MOUNT POLLEY MINING CORPORATION

TECHNICAL REPORT ON

MULTI-ELECTRODE RESISTIVITY AND

SEISMIC REFRACTION SURVEYS

MOUNT POLLEY TAILINGS DAM PROJECT

LIKELY, B.C.

by

Claudia Krumbiegel, M.Sc.

Cliff Candy, P.Geo.

October, 2014 **PROJECT FGI-1370**

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CONTENTS

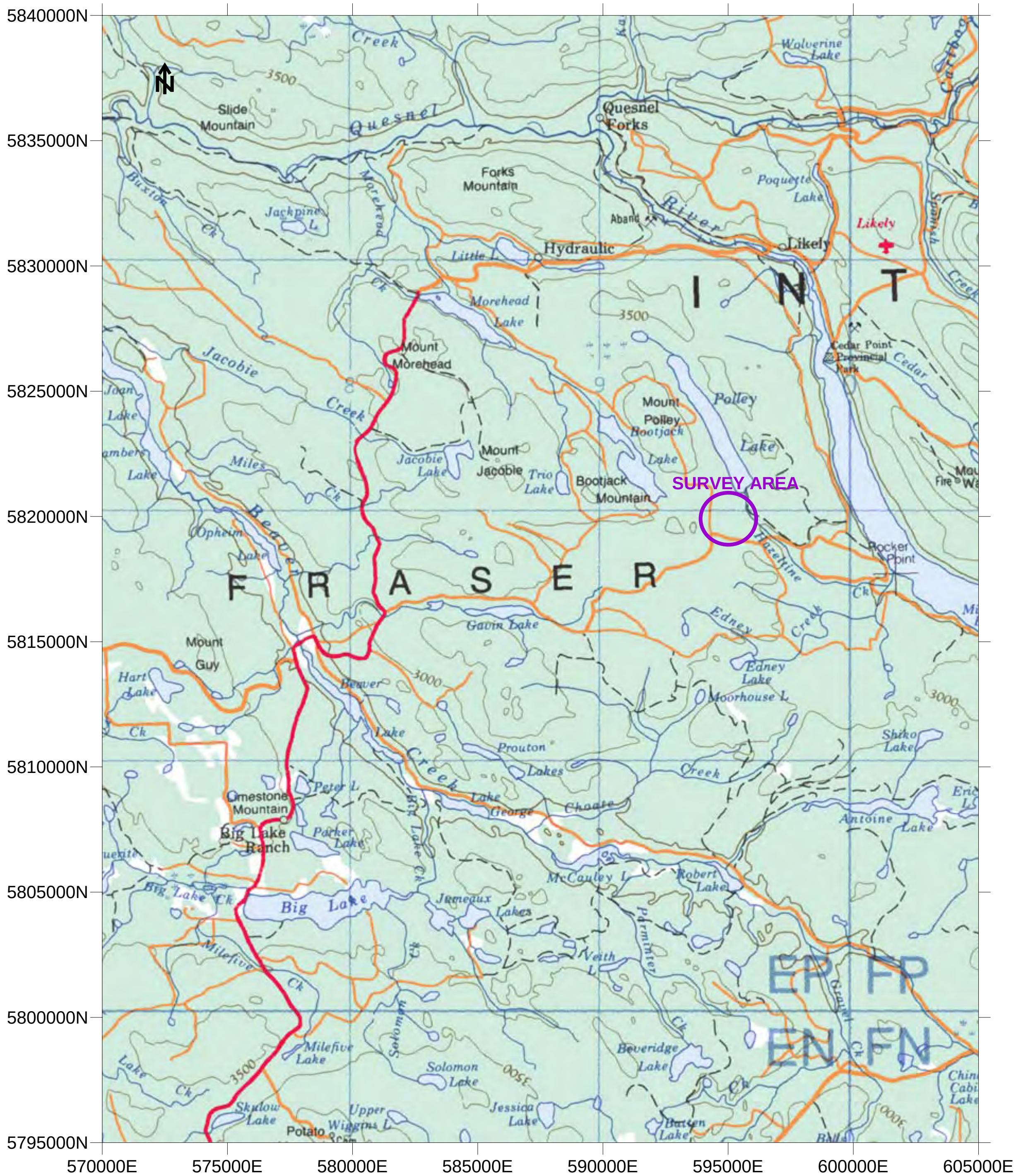
ILLUSTRATIONS

1. INTRODUCTION

In the periods September 16 to 19 and September 22 to 25, 2015 Frontier Geosciences Inc. carried out a resistivity imaging investigation for Mount Polley Mining Corporation at the Mount Polley Mine Site. This work was undertaken together with a program of seismic refraction investigations, in the periods October 3 to 5 and October 11 to 13, 2014. A Survey Location Plan of the area is shown at a scale of 1:250,000 in Figure 1.

The purpose of the survey was to assist in determining geological conditions in close proximity to the Mount Polley Tailings Pond Breach which occurred on August 4, 2014. The site area is located approximately 11 kilometres south of Likely, B.C. A detailed Site Plan of the area is illustrated at 1:2,500 scale in Figure 2, in the Appendix. A grid of eight resistivity lines was surveyed extending north and west to east of the breach. Additionally, six seismic refraction lines, partially overlapping the resistivity, were carried out.

A total of approximately 3.0 kilometres of multi-electrode resistivity imaging and 1.9 kilometres of seismic refraction surveying on sixteen separate seismic spreads was conducted.



0	2.5	5	7.5	10

KILOMETRES

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY TAILINGS DAM PROJECT

GEOPHYSICAL SURVEY

SURVEY LOCATION PLAN

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:250,000	FIG. 1

2. THE MULTI-ELECTRODE RESISTIVITY SURVEY

2.1 Equipment

The purpose of electrical surveying is to determine the subsurface resistivity distribution by making detailed measurements along survey lines laid out on the ground surface. From these measurements, the true resistivity of the subsurface can be estimated. Ground resistivity is related to various geological parameters such as the sulphide, clay mineral and fluid content, porosity and degree of water saturation in weathered material layering and the underlying materials.

The surface multi-electrode imaging resistivity/IP survey was carried out using the Frontier Geosciences Inc. Resistivity/IP system. The instrument has eight receiver channels, allowing measurements on multiple electrodes to proceed simultaneously, which significantly speeds up the data collection process allowing dense and detailed resistivity and IP profiles to be obtained.

During multi-electrode surveying, a central switching system is used to address the array of electrodes. This switching is accomplished using a multiplexer that directs the signals from any of the field electrodes to the eight input channels of the receiver. Similarly, a system of high voltage relays in the central switching system allows the transmitter to utilise any pair of electrodes for current injection. By means of a command file programmed in the receiver, electrode arrays including Schlumberger, Wenner, dipole-dipole, pole-dipole and pole-pole, or multiple combinations of arrays, may be chosen for execution by the system.

The high resolution, full waveform receiver records the entire waveform for eight channels simultaneously. With the full 24 bit waveform available for processing, self-potential drift, transient effects, and several other noise sources are accurately identified and removed from the signal. This results in full waveform data acquisition, providing high resolution information in lower signal level situations such as higher current electrode spacings and corresponding deeper penetration in a dipole-dipole survey, or in geologic settings with unfavourable signal-to-noise levels.

In addition to resistivity measurements, Induced Polarisation readings were collected simultaneously. This measurement records the degree to which the earth materials tend to retain an apparent voltage after removal of the transmitted voltage. The effect is termed Induced Polarisation (IP) and has its origins in the electrolytic nature of groundwater and the conductive nature of certain minerals. The system measures the IP effect in the time domain by determining the residual decay voltage after the current is switched off. The time domain unit of measurement of chargeability is milliseconds. The IP effect is caused by two different mechanisms: membrane and electrode polarisation effects. The membrane polarisation effect is usually created by clay minerals present in the earth. The electrode polarisation effect is largely caused by conductive materials such as sulphides in the rock and (usually) to a lesser extent by graphite. This effect is the basis for application of the IP method in surveys for the detection of metallic minerals, such as disseminated sulphides.

2.2 Survey Procedure

Cable layouts for each system were identical, consisting of six 70-metre receiver cables laid out along the survey line and connected to the multiplexing switchbox controller. The switchbox controller allows the electrodes to be in either standby, current or measuring potential modes. Each individual cable consists of 14 electrode takeouts at a spacing of 5 metres, with a full array covering approximately 420 metres.

The system was configured to permit two different data acquisition procedures. The first procedure, typically the initial array of a new line, collects data files encompassing the full sequence of measurements. After the full array reading, three cables were detached from the front of the receiver line, and three cables were attached to the front of the receiver line, effectively shifting the array 210 metres along the survey line by ‘rolling’ the array. The computer system was shifted to the same relative position within the rolled array, and the process repeated. Data quality was monitored in the field through a full-panel display of received waveforms. If the data was suspect, individual channels could be displayed at enhanced scale for closer inspection and field processing.

2.3 Data Processing

The data were downloaded from the instruments and converted into the input file format for the cell-based inversion method developed by M. H. Loke and referred to as the RES2DINV program. This software utilises a finite difference modelling approach to calculate the resistivity values that best fit the observed data. The model parameters are the resistivity values of the model cell, while the data is the measured apparent resistivity and apparent Induced Polarisation values. The mathematical link between the model parameters and the model response is provided by the finite-difference or finite-element methods. In all optimisation methods, an initial model is modified in an iterative manner so that the difference between the model response and the data values is reduced.

To increase the accuracy of the modelling process, the elevation of each electrode was incorporated into the input data file.

3. THE SEISMIC REFRACTION SURVEY METHOD

3.1 Equipment

The seismic refraction investigation was carried out using a Geometrics, Geode, 24 channel, signal enhancement seismograph and Oyo Geo Space, 10 Hz geophones. Geophone intervals along the multicored seismic cables were maintained at 5 metres in order to produce high resolution data on subsurface layering and the basal bedrock surface. Electrical blasting caps in the small explosive charges used for energy input were detonated with a high voltage, capacitor type blaster.

3.2 Survey Procedure

For each spread, the seismic cable was stretched out in a straight line and the geophones implanted. Six separate ‘shots’ were then initiated: one at either end of the geophone array, two at intermediate locations along the seismic cable, and one off each end of the line to ensure adequate coverage of the basal layer. The shots were detonated individually and arrival times for each geophone were recorded digitally in the seismograph. Data recorded during field surveying operations was generally of good to excellent quality.

Throughout the survey, notes were recorded regarding seismic line positions in relation to topographic and geological features, and survey stations in the area. Relative elevations on the seismic lines were recorded by chain and inclinometer with absolute elevations provided by Mount Polley Mine Corporation.

3.3 Data Processing Method

The seismic profiles were prepared using the method of differences technique. This method utilises the time taken to travel to a geophone from shotpoints located to either side of the geophone. Using the total time, a small vertical time is computed which represents the time taken to travel from the refractor up to the ground surface. This time is then multiplied by the velocity of each overburden layer to obtain the thickness of each layer at that point.

