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August 22, 2022

File: S22A-001

Chris Moger
Surface Landman
Suncor Energy
P.O. Box 2844, 150 6th Ave SW
Calgary, AB T2P 3E3

Sent by email

Dear Chris Moger,

Re: Suncor Energy Inc. Well Abandonment and Final Closure Project, Tweed Lake Area – Issuance Package – Land Use Permit S22A-001 - Oil and Gas Well Abandonment, Site Remediation and Final Closure and Reclamation – southwest and south of Colville Lake, Northwest Territories

The Sahtu Land and Water Board (Board) met on August 10, 2022 and considered the Application Package from Suncor Energy Inc. (Suncor) for Land Use Permit (Permit) S22A-001 for the **Well Abandonment and Final Closure Project, Tweed Lake Area** in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).

This Permit is issued for the purpose of well abandonment, site remediation and final closure and reclamation of well leases located south of Colville Lake (Bele O-35) and southwest of Colville Lake (Tweed Lake A-67 and Tweed Lake M-47).

Land Use Permit S22A-001 (attached) has been granted for a term of five years, effective August 22, 2022, and expiring August 21, 2027, and is supported by the Board's Reasons for Decision. These documents are posted to the Board's Public Registry.¹

Security Deposit

A security deposit of \$1,757,670.00 is required within 90 days following issuance of this Permit, as per Permit Condition 49, **SECURITY DEPOSIT** and subsection 32(3) of the Mackenzie Valley Land Use Regulations. The security deposit is **payable to the Government of the Northwest Territories (GNWT)**

¹ See SLWB Online Registry for [S22A-001](#)

and should be submitted to the following individual, to whom questions regarding security should also be directed:

Lands Advisor
GNWT-Lands
Bag Service #1
Inuvik NT X0E OT0
Phone: 867-777-8900

Submission Requirements

The Board's decisions on submissions that were considered in conjunction with the Application Package are set out below. The Board's directions for revisions for the Management Plans are set out in Table A attached with this letter.

Management Plans – Approved

The Board has approved the following Plans:

Condition 78, **ENGAGEMENT PLAN** - Engagement Plan and Record (V2)².

Condition 62, **SPILL CONTINGENCY PLAN** (V1)³

Management Plans – Approved with minor Revisions Required

The Board requires that the following Plan be revised and submitted by the date outlined in Condition 43.

Condition 43 **WASTE MANAGEMENT PLAN – REVISED** (V1)⁴

Management Plans – Required

The Board requires three additional plans to be prepared and submitted for approval, as set out in the following conditions. The Permittee may not commence the activities described in the Plans until the Plans have been approved:

Condition 20 **PERMAFROST PROTECTION CONTINGENCY PLAN**

Condition 24 **SEDIMENT AND EROSION CONTROL CONTINGENCY PLAN**

Condition 76 **SUMP REMEDIATION AND RESTORATION PLAN**

Other advice and reminders

- Suncor must take all possible efforts to bring benefits to the local communities through economic opportunities and partnerships for the abandonment Project.

² See SLWB Online Registry for S22A-001 – [Engagement Plan version 2 and Reporting](#) – May 23, 2022

³ See SLWB Online Registry for S22A-001 – [Project Spill and Emergency Response Plan version 1](#) – May 23, 2022

⁴ See SLWB Online Registry for S22LA-001 – [Waste Management Plan version 1](#) - May 23, 2022

- The Board encourages Suncor to submit the Sump Remediation and Restoration Plan (Condition 76) as soon as possible and greater than 90 days prior to Project commencement to allow sufficient time for the regulatory review and approval process.
- Based on the knowledge and experience of the Board, achieving 100% sump stability in permafrost environments is problematic. The Board's preference is that any sumps that are not stable and are showing signs of subsistence should be removed with disposal of all contaminated sump materials offsite to reduce the long-term liability of contaminate migration to the surrounding environment. The Board has added conditions in the Permit to address any sump instability issues if required (Conditions 32 **RECLAIM SUMPS**, Condition 33 **SUMPS FREEBOARD**, and Condition 34 **SUMP MATERIAL**).

