

Mackenzie Valley Land and Water Board
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Staff Report

Applicant:				
De Beers Canada Inc.				
Location: Application:				
Kennady Lake, NT	MV2005C0032 and MV2005L2-0015			
Date Prepared: Meeting Date:				
March 7, 2017	March 16, 2017			
Subject:				
Request to Extend Submission Deadline for a Revised Reclamation Cost Estimate				

1. Purpose/Report Summary

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) a request submitted by De Beers Canada Inc. (De Beers) for an extension to the submission deadline of a revised reclamation cost estimate under Land Use Permit (Permit) MV2005C0032 and Water Licence (Licence) MV2005L2-0015.

2. Background

- March 20, 2014 De Beers submits a Draft Reclamation Security Estimate;
- April 7, 2014 Government of the Northwest Territories (GNWT)-Environment and Natural Resources (ENR) submits a RECLAIM Estimate with their intervention;
- July 1, 2014 De Beers submits closing arguments, including providing further clarification on the mine closure security;
- August 11, 2014 Board issues Reasons for Decision which provide a detailed explanation
 of the security amount required to be posted for the project;
- November 3, 2016 Board requests that De Beers submit a revised estimate, for approval, by May 17, 2017;
- February 2, 2017 De Beers submits an extension request to the Board for the submission deadline of the revised estimate;
- February 24, 2017 Review comments due and received;
- March 2, 2017 Responses received; and
- March 16, 2017 Extension request presented to the Board for decision.

3. Discussion

Rock Placement Verification Program and Rock Placement Verification Program Report (Report)

Part E, item 7 of Licence MV2005L2-0015 states:

Upon commencement of Construction, the Licensee shall initiate a **Rock Placement Verification Program** in accordance with the requirements set out in Schedule 4, item 1, to assess the effectiveness of the SOP referred to in Part E, item 6. Within eighteen (18) months following issuance of this Licence, the Licensee shall submit a **Rock Placement Verification Program Report** that describes the results of the Program to the Board for approval.

Part C, item 5 of Licence MV2005L2-0015 states:

The Licensee shall submit a revised Project Reclamation liability estimate after Board approval of the Rock Placement Verification Program Report that is required in accordance with Part E, item 7, utilizing the most current version of RECLAIM or another method acceptable to the Board.

Part C, item 5 is based on the uncertainties expressed by reviewers raised during the regulatory process regarding the predications made by De Beers about the segregation and behaviour of potentially acid generating (PAG) materials, and more specifically, the costs associated with the appropriate reclamation of these materials. The results of the Report are intended to inform the Board of the accuracy of predictions made and the success of rock segregation practices detailed in the SOP. The results were also intended to provide necessary information regarding any future monitoring and reclamation activities that would be appropriate for the site; including, rock handling procedures that would be necessary during operations for a "design for closure" approach. These data will also inform the security amount that should be in place to conduct the reclamation work, and is intimately linked to the security provision for a revised project reclamation liability estimate.

The Report was submitted on April 25, 2016 and was approved by the Board as an interim Report on November 3, 2016. In the decision letter, the Board requested that De Beers submit a revised Project Reclamation liability estimate by May 17, 2017, and if additional time was required, De Beers was to provide an alternate date and include rationale.

On February 2, 2017, De Beers submitted an extension request (attached), including rationale, to extend the submission of the revised estimate from May 17, 2017 to 6 months following the approval of the Interim Closure and Reclamation Plan (or no earlier than June 30, 2018).

Security

De Beers and the GNWT-ENR were the only parties to submit security estimates to the Board during the MVLWB regulatory process; De Beers on March 20, 2014 and GNWT-ENR on April 7, 2014.

On August 11, 2014, the Board issued Reasons for Decision (attached) which provide a detailed explanation of the security amount required to be posted for the project.

4. Comments

N/A

5. Reviewer Comments

By February 24, 2017, comments and recommendations on the extension request were received from 1 reviewer:

GNWT-ENR

De Beers responded on March 2, 2017. The reviewer comment summary table (attached) presents the concerns identified through the review of the extension request.

