪᔪᓂ, ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᑦ (*Myoxocephalus quadricornis*), ᑕᕝᕙᓂ ᐃᖃᓗᒃ, ᐊᒻᒫᒪᔪᑦ (*Hiatella arctica*), ᑕᕝᕙᓂ ᐊᒻᒫᒪᔪᑦ. ᒪᕐᕉᒃ ᐊᔾᔨᒌᙱᑦᑐᐊᕐᔫᒃ ᑲᑎᑕᐅᓯᒪᔪᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑖᕝᕕᒥ ᐊᒻᒪ ᒪᕐᕉᖕᓂ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᑐᓂ ᐃᓂᓂ, ᖁᓗᖅᑐᕐᒥ, ᑐᓖᑦ ᑰᖕᒥᓈᓗ. ᖁᕐᓗᖅᑐᖅ ᐊᑐᖅᑕᐅᔪᖅ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᓗᓂ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓄᑦ ᑲᓇᔪᕐᓄᑦ ᐊᒻᒪ ᑐᓖᑦ ᑰᓕᓵᖏᑦ ᐊᑐᖅᑕᐅᓪᓗᓂ ᖃᐅᔨᓯᐊᕐᕕᐅᔪᓐᓇᖅᓗᓂ ᐊᒻᒫᒪᔪᕐᓄᑦ (*H. arctica*). ᑕᕝᕙᕐᒥᐅᑕᑦ ᐃᖃᓗᐃᑦ ᐱᖃᓯᐅᔾᔭᐅᓯᒪᔪᑦ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᓂᕿᖏᓐᓂᓗ ᑭᓱᒃᓴᖅᑲᒪᖕᓖᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ ᑭᓯᐊᓂᓕ ᐱᔭᐅᔪᓐᓇᖅᓚᑕ ᕿᙳᐊᓂ ᑐᓚᒃᑖᕝᕕᒥᑐᐊᖅ. ᐊᒻᒫᒪᔪᑦ (*Hiatella arctica*), ᑲᑎᑕᐅᓯᒪᔪᑦ ᐃᖅᑲᓇᓂ ᐅᒪᔪᖃᓖᓂᒃ ᖃᐅᔨᓴᕐᑲᓂ. ᓂᕿᖏᑦ ᑭᓱᒃᓴᖅᑲᒪᖕᓖᑕ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᑦ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᑦ, ᐊᒻᒫᒪᔪᑦ (*Hiatella*

arctica), ᐊᒻᒪ ᑕᕆᐅᕐᒥᐅᑕᓂ ᐃᖃᓗᖕᓂ. ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓂᒃ ᕿᒥᕐᕈᓂᖅ ᐱᖃᓱᐅᔾᔨᔪᖅ ᐃᓱᓕᕝᔪᑕᐅᔪᓂᒃ ᐊᓐᓇᐅᒪᓂᖏᓐᓄᑦ, ᐱᕈᖅᐸᓪᓕᐊᓂᖏᓐᓄᑦ, ᖃᓄᐃᓕᙵᓂᖏᓐᓄᑦ, ᐃᕐᓂᐅᖅᐸᖕᓂᖏᓐᓄᓪᓗ, ᐊᒻᒪ ᐃᓱᒪᒋᖃᓱᐅᔾᔩᓪᓗᓂ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓂᒃ ᐃᓛᒃᑯᑦ. ᓈᓴᐅᑎᑎᒍᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐃᓱᓕᕝᔪᑕᐅᔪᑦ ᐱᔭᕇᖅᑕᐅᓚᐅᖅᑐᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᐊᒻᒪ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᓂ ᐃᓂᓂ ᑎᓴᒪᓄᑦ ᓇᒡᔪᓕᖕᓄᑦ ᑲᓇᔪᕐᓄᑦ ᐊᒻᒪ ᐊᒻᒫᒪᔪᕐᓄᑦ (*H. arctica)* ᐊᑐᕐᓗᑎᒃ ᖃᐅᔨᓴᕈᑎᓂᒃ ᑲᑎᑕᐅᔪᓂᒃ 2024-ᒥ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᒫᓐᓇᓕᓴᕐᓂ ᖃᐅᔨᓴᐅᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᕐᕌᒍᓯᒪᔪᓂ (ᓵᕐᓗ 2020, 2021, 2022, 2023, ᐊᒻᒪ 2024) ᐊᑕᖏᖅᑯᒋᑦ ᐆᒪᔪᓄᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓄᑦ.

ᑲᑎᖅᑯᒋᑦ, 40 ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᐊᒻᒪ 39 ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᑦ ᖁᕐᓗᖅᑐᒥ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᒥ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ 2024-ᒥ. ᖃᐊᔾᔨᒌᙱᓐᓂᖏᑦ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐃᓱᓕᕝᔪᑕᐅᔪᑦ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ ᐊᕐᓇᓄᑦ ᐊᒻᒪ ᐊᖑᑎᓄᑦ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᕐᓄᑦ ᑖᒃᑯᓇᓂ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᐊᒻᒪ ᖁᕐᓗᖅᑐᒥ. ᐊᕐᓇᐃᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᐊᖏᓂᖅᓴᒻᒪᕆᐅᓚᐅᖅᑐᑦ-ᐅᑭᐅᖏᑦ-ᒪᒃᑯᒋᑦ, ᐅᖓᑕᐅᔾᔨᓯᒪᓪᓗᑎᒃ ᐱᕐᔪᐊᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᐊᖏᓂᕐᓄᑦ (CES), ᑭᓯᐊᓂᓕ ᐅᕿᓐᓂᖅᓴᐅᓪᓗᑎᒃ ᐃᓱᒪᒋᓪᓗᒋᑦ ᑲᑎᖅᑎ ᐅᕐᑯᒪᐃᓐᓂᓗᒃᑖᑦ, ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ ᐊᕐᓇᐃᑦ ᐃᖃᓗᐃᑦ ᖁᕐᓗᖅᑐᒥ. ᐊᖑᑎᓄᑦ ᐃᖃᓗᖕᓄᑦ, ᐊᖏᓂᖏᑦ-ᐅᑭᐅᖏᑦ–ᒪᓕᒃᑯᒋᑦ ᐊᒻᒪ ᐃᓱᒪᒋᓪᓗᒋᑦ ᑎᒍᖏᑕ ᐅᕐᑯᒪᐃᓐᓂᖏᓐᓄᑦ ᐅᖓᑕᐅᔾᔨᓯᒪᔪᑦ ᐱᕐᔪᐊᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᐊᖏᓂᕐᓄᑦ (CES) ᐊᖑᑎᓄᑦ ᐃᖃᓗᖕᓄᑦ, ᐊᒻᒪ ᐅᖓᑕᐅᔾᔨᓯᒪᓪᓗᓂ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔭᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ‘ᐊᒃᐸᓱᒃᑐᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᕐᓂᖏᑦ’ ᖃᓄᐃᓪᓕᔪᖃᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᓂᒃ. ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐃᓱᓕᕝᔪᑕᐅᔪᑦ ᐊᔾᔨᒌᖃᑦᑕᙱᕐᔪᐊᖅᑐᑦ ᑖᒃᑯᓇᓂ ᖃᐅᔨᓴᐅᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᕐᕌᒎᔪᓂ ᑕᒪᐃᓐᓄᑦ ᐊᕐᓇᓄᑦ ᐊᖑᑎᓄᓪᓗ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᕐᓄᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ, ᑭᓯᐊᓂᓕ ᐊᒥᓲᙱᑦᑐᑦ ᒪᓕᑐᐃᓐᓇᖅᑐᑦ ᐱᐅᓯᐅᕙᒃᑐᑦ ᐅᔾᔨᕆᔭᐅᓯᒪᔪᑦ. ᑭᑭᑕᐅᓯᒪᓪᓗᓂ ᐊᒃᑐᐊᓂᓕᒃ ᑎᖑᖏᑕ ᐅᕐᑯᒪᐃᓐᓂᖓ ᐊᕐᓇᓄᑦ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᕐᓄᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ, ᐱᕙᓪᓕᐊᓯᒪᖅᑰᔾᔪᖅ ᐊᑯᓂᐅᔪᒃᑯᑦ.

2024-ᒥ, 40 ᐊᒻᒫᒪᔪᐃᑦ *(H. arctica)* ᐱᔭᐅᓚᐅᖅᑐᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ, ᐊᒻᒪ 23 ᐊᒻᒫᒪᔪᐃᑦ *(H. arctica)* ᐱᔭᐅᓪᓗᑎᒃ ᑐᒡᓕᓂ ᑰᒐᖅᑳᕐᕕᖏᓐᓂ. ᐱᕈᖅᐸᓪᓕᐊᓂᖏᑦ ᐊᒻᒪ ᖃᓄᐃᓕᙵᓂᖏᑦ ᐊᒃᐸᓯᖕᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᕿᓯᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᕿᒥᕐᕈᔭᐅᓪᓗᑎᒃ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᒧᑦ ᐃᓂᒧᑦ. ᐅᔾᔨᕆᔭᐅᔪᑦ ᐊᔾᔨᒌᙱᓐᓂᐅᔪᑦ ᐊᑕᖏᖅᑯᒍ ᐆᒪᔪᒥᑦ ᒪᓴᐅᑎᓪᓗᒍ ᐅᕐᑯᒪᐃᓐᓂᖓ ᐊᒃᑐᐊᓂᖃᖅᑐᑦ ᑲᑎᕐᒍᒧ ᐅᕐᑯᒪᐃᓐᓂᖓᓄᑦ, ᐊᒻᒪ ᐃᓱᒪᒋᔭᐅᓪᓗᑎᒃ ᐅᕙᓗᖓᑕ ᐅᕐᑯᒪᐃᓐᓂᖓ ᐃᓱᒪᒋᖃᓱᐅᔭᐅᓪᓗᑎᒃ ᐅᖓᑕᐅᔾᔨᓯᒪᓚᐅᖅᑐᑦ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔭᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ‘ᐊᒃᐸᓱᒃᑐᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᕐᓂᖏᑦ’ ᖃᓄᐃᓪᓕᔪᖃᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᓂᒃ ᓈᒻᒪᒃᑑᓪᓗᓂ ᕿᒥᕐᖁᔭᐅᑎᓪᓗᑎᑦ ᐱᑕᖃᙱᑎᓪᓗᖏᑦ ᐱᕐᔪᐊᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᐊᖏᓂᕐᓄᑦ (CES) ᓈᓴᐅᑎᐅᔪᑦ. ᕿᒥᕐᕈᑎᓪᓗᖏᑦ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐃᓱᓕᕝᔪᑕᐅᔪᓂᒃ ᑕᒪᒃᑯᓄᖓ ᐊᒻᒫᒪᔪᕐᓄᑦ *(H. arctica)* ᐃᓗᐊᓂ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᖃᐅᔨᓴᐅᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᕐᕌᒎᓯᒪᔪᓂ, ᐊᔾᔨᒌᙱᓐᓂᖏᑦ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ ᑕᑭᓂᐅᕙᔪᒃᑐᓄᑦ, ᐊᑕᖏᖅᑯᒍ ᐆᒪᔫᑉ ᒪᓴᐅᑎᓪᓗᒍ ᐅᕐᑯᒪᐃᓐᓂᖓ, ᐊᒃᑐᐊᓂᑑᑦ ᑲᑎᖅᑯᒋᑦ ᐅᕐᑯᒪᐃᓐᓂᖓ, ᐊᒻᒪ ᐃᕐᓂᐅᕈᓐᓇᕐᓂᖏᓐᓄᑦ ᓇᓗᓇᐃᕈᑏᑦ. ᒪᓕᒃᑐᓂᒃ ᐃᓕᖅᑯᓯᖅᑕᖅᓯᒪᙱᑦᑐᑦ ᐊᔾᔨᒌᙱᔾᔪᑕᐅᔪᓂᒃ ᐅᔾᔨᕆᔭᐅᔪᓂᒃ ᓇᓕᐊᖕᓄᑐᐃᓐᓇᖅ ᐃᓱᓕᕝᔪᑕᐅᔪᓄᑦ, ᐃᒪᐃᓐᓇᓯᒋᔭᐅᓪᓗᓂ ᐊᕐᕌᒍᒥᑦ ᐊᕐᕌᒍᒧᑦ ᐊᔾᔩᒃᑕᖃᑦᑕᙱᓐᓂᖏᓐᓄᑦ ᐱᔾᔪᑕᐅᓪᓗᐊᑕᖅᑐᓄᑦ ᐊᔾᔨᒋᔭᐅᔪᓄᑦ ᐊᔾᔨᒌᙱᔾᔪᑕᐅᔪᓄᑦ.

ᑲᑎᖅᑯᒋᑦ 13 ᖃᓄᐃᑦᑐᖃᖅᑎᓪᓗᒍ ᑐᕐᑯᔾᔪᑕᐅᔪᑦ ᑕᕆᐅᕐᒥᐅᑦ ᐃᖃᓗᐃᑦ ᕿᒥᕐᕈᔭᐅᓚᐅᖅᑐᑦ 2024-ᒥ. ᐅᑭᐅᖅᑯᖅᑐᓕᕇᙶᓚᐅᖅᑐᑦ 7-ᒥᑦ 16-ᒧᑦ 2024-ᒥ, ᐊᔾᔨᐸᓗᒋᓪᓗᓂᐅᒃ 2021-ᒧᑦ, 2022-ᒧᑦ, ᐊᒻᒪ 2023-ᒧᑦ. ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ ᐱᔾᔪᑕᐅᔪᑦ ᑕᕆᐅᕐᒥᐅᑦ ᐃᖃᓗᐃᑦ ᐊᔾᔨᒌᙱᖃᑦᑕᖅᑐᑦ ᑖᒃᑯᓇᓂ ᖃᐅᔨᓴᐅᒃᓴᓕᐅᕐᓂᕐᒧᑦ ᐊᕐᕌᒍᓄᑦ ᒪᓕᒃᑐᓂᒃ ᒫᓐᓇᓚᐅᑲᒃ ᐃᓕᖅᑯᓯᕐᓂᒃ ᐅᔾᔨᕆᔭᐅᔪᖃᙱᓐᓂ.

ᑲᑎᖅᑯᒋᑦ 38-ᖑᔪᑦ ᓂᕿᖏᓐᓂᒃ ᖃᐅᔨᓴᐅᒃᓴᓕᐊᑦ ᑐᓂᔭᐅᓚᐅᖅᑐᑦ ᓴᕙᕋᔭᖕᒧᑦ ᕿᒥᕐᕈᔭᐅᕐᑯᓪᓗᒋᑦ 2024-ᒥ. ᑕᒪᓐᓇ ᐱᖃᓱᐅᔾᔨᔪᖅ ᐊᕝᕙᓂᓕᖕᓂ ᐱᖓᓱᓂᒃ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᐃᖃᓗᖕᓂᒃ, ᐊᕝᕙᓂᓕᖕᓂ ᐱᖓᓱᓂᑦ ᑲᓇᔪᕐᓂᒃ, ᐊᒻᒪ ᐊᕝᕙᓂᓕᖕᓂ ᐱᖓᓱᓂᒃ ᐊᒻᒫᒪᔪᕐᓂᒃ (H. arctica) ᖃᐅᔨᓴᐅᒃᓴᓂᒃ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ, ᐊᕝᕙᓂᓕᖕᓂᓪᓗ ᐱᖓᓱᓂᒃ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓂᒃ ᑲᓇᔪᕐᓂᒃ ᐊᒻᒪ ᐊᕝᕙᓂᓕᖕᓂᒃ ᐊᒻᒫᒪᔪᕐᓂᒃ (H. arctica) ᖃᐅᔨᓴᖕᖓᒃᓴᓂᒃ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᓂᒃ. ᐃᓚᒋᔭᐅᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐃᓱᒫᓘᑕᐅᔪᑦ (COPCs) ᓇᓗᓇᐃᖅᑕᐅᓚᐅᖅᑐᑦ ᐃᔾᔪᑕᐅᓪᓗᑎᒃ ᐃᓚᒋᔭᐅᓪᓗᐊᑕᖅᑐᓂ ᐱᓕᕆᐊᒥ ᓴᕝᕕᒃᓴᒥ (ᓵᕐᓗ ᐊᓅᒥᓇᓪ, ᒪᒡᓃᓯᐊᒻ ᐊᒻᒪ ᓴᕝᕕᒃᓴᖅ), ᐊᒻᒪᓗᑦᑕᐅᖅ ᓴᕙᕋᕚᐃᑦ ᐱᑕᖅᐸᖅᐴᖅᑐᑦ ᒪᓕᒐᖅᑎᒍᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᕚᒃᑐᑦ ᐃᖃᓗᐃ ᓂᕿᖏᓐᓂ (ᓵᕐᓗ ᐊᕿᕐᕎᔭᖅ ᐊᒻᒪ ᓯᓕᓂᐊᒻ). ᐱᑕᖃᐅᕝᕙᐅᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐃᓱᒫᓘᑕᐅᔪᓂᒃ (COPCs) ᐊᔾᔨᙱᓚᐅᙱᑕᖏᑦ ᑖᒃᑯᓇᓂ ᖃᐅᔨᓴᐅᒃᓴᖑᕝᕙᐅᔪᓂ ᐃᓂᓂ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓄᑦ ᑲᓇᔪᕐᓄᑦ. ᑕᒪᒃᑯᓂᖓᓕ ᐊᒻᒫᒪᔪᕐᓄᑦ (H. arctica), ᐱᑕᖃᕐᓂᐅᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓄᑦ ᐃᓱᒫᓘᑕᐅᔪᓂᒃ (COPCs) ᐊᔾᔨᒌᙱᓐᓂᖃᓚᐅᙱᑦᑐᑦ ᖃᐅᔨᓴᐅᒃᓴᓕᐅᕝᕙᔪᓂ, ᑭᑭᑕᐅᓯᒪᓪᓗᑎᒃ ᐊᓅᒥᓇᓪ ᐊᒻᒪ ᓯᓕᓂᐊᒻ, ᐊᒃᐸᓯᖕᓂᖅᓴᕐᔪᐊᖑᓚᐅᖅᑐᑦ ᖃᐅᔨᓴᐅᒃᓴᓂ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᑦ ᑕᑯᓪᓗᒋᑦ ᑐᒡᓕᑦ ᑰᖃᕝᕙᖏᓐᓂ. ᖃᓄᑎᒋᐅᓂᖏᑦ ᐊᒃᑐᐃᓃᑦ, 49% ᐊᒻᒪ 14%, ᐃᓱᒪᒋᓪᓗᒋᑦ, ᑐᖖᓃᓚᐅᖅᑐᑦ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ ᑕᕆᐅᕐᒥᐅᑕᓂ ᐃᖃᓗᖕᓂ ᐱᕐᔪᐊᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᐊᖏᓂᕐᓄᑦ (CES). ᐱᕚᓪᓕᐊᓂᕐᔪᐊᑦ ᐃᓕᖅᑯᓯᐅᓕᖅᐸᓪᓕᐊᔪᑦ ᐊᓅᒥᓇᓪᓂ ᐊᒻᒪ ᓴᕝᕕᒃᓴᓂᒃ ᐱᑕᖃᕐᕕᐅᔪᓂ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑐᑦ ᑕᕆᐅᕐᒥᐅᑦ ᐃᖃᓗᐃᑦ ᓂᕿᖏᓐᓂ ᖃᐅᔨᓴᐅᒃᓴᐅᔪᓂ. ᐊᑯᓐᓂᖅᓱᖅᑐᓂ ᐱᑕᖃᕐᕕᐅᔪᓂ ᑕᒪᐃᓐᓂᒃ ᓴᕙᕋᔭᖕᓂᒃ ᓴᖅᑮᖅᑎᑦᑎᓯᒪᔪᑦ ᓈᒻᒪᒃᑐᓂᒃ ᐊᕐᕌᒍᒥᑦ ᐊᕐᕌᒍᒧᑦ

ᐊᓯᔾᔨᕐᑕᕐᑕᕐᓂᖏᓐᓄᑦ ᑭᓯᐊᓂᓕ ᐅᓄᕐᓯᕙᓪᓕᐊᖏᓐᓇᖅᑐᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ. ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓄᑦ ᑲᓇᔪᕐᓄᑦ, ᐅᓄᕐᓯᕙᓪᓕᐊᕐᔪᐊᕐᓂᖏᑦ ᐃᓕᖅᑯᓯᐅᓕᖅᐸᒃᑐᑦ ᐅᔾᔨᕆᔭᐅᔪᑦ ᐊᓅᒥᓇᒻᒧᑦ. ᑕᒪᒃᑯᓂᖓᓕ ᐊᒻᒨᒪᔪᐃᑦ (H. arctica), ᐅᓄᕐᓯᕙᓪᓕᐊᕐᔪᐊᕐᓂᕐᒥᒃ ᐃᓕᖅᑯᓯᖃᖏᑦᑐᑦ ᐅᔾᔨᕆᔭᐅᔪᓂᒃ. ᐱᑕᖃᖏᑦᑐᖅ ᐱᒋᐊᖅᑎᑦᑎᓂᖅ, ᖃᓄᐃᓕᐅᕐᓂᖅ, ᑲᒪᒋᔭᐅᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑎᓄᑦ (TARP) ᖃᓄᐃᓪᓕᔪᖃᖅᑳᖅᑎᓐᓇᒍ ᑭᒡᓕᐅᔪᑦ ᐅᖓᑕᐅᔾᔨᓯᒪᖏᑦᑐᑦ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓄᑦ ᑲᓇᔪᕐᓄᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐊᒻᒨᒪᔪᕐᓄᑦ (H. arctica) ᓂᕿᖏᓐᓂ ᑭᓱᒃᓴᖃᕐᒪᖔᑕ.

