NEW GOLD RAINY RIVER MINE
APPENDIX B
EMRS RECORD OF CONSTRUCTION

2021 EMRS Progressive Reclamation Record of Construction

November 29, 2021



Integrated Mine Waste Management
and Closure Services
Specialists in Geochemistry and
Unsaturated Zone Hydrology

2021 EMRS Progressive Reclamation Record of Construction

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EXECUTIVE SUMMARY

The progressive reclamation target at the East Mine Rock Stockpile (EMRS) lower bench slope area was 9 ha during the 2021 season. The EMRS stockpile contains potentially acid generating (PAG) rock, and it is important that the engineered closure cover system is constructed as designed to mitigate the ingress of oxygen and reduce net percolation of water, thereby lessening the release of acid leachate from the landform. The cover design includes a 0.5 m compacted clay layer (CCL) and 1.0 m non-compacted layer (NCL).

Construction Quality Assurance (CQA) is a key component of quality management during construction. Okane Consultants Inc. (Okane) considers the role of CQA to be one of proactive defect prevention, with a focus on the process for managing quality. This differs from Construction Quality Control (CQC), which is focused on the verification of quality, traditionally through inspection and testing. CQC services for 2021 progressive reclamation on the EMRS were provided by Tulloch Engineering, who were on-site full-time for the duration of construction activities. CQA services were provided by Okane full-time on-site as well as through remote support when necessary. CQA included the development and update of construction specifications, regular audits of the onsite CQC and inspection activities, review of CQC testing data and observations, borehole permeameter testing, and technical support as required.

The material used for construction of the closure cover system was sourced from the open pit at the mine site. The variability of the material and associated compaction properties presented dynamic conditions, requiring thorough understanding of the material properties and cover system objectives for CQC and CQA activities. Particularly, ability to correctly characterize material type and understand the relationship between test results and hydraulic conductivities of the compacted clay layer component of the cover system has been a key focus of the CQC / CQA program.

The closure cover was constructed to specification for a total of 8.2 ha. Approximately 0.4 ha of the CCL did not meet specification for compacted layer thickness due to a delay in available survey data and will need to be investigated and determined if re-work is required during the next construction season.

Key learnings from the 2021 construction season included:

- CCL material placed at maximum tolerance (0.6 m) to minimize discrepancies in the overall CCL thickness and reduce the frequency of low spots on daily heat maps.
- Addition of modified compaction trials (2, 4, and 6 passes) to support the reduction in passes required by the roller and confirm adequate compaction of the CCL lifts.

- Proactive sampling of stockpiled material to pre-qualify it as CCL or NCL construction materials improves efficiency.
- Completing waste rock surveys, when possible, prior to stockpiling of material within panel boundaries to avoid investigations and potential delays.
- Timely submission of laboratory and survey data for entry into construction data management software allowed for reduced review times and issue identification.

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LIST OF ACRONYMS AND DEFINITIONS

Abbreviation	Full Text
New Gold	New Gold Inc.
Okane	Okane Consultants
Tulloch	Tulloch Engineering
Infrakit	Construction data management software
PAG	Potentially Acid Generating
CCL	Compacted Clay Layer
NCL	Non-compacted Layer
EMRS	East Mine Rock Stockpile
CQC	Construction Quality Control
CQA	Construction Quality Assurance
OWC	Optimum Water Content
NP	Net Percolation
O_2	Oxygen
WML	Whitemouth Lake
RRM	Rainy River Mine
PSD	Particle Size Distribution
MDD	Maximum Dry Density
Technical Specifications	EMRS Cover System Operational Handbook
Panel	A section of cover constructed (CCL and NCL) in four lifts from material placed together in one section, and the adjacent key-in area.
SPMDD	Standard Proctor Maximum Dry Density
OVB	Overburden
L1	Lift 1 - First placed layer of the CCL
L2	Lift 2 - Second placed layer of the CCL
L3	Lift 3 - First placed layer of the NCL
L4	Lift 4 - Second placed layer of the NCL

1 INTRODUCTION

New Gold Inc. (New Gold) continued to progressively reclaim the lower bench slopes of the East Mine Rock Stockpile (EMRS) in 2021. The mine rock used to build the EMRS is classified as potentially acid generating (PAG). The cover system for the EMRS is a barrier type cover system which consists of a barrier layer overlain by a growth medium designed to limit net percolation (NP) and control oxygen (O_2) ingress to the rock below. The material used in construction of the cover system is sourced from the open pit; Okane has prepared Technical Specifications and a Cover Construction Operational Handbook specific to the use of this material on the EMRS. New Gold has retained O'Kane Consultants Inc. (Okane) to provide Construction Quality Assurance (CQA) services and technical guidance during the construction of the EMRS cover system in 2021. As part of this service Okane reviewed and audited the Construction Quality Control (CQC) program completed by Tulloch Engineering Inc. (Tulloch), conducted in-situ investigations of hydraulic conductivity, assessed compliance with the Technical Specifications, provided guidance for further laboratory testing, and documented construction, CQC and CQA activities.

Okane has investigated the overburden (OVB) material suitability by performing a desktop characterization study, geotechnical veneer stability analysis, and field compaction trials. The OVB material sourced from the open pit is generally well-suited for construction of the required CCL but exhibits considerable variability in optimum water content (OWC) and maximum dry density (MDD). As such, careful consideration of material characteristics is required during placement to demonstrate appropriate compaction of the CCL. Accordingly, Okane has developed the EMRS Cover System Construction Operational Handbook (Okane, 2020d) to guide construction activities: including Technical Specifications and tolerances for Construction Quality Control (CQC) testing and a material selection guide to facilitate application of appropriate reference proctors. Okane continues to update this living document with increased confidence in material characteristic (dry density, clay content, and hydraulic conductivity) relationships and in response to changing field conditions using field testing and laboratory data results, as appropriate.

1.1 Project Objectives and Scope

The objectives of this project are to provide a detailed record of construction (ROC) report for the progressive reclamation closure cover system construction activities that took place on the lower bench slopes of the EMRS during the 2021 construction season. This ROC report serves to document the construction methodology, detail the CQC and CQA processes developed and implemented during this time, and record deviations from the Technical Specifications and design that could impact the closure cover system performance. It is intended the ROC will be used to demonstrate the as-built conditions of the cover system and therefore provide confidence in achieving its expected long-term performance.

The scope of this project involved completion of the following tasks:

- Review of CQC daily reports, laboratory and field test results;
- Review of map data;
- Compilation of CQA audit reports and recommendations; and
- Evaluation of construction methods and CQC activities relative to Technical Specifications and closure cover system design objectives.

1.2 Report Organization

For convenient reference, this report has been subdivided into the following sections:

- Section 2 – describes the EMRS closure cover system design and objectives, and discusses the closure cover system quality assurance approach used for the EMRS;
- Section 3 – provides an overview of the construction scope and cover system construction activities completed during the 2021 construction season;
- Section 4 – discusses occurrences of non-compliance with the Technical Specifications for cover system construction, and associated re-work activities;
- Section 5 – provides a summary of learnings and recommendations for future programs;
- Appendix A– includes the EMRS Cover Construction Operational Handbook;
- Appendix B – provides a summary of both field and laboratory results;
- Appendix C – includes daily placement and heat maps provided by Tulloch;

- Appendix D – provides a summary of daily activities and a record of completed panel sections and includes Tulloch daily reports;
- Appendix E – includes quality assurance inspection reports.
- Appendix F – includes the 2021 document naming convention memo.
- Appendix G – includes the hydraulic conductivity non-conformance memo.
- Appendix H – includes Infrakit As-Built reports for CCL and NCL thicknesses.

2 BACKGROUND

The EMRS has been designed to store and encapsulate PAG mine rock. A cover system consisting of a barrier layer overlain by a growth medium is designed to limit net percolation (NP) and control oxygen (O_2) ingress to the PAG mine rock. The barrier layer within the cover system controls O_2 ingress by effectively eliminating advective gas transport and is an integral part of the overall effectiveness of the cover system. Typically, a barrier layer is classified as a material that limits the maximum saturated hydraulic conductivity equal to or less than 1×10^{-9} m/s. The cover system will be placed over the side slopes, benches, and the upper plateau areas of the stockpile, progressively during operations, and at closure.

The two-layer cover system will consist of:

- A 0.5 m compacted overburden layer placed directly on the landform prepared to the required grade;
- A non-compacted overburden layer of 1.0 m placed directly on the underlying compacted layer to reach a minimum total thickness of 1.5 m;
- A vegetation cover that meets landform land use expectations; and
- A surface water management system that allows for the landform to meet physical stability expectations.

The non-compacted overburden material is the main store-and-release component of the cover system (growth medium), while the layer of compacted overburden material limits NP and O_2 ingress into the underlying mine rock (barrier layer). The cover system provides source control in two ways: the limitation of O_2 into the mine rock, thereby decreasing the oxidation of sulphide materials within; and reduction of water infiltrating through the stockpile and reporting to shallow toe seepage or to the groundwater table.

2.1 Closure Cover System Quality Assurance Process

The following describes the work that was done to assure the progressive closure cover system on the EMRS constructed during the 2021 season was built to design and will ultimately meet performance objectives.

2.1.1 Purpose and Approach

The purpose and approach of the closure cover system CQA program was as follows:

1) Determine if materials are suitable for utilization in the EMRS cover system based through desktop study of known material characterization and variability;

2) Assess feasibility of cover system construction including use of cover materials in field conditions through compaction trials and additional material characterization work;

3) Develop the EMRS Cover System Operational Handbook to provide Technical Specifications and guide construction activities to assure the cover system meets design and closure objectives;

4) Monitor and evaluate construction activities against Technical Specifications, and identify areas where construction does not meet design criteria and may not meet closure objectives;

5) Update Operational Handbook as appropriate, incorporating field learnings and additional material characterization data; and

6) Ongoing cover system performance monitoring to evaluate the constructed cover system meets performance objectives.

2.1.2 Material Characterization

New Gold is utilizing material from the open pit for the construction of the closure cover system on the EMRS. The identified clay OVB within the pit boundary consists of both the Brenna formation and the Whitemouth Lake (WML) formation and range in thicknesses of 1 to 5 m and 2 m to 27 m, respectively. Okane performed a review and desktop analysis of Golder and AMEC characterization data available for the open pit as well as the Brenna and WML formation material from other borrow areas on site (Okane, 2020a).

OVB from the open pit was excavated using a large hydraulic open-faced shovel and stockpiled on the plateau of the EMRS over the 2020/2021 winter in preparation for the 2021 cover system construction season. This material was utilized for most of the construction throughout the 2021 season, with additional material being required due to either material shortages or material being deemed unsuitable for use in the CCL. When required, excess material was hauled from:

- Plateau stockpiles further down chainage where roads were constructed for equipment to complete slope remediation;
- The open pit when scheduling allowed; and
- Stockpiled borrow area located on the EMRS at approximate stationing 1+353, O/S -693m.

Initial review of material properties for both Brenna and WML OVB materials indicated either material would be suitable for use in the NCL and in construction of the CCL layer in terms of meeting hydraulic conductivity objectives, provided field workability and geotechnical stability was further assessed for the WML material. However, the use of the materials together in construction is more challenging, as each material has a different optimum water content (OWC) and target compaction range, requiring involved CQC / CQA effort.

2.1.3 Geotechnical Stability

Given the high plasticity of the WML material, and possibility of formation of slickenside surfaces on a slope, a geotechnical analysis was completed to assess the veneer stability using Brenna and WML materials in the cover system construction (Okane, 2020b). Available information for Brenna and WML materials indicated these materials have equivalent remolded strengths, and a single set of simulations were run to represent the material properties of both materials for the purposes of stability. Results indicated that for the geometries of the lower EMRS bench slopes (including 4H:1V, 5H:1V, and 7H:1V slopes) under base case conditions, minimum factors of safety for long-term stability were met. However, sensitivity analysis for the 4H:1V slope geometry indicated that under elevated moisture conditions, long-term factors of safety would not be met, emphasizing the importance of quality control and assurance, and clean-up during construction to prevent this condition.

2.1.4 Field Compaction Testing

Field compaction trials were conducted in June 2020 as described in (Okane, 2020c). Results of the testing program show that the materials representative of those used during the trials could be successfully incorporated into a CCL with a hydraulic conductivity less than or equal to the design value. Key learnings and considerations for full-scale construction included:

- Importance of material control processes for optimization: implementing material identification and selection controls at source, preparation of material to achieve target water content, and removal of organic and oversize materials;
- Loose lift placement: pushing material downslope with a dozer likely preferred placement method, undulating waste rock surface facilitated loose lift placement, but resulted in variable layer thickness, and high-resolution topographical survey recommended;
- Compaction methodology: at suitable water contents, four passes of the 11 tonne sheepsfoot roller using maximum vibratory action was sufficient to achieve 95% compaction, 1/3 overlap recommended, and a compactor towed behind a dozer may provide an increased level of safety and reliability on the sloped surface; and

- Field testing: a detailed CQC program is required for full-scale construction, techniques that may be employed for determining material compaction characteristics include subjective assessment, one-point compaction tests, three-point compaction tests, and test pads.

2.1.5 EMRS Cover System Operational Handbook (Technical Specifications)

Okane continues to update the EMRS Cover System Operational Handbook, referred to herein as the Technical Specifications, with increased confidence in material characteristic (dry density, clay content, and hydraulic conductivity) relationships and in response to changing field conditions using field testing and laboratory data results, as appropriate. Updates in July 2021 included updated water content specifications, additional density and hydraulic conductivity protocols, and specifications for out of tolerance CCL.

Summary sheets of testing frequencies and tolerances, and construction specifications along with a materials selection guide were developed to accompany the Technical Specification. These documents are specific to the progressive reclamation cover system construction on the EMRS using the OVB material sourced from the open pit and focus on providing clear and concise guidance for construction activities and CQC / CQA practices. The Technical Specifications were developed using available material characterization to ensure the constructed cover system will meet performance and design criteria, including geotechnical stability and hydraulic conductivity requirements of the CCL. It should be noted, in some cases results of material testing may not meet specification, but still be suitable for use in construction, at the discretion of the CQA. The full Operational Handbook is included in Appendix A. Key specifications, tolerances, and testing frequencies are summarized as follows:

2.1.5.1 EMRS Waste Rock Surface

Technical specifications for the EMRS waste rock surface include:

- Relatively dense and uniform foundation for the cover system, with minimal open void and no large protruding rocks;
- Surface prepared to design specifications, and prepared to the satisfaction of CQC; and
- Approved surface shall be surveyed as a record of construction.

2.1.5.2 Compacted Clay Layer (CCL)

Technical specification for the CCL include:

- Material must be free of deleterious material such as organics and oversize materials (>0.250 m);
- CCL shall be compacted to 95% of the maximum dry density, at a moisture content of 0% to 2% dry and 1% to 4% wet (percentage points) of OWC;
- Nominal CCL thickness shall be 0.5 m to a tolerance of -0.1 m / +0.2 m, constructed in two lifts of 0.25 m to a tolerance of -0.1 m /+ 0.2 m;
- Approved areas of the CCL shall not be left exposed longer than 24 hours; and
- Material should have a minimum plasticity index of 10.

2.1.5.3 Non-compacted Layer (NCL)

The technical specification for the NCL include:

- A minimum total thickness 1.0 m, constructed in minimum two lifts to allow for track compaction; and
- Water content of NCL materials should not be greater than 2 percentage points wet of *in situ* water content at placement.

2.1.5.4 Placement and Compaction

The technical specifications related to placement and compaction of the cover system include:

- If dry density variance from additional compaction trials is no greater than 5% the area can be considered compacted and approved. If the variance in the area is found to be greater than 5% the entire panel must be re-compacted to the minimum number of passes required to fall below the 5% variance in dry density.

3 2021 CONSTRUCTION SEASON SUMMARY

This section summarizes the progressive reclamation cover system construction activities that took place on the EMRS during the 2021 construction season. Construction began on May 14, 2021 and concluded on September 27, 2021. Approximately 8.2 ha of cover system was constructed.

3.1 Cover System Construction Roles and Responsibilities

During the 2021 construction season, New Gold constructed the cover system and managed site operations, Tulloch performed CQC testing and laboratory services, and Okane was responsible for CQA and technical guidance (**Error! Reference source not found.**).

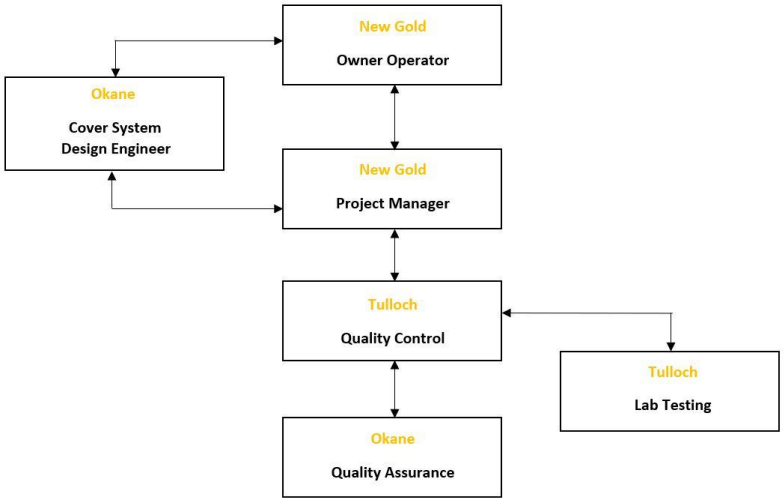


Figure 3.1: Cover system construction responsibilities.

Specific responsibilities of each group were as follows:

New Gold, Owner Operator and Project Manager

- Provided equipment, personnel, and materials required for surface preparation and cover system construction;
- Managed site logistics, including coordination of material management and preparation;
- Provided the CQC and CQA full cooperation in sample taking or conducting tests at their discretion and render such assistance as necessary to enable sampling and testing to be carried out expeditiously;

- Allowed sufficient time for the CQC and CQA to carry out the required test work in order to determine the acceptability of the placed materials;
- Surveyed the waste rock surface as a record of construction to confirm that the landform conforms to EMRS design specifications, and allowed for determination of proper cover system layer thicknesses in all areas; and
- Provided final sign off on daily reports.

Tulloch, Construction Quality Control (CQC)
Verification of quality, through inspection and testing

- Inspected and approved that the waste rock surface met technical specifications for cover system placement;
- Carried out material control tests on materials in excavations and stockpiles prior to compaction to determine the adequacy of the materials for use in the cover system construction as per the Technical Specifications;
- Identified the appropriate compaction curve for the material used in each section of the CCL, by performing a subjective assessment (based on materials selection guide and site experience with the materials). When uncertain of which curve to apply, request a new standard proctor test and/or utilize supplemental techniques to facilitate selection of the compaction curve, as appropriate: one-point proctor compaction tests, three-point proctor compaction tests, or test pads;
- Verified that appropriate construction techniques were used in cover system construction, as outlined in the Technical Specifications (compaction energies applied to CCL, equipment used, surface preparation, CCL exposure times, loosening of NCL, etc.);
- Verified lift thicknesses were within tolerances outlined in the Technical Specifications;
- Conducted record tests on the materials in the completed portions of the CCL following placement and compaction to confirm the adequacy of the work, and to provide an as-built record of the workmanship achieved;
- Approved panels of CCL, given the panels meet the Technical Specifications with support from CQA (remotely or during site rotation) when required;
- Documented activities, observations, samples collected, tests completed, compaction curves selected, as well as approval of any CCL panels in the daily

summary report. Provide summary notes and relevant data to CQA personnel on a daily basis;

- Collected as-built surveys of each lift within the cover system for thickness verifications, quantities, and as-built documentation; and
- Analysis of laboratory samples as provided by CQC or CQA.

Okane, Construction Quality Assurance (CQA) and Cover System Design Engineer
Proactive defect prevention, with a focus on the process for managing quality

- Conducted inspections, audits, and review of all work conducted and approved by the CQC. It is at the discretion of the CQA to provide final approval for completed panels of the cover system construction;
- Reviewed results of CQC testing. CQA's assessment of test results will be final and conclusive in determining compliance with the Technical Specifications;
- Applied correction of water content lab results to field densometer results;
- Performed in-situ hydraulic conductivity testing on the CCL as part of the record testing prescribed in the Technical Specifications, and through audits to confirm the hydraulic conductivity of the CCL is within acceptable range in varying material types;
- Requested additional testing above the minimum outlined in the Technical Specifications, as required to satisfy confidence in cover system construction;
- Conducted a laboratory quality check through the comparison of results from samples sent to an external laboratory to results from the on-site laboratory;
- Provided technical support and guidance to CQC in selection of appropriate compaction curves for construction of the CCL, and provide clarifications of the Technical Specifications, as needed;
- Modified the testing and rates of testing prescribed in the Technical Specifications, and otherwise make modifications to reflect changing conditions, as appropriate;
- Reviewed test results considered to be a 'failure' as per the Technical Specifications and confirmed the materials suitability within the CCL with a focus on *in situ* hydraulic conductivity;
- Provided New Gold with high-level monthly audit reports outlining construction progress, identifying issues, summarizing CQC / CQA activities, and including

recommendation. (Following discussions with New Gold monthly reports were no longer completed after June); and

- Provided a comprehensive Record of Construction Report documenting cover system construction and CQC / CQA activities which occurred during the 2021 construction season.

3.2 Scope of Construction

The scope of construction involves placement of an engineered closure cover system over the mine rock on the lower bench slopes of the EMRS deemed ready for progressive reclamation. The closure cover system consists of a 0.5 m compacted clay layer overlain by a 1.0 m non-compacted layer to achieve a minimum 1.5 m total thickness. These lifts are to be constructed as per the Technical Specifications (Okane, 2020d). New Gold provided the equipment and operators during 2021 construction activities.

3.2.1 Safety and Environment

Few safety and/or environmental incidents occurred during the 2021 construction season. The first instance being the cover system construction start date being delayed until May 13, 2021, due to a Covid-19 outbreak at the Rainy River site. Once construction began, frequent sightings of bears (cubs and adults) were common on the North side of the EMRS. The bears generally kept their distance and remained close to the tree line, however, on one occasion a cub was spotted in the stockpiles next to the lift in progress.

On July 4th at 9:00 am an emergency call was made across all radio stations for a man down in the pit. All work was halted while mine rescue and medical aid was dispatched. The all clear was made at 9:45 am, and construction continued.

On July 11th an electrical fire occurred at the mill. The fire resulted in mine rescue being dispatched and operations on the EMRS were temporarily shut down.

On July 19th a Tulloch light vehicle was struck by lightning at the tailings management area (TMA). This occurred during a standdown due to lightning being reported in a 10 km radius by security. Proper procedures were followed, and an incident report was completed. This incident resulted in the lightning radius required for a work stoppage being reduced from 15 km to 10 km with all ground personnel needing to return to their vehicles and operators pausing construction until lightning has moved away.

On July 20th at 8:30 am an emergency call was made for a man down at the mill. Work was halted while mine rescue was dispatched. The all clear was given at 9:00 am, and construction on the EMRS resumed.

On August 2nd EMRS construction was briefly halted at 6:05pm due to a fire in a garbage bin on site.

The lone environmental incident observed on the EMRS during construction occurred on July 2nd with a hydraulic oil spill from D8-2 during the construction of P12, L2. The New Gold supervisor was notified, and a spill report was completed. The spill was estimated to be around 10 gallons, resulting in a spill containment drum being brought to site for the disposal of contaminated soil and spill pads once the D8-2 dozer was able to be moved. All spill pads and contaminated soils were removed and disposed of on July 3, 2021.

3.2.2 Equipment Used

Equipment used on this project included two CAT D8T dozers, a CAT 349 excavator, and a CAT CP56B sheepsfoot vibratory soil compactor. Both CAT D8T dozers are equipped with GPS blade control to increase proficiency in determining lift thicknesses of the CCL and NCL. Issues with the GPS blade control system occurred throughout the season resulting in instances where only one dozer was utilized for final grade placement, or where Tulloch provided grade checks to allow placement to continue. These occurrences generally slowed progress but never resulted in work stoppages.

3.2.3 Naming Convention

In anticipation of the volume of documents to be produced over the course of the 2021 construction season, Okane proposed a common naming convention for documents to facilitate organization and streamline data filtering (Appendix F). Once implemented, organizing document names in this way enabled advanced search functions in Infrakit, generated consistency, and ordered documents logically in folder storage.

The addition of panel codes allowed the tracking and naming of distinct panel sections which allowed all parties to accurately reference sections of the cover system construction. A panel was defined as all four lifts of material placed together in one section, and the adjacent key-in area.

3.3 Construction Completed in 2021

The overall area of the lower EMRS slopes that was completely covered and surveyed during the 2021 construction season was 8.20 ha of CCL and 8.12 ha of NCL. 95.9% of CCL placement and 93.2% of NCL placement fell within tolerances (Table 3.4). A monthly breakdown of construction is included in Table 3.1 as well as in Sections 3.3.1 through 3.3.5. A visual overview of the construction area is included in **Error! Reference source not found.** to 3.5.

Table 3.1: Panels completed per month.

Month	Panels Completed
May, 2021	P01 – P02
June, 2021	P03 – P10
July, 2021	P11 – P19
Aug, 2021	P20 – P25
Sept, 2021	P27 – P29

*Indicates number of fully completed panels per month.

3.3.1 May Summary

Cover system placement began on May 14th following a delay due to a Covid-19 outbreak at the Rainy River site. During May, a low of 1°C and a high of 29°C were recorded, along with 7 occurrences of rain. A small amount of snow occurred on the morning of May 26 which melted as temperatures increased in the afternoon. P01 construction began on the North side of the EMRS at a starting stationing of 2+925 and progressed East further down chainage. During May, Panels 1 and 2 were completed. The OVB material was used to construct two compacted 0.25 m lifts. For each lift, material from the stockpile location on the plateau was spread over the slope of the waste rock with a dozer to achieve a nominal loose lift thickness of ~0.3 m. Each lift was compacted with at least four passes of a sheepsfoot roller (minimum 1/3 pass overlap). Vibratory action was determined to be disadvantageous in current conditions, as excess water brought to the surface of the soil during vibration rendered it unworkable.

During the placement of P01, L1 large quantities of frost and frozen material were discovered within the stockpiled material which could cause challenges for both regulating moisture content throughout the lift, compaction, and field testing. This discovery halted construction as the material was exposed and given time to thaw. During this time the recommendation was made to begin stripping the top of the stockpiles to the frost line in advance of construction activities to allow for material to thaw, and dry as necessary. This process aided in eliminating future delays but required monitoring of the moisture content of the exposed material in warm windy conditions to ensure over drying did not occur.

The initial construction methodology had the slope constructed separately from the crown and bench for P01. Moving forward the recommendation was made to complete the entirety of the panel at the same time to avoid tying in CCL lifts together unnecessarily and avoid confusion of field and lab results. At the end of May Panels 3 and 4 were still in progress with construction of P03, L2 and P04, L1. All notes on these panels are included in the June summary below.

3.3.2 June Summary

During June,a low of 1°C and a high of 35°C were recorded, along with 9 occurrences of rain. Cover system construction was completed on the North side of the EMRS from Panels 3 to 10 (2+855 to 2+530). The OVB material was used to construct two compacted 0.25 m – 0.30 m lifts. For each lift, material from the stockpile location on the plateau was spread over the slope of the waste rock with a dozer to achieve a nominal loose lift thickness of ~0.30 m – 0.35 m. Each lift was compacted with a sheepsfoot roller (minimum 1/3 pass overlap); the number of passes used varied from the minimum specified four passes in the Construction Handbook due to a requested switch from four to two passes with the roller and the subsequent compaction trials. Vibratory action during compaction was determined to be disadvantageous for P03 through P10, as excess water brought to the surface of the soil during vibration rendered it unworkable. Vibratory action was utilized for P11 and P12 as the material appeared visually dry. Vibratory action did not bring excess water to the surface of the soil in these areas, and panels were compacted successfully.

Compaction trials were completed on the CCL in P03 to test if fewer passes than the four passes by the soil compactor specified in the Construction Handbook could be used, considering the testing results of the material and optimal moisture contents observed in the panel. Results of the compaction tests showed a very slight increase in compaction for the first additional four passes and the final four passes showed a decrease in compaction. This indicated that sufficient compaction of the material was achieved during the initial two passes of the sheepsfoot roller during construction of P03. Compaction trials were implemented as common practice in June to assess if fewer passes were appropriate for construction of each panel. Panels 4 to 10 were constructed with two passes of the sheepsfoot roller. An in-depth breakdown of the compaction trials is located in Section 3.3.6.

Due to issues with thin spots appearing on the CCL heat maps, the decision was made to place CCL material in 0.30 m lifts instead of 0.25 m lifts in order to decrease the likelihood of future problem areas / inspections. This resulted in the CCL being placed within tolerance at the maximum thickness of 0.60 m, with the total cover system thickness continued to be built to 1.5 m. This change was reviewed and approved by Okane after discussions in the June 8th weekly meeting. P03 – P05 were constructed with 0.25 m CCL lifts, and the change was made beginning with P06 being constructed with 0.30 m CCL lifts. A full breakdown of this change is located in Section 4.1.2

At the end of June, Panels 11 and 12 were still in progress with construction of P11, L3 and P12, L1. All notes on these panels are reflected in the July summary below.

3.3.3 July Summary

During July, a low of 12°C and a high of 34°C were recorded, along with 5 occurrences of rain. Cover system construction was completed on the Northeast corner of the EMRS from Panels 11 to 19 (2+530 to 2+185). The OVB material was used to construct two compacted 0.30 m lifts. For each lift, material from the stockpile location on the plateau was spread over the slope of the waste rock with a dozer to achieve a nominal loose lift thickness of 0.35 m. Each lift was compacted with two passes of the sheepsfoot roller (minimum 1/3 pass overlap).

During the construction of P14, L1, a compaction trial yielded an abnormally high jump in compaction of 6% between 2 and 4 passes by the compactor. Previous compaction trials up to this point had yielded a minimal increase or decrease in compaction (0.5%-3%). New Gold was comfortable moving forward with the next lift and made the decision to not complete an additional compaction trial. A partial compaction trial was completed on P14, L2 with New Gold being comfortable moving forward with construction prior to its completion. Hydraulic conductivity testing was performed in this area of concern to ensure the overall performance of the cover system was met. Borehole permeameter EMRS21_BP_P14_L2_B17_210729 was completed, which resulted in a passing hydraulic conductivity of 3.3 x10^{-10} m/s.

Steady warm temperatures and occasional high winds were a frequent occurrence throughout July. This resulted in CQA shortening the 24hr window for the coverage of the CCL in several instances due to the increased rate of desiccation observed in the completed CCL lifts. To reduce the amount of time the completed CCL lifts were exposed, a change in construction methodology for subsequent lifts occurred. This change involved covering lifts completely at a decreased depth over the entirety of the lift before being finished to final grade, opposed to completing the lift at grade from crest to toe. This reduced the time approved lifts were exposed and lowered the risk of rework due to the desiccation of completed CCL lifts.

During the construction of P18, L1 a large amount of oversize and smaller pieces of stone were noted. Approximately twenty to thirty pieces of oversized material were removed with the excavator prior to compaction, while smaller stones were frequently found during the testing process. This resulted in 13 nuclear density tests required to obtain six results without an increased dry density and lower moisture content due to the presence of stones near the testing probe. The stockpiled material used in L1 was saved for NCL use while material was brought in from a borrow source to complete P18, L2. Hydraulic conductivity testing was performed in this area of concern to ensure the overall performance of the cover system was met. Borehole permeameter EMRS21_BP_P18_L2_B19_210810 was completed, which resulted in a passing hydraulic conductivity of 8.9 x 10^{-10} m/s.

Ongoing remediation of the waste rock surface ahead of production was completed by both Mine Operations and Capital Projects starting beyond station 2+300. The process of excavating roads through stockpiled material in areas where extra waste rock was to be brought in was started on July 7th. At the end of July panels 20 and 21 were still in progress with construction of P21, L3 and P21, L1. All notes on these panels are reflected in the August summary below.

3.3.4 August Summary

During August, a low of 8°C and a high of 34°C were recorded, along with 7 occurrences of rain. Cover system construction was completed on the East side of the EMRS from Panels 20 to 25 (2+185 to 1+990). The OVB material was used to construct two compacted 0.30 m lifts. For each lift, material from the stockpile location on the plateau was spread over the slope of the waste rock with a dozer to achieve a nominal loose lift thickness of 0.35 m. Each lift was compacted with two passes of the sheepsfoot roller (minimum 1/3 pass overlap).

During the construction of P22 CCL, a small amount of stockpiled material was utilized before becoming overly rock filled. To avoid a similar situation as P18 the remainder of the CCL was constructed with borrow material which appeared dark brown and moist with a moderate amount of rock. Moving forward the stockpiled material continued to be examined and its suitability for CCL use was determined on a case-by-case basis. The majority of CCL placement from Panels 22 to 24 consisted of material from a stockpiled borrow source due to a shortage of material stockpiled on the plateau which contained a large quantity of stone (unsuitable for use in CCL). During the construction of P23 a new location from the current stockpiled borrow source was used. Material from the new location was visually drier with an increased amount of rock. Following concerns over the material quality, New Gold, Tulloch, and Okane met to view the new borrow location. The decision was made by New Gold to move back to the initial location within the stockpiled borrow source to finish the remainder of the lift. Hydraulic conductivity testing was performed in this area to ensure the overall performance of the cover system was met. EMRS21_BP_P23_L2_B22_210826 and EMRS21_BP_P23_L2_B24_210905 were completed, resulting in two marginally failing hydraulic conductivity values of 1.9×10^{-9} m/s and 2.1×10^{-9} m/s. An in-depth breakdown of the hydraulic conductivity results from P23 is located in Section 4.1.3.

Ongoing remediation of the waste rock surface ahead of production was continued by both Mine Operations and New Gold Construction in August. Following the completion of P24, delays occurred while mine ops graded the waste rock surface past P24 to create room for P25. It was decided that following the completion of P25 that operations would move further south to begin construction of P26 at stationing 0+260 to 0+290. This move was required due to the lack of approved surfaces past P25.

On August 17th, P25, L1 was bulk placed at 0.50 m to avoid the level of desiccation reaching the desired L1 depth of 0.30 m. This was done due to the roller being required for work on the TMA while the lift was in progress. Once construction was able to resume on August 20th, the key trench was excavated, and the lift was scraped to the desired depth of 0.30 m. Upon trimming L1 to desired lift thickness, the operator exposed the waste rock surface, revealing an issue with the base surface. Tulloch was able to determine this was a small, isolated area of the crest where the base surface survey was inaccurate by checking other areas of exposed base rock nearby. New base survey points were taken, a new surface was generated, and the area was backfilled to appropriate lift thickness. Heavy rain and lighting caused P25, L1 operations to shut down during field testing on August 20th. Due to the large amount of rain, the material was deemed unworkable and attempts at testing on August 22nd yielded unacceptable results. The decision was made to recompact the lift on August 23rd. Following re-compaction, density testing yielded satisfactory results and P25, L1 was approved.

Following the completion of P25 the equipment was walked further down chainage to begin construction on P26 (0+260 to 0+290). Material was hauled in for use in CCL construction due to the stockpiled material being deemed unsuitable for CCL use. Periods of rain caused delays throughout the construction of P26, L1 until operators and CQA were informed that the base waste rock surface was overbuilt based on its design elevation after Mine Ops review, and construction was stopped immediately. At the end of August, P27 was still in progress with construction of P27, L1. All notes on these panels are reflected in the September summary below.

3.3.5 September Summary

During September, a low of 4°C and a high of 25°C were recorded, along with 7 occurrences of rain. Cover system construction was completed on the East side of the EMRS from panels 27 to 29 (0+114 to 0+225 and 0+339 to 0+388). The OVB material was used to construct two compacted 0.30 m lifts. For each lift, material from the stockpile location on the plateau was spread over the slope of the waste rock with a dozer to achieve a nominal loose lift thickness of 0.35 m. Each lift was compacted with two passes of the sheepsfoot roller (minimum 1/3 pass overlap). Vibratory action during compaction was determined to be disadvantageous for P27 through P29, as excess water brought to the surface of the soil during vibration rendered it unworkable during very wet fall weather.

Following the abandonment of P26; P27 construction was initiated and tied into where construction had concluded at the end of the 2020 construction season (Sta. 0+114). New Gold operators removed the previous seasons frost trials, and the previously placed material was trimmed back (2 m at the crest and 4 m at the toe) to expose the CCL for tie-in to last seasons placement properly. A noted depression in the waste rock surface of P27 was stripped

of organic material and filled in with excess NAG from the toe of the slope prior to Tulloch performing the waste rock survey.

Frequent rain throughout the month of September resulted in numerous delays of the EMRS cover system construction. Combined with rain, decreased temperatures, and reduced hours of sunlight contributed to slower drying times. To combat these conditions, lifts were consistently track packed to remove standing water and aid in the drying process. In addition to track packing lifts, dozers were able to skim a thin layer of wet material from lifts after periods of rain to reach suitable material prior to coverage.

Nuclear densometer testing of P27 yielded a moisture content greater than 100%. Following this reading the gauge was cleaned of moist clay around the probe and the gauge was re-standardized. Following the cleaning, results returned to normal. The nuclear gauge was utilized to complete the testing of P27 and P28, L1 before being sent off site by Tulloch for cleaning.

A new nuclear gauge was utilized for the testing of P28, L2. During the initial testing of P28, L2 the nuclear gauge yielded high dry densities and lower moisture contents on the north side of the bench where nothing was found upon investigation (DD-1738/1708, MC-19.3/21.6). These results varied greatly from the visual inspection of the material as well as L1 results from the same stockpile. Due to the difference in test results compared to visual classification and no data set to support the accuracy of the new gauge, a second gauge was brought to the field as a check. With both gauges standardized and the same settings confirmed, the second gauge provided results which varied greatly from the original gauge (lower densities and higher moisture contents). Two more comparison tests were completed in different areas of the panel which also resulted in large discrepancies (average discrepancy: DD-324, MC-5.4). With the original gauge showing improved results throughout the testing of the slope it was used for the final three density tests of L2. Hydraulic conductivity testing was performed in this area to ensure the overall performance of the cover system was met. Borehole permeameter EMRS21_BP_P28_L2_B26_210927 was completed, which resulted in a passing hydraulic conductivity of 1.7×10^{-10} m/s.

Due to no approved surface immediately north of P28, P29 was constructed further up chainage in an approved area (stationing 0+339 to 0+388). Stockpiled material in this area contained a very high amount of stone and was deemed unsuitable for CCL use. During P29, L2 construction half of the lift was unable to be covered in a timely manner due to lack of operators and difficulty sourcing material for L3. The area which had been left exposed showed signs of extreme desiccation once L3 placement was ready to resume. The recommendation was made to strip the desiccated clay and blend it with more moist material. This section of the lift was stripped, graded, and re-packed. One test was completed to ensure that the lift still met compaction and moisture content specifications, and this section

of the lift was re-approved. The lack of approved surfaces for further placement after the completion of P29 resulted in a work stoppage on September 27th and the conclusion of the 2021 EMRS construction season.

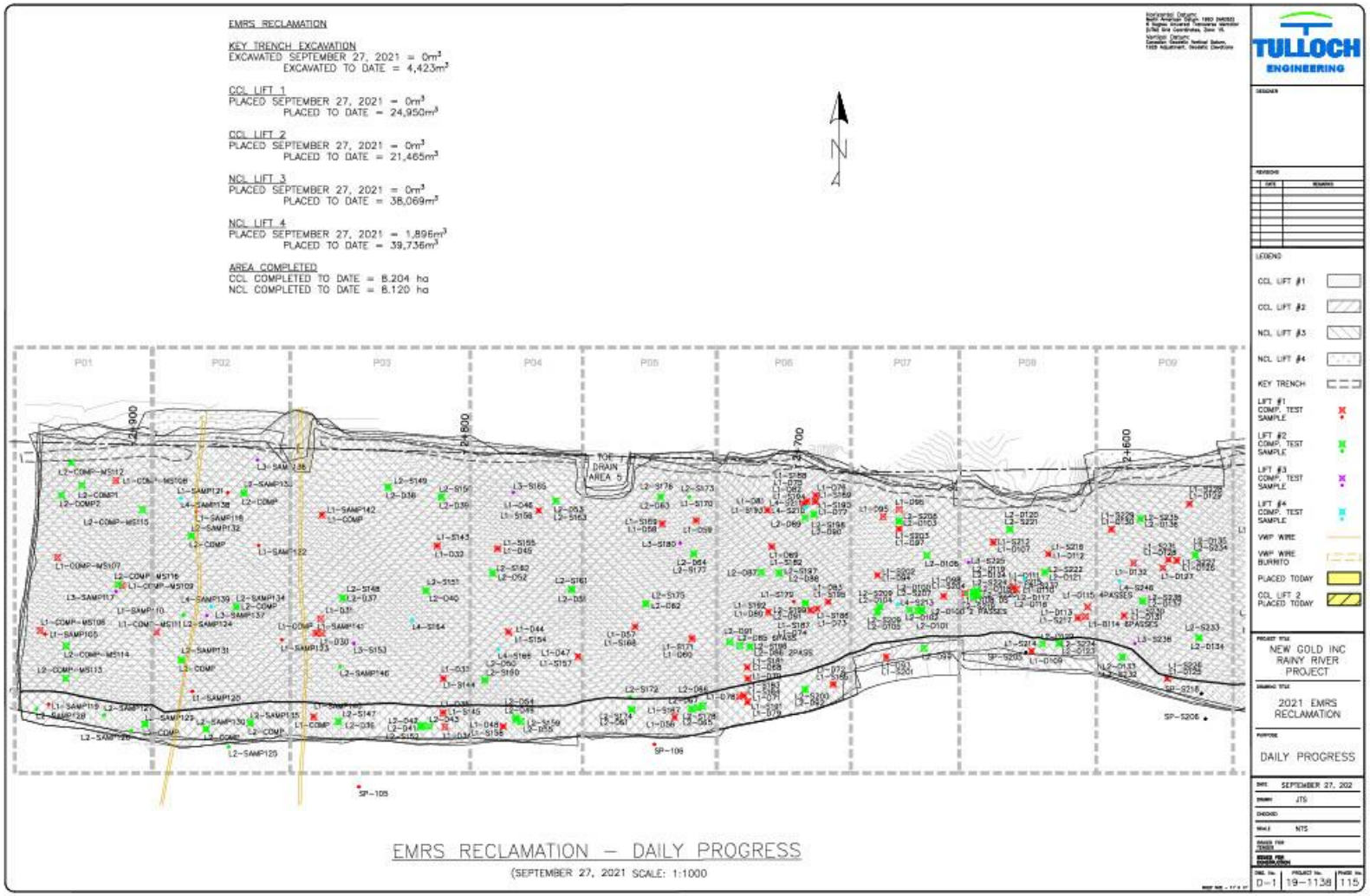


Figure 3.2: Overview of cover system constructed during 2021 (from Tulloch, 2021a).

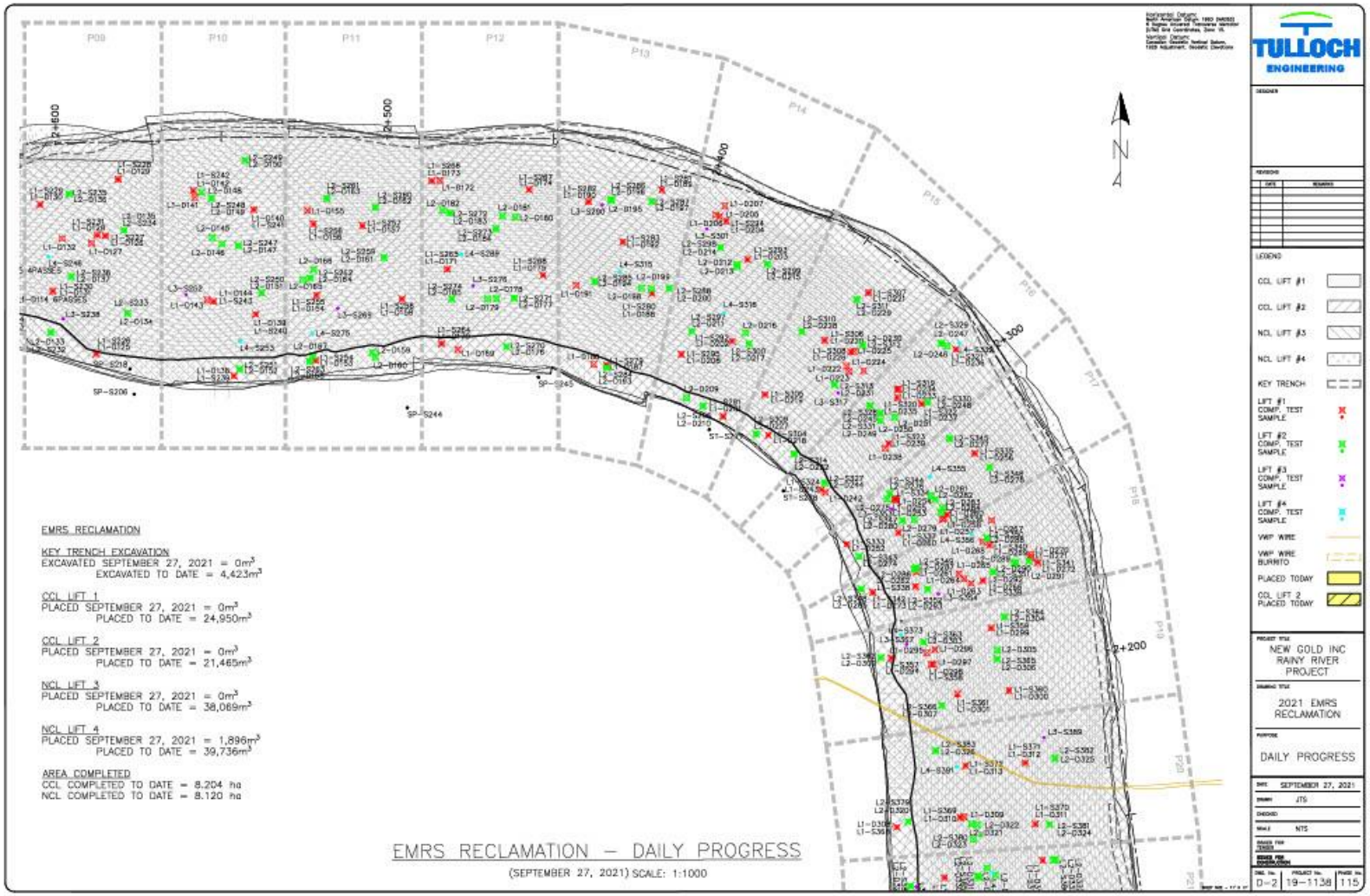


Figure 3.3: Overview of cover system constructed during 2021 (from Tulloch, 2021a).

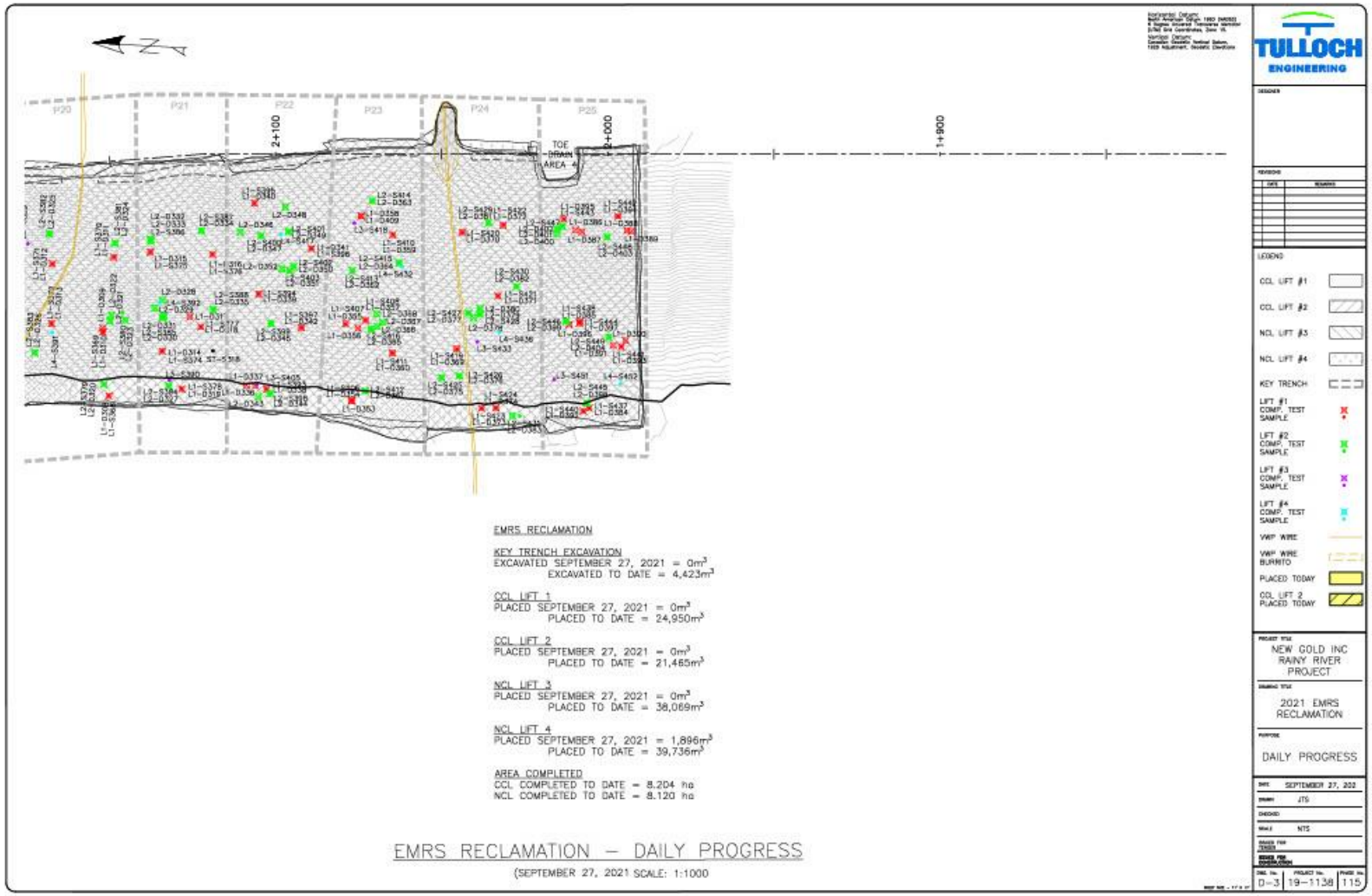


Figure 3.4: Overview of cover system constructed during 2021 (from Tulloch, 2021a).

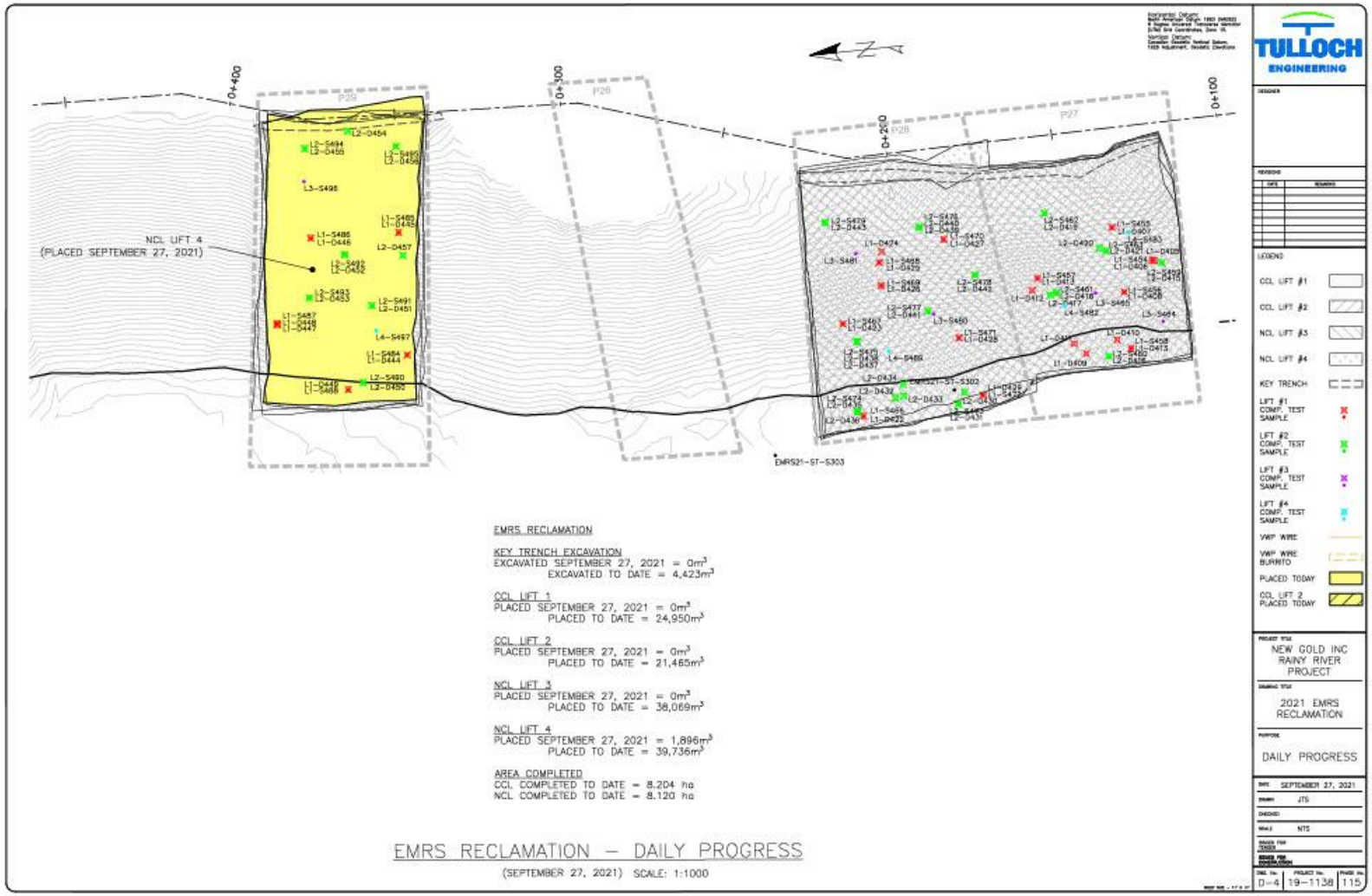


Figure 3.5: Overview of cover system constructed during 2021 (from Tulloch, 2021a).

3.3.6 Material Placement Details

The total as-built volume of NCL and CCL material placed during the 2021 construction season, as reported by Tulloch (2020d), was 124,220 m³ (Table 3.2). To date, 46,415 m³ of CCL and 77,805 m³ of NCL have been placed (Tulloch, 2020b).

Table 3.2: Material placement volumes.

Lift	May 2021	June 2021	July 2021	Aug. 2021	Sept. 2021	Total Material Volume Placed
Lift 1 CCL	3,658 m³	6,813 m³	7,424 m³	4,245 m³	2,810 m³	24,950 m³
Lift 2 CCL	1,879 m³	7,050 m³	5,966 m³	3,315 m³	3,255 m³	21,465 m³
Lift 3 NCL	3,245 m³	11,934 m³	11,251 m³	5,911 m³	5,728 m³	38,069 m³
Lift 4 NCL	3,263 m³	11,671 m³	11,657 m³	6,395 m³	6,750 m³	39,736 m³
Key-in Trench	449 m³	936 m³	1,744 m³	875 m³	419 m³	4,423 m³
Totals	12,494 m³	38,404 m³	38,042 m³	20,741 m³	18,962 m³	128,643 m³

Tulloch, 2021a

Approximate area calculations per month were created using Tulloch's daily placement maps along with a panel approval log maintained by CQA. A summary of the EMRS area covered by month is shown in Table 3.3. The total area of placement for the 2021 season was 8.20 ha of CCL and 8.12 ha of NCL.

Table 3.3: EMRS area covered.

CCL/NCL	May 2021	June 2021	July 2021	Aug. 2021	Sept. 2021	Total Area Surveyed
CCL	0.743 ha	2.726 ha	2.227 ha	1.263 ha	1.245 ha	8.20 ha
NCL	0.707 ha	2.45 ha	2.231 ha	1.516 ha	1.216 ha	8.12 ha

Tulloch, 2021a

3.3.7 2021 Lift Thicknesses

Utilizing detailed survey data provided by Tulloch, Okane was able to compare EMRS lift points against the waste rock surface to create as-built summary reports within Infrakit. The results of these reports are summarized in Table 3.4, with the as-builts located in Appendix H. Of note, following the completion of P05 the targeted constructed lift thickness of each of the CCL lifts was slightly increased to 0.30 m to reduce the frequency of low areas present on daily heat

maps and the subsequent follow-up field investigation required. The NCL was constructed to maintain a total cover system thickness of 1.5 m.

Table 3.4: 2021 lift thicknesses.

Lift	Tolerances	Within Tolerance	Under Tolerances	Over Tolerance
Lifts 1 & 2 – CCL	0.4 m - 0.7 m	95.9%	0.7%	3.4%
Lifts 3 & 4 – NCL	1.5 m - 1.7 m	93.2%	4.2%	2.5%

3.3.8 Preparation of the Mine Rock Surface

During the 2021 construction season the waste rock was graded and smoothed in preparation for CCL placement. Once the area was approved by Mine Operations and the surface was deemed suitable by CQC, a survey of the waste rock surface was completed in a 5'x5' grid to generate an original ground surface for placement of the CCL.

Issues with waste rock surface at the crest of the panels became a frequent occurrence throughout the construction season. This issue was a result of Tulloch not being able to survey the waste rock in areas of the crest due to the stockpiled material in those locations. When inconsistencies in these areas were identified, the material was removed down to the waste rock. If the area in question was an isolated raised pocket of waste rock, the raised pocket was removed to the level of the surrounding waste rock and the excavation was refilled with suitable material. If the area in question was not isolated, the material was removed for Tulloch to reshoot the waste rock and generate an updated surface. In the event where a new surface was created, checks on opposite corners of the crest were completed with a tape measure to ensure an adequate material thickness as well as provide visual confirmation.

Construction on the North side of the EMRS continued until P25 where future construction was halted due to the waste rock surface requiring remediation by Mine Operations prior to approval (past stationing 1+990). This resulted in construction shifting to the Southeast corner of the EMRS. P26, L1 construction began at stationing 0+260 to 0+290 until the waste rock surface in the area did not meet grade, at which time construction on P26 was stopped. P26 was abandoned and the placed material will need to be removed during the slope remediation process.

Following P26 being abandoned, an area of approved waste rock was identified down chainage where 2020 construction had been completed. Panels 27 and 28 were constructed in this area until running out of an approved waste rock surface to continue construction. While remediation work was in progress, an approved area of the EMRS was identified by New Gold to begin P29 construction (0+339 – 0+388). P29 was completed on September 27, 2021 and cover system construction ended due to the lack of approved areas to continue placement.

3.3.9 Compacted Clay Layer (CCL)

OVB from the open pit was excavated using a large hydraulic open-faced shovel and stockpiled on the plateau of the EMRS over the 2020/2021 winter in preparation for the 2021 cover system construction season. A combination of visual analysis by CQA/QCC and stockpile samples were completed pre-emptively to help determine the suitability of the stockpiled material prior to use in panel construction. Where material was deemed unsuitable for use in the cover system, additional material was hauled via the open pit, plateau stockpiles further down chainage, or a suitable stockpiled borrow source.

To begin the 2021 construction season, the OVB material was used to construct two compacted 0.25 m lifts. For each lift, material from the stockpile location on the plateau was spread over the slope of the waste rock with a dozer to achieve a nominal loose lift thickness of ~0.30 m. Each lift was compacted with at least four passes of a sheepsfoot roller (minimum 1/3 pass overlap). The objective of the sheepsfoot roller was to knead the OVB and ensure that the required soil density was achieved and to create a cohesive, homogeneous layer. Vibratory action with the roller was determined to be disadvantageous with the initial material conditions, as excess water brought to the surface of the soil during vibration rendered it unworkable. As material dried throughout the construction season, the use of vibratory action was assessed and implemented when deemed necessary to ensure the material was fully compacted.

After the completion of P2, the request was made by New Gold to reduce the number of passes with the sheepsfoot roller from four to two. This request was made based on the hypothesis that considerate compaction is achieved during the placement process by the dozers. In response to this request, a compaction trial was completed during P03 CCL construction to determine if two passes with the roller would achieve adequate compaction considering the test results of the material and optimal moisture contents observed in the panel. First, a section of the panel was compacted two times by the CAT CP56B sheepsfoot roller, and a densometer test was completed recording the initial state of the CCL layer. Four more passes were made by the sheepsfoot roller, and a nearby location was tested with the densometer. An additional four passes were made by the sheepsfoot roller, and the density was tested a third time. Results of the compaction tests showed a very slight increase in compaction for the first additional four passes, which indicated that the first two passes were enough to compact the soil in this location. The final four passes showed a decrease in compaction, which suggested the material had been over-compacted or that the uniform lift was being pushed into the underlying void space within the waste rock surface therefore losing its structure in this location. Densometer testing indicated that this method (considering the current OVB materials and conditions) achieved sufficient compaction of the material during construction of P03.

The Technical Specifications were not changed as the suitability of using fewer passes was deemed highly dependant on site conditions and material quality; however, this method of trialing compaction was implemented as common practice following the completion of P03 to assess if fewer passes were appropriate for construction of future panels. A modified compaction trial of two, four, and six passes was conducted once per panel to confirm required number of passes, as well as to demonstrate the material was compacted adequately when a representative proctor was not available in the field. The frequency of one compaction trial per panel continued until P14 where it was decided that moving forward compaction trials would be completed at the CQA's discretion if:

- A representative proctor was not used
- Testing results did not meet specifications
- A visible change in material was noted

If the previous instances did not occur and testing results met specifications a compaction trial was not warranted. After compacting each lift, CQC testing was performed to confirm the completed area met minimum compaction requirements for the material and surveyed to confirm appropriate lift thicknesses were achieved. In cases where the Technical Specifications for compaction were not met, the previously mentioned compaction trials and / or additional material characterization assessment was performed to ensure the material and associated compaction criteria were appropriately classified, and that the material water content was in an acceptable range.

Technical specifications indicate the CCL should be covered within 24 hrs to prevent desiccation. Due to varying weather conditions throughout the 2021 construction season, this timeline was shortened or increased when deemed appropriate by CQA. Additional testing was completed on areas that were left exposed to confirm suitability before subsequent layer placement. If deemed unsuitable, the area was stripped and re-worked.

Lift thicknesses were field verified by Tulloch during construction with the subsequent heat maps for both CCL and NCL being sent out in the following days. With the switch in construction methodology to a targeted 0.60 m CCL the frequency of low areas represented in the heat maps dropped dramatically. The change of targeted CCL thickness is discussed further in Section 4.1.2

3.3.9.1 Compacted Clay Layer Key-in Trench

The CCL was extended and used to backfill the cover system key-in trench, forming a continuous liner. The CCL material was placed in two lifts, compacting as best as reasonably possible with appropriate equipment. In areas where bedrock outcrops occurred at the base of the slope, the CCL was formed over and blended into the bedrock formation to the final

slope configuration. If a trench was terminated at the maximum depth of 3 m, backfilling was conducted as described above. Due to safety concerns around access to the trench for surveying in situations where the depth of excavation exceeded 1.0 m it was noted that no worker should enter the trench and that CQA would accept a survey along the top of the key-in trench with a corresponding estimated depth. All vegetation was removed prior to the CCL and subsequent NCL being placed on any natural ground. Table 3.5 outlines the key-in trench details for the construction season.

Table 3.5: Key-in trench summary.

Panel	Location	Date	Comment
1	2+925 – 2+890 (35m)	14-May-21	Suitable tie in material reached prior to 3m. Water slowly filled trench from below the waste rock. Recommendation made to complete further key trenching when material was ready to be back filled.
2	2+890 – 2+855 (35m)	22-May-21	Suitable tie in material reached at approximately 2m. No water infiltrating into the excavation.
3	2+855 – 2+797 (58m)	28-May-21	Suitable tie in material reached at varied depths of 2.5m to 1.0m through the length of excavation.
4	2+797 – 2+760 (37m)	02-June-21	Key trench dug to approximately 2m with silty clay material found and deemed suitable.
5	2+760 – 2+722 (38m)	07-June-21	During excavation bedrock was reached at varied depths of 1.0m to 2.0m
6	2+722 – 2+682 (40m)	09-June-21	Bedrock reached throughout the entirety of the key trench at shallow depths
7	2+682 – 2+652 (30m)	14-June-21	Bedrock reached throughout the entirety of the key trench. Waste rock was pulled back in areas to allow adequate tie in
8	2+652 – 2+610 (42m)	18-June-21	Bedrock reached throughout the entirety of the key trench. Bedrock visible at the start of excavation with more material needing to be removed at the east edge where the bedrock ended.
9	2+610 – 2+570 (40m)	22-June-21	The trench was dug to a 3m depth due to no acceptable material or bedrock found until the last few meters where clay was hit and the trench was brought up to roughly 2.5m. Due to the depth of the excavation Tulloch surveyed the exterior of the trench and used the excavator arm to measure depth.
10	2+570 – 2+530 (40m)	25-June-21	Key trench dug to approximately 2.5m. Spots of water appearing and material suitable for key trench was identified
11	2+530 – 2+490 (40m)	29-June-21	Key trench completed terminated at a depth of roughly 3.0m

12	2+490 – 2+440 (50m)	1-July-21	Key trench excavated at depths of 2.0m to 3.0m where suitable tie in material found
13	2+440 – 2+403 (37m)	4-July-21	Key trench excavated at depths of 2.0m to 3.0m where silty clay material was reached
14	2+403 – 2+362 (41m)	7-July-21	Key trench terminated at a depth of approximately 3.0m where silty clay was reached
15	2+362 – 2+320 (42m)	10-July-21	Key trench completed at a depth of roughly 1.5m. Silty clay was reached for adequate tie in with the CCL. Water began slowly seeping into the west end of the trench.
16	2+320 – 2+290 (30m)	14-July-21	Adequate tie in material reached at 2.0m
17	2+290 – 2+261 (29m)	18-July-21	Suitable silty clay material reached at approximately 1.5m Water slowly infiltrating into the trench from under the waste rock surface
18	2+261 – 2+220 (41m)	19-July-21	Adequate material for tie in with CCL reached at approximately 1.75m during key trench excavation.
19	2+220 – 2+185 (35m)	25-July-21	Very sandy soil present during excavation. Key trench terminated at approximately 3.0m
20	2+185 – 2+145 (40m)	30-July-21	Very sandy soil present during excavation. Key trench terminated at approximately 3.0m with a 5.0m buffer left on both sides of Golder instrumentation
21	2+145 – 2+115 (30m)	31-July-21	Very sandy soil present during excavation. Key trench terminated at approximately 3.0m
22	2+115 – 2+085 (30m)	4-Aug-21	Key trench terminated at 3.0m in sandy material
23	2+085 – 2+055 (30m)	6-Aug-21	Key trench completed at a depth of roughly 2.5m with suitable silty clay being found. The key trench was terminated prior to the burrito.
24	2+055 – 2+022 (33m)	10-Aug-21	Key trench completed to a depth of roughly 1.0m in an area of pooled water between the burrito and toe drain. Silty clay material was present and the standing water from the low area filled the excavation
25	2+020 – 1+990 (30m)	20-Aug.-21	Key trench terminated at a depth of approximately 3.0m
27	0+114 – 0+175 (61m)	30-Aug.-21	Key trench continued from end point of the 2020 season at depths of 0.5m to 1.5m on bedrock. Rainwater in key trench was removed by the excavator as best as possible before backfilling
28	0+175 – 0+225 (50m)	2-Sept.-21 4-Sept.-21	Key trench completed at varying depths with bedrock reached throughout the excavation. On September 4th the decision was made to widen P28 resulting in the key trench being extended to the new width of the panel. The key trench was again terminated at varying depths with bedrock being reached throughout the excavation.

29	0+339 – 0+388 (49m)	18-Sept.-21	Key trench was originally excavated to roughly one 1 foot on Tulloch recommendation that it was at the water table. Okane requested a test hole be dug away from the standing water, in line with the key trench, to determine if the trench was at the water table. The soil removed from this test area was very dry, silty sand, and was not below the water table. The trench was then dug to a depth of roughly 3m.

3.3.10 Non-Compacted Layer (NCL)

OVB material for the NCL was sourced simultaneously with the material used for construction of the CCL. The OVB material, consisting of Brenna, WML, or a mix, was stockpiled on the plateau of the EMRS prior to NCL placement. After approval of a CCL section, material was spread in two lifts of approximately 0.45 m – 0.55 m to achieve a total minimum cover system of 1.5 m. The variability in NCL thickness is a result of the NCL being placed to achieve the total cover thickness of 1.5 m based on the corresponding CCL depth below. Each layer was surveyed to confirm that the total minimum layer thicknesses had been achieved. An estimated 77,805 m^3 of NCL material was placed in 2021 (Tulloch, 2020b).

3.3.11 CCL and NCL Laboratory Testing Frequencies

A summary of the laboratory testing completed during the 2021 construction season and the associated frequencies is provided in Table 3.6 and 3.7. Material sampling and laboratory testing frequencies for the material during construction are prescribed in the Technical Specifications (Okane, 2020d) and included for reference in Table 3.7. These are the minimum requirements, and additional testing is often required and / or recommended to account for changes in material texture, and at the discretion of the CQA.

Due to the occasional occurrence of large variances between lab and field moisture content results, the frequency of water content testing being completed at a 1:1 ratio with nuclear densometer testing was deemed necessary throughout the 2021 season. This resulted in the minimum prescribed frequency of gravimetric water contents at 1 per 1,000 m^3 being greatly exceeded throughout construction.

Table 3.6: Summary of laboratory testing.

Laboratory Test	No. of Tests Completed (May 2021)	No. of Tests Completed (June 2021)	No. of Tests Completed (July 2021)	No. of Tests Completed (August 2021)	No. of Tests Completed (September 2021)
CCL Materials					
Gravimetric water content (ASTM D2216-19)	36	97	97	58	29
Atterberg Limits (ASTM D4318-00)	7	18	19	11	5
Particle Size Distribution – Hydrometer (ASTM D6913M-17, D7928-17)	7	18	21	11	5
Standard Proctor (ASTM D698-12e2)	2	2	4	3	2
NCL Materials					
Gravimetric water content (ASTM D2216-19)	5	12	16	12	10
Particle Size Distribution – Hydrometer (ASTM D6913M-17, D7928-17)	3	7	12	9	7
Stockpile Samples					
Gravimetric water content (ASTM D2216-19)	0	2	2	0	0
Atterberg Limits (ASTM D4318-00)	0	2	2	0	0
Particle Size Distribution – Hydrometer (ASTM D6913M-17, D7928-17)	0	2	2	1	0
Standard Proctor (ASTM D698-12e2)	7	5	7	5	0

Table 3.7: Summary of laboratory testing frequencies.

Laboratory Test	Prescribed Testing Frequency[1]	Actual Testing Frequency (May 2021)	Actual Testing Frequency (June 2021)	Actual Testing Frequency (July 2021)	Actual Testing Frequency (August 2021)	Actual Testing Frequency (September 2021)
CCL Materials						
Gravimetric water content (ASTM D2216-19)	1 per 1000 m^3	7.2 per 1000 m^3	6.8 per 1000 m^3	7.4 per 1000 m^3	7.5 per 1000 m^3	4.9 per 1000 m^3
Atterberg Limits (ASTM D4318-00)	1 per 1000 m^3	1.2 per 1000 m^3	1.3 per 1000 m^3	1.4 per 1000 m^3	1.4 per 1000 m^3	0.8 per 1000 m^3
Particle Size Distribution – Hydrometer (ASTM D6913M-17, D7928-17)	1 per 1000 m^3	1.2 per 1000 m^3	1.3 per 1000 m^3	1.6 per 1000 m^3	1.4 per 1000 m^3	0.8 per 1000 m^3
Standard Proctor (ASTM D698-12e2)	1 per 4000 m^3	1.0 per 4000 m^3	0.9 per 4000 m^3	1.3 per 4000 m^3	0.9 per 4000 m^3	1.7 per 1000 m^3
NCL Materials						
Gravimetric water content (ASTM D2216-19)	1 per 2000 m^3	1.5 per 2000 m^3	1.0 per 1000 m^3	1.5 per 1000 m^3	1.8 per 1000 m^3	1.6 per 1000 m^3
Particle Size Distribution – Hydrometer (ASTM D6913M-17, D7928-17)	1 per 3000 m^3	1.4 per 3000 m^3	0.9 per 4000 m^3	1.7 per 4000 m^3	2.1 per 4000 m^3	1.7 per 1000 m^3

*Indicates frequency of tests per completed panels only

[1] Okane, 2020d.

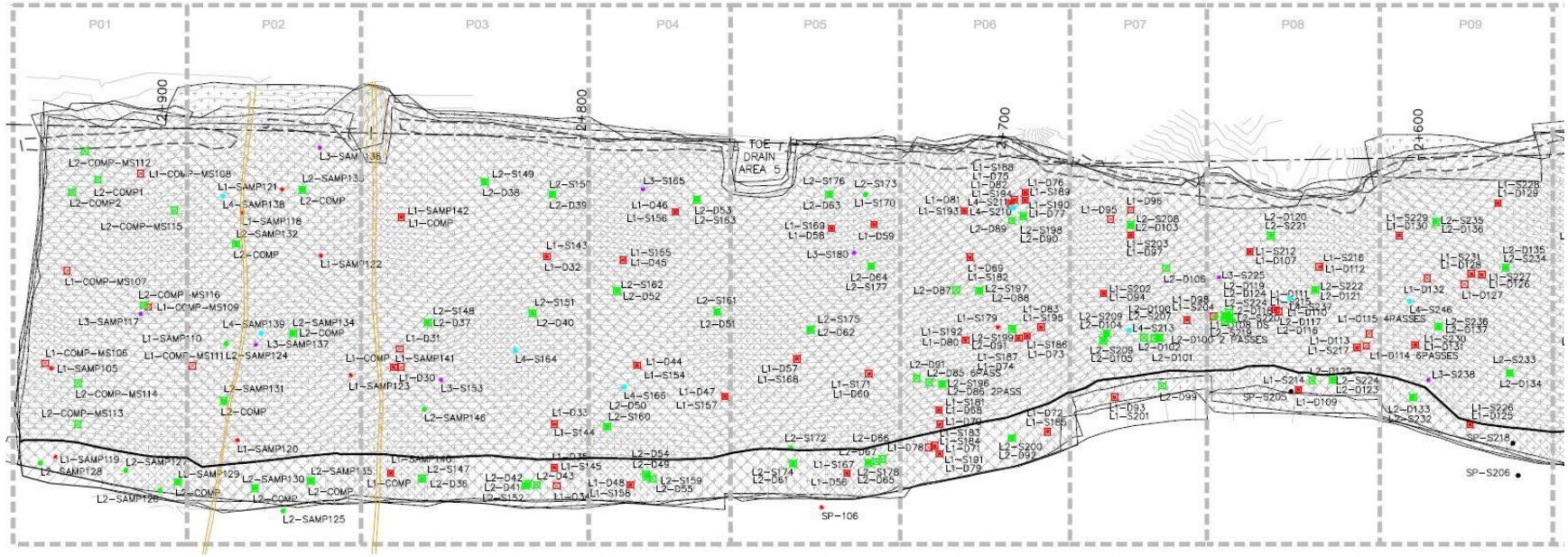


Figure 3.6: Material testing locations on the North slope of the EMRS (Tulloch, 2021a).

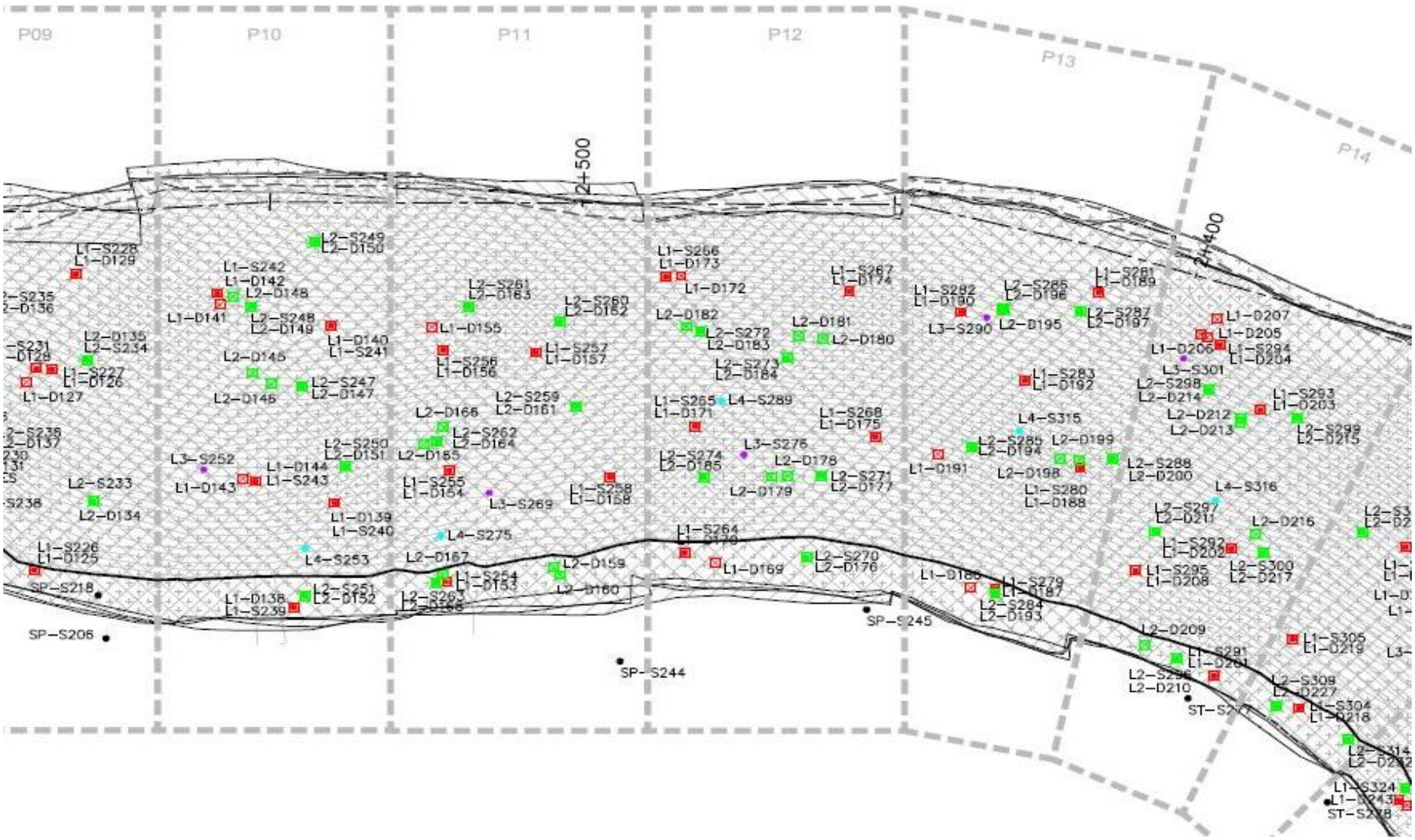


Figure 3.7: Material testing locations on the North Slope of the EMRS (Tulloch, 2021a).

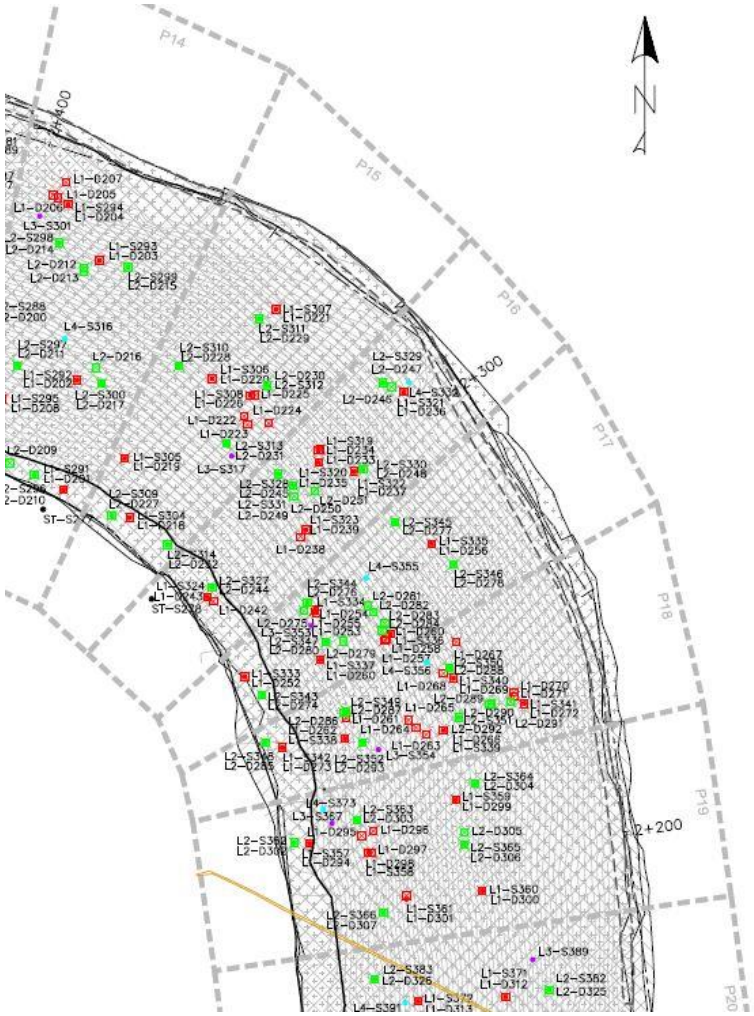


Figure 3.8: Material testing locations on the Northeast Slope of the EMRS (Tulloch, 2021a).

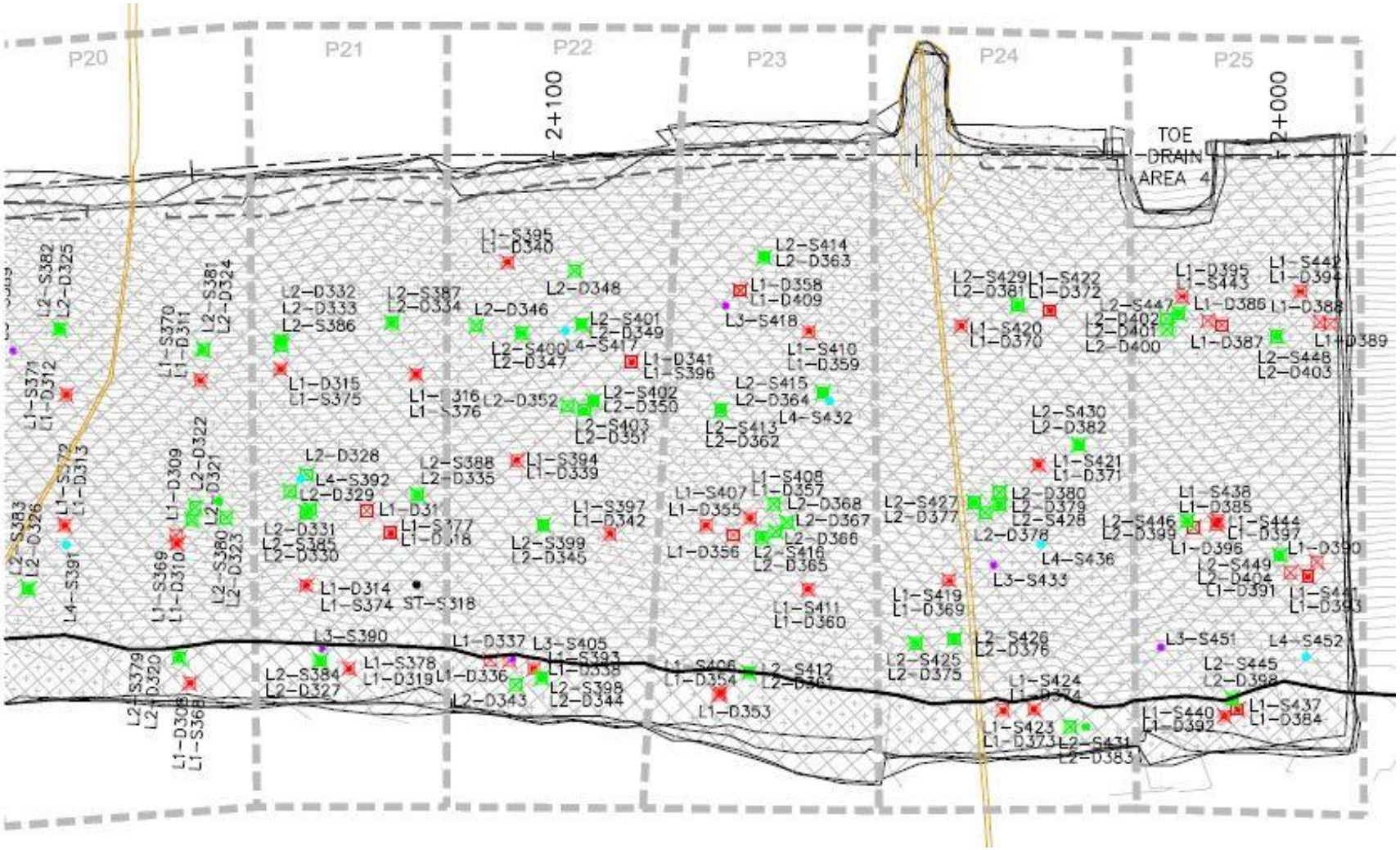


Figure 3.9: Material testing locations on the East Slope of the EMRS (Tulloch, 2021a).

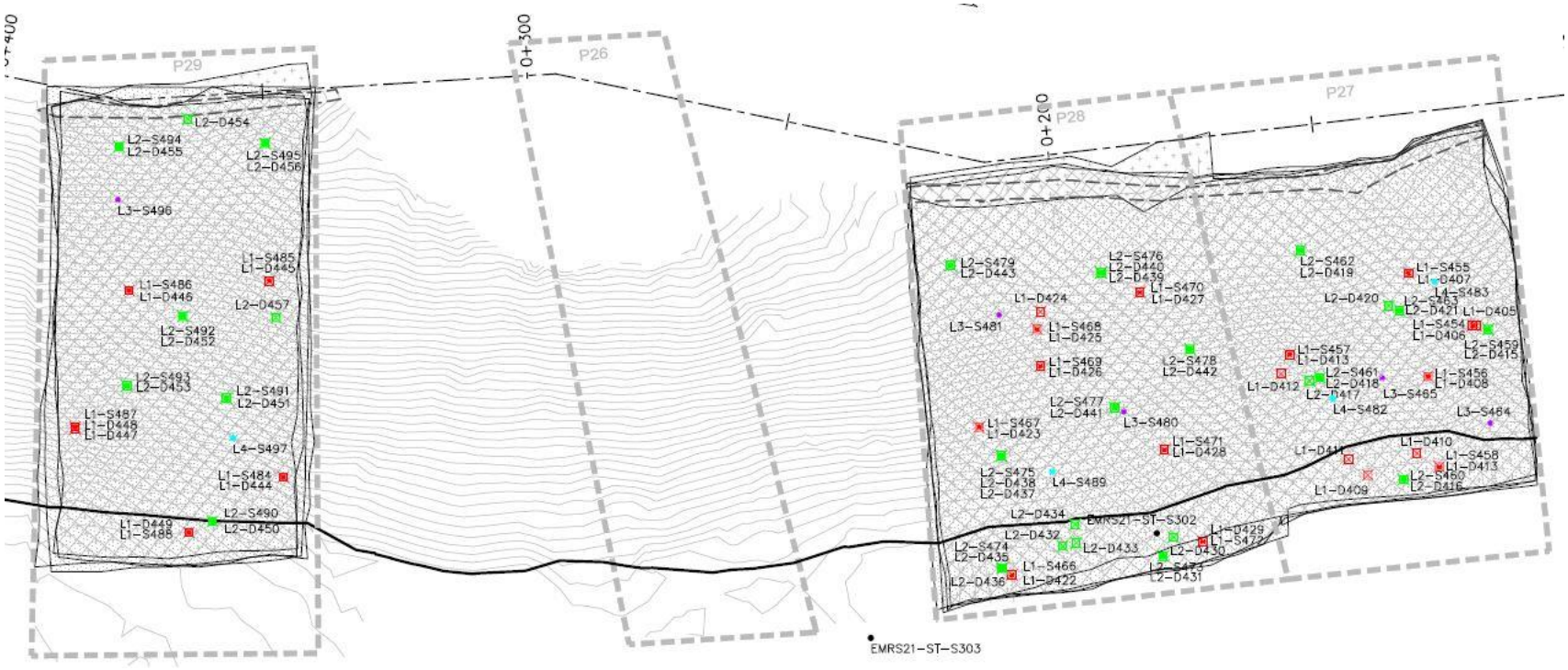


Figure 3.10: Material testing locations on the East Slope of the EMRS (Tulloch, 2021a).

3.3.12 Comparison Samples

Three samples were taken during the 2021 construction season (S179, S366, and S416) for comparison testing by a third-party laboratory (P. Machibroda Engineering in Saskatoon). These samples were taken throughout the course of construction as checks on the laboratory testing being completed by Tulloch. The resulting third-party results aid in understanding any variances that could potentially affect the overall performance or approvals of the CCL.

Hydrometer results from P. Machibroda for the July comparison sample (S366) yielded an abnormally high variance from Tulloch's laboratory results. A difference of 28.8% in clay content (37% - P. Machibroda, 65.8% - Tulloch) resulted from the two samples, which is greater than any expected variance between two samples taken in the same location at the same time. Based on the corresponding Standard Proctor, Atterberg Limits, and densities, the third-party results are deemed accurate with an error likely occurring during testing of S366 on site. The remainder of comparison testing yielded comparable results with a minimal level of variance.

3.3.13 CCL and NCL In-situ Testing Frequencies (Record Testing)

The purpose of record testing is to verify the CCL material is compacted within the specified range of OWC, yielding a high MDD result and ultimately an acceptably low as-constructed saturated hydraulic conductivity. Record testing of the CCL included *in situ* water content and density testing completed by Tulloch personnel and in-situ hydraulic conductivity testing completed by Okane. Laboratory analysis for water content was performed by Tulloch. Tests completed were performed in accordance with the principles and methods prescribed by the American Society for Testing and Materials (ASTM). The frequency of record testing relative to the requirements outlined in the Technical Specifications is provided in **Error! Reference source not found.**8.

Table 3.8: In situ field testing completed in 2021.

Field Test	Prescribed Testing Frequency[1]	Total No. of Tests Completed	No. of Tests Considered for Record Testing Frequency[1]	Actual Testing Frequency[2]
Water Content (ASTM D2216-19)	1 per 1 nuclear gauge tests	372	298	0.9 per 1 nuclear gauge tests
Nuclear Gauge Density and Water Content (ASTM D6938-07b)	13 per ha per lift	462	328	20.0 per ha per lift
In Situ Hydraulic Conductivity (ASTM D6391-11)	1 per 3 ha	21	14	5.1 per 3 ha

A comparison of water content measurements from the nuclear gauge with the laboratory measurements of water content taken during the construction of P01, L1 found inconsistent results for the same material. Following the review of the water content data and considering the discovery of frost in the lower portions of the stockpiles the decision was made to maintain the minimum frequency of laboratory water content tests associated with the nuclear densometer at 1 per 1 nuclear gauge test. As construction progressed, occasional large variances between lab and field moisture content results continued, resulting in difficulty selecting an appropriate compaction curve in the field, as well as the validation of appropriate compaction. This resulted in the frequency of water content testing at a 1:1 ratio with nuclear densometer testing being deemed necessary throughout the 2021 season.

On average, the nuclear densometer indicated water contents slightly dry of the laboratory results, with a standard deviation of 3.7. For final consideration of panel approval, the in-situ dry density and water content measurements were corrected using the laboratory-measured water contents. General observations and constructability of the material used in the CCL allowed for material to be accepted when moisture contents were outside of tolerance on the wet side of optimum. Material placed wet of optimum will aid in the long-term performance of the CCL.

Frequency of in-situ hydraulic conductivity testing exceeded the minimum requirements included in the Technical Specifications. In cases of material characterization uncertainty, borehole permeameter testing was performed to ensure that the constructed CCL met the hydraulic conductivity requirements of the closure cover system design. Okane will continue to complete targeted borehole permeameter testing to compile a database relating water content and dry density to hydraulic conductivity. This will aid in the creation of a broader acceptable zone for construction that may allow for approval of CCL panels over a wider range of water contents and densities.

Results of hydraulic conductivity testing are summarized in **Error! Reference source not found.**9. Testing was completed with the objective of verifying that hydraulic conductivity of the CCL was equal to or lower than 1 x 10^{-9} m/s. As such, the termination criteria required that the calculated hydraulic conductivity did not exceed 1 x 10^{-9} m/s over a period of at least 72 hours and exhibited no upward trend during that period. Measured field saturated hydraulic conductivity values referenced in Table 3.9 represent the average value calculated over the duration of the test period.

In general, permeameter test results show that the CCL is being constructed with a sufficiently low hydraulic conductivity to form a barrier layer (<1 x 10^{-9} m/s) apart from tests 22 and 24. Due to a marginally failing hydraulic conductivity of 1.9 x 10^{-9} m/s being achieved during the testing of EMRS21_BP_P23_L2_B22_210826, a second test was completed in the area. EMRS21_BP_P23_L2_B24_210905 yielded a comparable hydraulic conductivity of 2.0 x 10^{-9} m/s. A further breakdown of this area and the associated hydraulic conductivity values is included in Section 4.1.3.

Table 3.9: Summary of hydraulic conductivity testing.

Test ID	K_{fs}	Comment
EMRS-BP-006	2.8 x 10^{-8} m/s	Test installed on South side in material from 2020 season. Depth of excavation was insufficient to reach CCL. Results considered a measurement of NCL
EMRS-BP-007	7.5 x 10^{-10} m/s	Test installed on South side in material from 2020 season
EMRS-BP-008	7.2 x 10^{-10} m/s	Test installed on South side in material from 2020 season
EMRS21_BP_P02_L2_B09_210611	1.0 x 10^{-9} m/s	Not installed in an area of concern
EMRS21_BP_P01_L2_B10_210621	3.3 x 10^{-10} m/s	Not installed in an area of concern
EMRS21_BP_P07_L2_B11_210701	6.4 x 10^{-10} m/s	Installed in an area with a drop in compaction compared to the rest of the L1
EMRS21_BP_P08_L2_B13_210713	1.1 x 10^{-9} m/s	Installed in area where low moisture contents were obtained during L1 field testing.
EMRS21_BP_P03_L2_B14_210713	8.6 x 10^{-10} m/s	Installed where field results yielded an abnormally high moisture content and low percent compaction
EMRS21_BP_P14_L2_B17_210729	3.3 x 10^{-10} m/s	Installed in area where a compaction trial saw an abnormally high jump in compaction (6%) between 2 and 4 passes by the roller.
EMRS21_BP_P16_L2_B18_210810	9.2 x 10^{-10} m/s	Installed at location of S331 where lab proctor results varied from field results resulting in failed corrected compactions
EMRS21_BP_P18_L2_B19_210810	8.0 x 10^{-10} m/s	P18 flagged for testing due to the high volume of stone found throughout the lift which led to difficulty testing
EMRS21_BP_P19_L2_B20_210818	3.2 x 10^{-10} m/s	P19 flagged for testing due to the high volume of stone found throughout L1 leading to difficulty testing. L2 proctor results also varied from field results resulting in failed corrected compactions
EMRS21_BP_P22_L2_B21_210818	5.2 x 10^{-10} m/s	P22 flagged for testing due to increase in dry densities with a new borrow source (brenna material)
EMRS21_BP_P23_L2_B22_210826	1.9 x 10^{-9} m/s	P23 flagged for testing due to low compaction results on L1 as well as low moisture contents obtained during field testing of L2
EMRS21_BP_P24_L2_B23_210826	6.2 x 10^{-10} m/s	Installed in area with a large variance in compaction
EMRS21_BP_P23_L2_B24_210905	2.0 x 10^{-9} m/s	P23 flagged for testing due to low compaction results on L1 as well as low moisture contents obtained during field testing of L2
EMRS21_BP_P28_L2_B26_210927	1.7 x 10^{-10} m/s	P28 flagged for testing due to a new gauge being used on site. Visual analysis did not match gauge results at the crown which led to a second gauge being utilized for comparison testing. Comparison testing showed large discrepancies between the two gauges (avg. discrepancy: DD- 324, MC-5.4)

* Borehole permeameters 12, 15, 16, and 25 are omitted due to equipment or installation errors but are shown in Appendix B

3.3.14 Toe drain and Instrumentation Exclusion Areas

A number of areas along the base of the EMRS have been identified as seepage areas to be left open during construction of the stockpile. As a result, toe drain area five on P05 (Tulloch, 2020b) and toe drain area four on P25 (Tulloch, 2020b) were not keyed in.

Likewise, exclusion areas were required around geotechnical instrumentation routing out of the toe of the EMRS. During the 2021 construction season, four areas of instrumentation were encountered on the slope of the EMRS on Panels 2, 3, 20, and 24. No key-in trench construction occurred in these areas to avoid disturbing the instrumentation. Panels 3 and 24 contained piles of waste rock at the toe which further covered the instrumentation. As a result, a roller couldn't be utilized for compaction and the excavator was used to both areas to compact the CCL.

3.3.15 Vegetative Cover and Surface Water Management System

The area of completed cover system constructed during the 2020 season in Zone 1, stationing 7+400 to 7+848 and 0+000 to 0+120 was transferred to New Gold Environmental following an investigation of identified low areas and further hydraulic conductivity testing. A review of the South side of the EMRS (2020 construction season) was completed on site with New Gold and Okane in preparation for turnover to New Gold Environmental. Okane saw no remaining issues with the completed areas but noted the unfinished area where key trenching and a Golder drain is still required (7+625 to 7+775). Once transferred, hydro-seeding of the area was completed.

A second area of completed cover system constructed during the 2021 season in Zone 5, Panels 1 to 13 (stationing 2+925 to 2+403) was transferred to New Gold Environmental following the investigation of identified low areas and the review of testing completed in the area. Once transferred, hydro-seeding of the area was completed.

4 NON-CONFORMANCES AND REMEDIATION ACTIVITIES

The Technical Specifications were developed such that adherence to these minimum requirements would produce a dataset of appropriate frequency that could clearly demonstrate the closure cover system was constructed to meet objectives. Discussed herein is the process used to assess compliance of the CCL and NCL panel layer with the overarching closure cover system objectives when uncertainty of material type classification indicated the cover system did not meet the Technical Specifications. CQA evaluated the CCL and NCL based on broader assessment of data, material description, and *in situ* hydraulic conductivity testing to determine final approval of the panel. The CQA placed more emphasis on the test results of the CCL and the resulting *in situ* hydraulic conductivity as this is a critical design criterion that will affect the overall cover system performance.

4.1 Compaction and Water Content

The Technical Specifications prescribe a minimum percent compaction and water content range of 95% of the SPMDD and between 0% to 2% dry and 1% to 4% wet (percentage points) of the OWC, respectively for the CCL. These parameters are highlighted in Table 4.1, with field and lab non-conformities shown in Tables 4.2 and 4.3.

Table 4.1: Parameters for non-conforming in-situ testing.

Parameter	Maximum allowed % of failed tests	Allowable range for outliers
Water content	3% (not concentrated in one area).	2% dry of allowable range or 3% wet of allowable range
Dry Density	3% (not concentrated in one area)	0.08 t/m^3 below required value

Okane, 2021a

Table 4.2: Percentage of non-conforming in-situ testing (field).

Parameter	% of Tests Failed (May 2021)	% of Tests Failed (June 2021)	% of Tests Failed (July 2021)	% of Tests Failed (Aug 2021)	% of Tests Failed (Sept 2021)
Water content	73%	70%	69%	63%	85%
	(30% failed tests outside of allowable range for outliers)	(48% failed tests outside of allowable range for outliers)	(49% failed tests outside of allowable range for outliers)	(17% failed tests outside of allowable range for outliers)	(46% failed tests outside of allowable range for outliers)
	(19% failed tests wet/ 81% dry)	(24% failed tests wet/ 76% dry)	(15% failed tests wet/ 85% dry)	(26% failed tests wet/ 74% dry)	(14% failed tests wet/ 86% dry)
Dry Density	11%	28%	18%	27%	9%
	(75% failed tests outside of allowable range for outliers)	(100% failed tests outside of allowable range for outliers)	(58% failed tests outside of allowable range for outliers)	(33% failed tests outside of allowable range for outliers)	(100% failed tests outside of allowable range for outliers)

Table 4.3: Percentage of non-conforming in-situ testing (MC – corrected).

Parameter	% of Tests Failed (May 2021)	% of Tests Failed (June 2021)	% of Tests Failed (July 2021)	% of Tests Failed (Aug 2021)	% of Tests Failed (Sept 2021)
Water content	73%	55%	67%	61%	64%
	(48% failed tests outside of allowable range for outliers)	(44% failed tests outside of allowable range for outliers)	(37% failed tests outside of allowable range for outliers)	(53% failed tests outside of allowable range for outliers)	(38% failed tests outside of allowable range for outliers)
	(52% failed tests wet/ 48% dry)	(44% failed tests wet/ 56% dry)	(32% failed tests wet/ 68% dry)	(62% failed tests wet/ 38% dry)	(67% failed tests wet/ 33% dry)
Dry Density	22%	37%	24%	46%	30%
	(100% failed tests outside of allowable range for outliers)	(97% failed tests outside of allowable range for outliers)	(100% failed tests outside of allowable range for outliers)	(100% failed tests outside of allowable range for outliers)	(100% failed tests outside of allowable range for outliers)

Although the maximum allowed percentage of failed tests relative to the specification was exceeded throughout construction in 2021, suitable compaction and moisture contents were achieved during the construction of the CCL in completed panels. It is important to note that the use of a natural borrow source will result in frequent small variations in material properties,

and the proctor selected for reference and for use in evaluation against specifications may not be completely representative of the material. To account for this variability, Okane holistically evaluated the suitability of the CCL during construction based on moisture contents, material properties, and field performance. As an additional check to confirm full compaction, compaction trials were conducted, assuring compaction does not increase with further passes of the compactor.

The above water contents were evaluated on a case-by-case basis and subject to review and approval by the CQA. Typically, when the material was wet of optimum and outside of the specification, Okane was confident in the suitability of the material and its subsequent performance within the cover system to approve the panel. The main criteria that were reviewed included:

- Constructability; and
- If any concerns with slope stability were raised.

With moisture contents dry of optimum and outside of the specifications, borehole permeameter testing was utilized to understand the potential impact on *in-situ* hydraulic conductivity. Visual cues were also employed to review malleability to ensure the material would produce a cohesive, singular lift.

Where nuclear densometer testing indicated that a particular section had not met one or more construction specifications, further review of the in-situ testing and material characteristics as well as targeted borehole permeameters were completed to ensure the overall performance and objectives of the CCL were still being met. Borehole permeameter tests were completed to gain an understanding of the field saturated hydraulic conductivity and its relationship with the water content, dry density, and clay content over the range of OVB materials encountered.

During the 2021 construction season, more consistent proctor values were observed which enabled the successful and continued use of one proctor for multiple panels in certain instances. The practice of obtaining proctor results from the material stockpiled on the plateau ahead of construction reduced the difficulty of selecting representative proctor values in the field. However, in the event an appropriate compaction curve needed to be selected in the field Okane considered:

- Descriptions of material and the compaction process;
- Visual analysis of material and CCL sections;

- Consideration of nuclear densometer test results in the context of the compaction curve database; and
- Material texture and plasticity data.

Okane developed a compaction curve sheet incorporating data from samples collected during construction of the EMRS CCL (**Error! Reference source not found.**). These compaction curves were used during assessment of field density measurements to evaluate percent compaction. As laboratory proctor tests take approximately 4 to 5 days to complete, the use of these compaction curves allowed construction to continue until a laboratory proctor could be completed. Results of laboratory compaction testing were then applied to the field densities to determine the actual compaction achieved *in situ*.

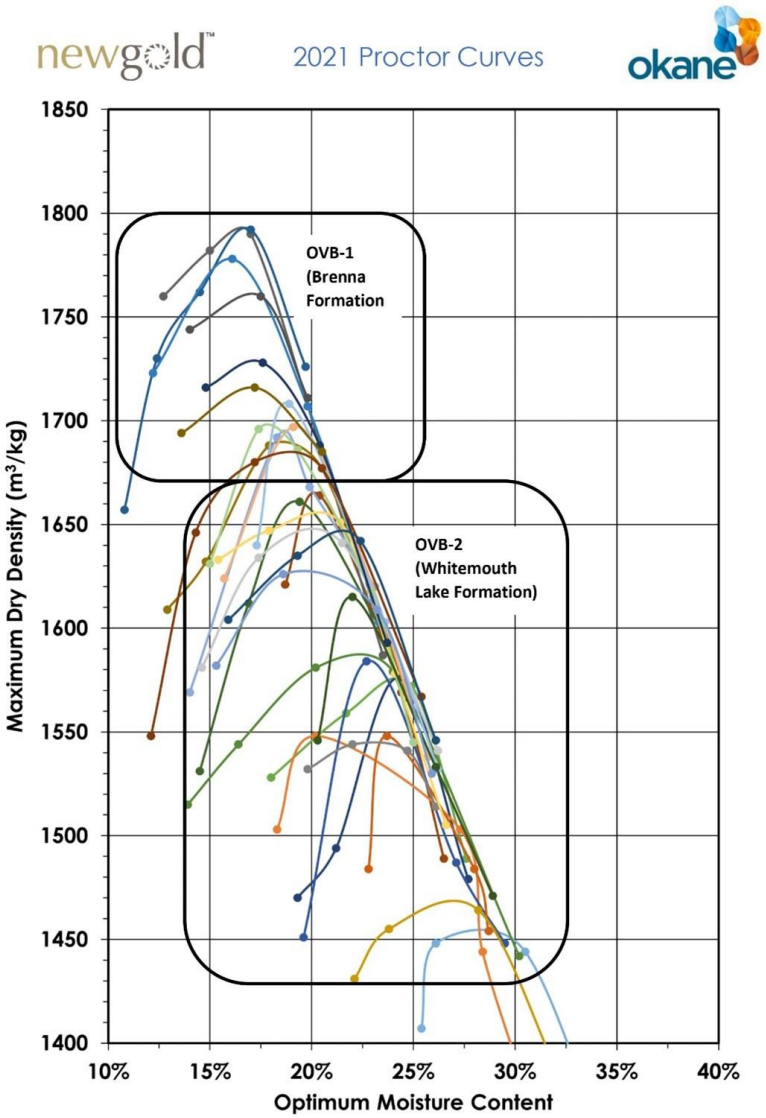


Figure 4.1: 2021 compaction curves.

Pro-active testing of stockpiled OVB material was continued during the 2021 construction season to assist in pre-emptively determining characteristics of the OVB material to be used in the CCL. The purpose of testing the stockpiled material was to provide an indication of anticipated ranges in OWC and dry density. In some occasions, water content and hydrometer testing was recommended to allow for review of the OVB material prior to placement and to guide the initial compaction curve selection and suitability.

4.2 CCL and NCL Lift Thickness

During the initial stages of the 2021 construction season, several areas on the Tulloch heat maps were identified as being out of tolerance (0.4 m or less). Checks were performed to determine if the areas in question were underbuilt or if fluctuations in the waste rock surface resulted in low areas on the heat maps. Six checks were performed throughout Panels 2 to 4 to check for total thickness by using the excavator to expose the areas in question to the waste rock surface. Physical measurements with a tape measure revealed total thicknesses greater than 1.5 m at all excavation locations, with the material appearing to be of CCL quality. The locations were filled in and bucket compaction was utilized to ensure the CCL lifts met the cover system performance standards. The results of these inspections are reflected in a final heat map produced by Tulloch and shown below in Figures 4.2 and 4.3.

Due to the frequent occurrence of thin spots appearing on heat maps that could be attributed either to fluctuations of the waste rock surface and / or survey artifacts, and considering the time lag between survey generation, the targeted constructed lift thickness of each of the CCL lifts was increased to 0.30 m from 0.25 m beginning at P06 to reduce the frequency of follow-up field investigations required. This resulted in the CCL being constructed at the maximum tolerance of 0.6 m and the NCL being constructed to maintain a total cover system thickness of 1.5 m. By utilizing more material in CCL construction, the frequency of low areas represented in the heat maps dropped dramatically and no investigations were required for the remainder of the season.

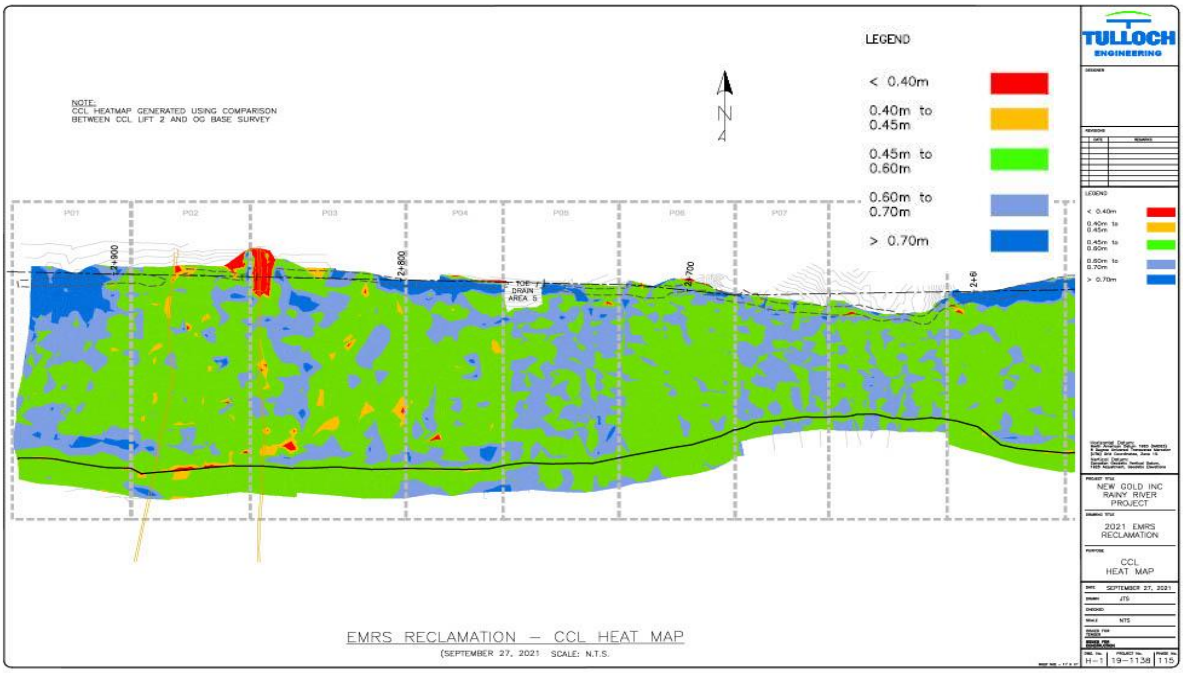


Figure 4.2: EMRS CCL thickness heat map prior to thickness checks (from Tulloch, 2021b).

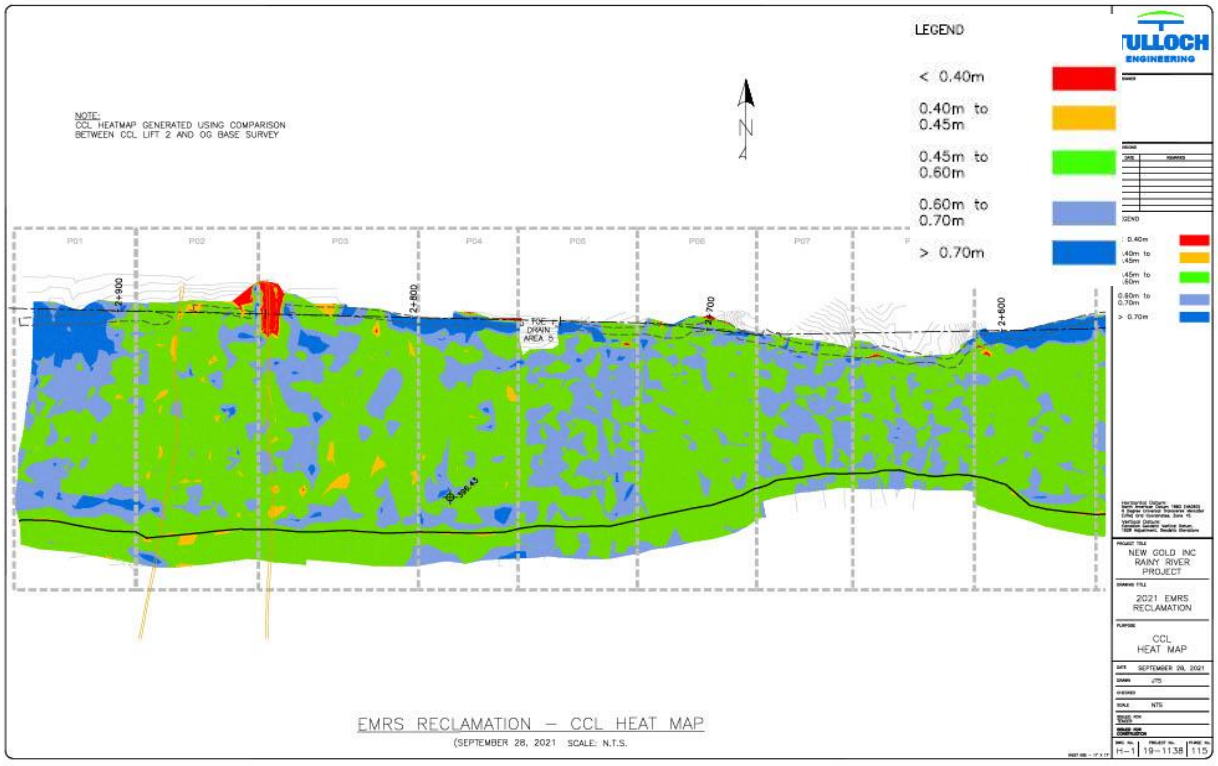


Figure 4.3: EMRS CCL thickness heat map post thickness checks (from Tulloch, 2021c).

4.3 P23 Hydraulic Conductivity Testing

The Northeast corner of the EMRS, Panel 23 (2+085 – 2+055) was flagged for hydraulic conductivity testing due to material being sourced from multiple locations, concerns over the quality of the material in areas of the second stockpile location, and low moisture contents obtained during field testing L2. Figure 4.4 refers to the panel location.

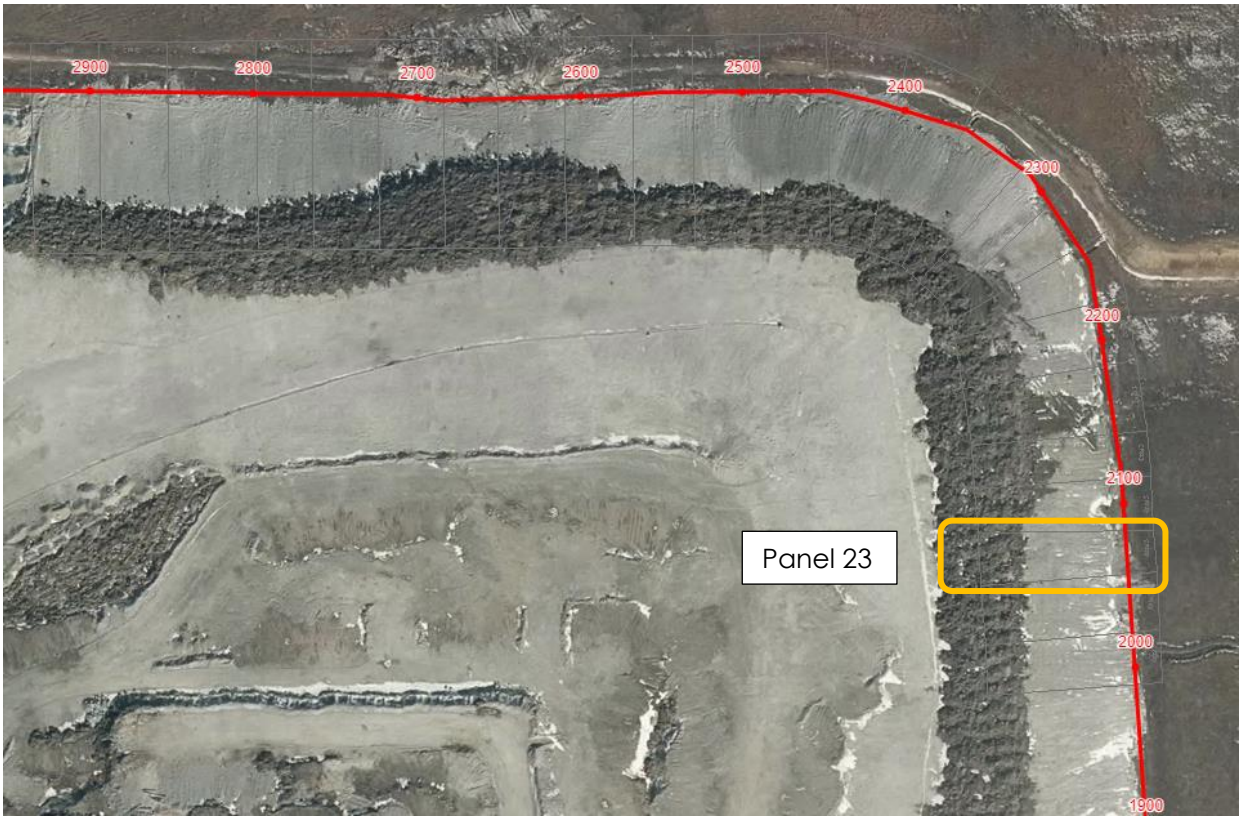


Figure 4.4: EMRS panel 23 plan view (from Infrakit, 2021).

Borehole permeameter EMRS21_BP_P23_L2_B22_210826 was installed on August 26th at the location of D365 (Station: 2+071.3, O/S: -52.7). The test did not result in a field saturated hydraulic conductivity (K_{fs}) lower than the target value of 1 x 10^{-9} m/s. Given the mean K_{fs} of 2 x 10^{-9} m/s over the duration of the test was below the maximum allowable valuable of 5 x 10^{-9} m/s, an additional test was installed on the panel to confirm the result as per the procedure outline in the EMRS Cover System Construction Operational Handbook[i]. Borehole permeameter EMRS21_BP_P23_L2_B24_210905 was installed on September 5th approximately 3 m from the initial test area of EMRS21_BP_P23_L2_B22_210826. Results of this test were consistent with the first one, with an average K_{fs} of 2 x 10^{-9} m/s. The potential causes that were examined in relation to the higher-than-expected K_{fs} measurements were material suitability, compaction conditions, particle size distribution, and mixed material sources (Okane, 2021e). It was determined that all these conditions could have been responsible for the exceedance

in K_{fs}. Investigation into these potential causes of the non-compliance led to the following conclusions:

- Suitable materials were used in the construction of the CCL;
- The results of hydraulic conductivity testing highlight the importance of moulding water content, which should be wet of optimum water content. In situ testing provides a means to detect water contents outside of the acceptable zone; however, if materials with a range of optimum water contents are used in close proximity it may be difficult to detect non-compliance issues prior to hydraulic conductivity testing; and
- Monitoring stone inclusion in the CCL is important in maintaining the integrity of the barrier layer. This requires not only removal of oversize particles but monitoring the proportion of stone inclusion. Where higher stone content is observed, QC personnel should ensure bulk samples are collected to allow for determination of a particle size distribution with a fully inclusive range.

Although hydraulic conductivity testing of P23 exceeded the target value, the measured values were well within the half order of magnitude difference beyond which re-work would be required. Given that the results were relatively close to the target and the proportion of failed tests is below the allowable margin as stipulated in Construction Handbook, no rework was required.

5 LEARNINGS AND RECOMMENDATIONS

The 2021 construction season served as an opportunity to expand and refined the construction process from the previous season. In 2021, Okane maintained a focus on identifying efficiencies and recognizing areas for improvement that could be carried forward into future construction seasons. As a whole, it was a successful construction season with little to no delays due to technical issues. Okane is looking forward to building on this success and believes that utilizing the following key learnings and recommendations will aid in that goal.

5.1 Construction Methodology

During cover system construction in 2021, changes in construction methodology were made to help ensure the cover system design was met and / or improve the efficiency of construction.

5.1.1 CCL Lift Thickness

At the start of the construction season, construction continued with a targeted nominal CCL thickness of 0.5 m and NCL thickness of 1.0 m. Following the frequent appearance of low spots in the initial Tulloch heat maps and the subsequent investigations required to ensure the cover system met design thicknesses, the topic of increasing the CCL thickness was discussed. Considering the time lag between survey generation, identification of thin areas and field investigation, the targeted constructed lift thickness of each of the CCL lifts was slightly increased to 0.30 m beginning at P06 to reduce the frequency of follow-up field investigation required. This resulted in the CCL being constructed at the maximum tolerance of 0.6 m and the NCL being constructed to maintain a total cover system thickness of 1.5 m. This change in methodology resulted in no further investigations of potential low spots being required during the 2021 construction season.

5.1.2 CCL Compaction

Following the request to lower the number of passes required by the roller from four to two, compaction trials began starting with the construction of P03. This request was made based on the hypothesis that considerate compaction is achieved during the placement process by the dozers. The initial compaction trial results showed a very slight increase in compaction from two to six passes, indicating two passes were adequate for compaction in the area. A decrease in compaction was observed after 10 passes, suggesting the material had been over-compacted or that the uniform lift was being pushed into the underlying void space within the waste rock surface therefore loosing its structure in this location. Considering the OVB materials and conditions of P03, the densometer testing indicated that two passes of the roller had achieved adequate compaction during the construction of P03.

Technical Specifications were not changed as the suitability of using fewer compacting passes was deemed highly dependant on site conditions and material quality; however, a modified method of trialing compaction was implemented as common practice for the remainder of the 2021 season to confirm the required number of passes as well as to demonstrate the material was compacted adequately. No specific frequency of compaction trials is suggested, but compaction trials are recommended at QA's discretion when:

- A representative proctor was not used;
- Testing results did not meet specifications; and
- A visible change in material was noted.

If the previous instances haven't occurred and testing results meet specifications, a compaction trial would not be warranted.

5.2 Waste Rock Surface

A frequent challenge throughout construction in 2021 was the uncertainty surrounding the waste rock surface at the crest, directly below the stockpiled material. This issue was a result of the stockpiles being placed prior to a survey of the approved waste rock surface being completed. To resolve any occurrences or discrepancies in these areas, further exploration was required and resulted in increased exposure times for the CCL. In the event of an issue with the surface during the placement of L1, CQC would utilize the excavator to expose the area in question and determine if the issue was the cause of an isolated pocket of waste rock or if further remediation was required. If the issue was isolated, the raised pocket of waste rock was removed to the level of the surrounding waste rock and the excavation was back filled. If the waste rock discovered was not isolated, the area of the bench and crown was excavated for CQC to complete a survey of the waste rock and generate a new surface for construction. Following construction, according to the new surface checks on opposite corners of the bench were completed with a tape measure to ensure an adequate material thickness as well as provide visual confirmation.

To streamline the construction process and aid in ensuring lift thicknesses are met throughout the panel it is recommended that, when possible, the waste rock surface be surveyed prior to the placement of stockpiled material.

5.3 Stockpile Material Quality

It was noted that several stockpiles placed along the crest of the reclamation area contained large quantities of stone and were deemed unsuitable for use in the CCL. An improved method of the material handling process would be beneficial for the overall efficiency of

subsequent construction seasons. If changes in the quality of borrow material at the source is noted, a communication plan should be developed and implemented for assisting in material placement locations to avoid issues that cause delays in reclamation activities.

5.4 Documentation and Data Transfer

During the 2021 construction season, Infrakit was utilized as an information management system for cover system construction. Daily QC/QA reports, placement maps, field testing results, lab results, as-built surfaces, sample points, EMRS stationing, and panel boundaries were all compiled within Infrakit to create a database of cover system construction for easy viewing. As the season progressed, daily documentation became smoother and more efficient.

To aid in the efficiency of future survey data transfers, Okane recommends having a monthly submission of all relevant data from Tulloch. Survey data includes all lift as-builts, lift points, density and sample location points, and panel boundaries. This data is crucial for CQA services and is added to Infrakit to create a base map for referencing locations with respect to the daily reports. Obtaining this data at months end will enable Okane to complete a review of the information and generate as-built reports within Infrakit for the month.

5.5 Implemented Learnings and Recommendations

Several learnings and recommendations from the 2020 record of construction were implemented during the 2021 construction season and led to improvements in the construction process. Okane considers the continuation and expansion of these learnings vital for future cover system construction.

5.5.1 Compaction Curve Selection

The most challenging aspect of cover system construction is the uncertainty of the CCL material characteristics until placement due to the high variability of material within the pit boundary. This was a known challenge prior to the onset of construction and continued throughout construction. The high material variability has presented issues with achieving the compaction specification of 95% due to selecting appropriate and representative compaction curves.

The most important design criterion for the CCL is the as-built hydraulic conductivity. Aside from considerations related to geotechnical stability, the specifications included in the construction Handbook (Okane, 2020d) are provided to ensure the hydraulic conductivity target is achieved. Okane has continued utilizing laboratory test results, primarily the hydrometer, to indicate material suitability with respect to hydraulic conductivity. A continuation of targeted borehole permeameter testing will be required to complete a

database relating water content and dry density to hydraulic conductivity. This will aid in the creation of a broader 'acceptable zone' for construction that may allow for approval of CCL panels over a wider range of water contents and densities.

5.5.2 Laboratory and Field Testing

Although there were improvements in the frequency of testing that was completed during the 2021 construction season, the general recommendation for CQC is that the testing frequencies stipulated in the construction handbook are described as the minimums allowable. This means that if there is any uncertainty in the quality of the cover material or if tests are bordering failure, more testing should be completed. Additional samples and tests may also be requested at CQA's discretion. These additional tests can provide the project group with a better understanding of the quality and consistency of the cover system that will inform on long term cover system performance.

Proactive testing of stockpiles is recommended to continue as a routine activity for the upcoming construction season. The tests completed can vary based on visual inspection, but the data collected from these tests combined with visual inspections will aid in identifying subsequent proctor values to be used for compaction testing.

With respect to in-situ hydraulic conductivity testing, the following improvements will continue to be implemented on all subsequent tests.

- Tests will remain in place for a minimum of four days. This test period is typical of material with low K_{fs}; the clay OVB used in the CCL requires at least several days to reach steady state conditions. Results will be analyzed prior to terminating the tests to ensure steady state has been achieved (<5% difference in K_{fs} measurements between readings);

- To reduce condensation within the water reservoir, solar shields will continue to be employed; and

- Where possible, readings will be collected at approximately the same time each morning to account for changes in condensation through the day and to allow a suitable long period between readings to reduce noise in the data set.

5.5.3 Survey Control

Building off recommendations from the 2020 season, the following items were continued or introduced to aid in survey control and reduced non-compliant areas and subsequent re-work:

- Preparation and survey of the waste rock surface to the level of detail required for thickness comparisons on a highly variable surface (noted above);
- Development of subsequent design surfaces for each material lift to act as a reference guide;
- Use of GPS guided equipment; and
- Weekly generation of heat / thickness maps to identify suspect areas for review.

5.5.4 Documentation

The following areas were noted throughout the season as having a great importance to CQA and to the success of the reclamation activities.

5.5.4.1 Daily Reports

Daily reports completed by CQC were completed to document all testing and observations during construction. The reports were completed by CQC and submitted to CQA for review on a daily basis. Over the course of the construction season, the consistency of reporting improved. Highlighted below are the key pieces of information and observations to be included in the reports.

1. Every section should be filled out on daily reports. Key information regarding the material used for the CCL should be included. This information and details of the CCL material should include:
    - Initial consistency (moisture, structure, texture, etc.);
    - Placement observations (e.g., is the material stiff and compacts well, does equipment leave ruts and ridges);
    - Final surface conditions prior to placement of the non-compacted layer (NCL); and
    - The inclusion of material samples taken according to the naming convention.

2. Consistency in material description of CCL material is important to allow for any change in material to be well documented. Detailed notes should be included to indicate if the material has remained consistent or changes observed along with material descriptions.

3. The panel approval section indicates if a section of the CCL meets the criteria outlined in the Technical Specifications and is deemed acceptable. Part of the CQC work involves ensuring the appropriate proctor compaction curve is applied for the CCL material to determine that the density has met the Technical Specifications. CQC is responsible for selecting an appropriate proctor for the CCL material using the supplied guides, technical experience, and support from CQA, as needed. The proctor applied to determine field compaction should be documented within the Daily Report with comments as to why the material proctor was selected.

4. CQC should provide context in the Daily Reports around any issues observed between the in-situ density readings and the laboratory proctor results in the event CQA is not on-site. This information could include, but is not limited to, issues with the waste rock surface (large void spaces), changes in material structure (soft to very soft), water contents, and material variability within a lift.

5.5.4.2 Density Reports

Density reports were completed by CQC and provided to CQA to capture all relevant information and data associated with nuclear densometer testing (standard counts, material wet and dry density, water content, location, etc.). In general, all relevant information was included in these reports.

A key aspect to highlight is that laboratory results (water contents and proctor curves) should be used to correct the field density test results. Upon receipt of laboratory results, density checks should be completed by CQC in the Density Reports to ensure the verified CCL panels achieve specifications and resubmitted to CQA as a revision.

5.5.4.3 EMRS Tracking Summary

A tracking summary was completed and sent out daily by Tulloch to maintain a summary of all samples taken. These samples were named under the agreed upon naming convention and the corresponding stationing and offset were listed. This summary gave CQA a great tool for reference against Okane's testing database to ensure all testing and corresponding results were accounted for.

5.5.4.4 Survey Data

Survey data includes all lift as-builts, lift points, density and sample location points, and panel boundaries. This data is crucial for CQA services and will be added to Infrakit to create a base map for referencing locations with respect to the daily reports. This data will also aid in the review of thicknesses during construction activities via the generation of as-built reports within Infrakit.

5.5.4.5 Communication

Okane recommends the continuation of a kick-off meeting prior to the construction season to confirm the roles and responsibilities for all parties involved. This will ensure that there are clear lines of communication between the groups and will help issues to be resolved efficiently.

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Appendix A

EMRS Operational Handbook

EMRS Cover Construction Operational Handbook

July 29, 2021



newgold okane

Integrated Mine Waste Management and Closure Services

Specialists in Geochemistry and Unsaturated Zone Hydrology

EMRS Cover Construction Operational Handbook

1003/019-009

July 29, 2021

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Rev. #	Rev. Date	Author	Reviewer	PM Sign-off
A	August 14, 2020	M.McKeown	H.Cooper	J.Lutz
B	August 19, 2020	M.McKeown	H.Cooper	J.Lutz
0	September 17, 2020	M. McKeown	H. Cooper	J. Lutz
1	July 29, 2021	H. Cooper	M. McKeown	J. Lutz

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TABLE OF REVISIONS

Revision	Date Submitted	Reason
Rev A – DRAFT	August 14, 2020	Original submission
Rev B – DRAFT	August 19, 2020	Revisions made based on review comments and clarifications requested by New Gold.
Rev 0	September 17, 2020	Revisions based on feedback from Tulloch for clarification. Revisions to sections 5.2.1, 5.2.3, and 6.0.
Rev 1	July 7, 2021	Update water content specifications, additional density protocols, hydraulic conductivity protocols, specification for out of tolerance CCL thickness.

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Attachment A Material Selection Guide

1 INTRODUCTION

1.1 Project Objectives and Scope

This purpose of this operational handbook is to serve as a practical reference guide for the construction of the cover system on the lower benches of the East Mine Rock Stockpile (EMRS) slopes. It is specifically designed for the NE wick drain 2/3/4 and SE shear key bench slope areas identified for progressive reclamation.

1.2 Cover Design Overview

The EMRS has been designed to store and encapsulate potentially acid generating (PAG) mine rock. An enhanced cover system consisting of a barrier layer overlain by a growth medium is designed to limit net percolation (NP) and control oxygen (O_2) ingress to the PAG rock. The enhanced cover system uses both moisture store-and-release and enhanced runoff principles to achieve reduced NP. The barrier layer within the cover system controls O_2 ingress by effectively eliminating advective gas transport. However, a degree of saturation of approximately 85% within the layer must be maintained for the advective gas transport barrier to be effective. The enhanced cover system will be placed over the side slopes, benches and the upper plateau areas of the stockpile, progressively during operations, and at closure. Progressive rehabilitation of the stockpile will begin in autumn 2020; the cover system will be constructed on about 14ha of the lower bench slopes in the NE and SE, following rock placement and surface preparation.

The two layer cover system will consist of:

- A 0.5 m compacted overburden layer placed directly on the landform prepared to the required grade;
- A 1 m non-compacted overburden layer placed directly on the underlying compacted layer;
- A vegetation cover that meets landform land use expectations; and
- A surface water management system that allows for the landform to meet physical stability expectations.

The 1 m layer of non-compacted overburden material is the main store-and-release component of the cover system (growth medium), while the 0.5 m layer of compacted overburden material limits net percolation and oxygen ingress into the underlying mine rock (barrier layer). The cover system provides source control in two ways: the limitation of oxygen

into the mine rock, thereby decreasing the oxidation of sulphide materials within; and reduction of water infiltrating through the stockpile and reporting to the groundwater table.

2 SCOPE

This Technical Specification applies to Work constructed by contractors, sub-contractors or hired labour that have entered into a contractual agreement with the Owner.

This Technical Specification shall be used in conjunction with the stated requirements of any Local and Federal Governments or other authority in whose area the Work is to be constructed. This also includes Environmental, Health and Safety legislation.

This Technical Specification allows access for inspection, surveying, sampling, or testing through out the course of the Work by the Owner, CQC, or CQA.

This Technical Specification was developed to direct quality assurance and quality control activities during construction of the cover system during the planned autumn 2020 progressive reclamation activities on the lower bench slopes of the EMRS in the NE Wick Drain 2/3/4 and SE Shear Key areas, and is only intended for this use. This Technical Specification was developed using available information for the open-pit materials expected for use in the cover construction of this area. It is anticipated that this Technical Specification will be reviewed and adapted as necessary to reflect changing material borrow types or varying conditions on subsequent sections of progressive reclamation on the EMRS.

3 STANDARDS

The following information outlines all relevant standards and/or published guides to be followed where specified. Variations to these standards and/or guides shall be approved prior to implementation by the Construction Quality Assurance personnel.

Table 3.1: Laboratory Testing Standards

Laboratory Test	ASTM Standard
Water Content	D2216-19
Atterberg Limits	D4318-00
Particle Size Distribution (Soils)	D6913M-17
Hydrometer	D7928-17
Standard Proctor	D698-12e2
Hydraulic Conductivity	D5856-15 or D5084-16a

Table 3.2: Field Testing Standards

Field Test	ASTM Standard
Compaction by Nuclear Densometer	D6938-07b
Hydraulic Conductivity	D6391-11

4 DEFINITIONS / ABBREVIATIONS

The following table summarizes and describes all abbreviations and terms used throughout this document.

Table 4.1: Definitions/Abbreviations

Term	Abbreviation	Definition
Owner	-	Defined as New Gold or its authorized representative.
Engineer		Refers to the designated engineer responsible for technical oversight of the cover system, or their appointees.
Site	-	Defined as the land and other places on, under, in or through which the Work is to be carried out.
Work	-	Defined as the entire completed construction or the various separately identifiable parts thereof, as defined in the Technical Specifications, or as required by the Owner or CQA.
Construction Quality Control	CQC	Defined as the personnel responsible for monitoring and controlling the quality of the Work. Personnel are required to ensure measures are taken to comply with requirements for materials and procedures as stated in the specification for the Work.
Construction Quality Assurance	CQA	Defined as the personnel responsible for assuring the Work was constructed as specified. Personnel are required to ensure the Work is in compliance with the specifications developed for the Work.
Capital Projects	-	Defined as the party who will execute the Work for the Owner.
Technical Specifications	-	Defined as this document in its entirety or other addenda prepared for the Work.
Earthworks	-	All operations necessary to excavate earth and rock from the proposed site irrespective of type and sub-surface conditions, to borrow or import embankment material for use as specified, to construct embankments including placing selected material as specified, to backfill around in situ structures, and to remove and replace unsuitable material below the subgrade.
As-built	-	A field survey, construction drawing, 3D model, or other descriptive representation of the completed earthworks.
Compacted Clay Layer	CCL	The barrier or low permeability layer at the interface of the leveling layer or waste rock surface.
Non-Compacted Layer	NCL	The covering layer for insulation and limiting freezing of the Compacted Clay Layer.
Percent standard compaction		Relative Dry Density of in situ material expressed as a percentage of the maximum dry density of the material using Standard Compaction procedures as specified by ASTM standards.

The role of the CQA is to ensure the Work is completed as per the design specifications. CQA personnel may not be on site at all times, but must have access to all data, testing results, and

documentation completed by the CQC. Addition sampling and testing can be requested by the CQA at any time during construction (before or after approval by CQC). The Owner shall give the CQA full cooperation in sample taking or conducting tests at their discretion and shall render such assistance as is necessary to enable sampling and testing to be carried out expeditiously. The Owner shall allow sufficient time for the CQA to carry out the required test work in order to determine the acceptability of the placed materials.

CQA are expected and allowed to complete inspections, audits, and review of all Work approved by the CQC. It is at the discretion of the CQA and/or the Engineer to provide final approval for the Work. CQA inspections and audits will include both completed Work approved by the CQC and current Work being completed.

5 GUIDELINES AND SPECIFICATIONS

5.1 Surface Preparation

The objective of EMRS Surface Preparation is to prepare a relatively dense and uniform foundation for the cover system, which has minimal open voids as well as no large protruding rocks. The finished bare waste rock surface of the EMRS shall be prepared to the satisfaction of the CQC prior to placing cover material for the loose lift for CCL. Once the EMRS finished surface is approved by the CQC, the Owner or CQC shall survey the surface as a record of construction to confirm the landform conforms to EMRS design specifications, and for determination of proper cover layer thicknesses in all areas. All CQC documentation will be provided to the CQA/Engineer for review to ensure conformance to the above-mentioned specifications.

5.2 Compacted Clay Layer

The CCL will serve as a barrier layer to limit net percolation of surface water through the cover system and into the underlying waste rock. It also serves to limit oxygen ingress into the waste rock landform.

5.2.1 Material

RRM plans to use materials excavated from within the pit boundary as fill material for construction of the CCL. The identified clay overburden within the pit boundary area consists of both the Brenna formation and the Whitemouth Lake (WML) formation. Gradation requirements for materials incorporated in the CCL are provided in Table 5.1.

Table 5.1: CCL Gradation Specification

Particle Size (mm)	Coarser Limit (% Passing)	Finer Limit (% Passing)
250	100	100
175	100	95
25	100	95
2	100	70
0.425	100	70
0.063	100	40
0.002	90	10

In addition to the textural requirements outlined above, the material should have a minimum plasticity index of 10. Sampling and testing should be completed as per Section 6 to

document compliance with textural and plasticity specifications. A material selection guide has been provided for assessment of plasticity in the field (Attachment A).

CCL material shall be free of deleterious material such as organics and large rocks (> 250 mm). Any CCL material delivered to the construction zone that is not of suitable quality for CCL construction must be removed, and replaced with additional CCL material.

The cover system shall not contain any waste rock material. Cover system material that may have been mixed with the underlying waste rock due to scraping and movement of material shall not be used within the cover system.

5.2.2 Material Identification and Handling

Selecting materials most suitable for use in the CCL will require close coordination between the Pit Supervisor and Capital Projects. As materials for the CCL will be sourced from the pit boundary, material control will begin with excavation. The volume of material required for construction of the CCL represents just over one third of the total material volume requirement for cover system construction. Material control requirements for the CCL are more stringent than those for the NCL. As such, the majority of the materials reserved for cover system construction can be excluded from the CCL as necessary and utilized in the NCL.

The ideal time to exclude materials from the CCL is prior to placement. The most efficient means of reducing water content will likely involve end-dumping materials selected for use in the CCL in situ (discussed below), which requires that material selection take place prior to placement. To the extent possible, materials should be 'preapproved' by the truck load to minimize the requirement for handling after placement. Truck loads should be prioritized for CCL construction based on the following criteria:

- Material properties meet specifications as outlined in Section 5.1
- Materials should be free of deleterious materials and organic matter such as trees or topsoil. Stripping materials prior to excavation would ensure these materials are not included in the CCL, promote drying of overburden materials prior to placement, and provide a reserve of organic materials for reclamation activities.
- Materials should be free of oversize (> 250 mm) materials (to the extent possible prior to placement).
- Materials should be relatively homogeneous. Even if the contents of a truck load meet the above criteria, dumping mixed materials of varying textures and compaction characteristics will complicate the construction process (discussed in Section 5.2.3).

Materials which are deemed unsuitable for use in the CCL can be used in the NCL. Materials to be used in construction of the NCL should be stockpiled in locations convenient for timely application of the NCL following CCL construction (Section 5.3).

Material tests to document conformity of the materials to the above specifications are provided in Section 6. A field guide to evaluate plasticity is provided in Attachment A. Attachment A can be used to guide decision making in the field with regard to a material's plasticity before laboratory test results are available.

5.2.3 Placement and Compaction

The current specification is to compact the CCL in two lifts of nominally 0.25 m. Based on compaction efforts to date, the first lift should be placed in loose lift approximately 0.4 m in thickness and should not exceed 0.5 m. After compaction, the first lift shall have a minimum thickness of 0.25 m (measured perpendicular to the ground surface) -0.1 m / +0.2 m tolerance. The second lift may be placed at a reduced lift thickness depending on the surveyed thickness of the first lift. The CCL shall have a minimum total thickness of 0.50 m across the EMRS with a -0.1 m / +0.2 m tolerance.

The minimum dry density and moisture content range for compaction of the CCL is 95% of the standard proctor maximum dry density and within -2 / +4 percentage points of optimum moisture content, respectively, as determined by ASTM D698[1]. With the variability of a natural borrow source there can be difficulties in selecting and maintaining an appropriate proctor value. In these instances, a re-compaction of the CCL can be competed to give an indication of the level of compaction achieved and therefore percent compaction allowing the CQA to accept the panel. The general procedure for completing a test pad is described in detail below.

Proctor compaction curves determined based on materials sampled from borrow sources (AMEC, 2017) and in situ from the CCL are presented in Figure 5.1. Proctor curves are roughly separated into Brenna and WML formation material. For example, the EMRS- L1-021 and EMRS-L1-026 materials fall within the assumed Brenna formation with a Standard Proctor maximum dry densities of 1,621 and 1,729 m^3/kg with corresponding optimum moisture content of about 22 and 18%, respectively. The measured in situ water content were 24 and 21% which are within the targeted range (1 to 4 percentage points wet of optimum). Where the water content is beyond the specified range, the CQA can determine if the material will be

[1] ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)).

acceptable based on the visual characteristics (firm, pliable) and the general constructability of the material.

Soils that are too wet must be allowed to dry prior to compaction. To promote drying, the material may be placed in a loose lift prior to compaction. To reduce handling requirements during placement, the materials may be end dumped directly over the slope. Drying may take place over one or more days depending on the weather. When the material can support heavy equipment, a bulldozer can spread it to achieve the targeted loose lift thickness. CQC should check water content periodically to determine when it is within the acceptable range. A disk tiller or rototiller may also be used to ensure uniform drying of the material as necessary.

