

## Reviewer Comments and Proponent Responses

**Project:** Paramount Liard West  
**Board:** Mackenzie Valley Land and Water Board  
**Proponent:** Paramount Resources Ltd.

**File Number:** MV2020L1-0006  
**Review Comments Due:** May 30, 2024  
**Proponent Responses Due:** August 30, 2024

No.	Topic	Reviewer Comment	Reviewer Recommendation	Proponent Response	Board Decision
<b>MVLWB - Andy Wheeler</b>					
1	Section 2.4 Engagement	This section summarizes engagement conducted with respect to the project; though, it is not clear whether Paramount engaged parties as part of closure and reclamation planning.	<p>Clarify whether Paramount has engaged affected parties, communities, and governments regarding closure and reclamation planning of Liard West.</p> <p>If yes, has input from these parties been incorporated into the development of closure objectives, options, activities, or criteria? Describe how.</p> <p>If no, describe why Paramount has not started this dialog.</p>	Paramount Resources Ltd. has been engaging with affected parties, regulators and government departments through the potential closure and reclamation of Liard West. Those conversations are ongoing and will continue, outcomes of those conversations will continue to influence the closure and reclamation planning of Liard West.	Adequate response
2	Section 2.1, Table 1, Section 4.2, and Section 4.2 Table 5 - Project Components and Infrastructure	<p>These sections identify components and infrastructure associated with the project. The description in Section 4.2 identifies more components/infrastructure than what is summarized in Section 2.1, Table 1, namely "valve sites and gas dehydration facilities; a water disposal well at O-80; a repeater site.. staging sites... sumps... Six natural gas wells (Paramount et al K-29A, 2K-29, 3K11 29, M-25, 2M-25 and F-25a)."</p> <p>Further, Section 4.2, Table 5 indicates another well (K-29A) was drilled, while section 4.4 indicates there are 9 bridges.</p> <p>Presumably the wells and infrastructure described in Section 4.2 is contained at the well sites and roads described in Section 2.1, Table 1, though, this should be made clear. Further, it would be helpful if all components and infrastructure was catalogued in the same section within the CRP.</p>	Catalog all components and infrastructure associated with the project in one location within the Plan. This could be done as part of the next version.	In the next CRP revision, all components will be catalogued in Table 1 within Section 2.1. All other sections will refer back to Table 1 where applicable.	Update the Plan as agreed to.
3	Section 5.2, Table 6	This table describes components and their condition. It indicates that wellsite's K-29, O-80, M-25, F-25A and battery site F-25 still have surface equipment on site; however, the Plan does not indicate what the surface equipment is.	Identify what surface equipment remains. This links to the recommendation above.	Paramount has a field operations summary due to OROGO September 30 that will document the equipment removed and remaining. This can be provided	Update the Plan with this information.

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				to MVLWB following submission to OROGO.	
4	Section 5.4.2, Environmental Site Assessment	This section indicates that assessments will be conducted in the future. It is not clear how Paramount developed the current proposed objectives and criteria without information being presented on the quality of the soil, groundwater, surface water, vegetation, etc.	What is guiding Paramount's proposed closure objectives and criteria at this point, given that environmental site assessments are yet to be conducted?	<p>Paramount is in the process of developing closure criteria for application at the Liard West sites. The criteria document will include a conceptual site model (CSM) that identifies the applicable or potentially applicable exposure pathways and receptors, and a list of criteria with supporting rationale.</p> <p>The starting point for criteria derivation will be the current CCME guidelines. Adjustments to the generic CCME guidelines (including exclusion of exposure pathways) may be proposed based on the CSM and site setting. Site- or area-specific criteria will have the same end points of protection to human and environmental receptors as the generic criteria (i.e. offering equivalent level of protection). Site- or area-specific adjustments may include (but are not limited to) reviewing the applicability of aquatic life or potable water exposure pathways based on distance to a water body; determining a depth below which direct exposure of ecological or human receptors to contamination in soil or groundwater is not significant; whether potable water exposure pathways are relevant considering the presence or absence of aquifers or barrier units; the use of local or regional</p>	Adequate response. Paramount clarified further evaluation of the Project is necessary, as a result, the plan was denied.

