TROILUS GOLD CORPORATION

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TROILUS GOLD PROJECT

STOCKPILES STABILITY ASSESSMENT AND GEOTECHNICAL FOUNDATIONS RECOMMENDATIONS

March 25, 2024

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March 25, 2024

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Attention: Ian Pritchard, Senior Vice-President, Technical Services

Dear Madam/Sir:

Subject: Stockpiles Stability Assessment and Geotechnical Foundations Recommendations Report

Client ref.: 061-2257554005-REV0

Please find the stockpiles stability assessment and geotechnical foundations recommendations report.

Yours sincerely,

Irwin Wislesky, P.Eng. (B.C.) Fellow Mine Waste Consultant	Mathieu Gosselin, P.Eng. (QC), PMP Geological Engineer	Hadi Davoudi Senior Mine Waste Consultant

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REVISION A

February 19, 2024	Draft version released for Comments			
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REVISION 0				
March 25, 2024	Final version			
Prepared by	Reviewed by	Approved By		
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1 INTRODUCTION AND OBJECTIVES

Troilus Gold Corp. (Troilus) has requested WSP Canada Inc. (WSP) to complete a feasibility study (FS) for the Troilus project. Troilus is planning to restart mining operations at its Troilus site north of Chibougamau, Quebec. This project would involve additional major developments by expanding and creating new open pits, expanding the footprint of the tailings storage facility (TSF), placing new overburden, waste rock and ore piles, constructing a new process plant and road infrastructure, developing a site-wide water management plan (WMP) and providing other associated infrastructure. The current layout of the perceived site along with existing mine features is shown on Figure 1.

This report presents the results of a two-dimensional (2D) limit equilibrium stability analysis to advance the geotechnical design of the required waste rock dumps, overburden stockpiles and low-grade ore (LGO) stockpile for the newly developed site. The geotechnical recommendations provided in this report are based on the results of analyses performed. The approximate layout of the various dumps required for the new operation was developed by others based on storage volume requirements, minimized haulage distance, and limited available space (AGP, 2024). This stability assessment is required to support the feasibility design and construction of the dumps throughout the life of mine with consideration of site closure needs.

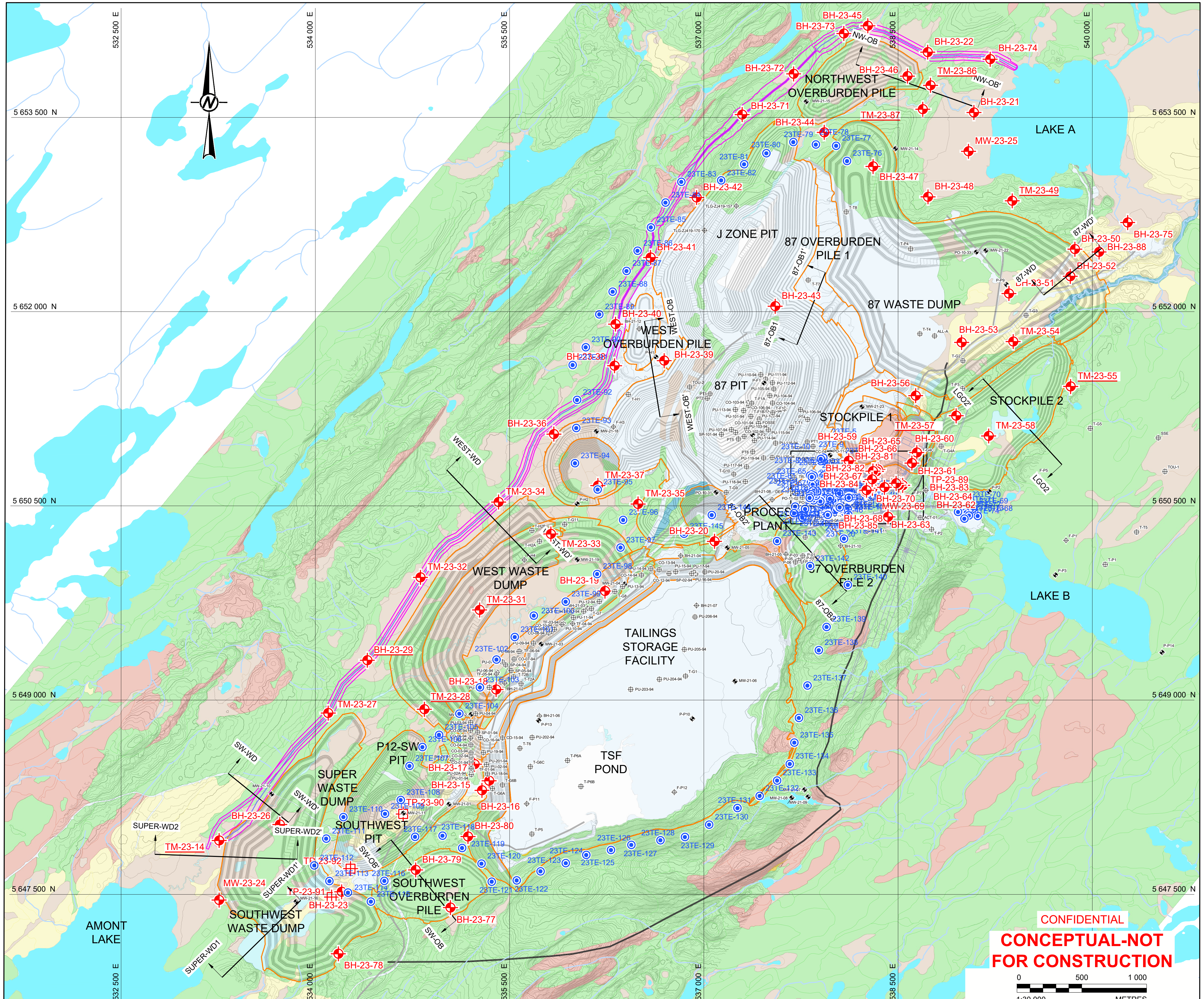
This study utilized existing pertinent background data from previous geotechnical investigations, survey, monitoring, area seismicity, overall site conditions, and infrastructure layouts to assess the slope stability of the proposed dumps. We understand that additional geotechnical investigation may be required for the final design and layout; however, the intention of this study was to develop preliminary slope specifications based on the currently perceived site conditions.

2 SCOPE OF WORK

The scope of work for this project involved the following activities:

- Review of the site plan with proposed locations of the dumps along with other proposed infrastructure and general surface geology.
- Review site plan with the locations of previously drilled boreholes and test pits.
- Development of critical cross sections to be analyzed for stability based on data obtained from previously carried out geotechnical boreholes and test pits, and proximity to critical infrastructure and open pits.
- Estimation of model parameters for native overburden, waste rock, low grade ore, and topsoil/peat.
- Perform stability analyses of various slope configurations, bench widths, dump heights and estimated angle of repose of the stockpile material.
- Consideration of leaving organic layers in place or removal.
- Present recommended slope configurations for each dump and provide reasoning.
- Provide recommendations for additional geotechnical investigation to verify site conditions for the final design stage.

Figure 1 is a site plan drawing showing the general layout of the dumps, tailing storage facility and open pits at the end of 22-year operation. This figure also shows the locations of existing boreholes, test pits and identifies the sections where stability analyses were carried out.



LEGEND

- 2023 HAND AUGER (23TE-XX)
- 2023 BOREHOLE (BH-23-XX OR MW-23-XX OR TM-23-XX)
- 2023 TEST PIT (TP-23-XX)
- EXISTING BOREHOLE
- EXISTING MONITORING WELL / OBSERVATION WELL
- EXISTING SURVEY (TEST PIT OR OTHER)
- EXISTING PIEZOMETER AND TEST PIT
- CROSS-SECTION FOR STABILITY ANALYSIS

SEDIMENTARY UNIT

- ANTHROPIC
- ORGANIC
- ALLUVIUM
- ROCK
- JUXTAGLACIAL
- NO DATA
- GLACIAL TILL
- LAKES
- NATURAL STREAMS
- DIVERSION CHANNEL ALIGNEMENT
- DIVERSION CHANNEL OFFSET ZONE
- OVERBURDEN PILES, WASTE DUMPS AND MINE PITS LIMITS
- MINING COMPLEX INFRASTRUCTURE

NOTE(S)

- COORDINATES SYSTEM : UTM NAD 83, ZONE 18
- STOCKPILES ARE NOT SHOWN BUT THE LARGE LG STOCKPILE WILL BE LOCATED EAST OF THE 87 WASTE DUMP.
- X22 PIT HAS BEEN BACKFILLED WITH WASTE ROCK.
- TAILINGS AND RECLAIM WATER PIPELINES CONNECTING THE PROCESSING PLANT TO THE TAILINGS STORAGE FACILITY ARE NOT REPRESENTED ON THE FIGURE.

REFERENCE(S)

- OVERBURDEN PILES, WASTE DUMPS AND MINE PITS LIMITS PROVIDED BY AGP, DECEMBER 18, 2023.
- MINE COMPLEXE INFRASTRUCTURE : DRAWING : "LYCO PROCESS PLANT.dxf" PROVIDED BY LYCOPODIUM, DECEMBER 8, 2023.
- CREEK ALIGNEMENT/OFFSETS : DRAWINGS : "Option_1_alignment_adjusted_26A_UTM.dxf" AND "option_1_8m_offset_for_ditch_fr_UTM.dxf" DESIGNED BY WSP, RECEIVED FROM AGP ON APRIL 28-29, 2023.
- HYDROLOGY : DRAWINGS "RH_S_CLIP_UTM18.dxf", "RH_L_CLIP_UTM18.dxf" OBTAINED FROM GÉOBASE DU RÉSEAU HYDROGRAPHIQUE DU QUÉBEC (GRHQ), MERN, GOUVERNEMENT DU QUÉBEC.

CLIENT
TROILUS GOLD CORPORATION

PROJECT
TROILUS MINE PROJECT
WASTE ROCK DUMPS, OVERBURDEN STOCKPILES AND LOW-GRADE ORE STOCKPILE STABILITY ASSESSMENT

TITLE
CROSS-SECTIONS LOCATION

CONSULTANT

YYYY-MM-DD	2024-02-02
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REVIEWED	M. Gosselin
APPROVED	I. Wislesky

PROJECT NO.	PHASE	REV.	FIGURE
2257554005	03	0	1

3 BACKGROUND

The Troilus mine site had been in operation since the early 1990s up until 2009 with open-pit mining of the copper and gold mineralization zones (zones 87 and J4 discovered in 1991). Closure approval was received in 2010. The mining rights were then acquired by First Quantum in 2014 and then bought by Troilus Gold Corp. in 2017 who are currently planning to restart the mine. The restart project includes the extension of pits 87 and J4 as well as the development of the new pits X22 and SW. The new life of mine is estimated to be 22 years.

Multiple site investigations have been carried out since early 1990s. Geotechnical explorations include boreholes, test pits and water monitoring wells.

This study is a part of an overall feasibility study for the design of the mine including new open pits, process plant, water management plan, tailings storage facility, and dumps (overburden, waste rock, and low-grade ore). This report is limited to the dumps.

4 GEOLOGY

4.1 BEDROCK GEOLOGY

According to a WSP report (2022), the bedrock consists mainly of felsic and intermediate metavolcanic rocks in the southern part of the project site, while the central and western parts are composed of intermediate to mafic basalt-type metavolcanic rocks. The eastern part of the project site is crossed by a granitic pluton. This magma thrust introduced dikes into the fractures of the metamorphic rocks and caused alteration of the surrounding rock walls (GEOCON, 1993).

4.2 SURFACE GEOLOGY

The unconsolidated deposits that cover the bedrock over most of the project site are essentially Quaternary glacial deposits consisting of fluvio-glacial and alluvial origin. Till, up to 30 m thick, overlies bedrock. The till is composed of boulders, pebbles, gravel and sand with variable proportions of silt. In the central portion of the project site, a layer of sand and gravel and fluvio-glacial deposits are found which are generally loose and up to 15 m in thickness (GEOCON, 1993). In the lower parts, under peat bogs and around the lakes, sand deposits of the order of 2 m thick are present. Organic deposits up to a few metres thick were also observed (GEOCON, 1993).

5 LAYOUT OF STOCKPILES

The project feasibility design considers 11 stockpiles with a total waste capacity of 1,218 M tonnes (1,099 M tonnes waste rock, 72 M tonnes overburden) and 47 M tonnes low grade ore (LGO). These storage facilities constitute three types of waste material: six stockpiles for overburden, five for waste rock, and one for LGO as shown on Figure 1. The stockpile heights range from 30 to 120 m from the current ground surface.

The stockpiles are generally located on natural deposits of till and/or gravelly, sandy and silty material with a total thickness of less than 20 m or on existing fill from previous mining activities The natural soil is mostly covered with a thin layer of peat/organic matter generally less than 1 m thick with one site reported to have a thickness of about 2 m of peat.

The entire mine site footprint has limited space for these piles and thus there are several locations scattered around the site and these are generally located close mine infrastructure, including open pits. As such, the side slopes of these dumps must be steep to contain the required volume within relatively small areas. Additional measures are required to ensure safe working conditions near the toe areas of the piles while maintaining accessibility.

The waste rock dumps are assumed permanent structures as oppose to overburden and LGO stockpiles. The overburden stockpiles material should be used for progressive reclamation of the mine while the LGO stockpile should be depleted by the end of mine life after 22 years of operation.

6 DESIGN BASIS INFORMATION

The seismic data for this site was obtained from the 2020 National Building Code of Canada (NBCC, 2020) earthquake ground motions from the 6th Generation National Seismic Hazard Model developed by the Geological Survey of Canada National Building Code of Canada and the design criteria selected was based on "Guidelines for Mine Waste Dump and Stockpile Design (2017)". The recommended seismic factor and Factor of Safety (FoS) selected for use in the stability analyses were derived from the guidelines based on confidence of the dumps' physical parameters and the consequences if a failure were to occur. Based on minimal foundation data at this time, combined with a low to moderate consequence/hazard (particularly if mitigation measures are in place) and the reasonably short mine life, an earthquake event with an annual exceedance probability of a 1 in 475-year return period and a peak ground acceleration (PGA) of 0.059g was selected for use in the analyses. The design criterion for seismic coefficient in pseudo-static analysis (1/2 of the PGA) was determined to be 0.0295g.

The design criteria are presented below in Table 1 with the understanding that the minimum FoS required may not be achieved for the inter-bench slopes formed by end dumping over the outer edge. These slopes may slough onto the lower bench level over time until a flatter slope is naturally formed. Mitigation measures are suggested at the end of this report for critical areas where this sloughing or ravelling of boulders could be of concern and is a major reason why the benches are provided to limit the height of the steep slopes.

Table 1: Global Failure Design Criteria

Item	Criteria	Unit	Value	Source
1	Design earthquake event	-	1:475 Annual Exceedance Probability	Guidelines for Mine Waste Dump and Stockpile Design (2017)
2	Design earthquake peak acceleration (PGA)	g	0.059	NBCC, 2020
3	PGA reduction factor for limit equilibrium analysis	-	½	Hynes-Griffin and Franklin 1984
4	Minimum Static	FoS	1.5	Guidelines for Mine Waste Dump and Stockpile Design (2017)
5	Minimum Pseudo-static	FoS	1.1	Guidelines for Mine Waste Dump and Stockpile Design (2017)

7 AVAILABLE INFORMATION

The available geotechnical data was obtained from borehole and test pit investigation programs previously completed. Notably, geotechnical investigation was carried out in 1991 (Dupont, 1991), 1994 (Techmat, 1995), 1995 and 1996 (SLI, 1997), 2021 (Golder, 2022b,c), and 2023 (WSP, 2023).

The data obtained from boreholes and test pits nearest to the analysed sections were identified for use in the analyses. Additional investigation will likely be required in critical areas where insufficient data was available to support detailed design of the dump slopes, bench heights and widths. The locations of boreholes and test pits are show on Figure 1.

For each dump, at least one critical cross section was identified based on the geomorphology of the site, including the boreholes and test pits from the previous investigations and located in the vicinity of the cross section, as well as the estimated final elevation of the pile, provided by others.

For each critical cross-section there were one or two boreholes and a few shallow test pits that were identified to determine local overburden material properties for use in stability analyses. Borehole and test pit data included bedrock depth, overburden stratigraphy/classification, SPT results (for blow count-strength interpretation) and groundwater levels.

8 METHODOLOGY AND CRITERIA

Critical sections were selected for 2D limit equilibrium stability analysis for each of the waste rock dumps, overburden and LGO stockpiles (11 in total) based on availability of geotechnical data, topographic data, and adjacent mine infrastructure information. Dump sections where overburden conditions were considered to be poor or where the dump was adjacent to critical mine infrastructure (including open pits, roadways, powerlines, or other areas where personnel will frequent), were identified as critical sections requiring analysis.

Characteristics of the foundation and dump materials were established for all 11 sites using the information derived from boreholes and test pits. Strength and unit weight values for native overburden materials were estimated based on borehole drilling data, test pit data and testing, as well as established geotechnical interpretation. Some extrapolation of the data was required due to the limited database.

The dump material properties were estimated based on experience on similar projects and view of existing waste materials at this site.

To evaluate the effect of the surficial peat layer encountered in most areas where original ground surface remained, the stability analyses were carried out for the peat layer remaining in place and with it removed within the toe area only.

The modelling of the waste rock dumps and LGO stockpiles considered an overall slope of 2.5H:1V. The modelling of the overburden stockpiles considered an overall slope of 3H:1V. All models sought an overall minimum FoS of 1.5 for static and 1.1 for pseudo-static conditions. The inter-bench slopes were as the angle of repose (based on end dumped slope formation with no slope flattening) for all stockpiles. These slopes were estimated to be 1.3H:1V (38 degrees) for waste rock and LGO, and 1.7H:1V (30 degrees) for overburden.

To maximize the capacity of the dump storage, bench widths were minimized, while maintaining sufficient width for one-way traffic and protection berms (this may be adjusted based on specific construction equipment access needs during operation and reclamation for closure).

The water table was modelled to be at the ground surface for a conservative approach. The ground water levels are generally near the surface at the site and will tend to be lower in areas near the active open pits.

Since the inter-bench slopes will be constructed by end dumping the waste, steep slopes are expected to form at the angle of repose (defined by the friction angle of the fill). This slope inherently will have a factor of safety of 1.0 which is well below the design criteria for the overall slope. This is a feature that does not, in itself, create a large volume failure concern but can result in shallow sloughing or ravelling. These shallow surface failures have been included in our analyses to aid in showing where this can be a concern and where appropriate mitigation measures can be applied. Mitigation measures are described further in Section 12 of this report.

9 SITE CHARACTERISTICS

Most of the sites that were not affected by previous mining had a thin surficial layer of peat which was generally less than 1 m thick. Beneath the topsoil, there is a zone of non-cohesive, generally sandy soil, sometimes with traces of gravel and/or gravel/cobbles and boulders down to bedrock at depths ranging from 1.2 m to 23 m. The soil density is variable between loose and very dense but mostly dense. Bedrock is of volcanic type and its quality is very good.

The internal friction angle, φ, of the soil strata encountered was estimated from SPT values (standard penetration tests) using Bowles' recommendations (Bowles, 1996). For each site, soil strata encountered were classified based on their grading and internal friction angles; the representative characteristics for each stratum identified at each of the analyzed sections are presented in Table 2.

The water table was generally not recorded in the boreholes and test pits, but the soil moisture was almost always reported to be high, indicating near-surface groundwater.

The terrain was mostly flat except in some areas where features existed, including eskers, the tailings facility and other features remaining from previous mining activities.

Table 2: Site General Specification and Material Properties

Item	Sections/ Dump Locations	Material	Bedrock depth (m below ground surface)	Number of Foundation Overburden Layers	*φ'* (degree) for Each Layer from Surface
1	87-WD	Waste Rock	5 to 9	2	Peat/30
2	Super-WD1	Waste Rock	4	2	Peat/36
3	Super-WD2	Waste Rock	7	2	Peat/33
4	87-OB1	Overburden	9.3	4	Peat/32/38/34
5	87-OB2	Overburden	14	3	30/34/40
6	NW-OB	Overburden	1.2 to 8	2	Peat/34
7	LGO2	Low Grade Ore	9	2	Peat/34
8	West-WD	Waste Rock	10.4	2	Peat/33
9	West-OB	Overburden	18 to 23	4	30/peat/32/40
10	SW-OB	Overburden	5.6 to 22.6	4	Peat/34/33/40
11	SW-WD	Waste Rock	5 to 7	2	33

10 STABILITY ANALYSIS

The 2D stability analysis of the waste rock dumps, overburden dumps and LGO stockpiles were carried out using GeoStudio SLOPE/W which is a limit equilibrium software tool developed by Geo-Slope International Ltd for modelling the stability of slopes and embankments. The Morgenstern-Price method of slices was employed to analyze potential failure surfaces through the slopes and underlying foundations. The analyses were conducted to locate the most critical failure surfaces, and these were used to provide a level of conservatism for the design of the proposed slope configurations.

The analyses were carried out using drained conditions, both in the foundation and in the dumps as shown in Table 3.

Table 3: Material Parameters used in Stability Analysis

Item	Material	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
1	Waste rock	20.5	0	38
2	Overburden	17	0	30
3	Peat	12	5	28

The stability of the slopes was analyzed under static and pseudo-static loading using data presented in Table 1. The analyses were carried out for two cases: one where the existing peat layer remains in place and the other where the peat layer is removed from the toe area.

Initial bench widths and heights were developed in consideration of the need for construction equipment access as well as to limit runout from fill sloughing as expected from slopes constructed by end dumping from height. For single benches, the height and width were initially considered as 20 m in waste rock dumps and LGO stockpiles. In the overburden dumps the height and width were considered as 10 m and 13 m, respectively. The overall slope was selected as 2.5H:1V for waste rock and ore piles and 3H:1V for Overburden.

The details of stability analyses including geometry (depth of bedrock, thickness of native soil layers, mechanical properties of soils and dump materials) geotechnical data (material properties, phreatic surface), location of the critical sections, the cross sections analysed, geometry of each dump section and the results are presented in figure form in Appendix A (Figures 2 through 55).

The results of the analyses are also summarised in Table 4 which also provides a summary of the geometry of each dump. For each cross section, the overall slope of dump, the slope of individual benches, the width and height of benches, and the dimensions of the benches are shown.

For each cross section the minimum factor of safety (FoS) against shallow surficial failure was accessed and shown for the following conditions: peat left in place and peat removed; static and pseudo-static. The factor of safety was also determined and presented considering a major (large scale) failure of the dump for similar conditions as above.

Recommendations resulting from the analyses follow in the next section.

Table 4: Summary of Stockpiles Geometry and Stability Analysis Results

Section	Condition		Minimum Factor of Safety (FOS)		Slope Geometry		Bench Dimensions (m)						
			Static	Pseudo-static	Overall	Single Bench	1st and 2nd Benches		Other Benches		Last Bench		
							Width (m)	Height (m)	Width (m)	Height (m)	Width (m)	Height (m)	Slope
87-WD	Single bench stability	Peat in place	1.2	1.2	2.5H:1V	1.3H:1V	20	10	20	20	20	4	4.2H:1V
		Peat removed	N/A	N/A									
	Overall stability	Peat in place	1.8	1.1									
		Peat removed	N/A	N/A									
Super-WD1	Single bench stability	Peat in place	1.1	1.1	2.5H:1V	1.3H:1V	20	10	20	20	40	20	1.3H:1V
		Peat removed	1.3	1.2									
	Overall stability	Peat in place	1.8	1.7									
		Peat removed	1.8	1.7									
Super-WD2	Single bench stability	Peat in place	1.1	1.1	2.5H:1V	1.3H:1V	20	10	20	20	40	20	1.3H:1V
		Peat removed	1.3	1.2									
	Overall stability	Peat in place	1.8	1.1									
		Peat removed	1.8	1.6									
87-OB1	Single bench stability	Peat in place	1.3	1.2	3H:1V	1.7H:1V	13	10	-	-	13	9	3H:1V
		Peat removed	N/A	N/A									
	Overall stability	Peat in place	1.5	1.4									
		Peat removed	N/A	N/A									
87-OB2	Single bench stability	Peat Layer doesn't exist in this cross section	1.3	1.2	3H:1V	1.7H:1V	13	10	13	10	0	4	6.2H:1V
	Overall stability		1.6	1.4									
NW-OB	Single bench stability	Peat in place	1.2	1.1	3H:1V	1.7H:1V	13	10	13	10	13	5	3H:1V
		Peat removed	N/A	N/A									
	Overall stability	Peat in place	1.5	1.4									
		Peat removed	N/A	N/A									
LGO2	Single bench stability	Peat in place	1.3	1.3	2.5H:1V	1.3H:1V	20	10	20	20	20	7	1.9H:1V
		Peat removed	N/A	N/A									
	Overall stability	Peat in place	1.9	1.8									
		Peat removed	N/A	N/A									
West-WD	Single bench stability	Peat in place	1.2	1.1	2.5H:1V	1.3H:1V	20	10	20	20	44	20	1.3H:1V
		Peat removed	N/A	N/A									
	Overall stability	Peat in place	1.7	1.6									
		Peat removed	N/A	N/A									
WEST-OB	Single bench stability	Peat Layer doesn't exist at the Ground Surface at this cross section	1.2	1.1	3H:1V	1.7H:1V	13.62	10	-	-	14	10	1.7H:1V
	Overall stability		1.6	1.4									
SW-OB	Single bench stability	Peat in place	1.3	1.2	3H:1V	1.7H:1V	13	10	-	-	13	6	2.8H:1V
		Peat removed	N/A	N/A									
	Overall stability	Peat in place	1.6	1.5									
		Peat removed	N/A	N/A									
SW-WD	Single bench stability	Peat in place	1.2	1.1	2.5H:1V	1.3H:1V	20	10	-	-	27	18.8	1.3H:1V
		Peat removed	1.4	1.3									
	Overall stability	Peat in place	2.4	2.2									
		Peat removed	N/A	N/A									

As expected, the analyses show that the lowest factor of safety was obtained for shallow slip surfaces along the steep (angle of repose) inter-bench slopes formed at the angle of repose. These cases were modelled with at least 5 m slips failure depths to show comparative results of all slopes analysed. Theoretically, all end dumped slopes would have a factor of safety of 1 and could be lower depending on the foundations. These slopes will all be subject to ravelling and flattening until a flatter slope is formed.

