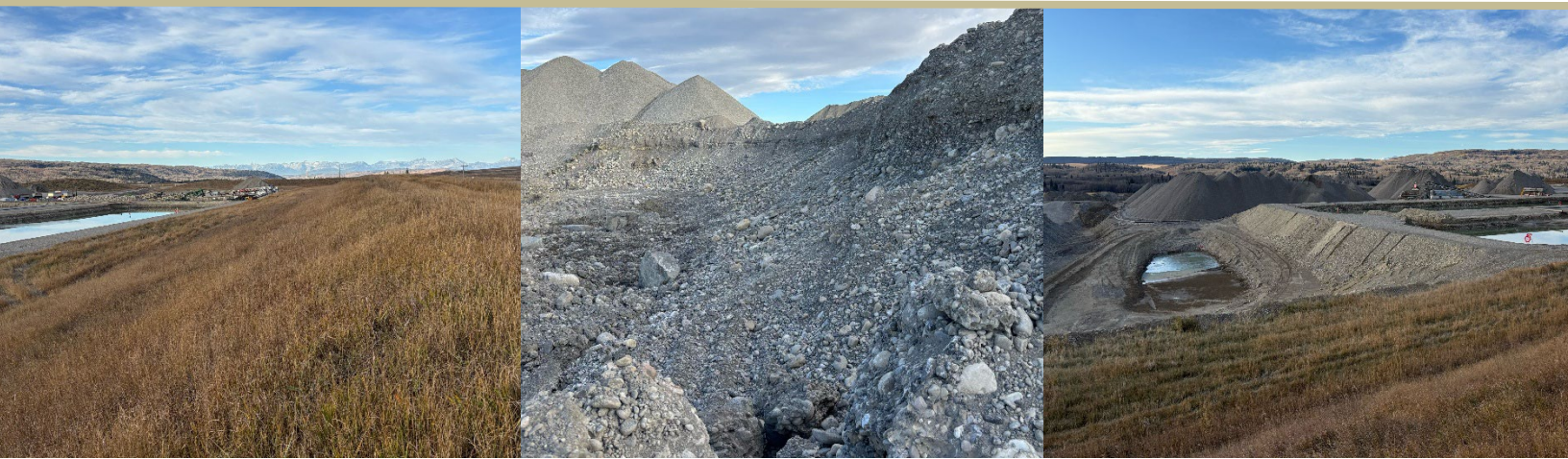




TETRA TECH

**Slope Stability Assessment
West Cochrane #2 Gravel Pit
262236 Range Road 51
Rocky View County, Alberta**



PRESENTED TO
BURNCO Rock Products Limited

FEBRUARY 2026
ISSUED FOR USE
FILE: 704-ENG.CGEO04642-01

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APPENDICES

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LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of BURNCO Rock Products Ltd. and their agents. Tetra Tech Canada Inc. (Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than BURNCO Rock Products Ltd., or for any project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on the Use of this Document attached in **Appendix A** or Contractual Terms and Conditions executed by both parties.

This report has been prepared in accordance with generally accepted soil and foundation engineering practices. No other warranty is made, either express or implied.

1.0 INTRODUCTION

This report presents the results of a slope stability assessment conducted by Tetra Tech Canada Inc. (Tetra Tech) for the proposed West Cochrane #2 Gravel Pit located at 262236 Range Road 51 in Rocky View County, Alberta, approximately 10 km west of Cochrane, Alberta, herein referred to as West Cochrane #2. The project site location is presented on **Figure 1**.

The objective of this report was to assess the global slope stability of the proposed West Cochrane #2 to support BURNCO Rock Products Ltd. (BURNCO)'s Aggregate Development Application to Rocky View County (the County), in accordance with the County's Aggregate Development Performance Standards, including recommendations for the following:

- Safe slope gradients for extraction areas, internal haul routes, and reclaimed lands.
- Mitigation measures to protect any neighbouring assets such as roads, buildings, etc.

The scope of this work was set out in Tetra Tech's Proposal No. PENG.CGEO04642-01, dated November 4, 2025. Authorization to proceed with this work was received from Travis Coates, of BURNCO, via a signed Services Agreement dated November 5, 2025.

2.0 PROJECT DETAILS

The West Cochrane #2 project site is located southwest of Highway 1 and Range Road 51, and covers an approximate area of 128 Hectares and spans across quarter sections NE15-26-05-W5M, NW14-26-05-W5M, and NE14-26-5-5. Mining operations are anticipated to occur over multiple phases and will comprise the following:

- Mine faces sloped no steeper than 1H:1V with extractions up to approximately 14 m deep.
- Perimeter landscape berms up to 5 m high with 3H:1V sideslopes and 5 m wide tops for vehicle access.
- Minimum 3 m property line setbacks and 7 m setbacks from pipeline Right-of-Way (ROW).
- All final reclaimed slopes will be graded at 10H:1V comprising extracted overburden soils.

The project site plan is presented on **Figure 2**, and the proposed development plans prepared by BURNCO are provided in **Appendix B**.

West Cochrane #2 is located adjacent to the existing West Cochrane #1 Gravel Pit, southeast of the Highway 1A and Range Road 51 intersection, herein referred to as West Cochrane #1.

West Cochrane #1 is still operating at the time of preparation of this report and consists of the facility wash ponds, scale house, material stockpiles, active mining areas, and a 5 m to 6 m high landscape berm along the north and west perimeter. It is understood that gravel operations will be moved to West Cochrane #2 (i.e., wash ponds, scale house, etc.) after West Cochrane #1 mining operations are completed.

It is understood that both West Cochrane #1 and West Cochrane #2 pit areas will be reclaimed for agricultural use following completion of mining operations.

2.1 Site Description

The proposed West Cochrane #2 project site is generally bounded to the north by Highway 1A (Bow Valley Trail) and extends approximately 650 m south and approximately 600 m west of Range Road 52. The southern boundary of the site is situated at the crest of the Bow River valley, which is elevated approximately 30 m above the river. The Bow River is located approximately 450 m south of the project site.

The proposed West Cochrane #2 mining areas consist of relatively flat agricultural/grazing farmland. A small creek borders the west boundary of the project site and leads to the Bow River to the south. A second smaller creek appears to start in the centre of the property and continues south to the Bow River. Based on historical aerial image review, this smaller stream appears to be fed from surficial runoff and may be active seasonally.

3.0 BACKGROUND INFORMATION

3.1 Geological Mapping

According to published surficial geological mapping (Shetsen¹), the native project soils are anticipated to comprise fine sand, silt and clay, and minor gravel beds.

3.2 Exploratory Borehole Drilling

BURNCO commissioned an initial exploratory drilling program conducted by Berko Services Ltd. (Berko) in August 2011. As part of this exploratory drilling program, A total of 36 test holes were advanced across the #2 Pit project site, using a solid-stem auger drill rig for 15 of the test holes and a Becker-Hammer drill rig for the remaining 21 test holes. The subsurface information from these exploratory drill logs was utilized in the preparation of this report, discussed further in **Section 4.0**. The approximate test hole locations are presented on **Figure 2**.

3.3 2025 Geotechnical Site Visit

Tetra Tech conducted a site visit on October 22, 2025, to assess the existing site conditions of West Cochrane #1, specifically the active pit area located southeast of Highway 1A and Range Road 51. The following provide a summary of the site observations during the site visit.

- The northern portion of the area included landscape berm, wash ponds, scale house, material stockpiles, and the main access from Range Road 51. It is understood that the facilities located here will be utilized throughout the duration of West Cochrane #1 life span, and these facilities will be relocated to West Cochrane #2.
 - The landscape berm was vegetated with sideslopes of 3H:1V with an approximate 5 m wide crest to allow vehicular traffic. The berms appeared to be stable, and no signs of instability were noted (i.e., cracks, sloughing, or soil movement).
- The southern portion of the area included the active mining areas and varied up to approximately 6 m below the existing surrounding grade. Exposed cut slopes comprised silty/sandy clay overlying sandy gravel with slope gradients varying between 1H:1V and 2H:1V with an average gradient of 1.5H:1V. Cobbles and boulders were noted through the gravel layer and groundwater/ponding water was noted in the base of the deepest areas of excavation.
 - At the time of the site visit, the observed cut slopes appear to be stable, and no signs of instability were noted (i.e., cracks, sloughing, or soil movement) except with gravel ravelling at the bottom of the slope.

¹ Shetsen, I. 1987. Quaternary Geology, Southern Alberta. Alberta Research Council.

4.0 SUBSURFACE CONDITIONS

4.1 General

The following subsections present a summary of the subsurface conditions encountered at the project site per the exploratory drilling program described in **Section 3.0**. All noted depths refer to depth below the ground surface that existed at the time of the fieldwork.

The test hole locations, including boreholes and testpits, described in the following sections are presented on **Figure 2** and the test hole logs are provided in **Appendix C**.

4.2 Soil Conditions

The soil conditions observed at the time of the August 2011 exploratory drilling program are summarized below.

- Topsoil was encountered at the ground surface in 35 test holes with thicknesses ranging from 60 mm to 200 mm.
- Silt was encountered below the topsoil in 18 test holes with thicknesses ranging from 200 mm to 8.0 m, extending to depths ranging from 300 mm to 8.2 m below the existing ground surface.
- Silty sand was encountered below the topsoil and surficial gravel in 10 test holes with thicknesses ranging from 600 mm to 6.3 m, extending to depths ranging from 720 mm to 6.4 m below the existing ground surface.
- Clay/silty clay/gravelly clay was encountered below the topsoil, silt, silty sand, and gravel in 11 test holes with thicknesses ranging from 900 mm to 5.6 m, extending to depths ranging from 3.9 m to 10.7 m below the existing ground surface.
- Gravel/sandy gravel/silty gravel was encountered below the topsoil, silt, clay, silty sand, and silty clay in 33 test holes with thicknesses ranging from 1.0 m to 9.7 m, extending to depths ranging from 3.4 m to 14.4 m below the ground surface.
- Bedrock consisting of sandstone and shale was encountered underlying the gravel, silty gravel, clay, and gravelly clay in 24 test holes at depths ranging from 2.7 m to 14.4 m below the ground surface.

4.3 Groundwater Conditions

At the time of the exploratory drilling programs, groundwater was observed in approximately 7 of the 36 test holes, ranging in approximate depths from 4.8 m to 13.4 m below the ground surface that existed at the time of the drilling program. No groundwater comments were left on the remaining 29 test holes.

Note that groundwater measurements dating back to August 2011 may not be representative of the current groundwater conditions of the project site. Groundwater levels fluctuate seasonally (seasonally high in the spring and early summer), in response to climatic conditions, and can change over time. In addition, perched groundwater zones may be encountered within porous zones of the silt, silty sand, and gravel.

5.0 SLOPE STABILITY ASSESSMENT

5.1 Analysis

Four cross-sections representing the worst-case for active mining scenarios and for reclaimed lands scenarios, designated as Cross-Sections “A-A’ Active”, “A-A’ Reclaimed”, “D-D’ Active”, and “D-D’ Reclaimed”, were analyzed as part of this assessment. The locations of the analyzed cross-sections are presented on **Figure 2**.

The global slope stability analyses were conducted using the Slope/W component of the Geostudio 2024.2.1 (Version 24.2.1.28) computer software program with the Morgenstern-Price analysis model.

The cross-section models described above were generated using cross-section drawings provided by BURNCO in the drawing set titled '*West Cochrane #2 Gravel Pit*', with revision date August 2022. The cross-sections included the following features:

- Pit slopes will have a gradient no steeper than 1H:1V during active mining activities with pit slopes up to 9.1 m in height. Above the pit slope there will be a perimeter berm.
- The perimeter berms will be constructed using clay backfill and will be approximately 5.0 m in height, with 5.0 m wide crests, and sideslope gradients of 3H:1V.
- Clay backfill will be used to reclaim the lands once mining operations have concluded and will feature slopes of 10H:1V buttressed against the active mining pit slopes.
- A hauling route is located on the eastern edge of the mine. This haul route is not anticipated to have any effect on slope stability and thus was not analyzed as part of this assessment.
- The Bow River is approximately 450 m south and 30 m below the project site (slope gradient less than 7%). The river is not anticipated to have any effect on the stability of the pit.

The soil stratigraphy and soil parameters (presented in **Table 1**) used in this analysis are based on the available subsurface information discussed in **Section 4.0**, Tetra Tech's experience with similar soil types, and site observations. A vehicle surface load of 16 kPa has been assumed for the perimeter berms.

Short-term design parameters including cohesion forces were utilized in the analysis simulating temporary suction and cementation of the overburden and gravel soils, respectively. Note that these forces are anticipated to deteriorate over time and in response to environmental conditions and should only be considered in the short term up to a maximum one-month period. The analysis has assumed that the clay fill used to construct the perimeter berm and reclaimed slopes will be compacted to a minimum 95% Standard Proctor Maximum Dry Density (SPMDD) at a moisture content between 0% and 2% above Optimum Moisture Content (OMC), placed in compacted lifts exceeding no greater than 200 mm thick.

The analysis has assumed drained conditions with a piezometric surface based on the highest measured groundwater level presented in **Section 4.3**.

Table 1: Soil Parameters

Soil Type	Unit Weight (kN/m3)	Cohesion (kPa)		Friction Angle (Degrees)
Clay Fill ¹	18	0		28
Silty Clay (overburden)	20	Short Term ²	4	30
		Long Term	2	
Gravel	21	Short Term ²	2	35
		Long Term	0	
Bedrock	N/A ³			

Notes: ¹ Engineered fill parameters are based on cohesive clay fill.

² Short-term cohesion forces only considered for up to a maximum one-month period.

³ Bedrock analyzed as impenetrable for purposes of this analysis.

5.2 Results

The results of the global slope stability analysis, along with the corresponding figure, are provided in **Table 2**. The factor of safety (FOS) for the active mining slopes was equal to or greater than 1.1, and the FOS for the reclaimed slopes was equal to or greater than 1.6.

Table 2: Slope Stability Results

Cross-Section ID	Analysis	Approximate Slope Gradient	FOS of Global Slip Surfaces	Figure
A-A' Active	Active Mining Slope (Short Term)	3H:1V Berm Slope & 1H:1V Pit Slope	≥ 1.1	Figure 3
A-A' Active	Active Mining Slope (Long Term)	3H:1V Berm Slope & 1.5H:1V Pit Slope	≥ 1.2	
A-A' Reclaimed	Reclaimed Slope	3H:1V Berm Slope & 10H:1V Pit Slope	≥ 1.6	
D-D' Active	Active Mining Slope (Short Term)	3H:1V Berm Slope & 1H:1V Pit Slope	≥ 1.0	Figure 4
D-D' Active	Active Mining Slope (Long Term)	3H:1V Berm Slope & 1H:1V Pit Slope	≥ 1.1	
D-D' Reclaimed	Reclaimed Slope	3H:1V Berm Slope & 10H:1V Pit Slope	≥ 1.6	

Note: *Factor of Safety of slip surfaces that encroach the proposed development.

5.3 Conclusion and Recommendations

The following provides a summary of the analysis/results and recommendations to maintain global slope stability of the proposed development and mitigation measures to protect existing infrastructure.

Active Mining Slopes

- The proposed active mining slopes of 1H:1V were found to have a FOS equal to or greater than 1.0; however, should only be considered for short durations up to a maximum period of one month. Slopes should be continually monitored for any signs of instability and cut back as needed.
 - Slopes that are not actively being mined or are considered dormant (i.e., not anticipated to be mined for periods longer than one month) should be graded to a minimum 1.5H:1V until mining operations continue.
- Areas identified for fill placement should be stripped of any vegetation and deleterious soils, as well as any soft, loose, wet, disturbed, organic, or otherwise unsuitable materials prior to construction.
- Infiltration from surface water, runoff, and utility leaks will reduce stability of slopes. Surface water must be properly managed to prevent ponding, to prevent infiltration into the excising slopes, and to prevent surface runoff over the slope.
- No grade changes to the slopes should be undertaken without additional slope stability analysis. Vegetation, including grass and shrubs, should be maintained along slopes to provide erosion protection.
- Shallow slumps may occur due to heavy precipitation or other unexpected factors. Shallow slumps are not expected to impact the global stability of the slope; however, they may trigger retrogressive slumping and should be repaired as soon as possible.
- Temporary surcharge loads, such as construction equipment or temporary stockpiles/berms, should be set back a minimum 5.0 m away from the crest of any active mining slope.

- To ensure worker safety when working around the pit slopes, the pit slopes should be carefully monitored for signs of instability such as sloughing, ravelling, slumping, cracks, bulges, or soil loss, particularly where groundwater is present. Signs of instability should be reviewed by a qualified geotechnical person(s) prior to continuing mining activities.
- The quarrying activities at the project site are not anticipated to have any negative effect on the Bow River in terms of slope stability.

Final Reclamation Backfill and Slopes

- The proposed reclaimed slopes were found to have a FOS equal to or greater than 1.6.
- Reclamation areas and slopes are understood to comprise native clay soils from the project site and are anticipated to be suitable for use as general engineered fill; however, this should be reviewed by a qualified geotechnical person(s) prior to use as backfill. General recommendations for the construction of the reclamation slopes are:
 - Backfill material should be free of miscellaneous debris and organics.
 - Backfill placed above the water level should be placed in compacted lifts not exceeding 200 mm in thickness, compacted to a minimum 95% SPMDD, and moisture conditioned between 0% to 2% above OMC.
 - Compaction testing results should be recorded for any fill placed on site.
- Reclamation slopes should be vegetated to provide surficial erosion protection.
- Shallow slumps may occur along the slope face due to heavy precipitation, groundwater seepage, natural fluctuations in water levels, or other unexpected factors. Shallow slumps are not expected to impact the global stability; however, they may trigger retrogressive slumping, which may require repair.

Perimeter Berm Slopes

- The perimeter berm should be constructed at a maximum grade of 3H:1V to maintain long-term slope stability.
- Project site areas identified for berm fill placement should be stripped of any topsoil, vegetation, uncontrolled fills, and deleterious soils, as well as soft, loose, wet, disturbed, or otherwise unsuitable materials prior to construction.
- Following initial site stripping of deleterious soils, the areas identified for fill placement should be proof-rolled to identify soft areas. Any soft areas identified during proof-rolling should be over-excavated and backfilled to a minimum of 95% SPMDD using general engineered fill.
- Berm fill is understood to comprise native project site topsoil/subsoils. General recommendations for the construction of the screening berm include:
 - Berm fill should be placed in compacted lifts not exceeding 200 mm in thickness, compacted to a minimum of 95% SPMDD, and moisture conditioned between 0 to 2% above the OMC.
 - Full-time monitoring and compaction testing should be provided during any fill placement for the screening berms. Qualified persons, independent of the contractor, should complete this monitoring.
- The top of the berms should be crowned to the sideslopes to provide surficial drainage and prevent ponding of water and should be properly vegetated to provide surficial erosion protection.

Mitigation Measures

The following measures should be adopted to mitigate any impact on existing infrastructure surrounding the proposed gravel pit:

- A setback of no less than 3 m should be maintained from any existing road ROWs (Highway 1A, Range Road 51, etc.).
- A setback of no less than 7 m should be maintained from existing high-pressure pipeline ROWs (i.e., Pipeline ROW 051-4009, Pipeline ROW 961-1999, etc.).
- A setback of no less than 30 m for the riparian areas of the creeks identified along the western extents and the south-central region of the proposed gravel pit.
- Vegetation should be maintained along the active mining slopes, reclaimed slopes, and perimeter berm slopes and crest to provide surficial erosion protection and to resist shallow slumping and retrogressive slumping, which could undermine existing infrastructure.
- Slopes within the vicinity of existing infrastructure should be carefully monitored for localized slumping and other signs of instability. Any identified deficiencies should be inspected by qualified geotechnical person(s) and be repaired as soon as practically possible.

6.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
Tetra Tech Canada Inc.

