

**Advisors Report on July 2023 Mongolia Field Trip  
Developed by Accountability Counsel and OT Watch**

**Oyu Tolgoi's tailing storage facilities continue to impose risks of contamination, block herders to access clean water and exclude herders from meaningful participation**

**Summary**

Oyu Tolgoi (OT) is responsible for improper handling of seepage from the tailings dam, which OT admits has escaped the mining license area. Despite OT's previous assurances that there will be no leakage from the tailing cell and no harm towards the herder community, this seepage appears to have impacted groundwater quality. The IESC Reports from May 2021 to September 2022 continue to raise the same concerns on the influence of the seepage on the groundwater, yet OT has not released enough information to herders to understand the extent of the impact. The seepage strongly indicates contamination of groundwater and soil outside the mine license area, which, if left unchecked, will lead to cascading negative impacts to herders, livestock and vegetation downstream of the tailings dam. OT has been extremely slow to admit any wrongdoings, has failed to meaningfully engage herders most affected by the leakage, and has delayed providing critical information requested by herders and their advisors to better understand the issues and to be able to participate in decisions related to their safety. These concerns of herders of the leakage are further aggravated by the fact that OT's first tailing cell is nearly full and they are establishing their second cell.

The increasing concerns of herders of the impact of tailing cell 1 (TC1) and 2 (TC2), and OT and Rio Tinto's reluctance to provide requested information related to the leakages or to organize the discussion among independent experts, have prompted Accountability Counsel and Paul Robinson (Research Director of Southwest Research and Information Center) to travel to Mongolia in order to obtain information on the harmful impacts of the leakage of TC1 on herders and the environment, and whether herders have been meaningfully engaged on remediation efforts and the establishment of TC2. This trip was planned around the Tripartite Council (TPC) Extended Meeting in July 2023 on the leakage of TC1 which had been requested by herders since 2021. The main findings of our trip include:

- The herder community is deeply concerned about contamination of their soil and water caused by the leakage from the first tailing cell, and resulting negative impacts on their health and the health of their livestock.
- Herders feel betrayed that it took until September 2022 for OT to finally admit to local stakeholders about the leak which had happened since 2012, although OT promised to herders that no leakage will occur when they first informed herders about the establishment of the tailing TSF.
- Measures OT is taking to contain the leak, such as pumping water out of the Khaliv-Dugat river and redirecting it to OT's operations, directly harm herders and livestock living downstream as they are unable to access the precious spring water.
- Herders have been raising the issues about the leakage and its impacts through the TPC, however, it has not been discussed thoroughly until July 2023 where they held a

TPC extended meeting which took a year to materialize upon continuous request of herders.

- Herders have not been meaningfully engaged in addressing the concerns around the TSF as they are only becoming aware of more detailed information about the leakage and its potential impacts to their livelihood and the environment in July 2023. There are many documents that are not made available for herders and the public, although they are imperative for impacted communities to understand the situation and to contribute to the remediation plans. Meanwhile, OT claims full compliance with GISTM including on stakeholder engagement and information disclosure.
- OT is proceeding with construction of a man-made dam of the second tailing cell over the top of the Khaliv-Dugat water source, even though this creates a danger for leaking tailings into the water source. The design plans for TC2 replicate the same design flaws that resulted in tailings leakage in TC1, casting doubt on OT's commitment to addressing this matter with the necessary urgency and care.
- There is no remedial action plan developed by OT to resolve the harms caused by the leakage and failure of the TC1 which have been adversely impacting herders and their livestock.

The identified tailings leakage from November 2021 is serious--the local community at large is deeply concerned about contamination of their soil and water, and resulting negative impacts on their health and the health of their livestock and other animals. Lenders should be concerned that OT is failing to meet the standards of the GISTM for stakeholder engagement and disclosure of information, and obfuscating harms to herders, livestock, and the ecosystem downstream of the Khaliv-Dugat diversion channel. Yet, OT claims full compliance with GISTM through its self-assessment which has not been made public.

While OT may try to paint a recent convening of the TPC on July 25 and 26 as a successful engagement, we observed significant pent-up frustration from all community members and government officials who commented or asked questions during the meeting. The fact that this meeting was scheduled nearly two years from when OT formally identified that their seepage had leaked into the Khaliv-Dugat river and that OT did not formally recognize at the local level that there had been a leak until September 2022 (nearly a year after the leak) says a lot about OT's level of community engagement. We initially emailed OT in November 2022 to schedule this meeting after receiving a request from the EHT leader, Namnansuren, and it took eight months to materialize. We also sent an information request to OT on June 26, 2023 in order to receive data that could help improve the quality of the meeting, and we still have not received a single piece of responsive data.