6. Security

The GNWT currently holds \$13,817,863 under Permit MV2005C0032 and \$23,776,270 under Licence MV2005L2-0015 in reclamation security for the Gahcho Kué project. De Beers' next deposit of security (in the amount of \$1,382,934 for Permit MV2005C0032 and \$40,713,234 for Licence MV2005L2-0015) is due prior to year 4 of Operations (the end of mining of the Hearne Pit).

The purpose of the security deposit is to ensure funds are available to complete reclamation of the site, inclusive of the closure and post-closure phases. Milestones for security postings were selected to represent time periods where key operational changes occur that affect reclamation. These operational changes are the beginning of mining and milling (Year 1), the end of mining the Hearne pit (Year 4), the end of mining the 5034 pit (Year 7), and the end of operations (Year 11). There is a clear spike in financial security in Year 4 as it marks the end of Hearne pit, as well as the beginning of pre-stripping and mining of the Tuzo pit.

7. Conclusion

De Beers has responded to the comments received and there are no outstanding issues or concerns regarding this request.

8. Recommendation

Board staff propose the following options for the Board's consideration:

1. Approve De Beers' request to delay the submission deadline of the revised reclamation cost estimate until 6 months following the approval of the Interim Closure and Reclamation Plan (or no earlier than June 30, 2018);

OR

2. Deny the extension request to delay the submission deadline of the revised reclamation cost estimate and require De Beers to submit the revised estimate, for approval, by May 17, 2017 as previously determined by the Board;

OR

3. Any other option.

Board staff note that no changes to the Licence are required because the relevant conditions do not contain specific dates. Thus, a draft Licence was not provided as an attachment.

9. Attachments

- Extension Request to the Submission Deadline of the RECLAIM Model
- August 11, 2014 Reasons for Decision
- Reviewer Comment Summary Table
- Draft Decision Letter from the Board

Respectfully submitted,

Angela Love

Regulatory Officer

Review Comment Table

Board:	MVLWB		
Review Item:	De Beers Gahcho Kue - Extension Request to Submission Deadline of RECLAIM Model (MV2005C0032 - MV2005L2-0015)		
File(s):			
Proponent:	De Beers Canada Inc - Gahcho Kue		
Document(s):	Extension Request (49 KB)		
Item For Review Distributed On:	Feb 10 at 15:05 <u>Distribution List</u>		
Reviewer Comments Due By:	Feb 24, 2017		
Proponent Responses Due By:	Mar 2, 2017		
Item Description:	De Beers Gahcho Kué (De Beers) has submitted a request to change the deadline for the submission of the Project Reclamation liability estimate, which is currently due on May 17, 2017 (as was set by the Board on November 3, 2016). The revised Project Reclamation liability estimate is required as per Part C, item 5 of Water Licence MV2005L2-0015. Reviewers are invited to submit questions, comments, and recommendations on this submission using the Online Review System (ORS) by the review comment deadline specified below.		
General Reviewer Information:	In addition to the email distribution list, the following organizations received review materials by fax: Fort Resolution Métis Council - Trudy King (867)394-3322 Hay River Metis Council - Trevor Beck, President (867)874-4472 NWT Metis Nation - Tim Heron, NWTMN IMA Coordinator (867)872-3586		
Contact Information:	Angela Love 867-766-7456 Jen Potten 867-766-7468 Kierney Leach 867-766-7470 Shannon Allerston 867-766-7458		