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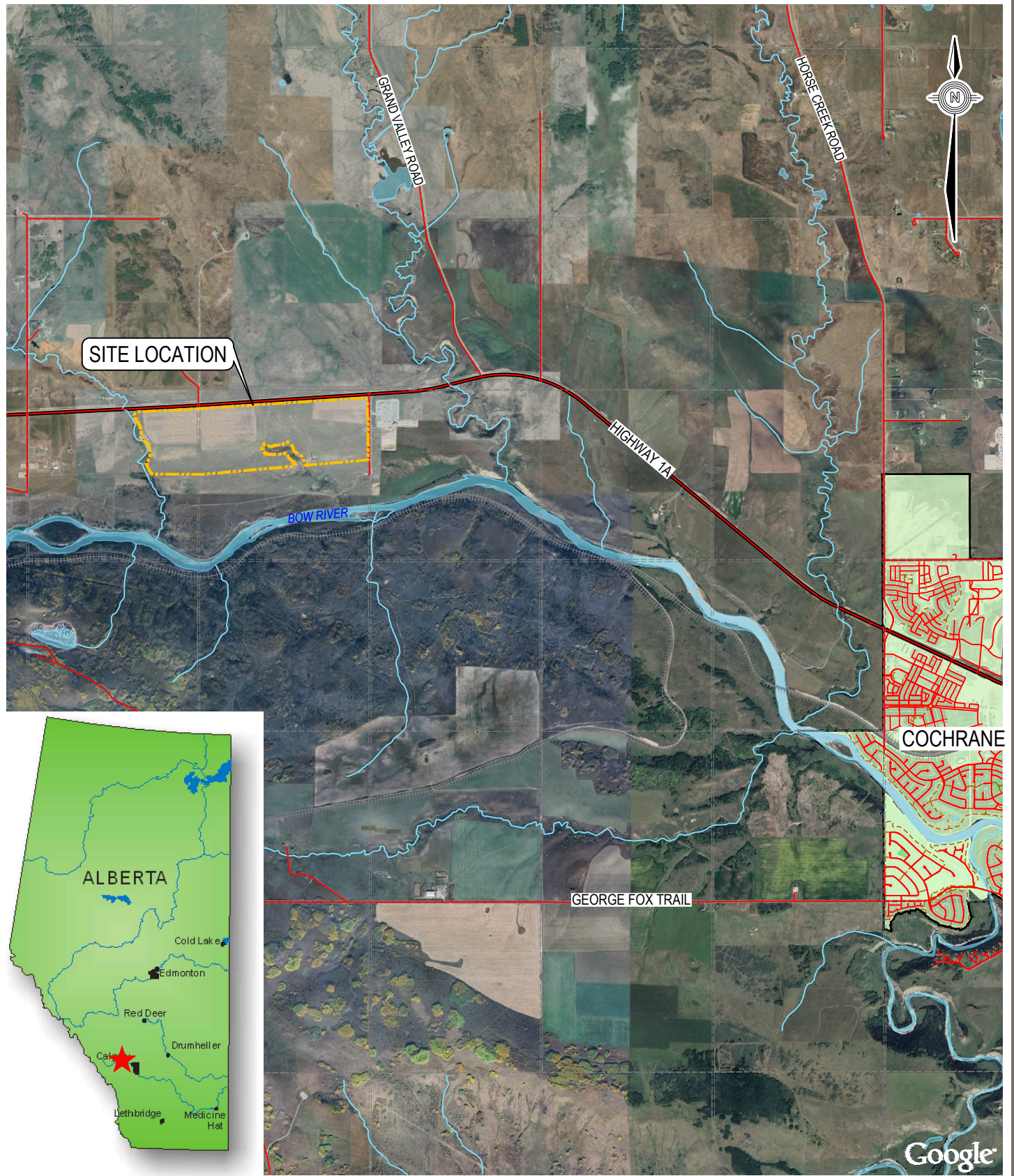
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/mh

FIGURES

Figure 1	Site Location Plan
Figure 2	Test Hole Location Plan
Figure 3	Cross-Section A-A', Slope Stability Results
Figure 4	Cross-Section D-D', Slope Stability Results



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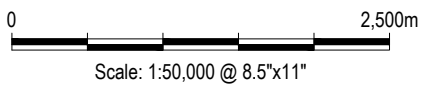
- BASE IMAGE PROVIDED BY GOOGLE EARTH.

CLIENT

BURNCO Rock Products Ltd.

**BURNCO WEST COCHRANE #2 GRAVEL PIT
SLOPE STABILITY ASSESSMENT**

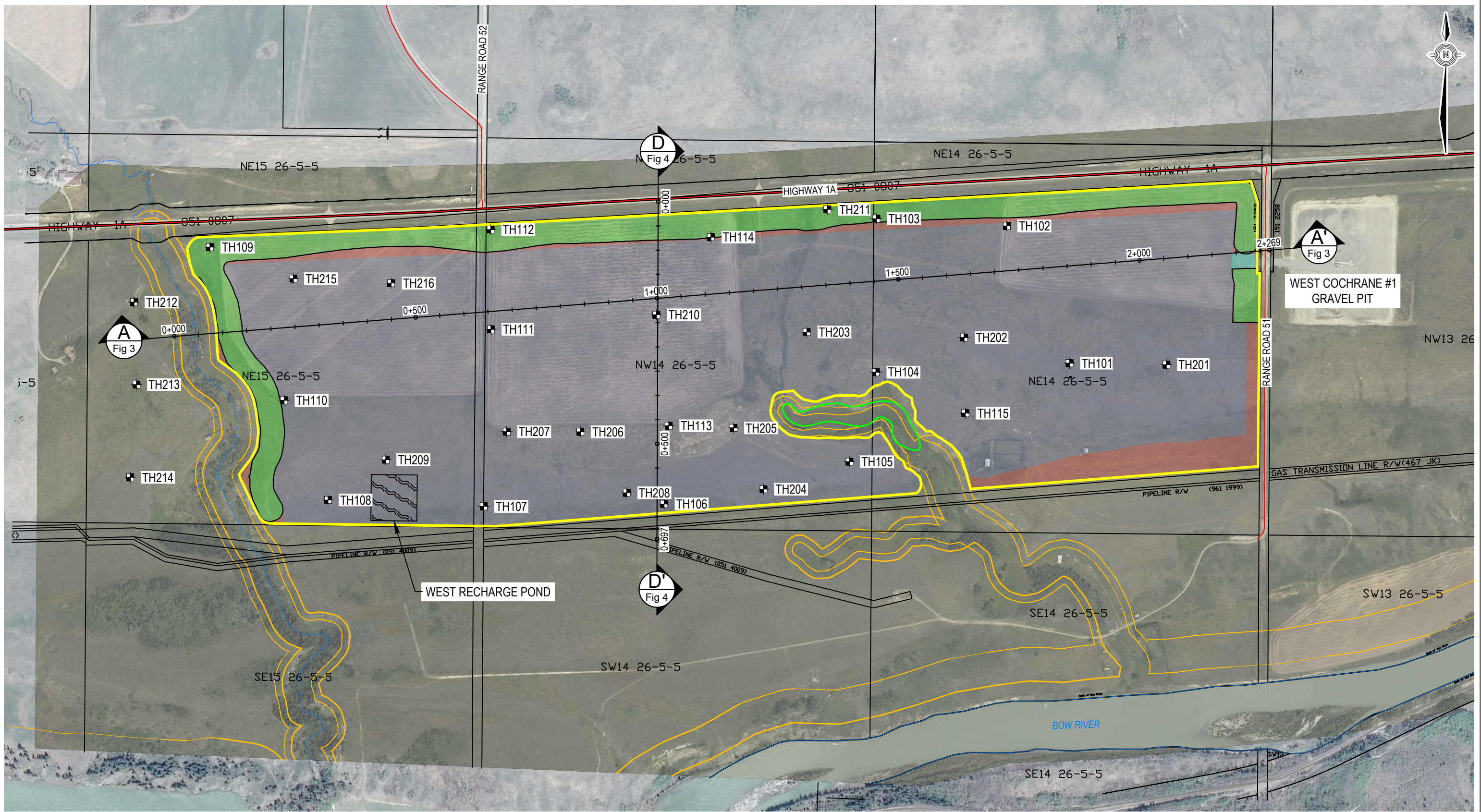
SITE LOCATION PLAN



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Figure 1

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LEGEND

- | | | | |
|--|--|--|--|
| | TESTHOLES DRILLED IN AUG 2011 BY BERKO SERVICES LTD. | | MAXIMUM LIMIT OF DISTURBANCE (124.9 ha) |
| | MINING AREA | | MINIMUM SETBACKS: 30m RIPARIAN, 60m BOW RIVER & GRAND VALLEY CREEK |
| | BORROW AREA | | MINIMUM WETLAND SETBACK (6 m) |
| | PLANNED ACCESS | | |
| | VISUAL LANDSCAPE BERM | | |

SOURCE

- BASE DRAWING PROVIDED BY CLIENT; WEST COCHRANE #2 GRAVEL PIT, SITE RECLAIMED PLAN, DATED AUG 24, 2022.

CLIENT

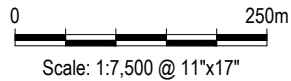
BURNCO Rock Products Ltd.

BURNCO WEST COCHRANE #2 GRAVEL PIT
SLOPE STABILITY ASSESSMENT

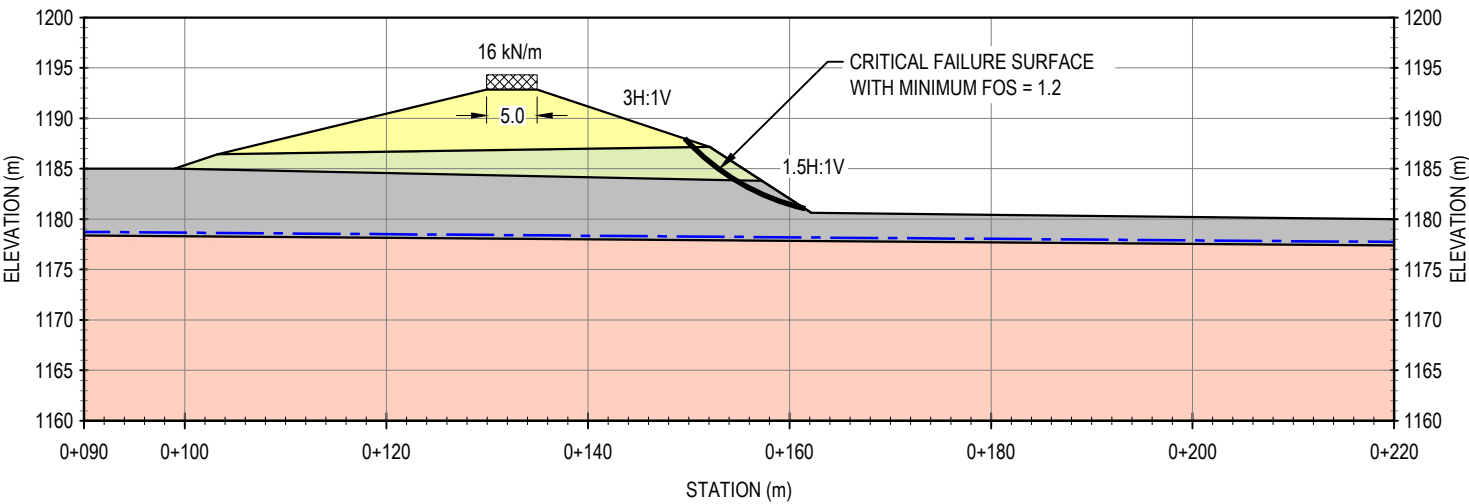
TESTHOLE LOCATION PLAN

PROJECT NO. ENG.CGEO04642-01	DWN LCH	CKD HR	REV 0
OFFICE Tt Cal	DATE November 2025		

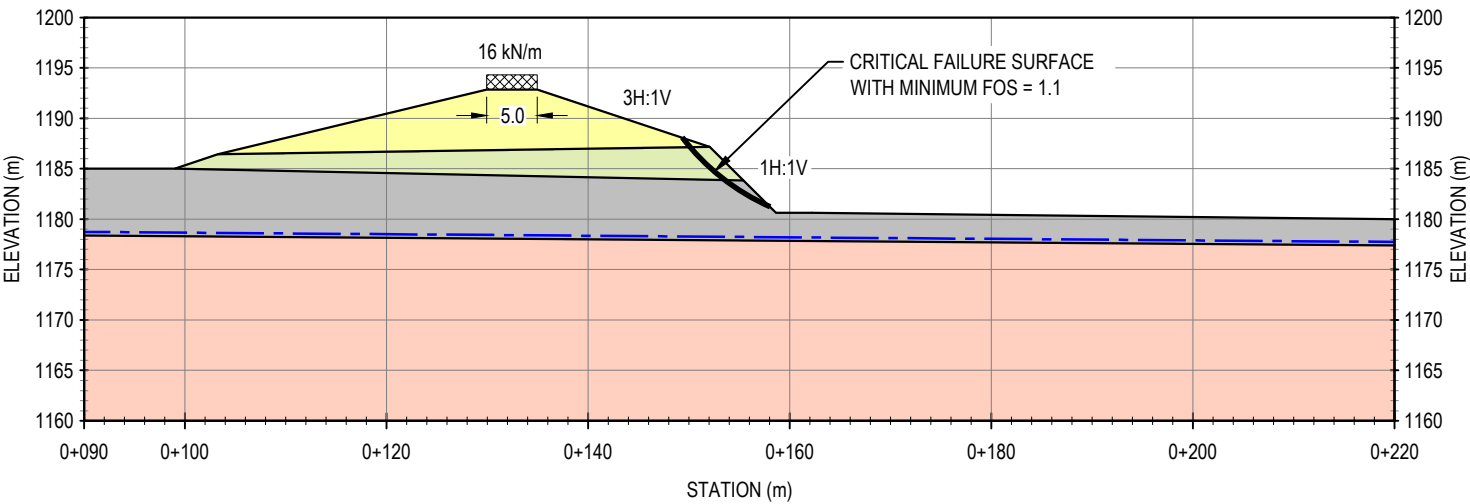
Figure 2



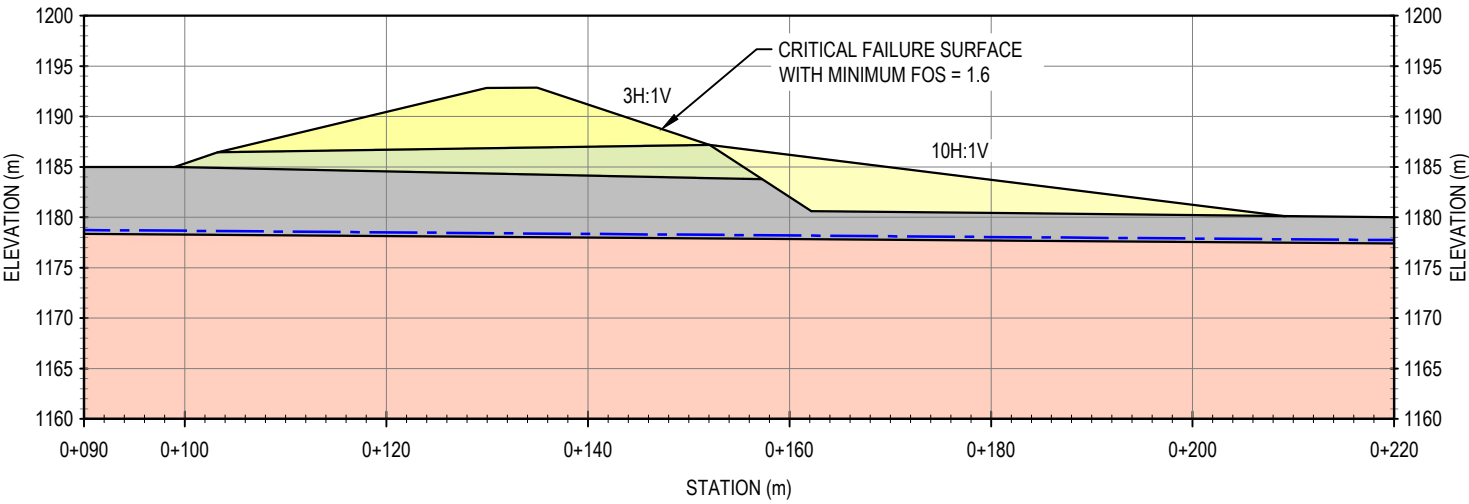
C:\Riverbend\Drafting\ENG.CGEO\CGEO04642\CAD\CGEO04642-01 Figures updated Feb 2-26.dwg [FIGURE 3] February 02, 2026 - 11:26:09 am (BY: HUGHES, LEANNE)



ACTIVE CROSS-SECTION - LONG TERM CONDITION
FOS OF 1.2



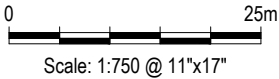
ACTIVE CROSS-SECTION - SHORT TERM CONDITION
FOS OF 1.1



RECLAIMED CROSS-SECTION
FOS OF 1.6

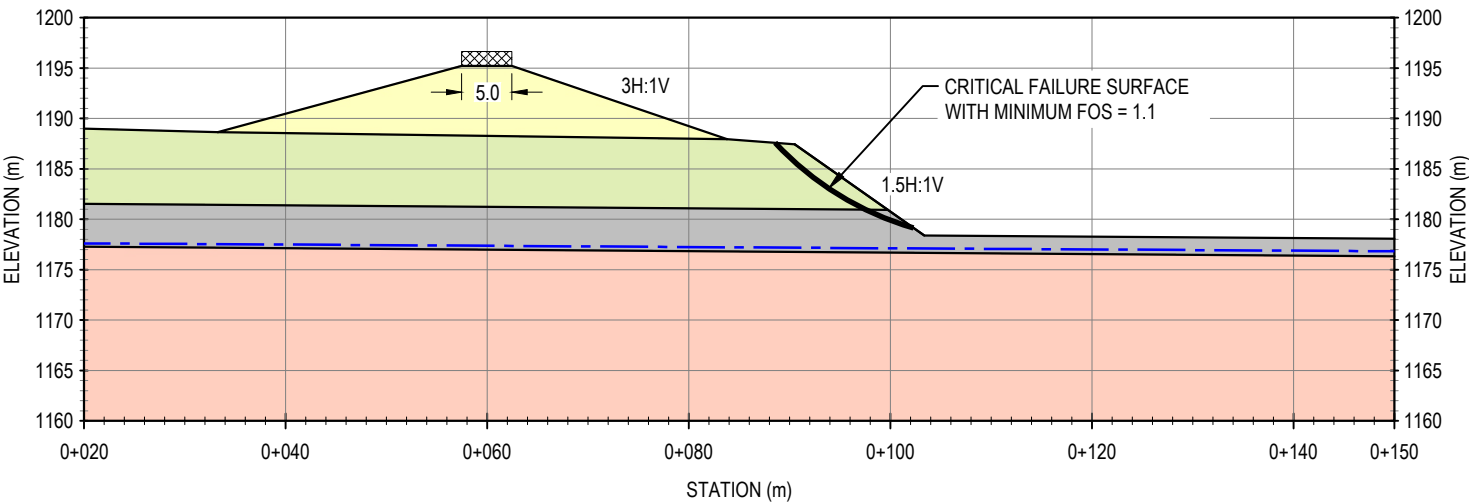
SYMBOL	SOIL TYPE	UNIT WEIGHT (kN/m³)	EFFECTIVE COHESION (kPa)		EFFECTIVE FRICTION ANGLE (°)	PHI-B (°)
	CLAY FILL ¹	18	0		28	0
	SILTY CLAY (OVERBURDEN)	20	SHORT TERM	4	30	0
			LONG TERM	2		
	GRAVEL	21	SHORT TERM	2	35	0
			LONG TERM	0		
	BEDROCK	N/A ²				

- NOTES
- ENGINEERED FILL PARAMETERS ARE BASED ON COHESIVE CLAY FILL.
 - BEDROCK ANALYZED AS IMPENETRABLE FOR PURPOSES OF THIS ANALYSIS.

