



**2015 Geotechnical Site Investigation Data Report
Amalgamated Paste Area (APA) Berm
Myra Falls, BC**

Submitted to:
Nyrstar Myra Falls
Campbell River, BC

Submitted by:
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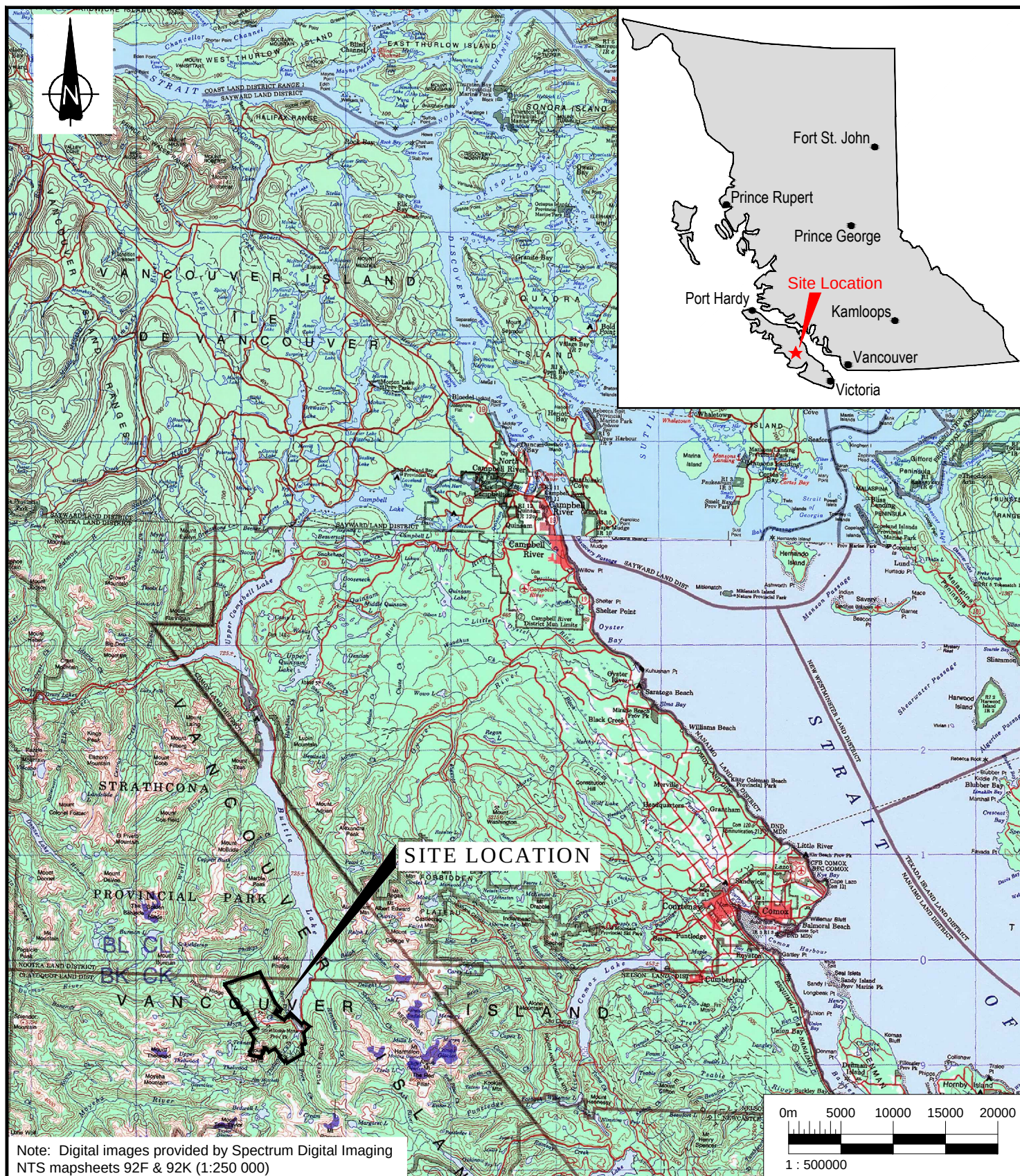
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1.0 INTRODUCTION

This report summarizes the field and laboratory programs completed to support the design of the Amalgamated Paste Area (APA) Paste Berm stabilization at the Nyrstar® Myra Falls mine located on Vancouver Island. The location of the Nyrstar Myra Falls mine is shown in Figure 1.1. The location of the APA relative to surrounding physical features is shown in Figure 1.2.

The APA Paste Berm was constructed on top of cyclone overflow tailings that had been deposited in the tailings disposal facility (Old TDF). Stability analysis completed in 2010 by Amec Foster Wheeler indicated that the berm would perform poorly during a seismic event. Amec Foster Wheeler provided recommendations for further investigation of the stability of the paste berm in the 2014-Q3 Annual Dam Safety Inspection (AMEC, 2014). The British Columbia Ministry of Energy and Mines (MEM) required the implementation of all dam safety review and inspection recommendations, as stated in their memorandum, dated January 27, 2015 (MEM, 2015). Subsequently, Amec Foster Wheeler was retained by Nyrstar Myra Falls Ltd. to prepare a detailed design of measures to stabilize the berm.

A geotechnical site investigation, to support the design of the APA Paste Berm stabilization, was undertaken in March and April 2015. This report documents the field and laboratory programs and presents the borehole logs and the results of in-situ and laboratory testing. It is a factual report containing only data obtained during execution of the field and laboratory testing programs. Geotechnical engineering interpretations or recommendations are not included.



 amec foster wheeler Environment & Infrastructure	CLIENT:  Amec Foster Wheeler Environment & Infrastructure 4385 Boban Drive, Nanaimo, B.C., V9T 5V9 Tel. 250 758-1887 Fax 250 758-1899	DWN BY: J. Ford CHK'D BY: D. A. Simon DATUM: NAD 83 PROJECTION: UTM ZONE 10 SCALE: 1:500000	PROJECT: MYRA FALLS TAILINGS STORAGE FACILITY AMALGAMATED PASTE AREA SITE INVESTIGATION TITLE: SITE LOCATION MAP	DATE: JUNE 2015 PROJECT NO: NX14001D.6.200 REV. NO: FIGURE NO: FIGURE 1.1

2.0 FIELD AND LABORATORY TESTING PROGRAMS

2.1 Purpose and Scope

The purpose of the geotechnical site investigation was to gain a better understanding of the in-situ tailings conditions within the Old TDF, which make up the APA Paste Berm foundation. The scope of the geotechnical site investigation included a field program consisting of borehole drilling and sampling and *in situ* testing and, a laboratory testing program. The field and laboratory programs investigated the tailings deposits underlying the APA Paste Berm as well as beneath the original TDF embankment and subsequent raises. The field program included exploring subsurface conditions at twenty-six (26) locations within the Old TDF at the locations shown in Figure 2.1.

The locations were chosen for the following purposes:

- *APA Paste Berm*: Fifteen (15) boreholes were advanced through the crest, downstream slope and downstream toe of the paste berm to enhance the understanding of tailings conditions beneath the berm;
- *The Strip*: Two (2) boreholes were advanced through The Strip to enhance the understanding of tailings conditions downstream of the paste berm;
- *Outer Embankment Berm (OEB)*: Five (5) boreholes were advanced through the OEB to enhance the understanding of tailings conditions downstream of the paste berm, to confirm thickness of the embankment raises and to confirm the elevation of original ground;
- *Reclaim Sand Area (RSA)*: Two (2) boreholes were advanced through the RSA to enhance the understanding of tailings conditions downstream of the paste berm; and
- *Seismic Upgrade Berm (SUB)*: Two (2) boreholes were advanced through the SUB to enhance the understanding of tailings conditions downstream of the paste berm, to confirm thickness of the SUB/embankment raises and to confirm the elevation of original ground.

At each location, the following scope of work was completed:

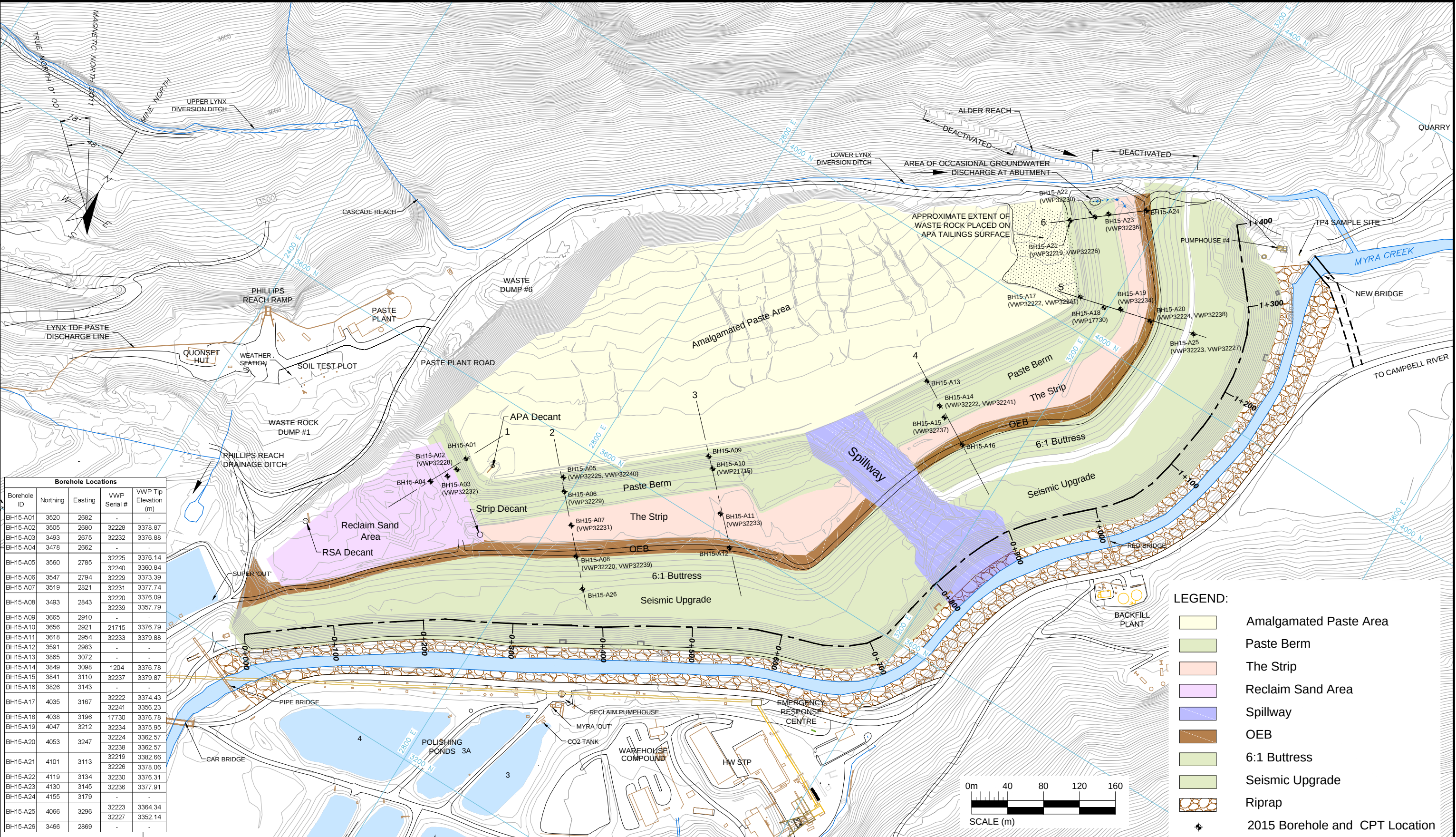
- The borehole was advanced to the target depth using the sonic method of drilling in general accordance with ASTM D6914.
- *In situ* standard penetration testing (SPT) was conducted in accordance with ASTM D1586 at selected depths in selected boreholes. SPT samples were placed in plastic bags and sealed in the field to minimize changes in soil water content.
- *In situ* Nilcon vane or electronic vane shear testing was conducted in general accordance with ASTM D2573 at selected depths in selected boreholes.

- Thin-walled tube samples were obtained in general accordance with ASTM D1587 at selected depths in selected boreholes. Thin-walled tubes were sealed in the field to minimize changes in water content.
- All core was logged in the field and classified in accordance with the Modified Unified Soils Classification System (MUSCS).
- Grab samples were obtained from the core during field logging and placed in plastic bags and sealed in the field to minimize changes in soil water content.
- Fully-grouted vibrating wire piezometers were installed at selected depths in selected boreholes.
- Boreholes were backfilled with cement bentonite grout.

The field program also included cone penetration testing (CPT). Cone penetration testing with pore pressure measurements (CPTu) or seismic cone penetration testing with pore pressure measurements (SCPTu) was conducted within two meters of each borehole. CPTu or SCPTu was conducted in general accordance with ASTM D5778. Pore pressure dissipation tests (PPD) were conducted during CPT at selected depths.

The scope of the geotechnical site investigation also included a laboratory testing program. All samples obtained from the boreholes were transported to Amec Foster Wheeler's materials testing laboratory in Nanaimo, BC. Selected grab and SPT samples were tested to determine the natural water content and the percent of particles smaller than 0.075m. Selected thin-walled tube samples were tested to determine bulk density, grain size distribution, index properties (Atterberg Limits) and specific gravity.

Detailed descriptions of the field and laboratory programs are provided in following sections of this report. A summary of the field investigation including depths at which in situ testing and/or sampling was conducted is provided in Table 2.1. A summary of the laboratory testing is provided in Table 2.2.



Borehole Locations				
Borehole ID	Northing	Easting	VWP Serial #	VWP Tip Elevation (m)
BH15-A01	3520	2682	-	-
BH15-A02	3505	2680	32228	3378.87
BH15-A03	3493	2675	32232	3376.88
BH15-A04	3478	2662	-	-
BH15-A05	3560	2785	32225	3376.14
BH15-A06	3547	2794	32229	3373.39
BH15-A07	3519	2821	32231	3377.74
BH15-A08	3493	2843	32220	3376.09
BH15-A09	3665	2910	32239	3357.79
BH15-A10	3656	2921	21715	3376.79
BH15-A11	3618	2954	32233	3379.88
BH15-A12	3591	2983	-	-
BH15-A13	3865	3072	-	-
BH15-A14	3849	3098	1204	3376.78
BH15-A15	3841	3110	32237	3379.87
BH15-A16	3826	3143	-	-
BH15-A17	4035	3167	32222	3374.43
BH15-A18	4038	3196	32241	3356.23
BH15-A19	4047	3212	32234	3375.95
BH15-A20	4053	3247	32224	3362.57
BH15-A21	4101	3113	32238	3362.57
BH15-A22	4119	3134	32230	3376.31
BH15-A23	4130	3145	32236	3377.91
BH15-A24	4155	3179	-	-
BH15-A25	4066	3296	32223	3364.34
BH15-A26	3466	2869	32227	3352.14

LEGEND:

Amalgamated Paste Area

Paste Berm

The Strip

Reclaim Sand Area

Spillway

OEB

6:1 Buttress

Seismic Upgrade

Riprap

2015 Borehole and CPT Location

NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE REPORT NO. NX14001D.6.200 "2015 SITE INVESTIGATION FACTUAL REPORT, AMALGAMATED PASTE AREA BERM" DATED JUNE 2015.
2. SURVEY SURFACE TOPOGRAPHY SUPPLIED BY CLIENT
3. THIS SURVEY IS REFERENCED TO MINE DATUM (MASL + 3048 m).

REV	D	M	Y	ISSUE / REVISION DESCRIPTION	ENG.	APPR.

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DATUM:	MINE
PROJECTION:	MINE
DRAWN BY:	JF/YC
REVIEWED BY:	LF/DAS
SCALE:	1:4000

PROJECT:	MYRA FALLS TAILINGS DISPOSAL FACILITY AMALGAMATED PASTE AREA SITE INVESTIGATION
TITLE:	OLD TDF APA BOREHOLE LOCATION PLAN

PROJECT NO.:	NX14001D.6.200
REVISION NO.:	
DATE:	JUNE 2015
DRAWING NO.:	FIGURE 2.1
SHEET NO.:	1 of 1

Table 2.1: Field Investigation Summary

Borehole ID	CPT ID	Location Description	Borehole Coordinates (mine grid)		Surface Elevation* (m)	Total Sonic Depth (m)	Standard Penetration Testing Depth (m)	CPT Start Depth (m)	CPT End Depth (m)	Pore Pressure Dissipation Testing Depth (m)	Nilcon Vane Shear Testing Depth (m)	Electronic Vane Shear Testing Depth (m)	Vibrating Wire Piezometers			
			Northing	Easting									Installation Date	Serial Number	Elevation (m)	Depth (m)
BH15-A01	CPT15-A01	APA berm crest	3520	2682	3391.4	22.2	--	12.5	22.2	13.8 18.8 22.3	--	--	--	--	--	--
BH15-A02	SCPT15-A02	APA berm downstream slope	3505	2680	3386.2	20.9	--	5.9	20.9	7.6 12.7 17.8 19.7	--	--	18 Apr 2015	32228	3378.9	7.3
BH15-A03	SCPT15-A03	Reclaim Sand Area	3493	2675	3385.7	22.4	--	6.5	22.4	10.7 15.7 20.7 22.4	--	--	18 Apr 2015	32232	3376.9	8.8
BH15-A04	SCPT15-A04	Reclaim Sand Area	3478	2662	3382.8	17.8	--	7.6	17.8	9.7 14.7 17.8	--	--	--	--	--	--
BH15-A05	SCPT15-A05	APA berm crest	3560	2785	3391.3	29.8	24.0 30.0 32.9	16.5	29.8	17.6 22.7 27.8	26.7	14.6 17.7 22.3	11 Apr 2015	32225	3376.1	15.2
														32240	3360.8	30.5
BH15-A06	CPT15-A06	APA berm downstream slope	3547	2794	3385.3	23.6	8.8	5.5	23.6	8.2 13.3 18.3 23.3	--	--	13 Apr 2015	32229	3373.4	11.9
BH15-A07	SCPT15-A07	The Strip	3519	2821	3382.3	24.3	--	1.6	24.3	2.8 7.8 12.8 17.8 22.9 24.3	--	--	09 Apr 2015	32231	3377.7	4.6
BH15-A08	CPT15-A08	Outer Embankment Berm	3493	2843	3383.7	23.7	5.8 24.1	5.8	23.7	7.2 12.2 17.2 22.2 23.7	8.4 11.6	--	10 Apr 2015	32220	3376.1	7.6
														32239	3357.8	25.9
BH15-A09	SCPT15-A09	APA berm crest	3665	2910	3391.3	26.3	--	12.1	26.3	13.7 19.1 24 26.3	--	--	--	--	--	--
BH15-A10	CPT15-A10	APA berm downstream slope	3656	2921	3385.3	20.1	--	4.2	20.1	6.3 7.3 12.3 17.3 20.1	--	--	29 Mar 2015	21715	3376.8	8.5
BH15-A11	SCPT15-A11	The Strip	3618	2954	3382.6	27.2	--	1.5	27.2	2.5 7.5 12.2 17.5 22.5 27.2	--	--	13 Apr 2015	32233	3379.9	2.7
BH15-A12	CPT15-A12	Outer Embankment Berm	3591	2983	3383.6	24.2	--	5.8	24.2	7.2 12.2 17.2 22.3	--	--	--	--	--	--
BH15-A13	SCPT15-A13	APA berm crest	3865	3072	3391.3	24.9	--	13.6	24.9	14.6 19.1 24.0 24.9	--	--	--	--	--	--
BH15-A14	CPT15-A14	APA berm downstream slope	3849	3098	3383.7	17.4	--	4.0	17.4	5.3 10.3 15.3 17.4	--	--	29 Mar 2015	1204	3376.8	6.9
BH15-A15	CPT15-A15	APA berm downstream toe	3841	3111	3383.6	21.5	5.8	3.8	21.5	5.3 10.3 15.3 20.3	--	--	14 Apr 2015	32237	3379.9	3.7
BH15-A16	CPT15-A16	Outer Embankment Berm	3849	3098	3383.6	23.0		5.8	23.0	8.2 13.2 18.2 23	--	--	--	--	--	--
BH15-A17	SCPT15-A17	APA berm crest	4035	3167	3391.2	31.0	14.9 18.6 21.0 27.1 33.2 36.3 39.3	15.3	31.0	16.8 21.7 26.8 30.9	17.7 23.8 29.9	--	07 Apr 2015	32222	3374.4	16.8
														32241	3356.2	35.0
BH15-A18	CPT15-A18	APA berm downstream slope	4038	3196	3383.5	28.8	--	7.5	28.8	9.2 14.2 19.2 24.2 28.8		--	29 Mar 2015	17730	3376.8	6.7
BH15-A19	CPT15-A19	APA berm downstream toe	4046	3214	3383.3	29.2	--	4.2	29.2	6.5 11.3 16.3 21.3 26.3		--	15 Apr 2015	32234	3376.0	7.3
BH15-A20	CPT15-A20	Outer Embankment Berm	4053	3247	3383.6	30.9	--	7.3	30.9	8.2 13.3 18.3 23.3 28.3	10.1 14.5 19.1 22.1	--	03 Apr 2015	32224	3362.6	9.1
														32238	3362.6	27.4

Borehole ID	CPT ID	Location Description	Borehole Coordinates (mine grid)		Surface Elevation* (m)	Total Sonic Depth (m)	Standard Penetration Testing Depth (m)	CPT Start Depth (m)	CPT End Depth (m)	Pore Pressure Dissipation Testing Depth (m)	Nilcon Vane Shear Testing Depth (m)	Electronic Vane Shear Testing Depth (m)	Vibrating Wire Piezometers			
			Northing	Easting									Installation Date	Serial Number	Elevation (m)	Depth (m)
BH15-A21	SCPT15-A21	APA berm crest	4101	3113	3391.5	23.9	--	13.8	23.9	14.8 19.5 23.9	--	--	16 Apr 2015	32219	3382.7	8.8
														32226	3378.1	13.4
BH15-A22	CPT15-A22	APA berm downstream slope	4118	3133	3383.6	14.3		3.0	14.3	6.3 12.1 14.3	--	--	15 Apr 2015	32230	3376.3	7.3
BH15-A23	CPT15-A23	APA berm downstream toe	4130	3145	3383.7	15.8	5.8	2.4	15.8	5.0 12.2 14.4 15.8	--	--	15 Apr 2015	32236	3377.9	5.8
BH15-A24	CPT15-A24	Outer Embankment Berm	4155	3179	3383.0	14.6	--	6	14.6	7.3 12.3 14.3	--	--	--	--	--	--
BH15-A25	SCPT15-A25	Seismic Upgrade Buttress	4066	3296	3376.5	22.8	10.4 15.5 21.0 24.0	12.4	22.8	13.9 18.9 22.8	145 14.8 17.5 19.5	--	05 Apr 2015	32223	3364.3	12.2
														32227	3352.1	24.4
BH15-A26	SCPT15-A26	Seismic Upgrade Buttress	3466	2869	3377.9	21.5	9.8 18.0	10.7	21.5	11.5 16.5 21.5	--	13.1 16.2	--	--	--	--

Note: *As-built surface elevations provided by Nyrstar.

Table 2.2: Laboratory Testing Summary

Type of Test Completed	ASTM Standard	Sample Type	Number of Tests Completed
Natural Water Content	D2216	Grab/SPT/Tube	57
Percent Finer than 0.075mm	C117	Grab/SPT/Tube	52
Grain Size Analysis/Hydrometer	C136, D422	Grab/Tube	7
Bulk Density	D7263	Tube	3
Specific Gravity	D128	Tube	3
Atterberg Limits	D4318	Tube	3

2.2 Field Program

The field program consisted of borehole drilling and sampling, vane shear testing, cone penetration testing (CPTu, SCPTu and PPD) and installation of vibrating wire piezometers. An AMEC representative monitored the field program, recorded all pertinent information, classified the materials encountered in the boreholes and prepared a detailed log of each borehole.

2.2.1 Borehole Drilling and Sampling

Borehole drilling took place between 24 March and 19 April 2015. The boreholes were advanced to depths ranging between 2.7m and 41.1m below the ground surface. The boreholes were advanced using a track-mounted DB320 Sonic drilling rig owned and operated by Mud Bay Drilling Co. Ltd. under direct contract to Nyrstar. The sonic drilling method utilizes a rotary vibratory drill head to introduce both rotary motion and high frequency resonant vibrations to advance the borehole and return a relatively continuous core sample.

Sampling consisted of obtaining grab samples from the Standard Penetration Testing (SPT) core and relatively undisturbed tube samples from the boreholes. SPT was conducted in general accordance with ASTM D1586 within the tailings mass in eight boreholes at depths selected by the Amec Foster Wheeler field representative. Briefly, SPT consists of driving a 50-mm-diameter split spoon sampler into the ground using an automatic drop hammer assembly (63.5kg hammer with a 760 mm drop). The number of blows required to drive the sampler 300mm into the soil is referred to as the N-value. SPT N-values commonly are used to assess engineering properties of soils such as density. The depths at which SPT was conducted as well as the SPT N-values are shown on the borehole logs. A summary of the SPT results is provided in Table 2.3.

Table 2.3: Summary of Standard Penetration Testing Results

Borehole ID	Test Depth (m)	Test Elevation (m)	SPT N-value	Material Description
BH15-A05	24	3367.3	6	Silt, clayey, some sand
	30	3361.3	25	Silt, sandy, loose with compact sections
	32.9	3358.4	8	Silt, clayey, some sand
BH15-A06	8.8	3376.5	4	Silt, trace to some sand
BH15-A08	5.8	3377.9	2	Silt, some sand, some clay
	24.1	3359.6	11	Silt, some sand to sandy, sections of compact sand
BH15-A15	5.8	3377.8	1	Sand, some silt and clay
BH15-A17	14.9	3376.3	8	9 cm Gravel over Silt, clayey, some sand
	18.6	3372.6	0	Silt, clayey, some sand
	21	3370.2	5	Silt, clayey, some sand
	27.1	3364.1	5	Silt, clayey, some sand
	33.2	3358.0	8	Silt, clayey, some sand
	36.3	3354.9	20	15 cm Silt over 33 cm Silt, sandy
	39.3	3351.9	25	Silt, some sand, sandy seams
BH15-A23	5.8	3377.9	3	Silt, sandy
BH15-A25	10.4	3366.1	5	Silt, clayey
	15.5	3361.0	7	Silt, clayey
	21	3355.5	13	Silt, clayey over Sand and silt
	24	3352.5	20	Gravel over 8 cm Sand and Silt over Silt, clayey
BH15-A26	9.8	3368.1	0	Sand, silty
	18	3359.9	16	Silt

Grab samples were obtained from the core at selected intervals. The grab samples were placed in plastic bags, sealed and labeled with the borehole number, sample number and depth. The bags were sealed to minimize changes in water content. The depths at which grab samples were obtained are shown on the borehole logs.

Shelby tube samples were obtained from selected depths in six of the boreholes. A Shelby tube is a 90 mm diameter, 760 mm long thin-walled metal tube used to retrieve a relatively undisturbed soil sample from a borehole. The Shelby tubes were sealed on site. The depths at which tube samples were obtained also are shown on the borehole logs.

2.2.2 Cone Penetration Testing

Cone penetration testing was completed concurrently with borehole drilling using equipment owned and operated by ConeTec Investigations Ltd. (ConeTec) under direct contract to Nyrstar. Prior to the start of testing, boreholes were advanced through the materials overlying the tailings using the sonic drilling rig. CPT was then conducted only in the tailings.

CPTu was conducted adjacent to 14 of the borehole locations. CPTu involves the direct push of an instrumented cone. The sonic drilling rig was equipped with a specially designed ramset which was used to push the CPT equipment. The CPT equipment has load cells to measure the resistance to penetration against the tip and drag on a movable sleeve behind the tip, and an electric piezometer to measure the pore water pressure response during penetration. The values from the cone can be used with published relationships to infer grain size, in-situ shear strength, and liquefaction susceptibility when corroborated by other in-situ measurements and undisturbed sampling.

SCPTu was conducted adjacent to 12 of the borehole locations. SCPTu involves the same procedures as CPTu but also has geophones to measure seismic velocity at selected depths.

Dissipation tests were also conducted in all boreholes. These tests were completed to determine the static water level within the tailings deposit, whereby CPT was paused and dynamic pore pressures were permitted to dissipate and reach (or approach) equilibrium.

The complete ConeTec report is provided in Appendix B. The report includes a description of the cone penetration process and the CPTu and SCPTu logs as well as seismic shear wave velocity profiles and results of the pore pressure dissipation tests.

