



Sahtu Land and Water Board

Staff Report

Applicant: Husky Oil Operations Limited	
Location: Slater River Program area on Exploration Licence (EL) 494 - 40 km SSE of the Town of Norman Wells adjacent to the western edge of the Mackenzie River	File Numbers: S20L1-004 / S20X-006
Date Prepared: January 11, 2021	Date of Board Meeting: January 14, 2021
Subject: Husky Slater River Reclamation and Interim Care and Maintenance Project	

1. Purpose/Report Summary

The purpose of this Report is to present to the Sahtu Land and Water Board for consideration:

- a) the new Land Use Permit (LUP or Permit) Application S20X-006 and the new Water Licence (WL or Licence) Application S20L1-004 submitted by Husky Oil Operations Limited (Husky) (ATTACHMENTS 1 and 2) and a summary of all affected party/stakeholder review comments and proponent responses (ATTACHMENT 3);
- b) the Land Use Plan Conformity check;
- c) the Preliminary Screening Report (approved by the Board on December 22, 2020)
- d) the Engagement Plan update and Record;
- e) the Waste Management Plan;
- f) the Spill Contingency and Emergency Response Plans;
- g) the Interim Closure and Reclamation Plan;
- h) the Quarry M Management Plan;
- i) the RECLAIM security estimate;
- j) the Wildlife Monitoring and Mitigation Plan; and
- k) the draft terms, conditions and schedules for the new LUP and WL.

2. Background

Husky Oil Operations Ltd. (Husky – the Applicant) submitted new Type A Land Use Permit and Type B Water Licence Applications for the consolidation of recently expired authorizations that supported oil and gas exploration drilling (**S13A-002 / S13L1-005**), site-wide services (**S13X-003 / S13L1-006**) and a groundwater and surface water quality program (**S12X-006**) for the Slater River Program on Exploration Licence (EL) 494 located 40 km SSW of Norman Wells in the Northwest Territories.

To date, Husky well abandonment, site stabilization, reclamation, and maintenance activities have been completed under the above-mentioned authorizations which have now expired. Since this application was submitted prior to the expiry of the previous authorizations supporting site-wide services (S13X-003 and S13L1-006 - expired October 22, 2020), technically these applications may be considered a renewal of these previous authorizations with a reduced scope.

The scope of activities for the new authorizations that require approval for the continuation of this Program fall under two categories: 1) closure and reclamation of some Project components that are no longer required; and 2) interim care and maintenance for Project components that may be required in the future. Husky currently has a pending Significant Discovery Licence and wishes to keep their options open.

While the potential for, and dates of future drilling, completions, and other development activities is unknown at this time, Husky will continue with progressive reclamation, and care and maintenance activities for Slater River Site Wide Services project components to support the SDL.

All proposed activities for this Project will occur over the 5-year term requested with the possibility of 2-year extension or renewal.

Husky also requested an exemption from preliminary screening because they believed that all of the development activities had been previously screened, and no modifications or new activities were proposed.

2.1 Regulatory Process Timeline

- **Application Received** - October 13, 2020
- **Expiration of S13X-003 and S13L1-006** – October 22, 2020
- **Application Deemed Complete** – November 16, 2020
- **Application Distributed for public review** – [November 12, 2020](#)
- **Draft Permit and Licence conditions added to the review item** - November 19, 2020
- **Updated Engagement Plan and Revision History of Management Plans added to review item** – November 23, 2020
- **Reviewer comments and recommendations due and received** – December 3, 2020
- **Proponent (Applicant) response due and received** – December 11, 2020
- **Preliminary Screening Decision by the Board** – December 22, 2020
- **End of 42-day timeline** – December 28, 2020
- **Preliminary Screening Decision forwarded to MVEIRB** – December 28, 2020
- **10-day Pause period for Preliminary Screening** – January 7, 2021
- **Revised Preliminary Screening Pause Period** – January 4, 2021 (due to holiday closure of offices)
- **Application presented to the Board for decision** – January 14, 2021

3. Discussion

3.1 Project Overview

Husky has completed 3D seismic activities, oil and gas exploration drilling, groundwater monitoring, geotechnical and permafrost surveys for the Slater River Program on EL 494 under several authorizations issued over the period from 2011 to 2018. In 2019, Husky completed well abandonments, stabilization, targeted reclamation, and care and maintenance activities requiring the use of heavy equipment under these previous authorizations.

The new Husky Applications are intended to consolidate remaining project components of the Husky Slater River Program requiring further reclamation, or future care and maintenance (herein referred to as the Project). The project components fall under two scope of work categories:

- i) reclamation, and
- ii) interim care and maintenance.

Husky has defined the following terms used in their application documents as follows:

'Project components', or 'components': the access roads, bridges, culverts, storage pads, camp pad, and quarries related to the Slater River Project.

Reclamation: Return of the previously used work areas to a natural state or equivalent land use. Implemented when the site and/or project components are no longer needed. Reclaimed areas are anticipated to be inspected over the next 3 to 5 years to ensure stability and vegetative growth is satisfactory.

Care and Maintenance: Keeping infrastructure/project components in an operable state for the life of the program. Requires ongoing monitoring and maintenance and can include installation or repair of rip-rap as well as re-grading or contouring of roads, pad areas, or quarries. Erosion or sediment control measures may be added to, repaired or replaced as required.

Project components retained in the 'care and maintenance' program for support for potential future use are as follows:

- Winter access security station.
- Winter access camp.
- Winter access ice roads from the Government of the Northwest Territories (GNWT) winter road, to the end of the all-weather road, including winter water source access where applicable.
- All-weather access roads.
- All-weather staging area.
- All-weather base camp.
- Quarry M.

Project components that are no longer required for the project but require further reclamation and are part of this Application are as follows:

- Airstrip and airstrip access
- Quarry B

Project components that underwent reclamation or are revegetated and no longer required for the project are as follows:

- Winter completions camp (S13A-002 and S13L1-005)
- All winter access roads, including water source access, from the end of the all-weather access road to Little Bear H-64 well site (S13A-002 and S13L1-005)
- Hydrocarbon wells Little Bear H-64, and N-09 (S13A-002 and S13L1-005)
- Two deep water well sites, two shallow water well sites, and eight permafrost monitoring wells (S12X-006)
- O-41 storage area (former well site that was never drilled) (S13A-002 and S13L1-005)

For these five other project components, Husky will submit final plans and seek closure under their respective expired LUP's and WL's for which there are existing securities held.

A map showing the location of these components is included in ATTACHMENT 4.

The Slater River Program will require no new lands or new access. All work proposed and associated with the new LUP and WL will be conducted on existing project components, and land disturbances approved under the previous LUPs and WLs. The number of water sources required, and the volumes associated will be reduced, and no new water sources will be utilized.

3.2 Land Use Plan Conformity Determination

The SLUP was adopted by the Sahtu Land Use Planning Board (SLUPB) in April 2013 and received approval and came into effect on August 8, 2013. As per Part 3, Section 61(1) of the MVRMA, the Board may not issue, amend, or renew a licence or permit or authorization except in accordance with the applicable land use plan under Part 2. The Proponent submitted the following information to demonstrate how the project meets the appropriate SLUP conformity requirements.

The majority of Husky's EL 494 are located within a General Use Zone (GUZ), with the exception of the Mackenzie River (Deh Cho), and a 5km buffer which is part of a Special Management Zone (SMZ). EL 494 is also adjacent to the Three Day Lake Conservation Zone (CZ) which is considered a significant traditional, cultural, heritage and ecological area in which oil and gas exploration and development are prohibited.

The proposed Project activities include care, maintenance and reclamation and no oil and gas exploration will be conducted. Although EL 494 is located within 2 km of the eastern limit of the CZ, the proposed project will be more than 20 km away from the Lake.

Table 1 presents Husky's supporting evidence for meeting the conformity requirements of the SLUP. Under evaluation by the SLWB staff and supported by evidence from the public review portion of the regulatory proceeding, the project conforms to the SLUP. The SLWB has met the requirements as per Section 46 of the MVRMA.