Slope stability analyses for deeper slip failures encompassing half or more of the stockpile height were also carried out. These results showed that in all cases, the overall stability of the dumps would be stable and meet the design criteria.

From the results of the analyses of the Super-WD1 and Super-WD2 cross sections, the minimum FoS against shallow failure under static loading conditions was 1.1, indicating that the risk of material ravelling or sloughing off the slope is likely. However, all of the end dump slopes have a factor of safety near 1 depending on the specific slice thickness as expected for end dumped slopes. Therefore, potential sloughing is expected form all inter-bench slopes and will require mitigation measures to prevent or mitigate potential consequences. Possible mitigation measures are provided in Section 11. These measures will vary depending on the potential consequences. The analytical results also showed that the existence of a peat layer (greater than 0.5m thick) can have a significant effect on the local stability of the lower bench lift, particularly under pseudo-static loading conditions. Removal of the peat results in a significant increase in stability (up to a FoS of 1.3). These results were similar for SW-WD.

11 CONCLUSIONS AND RECOMMENDATIONS

The analytical results presented in this report were based on limited data and may require some adjustment once further foundation investigation is obtained. In addition, available space for waste materials is currently limited, requiring high piles with steep slopes that will be close to infrastructure and areas where personnel will require access. As such, the primary focus of this work was to provide reasonable slopes to meet large scale stability needs along with ease of construction. As discussed, the dumps will be constructed by end dumping onto an exposed slope which will naturally form inter-bench slopes that can have shallow failures. Recommendations are provided below to limit the effects of these possible shallow failures. However, it is important that these dumps are constructed by personnel who are familiar with mine dump construction involving steep slopes so that they will be constructed in a safe manner.

Based on the results of stability analyses, the suggested dump designs are as follows:

- Waste Rock storage piles: Overall slope of 2.5H:1V; Inter-bench height of 20m; and bench width of 20 m.
- Overburden storage piles: Overall slope of 3H:1V; Inter-bench height of 10 m; and bench width of 13 m.
- Low Grade Ore stockpile: Overall slope of 2.5H:1V; Inter-bench height of 20 m; and bench width of 20 m.

For piles or portions of the pile located adjacent to critical infrastructure, open pits, roadways or pathways, we suggest that the initial one or two lifts be constructed to half the height to reduce the chance of ravelling causing issues. Additional measures can include small debris catch berms on the benches and sloping the benches down from the outside edge towards the next slope face.

We recommend that peat be removed from under the toe area of every stockpile and dump (5 m horizontally downstream and 25 m horizontally upstream), particularly where the peat thickness is greater than 0.5 m and to allow for downward drainage into the foundation soils. Additional removal of peat under the dump can also be done to provide organic material for reclamation purposes.

The estimated net volume of peat material to be removed from the toe of stockpiles are presented in Table 5. Peat thickness and volume estimate may vary based on the conditions encountered in the field.

Table 5: Material Estimate to Be Removed from the Stockpiles Toes

Item	Dump/Stockpile Name	Peat Thickness (m)	Perimeter (m)	Net Volume (m^3)
1	87-WD	0.5	5,280	79,200
2	Super-WD1	1	2,490	74,700
3	87-OB1*	N/A	N/A	0
4	87-OB2	0	2,100	0
5	NW-OB	0.7	2,400	50,400
6	LGO2	0.6	3,600	64,800
7	West-WD	0.5	5,490	82,400
8	West-OB*	N/A	N/A	0
9	SW-OB	0.6	2,340	42,100
10	SW-WD	2	6,000	360,000
Total			29,700	753,600

Note: *Stockpile will be built over an existing stockpile and doesn't require peat striping.

Considering that the analyses indicate the overall slopes of the dumps, as discussed above, have Factors of Safety well above the design criteria, and that it is only the end dump faces that are a concern, consideration can be made to steepen the overall slopes by reducing the bench width, provided the benches are adequately sized for equipment access and sufficient room for safety berms (for equipment and to prevent boulders from running further down the slope).

This opportunity to steepen the slopes must integrate the reclamation for closure. The closure design of the dumps should be advanced in parallel to not jeopardize the proper future of these structures.

Drainage measures should also be considered on the benches, particularly for the overburden pile to minimize flow down the outer face which can cause erosion gully formation and slope steepening.

Instrumentation should also be considered to monitor slope movement (inclinometers, prisms, or other) as well as piezometers to monitor changes in the phreatic surface through the dumps which can affect stability.

12 CLOSURE

We trust that this report is consistent with the objectives set out for the Project and meets the present requirements of Troilus. We thank you for the opportunity to be of service and welcome any comments or questions you may have.

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APPENDICES

APPENDIX

A STABILITY ANALYSIS RESULTS

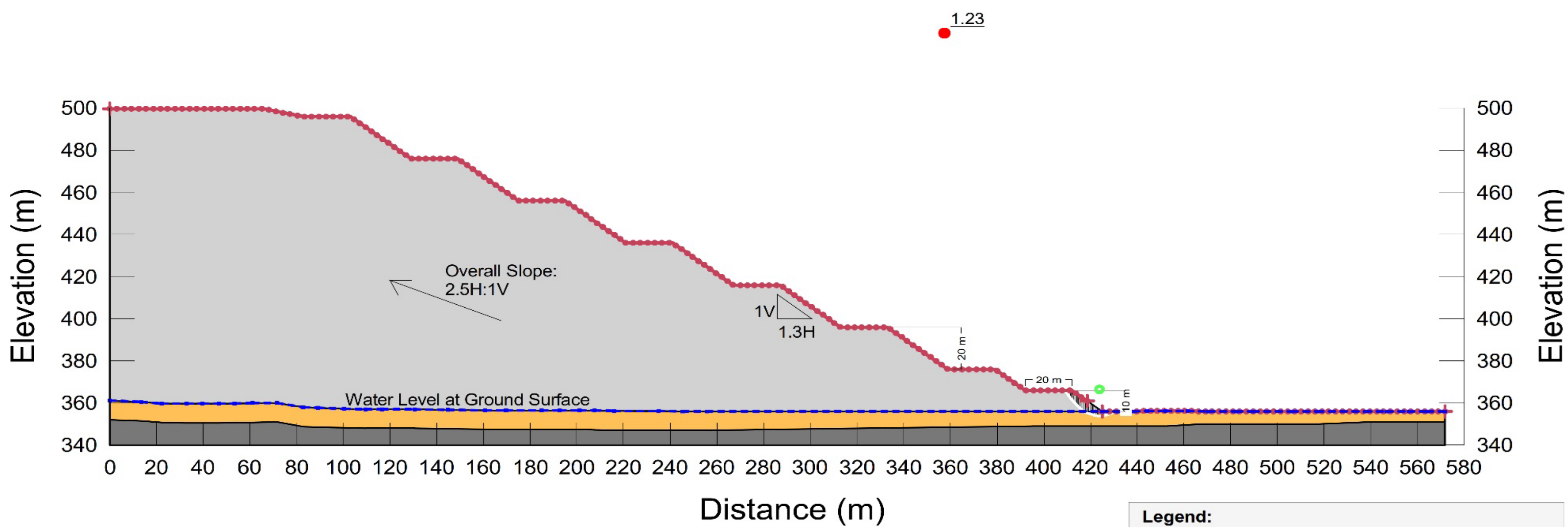
List of Figures

APPENDIX

APPENDIX

87-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand, Sometimes with Cobbles, Thin Layer of Boulders over Bedrock in Some Areas	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through 87-WD, North-east side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

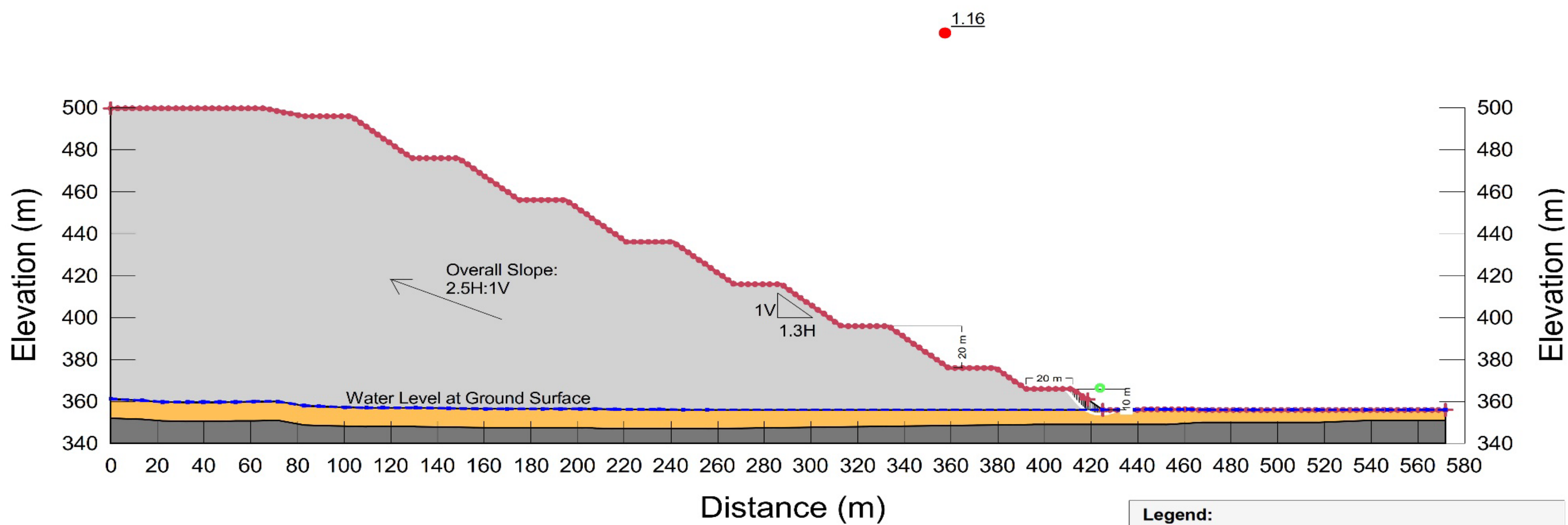
Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp	Scale: N.T.S	**Slope Stability Analysis - 87-WD - Static Conditions, Local Stability (Peat Left in-Place)**	
	Date: févr-24		
	Design: EKT		
File Name: Slope Stability Figures.xlsx	Check: IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure 2**
Project No. 22575540 Version A	Review: MG		

87-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand, Sometimes with Cobbles, Thin Layer of Boulders over Bedrock in Some Areas	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

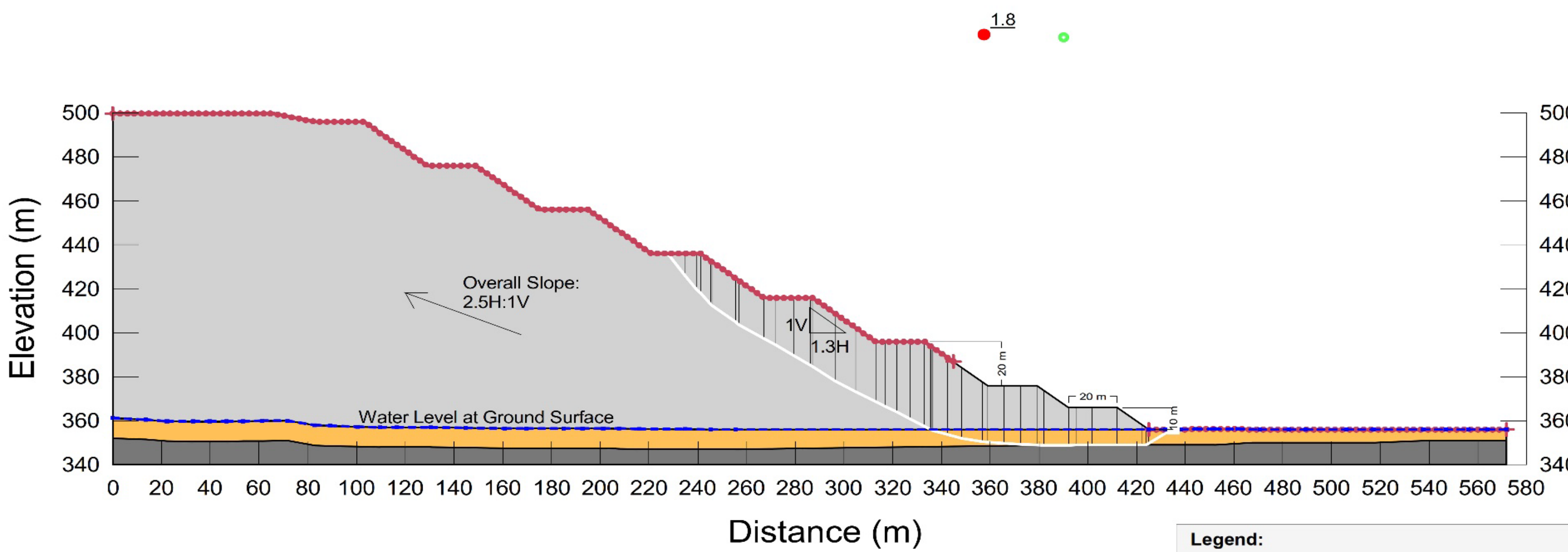
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-WD, North-east side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		**Scale:** N.T.S	**Slope Stability Analysis - 87-WD - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)**
		Date: févr-24	
		Design: EKT	
File Name	Slope Stability Figures.xlsx	**Check:** IW and HD	**Toilus Gold Corp. - Troilus Project** — **Figure 3**
Project No. 22575540	**Version** A	**Review:** MG	

87-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(dark grey)	Bedrock	Bedrock (Impenetrable)			
(peach)	Peat	Mohr-Coulomb	12	5	28
(orange)	Sand, Sometimes with Cobbles, Thin Layer of Boulders over Bedrock in Some Areas	Mohr-Coulomb	17.7	0	30
(light grey)	Waste Rock	Mohr-Coulomb	20.5	0	38



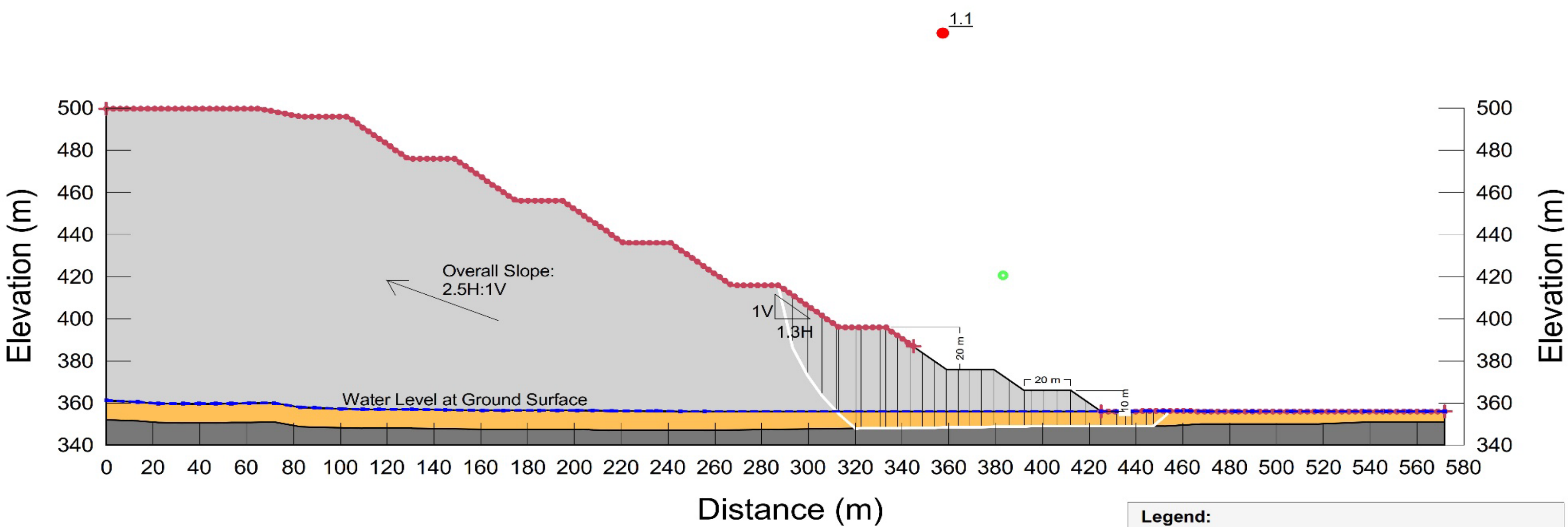
Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-WD, North-east side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S	**Slope Stability Analysis - 87-WD - Static Conditions, Global Stability (Peat Left in-Place)**
		Date:	févr-24	
		Design:	EKT	
File Name	Slope Stability Figures.xlsx	Check:	IW and HD	**Toilus Gold Corp. - Troilus Project**
Project No.	22575540 **Version** A	Review:	MG	**Figure 4**

87-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand, Sometimes with Cobbles, Thin Layer of Boulders over Bedrock in Some Areas	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

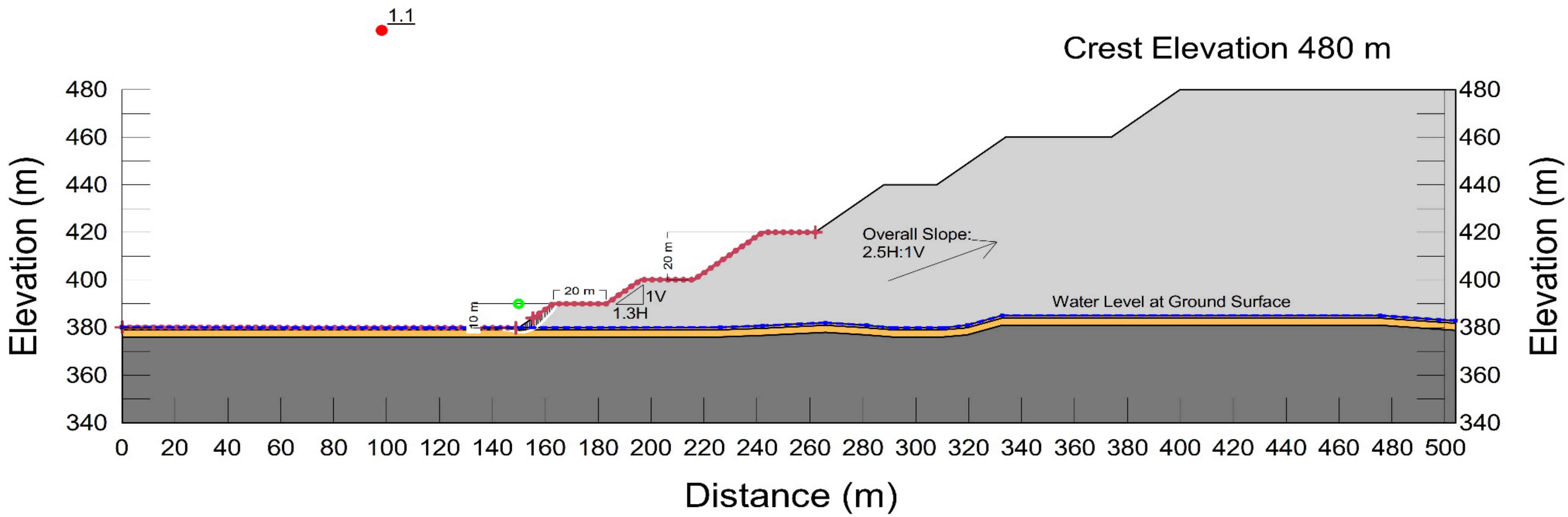
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-WD, North-east side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S	Slope Stability Analysis - 87-WD - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)	
		Date:	févr-24		
		Design:	EKT		
File Name	Slope Stability Figures.xlsx	Check:	IW and HD	Toilus Gold Corp. - Troilus Project	Figure 5
Project No.	22575540 Version A	Review:	MG		

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(dark grey)	Bedrock	Bedrock (Impenetrable)			
(peach)	Peat	Mohr-Coulomb	12	5	28
(orange)	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
(light grey)	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

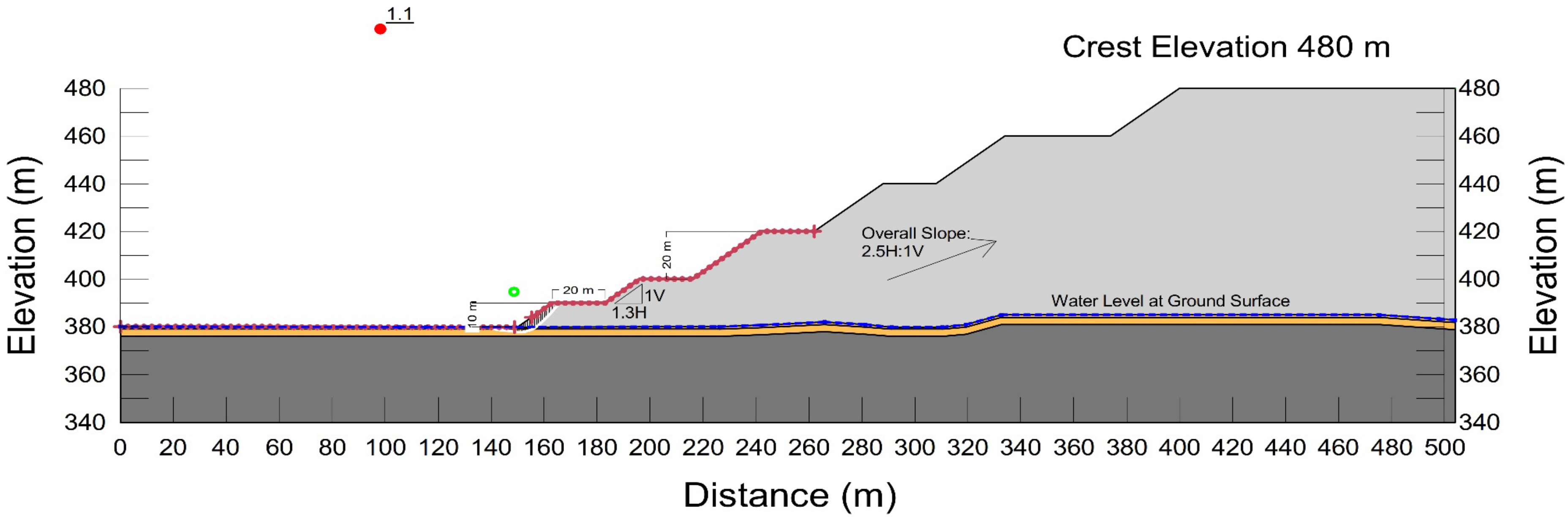
Slope Stability Analysis - SUPER-WD1 - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 6

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



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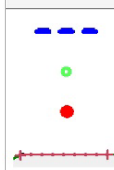


NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	**Version**	A

Scale:	N.T.S
Date:	févr-24
Design:	EKT
Check:	IW and HD
Review:	MG

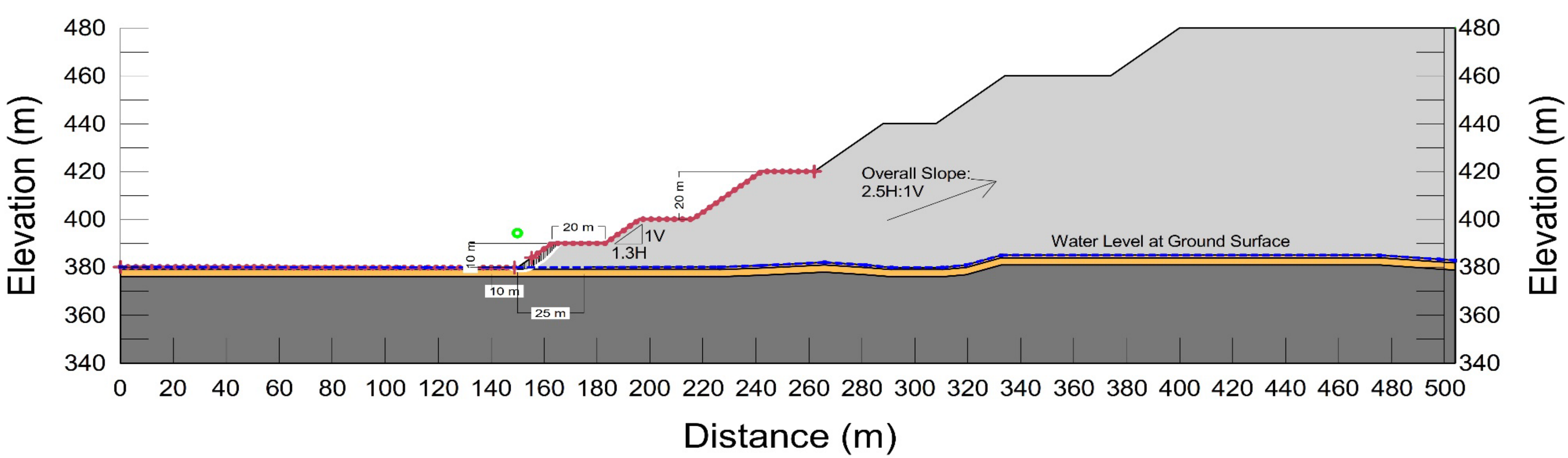
Slope Stability Analysis - SUPER-WD1 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)