2.2.3 Vane Shear Testing

Vane shear testing is direct in-situ testing of torsional shearing resistance to directly measure the undrained shear strength of the tailings. Testing was performed in general accordance with ASTM D2573. Two types of vane shear testing equipment were used in the investigation; the electronic field vane system developed by ConeTec and the manually operated Nilcon vane. Small or medium sized vanes were used based on the tailings stiffness.

The undrained shear strength values from the vane shear tests were used to calibrate the undrained shear strength profiles derived from the CPTu and SCPTu.

The results of vane shear testing are provided in the borehole logs in Appendix A while the field Nilcon vane graphs are provided in Appendix E. The electronic vane shear results are also presented in Appendix B. A summary of vane shear test results is provided in Table 2.4.

Table 2.4: Summary of Vane Shear Test Results

Location ID	Test Depth (m)	Test Elevation (m)	Equipment	Undrained Shear Strength (Su)		Sensitivity (Peak/Remolded)
				Peak (kPa)	Remolded (kPa)	
BH15-A05	14.6	3376.7	Electronic vane	118.8	68.9	1.7
	17.7	3373.6	Electronic vane	146.8	75.8	1.9
	22.3	3369.1	Electronic vane	158.9	81.1	2.0
	26.7	3364.7	Nilcon	193.4	116.0	1.7
BH15-A08	8.4	3375.3	Nilcon	53.7	34.4	1.6
	11.6	3372.1	Nilcon	68.8	51.6	1.3
BH15-A17	17.7	3373.5	Nilcon	148.3	75.2	2.0
	23.8	3367.5	Nilcon	139.7	105.3	1.3
	29.9	3361.4	Nilcon	maxed out		
BH15-A20	10.1	3373.5	Nilcon	90.3	36.5	2.5
	14.5	3369.1	Nilcon	43.1	22.4	1.9
	19.1	3364.5	Nilcon	39.2	19.0	2.1
	22.1	3361.5	Nilcon	131.1	81.7	1.6
BH15-A25	14.5	3362.1	Nilcon	maxed out		
	14.8	3361.8	Nilcon	68.8	62.3	1.1
	17.5	3359.0	Nilcon	maxed out		
	19.5	3357.0	Nilcon	maxed out		
BH15-A26	13.1	3364.8	Electronic vane	149.4	89.2	1.7
	16.2	3361.8	Electronic vane	190.6	89.9	2.1

2.2.4 Vibrating Wire Piezometer Installation

Twenty-four, fully grouted vibrating wire piezometers (VWP) were installed in 18 of the boreholes. The VWPs were typically installed within the upper deposit of tailings underlying the APA Paste Berm, as well as near the bottom of the tailings deposit.

Details of the VWP installation are provided on the borehole logs in Appendix A. The calibration certificates for the VWPs are provided in Appendix C.

2.3 Laboratory Testing Program

Laboratory testing methods used to characterize the tailings are described briefly in this section.

- Water content (ASTM D2216): A sample is weighed giving the mass of soil and water. The sample is then oven dried and weighed again giving the mass of soil. The moisture content is defined as the mass of water divided by the mass of dry soil.
- Atterberg limits (ASTM D4318): Atterberg limits testing gives numerical values to soil plastic and liquid limits, thus classifying the type of fine grained soil. From these values, the plasticity index (PI) and liquidity index (LI) can be determined. Plasticity index

indicates the range of moisture contents where a soil exhibits plastic properties. Liquidity index is a measure of the stiffness within the soils plasticity index range (soils with $LI > 1$, typically exhibit a very low shear strength).

- Grain size analyses and Hydrometers (ASTM C117, C136, D422): Grain size and hydrometers give the particle size distribution of soils. Hydrometer testing is used to determine the gradation of soil passing the 0.075mm sieve screen. It is an approximation based on Stokes' Law of settling particles in a viscous fluid.
- Bulk density (ASTM D7263): A sample is extruded from a Shelby tube and the ends are trimmed to be perpendicular. The sample length and diameter is measure and the volume is calculated directly. The sample is weighed, and the bulk wet density is calculated. The overall density of a sample is based on the total mass of water and solids divided by the sample volume.
- Specific gravity (ASTM D128): The specific gravity is defined as the density of solid particles relative to the density of water. A sample is placed in a container, which is then weighed, then decanted into a pan and oven dried. From these measurements, the mass of soil and volume of displaced water are calculated, giving the density of the solid particles, and the specific gravity.

Summary results of each type of laboratory test are discussed in the following subsections. Test results are provided in the borehole logs in Appendix A. Full laboratory test reports are presented in Appendix D.

2.3.1 Water Content Determination

Water content values ranged from 11% to 42%. The majority of the values (approximately 69%) ranged between 24% and 37%. Plots of water content versus depth and elevation are illustrated in Figure 2.2 and Figure 2.3, respectively.

Figure 2.2: Water Content vs Depth

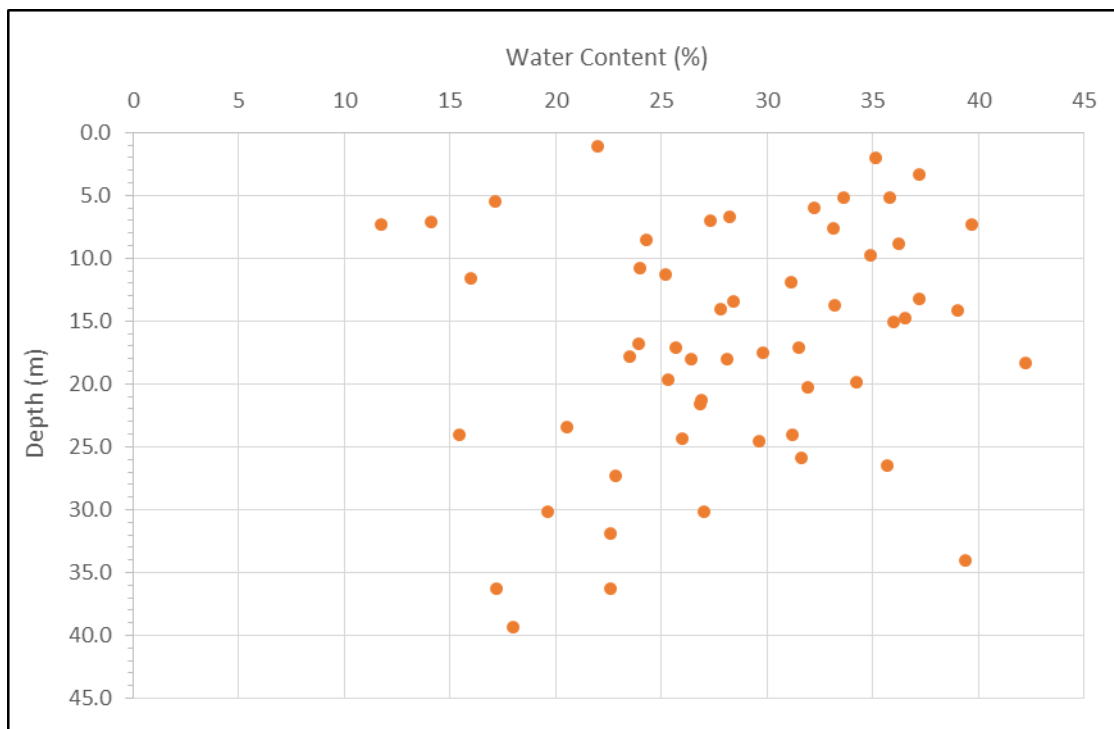
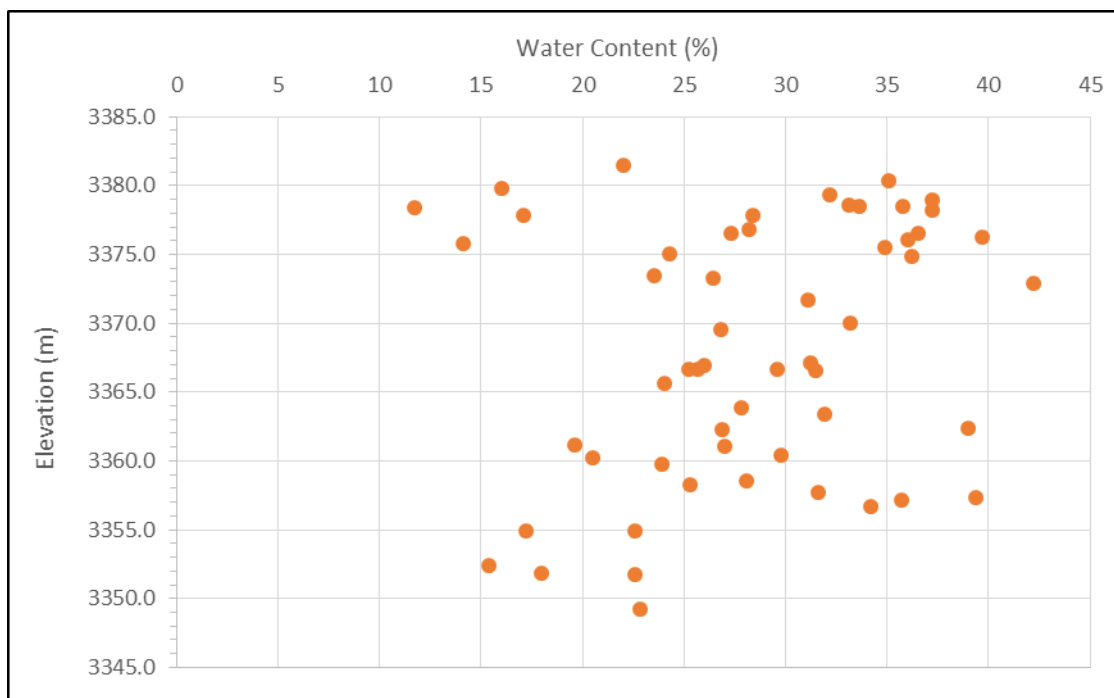


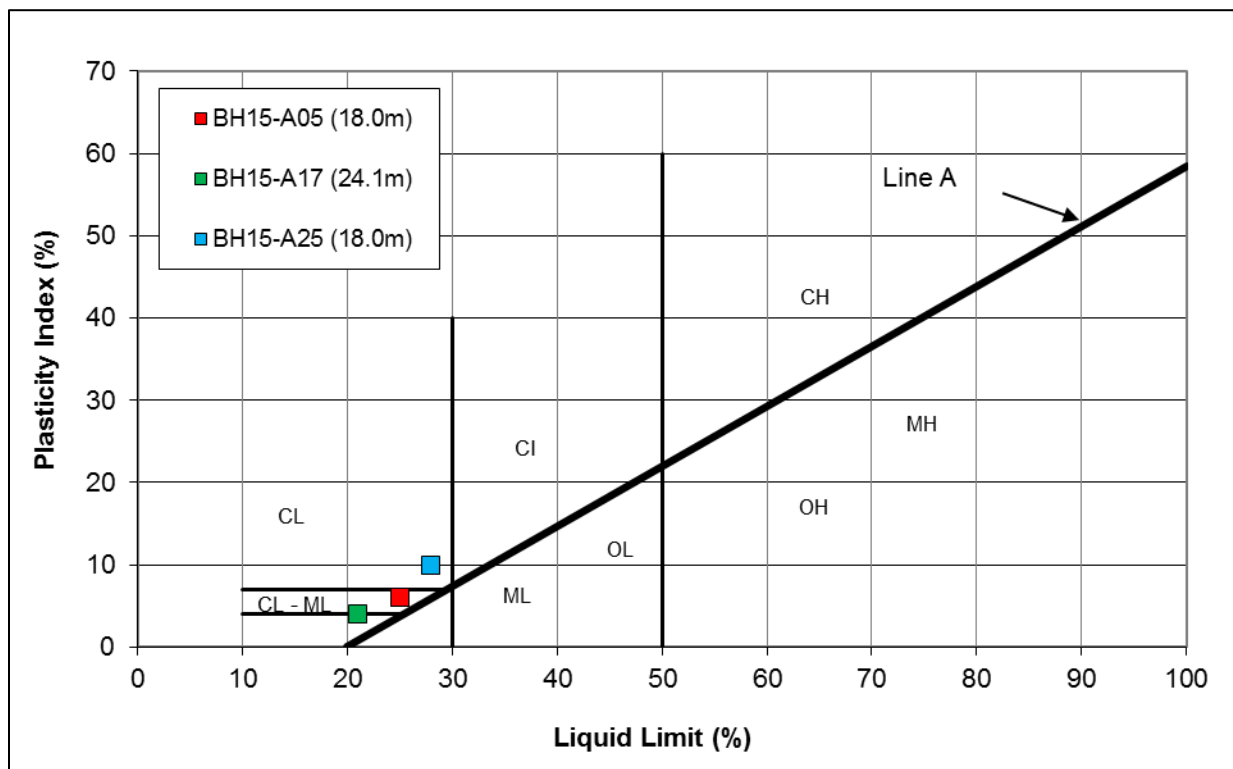
Figure 2.3: Water Content vs Elevation



2.3.2 Atterberg Limits

Based on the results of the Atterberg limits testing, the tailings are generally considered low plasticity clay to silt (CL-ML) to low plasticity silt (ML). The samples tested were from tailings taken at or below elevation 3373.3m. A summary of Atterberg limits are illustrated in Figure 2.4.

Figure 2.4: Summary of Atterberg Limits



2.3.3 Grain Size Analyses

Grain size analyses by hydrometer show consistent results between all of the samples. A typical gradation of conventional tailings consists of 1% sand, 74% silt, and 25% clay. A summary of grain size analyses is shown in Figure 2.5.

Grain size analyses were also completed on selected samples of the OEB fill. This was completed to confirm the size of material previously used in the construction of the OEB, as there appears to be limited historical data documenting this fill material. Based on the lab testing, the fill varies in composition from 56% gravel, 36% sand and 8% fines, to 1% gravel, 68% sand and 31% fines. A summary of grain size analyses for the OEB fill is shown in Figure 2.6.

Figure 2.5: Summary of Grain Size Analyses (Tailings)

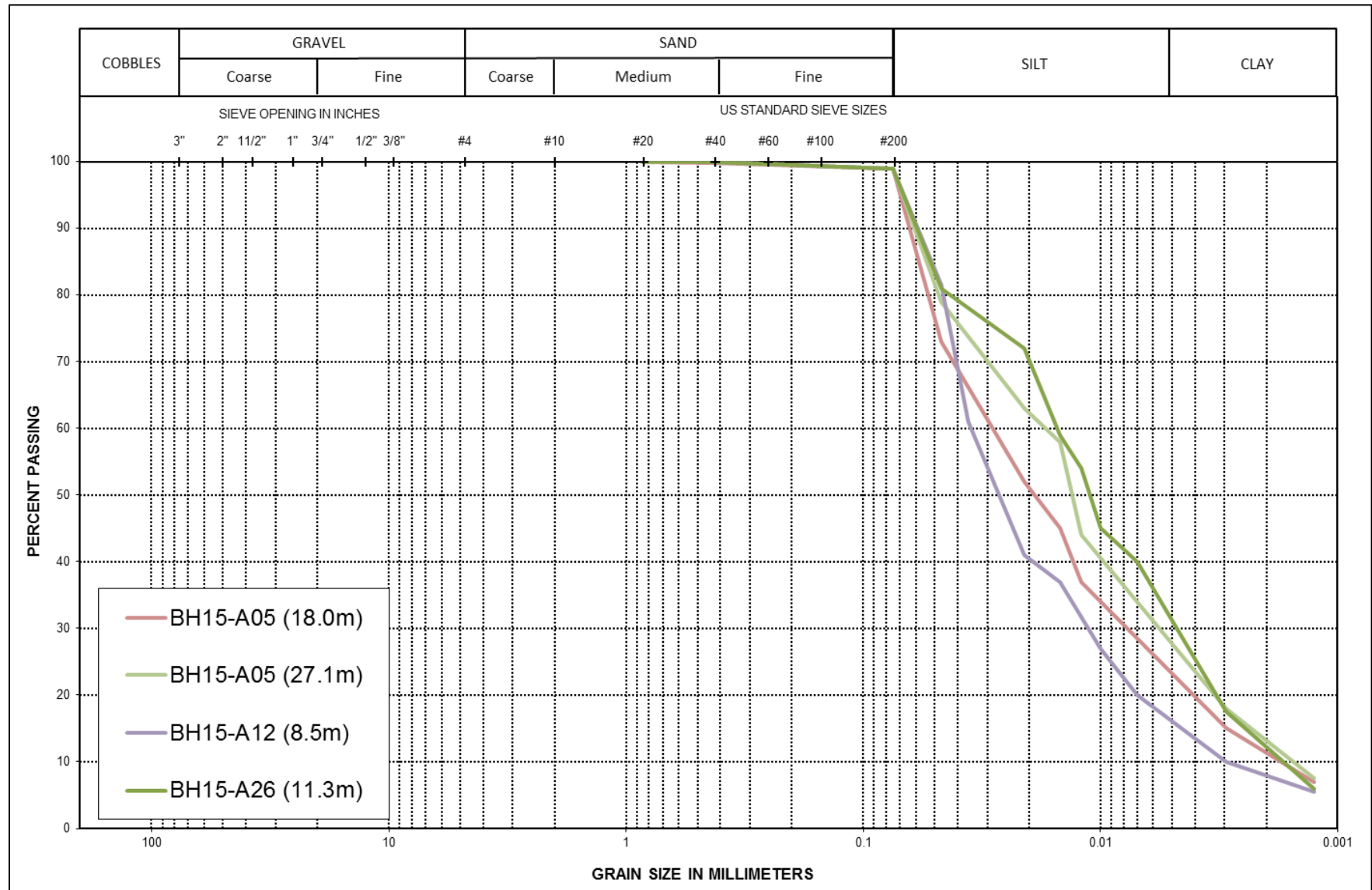


Figure 2.6: Summary of Grain Size Analyses (Outer Embankment Berm Fill)

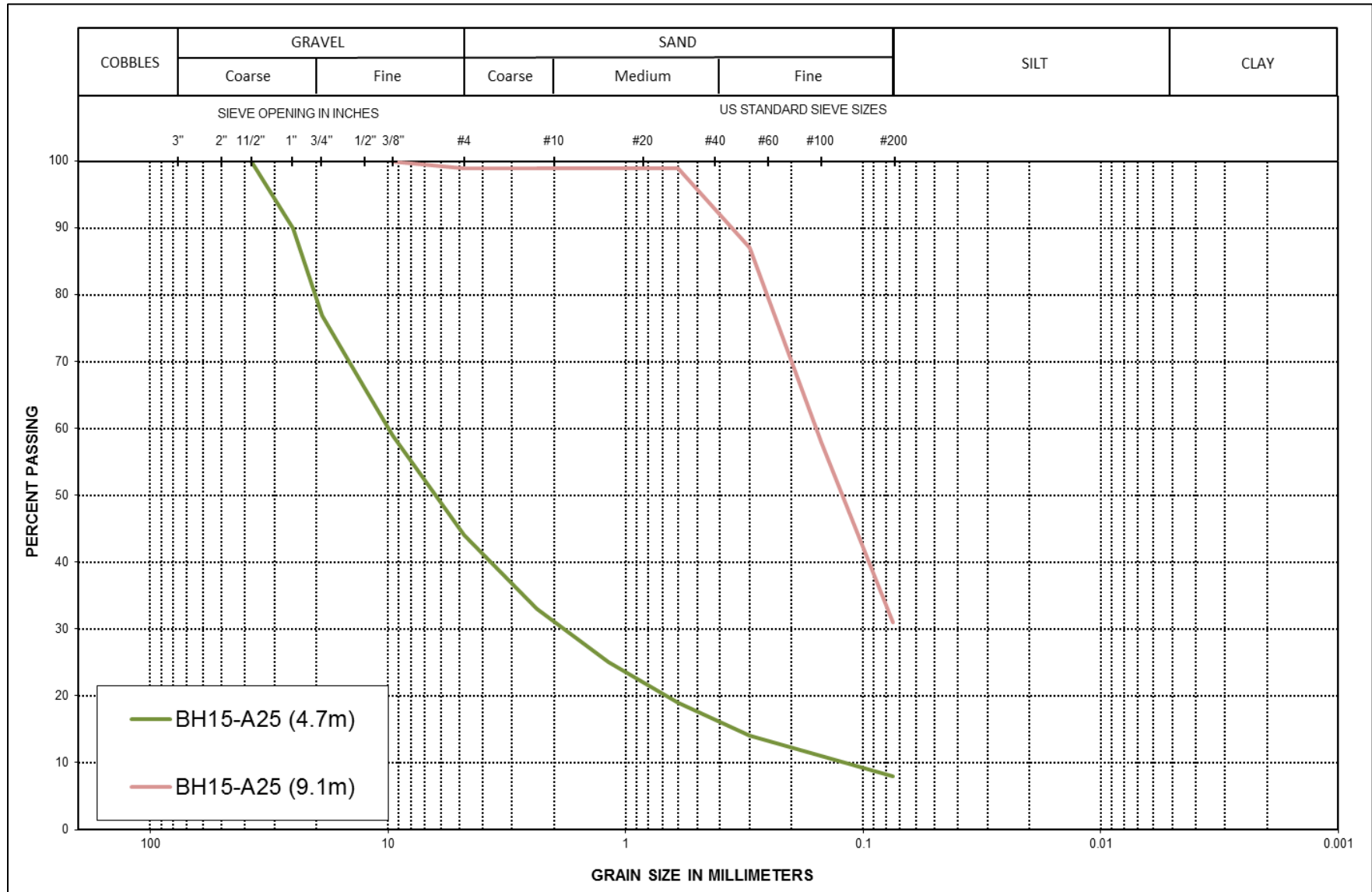


Figure 2.7 and Figure 2.8 provide summary plots of the percent particles that are smaller than 0.074mm versus depth and elevation, respectively, for the tested material. The plots also include fines determined from hydrometer analyses. Sample depth relates to depth below borehole collar elevation. The data indicates that the majority of tailings samples below a depth of five meters have a fines content ranging from 90 to 100%.

Figure 2.7: Summary of Fines Content vs. Depth

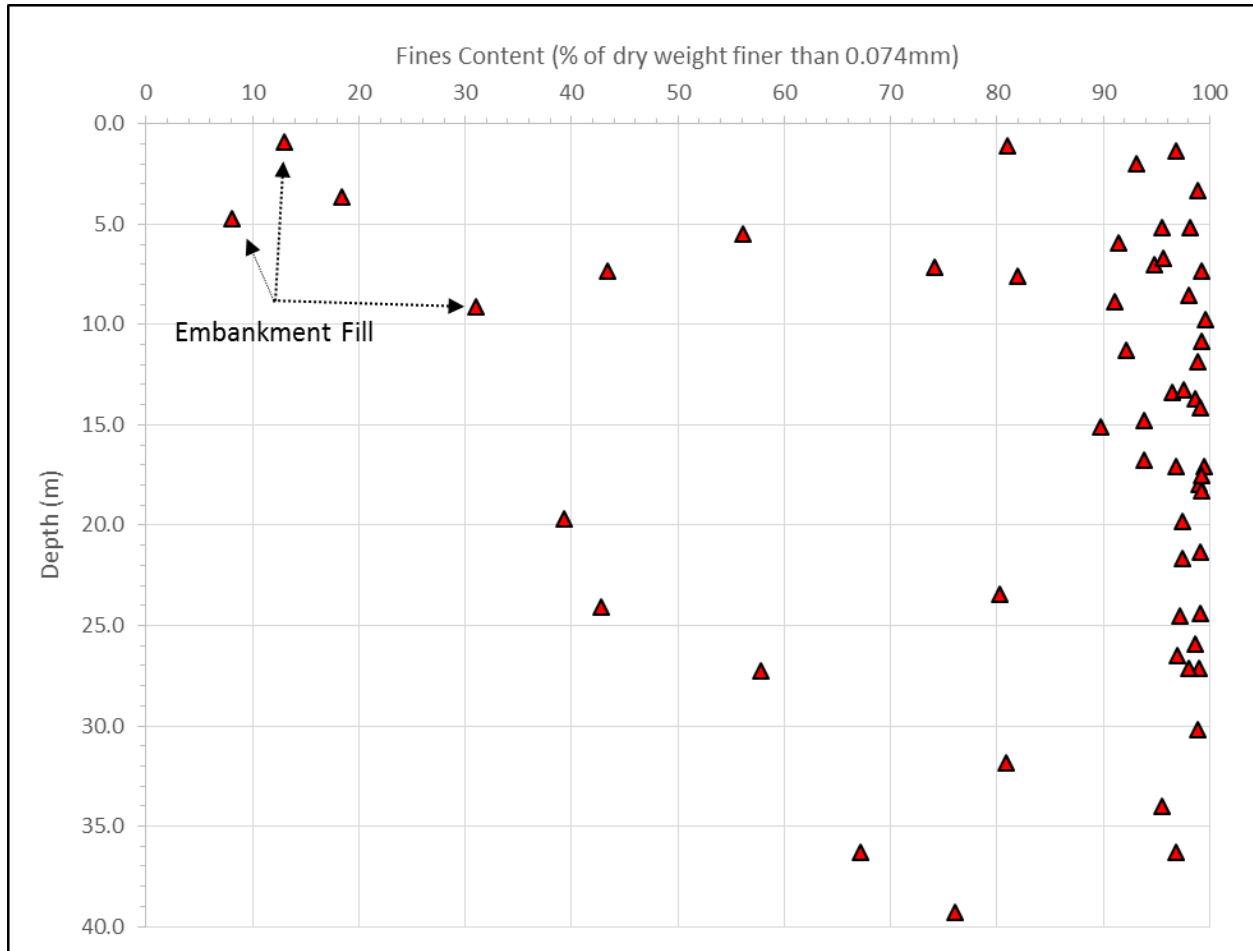
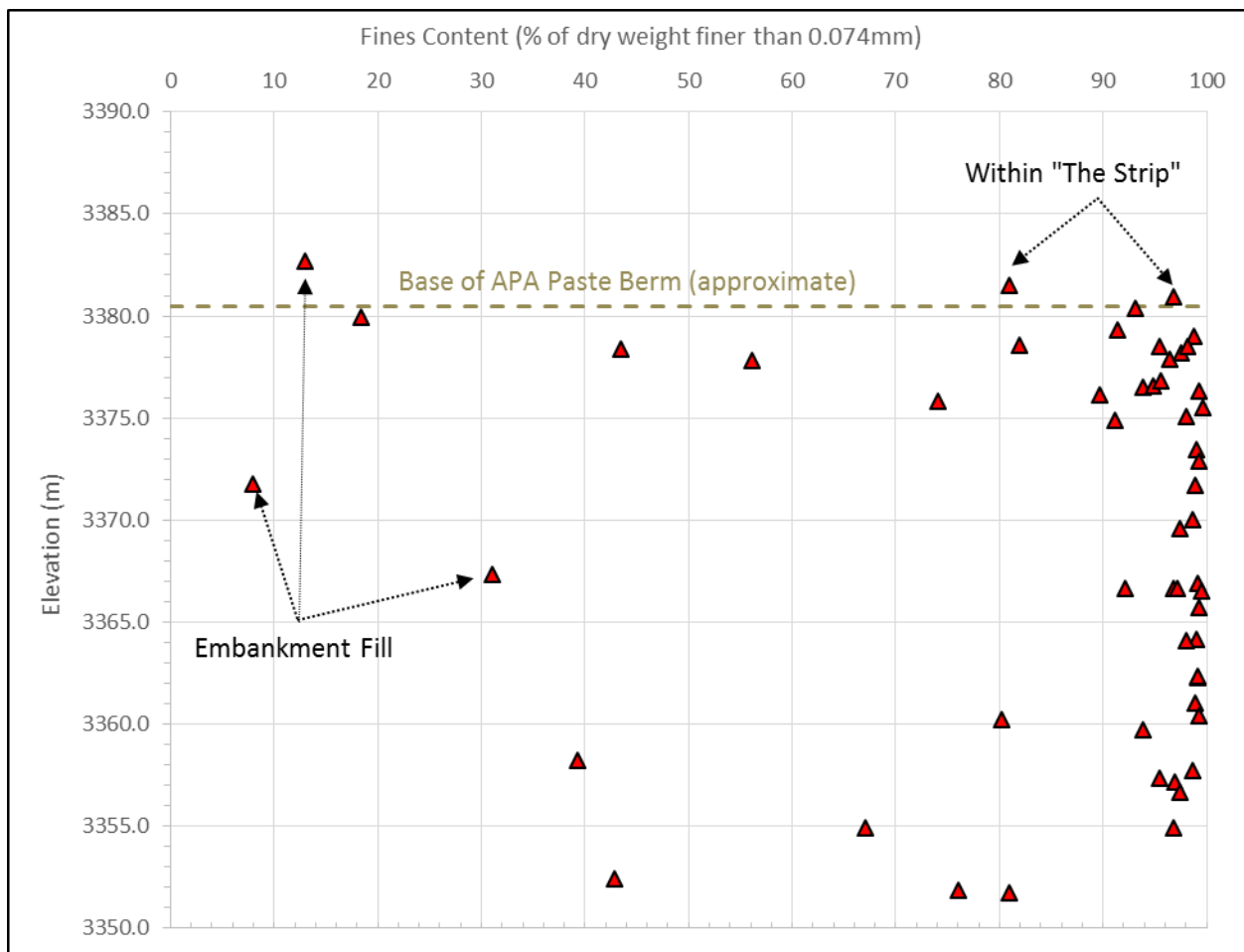


Figure 2.8: Summary of Fines Content vs. Elevation



2.3.4 Bulk Density

Bulk densities using direct measurement were 2094, 2175 and 2177 kg/m^3 , resulting in an average of 2148 kg/m^3 .