Table 1: Husky Slater River Program – SLUP Conformity Requirements

Conformity Requirement	Application Section(s)	Supporting Evidence	Public and Board Staff Review
General Conformity Requirement			
CR#1 – Land Use Zoning	None	Proposed land use is not prohibited in the GUZ or SMZ.	Agreed
CR#2 – Community Engagement and Traditional Knowledge	12.1 and 12.2	Community Engagement and Traditional Knowledge studies have been conducted.	Husky has continuing discussions with organisations in Norman Wells, Fort Good Hope and Tulit'a and has committed to hiring and training individuals from local communities for work at the site (SRRB comment ID 4) .
CR#3 – Community Benefits	12.1, 12.2, 12.3	Husky abides by their signed Benefits and Access Agreement that is on file	Agreed

		with the SLWB.	All weather infrastructures will remain open. Culverts and bridges will not be removed. The area is accessed by many local community members for hunting and recreation purposes and rely on safe passage across water bodies. (Husky responses to ENR comment ID 6)
CR#4 – Archaeological Sites and Burial Sites	13.1	Historical Resource Impact Assessment have been conducted on the land use activities.	Agreed
CR#5 – Watershed Management	14.8	<p>Bathymetric surveys of the water sources have been conducted.</p> <p>Additionally, Baseline hydrology, surface water quality, groundwater aquifer testing, and quality assessments have been completed.</p> <p>Ongoing annual surface water quality assessment and groundwater quality monitoring were conducted as per commitments to the SLWB.</p> <p>Husky will evaluate a targeted field based and analytical surface water quality assessment program each year during project activities related to the road and quarry surface water runoff, culverts and bridges.</p> <p>Laboratory parameters may include general analytes, phosphorous, metals, and others, as appropriate.</p> <p>Field parameters may include conductivity, DO, ORP, pH, temperature, turbidity, and chlorides.</p>	<p>Agreed</p> <p>Husky completed baseline and ongoing water sampling across the entire licenced program area from 2011 - 2019. No hydrocarbon impacts to surface or groundwater were noted (Husky response to SRRB comment ID 2)</p>
CR#6 – Drinking Water	14.8	<p>No land use activity is near community catchments.</p> <p>Baseline and annual surface and groundwater assessments were conducted.</p> <p>Husky will evaluate a targeted, field based and analytical surface water quality assessment program each year during project activities related to the road and quarry surface water runoff, culverts and bridges.</p> <p>Laboratory parameters may include</p>	Agreed

		<p>general analytes, phosphorous, metals, and others, as appropriate.</p> <p>Field parameters may include conductivity, DO, ORP, pH, temperature, turbidity, and chlorides.</p>	
CR#7 – Fish and Wildlife	14.7.5 and 14.8.4	Fish and Fish Habitat Surveys were conducted. No in-water construction is anticipated.	Agreed
CR#8 – Species Introductions	14.7.4	No intentional introduction of non-native plant and animal species, or of domestic animal species or subspecies will occur.	Agreed
CR#9 – Sensitive Species and Features	14.7.4	Husky has conducted vegetation and habitat surveys on EL 494. There is no known mineral lick, hot/warm springs or rare plants in the project area.	Agreed
CR#10 – Permafrost	14.7.3	<p>Husky had installed eight permafrost monitoring locations within the project areas to measure permafrost temperature and characterize and monitor permafrost in the area.</p> <p>Husky had conducted permafrost monitoring annually.</p> <p>Husky implements project activities in a manner to protect permafrost.</p> <p>Currently all permafrost wells have been abandoned and the annual monitoring will not be ongoing.</p>	Agreed
CR#11 – Project-Specific Monitoring	14.7, 14.8	There are ongoing surface water and wildlife monitoring for the proposed project activities.	<p>Most activity is scheduled for July and August and the proponent is aware of timing for significant sensitive seasons for major species. The timing of field activities and the “sweep” of the area prior to activity in July should mitigate most wildlife interactions and disruptions (SRRB – comment ID 3).</p> <p>Husky will consider unoccupied nests as well as occupied nests when performing wildlife sweeps (Husky response to ENR comment ID 33)</p> <p>Husky will plan to submit the wildlife observation data in the</p>

			recommended format with the annual reports (Husky response to ENR comments ID 35, 36, 38).
CR#12 – Financial Security	N/A	Husky will post security deposits as requested by the SLWB.	Husky has agreed to security estimate recommendations from ENR (ENR comments ID 4, 8, 29, 30, 31).
CR#13 – Closure and Remediation	10	Husky has outlined an interim closure and reclamation approach that will be further defined as needed.	<p>ENR commented that the approach taken to the CRP was incorrect. As noted in the Guidelines, the intent of a CRP is to provide a description of the plan that would be followed in order to close and reclaim the site, either temporarily pending further exploration work or permanently should the project not proceed to development. (ENR Comment ID5) and recommended Husky revise the CRP to provide the permanent closure and reclamation requirements for all project components (ENR comments ID 5, 6, 7, 17, 26, 27, 28).</p> <p>Husky believes that the interim CRP provided is sufficient and relevant at this stage of the Project. Husky is currently not planning to retire or remove some components of the Slater River assets and believes it is both premature to develop a detailed CRP at this time, and not possible given that the potential development plan of the Slater River Project under an SDL will require additional infrastructure to accommodate further exploration and development of the Licenced area, stakeholder considerations, Indigenous consultation and regulatory changes. (Husky response from Attachment 2, to ENR comments and recommendations).</p> <p>See also response to CR#3 above. Husky would like to undertake further discussions with the local communities to determine the final plan for the all-weather road and its related infrastructure (3 bridges and culverts).</p> <p>Staff agree that the ICRP provides</p>

			sufficient detail for this Project. Conditions are included in the Licence to require submission of revised and updated ICRP prior to the expiry of these new authorizations and review of RECLAIM security.
Special Management Conformity Requirements			
CR#14 – Protection of Special Values	None	Husky is aware of the importance of the Mackenzie River and will protect, respect and take into account its values	ENR is of the opinion that the nature, scale, and timing of the proposed care and maintenance, and reclamation activities, are such that the likelihood of impacts to NWT-listed or pre-listed species can be avoided or minimized if the wildlife mitigation and monitoring measures outlined in the Proponent's Wildlife Monitoring and Mitigation Plan are followed (ENR comment ID 32) ENR requested that Husky provide wildlife sighting data associated with field programs since 2012, in particular timing and location of all boreal caribou observations (ENR comment ID 37) . Husky will provide all available data.
CR#15 – The Great Bear Lake Watershed	N/A	Not applicable, project not within Great Bear Lake Watershed.	N/A
CR#16 Fish Farming and Aquaculture	N/A	Not applicable, project not within Great Bear Lake Watershed.	N/A
CR#17 – Disturbance of Lakebed	N/A	Not applicable, project not within Great Bear Lake Watershed.	N/A
CR#18 – Uses of Du K'ets'Edi Conservation Zone (Sentinel Islands)	N/A	Not applicable, project not within the Sentinel Islands.	N/A
CR#19 – Water Withdrawal	N/A	Not applicable, water withdrawal is not occurring from Lac Belot, Stewart Lake or Tate Lake.	N/A

3.3 Program Components

3.3.1 Project Activities

The common or possible project activities that will remain in “Site Wide Services” to manage the Project components identified in section 3.1 above are:

- Use, care and maintenance of winter access, the all-weather access road, culverts and three clear span bridges;
- Water withdrawal from existing water sources previously approved under S13L1-006, including the Mackenzie River and Vermillion Creek;
- Barging activities, maintenance and erosion control at the staging area located on the west side of the Mackenzie River;

- Fly in/out of personnel via helicopter landing in various locations and heli-pads across the Project;
- Fly in/out of personnel via wheeled or float plane in designated areas;
- Maintenance of the designated run-way for a twin otter on the all-weather road;
- Operation of a command centre, generator, and heavy equipment workshop at the all-weather base camp, if required;
- Management of medical personnel and a mobile treatment centre during maintenance cycles;
- Fuel tanker trucks and pick-ups with slip tanks utilized for fuel handling during short spans of maintenance and repairs;
- Short term storage of up to six fuel drums (205 litres each) in secondary containment required for air support during operations;
- Revegetation, erosion and sediment control as required on all project components;
- Overall project component reclamation and maintenance activities;
- Environmental (vegetation health, site condition, erosion, etc.), wildlife and surface water monitoring; and
- Waste management during active operations.