Comment Summary

De Beers Canada Inc - Gahcho Kue (Proponent)						
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis		
1	General File	Comment (doc) Response letter to GNWT-ENR reviewer comment Recommendation		Noted		
GN'	GNWT - ENR: Central Email GNWT					
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis		
2	General File	Comment (doc) ENR Letter with Comments and Recommendations Recommendation		Noted		
1	Topic 1: Delaying Security Update	Comment De Beers is requesting to delay the May 17, 2017 submission date for the update of the RECLAIM estimate for the Gahcho Kue site until after the ICRP has been approved, i.e. no earlier than June 30, 2018. De Beers' rationale for requesting this delay is that the Board has recently (January 12 2017) not approved De Beers ICRP, and has extended the review process. De Beers notes that information contained within an ICRP is closely linked to establishing a RECLAIM estimate, and that the next scheduled security installment milestone in the Water Licence is prior to year 4 of operations, or 2020. De Beers has stated that in the absence of an approved ICRP, they would base the RECLAIM estimate on the current Conceptual Closure and Reclamation Plan, which is what the	De Beers is pleased to provide the Mackenzie Valley Land and Water Board (MVLWB) the following response to the Government of the Northwest Territories (GNWT) Department of Environment and Natural Resources (ENR) comments regarding our request for extension of the RECLAIM security estimate. While De Beers respects the GNWT's mandated responsibilities, De Beers acknowledges that it is the Land and Water Boards of the Mackenzie Valley that set security amounts and dictate the schedule of this security as per the Mine Site Reclamation Policy for the Northwest Territories. De Beers notes that it is the Boards that are authorized to set the security deposit under subsection 35(1) of the Waters Act. The letter provided by the GNWT to the MVLWB dated February 24, 2017 outlined the following	As indicated in the August 11, 2014 Reasons for Decision, 'The Board is authorized to set the security deposit amount by subsection 35(1) of the Waters Act, and the regulations promulgated under that Act, but conforms to the direction provided in Aboriginal Affairs and Northern Development Canada's (AANDC) Mine Site Reclamation Policy for the Northwest Territories, chiefly, that "Adequate security should be provided to ensure the cost of reclamation, including shutdown, closure and post-closure, is born by the operator of the mine rather than the Crown".' Further, the Board included Part C, items 2 and 5 in the Licence which details when the security		

present estimate is based upon, and any resulting updated estimate is unlikely to be substantially different than the present amount. Under the Mine Site Reclamation Policy for the Northwest Territories, the GNWT is to ensure that they hold at any time during the life of the mine, an amount equal to the total outstanding reclamation liability for the site at that time. ENR notes that the current security estimate was prepared in 2014, and that the current practice for other mines is to review and update the security on an annual basis. GNWT is concerned that delaying the next RECLAIM updated until the middle of 2018 means that the security will not have been reviewed in over four years, and the GNWT may be over or undersecured for this period. At a minimum, the estimate should be updated to account for inflation since the last estimate was completed, and any changes to security that may result from current site conditions or deviations in the mine plan.

Recommendation 1) ENR recommends that the security estimate should be updated according to the current schedule, and then again once the ICRP has been approved.

concerns regarding a RECLAIM extension (paraphrased):

- 1. GNWT is to ensure that they hold at any time an amount equal to the total outstanding reclamation liability for the site at that time;
- 2. Other NWT Mines update security annually;
- 3. A four year time lapse in RECLAIM updates; and
- 4. A need to update based on inflation.

De Beers provides the following responses to the GNWT concerns: 1. The GNWT currently holds security for all constructed and anticipated to be constructed features and disturbance up until year 4 of Operations. The mine is currently in year 1 of Operations and has been constructed as proposed. Any factors that would increase or decrease the total reclamation liability for the next time an updated estimate is required are provided annually as part of the annual closure and reclamation plan progress report (ACRPPR). No such factors were identified in previous ACRPPRs and only minor potential adjustments will be identified in the 2016 ACRPPR pending approval by the Board (e.g. addition of 3 jet fuel tanks). These minor adjustments will not actually occur until 2018 if approved and are best addressed together with any other adjustments required following approval of the ICRP which is anticipated to occur by 2018. At this time De Beers has provided more than ample security for the extent of mine construction and operations conducted and planned up until the next

requires updating. Specifically, Part C, item 5 is based on the uncertainties expressed by reviewers regarding the predications made by De Beers regarding the segregation and behaviour of PAG materials, and more specifically, the costs associated with the appropriate reclamation of these materials. This condition includes a provision for a revised **Project Reclamation** liability estimate after the Board approves the verification program report in accordance with Part E, item 7 of the Licence.