2.3.5 Specific Gravity

Specific gravity results were 3.54, 3.52 and 3.53. These values are within the range of past reported values (3.5-3.7) for conventional tailings below the APA (AMEC, 2012).

3.0 LIMITATIONS & CLOSURE

This report has been prepared for the exclusive use of Nyrstar Myra Falls for specific application to the area within this report. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. Amec Foster Wheeler accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. It has been prepared in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

Respectfully submitted,

**Amec Foster Wheeler Environment & Infrastructure,
a Division of Amec Foster Wheeler Americas Limited** Reviewed by:

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REFERENCES

AMEC Environment & Infrastructure, 2014. Myra Fall Tailings Storage Facilities, 2014-Q3 Dam Safety Inspection Report. November, 2014.

AMEC Environment & Infrastructure, 2012. 2011 Geotechnical Investigation Report, Paste Investigation and Instrumentation. April, 2012.

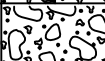
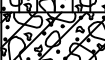
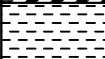
MEM 2015, "Review of Submission in Response to Chief Inspector's Orders Issued on August 18, 2014, dated January 27, 2015.



Appendix A

Borehole Logs

MODIFIED UNIFIED SOIL CLASSIFICATION SYSTEM INCLUDING IDENTIFICATION AND DESCRIPTIONS

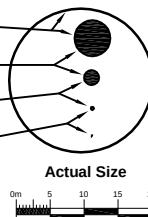
MAJOR DIVISION			TYPICAL DESCRIPTION		LABORATORY CLASSIFICATION CRITERIA	GROUP SYMBOL	GRAPH SYMBOL		
COARSE GRAINED SOILS (MORE THAN HALF BY WEIGHT LARGER THAN 75µm)	GRAVELS MORE THAN HALF THE COARSE FRACTION LARGER THAN 4.75mm	CLEAN GRAVEL (TRACE OR NO FINES)	WELL GRADED GRAVEL, GRAVELS - SAND MIXTURES, LITTLE OR NO FINES	$C_u = \left(\frac{D_{60}}{D_{10}}\right)$; $C_c = \left(\frac{(D_{30})^2}{D_{10} \times D_{60}}\right)$	$C_u \geq 4$ and $1 \leq C_c \leq 3$	GW			
			POORLY GRADED GRAVELS, GRAVEL- SAND MIXTURES, LITTLE OR NO FINES		NOT MEETING ABOVE REQUIREMENTS	GP			
		DIRTY GRAVEL (WITH SOME OR MORE FINES)	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES		ATTERBERG LIMITS BELOW "A" LINE OR P.I. LESS THAN 4	GM			
			CLAYEY GRAVELS, GRAVEL-SAND- CLAY MIXTURES		ATTERBERG LIMITS ABOVE "A" LINE P.I. MORE THAN 7	GC			
	SANDS MORE THAN HALF THE COARSE FRACTION SMALLER THAN 4.75mm	CLEAN SANDS (TRACE OR NO FINES)	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		$C_u \geq 4$ and $1 \leq C_c \leq 3$	SW			
			POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		NOT MEETING ABOVE REQUIREMENTS	SP			
		DIRTY SANDS (WITH SOME OR MORE FINES)	SILTY SANDS, SAND-SILT MIXTURES		ATTERBERG LIMITS BELOW "A" LINE OR P.I. LESS THAN 4	SM			
			CLAYEY SANDS, SAND-CLAY MIXTURES		ATTERBERG LIMITS ABOVE "A" LINE P.I. MORE THAN 7	SC			
	FINE-GRAINED SOILS (MORE THAN HALF BY WEIGHT SMALLER THAN 75µm)	SILTS BELOW "A" LINE NEGLECTIBLE ORGANIC CONTENT	LIQUID LIMIT W_L (%)		OVERSIZED MATERIAL: ROUNDED OR SUBROUNDED: COBBLES 76 TO 200mm; BOULDERS > 200mm NOT ROUNDED: ROCK FRAGMENTS > 76mm; ROCKS > 0.76 m³ IN VOLUME			FILL	
			$W_L < 50\%$	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY SANDS OF SLIGHT PLASTICITY	1. CLASSIFICATION IS BASED UPON PLASTICITY CHART (SEE BELOW). 2. ALL SIEVE SIZES ON THIS SHEET ARE U.S. STANDARD (ASTM E11). 3. IF THE NATURE OF THE FINES HAS NOT BEEN DETERMINED, IT IS DESIGNATED BY THE LETTER "F", (e.g. SF IS A MIXTURE OF SAND WITH SILT OR CLAY). 4. COARSE GRAIN SOILS WITH 5% TO 10% FINES GIVEN COMBINED GROUP SYMBOLS, E.G. GW-GP IS A WELL GRADED OR POORLY GRADED GRAVEL SAND MIXTURE WITH CLAY BINDER BETWEEN 5% AND 10% FINES.	ML			
$W_L > 50\%$			INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDS OR SILTY SOILS	MH					
CLAYS ABOVE "A" LINE NEGLECTIBLE ORGANIC CONTENT		$W_L < 30\%$	INORGANIC CLAYS OF LOW PLASTICITY, GRAVELLY, SANDY OR SILTY CLAYS, LEAN CLAYS	CL					
		$30\% < W_L < 50\%$	INORGANIC CLAYS OF MEDIUM PLASTICITY, SILTY CLAYS	CI					
		$W_L \geq 50\%$	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	CH					
ORGANIC SILTS & CLAYS BELOW "A" LINE		$W_L < 50\%$	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	OL					
		$W_L \geq 50\%$	ORGANIC CLAYS OF HIGH PLASTICITY	OH					
HIGHLY ORGANIC SOILS		PEAT AND OTHER HIGHLY ORGANIC SOILS		STRONG COLOUR OR ODOR, AND OFTEN FIBROUS TEXTURE		Pt			

SOIL GRAIN SIZE RANGE AND DISTRIBUTION

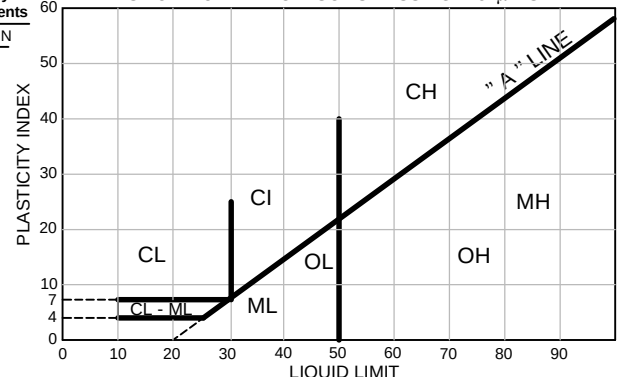
Material	Fraction	Sieve size (grain size)	Approx. Scale Size
Boulders		>(200-mm)	Larger than a soccer ball
Cobbles		Retained on 3-in (75-mm) sieve & < (200-mm)	Fist-size to Soccer ball
Gravel	Coarse	Passes 3-in (75-mm) sieve & retained on ¾ -in (19-mm) sieve	Thumb-sized to fist-sized
	Fine	Passes ¾ -in (19-mm) sieve & retained on No.4 (4.75-mm) sieve	Pea-sized to Thumb-sized
Sand	Coarse	Passes No.4 (4.75-mm) sieve & retained on No.10 (2.00-mm) sieve	Rock Salt to Pea-sized
	Medium	Passes No.10 (2.00-mm) sieve & retained on No.40 (425-µm) sieve	Sugar-sized to Rock Salt
	Fine	Passes No.40 (425-µm) sieve & retained on No.200 (75-µm) sieve	Flour sized to Sugar-sized
Fines (Silt/Clay)		Passes No. 200 (75-µm) sieve < 0.075mm	Flour-sized and smaller

Defining Ranges of % by Weight of Minor Components

PERCENT	DESCRIPTION
35 - 50	AND
20 - 35	Y / EY
10 - 20	SOME
1 - 10	TRACE



PLASTICITY CHART FOR SOILS PASSING 425 µm SIEVE



amec
foster
wheeler

TITLE:

MODIFIED UNIFIED SOIL CLASSIFICATION SYSTEM

Amec Foster Wheeler
Environment & Infrastructure
Suite 600 - 4445 Lougheed Highway
Burnaby, BC V5C 0E4
Tel. 604-294-3811 Fax 604-294-4664

DWN BY:	HY	DATUM:	N/A	DATE:	JANUARY 2015
CHK'D BY:	TM	REV. NO.:	N/A	PROJECT NO.:	N/A
PROJECTION:	N/A	SCALE:	AS SHOWN	REFERENCE NO.:	GEO - 1110

CLIENT: Nyrstar Myra Falls				PROJECT: 2015 APA Paste Berm Site Investigation				BOREHOLE NO: BH15-A01					
DRILLER: MUD BAY				PROJECT NO: NX14001D				TYPE:					
DRILL TYPE/METHOD: Sonic/Coring				MINE DATUM NORTHING: 3520 EASTING: 2682				MINE DATUM ELEVATION: 3391.4 m					
SAMPLE TYPE		☒ TUBE		☐ NO RECOVERY		☒ SPLIT SPOON		☐ GRAB		☐ MUD RETURN		☐ CORE RETURN	
BACKFILL TYPE		☒ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH		☐ GROUT		☒ DRILL CUTTINGS		☐ SAND	
DEPTH (m)	◆ POCKET PEN (kPa) ◆ 100 200 300 400 PLASTIC M.C. LIQUID 20 40 60 80	SOIL SYMBOL	SOIL DESCRIPTION						SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
0			EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace cobbles, poorly graded, max 105mm, angular, loose, brown to grey, damp to wet ... metallics, tailings sand mixed with gravel for 10cm Tailings sand, fine to medium grained, some fines, poorly graded, loose, grey, damp, metallics							G01		CPTu CPT15-A01 completed at N3520 E2682m	3391
1	◆									1.1m			G02
						G03							
2						G04							
						G05		3389					
						G06							
3						G07							
						G08		3388					
						G09							
						G10		3387					
4						G11							
						G12		3386					
						G13							
5					4.9m		G14		3385				
						G15							
6						G16		3384					
						G17							
						G18		3383					
						G19							
7						G20		3382					
						G21							
						G22		3381					
						G23							
8						G24		3380					
9													
10													
11													
12	●				11.3m			3379					
13													

BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A01	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3520 EASTING: 2682		MINE DATUM ELEVATION: 3391.4 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
		☐ GRAB		☐ MUD RETURN	
☐ CORE RETURN					
BACKFILL TYPE ☒ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GROUT		☐ DRILL CUTTINGS	
☐ SAND					

DEPTH (m)	POCKET PEN (kPa)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
13	100 200 300 400		Drillout from 11.9m to 19.5m NO SAMPLING (Tailings inferred)(continued)					3378
14								3377
15								3376
16								3375
17								3374
18								3373
19								3372
20			TAILINGS					3371
21								3370
22			TILL Gravel, poorly graded					3369
23			END OF HOLE at 22.6m					3368
24			Borehole backfilled with bentonite chips upon completion.					3367
25								3366
26								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 11.9 m
		ENTERED BY: BA	COMPLETION DATE: 01/04/2015
		REVIEWED BY: LF	Page 2 of 2

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A02	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3505 EASTING: 2680		MINE DATUM ELEVATION: 3386.2 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines, trace cobbles, max 95mm, loose to compact, angular, brown, moist to wet		G01		SCPTu SCPT15-A02 completed at N3507m E2681m		3386
1		G02		3385				
2		G03		3384				
3		G04		3383				
4		G05		3382				
5		G06		3381				
6		G07		3380				
7		G08		3379				
8		G09		3378				
9		G10		3377				
10		Tailings sand, fine grained, some fines, trace cobbles, poorly graded, loose, grey, moist 4.4m		G08	82	VW32228 installed at 3378.9m Sieve (GRAB G15): Gravel:% Sand:% Fines:82%		3382
11				G09				3381
12				G10				3380
13				G11				3379
14				G12				3378
15				G13				3377
16				G14				3376
17				G15				3375
18				G16				3374
19				G17				
20		G18						
21		G19						
22		G20						
23		G21						
24		G22						
25		G23						
26	G24							
27	G25							
28	G26							

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: CC	COMPLETION DEPTH: 14.9 m
		ENTERED BY: BA	COMPLETION DATE: 18/04/2015
		REVIEWED BY: LF	Page 1 of 2

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A02	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3505 EASTING: 2680		MINE DATUM ELEVATION: 3386.2 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13		TAILINGS Silt, some sand (fine to coarse grained), soft to firm, moist to wet, <1mm laminations, metallics, low to medium plastic (<i>continued</i>)	GRAB	G27				3373
14			GRAB	G28				3372
15			GRAB	G29				3371
15.9m		END OF HOLE at 14.9m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement	GRAB	G30				3370
16								3369
17								3368
18								3367
19								3366
20								3365
21								3364
22								3363
23								3362
24								3361
25								
26								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: CC	COMPLETION DEPTH: 14.9 m
		ENTERED BY: BA	COMPLETION DATE: 18/04/2015
		REVIEWED BY: LF	Page 2 of 2

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A03	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3493 EASTING: 2675		MINE DATUM ELEVATION: 3385.7 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, some fines, sandy (fine to coarse grained), trace cobbles, max 120mm, well graded, loose to compact, angular, brown-grey, wet		G1		SCPTu SCPT15-A03 completed at N3493m E2675m		3385
1		G02		3385				
2		G03		3384				
3		G04		3383				
4		G05		3382				
5		G06		3381				
6		G07		3380				
7		G08		3379				
8		G09		3378				
6.4m								
7		TAILINGS Silt and Sand to sandy (fine to coarse grained), soft to firm, dark grey, moist to wet, <1mm laminations, metallics, medium plastic ... trace cobbles		G11	43	Sieve (GRAB G11): Gravel:% Sand:% Fines:43%		3378
8		G12		3377				
9		G13		3376				
8.8m		G14		3375				
9		END OF HOLE at 8.8m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement				VW32232 installed at 3376.9m		3374
10								3373
11								
12								
13								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: CC	COMPLETION DEPTH: 8.8 m
		ENTERED BY: BA	COMPLETION DATE: 18/04/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A04	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3478 EASTING: 2662		MINE DATUM ELEVATION: 3382.8 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)	
0		EMBANKMENT FILL Gravel, fine to coarse grained, trace sand (fine to coarse grained), trace fines, max 90mm, loose, angular, grey, wet		G01		SCPTu SCPT15-A04 completed at N3478m E2662m	3382	
0.9m		Tailings sand, fine to coarse grained, trace fines, poorly graded, loose, grey, moist to wet		G02			3381	
2		... trace cobbles		G03			3380	
3		3.0m		Gravel, fine to coarse grained, some fines, some sand (fine to coarse grained), trace cobbles, max 95mm, well graded, loose, subangular, brown, moist			G05	3379
4		G06		3378				
5		G07		3377				
6		G08		3376				
6.1m		G09		3375				
7		G10		3374				
7.5m		G11		3373				
7.6m		G12		3372				
8		G13		3371				
9		G14		3370				
10		G15						
11								
12								
13								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: CC	COMPLETION DEPTH: 7.6 m
		ENTERED BY: ba	COMPLETION DATE: 01/01/1956
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A05	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3560 EASTING: 2785		MINE DATUM ELEVATION: 3391.4 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL		SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0			EMBANKMENT FILL Gravel, fine to coarse grained, some sand (fine to coarse grained), trace to some fines, trace cobbles up to 150mm, poorly graded, loose, angular, brown and grey, moist to saturated, trace tailings metallics		G01		SCPTu SCPT15-A05 completed at N3558m E2783m		3391
0.6m			Tailings Sand, fine to medium grained, trace to some fines, moderately well graded, loose, grey, moist, metallics		G02				3390
1			...1 cobble, 85mm, subangular		G03				3389
2					G04				3389
3					G05				3388
4					G06				3387
5			Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines, trace cobbles to 75mm, loose to compact, angular, brown and grey, damp, trace metallics		G07				3386
6			Tailings Sand, fine to medium grained (mostly fine grained), some fines, moderately well graded, loose, grey, moist, metallics		G08				3385
7			Gravel, fine to coarse grained, sandy, (fine to coarse grained), trace to some fines, trace cobbles to 115mm, poorly graded, loose, angular, light brown and grey, damp, trace metallics		G09				3384
8			Tailings Sand, fine to medium grained, some fines, moderately well graded, loose, grey, damp, metallics		G10				3383
9					G11				3382
10			Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines, trace cobbles to 95mm, poorly graded, loose to compact, angular, light brown and grey, moist		G12				3381
11					G13				3380
12			... beige to brown, saturated		G14				3379
13					G15				
					G16				
					G17				
					G18				
					G19				
					G20				
					G21				
					G22				
					G23				
					G24				
					G25				

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 36.3 m
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		REVIEWED BY: LF	Page 1 of 3

BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A05	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3560 EASTING: 2785		MINE DATUM ELEVATION: 3391.4 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GROUT		☐ DRILL CUTTINGS	
		☐ GRAB		☐ MUD RETURN	
				☐ CORE RETURN	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13		NO RECOVERY (Tailings inferred)		G26				3378
14		TAILINGS Silt, clayey, some sand (fine to medium grained), very soft to soft, dark grey, saturated, <1mm laminations, metallics, medium plastic		G27				3377
15				G28				3376
16				ANE01				3375
17				G29	94	No recovery in SH01.		3374
18				SH01		Sieve (GRAB G29): Gravel:% Sand:% Fines:94%		3373
19				G30		VW32225 installed at 3376.1m.		3372
20				G31				3371
21				G32				3370
22				G33				3369
23				ANE02				3368
24				G34	99	Electronic Vane Shear Test at 17.7m: Su (peak)=146.8kPa Su (remold)=75.8kPa		3367
25				SH02		Atterberg (TUBE SH02): Plastic Limit:19% Liquid Limit:25%		3366
26				G35		Sieve (TUBE SH02): Gravel:% Sand:1% Fines:99%		
27				G36				
28				G37				
29				G38				
30				G39				
31				G40				
32				ANE03				
33				G41				
34				G42				
35				G43				
36				SPT01	99			
37				G44				
38				G45				
39				G46				

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG ENTERED BY: BA/DG REVIEWED BY: LF	COMPLETION DEPTH: 36.3 m COMPLETION DATE: 02/04/2015
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BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUIZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A05	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3560 EASTING: 2785		MINE DATUM ELEVATION: 3391.4 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	▲ SPT "N" (BLOWS/300 mm) ▲ 20 40 60 80 ◆ POCKET PEN (kPa) ◆ 100 200 300 400 PLASTIC M.C. LIQUID 20 40 60 80	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
26			TAILINGS Silt, clayey, some sand (fine to medium grained), very soft to soft, dark grey, saturated, <1mm laminations, metallics, medium plastic(continued)		G47		Nilcon Vane Shear Test at 26.7m: Su (peak)=193.4kPa Su (remold)=116.0kPa Sieve (TUBE SH03): Gravel:0% Sand:1% Fines:99% VW32240 installed at 3360.8m.		3365
27			... 10 to 15mm thick layer of Clay, crumbly, beige, high plastic		ANE04 G48	99			3364
28					SH03 G49				
29			... 60mm thick Sand layer, brownish grey, saturated		G50				3363
30					G51				3362
31	25		... interbedded sandy seams, brown ... Sandy, fine to medium grained, moderately well graded, loose with compact sections, dark grey		G52 SPT02				3361
32					G53				3360
33					G54				3359
34	8		... trace to some fine grained sand, firm, light grey, saturated, <1mm laminations, trace metallics, medium to high plastic		SPT03 G55	96			3358
35			COLLUVIUM Gravel, fine to coarse grained, sandy (fine to coarse grained), trace fines, trace cobbles, poorly graded, max 80mm, subangular, loose, grey (brown and black in top 6"), moist to wet		G56			Sieve (GRAB G55): Gravel:% Sand:% Fines:96%	3357
36			TILL Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines, trace cobbles, poorly graded, max 90mm, subrounded to subangular, loose to compact, beige brown, saturated		G57		3356		
37			END OF HOLE at 36.3m				3355		
38			Vibrating Wire Piezometers installed and grouted to surface with mixture of bentonite and cement.				3354		
39									3353

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BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUJZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A06	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3547 EASTING: 2794		MINE DATUM ELEVATION: 3385.3 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)		SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)	
0			EMBANKMENT FILL Gravel, fine to coarse grained, sandy to and sand (fine to coarse grained), trace fines, trace cobbles, poorly graded, max 100mm, angular, yellowish brown, wet	GRAB	G01		CPTu CPT15-A06 completed at N3547m E2794m		3385	
0.9			Tailings sand, fine to medium grained, trace to some fines, poorly graded, loose, grey, metallics, wet	GRAB	G02				3384	
				GRAB	G03					
				GRAB	G04				3383	
3.0				Gravel, fine to coarse grained, some sand to sandy (fine to coarse grained), some fines, trace cobbles, poorly graded, max 100mm, angular, loose to compact, greyish beige, saturated	GRAB	G05				3382
				GRAB	G06					
				GRAB	G07				3381	
				GRAB	G08				3380	
				GRAB	G09					
				GRAB	G10				3379	
				GRAB	G12				3378	
7.6					GRAB	G13				
8				NO RECOVERY from 7.7 to 8.8m (Tailings inferred) Softness during advancement was noted by drillers						3377
8.8			TAILINGS Silt, trace to some fine grained sand, soft, <1mm laminations (slightly curved in SPT01), dark grey, metallics, saturated, medium to high plastic	SPT01	G15		3376			
				GRAB	G16	100	Sieve (GRAB G16): Gravel:% Sand:% Fines:100%	3375		
				GRAB	G17					
				GRAB	G18			3374		
11.9			END OF HOLE at 11.9m Vibrating Wire Piezometers installed and grouted to surface with mixture of bentonite and cement.				VW32229 installed at 3373.4m		3373	

	AMEC Environment & Infrastructure	LOGGED BY: DG	COMPLETION DEPTH: 11.9 m
	4385 Boban Drive	ENTERED BY: DG	COMPLETION DATE: 13/04/2015
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CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A07	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3519 EASTING: 2821		MINE DATUM ELEVATION: 3382.3 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		ROCKFILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace to some cobbles, poorly graded, max 110mm, subangular, compact to dense, damp to moist, light grey, massive				SCPTu SCPT15-A07 completed at N3519m E2821m		3382
1.2		TAILINGS Silt, trace to some fine grained sand, very soft, dark grey, saturated, <1mm undulating laminations, very disturbed, medium to high plastic						3381
2			G01	97		Sieve (GRAB G01): Gravel:% Sand:% Fines:97%		3380
3			G02	93		Sieve (GRAB G02): Gravel:% Sand:% Fines:93%		3379
4			G03					3378
4.6			G04	99		Sieve (GRAB G04): Gravel:% Sand:% Fines:99%		3377
4.6		END OF HOLE at 4.6m	G05			VW32231 installed at 3377.7m		3376
5		Vibrating Wire Piezometers installed and grouted to surface with mixture of bentonite and cement.						3375
6								3374
7								3373
8								3372
9								3371
10								3370
11								
12								
13								

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		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A08	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3493 EASTING: 2843		MINE DATUM ELEVATION: 3383.7 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY ☐ SPLIT SPOON ☐ GRAB		☐ MUD RETURN ☐ CORE RETURN	
BACKFILL TYPE ☒ BENTONITE		☐ PEA GRAVEL ☐ SLOUGH ☐ GROUT		☐ DRILL CUTTINGS ☐ SAND	

DEPTH (m)	▲ SPT "N" (BLOWS/300 mm) ▲ 20 40 60 80 ◆ POCKET PEN (kPa) ◆ 100 200 300 400 PLASTIC M.C. LIQUID 20 40 60 80	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0			EMBANKMENT FILL Gravel, fine grained to coarse grained, sandy fine to coarse grained, trace to some fines, trace cobbles, poorly graded, max 90mm, angular, loose, brown, saturated ... moist ... greyish brown, damp ... fine to coarse grained sand, grey		G01		CPTu CPT15-A08 completed at N3496m E2841m		
1				G02		3383			
2				G03		3382			
3				G04		3381			
4				G05		3380			
5				G08A		3379			
6				G09A		3378			
7				G10A		3377			
8				G11A		3376			
9				G12A		3375			
10				SPT01		3374			
11				VANE01		3373			
12			TAILINGS Silt, some fine grained sand, some clay, soft, dark grey, saturated, <1mm wavy laminations, metallics, medium plastic ... trace fine to coarse grained gravel, cobble (100mm, subangular), very soft, medium to high plastic ... <15mm thick sand seams		SH01		VW32220 installed at 3376.1m Nilcon Vane Shear Test at 8.4m: Su (peak)=53.7kPa Su (remold)=34.4kPa Sieve (GRAB G06): Gravel:% Sand:% Fines:91% Nilcon Vane Shear Test at 11.6m: Su (peak)=68.8kPa Su (remold)=51.6kPa		3372
13				G06		3371			
				VANE02					
				G07					
					SH02				
					G08				

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 27.4 m
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CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A08	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3493 EASTING: 2843		MINE DATUM ELEVATION: 3383.7 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13		... trace fine to coarse grained gravel, cobble (100mm, subangular), very soft, medium to high plastic (continued)		G09				3370
14				G10	99	Sieve (GRAB G10): Gravel:% Sand:% Fines:99%		3369
15		... some sand to sandy 10mm to 20mm thick seams		G11				3368
16				G12				3367
17				G13				3366
18				G14				3365
19				VANE03		Electronic Vane Shear Test at 16.75m: Su (peak)= maxed out Su (remold)= no remold		3364
20				G15	97	Sieve (GRAB G15): Gravel:% Sand:% Fines:97%		3363
21				G16				3362
22				G17				3361
23				SH03				3360
24		... Sandy, fine to medium grained, moderately well graded, sections of compact sand		G18				3359
25		... grey, low to medium plastic		G19				3358
26				G20				
				G21				
				G22				
				G23				
				VANE04		Electronic Vane Shear Test at 22.25m: Su (peak)= maxed out Su (remold)= no remold		
				G24				
				G25	80	Sieve (GRAB G25): Gravel:% Sand:% Fines:80%		
				G26				
				SPT02				
				G27				
				G28				
						VW32239 installed at 3357.8m		

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CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A08	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3493 EASTING: 2843		MINE DATUM ELEVATION: 3383.7 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
26		... trace fine to coarse grained gravel, cobble (100mm, subangular), very soft, medium to high plastic (continued)		G29				
26.8m				G30	97	Sieve (GRAB G30): Gravel:% Sand:% Fines:97%		3357
27		TILL Gravel, fine grained to coarse grained, sandy (fine grained to coarse grained), trace to some fines, trace cobbles, max 80mm, subrounded, loose, grey, saturated 27.4m ...brown, some fines		G31				3356
		END OF HOLE at 27.4m						3355
		Vibrating Wire Piezometers installed and grouted to surface with mixture of bentonite and cement.						3354
								3353
								3352
								3351
								3350
								3349
								3348
								3347
								3346
								3345

