

## REASONS FOR DECISION

### WATER USE APPLICATION QZ07-078 ALEXCO RESOURCES CANADA CORPORATION BELLEKENO MINE

The Yukon Water Board (“the Board”) has concluded deliberations pertaining to Water Use Licence Application QZ07-078 for a Type B Licence for a quartz mining undertaking.

The purpose of the application is to obtain authorization for use and storage of water, and the deposit of a waste during the advanced exploration and preliminary mine development at the abandoned Bellekeno mine, near Keno City, Yukon. The Bellekeno mine property is part of the Keno Mining District that has collectively been identified as a Type II mine site that is under Government care.

Care and maintenance activities at the Bellekeno mine site, including operation of a water treatment plant and environmental monitoring of water and sediment quality, are currently authorized by Water Use Licence QZ06-074. Advanced exploration activities, including surface and underground activities, are currently ongoing at the Bellekeno mine site under the authority of Quartz Mining Land Use Approval LQ00240 (“the Approval”) issued on June 17, 2008.

Notice of this application was provided in accordance with the requirements of the *Waters Act*. In response, the Board received interventions from the following parties:

- Government of Yukon-Environment, Executive Council Office, Justice, and Energy, Mines and Resources (“GY”),
- Environment Canada jointly with Fisheries and Oceans Canada (“EC”), and
- First Nation of Nacho Nyak Dun (“NND”).

The Board did not receive a request for a public hearing from any of the interveners. The Licensee responded to the interventions from GY, EC, and NND.

In making licensing decisions pertaining to this application, the Board also took into account the *Waters Act* (“the Act”), *Waters Regulation* (“the Regulation”), the application, recommendations from the interveners, the Board's standard licence requirements, mining maps 105M/13 and 105M/14, the *Yukon Environmental and Socio-economic Assessment Act* (“YESAA”) Decision Document (“Decision Document”), Chapter 14 of the Umbrella Final Agreement (“UFA”) and Board policies.

These reasons address only those areas where the licence differs significantly from the application and/or the recommendations of the interveners, or where the Board has determined that further elaboration will be helpful.

#### Environmental Assessment

This application required an environmental and socio-economic assessment under the YESAA.

Prior to making licensing decisions, the Board reviewed the Decision Document that is included in the water use register. As per section 86 of YESAA, the Board is satisfied that the issuance of licence QZ07-078 is not contrary to the conditions included in the Decision Document; however, the Board noted that the Decision Document restricted the Board's ability to make licensing decisions under the Act, which will be detailed in the sections below.

### Definitions

In its deliberations the Board considered that condition 67 of the Decision Document requires the Adaptive Management Plan for this undertaking to be part of the overall Keno Mining District Adaptive Management Plan ("AMP") required by existing Water Use Licence QZ06-074. Therefore, the Board included a definition of the Adaptive Management Plan in the licence such that it is defined as being that plan included in Water Use Licence QZ06-074.

The Board acknowledges that the intent of condition 67 of the Decision Document is a reasonable one; however, that it has limited the ability of the Board with respect to having a role in reviewing the plan, as the plan itself is not part of this licence. In particular the Decision Document has given specific power to the Chief, Mining Land Use with respect to the contents of the plan, even with respect to water issues.

Notwithstanding clause 67, the Board has provided some requirements for the Adaptive Management Plan with respect to water quality monitoring issues in the licence and the Board is satisfied that this inclusion is not contrary to the Decision Document.

### Monthly Reports

The Board has determined that a number of the monitoring points identified in this licence do not have fixed coordinates. Clause 17 of the licence requires that the first monthly report submitted under the licence include the coordinates of all such monitoring points that are identified in Schedule A, Part I of this licence.

### Term of Licence

The Board noted that in the application, the Licensee proposed a 10 year term for the water use licence. In review of the interventions received, EC and GY both indicated that the proposed term was satisfactory. NND did not comment on the proposed term.

The Board determined that the licence will be for a term of 10 years and the expiry date of September 3, 2018 is based on the date of the Board meeting that this application was approved.