ᐊᕿᕐᑰᔭᖅ ᐊᒻᒪ ᓯᓕᓂᐊᒻ ᐱᑕᖃᕐᕕᐅᔪᑦ ᐊᑕᖏᖅᓱᒋᑦ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᐃᖃᓗᙱᓂ ᐊᒻᒪ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓂᒃ ᑲᓇᔪᕐᓂ ᖃᐅᔨᓴᒃᓴᓕᐊᖑᓯᒪᔪᓂ ᐱᔭᐅᓯᒪᔪᑦ ᕿᙱᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᑐᖖᓃᓯᒪᔪᑦ ᐋᓂᐊᖃᖅᑕᐃᓕᑎᑦᑎᔾᔪᑦ ᑲᓇᑕᒥ ᐅᓄᓛᖑᔪᓐᓇᖅᑐᑦ ᖃᓄᑎᒋᐅᓂᖏᑦ ᐃᓚᐅᕈᑎᓂᑦ ᓱᕈᕐᓇᖅᑐᖃᖅᑐᑦ ᓂᕿᓂ ᐊᕿᕐᑰᔭᖃᖅᑐᓂᒃ ᓂᕆᖃᑦᑕᕐᓂᕐᒧᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᑦ 0.5 ᒥᓗᒑᕌ/ᑭᓗᒑᙲ ww (ᐋᓂᐊᖃᖅᑕᐃᓕᑎᑦᑎᔾᔪᑦ ᑲᓇᑕᒥ 2015) ᐊᒻᒪ ᐳᓇᑎᒃ ᑲᓪᓕᐱᐊᒥ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᓯᓕᓂᐊᒻᒥᒃ ᐱᑕᖃᓂᕐᐅᔪᓄᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᑦ 4 ᒥᓗᒑᕌ/ᑭᓗᒑᙲ dw (ᐳᓇᑎᒃ ᑲᓪᓕᒥᐊ ᒥᓂᔅᑕᐅᑏᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ 2014), ᐃᓱᒪᒋᓪᓗᒋᑦ. ᐊᑕᐅᓯᖅ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᒃ ᑲᓇᔪᖅ ᐱᔭᐅᔪᖅ ᖁᕐᓗᖅᑐᒥ ᖃᐅᔨᒋᐊᕐᕕᐅᔪᓐᓇᖅᑐᒧᑦ ᓯᓕᓂᐊᒻᒥᒃ ᐱᑕᖃᕐᕕᐅᓚᐅᖅᑐᖅ (4.20 ᒥᓗᒑᕌ/ᑭᓗᒑᙲ dw) ᐅᖓᑕᐅᔾᔨᓯᒪᓪᓗᓂ ᐳᓇᑎᒃ ᑲᓪᓕᒥᐊᒧᑦ ᖃᐅᔨᒪᔾᔪᑕᐅᔪᓂᒃ.

ᑲᑎᕝᓗᒋᑦ ᐊᕐᕕᓂᓛᑦ ᐱᖓᓱᓪᓗ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓖᑦ ᑲᓇᔪᐃᑦ ᐊᒻᒪ ᐊᕐᕕᓂᓛᑦ ᐱᖓᓱᓪᓗ ᐃᖃᓗᙱᑦ ᑕᕆᐅᕐᒥᐅᑕᓂᒃ ᖃᐅᔨᓴᖃᖅᓴᓂᒃ ᕿᙱᐊᓂ ᑐᓚᒃᑕᕐᑯᖓ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᑦ ᐅᕐᓱᐊᓗᒃᓴᖃᖅᑐᓄᑦ (PAHs) 2024-ᒥ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᑭᒡᓕᖃᕐᓂᖏᓐᓄᑦ ᖃᐅᔨᓴᖃᖅᓱᓕᐊᑦ ᖃᓄᐃᓕᐅᕐᓂᖏᑦ. ᐱᑕᖃᕐᓂᐅᔪᑦ ᐊᑕᖏᖅᓱᒋᑦ ᐅᕐᓱᐊᓗᒃᓴᖃᖅᑐᓄᑦ (PAHs) ᑕᕆᐅᕐᒥᐅᑕᓂ ᐃᖃᓗᙱᓂ ᐊᒻᒪ ᑎᓴᒪᓂ ᓇᒡᔪᓕᖕᓂ ᑲᓇᔪᕐᓂ ᑐᖖᓃᓯᒪᔪᑦ ᐅᓂᒃᑳᓕᐅᕐᓂᕐᒥ ᖃᐅᔨᔭᐅᔪᓄᑦ ᑭᒡᓕᐅᔪᓂ (<0.050 ᒥᓗᒑᙲ/ᑭᓗᒑᙲ ww).

ᕿᒥᕐᕈᓂᖅ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑎᑦᑎᐊᕐᓂᖏᓐᓂᒃ ᐊᒻᒪ ᓂᕿᖓᓂ ᑭᓱᒃᓴᖅᑕᖃᕐᒪᖔᑦ 2024-ᒥ ᑎᓴᒪᓂᒃ ᓇᒡᔪᓕᖕᓂ ᑲᓇᔪᕐᓂ, ᐊᒻᒨᒪᔪᐃᑦ (H. arctica), ᐊᒻᒪ ᑕᕆᐅᕐᒥᐅᑕᓂ ᐃᖃᓗᙱᓂ ᓇᓗᓇᐃᖅᓯᔪᖅ ᐊᒃᐸᓯᒃᑐᒥᒃ ᐊᔾᔨᒌᙱᓐᓂᖃᖅᑎᒋᓂᖏᓐᓄᑦ ᐃᓱᓕᔾᔪᑕᐅᔪᑦ ᐊᑯᓂᐅᔪᒃᑯᑦ ᐊᒻᒪ ᑖᒃᑯᓇᓂ ᖃᐅᔨᓴᕝᕚᓕᐅᕐᕕᐅᔪᓂ, ᐃᒪᐃᓐᓇᓱᒋᓐᓈᓪᓗᑎᒃ ᐊᕐᖑᒥᑦ ᐊᕐᖑᒧᑦ ᐊᔾᔨᕐᑕᖅᑐᑦ ᐃᓱᓕᔾᔪᑕᐅᓪᓗᑎᒃ. ᖃᐅᔨᔭᐅᔪᓃᑦ ᐃᓗᐊᓃᑦᑐᑦ ᑮᓗᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓂ (FEIS) ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂ, ᓇᓗᓇᐃᖅᓯᓪᓗᑎᒃ ᐱᑕᖃᐃᓐᓇᕆᐊᖃᕐᓂᖓᓂᒃ ᐊᒃᐸᓯᒃᑐᒥᒃ ᖃᓄᐃᓕᐅᕐᓂᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓂᒃ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑎᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐊᒻᒪ ᓂᕿᖓᓂ ᑭᓱᒃᓴᖅᑕᖃᕐᒪᖔᑦ. ᓇᓗᓇᐃᕈᑎᑕᖃᖏᑦᑐᖅ ᐱᓕᕆᐊᒧᑦ - ᐊᒃᑐᐊᔪᓂᒃ ᐊᒃᑐᐃᓂᕐᓂᒃ ᐅᖓᑖᓄᑦ ᐱᕐᔪᐊᓂᐅᓯᒪᔪᑦ ᑕᐃᑲᓂ ᑮᓗᓪᓕᖅᐹᒥᒃ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᓂᐅᓂᐊᖅᑐᑦ ᐅᓂᒃᑳᓄᑦ (FEIS) ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂ ᐃᖃᓗᐃᑦ ᖃᓄᐃᙱᑎᑦᑎᐊᕐᓂᖏᓐᓄᑦ ᐅᕝᕙᓘᓐᓃᑦ ᓂᕿᖏᓐᓂ ᑭᓱᒃᓴᖅᑕᖃᕐᒪᖔᑦ 2024-ᒥ.

ᑕᒫᓂᕐᒥᐅᑕᐅᙱᑦᑐᑦ ᐆᒪᔪᑦ (NIS) ᐊᒻᒪᓗ ᑎᑭᐸᒃᑐᑦ ᐆᒪᔪᖁᖓᑦ (AIS) (ᐃᖂᒃᑰᖅᑕᖅᑐᑦ 8.0)

ᑖᕙᓂ ᐃᖂᒃᑰᖅᑕᖅᑐᒥ ᓴᖅᐱᓯᒪᔪᑦ ᖃᐅᔨᔭᐅᔪᓂᒃ ᐊᑕᖕᒋᓯᒪᔪᓂᒃ ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓂᕐᒥᑦ ᐱᓕᕆᐊᖑᓯᒪᔪᓂ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓂ ᕿᙳᐊᓂ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᖅᑕᐅᕐᑯᓪᓗᒋᑦ ᐱᑕᖃᕐᓂᖏᑦ ᑕᒫᓂᕐᒥᐅᑕᐅᙱᑦᑐᑦ ᐆᒪᔪᑦ (NIS) ᐊᒻᒪ ᑎᑭᐸᒃᑐᑦ ᐆᒪᔪᖁᖓᑦ (AIS), ᓈᒻᒪᒃᓯᑎᑦᑎᓪᓗᑎᒃ ᐅᔭᕋᖕᓂᐊᕈᓇᐅᑎᒧᑦ ᒪᓕᒃᑕᐅᓯᓇᐊᖓᑦ 87, 89, ᐊᒻᒪ 91. ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᐱᕋᓯᐅᔾᔨᔪᑦ ᑕᒪᐃᓐᓂᒃ ᑐᕋᖓᓴᐅᔪᓂᒃ (ᓱᕐᓗ ᐃᖅᑲᖓᓂ ᐱᔭᐅᔪᑦ, ᐃᖅᑲᖓᓄᐊᖅᐸᓪᓕᐊᔪᑦ ᓄᓇᖓᓄᑦ, ᐊᒻᒪ ᑯᒪᕈᕐᓂᒃ ᐱᓇᓱᒃᖢᑎᒃ ᑲᑎᑕᐅᑲᑕᒃᑐᑦ) ᐊᒻᒪ ᑕᐃᒪᐃᑦᑐᓕᒫᑐᐃᓐᓇᑦ (ᓱᕐᓗ ᕿᒥᕐᕈᔨᓐᓇᓕᓗᒋᑦ ᐊᑕᖏᖅᓱᒋᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᐊᑐᖅᑕᐅᓪᓗᑎᒃ ᑕᕆᐅᑉ ᐊᕙᑎᖓᓄᑦ ᐊᒃᑐᐃᓂᕐᓄᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓂ (MEEMP) ᐃᓗᓕᖏᑦ, ᓱᕐᓗ ᐃᖃᓗᐃᑦ, ᐃᖅᑲᖓᓂ ᐱᕈᖅᑐᑦ ᐊᒻᒪ ᐆᒪᔪᖁᖓᓂᒃ ᖃᐅᔨᓴᕐᓂᑦ) ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓂᖁᓯᙵᑦ. ᑕᒪᒃᑯᐊ ᐅᔾᔨᕆᔭᐅᔪᑦ ᐊᒻᒪ ᖃᐅᔨᓴᕝᓴᓕᐊᑦ ᐆᒪᔪᑦ ᐊᔾᔨᖁᑎᖏᐊᕐᔪᒃᑐᑦ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᖏᓐᓄᑦ ᕿᒥᕐᕈᔭᐅᓗᐅᖅᑐᑦ ᑖᒃᑯᓄᖓ ᐆᒪᔪᑦ ᐊᔾᔨᖁᑎᖏᐊᕐᔪᒃᑐᑦ ᓈᓴᖅᑕᐅᓯᒪᔪᓄᑦ, ᐱᖃᓯᐅᔾᔨᔪᑦ ᐆᒪᔪᓂᒃ ᐊᕕᒃᑐᖅᓯᒪᔪᓂᒃ ᖃᐅᔨᔭᐅᓯᒪᔪᑦ ᕿᒥᕐᕈᓇᖏᑦᑐᐊᓐᓂ ᐊᒻᒪ ᐊᕐᕌᒍᑖᓕᑦ ᓄᑖᙳᕈᑎᓇᐊᖅᑕᐅᕙᒃᖢᑎᒃ. ᐆᒪᔪᑦ ᐊᔾᔨᖁᑎᖏᐊᕐᔪᒃᑐᑦ ᖃᓄᐃᓛᙴᓕᕐᓂᖏᑦ ᓄᓇᓂ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᖃᐅᔨᒪᔭᐅᓗᐊᖅᑐᖅ ᐊᒻᒪ ᓂᕆᐅᒋᔭᐅᓗᑎᒃ ᐊᑐᓂ ᐊᕐᕌᒍᒥ ᑕᒪᑐᒧᖓ ᖃᐅᔨᓴᕝᓴᓕᐅᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᖃᐅᔨᓴᒃᓴᕐᓂᐊᖅᑐᑦ ᐆᒪᔪᓂᒃ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᑭᒍᓂᖓᓛᑎᓐᓂ ᑎᑎᕋᖅᑕᐅᓯᒪᓚᐅᖅᑐᓂᒃ. ᐅᖃᓕᒫᒐᓂᒃ ᕿᒥᕐᕈᓃᑦ ᐱᓕᕆᐊᖑᓯᒪᔪᑦ ᐆᒪᔪᓄᑦ ᐊᕕᒃᑐᓯᒪᔪᓄᑦ ᐃᓚᒋᔭᐅᓚᐅᖏᑦᑐᓄᑦ ᓈᓴᖅᑕᐅᓯᒪᔪᓄᑦ ᖃᐅᔨᓴᖅᑕᐅᕐᑯᓗᒋᑦ ᐆᒪᔪᓕᕆᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕐᓂᖏᓐᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᑎᒍᑦ; ᑳᒃᑳᓂᐊᒍᑦ ᑕᒪᒃᑯᐊ ᐆᒪᔪᐃᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᖃᐅᔨᒋᐊᕐᕕᒃᕐᕕᐅᔪᓐᓇᖅᓯᒪᔪᑦ ᐃᒻᒥᖕᓄᑦ ᑕᒪᐃᓐᓂᒃ ᓄᓇᕐᒥᐊᒥ ᐊᒻᒪ ᓄᓇᒋᔭᐅᔪᒥ ᑎᑎᕋᖅᓯᒪᕝᕕᐅᕙᒃᑐᓂ ᖃᐅᔨᒪᔭᐅᔪᓄᑦ ᑎᑭᐸᒃᑑᓪᓗᑎᒃ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ. ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᖃᐅᔨᒋᐊᕕᐅᓯᒪᖕᒥᔪᑦ ᐱᓕᕆᐊᒧᑦ-ᑖᔅᓯᒨᖓᓪᓚᑦᑖᖅ ᓇᐅᑦᑎᖅᓱᕐᓂᕐᒧᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ (ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑕᐃᔭᐅᓯᒪᔪᑦ ᖃᐅᔨᓴᕐᐸᓪᓕᐊᖏᓐᓇᖅᑕᐅᕐᑯᓪᓗᒋᑦ ᐊᒻᒪ ᕿᒥᕐᕈᓕᖅᑭᒃᑕᐅᑲᑕᕐᑯᓪᓗᒋᑦ) ᐃᓗᓕᖃᖅᑐᑦ ᐆᒪᔪᓂᒃ ᐊᕕᒃᑐᖅᓯᒪᔪᓂᒃ ᕿᒥᕐᕈᔭᐅᓯᒪᔪᑦ ᐃᓗᐊᓂ ᐊᒃᐸᓯᒃᑐᑦ, ᐊᑯᓂᖅᓯᖅᑐᑦ, ᐅᕝᕙᓘᓐᓃᑦ ᖁᕝᕙᓯᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ, ᐊᑖᓂ ᐅᓂᒃᑳᖅᑕᐅᓯᒪᔪᑦ. ᖃᐅᔨᔪᖅᑲᕈᓂ ᐆᒪᔪᓂᒃ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ

ᓇᓗᓇᐃᖅᑕᐅᔪᓐᓇᙱᒃᑯᓂ ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᖃᓄᑎᒋᐅᓂᖕᒋᓐᓄᑦ, ᐊᓯᖕᒋᑦ ‘ᑮᓪᓚᖅᑐᖅᑕᐅᔪᑦ ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ’ ᑖᒃᑯᓇᓂ ᐆᒪᔪᓂ ᐊᕙᒃᑐᖅᓯᒪᔪᓂ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᑦ ᐊᑐᖅᑕᐅᔪᓄᑦ ᓴᖁᐃᑦᑕᐃᓕᒪᓂᕐᒧᑦ, ᑐᕌᓚᖅᖠᑎᒃ ᑕᐃᒃᑯᓂᖔ ᐱᑕᖃᓕᑐᐃᓐᓇᕆᐊᓕᖕᓂᒃ ᐅᑭᐅᖅᑕᖅᑐᒥ (ᐱᓗᐊᖅᑐᒥ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᐆᒪᔪᑦ ᓄᓇᓕ ᐊᕙᒃᑐᖅᓯᒪᔪᓂ ᐅᖃᓘᓐᓃᑦ ᐊᕙᒃᑐᖅᓯᒪᒃᑳᓂᐅᔭᖅᑐᓂ ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᓈᒻᒪᒋᔭᐅᓚᐅᖅᑐᑦ ᑭᓯᐊᓂᓕ ᐊᑕᖕᒋᖕᖢᒋᑦ ᐊᓯᖕᒋᑦ ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᐃᓱᒪᒋᖃᓯᐅᔾᔭᐅᓚᐅᖅᑐᑦ).

ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᑎᒃᑯᐊᖅᑕᐅᓯᒪᔪᑦ ᐅᑯᓄᖓ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᓄᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᓄᑦ:

ᐅᓗᕆᐊᓇᖅᑐᖃᙱᑦᑐᖅ: ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᐃᓱᒪᒋᖃᓯᐅᔾᔭᐅᓯᒪᔪᑦ “ᐅᓗᕆᐊᓇᙱᓐᓂᖕᒋᓐᓂᒃ” ᐃᒪᐃᒃᑯᓂ:

- ᓵᖅᑮᔭᖅᑐᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ ᐱᓕᕆᐊᖅ ᐊᐅᓚᓂᖃᓯᒋᐊᖅᑳᖅᑎᓐᓇᒍ (2015). ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᐃᓱᒪᒋᔭᐅᖃᓯᐅᔾᔭᐅᑐᐃᓐᓇᕆᐊᓕᒃ “ᐅᓗᕆᐊᓇᖅᑐᒦᙱᓐᓂᖕᒐᓂᒃ” ᑎᑎᖅᑲᐃᑦ ᐱᑕᖃᕈᑎᒃ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᑕ ᓯᓚᑖᓂ ᐱᓕᕆᕙᐅᔫᑦ ᐃᓂᐊᓂ ᐊᒃᑐᐃᓂᕐᒥ, ᓇᓐᕙᐅᕗᒃᑐᓂ ᐃᒫᓂ ᖃᓂᒋᔭᖕᒐᓂ ᑲᓇᑕᒥ ᐅᑭᐅᖅᑕᖅᑑᑦ ᐱᑕᖃᖅᑎᑦᑎᔪᖅ ᓇᓗᓇᙱᓪᓚᑎᒃᑐᒥᒃ ᓇᓃᖃᑦᑕᕐᓂᖕᒋᓐᓂᒃ ᐱᖃᓯᐅᑎᓪᓗᒍ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᖕᒐ.