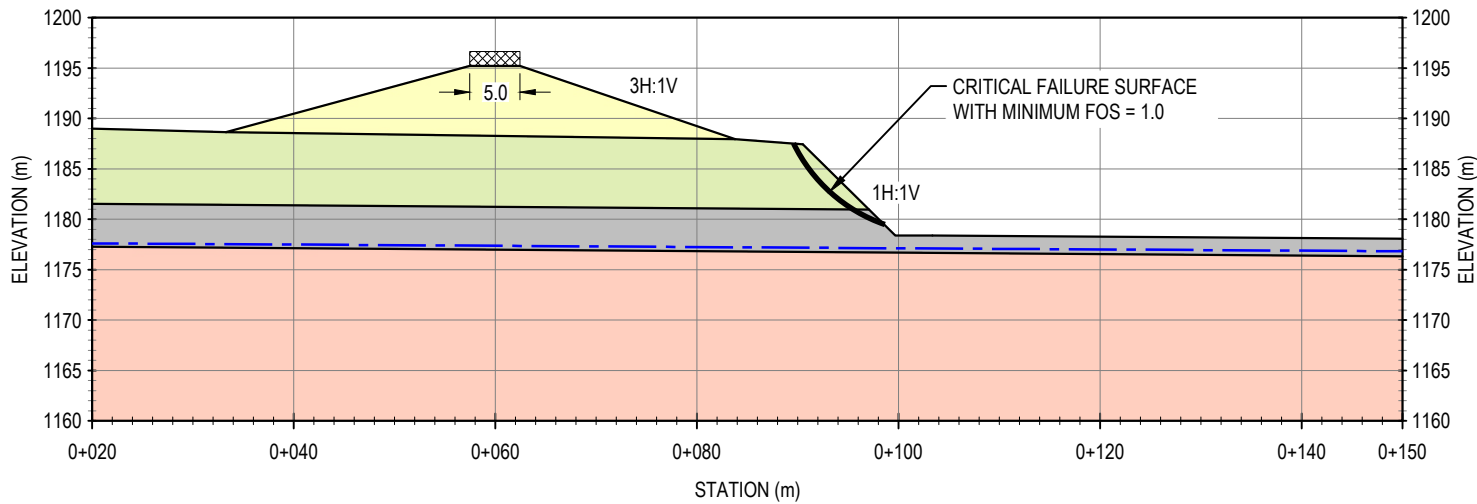


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BURNCO Rock Products Ltd.		CROSS SECTION A-A'				
 TETRA TECH	PROJECT NO. ENG.CGEO04642-01		DWN LCH	CKD HR	REV 0	Figure 3
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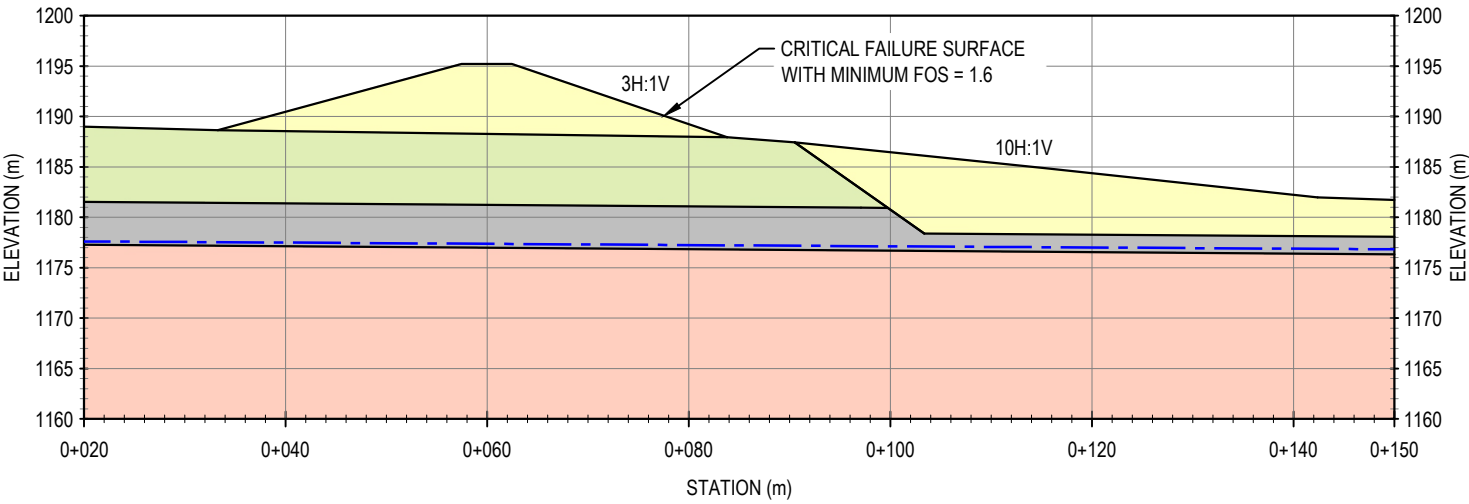
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ACTIVE CROSS-SECTION - LONG TERM CONDITION
FOS OF 1.1



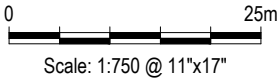
ACTIVE CROSS-SECTION - SHORT TERM CONDITION
FOS OF 1.0



RECLAIMED CROSS-SECTION
FOS OF 1.6

SYMBOL	SOIL TYPE	UNIT WEIGHT (kN/m³)	EFFECTIVE COHESION (kPa)		EFFECTIVE FRICTION ANGLE (°)	PHI-B (°)
	CLAY FILL ¹	18	0		28	0
	SILTY CLAY (OVERBURDEN)	20	SHORT TERM	4	30	0
			LONG TERM	2		
	GRAVEL	21	SHORT TERM	2	35	0
			LONG TERM	0		
	BEDROCK	N/A ²				

- NOTES
- ENGINEERED FILL PARAMETERS ARE BASED ON COHESIVE CLAY FILL.
 - BEDROCK ANALYZED AS IMPENETRABLE FOR PURPOSES OF THIS ANALYSIS.



CLIENT		BURNCO WEST COCHRANE #2 GRAVEL PIT SLOPE STABILITY ASSESSMENT				
BURNCO Rock Products Ltd.		CROSS SECTION D-D'				
 TETRA TECH	PROJECT NO. ENG.CGEO04642-01	DWN LCH	CKD HR	REV 0	Figure 4	
	OFFICE Tt Cal	DATE February 2, 2026				

APPENDIX A

TETRA TECH'S LIMITATIONS ON THE USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOTECHNICAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

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Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by third parties other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this document, at or on the development proposed as of the date of the Professional Document requires a supplementary exploration, investigation, and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 ENVIRONMENTAL AND REGULATORY ISSUES

Unless stipulated in the report, TETRA TECH has not been retained to explore, address or consider and has not explored, addressed or considered any environmental or regulatory issues associated with development on the subject site.

1.8 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems, methods and standards employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from the system or method prevail, they are specifically mentioned.

Classification and identification of geological units are judgmental in nature as to both type and condition. TETRA TECH does not warrant conditions represented herein as exact, but infers accuracy only to the extent that is common in practice.

Where subsurface conditions encountered during development are different from those described in this report, qualified geotechnical personnel should revisit the site and review recommendations in light of the actual conditions encountered.

1.9 LOGS OF TESTHOLES

The testhole logs are a compilation of conditions and classification of soils and rocks as obtained from field observations and laboratory testing of selected samples. Soil and rock zones have been interpreted. Change from one geological zone to the other, indicated on the logs as a distinct line, can be, in fact, transitional. The extent of transition is interpretive. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

1.10 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

The stratigraphic and geological information indicated on drawings contained in this report are inferred from logs of test holes and/or soil/rock exposures. Stratigraphy is known only at the locations of the test hole or exposure. Actual geology and stratigraphy between test holes and/or exposures may vary from that shown on these drawings. Natural variations in geological conditions are inherent and are a function of the historical environment. TETRA TECH does not represent the conditions illustrated as exact but recognizes that variations will exist. Where knowledge of more precise locations of geological units is necessary, additional exploration and review may be necessary.

1.11 PROTECTION OF EXPOSED GROUND

Excavation and construction operations expose geological materials to climatic elements (freeze/thaw, wet/dry) and/or mechanical disturbance which can cause severe deterioration. Unless otherwise specifically indicated in this report, the walls and floors of excavations must be protected from the elements, particularly moisture, desiccation, frost action and construction traffic.

1.12 SUPPORT OF ADJACENT GROUND AND STRUCTURES

Unless otherwise specifically advised, support of ground and structures adjacent to the anticipated construction and preservation of adjacent ground and structures from the adverse impact of construction activity is required.

1.13 INFLUENCE OF CONSTRUCTION ACTIVITY

Construction activity can impact structural performance of adjacent buildings and other installations. The influence of all anticipated construction activities should be considered by the contractor, owner, architect and prime engineer in consultation with a geotechnical engineer when the final design and construction techniques, and construction sequence are known.

1.14 OBSERVATIONS DURING CONSTRUCTION

Because of the nature of geological deposits, the judgmental nature of geotechnical engineering, and the potential of adverse circumstances arising from construction activity, observations during site preparation, excavation and construction should be carried out by a geotechnical engineer. These observations may then serve as the basis for confirmation and/or alteration of geotechnical recommendations or design guidelines presented herein.

1.15 DRAINAGE SYSTEMS

Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function. Where temporary or permanent drainage systems are installed within or around a structure, these systems must protect the structure from loss of ground due to mechanisms such as internal erosion and must be designed so as to assure continued satisfactory performance of the drains. Specific design details regarding the geotechnical aspects of such systems (e.g. bedding material, surrounding soil, soil cover, geotextile type) should be reviewed by the geotechnical engineer to confirm the performance of the system is consistent with the conditions used in the geotechnical design.

1.16 DESIGN PARAMETERS

Bearing capacities for Limit States or Allowable Stress Design, strength/stiffness properties and similar geotechnical design parameters quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition used in this report. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions considered in this report in fact exist at the site.

1.17 SAMPLES

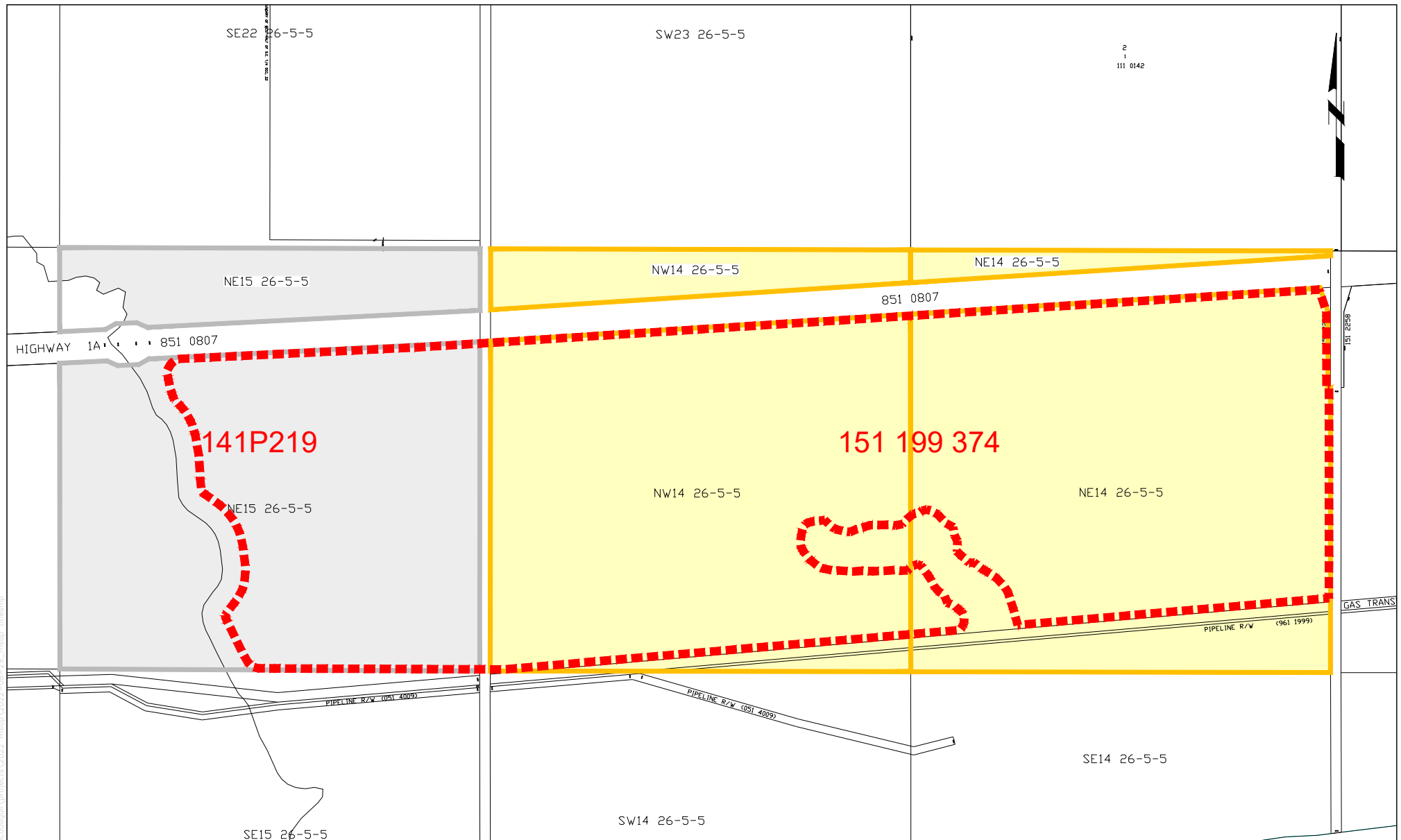
TETRA TECH will retain all soil and rock samples for 30 days after this report is issued. Further storage or transfer of samples can be made at the Client's expense upon written request, otherwise samples will be discarded.

1.18 APPLICABLE CODES, STANDARDS, GUIDELINES & BEST PRACTICE

This document has been prepared based on the applicable codes, standards, guidelines or best practice as identified in the report. Some mandated codes, standards and guidelines (such as ASTM, AASHTO Bridge Design/Construction Codes, Canadian Highway Bridge Design Code, National/Provincial Building Codes) are routinely updated and corrections made. TETRA TECH cannot predict nor be held liable for any such future changes, amendments, errors or omissions in these documents that may have a bearing on the assessment, design or analyses included in this report.

APPENDIX B

PROPOSED DEVELOPMENT PLANS



Legend

111 222 333 TITLE NUMBER

TOTAL TITLE AREA

----- TOTAL DISTURBANCE AREA

BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
LAND TITLES MAP

NE 15-26-05 W5M; NW 14-26-05 W5M & NE 14-26-05 W5M

DATE DRAWN:

APR. 2020

SCALE:

1:10,000

DRAWN BY:

ML

DATE REVISED:

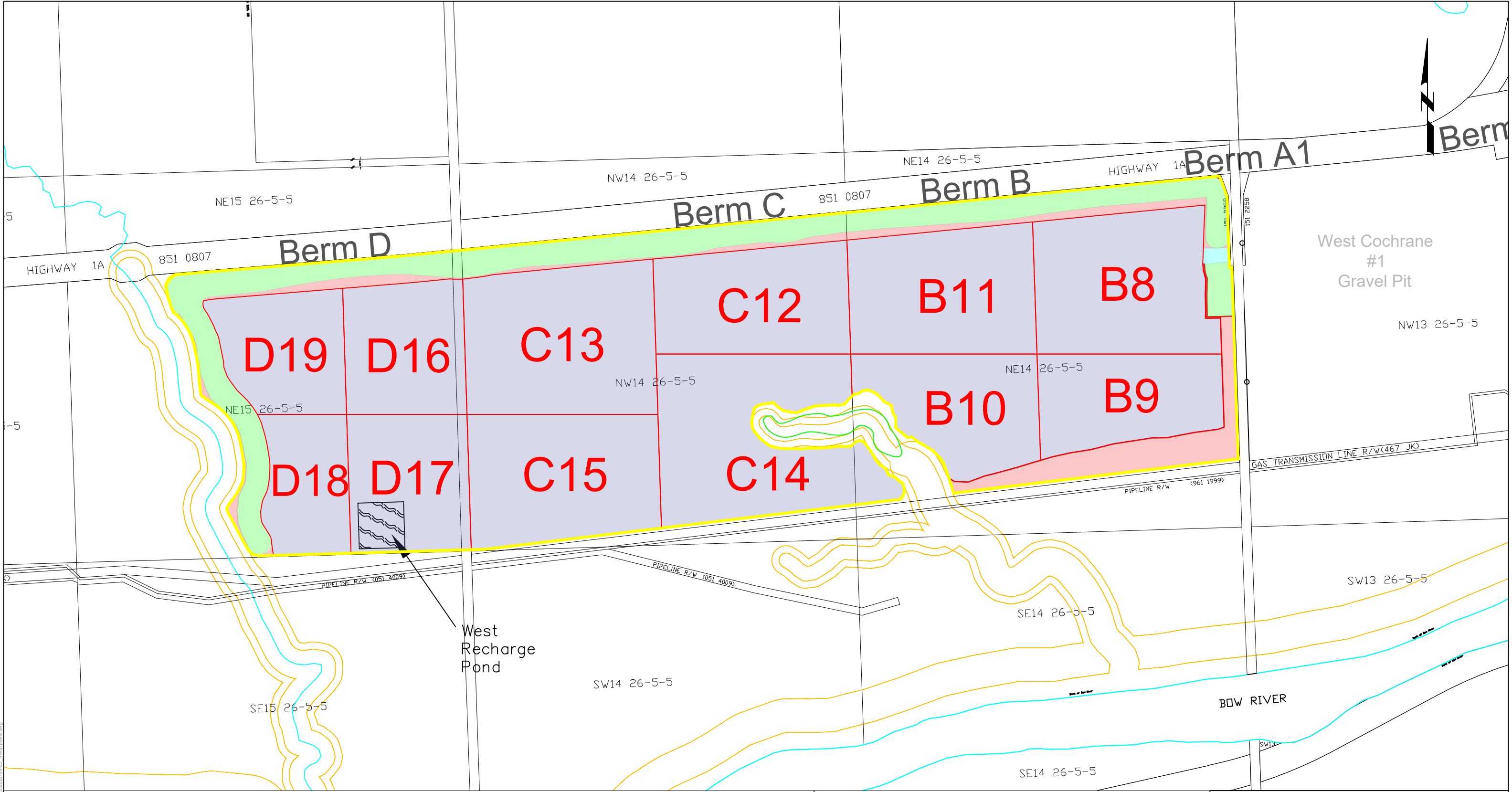
AUG. 29, 2022

MIL CHECKED BY:

TC

DWG. NO.