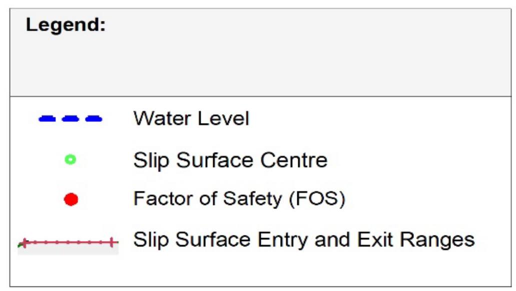
Toilus Gold Corp. - Troilus Project

Figure 7

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38





NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

File Name	Slope Stability Figures.xlsx	**Scale:**	N.T.S
Project No.	22575540	**Date:**	févr-24
Version	A	**Design:**	EKT
		Check:	IW and HD
		Review:	MG

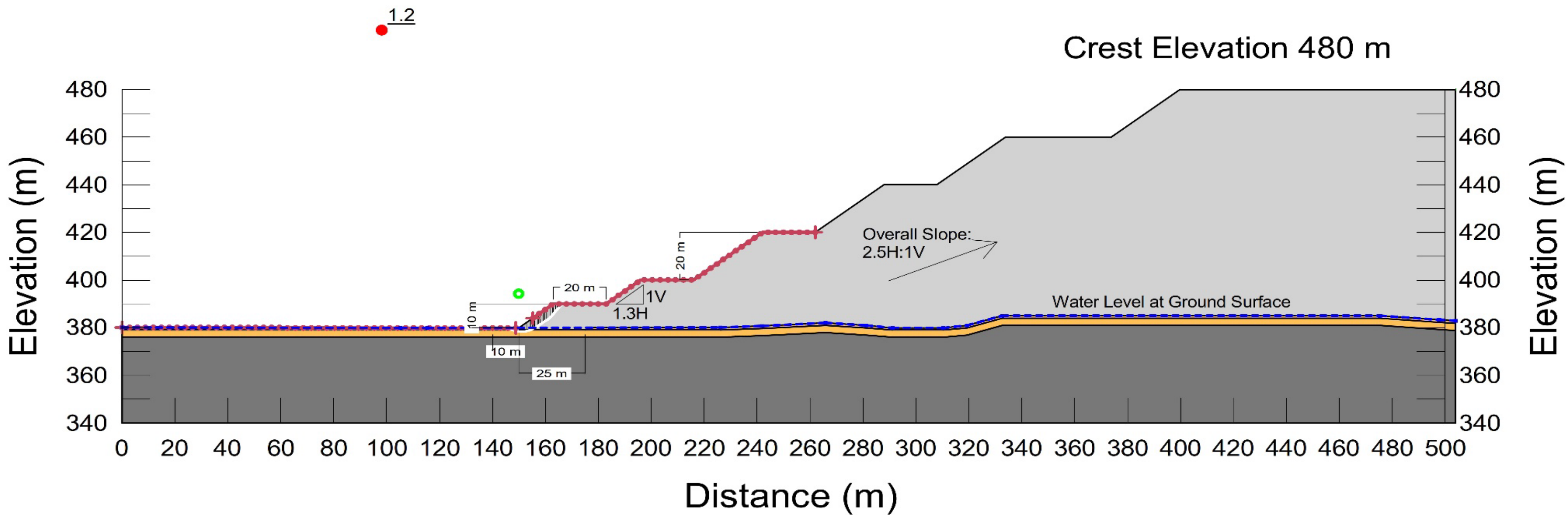
Slope Stability Analysis - SUPER-WD1 - Static Conditions, Local Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 8

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

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		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

SUPER-WD1

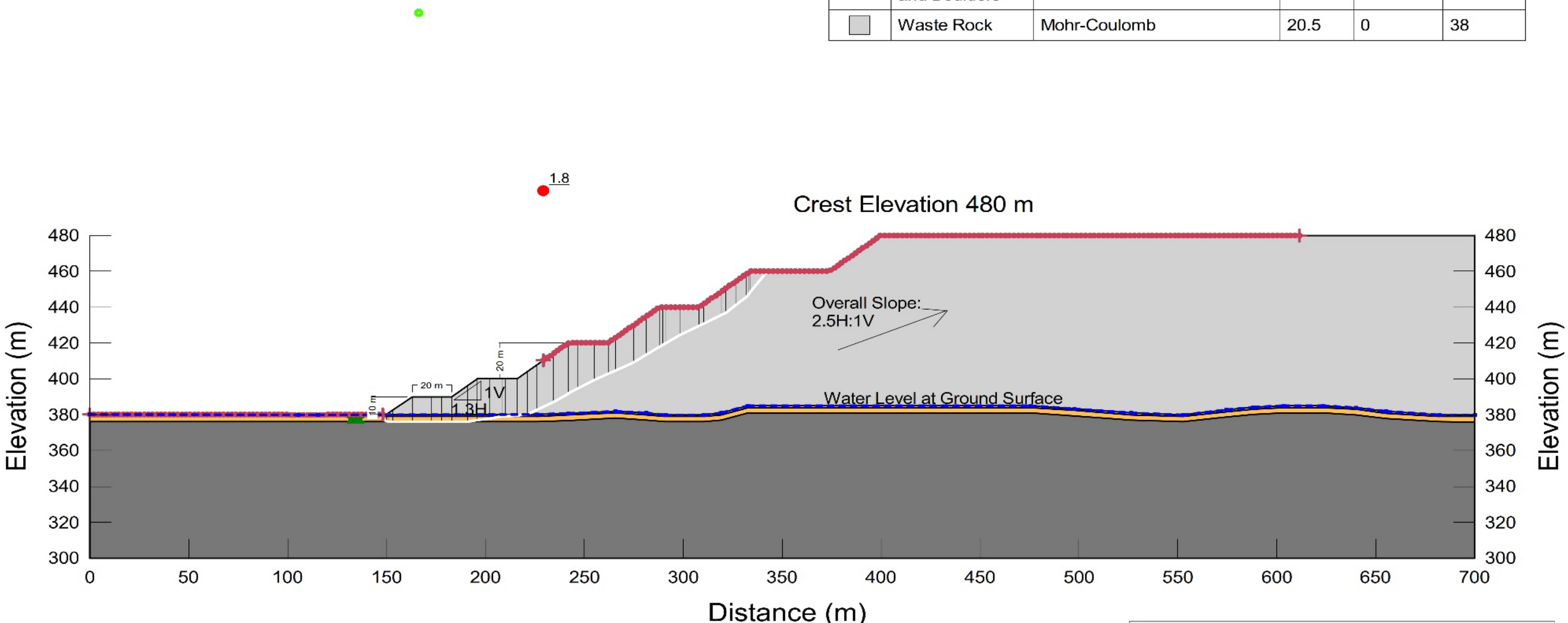
ability Analysis - SUPER-WD1 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 9

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

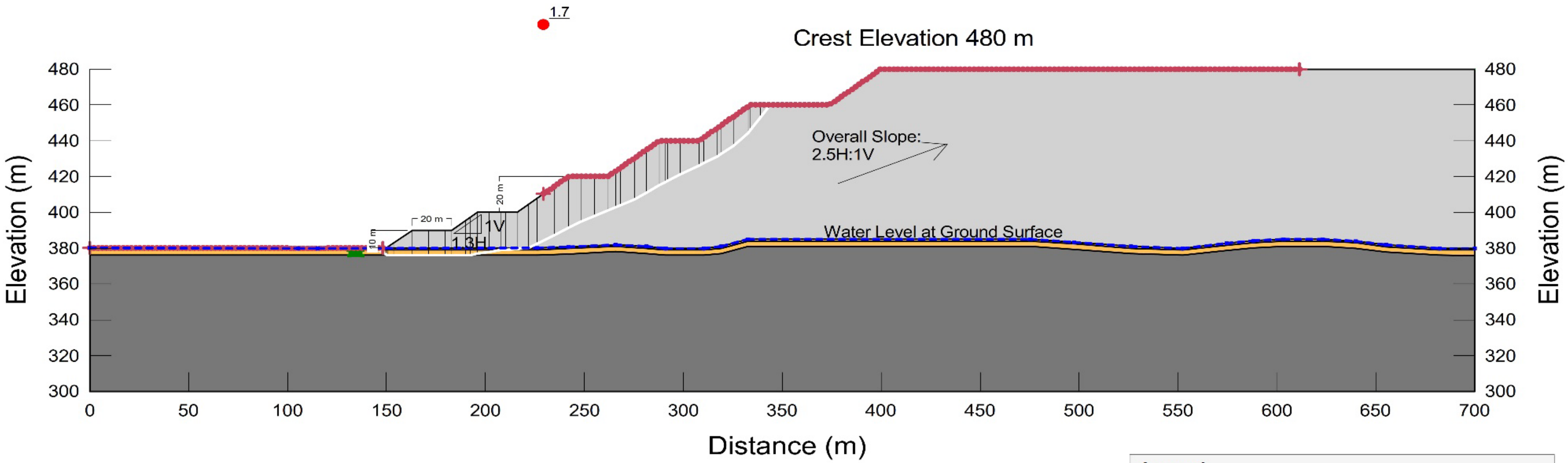
Slope Stability Analysis - SUPER-WD1 - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 10

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

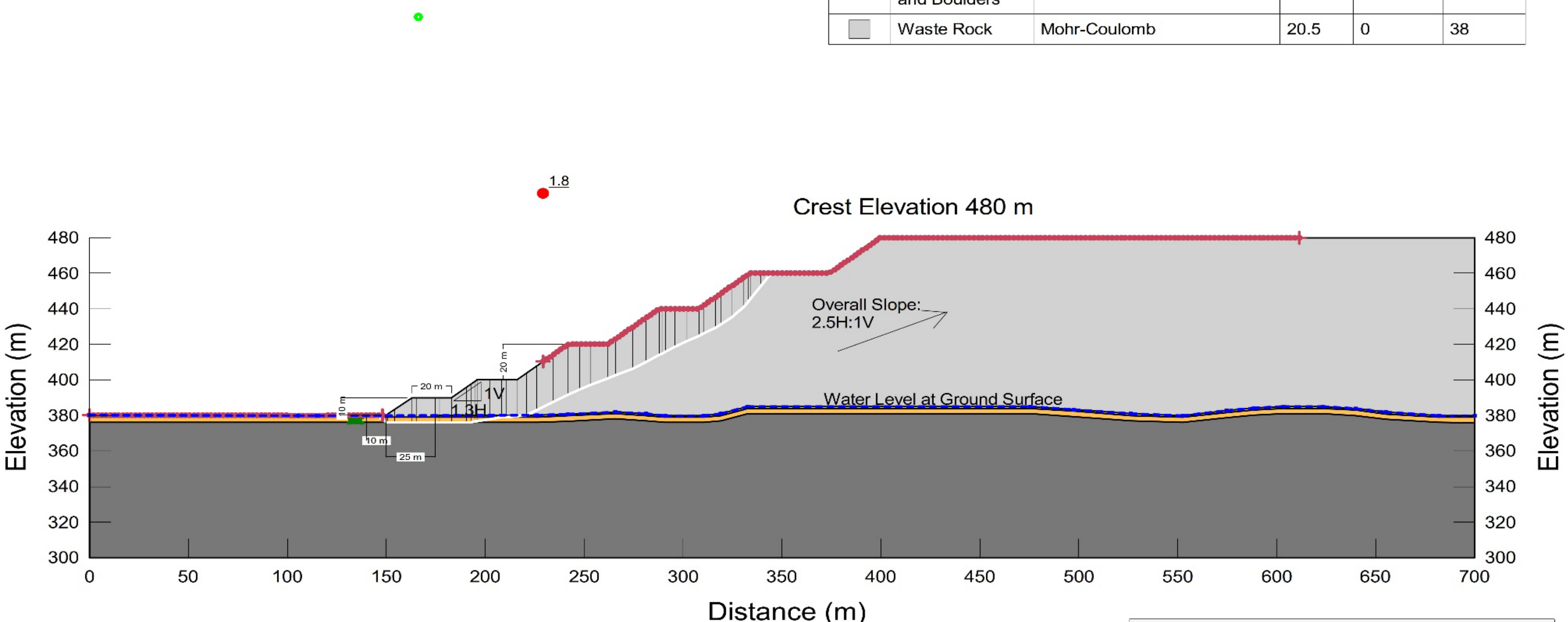
Slope Stability Analysis - SUPER-WD1 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 11

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

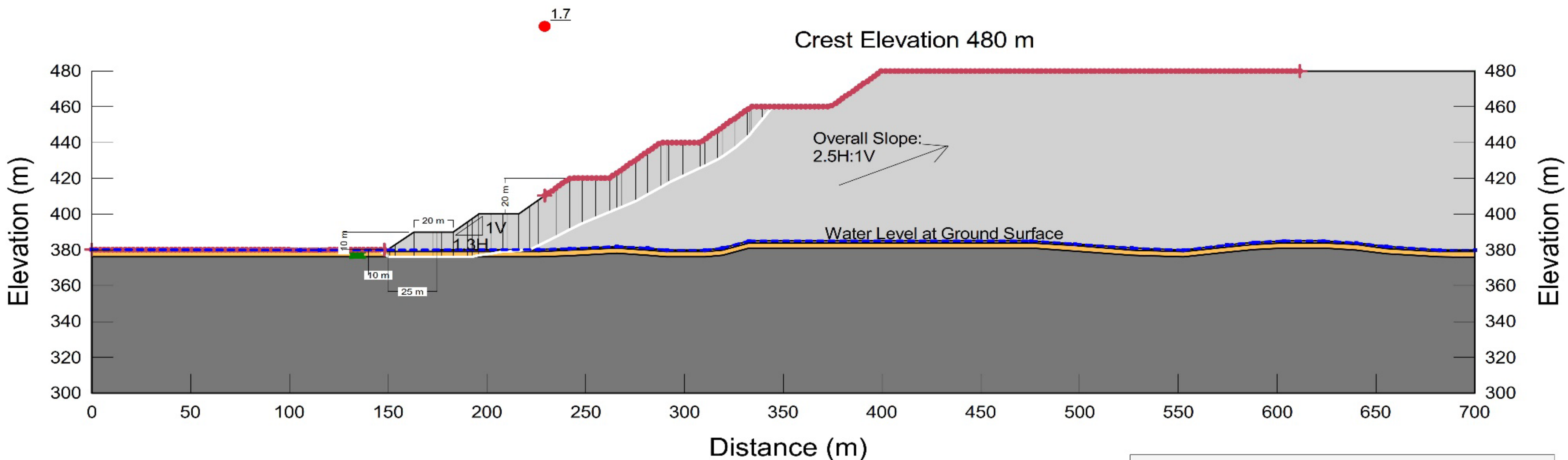
Slope Stability Analysis - SUPER-WD1 - Static Conditions, Global Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 12

SUPER-WD1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(dark grey)	Bedrock	Bedrock (Impenetrable)			
(peach)	Peat	Mohr-Coulomb	12	5	28
(orange)	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
(light grey)	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD1, South-west side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp

Scale:	N.T.S		
Date:	févr-24		
Design:	EKT		
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540	Version	A
Review:	MG		

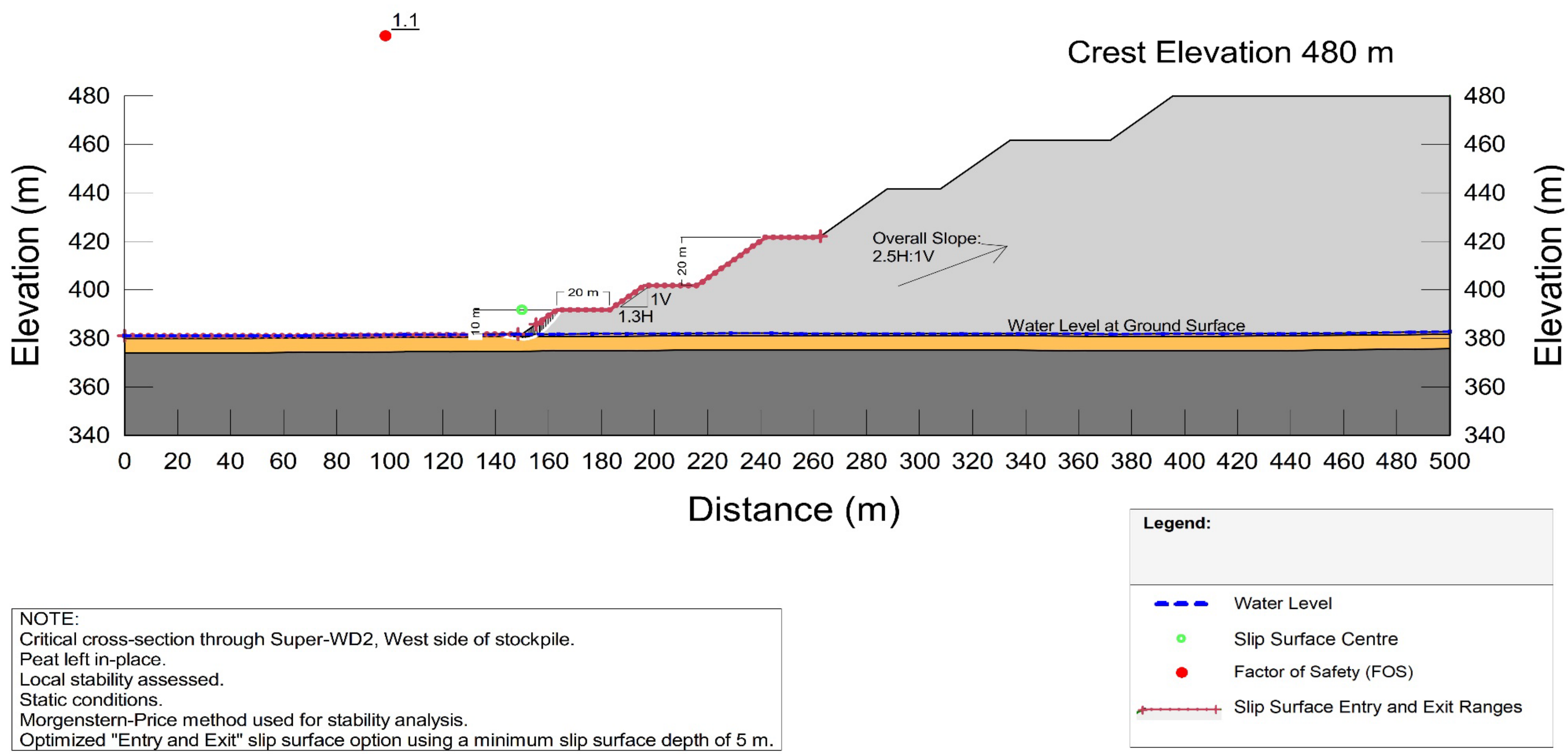
Slope Stability Analysis - SUPER-WD1 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 13

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38

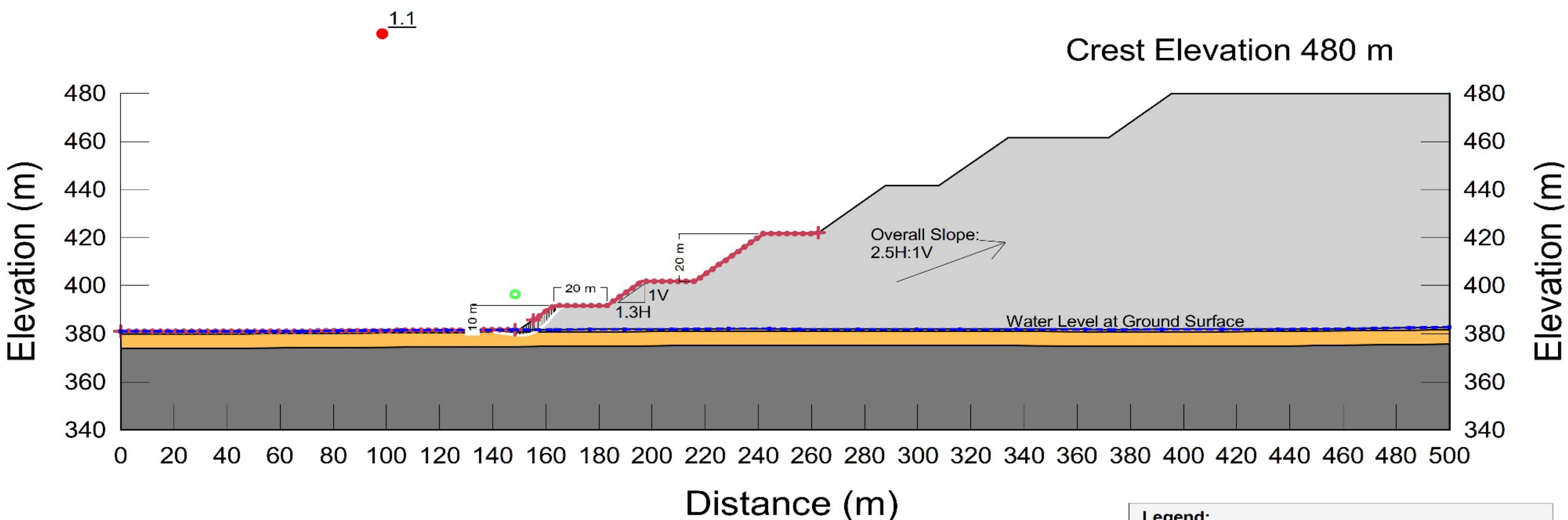


NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp			Scale:	N.T.S	**Slope Stability Analysis - SUPER-WD2 - Static Conditions, Local Stability (Peat Left in-Place)**
			Date:	févr-24	
			Design:	EKT	
File Name	Slope Stability Figures.xlsx		Check:	IW and HD	**Toilus Gold Corp. - Troilus Project** — **Figure 14**
Project No.	22575540	Version A	Review:	MG	

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

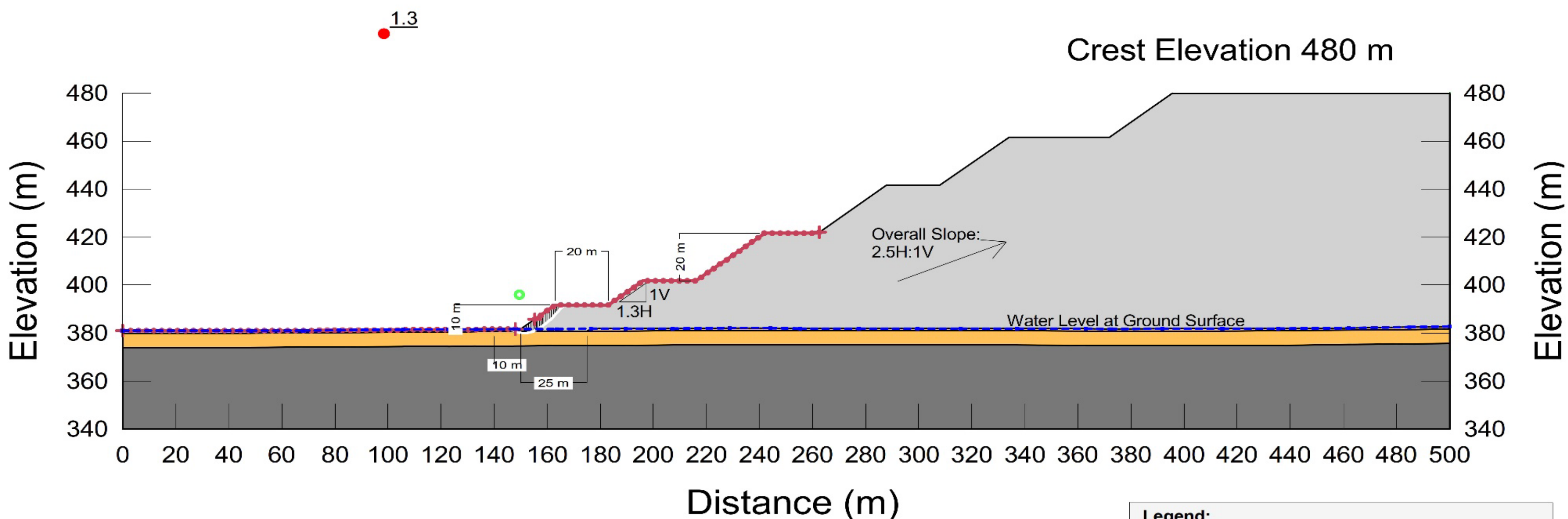
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp			Scale: N.T.S Date: févr-24 Design: EKT	**Slope Stability Analysis - SUPER-WD2 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)**	
File Name	Slope Stability Figures.xlsx		Check: IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure** 15
Project No.	22575540	**Version** A	Review: MG		