Urgency and utmost care to protect the groundwater resources of the area are desperately needed. Here is what lenders should do to ensure that OT acts in accordance with lender safeguards, global standards, and its moral obligation to remedy harm caused by its actions:

1. Require OT to halt work on TC2 until it has developed and implemented a remedial action plan to resolve harms resulting from the TC1's seepage on herders and the environment.

2. Require OT to develop adequate preventative measures and make significant changes to the TSF in addressing indicators of serious risks.
3. Conduct a site visit to consult with herders directly, gain more information on their concerns and address said concerns in the next IESC Report.
4. Require OT to reconsider watershed impacts as a major factor in determining where to place future tailings cells, and to meaningfully engage with herders on this public safety question.

## **Unresolved adverse impacts of the Tailing Cell 1 on herders's livelihood and the environment**

**The leak and tailings seepage problem OT is having are the result of issues that have been known for years, and that OT has failed to properly address.**

Herders have long questioned the wisdom of building the tailings storage right above a major watershed for the area that often gets flooded during heavy rains. Having chosen this location, OT is responsible for taking all measures needed to address long-standing issues to prevent contamination of water flowing through this watershed outside the mine license area. Yet, OT has failed to take necessary actions to properly manage its tailings and avoid seepage.

### 1. Too much water in the tailings

A root cause of the perpetual seepage issues is that the tailings have too much water -- less water in the tailings would lead to less seepage. In OT's 2012 Environmental and Social Impact Assessment (ESIA), OT estimated 561 l/s of water would be lost through its operations, either by evaporation at the tailings site (111 l/s) or locked in tailings (450 l/s). (at PD 42/77). At the time, OT also estimated that its concentrator would achieve a 64% concentration of solids in the tailings, but it took them years to finally meet a 60% solids content, which means more water has been left in the tailings than originally designed for.<sup>1</sup>

There are several technologies that OT could be using to remove water from the tailings, given the unanticipated problems with TC1 and changing flood patterns in the areas planned for future cells. For example, OT could use paste or dry tailings disposal. If OT's current conveyance system cannot accept dryer tailings, they can put in place a conveyor belt. Alternatively, OT could use a filter press and centripetal cyclone to remove water from the tailings slurry. These suggestions have been shared with OT during the July 2023 meeting, yet OT did not indicate that they are actively considering these important and practical steps.

### 2. Insufficient/inadequate liner and seepage control

OT has known since at least 2015 that its tailings dam has leakage problems that could impact downstream water resources. The 2017 MDT/IEP Report states in its executive summary: "The Tailings Storage Facility (TSF) is currently leaking, as detailed in the report '2015 TSF Raise Design Report, Golder Associates 4/30/2015.'"<sup>2</sup> It goes on to explain that this 2015 Golder Report made the following findings:

- "Water level (in deep aquifer, 20m below the ground surface) adjacent to the south embankment had a 2m rise from Oct 2014 to Oct 2015 which corresponds to the tailings discharge in sub-cell 1A."

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<sup>1</sup> Oyu Tolgoi, IESC Report November 2021, 2021, p. 2-13.

[https://www.ot.mn/media/otnew/content/iesc/FINAL\\_IESC\\_Monitoring\\_Report\\_OT\\_Nov\\_2021\\_Rev2.pdf](https://www.ot.mn/media/otnew/content/iesc/FINAL_IESC_Monitoring_Report_OT_Nov_2021_Rev2.pdf)

<sup>2</sup> JSL Consulting Ltd., Multidisciplinary Team and Independent Expert Panel Joint Fact Finding: Summary of the Experts' Reports, 2017, p. 200.

- “The Total Dissolved Solids (TDS) in the water has also been increasing which might be related to the seepage from the tailings. More investigation is required to confirm this presumption.”<sup>3</sup>