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				<p>background chemistry data; and the use of measurable and stable site-specific inputs in place of default values in calculation of criteria. If applicable, non-numerical closure criteria may also be derived (i.e. outcome-based criteria).</p> <p>All adjustments to generic numerical criteria will be supported by detailed scientific rationale applicable to the Liard area of NWT. This includes confirming the relevance of any guidance or methods from other jurisdictions that are referenced or applied. The rationale and resulting criteria will be applied consistently across the Liard West sites.</p>	
5	Section 5.3, Table 7	<p>This table describes closure objectives, options, and activities. Please note that these terms have specific meaning in that they describe various aspects of the LWB's closure framework, as per the MVLWB/AAANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories and defined terms of the Licence. Board staff have reviewed this table and note that the use of these terms seems to differ from the LWB's closure framework and that in the Licence. The comments and recommendations that follow identify specific instances where differing usage of these terms can create confusion. Please note that these comments and recommendations are not meant to describe all instances in which usage of terminology may not align with the LWB's closure framework or the Licence.</p>	<p>Consider whether the information provided in section 5.3 aligns with the LWB's closure framework.</p> <p>Board staff can discuss the LWB's closure framework with Paramount separate from this submission.</p>	<p>The closure objectives, options and activities will be revised to better align with the LWB's closure framework in the next revision of the CRP.</p>	<p>Adequate response. Update the Plan as agreed to.</p>
6	Section 5.3, Table 7	<p>This table describes closure objectives, options, and activities. Please note that these terms have specific meaning in that they describe various aspects of the LWB's closure framework. With respect to closure options, in the LWB's closure framework these are meant to present options of how work could be conducted.</p> <p>Paramount's approach to presenting closure options differs from</p>	<p>Identify any reasonable options available to Paramount for remediating impacted soil. For example, Paramount describes transport to landfill as the Remediation Activity, but are there other reasonable means of managing the material, such as various methods of on site treatment?</p>	<p>Onsite treatment will be considered as a remediation option depending on the results of the site assessments (e.g. parameters of concern, maximum concentrations observed, soil type, applicable</p>	<p>Adequate response. Paramount clarified further evaluation of the Project is necessary, as a result: 1) the Board did not</p>

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		how closure options are conceptualized in the LWB's closure framework. For example, Remediation Option 1 associated with Objective 1 is to "remediate all soils to published numerical standards." This does not describe the options available to Paramount for remediating soil. Rather, it says 1) soil will be remediated (no notion of how), and 2) it speaks to a proposed standard in which soil could be remediated. This proposed standard is more akin to closure criteria in the LWB's closure framework.	If future assessments will help identify potential options, when would Paramount be able to provide that information?	receptor pathways etc.).  Site assessments have not yet been scheduled, a generic task-based implementation schedule will be provided in the next CRP revision.	approve the closure options as presented, and 2) the Board directs Paramount to provide an updated schedule for the Project in the next version.
7	Section 5.3, Table 7	The MVLWB/AAANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories and the Licence state that closure objectives are statement that clearly describe what the selected closure activities aim to achieve, and that they must be measurable achievable, and allow for development of closure criteria. Paramount's Objective 1 is an action to "assess the soils on site to ensure" an objective is met.	Can Paramount provide a statement objective rather than an action?	See the answer above for item 5.	See MVLWB 5
8	Section 5.3, Table 7	As above.	Why are no objectives regarding water quality (surface or groundwater) proposed in the CRP?	The new guideline document proposed in the item 4 response will include these guidelines.	See MVLWB 4 and 5
9	Section 5.3, Table 7	As above.	Will the environmental site assessments consider impacts to surface and groundwater on the Project site?	Yes	Adequate response
10	Table 7, Closure Criteria	The MVLWB/AAANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories and the Licence state that closure objectives allow for development of closure criteria, and that criteria be "measurable meaningful, measurable, and achievable to ensure successful reclamation of project components." Paramount has not included any closure criteria in Table 7. Board staff note the closure criteria listed in Section 5.3, but that it is limited to closure objectives 2-5.	Will Paramount be developing and proposing closure criteria for objective 1? If not, how will Paramount measure the success of closure and reclamation works in meeting objective 1?	Yes, see answer to item 4.	See MVLWB 4
11	Section 5.3, Table 7	In the LWB's closure framework, a closure activity is the licensees preferred means of work/actions to be undertaken in order to accomplish a specific closure objective. Closure activities are derived from applicable closure options that have been considered.  The Plan describes Remediation Activity 1 for Objective 1 as "Excavate any soil samples with reported concentration above the applied standards and dispose at an approved landfill." Please note that:	Clarify whether disposing of impacted soil at a landfill is the preferred closure activity for managing impacted soil. If yes, provide rationale as to how this conclusion was drawn, including any options analysis done for considering other means of managing impacted soil.  Consider removing the notion of applicable standards from closure options	No - Onsite treatment is preferred but not always feasible. Onsite treatment will be considered as a remediation option depending on the results of the site assessments (e.g. parameters of concern, maximum concentrations observed, soil type, applicable receptor pathways etc.).	See MVLWB 4 and 5