3.3.2 Project Activities Schedule

The majority of activities regarding project component inspections and maintenance will be conducted during the summer operating period. Inspections and minor maintenance activities will take place for a maximum of two weeks each, between June 9 – September 15 as described in Table 2, unless unanticipated events occur, and with notification to the Land Inspector.

Table 2: Scheduled Activities During a Year Conducting Inspections and Minor Maintenance as Required

Time Frame	Activities
June 9 – September 15	• Annual Inspection of project components and infrastructure
	• Project minor maintenance required immediately, straw wattle replacement, straw matting repairs; heli-access only
	• Targeted Surface Water Sampling and Wildlife Program data recovery if required
October - November	• Reporting as outlined in terms and conditions of permit and licence

If inspections deem any major repairs, then summer operations may require heavy equipment. It is also anticipated that a maintenance cycle may be required every three to four years. The operations would be in line with barging operations between July and August. Activities through a major repair and/or maintenance cycle are detailed in Table 3.

Table 3: Scheduled Activities During a Year Conducting a Maintenance

Time Frame	Activities
June 9 – September 15	• Annual Inspection of project components and infrastructure
	• Mobilize equipment to the project via barge in June/July
	• Complete prescribed care and maintenance or reclamation program
	• Demobilize equipment and any waste to base or facility via barge/truck

	<ul style="list-style-type: none"> • Fall Inspections • Targeted Water Sampling and Wildlife Program data recovery if required
October - November	<ul style="list-style-type: none"> • Reporting as outlined in Conditions

If in the event there is any major damage to any project components (e.g., bridge failure, repairs that require frozen ground conditions) winter access may be required for their repair. Once the event has occurred, it will be immediately reviewed with the SLWB and Land Inspectors to discuss the incident, provide possible solutions, and a potential schedule for mitigations will be put in place. Activities through a major repair are detailed in Table 4.

Table 4: Scheduled Activities During a Year Conducting a Major Maintenance

Time Frame	Activities
December 1 – March 31 as weather conditions allow	<ul style="list-style-type: none"> • Construction of an iced pad, set up of the security area and 3.5 km of winter access road to the east side of the Mackenzie River.
	<ul style="list-style-type: none"> • Construction of 1,400 m ice bridge across the Mackenzie River to Husky’s existing staging area on the west side. The ice bridge will be constructed to the minimum weight bearing capacity for the heaviest piece of equipment required for repairs.
	<ul style="list-style-type: none"> • Use of a winter airstrip on Water Source 2 (WS-02) for emergency situations and moving crews.

If work cannot be completed by late March and conditions preclude an extension to the Program, further work may be required in the subsequent winter season or be completed during summer operations.

3.3.3 Management Plans

The following Management Plans and Studies were submitted with the Application:

- **Engagement Plan update and Record.**
- **Waste Management Plan.** (WMP).
- **Spill Contingency (SCP) and Emergency Response (ERP) Plans.**
- **Interim Closure and Reclamation Plan (ICRP).**
- **Quarry M Management Plan (Quarry MMP).**
- **Wildlife Monitoring and Mitigation Plan (WMMP).**

3.3.4 Water Use and Sourcing

Water supply for the Project will primarily be required for reclamation and maintenance purposes. This will include water for winter access if it is required, potential fire suppression, dust control and soil compaction on any of the project components during maintenance cycles in the summer. The estimated volumes of water required are based on the requirements for completing a major repair. All water sources and volumes have been previously permitted under Water Licence S13L1-006. The water sources, maximum withdrawal volumes and time of use are described in Table 5. Potable water will be brought from town to site only for drinking water use.

Table 5: Water Source Withdrawal Locations, Maximum Annual Allowable Volume and Anticipated Volume

Water Source Name	Location Lat Long (DD, NAD27)	Maximum Allowable Withdrawal (m ³)	Anticipated Water Withdrawal (m ³)
WS-01 (for summer maintenance and dust control)	65.032524°N 126.378199°W	4,200	1,000
WS-02 (winter operations for construction of security station ice pad) (summer maintenance and dust control, if required)	65.008051°N 126.490602°W	11,200	2,500
WS-07, Mackenzie River (winter operations for ice road access construction)	65.085437°N 126.243890°W	58,085	9,500
Vermillion Creek (for winter operations only)	65.096499°N 126.131274°W	2,000	2,000
Total Volumes		75,485	15,000

3.3.5 Equipment, Infrastructure and Fuel and Fuel Storage

The following equipment and fuel in Table 6 is identified as required for the Project. The heavy equipment will only be required during maintenance or major maintenance cycles.

Table 6: Equipment and Fuel list for the Project

Light Vehicles	
<ul style="list-style-type: none"> • Pickup Trucks – 1 ton with diesel slip tanks, maintenance cycle only • Mechanic’s Truck – F450, maintenance cycle only • Snowmobiles, if winter access is required • All-Terrain Vehicles (ATV) 	<ul style="list-style-type: none"> • ATV trailers • Mini Tracked Loader • Mini Track Hoe
Heavy Equipment – only required during a maintenance cycle or major repair	
<ul style="list-style-type: none"> • Loader 980H • Loader 950B • Loader John Deere 316 • Grader CAT 14H • Grader CAT 14M • Dozer D8T • Dozer D6R • Dozer D5 • Skid Steer 	<ul style="list-style-type: none"> • Excavator CAT 345 • Excavator CAT 349 • Excavator CAT 330C • Smooth Drum Packer, or Sheep’s Foot Packer • Self-propelled Packer CAT 815 • Snow Cat • Versatile Flood Tractor
Heavy Trucks/Trailers	
<ul style="list-style-type: none"> • Rock Truck CAT 740 or equivalent • Rock Truck CAT 730 or equivalent • Tri-Axle Cross Clam Belly Dump • Tri-Axle End Dump Units • Roll Off Truck w/ 2 Garbage Bins • Winch Truck Tridem 	<ul style="list-style-type: none"> • Scissor Deck Tridem • Tractors and Diskers • Potable Water Truck • Wastewater Vacuum Truck • Water Trucks
Security Station/ Command Centre	

<ul style="list-style-type: none"> • Bedroom/Lounge/ Office • Boot room/Storage/First Aid • Potable Water Storage • Generator 	<ul style="list-style-type: none"> • Rig mats • Office trailers • Security Shack
Portable Equipment	
<ul style="list-style-type: none"> • Tandem trailer • Tire drags • Truck Shop – portable • Light Towers – trailer mounted • Rig Mats • Snow maker with container • Generator – back up (spare) 	<ul style="list-style-type: none"> • Incinerator • Ash bins • Hazardous Waste Bins • Recycling and Garbage Bins • Skid Mounted Generator • Sea Cans – Wastewater Treatment Equipment
Onsite Fuel	
<ul style="list-style-type: none"> • 6 - 200 litre drums of Jet A or B onsite during operations – to be stored with secondary containment at the all-weather base camp and removed when not required 	<ul style="list-style-type: none"> • 1 Fuel and Lubricant Truck, Tandem or Tri-axle- with a capacity of 16,000 L for use in a maintenance cycle • Pickup Trucks – 1 ton with diesel slip tanks and fuel nozzle, maintenance cycle only
Additional Equipment that may be required for the Project	
<ul style="list-style-type: none"> • Helicopters • Fixed-wing aircraft • Drones • Chainsaws 	<ul style="list-style-type: none"> • Power Augers • Gas-powered water pumps; and • Miscellaneous Hand Tools.

3.3.6 Camp

The all-weather base camp will act as a storage and staging area over the period of the new authorizations. Currently stored on the site is one seacan stocked with miscellaneous supplies and fire suppression equipment. A small amount of 2” limestone aggregate is stored for road maintenance, as well as erosion control supplies and extra oak matting.

A portable personnel camp will not be required at the site over the span of this new LUP and WL. For most years of inspections and minor maintenance, a maximum of 6 personnel will fly in/fly out via helicopter or twin otter (wheeled or float equipped) to work on the Project area for the day. This number may increase with university researchers. During winter operations vehicular travel would also be possible. Accommodations will be procured in one of the nearest centers that provide open camps or hotels, and pack in/pack out lunches and potable water will be provided.