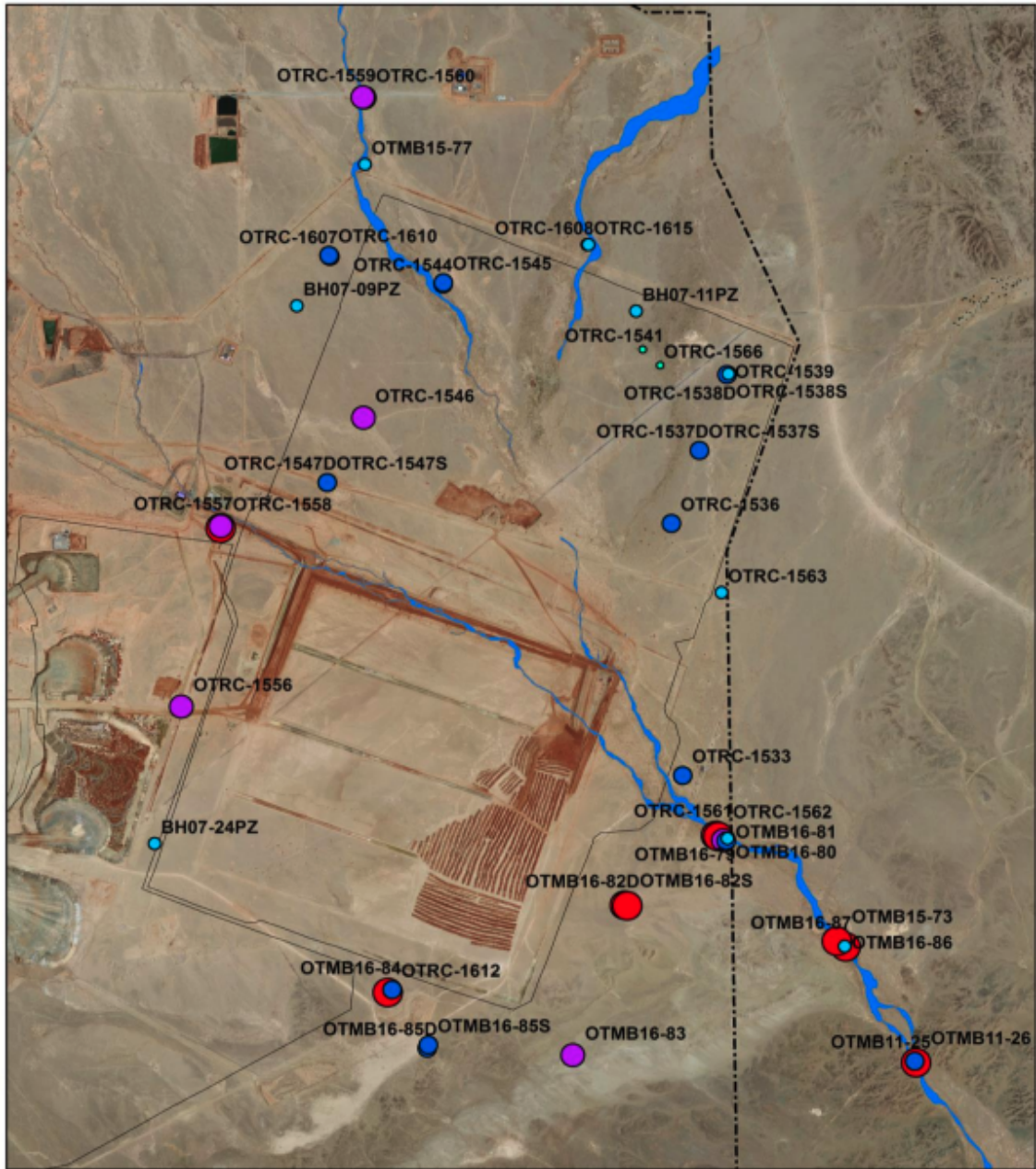
The 2017 MDT/IEP report stated that “[t]he quarterly seepage monitoring reports by OT are a critical component to determining whether the seepage of the TSF will have an impact on downstream water resources in the Khaliv-Dugat watershed. In most situations of tailings impoundment leakage, the first sign will be an increase in sulfate in the downstream waters. This is because sulfate is more soluble than most metals, and will travel faster and further in the groundwater.”

In 2019, OT continued to report to its auditor elevated levels of total dissolved solids in its seepage water that exceeded Australian New Zealand Environment and Conservation Council (ANZECC) Guidelines for Livestock Water for total dissolved solids, sulfate, fluoride, molybdenum, boron and selenium.<sup>4</sup> Only after noticing that livestock and native animals had been drinking from the seepage water, OT took measures to build a fence around the seepage collection area to prevent this. However, its monitoring borehole outside the fence along the Khaliv-Dugat River also showed highly elevated levels of total dissolved solids. See below 2019 Map of TSF boreholes showing elevated amounts of Total Dissolved Solids (mg/L) (Fig 13, May 2019 TSF Seepage Monitoring Report).

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<sup>3</sup> *Ibid*, p. 208.

<sup>4</sup> Oyu Tolgoi, IESC Report September 2022, 2022, p. 4-45.