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

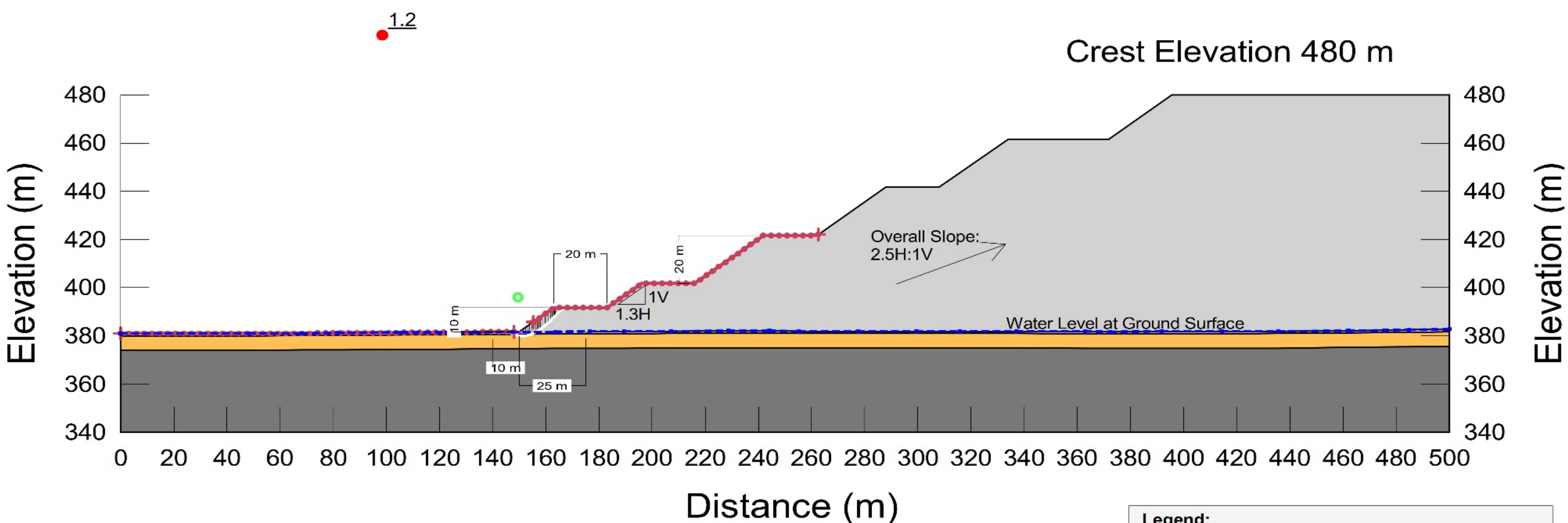
Slope Stability Analysis - SUPER-WD2 - Static Conditions, Local Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 16

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(dark grey)	Bedrock	Bedrock (Impenetrable)			
(light orange)	Peat	Mohr-Coulomb	12	5	28
(orange)	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
(light grey)	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

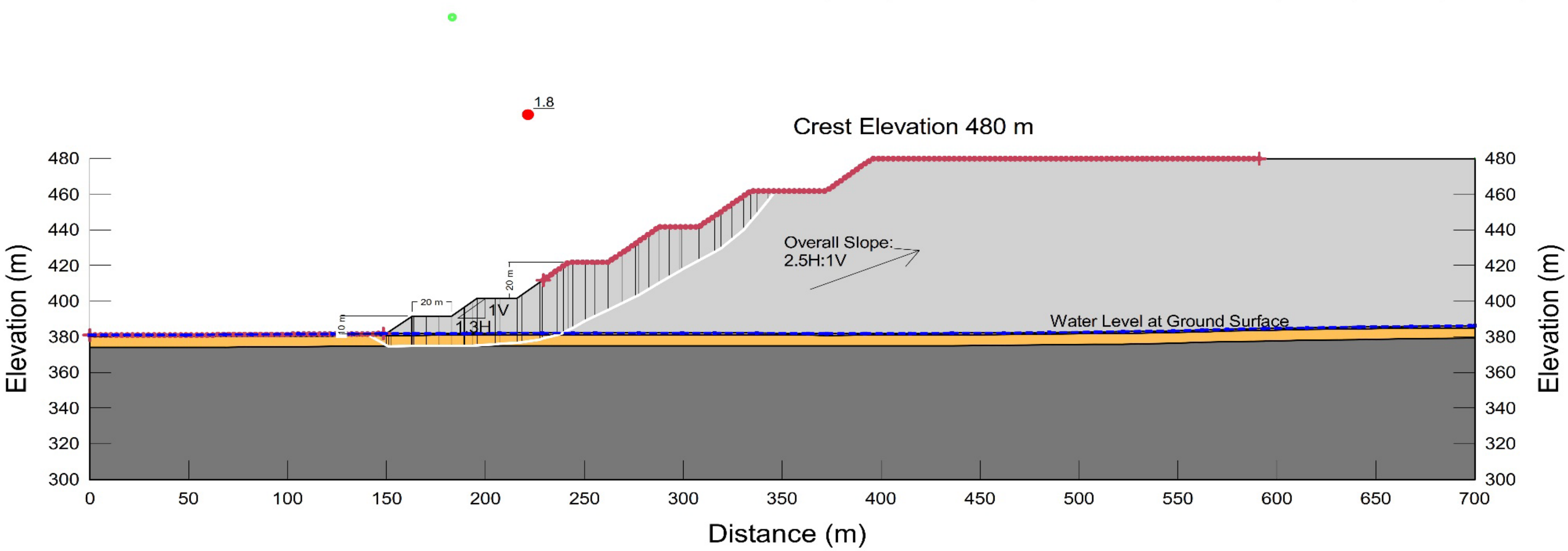
Slope Stability Analysis - SUPER-WD2 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 17

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(dark grey)	Bedrock	Bedrock (Impenetrable)			
(light peach)	Peat	Mohr-Coulomb	12	5	28
(orange)	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
(light grey)	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

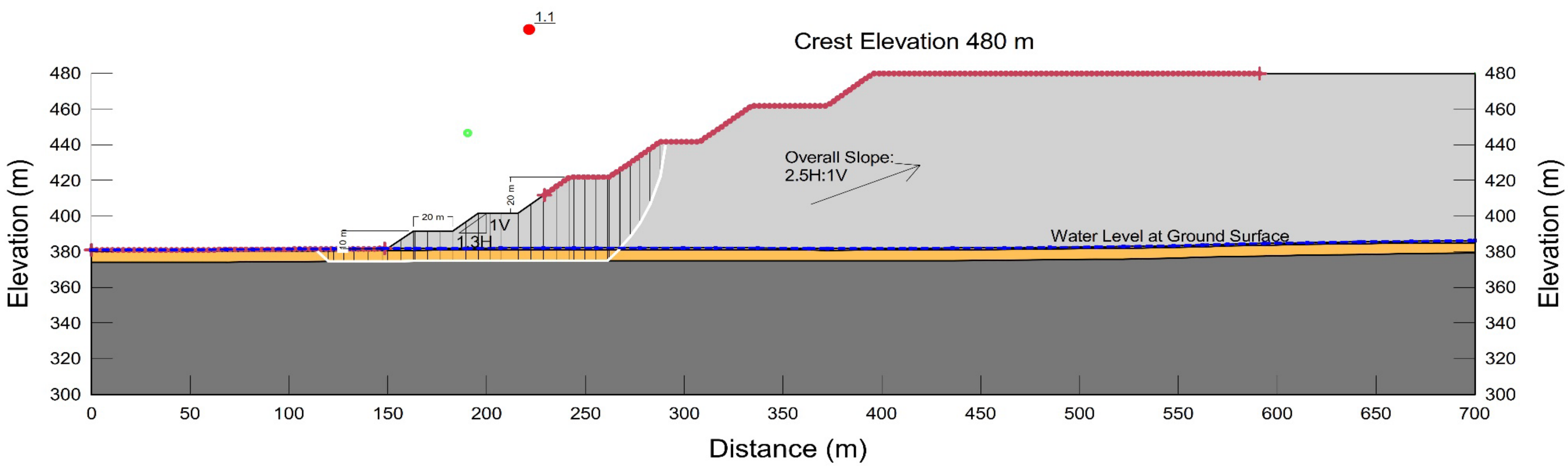
Slope Stability Analysis - SUPER-WD2 - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 18

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

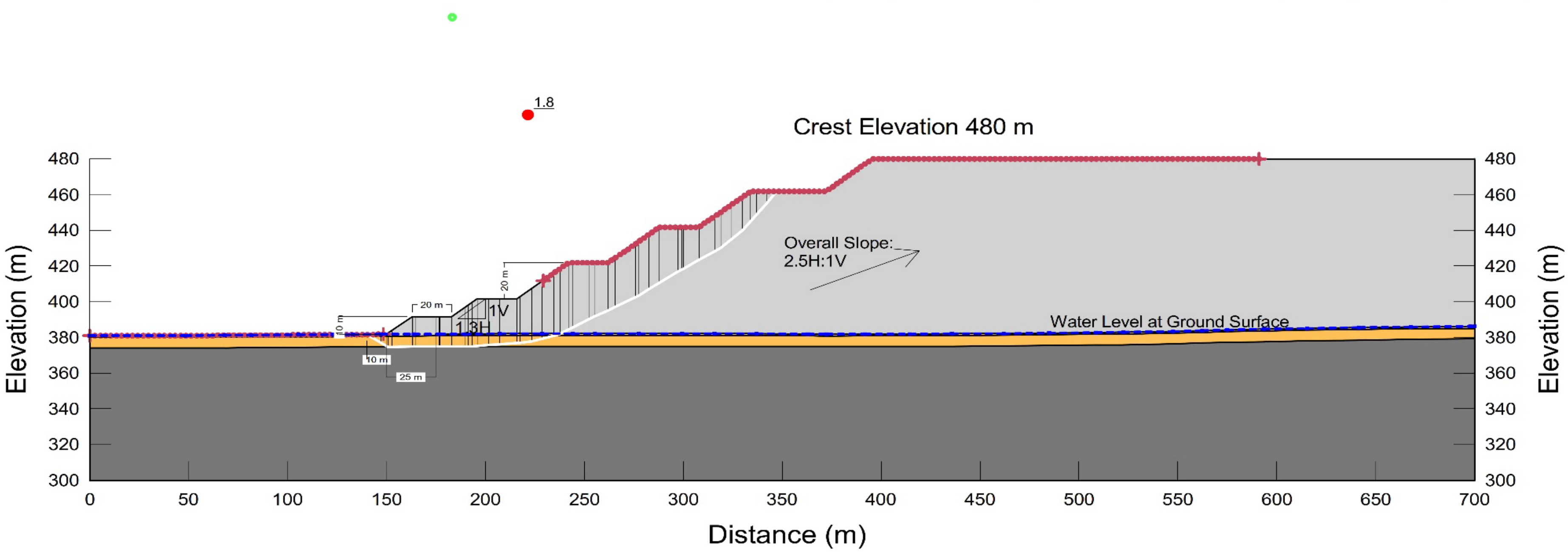
Slope Stability Analysis - SUPER-WD2 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 19

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

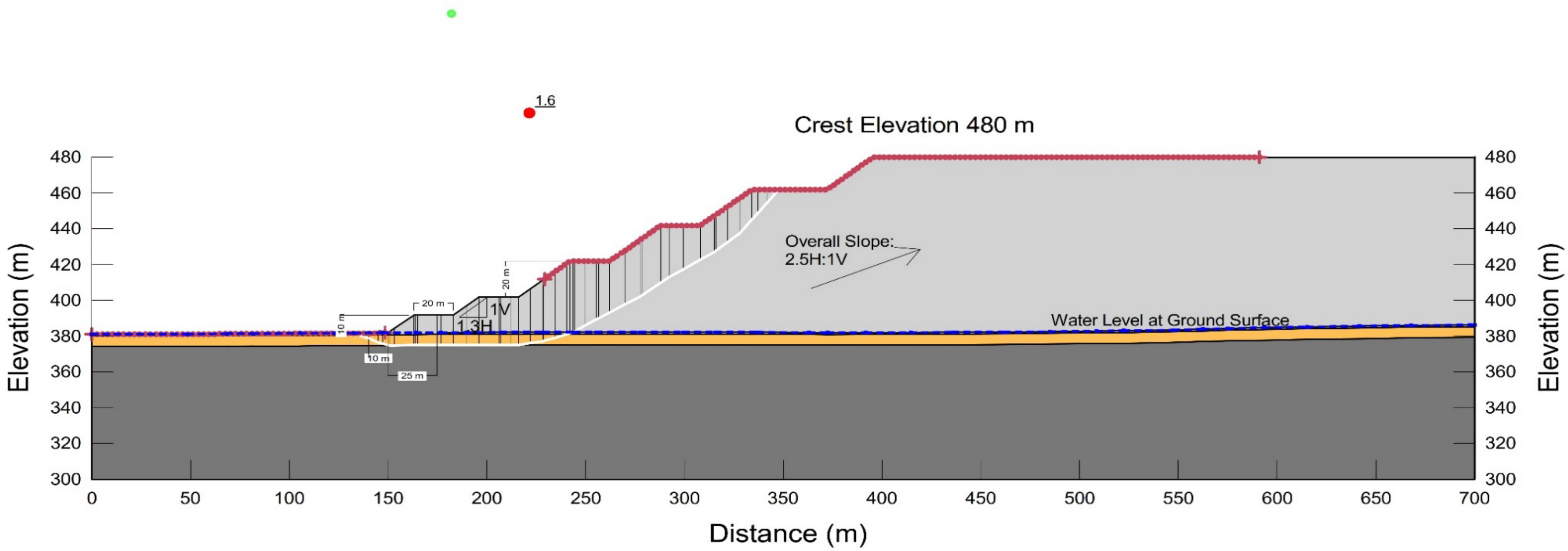
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale: N.T.S	Slope Stability Analysis - SUPER-WD2 - Static Conditions, Global Stability (Peat Removed at Toe)	
		Date: févr-24		
		Design: EKT		
File Name	Slope Stability Figures.xlsx	Check: IW and HD	Toilus Gold Corp. - Troilus Project	Figure 20
Project No. 22575540	Version A	Review: MG		

SUPER-WD2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Sand to Silt, Sometimes with Gravel, Cobbles and Boulders	Mohr-Coulomb	17.7	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through Super-WD2, West side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

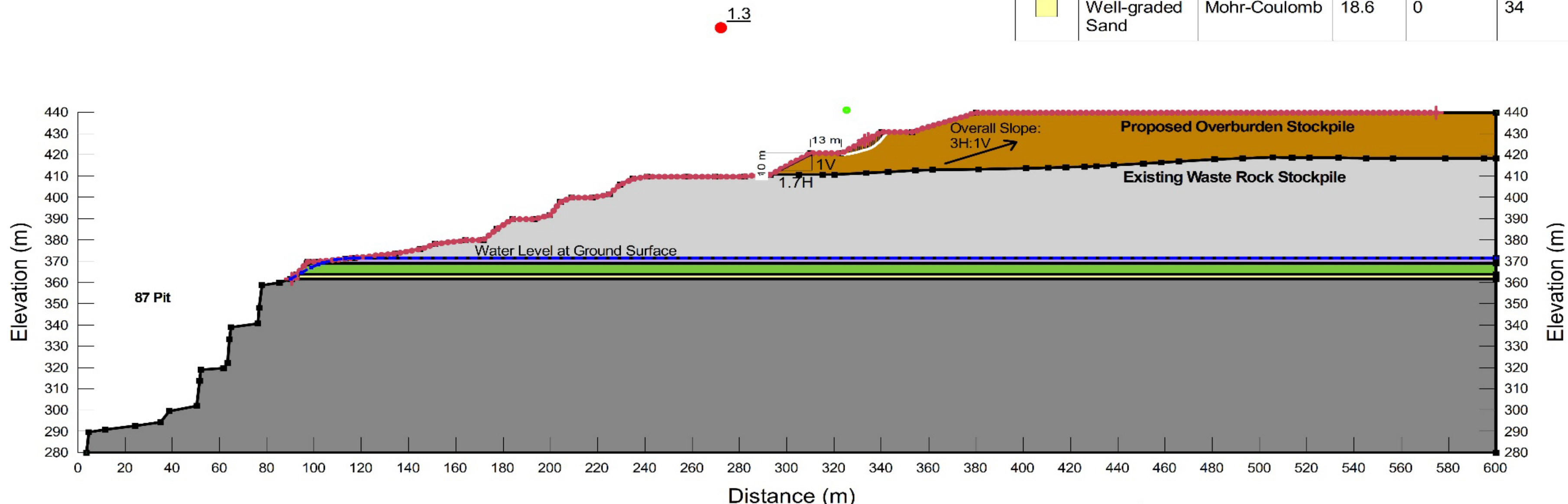
Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp	Scale:	N.T.S	**Slope Stability Analysis - SUPER-WD2 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Removed at Toe)**
	Date:	févr-24	
	Design:	EKT	
File Name: Slope Stability Figures.xlsx	Check:	IW and HD	**Toilus Gold Corp. - Troilus Project** — **Figure 21**
Project No.: 22575540 — Version: A	Review:	MG	

87-OB1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(grey)	Bedrock	Bedrock (Impenetrable)			
(green)	Cobbles and Boulders	Mohr-Coulomb	19.6	0	38
(brown)	Overburden	Mohr-Coulomb	17	0	30
(orange)	Soil with Organic Material	Mohr-Coulomb	18.1	0	30
(purple)	Till	Mohr-Coulomb	19.6	0	32
(light grey)	Waste rock	Mohr-Coulomb	20.5	0	38
(yellow)	Well-graded Sand	Mohr-Coulomb	18.6	0	34



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-OB1, South-side of stockpile.
Peat left in-place.
Local stability assesssed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

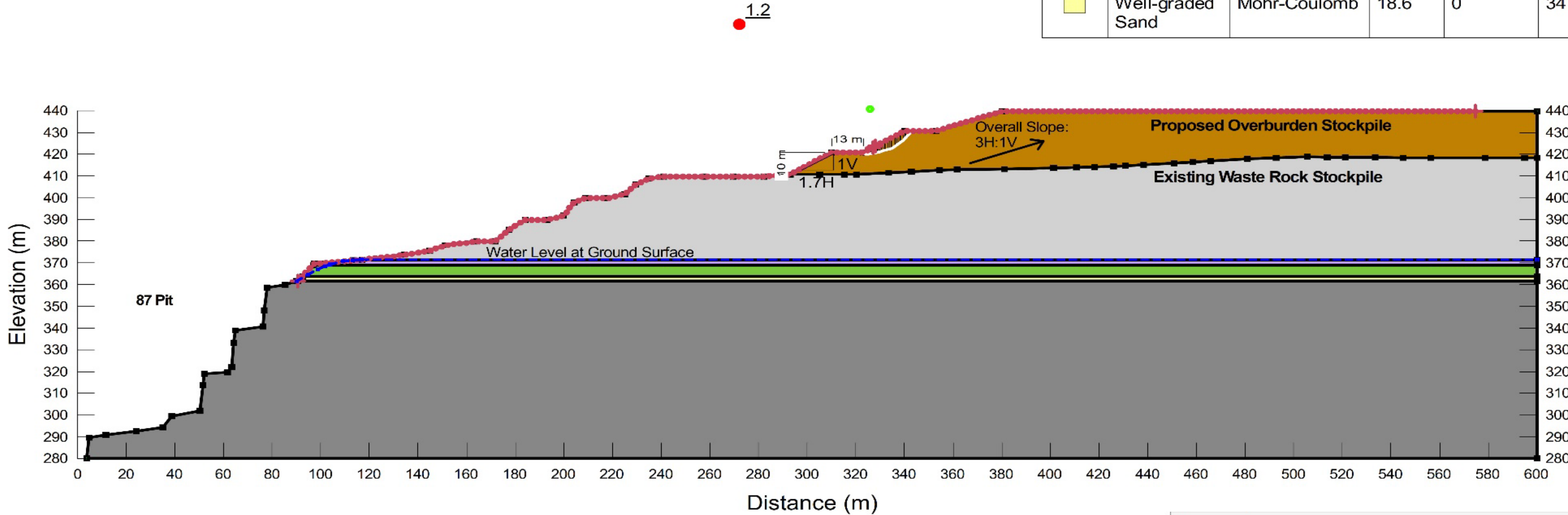
Slope Stability Analysis - 87-OB1 - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 22

87-OB1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Cobbles and Boulders	Mohr-Coulomb	19.6	0	38
	Overburden	Mohr-Coulomb	17	0	30
	Soil with Organic Material	Mohr-Coulomb	18.1	0	30
	Till	Mohr-Coulomb	19.6	0	32
	Waste rock	Mohr-Coulomb	20.5	0	38
	Well-graded Sand	Mohr-Coulomb	18.6	0	34



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-OB1, South-side of stockpile.
Peat left in-place.
Local stability assesssed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

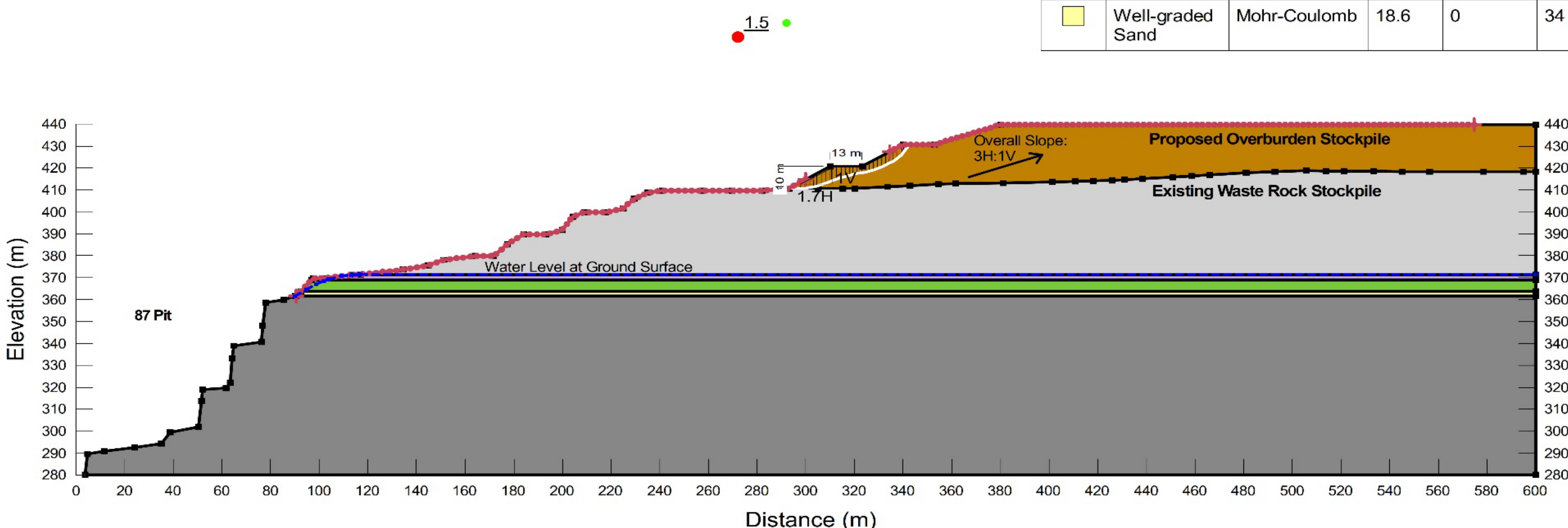
Slope Stability Analysis - 87-OB1 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 23

87-OB1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Cobbles and Boulders	Mohr-Coulomb	19.6	0	38
	Overburden	Mohr-Coulomb	17	0	30
	Soil with Organic Material	Mohr-Coulomb	18.1	0	30
	Till	Mohr-Coulomb	19.6	0	32
	Waste rock	Mohr-Coulomb	20.5	0	38
	Well-graded Sand	Mohr-Coulomb	18.6	0	34