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CLIENT: Nyrstar Myra Falls			PROJECT: 2015 APA Paste Berm Site Investigation			BOREHOLE NO: BH15-A09		
DRILLER: MUD BAY			PROJECT NO: NX14001D			TYPE:		
DRILL TYPE/METHOD: Sonic/Coring			MINE DATUM NORTHING: 3665 EASTING: 2910			MINE DATUM ELEVATION: 3391.3 m		
SAMPLE TYPE			☒ TUBE	☐ NO RECOVERY	☐ SPLIT SPOON	☐ GRAB	☐ MUD RETURN	☐ CORE RETURN
BACKFILL TYPE			☐ BENTONITE	☐ PEA GRAVEL	☐ SLOUGH	☐ GROUT	☐ DRILL CUTTINGS	☐ SAND

DEPTH (m)	POCKET PEN (kPa)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
0			EMBANKMENT FILL Gravel, fine to coarse grained, sandy to and sand(fine to coarse grained), trace fines, trace cobbles, poorly graded max 100mm, loose, angular, yellowish brown, wet ... grey and brown, damp		G01		SCPTu SCPT15-A09 completed at N3665m E2920m	3391
1					G02			3390
2			Tailings sand, fine to medium grained, trace to some fines, poorly graded, loose, grey, damp to moist, metallics		G03			3389
3					G04			3388
4					G05			3387
5			Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace cobbles, poorly graded, max 95mm, angular, loose to compact, trace tailings sand, moist, reddish brown, metallics		G06			3386
6			Tailings sand, fine to medium grained, trace to some fines, poorly graded, loose, grey, damp to moist, metallics		G07			3385
7			Gravel, fine to coarse grained, sandy to and sand (fine to coarse grained), some fines, trace cobbles, poorly graded, max 110mm, loose to compact, angular, dark grey mixed with brown metallics, saturated		G08			3384
8			Tailings sand, fine to medium grained, trace to some fines, poorly graded, loose, grey, damp to moist, metallics		G09			3383
9					G10			3382
10			Gravel, fine to coarse grained, some sand to sandy(fine to coarse grained), trace to some fines, trace to some cobbles, max 115mm, poorly graded, loose to compact, angular, grey and light brown, damp to moist		G11			3381
11					G12			3380
12					G13			3379
13			TAILINGS Silt, clayey some fine grained sand, soft, dark grey, saturated, <1mm trace laminations, metallics, low plastic END OF HOLE at 11.9m Borehole backfilled with bentonite chips upon completion.		G14			
					G15			
					G16			
					G17			

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BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A10	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3656 EASTING: 2921		MINE DATUM ELEVATION: 3385.3 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace fines, trace cobbles, poorly graded, max 100mm, angular, loose to compact, light brown, saturated		G01	91	CPTu CPT15-A10 completed at N3655m E2920m Sieve (GRAB G13): Gravel:% Sand:% Fines:91%		3385
0.6m		G02		3384				
1.1m		G03		3384				
1.5m		G04		3383				
2.3m		G05		3383				
G06		3382						
G07		3382						
G08		3381						
G09		3381						
G10		3380						
5.6m		G11		3380				
6		TAILINGS Silt, trace to some fine grained sand, firm, dark grey, metallics, moist to saturated, non to low plastic ... some fine to medium grained sand, <1mm wavy laminations ... medium to high plastic		G12	91	VW21715 installed at 3376.8m		3379
G13		3378						
G14		3378						
G15		3377						
G16		3377						
G17		3376						
8.8m		G18		3375				
9		END OF HOLE at 8.8m						
10	Vibrating Wire Piezometers installed and grouted to surface with mixture of bentonite and cement.						3373	
11								
12								
13								

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		ENTERED BY: DG	COMPLETION DATE: 28/03/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A11	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3618 EASTING: 2954		MINE DATUM ELEVATION: 3382.6 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		ROCKFILL Gravel, fine to coarse grained, sandy to and sand (fine to coarse grained), trace fines, trace cobbles, poorly graded, angular, brownish grey, wet		G01		SCPTu SCPT15-A11 completed at N3618m E2954m		3382
1		Tailings sand, fine to coarse grained, trace to some fines, poorly graded, loose, grey, wet, trace pyritic inclusions		G02	81	Sieve (GRAB G02): Gravel:% Sand:% Fines:81%		3381
2		NO RECOVERY (Tailings inferred)						3380
2.7		END OF HOLE at 2.7m				VW32233 installed at 3379.8m		3379
3		Vibrating Wire Piezometers installed and grouted to surface with mixture of bentonite and cement.						3378
4								3377
5								3376
6								3375
7								3374
8								3373
9								3372
10								3371
11								3370
12								
13								

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		ENTERED BY: DG	COMPLETION DATE: 13/04/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A12	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3591 EASTING: 2983		MINE DATUM ELEVATION: 3383.6 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)	
0		EMBANKMENT FILL Gravel, fine to coarse grained, trace to some sand, trace fines, trace cobbles, poorly graded, loose, angular, brownish grey, damp		G01		CPTu CPT15-A12 completed at N3591m E2984m	3383	
1				G02			3382	
2				G03			3381	
3				G04			3380	
4				G05			3379	
5				G06			3378	
6				G07			3377	
7				G08			3376	
8				G09			3375	
9				G10			3374	
7		... grey to brown, metal wire pieces (5mm diameter)		G11	95	Sieve (GRAB G11): Gravel:% Sand:% Fines:95%	3376	
8		... trace metallics		G12			3375	
9		Tailings sand, fine to coarse grained, some gravel (fine to coarse grained), some fines, very loose, grey to beige, moist, trace metallics		G13	99		Sieve (GRAB G13): Gravel:% Sand:1% Fines:99%	3374
10		Gravel, fine to coarse grained, some sand (fine to coarse grained), trace cobbles, poorly graded, angular, loose, grey to brown, moist, trace metallics					3373	
8.8		TAILINGS Silt, clayey, some fine grained sand, soft, dark grey, saturated, <1mm laminations, pyritic inclusions, medium to high plastic					3372	
8.8		END OF HOLE at 8.8m Borehole backfilled with bentonite chips upon completion.					3371	

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CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A13	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3865 EASTING: 3072		MINE DATUM ELEVATION: 3391.3 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GROUT		☐ DRILL CUTTINGS	
		☐ GRAB		☐ MUD RETURN	
				☐ CORE RETURN	
				☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, trace to some sand, trace fines, trace cobbles, poorly graded, angular, brown, damp		G01		SCPTu SCPT15-A13 completed at N3865m E3072m	3391
1			G02		3390		
2			G03		3389		
3			G04		3389		
3		Tailings sand, fine to medium grained, some fines, poorly graded, loose, grey, damp, metallic inclusions		G05	2.9m		3388
4		Gravel, fine to coarse grained, some sand to sandy(fine to coarse grained), trace fines, trace cobbles, poorly graded, max 100mm, angular, loose, moist		G06	3.7m		3388
4				G07			3387
5				G08			3387
5				G09			3386
6		...damp to moist, trace oxidation		G10			3386
6				G11			3385
7				G12			3385
7		Tailings sand, fine to medium grained, some fines, poorly graded, loose, grey, damp, metallic inclusions		G13	7.0m		3384
8		...100mm cobble		G14			3384
8		...trace rootlets		G15			3383
9				G16			3383
9				G17	9.5m		3382
10		Gravel, fine to coarse grained, some sand (fine to coarse grained), trace to some fines, trace to some cobbles, max 100mm, angular, poorly graded, loose to compact, grey, damp to moist		G18			3382
11				G19			3381
12				G20			3380
13				G21			3379
				G22			3379

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BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A13	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3865 EASTING: 3072		MINE DATUM ELEVATION: 3391.3 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
13		TAILINGS					3378
13.4m							
13.7m		Silt, clayey, fine grained sand, very soft, dark grey, saturated, pyritic inclusions, medium plastic		G23	96	Sieve (GRAB G23): Gravel:% Sand:% Fines:96%	3377
		END OF HOLE at 13.7m					3376
		Borehole backfilled with bentonite chips upon completion.					3375
14							3374
15							3373
16							3372
17							3371
18							3370
19							3369
20							3368
21							3367
22							3366
23							
24							
25							
26							

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COMPLETION DEPTH: 13.7 m

COMPLETION DATE: 14/04/2015

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BOREHOLE LOG NX14001D_APA SI.GPJ AMEC.SRUIZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A14	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3849 EASTING: 3098		MINE DATUM ELEVATION: 3383.7 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GRAB		☐ MUD RETURN	
		☐ GROUT		☐ CORE RETURN	
		☐ DRILL CUTTINGS		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace fines, trace cobbles max 110mm, poorly graded, loose, light brown, saturated, trace wood pieces ...moist, grey		G01	96	CPTu CPT15-A14 completed at N3853m E3098m		3383
1		...reddish brown		G02				3382
2		...max 80mm, grey, trace metallics, moist		G03				
		...metal wire		G04				
		...max 125mm, biege to greyish brown, damp		G05				
		... saturated		G06				3381
				G07				
				G08				3380
				G09				
4.4m								
5		TAILINGS Silt, clayey, some fine to medium grained sand, very soft, grey, wet, no visible structure, medium to high plastic		G10	96	Sieve (GRAB G11): Gravel:% Sand:% Fines:96%		3379
5.8m				G11				3378
6		NO RECOVERY (Tailings inferred)		G12	96	VW1204 installed at 3376.8m		3377
7.3m								
8		END OF HOLE at 7.3m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement						3375
9								3374
10								3373
11								3372
12								3371
13								

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		ENTERED BY: BA	COMPLETION DATE: 01/01/1956
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A15	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3841 EASTING: 3111		MINE DATUM ELEVATION: 3383.6 m	
SAMPLE TYPE		☒ TUBE	☐ NO RECOVERY	☐ SPLIT SPOON	☐ GRAB
BACKFILL TYPE		☐ BENTONITE	☐ PEA GRAVEL	☐ SLOUGH	☐ GROUT
				☐ MUD RETURN	☐ CORE RETURN
				☐ DRILL CUTTINGS	☐ SAND

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sand (fine to coarse grained), trace fines, trace cobbles, max 90mm, poorly graded, loose, angular, brownish grey, saturated		G01	18	CPTu CPT15-A15 completed at N3841m E3111m Sieve (GRAB G05): Gravel:% Sand:% Fines:18% VW32237 installed at 3379.9m		3383
1		G02		3382				
2		G03		3381				
3		G04		3380				
3		3.0m		G05				3379
4		TAILINGS Sand (fine to medium grained), some silt and clay, very soft, no structure (disturbed), dark grey, saturated, medium to high plastic ... very poor recovery from 2.7 to 5.8m						3378
5							3377	
6							3376	
6		5.8m		SPT01		SPT01 went down 300mm from weight of hammer.		3375
7		NO RECOVERY (Tailings inferred)						3374
8							3373	
9							3372	
9		8.9m						3371
10		END OF HOLE at 8.9m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement						3370
11							3369	
12							3368	
13							3367	

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		ENTERED BY: BA	COMPLETION DATE: 14/04/2015
		REVIEWED BY: LF	Page 1 of 1

BOREHOLE LOG NX14001D_APA SI.GPJ AMEC.SRUIZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A16	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3849 EASTING: 3098		MINE DATUM ELEVATION: 3383.6 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines, trace cobbles, max 100mm, poorly graded, loose to compact, subangular, brownish grey, moist		G01	13	CPTu CPT15-A16 completed at N3826m E3143m	3383
1		...		G02		Sieve (GRAB G02): Gravel:57% Sand:30% Fines:13%	3382
2		...		G03			3381
3		...		G04			3380
4		...		G05			3379
5		...		G06			3378
6		...		G07			3377
7		...		G08			3376
5.0m		Tailings sand, fine to medium grained, some silt, poorly graded, loose to compact, massive, grey, moist, metallics		G09			3375
5.8m		Gravel, fine to coarse grained, some sand, some silt, trace cobbles, max 95mm, angular, loose, grey, saturated, metallics		G10			3374
7.6m		TAILINGS Sand (fine to medium grained), silty, poorly graded, loose, grey, moist, pyritic inclusions		G11			3373
8.8m				G12			3372
8		END OF HOLE at 8.8m Borehole backfilled with bentonite chips upon completion.		G13			3371
9				G14			
10				G15			
11							
12							
13							

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		ENTERED BY: BA	COMPLETION DATE: 15/04/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A17	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4035 EASTING: 3167		MINE DATUM ELEVATION: 3391.2 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
		☐ GRAB		☐ MUD RETURN	
BACKFILL TYPE ☒ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GROUT		☐ DRILL CUTTINGS	
		☐ SAND			

DEPTH (m)	▲ SPT "N" (BLOWS/300 mm) ▲ 20 40 60 80 ◆ POCKET PEN (kPa) ◆ 100 200 300 400 PLASTIC M.C. LIQUID 20 40 60 80	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0			EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace cobbles, max 90mm, poorly graded, loose, light brown, saturated ... trace metallics in sand, moist				SCPTu SCPT15-A17 completed at N4034m E3168m		3391
1									3390
2			Tailings sand, fine to medium grained (trace coarse grained), trace to some fines, trace gravel (fine to coarse grained), gravel poorly to moderately well graded, loose, dark grey, moist, metallics ... 300mm of Gravel, fine to coarse grained, sandy (fine to coarse grained), trace cobbles, trace fines, max 75mm, poorly graded, loose, subangular, grey and brown, damp			1.7m			3389
3									3388
4			Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace cobbles, max 100mm, poorly graded, loose, grey and dark brown, moist ...dark brown, wet			3.8m			3387
5			...grey and light brown, damp						3386
6			... beige to light brown, saturated						3385
7			Tailings sand, fine to medium grained, some fines, moderately well graded, loose, dark grey, damp, metallics			7.0m			3384
8									3383
9			...trace to some fines, highly disturbed -discontinuous and very undulating- laminations						3382
10									3381
11			Gravel, fine to coarse grained, sandy (fine to coarse grained), trace cobbles, trace fines, max 105mm, poorly graded, loose, subangular, grey and light brown, damp			11.1m			3380
12			... loose to compact, angular, beige to light brown, saturated						3379
13									

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		ENTERED BY: BA	COMPLETION DATE: 06/04/2015
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CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A17	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4035 EASTING: 3167		MINE DATUM ELEVATION: 3391.2 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GROUT		☐ DRILL CUTTINGS	
		☐ GRAB		☐ MUD RETURN	
				☐ CORE RETURN	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13		Gravel, fine to coarse grained, sandy (fine to coarse grained, trace cobbles, trace fines, max 105mm, poorly graded, loose, subangular, grey and light brown, damp) (continued)						3378
14		NO RECOVERY (Tailings inferred)						3377
15		TAILINGS Silt, clayey, some fine grained sand, trace fine to medium grained gravel to 16.75m, very soft to soft, dark grey, saturated, <1mm wavy to undulating laminations, metallics, medium to high plastic		G24	90	Sieve (GRAB G24): Gravel:% Sand:% Fines:90%		3376
16				G25				3375
17				G26				3374
18				G27		VW32222 installed at 3374.1m		3373
19				ANE01		Nilcon Vane Shear Test at 17.6m: Su (peak)=148.3kPa Su (remold)=75.2kPa		3372
20				G28				3371
21				SH01	99	Sieve (GRAB G29): Gravel:% Sand:% Fines:99%		3370
22				G29				3369
23				SPT02				3368
24				G30				3367
25				G31				3366
26				G32				
				G33				
				SPT03				
				G34	97	Sieve (GRAB G34): Gravel:% Sand:% Fines:97%		
				G35				
				G36				
				G37				
				ANE02		Nilcon Vane Shear Test at 23.7m: Su (peak)=139.7kPa Su (remold)=105.3kPa		
				G38		Atterberg (TUBE SH02): Plastic Limit:17% Liquid Limit:21%		
				SH02	97	Sieve (GRAB G39): Gravel:% Sand:% Fines:97%		
				G39				
				G40				
				G41				



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COMPLETION DEPTH: 41.1 m
COMPLETION DATE: 06/04/2015

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CLIENT: Nyrstar Myra Falls			PROJECT: 2015 APA Paste Berm Site Investigation			BOREHOLE NO: BH15-A17					
DRILLER: MUD BAY			PROJECT NO: NX14001D			TYPE:					
DRILL TYPE/METHOD: Sonic/Coring			MINE DATUM NORTHING: 4035 EASTING: 3167			MINE DATUM ELEVATION: 3391.2 m					
SAMPLE TYPE			☒ TUBE	☐ NO RECOVERY	☒ SPLIT SPOON	☒ GRAB	☐ MUD RETURN	☐ CORE RETURN			
BACKFILL TYPE			☒ BENTONITE	☐ PEA GRAVEL	☐ SLOUGH	☐ GROUT	☒ DRILL CUTTINGS	☐ SAND			
DEPTH (m)	▲ SPT "N" (BLOWS/300 mm)▲ 20 40 60 80 ◆ POCKET PEN (kPa)◆ 100 200 300 400 PLASTIC M.C. LIQUID 20 40 60 80	SOIL SYMBOL	SOIL DESCRIPTION			SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
26			TAILINGS Silt, clayey, some fine grained sand, trace fine to medium grained gravel to 16.75m, very soft to soft, dark grey, saturated, <1mm wavy to undulating laminations, metallics, medium to high plastic(continued) ... 20mm Clay seam, cream coloured, very high plastic, crumbly ... soft to firm				G42				3365
27	5						G43	98	Sieve (SPT SPT04): Gravel:% Sand:% Fines:98%		3364
							SPT04				
							G44				
28							G45				3363
29							G46				3362
30							G47		Nilcon Vane Shear Test at 29.8m: Su (peak)=maxxed out Su (remold)=no remold		3361
							ANE03				
							G48	99	Sieve (GRAB G48): Gravel:% Sand:% Fines:99%		3360
							SH03				
31							G49				3359
32							G50				3358
33							G51				3357
							G52				3356
	8						G53				3355
							SPT05				
34							G54				3354
35							G55				3353
							G56		VW32241 installed at 3356.2m		3352
36							G57				3351
	20		... low to medium plastic				SPT06A	97	Sieve (SPT SPT06A): Gravel:% Sand:% Fines:97%		3350
							G58	67			3349
							SPT06B		Sieve (SPT SPT06B): Gravel:% Sand:% Fines:67%		3348
37							G59				3347
38							G60				3346
39							G61				3345
			AMEC Environment & Infrastructure			LOGGED BY: DG			COMPLETION DEPTH: 41.1 m		
			4385 Boban Drive			ENTERED BY: BA			COMPLETION DATE: 06/04/2015		
			Nanaimo, BC V9T 5V9			REVIEWED BY: LF			Page 3 of 4		
			Tel: (250) 758-1887								

BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUIZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A17	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4035 EASTING: 3167		MINE DATUM ELEVATION: 3391.2 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
39		... sand, fine to medium grained, moderately well graded, compact, dark grey, saturated, no visible laminations, metallics		G62	76	Sieve (SPT SPT07): Gravel:% Sand:% Fines:76%		3352
39.9		... traces of native till		SPT07				
40.2				G63				3351
41		BOULDER						3350
41.1		END OF HOLE at 41.1m						3349
42		Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement						3348
43								3347
44								3346
45								3345
46								3344
47								3343
48								3342
49								3341
50								3340
51								
52								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 41.1 m
		ENTERED BY: BA	COMPLETION DATE: 06/04/2015
		REVIEWED BY: LF	Page 4 of 4

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A18	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4038 EASTING: 3196		MINE DATUM ELEVATION: 3383.5 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	PLASTIC	M.C.	LIQUID	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0					EMBANKMENT FILL Gravel, fine to coarse grained, some sand (fine to coarse grained), trace cobbles, trace fines, max 150mm, poorly graded, loose, angular, brown, damp		G01		CPTu CPT15-A18 completed at N4038m E3196m		3383
1							G02				3382
2							G03				3381
3					... sandy (fine to coarse grained), trace to some fines, trace cobbles, max 100mm, greyish brown		G04				3380
4							G05				3379
5							G06				3378
6					... some silt to silty		G07				3377
7					TAILINGS Silt, clayey, sandy (fine grained), soft to firm, grey, moist to wet, laminated, pyritic inclusions, low to medium plastic		G08		VW17730 installed at 3376.8m		3376
							G09		Sieve (GRAB G12): Gravel:% Sand:% Fines:96%		3375
							G10				3374
							G11				3373
							G12				3372
							G13				3371
					END OF HOLE at 7.3m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement.						

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		ENTERED BY: BA	COMPLETION DATE: 15/04/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A19	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4046 EASTING: 3214		MINE DATUM ELEVATION: 3383.2 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, some sand to sandy (fine to coarse grained), trace to some cobbles, trace fines, poorly graded, loose, grey, damp		G01		CPTu CPT15-A19 completed at N4046m E3214m		3383
1		... some fines		G02				3382
2				G03				3381
3				G04				3380
4		... some fines, max 95mm, loose to compact, subangular, brown, damp to moist		G05				3379
5		... trace rootlets, organics		G06				3378
6				G07				3377
7				G08				3376
8				G09				3375
9		TAILINGS Silt, and sand, clayey, soft, dark grey, wet, <1mm laminations, dark grey, pyritic inclusions, medium plastic NO RECOVERY (Tailings inferred)		G10	56	Sieve (GRAB G10): Gravel:% Sand:% Fines:56%		3374
10		END OF HOLE at 8.8m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement.				VW32234 installed at 3376.0m		3373
11								3372
12								3371
13								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: CC	COMPLETION DEPTH: 8.8 m
		ENTERED BY: BA	COMPLETION DATE: 15/04/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls			PROJECT: 2015 APA Paste Berm Site Investigation			BOREHOLE NO: BH15-A20																							
DRILLER: MUD BAY			PROJECT NO: NX14001D			TYPE:																							
DRILL TYPE/METHOD: Sonic/Coring			MINE DATUM NORTHING: 4053 EASTING: 3247			MINE DATUM ELEVATION: 3383.6 m																							
SAMPLE TYPE			☒ TUBE			☐ NO RECOVERY			☒ SPLIT SPOON			☐ GRAB			☐ MUD RETURN			☐ CORE RETURN											
BACKFILL TYPE			☒ BENTONITE			☐ PEA GRAVEL			☐ SLOUGH			☐ GROUT			☒ DRILL CUTTINGS			☐ SAND											
DEPTH (m)			◆ POCKET PEN (kPa) ◆ 100 200 300 400 PLASTIC M.C. LIQUID 20 40 60 80			SOIL SYMBOL			SOIL DESCRIPTION			SAMPLE TYPE			SAMPLE NO			% Fines <No.200			ADDITIONAL INFORMATION			VIBRATING WIRE			ELEVATION (m)		
0									EMBANKMENT FILL									CPTu CPT15-A20 completed at N4054m E3247m						3383					
1									Gravel, fine to coarse grained, sandy (fine to coarse grained), trace cobbles, trace fines, max 100mm, subangular, poorly graded, loose, brown and grey, damp						G01									3382					
2									2.1m						G02									3381					
3									Tailings sand, fine to medium grained, some fines, poorly graded, loose, light grey, damp, metallics						G03									3380					
4									... moist						G04									3379					
5									... and silt						G05									3378					
6									... piece of fabric						G06									3377					
7									4.3m						G07									3376					
8									Gravel, fine to coarse grained, some sand (fine to coarse grained), some fines, trace cobbles max 90mm, subangular, poorly graded, loose to compact, light brown, moist						G08									3375					
9									... trace tailings						G09									3374					
10									6.9m						G10									3373					
11									7.3m						G11									3372					
12									TAILINGS						G12									3371					
13									Silt, clayey, sandy (fine to coarse grained), some gravel (fine to coarse grained), very soft, grey, saturated, medium plastic						VANE01						Nilcon Vane Shear Test at 10.0m: Su (peak)=90.3kPa Su (remold)=36.5kPa						3370		
14									NO RECOVERY (Tailings inferred)						SH01									3369					
15									10.4m						G13									3368					
16									Silt, clayey, some fine grained sand, very soft, dark grey, saturated, ~1mm laminations, metallics, medium to high plastic						G14									3367					
17															G15									3366					
18															G16									3365					
19																					Sieve (GRAB G15): Gravel:% Sand:% Fines:99%						3364		
20																								3363					
21																								3362					
22																								3361					
23																								3360					
24																								3359					
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147																								3236					
148																								3235					
149																								3234					
150																								323					

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A20	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4053 EASTING: 3247		MINE DATUM ELEVATION: 3383.6 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
		☐ GRAB		☐ MUD RETURN	
		☐ GROUT		☐ CORE RETURN	
		☐ DRILL CUTTINGS		☐ SAND	

DEPTH (m)	POCKET PEN (kPa)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13			TAILINGS Silt, clayey, some fine grained sand, very soft, dark grey, saturated, ~1mm laminations, metallics, medium to high plastic (<i>continued</i>)		G17				3370
14					G18				
15					ANE02 G19		Nilcon Vane Shear Test at 14.5m: Su (peak)=43.1kPa Su (remold)=22.4kPa		3369
16					G20				3368
17					G21				3367
18					G22				3367
19					G23				3367
20					G24				3367
21					G25	100	Sieve (GRAB G25): Gravel:% Sand:% Fines:100%		3366
22					G26				3366
23					G27				3365
24			... 20mm seam of Clay, soft, cream coloured, moist, high plastic		G28				3365
25					ANE03 G29		Nilcon Vane Shear Test at 19.0m: Su (peak)=39.2kPa Su (remold)=19.0kPa		3364
26			... low to medium plastic		G30				3364
27					SH01				3363
28					G31				3363
29					G32				3363
30					G33	99	Sieve (GRAB G33): Gravel:% Sand:% Fines:99%		3362
31					G34				3362
32					ANE04 G35		Nilcon Vane Shear Test at 22.1m: Su (peak)=131.1kPa Su (remold)=81.7kPa		3361
33					G36				3361
34					G37				3360
35					G38				3360
36					G39				3359
37					G40				3359
38					G41				3358
39						99			3358

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		ENTERED BY: BA	COMPLETION DATE: 03/04/2015
		REVIEWED BY: LF	Page 2 of 3

BOREHOLE LOG NX14001D APA SI.GPJ AMEC.SRUIZ-DT.GDT 12/6/15

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A20	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4053 EASTING: 3247		MINE DATUM ELEVATION: 3383.6 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	POCKET PEN (kPa)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
26			TAILINGS Silt, clayey, some fine grained sand, very soft, dark grey, saturated, ~1mm laminations, metallics, medium to high plastic (<i>continued</i>)		G42		Sieve (GRAB G42): Gravel:% Sand:% Fines:99%		3357
27			... sandy (fine grained), saturated		G43				
					G44				
					G45		VW32238 installed at 3356.2m		3356
28					G46				
					G47				3355
29					G48				3354
30			... some sand to sandy		G49				3353
					G50				
31					G51				3352
			... low plastic		G52				
32					G53	81	Sieve (GRAB G53): Gravel:% Sand:% Fines:81%		3351
					G54				3350
33					G55				3349
			COLLUVIUM Sand, fine grained to trace medium grained, some silt to silty, trace fine to coarse grained gravel, max 40mm, subrounded, dark brown and black, damp, organics, pieces of wood up to 45mm in diameter		G56				3348
34			... fine to coarse grained, trace gravel, trace fines, poorly graded to moderately well graded, brown to grey, wet		G57				3347
			TILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, poorly graded, max 45mm, loose to compact, subrounded, dark beige, saturated		G58				3346
35			END OF HOLE at 34.7m						3345
36			Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement						
37									
38									
39									

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 34.7 m
		ENTERED BY: BA	COMPLETION DATE: 03/04/2015
		REVIEWED BY: LF	Page 3 of 3

