

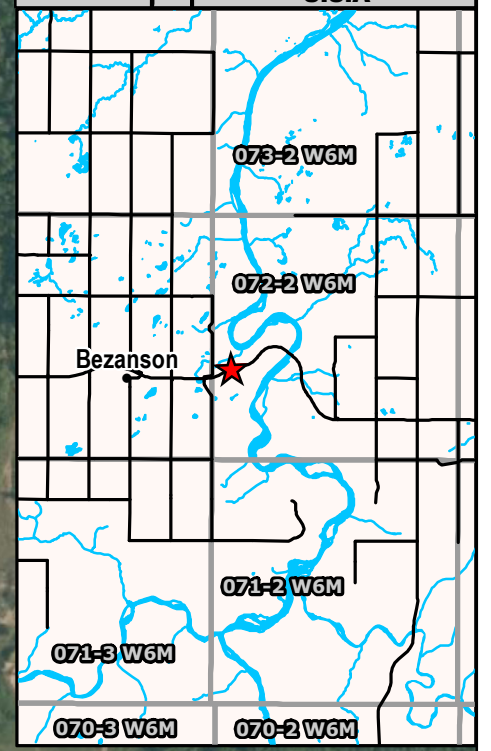
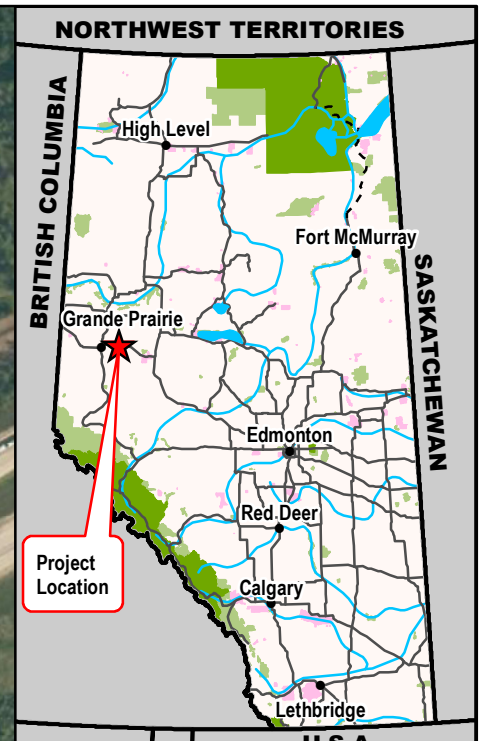
SITE NUMBER AND NAME: GP046 Smoky River West Valley EBL Backslope Slumps		HIGHWAY & KM: 43:04, 32.004	PREVIOUS INSPECTION DATE: May 27, 2020	INSPECTION DATE: July 19, 2021
LEGAL DESCRIPTION: SW 16-72-02 W6M	NAD 83 COORDINATES: UTM Northing Easting 11 6121397 417585		RISK ASSESSMENT: PF: 12 CF: 4 TOTAL: 48	
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 5930 (west) & 6470 (east) (Reference No. 30720 & 70000114)			CONTRACT MAINTENANCE AREA (CMA): 504	