**Legend**

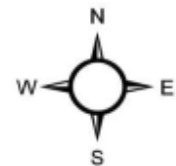
- 0- 500
- 500 - 1000
- 1000 - 3000
- 300 - 5000
- 5000 - 25000
- OT site fence
- TSF\_river\_basin
- Mine\_and\_Dump

**Total Dissolved Solids of TSF bores**

OT Mining Site  
 Khanbogd Soum,  
 Umnugobi Province

0 0.25 0.5 1 1.5 2 km

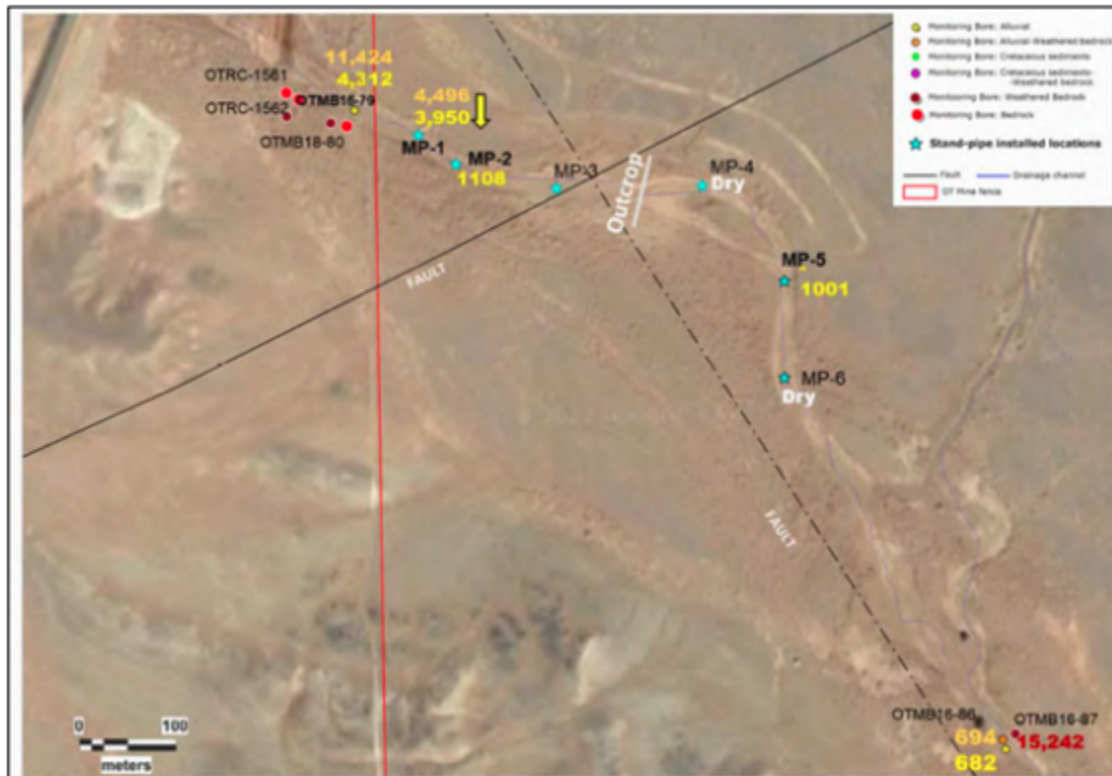
Projection: Transverse Mercator  
 WGS 1984 UTM Zone 48N



**Figure 13. Map of TSF boreholes' Total Dissolved Solids (mg/L)**

Updated monitoring data from the November 2021 IESC Report continues to show monitoring boreholes outside the mine license area with elevated levels of TDS concentrations and the problem is getting worse. See figure below. Further, the report notes that chloride, sulfate, and sodium concentrations in the monitoring boreholes have also increased (page 4-36).

**Figure 4-18 TDS Concentrations in Monitoring Points Within and Outside of the MLA**



The full data set from water quality sampling at these offsite monitoring point locations is provided in Table 4-1. As shown at MP-1 the concentrations of TDS, hardness, SO<sub>4</sub>, Cl, Na, Ca, Mg and Sr all exceeded Mongolian Drinking Water Standards (MNS900:2018). The current data set is limited and does not include all contaminants of concerns from the TSF seepage.

The worsening tailings seepage problem could be attributed to a number of factors dating back to the design of the TSF. There have been contradictory statements about whether OT constructed a properly engineered clay liner in the southeast corner of tailings cell 1, where there has been significant seepage. The 2022 IESC report specifically calls out that the area of the TSF that appears to be leaking corresponds with the corner of the tailings cell that has an engineered clay liner. Paul Robinson, our tailings expert, has questioned why OT did not put down an engineered liner along the entire bottom of the tailings and construct a subsurface cutoff trench around the entire perimeter of the tailings, given what OT knew about the tailings being built on top of an important watershed. Moreover, the seepage pond constructed right next to the diversion channel is built at a lower level than the Khaliv-Dugat diversion channel right next to it without a proper barrier, increasing the chances of siphoning precious water

which should be flowing downstream. Concerns about the clay liner design of the TSF were raised with OT as early as 2012, yet OT nonetheless proceeded with the design.

