

15.08.2019

Attn: Mr. Yu. Ivanyan

Head of Department for Investigation
of Corruption-related Property Crimes and Cybercrimes,
RA Investigative Committee

Dear Mr. Ivanyan,

Hereby please be informed that pursuant to the requirements defined by RA Criminal Procedure Code, **Lydian Armenia, CJSC** (hereinafter referred to as the **Company**) confirms it has recently been provided with what it has been informed is an Armenian translation of the final version of the complex audit expert opinion from ELARD, assigned under criminal case No. 69104118.

Lydian Armenia makes a number of comments below on specific matters addressed in the ELARD Report but notes, as a general matter, the Company provided every piece of data and information requested of it within its possession or control as part of the audit. The Company believes that all such data and information was: a) consistent with that developed and provided by or on behalf of the Company in support of its prior EIA/ESIA processes supporting the granting of mining licenses and permits for the Amulsar Project; and b) more than sufficient for the authors of the ELARD Report to form professional judgements consistent with those of other international experts who have previously considered the matters covered by the audit.

In this regard, the Company hereby states that:

1. Currently the Company does not have any petition for additional expertise.
2. Company believes there is no need to petition for any additional audit of the Project.
3. In general Lydian has accepted those conclusions made by international expert group of ELARD, which mainly relate to the lack of impact on the Lake Sevan and other water resources in the Jermuk area due to the Amulsar Project. The Company's observations on those aspects of the ELARD report are elaborated on below.
4. Upon acquiring the mining licence, the Company adopted an active and adaptive policy to make manageable the groundwater and surface water risks related to Amulsar Project. Meanwhile, Lydian welcomes the fact that the mitigation measures planned by the Company, were viewed favourably by the international expert group of ELARD. The Company restates that the environmental risks will be controlled throughout the Project implementation in accordance with the plans previously submitted by the Company. And the Company commits not to discharge any untreated contact water from the site to the environment.
5. The Company will consider separately the additional measures proposed in the annex to the expert opinion of the international expert group of ELARD, and later the Company will provide its position to each proposed measure.

Lydian is pleased to see that the international audit has confirmed most of the same conclusions reached during either the EIA/ESIA process and / or confirmed through subsequent detailed design. We are particularly pleased to see that the findings of the audit confirm that there is no link between the groundwater beneath the Project site and the Jermuk Mineral waters, and that the Project is not likely to result in any measurable effect on Lake Sevan even in the event of a catastrophic occurrence such as an earthquake.

Earthquake risks

ELARD suggest that the surface and groundwater are at risk from the Project should there be an earthquake. Lydian notes that all of the project structures have been designed based on international standards such that they are resilient during operations and closure to a reasonable worst-case earthquake scenario for this area of Armenia to mitigate against this risk. Full details of the earthquake hazard assessment which forms the basis of the design of the structures was provided to ELARD and was included as Appendix 22 of the EIA and Appendix 4.6.1 of the ESIA.

Uncertain effects on the Effects on the Kechut Reservoir, Arpa, Vorotan and Darb Rivers

The ELARD findings suggest that the significance of impacts on rivers is uncertain, as the ESIA models neither assess nor measure those impacts. This is an inaccurate statement. The models developed for the EIA and ESIA assess and measure those potential impacts and this is set out in Section 5.5 of the EIA and Section 6.9 of the ESIA and in greater technical detail in Appendices 6.9.1 to 6.9.5 and other documents provided to ELARD. As can be seen from the EIA and ESIA the significance of the impact is assessed and is not significant based on the investigations, modelling and risk assessment work undertaken.

Acid Rock Drainage (ARD) management

ELARD recommend the use of an active treatment system in addition to and/or instead of the passive treatment system proposed. Lydian has committed to apply active treatment method if its passive treatment system fails to ensure the necessary result.

Lydian remain confident that the current ARD Management Plan (will provide the necessary levels of treatment for any ARD impacted water which may be generated by the project. It is important to note that since the approval of the EIA, Lydian has continued to characterize the orebody at Amulsar by laboratory testing of waste and ore materials. This has led to the development of an ARD block model of the Amulsar deposit to determine how much potentially acid generating (AP) waste exists and where it is located. The ARD model is being used to advance the conceptual encapsulation design set out in the ARD Management Plan and the mining engineers will apply the mine schedule to determine the rate of production of acid generating rock by bench/year/pit as a preventative control to the formation of ARD.