During a maintenance cycle, or a large repair, up to 5 wellsite trailers, associated utilities and a truck shop may be mobilized to site to act as a command centre, office, heavy equipment repair centre and emergency shelter. An anticipated maximum of 25 people would be staged and working on the site during these types of operations. Accommodations will be booked in one of the nearest centres and fly in/fly out operations would continue.

3.4 Regulatory Requirements

3.4.1 Eligibility

Husky submitted proof of eligibility with their Application. Husky is eligible under section 18(a)(i) of the MVLUR. *18 A person is eligible for a permit who (a) where the proposed land-use operation is in the exercise of a right to search for, win or exploit minerals or natural resources, (i) holds the right.*

The Project area includes both Territorial land and Private (Sahtu) land.

3.4.2 Fees

Application fees of \$30.00 for the Licence and \$150.00 for the Permit made out to the RECEIVER GENERAL FOPR CANADA were received at the SLWB office.

3.4.3 Term

Husky has requested a term of 5 years for these authorizations.

3.4.4 Triggers

The activities as described trigger a Type A Permit in accordance with 4(a)(ii) and (iv), of the MVLUR:

(ii) the use of a vehicle or machine of a weight equal to or exceeding 10 t, other than on a road or on a community landfill, quarry site or airport,

(iv) the use of a self-propelled motorized machine for moving earth or clearing land.

The activities as described trigger a Type B Licence in accordance with Schedule D of the Waters Regulations for Industrial Undertakings related to oil and gas exploration including:

1(a) use of 100 or more m3 water per day.

4. Public Review – Summary of Issues and Topics Raised

Of the 39 organizations on the Tuli'ta district distribution list to which the application was distributed, 17 are represented within the Sahtu Settlement Area. Review comments and the main Issues and Topics raised during the review are summarized below. The full Review Comment Summary Table and submitted letters from GNWT-ENR, ARKTIS (for RECLAIM), and Husky responses can be found in ATTACHMENT 4.

GNWT – Environment & Natural Resources & Environmental Assessment & Monitoring (**GNWT-ENR**)

- Waste Management Plan – Incinerator and testing and disposal of the ash
- Closure and Reclamation Plan – terminology / classification / approach; progressive reclamation activities; care and maintenance activities; Quarry M; bridge and culvert removals; vegetation re-establishment criteria; post-closure monitoring.
- Quarry B Management Plan.
- Wildlife Monitoring and Mitigation Plan.

GNWT -Lands - Sahtu Region (**Sahtu Lands**)

- seeking clarifications and revisions to Permit conditions.

Sahtu Renewable Resource Board (**SRRB**)

- General supportive comments on the Application documents, in particular the Impact-Mitigation Assessment, WMMP and Engagement Plan.
- Requested a report on the presence of any hydrocarbons detected in previous monitoring programs – Husky confirmed none reported or measured.

Discussion of these topics will be presented in the following section.

5. Board Staff Analysis of Application and Evidence

5.1 Permission of Land Owner, Community Consultations, Traditional Knowledge, Archaeological Impact Assessment and Wildlife Mitigation and Monitoring Plan

5.1.1 Permission of Land Owner

The EL462/463 Project Committee is mandated by the Access Agreement and Benefits Agreement. This Committee includes three representatives from Husky and one representative from each of the three local land corporations (FNMLC, NWLC, and TLC) and has three basic functions:

1. to facilitate communication with Husky and the land corporations.
2. to qualify Dene and Métis businesses that have been registered in the Tulita District.
3. to manage an annual budget for the ELs and to screen, review and approve requests for community support, by donation, to a variety of programs, initiatives and community events (fall hunts, etc.).

5.1.2 Community Consultation and Engagement

Husky has a strong record of consultation and engagement with individuals and organizations in the Sahtu area since the introduction of the Slater River Project in 2010 and they have continued to provide the communities of Tulit'a, Norman Wells, Fort Good Hope, and Délı̄ne with public meetings, presentations and updates on an annual basis throughout the duration of operations within EL494 (with the exception of 2015, 2016).

Husky submitted an updated **Engagement Plan** with the Application to reflect changes in the Project scope and activities. This updated Plan also includes the **Engagement Record** required for this Application. Due to COVID19 restrictions and an abundance of caution, having sought advice and direction from SLWB, Husky commenced remote communication through email and phone calls on August 13, 2020. Husky provided presentation materials to the organizations summarized in Table 7 with additional stakeholders added through the process as required or requested. Husky will continue to respond to all supplemental requests for information as they move forward.

Table 7 Remote Consultation Stakeholder Organizations

Tulita District Local Organizations	
Norman Wells Land Corporation	Tulita Land Corporation
	Tulita District Land Corporation
	Tulita District Benefit Corporation
Norman Wells Renewable Resource Council	Tulita Renewable Resource Council
	Tulita Dene First Nation
Town of Norman Wells	Fort Norman Metis Land Corporation
Other Sahtu Organizations	
Fort Good Hope	Sahtu Land Use Planning Board – declined further notification

Husky reached out to each stakeholder to confirm the appropriate contact and their details to send the consultation materials and followed up with calls or emails to confirm or discuss any concerns,

questions, or issues. Husky will continue to engage with stakeholders throughout the life of the Project including:

- following the distribution of any new information to ensure receipt of the materials
- ongoing engagement following review and response to new materials provided.
- site tours or flyovers, during times of operations, when safe to do so.

Board staff recommend approval of the updated **Engagement Plan version 1.1** and the **Engagement Record** for this Application.

5.1.3 Traditional Knowledge

The most recent Traditional Knowledge (TK) study for the Project area was completed was conducted by the Tuli't'a Renewable Resources Council (TRRC) in 2011.

5.1.4 Archaeological Impact Assessment (AIA) – All requirements for the documentation and submission of archaeological and other historic or sacred burial sites assessments have been met through previous authorizations.

The **SRRB** submitted one positive comment regarding the Engagement Plan noting that *“Husky has continuing discussions with organisations in Norman Wells, Fort Good Hope and Tuli't'a and has committed to hiring and training individuals from local communities for work at the site.”*

5.1.5 Wildlife Mitigation and Monitoring Plan (WWMP)

Husky submitted a WWMP with the Application. This Plan is not for Board approval. Generally positive comments on the Plan were made by **GNWT-ENR** and **SRRB**, with recommendations for considering unoccupied nests in wildlife “sweeps”, contacting ENR regional office for permit in the event that disturbance of nests is unavoidable, and to supply data sheets for wildlife observation recording and reporting.

There were no other reviewer comments or recommendations for this section.

5.2 Management Plans

At the request of Board staff, Husky submitted a Revision Update Tracking / Section Descriptions Table with the Application documents to allow reviewers to focus their comments and recommendations on the sections of four Management Plans that were revised/updated from the Previous Document Versions Approved by the Board and Listed on the SLWB Public Registry under LUP S13X-003, WL S13L1-006 and LUP S13A-002, WL S13L1-005 (December 6, 2018). The revised versions submitted with the Application will be considered by the Board as versions 1.1.

5.2.1 Waste Management Plan Version 1.1

Husky's WMP v. 1.1 describes how Waste will be handled, stored, and managed in a safe and environmentally responsible manner. Their goal is to continue to manage waste safely through temporary storage onsite, until waste can either be treated onsite or shipped offsite and received at an approved waste management facility for end disposal (KBL Waste Transfer Facility in Yellowknife, NT). Husky's WMP v. 1.1 covers:

- Waste types including characterization of waste and waste management methods.
- Incineration management and ash disposal.

- Small amounts of sewage.
- Hazardous waste.
- Non-hazardous and other waste streams, and
- Contractor services regarding onsite waste management.

Comments on the WMP were received by GNWT-ENR on the following two topics.

1. Classification Error: used lube and engine oil waste not classified as hazardous. Husky will revise the WMP by moving the used lube and engine oil waste into Section 3.4 Hazardous Waste and 3.4.1 Hazardous Waste at Slater River. (ENR comment ID 1). Staff to confirm this change to the WMP v. 1.1
2. ENR recommended the Proponent should indicate the flue gas cleaning technologies being utilized and how incinerator ash will be managed and deemed non-hazardous (ENR comment ID2, 3). Board staff Husky's response is complete and acceptable. Refer to ATTACHMENT 3.

Board staff recommend approval of Husky's Waste Management Plan Version 1.1.