The Board mostly adopted the GNWT-ENR recommendation for setting the current security (Board subtracted the AQMP and WEMP amounts), which utilized version 7.0 (dated March 2014) of the RECLAIM model. The Rock Piles line item on the RECLAIM model accounted for costs associated with PAG stockpiling and rehandling. A phasing schedule that coincides with certain operational milestones was utilized for the security amounts. The Rock Pile capitol cost line item, specifically that which includes rehandling of PAG, is not seen until Year 1 of the schedule (due prior to

milestone identified in the Water License (Year 4 of Operations). 2. De Beers notes that the GNWT's statement that other NWT Mines update security annually is misleading. De Beers is the operator of two mines in the NWT - Gahcho Kué and Snap Lake Mines. The requirement for an annual security update is not within the permits or licences for either of our operations, both under MVLWB jurisdiction. An annual update would constitute an unnecessary and costly burden on De Beers as well as an administrative burden on the MVLWB and reviewers. 3. The GNWT expressed concern regarding an additional year between RECLAIM updates. In its Reasons for Decision on the Water License and Land Use Permit, the Board agreed to a milestone approach for posting of securities, as recommended by the GNWT-ENR during the regulatory process in 2014. This milestone approach is also consistent with the INAC Mine Site Reclamation Policy for the Northwest Territories. As noted above, any factors that would increase or decrease the total reclamation liability for the subsequent security posting date are provided annually as part of the annual closure and reclamation plan progress report (ACRPPR). No such factors were identified in 2015 and only minor adjustments are anticipated for the 2016 ACRPPR. Further, in the Reasons for Decision on the water license and land use permit, the Board explained why the reclaim revision was required following approval of the Mine Rock

Mining and Milling) in the amount of \$625,600. The security deposit for this was submitted by De Beers and accepted by GNWT on June 30, 2016 for the Water Licence and June 22, 2016 for the Land Use Permit. The next security installment, which is due Prior to Year 4 of Operations (amount coincides with the end of Mining of the Hearn Pit) accounts for a security amount of \$14,685,090 for the Rock Pile. The Mine Rock Placement Verification Program Report, approved by the Board in November 2016, confirmed that mine rock is currently occurring at or below predictions and that placement within approved PAG zones is currently occurring as predicted.

Board practice for requiring an annual security update has changed over the last several years.
An example of a current NWT Mine with the requirement to annually update the security estimate is Miramar Northern Mining Ltd. (MV2007L8-0025) under Part G, item 3, as they are in active reclamation.

Placement Verification Program Report. The rationale was that there were uncertainties expressed by reviewers regarding the segregation and behavior of PAG materials and the costs associated with the appropriate reclamation of these materials. In light of a discrepancy between the De Beers and the GNWT security estimates for the mine rock piles at the time, the Board adopted the more conservative GNWT estimate which assumed rehandling of PAG rock. The Mine **Rock Placement Verification** Program Report, approved by the Board in November 2016, confirmed that mine rock is occurring at or below predictions and that placement within approved PAG zones is occurring as predicted. Therefore during a reclamation security review, the security estimate is likely to decrease, not increase. This lends evidence to the fact that the mine is currently over-secured, not under-secured. The Board's Reasons for Decisions also explicitly links the reclaim revision requirement with the ICRP when it states that "Furthermore, the costs associated with PAG stockpiling and re-handling will become more apparent once the reclamation objectives and options have been established under an approved Closure and Reclamation Plan, and the findings of the verification program have been obtained." The findings of the verification report have been obtained and approved, however the reclamation objectives and options have not yet been established and approved. De Beers re-iterates that it is most

efficient for all involved to participate in a single reclamation revision, addressing both of these elements next year following approval of the ICRP.

4. The unit rates within the RECLAIM estimating tool forms the basis of the security estimates. The security posted in 2016 is reflective of the Boards decision of the required value of security in 2016 from the 2014 estimate. Escalation factors (e.g. inflation) and the projected

inflation) and the projected liability for the project has been factored into the 2014 Board decision in setting the security amount and schedule. De Beers does not believe that any additional inflation factors are justified, nor would they be material enough to warrant a revision at this time.

The GNWT currently holds the full security dictated in our licence and permits up until Year 4 of operations (2020). The security update extension that De Beers has requested will not lead to any socio-economic or environmental impacts or additional risk to the GNWT.