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		<p>- Paramount should describe whether this is the preferred work/action to be carried out to achieve the associated objective, and provide rationale that supports how it was determined that this is the preferred action, and</p> <p>- that this description too provides info more akin to the purpose of closure criteria (with reported concentrations above applied standards). Keeping information pertaining to standards (closure criteria in the LWB's framework) away from options and activities can help differentiate between how Paramount proposes to remediate soil, and how they will determine the success of remedial work.</p>	and activities, and relocating it to section 5.3.1 where closure criteria are discussed.	Closure options and activities will be revised in the next revision of the CRP.	
12	Section 5.3, Table 7	Similar to the comments above, Objective 1 Remediation Option 2 and Remediation Activity 2 do not speak to how Paramount could remediate soil, rather, they speak to potential site specific standards based on site conditions.	<p>Consider relocating this information to section 5.3.1 where closure criteria are discussed.</p> <p>With respect to potential site specific standards, does Paramount envision proposing these as closure criteria for remediating soil once future site assessments have been conducted?</p>	<p>Closure options and activities will be revised in the next revision of the CRP.</p> <p>Regarding site specific standards, see response above to item 4.</p>	See MVLWB 4 and 5
13	Section 5.3, Table 7	Similar to the comments above, Objective 5 is "to ensure invasive species concentrations are less than or equal to offsite conditions." The notion of "less than or equal to offsite conditions" more represents the proposed standard (closure criteria in the LWB's framework) to which the success of Objective 5 could be measured against.	Consider whether the notion of "less than or equal to offsite conditions" is more related to closure criteria. If so, Objective 5 could be revised and this information relocated to section 5.3.1 where closure criteria are discussed.	Closure options and activities will be revised in the next revision of the CRP.	See MVLWB 4 and 5
14	Section 5.3.1 Remediation	Paramount states that soil quality standards to be applied at the Project will be determined at the time of a site assessment and/or remediation.	It is noted that the CRP is not yet approved and the Board has not approved any remediation methods (closure activity).	Noted	Noted
15	Section 5.3.1 Remediation	As above. The Board also notes that remediation work cannot take place during future assessments being conducted to determine closure criteria.	Can Paramount confirm that no work regarding soil remediation will take place prior to the Board approving soil closure criteria?	Yes	Noted
16	Section 5.3.1 Remediation	As above. Also, it is noted that if site assessments provide data to aid Paramount in proposing soil quality standards, that those must be proposed to the Board for approval prior to application to the Project site. These cannot be set in real-time while Paramount is conducting site assessments.	When will Paramount provided site-assessment data to the Board with proposed soil quality standards for closure?	Yes following completion of the site assessments.	See MVLWB 4 and 5
17	Section 5.4.2, Environmental Site	Paramount states that Phase 1 and 2 environmental site assessments will be completed for all sites as outlined in the Implementation Schedule, Section 8.0; however, Section 8.0 only	Will Section 8.0 be updated with further information on the Implementation Schedule for the Phase 1 and 2	Yes, once scheduled. A generic task-based Implementation Schedule will be provided in the	See MVLWB 6