ELARD recommends that Lydian provides further detail in respect to our adaptive management of ARD. In particular, they recommend that Lydian prove the suitability of a passive treatment approach and demonstrate that our selected treatment approach ensures protection of the environment, and in particular the water quality of Lake Sevan.

From the outset of the project Lydian has considered a series of contingency water treatment designs based on the following possible outcomes:

1. Observed water quality has a lower pH, higher metals, higher sulfate, or higher nitrate than predicted water quality, and
2. Observed contact water volumes are larger than predicted water volumes.

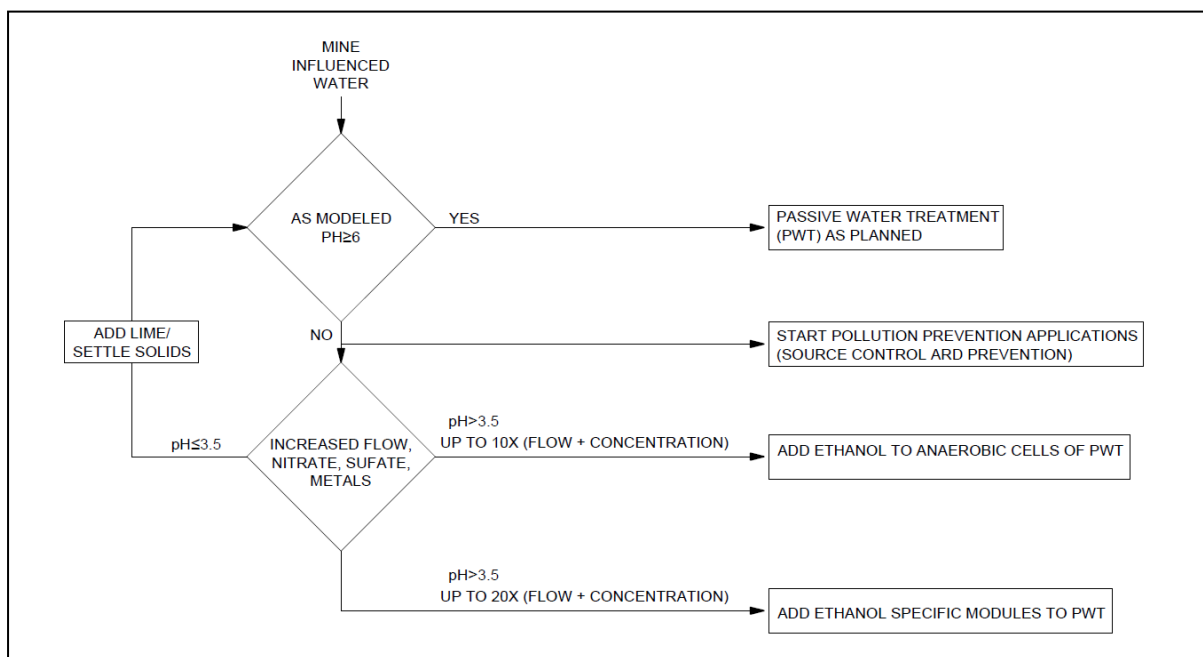
As stated in the ARD Management Plan the final design of the Passive Treatment System (PTS) would be based on bench and pilot scale test verification. As reported to ELARD, the bench scale test work completed to date has confirmed the general suitability of the treatment approach presented in the ARD Management Plan.

Furthermore, the illegal blockade of the Amulsar site has prevented the execution of existing experiments and additional data collection that would have resolved much of any perceived uncertainty stated in the ELARD report. Such confirmatory test work (most importantly a large-scale pilot passive

treatment test) will inform the final detailed design of the PTS. These experiments will commence as soon as feasible once site access is re-established.

ELARD recommends contingency planning with regards to water treatment. The following flow chart shows the adaptations to the current management plan which could be implemented if the water conditions do not match our current predictions.