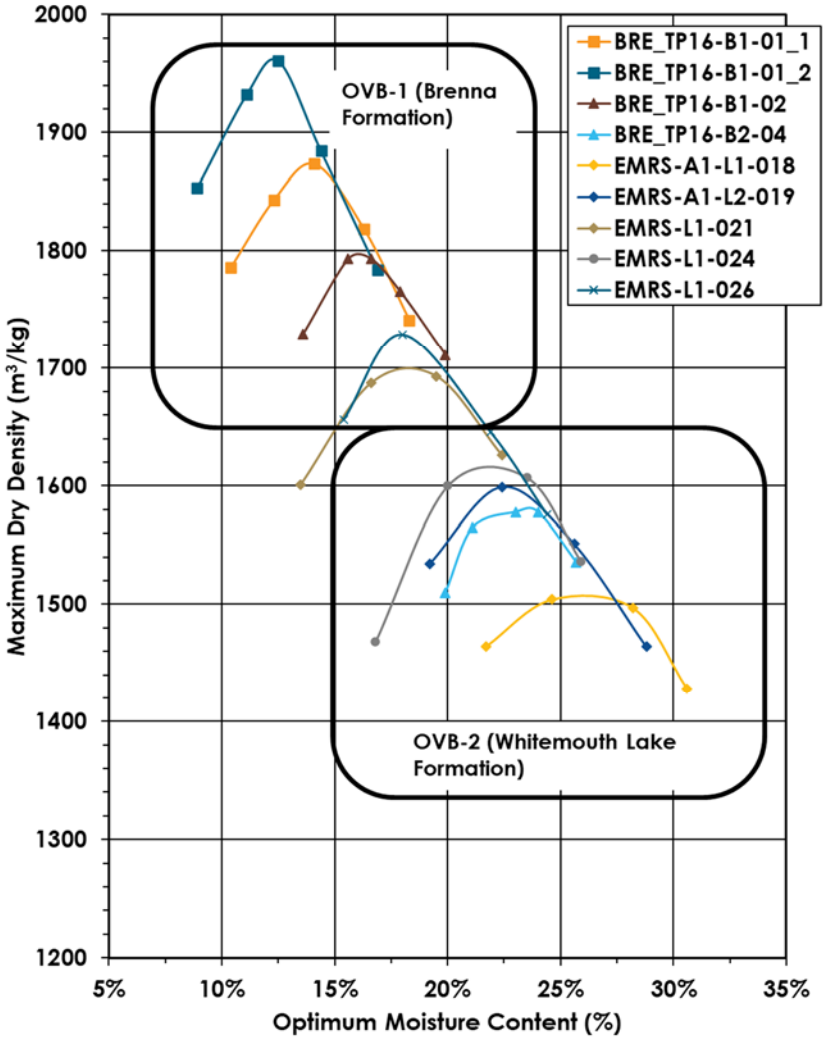


Figure 5.1: Compaction curves from field testing program

Samples EMRS-A1-L1-018, EMRS-A1-L2-019, and EMRS-L1-021 were in situ CCL material. This material comprised a higher proportion of clay sized particles, a higher plasticity index, and compaction characteristics more characteristic of WML. The difference in optimum water

contents and maximum dry density were evident. Figure 5.1 highlights the importance of material characterization during placement due to the variability in material properties. Mixing materials in various proportions could produce a wide range in optimum water contents and make it very difficult to select the appropriate curve in the field. The inability to select the appropriate compaction curve may result in an inability to demonstrate that the CCL was constructed as designed.

An understanding of which curve is applicable is required to ensure proper compaction of the CCL. It is expected that an appropriate curve will be selected primarily using a subjective assessment. Laboratory proctor compaction tests should proceed throughout construction at a minimum frequency of one test per 4,000 m^3 of material placed (Section 6). Control testing frequencies (in Table 6.2) can be revised as construction of the CCL progresses and the properties of the material used to construct the CCL is better understood. If materials are shown to be relatively homogeneous, CQC personnel can estimate optimum water content for the material based on previous test results and an evaluation of the material at any given location. A material can be considered homogeneous for this purpose when a set of no less than five laboratory proctor compaction test results are available and optimum water content does not vary by more than 3 percentage points and maximum dry density does not vary by more than 100 kg/m^3.

The assumed compaction curve should be documented by CQC personnel as materials are placed. If CQC personnel are uncertain as to which compaction curve should be applied, a new standard proctor test should be requested. Standard laboratory proctor compaction tests can require a minimum of four days to complete. To prevent potential downtime associated with testing, the following supplemental techniques may be employed to facilitate selection of the appropriate compaction curve.

One-point proctor compaction tests: Results of single compaction testing can be plotted with previously determined compaction curves to estimate the optimum water content and maximum dry density. It is anticipated that samples for one point compaction tests could be collected and tested while the materials are being allowed to dry, thus minimizing downtime. The reduced time associated with this procedure would allow for results to be available by the time the material is at a suitable water content for compaction. The purpose of these tests would be to assist with subjective estimates and to fill in data gaps when results of complete compaction tests are not yet available. It is likely that one-point compaction testing will be used more extensively in the early stages of construction.

Three-point Proctor Compaction Tests: This technique is more reliable than the one-point test but takes longer to complete, using a minimum of three compaction points to define a curve per ASTM D5080.

Test Pads: If a new material type is to be introduced for CCL construction, then CQC will request a test pad be constructed to confirm construction methodology and demonstrate an acceptable hydraulic conductivity.

Based on the results of preliminary compaction efforts, the methodology for compaction shall consist of at least four passes with a padfoot roller (following track compaction associated with placement of the loose lift). The roller shall be appropriately sized (10 tonne roller minimum) for the Work and be satisfactory to CQC. The maximum vibration frequency on the rollers shall be used for each pass. Adjacent roller passes shall be overlapped by a minimum of one third. Compaction of the CCL will not be allowed during adverse conditions including, but not limited to, rainfall or freezing temperatures. After compaction, the Owner shall survey its surface as a record of construction and for determining the thickness of the CCL in all areas.

When an appropriate proctor curve can not be determined the CQC shall conduct compaction testing to determine if the in-situ material is compacted to its maximum density using the following steps:

1. Select a representative location within the panel;
2. Apply additional compaction effort to the area with a known number of passes (recommend starting with 4 to 6);
3. Collect another density reading with the nuclear densometer;
4. Recompact the area with additional passes (4 to 6);
5. Collect another nuclear densometer reading;
6. Compare dry density values. If the dry density variance is no greater than 5% the area can be considered compacted and approved. If the variance in the area is found to be greater than 5% the entire panel must be re-compacted to the minimum number of passes required to fall below the 5% variance in dry density.
7. Submit all documentation to the CQA and the Engineer for final approval.

Panels of CCL may be approved in the field given the panel meets the specifications described herein. Approval of any given panel should be based on the following considerations

- Inspection of materials during placement to confirm suitability;
- Monitoring of compaction treatment;

- Review of survey data to confirm lift thickness are in compliance with specifications; and

- Review of water content and density test results to confirm an acceptable level of compaction was achieved within the specified range of water content.

Approval of a CCL panel should be documented by CQC in the daily summary report (Section 7). Summary notes and relevant data should be made available to CQA personnel and the Engineer on a daily basis. If CQA or Engineer determines that a panel does not conform to specifications the Owner may be required to rework and recompact the area.

Approved areas of the CCL shall not be left exposed for longer than **24 hours** to prevent desiccation of the CCL (applicable to both lifts of the CCL). It is expected that desiccation occurring during this period would be limited to a thin exterior crust; this specification may be adjusted based on weather conditions. Tarps may be used to cover completed areas of the CCL in the event the subsequent layer cannot be placed in a timely manner. If desiccation cracks develop in an approved, completed area of the CCL, the Owner shall rework and recompact the material as necessary.

If CCL remains uncovered for longer than 24 hours the CCL should be examined for depth of drying due to the prolonged exposure; if the depth of drying is greater than the minimum thickness of the layer than the Owner shall rework and recompact the material as necessary.

Findings from the cover system stability analysis (Okane, 2020b) indicated generally that if slip surfaces are introduced, the factor of safety (FoS) of the cover will be reduced. Sensitivity analysis indicated that if high moisture content material is used, creating a R_u (ratio of pore-water pressure to overburden stress) of 0.4 or higher, the cover will not meet the minimum required FoS. To ensure an adequate FoS of the cover system, the Owner shall adhere to water content specifications set out in this document, and ensure that in the event of rain over an approved, completed area of the CCL, the area is stripped and reworked.

5.2.4 Compacted Clay Layer Key-in Trench

The CCL shall be keyed-in along the toe of the slope of the EMRS to limit the potential for oxygen ingress to occur at the base of the EMRS. The key-in trench shall be excavated until **one** of the following criteria has been met:

- A suitable clay formation has been encountered (similar material properties as used for the CCL),

- The trench has hit refusal due to bedrock, or

- A maximum depth of 3 m has been achieved.

The CCL shall be extended and used to backfill the trench forming a continuous liner. The CCL material should be placed in two lifts, compacting as best as reasonably possible with appropriate equipment. In areas where bedrock outcrops occur at the base of the slope the CCL shall be formed over and blended into the bedrock formation to the final slope configuration. If a trench is terminated at the maximum depth of 3 m backfilling shall be conducted as described above. All vegetation shall be removed prior to the CCL and subsequent NCL being placed on any natural ground.

5.3 Non-Compacted Layer (NCL)

Fill material for the NCL shall consist of materials sourced from within the pit boundary. The NCL shall possess a minimum thickness of 1.0 m in all areas of the covered EMRS (measured perpendicular to the ground surface). The NCL shall be constructed in a minimum of two lifts to allow for track compaction of the materials.

Placement of the Overburden material shall be done in a manner that does not damage the CCL. Areas compacted too densely due to repeated traffic from construction equipment shall be loosened by ripping or scarifying as directed and approved by the CQC (for revegetation / rooting purposes).

To ensure adequate FoS of the cover, the overlying material should not be greater than two percentage points wet of in situ water content (Okane, 2020b).

6 CQC PROCEDURES

CQC personnel will take samples of the materials used for and in the Work, and perform various tests on the samples to ascertain that the materials being placed or already placed in the Work meet the specified requirements. Results of CQC testing will be subject to review by CQA personnel. CQA's assessment of test results will be final and conclusive in determining compliance with the Technical Specifications unless otherwise noted by the Engineer.

Material control tests will be carried out on materials in excavations and stockpiles prior to compaction to determine the adequacy of the materials for use in the Work (Table 6.1 and Table 6.2). Record tests will be conducted on the materials in the completed portions of the Work following placement and compaction to confirm the adequacy of the Work, and to provide an as-built record of the workmanship achieved (Table 6.3). Record tests may also be used to modify the construction procedures if necessary.

The Owner shall give CQC personnel full cooperation in sample taking or conducting tests and shall render such assistance as is necessary to enable sampling and testing to be carried out expeditiously. The Owner shall allow sufficient time for the CQC to carry out the required test work in order to determine the acceptability of the placed materials.

Tests carried out by the CQC personnel will be performed in accordance with the principles and methods prescribed by the American Society for Testing and Materials (ASTM) and other such recognized authorities. These methods shall be modified to the extent necessary to consider local conditions and the particle sizes of the materials specified. The following schedule of quality control testing is anticipated. However, the CQA or Engineer may modify the testing and rates of testing during the Work (for example CQA may reduce testing frequencies as the Work progresses).

Table 6.1: Control Testing Frequency in Pit Boundary

Material	Field Index Test (Materials Selection Guide)	Observations for Deleterious Materials
CCL	Continuous	Continuous

Table 6.2: Control Testing Frequency for Fill Materials after Placement

Material	Construction Oversight	Water Content (ASTM D2216-19)	Particle Size / Hydrometer (ASTM D6913M-17, D7928-17)	Plasticity (ASTM D4318-00)	Proctor Compaction Testing (ASTM D698-12e2)
CCL	Continuous	1 per 1,000 m^3	1 per 1,000 m^3	1 per 1,000 m^3	1 per 4,000 m^3
NCL	Continuous	1 per 2,000 m^3	1 per 3,000 m^3		

Table 6.3: Record Testing Frequency for As-built CCL (after compaction)

Material	Water content (ASTM D2216-19)	Nuclear Gauge Density and Water Content (ASTM D6938-07b)	In Situ Hydraulic Conductivity (ASTM D6391-11)
CCL	1 per 1 nuclear gauge test sites*	13/ha/lift	1 per 1 ha

* NOTE: Water contents are done as a check for the nuclear gauge; frequency may change based on accuracy of the nuclear gauge.

Okane suggests a grid be established to predetermine locations for the tests outlined in Table 6.3. Sampling grids will be staggered for successive lifts to ensure overlap of sampling locations does not occur. The maximum depth on the nuclear densometer should be used during density tests after the second lift of the CCL has been placed. Water contents sampled at nuclear densometer locations should be taken at the location of the nuclear densometer test site to allow for assessment of the nuclear densometer's accuracy.

Hydraulic conductivity testing of the CCL will be completed by Okane personnel at a frequency noted in Table 6.3. When an appropriate proctor curve can not be selected, the hydraulic conductivity of a material may be used for a final approval of a panel in conjunction with confirmation that the material is compacted to its maximum dry density using the method described in Section 5.2.3. All approval under these circumstances are subject to review by the CQA and Engineer.

General locations for hydraulic conductivity testing will be identified by the CQA. Typically, these will be areas of concern or where variability in the CCL was noted. Within these areas of interest, if a hydraulic conductivity test fails, the estimated failing area will be delineated based on field notes and other documentation. An area outside of this zone will be subsequently selected to complete another hydraulic conductivity to confirm the remainder of the area/panel meets specification. The CQA will then determine if the failed area requires rework based on the testing results, location, and total estimated effected area.

6.1 Allowable Variations and Corrective Actions

The recommended allowance for failed as-built tests are presented in Table 6.4. A number of as-built tests can be expected to fail, due either to variability of the soil, the compaction process, or measurement errors. If it is suspected that a test result is erroneous, additional tests shall be made in its immediate vicinity. If the additional tests produce satisfactory results, the suspected test can be disregarded.

Table 6.4: Recommended Percentage of failed as-built tests for the CCL

Parameter	Maximum allowed percentage of failed tests	Allowable failed tests
Water content	3% (not concentrated in one area).	2 percentage points dry of allowable range or 3 percentage points wet of allowable range
Dry Density	3% (not concentrated in one area)	No tests lower than 90% standard compaction
Hydraulic Conductivity	5% (not concentrated in one area)	No tests greater than 5×10^{-9} m/s

A failed hydraulic conductivity test may indicate a failed test installation as opposed to an unacceptably high hydraulic conductivity. If a hydraulic conductivity test fails CQA will implement at least one additional test in the affected area. CQA will make a decision as to whether the area needs to be reworked pending the results of additional testing and a review of available CQA data for the area. No more than 5% of failed hydraulic conductivity tests will be allowed for the landform in total.

No more than 5% of final lift thickness determinations shall be allowed as outliers, per panel of CCL placed. In the CCL area within each panel, no more than 5% of the area as defined by the heat map provided by CQC shall be outside specification.

If it is determined that an area does not conform to specification, the area should be repaired. The extent of the area in question should be determined by the CQC based on passing tests. The most likely cause for failing tests will be inadequate compaction or water contents outside of the specified ranges. To rectify the problem, additional passes with the compaction equipment may be necessary. If the water content is outside the specified range the CCL may need to be scarified prior to re-compaction. Final approval of the panel is at the discretion of the CQA/Engineer.

7 DOCUMENTATION

Daily summary reporting and documentation procedures are required from CQC personnel. Documentation should include the following information:

- Project name, location, date, and personnel involved in major activities,
- Description of weather conditions (temperature, cloud cover, and precipitation);
- Summaries of any meetings held and actions recommended or taken as a result;
- Specific work units and locations of construction underway during that day;
- Equipment and personnel being used in each task;
- Calibrations or recalibrations of equipment, including actions taken as a result of recalibration;
- Descriptions of materials selected for use in the CCL;
- Decisions made regarding approval Work, and corrective actions to be taken in instances of where Work or materials were found inadequate;
- All survey data with respect to panel as-builts;
- Testing and sampling completed; and
- Signature of CQC.

8 REFERENCES

Amec Foster Wheeler (AMEC). 2017. Rainy River Project Development Clay Borrow Characterization. Technical memorandum prepared for New Gold Inc.

Okane Consultants Inc. (Okane). 2020a. *1003-019-008 EMRS Compaction Field Testing Summary Report*. Report prepared for New Gold Inc. August 2020.

Okane Consultants Inc. (Okane). 2020b. *1003-019-007 Veneer Stability Analysis.* Memorandum prepared for New Gold Inc. July 2020.

Attachment A

Material Selection Guide

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Appendix B

Summary of Laboratory Results

ATTACHMENT A – May 2021 Laboratory & Field Results

Table A1: Laboratory Testing Summary – May 2021

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
10-May-21	S100	SP	-	-	-	-	✓
10-May-21	S101	SP	-	-	-	-	✓
10-May-21	S102	SP	-	-	-	-	✓
10-May-21	S103	SP	-	-	-	-	✓
10-May-21	S104	SP	-	-	-	-	✓
14-May-21	S105	P01	L1	-	-	-	-
16-May-21	S106	P01	L1	✓	-	-	-
16-May-21	S107	P01	L1	✓	-	-	-
16-May-21	S108	P01	L1	✓	-	-	-
16-May-21	S109	P01	L1	✓	-	-	-
16-May-21	S110	P01	L1	✓	✓	✓	-
17-May-21	S111	P01	L1	✓	-	-	-
17-May-21	S112	P01	L2	✓	-	-	-
17-May-21	S113	P01	L2	✓	-	-	-
18-May-21	S114	P01	L2	✓	-	-	-
18-May-21	S115	P01	L2	✓	-	-	-
18-May-21	S116	P01	L2	✓	-	-	-
19-May-21	S117	P01	L3	✓	-	✓	-
23-May-21	S118	P02	L1	✓	✓	✓	-
24-May-21	S119	P01	L1	✓	-	-	-
24-May-21	S120	P02	L1	✓	-	-	-
24-May-21	S121	P02	L1	✓	-	-	-
24-May-21	S122	P02	L1	✓	-	-	-
24-May-21	S123	P02	L1	✓	-	-	-
24-May-21	S124	P02	L2	✓	✓	✓	-
24-May-21	S125	P02	L2	✓	-	-	-
24-May-21	S126	P01	L2	✓	-	-	-
24-May-21	S127	P01	L2	✓	-	-	-
24-May-21	S128	P01	L2	✓	-	-	-
25-May-21	S129	P01	L2	✓	-	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
25-May-21	S130	P02	L2	✓	-	-	-
25-May-21	S131	P02	L2	✓	-	-	-
25-May-21	S132	P02	L2	✓	-	-	-
25-May-21	S133	P02	L2	✓	✓	✓	-
25-May-21	S134	P02	L2	✓	-	-	-
25-May-21	S135	P02	L2	✓	-	-	-
26-May-21	S136	P02	L3	✓	-	-	-
26-May-21	S137	P02	L3	✓	-	✓	-
27-May-21	S138	P02	L4	✓	-	-	-
27-May-21	S139	P02	L4	✓	-	✓	-
28-May-21	S141	P03	L1	✓	✓	✓	-
28-May-21	S142	P03	L1	✓	-	-	-
28-May-21	S143	P03	L1	✓	✓	✓	-
29-May-21	S144	P03	L1	✓	-	-	-
29-May-21	S145	P03	L1	✓	-	-	-
29-May-21	105	SP	-	-	-	-	✓
29-May-21	106	SP	-	-	-	-	✓
30-May-21	S146	P03	L2	-	-	-	✓

Table A2: Laboratory Moisture Contents – May 2021

Date Sampled	Date Tested	Sample ID	Lab Moisture Content (%)
14-May-21	16-May-21	EMRS21-L1-105	27.7
16-May-21	17-May-21	EMRS21-L1-106	31.1
16-May-21	17-May-21	EMRS21-L1-107	19.8
16-May-21	17-May-21	EMRS 21-L1-108	18.7
16-May-21	17-May-21	EMRS 21-L1-109	31.5
16-May-21	17-May-21	EMRS 21-L1-110	27.3
17-May-21	18-May-21	EMRS 21-L1-111	28.2
17-May-21	18-May-21	EMRS 21-L1-112	21.4
17-May-21	18-May-21	EMRS 21-L1-113	27.0
18-May-21	19-May-21	EMRS 21-L1-114	26.2
18-May-21	19-May-21	EMRS 21-L1-115	25.3
18-May-21	19-May-21	EMRS 21-L1-116	30.1

Date Sampled	Date Tested	Sample ID	Lab Moisture Content (%)
19-May-21	20-May-21	EMRS 21-L1-117	28.9
23-May-21	24-May-21	EMRS 21-L1-118	25.9
24-May-21	25-May-21	EMRS 21-L1-119	31.4
24-May-21	25-May-21	EMRS 21-L1-120	30.2
24-May-21	25-May-21	EMRS 21-L1-121	25.9
24-May-21	25-May-21	EMRS 21-L1-122	28.0
24-May-21	25-May-21	EMRS 21-L1-123	23.0
24-May-21	25-May-21	EMRS 21-L2-124	28.0
24-May-21	25-May-21	EMRS 21-L2-125	25.9
24-May-21	25-May-21	EMRS 21-L2-126	28.2
24-May-21	25-May-21	EMRS 21-L2-127	25.7
24-May-21	26-May-21	EMRS 21-L2-128	27.0
25-May-21	26-May-21	EMRS 21-L2-129	28.5
25-May-21	26-May-21	EMRS 21-L2-130	29.5
25-May-21	26-May-21	EMRS 21-L2-131	29.4
25-May-21	26-May-21	EMRS 21-L2-132	28.7
25-May-21	26-May-21	EMRS 21-L2-133	26.2
25-May-21	26-May-21	EMRS 21-L2-134	26.6
25-May-21	26-May-21	EMRS 21-L2-135	29.3
26-May-21	27-May-21	EMRS 21-L3-136	22.4
26-May-21	27-May-21	EMRS 21-L3-137	23.2
27-May-21	28-May-21	EMRS 21-L4-138	23.4
27-May-21	28-May-21	EMRS 21-L4-139	21.4
28-May-21	30-May-21	EMRS 21-L1-140	24.4
28-May-21	30-May-21	EMRS 21-L1-141	21.9
28-May-21	30-May-21	EMRS 21-L1-142	29.5
29-May-21	30-May-21	EMRS 21-L1-S143	22.4
29-May-21	30-May-21	EMRS 21-L1-S144	19.3
29-May-21	30-May-21	EMRS 21-L1-S145	23.8

Table A3: Atterberg Limits – May 2021

Date Sampled	Date Tested	Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
14-May-21	18-May-21	EMRS21-L1-105	60	13	47
16-May-21	19-May-21	EMRS 21-L1-110	52	12	40
23-May-21	25-May-21	EMRS 21-L1-118	47	12	35
24-May-21	26-May-21	EMRS 21-L2-124	53	7	46
25-May-21	29-May-21	EMRS 21-L2-129	54	14	40
25-May-21	27-May-21	EMRS 21-L2-133	56	13	43
28-May-21	01-Jun-21	EMRS 21-L1-141	52	10	33
30-May-21	01-Jun-21	EMRS 21-L1-S143	47	16	31

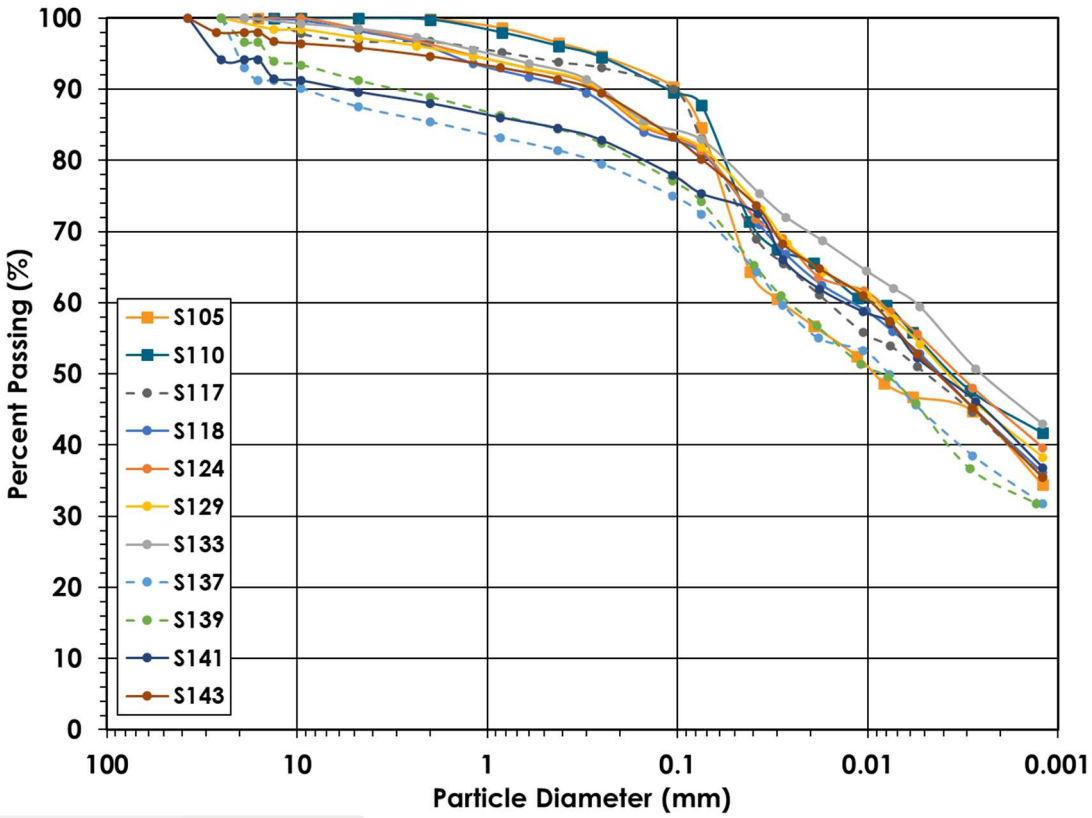


Figure A1: Hydrometer Data – May 2021. Solid lines indicate CCL material and dashed lines indicate NCL material.

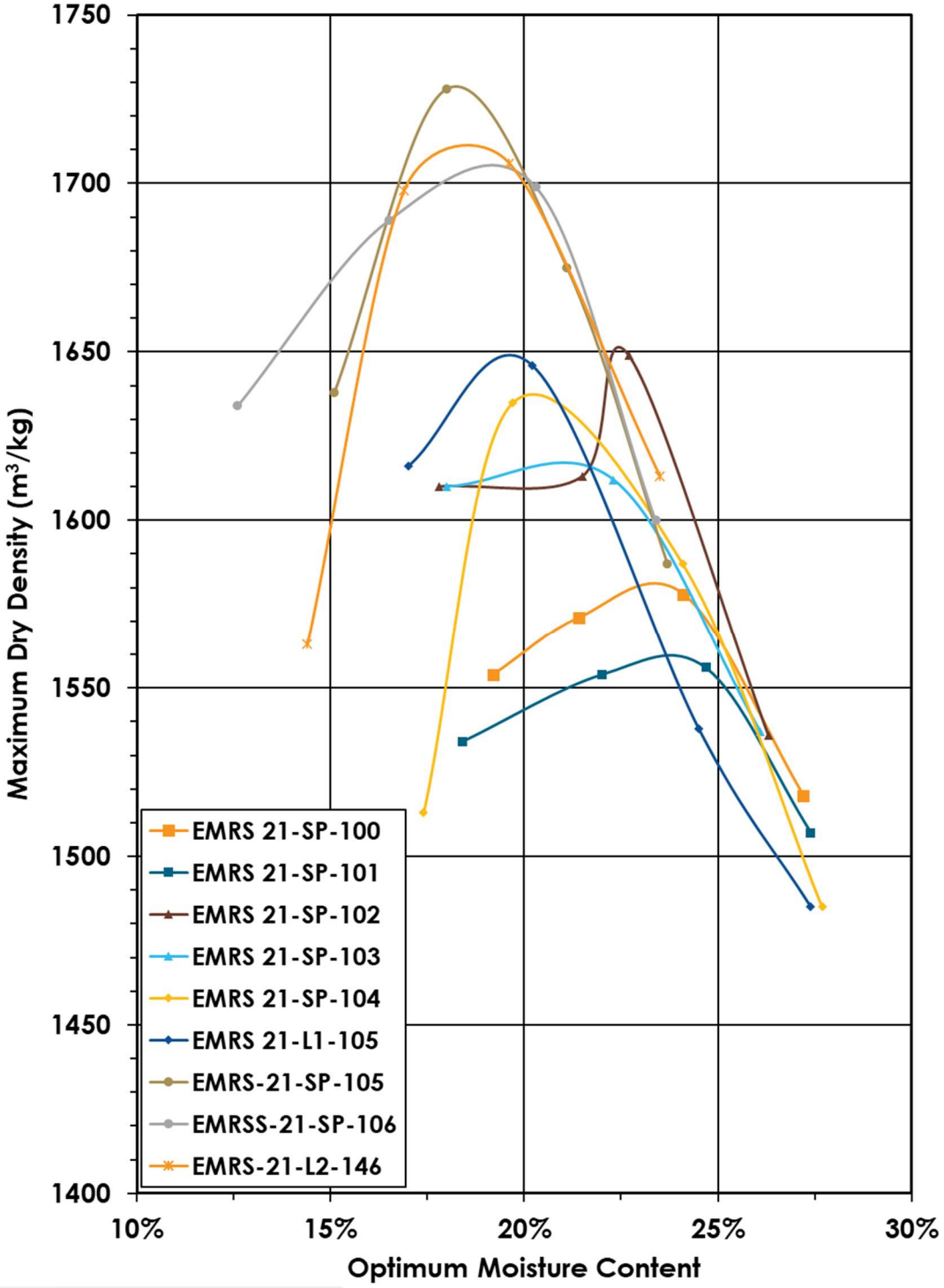


Figure A2: Laboratory Proctor Curves May 2021

Table A4: Nuclear Densometer Results – May 2021

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
16-May-21	106	14.5	1757	2013
16-May-21	107	25.1	1514	1894
16-May-21	108	26.6	1533	1941
16-May-21	109	29	1461	1885
17-May-21	111	27.6	1521	1940
17-May-21	112	25.7	1530	1924
17-May-21	113	23.5	1554	1919
18-May-21	114	24.2	1575	1956
18-May-21	COMP.1	28.7	1473	1896
18-May-21	COMP.2	23.4	1570	1937
18-May-21	115	26.5	1528	1933
18-May-21	116	23.8	1526	1890
28-May-21	140	23	1606	1974
28-May-21	141	22	1641	2001
28-May-21	142	23.4	1534	1893
29-May-21	D30	21	1650	1996
29-May-21	D31	20.6	1612	1944
29-May-21	D32	19.8	1644	1970
29-May-21	D33	18.3	1682	1989
29-May-21	D34	30.3	1398	1823
29-May-21	D35	21.9	1499	1826

ATTACHMENT A – June 2021 Laboratory & Field Results

Table A1: Laboratory Testing Summary – June 2021

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
1-Jun-21	S147	P3	L2	✓	-	-	-
1-Jun-21	S148	P3	L2	✓	-	-	-
1-Jun-21	S149	P3	L2	✓	✓	✓	-
1-Jun-21	S150	P3	L2	✓	-	-	-
1-Jun-21	S151	P3	L2	✓	-	-	-
1-Jun-21	S152	P3	L2	✓	-	-	-
2-Jun-21	S153	P3	L3	✓	-	✓	-
3-Jun-21	S154	P04	L1	✓	-	-	-
3-Jun-21	S155	P04	L1	✓	✓	✓	-
3-Jun-21	S156	P04	L1	✓	-	-	-
3-Jun-21	S157	P04	L1	✓	-	-	-
3-Jun-21	S158	P04	L1	✓	-	-	-
4-Jun-21	S159	P04	L2	✓	✓	✓	-
4-Jun-21	S160	P04	L2	✓	-	-	-
4-Jun-21	S161	P04	L2	✓	-	-	-
4-Jun-21	S162	P04	L2	✓	-	-	-
4-Jun-21	S163	P04	L2	✓	-	-	-
5-Jun-21	S164	P03	L4	✓	-	✓	-
5-Jun-21	S165	P04	L3	✓	-	-	-
6-Jun-21	S166	P04	L4	✓	-	-	-
8-Jun-21	S167	P05	L1	✓	-	-	-
8-Jun-21	S168	P05	L1	✓	-	-	-
8-Jun-21	S169	P05	L1	✓	-	-	-
8-Jun-21	S170	P05	L1	✓	-	-	-
8-Jun-21	S171	P05	L1	✓	-	-	-
9-Jun-21	S172	P05	L1	✓	-	-	-
9-Jun-21	S172	P05	L2	-	✓	✓	-
9-Jun-21	S173	P05	L1	✓	✓	✓	-
9-Jun-21	S174	P05	L2	✓	-	-	-
9-Jun-21	S175	P05	L2	✓	-	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
9-Jun-21	S176	P05	L2	✓	-	-	-
9-Jun-21	S177	P05	L2	✓	-	-	-
9-Jun-21	S178	P05	L2	✓	-	-	-
11-Jun-21	S179	P06	L1	✓	✓	✓	✓
11-Jun-21	S180	P05	L3	✓	-	✓	-
11-Jun-21	S181	P06	L1	✓	-	-	-
11-Jun-21	S182	P06	L1	✓	-	-	-
11-Jun-21	S183	P06	L1	✓	-	-	-
12-Jun-21	S184	P06	L1	✓	-	-	-
12-Jun-21	S185	P06	L1	✓	✓	✓	-
12-Jun-21	S186	P06	L1	✓	-	-	-
12-Jun-21	S187	P06	L1	✓	-	-	-
12-Jun-21	S188	P06	L1	✓	-	-	-
12-Jun-21	S189	P06	L1	✓	-	-	-
12-Jun-21	S190	P06	L1	✓	-	-	-
12-Jun-21	S191	P06	L1	✓	-	-	-
12-Jun-21	S192	P06	L1	✓	-	-	-
12-Jun-21	S193	P06	L1	✓	-	-	-
12-Jun-21	S194	P06	L1	✓	-	-	-
12-Jun-21	S195	P06	L1	✓	-	-	-
13-Jun-21	S196	P06	L2	✓	-	-	-
13-Jun-21	S197	P06	L2	✓	-	-	-
13-Jun-21	S198	P06	L2	✓	-	-	-
13-Jun-21	S198	P06	L2	-	✓	✓	-
13-Jun-21	S199	P06	L2	✓	-	-	-
13-Jun-21	S200	P06	L2	✓	-	-	-
15-Jun-21	S201	P07	L1	✓	-	-	-
15-Jun-21	S202	P07	L1	✓	-	-	-
15-Jun-21	S203	P07	L1	✓	✓	✓	-
15-Jun-21	S204	P07	L1	✓	-	-	-
16-Jun-21	S205	SP	-	-	-	-	✓
16-Jun-21	S206	SP	-	-	-	-	✓
16-Jun-21	S207	P07	L2	✓	-	-	-
16-Jun-21	S208	P07	L2	✓	-	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
16-Jun-21	S209	P07	L2	✓	✓	✓	-
16-Jun-21	S210	P06	L4	✓	-	-	-
17-Jun-21	S211	P06	L4	-	-	✓	-
19-Jun-21	S212	P08	L1	✓	-	-	-
19-Jun-21	S213	P08	L1	✓	-	✓	-
19-Jun-21	S214	P08	L1	✓	-	-	-
19-Jun-21	S215	P08	L1	✓	✓	✓	-
19-Jun-21	S216	P08	L1	✓	-	-	-
19-Jun-21	S217	P08	L1	✓	-	-	-
20-Jun-21	S218	SP	-	-	-	-	✓
21-Jun-21	S219	P08	L2	✓	-	-	-
21-Jun-21	S220	P08	L2	✓	-	-	-
21-Jun-21	S221	P08	L2	✓	-	-	-
21-Jun-21	S222	P08	L2	✓	✓	-	-
21-Jun-21	S223	P08	L2	✓	-	-	-
21-Jun-21	S224	P08	L2	✓	-	-	-
22-Jun-21	S225	P08	L3	✓	-	-	-
22-Jun-21	S225	P08	L3	-	-	✓	-
23-Jun-21	S226	P09	L1	✓	-	-	-
23-Jun-21	S227	P09	L1	✓	-	-	-
23-Jun-21	S228	P09	L1	✓	-	-	-
23-Jun-21	S229	P09	L1	✓	✓	✓	-
23-Jun-21	S230	P09	L1	✓	-	-	-
23-Jun-21	S231	P09	L1	-	-	-	✓
24-Jun-21	S232	P09	L2	✓	-	-	-
24-Jun-21	S233	P09	L2	✓	-	-	-
24-Jun-21	S234	P09	L2	✓	-	-	-
24-Jun-21	S235	P09	L2	✓	✓	✓	-
24-Jun-21	S236	P09	L2	✓	-	-	-
24-Jun-21	S237	P08	L4	✓	-	-	-
25-Jun-21	S238	P09	L3	✓	-	✓	-
26-Jun-21	S239	P10	L1	✓	-	-	-
26-Jun-21	S240	P10	L1	✓	-	-	-
26-Jun-21	S241	P10	L1	✓	-	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
26-Jun-21	S242	P10	L1	✓	✓	✓	-
26-Jun-21	S243	P10	L1	✓	-	-	-
26-Jun-21	S244	SP	-	✓	✓	✓	✓
26-Jun-21	S245	SP	-	✓	✓	✓	✓
26-Jun-21	S246	P09	L4	✓	-	-	-
27-Jun-21	S247	P10	L2	✓	-	-	-
27-Jun-21	S248	P10	L2	✓	-	-	-
27-Jun-21	S249	P10	L2	-	✓	-	-
27-Jun-21	S249	P10	L2	-	-	✓	-
27-Jun-21	S250	P10	L2	✓	-	-	-
27-Jun-21	S251	P10	L2	✓	-	-	-
28-Jun-21	S252	P10	L3	-	-	✓	-
29-Jun-21	S253	P10	L4	✓	-	-	-
30-Jun-21	S254	P11	L1	✓	-	-	-
30-Jun-21	S255	P11	L1	✓	✓	✓	-
30-Jun-21	S256	P11	L1	✓	-	-	-
30-Jun-21	S257	P11	L1	✓	-	-	-
30-Jun-21	S258	P11	L1	✓	-	-	-
30-Jun-21	S259	P11	L2	✓	-	-	-
30-Jun-21	S260	P11	L2	✓	✓	✓	-
30-Jun-21	S261	P11	L2	✓	-	-	-
30-Jun-21	S262	P11	L2	✓	-	-	-
30-Jun-21	S263	P11	L2	✓	-	-	-

Table A2: Laboratory Moisture Contents – June 2021

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
1-Jun-21	2-Jun-21	S147	22.2
1-Jun-21	2-Jun-21	S148	25.2
1-Jun-21	2-Jun-21	S149	27.7
1-Jun-21	2-Jun-21	S150	24.6
1-Jun-21	2-Jun-21	S151	25.0
1-Jun-21	2-Jun-21	S152	24.4
2-Jun-21	3-Jun-21	S153	21.9

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
3-Jun-21	4-Jun-21	S154	28.1
3-Jun-21	4-Jun-21	S155	24.3
3-Jun-21	4-Jun-21	S156	26.9
3-Jun-21	4-Jun-21	S157	24.5
3-Jun-21	4-Jun-21	S158	29.1
4-Jun-21	5-Jun-21	S159	23.0
4-Jun-21	5-Jun-21	S160	23.4
4-Jun-21	5-Jun-21	S161	25.0
4-Jun-21	5-Jun-21	S162	27.3
4-Jun-21	5-Jun-21	S163	21.8
5-Jun-21	6-Jun-21	S164	28.7
5-Jun-21	6-Jun-21	S165	24.1
6-Jun-21	7-Jun-21	S166	27.8
8-Jun-21	9-Jun-21	S167	36.8
8-Jun-21	9-Jun-21	S168	27.0
8-Jun-21	9-Jun-21	S169	22.7
8-Jun-21	9-Jun-21	S170	23.7
8-Jun-21	9-Jun-21	S171	27.4
9-Jun-21	10-Jun-21	S172	28.9
9-Jun-21	10-Jun-21	S173	27.0
9-Jun-21	10-Jun-21	S174	23.7
9-Jun-21	10-Jun-21	S175	29.5
9-Jun-21	10-Jun-21	S176	23.6
9-Jun-21	10-Jun-21	S177	26.6
9-Jun-21	10-Jun-21	S178	23.4
11-Jun-21	12-Jun-21	S179	30.2
11-Jun-21	12-Jun-21	S180	25.8
11-Jun-21	12-Jun-21	S181	29.9
11-Jun-21	12-Jun-21	S182	28.0
11-Jun-21	12-Jun-21	S183	30.0
12-Jun-21	12-Jun-21	S184	32.4
12-Jun-21	12-Jun-21	S185	34.0
12-Jun-21	12-Jun-21	S186	21.3
12-Jun-21	12-Jun-21	S187	32.5
12-Jun-21	12-Jun-21	S188	32.3

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
12-Jun-21	12-Jun-21	S189	31.4
12-Jun-21	12-Jun-21	S190	31.2
12-Jun-21	14-Jun-21	S191	26.9
12-Jun-21	14-Jun-21	S192	25.1
12-Jun-21	14-Jun-21	S193	23.5
12-Jun-21	14-Jun-21	S194	30.3
12-Jun-21	14-Jun-21	S195	36.2
13-Jun-21	15-Jun-21	S196	25.3
13-Jun-21	15-Jun-21	S197	24.7
13-Jun-21	15-Jun-21	S198	24.6
13-Jun-21	15-Jun-21	S199	27.5
13-Jun-21	15-Jun-21	S200	24.2
15-Jun-21	17-Jun-21	S201	26.6
15-Jun-21	17-Jun-21	S202	27.0
15-Jun-21	17-Jun-21	S203	25.1
15-Jun-21	17-Jun-21	S204	32.5
16-Jun-21	18-Jun-21	S207	31.8
16-Jun-21	18-Jun-21	S208	34.3
16-Jun-21	18-Jun-21	S209	21.2
16-Jun-21	18-Jun-21	S210	25.6
19-Jun-21	20-Jun-21	S212	26.1
19-Jun-21	20-Jun-21	S213	18.9
19-Jun-21	20-Jun-21	S214	24.3
19-Jun-21	20-Jun-21	S215	27.9
19-Jun-21	20-Jun-21	S216	22.1
19-Jun-21	20-Jun-21	S217	37.5
21-Jun-21	22-Jun-21	S219	26.6
21-Jun-21	22-Jun-21	S220	26.1
21-Jun-21	22-Jun-21	S221	22.9
21-Jun-21	22-Jun-21	S222	23.5
21-Jun-21	22-Jun-21	S223	31.3
21-Jun-21	22-Jun-21	S224	31.3
21-Jun-21	22-Jun-21	S225	18.1
23-Jun-21	24-Jun-21	S226	24.0
23-Jun-21	24-Jun-21	S227	23.4

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
23-Jun-21	24-Jun-21	S228	22.8
23-Jun-21	24-Jun-21	S229	22.8
23-Jun-21	24-Jun-21	S230	23.6
24-Jun-21	25-Jun-21	S232	24.7
24-Jun-21	25-Jun-21	S233	23.8
24-Jun-21	25-Jun-21	S234	27.4
24-Jun-21	25-Jun-21	S235	30.5
24-Jun-21	25-Jun-21	S236	23.5
25-Jun-21	26-Jun-21	S238	26.6
26-Jun-21	27-Jun-21	S246	27.4
26-Jun-21	27-Jun-21	S239	24.9
26-Jun-21	27-Jun-21	S240	28.9
26-Jun-21	27-Jun-21	S241	22.2
26-Jun-21	27-Jun-21	S242	24.9
26-Jun-21	27-Jun-21	S243	24.7
26-Jun-21	27-Jun-21	S244	23.7
26-Jun-21	27-Jun-21	S245	29.7
27-Jun-21	28-Jun-21	S247	19.5
27-Jun-21	28-Jun-21	S248	23.8
27-Jun-21	28-Jun-21	S249	23.1
27-Jun-21	28-Jun-21	S250	21.0
27-Jun-21	28-Jun-21	S251	21.8
28-Jun-21	29-Jun-21	S252	20.5
29-Jun-21	30-Jun-21	S253	21.3
30-Jun-21	1-Jul-21	S254	24.1
30-Jun-21	1-Jul-21	S255	25.8
30-Jun-21	1-Jul-21	S256	24.4
30-Jun-21	1-Jul-21	S257	29.4
30-Jun-21	1-Jul-21	S258	25.5
30-Jun-21	1-Jul-21	S259	23.0
30-Jun-21	1-Jul-21	S260	25.1
30-Jun-21	1-Jul-21	S261	21.7
30-Jun-21	1-Jul-21	S262	23.2

Table A3: Atterberg Limits – June 2021

Date Sampled	Date Tested	Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
1-Jun-21	4-Jun-21	S149	48	20	28
3-Jun-21	5-Jun-21	S155	48	18	30
4-Jun-21	7-Jun-21	S159	45	17	28
9-Jun-21	11-Jun-21	S172	47	19	28
9-Jun-21	11-Jun-21	S173	46	18	28
11-Jun-21	13-Jun-21	S179	45	19	26
12-Jun-21	15-Jun-21	S185	64	19	45
13-Jun-21	16-Jun-21	S198	49	18	31
15-Jun-21	18-Jun-21	S203	45	17	28
16-Jun-21	19-Jun-21	S209	48	18	30
19-Jun-21	23-Jun-21	S215	47	18	29
21-Jun-21	23-Jun-21	S222	50	18	32
23-Jun-21	25-Jun-21	S229	49	20	29
24-Jun-21	26-Jun-21	S235	43	16	27
26-Jun-21	28-Jun-21	S242	50	18	32
26-Jun-21	28-Jun-21	S244	32	14	18
26-Jun-21	28-Jun-21	S245	56	22	34
27-Jun-21	30-Jun-21	S249	44	18	26
30-Jun-21	3-Jul-21	S255	44	18	26
30-Jun-21	3-Jul-21	S260	47	18	29

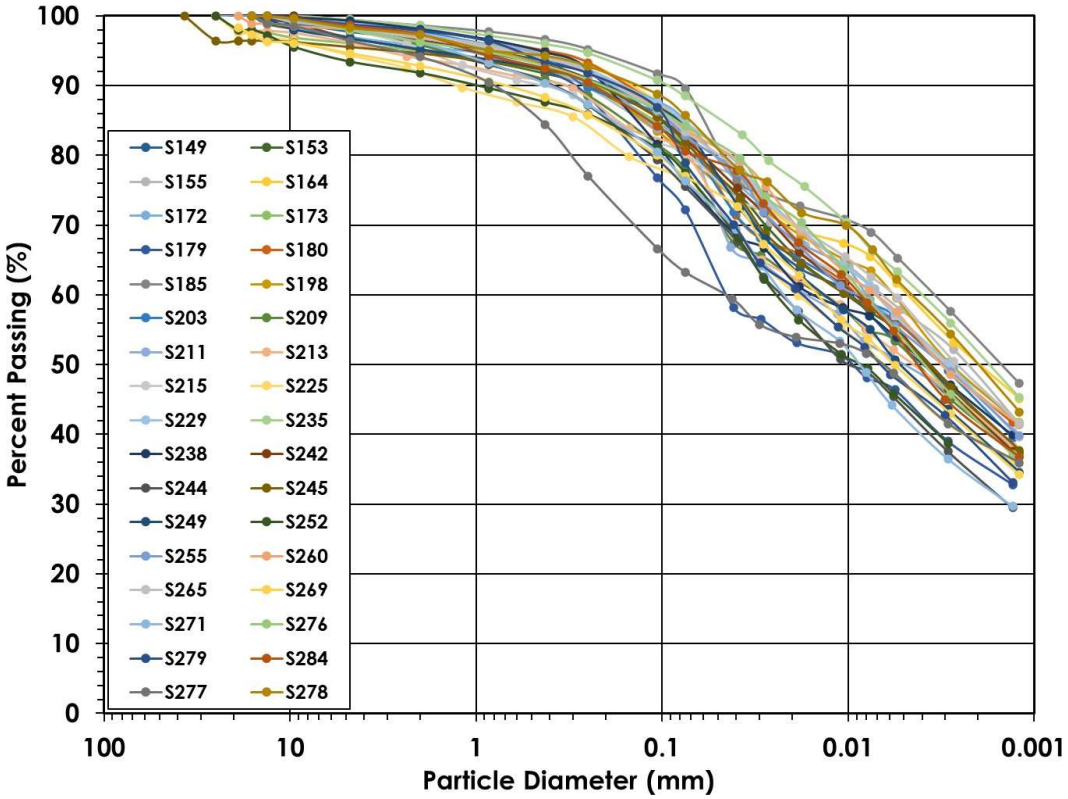


Figure A1: Hydrometer Data – June 2021

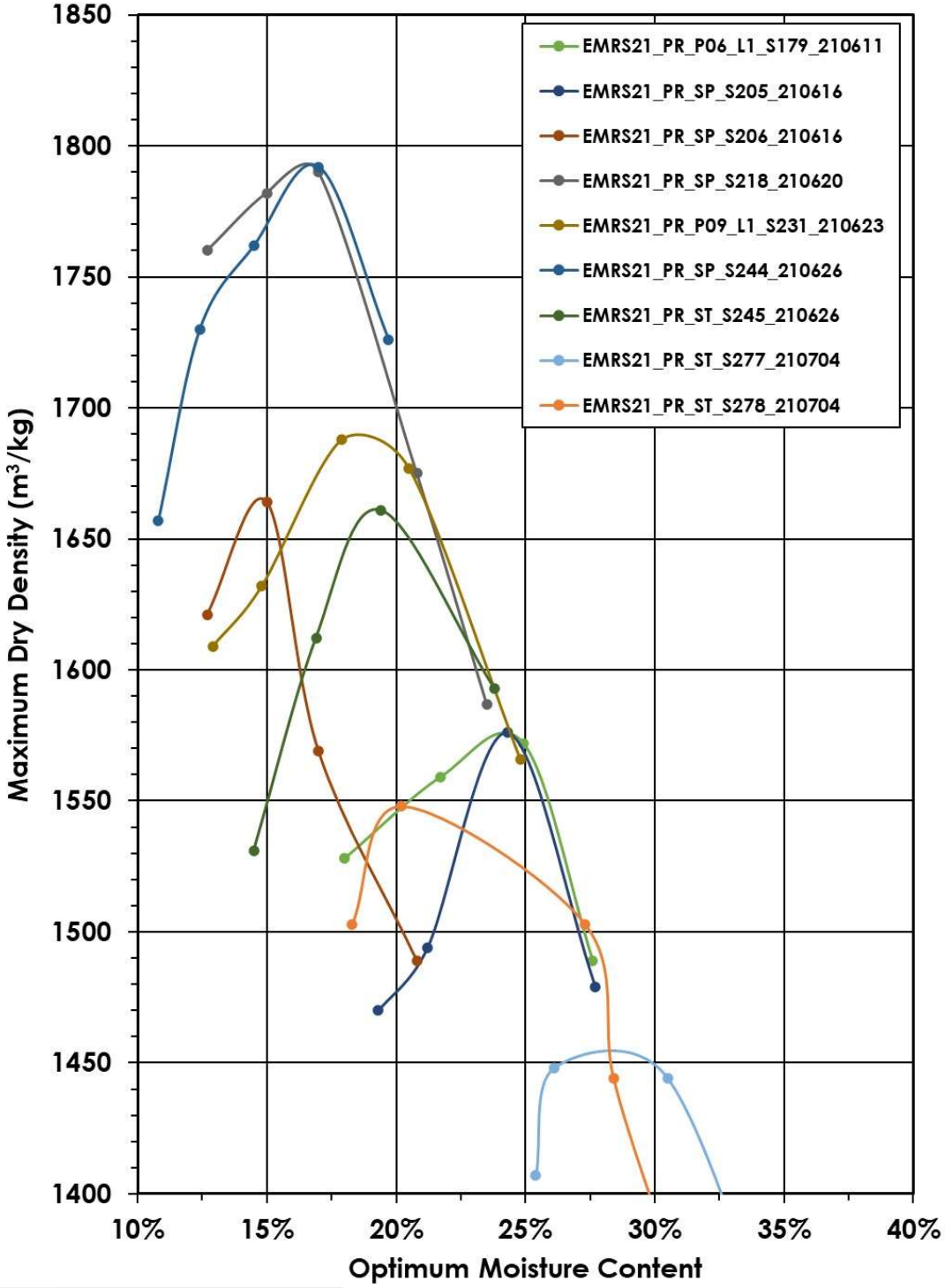


Figure A2: Laboratory Proctor Curves June 2021

Table A4: Nuclear Densometer Results – June 2021

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
1-Jun-21	D36	18.7	1764	2094
1-Jun-21	D37	19.9	1630	1955
1-Jun-21	D38	22.4	1612	1972
1-Jun-21	D39	23.7	1559	1929
1-Jun-21	D40	23.1	1635	2013
1-Jun-21	D41	25.0	1593	1992
1-Jun-21	D42	20.6	1613	1945
1-Jun-21	D43	26.2	1513	1909
3-Jun-21	D44	25.9	1509	1899
3-Jun-21	D45	21.4	1658	2013
3-Jun-21	D46	24.2	1575	1956
3-Jun-21	D47	18.7	1658	1969
3-Jun-21	D48	23.6	1592	1969
4-Jun-21	D49	21.2	1656	2007
4-Jun-21	D50	22.0	1592	1942
4-Jun-21	D51	25.3	1510	1892
4-Jun-21	D52	25.1	1501	1879
4-Jun-21	D53	19.7	1635	1957
4-Jun-21	D54	19.2	1650	1966
4-Jun-21	D55	22.4	1628	1993
8-Jun-21	D56	25.8	1527	1921
8-Jun-21	D57	24.3	1518	1887
8-Jun-21	D58	22.3	1601	1951
8-Jun-21	D59	26.1	1509	1903
8-Jun-21	D60	26.4	1539	1945
9-Jun-21	D61	23.3	1565	1930
9-Jun-21	D62	26.6	1531	1938
9-Jun-21	D63	25.4	1537	1928
9-Jun-21	D64	22.8	1604	1971
9-Jun-21	D65	21.4	1595	1936
9-Jun-21	D66	20.7	1555	1876
9-Jun-21	D67	24.8	1559	1959
11-Jun-21	D68	33.7	1360	1819

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
11-Jun-21	D69	27.2	1490	1895
11-Jun-21	D70	33.6	1363	1821
12-Jun-21	D71	32.0	1407	1857
12-Jun-21	D72	24.0	1528	1894
12-Jun-21	D73	29.2	1452	1876
12-Jun-21	D74	26.1	1505	1898
12-Jun-21	D75	28.3	1487	1907
12-Jun-21	D76	20.8	1560	1885
12-Jun-21	D77	30.9	1449	1896
12-Jun-21	D78	24.7	1532	1911
12-Jun-21	D79	23.9	1535	1902
12-Jun-21	D80	23.9	1535	1902
12-Jun-21	D81	22.4	1566	1917
12-Jun-21	D82	21.1	1526	1848
12-Jun-21	D83	22.6	1533	1904
13-Jun-21	D84	23.0	1592	1957
13-Jun-21	D85	25.2	1574	1970
13-Jun-21	D86	22.7	1593	1954
13-Jun-21	D87	28.4	1486	1908
13-Jun-21	D88	24.3	1536	1939
13-Jun-21	D89	28.0	1505	1926
13-Jun-21	D90	25.4	1527	1915
13-Jun-21	D91	23.3	1580	1948
13-Jun-21	D92	23.3	1579	1948
15-Jun-21	D93	25.7	1541	1937
15-Jun-21	D94	22.4	1596	1953
15-Jun-21	D95	27.1	1495	1901
15-Jun-21	D96	20.4	1586	1908
15-Jun-21	D97	25.6	1520	1908
15-Jun-21	D98	24.2	1529	1899
16-Jun-21	D99	26.8	1466	1859
16-Jun-21	D100	27.0	1491	1894
16-Jun-21	D101	26.8	1487	1885
16-Jun-21	D102	26.6	1487	1883

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
16-Jun-21	D103	27.0	1484	1884
16-Jun-21	D104	19.6	1633	1954
16-Jun-21	D105	24.8	1555	1941
17-Jun-21	D106	26.4	1501	1897
19-Jun-21	D107	25.8	1538	1935
19-Jun-21	D108	13.9	1540	1754
19-Jun-21	D109	26.2	1519	1916
19-Jun-21	D110	26.8	1478	1874
19-Jun-21	D111	23.9	1582	1961
19-Jun-21	D112	20.5	1683	2028
19-Jun-21	D113	27.9	1469	1878
19-Jun-21	D114	24.4	1505	1872
19-Jun-21	D115	25.5	1500	1883
21-Jun-21	D116	20.9	1627	1968
21-Jun-21	D117	27.6	1507	1923
21-Jun-21	D118	18.7	1719	2041
21-Jun-21	D119	21.4	1665	2021
21-Jun-21	D120	25.2	1553	1945
21-Jun-21	D121	23.1	1593	1960
21-Jun-21	D122	21.6	1601	1947
21-Jun-21	D123	25.5	1552	1949
21-Jun-21	D124	27.7	1466	1872
23-Jun-21	D125	27.6	1484	1894
23-Jun-21	D126	22.8	1583	1944
23-Jun-21	D127	20.4	1653	1990
23-Jun-21	D128	21.9	1584	1931
23-Jun-21	D129	20.2	1605	1928
23-Jun-21	D130	20.6	1626	1961
23-Jun-21	D131	21.9	1602	1952
23-Jun-21	D132	21.1	1591	1926
24-Jun-21	D133	23.2	1581	1948
24-Jun-21	D134	24.5	1577	1962
24-Jun-21	D135	25.0	1549	1936
24-Jun-21	D136	27.3	1521	1937

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
24-Jun-21	D137	23.9	1609	1994
26-Jun-21	D138	22.3	1636	2002
26-Jun-21	D139	23.9	1570	1946
26-Jun-21	D140	23.4	1604	1980
26-Jun-21	D141	29.9	1465	1903
26-Jun-21	D142	27.0	1504	1909
26-Jun-21	D143	21.4	1660	2016
26-Jun-21	D144	23.2	1610	1983
27-Jun-21	D145	21.6	1608	1955
27-Jun-21	D146	22.1	1579	1928
27-Jun-21	D147	21.4	1585	1924
27-Jun-21	D148	26.9	1488	1884
27-Jun-21	D149	22.0	1524	1860
27-Jun-21	D150	19.5	1619	1936
27-Jun-21	D151	22.3	1592	1947
27-Jun-21	D152	21.4	1613	1959
30-Jun-21	D153	23.7	1577	1950
30-Jun-21	D154	23.9	1523	1887
30-Jun-21	D155	18.2	1635	1933
30-Jun-21	D156	22.8	1528	1876
30-Jun-21	D157	25.2	1534	1920
30-Jun-21	D158	22.1	1608	1964
30-Jun-21	D159	18.4	1677	1985
30-Jun-21	D160	20.5	1668	2010
30-Jun-21	D161	21.4	1578	1917
30-Jun-21	D162	23.8	1619	2005
30-Jun-21	D163	23.2	1612	1985
30-Jun-21	D164	24.4	1549	1927
30-Jun-21	D165	20.2	1627	1956
30-Jun-21	D166	21.0	1626	1968
30-Jun-21	D167	21.3	1676	2033
30-Jun-21	D168	21.5	1627	1976

ATTACHMENT B – June 2021 Third-Party Sample Results

The following test results are from a sample taken in proximity to Tulloch sample location S179 (Lift 1, Panel P06, collected June 11, 2021) and were tested by P. Machibroda in Saskatoon, SK.

P.MACHIBRODA ENGINEERING LTD.

AASHTO T 88: PARTICLE SIZE ANALYSIS OF SOILS

Project: Rainy River ERMS (1003-027)

Location: Near Rainy River, SK

Project No.: 17444

Date Tested: June 25, 2021

Source: ERMS Comparison Sample - June 11, 2021 - New Gold, PR

Sample No.: 2

Sample Description: CCL (Compacted Clay Liner) - CH - Fat Clay

Sieve Analysis:

Sieve	Diameter mm	% Finer
1.5"	38.1	100
1"	25.4	100
3/4"	19.1	100
1/2"	12.7	100
3/8"	9.5	100
# 4	4.75	100
# 10	2	100
# 20	0.85	99
# 40	0.425	97.1
#60	0.25	95.7
# 100	0.15	93.0
# 200	0.075	88.3

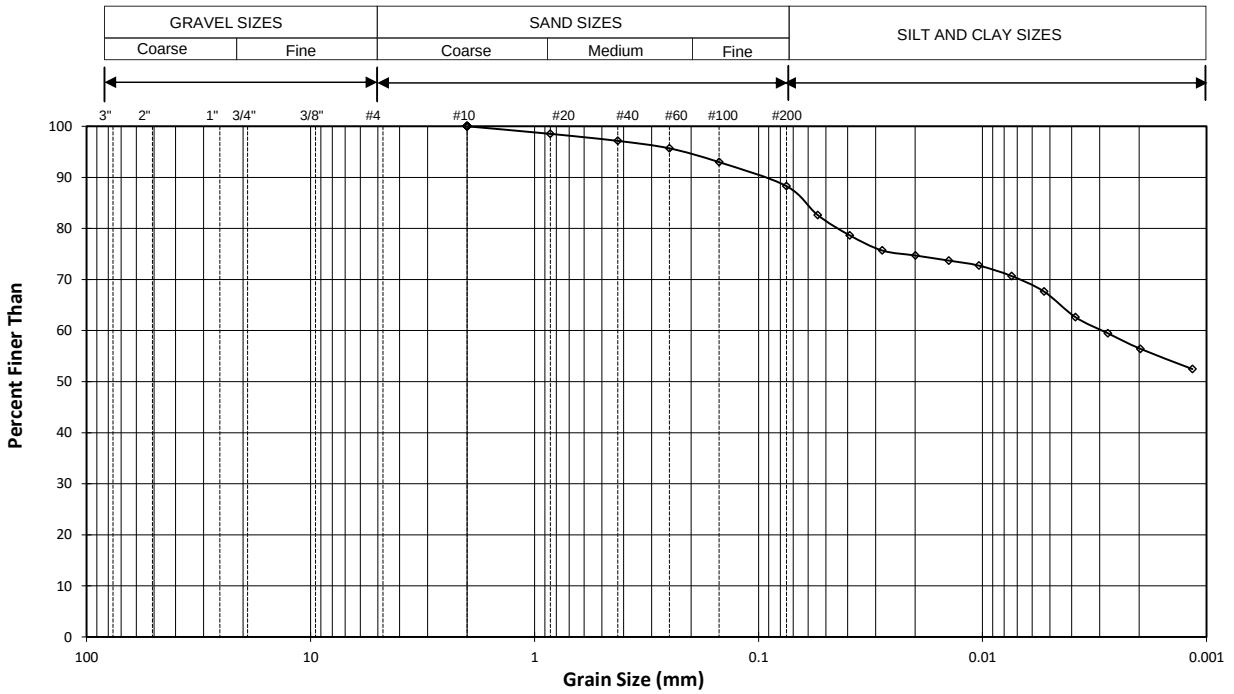
Hydrometer Analysis:

	Diameter mm	% Finer
Dispersing Agent:	0.0544	82.6
Sodium Hexametaphosphate	0.0392	78.7
	0.0281	75.7
	0.0199	74.7
	0.0142	73.7
	0.0104	72.7
	0.0074	70.7
	0.0053	67.6
	0.0038	62.6
	0.0028	59.5
	0.0020	56.4
	0.0012	52.5

Material Description:

% Gravel Sizes	% Sand Sizes	% Silt Sizes	% Clay Sizes
0	12	32	56

Remarks:



CERTIFIED BY CCIL Canadian Council of Independent Laboratories For specific tests as listed on www.ccil.com

Drawing No.

17444-2

WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCE WITH AASHTO T 88 STANDARD
P. MACHIBRODA ENGINEERING LTD.
PER

STANDARD PROCTOR MOISTURE-DENSITY RELATIONSHIP TEST REPORT

ASTM Designation D698: Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))

P.MACHIBRODA ENGINEERING LTD.

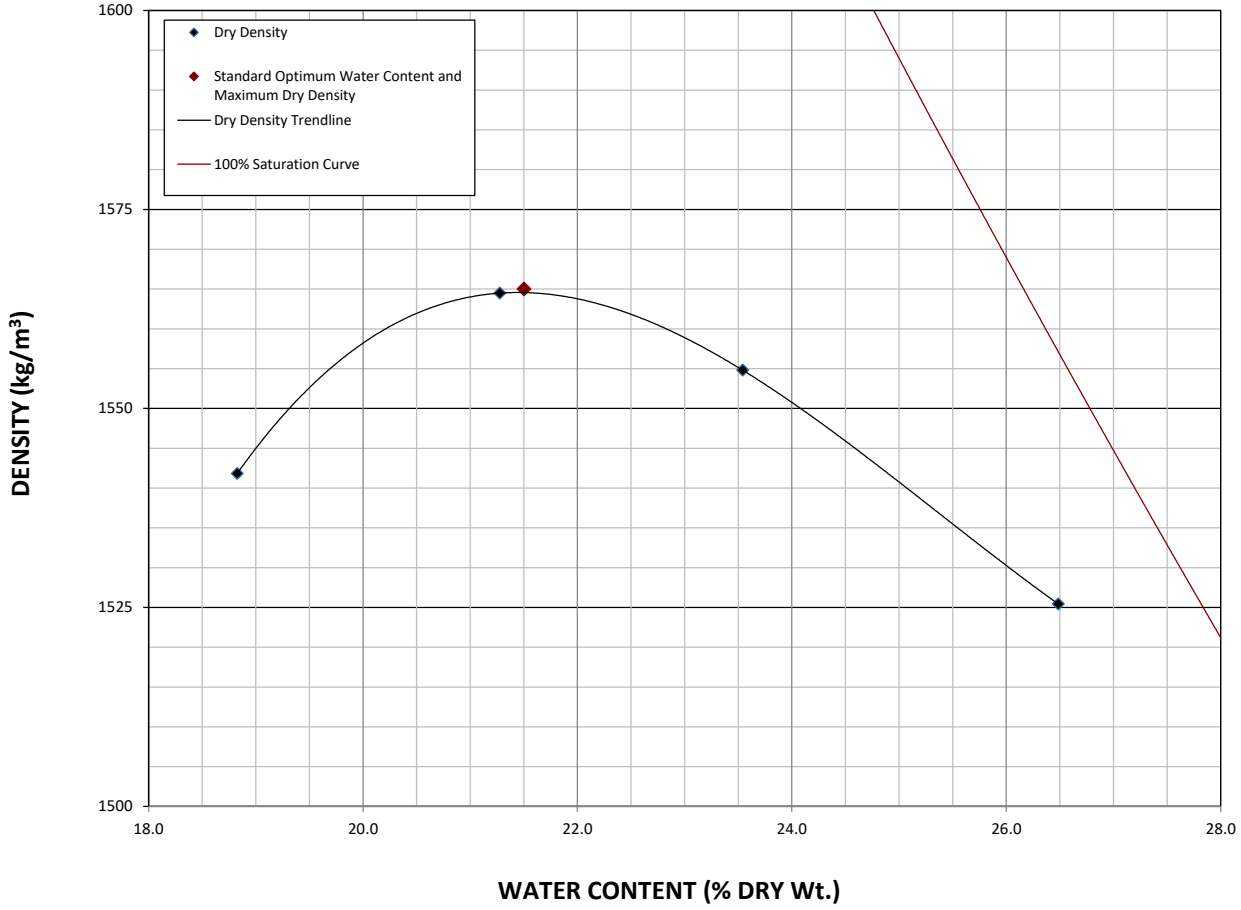
806 48th Street East, Saskatoon, Saskatchewan S7K 3Y4

Phone: 306-665-8444

Email: lab.sk@machibroda.com

PROJECT NO.:	17444	CLIENT:	O'Kane Consultants Inc.
PROJECT:	Rainy River ERMS (1003-027)	SAMPLE NUMBER:	2
LOCATION:	Near Rainy River, ON	SAMPLED BY:	O'Kane Consultants Inc.
DATE TESTED:	June 23, 2021	DATE SAMPLED:	June 11, 2021
TECHNICIAN:	K. Rendek	DATE RECEIVED:	June 21, 2021
SOURCE:	ERMS Comparison Sample - June 11, 2021 - New Gold, PR		

TRIAL NUMBER	1	2	3	4	5
DRY DENSITY (kg/m^3)	1542	1564	1555	1525	
WATER CONTENT (%)	18.8	21.3	23.5	26.5	



SAMPLE DESCRIPTION: **CCL (Compacted Clay Liner) - CH - Fat Clay**

STANDARD OPTIMUM WATER CONTENT (%): **21.5**

STANDARD MAXIMUM DRY DENSITY (kg/m^3): **1565**

CORRECTED STANDARD OPTIMUM WATER CONTENT (%): N/A

CORRECTED STANDARD MAXIMUM DRY DENSITY (kg/m^3): N/A

METHOD OF COMPACTION:	METHOD A
PREPARATION METHOD:	DRY
AS RECEIVED WATER CONTENT (%):	32.4
STANDARD MAXIMUM UNIT WEIGHT (Kn/m^3):	15.35
TYPE OF RAMMER:	Manual
MATERIAL RETAINED ON 4.75-mm SIEVE (%)(P_C):	0.0
MATERIAL PASSING THE 4.75-mm SIEVE (%)(P_F):	100.0
SPECIFIC GRAVITY (assumed):	2.65
REMARKS:	

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REVIEWED BY: Preston Schergevitch

Preston Schergevitch, A.Sc.T.

ASTM D4318: LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX

P.MACHIBRODA ENGINEERING LTD.

806 48TH STREET EAST, SASKATOON, SK S7K 3Y4

PROJECT INFORMATION

PROJECT NUMBER:	**17444**
PROJECT NAME:	**Rainy River ERMS (1003-027)**
PROJECT LOCATION:	**Near Rain**
DATE:	**June 25, 2021**

SAMPLE INFORMATION

SOURCE:	**ERMS Comparison Sample - June 11, 2021 - New Gold, PR**
SAMPLE NUMBER:	**2**
SAMPLE DESCRIPTION:	**CCL (Compacted Clay Liner) - CH - Fat Clay**

TESTING METHOD AND EQUIPMENT

METHOD OF PREPARATION:	**Oven Dried**
METHOD OF REMOVING PARTICLES LARGER THAN THE 425-µm:	**Sieve**
METHOD OF ROLLING:	**Hand Rolled**
LIQUID LIMIT DEVICE:	**Manual**
GROOVING TOOL:	**Plastic**
TESTING METHOD:	**Method A (Multipoint Liquid Limit)**

LABORATORY TEST RESULTS

LIQUID LIMIT

Test No.	1	2	3
Moisture Content (%)	56.4	59.2	61.2
No. of Blows	32	22	17

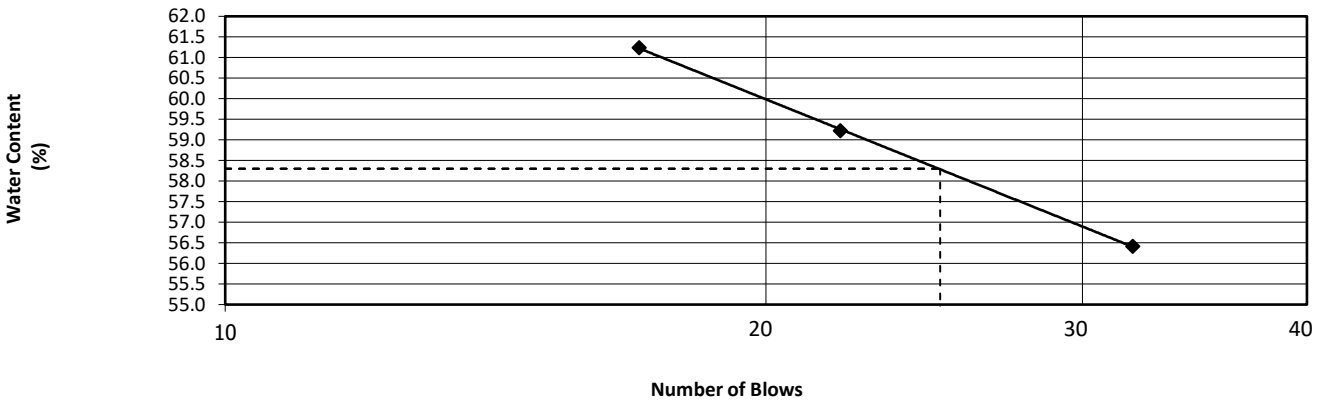
PLASTIC LIMIT

Test No.	1	2
Moisture Content (%)	19.4	19.6

TEST RESULTS

Liquid Limit	**58**
Plastic Limit	**20**
Plasticity Index	**38**

FLOW CURVE GRAPH



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WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCEWITH ASTM D4318 STANDARD

P. MACHIBRODA ENGINEERING LTD.

PER Preston Schergevith

Preston Schergevith, A.Sc.T.

ASTM D5084: Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall

Project:	Rainy River EMRS (1003-027)
Location:	Near Rainy River, ON
Project no:	17444
Source:	ERMS Comparison Sample - June 11, 2021 - New Gold, PR
Sample No.	1
Material:	CCL (Compacted Clay Liner)
Date:	June 24, 2021

Sample Preparation: Remolded, Standard Proctor Effort

Testing Summary:

Cell Pressure = 300 kPa Head across sample = 70 cm Hydraulic gradient = 12.4

Back pressure = 270 kPa

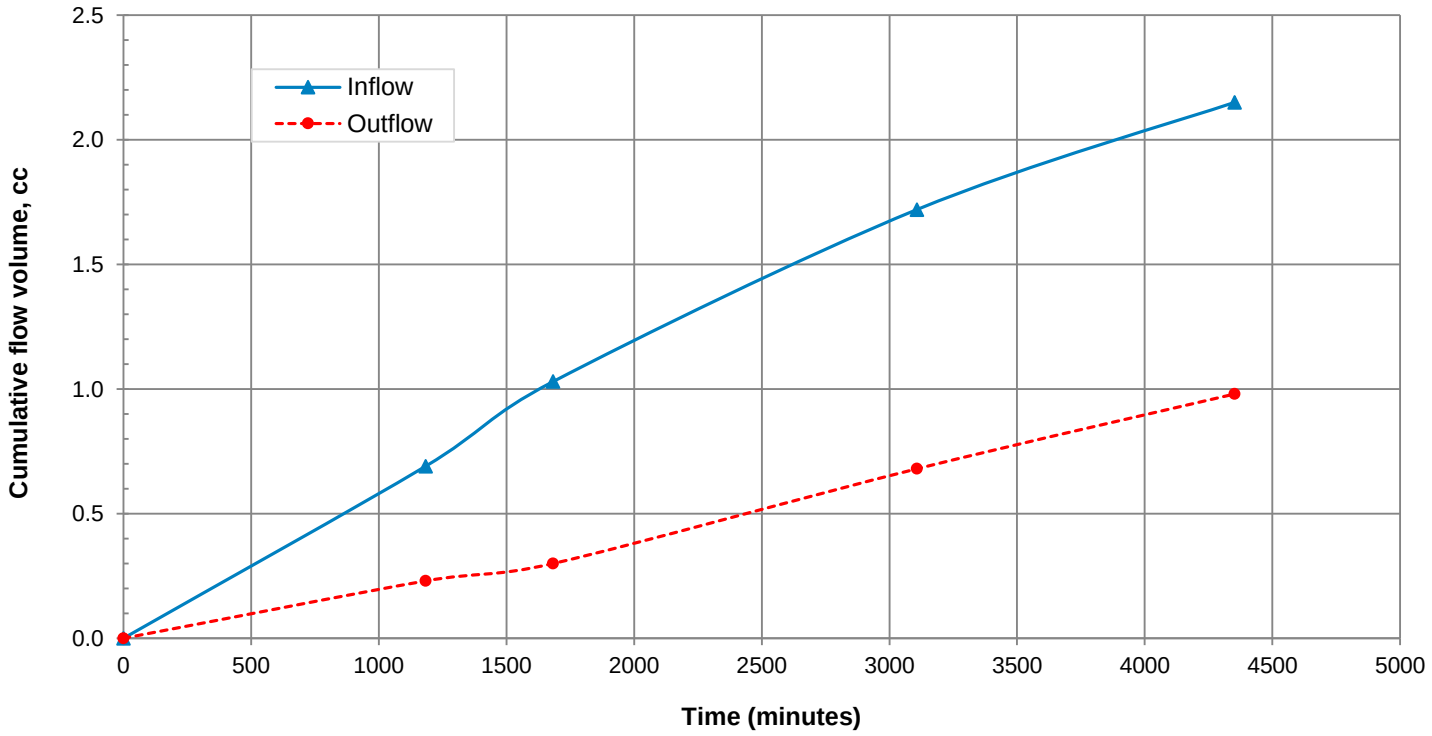
Initial Conditions		Final Conditions	
Initial sample diameter =	71.17 mm	Final water content =	26.9 %
Initial sample height =	56.43 mm	Final wet density =	1949 kg/m^3
Initial sample volume =	224.5 cc	Final dry density (measured) =	1536 kg/m^3
Initial water content =	21.6 %	Wet unit weight =	19.1 KN/m^3
Initial dry density (calculated) =	1624 kg/m^3	Final degree of saturation =	100 %
Initial degree of saturation =	88.0 %		

Inflow Rate = 0.00055 cc/min

Outflow Rate = 0.00021 cc/min

Hydraulic Conductivity = 1E-10 m/s

Comment: Description of Sample: **CH - Fat Clay**



P.MACHIBRODA ENGINEERING LTD.

DRAWING NO.: **17444-1B**

WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCE WITH ASTM D5084 STANDARD

P. MACHIBRODA ENGINEERING LTD.

PER _____

ATTACHMENT A – July 2021 Laboratory & Field Results

Table A1: Laboratory Testing Summary – July 2021

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
1-Jul-21	S264	P12	L1	✓	-	-	-
1-Jul-21	S265	P12	L1	✓	-	-	-
1-Jul-21	S266	P12	L1	✓	-	-	-
1-Jul-21	S267	P12	L1	✓	-	-	-
1-Jul-21	S268	P12	L1	✓	-	-	-
2-Jul-21	S269	P11	L3	✓	-	-	-
2-Jul-21	S270	P12	L2	✓	-	-	-
2-Jul-21	S271	P12	L2	✓	-	-	-
2-Jul-21	S272	P12	L2	✓	-	-	-
2-Jul-21	S273	P12	L2	✓	-	-	-
2-Jul-21	S274	P12	L2	✓	-	-	-
1-Jul-21	S265	P12	L1	-	✓	-	-
3-Jul-21	S275	P11	L4	✓	-	-	-
3-Jul-21	S276	P12	L3	✓	-	-	-
2-Jul-21	S271	P12	L2	-	✓	-	-
1-Jul-21	S265	P12	L1	-	-	✓	-
4-Jul-21	S277	SP	-	✓	-	-	-
4-Jul-21	S278	SP	-	✓	-	-	-
5-Jul-21	S279	P13	L1	✓	-	-	-
5-Jul-21	S280	P13	L1	✓	-	-	-
5-Jul-21	S281	P13	L1	✓	-	-	-
5-Jul-21	S282	P13	L1	✓	-	-	-
5-Jul-21	S283	P13	L1	✓	-	-	-
5-Jul-21	S284	P13	L2	✓	-	-	-
5-Jul-21	S285	P13	L2	✓	-	-	-
5-Jul-21	S286	P13	L2	✓	-	-	-
5-Jul-21	S287	P13	L2	✓	-	-	-
5-Jul-21	S288	P13	L2	✓	-	-	-
4-Jul-21	S277	SP	-	-	✓	-	-
4-Jul-21	S278	SP	-	-	✓	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
2-Jul-21	S269	P11	L3	-	-	✓	-
2-Jul-21	S271	P12	L2	-	-	✓	-
6-Jul-21	S289	P12	L4	✓	-	-	-
6-Jul-21	S290	P13	L3	✓	-	-	-
7-Jul-21	S291	P14	L1	✓	-	-	-
7-Jul-21	S292	P14	L1	✓	-	-	-
7-Jul-21	S293	P14	L1	✓	-	-	-
7-Jul-21	S294	P14	L1	✓	-	-	-
7-Jul-21	S295	P14	L1	✓	-	-	-
5-Jul-21	S279	P13	L1	-	✓	-	-
3-Jul-21	S276	P12	L3	-	-	✓	-
5-Jul-21	S279	P13	L1	-	-	✓	-
5-Jul-21	S284	P13	L2	-	-	✓	-
4-Jul-21	S277	SP	-	-	-	✓	-
4-Jul-21	S278	SP	-	-	-	✓	-
9-Jul-21	S296	P14	L2	✓	-	-	-
9-Jul-21	S297	P14	L2	✓	-	-	-
9-Jul-21	S298	P14	L2	✓	-	-	-
9-Jul-21	S299	P14	L2	✓	-	-	-
9-Jul-21	S300	P14	L2	✓	-	-	-
9-Jul-21	S301	P14	L3	✓	-	-	-
4-Jul-21	S277	SP	-	-	-	-	✓
4-Jul-21	S278	SP	-	-	-	-	✓
5-Jul-21	S284	P13	L2	-	✓	-	-
9-Jul-21	S291	P14	L1	-	✓	-	-
6-Jul-21	S290	P13	L3	-	-	✓	-
9-Jul-21	S291	P14	L1	-	-	✓	-
11-Jul-21	S304	P15	L1	✓	-	-	-
11-Jul-21	S305	P15	L1	✓	-	-	-
11-Jul-21	S306	P15	L1	✓	-	-	-
11-Jul-21	S307	P15	L1	✓	-	-	-
11-Jul-21	S308	P15	L1	✓	-	-	-
10-Jul-21	S299	P14	L2	-	✓	-	-
9-Jul-21	S291	P14	L1	-	-	-	✓

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
10-Jul-21	S299	P14	L2	-	-	✓	-
12-Jul-21	S316	P14	L4	✓	-	-	-
12-Jul-21	S315	P13	L4	✓	-	-	-
12-Jul-21	S309	P15	L2	✓	-	-	-
12-Jul-21	S310	P15	L2	✓	-	-	-
12-Jul-21	S311	P15	L2	✓	-	-	-
12-Jul-21	S312	P15	L2	✓	-	-	-
12-Jul-21	S313	P15	L2	✓	-	-	-
12-Jul-21	S314	P15	L2	✓	-	-	-
11-Jul-21	S306	P15	L1	-	✓	-	-
10-Jul-21	S302	SP	-	-	-	-	✓
10-Jul-21	S303	SP	-	-	-	-	✓
10-Jul-21	S301	P14	L2	-	-	✓	-
12-Jul-21	S312	P15	L2	-	✓	-	-
13-Jul-21	S317	P15	L3	✓	-	-	-
11-Jul-21	S306	P15	L1	-	-	✓	-
12-Jul-21	S316	P14	L4	-	-	✓	-
12-Jul-21	S312	P15	L2	-	-	✓	-
14-Jul-21	S318	SP	-	-	-	-	✓
21-Jun-21	S222	P08	L2	-	-	✓	-
15-Jul-21	S319	P16	L1	✓	-	-	-
15-Jul-21	S320	P16	L1	✓	-	-	-
15-Jul-21	S321	P16	L1	✓	-	-	-
15-Jul-21	S322	P16	L1	✓	-	-	-
15-Jul-21	S323	P16	L1	✓	-	-	-
15-Jul-21	S324	P16	L1	✓	-	-	-
16-Jul-21	S327	P16	L2	✓	-	-	-
16-Jul-21	S328	P16	L2	✓	-	-	-
16-Jul-21	S329	P16	L2	✓	-	-	-
16-Jul-21	S330	P16	L2	✓	-	-	-
16-Jul-21	S331	P16	L2	✓	-	-	-
17-Jul-21	S332	P16	L4	✓	-	-	-
15-Jul-21	S322	P16	L1	-	✓	-	-
13-Jul-21	S317	P15	L3	-	-	✓	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
16-Jul-21	S331	P16	L2	-	✓	-	-
18-Jul-21	S333	P17	L1	✓	-	-	-
18-Jul-21	S334	P17	L1	✓	-	-	-
18-Jul-21	S335	P17	L1	✓	-	-	-
18-Jul-21	S336	P17	L1	✓	-	-	-
18-Jul-21	S337	P17	L1	✓	-	-	-
16-Jul-21	S325	SP	-	-	-	-	✓
18-Jul-21	S336	P17	L1	-	✓	-	-
16-Jul-21	S331	P16	L2	-	-	-	✓
16-Jul-21	S326	SP	-	-	-	-	✓
15-Jul-21	S322	P16	L1	-	-	✓	-
16-Jul-21	S331	P16	L2	-	-	✓	-
17-Jul-21	S332	P16	L4	-	-	✓	-
20-Jul-21	S338	P18	L1	✓	-	-	-
20-Jul-21	S339	P18	L1	✓	-	-	-
20-Jul-21	S340	P18	L1	✓	-	-	-
20-Jul-21	S341	P18	L1	✓	-	-	-
20-Jul-21	S342	P18	L1	✓	-	-	-
20-Jul-21	S343	P17	L2	✓	-	-	-
20-Jul-21	S344	P17	L2	✓	-	-	-
20-Jul-21	S345	P17	L2	✓	-	-	-
20-Jul-21	S346	P17	L2	✓	-	-	-
20-Jul-21	S347	P17	L2	✓	-	-	-
21-Jul-21	S348	P18	L2	✓	-	-	-
21-Jul-21	S349	P18	L2	✓	-	-	-
21-Jul-21	S350	P18	L2	✓	-	-	-
21-Jul-21	S351	P18	L2	✓	-	-	-
21-Jul-21	S352	P18	L2	✓	-	-	-
18-Jul-21	S336	P17	L1	-	-	✓	-
22-Jul-21	S353	P17	L3	✓	-	-	-
22-Jul-21	S354	P18	L3	✓	-	-	-
20-Jul-21	S344	P17	L2	-	✓	-	-
20-Jul-21	S340	P18	L1	-	✓	-	-
20-Jul-21	S341	P18	L1	-	-	-	✓

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
20-Jul-21	S344	P17	L2	-	-	✓	-
20-Jul-21	S340	P18	L1	-	-	✓	-
20-Jul-21	S341	P18	L1	-	-	✓	-
21-Jul-21	S349	P18	L2	-	✓	-	-
24-Jul-21	S355	P17	L4	✓	-	-	-
22-Jul-21	S356	P18	L3	✓	-	-	-
22-Jul-21	S353	P17	L3	-	-	✓	-
21-Jul-21	S349	P18	L2	-	-	✓	-
22-Jul-21	S354	P18	L3	-	-	✓	-
24-Jul-21	S355	P17	L4	-	-	✓	-
24-Jul-21	S356	P18	L4	-	-	✓	-
28-Jul-21	S362	P19	L2	✓	-	-	-
28-Jul-21	S363	P19	L2	✓	-	-	-
28-Jul-21	S364	P19	L2	✓	-	-	-
28-Jul-21	S365	P19	L2	✓	-	-	-
28-Jul-21	S366	P19	L2	✓	-	-	-
27-Jul-21	S357	P19	L1	✓	-	-	-
27-Jul-21	S358	P19	L1	✓	-	-	-
27-Jul-21	S359	P19	L1	✓	-	-	-
27-Jul-21	S360	P19	L1	✓	-	-	-
27-Jul-21	S361	P19	L1	✓	-	-	-
27-Jul-21	S358	P19	L1	-	✓	-	-
28-Jul-21	S366	P19	L2	-	-	-	✓
29-Jul-21	S367	P19	L3	✓	-	-	-
28-Jul-21	S366	P19	L2	-	✓	-	-
27-Jul-21	S358	P19	L1	-	-	✓	-
30-Jul-21	S373	P19	L4	✓	-	-	-
30-Jul-21	S368	P20	L1	✓	-	-	-
30-Jul-21	S369	P20	L1	✓	-	-	-
30-Jul-21	S370	P20	L1	✓	-	-	-
30-Jul-21	S371	P20	L1	✓	-	-	-
30-Jul-21	S372	P20	L1	✓	-	-	-
28-Jul-21	S366	P19	L2	-	-	✓	-
29-Jul-21	S367	P19	L3	-	-	✓	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
31-Jul-21	S374	P21	L1	✓	-	-	-
31-Jul-21	S375	P21	L1	✓	-	-	-
31-Jul-21	S376	P21	L1	✓	-	-	-
31-Jul-21	S377	P21	L1	✓	-	-	-
31-Jul-21	S378	P21	L1	✓	-	-	-
31-Jul-21	S379	P20	L2	✓	-	-	-
31-Jul-21	S380	P20	L2	✓	-	-	-
31-Jul-21	S381	P20	L2	✓	-	-	-
31-Jul-21	S382	P20	L2	✓	-	-	-
31-Jul-21	S383	P20	L2	✓	-	-	-
30-Jul-21	S369	P20	L1	-	✓	-	-
31-Jul-21	S375	P21	L1	-	✓	-	-
30-Jul-21	S373	P19	L4	-	-	✓	-
30-Jul-21	S369	P20	L1	-	-	✓	-
31-Jul-21	S380	P20	L2	-	✓	-	-
31-Jul-21	S375	P21	L1	-	-	✓	-
31-Jul-21	S380	P20	L2	-	-	✓	-

Table A2: Laboratory Moisture Contents – July 2021

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
1-Jul-21	2-Jul-21	S264	24.4
1-Jul-21	2-Jul-21	S265	25.9
1-Jul-21	2-Jul-21	S266	23.2
1-Jul-21	2-Jul-21	S267	27.1
1-Jul-21	2-Jul-21	S268	23.0
2-Jul-21	3-Jul-21	S270	22.6
2-Jul-21	3-Jul-21	S271	20.5
2-Jul-21	3-Jul-21	S272	24.4
2-Jul-21	3-Jul-21	S273	24.7
2-Jul-21	3-Jul-21	S274	27.7
3-Jul-21	4-Jul-21	S275	22.1
3-Jul-21	4-Jul-21	S276	24.7
4-Jul-21	5-Jul-21	S277	32.2

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
4-Jul-21	5-Jul-21	S278	31.5
5-Jul-21	6-Jul-21	S279	21.6
5-Jul-21	6-Jul-21	S280	23.4
5-Jul-21	6-Jul-21	S281	25.8
5-Jul-21	6-Jul-21	S282	22.9
5-Jul-21	6-Jul-21	S283	26.4
5-Jul-21	6-Jul-21	S284	21.9
5-Jul-21	6-Jul-21	S285	24.1
5-Jul-21	6-Jul-21	S286	23.2
5-Jul-21	6-Jul-21	S287	20.8
5-Jul-21	6-Jul-21	S288	34.8
6-Jul-21	7-Jul-21	S289	22.8
6-Jul-21	7-Jul-21	S290	20.2
7-Jul-21	9-Jul-21	S291	27.3
7-Jul-21	9-Jul-21	S292	26.9
7-Jul-21	9-Jul-21	S293	26.0
7-Jul-21	9-Jul-21	S294	24.8
7-Jul-21	9-Jul-21	S295	24.6
9-Jul-21	10-Jul-21	S296	25.0
9-Jul-21	10-Jul-21	S297	23.5
9-Jul-21	10-Jul-21	S298	24.3
9-Jul-21	10-Jul-21	S299	26.2
9-Jul-21	10-Jul-21	S300	33.6
9-Jul-21	10-Jul-21	S301	25.7
11-Jul-21	12-Jul-21	S304	24.0
11-Jul-21	12-Jul-21	S305	28.3
11-Jul-21	12-Jul-21	S306	23.9
11-Jul-21	12-Jul-21	S307	22.1
11-Jul-21	12-Jul-21	S308	24.1
12-Jul-21	13-Jul-21	S309	29.5
12-Jul-21	13-Jul-21	S310	26.3
12-Jul-21	13-Jul-21	S311	27.2
12-Jul-21	13-Jul-21	S312	24.9
12-Jul-21	13-Jul-21	S313	31.8
12-Jul-21	13-Jul-21	S314	28.3

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
12-Jul-21	13-Jul-21	S315	23.6
12-Jul-21	13-Jul-21	S316	20.9
13-Jul-21	15-Jul-21	S317	21.1
15-Jul-21	16-Jul-21	S319	24.6
15-Jul-21	16-Jul-21	S320	24.5
15-Jul-21	16-Jul-21	S321	24.6
15-Jul-21	16-Jul-21	S322	21.9
15-Jul-21	16-Jul-21	S323	25.7
15-Jul-21	16-Jul-21	S324	21.1
16-Jul-21	17-Jul-21	S327	28.1
16-Jul-21	17-Jul-21	S328	29.0
16-Jul-21	17-Jul-21	S329	22.8
16-Jul-21	17-Jul-21	S330	24.7
16-Jul-21	17-Jul-21	S331	27.7
17-Jul-21	Jul-21	S332	24.4
18-Jul-21	19-Jul-21	S333	23.0
18-Jul-21	19-Jul-21	S334	25.6
18-Jul-21	19-Jul-21	S335	22.7
18-Jul-21	19-Jul-21	S336	25.2
18-Jul-21	19-Jul-21	S337	27.9
20-Jul-21	22-Jul-21	S338	28.0
20-Jul-21	22-Jul-21	S339	26.5
20-Jul-21	22-Jul-21	S340	24.1
20-Jul-21	22-Jul-21	S341	23.0
20-Jul-21	22-Jul-21	S342	29.0
20-Jul-21	22-Jul-21	S343	23.6
20-Jul-21	22-Jul-21	S344	21.5
20-Jul-21	22-Jul-21	S345	24.8
20-Jul-21	22-Jul-21	S346	23.2
20-Jul-21	22-Jul-21	S347	24.2
21-Jul-21	22-Jul-22	S348	28.3
21-Jul-21	22-Jul-22	S349	27.0
21-Jul-21	22-Jul-22	S350	26.0
21-Jul-21	22-Jul-22	S351	23.7
21-Jul-21	22-Jul-22	S352	24.3

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
22-Jul-21	23-Jul-21	S353	21.9
22-Jul-21	23-Jul-21	S354	24.1
24-Jul-21	25-Jul-21	S355	29.4
24-Jul-21	25-Jul-21	S356	24.9
27-Jul-21	29-Jul-21	S357	24.7
27-Jul-21	29-Jul-21	S358	22.1
27-Jul-21	29-Jul-21	S359	22.6
27-Jul-21	29-Jul-21	S360	19.6
27-Jul-21	29-Jul-21	S361	27.3
28-Jul-21	29-Jul-21	S362	25.2
28-Jul-21	29-Jul-21	S363	21.8
28-Jul-21	29-Jul-21	S364	26.4
28-Jul-21	29-Jul-21	S365	23.4
28-Jul-21	29-Jul-21	S366	33.2
29-Jul-21	30-Jul-21	S367	18.9
30-Jul-21	31-Jul-21	S368	25.7
30-Jul-21	31-Jul-21	S369	24.0
30-Jul-21	31-Jul-21	S370	28.6
30-Jul-21	31-Jul-21	S371	25.7
30-Jul-21	31-Jul-21	S372	22.7
30-Jul-21	31-Jul-21	S373	24.3
31-Jul-21	1-Aug-21	S374	26.7
31-Jul-21	1-Aug-21	S375	24.1
31-Jul-21	1-Aug-21	S376	25.6
31-Jul-21	1-Aug-21	S377	22.1
31-Jul-21	1-Aug-21	S378	29.0
31-Jul-21	1-Aug-21	S379	23.3
31-Jul-21	1-Aug-21	S380	22.3
31-Jul-21	1-Aug-21	S381	29.1
31-Jul-21	1-Aug-21	S382	23.6
31-Jul-21	1-Aug-21	S383	21.8

Table A3: Atterberg Limits – July 2021

Date Sampled	Date Tested	Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
1-Jul-21	4-Jul-21	S265	51	18	33
2-Jul-21	5-Jul-21	S271	43	15	28
4-Jul-21	6-Jul-21	S277	69	20	49
4-Jul-21	6-Jul-21	S278	48	20	28
5-Jul-21	10-Jul-21	S279	48	17	31
5-Jul-21	11-Jul-21	S284	44	17	27
9-Jul-21	11-Jul-21	S291	52	19	33
10-Jul-21	12-Jul-21	S299	45	18	27
11-Jul-21	14-Jul-21	S306	50	18	32
12-Jul-21	12-Jul-21	S312	46	16	30
15-Jul-21	Not Specified	S322	46	17	29
16-Jul-21	19-Jul-21	S331	50	18	32
18-Jul-21	20-Jul-21	S336	48	18	30
20-Jul-21	23-Jul-21	S344	48	17	31
20-Jul-21	23-Jul-21	S340	43	15	28
21-Jul-21	25-Jul-21	S349	46	17	29
27-Jul-21	29-Jul-21	S358	50	16	34
28-Jul-21	30-Jul-21	S366	61	21	40
30-Jul-21	2-Aug-21	S369	42	14	28
31-Jul-21	2-Aug-21	S375	46	16	30

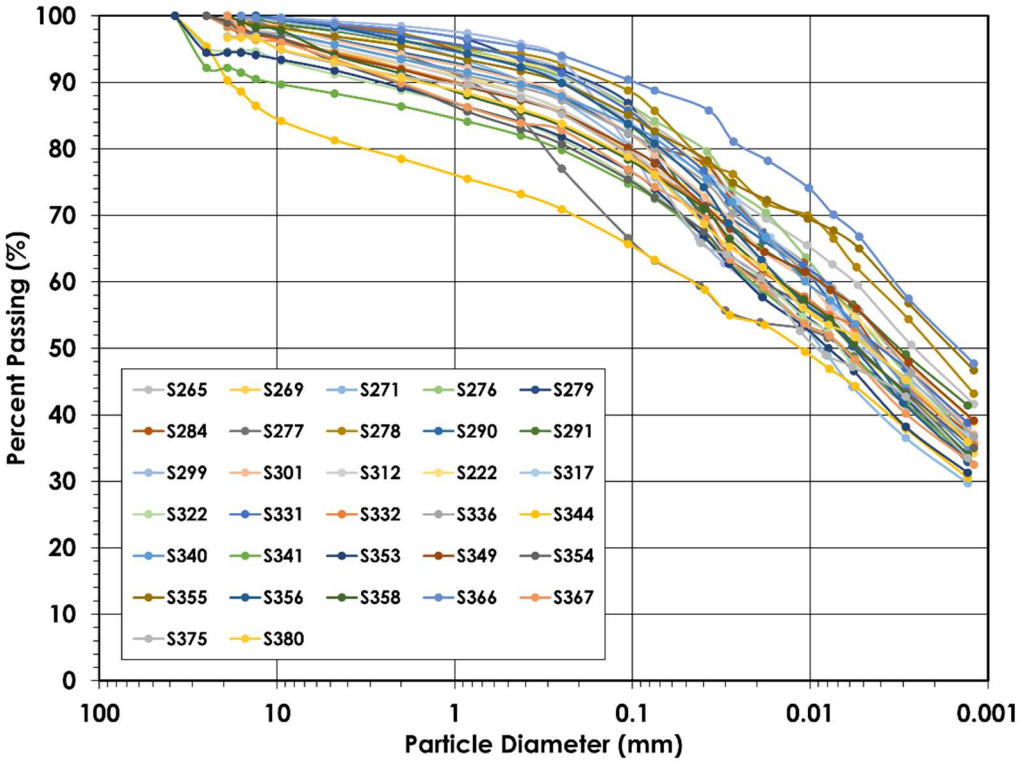


Figure A1: Hydrometer Data – July 2021

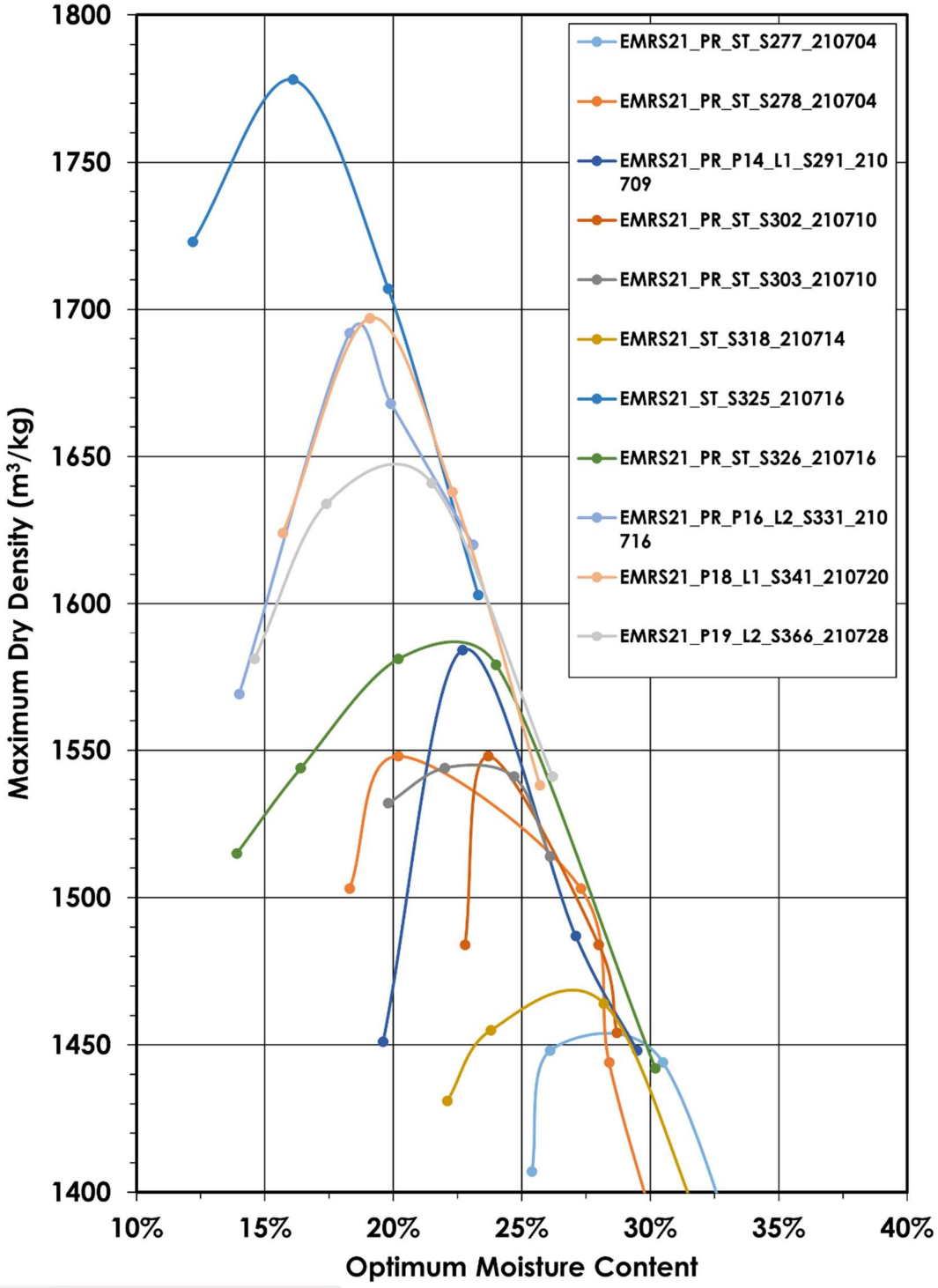


Figure A2: Laboratory Proctor Curves July 2021

Table A4: Nuclear Densometer Results – July 2021

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
1-Jul-21	D169	31.7	1452.4	1912
1-Jul-21	D170	24.2	1571	1950.6
1-Jul-21	D171	23.6	1558	1925.6
1-Jul-21	D172	28.4	1478.7	1898.6
1-Jul-21	D173	20	1622.2	1945.9
1-Jul-21	D174	25.2	1522.6	1905.7
1-Jul-21	D175	25.8	1525	1918.6
2-Jul-21	D176	23.1	1619.9	1993.5
2-Jul-21	D177	22.4	1606.2	1966
2-Jul-21	D178	21.7	1605.7	1952.9
2-Jul-21	D179	25	1547.3	1933.9
2-Jul-21	D180	29	1459.4	1882.4
2-Jul-21	D181	26.2	1462.8	1846.2
2-Jul-21	D182	20.1	1631.5	1958.8
2-Jul-21	D183	20.5	1633.3	1968
2-Jul-21	D184	23	1580.6	1944.6
2-Jul-21	D185	26.7	1525.8	1932.7
5-Jul-21	D186	18	1532.9	1946.1
5-Jul-21	D187	23.8	1529.7	1897.4
5-Jul-21	D188	25.1	1529.7	1913.2
5-Jul-21	D189	25.6	1496.5	1880.3
5-Jul-21	D190	22.3	1603.6	1960.7
5-Jul-21	D191	18	1684.2	1986.6
5-Jul-21	D192	23.3	1533.2	1889.7
5-Jul-21	D193	22.8	1607	1973.4
5-Jul-21	D194	22.6	1590.2	1949.4
5-Jul-21	D195	19.9	1653.3	1932.5
5-Jul-21	D196	21.8	1574.5	1917
5-Jul-21	D197	21.9	1620	1975.2
5-Jul-21	D198	28.1	1480.5	1896.2
5-Jul-21	D199	25.5	1576.5	1978.4
5-Jul-21	D200	21.5	1594	1937.8
7-Jul-21	D201	27	1517.7	1926.8

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
7-Jul-21	D202	24	1573.5	1950.4
7-Jul-21	D203	23.7	1550.6	1917.4
7-Jul-21	D204	26.1	1506.1	1901.4
7-Jul-21	D205	22.5	1614.5	1977.7
7-Jul-21	D206	22.7	1579.3	1938
7-Jul-21	D207	22.8	1604.1	1970
7-Jul-21	D208	24.1	1554.6	1929.9
9-Jul-21	D209	20.4	1646.1	1981.7
9-Jul-21	D210	21.9	1570.3	1944.7
9-Jul-21	D211	24.8	1577.1	1967.5
9-Jul-21	D212	20.7	1611.6	1945.6
9-Jul-21	D213	21.2	1631	1976.6
9-Jul-21	D214	22.3	1588.4	1942.5
9-Jul-21	D215	25.3	1513.1	1895.4
9-Jul-21	D216	22.4	1600.3	1958
9-Jul-21	D217	23.8	1556.8	1927.1
11-Jul-21	D218	27	1495.4	1898.5
11-Jul-21	D219	25.1	1523.7	1905.7
11-Jul-21	D220	24.3	1567.3	1947.7
11-Jul-21	D221	23.8	1566.6	1940.3
11-Jul-21	D222	30.2	1434.7	1868.3
11-Jul-21	D223	25.3	1529.3	1916.6
11-Jul-21	D224	24.4	1490.5	1854
11-Jul-21	D225	23.9	1597.4	1978.5
11-Jul-21	D226	22.9	1576.4	1937.3
12-Jul-21	D227	21.5	1606.6	1952.8
12-Jul-21	D228	20.6	1620.4	1954.1
12-Jul-21	D229	24.4	1549.3	1927.5
12-Jul-21	D230	22.4	1569.8	1921.4
12-Jul-21	D231	24.1	1524.1	1891.3
12-Jul-21	D232	22.9	1565.8	1924
15-Jul-21	D233	20.8	1626	1965
15-Jul-21	D234	18.2	1708.3	2019.9
15-Jul-21	D235	20.3	1613.5	1941.3

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
15-Jul-21	D236	23.4	1551	1913.9
15-Jul-21	D237	22.4	1556.9	1906.3
15-Jul-21	D238	20.9	1628.2	1969.2
15-Jul-21	D239	18.7	1606.4	1906
15-Jul-21	D240	19.3	1651.9	1970.4
15-Jul-21	D241	17.1	1694.8	1985.3
15-Jul-21	D242	20.2	1659	1994.2
15-Jul-21	D243	19.2	1642.2	1956.7
16-Jul-21	D244	26.1	1512.9	1907.8
16-Jul-21	D245	28.6	1489.6	1914.9
16-Jul-21	D246	22.3	1604.1	1962.2
16-Jul-21	D247	22.8	1583.2	1943.7
16-Jul-21	D248	24.3	1512.1	1879.5
16-Jul-21	D249	23.2	1551.9	1912.1
16-Jul-21	D250	21.7	1594.3	1939.5
16-Jul-21	D251	22.1	1578.6	1927.6
18-Jul-21	D252	24.7	1571.2	1964.9
18-Jul-21	D253	21.4	1670.1	2027.5
18-Jul-21	D254	21.7	1668.9	2031.8
18-Jul-21	D255	22.2	1631.4	1993.1
18-Jul-21	D256	23.3	1578.1	1946
18-Jul-21	D257	22.8	1592.5	1955.7
18-Jul-21	D258	21.8	1685.9	2052.7
18-Jul-21	D259	22.8	1614.7	1982.8
18-Jul-21	D260	24.6	1572	1958.6
20-Jul-21	D261	17.6	1745.6	2053.4
20-Jul-21	D262	22	1615.1	1970.5
20-Jul-21	D263	16.1	1776.4	2062.9
20-Jul-21	D264	21	1668.5	2019.4
20-Jul-21	D265	18.4	1747.1	2069.4
20-Jul-21	D266	24.4	1569	1951.6
20-Jul-21	D267	20.5	1656.3	1996.4
20-Jul-21	D268	18.8	1641.7	1950.5
20-Jul-21	D269	22.4	1591.9	1948.2

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
20-Jul-21	D270	21.5	1637.4	1989
20-Jul-21	D271	25	1505.2	1881.4
20-Jul-21	D272	19.6	1629.6	1949.1
20-Jul-21	D273	25	1543.5	1929.5
20-Jul-21	D274	24.5	1633	2032.9
20-Jul-21	D275	21.4	1589.6	1929.6
20-Jul-21	D276	21.9	1609.9	1962.7
20-Jul-21	D277	23.4	1556.4	1920
20-Jul-21	D278	27.4	1505.4	1918.6
20-Jul-21	D279	20.3	1716	2065
20-Jul-21	D280	23	1608.9	1979.1
21-Jul-21	Extra	20.6	1668	
21-Jul-21	D281	23.9	1492.8	1848.9
21-Jul-21	D282	22.2	1625.6	1986.5
21-Jul-21	D283	21.5	1627.3	1977.2
21-Jul-21	D284	20.5	1648.9	1986.2
21-Jul-21	D285	24.8	1584.5	1976.7
21-Jul-21	D286	21	1632.1	1986.3
21-Jul-21	D287	24.4	1533.8	1907.6
21-Jul-21	D288	24.9	1560.8	1949
21-Jul-21	D289	20.3	1688.8	2031.1
21-Jul-21	D290	17.5	1701.3	1999.3
21-Jul-21	D291	16.3	1707.2	1985
21-Jul-21	D292	22	1621.7	1978.7
21-Jul-21	D293	24.4	1576.1	1960.7
27-Jul-21	D294	23.3	1578	1945.9
27-Jul-21	D295	20.5	1670	1993.8
27-Jul-21	D296	20	1670	2003.4
27-Jul-21	D297	25.2	1480.7	1853.3
27-Jul-21	D298	20.7	1605.8	1938.8
27-Jul-21	D299	24.2	1580.3	1962.2
27-Jul-21	D300	21.7	1572.5	1914.3
27-Jul-21	D301	25.4	1548.9	1941.8
29-Jul-21	D302	23.6	1601.6	1979.7

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
29-Jul-21	D303	22	1635.5	1995.5
29-Jul-21	D304	24.3	1554.2	1932.2
29-Jul-21	D305	27.3	1501.6	1912.1
29-Jul-21	D306	24.9	1563.5	1953.1
29-Jul-21	D307	26.3	1542.9	1948.4
30-Jul-21	D308	23.6	1568.8	1938.3
30-Jul-21	D309	24.4	1504.7	1872.1
30-Jul-21	D310	25.6	1548	1944.5
30-Jul-21	D311	26.1	1517.4	1913.9
30-Jul-21	D312	21.8	1599	1948.2
30-Jul-21	D313	23.5	1551	1915.2
31-Jul-21	D314	21.5	1574.1	1912.8
31-Jul-21	D315	25.7	1553.5	1952
31-Jul-21	D316	25.2	1525.8	1910.9
31-Jul-21	D317	19.7	1654.7	1980.6
31-Jul-21	D318	22.3	1578.8	1931.6
31-Jul-21	D319	21.4	1562.7	1897.2
31-Jul-21	D320	22.9	1602.9	1969.8
31-Jul-21	D321	18.4	1711.6	2027
31-Jul-21	D322	20.7	1608.8	1941.9
31-Jul-21	D323	22.1	1566.6	1912.1
31-Jul-21	D324	23.6	1547	1912.3
31-Jul-21	D325	22	1601.9	1955
31-Jul-21	D326	22.7	1574.3	1930.9

ATTACHMENT B – July 2021 Third-Party Sample Results

The following test results are from a sample taken in proximity to Tulloch sample location S366 (Lift 2, Panel P19, collected July 28, 2021) and were tested by P. Machibroda in Saskatoon, SK.

P.MACHIBRODA ENGINEERING LTD.

AASHTO T 88: PARTICLE SIZE ANALYSIS OF SOILS

Project: Rainy River ERMS (1003-027)

Location: Near Rainy River, SK

Project No.: 17444

Date Tested: September 24, 2021

Source: EMRS 21 S366COMPARE

Sample No.: 4

Sample Description: CCL (Compacted Clay Liner) - CH - Fat Clay with Sand

Sieve Analysis:

Sieve	Diameter mm	% Finer
1.5"	38.1	100
1"	25.4	100
3/4"	19.1	100
1/2"	12.7	99
3/8"	9.5	98
# 4	4.75	96
# 10	2	95
# 20	0.85	94
# 40	0.425	92.2
#60	0.25	90.9
# 100	0.15	88.9
# 200	0.075	83.2

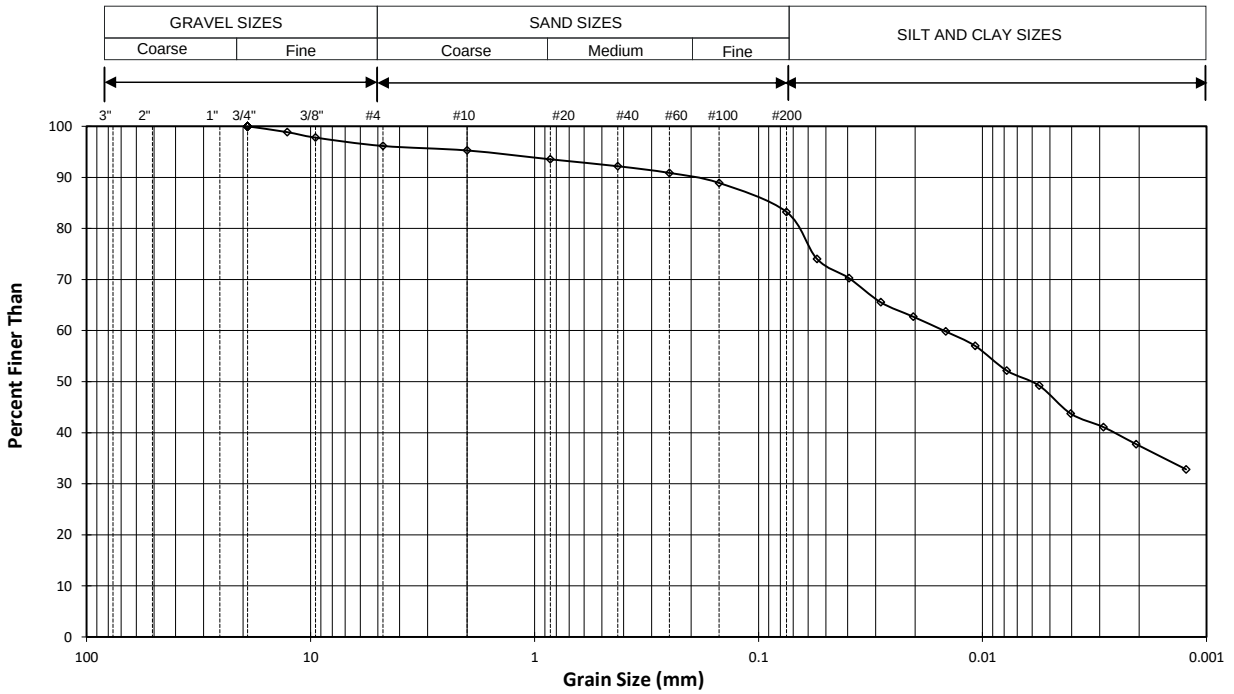
Hydrometer Analysis:

	Diameter mm	% Finer
Dispersing Agent:	0.0548	74.0
Sodium Hexametaphosphate	0.0395	70.3
	0.0285	65.5
	0.0204	62.7
	0.0146	59.8
	0.0108	57.0
	0.0078	52.2
	0.0056	49.2
	0.0040	43.7
	0.0029	41.1
	0.0021	37.8
	0.0012	32.8

Material Description:

% Gravel Sizes	% Sand Sizes	% Silt Sizes	% Clay Sizes
4	13	46	37

Remarks:



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Drawing No.

17444-3

WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCE WITH AASHTO T 88 STANDARD
P. MACHIBRODA ENGINEERING LTD.

PER

STANDARD PROCTOR MOISTURE-DENSITY RELATIONSHIP TEST REPORT

ASTM Designation D698: Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))

P.MACHIBRODA ENGINEERING LTD.

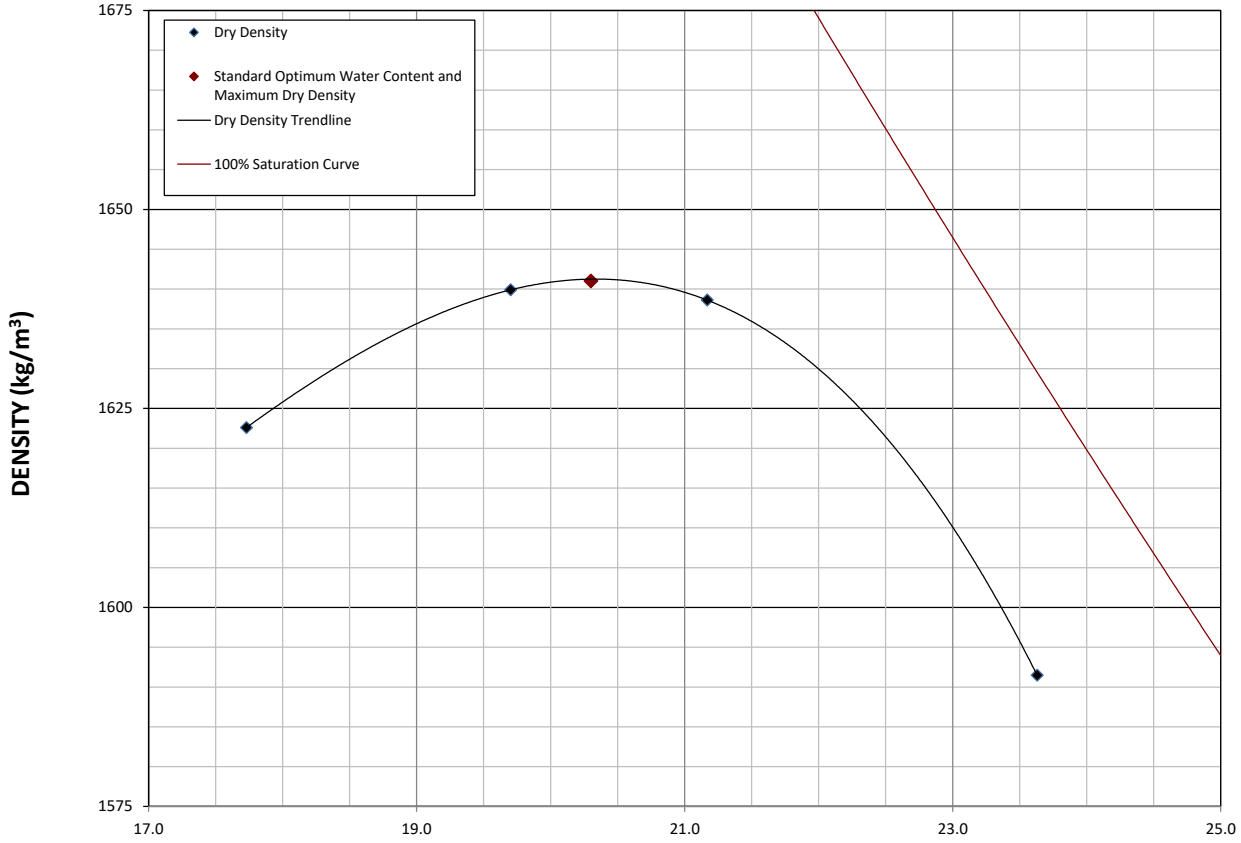
806 48th Street East, Saskatoon, Saskatchewan S7K 3Y4

Phone: 306-665-8444

Email: lab.sk@machibroda.com

PROJECT NO.:	17444	CLIENT:	O'Kane Consultants Inc.
PROJECT:	Rainy River ERMS (1003-027)	SAMPLE NUMBER:	4
LOCATION:	Near Rainy River, ON	SAMPLED BY:	O'Kane Consultants Inc.
DATE TESTED:	September 22, 2021	DATE SAMPLED:	---
TECHNICIAN:	P. Schergevitch	DATE RECEIVED:	---
SOURCE:	ERMS S21 S366COMPARE		

TRIAL NUMBER	1	2	3	4	5
DRY DENSITY (kg/m^3)	1623	1640	1639	1591	
WATER CONTENT (%)	17.7	19.7	21.2	23.6	



SAMPLE DESCRIPTION: **CCL (Compacted Clay Liner) - CH - Fat Clay with Sand**

STANDARD OPTIMUM WATER CONTENT (%): **20.3**

STANDARD MAXIMUM DRY DENSITY (kg/m^3): **1641**

CORRECTED STANDARD OPTIMUM WATER CONTENT (%): N/A

CORRECTED STANDARD MAXIMUM DRY DENSITY (kg/m^3): N/A

METHOD OF COMPACTION:	METHOD A
PREPARATION METHOD:	DRY
AS RECEIVED WATER CONTENT (%):	26.7
STANDARD MAXIMUM UNIT WEIGHT (Kn/m^3):	16.09
TYPE OF RAMMER:	Manual
MATERIAL RETAINED ON 4.75-mm SIEVE (%)(P_C):	4.0
MATERIAL PASSING THE 4.75-mm SIEVE (%)(P_F):	96.0
SPECIFIC GRAVITY (assumed):	2.65
REMARKS:	

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REVIEWED BY: Preston Schergevitch

Preston Schergevitch, A.Sc.T.

ASTM D4318: LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX

P.MACHIBRODA ENGINEERING LTD.

806 48TH STREET EAST, SASKATOON, SK S7K 3Y4

PROJECT INFORMATION

PROJECT NUMBER:	**17444**
PROJECT NAME:	**Rainy River ERMS (1003-027)**
PROJECT LOCATION:	**Near Rain**
DATE:	**September 23, 2021**

SAMPLE INFORMATION

SOURCE:	**EMRS 21 S366COMPARE**
SAMPLE NUMBER:	**4**
SAMPLE DESCRIPTION:	**CCL (Compacted Clay Liner) - CH - Fat Clay with Sand**

TESTING METHOD AND EQUIPMENT

METHOD OF PREPARATION:	**Oven Dried**
METHOD OF REMOVING PARTICLES LARGER THAN THE 425-µm:	**Sieve**
METHOD OF ROLLING:	**Hand Rolled**
LIQUID LIMIT DEVICE:	**Manual**
GROOVING TOOL:	**Plastic**
TESTING METHOD:	**Method A (Multipoint Liquid Limit)**

LABORATORY TEST RESULTS

LIQUID LIMIT

Test No.	1	2	3
Moisture Content (%)	51.2	54.7	58.2
No. of Blows	32	24	19

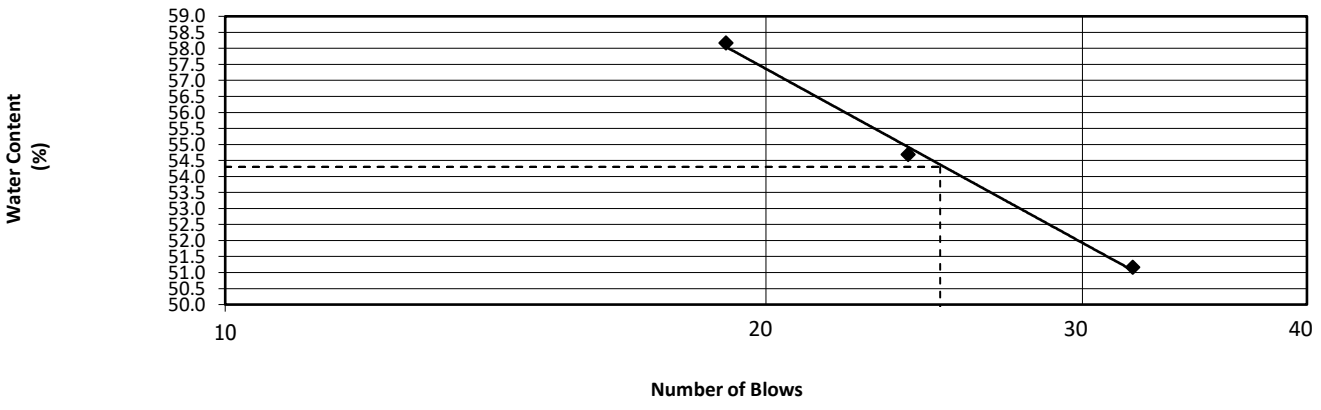
PLASTIC LIMIT

Test No.	1	2
Moisture Content (%)	14.2	15.2

TEST RESULTS

Liquid Limit	**54**
Plastic Limit	**15**
Plasticity Index	**39**

FLOW CURVE GRAPH



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P. MACHIBRODA ENGINEERING LTD.

PER Preston Schergevith

Preston Schergevith, A.Sc.T.

ASTM D5084: Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall

Project:	Rainy River EMRS (1003-027)
Location:	Near Rainy River, ON
Project no:	17444
Source:	ERMS S21 S366COMPARE
Sample No.	4
Material:	CCL (Compacted Clay Liner)
Date:	September 23, 2021

Sample Preparation: Remolded, Standard Proctor Effort

Testing Summary:

Cell Pressure = 300 kPa Head across sample = 70 cm Hydraulic gradient = 13.9

Back pressure = 270 kPa

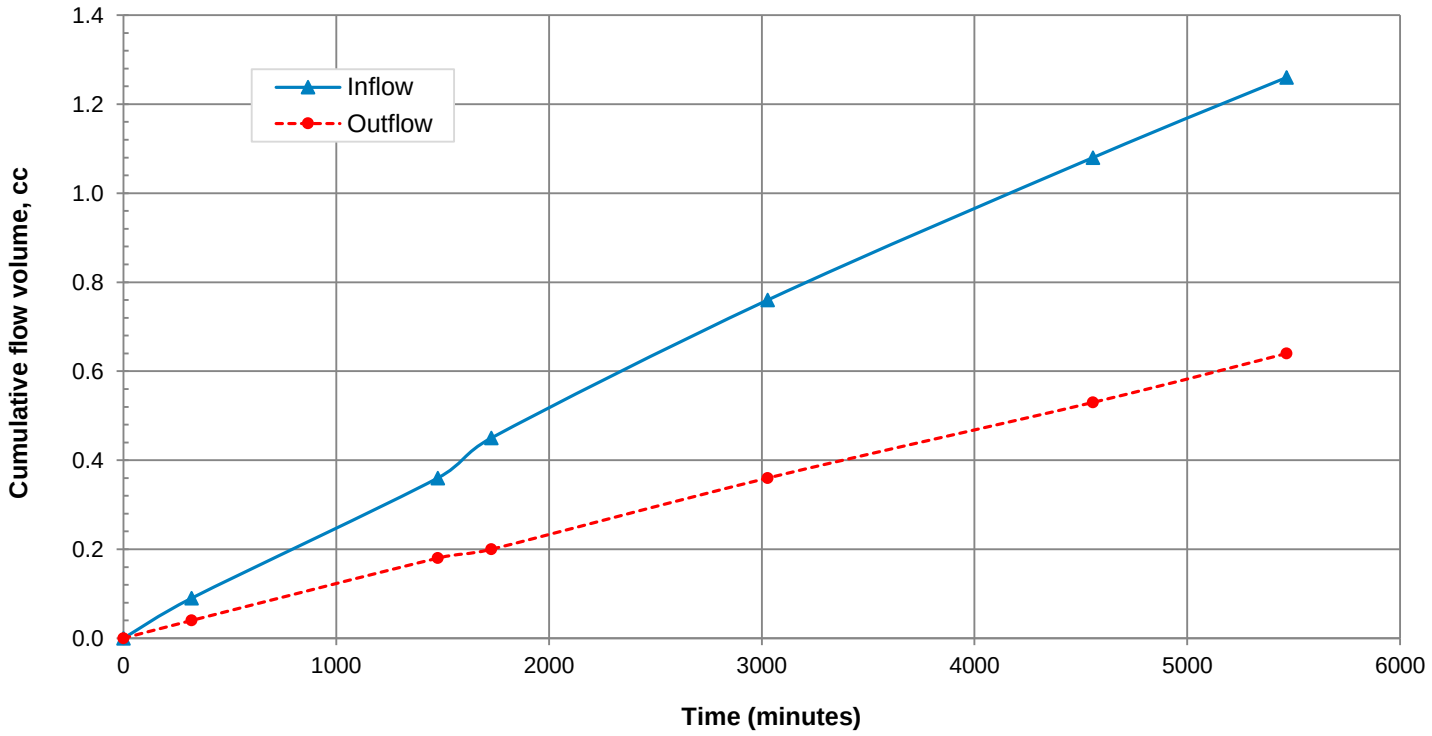
Initial Conditions		Final Conditions	
Initial sample diameter =	71.20 mm	Final water content =	23.2 %
Initial sample height =	50.54 mm	Final wet density =	2045 kg/m^3
Initial sample volume =	201.3 cc	Final dry density (measured) =	1659 kg/m^3
Initial water content =	20.0 %	Wet unit weight =	20.1 KN/m^3
Initial dry density (calculated) =	1691 kg/m^3	Final degree of saturation =	100 %
Initial degree of saturation =	90.4 %		

Inflow Rate = 0.00024 cc/min

Outflow Rate = 0.00012 cc/min

Hydraulic Conductivity = 5E-11 m/s

Comment: Description of Sample: **CH - Fat Clay with Sand**



P.MACHIBRODA ENGINEERING LTD.

DRAWING NO.:

17444-4B

WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCE WITH ASTM D5084 STANDARD

P. MACHIBRODA ENGINEERING LTD.

PER

ATTACHMENT A – August 2021 Laboratory & Field Results

Table A1: Laboratory Testing Summary – August 2021

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
1-Aug-21	S389	P20	L3	✓	-	-	-
1-Aug-21	S384	P21	L2	✓	-	-	-
1-Aug-21	S385	P21	L2	✓	-	-	-
1-Aug-21	S386	P21	L2	✓	-	-	-
1-Aug-21	S387	P21	L2	✓	-	-	-
1-Aug-21	S388	P21	L2	✓	-	-	-
3-Aug-21	S391	P20	L4	✓	-	-	-
2-Aug-21	S390	P21	L3	✓	-	-	-
3-Aug-21	S392	P21	L4	✓	-	-	-
1-Aug-21	S385	P21	L2	-	✓	-	-
3-Aug-21	S393	P22	L1	✓	-	-	-
3-Aug-21	S394	P22	L1	✓	-	-	-
3-Aug-21	S395	P22	L1	✓	-	-	-
3-Aug-21	S396	P22	L1	✓	-	-	-
3-Aug-21	S397	P22	L1	✓	-	-	-
5-Aug-21	S398	P22	L2	✓	-	-	-
5-Aug-21	S399	P22	L2	✓	-	-	-
5-Aug-21	S400	P22	L2	✓	-	-	-
5-Aug-21	S401	P22	L2	✓	-	-	-
5-Aug-21	S402	P22	L2	✓	-	-	-
5-Aug-21	S403	P22	L2	✓	-	-	-
6-Aug-21	S405	P22	L3	✓	-	-	-
7-Aug-21	S406	P23	L1	✓	-	-	-
7-Aug-21	S407	P23	L1	✓	-	-	-
7-Aug-21	S408	P23	L1	✓	-	-	-
7-Aug-21	S409	P23	L1	✓	-	-	-
7-Aug-21	S410	P23	L1	✓	-	-	-
7-Aug-21	S411	P23	L1	✓	-	-	-
4-Aug-21	S396	P22	L1	-	✓	-	-
1-Aug-21	S385	P21	L2	-	-	✓	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
1-Aug-21	S389	P20	L3	-	-	✓	-
2-Aug-21	S390	P21	L3	-	-	✓	-
4-Aug-21	S396	P22	L1	-	-	✓	-
4-Aug-21	S396	P22	L1	-	-	-	✓
5-Aug-21	S404	SP	SP	-	-	-	✓
9-Aug-21	S412	P23	L2	✓	-	-	-
9-Aug-21	S413	P23	L2	✓	-	-	-
9-Aug-21	S414	P23	L2	✓	-	-	-
9-Aug-21	S415	P23	L2	✓	-	-	-
9-Aug-21	S416	P23	L2	✓	-	-	-
9-Aug-21	S417	P22	L4	✓	-	-	-
9-Aug-21	S418	P23	L3	✓	-	-	-
5-Aug-21	S401	P22	L2	-	✓	-	-
7-Aug-21	S410	P23	L1	-	✓	-	-
9-Aug-21	S416	P23	L2	-	✓	-	-
6-Aug-21	S405	P22	L3	-	-	✓	-
5-Aug-21	S401	P22	L2	-	-	✓	-
11-Aug-21	S419	P24	L1	✓	-	-	-
11-Aug-21	S420	P24	L1	✓	-	-	-
11-Aug-21	S421	P24	L1	✓	-	-	-
11-Aug-21	S422	P24	L1	✓	-	-	-
11-Aug-21	S423	P24	L1	✓	-	-	-
11-Aug-21	S424	P24	L1	✓	-	-	-
7-Aug-21	S410	P23	L1	-	-	✓	-
9-Aug-21	S416	P23	L2	-	-	✓	-
9-Aug-21	S416	P23	L2	-	-	-	✓
12-Aug-21	S425	P24	L2	✓	-	-	-
12-Aug-21	S426	P24	L2	✓	-	-	-
12-Aug-21	S427	P24	L2	✓	-	-	-
12-Aug-21	S428	P24	L2	✓	-	-	-
12-Aug-21	S429	P24	L2	✓	-	-	-
12-Aug-21	S430	P24	L2	✓	-	-	-
12-Aug-21	S431	P24	L2	✓	-	-	-
13-Aug-21	S432	P23	L4	✓	-	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
13-Aug-21	S433	P24	L3	✓	-	-	-
9-Aug-21	S417	P22	L4	-	-	✓	-
9-Aug-21	S418	P23	L3	-	-	✓	-
11-Aug-21	S421	P24	L1	-	✓	-	-
12-Aug-21	S429	P24	L2	-	✓	-	-
15-Aug-21	S436	P24	L4	✓	-	-	-
11-Aug-21	S421	P24	L1	-	-	✓	-
12-Aug-21	S429	P24	L2	-	-	✓	-
13-Aug-21	S432	P23	L4	-	-	✓	-
13-Aug-21	S433	P24	L3	-	-	✓	-
15-Aug-21	S436	P24	L4	-	-	✓	-
15-Aug-21	S434	SP	SP	-	-	-	✓
15-Aug-21	S435	SP	SP	-	-	-	✓
20-Aug-21	S437	P25	L1	✓	-	-	-
20-Aug-21	S438	P25	L1	✓	-	-	-
20-Aug-21	S438	P25	SP	-	✓	-	-
23-Aug-21	S440	P25	L1	✓	-	-	-
23-Aug-21	S441	P25	L1	✓	-	-	-
23-Aug-21	S442	P25	L1	✓	-	-	-
23-Aug-21	S443	P25	L1	✓	-	-	-
23-Aug-21	S444	P25	L1	✓	-	-	-
20-Aug-21	S438	P25	L1	-	-	✓	-
23-Aug-21	S442	P25	L1	-	✓	-	-
25-Aug-21	S445	P25	L2	✓	-	-	-
25-Aug-21	S446	P25	L2	✓	-	-	-
25-Aug-21	S447	P25	L2	✓	-	-	-
25-Aug-21	S448	P25	L2	✓	-	-	-
25-Aug-21	S449	P25	L2	✓	-	-	-
26-Aug-21	S451	P25	L3	✓	-	-	-
23-Aug-21	S442	P25	L1	-	-	✓	-
25-Aug-21	S450	SP	SP	-	-	-	✓
27-Aug-21	S452	P25	L4	✓	-	-	-
25-Aug-21	S446	P25	L2	-	-	✓	-
25-Aug-21	S450	SP	SP	-	-	✓	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
25-Aug-21	S446	P25	L2	-	✓	-	-
27-Aug-21	S453	SP	SP	-	-	-	✓
26-Aug-21	S451	P25	L3	-	-	✓	-
31-Aug-21	S454	P27	L1	✓	-	-	-
31-Aug-21	S455	P27	L1	✓	-	-	-
31-Aug-21	S456	P27	L1	✓	-	-	-
31-Aug-21	S457	P27	L1	✓	-	-	-
31-Aug-21	S458	P27	L1	✓	-	-	-
31-Aug-21	S459	P27	L2	✓	-	-	-
31-Aug-21	S456	P27	L1	-	✓	-	-
31-Aug-21	S456	P27	L1	-	-	✓	-
31-Aug-21	S456	P27	L1	-	-	-	✓

Table A2: Laboratory Moisture Contents – August 2021

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
1-Aug-21	2-Aug-21	S389	20.1
1-Aug-21	2-Aug-21	S384	24.9
1-Aug-21	2-Aug-21	S385	23.5
1-Aug-21	2-Aug-21	S386	20.4
1-Aug-21	2-Aug-21	S387	24.2
1-Aug-21	2-Aug-21	S388	23.9
3-Aug-21	4-Aug-21	S393	19.6
3-Aug-21	4-Aug-21	S394	28.1
3-Aug-21	4-Aug-21	S395	22.0
3-Aug-21	4-Aug-21	S396	19.9
3-Aug-21	4-Aug-21	S397	34.0
5-Aug-21	6-Aug-21	S398	32.8
5-Aug-21	6-Aug-21	S399	22.9
5-Aug-21	6-Aug-21	S400	28.1
5-Aug-21	6-Aug-21	S401	24.1
5-Aug-21	6-Aug-21	S402	20.9

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
5-Aug-21	6-Aug-21	S403	23.3
6-Aug-21	7-Aug-21	S405	22.5
7-Aug-21	8-Aug-21	S406	21.7
7-Aug-21	8-Aug-21	S407	34.1
7-Aug-21	8-Aug-21	S408	23.2
7-Aug-21	8-Aug-21	S409	22.9
7-Aug-21	8-Aug-21	S410	21.5
7-Aug-21	8-Aug-21	S411	32.4
9-Aug-21	10-Aug-21	S412	18.3
9-Aug-21	10-Aug-21	S413	20.6
9-Aug-21	10-Aug-21	S414	27.3
9-Aug-21	10-Aug-21	S415	22.8
9-Aug-21	10-Aug-21	S416	19.3
9-Aug-21	10-Aug-21	S417	22.8
9-Aug-21	10-Aug-21	S418	25.4
11-Aug-21	12-Aug-21	S419	29.3
11-Aug-21	12-Aug-21	S420	24.7
11-Aug-21	12-Aug-21	S421	26.4
11-Aug-21	12-Aug-21	S422	22.6
11-Aug-21	12-Aug-21	S423	19.0
11-Aug-21	12-Aug-21	S424	27.8
12-Aug-21	13-Aug-21	S425	21.5
12-Aug-21	13-Aug-21	S426	24.8
12-Aug-21	13-Aug-21	S427	23.3
12-Aug-21	13-Aug-21	S428	24.4
12-Aug-21	13-Aug-21	S429	22.9
12-Aug-21	13-Aug-21	S430	26.1
12-Aug-21	13-Aug-21	S431	23.2
13-Aug-21	14-Aug-21	S432	24.3
13-Aug-21	14-Aug-21	S433	23.2

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
15-Aug-21	16-Aug-21	S436	26.0
20-Aug-21	21-Aug-21	S437	20.0
20-Aug-21	21-Aug-21	S438	24.5
23-Aug-21	24-Aug-21	S440	21.0
23-Aug-21	24-Aug-21	S441	23.6
23-Aug-21	24-Aug-21	S442	25.2
23-Aug-21	24-Aug-21	S443	23.4
23-Aug-21	24-Aug-21	S444	20.8
25-Aug-21	26-Aug-21	S445	23.1
25-Aug-21	26-Aug-21	S446	20.8
25-Aug-21	26-Aug-21	S447	25.2
25-Aug-21	26-Aug-21	S448	21.2
25-Aug-21	26-Aug-21	S449	21.4
26-Aug-21	27-Aug-21	S451	18.7
27-Aug-21	28-Aug-21	S452	19.3
31-Aug-21	1-Sep-21	S454	23.1
31-Aug-21	1-Sep-21	S455	28.5
31-Aug-21	1-Sep-21	S456	27.3
31-Aug-21	1-Sep-21	S457	30.4
31-Aug-21	1-Sep-21	S458	27.1
31-Aug-21	1-Sep-21	S459	22.3

Table A3: Atterberg Limits – August 2021

Date Sampled	Date Tested	Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
4-Aug-21	6-Aug-21	S396	49	16	33
5-Aug-21	10-Aug-21	S401	50	13	37
7-Aug-21	11-Aug-21	S410	45	17	28
9-Aug-21	11-Aug-21	S416	41	15	26
11-Aug-21	15-Aug-21	S421	49	16	33

12-Aug-21	15-Aug-21	S429	48	15	33
20-Aug-21	23-Aug-21	S438	43	14	29
23-Aug-21	26-Aug-21	S442	56	17	39
25-Aug021	29-Aug-21	S446	45	16	29
31-Aug-21	4-Sep-21	S456	44	19	25
4-Aug-21	6-Aug-21	S396	49	16	33
5-Aug-21	10-Aug-21	S401	50	13	37
7-Aug-21	11-Aug-21	S410	45	17	28
9-Aug-21	11-Aug-21	S416	41	15	26
11-Aug-21	15-Aug-21	S421	49	16	33
12-Aug-21	15-Aug-21	S429	48	15	33
20-Aug-21	23-Aug-21	S438	43	14	29
23-Aug-21	26-Aug-21	S442	56	17	39
25-Aug021	29-Aug-21	S446	45	16	29
31-Aug-21	4-Sep-21	S456	44	19	25

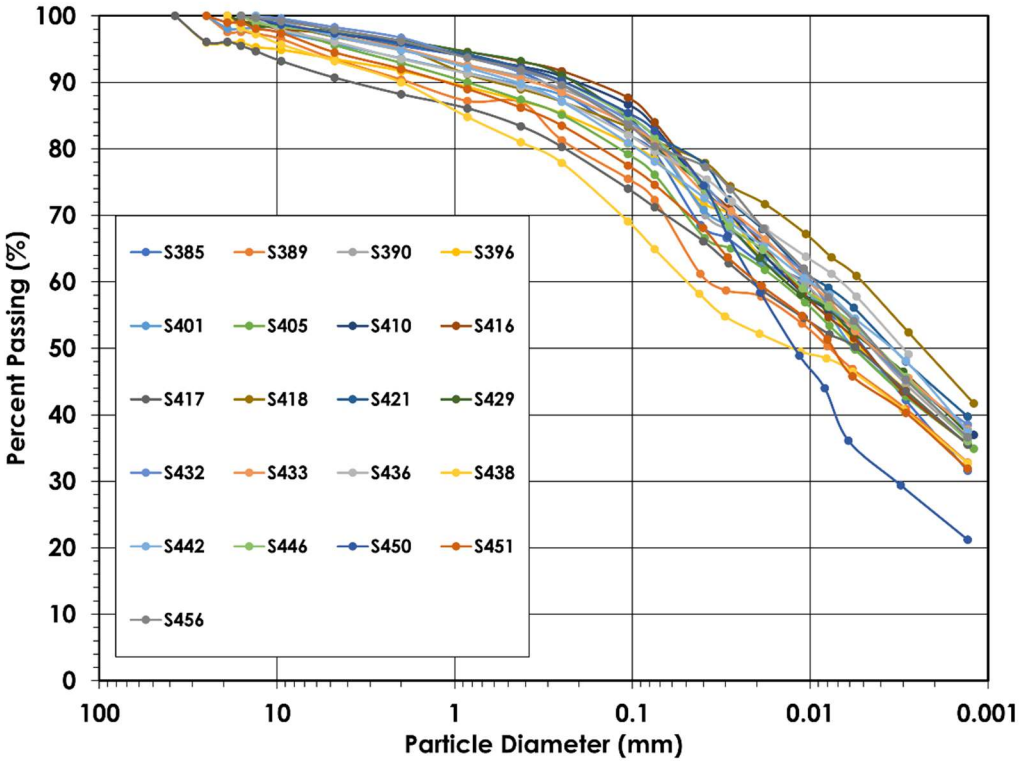


Figure A1: Hydrometer Data – August 2021

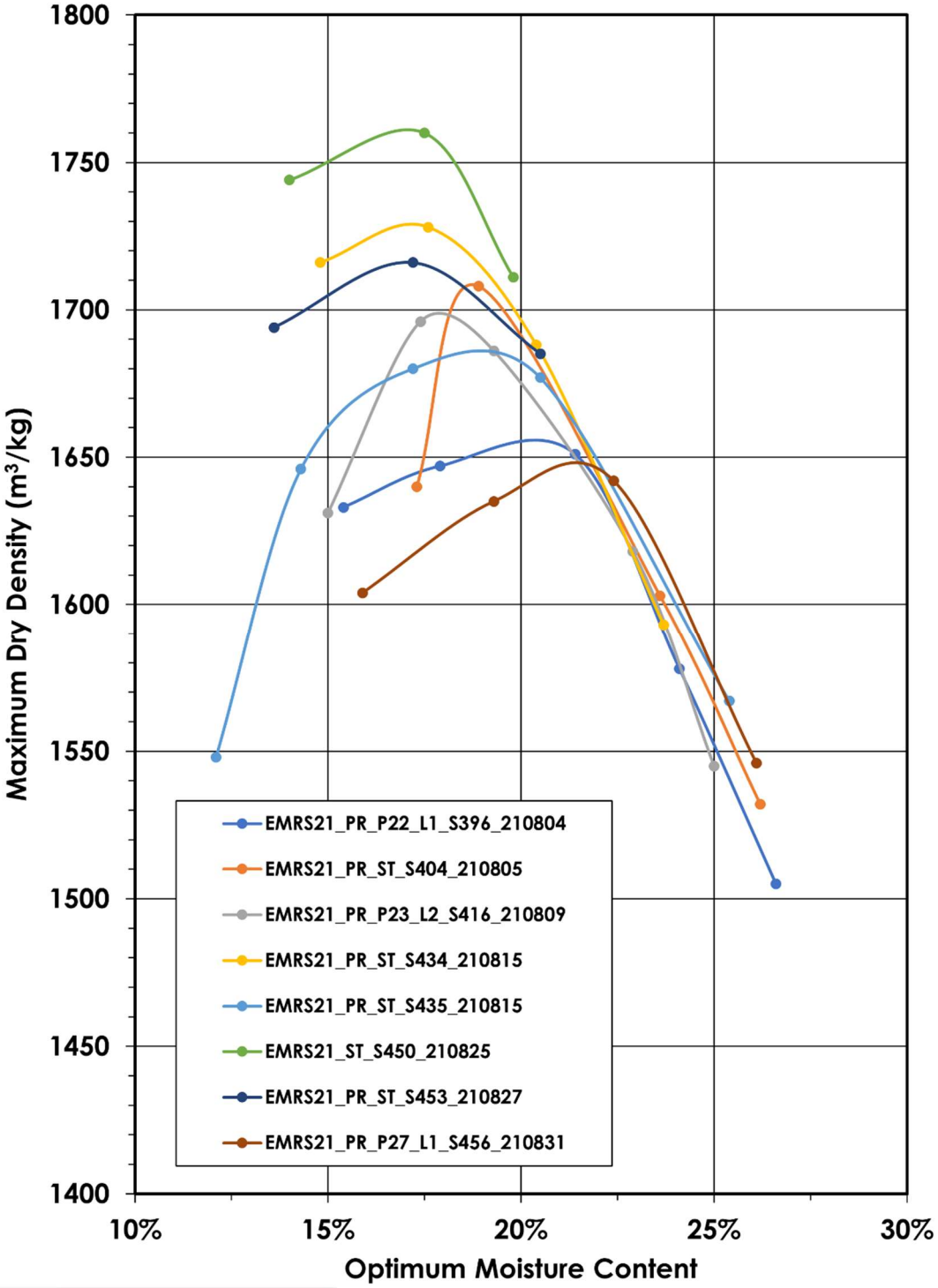


Figure A2: Laboratory Proctor Curves August 2021

Table A4: Nuclear Densometer Results – August 2021

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
1-Aug-21	D327	22.7	1561.4	1916.6
1-Aug-21	D328	17.7	1793.5	2111
1-Aug-21	D329	18.8	1588.3	1887.1
1-Aug-21	D330	29.3	1453.8	1879.6
1-Aug-21	D331	24.1	1626.4	2017.8
1-Aug-21	D332	28.9	1452.9	1872.3
1-Aug-21	D333	25.6	1541.6	1936.6
1-Aug-21	D334	21.4	1602.6	1945.3
1-Aug-21	D335	21.8	1544.7	1882.2
4-Aug-21	D336	18.8	1666.3	1980.2
4-Aug-21	D337	17.6	1676.8	1971.6
4-Aug-21	D338	27.3	1537.4	1956.6
4-Aug-21	D339	24.4	1535.4	1910.2
4-Aug-21	D340	21.5	1559.4	1894.5
4-Aug-21	D341	22.5	1596.6	1956.5
4-Aug-21	D342	22.7	1521	1866
5-Aug-21	D343	21.4	1619.9	1967
5-Aug-21	D344	23.3	1562.8	1926.7
5-Aug-21	D345	21.5	1618.4	1967
5-Aug-21	D346	18.6	1685.4	1999
5-Aug-21	D347	25.6	1571	1973.3
5-Aug-21	D348	21	1651.2	1997.4
5-Aug-21	D349	20.2	1664.1	1987.6
5-Aug-21	D350	22.2	1623.7	1984.4
5-Aug-21	D351	18.5	1667.8	1976
5-Aug-21	D352	18.5	1650.1	1955.7
7-Aug-21	D353	18.5	1692.2	2004.7
7-Aug-21	D354	24.8	1565.5	1953.8
7-Aug-21	D355	28.6	1443.7	1857

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
7-Aug-21	D356	21.2	1634.1	1980.8
7-Aug-21	D357	19.9	1633.2	1958.3
7-Aug-21	D358	18.7	1655.2	1964.2
7-Aug-21	D359	20.1	1620.7	1946.4
7-Aug-21	D360	19.2	1622.3	1934.2
9-Aug-21	D361	20.3	1649.1	1983.1
9-Aug-21	D362	19.4	1660.1	1981.7
9-Aug-21	D363	22.8	1560.7	1916.1
9-Aug-21	D364	22.3	1591	1946.6
9-Aug-21	D365	17.8	1675.8	1991.4
9-Aug-21	D366	16	1728.3	2005.1
9-Aug-21	D367	18.7	1662.8	1972.9
9-Aug-21	D368	19.7	1691.6	2024.4
11-Aug-21	D369	20	1642.1	1970.1
11-Aug-21	D370	21.6	1622	1972.9
11-Aug-21	D371	19.4	1616.8	1930.5
11-Aug-21	D372	19.3	1626.1	1940.3
11-Aug-21	D373	18.7	1720.9	2043.1
11-Aug-21	D374	20.4	1621.9	1952.2
12-Aug-21	D375	20.2	1698.3	2041.9
12-Aug-21	D376	22.4	1581.5	1935.6
12-Aug-21	D377	21.2	1641.5	1996.2
12-Aug-21	D378	20.9	1635.6	1977.9
12-Aug-21	D379	28.9	1505.5	1941
12-Aug-21	D380	21.1	1648.5	1996.9
12-Aug-21	D381	20.9	1643.4	1986.9
12-Aug-21	D382	24.7	1545.1	1926.2
12-Aug-21	D383	23.6	1594.2	1970.4
20-Aug-21	D384	20.2	1666.5	2003.7
20-Aug-21	D385	20.8	1643.2	1984.3

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
20-Aug-21	D386	20.8	1574.5	1902.1
22-Aug-21	D387	23.5	1610.2	1988.7
22-Aug-21	D388	25.1	1576	1972.4
22-Aug-21	D389	26.1	1561.1	1968.4
22-Aug-21	D390	20.8	1543.4	1864
22-Aug-21	D391	24.8	1532.1	1912.9
23-Aug-21	D392	19.6	1671.9	2000.2
23-Aug-21	D393	23.8	1579.7	1956.1
23-Aug-21	D394	19.9	1665.5	1997.4
23-Aug-21	D395	22	1583.5	1932.5
23-Aug-21	D396	24.3	1518.3	1887.7
23-Aug-21	D397	21.8	1587.8	1934.7
25-Aug-21	D398	22.4	1617	1978.6
25-Aug-21	D399	21.6	1630.2	1982.9
25-Aug-21	D400	23.3	1593.6	1965.7
25-Aug-21	D401	16.9	1719.7	2010.3
25-Aug-21	D402	20.7	1635.3	1974.2
25-Aug-21	D403	20.2	1652.2	1986.5
25-Aug-21	D404	18.6	1649.2	1955.7
31-Aug-21	D405	31.1	1473.1	1931.4
31-Aug-21	D406	27.3	1505.4	1916.4
31-Aug-21	D407	27.2	1481	1883.7
31-Aug-21	D408	27	1502.1	1907.7
31-Aug-21	D409	46.2	1294.4	1892.3
31-Aug-21	D410	30.8	1482.5	1939.3
31-Aug-21	D411	32.5	1450.5	1921.5
31-Aug-21	D412	123.7	852.7	1907.2
31-Aug-21	D413	26.8	1525.7	1934
31-Aug-21	D414	28.5	1494.2	1925.7
31-Aug-21	D415	24.4	1547.1	1924.8

ATTACHMENT B – August 2021 Third-Party Sample Results

The following test results are from a sample taken in proximity to Tulloch sample location S416 (Lift 2, Panel P23, collected August 9, 2021) and were tested by P. Machibroda in Saskatoon, SK.