2



4:s:\burnco\ahab\cochrane_3_mcd\gall\mplans\2022_mcd\2022_08-25_mcd\plans.dwg

LEGEND:

- Mining Area

Borrow Area

Planned Access

Visual Landscape Berm

A20

Mine Phase

Max. Limit of Disturbance (124.9 Ha)
- Cadastral
- Contours Major
- Contours Minor
- Surface Drainage Flow
- A-A'

Cross Section Alignment
- Minimum Setbacks: 30m Riparian, 60m Bow River & Grand Valley Creek
- Minimum Wetland Setback 6m

NOTES:

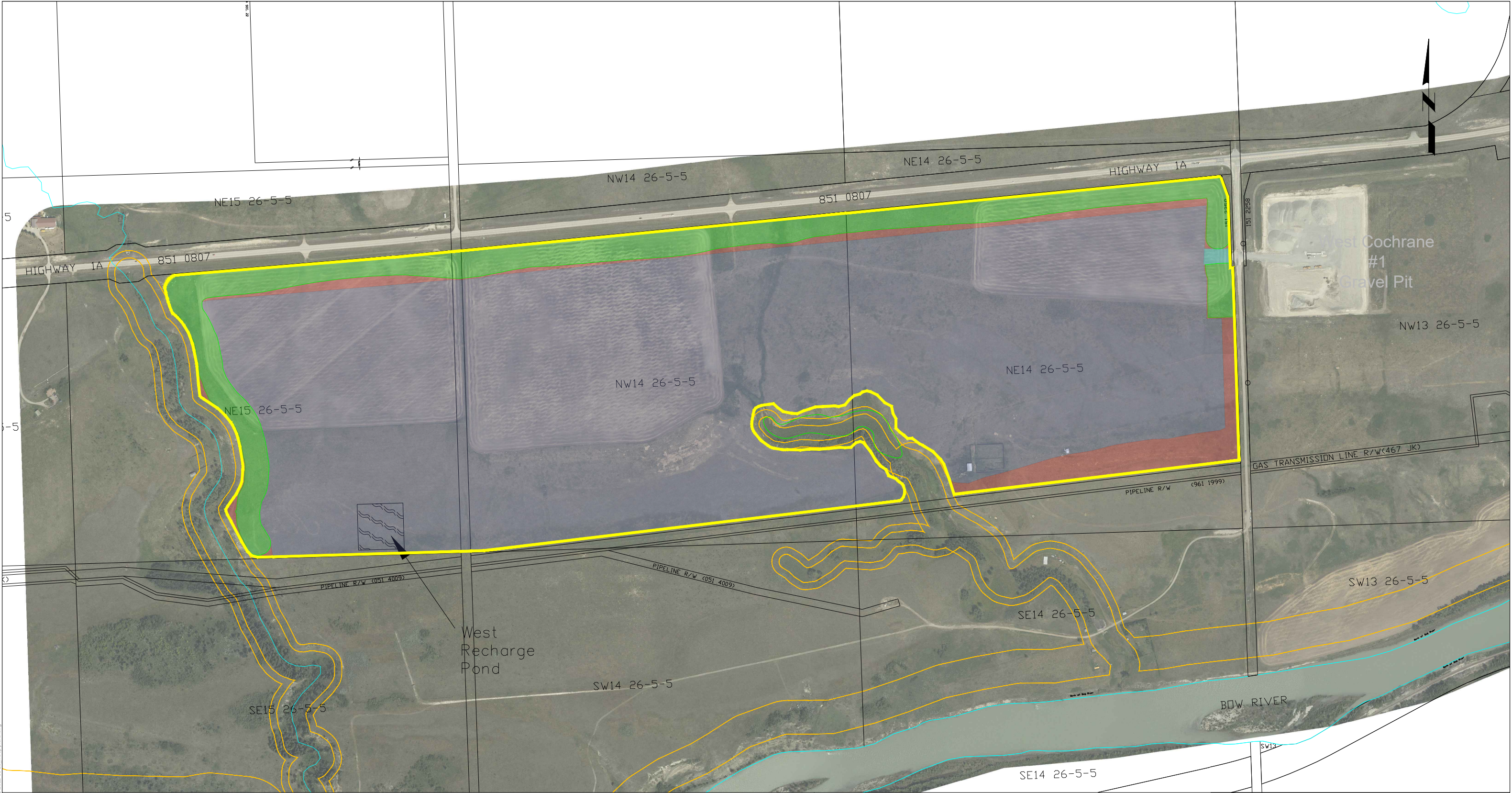
- All units are in meters
- All berms are constructed to 3H:1V with 5m wide top
- All reclaimed slopes are constructed to less than 10H:1V unless otherwise marked
- All mine faces are mined to no more than 1H:1V
- 3m property line setback utilized where applicable
- 7m pipeline setback in place
- West recharge pond dimensions (width/length/depth) - 90/90/1.5 (m)
- East recharge pond dimensions (width/length/depth) - 95/95/1.0 (m)

BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
MINE PHASE PLAN

NE 15-26-05 W5M; NW 14-26-05 W5M; NE 14-26-05 W5M

DATE DRAWN: AUG 24, 2022	SCALE: 1:7,500	DRAWN BY: ML	DWG. NO. 3
DATE REVISED: AUG 25, 2022		CHECKED BY: TC	



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LEGEND:

- Mining Area

Borrow Area

Planned Access

Visual Landscape Berm

A20

Mine Phase

Max. Limit of Disturbance (124.9 Ha)
- Cadastral
- Contours Major
- Contours Minor
- Surface Drainage Flow
- A-A'

Cross Section Alignment
- Minimum Setbacks: 30m Riparian, 60m Bow River & Grand Valley Creek
- Minimum Wetland Setback 6m

NOTES:

- All units are in meters
- All berms are constructed to 3H:1V with 5m wide top
- All reclaimed slopes are constructed to less than 10H:1V unless otherwise marked
- All mine faces are mined to no more than 1H:1V
- 3m property line setback utilized where applicable
- 7m pipeline setback in place

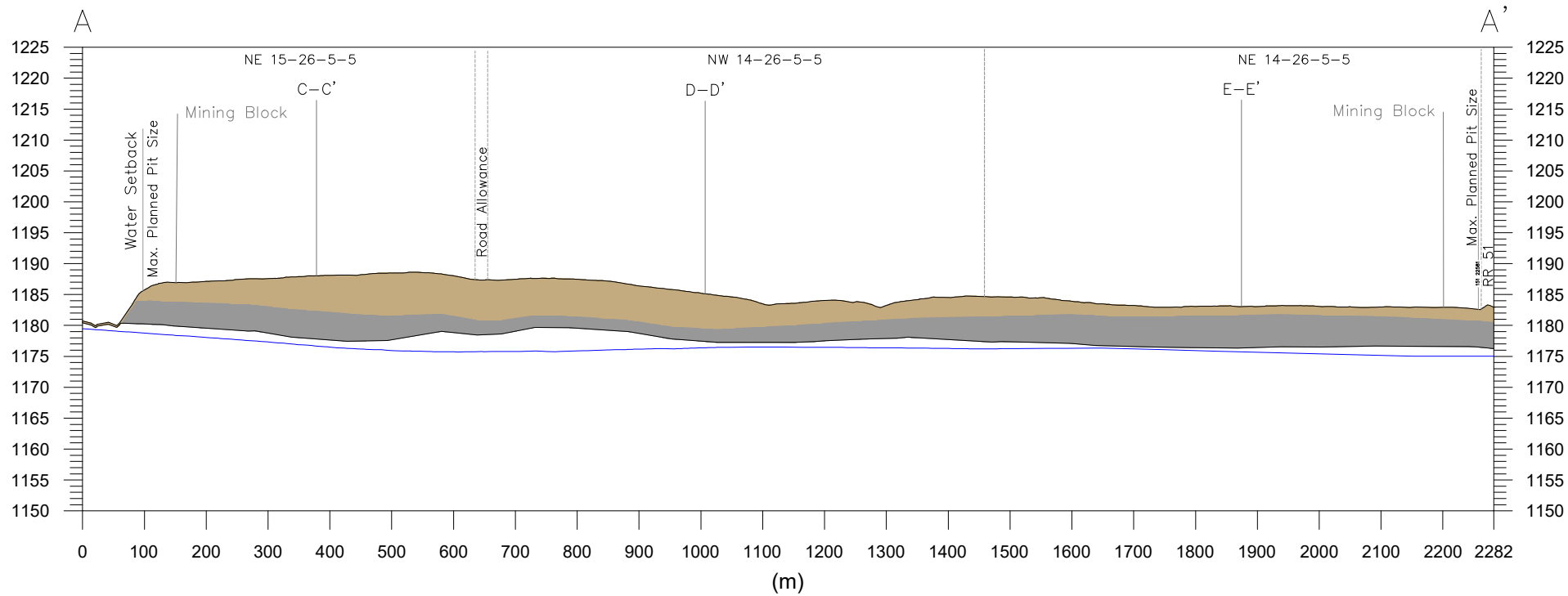
BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
SITE PLAN

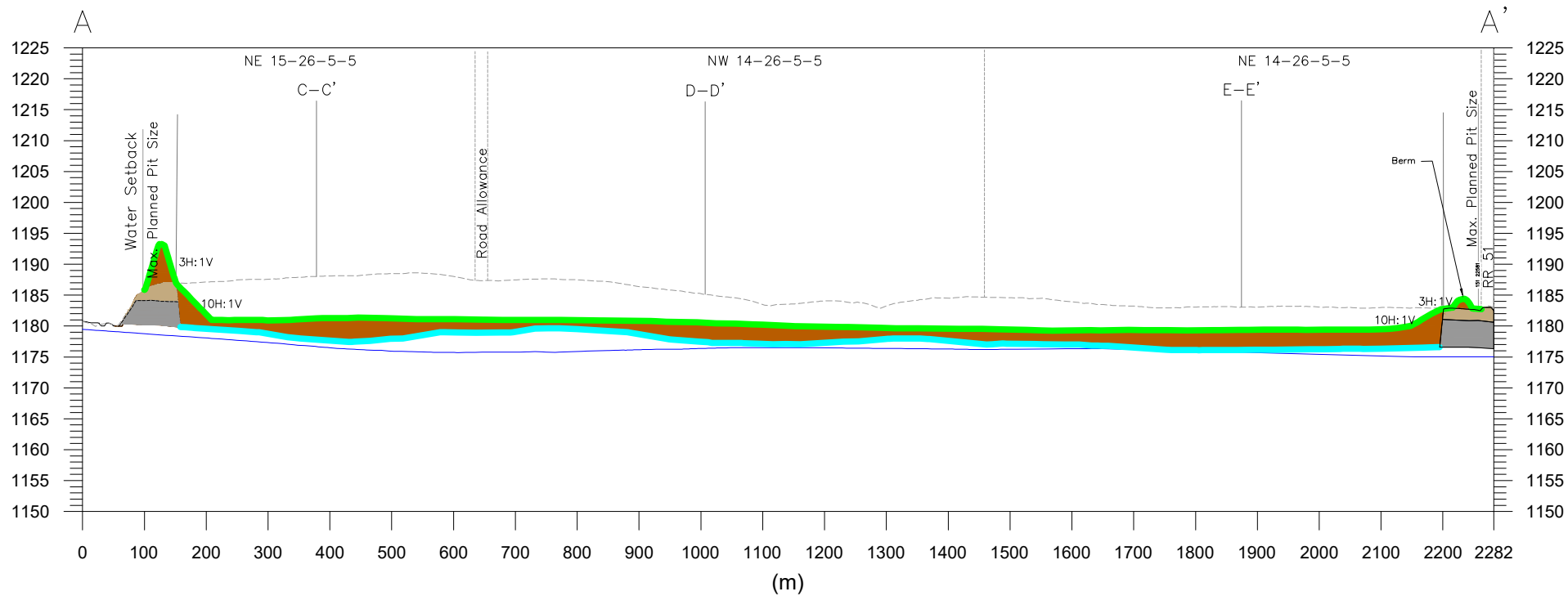
NE 15-26-05 W5M; NW 14-26-05 W5M; NE 14-26-05 W5M

DATE DRAWN: AUG 24, 2022	SCALE: 1:7,500	DRAWN BY: ML	DWG. NO. 4
DATE REVISED: AUG 25, 2022		CHECKED BY: TC	

A EXISTING SITE CONDITIONS



A RECLAIMED SITE CONDITIONS



LEGEND:

- Clay
- Gravel
- Backfilled Material (Clay)
- Original Topsoil/Subsoil
- Replaced Topsoil (Averaging 0.14m) ; Subsoil (Averaging 0.14m)
- Original Ground Profile
- Original Top of Gravel
- Ground Water Table
- Hydraulic Connectivity Layer (1 ft. / 0.3m.)

NOTES:

- All units are in meters
- All berms are constructed to 3H:1V with 5m wide top
- All final interior slopes will be reclaimed to minimum 10H:1V (unless otherwise noted on the cross-section)
- All mine faces are mined to no more than 1H:1V
- 3m property line undisturbed buffer utilized where applicable
- For cross-section plans, 10:1 vertical exaggeration is exercised
- For cross-section plans, elevations are provided in MASL
- For cross-section plans, mapped gravel is underlain by bedrock
- For cross-section plans, bedrock's type, depth and extend are unknown

BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
CROSS SECTION

NE 15-26-05 W5M; NW 14-26-05 W5M & NE 14-26-05 W5M

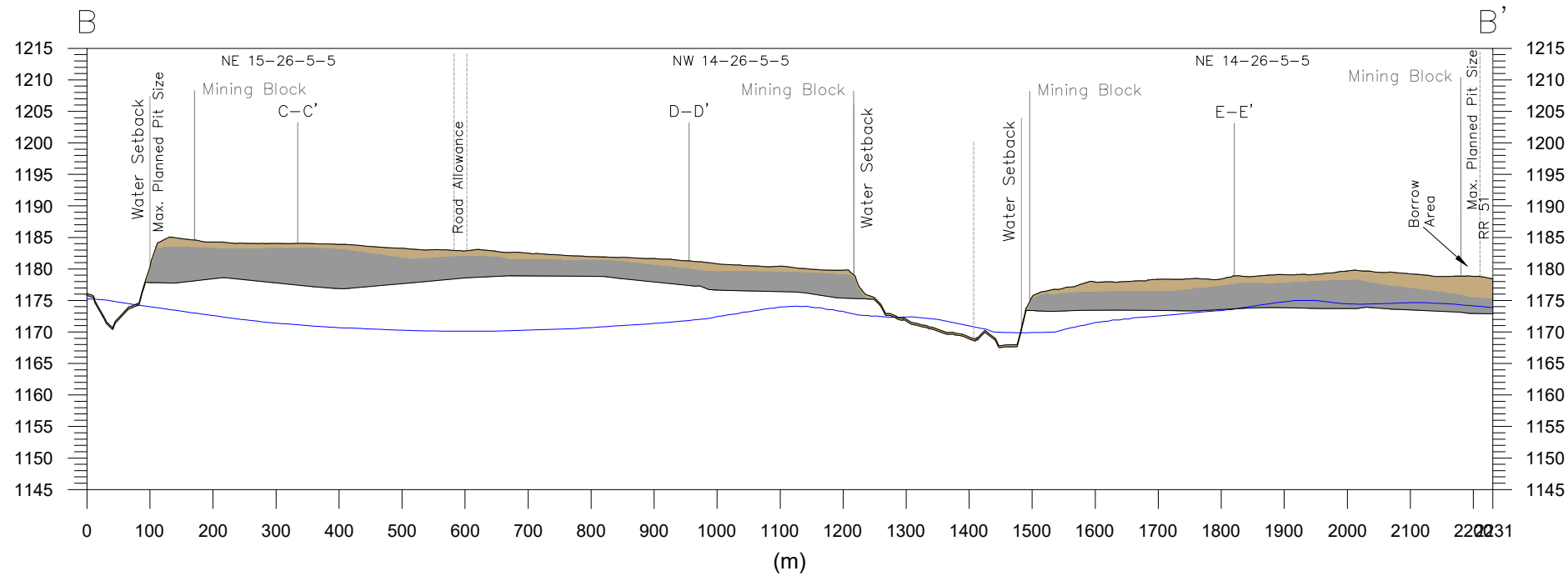
DATE DRAWN:
NOV. 2021
DATE REVISED:
AUG. 29, 2022

SCALE:
1:10,000

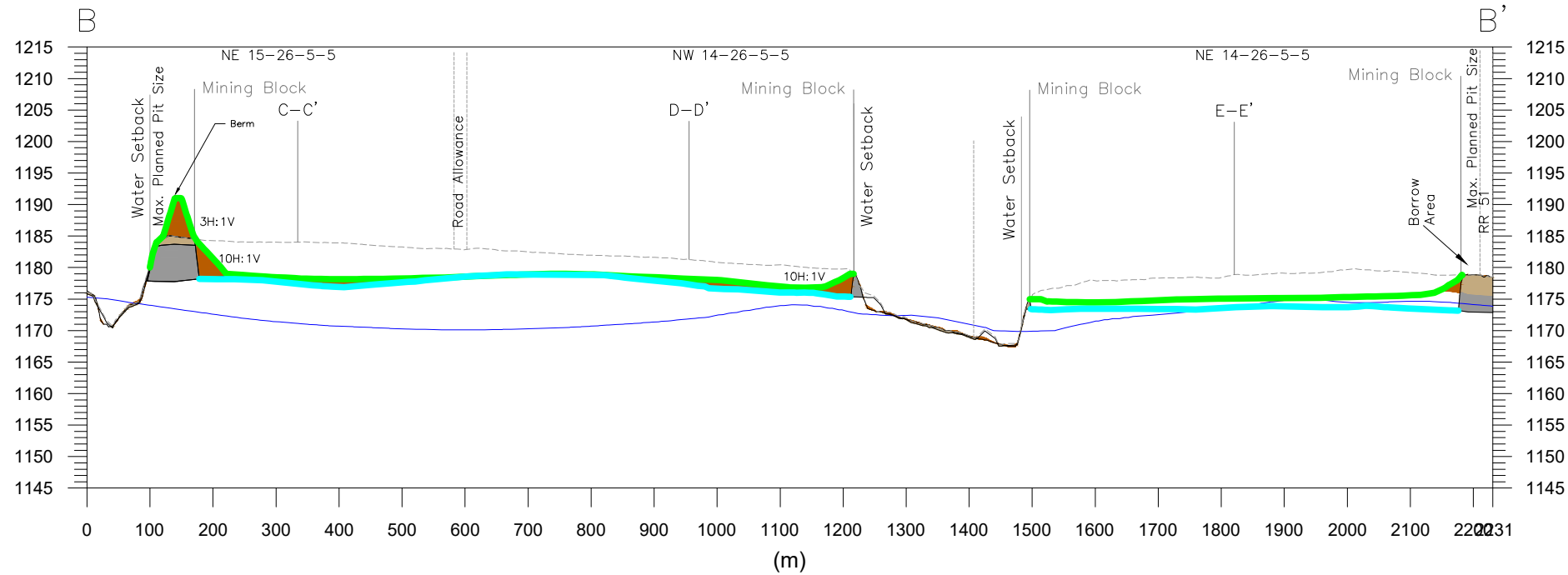
DRAWN BY:
ML
CHECKED BY:
TC

DWG. NO.
A - A'

B EXISTING SITE CONDITIONS



B RECLAIMED SITE CONDITIONS



LEGEND:

- Clay
- Gravel
- Backfilled Material (Clay)
- Original Topsoil/Subsoil
- Replaced Topsoil (Averaging 0.14m) ; Subsoil (Averaging 0.14m)
- Original Ground Profile
- Original Top of Gravel
- Ground Water Table
- Hydraulic Connectivity Layer (1 ft. / 0.3m.)

NOTES:

- All units are in meters
- All berms are constructed to 3H:1V with 5m wide top
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BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
CROSS SECTION

NE 15-26-05 W5M; NW 14-26-05 W5M & NE 14-26-05 W5M

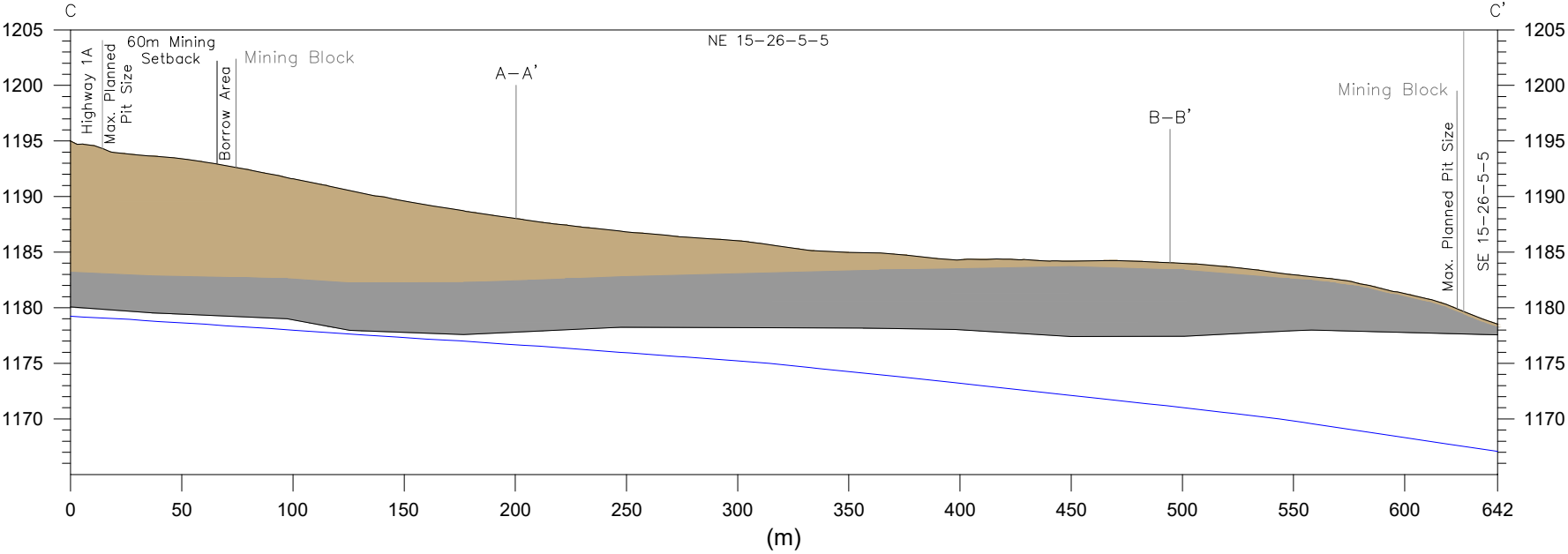
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NOV. 2021
DATE REVISED:
AUG. 29, 2022