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	Assessment	includes the following: "The CRP will be implemented over multiple years and will be subject to changes as new information becomes available. Decommissioning of surface equipment is tentatively planned for the summer of 2024, the remaining activities will be scheduled following this decommissioning."	environmental site assessments?	next revision of the CRP but a specific start date for assessments has not been scheduled.	
18	Section 5.4.2, Environmental Site Assessment	As above.	Will the closure objectives and criteria be updated based on the findings of the environmental site assessments?	Yes	See MVLWB 4 and 5
19	Guidance for Site Assessment	The supplemental information in the Application for this licence stated that "the Canadian Council of Ministers of the Environment. 2016. Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment Vol. 1: Guidance Manual (CCME 2016) would be followed.	Can Paramount confirm that this guidance will be followed in future assessments of soil and water quality on site?	Yes - see response to item 4.	See MVLWB 4 and 5
20	Section 5.8 Post-Closure Monitoring, Maintenance and Reporting	This section states that no soil and water sampling is proposed as part of this monitoring stage as previous assessments will have already confirmed there is no remaining risk to receptors at all sites regarding soil quality. However, Paramount also states that Phase 1, 2 environmental site assessments are yet to take place. Seeing as though the assessments have not yet been conducted, and the results are unknown, it is presumptive to indicate that no post-remediation monitoring of soil and water will be required. Post-closure monitoring is generally undertaken to assess and confirm that closure criteria have been met.	Will Paramount conduct monitoring of impacted soil and groundwater to confirm/assess if remediation works have successfully achieved closure objectives and criteria?	Confirmatory sampling is completed immediately post-remediation, groundwater monitoring is completed if impacts to groundwater are identified/suspected based on the applicable groundwater receptor pathways and site-specific soil logs.	See MVLWB 4 and 5
21	Future Versions of the CRP	Board staff note that this CRP reads as preliminary and notes that the Phase 1 and 2 environmental site assessments are yet to be completed. Board staff assume that a future version(s) of this Plan will be submitted to the Board for approval prior to conducting Project remediation.	When does Paramount anticipate submitting the next version of this Plan?	Once the Implementation Schedule is finalized and site assessments have been scheduled.	See MVLWB 6
<b>GNWT - Environment and Climate Change - Environmental Regulatory Analyst</b>					
1	GNWT-ECC Cover Letter	The Department of Environment and Climate Change, Government of the Northwest Territories has reviewed the application at reference based on its mandated responsibilities under the Waters Act and has provided comments and recommendations for consideration of the Mackenzie Valley Land and Water Board.  For any technical questions, please contact Bill Pain, Environmental Management Scientist with the Regulatory and Permitting Division at Bill_Pain@gov.nt.ca.	N/A	N/A	Noted

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		Should you have any general questions or concerns, please do not hesitate to contact <a href="mailto:gnwt_ea@gov.nt.ca">gnwt_ea@gov.nt.ca</a> .			
2	Site reclamation	Section 5.2 of the Closure and Reclamation Plan (CRP) submitted by Paramount Resources Ltd. (Paramount) identifies that surface equipment/infrastructure is present at the well, battery and tower sites requiring removal. The CRP does not provide further details regarding the decommissioning of surface equipment, including the decommissioning approach to be employed, and quantity and characteristics of material requiring removal. These details are needed to define the reclamation activity and approach for costing.	GNWT-ECC recommends that for any surface equipment or infrastructure remaining at the Project still to be decommissioned and removed, Paramount provides details on the decommissioning activities to be completed (e.g., dismantling of buildings, cut and cap of pipelines, etc.), and quantity and characteristics of material requiring removal.	These details will be provided in the summary of operations submitted to OROGO at the end of September.	Update the Plan with this information.
3	Well site reclamation	Section 5.4.4 of the CRP indicates that select sites will undergo varying levels of reclamation earthworks and revegetation. Although Section 5.2 provides the total area/dimensions of each site, it is not clear if the total area of each site requires work or only a portion of each site, and what that size may be. These details are needed in the CRP to define the scale of the reclamation activity for costing.	GNWT-ECC recommends that Paramount clarify if the total area of each site location listed in Section 5.4.4 of the CRP requires reclamation work (i.e., reclamation option 1 or 2). If only a portion of each site requires work, specify the anticipated area requiring work with supporting justification (e.g., site photos noting/outlining anticipated areas requiring earthworks, revegetation, etc.).	Disturbed areas only - exact areas requiring reclamation will be detailed in a future CRP.	Update the Plan with this information.
4	Pipelines	Section 4.2 of the CRP identifies that the Project encompasses various pipelines connecting the well sites to plant sites, with approximately 44 km of pipeline rights-of-ways (ROWs) identified in Tables 1 and 6. Section 4.2 notes that the wells and pipelines are abandoned, deactivated and/or decommissioned. However, documentation has not been provided detailing the as-built or final conditions of pipelines following abandonment, deactivation and decommissioning. This documentation is needed to verify the reclamation status and condition of the pipelines and update costing accordingly.	GNWT-ECC recommends that Paramount provide as-builts or other documentation (e.g., site photographs, completion reports, etc.) detailing the reclamation works that have been completed and/or the final condition for the pipelines. For any pipelines or associated surface infrastructure remaining at the Project still to be decommissioned and removed, provide details on the reclamation/decommissioning activities to be completed, and quantity and characteristic of material requiring removal.	Paramount will provide OROGO with the final condition of the pipelines.	Update the Plan with this information.
5	All-season road reclamation	Section 4.1 identifies all sites are accessed by all-season roads and barges across the Liard River. Section 5.4.4 notes that the reclamation approach for the road, including nine existing bridges, remains to be determined pending the outcome of ongoing engagement. In the event that reclamation of the road is	GNWT-ECC recommends that Paramount describe the potential reclamation requirements for the all-season road, including the location and size of areas requiring reclamation, confirm the	Paramount will provide this following consultation with the Acho Dene Koe (ADK) on acquiring access roads (in progress).	Update the Plan with this information.