Inspectors


The Inspectors referred to in the Permit can be contacted at the regional GNWT-Lands offices.⁵

Permit Processes and Additional Information

Sections 5 and 6 of the Board's *Guide to the Land Use Permitting Process*⁶ (Guide) contain detailed information on permit enforcement and potential post-issuance processes, such as amendments to conditions, and assignment to another company. Please be familiar with these sections of the Guide and reach out to Board staff with any questions about Board processes related to the Permit.

Full cooperation of Suncor Energy is anticipated and appreciated. Please contact Marie Nietfeld at marie.nietfeld@slwb.com or Bonnie Bergsma at bonnie.bergsma@slwb.com or (519) 2890-3380 with any questions or concerns regarding this letter.

Yours sincerely,



Tanya MacIntosh
Chair, Sahtu Land and Water Board

BCC'd to: K'asho Got'ine District Distribution List
Jonathan Gillingham – Manager Inspections, GNWT-Lands
Christopher Ondris, Inspector, GNWT-Lands, Sahtu Region
Dan Carmichael, GNWT-Lands

Attached: Land Use Permit S22A-001
Reasons for Decision

⁵ See GNWT-Lands Inspection and Enforcement webpage (<https://www.lands.gov.nt.ca/en/services/inspections-and-enforcement>) for regional contact information.

⁶ See SLWB Policies and Guidelines webpage for MVLWB [Guide to the Land Use Permitting Process](#) (2020).



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Suncor Energy Inc.

Land Use Permit S22A-001

Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this permit, authority is hereby granted to:

Suncor Energy Inc.

(Permittee)

of Suncor Energy Centre East Tower, 150 6 Ave SW, Calgary, AB T2P 3E3

(Mailing Address)

hereinafter called the Licensee, to proceed with the following undertaking, subject to the annexed definitions and conditions contained therein:

Project Title:	Well Abandonment and Final Closure Project, Tweed Lake Area
Location:	Tweed Lake area and 65 km south of Colville Lake, N.W.T.
Purpose:	Oil and Gas Well Abandonment, Site Remediation and Final Closure and Reclamation
Type:	Type A
Effective Date:	August 22, 2022
Expiry Date:	August 21, 2027

NOTE

IT IS A CONDITION OF THIS PERMIT THAT THE PERMITTEE COMPLY WITH THE PROVISIONS OF THE *MACKENZIE VALLEY RESOURCE MANAGEMENT ACT AND REGULATIONS* AND THE TERMS AND CONDITIONS SET OUT HEREIN. A FAILURE TO COMPLY MAY RESULT IN SUSPENSION OR CANCELLATION OF THIS PERMIT BY THE BOARD.

THIS PERMIT SHALL BE POSTED OR BE AVAILABLE ON SITE.

Tanya MacIntosh

Chair, Sahtu Land and Water Board

Bonnie Bergsma

Regulatory Coordinator-Specialist

Conditions Annexed to and Forming Part of Land Use Permit # S22A-001

Part A: Scope of Permit

1. This Permit entitles the Permittee to conduct the following land-use operation:
 - a) mobilization and demobilization of heavy equipment;
 - b) use of equipment for winter access road and ice pad construction and maintenance;
 - c) use of equipment for well abandonment activities;
 - d) use of earth-moving equipment for reclamation activities;
 - e) use and storage of fuel;
 - f) use of camp sites for more than 400 person-days;
 - g) activities related to post-closure reclamation, remediation and monitoring.
2. This Permit is issued subject to the conditions contained herein with respect to the use of land for the activities and area identified in Part A, item 1 of this Permit.
3. Compliance with the terms and conditions of this Permit does not excuse the Permittee from its obligation to comply with the requirements of any applicable Federal, Territorial, Deline, Tłıchǝ, or Municipal laws.

Part B: Definitions (defined terms are capitalized throughout the Permit)

Act - the *Mackenzie Valley Resource Management Act*.

Board - the Sahtu Land and Water Board established under Part 3 of the Act.

Closure and Reclamation - the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment, human activities, and the surrounding environment.

Dogleg - the clearing of a line, trail, or right-of-way that is curved sufficiently so that no part of the clearing beyond the curve is visible when approached from either direction.