SCALE:
1:10,000

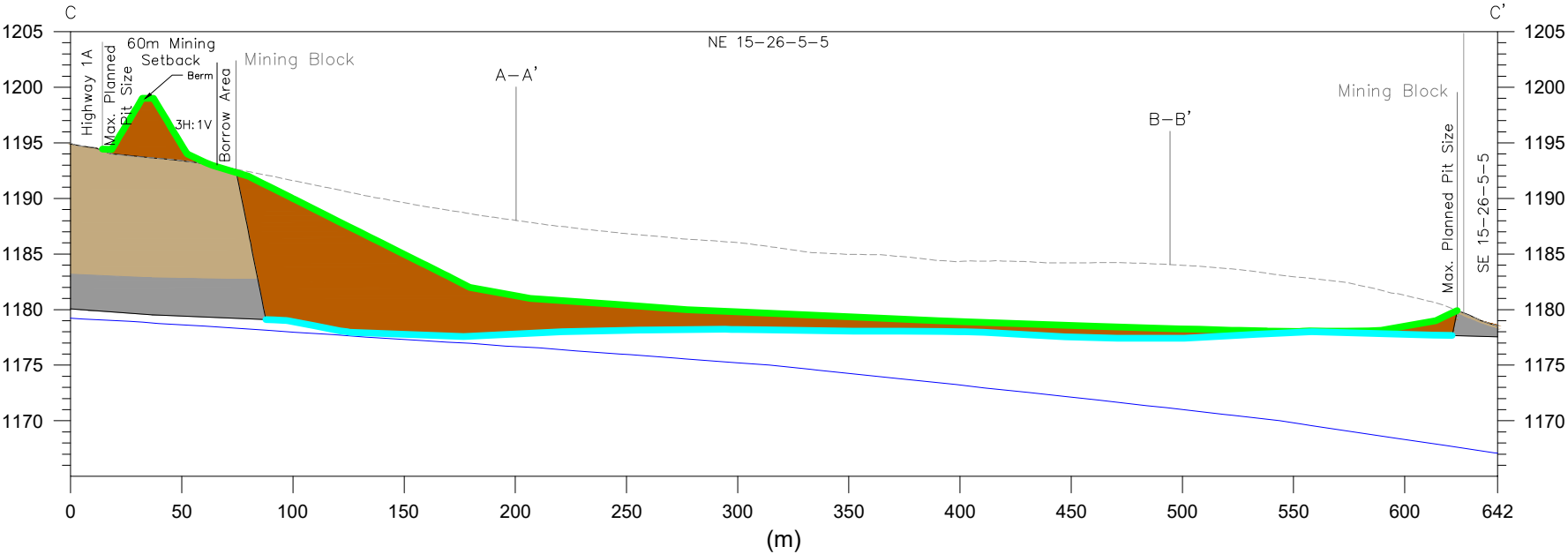
DRAWN BY:
ML
CHECKED BY:
TC

DWG. NO.
B - B'

C EXISTING SITE CONDITIONS



C RECLAIMED SITE CONDITIONS



- LEGEND:**
- Clay
 - Gravel
 - Backfilled Material (Clay)
 - Original Topsoil/Subsoil
 - Replaced Topsoil (Averaging 0.14m) ; Subsoil (Averaging 0.14m)
 - Original Ground Profile
 - Original Top of Gravel
 - Ground Water Table
 - Hydraulic Connectivity Layer (1 ft. / 0.3m.)

- NOTES:**
- All units are in meters
 - All berms are constructed to 3H:1V with 5m wide top
 - All final interior slopes will be reclaimed to minimum 10H:1V (unless otherwise noted on the cross-section)
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 - For cross-section plans, elevations are provided in MASL
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 - For cross-section plans, bedrock's type, depth and extend are unknown

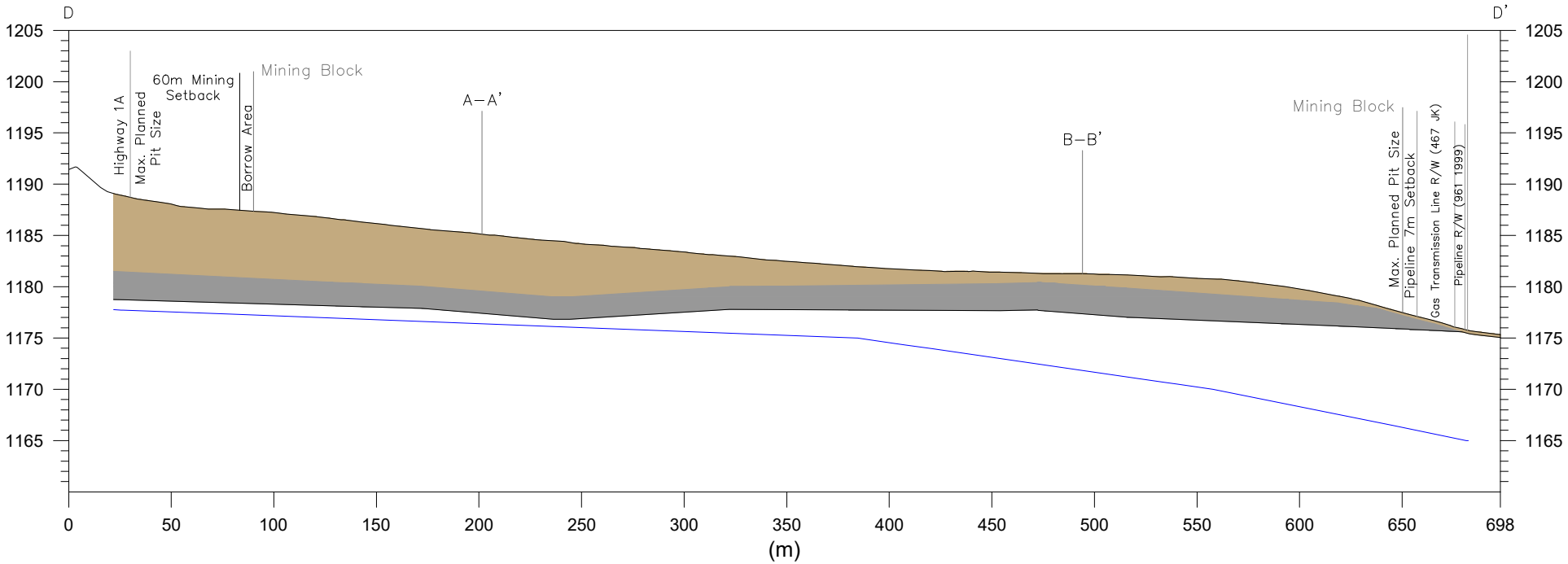
BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
CROSS SECTION
NE 15-26-05 W5M; NW 14-26-05 W5M & NE 14-26-05 W5M

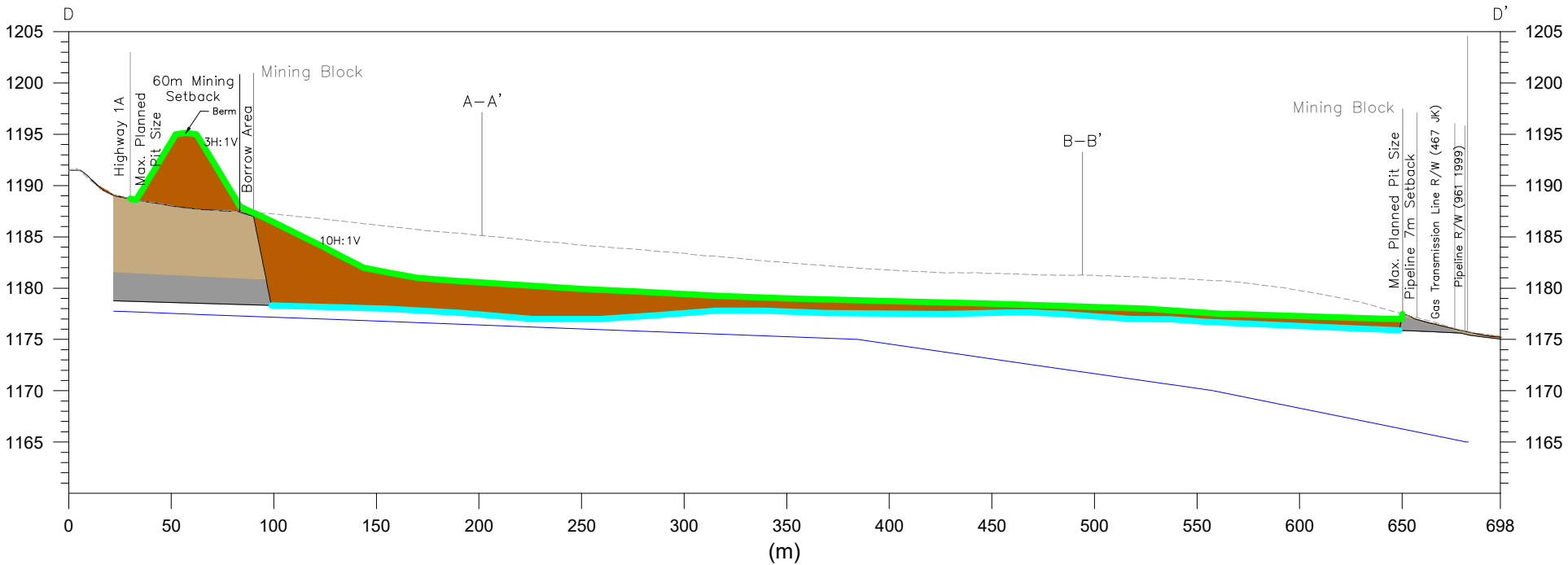
DATE DRAWN: NOV. 2021	SCALE: 1:3,000	DRAWN BY: ML	DWG. NO. C - C'
DATE REVISED: AUG. 29, 2022		CHECKED BY: TC	

s:\outreach\west cochrane_3_mcdonough\projects\2022_mcd\2022-08-26_media_cross_sections

D EXISTING SITE CONDITIONS



D RECLAIMED SITE CONDITIONS



LEGEND:

- Clay
- Gravel
- Backfilled Material (Clay)
- Original Topsoil/Subsoil
- Replaced Topsoil (Averaging 0.14m) ; Subsoil (Averaging 0.14m)
- Original Ground Profile
- Original Top of Gravel
- Ground Water Table
- Hydraulic Connectivity Layer (1 ft. / 0.3m.)

NOTES:

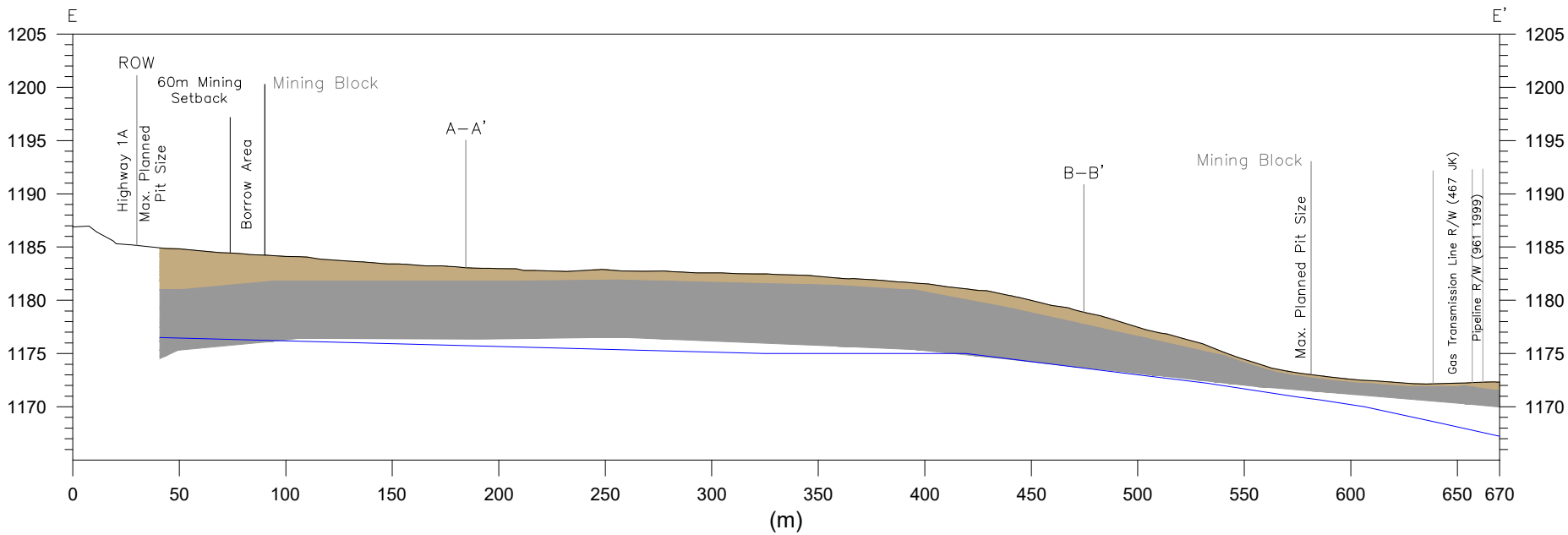
- All units are in meters
- All berms are constructed to 3H:1V with 5m wide top
- All final interior slopes will be reclaimed to minimum 10H:1V (unless otherwise noted on the cross-section)
- All mine faces are mined to no more than 1H:1V
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- For cross-section plans, 10:1 vertical exaggeration is exercised
- For cross-section plans, elevations are provided in MASL
- For cross-section plans, mapped gravel is underlain by bedrock
- For cross-section plans, bedrock's type, depth and extend are unknown

BURNCO Rock Products Ltd

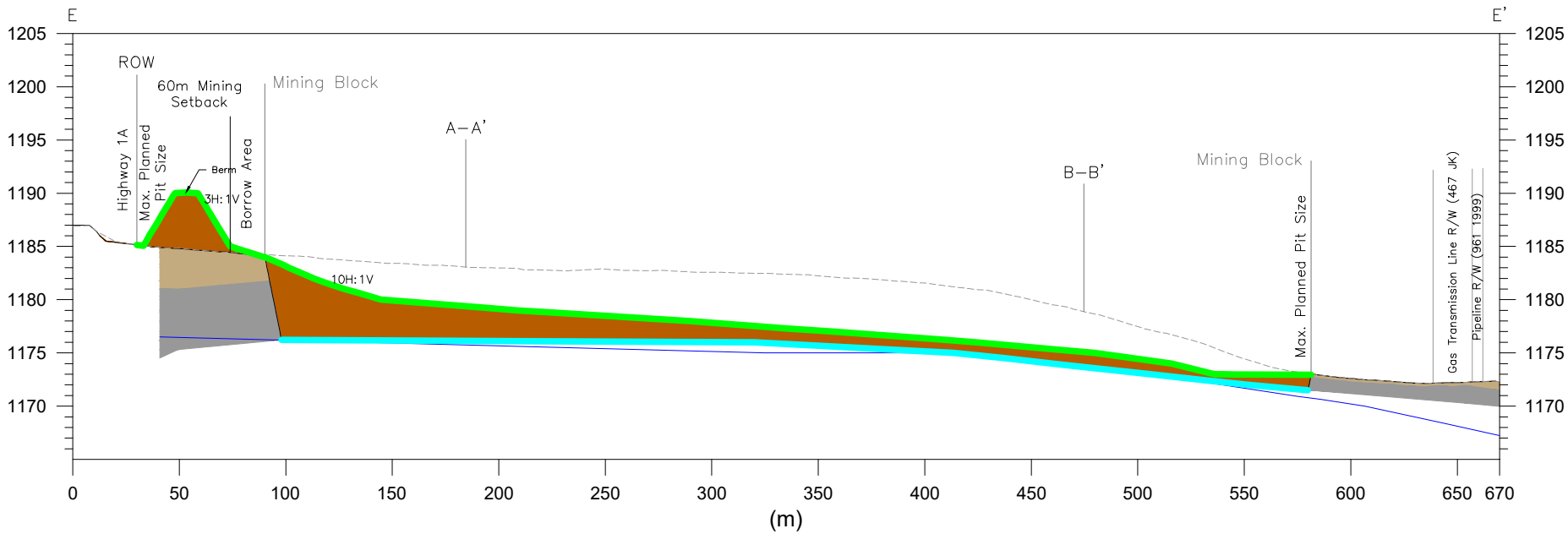
WEST COCHRANE #2 GRAVEL PIT
CROSS SECTION
NE 15-26-05 W5M; NW 14-26-05 W5M & NE 14-26-05 W5M

DATE DRAWN: NOV. 2021	SCALE: 1:3,000	DRAWN BY: ML	DWG. NO. D - D'
DATE REVISED: AUG. 29, 2022		CHECKED BY: TC	

E EXISTING SITE CONDITIONS



E RECLAIMED SITE CONDITIONS



c:\outreach\west cochrane_3_mcdonough\projects\2022_mcd\2022-08-26_media_cross_sections

- LEGEND:**
- Clay
 - Gravel
 - Backfilled Material (Clay)
 - Original Topsoil/Subsoil
 - Replaced Topsoil (Averaging 0.14m) ; Subsoil (Averaging 0.14m)
 - Original Ground Profile
 - Original Top of Gravel
 - Ground Water Table
 - Hydraulic Connectivity Layer (1 ft. / 0.3m.)

- NOTES:**
- All units are in meters
 - All berms are constructed to 3H:1V with 5m wide top
 - All final interior slopes will be reclaimed to minimum 10H:1V (unless otherwise noted on the cross-section)
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 - For cross-section plans, elevations are provided in MASL
 - For cross-section plans, mapped gravel is underlain by bedrock
 - For cross-section plans, bedrock's type, depth and extend are unknown

BURNCO Rock Products Ltd

WEST COCHRANE #2 GRAVEL PIT
CROSS SECTION
NE 15-26-05 W5M; NW 14-26-05 W5M & NE 14-26-05 W5M

DATE DRAWN: NOV. 2021	SCALE: 1:3,000	DRAWN BY: ML	DWG. NO. E - E'
DATE REVISED: AUG. 29, 2022		CHECKED BY: TC	

APPENDIX C

TEST HOLE LOGS

GRAVEL TEST PLAN

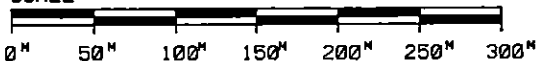
BERKO
SERVICES LTD.