### Description of Water Use and Deposit of Waste

The Board has provided water use and waste deposit descriptions that meet the requests of the Licensee to obtain and store water and to deposit a waste as described in the application. It is noted that no interveners objected to any of the proposed uses of water or deposit of waste.

In addition, the Board has also included clause 21 e) in the licence for the storage of water in the proposed Onek waste rock storage facility. It is the Board's view that the Onek facility constructed, as proposed by the Licensee, has the potential to store meteoric water and/or water entrained in the deposited waste rock. Therefore, this represents the storage of water and requires authorization under this licence. Moreover, the inclusion of this water storage allows the Board to ensure that appropriate Effluent Quality Standards can be assigned in Part E of this licence.

Clause 21 i) of the licence requires the deposit of treated sludge and sediment from this undertaking to be deposited into the sludge storage area of the Valley Tailings Area or other previously approved areas. The Board included this condition in the licence due to condition 19 of Decision Document, to ensure consistency. The Decision Document allows for some flexibility in determining a more easily accessible site.

The Board noted that the use of the Valley Tailings area is also authorized under Water Use Licence QZ06-074. The approval and use of additional disposal areas may require authorizations and approvals under other regulatory processes and by including clause 21 i) the Board is not conferring any approval in advance of those processes. Although the Board has approved the deposit of Waste in the form of sludge to other approved, but as yet unknown, disposal locations, it is the expectation of the Board, that GY will advise the Licensee of any amendments that may be required.

#### Plans and Conditions - General

The Board noted that the Licensee intends to rely on a number of plans to both ensure compliance with this licence and to support a potential production application. In either case it would be in the Licensee's interest to develop those plans in cooperation with other parties, and to take advantage of generally accepted standards, methodologies, and guidelines.

With respect to plans, this licence does not include specific instructions about the details of plans, and Board approval will not be required for the plans to be implemented. The licence does require the plans to be implemented unless otherwise instructed. It is the Board's intention that this instruction will be provided to the Licensee by GY.

Finally, it is noted that the licence contains outcome based conditions, such as water use limits and effluent quality standards, which the Licensee can be held accountable to by regulatory bodies. If the Licensee's plans are insufficient to ensure that these outcomes are achieved, it does not relieve the Licensee of their obligations to do so and it does not deter GY from seeking compliance with the licence and taking appropriate action as provided by the Act.

#### AMP

The Board notes that the Decision Document has created some ambiguity with respect to the creation of an AMP for this undertaking and the Board's role in adjudicating this plan. In particular the Board views the Decision Document as requiring that adaptive management measures related to this undertaking be incorporated into an AMP required for Water Use Licence QZ06-074, which is not the regulatory instrument currently before this Board.

In addition, condition 67 of the Decision Document did not specify whether the revised AMP would be submitted to the Board prior to adjudication of this application so that it could be scrutinized by the Board, or after the licence is issued and the Board's powers to adjudicate have already been exercised.

In either case, the Board has not received a detailed AMP submission by the Licensee as part of this application.

It is the Board's determination that regardless of the ambiguity, it has the role and responsibility to provide direction as to the contents of the AMP in relation to water resources issues. Therefore, clause 22 contains the minimum information that must be included in a revised AMP for Water Use Licence QZ06-074. As the AMP is not specifically a plan associated with this licence, the Board has not provided timelines in this licence to govern the development of the revised plan. The Board recommends that the Licensee prepare these revisions in cooperation with other stakeholders and regulatory bodies prior to submitting the revised and updated AMP to the Board.

For clarity, clause 22 a) of the licence relates to monitoring of waste rock seepage chemistry and it is the Board's view that this would need to be in place by at least the second year of this licence. Clause 22 b)

relates to potential changes in mine water chemistry following dewatering of the historical mine works and it is the Board's view that this would need to be in place prior to the completion of dewatering. Clause 22 c) relates to potential impacts to receiving waters resulting from dewatering of the Bellekeno mine and it is the Board's view that this would need to be in place within one month of initiating the dewatering.

