ᓇᐃᓈᖅᓯᒪᔪᖅ

ᒪᓕᒐᓕᕆᓂᖅ

Type A ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᑐᒃᓯᕋᐅᑎ (ᑐᒃᓯᕋᐅᑎ) ᐱᓕᕆᐊᖑᓚᐅᖅᑐᖅ ᑎᑭᐅᑎᓂᕐᒧᑦ ᐱᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᓄᓇᕗᒻᒥ ᓄᓇᑖᕐᓂᕐᒧᑦ ᐊᖏᖃᑎᒌᒍᑎ (NLCA), *ᓄᓇᕗᒻᒥ ᐃᒪᕐᓄᑦ ᐊᒻᒪ ᓄᓇᐅᑉ ᖅᑳᖕᒋᓐᓄᑦ ᐱᔪᖕᓇᐅᑎᖃᖅᑐᓄᑦ ᐱᖁᔭᖅ* (NWNSRTA), ᐊᒻᒪ ᓄᓇᕗᒻᒥ ᐃᒪᐃᑦ ᒥᒃᓵᓄᑦ ᒪᓕᒐᐃᑦ (NWR), ᑭᓯᐊᓂ ᐃᑯᒪᒋᐸᓪᓗᒍᑦᑕᐅᖅ ᒪᓕᒃᑎᓐᓂᕆᔭᖕᒋᑦ ᓄᓇᕗᒻᒥ ᐃᒪᕐᓄᑦ ᑲᑎᒪᔩᑦ (NWB) *ᒪᓕᒃᑕᐅᔪᒃᓴᖅ 4-ᒥᑦ – ᐱᐊᓂᒃᓯᓂᖅ ᐊᒻᒪ ᑐᓂᐅᑎᒋᓂᖅ ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᑐᒃᓯᕋᐅᑎ ᓄᑖᒥᒃ ᓚᐃᓴᓐᓯᒥᒃ ᐱᓂᐊᕐᓗᓂ ᐊᒻᒪ ᐃᓚᒋᔭᐅᔪᖅ ᑐᑭᓯᐅᒪᔾᔪᑎ ᒪᓕᒃᑕᐅᔭᕆᐊᓕᒃ ᐅᔾᔨᕆᓂᐊᕐᓂᕐᒧᑦ ᐊᒻᒪ ᓯᖃᓪᓕᑎᕆᓂᕐᒧᑦ* (SIG-MM3 ᒪᓕᒃᑕᐅᔭᕆᐊᓕᒃ). ᐊᖏᖃᑎᒌᒍᑕᐅᓯᒪᔪᖅ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᖅ ᐱᔭᕆᐊᖃᕐᓂᕆᔭᖕᒋᓐᓄᑦ NWB-ᑯᑦ ᒪᓕᒃᑕᐅᔪᒃᓴᖕᒋᓐᓂᑦ ᐊᒻᒪ SIG-MM3-ᒧᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᓕᖕᒥᑦ ᐊᒻᒪ ᐱᔭᒃᓴᓕᐊᖑᓚᐅᖅᑐᑦ ᓄᓇᕗᒻᒥ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᖃᒥᕐᕈᐃᖕᒋᑦ (NIRB) ᐃᓚᒋᔭᐅᔪᖅ 5-ᒥᑦ ᖃᒥᕐᕈᓂᖃᖅᑎᓪᓗᒋᑦ ᑭᖑᓪᓕᖅᐹᖅ ᐊᕙᑎᒥᒃ ᐊᒃᑐᖅᓯᓂᕐᒧᑦ ᑎᑎᖅᑲᒥᒃ.

ᑕᓯᕐᔪᐊᕐᒥᑦ ᒨᓗᒧᑦ ᐱᓕᕆᐊᖅ (ᐱᓕᕆᐊᖅ) ᒪᓕᒋᐊᖃᖅᑐᖅ ᓄᓇᒥᒃ ᐊᒻᒪ ᐱᕚᐅᔪᓂᒃ ᐊᐅᓚᑦᑎᓂᕐᒨᖓᔪᓄᑦ ᓴᖅᑭᑕᐅᔪᖅ NLCA-ᒧᑦ ᐊᒻᒪ ᐊᓯᖏᓐᓄᑦ ᑲᓇᑕᐅᑉ ᒪᓕᖓᖏᓐᓄᑦ ᐊᒻᒪ ᒪᓕᒐᖀᖏᓐᓄᑦ. ᐊᒃᓃᑯᑦ ᐱᔭᕆᐊᖃᖅᑎᑕᐅᔪᑦ ᒪᓕᒡᓗᒋᑦ NWNSRTA-ᑯᑦ ᐊᒻᒪ NWR-ᑯᑦ ᑐᓂᓯᓂᕐᒧᑦ Type A ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒥᒃ ᑐᒃᓯᕋᐅᑎᒥᒃ ᐅᔾᔨᕆᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᒻᒪ ᓯᖃᓪᓕᑎᕆᓂᕐᒧᑦ (ᑐᒃᓯᕋᐅᑎ) NWB-ᑯᓐᓄᑦ ᐊᑐᕐᓂᐊᕐᓗᓂ ᐃᒪᕐᒥᒃ ᐊᒻᒪ ᐊᒃᑕᑰᕆᓂᐊᕐᓗᓂ ᐱᕙᓪᓕᐊᓂᖅᑕᖅᑎᓪᓗᒍ ᐱᓕᕆᐊᖅ.

ᑐᒃᓯᕋᐅᑎᒥᑦ ᐃᓚᐅᔪᖅ NWB-ᑯᓐᓄᑦ ᑐᒃᓯᕋᐅᑎ, ᑐᒃᓯᕋᐅᑎᓪᓗᐊᖑᒃ ᑎᑎᖅᑲᖅ, ᐊᒻᒪ ᐃᓚᒋᔭᐅᔪᑦ ᐃᑲᔪᐃᔪᑦ ᑎᑎᖅᑲᐃᑦ ᑐᓂᓯᓂᕐᒧᑦ ᑐᑭᓯᐅᒪᔾᔪᑎᓂᒃ ᐃᒪᕐᒥᑦ ᐊᑐᕐᖑᐅᔪᒪᔪᒧᑦ, ᐊᒃᑕᑰᕆᖑᐅᔪᒪᔪᒧᑦ, ᐊᒻᒪ ᐊᒃᑐᐅᔪᑦ ᖃᓄᐃᓕᐅᕐᓂᐅᔪᑦ ᐅᔾᔨᕆᓂᐊᕐᓂᖅᑎᓪᓗᒋᑦ ᐊᒻᒪ ᓯᖃᓪᓕᑎᕆᓂᖅᑎᓪᓗᒋᑦ, ᐃᓚᐅᑉᓗᑎᒃ ᑐᑭᓯᐅᒪᔾᔪᑏᑦ ᐱᔾᔪᑎᖃᖅᑐᑦ ᐸᕐᓇᐃᓂᕐᒧᑦ ᐊᒻᒪ ᖃᓄᐃᖕᒐᓂᕆᓂᐊᖅᑕᖕᒐᓄᑦ, ᓴᓇᔭᐅᓂᖓᓄᑦ, ᐊᐅᓛᕐᓂᐊᕐᓂᖓᓄᑦ, ᐊᒻᒪ ᐅᑎᖅᑎᑎᕆᕙᓪᓕᐊᓂᕐᒨᖓᔪᓂᒃ ᐱᓕᕆᐊᒧᑦ.

ᐱᓕᕆᐊᒧᑦ ᑐᑭᓯᐅᒪᔾᔪᑎᓗᐊᖅ ᐃᑲᔪᐃᓂᕐᒧᑦ ᑐᒃᓯᕋᐅᑎᒥᒃ ᑐᓂᓯᓐᓂᖅᑐᖅ ᑐᒃᓯᕋᐅᑎᓪᓗᐊᖑᒃ ᑎᑎᖅᑲᒥᑦ. ᑕᒡᕙᓂ ᑐᑭᓯᐅᒪᔾᔪᑎᒥᑦ ᐃᓚᐅᔪᑦ ᒪᓕᒐᓕᕆᓂᕐᒧᑦ ᐱᔭᕆᐊᖃᖅᑐᑦ, ᐊᕙᑎᐅᑉ ᐋᖅᑭᒃᓯᒪᓂᖓᓄᑦ, ᐱᓕᕆᐊᖅ ᖃᓄᐃᓘᕐᓂᖓᓄᑦ, ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ, ᐊᒻᒪ ᓇᐃᓈᖅᓯᒪᔪᑦ ᑐᑭᓯᐅᒪᔾᔪᑏᑦ ᐃᑲᔪᐃᔪᓂᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᑦ.

ᐊᓃᑯᒃᑯᑦ ᑕᓯᕐᔪᐊᕐᒥᑦ ᒨᓗᒧᑦ ᐅᔾᔨᕆᓂᐊᖅᑕᓕᕆᕙᓪᓕᐊᔪᑦ (ᐱᓕᕆᐊᖅ), 25 ᑭᓛᒥᑕᒥᒃ ᐅᐊᖕᓇᖓᓂᑦ ᐅᖓᓯᒃᑎᒋᔪᖅ ᑲᖏᖅᖠᓂᕐᒥᑦ, ᐊᒻᒪ 80 ᑭᓛᒥᑕᒥᒃ ᓂᒋᖅᐸᓯᐊᓂᑦ ᐱᖓᖕᓇᖅᐸᓯᐊᓂᑦ ᐅᖓᓯᒃᑎᒋᔪᖅ ᐃᒡᓗᓕᒑᕐᔪᖕᒥᑦ ᑭᕙᓪᓕᕐᒥᑦ ᓄᓇᕗᒻᒥᑦ. ᐱᖓᖕᓇᖅᐸᓯᖕᖓᓂᑦ ᑕᓯᐅᔭᕐᔪᐊᑉ ᓯᒡᔭᖕᖓᓃᑦᑐᖅ, ᐱᓕᕆᐊᑉ ᐃᓂᒋᔭᖓ ᐊᑯᓐᓂᖕᒋᓐᓃᑦᑐᖅ ᑲᓇᖕᓇᖕᖓᓂᑦ, ᓂᒋᐊᓂᑦ, ᐊᒻᒪ ᐱᖓᖕᓇᖕᖓᓂᑦ ᑕᓯᕐᔪᐊᑉ (63°1’23.8” N, 92°13’6.42"W) ᐃᓄᐃᑦ ᓇᖕᒥᓂᖅ ᓄᓇᑦᑎᔭᖕᖓᓂᑦ.

ᐱᓕᕆᐊᖅ ᑕᓯᕐᔪᐊᕐᒦᑐᖅ Wilson ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᖓᓂᑦ (ᓄᓇᕗᒻᒥᑦ ᐃᒪᕐᓄᑦ ᒪᓕᒐᓇᔭᐅᔪᑦ ᑎᑎᖅᑲᖅ 4-ᒥᑦ).

ᐱᓕᕆᐊᖅ ᑕᓪᓕᒪᓂᒃ ᖃᐅᔨᒪᔭᐅᔪᓂᒃ ᒨᓗᕐᑲᖅᑐᖅ : ᑎᕆᒐᓂᐊᖅ, F Zone, Pump, Wesmeg, ᐊᒪᓗ Discovery-ᒥᑦ. ᐊᒡᓃᑯᒃᑯᑦ ᐱᓕᕆᐊᕆᕙᓪᓕᐊᔪᒪᔾᖏᑦ ᒨᓗᕐᑲᖅᑐᑦ ᐊᕕᒃᑐᖅᓯᒪᓗᒌᖕᒐᔪᒃᑯᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᕐᑯᑎᕐᔪᐊᓄᑦ ᐱᔭᕆᐊᕐᑲᕐᓂᕆᔭᖏᑦ ᐊᒪᓗ ᐱᕙᓪᓕᐊᓂᖅᑲᖅᑎᓐᓂᕐᒧᑦ ᐱᕆᐊᕐᓂᕐᒥᒃ ᕿᓂᖅᓴᐃᓂᖅ ᑲᔪᓯᑎᓪᓗᒍ ᐊᖏᒡᓕᒋᐊᖅᑎᓐᓂᕐᒧᑦ ᖃᐅᔨᒪᔭᐅᔪᑦ ᐅᔭᖅᑲᕐᑲᖅᑐᖅ. ᐱᕙᓪᓕᐊᓂᐅᕐᑲᐅᑕᐅᔪᖅ (Phase 1) ᑕᐅᑐᒐᕐᑲᖅᑐᖅ ᐱᕙᓕᐊᑎᓐᓂᕐᒥᒃ ᑎᕆᒐᓂᐊᕐᒥᑦ ᒨᓗᑕᓕᒃ ᐊᑐᕐᓗᓂ ᐊᑐᖅᑕᐅᕙᒃᑐᑐᕐᑲᕐᒥᒃ ᓄᓇᒥᑦ ᐅᒃᑯᐃᖓᔪᒃᑯᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᖅ ᐊᒪᓗ ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ. Phase 2 ᓇᓗᓇᐃᖅᑕᐅᓂᐊᖅᑐᖅ ᐊᒪᓗ ᐱᔪᖕᓇᖅᑎᑕᐅᓗᓂ Phase 1-ᖑᑎᓪᓗᒍ, ᐊᓯᖕᒋᑦ ᒨᓗᑕᓖᑦ ᓇᓗᓇᐃᖅᑕᐅᑎᐊᑲᓐᓂᖅᐸᑕ ᐃᑰᑕᐃᓂᒃᑯᑦ ᕿᓂᖅᓴᐃᓂᕐᒧᑦ. ᑕᒪᕐᒥᒃ Phase 1 ᐊᒪᓗ Phase 2 ᐱᓕᕆᐊᕐᒦᑐᑦ ᐊᒃᑐᐊᓂᖅᑲᖅᓱᑎᒃ ᐊᕙᑎᒥᒃ ᐊᒪᓗ ᐃᓄᐃᑦ-ᐱᕈᖅᐸᓪᓕᐊᓂᕐᒧᑦ ᖃᐅᔨᓴᐃᓂᐅᓚᐅᖅᑐᖅ NIRB-ᑯᓐᓄᑦ, ᑐᓂᔭᐅᓂᖅᑲᖅᑎᑦᑎᑉᓗᓂ ᐱᓕᕆᐊᒧᑦ ᓇᓗᓇᐃᑯᑕᖅ ᓈᓴᐅᑎ 006-ᒥᑦ.

12.1 ᒥᓕᔫᓐ ᑕᓐᓄᐊᑦ (Mt) ᐅᔭᕋᐃᑦ ᐅᔭᕋᖕᓂᐊᖅᑕᐅᓂᐊᖅᑐᑦ ᑎᕆᒐᓂᐊᕐᒥᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᖅ ᐊᐅᓛᕐᓂᕆᔭᖓᓂᑦ 8 ᐅᑭᐅᓪᓗᐊᑦ. ᐊᐅᓛᕐᓂᖅ 31.8 Mt-ᓂᒃ ᐊᒃᑕᑑᕐᓂᐊᖅᑐᖅ ᐅᔭᖅᑲᓂᒃ, 7.4 Mt-ᓂᒃ ᐅᖓᑕᐅᑎᔪᓂᒃ ᐊᒃᑕᑯᓂᒃ, ᐊᒪᓗ 12.1 Mt-ᓂᒃ ᕿᒪᒃᑎᑦᑐᓂᑦ. Phase 1-ᒧᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᐅᔪᒪᔪᒧᑦ ᐱᕐᑯᑏᑦ ᑕᐃᑲᓂ ᐃᓚᐅᔪᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᐅᑉ ᐃᓂᖓ ᐊᒪᓗ ᓯᓂᒃᑕᕐᕖᑦ, ᒪᖀᒃ ᐅᒃᑯᐃᖓᔪᑦ ᓄᓇᒥᑦ, ᐱᖓᓱᑦ ᑲᑎᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ, ᕿᒪᒃᑎᑦᑐᓄᑦ ᑐᖅᑯᖅᓯᓯᒪᕕᒃ (TSF), ᐱᖓᓱᑦ ᐊᒃᑕᑑᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᓄᑦ ᑐᖅᑯᖅᓯᓯᒪᕖᑦ (WRSF), ᐊᒪᓗ ᐃᒪᓕᕆᓂᕐᒧᑦ ᐋᕿᐅᒪᔪᖅ ᐃᓚᐅᑉᓗᓂ ᐃᒪᓕᕆᕖᑦ, ᖃᑉᓯᐊᕐᔭᐃᑦ ᐃᒪᕐᒥᒃ ᓴᖑᑎᑦᑎᔪᑦ ᓱᑉᓗᐃᑦ, ᐃᒪᕐᒥᒃ ᐊᓯᐅᔨᑦᑕᐃᓕᔾᔪᑏᑦ, ᑲᑎᖅᓯᐃᕖᑦ ᑕᓯᖃᔭᐃᑦ, ᐊᒪᓗ ᑯᕕᔪᓕᔾᔪᑎ.