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

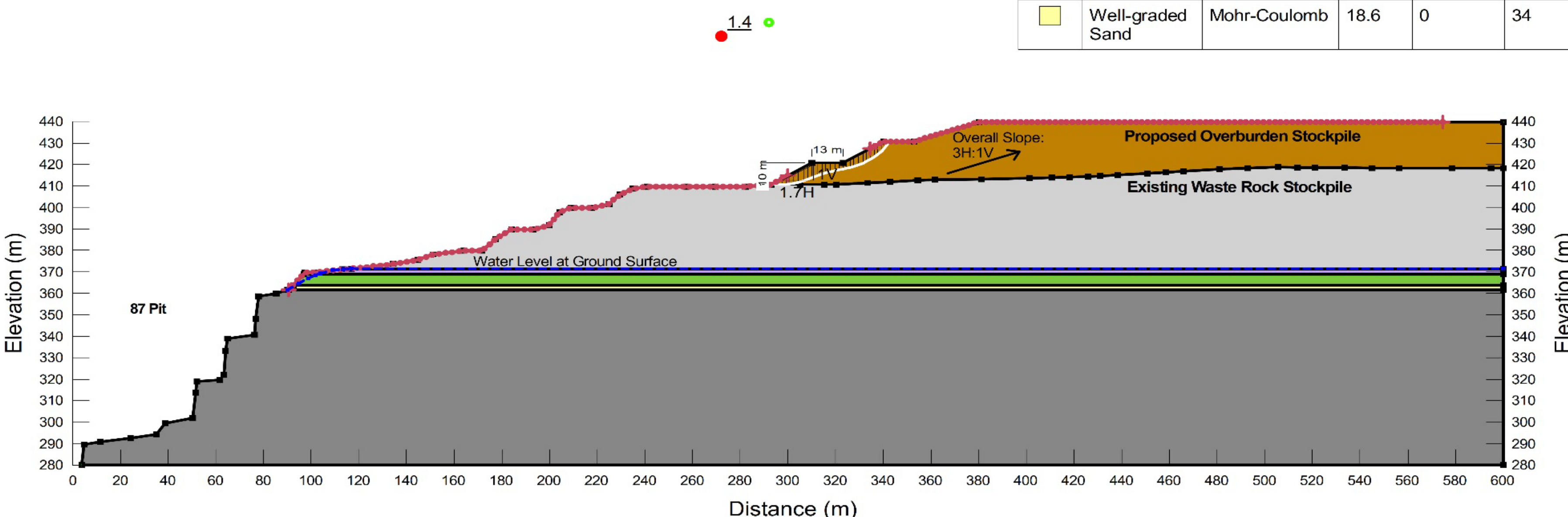
NOTE:
Critical cross-section through 87-OB1, South-side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Scale:	N.T.S	**Slope Stability Analysis - 87-OB1 - Static Conditions, Global Stability (Peat Left in-Place)**	
Date:	févr-24		
Design:	EKT		
Check:	IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure** 24
Review:	MG		

File Name Slope Stability Figures.xlsx
Project No. 22575540 **Version** A

87-OB1

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(grey)	Bedrock	Bedrock (Impenetrable)			
(green)	Cobbles and Boulders	Mohr-Coulomb	19.6	0	38
(brown)	Overburden	Mohr-Coulomb	17	0	30
(orange)	Soil with Organic Material	Mohr-Coulomb	18.1	0	30
(purple)	Till	Mohr-Coulomb	19.6	0	32
(light grey)	Waste rock	Mohr-Coulomb	20.5	0	38
(yellow)	Well-graded Sand	Mohr-Coulomb	18.6	0	34



NOTE:
Critical cross-section through 87-OB1, South-side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

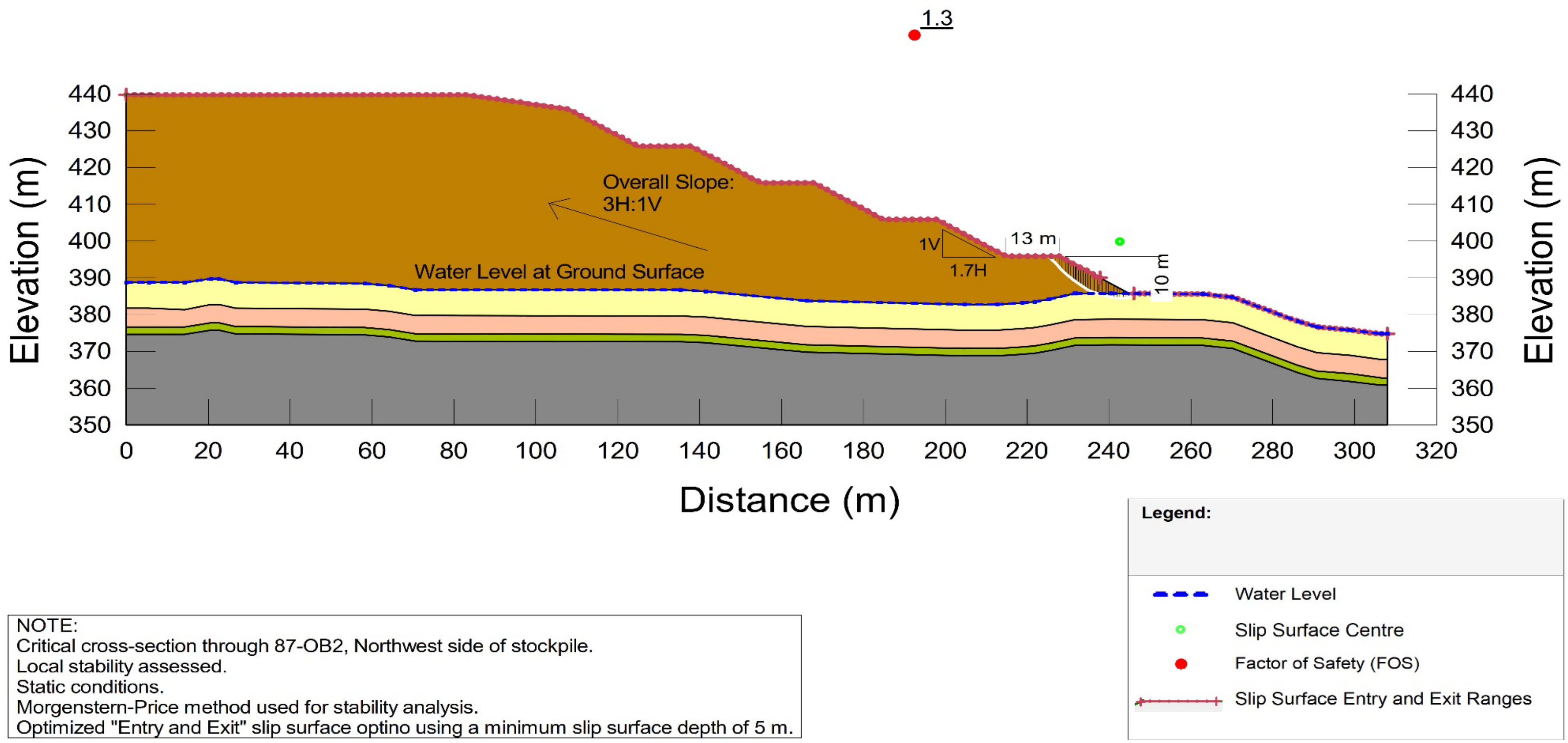
Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

Scale:	N.T.S	**Slope Stability Analysis - 87-OB1 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)**	
Date:	févr-24		
Design:	EKT		
Check:	IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure 25**
Review:	MG		

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	**Version**	A

87-OB2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Backfill: variation of SM, SW, ML, sometimes with cobbles & boulders	Mohr-Coulomb	19.6	0	30
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	SP-GM, presence of cobbles & boulders	Mohr-Coulomb	21.5	0	40
	Variation of SW, SP, SM, sometimes with cobbles & boulders	Mohr-Coulomb	20	0	34

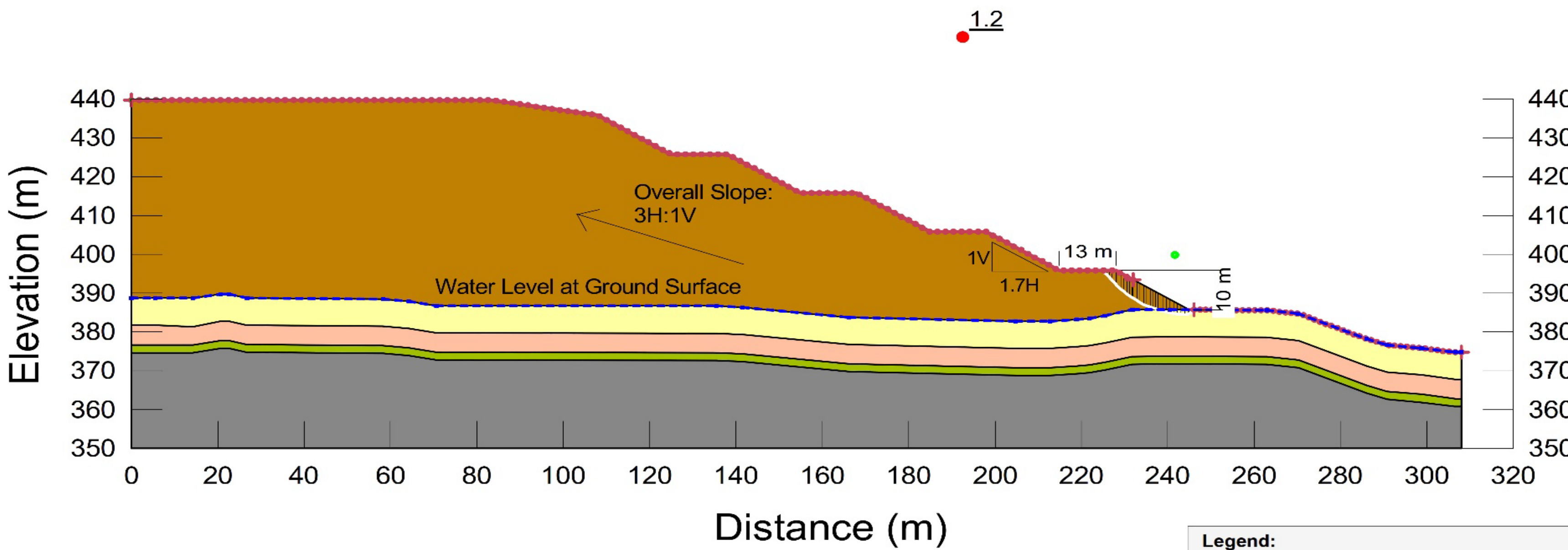


NOTE:
Critical cross-section through 87-OB2, Northwest side of stockpile.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface optino using a minimum slip surface depth of 5 m.

wsp		**Scale:** N.T.S	**Slope Stability Analysis - 87-OB2 - Static Conditions, Local Stability**
		Date: févr-24	
		Design: EKT	
File Name	Slope Stability Figures.xlsx	**Check:** IW and HD	**Toilus Gold Corp. - Troilus Project**
Project No.	22575540 **Version** A	**Review:** MG	**Figure** 26

87-OB2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Backfill: variation of SM, SW, ML, sometimes with cobbles & boulders	Mohr-Coulomb	19.6	0	30
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	SP-GM, presence of cobbles & boulders	Mohr-Coulomb	21.5	0	40
	Variation of SW, SP, SM, sometimes with cobbles & boulders	Mohr-Coulomb	20	0	34



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-OB2, Northwest side of stockpile.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface optino using a minimum slip surface depth of 5 m.

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

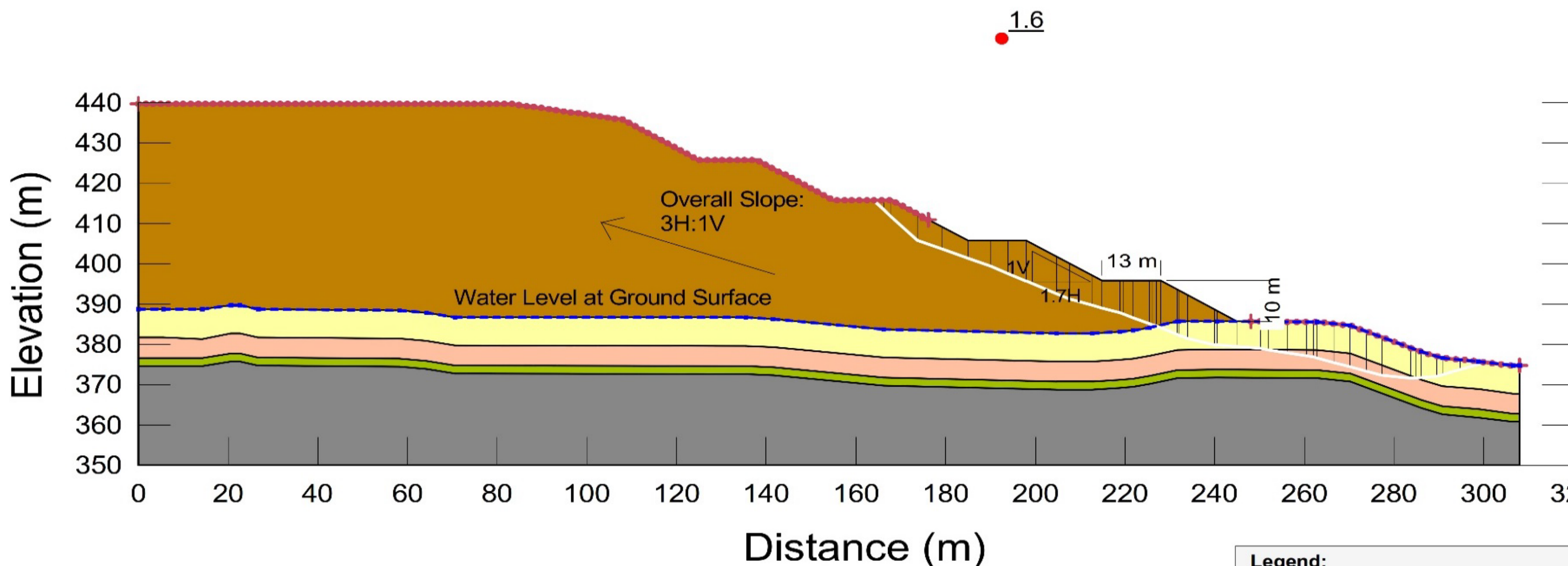
Slope Stability Analysis - 87-OB2 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability

Toilus Gold Corp. - Troilus Project

Figure 27

87-OB2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
(yellow)	Backfill: variation of SM, SW, ML, sometimes with cobbles & boulders	Mohr-Coulomb	19.6	0	30
(grey)	Bedrock	Bedrock (Impenetrable)			
(brown)	Overburden	Mohr-Coulomb	17	0	30
(green)	SP-GM, presence of cobbles & boulders	Mohr-Coulomb	21.5	0	40
(pink)	Variation of SW, SP, SM, sometimes with cobbles & boulders	Mohr-Coulomb	20	0	34



Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-OB2, Northwest side of stockpile.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface optino using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

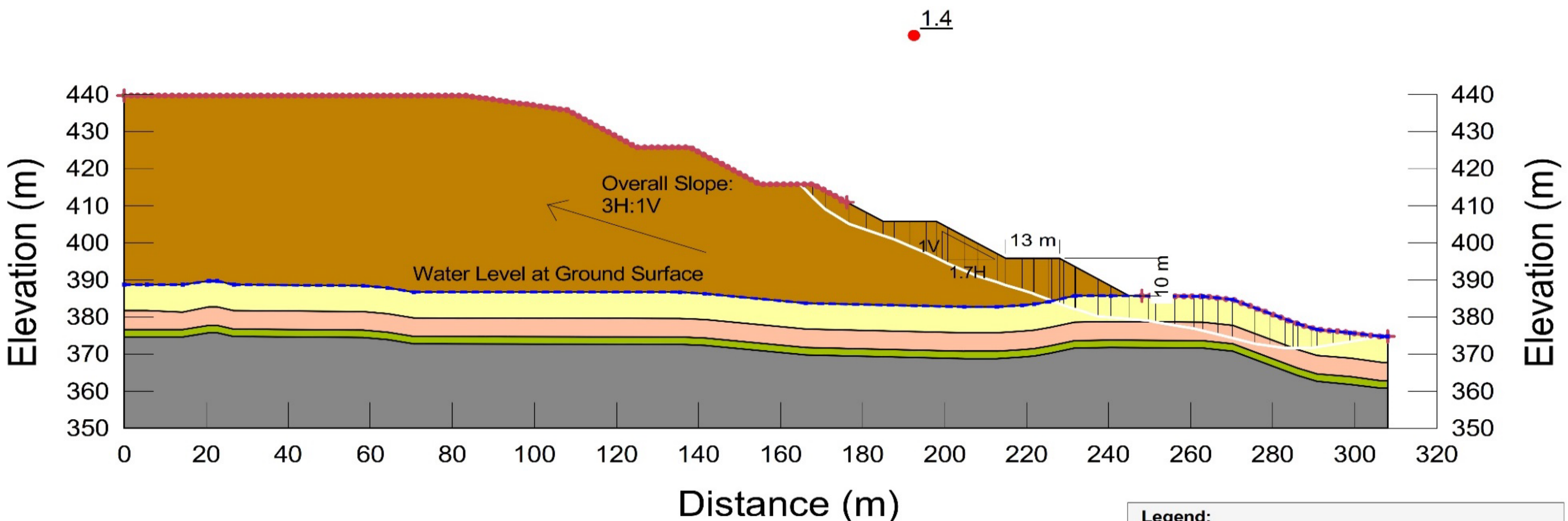
Slope Stability Analysis - 87-OB2 - Static Conditions, Global Stability

Toilus Gold Corp. - Troilus Project

Figure 28

87-OB2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Backfill: variation of SM, SW, ML, sometimes with cobbles & boulders	Mohr-Coulomb	19.6	0	30
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	SP-GM, presence of cobbles & boulders	Mohr-Coulomb	21.5	0	40
	Variation of SW, SP, SM, sometimes with cobbles & boulders	Mohr-Coulomb	20	0	34



Legend:

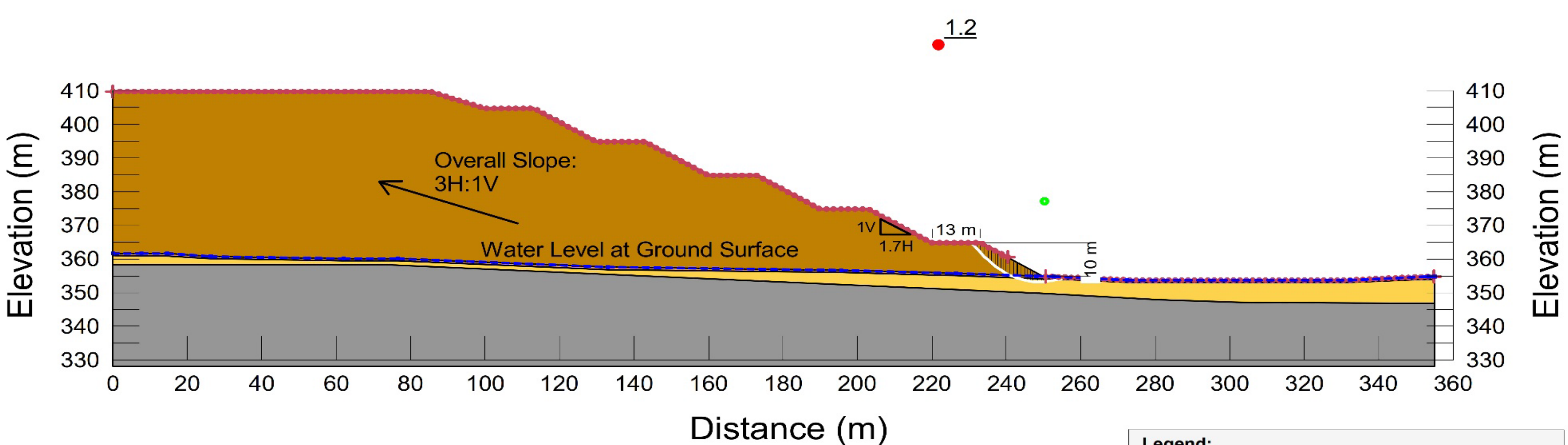
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through 87-OB2, Northwest side of stockpile.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface optino using a minimum slip surface depth of 5 m.

wsp	Scale: N.T.S Date: févr-24 Design: EKT	**Slope Stability Analysis - 87-OB2 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability**	
File Name: Slope Stability Figures.xlsx Project No.: 22575540 Version: A	Check: IW and HD Review: MG	**Toilus Gold Corp. - Troilus Project**	**Figure** 29

NW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand to Silty Sand	Mohr-Coulomb	19.6	0	30



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through NW-OB Stockpile, East-side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	Version	A

Scale:	N.T.S
Date:	févr-24
Design:	EKT
Check:	IW and HD
Review:	MG

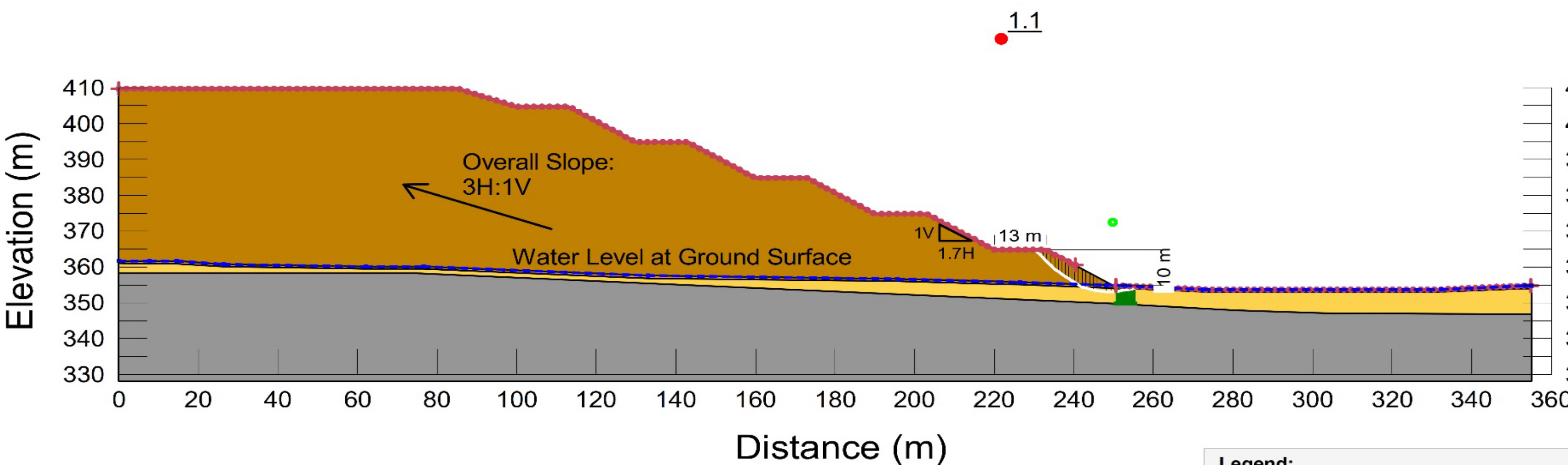
Slope Stability Analysis - NW-OB - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 30

NW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand to Silty Sand	Mohr-Coulomb	19.6	0	30



NOTE:
Critical cross-section through NW-OB Stockpile, East-side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

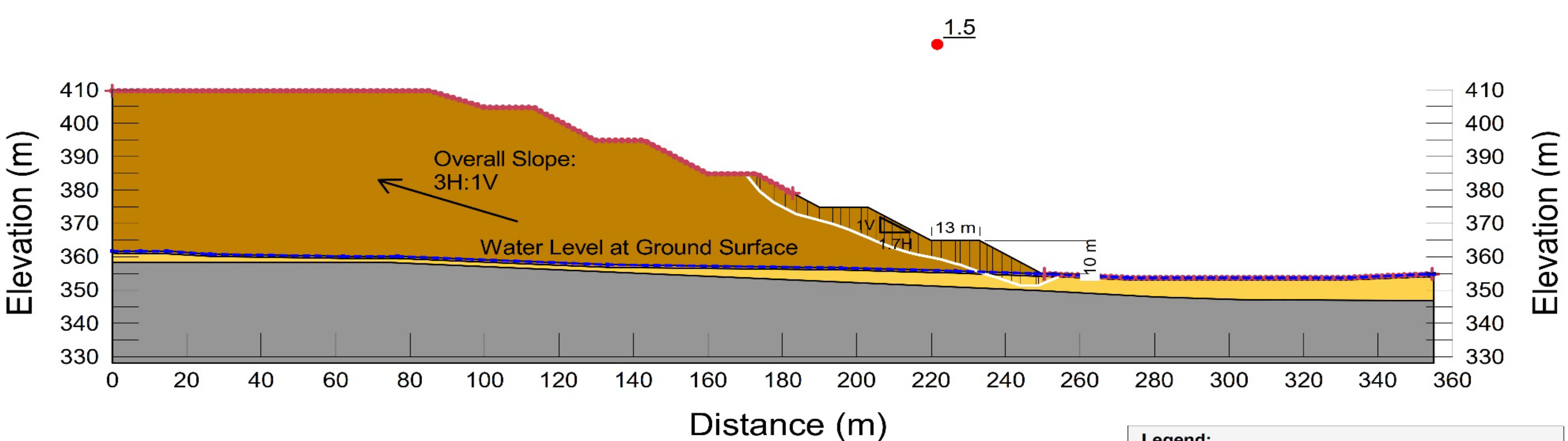
Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

Scale:	N.T.S	**Slope Stability Analysis - NW-OB - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)**	
Date:	févr-24		
Design:	EKT		
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540	Version	A
Review:	MG	**Toilus Gold Corp. - Troilus Project**	**Figure** 31

NW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand to Silty Sand	Mohr-Coulomb	19.6	0	30



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through NW-OB Stockpile, East-side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

File Name	Slope Stability Figures.xlsx	Scale:	N.T.S
Project No.	22575540 Version A	Date:	févr-24
		Design:	EKT
		Check:	IW and HD
		Review:	MG