Finally, the Board notes that the specific requirements of clause 22 are designed to work in connection with other elements of this licence and the Board determined that timelines would not be included in the licence to allow the Licensee some flexibility.

#### Physical Inspections Plan

In its review of the application, the Board noted that provisions for the physical inspection and reporting of the performance of water storage and water conveying infrastructure were not cohesively presented and that the provisions may be unclear to regulators and potentially to the Licensee's own operating staff. The Board also observed that inspection plans for some elements were not explicitly included.

It is the Board's belief that requiring the Licensee to assemble a single comprehensive physical inspection document is in the best interest of the undertaking and that it would provide clarity as to what physical inspection activities will be undertaken to monitor the performance of water storage and water conveying infrastructure.

Therefore, the Board through clause 23 has requested that such a plan be prepared and submitted.

#### Geochemical Characterization Plans

There was considerable concern amongst interveners that the Licensee's pre-project geochemical characterization studies of potential waste rock be subject to further confirmatory geochemical testing preceding and during the removal of waste rock from the Bellekeno mine. Intervenors identified the proposed "pilot" or "cover" hole that the Licensee indicated may be advanced along part of the Bellekeno East Decline alignment as an appropriate source of material for additional confirmatory testing in advance of driving the decline.

The Board notes that it has no evidence that the cover hole was developed by the Licensee and that driving the decline is an activity that has already been initiated under the authority of the Approval that has been issued by GY. Given the projected rate of advance for the decline, and the time lag between the issuance of the Approval and the deliberation by the Board on this application, the Board cannot conclude that requiring testing of the "cover" hole is possible or of value.

The Board determined that additional confirmatory testing is appropriate for this undertaking and further notes that the Licensee has proposed to complete such testing in their application. Specifically, the water rock management plan identifies testing frequencies for Acid Base Accounting testing and metals content testing of waste rock and of mine walls. It is the Board's belief that these frequencies are appropriate and meet or exceed current industry standards for such testing.

With respect to testing methodologies, the Board notes that the testing methodologies used by the Licensee in completing pre-project testing were not questioned by intervenors and it is expected that the Licensee would follow these established methodologies in the confirmatory testing to ensure that direct comparisons of results can be made.

While the Board is satisfied by the testing that has been completed and is proposed to be completed, the Board did note that the testing programs were lacking definition of timelines to complete the work and of sampling methodologies to obtain materials for the tests. Therefore, in clauses 24 and 25, the Board has requested that the Licensee provide a plan that clearly defines the testing and sampling methodologies, and timelines to complete the work. Moreover, the Board believes that the testing program should keep pace with the development of the mine and the accumulation of waste rock. Thus, it has been determined that the annual testing program should be representative of mine development and waste rock accumulation for that given year.

Finally, the Board understands that the Approval has designated that no Acid generating or Metals Leaching (“AML”) waste rock can be used for construction purposes. Therefore, the Licensee is accountable for any such use, regardless of the nature of the plan it proposes, to confirm if waste rock can be used or not.

#### Flow Monitoring

In its deliberations, the Board noticed that historical flow records from various surveillance sites were sparse and that regional statistical studies were being utilized, in some cases, to provide estimates of flows. The Board believes that monitoring flows is important to understanding contaminant loads that this undertaking will release into the environment, and that flow monitoring should be conducted.

In Schedule A, Part III of this licence the Board has identified the frequency of flow monitoring required for each monitoring station. In order to ensure that flow monitoring is conducted in accordance with appropriate industry standards, the Board has included clause 34 b) in this licence and requires by clause 26 that the Licensee provide a plan identifying flow monitoring methodologies for each station requiring flow monitoring.

#### Implementation of Plans

The Board included clause 27 in the licence to require that all plans submitted be implemented, subject to any required assessments, authorizations or approvals. The Board is reluctant to approve plans for which no detailed information has been presented. The Board noted that once a licence is approved there is no process for which the Board can approve a plan, other than by an amendment to the licence. As previously indicated, the Board expects GY to review the plans that are submitted to the Board and unless GY instructs the Licensee otherwise, the plan is to be implemented.