ᐊᒻᒪᓗ

- ᑎᑎᖅᑕᐅᓯᒪᙱᑦᑐᑦ ᑎᑭᐸᒃᑐᑦ ᐆᒪᔪᕋᕆᓪᓚᑦ (AIS) ᑎᑎᕋᖅᑕᐅᓯᒪᕚᖕᒋᑦ, ᐅᕙᓘᓐᓃᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᒍᑎᒃ, ᑲᓇᑦᑯᕐ ᐅᑭᐅᖅᑕᖅᑐᐊᓂᕐᒥᐅᑕᐅᖕᒋᓇᐅᔭᖅᐸᑉᑦ ᐅᕙᓘᓐᓃᑦ ᑮᓪᓚᖅᑐᐃᓰᐅᓪᓗᑎᒃ ᐆᒪᔪᓄᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᓂ ᐃᒪᐃᑦᑑᓪᓗᑎᒃ ᐃᒪᐃᙱᑦᑐᒃᓴᐅᔪᖅ ᓵᖅᑭᓇᔭᙱᖕᒎᑎᒃ ᐅᑭᐅᖅᑕᖅᑐᒥ (ᓲᕐᓗ ᐱᓗᐊᖅᑐᒥ ᐅᖅᑰᔪᕐᒥᐅᑕᑦ/ᐅᖅᑯᔪᐃᑦ ᓄᓇᐃᑦ ᖃᓂᒋᔭᖕᒋᓐᓂ)

ᐅᒃᐸᓯᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᖅ: ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᐃᓱᒪᒋᖃᓯᐅᔾᔭᐅᔪᑦ “ᐊᒃᐸᓯᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑑᔪᑦ” ᐃᒪᐃᒃᑯᓂ:

- ᐅᖃᐅᑕᐅᓯᒪᙱᑦᑐᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ, ᐅᕙᓘᓐᓃᑦ ᐅᖃᐅᓯᐅᓯᒪᔪᖅ ᓇᓗᓇᕐᔪᐊᖕᒍᓂ, ᐅᕙᓘᓐᓃᑦ ᐊᒃᑐᐊᓂᖃᙱᑦᑐᑦ ᐅᒥᐊᕐᔪᐊᖃᖃᑦᑕᕐᓇᒧᑦ (ᓲᕐᓗ ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᐱᑕᖃᕐᓂᖕᒋᑦ ᑕᐃᒪᐃᓐᓇᔭᙱᑦᑑᒃᓴᐅᔪᖅ ᐅᖓᓯᒌᒃᑕᕐᓂᖕᒋᓐᓄᑦ ᐊᒃᑐᐊᔪᓄᑦ ᓯᓚᐅᑉ ᐊᓯᔾᔨᖅᐸᓪᓕᐊᓂᖕᒐᓄᑦ)

ᐊᒻᒪᓗ

- ᑎᑎᕋᖅᑕᐅᓯᒪᙱᑦᑐᑦ ᑎᑭᐸᒃᑐᑦ ᐆᒪᔪᕋᕆᓪᓚᑦ (AIS) ᑎᑎᕋᖅᑕᐅᓯᒪᕚᖕᒋᓐᓂ, ᐅᕙᓘᓐᓃᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ (ᐅᕙᓘᓐᓃᑦ ᐱᑕᖃᕐᔪᐊᖄᓪᓚᖕᓂᖅᐸᑦ ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᓂᖕᒋᓐᓄᑦ ᓇᓗᓇᐃᔭᐅᑎᑕᖃᓪᓚᑦᑖᕐᓗᓂ, ᐊᑕᐅᓯᕐᒧᑦ ᐅᖓᑖᓄᓪᓘᓐᓃᑦ ᑮᓪᓚᖅᑐᖅᑕᐅᔪᓂ ᐆᒪᔪᓂ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᓂ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂᑦ ᑎᑭᐸᒃᑐᑦ ᐆᒪᔪᕋᕆᓪᓚᑦ (AIS) ᑎᑎᕋᖅᑕᐅᓯᒪᕚᖕᒋᓐᓂ) ᑮᓪᓚᖅᑐᐃᓃᑦ ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᐃᒪᐃᑦᑐᑦ/ᐃᒪᓐᓇᐅᔪᑦ ᓵᖅᑭᓇᔭᙱᑦᑑᒃᓴᐅᔪᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ (ᓲᕐᓗ ᐱᓗᐊᖅᑐᒥ ᐅᖅᑰᔪᕐᒥᐅᑕᑦ/ᐅᖅᑯᔪᐃᑦ ᓄᓇᐃᑦ ᖃᓂᒋᔭᖕᒋᓐᓂ), ᐅᕙᓘᓐᓃᑦ, ᑎᑎᕋᖅᑕᐅᓯᒪᒍᑎᒃ ᓵᖅᑭᓯᒪᓗᑎᒃ ᑕᐅᕙᓂ ᐊᕐᕿᒪᓗᖕᒋᓐᓂᒃ ᐊᓄᐃᓕᖕᓚᓂᐅᔪᒥ, ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᑕᒫᓂᕐᒥᐅᑕᙱᓪᓗᑎᒃ ᓄᓇᒧᑦ ᐱᑕᖃᓕᑐᐃᓐᓇᕆᐊᓖᑦ,

ᐊᒻᒪᓗ

- ᓵᖅᑮᔭᖅᑎᑦᑎᙱᓪᓗᑎᒃ ᑎᑭᐸᒃᑐᑐᑦ ᐃᓕᖅᑯᓯᖃᕐᓗᑎᒃ ᕿᙵᐊᓂ.

ᐊᑯᓐᓂᖅᓱᖅᑐᒥ ᐅᓗᕆᐊᓇᕈᓐᓇᑐᐃᓐᓇᕆᐊᓖᑦ: ᐆᒪᔪᑦ ᐊᕐᕌᒍᙳᐊᕐᔪᒃᑐᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ “ᐊᑯᓐᓂᖅᓱᖅᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᑐᐃᓐᓇᕆᐊᓖᑦᓭ” ᐃᒪᐃᒃᑯᓂ:

- ᐅᖃᐅᓯᐅᓯᒪᙱᓪᓗᑎᒃ ᐱᑕᖃᕐᓂᖕᒋᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ, ᐅᕙᓘᓐᓃᑦ ᐅᖃᐅᓯᐅᓯᒪᓂᖕᒋᑦ ᓇᓗᓇᖅᑑᕐᔪᐊᕐᓗᑎᒃ

ᐊᒻᒪᓗ

- ᐊᑦᑕᖅᑕᖅᓯᒪᔪᓐᓇᕐᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᑦ ᐃᖕᒋᕋᕙᒋᔪᓐᓇᖅᑕᖕᒋᑦᑎᒍᑦ

ᐊᒻᒪᓗ

- ᑎᑎᕋᖅᑕᐅᓯᒪᓗᑎᒃ ᑎᑭᐸᒃᑐᑦ ᐆᒪᔪᕋᕆᓪᓚᑦ (AIS) ᐊᓯᖕᒋᓐᓂ ᐃᓂᐅᔪᓂ, ᐱᑕᖃᖅᑐᖃᙱᒃᑲᓗᐊᖅᑎᓪᓗᒍ ᐱᕐᔪᐊᒥ ᐃᓕᖅᑯᓯᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖕᒋᓐᓂᒃ ᐆᒪᔪᑦ ᓇᔪᓚᖕᒋᑦᑕ ᓯᓚᑎᖕᒋᑦᑕᓘᓐᓃᑦ ᐊᕐᕆᐸᓗᒋᓗᓂᐅᒃ ᕿᙵᐊᓄᑦ

ᐊᒻᒪᓗ

- ᓴᖅᑭᔮᖅᑎᑦᑎᓯᒪᙱᓪᓗᑎᒃ ᑎᑭᑉᐸᒃᑐᑐᑦ ᐃᓕᖅᑯᓯᖃᕐᓗᑎᒃ ᕿᙵᐊᓂ

ᕐᑯᕝᕙᓯᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᑦ: ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ "ᕐᑯᕝᕙᓯᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᑦ" ᐃᒪᐃᒃᑯᓂ:

- ᐅᖃᐅᓯᐅᓯᒪᙱᓪᓗᓂ ᐱᑕᖃᕐᓂᖓᓂᒃ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ, ᐅᕝᕙᓘᓐᓃᑦ ᐅᖃᐅᓯᐅᓯᒪᓗᓂ ᓇᓗᓇᕐᔪᐊᕐᓗᓂ

ᐊᒻᒪᓗ

- ᐊᑦᑕᑕᖅᓯᒪᔪᓐᓇᕐᓗᑎᒃ ᐅᒥᐊᕐᔪᐊᑦ ᐃᙱᕐᕋᕝᕕᒋᔪᓐᓇᖅᑕᙱᑦᑎᒍᑦ

ᐊᒻᒪᓗ

- ᑎᑎᕋᖅᑕᐅᓯᒪᓪᓗᓂ ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᖢᑦ (AIS) ᐊᓯᙱᓐᓂ ᐃᓂᓂ

ᐊᒻᒪᓗ

- ᑎᑎᕋᖅᑕᐅᓯᒪᑦᑎᐊᕗᓂ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖔᓄᑦ ᐱᕐᔪᐊᒥ ᑎᑭᑉᐸᒃᑐᑐᑦ ᐃᓕᖅᑯᓯᖃᕐᓗᓂ ᐆᒪᔪᑦ ᓇᔪᖓᙱᓐᓂ ᓯᓚᑎᙱᓐᓂᓗ ᐊᔾᔨᐸᓗᙱᓐᓂ ᕿᙵᐊᓂ, ᐊᒻᒪᓗ/ᐅᕝᕙᓘᓐᓃᑦ ᓴᖅᑭᔮᖅᓯᒪᓪᓗᑎᒃ ᑎᑭᑉᐸᒃᑐᑐᑦ ᐃᓕᖅᑯᓯᖃᖅᐳᑎᒃ ᕿᙵᐊᓂ.

ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐋᖅᑭᒃᑕᐅᓯᒪᔪᑦ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓄᐊᖅᑕᐅᓗᑎᒃ ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᑎᑭᐅᑎᓯᒪᔪᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᓕᙵᓄᑦ ᐊᒃᐸᓯᒃᑐᓄᑦ-, ᐊᑯᓂᖅᓱᖅᑐᓄᑦ– ᐊᒻᒪ ᕐᑯᕝᕙᓯᒃᑐᓄᑦ-ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᓄᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᔪᑦ ᕐᑯᕈᓂ. ᖃᒃᑲᓂᐊᒍᑦ, ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᐃᓕᔭᐅᑐᐃᓐᓇᕆᐊᖒᑦ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐅᔾᔨᖅᓱᖅᑕᐅᕐᑯᓪᓗᑦ ᐃᑲᔪᖅᑑᑎᖃᕆᐊᖃᒃᑲᓂᕈᑎᒃ ᖃᐅᔨᓴᕈᑎᓂᒃ, ᓱᕐᓗ ᓇᓗᓇᐃᖅᑕᐅᓗᑎᒃ ᑭᓇᐅᔾᔪᑎᖏᑦ ᐅᕝᕙᓘᓐᓃᑦ ᓇᓗᓇᐃᖅᑕᐅᓗᑎᒃ ᐅᓄᖅᓯᕙᓪᓕᐊᓂᕋᕙᒃᑕᖏᑦ. ᑕᒪᒃᑯᐊ ᕐᑯᕝᕙᓯᒃᑐᓄᑦ-ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᓗᑎᒃ ᐃᓱᒪᒋᖃᓯᐅᔾᔭᐅᔪᑦ ᓴᖅᑕᐅᓇᕆᐊᖄᖅᑐᑦ ᐊᑐᖅᑕᐅᓗᑎᒃ ᐱᓕᕆᐊᒥ ᐅᒥᐊᕐᔪᐊᖃᒃᑦᑕᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ, ᐃᓚᔭᐅᓇᔭᖅᑐᑦ ᐱᒋᐊᕈᑎᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ (ᑎᑎᕋᖅᓯᒪᔪᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ "ᐱᒋᐊᕈᑕᐅᔪᑦ" ᐱᕙᓪᓕᐊᑎᑕᐅᓂᖏᑦ ᓲᒃᑲᓕᔪᒃᑯᑦ ᑲᒪᔾᔪᑎᓄᑦ ᐸᕐᓇᐅᑏᑦ ᓇᓗᓇᐃᔭᐃᔪᑦ ᑲᒪᔾᔪᑎᒃᓴᑦ ᐆᒪᔪᓄᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓄᓪᓚᑦᑖᖅ ᐊᒻᒪ ᐃᓚᖏᓐᓄᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᑦ). ᐅᖃᓕᒫᒐᕐᓂᒃ ᕿᒥᕐᕈᓃᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓄᑦ ᐱᓕᕆᐊᖑᒃᑲᓐᓂᕈᖅ ᐊᕌᖑᑕᓖᑦ ᐊᑕᖏᖅᐳᒋᑦ ᐊᑯᓂᖅᓱᖅᑐᓄᑦ ᐊᒻᒪ ᕐᑯᕝᕙᓯᒃᑐᓄᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᓄᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐊᒻᒪ ᐱᒋᐊᕈᑎᓄᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓄᑦ, ᐊᒻᒪ ᐊᒃᐸᓯᒃᑐᓄᑦ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᓄᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐊᕐᕋᒍᓂ ᐱᑕᖃᕐᓂᕋᖅᑲᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᓂᒃ, ᓄᓈᙵᕗᑎᓇᐊᖅᑕᐅᕐᑯᓪᓗᑦ ᑐᓴᐅᒪᔾᔪᑏᑦ ᐆᒪᔪᓄᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ. ᑲᑎᑕᐅᓂᖏᑦ ᖃᐅᔨᓴᕈᑏᑦ ᐊᑐᓂ ᐆᒪᔪᓄᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ ᕿᒥᕐᕈᔭᐅᖃᑦᑕᖅᑐᑦ ᓇᓗᓇᐃᕈᑎᓄᑦ ᐊᓯᔾᔨᐅᑎᐅᑐᐃᓐᓇᕆᐊᓕᖕᓄᑦ ᐅᓄᕐᓂᖏᓐᓄᑦ ᐅᕝᕙᓘᓐᓃᑦ ᓯᐊᒻᒪᒃᓯᒪᓂᖏᓐᓄᑦ ᕿᙵᐊᓂ ᑐᓚᒃᑕᕝᕕᖕᒥᕈᔪᒃ, ᐊᒻᒪ ᖃᓄᐃᓕᖔᓂᖏᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᑕᒪᒃᑯᓄᖓ ᐊᒃᑐᐊᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᑦ ᕿᒥᕐᕈᓕᖅᑭᒃᑕᐅᓪᓗᑎᒃ. ᑕᒪᓐᓇ ᓴᖅᑮᑐᐃᓐᓇᕆᐊᓕᒃ ᐊᓯᔾᔨᖅᓯᒪᙱᑦᑐᓂᒃ ᖃᓄᐃᓕᖓᓂᐅᔪᓂᒃ, ᐊᓯᔾᔨᐅᑎᓂᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑐᑦ ᖃᓄᑎᒋᐅᓂᖏᓐᓄᑦ, ᐋᖅᑕᐅᓗᑎᒃ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓂᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂ, ᐅᕝᕙᓘᓐᓃᑦ ᑎᑎᕋᖅᑕᐅᓗᑎᒃ ᐱᒋᐊᕈᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ.

2024- ᒥ ᖃᐅᔨᓴᕐᓂᕐᒥ ᖃᐅᔨᔭᐅᔪᑦ 54 ᓄᓇᑦ ᐃᓚᔭᐅᔪᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᓈᓴᖅᑕᐅᓯᒪᓂᖏᑦ ᕿᙵᐊᓄᑦ (ᓲᕐᓗ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐅᔾᔨᕆᔭᐅᓯᒪᙱᑦᑐᑦ ᑭᖑᓂᖓᑦᑎᓐᓂ ᖃᐅᔨᓴᕐᓂᐅᔪᓂ). ᐊᒥᓲᓂᖅᓴᑦ ᓄᓇᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᐊᑐᖅᑕᐅᓯᒪᔪᑦ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ ᐅᕝᕙᓘᓐᓃᑦ ᐊᔾᔨᒌᙱᑦᑕᖅᑐᑦ ᐱᖃᓯᐅᔾᔨᔪᑦ ᐱᓕᕆᕝᕕᖕᒥᕈᔪᒃ. ᑭᓯᐊᓂᓕ, ᑐᑭᒧᐊᒍᑕᐅᔪᑦ ᐅᖃᓕᒫᒐᕐᓂᒃ ᕿᒥᕐᕈᓃᑦ ᓄᓇᓂᒃ ᐅᔾᔨᕆᔭᐅᔪᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ 2024-ᒥ ᓴᖅᑮᓯᒪᔪᑦ ᑕᓪᓕᒪᓂ ᐆᒪᔪᓂ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐃᓚᓕᐅᔾᔭᐅᓪᓗᑎᒃ ᐱᓕᕆᐊᒥ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᙱᓐᓇᕋᓱᐊᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᖑᓇᓱᒃᑐᓄᑦ:

- ᕐᑯᐱᕿᑯᑖᑦ (Chaetozone anasima) ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᐃᖅᑲᖓᓂ ᖃᐅᔨᓴᒃᓴᓂ ᐊᒻᒪ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓪᓗᓂ ᕿᒥᕐᕈᔭᐅᓂᕐᒧᑦ ᐱᔾᔪᑕᐅᓪᓗᓂ ᐱᑕᖃᑦᑎᐊᕐᓂᖓᓄᑦ ᓇᓃᖃᑦᑕᕐᓂᕐᓂᓄᑦ ᓇᓗᓇᐃᔭᐅᑏᑦ ᐱᖃᓯᐅᔾᔨᓯᒪᔪᑦ ᑲᓇᖕᓇᖕᓂ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ. ᕐᑯᐱᕿᑯᑖᒃ ᑕᑯᔭᐅᕙᔪᒃᑐᑦ ᕿᙵᐊᓂ ᑕᐃᒪᙵᓂᑦ ᐱᒋᐊᕈᑕᐅᔪᑦ ᖃᐅᔨᓴᕈᑏᑦ ᐱᒋᐊᖅᑕᐅᓯᒪᓕᖅᑎᓪᓗᒋᑦ ᑭᓯᐊᓂᓕ ᒫᓇᕋᑖᖅ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓴᖅᑭᑕᐅᓯᒪᓂᖏᑦ ᐱᔪᓇᖅᓯᑎᑦᑎᓯᒪᔪᑦ ᐋᖅᑭᐊᑦᑎᐊᕈᑎᓂᒃ ᐃᓚᖏᓐᓄᑦ ᐆᒪᔪᓄᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓄᑦ. ᖃᐅᔨᓴᐅᑉᓴᓕᐊᖑᔪᑦ ᑲᑎᑕᐅᔪᑦ 224-ᒥ ᐊᒻᒪ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᕐᑯᐱᕿᑯᑖᑦ (Chaetozone anasima) ᓴᖅᑮᑐᐃᓐᓇᕆᐊᓖᑦ ᐋᖅᑭᕆᐊᖅᓯᒪᔪᓂᒃ ᑭᖑᓂᖓᑦᑎᓐᓂ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᔪᓂ, ᐃᒪᓐᓇᐅᙱᑦᑐᖅ ᓄᓇᑦ ᓇᓗᓇᐃᔭᖅᑕᐅᓗᑎᒃ

ᕿᙵᑯᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ. (Chaetozone anasima) ᐋᖅᑭᒃᑕᐅᓯᒪᔪᑦ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐋᒃᐸᓱᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑑᓪᓗᓂ ᐅᔾᔨᖅᓱᖅᑕᐅᔾᔭᑕᐅᓪᓗᓂ.