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		required following engagement, the details on the likely activities, such as re-grading and revegetation to achieve closure objectives and criteria, the number of culverts requiring removal (if any), and the characteristics of the bridges and culverts requiring removal, are not provided in the CRP. These details are needed to define the reclamation activities and approach for costing further in the event that reclamation of the all-season road is required.	number of culverts requiring removal, and provide details of the characteristics, physical size and depth of installation, as applicable, for the existing bridges and culverts that may require removal.		
6	Site access	Section 4.1 of the CRP indicates all sites are accessed by all-season roads and barges across the Liard River. Section 8 of the CRP indicates that decommissioning of surface equipment is planned for summer 2024, with remaining reclamation activities to occur following this decommissioning potentially over multiple years. It is unknown whether any reclamation is to occur during winter months, and if so, whether construction, operation and maintenance of a winter bridge will be required to cross the Liard River.	GNWT-ECC recommends that Paramount confirm whether any reclamation activities are anticipated during the winter, and if so, whether construction, operation and maintenance of a winter bridge across the Liard River will be required.	No winter reclamation activities contemplated.	Update the Plan with this information.
7	Reclamation camp and fuel mobilization and demobilization	The CRP does not indicate whether a reclamation camp will be required to support the completion of the Project. If a camp is required, details regarding the mobilization and demobilization of a reclamation camp to the project site remain uncertain. It is also unknown if fuel storage at the Project site will be required to be brought in to support reclamation/remediation. Details regarding the number, type and size of camp and fuel storage structures, total quantity of fuel required for the Project, and point of origin for mobilization will help further define the reclamation activities and approach in the CRP.	GNWT-ECC recommends that Paramount confirm whether a camp and fuel storage are required to support completion of the Project and confirm: <ul style="list-style-type: none"> <li>• the number, type and size of camp and fuel structures to be mobilized to site to support reclamation/remediation;</li> <li>• the total quantity of fuel required to support the Project; and,</li> <li>• point of origin for mobilization of these materials.</li> </ul>	Any camp required would be setup in Fort Liard, outside of the project area.	Update the Plan with this information.  The Permit allows up to 63000L of fuel to be stored, as indicated in the applications.
8	Existing fuel and hazardous waste	The CRP does not identify if there is existing fuel storage at the Project site and the expected quantity of fuel remaining at closure, or other hazardous wastes that may be present, that will require backhaul off-site. These details will help further define the reclamation activities and approach in the CRP regarding removing wastes from the Project.	GNWT-ECC recommends that Paramount identify the quantity of fuel and other hazardous wastes remaining at closure that would require removal from the site.	These details will be provided in the summary of operations submitted to OROGO at the end of September.	Update the Plan with this information
9	Well abandonment	Section 4.2 Table 5 of the CRP indicates that all site wells have been abandoned. Confirmation of well abandonments is provided in Appendix D. However, information has not been provided to confirm the satisfactory abandonment of well K-29, noted by Table 5 as having been abandoned in 2005. This documentation is needed to verify the abandonment status of the well.	GNWT-ECC recommends that Paramount provide confirmation from OROGO that abandonment activities at well K-29 have been completed.	Pauline DeJong from OROGO confirmed the following: This well was abandoned before the creation of OROGO, under the regulatory authority of the National Energy Board (now Canada Energy Regulator). The NEB did not issue letters	Include this information in the next version of the Plan