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A21	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4101 EASTING: 3113		MINE DATUM ELEVATION: 3391.5 m	
SAMPLE TYPE		☒ TUBE ☐ NO RECOVERY ☐ SPLIT SPOON ☐ GRAB ☐ MUD RETURN ☐ CORE RETURN			
BACKFILL TYPE		☐ BENTONITE ☐ PEA GRAVEL ☐ SLOUGH ☐ GROUT ☐ DRILL CUTTINGS ☐ SAND			
DEPTH (m) PLASTIC M.C. LIQUID 20 40 60 80		SOIL SYMBOL		SOIL DESCRIPTION	
0 1 2 3 4 5 6 7 8 9 10 11 12 13		EMBANKMENT FILL Gravel, fine to coarse grained, some sand (fine to medium grained), trace fines, trace cobbles, max 100mm, poorly graded, loose, angular, brownish grey, damp Tailings sand, fine grained, trace fines, compact to dense, grey, damp to moist, <1mm laminations, pyritic inclusions Gravel, fine to coarse grained, sandy, some fines to finesy, trace cobbles, max 90mm, poorly graded, loose, subangular, grey-brown, moist ... trace rootlets, organics Tailings sand, fine to medium grained, trace fines, poorly graded, loose to compact, grey, moist, pyritic inclusions Gravel, fine to coarse grained, some sand (fine to coarse grained), trace cobbles, trace fines, poorly graded, loose, angular, grey, damp ... sandy, trace fines, brown		SAMPLE TYPE SAMPLE NO % Fines <No.200 G01 G02 G03 G06 G07 G08 G09 G10 G11 G12 G13 G14 G15 G16 G17 G18 G19 G20 G21 G22 G23 G24 G25 1.8m 3.0m 8.8m 9.4m 12.8m	
ADDITIONAL INFORMATION SCPTu SCPT15-A21 completed at N4101m E3113m VW32219 installed at 3382.7m		VIBRATING WIRE 3391- 3390- 3389- 3388- 3387- 3386- 3385- 3384- 3383- 3382- 3381- 3380- 3379-		ELEVATION (m)	
AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887		LOGGED BY: CC ENTERED BY: BA REVIEWED BY: LF		COMPLETION DEPTH: 13.4 m COMPLETION DATE: 15/04/2015	

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A21	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4101 EASTING: 3113		MINE DATUM ELEVATION: 3391.5 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13		TAILINGS Silt, clayey, sandy (fine grained), soft to firm, dark grey, moist to wet, <1mm laminations (fine grained brown sand), medium plastic(<i>continued</i>) END OF HOLE at 13.4m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement		G26	98	VW32226 installed at 3378.1m Sieve (GRAB G26): Gravel:% Sand:% Fines:98%		3378
14								3377
15								3376
16								3375
17								3374
18								3373
19								3372
20								3371
21								3370
22								3369
23								3368
24								3367
25								3366
26								

	AMEC Environment & Infrastructure	LOGGED BY: CC	COMPLETION DEPTH: 13.4 m
	4385 Boban Drive	ENTERED BY: BA	COMPLETION DATE: 15/04/2015
	Nanaimo, BC V9T 5V9	REVIEWED BY: LF	Page 2 of 2

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A22	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4118 EASTING: 3133		MINE DATUM ELEVATION: 3383.6 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, some sand (fine to coarse grained), trace cobbles, trace fines, max 110mm, poorly graded, loose, subangular to angular, brownish grey, damp		G01	99	CPTu CPT15-A22 completed at N4118m E3133m VW32230 installed at 3376.3m Sieve (GRAB G14): Gravel:% Sand:% Fines:99%		3383
1		G02		3382				
2		G04		3381				
3		G06		3380				
4		G07		3379				
5		G08		3378				
6		G09		3377				
7		G10		3376				
8		G11		3375				
9		G12		3374				
6.4m		TAILINGS Silt, sandy (fine grained), soft, grey, wet, <1mm laminations, pyritic inclusions, low to medium plastic		G13				3373
8.8m		END OF HOLE at 8.8m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement		G14				3372
				G15				3371
				G16				
				G17				

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		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A23	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4130 EASTING: 3145		MINE DATUM ELEVATION: 3383.7 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines, trace cobbles, max 95mm, poorly graded, loose to compact, subangular, brownish grey, moist to wet		G01		CPTu CPT15-A23 completed at N4130m E145m		3383
1		G02		3382				
2		G03		3381				
3		G04		3380				
4		G05		3379				
5		TAILINGS Silt, sandy (fine grained), soft, dark grey, wet, <1mm laminations, pyritic inclusions, medium plastic		G06		Sieve (GRAB G10): Gravel:% Sand:% Fines:98% VW32236 installed at 3377.9m		3378
6		G07		3377				
6.4	END OF HOLE at 6.4m Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement			SPT01				3376
7								3375
8								3374
9								3373
10								3372
11								3371
12								
13								

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		ENTERED BY: BA	COMPLETION DATE: 15/04/2015
		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A24	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4155 EASTING: 3179		MINE DATUM ELEVATION: 3383.0 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, some fine to coarse grained sand, trace cobbles, trace fines, max 120mm, very loose, angular, brownish grey, saturated, wood pieces ... damp ... sandy, damp		G01	74	CPTu CPT15-A24 completed at N4155m E3179m	3382
1				G02			3382
2				G03			3381
3				G04			3381
4				G05			3380
5				G06			3379
6				G07			3379
7				G08			3378
8				G09			3378
9				G10			3377
7.3		END OF HOLE at 7.3m Borehole backfilled with bentonite chips upon completion.					3376
7.3							3375
7.3							3374
7.3							3373
7.3							3372
7.3							3371

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		REVIEWED BY: LF	Page 1 of 1

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A25	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4066 EASTING: 3296		MINE DATUM ELEVATION: 3376.5 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY ☐ SPLIT SPOON ☐ GRAB		☐ MUD RETURN ☐ CORE RETURN	
BACKFILL TYPE ☒ BENTONITE		☐ PEA GRAVEL ☐ SLOUGH ☐ GROUT		☐ DRILL CUTTINGS ☐ SAND	

DEPTH (m)		SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)	
0			EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace cobbles, trace fines, poorly graded, max 100mm, angular, loose, mix of beige/brown/grey, trace wood, saturated ... damp		G01		SCPTu SCPT15-A25 completed at N4065m E3296m		3376	
1						G01				3375
2						G03				3374
3						G04				3373
4						G05				3372
5						G06				3371
6						G07				3370
7				... some sand, some fines		G08				3369
8				... sandy, trace fines		G09				3368
9						G10	8		Sieve (GRAB G10): Gravel:56% Sand:36% Fines:8%	3367
10					G11			3366		
11					G12			3365		
12					G13			3364		
13					G14					
					G15					
					G16					
					G17					
					G18					
					G19	31	Sieve (GRAB G19): Gravel:1% Sand:68% Fines:31%			
					G20					
					G21					
					G22	99	Sieve (GRAB G22): Gravel:% Sand:% Fines:99%			
					G23					
					G24					
					G25					
					G26					

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 30.2 m
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CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A25	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4066 EASTING: 3296		MINE DATUM ELEVATION: 3376.5 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY ☐ SPLIT SPOON ☐ GRAB		☐ MUD RETURN ☐ CORE RETURN	
BACKFILL TYPE ☒ BENTONITE		☐ PEA GRAVEL ☐ SLOUGH ☐ GROUT		☐ DRILL CUTTINGS ☐ SAND	

DEPTH (m)		SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
13			Silt, clayey, trace sand, very soft to soft, low to medium plastic, <1mm wavy to undulating laminations, dark grey, metallics, saturated(continued)		G27				3363
14					G28				
15					G29	99			3362
16			... gravelly (fine grained to coarse grained), soft to firm, massive		ANE01		Sieve (GRAB G29): Gravel:% Sand:% Fines:99%		
17			... trace gravel (fine to medium grained)		ANE02		Nilcon Vane Shear Test at 14.4m: Su (peak)= maxxed out (vane rods not tightened) Su (remold)= no remold		
18	7		... some sand		G30		Nilcon Vane Shear Test at 14.8m: Su (peak)=68.8kPa Su (remold)=62.3kPa		
19					SH01				
20					G31				
21					G32				
22			... Sand and silt, fine to medium grained, moderately well graded, loose, <1mm laminations, dark grey, metallics, wet		G33				
23					G34	94	Sieve (GRAB G34): Gravel:% Sand:% Fines:94%		
24	13		...cobble max 105mm, angular		G35		Nilcon Vane Shear Test at 17.5m: Su (peak)= maxxed out Su (remold)=no remold		
25			...some fines to and fines, trace laminations, saturated		ANE03		Atterberg (TUBE SH02): Plastic Limit:18% Liquid Limit:28%		
26			...sandy to and sand (fine grained), soft, medium plastic, <1mm wavy to undulating laminations, dark grey,		SPT02				
27					G36				
28					SH02				
29					G37				
30					G38				
31					G39				
32					ANE04		Nilcon Vane Shear Test at 19.5m: Su (peak)= maxxed out Su (remold)=no remold		
33					G40	97	Sieve (GRAB G40): Gravel:% Sand:% Fines:97%		
34					G41				
35					G42				
36					SPT03				
37					G43	43	Sieve (GRAB G43): Gravel:% Sand:% Fines:43%		
38					SPT04		VW32227 installed at 3352.1m		
39					G44				
40					G45				

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		ENTERED BY: BA	COMPLETION DATE: 04/04/2015
		REVIEWED BY: DG	Page 2 of 3

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A25	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 4066 EASTING: 3296		MINE DATUM ELEVATION: 3376.5 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLOUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	VIBRATING WIRE	ELEVATION (m)
26		metallics		G46				
		... Sand and silt, fine to medium grained, moderately well graded, loose, <1mm laminations, dark grey, metallics, wet (<i>continued</i>)		G47				3350
27		... Sandy, fine grained to coarse grained, trace to some fines, moderately well graded, loose, dark grey, trace organics, metallics		G48				
		27.6m		G49	58	Sieve (GRAB G49): Gravel:% Sand:% Fines:58%		3349
28		SAND fine grained to coarse grained, trace to some fines, poorly graded, loose, reddish brown, organics and wood, saturated		G50				
		28.2m		G51				3348
29		TILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace cobbles, poorly graded, max 95mm, rounded to angular, greyish beige, saturated		G52				
		...reddish brown		G53				3347
30		...blueish grey						3346
		30.2m						
31		END OF HOLE at 30.2m						3345
		Vibrating Wire Piezometer installed and grouted to surface with mixture of bentonite and cement						3344
32								3343
33								3342
34								3341
35								3340
36								3339
37								3338
38								
39								

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: DG	COMPLETION DEPTH: 30.2 m
		ENTERED BY: BA	COMPLETION DATE: 04/04/2015
		REVIEWED BY: DG	Page 3 of 3

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A26	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3466 EASTING: 2869		MINE DATUM ELEVATION: 3377.9 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY		☐ SPLIT SPOON	
☐ BENTONITE		☐ PEA GRAVEL		☐ SLUGH	
☐ GRAB		☐ GROUT		☐ DRILL CUTTINGS	
☐ MUD RETURN		☐ CORE RETURN		☐ SAND	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
0		EMBANKMENT FILL Gravel, fine to coarse grained, sandy (fine to coarse grained), trace to some fines, trace cobbles, max 150mm, poorly graded, loose		G01		SCPTu SCPT15-A26 completed at N3466m E2869m	3377
1		... boulder, 150mm fragment found in core		G02			3376
2		... trace fines		G03			3375
3				G04			3374
4				G05			3373
5		... brownish grey, moist		G06			3372
6				G07			3371
7				G08			3370
8		... 300mm Sand, fine to coarse grained, poorly graded, compact, dark grey, moist		G09			3369
9				G10			3368
10				G11			3367
11				G12			3366
12				G13			3365
13		TAILINGS Sand, fine to medium grained, silty, loose to compact, dark grey, wet, pyritic inclusions		G14			
				G15			
				G16			
				G17			
				G18			
				G19			
				G20			
				G21			

	AMEC Environment & Infrastructure 4385 Boban Drive Nanaimo, BC V9T 5V9 Tel: (250) 758-1887	LOGGED BY: CC ENTERED BY: BA REVIEWED BY: LF	COMPLETION DEPTH: 24.1 m COMPLETION DATE: 16/04/2015
			Page 1 of 2

CLIENT: Nyrstar Myra Falls		PROJECT: 2015 APA Paste Berm Site Investigation		BOREHOLE NO: BH15-A26	
DRILLER: MUD BAY		PROJECT NO: NX14001D		TYPE:	
DRILL TYPE/METHOD: Sonic/Coring		MINE DATUM NORTHING: 3466 EASTING: 2869		MINE DATUM ELEVATION: 3377.9 m	
SAMPLE TYPE ☒ TUBE		☐ NO RECOVERY ☐ SPLIT SPOON ☐ GRAB		☐ MUD RETURN ☐ CORE RETURN	
BACKFILL TYPE ☒ BENTONITE		☐ PEA GRAVEL ☐ SLOUGH ☐ GROUT		☐ DRILL CUTTINGS ☐ SAND	

DEPTH (m)		SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	% Fines <No.200	ADDITIONAL INFORMATION	ELEVATION (m)
13			TAILINGS Sand, fine to medium grained, silty, loose to compact, dark grey, wet, pyritic inclusions(continued)	ANE01	G22		Electronic Vane Shear Test at 13.1m: Su (peak)= 149.4kPa Su (remold)= 89.2kPa	
14					G23			3364
15					G24			3363
16					G25			3362
17					ANE02		Electronic Vane Shear Test at 16.2m: Su (peak)= 190.6kPa Su (remold)= 89.9kPa	3361
18	16		...stiff		G26			3360
19					G27	99	Sieve (SPT SPT02): Gravel:% Sand:% Fines:99%	3359
20			... Silt and sand, fine grained, poorly graded, compact, light grey, wet, metallics		G28			3358
21					G29	39	Sieve (GRAB G29): Gravel:% Sand:% Fines:39%	3357
22			TILL Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines to clayey, trace cobbles, subrounded, grey to brown, moist		G30			3356
23			CLAY Trace sand, firm to hard, brown-grey, damp to moist, no structure, medium plastic		G31			3355
24			TILL Gravel, fine to coarse grained, sandy (fine to coarse grained), some fines to clayey, trace cobbles, subrounded, grey to brown, moist		G32			3354
25			END OF HOLE at 24.0m Borehole backfilled with bentonite chips upon completion.		G33			3353
26					G34			3352

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BOREHOLE LOG NX14001D_APA SI.GPJ AMEC.SRUJZ-DT.GDT 12/6/15



Appendix B

Cone Penetration Testing Data

PRESENTATION OF SITE INVESTIGATION RESULTS

Myra Falls Mine, Vancouver Island, BC

Prepared for:

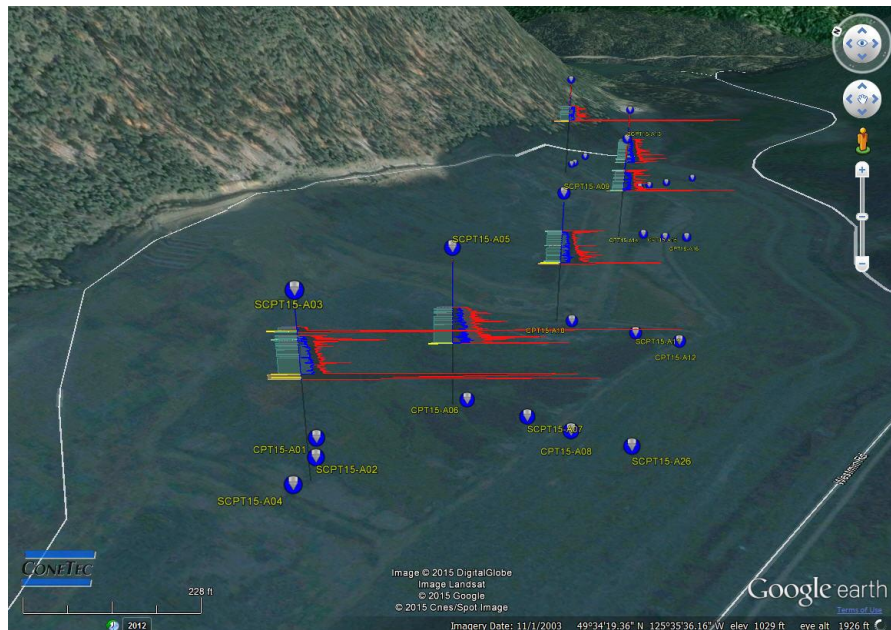
Amec Foster Wheeler

ConeTec Job No: 15-02029

Project Start Date: 24-March-2015

Project End Date: 19-April -2015

Report Date: 24-April -2015



Prepared by:

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Introduction

The enclosed report presents the results of the site investigation program conducted by ConeTec Investigations Ltd. for Amec Foster Wheeler at Myra Falls Mine, Vancouver Island, BC. The program consisted of 15 cone penetration tests (CPT), 12 seismic cone penetration tests (SCPT) and 3 electronic vane shear test (VST) profiles.

Project Information

Project	
Client	Amec Foster Wheeler
Project	Myra Falls Mine, Vancouver Island, BC
ConeTec project number	15-02029

A map from Google earth including the CPT test locations is presented below.



Rig Description	Deployment System	Test Type
CPT truck (M5T)	14 ton rig cylinder	CPT
Portable	20 ton rig cylinder	CPT/SCPT/VST

Coordinates		
Test Type	Collection Method	EPSG Number
CPT/SCPT/VST	Consumer-grade GPS	32610

Cone Penetration Test (CPT)	
Depth reference	Depths are referenced to the existing ground surface at the time of each test.
Tip and sleeve data offset	0.1 meter This has been accounted for in the CPT data files.

Cone Penetrometer Used for this Project						
Cone Description	Cone Number	Cross Sectional Area (cm ²)	Sleeve Area (cm ²)	Tip Capacity (bar)	Sleeve Capacity (bar)	Pore Pressure Capacity (psi)
187:T1000F10U500	187	10	150	1000	10	500
327:T375F10U200	327	15	225	375	10	200
378:T500F10U500	378	10	150	500	10	500
421:T1500F15U500	421	15	225	1500	15	500

Interpretation Tables	
Additional information	The Soil Behaviour Type (SBT) classification chart (Robertson et al., 1986 presented by Lunne, Robertson and Powell, 1997) was used to classify the soil for this project. A detailed set of CPT interpretations were generated and are provided in Excel format files in the release folder. The CPT interpretations are based on values of corrected tip (q_t), sleeve friction (f_s) and pore pressure averaged over a user specified interval of 20 cm. Equilibrium pore pressure profiles were used for the interpretation tables.

Electronic Field Vane Shear Test (VST)	
Depth reference	Existing ground surface at the time of each test.
Load cell capacity	100 Nm
Additional Information	Vane system capacity maxed-out at location VST15-08/VST15-08b.

Limitations

This report has been prepared for the exclusive use of Amec Foster Wheeler (Client) for the project titled “Myra Falls Mine, Vancouver Island, BC”. The report’s contents may not be relied upon by any other party without the express written permission of ConeTec Investigations Ltd. (ConeTec). ConeTec has provided site investigation services, prepared the factual data reporting, and provided geotechnical parameter calculations consistent with current best practices. No other warranty, expressed or implied, is made.

The information presented in the report document and the accompanying data set pertain to the specific project, site conditions and objectives described to ConeTec by the Client. In order to properly understand the factual data, assumptions and calculations, reference must be made to the documents provided and their accompanying data sets, in their entirety.

The cone penetration tests (CPTu) are conducted using an integrated electronic piezocone penetrometer and data acquisition system manufactured by Adara Systems Ltd. of Richmond, British Columbia, Canada.

ConeTec's piezocone penetrometers are compression type designs in which the tip and friction sleeve load cells are independent and have separate load capacities. The piezocones use strain gauged load cells for tip and sleeve friction and a strain gauged diaphragm type transducer for recording pore pressure. The piezocones also have a platinum resistive temperature device (RTD) for monitoring the temperature of the sensors, an accelerometer type dual axis inclinometer and a geophone sensor for recording seismic signals. All signals are amplified down hole within the cone body and the analog signals are sent to the surface through a shielded cable.

ConeTec penetrometers are manufactured with various tip, friction and pore pressure capacities in both 10 cm² and 15 cm² tip base area configurations in order to maximize signal resolution for various soil conditions. The specific piezocone used for each test is described in the CPT summary table presented in the first Appendix. The 15 cm² penetrometers do not require friction reducers as they have a diameter larger than the deployment rods. The 10 cm² piezocones use a friction reducer consisting of a rod adapter extension behind the main cone body with an enlarged cross sectional area (typically 44 mm diameter over a length of 32 mm with tapered leading and trailing edges) located at a distance of 585 mm above the cone tip.

The penetrometers are designed with equal end area friction sleeves, a net end area ratio of 0.8 and cone tips with a 60 degree apex angle.

All ConeTec piezocones can record pore pressure at various locations. Unless otherwise noted, the pore pressure filter is located directly behind the cone tip in the "u₂" position (ASTM Type 2). The filter is 6 mm thick, made of porous plastic (polyethylene) having an average pore size of 125 microns (90-160 microns). The function of the filter is to allow rapid movements of extremely small volumes of water needed to activate the pressure transducer while preventing soil ingress or blockage.

The piezocone penetrometers are manufactured with dimensions, tolerances and sensor characteristics that are in general accordance with the current ASTM D5778 standard. ConeTec's calibration criteria also meets or exceeds those of the current ASTM D5778 standard. An illustration of the piezocone penetrometer is presented in Figure CPTu.

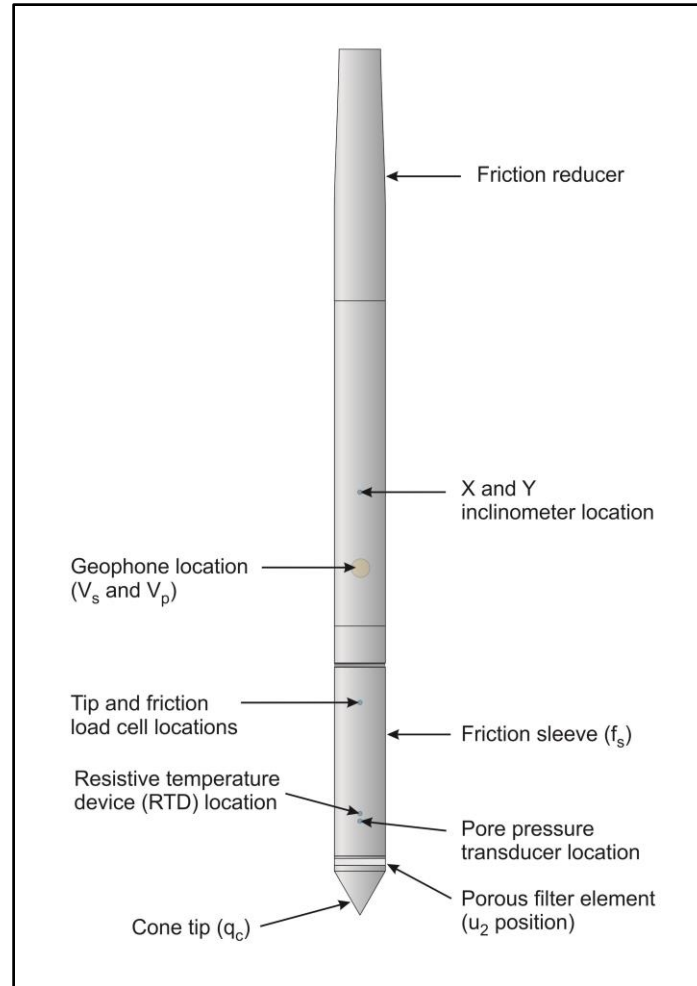


Figure CPTu. Piezocone Penetrometer (15 cm²)

The ConeTec data acquisition systems consist of a Windows based computer and a signal conditioner and power supply interface box with a 16 bit (or greater) analog to digital (A/D) converter. The data is recorded at fixed depth increments using a depth wheel attached to the push cylinders or by using a spring loaded rubber depth wheel that is held against the cone rods. The typical recording intervals are either 2.5 cm or 5.0 cm depending on project requirements; custom recording intervals are possible. The system displays the CPTu data in real time and records the following parameters to a storage media during penetration:

- Depth
- Uncorrected tip resistance (q_c)
- Sleeve friction (f_s)
- Dynamic pore pressure (u)
- Additional sensors such as resistivity, passive gamma, ultra violet induced fluorescence, if applicable

All testing is performed in accordance to ConeTec's CPT operating procedures which are in general accordance with the current ASTM D5778 standard.

Prior to the start of a CPTu sounding a suitable cone is selected, the cone and data acquisition system are powered on, the pore pressure system is saturated with either glycerine or silicone oil and the baseline readings are recorded with the cone hanging freely in a vertical position.

The CPTu is conducted at a steady rate of 2 cm/s, within acceptable tolerances. Typically one meter length rods with an outer diameter of 1.5 inches are added to advance the cone to the sounding termination depth. After cone retraction final baselines are recorded.

Additional information pertaining to ConeTec's cone penetration testing procedures:

- Each filter is saturated in silicone oil or glycerine under vacuum pressure prior to use
- Recorded baselines are checked with an independent multi-meter
- Baseline readings are compared to previous readings
- Soundings are terminated at the client's target depth or at a depth where an obstruction is encountered, excessive rod flex occurs, excessive inclination occurs, equipment damage is likely to take place, or a dangerous working environment arises
- Differences between initial and final baselines are calculated to ensure zero load offsets have not occurred and to ensure compliance with ASTM standards

The interpretation of piezocone data for this report is based on the corrected tip resistance (q_t), sleeve friction (f_s) and pore water pressure (u). The interpretation of soil type is based on the correlations developed by Robertson (1990) and Robertson (2009). It should be noted that it is not always possible to accurately identify a soil type based on these parameters. In these situations, experience, judgment and an assessment of other parameters may be used to infer soil behaviour type.

The recorded tip resistance (q_c) is the total force acting on the piezocone tip divided by its base area. The tip resistance is corrected for pore pressure effects and termed corrected tip resistance (q_t) according to the following expression presented in Robertson et al, 1986:

$$q_t = q_c + (1-a) \cdot u_2$$

where: q_t is the corrected tip resistance

q_c is the recorded tip resistance

u_2 is the recorded dynamic pore pressure behind the tip (u_2 position)

a is the Net Area Ratio for the piezocone (0.8 for ConeTec probes)

The sleeve friction (f_s) is the frictional force on the sleeve divided by its surface area. As all ConeTec piezocones have equal end area friction sleeves, pore pressure corrections to the sleeve data are not required.

The dynamic pore pressure (u) is a measure of the pore pressures generated during cone penetration. To record equilibrium pore pressure, the penetration must be stopped to allow the dynamic pore pressures to stabilize. The rate at which this occurs is predominantly a function of the permeability of the soil and the diameter of the cone.

The friction ratio (R_f) is a calculated parameter. It is defined as the ratio of sleeve friction to the tip resistance expressed as a percentage. Generally, saturated cohesive soils have low tip resistance, high

friction ratios and generate large excess pore water pressures. Cohesionless soils have higher tip resistances, lower friction ratios and do not generate significant excess pore water pressure.

A summary of the CPTu soundings along with test details and individual plots are provided in the appendices. A set of interpretation files were generated for each sounding based on published correlations and are provided in Excel format in the data release folder. Information regarding the interpretation methods used is also included in the data release folder.

For additional information on CPTu interpretations, refer to Robertson et al. (1986), Lunne et al. (1997), Robertson (2009), Mayne (2013, 2014) and Mayne and Peuchen (2012).

Shear wave velocity testing is performed in conjunction with the piezocone penetration test (SCPTu) in order to collect interval velocities. For some projects seismic compression wave (V_p) velocity is also determined.

ConeTec's piezocone penetrometers are manufactured with a horizontally active geophone (28 hertz) that is rigidly mounted in the body of the cone penetrometer, 0.2 meters behind the cone tip.

Shear waves are typically generated by using an impact hammer horizontally striking a beam that is held in place by a normal load. In some instances an auger source or an imbedded impulsive source maybe used for both shear waves and compression waves. The hammer and beam act as a contact trigger that triggers the recording of the seismic wave traces. For impulsive devices an accelerometer trigger may be used. The traces are recorded using an up-hole integrated digital oscilloscope which is part of the SCPTu data acquisition system. An illustration of the shear wave testing configuration is presented in Figure SCPTu-1.

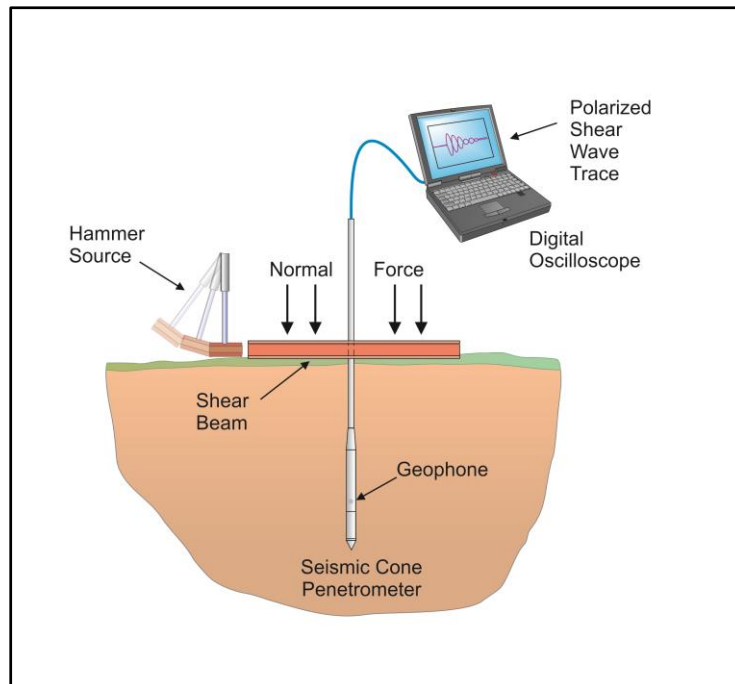


Figure SCPTu-1. Illustration of the SCPTu system

All testing is performed in accordance to ConeTec's SCPTu operating procedures.