4. LIMITATIONS

The multi-electrode resistivity / IP method results in repeatable measurements of the geoelectric section. The methods are successful providing adequate contrasts exist in the subsurface in electrical resistivity and chargeability between distinct geological materials. Conductors identified in resistivity surveying are diverse and depending on geological settings, may include mineralisation, graphite, argillite, shear or fault zones, clay beds, marl, saturated materials, clay shale, clay till, mineralised leachate and zones of salt water intrusion. Electrically resistive materials include but are not limited to sand and gravel, dry soils, glacial moraine, coarse glacial till, permafrost, underground voids and competent bedrock. Also affecting resistivity are the degree of saturation of materials and the porosity, the concentration of dissolved electrolytes, the temperature and the amount and composition of colloids. With few exceptions, no unique resistivity value defines a specific geological material.

Sources of IP response include almost all the sulphides, oxides such as magnetite, graphite and clay materials. Penetration depths may be affected by the presence of highly conductive surficial materials that may partially mask deeper geological layering. In addition, the resolution of the resistivity and IP methods decreases exponentially with depth. Given the diffuse nature of the methods, resolution is inherently poorer at depth. The survey results can also be influenced by electrode coupling, presence of noise such as SP, capacitive coupling, electromagnetic coupling and the presence of power lines.

In the modelling process, a number of limitations constrain modelling of subsurface resistivity and chargeability. For instance, due to non-uniqueness, more than one model can produce the same response that agrees with the observed data. The resulting model thus depends to a significant extent on the constraints used and will closely approximate the true subsurface conditions only if the constraints closely correspond to actual subsurface conditions.

The depths to subsurface boundaries derived from seismic refraction surveys are generally accepted as accurate to within ten percent of the true depths to the boundaries. In some cases, unusual geological conditions may produce false or misleading data points with the result that computed depths to subsurface boundaries may be less accurate. In seismic refraction surveying difficulties with a 'hidden layer' or a velocity inversion may produce erroneous depths. The first condition is caused by the inability to detect the existence of a layer because of insufficient velocity contrasts or layer thicknesses. A velocity inversion exists when an underlying layer has a lower velocity than the layer directly above it.

The information in this report is based upon geophysical measurements and field procedures and our interpretation of the data. The results are interpretive in nature and are considered to be a reasonably accurate presentation of existing subsurface conditions within the limitations of the methods employed.

For: Frontier Geosciences Inc.

C. C

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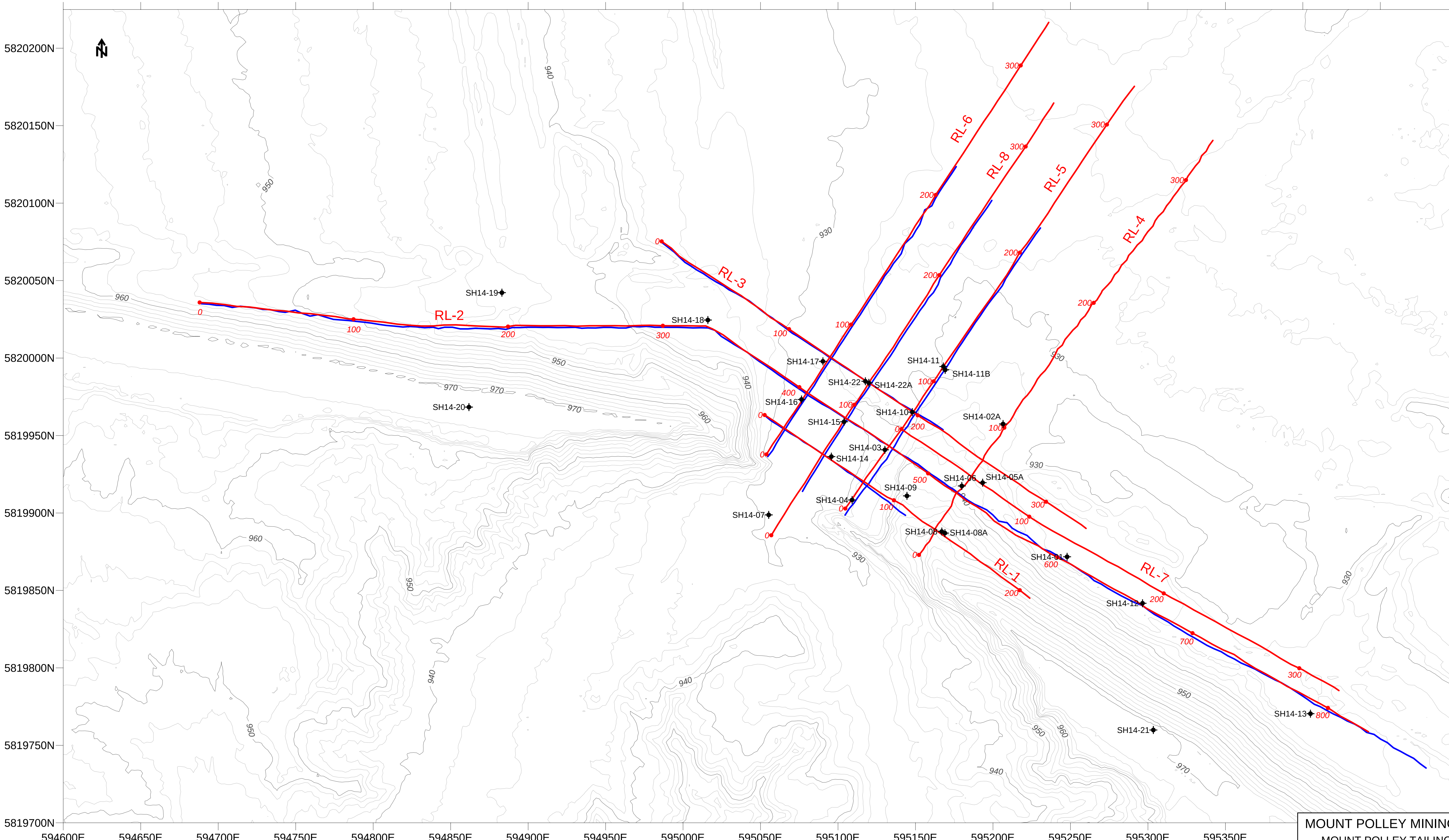
PROFESSIONAL PROVINCE OF C. E. CANDY BRITISH COLUMBIA GEOSCIENTIST

Jan 19, 2015



100 RESISTIVITY LINE AND STATION

SEISMIC REFRACTION LINE

SH14-01 BOREHOLE

0 25 50 75 100

METRES

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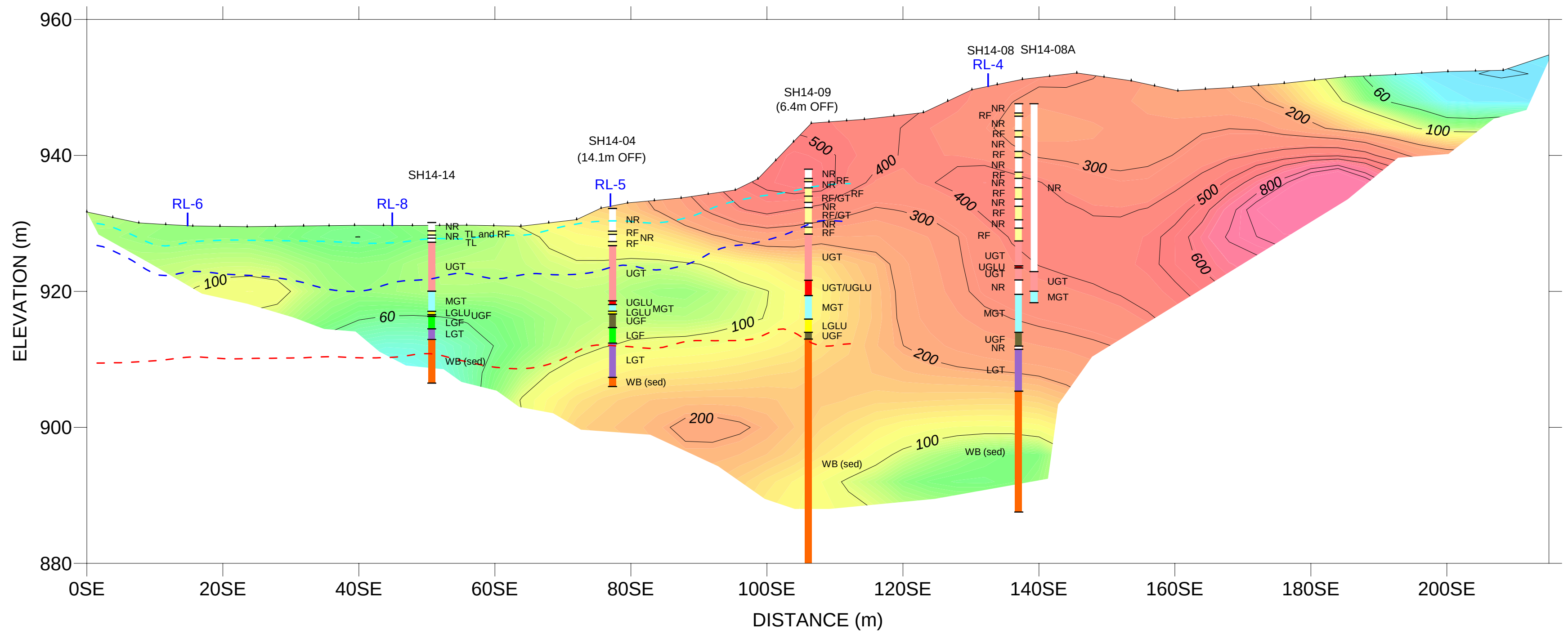
GEOPHYSICAL SURVEY

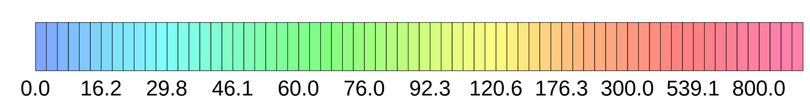
SITE PLAN

FRONTIER GEOSCIENCES INC.