- ᐆᔭᐅᔭᑦ ᑕᕿᔭᒨᑖᑦ ᐊᖅᑲᔭᑦ (Chaetomorpha sp. 3GWS) ᓇᓗᓇᐅᔭᖅᑕᐅᓯᒪᙱᑦᑐᖅ ᐆᒪᔪᓂ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᑭᙵᓂᑦᑎᐊᖑᒍᑦ ᖃᐅᔨᓴᒃᓴᐃᑦ ᐱᔭᐅᓚᐅᖅᑎᓪᓗᙱᑦ ᕿᙵᑯᐊᓂ. ᑐᓴᐅᒪᔾᔪᑎᒥᒃ ᐊᑐᐃᓐᓇᖅᑕᖃᖅᓯᒪᙱᑦᑐᖅ ᑖᔅᓱᒧᖓ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ, ᐊᒻᒪ ᐅᔾᔨᖅᔫᑕᐅᓪᓗᓂ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᖅ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐋᒃᐸᓱᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑑᓪᓗᓂ ᐆᒪᔪᓂ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ.
- ᒥᑭᔫᒪᕆᖕᓂᒃ ᖃᐅᔨᓴᕐᓂᖅ ᕿᙵᑯᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᐊᖅᑲᔭᓂᒃ ᖃᐅᔨᓴᒐᒃᓴᓂᒃ ᓇᓗᓇᐃᖅᓯᔪᖅ ᐱᑕᖃᕐᓂᖑᓂᒃ ᐱᕈᖅᑑᖅᑑᔨᔪᑦ ᕿᖅᑯᐊᑦ (Desmarestia ligulata) ᑭᓯᐊᓂᓕ, ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᖏᑦ ᐅᔾᔨᕆᔭᐅᕐᑯᔭᐅᓯᒪᔪᑦ ᐱᑕᖃᑐᐃᓐᓇᕆᐊᖃᕐᓂᖑᓂᒃ ᖃᐅᔨᓴᕐᕕᖕᒥ ᓱᕈᖅᓯᒪᔪᓂᒃ. ᑎᑎᕋᖅᑕᐅᓯᒪᔪᖅᑕᖃᙱᑦᑐᑦ ᑕᒪᒃᑯᓂᖓ ᐆᒪᔪᓂᒃ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓂ ᐱᑕᖃᕐᓂᕋᖅᑕᐅᓗᑎᒃ ᑲᓇᑕᐅᑉ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ, ᐊᒻᒪ ᓴᖅᑮᔭᖅᓗᓂ ᐊᒃᓱᓪᓘᓐᓃᑦ ᐊᑕᐅᓯᕐᒥ ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᑦ (AIS) ᑎᑎᕋᖅᑕᐅᓯᒪᕝᕕᖏᓐᓂ, ᐊᒻᒪ ᑕᐃᒪᐃᓐᓂᖑᓄᑦ ᑕᒪᒃᑯᐊ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐃᓕᔭᐅᓯᒪᔪᑦ ᓇᐅᑦᑎᖅᓱᕆᐊᓕᖕᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐋᒃᐸᓱᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑑᓪᓗᓂ ᐅᔾᔨᖅᓱᖅᑕᐅᔾᔭᑕᐅᓇᓱᒃᓲᓂ.
- ᑭᙵᓃᑦ ᐋᖅᑭᒃᓱᖅᑕᐅᕙᓪᓕᐊᓯᒪᔪᑦ ᑭᓕᐅᖅᑐᖅᑕᐅᓯᒪᔪᓂ ᐃᖅᑲᖑᓂ ᐊᒻᒪ ᐅᔭᖅᑲᓂ ᐊᒻᒪᓗ ᑭᙵᓂᐊᒍᑦ ᓇᓕᒧᓕᖅᑎᑕᐅᓚᐅᖅᑐᑦ ᐊᐅᐸᖅᑐᑦ ᐊᖅᑲᔭᑦ ᕿᖅᑯᐊᑦ (*Antithamnion sparsum*), ᑕᓇᐅᑉ ᐊᑭᐊᓂ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐃᓱᒪᒋᔭᐅᔪᑦ ᑖᓂᕐᒥᐅᑕᙱᑦᑐᑦ ᐆᒪᔪᕋᓛᑦ (NIS) ᓅᕙ ᔅᑰᔅᓱᑦ ᐊᒻᒪ ᐅᑭᐅᖅᑕᖅᑐᒦᑦᑐᓐᓇᕐᓂᕆᓐᓂᒃ ᑎᑎᖅᑕᐅᓯᒪᓇᑎᒃ. ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐱᓕᕆᔾᔪᓰᑦ ᖃᐅᔨᓴᖑᒃᓴᓂᒃ ᑲᑎᖅᓱᐃᓃᑦ, ᐋᖅᑭᒃᓯᒪᓂᕆᓇᓄᑦ ᓇᓗᓇᐃᖅᑕᐅᔪᓐᓇᓚᐅᙱᑦᑐᑦ. ᖃᐅᔨᓴᕐᕕᖕᒥ ᐃᓱᒪᒋᔭᐅᔪᑦ ᑕᒪᒃᑯᐊ ᖃᐅᔨᔭᐅᓯᒪᔪᑦ ᓴᓪᓗᓯᒪᓇᓱᒋᔭᐅᑐᐃᓐᓇᖁᐊᖅᑲᖅᓱᑎᒃ, ᑭᓯᐊᓂᓗ ᐊᖅᑲᔭᐃᑦ (Antithamnion cf. sparsum) ᐅᔾᔨᖅᔫᑕᐅᓪᓗᑎᒃ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᕿᒥᕐᕈᔭᐅᒃᑲᓂᕆᐊᖅᑲᖅᓱᑎᒃ ᐊᒻᒪ ᑎᑎᕋᖅᑕᐅᓯᒪᓕᖅᓱᓂ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔭᕆᐊᖅᑲᖅᑐᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐋᒃᐸᓱᒃᑑᓗᓂ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑑᓪᓗᓂ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓄᑦ.

  ᑭᓕᐅᖅᑐᐃᓂᖅ ᐃᖅᑲᖑᓄᐊᖅᓯᒪᔪᓂᒃ ᐸᓕᐊᓂᑦ ᓇᑭᖖᒐᕐᒪᖖᑕ ᓇᓕᒧᓕᖅᑎᑦᑎᓃᑦ ᑖᒃᑯᓄᖓ ᕿᖅᑯᐊᕋᓛᓄᑦ (Polysiphonia kapraunii), ᒫᓐᓇᕋᑖᖅ ᓇᓗᓇᐃᔭᖅᑕᐅᓯᒪᓕᖅᑐᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᓄᐊᑦ ᑭᐅᕈᓚᐃᓇᒥ. ᓇᑭᖖᕐᓂᕆᓐᓄᑦ ᐱᓕᕆᓃᑦ ᓴᖅᑮᓯᒪᔪᑦ ᐃᓚᖑᓂᒃ ᓇᓗᓇᕐᓂᖑᓄᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑎᒃᑯᐊᖅᑕᐅᓯᒪᓂᕆᕙᒃᑕᕆᑦ, ᓇᓗᓇᐃᖅᓯᓪᓗᑎᒃ ᐋᖅᑭᒃᐸᓪᓕᐊᖃᑦᑕᖅᑐᑦ ᐃᓛᒃᑰᕐᔪᒃᓱᑎᒃ ᖃᓂᒋᔭᖃᓪᓚᓇᒃᓱᑎᒃ ᐊᒃᑐᐊᓂᓕᖕᓄᑦ ᐆᒪᔪᓄᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓄᑦ ᐊᔾᔨᒌᒃᑕᙱᕆᓂᖅᓴᐅᔪᓄᑦ, ᐊᒻᒪ ᓇᒥᓂᖅᓱᖅᑑᓗᑎᒃ ᐆᒪᔫᓗᑎᒃ ᐊᔾᔨᒋᔭᐅᙱᐊᕐᔪᓪᓗᑎᒃ. ᓇᓗᓇᐃᔭᐃᓂᖅ 2024-ᒥ ᐃᓱᒪᒋᔭᐅᓯᒪᙱᒃᑲᓗᐊᖅᖢᓂ ᓴᓪᓗᓯᒪᑐᐃᓐᓇᕆᐊᖃᕐᓂᖕᓂᒃ, ᖃᐅᔨᔭᐅᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓇᓗᓇᖅᑑᓂᕋᖅᓯᒪᓪᓗᑎᒃ ᐱᔾᔪᑎᒋᓪᓗᒋᑦ ᐱᓕᕆᔾᔪᓰᑦ ᑭᒡᓕᖃᕐᓂᙱᓐᓄᑦ ᓇᓗᓇᐃᖅᓯᓂᕐᒧᑦ ᑖᒃᑯᓇᓂ ᐊᔾᔨᐸᓗᓪᓚᑎᖕᓂ ᐆᒪᔪᓂ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓂ. ᐱᑕᖃᑦᑎᐊᙱᙱᓐᓂᙱᓐᓄᑦ ᐊᔾᔨᒌᙱᕈᔫᔭᖅᑐᑦ ᓇᓗᓇᐃᔭᐅᑏᑦ ᐱᖃᓯᐅᔾᔨᓯᒪᔪᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᑕᓇᐅᖖᒋᓂᒃ, ᕿᖅᑯᐊᕋᓛᑦ (*Polysiphonia kapraunii),* ᓇᓗᓇᐃᖅᑕᐅᓚᐅᖅᑐᑦ ᕿᒥᕐᕈᔭᐅᒃᑲᓂᕆᐊᖅᑲᖅᓱᑎᒃ ᐊᒻᒪ ᑎᑎᕋᖅᑕᐅᓪᓗᑎᒃ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔭᕆᐊᓕᖕᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᐋᒃᐸᓱᒃᑐᒥᒃ ᐅᓗᕆᐊᓇᕈᓐᓇᖅᑑᓗᑎᒃ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᓂ ᐅᔾᔨᖅᔫᑕᐅᓗᓂ.

ᖄᒃᑲᓐᓂᐊᒍᑦ, ᑕᒫᓂᕐᒥᐅᑕᙱᑦᑐᑦ ᐆᒪᔪᕋᓛᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ/ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᓂᒃ (NIS/AIS) ᖃᐅᔨᓴᖅᐸᓪᓕᐊᖏᓐᓇᕐᓃᑦ 2024-ᒥ ᑲᑎᑕᐅᓚᐅᖅᑐᑦ ᐊᑕᐅᓯᖅ ᐆᒪᔪᑦ ᐅᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᐃᓕᔭᐅᓪᓗᓂ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᓯᒪᔪᓄᑦ ᑭᙵᓂᖖᑦᑎᓐᓂ ᐊᕐᕌᒍᓄᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᓇᓗᓇᕐᓂᙱᓐᓂᒃ ᐃᓂᒥᓃᑐᐃᓐᓇᖅᑎᓪᓗᙱᑦ ᐊᒻᒪ ᓲᖃᐃᒻᒪ ᑎᑎᕋᖅᑕᐅᓯᒪᓂᖑᓄᑦ ᐱᑕᖅᐸᓖᖅᑐᓄᑦ ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᓂᒃ (AIS) ᑎᑎᕋᖅᑕᐅᓯᒪᕝᕕᖑᓄᑦ (ᑖᓐᓇ ᖁᐱᕈᑯᑖᒃ (polychaete *Paramphitrite birulai).* ᑖᓐᓇ ᐆᒪᔪᖅ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᖅ ᑭᙵᓂᖖᑦᑎᓐᓂ ᓇᒃᓯᐅᔾᔭᐅᓯᒪᔪᖅ ᐃᓛᒃᑯᑦ ᓇᓗᓇᐃᖅᑕᐅᕐᑯᓪᓗᒍ ᐱᓕᕆᔨᓪᓚᑦᑖᓄᑦ ᐊᒻᒪ ᓄᑖᓄᑦ ᑲᑎᑕᐅᓯᒪᔪᓄᑦ ᖃᐅᔨᓴᒃᓴᓄᑦ ᑐᓂᔭᐅᕓᓂᒃᓯᒪᙱᑦᑐᑦ ᖄᒃᑲᓐᓂᐊᒍᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓪᓚᑦᑖᕈᑎᙱᓐᓄᑦ ᐱᔾᔪᑕᐅᓪᓗᑎᒃ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᑭᙵᓂᖖᑦᑎᓐᓂ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᓄᑦ. ᓇᓃᖃᑦᑕᕐᓂᙱᑦ ᐊᒥᓲᓂᙱᓪᓗ ᖁᐱᕈᑯᑖᒃ (*P. birulai)* ᐱᔭᐅᓯᒪᔪᑦ 2024-ᒥ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᙱᓐᓄᑦ ᑭᙵᓂᖖᑦᑎᓐᓂ ᐊᕐᕌᒍᓂ ᐊᒻᒪ ᑐᑭᑖᖅᑎᑕᐅᓯᒪᓪᓚᑦᑖᖅᑐᓂᒃ ᐃᓕᖅᑯᓯᖅᑕᖃᙱᑦᑐᑦ ᐊᒥᓲᓂᙱᓐᓄᑦ ᓇᓃᖃᑦᑕᕐᓂᙱᓐᓄᓪᓗᓐᓃᑦ ᑕᐃᒪᙵᑦ ᐆᒪᔪᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᓯᕗᓪᓕᖅᐹᒥ ᐅᔾᔨᕆᔭᐅᓚᐅᖅᑎᓪᓗᒋᑦ ᕿᙵᑯᐊᓂ ᑐᓚᒃᑕᕐᕕᖕᒥ ᖃᐅᔨᔾᔪᑕᐅᓇᔭᖅᑐᑦ ᑕᒫᓂᕐᒥᐅᑕᐅᙱᑦᑐᑑᕈᓂ. ᐊᓯᔾᔨᐅᑎᑕᖃᙱᑦᑐᑦ ᑕᒪᑐᒧᖓ ᖃᓄᐃᓕᖓᓂᐅᔪᒧᑦ ᑖᔅᓱᒧᖓ ᐆᒪᔪᓄᑦ ᐊᕕᒃᑐᖅᓱᒪᔪᒧᑦ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᑕᐅᕐᑯᔭᐅᓪᓗᓂ. ᐆᒪᔪᖅ ᐊᕕᒃᑐᖅᓱᒪᔪᖅ ᐲᖅᑕᐅᓯᒪᓕᖅᑐᖅ ᓇᐅᑦᑎᖅᓱᖅᑕᐅᔪᓄᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓄᑦ 2024-ᒥ.

ᕿᒥᕐᓗᖃᙱᑦᑐᓂᒃ ᖃᐅᔨᓴᐅᖅᓴᖃᕐᓂᖅ ᑭᒡᕕᑐᐃᔪᖅ ᑐᕌᒐᓱᐃᔪᓂᒃ ᐆᒪᔪᓂᒃ ᐊᕙᒃᑐᖅᓯᒪᔪᓂ, ᐃᖃᓯᐅᑎᓪᓗᕐᒋᑦ ᖁᐱᕐᕈᑯᑖᑦ *(Marenzelleria sp.)*, ᐅᔾᖃᓂ ᐱᕈᓰᑦ, ᐊᒻᒪᓗ ᐊᖅᑲᔾᑦ ᑲᓯᑕᐅᓯᒪᔪᑦ ᑭᓇᐅᓂᖏᓐᓄᑦ 2023-ᒥ ᓇᒃᓯᐅᔾᐅᓯᒪᔪᑦ CCDB-ᑯᓐᓄᑦ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᖁᓪᓗᕐᒋᑦ. ᖃᐅᔮᔾᐅᔪᑦ ᖁᐱᕐᕈᑯᑖᑦ *(Marenzelleria sp.)* ᐊᔾᔨᒋᓚᐅᖅᑕᕐᒋᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒫᓂᙱᑦᑐᓄᑦ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᔪᓄᑦ ᑖᒃᑯᓇᙶᕋᓱᒋᔾᐅᓪᓗᓂ ᖁᐱᕐᕈᑯᑖᓂ *(Spio sp.)*, ᑭᓱᐊᓂᓕ ᑖᒃᑯᐊ ᐊᕙᒃᑐᖅᓯᒪᕙᓪᓕᐊᓂᕐᒋᑦ ᐋᖅᑭᒃᓯᒪᔪᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕙᕐᔪᑦ ᖃᐅᔨᓴᙵᖕᓄᑦ ᒥᒃᓯᖃᕐᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᖁᐱᕐᕈᑯᑖᓂᒃ *(Marenzelleria)* ᖁᐱᕐᕈᑯᑖᓂᐅᙱᑦᑐᖅ *(Spio)*. ᐆᒪᔪᓄᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᓄᑦ ᖃᐅᔨᓴᕐᕙᒃ ᓇᓗᓇᐃᖅᓯᓯᒪᔪᖅ ᑕᒪᓐᓇ ᓴᖅᑭᓯᒪᑐᐃᓐᓇᕆᐊᓕᒃ ᓇᓗᓇᐃᖅᑕᐅᑦᑎᐊᖅᓯᒪᙱᓐᓂᕐᒋᓐᓄᑦ ᖃᐅᔨᒋᐊᕐᕙᐅᔪᓐᓇᖅᑐᑦ ᖃᐅᔨᓴᙵᖕᓯᑦ ᑕᐃᑲᓂ CCDB-ᑯᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᕝᕙᕐᒋᓐᓂ. ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕙᕐᒥ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᔪᑦ ᒥᒃᓯᖃᕐᓂᖅᓴᐅᓚᐅᖅᑐᑦ ᖃᐅᔨᓴᙵᖕᓄᑦ ᑲᑎᑕᐅᓯᒪᔪᓂᑦ ᑻᐅᐸᐅᕐᒥ 2018-ᒥ ᐊᒻᒪ ᑰᔾᔪᐊᕋᓗᕐᒥ 2008-ᒥ. ᖃᓂᒌᓪᓚᕆᓂᕐᒋᑦ ᑭᓇᐅᓂᕐᔫᑦ ᓇᓕᒧᑦᑐᑦ ᖃᐅᔨᓴᙵᖕᓄᑦ ᑲᑎᑕᐅᓯᒪᔪᑦ ᑲᓇᓐᓇᖖᒐᓄᑦ ᑲᓇᑕᒥ ᐅᑭᐅᖅᑕᖅᑐᒥᓗ/ᐅᑭᐅᖅᑕᖅᑐᖅᐊᓯᕐᒥ ᐱᒋᐊᖅᑕᐅᖅᑳᖅᑎᓐᓇᒍ ᐱᓕᕆᐊᖅ ᐊᐅᓚᓃᑦ ᐃᒪᓐᓈᖅᑐᐃᔪᑦ ᑕᒪᒃᑯᐊ ᕿᙳᐊᓂ ᖃᐅᔨᓴᙵᖕᓯᑦ ᑭᒡᕕᑐᐃᓇᔾᙱᑦᑐᑦ ᐆᒪᔪᓂ ᐊᕙᒃᑐᖅᓯᒪᔪᓂ ᐃᓱᒫᓘᑕᐅᔪᓂᒃ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕙᕐᒥ ᐱᓯᒪᒋᓇᒋᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓇᓗᓇᐃᔾᖅᑕᐅᓯᒪᓂᕐᒋᑦ ᖁᐱᕐᕈᑯᑖᑦ *(Spio sp)* ᐅᕝᕙᓘᓐᓃᑦ ᖁᐱᕐᕈᑯᑖᑦ *(Marenzelleria sp.)* ᑭᓇᐅᓂᖏᓐᓄᑦ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᔪᑦ ᐅᔾᖃᓂ ᐱᕈᖅᐸᒃᑐᑦ ᖃᐅᔨᓴᙵᖕᓯᑦ ᓴᖅᑮᓯᒪᔪᑦ ᓇᓗᓇᐃᔾᖅᑕᐅᓂᕐᒋᑦ ᒪᕐᕉᒃ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ: ᖁᐱᕐᕈᕋᓛᑦ *(Ascidia callosa)* ᐊᒻᒪ ᖁᐱᕐᕈᕋᓛᑦ *(Boltenia echinata)*. ᖁᐱᕐᕈᕋᓛᑦ *(Ascidia callosa)* ᐊᒻᒪ ᖁᐱᕐᕈᕋᓛᑦ *(Boltenia echinata)* ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᑲᓇᓐᓇᖕᒐᓂ ᑲᓇᑕᐅᕐ ᐅᑭᐅᖅᑕᖅᑐᐊᓂ ᐊᒻᒪ ᑭᖑᓂᖓᓪᑎᓐᓂ ᕿᙳᐊᓂ, ᐱᖃᓯᐅᑎᓪᓗᒋᑦ ᐱᒋᐊᕈᑕᐅᔪᓂ ᖃᐅᔨᓴᕈᑎᓂ.

ᑭᖑᓪᓖᑦ-ᑭᖑᕚᕆᔭᐅᔪᑦ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᕙᒃᑐᑦ ᓴᖅᑮᔭᓐᓇᓚᐅᖅᑐᑦ ᑎᑎᕋᖅᑕᐅᕙᓪᓕᐊᔪᓂᒃ ᑕᓪᓕᒪᓂᒃ ᐱᕈᖅᐸᒃᑐᓂᒃ (bryozoan) ᖃᐅᔨᓴᙵᖕᓴᐅᔪᓂᒃ, ᖃᐅᔮᔾᐅᔪᑦ ᓇᓗᓇᐃᖅᑕᐅᓚᕆᒍᓐᓇᓚᐅᙱᑦᑐᑦ, ᓴᖅᑭᔮᖅᑎᑦᑎᓪᓗᑎᒃ ᑭᓪᓕᖃᖅᑐᓂᒃ ᐱᓕᕆᔾᔪᑎᑎᒍᑦ ᐊᒻᒪ ᑭᓇᐅᓂᕐᒧᑦ ᓇᓗᓇᐃᔾᐅᑏᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ ᐱᕈᖅᐸᒃᑐᓂᒃ (bryozoan). ᑕᐃᒪᐃᓐᓂᖓᓄᑦ, ᖃᐅᔨᓴᙵᖕᓯᓂᒃ ᐋᖅᑭᒃᑕᐅᔪᖃᕈᓐᓇᖅᓯᒪᒃᑲᓐᓂᙱᑦᑐᖅ ᐆᒪᔪᓄᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᓄᑦ ᖃᓄᑎᒋᐅᔪᓄᑦ ᐊᒻᒪ ᖃᓄᐃᓐᓂᖅᓴᐅᓂᕐᒋᓐᓄᑦ ᕿᒥᕐᕈᓪᓗᒋᑦ ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᐃᓱᒪᒋᖃᓯᐅᔾᔾᐅᓇᑎᒃ ᓇᓗᓇᐃᔾᖅᑕᐅᓂᕐᒧᑦ ᕿᙳᐊᓂ ᑐᓚᒃᑕᕐᕙᙵᑦ.

ᓇᐅᑦᑎᖅᓱᕐᓂᕐᒧᑦ ᑎᑎᕋᖅᑕᐅᓯᒪᒧᑦ ᐃᓗᓕᖃᖅᑐᑦ ᖁᓕᓂᑦ ᐱᖕᒐᓱᓂᓪᓗ ᐆᒪᔪᓂ ᐊᕙᒃᑐᖅᓯᒪᔪᓂ ᐊᒻᒪ ᐱᑕᖃᙱᓐᓂ ᐆᒪᔪᓂᒃ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓂᒃ ᐱᒋᐊᕈᑕᐅᔪᓐᓇᖅᑐᓂᒃ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᓂᒃ.

