



Sahtu Land and Water Board

Staff Report

Division: Land and Water Program	File No. S04A-006 / S04L1-006
Permit Type: Oil and Gas Exploratory Drilling	Licence Type: Industrial
Date Prepared: November 14, 2021	Meeting Date: November 16, 2021
Subject: Final Plan for Land Use Permit S04A-006 – Exploration Licence EL 397 – Sah Cho L-71 Wellsite, Camp and Sump – 50 km SSW of Tulit’a, NWT	

1.0 Purpose/Report Summary

To present the Final Plan submitted by Husky Oil Operations Limited (Husky) for Board approval and clearance (Attachment 1).

2.0 Background

The original Permit was issued to Northrock Resources Ltd. (Northrock) on September 8, 2004.

Northrock constructed the L-71 wellsite and remote drilling sump (for onsite disposal of drilling waste and cement), campsite, and temporary camp sump (replaced by a portable sewage treatment system), and 1.4 km of “new” access in the winter of 2004/2005.

The Permit and Licence were assigned to Husky by the Board on August 22, 2005.

The L-71 wellhead remained suspended until the wellbore was abandoned in August 2010.

2.1 Project Overview

The Program used the Keele River Staging Area (approved under S02T-002), 70 km of road access (approved under permit S02A-004) and 1.4 km of new road access 10 to 15 m wide to mobilize equipment and drill rig components to the site. An ice road was constructed across the Mackenzie River and on the cleared access for movement of heavy equipment.

The Sah Cho L-71 hydrocarbon well was the only one of four planned wells that was constructed and drilled using cut and fill techniques and ice padding to minimize disturbance.

Following completion of the exploratory drilling program, the site was reclaimed to the original topography, seeded with a regulator approved grass-seed mix and stabilized with erosion control coconut fiber and straw matting. Silt fencing was also installed at the site to control sedimentation run-off.

Husky conducted well abandonment in 2010 and reclamation activities from 2010 to 2018, including:

- Re-contouring the remote drill sump using excavated soil from the sump berms to improve drainage, and installing coconut fibre matting and native grass seed mix (annual ryegrass, slender wheatgrass, creeping red fescue, Canada wild ryegrass), and monitoring vegetation regrowth until Inspector approval,
- Monitoring the regrowth of vegetation in the temporary camp sewage sump until Inspector approval,
- Collecting soil samples from the well center and initiating a soil monitoring program to identify and delineate the extent and concentration of contaminants of potential concern (COPCs) – in this case, petroleum hydrocarbons (PHCs) were found at concentrations in exceedance of CCME guidelines in 256 m³ of soil,
- Developing and implementing a phytoremediation program from 2011 to 2015 that used Plant Growth-Promoting Rhizobacteria (PGPR) designed to promote biomass production in the rhizosphere, which in turn stimulates microbial activity. As the microorganisms metabolize and use the carbon in the hydrocarbon chains as a source of energy for cell production and growth, the hydrocarbon bonds are degraded and broken down into harmless – July 2015 sample analyses indicated that the remedial program on L-71 was successful,
- Completing final reclamation of the well site in 2018 in which the remediated soil was replaced into the excavation at the well center, the phytoremediation pad decommissioned and reclaimed, and straw matting and native grass seed mix were applied to control erosion and promote vegetation regrowth,
- Making annual inspections in 2019 and 2020 to record vegetation regrowth at the well center, noting that the phytoremediation pad was dominated by swamp ragwort (*Senecio cogestus*), which is being monitored for development of a control program if necessary. Board staff note that this plant is an annual native species with a wide distribution across Northern Canada. It often establishes in disturbed areas with elevated salinity; however, it is unlikely to persist for more than a couple years.
- The Inspection Report dated September 29, 2020, indicated that the permit should be kept open to monitor vegetation regrowth in some sparsely vegetated areas associated with the phytoremediation at the site and to confirm the presence of swamp ragwort.

The most recent Inspection Report dated October 16, 2021 confirmed that swamp ragwort is no longer present, all site remediation required by the Permit has been completed and the Inspector has recommended file closure (Attachment 2).

2.2 Process Requirements

September 12, 2004 - Permit Start Date

September 11, 2011 – Permit Expiry Date

January 25, 2021 - Final Plan Submitted

October 16, 2021 - Final Inspection Report with Recommendation for Closure

A Type A Land Use Permit was required for the following activities: Use and operation of heavy equipment, construction of an access road, lease, and construction and operation of a camp. A Type B Water Licence was required for the use of water for winter access road and lease construction, drilling activities, use of water and deposit of waste for a camp and sump.

3.0 Comments

3.1 Land Use Fees

In total Northrock submitted fees of \$760.00 for the Land Use Permit, including the \$150.00 non-refundable application fee and non-refundable \$50.00 assignment fee. The actual area of Federal Land used for the Sah Cho L-71 Drilling Program was 0.0 ha. The Project used 5.0 ha of Sahtu Private Settlement Lands. Schedule 1 of the MVLUR states that a Land Use Fee for federal public lands of \$50.00/hectare will be made if lands proposed to be used exceed two hectares. In the MVLUR there is no distinction for parts of a hectare.

	Hectares	Land Use Fee (\$)
Submitted with Original Application	11.2 ¹	\$560.00
Actual Crown Land Used	0.0	\$0.0
Total Owing/Refund		\$560.00

*Note: The original application fee includes two hectares free under the MVLUR

There has been an overpayment of land use fees of \$ 560.00. Since the Permit was issued prior to devolution of the NWT on April 1, 2014, the land use fees will be refundable from Canada.

3.2 Security Deposit

No security deposit was required for this Project.

3.3 Other Agency Comments

The Manager, Resource Management for the GNWT – Department of Lands, Sahtu Region has confirmed that “the Proponent has completed all required remediation outlined in the Land Use Permit for this area and now recommends this file for final file closure”. (Attachment 2).

4.0 Conclusion and Recommendation

Section 33 of the MVLUR states: *When a permittee has complied with all conditions of the permit and with these Regulations, the Board shall issue a letter of clearance to the permittee with a copy to the federal Minister.”*

¹ The application form stated 11.2 ha and fees of \$510.00; the final plan stated 10.2 ha and fees of \$510.00. The Applicant submitted land use fees of \$560.00 which is consistent with the 11.2 ha @ \$50.00 per ha.

Board staff recommend that the Board:

- Make a motion to accept the final plan and approve the closure of Permit S04A-006 and the Letter of Clearance (Attachment 3).
- Accept the closure of the associated Licence S04L1-006

5.0 Reference Material Attached

- 5.1 Husky Oil Operations Ltd. Final Plan with location maps
- 5.2 Inspection Report from GNWT-Lands
- 5.3 Letter of Clearance

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Bonnie Bergsma', with a long horizontal flourish extending to the right.

Bonnie Bergsma
Regulatory Specialist