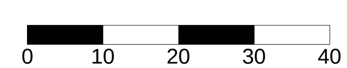
DATE: OCT. 2014	SCALE 1:2,500	FIG. 2

RESISTIVITY PROFILE





RESISTIVITY (ohm-m)



METRES

SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

- - - - - FIRST INTERMEDIATE SURFACE

- - - - - SECOND INTERMEDIATE SURFACE

- - - - - BEDROCK SURFACE

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RESISTIVITY/CHARGEABILITY SURVEY

RL-1 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 3

SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
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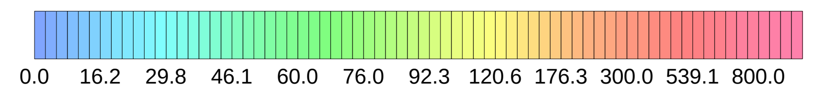
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE



RESISTIVITY (ohm-m)

0 10 20 30 40

METRES

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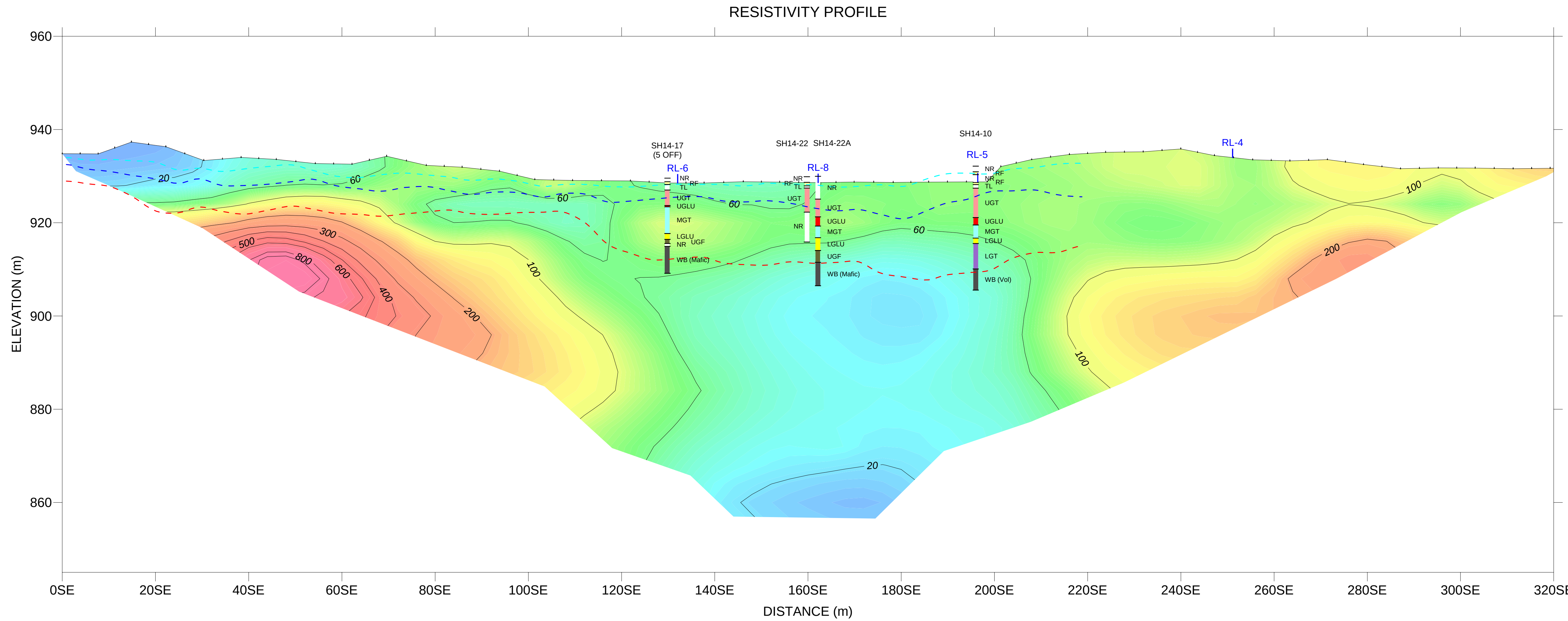
RESISTIVITY/CHARGEABILITY SURVEY

RL-2 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 4



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

0.0 16.2 29.8 46.1 60.0 76.0 92.3 120.6 176.3 300.0 539.1 800.0

RESISTIVITY (ohm-m)

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION

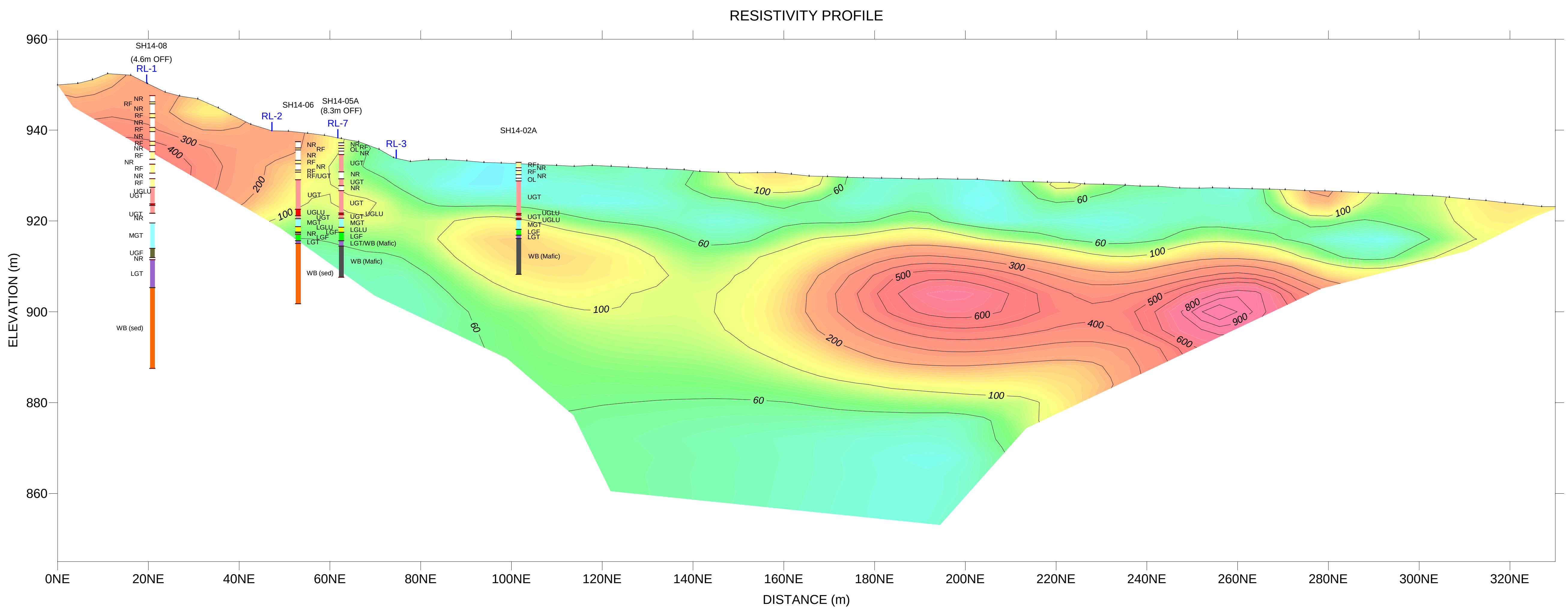
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-3 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 5



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
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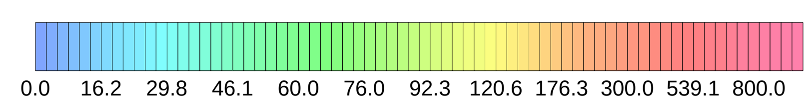


RESISTIVITY (ohm-m)

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION

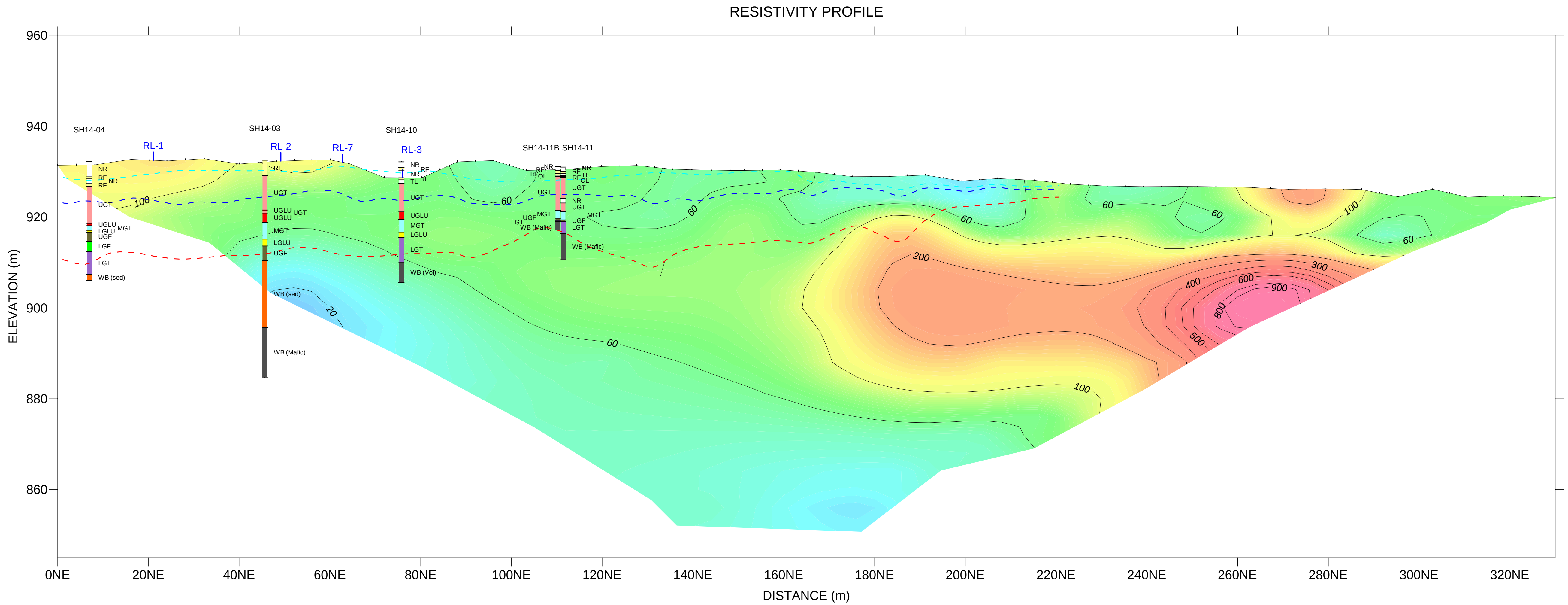
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-4 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 6



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
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LGT	Lower Glacial Till
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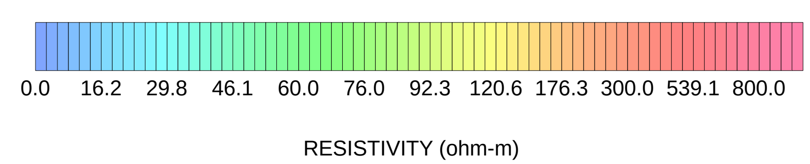
WB (Vol)	Weathered Bedrock (Volcanics)

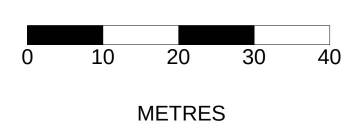
SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE





MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY TAILINGS DAM PROJECT

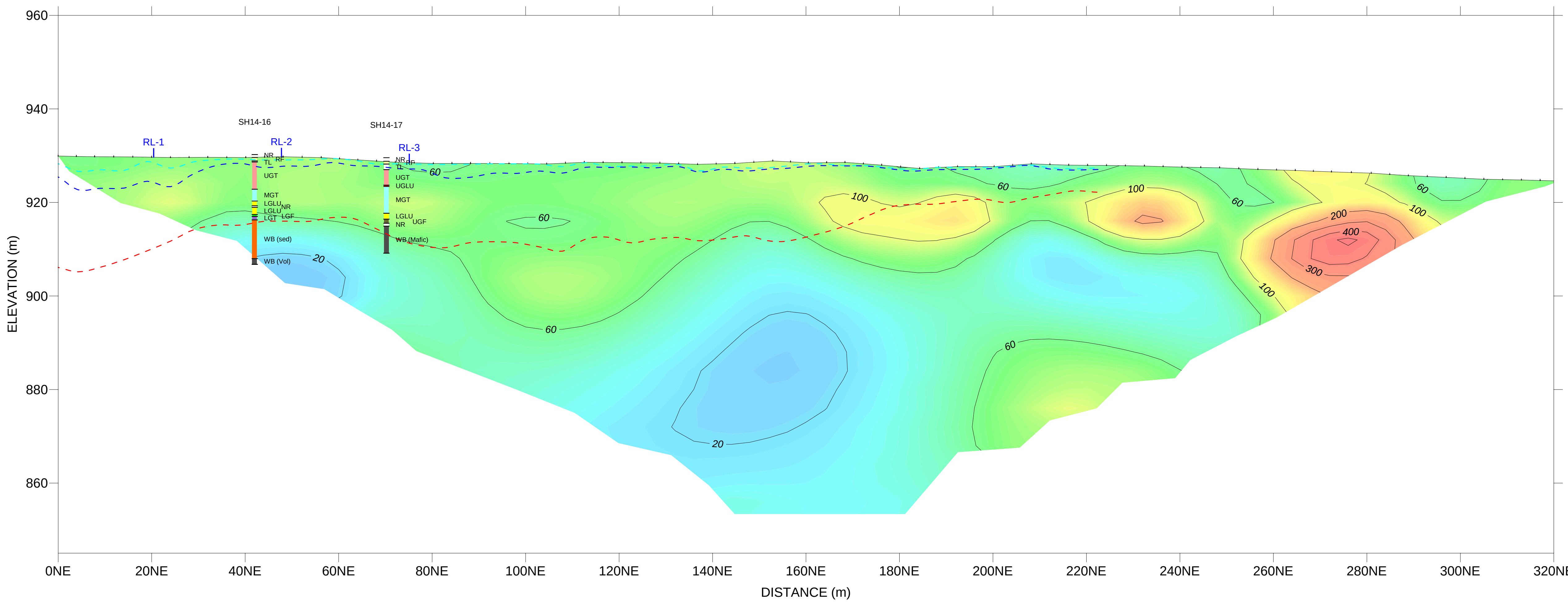
RESISTIVITY/CHARGEABILITY SURVEY

RL-5 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 7

RESISTIVITY PROFILE



SONIC DRILLING SIMPLIFIED LOG

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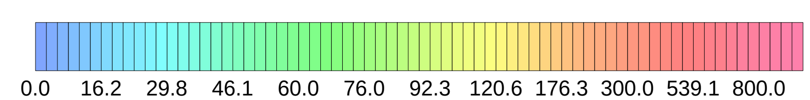
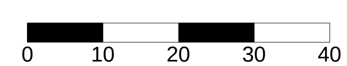


RESISTIVITY (ohm-m)



METRES

SEISMIC REFRACTION INTERPRETATION

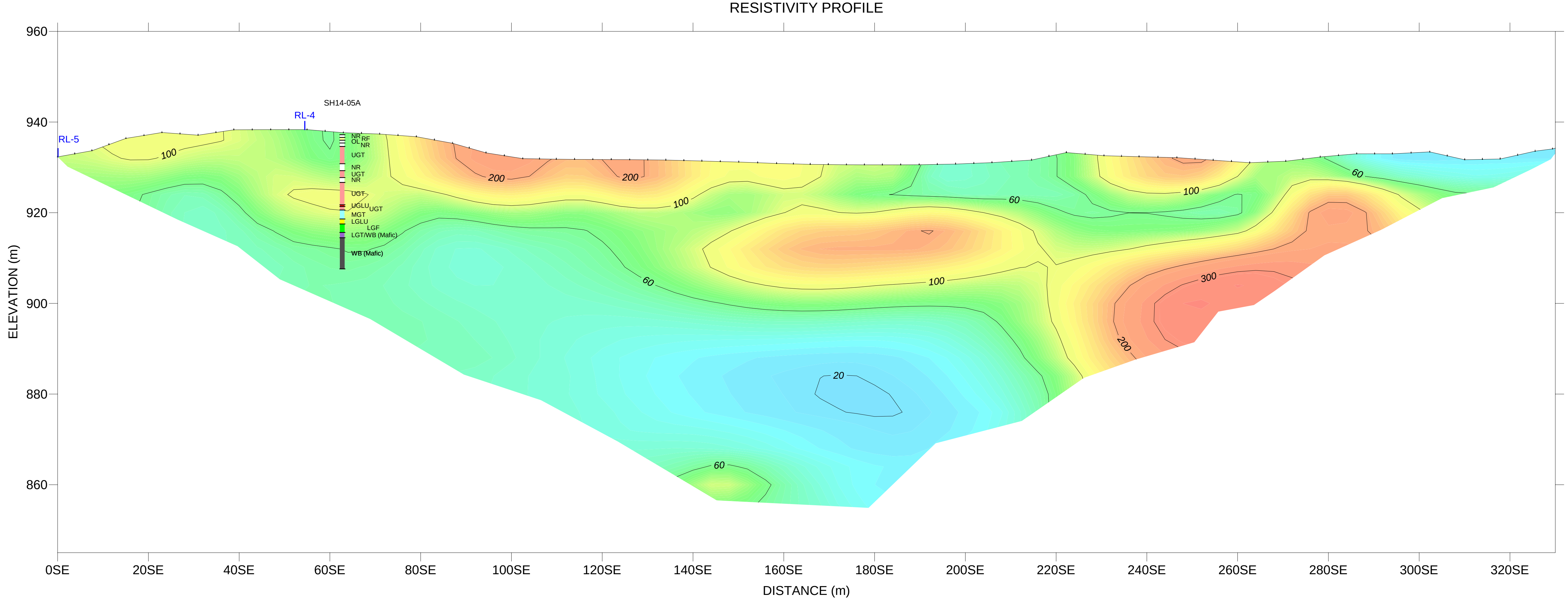
- - - - - FIRST INTERMEDIATE SURFACE

- - - - - SECOND INTERMEDIATE SURFACE

- - - - - BEDROCK SURFACE

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY TAILINGS DAM PROJECT		
RESISTIVITY/CHARGEABILITY SURVEY		
RL-6 INVERTED RESISTIVITY PROFILE		
FRONTIER GEOSCIENCES INC.		
DATE: OCT. 2014	SCALE 1:1,000	FIG. 8

RESISTIVITY PROFILE



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
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UGLU	Upper Glaciolacustrine
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LGT	Lower Glacial Till
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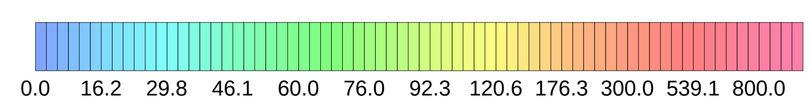
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)



RESISTIVITY (ohm-m)

0 10 20 30 40

METRES

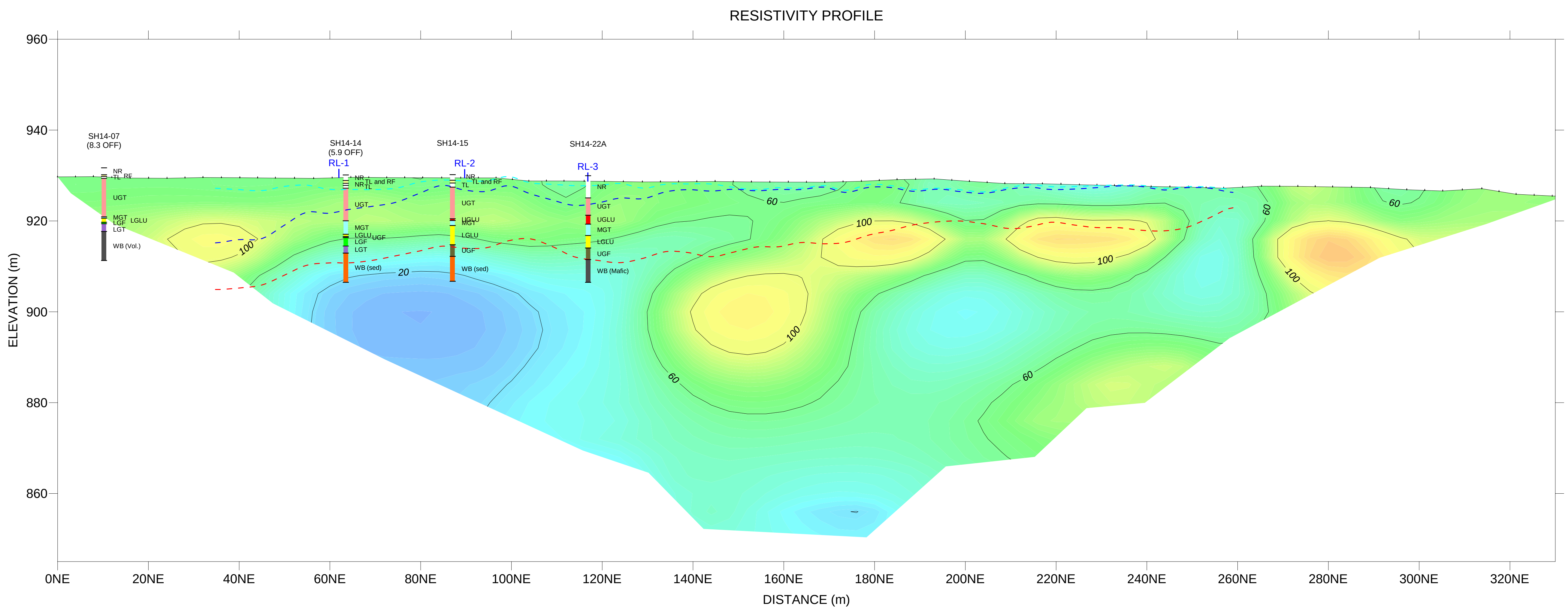
MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-7 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 9



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
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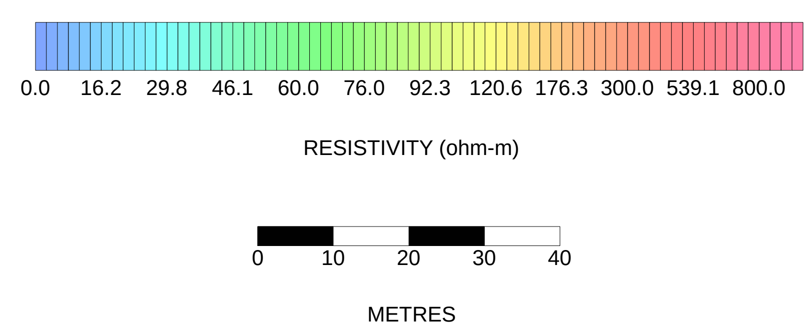
SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE



MOUNT POLLEY MINING CORPORATION

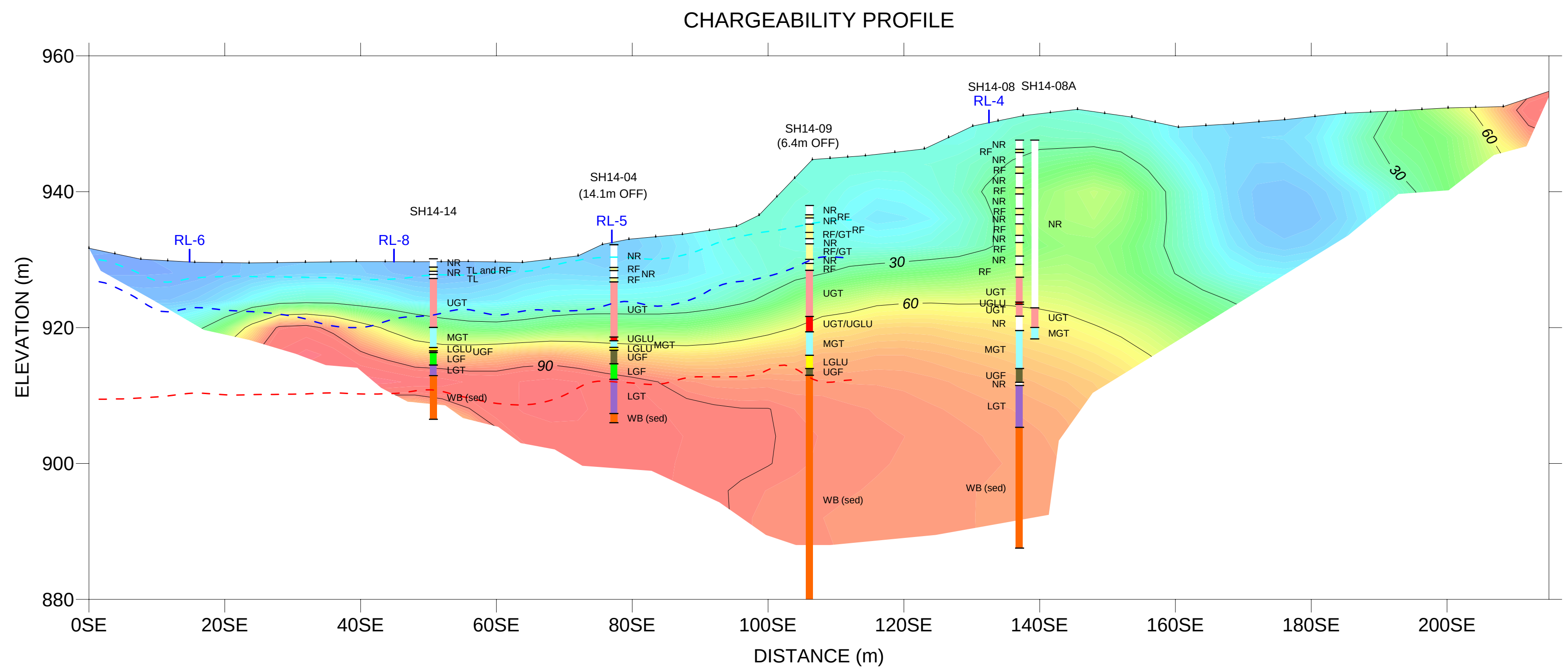
MOUNT POLLEY TAILINGS DAM PROJECT

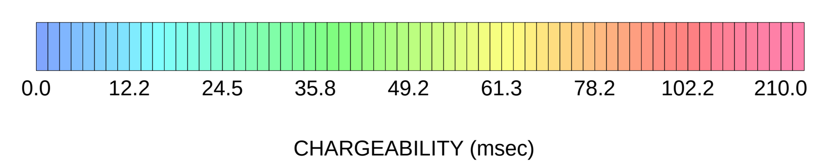
RESISTIVITY/CHARGEABILITY SURVEY

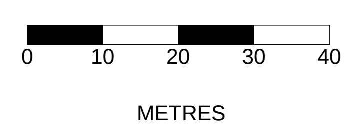
RL-8 INVERTED
RESISTIVITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 10







SONIC DRILLING SIMPLIFIED LOG

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WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

MOUNT POLLEY MINING CORPORATION

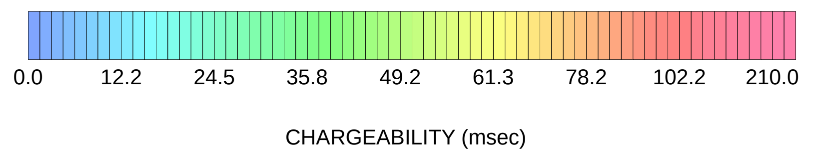
MOUNT POLLEY TAILINGS DAM PROJECT

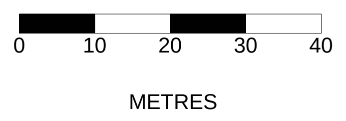
RESISTIVITY/CHARGEABILITY SURVEY

RL-1 INVERTED CHARGEABILITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 11





SONIC DRILLING SIMPLIFIED LOG

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SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE
SECOND INTERMEDIATE SURFACE
BEDROCK SURFACE

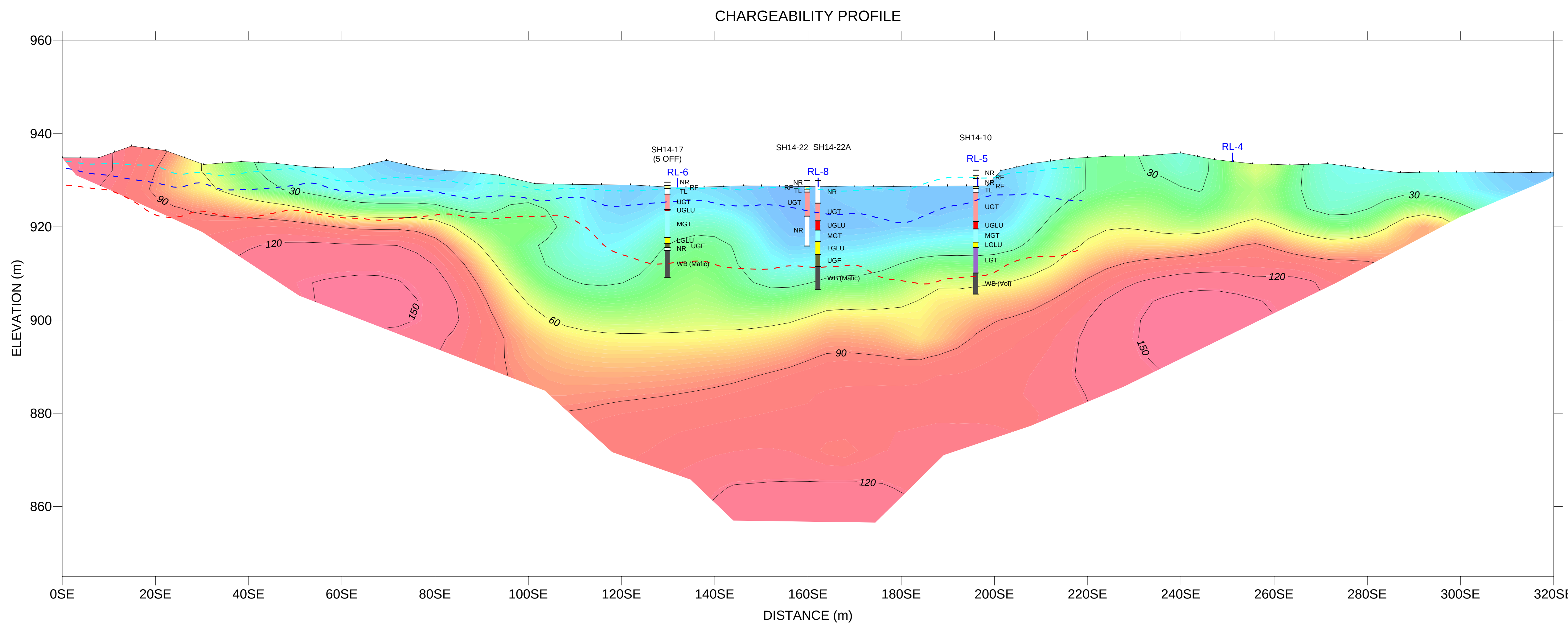
MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-2 INVERTED
CHARGEABILITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 12



SONIC DRILLING SIMPLIFIED LOG

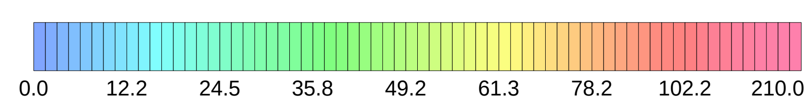
NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

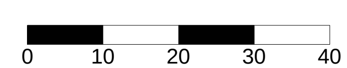
FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

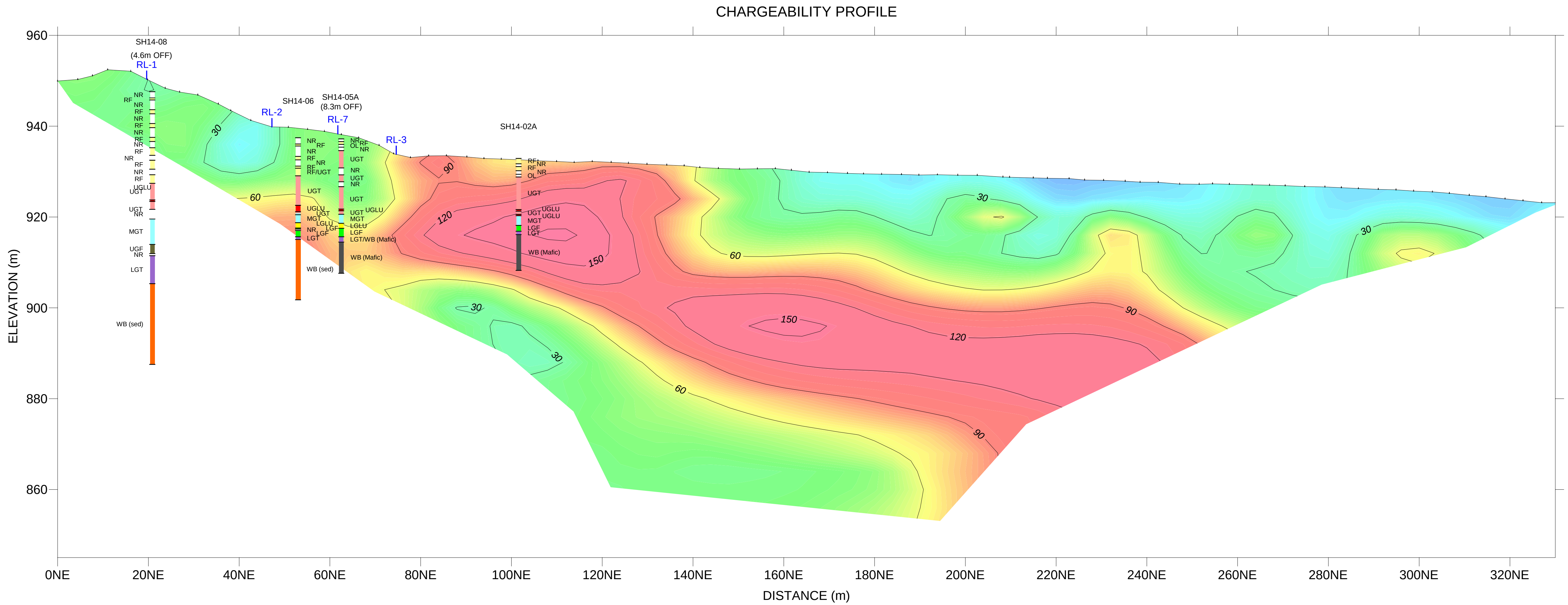


CHARGEABILITY (msec)