ᐹᕝᕙᓛᓐᑯᑦ ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᑦ (AIS) / ᑕᒫᓂᕐᒥᐅᑕᐅᙱᑦᑐᑦ ᐆᒪᔪᑦ (NIS) ᖃᐅᔨᓴᖅᐸᓪᓕᐊᕐᒋᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ ᑭᒡᕕᑐᐃᔪᑦ ᐊᑕᖑᕇᓯᒪᔪᓂᒃ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᕐᒋᓐᓇᕐᓂᕐᒧᑦ ᑕᒫᓂᕐᒥᐅᑕᐅᙱᑦᑐᑦ ᐆᒪᔪᑦ (NIS) / ᑎᑭᑉᐸᒃᑐᑦ ᐆᒪᔪᕋᓛᑦ (AIS) ᐱᓕᕆᐊᖑᓯᒪᔪᑦ ᑐᓚᒃᑕᕐᕙᖕᓂ ᑲᓇᑕᒥ. 1,204-ᐸᓗᐃᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᕿᙳᐊᓂ ᖃᐅᔨᓴᖅᐸᓪᓕᐊᕐᒋᓐᓇᕐᓂᒃᑯᑦ ᐅᓪᓗᒥᒧᑦ, ᐱᖃᓯᐅᔾᔨᓯᒪᔪᖅ 499-ᓂᒃ ᐊᔾᔨᐅᙱᑦᑐᓂᒃ ᕿᖅᑯᐊᓂ, ᖁᐱᕐᕈᕋᓛᓂᑦ, ᐃᖅᑲᖓᓂ ᕿᒥᕐᓗᖃᙱᑦᑐᓂᒃ, ᐊᒻᒪ ᐃᖃᓗᐃᑦ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓂ. ᓇᓗᓇᐃᖅᔭᖅᑕᐅᓂᕐᒋᑦ ᐊᒻᒪ ᐅᓪᓗᓇᐊᓇᕈᓐᓇᖅᑐᓂᒃ ᕿᒥᕐᕐᑯᓂᖅ ᐊᑐᓂ ᐆᒪᔪᑦ ᐊᔾᔨᒌᙱᐊᕐᔪᒃᑐᓂ H4ᓐᓇᓚᕐᒋᓐᓃᑦᑐᓂ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᕿᙳᐊᓂ ᓇᓗᓇᐃᖅᓯᔪᑦ ᑕᒪᑐᒥᖓ ᓇᐅᑦᑎᖅᓱᐃᓐᓇᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ ᐋᑑᑎᖃᖅᓯᒪᔪᖅ ᐊᒻᒪ ᐊᐅᓚᓂᖃᖅᓯᒪᓪᓗᓂ ᑐᕌᒐᓱᖓᓄᑦ. ᐅᒥᓱᒪᓈᑦ ᑕᒪᒃᑯᐊ ᐆᒪᔪᑦ ᐊᕙᒃᑐᖅᓯᒪᔪᑦ ᑎᒃᑯᐊᖅᑕᐅᓯᒪᔪᑦ “ᐅᓗᓇᐊᓇᕈᓐᓇᖅᑐᖃᙱᓂᓗᓂ” ᐊᒻᒪ ᐃᓱᒪᒋᔭᐅᓪᓗᓂ ᐃᓱᒫᓘᑕᐅᓇᓱᒋᔭᐅᓇᓂ.

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TABLES

FIGURES

ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Definition
AIS	Aquatic invasive species
BACI	Before/after control/impact
Baffinland	Baffinland Iron Mines Corporation
BC	British Columbia
BC MOE	BC Ministry of Environment and Climate Change Strategy
BOD	Biological oxygen demand
CCME	Canadian Council of Ministers of the Environment
CES	Critical effect size
CFIA	Canadian Food Inspection Agency
COPC	Constituent of potential concern
CPUE	Catch per unit effort
DFO	Fisheries and Oceans Canada
DL	Detection limit
DPF	Direct Project Footprint
ECCC	Environment and Climate Change Canada
EEM	Environmental Effects Monitoring
ERP	Early Revenue Phase
FA	Fishing area
FEIS	Final Environmental Impact Statement
GPS	Global positioning system
IPF	Indirect Project Footprint
ISQG	Interim Sediment Quality Guideline
K	Condition
LSA	Local study area
m	Metres
MDMER	Metal and Diamond Mining Effluent Regulations
MEEMP	Marine Environmental Effects Monitoring Program
MEWG	Marine Environment Working Group
mg/kg dw	Milligrams per kilogram dry weight
mg/kg ww	Milligrams per kilogram wet weight

Acronym or Abbreviation	Definition
MMP	Marine Monitoring Plan
Mtpa	Million tonnes per annum
N/A	Not applicable
NIRB	Nunavut Impact Review Board
NIS	Non-indigenous species
NIS/AIS	Non-indigenous species / aquatic invasive species
No.	Number
PAHs	Polycyclic aromatic hydrocarbons
PC	Project Certificate
PEL	Probable effect level
ROV	Remotely operated vehicle
SCUBA	Self contained underwater breathing apparatus
SDI	Simpson’s diversity index
SEM	Sikumiut Environmental Management Ltd.
TARP	Trigger Action Response Plan
TSS	Total suspended solids
UNB	University of New Brunswick
VEC	Valued Ecosystem Components
WQG	Water Quality Guideline

1.0 INTRODUCTION

Baffinland Iron Mines Corporation (Baffinland) completed its tenth consecutive year of the marine environmental effects monitoring program (MEEMP) and non-indigenous species/aquatic invasive species (NIS/AIS) monitoring program for the Mary River Project (the Project). This report presents the results for the 2024 field programs conducted in Milne Inlet during the open-water season. Both the MEEMP and NIS/AIS programs were originally developed in 2015 following completion of marine baseline studies in Milne Port during 2013 and 2014 and are intended to provide a primary means to identify and quantify potential Project-related changes in the marine environment. Where such changes occur, the programs assist in identifying appropriate modifications to, or mitigation of, Project operational activities to avoid and/or minimize potential adverse effects on the marine environment. Results from the MEEMP and NIS/AIS monitoring programs also provide information to the Nunavut Impact Review Board (NIRB) to support its annual review of the Mary River Project.

1.1 Project Context

The Project is an operating open pit iron ore mine owned by Baffinland and located in the Qikiqtani Region of North Baffin Island, Nunavut (Figure 1-1). The operating mine site is connected to Milne Port, located at the head of Milne Inlet, via the 100 km long Milne Inlet Tote Road.

The Project's Operating Certificate (Project Certificate 005) was issued by the Nunavut Impacts Review Board in 2012. In 2014, Baffinland received approval (Project Certificate 005, Amendment 1) to operate the Early Revenue Phase (ERP) of the Project. The ERP authorized Baffinland to transport 4.2 Mtpa (million tonnes per annum) of ore by truck to Milne Port for shipping through the Northern Shipping Route (encompassing Milne Inlet, Eclipse Sound, and adjacent water bodies) using chartered ore carrier vessels. Baffinland shipped ~918,000 tonnes of iron ore from Milne Port during the first year of ERP operations in 2015, 2.6 Mtpa in 2016, and 4.1 Mtpa in 2017. Following approval of production increases allowing Baffinland to ship 6.0 Mtpa in 2018-2022 (Amendments 2, 3 and 4), annual totals of 5.1 Mtpa (2018), 5.9 Mtpa (2019), 5.5 Mtpa (2020), 5.6 Mtpa (2021) and 4.7 Mtpa (2022) of iron ore were shipped from Milne Port. In 2023, Amendment 5 (Sustainable Operations Proposal) was approved, and will be in effect until 31 December 2024. This amendment allows a maximum of 6.0 Mtpa of iron ore to be transported on the Tote Road in any calendar year, but an additional 0.9 Mtpa of 'stranded ore' may be shipped in the 2023 and 2024 shipping seasons. 'Stranded ore' is defined as iron ore that was delivered to Milne Port in the previous year but was not shipped due to weather or other shipping constraints. Amendment 5 also set the maximum number of ore carriers as 84 ore carriers per year in the 2023 and 2024 shipping season. In 2023, 6.02 Mtpa of iron ore were shipped from Milne Port in 75 ore carriers. In 2024, a total of 6.05 million tonnes of iron ore were shipped via 70 return voyages with the first inbound transit of the season occurring on 27 July 2024 and the last outbound transit of the season occurring on 26 October 2024.

490000 500000 510000 520000 530000 540000 550000

8050000 8040000 8030000 8020000 8010000 8000000 7990000 7980000

KEY MAP

GREENLAND

RESOLUTE

Lancaster Sound

Baffin Bay

NORTHERN SHIPPING ROUTE

POND INLET

MILNE PORT

MINE SITE

NORTHERN TRANSPORTATION CORRIDOR

NUNAVUT INUIT SETTLEMENT AREA

BAFFIN ISLAND

IGLOOLIK

NUNAVUT

Foxe Basin

PANGNIRTUNG

KINNGAIT

IQALUIT

RANKIN INLET

Hudson Bay

QUEBEC

Eclipse Sound

Ragged Island

Milne Inlet

Stephens Island

Bruce Head

Koluktoo Bay

Poirier Island

SEE DETAIL MAP

Phillips Creek

DETAIL MAP - MILNE PORT/LOCAL STUDY AREA

Milne Inlet

0 1,000 2,000

1:50,000 METRES

0 5 10

1:250,000 KILOMETRES

LEGEND

- PROJECT LOCATION
- SHIPPING ROUTE
- TOTE ROAD
- WATERCOURSE
- INFRASTRUCTURE
- ORE DOCK
- FREIGHT DOCK AND CAUSEWAY
- INAC FORESHORE LEASE
- LOCAL STUDY AREA
- NUNAVUT SETTLEMENT AREA
- PDA / QIA COMMERCIAL LEASE
- WATERBODY

REFERENCE(S)

LOCAL STUDY AREA BOUNDARY DIGITIZED FROM THE MARY RIVER PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT (FEBRUARY 2012). FREIGHT DOCK DATA PROVIDED BY CLIENT, MAY 21, 2020. ADDITIONAL MILNE PORT INFRASTRUCTURE PROVIDED BY CLIENT, MAY 28, 2018 AND PROVIDED BY HATCH, JANUARY 25, 2017, RETRIEVED FROM KNIGHT PIESOLD LTD. FULCRUM DATA MANAGEMENT SITE MAY 19, 2017. HYDROGRAPHY AND TOPOGRAPHY DATA BY EAGLE MAPPING (2005), RETRIEVED FROM KNIGHT PIESOLD LTD. FULCRUM DATA MANAGEMENT SITE, MAY 2017. HYDROGRAPHY, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.
PROJECTED COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
BAFFINLAND IRON MINES CORPORATION

PROJECT
MARY RIVER PROJECT

TITLE
PROJECT LOCATION

CONSULTANT

YYYY-MM-DD	2025-04-30
DESIGNED	CB
PREPARED	AA
REVIEWED	CB
APPROVED	AL

PROJECT NO.	CONTROL	REV.	FIGURE
CA0026317.6821	86200.04	0	1-1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

0 25mm

1.2 Background

As a part of regulatory commitments, Baffinland has developed and implemented a multi-disciplinary Marine Environmental Effects Monitoring Program (MEEMP). The MEEMP is designed to evaluate potential Project-related effects on the marine environment as predicted in the Final Environmental Impact Statement (FEIS) and FEIS addenda (Baffinland 2012, 2013); predictions, associated mitigation measures, and current status are presented in Table 1-1 below.

The MEEMP includes monitoring of marine water and sediment quality, invertebrates, vegetation, and fish and fish habitat. The MEEMP sampling design is generally based on the Metal Mining Environmental Effects Monitoring technical guidelines (Environment Canada 2012) and includes statistical approaches for detecting potential Project-induced impacts on the marine environment. NIS/AIS monitoring is an integral component of the MEEMP and is designed to address the potential risks of species introductions to the marine environment from ships' ballast water and hull biofouling.

Sikumiut Environmental Management Ltd. (SEM) was originally retained by Baffinland to design and implement the MEEMP. The MEEMP program was first implemented in 2015, at which time monitoring efforts focused primarily on further characterization of baseline conditions in Milne Port prior to commencement of Project operations in 2015 (SEM 2015). Environmental effects monitoring was completed by SEM in 2015 and 2016 (SEM 2015, 2016). Golder Associates Ltd. (now known as WSP Canada Inc.) completed environmental effects monitoring from 2017 through 2024, which included modifications to the 2015-2016 MEEMP and NIS/AIS sampling design to better address the objectives of the programs. Modifications to study design since 2015 are outlined in Section 1.5.3.1.

1.3 Objectives

This report presents the results of the MEEMP and NIS/AIS monitoring programs conducted in Milne Inlet during the 2024 open-water season.

In accordance with existing Terms and Conditions of Project Certificate (PC) No. 005, Baffinland is responsible for the establishment and implementation of the MEEMP, which comprises monitoring studies that are conducted over a defined time period with the following objectives:

- Assess the accuracy of effects predictions in the FEIS (Baffinland 2012) and subsequent addenda.
- Assess the effectiveness of Project mitigation measures.
- Verify compliance of the Project with regulatory requirements, permits, standards, and policies.
- Identify unforeseen adverse effects and provide early warnings of undesirable changes in the environment.
- Improve understanding of local environmental processes and potential Project-related cause-and-effect relationships.
- Provide feedback to the applicable regulators (e.g., NIRB) and advisory bodies (e.g., Marine Environmental Working Group [MEWG]) with respect to the following:
    - Potential adjustments to existing monitoring protocols or monitoring framework to allow for the most scientifically defensible synthesis, analysis, and interpretation of data.
    - Considerations for the modification of operational practices where and when necessary.

Additionally, Baffinland committed that eight sampling stations (SW-1 through SW-4, SE18-1, SNW-1, and two new stations (SCV-1 and SCV-2) added in 2023) would be monitored for scouring effects on sediment and benthic infauna for three years after the initial use of large (Baby Cape and Capesize) ore carriers in fall 2023 (Commitment 10, SOP Technical Comment QIA ME-7(3); NIRB, 2023).

Table 1-1: Summary of Predictions from FEIS and subsequent addenda for Milne Port, Associated Mitigation Measures, and Current Status

Predictions				Relevant MEEMP Section	Current Status
VEC[1]	Activity	Impact/Significance	Associated Mitigation Measures		
Water and Sediment Quality	Barge and ship traffic to/from Milne Inlet	Negligible effects to total suspended solids (TSS), nutrient, or metal concentrations in the water or sediment due to resuspension of substrates from propeller currents; expected that the new equilibrium state will be reached early within the operation phase of the Project.	▪ Section 4.9 Sediment Erosion Control of the Environmental Protection Plan outlines measures such as use of silt curtains and drainage ditches, as well as treatment and testing of effluent/run-off prior to discharge, to mitigate potential effects to water and sediment quality (Baffinland 2021b). ▪ Emergency Response and Spill Contingency Plans outline measures to mitigate potential fuel spills (Baffinland 2020; Baffinland 2021c). ▪ Shipping and Marine Wildlife Management and Ballast Water Management plans outline measures to mitigate potential effects associated with vessel traffic such as a mandatory mid-ocean ballast water exchange and compliance with Anti-Fouling Systems Convention (Baffinland 2021d; Baffinland 2019).	Chapter 2.0 Chapter 3.0 Chapter 5.0	No indications of impacted marine water or sediment quality. Measured metals concentrations are low, typically below applicable guidelines, and generally consistent with previous years. No observation of ore dust deposition in substrate. Grain size composition analysis indicates high spatial and temporal variability in fines content, driven by natural factors, as well as potential influences of vessel propeller wash, which is expected to stabilize over time. To date, 2020 was the only instance where reduced fines content was accompanied by a substantial reduction in benthic density, richness and diversity; Conditions at the affected station rebounded in 2021, 2022, and 2023 indicating effects are temporary and localized.
		No anticipated increases in hydrocarbon concentrations in water or sediments through normal vessel operations.			
	Discharge of ballast water	Open-water season: no anticipated effects to water or sediment quality.			
		Ice-cover season: increases in temperature and nitrate concentrations in the water; increases in nitrogen concentrations in the sediment; no anticipated changes in the concentrations of metals or other nutrients in water or sediment.			
	Dispersion and deposition of dust from the ore stockpile	Increases in concentrations of TSS and metals (primarily iron) in the water.			
		Increases in concentrations of metals (primarily iron) in the sediment.			
		Increases in biological oxygen demand (BOD) and concentrations of TSS,			

Predictions				Relevant MEEMP Section	Current Status
VEC[1]	Activity	Impact/Significance	Associated Mitigation Measures		
	Discharge of wastewater and site run-off	nutrients, metals, and hydrocarbons in the water.			
		Increases in concentrations of nutrients, metals, and hydrocarbons in the sediment.			
Marine Fish Habitat	Habitat Alteration (Sediment introduction and resuspension)	Wastewater discharge and site runoff may introduce TSS into the water column, increasing the amount of fine-grained sediments in the immediate vicinity of the discharge point.	■ Sediment and Erosion Control Plan (Section 4.9 of the Environmental Protection Plan) outlines measures such as use of silt curtains and drainage ditches, as well as treatment and testing of effluent/run-off prior to discharge, to mitigate potential effects to water and sediment quality (Baffinland 2021b). ■ Emergency Response and Spill Contingency Plans outline measures to mitigate potential fuel spills (Baffinland 2020; Baffinland 2021c) ■ Shipping and Marine Wildlife Management and Ballast Water Management plans outline measures to mitigate potential effects associated with vessel traffic such as a mandatory mid-ocean ballast water exchange and compliance with Anti-Fouling Systems Convention (Baffinland 2021d; Baffinland 2019). ■ Minimize vessel operations to the extent possible.	Chapter 2.0 Chapter 3.0 Chapter 4.0 Chapter 5.0 Chapter 8.0	No indications of impacted marine sediment quality. Measured metals concentrations were low, typically below applicable guidelines, and/or generally consistent with previous years. No observance of ore dust deposition in substrate Generally, no evidence of altered benthic infauna, epifauna, or macroflora community composition or productivity. No consistent temporal and spatial trends that would be indicative of Project impacts. In 2020, one station, SW-2, showed signs of propeller wash effects (i.e., lower density and diversity metrics, accompanied by reduced fines content), conditions in 2021, 2022, and 2023 rebounded substantially, indicating that effects were temporary and localized.
		Potential increases in concentrations of TSS in the water column and accumulation of fines in the sediments could alter the nearshore habitat, although tidal fluxes are expected to disperse the effluents and minimize effects on habitat.			
	Habitat Alteration (Substrate alteration)	Sediment resuspension due to occasional (<1 per year) vessels and propeller-generated currents expected to lessen as fine-grained sediments on seabed are removed and seabed sediment composition stabilizes.			
		Removal of fine-grained sediments may alter benthic community composition.			
	Habitat Alteration (Noise disturbance)	Intermittent noise disturbance due to occasional vessel operations and loading activities.			
	Habitat Alteration (Fugitive ore dust deposition)	Fugitive ore dust deposition to marine environment.			
		Possible change to water and sediment chemistry and seabed grain size composition.			

Predictions				Relevant MEEMP Section	Current Status
VEC[1]	Activity	Impact/Significance	Associated Mitigation Measures		
		Possible change to benthic productivity.	▪ Mitigation by design and through compliance of Fisheries and Oceans Canada's (DFO) no net loss habitat policy.		
Arctic Char (*Salvelinus alpinus*) Health	Sediment Resuspension	Increases in concentrations of TSS, nutrients, and metals in the water column as a result of sediment disturbance from propeller currents are expected infrequently during operation. Short-term exposure of Arctic Char to these conditions has minimum potential to affect fish health.	▪ Sediment and Erosion Control Plan (Section 4.9 of the Environmental Protection Plan) outlines measures such as use of silt curtains and drainage ditches, as well as treatment and testing of effluent/run-off prior to discharge, to mitigate potential effects to water and sediment quality (Baffinland 2021b). ▪ Emergency Response and Spill Contingency Plans outline measures to mitigate potential fuel spills (Baffinland 2020; Baffinland 2021c). ▪ Shipping and Marine Wildlife Management Plan outline measures to mitigate potential effects associated with vessel traffic such as a mandatory mid-ocean ballast water exchange and compliance with Anti-Fouling Systems Convention (Baffinland 2021d; Baffinland 2019).	Chapter 6.0 Chapter 7.0	No indications of reductions in abundances of Arctic Char and other fish species associated with Project activities. Tissue concentrations of constituents of potential concern (e.g., aluminum, iron, magnesium, mercury, and selenium) displayed no notable trends over time, or were within FEIS predictions of low magnitude effects.
		The redistribution of sediments near the docks is not expected to directly affect fish health or condition.			
		Slight reductions in nutrient concentrations and short-term, localized increases water temperature in Milne Inlet are expected to have negligible effects on fish health and condition.			
		Metal concentrations in water and fish tissues are not expected to change.			
		Potential increases in metal and hydrocarbon concentrations in fish tissues and reductions in fish health and condition are possible as a result of release of site drainage (with elevated BOD and concentrations of TSS, nutrients, metals, and hydrocarbons) to the marine environment.			
		Combined effluents will be tested to ensure that they are not acutely toxic.			