P.MACHIBRODA ENGINEERING LTD.

AASHTO T 88: PARTICLE SIZE ANALYSIS OF SOILS

Project: Rainy River ERMS (1003-027)

Location: Near Rainy River, SK

Project No.: 17444

Date Tested: September 24, 2021

Source: EMRS S21_P23_L2_S116

Sample No.: 3

Sample Description: CCL (Compacted Clay Liner) - CI - Lean Clay with Sand

Sieve Analysis:

Sieve	Diameter mm	% Finer
1.5"	38.1	100
1"	25.4	100
3/4"	19.1	100
1/2"	12.7	100
3/8"	9.5	98
# 4	4.75	98
# 10	2	97
# 20	0.85	92
# 40	0.425	89.2
#60	0.25	87.2
# 100	0.15	84.4
# 200	0.075	79.4

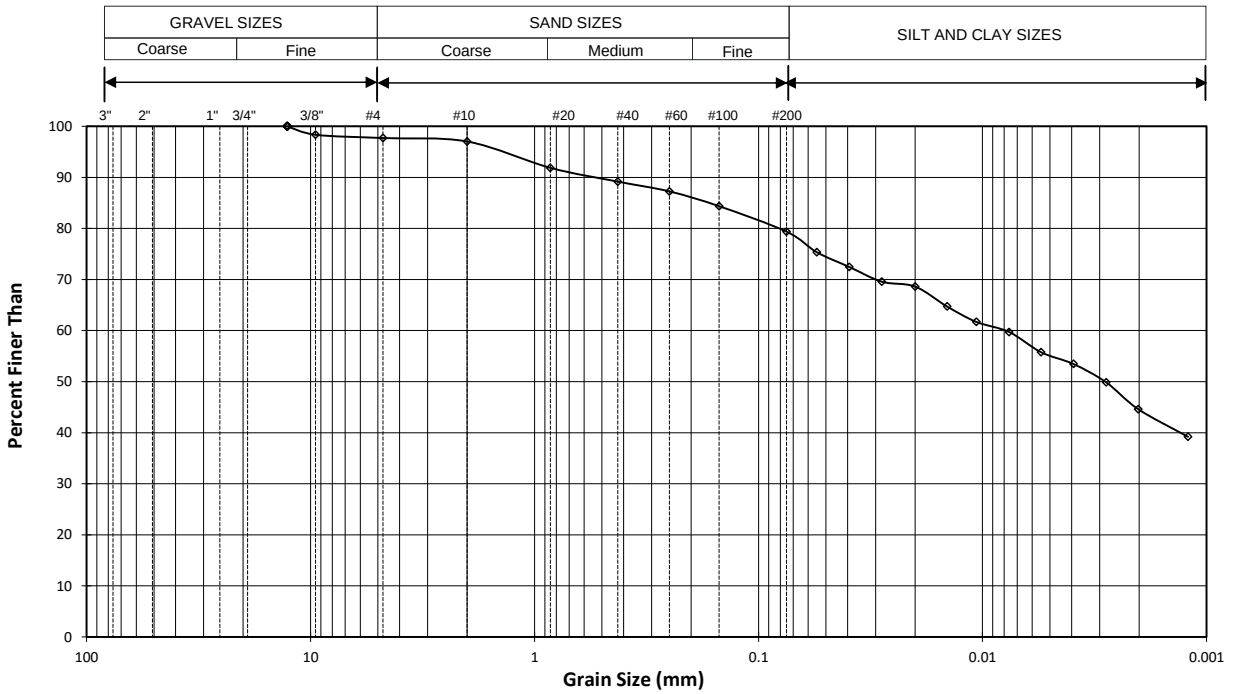
Hydrometer Analysis:

	Diameter mm	% Finer
Dispersing Agent:	0.0549	75.3
Sodium Hexametaphosphate	0.0393	72.5
	0.0282	69.6
	0.0200	68.6
	0.0144	64.7
	0.0107	61.7
	0.0076	59.7
	0.0055	55.8
	0.0039	53.5
	0.0028	49.9
	0.0020	44.6
	0.0012	39.2

Material Description:

% Gravel Sizes	% Sand Sizes	% Silt Sizes	% Clay Sizes
2	19	34	45

Remarks:



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Drawing No.

17444-3

WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCE WITH AASHTO T 88 STANDARD
P. MACHIBRODA ENGINEERING LTD.

PER

STANDARD PROCTOR MOISTURE-DENSITY RELATIONSHIP TEST REPORT

ASTM Designation D698: Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))

P.MACHIBRODA ENGINEERING LTD.

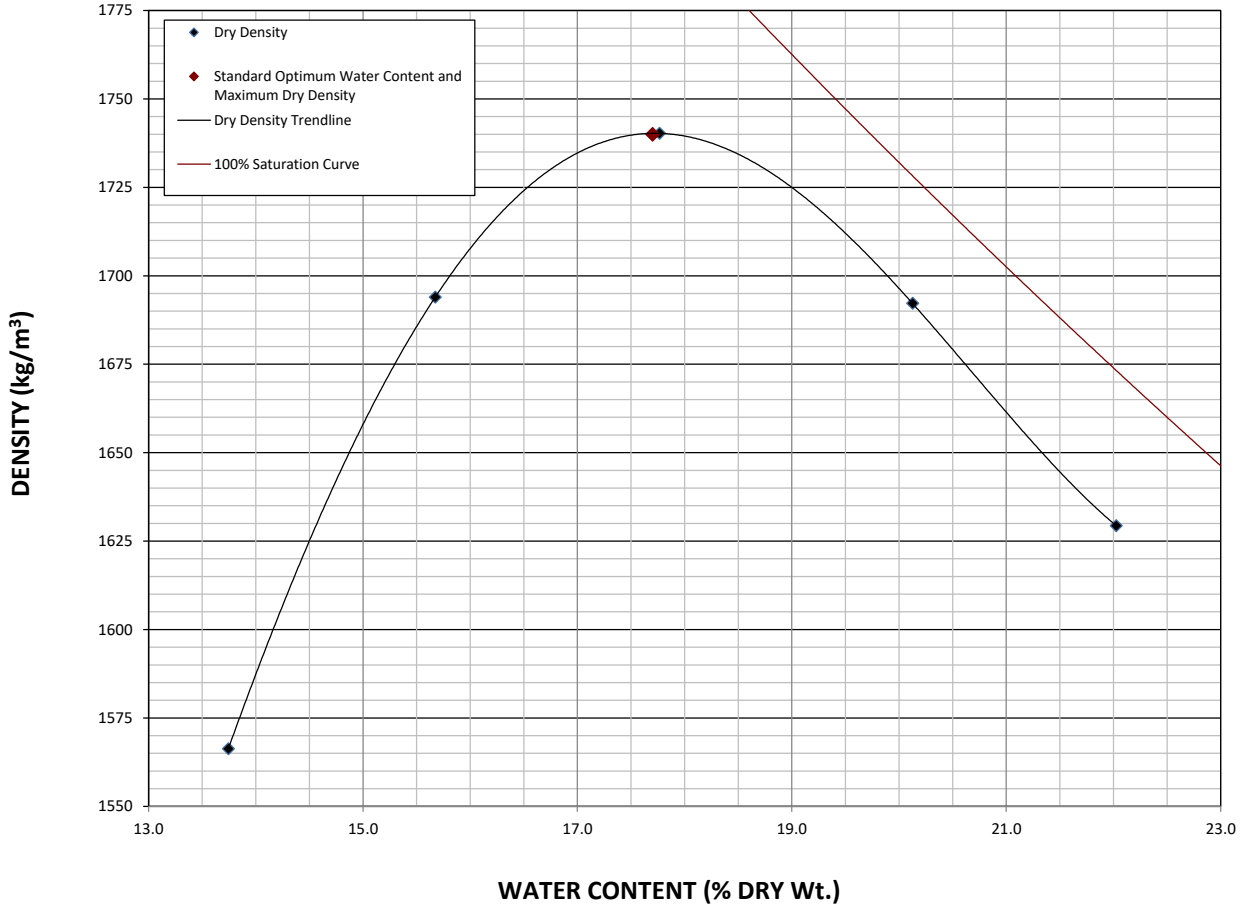
806 48th Street East, Saskatoon, Saskatchewan S7K 3Y4

Phone: 306-665-8444

Email: lab.sk@machibroda.com

PROJECT NO.:	17444	CLIENT:	O'Kane Consultants Inc.
PROJECT:	Rainy River ERMS (1003-027)	SAMPLE NUMBER:	3
LOCATION:	Near Rainy River, ON	SAMPLED BY:	O'Kane Consultants Inc.
DATE TESTED:	September 22, 2021	DATE SAMPLED:	---
TECHNICIAN:	P. Schergevitch	DATE RECEIVED:	---
SOURCE:	ERMS S21_P23_L2_S116		

TRIAL NUMBER	1	2	3	4	5
DRY DENSITY (kg/m^3)	1566	1694	1740	1692	1629
WATER CONTENT (%)	13.7	15.7	17.8	20.1	22.0



SAMPLE DESCRIPTION: **CCL (Compacted Clay Liner) - CL - Lean Clay with Sand**

STANDARD OPTIMUM WATER CONTENT (%): **17.7**

STANDARD MAXIMUM DRY DENSITY (kg/m^3): **1740**

CORRECTED STANDARD OPTIMUM WATER CONTENT (%): N/A

CORRECTED STANDARD MAXIMUM DRY DENSITY (kg/m^3): N/A

METHOD OF COMPACTION:	METHOD A
PREPARATION METHOD:	DRY
AS RECEIVED WATER CONTENT (%):	20.0
STANDARD MAXIMUM UNIT WEIGHT (Kn/m^3):	17.06
TYPE OF RAMMER:	Manual
MATERIAL RETAINED ON 4.75-mm SIEVE (%)(P_C):	2.0
MATERIAL PASSING THE 4.75-mm SIEVE (%)(P_F):	98.0
SPECIFIC GRAVITY (assumed):	2.65
REMARKS:	

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REVIEWED BY: Preston Schergevitch

Preston Schergevitch, A.Sc.T.

ASTM D4318: LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX

P.MACHIBRODA ENGINEERING LTD.

806 48TH STREET EAST, SASKATOON, SK S7K 3Y4

PROJECT INFORMATION

PROJECT NUMBER:	**17444**
PROJECT NAME:	**Rainy River ERMS (1003-027)**
PROJECT LOCATION:	**Near Rain**
DATE:	**September 23, 2021**

SAMPLE INFORMATION

SOURCE:	**ERMS S21_P23_L2_S116**
SAMPLE NUMBER:	**3**
SAMPLE DESCRIPTION:	**CCL (Compacted Clay Liner) - CI - Lean Clay with Sand**

TESTING METHOD AND EQUIPMENT

METHOD OF PREPARATION:	**Oven Dried**
METHOD OF REMOVING PARTICLES LARGER THAN THE 425-µm:	**Sieve**
METHOD OF ROLLING:	**Hand Rolled**
LIQUID LIMIT DEVICE:	**Manual**
GROOVING TOOL:	**Plastic**
TESTING METHOD:	**Method A (Multipoint Liquid Limit)**

LABORATORY TEST RESULTS

LIQUID LIMIT

Test No.	1	2	3
Moisture Content (%)	43.9	45.0	46.7
No. of Blows	29	23	17

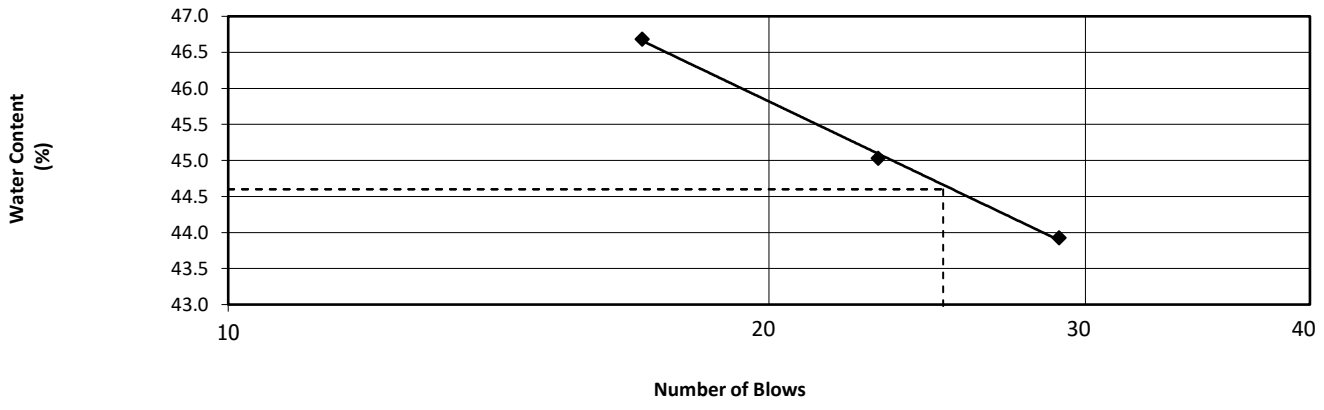
PLASTIC LIMIT

Test No.	1	2
Moisture Content (%)	13.5	13.2

TEST RESULTS

Liquid Limit	**45**
Plastic Limit	**13**
Plasticity Index	**32**

FLOW CURVE GRAPH



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WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCEWITH ASTM D4318 STANDARD

P. MACHIBRODA ENGINEERING LTD.

PER Preston Schergevith

Preston Schergevith, A.Sc.T.

ASTM D5084: Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall

Project:	Rainy River EMRS (1003-027)
Location:	Near Rainy River, ON
Project no:	17444
Source:	ERMS S21_P23_L2_S116
Sample No.	3
Material:	CCL (Compacted Clay Liner)
Date:	September 23, 2021

Sample Preparation: Remolded, Standard Proctor Effort

Testing Summary:

Cell Pressure = 300 kPa Head across sample = 70 cm Hydraulic gradient = 18.4

Back pressure = 270 kPa

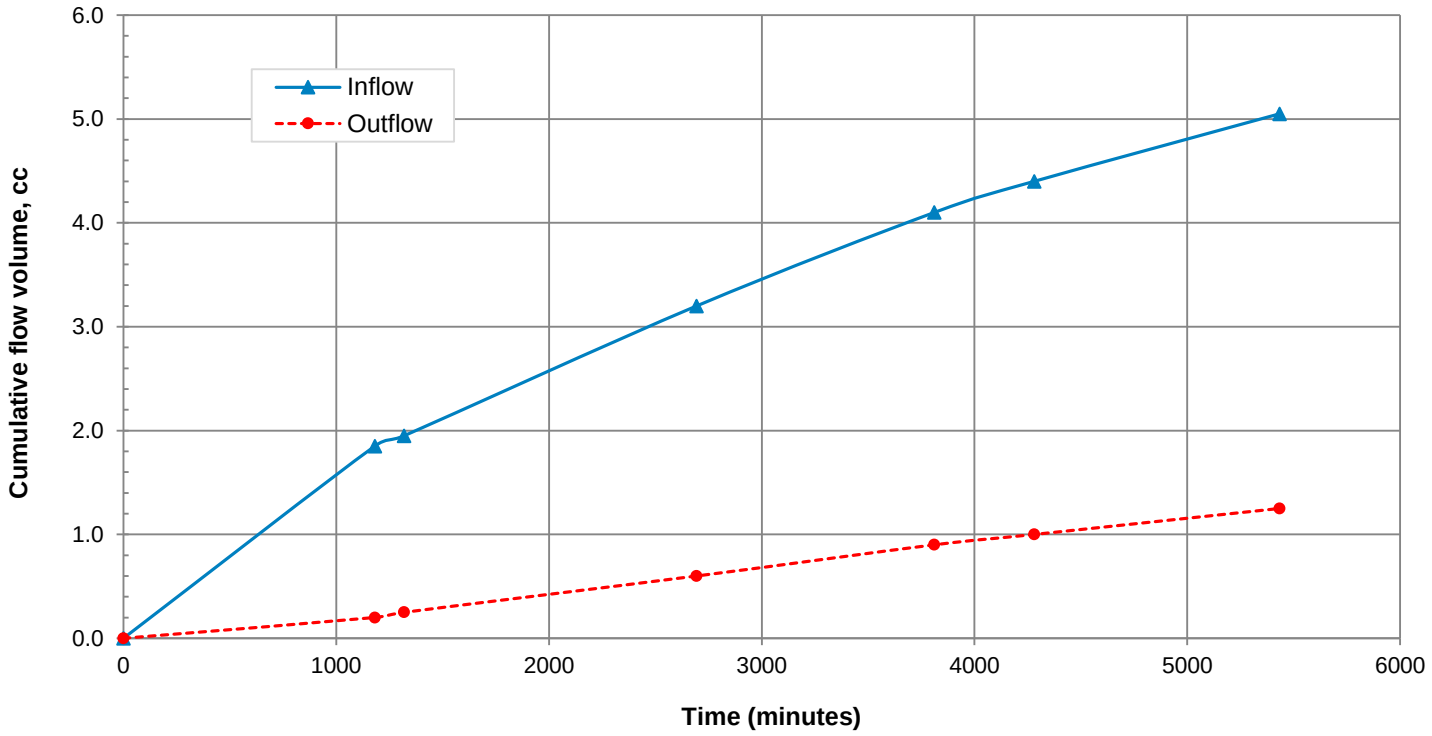
Initial Conditions			Final Conditions		
Initial sample diameter =	71.56	mm	Final water content =	20.3	%
Initial sample height =	37.98	mm	Final wet density =	2090	kg/m^3
Initial sample volume =	152.7	cc	Final dry density (measured) =	1737	kg/m^3
Initial water content =	17.3	%	Wet unit weight =	20.5	KN/m^3
Initial dry density (calculated) =	1775	kg/m^3	Final degree of saturation =	100	%
Initial degree of saturation =	89.6	%			

Inflow Rate = 0.00106 cc/min

Outflow Rate = 0.00023 cc/min

Hydraulic Conductivity = 1E-10 m/s

Comment: Description of Sample: **CL - Lean Clay with Sand**



P.MACHIBRODA ENGINEERING LTD.

DRAWING NO.: **17444-3B**

WE CERTIFY TESTING PROCEDURES ARE IN ACCORDANCE WITH ASTM D5084 STANDARD
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ATTACHMENT A – September 2021 Laboratory & Field Results

Table A1: Laboratory Testing Summary – September 2021

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
1-Sep-21	S460	P27	L2	✓	-	-	-
1-Sep-21	S461	P27	L2	✓	-	-	-
1-Sep-21	S462	P27	L2	✓	-	-	-
1-Sep-21	S463	P27	L2	✓	-	-	-
2-Sep-21	S464	P27	L3	✓	-	-	-
2-Sep-21	S465	P27	L3	✓	-	-	-
1-Sep-21	S462	P27	L2	-	✓	-	-
1-Sep-21	S462	P27	L2	-	-	✓	-
2-Sep-21	S464	P27	L3	-	-	✓	-
6-Sep-21	S466	P28	L1	✓	-	-	-
6-Sep-21	S467	P28	L1	✓	-	-	-
6-Sep-21	S468	P28	L1	✓	-	-	-
6-Sep-21	S469	P28	L1	✓	-	-	-
6-Sep-21	S470	P28	L1	✓	-	-	-
6-Sep-21	S471	P28	L1	✓	-	-	-
6-Sep-21	S472	P28	L1	✓	-	-	-
6-Sep-21	S470	P28	L1	-	✓	-	-
6-Sep-21	S470	P28	L1	-	-	✓	-
11-Sep-21	S474	P28	L2	✓	-	-	-
11-Sep-21	S473	P28	L2	✓	-	-	-
11-Sep-21	S475	P28	L2	✓	-	-	-
11-Sep-21	S476	P28	L2	✓	-	-	-
11-Sep-21	S477	P28	L2	✓	-	-	-
11-Sep-21	S478	P28	L2	✓	-	-	-
11-Sep-21	S479	P28	L2	✓	-	-	-
12-Sep-21	S480	P28	L3	✓	-	-	-
12-Sep-21	S481	P28	L3	✓	-	-	-
11-Sep-21	S476	P28	L2	-	-	-	✓
11-Sep-21	S476	P28	L2	-	✓	-	-
13-Sep-21	S482	P27	L4	✓	-	-	-

Date Sampled	Sample Location	Panel	Lift	MC	Atterberg	Hydrometer	Proctor
13-Sep-21	S483	P27	L4	✓	-	-	-
11-Sep-21	S476	P28	L2	-	-	✓	-
13-Sep-21	S482	P27	L4	-	-	✓	-
19-Sep-21	S484	P29	L1	✓	-	-	-
19-Sep-21	S485	P29	L1	✓	-	-	-
19-Sep-21	S486	P29	L1	✓	-	-	-
19-Sep-21	S487	P29	L1	✓	-	-	-
19-Sep-21	S488	P29	L1	✓	-	-	-
22-Sep-21	S489	P28	L4	✓	-	-	-
23-Sep-21	S490	P29	L2	✓	-	-	-
23-Sep-21	S491	P29	L2	✓	-	-	-
23-Sep-21	S492	P29	L2	✓	-	-	-
23-Sep-21	S493	P29	L2	✓	-	-	-
19-Sep-21	S488	P29	L1	-	-	✓	-
25-Sep-21	S494	P29	L2	✓	-	-	-
25-Sep-21	S495	P29	L2	✓	-	-	-
25-Sep-21	S496	P29	L3	✓	-	-	-
23-Sep-21	S489	P28	L4	-	-	✓	-
23-Sep-21	S491	P29	L2	-	-	✓	-
23-Sep-21	S491	P29	L2	-	✓	-	-
28-Sep-21	S497	P29	L4	✓	-	-	-
19-Sep-21	S488	P29	L1	-	-	-	✓
19-Sep-21	S488	P29	L1	-	✓	-	-
12-Sep-21	S480	P28	L3	-	-	✓	-
25-Sep-21	S496	P29	L3	-	-	✓	-
30-Sep-21	S498	P29	L4	✓	-	-	-
28-Sep-21	S497	P29	L4	-	-	✓	-
30-Sep-21	S498	P29	L4	-	-	✓	-
30-Sep-21	S498	P29	L4	-	✓	-	-
30-Sep-21	S498	P29	L4	-	-	-	✓

Table A2: Laboratory Moisture Contents – September 2021

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
1-Sep-21	2-Sep-21	S460	25.4
1-Sep-21	2-Sep-21	S461	26.4
1-Sep-21	2-Sep-21	S462	27.9
1-Sep-21	2-Sep-21	S463	25.2
2-Sep-21	3-Sep-21	S464	25.7
2-Sep-21	3-Sep-21	S465	20.5
6-Sep-21	7-Sep-21	S466	29.3
6-Sep-21	7-Sep-21	S467	34.4
6-Sep-21	7-Sep-21	S468	29.3
6-Sep-21	7-Sep-21	S469	25.9
6-Sep-21	7-Sep-21	S470	28.1
6-Sep-21	7-Sep-21	S471	31.3
6-Sep-21	7-Sep-21	S472	20.7
11-Sep-21	12-Sep-21	S473	28.0
11-Sep-21	12-Sep-21	S474	25.2
11-Sep-21	12-Sep-21	S475	24.9
11-Sep-21	12-Sep-21	S476	29.1
11-Sep-21	12-Sep-21	S477	24.2
11-Sep-21	12-Sep-21	S478	32.7
11-Sep-21	12-Sep-21	S479	23.7
12-Sep-21	13-Sep-21	S480	23.6
12-Sep-21	13-Sep-21	S481	24.1
13-Sep-21	14-Sep-21	S482	21.4
13-Sep-21	14-Sep-21	S483	20.6
19-Sep-21	20-Sep-21	S484	20.5
19-Sep-21	20-Sep-21	S485	23.0
19-Sep-21	20-Sep-21	S486	22.6
19-Sep-21	20-Sep-21	S487	29.3

Date Sampled	Date Tested	Sample Location	Lab Moisture Content (%)
19-Sep-21	20-Sep-21	S488	24.9
22-Sep-21	23-Sep-21	S489	18.3
23-Sep-21	24-Sep-21	S490	24.7
23-Sep-21	24-Sep-21	S491	25.1
23-Sep-21	24-Sep-21	S492	27.9
23-Sep-21	24-Sep-21	S493	25.8
25-Sep-21	26-Sep-21	S494	24.1
25-Sep-21	26-Sep-21	S495	23.4
25-Sep-21	26-Sep-21	S496	22.2
28-Sep-21	29-Sep-21	S497	19.3
30-Sep-21	1-Oct-21	S498	20.2

Table A3: Atterberg Limits – September 2021

Date Sampled	Date Tested	Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
1-Sep-21	4-Sep-21	S462	46	18	28
6-Sep-21	9-Sep-21	S470	48	17	31
11-Sep-21	13-Sep-21	S476	50	20	30
19-Sep-21	21-Sep-21	S488	41	15	26
23-Sep-21	27-Sep-21	S491	42	15	27
30-Sep-21	5-Oct-21	S498	34	14	20

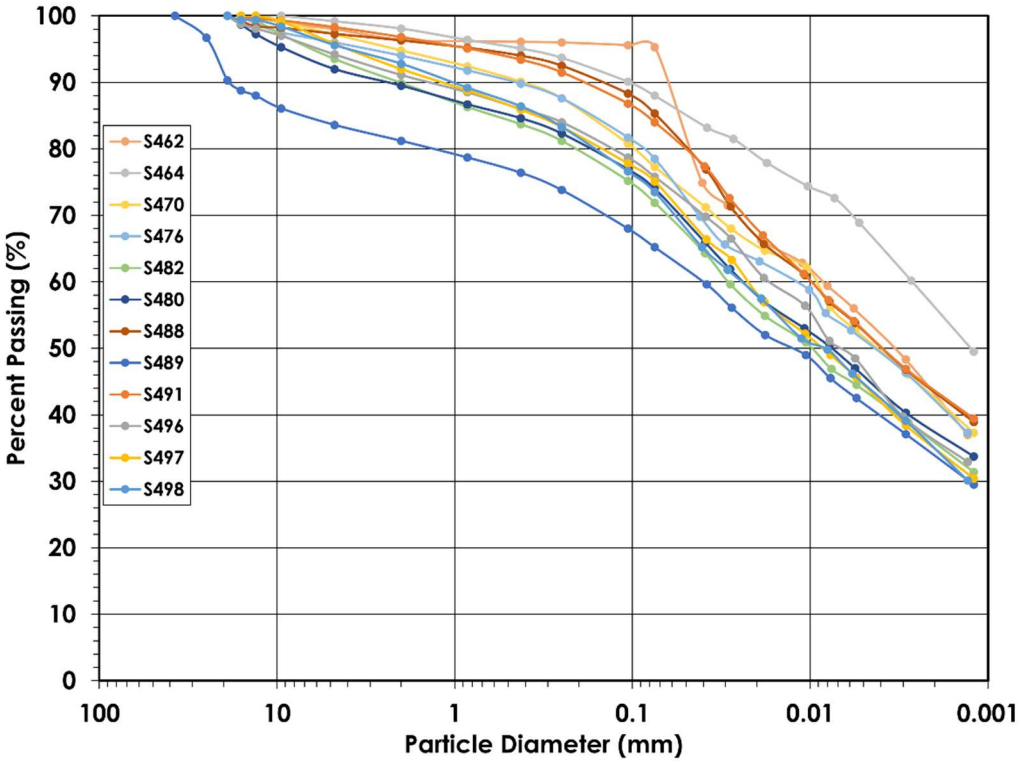


Figure A1: Hydrometer Data – September 2021

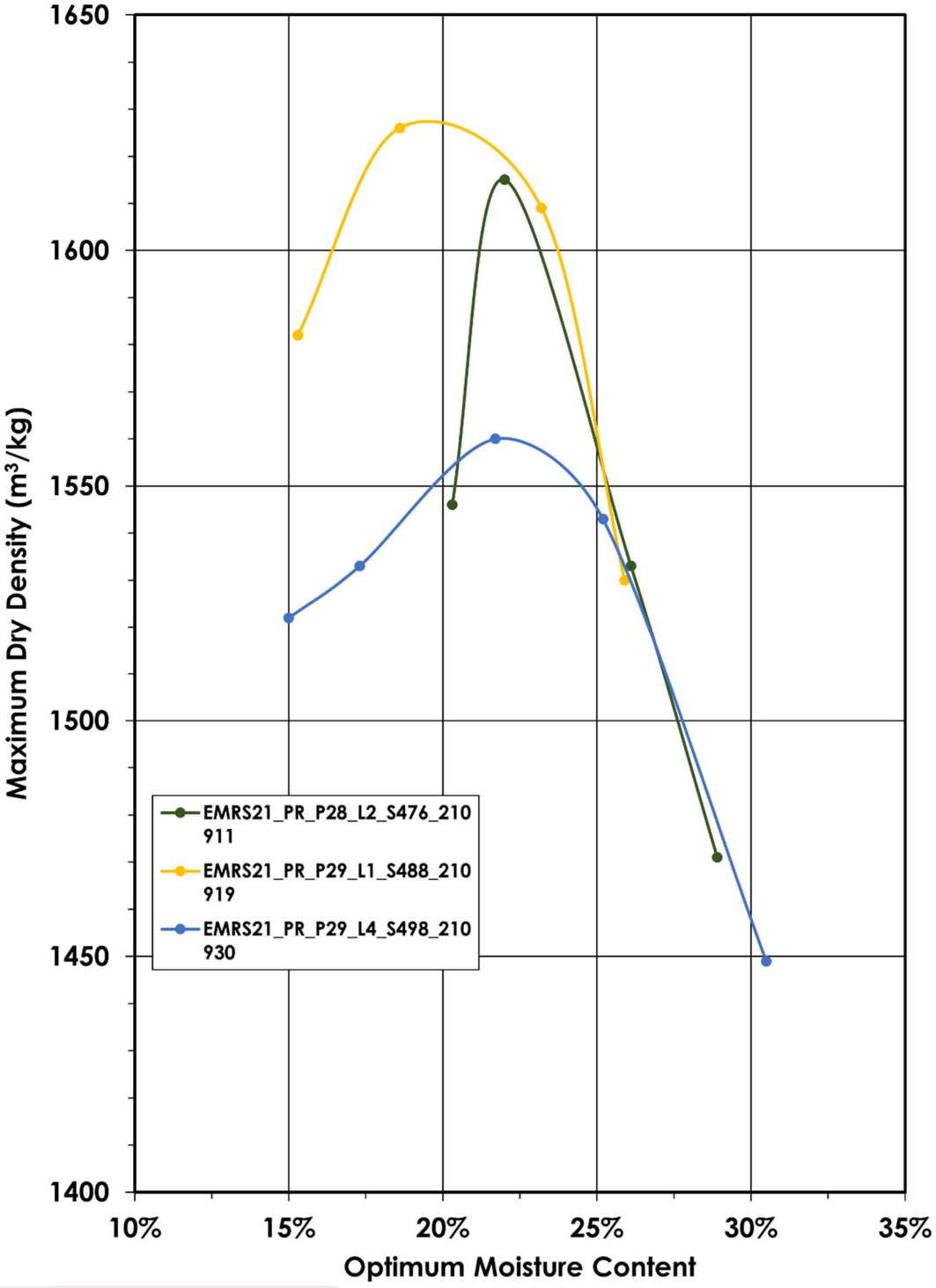


Figure A2: Laboratory Proctor Curves September 2021

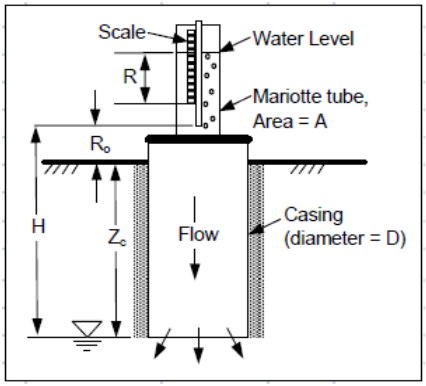
Table A4: Nuclear Densometer Results – September 2021

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
1-Sep-21	D416	23.4	1574.7	1943.4
1-Sep-21	D417	20.3	1590.5	1914.1
1-Sep-21	D418	23.2	1592.1	1961.2
1-Sep-21	D419	24.8	1504.7	1878.2
1-Sep-21	D420	19.1	1701.2	2026.1
1-Sep-21	D421	21.5	1585.6	1926.4
6-Sep-21	D422	23.2	1559.8	1921.2
6-Sep-21	D423	23.3	1557.2	1919.4
6-Sep-21	D424	23	1625.1	1998.3
6-Sep-21	D425	31.1	1464.2	1919.1
6-Sep-21	D426	31.7	1466.7	1931.4
6-Sep-21	D427	23.7	1578.6	1953.2
6-Sep-21	D428	32.6	1505.8	1997.1
6-Sep-21	D429	27.7	1485.3	1896.4
11-Sep-21	D430	19.3	1772	2114
11-Sep-21	D431	22	1604	1957
11-Sep-21	D432	21.4	1638	1988
11-Sep-21	D433	19.3	1733	2719
11-Sep-21	D434	21.6	1708	2076
11-Sep-21	D435	26.6	1319	1671
11-Sep-21	D436	21.6	1616	1965
11-Sep-21	D437	20.7	1624	1960
11-Sep-21	D438	28.5	1253	1609
11-Sep-21	D439	18.6	1606	1905
11-Sep-21	D440	23	1303	1603
11-Sep-21	D441	22.1	1651	2015
11-Sep-21	D442	19.4	1632	1949
11-Sep-21	D443	21.7	1604	1951
19-Sep-21	N/A	17.1	2114	N/A

Date Sampled	Density ID	Field Moisture Content (%)	Field Dry Density (kg/m3)	Field Wet Density (kg/m3)
19-Sep-21	N/A	26.3	1345	N/A
19-Sep-21	D444	20.3	1699	2045
19-Sep-21	D445	19.8	1614	1934
19-Sep-21	D446	21.3	1647	1998
19-Sep-21	D447	27.9	1494	1911
19-Sep-21	D448	24.9	1557	1944
19-Sep-21	D449	23.8	1563	1936
23-Sep-21	D450	23.2	1607	1979
23-Sep-21	D451	18.7	1619	1921
23-Sep-21	D452	21.1	1678	2031
23-Sep-21	D453	23.8	1619	2004
25-Sep-21	D454	26.2	1527	1926
25-Sep-21	D455	20.9	1635	1976
25-Sep-21	D456	20.5	1646	1983
25-Sep-21	D457	20.4	1683	2026

Borehole Hydraulic Conductivity Test- ASTM D 6391 Method C

Project:	1003-027
Date:	10-Jun-21
Test ID:	EMRS-BP-006
Installer:	MM
Analyst:	MM



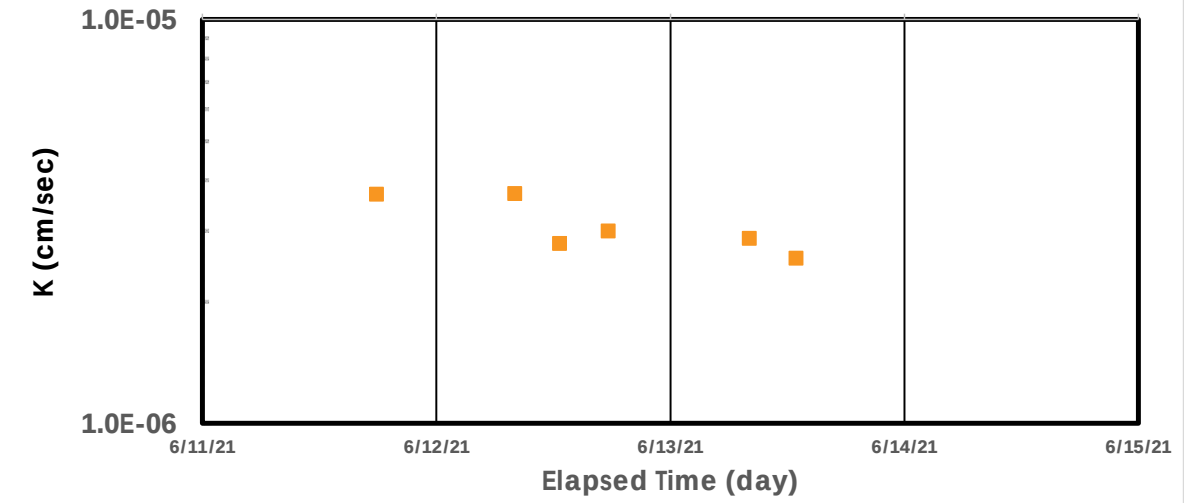
Fixed Variables:

Casing Diameter, D	cm	30	
Standpipe Inner Diameter, D	cm	6.8	
Mariotte Outer Diameter, D	cm	1	
Standpipe Inner Area	cm^2	35.2	(Combined Test)
Bubble Pt Elevation,Ro	cm	16	
Casing Embedment, Zc	cm	30	
TEG (yes/no)	yes/no	no	

Temporal Field Data: **Computations:**

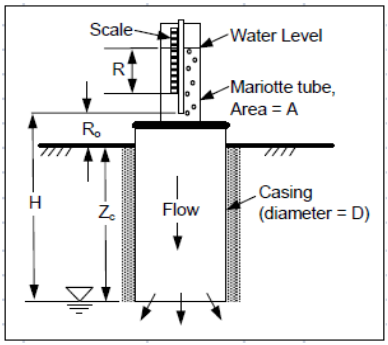
Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
6/9/2021 9:00	11.4	30	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
6/9/2021 11:19	26.8	30		-6.50E-02	0.097	1.000	1.71E-05	
6/9/2021 12:20	38.4	30		-1.12E-01	0.139	1.000	2.94E-05	-5%
6/9/2021 13:24	48.1	30		-8.90E-02	0.183	1.000	2.34E-05	2%
6/9/2021 14:20	56	30		-8.28E-02	0.222	1.000	2.18E-05	1%
6/9/2021 16:24	70.3	30		-6.77E-02	0.308	1.000	1.78E-05	2%
6/10/2021 9:00	3.1	15	Next Day- restart	-8.88E-02		1.000		
6/10/2021 12:40	21.3	15		-4.86E-02	0.153	1.000	1.28E-05	
6/10/2021 15:30	31.6	15		-3.56E-02	0.271	1.000	9.37E-06	
6/11/2021 8:14	62.9	15		-1.83E-02	0.968	1.000	4.82E-06	
6/11/2021 13:23	70.9	15		-1.52E-02	1.183	1.000	4.00E-06	
6/11/2021 16:59	74.2	15		-8.97E-03	1.333	1.000	2.36E-06	
6/11/2021 17:52	7.8	15	Restart	-2.03E-02		1.000	5.35E-06	
6/12/2021 8:03	28.1	15		-1.40E-02	0.591	1.000	3.69E-06	3%
6/12/2021 12:39	34.7	15		-1.40E-02	0.783	1.000	3.70E-06	0%
6/12/2021 17:39	40.1	15		-1.06E-02	0.991	1.000	2.78E-06	2%
6/13/2021 8:08	56.9	15		-1.13E-02	1.594	1.000	2.99E-06	-1%
6/13/2021 12:54	62.2	15		-1.09E-02	1.793	1.000	2.87E-06	0%
6/13/2021 18:26	67.7	15		-9.72E-03	2.024	1.000	2.56E-06	1%
							2.80E-06	cm/s
							2.80E-08	m/s

Test was installed in south side in 2021. Depth of excavation was insufficient to reach CCL. Results is considered a measurement of NCL



Borehole Hydraulic Conductivity Test- ASTM D 6391 Method C

Project:	1003-027
Date:	10-Jun-21
Test ID:	EMRS-BP-007
Installer:	MM
Analyst:	MM

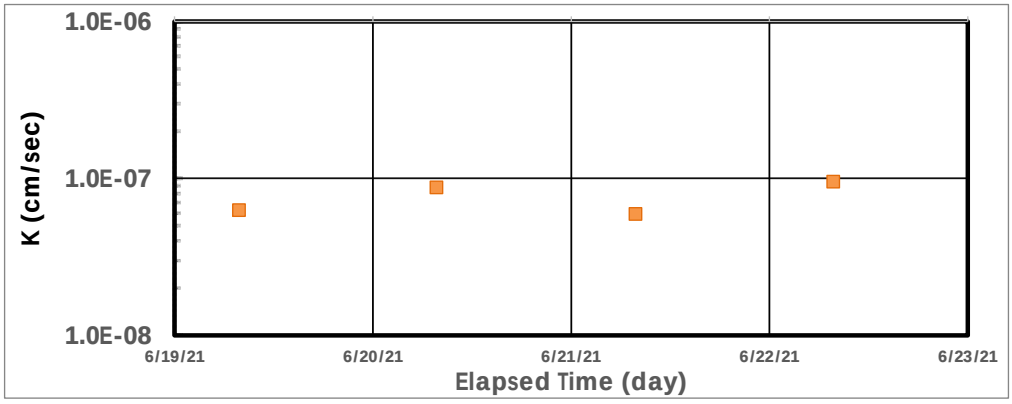


Fixed Variables:

Casing Diameter, D	cm	30	
Standpipe Inner Diameter, D	cm	6.8	
Mariotte Outer Diameter, D	cm	1	
Standpipe Inner Area	cm^2	2.2	(Inner Tube Test)
Bubble Pt Elevation,Ro	cm	18.5	
Casing Embedment, Zc	cm	16.5	
TEG (yes/no)	yes/no	no	

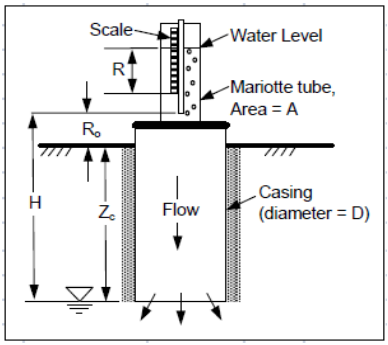
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q (mL/s)	Elapsed Time (d)	Rt (-)	K (cm/s)	Percent Change %
6/10/2021 9:00	8.9	10	Start	-1.83E-04	0.967	1.000	6.35E-08	
6/11/2021 8:13	16	10			44367.292	1.000		
6/12/2021 8:10	10	30	Restart		44368.292	1.000		
6/13/2021 8:10		30	reservoir knocked		44369.286	1.000		
6/14/2021 8:02		30	reservoir knocked					
6/14/2021 9:00	11	30	restart	-2.13E-04	0.940	1.000	7.37E-08	-1%
6/15/2021 7:34	19	15		-2.47E-04	1.951	1.000	8.56E-08	-1%
6/16/2021 7:50	29	15		-2.66E-04	2.958	1.000	9.21E-08	0%
6/17/2021 7:59	39.7	15						
6/18/2021 7:43	7.7	15	Refill	-1.82E-04	1.005	1.000	6.29E-08	2%
6/19/2021 7:50	15	15		-2.54E-04	2.001	1.000	8.78E-08	-2%
6/20/2021 7:44	25.1	15		-1.72E-04	3.005	1.000	5.95E-08	2%
6/21/2021 7:50	32	15		-2.76E-04	4.001	1.000	9.56E-08	-3%
6/22/2021 7:45	43	15						
							7.49E-08	cm/s
							7.49E-10	m/s



Borehole Hydraulic Conductivity Test- ASTM D 6391 Method C

Project:	1003-027
Date:	10-Jun-21
Test ID:	EMRS-BP-008
Installer:	MM
Analyst:	MM

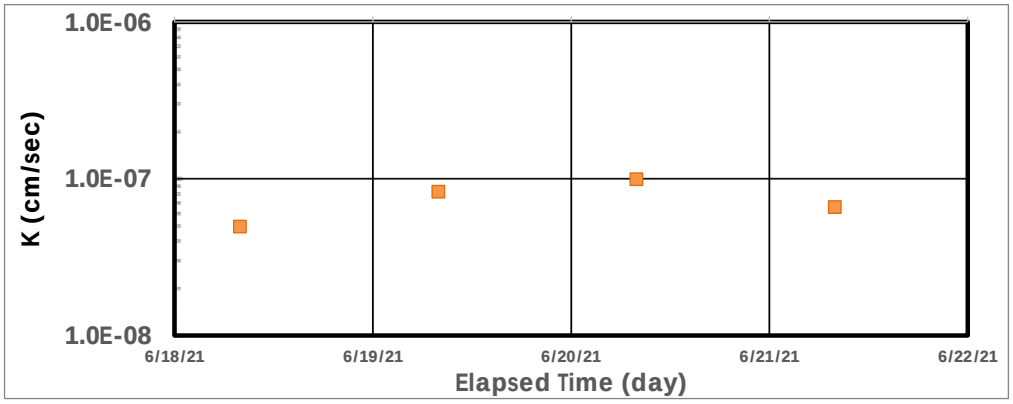


Fixed Variables:

Casing Diameter, D	cm	30	
Standpipe Inner Diameter, D	cm	6.8	
Mariotte Outer Diameter, D	cm	1	
Standpipe Inner Area	cm^2	35.2	(Combined Test)
Bubble Pt Elevation,Ro	cm	13.5	
Casing Embedment, Zc	cm	16.5	
TEG (yes/no)	yes/no	no	

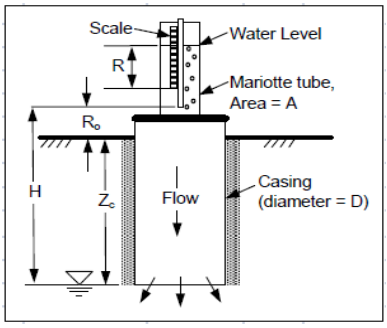
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
				(mL/s)	Time (d)	(-)	(cm/s)	%
6/10/2021 12:55	2.1	30	Start					
6/11/2021 8:20	2.3	30		-1.84E-09	44367.140	1.000		
6/12/2021 8:00	2.5	30		-8.26E-05	44368.126	1.000	3.34E-08	
6/13/2021 8:16	2.6	30		-4.03E-05	44369.138	1.000	1.63E-08	4%
6/14/2021 7:55	3.3	30		-2.89E-04	44370.123	1.000	1.17E-07	-12%
6/15/2021 7:30	3.9	30		-2.49E-04	44371.106	1.000	1.01E-07	1%
6/16/2021 7:46	4.7	30		-3.22E-04	44372.117	1.000	1.30E-07	-2%
6/17/2021 7:57	5.5	30		-3.23E-04	44373.124	1.000	1.31E-07	0%
6/18/2021 7:57	5.8	30		-1.22E-04	44374.124	1.000	4.94E-08	6%
6/19/2021 7:57	6.3	30		-2.04E-04	44375.124	1.000	8.23E-08	-3%
6/20/2021 7:57	6.9	30		-2.44E-04	44376.124	1.000	9.88E-08	-1%
6/21/2021 7:57	7.3	30		-1.63E-04	44377.124	1.000	6.58E-08	2%
							7.17E-08	cm/s
							7.17E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	10-Jun-21
Test ID:	EMRS21_BP-009_P02_210611
Installer:	MM
Analyst:	MM

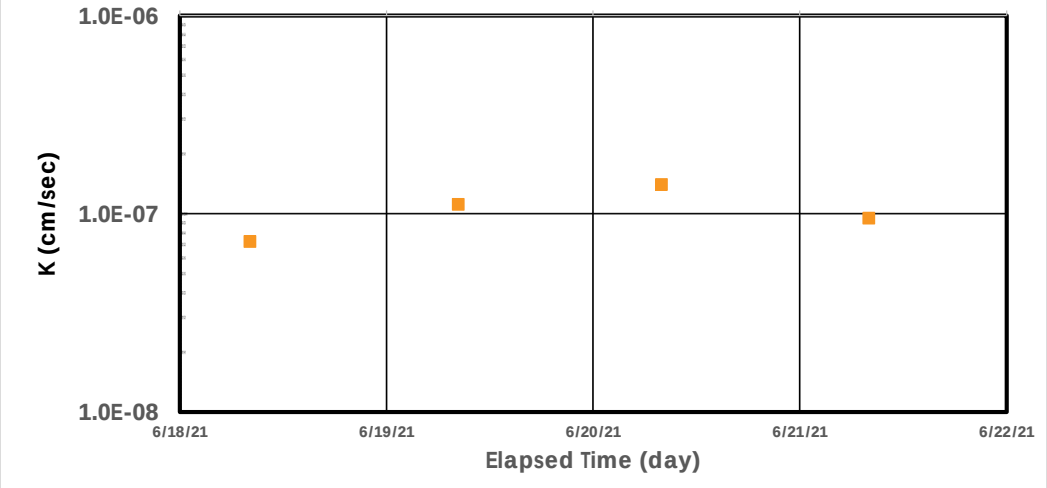


Fixed Variables:

Casing Diameter, D	cm	30	
Standpipe Inner Diameter, D	cm	6.8	
Mariotte Outer Diameter, D	cm	1	
Standpipe Inner Area	cm^2	2.2	(Inner Tube Test)
Bubble Pt Elevation,Ro	cm	10	
Casing Embedment, Zc	cm	22	
TEG (yes/no)	yes/no	no	

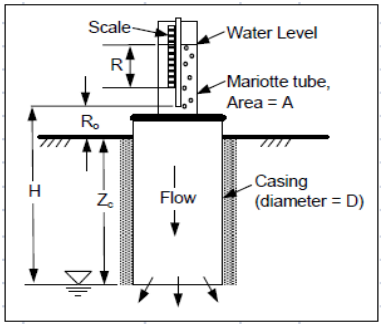
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
6/13/2021 18:10	42.3	30	Start Test	(mL/s)	Time (d)	(-)	(cm/s)	%
6/14/2021 8:10	44.3	30		-8.57E-05	0.583	1.000	3.25E-08	
6/15/2021 8:10	4.9	30	Restart Test	-	-	-	-	
6/16/2021 8:10	21.4	30		-4.13E-04	1.000	1.000	1.56E-07	
6/17/2021 8:22	9.4	30	Restart Test	-	-	-	-	
6/18/2021 8:10	17	30		-1.92E-04	0.992	1.000	7.26E-08	
6/19/2021 8:21	28.9	30		-2.95E-04	1.999	1.000	1.12E-07	-3%
6/20/2021 7:56	43.5	15		-3.71E-04	2.982	1.000	1.41E-07	-1%
6/21/2021 8:00	53.6	10	Test Complete	-2.52E-04	3.985	1.000	9.54E-08	2%
							1.02E-07	cm/s
							1.02E-09	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	1-Jul-21
Test ID:	EMRS21_BP_P01_L2_B10_210621
Installer:	BW
Analyst:	MM

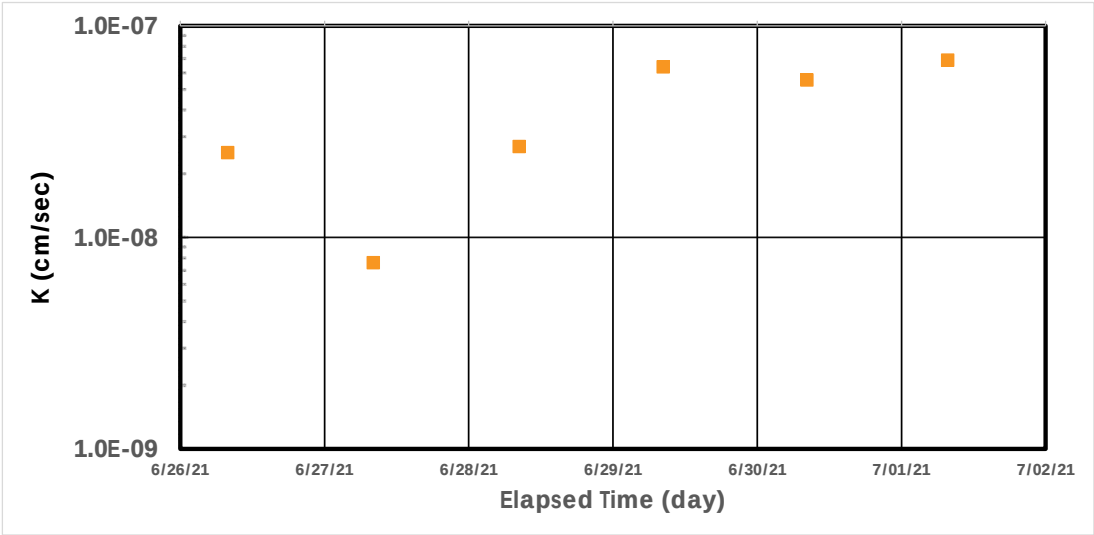


Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2 (Inner Tube Test)
Bubble Pt Elevation,Ro	cm	13
Casing Embedment, Zc	cm	22.5
TEG (yes/no)	yes/no	no

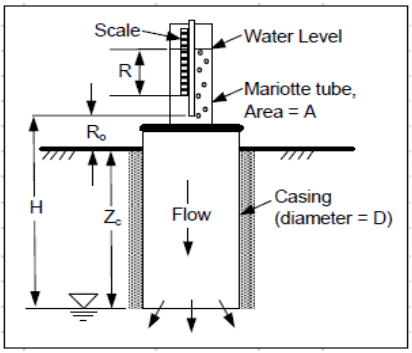
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
6/22/2021 16:42	4.9	30	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
6/23/2021 8:03	4.4	30		1.95E-05	0.640	1.000		
6/24/2021 7:58	3.4	30		2.51E-05	1.636	1.000		
6/25/2021 8:23	2.4	15	Start Results	2.46E-05	2.653	1.000		
6/26/2021 7:54	5.3	10		-7.40E-05	3.633	1.000	2.53E-08	
6/27/2021 8:05	6.2	20		-2.23E-05	4.641	1.000	7.62E-09	6%
6/28/2021 8:24	9.4	15		-7.90E-05	5.654	1.000	2.70E-08	-7%
6/29/2021 8:20	16.9	20		-1.88E-04	6.651	1.000	6.42E-08	-5%
6/30/2021 8:15	23.4	20		-1.63E-04	7.648	1.000	5.57E-08	1%
7/1/2021 7:40	31.3	20	Test Ended	-2.02E-04	8.624	1.000	6.91E-08	-1%
							3.30E-08	cm/s
							3.30E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	1-Jul-21
Test ID:	EMRS21_BP-011_P07_210701
Installer:	BW
Analyst:	MM



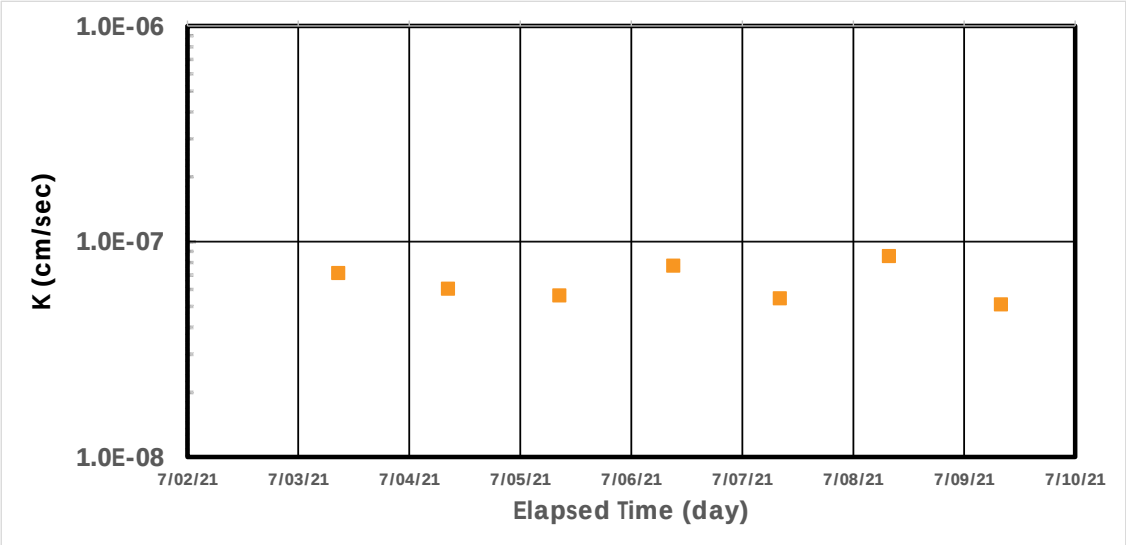
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2
Bubble Pt Elevation,Ro	cm	12.7
Casing Embedment, Zc	cm	32
TEG (yes/no)	yes/no	no

(Inner Tube Test)

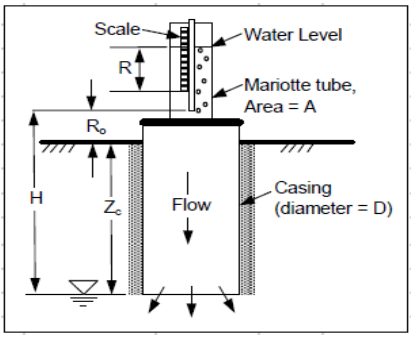
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/2/2021 9:36	0.7	25	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/3/2021 8:38	10.8	25		-2.63E-04	0.960	1.000	7.13E-08	
7/4/2021 8:22	19.6	25		-2.22E-04	1.949	1.000	6.03E-08	1.0%
7/5/2021 8:25	27.9	25		-2.07E-04	2.951	1.000	5.62E-08	0.4%
7/6/2021 9:06	39.6	15		-2.84E-04	3.979	1.000	7.71E-08	-1.9%
7/7/2021 8:08	47.3	12		-2.01E-04	4.939	1.000	5.44E-08	2.1%
7/8/2021 7:45	59.7	15	Middle Resevoir Filled	-3.15E-04	5.923	1.000	8.54E-08	-2.8%
7/8/2021 7:45	4.5	15	Start					
7/9/2021 7:57	12.1	14	Test Ended	-1.88E-04	1.008	1.000	5.11E-08	3.1%
							6.41E-08	cm/s
							6.41E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	1-Jul-21
Test ID:	EMRS21_BP_P08_L2_B12_210701
Installer:	BW
Analyst:	MM



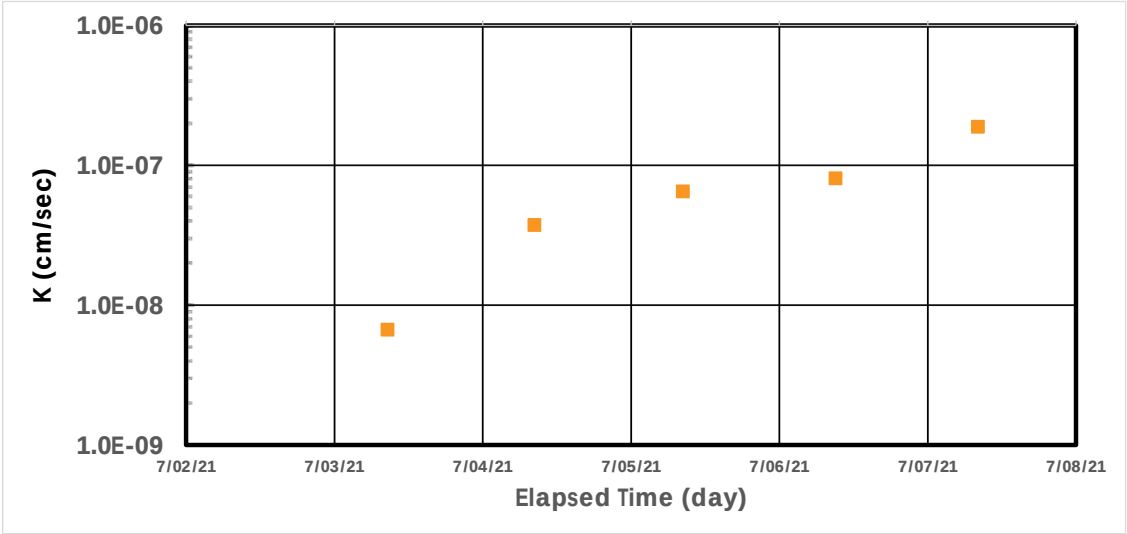
Fixed Variables:

Casing Diameter, D	cm	30	
Standpipe Inner Diameter, D	cm	6.8	
Mariotte Outer Diameter, D	cm	1	
Standpipe Inner Area	cm^2	2.2	(Inner Tube Test)
Bubble Pt Elevation,Ro	cm	12.5	
Casing Embedment, Zc	cm	31.7	
TEG (yes/no)	yes/no	no	

Temporal Field Data: **Computations:**

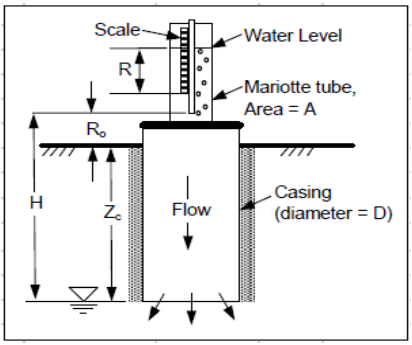
Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/2/2021 10:30	2.2	25	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/3/2021 8:39	3.1	25		-2.44E-05	0.923	1.000	6.69E-09	
7/4/2021 8:24	8.5	25		-1.36E-04	1.912	1.000	3.74E-08	-10.1%
7/5/2021 8:27	18	25		-2.37E-04	2.915	1.000	6.50E-08	-3.3%
7/6/2021 9:08	30.1	15		-2.94E-04	3.943	1.000	8.07E-08	-1.3%
7/7/2021 8:10	56.5	12		-6.88E-04	4.903	1.000	1.89E-07	-5.5%
			Middle Resevoir Filled					
7/8/2021 7:47	8.6	15	Start					
			Test Ended (Inconclusive)	-6.88E-04	4.903	1.000	1.89E-07	-5.5%
							4.77E-08	cm/s
							4.77E-10	m/s

Test deemed inconclusive due to installation. Re-testing required



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	13-Jul-21
Test ID:	EMRS21_BP_P08_L2_B13_210713
Installer:	BH
Analyst:	MM

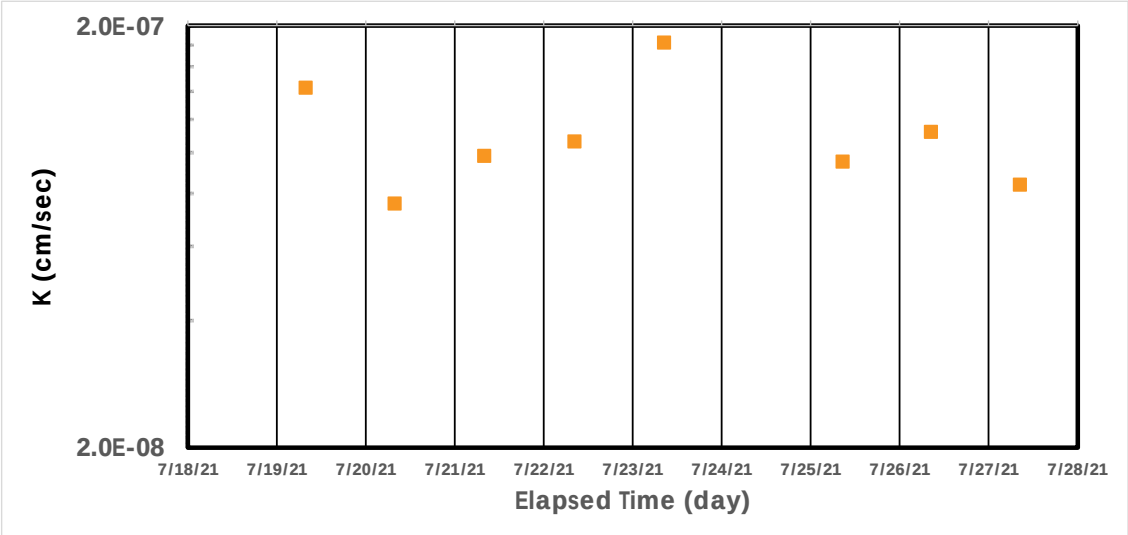


Fixed Variables:

Casing Diameter, D	cm	30	
Standpipe Inner Diameter, D	cm	6.8	
Mariotte Outer Diameter, D	cm	1	
Standpipe Inner Area	cm^2	2.2	(Inner Tube Test)
Bubble Pt Elevation,Ro	cm	13	
Casing Embedment, Zc	cm	21	
TEG (yes/no)	yes/no		

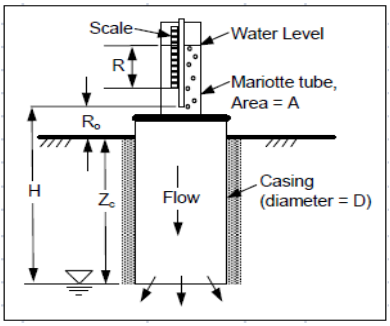
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/14/2021 9:25	4	16	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/15/2021 8:14	14.6	19		-2.79E-04	0.951	1.000	9.94E-08	
7/16/2021 8:07	29	16		-3.62E-04	1.946	1.000	1.29E-07	-1.6%
7/17/2021 7:52	39.2	17		-2.58E-04	2.935	1.000	9.19E-08	2.1%
7/18/2021 8:05	49.5	18		-2.55E-04	3.944	1.000	9.10E-08	0.1%
			Middle Resevoir Filled					
7/18/2021 8:07	7	18						
7/19/2021 7:49	22.8	18		-4.00E-04	0.988	1.000	1.43E-07	-2.9%
7/20/2021 7:48	31.3	16		-2.13E-04	1.987	1.000	7.58E-08	3.9%
7/21/2021 7:59	42.4	15		-2.75E-04	2.994	1.000	9.82E-08	-1.6%
7/22/2021 8:20	54.5	17		-2.98E-04	4.009	1.000	1.06E-07	-0.5%
7/23/2021 8:30	75.1	25		-5.11E-04	5.016	1.000	1.82E-07	-3.5%
7/23/2021 8:32	11.7	25	Middle Resevoir Filled					
7/24/2021 8:35	5.1	20	Fell over/ Reset					
7/25/2021 8:36	15.8	20		-2.67E-04	1.001	1.000	9.53E-08	
7/26/2021 8:29	28.3	15		-3.14E-04	1.996	1.000	1.12E-07	-1.0%
7/27/2021 8:25	37.7	15		-2.36E-04	2.993	1.000	8.40E-08	1.8%
							1.08E-07	cm/s
							1.08E-09	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	13-Jul-21
Test ID:	EMRS21_BP_P08_L2_B14_210713
Installer:	BH
Analyst:	MM



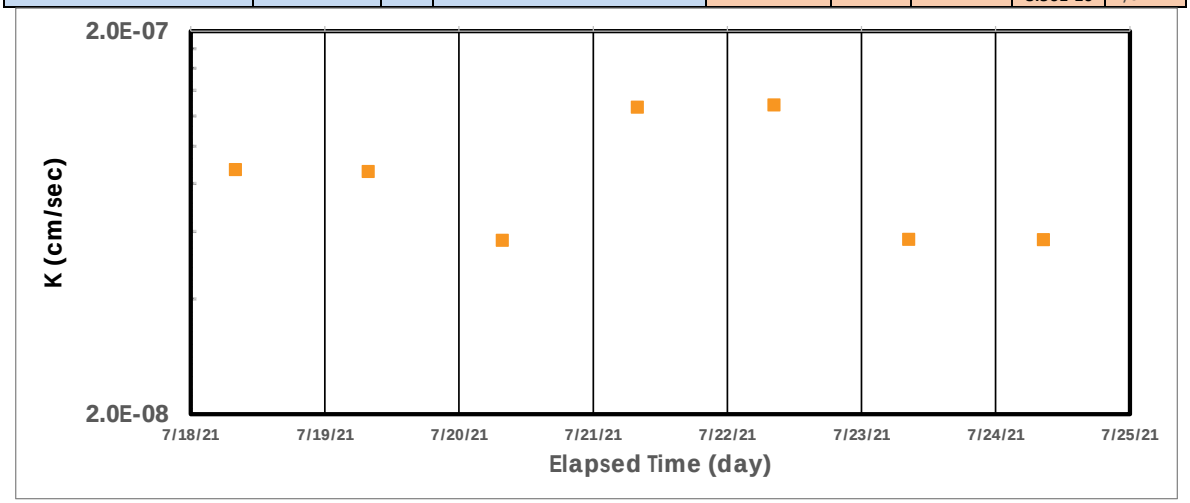
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2
Bubble Pt Elevation,Ro	cm	12
Casing Embedment, Zc	cm	22.5
TEG (yes/no)	yes/no	

(Inner & combined test) 35.2

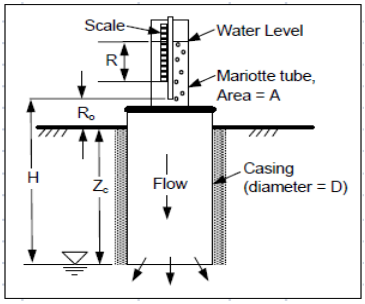
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/14/2021 9:00	3.2	16	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/15/2021 8:10	5.1	19		-4.92E-05	0.965	1.000	1.73E-08	
7/16/2021 8:02	12.6	16		-1.89E-04	1.960	1.000	6.62E-08	-8.1%
7/17/2021 7:48	16	17		-8.58E-05	2.950	1.000	3.02E-08	4.5%
7/18/2021 7:58	16.1	18		-2.48E-06	3.957	1.000	8.72E-10	17.0%
			Refilled and switched to outer					
7/18/2021 8:00	6.1	18						
7/19/2021 7:43	6.7	18		-2.47E-04	0.988	1.000	8.69E-08	-6.5%
7/20/2021 7:43	7.3	16		-2.44E-04	1.988	1.000	8.59E-08	0.1%
7/21/2021 7:54	7.7	15		-1.62E-04	2.996	1.000	5.68E-08	2.5%
7/22/2021 8:20	8.6	17		-3.60E-04	4.014	1.000	1.27E-07	-5.0%
7/23/2021 8:27	9.5	22		-3.65E-04	5.019	1.000	1.28E-07	-0.1%
7/24/2021 8:30	9.9	20		-1.63E-04	6.021	1.000	5.71E-08	4.8%
7/25/2021 8:35	10.3	20	Test Concluded and Removed	-1.62E-04	7.024	1.000	5.71E-08	0.0%
							8.56E-08	cm/s
							8.56E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	28-Jul-21
Test ID:	EMRS21_BP_P14_L2_B15_210725
Installer:	BW
Analyst:	MM



Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	10.5
Casing Embedment, Zc	cm	22
TEG (yes/no)	yes/no	

(Combined Test) 35.2

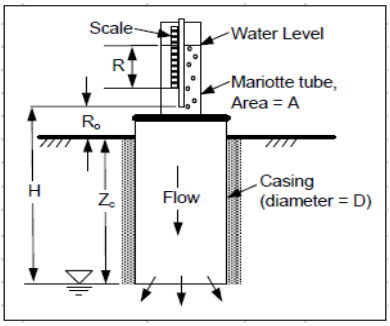
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/26/2021 8:35	0.8	15	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/27/2021 8:30	11.8	15	Test Terminated Equipment Failure	-4.50E-03	0.997	1.000	1.68E-06	
						GEOMEAN	**N/A**	

Test terminated due to equipment failure

Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	28-Jul-21
Test ID:	EMRS21_BP_P14_L2_B16_210727
Installer:	BW
Analyst:	MM



Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	13
Casing Embedment, Zc	cm	23
TEG (yes/no)	yes/no	

(Combined Test) 35.2

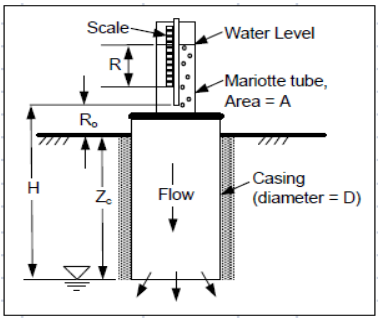
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/28/2021 16:43	0	20	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/29/2021 8:17	3.5	15	Test Terminated Equipment Failure	-2.20E-03	0.649	1.000	7.40E-07	
						GEOMEAN	**N/A**	

Test terminated due to equipment failure

Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	28-Jul-21
Test ID:	EMRS21_BP_P14_L2_B17_210729
Installer:	BW
Analyst:	MM



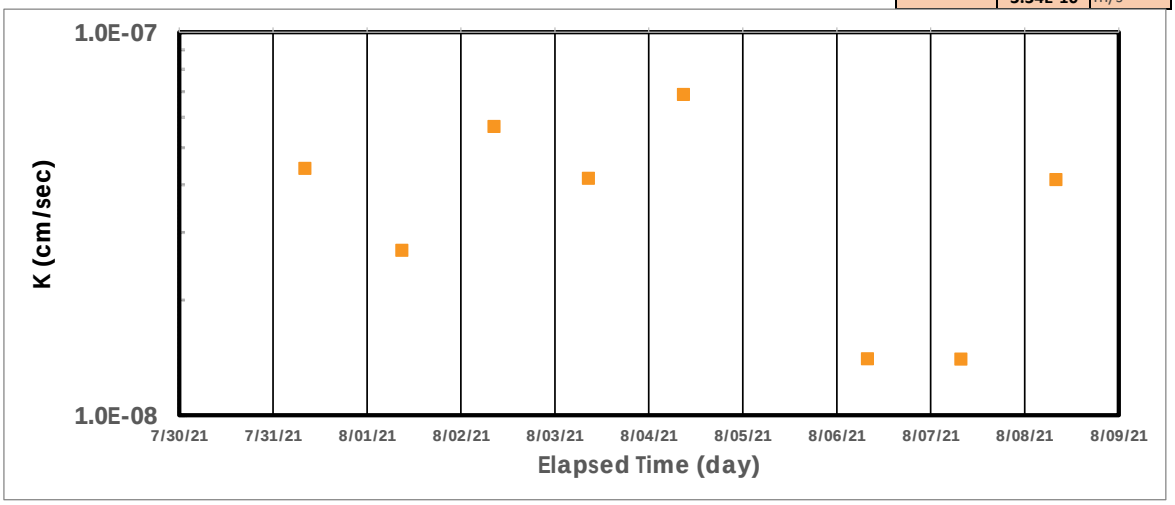
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	11.5
Casing Embedment, Zc	cm	24
TEG (yes/no)	yes/no	

(Combined Test) 35.2

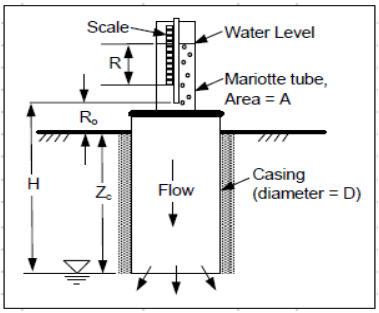
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
7/30/2021 9:27	2.4	20	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
7/31/2021 8:10	2.7	15		-1.29E-04	0.947	1.000	4.41E-08	
8/1/2021 8:57	2.9	20		-7.89E-05	1.979	1.000	2.69E-08	3%
8/2/2021 8:30	3.3	20		-1.66E-04	2.960	1.000	5.67E-08	-4%
8/3/2021 8:38	3.6	20		-1.22E-04	3.966	1.000	4.15E-08	2%
8/4/2021 8:55	4.1	20		-2.01E-04	4.978	1.000	6.87E-08	-3%
8/5/2021 8:07	4.1	18			5.944	1.000		
8/6/2021 7:54	4.2	17		-4.11E-05	6.935	1.000	1.40E-08	9%
8/7/2021 7:45	4.3	16		-4.10E-05	7.929	1.000	1.40E-08	0%
8/8/2021 8:05	4.6	17	Test concluded and removed	-1.21E-04	8.943	1.000	4.12E-08	-6%
							3.34E-08	cm/s
							3.34E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	10-Aug-21
Test ID:	EMRS21_BP_P18_L2_B19_210810
Installer:	BH
Analyst:	MM



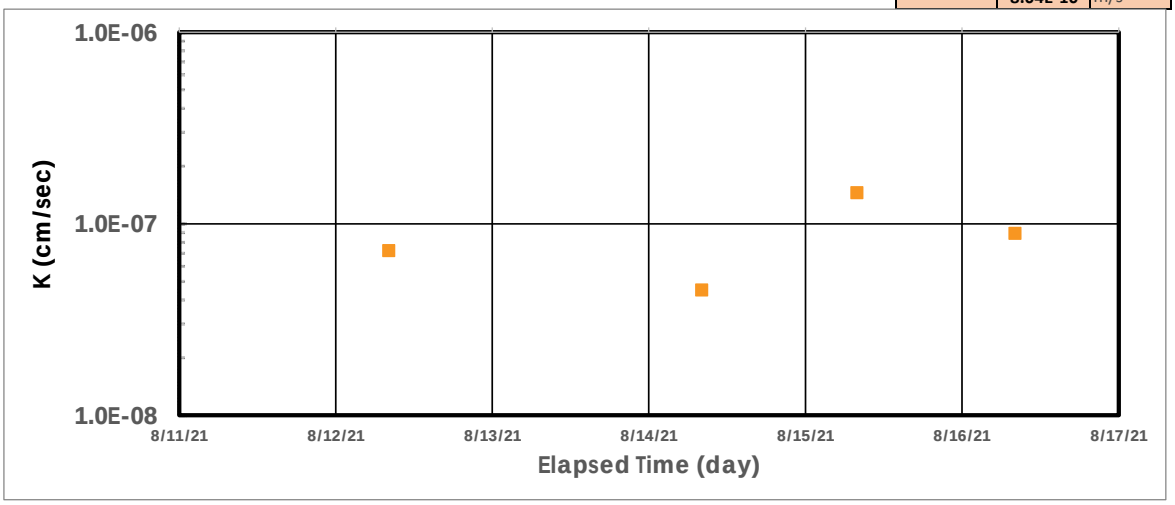
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	11
Casing Embedment, Zc	cm	16.5
TEG (yes/no)	yes/no	

(Combined Test) 35.2

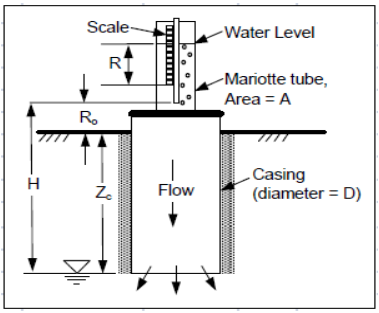
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
8/11/2021 8:14	2.6	15	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
8/12/2021 8:09	3	14		-1.64E-04	0.997	1.000	7.21E-08	
8/13/2021 8:30	3	12			2.011	1.000		
8/14/2021 8:07	3.5	6		-1.02E-04	2.995	1.000	4.49E-08	3%
8/15/2021 7:55	4.3	17		-3.29E-04	3.987	1.000	1.45E-07	-7%
8/16/2021 8:10	4.8	21	Test concluded and removed	-2.02E-04	4.997	1.000	8.89E-08	3%
						GEOMEAN	**8.04E-08**	cm/s
							8.04E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	10-Aug-21
Test ID:	EMRS21_BP_P16_L2_B18_210810
Installer:	BH
Analyst:	MM



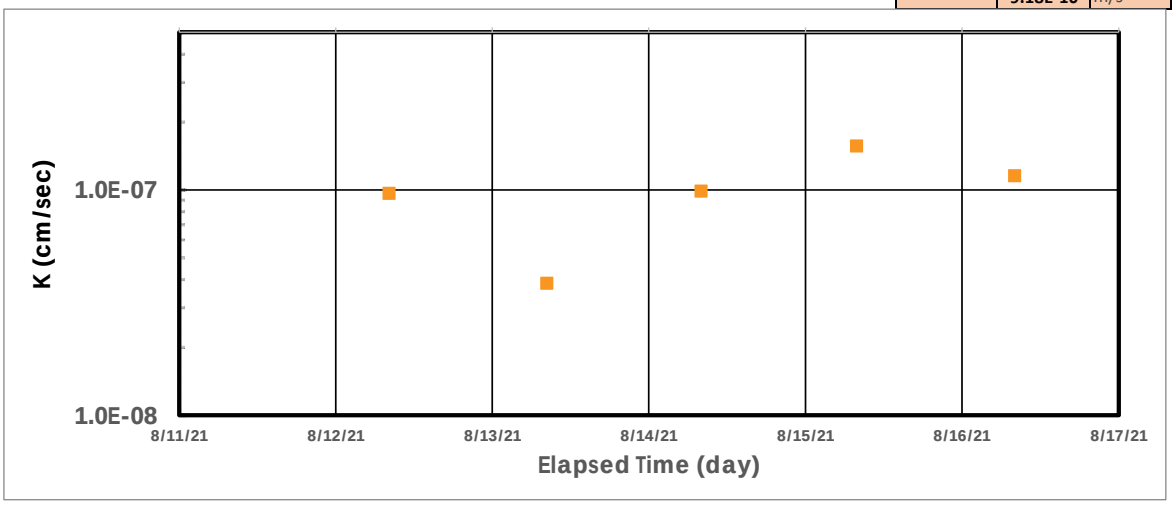
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	11
Casing Embedment, Zc	cm	14.5
TEG (yes/no)	yes/no	

(Combined Test) 35.2

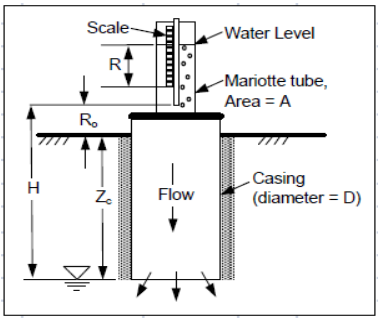
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
8/11/2021 8:02	2.1	15	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
8/12/2021 8:12	2.6	14		-2.02E-04	1.007	1.000	9.62E-08	
8/13/2021 8:25	2.8	12		-8.08E-05	2.016	1.000	3.84E-08	5%
8/14/2021 8:02	3.3	6		-2.07E-04	3.000	1.000	9.84E-08	-6%
8/15/2021 7:52	4.1	17		-3.28E-04	3.993	1.000	1.56E-07	-3%
8/16/2021 8:05	4.7	21	Test concluded and removed	-2.42E-04	5.002	1.000	1.15E-07	2%
						GEOMEAN	**9.18E-08**	cm/s
							9.18E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	18-Aug-21
Test ID:	EMRS21_BP_P19_L2_B20_210818
Installer:	BH
Analyst:	MM



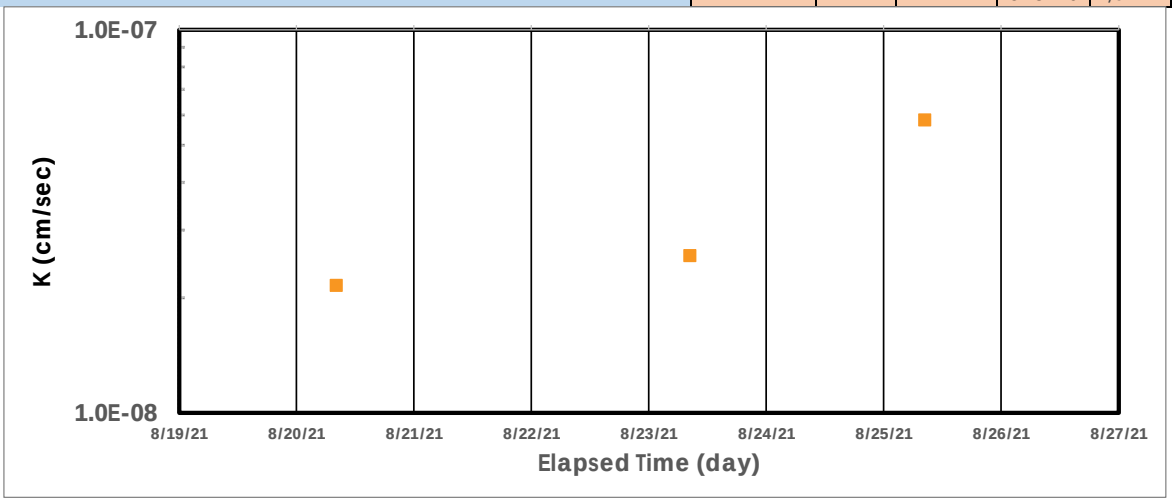
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	10.5
Casing Embedment, Zc	cm	15
TEG (yes/no)	yes/no	

(Combined Test) 35.2

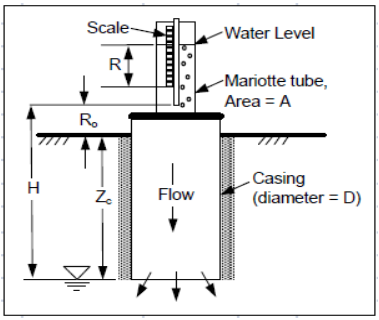
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
8/19/2021 10:33	2.7	30	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
8/20/2021 8:10	2.8	25		-4.52E-05	0.901	1.000	2.15E-08	
8/21/2021 8:19	2.8	12						
8/22/2021 8:11	2.8	10						
8/23/2021 8:26	3.2	16		-5.41E-05	3.912	1.000	2.57E-08	-1%
8/24/2021 8:50	3.2	10						
8/25/2021 8:25	3.8	12		-1.22E-04	5.911	1.000	5.81E-08	-5%
8/26/2021 8:20	3.8	6	Test Concluded		6.908			
						GEOMEAN	**3.18E-08**	cm/s
							3.18E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	18-Aug-21
Test ID:	EMRS21_BP_P22_L2_B21_210818
Installer:	BH
Analyst:	MM



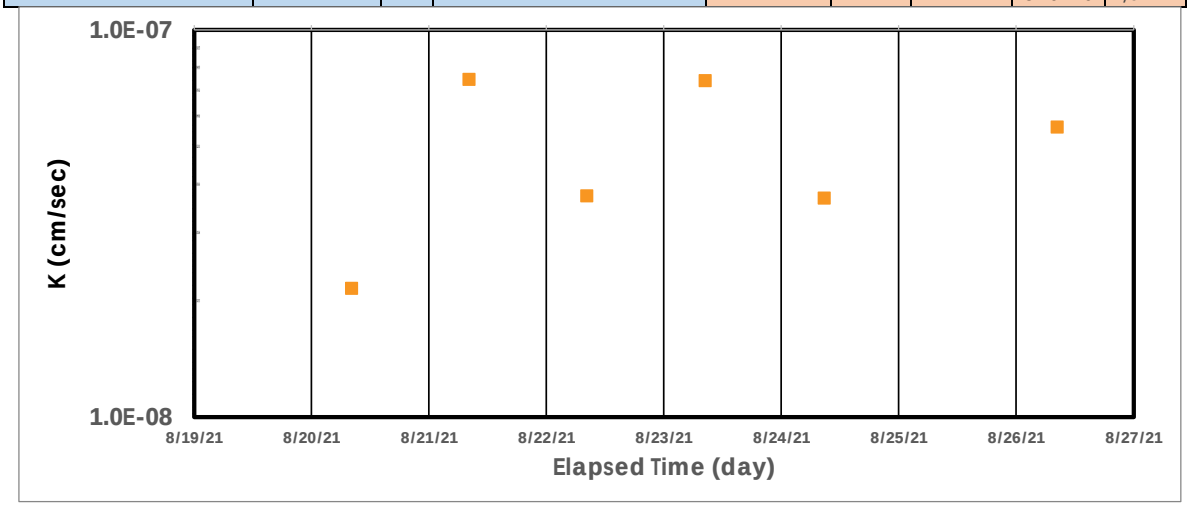
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	11.5
Casing Embedment, Zc	cm	15
TEG (yes/no)	yes/no	

(Combined Test) 35.2

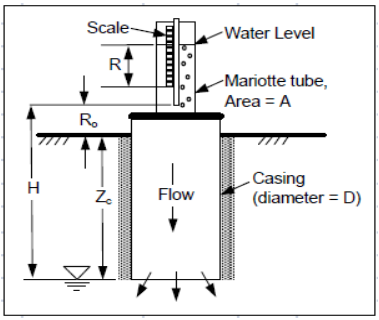
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
8/19/2021 11:26	0.8	30	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
8/20/2021 8:14	0.9	25		-4.70E-05	0.867	1.000	2.15E-08	
8/21/2021 8:15	1.3	12		-1.63E-04	1.867	1.000	7.45E-08	-8%
8/22/2021 8:16	1.5	10		-8.14E-05	2.868	1.000	3.72E-08	4%
8/23/2021 8:29	1.9	16		-1.62E-04	3.877	1.000	7.39E-08	-4%
8/24/2021 8:50	2.1	10		-8.03E-05	4.892	1.000	3.67E-08	4%
8/25/2021 8:30	2.7	12		-2.48E-04	5.878	1.000	1.13E-07	-7%
8/26/2021 8:25	3	6	Test Concluded	-1.23E-04	6.874	1.000	5.61E-08	4%
						GEOMEAN	**5.20E-08**	cm/s
							5.20E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	28-Jul-21
Test ID:	EMRS21_BP_P23_L2_B22_210826
Installer:	BW
Analyst:	MM



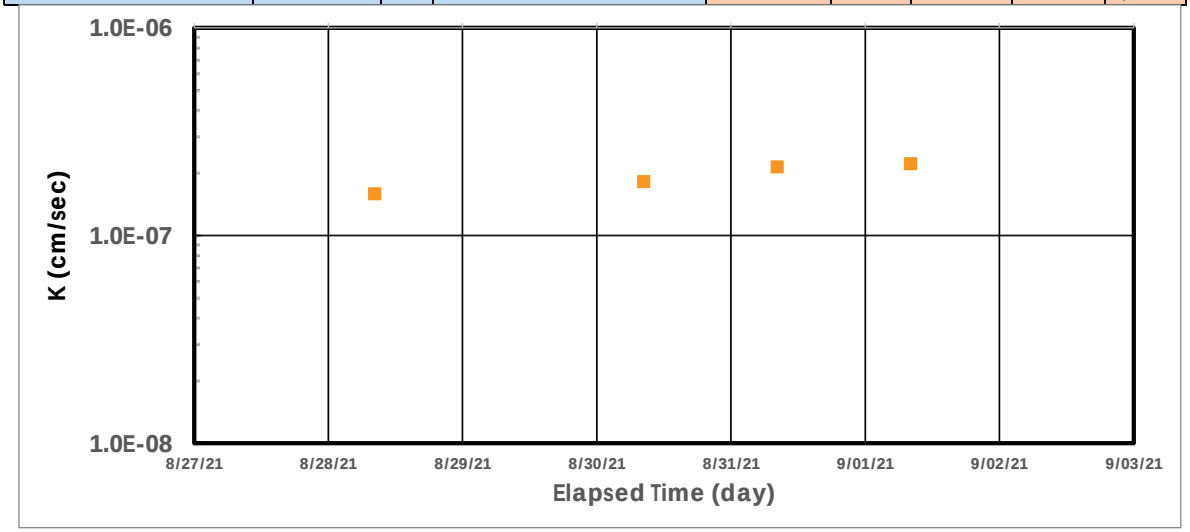
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2
Bubble Pt Elevation,Ro	cm	11.5
Casing Embedment, Zc	cm	27
TEG (yes/no)	yes/no	No

(Inner Tube Test)

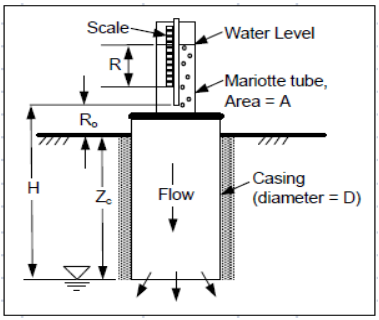
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
8/27/2021 8:50	2.6	10	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
8/28/2021 8:20	22.3	15		-5.03E-04	0.979	1.000	1.58E-07	
8/29/2021 8:36	11.6	15	Refilled			1.000		
8/30/2021 8:26	34.5	15		-5.77E-04	0.993	1.000	1.82E-07	-1%
8/31/2021 8:17	61.5	10		-6.79E-04	1.987	1.000	2.14E-07	-1%
8/31/2021 8:18	15.9	10	Refilled			1.000		
9/1/2021 8:10	43.9	15	Test Concluded	-7.04E-04	0.994	1.000	2.22E-07	0%
						GEOMEAN	**1.92E-07**	cm/s
							1.92E-09	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	26-Aug-21
Test ID:	EMRS21_BP_P24_L2_B23_210826
Installer:	BW
Analyst:	MM



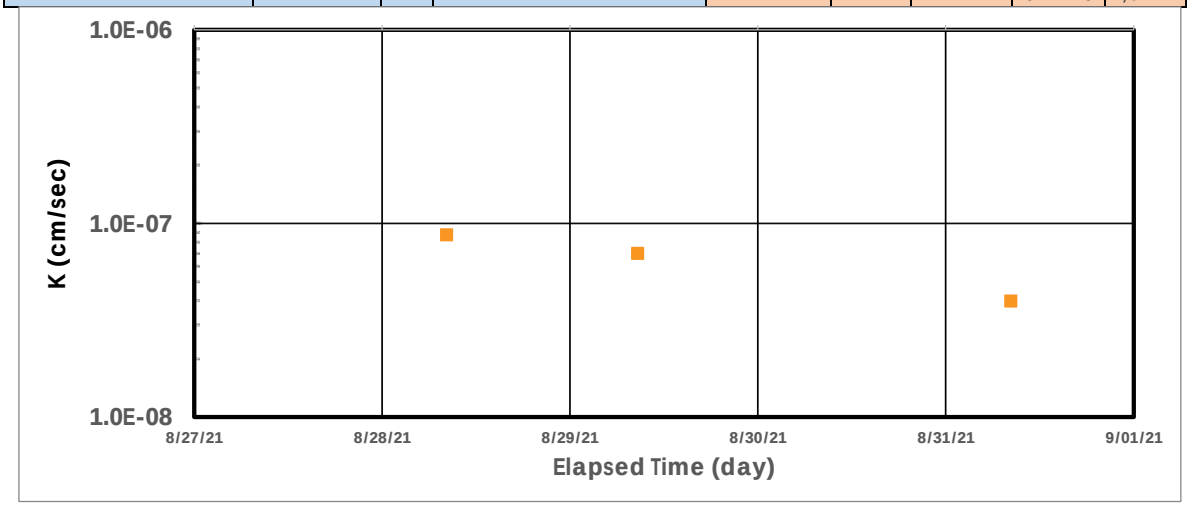
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2
Bubble Pt Elevation,Ro	cm	11.5
Casing Embedment, Zc	cm	26.5
TEG (yes/no)	yes/no	No

(Inner Tube Test)

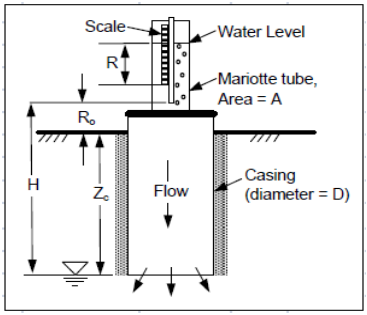
Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
8/27/2021 9:00	3.8	10	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
8/28/2021 8:17	14.4	15		-2.73E-04	0.970	1.000	8.71E-08	
8/29/2021 8:42	23.3	15		-2.19E-04	1.988	1.000	6.98E-08	1%
8/30/2021 8:40	2.2	15	Fell over; reset			1.000		
8/31/2021 8:20	7.1	10	Test Concluded	-1.24E-04	0.986	1.000	3.96E-08	3%
						GEOMEAN	**6.22E-08**	cm/s
							6.22E-10	m/s



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	5-Sep-21
Test ID:	EMRS21_BP_P23_L2_B24_210905
Installer:	BH
Analyst:	MM



Fixed Variables:

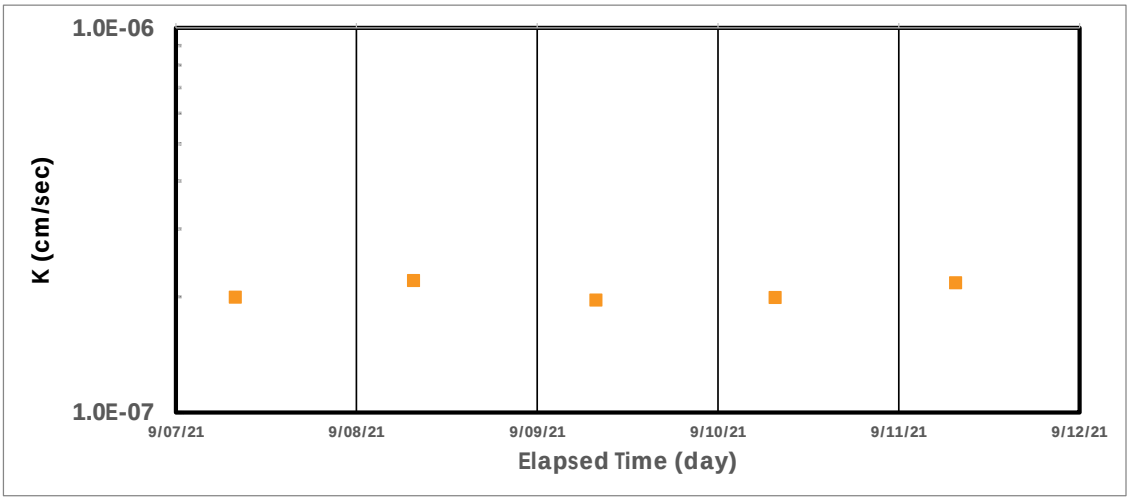
Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	
Bubble Pt Elevation,Ro	cm	11
Casing Embedment, Zc	cm	14
TEG (yes/no)	yes/no	

(Combined Test) 35.2

Temporal Field Data: **Computations:**

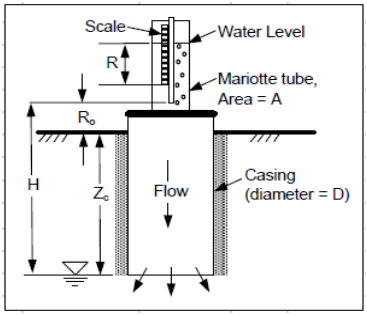
Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
9/6/2021 8:06	3.6	10	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
9/7/2021 7:52	4.6	13		-4.11E-04	0.990	1.000	1.99E-07	
9/8/2021 7:33	5.7	12		-4.54E-04	1.977	1.000	2.20E-07	-1%
9/9/2021 7:45	6.7	10		-4.04E-04	2.985	1.000	1.96E-07	1%
9/10/2021 7:34	7.7	10		-4.11E-04	3.978	1.000	1.99E-07	0%
9/11/2021 7:33	8.8	11		-4.48E-04	4.977	1.000	2.17E-07	-1%
						GEOMEAN	**2.06E-07**	cm/s
							2.06E-09	m/s

Note: High volume of medium size stone noted in excavation of P23 to the level of L2. A longer then normal excavation required to find a suitable location where the casing could be installed.



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	5-Sep-21
Test ID:	EMRS21_BP_P27_L2_B26_210927
Installer:	BH
Analyst:	MM



Fixed Variables:

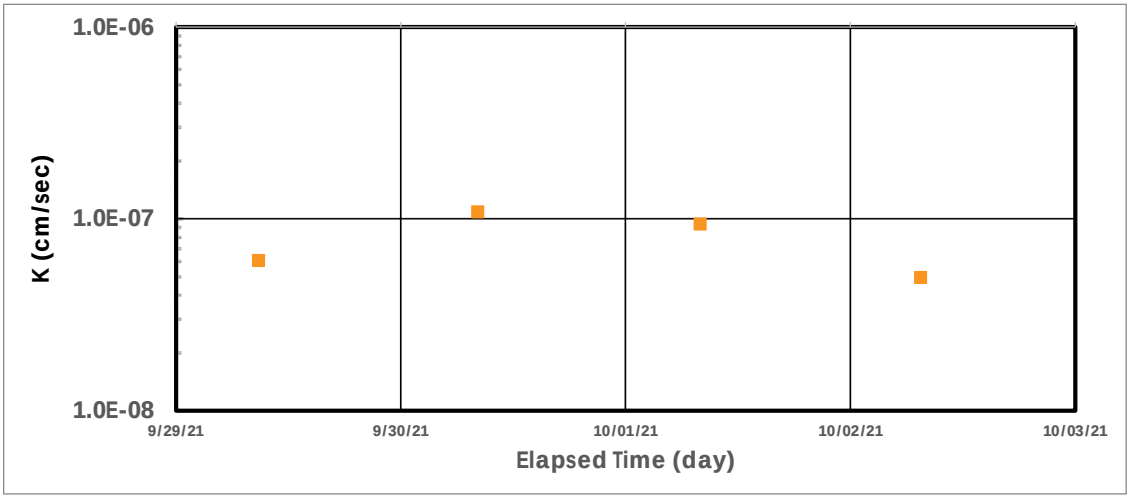
Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2
Bubble Pt Elevation,Ro	cm	12.7
Casing Embedment, Zc	cm	24
TEG (yes/no)	yes/no	

(Inner Tube Test)

Temporal Field Data: **Computations:**

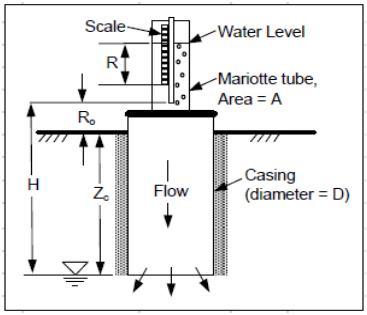
Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
9/28/2021 9:00	4.8	17	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
9/29/2021 8:46	12.1	20		-1.84E-04	0.990	1.000	6.09E-08	
9/30/2021 8:10	25	16		-3.31E-04	1.965	1.000	1.09E-07	-4%
10/1/2021 7:55	36.3	16		-2.85E-04	2.955	1.000	9.43E-08	1%
10/2/2021 7:28	42.2	15	Test Concluded	-1.50E-04	3.936	1.000	4.96E-08	4%
						GEOMEAN	**7.47E-08**	cm/s
							7.47E-10	m/s

Test terminated due to equipment failure



Borehole Hydraulic Conductivity Test
ASTM D 6391 Method C

Project:	1003-027
Date:	27-Sep-21
Test ID:	EMRS21_BP_P28_L2_B26_210927
Installer:	BW
Analyst:	MM



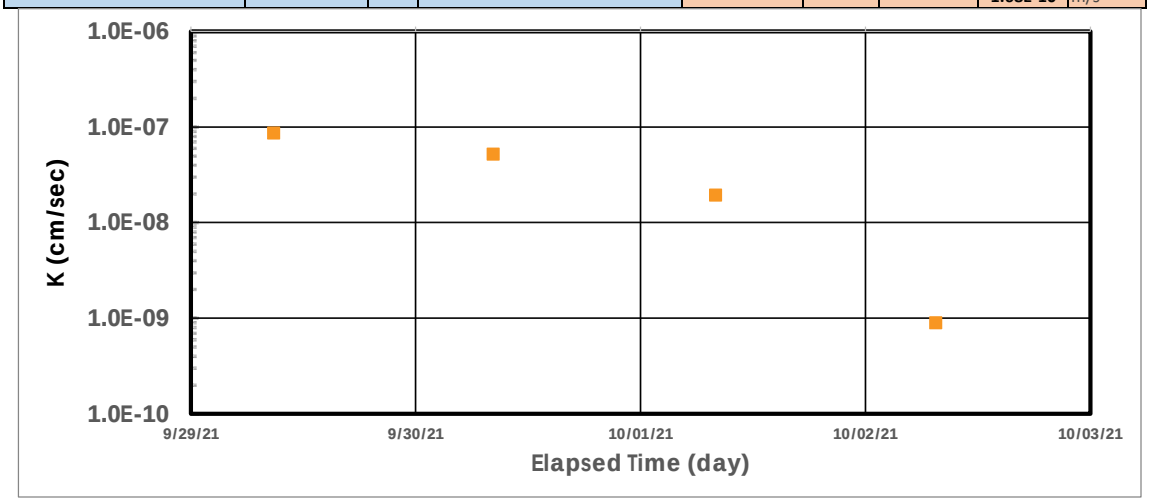
Fixed Variables:

Casing Diameter, D	cm	30
Standpipe Inner Diameter, D	cm	6.8
Mariotte Outer Diameter, D	cm	1
Standpipe Inner Area	cm^2	2.2
Bubble Pt Elevation,Ro	cm	12
Casing Embedment, Zc	cm	22.5
TEG (yes/no)	yes/no	

(Inner Tube Test)

Temporal Field Data: **Computations:**

Time (Date, H:M)	R (cm)	T(˚C)	Comments	Q	Elapsed	Rt	K	Percent Change
9/28/2021 9:20	1.8	17	Start	(mL/s)	Time (d)	(-)	(cm/s)	%
9/29/2021 8:50	11.5	20		-2.48E-04	0.979	1.000	8.70E-08	
9/30/2021 8:15	17.3	16		-1.49E-04	1.955	1.000	5.22E-08	3%
10/1/2021 8:00	19.5	16		-5.56E-05	2.944	1.000	1.95E-08	6%
10/2/2021 7:30	19.6	15	Test Concluded	-2.55E-06	3.924	1.000	8.97E-10	15%
						GEOMEAN	**1.68E-08**	cm/s
							1.68E-10	m/s



Borehole Permeameter Area Results

EMRS21_BP-009_P02_210611 (S134)

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P02_L1_S123_210523	23.0
EMRS21_MC_P02_L2_S134_210525	26.6

Nuclear Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P02_L1_123_210523	1590.0
EMRS21_DE_P02_L2_134_210525	1551.0

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS 21-SP-101	N/A	5/15/2021					1560	23.7
			1	18.4	0.18	1534		
			2	22	0.22	1554		
			3	24.7	0.25	1556		
			4	27.4	0.27	1507		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P02_L1_S118_210523	47	12	35
EMRS21_AT_P02_L2_S124_210524	53	7	46

Hydrometer

Sample ID	EMRS21_HY_P02_L1_S118_210523

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.2	3.7	8.3	12.2	33.7	54.1	87.8

Sample ID	EMRS21_HY_P02_L2_S124_210524

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	1.5	1.5	1.7	3.9	11.5	17.1	26.9	54.5	84.1

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
6/18/2021 8:10	-1.92E-04	7.26E-08	0%		
6/19/2021 8:21	-2.95E-04	1.12E-07	-3%	**Mean**	**1.02E-07**
6/20/2021 7:56	-3.71E-04	1.41E-07	-1%		
6/21/2021 8:00	-2.52E-04	9.54E-08	2%		

EMRS21_BP-010_P01_210621

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P01_L1_S109_210517	31.5
EMRS21_MC_P01_L2_S116_210519	30.1

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P01_ L1_109_210516	1433.0
EMRS21_DE_P01_ L2_116_210518	1453.0

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS 21-SP-100	N/A	5/15/2021					1581	23.3
			1	19.2	0.19	1554		
			2	21.4	0.21	1571		
			3	24.1	0.24	1578		
			4	27.2	0.27	1518		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P01_L1_S110_210519	52	12	40
L2 - N/A	N/A	N/A	N/A

Hydrometer

Sample ID	EMRS21_HY_P01_L1_S110_210521

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.2	3.7	8.3	12.2	33.7	54.1	87.8

Sample ID	N/A

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
6/25/2021 8:23	2.46E-05	0.00E+00			
6/26/2021 7:54	-7.40E-05	2.53E-08			
6/27/2021 8:05	-2.23E-05	7.62E-09	6%	**Mean**	**3.30E-08**
6/28/2021 8:24	-7.90E-05	2.70E-08	-7%		
6/29/2021 8:20	-1.88E-04	6.42E-08	-5%		
6/30/2021 8:15	-1.63E-04	5.57E-08	1%		
7/1/2021 7:40	-2.02E-04	6.91E-08	-1%		

EMRS21_BP-011_P07_210701

Moisture Content

Sample I.D.	Lab MC
S203	25.1
S208	34.3

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
D96	1585.5
D103	1403

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS21_PR_P06_L1_S179_210611	6/11/2021	6/14/2021					1578	24
			1	18	0.18	1528		
			2	21.7	0.22	1559		
			3	24.9	0.25	1572		
			4	27.6	0.28	1489		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P07_L1_S203_210615	45	17	28
EMRS21_AT_P07_L2_S209_210616	48	18	30

Hydrometer

Sample ID	EMRS21_HY_P07_L1_S203_210615

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.8	0.8	1.5	3.7	11.5	16.7	27.0	55.5	82.5

Sample ID	EMRS21_HY_P07_L2_S209_210616

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	1.8	1.8	2.3	5.0	12.9	20.2	25.9	52.1	78.0

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
7/2/2021 9:36					
7/3/2021 8:38	-2.63E-04	7.13E-08			
7/4/2021 8:22	-2.22E-04	6.03E-08	1.0%	**Mean**	**6.65E-08**
7/5/2021 8:25	-2.07E-04	5.62E-08	0.4%		
7/6/2021 9:06	-2.84E-04	7.71E-08	-1.9%		
7/7/2021 8:08	-2.01E-04	5.44E-08	2.1%		
7/8/2021 7:45	-3.15E-04	8.54E-08	-2.8%		
7/8/2021 7:45					
7/9/2021 7:57	-1.88E-04	5.11E-08	3.1%		

EMRS21_BP-013_P08_210713

Moisture Content

Sample I.D.	Lab MC
S213	18.9
S224	31.3

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
D108	1475
D124	1466.2

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS21_PR_P06_L1_S179_210611	6/11/2021	6/14/2021					1578	24
			1	18	0.18	1528		
			2	21.7	0.22	1559		
			3	24.9	0.25	1572		
			4	27.6	0.28	1489		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P08_L1_S215_210619			
EMRS21_AT_P08_L2_S222_210622			

Hydrometer

Sample ID	EMRS21_HY_P08_L1_S215_210619

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.0	2.0	2.0	5.2	10.5	17.7	24.5	55.8	80.3

Sample ID	EMRS21_HY_P08_L2_S222_210621

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	1.5	1.5	3.0	1.1	2.9	10.1	14.1	29.3	53.6	82.9

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
7/18/2021 8:07		0.00E+00			
7/19/2021 7:49	-4.00E-04	1.43E-07	-2.9%		
7/20/2021 7:48	-2.13E-04	7.58E-08	3.9%	**Mean**	**1.14E-07**
7/21/2021 7:59	-2.75E-04	9.82E-08	-1.6%		
7/22/2021 8:20	-2.98E-04	1.06E-07	-0.5%		
7/23/2021 8:30	-5.11E-04	1.14E-07	-3.5%		

EMRS21_BP-014_P03_210713 (S151)

Moisture Content

Sample I.D.	Lab MC
S144	19.3
S151	25.0

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
D34	1528
D40	1610

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS 21-SP-101	N/A	5/15/2021					1560	23.7
			1	18.4	0.18	1534		
			2	22	0.22	1554		
			3	24.7	0.25	1556		
			4	27.4	0.27	1507		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P03_L1_S141_210528	52	19	33
EMRS21_AT_P03_L2_S149_210601	48	20	28

Hydrometer

Sample ID	EMRS21_HY_P03_L1_S141_210528

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	5.9	4.5	10.4	1.6	3.5	9.2	14.3	23.9	51.4	75.3

Sample ID	EMRS21_HY_P03_L2_S149_210601

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.3	2.3	1.3	2.9	12.4	16.6	28.7	52.4	81.1

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
7/18/2021 8:00	0.00E+00	0.00E+00			
7/19/2021 7:43	-2.47E-04	8.69E-08	-6.5%		
7/20/2021 7:43	-2.44E-04	8.59E-08	0.1%	**Mean**	**8.56E-08**
7/21/2021 7:54	-1.62E-04	5.68E-08	2.5%		
7/22/2021 8:20	-3.60E-04	1.27E-07	-5.0%		
7/23/2021 8:27	-3.65E-04	1.28E-07	-0.1%		

EMRS21_BP_P14_L2_B17_210729

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P14_L2_S299	26.2
Field MC (D205)	22.5

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)	
EMRS21_P14_L2_D215	1502	
EMRS21_P14_L1_D205	1614.5	Field

Proctor

Sample ID	**Sample Date**	**Test Date**	**Trial #**	**Moisture Content (%)**	**/100**	**Dry Density**	**Opt. DD (kg/m^3)**	**Opt. MC (%)**
EMRS21_PR_P14_L1_S291_210709	7/9/2021	7/12/2021					1587	23.1
			1	19.6	0.2	1451		
			2	22.7	0.23	1584		
			3	27.1	0.27	1487		
			4	29.5	0.3	1448		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P14_L2_S299_210710	45	18	27
EMRS21_AT_P14_L1_S291_210709	52	19	33

Hydrometer

Sample ID: EMRS21_HY_P14_L2_S299_210710

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.8	0.8	0.7	2.7	22.0	25.4	24.1	49.7	73.8

Sample ID: EMRS21_HY_P14_L1_S291_210709

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.3	2.3	1.6	3.6	12.5	17.7	25.0	55.0	80.0

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
7/30/2021 9:27					
7/31/2021 8:10	-1.29E-04	4.41E-08	0.0%	**Mean**	**3.34E-08**
8/1/2021 8:57	-7.89E-05	2.69E-08	2.8%		
8/2/2021 8:30	-1.66E-04	5.67E-08	-4.5%		
8/3/2021 8:38	-1.22E-04	4.15E-08	1.8%		
8/4/2021 8:55	-2.01E-04	6.87E-08	-3.1%		
8/5/2021 8:07	0.00E+00	0.00E+00	0.0%		
8/6/2021 7:54	-4.11E-05	1.40E-08	8.8%		
8/7/2021 7:45	-4.10E-05	1.40E-08	0.0%		
8/8/2021 8:05	-1.21E-04	4.12E-08	-6.3%		

EMRS21_BP_P16_L2_B18_210810

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P16_L2_S331	27.7
EMRS21_MC_P16_L1_S322	21.9

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P16_L2_D249	1497
EMRS21_DE_P16_L1_D237	1564

Proctor

Sample ID	**Sample Date**	**Test Date**	**Trial #**	**Moisture Content (%)**	**/100**	**Dry Density**	**Opt. DD (kg/m^3)**	**Opt. MC (%)**
EMRS21_PR_P16_L2_S331_210716	7/16/2021	7/20/2021					1693	18.2
			1	14	0.14	1569		
			2	18.3	0.18	1692		
			3	19.9	0.2	1668		
			4	23.1	0.23	1620		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P16_L2_S331_210716	50	18	32
EMRS21_AT_P16_L1_S322_210715	46	17	29

Hydrometer

Sample ID: EMRS21_HY_P16_L2_S331_210716

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	1.6	1.6	1.4	3.4	11.0	15.8	30.4	52.2	82.6

Sample ID: EMRS21_HY_P16_L1_S322_210715

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	5.3	3.5	8.8	2.4	4.9	10.9	18.2	26.2	46.8	73.0

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
8/11/2021 8:02					
8/12/2021 8:12	-2.02E-04	9.62E-08	0.0%	**Mean**	**9.18E-08**
8/13/2021 8:25	-8.08E-05	3.84E-08	5.4%		
8/14/2021 8:02	-2.07E-04	9.84E-08	-5.8%		
8/15/2021 7:52	-3.28E-04	1.56E-07	-2.9%		
8/16/2021 8:05	-2.42E-04	1.15E-07	1.9%		

EMRS21_BP_P18_L2_B19_210810

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P18_L2_S349_210721	27
EMRS21_MC_P18_L1_S341_210720	23.0

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)

EMRS21_DE_P18_L2_D287	1502
EMRS21_DE_P18_L1_D272	1585

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS21_P18_L1_S341_210720	7/20/2021	4/24/2021					1697	19.2
			1	15.7	0.16	1624		
			2	19.1	0.19	1697		
			3	22.3	0.22	1638		
			4	25.7	0.26	1538		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P18_L2_S349_210721	46	17	29
EMRS21_AT_P18_L1_S340_210720	43	15	28

Hydrometer

Sample ID: EMRS21_HY_P18_L2_S349_210721

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	1.0	4.8	5.8	2.3	4.6	9.5	16.4	23.0	54.8	77.8

Sample ID: EMRS21_HY_P18_L1_S341_210720

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	7.8	3.9	11.7	1.9	4.4	9.5	15.8	25.3	47.2	72.5

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
8/11/2021 8:14					
8/12/2021 8:09	-1.64E-04	7.21E-08	0.0%	**Mean**	**8.04E-08**
8/13/2021 8:30	0.00E+00	0.00E+00	0.0%		
8/14/2021 8:07	-1.02E-04	4.49E-08	2.8%		
8/15/2021 7:55	-3.29E-04	1.45E-07	-7.4%		
8/16/2021 8:10	-2.02E-04	8.89E-08	3.0%		

EMRS21_BP_P19_L2_B20_2108

Moisture Content

Sample I.D.	Lab MC	
EMRS21_MC_P19_L2_S366_210728	33.2	
EMRS21_DE_P19_D296_210727	20.0	Field

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)	
EMRS21_DE_P19_L2_D307_210728	1463	
EMRS21_DE_P19_D296_210727	1670	Field

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS21_P19_L2_S366_210728	7/28/2021	7/30/2021					1650	19.8
			1	14.6	0.15	1581		
			2	17.4	0.17	1634		
			3	21.5	0.22	1641		
			4	26.2	0.26	1541		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P19_L1_S358_210727	50	16	34
EMRS21_AT_P19_L2_S366_210728	61	21	40

Hydrometer

Sample ID: EMRS21_HY_P19_L1_S358_210727

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	5.9	5.9	2.8	5.7	9.7	18.2	26.6	49.3	75.9

Sample ID: EMRS21_HY_P19_L2_S366_210728

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	1.2	1.2	0.9	2.6	6.5	10.0	23.0	65.8	88.8

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
8/19/2021 10:33	(mL/s)	(cm/s)	%		
8/20/2021 8:10	-4.52E-05	2.15E-08	0.0%	**Mean**	**3.18E-08**
8/21/2021 8:19	0.00E+00	0.00E+00			
8/22/2021 8:11	0.00E+00	0.00E+00			
8/23/2021 8:26	-5.41E-05	2.57E-08	-1.0%		
8/24/2021 8:50	0.00E+00	0.00E+00			
8/25/2021 8:25	-1.22E-04	5.81E-08	-4.9%		
8/26/2021 8:20	0.00E+00	0.00E+00	0.0%		

EMRS21_BP_P22_L2_B21_2108

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P22_L2_S401_210805	24.1
EMRS21_MC_P22_L1_S396_210804	19.9

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P22_L2_D349_210805	1602
EMRS21_DE_P22_L1_D341_210804	1632

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m^3)	Opt. MC (%)
EMRS21_PR_P22_L1_S396_210804	8/4/2021	8/8/2021					1660	20.2
			1	15.4	0.15	1633		
			2	17.9	0.18	1647		
			3	21.4	0.21	1651		
			4	24.1	0.24	1578		
			5	26.6	0.27	1505		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P22_L1_S396_210804	49	16	33
EMRS21_AT_P22_L2_S401_210805	50	13	37

Hydrometer

Sample ID	EMRS21_HY_P22_L1_S396_210804

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	4.0	2.5	6.5	1.8	4.5	8.8	15.1	28.9	49.5	78.4

Sample ID	EMRS21_HY_P22_L2_S401_210805

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	1.9	2.3	4.2	2.2	4.0	9.0	15.2	31.8	48.8	80.6

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
8/19/2021 11:26					
8/20/2021 8:14	-4.70E-05	2.15E-08	0.0%	**Mean**	**5.20E-08**
8/21/2021 8:15	-1.63E-04	7.45E-08	-7.6%		
8/22/2021 8:16	-8.14E-05	3.72E-08	4.1%		
8/23/2021 8:29	-1.62E-04	7.39E-08	-4.2%		
8/24/2021 8:50	-8.03E-05	3.67E-08	4.1%		
8/25/2021 8:30	-2.48E-04	1.13E-07	-7.0%		
8/26/2021 8:25	-1.23E-04	5.61E-08	4.2%		

EMRS21_BP_P23_L2_B22_210826

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P23_L2_S416_210809	19.3
EMRS21_MC_P23_L1_S410_210807	21.5

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P23_L2_D365_210809	1669
EMRS21_DE_P23_L1_D359_210807	1602

Proctor

Sample ID	Sample Date	Test Date	Trial #	Moisture Content (%)	/100	Dry Density	Opt. DD (kg/m3)	Opt. MC (%)
EMRS21_PR_P23_L2_S416_210809	8/9/2021	8/12/2021					1698	17.8
			1	15	0.15	1631		
			2	17.4	0.17	1696		
			3	19.3	0.19	1686		
			4	22.9	0.23	1618		
				25	0.25	1545		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P23_L1_S410_210807	45	17	28
EMRS21_AT_P23_L2_S416_210809	41	15	26

Hydrometer

Sample ID	EMRS21_HY_P23_L1_S410_210807

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.7	2.7	1.4	3.5	9.1	14.0	31.6	51.7	83.3

Sample ID	EMRS21_HY_P23_L2_S416_210809

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.6	2.6	1.2	3.1	9.1	13.4	34.1	49.9	84.0

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
8/27/2021 8:50	(mL/s)				
8/28/2021 8:20	-5.03E-04	1.58E-07	0.0%	**Mean**	**1.92E-07**
8/29/2021 8:36		0.00E+00	0.0%		
8/30/2021 8:26	-5.77E-04	1.82E-07	-0.9%		
8/31/2021 8:17	-6.79E-04	2.14E-07	-1.1%		
8/31/2021 8:18		0.00E+00	0.0%		
9/1/2021 8:10	-7.04E-04	2.22E-07	-0.2%		

EMRS21_BP_P24_L2_B23_210826

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P24_L2_S425_210812	21.5
EMRS21_MC_P24_L1_S421_210811	26.4

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P24_L2_D375_210812	1681
EMRS21_DE_P24_L1_D371_210811	1527

Proctor

Sample ID	**Sample Date**	**Test Date**	**Trial #**	**Moisture Content (%)**	**/100**	**Dry Density**	**Opt. DD (kg/m^3)**	**Opt. MC (%)**
EMRS21_PR_P22_L1_S396_210804	8/4/2021	8/8/2021					1660	20.2
			1	15.4	0.15	1633		
			2	17.9	0.18	1647		
			3	21.4	0.21	1651		
			4	24.1	0.24	1578		
			5	26.6	0.27	1505		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P24_L1_S421_210811	49	16	33
EMRS21_AT_P24_L2_S429_210812	48	15	33

Hydrometer

Sample ID	EMRS21_HY_P24_L1_S421_210811

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.2	2.2	2.0	3.6	10.2	15.8	27.5	54.5	82.0

Sample ID	EMRS21_HY_P24_L2_S429_210812

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.4	2.4	1.3	3.1	12.8	17.2	29.2	51.2	80.4

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
8/27/2021 9:00					
8/28/2021 8:17	-2.73E-04	8.71E-08	0.0%	**Mean**	**6.22E-08**
8/29/2021 8:42	-2.19E-04	6.98E-08	1.3%		
8/30/2021 8:40	0.00E+00	0.00E+00			
8/31/2021 8:20	-1.24E-04	3.96E-08	3.3%		

EMRS21_BP_P23_L2_B24_210905

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P23_L2_S416_210809	19.3
EMRS21_MC_P23_L1_S410_210807	21.5

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P23_L2_D365_210809	1669
EMRS21_DE_P23_L1_D359_210807	1602

Proctor

Sample ID	**Sample Date**	**Test Date**	**Trial #**	**Moisture Content (%)**	**/100**	**Dry Density**	**Opt. DD (kg/m^3)**	**Opt. MC (%)**
EMRS21_PR_P23_L2_S416_210809	8/9/2021	8/12/2021					1698	17.8
			1	15	0.15	1631		
			2	17.4	0.17	1696		
			3	19.3	0.19	1686		
			4	22.9	0.23	1618		
				25	0.25	1545		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P23_L1_S410_210807	45	17	28
EMRS21_AT_P23_L2_S416_210809	41	15	26

Hydrometer

Sample ID	EMRS21_HY_P23_L1_S410_210807

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total

0.0	0.0	2.7	2.7	1.4	3.5	9.1	14.0	31.6	51.7	83.3

Sample ID	EMRS21_HY_P23_L2_S416_210809

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.6	2.6	1.2	3.1	9.1	13.4	34.1	49.9	84.0

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
9/6/2021 8:06					
9/7/2021 7:52	-4.11E-04	1.99E-07		**Mean**	**2.06E-07**
9/8/2021 7:33	-4.54E-04	2.20E-07	-1%		
9/9/2021 7:45	-4.04E-04	1.96E-07	1%		
9/10/2021 7:34	-4.11E-04	1.99E-07	0%		
9/11/2021 7:33	-4.48E-04	2.17E-07	-1%		

EMRS21_BP_P27_L2_B25_210927

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P27_L2_S462_210901	27.9
EMRS21_MC_P27_L1_S456_210831	27.3

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P27_L2_D419_210901	1468
EMRS21_DE_P27_L1_D408_210831	1499

Proctor

Sample ID	**Sample Date**	**Test Date**	**Trial #**	**Moisture Content (%)**	**/100**	**Dry Density**	**Opt. DD (kg/m^3)**	**Opt. MC (%)**
EMRS21_PR_P27_L1_S456_210831	8/31/2021	9/4/2021					1647	21.4
			1	15.9	0.16	1604		
			2	19.3	0.19	1635		
			3	22.4	0.22	1642		
			4	26.1	0.26	1546		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P27_L1_S456_210831	44	19	25
EMRS21_AT_P27_L2_S462_210901	46	18	28

Hydrometer

Sample ID	EMRS21_HY_P27_L1_S456_210831

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.1	2.1	1.7	4.3	11.5	17.5	28.0	52.4	80.4

Sample ID	EMRS21_HY_P27_L2_S462_210901

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.0	2.0	1.6	0.3	0.8	2.7	40.9	54.4	95.3

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
				Mean	

EMRS21_BP_P28_L2_B26_210927

Moisture Content

Sample I.D.	Lab MC
EMRS21_MC_P28_L2_S476_210911	29.1
EMRS21_MC_P28_L1_S470_210906	28.1

Nuclar Density

Sample I.D.	Dry Density (Corrected If Possible)
EMRS21_DE_P28_L2_D439_210911	1476
EMRS21_DE_P28_L1_D427_210906	1525

Proctor

Sample ID	**Sample Date**	**Test Date**	**Trial #**	**Moisture Content (%)**	**/100**	**Dry Density**	**Opt. DD (kg/m^3)**	**Opt. MC (%)**
EMRS21_PR_P28_L2_S476_210911	9/11/2021	9/13/2021					1622	22.7
			1	20.3	0.2	1546		
			2	22	0.22	1615		
			3	26.1	0.26	1533		
			4	28.9	0.29	1471		
			5	25	0.25	1545		

Atterberg

Sample ID	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
EMRS21_AT_P28_L1_S470_210906	48	17	31
EMRS21_AT_P28_L2_S476_210911	50	20	30

Hydrometer

Sample ID: EMRS21_HY_P28_L1_S470_210906

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	2.8	2.8	2.4	4.7	12.8	19.9	25.6	51.7	77.3

Sample ID:

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total

Hydraulic Conductivity

Date:	Q (mL/s)	K (cm/s)	% change		
9/28/2021 9:20					
9/29/2021 8:50	-2.48E-04	8.70E-08		**Mean**	**1.68E-08**
9/30/2021 8:15	-1.49E-04	5.22E-08	3%		
10/1/2021 8:00	-5.56E-05	1.95E-08	6%		
10/2/2021 7:30	-2.55E-06	8.97E-10	15%		

Appendix C

Tulloch Daily Placement Maps

EMRS RECLAMATION

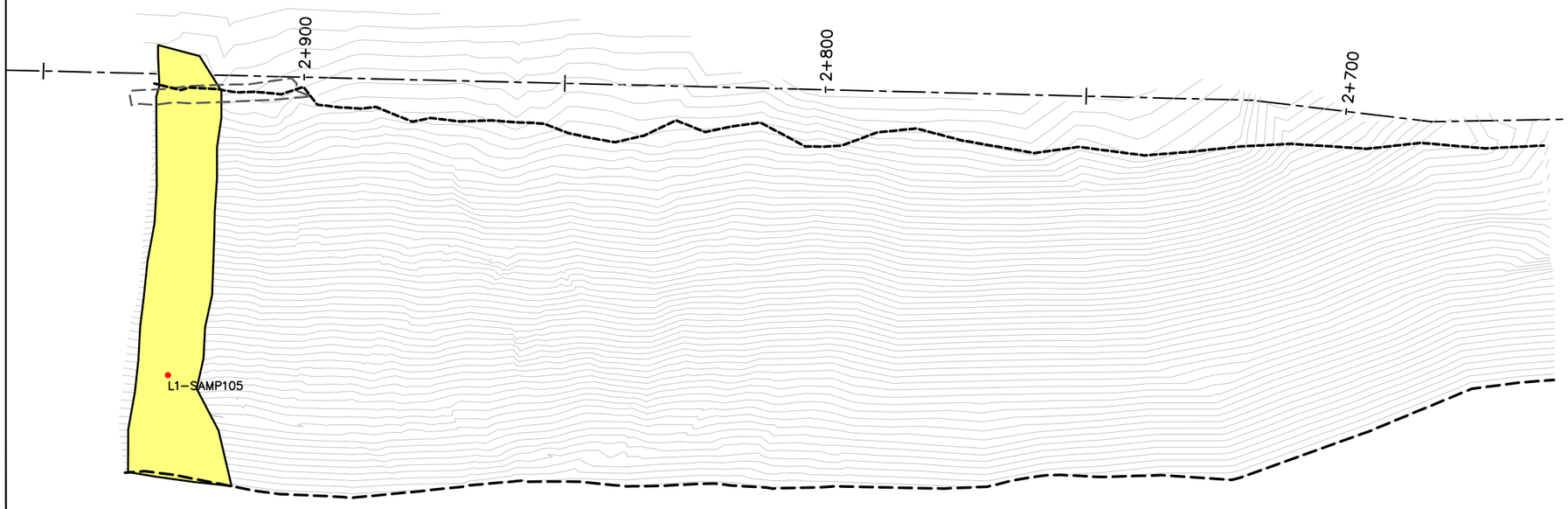
KEY TRENCH EXCAVATION
EXCAVATED MAY 15, 2021 = 0m^3
EXCAVATED TO DATE = 125m^3

CCL LIFT 1
PLACED MAY 15, 2021 = 370m^3
PLACED TO DATE = 370m^3

CCL LIFT 2
PLACED MAY 15, 2021 = 0m^3
PLACED TO DATE = 0m^3

NCL LIFT 3
PLACED MAY 15, 2021 = 0m^3
PLACED TO DATE = 0m^3

NCL LIFT 4
PLACED MAY 15, 2021 = 0m^3
PLACED TO DATE = 0m^3



EMRS RECLAMATION – DAILY PROGRESS

(MAY 15, 2021) SCALE: 1:1000

SHEET SIZE - 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

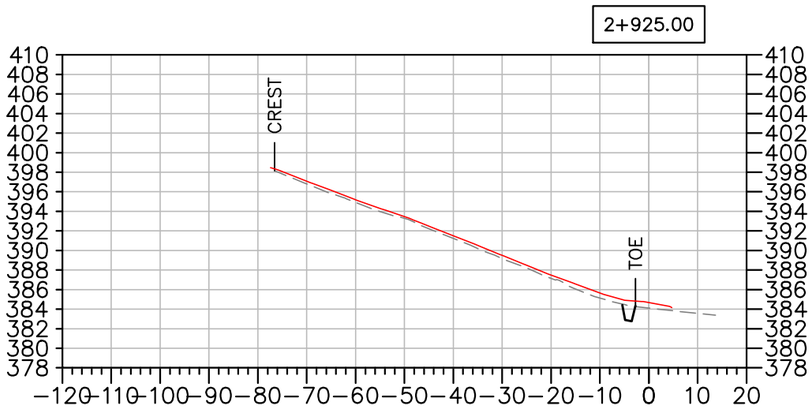
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

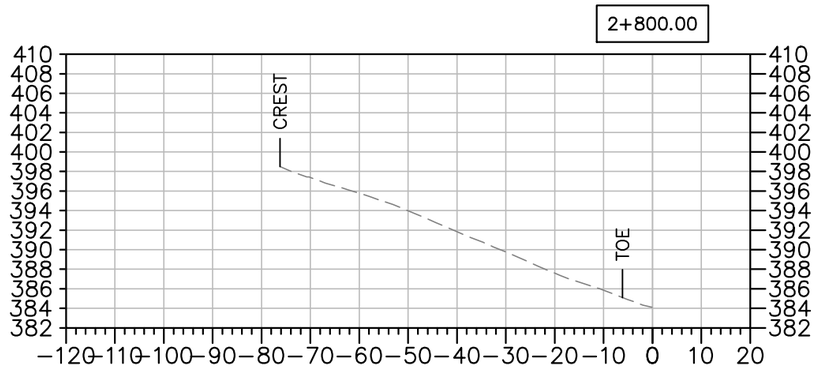
DRAWING TITLE
EMRS RECLAMATION

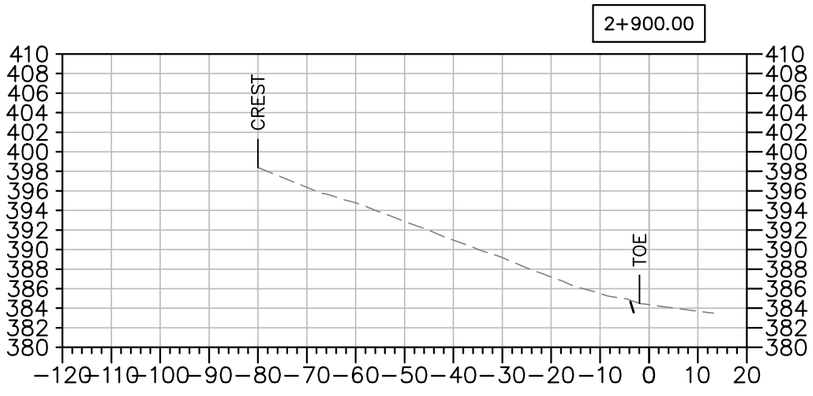
PURPOSE
DAILY PROGRESS

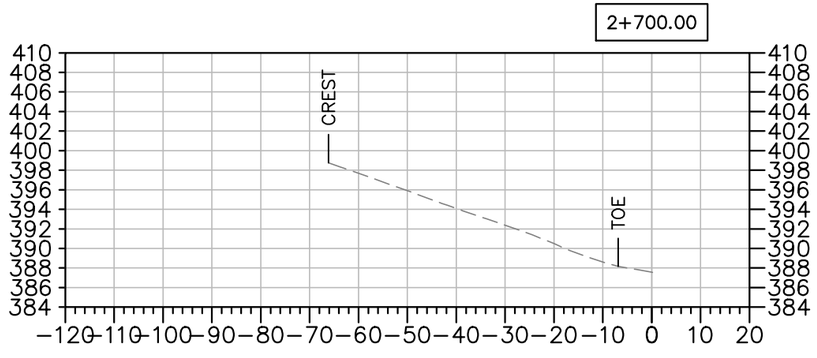
DATE	MAY 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115









EMRS RECLAMATION – DAILY PROGRESS

(MAY 15, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X−1	19−1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