#### Effluent Quality Standards

The Licensee has proposed that the effluent quality standards for this undertaking be consistent with those currently in place under licence QZ06-074 with the addition of a standard for ammonia nitrogen. Interveners for this application agreed with this proposal; however, EC suggested a more stringent concentration for ammonia nitrogen.

The Board determined that matching the effluent standards for licences QZ06-074 and QZ07-078 is appropriate. The Board notes that the undertaking at Bellekeno does not clearly meet the definition of a “mine under development” in the federal *Metal Mining Effluent Regulations* (“MMER”); regardless, the included parameter concentration limits are consistent with MMER.

With respect to the maximum concentration of ammonia nitrogen, the Board was not swayed by EC’s argument for a 2.5 mg/L maximum concentration. As indicated by NND in their intervention, the concentration of 5 mg/L proposed by the Licensee is unlikely, at the given pH and water temperatures expected, to have an adverse impact on aquatic life.

The EC argument that 2.5 mg/L is an implicit standard, based on past Board decisions, is inaccurate. The Board reviews each application individually and where possible will strive for consistency unless there is evidence to support otherwise.

Finally, EC identified a concern that the presence of ammonia may negatively impact the removal of metals from the mine effluent. The Board agrees that ammonia could have that effect; however, it will be the Licensee's requirement to meet the metal limits. Moreover, the Board understands that once dewatering is initiated, the Licensee will have complete control over the rate of inflow into the treatment plant and can adjust that rate down to the natural inflow rate of the mine or even discontinue the dewatering for a period of time if necessary to make adjustments to its water treatment process.

Therefore in clause 28, the Board has included the Effluent Quality Standards previously utilized in Water Use Licence QZ06-074 with the addition of ammonia nitrogen at a maximum concentration of 5 mg/L.

Where effluent standards are applied, the Board has identified the discharges from the waste water treatment plants at Bellekeno 625 and Bellekeno East, as well as from the Onek Pit Waste Rock Storage Facility as being required to meet the defined standards. In this context, the Board notes that transfers of stored water from the Onek Facility to the Bellekeno 625 treatment plant would not constitute a discharge; however, a discharge from Onek directly to the environment would constitute a discharge.

The Board notes that the effluent quality standards within this licence for advanced exploration and preliminary mine development, do not create an obligation to utilize these standards on a future production licence as may be requested by the Licensee. The Licensee will be responsible for proposing effluent quality standards should an application for a Type A water licence be submitted to the Board in the future.

#### Point of Compliance

The Board maintains its long standing determination that the point of compliance must be the final point of control prior to the release of effluent to the natural environment. This will ensure that the effluent is a direct result of the operations undertaken by the Licensee. The Licensee proposed the point of compliance to be consistent with Board direction and the interveners were agreeable to this as well. This requirement is included in clause 30 of the licence.

This explanation is necessary because the Decision Document allowed for the Board to consider site specific water quality objectives being measured at some location in receiving water courses. The Board comments that to set a receiving water point of compliance, the application would need to provide sufficient science and studies to allow for this to be objectively viewed by stakeholders, regulators and the Board. As such information was not provided and the Licensee was not proposing a receiving water point of compliance, the Board has not considered this possibility.

#### Water Quality Monitoring

The Board received considerable input from interveners seeking to modify the Licensee's originally proposed water quality monitoring proposals presented in the application. Intervenors were seeking to add in additional monitoring stations, to increase the frequency of monitoring for water quality and quantity, to expand the parameters of both daily field monitoring and of external laboratory monitoring, and to require the Licensee to report internal monitoring results obtained at the site.

In response, the Licensee submitted a revised monitoring schedule. The Licensee's revised monitoring schedule included the additional monitoring stations requested by interveners and increased the frequency of monitoring for treatment site stations during dewatering of the Bellekeno mine workings. The Licensee did not agree to expand their original parameter list and did not agree with the request to report internal monitoring data collected at the site. With respect to the internally generated data, the Licensee indicated that such data would be available for review and inspection at the site.