Durable Land - land that is able to withstand repeated use, such as gravel or sand with minimal vegetative cover.

Engagement Plan - a document, developed in accordance with the Board's *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the project.

Fuel Storage Container - a container for the storage of petroleum or allied petroleum products with a capacity of less than 230 litres.

Fuel Storage Tank - a closed container for the storage of petroleum or allied petroleum products with a capacity of more than 230 litres.

Greywater - all liquid wastes from showers, baths, sinks, kitchens, and domestic washing facilities but not including toilet wastes.

Habitat - the area or type of site where a species or an individual of a species of wildlife naturally occurs or on which it depends, directly or indirectly, to carry out its life processes.

Inspector - an Inspector designated by the Minister under the Act.

Minister - the Minister of Indian Affairs and Northern Development Canada or the Minister of the Government of the Northwest Territories – Department of Lands, as the case may be.

Ordinary High-Water Mark - the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “active channel/bank-full level” which is often the 1:2 year flood flow return level. In inland lakes, wetlands, or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

Permittee - the holder of this permit.

Permafrost - ground (soil or rock) that remains at or below 0°C for at least two consecutive years.

Professional Engineer - a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories as per the territorial *Engineering and Geoscience Professions Act*, and whose professional field of specialization is appropriate to address the components of the Project at hand.

Progressive Reclamation – Closure and reclamation activities conducted during the operating phase of the project.

Safety Data Sheet - a technical document, typically written by the manufacturer or supplier of a chemical, that provides information about the hazards associated with the product, advice about safe handling and storage, and emergency response procedures.

Secondary Containment - containment that prevents liquids that leak from Fuel Storage Tanks or containers from reaching outside the containment area and includes double-walled Tanks, piping, liners, and impermeable barriers.

Sewage - all toilet wastes and Greywater.

Shut Down Period - The period of time between April 15 to November 15 each year, for the purpose of the well abandonment operation only.

Spill Contingency Plan - a document, developed in accordance with Aboriginal Affairs and Northern Development Canada's *Guidelines for Spill Contingency Planning* that describes the set of procedures to be implemented to minimize the effects of a spill.

Spring Break-up – April 15 each year, for the purpose of the well abandonment operation, or as revised by an Inspector.

Sump – a human-made pit or natural depression in the earth's surface used for the purpose of depositing Waste that does not contain Toxic Material, such as non-toxic Drilling Waste or Sewage, therein.

Toxic Material - any substance that enters or may enter the environment in a quantity or concentration or under conditions such that it:

- a) Has or may have an immediate or long-term harmful effect on the environment or its biological diversity;
- b) Constitutes or may constitute a danger to the environment on which life depends; or
- c) Constitutes or may constitute a danger in Canada to human life or health.

Waste - any garbage, debris, chemical, or Toxic Material to be used, stored, disposed of, or handled on land, and also as defined in section 51 of the Act.

Waste Management Plan - a document, developed in accordance with the Board's Guidelines for Developing a Waste Management Plan, that describes the methods of Waste management from Waste generation to final disposal.

Watercourse - a natural body of flowing or standing water or an area occupied by water during part of the year, and includes streams, springs, swamps and gulches but does not include groundwater.

Part C: Conditions Applying to All Activities (headings correspond to subsection 26(1) of the Mackenzie Valley Land Use Regulations)

26(1)(a) Location and Area

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| 1. | The Permittee shall only conduct this land-use operation on lands designated in the application. | LOCATION OF ACTIVITIES |
| 2. | The Permittee shall not conduct any part of the land-use operation within 100 metres of any privately owned or leased land or structures, including cabins used for traditional activities, unless otherwise approved by the Board. | PRIVATE PROPERTY SETBACK |
| 3. | The Permittee shall locate all camps on Durable Land or previously cleared areas, and a minimum of 100 metres from the Ordinary High Water Mark. | CAMP SETBACK |
| 4. | The Permittee shall use an existing campsite, as described in the complete application. | USE EXISTING CAMP |
| 5. | The Permittee shall locate all lines, trails, and right-of-ways to be constructed parallel to any Watercourse a minimum of 100 metres from the Ordinary High Water Mark, except at crossings. | PARALLEL WATERCOURSE SETBACK |
| 6. | The Permittee shall not construct parallel lines or roads, unless an existing line or road cannot be used. | PARALLEL ROADS |
| 7. | The Permittee shall confine the width of the right-of-way to a maximum of 10 metres. | WIDTH RIGHT-OF-WAY |