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				<p>confirming the change of status to abandoned.</p> <p>A copy of this e-mail is attached.</p>	
10	Environmental Site Assessment	Section 5.4.2 of the CRP notes that Phase I and II Environmental Site Assessments (ESAs) will be completed for all sites as outlined in the Implementation Schedule in Section 8. However, Section 8 does not identify a timeline for completion of ESAs.	GNWT-ECC recommends that Paramount confirm the timeline for the completion of Phase I and II ESAs.	This work is not yet scheduled.	See MVLWB 6
11	Reclamation timeline, personnel, and equipment	Section 8 of the CRP indicates that decommissioning of surface equipment is planned for summer 2024, with remaining reclamation activities to occur following this decommissioning potentially over multiple years. Details on the actual timeline for each reclamation activity and/or area, the years in which they are to occur, and the personnel and equipment required, remains uncertain, as well as any time requirements for mobilization and demobilization of personnel and equipment by barging. Per the MVLWB Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories (Guidelines), a final CRP (which is required by the Water Licence two years prior to end of operations) should provide a detailed closure and reclamation schedule. The Guidelines are considered to provide non-mining Proponent's with the advice to develop their CRP. Other uncertain logistical details include idle/storage time for equipment awaiting start of reclamation activities, crew rotations (duration, frequency, and crew size), origin/source of workers and equipment and daily time requirements for mobilization and demobilization to/from the Project site. These details will help to further define the reclamation activities and associated implications for costing.	<p>GNWT-ECC recommends that Paramount provide the following details:</p> <ul style="list-style-type: none"> <li>• a timeline of reclamation activities detailing the time requirements (e.g., days, weeks, months) and schedule (e.g., year in which work is to occur and time of year) for each Project activity and/or area, including time required for mobilization and demobilization of personnel/equipment (e.g., barging) and idle/storage time for equipment awaiting the start of reclamation activities;</li> <li>• the number and type of personnel required for each reclamation activity and/or stage of reclamation;</li> <li>• the number and type of equipment required to complete each reclamation activity and/or stage of reclamation;</li> <li>• Frequency and size of crew rotations;</li> <li>• Origin/source of workers and equipment required to complete the Project; and,</li> <li>• Daily mobilization and demobilization time between the camp and Project site.</li> </ul>	A generic task based Implementation Schedule will be provided in the next revision of the CRP, outlining each task, time of year to be completed, approximate time required per task and the order of events from year to year however the start year has not yet been confirmed.	<p>Update the Plan with this information</p> <p>See MVLWB 6</p>
12	Remediation and closure criteria	Section 5.3 of the CRP provides the proposed closure objectives and criteria for the acceptable final conditions for the Project that must be met. With regards to objective 1 for soil quality, Section 5.3.1 notes that soil quality standards to be applied at the Project will be determined at the time of site Phase I and II ESAs. Section 5.4 notes that after soil quality standards are developed, the appropriate remediation option to be applied for each site will be determined. For other closure objectives, some of the presented criteria provide no defined quantifiable measure of success in achieving objectives. A Post-Closure and Reclamation Monitoring and Maintenance Plan, as required by	<p>GNWT-ECC recommends that Paramount's closure criteria include:</p> <ul style="list-style-type: none"> <li>· Performance metrics for erosion and stability needed to demonstrate the site as having achieved closure objective 2.</li> <li>· Performance metrics for drainage to demonstrate it is consistent with off-site areas and does not result in increased erosion potential or excess ponding to achieve closure objective 3.</li> <li>· Performance metrics for vegetation</li> </ul>	Closure options and criteria will be revised in the next revision of the CRP.	See MVLWB 4