LEGEND:

* TEST HOLE	F FINE	-X- FENCE
T ORGANIC TOPSOIL	CO COARSE	* MUSKEG
C CLAY	SS SANDSTONE	CSP CRUSHED STOCKPILE
SI SILT	SH SHALE	GF GRAVEL FACE
S SAND	B BOULDERS	OP OPEN PIT
G GRAVEL	W WATER LEVEL	

TOPOGRAPHICAL FEATURES INDICATED IN WORDS

SCALE:



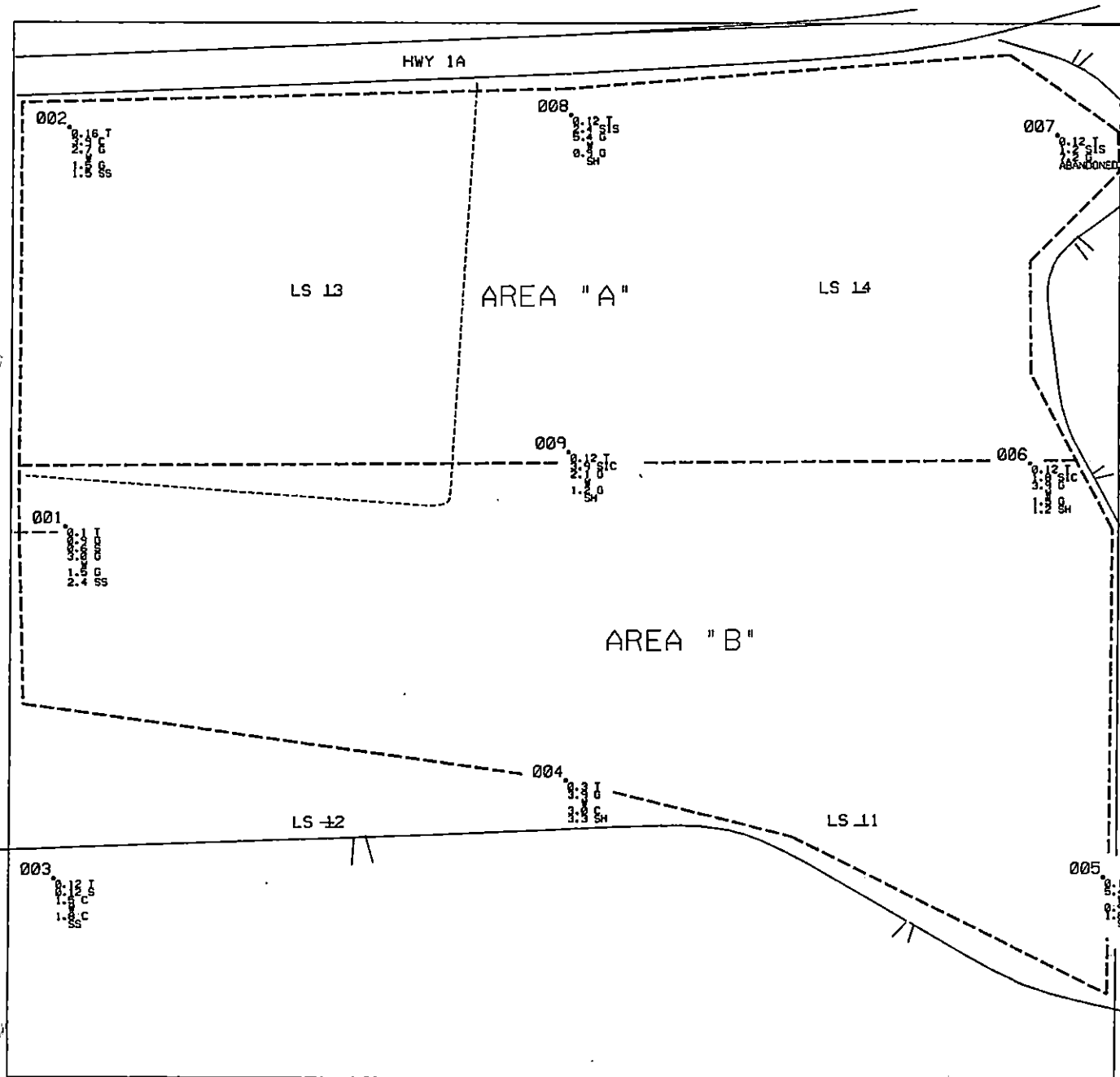
NW * SEC. 13 TP. 026 RGE. 05 W. 5 M.

MCDUGAL PIT.

TESTED BY BERKO SERVICES DATE: AUG. 20 11

AMENDMENTS:

DATE(MM/DD/YY)	NAME	AMENDMENTS



BERKO
SERVICES LTD.

DEVELOPMENT PLAN

NW • SEC. 13 TP. 026 RGE. 05 W. 5 M.
MCDUGAL PIT.

LEGEND:

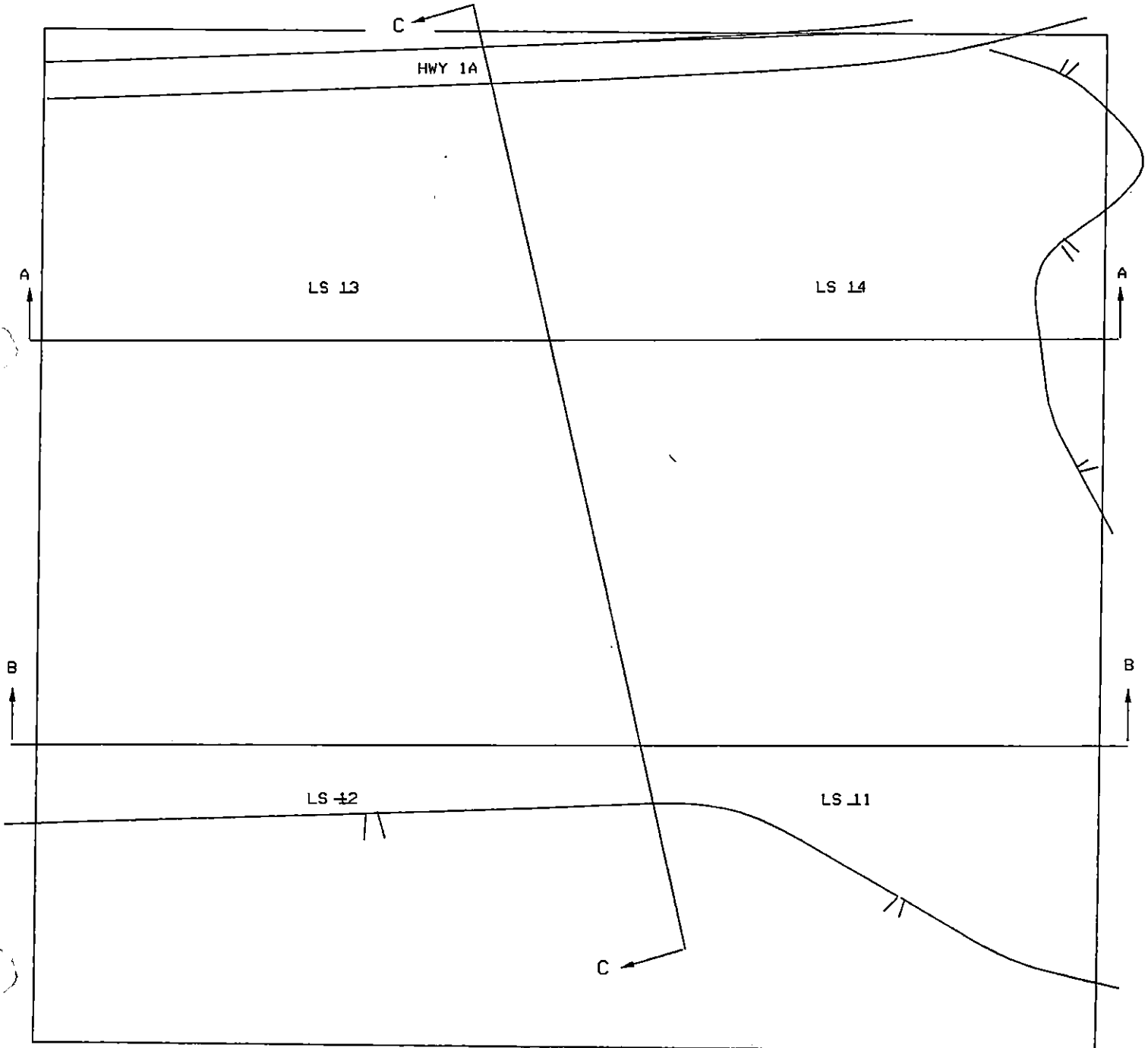
- OPEN PIT
- TOPSOIL STOCKPILE
- SUBSOIL OR OVERBURDEN STOCKPILE
- PROCESSED AGGREGATE STOCKPILE
(INDICATE FUTURE S.P.'S IN WORDS)
- GRAVEL AREA
- TREES/BUSH
- RECLAIMED AREA
- BACKFILLED AREA
- BUFFER ZONE

SCALE:

0" 50" 100" 150" 200" 250" 300"

AMENDMENTS:

DATE(MM/DD/YY)	NAME	PLANNED AMENDMENTS
JAN / 12 / 11	BERKO SERVICES	
/ /		
/ /		
/ /		
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PRE-DEVELOPMENT X-SECTIONS

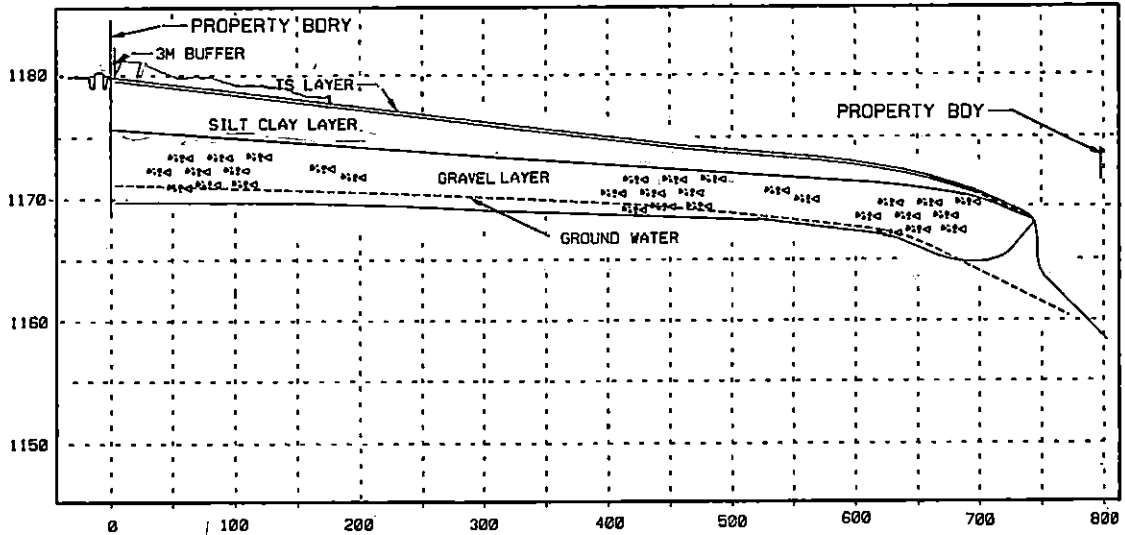
BERKO
SERVICES LTD.

NW - SEC. 13 TP. 026 RGE. 05 W. 5 M.
MCDUGAL PIT.

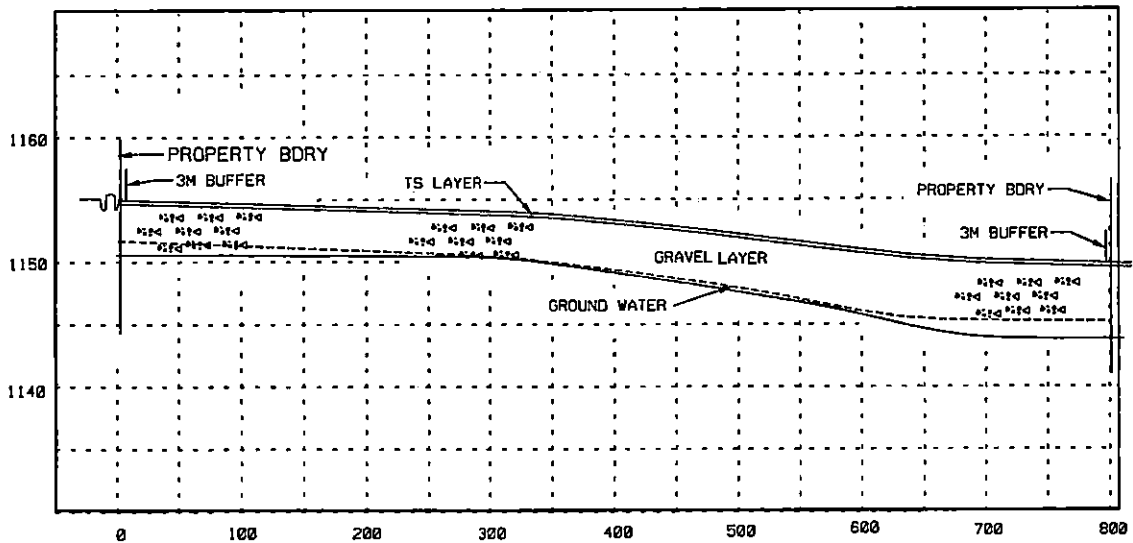
ELEVATION & DISTANCE IN METERS

SCALE - 10V:H1.

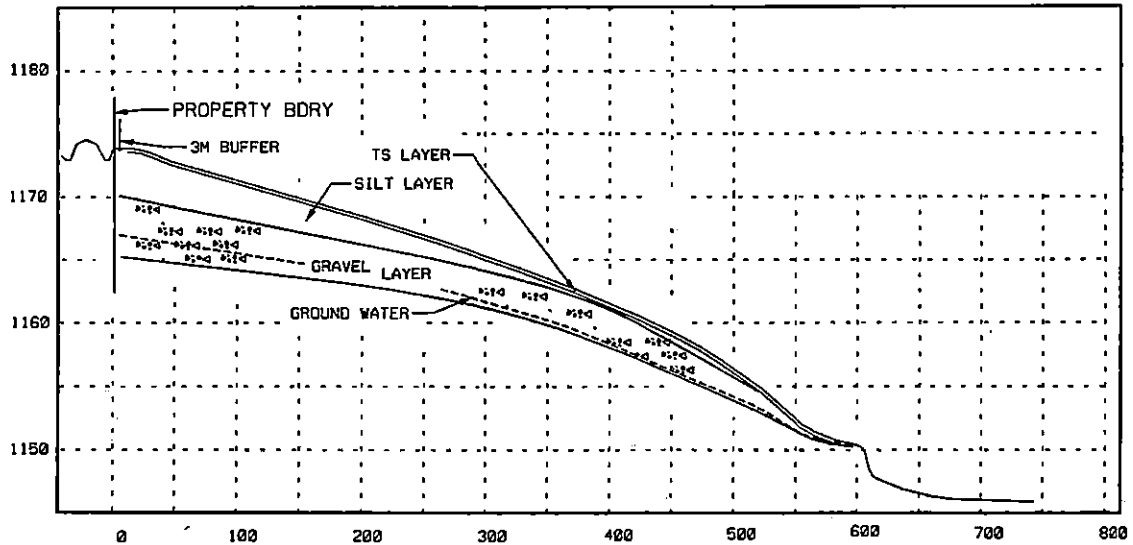
CROSS-SECTION A-A



CROSS-SECTION B-B



CROSS SECTION C-C



BERKO SERVICES LTD.

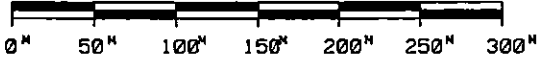
GRAVEL TEST PLAN

NE * SEC.14 TP.026 RGE.05 W.5 M.
MCDUGAL PIT.

* TEST HOLE	F FINE	*X* FENCE
T ORGANIC TOPSOIL	CO COARSE	* MUSKEG
C CLAY	SS SANDSTONE	CSP CRUSHED STOCKPILE
SI SILT	SH SHALE	GF GRAVEL FACE
S SAND	B BOULDERS	OP OPEN PIT
G GRAVEL	W WATER LEVEL	

TOPOGRAPHICAL FEATURES INDICATED IN WORDS

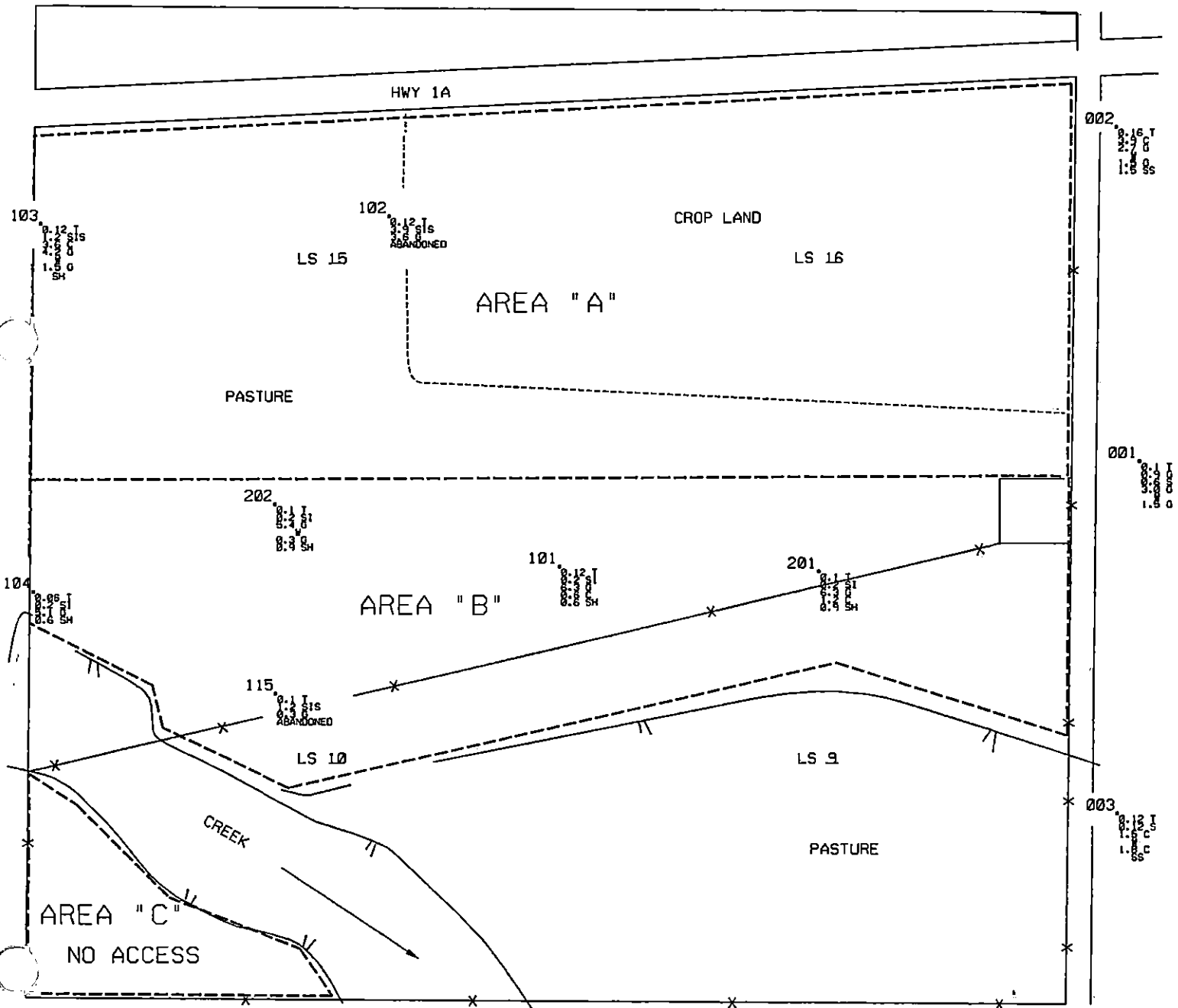
SCALE:



TESTED BY BERKO SERVICES DATE: AUG. 20 11

AMENDMENTS:

DATE (MM/DD/YY)	NAME	AMENDMENTS



BERKO

TOPSOIL STOCKPILE

SUBSOIL OR OVERBURDEN STOCKPILE

PROCESSED AGGREGATE STOCKPILE

(INDICATE FUTURE S.P.'S IN WORDS)

[A] GRAVEL AREA

 TREES/BUSH

RECLAIMED AREA



BACKFILLED AREA

 BUFFER ZONE

NE SEC. 14 TP. 026 RGE. 05 W. 5 M.