ᐱᓕᕆᐊᑉ ᒥᒃᓵᓄᑦ ᓇᐃᓈᖅᓯᒪᔪᖅ

ᐱᕐᑲᕐᓂᖅ : ᐊᒡᓃᑯᒃᑯᑦ ᓇᖕᒥᓂᕐᑲᖅᑐᑦ ᑕᓯᕐᔪᐊᕐᒥᑦ ᒨᓗᒥᒃ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒥᑦ.

ᓇᓂ : ᐅᔭᕋᖕᓂᐊᕐᕕᓕᐊᖑᔪᒪᔩᑉ ᐃᓂᖓ ᑕᓯᕐᔪᐊᕐᒦᑐᖅ, 25 ᑭᓛᒥᑕᒥᒃ ᐅᐊᖕᓇᖓᓂᑦ ᐅᖓᓯᒃᑎᕆᔪᖅ ᑲᖏᖅᖠᓂᕐᒥᑦ, ᐊᒪᓗ 80 ᑭᓛᒥᑕᒥᒃ ᓂᒋᖅᐸᓯᐊᓂᑦ ᐱᖓᓇᖅᐸᓯᐊᓂᑦ ᐅᖓᓯᒃᑎᕆᔪᖅ ᐃᒡᓗᓕᒑᕐᔪᖕᒥᑦ. ᑕᓯᕐᔪᐊᕐᒦᑐᖅ Wilson ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᖓᓂᑦ (ᓄᓇᕗᒻᒥᑦ ᐃᒪᕐᓄᑦ ᒪᓕᒐᓇᔭᐅᔪᑦ ᑎᑎᖅᑲᖅ 4-ᒥᑦ).

ᑎᑭᖅᑲᐅᒪᔭᐅᓂᖅ : ᑕᐃᒪᐅᔪᖅ ᐅᑭᐅᓗᒃᑖᖅ ᐊᑉᑯᑎ (AWAR) ᑲᖏᖅᖠᓂᕐᒥᑦ ᐅᔭᕋᖕᓂᐊᕐᕕᓕᐊᖑᔪᒪᔪᒧᑦ ᑎᑭᖅᑲᐅᒪᔪᖅ. AWAR 23.8 ᑭᓛᒥᑕᓂᒃ ᑕᑭᑎᒋᔪᖅ ᐊᑉᑯᑎ 6.5 ᒦᑕᒥᒃ ᑕᑭᓂᖅᑲᖅᓱᓂ ᐃᖅᑲᓗᒑᕐᔪᖕᒥᑦ ᐃᑳᕈᑎᒥᑦ ᐊᒪᓗ ᐅᔭᕋᖕᓂᐊᕐᕕᐅᔪᒪᔪᒧᑦ, ᐊᒪᓗ ᑭᐳᒡᕕᖅᑲᖅᓱᓂ 400 ± 50 m.-ᑕᒫᑦ.

ᐃᓄᖕᓄᑦ ᑐᕌᖑᔪᑦ : ᓄᓇᓕᐊᓛᕐᒥᑦ ᐃᓚᐅᓂᐊᖅᑐᑦ ᓯᓂᒃᑕᕐᕖᑦ, ᐊᒻᒪ ᑎᑭᑦᑐᓄᑦ ᑐᕌᖅᑕᕐᕕᒃ ᐊᒻᒪ ᒥᐊᓂᖅᓯᓂᕐᑲᕐᕕᒃ, ᐃᒡᕕᒃ ᐊᒻᒪ ᓂᕆᕕᒃ, ᐋᓐᓄᕌᓂᒃ ᐃᕐᒥᒃᓴᕐᕕᒃ, ᕿᑎᒡᕕᒃ, ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᒡᓗᕐᔪᐊᖅ, ᐊᒻᒪ ᐋᓐᓂᖅᑐᕐᑲᖅᑐᓕᕆᕕᒃ.

ᒥᑦᑕᕐᕕᒃ : ᐊᑐᖅᑕᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᑲᖏᖅᖠᓂᕐᒥᑦ ᒥᑦᑕᕐᕕᒃ. ᒥᑦᑕᕐᕕᒃᑕᕐᑲᔾᔮᖏᑦᑐᖅ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒥᑦ.

ᑐᓚᒃᑕᕐᕕᒃ : ᑲᖏᖅᖠᓂᕐᒥᑦ, ᐃᑎᕙᐊ ᐊᑐᖅᑕᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᐅᓯᕐᑲᖅᑐᓄᑦ ᐅᒥᐊᕐᔪᐊᓄᑦ/ᓯᑲᐅᓄᑦ.

ᐅᔭᖅᑲᓂᒃ ᐱᓂᕐᑲᖅᑐᑦ : ᒨᓗᐃᑦ ᐊᑐᖅᑐᐊᖅᑕᐅᔪᓃᑐᑦ ᑲᓇᑕᒥᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᒪᓕᒐᖏᓐᓂᑦ ᐱᔭᐅᓚᐅᖅᑐᑦ NLCA-ᖃᓕᖅᖄᖅᑎᓐᓇᒍ. ᐱᓂᕐᑲᕐᓂᐅᔪᖅ 52,173 (ha)-ᓂᒃ ᐊᖏᓂᕐᑲᖅᑐᖅ ᓄᓇᒥᒃ ᐊᒻᒪ 80 ᑭᓛᑎᑕᓪᓗᐊᒥᒃ ᑕᑭᓂᕐᑲᖅᓱᓂ.

ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᑦ : ᐊᑐᖅᑕᐅᕐᑲᑦᑕᖅᑐᑐᕐᑲᒃᑯᑦ ᓄᓇᒥᒃ ᐅᒃᑯᐃᖕᒪᔪᒃᑯᑦ ᐊᒻᒪ ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᐊᖅᑐᑦ ᑎᓕᒐᓂᐊᒦᑐᓂᒃ ᐅᔭᖅᑲᓂᒃ. ᐅᔭᖅᑲᓂᒃ ᐱᕙᓪᓕᐊᓂᕐᒧᑦ ᓈᓴᐅᑏᑦ ᐊᖏᓛᒃᑯᑦ 3,000 ᑕᓐ-ᖑᓂᐊᑦ ᖃᐅᑕᒫᑦ (tpd) ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ ᐅᑭᐅᖅ 1 ᐅᑭᐅᖅ 3-ᒧᑦ, ᐊᒻᒪ 5,000 tpd-ᓂᒃ ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ ᐊᒻᒪ ᓄᓇᒥᑦ ᐅᒃᑯᐃᖕᒪᔪᒥᑦ ᐅᑭᐅᖅ 4 ᐅᑭᐅᖅ 8-ᒧᑦ. ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᖅ ᐊᒻᒪ ᓯᕐᑲᓪᓕᑎᕆᓂᖅ ᐃᑲᕐᕋᓄᑦ 24-ᓄᑦ ᐅᑉᓗᕐᒥᑦ, 365 ᐅᑉᓗᐃᑦ ᐅᑭᐅᑕᒫᑦ-ᖑᕐᑲᑦᑕᕐᓂᐊᖅᑐᑦ. ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᒪᔪᑦ ᐃᑰᑕᐃᓂᖅ ᖄᖅᑎᕆᓂᖅ, ᐊᒻᒪ ᓄᓇᒃᑰᕈᑎᒃᑯᑦ ᐳᐊᕆᑎᒃᑯᑦ ᐊᑐᕐᓗᓂ.

ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᖅ : ᑲᑎᓪᓗᒋᑦ 12.1 Mt ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᑦ ᑎᓕᒐᓂᐊᕐᒥᖖᒑᕐᓂᐊᖅᑐᑦ. ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᑦ ᓄᓇᒃᑰᕈᑎᒃᑯᑦ ᐊᔾᔭᖅᑕᐅᕐᑲᑦᑕᕐᓗᑎᒃ ᐱᓕᕆᐊᖑᕕᖕᓄᑦ, ᑐᖅᑯᖅᑕᐅᓯᒪᓚᐅᐱᓪᓚᒃᓗᑎᒃᓘᓃᑦ ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᑦ ᑲᑎᕐᒪᔪᓂᑦ.

ᐅᔭᕋᖕᓂᐊᕐᕖᑦ : ᐅᒃᑯᐃᖕᒪᔪᑦ ᓄᓇᒥᑦ ᐊᒻᒪ ᐃᓗᐊᓂᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᕐᑲᕐᓂᐊᖅᑐᑦ ᑎᓕᒐᓂᐊᕐᒥᑦ. ᓯᕐᑲᓪᓕᑎᕆᕕᐅᑉ ᐃᓂᖓ ᑲᓇᖕᓇᖕᒐᓃᓐᓂᐊᖅᑐᖅ ᑎᓕᒐᓂᐊᕐᒥᑦ ᒨᓗᕐᑲᖅᑐᒥᑦ. ᐱᓕᕆᐊᑉ ᑲᑎᓪᓗᒋᑦ ᐊᒃᑐᕐᓂᐊᖅᑕᖓ ᓄᓇ 453 ha-ᓗᐊᖅ.

ᐅᔭᕋᖕᓂᐊᕐᓂᐅᑉ ᐊᐅᓛᕐᓂᖓ : 8-ᓄᑦ ᐅᑭᐅᓄᑦ ᐊᐅᓛᕐᓂᐊᖅᑐᖅ ᐊᑐᖅᓱᒍ ᓇᓚᐅᑖᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ ᐱᕕᐅᔪᖕᓇᖅᑐᑦ ᑎᓕᒐᓂᐊᕐᒥᑦ.

ᐊᐅᓛᕐᓂᐅᓂᐊᖅᑐᖅ ᐅᔭᕋᖕᓂᐊᕐᕕᐅᑉ : Phase 1 ᑕᐅᑐᒐᕐᑲᖅᑐᖅ ᐱᕙᓪᓕᐊᑎᓐᓂᕐᒥᒃ ᑎᓕᒐᓂᐊᕐᒥᑦ ᒨᓗᑕᓕᒃ ᐊᑐᕐᓗᓂ ᐊᑐᖅᑕᐅᕙᒃᑐᑐᕐᑲᕐᒥᒃ ᓄᓇᒥᑦ ᐅᒃᑯᐃᖕᒪᔪᒃᑯᑦ ᐅᔭᕋᖕᓂᐊᖅᑐᓕᕆᓂᖅ ᐊᒻᒪ ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ. Phase 2 (F Zone, Pump, Wesmeg ᐊᒻᒪ Discovery) ᓇᓗᓇᐃᖅᑕᐅᓂᐊᖅᑐᖅ ᐊᒻᒪ ᐱᔪᖕᓇᖅᑎᑕᐅᓗᓂ Phase 1-ᖑᑎᓪᓗᒍ

ᒨᓗᕐᑲᖅᑐᑦ : ᑎᓯᐱᕆ 31, 2013-ᒥᑦ, ᓇᓗᓇᐃᖅᑕᐅᔪᑦ ᑕᐃᒪᐅᔪᑦ ᑎᓕᒐᓂᐊᕐᒥᑦ 2.8 ᒥᓕᔭᓐ ᐊᐅᓐᓯᔅ-ᖑᓚᐅᖅᑐᑦ ᒨᓗ.

ᓯᖅᑲᓪᓕᑎᓇᓂᖅ : ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᖅ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᖅ ᐊᑐᕐᓗᓂ ᒨᓗᓂᒃ ᓯᖅᑲᓪᓕᑎᓇᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᕙᒃᑐᒥᒃ. ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔫᑉ ᐊᖏᓂᖓ ᒥᒃᓵᕆᐊᖅᑕᐅᓂᐊᖅᑐᖅ ᐊᔾᔨᓕᕐᓗᒍ ᓯᐅᕋᖅᑎᑦᑐᑦ ᓯᖅᑲᓪᓕᑎᕐᓗᑎᑦ. ᐃᓚᖓ ᒨᓗ ᐱᔭᐅᓂᐊᖅᑐᖅ gravity circuit-ᒥᒃ ᐊᑐᕐᓗᓂ. ᐊᒥᐊᑰᔪᖅ ᒨᓗ ᐱᔭᐅᓂᐊᖅᑐᖅ ᐊᑐᕐᓗᓂ cyanidation-ᒥᒃ ᐊᒪᓗ carbon absorption-ᒥᒃ, elution, electrowinning-ᑕᐅᓕᕐᓗᑎᒃ, ᐊᒪᓗ ᐱᐅᓯᕆᐊᖅᑕᐅᓕᕐᓗᑎᒃ. ᖃᐅᒪᒃᑎᑦᑐᑦ cyanidation ᐱᔭᐅᓂᐊᖅᑐᖅ ᐊᑐᒃᑲᓐᓂᕐᓂᐊᕐᓗᒍ ᐅᑯᓘᓃᑦ ᐲᖅᑕᐅᓗᓂ ᐃᒪᓕᓇᐊᖑᔪᒥᑦ ᐊᒪᓗ ᐃᑎᑕᐅᓗᓂ ᐅᓗᓇᐊᓇᖅᑐᕐᑲᖅᑐᑎᑐᑦ ᐊᒃᑕᑯᓄᑦ. ᑭᖑᓪᓕᖅᐹᖅ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᖅ ᓯᖅᑲᓪᓕᑎᓇᕕᖕᒥᑦ ᐲᔭᐃᓂᖅ ᒨᓗᒥᒃ.

ᐱᓕᓇᔩᑦ : ᐱᓕᓇᖅᑲᑦᑕᖅᓂᐊᖅᑐᑦ ᐱᓕᓇᐊᒥᑦ ᓴᓇᔭᐅᑎᓪᓗᒍ 200-ᖑᓂᐊᖅᑐᑦ ᐅᑭᐅᓄᑦ ᑕᓪᓕᒪᓄᑦ. ᐱᓕᓇᖅᑲᑦᑕᖅᓂᐊᖅᑐᑦ 8 ᐅᑭᐅᓂᑦ ᐊᐅᓛᖅᑎᓪᓗᒍ 680-ᓪᓗᐊᖑᓂᐊᖅᑐᑦ, ᐊᖏᓛᒃᑯᑦ ᐅᑭᐅᖅ 4-ᒥᑦ 800 ᐅᖓᑎᐊᕐᔭᐊᓄᑦ ᐱᓕᓇᔨᖅᑲᕐᓗᑎᒃ.

ᐃᒪᖅᑐᕐᓂᖅ ᐃᓂᐅᔪᒥᑦ : ᑕᓯᕐᔪᐊᖅ, ᐅᐊᖕᓇᖅᐸᓯᖓᓂᑦ ᑲᓇᖕᓇᖅᐸᓯᖓᓂᑦ ᑐᙵᕕᐅᑉ.

ᖃᑉᓯᓂᒃ ᐃᒪᕐᒥᒃ ᐊᑐᓇᐊᕐᑲᕐᓂᖅ : 62,000-ᓗᐊᓂᒃ m^3/ᐅᑭᐅᖅ ᐃᒪᕐᒥᑦ ᐊᑐᓇᐊᕐᑲᕐᓂᐊᖅᑐᑦ ᓴᓇᔭᐅᑎᓪᓗᒍ, ᐊᒪᓗ 318,000-ᓗᐊᓂᒃ m^3/ᐅᑭᐅᖅ ᐃᒪᕐᒥᒃ ᐊᑐᓇᐊᕐᑲᕐᓂᐊᖅᑐᑦ ᐊᐅᓛᖅᑎᓪᓗᒍ.

ᐊᒃᑕᑰᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ : ᑲᑎᓪᓗᒋᑦ 31.8 Mt ᐊᒃᑕᑰᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ ᐊᒪᓗ 7.4 Mt ᐅᖓᑕᐅᑎᔪᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᕐᒥᙶᕐᓂᐊᖅᑐᑦ ᑎᓇᒐᓂᐊᕐᒥᑦ ᐅᒃᑯᐃᖓᔪᒥᑦ ᐊᒪᓗ ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ. ᐊᒃᑕᑰᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ ᐅᖓᑕᐅᑎᔪᓪᓗ ᓄᓇᒃᑰᕈᑎᒃᑯᑦ ᐊᔅᔭᖅᑕᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᑦ ᐊᑉᕐᑯᑎᒃᑯᑦ (WRSF). ᐊᓲᑦᑕᐅᖏᑦᑐᑦ ᐊᒪᓗ ᓴᕕᖕᓂᑦ ᑯᕕᓂᕐᑲᙱᑦᑐᑦ ᐅᔭᖅᑲᐃᑦ ᐊᒪᓗ ᐅᖓᑕᐅᑎᔪᑦ ᐊᑐᖅᑕᐅᕐᑲᑦᑕᕐᓂᐊᕐᒥᔪᑦ ᓴᓇᔭᐅᑎᓪᓗᒍ.