26(1)(b) Time

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| 8. | The Permittee shall provide written confirmation to the Board and Inspector demonstrating agreement to utilize the water supply from Behdzi Ahda First Nations Band Water Treatment Plant for domestic water use, prior to winter Project commencement. | CONFIRMATION OF DOMESTIC WATER USE |
| 9. | At least 48 hours prior to the initial commencement of the land-use operation, the Permittee's Field Supervisor shall notify the Board and contact an Inspector at (867) 587-7205 | INITIAL NOTIFICATION – CONTACT INSPECTOR |
| 10. | At least 48 hours prior to commencement of the land-use operation, the Permittee shall provide the following information, in writing, to the Board and an Inspector:
<ul style="list-style-type: none"> a) the name(s) of the person(s) in charge of the field operation; b) alternates; and | IDENTIFY AGENT |

c) all methods for contacting the above person(s).

11. At least ten days prior to the Shut Down Period or Spring Break-up, the Permittee shall advise an Inspector of:
- a) the plan for removal or storage of equipment and materials; and
 - b) when cleanup and Progressive Reclamation of the land used will be completed.

**REPORTS BEFORE
SEASONAL
REMOVAL**

12. At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of:
- a) the plan for removal or storage of equipment and materials;
 - b) when final cleanup and reclamation of the land used will be completed; and
 - c) when the Final Plan will be submitted.

**REPORTS BEFORE
FINAL REMOVAL**

26(1)(c) Type and Size of Equipment

13. The Permittee shall only use equipment of a similar type, size, and number to that listed in the complete application.

**USE APPROVED
EQUIPMENT**

26(1)(d) Methods and Techniques

14. The Permittee shall Dogleg lines, trails and right-of-ways that approach Watercourses or public roads.

**DOGLEG
APPROACHES**

15. Prior to the movement of any vehicle that exerts pressure on the ground in excess of 35 kPa, the Permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles.

**DETOURS AND
CROSSINGS**

16. The Permittee shall construct and maintain the overland portion of winter roads with a minimum of 10 cm of packed snow and/or ice at all times during this land-use operation.

WINTER ROADS

17. The Permittee shall not erect camps or store material, other than that required for immediate use, on the ice surface of a Watercourse.

STORAGE ON ICE

26(1)(e) Type, Location, Capacity, and Operation of All Facilities

18. The Permittee shall ensure that the land use area is kept clean at all times.

CLEAN WORK AREA

26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

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| <p>19. The Permittee shall insulate the ground surface beneath all structures associated with this land-use operation to prevent:</p> <p>a) any vegetation present from being removed;</p> <p>b) the melting of Permafrost; and</p> <p>c) the ground settling and/or eroding.</p> | <p>PERMAFROST PROTECTION</p> |
| <p>20. The Permittee shall prepare and submit to the Board and Inspector, for approval, a Permafrost Protection Contingency Plan that outlines additional mitigation measures to be taken if permafrost is exposed during operational activities. The Plan shall be submitted 90 days prior to Winter Project commencement.</p> | <p>PERMAFROST PROTECTION CONTINGENCY PLAN</p> |
| <p>21. The land-use operation shall not cause obstruction to any natural drainage.</p> | <p>NATURAL DRAINAGE</p> |
| <p>22. The Permittee shall install and maintain suitable erosion control structures as the land-use operation progresses.</p> | <p>PROGRESSIVE EROSION CONTROL</p> |
| <p>23. The Permittee shall apply appropriate mitigation at the first sign of erosion.</p> | <p>REPAIR EROSION</p> |
| <p>24. The Permittee shall prepare and submit to the Board and Inspector, for approval, a Sediment and Erosion Control Contingency Plan that outlines additional mitigation measures to be taken to remediate any degradation resulting from erosion after during operational activities. The Plan shall be submitted 90 days prior to Winter Project commencement.</p> | <p>SEDIMENT AND EROSION CONTROL CONTINGENCY PLAN</p> |
| <p>25. The Permittee shall only conduct off-road vehicle travel on snow-covered surfaces.</p> | <p>OFF-ROAD VEHICLE TRAVEL</p> |
| <p>26. The Permittee shall prepare the site in such a manner as to prevent rutting or gouging of the ground surface.</p> | <p>PREVENTION OF RUTTING</p> |
| <p>27. The Permittee shall suspend overland travel of equipment or vehicles at the first sign of rutting or gouging.</p> | <p>SUSPEND OVERLAND TRAVEL</p> |
| <p>28. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.</p> | <p>VEHICLE MOVEMENT FREEZE-UP</p> |
| <p>29. The Permittee shall only use clean water and snow in the construction of ice bridges and snow fills.</p> | <p>CONSTRUCT ICE BRIDGES SNOWFILLS</p> |