Prior to the start of a SCPTu sounding, the procedures described in the Cone Penetration Test section are followed. In addition, the active axis of the geophone is aligned parallel to the beam (or source) and the horizontal offset between the cone and the source is measured and recorded.

Prior to recording seismic waves at each test depth, cone penetration is stopped and the rods are decoupled from the rig to avoid transmission of rig energy down the rods. Multiple wave traces are recorded for quality control purposes. After reviewing wave traces for consistency the cone is pushed to the next test depth (typically one meter intervals or as requested by the client). Figure SCPTu-2 presents an illustration of a SCPTu test.

For additional information on seismic cone penetration testing refer to Robertson et.al. (1986).

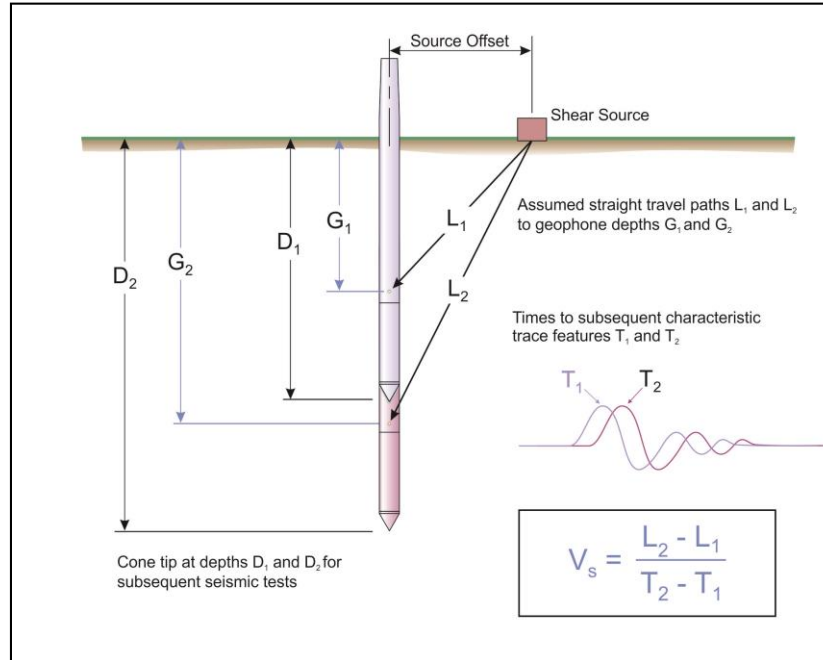


Figure SCPTu-2. Illustration of a seismic cone penetration test

Calculation of the interval velocities are performed by visually picking a common feature (e.g. the first characteristic peak, trough, or crossover) on all of the recorded wave sets and taking the difference in ray path divided by the time difference between subsequent features. Ray path is defined as the straight line distance from the seismic source to the geophone, accounting for beam offset, source depth and geophone offset from the cone tip.

The average shear wave velocity to a depth of 30 meters (V_{s30}) has been calculated and provided for all applicable soundings using an equation presented in Crow et al., 2012.

$$V_{s30} = \frac{\text{total thickness of all layers (30m)}}{\sum(\text{layer traveltimes})}$$

The layer travel times refers to the travel times propagating in the vertical direction, not the measured travel times from an offset source.

Tabular results and SCPTu plots are presented in the relevant appendix.

The cone penetration test is halted at specific depths to carry out pore pressure dissipation (PPD) tests, shown in Figure PPD-1. For each dissipation test the cone and rods are decoupled from the rig and the data acquisition system measures and records the variation of the pore pressure (u) with time (t).

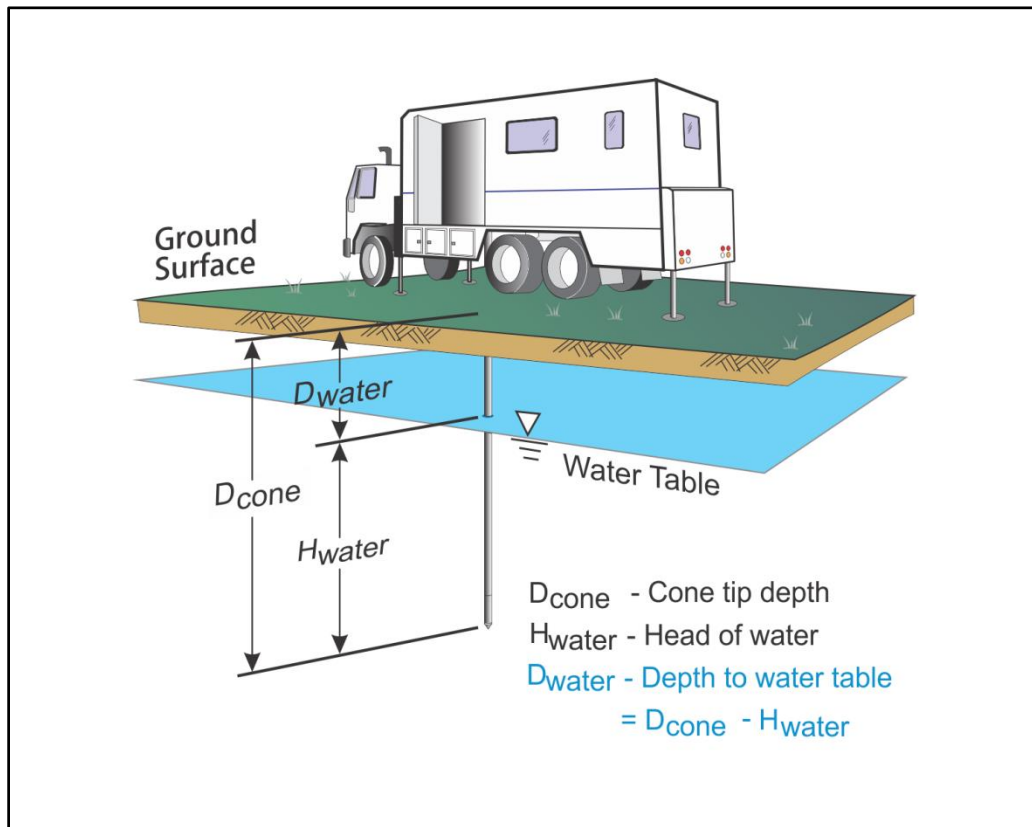


Figure PPD-1. Pore pressure dissipation test setup

Pore pressure dissipation data can be interpreted to provide estimates of ground water conditions, permeability, consolidation characteristics and soil behaviour.

The typical shapes of dissipation curves shown in Figure PPD-2 are very useful in assessing soil type, drainage, in situ pore pressure and soil properties. A flat curve that stabilizes quickly is typical of a freely draining sand. Undrained soils such as clays will typically show positive excess pore pressure and have long dissipation times. Dilative soils will often exhibit dynamic pore pressures below equilibrium that then rise over time. Overconsolidated fine-grained soils will often exhibit an initial dilatory response where there is an initial rise in pore pressure before reaching a peak and dissipating.

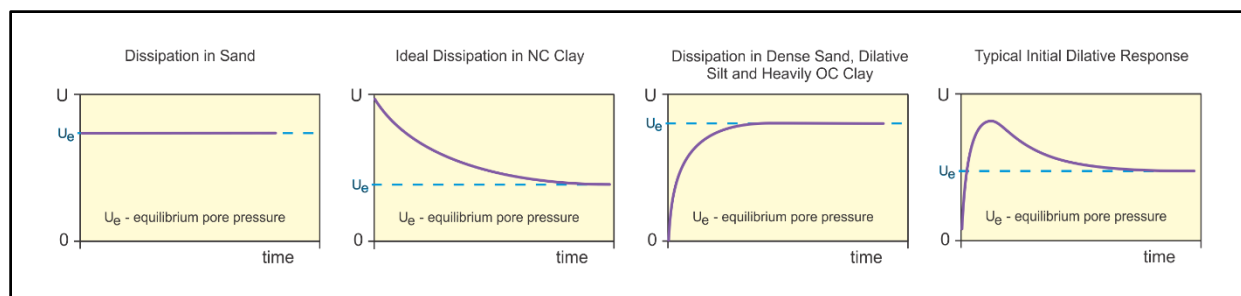


Figure PPD-2. Pore pressure dissipation curve examples

In order to interpret the equilibrium pore pressure (u_{eq}) and the apparent phreatic surface, the pore pressure should be monitored until such time as there is no variation in pore pressure with time as shown for each curve of Figure PPD-2.

In fine grained deposits the point at which 100% of the excess pore pressure has dissipated is known as t_{100} . In some cases this can take an excessive amount of time and it may be impractical to take the dissipation to t_{100} . A theoretical analysis of pore pressure dissipations by Teh and Houlsby (1991) showed that a single curve relating degree of dissipation versus theoretical time factor (T^*) may be used to calculate the coefficient of consolidation (c_h) at various degrees of dissipation resulting in the expression for c_h shown below.

$$c_h = \frac{T^* \cdot a^2 \cdot \sqrt{I_r}}{t}$$

Where:

- T^* is the dimensionless time factor (Table Time Factor)
- a is the radius of the cone
- I_r is the rigidity index
- t is the time at the degree of consolidation

Table Time Factor. T^* versus degree of dissipation (Teh and Houlsby, 1991)

Degree of Dissipation (%)	20	30	40	50	60	70	80
$T^* (u_2)$	0.038	0.078	0.142	0.245	0.439	0.804	1.60

The coefficient of consolidation is typically analyzed using the time (t_{50}) corresponding to a degree of dissipation of 50% (u_{50}). In order to determine t_{50} , dissipation tests must be taken to a pressure less than u_{50} . The u_{50} value is half way between the initial maximum pore pressure and the equilibrium pore pressure value, known as u_{100} . To estimate u_{50} , both the initial maximum pore pressure and u_{100} must be known or estimated. Other degrees of dissipations may be considered, particularly for extremely long dissipations.

At any specific degree of dissipation the equilibrium pore pressure (u at t_{100}) must be estimated at the depth of interest. The equilibrium value may be determined from one or more sources such as measuring the value directly (u_{100}), estimating it from other dissipations in the same profile, estimating the phreatic surface and assuming hydrostatic conditions, from nearby soundings, from client provided information, from site observations and/or past experience, or from other site instrumentation.

For calculations of c_h (Teh and Houlsby, 1991), t_{50} values are estimated from the corresponding pore pressure dissipation curve and a rigidity index (I_r) is assumed. For curves having an initial dilatory response in which an initial rise in pore pressure occurs before reaching a peak, the relative time from the peak value is used in determining t_{50} . In cases where the time to peak is excessive, t_{50} values are not calculated.

Due to possible inherent uncertainties in estimating I_r , the equilibrium pore pressure and the effect of an initial dilatory response on calculating t_{50} , other methods should be applied to confirm the results for c_h .

Additional published methods for estimating the coefficient of consolidation from a piezocone test are described in Burns and Mayne (1998, 2002), Jones and Van Zyl (1981), Robertson et al. (1992) and Sully et al. (1999).

A summary of the pore pressure dissipation tests and dissipation plots are presented in the relevant appendix.

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REFERENCES

Teh, C.I., and Houlsby, G.T., 1991, "An analytical study of the cone penetration test in clay", *Geotechnique*, 41(1): 17-34.

The electronic field vane system is manufactured by ConeTec Investigations Ltd. of Richmond, British Columbia, Canada. An illustration of the vane system is presented in Figure eVST.

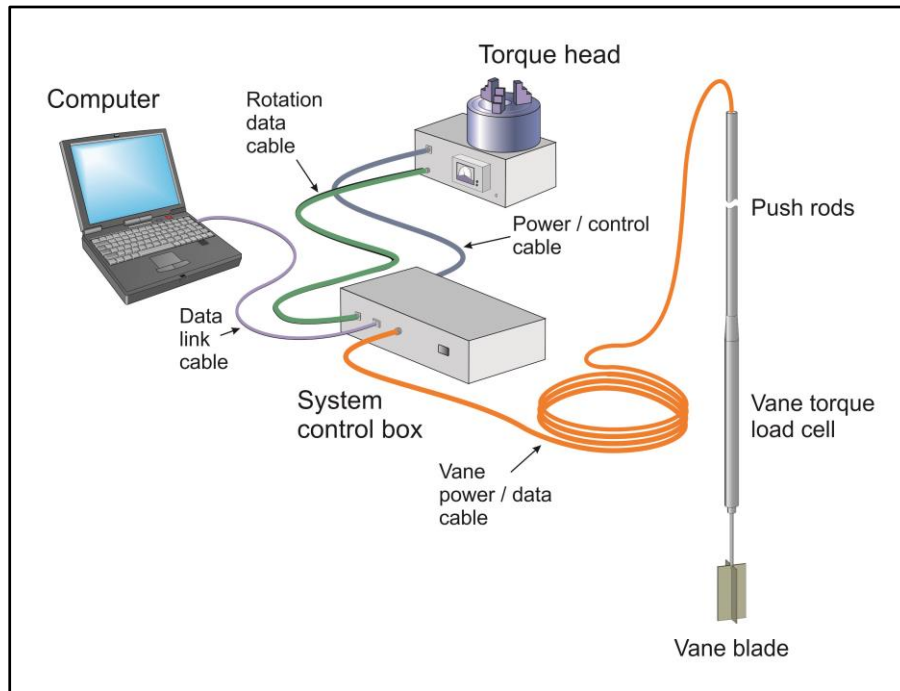


Figure eVST. Illustration of the downhole electronic field vane system

The vane system is designed with an array of strain gauges in a load cell that measure the applied torque above the vane blade. The torque signals are amplified and converted to digital data within the tool and are sent to the surface through a shielded cable. The system is designed to use vanes of various sizes and configurations that connect to the load cell with an extension rod. The vanes manufactured by ConeTec have dimensions and tolerances that are in general accordance with the current ASTM D2573 standards. In very soft soil conditions and at the request of the client, ConeTec may use a large diameter vane that exceeds the ASTM D2573 size specifications in order to maximize torque resolution.

The electric motor (capable of 100 Nm of torque) is designed to clamp onto and rotate the rods and vane at a constant rate.

ConeTec's calibration criteria of the load cells are in accordance with the current ASTM D2573 standard.

The data acquisition system consists of a computer that records the vane data every 0.2 degrees of rotation. The system records the following parameters and saves them to a file as the test is conducted:

- Torque in newton meters
- Rotation in degrees
- Elapsed time in seconds (from the start of the test)

All testing is performed in accordance to ConeTec's field vane testing operating procedures and in general accordance with the current ASTM D2573 standard. For additional information on vane shear testing refer to Greig et. al, (1987).

Prior to the start of a vane shear test profile, a suitable sized vane is selected, the vane system is powered on and the vane load cell baseline reading is recorded with the load cell hanging freely in a vertical position.

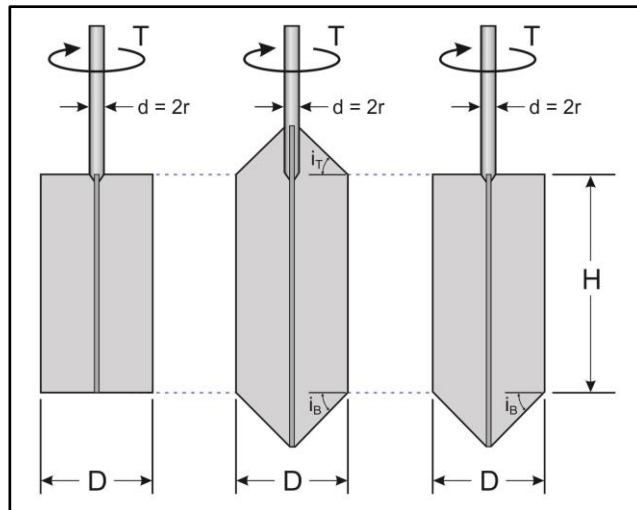
The vane is advanced to the desired test depth from surface or through a cased hole, typically using one meter length rods with an outer diameter of 1.5 inches. Test depths are referenced to the middle of the vane. The motor rotates the vane rods at a near constant rate up to and beyond the yield stress (peak) until the load remains near constant (post peak). Following post peak readings, the vane is then rapidly rotated clockwise, typically ten times to completely remold the soil. The test procedure is repeated in order to record the remolded strength of the soil. The vane is then advanced to the next depth and the procedure is repeated or the vane is retracted to allow for drilling and vane size changes. Once the vane is retracted the final baseline is recorded and compared to previous readings as a QA/QC check.

Undrained shear strength from the field vane, $(S_u)_{fv}$, is typically calculated from torque measurements using the following general equation (ASTM D2573, 2008) taking into consideration the case of rectangular or tapered ends at the top and/or bottom of the vane.

$$(S_u)_{fv} = \frac{12 \cdot T_{\max}}{\pi D^2 \left(\frac{D}{\cos(i_T)} + \frac{D}{\cos(i_B)} + 6H \right)}$$

where:

- $(S_u)_{fv}$ = undrained shear strength from the field vane
- $T_{\max}$ = maximum value of torque
- D = vane diameter
- H = height of the rectangular portion of the vane
- i_T = angle of taper at vane top (with respect to horizontal)
- i_B = angle of taper at vane bottom (with respect to horizontal)



For rectangular vanes where $H/D = 2$, the above equation simplifies to:

$$(S_u)_{fv} = \frac{6 \cdot T_{\max}}{7\pi D^3}$$

No correction factors are applied to the vane results to derive the mobilized shear strength ($\tau_{\text{mobilized}}$). Rod friction is considered to be negligible as the torque measurements are recorded below the push rods and just above the vane in situ.

A summary of the vane shear tests, a table of results and individual VST plots are provided in the relevant appendices. Tabular data in Excel format is provided in the data release folder.

References

ASTM D2573-08, 2008, "Standard Test Method for Field Vane Shear Test in Cohesive Soil", ASTM West Conshohocken, US.

Greig, J.W., R.G. Campanella and P.K. Robertson, 1987, "Comparison of Field Vane Results With Other In-Situ Test Results", International Symposium on Laboratory and Field Vane Shear Strength Testing, ASTM, Tampa, FL, Proceedings.

The following appendices listed below are included in the report:

- Cone Penetration Test Summary and Standard Cone Penetration Test Plots
- Cone Penetration Test Advanced Plots (SuNkt)
- Cone Penetration Test Seismic Plots
- Cone Penetration Test Seismic Tabular Results
- Electronic Field Vane Shear Test Profile Summary and Results
- Electronic Field Vane Shear Test Plots
- Pore Pressure Dissipation Summary and Pore Pressure Dissipation Plots

Cone Penetration Test Summary and Standard Cone Penetration Test Plots



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Start Date: 24-Mar-2015
End Date: 19-Apr-2015

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface ¹ (m)	Final Depth (m)	Northing ² (m)	Easting (m)	Refer to Notation Number
CPT15-A01	15-02029_CPA01	01-Apr-2015	187:T1000F10U500	11.4	22.25	5494570	312422	
CPT15-A06	15-02029_CPA06	27-Mar-2015	421:T1500F15U500	4.7	23.55	5494508	312513	
CPT15-A08	15-02029_CPA08	29-Mar-2015	421:T1500F15U500	5.9	23.65	5494432	312501	
CPT15-A10	15-02029_CPA10	27-Mar-2015	421:T1500F15U500	3.1	20.10	5494478	312672	
CPT15-A12	15-02029_CPA12	29-Mar-2015	421:T1500F15U500	6.4	24.10	5494389	312667	
CPT15-A14	15-02029_CPA14	26-Mar-2015	421:T1500F15U500	4.3	17.40	5494468	312939	
CPT15-A15	15-02029_CPA15	26-Mar-2015	421:T1500F15U500	4.8	21.45	5494444	312939	
CPT15-A16	15-02029_CPA16	29-Mar-2015	421:T1500F15U500	7.2	23.00	5494422	312950	
CPT15-A18	15-02029_CPA18	25-Mar-2015	421:T1500F15U500	>4.5	4.50	5494512	313148	
CPT15-A18b	15-02029_CPA18B	28-Mar-2015	378:T500F10U500	4.0	28.75	5494518	313145	
CPT15-A19	15-02029_CPA19	25-Mar-2015	421:T1500F15U500	3.0	29.20	5494502	313163	
CPT15-A20	15-02029_CPA20	28-Mar-2015	421:T1500F15U500	5.9	30.85	5494483	313191	
CPT15-A22	15-02029_CPA22	24-Mar-2015	327:T375F10U200	4.2	14.30	5494615	313168	
CPT15-A23	15-02029_CPA23	24-Mar-2015	421:T1500F15U500	3.2	15.80	5494613	313178	
CPT15-A24	15-02029_CPA24	28-Mar-2015	378:T500F10U500	5.9	14.55	5494609	313222	
SCPT15-A02	15-02029_SPA02	18-Apr-2015	187:T1000F10U500	6.2	20.85	5494561	312407	
SCPT15-A03	15-02029_SPA03	18-Apr-2015	187:T1000F10U500	8.9	22.35	5494557	312395	
SCPT15-A04	15-02029_SPA04	19-Apr-2015	187:T1000F10U500	7.4	17.75	5494558	312379	
SCPT15-A05	15-02029_SPA05	02-Apr-2015	187:T1000F10U500	12.5	29.80	5494519	312513	
SCPT15-A07	15-02029_SPA07	08-Apr-2015	187:T1000F10U500	1.1	24.25	5494463	312507	
SCPT15-A09	15-02029_SPA09	12-Apr-2015	187:T1000F10U500	10.0	26.25	5494493	312678	
SCPT15-A11	15-02029_SPA11	13-Apr-2015	187:T1000F10U500	1.6	27.15	5494424	312669	
SCPT15-A13	15-02029_SPA13	14-Apr-2015	187:T1000F10U500	12.5	24.90	5494495	312934	
SCPT15-A17	15-02029_SPA17	05-Apr-2015	187:T1000F10U500	11.3	30.85	5494531	313127	



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Start Date: 24-Mar-2015
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CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface ¹ (m)	Final Depth (m)	Northing ² (m)	Easting (m)	Refer to Notation Number
SCPT15-A21	15-02029_SPA21	16-Apr-2015	187:T1000F10U500	12.4	23.85	5494616	313141	
SCPT15-A25	15-02029_SPA25	03-Apr-2015	187:T1000F10U500	12.8	22.75	5494453	313232	
SCPT15-A26	15-02029_SPA26	16-Apr-2015	187:T1000F10U500	10.3	21.45	5494393	312498	

1. Assumed phreatic surface based on pore pressure dissipation tests unless otherwise noted. Equilibrium pore pressure profiles used for interpretation tables.

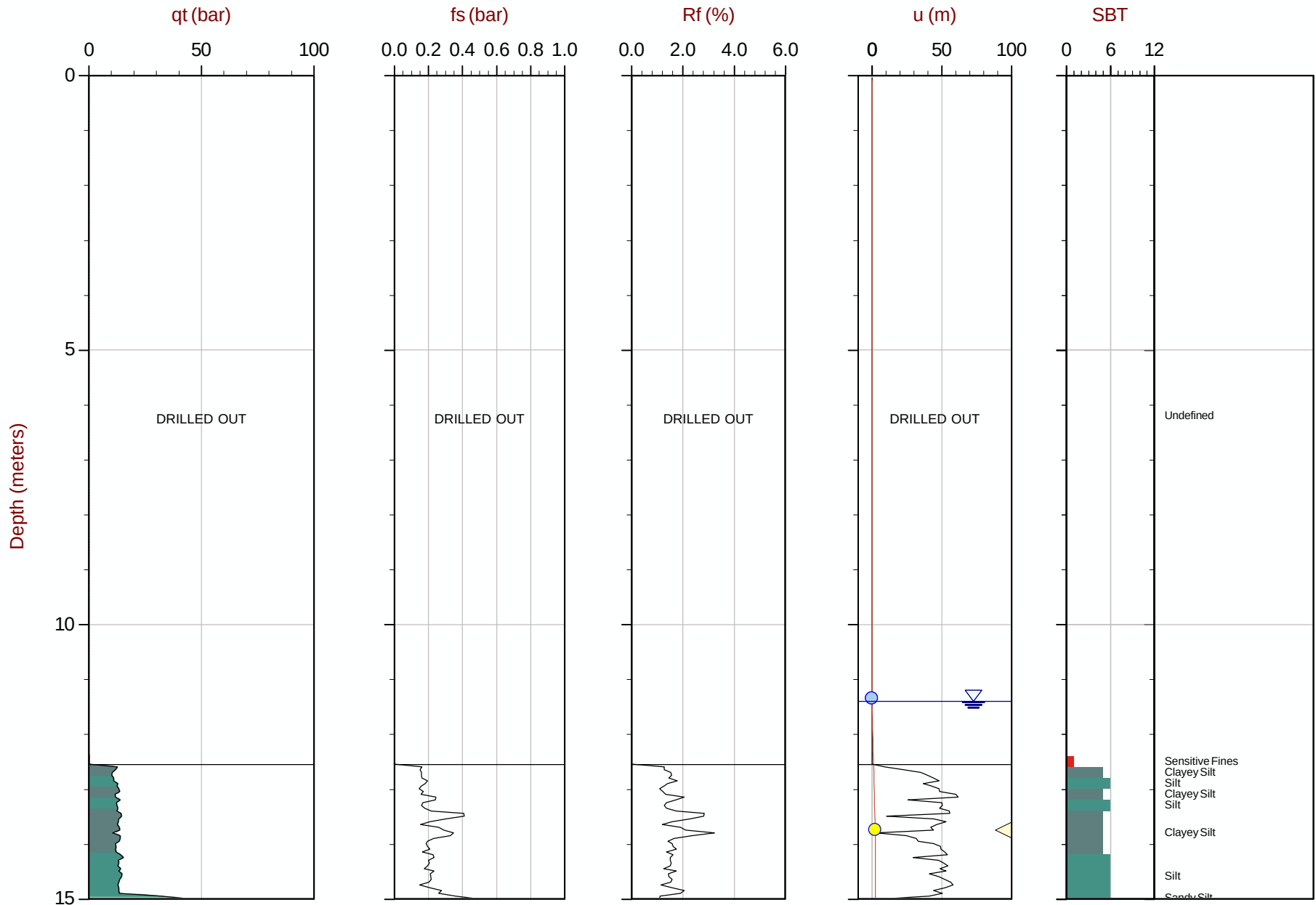
2. Coordinates obtained from consumer-grade GPS device with datum WGS84/UTM Zone 10 North.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:01:15 13:09
Site: Myra Falls Mine

Sounding: CPT15-A01
Cone: 187:T1000F10U500



Max Depth: 22.250 m / 73.00 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA01.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494570m E: 312422m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