ᐃᒪᕐᔫᑎᒥᒃ ᑯᕕᔪᖅ ᐃᓂᐅᔪᒥᑦ : ᐃᒪᓕᓇᔾᔪᑎ ᑲᓇᖕᓇᖓᓄᑦ ᑕᓯᕐᔪᐊᕐᒧᐊᖅᑐᖅ ᑲᑎᖅᓯᐃᕕᖕᒥᑦ ᑕᓯᕋᔭᕐᒥᑦ 1. ᐃᒪᖅ ᑲᑎᖅᓯᐃᕕᖕᒥᙶᖅᑐᖅ ᑕᓯᕋᔭᒃ 1-ᒥᑦ ᑯᕕᔭᐅᓂᐊᖅᑐᖅ ᐃᒪᓕᓇᕕᒃᑯᑦ ᑕᓯᕐᔪᐊᕐᒧᑦ.

ᐅᔭᕋᖕᓂᐊᕐᕕᓕᐅᖅᑕᐅᔪᒪᔪᒥᑦ ᐱᖁᑎᒋᔭᐅᔪᑦ :

- ᐊᕙᓗᖃᖅᑐᖅ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒧᐊᓂᐊᕐᓗᓂ
- ᓄᓇᒥᑦ ᐅᒃᑯᐃᖕᒐᔪᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᖅ
- ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᖅ
- ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒧᐊᕐᕕᒃ
- ᓯᖃᓪᓕᑎᕈᑦ
- ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᓕᕆᕕᒃ (ᓯᖃᓪᓕᑎᕆᕕᒃ)
- emulsion-ᓕᕆᕕᒃ
- ᕿᒪᒃᑎᑦᑐᓄᑦ ᑐᖅᑯᖅᓯᓯᒪᕕᒃ
- ᐃᓗᑦᑐᖅᓯᒪᔪᑦ
- ᐅᔭᕋᖕᓂᐊᖅᑕᐅᔪᓂᒃ ᑐᖅᑯᖅᓯᓯᒪᕖᑦ
- ᐊᒃᑕᑯᐃᑦ
- ᐊᒃᑕᑰᖅᑕᐅᔪᓂᒃ ᐅᔭᖅᑲᓂᒃ ᑐᖅᑯᖅᓯᓯᒪᕖᑦ
- ᓄᓇᐅᑉ ᖄᖕᒐᓂᑦ ᐊᒪᓗ ᐃᓗᐊᓂᑦ ᐃᒪᓕᕆᕖᑦ
- ᐃᒪᖃᐅᓯᕖᑦ
- ᐃᓄᖕᓄᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᖅᑐᑦ ᐃᒡᓗᕐᔪᐊᑦ
- ᐊᒡᔭᖅᑐᐃᓂᕐᒧᑦ ᐊᑉᖁᑏᑦ
- ᐅᑭᐅᓗᒃᑖᖅ ᐊᑉᖁᑎ ᑲᖏᖅᖠᓂᕐᒥᑦ
- ᐱᓕᕆᐊᖑᖃᑦᑕᕐᓂᖅ ᐊᒪᓗ ᐃᓂᐅᔪᒥᑦ ᑐᖅᑯᖅᓯᓯᒪᕕᐅᓯᕖᑦ
- ᐆᒻᒪᖅᑯᑎᖃᕐᕕᒃ
- ᐅᖅᓯᐊᓘᓯᕕᒃ
- ᐃᑯᐊᓪᓚᒃᑎᕆᕕᒃ
- ᓄᓇ ᐃᓂᒋᔭᐅᔪᖅ

ᐱᖁᑏᑦ ᑲᖏᖅᖠᓂᕐᒥᑦ (ᐃᓚᒋᔭᐅᔪᖅ A, ᐊᔾᔨ 1.2):

- ᐅᖅᓯᐊᓘᓯᕕᒃ
- ᓄᖅᑲᖓᕕᒃ ᐊᒪᓗ ᐱᖁᑎᓄᑦ ᑐᖅᑯᖅᓯᓯᒪᕕᒃ
- ᓯᑲᐅᓄᑦ ᐊᑐᖅᑕᐅᔪᑦ
- ᐊᑉᖁᑎ

ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒧᑦ ᐸᕐᓇᐅᑎ ᖃᖓᒃᑰᖃᑦᑕᕐᓂᖅ

ᐅᔭᕋᖕᓂᐊᕐᕕᓕᐅᖅᐸᓪᓕᐊᓂᖅ ᐱᒋᐊᕐᓂᐊᖅᑐᖅ ᓯᑕᒪᐅᓕᖕᒐᓗᒍ : ᐱᕙᓪᓕᐊᓂᐊᓵᖅᑎᓪᓗᒍ, ᓴᓇᔭᐅᓂᖓ, ᐊᐅᓛᕐᓂᖓ, ᐊᒪᓗ ᐅᒃᑯᐊᕐᓂᖓ, ᐃᓚᖅᑲᒃᑲᓐᓂᕐᓗᓂ ᖃᐅᔨᒋᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᐊᒪᓗ ᐊᖏᓗᐊᖏᒋᐊᖅᑎᑦᑎᓂᖅ ᑲᔪᓯᓂᖃᕐᓗᓂ ᐅᒃᑯᐊᖅᑕᐅᓯᒪᓕᖅᑎᓪᓗᒍ.

ᐱᕙᓪᓕᐊᓂᐊᓵᖅᑎᓪᓗᒍ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᖅ ᓴᓇᔭᐅᓂᐅᔪᑦ ᐊᔾᔨᒋᑉᓗᒍ ᓇᓗᓇᐃᖅᑕᐃᓯᒪᓂᖏᑦ ᐊᑖᓂ ᑭᓯᐊᓂ ᐱᔾᔪᑎᖃᖅᖢᓂ ᖃᓄᐃᓕᐅᕐᓂᐅᔭᓄᐊᖃᖅᑎᑕᐅᔪᑦ ᒪᓕᒃᖢᒋᑦ ᒪᓕᒐᖏᓐᓂᑦ NLCA ᑎᑎᖅᑲᖅ 13, ᐃᓚᒋᔭᐅᔪᖅ 13.5.5-ᒥᑦ ᐅᕙᓘᓃᑦ NWNSRTA-ᒥᑦ. ᑕᒪᓐᓇ ᐱᒋᐊᕐᓂᐊᖅᑐᖅ

ᐱᓕᕆᐊᒧᑦ ᓇᓄᓇᐃᑯᑕᖅ ᐱᔭᐅᕋᓂᒃᐸᑦ NIRB-ᑯᓐᓂᑦ, (ᓄᑖᖅ ᐅᕙᓅᓃᑦ ᐋᕐᑭᒋᐊᖅᑕᐅᔪᖅ) Type B ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯ NWB-ᑯᓐᓂᑦ, ᐊᒪᓗ ᓄᓇᒥᒃ ᐊᑐᕈᓐᓇᕐᓂᕐᒧᑦ ᐳᒥᑦ ᑭᕙᓪᓕᖅ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᒌᑯᓐᓂᑦ.

ᓴᓇᔭᐅᓂᖓ ᓇᓄᓇᐃᖅᑕᐅᓯᒪᔪᖅ ᖃᓄᐃᓕᐅᕐᓂᕆᔭᐅᕐᑲᑦᑕᖅᑐᑎᑐᑦ ᐱᔾᔪᑎᖃᖅᓗᑎᒃ ᓴᖅᑭᑦᑎᓂᕐᒧᑦ ᐅᕙᓅᓃᑦ ᓴᓇᕙᓪᓕᐊᓂᕐᒨᖓᔪᓂᑦ, ᐱᕐᑯᑎᓂᒃ, ᐊᒪᓗ ᐃᓪᓗᕐᔪᐊᓂᒃ ᐱᔭᕆᐊᖃᖅᑐᓂᒃ ᐱᕙᓪᓕᐊᑎᓐᓂᕐᒧᑦ ᐅᔭᕋᓐᓂᐊᕐᕕᒃ. ᐅᔭᕋᓐᓂᐊᕐᕕᓗᒃᑖᖅ ᓴᓇᔭᐅᓂᖓ ᐱᕆᐊᕐᓂᐊᖅᑐᖅ ᐱᔭᐅᕋᓂᒃᐸᑦ Type A ᐃᒪᕐᒧᑦ ᓚᐅᓴᓐᓯ NWB-ᑯᓐᓂᑦ ᐊᒪᓗ ᓄᓇᒥᒃ ᐊᑐᕈᓐᓇᕐᓂᕐᒧᑦ ᐳᒥᑦ ᑭᕙᓪᓕᖅ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᒌᑯᓐᓂᑦ. ᓴᓇᔭᐅᓂᖓ ᐅᑭᐅᓄᑦ ᓯᑕᒪᑦ ᐅᖓᑎᐊᕐᔪᐊᓅᓂᐊᖅᑐᖅ ᐊᑯᓐᓂᖏᓐᓂᑦ ᐅᑭᐅᖅ -5 ᐊᒪᓗ ᐅᑭᐅᖅ -1.

ᐊᐅᓛᕐᓂᖓ ᓇᓄᓇᐃᖅᑕᐅᓯᒪᔪᖅ ᐱᕙᓪᓕᐊᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᖅ ᐊᐅᓛᓕᖅᐸᒥᑦ ᐊᒪᓗ ᐱᕙᓪᓕᐊᓂᕐᑲᓕᖅᐸᑦ (ᓱᕐᓗ ᒨᓗ). ᐅᔭᕋᓐᓂᐊᕐᕕᒃ ᐱᕆᐊᖅᐸᓪᓕᐊᑎᓪᓗᒍ, ᐃᓚᐅᓂᐊᖅᑐᖅ ᐱᖓᓯᐃᑦ ᑕᖅᑮᑦ ᐊᑐᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑕᐅᔪᖅ ᐅᒃᑑᐱᕆᒥᑦ ᑎᓯᐱᕆᒧᑦ (ᓱᕐᓗ Q4) ᐅᑭᐅᖅ -1-ᒥᑦ.

ᐅᒃᑯᐊᕐᓂᖓ (ᕿᒪᐃᓂᖅ, ᐅᑎᖅᑎᑎᕆᓂᖅ, ᐊᒪᓗ ᐅᒃᑯᐊᕐᓂᖅ) **ᐊᒪᓗ ᐅᒃᑯᐊᖅᓯᒪᓕᖅᑎᓪᓗᒍ** ᓇᓄᓇᐃᖅᑕᐅᔪᖅ ᐊᐅᓛᖅᑎᐅᑉᓗᓂ ᓄᖅᑲᓂᖅ ᐊᐅᓛᕐᓂᐅᔪᓂᒃ ᐃᒡᓗᕐᔪᐊᕐᒧᑦ ᐱᕆᐊᑲᓐᓂᕐᓂᕐᑲᔾᔭᖕᒋᕗᓂ ᐅᔭᕋᓐᓂᐊᖅᑐᓕᕆᓂᕐᒥᒃ. ᓂᕆᐅᓇᕐᓂᐅᔪᖅ ᐃᓂᐅᔪᖅ ᐅᑎᖅᑎᑕᐅᓂᐊᕐᒪᑦ ᐊᒪᓗ ᐅᒃᑯᐊᖅᓯᒪᓕᖅᑎᓪᓗᒍᒥᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖅ ᑲᔪᓯᓂᐊᖅᑐᖅ ᑭᓯᐊᓂ ᑕᒃᓴᐅᑎᑦᑎᓕᖅᐸᑕ ᐅᔭᕋᓐᓂᐊᕐᕕᐅᑉ ᐃᓂᖓ ᐅᓗᕆᐊᓇᖅᑐᖃᙱᓪᓕᕐᒪᑦ ᐊᒪᓗ ᓄᓇ ᖃᓄᐃᖏᓪᓕᕐᒪᑦ.

ᐊᕙᑎᐅᑉ ᐋᕐᕿᐅᒪᓂᖓ

ᐱᓕᕆᐊᖅ ᑭᕙᓪᓕᕐᒦᑐᖅ ᓄᓇᕗᒻᒥᑦ. ᑕᒪᓗᒃᑖᖅᑲᔭᖅ ᑭᕙᓪᓕᖅ ᐃᓚᒋᔭᐅᔪᖅ ᓂᒋᖅᐸᓯᐊᓂᑦ ᐅᑭᐅᖅᑕᖅᑑᑦ Ecozone-ᖓᓂᑦ (ᐆᒪᕐᑲᑎᒌᒃᑐᓂᑦ ᐱᓕᕆᐊᓖᑦ 1996). ᑖᓐᓇ ecozone ᐊᖏᔫᔪᖅ ᐱᕈᖅᑐᖅᑲᖅᑐᒥᒃ ᐊᑯᓐᓂᖏᓐᓂᑦ ᓂᒋᐊᓄᑦ ᑕᐃᕙ ᓇᐹᖅᑐᓖᑦ ᐊᒪᓗ ᓇᐹᖅᑐᖅᑲᙱᑦᑐᒧᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ ᐅᐊᖕᓇᖓᓄᑦ. ᓇᐃᑐᓂᒃ ᐱᕈᖅᑐᑦ, ᐊᑯᑉᓕᕌᒃᓗᑎᒃ ᐋᔾᔨᒌᖏᑦᑐᓂᒃ ᓄᓇᕋᐃᑦ. ᖃᐅᓯᖅᑐᖅᑕᓕᒃ ᑕᐃᒪᐅᕙᔾᔮᒃᑐᑦ ᐊᑦᑎᖕᓂᕐᓂᑦ ᐊᒪᓗ ᐃᑲᔪᐃᓂᖅᑲᓗᐊᖅᑐᑦ ᐃᕚᑦ-ᑎᖓᔭᓂᒃ ᐱᕈᖅᑐᓂᒃ. ᐱᕈᖅᑐᐃᑦ ᐱᒻᒪᕆᐅᔪᑦ ᓂᕿᖁᔭᐅᓂᖏᓐᓄᑦ (NPC 2000). ᑕᒪᓗᒃᑖᖅᑲᔭᖅ ᑎᖓᐅᔭᐃᑦ, ᐃᕚᑦ, ᐊᒪᓗ fruticose lichens, ᐊᓱᖏᓪᓗ ᐊᒥᓱᐃᑦ ᓄᓇᕋᐃᑦ ᐊᒪᓗ ᕿᔪᐊᕐᔪᖅᑲᓇᐊᔭᒃᑐᑦ ᐱᕈᖅᑐᐃᑦ, ᓂᕿᖁᔭᐅᖃᑦᑕᖅᑐᑦ ᓂᕐᔪᑎᓄᑦ. ᖁᐸᓄᐊᑦ ᐊᒪᓗ ᐊᕕᙵᕋᓗᐃᑦ, ᒥᖅᑯᓕᖕᓄᑦ ᓂᕿᖁᔭᐅᓕᖅᐸᒃᓗᑎᒃ, ᓂᕆᖃᑦᑕᖅᑐᑦ ᐱᕈᖅᑐᐃᑦ ᓴᐅᓂᖏᓐᓂᑦ, winter buds-ᓂᒃ ᐊᒪᓗ ᓄᓇᐅᑉ ᐃᓗᐊᓃᑦᑐᑦ ᐱᕈᖅᑐᓂᒃ.

ᓯᓚ ᐱᓕᕆᐊᒥᑦ ᐅᐊᑲᓪᓚᖕᓛᖑᔪᖅ ᐅᑭᐅᖅ ᑕᑭᔫᑉᓗᓂ ᐃᒃᑮᓇᖅᓗᓂ ᐊᒪᓗ ᓇᐃᑐᒥᒃ ᓂᒡᓚᔅᑐᒥᒃ ᐊᐅᔭᕐᑲᖅᓗᓂ. ᐆᓇᕐᓃᑦ ᓂᒡᓚᔅᑐᑦ, 12°C ᔪᓚᐃᑦ -31°C ᔭᓄᐊᕆᒥᑦ. ᑕᒪᓐᓇ ᖃᐅᔨᒪᔭᐅᖑᒥᔪᖅ

ᐊᓄᓇᑐᔪᐊᓘᖃᑦᑕᕐᓂᖓᓂᒃ, ᐱᔾᔪᑕᐅᓗᐊᕐᒃᑐᖅ ᒪᓂᕋᐅᓂᖅ ᐊᖏᓂᖓᓄᑦ, ᐊᒃᑐᖅᑕᐅᓯᒪᙱᑦᑐᑦ ᐊᓁᖓᓗᒃ ᐊᓄᓇᒧᑦ ᐱᔭᐅᖃᑦᑕᕐᒃᑐᖅ (NPC 2000).