5.2.2. Emergency Response and Spill Contingency Plans version 1.1

As part of their corporate strategy, Husky has created and maintains an **Emergency Response Plan** that incorporates and integrates the processes and protocols required to address all facets of adverse events. The purpose of the Husky ERP is to clearly define the response system and organization structure to effectively respond to any security, emergency or business continuity incident regardless of size or complexity. Husky regularly submits an updated ERP to the Board, for the registry, that would be applicable to all current/active authorizations. The last update of the ERP was posted on October 4, 2018 to active Husky files.

The **Husky ERP** includes the following:

- Overall Incident Command System (ICS) response organization and structure.
- **Spill Contingency Plan (SCP).**
- Area specific hazards.
- Activation procedures.
- Guidance for determining the Emergency Level.
- Roles and responsibilities of specific ICS positions.
- Notification and communication requirements to the public, government agencies and Husky management.
- Stakeholder communication processes to support timely, effective and on-going notification of the public, media, regulators, government agencies, contractors and Husky employees and their families.
- General incident response protocols/scenarios.
- Documentation tools and requirements for noting and maintaining accurate record of events and decisions made during an emergency.
- Guidance regarding post-emergency actions.
- Training, drills and exercise expectations, and
- Available internal resources and contact information for external resources and contractors.

The Spill Contingency Plan in the Husky ERP is the only document for Board approval. The SCP was extracted from the ERP and posted for review separately. Revisions to the Husky SCP, include:

- Updates to program information for reclamation, ongoing care and maintenance
- Removal of references to propane, fuel transfer via fuel barge, and fuel tank farms as these infrastructure components are no longer required through this phase of the Project.
- Updates to potential spill source locations and removing reference to well sites as these are abandoned with restoration nearing completion (see Inspector report July 2020).
- Updates to contact numbers for mutual aid and Mackenzie Delta Spill Response Corp.

No reviewer comments were received on this item. Board staff recommend approval of Husky’s Spill Contingency Plan version 1.1.

5.2.3 Interim Closure and Reclamation Plan version 1.1

Husky submitted an updated version of the CRP previously approved by the Board for undertaking well abandonment at the Slater River Project site and to begin progressive reclamation, and reclamation and closure of project components no longer required for the Project area. The new Application and updated CRP addresses ongoing reclamation and care and maintenance activities required to maintain support for the Significant Discovery Licence (SDL) over the requested term.

General Revisions and updates were made to the CRP version 1.0 as follows:

- updated the scope of work by documenting previous work completed and including a list of all project components remaining within the project area that require progressive reclamation, closure and/or care and maintenance.
- reported on the progressive reclamation completed for Quarry B, Airstrip Access Road, and Winter Access.
- removed references to stabilization works and wellsites reclamation as downhole abandonment is complete with restoration nearing completion (see Inspector report July 2020).
- updated site history and baseline assessments based on more dialogue regarding previous LUP and WL's.
- Prepared a table of all active, expired and closed authorizations related to the Slater River Program area, permitted activities and securities held (Table 8) .
- updated overview and detailed project component and information maps from the as built survey program completed.
- included inspection and maintenance schedules over the time span of the LUP and WL.
- updated financial security using the RECLAIM 7.0 Spreadsheet - Oil and Gas (2017).

Table 8: Husky Slater River Program Permits and Water Licences issued by SLWB (unless otherwise indicated) supporting Closure and Reclamation and related securities

Permit or Licence issued	Expiration Date	Securities \$ currently held	Permitted or Licensed Activity
Type A Land Use Permit S13X-003 and amendment	October 22, 2020	952,813.13 LOC Dec. 10, 2013 ENR	Permits camp operations, winter access, construction and use of staging area
Type B Water Licence S13L1-006 and extension	October 22, 2020	300,000.00 LOC Dec. 10, 2013	Permits water for construction of camp, staging and access

Type A Land Use Permit S13A-002 and amendment	July 18, 2020	ENR 244,946.00 LOC Aug 8, 2013 ENR	Permits well completion activities at H-64 and N-09, construction of access, waste management, reclamation activities, and well and groundwater well abandonment
Type B Water Licence S13L1-005 and extension	July 18, 2020	361,659.00 LOC Aug 8, 2013 ENR	Permitted well completion activities at H-64 and N-09 (G-70 and O-64 wellsites were never developed) and well and groundwater well abandonment
Operations Authorization OA-2018-002, Office of the Regulator of Oil and Gas Operations (OROGO)	April 30, 2020		Permitted the downhole abandonment of Little Bear H-64 and N-09 hydrocarbon wells
Type A Land Use Permit S12X-006	December 3, 2017	35,825.72 Cheque Dec. 28, 2012 AADNC	Permitted a groundwater exploration program
Type B Land Use Permit S12S-002	September 11, 2017		Permitted a permafrost and gravel aggregate study
Type A Land Use Permit S12F-007	CLOSED July 10, 2014		Permitted construction of the all-weather access road and associated facilities
Type B Water Licence S12L8-007	CLOSED July 10, 2014		Permitted the installation of a clear span bridge over Bogg Creek / culverts for drainage
Type A Land Use Permit S11T-002	CLOSED July 10, 2014		Permitted construction of staging area and camp accommodations and access
Type B Water Licence S11L3-002	CLOSED July 10, 2014		Permitted water use for construction of the staging area, access and camp operations / accommodations
Type A Land Use Permit S11A-003	CLOSED July 10, 2014		Permitted exploratory oil and gas drilling operations at N-09, H-64, G-70 and O-41 wellsites (the latter two wellsites were never developed)
Type B Water Licence S11L1-003	CLOSED July 10, 2014		Permitted water for exploratory oil and gas drilling at N-09, H-64, G-70 and O-41 wellsites (the latter two wellsites were never developed)
Type A Land Use Permit S11B-005	CLOSED December 3, 2014		Permitted 3-D seismic program activity
Type B Water Licence S11L1-005	CLOSED December 3, 2014		Permitted water usage for seismic operations

Comments on the CRP were received by **GNWT-ENR** who recommended that the Board and Husky refer to the memorandum prepared by ARKTIS for additional background and context supporting their comments and recommendations (ENR Comment ID 4) on the following topics:

1. **CRP Approach** - while Husky has followed the intent of the MVLWB Guidelines¹, they have taken the wrong approach; the CRP should give a complete description of closure activities for all project components and indicate the final land condition (Comment ID 5, 7).
2. **Post-closure Monitoring** - Project CRPs, as noted by the Guidelines, should provide a description of the plan that would be followed in order to close and reclaim the site, either temporarily pending further exploration work or permanently should the project not proceed to mine development. This includes monitoring to demonstrate that relinquishment of a site can occur (Comment IDs 26, 27, 28).
3. **RECLAIM Security Estimate** - revise the financial security estimate to provide the total project liability associated with permanent closure of the Project site (Comment ID 8), with a total reclamation security of \$1,360,080 and a recommended land and water portion of \$1,069,661 and \$290,420, respectively (Comment IDs 30, 31 and ARKTIS attachment).
4. **Progressive Reclamation** - Husky identify: the remaining progressive reclamation activities to be completed at the project site other than vegetation and erosion monitoring and repair (Comment ID 13); the criteria for vegetation establishment at well sites (N-09 and H-64) and anticipated timeline until close out (Comment ID 15); any post-closure monitoring and maintenance of the well sites that may occur following close out (Comment ID 16).
5. **Interim Care and Maintenance** - the CRP be revised such that care and maintenance activities are re-categorized under the temporary closure category (Comment ID 6); Husky provide a schedule of final closure and reclamation activities, and related site access requirements (Comment ID 17).
6. **Bridge and Culvert Removal** - Husky depict on a map the location(s) of the bridges and culverts that are present at the project site (Comment ID 18, 21); Husky provide details regarding the design, structure, size and composition of each bridge and culvert (Comment ID 19, 22); Husky describe the reclamation approach and indicate if select bridge components and culverts are to remain in place post-closure (Comment ID 20, 23).

The following presents Board staff analysis and recommendations based on the review of all evidence including Husky's response:

1. **CRP Approach** – Husky recognizes the ENR's desire to have a fully detailed CRP for the Slater River Project and is committed to the closure and reclamation in an environmentally responsible manner, per the regulations, when appropriate. Husky believes that the interim CRP provided is sufficient and relevant at this stage of the Project and believes it is premature and not possible to develop a detailed final Closure and Reclamation Plan (CRP) and closure cost estimate given that the potential development plan of the SDL would require further exploration of the Project area.