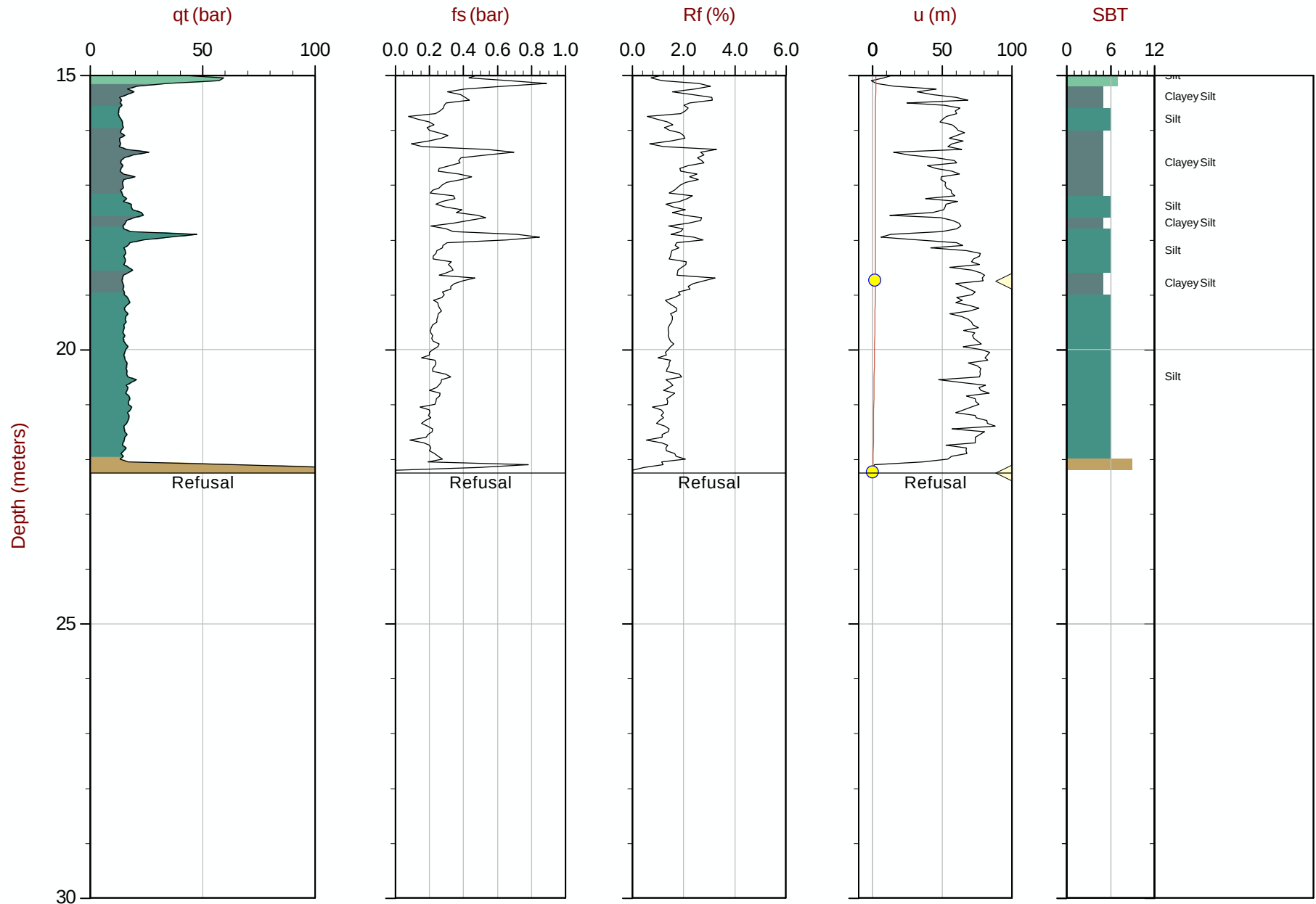
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:01:15 13:09
Site: Myra Falls Mine

Sounding: CPT15-A01
Cone: 187:T1000F10U500



Max Depth: 22.250 m / 73.00 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA01.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494570mE: 312422m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

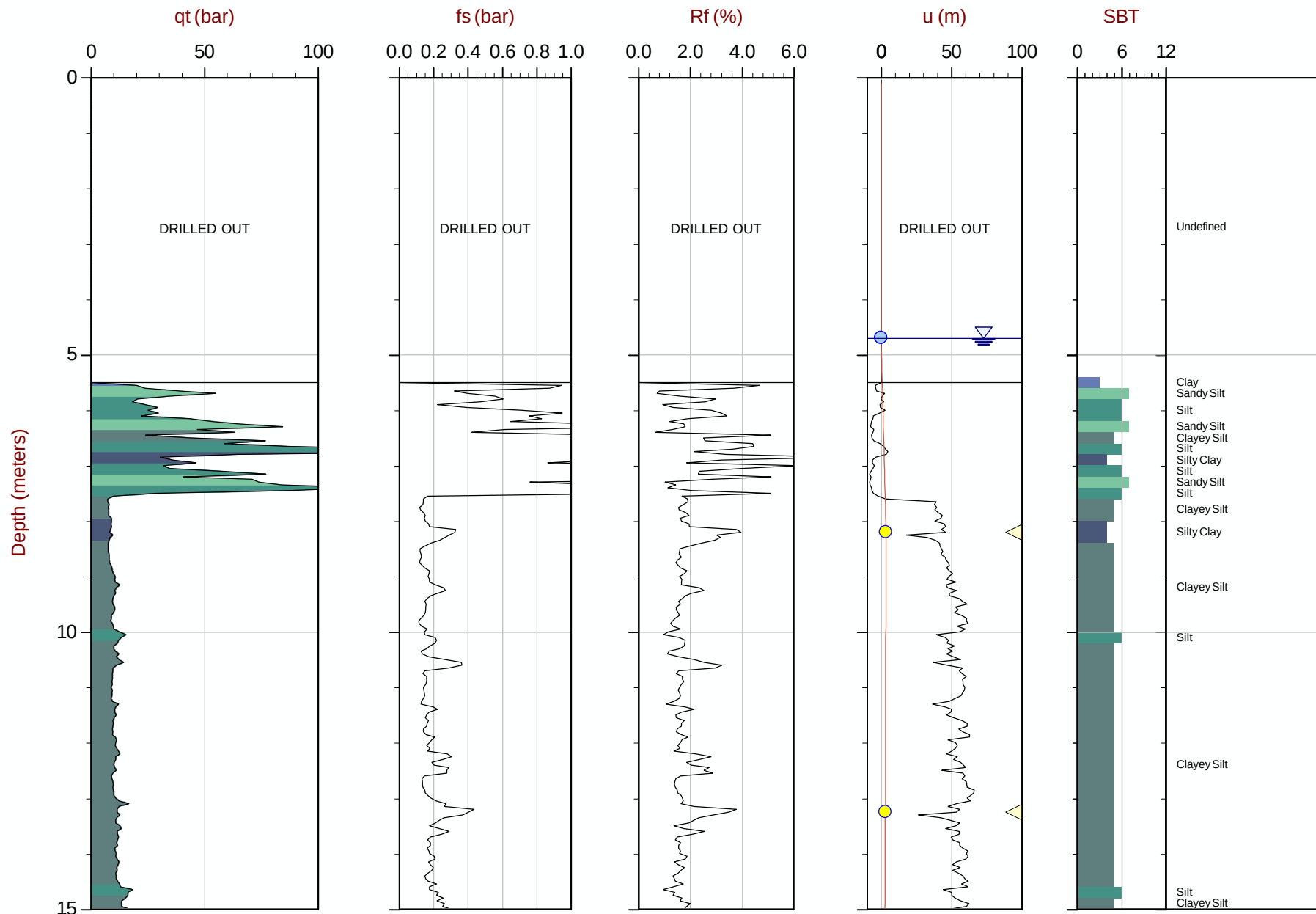
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500



Max Depth: 23.550 m / 77.26 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA06.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494508m E: 312513m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

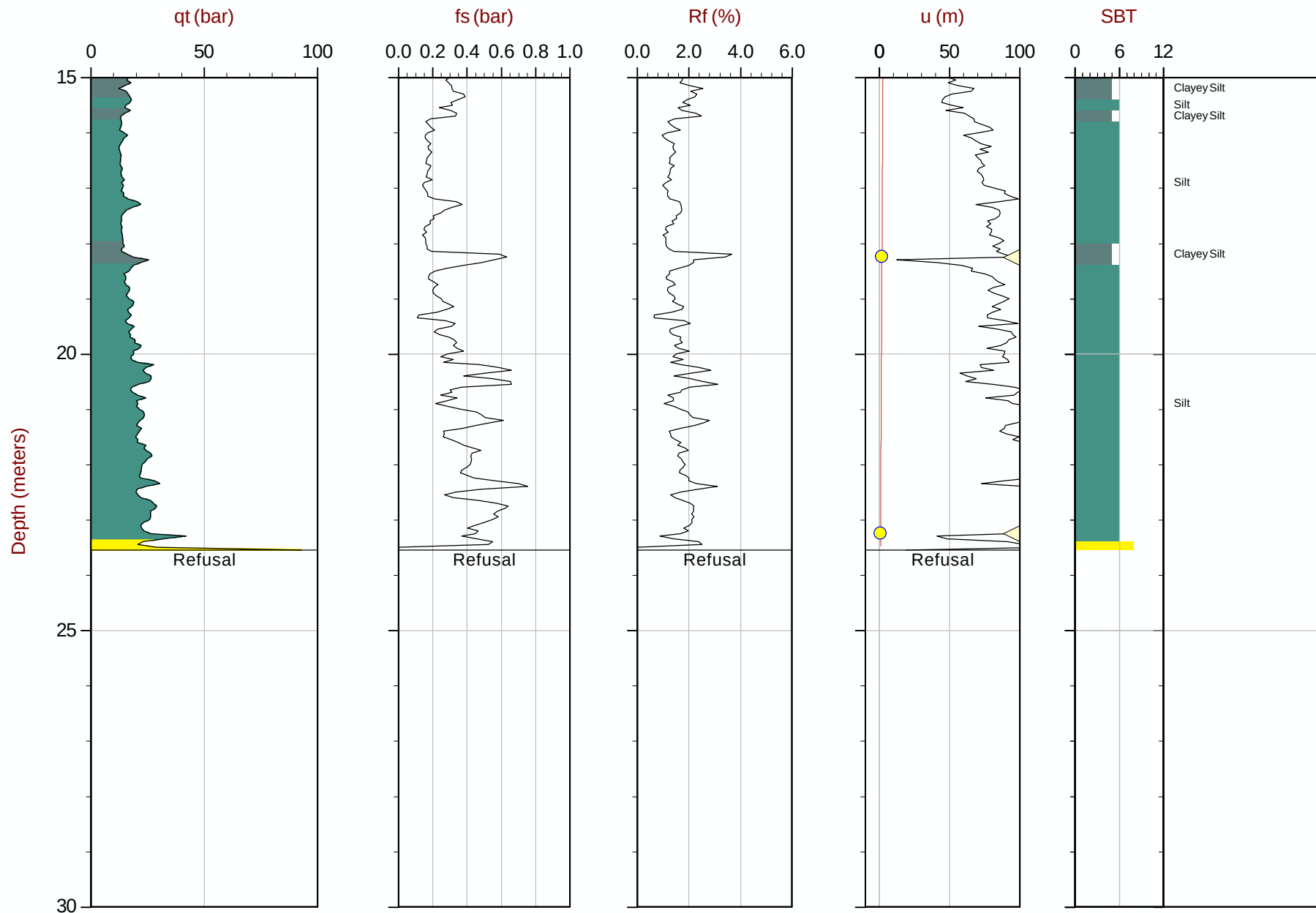
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500



Max Depth: 23.550 m / 77.26 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA06.COR
Unit Wt: SBT Chart Soil Zones

● Assumed Ueq ● Ueq — Ueq Profile

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494508m E: 312513m

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

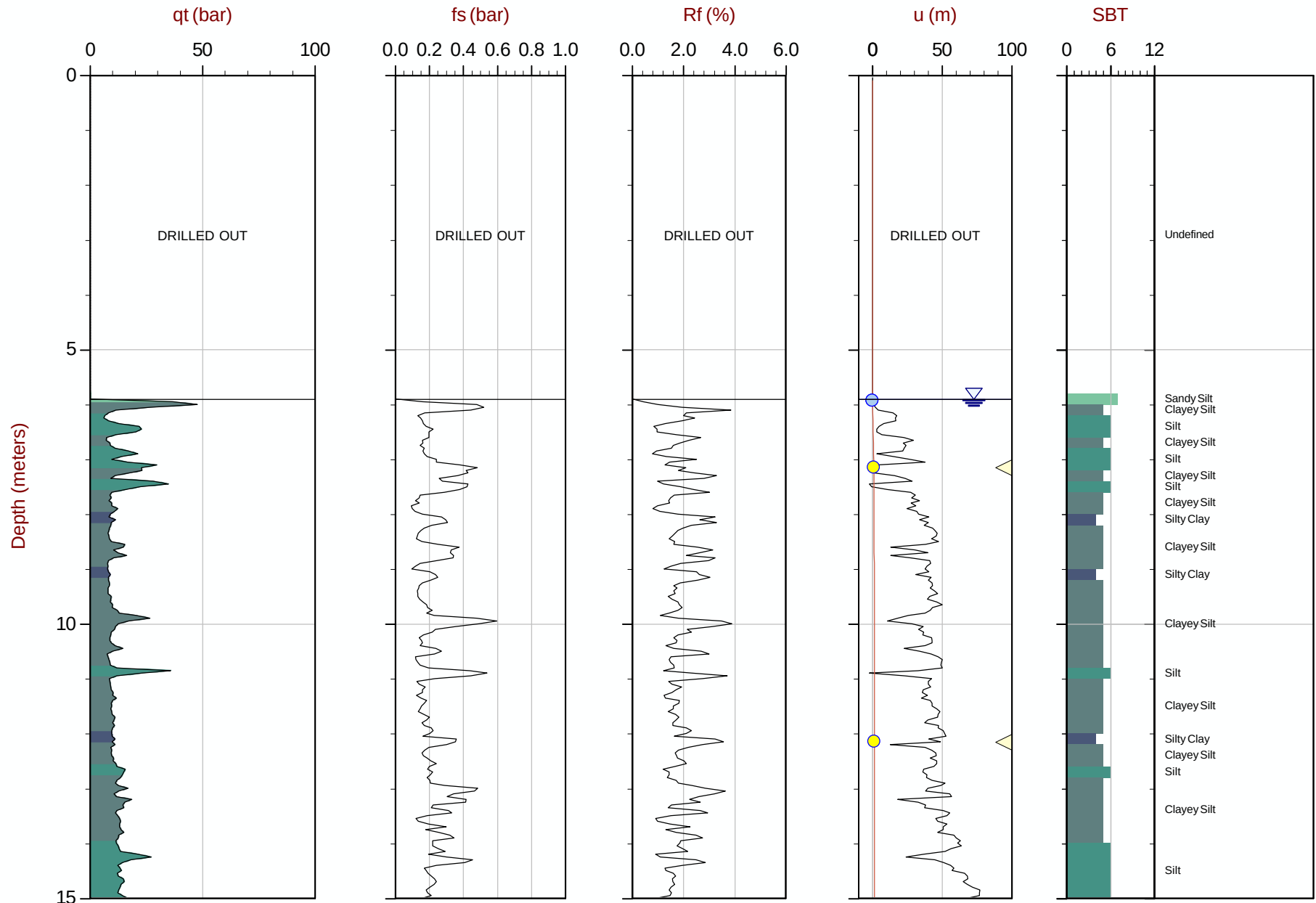
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500



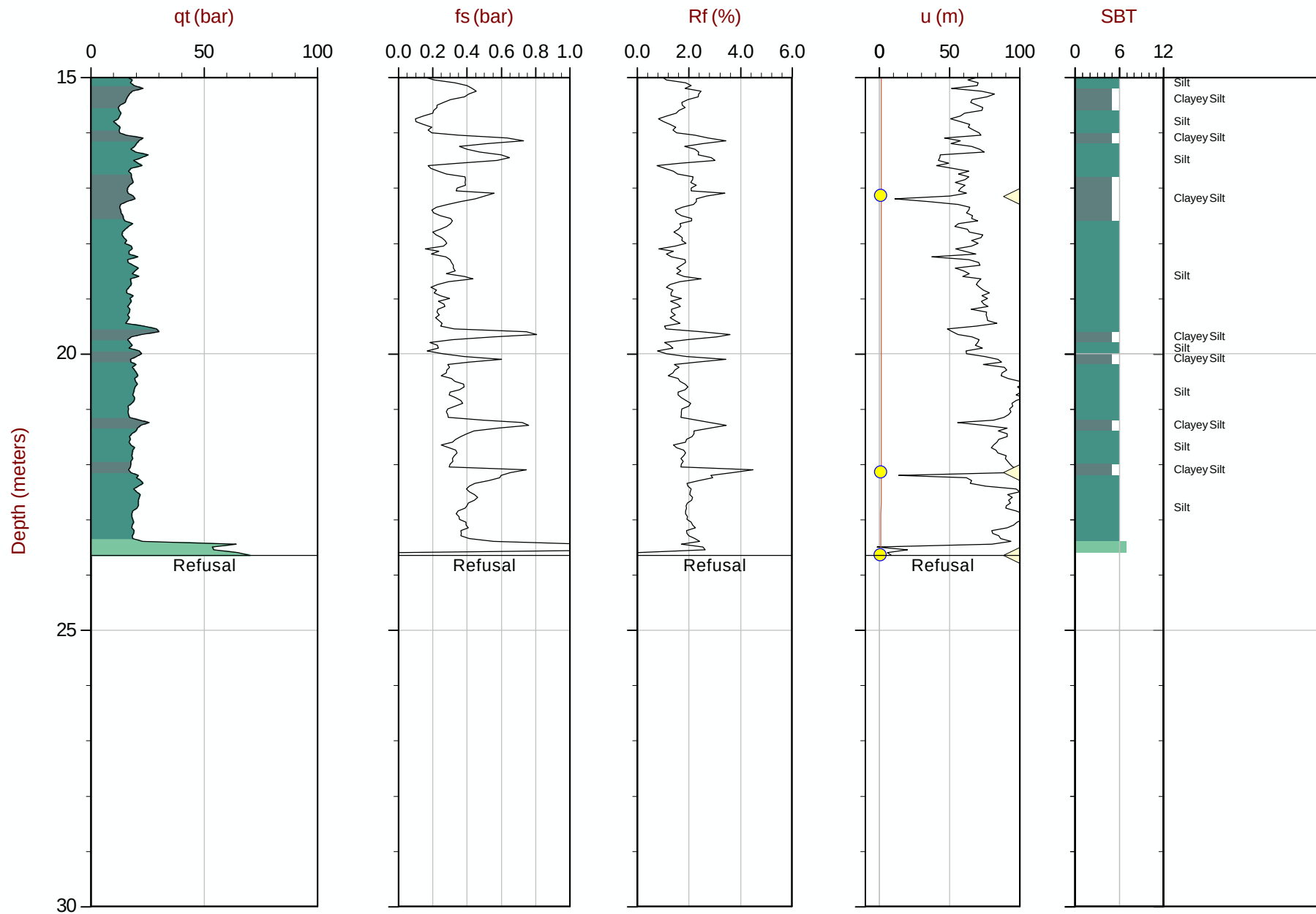
Max Depth: 23.650 m / 77.59 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA08.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494432mE: 312501m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 23.650 m / 77.59 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA08.COR
UnitWt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10 N: 5494432m E: 312501m

● Assumed U_{eq}
● U_{eq}
— U_{eq} Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

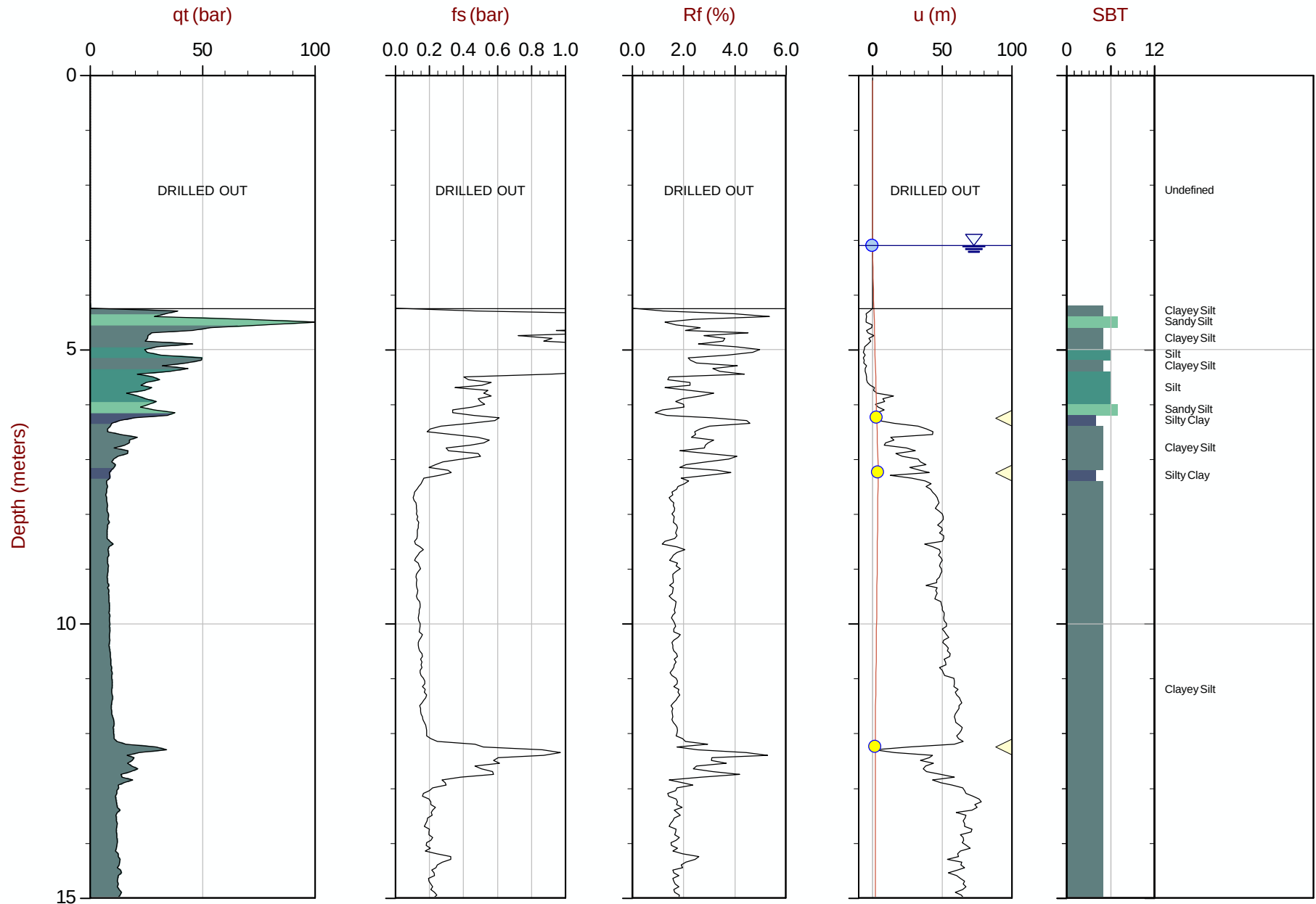
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500



Max Depth: 20.100 m / 65.94 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA10.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494478m E: 312672m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

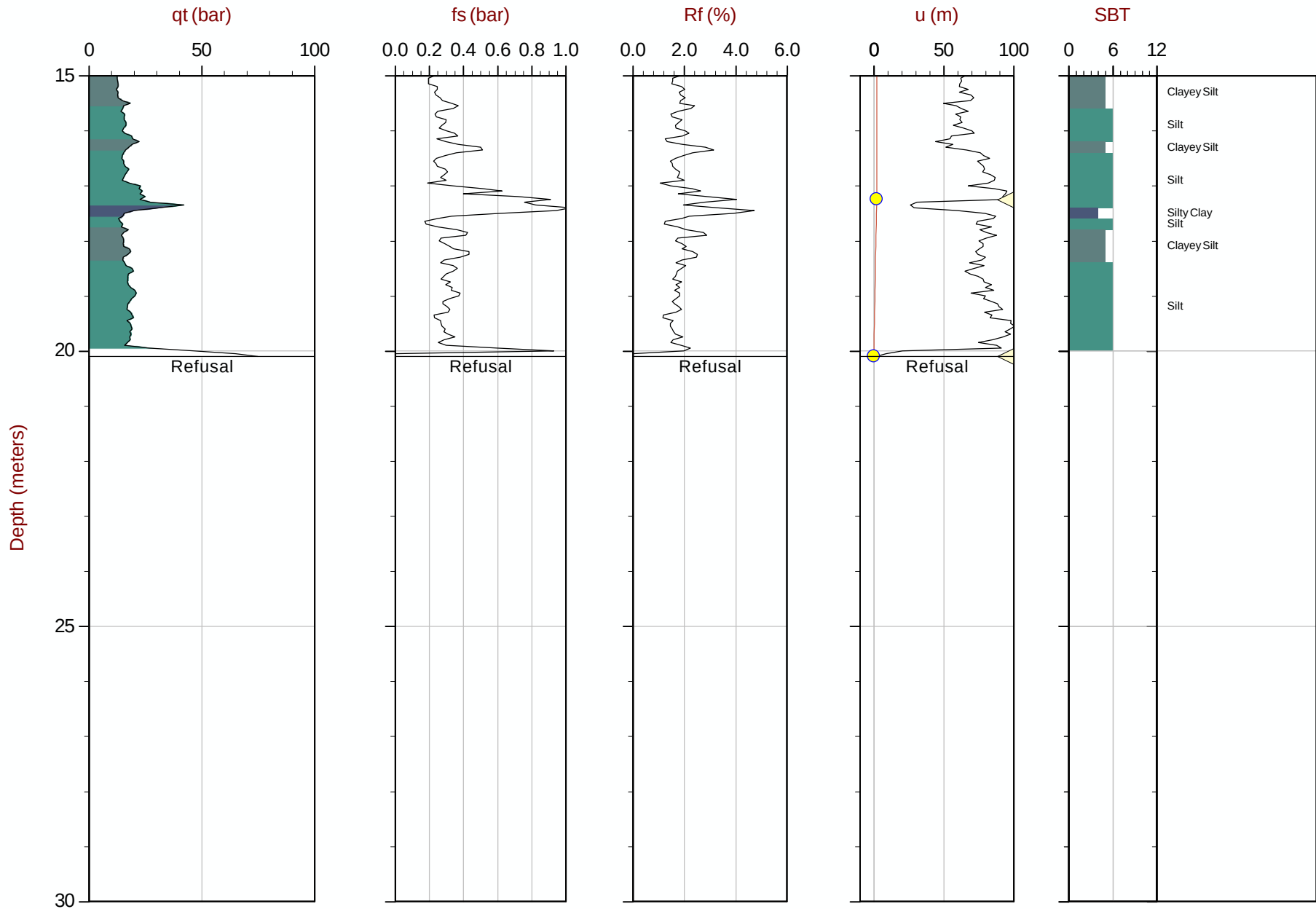
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500



Max Depth: 20.100 m / 65.94 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA10.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494478mE: 312672m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

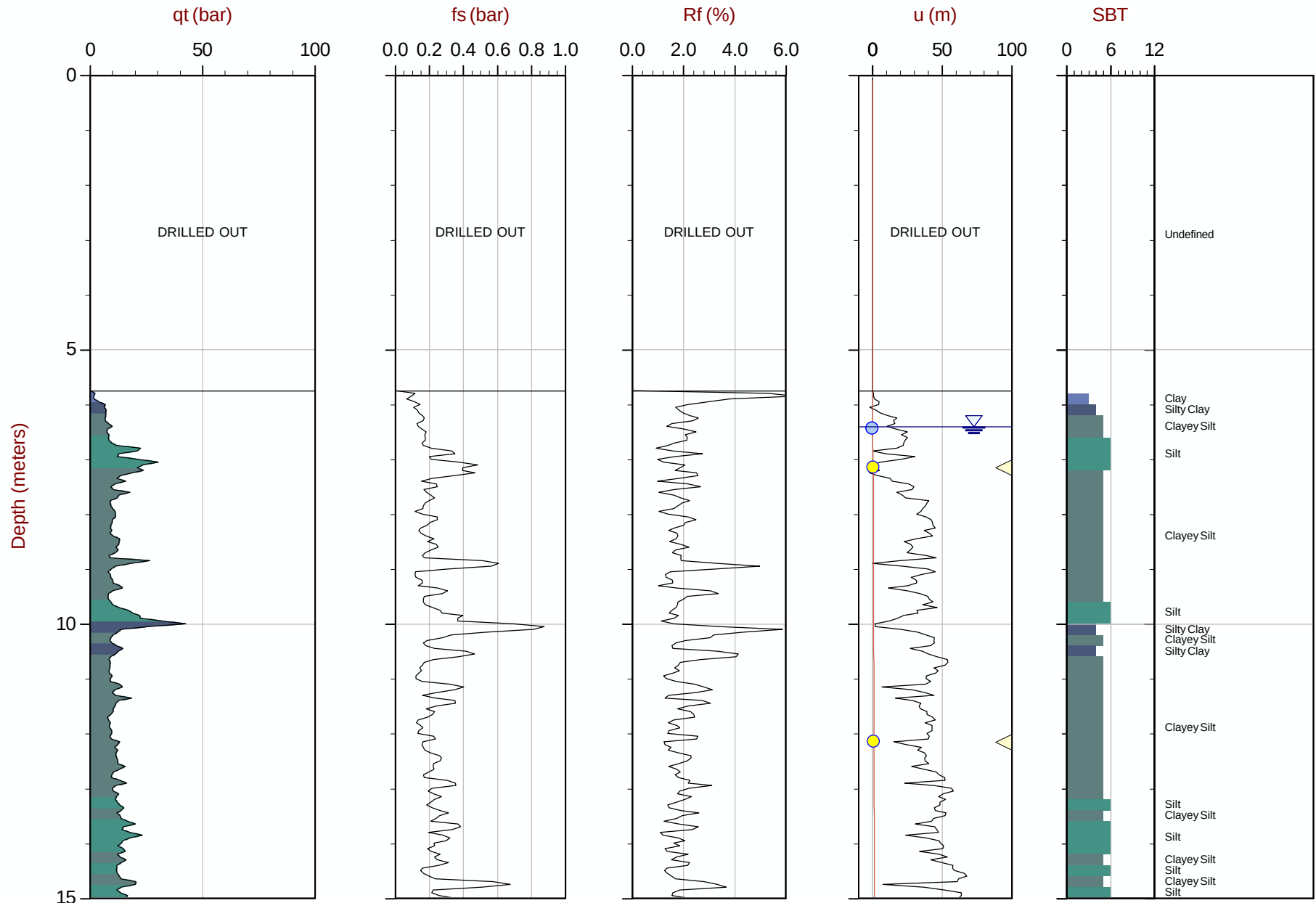
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500