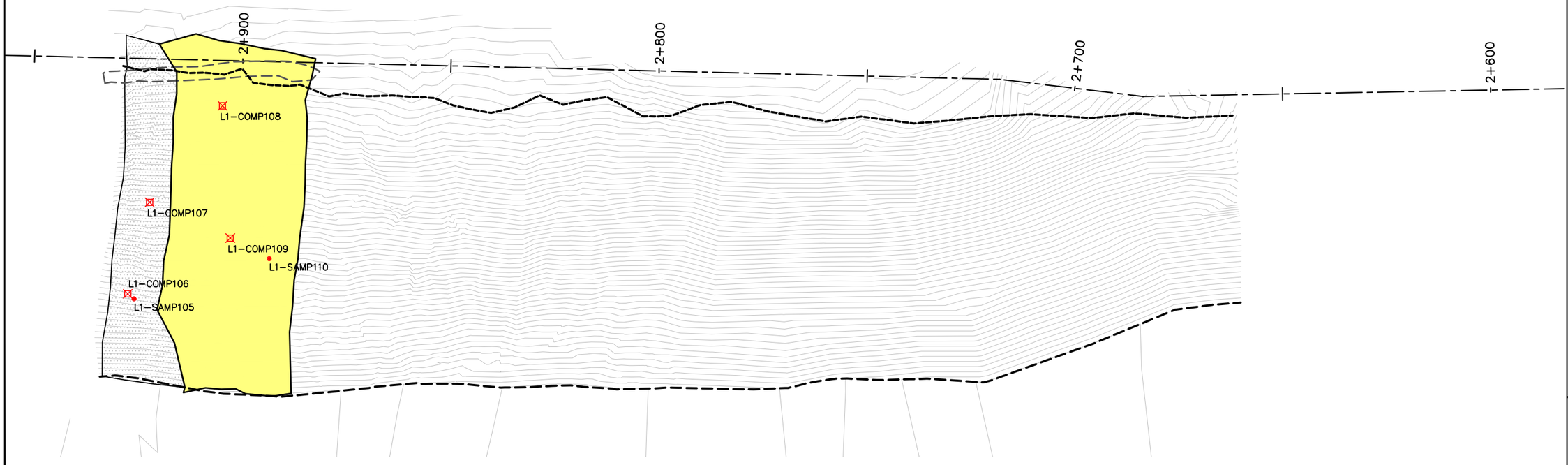
KEY TRENCH EXCAVATION
EXCAVATED MAY 16, 2021 = 75m^3
EXCAVATED TO DATE = 200m^3

CCL LIFT 1
PLACED MAY 16, 2021 = 839m^3
PLACED TO DATE = 1209m^3

CCL LIFT 2
PLACED MAY 16, 2021 = 0m^3
PLACED TO DATE = 0m^3

NCL LIFT 3
PLACED MAY 16, 2021 = 0m^3
PLACED TO DATE = 0m^3

NCL LIFT 4
PLACED MAY 16, 2021 = 0m^3
PLACED TO DATE = 0m^3



EMRS RECLAMATION – DAILY PROGRESS

(MAY 16, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

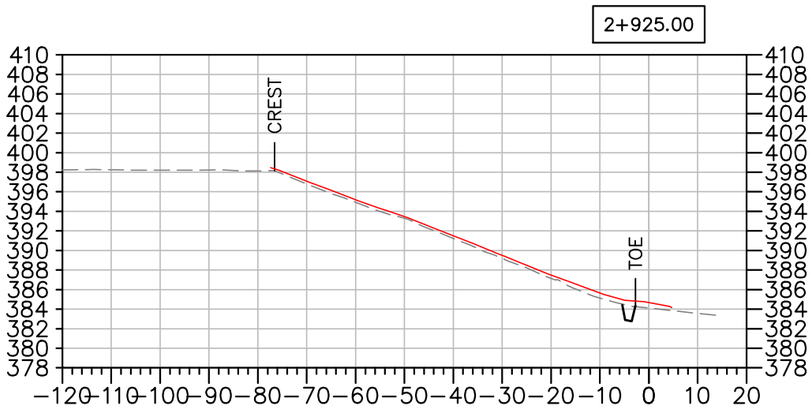
DRAWING TITLE
EMRS RECLAMATION

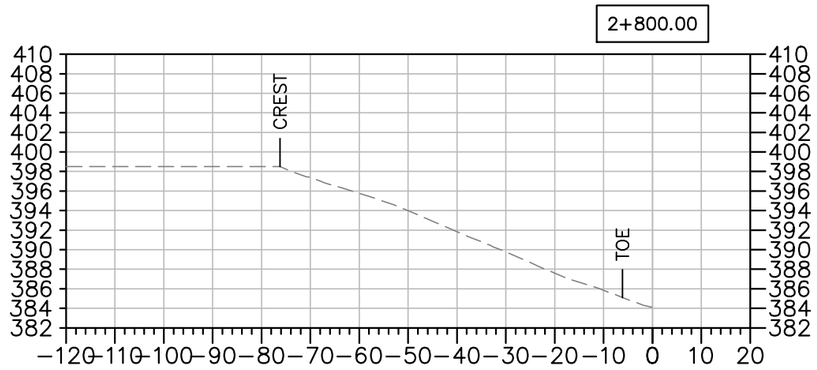
PURPOSE
DAILY PROGRESS

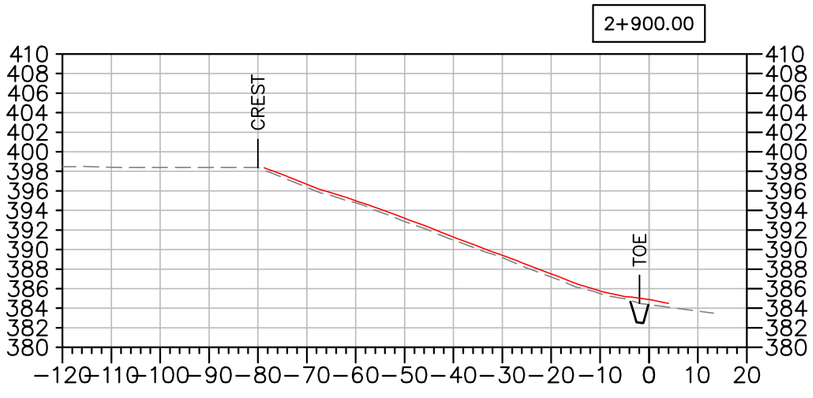
DATE	MAY 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

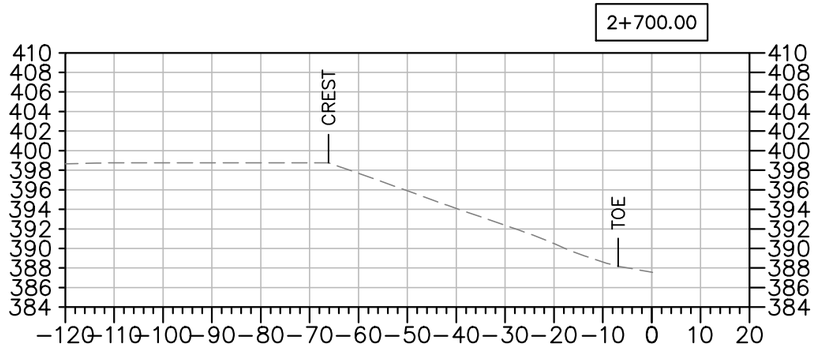
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 16, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

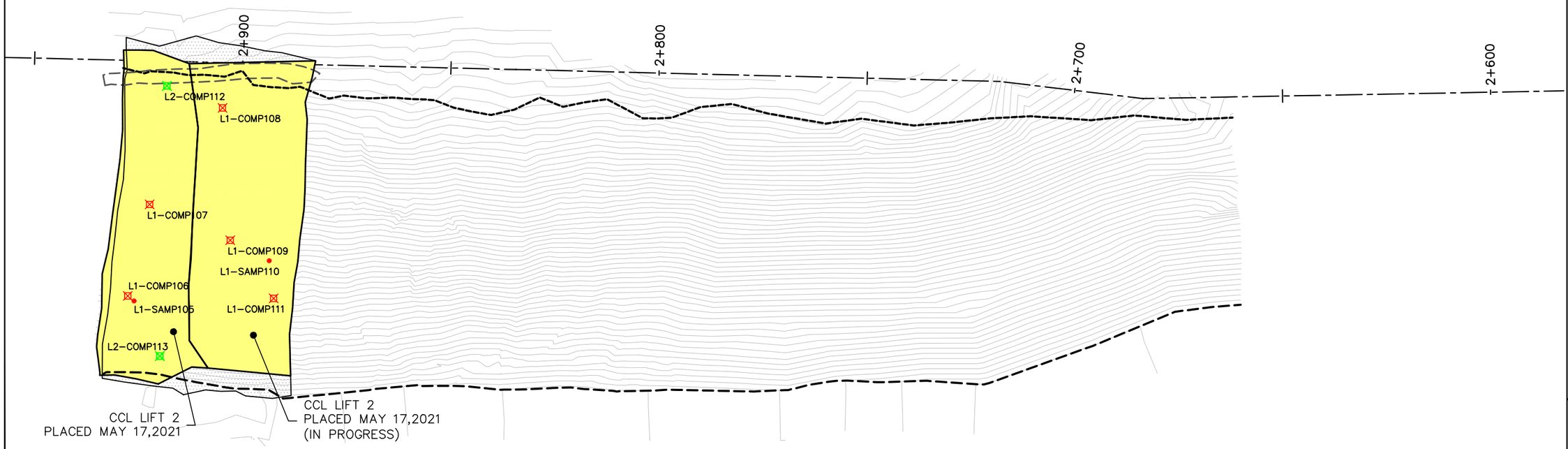
KEY TRENCH EXCAVATION
EXCAVATED MAY 17, 2021 = 0m^3
EXCAVATED TO DATE = 200m^3

CCL LIFT 1
PLACED MAY 17, 2021 = 0m^3
PLACED TO DATE = 1209m^3

CCL LIFT 2
PLACED MAY 17, 2021 = 421m^3
PLACED TO DATE = 421m^3

NCL LIFT 3
PLACED MAY 17, 2021 = 0m^3
PLACED TO DATE = 0m^3

NCL LIFT 4
PLACED MAY 17, 2021 = 0m^3
PLACED TO DATE = 0m^3



EMRS RECLAMATION – DAILY PROGRESS

(MAY 17, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

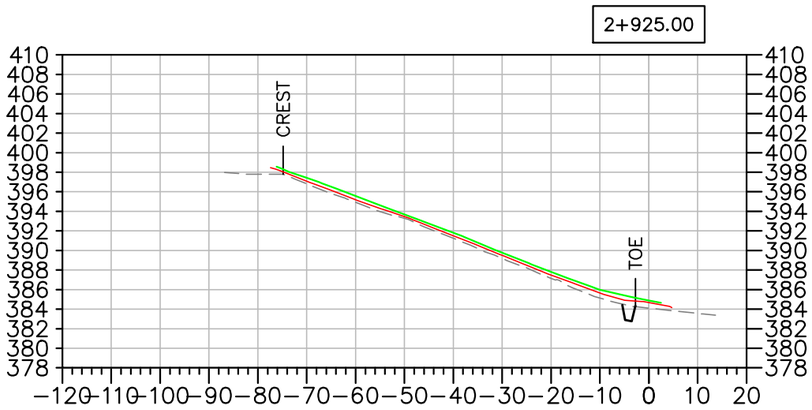
DRAWING TITLE
EMRS RECLAMATION

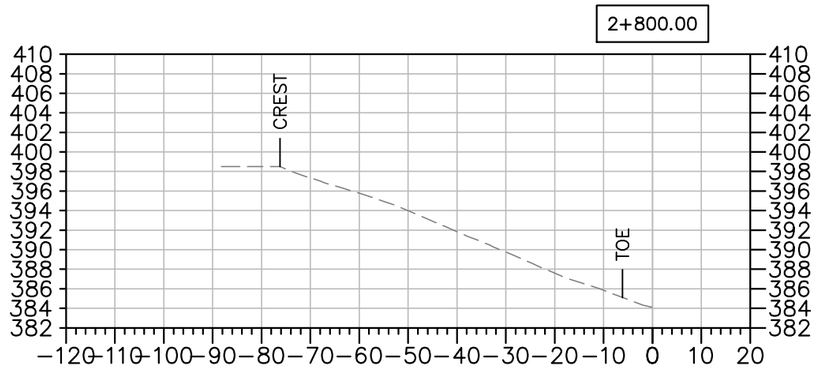
PURPOSE
DAILY PROGRESS

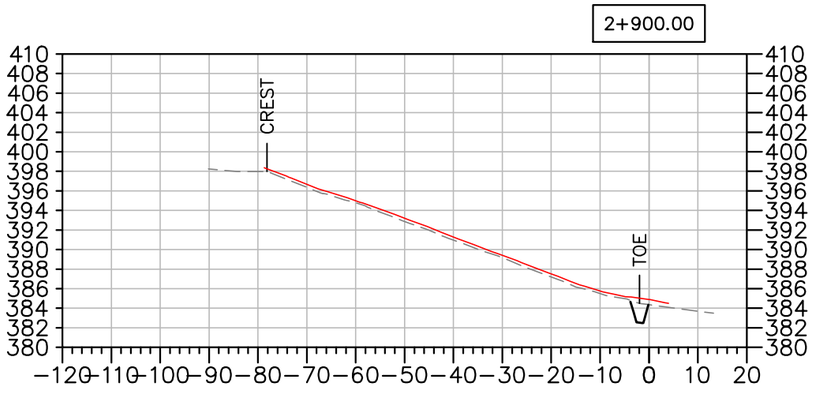
DATE	MAY 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

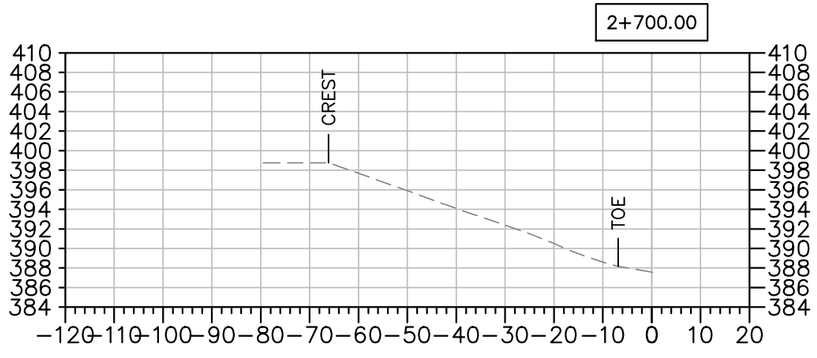
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 17, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 18, 2021 = 0m^3
EXCAVATED TO DATE = 200m^3

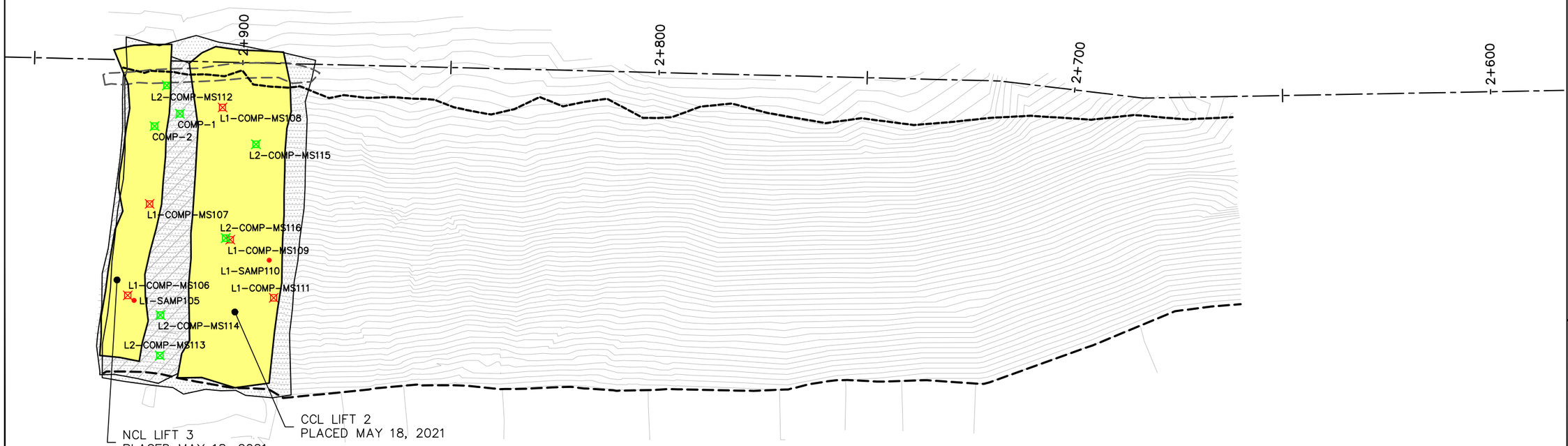
CCL LIFT 1
PLACED MAY 18, 2021 = 0m^3
PLACED TO DATE = 1209m^3

CCL LIFT 2
PLACED MAY 18, 2021 = 487m^3
PLACED TO DATE = 908m^3

NCL LIFT 3
PLACED MAY 18, 2021 = 320m^3
PLACED TO DATE = 320m^3

NCL LIFT 4
PLACED MAY 18, 2021 = 0m^3
PLACED TO DATE = 0m^3

AREA COMPLETED
COMPLETED TO DATE = 0 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 18, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

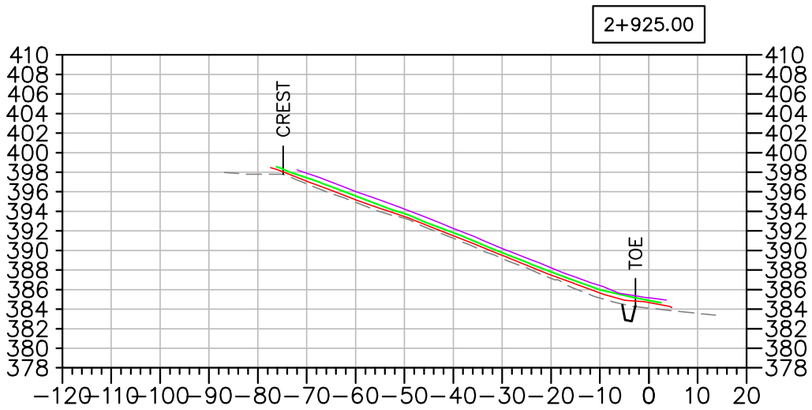
DRAWING TITLE
EMRS RECLAMATION

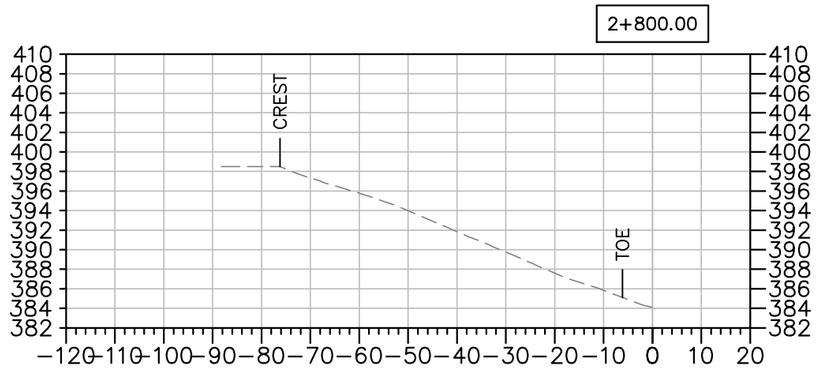
PURPOSE
DAILY PROGRESS

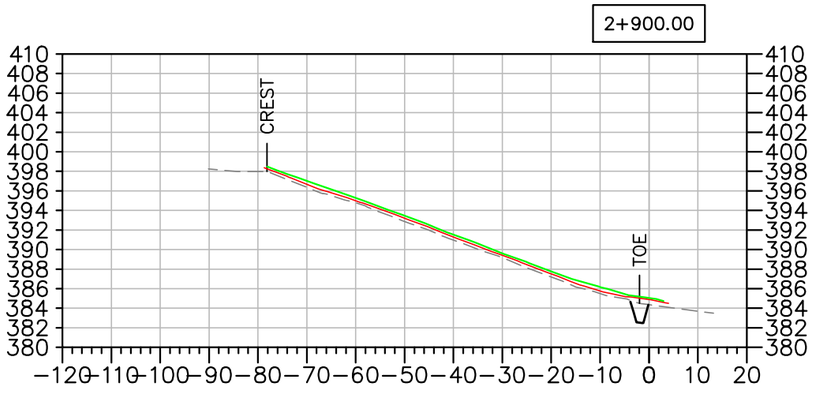
DATE	MAY 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

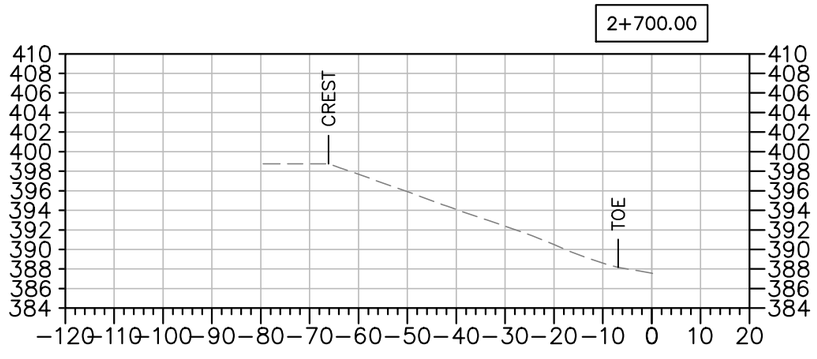
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 18, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 19, 2021 = 0m^3
EXCAVATED TO DATE = 200m^3

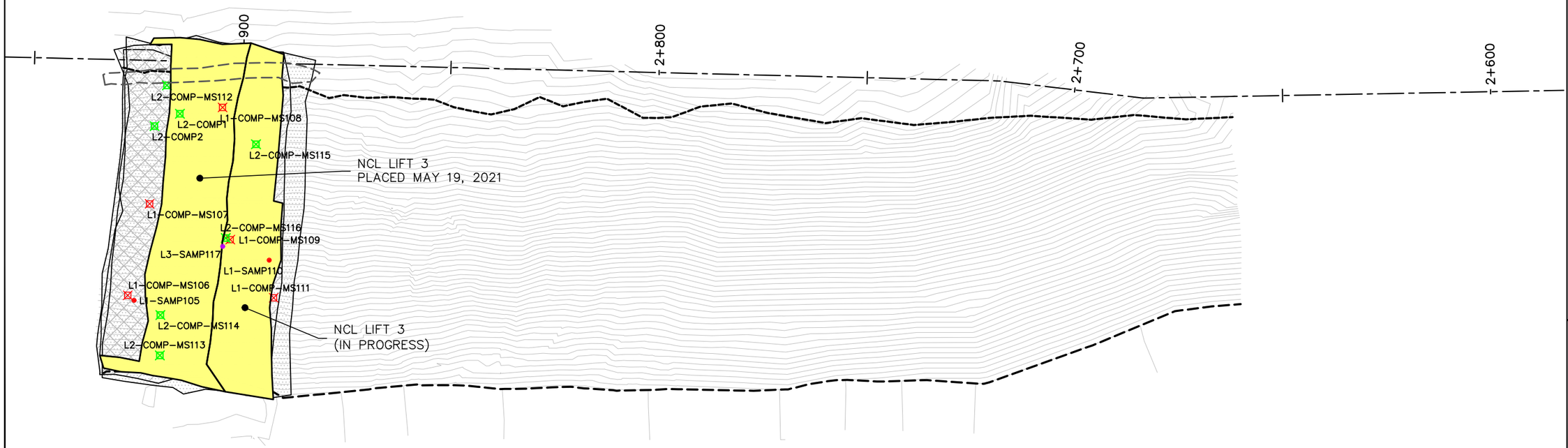
CCL LIFT 1
PLACED MAY 19, 2021 = 0m^3
PLACED TO DATE = 1209m^3

CCL LIFT 2
PLACED MAY 19, 2021 = 0m^3
PLACED TO DATE = 908m^3

NCL LIFT 3
PLACED MAY 19, 2021 = 586m^3
PLACED TO DATE = 905m^3

NCL LIFT 4
PLACED MAY 19, 2021 = 0m^3
PLACED TO DATE = 0m^3

AREA COMPLETED
COMPLETED TO DATE = 0 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 19, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

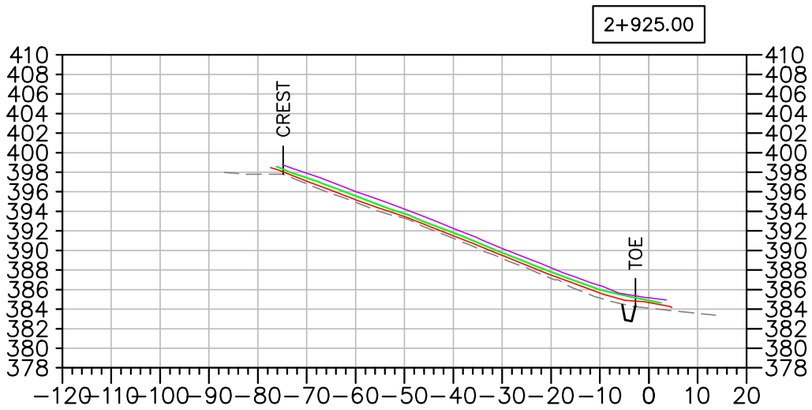
DRAWING TITLE
EMRS RECLAMATION

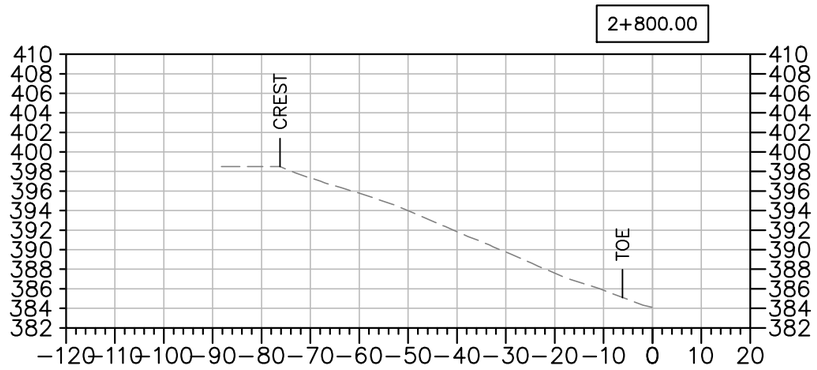
PURPOSE
DAILY PROGRESS

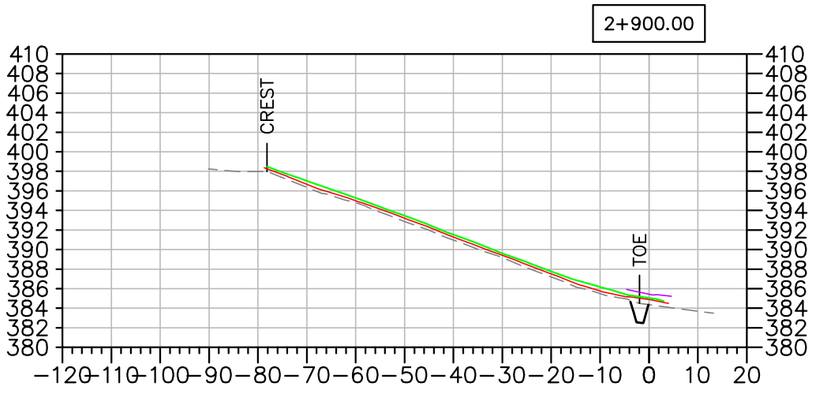
DATE	MAY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

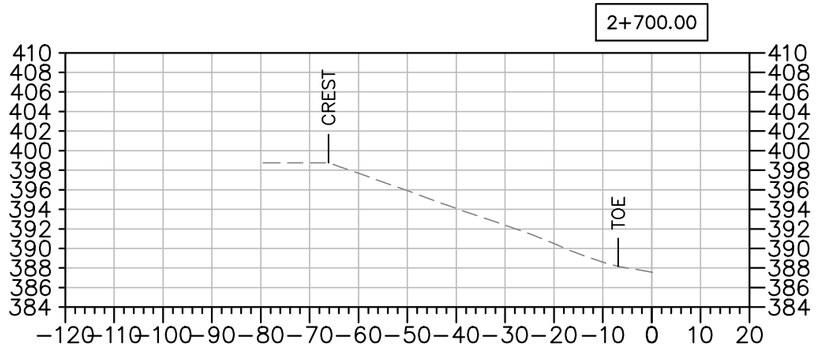
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 19, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

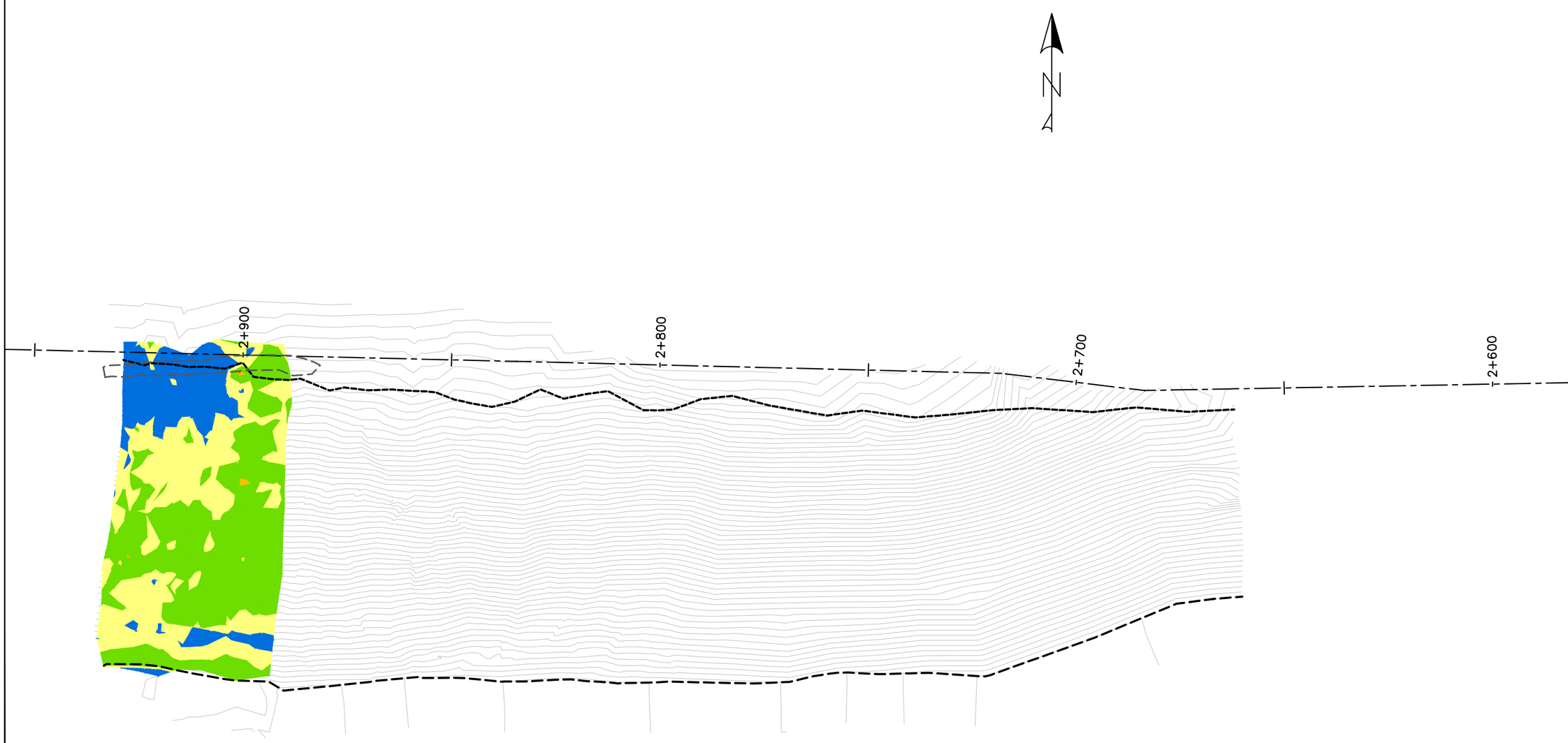
DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION – CCL HEAT MAP

(MAY 19, 2021) SCALE: N.T.S.

SHEET SIZE - 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
CCL
HEAT MAP

DATE	MAY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

EMRS RECLAMATION

KEY TRENCH EXCAVATION
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EXCAVATED TO DATE = 200m^3

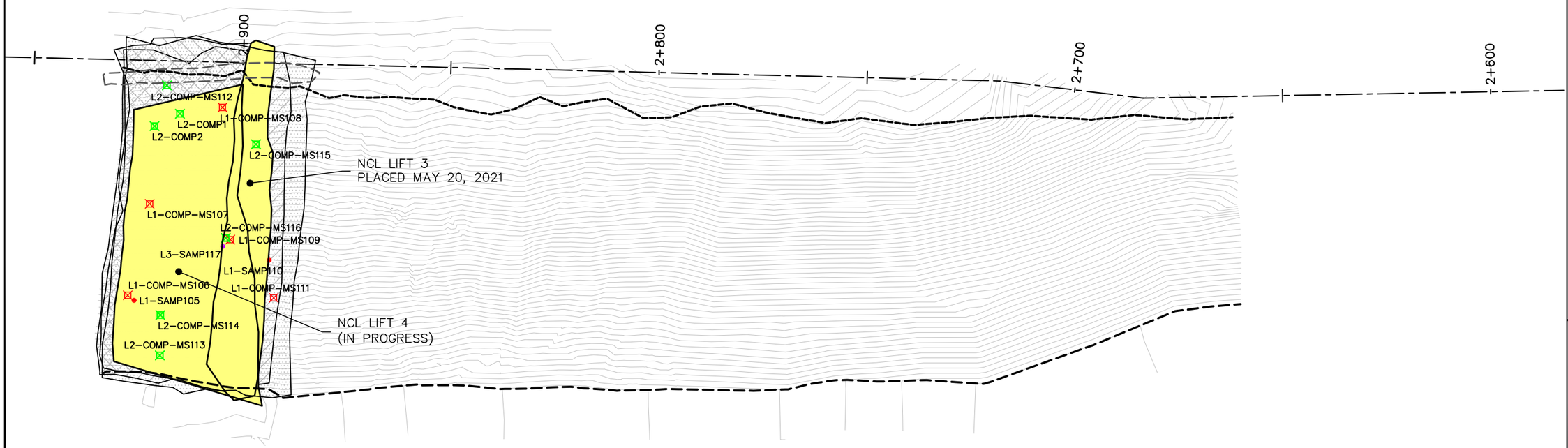
CCL LIFT 1
PLACED MAY 20, 2021 = 0m^3
PLACED TO DATE = 1,209m^3

CCL LIFT 2
PLACED MAY 20, 2021 = 0m^3
PLACED TO DATE = 908m^3

NCL LIFT 3
PLACED MAY 20, 2021 = 397m^3
PLACED TO DATE = 1,302m^3

NCL LIFT 4
PLACED MAY 20, 2021 = 0m^3
PLACED TO DATE = 0m^3

AREA COMPLETED
COMPLETED TO DATE = 0 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 20, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

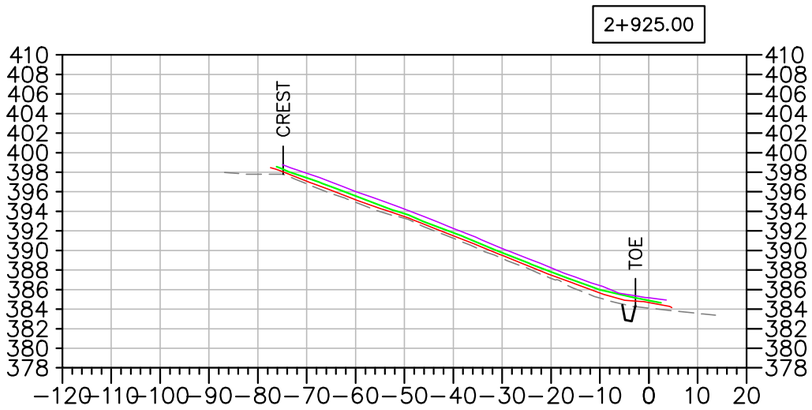
DRAWING TITLE
EMRS RECLAMATION

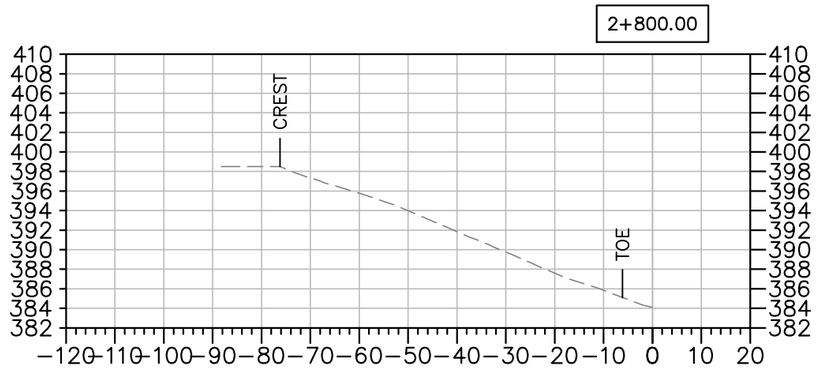
PURPOSE
DAILY PROGRESS

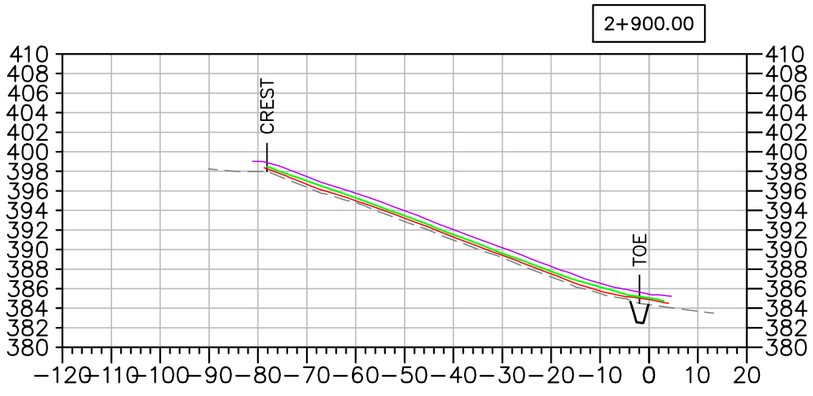
DATE	MAY 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

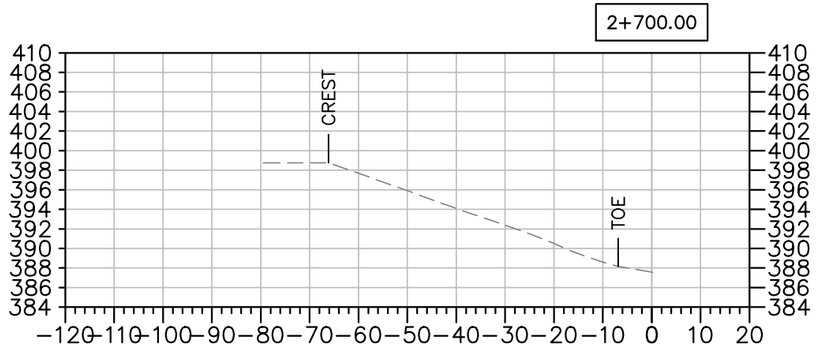
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 20, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

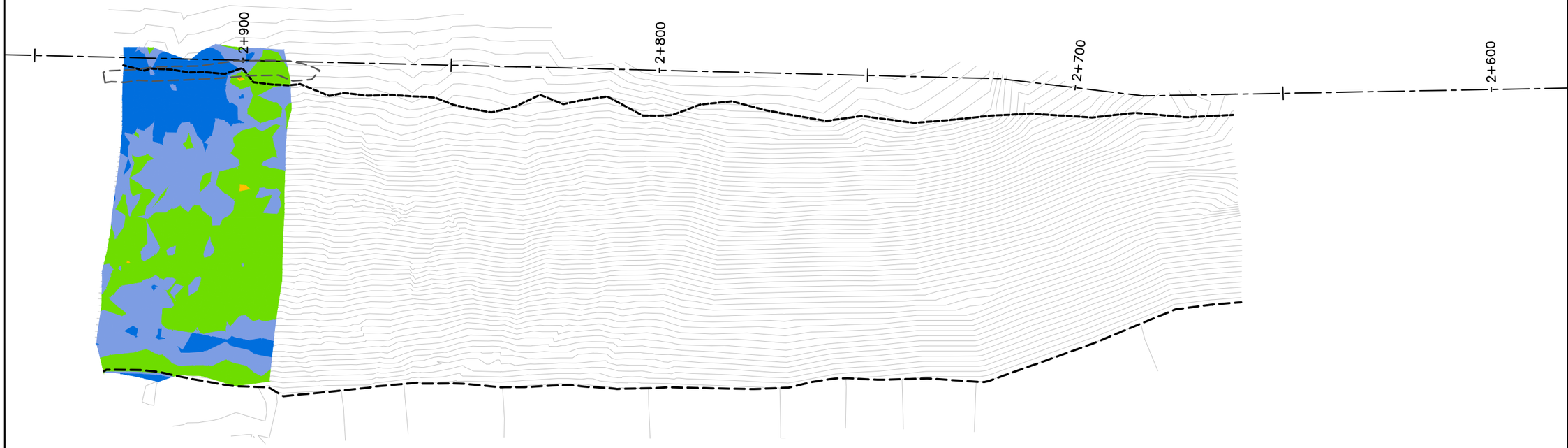
DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION – CCL HEAT MAP

(MAY 20, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
CCL
HEAT MAP

DATE	MAY 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H–1	19–1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 21, 2021 = 0m^3
EXCAVATED TO DATE = 200m^3

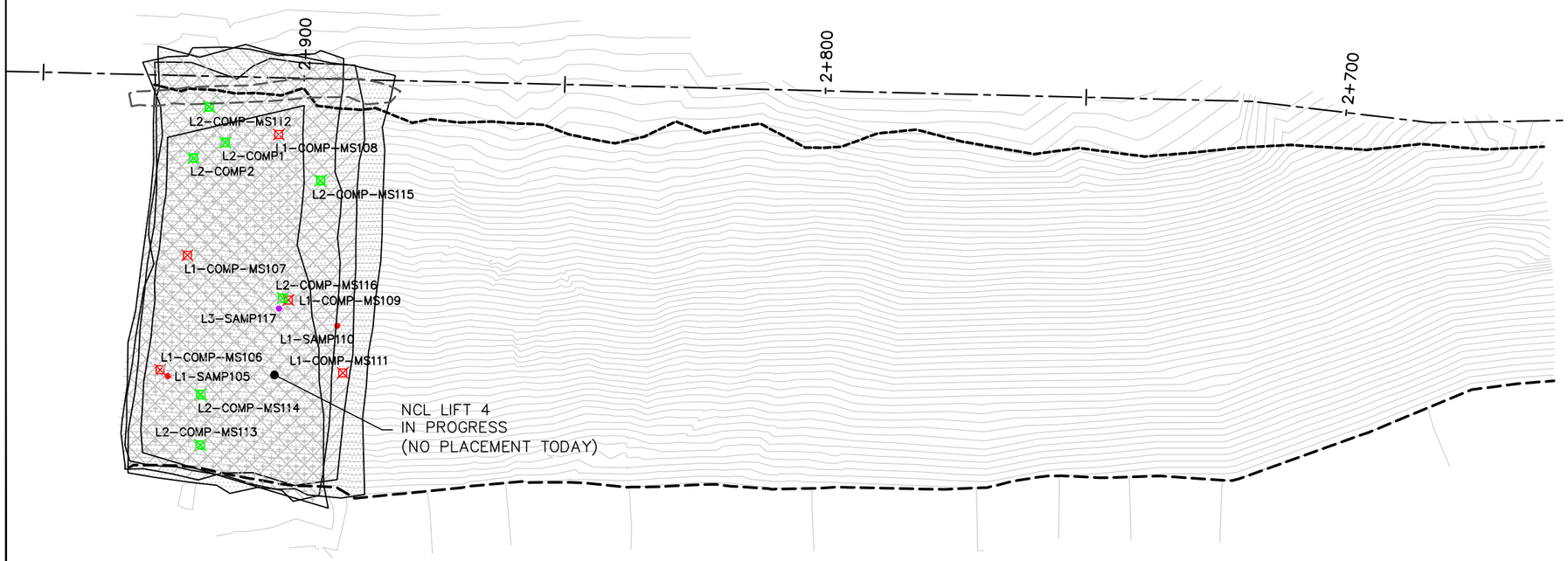
CCL LIFT 1
PLACED MAY 21, 2021 = 0m^3
PLACED TO DATE = 1,209m^3

CCL LIFT 2
PLACED MAY 21, 2021 = 0m^3
PLACED TO DATE = 908m^3

NCL LIFT 3
PLACED MAY 21, 2021 = 0m^3
PLACED TO DATE = 1,302m^3

NCL LIFT 4
PLACED MAY 21, 2021 = 0m^3
PLACED TO DATE = 0m^3

AREA COMPLETED
COMPLETED TO DATE = 0 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 21, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

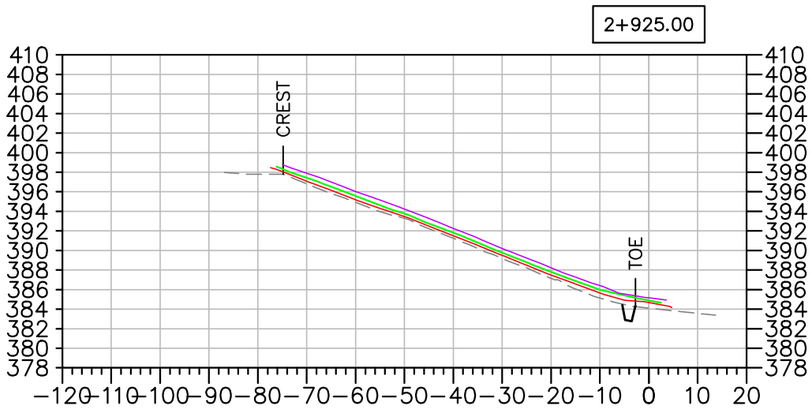
DRAWING TITLE
EMRS RECLAMATION

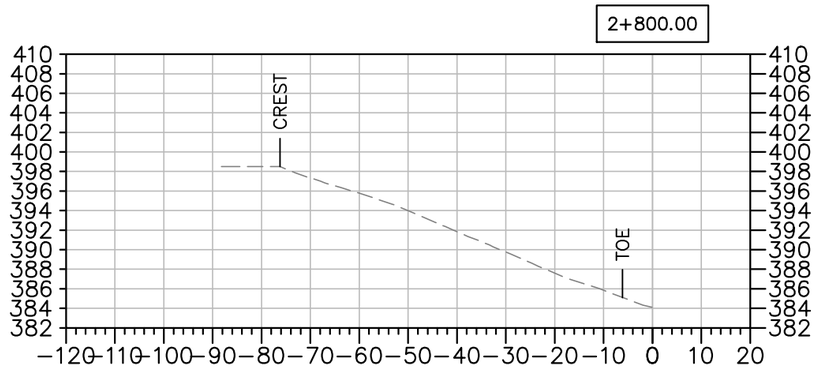
PURPOSE
DAILY PROGRESS

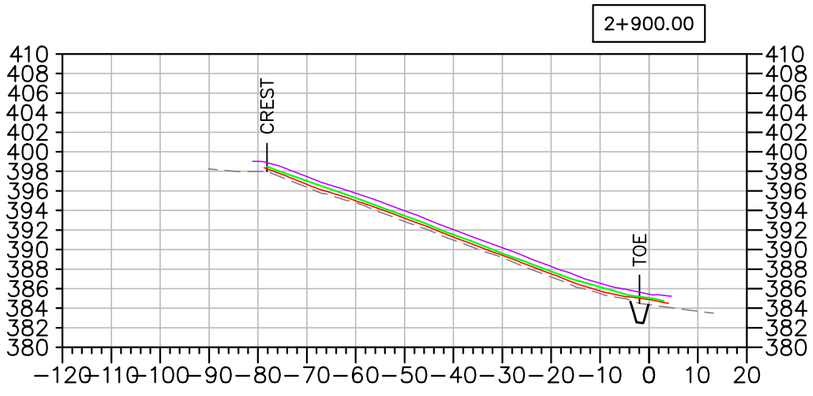
DATE	MAY 21, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

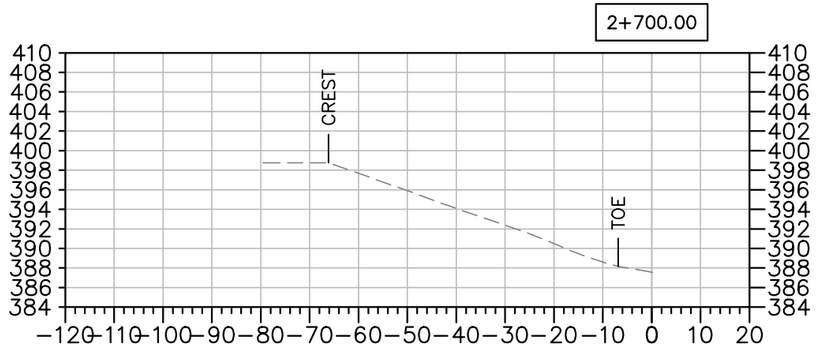
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 21, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 21, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 22, 2021 = 51m^3
EXCAVATED TO DATE = 251m^3

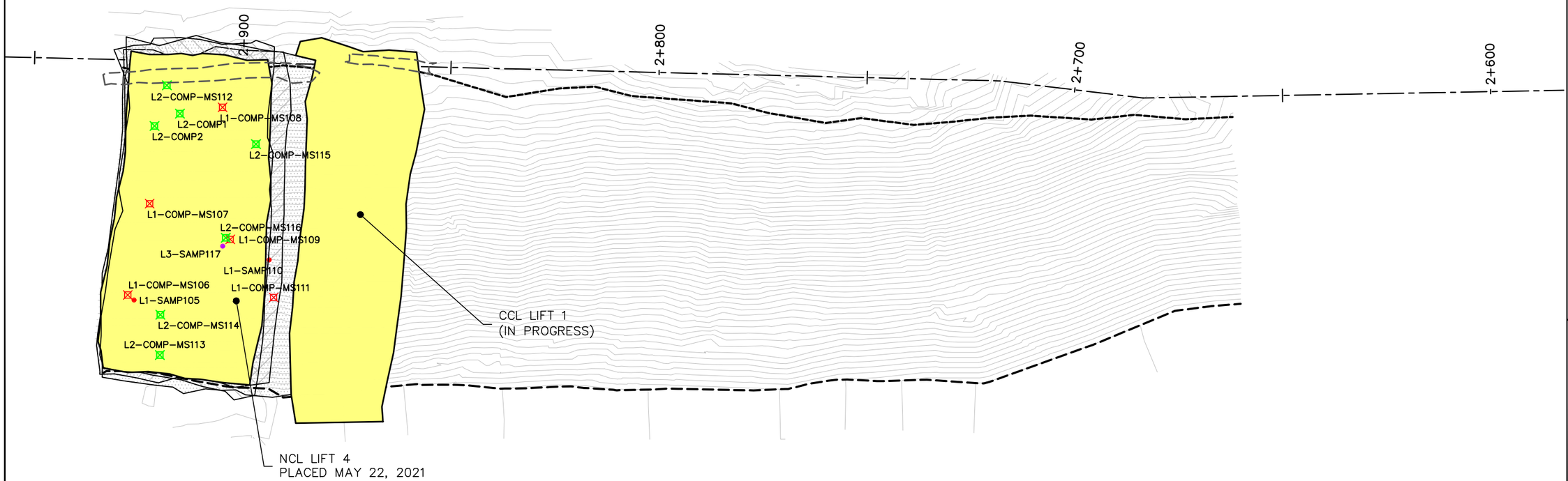
CCL LIFT 1
PLACED MAY 22, 2021 = 0m^3
PLACED TO DATE = 1,209m^3

CCL LIFT 2
PLACED MAY 22, 2021 = 0m^3
PLACED TO DATE = 908m^3

NCL LIFT 3
PLACED MAY 22, 2021 = 0m^3
PLACED TO DATE = 1,302m^3

NCL LIFT 4
PLACED MAY 22, 2021 = 1,305m^3
PLACED TO DATE = 1,305m^3

AREA COMPLETED
COMPLETED TO DATE = 0.281 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 22, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- WIRE
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

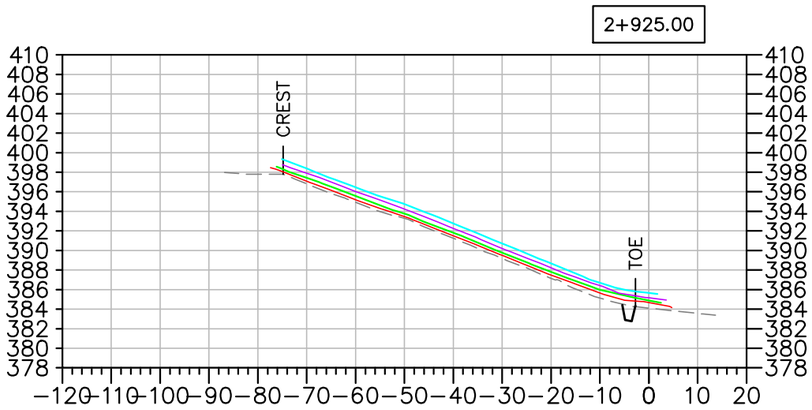
DRAWING TITLE
EMRS RECLAMATION

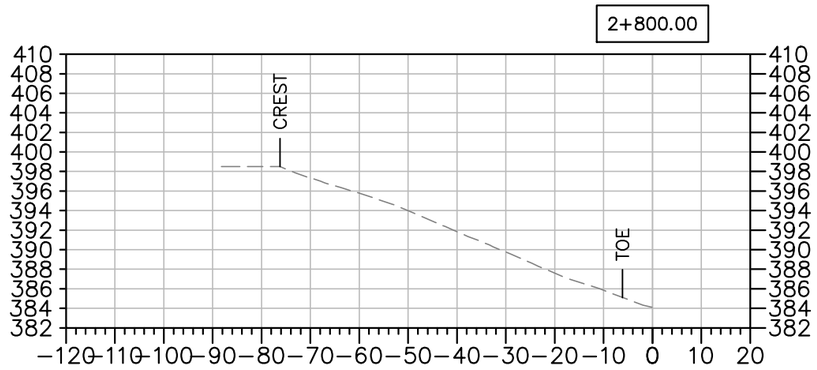
PURPOSE
DAILY PROGRESS

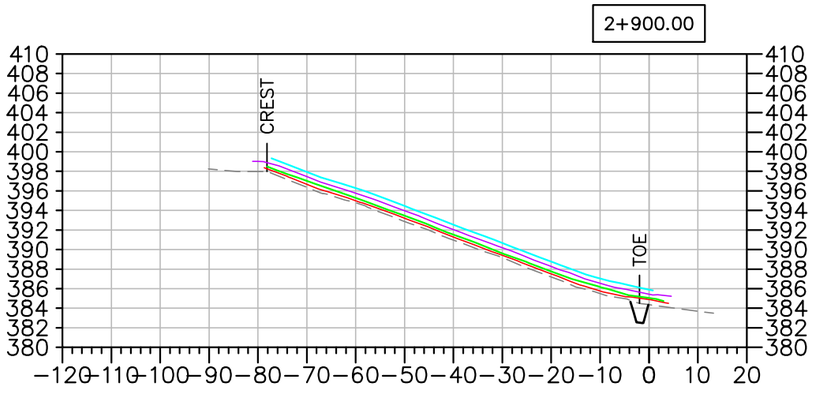
DATE	MAY 22, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

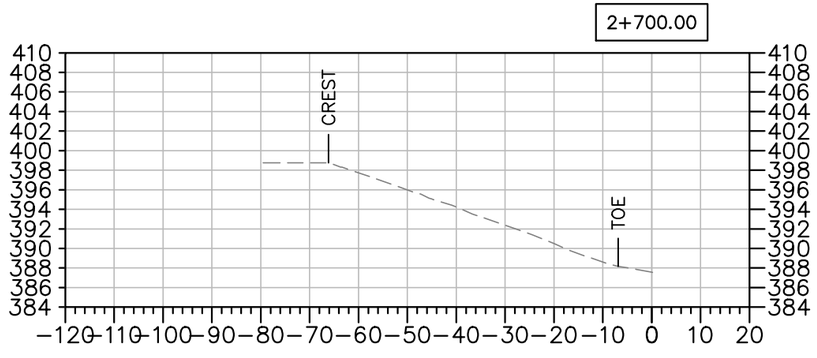
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 22, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

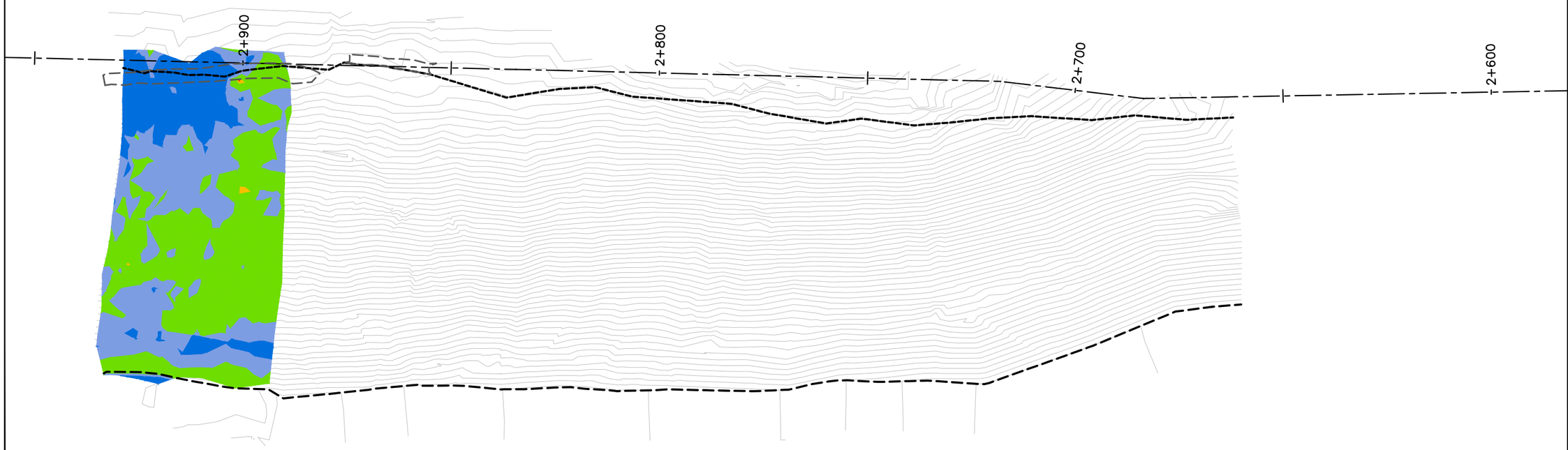
PURPOSE
DAILY PROGRESS

DATE	MAY 22, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 22, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

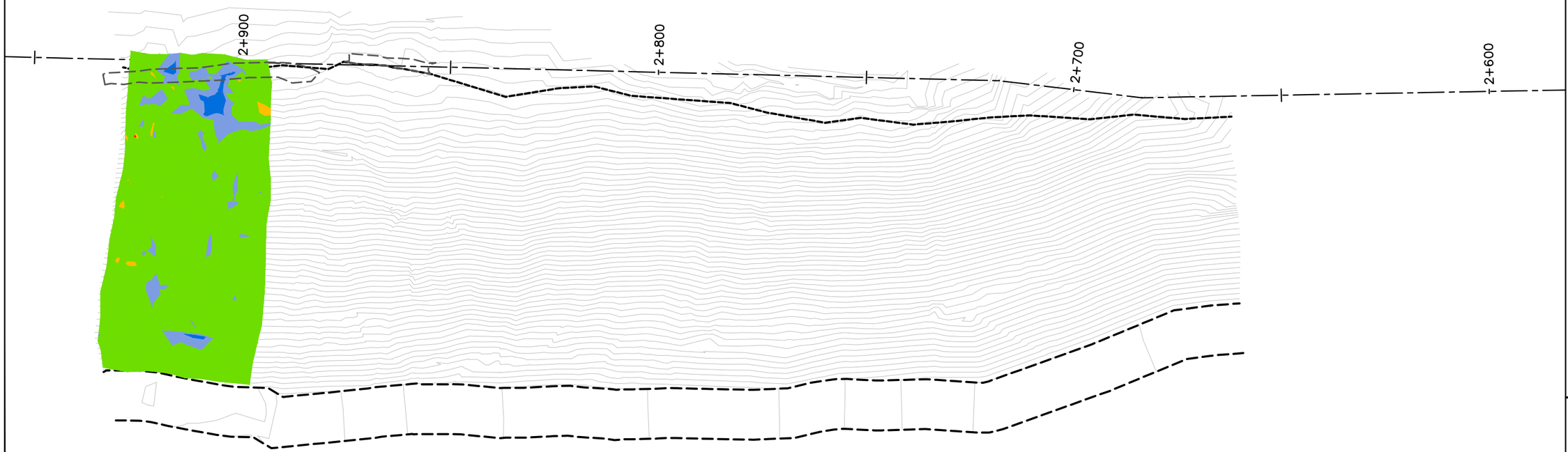
PURPOSE
CCL
HEAT MAP

DATE	MAY 22, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H–1	19–1138	115

SHEET SIZE – 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 22, 2021) SCALE: N.T.S.

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 1.40m	
1.40m to 1.45m	
1.45m to 1.60m	
1.60m to 1.70m	
> 1.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 22, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H–2	19–1138	115

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 23, 2021 = 0m^3
EXCAVATED TO DATE = 251m^3

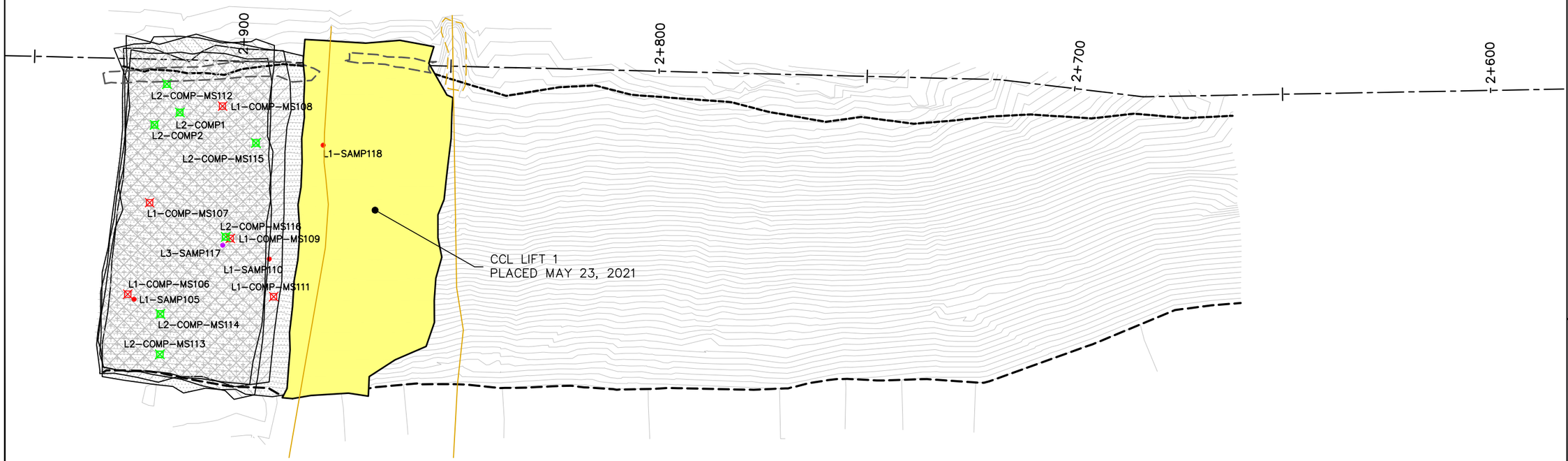
CCL LIFT 1
PLACED MAY 23, 2021 = 769m^3
PLACED TO DATE = 1,978m^3

CCL LIFT 2
PLACED MAY 23, 2021 = 0m^3
PLACED TO DATE = 908m^3

NCL LIFT 3
PLACED MAY 23, 2021 = 0m^3
PLACED TO DATE = 1,302m^3

NCL LIFT 4
PLACED MAY 23, 2021 = 0m^3
PLACED TO DATE = 1,305m^3

AREA COMPLETED
COMPLETED TO DATE = 0.281 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 23, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

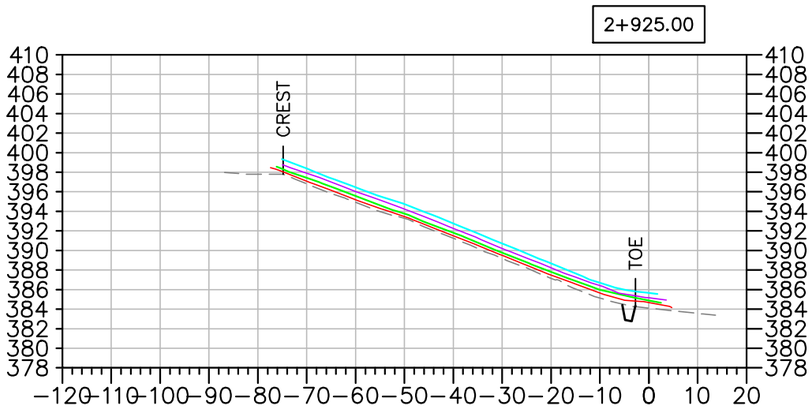
DRAWING TITLE
EMRS RECLAMATION

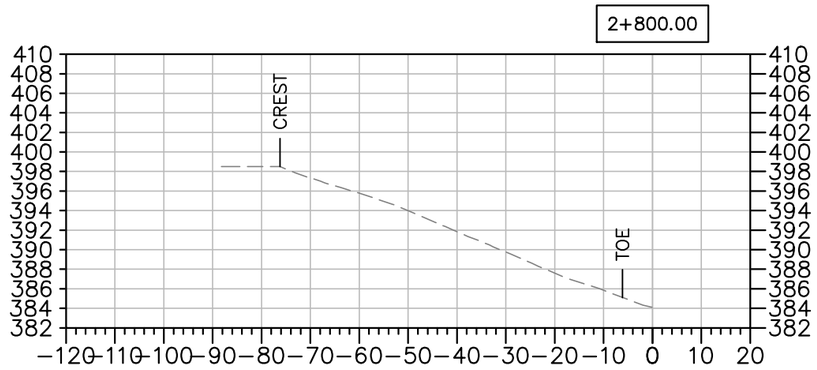
PURPOSE
DAILY PROGRESS

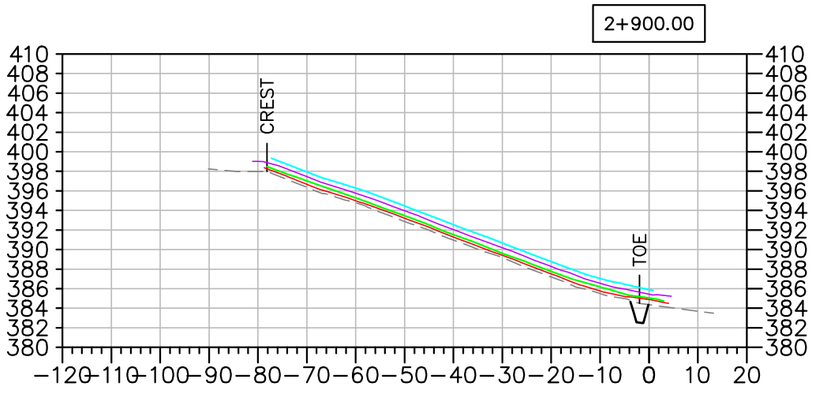
DATE	MAY 23, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

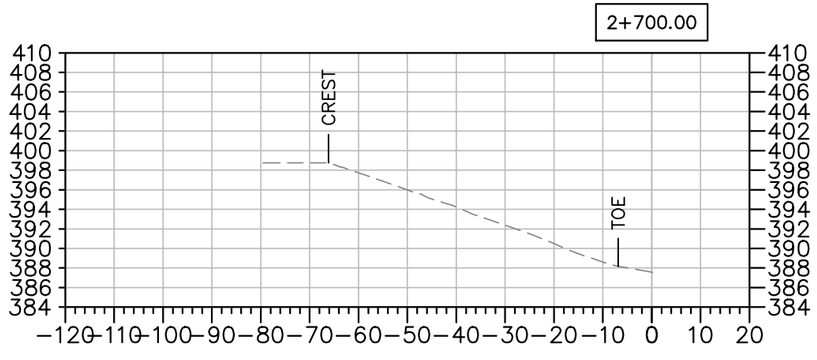
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 23, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

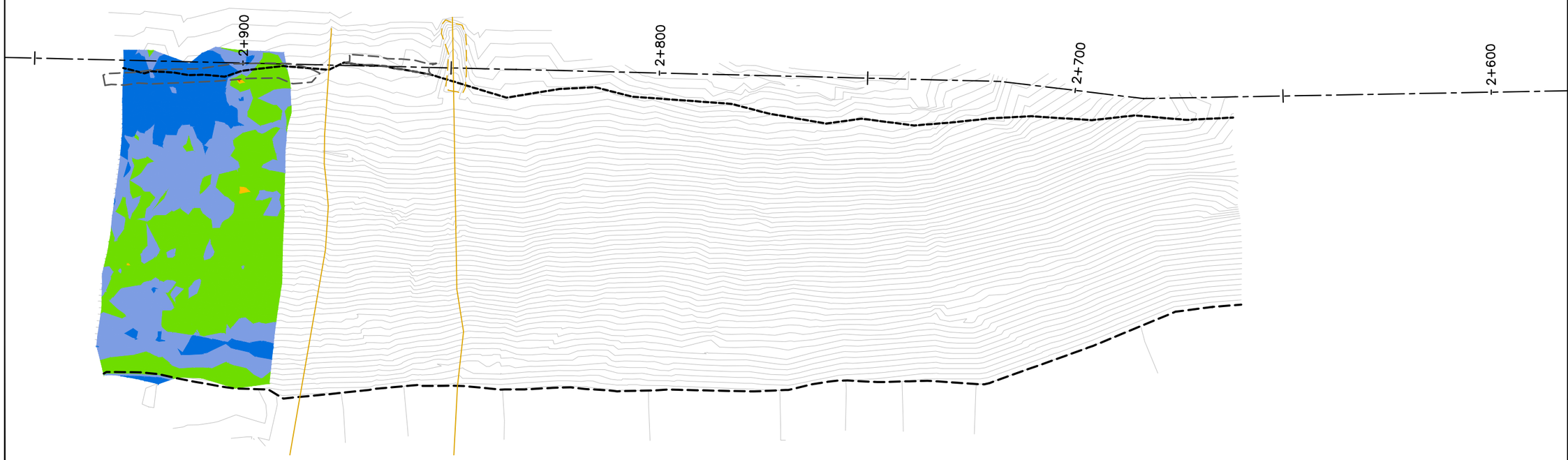
PURPOSE
DAILY PROGRESS

DATE	MAY 23, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 23, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

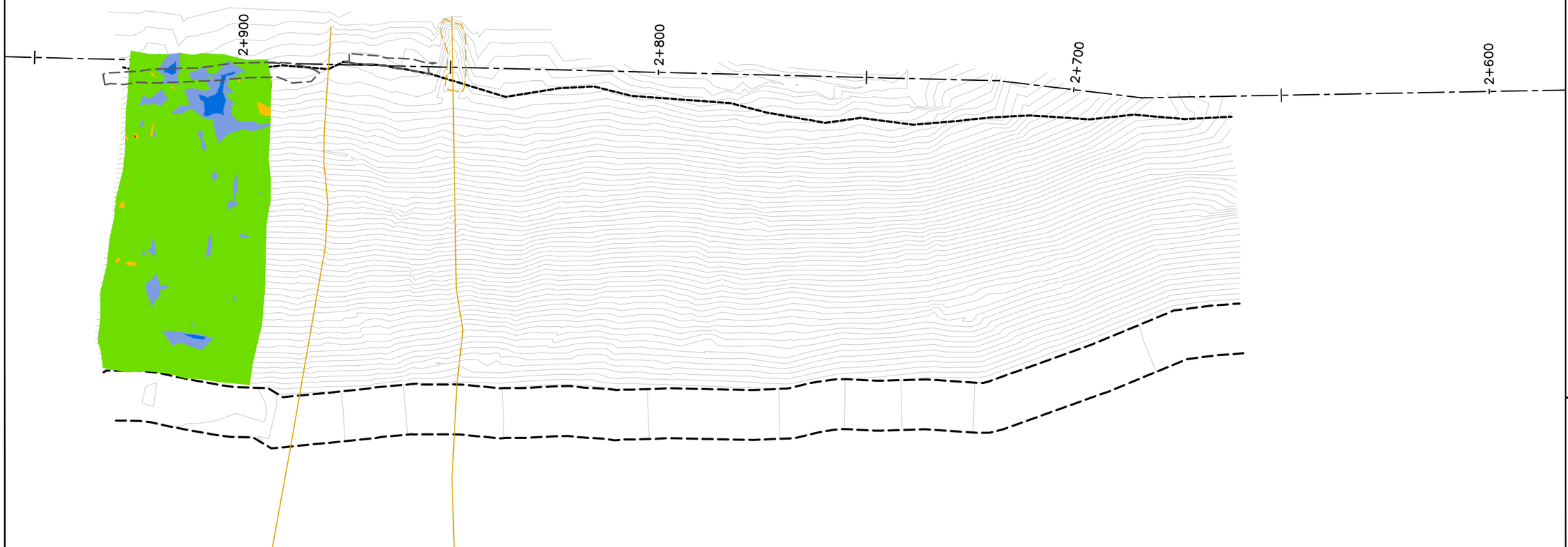
PURPOSE
CCL
HEAT MAP

DATE	MAY 23, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 23, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 1.40m	
1.40m to 1.45m	
1.45m to 1.60m	
1.60m to 1.70m	
> 1.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 23, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-2	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 24, 2021 = 0m^3
EXCAVATED TO DATE = 251m^3

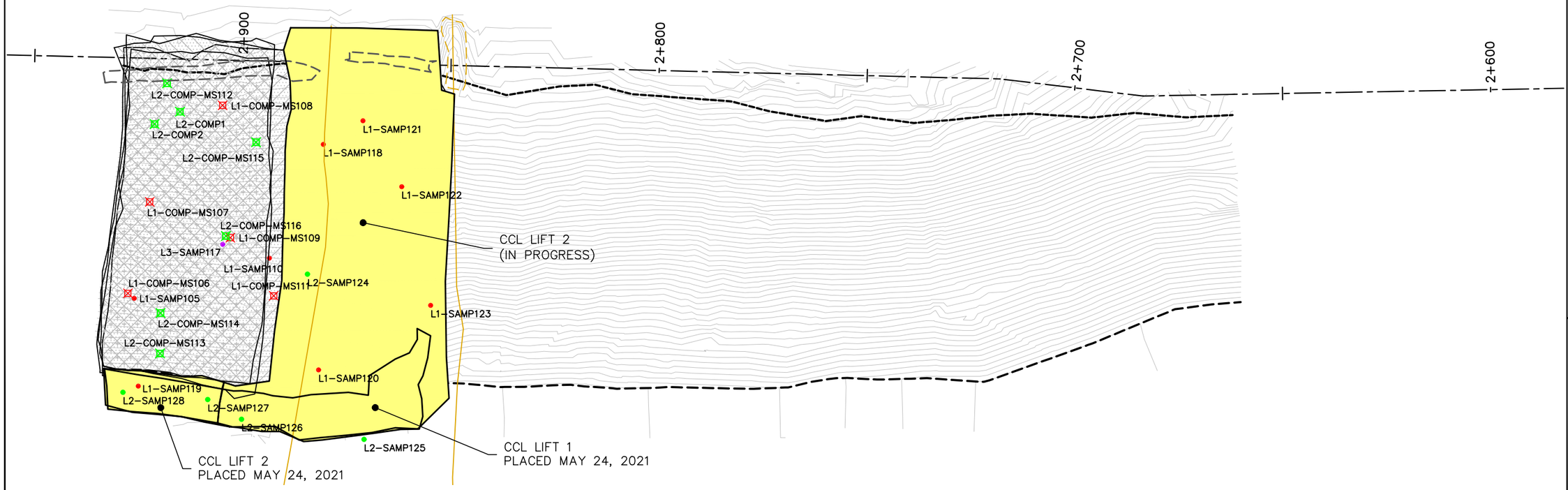
CCL LIFT 1
PLACED MAY 24, 2021 = 179m^3
PLACED TO DATE = 2,157m^3

CCL LIFT 2
PLACED MAY 24, 2021 = 66m^3
PLACED TO DATE = 974m^3

NCL LIFT 3
PLACED MAY 24, 2021 = 0m^3
PLACED TO DATE = 1,302m^3

NCL LIFT 4
PLACED MAY 24, 2021 = 0m^3
PLACED TO DATE = 1,305m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.349 ha
NCL COMPLETED TO DATE = 0.281 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 24, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

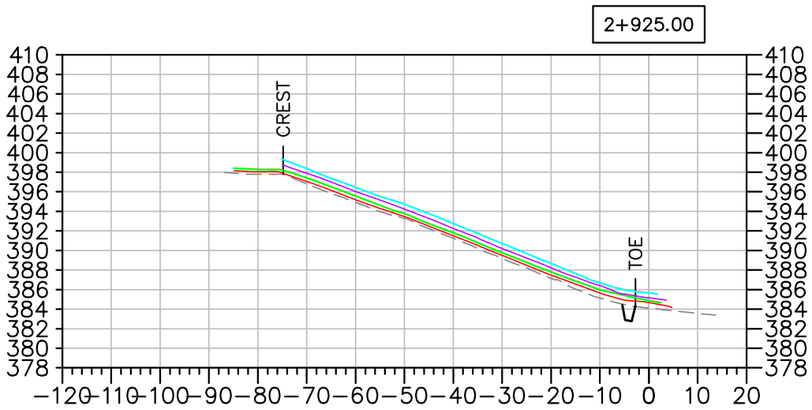
DRAWING TITLE
EMRS RECLAMATION

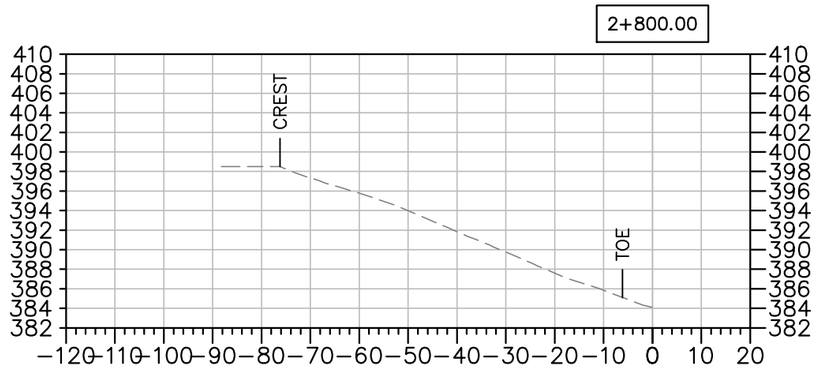
PURPOSE
DAILY PROGRESS

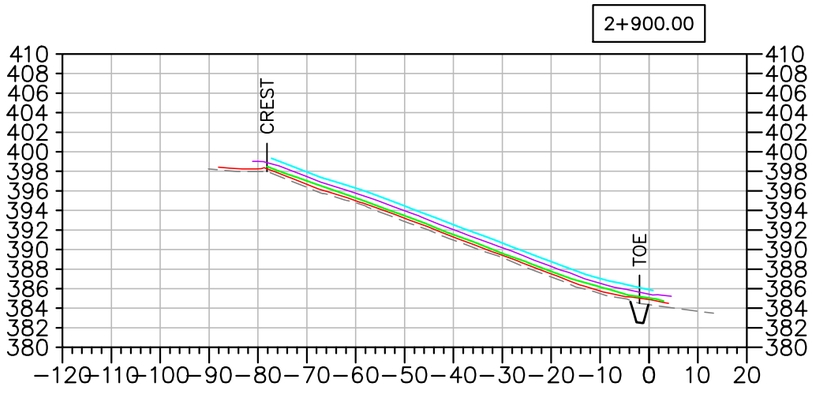
DATE	MAY 24, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

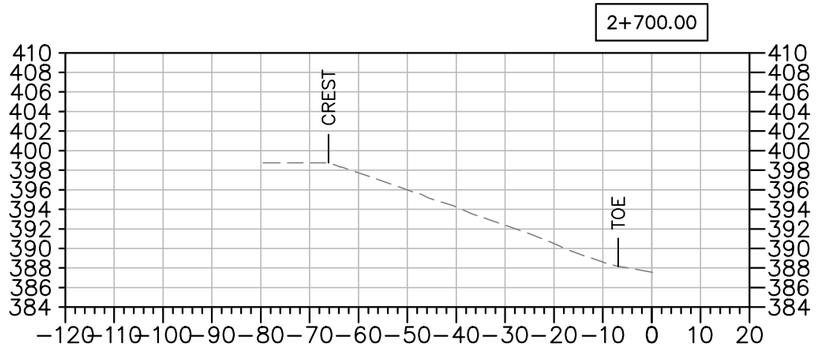
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 24, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

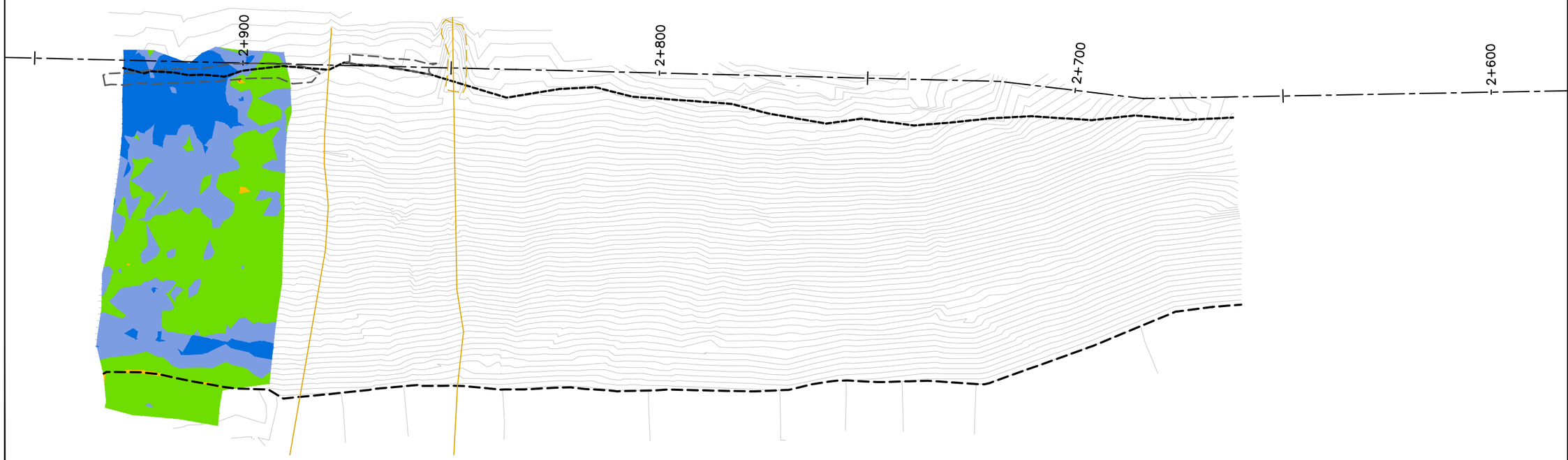
PURPOSE
DAILY PROGRESS

DATE	MAY 24, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 24, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

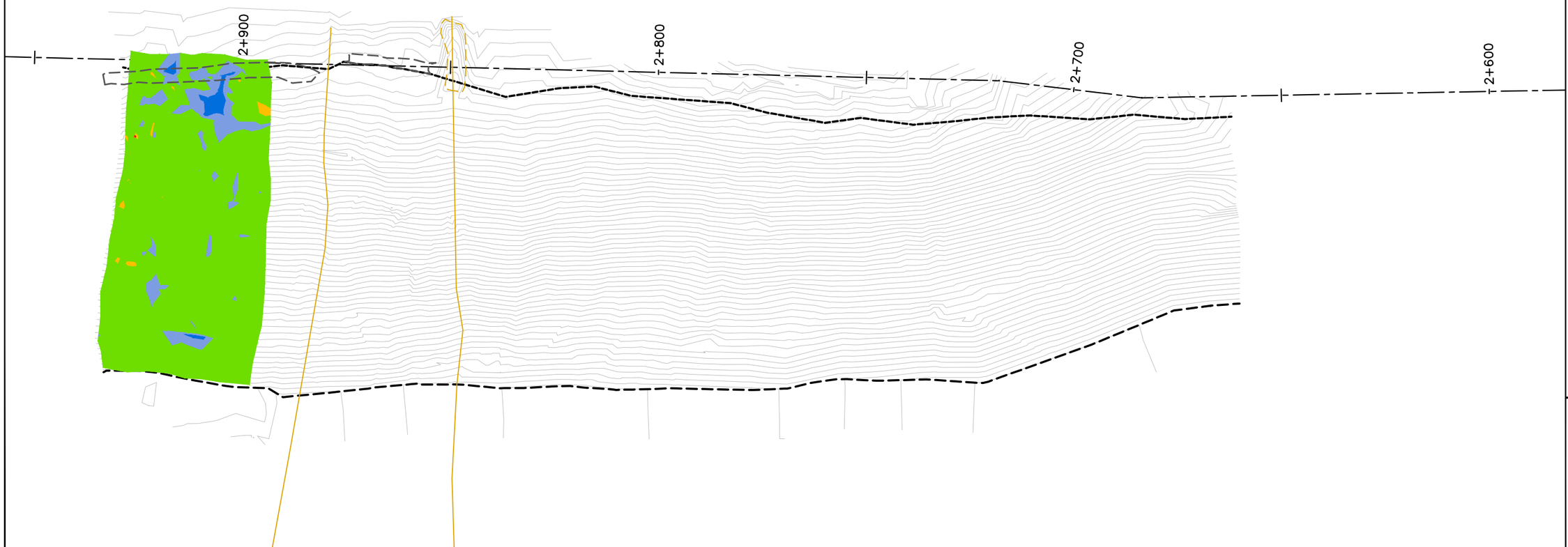
PURPOSE
CCL
HEAT MAP

DATE	MAY 24, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 24, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 1.40m	
1.40m to 1.45m	
1.45m to 1.60m	
1.60m to 1.70m	
> 1.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 24, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-2	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 25, 2021 = 0m^3
EXCAVATED TO DATE = 251m^3

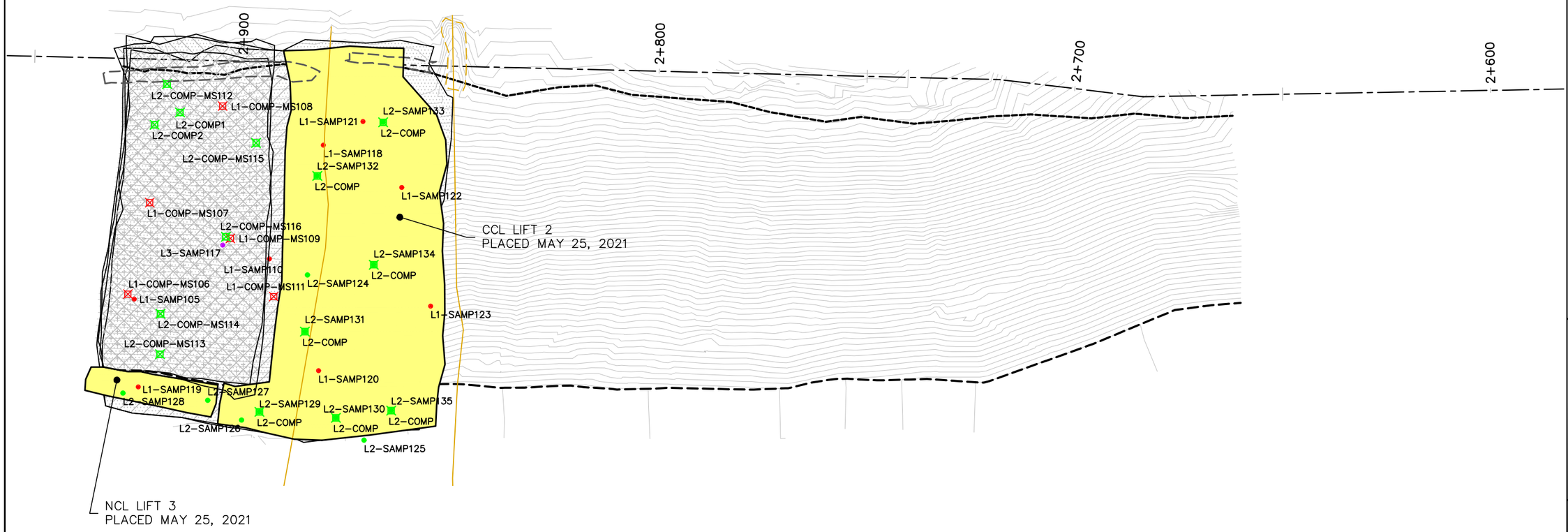
CCL LIFT 1
PLACED MAY 25, 2021 = 0m^3
PLACED TO DATE = 2,157m^3

CCL LIFT 2
PLACED MAY 25, 2021 = 844m^3
PLACED TO DATE = 1,818m^3

NCL LIFT 3
PLACED MAY 25, 2021 = 126m^3
PLACED TO DATE = 1,428m^3

NCL LIFT 4
PLACED MAY 25, 2021 = 0m^3
PLACED TO DATE = 1,305m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.721 ha
NCL COMPLETED TO DATE = 0.281 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 25, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

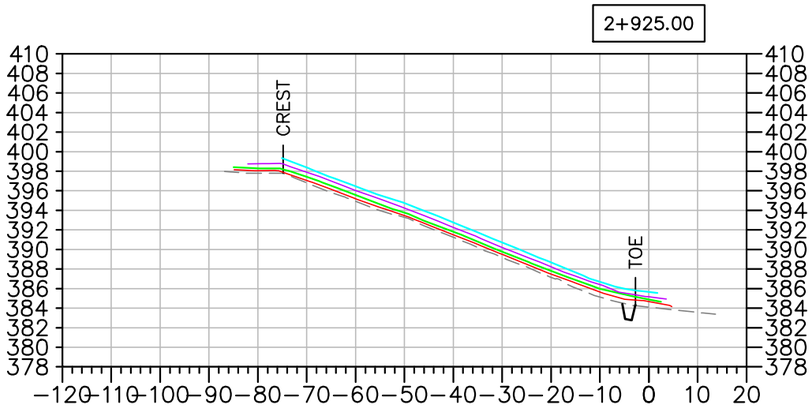
DRAWING TITLE
EMRS RECLAMATION

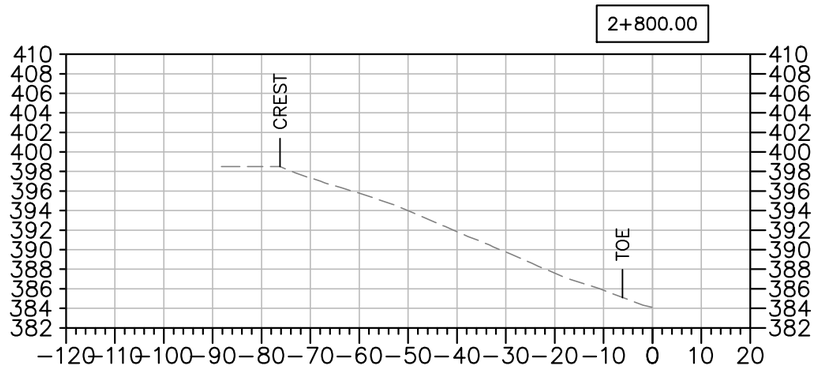
PURPOSE
DAILY PROGRESS

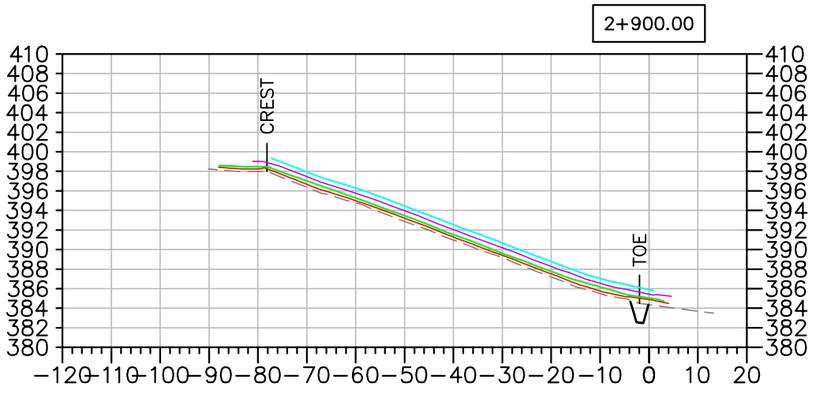
DATE	MAY 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

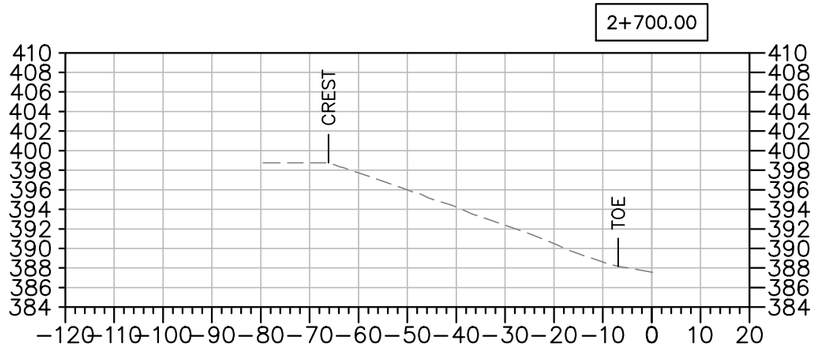
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 25, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

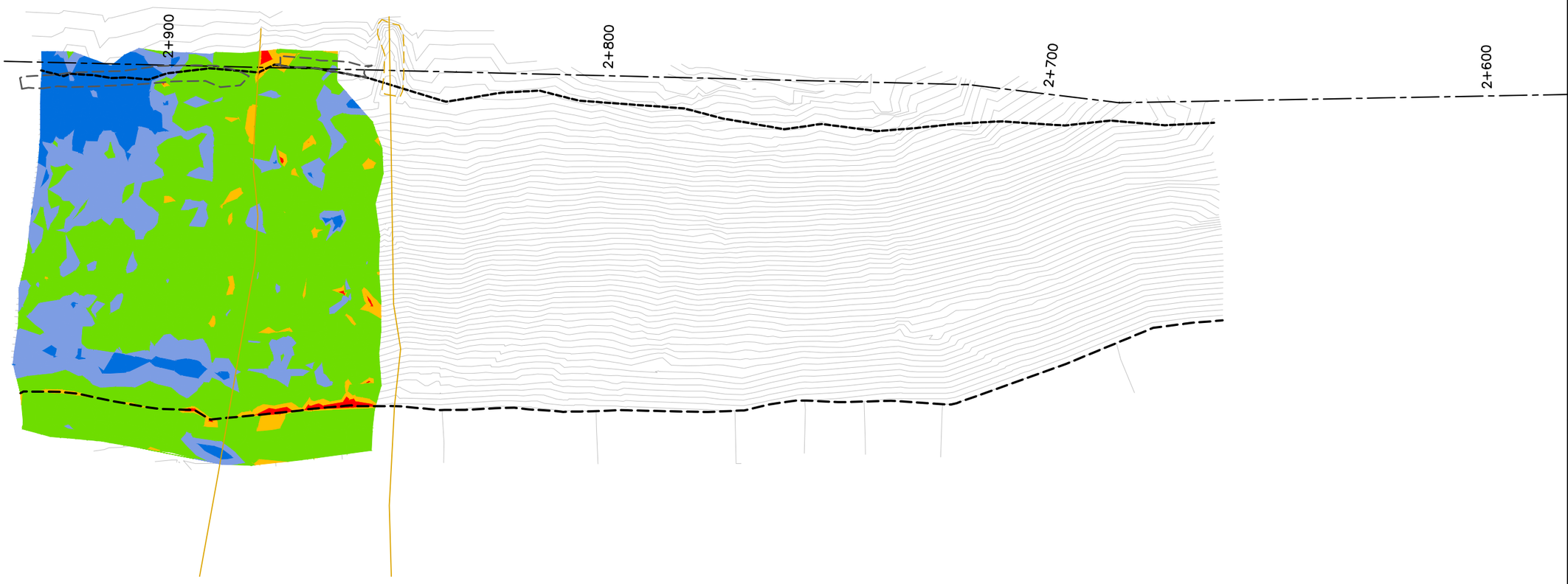
PURPOSE
DAILY PROGRESS

DATE	MAY 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 25, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

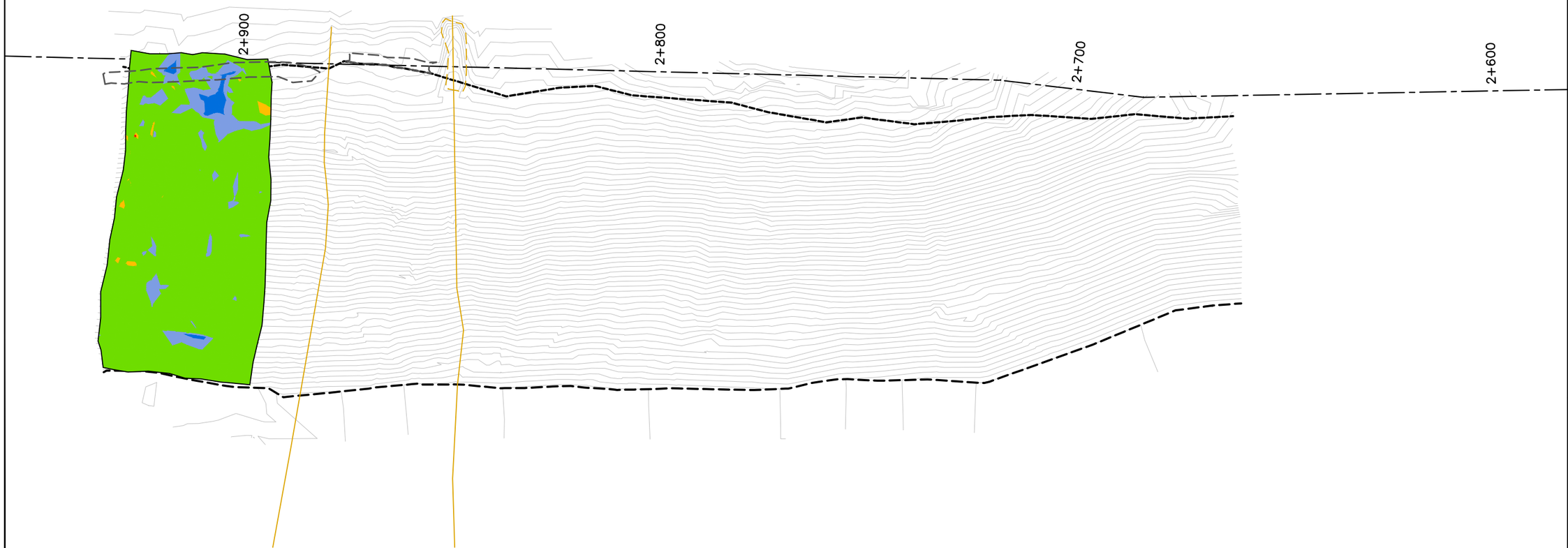
PURPOSE
CCL
HEAT MAP

DATE	MAY 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 25, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 1.40m	
1.40m to 1.45m	
1.45m to 1.60m	
1.60m to 1.70m	
> 1.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H–2	19–1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 26, 2021 = 0m^3
EXCAVATED TO DATE = 251m^3

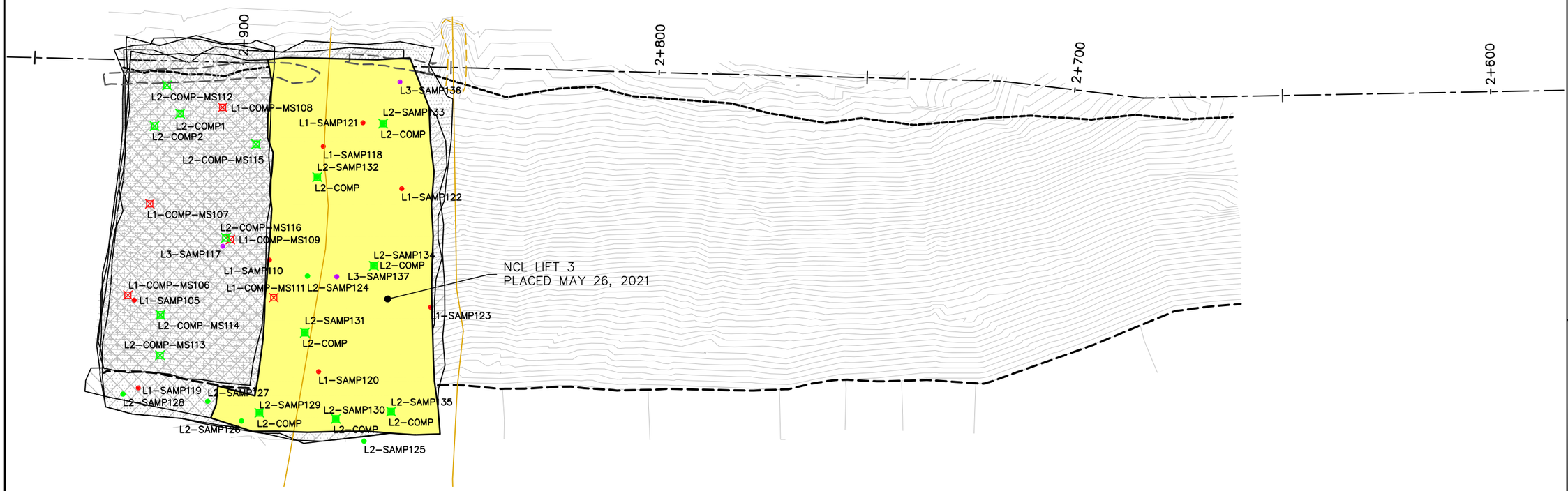
CCL LIFT 1
PLACED MAY 26, 2021 = 0m^3
PLACED TO DATE = 2,157m^3

CCL LIFT 2
PLACED MAY 26, 2021 = 0m^3
PLACED TO DATE = 1,818m^3

NCL LIFT 3
PLACED MAY 26, 2021 = 1,817m^3
PLACED TO DATE = 3,245m^3

NCL LIFT 4
PLACED MAY 26, 2021 = 0m^3
PLACED TO DATE = 1,305m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.721 ha
NCL COMPLETED TO DATE = 0.281 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 26, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

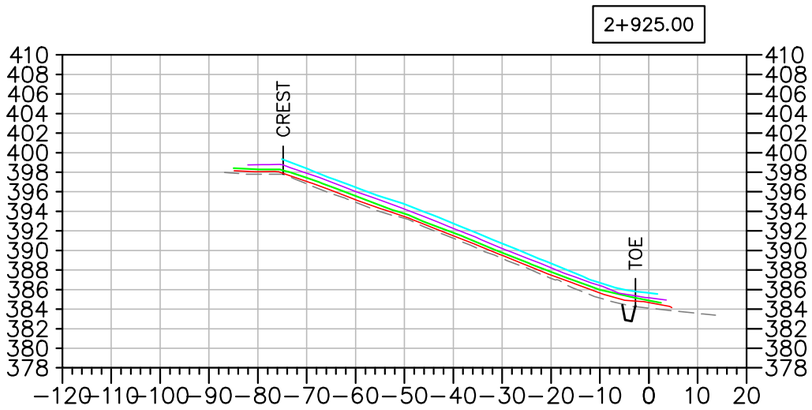
DRAWING TITLE
EMRS RECLAMATION

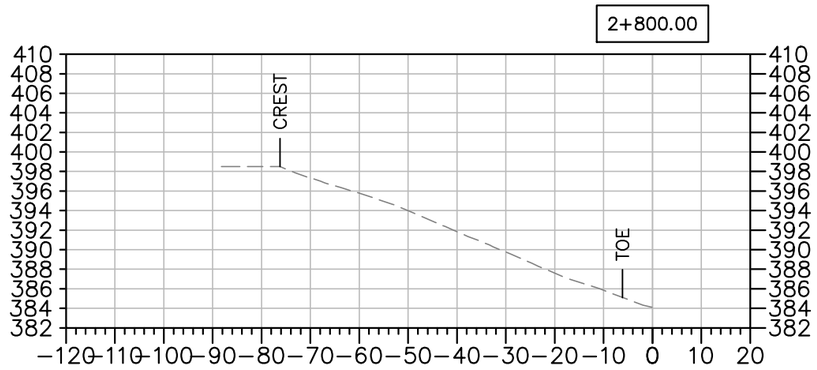
PURPOSE
DAILY PROGRESS

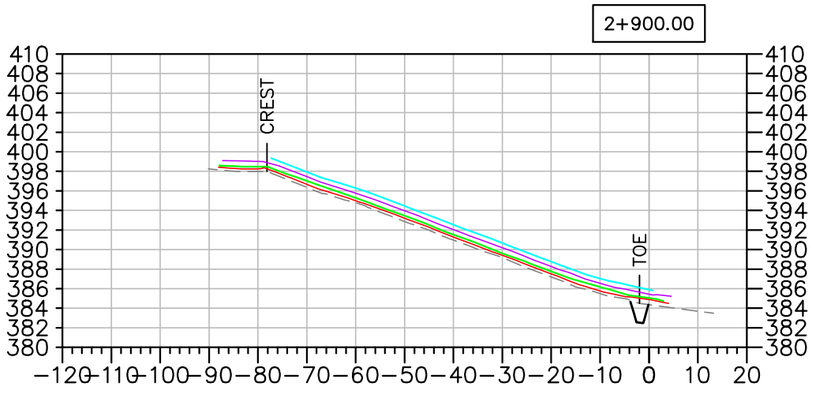
DATE	MAY 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

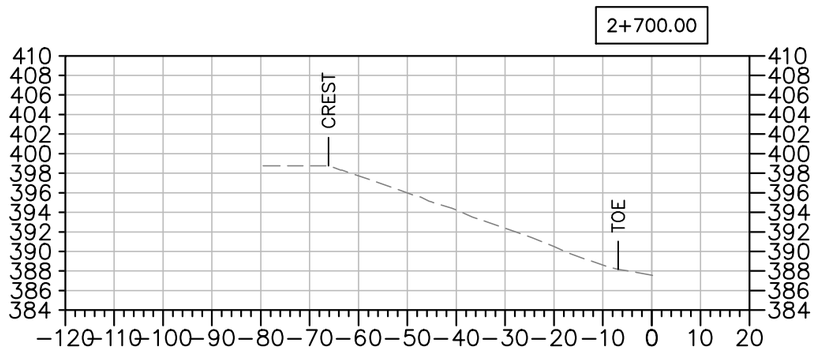
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 26, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

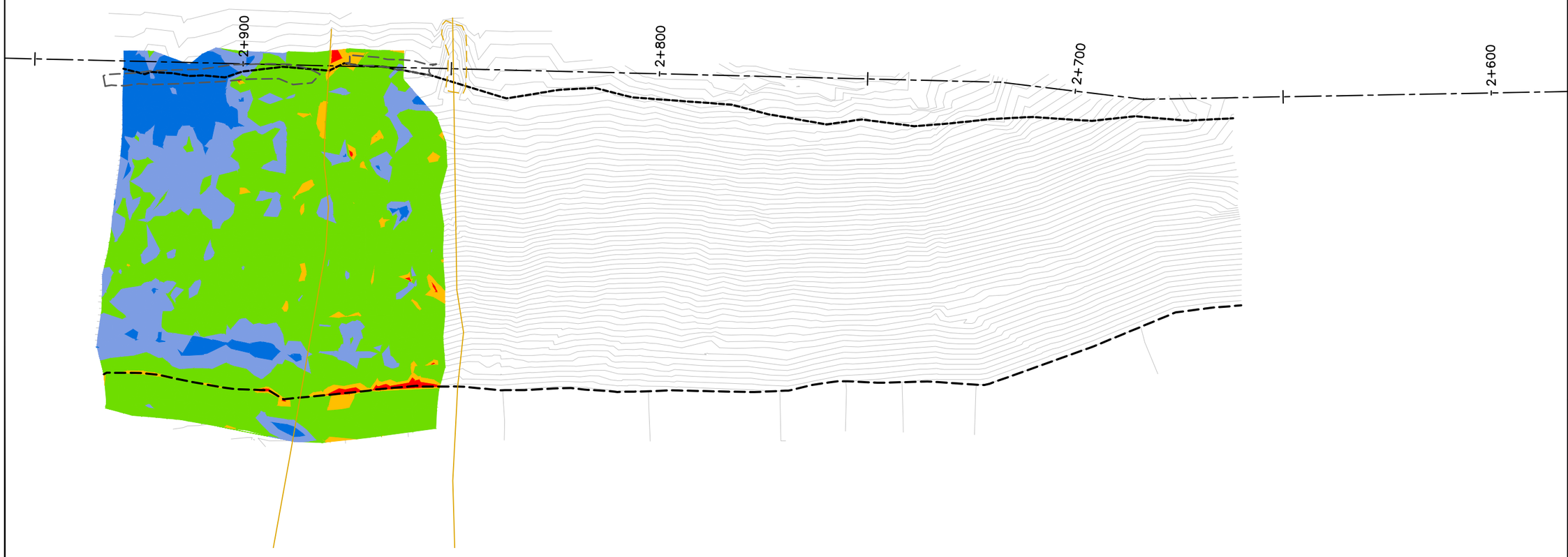
PURPOSE
DAILY PROGRESS

DATE	MAY 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 26, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- < 0.40m
- 0.40m to 0.45m
- 0.45m to 0.60m
- 0.60m to 0.70m
- > 0.70m

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
EMRS RECLAMATION

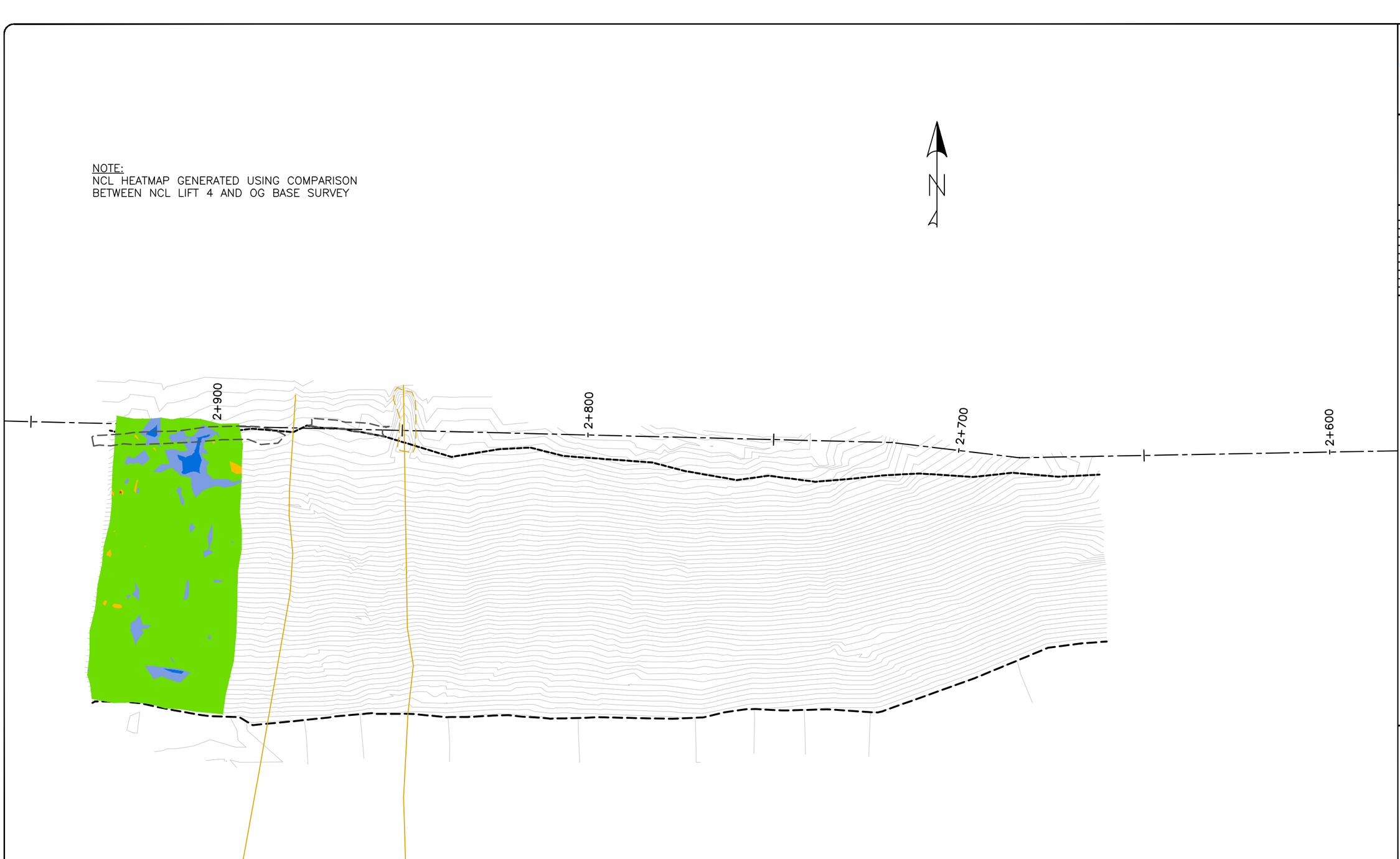
PURPOSE
CCL HEAT MAP

DATE	MAY 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 26, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 1.40m	
1.40m to 1.45m	
1.45m to 1.60m	
1.60m to 1.70m	
> 1.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-2	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 27, 2021 = 0m^3
EXCAVATED TO DATE = 251m^3

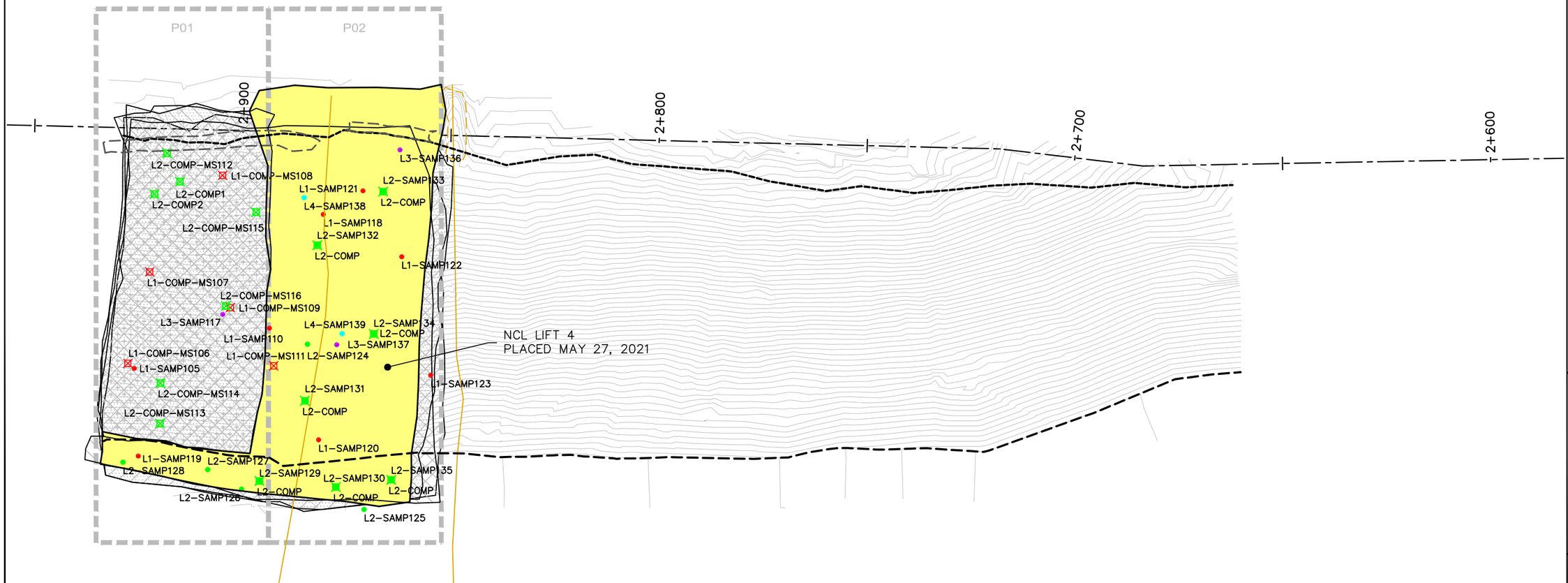
CCL LIFT 1
PLACED MAY 27, 2021 = 0m^3
PLACED TO DATE = 2,157m^3

CCL LIFT 2
PLACED MAY 27, 2021 = 0m^3
PLACED TO DATE = 1,818m^3

NCL LIFT 3
PLACED MAY 27, 2021 = 0m^3
PLACED TO DATE = 3,245m^3

NCL LIFT 4
PLACED MAY 27, 2021 = 1,958m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.721 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 27, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
CanaDian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

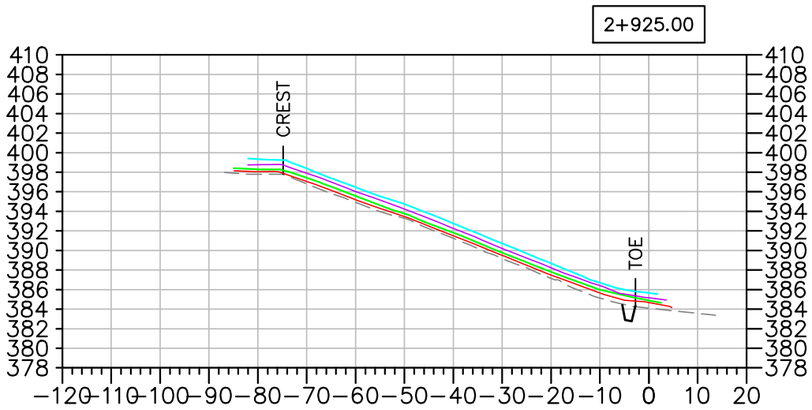
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

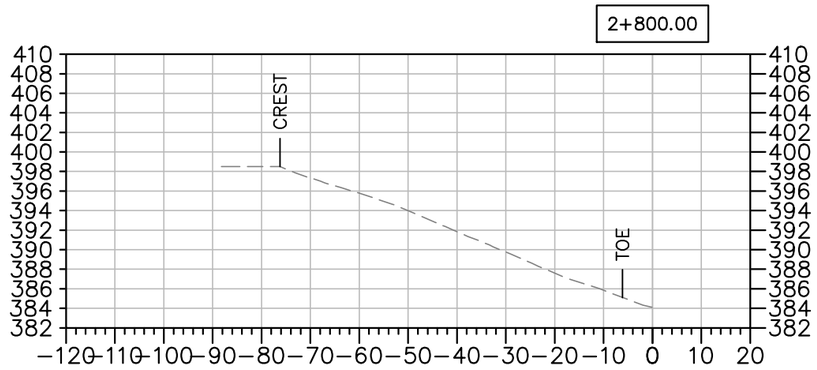
DRAWING TITLE
EMRS RECLAMATION

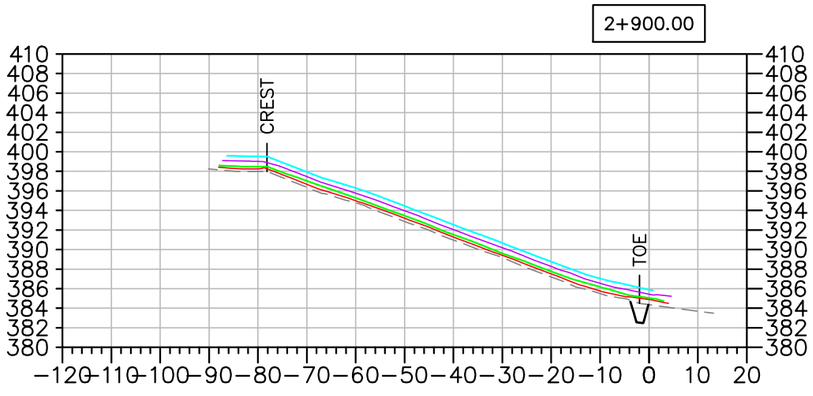
PURPOSE
DAILY PROGRESS

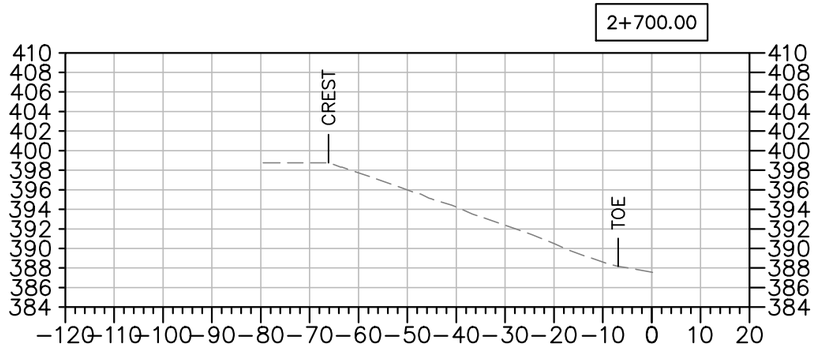
DATE	MAY 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D–1	19–1138	115









EMRS RECLAMATION – DAILY PROGRESS

(MAY 27, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

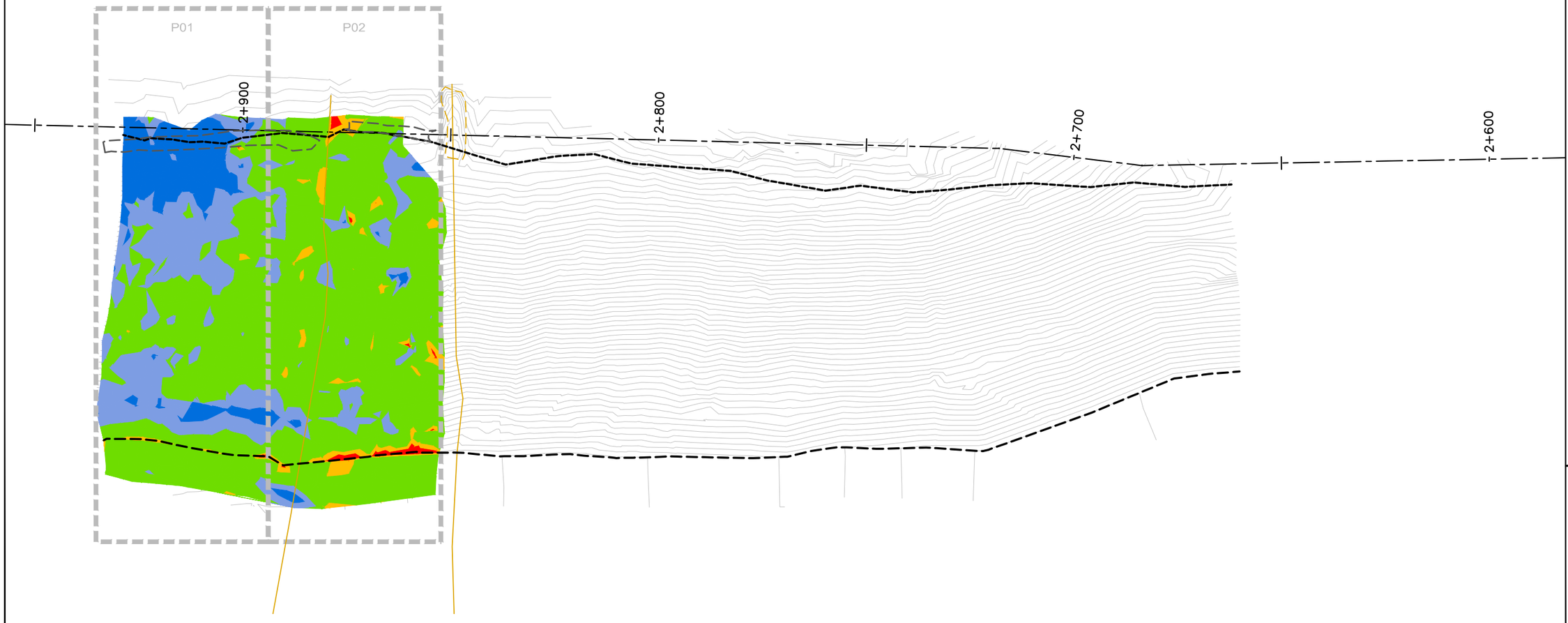
PURPOSE
DAILY PROGRESS

DATE	MAY 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 27, 2021) SCALE: N.T.S.

SHEET SIZE - 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

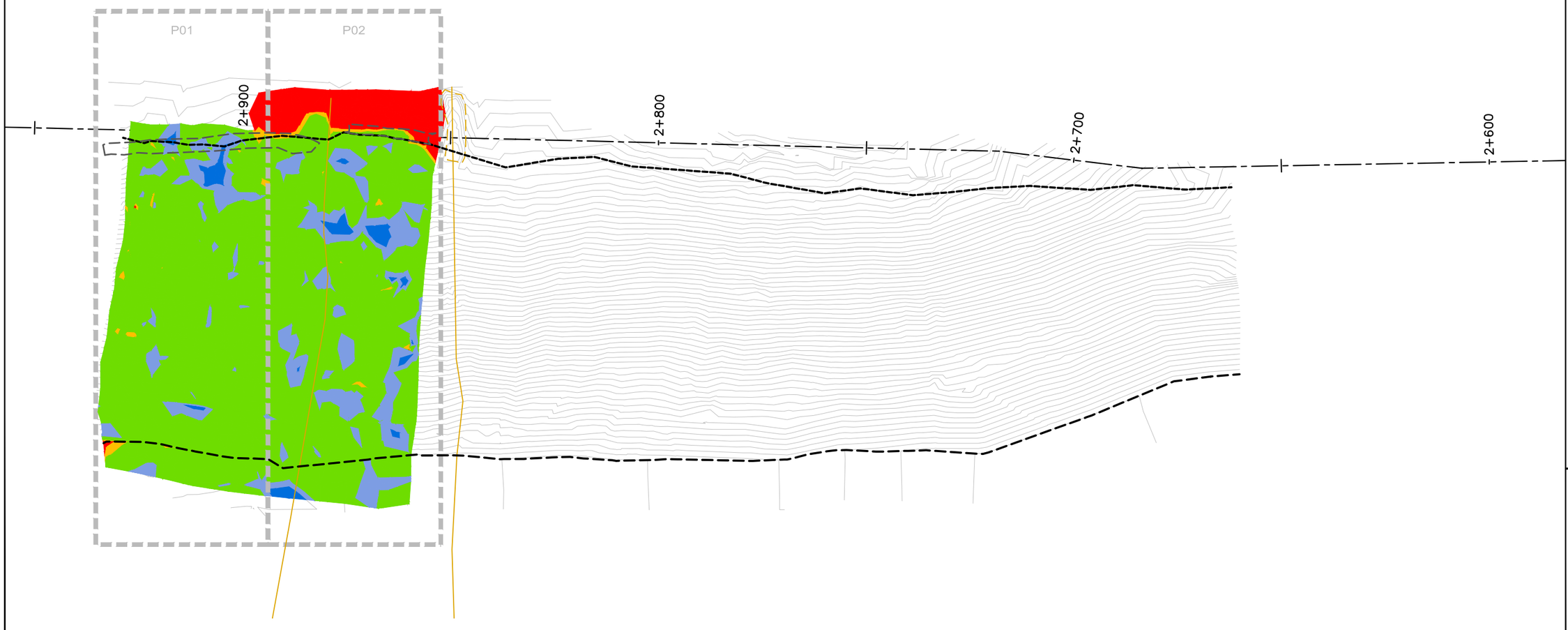
DRAWING TITLE
EMRS RECLAMATION

PURPOSE
CCL
HEAT MAP

DATE	MAY 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 27, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- < 1.40m
- 1.40m to 1.45m
- 1.45m to 1.60m
- 1.60m to 1.70m
- > 1.70m

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H–2	19–1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 28, 2021 = 198m^3
EXCAVATED TO DATE = 449m^3

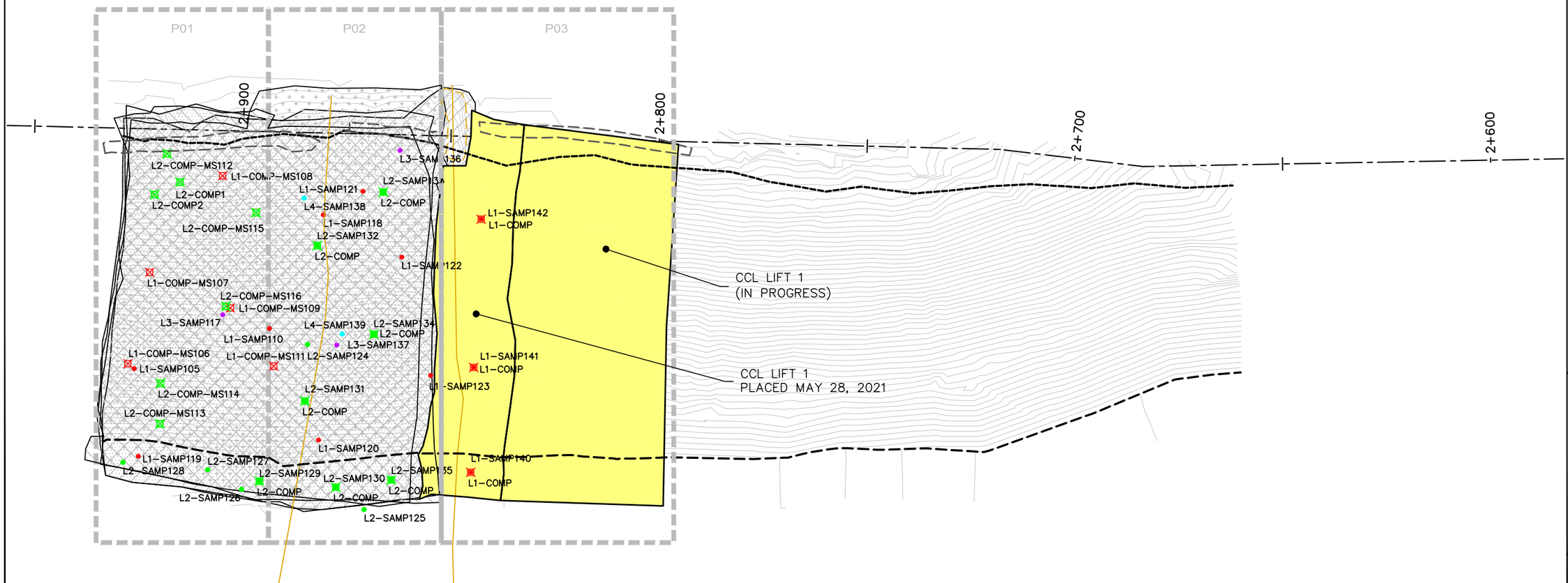
CCL LIFT 1
PLACED MAY 28, 2021 = 520m^3
PLACED TO DATE = 2,677m^3

CCL LIFT 2
PLACED MAY 28, 2021 = 0m^3
PLACED TO DATE = 1,818m^3

NCL LIFT 3
PLACED MAY 28, 2021 = 0m^3
PLACED TO DATE = 3,245m^3

NCL LIFT 4
PLACED MAY 28, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.721 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 28, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: CanaDian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

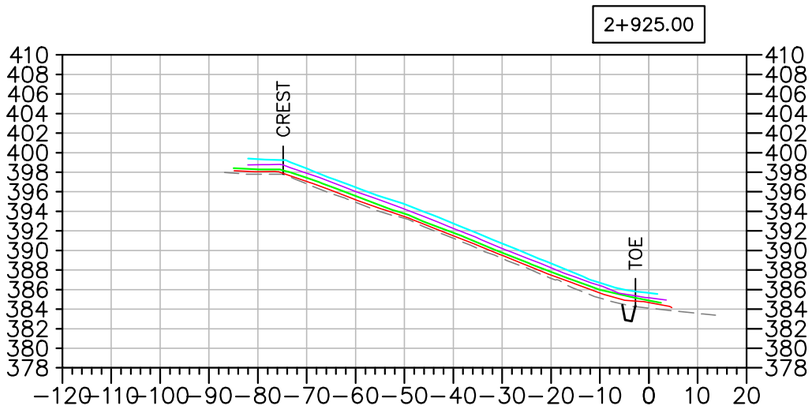
DRAWING TITLE
EMRS RECLAMATION

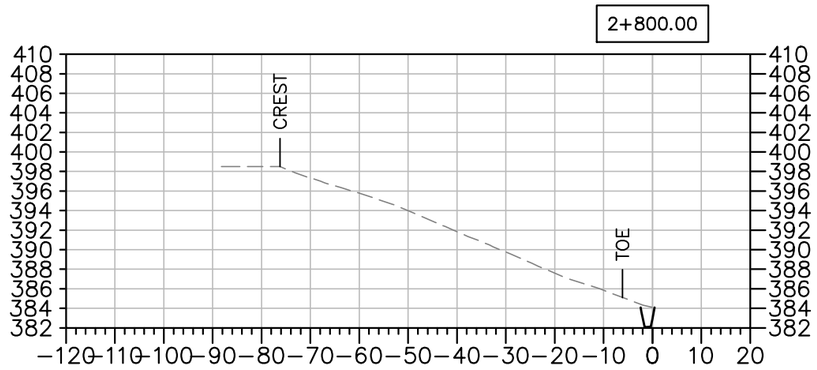
PURPOSE
DAILY PROGRESS

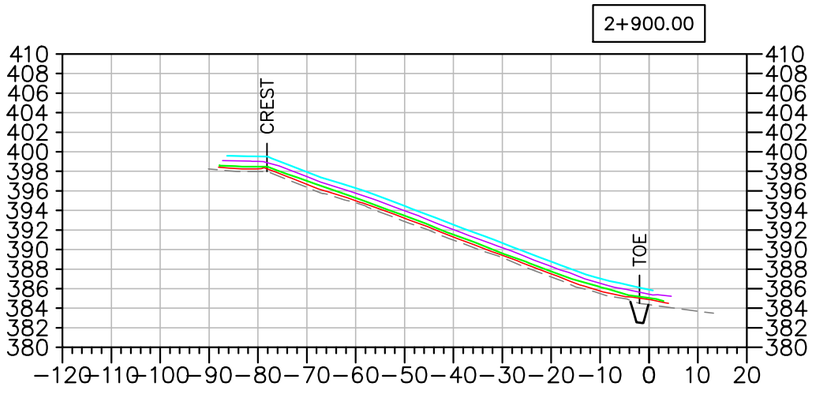
DATE	MAY 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

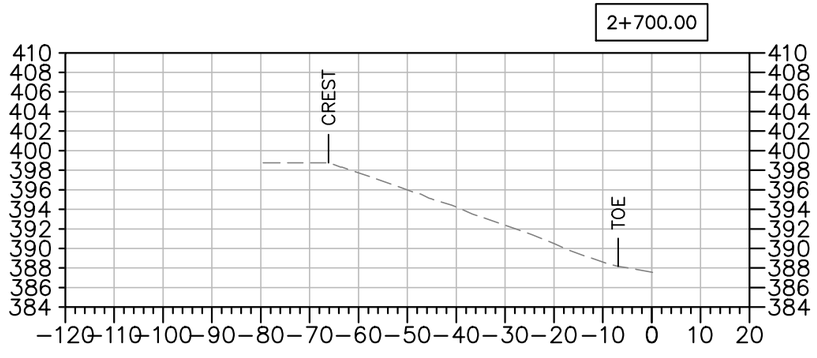
DWG. No.	PROJECT No.	PHASE No.
D–1	19–1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 28, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

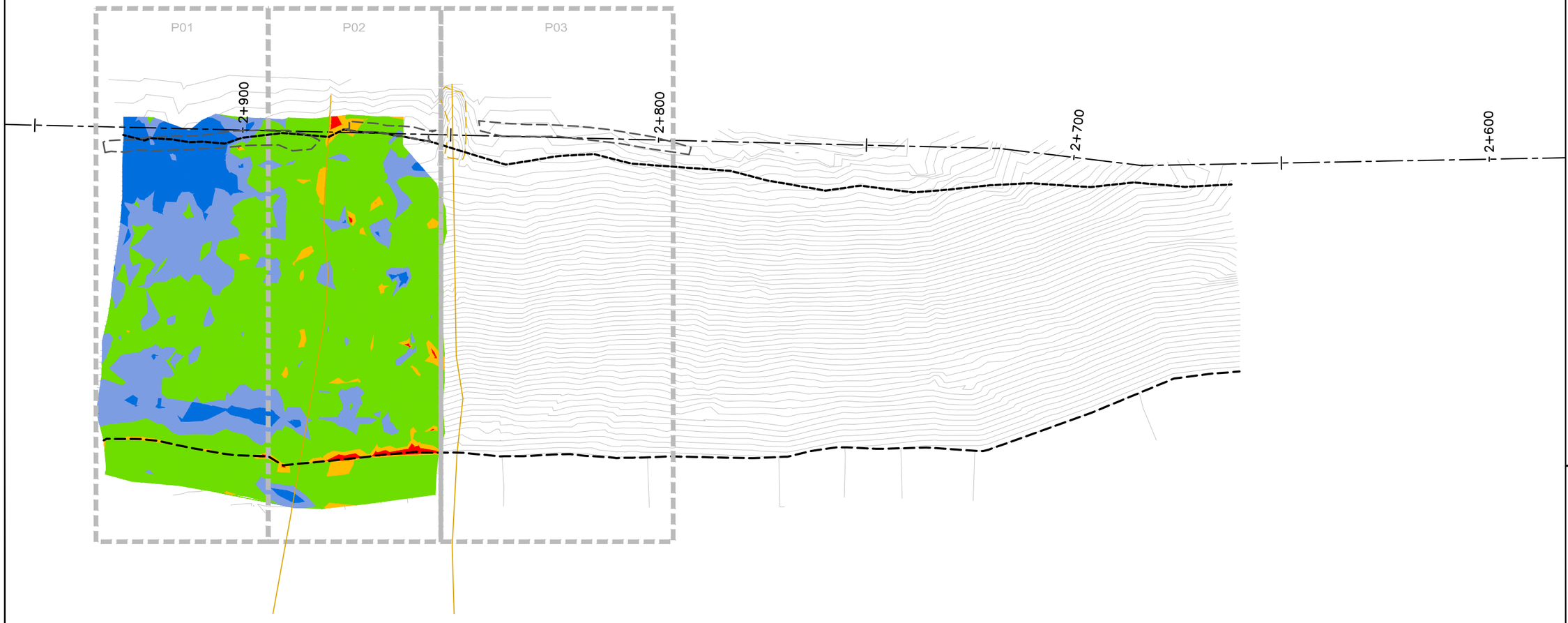
PURPOSE
DAILY PROGRESS

DATE	MAY 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 28, 2021) SCALE: N.T.S.