It is imperative for OT to learn from its design mistakes and implement design changes to both TC1 and TC2 to reduce the risk of further seepage. OT should put in place an adequate subsurface cutoff trench for TC1. For TC2, it should use a competent liner that covers the entire cell, install a subsurface cutoff trench and develop a multiple-layer liner system with monitoring wells. OT should also produce a report about how the clay liner is designed and implemented in TC2, to make this information accessible.

3. Insufficient attention paid to the impacts of building the tailings on top of the Khaliv-Dugat watershed.

The Khaliv-Dugat diversion channel has been inadequate from the start, suffering from repeat erosion and inefficient flow through the channel. The Multidisciplinary Team and Independent Expert Panel (MDT/IEP) Report from 2017 stated:

“The Khaliv-Dugat River has been ditched in order to re-route the river around the TSF. The diversion ditch is inadequate as evidenced by several site visits during which the ditch was undergoing repair or replacement. In addition, Satellite Imagery from 7/8/2015 shows signs of flooding and breach of the diversion at the Dugat River (Multi-Disciplinary Team Satellite Analysis).

During our recent visit to the mine site, we failed to see how OT has addressed these long-standing issues identified with the diversion channel, and which they were obligated to fix since they signed the HCRA in 2017.





Photo taken by AC on 22 July 2023 showing the current state of erosion along the drainage channel.



Photo taken by AC on 22 July 2023 showing the current state of erosion along the drainage channel.



Photo taken by AC on 22 July 2023 showing a dam in the Khaliv-Dugat Drainage Channel with

inadequate culverts to allow water to flow south. Water was visible on the other side of the dam, likely with significant loss to evaporation.

Perhaps if OT had paid the Khaliv-Dugat diversion channel as much attention as it paid to the Undai river diversion, problems of seepage getting into the river could have been avoided. The Undai river diversion is still inadequate for significant water flow events, such as those experienced in 2018, and even the smaller event on 27 July of this year (we have videos of flooding on the road as the culverts were not adequate to convey all the water). But, part of the Undai river is diverted through a pipe to avoid the water going through the mine, which can at least reduce evaporation and prevent contamination of the water. Currently, the Khaliv-Dugat diversion does not seem to be adequately constructed or maintained to achieve its basic purpose and prevent contamination. OT should urgently improve the integrity of the Khaliv-Dugat diversion channel as committed in HCRA 2, No. 8. Needed improvements include (a) lining the drainage channel with compacted soil, soil cement, or synthetic or cement liner, to prevent contaminated water from seeping in and reduce erosion; and (b) implementing an alternative diversion mechanism (e.g., a pipe similar to that for Undai diversion).

**OT has already confirmed that its tailings seepage has leaked beyond the mine license area -- it should already be working to urgently address both remediation and prevention measures *that don't cause further harm to people or the environment.***

We know that OT's tailings dam has leaked and the seepage water has left the mine license area. OT confirmed this information in a public acknowledgment letter provided to the local government in September 2022. In November 2021, OT publicly disclosed an IESC audit report which acknowledged the likelihood that water with a high concentration of Total Dissolved Solids (TDS) migrated offsite and that OT's monitoring points beyond the Mine License Area have continued to show elevated TDS concentrations.<sup>5</sup> Since May 2021, The IESC has continuously recommended a Detailed Water Review of the groundwater quality which, to our knowledge, has not been shared publicly.<sup>6</sup>

We also know that OT uses toxic chemicals in its processing of ore, which later becomes tailings. At the September 2022 TPC meeting, OT presented a project proposal to assess chemicals used at the mine's concentration plant. Among many other statements confirming the toxicity of the chemicals, the reference materials for the chemicals contained the warning: "Do not dispose of the substance directly. It is forbidden to dispose of it in canals, ditches, running water or in the open." Herders are greatly concerned that these toxic chemicals have already begun to pollute their water sources through the tailings seepage.

We know that OT is capable of taking immediate action to address the tailings seepage, but without meaningful engagement of herders who understand the area, the actions taken by OT

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<sup>5</sup> Oyu Tolgoi, IESC Report November 2021, 2021, p. 4-36 - 4-37.

[https://www.ot.mn/media/otnew/content/iesc/FINAL\\_IESC\\_Monitoring\\_Report\\_OT\\_Nov\\_2021\\_Rev2.pdf](https://www.ot.mn/media/otnew/content/iesc/FINAL_IESC_Monitoring_Report_OT_Nov_2021_Rev2.pdf)

<sup>6</sup> Oyu Tolgoi, IESC Report May 2021, 2021. p. 4-33.