[1] VEC = Valued Ecosystem Component

The MEEMP was developed in consideration of the anticipated and potential Project-related impacts to the marine environment as identified in the 2012 FEIS and subsequent addenda (Baffinland 2012; 2013) as well as monitoring requirements outlined in several PC Terms and Conditions; relevant PC conditions are listed in Table 1-2 along with the chapters in which the conditions are addressed through the MEEMP-NIS/AIS program.

Table 1-2: PC Conditions Relevant to MEEMP Surveys[1]

PC Condition	Description	Relevant MEEMP Chapter(s)
76	The Proponent shall develop a comprehensive Environmental Effects Monitoring Program to address concerns and identify potential impacts of the Project on the marine environment. The Marine Environmental Effects Monitoring Program shall include: (a) A summary of the monitoring conducted by the Proponent to identify potential project effects in the marine environment; (b) The comparison of impact predictions provided by the Proponent in the Final Environmental Impact Assessment (FEIS), FEIS Addendum and/or any other assessments provided to the Board; (c) The identification of mitigation measures the Proponent has implemented to protect the marine environment; (d) Any adaptive management plans developed/implemented to prevent, manage or mitigate effects in the marine environment; (e) A discussion of how relevant Inuit Qaujimajatuqangit, scientific and/or technical knowledge and industry best practices have been incorporated into the Program and have informed the components of the Program; and (f) The identification of changes to the Program that may be required to ensure that potential adverse effects to the marine environment are prevented, that adaptive management occurs, and that mitigation measures are effective.	Chapter 2.0 Chapter 3.0 Chapter 4.0 Chapter 5.0 Chapter 6.0 Chapter 7.0 Chapter 8.0
1 and 83	The Proponent shall use GPS monitoring or a similar means of monitoring at both Steensby Port and Milne Port, with tidal gauges to monitor the relative sea levels and storm surges at these sites.	N/A
83(a)	The Proponent shall conduct hydrodynamic modelling in the Milne Inlet Port area to determine the potential impacts arising from disturbance to sediments including re-suspension and subsequent transport and deposition of sediment. The modelling results shall be used to update the marine water and sediment quality monitoring and mitigation program to include activities associated with the construction and mitigation of the Milne Inlet Port. In the 2023 Annual Report, the Proponent is required to provide the Board with updates to the marine water and sediment quality monitoring and mitigation program necessary to reflect the increased use of larger ore vessels (Baby Cape and Capesize) at Milne Port. The monitoring program shall include an ongoing assessment of the potential introduction of metals that bio-accumulate in the marine food chain.	Chapter 2.0 Chapter 3.0 Chapter 5.0 Chapter 7.0
84	The Proponent shall update its sediment redistribution modeling once ship design has been completed and sampling should be undertaken to validate the model and to inform sampling sites and the monitoring plan.	Chapter 3.0 Chapter 5.0

[1] Conditions 76, 83(a), 85 and 99 as shown here were modified for the Sustaining Operations Proposal in 2023 by NIRB in Amendment 5 to the Project Certificate.

PC Condition	Description	Relevant MEEMP Chapter(s)
85	The Proponent shall develop a monitoring plan to verify its impact predictions associated with sediment redistribution resulting from propeller wash in shallow water locations along the shipping route. If monitoring detects negative impacts from sediment redistribution, additional mitigation measures will need to be developed and implemented. In the 2023 Annual Report, the Proponent is required to identify updates to the monitoring plan to reflect the increased use of large ore vessels (Baby Cape and Capesize) at Milne Port.	Chapter 3.0
86	Prior to commercial shipping or iron ore, use more detailed bathymetry collected from Steensby and Milne Inlets to model anticipated ballast water discharges from ore carriers. This information should be used to update ballast water discharge impact predictions and sampling should be conducted to validate the model.	N/A
87	The Proponent shall develop a detailed monitoring program at a number of sites over the long term to evaluate changes to marine habitat and organisms and to monitor for non-native introductions resulting from Project-related shipping. This program needs to be able to detect changes that may have biological consequences and should be initiated several years prior to any ballast water discharge into Steensby Inlet and Milne Inlet to collect sufficient baseline data and should continue over the life of the Project.	Chapter 2.0 Chapter 3.0 Chapter 4.0 Chapter 5.0 Chapter 6.0 Chapter 7.0 Chapter 8.0
89	The Proponent shall develop and implement an effective ballast water management program that may include the treatment and monitoring of ballast water discharges in a manner consistent with applicable regulations and/or exceed those regulations if they are determined to be ineffective for providing the desired and predicted results. The ballast water management program shall include, without limitation, a provision that requires ship owners to test their ballast water to confirm that it meets the salinity requirements of the applicable regulations prior to discharge at the Milne Port, and a requirement noting that the Proponent, in choosing shipping contractors will, whenever feasible, give preference to contractors that use ballast water treatment in addition to ballast water exchange.	Chapter 2.0 Chapter 8.0
91	The Proponent shall develop a detailed monitoring plan for Steensby Inlet and Milne Inlet for fouling that complies with all applicable regulatory requirements and guidelines as issued by Transport Canada, and includes sampling areas on ships where antifouling treatment is not applied such as the areas where non-native species are most likely to occur.	Chapter 8.0
99(a)	Establish shipping season, inter-annual baseline in Steensby Inlet and Milne Inlet that enables effective monitoring of physical and chemical effects of ballast water releases, sewage outfall, and bottom scour by ship props, particularly downslope and downstream from the docks. This shall include the selection and identification of physical, chemical, and biological community/indicator components. The biological indicators shall include both pelagic and benthic species but with emphasis on relatively sedentary benthic species (e.g., sculpins).	Chapter 2.0 Chapter 3.0 Chapter 4.0 Chapter 5.0 Chapter 6.0 Chapter 7.0 Chapter 8.0
99(b)(ii)	The collection of additional baseline data in Milne Inlet on narwhal (*Monodon monoceros*), bowhead whale (*Balaena mysticetus*) and anadromous Arctic Char abundance, distribution ecology and habitat use.	Chapter 6.0

PC Condition	Description	Relevant MEEMP Chapter(s)
99(c)	Enhance baseline data on marine wildlife (fish, invertebrates, birds, mammals, etc.) and to provide more details on species abundance and distribution found in the Project area.	Chapter 4.0 Chapter 5.0 Chapter 6.0 Chapter 8.0
113	The Proponent shall conduct monitoring of marine fish and fish habitat, which includes but is not limited to, monitoring for Arctic Char stock size and health condition in Steensby Inlet and Milne Inlet, as recommended by the MEWG.	Chapter 6.0 Chapter 7.0
114	In the event of the development of a commercial fishery in the Steensby Inlet area or Milne Inlet-Eclipse Sound areas, the Proponent, in conjunction with the Marine Environment Working Group, shall update its monitoring program for marine fish and fish habitat to ensure that the ability to identify Arctic Char stock(s) potentially affected by Project activities and monitor for changes in stock size and structure of affected stocks and fish health (condition, taste) is maintained to address any additional monitoring issues identified by the MEWG relating to the commercial fishery.	Chapter 6.0 Chapter 7.0
126	The Proponent shall design monitoring programs to ensure that local users of the marine area in communities along the shipping route have opportunity to be engaged throughout the life of the Project in assisting with monitoring and evaluating potential Project-induced impacts and changes in marine mammal distributions.	Chapter 4.0 Chapter 6.0

1.4 VECs and Indicators

1.4.1 VECs and Criteria for Magnitude Determination

The original MEEMP design in 2015 and 2016 was based on indicators and thresholds as presented in the FEIS, centred around three Valued Ecosystem Components (VECs): Marine Water and Sediment Quality, Marine Fish Habitat and Arctic Char Health.

Indicators used to determine the magnitude thresholds were based on guidelines, where available (Table 1-1). A reduction in productive capacity (measured as a proportion of lost or altered habitat to the total area of the Local Study Area[2], or LSA) was used as an indicator for the Marine Fish Habitat VEC (Baffinland 2012 and 2013). Thresholds were established based on degree of exceedance relative to guidelines. For certain parameters where no guidelines or quality criteria exist, the MEEMP used a significance criterion of two standard deviations of the baseline year as a threshold (Baffinland 2016).

The assessment predicted that Project activities may result in localized changes above threshold values for VECs, confined within the LSA. It was predicted that changes would not exceed thresholds for the Marine Fish Habitat VEC. All predicted residual environmental effects were rated as “Not Significant” since they were localized within the LSA (Table 1-1, Baffinland 2012 and 2013).

[2] The LSA includes all marine waters where there exists a reasonable potential for direct measurable effects from Project activities on the marine environment.

1.4.2 Indicators and Thresholds Currently Used for the MEEMP

Since 2016, the MEEMP and NIS/AIS program study design has evolved through consultation with regulatory agencies and Inuit organizations, as well as in response to recommendations made in previous survey years. Modifications to study designs are discussed in Sections 1.5.3.1 and 1.5.4.1. Changes to the program have also included updates or additions to the indicators and thresholds used to determine potential Project-related impacts to the environment in Milne Port. Sampling parameters and indicators are summarized in Table 1-3.

Several components of the MEEMP (e.g., marine water quality, marine sediment quality, benthic infauna, fish health) have indicators, thresholds and risk categories that are part of Baffinland's Trigger Action Response Plan (TARP), an adaptive management process (Baffinland 2021a; Baffinland 2023). In 2023, the categories of risk assessment used in the NIS/AIS program were adjusted to align with the TARP.

Indicators analysed for the MEEMP-NIS/AIS program are summarized in (Table 1-3), including those applicable to TARP, which are presented in more detail with their thresholds and risk categories in Table 1-4.

Table 1-3: Sampling Parameters and Indicators for the 2024 MEEMP and NIS/AIS Monitoring Program

MEEMP-NIS/AIS Program Component	Indicators	Context
Marine Water Quality	Metals[1] Total Suspended Solids[1] Nutrients[1] Hydrocarbons[1]	Temporal
Marine Sediment Quality	Percent Fines[1] Nutrients[1] Metals[1] Hydrocarbons[1]	Spatial Temporal
Benthic Invertebrates	Total Density[1] Taxa Richness[1] Simpson's Diversity Index[1] Simpson's Evenness Index[1]	Spatial Temporal
Substrate, Macroflora, and Epifauna	Percent Cover/Density Taxa Richness Simpson's Diversity Index	Spatial Temporal
Fish Population	Taxa Richness Relative Abundance Arctic Char Catch Per Unit Effort (CPUE) Total Fish Catch Per Unit Effort (CPUE)	Spatial Temporal
Fish Health	Survival Growth Condition[1] Reproduction	Spatial Temporal
Fish Tissue Chemistry	Metals[1] Polycyclic Aromatic Hydrocarbons (PAHs)	Spatial Temporal
NIS/AIS	Presence of NIS or AIS[1]	No Context

[1] Indicator is used in the TARP

The TARP uses effect indicators that are measured against a series of tiered thresholds (i.e., low, moderate and high-risk thresholds) (Table 1-4) that are designed to guide short-term and long-term adaptive management strategies as outlined in Baffinland (2023). Baffinland has updated the TARP as part of the revised draft Marine Monitoring Plan (MMP) (Baffinland 2023). The pre-defined actions identified in the TARP describe the responses that Baffinland would implement should the corresponding threshold levels be exceeded and assuming there is some degree of certainty that the measured change is Project-related. These responses range from increased monitoring and data analysis (e.g., trend analysis); identification of possible sources; to risk assessment and/or mitigation and are described in Baffinland (2023). As adaptive management is beyond the scope of the MEEMP-NIS/AIS monitoring program, only the draft indicators and thresholds are presented here (Table 1-4).

Table 1-4: Marine Environment Trigger Action Response Plan (TARP) Indicators, Condition Status, and Thresholds

(a) Water Quality

Component	Performance Indicators	Condition Status/Threshold		
		Low Risk	Moderate Risk	High Risk
Water Quality	▪ Metals ▪ TSS ▪ Hydrocarbons ▪ Nutrients	30-day mean concentration of a parameter is greater than 75% of an applicable CCME long-term guideline[1]. AND Effluent monitoring and spatial and temporal water quality data suggest a pattern indicative of effects from the Port's effluent discharge	Confirmed[2] exceedance of an effects benchmark or an applicable CCME long-term guideline[2] by a mean concentration. AND Effluent monitoring and spatial and temporal water quality data suggest that the confirmed increase in this parameter is related to the Port's effluent discharge.	To be determined based on outcome of moderate response investigations.

[1] Canadian Council of Minsters of the Environment (CCME) water quality guidelines for the protection of marine aquatic life. With the exception of silver, total suspended solids (TSS), and turbidity, these are long-term water quality guidelines intended to be applied to the average concentration at a receiving environment station collected over a 5-in-30 sampling program (i.e., average of 5 discrete samples collected over a 30-day period). In lieu of a long-term guideline for silver, the short-term guideline will be applied to discrete measured concentrations. The long-term guidelines for TSS and turbidity will be used.

[2] Confirmed indicates that the Risk Status/ Threshold trigger has been observed in at least two consecutive monitoring programs, whether during the regular monitoring schedule or confirmed through a special study.

(b) Sediment Quality

Component	Performance Indicators	Condition Status/Threshold		
		Low Risk	**Moderate Risk**	**High Risk**
Sediment Quality	▪ Particle Size ▪ Nutrients ▪ Metals ▪ Hydrocarbons	Measured concentrations of a parameter at one or more stations are > the CCME[2] ISQG or another relevant lower bound guideline, and are higher than background concentrations. AND Spatial and temporal sediment trend analysis suggest a pattern indicative of Port-related effects beyond FEIS[3] predictions.	Measured concentrations of a parameter at one or more stations are > the CCME PEL or another relevant upper bound guideline[1]. AND Spatial and temporal sediment trend analysis suggest a pattern indicative of Port-related effects beyond FEIS[3] predictions. AND Sediment toxicity testing as a special study indicates a Port-related effect.	To be determined based on outcome of moderate response investigations.

[1] TARP criteria were applied for the Capesize Vessel Sampling Program however there is a 2-year limitation in the data available for analysis (2023 [existing conditions] vs 2024 [Year 1]).
[2] Canadian Council of Minsters of the Environment (CCME 1999) sediment quality guidelines for the protection of marine aquatic life. ISQG = Interim Sediment Quality Guideline; PEL = Probable Effect Level.
[3] Predictions made in the Final Environmental Impact Statement (FEIS; Baffinland 2012, 2013) and other submissions to the Nunavut Impact Review Board (NIRB) regarding effects on sediment quality, as applicable.

(c) Benthic Infauna

Component	Performance Indicators	Condition Status/Threshold		
		Low Risk	**Moderate Risk**	**High Risk**
Benthic Infauna	▪ Density ▪ Taxa Richness ▪ Simpson's Diversity Index ▪ Simpson's Evenness Index	Spatial and temporal trend analysis for density or taxa richness suggest a pattern indicative of Port-related effects beyond FEIS[2] predictions. AND Low Risk Status/Threshold is triggered for sediment.	Spatial and temporal trend analysis for density and taxa richness suggest a pattern indicative of Port-related effects beyond FEIS[2] predictions. AND Moderate Risk Status/Threshold is triggered for sediment.	To be determined based on outcome of moderate response investigations.

[1] TARP criteria were applied for the Capesize Vessel Sampling Program however there is a 2-year limitation in the data available for analysis (2023 [existing conditions] vs 2024 [Year 1]).
[2] Predictions made in the Final Environmental Impact Statement (FEIS; Baffinland 2012, 2013) and other submissions to the Nunavut Impact Review Board (NIRB) regarding effects on benthic infauna, as applicable.

(d) Fish health

Component	Performance Indicators[3]	Condition Status/Threshold		
		Low Risk	Moderate Risk	High Risk
Fish Health	Fourhorn Sculpin ▪ Age ▪ Size-at-age (i.e., total weight at age) ▪ Condition as relative weight (i.e., total weight at total length) ▪ Relative liver weight (i.e., liver weight at total weight) ▪ Relative gonad weight (i.e., gonad weight at total weight) *Hiatella arctica* ▪ Length-frequency analysis ▪ Whole animal wet weight ▪ Condition as relative weight (i.e., whole animal wet weight at total length) ▪ Relative shell weight (i.e., dry shell weight at total length) ▪ Relative gonad weight (i.e., gonad weight at whole animal wet weight)	A statistically significant difference ($P < 0.1$) in effect indicators[8] relative to the reference area and change is in direction that indicates an impairment to fish health and is of magnitude greater than or equal to a defined critical effect size (CES)[4] for that effect indicator.	Confirmed[5] Low Risk Status/ Threshold and mean/median[6] for the same effect indicator is beyond the baseline (FEIS) normal range[7] (if available) or regional normal range[8] AND Is supported by consistent effects in one or more other study components (i.e., water quality, sediment quality and benthic invertebrates) which links the results to the Project.	To be determined based on outcome of moderate response investigations.

[3] The following endpoints were included or excluded relative to the proposed TARP framework in order to better align the Fish Health and Tissue Chemistry monitoring program with the MDMER EEM program: Fourhorn Sculpin – age (included), length-frequency analysis (excluded).

[4] Definition of a magnitude of change that is indicative of impairment to fish health is based on the critical effect sizes defined by Environment and Climate Change Canada's (ECCC) Metal Mining Effluent Regulations Guidance Document (Environment Canada 2012) and refers to an increase or a decrease in fish health endpoints. Additional critical effect sizes may be defined in the future (i.e., beyond those defined by ECCC).

[5] Confirmed indicates that the Risk Status/ Threshold trigger has been observed in at least two consecutive monitoring programs, whether during the regular monitoring schedule or confirmed through a special study. For fish, the two or more endpoints that triggered the Moderate Risk Status/ Threshold may be in one species (i.e., two endpoints in one species) or two species (i.e., one endpoint in one species, as second endpoint in another species).

[6] The use of the mean or median will depend on the normality of the dataset used to calculate the normal range for each endpoint or tissue chemistry parameter (i.e., if raw or transformed data do not meet the assumptions of normality, the median will be used to provide an estimate of central tendency instead of the mean).

[7] Baseline (FEIS) normal range is based on the FEIS dataset, including operational monitoring data from Milne Inlet and Steensby Inlet, and includes fish length, weight and condition (K).

[8] Regional normal range will be calculated using all available reference area data (i.e., will include annual and ongoing reference area data as it becomes available).

Component	Performance Indicators[3]	Condition Status/Threshold		
		Low Risk	Moderate Risk	High Risk
Fish Tissue Chemistry	Primary constituents of Project iron ore: ▪ Aluminum ▪ Magnesium ▪ Iron Metals with the potential to bioaccumulation and biomagnify in the food web: ▪ Mercury ▪ Selenium	A statistically significant difference ($P < 0.1$) in one or more metals concentrations in a sentinel species relative to the reference area, and change is in the direction[9] that indicates impairment to fish health and is of magnitude[10] greater than or equal to the defined CES.	A confirmed[11] Low Risk Status/ Threshold for one or more metals that is also outside the regional normal range[12], and is supported by consistent effects in one or more other study components (i.e., water quality, sediment quality and benthic invertebrates) which links the results to the Project. OR The mean mercury or selenium concentrations (or ≥50% of the individual samples) in Arctic Char tissue chemistry samples are beyond the respective CFIA[13] or BC MOE[14] guidelines.	To be determined based on outcome of moderate response investigations.

CES = critical effect size; FEIS = Final Environmental Impact Statement; CFIA = Canadian Food Inspection Agency; BC MOE = British Columbia Ministry of Environment.

[9] For tissue chemistry, only an increase in concentration will be considered indicative of a toxicological response.

[10] For fish tissue chemistry parameters, the critical effect size is a difference of 100%.

[11] Confirmed indicates that the Action Status/Threshold trigger has been observed in at least two consecutive monitoring programs, whether during the regular monitoring schedule or confirmed through a special study.

[12] Regional normal range is anticipated to include Arctic Char tissue chemistry data from the FEIS (i.e., Milne Inlet and Steensby Inlet) as well as ongoing reference area tissue chemistry data (for *Hiatella arctica* and Fourhorn Sculpin).

[13] Value is 0.5 mg/kg ww total mercury per CFIA (2014) Canadian Food Inspection Agency Fish Products Standards and Methods Manual: Appendix 3 Canadian Guidelines for Chemical Contaminants and Toxins in Fish and Fish Products. Ottawa, ON.

[14] Protection of aquatic life chronic criteria for fish tissue selenium concentrations are 15.1 mg/kg dw for ovary, 8.5 mg/kg dw for whole body, or 11.3 mg/kg dw for skinless, boneless muscle fillet per USEPA (2016) Technical Support for Fish Tissue Monitoring for Implementation of EPA's 2016 Selenium Criterion Draft, EPA 820-F-16-007, United States Environmental Protection Agency, Office of Water.

