

STATE OF
COLORADO

Ridley - DNR, Hunter <hunter.ridley@state.co.us>

Pikeview monitoring report

Ridley - DNR, Hunter <hunter.ridley@state.co.us>

Thu, Feb 1, 2024 at 11:07 AM

To: "Kos, Paul" <paul.kos@stantec.com>

Cc: "Tim Cazier, P.E. (Tim.Cazier@state.co.us)" <tim.cazier@state.co.us>, Jerald Schnabel <jerald_schnabel@castleaggreggate.com>

Hi Paul,

I've reviewed the December report and had view questions that I hope you can provide some clarification on for me. There are a few discrepancies between the site maps and narrative given in the report...

1) The Site Map (pdf pg 8) shows 14 existing prisms. Appendix B map (pdf pg 13) shows 19 existing prisms. Is there a reason for leaving off 5 prisms on the site map? Prisms shown on Appendix B map not shown on the site map are: CP6, P33, P32R, CP7, B7300-4

2) The narrative under Section 2.0 states that there are 19 prisms total, with three prisms on the slope. The November report stated there were 20 prisms total, with 4 on the slope. By looking at the Site Map, which is missing prism B7300-4, I assumed this was the prism removed between November and December. However, B7300-4 is still listed on the Table 3 Prism Summary under Section 3.0 and on the Appendix B map. I couldn't find mention elsewhere in the report of its removal, damage, replacement, etc. Therefore, is prism B7300-4 currently still in place or not? Was it damaged and replaced?

3) Finally, I am unsure of the exact implications which bullet #3 under Section 2.0 (highlighted in the attached pdf) has for stability at the site. This is likely a topic best discussed in the field where we can better identify the area of exposed fault, but I wanted to give you a heads up that this is something Tim and I will want to chat about during our inspection later this month.

Kind regards,
Hunter Ridley (she/her/hers)
Environmental Protection Specialist I

**COLORADO**
Division of Reclamation,
Mining and Safety
Department of Natural Resources

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On Wed, Jan 31, 2024 at 12:18 PM Kos, Paul <paul.kos@stantec.com> wrote:

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**Pikeview Monitoring Memo December 2023-Final (1).pdf**

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STATE OF
COLORADO

Ridley - DNR, Hunter <hunter.ridley@state.co.us>

Pikeview monitoring report

Kos, Paul <paul.kos@stantec.com>

Fri, Feb 2, 2024 at 1:07 PM

To: "Ridley - DNR, Hunter" <hunter.ridley@state.co.us>

Cc: "Tim Cazier, P.E. (Tim.Cazier@state.co.us)" <tim.cazier@state.co.us>, Jerald Schnabel <jerald_schnabel@castleaggreggate.com>

Hunter,

Thank you for the thorough review, and you asked good questions. See my responses in blue font below. Let me know if you have any additional questions.

1) The Site Map (pdf pg 8) shows 14 existing prisms. Appendix B map (pdf pg 13) shows 19 existing prisms. Is there a reason for leaving off 5 prisms on the site map? Prisms shown on Appendix B map not shown on the site map are: CP6, P33, P32R, CP7, B7300-4

Those prisms are active and were inadvertently left off the map. The attached Site Map includes all 19 active prisms.

2) The narrative under Section 2.0 states that there are 19 prisms total, with three prisms on the slope. The November report stated there were 20 prisms total, with 4 on the slope. By looking at the Site Map, which is missing prism B7300-4, I assumed this was the prism removed between November and December. However, B7300-4 is still listed on the Table 3 Prism Summary under Section 3.0 and on the Appendix B map. I couldn't find mention elsewhere in the report of its removal, damage, replacement, etc. Therefore, is prism B7300-4 currently still in place or not? Was it damaged and replaced?

There were prisms added and removed in November, but there were no changes to the number of prisms in December. Prism NP66 was removed in November. It was active for part of the month, so it was included in the November total but not the December total. All the prisms listed in Table 3, including B7300-4, were active throughout December. In this case, the "slope" refers to the landslide slope and not the buttress slope. Prisms BR1, BR3, NP4, and P70 are on the landslide slope area. The text will be revised in future reports to clarify the slope where the prisms are located.

3) Finally, I am unsure of the exact implications which bullet #3 under Section 2.0 (highlighted in the attached pdf) has for stability at the site. This is likely a topic best discussed in the field where we can better identify the area of exposed fault, but I wanted to give you a heads up that this is something Tim and I will want to chat about during our inspection later this month.

The fault separates the granite that is above and west of the fault line from the sedimentary rock lower on the slope and east of the fault line. These two rock types are different both geologically and geotechnically. The landslide and subsequent movements have been limited to the sedimentary rock. The only movement of the granitic material was part of the initial slide, and only weathered granite immediately along the fault location was part of the slide. The granite slopes are traversed specifically to look for cracks and signs of movement; none have been identified. Also, prisms P32R and P33 are located on the granite slopes, and there have been no movements recorded at these locations. The fault being located farther east than originally planned results in there being a larger amount of stable material at the top of the quarry that can potentially be left in place without compromising the buttress design and resulting factor of safety against slope movement. We are currently evaluating the slope design and fault location to

see if we can revise the design. If there are design revisions, they will be submitted to DRMS as a Technical Revision. We can also walk along the fault location during the next site inspection and further discuss the design.

Regards,

Paul

Paul Kos P.E., P.Eng.

Mine Development Services Manager

Mining, Minerals and Metals

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From: Ridley - DNR, Hunter <hunter.ridley@state.co.us>
Sent: Thursday, February 1, 2024 11:07 AM
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Cc: Tim Cazier, P.E. (<Tim.Cazier@state.co.us> <tim.cazier@state.co.us>); Jerald Schnabel <jerald_schnabel@castleaggregate.com>
Subject: Re: Pikeview monitoring report

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Pikeview Prisms_20230201 Site map (1).pdf

309K



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Stantec

- LEGEND
- Permit/Affected Lands Boundary

City Grading Permit Boundary

Proposed Disturbance Limit

Landslide Extent

Buttress Fill Extent

Existing Prism

Removed Prism

New Prism

N

0

300'

600'

Client/Project

CASTLE AGGREGATE

PIKEVIEW QUARRY SLOPE

MONITORING

Project No.

2057288200

Title	
SITE MAP	
Revision	Date
#	2024.01.31
Drawn by	Figure No.
PK	1