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		<p>the WL Part I Condition 7, has also not yet been developed. Therefore, uncertainty remains regarding the final conditions and criteria to be achieved, and if further investigation or confirmatory monitoring will be required.</p> <p>As required by the water licence Part I, condition 3, the CRP should be advanced to a final stage two years before end of operations. Given that operations at the Project have ended, with PRL currently seeking approval of the CRP to commence reclamation activities as early as summer 2024, it is expected that the CRP and closure criteria are advanced to a level of closure planning that is considered reasonable for a Project at this stage post operations and of sufficient detail to inform the estimation of reclamation security. It is recommended that the closure criteria be further developed with additional information to achieve the required level of closure planning. It is recommended that once ESA's are complete, the CRP is updated to document the proposed reclamation/remediation activities, the closure criteria, and associated evaluation of environmental risks as discussed in the ESAs and to be subject to review and evaluation by the MVLWB and parties. Such a review process aims to reduce uncertainty associated with the reclamation/remediation of the project site.</p>	<p>species diversity and composition needed to demonstrate the site as being compatible with the surround land-use to achieve closure objective 4.</p> <p>GNWT-ECC recommends that the duration for which each of the closure criteria must be met be adequately demonstrated as having achieved the closure objectives, which should be specified. Include rationale for the duration selected.</p> <p>GNWT-ECC recommends that Phase I and II ESAs be completed by Paramount, following which the proposed reclamation/remediation activities, the closure criteria, and associated evaluation of environmental risks as discussed in the ESAs are documented in an updated CRP to be submitted for review and evaluation by the MVLWB and parties.</p>		
13	Security review	Following the submittal of the requested information herein by GNWT-ECC from Paramount on the CRP, a security estimate review for the site may be warranted to ensure adequate security is being held for the Project.	Following the responses from Paramount on this CRP review, the Board should determine if an updated security estimate review is required.	N/A	See MVLWB 4  Security can be addressed as part of the renewal applications.
<b>Fisheries and Oceans Canada (DFO) - Ms. Anna-Maija LaFlamme</b>					
1		Fisheries and Oceans Canada has reviewed Paramount Resources Ltd, Version 1: Closure and Reclamation Plan, file number: MV2020L1-0006 and have no comments at this time.	DFO has no comments or recommendations at this time.	N/A	Noted



May 30th, 2024

Heather Scott  
Senior Technical Advisor  
Mackenzie Valley Land and Water Board  
Box 2130, 4922-48th Street  
Yellowknife NT, X1A 2P6

Dear Heather Scott,

**RE: Paramount Liard West Closure and Reclamation Plan V1(MV2021L1-0006)**

The Department of Environment and Climate Change, Government of the Northwest Territories has reviewed the application at reference based on its mandated responsibilities under the *Waters Act* and has provided comments and recommendations for consideration of the Mackenzie Valley Land and Water Board.

For any technical questions, please contact Bill Pain, Environmental Management Scientist with the Regulatory and Permitting Division at [Bill\\_Pain@gov.nt.ca](mailto:Bill_Pain@gov.nt.ca).

Should you have any general questions or concerns, please do not hesitate to contact [gnwt\\_ea@gov.nt.ca](mailto:gnwt_ea@gov.nt.ca).

Sincerely,

Shakita Jensen  
Environmental Regulatory Analyst  
Environment Impact Assessment  
Department of Environment and Climate Change

## Lexy Dalton

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**From:** Pauline DeJong <Pauline\_DeJong@gov.nt.ca>  
**Sent:** Tuesday, June 18, 2024 10:20 AM  
**To:** Lexy Dalton  
**Subject:** RE: Well ID 1861

Hi Lexy –

This well was abandoned before the creation of OROGO, under the regulatory authority of the National Energy Board (now Canada Energy Regulator). The well history files contain all the publicly releasable information we were given by the NEB when we took over from them in 2014. The NEB did not issue letters confirming the change of status to abandoned.

In case you are not aware, there are several other K-29 wells in the immediate vicinity of the well you are looking at (Liard 2K-29 WID1980; Liard 3K-29 WID1999; and Liard K29-A WID2030). Depending on what you are looking for, it may also be worthwhile reviewing those files.