30. Prior to Spring Break-up or completion of the land-use operation, the Permittee shall clean up and either remove or v-notch all ice bridges and snowfills from stream crossings, unless otherwise authorized in writing by an Inspector.

**REMOVE
ICE BRIDGES/
SNOWFILLS**

31. The Permittee shall minimize approach grades on all Watercourse crossings.

**MINIMIZE
APPROACH**

26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

32. Prior to the expiry date of this Permit, the Permittee shall reclaim all Sumps to the satisfaction of the Board and an Inspector.

RECLAIM SUMPS

33. The Permittee shall maintain all drill wastes at least 1.2 metres below the lowest elevation of contiguous surrounding ground at all times.

**SUMPS
FREEBOARD**

34. Sumps used for oil and gas Drilling Wastes must meet the requirements for low permeability that prevents the intrusion of runoff water.

SUMP MATERIAL

35. The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan.

**WASTE CHEMICAL
DISPOSAL**

36. The Permittee shall dispose of all combustible Waste petroleum products by removal to an approved disposal facility.

**WASTE
PETROLEUM
DISPOSAL**

37. The Permittee shall provide written notification to the Board and Inspector a minimum of 10 days prior to the initial deposit of Waste, demonstrating that the licenced disposal facility has agreed to accept the Waste and has the capacity to receive the volumes of Waste requested.

**NOTIFICATION OF
SOLID WASTE
DISPOSAL**

26(1)(h) Wildlife and Fish Habitat

38. The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation.

HABITAT DAMAGE

39. The Permittee shall not destroy or damage beaver dams or lodges, muskrat push-ups, raptor nests, bear dens and other wildlife hibernacula.

WILDLIFE ABODES

40. The Permittee shall use Wildlife Monitors to conduct Bear Den and other wildlife abode surveys in the fall prior to Project commencement in areas within 800 metres of the Project footprint surveys.

**BEAR DEN
SURVEYS**

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| 41. If an active Bear Den is detected in the Project area, the Permittee shall contact GNWT-ENR to discuss mitigation options. | REPORT DENS |
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26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

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| 42. The Permittee shall dispose of all Waste as described in the Waste Management Plan , once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval. | WASTE
MANAGEMENT |
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| 43. The Permittee shall resubmit the Waste Management Plan for approval within 90 days prior to winter Project commencement addressing all review comments. | RESUBMIT WASTE
MANAGEMENT
PLAN |
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| 44. The Permittee shall keep all garbage and debris in a secure container until disposal. | GARBAGE
CONTAINER |
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| 45. The Permittee shall dispose of all Sewage and Greywater as described in the approved Waste Management Plan. | SEWAGE DISPOSAL
- PLAN |
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26(1)(j) Protection of Historical, Archaeological, and Burial Sites

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| 46. The Permittee shall not operate any vehicle or equipment within 150 metres of a known or suspected historical or archaeological site or within 500 m of a burial ground. | ARCHAEOLOGICAL
BUFFER |
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| 47. The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site. | SITE DISTURBANCE |
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| 48. The Permittee shall, where a suspected archaeological or historical site, or burial ground is discovered: | SITE DISCOVERY
AND
NOTIFICATION |
| <ul style="list-style-type: none"> a) immediately suspend operations on the site; and b) notify the Board at (867) 598-2413 or an Inspector at (867) 587-7205, and the Prince of Wales Northern Heritage Centre at 767-9347 ext. 71251 or ext. 71255. | |