SHEET SIZE - 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

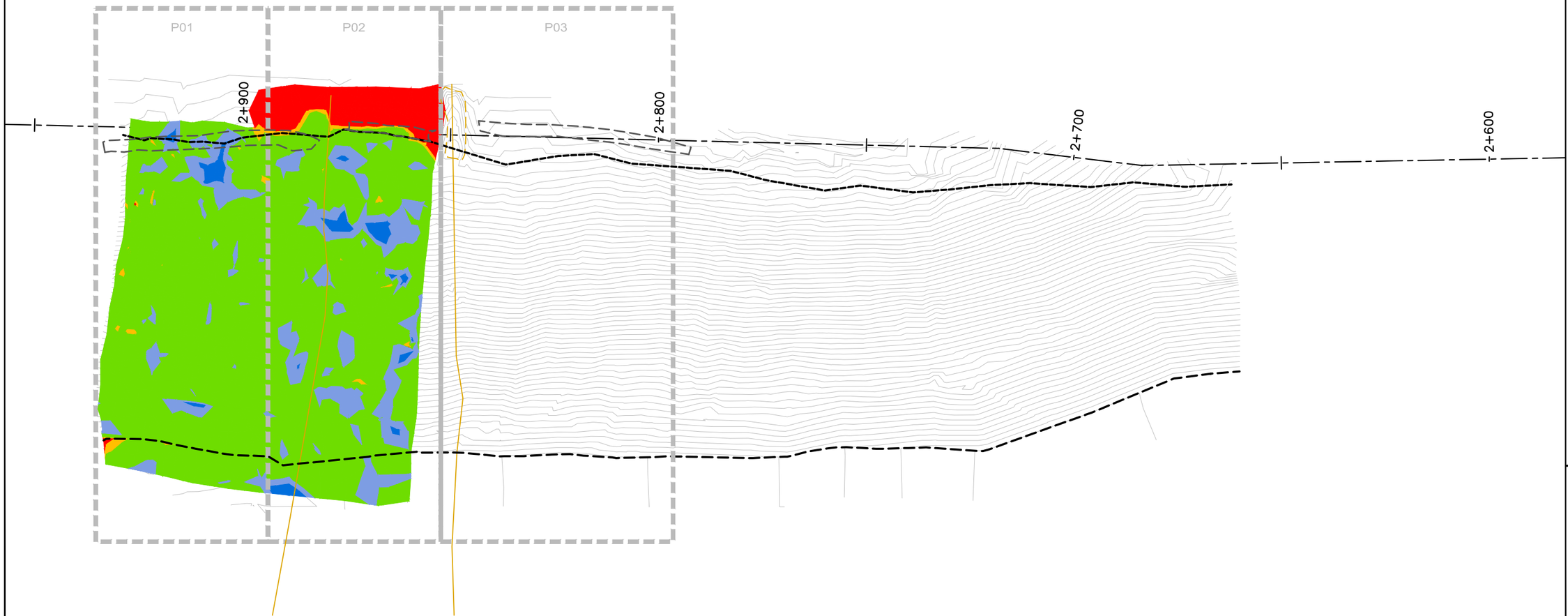
DRAWING TITLE
EMRS RECLAMATION

PURPOSE
CCL
HEAT MAP

DATE	MAY 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 28, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- < 1.40m
- 1.40m to 1.45m
- 1.45m to 1.60m
- 1.60m to 1.70m
- > 1.70m

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-2	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 29, 2021 = 0m^3
EXCAVATED TO DATE = 449m^3

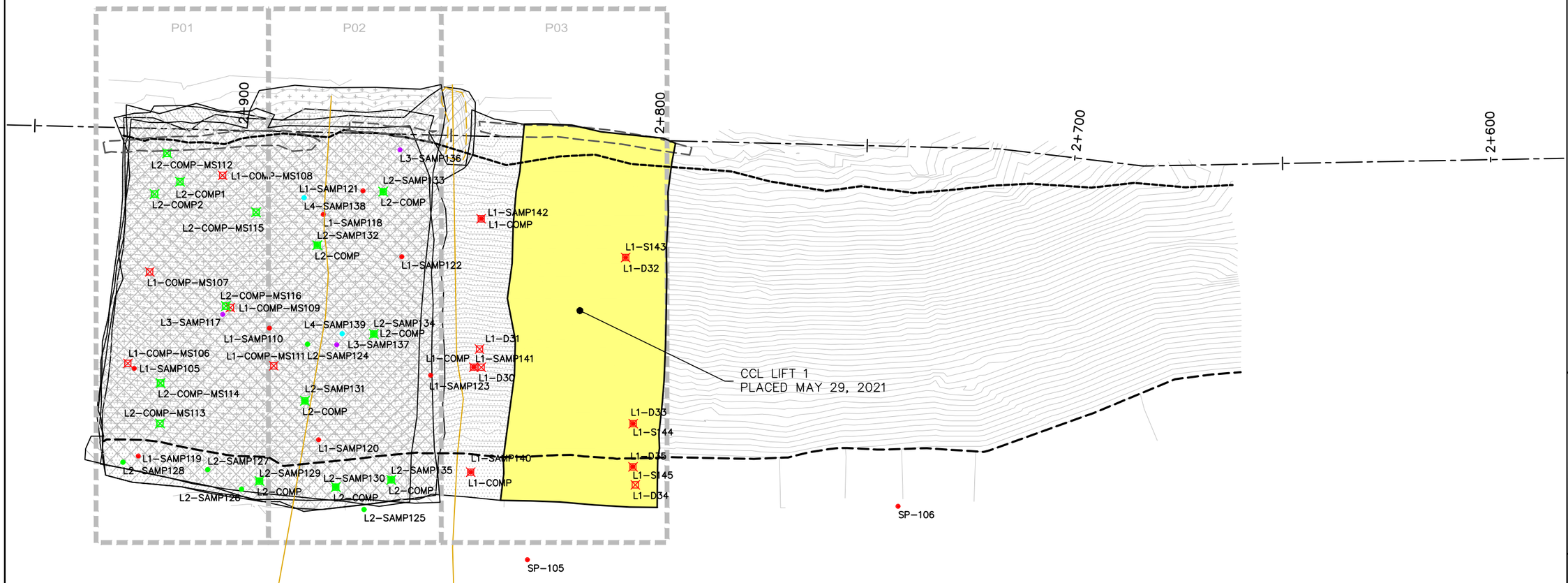
CCL LIFT 1
PLACED MAY 29, 2021 = 981m^3
PLACED TO DATE = 3,658m^3

CCL LIFT 2
PLACED MAY 29, 2021 = 0m^3
PLACED TO DATE = 1,818m^3

NCL LIFT 3
PLACED MAY 29, 2021 = 0m^3
PLACED TO DATE = 3,245m^3

NCL LIFT 4
PLACED MAY 29, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.721 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 29, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
CanaDian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

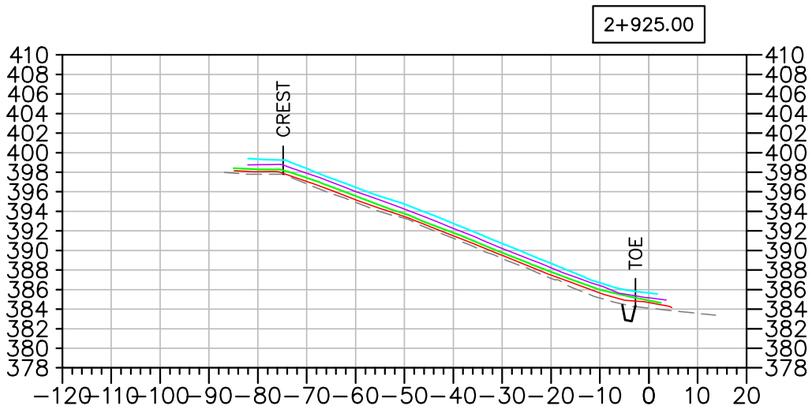
DRAWING TITLE
EMRS RECLAMATION

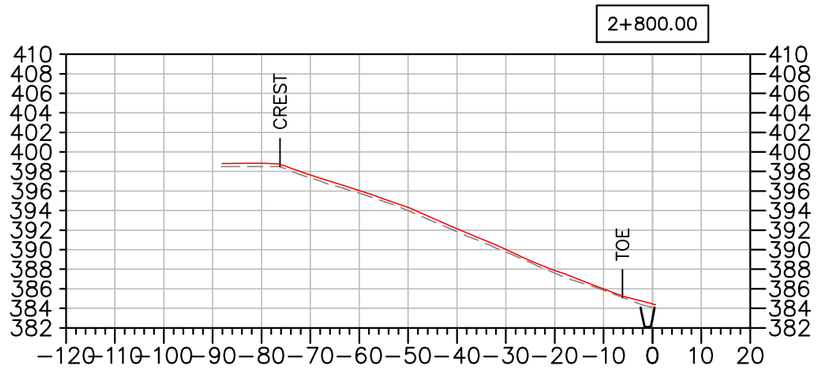
PURPOSE
DAILY PROGRESS

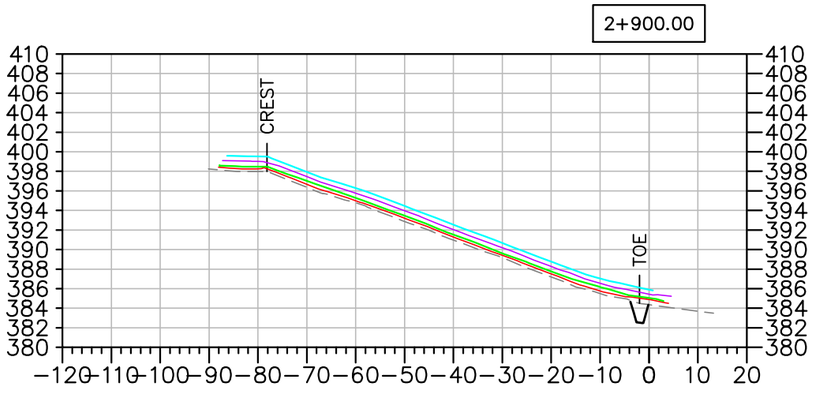
DATE	MAY 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

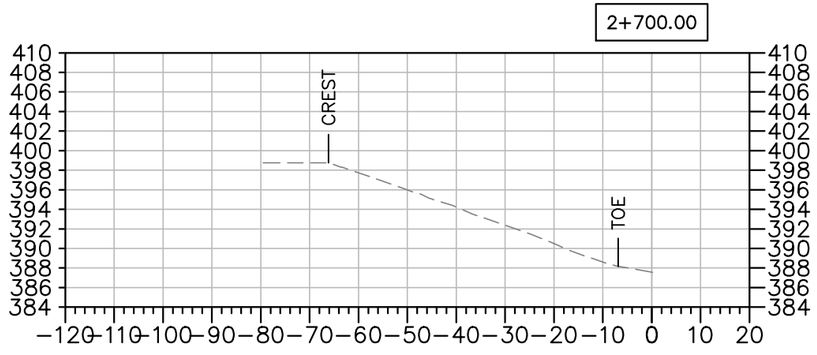
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 29, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

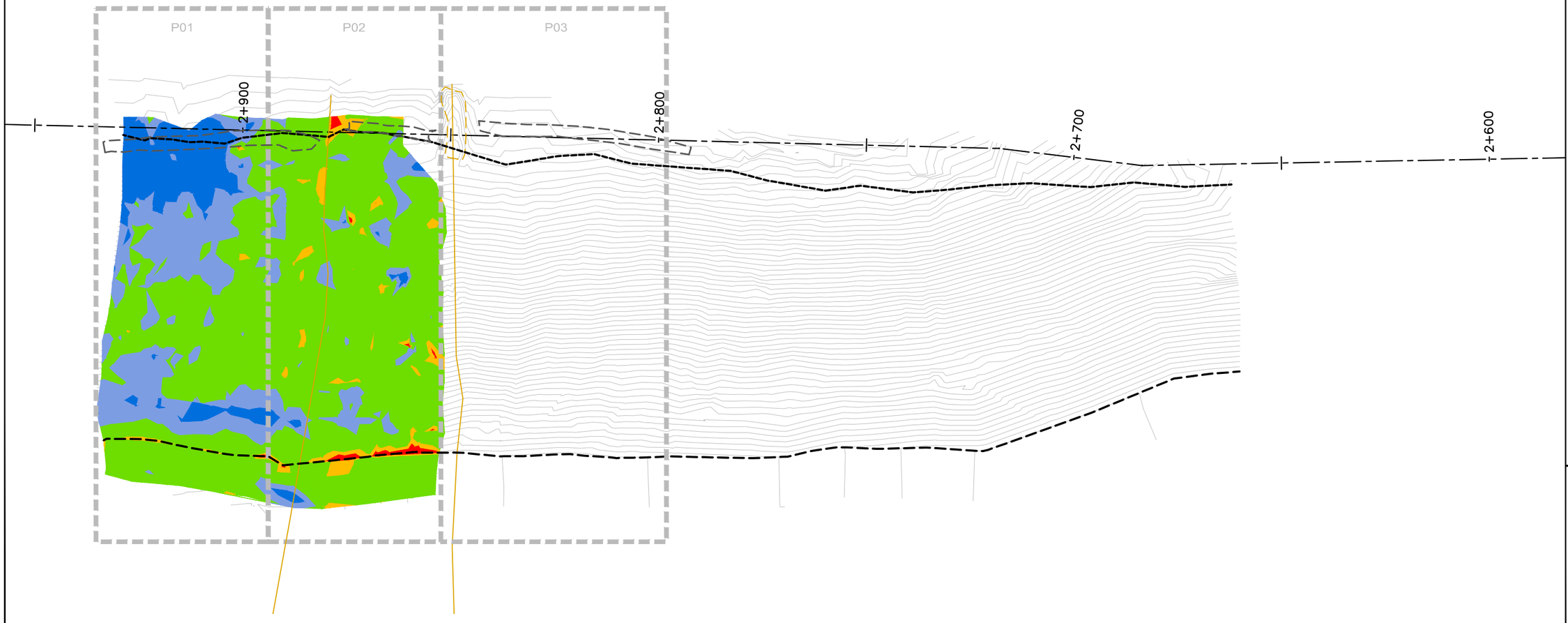
PURPOSE
DAILY PROGRESS

DATE	MAY 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN CCL LIFT 2 AND OG BASE SURVEY



EMRS RECLAMATION – CCL HEAT MAP

(MAY 29, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

< 0.40m	
0.40m to 0.45m	
0.45m to 0.60m	
0.60m to 0.70m	
> 0.70m	

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

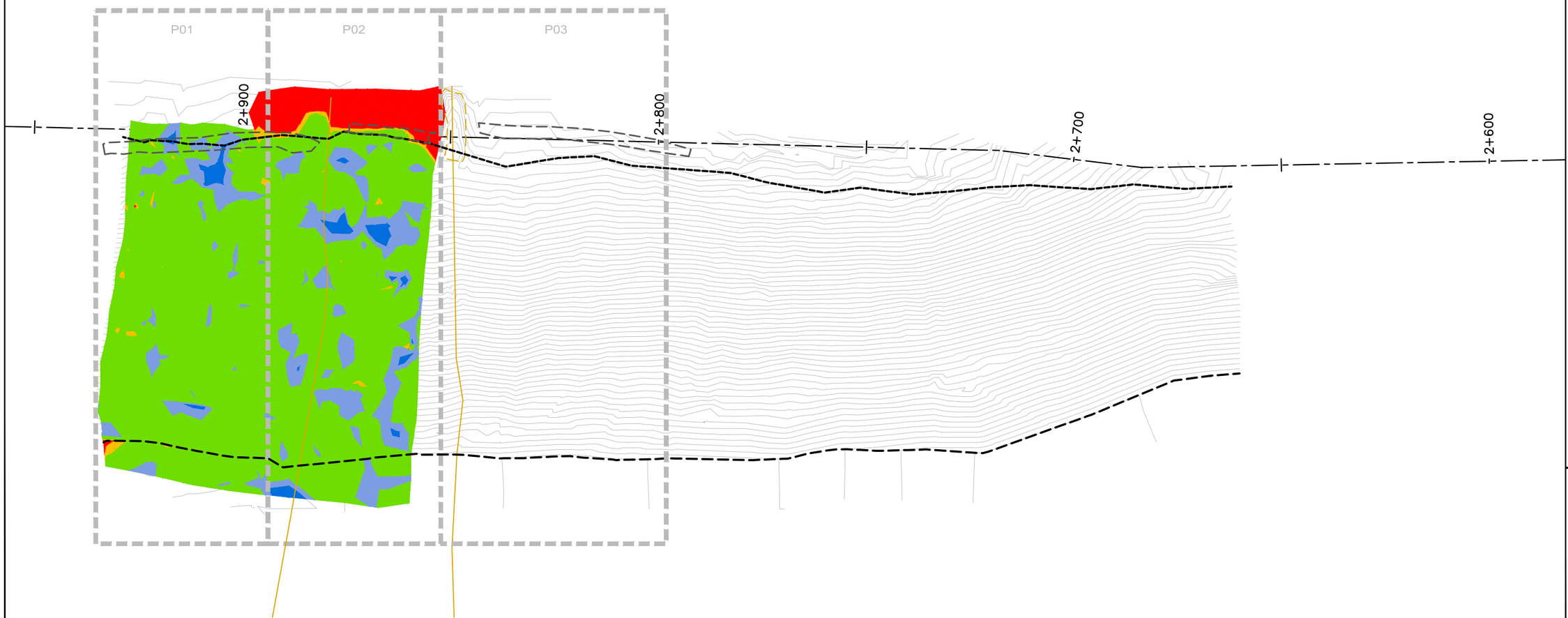
PURPOSE
CCL
HEAT MAP

DATE	MAY 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-1	19-1138	115

SHEET SIZE - 11" X 17"

NOTE:
NCL HEATMAP GENERATED USING COMPARISON BETWEEN NCL LIFT 4 AND OG BASE SURVEY



EMRS RECLAMATION – NCL HEAT MAP

(MAY 29, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- < 1.40m
- 1.40m to 1.45m
- 1.45m to 1.60m
- 1.60m to 1.70m
- > 1.70m

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION

PURPOSE
NCL
HEAT MAP

DATE	MAY 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
H-2	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED MAY 31, 2021 = 0m^3
EXCAVATED TO DATE = 449m^3

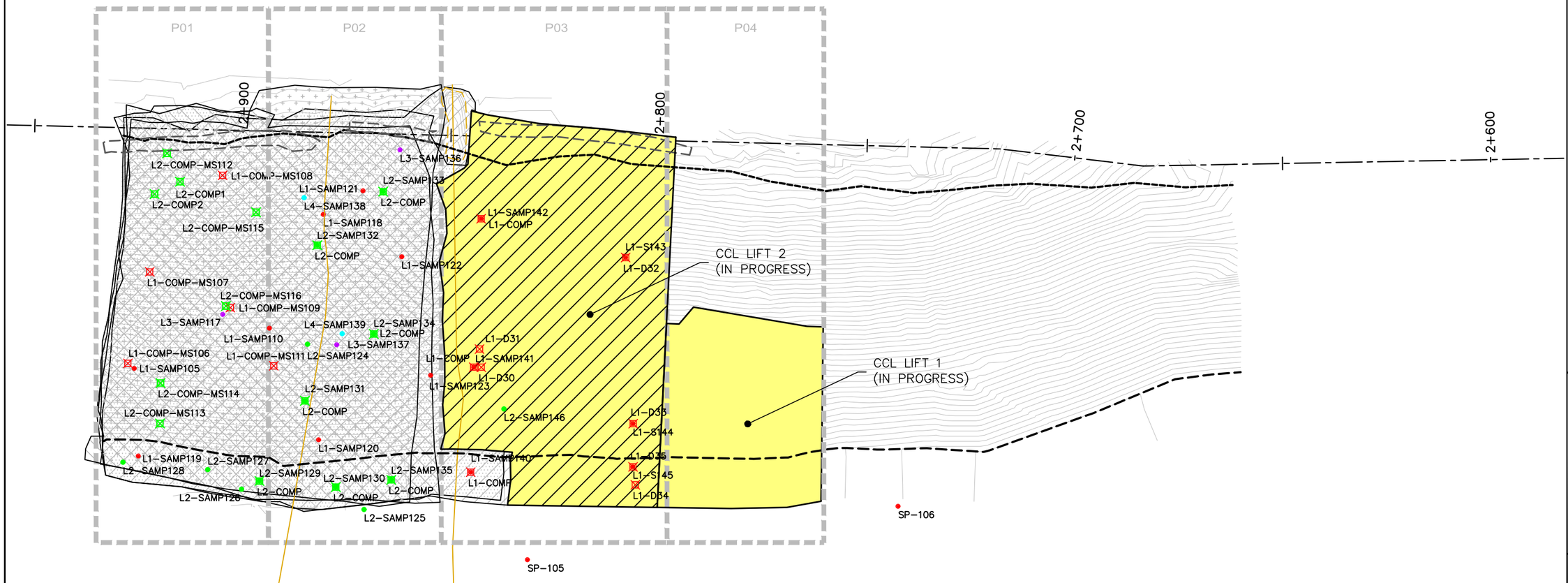
CCL LIFT 1
PLACED MAY 31, 2021 = 0m^3
PLACED TO DATE = 3,658m^3

CCL LIFT 2
PLACED MAY 31, 2021 = 0m^3
PLACED TO DATE = 1,879m^3

NCL LIFT 3
PLACED MAY 31, 2021 = 0m^3
PLACED TO DATE = 3,245m^3

NCL LIFT 4
PLACED MAY 31, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 0.743 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(MAY 31, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

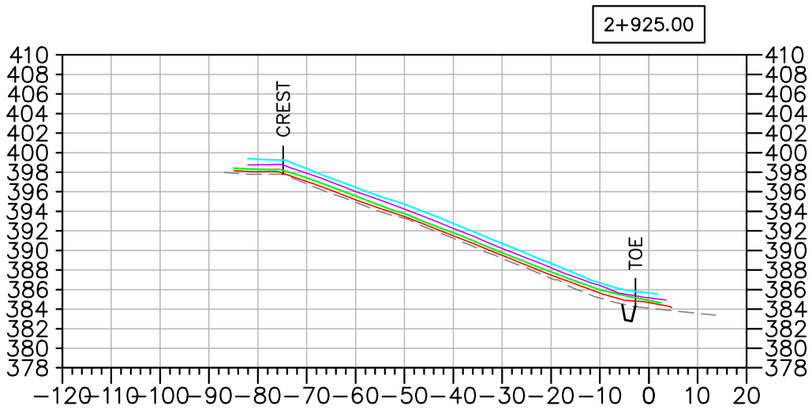
DRAWING TITLE
EMRS RECLAMATION

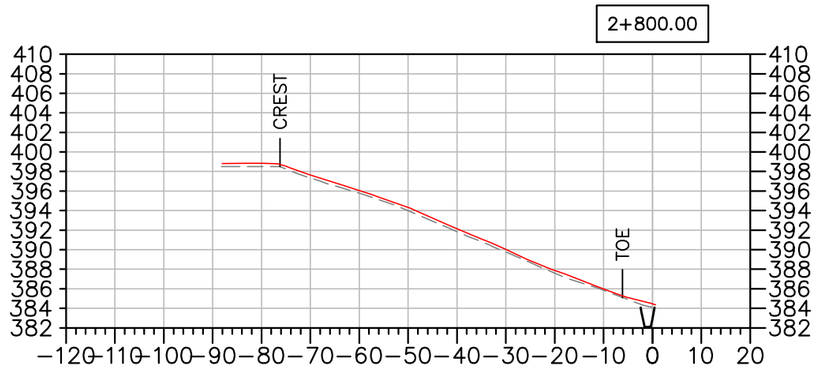
PURPOSE
DAILY PROGRESS

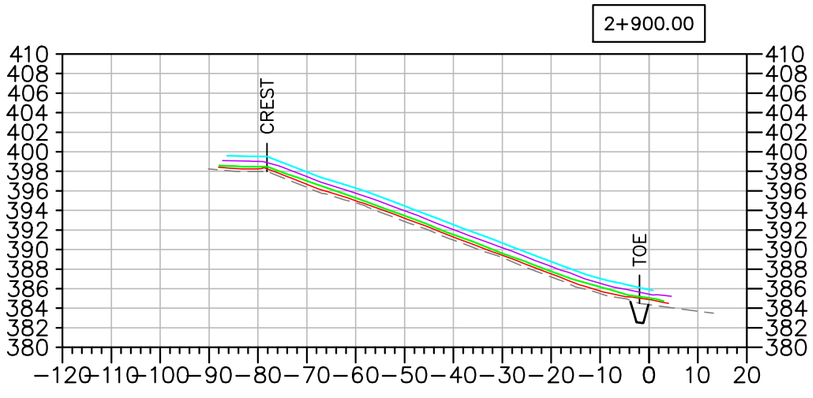
DATE	MAY 31, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

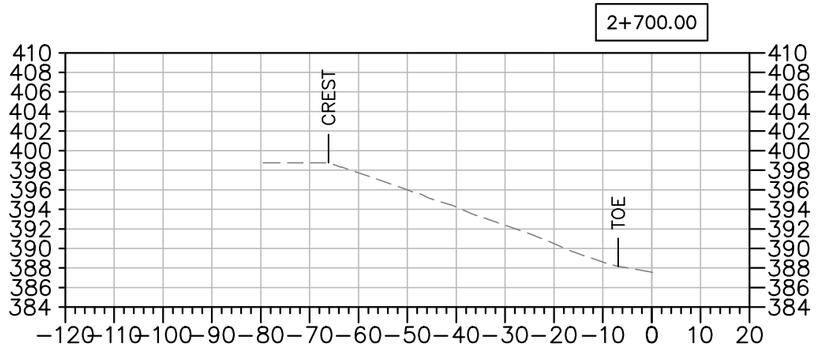
DWG. No.	PROJECT No.	PHASE No.
D–1	19–1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(MAY 31, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	MAY 31, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 1, 2021 = 0m^3
EXCAVATED TO DATE = 449m^3

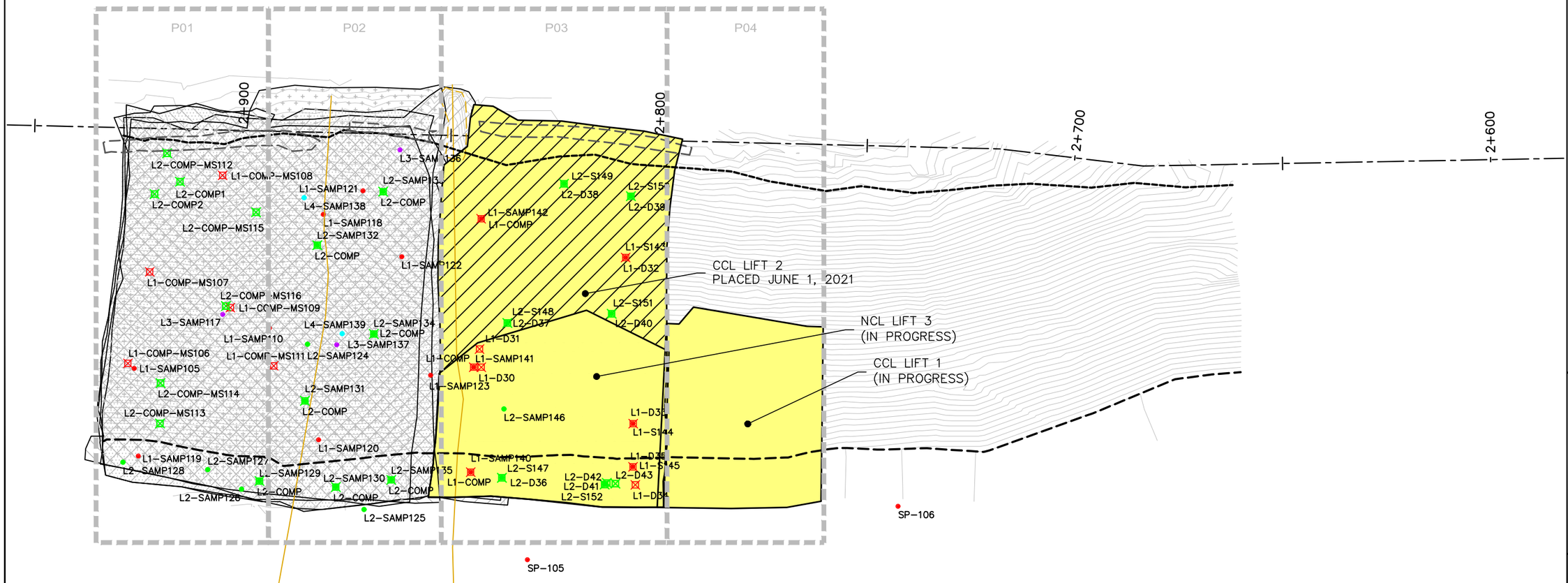
CCL LIFT 1
PLACED JUNE 1, 2021 = 0m^3
PLACED TO DATE = 3,658m^3

CCL LIFT 2
PLACED JUNE 1, 2021 = 1,217m^3
PLACED TO DATE = 3,096m^3

NCL LIFT 3
PLACED JUNE 1, 2021 = 0m^3
PLACED TO DATE = 3,245m^3

NCL LIFT 4
PLACED JUNE 1, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.254 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 1, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

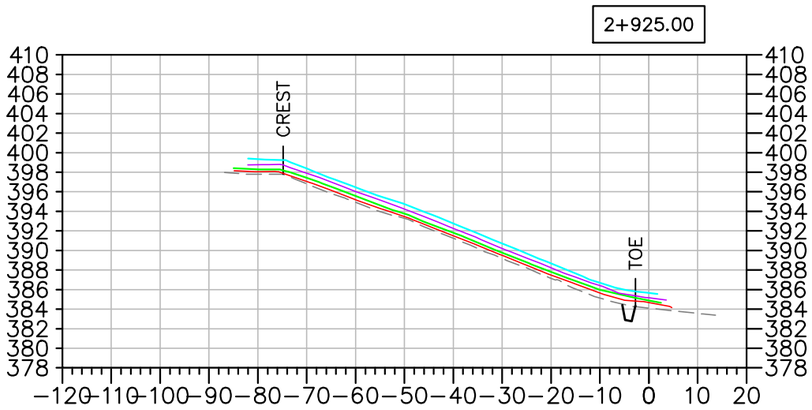
DRAWING TITLE
EMRS RECLAMATION

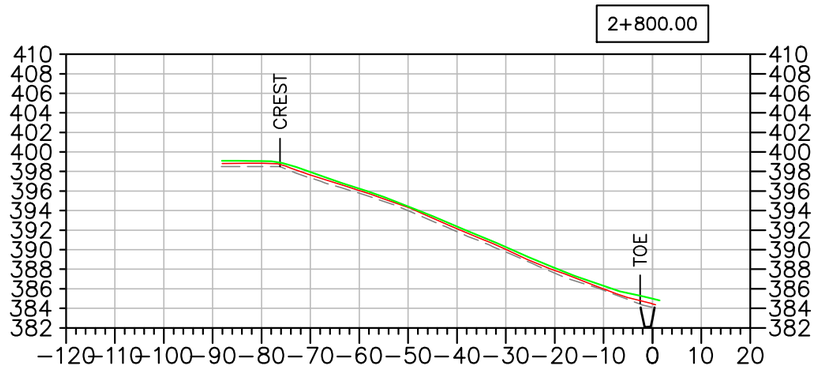
PURPOSE
DAILY PROGRESS

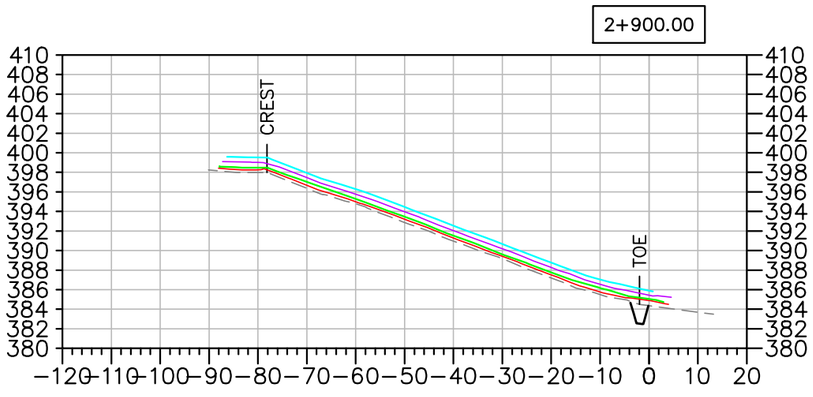
DATE	JUNE 1, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

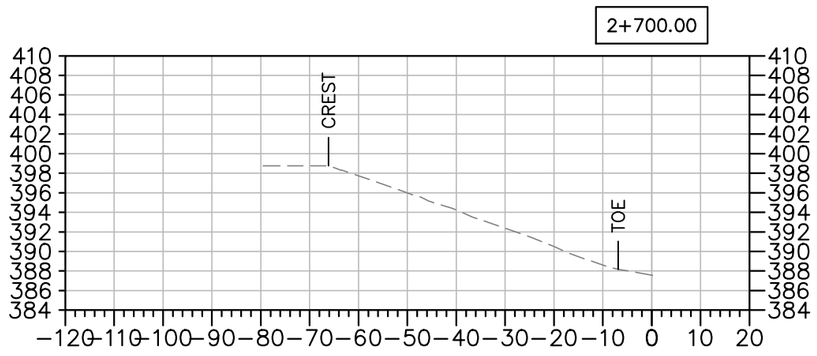
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 1, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 1, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X−1	19−1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 2, 2021 = 52m^3
EXCAVATED TO DATE = 501m^3

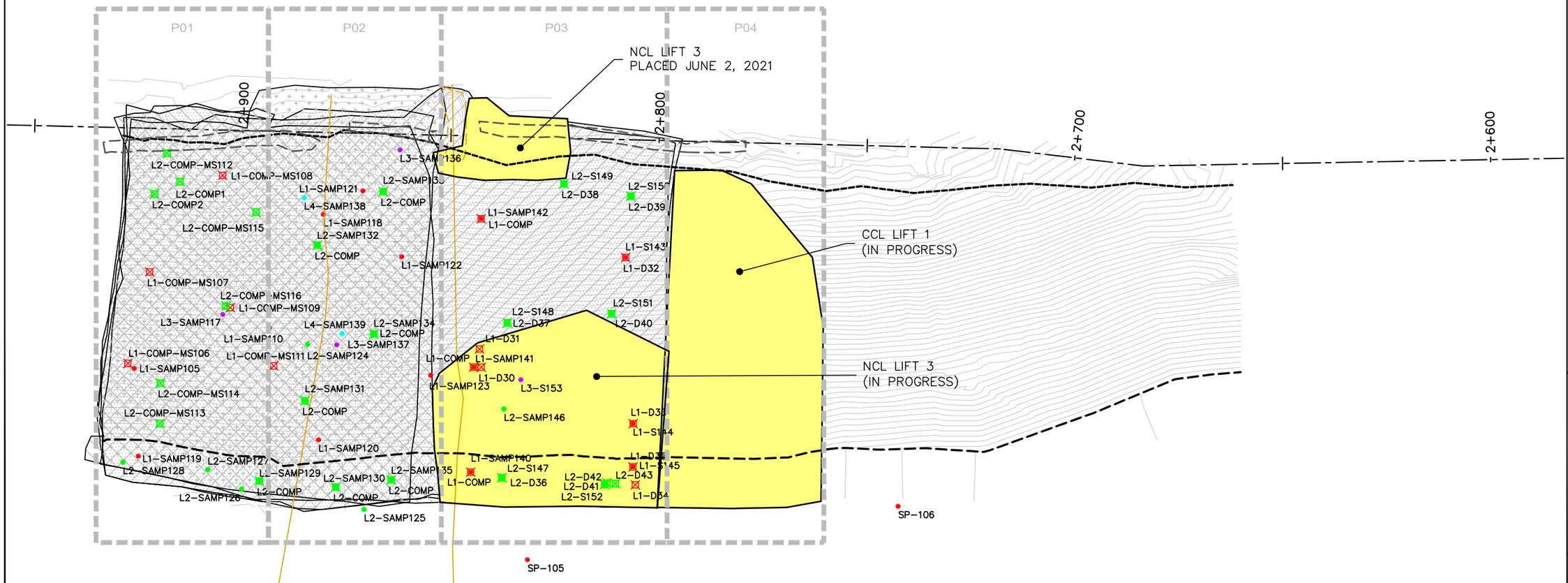
CCL LIFT 1
PLACED JUNE 2, 2021 = 0m^3
PLACED TO DATE = 3,658m^3

CCL LIFT 2
PLACED JUNE 2, 2021 = 0m^3
PLACED TO DATE = 3,096m^3

NCL LIFT 3
PLACED JUNE 2, 2021 = 211m^3
PLACED TO DATE = 3,456m^3

NCL LIFT 4
PLACED JUNE 2, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.254 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 2, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

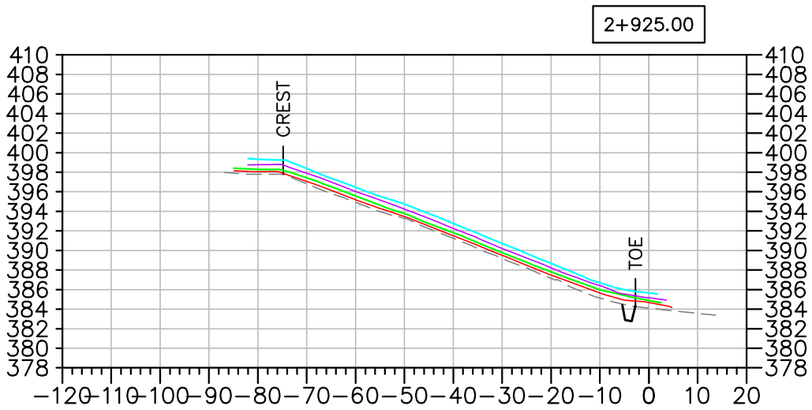
DRAWING TITLE
EMRS RECLAMATION

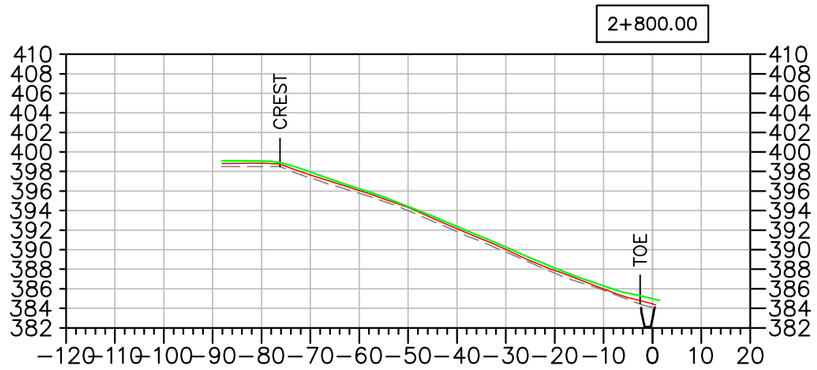
PURPOSE
DAILY PROGRESS

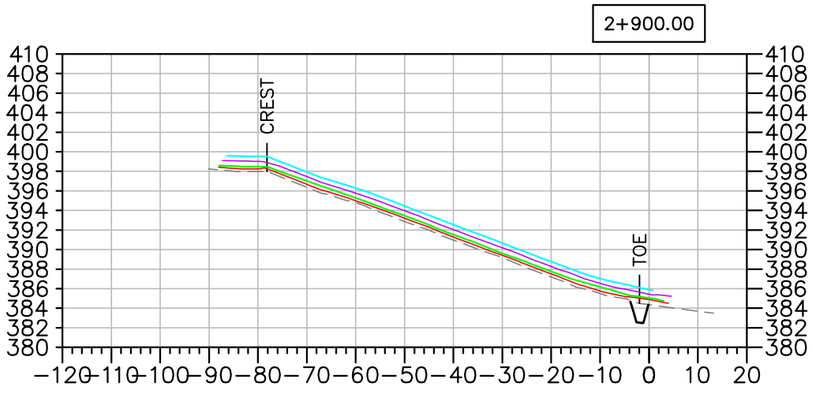
DATE	JUNE 2, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

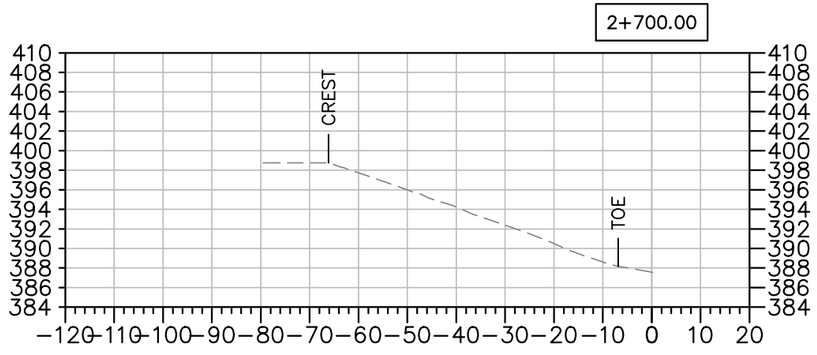
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 2, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 2, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
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EXCAVATED TO DATE = 555m^3

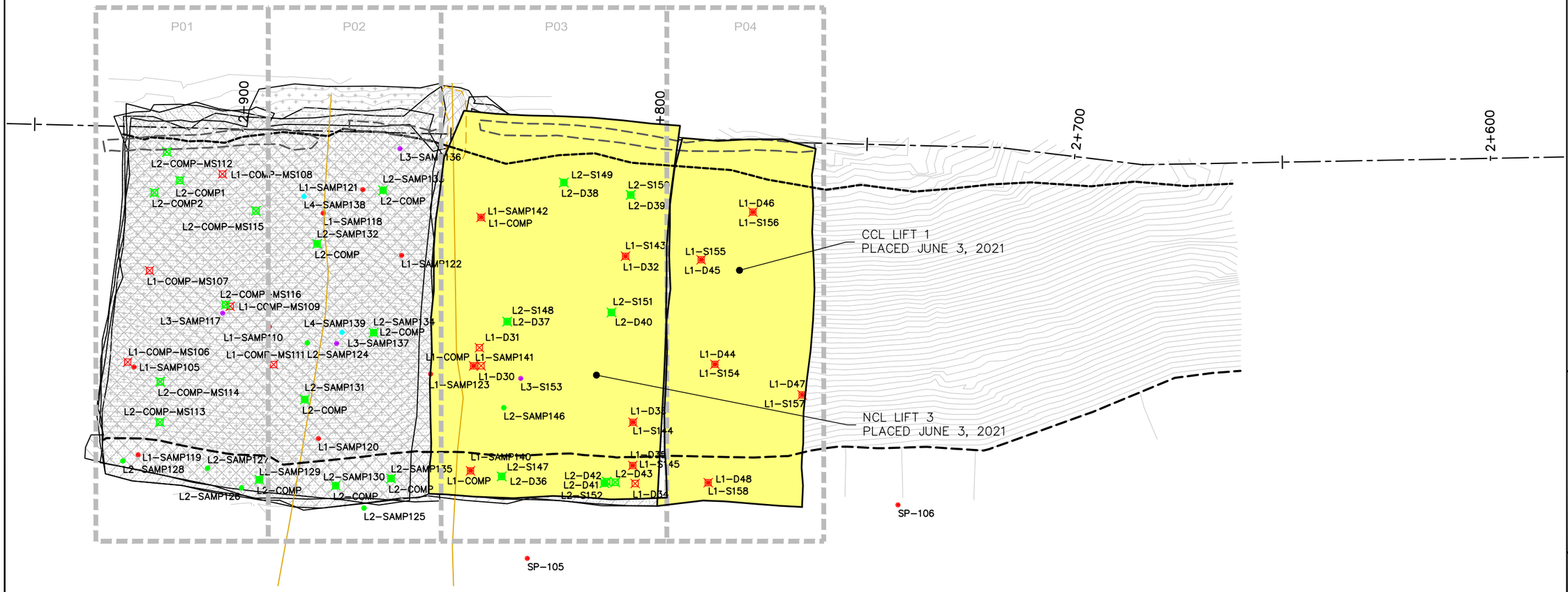
CCL LIFT 1
PLACED JUNE 3, 2021 = 1,007m^3
PLACED TO DATE = 4,665m^3

CCL LIFT 2
PLACED JUNE 3, 2021 = 0m^3
PLACED TO DATE = 3,096m^3

NCL LIFT 3
PLACED JUNE 3, 2021 = 2,507m^3
PLACED TO DATE = 5,963m^3

NCL LIFT 4
PLACED JUNE 3, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.254 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 3, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

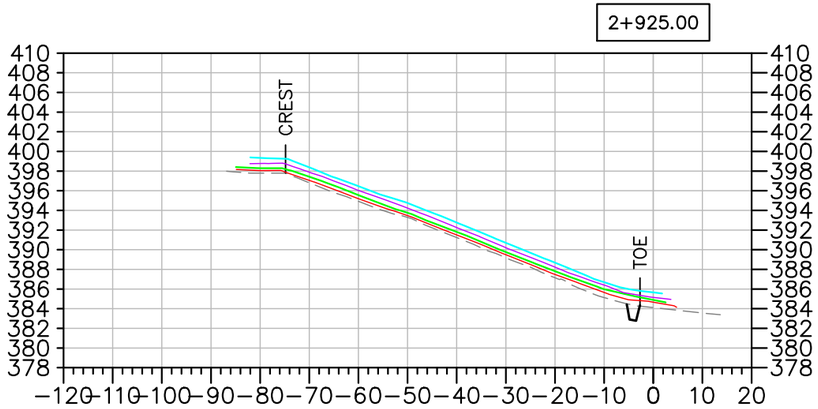
DRAWING TITLE
EMRS RECLAMATION

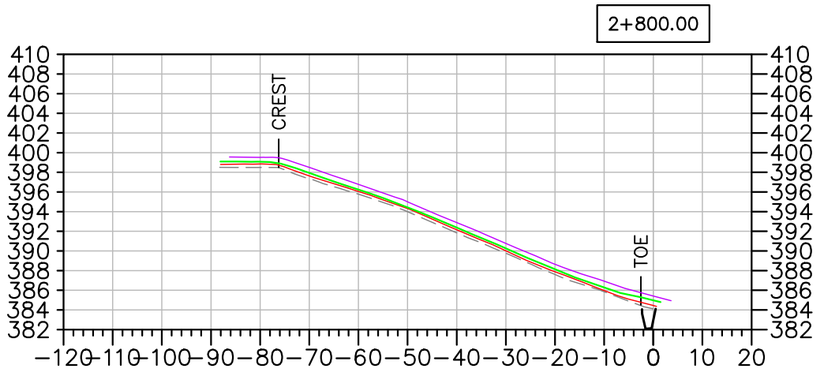
PURPOSE
DAILY PROGRESS

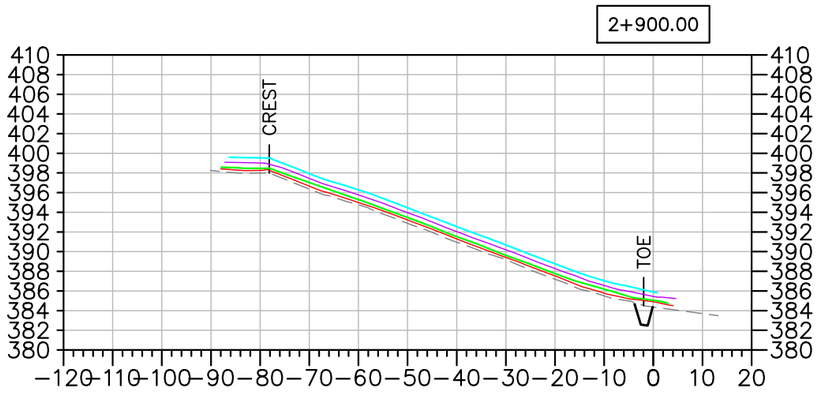
DATE	JUNE 3, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

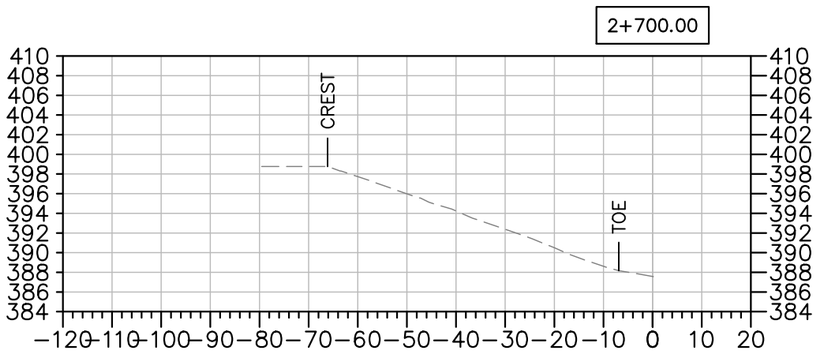
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 3, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 3, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 4, 2021 = 0m^3
EXCAVATED TO DATE = 555m^3

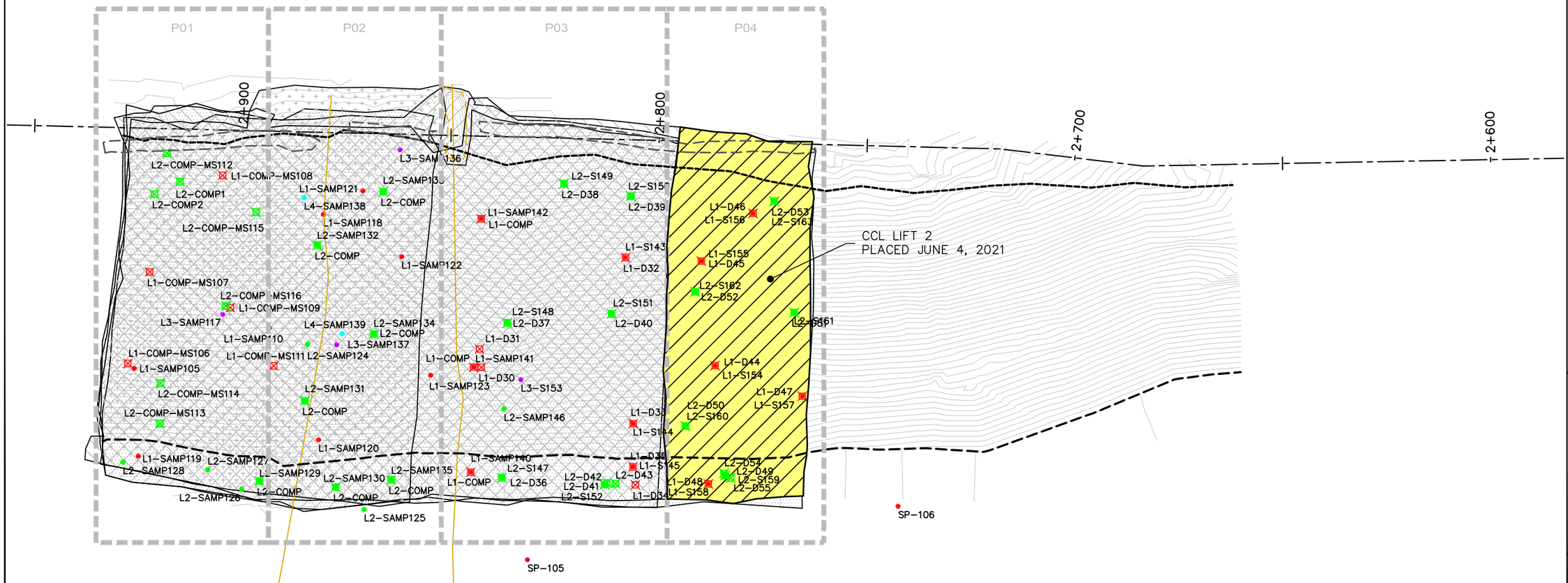
CCL LIFT 1
PLACED JUNE 4, 2021 = 0m^3
PLACED TO DATE = 4,665m^3

CCL LIFT 2
PLACED JUNE 4, 2021 = 718m^3
PLACED TO DATE = 3,814m^3

NCL LIFT 3
PLACED JUNE 4, 2021 = 0m^3
PLACED TO DATE = 5,963m^3

NCL LIFT 4
PLACED JUNE 4, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.547 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 4, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

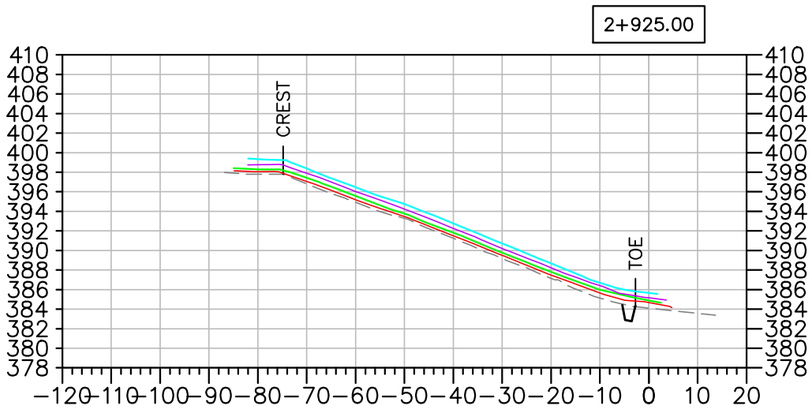
DRAWING TITLE
EMRS RECLAMATION

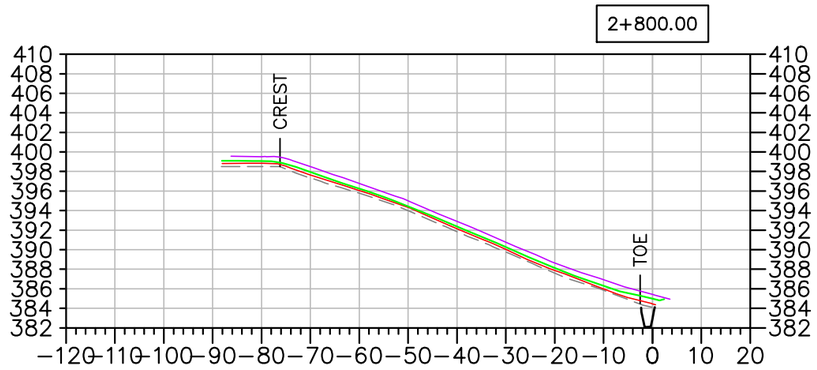
PURPOSE
DAILY PROGRESS

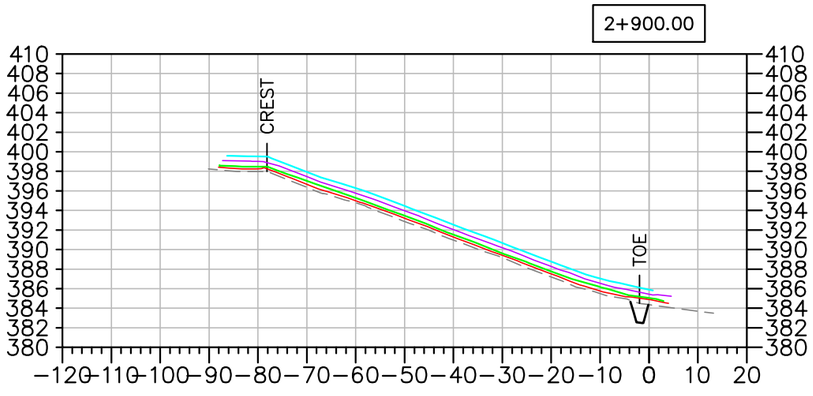
DATE	JUNE 4, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

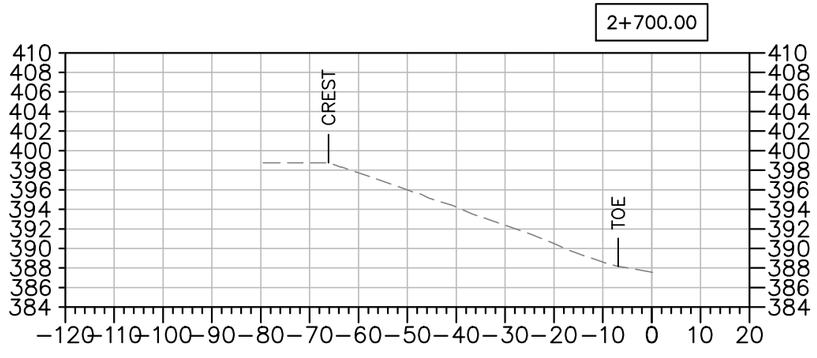
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 4, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 4, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 5, 2021 = 0m^3
EXCAVATED TO DATE = 555m^3

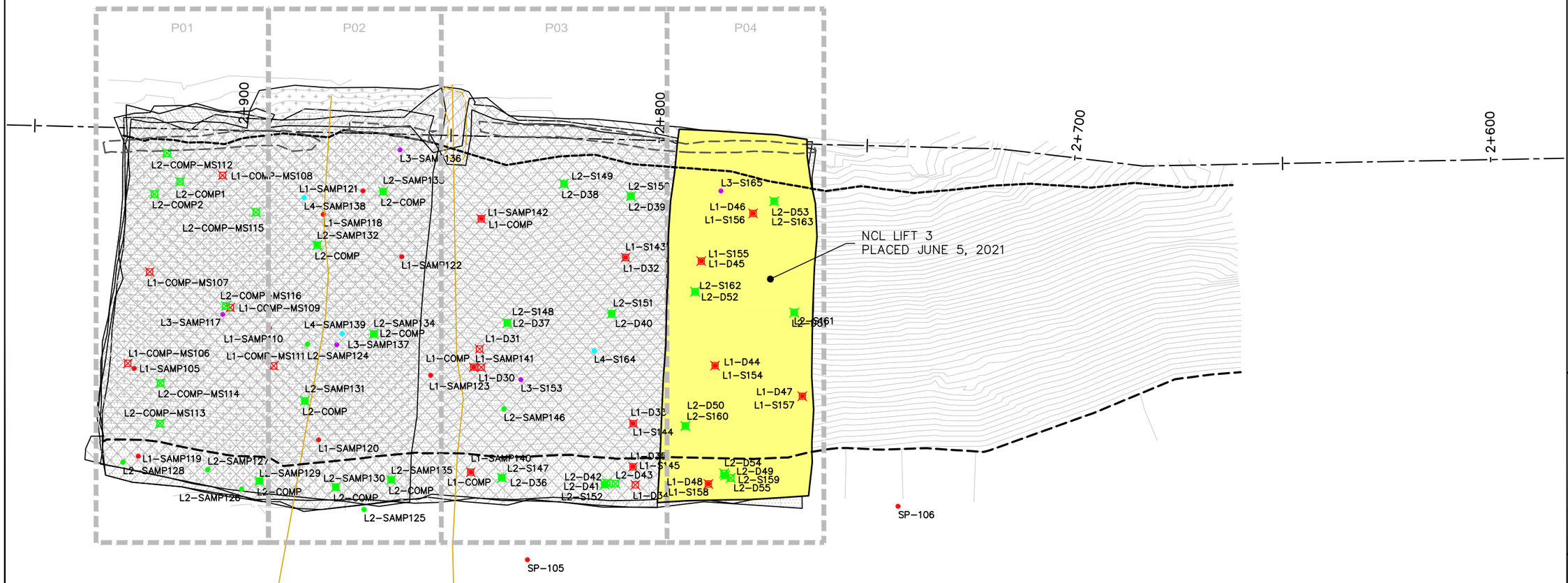
CCL LIFT 1
PLACED JUNE 5, 2021 = 0m^3
PLACED TO DATE = 4,665m^3

CCL LIFT 2
PLACED JUNE 5, 2021 = 0m^3
PLACED TO DATE = 3,814m^3

NCL LIFT 3
PLACED JUNE 5, 2021 = 1,592m^3
PLACED TO DATE = 7,555m^3

NCL LIFT 4
PLACED JUNE 5, 2021 = 0m^3
PLACED TO DATE = 3,263m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.547 ha
NCL COMPLETED TO DATE = 0.707 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 5, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

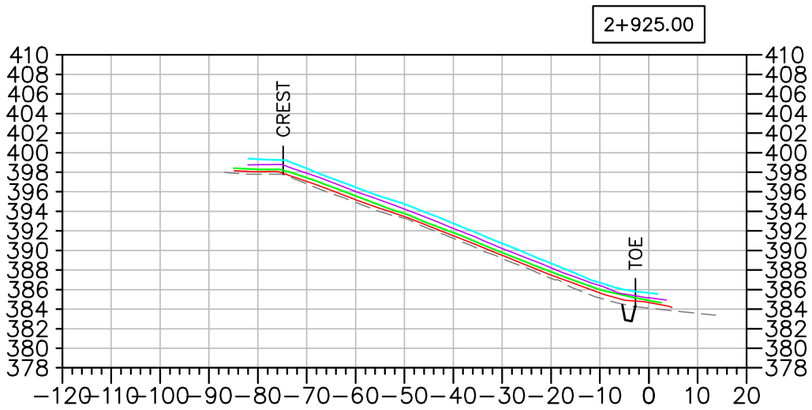
DRAWING TITLE
EMRS RECLAMATION

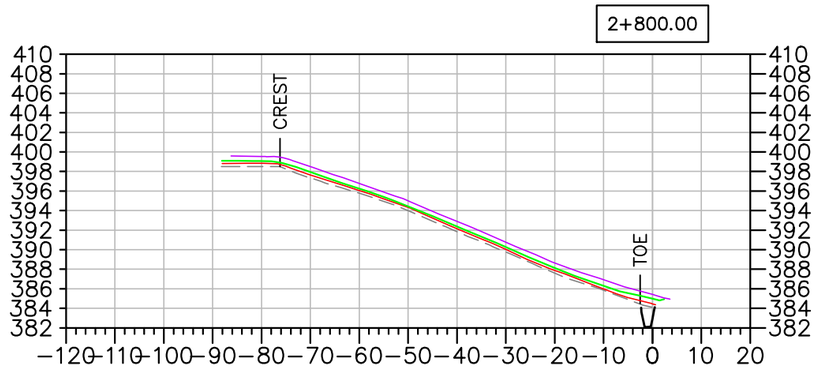
PURPOSE
DAILY PROGRESS

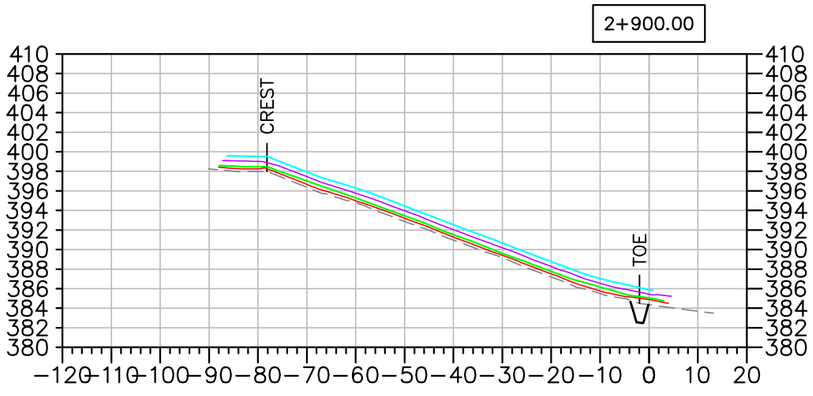
DATE	JUNE 5, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

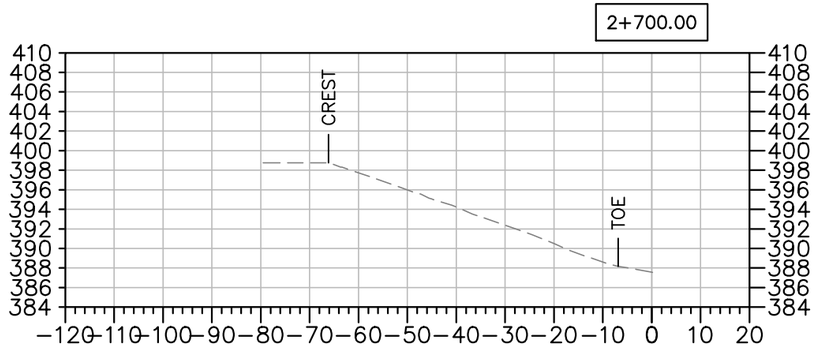
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 5, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 5, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 6, 2021 = 0m^3
EXCAVATED TO DATE = 555m^3

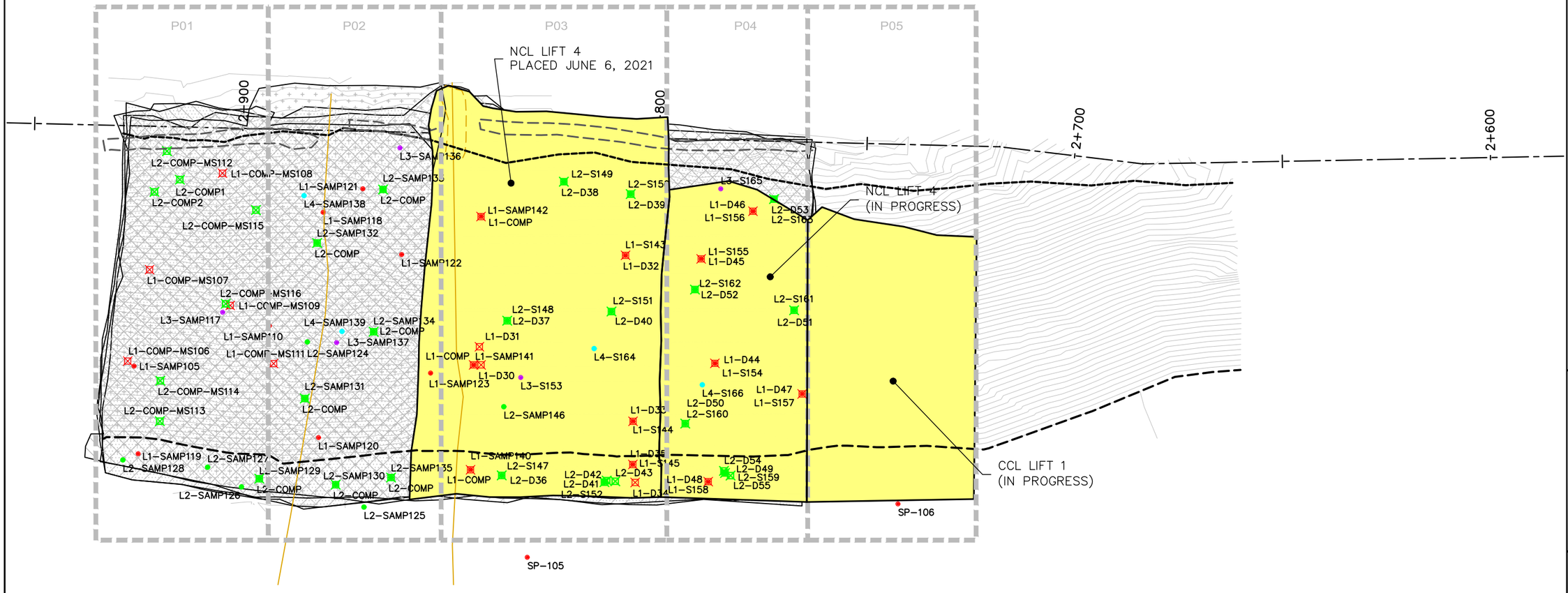
CCL LIFT 1
PLACED JUNE 6, 2021 = 0m^3
PLACED TO DATE = 4,665m^3

CCL LIFT 2
PLACED JUNE 6, 2021 = 0m^3
PLACED TO DATE = 3,814m^3

NCL LIFT 3
PLACED JUNE 6, 2021 = 0m^3
PLACED TO DATE = 7,555m^3

NCL LIFT 4
PLACED JUNE 6, 2021 = 2,552m^3
PLACED TO DATE = 5,815m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.547 ha
NCL COMPLETED TO DATE = 1.249 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 6, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

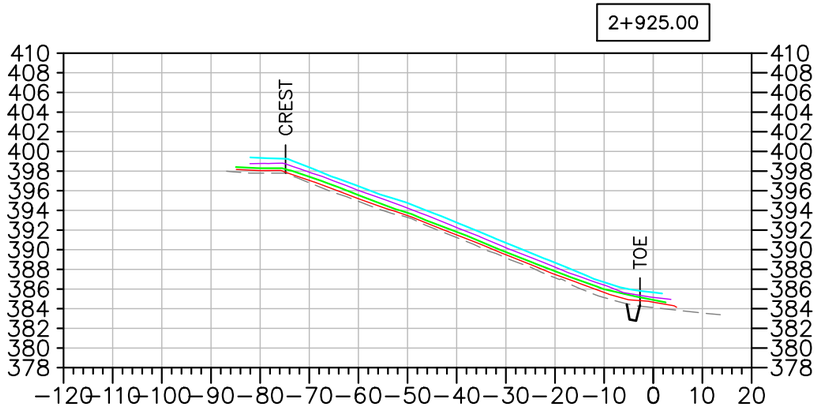
DRAWING TITLE
EMRS RECLAMATION

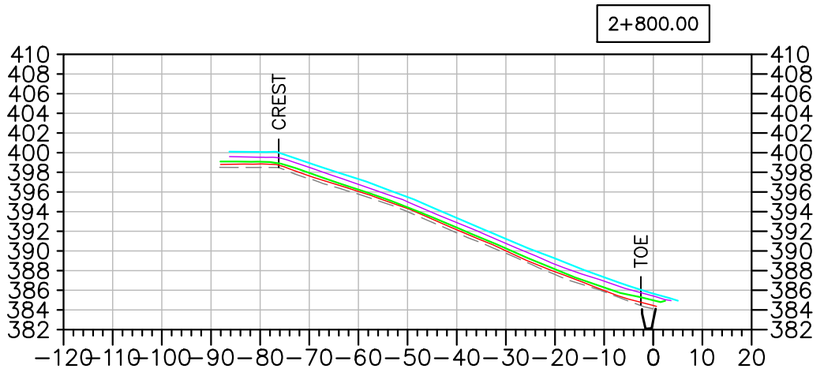
PURPOSE
DAILY PROGRESS

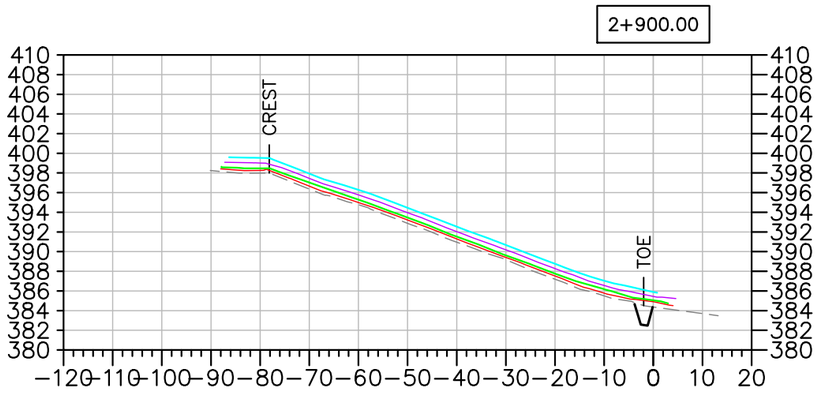
DATE	JUNE 6, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

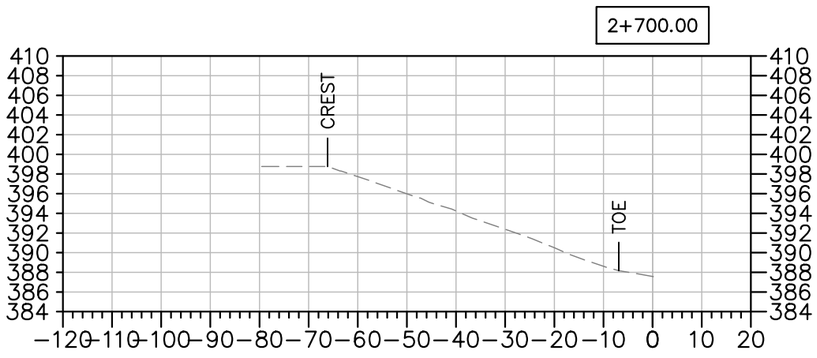
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 6, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 6, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 7, 2021 = 88m^3
EXCAVATED TO DATE = 643m^3

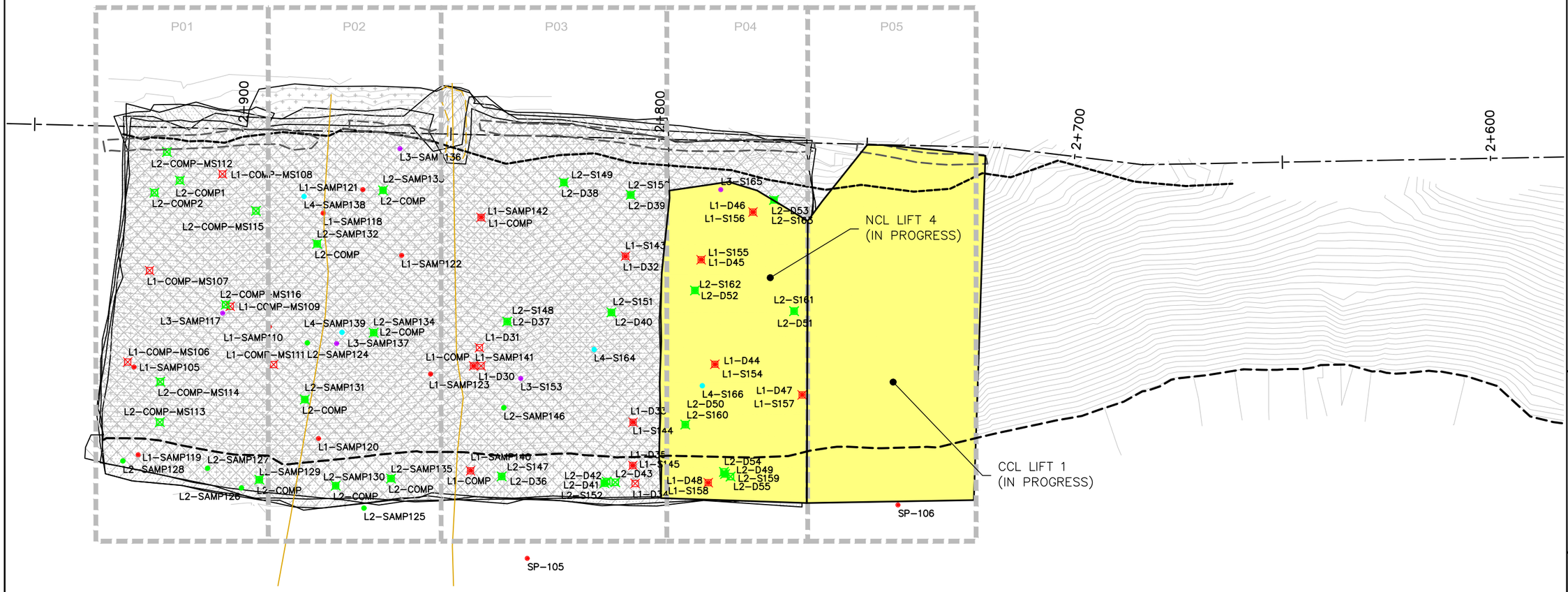
CCL LIFT 1
PLACED JUNE 7, 2021 = 0m^3
PLACED TO DATE = 4,665m^3

CCL LIFT 2
PLACED JUNE 7, 2021 = 0m^3
PLACED TO DATE = 3,814m^3

NCL LIFT 3
PLACED JUNE 7, 2021 = 0m^3
PLACED TO DATE = 7,555m^3

NCL LIFT 4
PLACED JUNE 7, 2021 = 0m^3
PLACED TO DATE = 5,815m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.547 ha
NCL COMPLETED TO DATE = 1.249 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 7, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

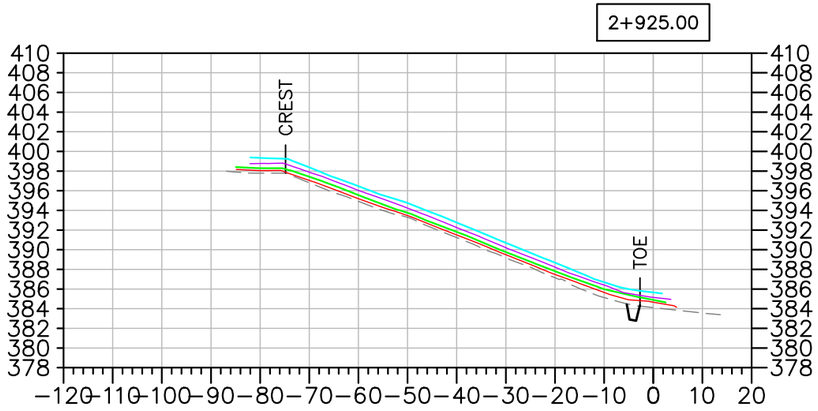
DRAWING TITLE
EMRS RECLAMATION

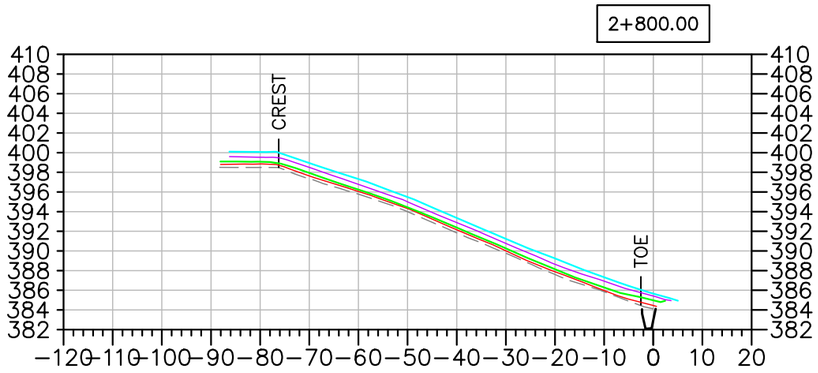
PURPOSE
DAILY PROGRESS

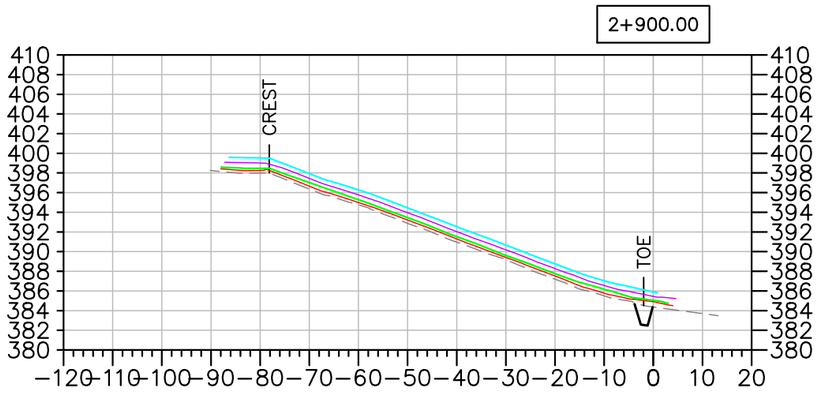
DATE	JUNE 7, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

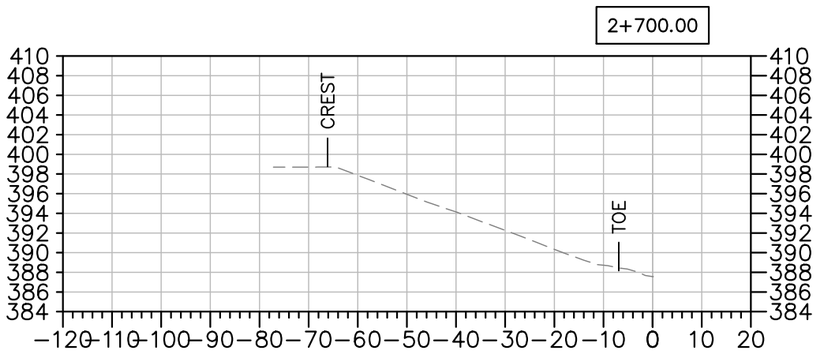
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 7, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 7, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 8, 2021 = 0m^3
EXCAVATED TO DATE = 643m^3

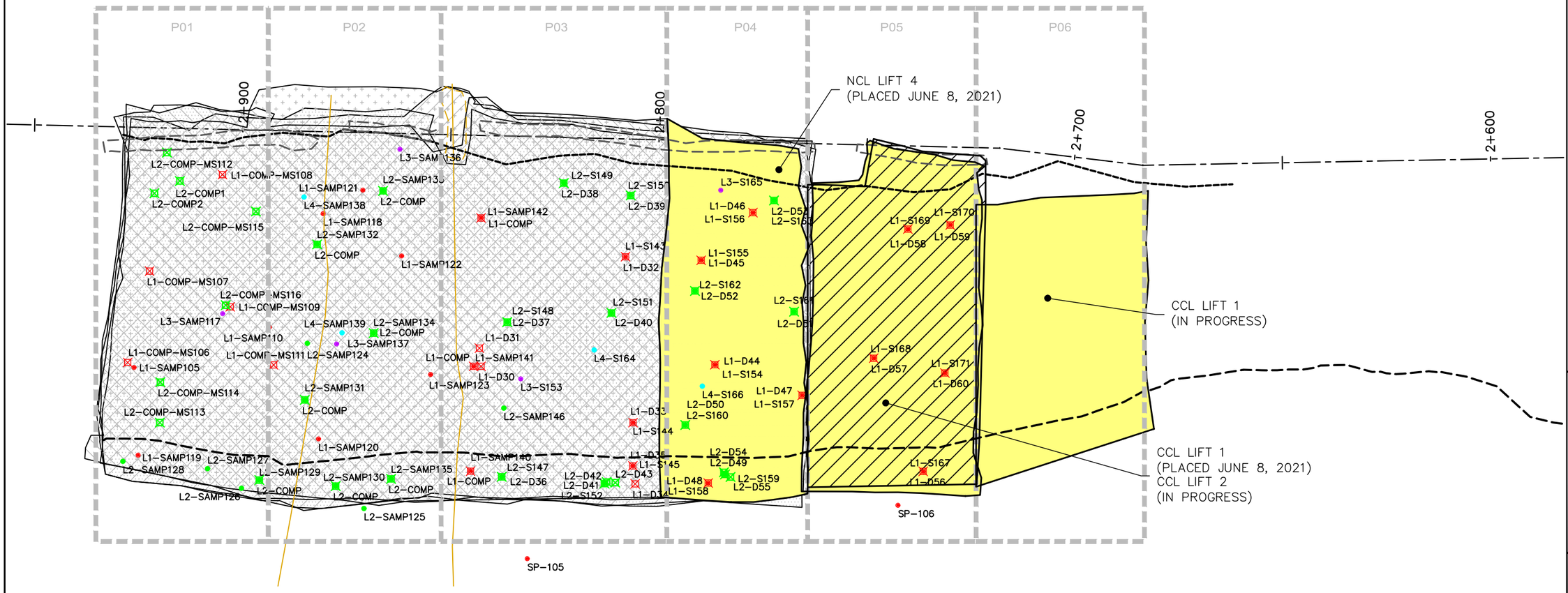
CCL LIFT 1
PLACED JUNE 8, 2021 = 1,055^3
PLACED TO DATE = 5,720m^3

CCL LIFT 2
PLACED JUNE 8, 2021 = 0m^3
PLACED TO DATE = 3,814m^3

NCL LIFT 3
PLACED JUNE 8, 2021 = 0m^3
PLACED TO DATE = 7,555m^3

NCL LIFT 4
PLACED JUNE 8, 2021 = 1,305m^3
PLACED TO DATE = 7,120m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.547 ha
NCL COMPLETED TO DATE = 1.546 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 8, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

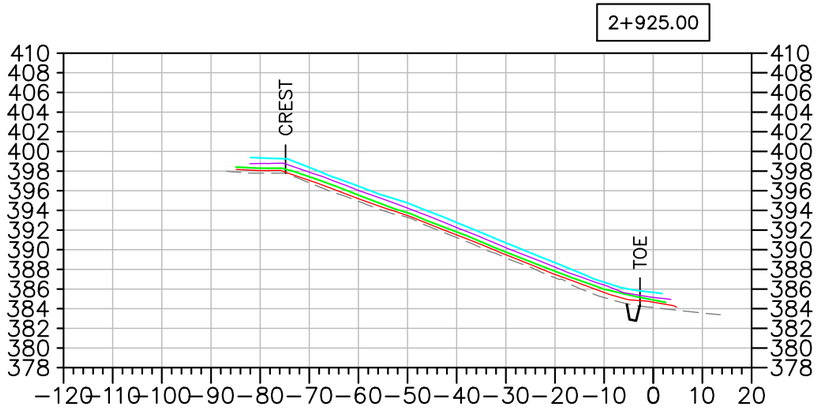
DRAWING TITLE
EMRS RECLAMATION

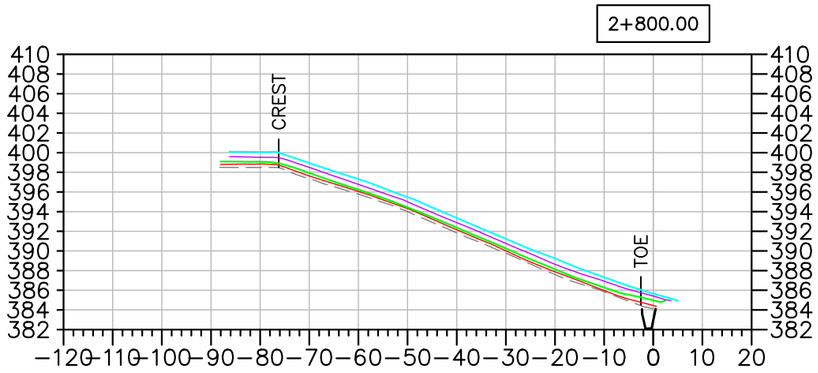
PURPOSE
DAILY PROGRESS

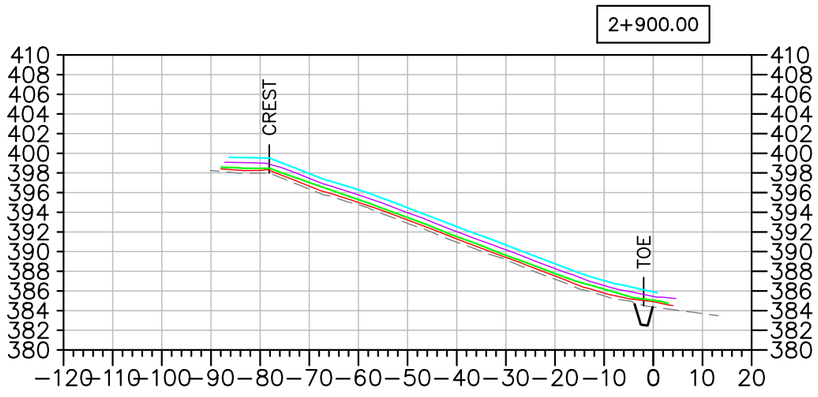
DATE	JUNE 8, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

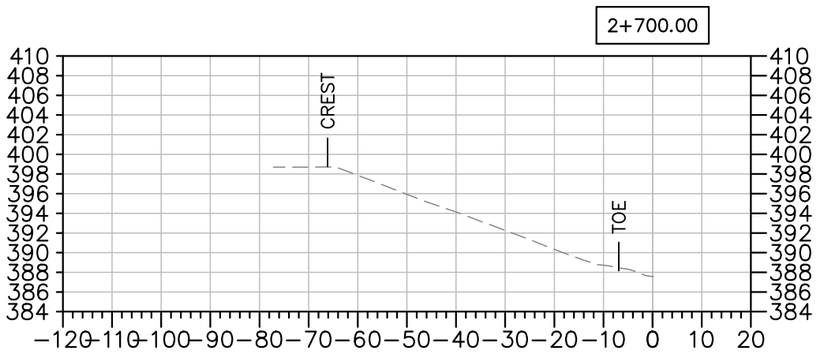
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 8, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 8, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 9, 2021 = 55m^3
EXCAVATED TO DATE = 698m^3

CCL LIFT 1
PLACED JUNE 9, 2021 = 0m^3
PLACED TO DATE = 5,720m^3

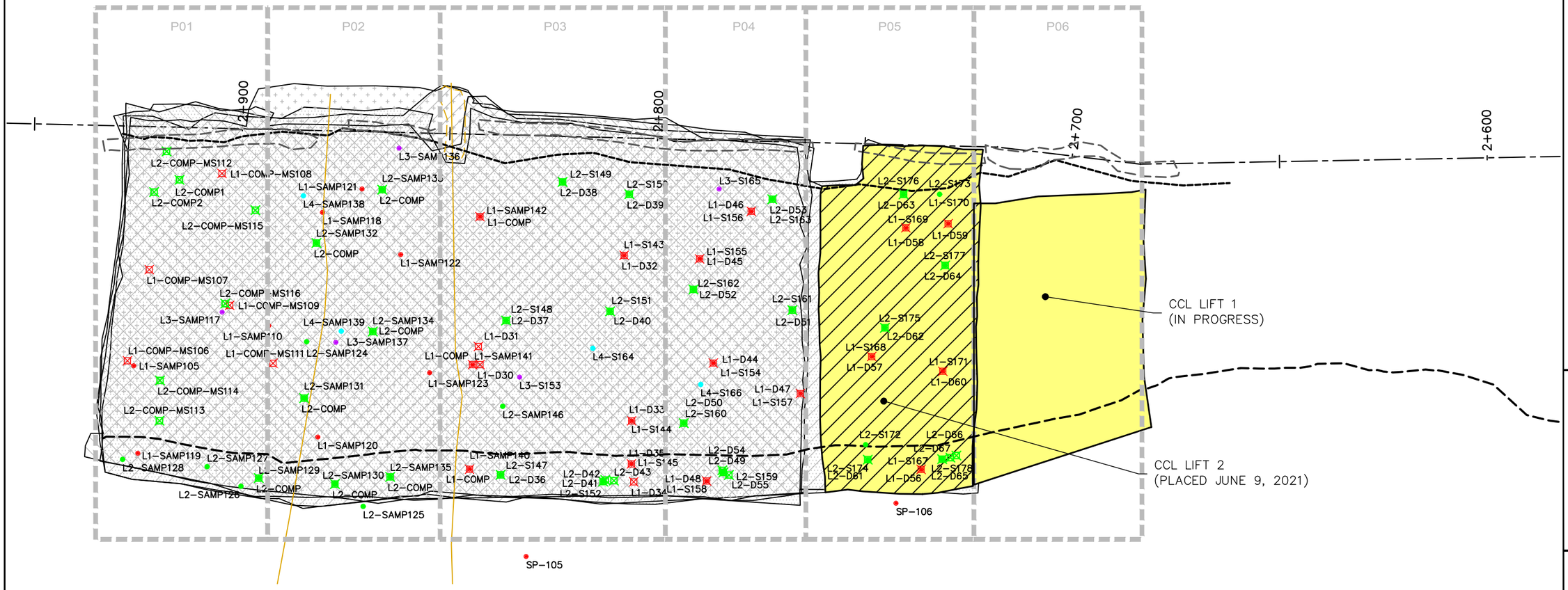
CCL LIFT 2
PLACED JUNE 9, 2021 = 866m^3
PLACED TO DATE = 4,680m^3

NCL LIFT 3
PLACED JUNE 9, 2021 = 0m^3
PLACED TO DATE = 7,555m^3

NCL LIFT 4
PLACED JUNE 9, 2021 = 0m^3
PLACED TO DATE = 7,120m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.881 ha
NCL COMPLETED TO DATE = 1.546 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 9, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

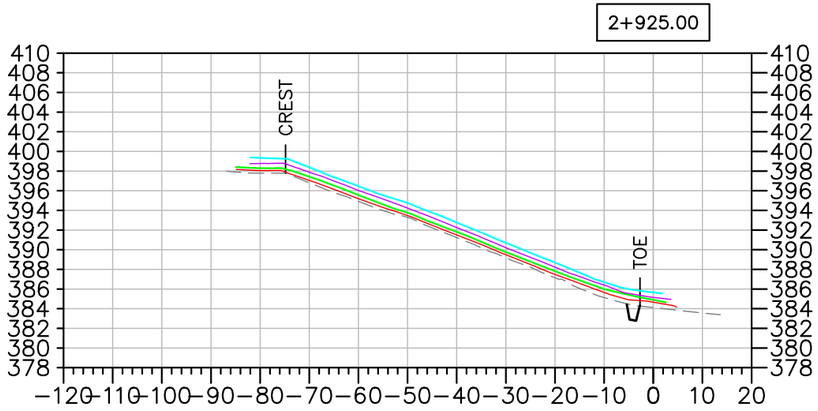
DRAWING TITLE
EMRS RECLAMATION

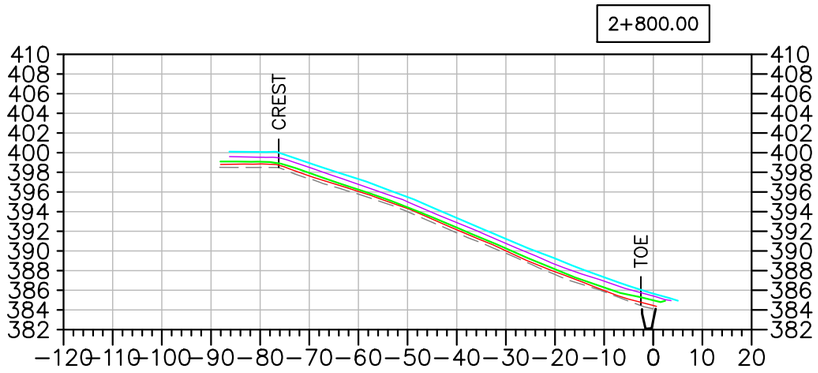
PURPOSE
DAILY PROGRESS

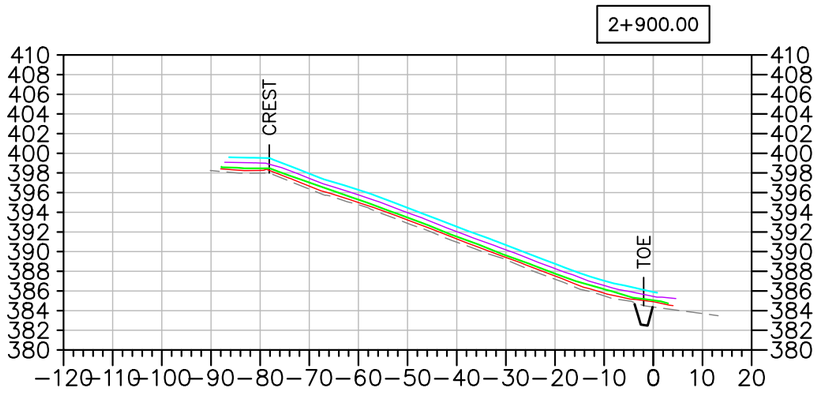
DATE	JUNE 9, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

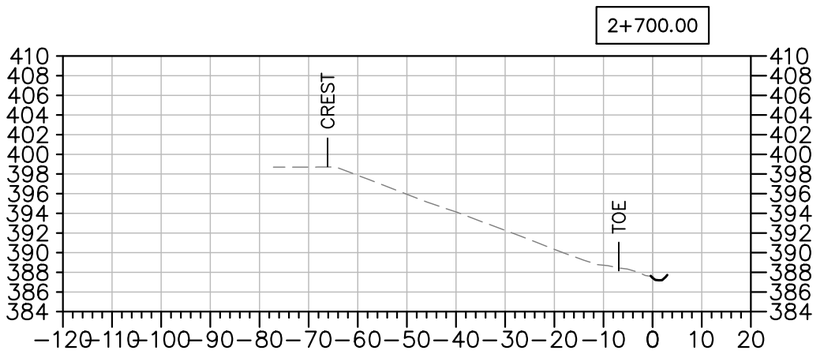
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 9, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 9, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 10, 2021 = 0m^3
EXCAVATED TO DATE = 698m^3

CCL LIFT 1
PLACED JUNE 10, 2021 = 0m^3
PLACED TO DATE = 5,720m^3

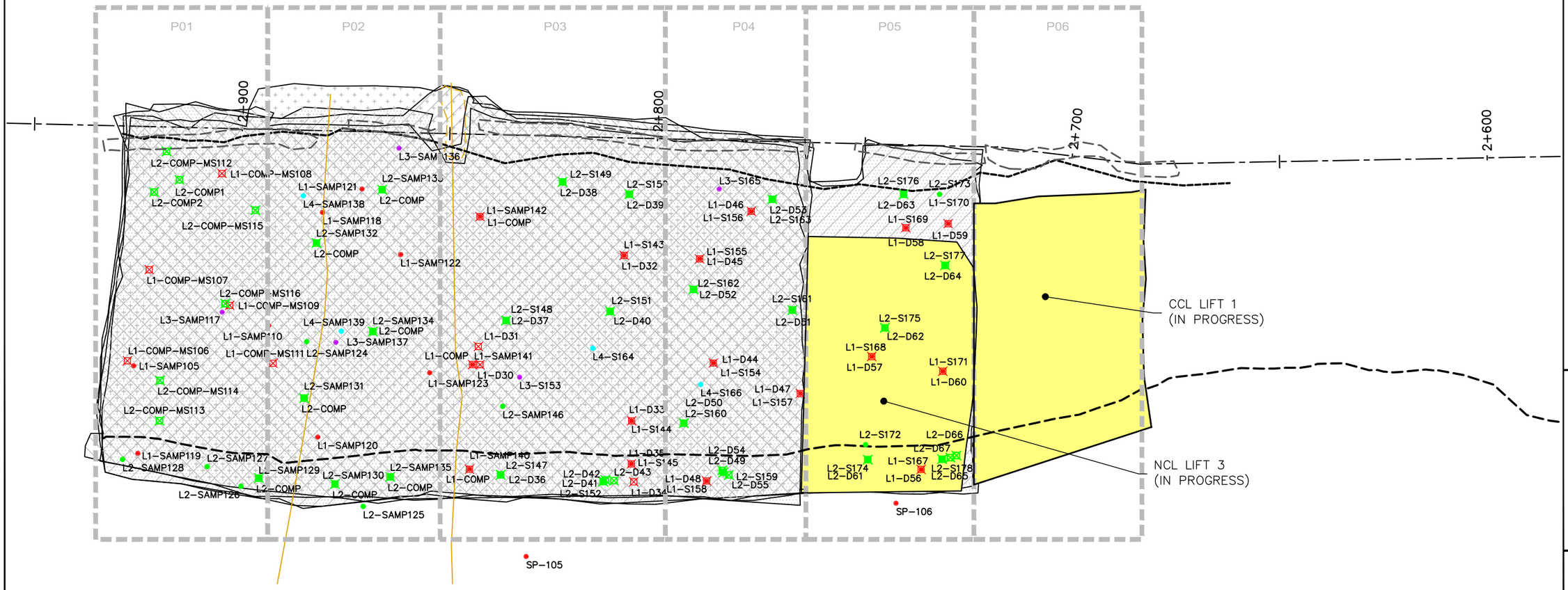
CCL LIFT 2
PLACED JUNE 10, 2021 = 0m^3
PLACED TO DATE = 4,680m^3

NCL LIFT 3
PLACED JUNE 10, 2021 = 0m^3
PLACED TO DATE = 7,555m^3

NCL LIFT 4
PLACED JUNE 10, 2021 = 0m^3
PLACED TO DATE = 7,120m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.881 ha
NCL COMPLETED TO DATE = 1.546 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 10, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

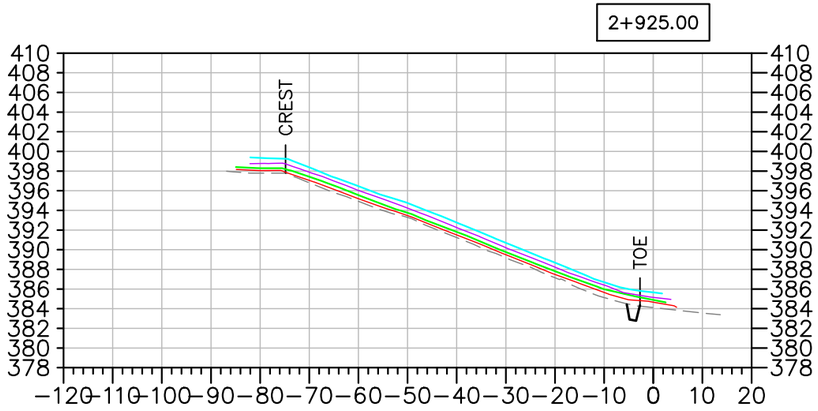
DRAWING TITLE
EMRS RECLAMATION

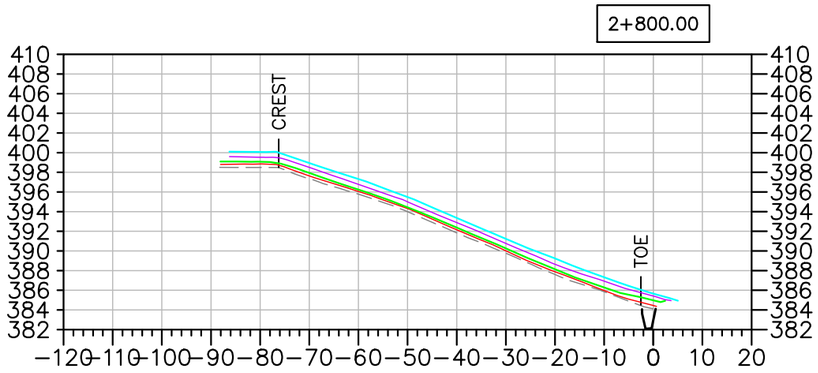
PURPOSE
DAILY PROGRESS

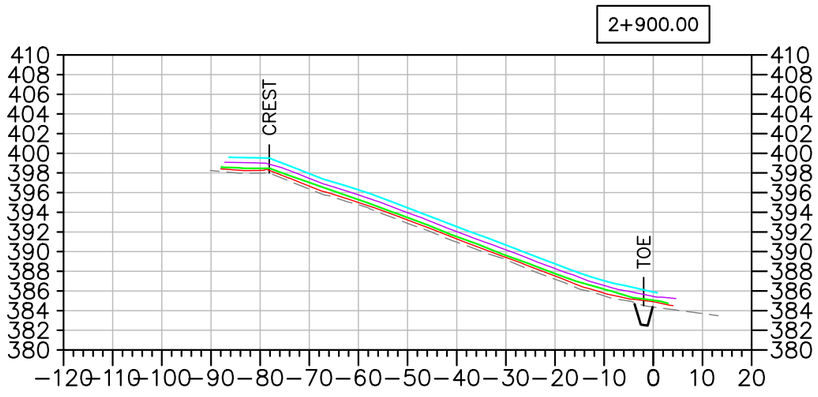
DATE	JUNE 10, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

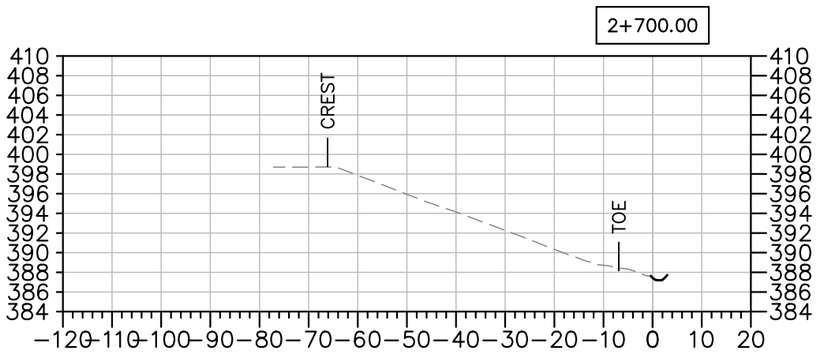
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 10, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 10, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 11, 2021 = 0m^3
EXCAVATED TO DATE = 698m^3

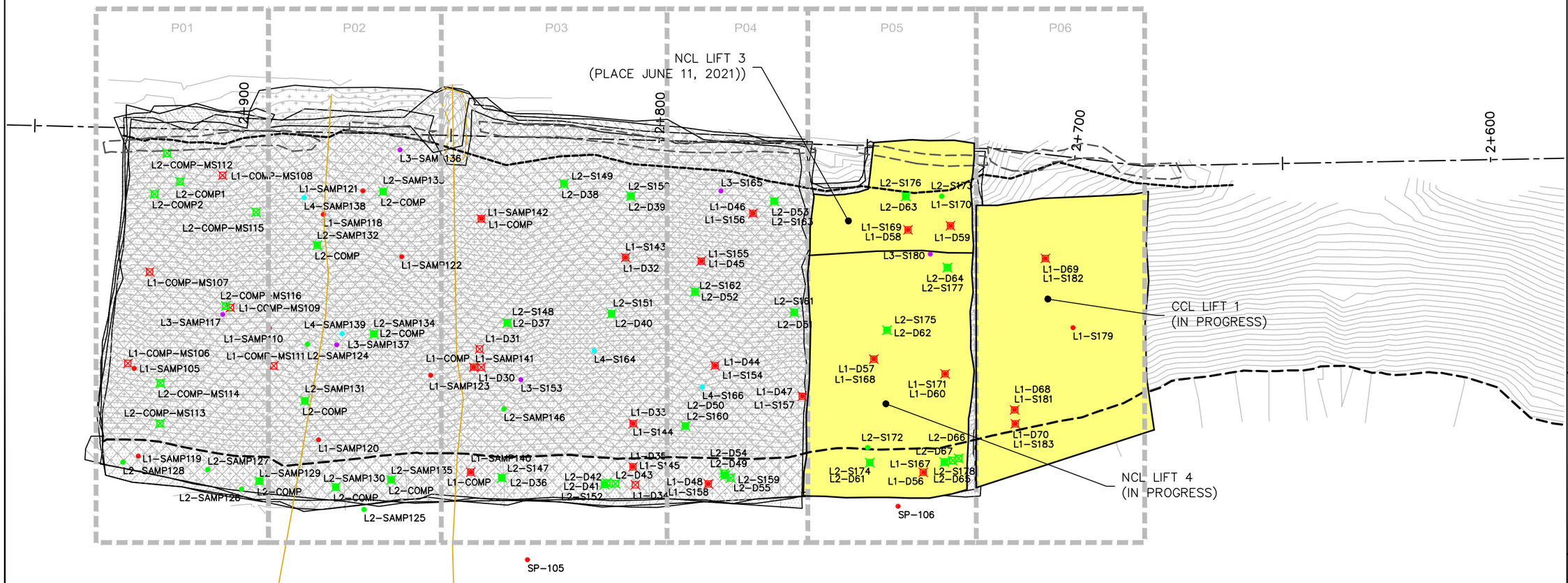
CCL LIFT 1
PLACED JUNE 11, 2021 = 0m^3
PLACED TO DATE = 5,720m^3

CCL LIFT 2
PLACED JUNE 11, 2021 = 0m^3
PLACED TO DATE = 4,680m^3

NCL LIFT 3
PLACED JUNE 11, 2021 = 1,554m^3
PLACED TO DATE = 9,109m^3

NCL LIFT 4
PLACED JUNE 11, 2021 = 0m^3
PLACED TO DATE = 7,120m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.881 ha
NCL COMPLETED TO DATE = 1.546 ha



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 11, 2021 SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

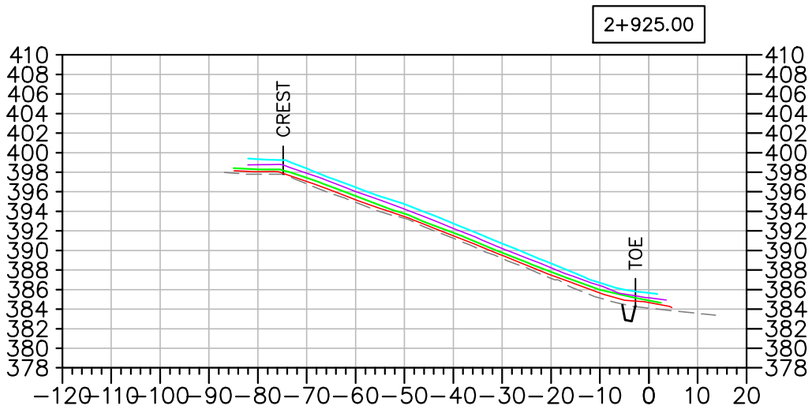
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EMRS RECLAMATION

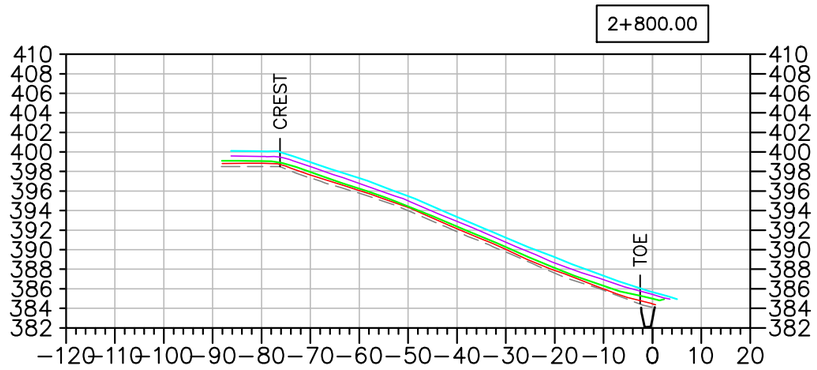
PURPOSE
DAILY PROGRESS

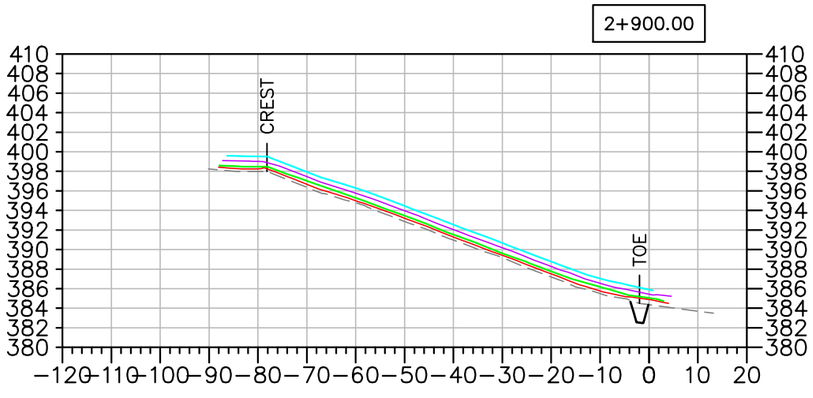
DATE	JUNE 11, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

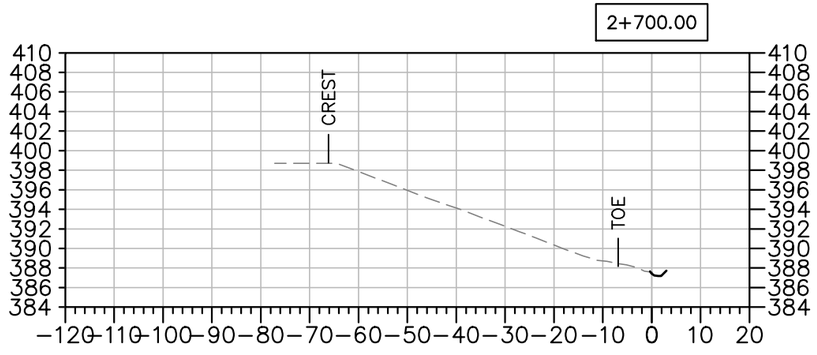
DWG. No.	PROJECT No.	PHASE No.
D–1	19–1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 11, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 11, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 12, 2021 = 0m^3
EXCAVATED TO DATE = 698m^3

CCL LIFT 1
PLACED JUNE 12, 2021 = 922m^3
PLACED TO DATE = 6,642m^3

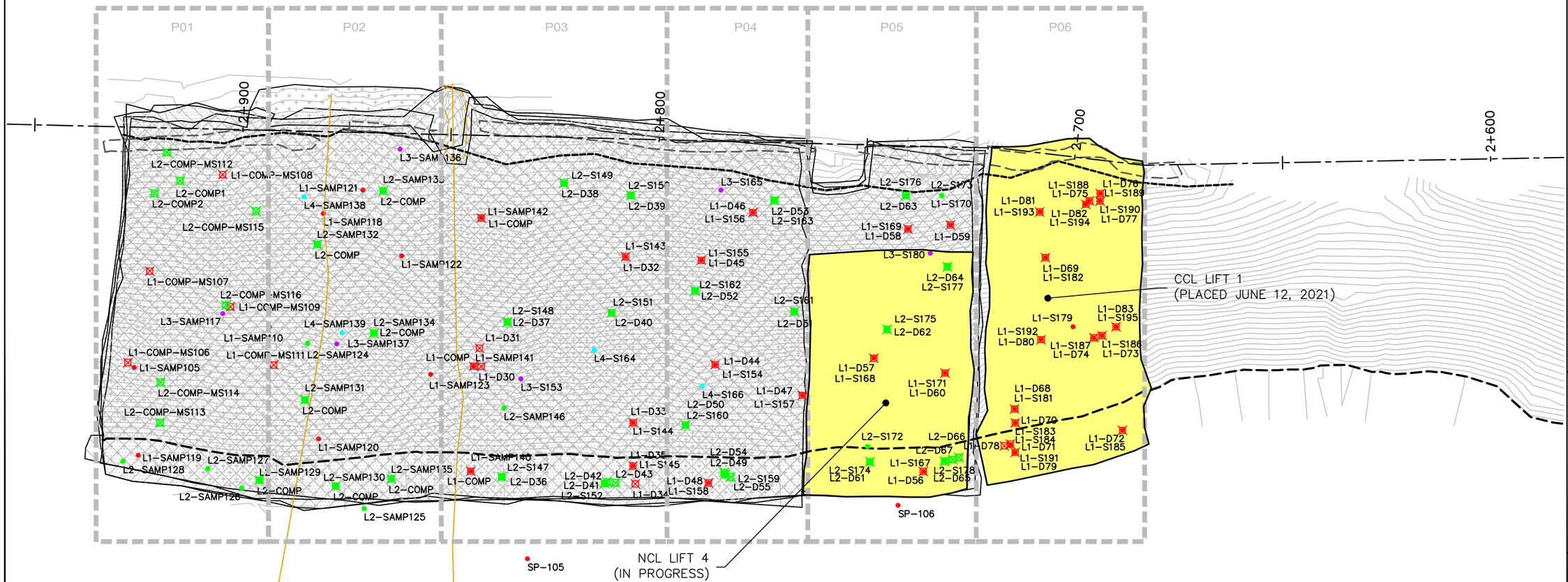
CCL LIFT 2
PLACED JUNE 12, 2021 = 0m^3
PLACED TO DATE = 4,680m^3

NCL LIFT 3
PLACED JUNE 12, 2021 = 0m^3
PLACED TO DATE = 9,109m^3

NCL LIFT 4
PLACED JUNE 12, 2021 = 0m^3
PLACED TO DATE = 7,120m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 1.881 ha
NCL COMPLETED TO DATE = 1.546 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 12, 2021 SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

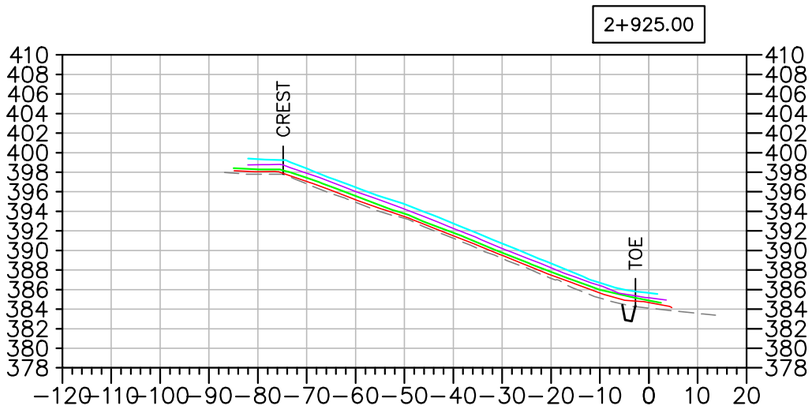
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

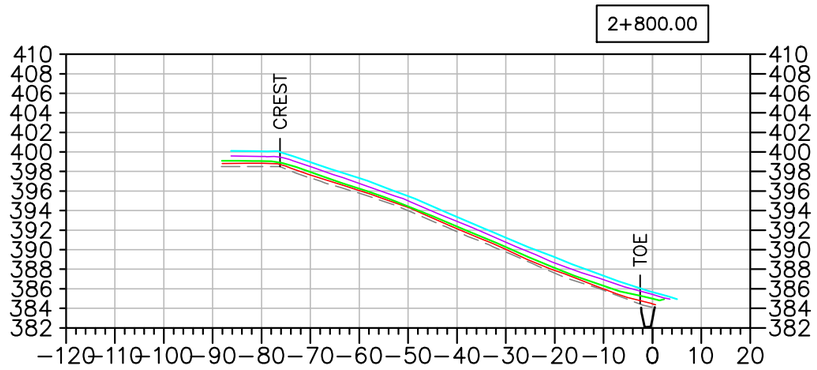
DRAWING TITLE
EMRS RECLAMATION

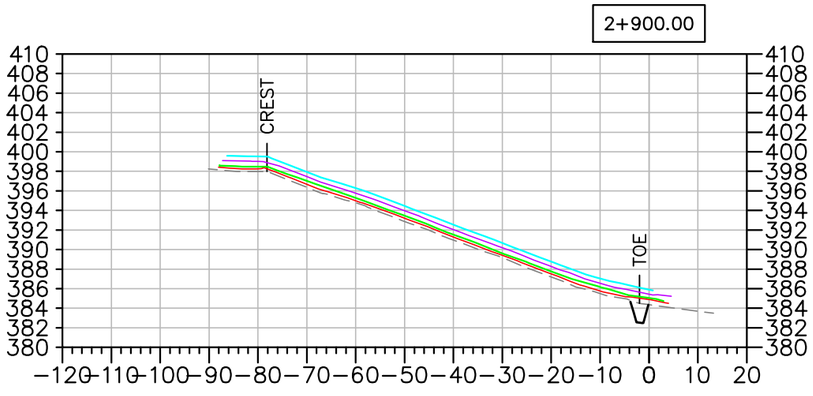
PURPOSE
DAILY PROGRESS

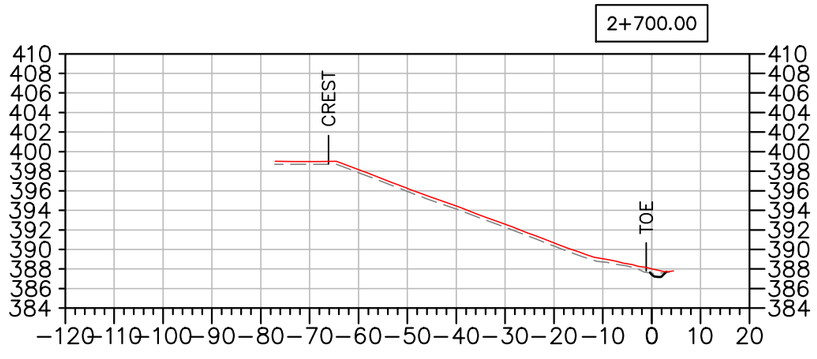
DATE	JUNE 12, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D–1	19–1138	115









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 12, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 12, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 13, 2021 = 0m^3
EXCAVATED TO DATE = 698m^3

CCL LIFT 1
PLACED JUNE 13, 2021 = 0m^3
PLACED TO DATE = 6,642m^3

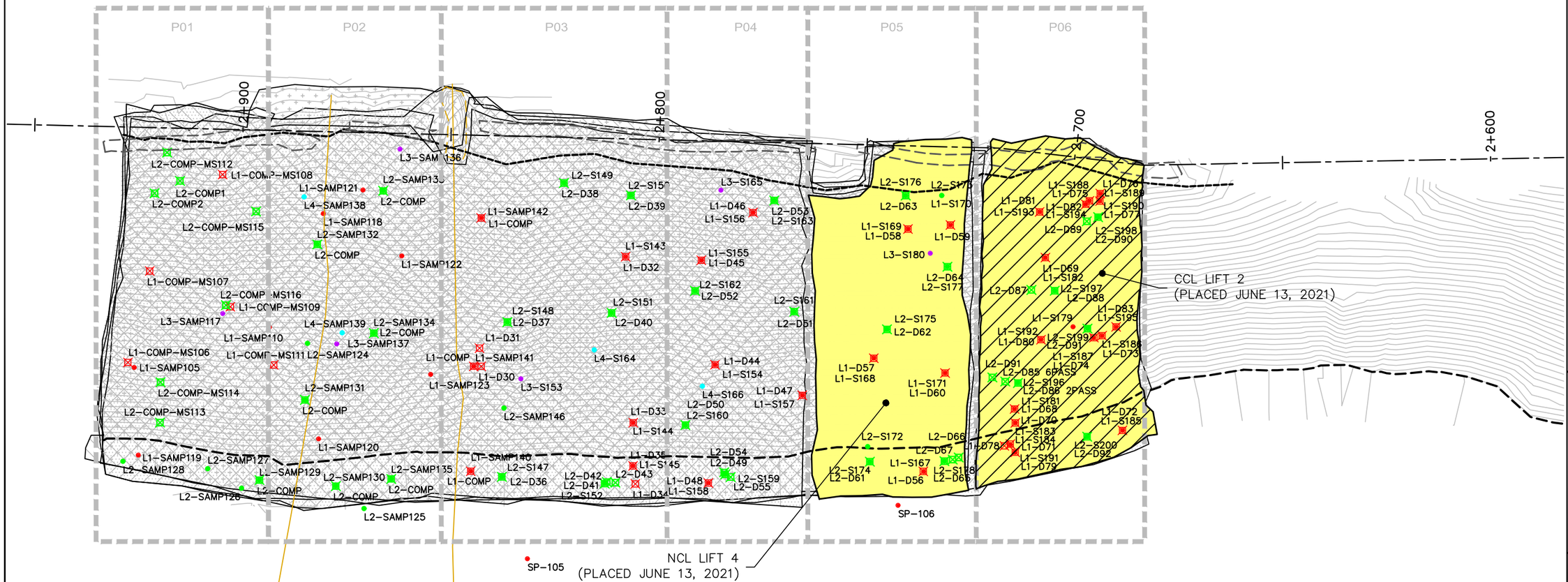
CCL LIFT 2
PLACED JUNE 13, 2021 = 837m^3
PLACED TO DATE = 5,517m^3

NCL LIFT 3
PLACED JUNE 13, 2021 = 0m^3
PLACED TO DATE = 9,109m^3

NCL LIFT 4
PLACED JUNE 13, 2021 = 1,514m^3
PLACED TO DATE = 8,634m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.189 ha
NCL COMPLETED TO DATE = 1.859 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 13, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

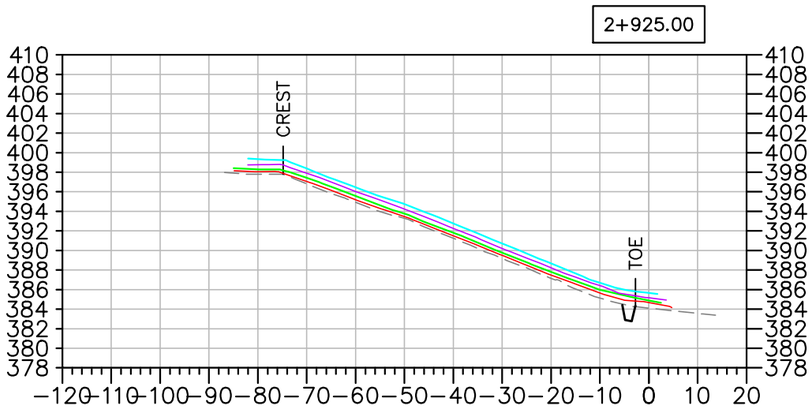
DRAWING TITLE
EMRS RECLAMATION

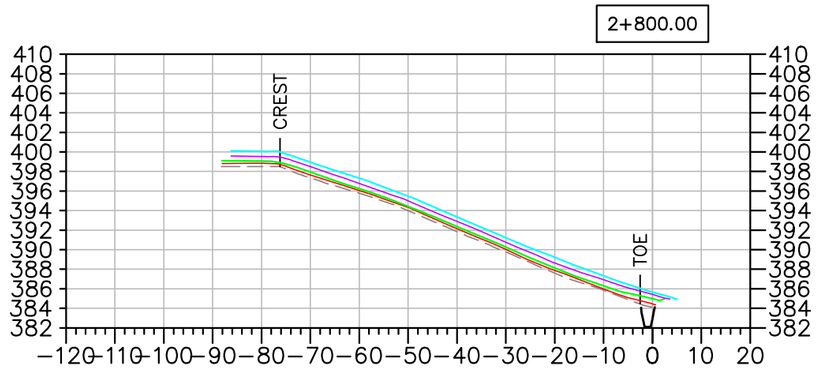
PURPOSE
DAILY PROGRESS

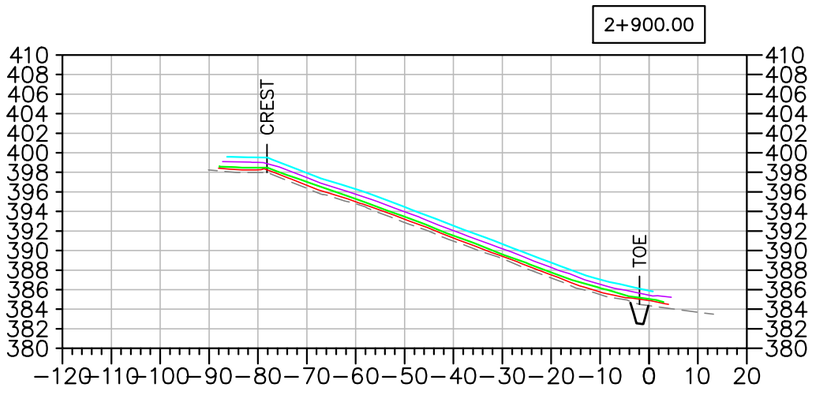
DATE	JUNE 13, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

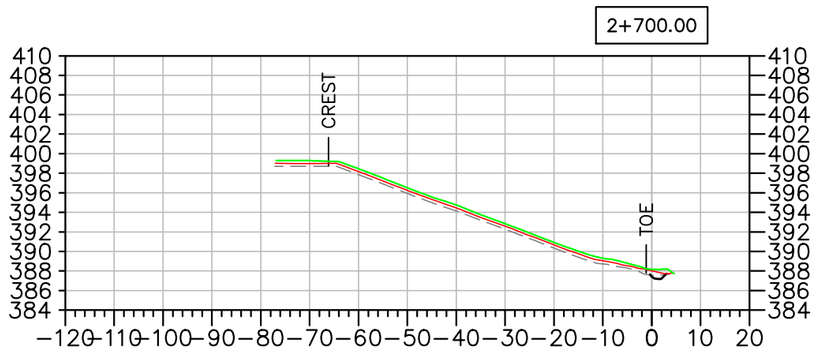
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 13, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
EMRS RECLAMATION
CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 13, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 14, 2021 = 68m^3
EXCAVATED TO DATE = 765m^3

CCL LIFT 1
PLACED JUNE 14, 2021 = 0m^3
PLACED TO DATE = 6,642m^3

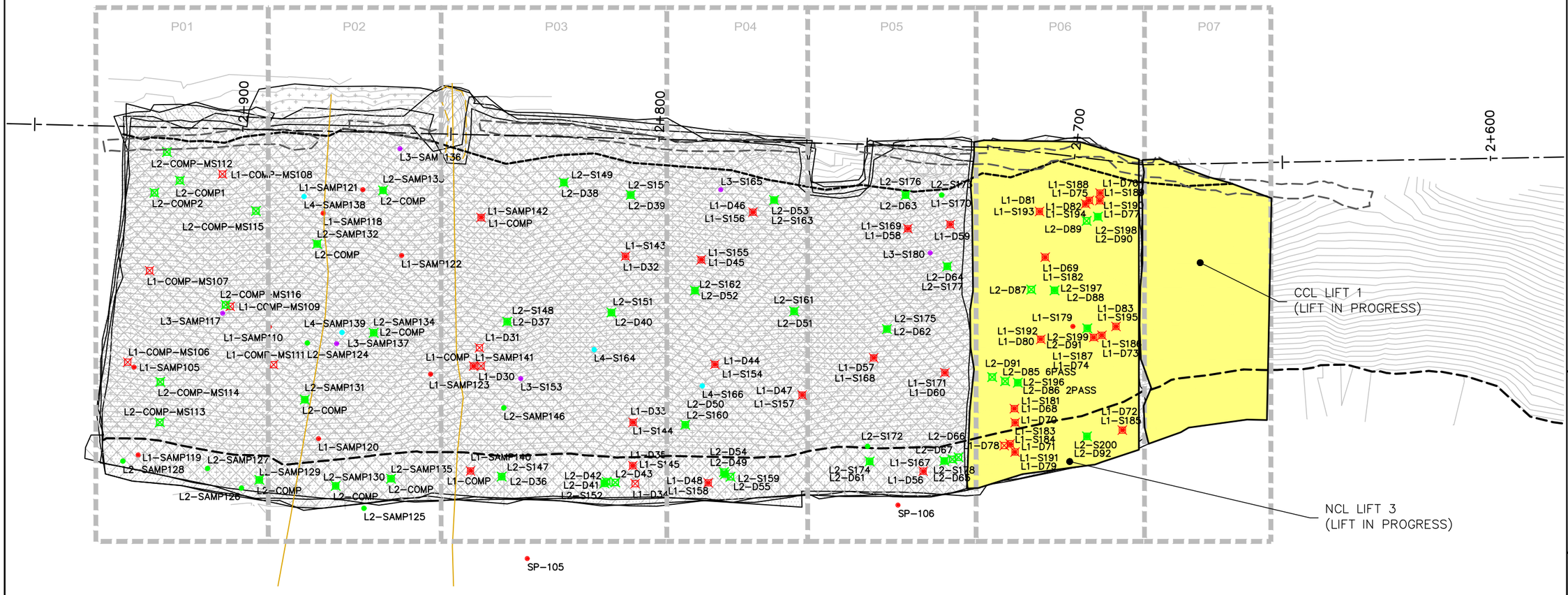
CCL LIFT 2
PLACED JUNE 14, 2021 = 0m^3
PLACED TO DATE = 5,517m^3

NCL LIFT 3
PLACED JUNE 14, 2021 = 0m^3
PLACED TO DATE = 9,109m^3

NCL LIFT 4
PLACED JUNE 14, 2021 = 0m^3
PLACED TO DATE = 8,634m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.189 ha
NCL COMPLETED TO DATE = 1.859 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 14, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

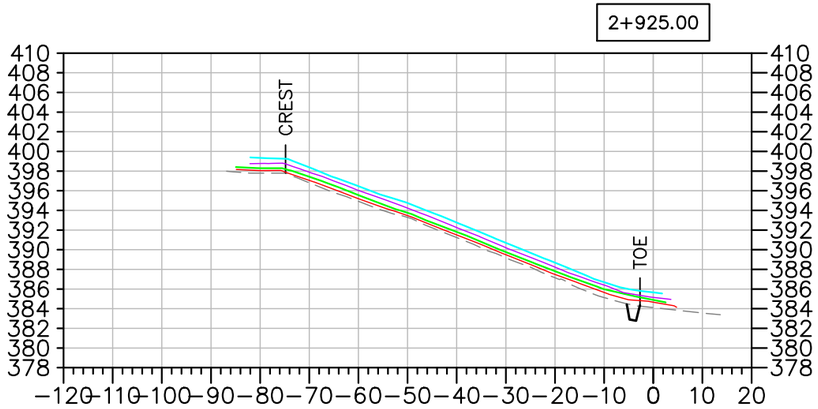
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2021 EMRS
RECLAMATION

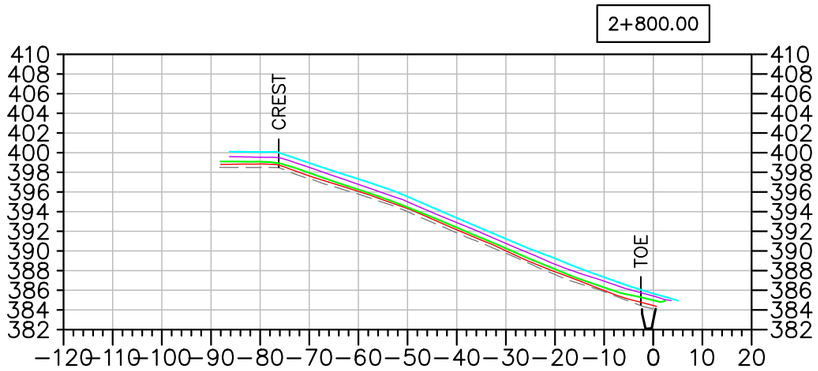
PURPOSE
DAILY PROGRESS

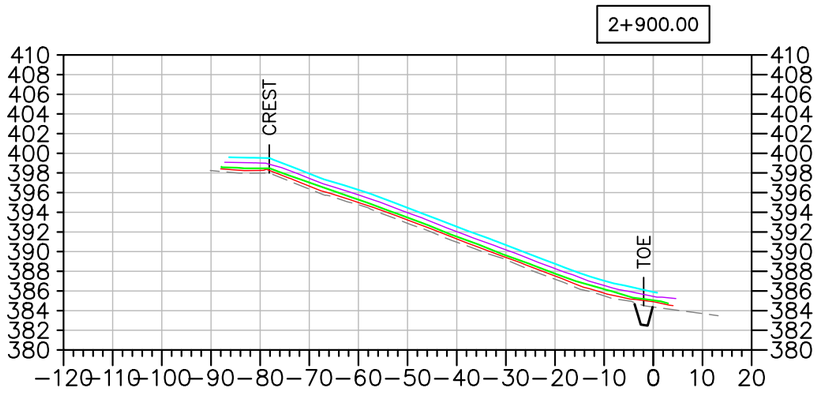
DATE	JUNE 14, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

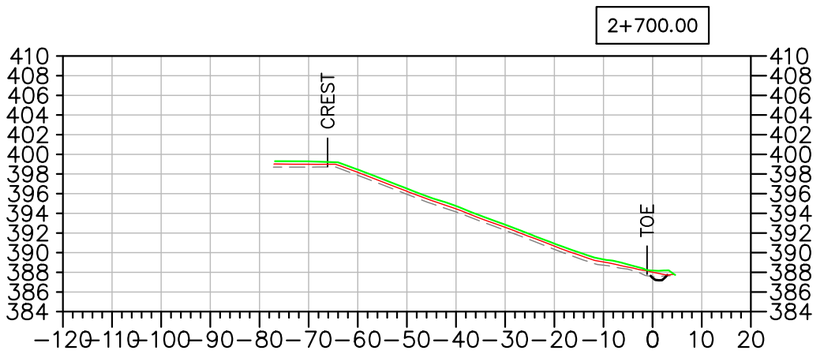
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 14, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 14, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 15, 2021 = 0m^3
EXCAVATED TO DATE = 765m^3

CCL LIFT 1
PLACED JUNE 15, 2021 = 0m^3
PLACED TO DATE = 6,642m^3

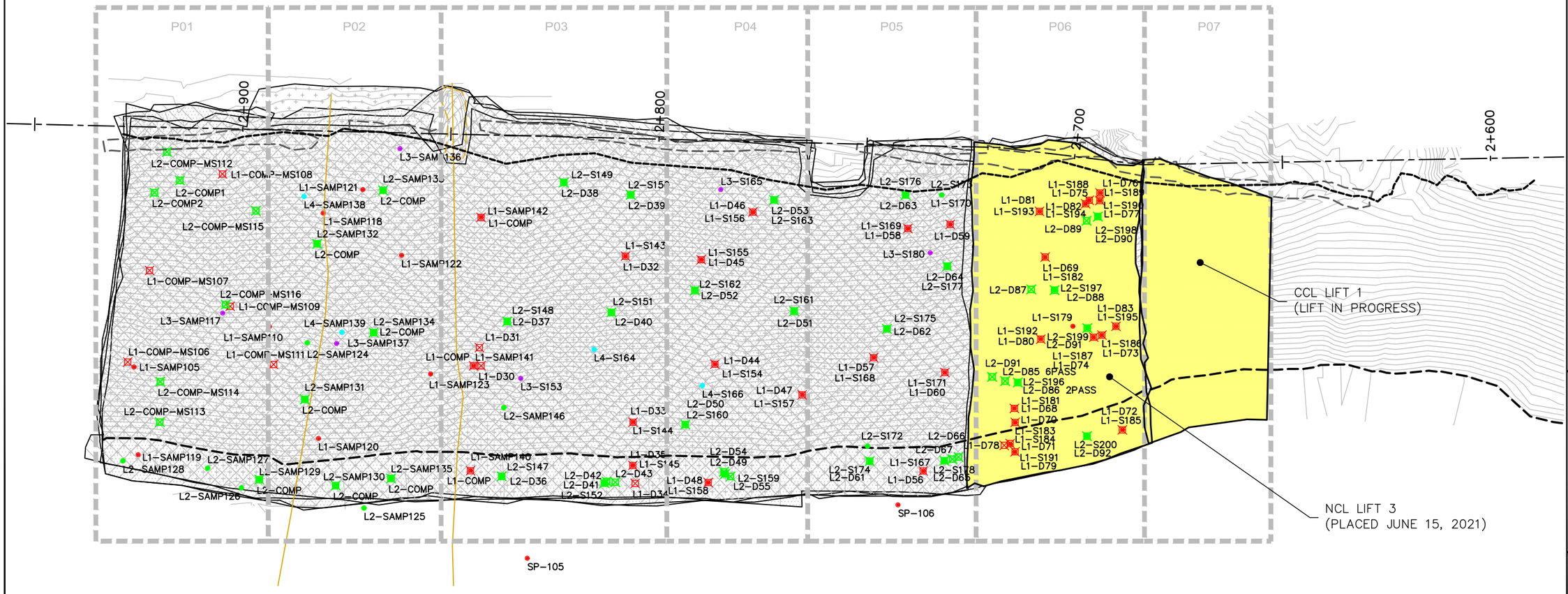
CCL LIFT 2
PLACED JUNE 15, 2021 = 0m^3
PLACED TO DATE = 5,517m^3

NCL LIFT 3
PLACED JUNE 15, 2021 = 1,561m^3
PLACED TO DATE = 10,670m^3

NCL LIFT 4
PLACED JUNE 15, 2021 = 0m^3
PLACED TO DATE = 8,634m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.189 ha
NCL COMPLETED TO DATE = 1.859 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 15, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

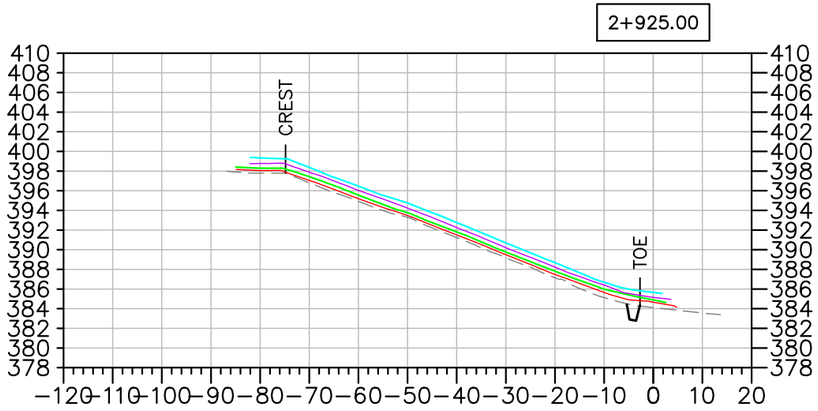
DRAWING TITLE
2021 EMRS
RECLAMATION

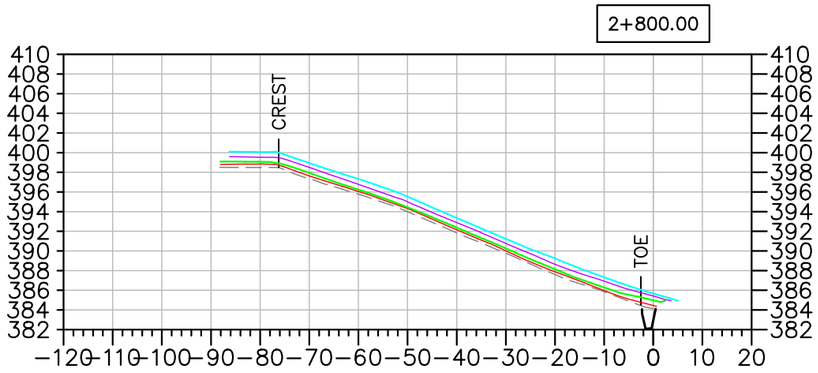
PURPOSE
DAILY PROGRESS

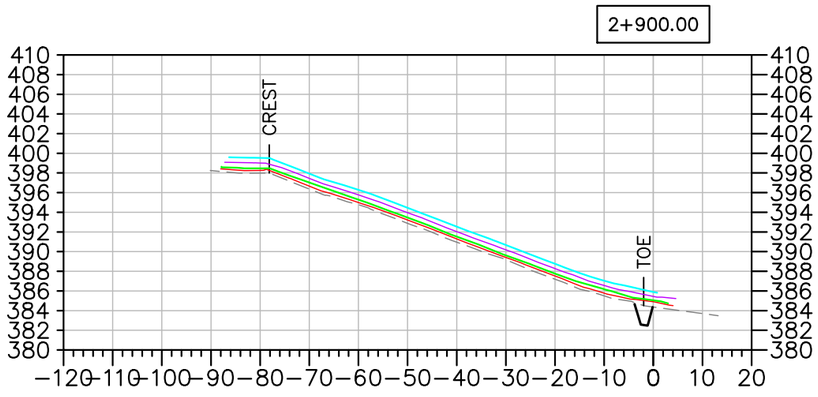
DATE	JUNE 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

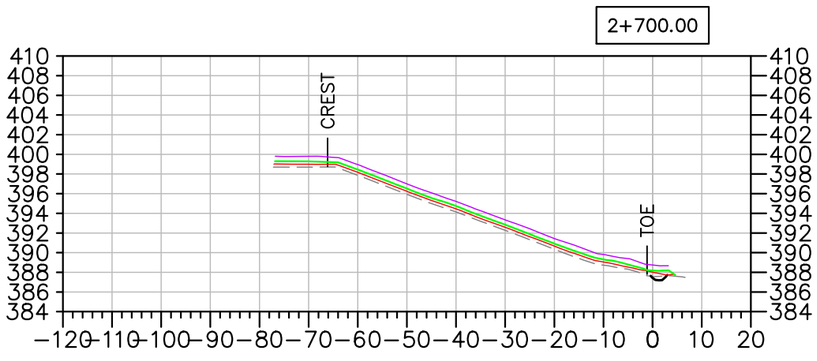
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 15, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 16, 2021 = 0m^3
EXCAVATED TO DATE = 765m^3

CCL LIFT 1
PLACED JUNE 16, 2021 = 612m^3
PLACED TO DATE = 7,254m^3

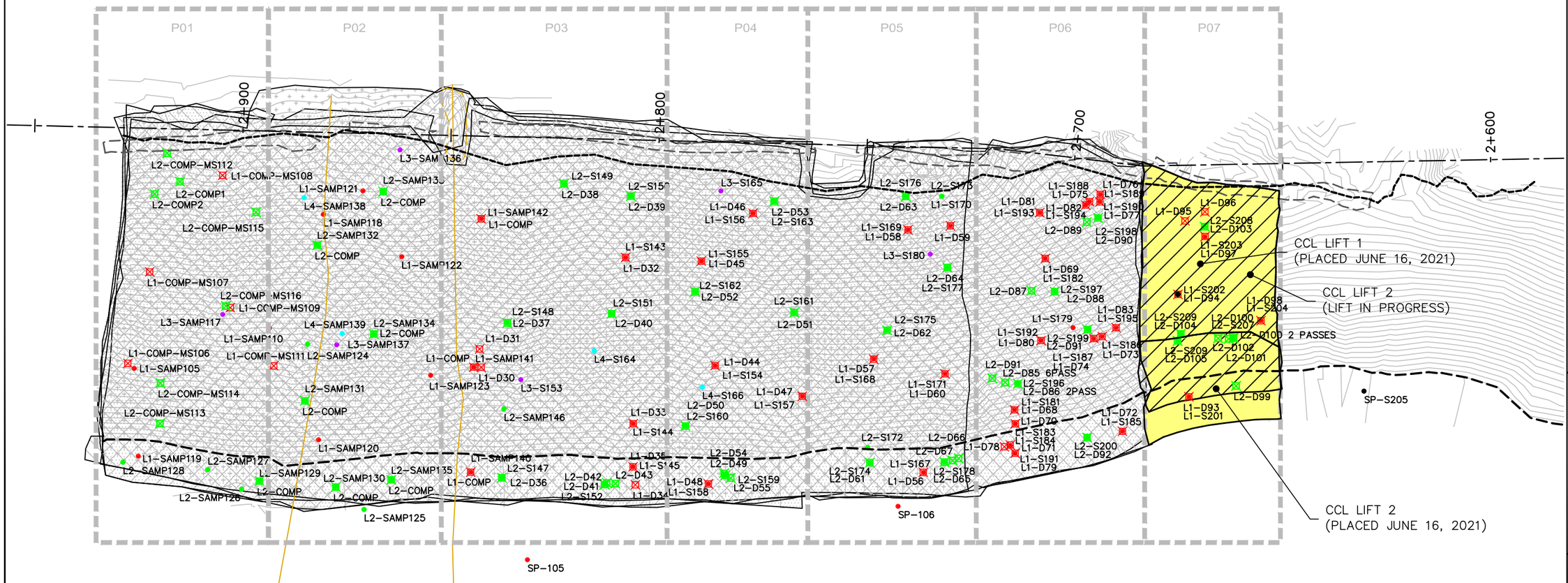
CCL LIFT 2
PLACED JUNE 16, 2021 = 131m^3
PLACED TO DATE = 5,648m^3

NCL LIFT 3
PLACED JUNE 16, 2021 = 0m^3
PLACED TO DATE = 10,670m^3

NCL LIFT 4
PLACED JUNE 16, 2021 = 0m^3
PLACED TO DATE = 8,634m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.239 ha
NCL COMPLETED TO DATE = 1.859 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 16, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

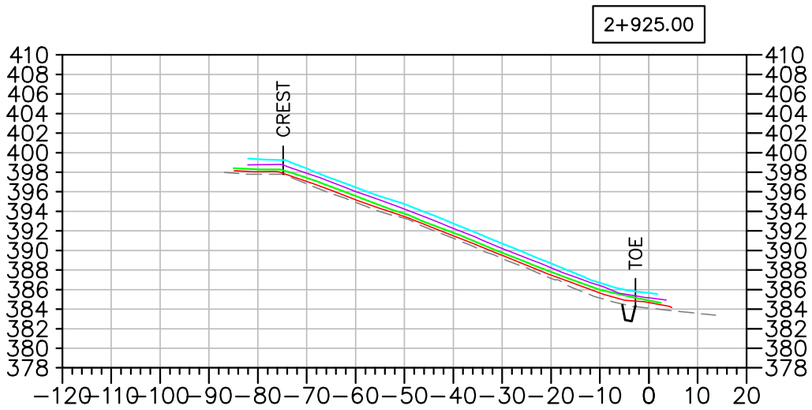
DRAWING TITLE
2021 EMRS
RECLAMATION

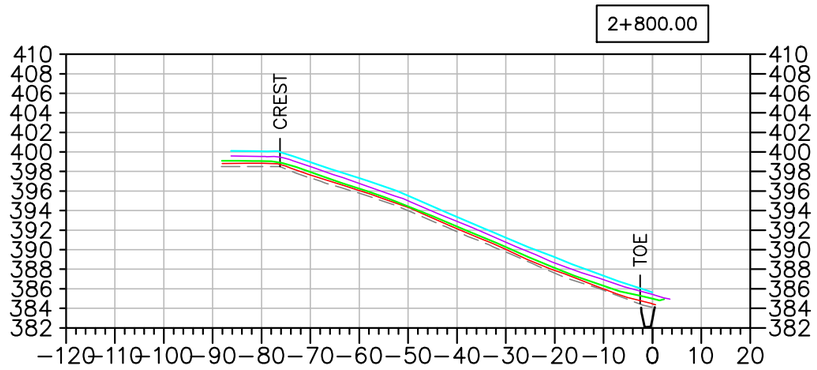
PURPOSE
DAILY PROGRESS

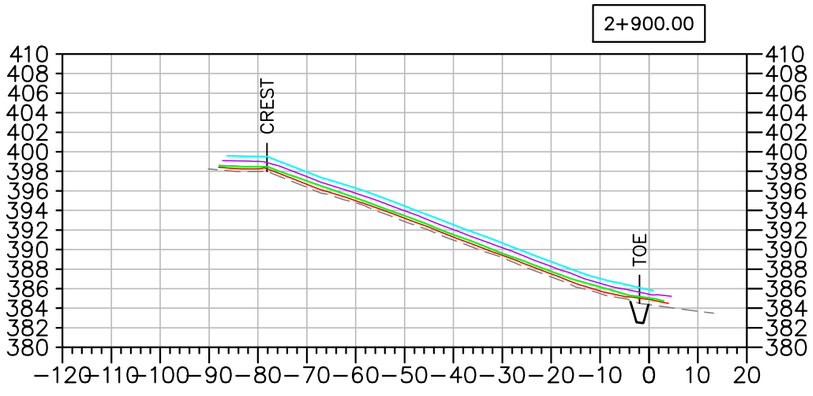
DATE	JUNE 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

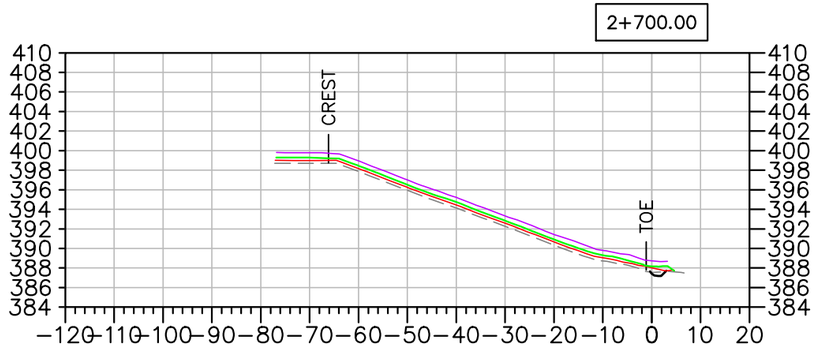
DWG. No.	PROJECT No.	PHASE No.
D–1	19–1138	115