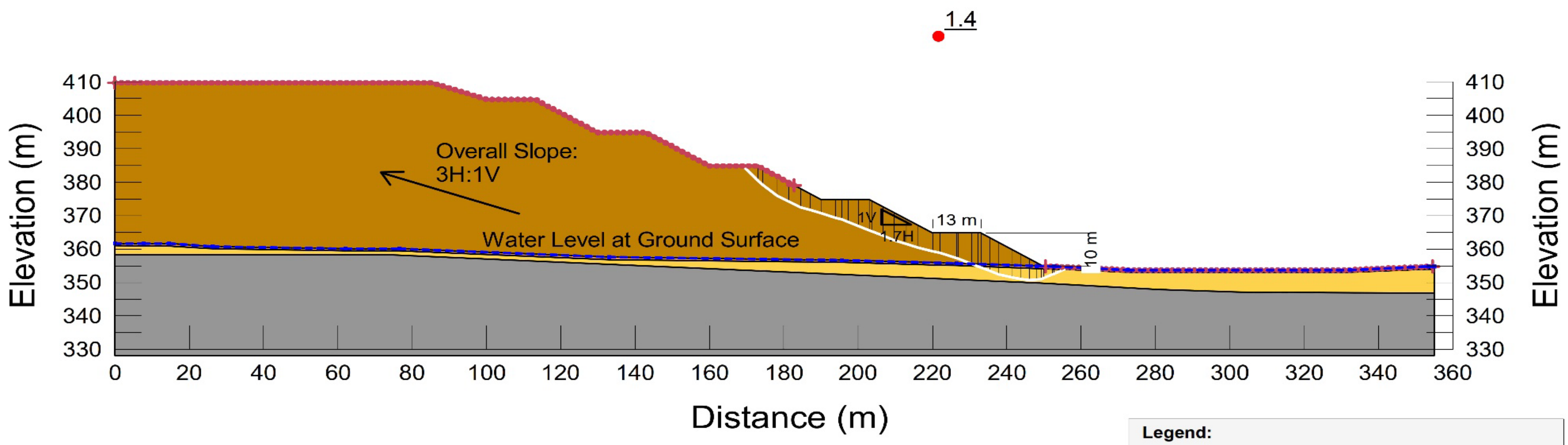
Slope Stability Analysis - NW-OB - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 32

NW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand to Silty Sand	Mohr-Coulomb	19.6	0	30



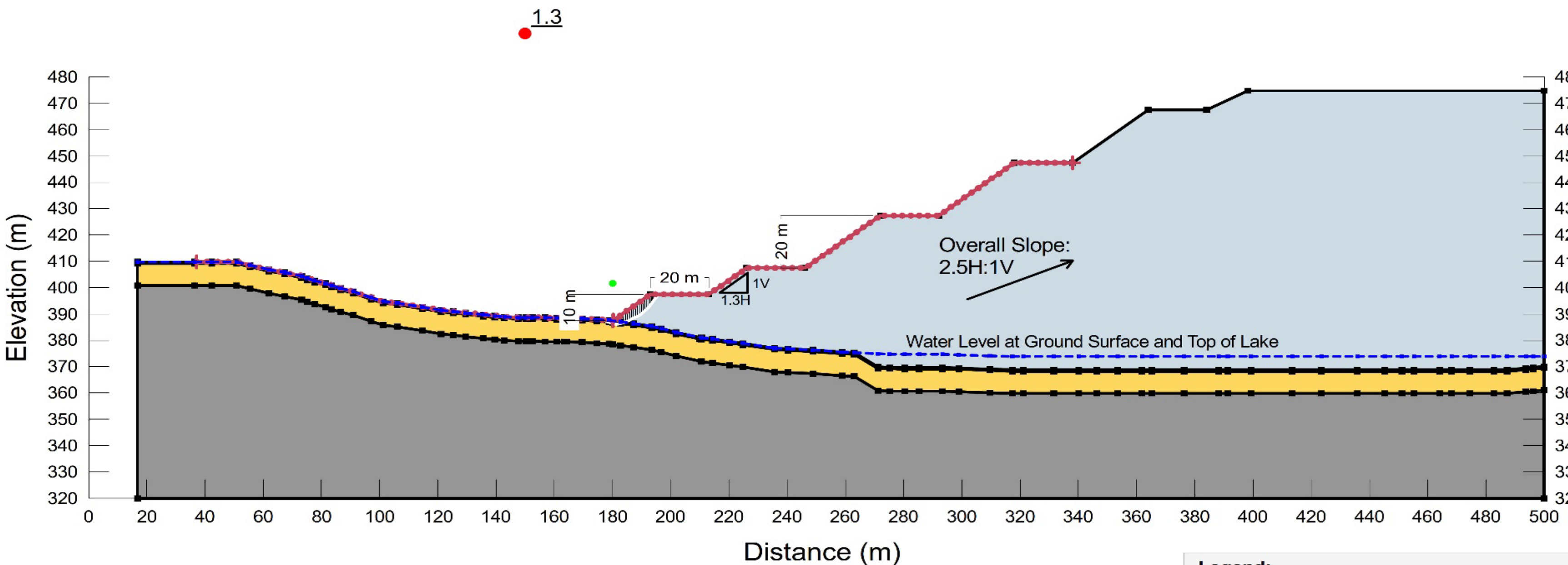
NOTE:
Critical cross-section through NW-OB Stockpile, East-side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp	Scale:	N.T.S	**Slope Stability Analysis - NW-OB - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)**	
	Date:	févr-24		
	Design:	EKT		
File Name: Slope Stability Figures.xlsx	Check:	IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure** 33
Project No.: 22575540 Version: A	Review:	MG		

LGO2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Low Grade Ore	Mohr-Coulomb	20.5	0	38
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand	Mohr-Coulomb	19.6	0	34



NOTE:
Critical cross-section through LGO2 stockpile, East side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

Scale:	N.T.S		
Date:	févr-24		
Design:	EKT		
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

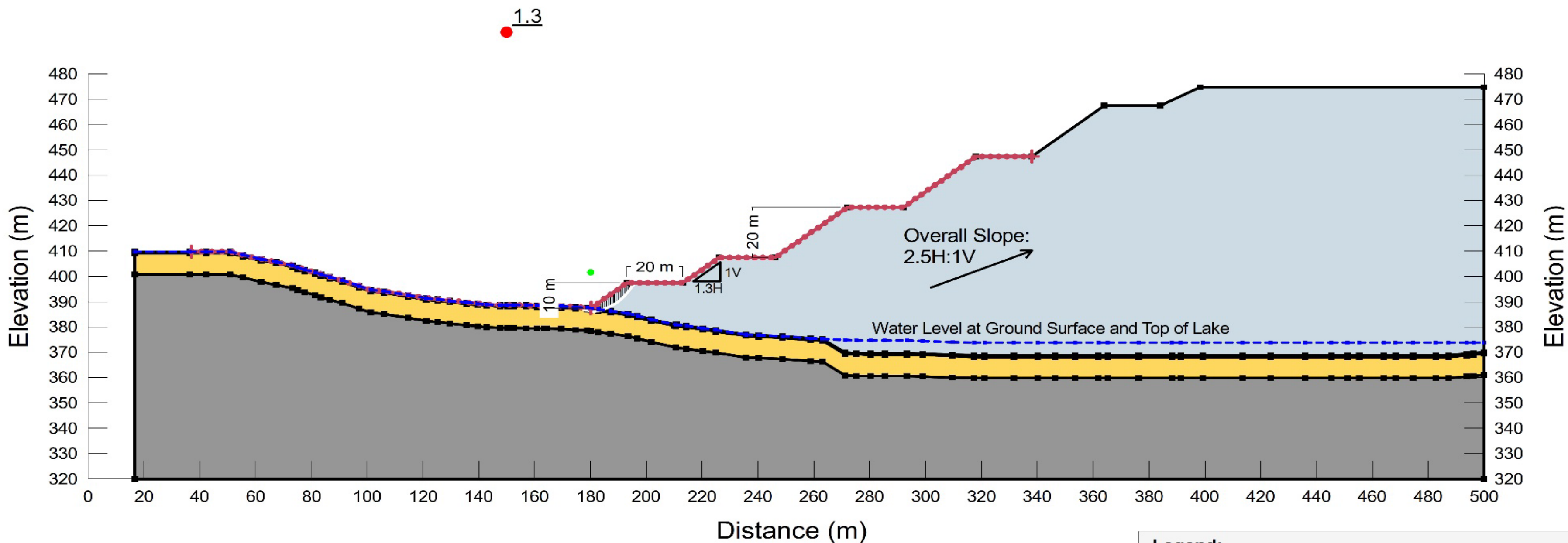
Slope Stability Analysis - LGO2 - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 34

LGO2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Low Grade Ore	Mohr-Coulomb	20.5	0	38
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand	Mohr-Coulomb	19.6	0	34



NOTE:
Critical cross-section through LGO2 stockpile, East side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

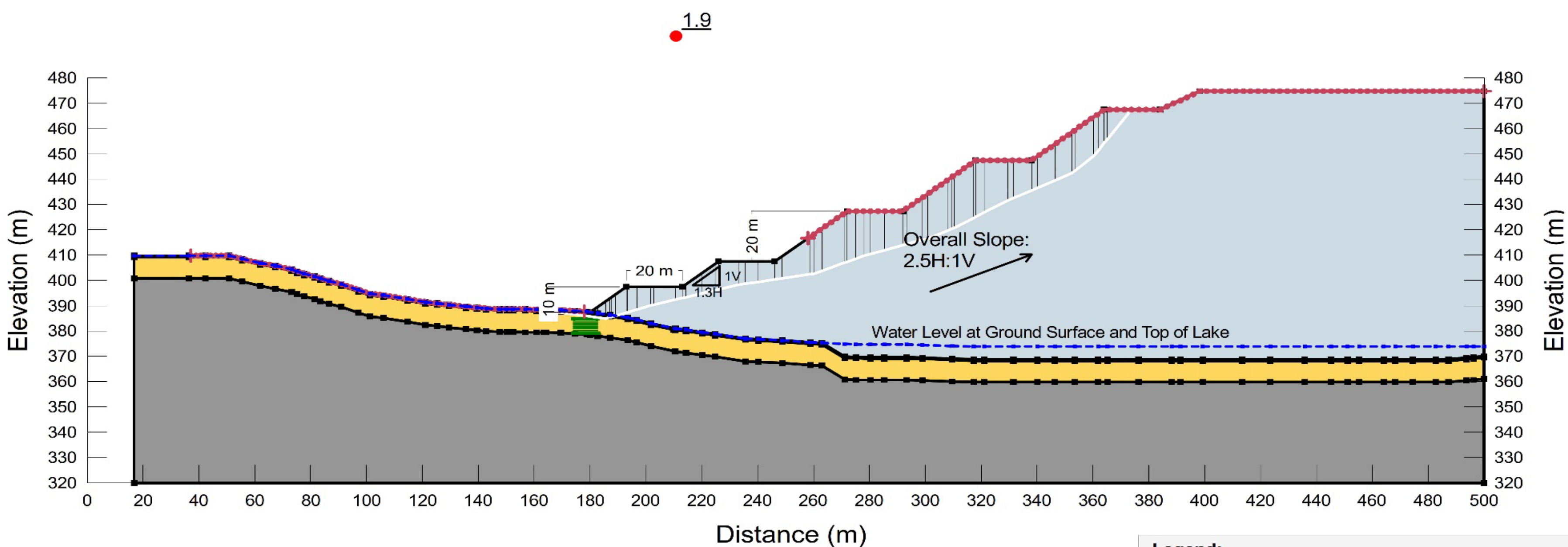
Slope Stability Analysis - LGO2 - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 35

LGO2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Low Grade Ore	Mohr-Coulomb	20.5	0	38
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand	Mohr-Coulomb	19.6	0	34



NOTE:
Critical cross-section through LGO2 stockpile, East side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp

Scale:	N.T.S
Date:	févr-24
Design:	EKT
Check:	IW and HD
Review:	MG

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	Version	A

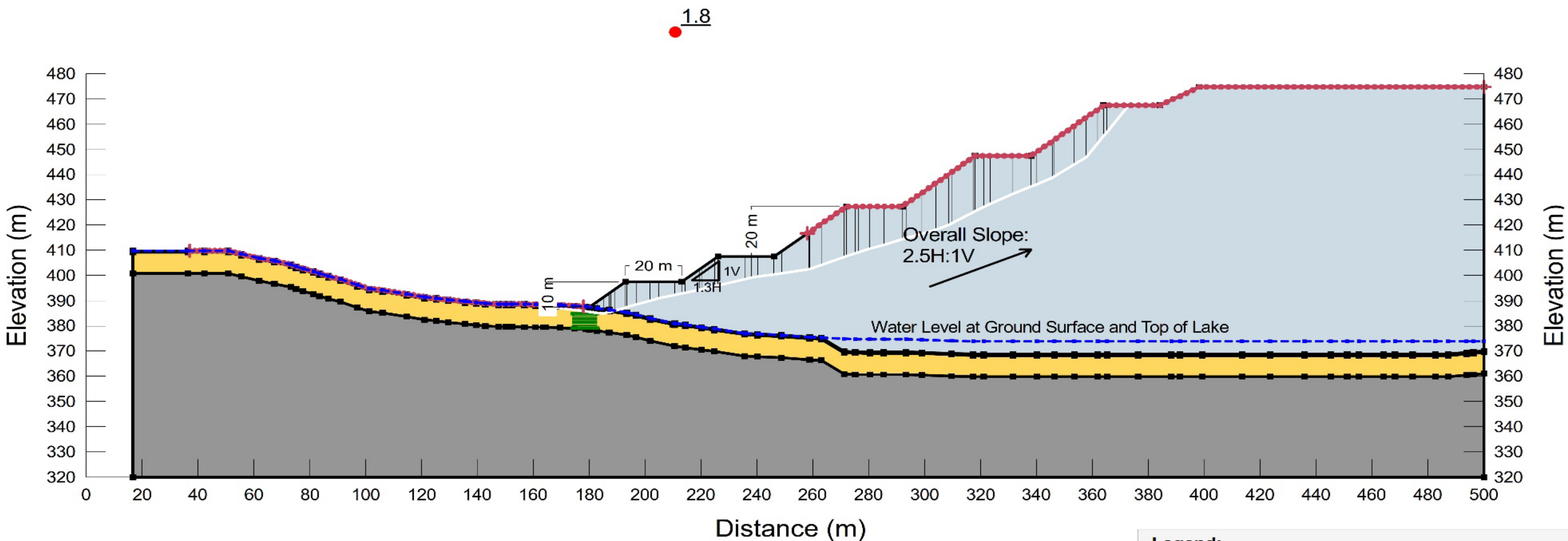
Slope Stability Analysis - LGO2 - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 36

LGO2

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Low Grade Ore	Mohr-Coulomb	20.5	0	38
	Peat	Mohr-Coulomb	12	5	28
	Poorly Graded Sand	Mohr-Coulomb	19.6	0	34



NOTE:
Critical cross-section through LGO2 stockpile, East side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

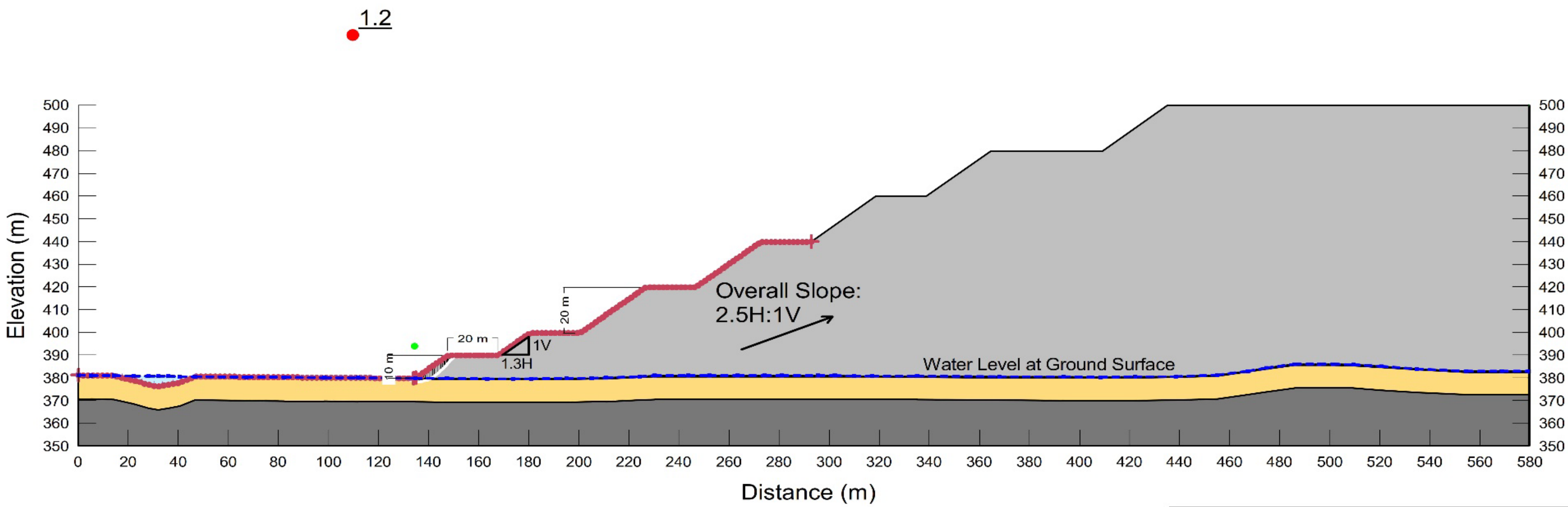
Slope Stability Analysis - LGO2 - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 37

WEST-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Silty Sand to Sand	Mohr-Coulomb	19.6	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through West Waste Dump, West-side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	Version	A

Scale:	N.T.S
Date:	févr-24
Design:	EKT
Check:	IW and HD
Review:	MG

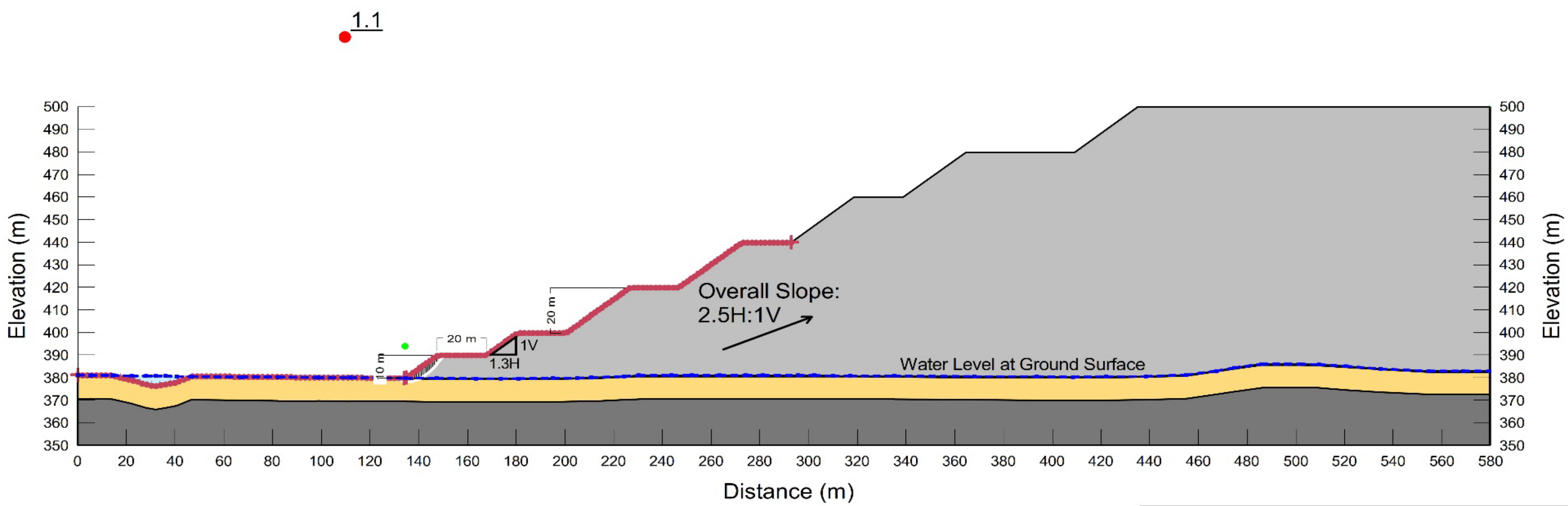
Slope Stability Analysis - WEST-WD - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 38

WEST-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Silty Sand to Sand	Mohr-Coulomb	19.6	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through West Waste Dump, West-side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	**Version**	A

Scale:	N.T.S
Date:	févr-24
Design:	EKT
Check:	IW and HD
Review:	MG

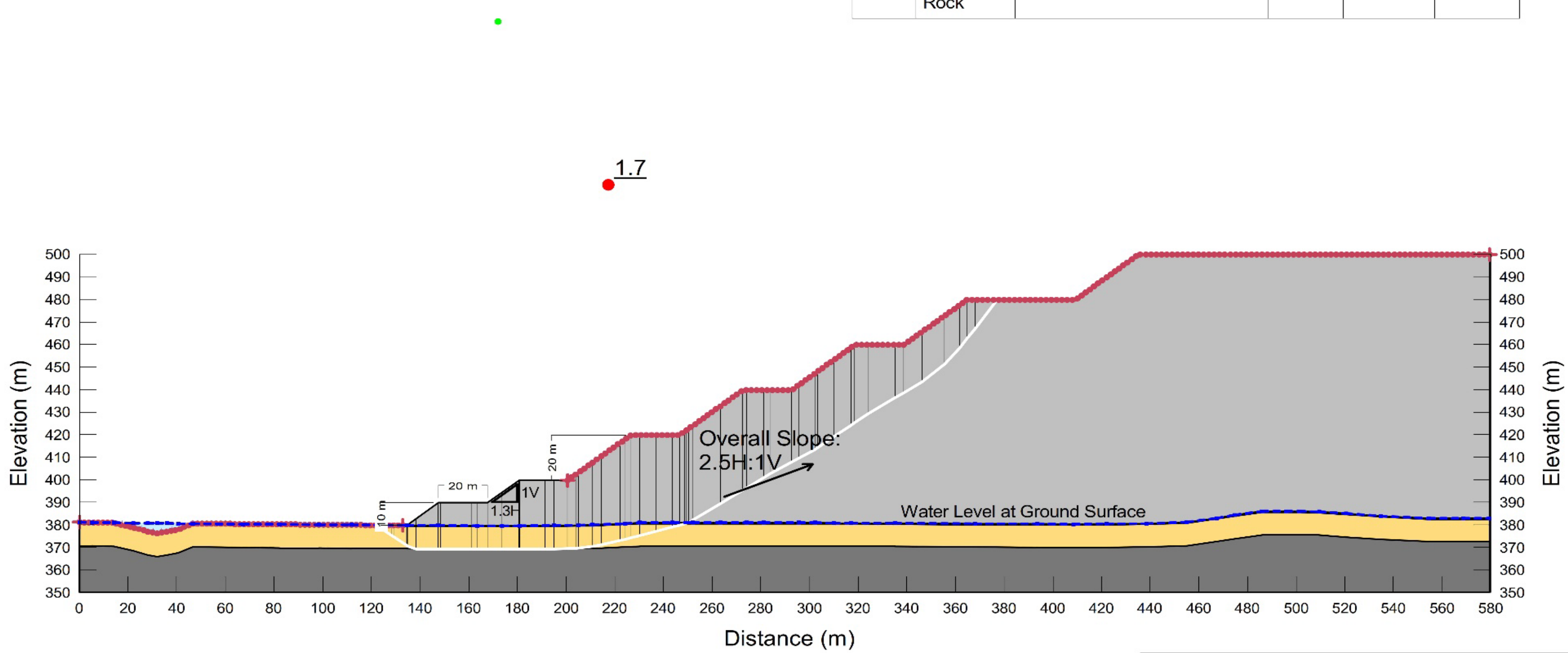
Slope Stability Analysis - WEST-WD - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 39

WEST-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Silty Sand to Sand	Mohr-Coulomb	19.6	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through West Waste Dump, West-side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp

Scale:	N.T.S
Date:	févr-24
Design:	EKT
Check:	IW and HD
Review:	MG

Slope Stability Analysis - WEST-WD - Static Conditions, Global Stability (Peat Left in-Place)

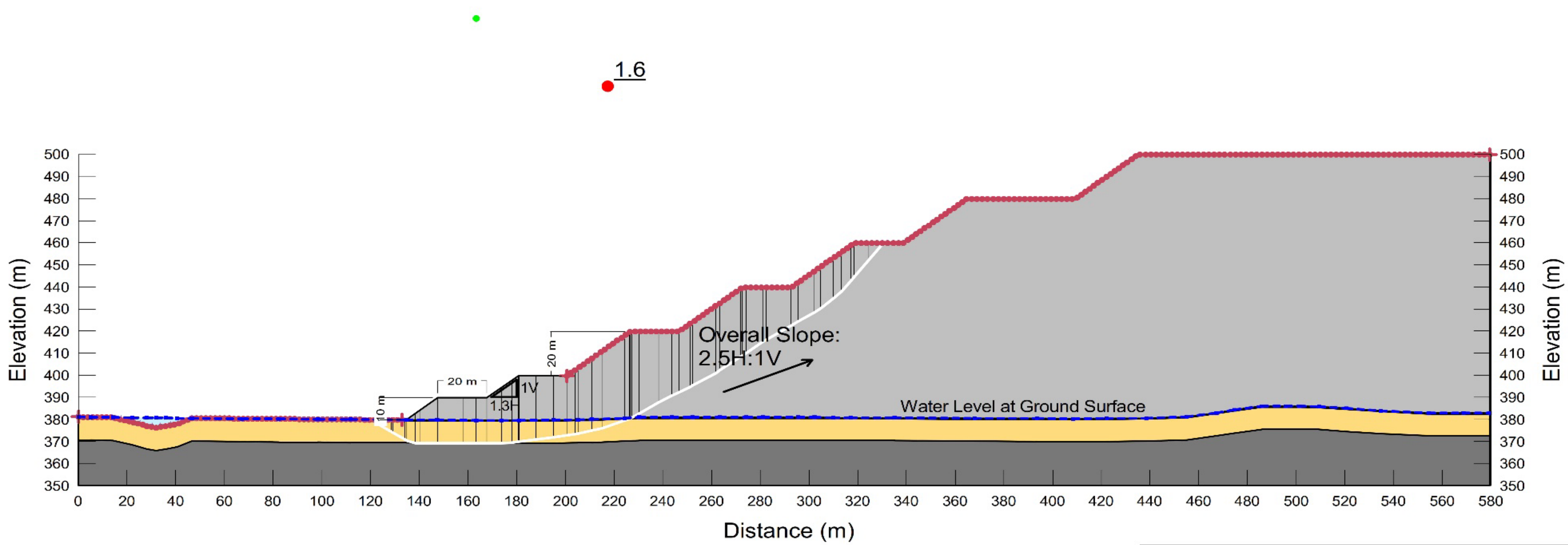
File Name	Slope Stability Figures.xlsx		
Project No.	22575540	Version	A