(e) NIS/AIS

Component	Performance Indicator	Condition Status/Threshold		
		Low Risk	**Moderate Risk**	**High Risk**
NIS/AIS Monitoring Program (integrated in MEEMP)	Occurrence of an NIS/AIS in the Milne Inlet environment	Taxon is not reported from the Canadian Arctic, or reported with high uncertainty, or species is not associated with shipping vectors AND Taxon is not listed on AIS databases, or if listed (or in the case of higher taxon identification, with one or more representative species listed on an AIS database) the representative species is/are unlikely to establish in the Arctic (e.g., tropical/subtropical), or, if listed as introduced to an area with similar conditions, the species is cryptogenic to the area of potential introduction, AND Taxon is not showing invasive behaviours in Milne Inlet.	Taxon is not reported to be present in the Canadian Arctic, or reported with high uncertainty AND Taxon is capable of using shipping vectors AND Taxon is listed as an AIS in other areas, with no potentially serious behaviours reported in ecosystems similar to Milne Port AND Taxon has shown no invasive behaviours in Milne Inlet	Taxon is not reported to be present in the Canadian Arctic, or reported with high uncertainty AND Taxon is capable of using shipping vectors AND Taxon is listed as an AIS in other areas AND Taxon is well-documented as having potentially serious invasive behaviours in ecosystems similar to Milne Inlet, and/or has shown invasive behaviours in Milne Inlet.

1.5 Study Design

1.5.1 Study Area

Consistent with previous years, the 2024 MEEMP and NIS/AIS field surveys were conducted primarily within the LSA for the Marine Environment as defined in the FEIS and Addendum 1 (Baffinland 2012; 2013). The LSA includes all of Milne Port (Assomption Harbour) and extends north up to 4 km from the existing terminal (spanning the full width of Milne Inlet at the northern boundary; Figure 1-2). The southeast boundary of the LSA ends at the mouth of Phillips Creek.

In 2019, following feedback provided from MEWG members and the community during 2016 community workshops, additional NIS/AIS and physical oceanographic monitoring was conducted north of the LSA boundary extending to Ragged Island and Eclipse Sound (Figure 1-1). No sampling was conducted at Ragged Island in 2024 due to logistical constraints.

1.5.2 Inuit Participation

Inuit personnel have been integral to the overall success and safe execution of Baffinland's monitoring programs to date. The success of the MEEMP-NIS/AIS program is greatly reliant on local expertise/knowledge and the continued participation of Inuit stakeholders with respect to study design, program implementation, and field logistics. For the 2024 MEEMP program, Inuit participation included field technicians supporting sampling and processing for the various components.

1.5.3 MEEMP

The MEEMP was initially designed in 2015 to evaluate potential Project-related impacts on the marine environment as predicted in the FEIS and subsequent addenda (Baffinland 2013). The original sampling design for the MEEMP (Baffinland 2016; SEM 2015) was based on a radial gradient transect design extending out from the ore dock (Figure 1-2), which represented a potential point source for contaminants (e.g., ore dust, hydrocarbon release, wastewater, and site runoff) and physical perturbations (e.g., sediment re-suspension and transportation). The radial pattern was designed to detect potential Project-related effects based on a gradient of key components with numerical indicators (e.g., metal concentrations in sediment) along a series of transects with increasing distance from the point source.

The initial MEEMP design (excluding NIS/AIS monitoring) comprised the following study components:

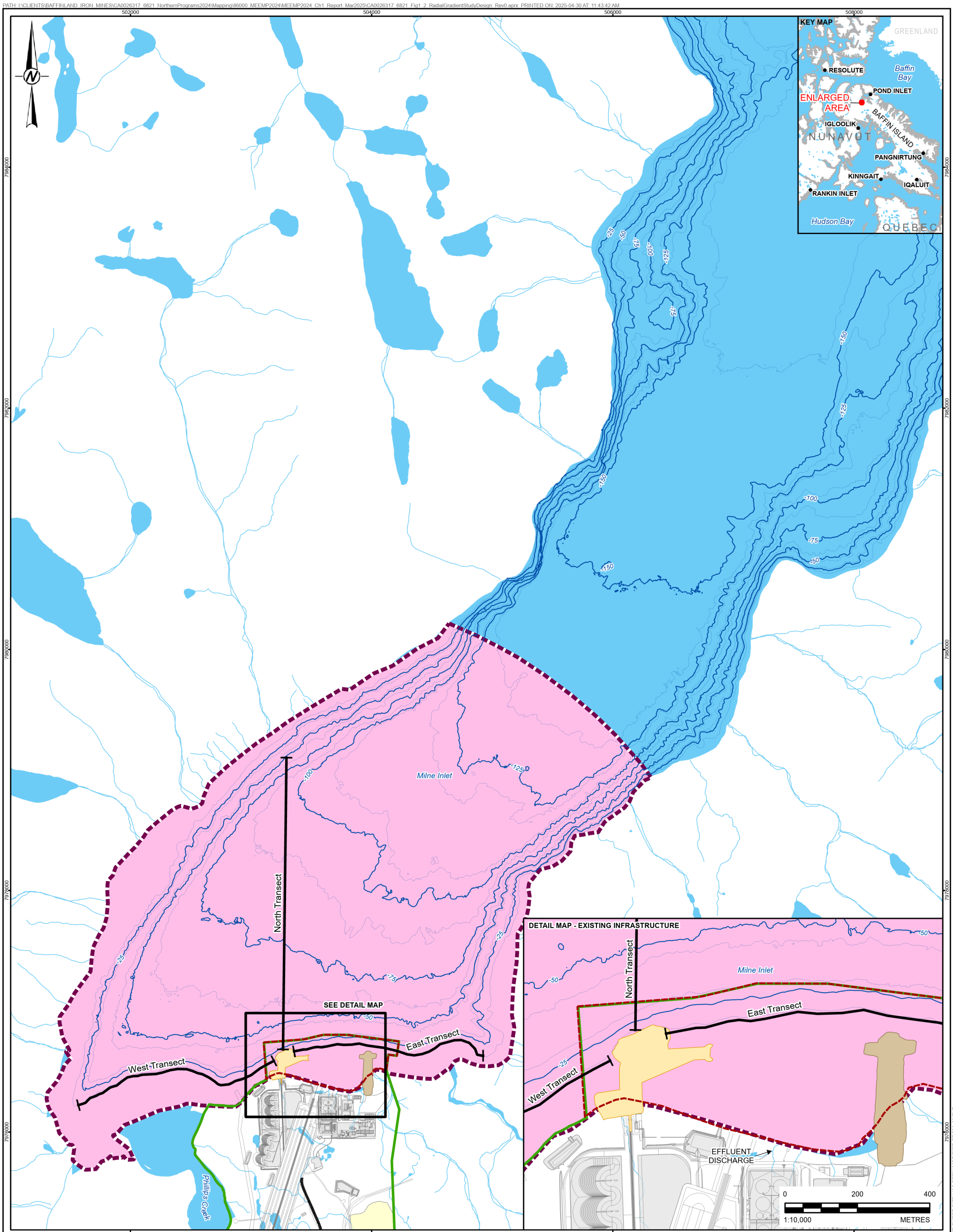
- Marine sediment quality
- Benthic epifauna and macroflora dive surveys
- Fish

While the radial gradient design has remained since its original design, the program has been updated to include more components and changes have been made to sampling methodologies and frequencies. Modifications to the MEEMP are summarized below in Section 1.5.3.1. Sampling efforts for the MEEMP in 2024 are summarized in Table 1-5.

Table 1-5: Summary of Sampling Efforts Performed in Milne Port for MEEMP Surveys, 2024

MEEMP Component	Relevant PC Conditions	Collection Methods	Sampling Effort	Sampling Frequency	Years of Data
Marine Water Quality	76, 83 (a), 87, 89 and 99 (a)	Vessel-based using 2.0 L Kemmerer sampling bottles	8 stations	Annually; five sampling events/year	9
Marine Sediment Quality	76, 83(a), 84, 85, 87 and 99(a)	Vessel-based using a Van Veen grab sampler	8 stations	Targeted sampling for Capesize monitoring, full sediment program every three years	10

MEEMP Component	Relevant PC Conditions	Collection Methods	Sampling Effort	Sampling Frequency	Years of Data
Benthic Infauna	76, 87, 99(a), 99(c) and 126	Vessel-based using a Van Veen grab sampler	8 stations	Targeted sampling for Capesize monitoring, full benthic infauna program every three years	5
Substrate, Macroflora, & Epifauna	76, 83a, 84, 87, 99 (a) and (c)	Quadrat surveys by SCUBA divers	24 quadrats	Annually	4
Marine Fish Community	99(b)(ii), (c), 113, and 114	Angling	12.9 hours	21 stations	8
		Gill net	54.7 hours	20 stations	13
		Hoop net	1,069.1 hours	18 stations	6
		Trawling	2.8 hours	7 stations	5
Fish Health & Tissue Chemistry	76, 83 (a), 87, 99 (a), 99 (b) (ii), 99 (c), 113, and 114.	See above for collection methods. Chemistry analyses completed by specialized laboratories.	13 Arctic Char (Incidental catch)	Annually	14
			79 Fourhorn Sculpin		6
			63 *Hiatella arctica*		7



LEGEND

- BATHYMETRIC CONTOUR (15 m INTERVAL)
- BATHYMETRIC CONTOUR (25 m INTERVAL)
- TOTE ROAD
- TRANSECT
- WATERCOURSE
- AGGREGATE SOURCE (BORROW PIT OR QUARRY)
- INFRASTRUCTURE
- ORE DOCK
- FREIGHT DOCK AND CAUSEWAY
- LOCAL STUDY AREA
- PDA / QIA COMMERCIAL LEASE
- WATERBODY

0 500 1,000
1:30,000 METRES

REFERENCE(S)

LOCAL STUDY AREA BOUNDARY DIGITIZED FROM THE MARY RIVER PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT (FEBRUARY 2012). FREIGHT DOCK DATA PROVIDED BY CLIENT, MAY 21, 2020. ADDITIONAL MILNE PORT INFRASTRUCTURE PROVIDED BY CLIENT, MAY 28, 2018 AND PROVIDED BY HATCH, JANUARY 25, 2017, RETRIEVED FROM KNIGHT PIESOLD LTD. FULCRUM DATA MANAGEMENT SITE MAY 19, 2017. HYDROGRAPHY AND TOPOGRAPHY DATA BY EAGLE MAPPING (2005), RETRIEVED FROM KNIGHT PIESOLD LTD. FULCRUM DATA MANAGEMENT SITE, MAY 2017. HYDROGRAPHY, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.
PROJECTED COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
BAFFINLAND IRON MINES CORPORATION

PROJECT
MARY RIVER PROJECT

TITLE
STUDY AREA FOR THE MARINE ENVIRONMENTAL EFFECTS MONITORING PROGRAM (MEEMP), 2024

CONSULTANT
wsp

YYYY-MM-DD	2025-04-30
DESIGNED	CB
PREPARED	AA
REVIEWED	CB
APPROVED	AL

PROJECT NO.	CONTROL	REV.	FIGURE
CA0026317.6821	86200.04	0	1-2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
0

1.5.3.1 Modifications to the Program

Since program inception, survey design has continually evolved based on refinements identified through consultation with regulatory agencies and Inuit stakeholders, and recommendations made in previous survey years. Table 1-6 summarizes key changes to the program since its inception in 2015.

Table 1-6: Summary of Modifications to the MEEMP Study Design from 2014 to 2024

Year	Component	Description of Modifications
2015	Marine Water Quality	Addition of water quality component to monitor for potential changes associated with site drainage and treated effluent discharges to the marine environment (including iron ore stockpile run-off). Four water quality stations were established near the site discharge point for compliance monitoring; one station next to the site discharge point, and three stations located slightly offshore to the northeast, north and northwest of the source.
2017	Physical Oceanography	Addition of sea level monitoring (using a tidal gauge) and vertical physical profiles of physical oceanographic parameters at Milne Port.
2017/18	Marine Fish Community	In 2017, fish sampling was limited to a two-week period in August, which was not necessarily representative of the entire open-water shipping season (late July to mid-October). In 2018, fish sampling was conducted throughout the duration of the MEEMP program (over four weeks, from the end of July to the end of August) for better representation of the shipping season. Fishing methods included gill netting and Fukui traps, with angling added in 2017, and beach seines added in 2018.
2018	Physical Oceanography	Sea level monitoring was expanded to include physical oceanographic monitoring throughout Milne Inlet including two sites at Milne Port and one at Bruce Head, and additional vertical physical profiles at select times and locations throughout Milne Inlet.
2018	Marine Sediment Quality	The number of sediment samples analyzed for hydrocarbon concentrations was reduced from three samples to one sample at each station, as hydrocarbon concentrations had been below detection limits (DL) in all samples to date. Additionally, two new sediment sampling stations were included along the East Transect to account for anticipated construction associated with the proposed Phase 2 ore dock and freight dock. (The freight dock was subsequently constructed but Phase 2 ore dock is no longer relevant.)
2018	Benthic Infauna	Addition of benthic infaunal sampling program, with input from MEWG. Previous years did not include infaunal sampling but, rather, evaluated changes to the benthic community using epifauna[15] and epiflora[16] as indicators using towed underwater video transect surveys – an approach that did not yield consistent nor reliable data primarily due to issues associated with video resolution.
2018	Epifauna and Epiflora	Study design was changed from one long video transect to a Before - After - Control - Impact (BACI) approach with five belt transects (1 m x 5 m plots) permanently installed on the seabed in each of the exposure and reference areas; monitoring was conducted using a remotely operated vehicle (ROV) underwater video system.

[15] benthic invertebrates living on the substrate

[16] marine vegetation attached to the substrate (e.g., kelp)

Year	Component	Description of Modifications
2018	Fish Health & Tissue Chemistry	Addition of local shellfish species, wrinkled rock-borer (*Hiatella arctica)*, as an additional effects indicator in the event finfish species (Arctic Char or sculpins) were sampled in insufficient numbers to adequately support statistical analyses. Measurement endpoints included body weight to length ratio and tissue (body burden) analysis. Prior to 2018, fish tissue sampling was limited to incidental Arctic Char mortalities, which fluctuated from year to year and did not always yield enough samples for a meaningful statistical analysis.
2019	Physical Oceanography	Vertical physical profiles of water quality parameters including temperature, salinity, conductivity, turbidity, pH, chlorophyll-a, and dissolved oxygen were taken north of Ragged Island in Eclipse Sound in August and September 2019.
2019	Benthic Infauna/ Marine Sediment Quality	Following the results of a power analysis, sampling intensity for benthic infauna and marine sediment was increased from four transects with five stations, to five transects with 15 stations each to improve statistical power and the ability to detect Project-related effects. Unlike in previous years, separate NIS/AIS stations were not sampled due to the expansion of the benthic sampling program.
2019	Benthic Infauna	In previous years, three replicate grab samples were taken at each benthic infauna sampling station. In 2019, the three grab samples were composited into a single sample for each station.
2019	Fish Health & Tissue Chemistry	Inclusion of sculpin (*Myoxocephalus* sp.) as a sentinel species and effects indicator due to the number of incidental mortalities being sufficient to support analyses.
2019	Fish Health & Tissue Chemistry	Instead of collecting length and weight measurements of *Hiatella arctica* samples in the field, *Hiatella arctica* specimens were submitted for age analysis in addition to the tissue (body burden) analysis.
2019	Marine Fish Community	Hoop nets were introduced to the fish sampling program to determine the capture efficiency of the method in Milne Port and to assess its potential as a replacement for Fukui trapping. Fukui traps will continue to be used in addition to hoop nets to meet commitments of continuing to sample at old locations for a minimum of three years (2022 was year 3) to facilitate comparison of old and new methods/results.
2020	Marine Water Quality	Addition of a second water quality monitoring station at the discharge location of MP-06, consistent with the study design for the existing water quality monitoring station at the discharge location for MP-05.
2020	Marine Water Quality	The collection of water samples was scheduled to coincide with at least one active discharge event at each discharge. One collection event also coincided with a de-ballasting event along the Ore Dock.
2020	Marine Sediment Quality/Benthic Infauna	Following time constraints in 2019, the sampling effort was increased from eight to ten sampling stations per transect to 15 sampling stations per transect.
2020	Marine Sediment Quality/Benthic Infauna	Benthic infauna and sediment sampling methodology and equipment was standardized across all stations to ensure consistency and comparability of results.
2020	Marine Sediment Quality/Benthic Infauna	The Coastal Transect was removed from the sampling plan after being determined as not contributing to the radial gradient design of the sediment and benthic sampling components.
2020	Substrate, Macroflora, and Benthic Epifauna	Due to the previously deployed belt transects being moved, twisted, and obscured following a short deployment period, the belt transects were replaced with ten steel quadrats that should be more robust under the local conditions.

Year	Component	Description of Modifications
2020	Substrate, Macroflora, and Benthic Epifauna	Following limitations in species identification in Remotely Operated Vehicle (ROV) footage on the belt transects, a dive team trained in the identification of marine biota were used in addition to ROV for survey of the quadrats.
2020	Marine Fish Community	Based on input and recommendations by Inuit field personnel, fishing locations were selected, and modifications were made to the methodologies for Fukui traps and hoop nets. Modifications included setting the traps in deeper locations to target demersal species and improve capture efficiency.
2020	Fish Health and Tissue Chemistry	Fourhorn Sculpin (*Myoxocephalus quadricornis*) were added as a targeted species for fish health and tissue chemistry/body burden analysis to monitor for impacts to resident fish species in Milne Port.
2020	Fish Health and Tissue Chemistry	Additional indicators were added to the fish health program to align with a Metal and Diamond Mining Effluent Regulations (MDMER) Environmental Effects Monitoring (EEM) program design. This included the addition of targeted lethal fish sampling to meet a minimum sample size.
2021/22	Marine Sediment Quality/Benthic Infauna	Monitoring frequency for the joint radial sediment and benthic sampling program has been adjusted to every three years, consistent with routine biological sampling for other mining effects monitoring programs and reflective of federal guidance (e.g., the federal Environmental Effects Monitoring Program [EEM]). Targeted sampling at SW-2 and in 2022, additional sampling at adjacent stations SW-1, SW-3 and SW-4.
2021	Substrate, Macroflora, and Benthic Epifauna	Ten additional quadrats were fabricated and deployed: five in each of the reference and impact areas. ROV methods were replaced by exclusive use of divers to improve taxonomic resolution of the data. 2021 was the first year that opportunistic samples of macroflora and epifauna were collected for taxonomic/genetic identification.
2021	Marine Fish Community	Longlines were trialed as a fishing method to the 2021 program. In addition, two Fishing Areas were delineated based on habitat features and their location relative to Milne Port to help standardize sampling efforts and address variability in the catch data across Milne Port.
2022	Marine Water Quality	The outfall location of MP-05 was moved to a more westward position along the beach between the Ore Dock and the Freight Dock. The coordinates for Source-1 sample location were adjusted to reflect the new position.
2022	Substrate, Macroflora, and Benthic Epifauna	Six additional quadrats were fabricated and deployed: three in each of the reference and impact areas.
2022	Marine Fish Community	Following an unsuccessful trial of longlines in 2021, the method was discontinued.
2022	Marine Fish Community	Catch per unit effort (CPUE) calculations were revised for two fishing methods (hoop nets and Fukui traps) to better account for field variability. Data from 2020 and 2021 were re-calculated with the modified CPUE calculations and compared against 2022 results.
2022	Marine Fish Community	A reconnaissance for a potential reference area was performed in two locations north of Milne Port. Water quality, sediment quality and fish community sampling were completed as part of the reconnaissance survey.
2023	Marine Sediment Quality	Addition of two stations (SCV-1, SCV-2) for monitoring impacts of Baby Cape and Capesize ore vessels.
2023	Benthic Infauna	Addition of three stations (SE18-1, SCV-1, SCV-2) for monitoring impacts of Baby Cape and Capesize ore vessels. SE18-1 was formerly sampled for sediment only.
2023	Physical Oceanography	Tidal gauge monitoring was not conducted, pending review of methodology.

Year	Component	Description of Modifications
2024	Marine Water Quality	Following repositioning of discharge points for MP-05 and MP-06, the coordinates of the sampling locations were adjusted to reflect the new position.
2024	Substrate, Macroflora, and Benthic Epifauna	Quadrat Q16 was replaced with Q27 in the approximate location of Q16's original position prior to it being dragged by an anchor in 2022.
2024	Marine Fish Community	Fishing methods were refined to focus on angling-jigging, gill nets, and hoop nets. Fukui traps and angling-trolling were discontinued due to being shown to be less effective. Trawling was retained as a method due to higher taxa richness and the potential for rarer species.
2024	Marine Fish Community	Following reconnaissance surveys in 2023, the Koluktoo Bay and Tugaat River Estuary sites were selected to serve as reference locations to support spatial comparisons for fish health and tissue chemistry endpoints.