MCDUGAL

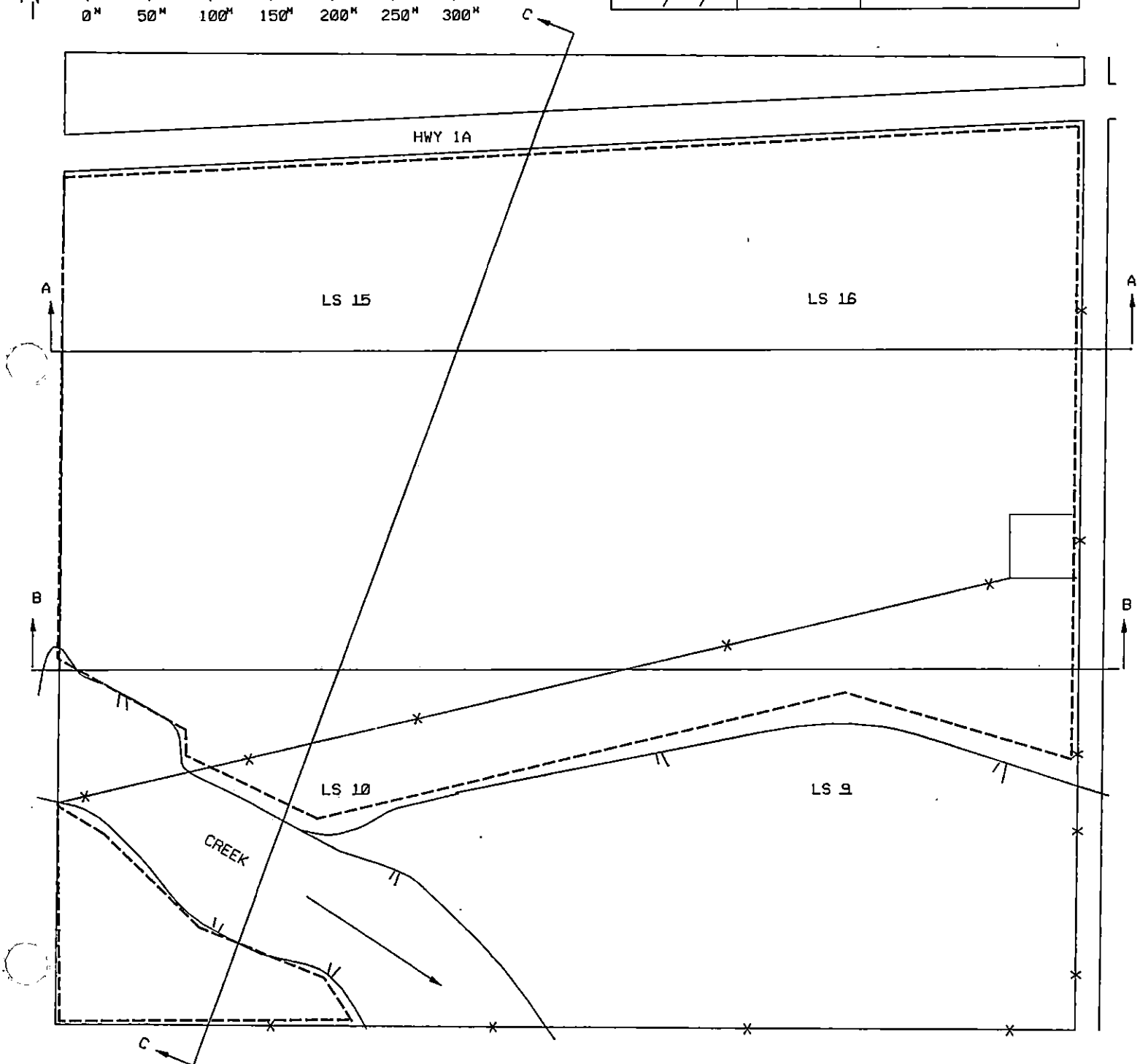
PIT.

AMENDMENTS:

[illegible]

SCALE:

0^N 50^N 100^N 150^N 200^N 250^N 300^N



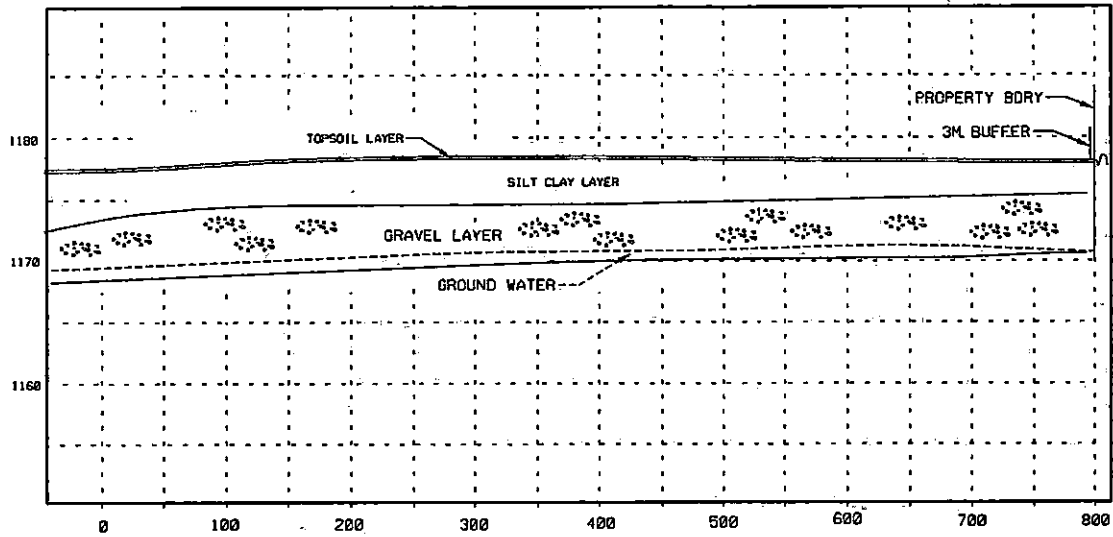
BERKO SERVICES LTD.

DEVELOPMENT X-SEC PLAN

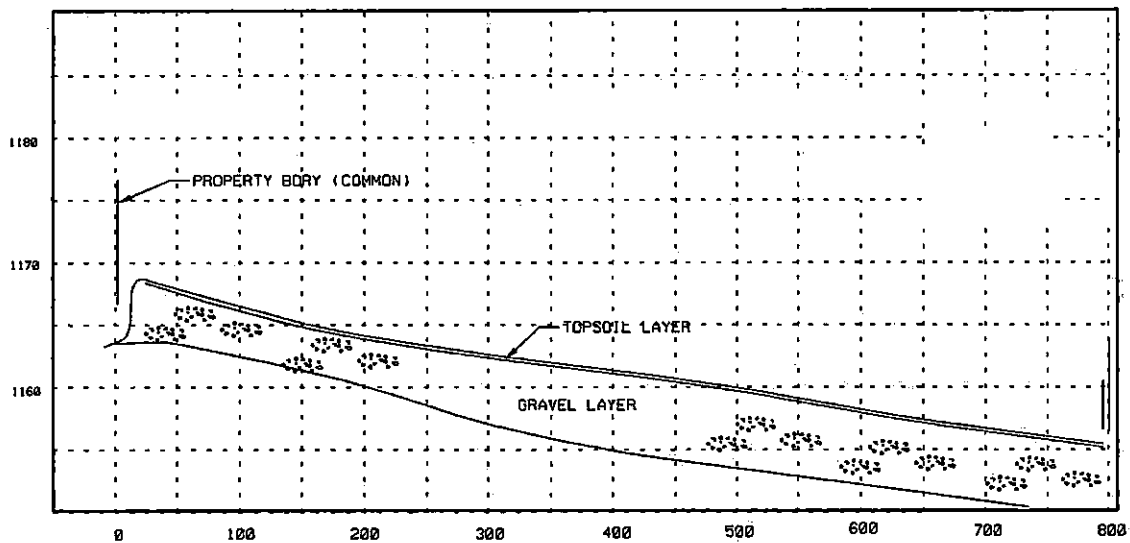
NE * SEC.14 TP.026 RGE.05 W.5 M.
MCDUGAL PIT.

ELEVATION & DISTANCE IN METERS
SCALE - 10V-H1

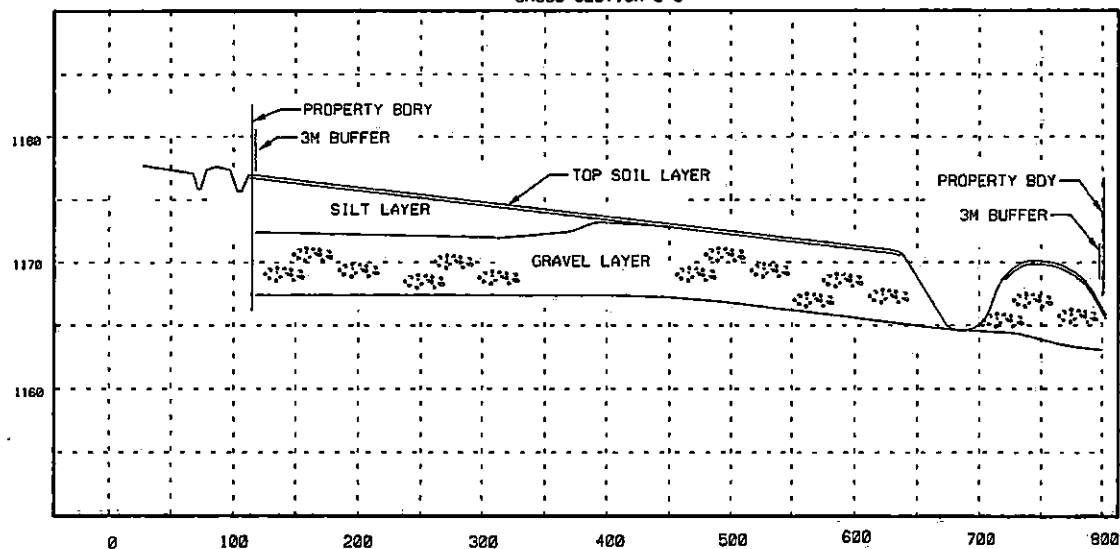
CROSS-SECTION A-A



CROSS-SECTION B-B



CROSS SECTION C-C



BERKO SERVICES LTD.

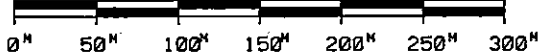
GRAVEL TEST PLAN

LEGEND:

* TEST HOLE	F FINE	-X- FENCE
T ORGANIC TOPSOIL	CO COARSE	* MUSKEG
C CLAY	SS SANDSTONE	CSP CRUSHED STOCKPILE
SI SILT	SH SHALE	GF GRAVEL FACE
S SAND	B BOULDERS	OP OPEN PIT
G GRAVEL	W WATER LEVEL	

TOPOGRAPHICAL FEATURES INDICATED IN WORDS

SCALE:



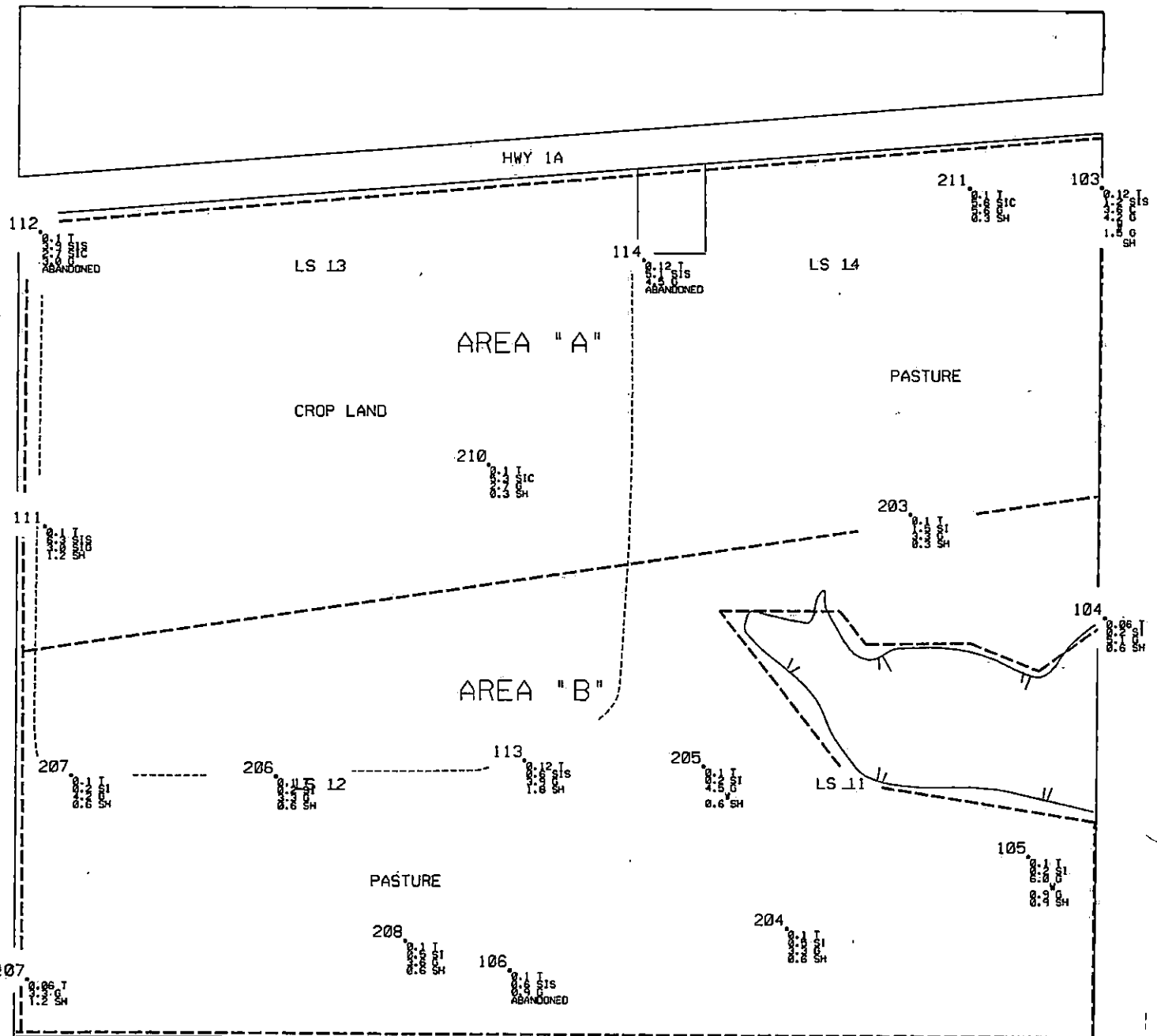
NW * SEC.14 TP.026 RGE. 05 W. 5 M.

MCDUGAL PIT.

TESTED BY BERKO SERVICES DATE: AUG. 20 11

AMENDMENTS:

DATE(MMM/DD/YY)	NAME	AMENDMENTS



NW * SEC.14 TP.026 RGE.05 W.5 M.
MCDOUGAL PIT.

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BERKO
SERVICES LTD.

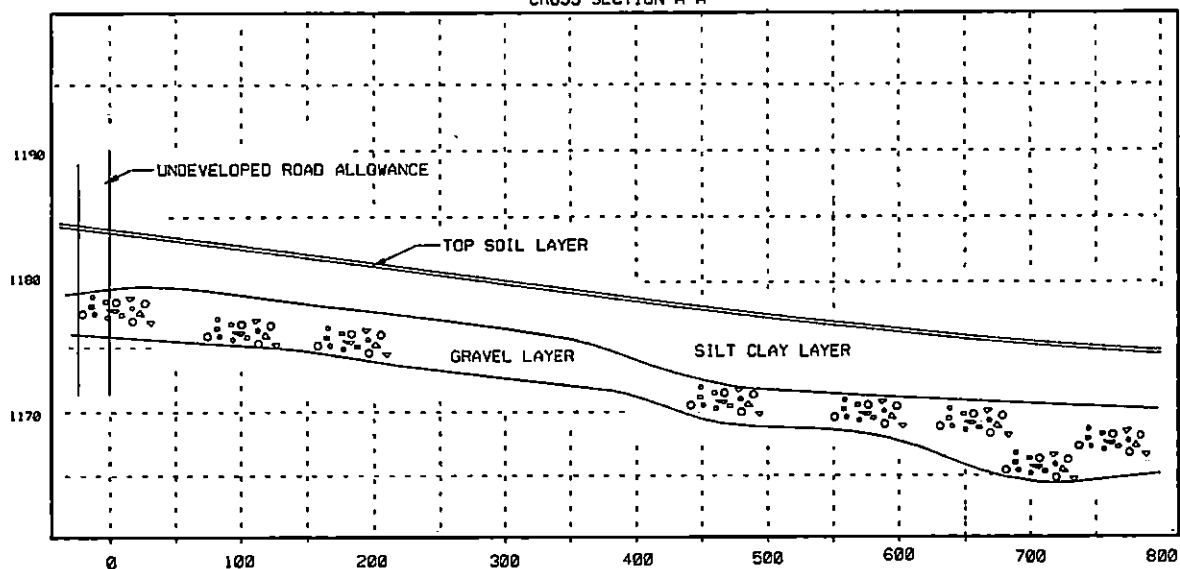
DEVELOPMENT X-SEC PLAN

NW - SEC. 14 TP. 026 RGE. 05 W. 5 M.
MCDUGAL PIT.

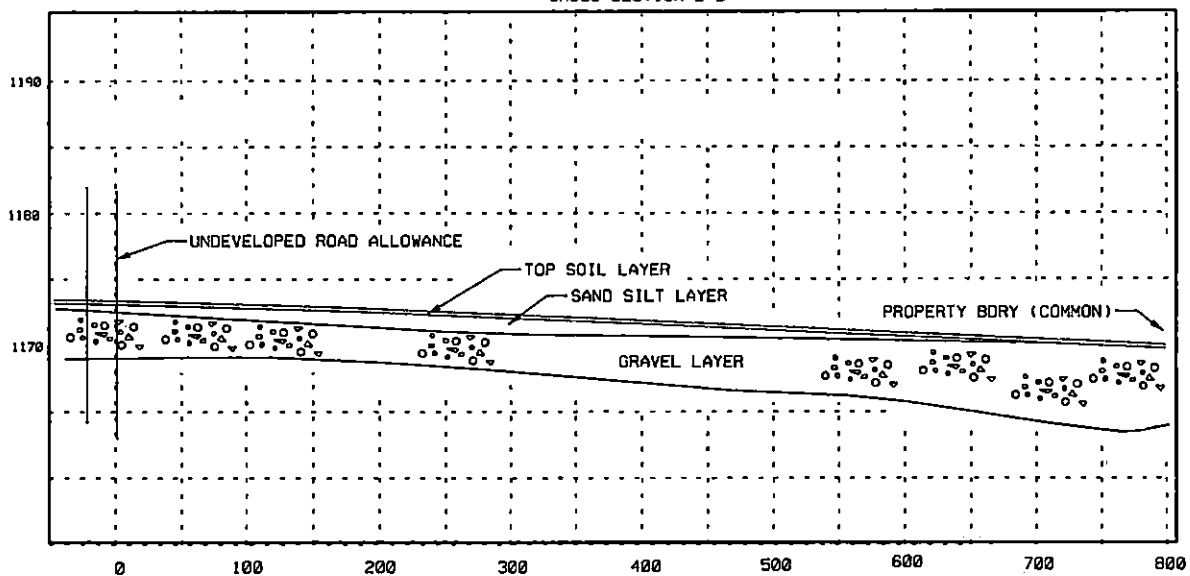
ELEVATION & DISTANCE IN METERS

SCALE = 10V:H1

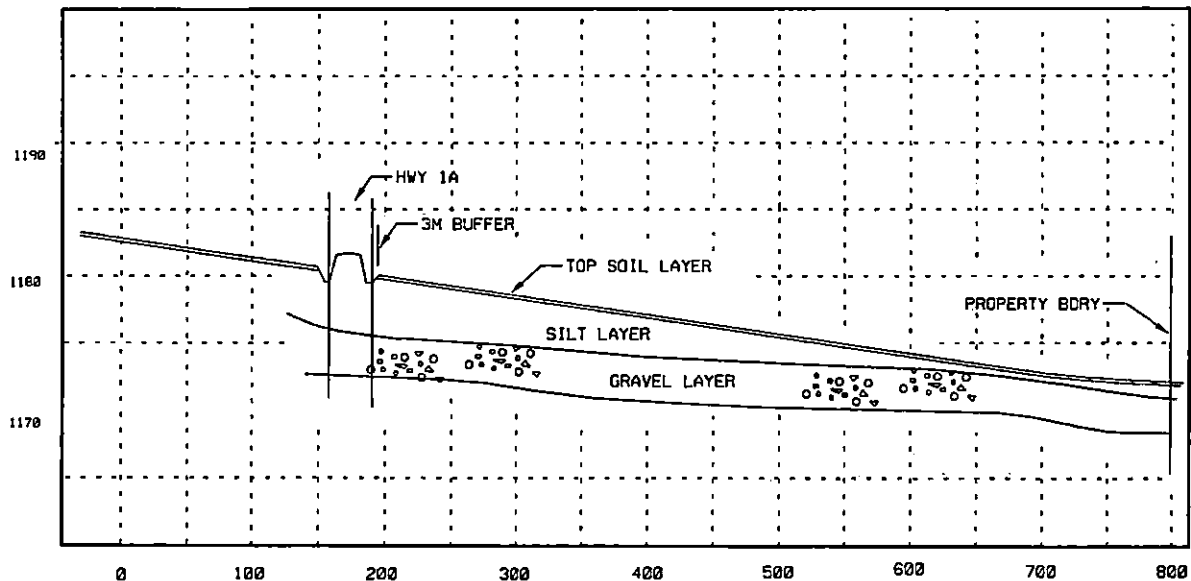
CROSS-SECTION A-A



CROSS-SECTION B-B



CROSS-SECTION C-C



BERKO SERVICES LTD.