Husky has requested that the Board consider the Plan as an interim Closure and Reclamation Plan for the following reasons:

- As the Project progresses through further monitoring, inspections, and seasonal changes, team members are expected to revise and further develop this plan.
- Husky is uncertain of the timing or potential for any future drilling, completions, and other development activities in the Project area.
- Husky has no plans to retire or remove key components of the Slater River Program assets.

¹ Mackenzie Valley Land and Water Board's (MVLWB) Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories – [SLWB website resources](#)

- Any future development will require additional infrastructure that could include an extension of the all-weather road system, additional production wells, the installation of infield pipeline gathering systems, and production facilities.
- The operating period of future field development and production would likely span many years with evolving requirements to accommodate area development, stakeholder considerations, Indigenous consultation and regulatory changes.
- The restricted access due to COVID 19 prevented the collection of field data that may be required to initiate any technical studies that would support potential CRP options for consideration.
- The development of a comprehensive CRP based on various potential developmental scenarios would require numerous field and stakeholder interactions and consultations. This would take an extended period of time to develop a detailed CRP inclusive of the various development scenario schedules, volumes, predicted residual effects etc., as outlined by the ENR.

Husky proposed to revisit the CRP prior to the end of the new LUP and WL expiry, and update it accordingly. Board staff agree that this proposal is covered by draft Licence Part I, Condition 2 **CLOSURE AND RECLAMATION PLAN – REVISED** - *Every three years following the previous approval, or as directed by the Board, the Licensee shall submit to the Board, for approval, a revised Closure and Reclamation Plan.* The revised Plan would be prepared in accordance with Draft Licence Part I, Condition 1 **CLOSURE AND RECLAMATION PLAN (INTERIM)** - *The Licensee shall comply with the **Closure and Reclamation Plan**, once approved. The Plan shall include the items in accordance with Schedule 2, Condition 1.*

Board staff reviewed the CRP submitted with the Application to determine if it includes all items in accordance with Draft Licence Schedule 2, Condition 1. According to ENR (Comment ID 5) the following content was deemed to be missing from the CRP:

- a. Pre-disturbance, existing and final site conditions
- b. Closure objectives and criteria for each component
- c. Consideration of closure options and selection of closure activities
- d. Engineering work associated with selected closure activities
- e. Predicted residual effects
- f. Uncertainties
- g. Post-closure monitoring, maintenance and reporting
- h. Contingencies

Board staff note that the content listed by ENR above, except for a, f, and h, are listed in Schedule 1, Condition 1 (i) and apply to the development of Component-Specific Plans as required in draft Licence Part I, Condition 3 and Schedule 2, Condition 2 - *The Component-Specific **Closure and Reclamation Plan** referred to in Part I, Condition 3 of this Licence shall include, but not be limited to, the information detailed in 1 (i), above.*

Item a, from the ENR is included in Schedule 2, Condition 1 (f) *A description of the pre-existing and current Project environment.* Note that the condition does not include “final site conditions”.

Items f and h, from the ENR, are addressed by Schedule 2, Condition 1 (k) a plan for **Interim Care and Maintenance**, including, but not limited to the following information:

- i. goals and objectives;
- ii. a description of activities and methods;
- iii. a description of monitoring, maintenance, and reporting;
- iv. contingencies; and
- v. an implementation schedule.

Board staff agree that the CRP submitted with the Application has addressed all of the items in Schedule 2 as required and supports Husky's reasons for not proceeding with a Final CRP and closure cost estimate at this time.

- 2. Post-Closure Monitoring** - Husky responded to ENR that the development of post-closure monitoring activities following final closure will be addressed in future iterations of the ICRP.

Board staff note that Draft Licence Part I, Condition 5 requires that the Licensee shall submit to the Board for approval, an Annual **Closure and Reclamation Monitoring and Maintenance Progress Report**. The Report shall document all monitoring, progressive reclamation and/or care and maintenance activities completed during previous summer and/or winter monitoring cycles, with the first report due on November 15, 2021 and include the requirements of Schedule 2, Condition 3.

- 3. RECLAIM security estimate** – see discussion below under section 5.4.
- 4. Progressive Reclamation** – Husky has indicated that all major stabilization, and reclamation was completed over Winter and Summer of 2019. Going forward, further reclamation, care and maintenance will be limited to mainly vegetation, wildlife, surface water monitoring and erosion monitoring and repair with major repairs identified and completed based on annual inspection observations and results.

ENR also recommended that Husky include the final reclamation and closure of the abandoned wellsites into this CRP. Husky responded that the well sites and monitoring wells are covered under expired permits and licences (LUP S13A-002 and WL S13L1-005), in which securities are currently held. As the well sites were minimum disturbance, and mulched, frozen access only, and ice padded, natural revegetation is prevalent across the site, and well established. The sites have only been through one growing season, and reclaimed areas directly at well centres have begun to re-establish. Annual inspections, OROGO required gas migration testing, and documentation of the well centres will continue until a recommendation for file closure is obtained from GNWT Inspectors.

Husky requested consolidation of activities permitted under S13A-002 and S13L1-005 in their Application; however, in their response to ENR, they are requesting that these authorizations be kept separate and not be included in the Application, as final closure is anticipated in the next couple of years based on most recent Inspection reports. Board staff support keeping the wellsites reclamation and closure separate at this time as there is adequate security to cover reclamation costs.

- 5. Interim Care and Maintenance (ICM)** – Board staff do not agree with ENR that the proposed ICM activities need to be re-categorized as “temporary closure”. Husky is continuing to undertake progressive reclamation, monitoring, closure and maintenance activities over the

next 5-7 years while they develop future plans. The Guidelines define “care and maintenance” as “the status of a mine when it undergoes temporary closure”. Temporary closure occurs when an advanced mineral exploration or mining operation ceases with the intent of resuming activities in the near future. During temporary closure, proponents must maintain all operating facilities and programs necessary to protect humans, wildlife, and the environment, including necessary environmental monitoring.

The Slater River Program area is not a mining operation and the definition in the Guideline is for care and maintenance, not temporary closure.

6. Bridge and Culvert Removals – ENR requested that Husky provide final closure options and closure costs for removal of the bridges and culverts associated with the all-weather road. Husky does not plan to remove any all-weather infrastructure in the foreseeable future for two reasons:

- a) Husky may require this infrastructure in the future.
- b) The area and the all-weather road are accessed by many local community members for hunting and recreation purposes and rely on safe passage across water bodies and land.

Subsequent iterations of the CRP must include discussions with local communities to determine whether the infrastructure is preferred to remain for long-term use by Sahtu beneficiaries or be permanently removed and reclaimed.

Board staff recommend approval of Husky’s (Interim) Closure and Reclamation Plan v. 1.1.

5.2.4 Quarry M Management Plan version 1.1

Quarry M will be the only remaining quarry on the Project which will support Husky all weather infrastructure as the transition from Exploration Licence (EL) 494 to a Significant Discovery Licence (SDL) takes place.

Husky submitted a revised version of the Quarry M Management Plan (QMMP) to more closely follow 2015 GNWT Guidelines², to be consistent with the CRP v. 1.1, and with the following updates:

- scope of work revised to include Quarry M as the only open quarry, but with a status of no further development plans at this time.
- project components revised to include Quarry M and show that Quarry B is in a state of progressive reclamation until closure is achieved.
- Included information pertaining to volumes and profile of Quarry M.
- baseline assessments revised to include and summarize information from previous LUP’s and WL’s.
- described borrow material usage and stabilization work completed in Quarry M.
- described work completed to manage water on site with overview photos.
- Described inspections and operations that will be ongoing for the Project duration.
- Maps were revised to include as-built dimensions, original profile and profile post-construction.

² Government of Northwest Territories, Department of Lands. 2015. Northern Land Use Guidelines, Pits and Quarries.

The following comments and recommendations on the QMMP v. 1.1 were received by **GNWT-ENR** who recommended that Husky identify and clarify the following:

- if additional topsoil, overburden or riprap materials will be required from Quarry M to support reclamation and the location(s) and volumes that will be required (Comment ID 9).
- status of Quarry M slopes reclamation including the location(s) and area of the Quarry M slopes that have received reclamation work, and any areas that still require reclamation (Comment ID 10, 11).
- summarize the closure condition of Quarry M and B, the proposed monitoring and mitigations against long-term potential impacts to the environment (Comment ID 12).