SHEET SIZE – 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 16, 2021 SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 17, 2021 = 0m^3
EXCAVATED TO DATE = 765m^3

CCL LIFT 1
PLACED JUNE 17, 2021 = 0m^3
PLACED TO DATE = 7,254m^3

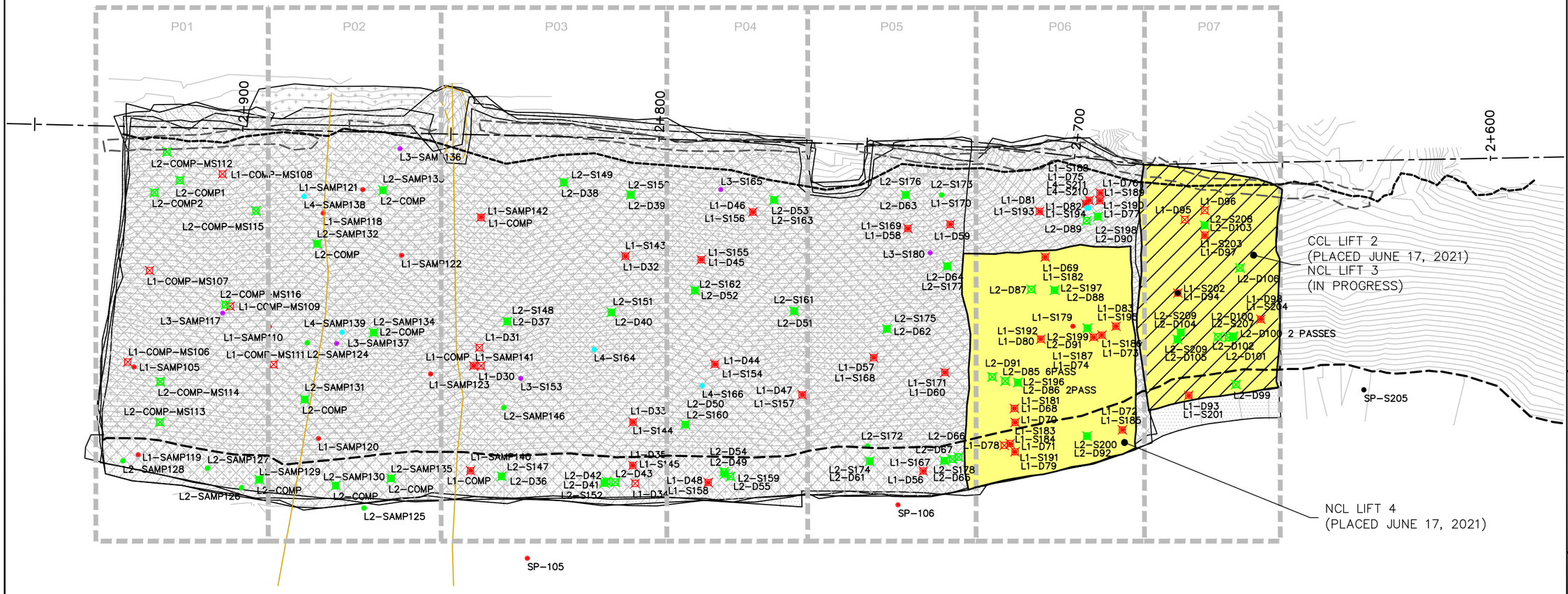
CCL LIFT 2
PLACED JUNE 17, 2021 = 364m^3
PLACED TO DATE = 6,012m^3

NCL LIFT 3
PLACED JUNE 17, 2021 = 0m^3
PLACED TO DATE = 10,670m^3

NCL LIFT 4
PLACED JUNE 17, 2021 = 1,065m^3
PLACED TO DATE = 9,699m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.373 ha
NCL COMPLETED TO DATE = 2.030 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 17, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

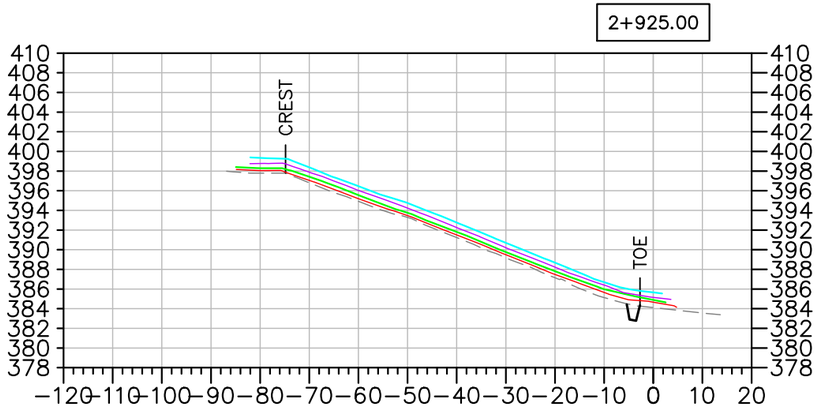
DRAWING TITLE
2021 EMRS
RECLAMATION

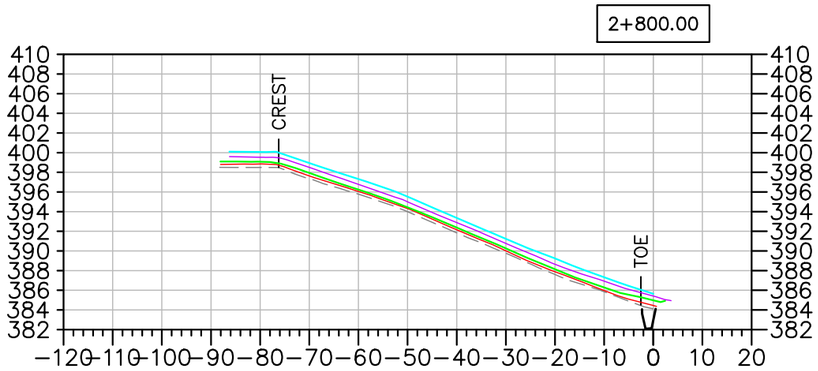
PURPOSE
DAILY PROGRESS

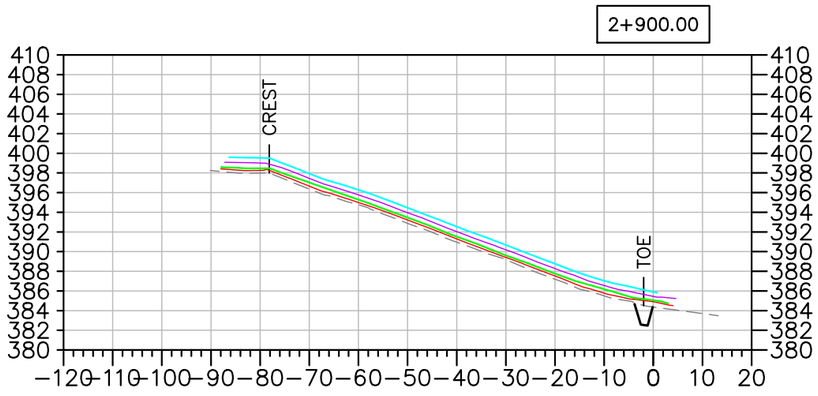
DATE	JUNE 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

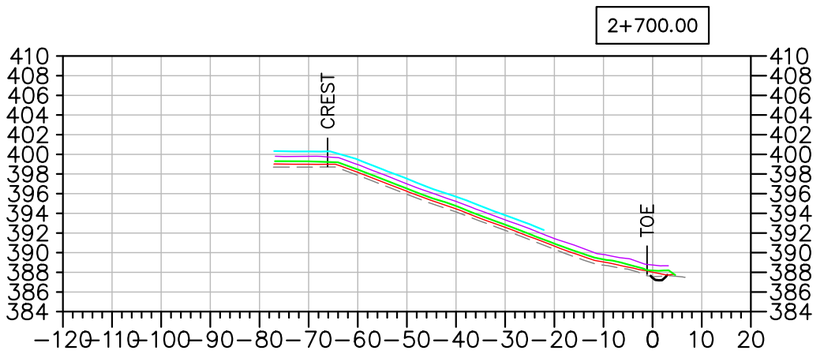
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 17, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 18, 2021 = 22m^3
EXCAVATED TO DATE = 787m^3

CCL LIFT 1
PLACED JUNE 18, 2021 = 0m^3
PLACED TO DATE = 7,254m^3

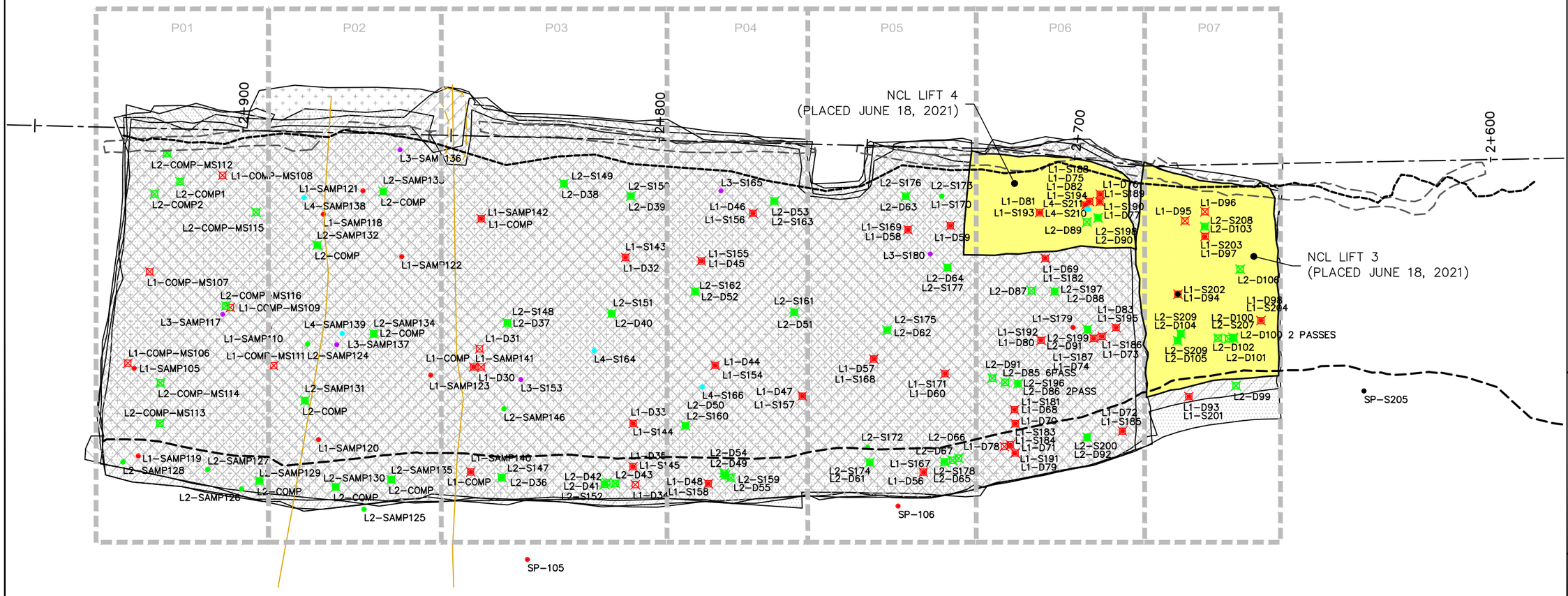
CCL LIFT 2
PLACED JUNE 18, 2021 = 0m^3
PLACED TO DATE = 6,012m^3

NCL LIFT 3
PLACED JUNE 18, 2021 = 752m^3
PLACED TO DATE = 11,422m^3

NCL LIFT 4
PLACED JUNE 18, 2021 = 419m^3
PLACED TO DATE = 10,118m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.373 ha
NCL COMPLETED TO DATE = 2.118 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 18, 2021 SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

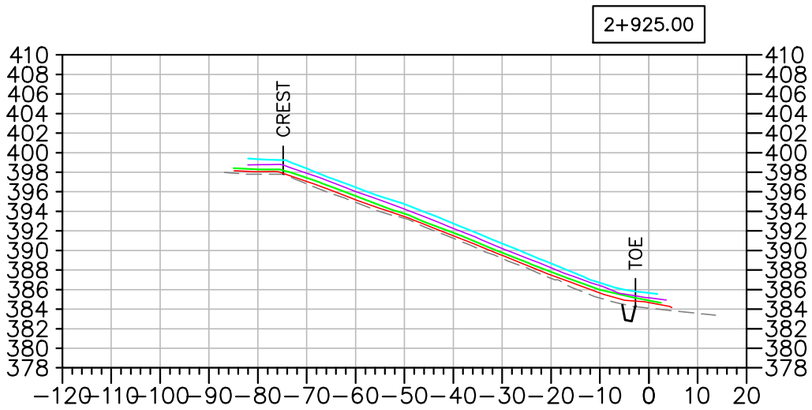
DRAWING TITLE
2021 EMRS
RECLAMATION

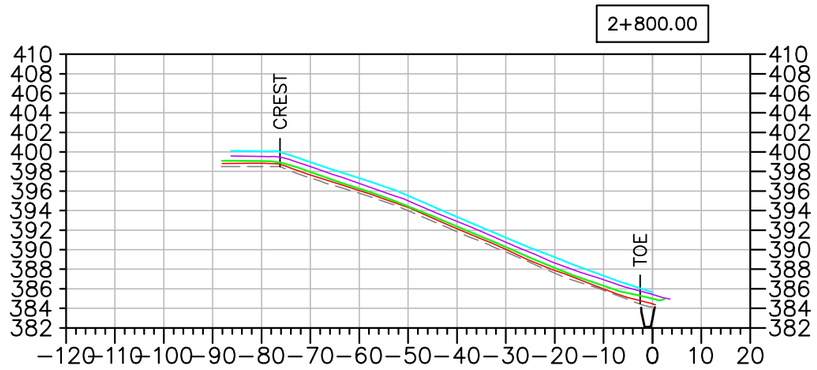
PURPOSE
DAILY PROGRESS

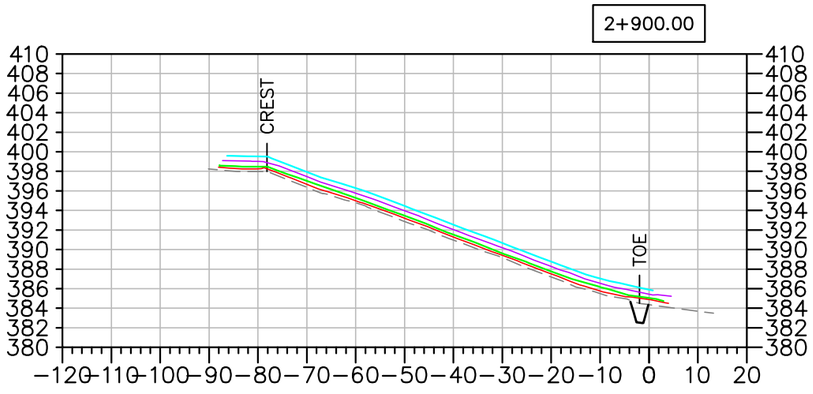
DATE	JUNE 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

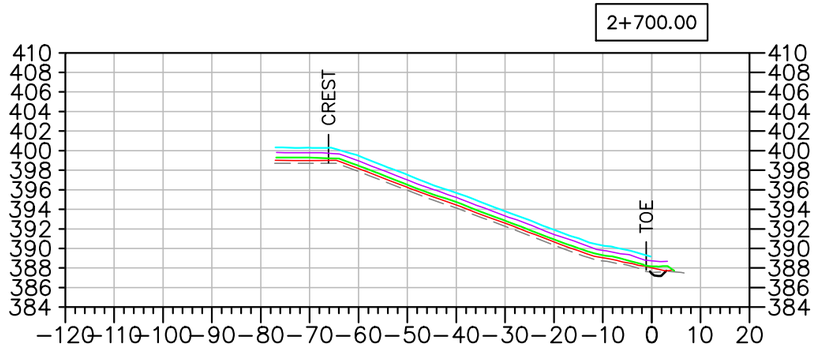
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 18, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 19, 2021 = 0m^3
EXCAVATED TO DATE = 787m^3

CCL LIFT 1
PLACED JUNE 19, 2021 = 634m^3
PLACED TO DATE = 7,888m^3

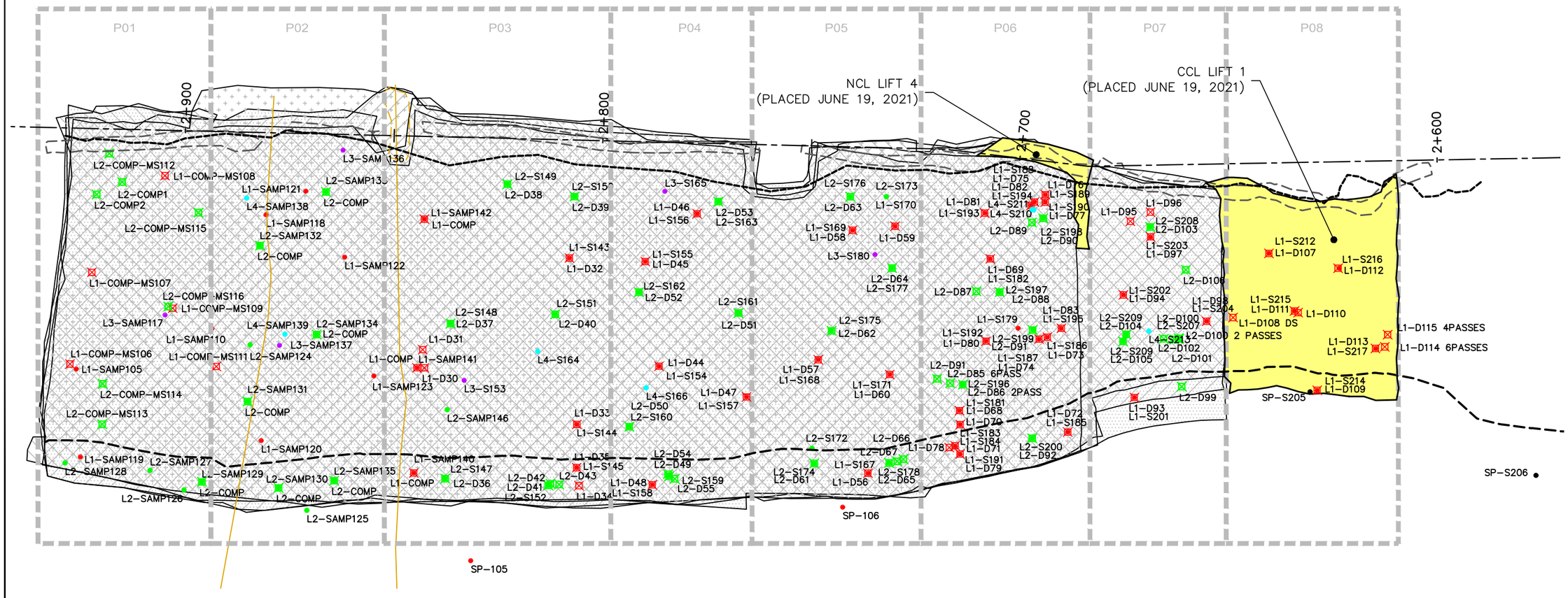
CCL LIFT 2
PLACED JUNE 19, 2021 = 0m^3
PLACED TO DATE = 6,012m^3

NCL LIFT 3
PLACED JUNE 19, 2021 = 0m^3
PLACED TO DATE = 11,422m^3

NCL LIFT 4
PLACED JUNE 19, 2021 = 60m^3
PLACED TO DATE = 10,178m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.373 ha
NCL COMPLETED TO DATE = 2.135 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 19, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

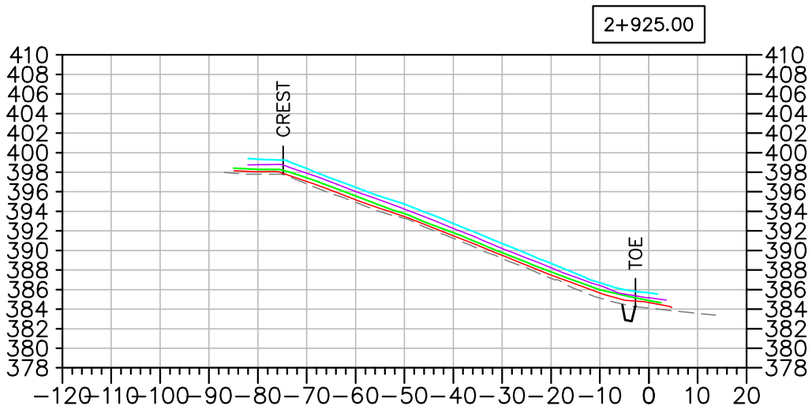
DRAWING TITLE
2021 EMRS
RECLAMATION

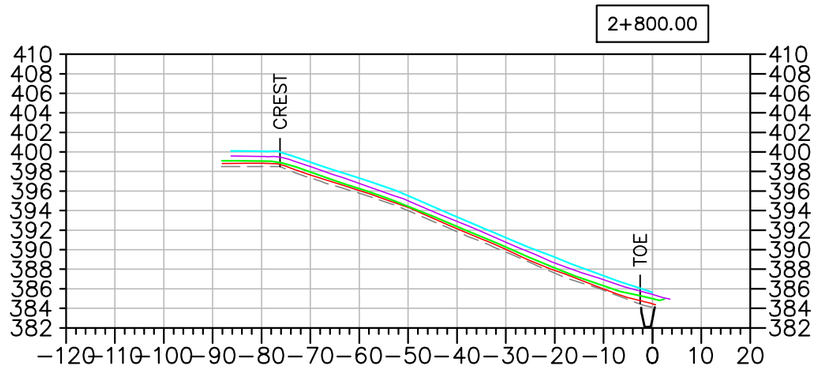
PURPOSE
DAILY PROGRESS

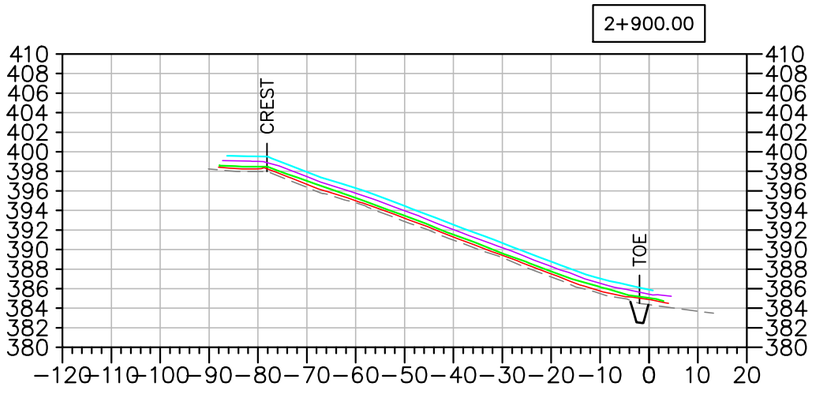
DATE	JUNE 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

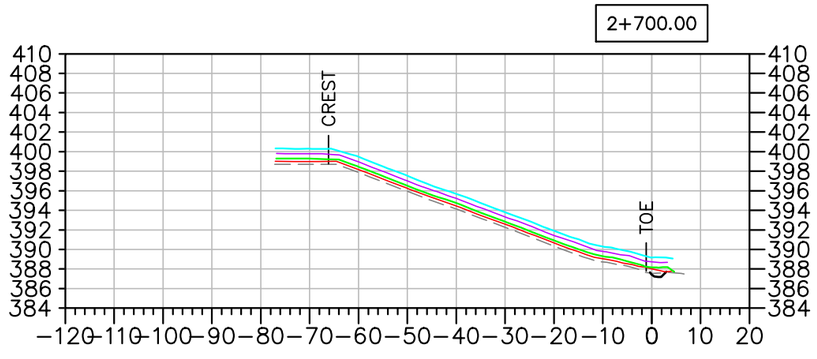
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 19, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 20, 2021 = 0m^3
EXCAVATED TO DATE = 787m^3

CCL LIFT 1
PLACED JUNE 20, 2021 = 0m^3
PLACED TO DATE = 7,888m^3

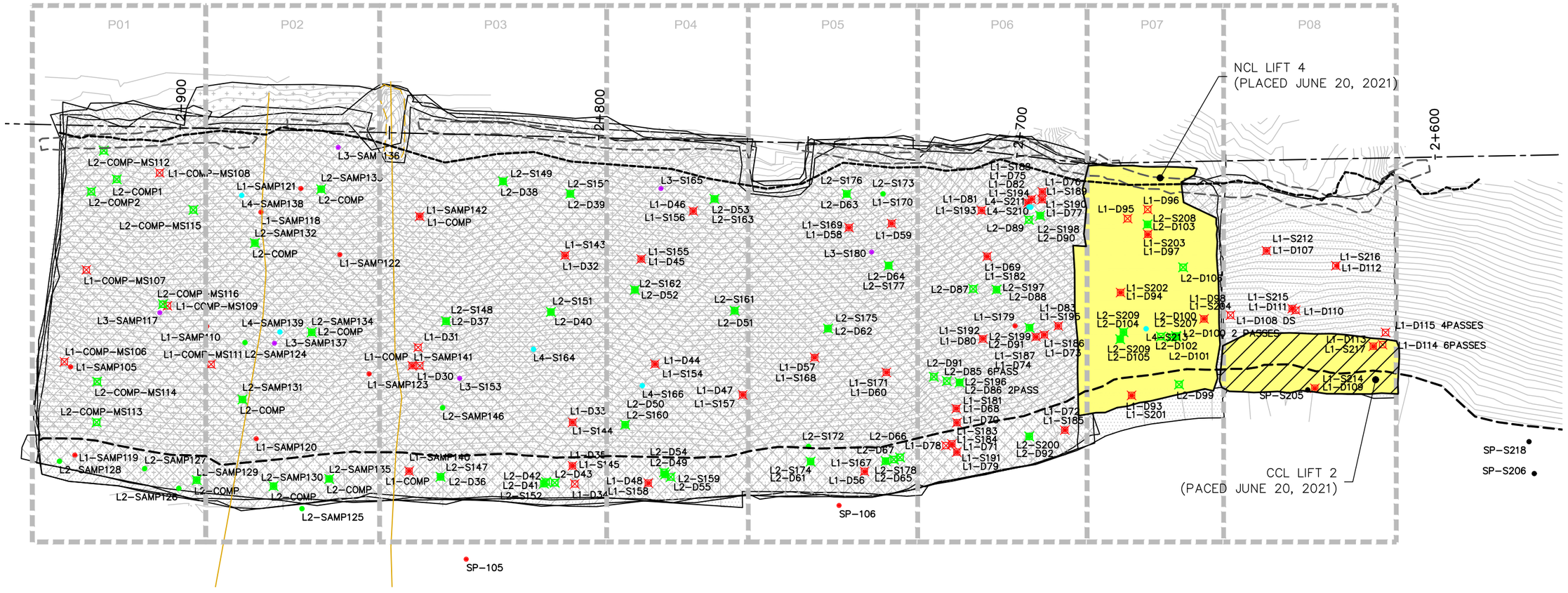
CCL LIFT 2
PLACED JUNE 20, 2021 = 155m^3
PLACED TO DATE = 6,167m^3

NCL LIFT 3
PLACED JUNE 20, 2021 = 0m^3
PLACED TO DATE = 11,422m^3

NCL LIFT 4
PLACED JUNE 20, 2021 = 804m^3
PLACED TO DATE = 10,982m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.431 ha
NCL COMPLETED TO DATE = 2.321 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 20, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

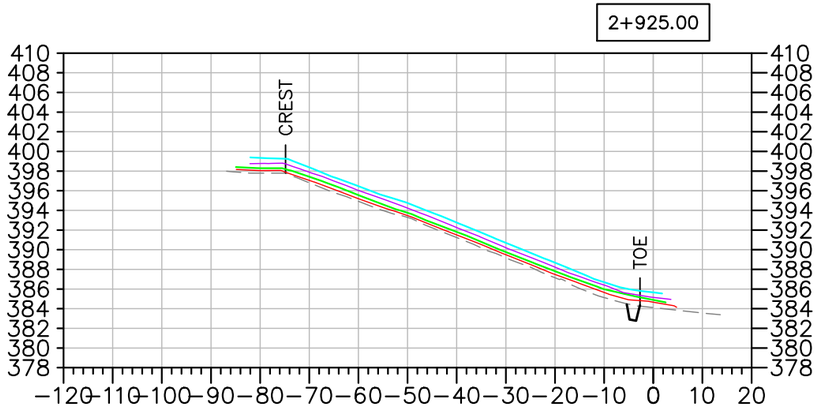
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

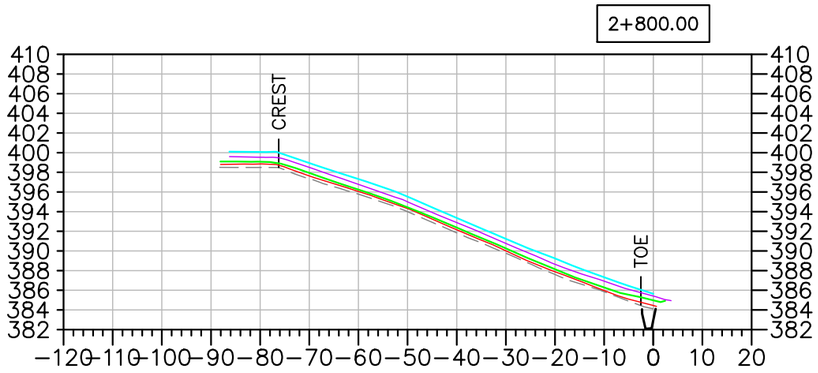
DRAWING TITLE
2021 EMRS
RECLAMATION

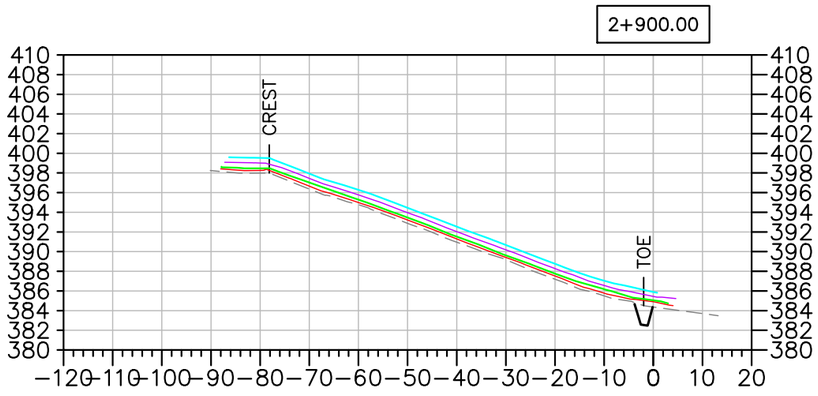
PURPOSE
DAILY PROGRESS

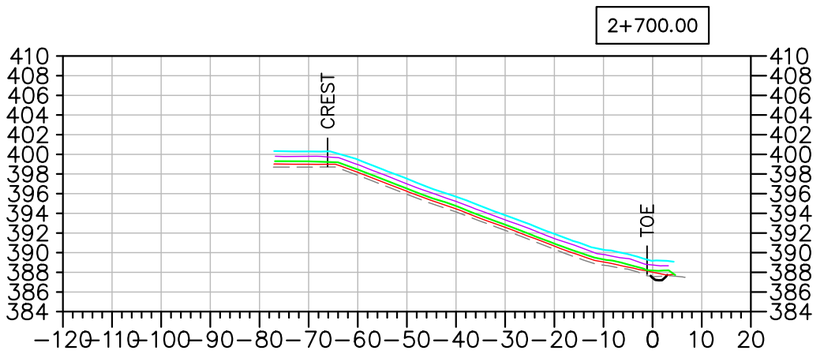
DATE	JUNE 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 20, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 21, 2021 = 0m^3
EXCAVATED TO DATE = 787m^3

CCL LIFT 1
PLACED JUNE 21, 2021 = 0m^3
PLACED TO DATE = 7,888m^3

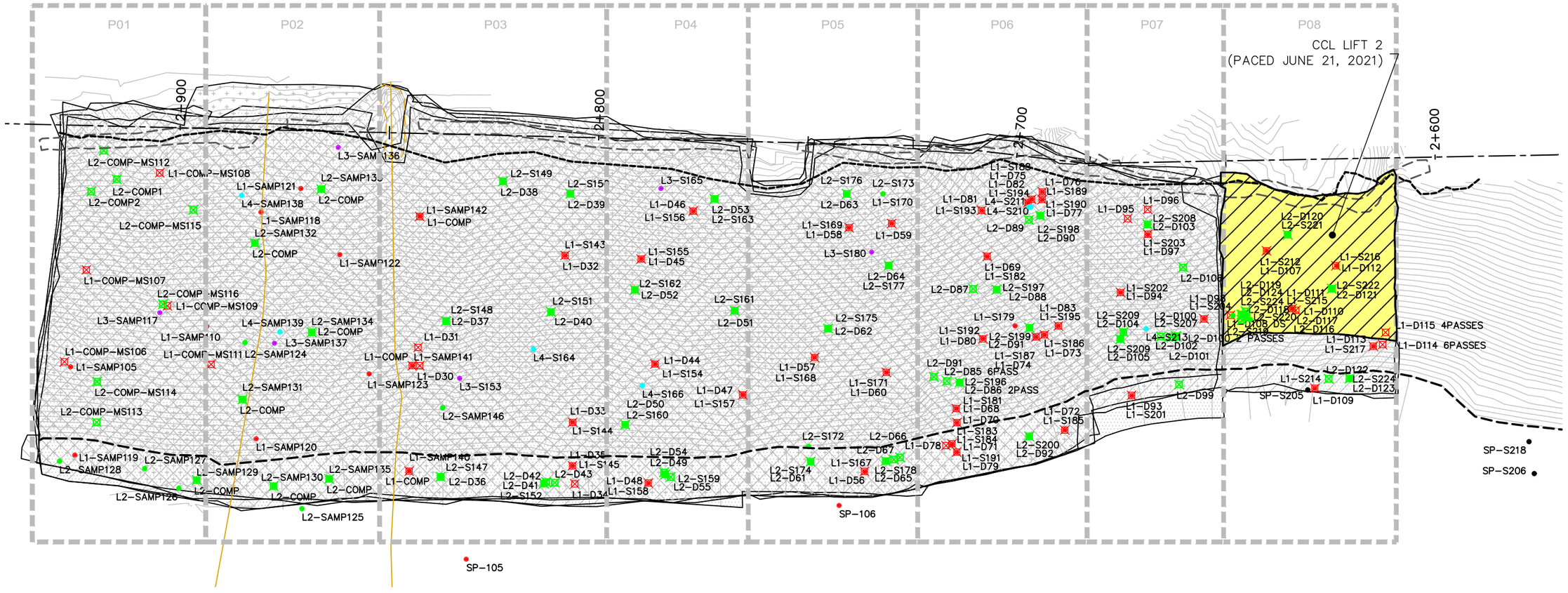
CCL LIFT 2
PLACED JUNE 21, 2021 = 388m^3
PLACED TO DATE = 6,555m^3

NCL LIFT 3
PLACED JUNE 21, 2021 = 0m^3
PLACED TO DATE = 11,422m^3

NCL LIFT 4
PLACED JUNE 21, 2021 = 0m^3
PLACED TO DATE = 10,982m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.580 ha
NCL COMPLETED TO DATE = 2.321 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 21, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

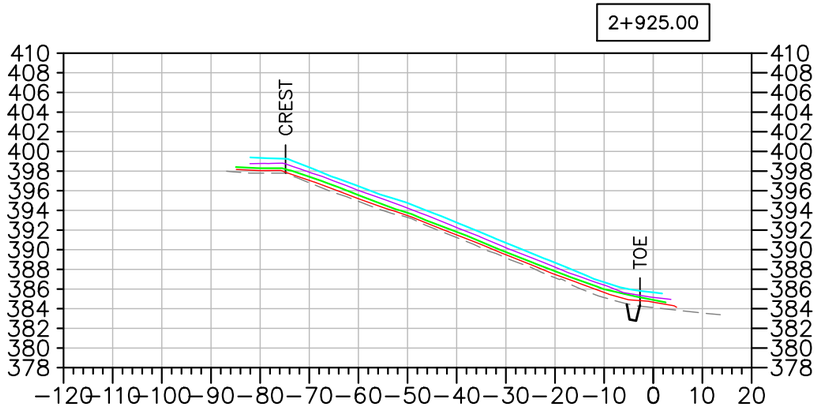
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

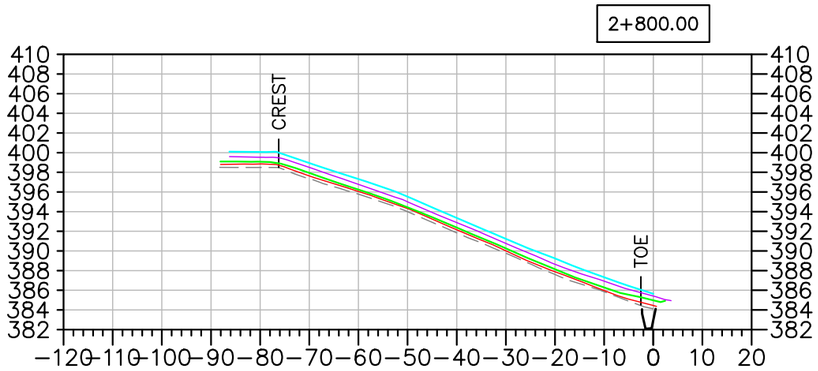
DRAWING TITLE
2021 EMRS
RECLAMATION

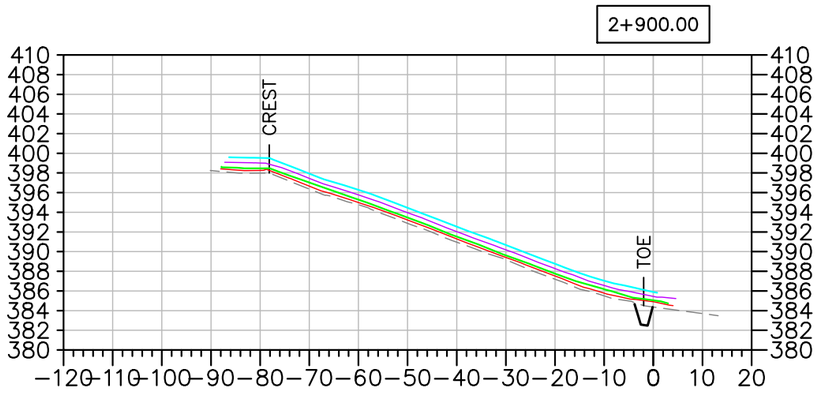
PURPOSE
DAILY PROGRESS

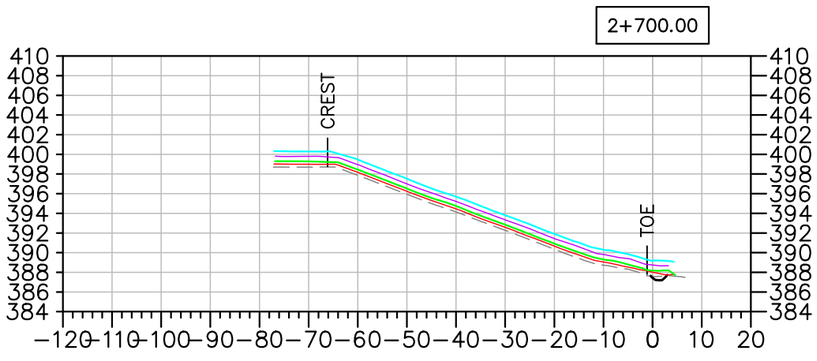
DATE	JUNE 21, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115









EMRS RECLAMATION – DAILY PROGRESS

(JUNE 21, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 21, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 22, 2021 = 124m^3
EXCAVATED TO DATE = 911m^3

CCL LIFT 1
PLACED JUNE 22, 2021 = 0m^3
PLACED TO DATE = 7,888m^3

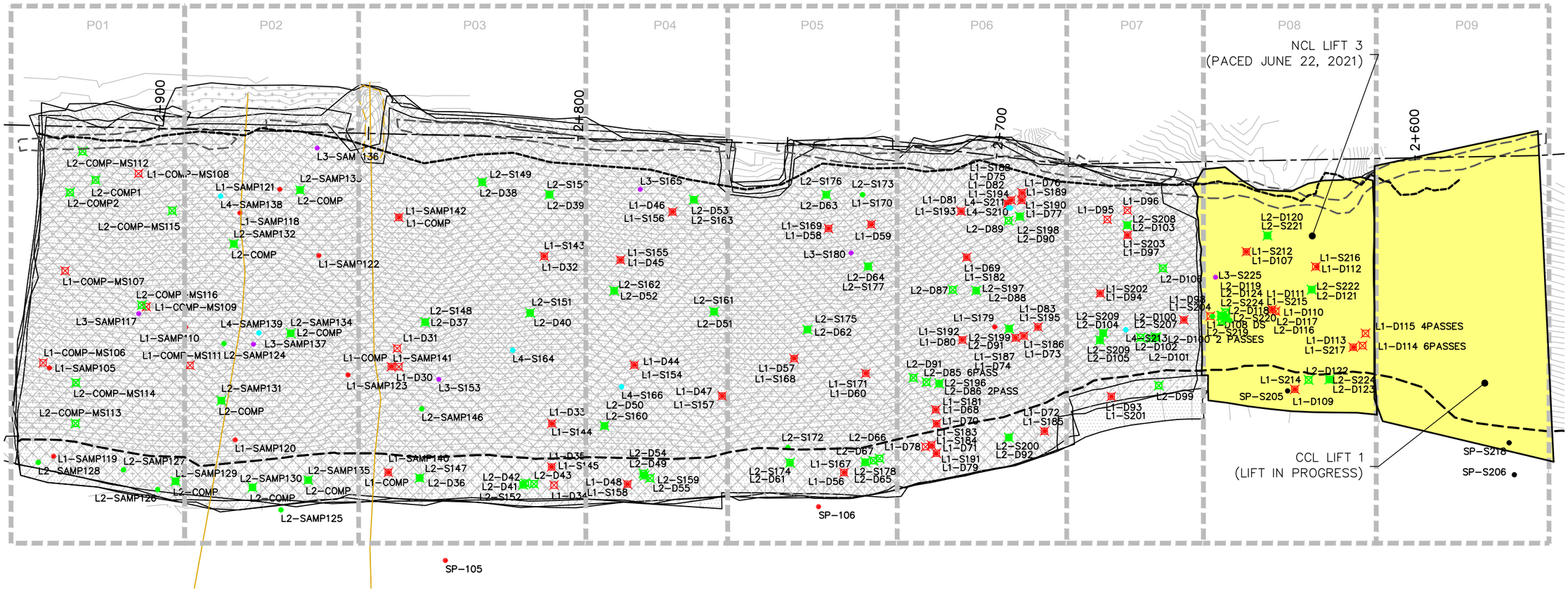
CCL LIFT 2
PLACED JUNE 22, 2021 = 0m^3
PLACED TO DATE = 6,555m^3

NCL LIFT 3
PLACED JUNE 22, 2021 = 929^3
PLACED TO DATE = 12,351m^3

NCL LIFT 4
PLACED JUNE 22, 2021 = 0m^3
PLACED TO DATE = 10,982m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.580 ha
NCL COMPLETED TO DATE = 2.321 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 22, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

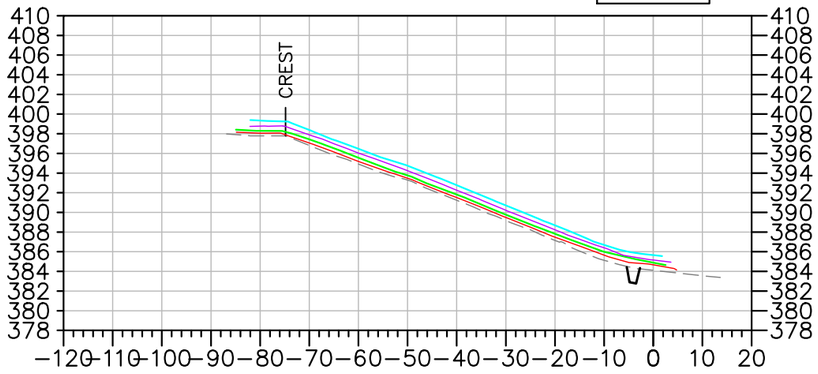
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

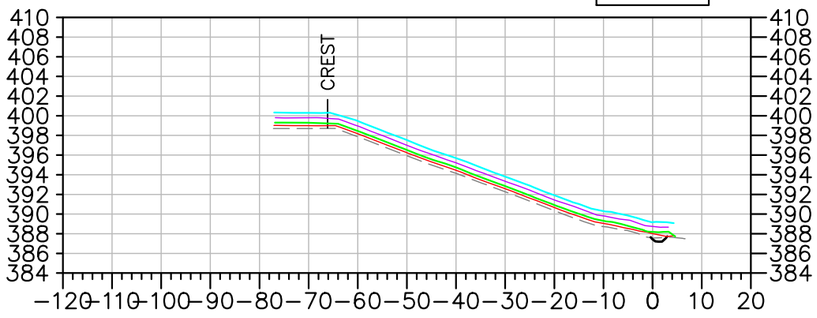
DATE	JUNE 22, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

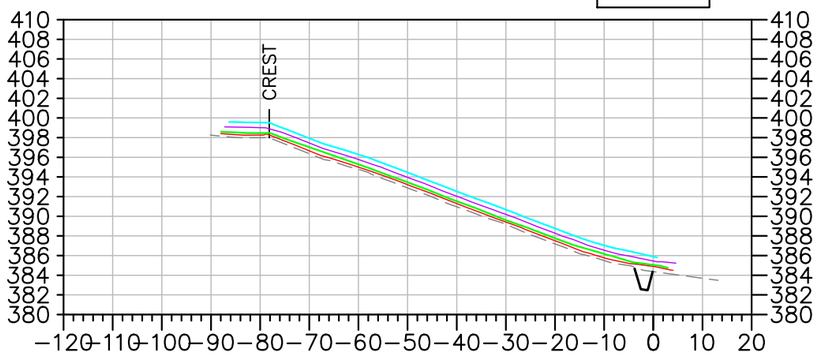
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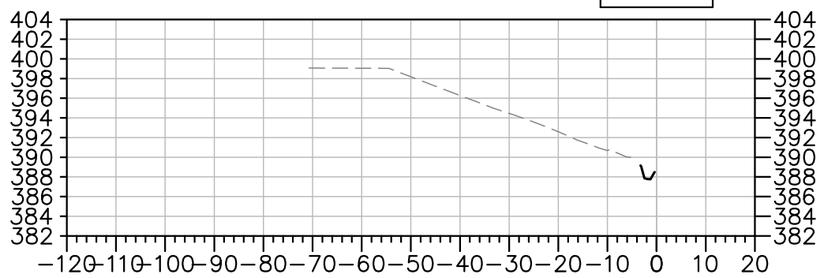
2+700.00



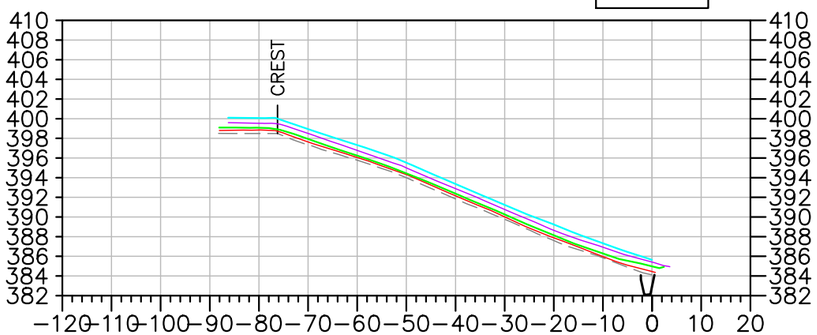
2+900.00



2+600.00



2+800.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 22, 2021) SCALE: N.T.S.

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE: NEW GOLD INC RAINY RIVER PROJECT

DRAWING TITLE: 2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE: DAILY PROGRESS

DATE	JUNE 22, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X–1	19–1138	115

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 23, 2021 = 0m^3
EXCAVATED TO DATE = 911m^3

CCL LIFT 1
PLACED JUNE 23, 2021 = 740m^3
PLACED TO DATE = 8,628m^3

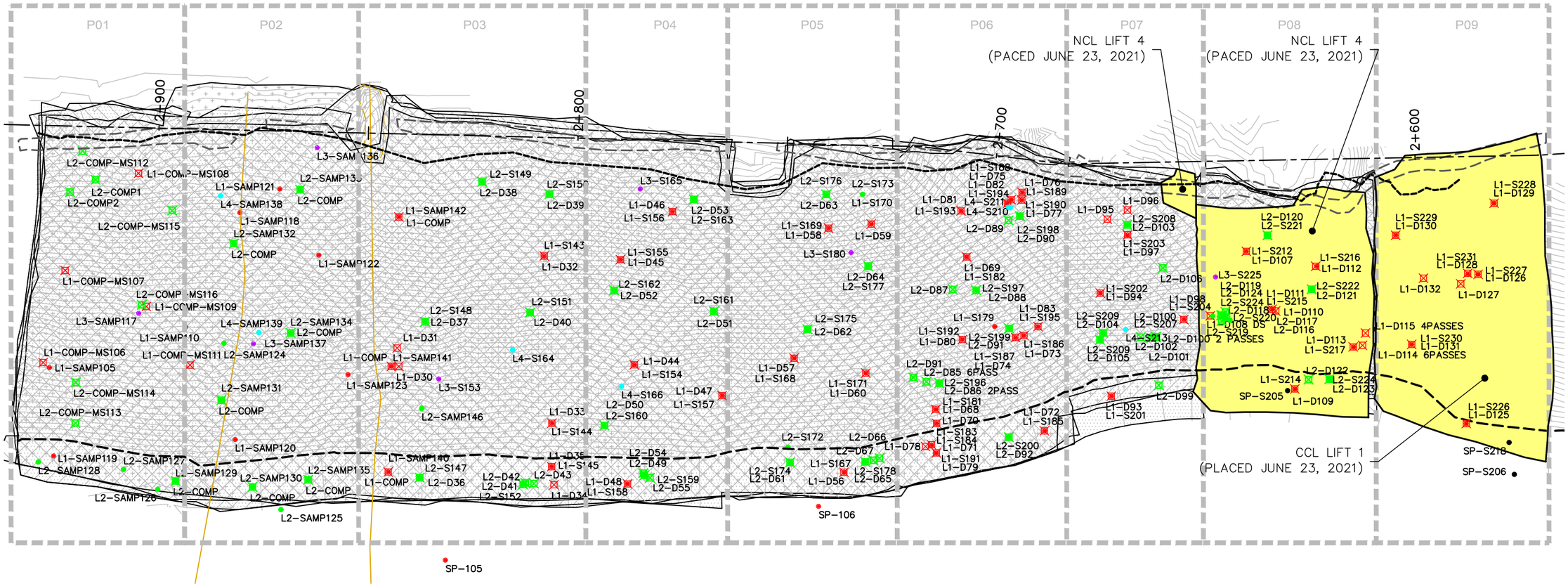
CCL LIFT 2
PLACED JUNE 23, 2021 = 0m^3
PLACED TO DATE = 6,555m^3

NCL LIFT 3
PLACED JUNE 23, 2021 = 0m^3
PLACED TO DATE = 12,351m^3

NCL LIFT 4
PLACED JUNE 23, 2021 = 1,077m^3
PLACED TO DATE = 12,059m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.580 ha
NCL COMPLETED TO DATE = 2.535 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 23, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

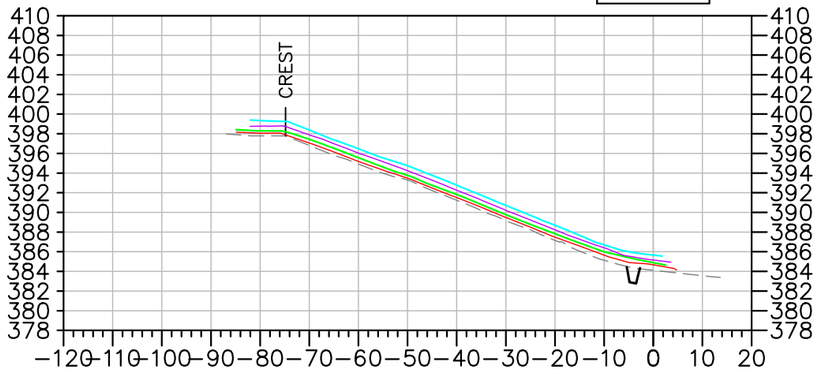
PURPOSE
DAILY PROGRESS

DATE	JUNE 23, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

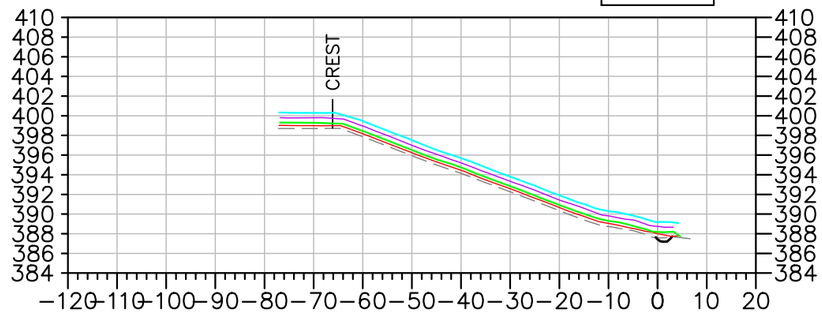
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

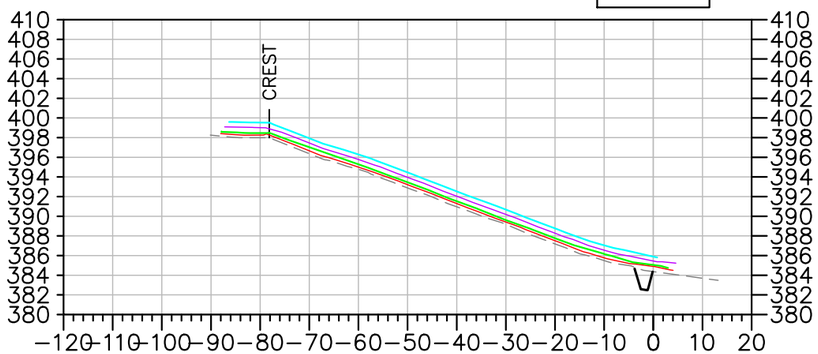
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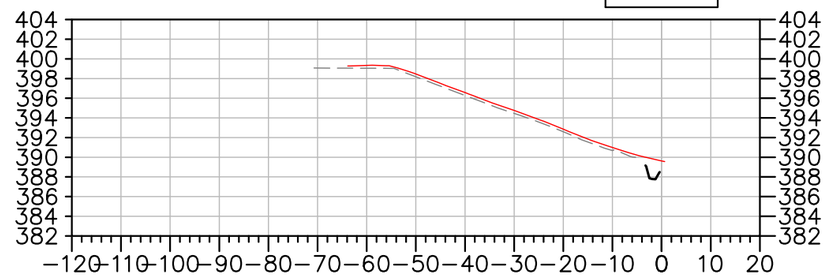
2+700.00



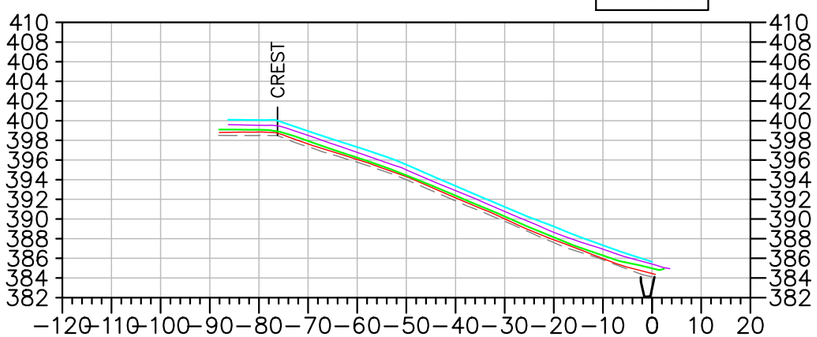
2+900.00



2+600.00



2+800.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 23, 2021) SCALE: N.T.S.

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE: NEW GOLD INC RAINY RIVER PROJECT

DRAWING TITLE: 2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE: DAILY PROGRESS

DATE	JUNE 23, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X–1	19–1138	115

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 24, 2021 = 0m^3
EXCAVATED TO DATE = 911m^3

CCL LIFT 1
PLACED JUNE 24, 2021 = 0m^3
PLACED TO DATE = 8,628m^3

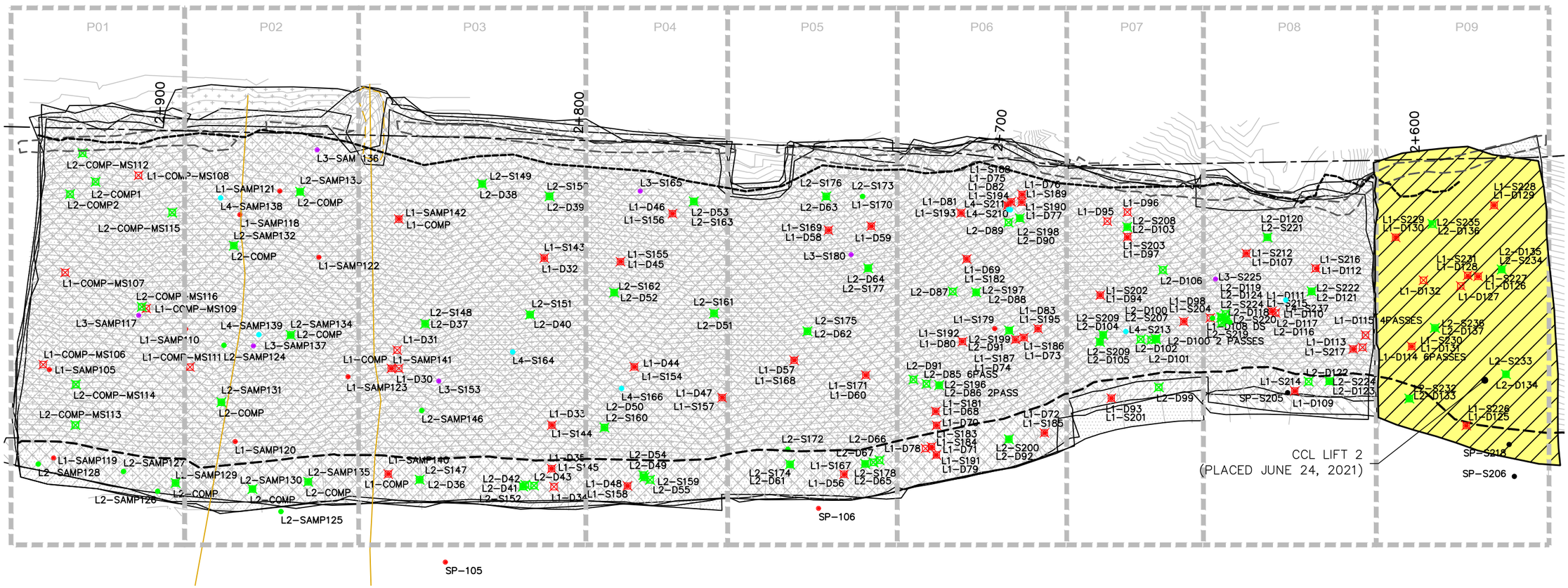
CCL LIFT 2
PLACED JUNE 24, 2021 = 749m^3
PLACED TO DATE = 7,304m^3

NCL LIFT 3
PLACED JUNE 24, 2021 = 0m^3
PLACED TO DATE = 12,351m^3

NCL LIFT 4
PLACED JUNE 24, 2021 = 0m^3
PLACED TO DATE = 12,059m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.876 ha
NCL COMPLETED TO DATE = 2.535 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 24, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

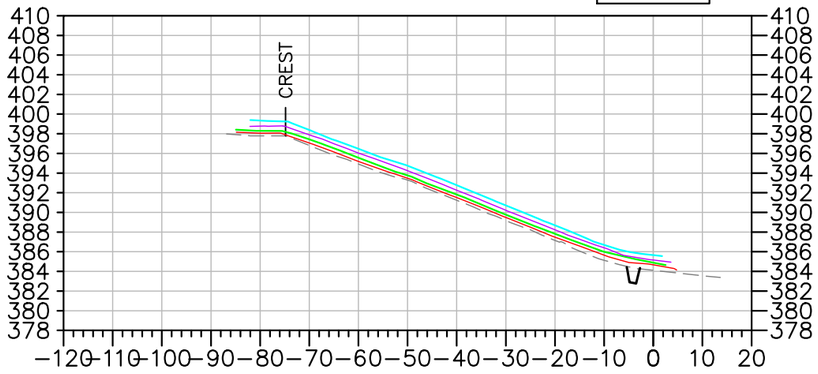
PURPOSE
DAILY PROGRESS

DATE	JUNE 24, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

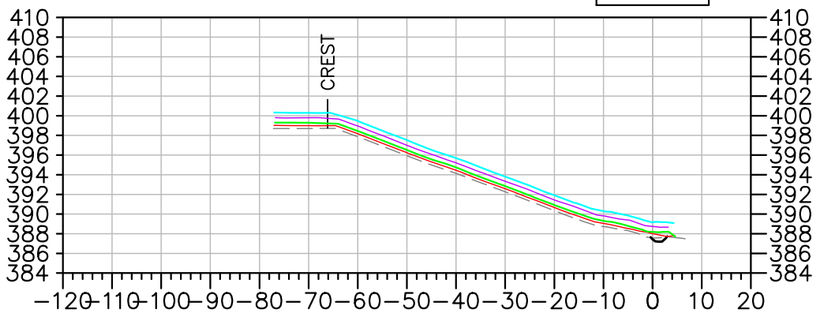
DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

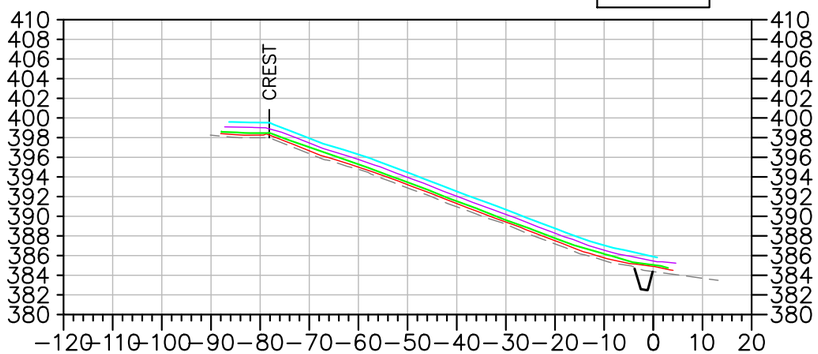
2+925.00



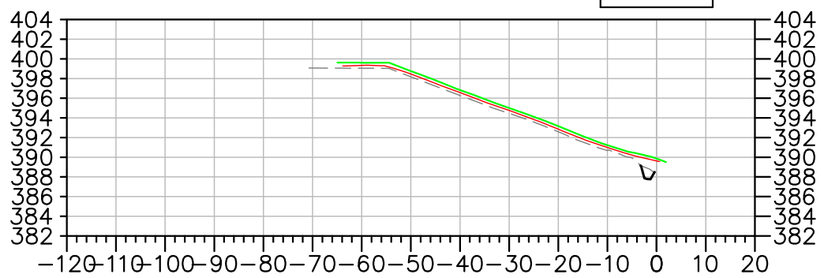
2+700.00



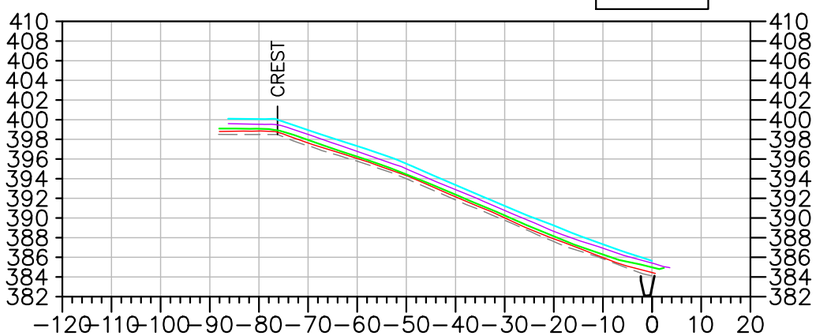
2+900.00



2+600.00



2+800.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 24, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 24, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 25, 2021 = 226m^3
EXCAVATED TO DATE = 1137m^3

CCL LIFT 1
PLACED JUNE 25, 2021 = 0m^3
PLACED TO DATE = 8,628m^3

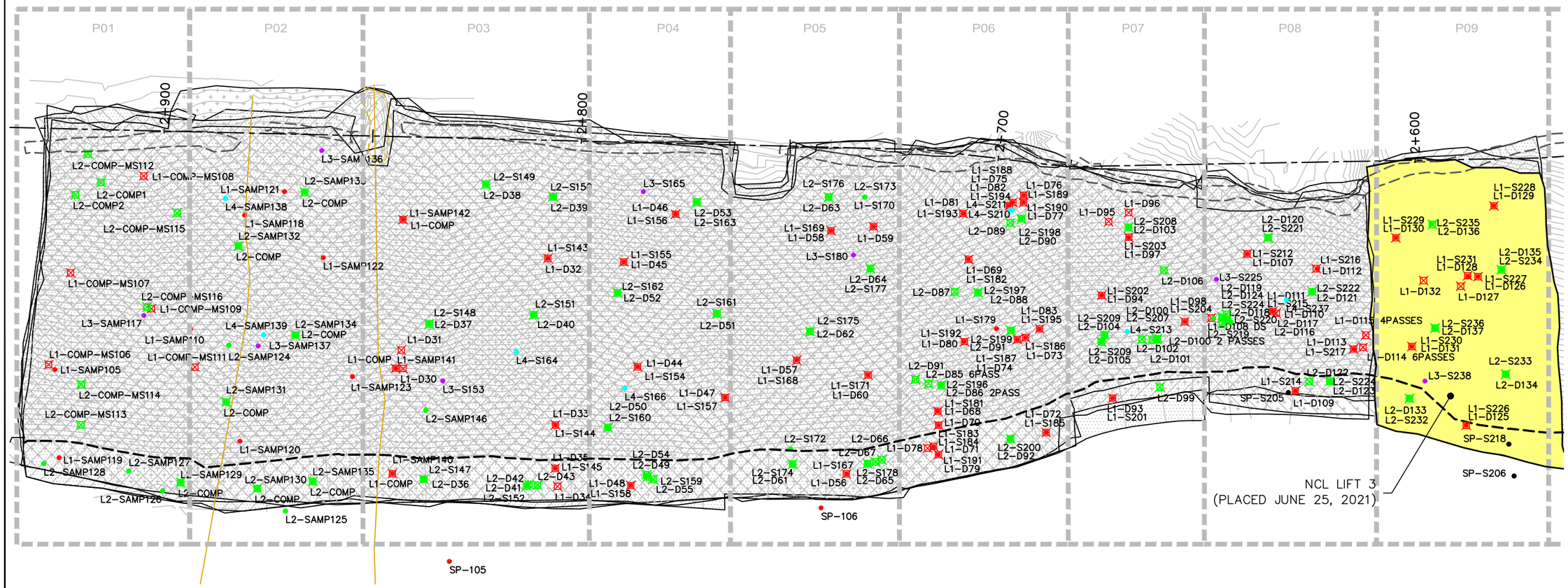
CCL LIFT 2
PLACED JUNE 25, 2021 = 0m^3
PLACED TO DATE = 7,304m^3

NCL LIFT 3
PLACED JUNE 25, 2021 = 1,488m^3
PLACED TO DATE = 13,839m^3

NCL LIFT 4
PLACED JUNE 25, 2021 = 0m^3
PLACED TO DATE = 12,059m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.876 ha
NCL COMPLETED TO DATE = 2.535 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 25, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

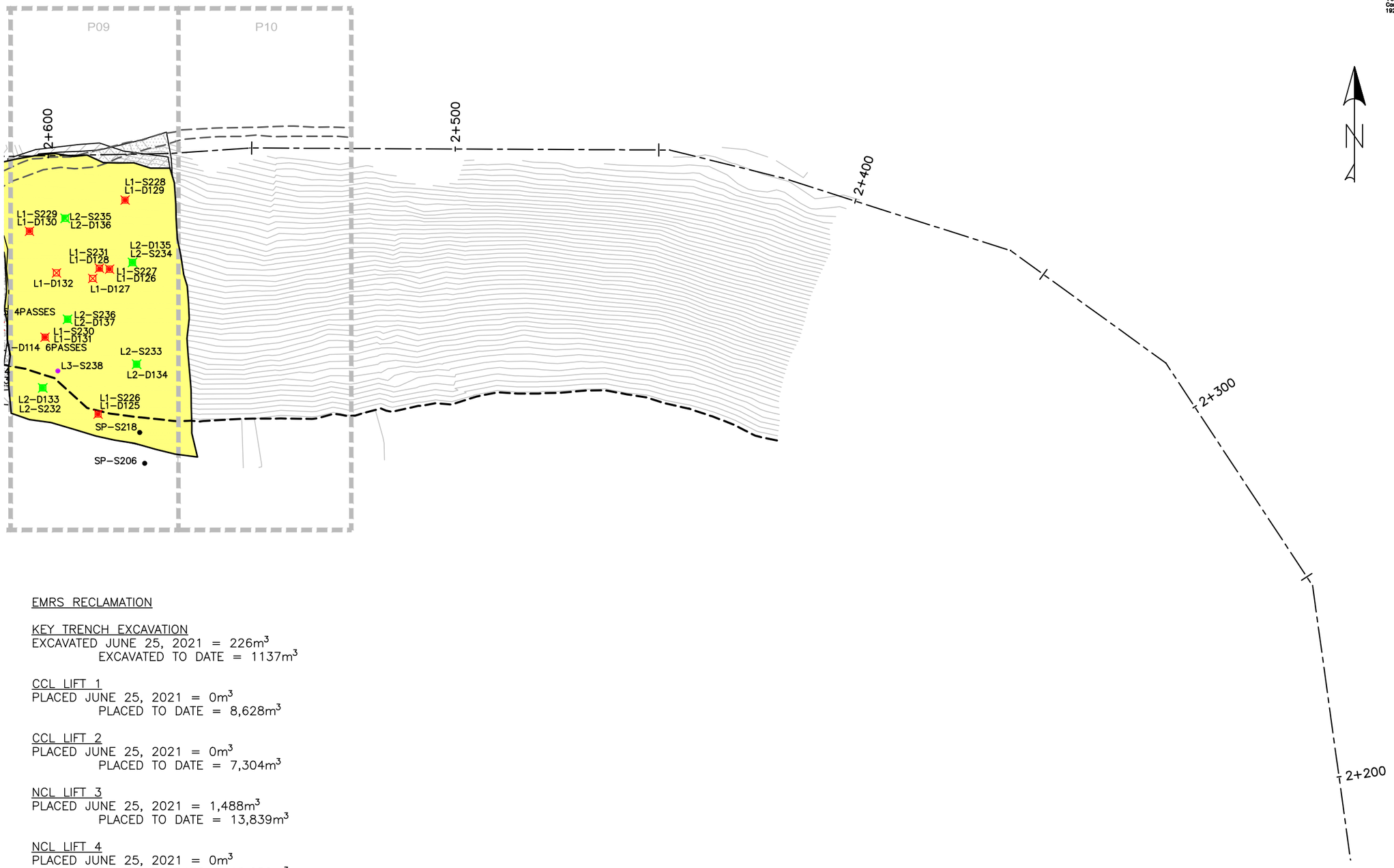
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JUNE 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 25, 2021 = 226m^3
EXCAVATED TO DATE = 1137m^3

CCL LIFT 1
PLACED JUNE 25, 2021 = 0m^3
PLACED TO DATE = 8,628m^3

CCL LIFT 2
PLACED JUNE 25, 2021 = 0m^3
PLACED TO DATE = 7,304m^3

NCL LIFT 3
PLACED JUNE 25, 2021 = 1,488m^3
PLACED TO DATE = 13,839m^3

NCL LIFT 4
PLACED JUNE 25, 2021 = 0m^3
PLACED TO DATE = 12,059m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.876 ha
NCL COMPLETED TO DATE = 2.535 ha

EMRS RECLAMATION – DAILY PROGRESS

(JUNE 25, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

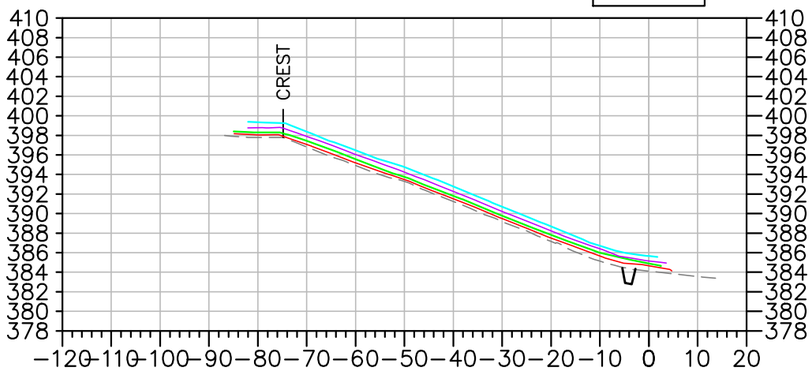
PURPOSE
DAILY PROGRESS

DATE	JUNE 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

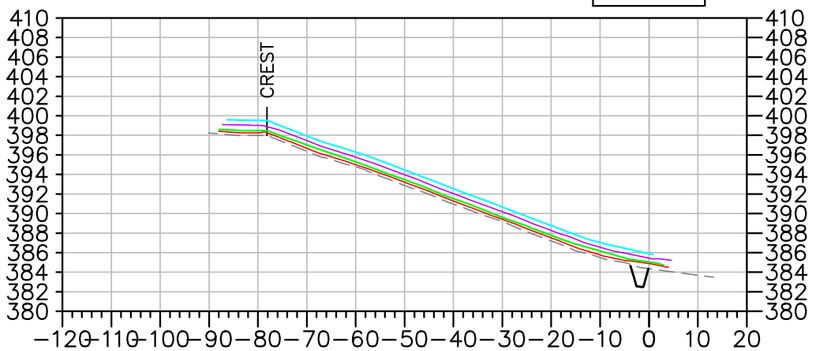
DWG. No.	PROJECT No.	PHASE No.
D–2	19–1138	115

SHEET SIZE – 11" X 17"

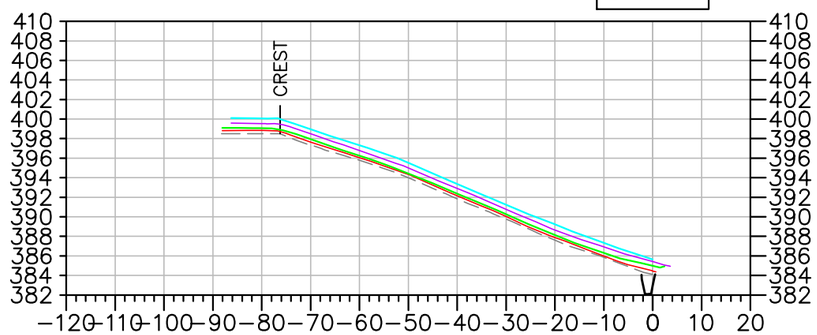
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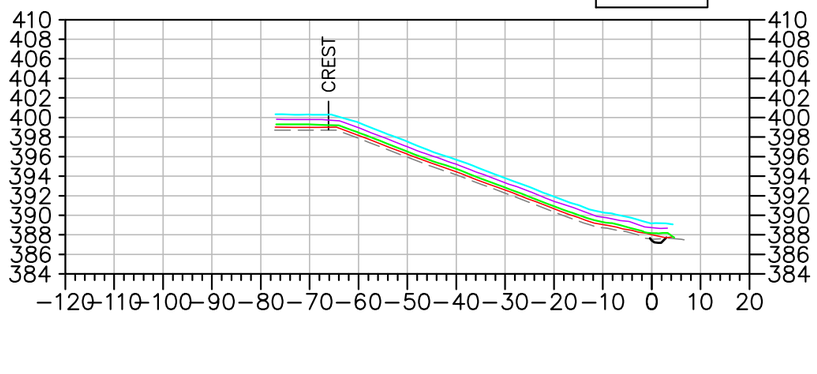
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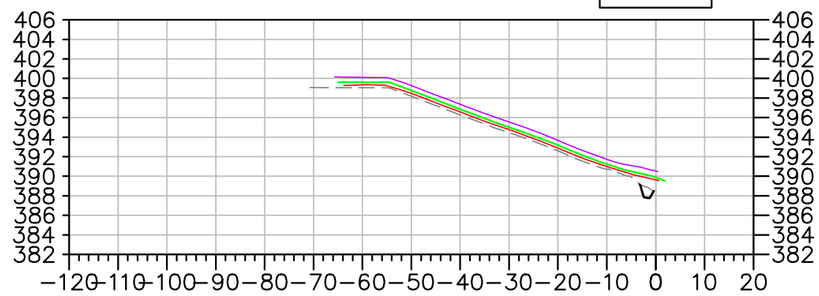
2+800.00



2+700.00



2+600.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 25, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 25, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 26, 2021 = 0m^3
EXCAVATED TO DATE = 1137m^3

CCL LIFT 1
PLACED JUNE 26, 2021 = 1,069m^3
PLACED TO DATE = 9,697m^3

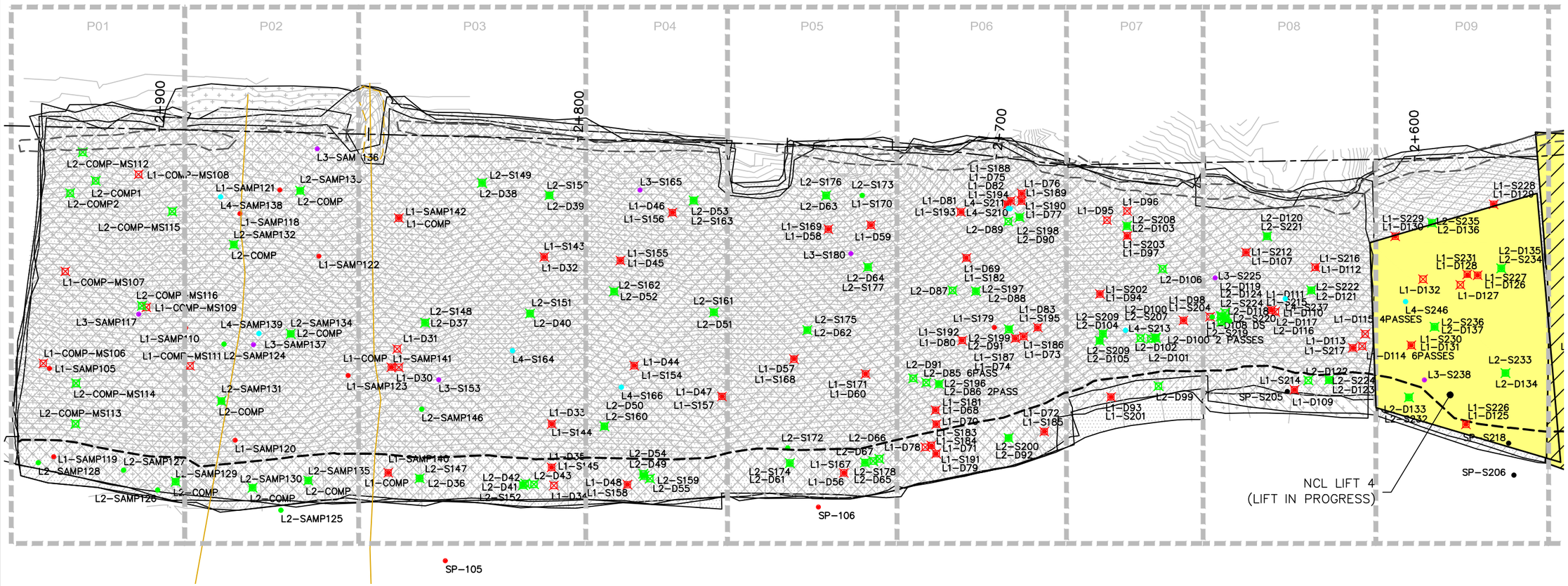
CCL LIFT 2
PLACED JUNE 26, 2021 = 0m^3
PLACED TO DATE = 7,304m^3

NCL LIFT 3
PLACED JUNE 26, 2021 = 0m^3
PLACED TO DATE = 13,839m^3

NCL LIFT 4
PLACED JUNE 26, 2021 = 0m^3
PLACED TO DATE = 12,059m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.876 ha
NCL COMPLETED TO DATE = 2.535 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 26, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JUNE 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 26, 2021 = 0m^3
EXCAVATED TO DATE = 1137m^3

CCL LIFT 1
PLACED JUNE 26, 2021 = 1,069m^3
PLACED TO DATE = 9,697m^3

CCL LIFT 2
PLACED JUNE 26, 2021 = 0m^3
PLACED TO DATE = 7,304m^3

NCL LIFT 3
PLACED JUNE 26, 2021 = 0m^3
PLACED TO DATE = 13,839m^3

NCL LIFT 4
PLACED JUNE 26, 2021 = 0m^3
PLACED TO DATE = 12,059m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 2.876 ha
NCL COMPLETED TO DATE = 2.535 ha

EMRS RECLAMATION – DAILY PROGRESS

(JUNE 26, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

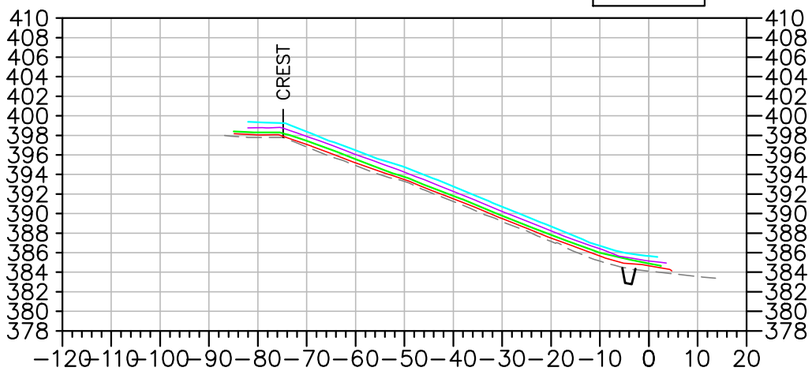
PURPOSE
DAILY PROGRESS

DATE	JUNE 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

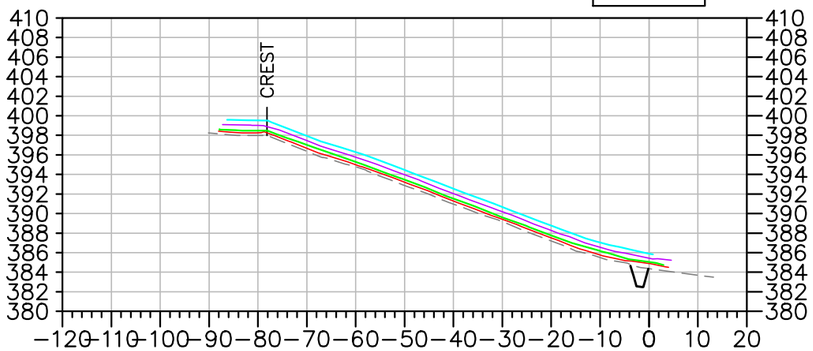
DWG. No.	PROJECT No.	PHASE No.
D–2	19–1138	115

SHEET SIZE – 11" X 17"

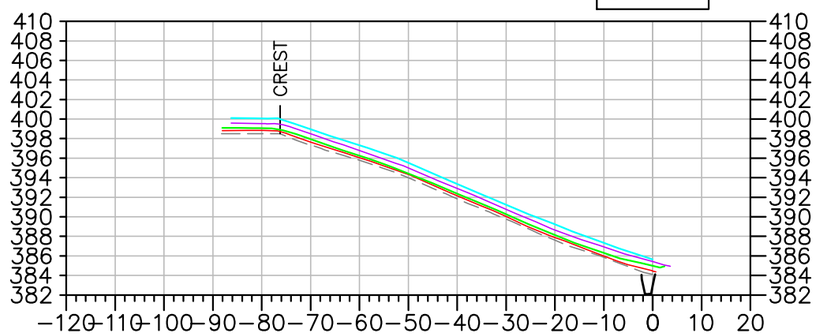
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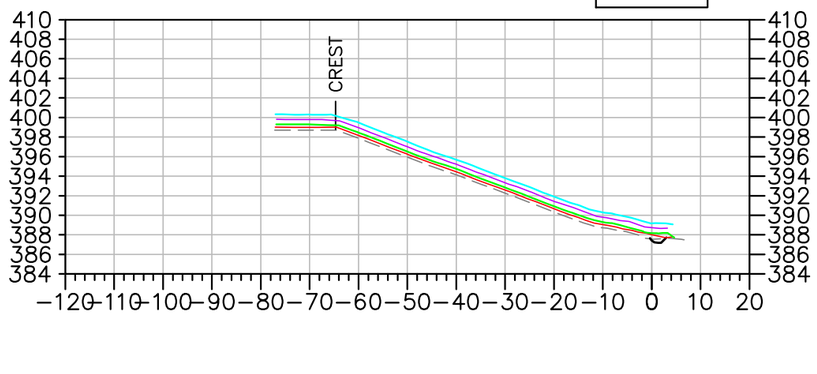
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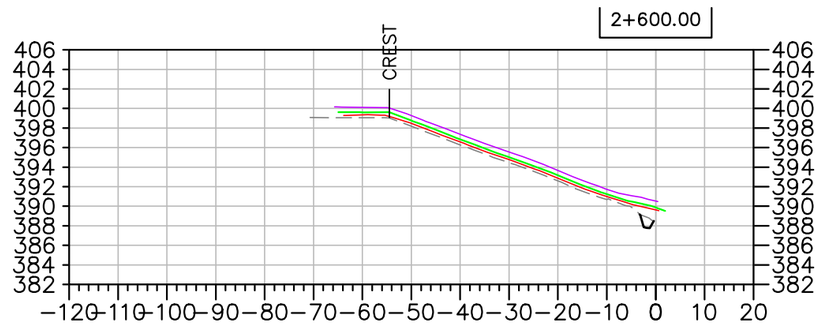
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2+700.00



2+600.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 26, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 26, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 27, 2021 = 0m^3
EXCAVATED TO DATE = 1,137m^3

CCL LIFT 1
PLACED JUNE 27, 2021 = 0m^3
PLACED TO DATE = 9,697m^3

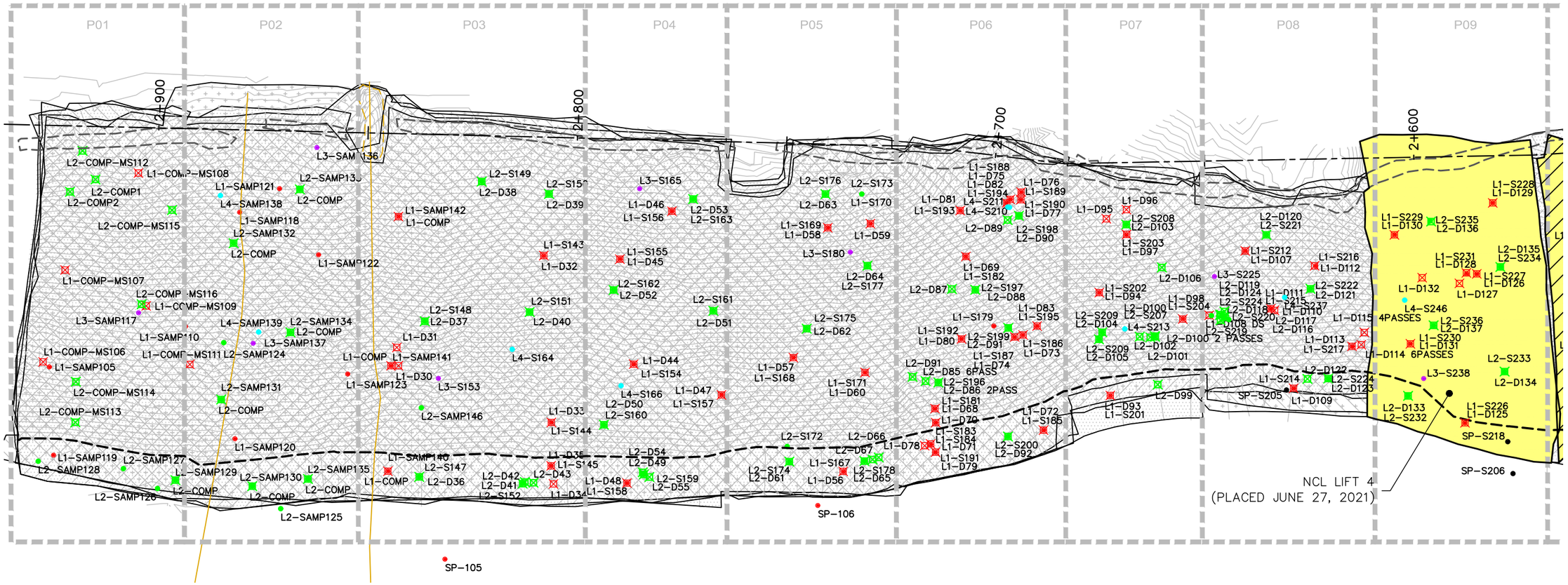
CCL LIFT 2
PLACED JUNE 27, 2021 = 778m^3
PLACED TO DATE = 8,082m^3

NCL LIFT 3
PLACED JUNE 27, 2021 = 0m^3
PLACED TO DATE = 13,839m^3

NCL LIFT 4
PLACED JUNE 27, 2021 = 1,393m^3
PLACED TO DATE = 13,452m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.168 ha
NCL COMPLETED TO DATE = 2.850 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 27, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JUNE 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 27, 2021 = 0m^3
EXCAVATED TO DATE = 1,137m^3

CCL LIFT 1
PLACED JUNE 27, 2021 = 0m^3
PLACED TO DATE = 9,697m^3

CCL LIFT 2
PLACED JUNE 27, 2021 = 778m^3
PLACED TO DATE = 8,082m^3

NCL LIFT 3
PLACED JUNE 27, 2021 = 0m^3
PLACED TO DATE = 13,839m^3

NCL LIFT 4
PLACED JUNE 27, 2021 = 1,393m^3
PLACED TO DATE = 13,452m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.168 ha
NCL COMPLETED TO DATE = 2.850 ha

EMRS RECLAMATION – DAILY PROGRESS

(JUNE 27, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

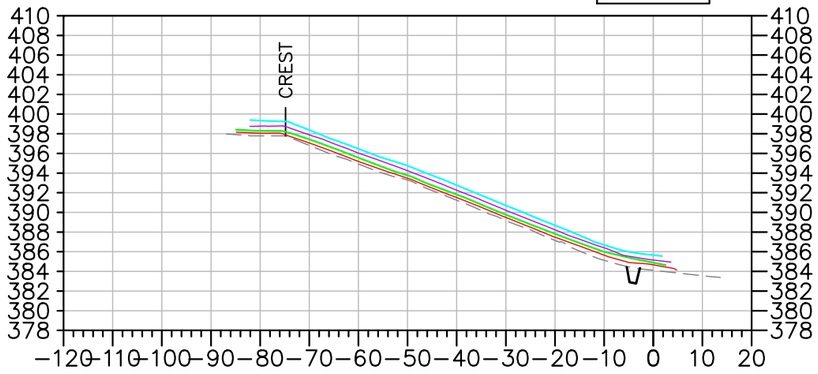
PURPOSE
DAILY PROGRESS

DATE	JUNE 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

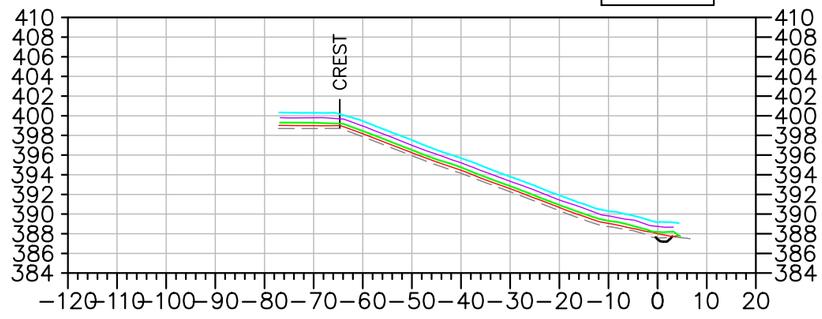
DWG. No.	PROJECT No.	PHASE No.
D–2	19–1138	115

SHEET SIZE – 11" X 17"

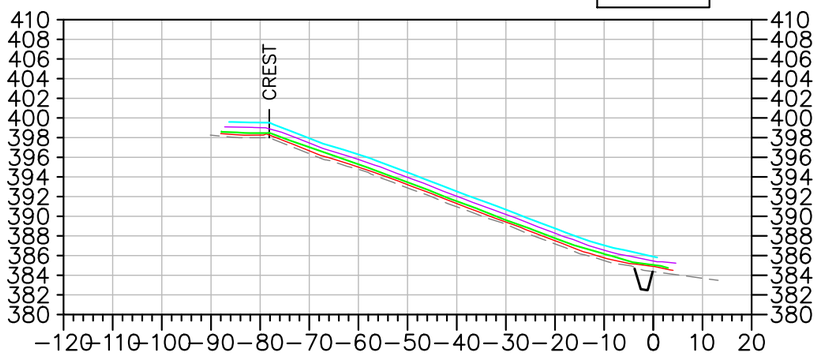
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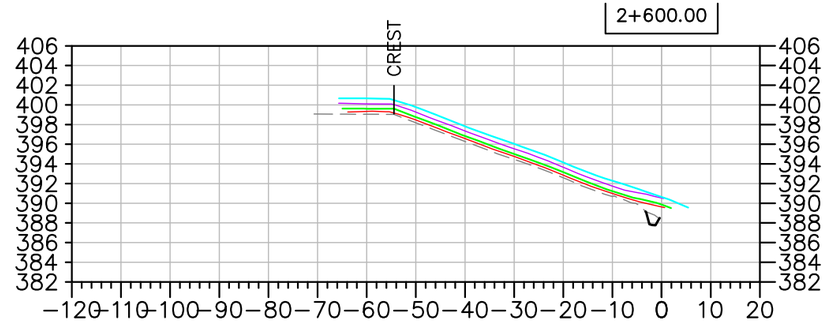
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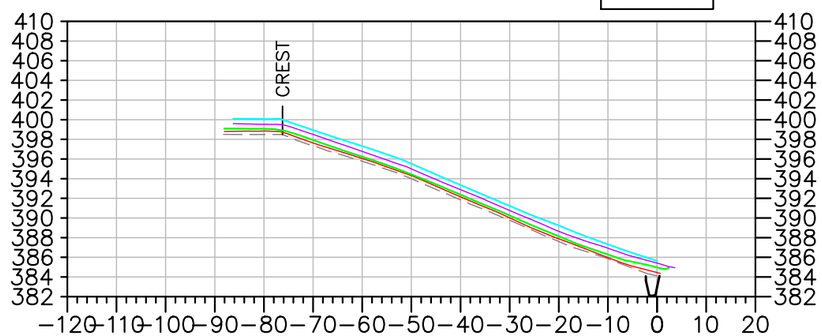
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2+600.00



2+800.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 27, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 27, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 28, 2021 = 0m^3
EXCAVATED TO DATE = 1,137m^3

CCL LIFT 1
PLACED JUNE 28, 2021 = 0m^3
PLACED TO DATE = 9,697m^3

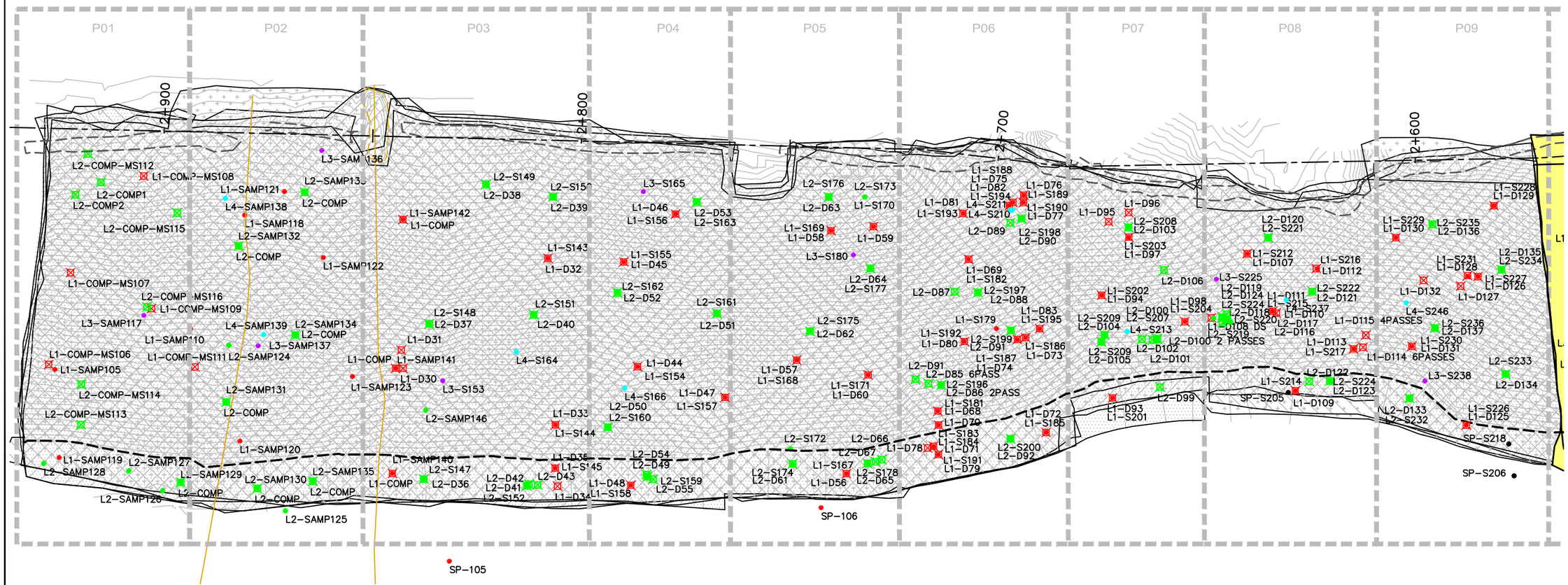
CCL LIFT 2
PLACED JUNE 28, 2021 = 0m^3
PLACED TO DATE = 8,082m^3

NCL LIFT 3
PLACED JUNE 28, 2021 = 1,340m^3
PLACED TO DATE = 15,179m^3

NCL LIFT 4
PLACED JUNE 28, 2021 = 0m^3
PLACED TO DATE = 13,452m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.168 ha
NCL COMPLETED TO DATE = 2.850 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 28, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

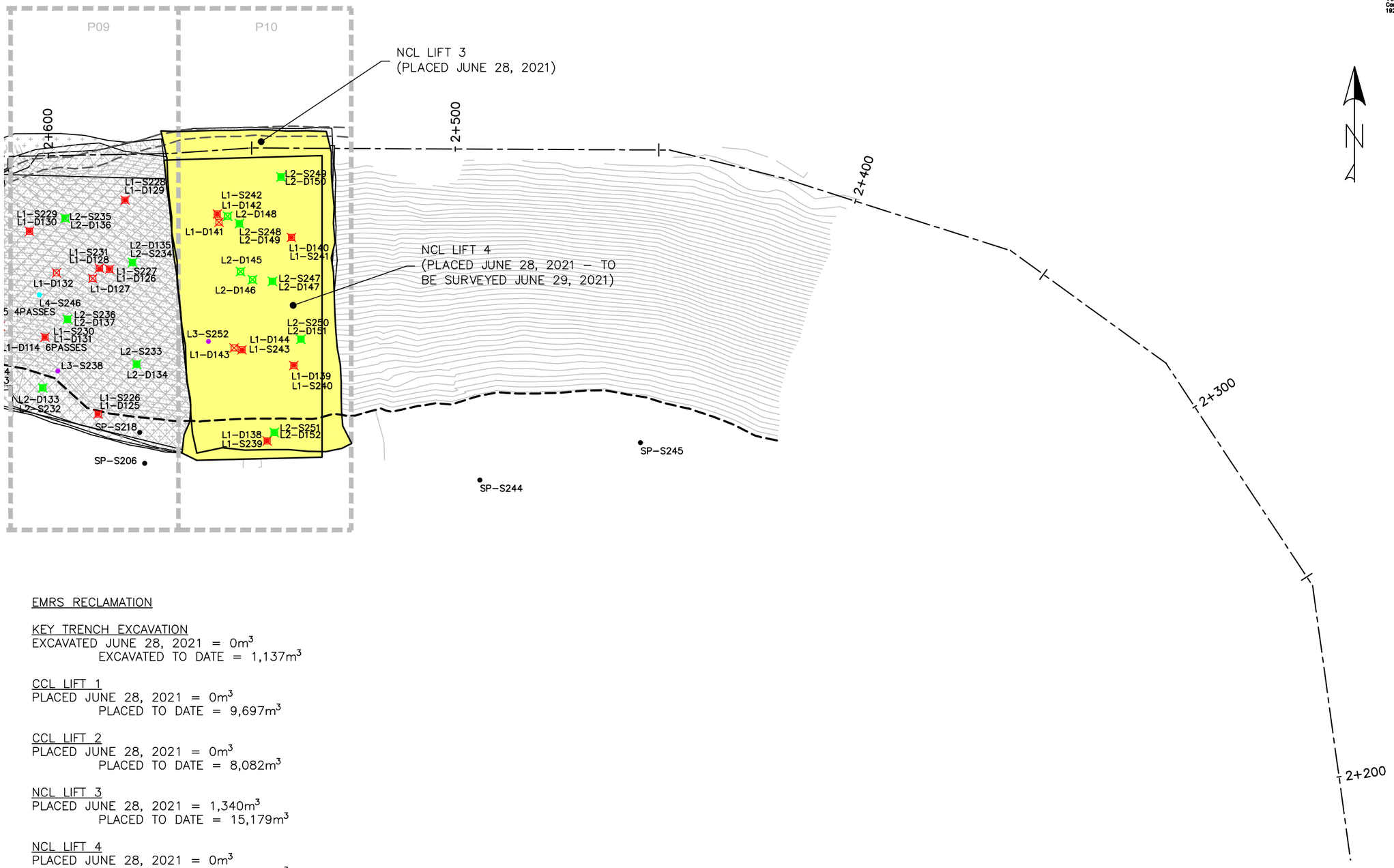
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JUNE 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE - 11" X 17"



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 28, 2021 = 0m^3
EXCAVATED TO DATE = 1,137m^3

CCL LIFT 1
PLACED JUNE 28, 2021 = 0m^3
PLACED TO DATE = 9,697m^3

CCL LIFT 2
PLACED JUNE 28, 2021 = 0m^3
PLACED TO DATE = 8,082m^3

NCL LIFT 3
PLACED JUNE 28, 2021 = 1,340m^3
PLACED TO DATE = 15,179m^3

NCL LIFT 4
PLACED JUNE 28, 2021 = 0m^3
PLACED TO DATE = 13,452m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.168 ha
NCL COMPLETED TO DATE = 2.850 ha

EMRS RECLAMATION – DAILY PROGRESS

(JUNE 28, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

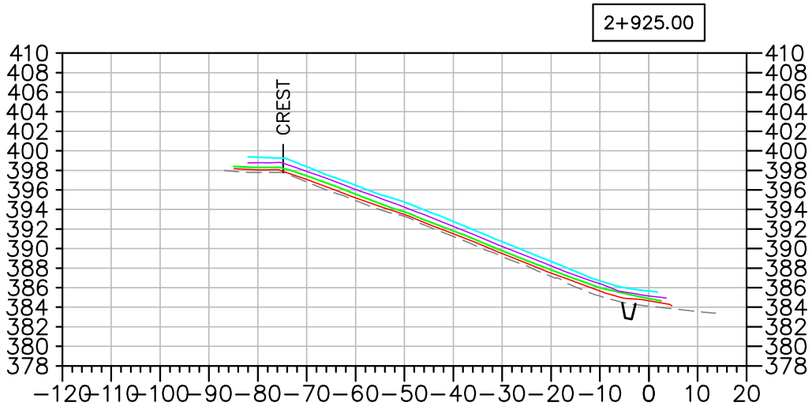
DRAWING TITLE
2021 EMRS
RECLAMATION

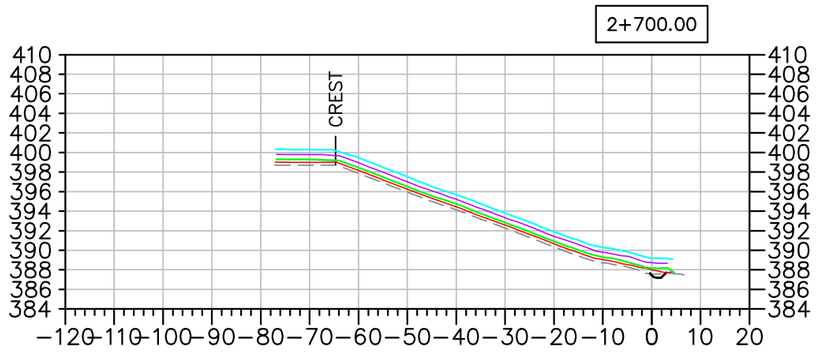
PURPOSE
DAILY PROGRESS

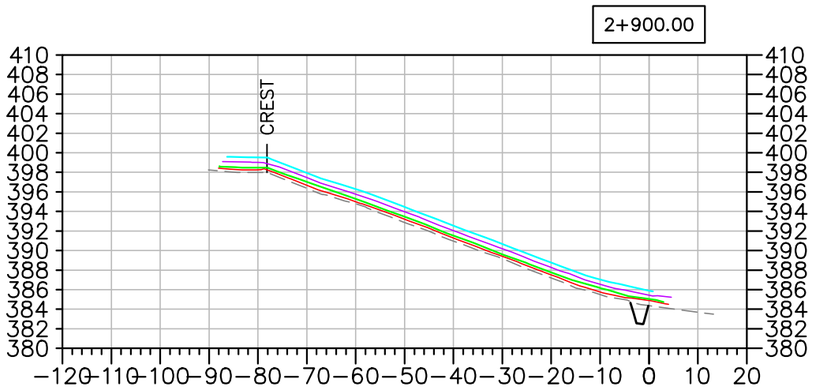
DATE	JUNE 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

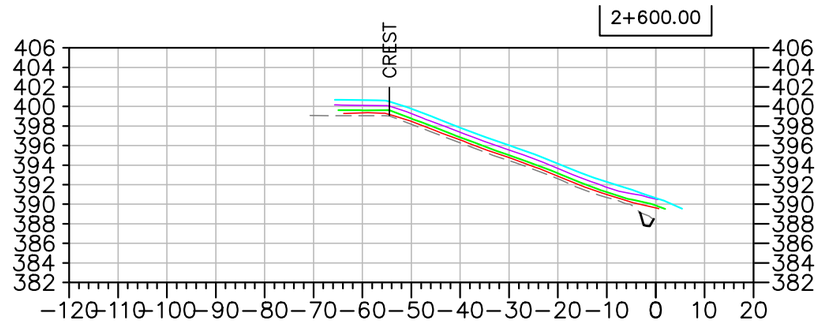
DWG. No.	PROJECT No.	PHASE No.
D–2	19–1138	115

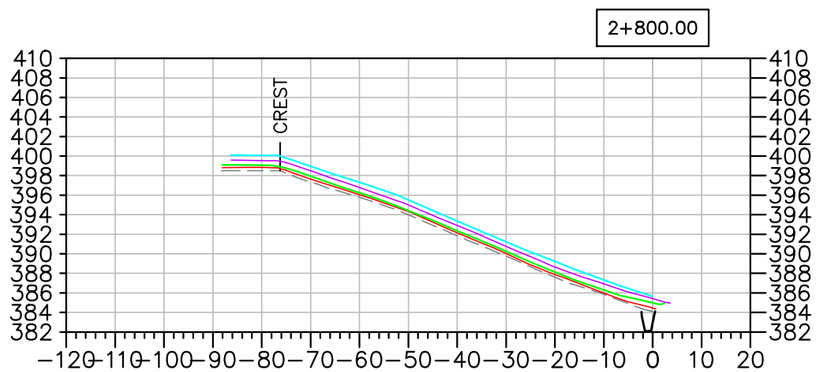
SHEET SIZE – 11" X 17"











EMRS RECLAMATION – DAILY PROGRESS

(JUNE 28, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 28, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE - 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 29, 2021 = 248m^3
EXCAVATED TO DATE = 1,385m^3

CCL LIFT 1
PLACED JUNE 29, 2021 = 774m^3
PLACED TO DATE = 10,471m^3

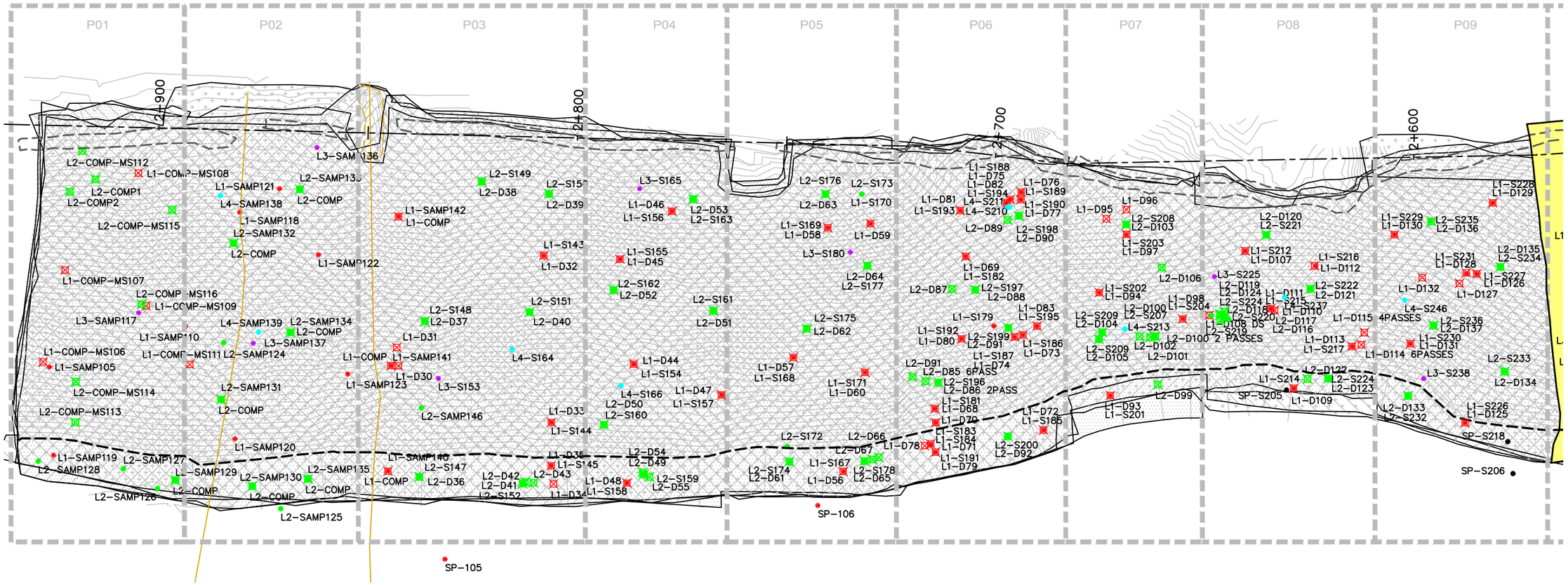
CCL LIFT 2
PLACED JUNE 29, 2021 = 0m^3
PLACED TO DATE = 8,082m^3

NCL LIFT 3
PLACED JUNE 29, 2021 = 0m^3
PLACED TO DATE = 15,179m^3

NCL LIFT 4
PLACED JUNE 29, 2021 = 1,482m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.168 ha
NCL COMPLETED TO DATE = 3.157 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 29, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

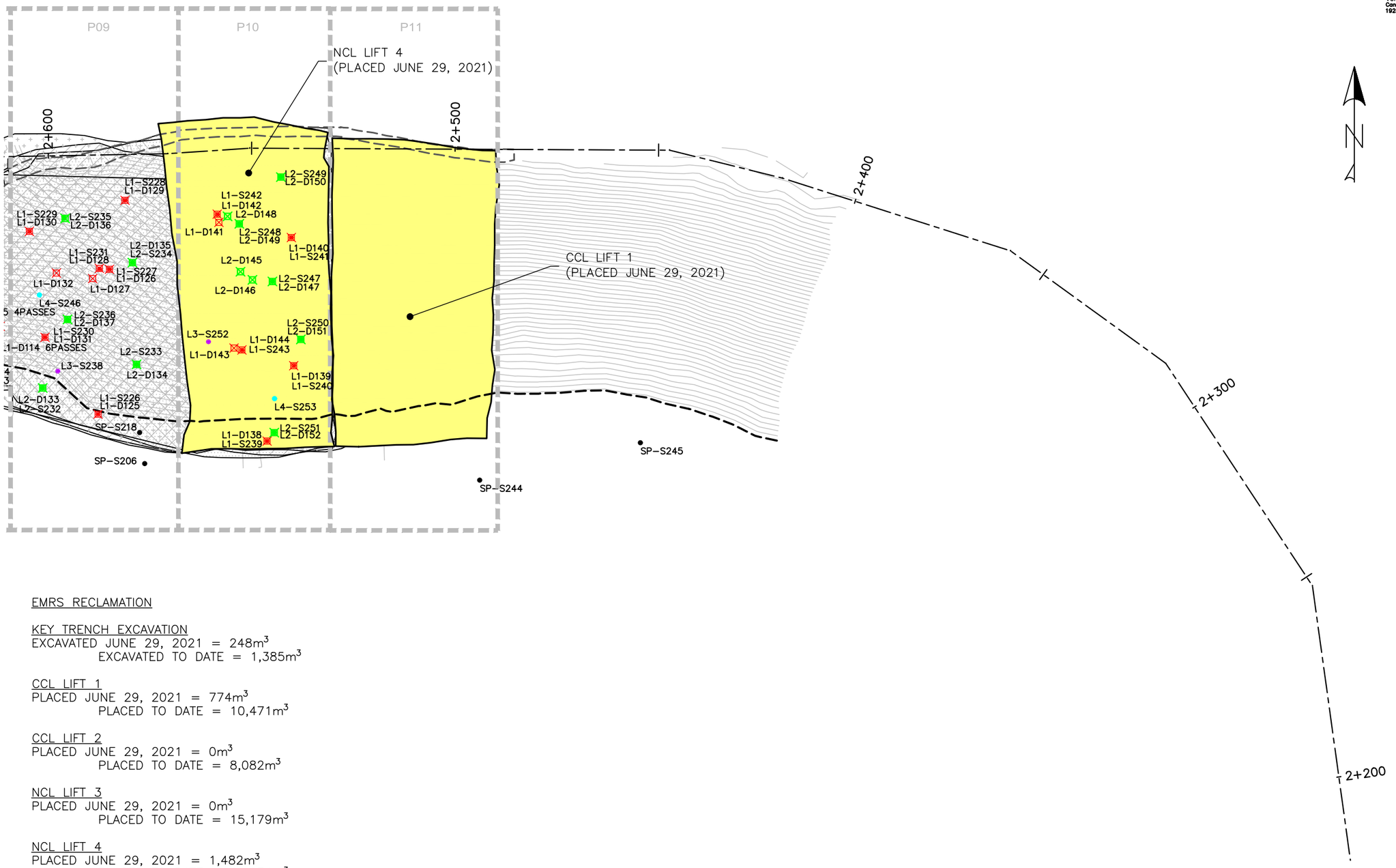
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JUNE 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 29, 2021 = 248m^3
EXCAVATED TO DATE = 1,385m^3

CCL LIFT 1
PLACED JUNE 29, 2021 = 774m^3
PLACED TO DATE = 10,471m^3

CCL LIFT 2
PLACED JUNE 29, 2021 = 0m^3
PLACED TO DATE = 8,082m^3

NCL LIFT 3
PLACED JUNE 29, 2021 = 0m^3
PLACED TO DATE = 15,179m^3

NCL LIFT 4
PLACED JUNE 29, 2021 = 1,482m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.168 ha
NCL COMPLETED TO DATE = 3.157 ha

EMRS RECLAMATION – DAILY PROGRESS

(JUNE 29, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

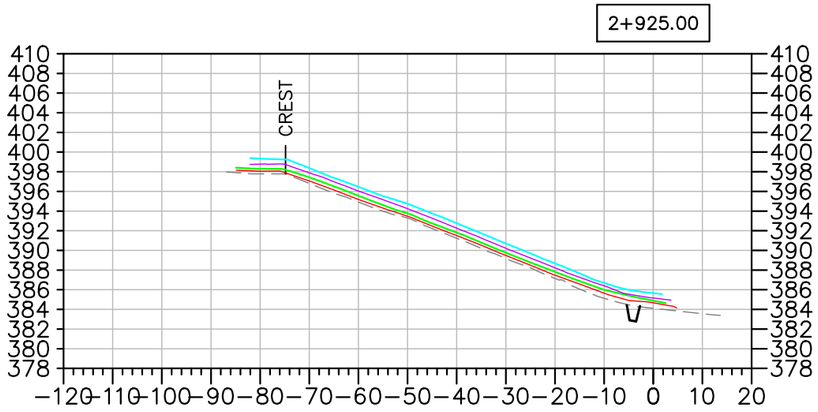
DRAWING TITLE
2021 EMRS
RECLAMATION

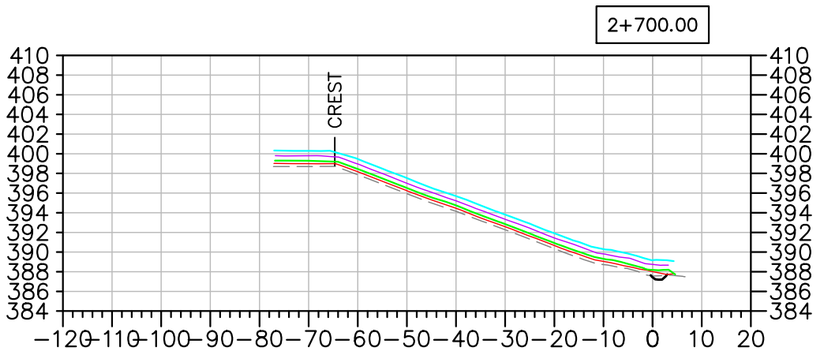
PURPOSE
DAILY PROGRESS

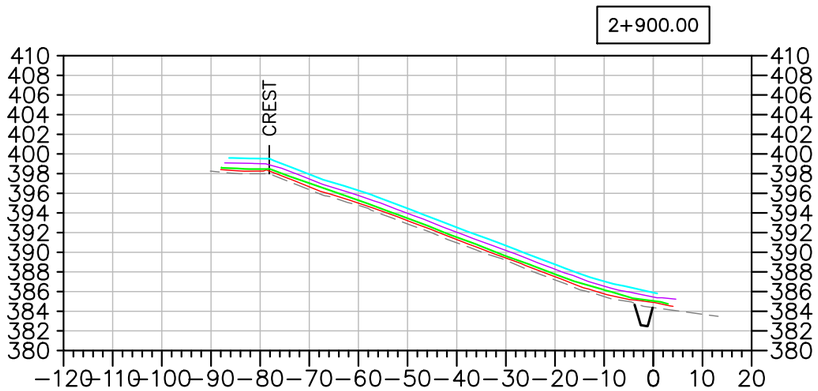
DATE	JUNE 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

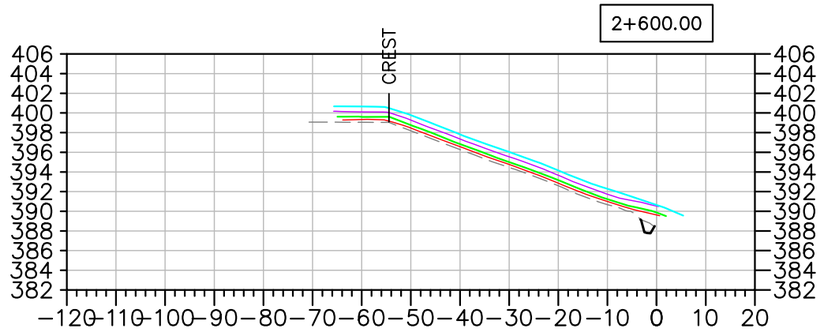
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

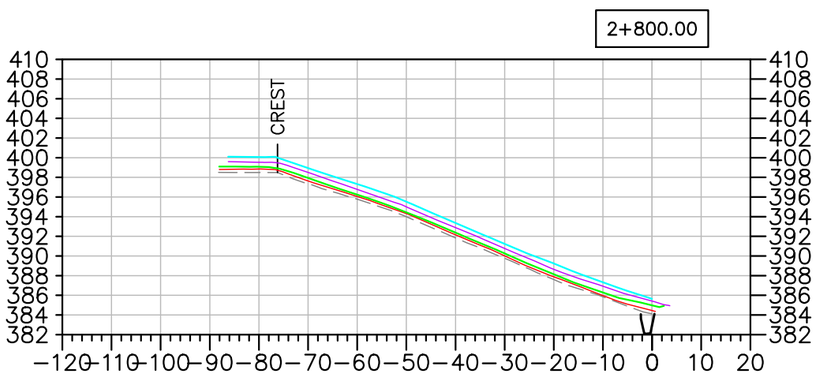
SHEET SIZE – 11" X 17"

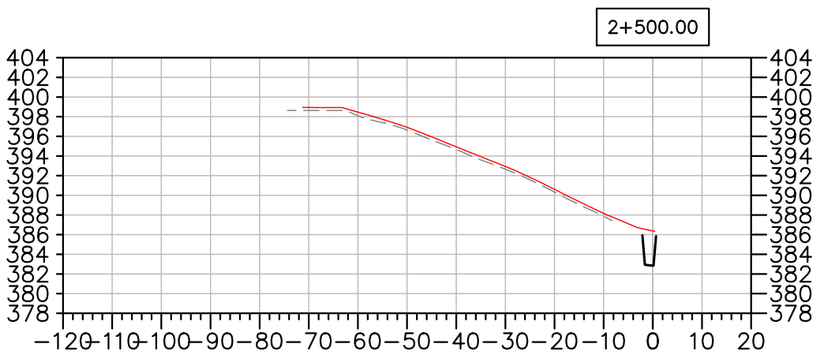












EMRS RECLAMATION – DAILY PROGRESS

(JUNE 29, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 29, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 30, 2021 = 0m^3
EXCAVATED TO DATE = 1,385m^3

CCL LIFT 1
PLACED JUNE 30, 2021 = 0m^3
PLACED TO DATE = 10,471m^3

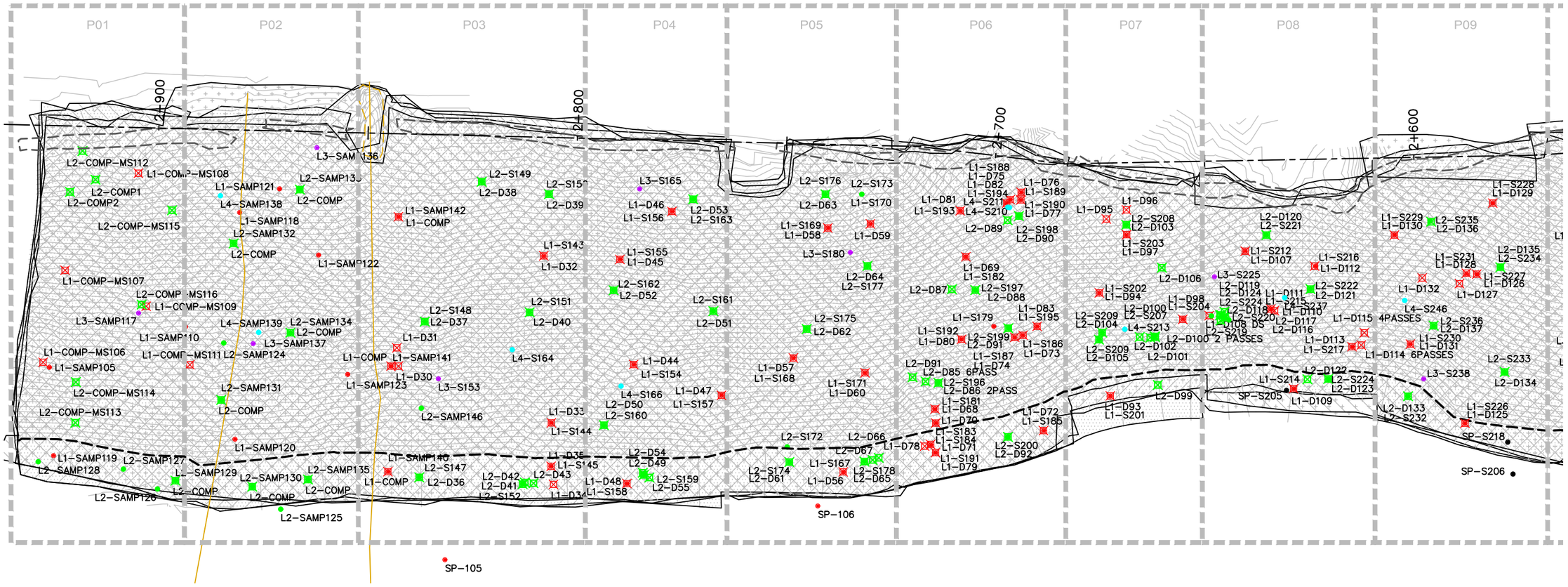
CCL LIFT 2
PLACED JUNE 30, 2021 = 847m^3
PLACED TO DATE = 8,929m^3

NCL LIFT 3
PLACED JUNE 30, 2021 = 0m^3
PLACED TO DATE = 15,179m^3

NCL LIFT 4
PLACED JUNE 30, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.469 ha
NCL COMPLETED TO DATE = 3.157 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 30, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

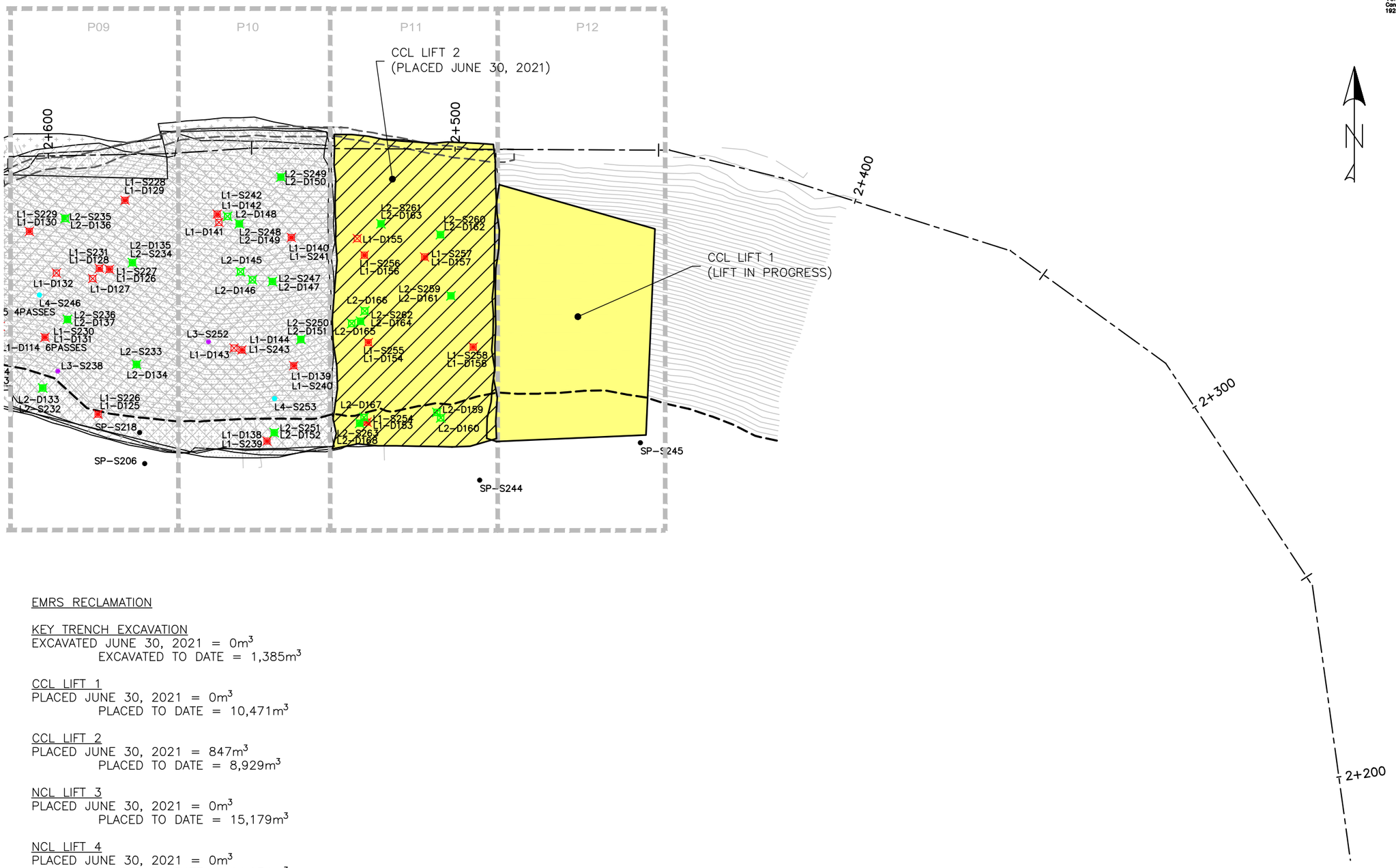
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JUNE 30, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JUNE 30, 2021 = 0m^3
EXCAVATED TO DATE = 1,385m^3

CCL LIFT 1
PLACED JUNE 30, 2021 = 0m^3
PLACED TO DATE = 10,471m^3

CCL LIFT 2
PLACED JUNE 30, 2021 = 847m^3
PLACED TO DATE = 8,929m^3

NCL LIFT 3
PLACED JUNE 30, 2021 = 0m^3
PLACED TO DATE = 15,179m^3

NCL LIFT 4
PLACED JUNE 30, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.469 ha
NCL COMPLETED TO DATE = 3.157 ha

EMRS RECLAMATION – DAILY PROGRESS

(JUNE 30, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

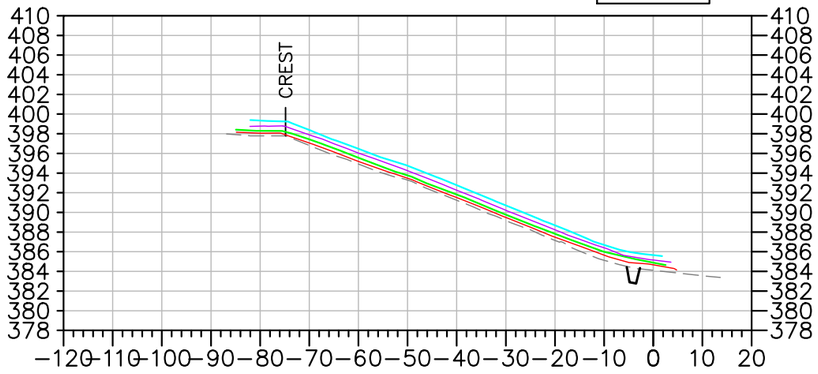
PURPOSE
DAILY PROGRESS

DATE	JUNE 30, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

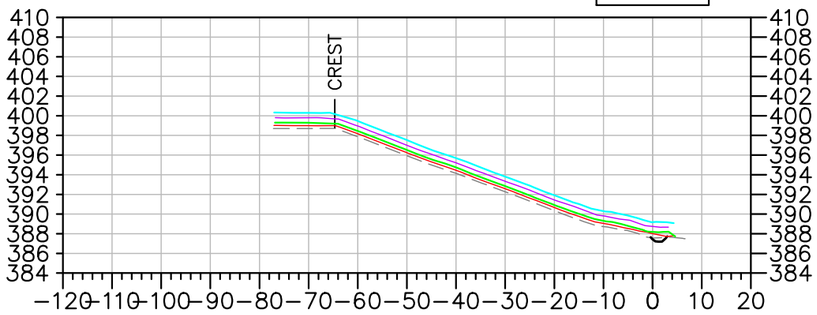
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE – 11" X 17"

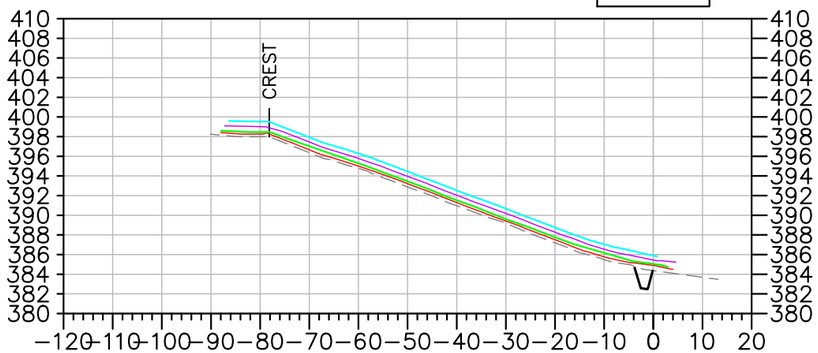
2+925.00



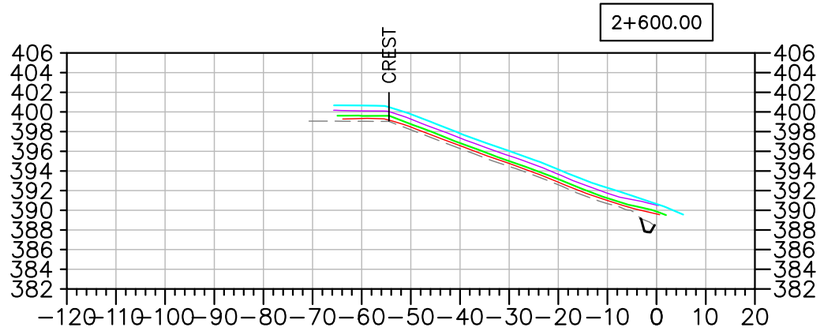
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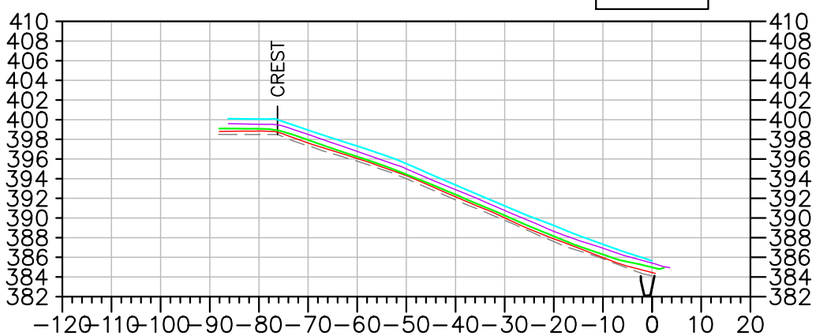
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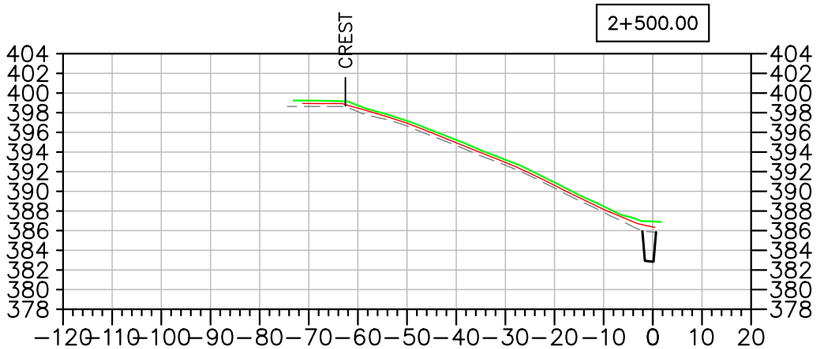
2+600.00



2+800.00



2+500.00



EMRS RECLAMATION – DAILY PROGRESS

(JUNE 30, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JUNE 30, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X−1	19−1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 1, 2021 = 224m^3
EXCAVATED TO DATE = 1,609m^3

CCL LIFT 1
PLACED JULY 1, 2021 = 1,093m^3
PLACED TO DATE = 11,564m^3

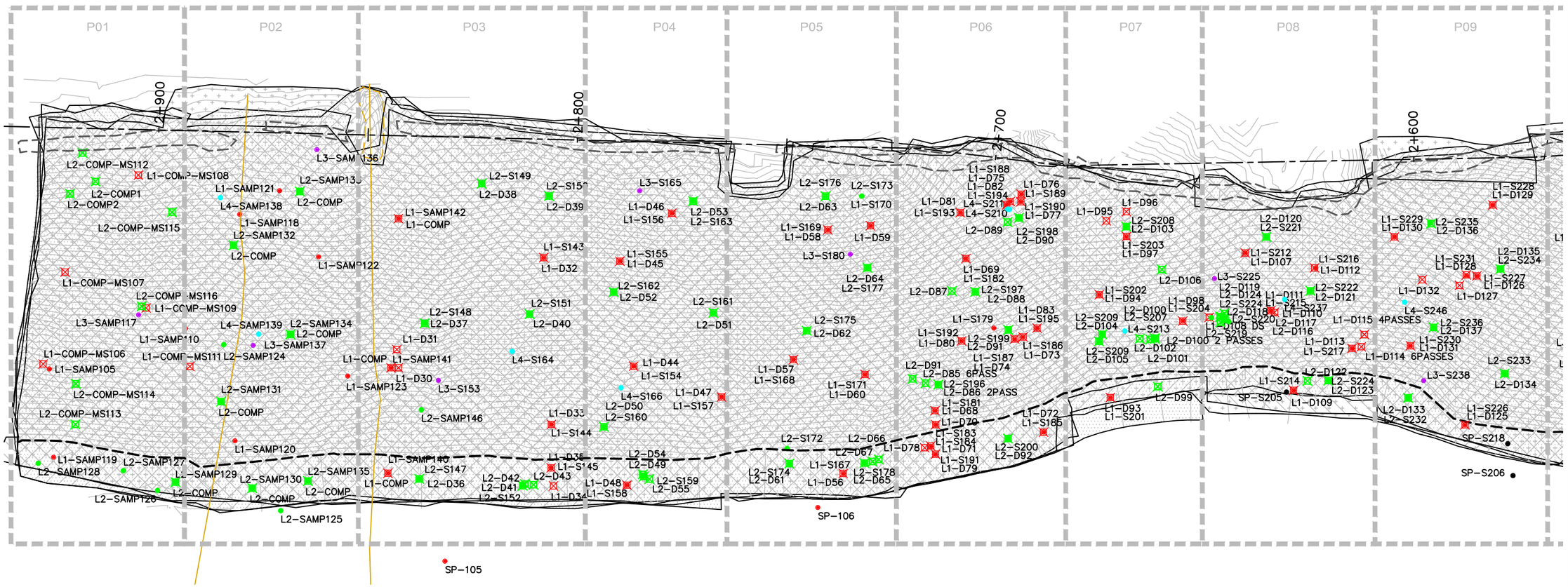
CCL LIFT 2
PLACED JULY 1, 2021 = 0m^3
PLACED TO DATE = 8,929m^3

NCL LIFT 3
PLACED JULY 1, 2021 = 1,385m^3
PLACED TO DATE = 16,564m^3

NCL LIFT 4
PLACED JULY 1, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.469 ha
NCL COMPLETED TO DATE = 3.157 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 1, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

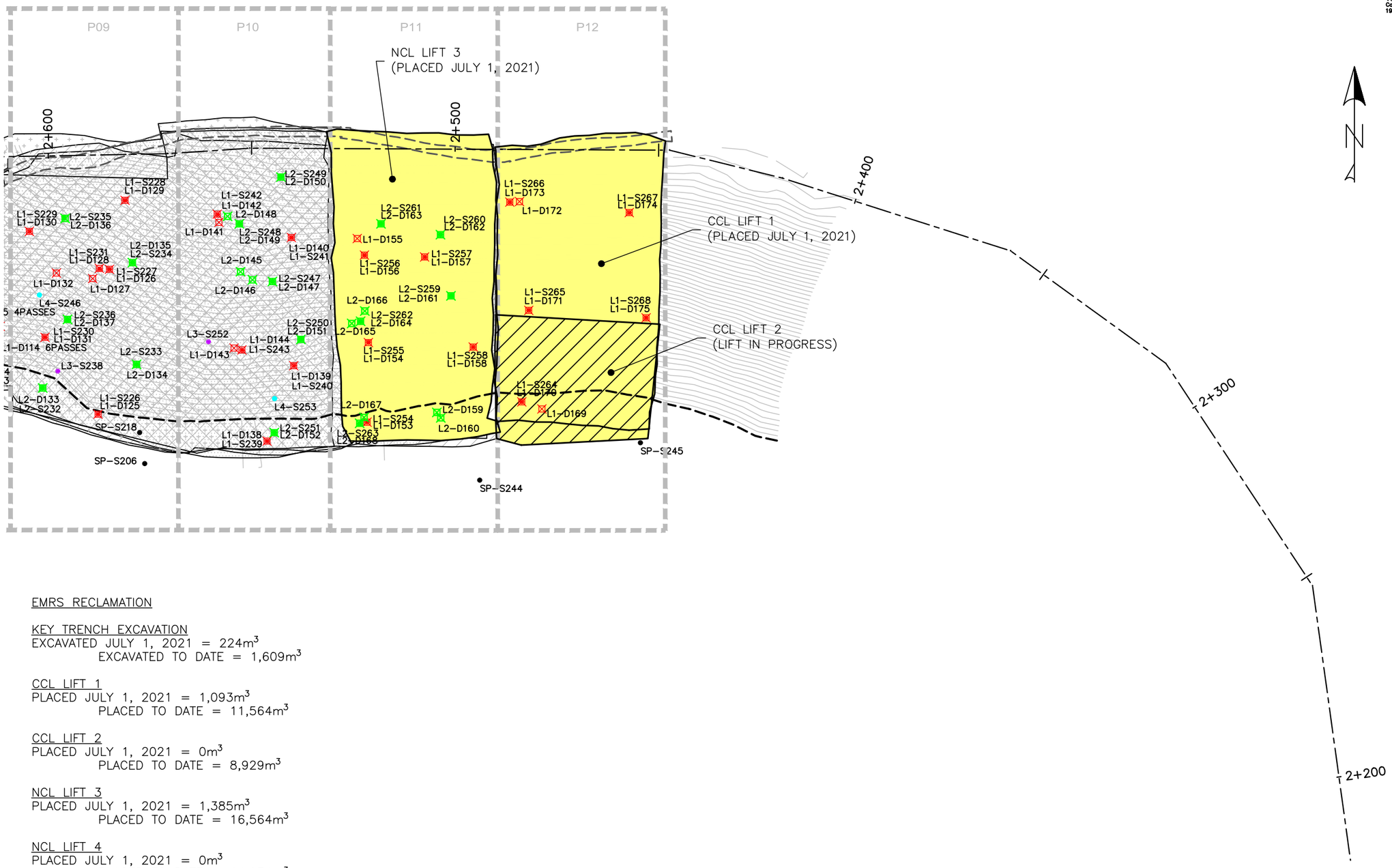
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 1, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 1, 2021 = 224m^3
EXCAVATED TO DATE = 1,609m^3

CCL LIFT 1
PLACED JULY 1, 2021 = 1,093m^3
PLACED TO DATE = 11,564m^3

CCL LIFT 2
PLACED JULY 1, 2021 = 0m^3
PLACED TO DATE = 8,929m^3

NCL LIFT 3
PLACED JULY 1, 2021 = 1,385m^3
PLACED TO DATE = 16,564m^3

NCL LIFT 4
PLACED JULY 1, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.469 ha
NCL COMPLETED TO DATE = 3.157 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 1, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