GRAVEL TEST PLAN

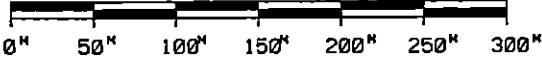
NE * SEC. 15 TP. 026 RGE. 05 W. 5 M.
MCDUGAL _____ PIT.

TESTED BY BERKO SERVICES DATE: AUG. 20 11

* TEST HOLE	F FINE	-X- FENCE
T ORGANIC TOPSOIL	CO COARSE	* MUSKEG
C CLAY	SS SANDSTONE	CSP CRUSHED STOCKPILE
S SILT	SH SHALE	GF GRAVEL FACE
S SAND	B BOULDERS	OP OPEN PIT
G GRAVEL	W WATER LEVEL	

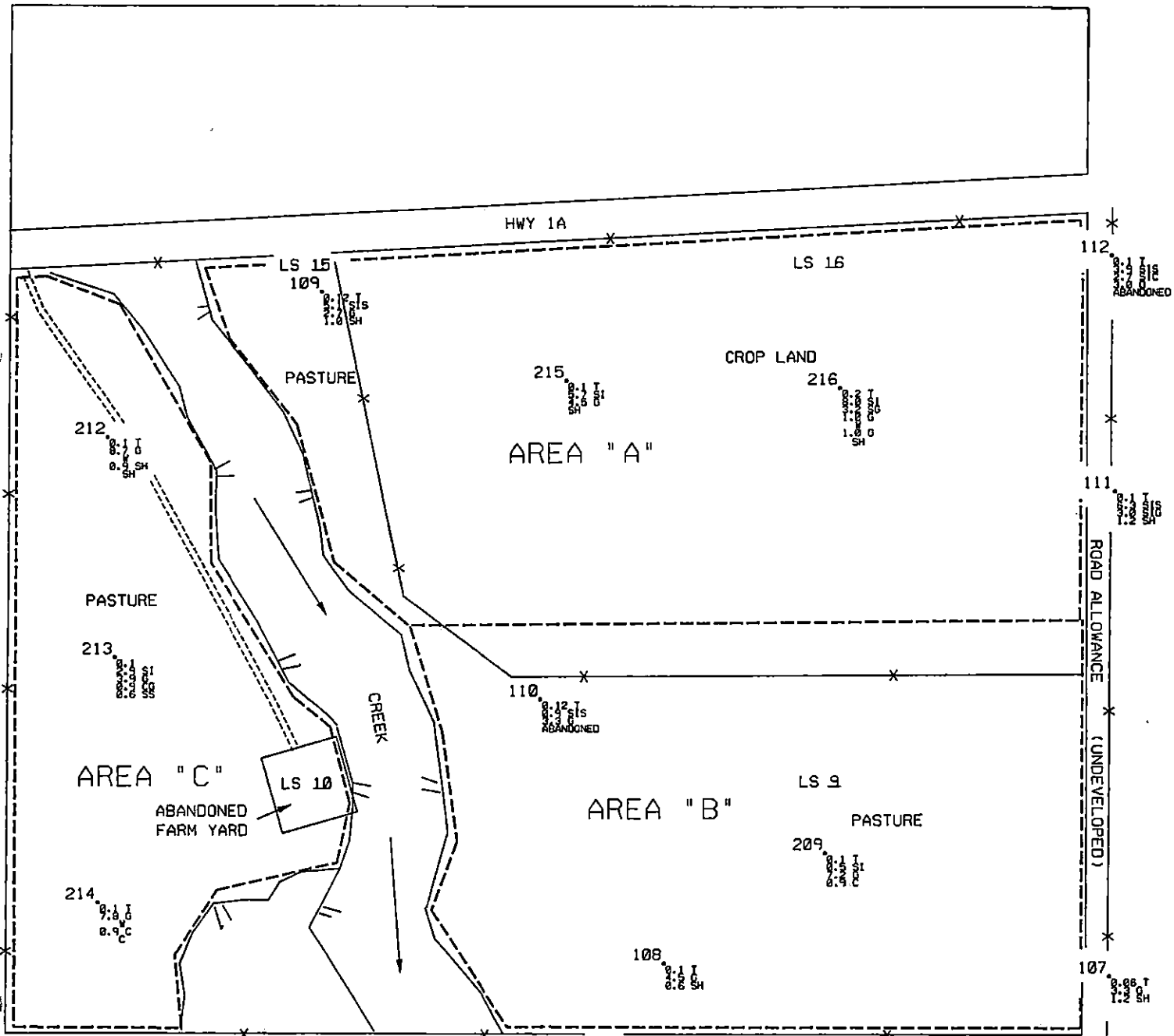
TOPOGRAPHICAL FEATURES INDICATED IN WORDS

SCALE:



AMENDMENTS:

DATE(MM/DD/YY)	NAME	AMENDMENTS



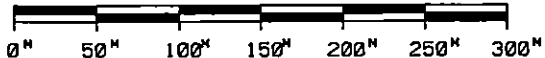
BERKO SERVICES LTD.

DEVELOPMENT PLAN

NE • SEC. 15 TP. 026 RGE. 05 W. 5 M.
MCDUGAL _____ PIT.

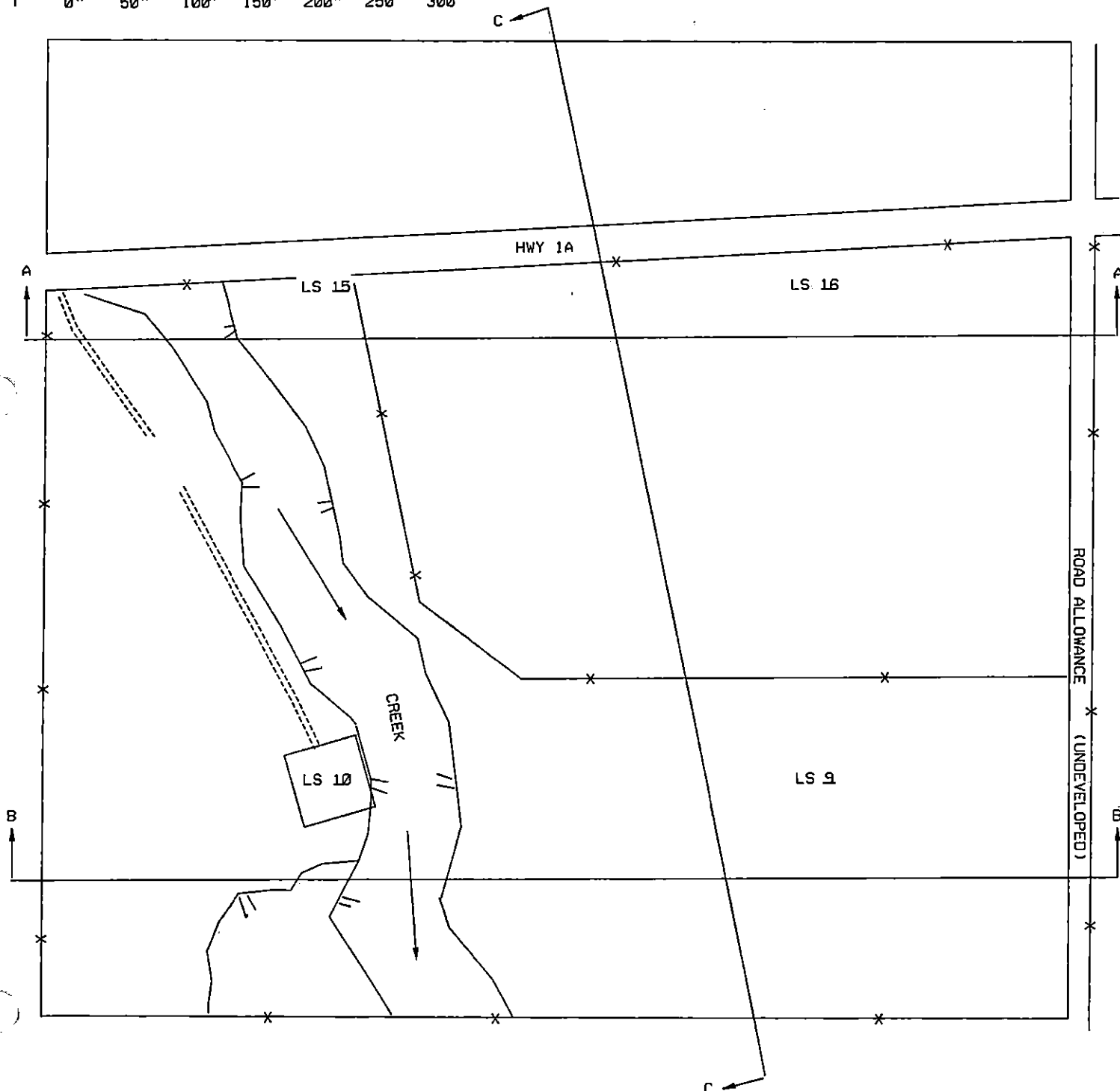
- LEGEND:**
- OPEN PIT
 - TOPSOIL STOCKPILE
 - SUBSOIL OR OVERBURDEN STOCKPILE
 - PROCESSED AGGREGATE STOCKPILE
 - (INDICATE FUTURE S.P.'S IN WORDS)
 - GRAVEL AREA
 - TREES/BUSH
 - RECLAIMED AREA
 - BACKFILLED AREA
 - BUFFER ZONE

SCALE:



AMENDMENTS:

DATE(MM/DD/YY)	NAME	PLANNED AMENDMENTS
JAN 7 12 / 11	BERKO SERVICES	



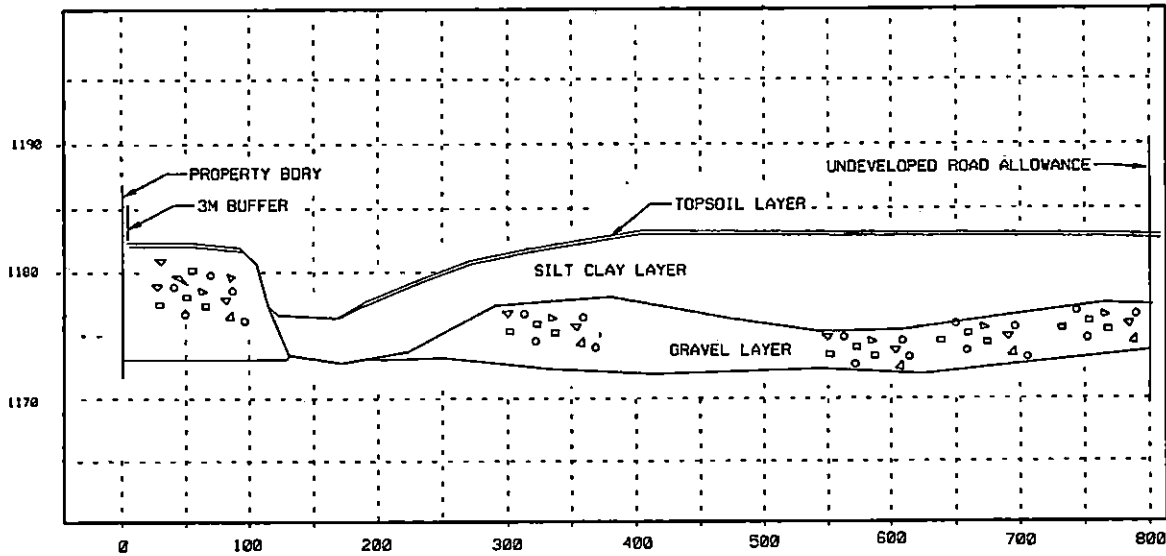
BERKO
SERVICES LTD.

DEVELOPMENT X-SEC PLAN

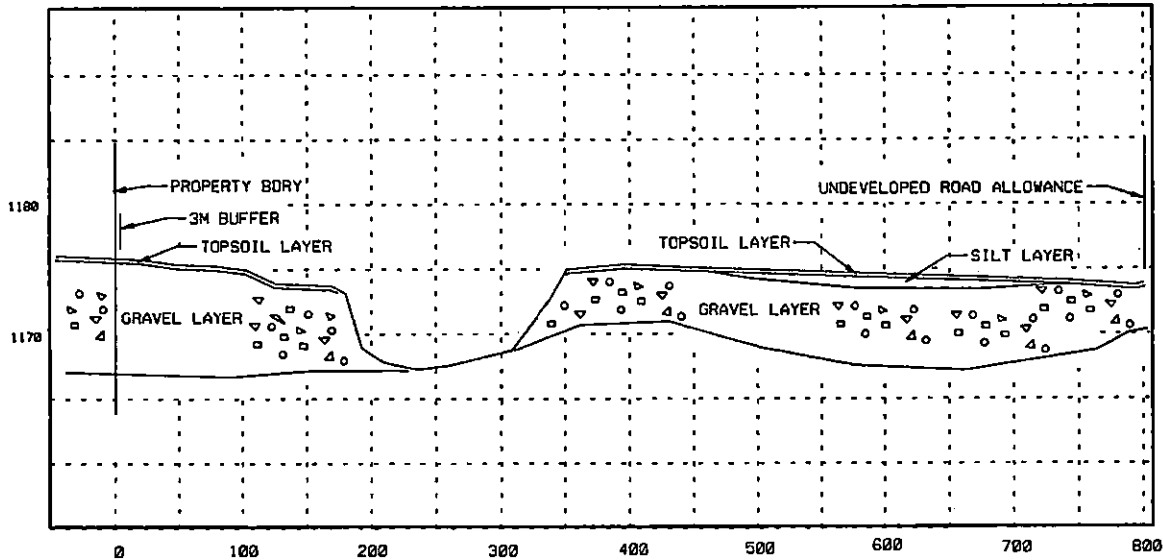
NE - SEC. 15 TP. 026 RGE. 05 W. 5 M.
MCDUGAL PIT.

ELEVATION & DISTANCE IN METERS
SCALE - 10V - 1H

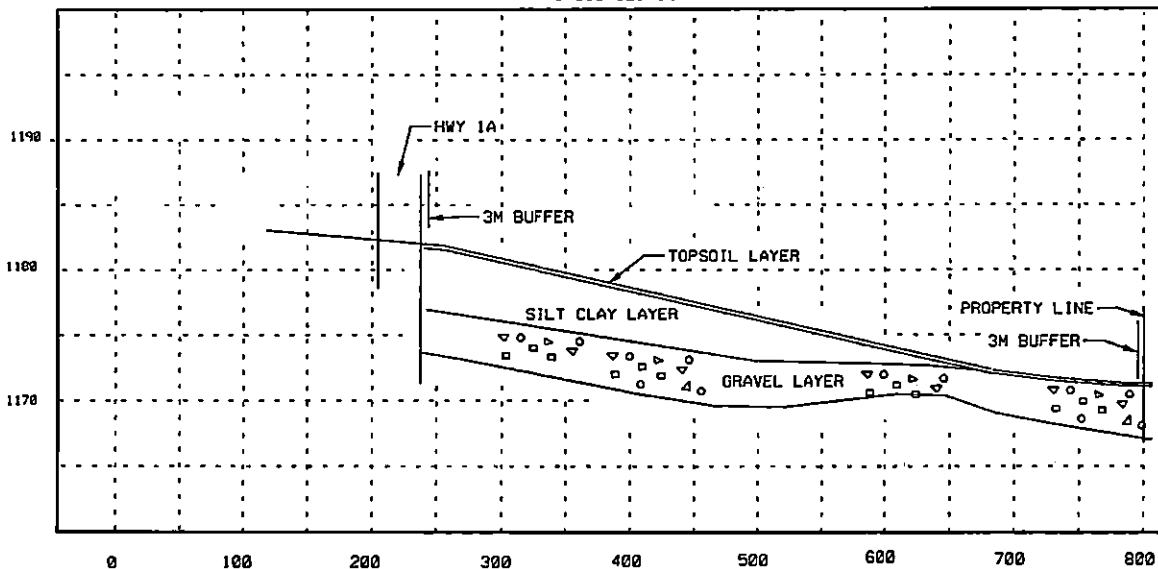
CROSS-SECTION A-A



CROSS-SECTION B-B



CROSS SECTION C-C





GRAVEL TESTING PIT LOGS - AUGER DRILL

NE & NW 1/4 Sec 14 Twp 26 Rge 05 W 5 M
NW 1/4 Sec 15 Twp 26 Rge 05 W 5 M

PIT NAME: McDougal

TESTED BY: BERKO SERVICES DATE August 20 11

TH 001	TH 002	TH 003	TH 004	TH 005
0.16 T	0.1 T	0.12 T		
3.9 C	0.9 G	0.12 S		
4.2 G	0.6 S	3.3 C		
1.5 Ss	4.5 G	Ss		
W @ 6.7 M	2.4 Ss	W @ 1.7 M		
	W @ 4.6 M			

TH 101	TH 102	TH 103	TH 104	TH 105
0.12 T	0.12 T	0.12 G	0.06 T	0.1 T
1.5 G	3.9 Si	1.2 SiS	1.0 G	6.9 G
ABANDONED	3.6 G	3.6 C	ABANDONED	ABANDONED
	ABANDONED	6.0 G		
		Sh		
		W @ 9.1		

TH 106	TH 107	TH 108	TH 109	TH 110
0.12 T	0.06 T	0.1 T	0.12 T	0.12 T
0.6 SiS	3.3 G	4.5 G	5.1 SiS	0.9 SiS
0.9 G	1.2 Sh	0.6 Sh	2.7 G	3.3 G
ABANDONED			Sh	ABANDONED

TH 111	TH 112	TH 113	TH 114	TH 115
0.1 T	0.1 T	0.12 T	0.12 T	0.1 T
6.3 SiS	3.9 SiS	0.6 SiS	5.1 SiS	1.2 SiS
3.0 SiG	2.7 SiC	3.9 G	4.5 G	0.3 G
Sh	3.0 G	1.8 Sh	ABANDONED	ABANDONED
	ABANDONED			

TH	TH	TH	TH	TH



GRAVEL TESTING PIT LOGS - BECKER DRILL

NE & NW 1/4 Sec 14 Twp 26 Rge 05 W 5 M
NW 1/4 Sec 15 Twp 26 Rge 05 W 5 M

PIT NAME: McDougal

TESTED BY: BERKO SERVICES DATE August 20 11

TH 101	TH 104	TH 105	TH 110	TH 115
0.1 T	0.1 T	0.1 T	0.1 T	0.1 T
0.2 Si	0.2 Si	0.2 Si	0.5 Si	0.2 Si
6.3 G	5.2 G	6.9 G	8.7 G	2.4 G
1.2 C	0.6 Sh	0.9 Sh	0.3 Sh	0.9 Sh
0.9 Sh		W @ 6.0		

TH 201	TH 202	TH 203	TH 204	TH 205
0.1 T	0.1 T	0.1 T	0.1 T	0.1 T
0.2 Si	0.2 Si	1.4 Si	0.5 Si	0.2 Si
6.3 G	5.7 G	3.3 G	3.3 G	4.5 G
1.2 C	0.9 Sh	0.9 Sh	0.6 Sh	0.6 Sh
0.9 Sh	W @ 5.7			W @ 4.8

TH 206	TH 207	TH 208	TH 209	TH 210
0.1 T	0.1 T	0.1 T	0.1 T	0.1 T
0.2 Si	0.2 Si	0.5 Si	0.5 Si	5.3 SiC
3.3 G	4.2 G	3.6 G	7.2 G	2.7 G
0.6 Sh	0.6 Sh	0.6 Sh	0.9 Sh	0.3 Sh

TH 211	TH 212	TH 213	TH 214	TH 215
0.1 T	0.1 T	0.1 T	0.12 T	0.1 T
5.6 SiC	9.7 G	2.9 Si	7.8 G	4.2 Si
5.6 G	0.9 Clay	3.9 G	W	4.5 G
0.3 Sh	W @ 9.8	0.9 Gclay	0.9 Clay	Shale
		0.6 Ss		

TH 216	TH	TH	TH	TH
0.2 T				
8.0 Si				
3.2 SG				
3.0 G				
Shale				
W @ 13.4				



TH 101



TH 201



TH 104



TH 205



TH 105



TH 206



TH 110



TH 207



TH 208



TH 212



TH 209



TH 213



TH 210



TH 214



TH 211



TH 215



BERKO Services Ltd.
4709 – 59 Street
Lacombe AB T4L 1M5
Tel (403) 782-3908 Cell (403) 357-6853



TH 216



TH 216B