METRES

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY TAILINGS DAM PROJECT		
RESISTIVITY/CHARGEABILITY SURVEY		
RL-3 INVERTED CHARGEABILITY PROFILE		
FRONTIER GEOSCIENCES INC.		
DATE: OCT. 2014	SCALE 1:1,000	FIG. 13



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

0.0 12.2 24.5 35.8 49.2 61.3 78.2 102.2 210.0

CHARGEABILITY (msec)

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION

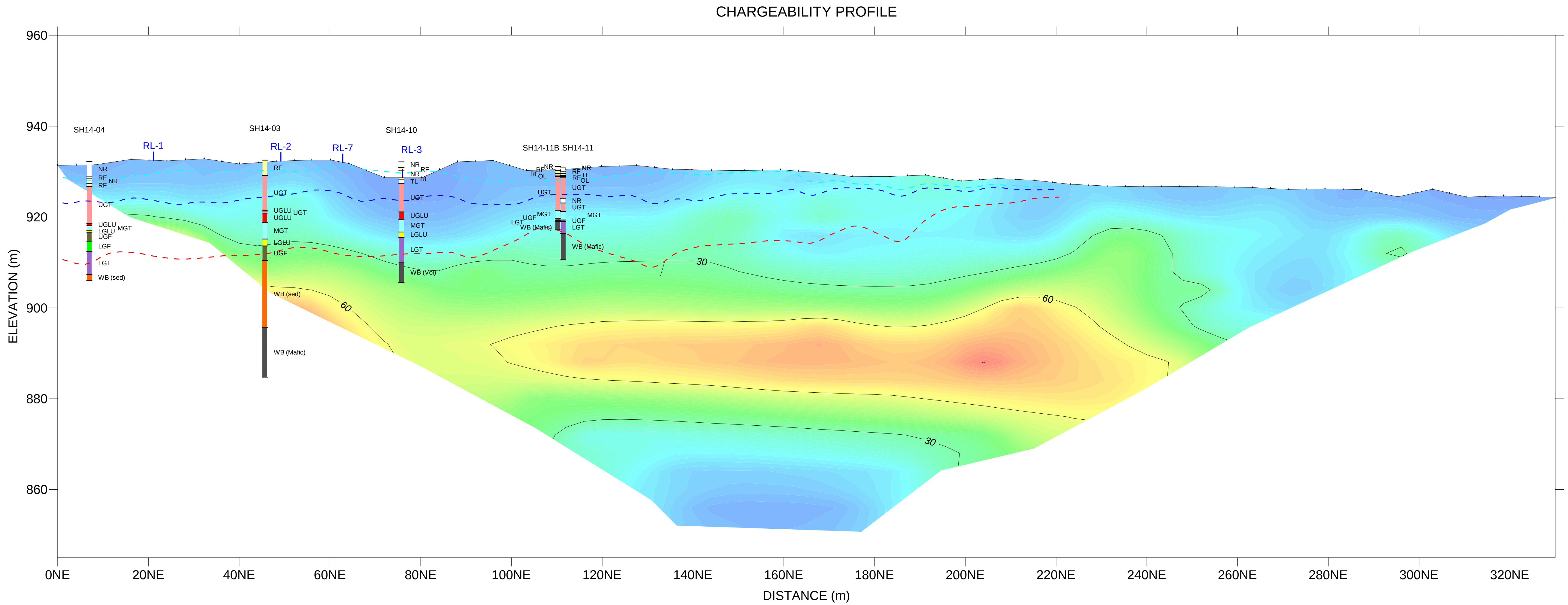
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-4 INVERTED CHARGEABILITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 14



SONIC DRILLING SIMPLIFIED LOG

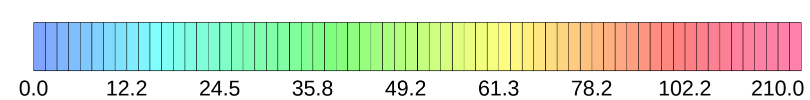
NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

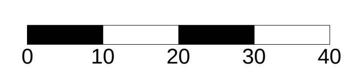
FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE



CHARGEABILITY (msec)



METRES

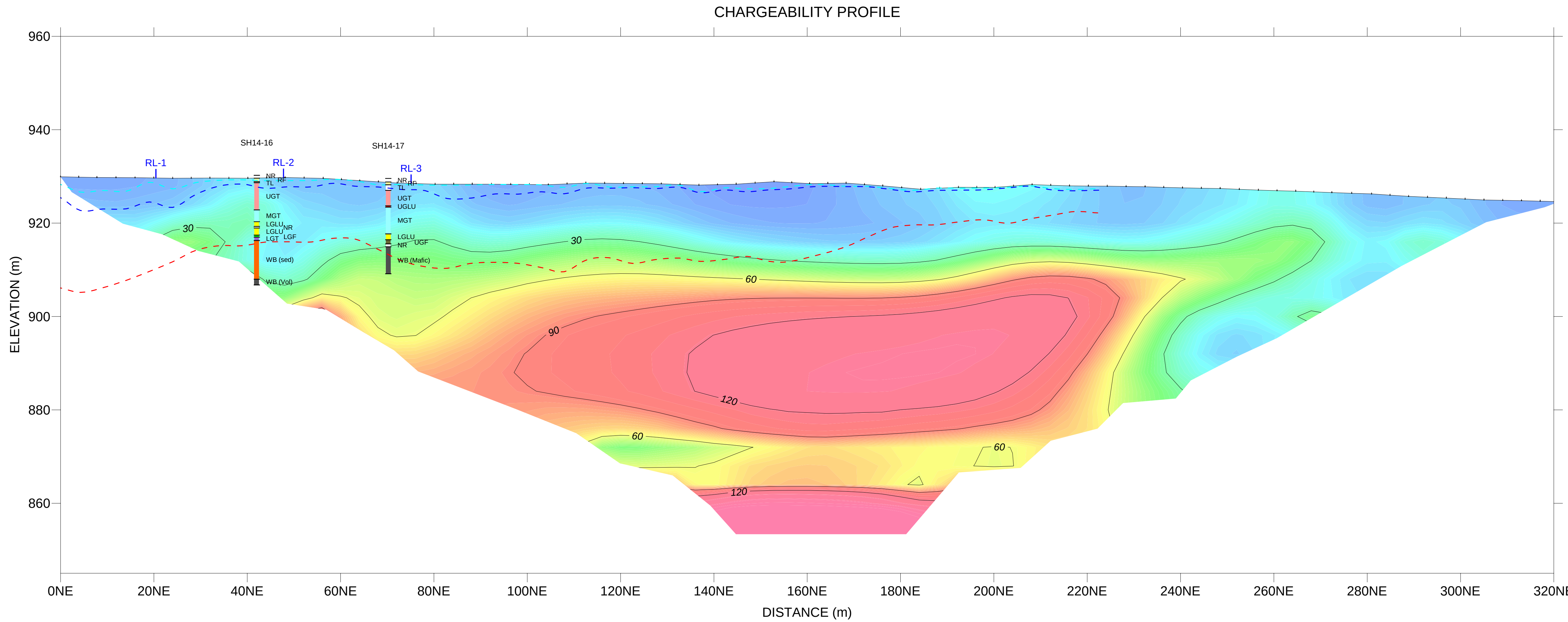
MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-5 INVERTED CHARGEABILITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 15



SONIC DRILLING SIMPLIFIED LOG

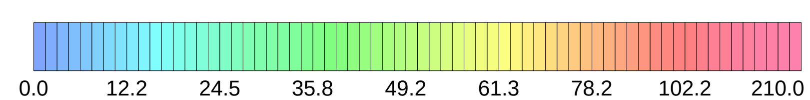
NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

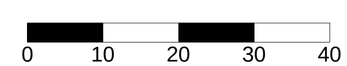
FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE



CHARGEABILITY (msec)



METRES

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY TAILINGS DAM PROJECT

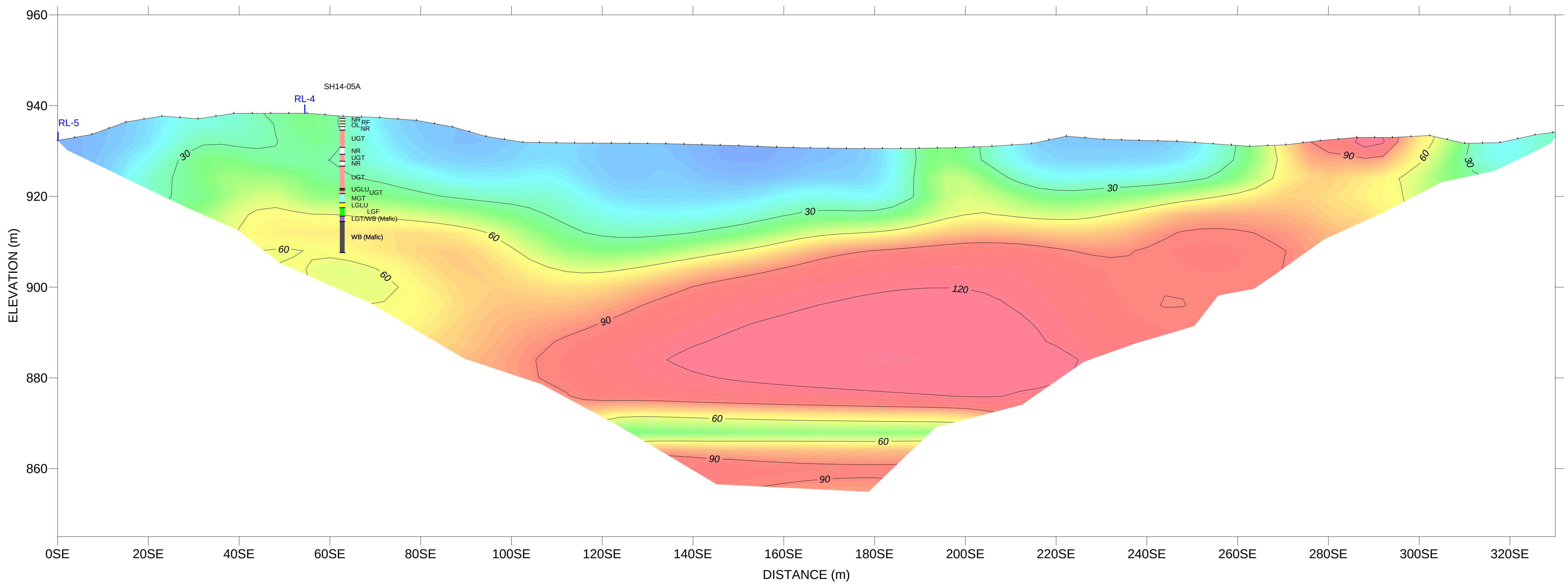
RESISTIVITY/CHARGEABILITY SURVEY

RL-6 INVERTED
CHARGEABILITY PROFILE

FRONTIER GEOSCIENCES INC.