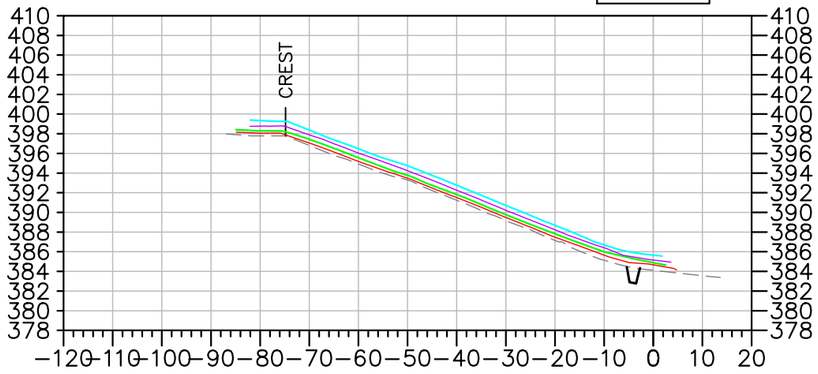
PURPOSE
DAILY PROGRESS

DATE	JULY 1, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

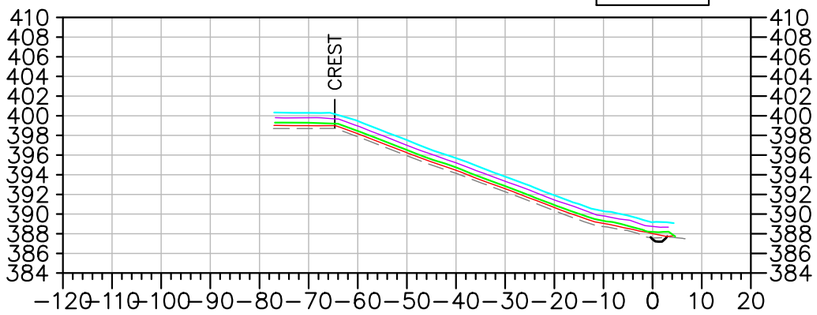
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE - 11" X 17"

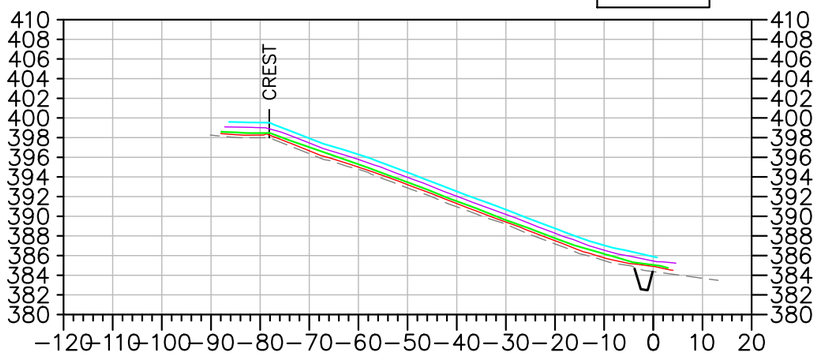
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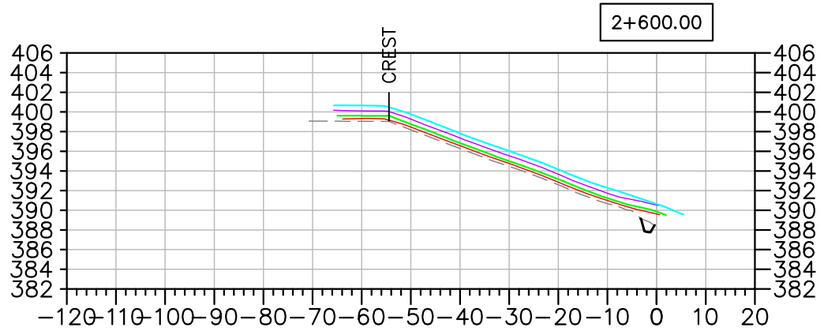
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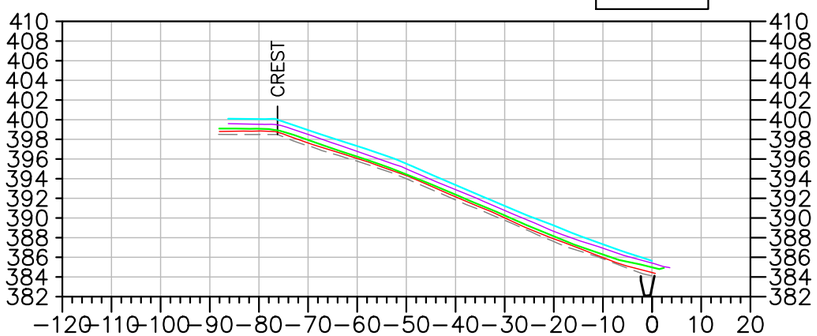
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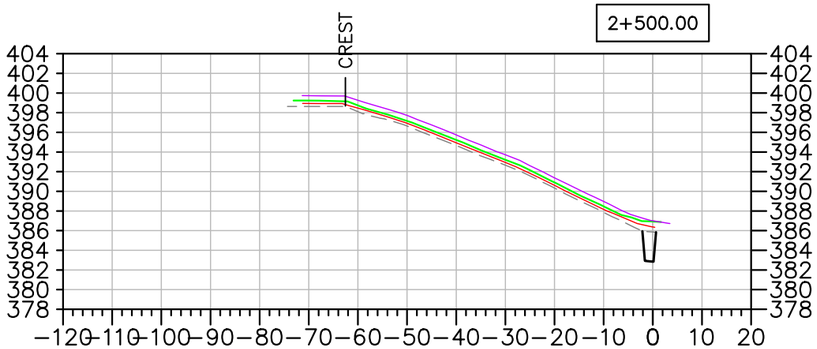
2+600.00



2+800.00



2+500.00



EMRS RECLAMATION – DAILY PROGRESS

(JULY 1, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 1, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X−1	19−1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 2, 2021 = 0m^3
EXCAVATED TO DATE = 1,609m^3

CCL LIFT 1
PLACED JULY 2, 2021 = 0m^3
PLACED TO DATE = 11,564m^3

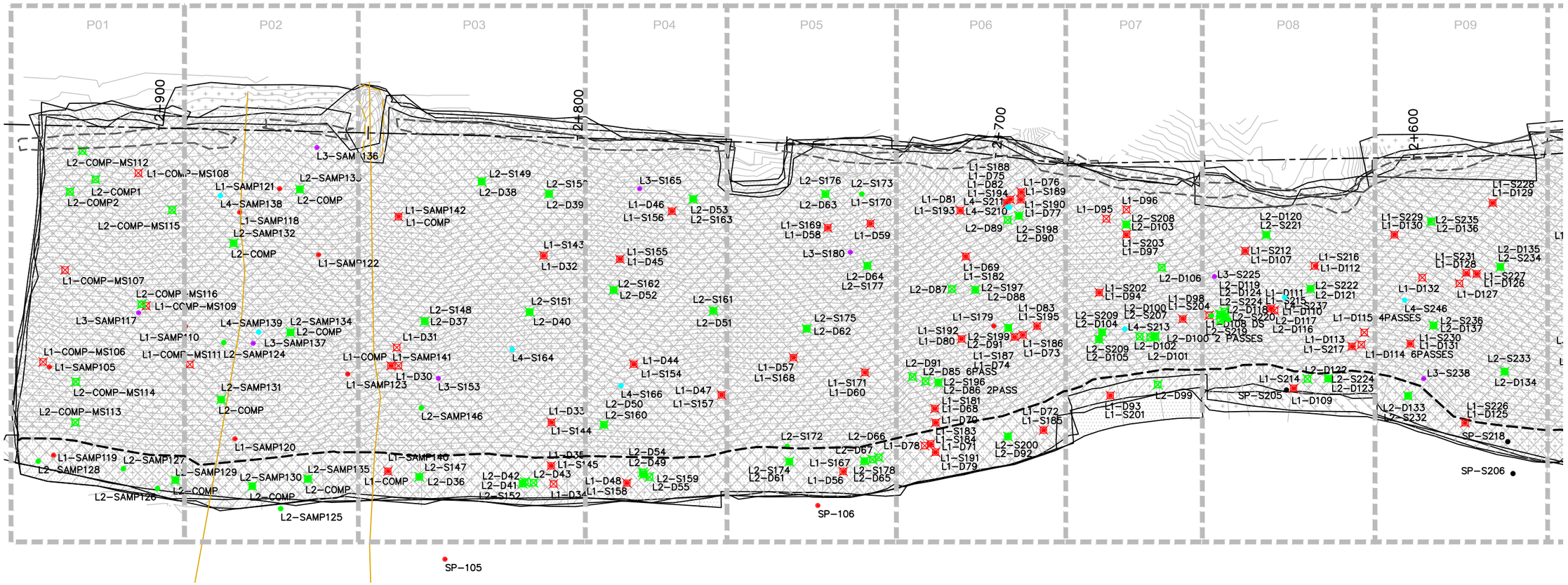
CCL LIFT 2
PLACED JULY 2, 2021 = 749m^3
PLACED TO DATE = 9,678m^3

NCL LIFT 3
PLACED JULY 2, 2021 = 0m^3
PLACED TO DATE = 16,564m^3

NCL LIFT 4
PLACED JULY 2, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.752 ha
NCL COMPLETED TO DATE = 3.157 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 2, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 2, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 2, 2021 = 0m^3
EXCAVATED TO DATE = 1,609m^3

CCL LIFT 1
PLACED JULY 2, 2021 = 0m^3
PLACED TO DATE = 11,564m^3

CCL LIFT 2
PLACED JULY 2, 2021 = 749m^3
PLACED TO DATE = 9,678m^3

NCL LIFT 3
PLACED JULY 2, 2021 = 0m^3
PLACED TO DATE = 16,564m^3

NCL LIFT 4
PLACED JULY 2, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.752 ha
NCL COMPLETED TO DATE = 3.157 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 2, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

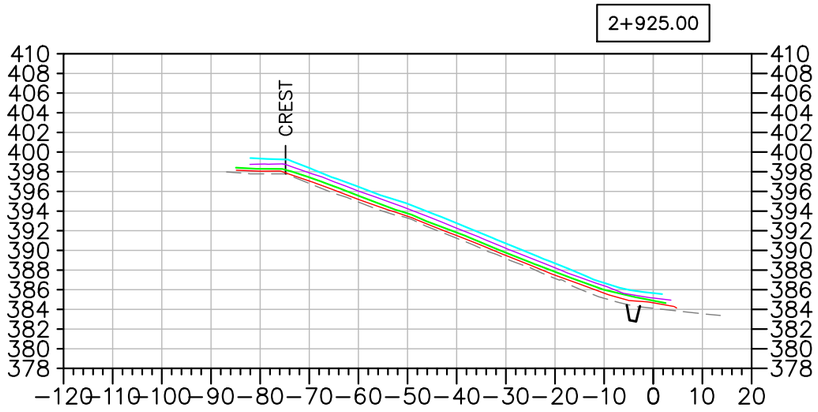
DRAWING TITLE
2021 EMRS
RECLAMATION

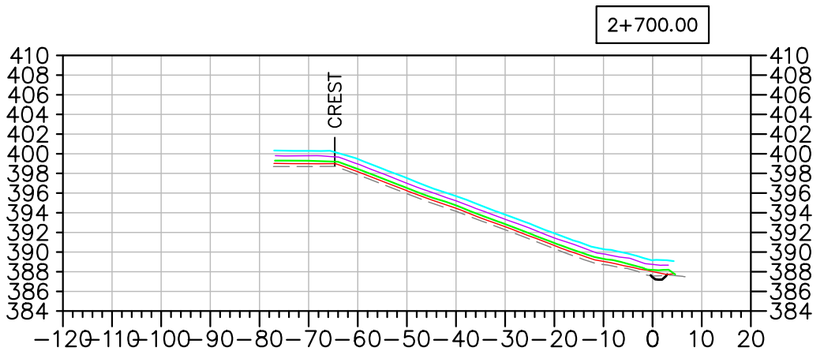
PURPOSE
DAILY PROGRESS

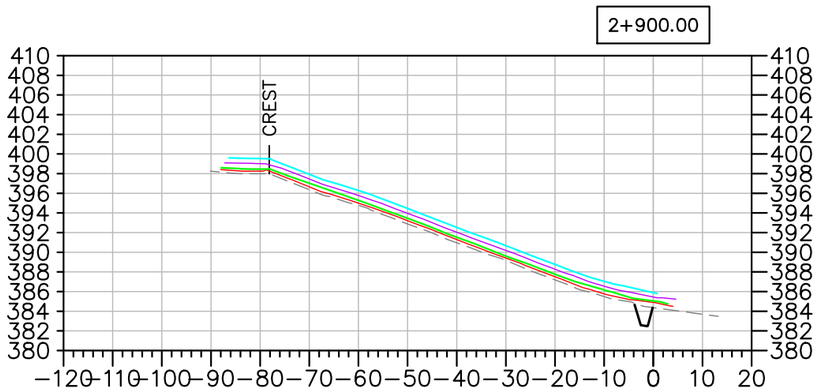
DATE	JULY 2, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

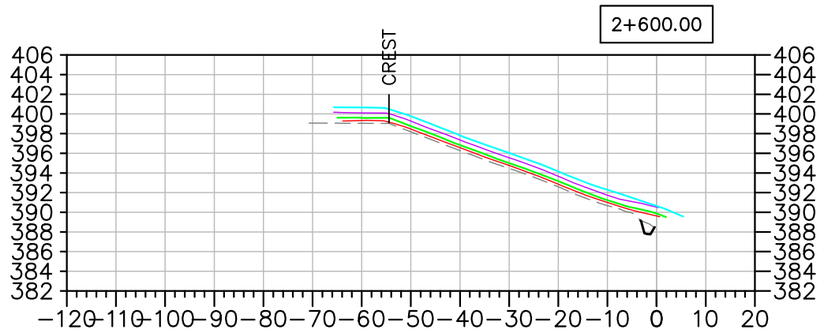
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

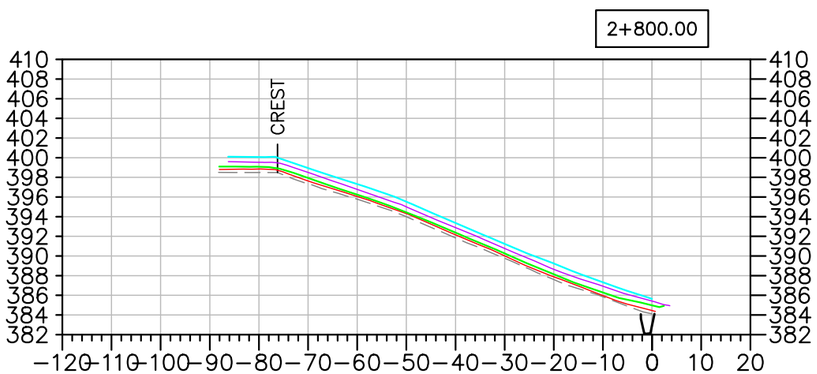
SHEET SIZE - 11" X 17"

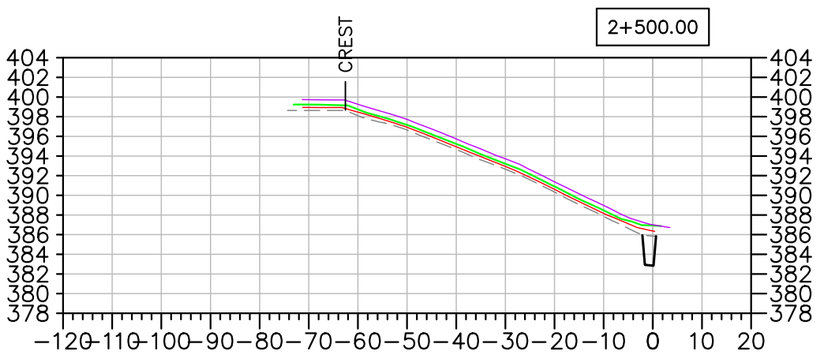












EMRS RECLAMATION – DAILY PROGRESS

(JULY 2, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 2, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X−1	19−1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 3, 2021 = 0m^3
EXCAVATED TO DATE = 1,609m^3

CCL LIFT 1
PLACED JULY 3, 2021 = 0m^3
PLACED TO DATE = 11,564m^3

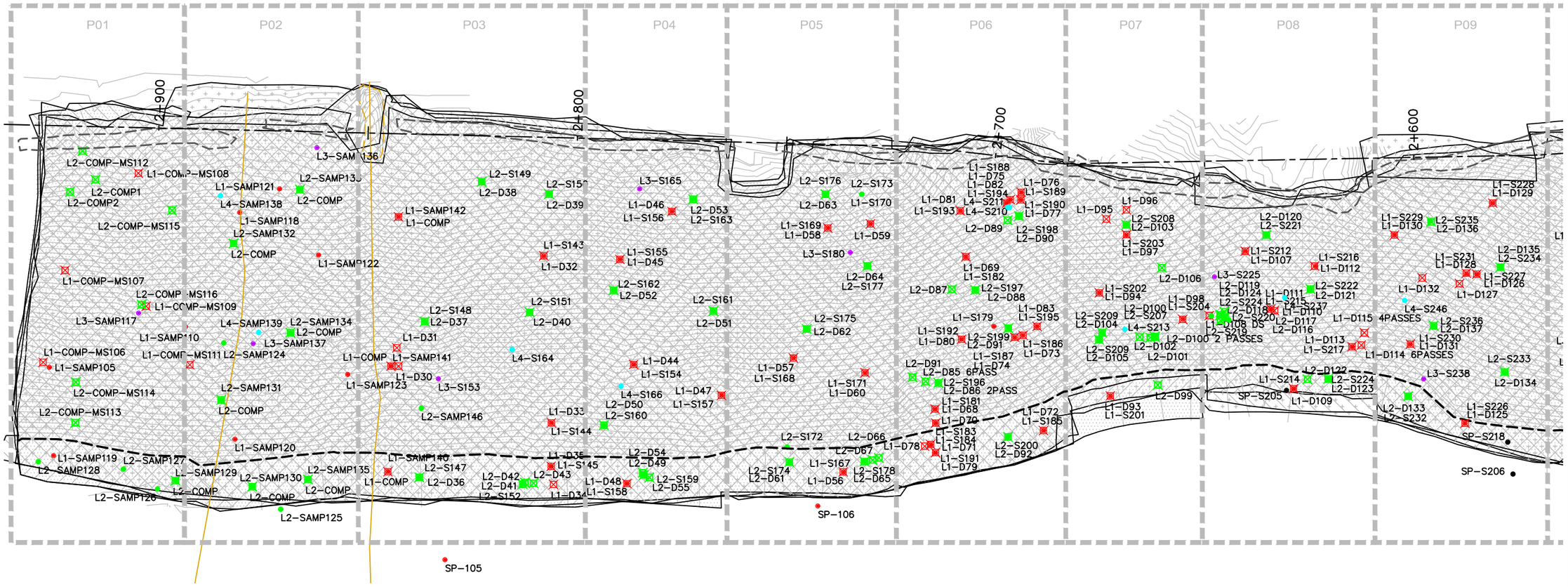
CCL LIFT 2
PLACED JULY 3, 2021 = 0m^3
PLACED TO DATE = 9,678m^3

NCL LIFT 3
PLACED JULY 3, 2021 = 1,308m^3
PLACED TO DATE = 17,872m^3

NCL LIFT 4
PLACED JULY 3, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.752 ha
NCL COMPLETED TO DATE = 3.157 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 3, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

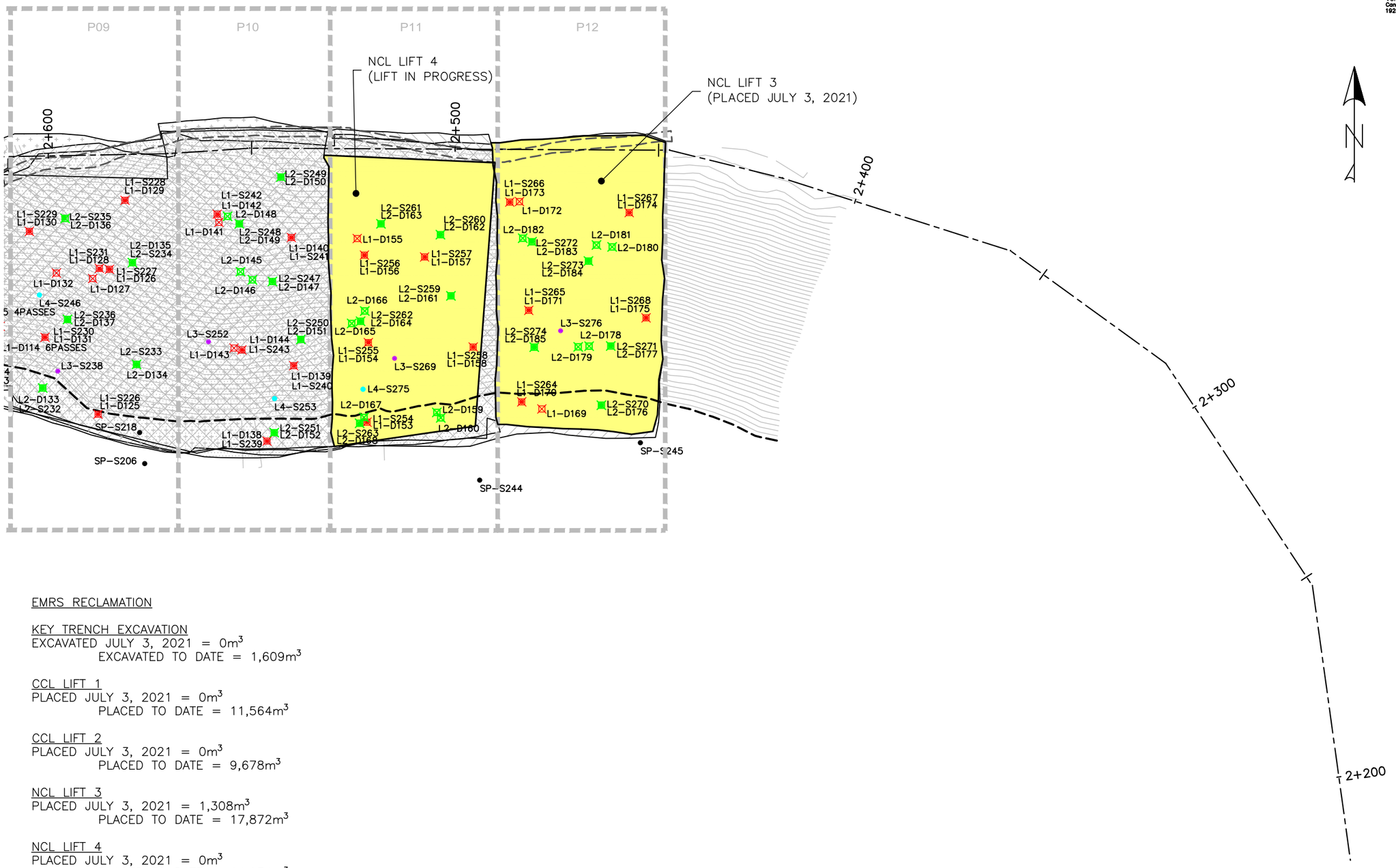
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 3, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 3, 2021 = 0m^3
EXCAVATED TO DATE = 1,609m^3

CCL LIFT 1
PLACED JULY 3, 2021 = 0m^3
PLACED TO DATE = 11,564m^3

CCL LIFT 2
PLACED JULY 3, 2021 = 0m^3
PLACED TO DATE = 9,678m^3

NCL LIFT 3
PLACED JULY 3, 2021 = 1,308m^3
PLACED TO DATE = 17,872m^3

NCL LIFT 4
PLACED JULY 3, 2021 = 0m^3
PLACED TO DATE = 14,934m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.752 ha
NCL COMPLETED TO DATE = 3.157 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 3, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

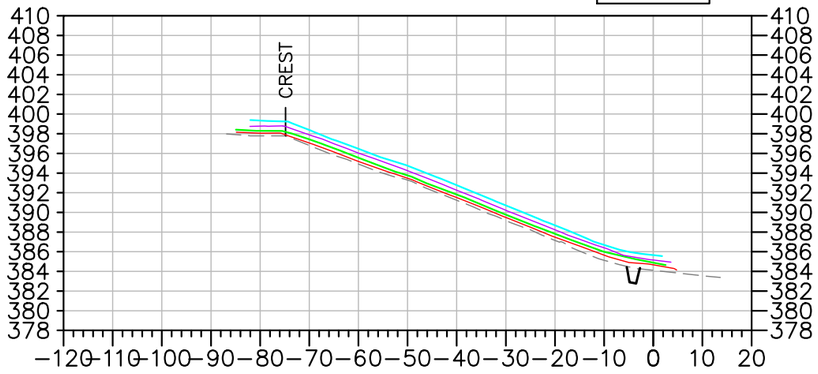
PURPOSE
DAILY PROGRESS

DATE	JULY 3, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

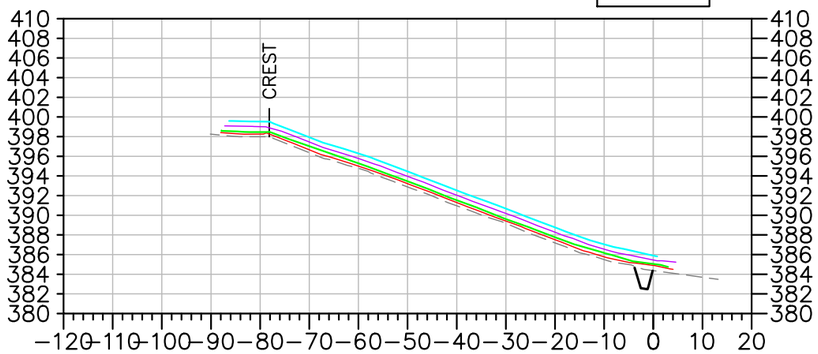
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE - 11" X 17"

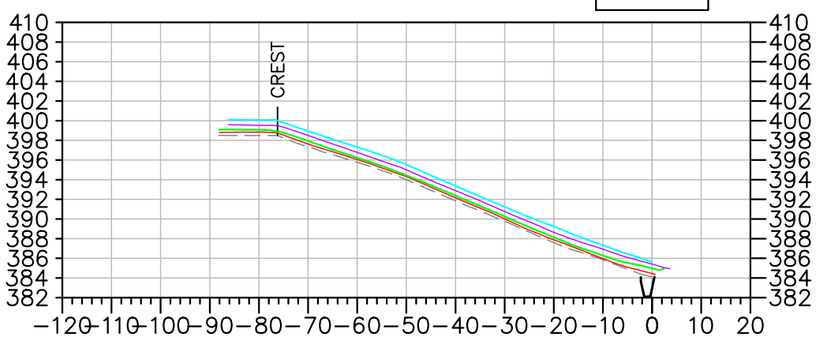
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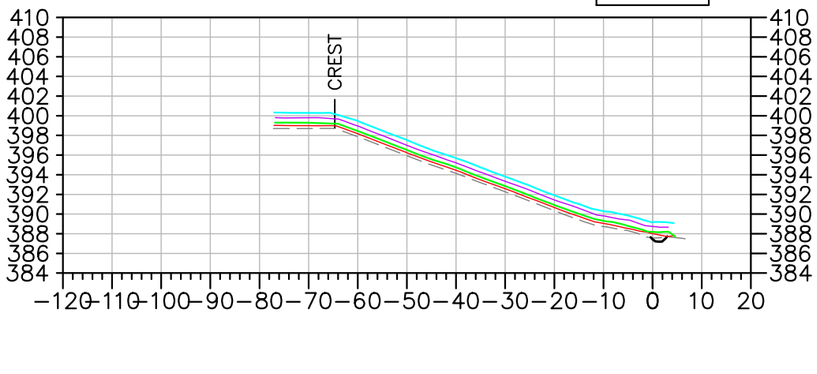
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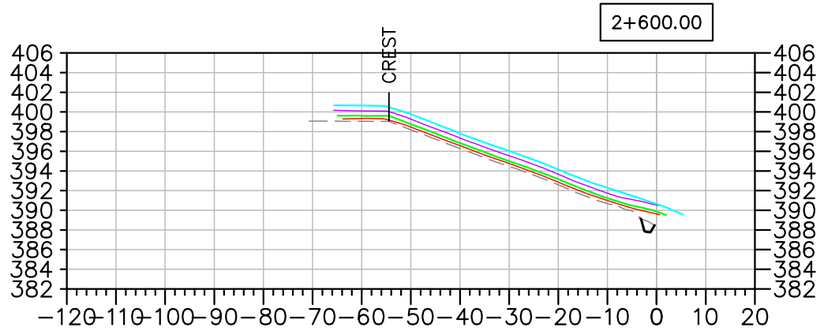
2+800.00



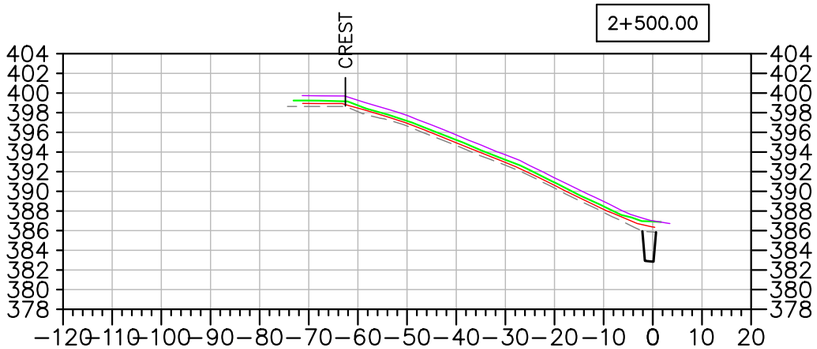
2+700.00



2+600.00



2+500.00



EMRS RECLAMATION – DAILY PROGRESS

(JULY 3, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 3, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X−1	19−1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 4, 2021 = 276m^3
EXCAVATED TO DATE = 1,885m^3

CCL LIFT 1
PLACED JULY 4, 2021 = 0m^3
PLACED TO DATE = 11,564m^3

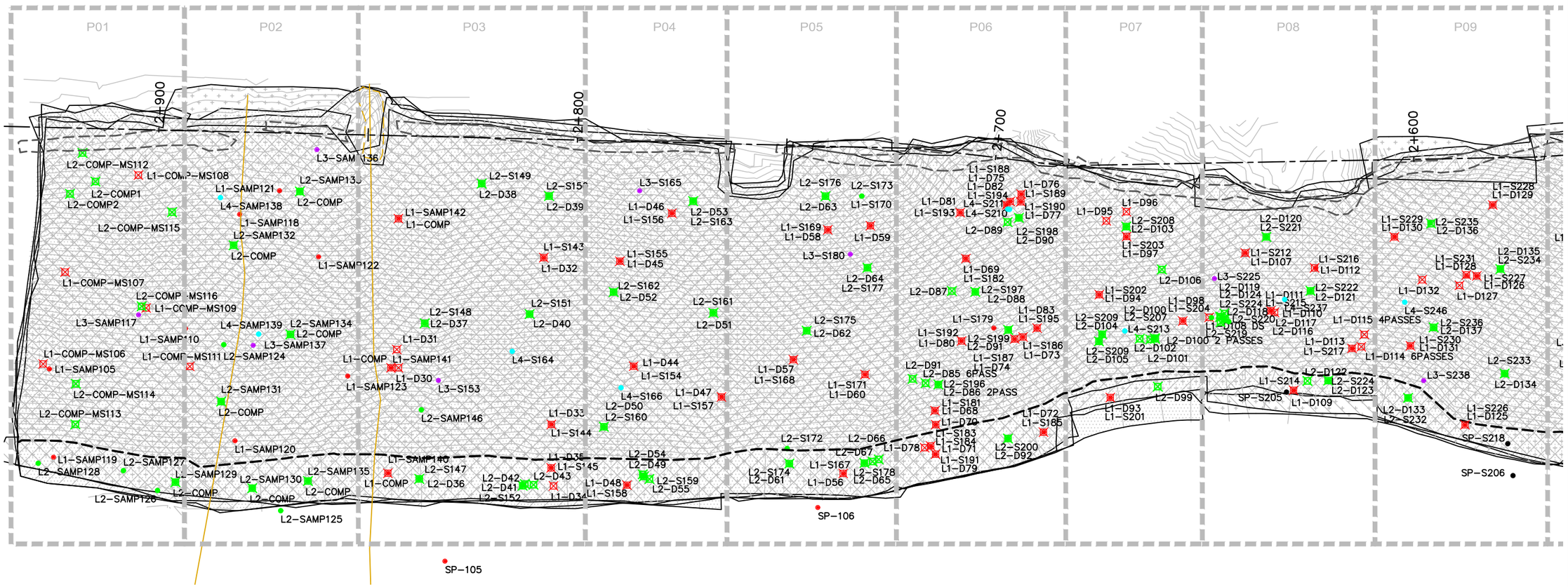
CCL LIFT 2
PLACED JULY 4, 2021 = 0m^3
PLACED TO DATE = 9,678m^3

NCL LIFT 3
PLACED JULY 4, 2021 = 0m^3
PLACED TO DATE = 17,872m^3

NCL LIFT 4
PLACED JULY 4, 2021 = 1,353m^3
PLACED TO DATE = 16,287m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.752 ha
NCL COMPLETED TO DATE = 3.429 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 4, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

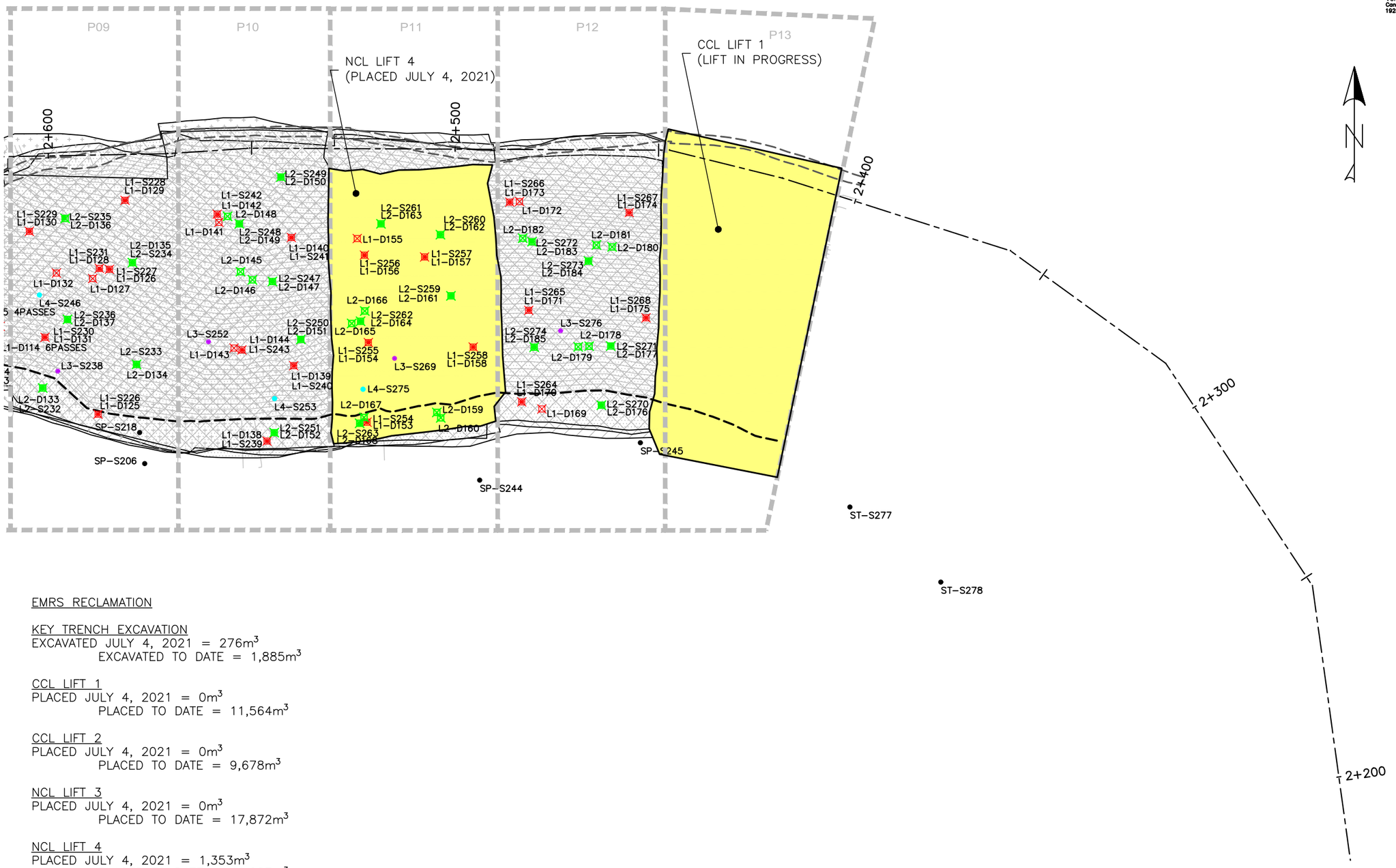
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 4, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 4, 2021 = 276m^3
EXCAVATED TO DATE = 1,885m^3

CCL LIFT 1
PLACED JULY 4, 2021 = 0m^3
PLACED TO DATE = 11,564m^3

CCL LIFT 2
PLACED JULY 4, 2021 = 0m^3
PLACED TO DATE = 9,678m^3

NCL LIFT 3
PLACED JULY 4, 2021 = 0m^3
PLACED TO DATE = 17,872m^3

NCL LIFT 4
PLACED JULY 4, 2021 = 1,353m^3
PLACED TO DATE = 16,287m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.752 ha
NCL COMPLETED TO DATE = 3.429 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 4, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

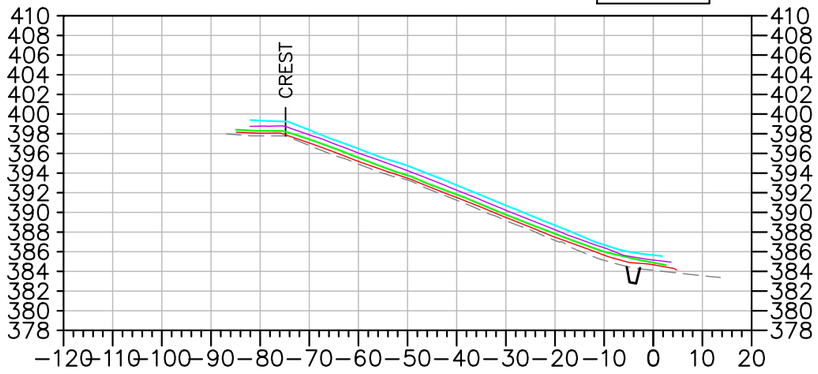
PURPOSE
DAILY PROGRESS

DATE	JULY 4, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

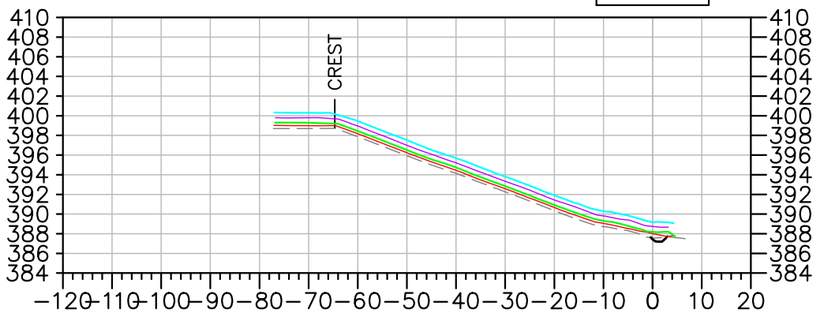
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE - 11" X 17"

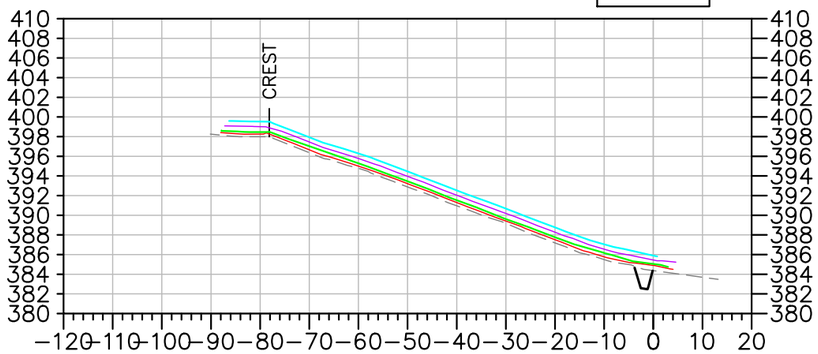
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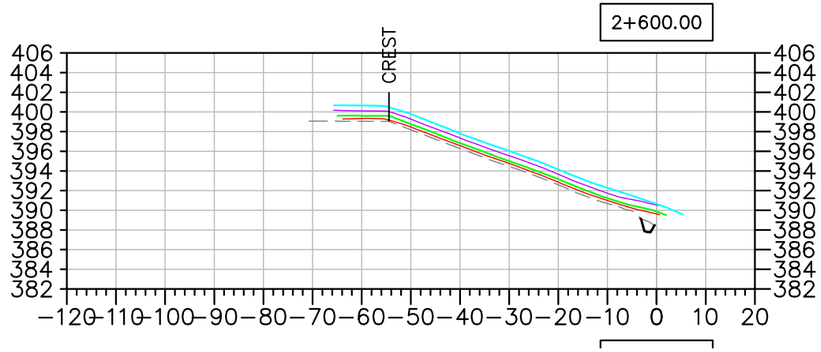
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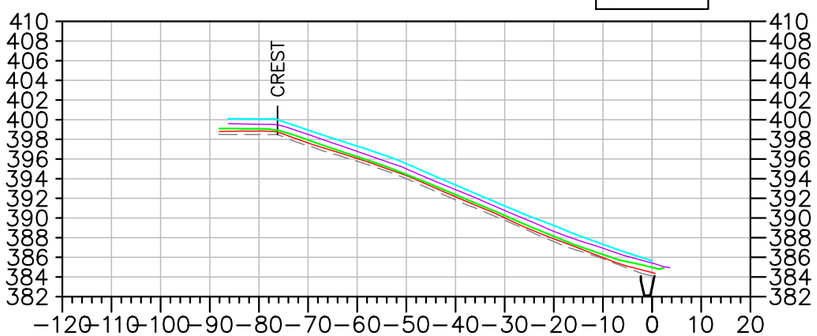
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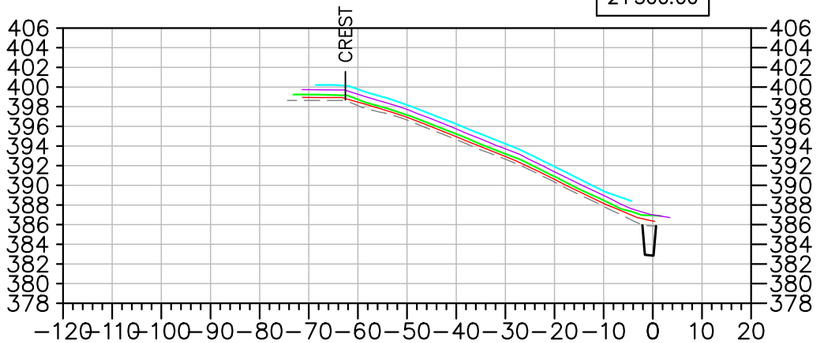
2+600.00



2+800.00



2+500.00



EMRS RECLAMATION – DAILY PROGRESS

(JULY 4, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 4, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 5, 2021 = 0m^3
EXCAVATED TO DATE = 1,885m^3

CCL LIFT 1
PLACED JULY 5, 2021 = 786m^3
PLACED TO DATE = 12,350m^3

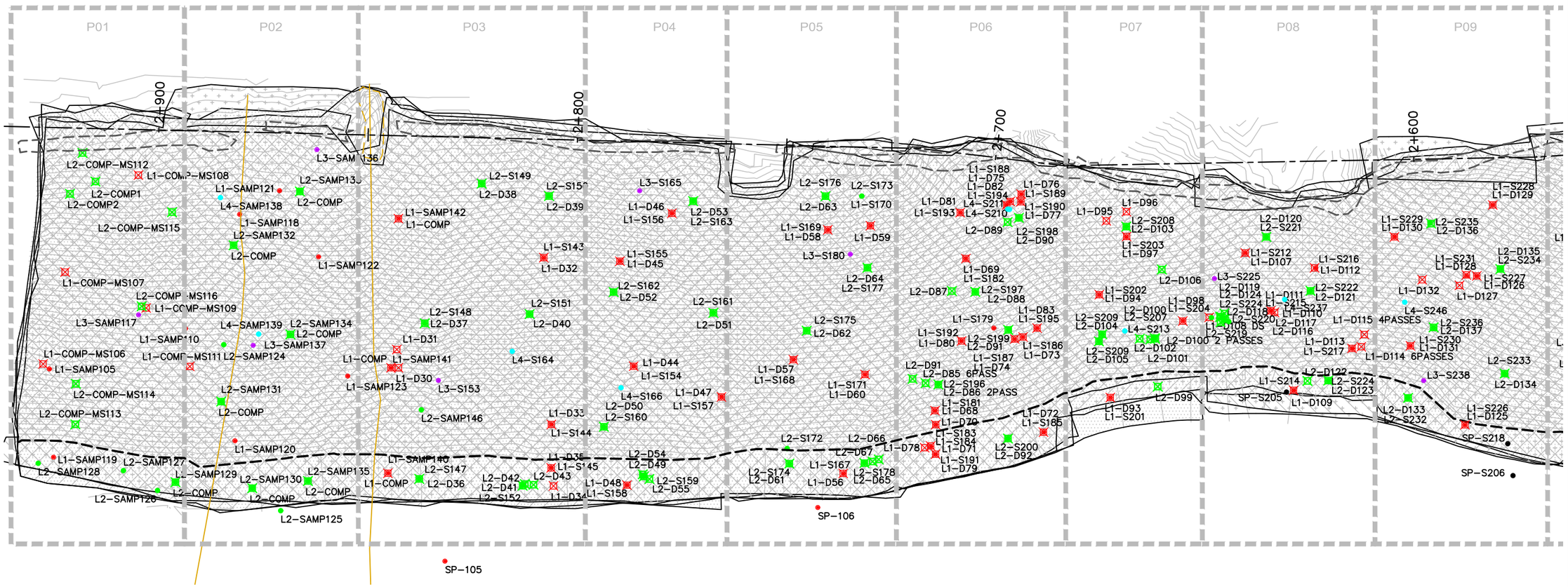
CCL LIFT 2
PLACED JULY 5, 2021 = 405m^3
PLACED TO DATE = 10,083m^3

NCL LIFT 3
PLACED JULY 5, 2021 = 0m^3
PLACED TO DATE = 17,872m^3

NCL LIFT 4
PLACED JULY 5, 2021 = 0m^3
PLACED TO DATE = 16,287m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.888 ha
NCL COMPLETED TO DATE = 3.429 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 5, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

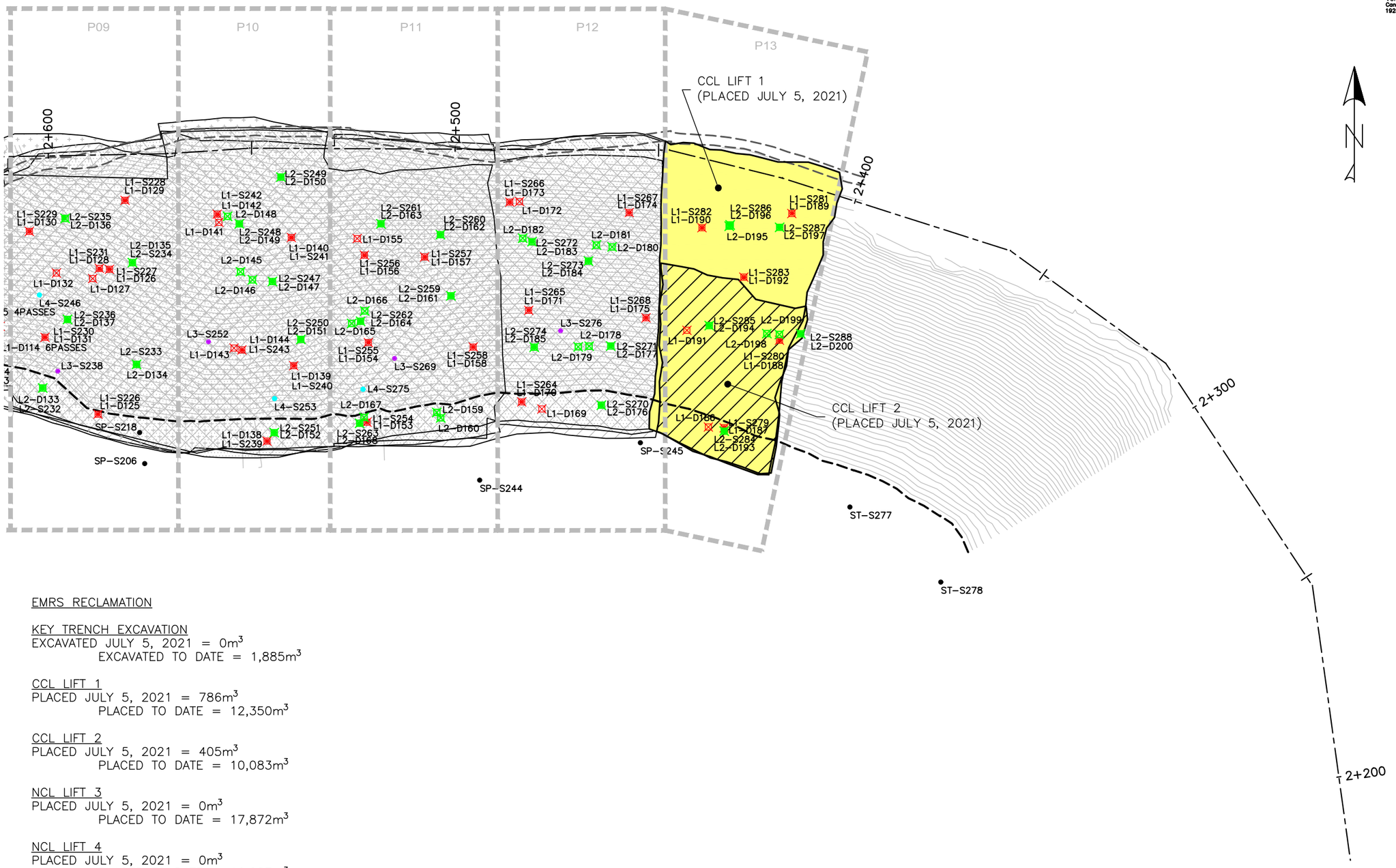
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 5, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 5, 2021 = 0m^3
EXCAVATED TO DATE = 1,885m^3

CCL LIFT 1
PLACED JULY 5, 2021 = 786m^3
PLACED TO DATE = 12,350m^3

CCL LIFT 2
PLACED JULY 5, 2021 = 405m^3
PLACED TO DATE = 10,083m^3

NCL LIFT 3
PLACED JULY 5, 2021 = 0m^3
PLACED TO DATE = 17,872m^3

NCL LIFT 4
PLACED JULY 5, 2021 = 0m^3
PLACED TO DATE = 16,287m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 3.888 ha
NCL COMPLETED TO DATE = 3.429 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 5, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

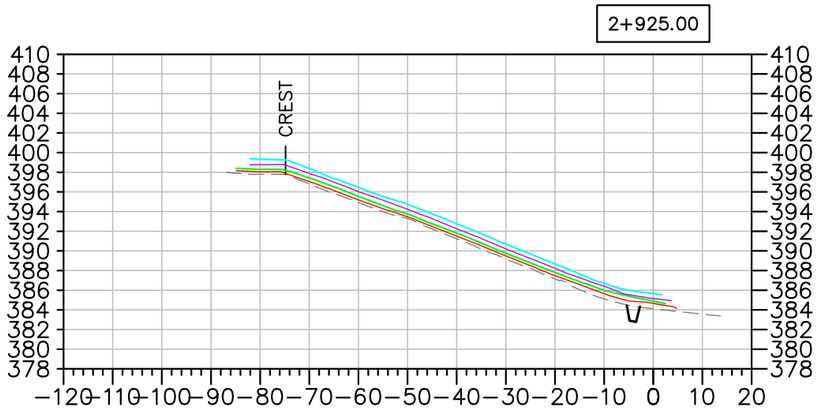
DRAWING TITLE
2021 EMRS
RECLAMATION

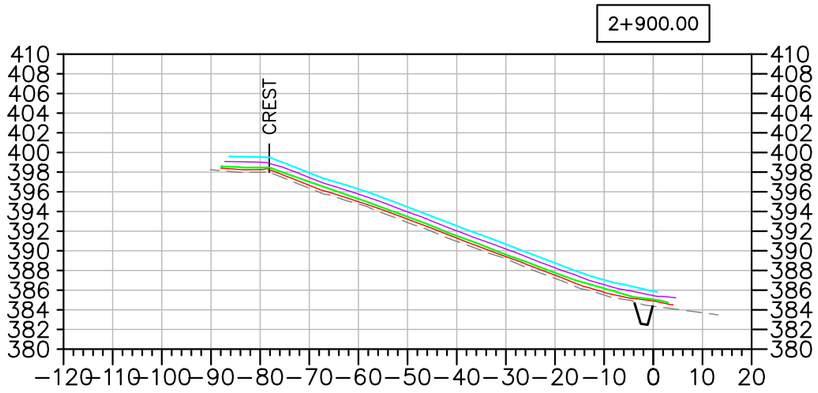
PURPOSE
DAILY PROGRESS

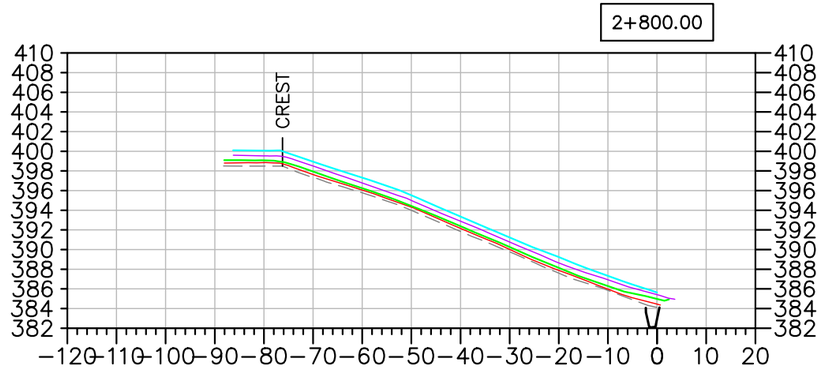
DATE	JULY 5, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

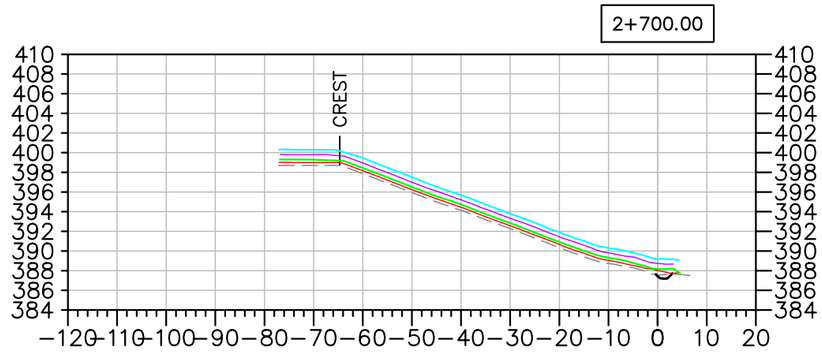
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

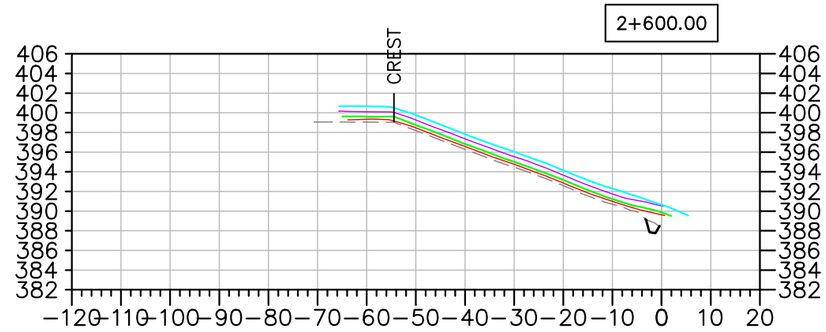
SHEET SIZE - 11" X 17"

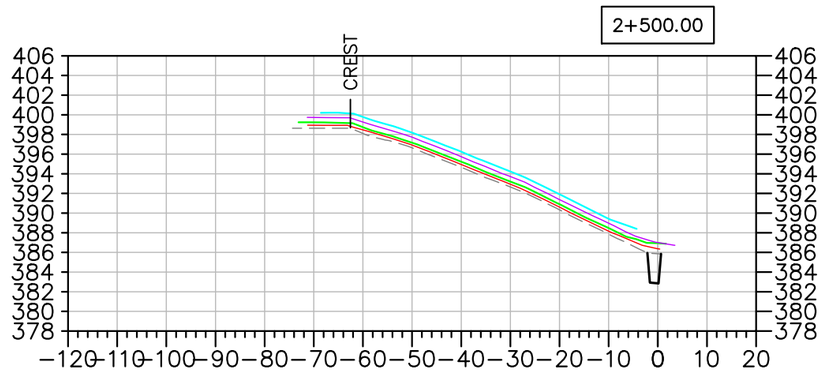


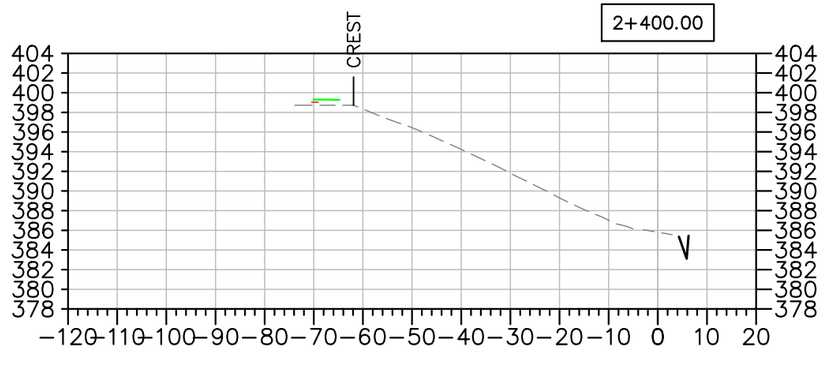












EMRS RECLAMATION – DAILY PROGRESS

(JULY 5, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 5, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 6, 2021 = 0m^3
EXCAVATED TO DATE = 1,885m^3

CCL LIFT 1
PLACED JULY 6, 2021 = 0m^3
PLACED TO DATE = 12,350m^3

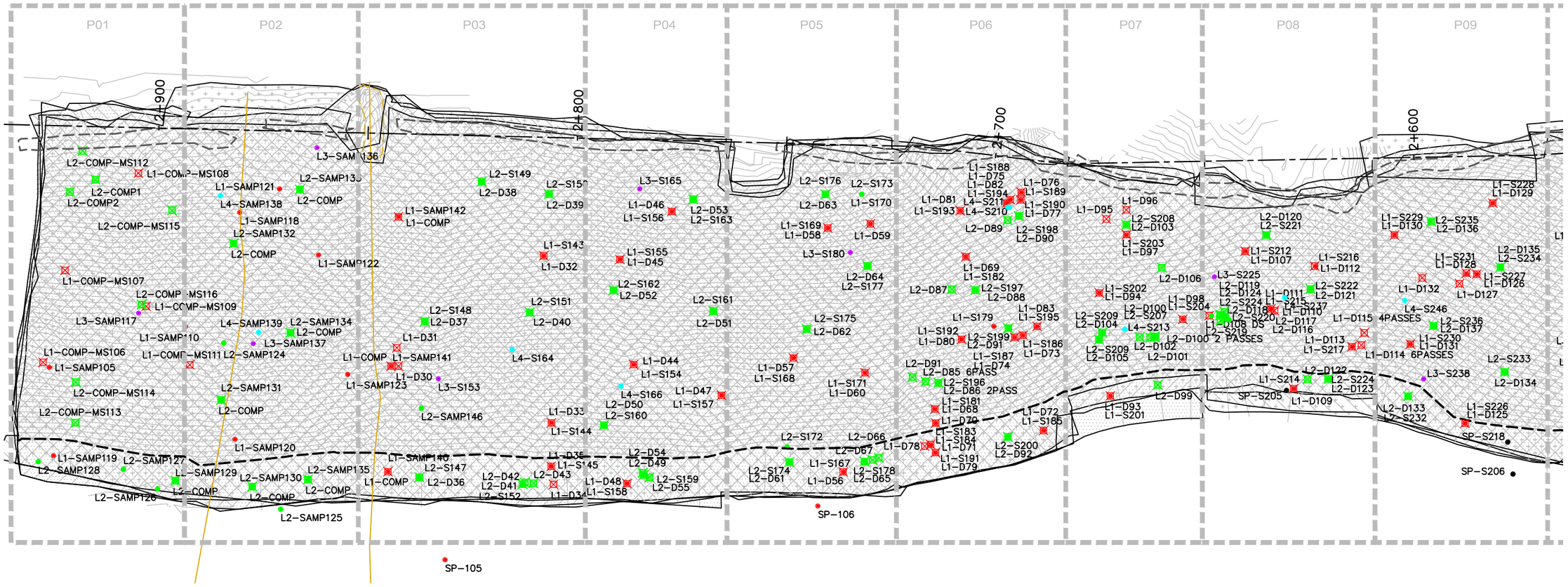
CCL LIFT 2
PLACED JULY 6, 2021 = 359m^3
PLACED TO DATE = 10,442m^3

NCL LIFT 3
PLACED JULY 6, 2021 = 1,221m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 6, 2021 = 136m^3
PLACED TO DATE = 16,423m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.024 ha
NCL COMPLETED TO DATE = 3.459 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 6, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

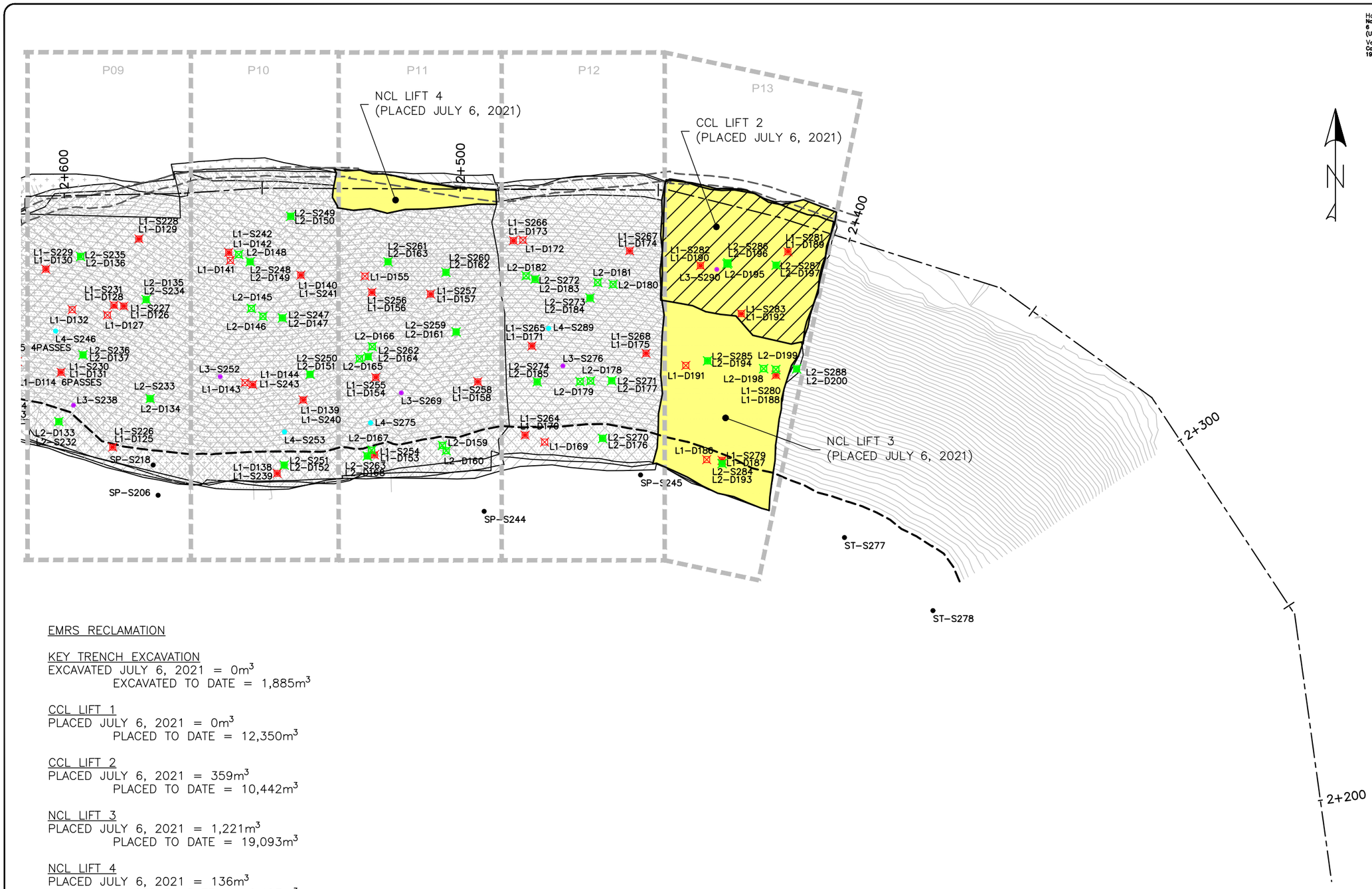
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 6, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 6, 2021 = 0m^3
EXCAVATED TO DATE = 1,885m^3

CCL LIFT 1
PLACED JULY 6, 2021 = 0m^3
PLACED TO DATE = 12,350m^3

CCL LIFT 2
PLACED JULY 6, 2021 = 359m^3
PLACED TO DATE = 10,442m^3

NCL LIFT 3
PLACED JULY 6, 2021 = 1,221m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 6, 2021 = 136m^3
PLACED TO DATE = 16,423m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.024 ha
NCL COMPLETED TO DATE = 3.459 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 6, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

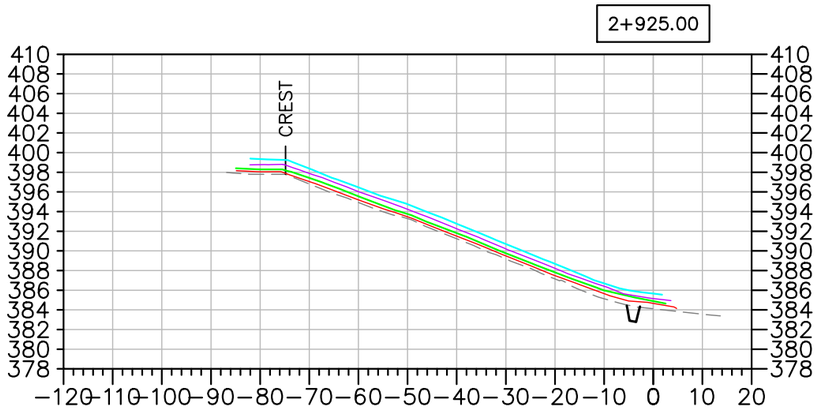
DRAWING TITLE
2021 EMRS
RECLAMATION

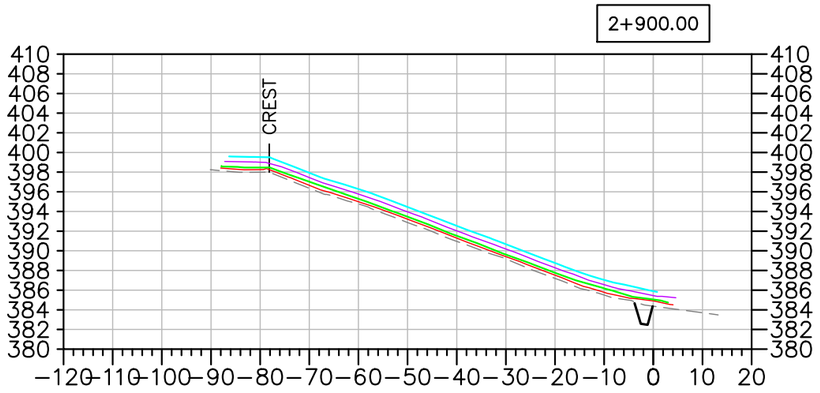
PURPOSE
DAILY PROGRESS

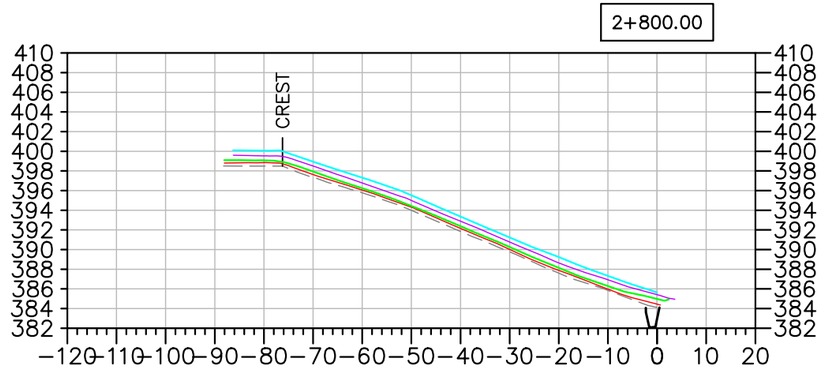
DATE	JULY 6, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

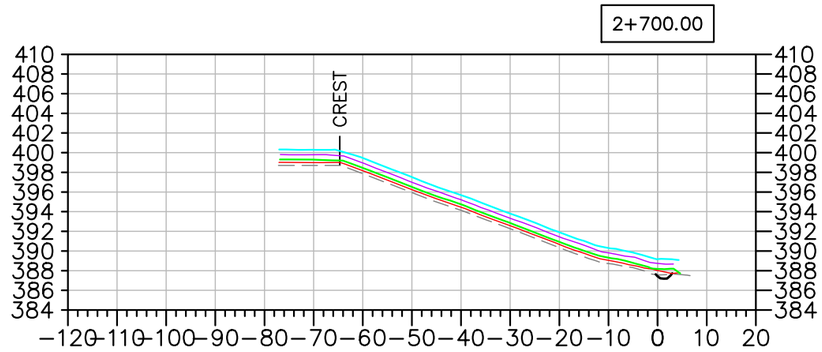
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

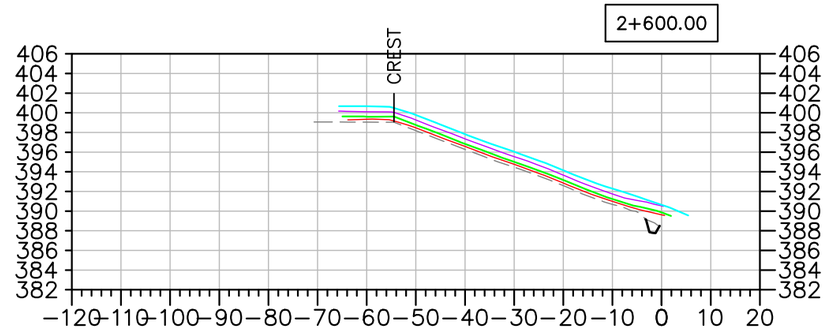
SHEET SIZE - 11" X 17"

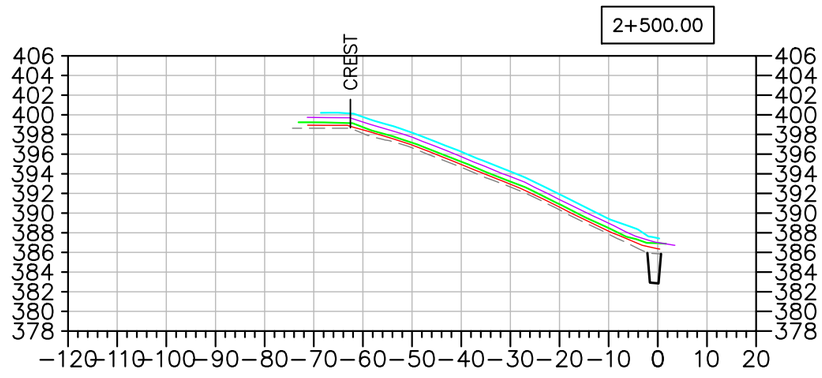


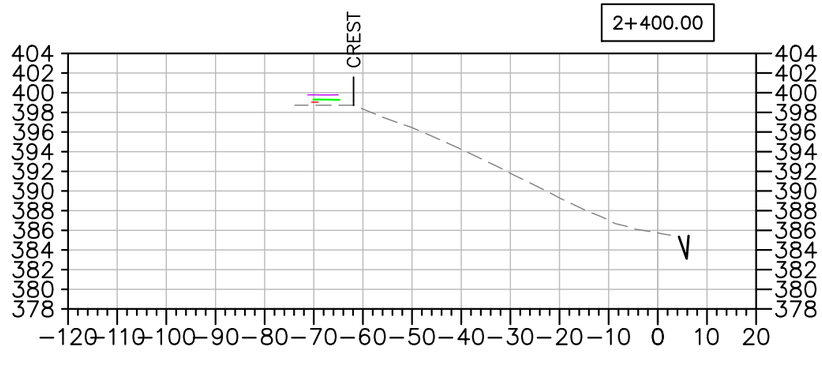












EMRS RECLAMATION – DAILY PROGRESS

(JULY 6, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 6, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 7, 2021 = 203m^3
EXCAVATED TO DATE = 2,088m^3

CCL LIFT 1
PLACED JULY 7, 2021 = 335m^3
PLACED TO DATE = 12,685m^3

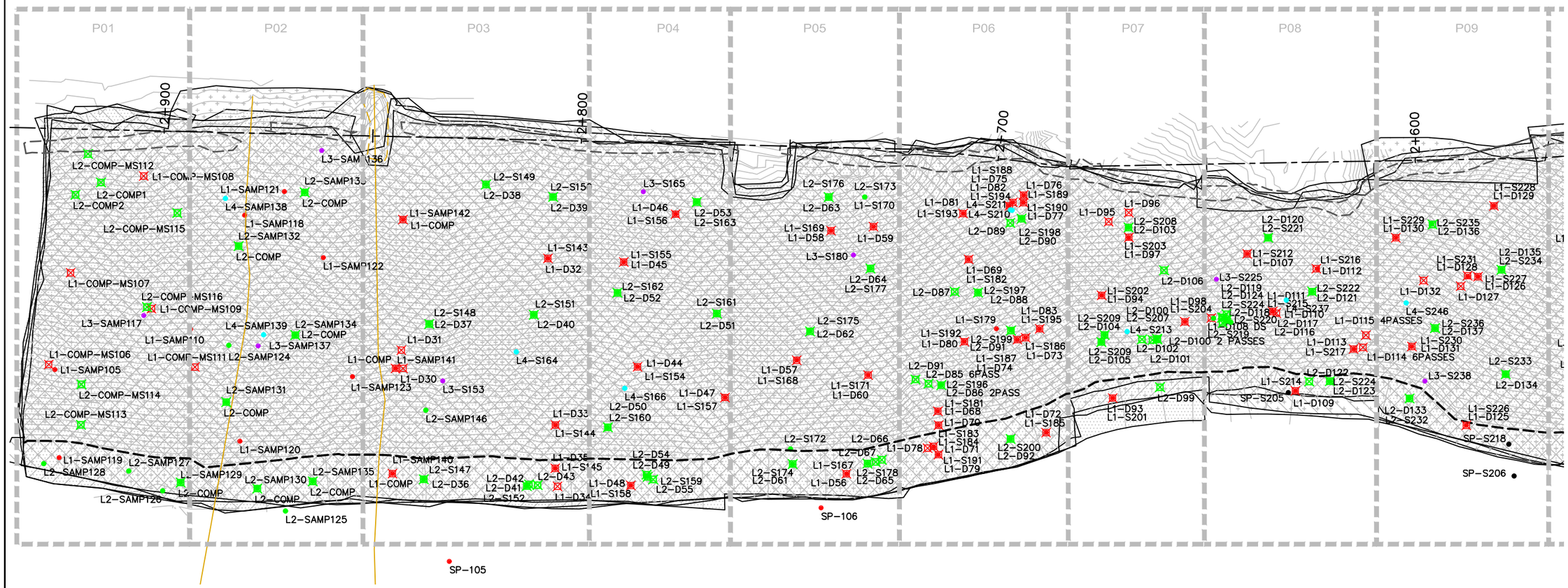
CCL LIFT 2
PLACED JULY 7, 2021 = 0m^3
PLACED TO DATE = 10,442m^3

NCL LIFT 3
PLACED JULY 7, 2021 = 0m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 7, 2021 = 143m^3
PLACED TO DATE = 16,566m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.024 ha
NCL COMPLETED TO DATE = 3.489 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 7, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 7, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

P09 P10 P11 P12 P13 P14

2+600 2+500 2+400 2+300 2+200

NCL LIFT 4
(LIFT IN PROGRESS)

CCL LIFT 1
(LIFT IN PROGRESS)

NCL LIFT 4
(PLACED JULY 7, 2021)

CCL LIFT 1
(PLACED JULY 7, 2021)

SP-S206 SP-S218 SP-S244 SP-S245 ST-S277 ST-S278

L1-S228 L1-D129 L2-S249 L2-D150 L1-S242 L1-D142 L2-D148 L1-D141 L2-S248 L2-D149 L1-S229 L1-D130 L2-S235 L2-D136 L2-D135 L2-S234 L1-S231 L1-D128 L1-S227 L1-D126 L1-D132 L1-D127 L2-D145 L2-S247 L2-D147 L2-D146 L1-D140 L1-S241 L4-S246 5 4PASSES L2-S236 L2-D137 L1-S230 L1-D131 L1-D114 6PASSES L2-S233 L3-S238 L2-D134 L2-D133 L2-S232 L1-S226 L1-D125 L3-S252 L1-D144 L1-S243 L1-D143 L2-S250 L2-D151 L1-D139 L1-S240 L4-S253 L1-D138 L1-S239 L2-S251 L2-D152 L2-S261 L2-D163 L1-D155 L2-S260 L2-D162 L1-S256 L1-D156 L1-S257 L1-D157 L2-D166 L2-S259 L2-D161 L2-S262 L2-D164 L2-D165 L1-S255 L1-D154 L3-S269 L1-S258 L1-D158 L4-S275 L2-D167 L1-S254 L1-D153 L2-S263 L2-D168 L2-D159 L2-D160 L1-S266 L1-D173 L1-D172 L1-S267 L1-D174 L2-D182 L2-S272 L2-D183 L2-D181 L2-D180 L2-S273 L2-D184 L1-S265 L4-S289 L1-D171 L1-S268 L1-D175 L3-S276 L2-S274 L2-D185 L2-D178 L2-S271 L2-D177 L2-D179 L1-S264 L1-D170 L1-D169 L2-S270 L2-D176 L1-S282 L1-D190 L3-S290 L2-S286 L2-D196 L2-D195 L1-S281 L1-D189 L2-S287 L2-D197 L1-D207 L1-D205 L1-D206 L1-S294 L1-D204 L1-S283 L1-D192 L1-S293 L1-D203 L1-D191 L2-S285 L2-D194 L2-D199 L2-D198 L2-S288 L2-D200 L1-S280 L1-D188 L1-D186 L1-S279 L1-D187 L2-S284 L2-D193 L1-S292 L1-D202 L1-S295 L1-D208 L1-S291 L1-D201

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 7, 2021 = 203m^3
EXCAVATED TO DATE = 2,088m^3

CCL LIFT 1
PLACED JULY 7, 2021 = 335m^3
PLACED TO DATE = 12,685m^3

CCL LIFT 2
PLACED JULY 7, 2021 = 0m^3
PLACED TO DATE = 10,442m^3

NCL LIFT 3
PLACED JULY 7, 2021 = 0m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 7, 2021 = 143m^3
PLACED TO DATE = 16,566m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.024 ha
NCL COMPLETED TO DATE = 3.489 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 7, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

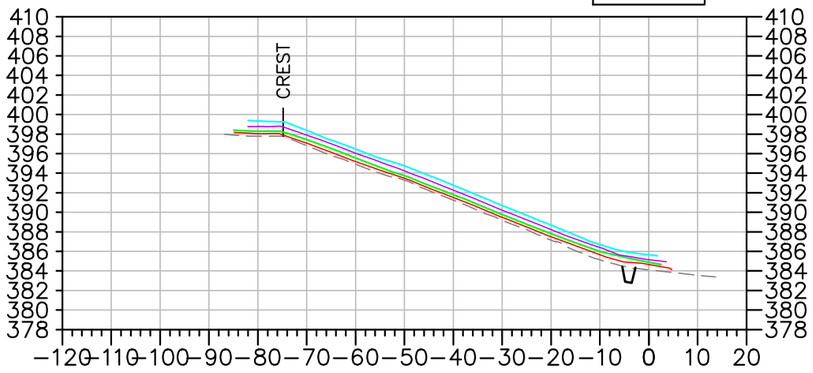
PURPOSE
DAILY PROGRESS

DATE	JULY 7, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

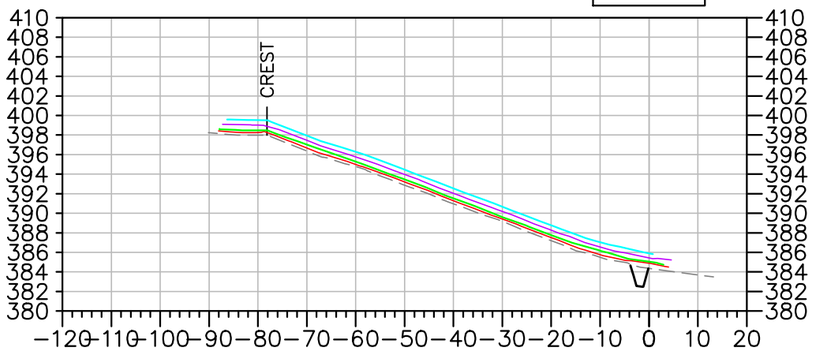
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE - 11" X 17"

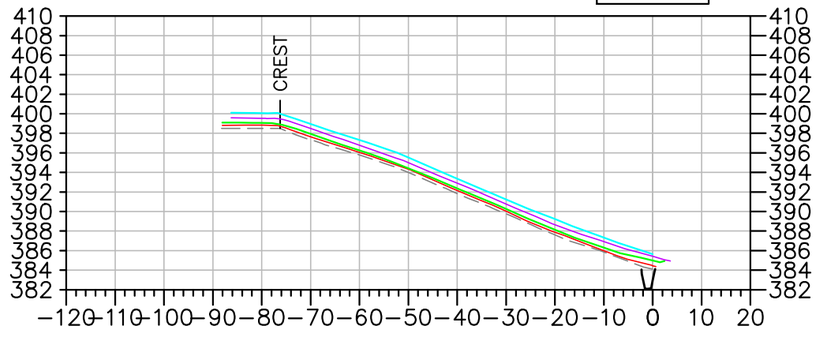
2+925.00



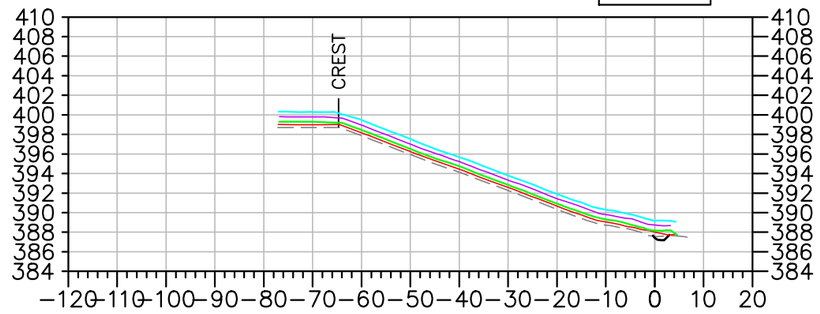
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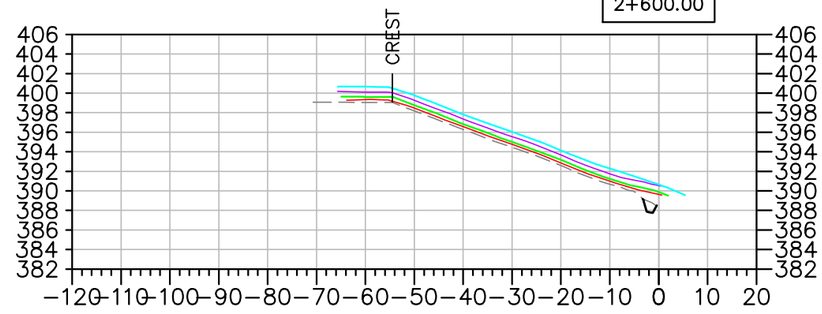
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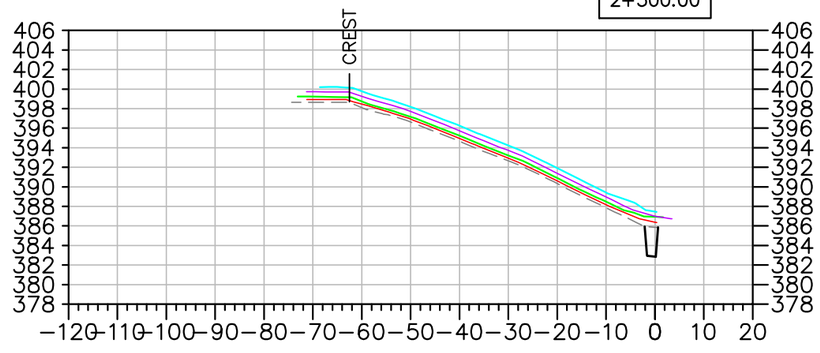
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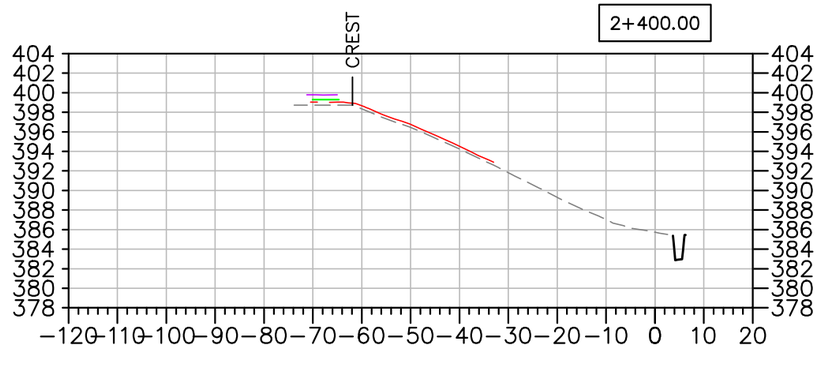
2+600.00



2+500.00



2+400.00



EMRS RECLAMATION – DAILY PROGRESS

(JULY 7, 2021) SCALE: N.T.S.

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 7, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 8, 2021 = 15m^3
EXCAVATED TO DATE = 2,103m^3

CCL LIFT 1
PLACED JULY 8, 2021 = 409m^3
PLACED TO DATE = 13,094m^3

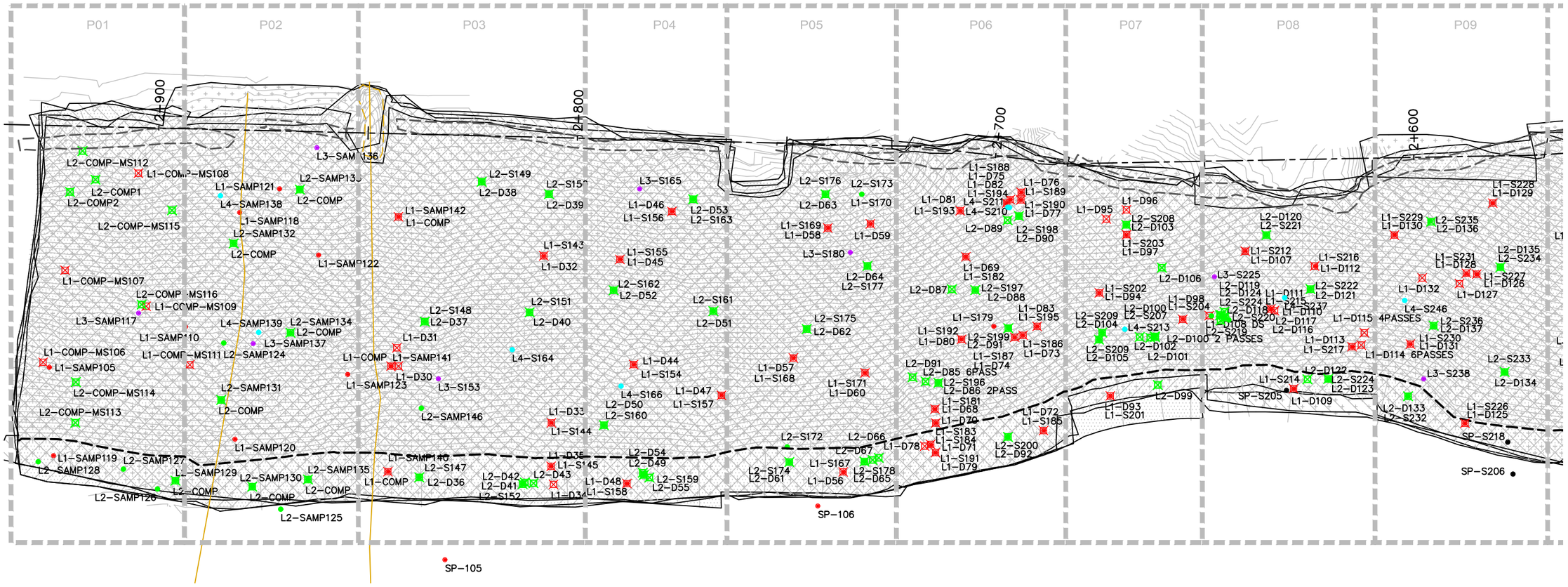
CCL LIFT 2
PLACED JULY 8, 2021 = 70m^3
PLACED TO DATE = 10,512m^3

NCL LIFT 3
PLACED JULY 8, 2021 = 0m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 8, 2021 = 1,010m^3
PLACED TO DATE = 17,576m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.048 ha
NCL COMPLETED TO DATE = 3.709 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 8, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 8, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations

P09 P10 P11 P12 P13 P14

2+600 2+500 2+400 2+300 2+200

NCL LIFT 4
(PLACED JULY 8, 2021)

CCL LIFT 1
(PLACED JULY 8, 2021)

CCL LIFT 2
(LIFT IN PROGRESS)

CCL LIFT 2
(PLACED JULY 8, 2021)

L1-S228 L1-D129
L1-S229 L1-D130 L2-S235 L2-D136
L1-S231 L1-D128 L2-D135 L2-S234
L1-D132 L1-D127 L1-S227 L1-D126
L4-S246
5 4PASSES L2-S236 L2-D137
L1-S230 L1-D131
1-D114 6PASSES L2-S233
L3-S238 L2-D134
L2-D133 L2-S232 L1-S226 L1-D125
SP-S218
SP-S206

L1-S242 L1-D142 L2-D148
L1-D141 L2-S248 L2-D149 L1-D140 L1-S241
L2-D145 L2-S247 L2-D147
L2-D146
L2-S249 L2-D150
L3-S252 L1-D144 L1-S243 L2-S250 L2-D151
L1-D143 L1-D139 L1-S240
L4-S253
L1-S251 L2-D152
L1-D138 L1-S239

L2-S261 L2-D163 L2-S260 L2-D162
L1-D155
L1-S256 L1-D156 L1-S257 L1-D157
L2-D166 L2-S259 L2-D161
L2-S262 L2-D164
L2-D165
L1-S255 L1-D154 L3-S269 L1-S258 L1-D158
L4-S275
L2-D167 L2-S254 L1-D153 L2-D159
L2-S263 L2-D168 L2-D160

L1-S266 L1-D173 L1-D172
L2-D182 L2-S272 L2-D183 L2-D181 L2-D180
L2-S273 L2-D184
L1-S265 L4-S289 L1-D171
L1-S268 L1-D175
L3-S276
L2-S274 L2-D185 L2-D178 L2-S271 L2-D177
L2-D179
L1-S264 L1-D176 L2-S270 L2-D176
L1-D169
SP-S245
SP-S244

L1-S267 L1-D174
L1-S282 L1-D190 L2-S286 L2-D196 L1-S281 L1-D189
L3-S290 L2-D195 L2-S287 L2-D197
L1-D207 L1-D205 L1-D206 L1-S294 L1-D204
L1-S283 L1-D192
L1-S293 L1-D203
L2-S285 L2-D194 L2-D199
L1-D191 L2-D198 L2-S288 L2-D200
L1-S280 L1-D188
L1-D186 L1-S279 L1-D187 L2-S284 L2-D193
L1-S292 L1-D202
L1-S295 L1-D208
L1-S291 L1-D201
ST-S277
ST-S278

N

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 8, 2021 = 15m^3
EXCAVATED TO DATE = 2,103m^3

CCL LIFT 1
PLACED JULY 8, 2021 = 409m^3
PLACED TO DATE = 13,094m^3

CCL LIFT 2
PLACED JULY 8, 2021 = 70m^3
PLACED TO DATE = 10,512m^3

NCL LIFT 3
PLACED JULY 8, 2021 = 0m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 8, 2021 = 1,010m^3
PLACED TO DATE = 17,576m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.048 ha
NCL COMPLETED TO DATE = 3.709 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 8, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

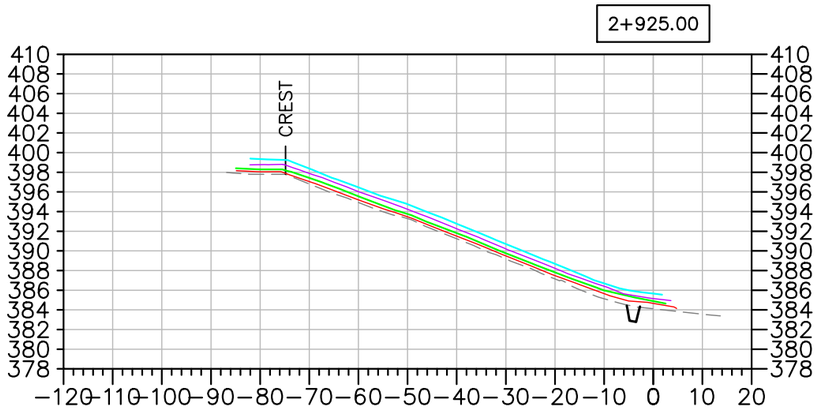
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

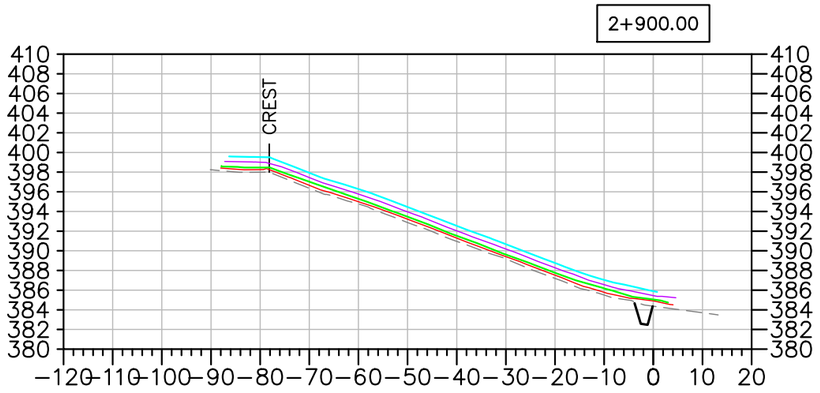
DRAWING TITLE
2021 EMRS
RECLAMATION

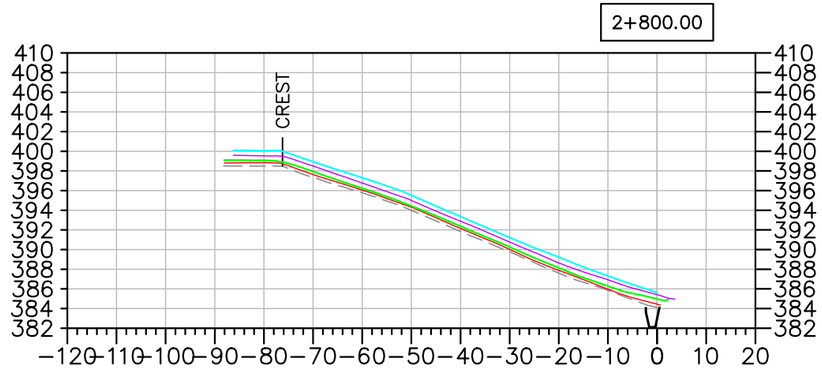
PURPOSE
DAILY PROGRESS

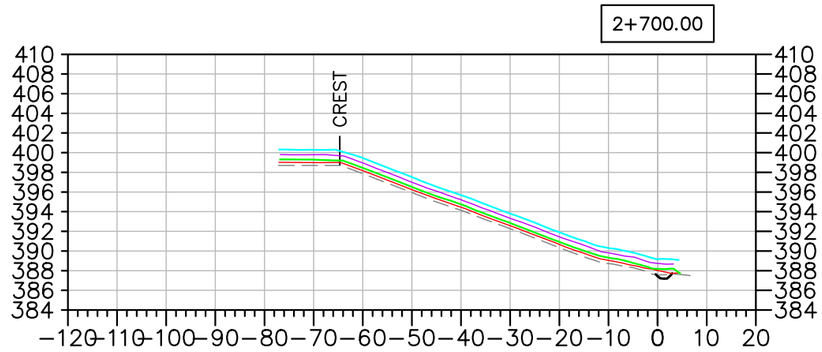
DATE	JULY 8, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

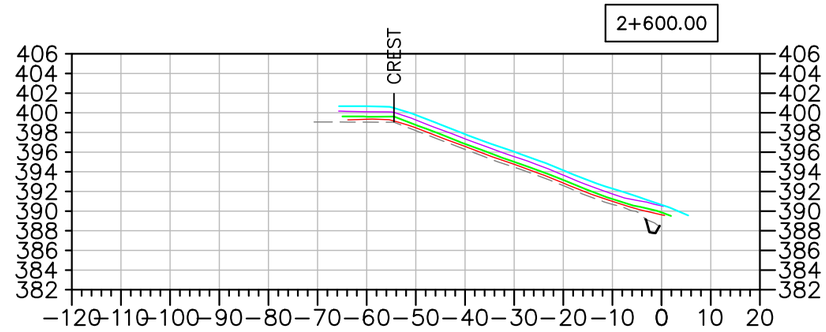
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

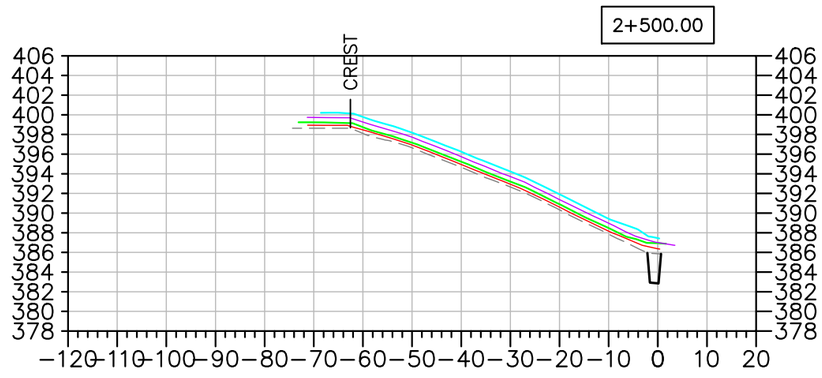


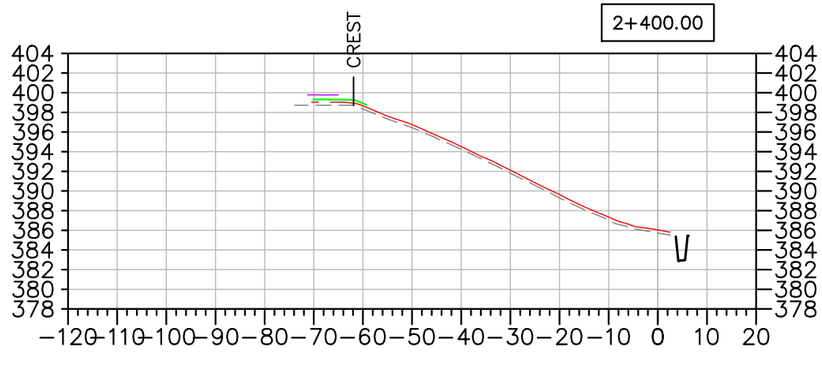












EMRS RECLAMATION – DAILY PROGRESS

(JULY 8, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 8, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 9, 2021 = 0m^3
EXCAVATED TO DATE = 2,103m^3

CCL LIFT 1
PLACED JULY 9, 2021 = 0m^3
PLACED TO DATE = 13,094m^3

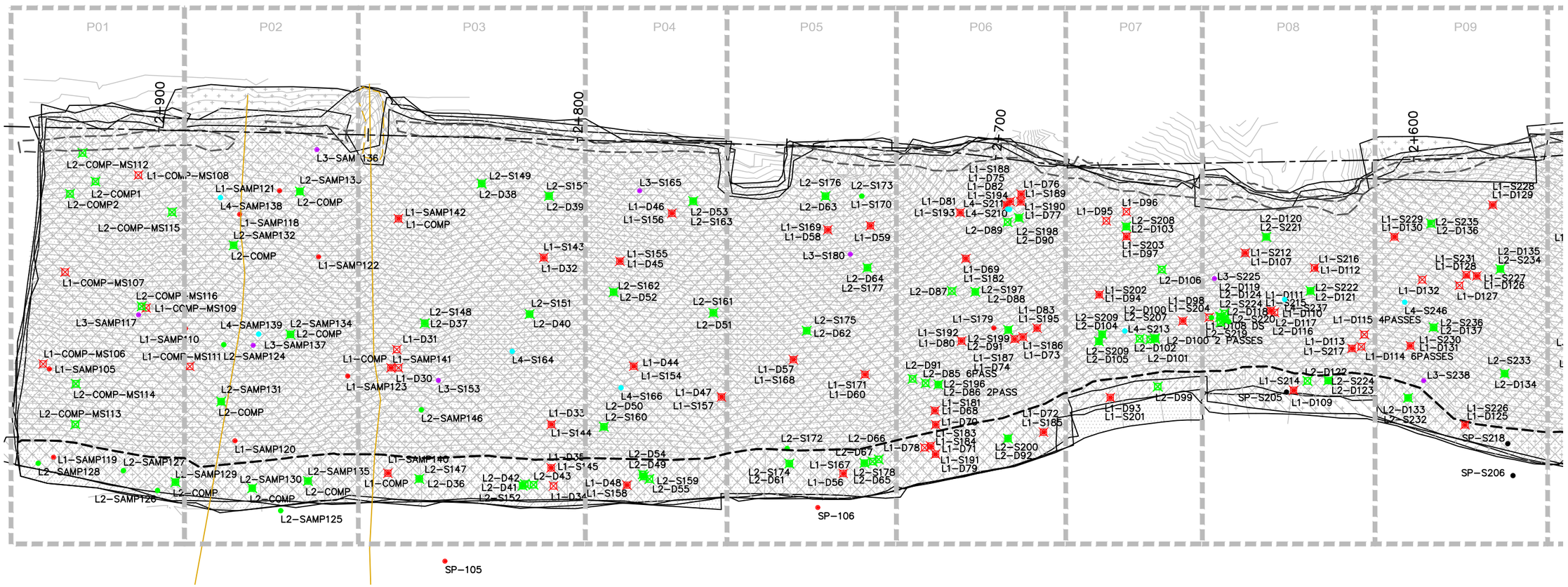
CCL LIFT 2
PLACED JULY 9, 2021 = 614m^3
PLACED TO DATE = 11,126m^3

NCL LIFT 3
PLACED JULY 9, 2021 = 0m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 9, 2021 = 0m^3
PLACED TO DATE = 17,576m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.277 ha
NCL COMPLETED TO DATE = 3.709 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 9, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 9, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 9, 2021 = 0m^3
EXCAVATED TO DATE = 2,103m^3

CCL LIFT 1
PLACED JULY 9, 2021 = 0m^3
PLACED TO DATE = 13,094m^3

CCL LIFT 2
PLACED JULY 9, 2021 = 614m^3
PLACED TO DATE = 11,126m^3

NCL LIFT 3
PLACED JULY 9, 2021 = 0m^3
PLACED TO DATE = 19,093m^3

NCL LIFT 4
PLACED JULY 9, 2021 = 0m^3
PLACED TO DATE = 17,576m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.277 ha
NCL COMPLETED TO DATE = 3.709 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 9, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

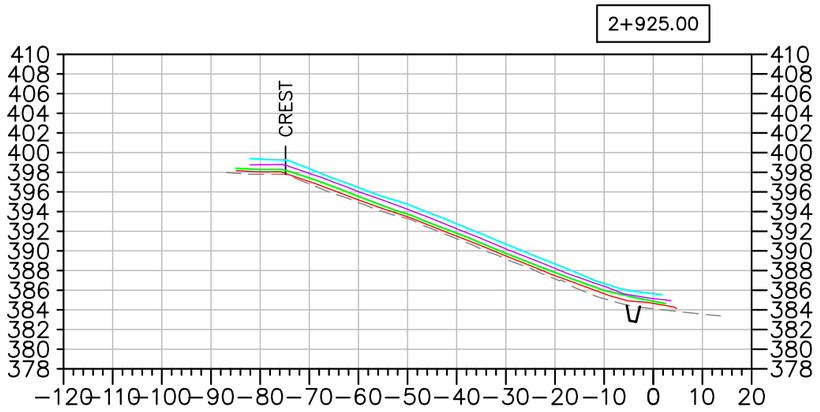
DRAWING TITLE
2021 EMRS
RECLAMATION

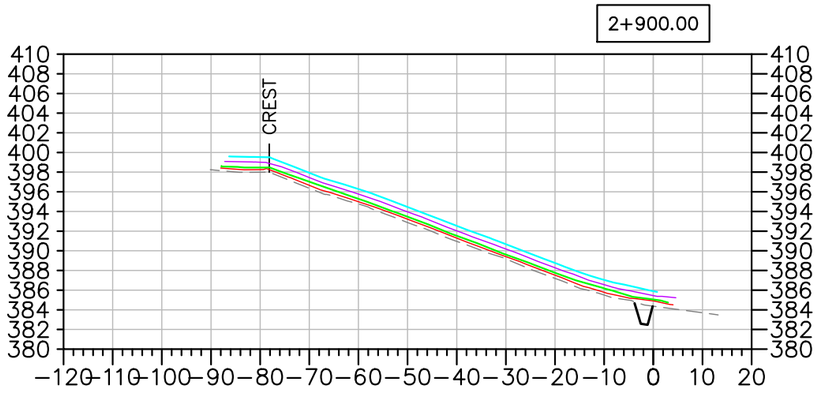
PURPOSE
DAILY PROGRESS

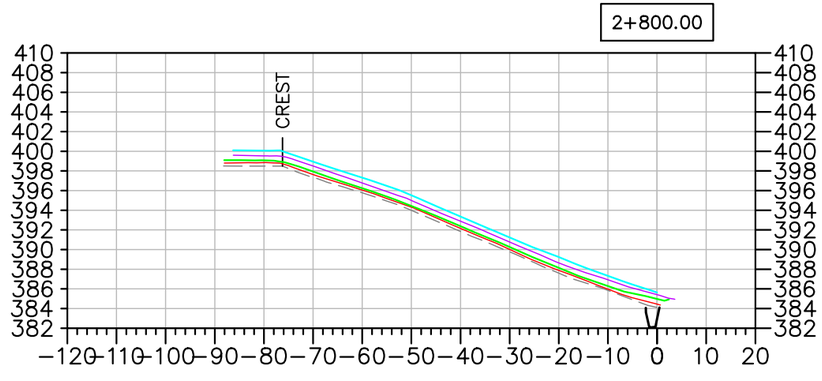
DATE	JULY 9, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

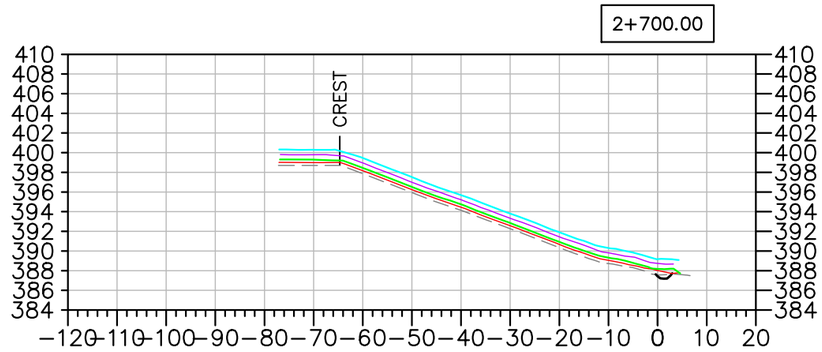
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

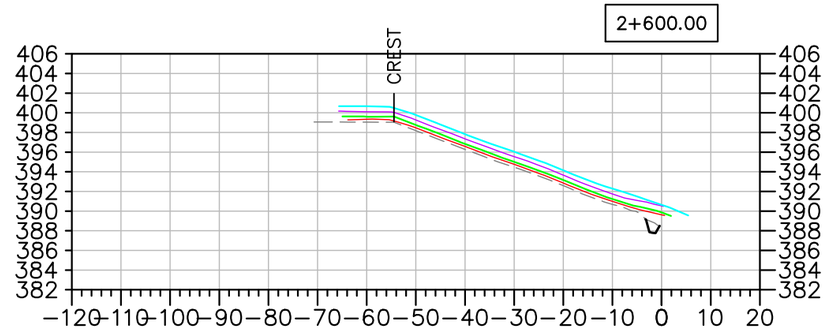
SHEET SIZE - 11" X 17"

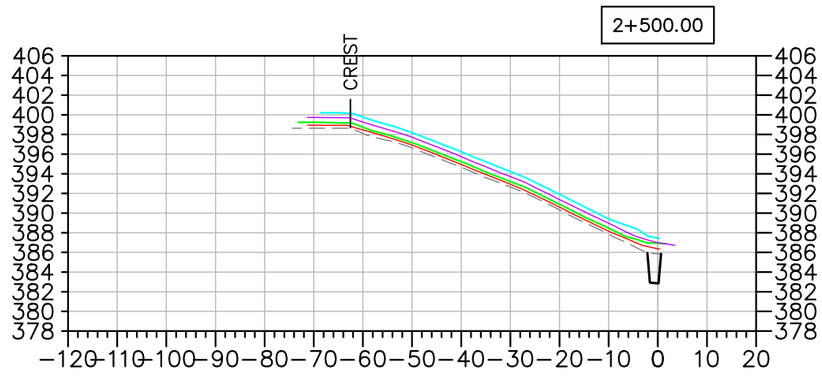


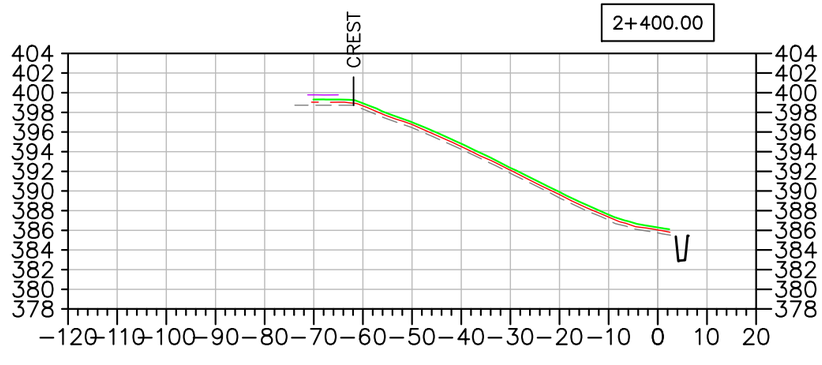












EMRS RECLAMATION – DAILY PROGRESS

(JULY 9, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 9, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 10, 2021 = 122m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 10, 2021 = 0m^3
PLACED TO DATE = 13,094m^3

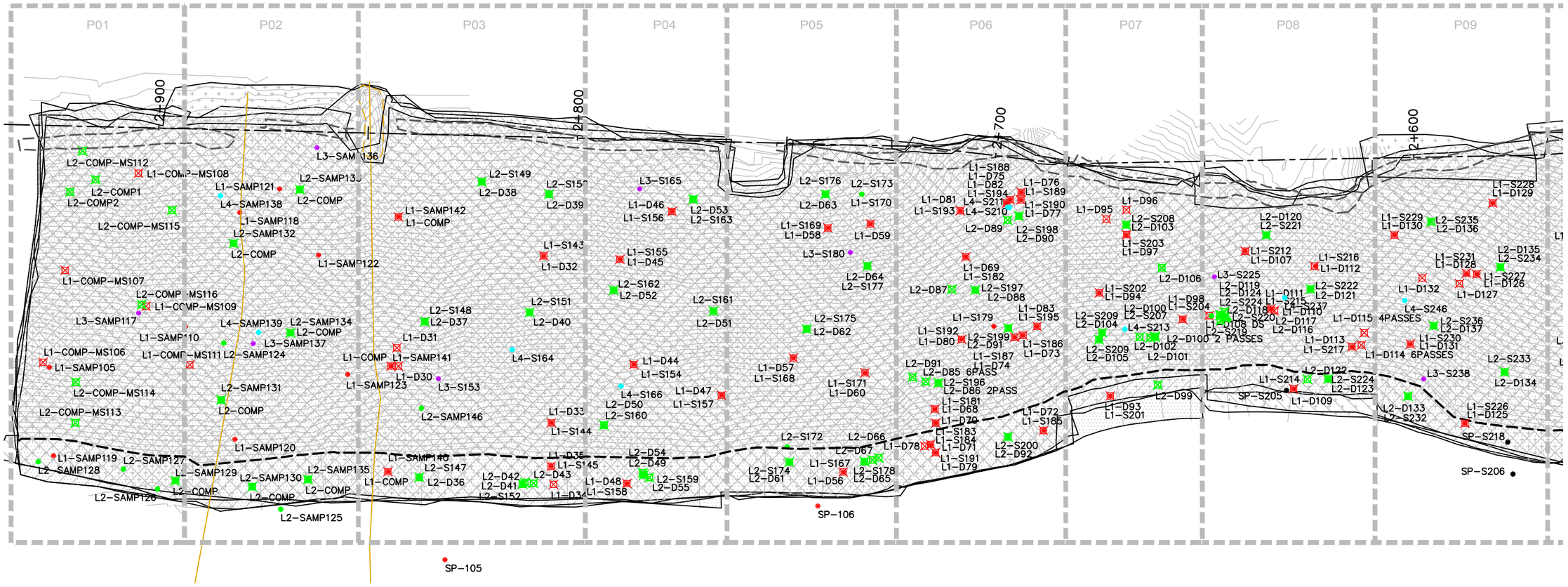
CCL LIFT 2
PLACED JULY 10, 2021 = 0m^3
PLACED TO DATE = 11,126m^3

NCL LIFT 3
PLACED JULY 10, 2021 = 1,189m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 10, 2021 = 0m^3
PLACED TO DATE = 17,576m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.277 ha
NCL COMPLETED TO DATE = 3.709 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 10, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

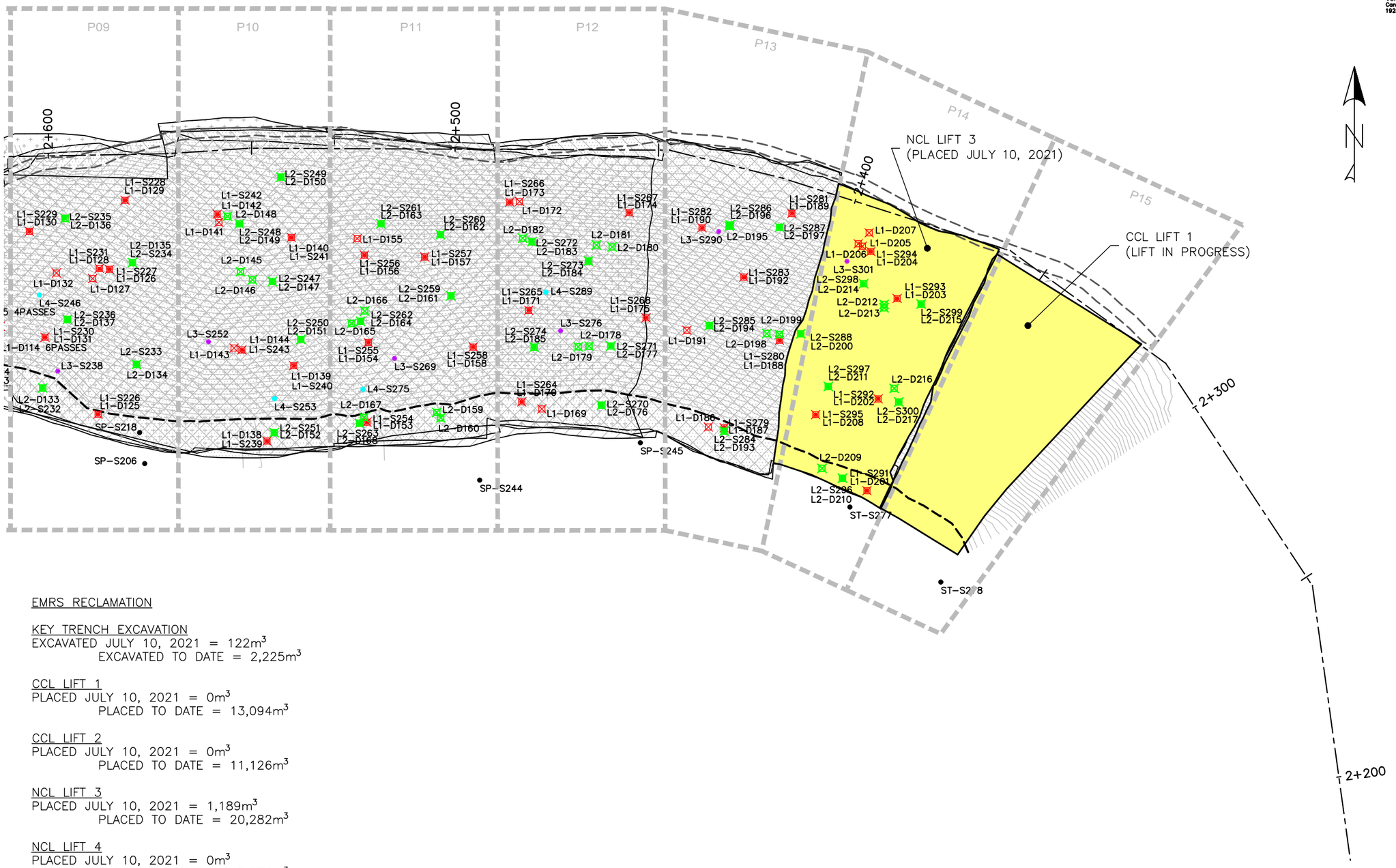
PURPOSE
DAILY PROGRESS

DATE	JULY 10, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 10, 2021 = 122m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 10, 2021 = 0m^3
PLACED TO DATE = 13,094m^3

CCL LIFT 2
PLACED JULY 10, 2021 = 0m^3
PLACED TO DATE = 11,126m^3

NCL LIFT 3
PLACED JULY 10, 2021 = 1,189m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 10, 2021 = 0m^3
PLACED TO DATE = 17,576m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.277 ha
NCL COMPLETED TO DATE = 3.709 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 10, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

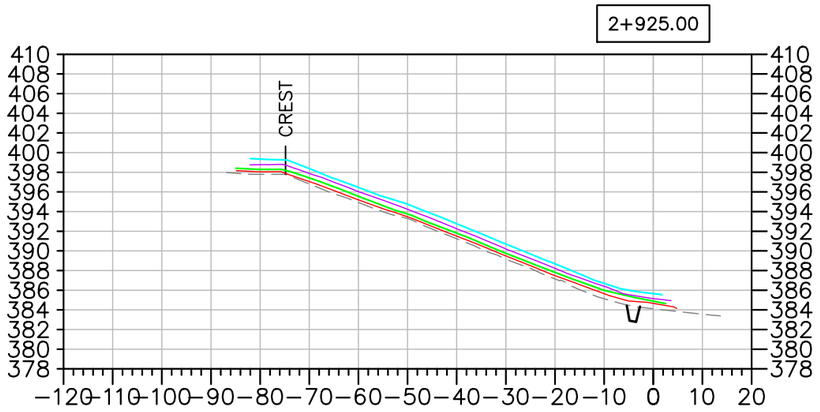
DRAWING TITLE
2021 EMRS
RECLAMATION

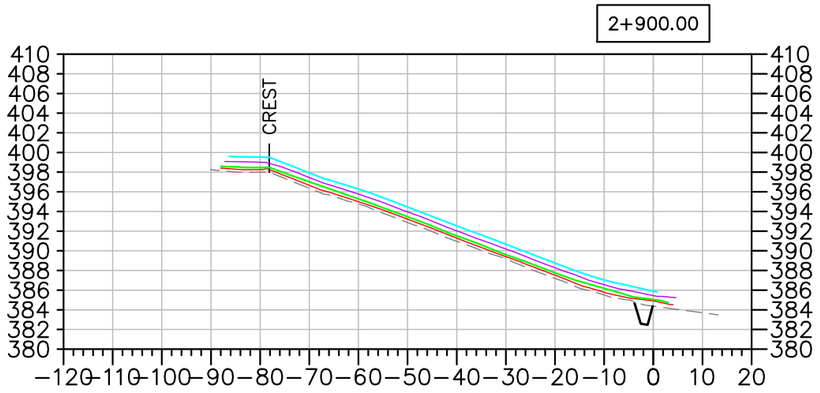
PURPOSE
DAILY PROGRESS

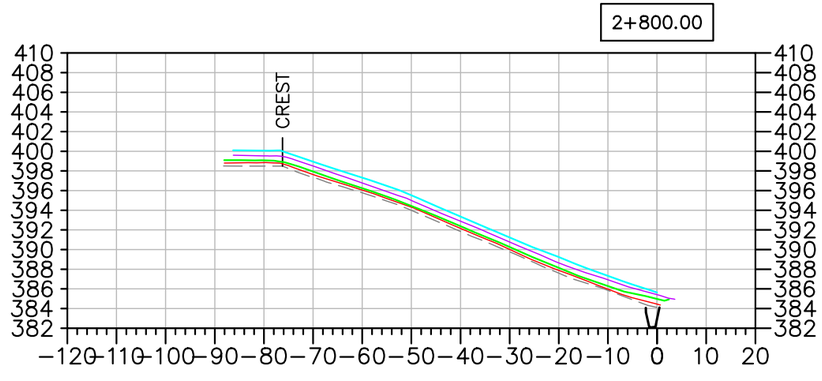
DATE	JULY 10, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

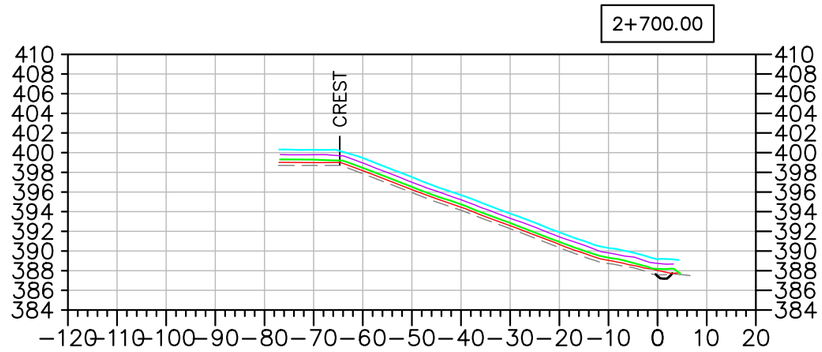
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

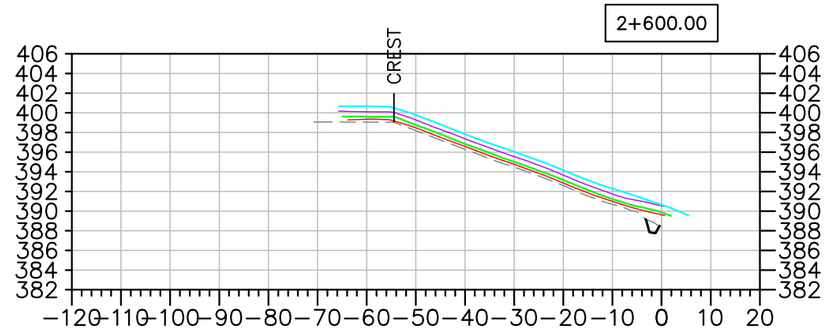
SHEET SIZE - 11" X 17"

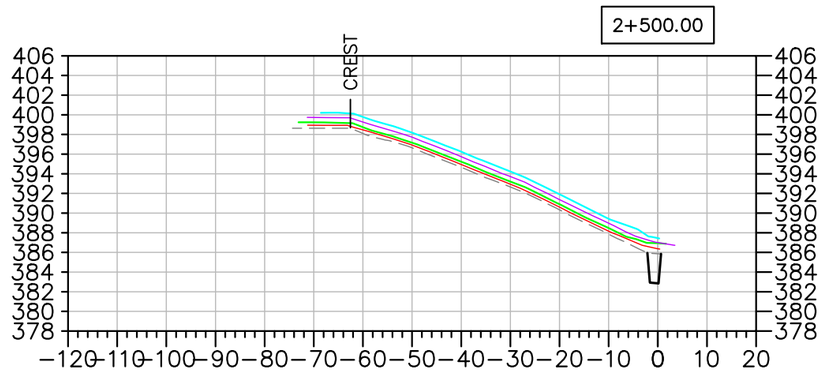


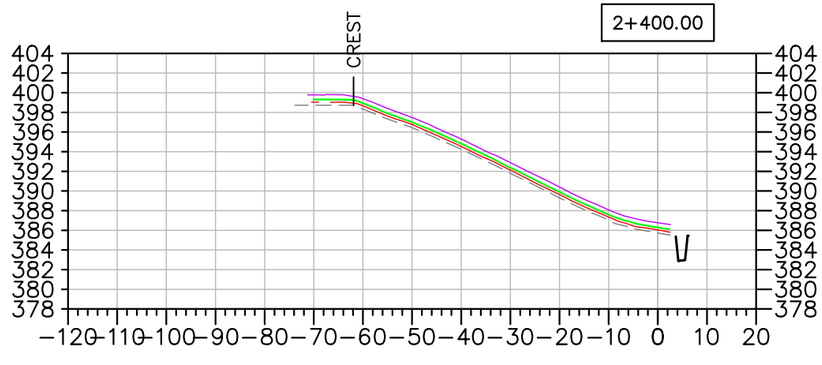












EMRS RECLAMATION – DAILY PROGRESS

(JULY 10, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 10, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 11, 2021 = 0m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 11, 2021 = 697m^3
PLACED TO DATE = 13,791m^3

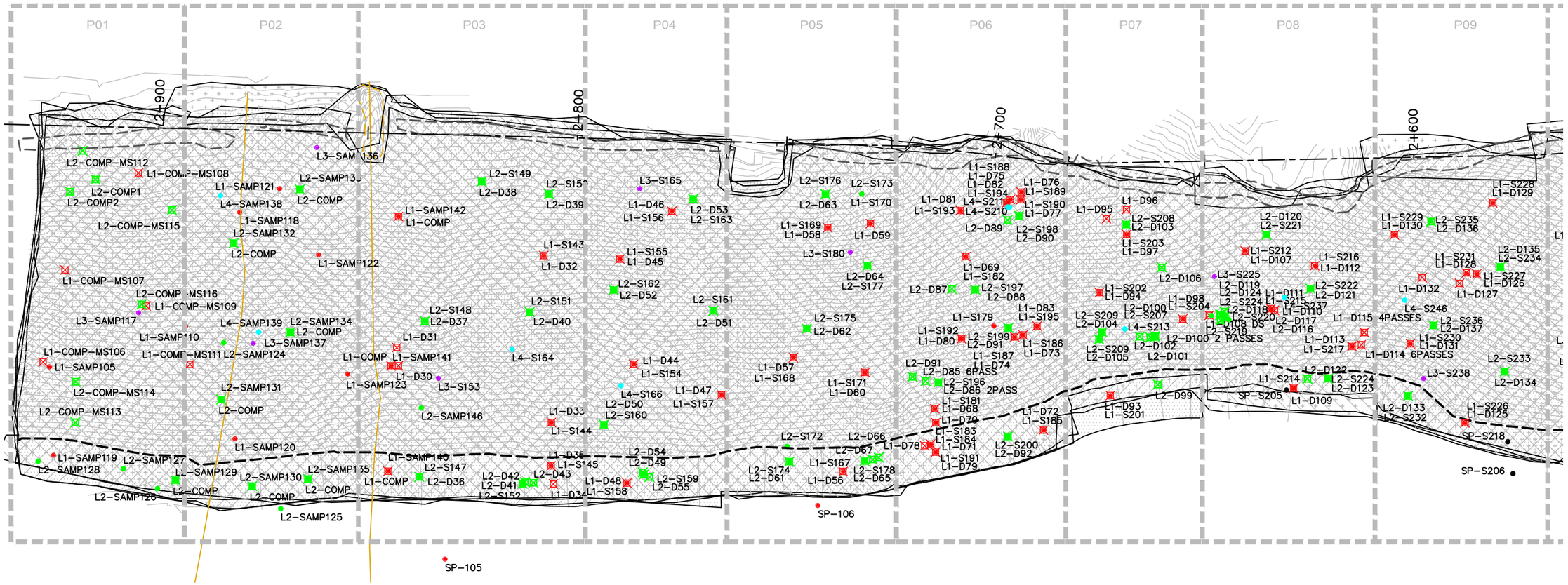
CCL LIFT 2
PLACED JULY 11, 2021 = 0m^3
PLACED TO DATE = 11,126m^3

NCL LIFT 3
PLACED JULY 11, 2021 = 0m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 11, 2021 = 108m^3
PLACED TO DATE = 17,684m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.277 ha
NCL COMPLETED TO DATE = 3.731 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 11, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

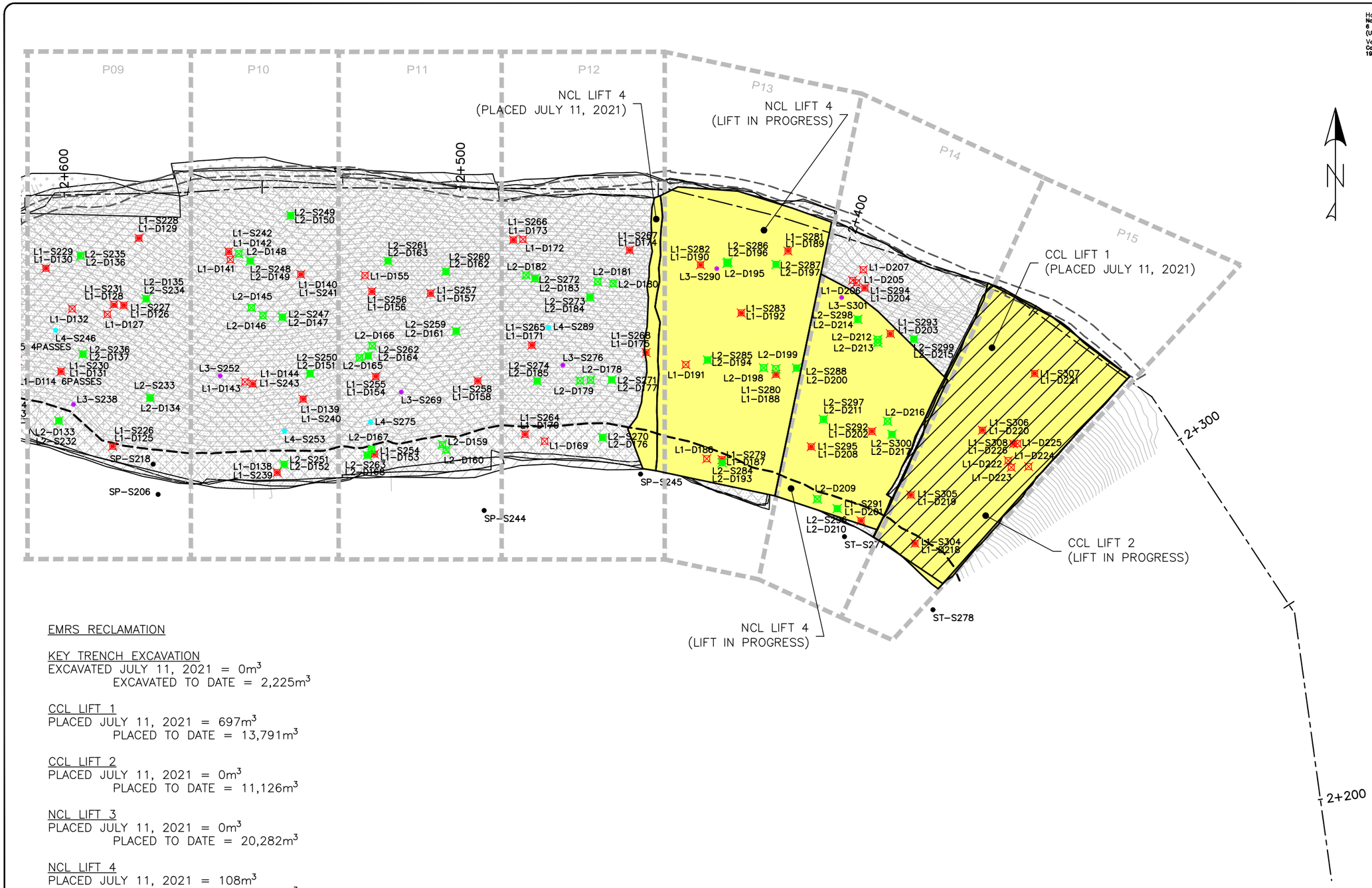
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 11, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 11, 2021 = 0m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 11, 2021 = 697m^3
PLACED TO DATE = 13,791m^3

CCL LIFT 2
PLACED JULY 11, 2021 = 0m^3
PLACED TO DATE = 11,126m^3

NCL LIFT 3
PLACED JULY 11, 2021 = 0m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 11, 2021 = 108m^3
PLACED TO DATE = 17,684m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.277 ha
NCL COMPLETED TO DATE = 3.731 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 11, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

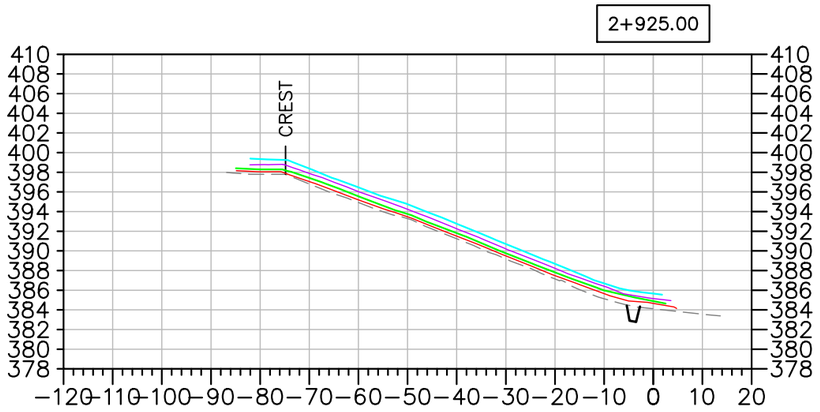
DRAWING TITLE
2021 EMRS
RECLAMATION

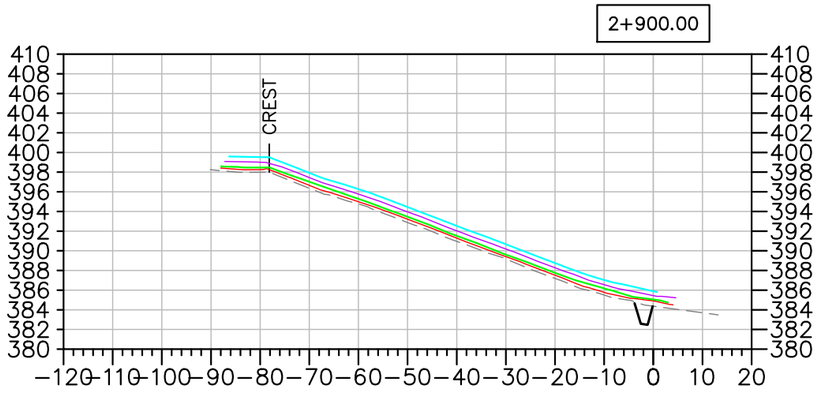
PURPOSE
DAILY PROGRESS

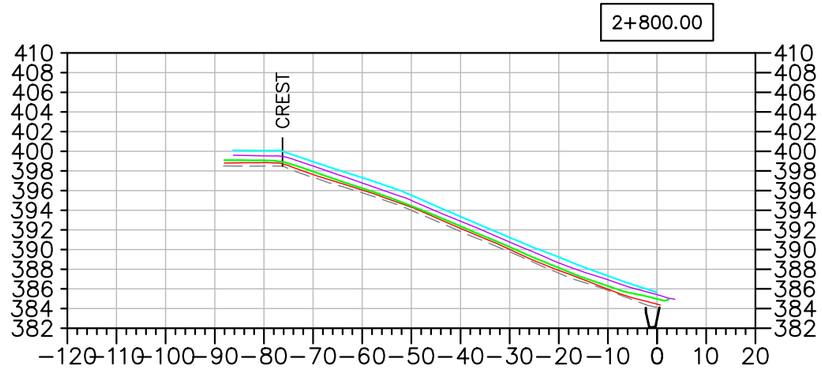
DATE	JULY 11, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

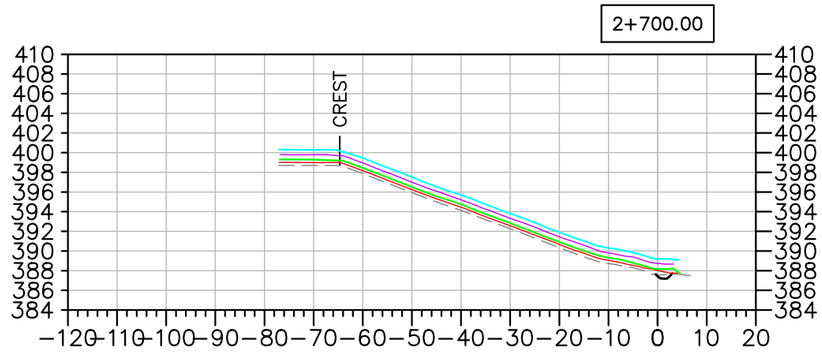
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

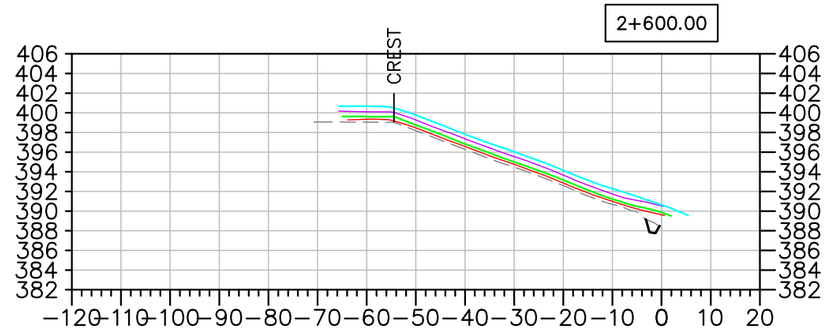
SHEET SIZE - 11" X 17"

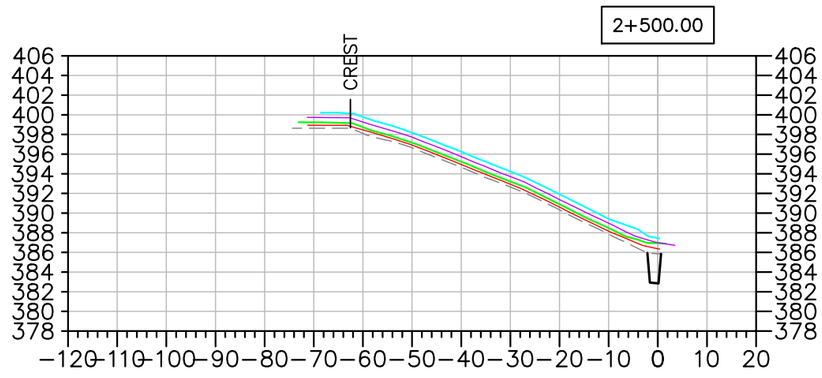


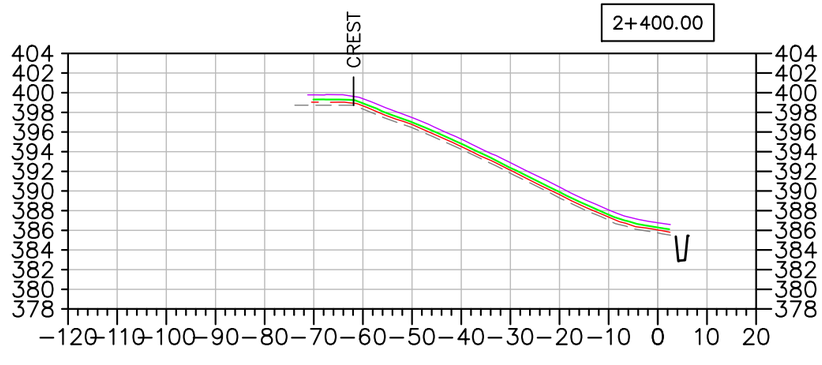












EMRS RECLAMATION – DAILY PROGRESS

(JULY 11, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 11, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 12, 2021 = 0m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 12, 2021 = 0m^3
PLACED TO DATE = 13,791m^3

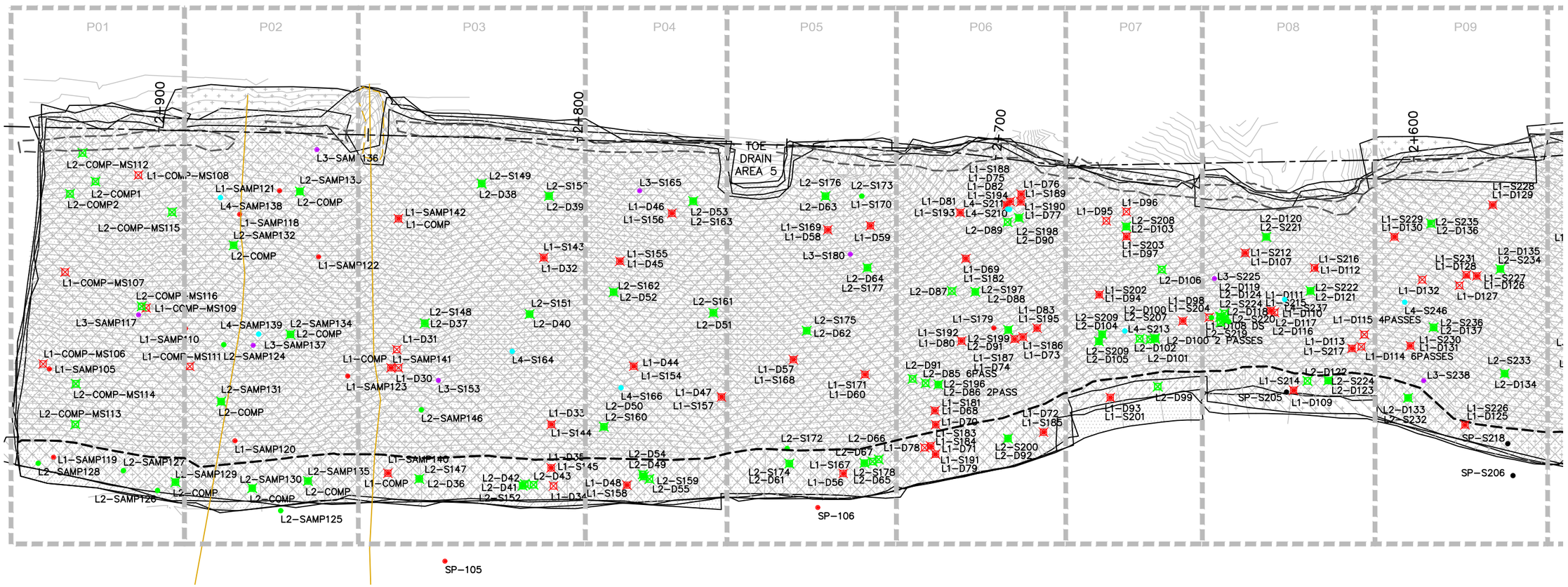
CCL LIFT 2
PLACED JULY 12, 2021 = 624m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 12, 2021 = 0m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 12, 2021 = 848m^3
PLACED TO DATE = 18,532m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 3.902 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 12, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