26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value

26(1)(l) Security Deposit

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| 49. Prior to the commencement of the land-use operation, the Permittee shall deposit with the Minister a security deposit in the amount of \$ 1,757,670.00. | SECURITY DEPOSIT |
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50. All costs to remediate the area under this Permit are the responsibility of the Permittee.	RESPONSIBILITY FOR REMEDIATION COSTS
26(1)(m) Fuel Storage	
51. The Permittee shall: a) examine all Fuel Storage Containers and Tank for leaks; and b) repair all leaks immediately.	REPAIR LEAKS
52. The Permittee shall place Fuel Storage Containers and or Tanks a minimum of 100 metres from the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.	FUEL STORAGE SETBACK
53. The Permittee shall ensure that all fuel caches have adequate Secondary Containment.	FUEL CACHE SECONDARY CONTAINMENT
54. The Permittee shall set up all refueling points with Secondary Containment.	SECONDARY CONTAINMENT - REFUELING
55. The Permittee shall not allow petroleum products to spread to surrounding lands or Watercourses.	FUEL CONTAINMENT
56. The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours.	FUEL ON LAND
57. The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name.	MARK CONTAINERS AND TANKS
58. The Permittee shall mark all stationary fuel caches and fuel storage facilities with flags, posts, or similar devices so that they are at all times plainly visible to local vehicle travel.	MARK FUEL LOCATION
59. The Permittee shall have a maximum of 200,000 litres of fuel stored on the land use site at any time, unless otherwise approved by the Board.	MAXIMUM FUEL ON SITE
60. Within ten days of the establishment of any fuel cache, the Permittee shall report the location and quantity of the cache in writing to the Board and an Inspector.	REPORT FUEL LOCATION AND QUANTITY
61. The Permittee shall seal all outlets of Fuel Storage Containers and store the containers on their sides with the outlets located at 3 and 9 o'clock, except for containers currently in use.	SEAL OUTLET
62. The Permittee shall comply with the Spill Contingency Plan , once approved, and shall annually review the plan and make any	SPILL CONTINGENCY PLAN

necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

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| 63. Prior to commencement of the land-use operation the Permittee shall ensure that spill-response equipment is in place to respond to any potential spills. | SPILL RESPONSE |
| 64. All equipment that may be parked for two hours or more, shall have a haz-mat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately. | DRIP TRAYS |
| 65. The Permittee shall clean up all leaks, spills, and contaminated material immediately | CLEAN UP SPILLS |
| 66. During the period of this Permit, if a spill occurs or is foreseeable, the Permittee shall:
a) implement the approved Spill Contingency Plan;
b) report it-immediately using the NU-NT Spill Report Form by one of the following methods: <ul style="list-style-type: none">• Telephone: (867) 920-8130• Fax: (867) 873-6924• E-mail: spills@gov.nt.ca• <u>Online: Spill Reporting and Tracking Database</u>
c) within 24 hours, notify the Board and an Inspector; and
d) within 30 days of initially reporting the incident, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Any updates to this report shall be provided to the Board and an Inspector in writing as changes occur. | REPORT SPILLS |

26(1)(n) Methods and Techniques for Debris and Brush Disposal

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| 67. The Permittee shall not clear areas larger than identified in the complete application. | MINIMIZE AREA
CLEARED |
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26(1)(o) Restoration of the Lands