Figure 1: Flow Chart of Contact Water Conditions and Contingencies

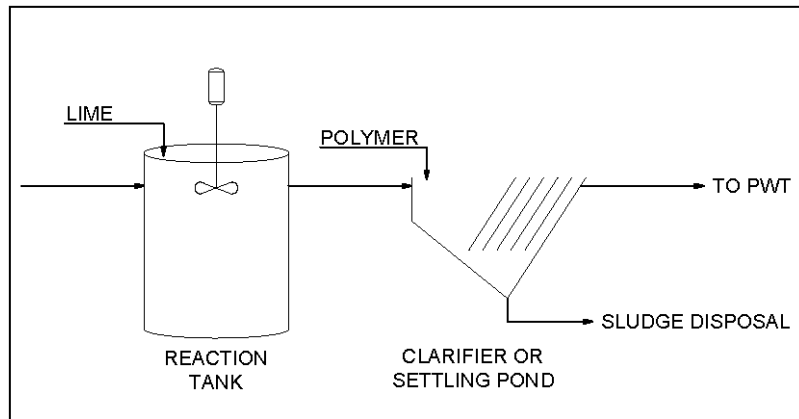


Lower than anticipated pH

As a result of the planned ARD prevention measures, low pH is not anticipated; however, Lydian recognises that the pH of contact water could be below 3.5. If during operations or closure this becomes the case, the first response would be to employ ARD-suppression technology. ARD suppressants would be applied to the waste rock (BRSF and pit back fill) with the highest sulphide concentrations as defined by the ARD block model. The use of lime in pH mitigation was included in the ARD Management Plan.

The next response would be pre-conditioning of contact water with lime prior to passive treatment. This is an integration of the “active treatment” requested by ELARD. pH adjustment can be carried out using a commercially available lime dosing plant. This plant will comprise a lime storage, a reaction tank, and a clarifier (using polymer flocculant). Figure 2 shows the Process Flow Diagram for the pH adjustment plant.

Figure 2: Process Flow Diagram for pH Pre-Conditioning



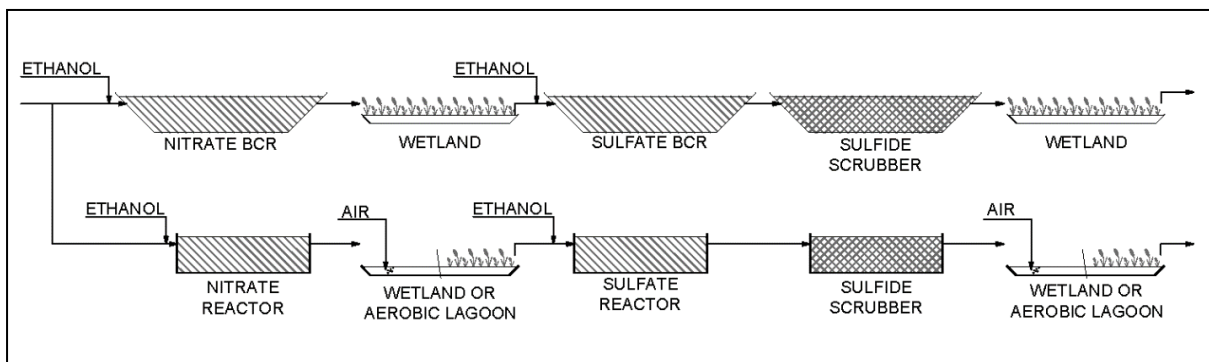
As noted above, the bioreactors in the PTS bench-scale test have been conclusively demonstrated to be successful at treating nitrates, metals and sulphates down to the necessary discharge standards. The effluent from the lime dosing facility (which may be high in sulphate or nitrate) will be sent to the PTS for treatment.

Higher Flow or Higher Concentrations of Nitrates, Sulphates.

If water flow was found to be higher than those currently modelled then the first mitigation step would be to reduce the amount of contact water being produced along with a general re-evaluation of water management methods. The goal will always be to minimize the volume of contact water produced.

In the unlikely event that higher than predicted concentration of nitrates and/or sulphates are identified then the next treatment enhancement would be to dose the bioreactors with ethanol and/or air injection. This ethanol dosing increases the potency of the bioreactor and augments the rate of nitrate or sulphate reduction. Air injection augments the effectiveness of aerobic-driven processes within the PTS. This allows for greater throughput and shorter residence time. Figure 3 shows the Process Flow Diagram for the ethanol-augmented bioreactors.