ᓄᓇᐅᑉ ᖃᓄᐃᖓᓂᖓ ᑕᒫᓂ ᓱᑰᕙᓚᐅᖅᓯᒪᓂᖓᓂᑦ ᑕᐃᒪᓐᓇᐃᖓᔪᖅ. ᖁᑦᑎᖓᓃᑦ ᐊᒪᓗ ᐊᑦᑎᖓᓃᑦ. ᐊᐅᓪᕕᐅᓂᖁ ᓱᑰᕙᓚᐅᖅᑐᓂᑦ, ᑕᑭᔪᓂᒃ ᓯᐅᕋᐅᕈᔪᒃᑐᓂᒃ ᒪᓂᕋᐅᔪᒥᒃ ᓄᓇᐅᔪᖅ. ᑕᐃᒪᓐᓇᐃᖓᔪᖅ ᓄᓇ ᐊᒥᓱᓂᒃ ᑕᓯᖅᑕᖃᐅᖅᑐᖅ, ᑕᓯᕋᔭᐃᑦ ᐊᒪᓗ ᓄᓇ ᖃᐅᓯᕈᔫᒃᑐᒥᒃ. ᐃᑉᔪᐃᑦ Crysols-ᖑᓗᐊᖅᑐᑦ, ᐊᒪᓗ ᐊᑖᓂᑦ ᖁᐊᖑᐃᓐᓇᐅᔭᖅᑐᖅᑕᖃᐅᖅᓱᓂ ᖄᖃᖅᓱᑎᒃ ᖃᐅᓯᕈᔪᐃᓐᓇᖅᑐᒥᒃ ᐊᐅᔭᐅᑎᓪᓗᒍ.

ᑕᒪᓐᓇ ᐊᐅᔭᒃᑯᑦ ᑐᒃᑐᑕᖃᖃᑦᑕᖅᑐᖅ ᐊᒪᓗ ᓄᕐᓇᐅᖃᑦᑕᖅᓱᑎᒃ ᑲᓇᑕᒥᑦ ᐊᖏᑖᓇᔭᐅᔪᓄᑦ ᐊᒥᕋᐅᔪᓄᑦ. ᐱᓗᐊᖅᑐᒥᒃ ᖃᒪᓂᕐᔪᐊᖅ ᐊᒥᕋᐃᑦ, ᑖᑉᑯᐊ ᓂᕿᑭᔭᐅᓗᐊᖅᑲᑦᑕᖅᑐᑦ ᑕᒫᓂᕐᒥᐅᓄᑦ ᐃᓄᖕᓄᑦ. ᑕᒪᓐᓇ ecozone ᐅᑉᓗᖃᖅᕕᐅᑦᑎᐊᖅᑲᑦᑕᕐᒥᔪᖅ ᑎᖕᒥᐊᓄᑦ. ᑕᓯᕐᔪᐊᖅ ᐊᔾᔩᖏᑦᑐᓂᒃ ᐃᖃᓗᒃᑕᖃᐅᖅᑐᖅ ᓂᓇᔭᐅᖃᑦᑕᖅᑐᓂᒃ ᓄᓇᓕᖕᒥᐅᓄᑦ, ᐃᓚᐅᑉᓗᑎᒃ ᐃᖃᓗᒃᐱᒃ, ᔪᓗᒃᐸᐅᒐᐃᑦ, ᐊᒪᓗ ᐃᕘᕋᐃᑦ.

ᑭᕙᓪᓚᖅ ᐊᑉᓯᒪᐅᔾᔪᑎᔪᓂᒃ ᐃᓅᒃᑕᐅᓯᒪᔪᖅ. ᐃᓚᒋᔭᐅᔪᖅ ᐃᓄᖕᓄᑦ ᐊᖏᕐᕋᖅᕕᐅᑉᓗᓂ ᐊᒪᓗ 80%-ᓗᐊᓂᒃ ᐃᓄᖃᖅᓱᓂ (ᐆᒪᖃᑎᒌᒃᑐᓂᑦ ᐱᓕᕆᐊᓖᑦ 1996). ᐱᕈᖅᐸᓪᓕᐊᓂᒋᓗᐊᖅᑕᖓᓐᓄᑦ ᐱᔾᔪᑎᖃᖅᑐᖅ ᒪᖃᐃᓂᒃᑯᑦ, ᑮᔭᖃᑎᐊᖃᑦᑕᕐᓂᒃᑯᑦ, ᐊᒪᓗ ᐃᖃᓗᒃᓯᐅᖃᑦᑕᕐᓂᒃᑯᑦ. ᐅᔭᖅᑲᓂᒃ ᕿᓂᖅᓴᐃᓂᖅ ᐅᔭᕋᓐᓂᐊᖅᑐᓕᓇᓐᓂᓪᓗ, ᐊᒪᓗ ᓴᓇᔭᐅᕙᓪᓕᐊᔪᓂᒃ, ᐃᓚᖏᑦ ᐃᖏᕐᕋᔪᓕᓇᓂᖅ, ᐊᒪᓗ ᒐᕙᒪᒃᑯᑦ ᐱᓷᑎᕋᐃᓂᖏᑦ ᖃᓄᐃᓕᐅᕐᓂᐅᖃᑕᐅᓗᐊᖅᑐᑦ.

ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ

ᐊᕙᑎᒥᒃ ᖃᐅᔨᓴᐃᓂᐅᑎᓪᓗᒍ, ᐊᓪᓃᑯᒃᑯᑦ ᐃᓯᒪᓕᐅᓚᐅᖅᑐᑦ ᐃᓚᐅᖃᑕᐅᑎᓐᓂᐊᕐᓂᖏᓐᓄᑦ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ (IQ) ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᖏᓐᓂᑦ ᐱᓕᕆᐊᖅ ᓯᕗᓪᓕᒃᑎᓐᓂᐊᕐᓂᕐᒧᑦ. ᐱᓕᕆᐊᖅ ᓯᕗᓪᓕᒃᐸᑦ ᐱᔪᖕᓇᖅᑎᑕᐅᓂᒃᑯᑦ, ᐊᒪᓗ ᓈᓪᒪᑭᔭᐅᒃᐸᑦ, ᓴᓇᔭᐅᕙᓪᓕᐊᓕᕐᓗᓂ, ᐊᐅᓚᓪᓕᕐᓗᓂᒧᑦ, ᐊᒪᓗ ᐅᒃᑯᐊᓕᕐᓗᓂᒧᑦ, ᐊᓪᓃᑯᒃᑯᑦ ᑲᔪᓯᓂᖃᕐᓂᐊᖅᑐᑦ ᐃᓚᐅᖃᑕᐅᑎᑦᑎᓂᕐᒥᒃ ᓄᓇᓕᖕᒥᐅᓂᒃ ᐊᒪᓗ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᒃ. ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᓐᓂᑦ ᐱᒃᑲᓐᓂᕐᓗᑎᒃ ᒪᓂᒪᓕᕚᖓᑕ, ᐃᓚᐅᓂᐊᖅᑐᑦ ᐅᑉᓗᒥᒨᓕᖓᓕᖅᑐᐃᓂᕐᓂᑦ ᖃᓄᐃᖓᓂᓇᔭᖏᓐᓄᑦ ᐊᒪᓗ ᐊᑐᓕᖅᑎᑦᑎᓂᕐᒥᒃ ᐱᓕᕆᐊᑉ ᐊᕙᑎᒧᑦ ᑐᕌᖓᔪᕐᑯᑎᖏᓐᓄᑦ. ᐋᕿᒃᓯᓂᖃᕐᓂᐊᖅᑐᑦ ᐃᓕᓐᓂᐊᖅᓯᒪᓂᒃᑯᑦ ᐊᒪᓗ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦᑎᒍᑦ ᖃᐅᔨᑦᐊᑲᓐᓂᖃᑦᑕᕐᓂᕐᒥᒃ ᑎᑭᐅᑎᔪᒥᒃ ᓂᓇᐅᑦᔭᐅᔪᓄᑦ ᓄᓇᓕᖕᒥᐅᓂᑦ, ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᑦ, ᐊᒪᓗ ᒐᕙᒪᒃᑯᓐᓂᑦ. ᓇᐃᓈᖅᓯᒪᔪᖅ ᖃᓄᖅ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ ᐊᑐᖅᑕᐅᓚᐅᕐᒪᖔᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᒪᓗ ᖃᐅᔨᓯᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᑦ ᐃᓚᐅᔪᖅ ᐸᕐᓇᐅᑎᓂᑦ ᑐᓂᐅᑕᐅᓚᐅᖅᑐᓂᑦ ᐃᓚᒋᔭᐅᑉᓗᓂ ᑐᒃᓯᕋᐅᑎᒧᑦ.

ᐃᑲᔪᐃᓃᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᒃ

ᐃᑲᔪᐃᔪᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᒪᓗ ᖃᐅᔨᓯᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᒃ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ ᑐᒃᓯᕋᐅᓯᐅᕐᓂᕐᒧᑦ :

- ᐸᕐᓇᐅᑎ
- ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᖅ ᐊᒻᒪ ᒥᐊᓂᖅᓯᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐅᔾᕿᓐᓂᐊᖅᑕᐅᔪᑦ ᑐᖅᑯᖅᑕᐅᓯᒪᓂᖏᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐅᔾᕿᓐᓂᐊᖅᑕᐅᔪᑦ ᐊᒃᑕᑰᖅᑕᐅᓂᖏᓐᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐊᑉᕐᑯᓯᕆᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᓄᓇᒥᑦ ᐃᓗᑦᑐᖅᑎᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎ
- ᐊᒃᑕᑯᓂᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᖃᓄᐃᓐᓂᖓᓄᑦ ᓇᓗᓇᐃᖅᓯᓂᖅ/ᖃᓄᐃᓐᓂᖓᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ
- ᐃᑯᐊᓪᓚᒃᑎᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐅᓗᕆᐊᓇᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᖄᖅᑕᖅᑐᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐅᓗᕆᐊᓇᖅᑑᓐᓂᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᖅ ᐊᒻᒪ ᑐᐊᕕᓇᖅᑐᓄᑦ ᐅᐸᓗᐊᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᑯᕕᔾᖃᖅᐸᒧᑦ ᓂᕆᐅᓇᙱᑦᑐᓄᑦ ᐸᕐᓇᐅᑎ
- ᓯᕗᓪᓕᖅᐹᒥᒃ ᐅᒃᑯᐊᕐᓂᕐᒧᑦ ᐊᒻᒪ ᐅᑎᖅᑎᑎᕆᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐃᒪᕐᓂᑦ ᖃᓄᐃᙶᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᒋᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᑐᕚᖓᔪᖅ (AEMP) ᖃᓄᐃᙶᓂᙶᓄᑦ ᐸᕐᓇᐅᑎ
- ᓄᓇᐅᑉ ᐃᓂᒋᔮᙶᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ
- ᐃᓄᖕᓂᒃ ᐃᓚᐅᕐᑲᑕᐅᑎᑦᑎᓂᖅ ᐊᒻᒪ ᐅᕐᑲᕐᑲᑎᕐᑲᑦᑕᐅᑎᓂᕐᒧᑦ ᑭᓪᓕᐅᔪᓂᒃ ᐅᓂᑉᑳᖅ

ᐊᒻᒪ, ᐃᑲᔪᐃᔪᑦ ᐃᓚᒌᔭᐅᔪᑦ ᑎᑎᖅᑲᐃᑦ ᐃᓚᐅᔪᑦ ᑖᑉᑯᓇᓂ ᐊᒥᓲᔪᓂᑦ ᐸᕐᓇᐅᑎᓂᑦ. ᐆᒃᑑᑎᒋᓗᒍ, ᐃᒪᕐᒧᑦ ᐊᐅᓚᑦᑎᓂᕐᒥᒃ ᐸᕐᓇᐅᑎᒥᑦ ᐃᓚᐅᔪᑦ ᑎᑎᖅᑲᐃᑦ ᐃᒪᓕᕆᓂᕐᒧᑦ ᖃᓄᐃᙶᓂᐅᔪᖅ, ᐃᓂᐅᔪᒥᑦ ᐃᒪᐅᑉ ᖃᓄᐃᓐᓂᕆᔾᔪᙶ, ᐊᒻᒪ ᕐᑯᕐᕕᖕᒥᙯᖅᑐᒐᓚᐃᑦ ᖃᓄᐃᓐᓂᖏᑦ. ᐊᑉᕐᑯᑎᓂᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᒥᑦ ᐃᓚᐅᔪᖅ ᑎᑎᖅᑲᖅ ᐳᔪᕐᑲᑖᓕᕆᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ. ᓇᐃᓈᖅᓯᒪᔪᖅ ᐸᕐᓇᐅᑏᑦ ᐃᓚᐅᔪᑦ ᐊᑖᓂ.

ᐅᔾᕿᓐᓂᐊᕐᕕᖕᒥᑦ ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᖅ

ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᑐᕌᒐᕆᔭᐅᔪᑦ ᐱᓕᕆᐊᒧᑦ ᒥᒃᓵᒋᐊᖅᑎᓐᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᐅᑐᐃᓐᓇᕆᐊᖅᑐᑦ ᖃᓄᑎᒋᐅᓂᖏᓐᓄᑦ ᐊᒻᒪ ᖃᓄᐃᓐᓂᖏᓐᓄᑦ ᐃᒪᐅᑉ ᐅᔾᕿᓐᓂᐊᕐᕕᐅᑉ ᐃᓂᖓᓂᑦ. ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᖃᓄᐃᙶᓃᑦ (ᐃᒪᕐᒥᒃ ᑯᕕᑦᑕᐃᓕᔾᔪᑏᑦ ᐊᒻᒪ ᓴᙳᑎᑦᑎᓂᕐᒧᑦ ᓱᑉᐳᐃᑦ) ᓴᓇᔭᐅᓂᐊᖅᑐᑦ ᐱᔭᕆᐊᕐᑲᕐᓂᑎᒃ ᒪᓕᒡᓗᒋᑦ ᓄᖅᑲᙶᑎᑦᑎᓂᕐᒧᑦ ᐊᒻᒪ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐃᒪᖅ ᐱᔭᐅᔪᖅ ᐊᒃᑐᖅᑕᐅᔪᓂᑦ ᐅᔭᕆᐊᖕᓂᐊᕐᕕᖕᒥᑦ ᐅᔾᕿᓐᓂᐊᖅᑐᓕᕆᓂᕐᒥᓪᓗ. ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑐᓗᐊᖅᑐᖅ ᐃᓚᐅᔪᑦ ᐅᑯᐊ :

- ᐊᕐᕕᓂᓖᑦ ᐃᒪᕐᒥᒃ ᑲᑎᖅᓱᐃᓂᕐᒧᑦ ᑕᓯᕐᔭᐃᑦ;
- ᑖᓕᒪᐃᑦ ᐃᒪᕐᒥᒃ ᓄᖅᑲᙶᑎᑦᑎᔾᔪᑏᑦ;

- ᐱᖓᓱᑦ ᐃᒪᕐᒥᒃ ᓴᖑᑎᑦᑎᔾᔪᑏᑦ;
- 8 ᐃᒪᕐᒥᒃ ᓴᖑᑎᑦᑎᔪᑦ ᓱᐸᓗᐃᑦ;
- ᐃᒪᓕᓇᕕᒃ (WTP); ᐊᒪᓗ
- ᔪᓇᐳ ᐊᑖᓃᑐᖅ ᑲᑎᓯᒪᔪᓂᒃ ᓯᑎᔪᓂᒃ ᐲᔭᐃᕕᒃ (TSS).