De Beers thanks the MVLWB in advance for consideration of the request. Should you have any questions, comments or require further clarification, please feel free to contact me at 867-688-9227 or sarah.mclean@debeersgroup.com



Government of Gouvernement des Northwest Territories Territoires du Nord-Ouest

February 24, 2017

Jen Potten
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
P.O. Box 2130
Yellowknife, NT
X1A 2P6

Dear Ms. Potten,

Re: DeBeers - Gahcho Kue

Water Licence - MV2005L2-0015 Land Use Permit - MV2005C0032 RECLAIM Model Submission to Board

Extension Request Request for Comment

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the request at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

Topic 1: Delaying Security Update

Comment:

De Beers is requesting to delay the May 17, 2017 submission date for the update of the RECLAIM estimate for the Gahcho Kue site until after the ICRP has been approved, i.e. no earlier than June 30, 2018. De Beers' rationale for requesting this delay is that the Board has recently (January 12 2017) not approved De Beers ICRP, and has extended the review process. De Beers notes that information contained within an ICRP is closely linked to establishing a RECLAIM estimate, and that the next scheduled security installment milestone in the Water Licence is prior to year 4 of operations, or 2020.

De Beers has stated that in the absence of an approved ICRP, they would base the RECLAIM estimate on the current Conceptual Closure and Reclamation Plan, which is what the present estimate is based upon, and any resulting updated estimate is unlikely to be substantially different than the present amount.

Under the Mine Site Reclamation Policy for the Northwest Territories, the GNWT is to ensure that they hold at any time during the life of the mine, an amount equal to the total outstanding reclamation liability for the site at that time. ENR notes that the current security estimate was prepared in 2014, and that the current practice for other mines is to review and update the security on an annual basis. GNWT is concerned that delaying the next RECLAIM updated until the middle of 2018 means that the security will not have been reviewed in over four years, and the GNWT may be over or under-secured for this period. At a minimum, the estimate should be updated to account for inflation since the last estimate was completed, and any changes to security that may result from current site conditions or deviations in the mine plan.

Recommendation:

1) ENR recommends that the security estimate should be updated according to the current schedule, and then again once the ICRP has been approved.

Comments and recommendations were provided by ENR technical experts in the Water Resources Division and the North Slave Region and were coordinated and collated by the Environmental Impact Assessment Section, Conservation, Assessment and Monitoring Division (CAM).

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email patrick clancy@gov.nt.ca.

Sincerely,

Patrick Clancy

May

Environmental Regulatory Analyst

Environmental Impact Assessment Section

Conservation, Assessment and Monitoring Division

Department of Environment and Natural Resources

Government of the Northwest Territories



Angela Love
Mackenzie Valley Land and Water Board
PO Box 2130
Yellowknife, Northwest Territories
X1A 2P6

March 2, 2017

Re: Response to the GNWT-ENR Review Comment and Recommendation regarding De Beers' request for extension of the RECLAIM revision (MV2005L2-0015 and MV2005C032)

Dear Ms. Love:

De Beers is pleased to provide the Mackenzie Valley Land and Water Board (MVLWB) the following response to the Government of the Northwest Territories (GNWT) Department of Environment and Natural Resources (ENR) comments regarding our request for extension of the RECLAIM security estimate.

While De Beers respects the GNWT's mandated responsibilities, De Beers acknowledges that it is the Land and Water Boards of the Mackenzie Valley that set security amounts and dictate the schedule of this security as per the *Mine Site Reclamation Policy for the Northwest Territories*. De Beers notes that it is the Boards that are authorized to set the security deposit under subsection 35(1) of the *Waters Act*.

The letter provided by the GNWT to the MVLWB dated February 24, 2017 outlined the following concerns regarding a RECLAIM extension (paraphrased):

- 1. GNWT is to ensure that they hold at any time an amount equal to the total outstanding reclamation liability for the site at that time;
- 2. Other NWT Mines update security annually;
- 3. A four year time lapse in RECLAIM updates; and
- 4. A need to update based on inflation.