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| 68. All outstanding liabilities and obligations of the Permittee in relation to work performed or required to be performed under Land Use Permit S14A-006 are fully incorporated into and subsumed under this Permit, and the Permittee must therefore complete the restoration and other obligations set out in or incurred under Permit S14A-006, as well as such further obligations as may be set out in or incurred under this Permit. | TRANSFER OF
LIABILITIES |
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| 69. Prior to the end of the land-use operation, the Permittee shall complete all cleanup and restoration of the lands used. | FINAL CLEANUP
AND RESTORATION |
| 70. Prior to the end of the land-use operation, the Permittee shall prepare the site in such a manner as to facilitate natural revegetation. | NATURAL
VEGETATION |
| 71. The Permittee shall initiate active revegetation of areas with less than 70% native vegetation regrowth following post-reclamation monitoring. | ACTIVE
REVEGETATION –
RESEEDING |
| 72. Prior to the end of the land-use operation, the Permittee shall restore any trails impacted by the land-use operation by removing fallen trees and any other obstructions from the trails. | TRAILS
RESTORATION |
| 26(1)(p) Display of Permits and Permit Numbers | |
| 73. The Permittee shall display a copy of this Permit in each campsite established to carry out this land-use operation. | DISPLAY PERMIT |
| 26(1)(q) Biological and Physical Protection of the Land | |
| 74. The Permittee shall not move any equipment or commence any drilling when one or more caribou are within 100 - 500 metres. | CARIBOU
DISTURBANCE |
| 75. If nesting areas are encountered during the course of operations, the Permittee shall minimize all activity so as to not disturb them. | MIGRATORY BIRD
NEST
DISTURBANCE |
| 76. Within 90 days prior to the commencement of the land-use operation, the Permittee shall submit to the Board, for approval, a Sump Remediation and Restoration Plan . The Plan shall detail the options for achieving 100% sump stability through either maintenance, remediation, and restoration (Option 1) or removal of contaminated materials, maintenance, remediation, and restoration (Option 2). | SUMP
REMEDICATION AND
RESTORATION
PLAN |
| 77. If any plan is not approved by the Board, the Permittee shall revise the plan according to the Board’s direction and re-submit it to the Board for approval. | RESUBMIT PLAN |
| 78. The Permittee shall comply with the Engagement Plan , once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval. | ENGAGEMENT
PLAN |
| 79. All revised plans submitted to the Board shall include a brief summary of the changes made to the plan. | SUMMARY OF
CHANGES |



Sahtu Land & Water Board
REASONS FOR DECISION
Issued Pursuant to Section 72.25 and 121 of
The Mackenzie Valley Resource Management Act
Section 40(2)(c) of
Mackenzie Valley Land Use Regulations, and
Section 54 of the *Waters Act*

Type A Land Use Permit S22A-001 and Type B Water Licence S22L1-001

This is the decision of the Sahtu Land & Water Board (the Board) with respect to the applications deemed complete June 22, 2022 for issuance of a Land Use Permit and Water Licence made by:

Suncor Energy Inc.
Calgary, AB.

for: Well abandonment, site remediation and final closure and reclamation activities at Tweed Lake M-47, Tweed Lake A-67 and Bele O-35 leases on Exploration Licences (EL 096K/13-001, 096K/13-002, 096K/09-001) located in the Tweed lake area and 65 km south of Colville Lake, Northwest Territories.

With respect to this application, written notice was given to 12 organizations within the Sahtu Settlement Area and 22 outside of the settlement area in accordance with Sections 63 & 64 of the *Mackenzie Valley Resource Management Act* (MVRMA). There was no Public Hearing held in association with this Application.

DECISION

After having been satisfied that the project has been screened pursuant to s.125(1)(a) of the *Mackenzie Valley Resource Management Act* (MVRMA), and that any potential adverse environmental effects were insignificant or mitigable with known technology, and as such the application could proceed through the regulatory process and after reviewing the submission of the Applicant, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope and intent of the MVRMA and Regulations made thereunder has determined that:

Land Use Permit S22A-001 and Water Licence S22L1-001 will be issued subject to the terms and conditions contained therein.

REASONS

The Board's reasons for this decision are as follows:

- It is the opinion of the Board that the Project conforms with the Sahtu Land Use Plan and has met referral obligations to the Sahtu Land Use Planning Board as outlined in section 61 of the MVRMA.
- The use of land and water proposed by the Proponent is of a nature contemplated by the MVRMA.
- The Board is satisfied that appropriate consultation has been conducted and that advice has been sought and considered, in accordance with sections 63 and 64 of the MVRMA and in consideration of public health restrictions.