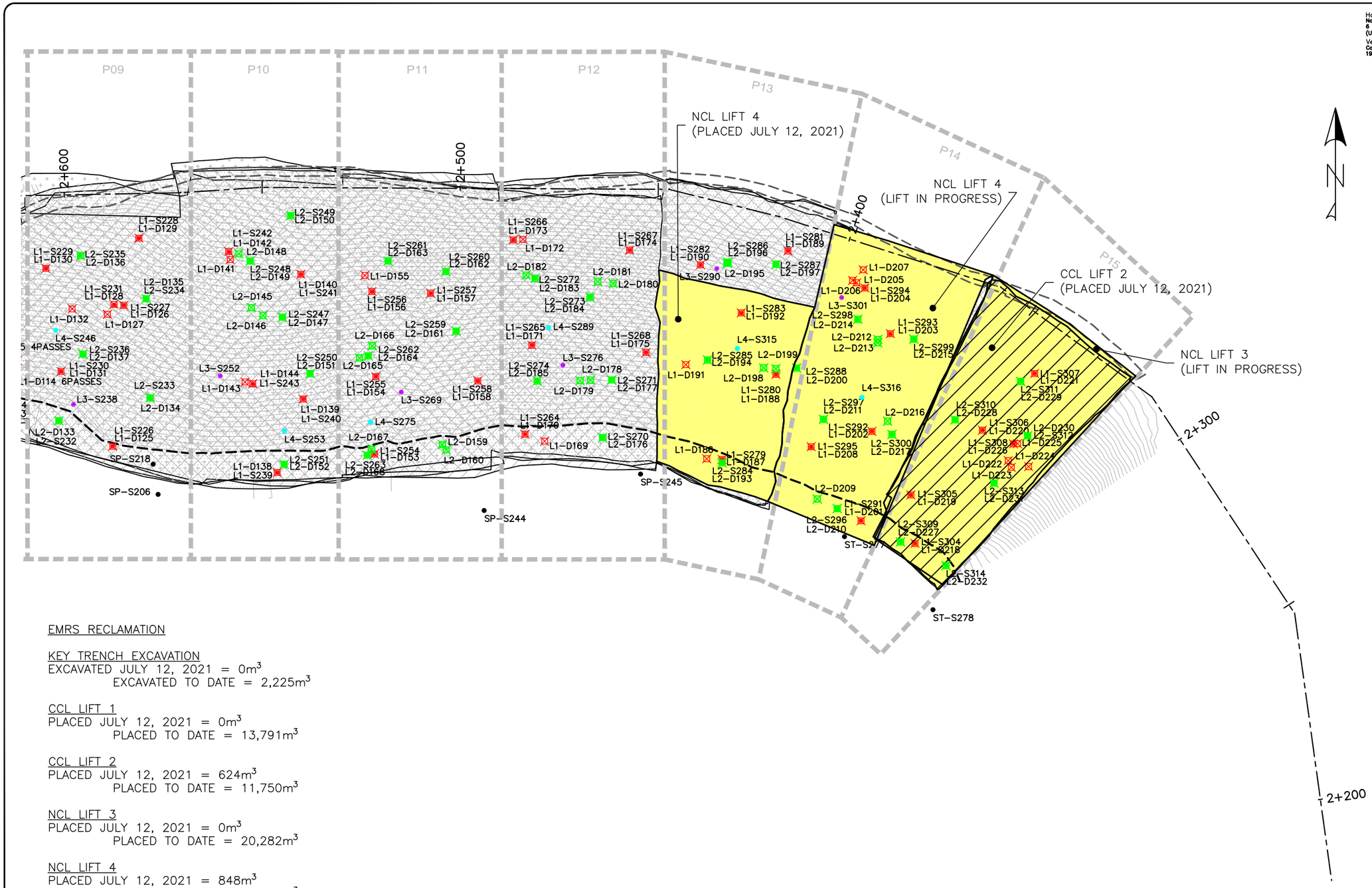
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 12, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 12, 2021 = 0m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 12, 2021 = 0m^3
PLACED TO DATE = 13,791m^3

CCL LIFT 2
PLACED JULY 12, 2021 = 624m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 12, 2021 = 0m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 12, 2021 = 848m^3
PLACED TO DATE = 18,532m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 3.902 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 12, 2021) SCALE: 1:1000

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

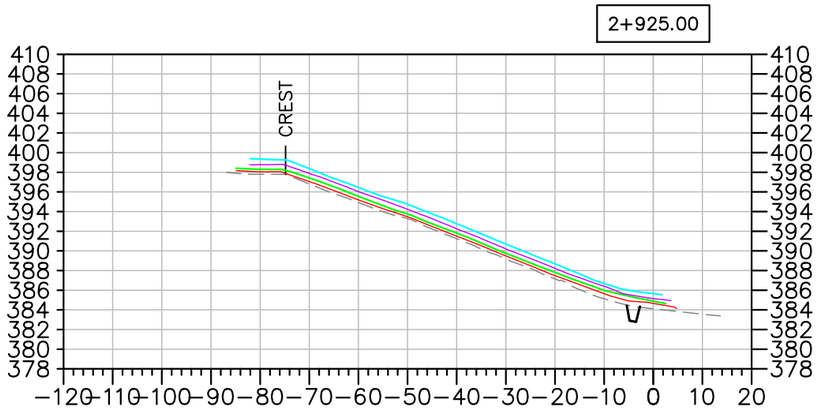
DRAWING TITLE
2021 EMRS
RECLAMATION

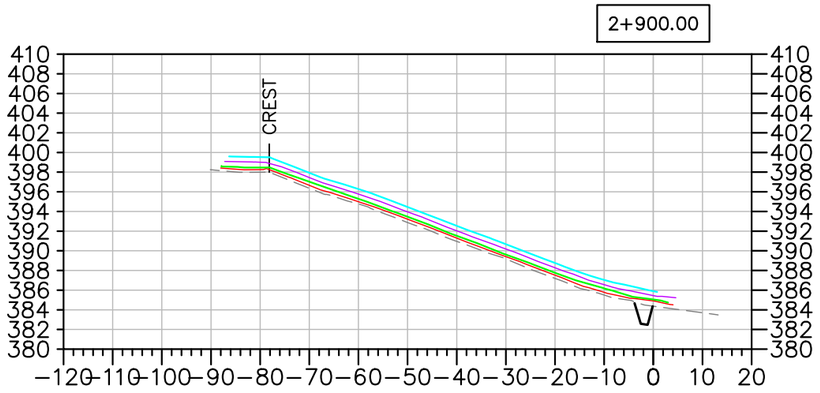
PURPOSE
DAILY PROGRESS

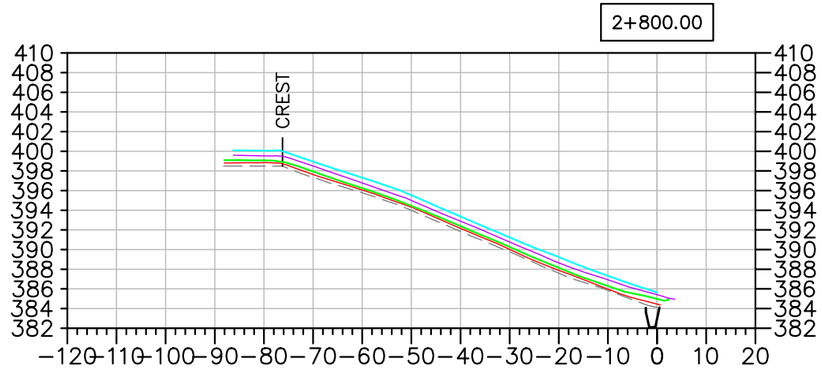
DATE	JULY 12, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

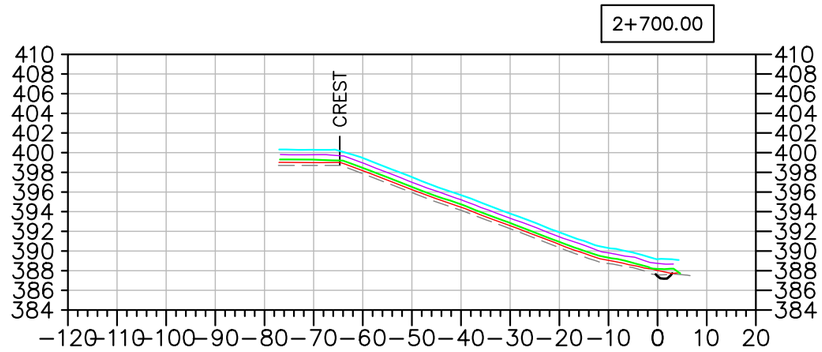
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

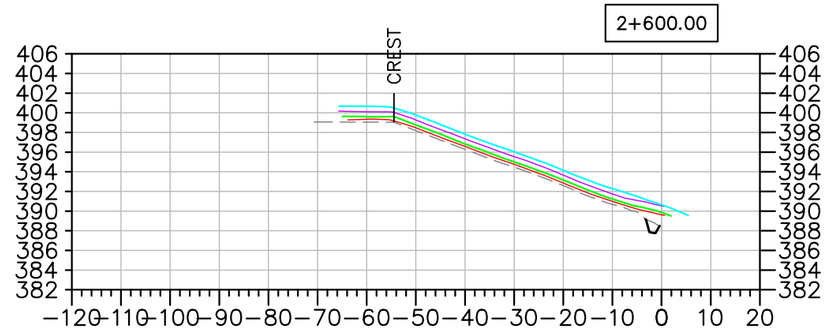
SHEET SIZE - 11" X 17"

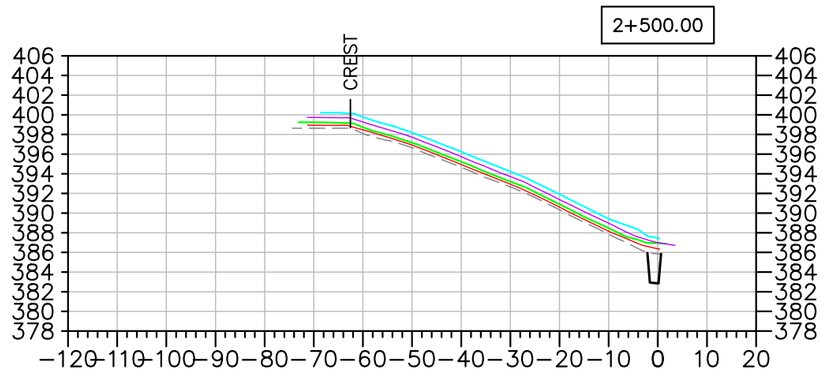


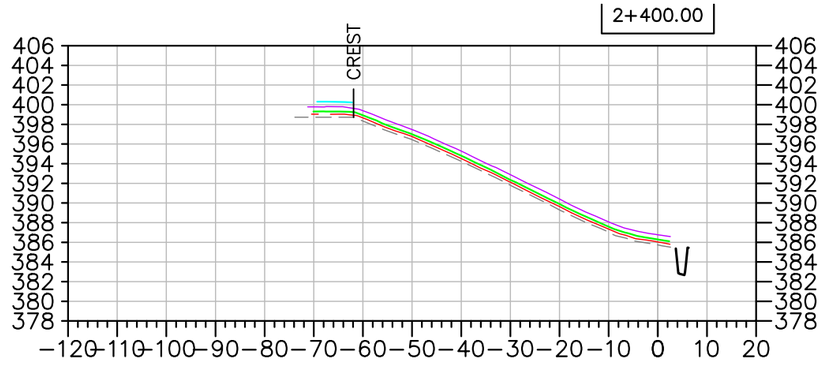












EMRS RECLAMATION – DAILY PROGRESS

(JULY 12, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 12, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 13, 2021 = 0m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 13, 2021 = 0m^3
PLACED TO DATE = 13,791m^3

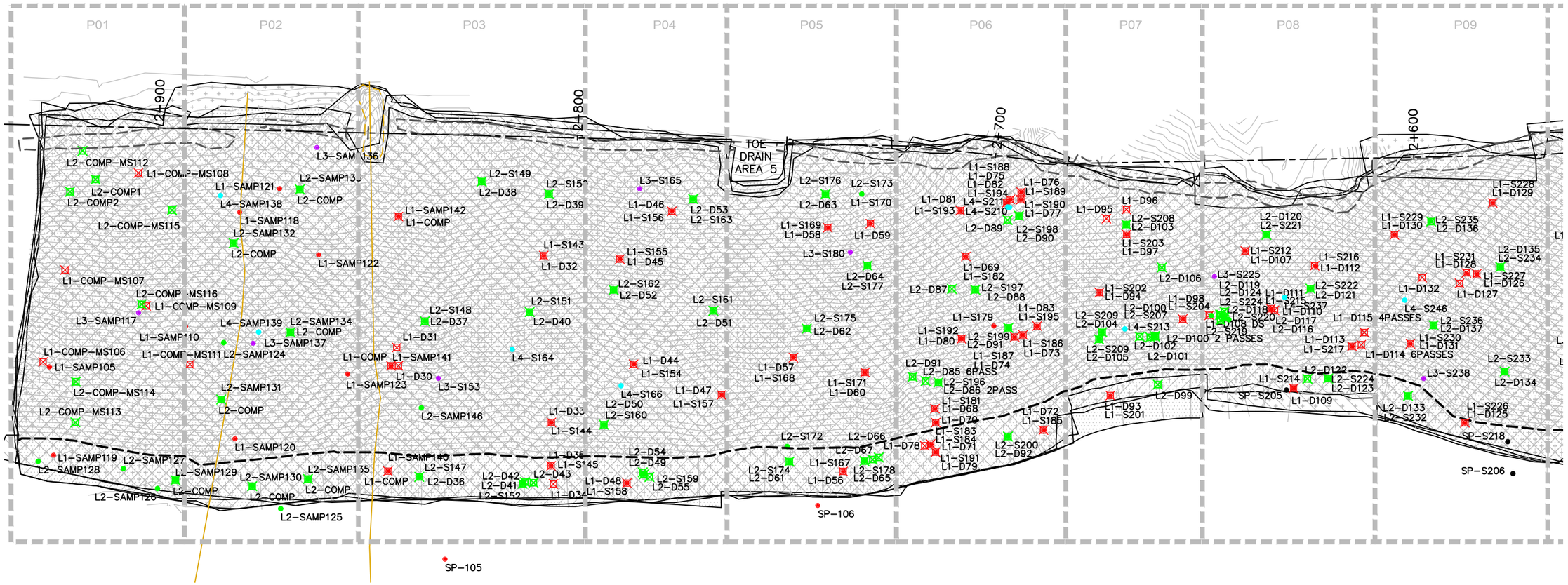
CCL LIFT 2
PLACED JULY 13, 2021 = 0m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 13, 2021 = 0m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 13, 2021 = 1,026m^3
PLACED TO DATE = 19,558m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 4.112 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 13, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

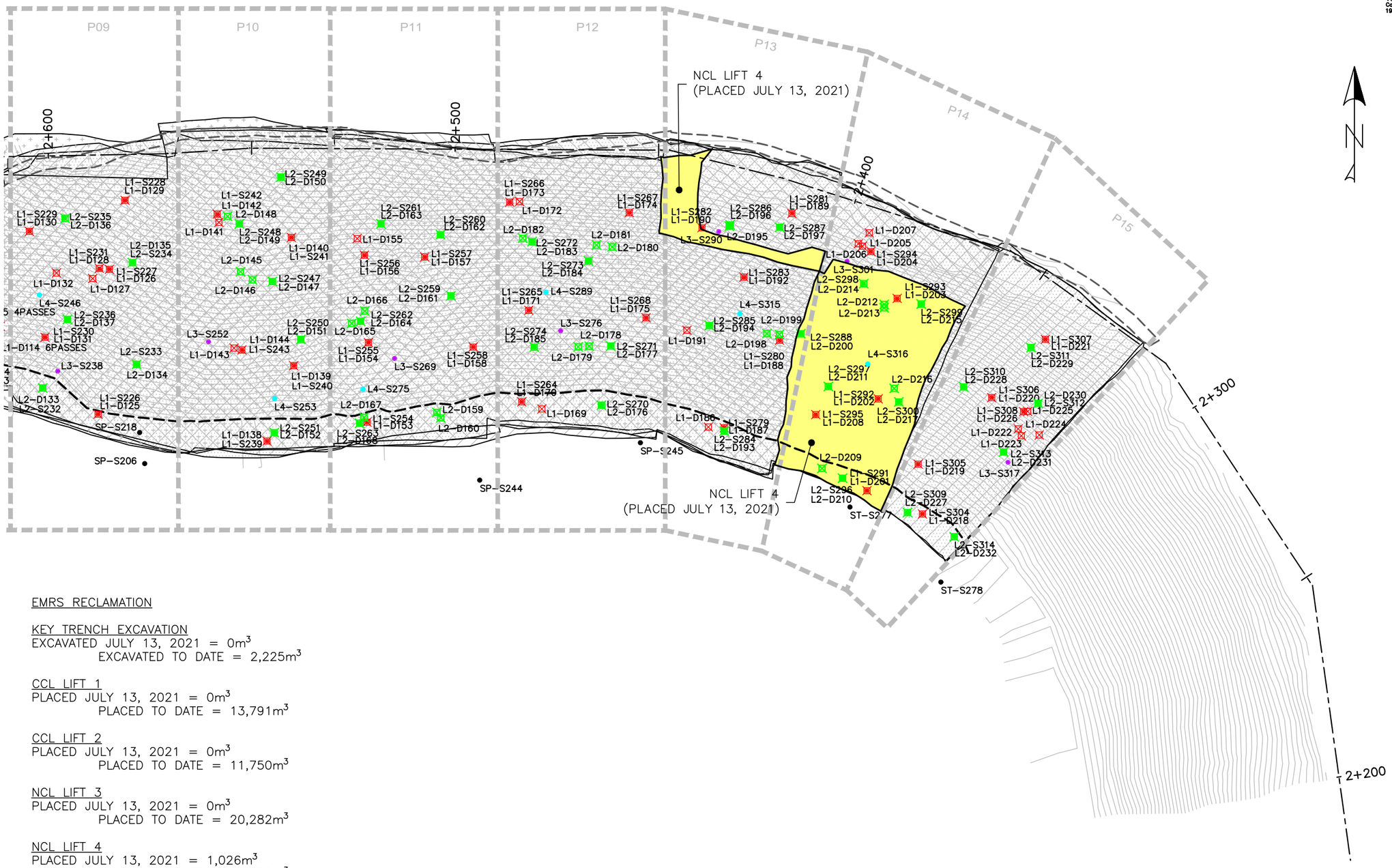
DATE	JULY 13, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 13, 2021 = 0m^3
EXCAVATED TO DATE = 2,225m^3

CCL LIFT 1
PLACED JULY 13, 2021 = 0m^3
PLACED TO DATE = 13,791m^3

CCL LIFT 2
PLACED JULY 13, 2021 = 0m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 13, 2021 = 0m^3
PLACED TO DATE = 20,282m^3

NCL LIFT 4
PLACED JULY 13, 2021 = 1,026m^3
PLACED TO DATE = 19,558m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 4.112 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 13, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

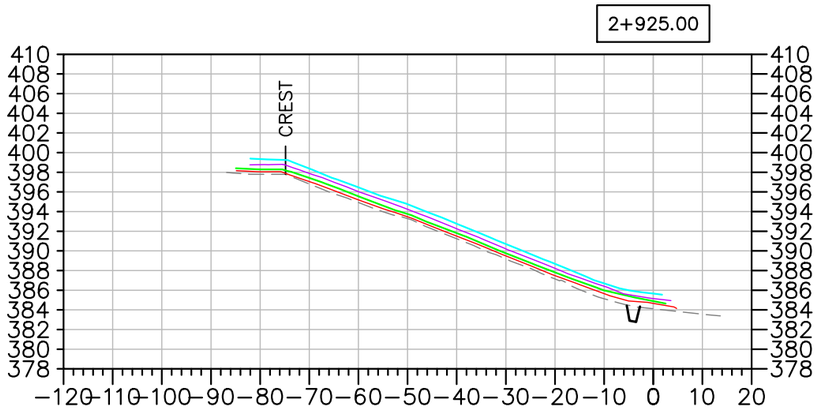
DRAWING TITLE
2021 EMRS
RECLAMATION

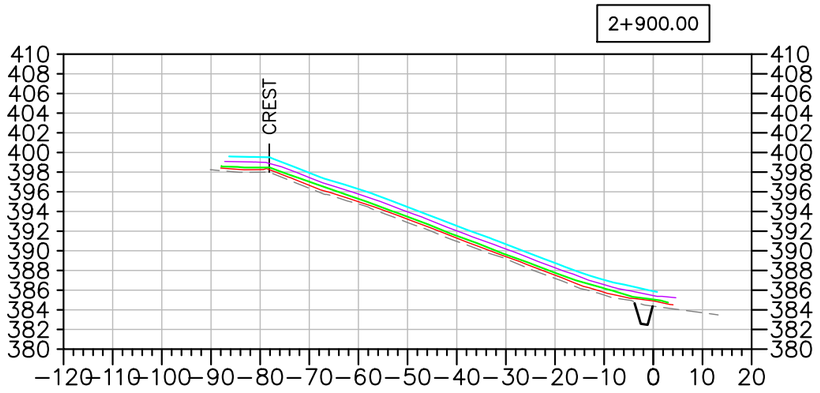
PURPOSE
DAILY PROGRESS

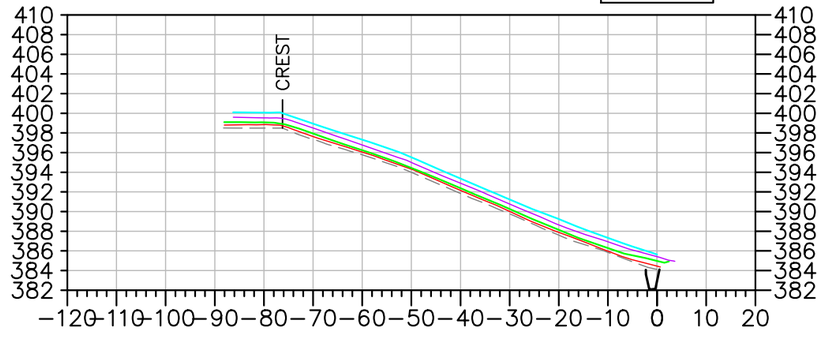
DATE	JULY 13, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

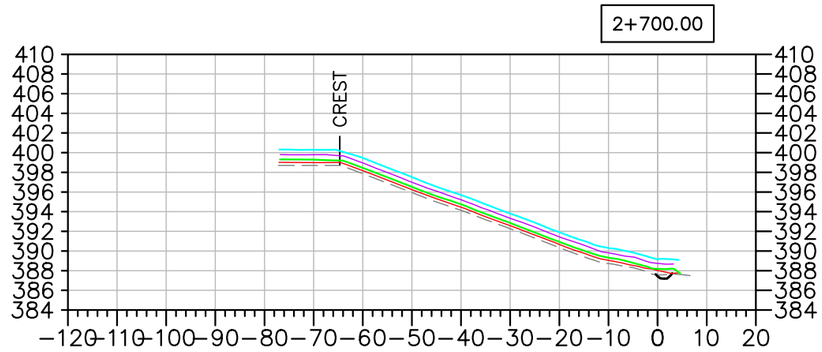
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

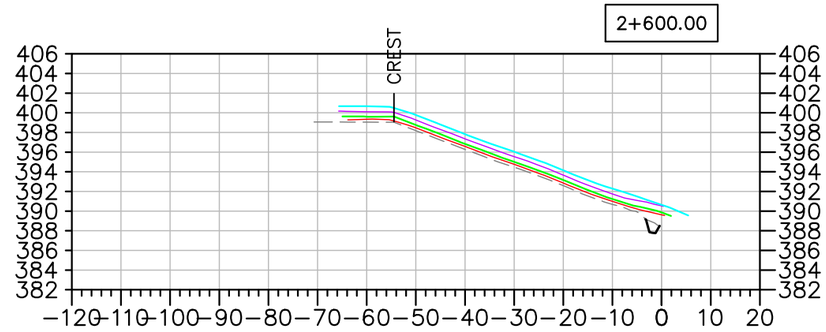
SHEET SIZE - 11" X 17"

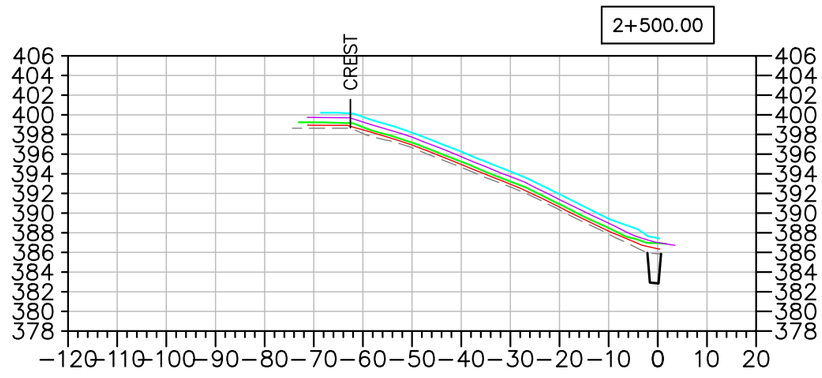


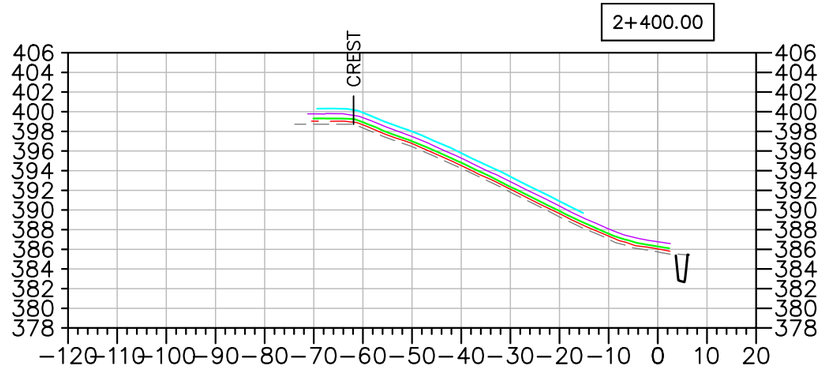












EMRS RECLAMATION – DAILY PROGRESS

(JULY 13, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 13, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 14, 2021 = 129m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 14, 2021 = 0m^3
PLACED TO DATE = 13,791m^3

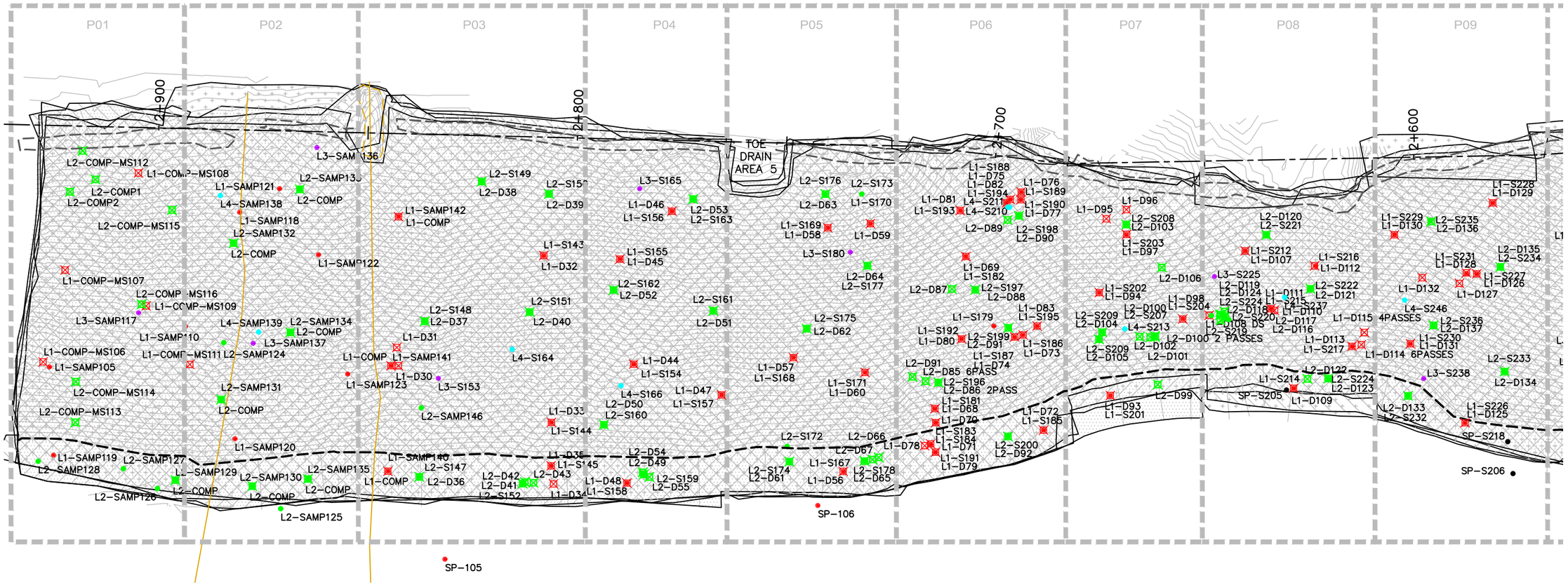
CCL LIFT 2
PLACED JULY 14, 2021 = 0m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 14, 2021 = 1,118m^3
PLACED TO DATE = 21,400m^3

NCL LIFT 4
PLACED JULY 14, 2021 = 0m^3
PLACED TO DATE = 19,558m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 4.112 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 14, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

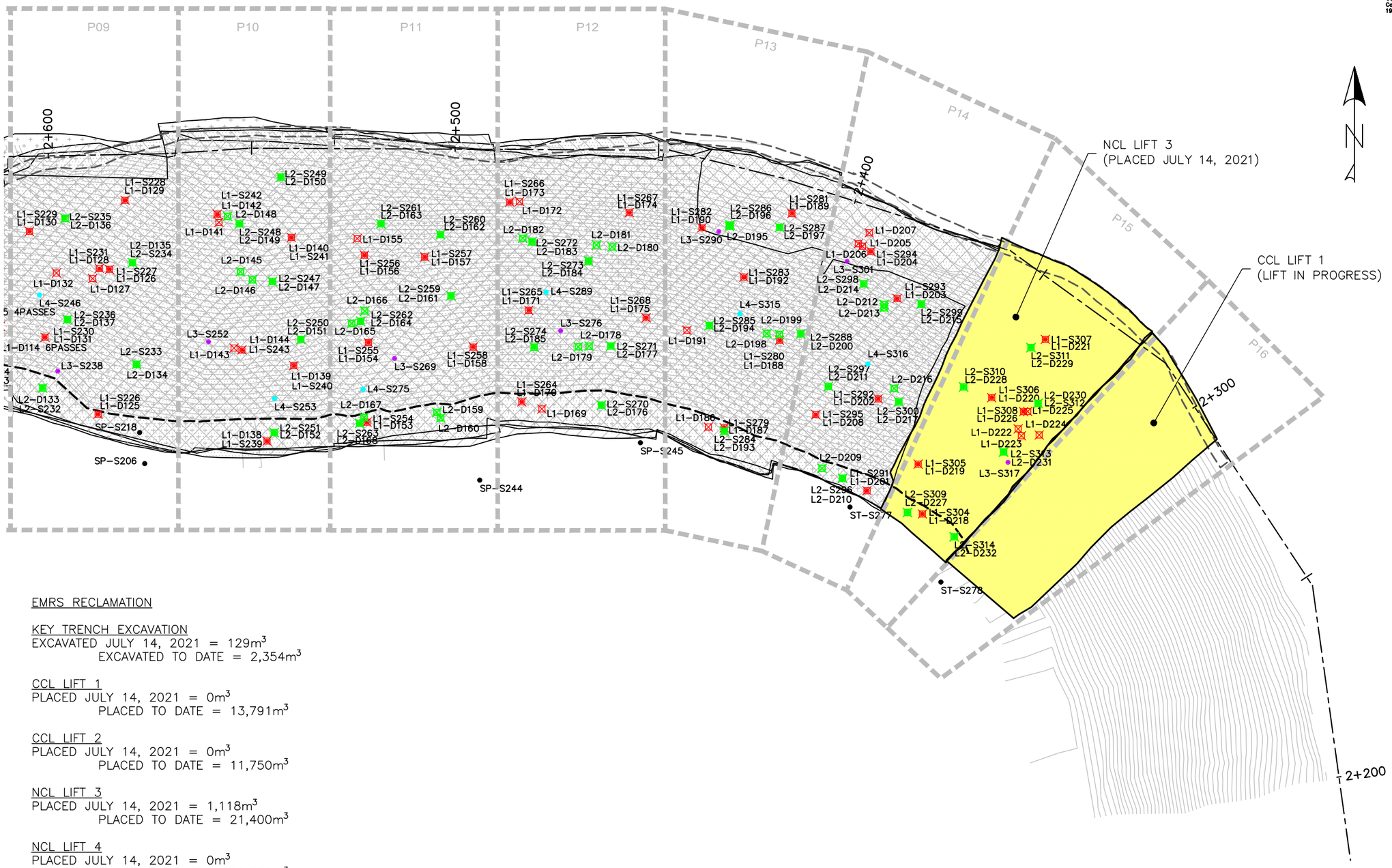
DATE	JULY 14, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 14, 2021 = 129m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 14, 2021 = 0m^3
PLACED TO DATE = 13,791m^3

CCL LIFT 2
PLACED JULY 14, 2021 = 0m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 14, 2021 = 1,118m^3
PLACED TO DATE = 21,400m^3

NCL LIFT 4
PLACED JULY 14, 2021 = 0m^3
PLACED TO DATE = 19,558m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 4.112 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 14, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

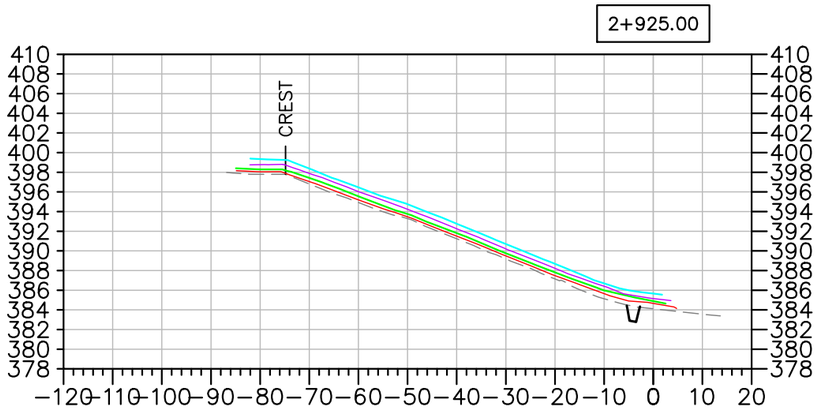
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

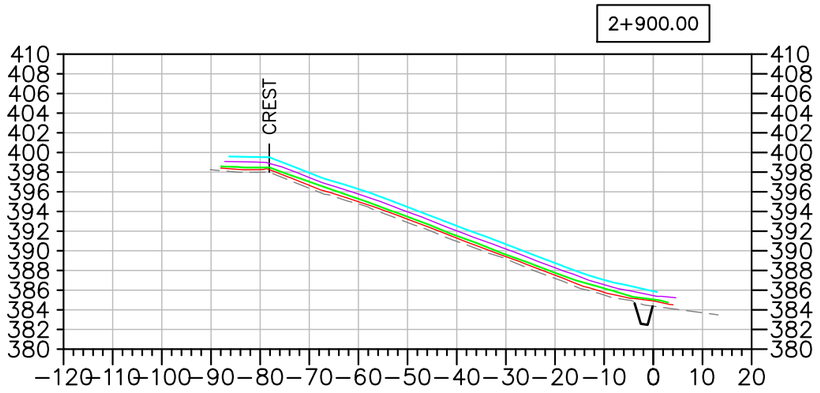
DRAWING TITLE
2021 EMRS
RECLAMATION

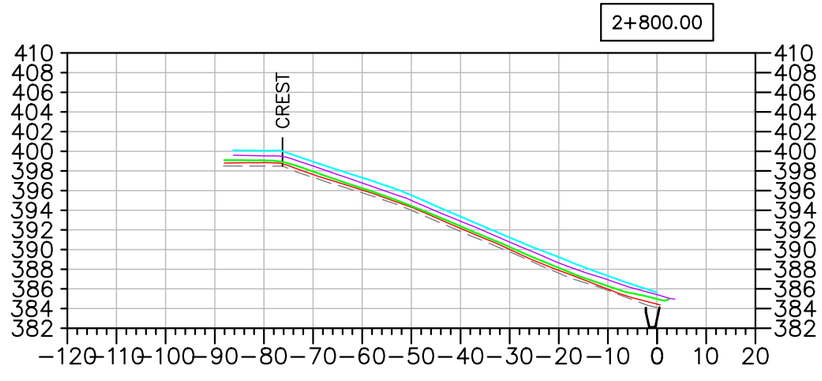
PURPOSE
DAILY PROGRESS

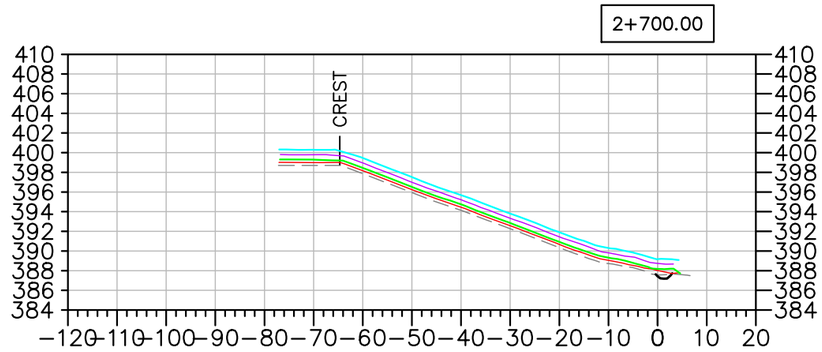
DATE	JULY 14, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

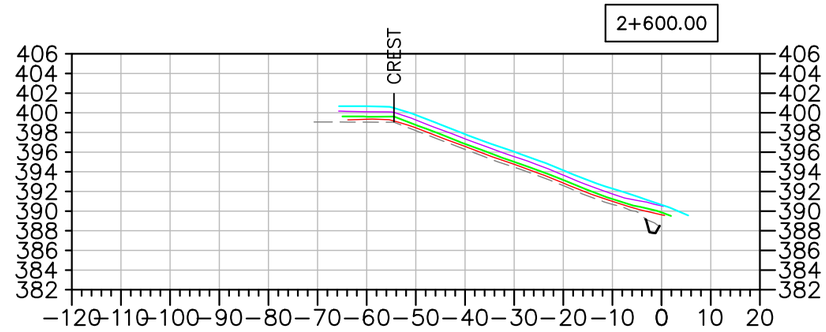
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

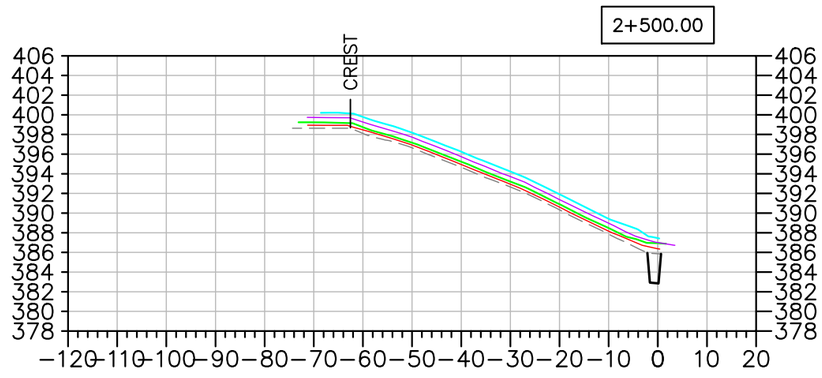


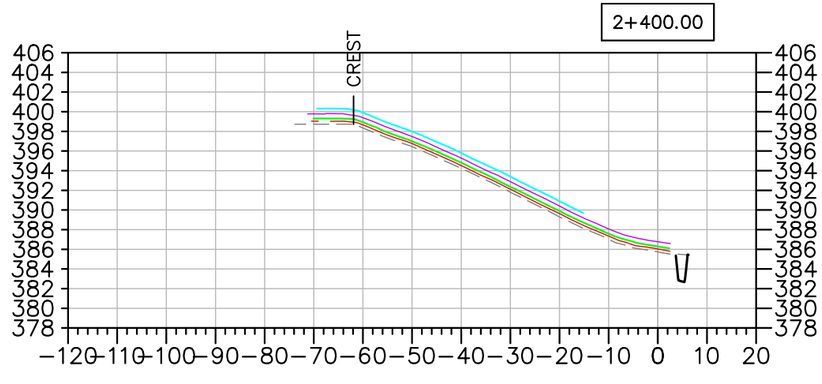












EMRS RECLAMATION – DAILY PROGRESS

(JULY 14, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

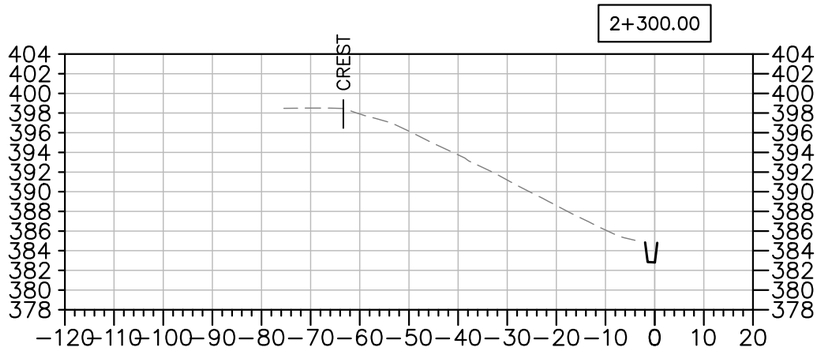
DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

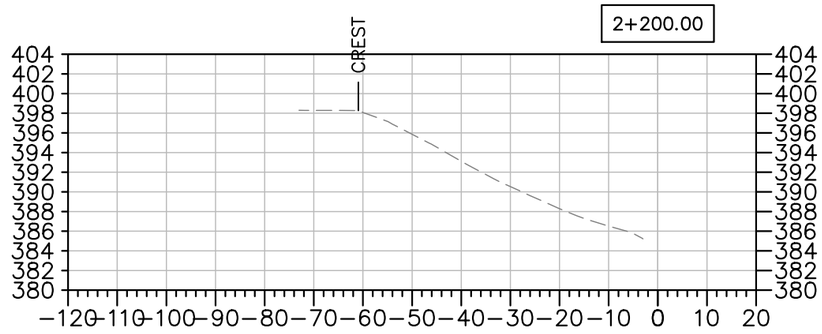
PURPOSE
DAILY PROGRESS

DATE	JULY 14, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 14, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

EXISTING ROCK STOCKPILE

CCL LIFT #1

CCL LIFT #2

NCL LIFT #3

NCL LIFT #4

KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 14, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-2	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 15, 2021 = 0m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 15, 2021 = 716m^3
PLACED TO DATE = 14,507m^3

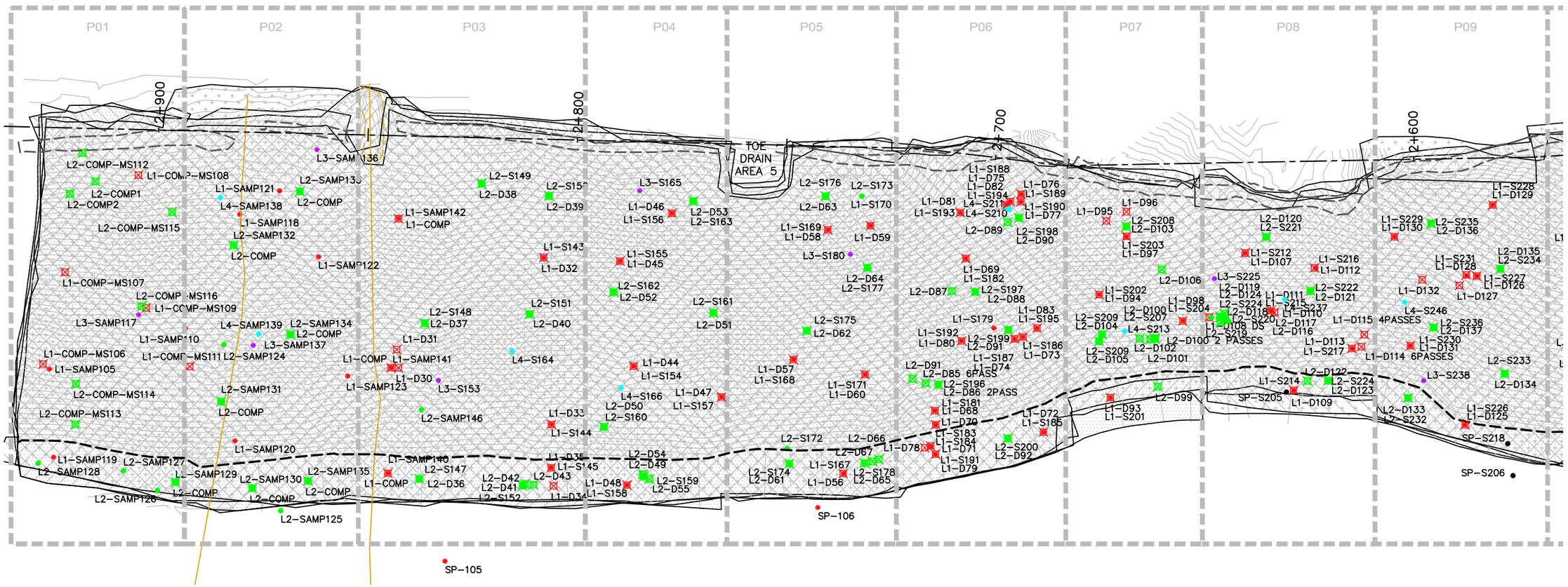
CCL LIFT 2
PLACED JULY 15, 2021 = 0m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 15, 2021 = 0m^3
PLACED TO DATE = 21,400m^3

NCL LIFT 4
PLACED JULY 15, 2021 = 0m^3
PLACED TO DATE = 19,558m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 4.112 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 15, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

P09 P10 P11 P12 P13 P14 P15 P16

2+600 2+500 2+400 2+300 2+200

NCL LIFT 4
(LIFT IN PROGRESS)

CCL LIFT 1
(PLACED JULY 15, 2021)

CCL LIFT 2
(LIFT IN PROGRESS)

SP-S206 SP-S218 SP-S244 SP-S245 ST-S277 ST-S278

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 15, 2021 = 0m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 15, 2021 = 716m^3
PLACED TO DATE = 14,507m^3

CCL LIFT 2
PLACED JULY 15, 2021 = 0m^3
PLACED TO DATE = 11,750m^3

NCL LIFT 3
PLACED JULY 15, 2021 = 0m^3
PLACED TO DATE = 21,400m^3

NCL LIFT 4
PLACED JULY 15, 2021 = 0m^3
PLACED TO DATE = 19,558m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.511 ha
NCL COMPLETED TO DATE = 4.112 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 15, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

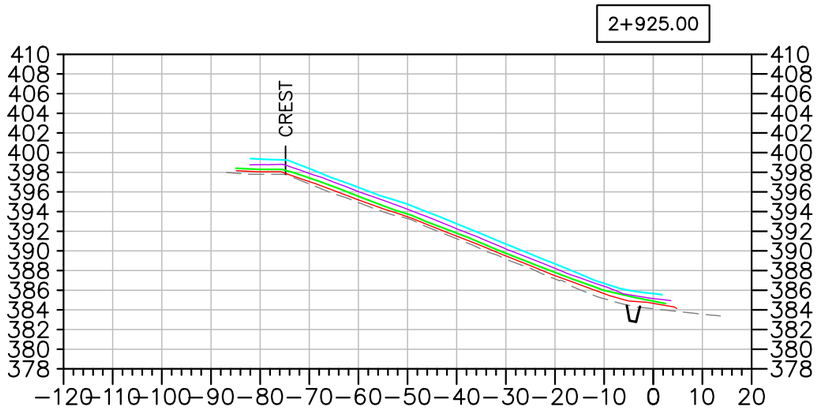
DRAWING TITLE
2021 EMRS
RECLAMATION

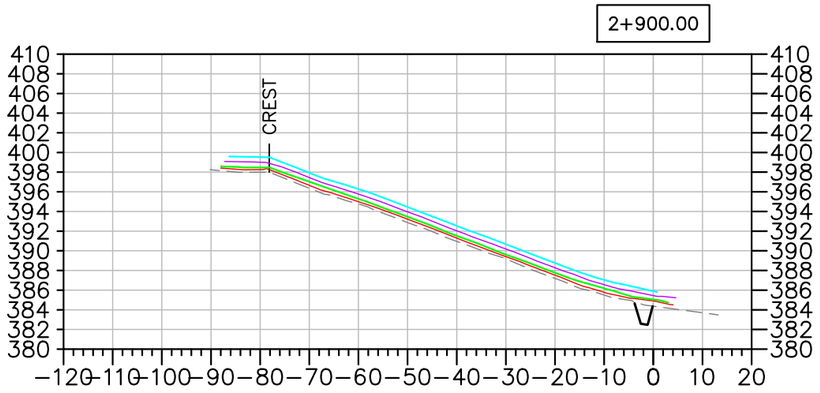
PURPOSE
DAILY PROGRESS

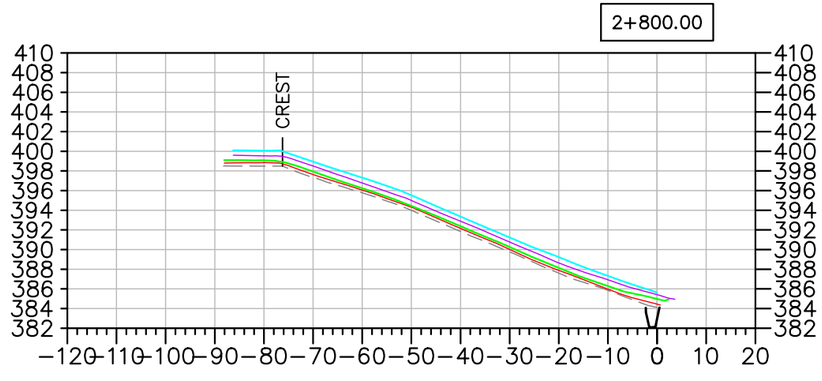
DATE	JULY 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

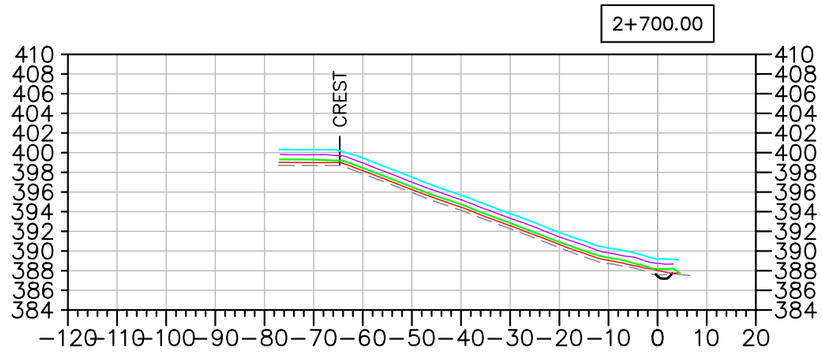
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

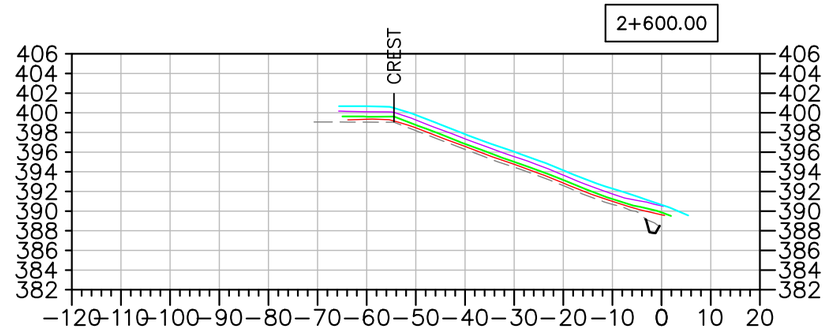
SHEET SIZE - 11" X 17"

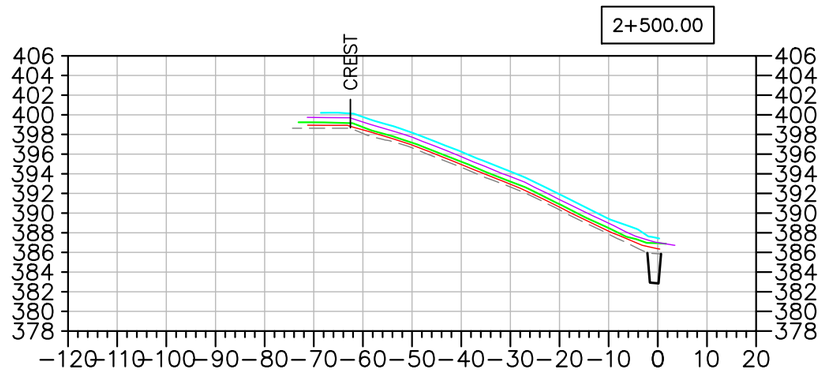


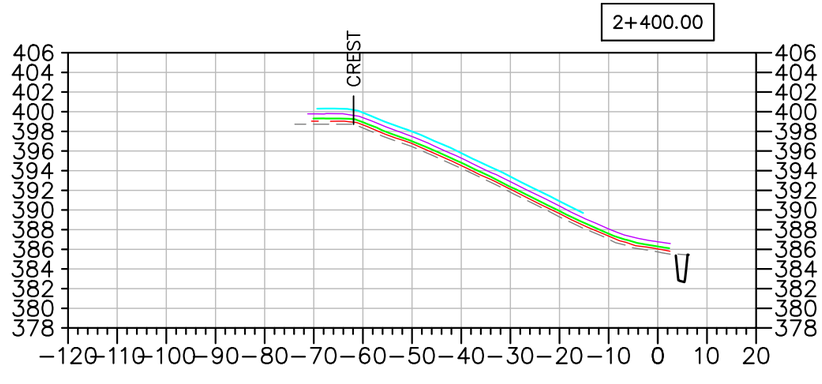












EMRS RECLAMATION – DAILY PROGRESS

(JULY 15, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

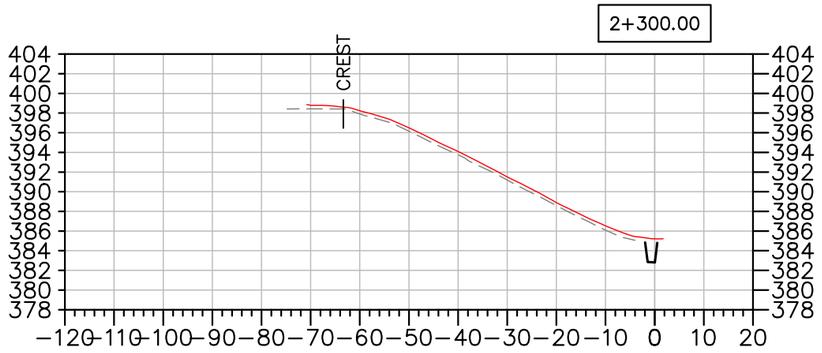
DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

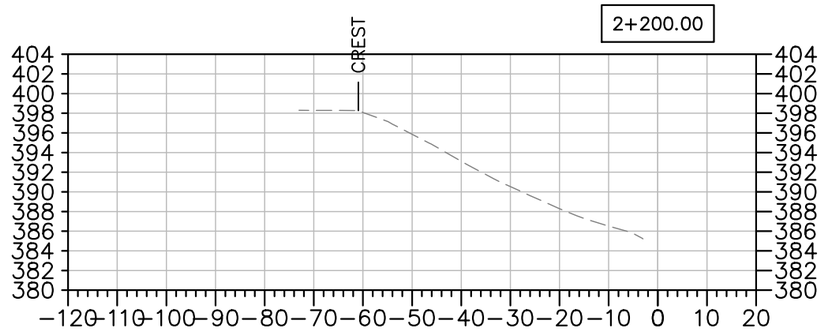
PURPOSE
DAILY PROGRESS

DATE	JULY 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 15, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 15, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-2	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 16, 2021 = 0m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 16, 2021 = 0m^3
PLACED TO DATE = 14,507m^3

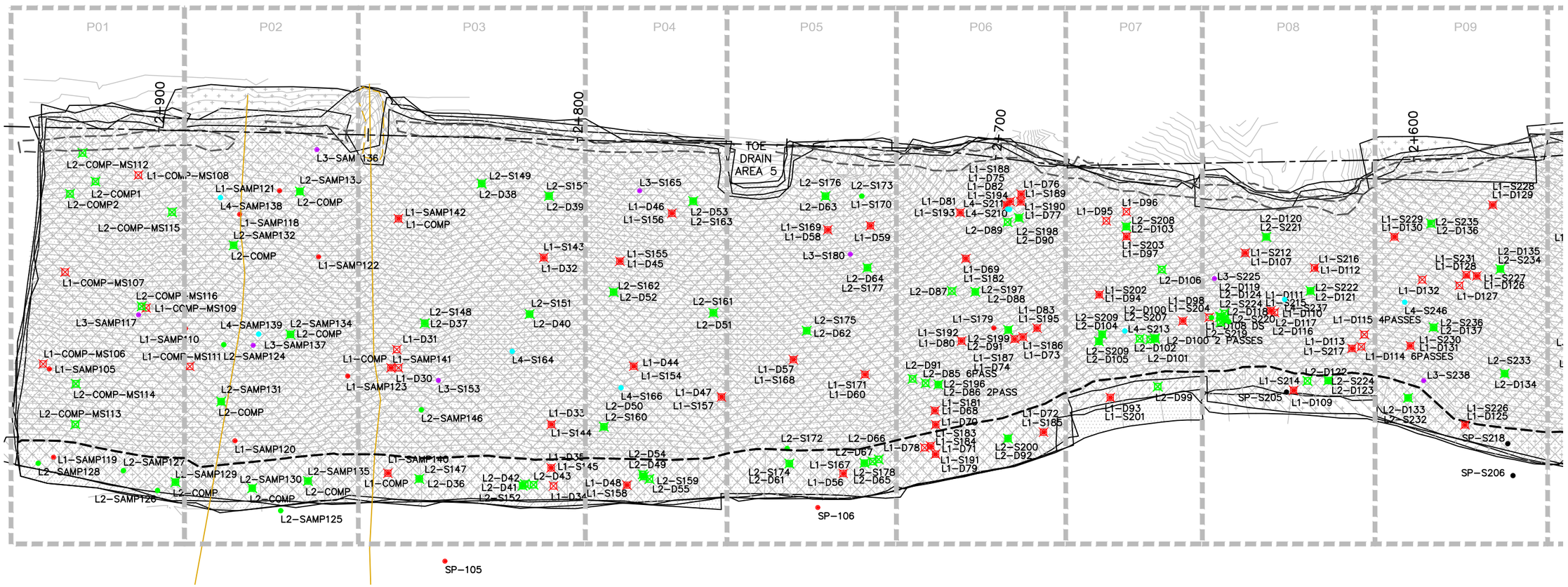
CCL LIFT 2
PLACED JULY 16, 2021 = 506m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 16, 2021 = 0m^3
PLACED TO DATE = 21,400m^3

NCL LIFT 4
PLACED JULY 16, 2021 = 437m^3
PLACED TO DATE = 19,995m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.198 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 16, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

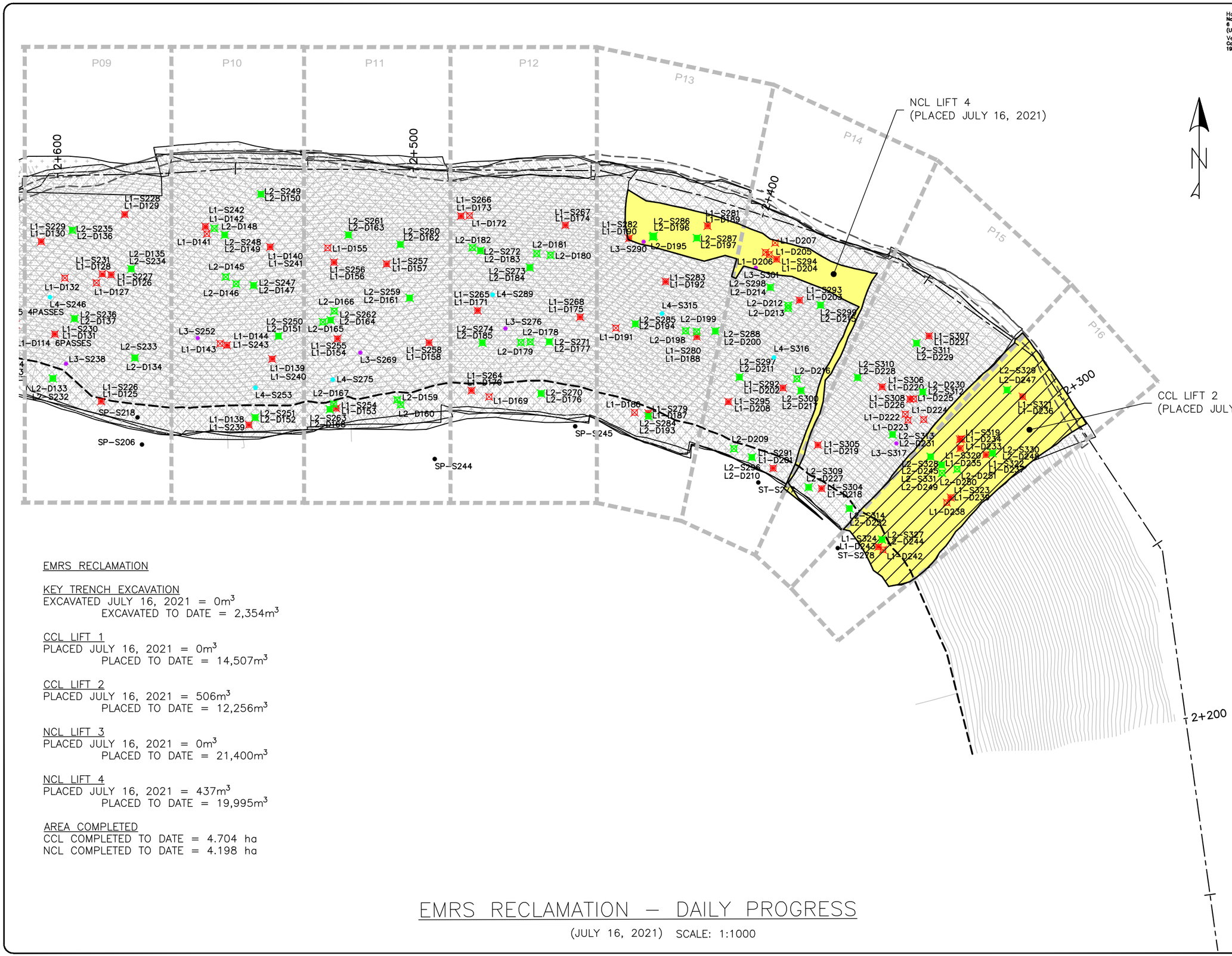
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 16, 2021 = 0m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 16, 2021 = 0m^3
PLACED TO DATE = 14,507m^3

CCL LIFT 2
PLACED JULY 16, 2021 = 506m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 16, 2021 = 0m^3
PLACED TO DATE = 21,400m^3

NCL LIFT 4
PLACED JULY 16, 2021 = 437m^3
PLACED TO DATE = 19,995m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.198 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 16, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

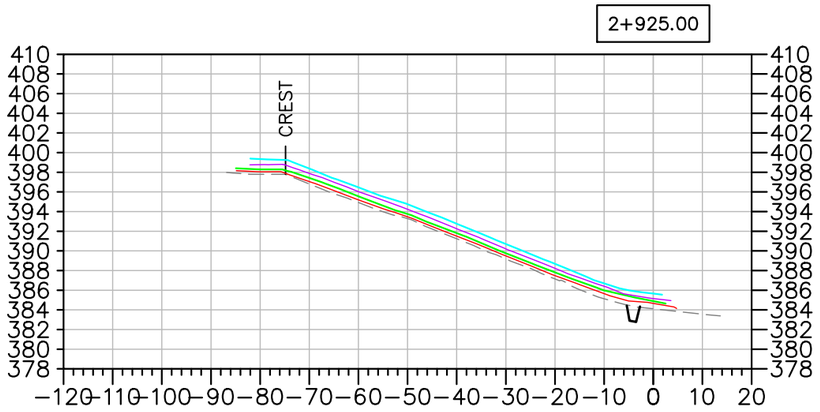
DRAWING TITLE
2021 EMRS
RECLAMATION

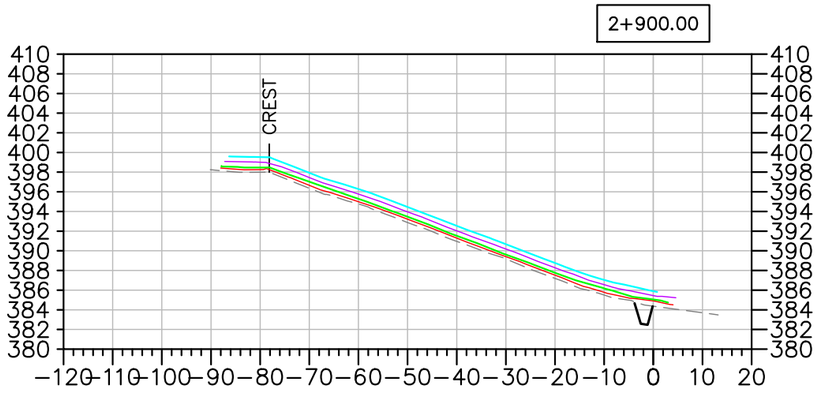
PURPOSE
DAILY PROGRESS

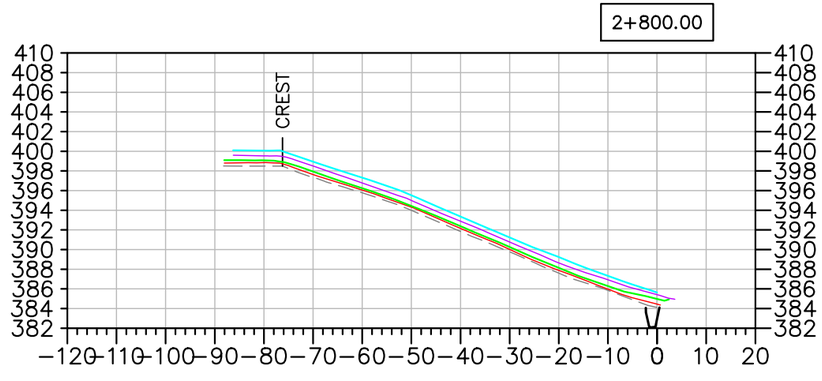
DATE	JULY 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

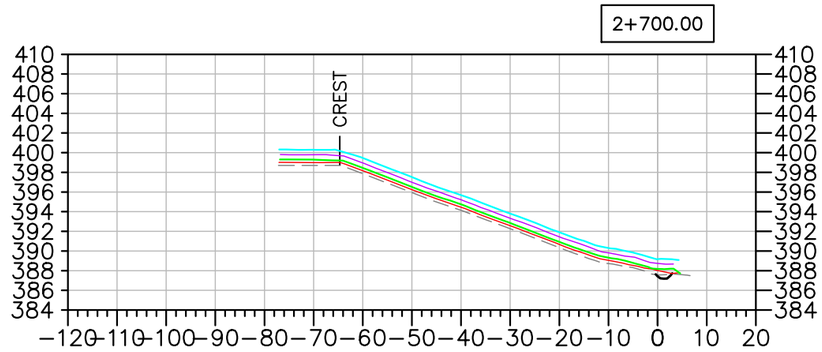
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

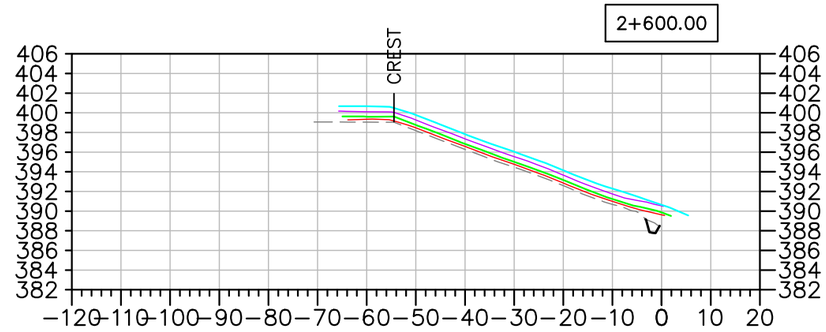
SHEET SIZE - 11" X 17"

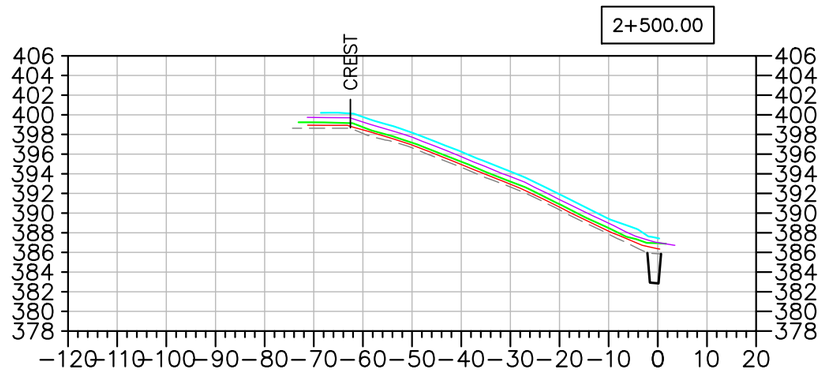


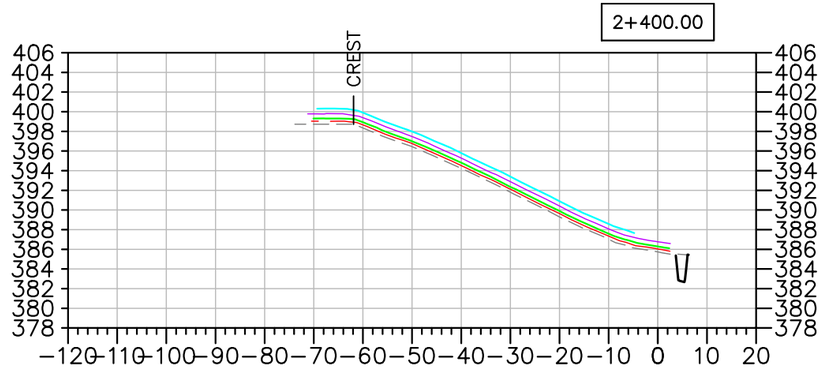












EMRS RECLAMATION – DAILY PROGRESS

(JULY 16, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

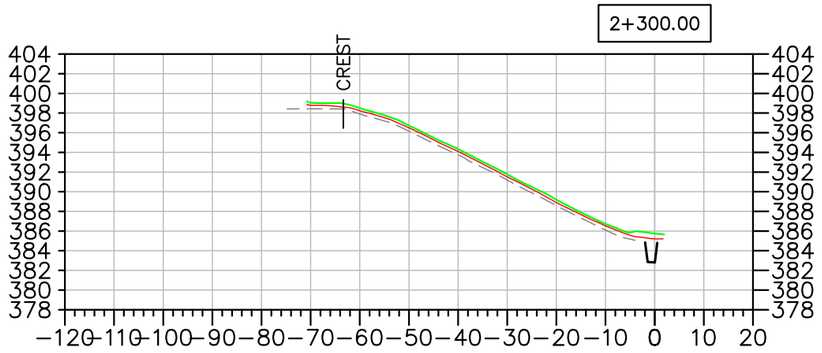
DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

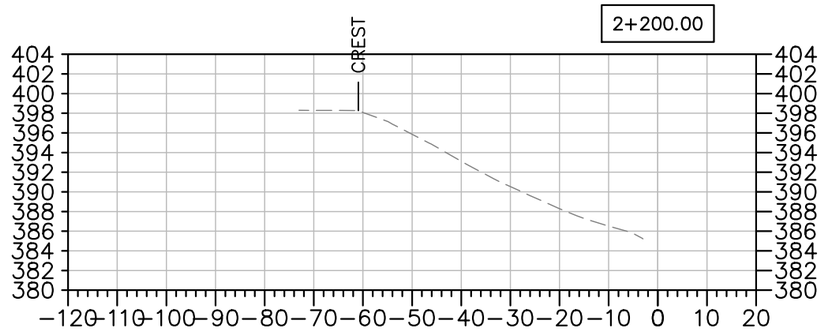
PURPOSE
DAILY PROGRESS

DATE	JULY 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 16, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 16, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-2	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 17, 2021 = 0m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 17, 2021 = 0m^3
PLACED TO DATE = 14,507m^3

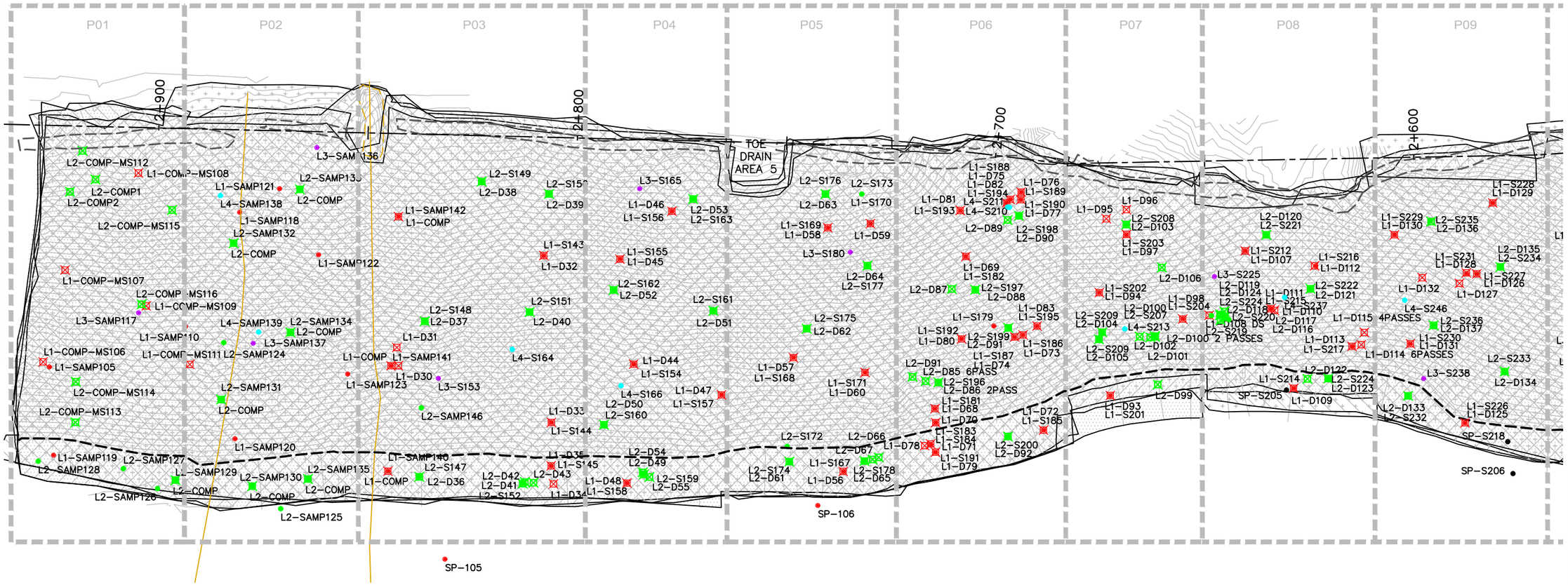
CCL LIFT 2
PLACED JULY 17, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 17, 2021 = 875m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 17, 2021 = 1,449m^3
PLACED TO DATE = 21,444m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.511 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 17, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

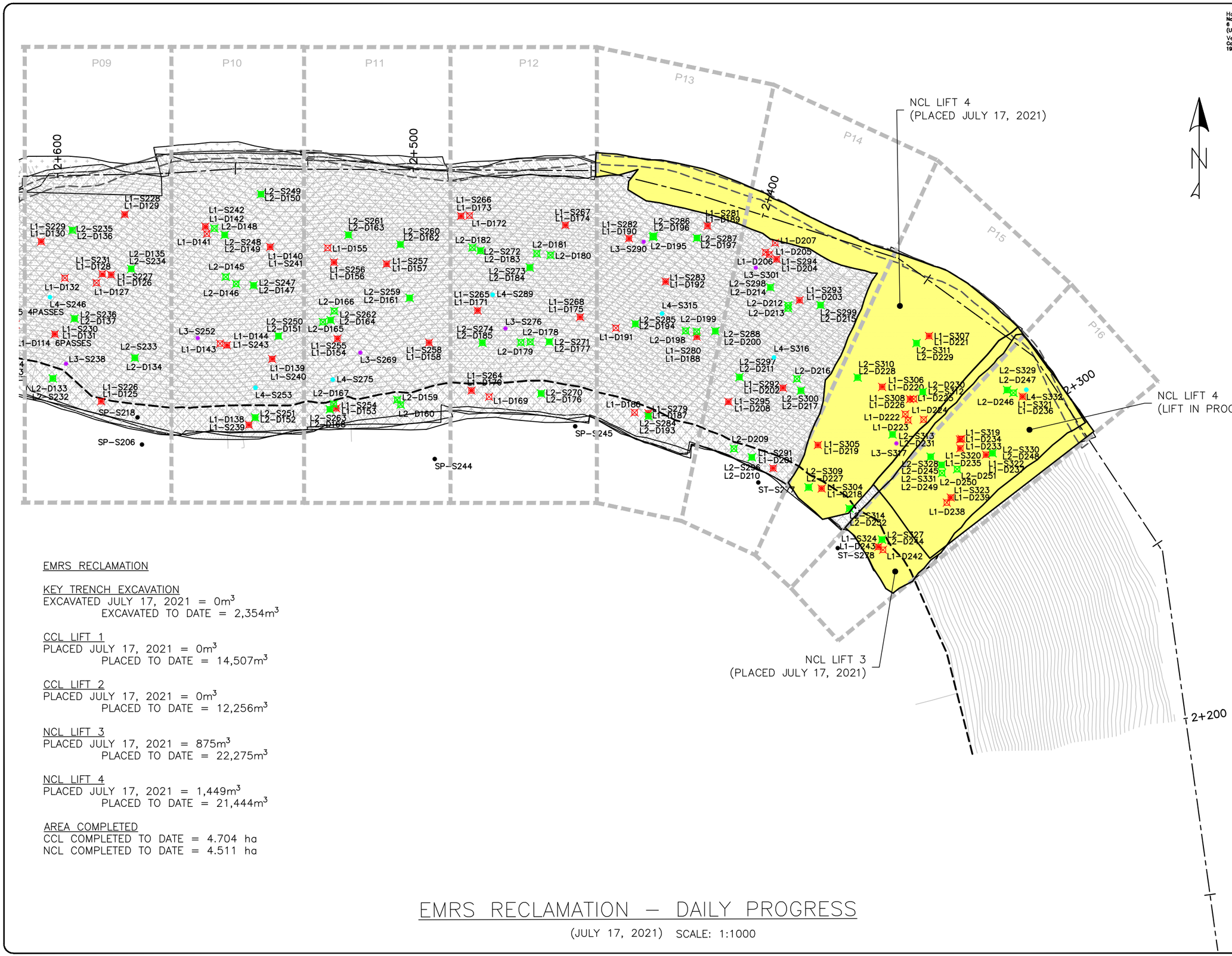
DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 17, 2021 = 0m^3
EXCAVATED TO DATE = 2,354m^3

CCL LIFT 1
PLACED JULY 17, 2021 = 0m^3
PLACED TO DATE = 14,507m^3

CCL LIFT 2
PLACED JULY 17, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 17, 2021 = 875m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 17, 2021 = 1,449m^3
PLACED TO DATE = 21,444m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.511 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 17, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

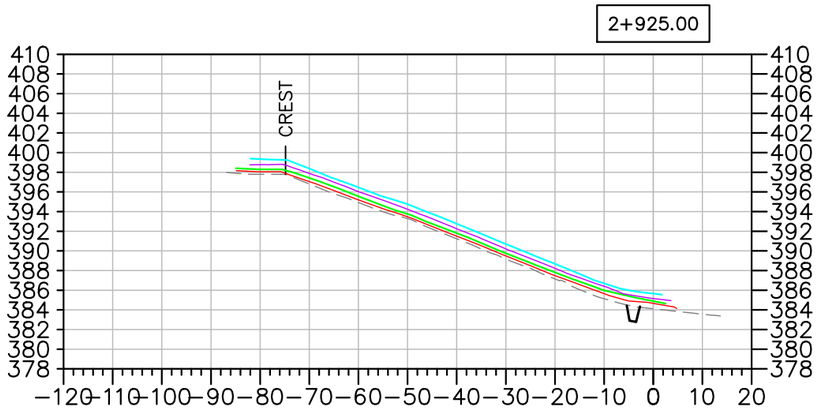
DRAWING TITLE
2021 EMRS
RECLAMATION

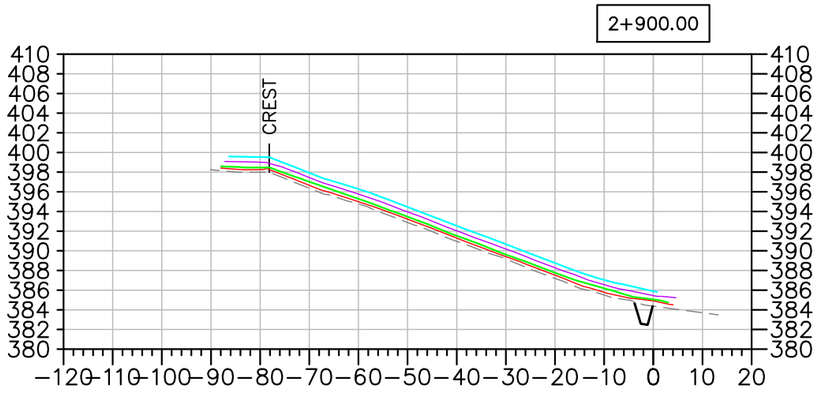
PURPOSE
DAILY PROGRESS

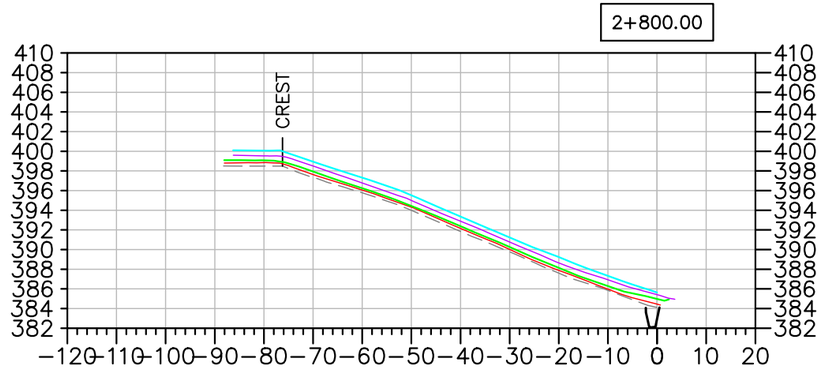
DATE	JULY 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

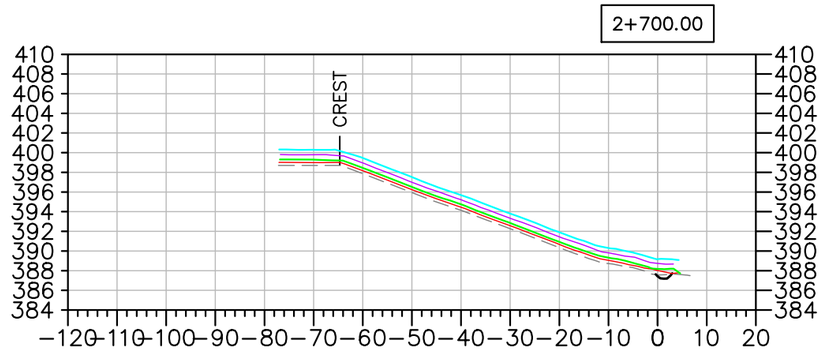
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

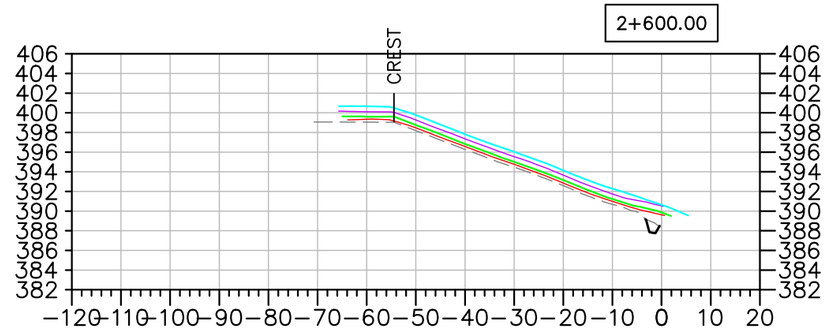
SHEET SIZE - 11" X 17"

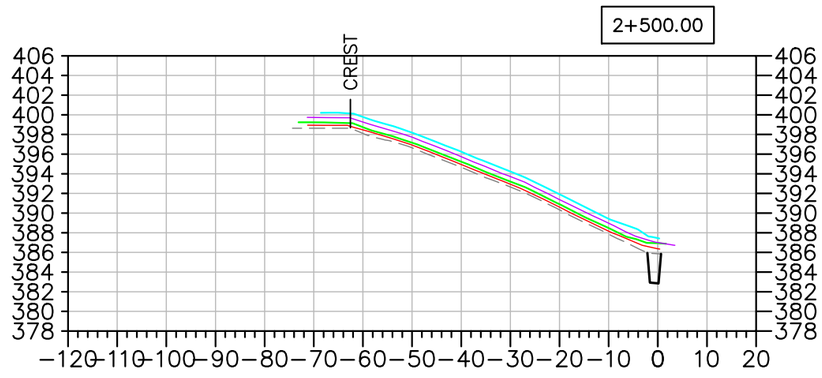


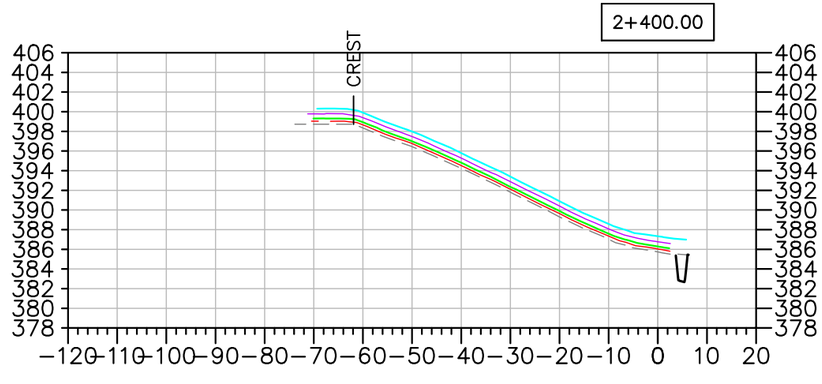












EMRS RECLAMATION – DAILY PROGRESS

(JULY 17, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

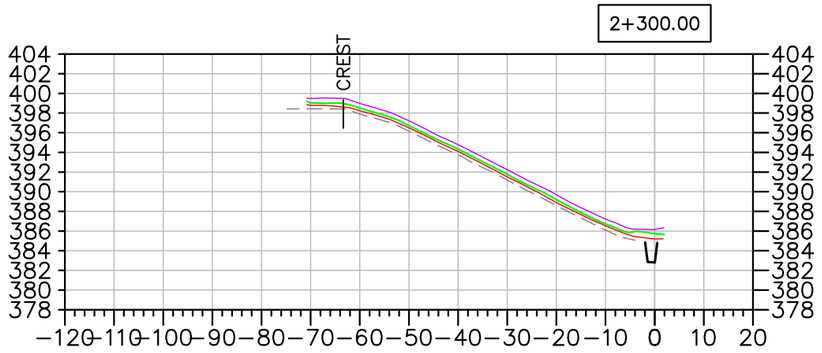
DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

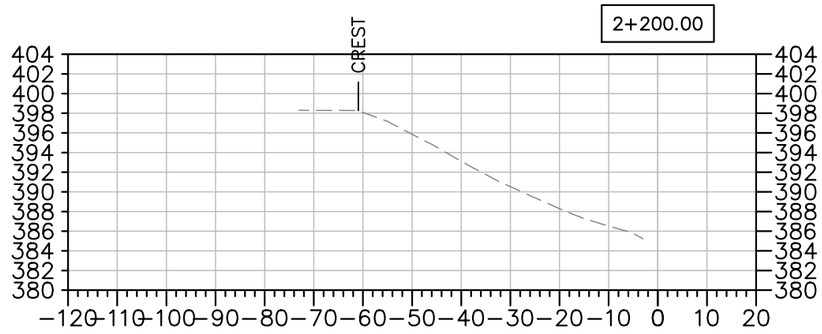
PURPOSE
DAILY PROGRESS

DATE	JULY 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 17, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 17, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-2	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 18, 2021 = 79m^3
EXCAVATED TO DATE = 2,433m^3

CCL LIFT 1
PLACED JULY 18, 2021 = 607m^3
PLACED TO DATE = 15,114m^3

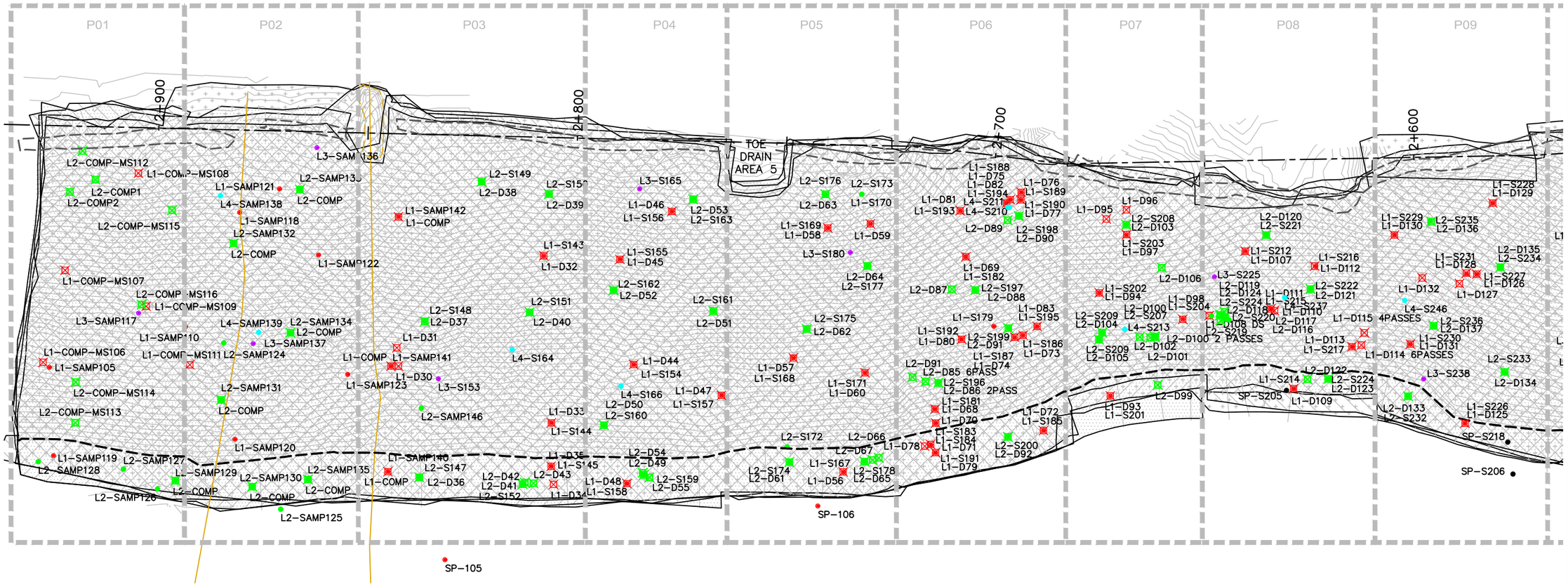
CCL LIFT 2
PLACED JULY 18, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 18, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 18, 2021 = 1,006m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.723 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 18, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

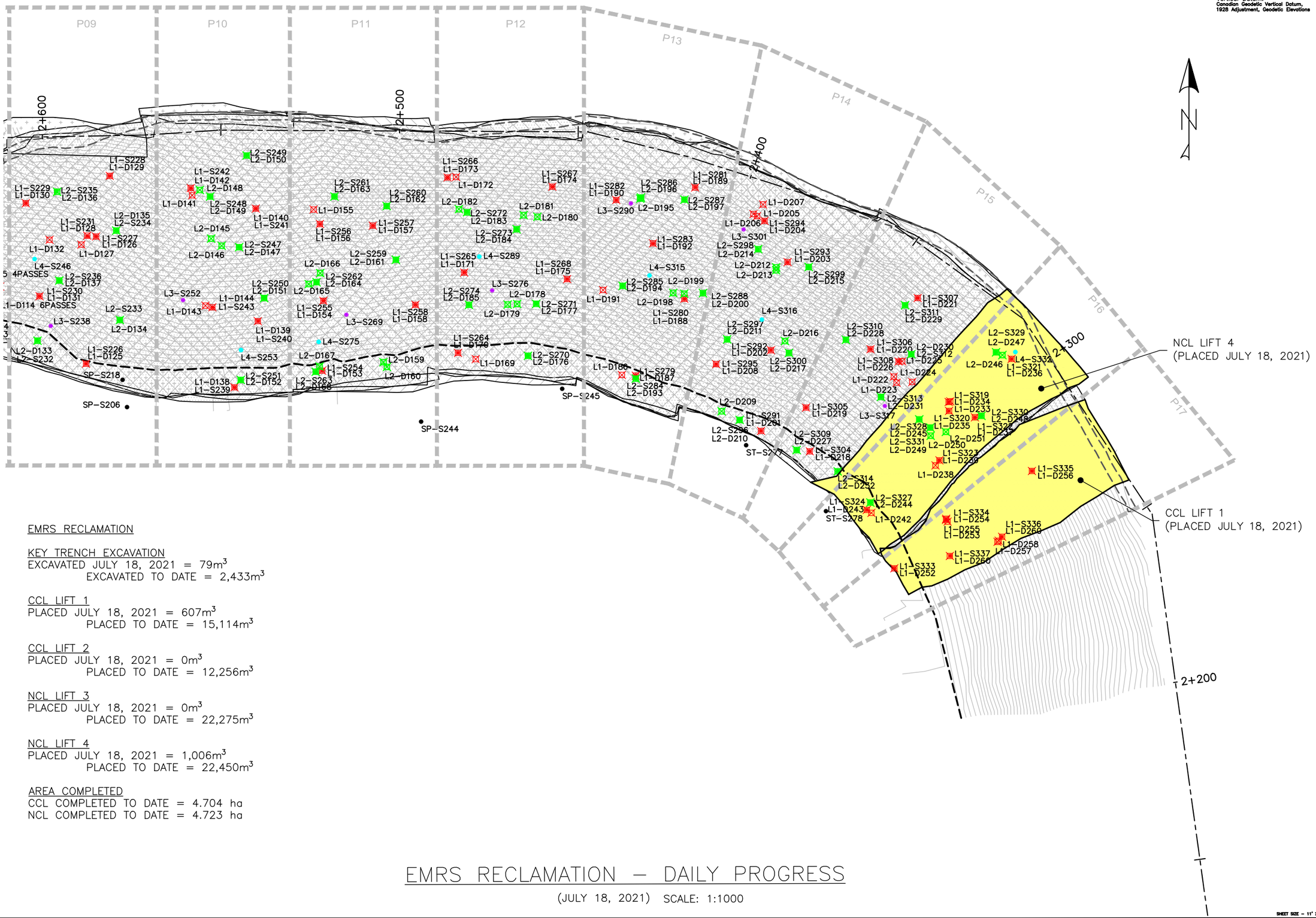
DATE	JULY 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 18, 2021 = 79m^3
EXCAVATED TO DATE = 2,433m^3

CCL LIFT 1
PLACED JULY 18, 2021 = 607m^3
PLACED TO DATE = 15,114m^3

CCL LIFT 2
PLACED JULY 18, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 18, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 18, 2021 = 1,006m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.723 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 18, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

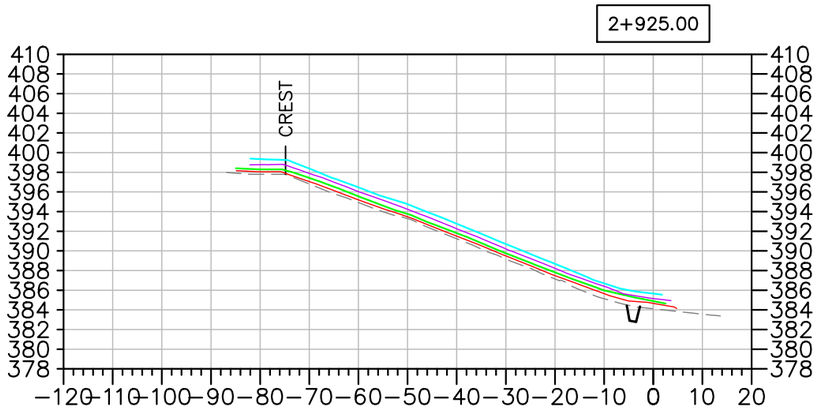
DRAWING TITLE
2021 EMRS
RECLAMATION

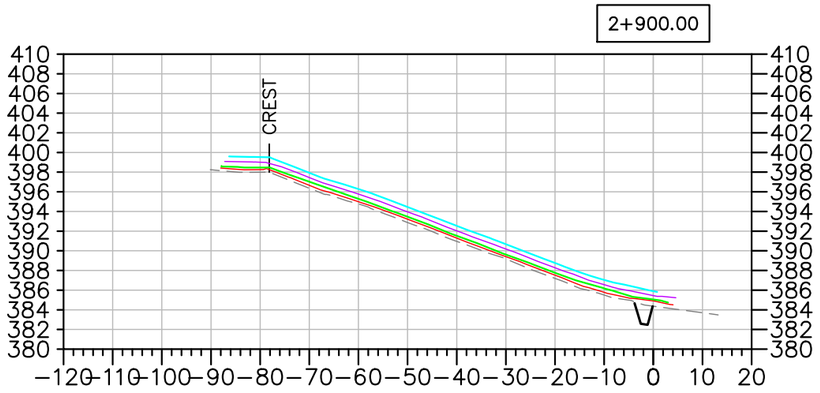
PURPOSE
DAILY PROGRESS

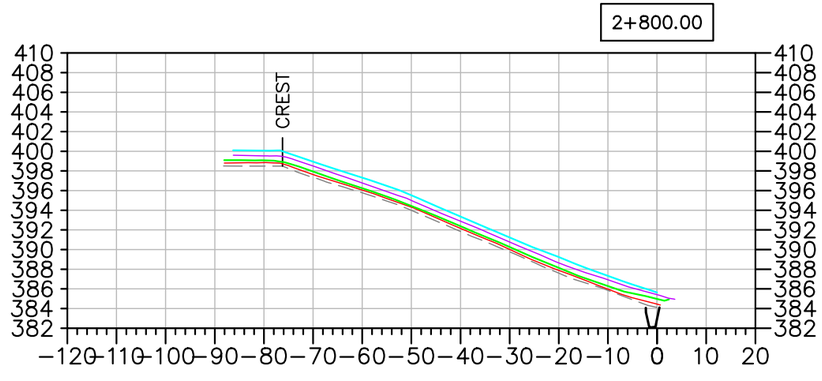
DATE	JULY 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

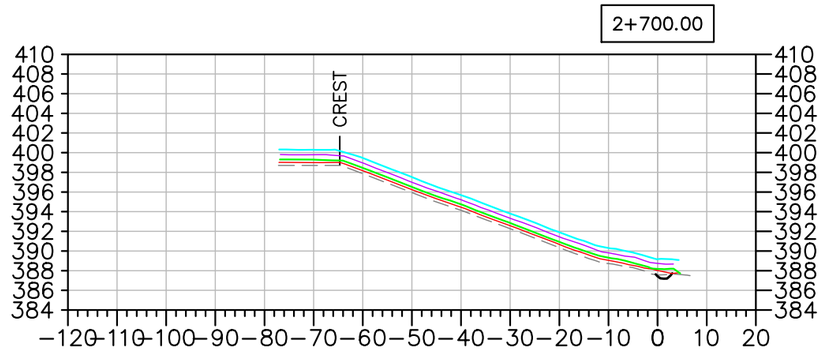
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

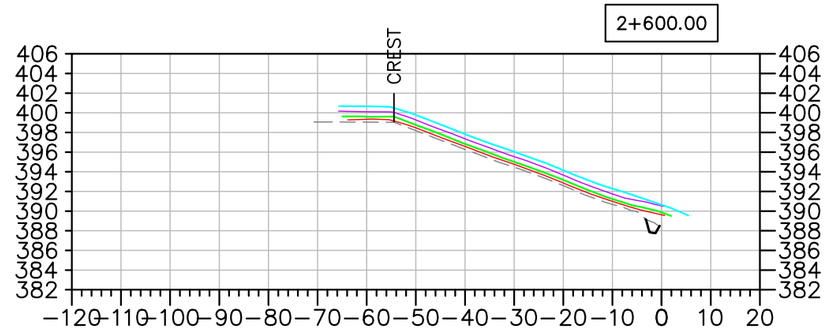
SHEET SIZE – 11" X 17"

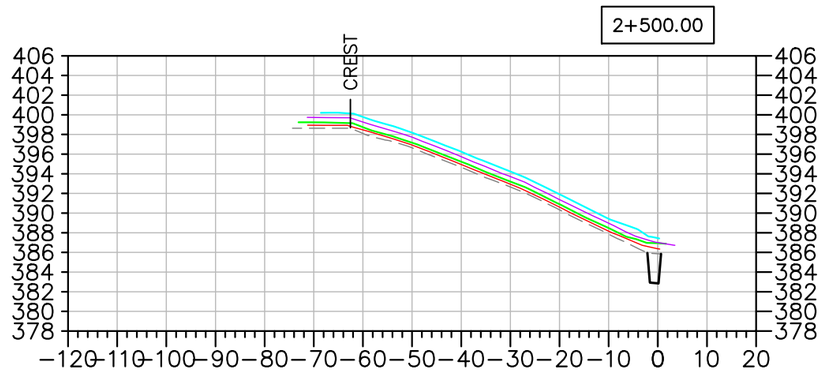


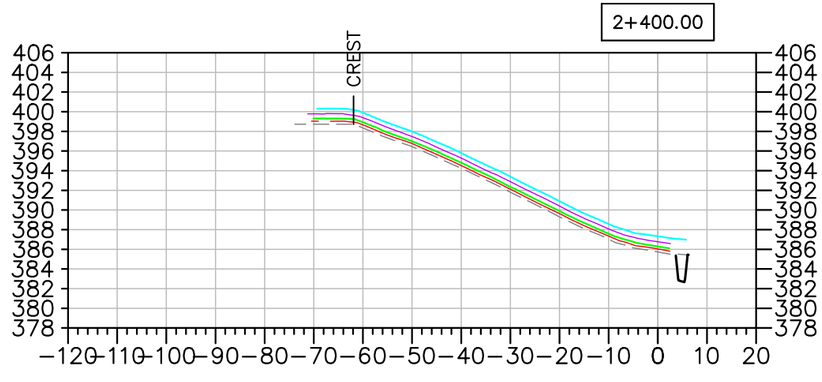












EMRS RECLAMATION – DAILY PROGRESS

(JULY 18, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

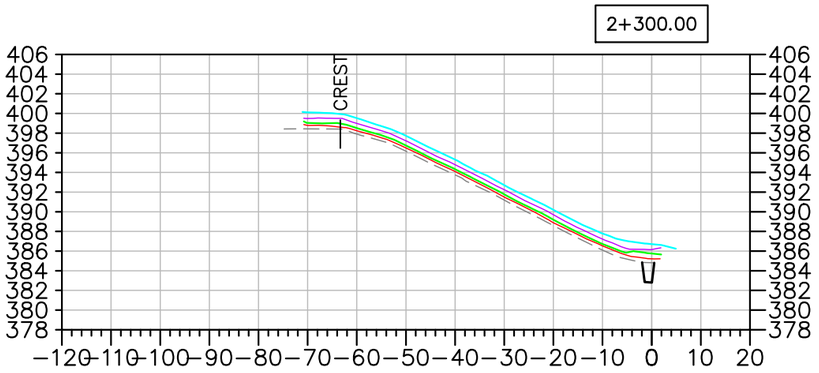
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2021 EMRS
RECLAMATION CROSS
SECTIONS

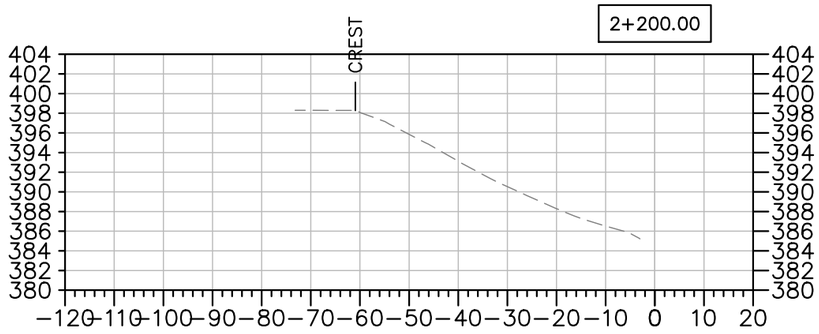
PURPOSE
DAILY PROGRESS

DATE	JULY 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 18, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 18, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-2	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 19, 2021 = 138m^3
EXCAVATED TO DATE = 2,571m^3

CCL LIFT 1
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 15,114m^3

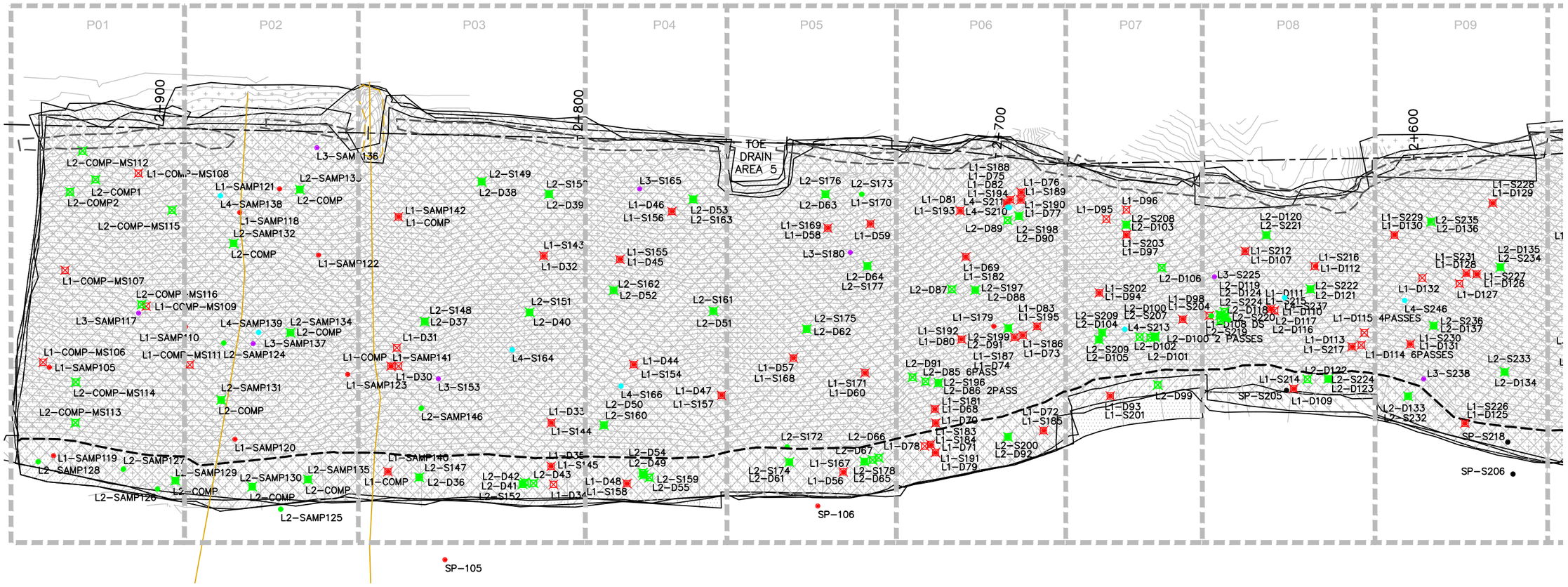
CCL LIFT 2
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.723 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 19, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

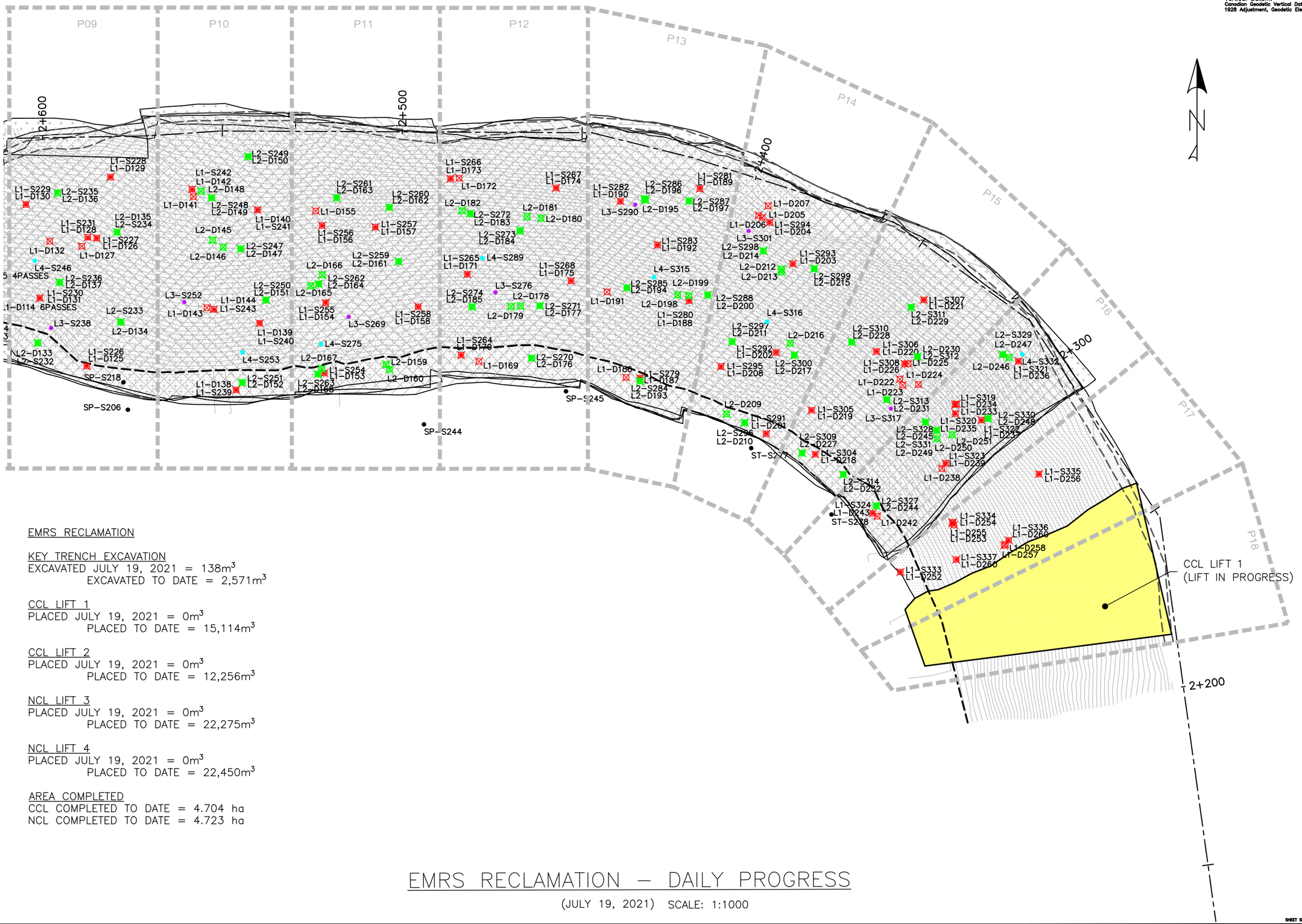
DATE	JULY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115

SHEET SIZE – 11" X 17"

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator
(UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum,
1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 19, 2021 = 138m^3
EXCAVATED TO DATE = 2,571m^3

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PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 15,114m^3

CCL LIFT 2
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 19, 2021 = 0m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.723 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 19, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

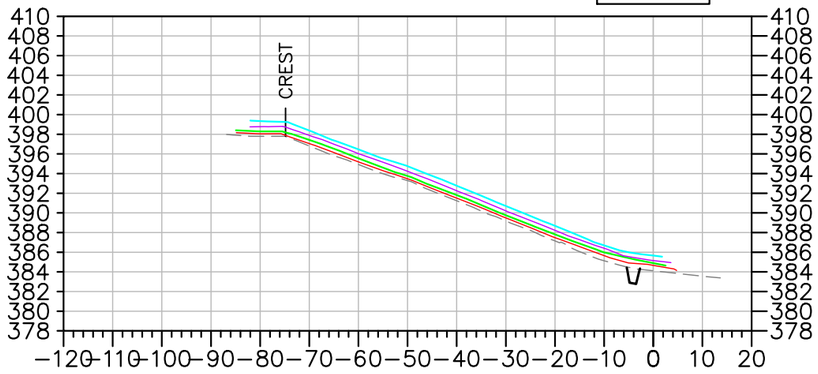
PURPOSE
DAILY PROGRESS

DATE	JULY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

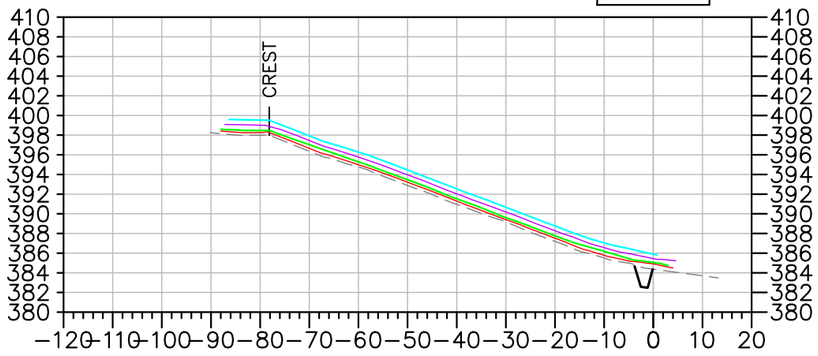
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE – 11" X 17"

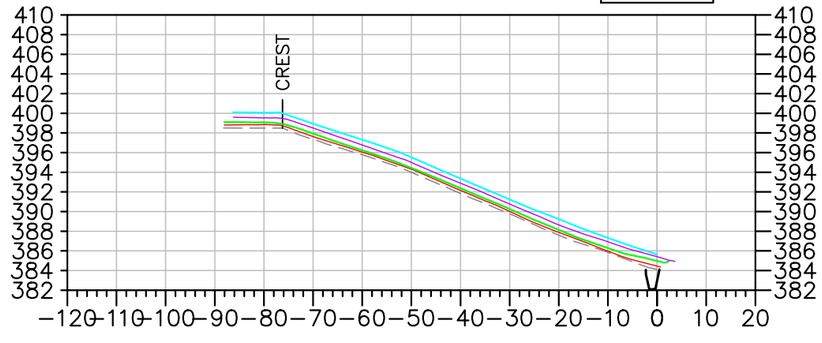
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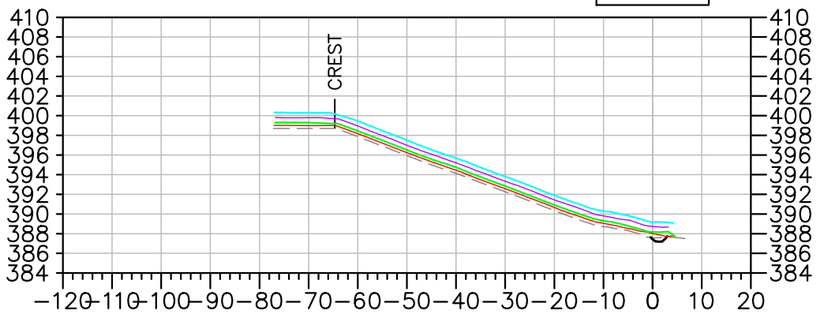
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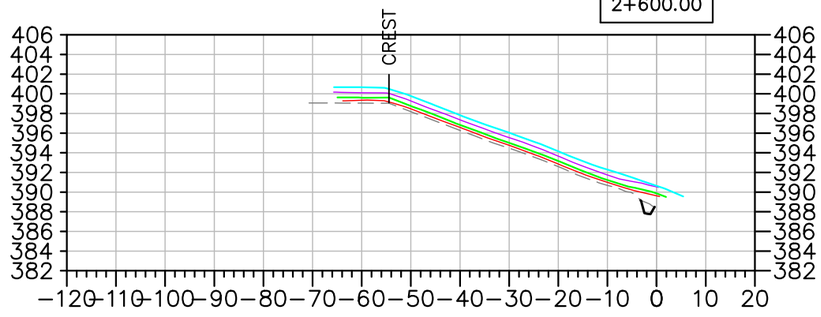
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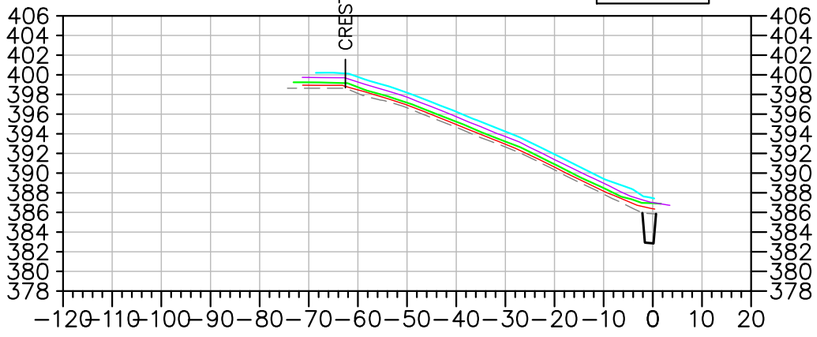
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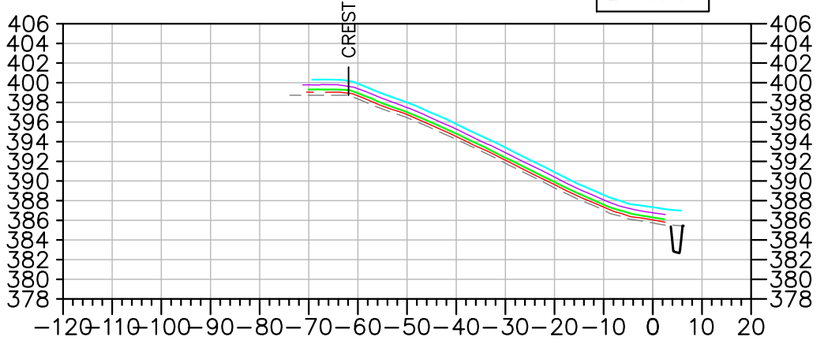
2+600.00



2+500.00



2+400.00



EMRS RECLAMATION – DAILY PROGRESS

(JULY 19, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum: North American Datum 1983 (NAD83) 6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum: Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

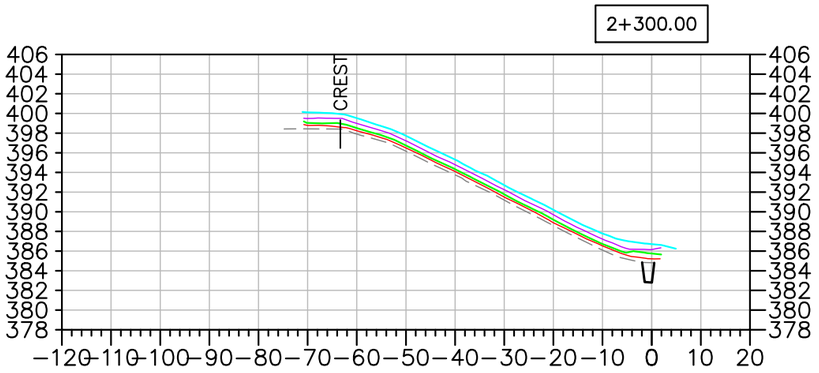
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2021 EMRS
RECLAMATION CROSS
SECTIONS

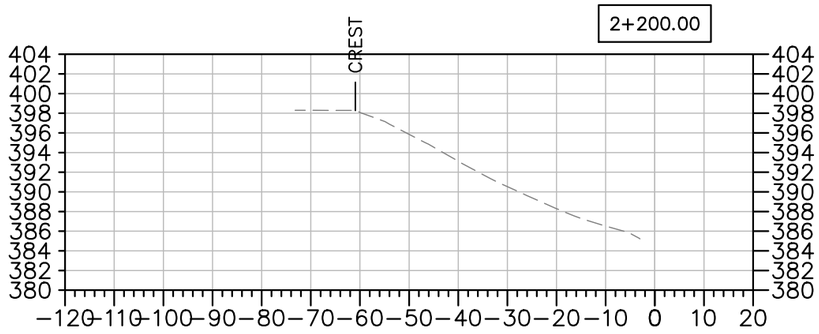
PURPOSE
DAILY PROGRESS

DATE	JULY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X–1	19–1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 19, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER PROJECT

DRAWING TITLE
2021 EMRS RECLAMATION CROSS SECTIONS

PURPOSE
DAILY PROGRESS

DATE	JULY 19, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-2	19-1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 20, 2021 = 0m^3
EXCAVATED TO DATE = 2,571m^3

CCL LIFT 1
PLACED JULY 20, 2021 = 590m^3
PLACED TO DATE = 15,704m^3

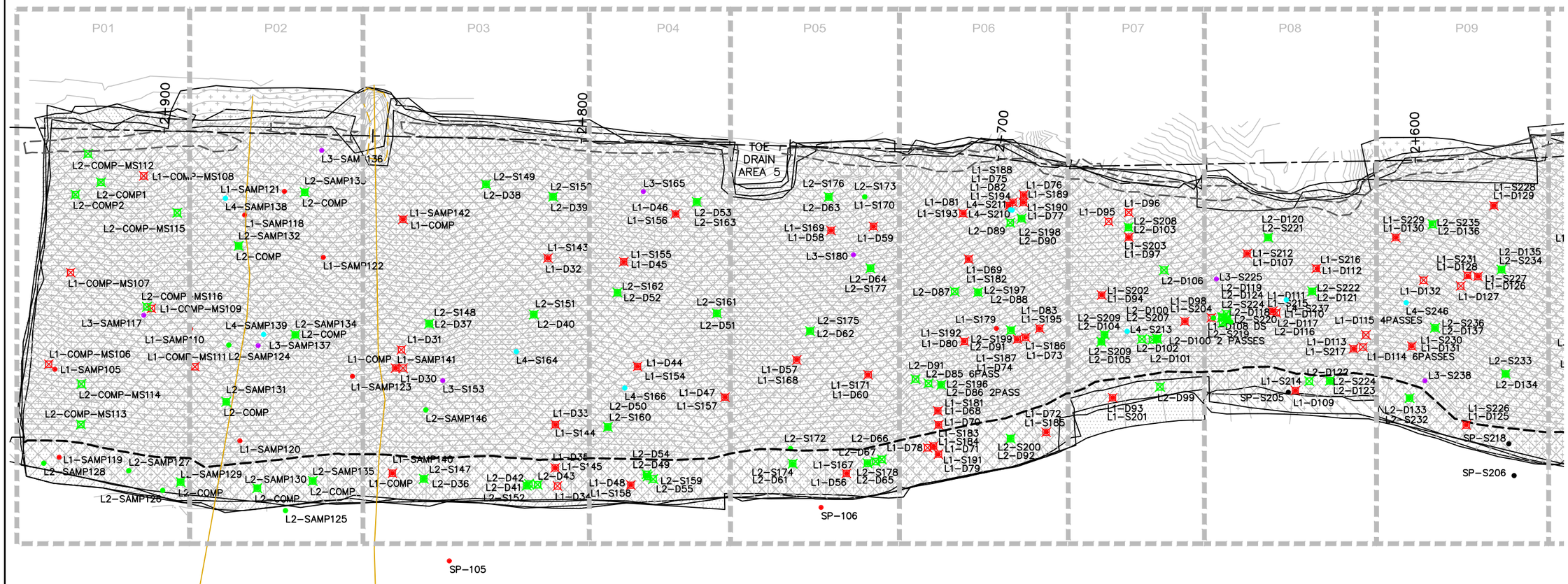
CCL LIFT 2
PLACED JULY 20, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 20, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 20, 2021 = 0m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.723 ha

Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 20, 2021) SCALE: 1:1000

SHEET SIZE – 11" X 17"

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

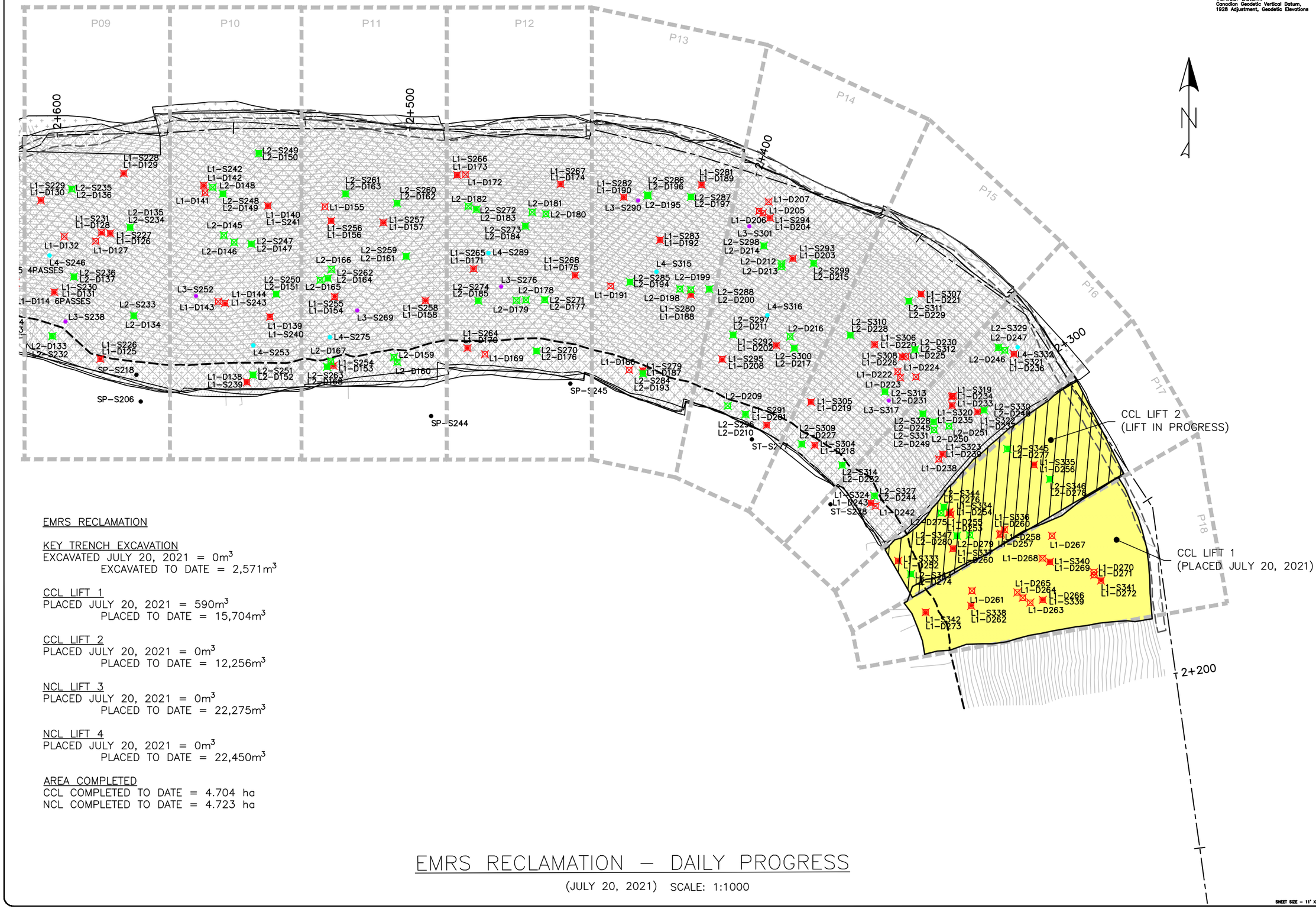
PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

PURPOSE
DAILY PROGRESS

DATE	JULY 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
D-1	19-1138	115



Horizontal Datum:
North American Datum 1983 (NAD83)
6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.
Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 20, 2021 = 0m^3
EXCAVATED TO DATE = 2,571m^3

CCL LIFT 1
PLACED JULY 20, 2021 = 590m^3
PLACED TO DATE = 15,704m^3

CCL LIFT 2
PLACED JULY 20, 2021 = 0m^3
PLACED TO DATE = 12,256m^3

NCL LIFT 3
PLACED JULY 20, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 20, 2021 = 0m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 4.704 ha
NCL COMPLETED TO DATE = 4.723 ha

EMRS RECLAMATION – DAILY PROGRESS

(JULY 20, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

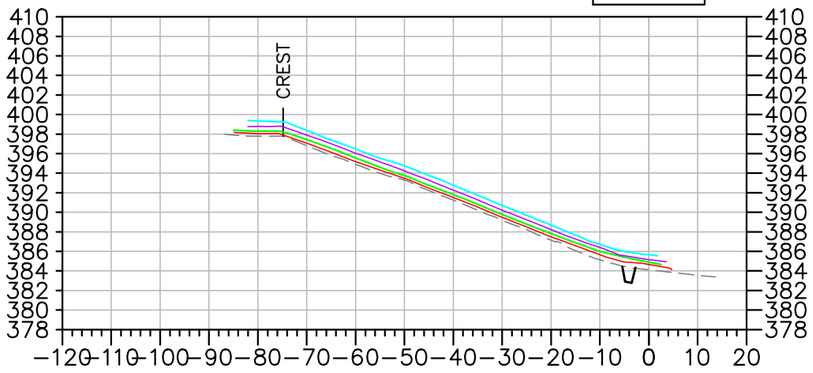
PURPOSE
DAILY PROGRESS

DATE	JULY 20, 2021
DRAWN	JTS
CHECKED	
SCALE	NTS
ISSUED FOR TENDER	
ISSUED FOR CONSTRUCTION	

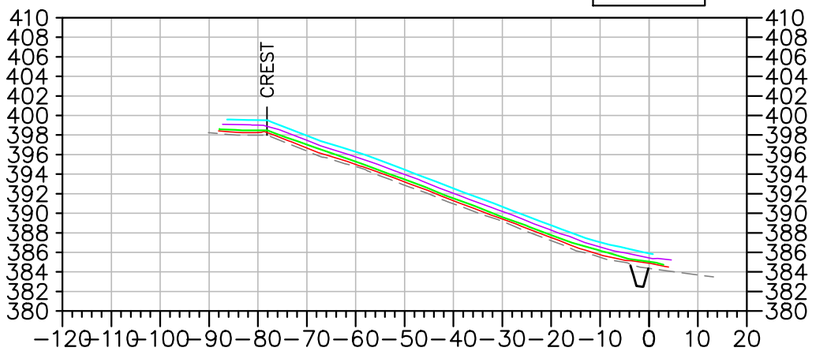
DWG. No.	PROJECT No.	PHASE No.
D-2	19-1138	115

SHEET SIZE - 11" X 17"

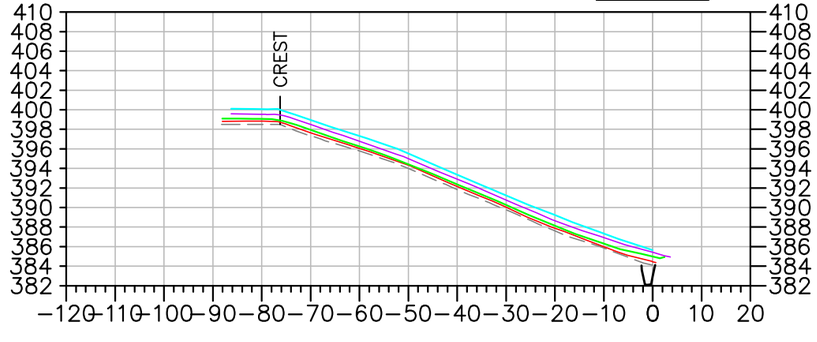
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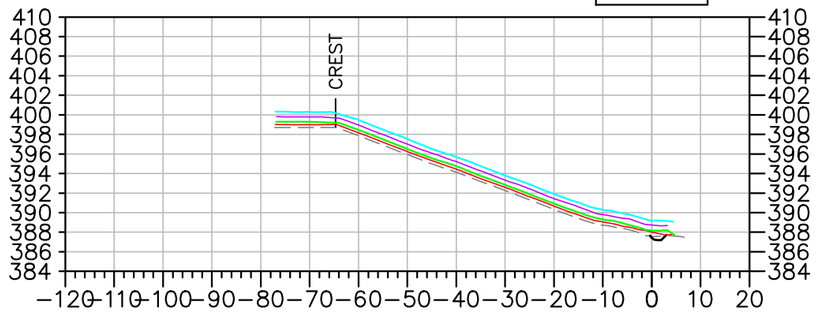
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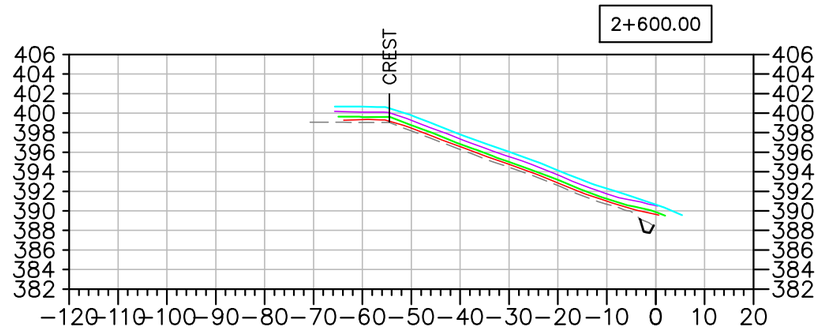
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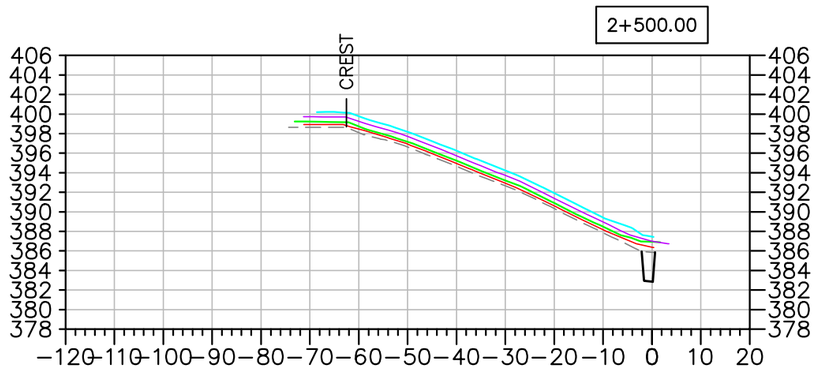
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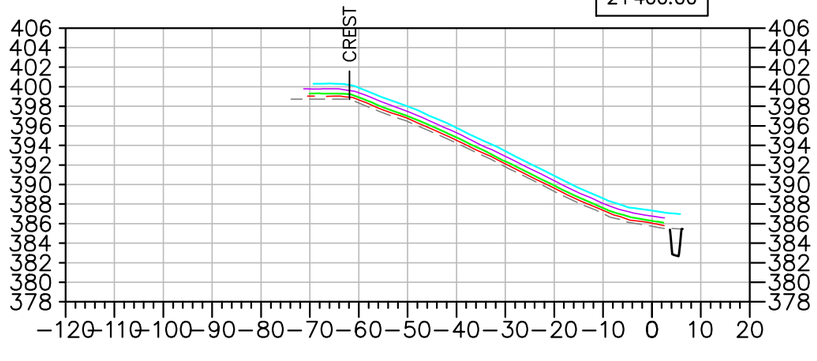
2+600.00



2+500.00



2+400.00



EMRS RECLAMATION – DAILY PROGRESS

(JULY 20, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

REVISIONS

DATE	REMARKS

LEGEND

- EXISTING ROCK STOCKPILE
- CCL LIFT #1
- CCL LIFT #2
- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH

Horizontal Datum:
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6 Degree Universal Transverse Mercator (UTM) Grid Coordinates, Zone 15.

Vertical Datum:
Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

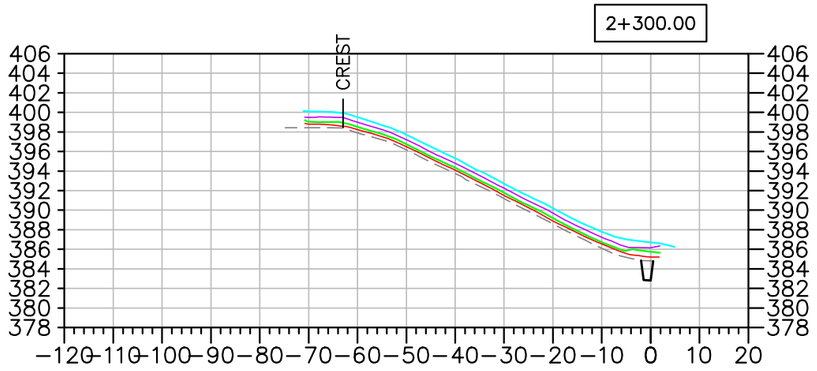
DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

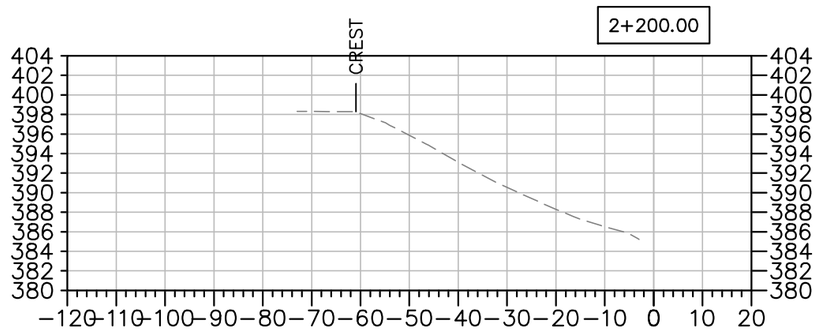
PURPOSE
DAILY PROGRESS

DATE	JULY 20, 2021
DRAWN	JTS
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ISSUED FOR CONSTRUCTION	

DWG. No.	PROJECT No.	PHASE No.
X-1	19-1138	115

SHEET SIZE – 11" X 17"





EMRS RECLAMATION – DAILY PROGRESS

(JULY 20, 2021) SCALE: N.T.S.

TULLOCH ENGINEERING

DESIGNER

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LEGEND

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PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION CROSS
SECTIONS

PURPOSE
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X–2	19–1138	115

SHEET SIZE – 11" X 17"

EMRS RECLAMATION

KEY TRENCH EXCAVATION
EXCAVATED JULY 21, 2021 = 0m^3
EXCAVATED TO DATE = 2,571m^3

CCL LIFT 1
PLACED JULY 21, 2021 = 0m^3
PLACED TO DATE = 15,704m^3

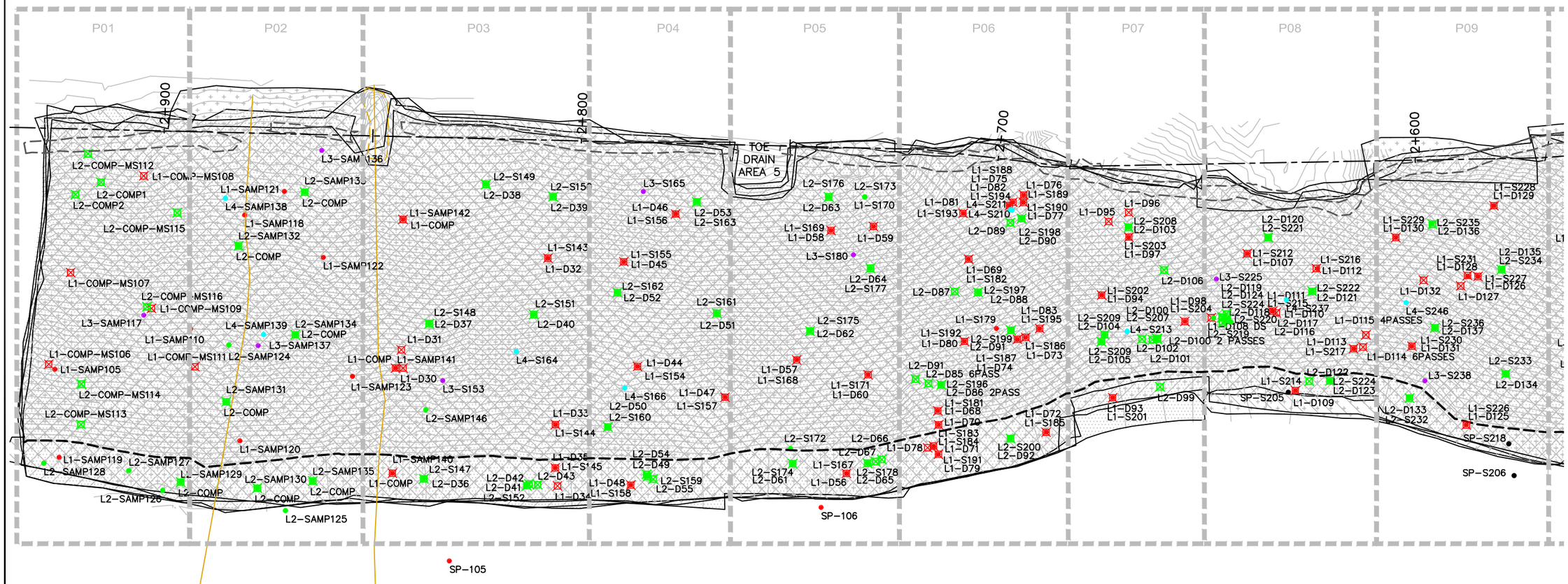
CCL LIFT 2
PLACED JULY 21, 2021 = 879m^3
PLACED TO DATE = 13,135m^3

NCL LIFT 3
PLACED JULY 21, 2021 = 0m^3
PLACED TO DATE = 22,275m^3

NCL LIFT 4
PLACED JULY 21, 2021 = 0m^3
PLACED TO DATE = 22,450m^3

AREA COMPLETED
CCL COMPLETED TO DATE = 5.089 ha
NCL COMPLETED TO DATE = 4.723 ha

Horizontal Datum:
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Canadian Geodetic Vertical Datum, 1928 Adjustment, Geodetic Elevations



EMRS RECLAMATION – DAILY PROGRESS

(JULY 21, 2021) SCALE: 1:1000

TULLOCH ENGINEERING

DESIGNER

REVISIONS

	DATE	REMARKS

LEGEND

- CCL LIFT #1
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- NCL LIFT #3
- NCL LIFT #4
- KEY TRENCH
- LIFT #1 COMP. TEST SAMPLE
- LIFT #2 COMP. TEST SAMPLE
- LIFT #3 COMP. TEST SAMPLE
- LIFT #4 COMP. TEST SAMPLE
- VWP WIRE
- VWP WIRE BURRITO
- PLACED TODAY
- CCL LIFT 2 PLACED TODAY

PROJECT TITLE
NEW GOLD INC
RAINY RIVER
PROJECT

DRAWING TITLE
2021 EMRS
RECLAMATION

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D-1	19-1138	115

SHEET SIZE - 11" X 17"