40

Figure 40

WEST-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Peat	Mohr-Coulomb	12	5	28
	Silty Sand to Sand	Mohr-Coulomb	19.6	0	30
	Waste Rock	Mohr-Coulomb	20.5	0	38



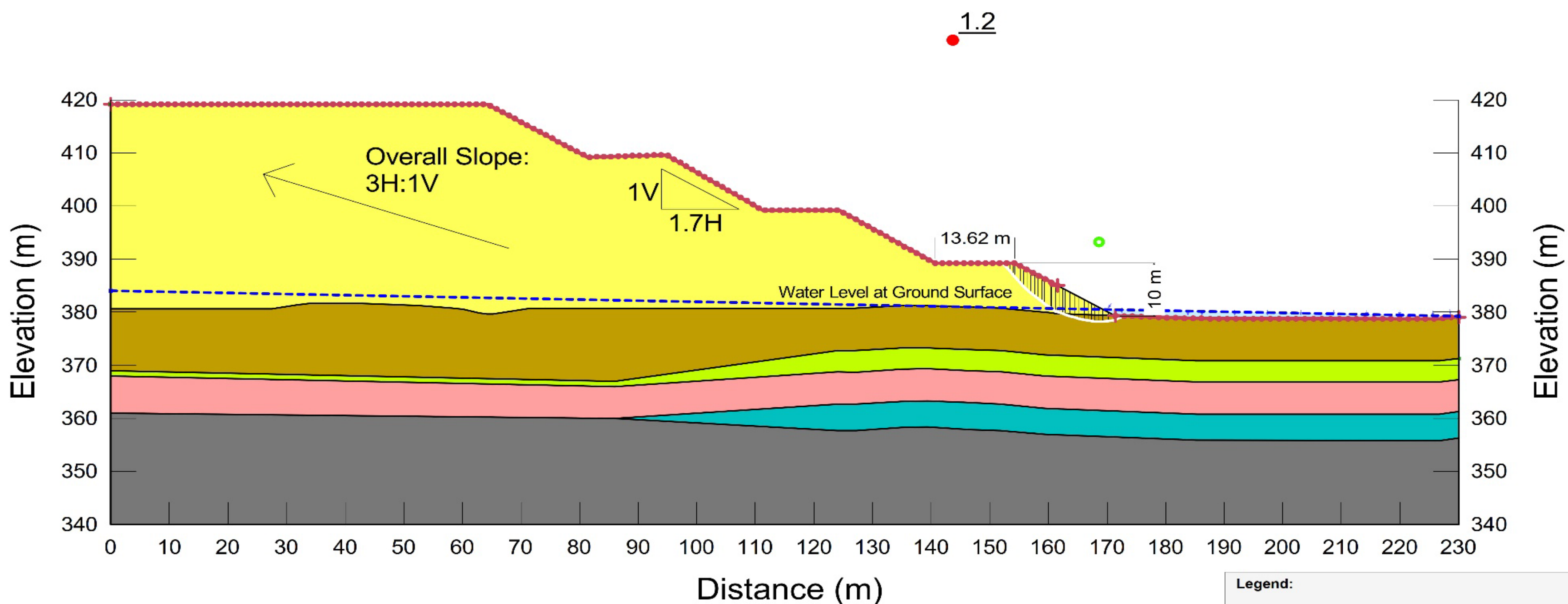
NOTE:
Critical cross-section through West Waste Dump, West-side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

		Scale: N.T.S	Slope Stability Analysis - WEST-WD - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)	
		Date: févr-24		
		Design: EKT		
File Name	Slope Stability Figures.xlsx	Check: IW and HD	Toilus Gold Corp. - Troilus Project	Figure 41
Project No.	22575540 Version A	Review: MG		

WEST-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Constant Unit Wt. Above Piezometric Surface (kN/m³)
	Backfill Overburden: SP, SM	Mohr-Coulomb	19.6	0	30	
	Bedrock	Bedrock (Impenetrable)				
	Boulder & Cobble with sand & gravel	Mohr-Coulomb	22	0	40	
	Natural Deposit: SP-SG, SW,SM, sometimes with Cobble & Bolder	Mohr-Coulomb	20	0	32	
	Overburden Dump	Mohr-Coulomb	17	0	30	17
	Peat & SW	Mohr-Coulomb	17	0	25	



Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through WEST-OB, South side of stockpile.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp

Scale:	N.T.S		
Date:	févr-24		
Design:	EKT		
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

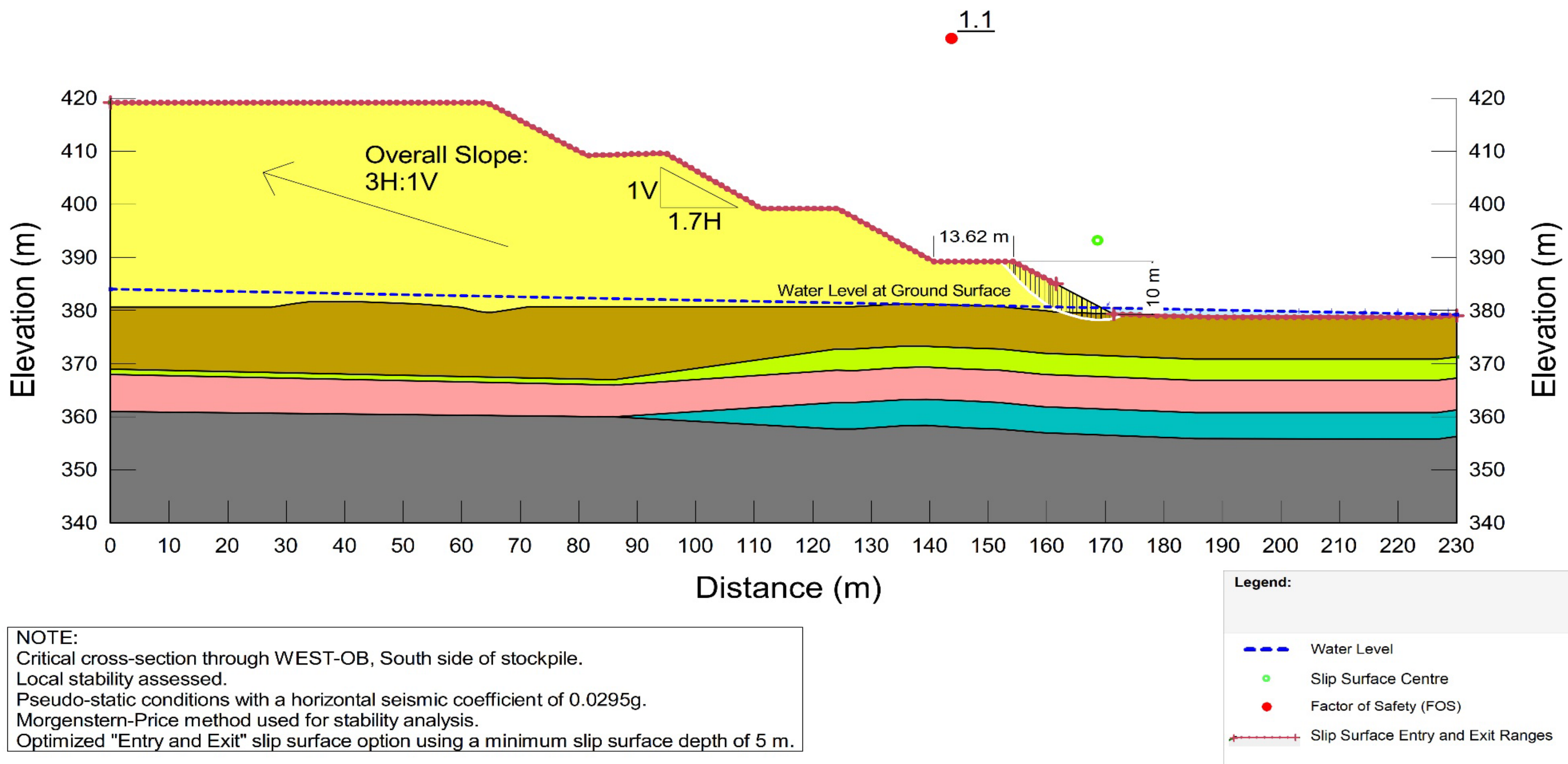
Slope Stability Analysis - WEST-OB - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 42

WEST-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Constant Unit Wt. Above Piezometric Surface (kN/m³)
	Backfill Overburden: SP, SM	Mohr-Coulomb	19.6	0	30	
	Bedrock	Bedrock (Impenetrable)				
	Boulder & Cobble with sand & gravel	Mohr-Coulomb	22	0	40	
	Natural Deposit: SP-SG, SW,SM, sometimes with Cobble & Bolder	Mohr-Coulomb	20	0	32	
	Overburden Dump	Mohr-Coulomb	17	0	30	17
	Peat & SW	Mohr-Coulomb	17	0	25	



NOTE:
Critical cross-section through WEST-OB, South side of stockpile.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

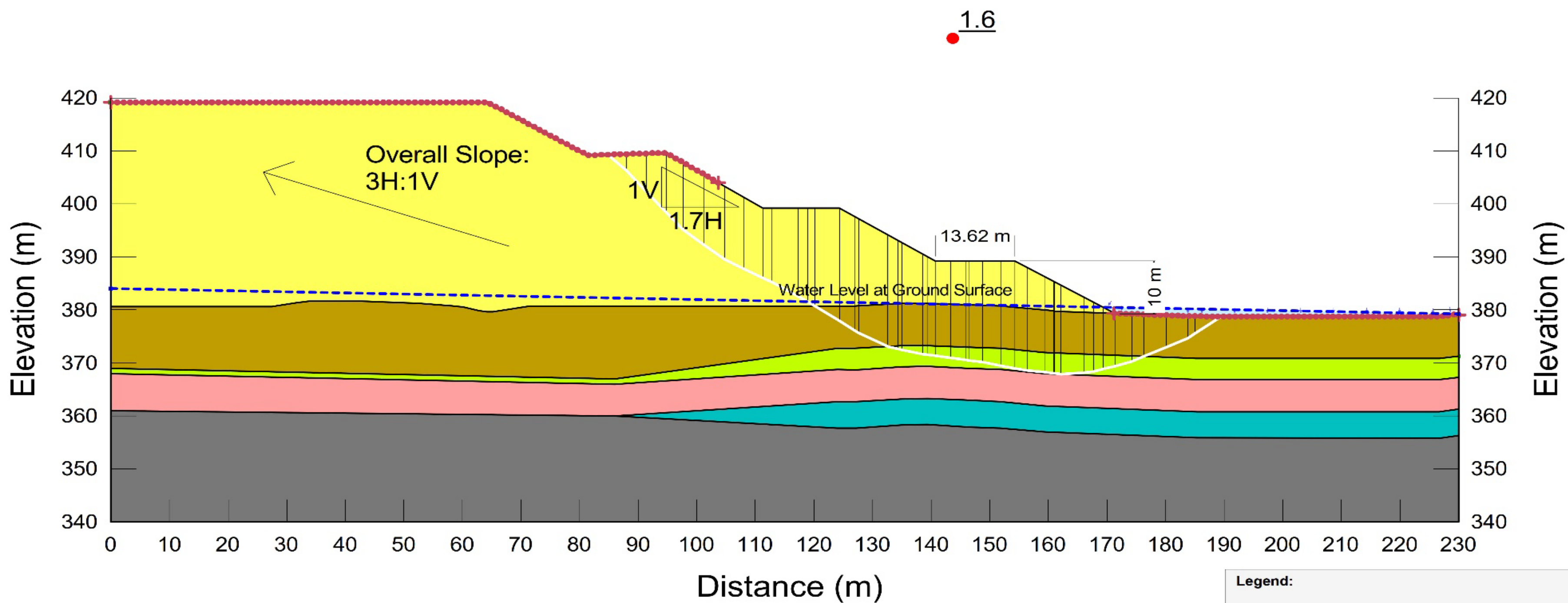
Slope Stability Analysis - WEST-OB - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 43

WEST-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Constant Unit Wt. Above Piezometric Surface (kN/m³)
	Backfill Overburden: SP, SM	Mohr-Coulomb	19.6	0	30	
	Bedrock	Bedrock (Impenetrable)				
	Boulder & Cobble with sand & gravel	Mohr-Coulomb	22	0	40	
	Natural Deposit: SP-SG, SW,SM, sometimes with Cobble & Bolder	Mohr-Coulomb	20	0	32	
	Overburden Dump	Mohr-Coulomb	17	0	30	17
	Peat & SW	Mohr-Coulomb	17	0	25	



NOTE:
Critical cross-section through WEST-OB, South side of stockpile.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp

Scale:	N.T.S		
Date:	févr-24		
Design:	EKT		
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540	Version	A
Review:	MG		

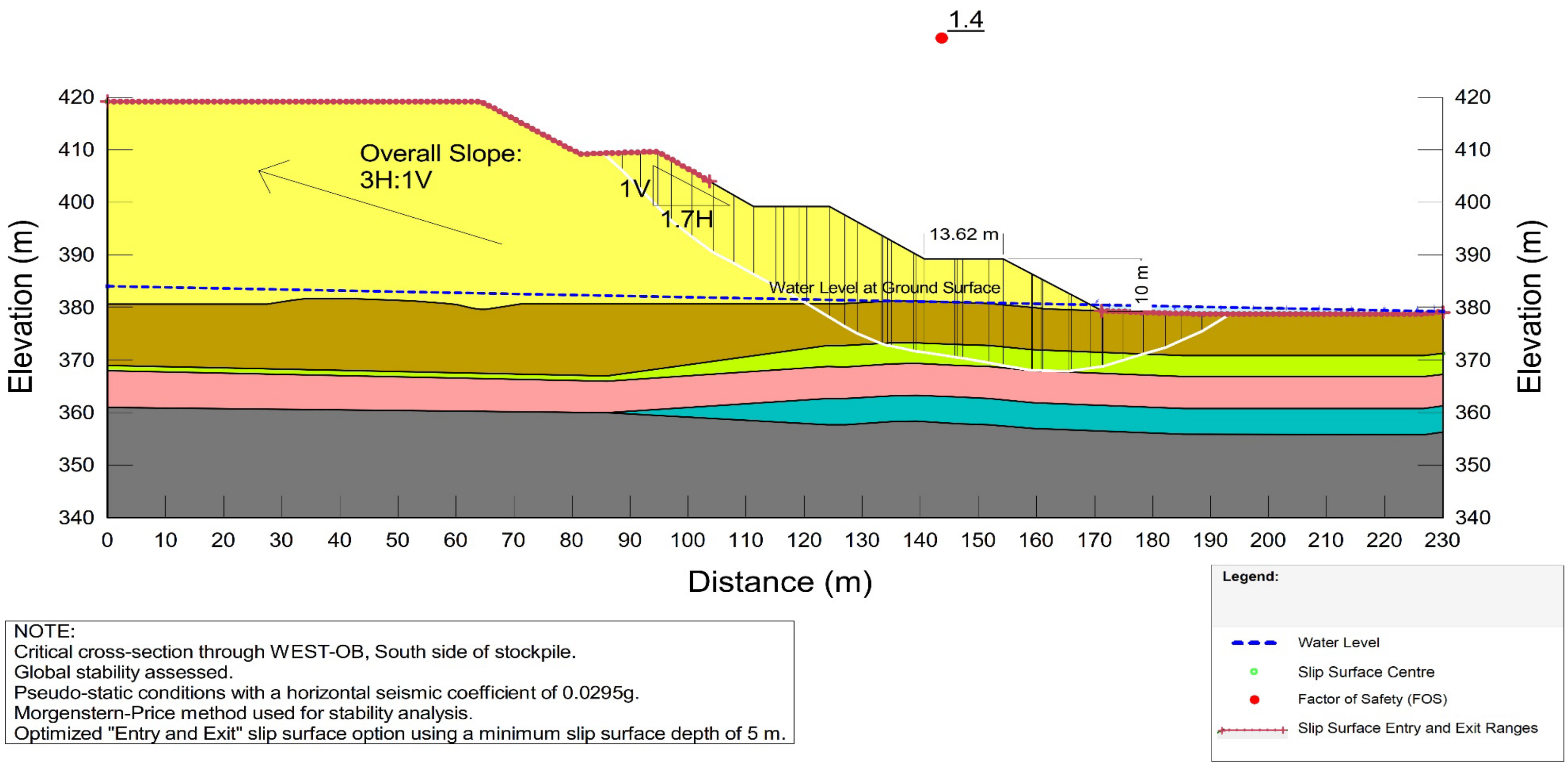
Slope Stability Analysis - WEST-OB - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 44

WEST-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Constant Unit Wt. Above Piezometric Surface (kN/m³)
	Backfill Overburden: SP, SM	Mohr-Coulomb	19.6	0	30	
	Bedrock	Bedrock (Impenetrable)				
	Boulder & Cobble with sand & gravel	Mohr-Coulomb	22	0	40	
	Natural Deposit: SP-SG, SW,SM, sometimes with Cobble & Bolder	Mohr-Coulomb	20	0	32	
	Overburden Dump	Mohr-Coulomb	17	0	30	17
	Peat & SW	Mohr-Coulomb	17	0	25	



NOTE:
Critical cross-section through WEST-OB, South side of stockpile.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

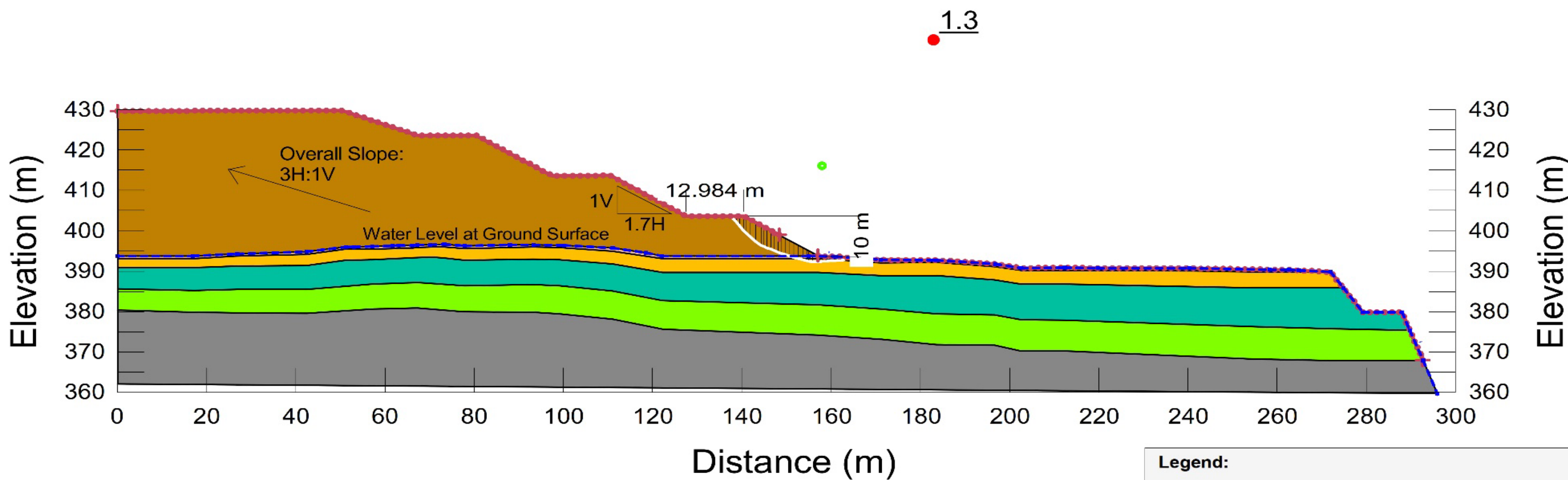
Slope Stability Analysis - WEST-OB - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 45

SW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural deposit: SW, SP with cobbles and boulders	Mohr-Coulomb	19.6	0	33
	Natural deposit: SW, SP, likely cobbles	Mohr-Coulomb	20	0	34
	Natural deposit: SW-SP with cobbles and boulders	Mohr-Coulomb	22	0	40
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28



NOTE:
Critical cross-section through SW-OB, Northwest side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

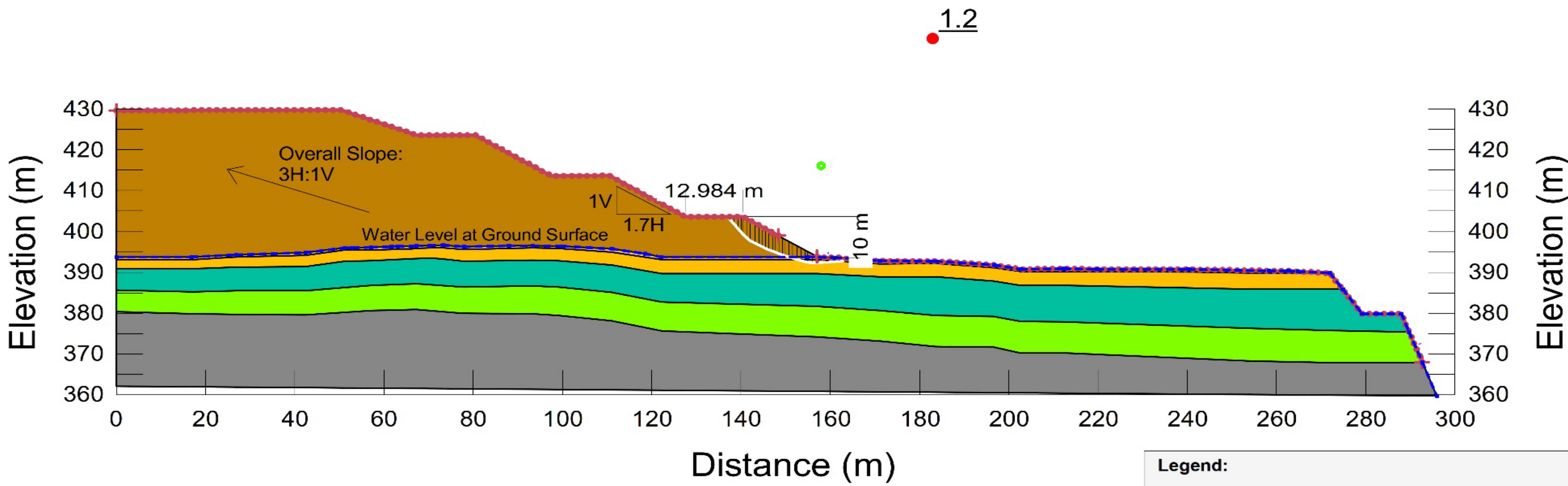
Slope Stability Analysis - SW-OB - Static Conditions, Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 46

SW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural deposit: SW, SP with cobbles and boulders	Mohr-Coulomb	19.6	0	33
	Natural deposit: SW, SP, likely cobbles	Mohr-Coulomb	20	0	34
	Natural deposit: SW-SP with cobbles and boulders	Mohr-Coulomb	22	0	40
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28



NOTE:
Critical cross-section through SW-OB, Northwest side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