It should be noted that the Board interprets the dewatering of the Bellekeno mine to be the one time draining of the flooded mine workings that exist below the 625 level of the Bellekeno mine. Once the flooded workings are drained, the removal of on-going mine water inflows from the workings through pumping is not in the context of this licence considered to be dewatering.

In considering the proposals of the interveners and the revised proposal of the Licensee, the Board also considered that monitoring should have some demonstrated value and purpose other than that of scientific study. The Board also accepted that it should be cautious about potential variations in water quality during dewatering that could impact the effectiveness of the existing treatment system. The Board was also conscious that the quality and quantity of mine water inflows requiring treatment following dewatering could be different from the current water draining from the 625 adit.

With respect to the proposed monitoring stations for this licence, the Board has accepted the revised submission of the Licensee with the inclusion of two additional stations. The list of monitoring stations is presented in Schedule A, Part I of the licence. The two additional stations included in the licence are KV-44 and KV-45. KV-45, the Onek 400 Adit discharge, is included in concordance with Decision Document condition 34. Given the plans of the Licensee to line the Onek Waste Rock Facility and the uncertainty of its actual location, as the site is included in QZ06-074, its inclusion here is not considered to be onerous to the Licensee.

With respect to KV-44, the Bellekeno 625 seep, the Board has included this point on the basis of the general argument of EC that this licence should stand alone and not rely upon QZ06-074. With some limitations, the Board accepts this argument and has included monitoring station KV-44 that is identified in QZ06-074 but is clearly associated with the Bellekeno mine.

With respect to on-site monitoring activities required of the Licensee, the licence requirements are presented in Schedule A, Part III. In developing this schedule, the Board has accepted the arguments of the interveners to expand the parameter list to include monitoring of ammonia and total suspended solids at the treatment site stations. The Board recognizes that this monitoring will not provide data suitable for confirming compliance with the effluent water quality standard; it will nevertheless be valuable in identifying the variability in water quality and its effects on the treatment process. For the monitoring of total suspended solids, the Board believes that it would be more appropriate to monitor turbidity as a surrogate parameter and has made this change to the interveners' recommendations.

In addition to the ammonia and turbidity, the Board has also included specific flow monitoring activities in the on-site monitoring schedule. Intervenors were generally in favour of defining flow monitoring requirements and as the Board has already stated it believes that flow monitoring is a valuable activity. Therefore, flow monitoring has been included for all treatment sites and most surveillance sites.

For the actual adit discharges for Bellekeno 625 and Bellekeno East Decline, the Board recognizes that the Licensee will, upon the initiation of dewatering, be in complete control of the discharge rates. Therefore, occasional measurements may not represent actual flows that can be changed instantaneously by adjusting the installed pumping system. As a result of this and accepting that inline flow measurement technology readily exists for pumping systems, the Board has specified continuous monitoring of flows from these two stations.

With respect to compliance monitoring completed by external testing laboratories, it is the view of the Board that the water quality monitoring program submitted by the Licensee for the period prior to dewatering the Bellekeno mine workings is acceptable. Where the Board has added monitoring stations, the Licensee's program has been expanded to include those stations. As presented in Schedule A, Part IV, this program includes monthly monitoring of treatment sites and quarterly monitoring of surveillance sites. The parameter list is consistent with the Licensee's proposal and does not include some parameters requested by EC in its intervention. In its deliberations, the Board was not provided any evidence or argument to justify the additional EC parameters and so they were not included.

Once dewatering is initiated, the Board will require more intensive monitoring of the treatment stations and of select surveillance sites. The Board will require monitoring of the treatment sites to occur on a weekly schedule. During dewatering, surveillance sites that are most representative of receiving water areas will require monitoring on a monthly schedule and background sites and more distant downstream sites will remain on a quarterly schedule. This has been included as Schedule A, Part V of the licence.