1.5.4 NIS/AIS Monitoring

The NIS/AIS monitoring program was designed to detect for the potential introduction of non-native species from ballast water discharges and/or hull biofouling and is focused in areas with the highest likelihood of marine invasion. Due to ballast water releases occurring in Milne Port, NIS/AIS sampling largely focuses on southern Milne Inlet. The NIS/AIS Monitoring Program is conducted at a surveillance level, where detection of a single Project-related invasive species is the threshold for triggering of adaptive management measures (e.g., species rapid response plans) and/or potential corrective actions (e.g., measures to contain or eradicate the NIS/AIS), if deemed feasible. The NIS/AIS monitoring program consisted of data collected across multiple trophic levels (marine vegetation, benthic invertebrates, and fish) to establish a comprehensive inventory of existing marine biota in the Project area that is intended to serve as a point of reference for any new species identified over time, and to evaluate potential changes in community structure that may be linked to NIS/AIS introductions. Sampling efforts that contribute to the NIS/AIS monitoring program are summarized in Table 1-7. NIS/AIS monitoring is recommended to be conducted annually.

Table 1-7: Summary of Sampling Efforts Performed in Milne Port for NIS/AIS Monitoring Program Surveys, 2024

Relevant PC Conditions	Collection Methods	Sampling Effort in 2024	Sampling Frequency	Years of Data
76, 87, 89, 91, 99 (a), and 99 (c)	Permanent Quadrats	24 Quadrats	Annual	7[1]
	Active Fish Sampling[2]	90 Stations	Repetitive, Annually	13
	Fish Stomach Contents	60 Fish	Repetitive, Opportunistic, Annually	12
	Benthic Infauna	8 Stations	Annual	13
	Settlement Substrates	18 Plates 18 Baskets	Annual	6[3]
	Zooplankton	12 Stations	Repetitive, Annually	12[4]
	Incidental Specimen Collection	N/A	Opportunistic, Annually	6
	Offset Habitat Monitoring	N/A	Opportunistic, Monitoring Years[5]	8

[1]Includes sampling of belt transects which were used from 2017-2018 exclusively for NIS/AIS surveys until they were replaced by permanent quadrats and added to MEEMP surveys.

[2]Active fish sampling includes fish captured in the reference area that were not included in marine fish community analysis described in Table 1-5.

[3]Settlement substrates were first deployed in 2014, however they were only successfully retrieved for analysis in 2018 and 2019. A new design was successfully implemented in 2020, with collections beginning in 2021.

[4]Zooplankton sampling did not occur in 2021.

[5]Offset habitat monitoring occurred in 2015 to 2020 at the Ore Dock offset habitat and 2020, 2021 and 2024 at the Freight Dock offset habitat.

1.5.4.1 Modifications to the Program

The initial NIS/AIS surveys were conducted in 2014 to enhance marine flora and fauna inventories collected during baseline sampling in 2008 and 2013. In subsequent years, NIS/AIS monitoring focused on identification of organisms not previously detected during the baseline program (as primary indicators of invasion). Equivalent NIS/AIS monitoring was continued in Milne Port area, although the program was expanded and modified based on refinements identified through consultation with regulatory agencies and Inuit stakeholders and recommendations made in previous survey years. Table 1-8 summarizes key changes to the program.

Table 1-8: Summary of Modifications to the NIS/AIS Monitoring Program Study Design from 2015 to 2024

Year	Program Component	Description of Modification
2015	Settlement Baskets	Baskets were redeployed instead of being collected for annual analysis due to insufficient colonization on the substrate.
2016	Settlement Baskets	New settlement baskets were deployed in Milne Port to replace sets previously lost.
2017	Benthic Infauna and Zooplankton	Four new sampling locations were added at Ragged Island to sample specifically for the NIS/AIS monitoring program in response to public concern over ships potentially discharging ballast water while occupying anchorage sites in this area.
2017	Zooplankton	Four new sampling locations were established in Milne Port for vertical zooplankton hauls, and two new locations for oblique zooplankton tows.
2017	Zooplankton	Modifications to the methodology for oblique zooplankton tows were made to target faster moving species and increase the total number of species identified.
2018	ROV Surveys	ROV-based surveys were made along the hulls of several ore carriers to assess for potential biofouling on vessels originating from outside of Canadian waters.
2019	Benthic Infauna	In 2019, no benthic infauna sampling occurred at the original NIS/AIS specific stations, due to the significant expansion of the benthic sampling program. A greater number of stations were sampled for identification of benthic infauna. NIS/AIS status was determined for all infauna identified in benthic sampling.
2019	Macroflora and Epifauna	A new NIS/AIS towed video survey transect was added east of the new Freight Dock at Milne Port to account for potential changes in shipping rates in Milne Port.
2019	Zooplankton	Two oblique zooplankton tow sampling locations were added to the Ragged Island component.
2020	Overall Program	The program name was changed from AIS Monitoring to NIS/AIS monitoring to emphasize efforts to monitor for all potential species introductions to Milne Port, regardless of invasive status.
2020	ROV Surveys	Survey methodology was reviewed with the operator to ensure the methodology was aligned with the stratified survey design used in Sylvester and MacIsaac (2010).
2020	Ship Hull Monitoring	Performed ROV-based ship hull monitoring on two ships at anchorage to avoid limitations with hull visibility and accessibility when ships are moored at the Ore Dock, increasing the total area and survey time for each ship.

Year	Program Component	Description of Modification
2020	Settlement Baskets	Deployment of nine new sets of settlement baskets and plates along the Freight Dock, as well as ten sets of settlement plates in other locations around Milne Port to increase monitoring of recruitment of encrusting biota.
2020	DNA Sampling	To improve taxonomic resolution, a DNA sampling component was added. Targeted sampling occurred at locations where potential NIS/AIS taxa had been observed previously, samples were preserved for DNA analysis at the Canadian Centre for DNA Barcoding at the University of Guelph. Incidentally-collected specimens were also selectively preserved for barcoding and taxonomic confirmation.
2021	Zooplankton	Zooplankton tows were removed from the sampling program due to the high variability in the data and limited sampling not capturing the seasonal presence of many taxa.
2021	Settlement Baskets	Deployment of new sets of settlement plates and baskets co-located with new quadrats around Milne Port to increase monitoring of recruitment of encrusting biota.
2021	Ship Hull Monitoring	Monitoring of ship hulls was not conducted in 2021 as Baffinland works with DFO to design a methodology that will improve the taxonomic resolution of the data collected to better inform assessment of NIS/AIS risk
2022	Benthic Infauna	Samples were collected at 12 additional benthic infauna stations (for a total of 16) to continue monitoring for NIS/AIS during reduced sampling years for MEEMP surveys.
2022	DNA Sampling	Following targeted sampling in 2020 and 2021 to obtain specimens for genetic analysis, no additional locations were identified for potential flagged taxa. As a result, no targeted sampling for genetic analysis occurred in 2022. Rather, the subfractions remaining following analysis of samples collected for genetic analysis in 2021 will be sorted for targeted organisms.
2022	Zooplankton	Zooplankton sampling at 12 stations was completed, following removal from the program in 2021.
2022	Reporting	Standardized distribution and uncertainty categories have been created and defined to better express confidence in range assessments for new taxa observations.
2022	Reporting	Reports will be submitted to NIRB in final form, with responses to MEWG comments addressed in subsequent annual report.
2023	Macroalgae	A new collaboration was started with the University of New Brunswick (UNB) to improve taxonomic resolution of macroalgae identification through DNA analysis.
2023	Zooplankton	Zooplankton sampling program was expanded for better seasonal coverage. Twelve stations were sampled on three dates. Compared to a single sample event in previous years.
2024	Offset Habitat Monitoring	Observations from the Freight Dock Habitat Offset Monitoring Program (including samples from the Freight Dock and from a reference area located 2.25 km north of the dock in Milne Inlet) were also screened for potential NIS/AIS.
2024	Settlement Substrates	Settlement substrates were collected to align all stations with the annual and multi-year collection rotations. All annual and a subset of multi-year substrates were archived as a potential source of DNA samples.
2024	Zooplankton	Zooplankton sampling program was amended to collection at twelve stations sampled on two dates.
2024	DNA sampling	Additional benthic infauna samples were collected specifically collected for DNA and archived. Sample locations were selected based on previous observations of Watch List taxa.
2024	Macroalgae	Collaboration with UNB continued. Results of review of archived macroalgal material are presented in a technical memo in Appendix 8B-5. Macroalgae collected in 2024 were preserved for molecular and microscopic taxonomic analysis by UNB.

Year	Program Component	Description of Modification
2024	Benthic Infauna	Benthic infauna sampling in 2024 focused on monitoring of eight “Capesize” stations adjacent to the Ore Dock
2024	Fish Community	Methods used for monitoring of the fish community were refined by focusing on angling (jigging), gill nets, hoop nets, and trawling, while the use of Fukui traps and angling (trolling) were discontinued.

1.6 Conclusions and Recommendations

The MEEMP-NIS/AIS program has been designed to meet the objectives of the various conditions associated with Project Certificate 005, as well as to evaluate whether Project activities have potentially impacted the marine environment over time. Predictions from the FEIS and subsequent addenda (Baffinland 2012; 2013) indicated the potential for low magnitude changes in some ecological parameters, such as water quality and Arctic Char tissue chemistry, but characterized these as “not significant”. Overall, monitoring data align with these predictions, as observed changes are typically minor and either within established guidelines or consistent with baseline levels. Thus, monitoring to date suggests that mitigation measures are functioning as intended and that Project activities are being managed in a way that has not adversely affected the marine ecosystem.

The main conclusions and recommendations based on the results of the 2024 MEEMP-NIS/AIS studies are as follows:

- **Marine Water Quality**
  - Relevant to PC No. 76, 83(a), 87, 89, 99(a).
  - Measured concentrations of metals were generally consistent with previous years and remained below CCME water quality guidelines for the protection of aquatic life while hydrocarbons and PAHs were below detection limits in most samples.
  - Laboratory analyses have not revealed a clear increase in the concentrations of iron in water samples collected between 2017 and 2024; iron in 2024 was within the 2015-2023 range of detected concentrations.
  - Monitoring results remained within original FEIS predictions, which forecasted no significant residual effects on water quality but indicated the potential for minor localized increases in TSS, nutrient, metal, and hydrocarbon concentrations.
  - The ‘Low Risk’ threshold for TARP was not triggered in 2024 because the 30-day mean for each water quality indicator was less the 75% of the applicable CCME water quality guideline for the protection of aquatic life, and iron did not show a spatial pattern or a temporal trend indicative of effects from the Port’s effluent discharge.
  - **It is recommended that the water quality sampling program continue in 2025 to verify compliance with Project requirements and that parameters of potential concern remain well below thresholds of harm for marine biota.**

- **Marine Sediment Quality**
  - Relevant to PC No. 76, 83(a), 84, 85, 87, and 99(a).
  - Sediment quality at the Capesize sampling stations were below CCME guidelines for the protection of aquatic life for parameters analyzed and hydrocarbons were not detected in the sediment sampled.
  - Comparison of sediment quality in 2024 with existing conditions in 2023 (prior to use of larger vessels) and comparison to estimated scour predictions for the Capesize vessels, did not suggest a clear pattern indicative of Port-related effects beyond FEIS predictions and subsequent addenda.
  - Reduced fines were measured at two stations along the Western Transect. These stations are outside the zone of influence for potential scouring and are also predisposed to influence from natural factors (such as ice movement, coastal sediment processes, and potential influence from the entry of Phillips Creek to the inlet).
    - regardless of potential propeller wash influence, benthic infauna densities at these two stations were not significantly different in 2024 and 2023 and both stations continue to support diverse benthic invertebrate communities.
  - Monitoring results remained within original FEIS predictions, which forecasted the potential for minor and localized sediment disturbance associated with propeller wash, which is expected to stabilize over time, as well as the potential for minor localized increases in nutrients, metal, or hydrocarbon concentrations.
  - Sediment quality analysis for the 2024 MEEMP focussed on comparing the Year 1 Capesize Sampling Station results with the existing 2023 results for these stations. Given that sediment concentrations were below CCME guidelines for the protection of aquatic life and the 2024 results do not suggest a clear pattern indicative of Port-related effects beyond FEIS predictions and subsequent addenda, a ‘Low Risk’ threshold was not triggered in 2024 for the Capesize assessment.
  - **To gain a better understanding of potential scouring effects outside of the predicted zone of influence for the Capesize vessels versus influence from natural coastal processes, it is recommended to extend the 2025 Capesize Vessel sampling program along the West Transect to include SW-5 and SW-6, for a total of ten stations for sediment quality and benthic infauna sampling.**
- **Benthic Infauna**
  - Relevant to PC No. 76, 87, 99(a), 99(c), and 126.
  - Overall, the results indicated that benthic communities in Milne Port remained healthy and diverse.
  - Scouring effects were previously observed in 2020 at station SW-2 due to propeller wash from smaller ore carriers and tugs. Subsequent monitoring years indicated that the benthic infaunal community at that station later recovered, and that the effects were temporary and localized.
  - The 2024 results remain within predictions of the FEIS and subsequent addenda, which forecasted the potential for localized sediment disturbance associated with propeller wash and temporary effects on benthic infaunal community indicators.

- In 2024 the eight Capesize stations continued to support diverse benthic invertebrate communities, with dominant polychaete taxa but also bivalves and crustaceans.
  - Overall density and richness were not significantly different between Year 1 (2024) and under existing conditions in 2023; however, the benthic infaunal community continued to show variability between stations in 2024 with observed decreases in density and richness from 2023 to 2024 at stations in close proximity to the Ore Dock. These observations are partly supported by changes in the proportion of fines content in the area over time as well as natural variability seen within benthic communities.
- Benthic performance indicators were not significantly different in Year 1 (2024) compared to existing conditions in 2023, and any visual decreases in benthic indicators appeared to be within Port-related effects predicted by FEIS and subsequent addenda, a 'Low Risk' threshold was not triggered in 2024 for the Capesize assessment.
- **It is recommended to continue sampling of these stations in 2025. Additionally, to gain a better understanding of potential scouring effects outside of the predicted zone of influence for the Capesize vessels versus influence from natural coastal processes, it is recommended to extend the 2025 Capesize Vessel sampling program along the West Transect to include SW-5 and SW-6, for a total of ten stations.**

- **Substrate, Macroflora, and Benthic Epifauna**
  - Relevant to PC No. 76, 83(a), 84, 87, 99(a), and 99(c).
  - Overall, macrofloral and benthic epifaunal community assemblages were comparable between exposure and reference areas but varied interannually for some assemblage indicators which were likely driven by environmental factors. Monitoring efforts to date revealed no evidence of overarching spatial or temporal trends that might be associated with Project-induced effects from construction or operation activities and Milne Port.
  - **It is recommended that monitoring of macrofloral and benthic epifaunal assemblages should continue using the same sampling and statistical design with a modification to include the tops of the metal crossbars and outer frame in analyses due to increased observations of habitat formation and colonization of these hard surfaces within many quadrats in 2024. Two quadrats closest to Phillips Creek were not located in 2024 and are presumed lost. It is recommended that these quadrats not be replaced due to dynamic nature of the bottom in that area. Further, it is recommended to increase collections of unknown taxa, where possible, for identification. Such taxa should be collected outside the permanent quadrats, where possible, to minimize impacts on community composition within the quadrats.**
- **Marine Fish Community**
  - Relevant to PC No. 99(b)(ii), (c), 113, and 114.
  - Monitoring efforts to date revealed no evidence of overarching spatial or temporal trends that might be associated with adverse Project-induced effects from construction or operation of Milne Port.

- Monitoring results aligned with predictions of the FEIS and subsequent addenda, which forecasted that the Project would have no significant effects on marine fish habitat, nor would it significantly affect Arctic Char populations.
- The sampling methods utilized in 2024 (angling-jigging, gill nets, hoop nets, and trawl) provide comparable results for detection of fish diversity as observed in previous years (when additional fishing methods were included in the program) and are recommended for use going forward.
- As power analyses continued to indicate the statistical power of the performed analyses was relatively low, due to the high variability of fish catch, consideration may be given to assessing differences between FAs using effect sizes rather than a strict adherence to statistical significance.
- **Overall, fishing methods were deemed effective in characterizing the marine fish community in terms of species presence and relative abundance. The program continues to improve its methodology with regard to efficiencies of capture, representation of the fish community, and statistical power, and the delineation of FAs and standardization of measures of fishing effort time series that commenced in 2020 will continue to allow for ongoing assessments of interannual and interarea change in relative fish abundance and distribution at Milne Port.**

- **Fish Health and Tissue Chemistry**
  - Relevant to PC No. 76, 83 (a), 87, 99 (a), 113, and 114.
  - Monitoring results remained well within predictions of the FEIS and subsequent addenda (Baffinland 2012; 2013), which indicated the potential for non-significant, low magnitude effects on Arctic Char tissue chemistry, but characterised these changes as not ecologically significant. Monitoring data align with these predictions overall, as observed changes have been small and are consistent with baseline data or established guidelines.
  - Monitoring to date suggests that Project mitigation is functioning as intended and that Project activities are being managed in a way that has not adversely affected marine fish health beyond the scope of the FEIS predictions, including addenda.
  - **If monitoring of fish health and tissue chemistry in 2025 continues to demonstrate that the effects of Project activities are within those predicted by the FEIS and subsequent addenda, it may be recommended to consider periodic monitoring of these MEEMP components on a three-year cycle. Completion of the 2025 monitoring is recommended so that at least three years of data would be available from Koluktoo Bay which was the most-recently selected reference area and has been sampled since 2023.**
- **NIS/AIS Monitoring Program**
  - Relevant to PC No. 76, 87, 89, 91, 99 (a), and 99 (c).
  - To date, 1,204 taxa have been documented in Milne Inlet with 499 identified to species, the majority of which are not potential NIS/AIS.
  - Taxa identified in 2024 surveys included 54 taxa not previously collected during Project monitoring in Milne Port. The majority of new taxa had records of occurrence in the Canadian Arctic or described ranges that were likely to include the Project area.
  - NIS/AIS monitoring in 2024 collected one species that was placed on the Watch List in previous years due to uncertainties in its natural range and because it was listed in an existing AIS database

(*Paramphitrite birulai*). As this species had been previously sent for independent verification with a specialist, the newly collected specimens were not submitted for additional taxonomic confirmation. No change in the status of this taxon on the Watch List was recommended.

- *Chaetozone anasima* was placed on the Watch List as Low Risk as a precautionary measure due to the lack of a range description that included the Eastern Canadian Arctic. The genus *Chaetozone* has regularly been detected in Milne Inlet since baseline studies but recent taxonomic publications have allowed further resolution of some species. The specimens collected in 2024 and identified as *Chaetozone anasima* may represent a refinement of the previous identification, rather than a new identification for Milne Port.
- The green filamentous algae *Chaetomorpha* sp. 3GWS is an undescribed taxon initially sequenced from samples collected in Maine. No further information is available for this taxon, and it was precautionarily placed on the Watch List as a Low Risk taxon.
- Molecular examination of Milne Port algae specimens indicated the presence of *Desmarestia ligulata* however, the identification was flagged as a potential laboratory contamination. No records of this species exist in the Canadian Arctic, and it is present on at least one AIS database, and therefore this species was placed on the Watch List as Low Risk as a precautionary measure.
- Sequences generated from scrapings of settlement substrates and rocks and were tentatively matched to *Antithamnion sparsum*, an Asian species that is considered alien to Nova Scotia and does not have an Arctic range on record. Due to the method of sample collection, morphological confirmation could not be made. The lab considered these results as a potential false positive, however, *Antithamnion* cf. *sparsum* was precautionarily flagged for further review and was placed on the Watch List as a Low Risk taxon.
- A scraping from a settlement plate was a genetic match to *Polysiphonia kapraunii*, which is a recently described species from North Carolina. Genetic work reveals some uncertainty in the taxonomic designation, indicating that it forms a clade with at least one closely related species with a broader range, and may not be its own species. While the identification in 2024 was not considered a false positive, the result was flagged as uncertain due to the method being limited in distinguishing between closely related species. Due to the lack of a range description that includes Arctic waters, *Polysiphonia kapraunii* was flagged for further review and was placed on the Watch List as a Low Risk taxon as a precaution.
- The Watch List now consists of thirteen taxa. There are no species on the Trigger List.
- No NIS/AIS endpoint exceeded TARP “Low Risk” thresholds in 2024.
- **It is recommended to continue the following:**
  - **sampling across multiple trophic levels continue in 2025 and continuing to expand the Milne Inlet Taxonomic Inventory.**
  - **using external accredited laboratories and/or global specialists to confirm identifications of specimens requiring a more in-depth taxonomic analysis.**
  - **collecting targeted samples for DNA analysis at locations where high-risk taxa have previously been observed.**

Further details on each component of the MEEMP-NIS/AIS program are provided in topic-specific chapters: Marine Water Quality (Chapter 2.0); Marine Sediment Quality (Chapter 3.0); Benthic Infauna (Chapter 4.0); Substrate, Macroflora, and Benthic Epifauna (Chapter 5.0); Marine Fish Community Program (Chapter 6.0); Fish Health and Tissue Chemistry (Chapter 7.0); and NIS/AIS Monitoring Program (Chapter 8.0).

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