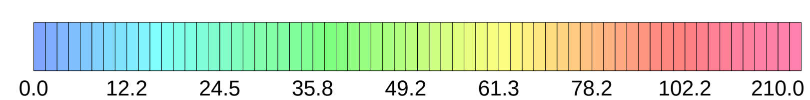
DATE: OCT. 2014	SCALE 1:1,000	FIG. 16

CHARGEABILITY PROFILE

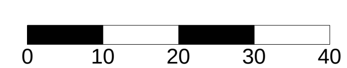


SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)



CHARGEABILITY (msec)



METRES

MOUNT POLLEY MINING CORPORATION

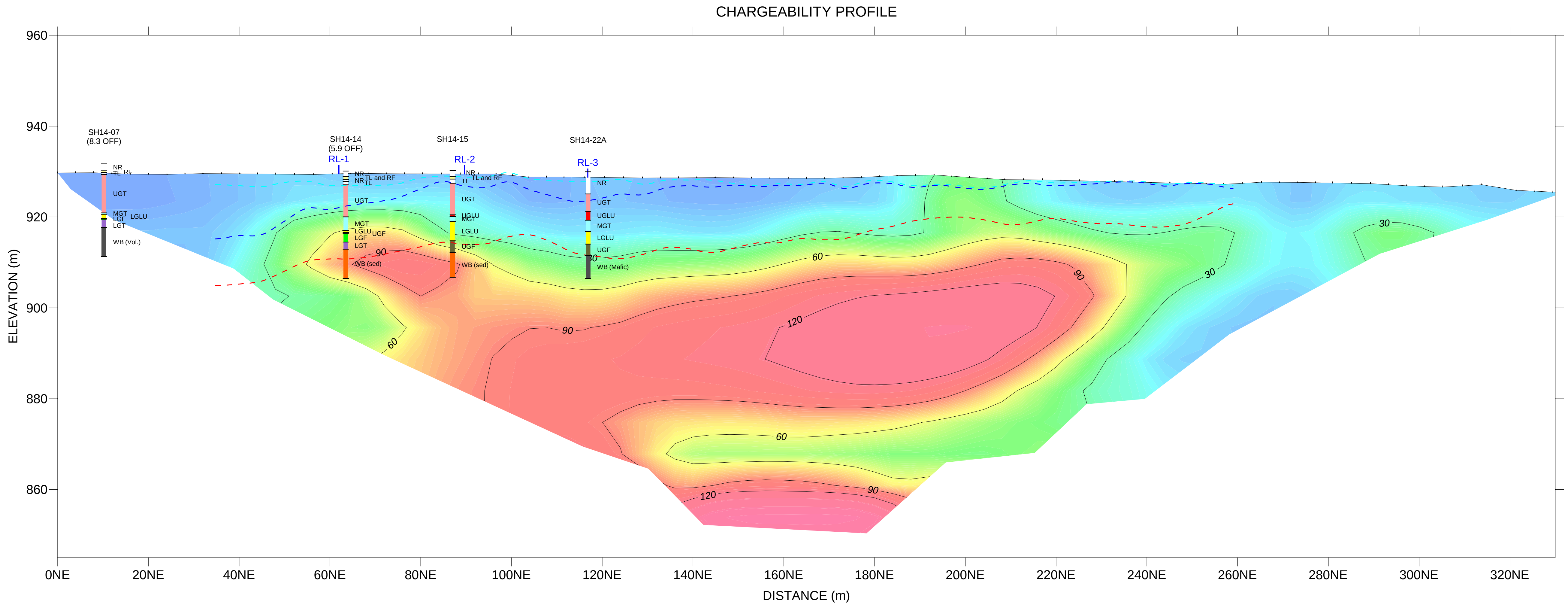
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-7 INVERTED CHARGEABILITY PROFILE

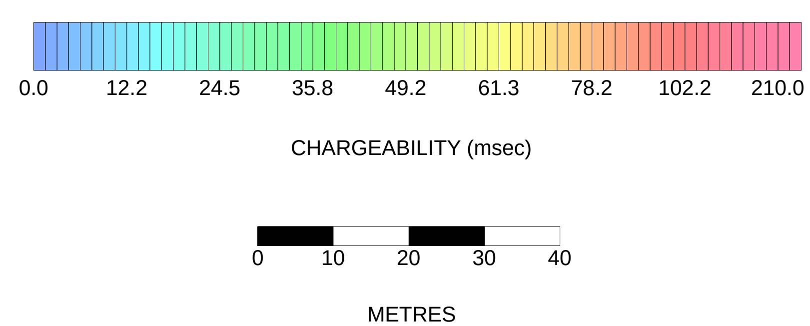
FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 17



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)



SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

MOUNT POLLEY MINING CORPORATION

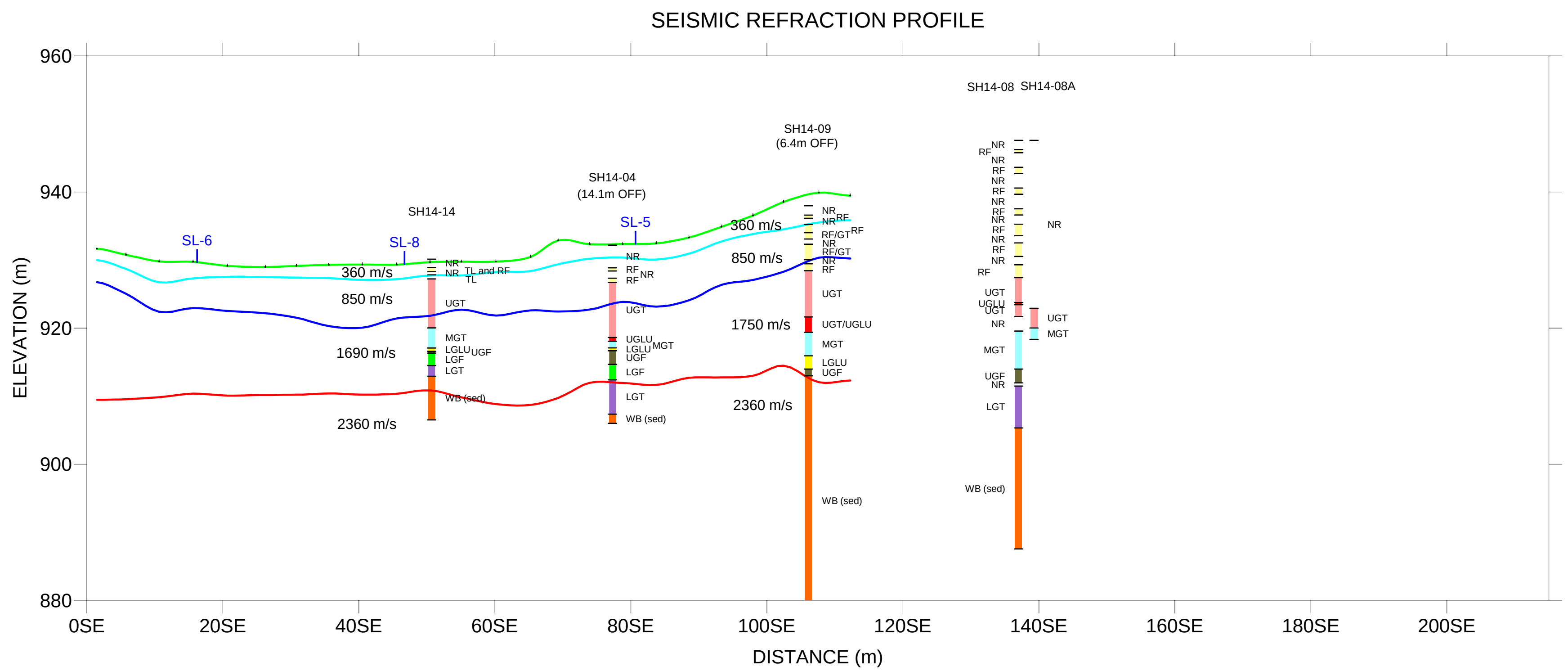
MOUNT POLLEY TAILINGS DAM PROJECT

RESISTIVITY/CHARGEABILITY SURVEY

RL-8 INVERTED CHARGEABILITY PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 18



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY TAILINGS DAM PROJECT

SEISMIC REFRACTION SURVEY

SL-1
SEISMIC REFRACTION PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 19

SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

0 10 20 30 40

METRES

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

MOUNT POLLEY MINING CORPORATION

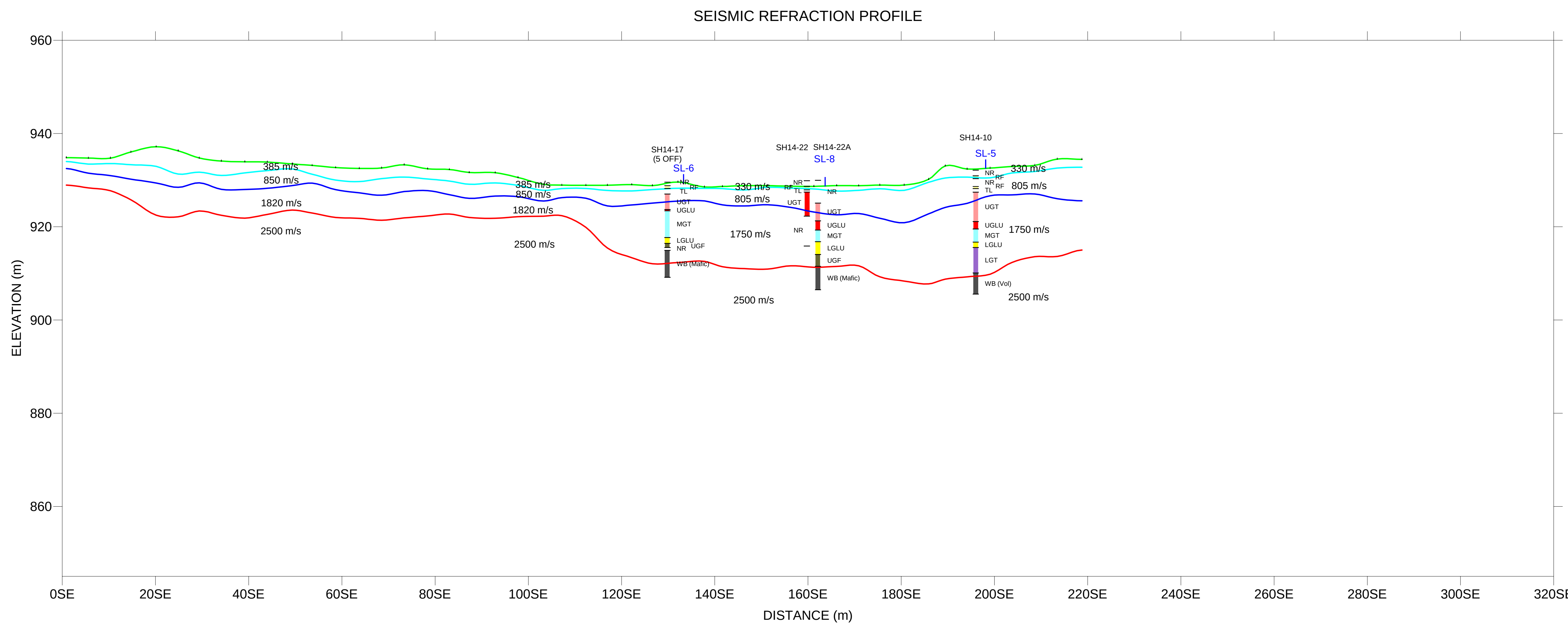
MOUNT POLLEY TAILINGS DAM PROJECT

SEISMIC REFRACTION SURVEY

SL-2
SEISMIC REFRACTION PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 20