Thanks  
Pauline

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### Ms. Pauline de Jong

Executive Director | Directrice générale  
Office of the Regulator of Oil and Gas Operations | Bureau de l'organisme de réglementation des opérations  
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Yellowknife NT X1A 2L9  
Tel | Tél: 867-767-9097  
Fax | Téléc: 867-920-0798  
Web | Site web : [www.orogo.gov.nt.ca](http://www.orogo.gov.nt.ca)  
NWT-NU Spill Line: 867-920-8130  
OROGO Incident Reporting Line | Pour signaler un incident: 867-445-8551

Mársı | Kinanāskomitin | Thank you | Merci | Hąj' | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsi

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**From:** Lexy Dalton <LDalton@synergyaspen.ca>  
**Sent:** Tuesday, June 18, 2024 9:02 AM  
**To:** Pauline DeJong <Pauline\_DeJong@gov.nt.ca>  
**Subject:** RE: Well ID 1861

Hi Pauline

In the well file I found the approval for well abandonment and this well is listed as abandoned on the well list on the OROGO website but I can't find the Change of Status document from OROGO confirming this well was abandoned, are you able to provide that please?

Thanks,  
Lexy

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**From:** Pauline DeJong <[Pauline\\_DeJong@gov.nt.ca](mailto:Pauline_DeJong@gov.nt.ca)>  
**Sent:** Tuesday, June 18, 2024 8:43 AM  
**To:** Lexy Dalton <LDalton@synergyaspen.ca>  
**Cc:** DST\_JUS\_OROGO <[OROGO@gov.nt.ca](mailto:OROGO@gov.nt.ca)>  
**Subject:** RE: Well ID 1861

You don't often get email from [pauline\\_dejong@gov.nt.ca](mailto:pauline_dejong@gov.nt.ca). [Learn why this is important](#)

Good morning Lexy –

Our historical well files are kept separately from the public registry on an MStTeams site. I will add you to the team this morning, which should result in you receiving an email with information on how to access the files.

Once you have access, go to the “Files” tab at the top of the window and chose the Well History Files folder. Each well has its own folder, organized by well ID number.

Thanks  
Pauline

~~~~~  
**Ms. Pauline de Jong**

Executive Director | Directrice générale

Office of the Regulator of Oil and Gas Operations | Bureau de l'organisme de réglementation des opérations pétrolières et gazières

Government of the Northwest Territories | Gouvernement des Territoires du Nord-Ouest

PO Box 1320

Yellowknife NT X1A 2L9

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Mársı | Kinanāskomitin | Thank you | Merci | Haij' | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsi`

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**From:** Lexy Dalton <[LDalton@synergyaspen.ca](mailto:LDalton@synergyaspen.ca)>  
**Sent:** Monday, June 17, 2024 5:48 PM  
**To:** DST\_JUS\_OROGO <[OROGO@gov.nt.ca](mailto:OROGO@gov.nt.ca)>  
**Subject:** Well ID 1861

**EXTERNAL:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender's name and email address and know the content is safe.

Good Afternoon

Can you please provide a history and any documentation available regarding WID 1861, I am unable to find any records relating to this well in the Public Registry.

Well ID	Well Name	Last Operator	Current or Last Owner	Well Status	Classification	Fin
365	DESMARAIS K-29	Shell Canada Resources Limited	Shell Canada Resources Limited	Abandoned	Exploratory Well	
681	RED DOG K-29	Amoco Canada Petroleum Compan	Amoco Canada Petroleum Comp	Abandoned	Exploratory Well	
1861	LIARD K-29	Paramount Resources Ltd.	Paramount Resources Ltd.	Abandoned	Delineation Well	
1980	LIARD 2K-29	Paramount Resources Ltd.	Paramount Resources Ltd.	Abandoned	Delineation Well	
1999	LIARD 3K-29	Paramount Resources Ltd.	Paramount Resources Ltd.	Abandoned	Delineation Well	
2030	LIARD K-29A	Paramount Resources Ltd.	Paramount Resources Ltd.	Abandoned	Development Well	

Thanks,  
Lexy

**Alexandra Dalton, B.Sc., EP**

Environmental Practitioner/Account Manager

**SynergyAspen Environmental**

101, 718 12 Ave SW, Calgary, AB, T2R 0H7

P: 587-770-1686

C: 368-995-3715/403-465-3964

[ldalton@synergyaspen.ca](mailto:ldalton@synergyaspen.ca) // <http://www.synergyaspen.ca/>

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