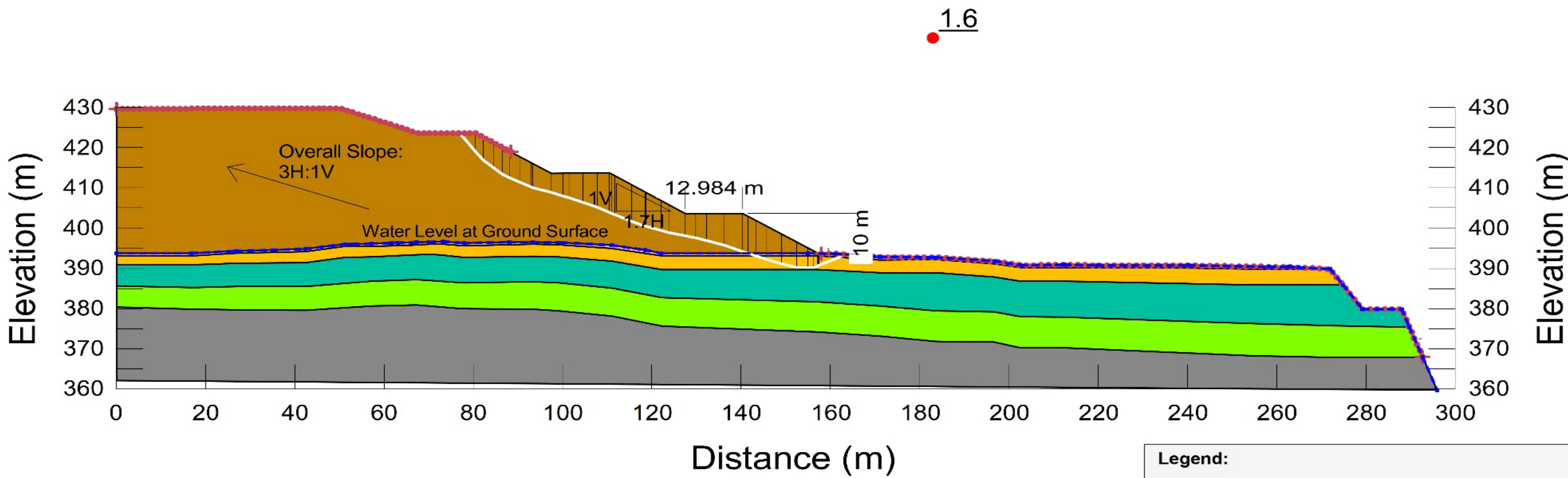
Slope Stability Analysis - SW-OB - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 47

SW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural deposit: SW, SP with cobbles and boulders	Mohr-Coulomb	19.6	0	33
	Natural deposit: SW, SP, likely cobbles	Mohr-Coulomb	20	0	34
	Natural deposit: SW-SP with cobbles and boulders	Mohr-Coulomb	22	0	40
	Overburden	Mohr-Coulomb	17	0	30
	Peat	Mohr-Coulomb	12	5	28



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through SW-OB, Northwest side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

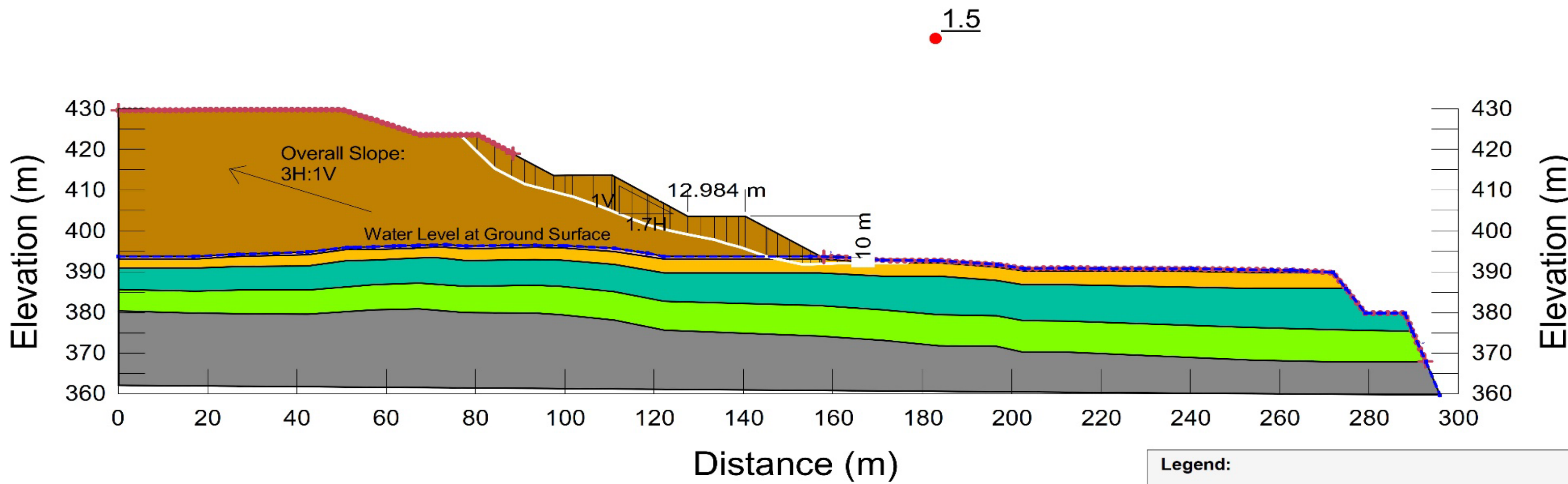
Slope Stability Analysis - SW-OB - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 48

SW-OB

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
Grey	Bedrock	Bedrock (Impenetrable)			
Teal	Natural deposit: SW, SP with cobbles and boulders	Mohr-Coulomb	19.6	0	33
Yellow	Natural deposit: SW, SP, likely cobbles	Mohr-Coulomb	20	0	34
Light green	Natural deposit: SW-SP with cobbles and boulders	Mohr-Coulomb	22	0	40
Brown	Overburden	Mohr-Coulomb	17	0	30
Light pink	Peat	Mohr-Coulomb	12	5	28



NOTE:
Critical cross-section through SW-OB, Northwest side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip surface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		**Scale:**	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	**Check:**	IW and HD
Project No.	22575540 **Version** A	**Review:**	MG

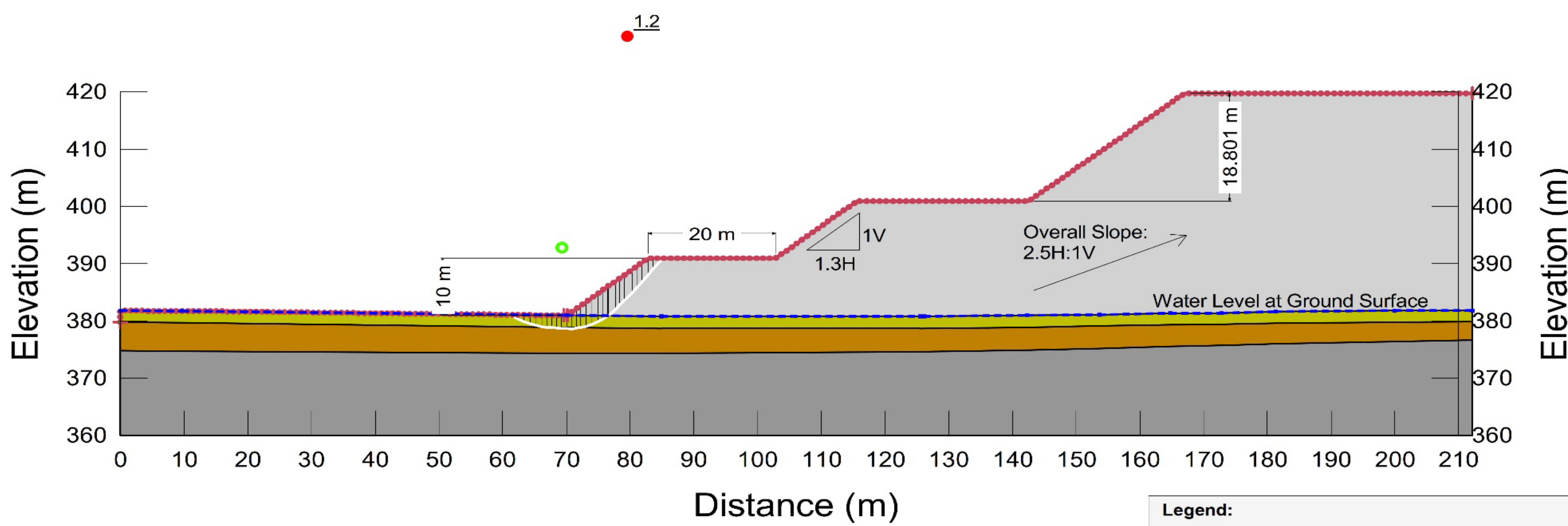
Slope Stability Analysis - SW-OB - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 49

SW-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural overburden: variation of SM, sometimes with gravel, presence of cobble & boulder	Mohr-Coulomb	17.7	0	33
	Peat & Organic soil	Mohr-Coulomb	12	5	28
	Wasterock stockpile	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through SW-WD, West side of stockpile.
Peat left in-place.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip suface option using a minimum slip surface depth of 5 m.

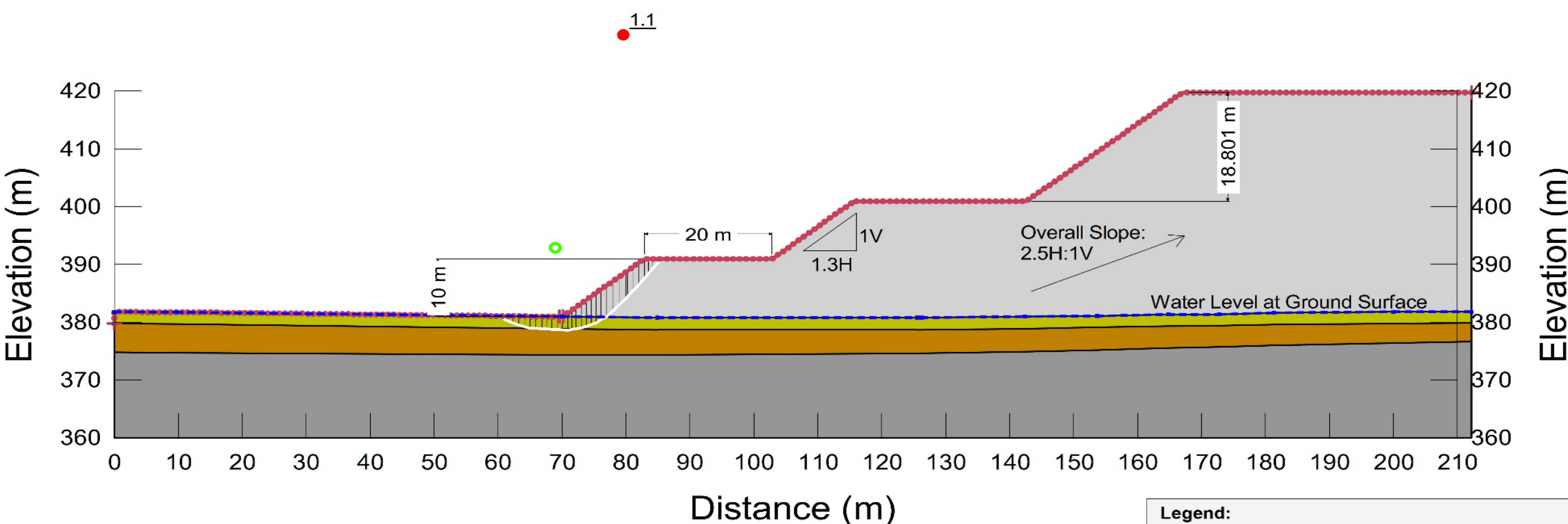
Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

			Scale:	N.T.S	**Slope Stability Analysis - SW-WD - Static Conditions, Local Stability (Peat Left in-Place)**
			Date:	févr-24	
			Design:	EKT	
File Name	Slope Stability Figures.xlsx		Check:	IW and HD	**Toilus Gold Corp. - Troilus Project**
Project No.	22575540	Version A	Review:	MG	**Figure 50**

SW-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural overburden: variation of SM, sometimes with gravel, presence of cobble & boulder	Mohr-Coulomb	17.7	0	33
	Peat & Organic soil	Mohr-Coulomb	12	5	28
	Wasterock stockpile	Mohr-Coulomb	20.5	0	38



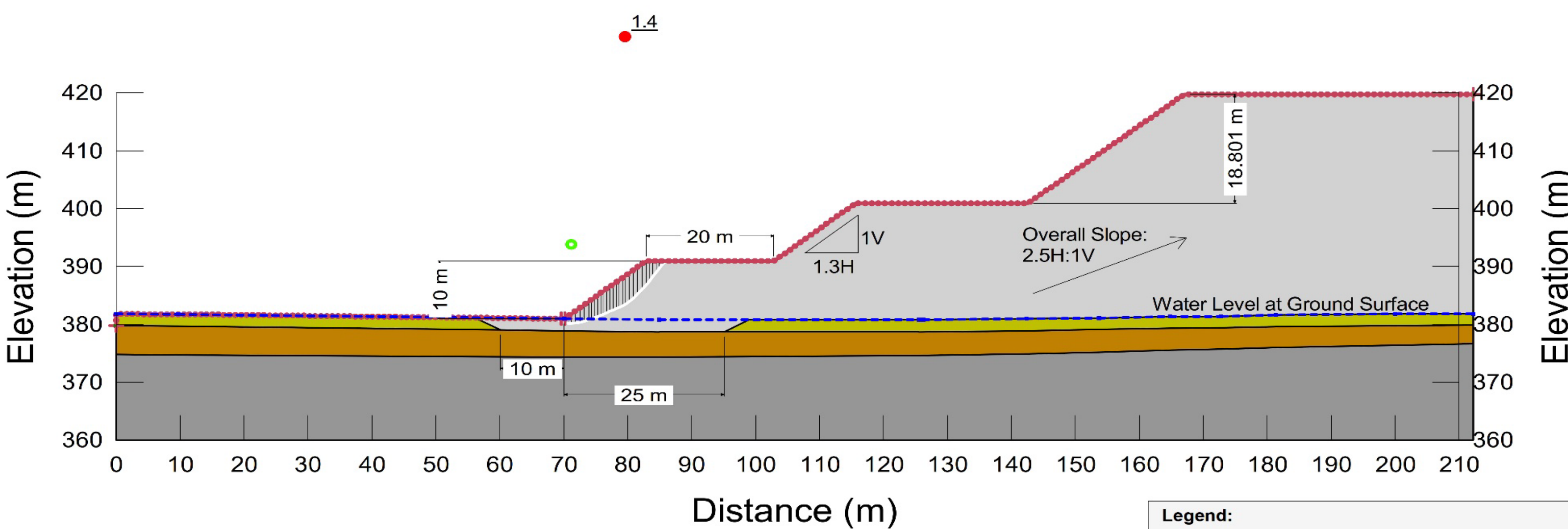
NOTE:
Critical cross-section through SW-WD, West side of stockpile.
Peat left in-place.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip suface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

Scale:	N.T.S	**Slope Stability Analysis - SW-WD - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Left in-Place)**	
Date:	févr-24		
Design:	EKT		
File Name Slope Stability Figures.xlsx	**Check:** IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure 51**
Project No. 22575540 **Version** A	**Review:** MG		

SW-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural overburden: variation of SM, sometimes with gravel, presence of cobble & boulder	Mohr-Coulomb	17.7	0	33
	Peat & Organic soil	Mohr-Coulomb	12	5	28
	Wasterock stockpile	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through SW-WD, West side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Local stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip suface option using a minimum slip surface depth of 5 m.

Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

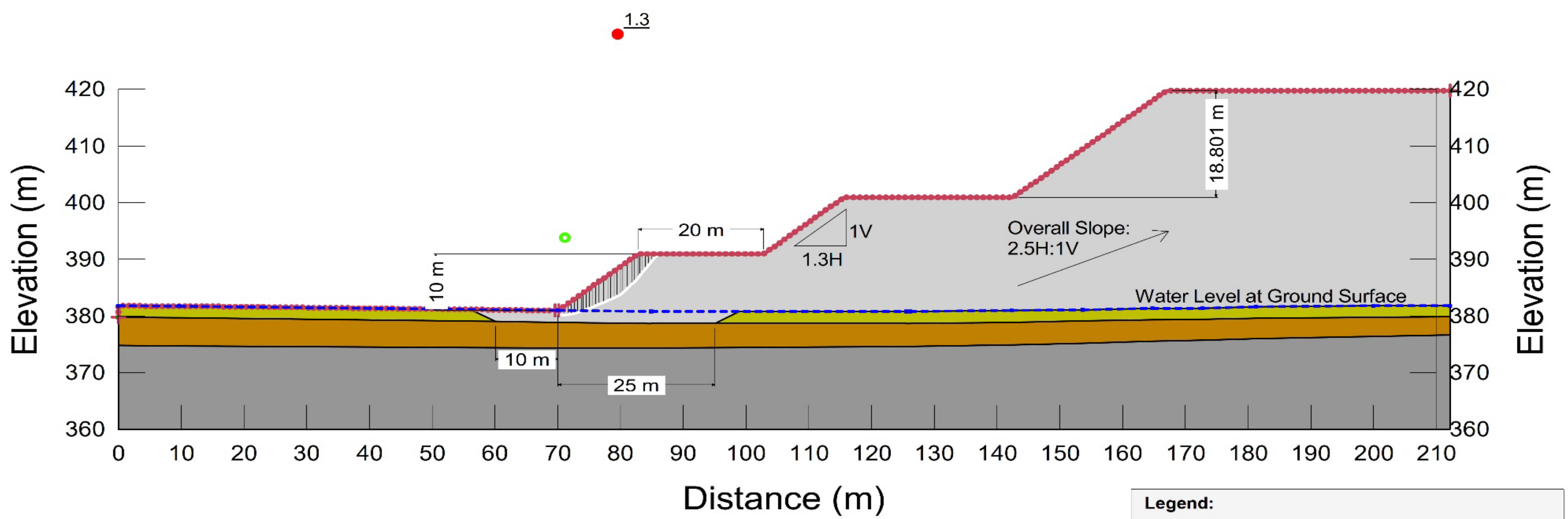
Slope Stability Analysis - SW-WD - Static Conditions, Local Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 52

SW-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural overburden: variation of SM, sometimes with gravel, presence of cobble & boulder	Mohr-Coulomb	17.7	0	33
	Peat & Organic soil	Mohr-Coulomb	12	5	28
	Wasterock stockpile	Mohr-Coulomb	20.5	0	38



NOTE:
Critical cross-section through SW-WD, West side of stockpile.
Peat removed 10 m downstream of toe and 25 m upstream of toe. Resulting ditch backfilled with waste rock.
Local stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Optimized "Entry and Exit" slip suface option using a minimum slip surface depth of 5 m.

Legend:
- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

wsp		Scale:	N.T.S
		Date:	févr-24
		Design:	EKT
File Name	Slope Stability Figures.xlsx	Check:	IW and HD
Project No.	22575540 Version A	Review:	MG

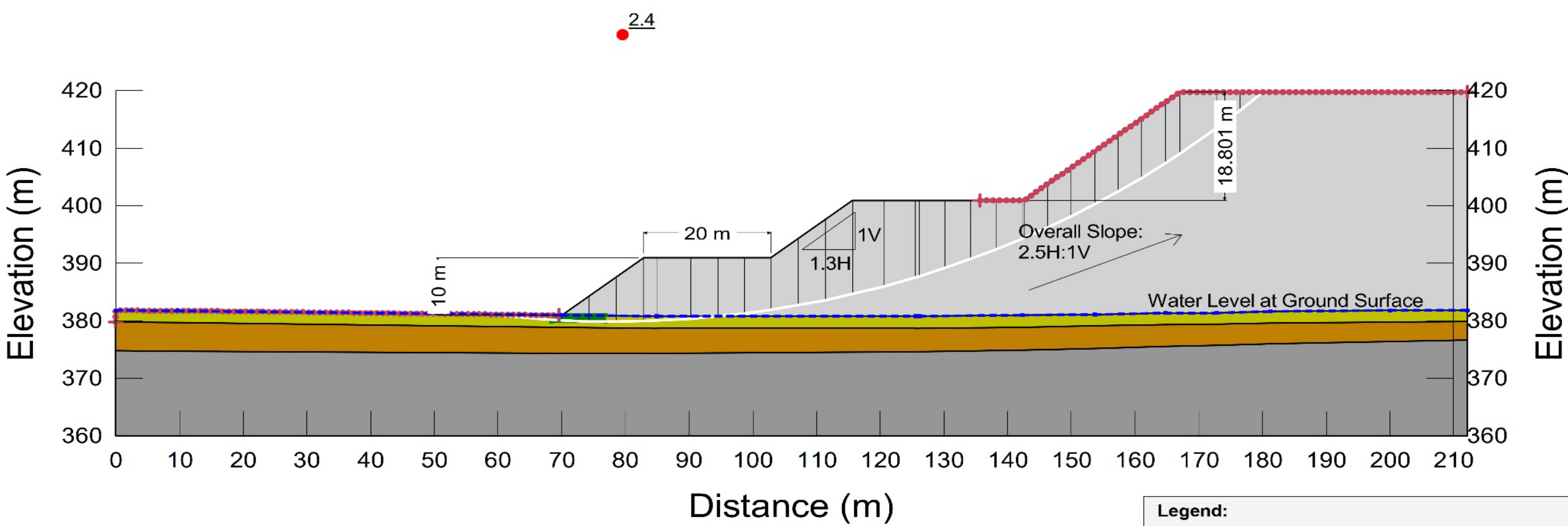
Slope Stability Analysis - SW-WD - Pseudo-Static Conditions (½PGA=0.0295g), Local Stability (Peat Removed at Toe)

Toilus Gold Corp. - Troilus Project

Figure 53

SW-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural overburden: variation of SM, sometimes with gravel, presence of cobble & boulder	Mohr-Coulomb	17.7	0	33
	Peat & Organic soil	Mohr-Coulomb	12	5	28
	Wasterock stockpile	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through SW-WD, West side of stockpile.
Peat left in-place.
Global stability assessed.
Static conditions.
Morgenstern-Price method used for stability analysis.
Circular "Entry and Exit" slip suface option using a minimum slip surface depth of 5 m.

File Name	Slope Stability Figures.xlsx	Scale:	N.T.S
Project No.	22575540 Version A	Date:	févr-24
		Design:	EKT
		Check:	IW and HD
		Review:	MG

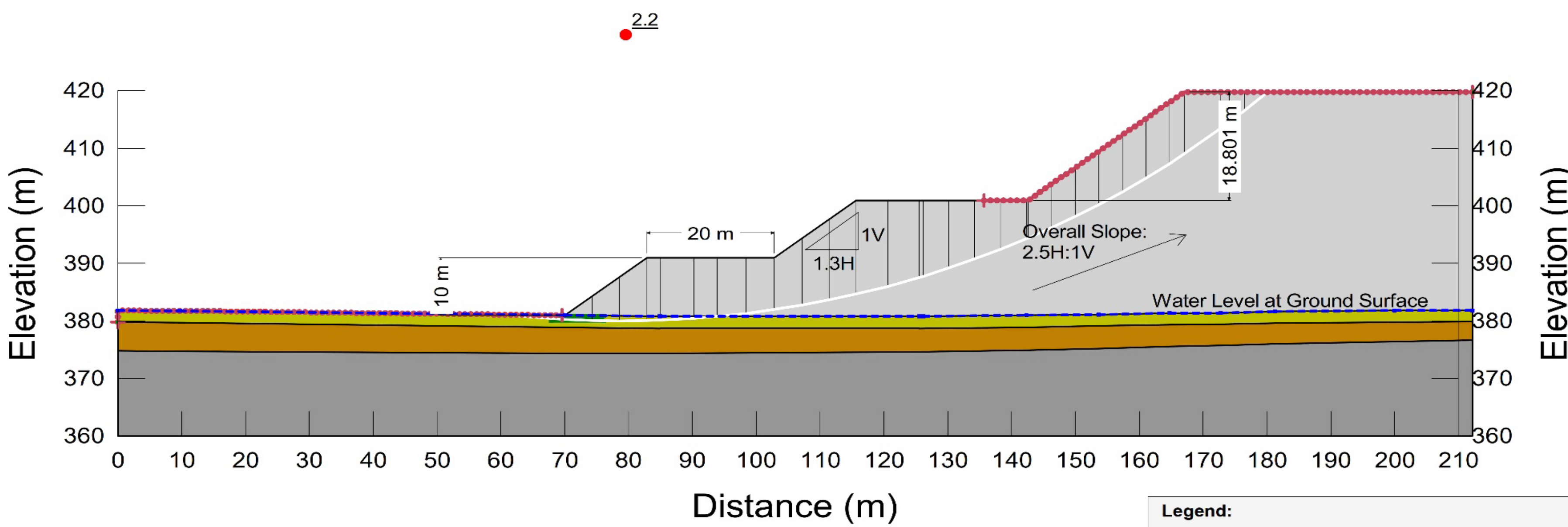
Slope Stability Analysis - SW-WD - Static Conditions, Global Stability (Peat Left in-Place)

Toilus Gold Corp. - Troilus Project

Figure 54

SW-WD

Color	Name	Slope Stability Material Model	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)
	Bedrock	Bedrock (Impenetrable)			
	Natural overburden: variation of SM, sometimes with gravel, presence of cobble & boulder	Mohr-Coulomb	17.7	0	33
	Peat & Organic soil	Mohr-Coulomb	12	5	28
	Wasterock stockpile	Mohr-Coulomb	20.5	0	38



Legend:

- Water Level
- Slip Surface Centre
- Factor of Safety (FOS)
- Slip Surface Entry and Exit Ranges

NOTE:
Critical cross-section through SW-WD, West side of stockpile.
Peat left in-place.
Global stability assessed.
Pseudo-static conditions with a horizontal seismic coefficient of 0.0295g.
Morgenstern-Price method used for stability analysis.
Circular "Entry and Exit" slip suface option using a minimum slip surface depth of 5 m.

Scale:	N.T.S	**Slope Stability Analysis - SW-WD - Pseudo-Static Conditions (½PGA=0.0295g), Global Stability (Peat Left in-Place)**	
Date:	févr-24		
Design:	EKT		
Check:	IW and HD	**Toilus Gold Corp. - Troilus Project**	**Figure 55**
Review:	MG		

File Name	Slope Stability Figures.xlsx		
Project No.	22575540	Version	A