De Beers provides the following responses to the GNWT concerns:

1. The GNWT currently holds security for all constructed and anticipated to be constructed features and disturbance up until year 4 of Operations. The mine is currently in year 1 of Operations and has been constructed as proposed. Any factors that would increase or decrease the total reclamation liability for the next time an updated estimate is required are provided annually as part of the annual closure and reclamation plan progress report (ACRPPR). No such factors were identified in previous ACRPPRs and only minor potential



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adjustments will be identified in the 2016 ACRPPR pending approval by the Board (e.g. addition of 3 jet fuel tanks). These minor adjustments will not actually occur until 2018 if approved and are best addressed together with any other adjustments required following approval of the ICRP which is anticipated to occur by 2018. At this time De Beers has provided more than ample security for the extent of mine construction and operations conducted and planned up until the next milestone identified in the Water License (Year 4 of Operations).

- 2. De Beers notes that the GNWT's statement that other NWT Mines update security annually is misleading. De Beers is the operator of two mines in the NWT Gahcho Kué and Snap Lake Mines. The requirement for an annual security update is not within the permits or licences for either of our operations, both under MVLWB jurisdiction. An annual update would constitute an unnecessary and costly burden on De Beers as well as an administrative burden on the MVLWB and reviewers.
- 3. The GNWT expressed concern regarding an additional year between RECLAIM updates. In its Reasons for Decision on the Water License and Land Use Permit, the Board agreed to a milestone approach for posting of securities, as recommended by the GNWT-ENR during the regulatory process in 2014. This milestone approach is also consistent with the INAC Mine Site Reclamation Policy for the Northwest Territories. As noted above, any factors that would increase or decrease the total reclamation liability for the subsequent security posting date are provided annually as part of the annual closure and reclamation plan progress report (ACRPPR). No such factors were identified in 2015 and only minor adjustments are anticipated for the 2016 ACRPPR.

Further, in the Reasons for Decision on the water license and land use permit, the Board explained why the reclaim revision was required following approval of the Mine Rock Placement Verification Program Report. The rationale was that there were uncertainties expressed by reviewers regarding the segregation and behavior of PAG materials and the costs associated with the appropriate reclamation of these materials. In light of a discrepancy between the De Beers and the GNWT security estimates for the mine rock piles at the time, the Board adopted the more conservative GNWT estimate which assumed re-handling of PAG rock. The Mine Rock Placement Verification Program Report, approved by the Board in November 2016, confirmed that mine rock is occurring at or below predictions and that placement within approved PAG zones is occurring as predicted. Therefore during a reclamation security review, the security estimate is likely to decrease, not increase. This lends evidence to the fact that the mine is currently over-secured, not under-secured.

The Board's Reasons for Decisions also explicitly links the reclaim revision requirement with the ICRP when it states that "Furthermore, the costs associated with PAG stockpiling and rehandling will become more apparent once the reclamation objectives and options have been established under an approved Closure and Reclamation Plan, and the findings of the verification program have been obtained." The findings of the verification report have been



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obtained and approved, however the reclamation objectives and options have not yet been established and approved. De Beers re-iterates that it is most efficient for all involved to participate in a single reclamation revision, addressing both of these elements next year following approval of the ICRP.

4. The unit rates within the RECLAIM estimating tool forms the basis of the security estimates. The security posted in 2016 is reflective of the Boards decision of the required value of security in 2016 from the 2014 estimate. Escalation factors (e.g. inflation) and the projected liability for the project has been factored into the 2014 Board decision in setting the security amount and schedule. De Beers does not believe that any additional inflation factors are justified, nor would they be material enough to warrant a revision at this time.

The GNWT currently holds the full security dictated in our licence and permits up until Year 4 of operations (2020). The security update extension that De Beers has requested will not lead to any socio-economic or environmental impacts or additional risk to the GNWT.

De Beers thanks the MVLWB in advance for consideration of the request. Should you have any questions, comments or require further clarification, please feel free to contact me at 867-688-9227 or sarah.mclean@debeersgroup.com

Sincerely,

Sarah McLean

Regulatory Specialist

Sarah McLean

De Beers Canada Inc.