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION

MOUNT POLLEY TAILINGS DAM PROJECT

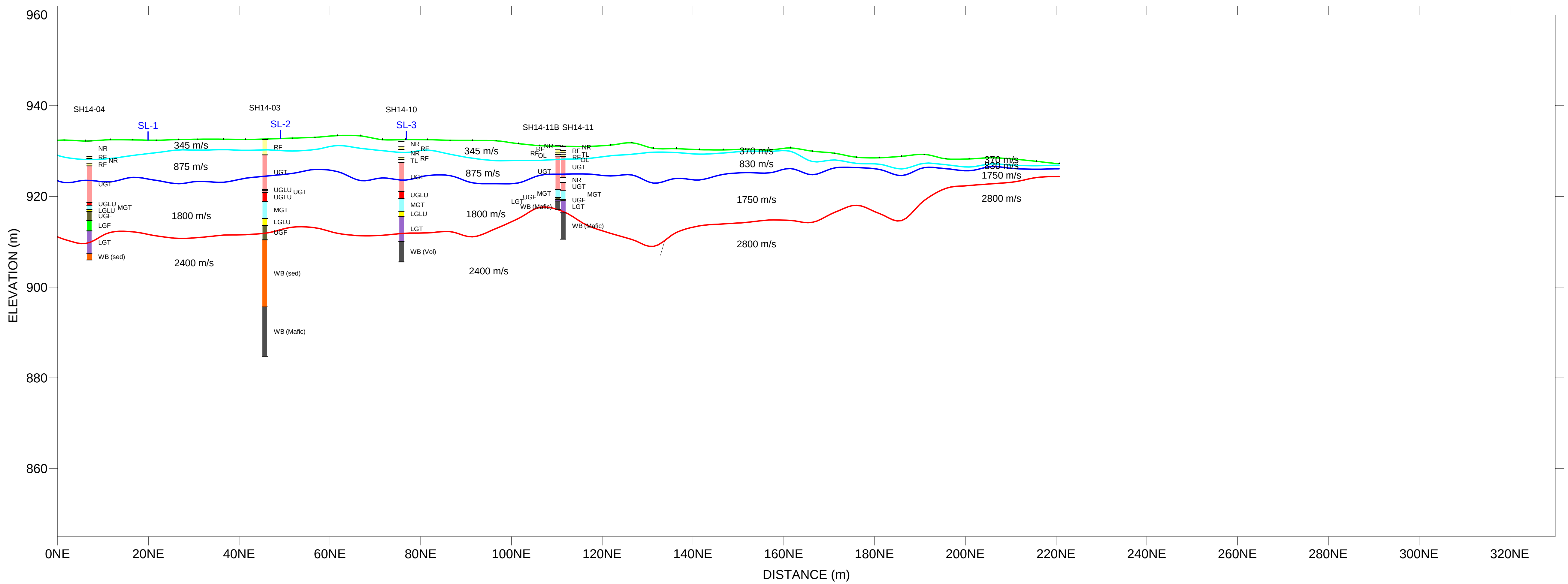
SEISMIC REFRACTION SURVEY

SL-3
SEISMIC REFRACTION PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 21

SEISMIC REFRACTION PROFILE



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION

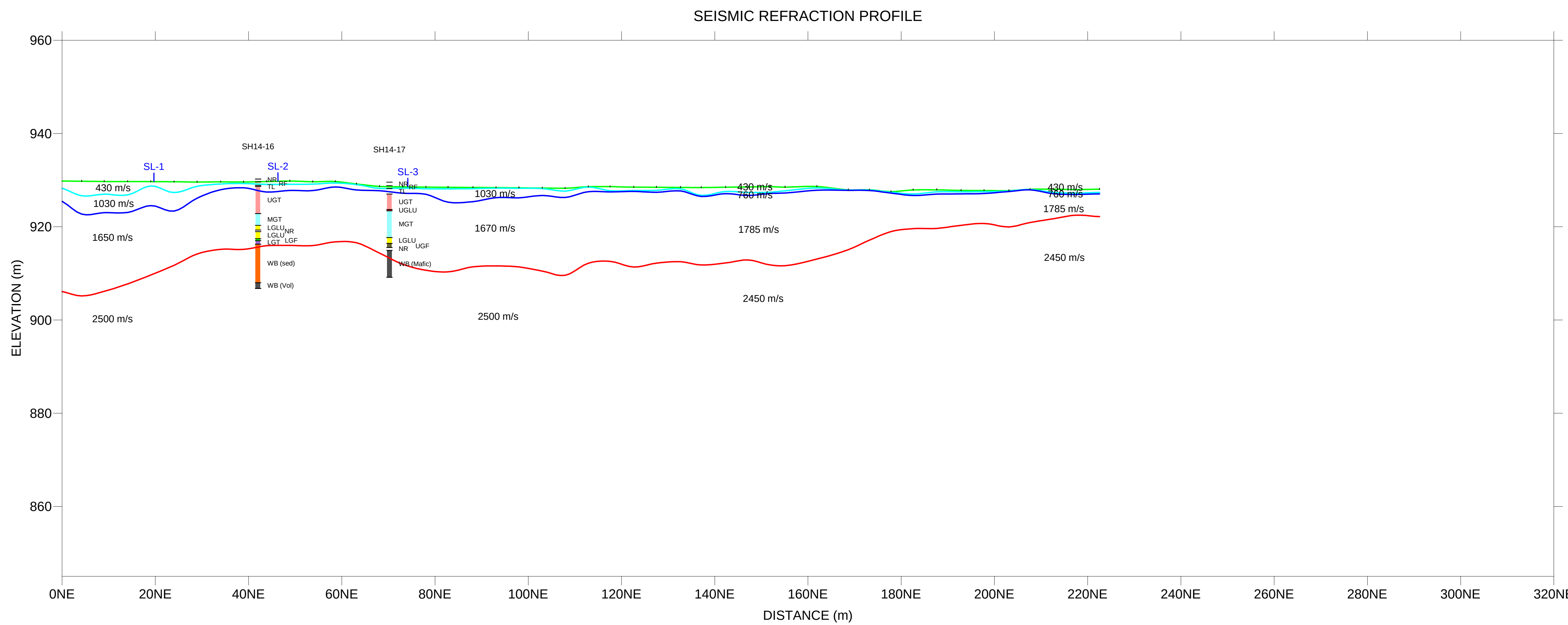
MOUNT POLLEY TAILINGS DAM PROJECT

SEISMIC REFRACTION SURVEY

SL-5
SEISMIC REFRACTION PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 22



SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

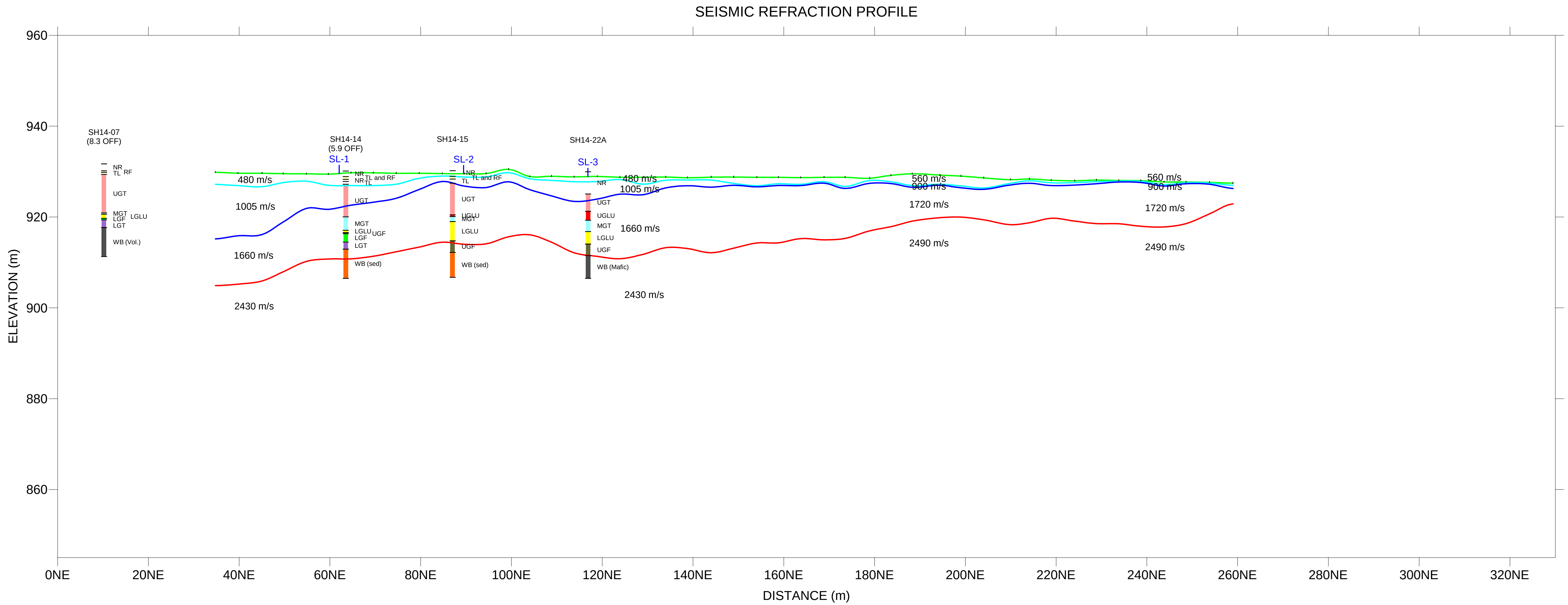
SECOND INTERMEDIATE SURFACE

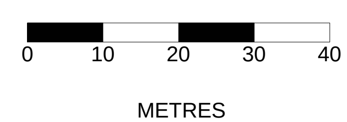
BEDROCK SURFACE

0 10 20 30 40

METRES

MOUNT POLLEY MINING CORPORATION MOUNT POLLEY TAILINGS DAM PROJECT		
SEISMIC REFRACTION SURVEY		
SL-6 SEISMIC REFRACTION PROFILE		
FRONTIER GEOSCIENCES INC.		
DATE: OCT. 2014	SCALE 1:1,000	FIG. 23





SONIC DRILLING SIMPLIFIED LOG

NR	No Recovery
RF	Rockfill
OL	Organics
TL	Tailings
GT	Glacial Till
UGT	Upper Glacial Till
UGLU	Upper Glaciolacustrine
MGT	Middle Glacial Till
LGLU	Lower Glaciolacustrine
UGF	Upper Glaciofluvial
LGF	Lower Glaciofluvial
LGT	Lower Glacial Till
WB (sed)	Weathered Bedrock (Sedimentary)
WB (Mafic)	Weathered Bedrock (Mafic)
WB (Vol)	Weathered Bedrock (Volcanics)

SEISMIC REFRACTION INTERPRETATION

FIRST INTERMEDIATE SURFACE

SECOND INTERMEDIATE SURFACE

BEDROCK SURFACE

MOUNT POLLEY MINING CORPORATION
MOUNT POLLEY TAILINGS DAM PROJECT

SEISMIC REFRACTION SURVEY

SL-8
SEISMIC REFRACTION PROFILE

FRONTIER GEOSCIENCES INC.

DATE: OCT. 2014	SCALE 1:1,000	FIG. 24