The weekly monitoring schedule for the treatment sites is consistent with the requests of EC and GY. The Licensee had proposed weekly testing only of the adit discharges or raw untreated water but not for the actual treated effluent. As the Board is not requiring prior testing of the treatment system, it agrees with EC and GY that weekly testing of the treated effluent during dewatering is a reasonable requirement.

For the surveillance sites, the Licensee had proposed a quarterly schedule consistent with the pre-dewatering schedule. GY sought a monthly schedule and EC sought a schedule with some monthly and quarterly monitoring. The Board determined that the general proposal of EC in conjunction with the inclusion of an AMP provision to increase monitoring should there be reasonable cause is the most appropriate schedule for the surveillance sites. Therefore, the majority of the surveillance sites will require quarterly monitoring but these stations where changes in the receiving water quality are most likely to be identified will require monthly monitoring.

The dewatering period monitoring schedule has been included by the Board, as the Board determined this schedule is justified by the interveners' concerns about the treatment process and water quality inflows during dewatering. The Board also noted that the Licensee was agreeable to more intensive monitoring during dewatering but not following dewatering. The interventions of GY and EC that also recommended more intensive monitoring during dewatering were unclear to whether to continue the intensive monitoring following dewatering.

The Board accepts that dewatering is a finite activity; nevertheless, there is uncertainty as to what the water quality and quantity will be following dewatering. Therefore, the Board has determined that the dewatering period monitoring schedule should be continued for a twelve week period following dewatering. This extension of the intensive monitoring schedule is included to provide a reasonable data set that can be used in association with the AMP provision requested by clause 22 c) to make a determination to continue with intensive monitoring in some form or to revert back to the pre-dewatering monitoring schedule presented in Schedule A, Part IV. It is the Board's intention that GY will advise the Licensee whether an amendment is required during the term of this licence.

Finally, the Board understood that the effluent discharges from the Bellekeno East Decline and the use of settlement ponds at that location are a temporary measure. Evidence was put forward that current use of the settlement ponds was only for holding recycled water and that no release to the environment or to the Bellekeno 625 treatment plant was occurring. The Board has determined that, by including clause 33 c) in the licence, that Schedule A, Part III and Schedule A, Part V would only apply to monitoring stations KV-74 and KV-75 if a release to the environment or to the Bellekeno 625 treatment plant were occurring. If the Licensee continues to recycle water from the Decline and settlement ponds, then only Schedule A, Part IV would apply. If the settling ponds are decommissioned as described in the application and no further effluent withdrawals are made from the Decline then monitoring would not be required.

#### Sediment Monitoring

EC had requested that the Licensee be required to undertake sediment testing at four monitoring stations included in this licence. The Licensee responded that the stations are subject to the impacts of placer mining and would yield ambiguous data. The Board understands that sediment monitoring at two of the EC identified stations is currently required under QZ06-074. It is the Board's decision to require sediment monitoring at the two stations already identified in QZ06-074 but to exclude the additional stations identified by EC due to the issue of placer activity.

#### Physical Inspections and Monitoring

In its deliberations the Board determined that the evidence was somewhat deficient as to whether any physical impacts to the channels of Thunder Gulch and Lightning Creek could occur as a result of dewatering, particularly if dewatering occurs during low flow winter periods. As a result, the Board has included clause 38 that requires the Licensee to monitor the physical condition of the channels during dewatering.

#### Waste Rock Monitoring

In their application the Licensee identified a waste rock monitoring program that would apply to the non-AML waste rock that has been deposited around the mine site. NND and EC sought to have the program include external water quality testing that was not identified by the Licensee. The Board's view is that the Licensee's program is reasonable but that it should be brought forward into the licence. Therefore, the Board has included clauses 39 and 40 in this licence.

With respect to the interveners' request for external water quality testing, the Board believes that this should be an activity incorporated into the AMP and has included clause 22 a) to that end.

#### Water Treatment Plant Performance Evaluation

The Board has included on-site monitoring requirements in this licence in Schedule A, Part III, and through clauses 15 c) and 16, the Licensee will be required to report the results of this monitoring. Reporting this data was a request of NND, EC and GY but it was argued by the Licensee that reporting the data related to its treatment sites was not necessary or beneficial.