- It is the opinion of the Board that the Engagement Plan and Record includes provisions for comprehensive, meaningful, and ongoing engagement efforts with the local community to address concerns, to improve understanding of Project activities and potential effects, and to participate in the development of closure objectives, criteria and options, especially in regard to the sumps, and has approved the **Engagement Plan**.
- To the best of their ability and in accordance with the scale of their Project activities and budget, Suncor will provide opportunities and benefits to local communities and land claim organizations through employment and training, hiring of Sahtu businesses and local contractors.
- No significant/unmitigable negative impacts and public concerns have been made known to the Board.
- It is the opinion of the Board that the terms and conditions attached to S22A-001 and to S22L1-001 pursuant to the MVRMA and the *Waters Act* will ensure that any potential environmental impacts resulting from this development are not significant. The effects of the Project on the environment can take place in an environmentally responsible manner provided that environmental considerations and mitigation measures outlined in the Land Use Permit and Water Licence are followed.
- It is the opinion of the Board that the potential environmental and socio-economic impacts from undertaking Project remediation and reclamation activities should result in positive environmental benefits.
- The Board has added three non-standard conditions for the submission of Plans to address concerns raised through the public review process about the increased potential for erosion and permafrost degradation due to changes in the climate and response of the ground and any current or long-term effects on sump stability: Condition 20 **PERMAFROST PROTECTION CONTINGENCY PLAN**, Condition 24 **SEDIMENT AND EROSION CONTROL CONTINGENCY PLAN**, and Condition 76 **SUMP REMEDIATION AND RESTORATION PLAN**.
- Based on the knowledge and experience of the Board, and evidence provided in the public review, achieving 100% sump stability in permafrost environments is problematic. The Board's preference is that any sumps that are not stable and are showing signs of subsidence should be removed with disposal of all contaminated sump materials offsite to reduce the long-term liability of contaminate migration to the surrounding environment. The Board has added three standard conditions in the Permit to address any sump instability issues if required (Conditions 32 **RECLAIM SUMPS**, Condition 33 **SUMPS FREEBOARD**, and Condition 34 **SUMP MATERIAL**).
- It is the opinion of the Board that adequate security has never been allocated for the Project and there are current unsecured historical liabilities on the lease sites. The Board preferred the evidence of the GNWT-ENR and GNWT-Lands that due to the current unsecured liabilities at the sites, the security be posted within 90 days of issuance of the Permit S22A-001 with \$1,757,670.00 allocated for the Land Liability and within 90 days of issuance of the Licence S22L1-001 with \$1,966,498.00 allocated for the Water Liability.
- The Board preferred the evidence and assumptions presented in the Closure Cost Estimate prepared by ARKTIS and submitted by the GNWT-Environment and Natural Resources (ENR), noting that the GNWT has more experience with remediation projects in the north and that they would rather have the sites over secured than under secured.
- The Board agrees with Suncor's rationale that further consultation with the GNWT-ENR and other affected parties, especially undertaking a joint summer site inspection to confirm the status of all sumps and lease areas will clarify assumptions and possibly result in a reduction in the total amount of security required for the Project.
- The Board included two Conditions in the Part C of Licence S22L1-001 that would allow for an adjustment of the security amount as presented in Schedule 2 based on a resubmission following a refinement of assumptions, discussion and support from GNWT-ENR.

- The Board has approved the **Spill Contingency Plan**.
- The Board has conditionally approved the **Waste Management Plan**, requiring a revision be submitted to the Board for approval addressing all review comments and recommendations within 90 days prior to commencement of winter abandonment activities.
- The Board has not approved but accepted the **Closure and Reclamation Plan** as **Interim** with a revised plan to be submitted to the Board for approval prior to commencement of winter abandonment activities.

Land Use Permit S22A-001 and Water Licence S22L1-001 contain provisions that the Board feels necessary to ensure and monitor compliance with the MVRMA and the Regulations made thereunder, and to provide appropriate safeguards in respect of Suncor's use of the lands affected by the Permit and use of the waters affected by the Licence.

The Board will provide any referenced material or documents and/or reasons for decision for any specific clause or clauses contained within the Applications if requested to do so in writing.

SIGNED this 10th day of August 2022 on behalf of the SAHTU Land & Water Board.



Tanya MacIntosh

Chairperson, Sahtu Land and Water Board