Figure 3: PTS with Ethanol Feed and Additional Modules



HLF and BRSF Clay Liner

Specification:

The recommendation of ELARD is that Lydian modify the current clay liner specification to 60-90 cm and with a hydraulic conductivity of $10^{-6} - 10^{-7}$ cm/sec. Lydian's current clay liner specification forming part of it previously approved Project plan is for a 30 cm compacted layer with a maximum hydraulic conductivity of 10^{-8} cm/sec. Lydian confirms that the current specification were based on engineering

calculations carried out by Golder Associates and provide a greater degree of environmental protection than proposed by ELARD.

Construction

ELARD has recommended that clay liners be compacted using appropriate equipment. Lydian confirms that detailed design drawings which have been 'Issued for Construction' include details of material (clay) which can be used for the liner, placement and compaction techniques to be used and the necessary performance standards which must be achieved with the compacted materials. The contractor will use standard compaction equipment used in civil engineering to achieve the required performance standard.

Quality assurance/quality control testing

ELARD has recommended that hydraulic testing be used to check the performance of compacted clay. This is a standard quality assurance procedure in construction management and has been included in QA/QC procedures in the Project. In addition, Lydian employs a third party (Golder Associates) to provide on-site QA engineers who are responsible for overseeing that placed material meets the required performance. QC control is provided by an on-site, third-party material testing laboratory (Abajan Laboratory) who carry out a range of in-situ and ex-situ tests under the supervision on the QA engineers.

Pit dewatering

ELARD has recommended that pits be subject to dewatering during operations to prevent the generation of ARD and seepage of groundwater. This is an existing commitment that was made by Lydian and was in the ARD Management Plan (Appendix 8.19 of the ESIA. P37) which was provided to ELARD during the audit. The ARD Management Plan states:

' during operations, pit dewatering water from the Tigranes, Artavazdes, and Erato pits is collected together and pumped to the contact water ponds (PD-8) near the Heap Leach Facility (HLF). '

Post closure contingency planning

ELARD has recommended that Lydian should have contingency plans in place in the event of a post-closure accident. Lydian confirms that initial planning has taken place. The Project's emergency response plan (Appendix 8.9 of the ESIA. P14) identified the need for capacity building for local emergency responders (e.g. Ministry of Emergency Situations (MES)) to be able to manage mine related incidents. Training of local emergency services to be able to manage potentially new emergency situations scenarios is also a requirement of the International Cyanide Code (ICC) (Amulsar Cyanide Management Plan. Section 7). Prior to the illegal blockades initial contact had been made to start capacity building with, for example, Vayk Hospital and the RA Ministry of Emergency Services where joint Emergency Response Trainings have been held in 2017 and 2018.

ARD mitigation contingencies

ELARD recommended a series of measures to control and mitigate ARD seepage into groundwater. The specific contingency measures recommended by ELARD are listed below, along with the Lydian measures which are already in place:

1. In pits sumps and pumping system and direct the leachate to ARD treatment system.
 - a. This is an existing commitment and was in the ARD Management Plan (Appendix 8.19 of the ESIA. P37) which was provided to ELARD during the audit (see above).
2. Place emergency wells to remove waters along the perimeter and in the area downstream from the pit and direct the removed groundwaters to ARD treatment system.
 - a. Lydian believes this is both unnecessary and impractical given the topography of the Amulsar Project. The depth to water, and the low hydraulic conductivity of the

- formation would render this effort meaningless (the water is too deep, and permeability of the structure is too low to release the water).
- b. However, a series of monitoring wells have been installed down-hydraulic gradient of the pits. More monitoring wells are planned before mining exposes potentially acid generating material. The purpose of the monitoring well network will be to evaluate the operational performance of the Project and identify any adverse trends in surface water and groundwater quality.
 - c. Water balance monitoring will determine if contact water quantity is potentially exceeding those which were estimated by modelling that would require modifications to the mitigation measures.
 - d. The monitoring network is designed to identify potential compliance concerns with surface water or groundwater at the mine. If such concerns are encountered, then appropriate mitigation can be planned and implemented. This industry-standard approach is applied around the world to manage and mitigate low-risk and low-probability scenarios such as pit seepage impacting water quality. This method is much more effective than the installation of deep, dry, and/or low-yield wells installed to capture contamination that does not exist.
3. Reassess the capacity of ARD treatment system and ponds to accommodate pit contingency pumped waters.
 - a. Since the pumping of the pits was already included in Lydian's ARD Management Plan, the ponds were designed to accommodate this water.