The Board determined that with the inclusion of clause 31, which requires accredited laboratory results for effluent parameters, the issue of whether on site data can be used for confirming compliance has been addressed.

To further mitigate the Licensee's concerns regarding potential interpretation issues arising from the inherent uncertainty of field data, the Board has included clause 41 that will require the Licensee to annually complete a performance evaluation of its treatment plants. The evaluation will provide the Licensee with the opportunity to explain variances in field data in comparison to the external monitoring results. It is the intent of the Board that the Licensee can use this evaluation to remove their concern regarding the interpretation of the field data.

#### Design and Construction

The Board has adopted standard design and construction clauses for undertakings of this nature. This includes screening of water intakes, operation of settling ponds and construction of storage facilities. It is the Board's determination that the clauses of Part G are consistent with the Decision Document and past practices of the Board.

#### Site Decommissioning and Reclamation

It is the Board's view that the only identified new environmental liability with the potential to impact waters from this proposed undertaking is the Onek Waste Rock Storage Facility. Other expected liabilities, such as adit drainage, are pre-existing. With respect to the Onek facility, interveners have requested plans and studies in relation to that facility. The Licensee has responded by providing a preliminary design for a lined waste containment facility that would be covered upon abandonment.

The Board views the provided plans and specifications as providing some assurance that reasonable measures are being planned to at least temporarily contain the potential AML materials that will be placed in the Onek Facility. The Licensee has not provided any evidence that the facility, even after it is covered, is suitable for the long term or permanent containment of the waste materials. Therefore, the Board has included clause 53 to require that the Licensee provide more information on the expected performance of this facility.

The Board is aware that the Licensee is required under the Approval to provide a Closure Plan to the Chief of Mining Land Use by December 17, 2008. It may be that this plan will address the issues related to the long term function and fate of the Onek Facility. Regardless, the Board wishes to have the long term fate of the Onek Facility understood prior to the expiry of this licence. Therefore, clause 53 requires that information be provided at least two years prior to the expiry of this licence.

#### UFA-Chapter 14

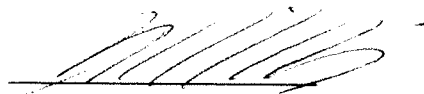
Maps 105M/13 and 105M/14 are included in the First Nation of Nacho Nyak Dun Final Agreement. The mining maps were reviewed for Settlement Land. The undertakings for this licence potentially impact two different watersheds: the McQuesten River watershed and the Mayo River watershed. In the McQuesten watershed, Settlement Land parcel R-20 B is located adjacent to the McQuesten River, and is approximately 11 km downstream from the abandoned town site of Elsa that contains the Licensee's camp infrastructure. In the Mayo watershed, Settlement Land parcels located within the Village of Mayo some 60 km downstream of the Bellekeno site are the first parcels that could be exposed to any water related impacts from the exploration and mine development activities at the Bellekeno mine.

In regards to Chapter 14 of the UFA, as to quantity, quality and rate of flow of water flowing on, through or adjacent to Settlement Land, including seasonal rate of flow, the Board made the following determination:

In regards to quantity and quality, the applicant is proposing to use a maximum combined quantity of 100 m<sup>3</sup> of water per day from several sources and discharge as much as 864 m<sup>3</sup> per day during dewatering. The water withdrawals should have no measurable impact on the First Nation's water use. The discharge of waste, treated as required should also have no measurable effect on water quality or flow at the nearest Settlement Lands in either the McQuesten River watershed or in the Mayo River watershed. Therefore, the Board could conclude that there will be no substantial alteration of the quantity and quality and rate of flow of water flowing on, through or adjacent to Settlement Land, including seasonal rate of flow.

**Conclusion**

The Board has approved the issuance of Water Use Licence QZ07-078.

  
Chairperson  
Yukon Water Board

October 25, 2008  
Date