ᐅᔭᕋᓂᐊᕐᕕᒃ ᓴᓇᔭᐅᑎᓪᓗᒍ ᐊᒪᓗ ᐊᐅᓛᖅᑎᓪᓗᒍ, ᐃᒪᖅ ᐊᒃᑐᖅᑕᐅᓂᑯ ᖄᒥᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᓂᖅᑲᖅᑐᓃᕖᖅᑐᖅ ᔪᖅᑲᖅᑎᑕᐅᓂᐊᖅᑐᖅ, ᓴᖑᑎᑕᐅᓗᓂ, ᐊᒪᓗ ᑲᑎᑕᐅᓗᓂ ᐊᔾᔨᕖᖏᑦᑐᓂᑦ ᑲᑎᖅᓱᐃᕕᖕᓂᑦ ᑕᓱᕋᔭᖕᓂᑦ. ᐃᒪᐃᑦ ᑲᑎᑕᐅᔪᑦ ᐅᔭᕋᓂᐊᕐᕕᖕᒥᑦ ᑯᕕᑎᑕᐅᓕᕋᑦᑕᕐᓂᐊᖅᑐᑦ ᑐᖅᑯᖅᑕᐅᓗᑎᒡᓗ ᑲᑎᖅᓱᐃᕕᖕᒧᑦ ᑕᓱᕋᔭᖕᒧᑦ (CPQ), ᐊᒃᑐᖅᑕᐅᔪᖅ ᐃᒪᖅ ᐱᓕᓇᐊᖑᓂᐊᖅᓗᓂ WTP-ᒥᑦ, ᐱᔭᓇᐊᕐᑲᖅᐸᑦ, ᑯᕕᑎᑕᐅᓂᐊᓵᖅᑎᓪᓗᒍ ᑕᓯᕐᔪᐊᕐᒧᑦ ᐃᒪᓕᓇᔾᔪᑎᒃᑯᑦ, ᐅᕙᓘᓃᑦ ᐊᑐᖅᑕᐅᓗᓂ ᐃᒪᓕᓇᕕᖕᒥᙵᕌᓂᒃᐸᑦ. 0.73 ᒥᓕᔭᓐ-ᓗᐊᑦ m³ ᐃᒪᖅ ᑯᕕᔭᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᐊᕐᕋᒍᑕᕖᑦ ᐃᒪᓕᓇᔾᔪᑎᒃᑯᑦ.

ᐊᒃᑐᖅᑕᐅᔪᖅ ᐃᒪᖅ ᔪᓇᐳ ᐊᑖᓂ ᐅᔭᕋᓂᐊᕐᕕᖕᒥᑦ ᑲᑎᑕᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᐱᓕᓇᐊᖑᓗᓂᓗ ᔪᓇᐳ ᐊᑖᓂᑦ TSS ᐲᔭᐃᕕᖕᒥᑦ. ᐃᓚᖓ ᐱᓕᓇᐊᖑᔪᖅ ᐃᒪᖅ ᔪᓇᐳ ᐊᑖᓂᑦ ᐊᑐᖅᑕᐅᑲᓐᓂᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᔪᓇᐳ ᐊᑖᓂ ᐊᐅᓛᕐᓂᕐᒧᑦ, ᐊᒪᓗ ᐊᒥᐊᑯᖓ ᑯᕕᑎᑕᐅᓗᓂ ᖃᖓᔪᓐ ᑐᖅᑯᖅᑕᐅᓗᓂᓗ. ᔪᓇᒦᑐᓂᒃ ᐃᒪᕐᓂᒃ ᖃᐅᔨᓴᐃᓂᖅᑕᕐᑲᕐᓂᐊᖅᑐᖅ ᐱᕚᓕᐊᓂᐊᓵᖅᑎᓪᓗᒍ ᐊᒪᓗ ᓴᓇᔭᐅᑎᓪᓗᒍ ᓇᓗᓇᐃᖅᓯᓂᕐᒧᑦ ᖃᔪᑎᒋᑦ ᔪᓇᒦᑐᖅ ᐃᒪᖅ ᑐᖅᑯᖅᑕᐅᔭᓇᐊᕐᑲᕐᓂᐊᕐᒪᖔᑦ ᐊᒪᓗ ᖃᐅᔨᓗᓂ ᕿᖑᓪᓕᖅᐹᒃᑯᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑐᕈᓐᓇᖅᑐᒥᒃ ᔪᓇᒦᑐᒥᒃ ᐃᒪᒃᑲᓐᓂᐅᔪᓂᒃ.

ᐃᒪᕐᒥᒃ ᐊᑐᓗᐊᕐᓂᖅ ᐃᓂᐅᔪᒥᑦ ᐃᒥᖅᑕᐅᓂᖓ, ᐳᔪᕐᑳᓕᓇᓂᖅ, ᐃᓚᖓ ᓯᕐᑲᓪᓕᑎᓇᕕᖕᒧᑦ, ᐊᒪᓗ ᐊᓯᖏᑦ ᐊᐅᓛᕐᓂᕐᒧᑦ ᐱᔭᓇᐊᓕᖓᓄᑦ, ᓲᕐᓗ ᐃᑯᑕᐃᓂᕐᒧᑦ ᒪᓂᒪᔪᕐᑲᙱᑉᐸᑦ CP1-ᒥᑦ, ᐊᒪᓗ ᐃᒪᖅ ᔪᓇᒃᑰᕈᑕᐅᓯᕕᖕᒥᑦ. ᐃᒪᖅ ᐱᔭᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᑕᓯᕐᔪᐊᕐᒥᑦ ᑯᕕᖅᑕᐃᔾᔪᑎᒃᑯᑦ.

ᐊᔪᕐᓇᙱᑦᑕᕌᖓᑦ, ᐃᒪᖅ WTP-ᒥᙵᖅᑐᖅ ᐃᒪᓇᔭᐅᓗᐊᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᓯᕐᑲᓪᓕᑎᓇᓂᕐᒧᑦ. ᐃᒪᕐᑲᒃᑲᓐᓂᓇᐊᕐᑲᕐᓂᐅᔪᑦ ᑕᓯᕐᔪᐊᕐᒥᙵᕐᓂᐊᖅᑐᑦ. 460-ᓗᐊᑦ m³/ᐅᓪᓗᑕᒫᑦ ᐱᓕᓇᐊᖑᔪᖅ ᐃᒪᖅ ᐊᑐᖅᑕᐅᔭᓇᐊᕐᑲᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᐅᑭᐅᖅ 1-ᒥᑦ ᐅᑭᐅᖅ 3-ᒧᑦ ᐊᐅᓛᖅᑎᓪᓗᒍᒥᑦ, ᐊᒪᓗ 770-ᓗᐊᑦ m³/ᐅᓪᓗᑕᒫᑦ ᐱᓕᓇᐊᖑᔪᖅ ᐃᒪᖅ ᐊᑐᖅᑕᐅᔭᓇᐊᕐᑲᕐᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᐅᑭᐅᖅ 4-ᒥᑦ ᐅᑭᐅᖅ 8-ᒧᑦ.

ᐊᒃᑕᑯᓂᒃ ᐅᔭᕋᓂᐊᕐᕕᖕᒥᙵᖅᑐᓂᒃ ᐊᐅᓚᑦᑎᓂᖅ

ᐅᔭᖅᑲᐃᑦ ᐊᒃᑖᖅᑕᐅᔪᑦ ᐊᒪᓗ ᐅᖓᑕᐅᑎᓯᒪᔪᑦ ᔪᓇᒃᑰᕈᑎᒃᑯᑦ ᐊᐢᔭᖅᑕᐅᕐᑲᑦᑕᕐᓂᐊᖅᑐᑦ WRSFs-ᒧᑦ ᑭᓯᐊᓂ ᐃᓱᓕᑉᐸᑦ ᐅᔭᕋᓂᐊᕐᓂᕐᒧᑦ ᐊᐅᓛᕐᓂᐅᔪᑦ, ᐊᐢᔭᖅᑐᖅᑕᐅᕐᑲᑦᑕᕐᓗᓂ ᒪᓕᒡᓗᒍ ᐊᐅᓛᕐᓂᕐᒧᑦ ᖃᖓᒃᑳᕐᑲᑦᑕᕐᓂᖅ. ᖃᔪᐃᖓᓂᐅᔪᑦ ᔪᓇᒥᑦ ᐱᐅᖏᑦᑐᖅᑕᕐᑲᕐᓂᕐᒧᑦ ᐆᒃᑐᕋᐃᓂᖅ ᓇᓗᓇᐃᖅᓯᒃᐸᑦ ᐊᒃᑖᖅᑕᐅᔪᑦ ᐅᔭᖅᑲᐃᑦ ᐊᒪᓗ ᐅᖓᑕᐅᑎᓯᒪᔪᑦ ᐋᓯᑦᓕᐅᖅᑑᖏᑦᑐᑦ (NPAG) ᐊᒪᓗ ᓴᕕᓕᖕᒥᒃ ᑯᕕᓂᕐᑲᙱᑦᑐᑦ. ᐱᖓᓱᑦ ᐃᓕᑕᓇᔭᐅᓚᐅᖅᑐᑦ WRSFs-ᖑᓂᖏᓐᓄᑦ.

ᑲᑎᓯᒪᔪᓂᑦ 12.1 Mt ᕿᒪᒃᑎᑦᑐᑦ, 9.7 Mt-ᓗᐊᑦ ᕿᒪᒃᑎᑦᑐᑦ ᐃᓕᔭᐅᓂᖃᖅᑐᑦ TSF-ᒧᑦ ᐸᓂᖅᑑᔪᑎᑐᑦ ᐊᒥᐊᑰᔪᓪᓚ 2.4 Mt ᐃᓕᐅᖃᖅᑕᐅᓗᑎᒃ ᓄᓇᐅᑉ ᐃᓗᐊᓂᑦ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒧᑦ. ᕿᒪᒃᑎᑦᑐᑦ ᐋᓯᑦᓚᐅᖅᑑᖕᒋᑦᑐᓇᔭᐅᔪᑦ (NPAG). TSF ᐱᖕᖓᓱᐃᓚᖕᖓᔪᖅ, ᐊᐅᓛᖅᑎᑕᐅᓂᐊᖅᑐᑦ ᐊᑕᐅᓯᐅᑕᕐᓗᒋᑦ ᐅᒃᑯᐊᖅᐸᓪᓚᐊᓂᕐᒧᑦ ᐅᔭᕋᖕᓂᐊᕐᕕᒃ ᐊᐅᓛᖅᑎᓪᓗᒍ.

WRSFs ᐊᒻᒪ TSF ᖃᓄᐃᖕᖓᓂᖕᒋᑦ ᓴᓇᔭᐅᓚᐅᖅᑐᑦ ᐊᒻᒪ ᐊᐅᓛᖅᑎᑕᐅᓂᐊᖅᓱᑎᒃ ᒥᒃᓵᒋᐊᖅᑎᓐᓂᕐᒧᑦ ᐊᒃᑐᖅᓯᓂᖅ ᐊᕙᑎᒥᒃ, ᐊᒻᒪ ᓄᓇᓕᓇᓂᖅ ᐃᓱᒪᒋᓗᒍ ᐊᒻᒪ ᓄᓇᒧᐊᖅᑐᑦ ᐱᐅᖕᒋᑦᑐᑦ ᖃᓄᐃᓕᐅᕐᓂᖕᖓ. ᖄᖕᖓᓂᑦ ᑯᕕᔪᖅ ᐃᒪᖅ ᑐᖅᑯᖅᓯᓯᒪᕕᖕᓂᑦ ᓴᖖᑎᑕᐅᓂᐊᖅᑐᑦ ᓱᑉᓗᑎᒍᑦ ᑲᑎᑕᐅᓗᑎᓪᓗ ᑲᑎᖅᓱᐃᕕᖕᓂᑦ (Cps) ᑯᕚᔭᐅᓗᑎᒃ CP1-ᒧᑦ.

ᐅᒃᑯᐊᕐᓂᕐᒧᑦ ᐸᕐᓇᐃᓂᖅ

ᑐᕌᖓᐅᔪᖅ ᐱᓕᕆᐊᖅ ᐅᒃᑯᐊᕐᓂᖕᖓᓄᑦ ᐊᑐᕐᓗᓂ ᐱᔭᕆᐊᖅᑲᖅᑐᑦ ᐅᒃᑯᐊᕐᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕆᐊᖅᑲᕐᓂᐅᔪᑦ ᐊᒻᒪ ᓴᖅᑭᑦᑎᓗᓂ ᐃᖕᒥᖕᓂᒃ ᐱᔪᖕᓇᖅᑎᓐᓂᖕᒋᑦ ᐆᒪᖅᑲᑎᒌᒃᑐᑦ ᓄᓇᒥᒃ ᐊᑐᕐᓂᕐᒧᑦ ᐊᔾᔨᒋᐊᕐᓗᒍ ᐱᕙᓪᓚᐊᓂᐋᖅᑎᓪᓗᒍᒥᑦ ᖃᓄᐃᖕᖓᓚᐅᕐᓂᖕᖓᓄᑦ. ᐱᓕᕆᐊᖅ ᐅᒃᑯᐊᖅᑎᓪᓗᒍ ᐊᒻᒪ ᐅᑎᖅᑎᑦᑎᕙᓪᓚᐊᓂᕐᒧᑦ ᐸᕐᓇᐅᑎ ᐅᑉᓗᒥᒨᓚᖕᖓᓚᖅᑐᖅᑕᐅᖅᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᓴᓇᔭᐅᑎᓪᓗᒍ ᐊᒻᒪ ᐊᐅᓛᖅᑎᓪᓗᒎᖕᖓᔪᒃᑯᑦ ᐱᓕᕆᐊᖅ, ᓄᑖᓂᒃ ᑐᑭᓯᐅᒪᔾᔪᑎᓂᒃ (ᓲᕐᓗ ᖃᐅᔨᒋᐊᖅᑲᑦᑕᕐᓂᕐᒧᑦ ᖃᓄᐃᖕᖓᓂᐅᔪᑦ) ᒪᓂᒪᓕᕚᖕᖓᑕ.

ᐱᓕᕆᐊᖑᓯᒪᔪᖅ ᖄᓇᔭᐅᔪᖅ ᐃᓕᐅᖃᖅᑕᐅᖅᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᖄᖕᖓᓄᑦ TSF. ᖄᖑᔪᖅ 0.5 m ᐃᐸᔪᓂᖕᖓ ᐅᖕᖓᑕᐅᑎᓂᑯᓂᑦ 2.5m ᐃᐸᔪᓂᖕᖓ ᐊᒃᑖᖅᑕᐅᔪᓂᒃ ᐅᔭᖅᑲᓂᒃ ᖄᖕᖓᓂᑦ, ᐊᒻᒪ 3.7-ᒥᑦ 4.2m ᐃᐸᔪᓂᖕᖓ ᐊᒃᑖᖅᑕᐅᔪᓂᒃ ᐅᔭᖅᑲᓂᒃ ᓴᓂᕋᖕᒋᓐᓄᑦ. ᐅᖕᖓᑕᐅᑎᔪᓂᑦ ᖄᖑᔪᖅ ᑭᓪᓕᖅᑲᖅᑎᑦᑎᓂᕐᒧᑦ ᑯᕕᔪᓂᒃ ᖃᒪᒃᑎᑦᑐᓄᑦ. ᓂᓇᐅᒋᔭᐅᔪᖅ ᖄᓕᖅᓯᒪᔪᖅ TSF ᐃᖕᒥᓂᒃ ᐱᕈᖅᑐᖅᑕᖃᓕᒃᑲᓐᓂᕐᓂᐊᕐᓂᖕᖓᓄᑦ.

WRSFs ᐋᕿᒃᓱᖅᑕᐅᓂᐊᖅᑐᑦ ᓴᓇᔭᐅᓗᑎᓪᓗ ᐊᑯᓂᐅᔪᒥᒃ ᐊᔪᙱᓐᓂᕐᒧᑦ, ᑕᐃᒪᓐᓇᒧᑦ ᓱᕈᖅᐸᓪᓚᐊᓂᕐᒥᒃ ᐅᕙᓗᓃᑦ ᓴᓇᔭᐅᔭᓇᐊᖅᑲᕐᓂᖅᑳᖕᒋᑦᑐᖅ ᐅᒃᑯᐊᖅᑎᓪᓗᒍ. WRSFs ᐃᖕᒥᖕᓂᒃ ᐱᕈᕐᕕᐅᔪᖅᑲᒃᑲᓐᓂᕈᖕᓇᕐᕕᖃᖅᑎᑕᐅᓂᐊᖅᑐᑦ.