[https://www.ot.mn/media/otnew/content/reports/IESC/IESC\\_May\\_2021\\_Report\\_Oyu\\_Tolgoi.pdf](https://www.ot.mn/media/otnew/content/reports/IESC/IESC_May_2021_Report_Oyu_Tolgoi.pdf)

such as taking the water of Khaliv-Dugat river back to OT's mining area have contributed to other harms to people, animals, and the environment. OT should have identified the extent of the leakage and consulted with herders on the remediation plans, which they have not done, thus raising questions on OT's commitment to continuously present information on environmental impact and expand community relations.<sup>7</sup> This is deeply concerning given that the leak was reported two years ago.

Our observation from our recent trip is that herders who know the local context and have a critical role to play in decision-making and building the knowledge base around remediation and prevention efforts had not been meaningfully engaged. For example, we, and herders on the site visit with us on July 25th, heard from OT for the first time that they have been pumping the spring melt from the winter freeze out of the Khaliv-Dugat diversion channel to avoid elevated TDS water from reaching monitoring boreholes downstream. While it's understandable that OT would want to prevent further seepage water from leaving the mine license area, this clearly is not a sustainable solution and contributes to pre-existing problems with its poorly constructed diversion channel and already difficult drought conditions experienced by all living downstream of OT's tailings. On our trip, we visited four springs downstream of the Khaliv-Dugat diversion channel that used to have water all year long and have become completely dry since about 2020/2021.<sup>8</sup>

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<sup>7</sup> Herder's Complaint Resolution Agreement 1, 2017, provisions 3.3 - 3.4.

<sup>8</sup> Pictures below were taken by Accountability Counsel in July 2023.

Springs downstream of the Haliv-Dugat diversion channel and Northeast seepage collection pond used to have water all year long and are now completely dry since about 2020/2021



Budaa (22 July 2023)



Ulaan Khoshuu (22 July 2023)



Baishint (22 July 2023)



Buural (22 July 2023)





A photo taken by AC on 22 July 2023 at Budaa Spring showing signs of a horse digging into the ground to get water that used to flow above the surface year-round.

**TC1 is now a permanent fixture but lacks more sustainable permanent solutions, while TC2 is nearly commissioned without adequate planning and meaningful engagements of herders**

The only information we have been able to find about the closure plan for the first tailings cell (TC1) is contained in snippets of information within IESC's audit reports (though we have requested this as well as several other pieces of information from OT). It was clear from our recent field visit that herders and community members who will be living with the tailings cells forever have not been meaningfully engaged in decisions around the closure of TC1 and they should be. The closure plan should address how OT plans to provide a sustainable and permanent solution to the leakage problems that have plagued the mine from the start and will

continue to harm the environment and people downstream of the tailings until solutions are implemented.

As TC1 is nearly full, we understand that OT is now constructing a second tailings cell (TC2). We have identified multiple concerns shared by herders on the establishment of Tailing Cell 2:

1. Lack of transparency and meaningful engagement of herders

Our field visit identified a lack of transparent information disclosure on the establishment of TC2 and a lack of access for herders to meaningfully engage with OT in its design. Although the TC2 is already awaiting its commissioning, EHT members and herders we spoke with during this trip shared that most of the information on the TC2 was only recently gained through discussions with Accountability Counsel and from the July 2023 meeting organized by OT.

To date, we have not been able to identify any publicly available tailings cell design plans or an impact assessment analysis for TC2. There is no reference to or links to TC2 design, location, site evaluation, surface or subsurface preparation, storm water diversion systems or other requirements in Rio Tinto D5 Tailings Management Standards. This information is crucial to be shared with herders and relevant stakeholders to promote a collaborative approach in establishing TC2, especially in learning from the past mistakes from TC1 and preventing potential adverse impacts of TC2 in the future. This clearly is not aligned with GISTM's requirement 1.3 on meaningfully engaging with herders, especially in coming to decisions that may have impacts on public safety.

The herders have raised concerns around the TSF and requested information about it for many years, and these concerns and information requests have only intensified since they learned of the tailings seepage leaking into the Khaliv-Dugat river. After learning of this leakage nearly a year ago, the July 2023 extended TPC meeting was the first time herders were able to ask about the design of TC2 and raise their concerns of potential leakage and impact to their livelihood and environment. It was clear from this meeting that herders had great concerns on the design and potential impacts of TC2, showing they had not been meaningfully engaged in the design phase. Some herders raised concerns that OT is applying the same strategy used with TC1, which is to involve and inform herders when the cell is nearly operational and it is too late to provide any meaningful input into the cell's design.

In spite of the concerns shared by herders on the lack of transparency around the TC2 establishment, OT's self-assessment showed that they are in full compliance with the GISTM's principles on affected communities and public disclosure and access to information. Rather than relying on its own self-assessment, OT should hire an independent auditor to assess its compliance with the GISTM principles. Particularly in the face of herders' concerns on inaccessible TSF information and lack of meaningful engagement, it is inappropriate for OT or lenders to rely on a self-assessment on this important issue.