Husky replied that most of the reclamation requiring heavy equipment was completed in 2019 and that all quarried areas utilizing overburden and topsoil have had topsoil pulled back, are straw matted, and seeded with regulatory approved grass seed mix for erosion and sediment control purposes (care and maintenance). Husky does not anticipate that volumes in addition to the currently stored overburden or topsoil will need to be quarried over the next 5 years. Touch up reclamation will be based on annual inspections.

Mitigations to stabilize Quarry M slope sides can be mapped in the future. The matting / seeding has been done for long term stabilization, erosion and sediment control within the Quarry, not final reclamation, pending potential future development.

Quarry M will continue to be an open asset while Quarry B will be under annual inspection monitoring, with reclamation work completed as annual inspections deem.

Board staff recommend approval of Husky's Quarry M Management Plan version 1.1.

5.3 Potential for Environmental Impacts and Mitigation Measures

Board staff consolidated the preliminary screening reports approved for the authorizations being consolidated for this new Application and updated the preliminary screening based on the Environmental and Socioeconomic Effects assessment report³ submitted with the Applications and the public record for the proceeding. Board staff were of the opinion that the updated report included activities that had not been screened in previous authorizations and recommended the Board not to approve the exemption.

5.3.1 Preliminary Environmental Screening

Under the Preliminary Screening Requirements of section 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA), the Board must conduct a preliminary screening of any proposed development prior to the issuance of a Licence, Permit, or Authorization, unless it is exempt from Part 5 of the MVRMA.

The Board met on December 22, 2020 to consider the Preliminary Screening. Based on the evidence provided, the Board was satisfied that the screening had been completed according to subsection 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA) and decided that, in its opinion, there is no reasonable likelihood that the proposed application might have a significant adverse impact on the environment and that the proposed application is not a cause for public concern as set out in paragraph 125(1)(a) of the MVRMA.

³ See [SLWB registry](#) for S20L1-004 – S20X-006

The Preliminary Environmental Screening Report and Reasons for Decision was forwarded to the MVEIRB on December 28, 2020. The Board decided the following:

1. **not to** approve the exemption.
2. **not to refer** the Project to Environmental Assessment.
3. if no referral to environmental assessment is received by end of day January 7, 2021, it will resume regulatory process for this Application.

On January 4, 2021 Board staff expressed concern that MVEIRB and other review organizations were out of the office during the period from December 24 until January 4 and therefore not able to receive and respond to the 10-day pause period during this time. The Board, therefore, revised the pause period to begin on January 4, 2021 with the end of the period January 14, 2021.

5.4 Security Estimate

Husky submitted a security estimate and worksheets following the MVLWB RECLAIM 7.0 Spreadsheet – Oil and Gas (2017). Husky based their estimate on **the planned expenditures to be incurred annually over the term of the new Permit and Licence** for inspections, minor maintenance, plus one maintenance cycle requiring heavy equipment. Husky did not develop a Final Closure Cost Estimate because of uncertainties with future development plans and use of infrastructure; rather, they based their estimate on the ICRP submitted with the Application.

ENR submitted an estimate prepared by their consultant. ARKTIS' Slater River Project estimate is an **end of project life cost estimate** and assumes the Proponent is not executing the reclamation program as described above. Table 9 presents the assumptions made by Husky and ARKTIS for their estimates.

Table 9: Assumptions made by Husky and ARKTIS regarding the closure cost estimate

ASSUMPTIONS FOR CAPITAL COSTS	
HUSKY	ARKTIS
Reclamation of disturbed land, quarry B, airstrip and airstrip access,	Reclamation of disturbed land and quarries M and B with equipment and crews as per a major maintenance cycle
Maintenance of bridges and culverts	Removal of bridges and culverts
There are no known areas of environmental concern (AEC) or contamination in the Project area.	Removal and disposal of hazardous and waste materials remaining on site and generated through reclamation activities
Gas migration testing to be completed under S13A-002 with security.	Completion of gas migration testing at hydrocarbon wells and contaminated soil investigations
Five-year interim care and maintenance for retained Project components	One-year interim care and maintenance.
One -year major maintenance cycle	
INDIRECT COST ASSUMPTIONS	
Mobilization and demobilization of care and maintenance crews for 1 cycle; and	Mobilization and demobilization of crews and equipment for 1 year care and maintenance

reclamation crews and equipment for 5 cycles	
Completion of post-closure monitoring and maintenance over 5 years	Completion of 3 years post-closure monitoring and maintenance

Both Husky and ARKTIS applied the same indirect fee percentages, calculated as a percentage of the capital costs, as described in the 2017 RECLAIM User Manual (Oil and Gas Version). ARKTIS applied a 7.95% inflation cost to their estimate; Husky did not.

Husky applied most of the Project costs to the Interim Care and Maintenance (ICM) tab, Post Closure tab and Mobilization tab. ICM and Mobilization tab listed activities and costs for the 1-year (major) maintenance cycle over the 5-year time span of the authorizations. The Post-Closure tab included the majority of costs associated with the summer monitoring, minor maintenance and annual inspections. Table 10 presents the two estimates in comparison.

Table 10: Comparison of Husky and ARKTIS security or closure cost estimates.

CAPITAL COSTS	COST		LAND LIABILITY		WATER LIABILITY	
	HUSKY	ARKTIS	HUSKY	ARKTIS	HUSKY	ARKTIS
WELLS AND FACILITIES	\$0	\$43,600	\$0	\$21,800	\$0	\$21,800
BUILDINGS AND EQUIPMENT	\$16,000	\$560,398	\$16,000	\$525,708	\$0	\$34,690
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT	\$40,615	\$27,615	\$40,615	\$13,808	\$0	\$13,808
SURFACE AND GROUNDWATER MANAGEMENT	\$0	\$538	-	-	\$0	\$538
INTERIM CARE AND MAINTENANCE	\$466,288	\$81,564	-	-	\$466,288	\$81,564
INFLATION (2014 TO 2020) ON CAPITAL COSTS (7.95%)		\$56,740		\$44,625		\$12,116
SUBTOTAL: Capital Costs	\$522,903	\$770,456	\$56,615	\$605,940	\$466,288	\$164,516
PERCENT OF SUBTOTAL			11%	79%	89%	21%
INDIRECT COSTS	COST		LAND LIABILITY		WATER LIABILITY	
	HUSKY	ARKTIS	HUSKY	ARKTIS	HUSKY	ARKTIS
MOBILIZATION/DEMOBILIZATION	\$344,330	\$174,612	\$37,281	\$137,327	\$307,049	\$37,285
POST-CLOSURE MONITORING AND MAINTENANCE	\$521,000	\$143,200	\$56,409	\$112,622	\$464,591	\$30,578
ENGINEERING (5%)	\$26,145	\$38,523	\$2,831	\$30,297	\$23,314	\$8,226
PROJECT MANAGEMENT (5%)	\$26,145	\$38,523	\$2,831	\$30,297	\$23,314	\$8,226
HEALTH AND SAFETY PLANS/MONITORING & QA/QC (1%)	\$5,229	\$7,705	\$566	\$6,059	\$4,663	\$1,645
BONDING/INSURANCE (1%)	\$5,229	\$7,705	\$566	\$6,059	\$4,663	\$1,645
CONTINGENCY (20%)	\$104,581	\$154,091	\$11,323	\$121,188	\$93,258	\$32,903
MARKET PRICE FACTOR ADJUSTMENT (0%)	\$0	\$0	\$0	\$0	\$0	\$0
INFLATION (2014 TO 2020) MOBILIZATION/DEMOBILIZATION AND POST-CLOSURE MONITORING AND MAINTENANCE (7.95%)		\$25,266		\$19,871		\$5,395
SUBTOTAL: Indirect Costs	\$1,032,659	\$589,624	111,807	\$463,721	\$920,852	\$5,395
TOTAL COSTS	\$1,555,561	\$1,360,080	\$168,422	\$1,069,661	\$1,387,140	\$290,420

Husky's total security estimate was **\$1,555,561** with 11% applied to land and 89% applied to the water liabilities.