Water management structures - Design criteria

ELARD recommend that Lydian reassess the capacity of contact water ponds and diversion systems and enlarge them to accommodate a 500-year, 24-hour storm event. This recommendation is based on recently adopted closure requirements for mines in Nevada, USA.

Water retaining structures for the Project were designed to meet the requirement of the International Finance Corporation's EHS Guidelines for Mining. The specific guideline, set out below, was incorporated into the Project design criteria and was incorporated into the design of all water management structure:

“Stormwater drains, ditches, and stream channels should be protected against erosion through a combination of adequate dimensions, slope limitation techniques, and use of rip-rap and lining. Temporary drainage installations should be designed, constructed, and maintained for recurrence periods of at least a 25-year/24-hour event, while permanent drainage installations should be designed for a 100-year/24-hour recurrence period. Design requirements for temporary drainage structures should additionally be defined on a risk basis considering the intended life of diversion structures, as well as the recurrence interval of any structures that drain into them.”

Furthermore, the Project design criteria included an additional provision that permanent diversion drains and sediments ponds will be designed to manage the 100-year storm event plus a minimum 20% freeboard allowance. The contact water containment ponds have been sized to accommodate the 100-year, 24-hour storm event and a prolonged and significant wet year event as determined in a probabilistic water balance in compliance with standards required by the ICC.

ELARD makes reference to Nevada legislation/guidelines¹ which recommend the 100-year return rate for operations. This criteria has been adopted by Lydian:

¹ <https://ndep.nv.gov/land/mining/closure/guidance-policies-and-applications>

“Long Term Physical Stability -As required by NAC 445A.433 -‘Minimum design criteria; -1(c) All process components must be designed to withstand the run-off from a 24-hour storm event with a 100-year recurrence interval’. BMRR² interprets this requirement as adequate for an operating mine with personnel available for immediate maintenance. However, in the post-closure operating mode, personnel are generally not available for immediate maintenance/repair. Under this condition, the above design criteria requirement may be inadequate. Therefore, BMRR will require the Permittee to clearly demonstrate that all source/components in closure are designed to be stable for the long term”.

Therefore, Lydian’s designs and plans are fully in-keeping with international (IFC and ICC) guidance and the requirement of Nevada legislation during operations.

Lydian’s closure plan includes a long-term water management strategy which will ensure that all components of the remaining water management system (i.e. that which is required after closure) are designed to be stable in the long term. This includes the long-term inspection and maintenance of closure infrastructure.

There will be a significant change in the surface water regime at site during and after closure. Water which was previously considered contact water because it has come into contact with potential acid generating rock in the BRSF will no longer be classified as such. The placement of the evapotranspiration (ET) layer will prevent any rainfall on the capped BRSF from coming into contact with rock from the mining operations and therefore this will be non-contact water not requiring treatment and will be discharged to the environment. The only contact water generated after closure will be limited to seepage collected in the BRSF and HLF toe drains (ARD Management Plan Figure 15).

Contact water from both the BRSF and HLF will be routed to Pond 8 before being treated in the PTS prior to discharge. Pond 8 is designed for a 1 in 100-year storm event during operations when the number of sources and anticipated flows significantly exceed those during closure.

Most importantly, it is essential to note that the current Closure Plan is the first one produced. The detailed design, including the sizing of final water management structures, notably PD7 at the toe of the BRSF will be provided in the final closure plan. Similarly, during detailed closure design the capacity of Pond 8 will reviewed and adjusted if required. Under Armenian legislation such detailed designs are only required 2-years before closure although Lydian is committed to updating the closure plan prior to this (see above).