To prevent tokenistic engagement, OT should obtain herders' consent from the beginning in commissioning the TC2, particularly through gaining their full support on the remediation action plans for the harms caused by TC1 and on the design of the TC2. This can only be done through meaningful consultations with herders, which have not been done by OT thus far. OT should stop the practice of asking herders' permission when the cell is nearly finished being developed, and start the consultation process from the design phase.

2. The design of TC2 potentially repeats the same mistake made in TC1

Without significant design improvements, TC2 may repeat the same mistakes from TC1. Firstly, as discussed above, TC1 contains too much liquid, which makes the tailings more likely to seep out. This calls for a rectification of how OT is monitoring and maintaining the cells' water content and assessing how to take out liquids should a cell contain more water than it should. It is important for OT to learn from its past mistakes and conduct efforts based on scientific research on how to prevent similar mistakes from reoccurring in the TC2. To this end, OT should commission an independent assessment that includes lessons learned from the first decade of OT tailings storage operations, with a particular focus on social and environmental impacts and attainment of pre-operations performance measures. This assessment should be the grounds for OT to prevent repeating the same mistakes in establishing TC2.

Secondly, the November 2021 IESC report states that TC2 is using a similar engineered clay liner as TC1, which has proved insufficient to prevent leakages from the tailings. Moreover, the clay liner is not made to cover the entire TC2, making it patchy. There is a disconnect between the evidence of past mistakes OT has made in TC1 and the company's decision to nonetheless replicate the same design elements in TC2. Herders' technical advisor Paul Robinson has shared a recommendation to install the clay liner on the entire area of the tailings cell and to have another layer of sand on top of the liner that will protect the liner and prevent seepage. This suggestion should be considered by OT in line with the GISTM's Requirement 3.2, recommending a multi-criteria alternatives analysis of all feasible sites, technologies and strategies for tailings management.

3. Tailing Cell 2 seepage collection system poses additional risks of contamination of clean water and pasture

During the TC2 site tour, herders questioned the risks of contamination by the current seepage collection system of TC2. Their concerns stemmed from the fact that the seepage pond does not have any protective layer, yet it has started to collect some tailings seepage. There is no available assessment on the substances contained in the seepage or whether the seepage has entered into the underground water through this unlined seepage collection system. The unanswered questions and inaccessible information on the water assessment showed a lack of adequate planning of TC2 and that OT has not learned from the failures of TC1 to prevent harms towards herders and the environment.

**Harmful impacts of the TSF on Khaliv Dugat river and downstream area**



Maintaining the integrity of the Khaliv Dugat diversion channel has been a long standing commitment as a result of the CAO complaint process and the resulting HCRA. The impact of the TSF has been atrocious to the Khaliv Dugat river and downstream area. We traveled to the downstream area and found that the ecosystem has been drastically affected as OT's construction design on the TSF prevented the water from flowing to the South East area down the TC1. OT has rerouted the diversion channel made for TC1 around the outer part of the TC2. There is a seepage pond right next to the diversion channel collecting seepage from TC1. OT is pumping water out of the diversion channel at this point because they believe that the seepage from TC1 might be getting into the diversion channel of TC2. Therefore, no water is able to flow to the downstream area.

This situation led to the drying up of four springs in the downstream area that used to be filled with water all-year-long. Herders have reported that the springs have been drying up since 2020, causing a decline of the health of the ecosystem in the area and forcing herders to move out. In the area where the Khaliv-Dugat river joins the Undai river, the elm trees are not turning green and are getting unnaturally uprooted in the wind. According to the January 2022 IESC Report, OT's years of monitoring identified no direct or indirect impacts to herder well or natural springs, which is factually incorrect as these four springs were visibly dried up.

In the downstream area where the springs have dried out completely, there are 21 herder families living in Javkhlant Bagh. Not only are these herders experiencing impacts from the dried up springs, they have also been identified as most impacted should there be a dam failure through OT's Emergency Response Procedure published in September 2018, including piping failure resulting in seepage of tailings to the groundwater. These families will most likely be the most impacted if the seepage contaminates water that flows to the downstream area. Therefore, they should be prioritized to be consulted on the remediation plan and pollution prevention efforts. Later on, the EHT reached out to OT about the plan since it was outdated. In our discussions with herders, we learned that there has been no information disclosure or outreach conducted by OT on the emergency response to dam failures for herders in the inundation area. The outdated information available on the Emergency Response Plan is also confusing to the herders and shows that OT has not paid sufficient attention to the impacts of the TSF on the downstream area as they still have the names of some herders that are no longer in the area, or have passed away. This finding is contradictory to the September 2022 IESC Report that says OT has demonstrated meaningful engagement with people from Javkhlant Bagh in coming up with decisions that may have a bearing on public safety and the integrity of the tailings facility.<sup>9</sup>

## **Recommendations**

We ask lenders to urge OT to provide remedy for the harms caused by TC1 on herders and the environment, and to prevent potential harms from the TC2. We recommend that lenders:

1. Require OT to halt work on TC2 until it has developed and implemented a remedial action plan to resolve harms resulting from the TC1's seepage on herders and the

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<sup>9</sup> Oyu Tolgoi, Oyu Tolgoi, IESC Report September 2022, 2022, p. 1-12.