ᐊᑐᖅᑕᐅᑲᓐᓂᕈᖕᓇᖅᑐᑦ ᐃᓪᓗᕐᔪᐊᑦ ᐃᑐᑉᑎᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᒻᒪ ᐊᐅᓚᔾᔭᒍᖕᓇᐃᓪᓕᑎᑕᐅᓗᑎᒃ ᐃᓂᐅᔪᒥᑦ. ᐃᓪᓗᕐᔪᐊᑦ ᑐᓂᐅᑕᐅᓂᐊᖅᑐᑦ ᑭᕙᓪᓕᖅ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᓄᑦ (ᓄᓇᖃᖅᑐᓄᑦ) ᐅᒃᑯᐊᖅᑎᓪᓗᒍ ᐊᓯᐊᓂᑦ ᐊᑐᖅᑕᐅᑲᓐᓂᕈᖕᓇᕐᓂᕐᒧᑦ. ᐅᑎᖅᑎᓐᓂᖅ ᐊᔪᕐᓇᖅᑐᑦ ᐃᓪᓗᕐᔪᐊᑦ ᐃᑐᑉᑎᖅᑕᐅᓂᐊᖅᑐᑦ ᓱᕋᒃᑎᖅᑕᐅᓗᑎᓪᓘᓃᑦ ᐊᒻᒪ ᐅᓗᓇᐊᓇᖅᑐᖅᑲᙱᑦᑐᑦ ᐊᒃᑰᖅᑕᐅᓗᑎᒃ ᐊᒃᑰᓯᕕᖕᒧᑦ WRSF1-ᒥᑦ. ᐅᓗᓇᐊᓇᖅᑐᑦ ᐊᒃᑯᐃᑦ ᐲᖅᑕᐅᓂᐊᖅᑐᑦ ᐃᒋᑕᐅᓂᕐᒧᑦ ᓚᐃᓴᖅᑐᒧᑦ ᑕᐃᒪᓐᓇᐃᑐᓕᓇᓂᕐᒧᑦ. ᐱᐅᖕᒋᑦᑐᖅᑕᓛᑦ ᐲᔭᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᓯᔭᖅᑐᖅᑕᐅᓗᑎᓪᓗ ᐊᒃᑰᓯᕕᖕᒧᑦ ᐋᕿᒋᐊᖅᑕᐅᓂᐊᕐᓗᑎᒃ.

ᑲᖕᒋᖅᓱᓂᕐᒥᑦ, ᓄᖅᑲᖕᖓᕝᕕᒃ ᐅᑎᖅᑎᑕᐅᓂᐊᖅᑐᖅ, ᓯᑲᐅᖅᑲᕐᕕᒃ ᐊᒻᒪ ᐅᖅᓱᐅᔫᓯᕖᑦ ᐃᑐᑉᑎᖅᑕᐅᓗᑎᒃ ᐊᒻᒪ, ᐱᔭᓇᐊᖅᑲᖅᐸᑕ, ᐃᒋᑕᐅᓗᑎᒃ ᐊᓯᐊᓄᑦ ᓈᓪᒪᒋᔭᐅᔪᒧᑦ ᐊᒃᑰᕐᕕᖕᒧᑦ.

ᓄᓇᕗᒻᒥ ᒐᕙᒪᒃᑯᑦ ᓇᖏᓂᕆᔭᖓᑦ ᓄᓇ ᐱᕐᑯᑎᖅᑲᕿᐅᔪᖅ ᑲᖏᖅᖠᓂᕐᒥᑦ ᐊᒻᒪ ᖃᐅᔨᒪᔭᐅᔭᕆᐊᖅᑲᖅᑐᖅ ᐅᖅᓱᐊᓗᖃᐅᓯᕕᐅᔪᒪᔪᖅ ᐊᒻᒪ ᓄᖅᑲᖓᕕᒃ ᓄᓇᒦᑐᑦ ᐊᑐᖅᑐᐊᖅᑕᖓᓐᓂᑦ ᒐᕙᒪᒃᑯᓐᓂᑦ ᑕᐃᒪᓐᓇᒎᑦ ᐊᒡᓅᑯᒃᑯᑦ ᐀ᔨᐃᓂᐊᖅᑐᑦ ᑖᑉᑯᓂᙵᓗᒃᑖᖅ.

AWAR, ᑕᒪᐃᓂᓗᒃᑖᖅ ᐃᓂᐅᔪᒥᑦ ᐊᐸᕐᑯᑕᐅᔪᑦ, ᐊᒻᒪ ᑲᖏᖅᖠᓂᕐᒥᑦ ᐊᐸᕐᑯᑎ ᐊᑐᕈᖅᑰᖅᑎᑕᐅᓂᐊᖅᑐᑦ ᐊᑐᓇᐊᕐᑲᕈᖅᑰᖅᐸᑕ ᐊᒻᒪ ᓄᓇ ᖃᓄᐃᓐᓂᓇᓚᐅᖅᑕᖓᓄᑦ ᐅᑎᖅᑎᑕᐅᓗᓂ. AWAR ᐀ᖅᑕᐅᓗᒃᑖᕐᓂᐊᖅᑐᖅ ᐅᒃᑯᐊᕌᓂᒃᓯᒪᓕᖅᑎᓪᓗᒍ ᐱᓕᕆᐊᖑᔭᕆᐊᕐᑲᖅᑐᑦ ᐅᔭᕋᖕᓂᐊᕐᕕᐅᑉ ᐃᓂᖓᓂᑦ ᐊᖏᓗᐊᖏᑭᔭᐅᓕᖅᐸᑕ. ᐅᑎᖅᑎᑎᓇᓂᖅ ᐊᒻᒪ ᐅᒃᑯᐊᖅᑕᐅᓂᖏᑦ ᐃᓗᑦᑐᖅᓯᒪᔪᑦ ᒪᓕᖕᓂᐊᖅᑐᑦ ᐃᓂᐅᔪᑦ ᖃᓄᐃᓐᓇᔭᖏᓐᓄᑦ.

ᐊᒃᑐᖅᑕᐅᓯᒪᔪᓗᒃᑖᑦ ᐃᓂᐅᔪᒥᑦ ᐱᓕᕆᐊᖑᒃᑲᓐᓂᕐᓂᐊᖅᑐᑦ ᐊᔾᔨᑭᓕᕆᐊᕐᓗᒍ ᖃᓂᑕᖓᓐᓃᑐᑦ. ᓄᓇ ᐊᑦᑎᒃᓯᔭᐅᓚᐅᕐᓂᖅᐸᑦ ᓴᓇᔭᕆᐊᓖᑦ ᐱᔾᔪᑎᑭᐸᓗᑭᑦ, ᐅᕙᖓᓃᑦ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᑦ. ᖃᔪᑦ ᐊᑐᖅᑕᐅᔪᑦ ᐱᔭᐅᔭᕆᐊᖅᑲᕐᓂᐊᖅᑐᒃᓴᐅᔪᑦ ᓱᑭᖅᐸᓪᓚᐊᓂᕐᒥᒃ ᐊᒻᒪ ᐳᔪᖅᑲᑖᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ. ᓂᕈᐅᑭᔭᐅᔪᖅ ᐱᕈᖅᑐᑐᖃᐃᑦ ᐃᖏᖕᓂᒃ ᐱᕈᖅᐸᓪᓚᐊᑲᓐᓂᓚᑦᑏᕐᓂᖏᓐᓄᑦ ᐅᐸᓗᕐᓂᑦ ᐅᑭᐅᓂᑦ ᖃᐃᔪᑦ ᐊᓂᒍᖅᐸᓪᓚᐊᓂᖏᑦ ᒪᓕᒡᓗᒋᑦ.

ᐱᐊᓂᒃᑎᓪᓗᒍ ᐅᔭᕋᖕᓂᐊᕐᕕᒃ, ᐅᒃᑯᐃᖓᔪᑦ ᓄᓇᒥᑦ ᐱᖓᓱᓄᑦ ᐅᑭᐅᓄᑦ ᐃᒻᒥᖅᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᑕᓯᕐᔪᐊᕐᒥᑦ. ᐊᖏᑖᒃᑯᑦ ᑯᕕᖅᑕᐃᓂᕐᒧᑦ ᓈᓴᐅᑏᑦ ᐊᑐᕐᓂᐊᖅᑐᖅ ᐊᖏᑖᒥᒃ ᐱᔪᖕᓇᖅᑎᑕᐅᓂᕐᒧᑦ ᑕᓯᕐᔪᐊᕐᒥᑦ, ᒪᓕᒐᖅᑲᕐᓂᖓᑎᒍᑦ Type A ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒥᑦ. ᐅᔭᕋᖕᓂᐊᕐᕕᒃ ᐅᒃᑯᐊᖅᑎᓪᓗᒍ, ᐃᒪᕐᒥᒃ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐊᑐᖅᑐᑦ ᑕᐃᒪᐅᖏᓐᓇᕐᓂᐊᖅᑐᑦ ᑭᓯᐊᓂ ᐅᒃᑯᐊᖅᐸᓪᓚᐊᓂᖅ ᐱᐊᓂᒃᐸᑦ ᐊᒻᒪ ᖃᐅᔨᒋᐊᖅᑲᑦᑕᕐᓂᖅ ᑕᒃᓴᐅᑎᑦᑎᓪᓚᖅᐸᑦ ᐃᒪᐅᑉ ᖃᓄᐃᓐᓂᓇᔭᖓ ᓈᒻᒪᒃᓯᓂᖓᓄᑦ ᑯᕕᑎᑕᐅᓂᕐᒧᑦ ᓯᓚᒧᑦ ᐱᓕᕆᐊᖑᒃᑲᓐᓂᙱᓪᓗᓂ.

WTP ᐊᑐᕈᖅᑰᖅᑎᑕᐅᓂᐊᖅᑐᖅ ᐊᑐᖅᑕᐅᔭᕆᐊᖅᑲᕈᖅᑰᖅᐸᑦ; ᐃᒪᐅᑉ ᖃᓄᐃᓐᓂᕆᔭᖓ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒥᙶᖅᑐᓂᒃ ᑎᑭᐅᑎᒃᐸᑦ ᓚᐃᓴᓐᓯᐅᑉ ᖃᓄᐃᖓᔭᕆᐊᖅᑲᕐᓂᖓᓄᑦ ᑯᕕᑎᓐᓂᕐᒧᑦ. WTP ᐊᒻᒪ ᑕᓯᕐᔪᐊᕐᒥᑦ ᑯᕕᑎᑦᑎᔪᖅ ᐱᓕᕆᐊᖑᖅᑲᑦᑕᕐᓂᐊᖅᑐᖅ ᐱᖓᓱᓄᑦ ᐃᒪᓕᕆᔾᔭᕕᖕᓄᑦ ᓂᕈᐅᓇᙱᑦᑐᑎᑐᑦ ᐃᑐᐸᑎᖅᑕᐅᓂᕐᒧᑦ ᐃᒋᑕᐅᓂᕐᒧᓪᓗ ᐊᒃᑕᑰᓯᕚᖑᑦ ᐃᓂᐅᔪᒥᑦ ᑲᖏᖅᖠᓂᕐᒥᓂᑦ (ᓈᒻᒪᑭᔭᐅᒃᐸᑦ).

ᐊᑯᓂᐅᔪᖅ ᑕᑭᓂᕆᔭᖓ, ᐅᒃᑯᐊᖅᓯᒪᓕᖅᑎᓪᓗᒍᒥᑦ ᐃᒪᐅᑉ ᖃᓄᐃᓐᓂᕆᔭᖓ ᑕᓯᖅᓴᖏᑦ ᐊᒻᒪ ᐃᒻᒥᖅᑕᐅᓯᒪᔪᑦ ᓄᓇᒥᑦ ᐅᒃᑯᐃᖓᔪᑦ ᑕᔫᑦ ᑎᑭᐅᑎᓂᐊᖅᑐᑦ ᑲᓇᑕᒥᑦ ᐃᒪᐅᑉ ᖃᓄᐃᖓᔭᕆᐊᖅᑲᕐᓂᕆᔭᖏᓐᓄᑦ ᑭᒡᓕᕆᔭᐅᔪᓄᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔪᑦ ᓴᕕᖏᑦ ᐅᔭᕋᖏᓐᓂᐊᕐᓂᕐᒧᑦ ᑯᕕᔪᓄᑦ ᒪᓕᒐᐃᑦ ᑭᒡᓕᐅᔪᓄᑦ ᐊᒻᒪ ᑎᑭᐅᑎᓗᓂ ᑲᓇᑕᒥᑦ ᐃᒪᐅᑉ ᖃᓄᐃᖓᓂᖓᓄᑦ ᒪᓕᒃᑕᐅᔭᕆᐊᓕᖕᓄᑦ ᒥᐊᓂᖅᓯᓂᕐᒧᑦ ᐃᒪᕐᒥᐅᑕᓂᒃ (ᑲᓇᑕᒥᑦ ᒥᓂᔅᑕᐅᔪᑦ ᑲᑎᒪᔨᖏᑦ ᐊᕙᑎᒧᑦ ᐅᕙᓗᓃᑦ CCME-WQG–ᒧᑦ) ᐊᒻᒪ ᑕᓯᕐᔪᐊᕐᒥᑦ ᐃᓂᐅᔪᒦᑐᑦ ᐃᒪᐃᑦ ᖃᓄᐃᓐᓂᕆᔭᖏᓐᓄᑦ ᐱᓕᕆᐊᑦ (SSWQOs) ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ ᐊᕗᒥᓇᓪᒧᑦ, flouride-ᒧᑦ, ᐊᒻᒪ iron-ᒧᑦ. ᑕᒪᒃᑯᐊ SSWQOs ᑕᒪᐃᓄᑦ ᒥᐊᓂᖅᓯᔪᑦ ᑕᓯᕐᔪᐊᕐᒥᑦ ᐊᒻᒪ ᑕᓯᖅ B7-ᒥᑦ (ᓲᕐᓗ, ᓯᓚᒥᒃ ᑖᓚᙵᑦ ᐱᕙᓪᓚᐊᔪᒥᑦ). ᑐᕐᑯᓇᖅᑐᖅᖃᖅᑐᑦ ᑲᑎᓯᒪᔪᓂᒃ ᐃᓚᖓᓐᓂᑦ ᑲᑎᖅᓱᐃᕕᖕᒥᑦ ᑕᓯᖅᓴᖕᒥᑦ (CP4)-ᒥᑦ

ᐅᖓᑕᐅᑎᓯᒫᕐᔪᐃᓐᓇᕆᐊᖅᑲᖅᑐᖅ SSWQO-ᒥᒃ; ᑭᓯᐊᓂ, ᑲᑎᓯᒪᔪᑦ ᒥᑭᓂᖅᓴᑳᓚᐃᑦ ᐊᑯᓕᖅᑎᕆᓂᕐᒧᑦ ᐃᓂᐅᔪᒥᒃ ᑕᐃᑯᙳᖅᑐᓄᑦ (ᓲᕐᓗ ᑕᓯᖅ B7-ᒧᑦ). ᑕᒪᒃᑯᐊ ᑐᕐᑯᓇᖅᑐᖅᖃᖅᑐᑦ ᑲᑎᓯᒪᔪᑦ (Golder 2013) ᒪᓂᒪᓇᖅᑐᒥᓖᖓᔪᑦ ᐅᓗᕆᐊᓇᖅᑑᑎᑕᐅᓯᒪᙵᑦᑐᑦ ᑲᓇᑕᒥᑦ ᐊᕙᑎᓕᕆᔮᒃᑯᕐᒋᓐᓄᑦ ᐱᓕᕆᐊᒧᑦ (EC 2014). ᑐᑭᖃᖅᑐᖅ ᐅᒃᑯᐊᕌᓂᒃᑎᓪᓗᒍ, ᓂᕆᐅᒋᔭᐅᔪᑦ ᐊᕐᕆᔪᒥᒃ ᐅᔾᔾᕐᓇᖅᑐᖃᔾᔾᕐᕆᓐᓂᖓᓄᑦ ᖃᓄᐃᖓᓕᖅᑎᑎᓂᐅᔪᓂᒃ ᒫᓐᓇᐅᔪᖅ ᐱᖅᑯᓯᕆᔭᐅᔪᑎᒍᑦ ᐱᖅᑯᓯᕆᔭᐅᕆᑦᑐᒃᑯᓪᓗ ᐊᑐᖅᑕᐅᓂᕆᑦ ᐃᖃᓗᐃᑦ, ᐋᓐᓂᐊᖃᖅᑕᐃᓕᒪᓂᕆᓐᓄᑦ ᐃᒪᕐᒥᐅᑕᐃᑦ ᐊᒪᓗ ᐃᓅᑉ ᐋᓐᓂᐊᖃᖅᑕᐃᓕᒪᓂᖓᓄᑦ.

ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᑐᕌᖓᔪᑦ

ᐊᕙᑎᒥᒃ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖅ ᐱᓕᕆᐊᒧᑦ ᐱᖓᓯᓂᒃ ᐊᑐᖃᑦᑕᖅᑐᑦ ᐃᒪᓐᓇ:

- ᒪᓕᒐᑎᒎᖓᔪᒃᑯᑦ ᑯᕕᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖃᖃᑦᑕᖅᑐᖅ ᖃᐅᔨᕆᐊᖅᑕᕐᕙᐅᔪᓂᑦ ᑎᑎᕋᖅᓯᒪᔪᒥᑦ ᓚᐃᓴᓐᓯᓂᑦ ᐅᕙᓃᓃᑦ ᒪᓕᒐᓂᑦ. ᐃᓚᐅᔪᑦ ᑯᕙᓯᓂᕐᒧᑦ ᑭᒡᓕᕆᔭᐅᔪᑦ ᑎᑭᐅᑎᔭᓇᕆᐊᖅᑲᖅᑐᑦ ᒪᓕᒡᓗᕆᑦ ᐱᔪᖕᓇᖅᑎᑦᑎᔾᔪᓂᙳᖅᑐᑦ (ᓲᕐᓗ, ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯ) ᐅᕙᓃᓃᑦ ᒪᓕᒐᕐᒥᑦ (ᓲᕐᓗ,ᓴᕙᖕᓂᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᕐᒧᑦ ᑯᕙᔪᓄᑦ ᒪᓕᒐᐃᑦ). ᐊᑐᕆᐊᖅᑲᖅᑎᑕᐅᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᕐᓂᖅ ᐊᑐᖅᑕᐅᔪᖕᓇᖅᑐᖅ ᑭᒡᓕᕆᔭᐅᔪᖅ ᑯᕙᑎᑕᐅᔪᒧᑦ ᐅᖓᑕᐅᑎᒃᐸᑦ ᐊᑐᕆᐊᖅᑲᖅᑐᒥᒃ.
- ᓇᓗᓇᐃᖅᓯᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖅᑲᖅᑲᑦᑕᖅᑐᑦ ᐊᐅᓚᖅᑎᑦᑎᓂᕐᒧᑦ ᐊᒪᓗ ᐊᐅᓚᑦᑎᓂᕐᒨᖓᔪᑦ ᐱᔾᔪᑎᒋᑉᓗᒋᑦ ᐊᒡᓃᑯᒃᑯᓐᓄᑦ. ᑕᐃᒪᓐᓇᐃᑐᓄᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᓄᑦ ᓈᓴᐅᑏᑦ/ᑎᑎᖅᑲᐃᑦ ᐃᓱᒪᓕᐅᕆᓂᕐᒧᑦ ᐱᕈᐃᑎᑦᑎᖅᑲᑦᑕᖅᑐᑦ ᓇᓗᓇᖅᑐᖃᙱᓐᓂᐅᔪᒥᒃ ᐱᐊᓂᐅᑎᑦᑎᓂᐊᕐᓂᕐᒋᓐᓄᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᖅᑐᓄᑦ. ᐱᔭᕆᐊᖃᕐᓂᖃᙱᑦᑐᖅ ᐅᓂᑲᐅᓯᖃᕐᓂᕐᒥᒃ ᓇᓗᓇᐃᖅᓯᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᖃᓄᐃᖓᓂᐅᔪᓂᒃ, ᐃᓚᖕᒋᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᐅᔪᑦ ᐃᓂᖕᒋᑦ ᐊᒪᓗ ᖃᓄᐃᖓᓃᑦ ᐅᖃᐅᓯᕆᔭᐅᔪᖕᓇᖅᑐᑦ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᐊᐅᓚᖅᑎᓂᕐᒥᑦ ᐸᕐᓇᐅᑎᓂᑦ (ᓲᕐᓗ, ᐆᒃᑐᕋᐃᓃᑦ ᓇᓗᓇᐃᖅᓯᓂᕐᒧᑦ ᐃᐸᔪᓂᒃ ᖃᓄᐃᒍᓐᓃᖅᑎᑎᓂᕐᒧᑦ ᓄᓇᐅᑉ ᐃᓂᒋᔭᖓᓂᑦ).
- ᖃᐅᔨᕆᖃᑦᑕᕐᓂᖅ ᐃᓚᐅᑎᑕᐅᓚᐅᔪᒃᑐᖅ ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᓇᓗᓇᖅᓗᒍ ᓱᓇ ᖃᐅᔨᕆᐊᖃᖅᑕᐅᖃᑦᑕᕐᒪᖔᑦ ᒪᓕᒃᓗᒍ ᖃᖓᒃᑰᖃᑦᑕᕐᓂᕐᒧᑦ[1]. ᐅᖃᐅᓯᖃᖅᑐᖅ ᖃᓄᐃᑐᐃᓐᓇᓂᒃ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᐅᔪᓂᒃ (ᓲᕐᓗ, ᓄᓇᐅᑉ ᖃᓄᐃᓐᓂᖓᓄᑦ, ᑕᓯᑦ ᖁᑦᑎᖕᓂᖓᓐᓄᑦ, ᑕᒪᒃᑯᐊᕋᓗᐃᑦ). ᑖᓐᓇ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖅ ᒪᓕᖕᓂᒃᑰᖓᔪᖅ ᖃᐅᔨᓴᐃᓂᕐᒧᑦ ᓇᓗᓇᐃᖅᓯᓂᕐᒧᑦ ᐆᒃᑐᕋᐃᓂᕐᓂᑦ ᐊᑐᖅᓗᓂ ᐊᑐᖅᑕᐅᖃᑦᑕᖅᑐᑐᖃᓂᒃ, ᐃᓚᐅᓚᐅᖅᑐᑦ ᖃᓄᐃᓐᓂᖓᓄᑦ ᓇᓗᓇᐃᖅᓯᓂᖅ/ᖃᓄᐃᓐᓂᖓᓄᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᒪᓕᒐᐃᑦ, ᐊᒪᓗ ᐱᓕᕆᐊᕆᐸᓗᒋᑦ ᐃᓕᑕᕆᔭᐅᔪᑦ ᐱᔾᔪᑏᑦ. ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖅ ᐊᓯᐊᙳᕈᕐᓇᖅᑐᖅ ᐱᔭᕆᐊᖃᖅᑎᑕᐅᓂᒃᑯᑦ ᖃᐅᔨᓴᖅᑎᒧᑦ, ᐅᕙᓃᓃᑦ ᓚᐃᓴᓐᓯᒧᑦ ᓈᒻᒪᒋᔭᐅᓂᐊᕐᓗᓂ NWB-ᑯᓐᓄᑦ.

[1] ᐱᔾᔪᑎᖃᖅᑐᖅ ᓄᓇᑦᑎᐊᕐᒥᑦ ᐊᒪᓗ ᓄᑕᐅᕆᑦᑐᒥᑦ NWB–ᑯᑦ ᓚᐅᓴᓐᓯᖓᓂᑦ ᑕᐅᑐᒃᑕᐅᑎᑦᑎᓂᕐᒧᑦ ᑐᕌᖓᔪᒧᑦ.

ᑲᑎᒍᕆᑦ ᐱᖓᓱᐃᑦ ᐊᔾᔨᒌᖏᑦᑐᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᓈᒻᒪᒃᑐᓂᒃ ᓈᓴᐅᑎᓂᒃ/ᑎᑎᖅᑲᓂᒃ ᑐᓂᓯᓂᐊᖅᑐᑦ ᐃᑲᔪᐃᓂᕐᒧᑦ ᐃᓱᒪᓕᐅᕆᓂᕐᒥᒃ ᐅᔭᕋᖕᓂᐊᕐᕕᖕᒥᑦ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐱᓕᕆᐊᒥᑦ.

ᐃᒪᕐᒥᐅᑕᓂᒃ ᖃᓄᐃᖓᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᑐᕌᖓᔪᖅ ᐱᔭᕆᐊᖃᖅᑐᖅ Type A ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯᒧᑦ ᑐᓂᔭᐅᓂᐊᖅᑐᖅ NWB-ᑯᓐᓄᑦ. ᐃᒪᕐᒥᐅᑕᓂᒃ ᖃᓄᐃᖓᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᑐᕌᖓᔪᖅ ᖃᓄᐃᖓᓂᖓᓄᑦ ᐸᕐᓇᐅᑎ ᐱᓕᕆᐊᒧᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᖅ ᐅᖃᖃᑎᖃᑦᑕᐅᑎᓂᒃᑯᑦ ᓄᓇᓕᖕᒥᐅᓂᑦ, ᐱᖃᖃᑕᐅᔪᓂᒃ, ᐊᒻᒪ ᒪᓕᒐᓂᒃ ᐱᔪᓐᓇᖅᑎᑦᑎᔨᓂᒃ. ᑲᑎᓯᒫᔾᔪᖅ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᑐᕌᖓᔪᖅ ᐊᒻᒪ ᐊᔾᔨᖅᑎᑕᐅᑉᐳᓂ ᐊᕙᑎᒥᒃ ᖃᓄᐃᖓᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒥᒃ ᐱᔭᕆᐊᖃᕐᓂᐅᔪᓄᑦ ᓴᕕᖕᓂᑦ ᐅᔭᕋᖕᓂᐊᕐᓂᕐᒧᑦ ᑯᕕᔪᓄᑦ ᒪᓕᒐᖏᓐᓂᑦ.

ᒪᕐᕉᒃ ᐅᔾᔨᕐᓇᖅᑐᑦ ᑐᕌᖓᔪᑦ ᐃᒪᕐᒥᐅᑕᓂᒃ ᖃᓄᐃᖓᓕᖅᑎᑦᑎᓂᕐᒧᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᖅ (ᑕᓯᕐᔪᐊᕐᒥᑦ ᖃᐅᔨᓴᐃᓂᖅ ᐊᒻᒪ ᖃᓂᑕᖏᓐᓂᑦ ᑕᓯᕐᓂᒃ ᖃᐅᔨᓴᐃᖅᑕᕐᓂᖅ) ᖃᓄᐃᖓᓂᖓ ᐋᕿᒃᓯᒪᑉᐳᓂ ᐱᓕᕆᐊᑉ ᖃᓄᐃᖓᓂᖓᓄᑦ, ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᓐᓄᑦ, ᐅᖃᖃᑎᖃᑦᑕᐅᑎᓂᒃᑯᑦ, ᐊᒻᒪ ᒪᓕᒐᑎᒍᑦ ᐱᔭᕆᐊᖃᖅᓂᒃᑯᑦ. ᑕᒪᕐᒥᒃ ᐃᓄᐃᑦ ᖃᐅᔨᒪᔭᑐᖃᖏᑦ ᐊᒻᒪ ᓄᓇᓕᖕᒥᐅᓂᒃ ᐅᖃᖃᑎᖃᑦᑕᐅᑎᓃᑦ ᑕᑯᒃᓴᐅᑎᑦᑎᓚᐅᖅᑐᑦ ᐱᒻᒪᕆᐅᕆᔭᐅᔪᓂᒃ ᓴᓗᒪᔪᒥᒃ ᐃᒪᖃᓂᖅ ᐊᒻᒪ ᐋᓐᓂᐊᖃᖅᑕᐃᓕᒪᓂᖏᑦ ᐃᖅᑲᓗᐃᑦ ᐊᒻᒪ ᓂᕐᔪᑏᑦ ᐃᓐᓇᓂᔭᐅᔪᓂᑦ ᐊᓯᖏᓐᓄᓪᓗ ᐃᓄᖕᓄᑦ ᓄᓇᓕᖕᓂᑦ ᑕᒪᒃᑯᓂᙵᑦ ᐊᑐᖅᐸᒃᑐᓂᑦ ᐱᖅᑯᓯᓇᑉᐳᒍ. ᐃᓐᓇᓂᔭᐅᔪᑦ ᓇᔪᓇᐃᓚᐅᖅᑐᑦ ᐃᓱᒫᓘᑎᖃᕐᓂᖏᓐᓄᑦ ᐊᒃᑐᓯᓂᖃᕈᓐᓇᖅᓂᐅᔪᓂᒃ ᐱᓕᕆᐊᖅ ᐃᒥᖅᑕᐅᔪᓐᓇᕐᓂᖓᓄᑦ ᐃᒪᖅ ᐊᒻᒪ ᐃᖅᑲᓗᐃᑦ ᖃᐸᓯᐅᓂᕐᒥᓐᓄᑦ ᑕᓯᕐᓂᑦ ᑕᓯᕐᔪᐊᑉ ᖃᓂᑕᖓᓂᑦ. ᑕᐅᑐᓚᓗᒍ ᑖᒻᓇ ᖃᐅᔨᓴᐃᓂᖅ ᐊᒻᒪ ᖃᓄᐃᖓᓂᐅᔪᑦ ᐊᕐᕌᒍᑕᓖᑦ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᕐᒧᑦ ᐅᓂᒃᑳᓂᑦ, ᐊᐱᖅᑯᑕᐅᔪᑦ ᐱᓕᕆᐊᖑᓚᐅᖅᑐᑦ ᐊᑐᓂ ᖃᐅᔨᕆᐊᖃᑦᑕᕐᓂᐅᔪᓄᑦ ᐃᓚᒋᔭᐅᔪᓄᑦ ᐊᑐᓂ ᒪᕐᕉᖕᓄᑦ ᖃᐅᔨᓴᐃᓂᕐᓄᑦ.

EXECUTIVE SUMMARY

Regulatory and Project Overview

This Type A Water Licence Application (Application) has been prepared to meet requirements of the Nunavut Land Claims Agreement (NLCA), the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA), and the Nunavut Water Regulations (NWR), but also considers the guidance provided by the Nunavut Water Board (NWB) in *Guide 4 – Completing and Submitting a Water Licence Application for a New Licence* and the *Supplemental Information Guide for Mining and Milling* (SIG-MM3 Guide). Concordance has been assessed for the requirements of the NWB Guidelines and SIG-MM3 Guide and commitments made during the Nunavut Impact Review Board (NIRB) Part 5 Review of the Final Environmental Impact Statement.

The Meliadine Gold Project (Project) is subject to the land and resource management processes established by the NLCA and other Federal laws and regulations. Agnico Eagle Mines Limited (Agnico Eagle) is required in accordance with the NWNSRTA and NWR to submit a Type A Water Licence Application for a Mining and Milling Undertaking (Application) to the NWB to use water and to deposit waste in development of the Project.

The Application includes the NWB application form, the Main Application Document, and additional supporting documents to provide information on the proposed use of water, disposal of waste, and associated activities for the mining and milling undertaking, including information related to the planning and design, construction, operation, and reclamation phases of the Project.

The key Project information to support the Application is provided in the Main Application Document. This information includes the regulatory requirements, environmental setting, project description, water management, and summary information from the supporting management plans.

Agnico Eagle is developing the Project, located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of the hamlet of Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson Bay, the Project site is located on a peninsula between the east, south, and west basins of Meliadine Lake (63°1’23.8’’ N, 92°13’6.42"W) on Inuit Owned Land. The Project is located within the Meliadine Lake watershed of the Wilson Water Management Area (Nunavut Water Regulations Schedule 4).

The Project is composed of five known gold deposits: Tiriganiaq, F Zone, Pump, Wesmeg, and Discovery. Agnico Eagle proposes to develop these deposits in a phased approach to manage the initial capital investment required and to allow production to commence while ongoing exploration continues to increase the known ore reserve. The initial phase of development (Phase 1) focuses on the development of the Tiriganiaq gold deposit using a traditional open-pit mining method and underground mining. Phase 2 will be defined and permitted during Phase 1, once the other deposits are better defined through ongoing exploration drilling. Both Phase 1 and 2 are within the Project

that was the subject of the environmental and socio-economic assessment conducted by the NIRB, culminating in the issuance of Project Certificate No. 006.

Approximately 12.1 million tonnes (Mt) of ore will be mined from Tiriganiaq over a nominal mine life of approximately eight years. The operation will produce approximately 31.8 Mt of waste rock, 7.4 Mt of overburden waste, and 12.1 Mt of tailings. Proposed Phase 1 mining facilities in the area include a plant site and accommodation buildings, two open pits, three ore stockpiles, a tailings storage facility (TSF), three waste rock storage facilities (WRSFs), and a water management system including water treatment facilities, several water diversion channels, retention dikes/berms, collection ponds, and a discharge diffuser.

Project Summary

Ownership: Agnico Eagle Mines Limited is the sole owner of the Meliadine Gold Project.

Location: The proposed mine site is located on a peninsula extending into Meliadine Lake, 25 km north of Rankin Inlet and 80 km southwest of Chesterfield Inlet. It is located within the Meliadine Lake watershed of the Wilson Water Management Area (Nunavut Water Regulations Schedule 4).

Access: The existing All-weather Access Road (AWAR) provides access between Rankin Inlet and the proposed mine site. The AWAR is a 23.8 kilometre (km) private road built with a 6.5 m running surface between the Char River bridge turn-off and the proposed mine site, and has passing turnouts approximately every 400 ± 50 m.

Accommodation Infrastructure: The permanent camp will include accommodation, as well as a reception and security area, a kitchen and dining room, a laundry room, recreational facilities, an administration building, and a first-aid clinic.

Airstrip: The site will use Rankin Inlet's airport. There will not be an airstrip at the site.

Port: In Rankin Inlet, the established harbour at Itivia will be used to receive loaded ships/barges.