Closure planning

ELARD have recommended that the partially backfilled Erato pit is capped with evapotranspiration cap at closure. Such a cap will be used in the Tigranes-Artavazdes pit. The Erato pit will be backfilled with non-acid generating material (Appendix 8.18 of ESIA). The closure plan does not include an ET cap for this fill material for a number of reasons. The main reasons are:

- There is a low risk from ARD formation on the backfill because it is NAG material.
- The Erato pit backfill has only one function – it raises the level of the pit above the predicted level of any seasonal pit water. Unlike the covers for Tigranes and Artavasdes pits, it is designed to have high infiltration. This backfill prevents the formation of a pit lake, which may be an attractant to migratory birds.
- The impacts of the Erato pit seepage are fully-incorporated into the ESIA and have been shown to have no measurable impact to baseline water quality in the region.
- The Company’s lysimeter study, which has been halted due to the illegal blockade, would have provided critical design data for all cover plans in the closure plan. Once the Company has access to these studies, new data can be collected to improve the closure plan concepts.

² Bureau of Mining Regulation and Reclamation

Furthermore, Lydian has committed within the project EIA/ESIA to review and update the Amulsar Closure Plan on a regular basis. We would also note that Lydian is a signatory to the ICC and therefore also subject to the requirements of that Code. Lydian’s commitments to reviewing and updating the Project’s Closure Plan are set out below:

Table 1: Closure Plan review and update plan

Review period	Requirement of	Requirement / Commitment
2 years before project closure	Armenian Legislation	Minimum requirement for national compliance
Annually	International Finance Corporation (IFC) Environmental, Health and Safety Guidelines - Mining	Mine closure requirements should be reviewed on an annual basis.
Every two years	Amulsar Preliminary Mine Reclamation, Closure and Rehabilitation Plan (Page 55) given the short mine life, detailed technical reviews and updates will take place at two yearly intervals and at key stages in Project development that will yield significant new information that will affect the scope and costs of the plan.
Every five years	International Cyanide Code	The [closure cost] estimate should be based on the current cost for a third party to implement the identified decommissioning measures, and should be reviewed and updated at least every five years or when revisions are made that affect cyanide-related decommissioning activities.
As required	International Cyanide Code	The decommissioning strategy should be routinely reviewed and revised during the life of the operation to address changes in facilities or the development of new decommissioning technologies.

Lydian’s closure planning is in compliance with Armenian, IFC, ICC and other International Standards. It is impractical to advance closure-related themes to a “final design” prior to operations. This is the reason closure planning is iterative and developed as an industry practice over the life of a mine. ELARD’s comments should be viewed as suggestions of what we should look for and consider in the future. Actual data collected during mining may result in a modified plan. Lydian is committed to ensuring that any modifications to the preliminary closure plan will meet the objectives set out in Armenian Law and international best practice – that is the prevention/mitigation of negative impacts to the environment.

Backfill Arshak Pit

ELARD has recommended that Lydian should backfill Arshak Pit. Lydian can confirm that there is no Arshak pit although an area was referred as this in some early Project documentation. Furthermore, this area is included in the Tigranes-Artavazdes and the closure plan for this pit is for backfilling and capping (Appendix 8.18 of ESIA. p33).

Groundwater monitoring

ELARD recommends that Lydian use a reliable groundwater monitoring plan to allow an immediate and appropriate response to any identified concern. Lydian has a comprehensive motoring program (Environmental Monitoring Plan v9). The original plan presented as an Appendix to the ESIA was updated for construction and is under continuous review and improvement. The updated version was provided to ELARD during the audit.

The original Armenian Letter has been translated by Lydian into English. If there is any discrepancy between the English and Armenian translation, the Armenian version will prevail as the official document.

At the same time, please be informed that upon acquiring its mining licences and permits, the Company has committed to properly manage any environmental risks caused by the Project. However, by this letter we restate the Company's preparedness to make every effort to manage and mitigate any environmental risks.

Nothing in this letter should be interpreted as a limitation of the factual or legal bases on which Lydian UK might rely, or the legal rights and remedies it may pursue, before an arbitral tribunal or otherwise. Lydian UK fully reserves all rights and remedies in respect of this dispute under Armenian and international law.

Regards,

Hayk Aloyan

Managing Director of Lydian Armenia CJSC