Alberta Transportation Site S17 – Mount Baldy Rockfall Highway 40:12, Kananaskis River Valley, Alberta Site Data – Summary Binder



SECTION A - FILE REVIEW

Site Location

- Highway 40:12, approximately 4.75 km southbound (as measured along the highway) of the junction between Highway 40 and Highway 68.
- SE-5-24-8 W5M
- UTM coordinates: Easting 635202, Northing 5652672 (NAD 83, Zone 11U).
- NTS mapsheet 820/3

Chronological Background

Table A1 provides a chronological background of this site.

Site Geology, Hydrogeologic And Geomorphologic Setting

This site consists of a cut slope along the east side of the highway where the highway corridor runs between the east shore of Barrier Lake and the lowermost portions of the west slope of Mount Baldy. The highway corridor crosses the McConnell Thrust Fault in this area and the general area is characterized by intensely thrust faulted mountainous terrain. The thrust faults trend northwest/southeast and dip down to the west, therefore relatively older Devonian and Cambrian limestones and dolostones have been thrust over top of younger Cretaceous rocks.

There is no hydrogeological data for this site aside from visual observations of groundwater seepage daylighting in the lower portion of the cut slope during the June 2007 site inspection. It is likely that rainfall and snowmelt infiltrating into the natural slopes above the cut slope along the highway flows downwards towards Barrier Lake along joints and fractures in the bedrock.

Description Of Past Site Problems

No record of reported problems since the present highway was constructed during the 1970's. Caution sign ("Watch For Fallen Rock") posted for northbound traffic approaching the site, but no information available regarding if this was done in response to a problem or as a precautionary measure only.

Description Of Past Investigations

No records of previous site investigations were noted during the documentation review for this site.

This site was first inspected by AMEC in October 2005 as part of the Highway 40 / 541 corridor geohazard review. Annual site inspections have been performed from 2007 onwards as part of the annual Southern Region geohazard inspection tour.

Description Of Mitigative Measures Implemented

No mitigative measures implemented to date, aside from occasional cleaning of accumulated rockfall debris from the ditch, based on documentation review and discussions with AT.

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Table A1 - S17 - Mount Baldy Rockfall - Chronological Background

Date	Description
1970's	Current highway constructed.
October 2005	First inspection by AMEC as part of the Highway 40 / 541 corridor geohazards review. Recommended Risk Level = 45. Recommendations for scaling and more frequent cleaning of the accumulated rockfall debris from the ditch in order to maintain it at or near maximum capacity.
June 2007	Site inspection by AMEC and AT personnel as part of the 2007 Southern Region geohazard inspection tour. No change to the recommended Risk Level (45) or the recommendations for scaling and ditch cleaning.
June 2008	Annual site inspection by AMEC and AT personnel. No change to the recommended Risk Level (45) or the recommendations for scaling and ditch cleaning.