Mineral Claims: The gold deposits are situated on leased claims under the Canada Mining Regulations that were staked prior to the NLCA. The claim block covers 52,173 hectares (ha) and is approximately 80 km long.

Mining Methods: Traditional open pit and underground mining of the Tiriganiaq deposit. The mine production rate will be a maximum of 3,000 tonnes per day (tpd) from underground in Year 1 to Year 3, and 5,000 tpd from underground and open pit in Year 4 to Year 8. The mining and milling will take place 24 hours a day, 365 days per year. Mining methods proposed are standard drill-and-blast, and truck-and-shovel methods.

Ore: A total of 12.1 Mt of ore will come from mining Tiriganiaq. The ore will be trucked via haul road to the process plant and facilities, or temporarily stored in the ore stockpiles.

Mining Areas: Open pit and underground mining are planned at the Tiriganiaq deposit. The mill site will be located immediately east of the Tiriganiaq deposit. The Project's total area of disturbance will be approximately 453 ha.

Life of Mine: An eight year active mine life based on estimated mineral resources for the Tiriganiaq deposit.

Life Cycle of Mining: Phase 1 focuses on the development of the Tiriganiaq gold deposit using a traditional open-pit mining method and underground mining. Phase 2 (F Zone, Pump, Wesmeg, and Discovery) will be defined and permitted during Phase 1.

Gold Resources: As of December 31, 2013, the proven reserves for Tiriganiaq were 2.8 million ounces of gold.

Mill Process: The ore will be processed using a conventional gold-milling circuit. The ore size will be reduced to the consistency of fine sand using a sequence of crushing and grinding circuits. A portion of the gold will be recovered in a gravity circuit. The remaining gold will be recovered using cyanidation and carbon adsorption, followed by elution, electrowinning, and refining. Residual cyanide will be recovered for reuse or removed from process water and disposed as hazardous waste. The final step in the mill process will be the smelting of gold bars on-site.

Personnel: The average Project workforce during construction is 200 personnel over five years. The average Project workforce during the eight years of operations is about 680, with the maximum in Year 4 at just over 800 personnel.

Water intake location: Meliadine Lake, northeast of the industrial pad.

Quantity of Water Required: Approximately 62,000 m^3/year of freshwater will be required during the construction phase, and approximately 318,000 m^3/year of freshwater will be required during operations.

Waste Rock: A total of 31.8 Mt of waste rock and 7.4 Mt of overburden will come from mining the Tiriganiaq open pit and underground. The waste rock and overburden will be trucked via haul road to a WRSF. Non-potentially acid generating and non-metal leaching waste rock and overburden will also be used as construction material.

Wastewater discharge location: A diffuser outfall into Meliadine Lake east of Collection Pond 1. Water from Collection Pond 1 will be discharged via a water treatment plant through the diffuser into Meliadine Lake.

Proposed Mine Site Infrastructure:

- gated access to Mine
- open pit mines
- underground mine
- underground mine access portal
- crusher
- ore processing facility (mill)
- emulsion plant
- tailings storage facility
- quarries and borrow pits
- ore storage facilities
- landfill
- waste rock storage facilities
- surface and underground water treatment facilities
- water storage facilities
- accommodation infrastructure
- haul roads
- All-weather Access Road from Rankin Inlet
- maintenance and on-site storage areas
- power generation
- fuel storage
- incinerators
- landfarm

Satellite Infrastructure in Rankin Inlet (Appendix A, Figure 1.2):

- fuel storage facility
- laydown and material storage area
- barge structure
- Bypass Road

Mine Plan Schedule

Mine development activities will occur in four phases: pre-development, construction, operations, and closure, with additional monitoring and mitigation continuing into post-closure.

Pre-development is defined as any construction activities as defined below but specific to activities allowed under the provision of the NLCA Article 13, Section 13.5.5 or the NWNSRTA. This phase will commence after receipt of the Project Certificate from the NIRB, the (new or amended) Type B Water Licence from the NWB, and the land use permit from the Kivalliq Inuit Association.

Construction is defined as any activities undertaken for the purposes of establishing or constructing components, infrastructure, and facilities required for development of a mine. Full mine site construction will commence following receipt of a Type A Water Licence from the NWB and Land Use Permit from the Kivalliq Inuit Association. Construction will take a little over four years between Year -5 and Year -1.

Operations is defined as the period that the Process Plant is operating and producing a commodity (i.e., gold). During the mine start-up, this will include a three month commissioning period planned for October to December (i.e., Q4) of Year -1.

Closure (Abandonment, Reclamation, and Closure) **and Post-Closure** is defined as an Operator ceasing operations at a facility without the intent of resuming mining activities. The expectation

will be that the site will be reclaimed and post-closure monitoring will continue until it can be demonstrated that the mine site is both chemically and physically stable.

Environmental Setting

The Project is located in the Kivalliq Region of Nunavut. Most of this region is part of the Southern Arctic Ecozone (Ecological Stratification Working Group 1996). This ecozone represents a major area of vegetative transition between the taiga forest to the south and the treeless Arctic tundra to the north. It is characterized by dwarf shrubs, mixed with various herbs and lichens. Wetlands are common in the low-lying areas and mainly support sedge-moss vegetation. The vegetation present plays an important role in the food chain (NPC 2000). Nearly all sedges, grasses, and fruticose lichens, as well as many herbaceous and woody plants, provide food for grazing animals. Birds and small rodents, that in turn become food of fur-bearing carnivores, consume seeds, winter buds and the roots of many species.

The climate in region of the Project is extreme with long cold winters and short cool summers. Temperatures are cool, with a mean temperature of 12°C in July and -31°C in January. The region is also known for high winds, which are due in part to the broad, flat, uninterrupted expanses offered to moving air masses (NPC 2000).

The physical features of the region have largely been determined by glaciation. The terrain consists of broadly rolling uplands and lowlands. Strung out across the landscape are long, sinuous eskers. This undulating landscape is studded with innumerable lakes, ponds, and wetlands. Cryosols are the dominant soils, and are underlain by continuous permafrost with active layers that are usually moist or wet throughout the summer.

The region includes the major summer range and calving grounds for Canada's largest caribou herds. The major one is the Qamanirjuaq herd, which is the main food source for the local Inuit. This ecozone is also a major breeding and nesting ground for a variety of migratory birds. Meliadine Lake contains fish species that are eaten by the communities, including Arctic char, Arctic grayling, and lake trout.

The Kivalliq Region is sparsely populated. It is part of the Inuit homeland and Inuit form over 80% of the population (Ecological Stratification Working Group 1996). Much of the economy is based on subsistence hunting, trapping, and fishing. Mineral exploration and mining activities, as well as construction, some tourism, and government services are the other principal activities.

Inuit Qaujimajatuqangit

During the environmental assessment process, Agnico Eagle made a commitment to consider Inuit Qaujimajatuqangit (IQ) in management plans for the Project moving forward. As the Project advances through permitting, and if approved, into construction, operations, and closure, Agnico Eagle will continue active engagement with local communities and Inuit organizations. Additional IQ,

as it becomes available, will be included in updates to the design and implementation of Project environmental programs. This will ensure that the combination of science and IQ leads to monitoring that meets the expectations of local communities, Inuit organizations, and government. A summary of how IQ was used in management and monitoring plans is provided in plans submitted as part of the Application.

Supporting Management Plans

The following supporting management and monitoring plans have been developed in support of the Application:

- Mine Plan
- Environmental Management and Protection Plan
- Water Management Plan
- Ore Storage Management Plan
- Mine Waste Management Plan
- Roads Management Plan
- Borrow Pits and Quarries Management Plan
- Landfill and Waste Management Plan
- Quality Assurance/Quality Control Plan
- Incineration Management Plan
- Hazardous Materials Management Plan
- Explosives Management Plan
- Risk Management and Emergency Response Plan
- Spill Contingency Plan
- Preliminary Closure and Reclamation Plan
- Aquatic Effects Monitoring Program (AEMP) Design Plan
- Landfarm Management Plan
- Public Engagement and Consultation Baseline Report

In addition, supporting appendices are included with many of these plans. For example, the Water Management Plan includes supporting appendices for diffuser design, site water quality, and proposed effluent quality criteria. The Roads Management Plan includes a dust management plan appendix. A summary of the key plans is provided below.

Mine Water Management

Water management goals for the Project are to minimize potential impacts to the quantity and quality of surface water at the mine site. Water management structures (water retention dikes/berms and diversion channels) will be constructed as needed to contain and manage the contact water from the areas affected by the mine or mining activities. The major water management infrastructure includes the following:

- six water collection ponds;
- five water retention dikes;
- three water diversion berms;
- eight water diversion channels;
- a Water Treatment Plant (WTP); and

- an underground total suspended solid (TSS) removal plant.

During mine construction and operations, contact water originating from affected areas on surface will be intercepted, diverted, and collected within the various collection ponds. The collected water on the mine site will be eventually pumped and stored in Collection Pond (CP1), where the contact water will be treated by the WTP, if necessary, prior to discharge to Meliadine Lake through a submerged diffuser, or used as make-up water by the process plant. Approximately 0.73 million m^3 of water will be discharged annually through the diffuser.

Contact water from the underground mine will be collected in sumps and treated by the underground TSS removal plant. Some treated water from underground will be reused for underground operation, and the balance will be pumped to surface for storage. An intensive groundwater study will be undertaken during pre-development and construction to confirm the amount of groundwater that will require storage and to determine a final management option for any excess groundwater.

Major freshwater usages on-site include potable use, dust suppression, portion of make-up water for the mill, and other operational needs, such as drilling water if contact water from CP1 is not available, and water for the truck shop. Freshwater will be sourced from Meliadine Lake through a freshwater intake and pump system.

Where possible, water from the WTP will be the main source of water for the mill process. Additional water needs will be supplied by freshwater. Approximately 460 m^3/day of process water will be required in Year 1 to Year 3 of operations, and approximately 770 m^3/day of process water will be required in Year 4 to Year 8.

Mine Waste Management

Waste rock and overburden will be trucked to the WRSFs until the end of mine operations, with distribution according to an operation schedule. Results of geochemical testing indicate that the produced waste rock and overburden is non-potentially acid generating (NPAG) and non-metal leaching. Three areas have been identified as WRSFs.

Of the total 12.1 Mt of tailings produced, about 9.7 Mt of tailings will be placed in the TSF as dry stack while the remaining 2.4 Mt will be backfilled to the underground mine. The produced tailings are considered to be non-acid generating (NPAG). The TSF consists of three cells, which will be operated one by one to facilitate progressive closure during mine operations.

The WRSFs and TSF were designed and will be operated to minimize the impact on the environment, and to consider geotechnical and geochemical stability. The surface runoff and seepage water from the storage facilities will be diverted via channels and collected in water collection ponds (CPs) for pumping to CP1.

Closure Planning

The goal of the Project closure is to carry out required closure activities and establish self-sustaining ecosystems with land uses similar to pre-development conditions. The Project Closure and Reclamation Plan will be updated through the construction and operational phases of the Project, as new information (such as monitoring results) become available.

An engineered cover will be progressively placed on the surface of the TSF. The proposed cover includes a 0.5 m thick layer of overburden followed by a layer of 2.5 m thick waste rock on the top of the facility, and a 3.7 to 4.2 m thick layer of waste rock on the facility sideslopes. The overburden layer is intended to limit runoff water infiltration into the tailings. It is anticipated that the covered TSF will naturally re-vegetate with native lichen.

The WRSFs will be designed and constructed for long-term stability, thus no additional re-grading or construction will be required at closure. The WRSFs will be allowed to naturally re-vegetate with native lichen.

Salvageable buildings and surface structures will be dismantled and demobilized from the site. The buildings will be offered to the Kivalliq Inuit Association (the land owner) at closure for potential re-use elsewhere. Non-salvageable buildings and structures will be dismantled or demolished and inert non-hazardous materials disposed of in the landfill area in WRSF1. Hazardous wastes will be removed for disposal by a licensed handler. Contaminated soils will be excavated and hauled to the landfarm area for remediation.

In Rankin Inlet, the laydown area will be reclaimed, the barge and tank farm dismantled and, if necessary, disposed off-site at an approved disposal facility. The Government of Nunavut owns the land for the facilities in Rankin Inlet and it is important to note that the proposed fuel tank farm and laydown area are all situated on lands leased from the Government of Nunavut and thus Agnico Eagle's commitment is to remove all of these facilities.

The AWAR, all site roads, and Rankin Inlet Bypass Road will be decommissioned and the terrain restored when no longer required. The AWAR will be completely removed once post-closure maintenance requirements at the mine site are anticipated to be minor. Reclamation and closure of quarries and granular borrow pits will depend on individual site conditions.

All disturbed site areas will be re-graded to suit the surrounding topography. In areas where the original ground surface was lowered for site grading or structural requirements, the slopes will be stabilized and contoured. Cover materials may be required for erosion and dust control. It is anticipated that a succession of indigenous plant species will naturally re-vegetate the surface over time.

Following completion of mining, the open pits will be flooded with water from Meliadine Lake over a period of three years. The maximum pumping rate will be based on the maximum allowable

drawdown rate from Meliadine Lake, regulated by the Type A Water Licence. During mine closure, the water management infrastructure on-site will remain in place until mine closure activities are completed and monitoring demonstrates that the water quality is acceptable for discharge to the receiving environment without treatment.

The WTP will be decommissioned once it is no longer required; when water quality from the mine components meets licence criteria for direct discharge. The WTP and Meliadine Lake discharge diffuser will be maintained for 3 water treatment seasons as a contingency before being dismantled and disposed of in an appropriate landfill facility either on-site or in Rankin Inlet (if approved).

The long-term, post-closure water quality in the ponds and in the flooded open pit lakes will meet Canadian water quality limits defined by the Metal Mining Effluent Regulations limits and will meet the Canadian water quality guidelines for the protection of aquatic life (Canadian Council of Ministers of the Environment or CCME-WQG) and the Meliadine Site Specific Water Quality Objectives (SSWQOs) developed for aluminum, fluoride, and iron. These SSWQOs are conservatively protective of Meliadine Lake and Lake B7 (i.e., the primary receiving environment). Arsenic concentrations in one of the collection ponds (CP4) could slightly exceed the SSWQO; however, the concentrations are much less than the mixing capacity in the receiving environment (i.e. Lake B7). These arsenic concentrations (Golder 2013) are within the tolerance levels that have been deemed non deleterious by Environment Canada for the Project (EC 2014). This means that following closure, it is expected that there will be no significant adverse effects on existing opportunities for traditional and non-traditional use of fish, health of aquatic life and human health.

Monitoring Programs

Environmental monitoring for the Project consists of three forms as follows:

- Regulated discharge monitoring occurs at monitoring points specified in licenses or regulations. It includes discharge limits that must be achieved to maintain compliance with an authorization (i.e., water licence) or regulation (i.e., Metal Mining Effluent Regulations). Enforcement action may be taken if discharge limits are exceeded for a parameter.
- Verification monitoring is carried out for operational and management purposes by Agnico Eagle. This type of monitoring provides data for decision making and builds confidence in the success of processes being used. There is no obligation to report verification monitoring results, although some monitoring locations and results may be mentioned in environmental management plans (i.e., sampling to verify soil remediation in the landfarm).
- General monitoring is commonly included in a water licence specifying what is to be monitored according to a schedule[2]. It covers all types of monitoring (i.e., geotechnical, lake

[2] Referred to in Northwest Territories and old NWB licenses as the Surveillance Network Program.

levels, etc.). This monitoring is subject to compliance assessment to confirm sampling was carried out using established protocols, included quality assurance/quality control provisions, and addressed identified issues. General monitoring is subject to change as directed by an Inspector, or by the Licensee, subject to approval by the NWB.

The sum of all three types of monitoring will provide sufficiently robust data to support decisions in mine management for the Project.

An Aquatic Effects Monitoring Program is a requirement of the Type A Water Licence to be issued by the NWB. The Aquatic Effects Monitoring Program design plan for the Project was developed through consultation with communities, stakeholders, and regulatory authorities. It is an integrated monitoring program study design and is harmonized with the Environmental Effects Monitoring requirement of the Metal Mining Effluent Regulations.

Two distinct programs are proposed for the Aquatic Effects Monitoring Program (the Meliadine Lake study and the Peninsula Lakes study) with the design dictated by Project design, IQ, consultation, and regulatory requirements. Both IQ and community consultation emphasized the importance of clean water and the health of fish and wildlife to Elders and other people in the communities who rely on these resources for traditional use. Elders have expressed concerns regarding potential adverse effects due to the Project on drinkability of water and fish populations in waterbodies in the entire Meliadine watershed. To focus the study design and analysis of results in the annual monitoring reports, key questions were developed for each monitoring component in each of the two studies.