SUMMARY OF SITE INSTRUMENTATION: There is no instrumentation at the GP046 site LAST READING DATE: N/A	INSPECTED BY: Chris Gräpel James Lyons Roger Skirrow (AT) Rocky Wang (AT) Ed Szmata (AT) Max Shannon (AT) Dwayne Lowen (AT MCI)
PRIMARY SITE ISSUE: Four shallow slump failures have appeared in the backslope cut above the EBL of Hwy 43:04 along the midpoint of the descent along the west valley slope of the Smoky River valley about 4.5 kilometers east of Bezanson, Alberta. Three of the slides are now connected (Slide 1 to 3).	
APPROXIMATE DIMENSIONS: Original slides 1 through 3 have merged into one large slide zone about 270 m long at the highway ditch. The accumulated slide debris in the toe roll has now extended into the EBL south ditch. The backscarp near the fence line is maximum 2.5 m high. Slide 4 (approximately 20 m further to the east) has increased in size and is about 115 m wide, extends 40 m up the backslope with a distinct toe roll in the ditch. The backscarp varies from 1.0 m to 2.0 m high The overall angle of the intact backslope is about 15 to 20 degrees (approximately 3H:1V) near Slide 4.	
DATE OF ANY REMEDIAL ACTION: None	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X	Backscarp instability is not affecting the pavement, but is partially blocking the ditch		X
Slope Movement	X		Area of backslope failure is getting bigger, with individual areas of instability coalescing. New area of instability to east of previous areas.	X	
Erosion	X		Some erosion on back scarps from surface water runoff		X
Seepage		X			
Culvert Distress		X			

COMMENTS
<ul style="list-style-type: none"> - Area of backslope instability has expended about 100 m to the east. Toe roll of slide is partially blocking ditch near west/north extent of the site. Approximately 1.2 m of freeboard between edge of pavement and top of toe roll. Toe roll will not result in surface water runoff flowing onto the highway, but continued movement will result in a blocked ditch. - AT says that the site used to be four separate areas of instability that now have coalesced and enlarged. The GPS track shown on the accompanying figure was created by walking around the extents of original

<p>slides 1, 2, and 3 that have coalesced and enlarged. A quad trail is located to the east of the old zone of instability. The GPS track shown in Figure 1 shows the extent of Slides 1 to 3.</p>	
<ul style="list-style-type: none"> - Log cabin at crest of backslope appears to have historical value 	
<ul style="list-style-type: none"> - Scarp closest to private property fence line at WP 083, about 2.5 m between fence and head scarp. Maximum head scarp height of about 2.5 m, will likely retrogress towards fence this year. Alberta government survey monument at WP084. 	
<ul style="list-style-type: none"> - Short-term (summer 2021): Clean out ditch with as little failure material being removed as possible. Ditch will likely fill in again, will need ongoing attention and maintenance. - Long-Term: Flatten slope to 5H:1V. KCB to submit proposal to AT for a preliminary engineering study. Installing a long ditch culvert will result in operational/maintenance problems for AT (not preferred) 	
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<p>Chris Gräpel, M.Eng., P.Eng. Senior Civil Engineer, Associate</p>	



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Legend

- GPS Track (July 19, 2021)
- Approximate Slide Limit
- Landowner's Fence



NOTES:
 1. HORIZONTAL DATUM: NAD83
 2. GRID ZONE: UTM Zone 11N
 3. IMAGE SOURCE: ESRI Maps
 4. Size of backslope slide has grown since the airphoto imagery was taken.

CLIENT

PROJECT
GRANDE PRAIRIE SOUTH REGION
GEOHAZARD RISK MANAGEMENT PROGRAM

TITLE
Site Plan
GP046 Smokey River West Valley
Hwy 43:04, km 32.004

SCALE 1:3,500 PROJECT No. A05116A01 FIG No. 1

Time: 15:35:17 PM
 Date: October 05, 2021
 File: Z:\A\EDM\A05116A01\ABT Grande Prairie South GRMP\400 Drawings\GIS\MXD\2021\Section B\GP046_210929.mxd

Photo 1 The slides on the south (eastbound) side of Hwy 43 have worsened since the 2020 inspection and have combined into one slide approximately 300 m in length. Photo taken July 19, 2021 facing southeast.



Photo 2 The toe of the slide is blocking the south (eastbound) ditch. Photo taken July 19, 2021 facing east.



Photo 3 Backscarp of the original slide is impacting an ATV trail at the crest of the slope. Photo taken July 19, 2021 facing east.



Photo 4 A new slide approximately 100 m long, on the east side of the original slides. Photo taken July 19, 2021 facing east.