ARKTIS' total security estimate was **\$1,360,080** with 79% applied to land and 21% applied to the water liabilities.

The two estimates differ by **\$195,481**; however, they differ more in the allocation to land or water liabilities with ENR recommending a higher percentage to land versus water and Husky the opposite.

ARKTIS' estimate has assumed that all remaining liabilities from previous authorizations have been transferred into the new Type A Land Use Permit and Type B Water Licence renewals. The remaining liabilities are shown in Table 11 and total **\$1,895,243.85**. This amount is greater than either Husky or ARKTIS estimates for the consolidated Licence and Permit activities for the new Application.

Table 11 Existing Securities (from Table 8)

PERMIT / LICENCE and permitted activities	SECURITY HELD, Form, date and by whom
Type A Land Use Permit S13X-003 and amendment construction and use of camps, winter access, staging area	\$952,813.13 LOC Dec. 10, 2013 ENR
Type B Water Licence S13L1-006 and extension use of water to construct camp, staging area, access	\$300,000.00 LOC Dec. 10, 2013 ENR
Type A Land Use Permit S13A-002 and amendment Well completion and testing, access, waste management, reclamation, well abandonment activities	\$244,946.00 LOC Aug 8, 2013 ENR
Type B Water Licence S13L1-005 and extension Use of water for well completions and well abandonment activities	\$361,659.00 LOC Aug 8, 2013 ENR
Type A Land Use Permit S12X-006 groundwater wells and surface water monitoring program	\$35,825.72 Cheque Dec. 28, 2012 AADNC
TOTAL LIABILITIES - Land (Permits)	\$1,233,584.85
TOTAL LIABILITIES - Water (Licences)	\$ 661,659.00
TOTAL	\$1,895,243.85

Husky has indicated that they would prefer to finalize the closure and reclamation activities for S13A-002, S13L1-005 and S12X-006, have them inspected and approved for final closure and refund of securities held. In this case, the securities held for S13X-003 and S13L1-006 would be transferred to the new Applications for a total security held by GNWT-ENR of **\$1,252,813.13**. Husky's security estimate was \$1,555,561. The Board supports the ENR allocation of higher liabilities applied to land than water and recommends land at 75% (\$1,166,670.75) and water at 25% (\$388,890.25).

If the Board accepts Husky's estimate and recommends ENR to transfer the land securities held under S13X-003 to S20X-006 and the securities held under S13L1-006 to S20L1-004, then Husky would be required to submit the following amounts to GNWT-ENR for this Application:

S20X-006

Total security required: \$1,166,670.75
 Security to transfer from S13X-003: \$ 952,813.13
Remaining Security to submit: \$ 213,857.62

S20L1-004

Total security required:	\$ 388,890.25
Security to transfer from S13L1-006:	<u>\$ 300,000.00</u>
Remaining Security to submit:	\$ 88,890.25

5.4.1 Security Estimate Revisions

GNWT-ENR supported ARKTIS recommendations for additional information and details to further refine the reclamation security estimate and address outstanding uncertainties. These include without limitation:

1. A detailed description of all anticipated reclamation activities remaining to be completed for each project component at the end of the care and maintenance period and anticipated duration.
2. Provide the anticipated areas in hectares that will require soil cover, grass seeding or fertilizing at closure, as well as the thickness of the soil cover.
3. List and depict on a map the location(s) of all culverts and provide associated details including their size, depth of burial, and number present at each location.
4. Provide details or designs for the existing bridges, including their size and material composition, and indicate if concrete abutments will remain in place or be removed at closure.
5. Provide the anticipated off-site disposal location for all hazardous and non-hazardous waste materials and associated disposal fees.
6. Provide the anticipated quantities of contaminated soil requiring removal from site.
7. Provide a schedule of reclamation activities, including the anticipated number of personnel required and the duration of reclamation activities.
8. Indicate the anticipated duration, scope and cost of post-closure monitoring and maintenance required following completion of all reclamation activities.

Board staff support these recommendations and will include them in a schedule in the Licence for security adjustment or recalculation if requested by the Board or for the Final CRP as per draft Licence Part C, Condition 3.

5.5 Draft Permit

A draft Land Use Permit with Terms and Conditions was prepared based on the MVLWB Standard Land Use Permit Conditions Template and the conditions in the authorizations being consolidated. The draft Permit conditions were posted for review with the Application and some minor revisions were made to conditions based on recommendations by GNWT-Lands-Sahtu (ATTACHMENT 5). A draft Permit cover page is also attached (ATTACHMENT 6).

5.6 Draft Licence

A draft Water Licence with Terms and Conditions was prepared based on the MVLWB Standard Water Licence Conditions Template and the conditions in the authorizations being consolidated. The draft Licence conditions were posted for review with the Application and some revisions were made to conditions and schedules based on recommendations by GNWT- ENR (ATTACHMENT 7). A draft Licence cover page is also attached (ATTACHMENT 8).

6. Conclusion

The Preliminary Environmental Screening Report did not identify any Significant Adverse Environmental Impacts or Public Concerns with the proposed project. All potential environmental impacts identified by review agencies can be mitigated with known technology and have been addressed in the Term and Conditions of the Land Use Permit and Water Licence. There was no referral to EA from MVEIRB during the revised 10-day pause period from January 4 – 14, 2021.

Husky's Project conforms to the Sahtu Land Use Plan.

The draft Permit and Licence conditions are based upon the standard condition templates, public review, and Board staff recommendations. Board staff conclude that the conditions contained within the draft Permit and Licence should mitigate any potential environmental impacts this development may have on the land and water.

Board staff conclude that the updated Engagement Plan, Waste Management Plan, Spill Contingency Plan, Interim Closure and Reclamation Plan and Quarry M Management Plan, as submitted, are in conformity with guidelines and the requirements of Permit S20X-006 and Licence S20L1-004 and may be approved at the Board's discretion.

A draft Reasons for Decision and Decision Letter is attached (ATTACHMENTS 9 and 10).

Board staff conclude there are no outstanding issues or concerns with this Application.

7. Recommendation

Board staff recommend the Board:

- 1) **Make a motion to approve the Type A Land Use Permit S20X-006 with Terms and Conditions** for a term of 5 years and **associated Reasons for Decision**.
- 2) **Make a motion to approve the Type B Water Licence S20L1-004 with Terms and Conditions** for a term of 5 years and **associated Reasons for Decision**.
- 3) **Make a motion to declare the Application conforms to the Sahtu Land Use Plan.**
- 4) **Make a motion to approve the Engagement Plan v.1.1.**
- 5) **Make a motion to approve the Waste Management Plan v.1.1** with the requirement that within 10 days of this Issuance, Husky will submit a revised WMP with the correction made to move "used lube and engine oil waste" into Section 3.4 Hazardous Waste and 3.4.1 Hazardous Waste at Slater River.
- 6) **Make a motion to approve the Spill Contingency Plan v 1.1.**
- 7) **Make a motion to approve the Interim Closure and Reclamation Plan v. 1.1.**
- 8) **Make a motion to approve Quarry M Management Plan v. 1.1.**

- 9) **Make a motion for a total security of \$1,166,670.75 for the Permit S20X-006, with the security of \$952,813.13 held for S13X-003 to be transferred to this new Permit and outstanding balance of \$213,857.62 to be submitted to GNWT-ENR.**
- 10) **Make a motion for a total security of \$388,890.25 for the Licence S20L1-004, with the security of \$300,000 held for S13L1-006 to be transferred to this new Licence and outstanding balance of \$88,890.25 to be submitted to GNWT-ENR.**

8. Reference Material Attached

- 8.1. Land Use Permit Application ([hyperlink](#))
- 8.2. Water Licence Application ([hyperlink](#))
- 8.3. Review Comment Summary Table and Attachments
- 8.4. Location Map
- 8.5. Draft Land Use Permit Term and Conditions
- 8.6. Draft Permit Cover Page
- 8.7. Draft Water Licence Term and Conditions
- 8.8. Draft Licence Cover Page
- 8.9. Draft Reasons for Decision
- 8.10. Draft Decision Letter from the Board

Respectfully submitted,



Bonnie Bergsma
Regulatory Specialist

Executive Director Comments:



Paul Dixon
Executive Director