[https://www.ot.mn/media/otnew/content/iesc/IESC\\_Monitoring\\_Report\\_Oyu\\_Tolgoi\\_Mine\\_Sept\\_2022\\_FINAL.pdf](https://www.ot.mn/media/otnew/content/iesc/IESC_Monitoring_Report_Oyu_Tolgoi_Mine_Sept_2022_FINAL.pdf)

environment. The timeline for the action plan has to address the urgency of the situation and lenders should hold OT to the timeline. This remedial action plan should include:

- a. Immediately reducing the liquid and chemical content of TC1 to prevent further leakage by installing a device to pump the water out of the TC1.
  - b. Commissioning an independent fact finding process on the impacts of the leakage on herders and the environment (particularly water, pasture and air) and publishing the results. Herder's involvement in the fact finding should be central to the process.
  - c. Opening a complaint desk for herders to report harms they experienced as a result of the leakage and resolving all complaints according to the existing complaint handling procedures.
  - d. Developing a supplemental ESIA in light of significant changes and new information, particularly the higher than expected tailings water content and the related seepage issues and TSF design implications, according to IFC standards.
  - e. Developing closure and post-closure plans for TC1 and future tailing cells in meaningful consultation with herders and other relevant stakeholders. OT should consider the potential for post-closure land use as an energy farm with renewable generation and energy storage systems to meet its long-term energy needs.
  - f. Obtaining herders' consent to establish TC2 through information disclosure of both tailing cells and meaningful engagement with herders and other stakeholders throughout the entire life cycle of the tailing cells. This includes engaging with herders who are identified in OT's TSF Emergency Response Procedure, who have mentioned that they have not been informed by OT regarding potential impacts of the TSF and the emergency response plan.
  - g. Disclosing all relevant information on the establishment of TC2 including Design, Location, Site Evaluation, Surface or Subsurface Preparation, Storm Water Diversion Systems or other requirements in Rio Tinto D5 Tailings Management Standards and GISTM. Additionally, OT must disclose regular updates on the TSF and particularly the seepage issue, including monthly seepage evaluation, tailings monitoring reports, construction inspection reports, and activities with the Independent Technical Review Board. The documents should be made publicly available and subject to meaningful consultation, including translating the documents to the local language.
  - h. Commissioning an independent auditor to assess OT's self assessment on their compliance with GISTM, meaningfully involve herders in the audit process and disclose the audit report publicly.
2. Require OT to develop adequate preventative measures and make significant changes to the TSF in addressing indicators of serious risks by:
- a. Using a competent liner for the entirety of TC2 and subsurface cutoff trench and developing a multiple-layer liner system with monitoring wells. OT should produce a report about the design and implementation of the clay liner for TC2, to make the information public.
  - b. Installing an adequate subsurface cutoff trench for TC1.

- c. Removing water from the tailings slurry by using several method options: (a) filter press; and (b) centripetal cyclone.
  - d. Revisiting contractor design to improve concentrator performance to meet or exceed design solids content of 64%.
  - e. Urgently improving the integrity of the Khaliv-Dugat diversion channel as committed in CAO Complaint Resolution Agreement 2, No. 8 by: (a) lining the drainage channel with compacted soil, soil cement, or synthetic or cement liner, to prevent penetration of contaminated water in the soil; it should also be improved to reduce erosion; and (b) implementing alternative to current dam with two tiny culverts (e.g., pipe similar to that for Undai diversion).
  - f. Removing as much water from tailings as possible prior to placement in tailings cells, which should mean fewer tailings cells needed. This would bring the dual benefits of reducing the risk of seepage and reducing the public pasture land that needs to be taken.
  - g. Implementing paste or dry tailings disposal.
  - h. Improving segregation of potentially acid forming (PAF) waste rock and discontinuing its use in the tailings dam.
  - i. Adding an underdrain that sits on top of the liner to catch seepage that can be easily pumped.
3. Conduct a site visit to consult with herders directly, gain more information on their concerns and address said concerns in the next IESC Report.
4. Require OT to reconsider watershed impacts as a major factor in determining where to place future tailings cells, and to meaningfully engage with herders on this public safety question.