Max Depth: 24.100 m / 79.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA12.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494389m E: 312667m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

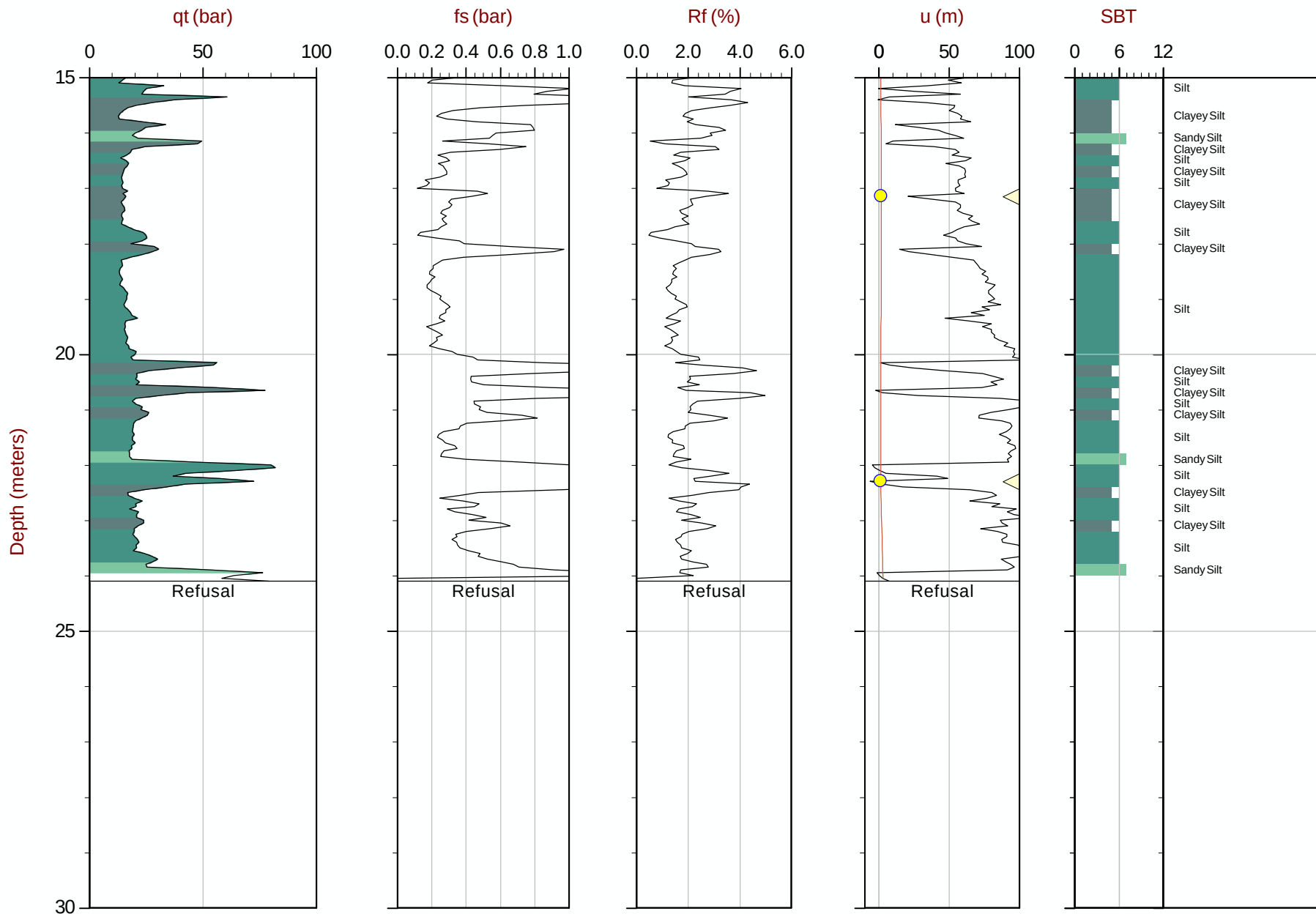
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500



Max Depth: 24.100 m / 79.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA12.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494389mE: 312667m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

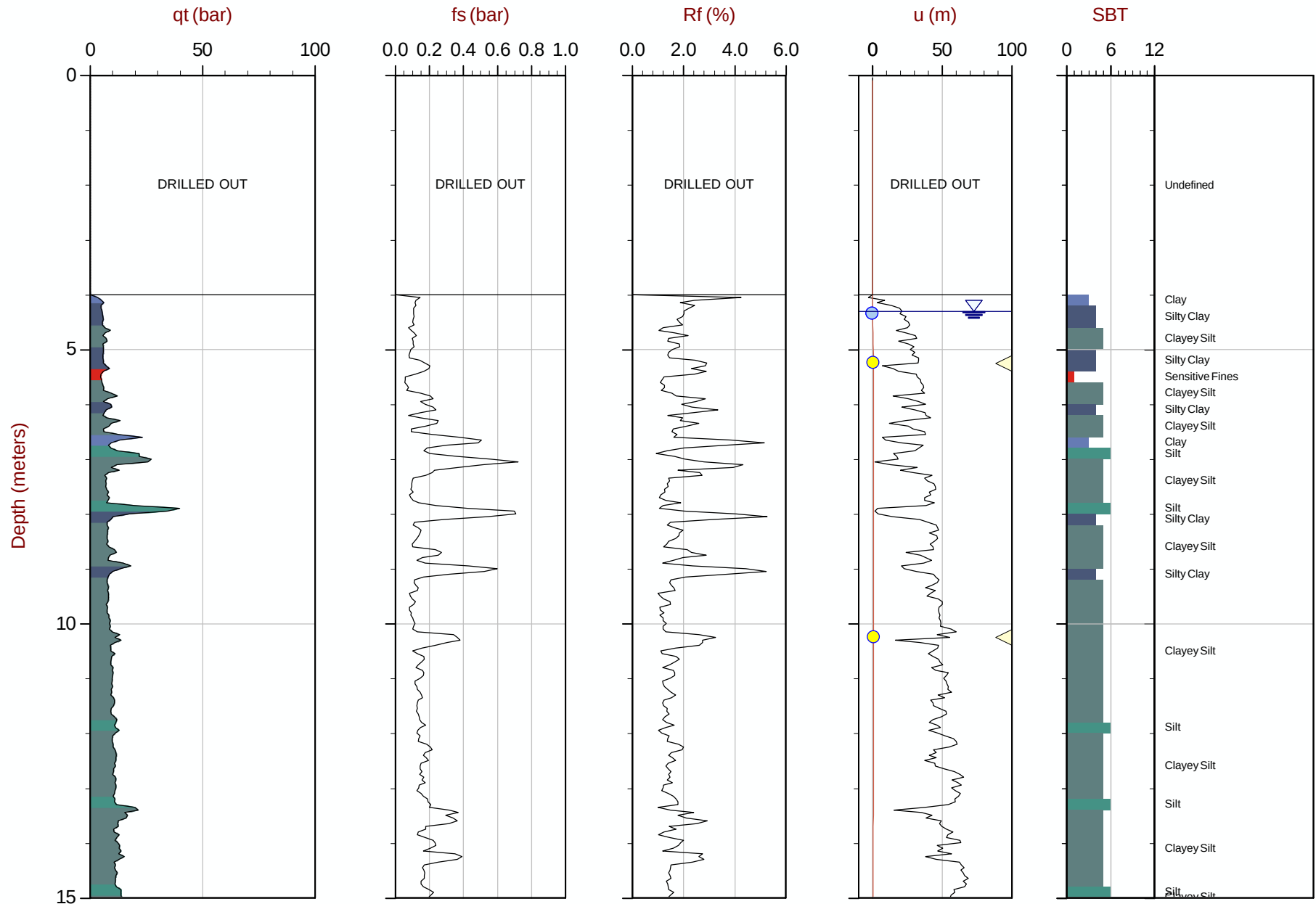
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 14:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500



Max Depth: 17.400 m / 57.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA14.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494468mE: 312939m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

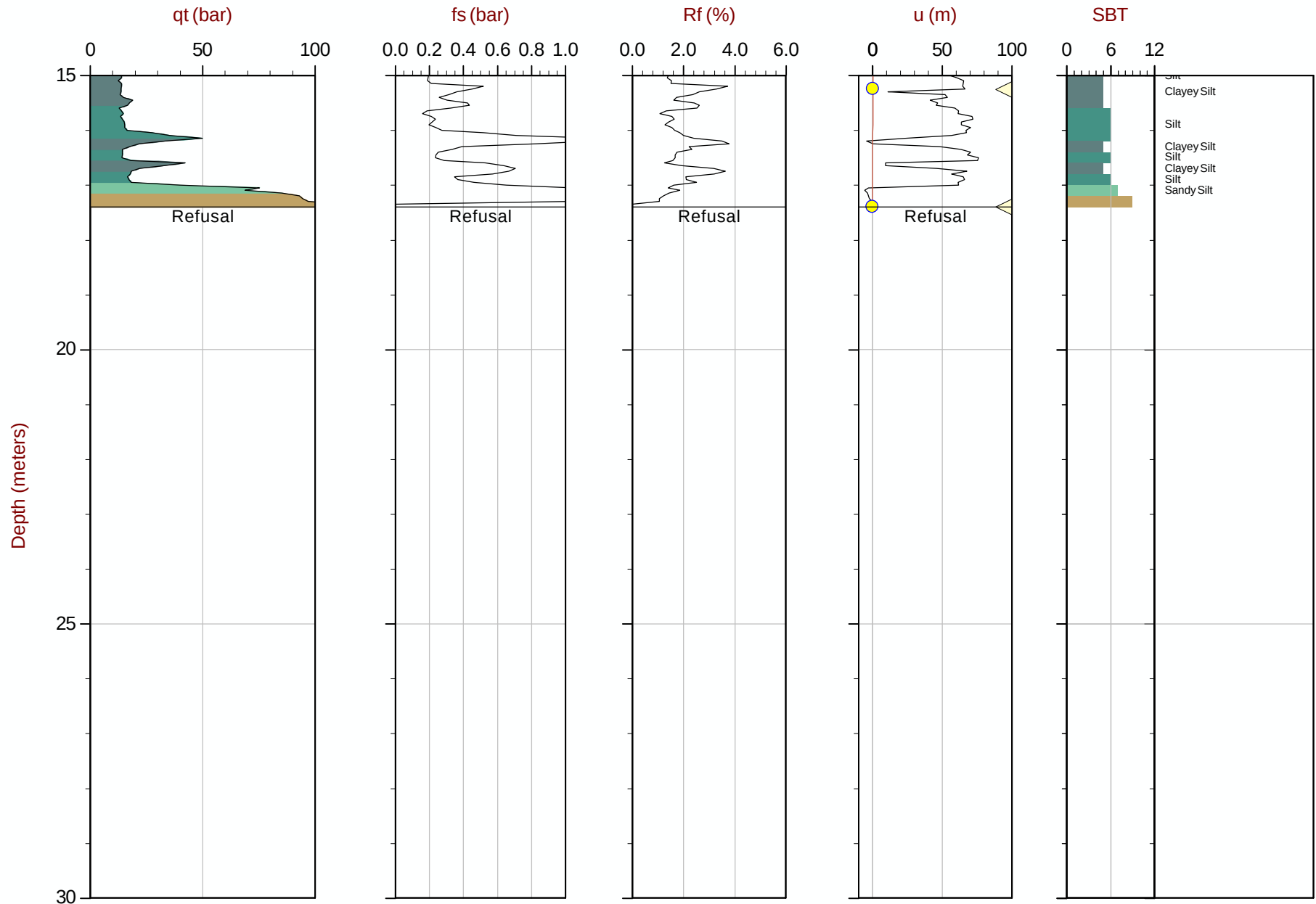
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 14:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500



Max Depth: 17.400 m / 57.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA14.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494468m E: 312939m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

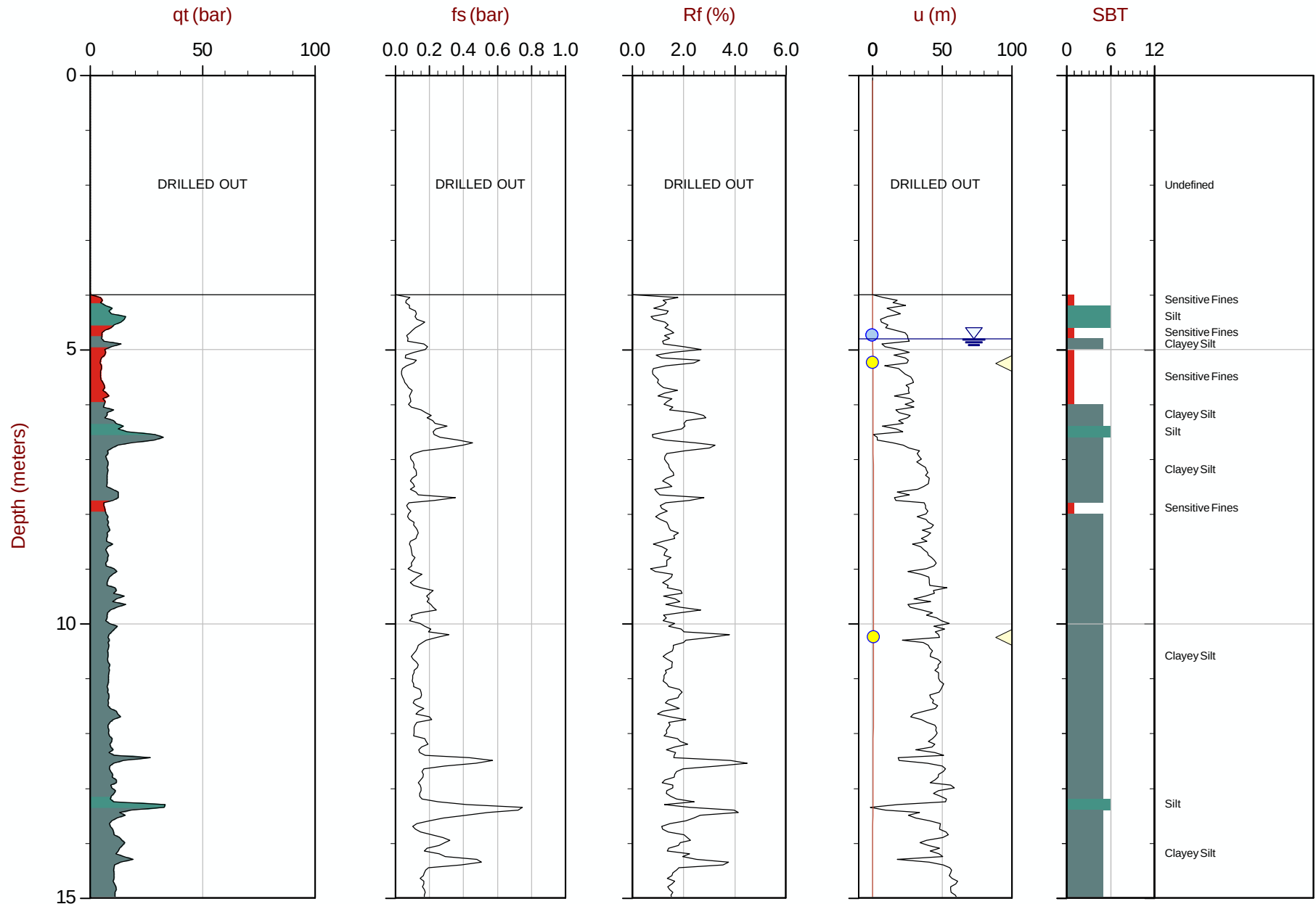
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA15.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494444mE: 312939m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

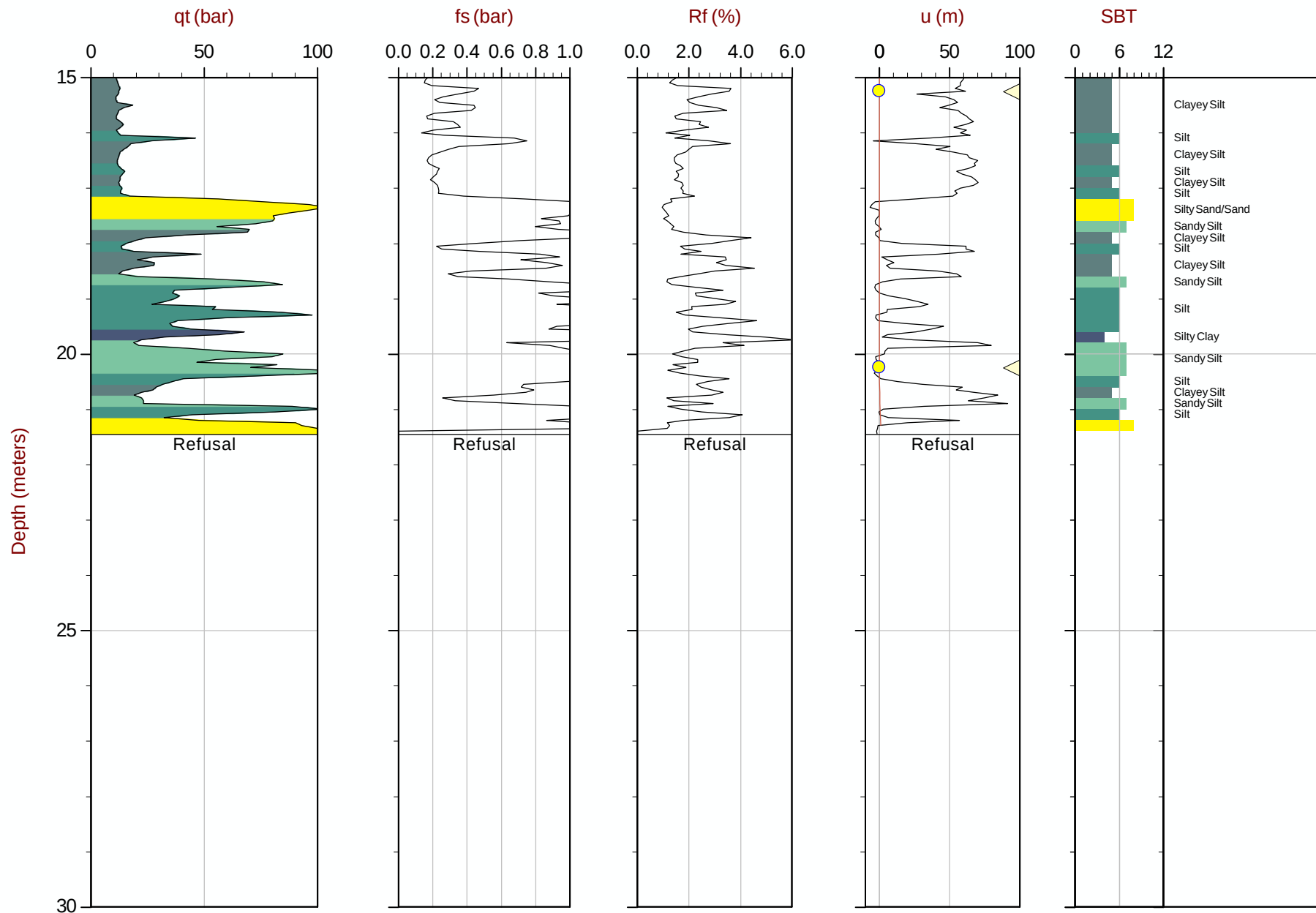
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500



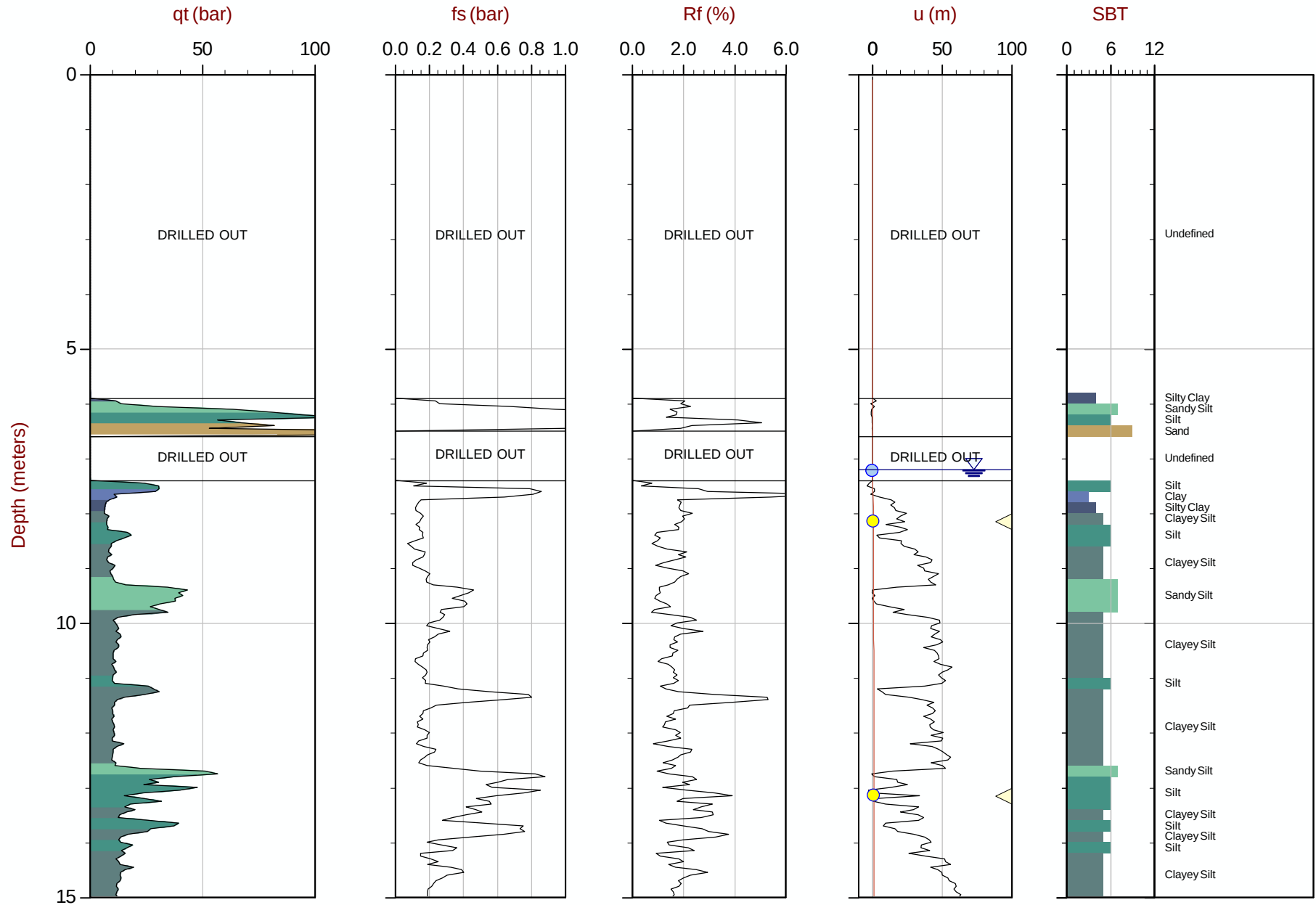
Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA15.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494444m E: 312939m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 23.000 m / 75.46 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA16.COR
UnitWt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10 N: 5494422m E: 312950m

● Assumed U_{eq}
● U_{eq}
— U_{eq} Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

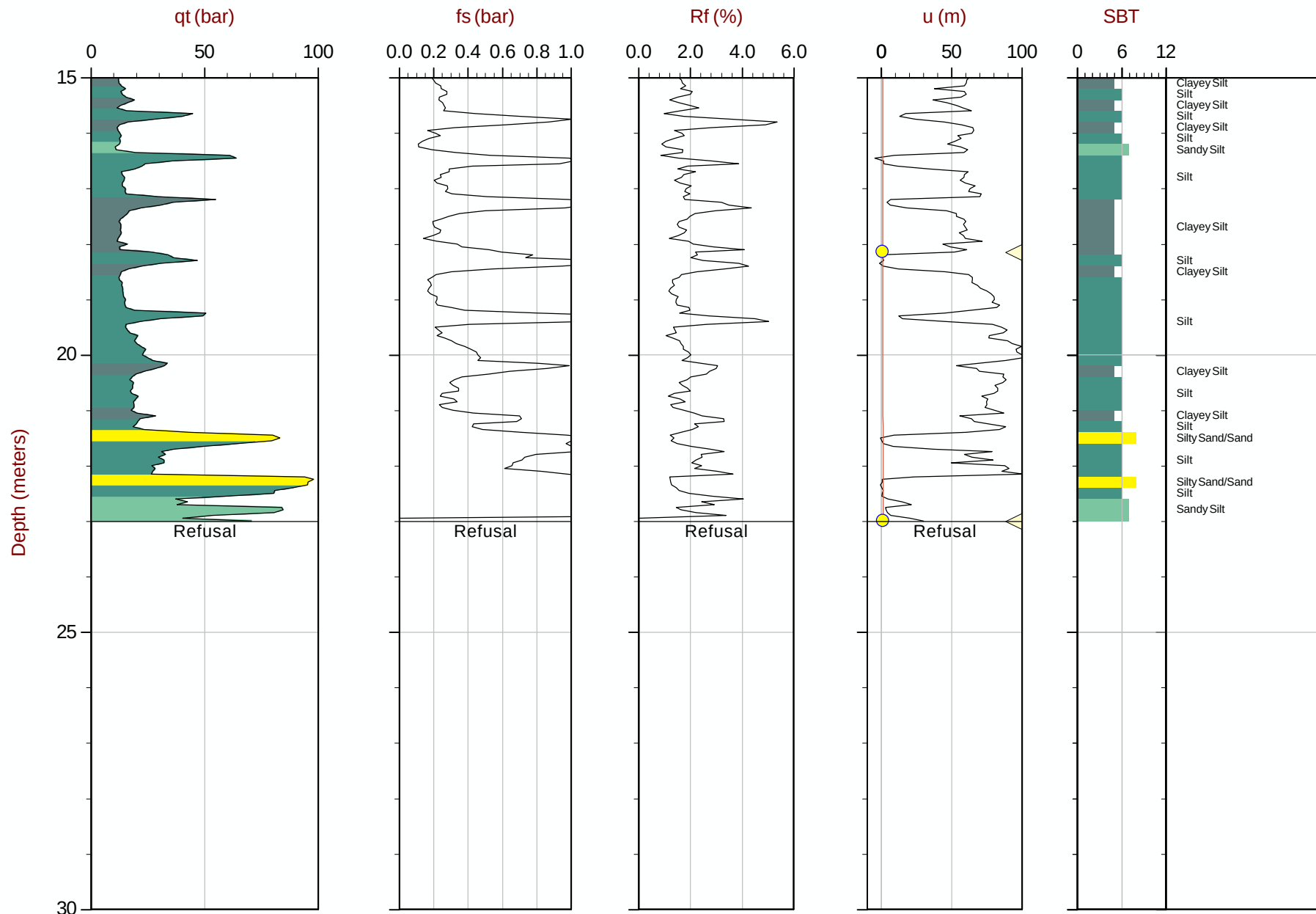
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500



Max Depth: 23.000 m / 75.46 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA16.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494422m E: 312950m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

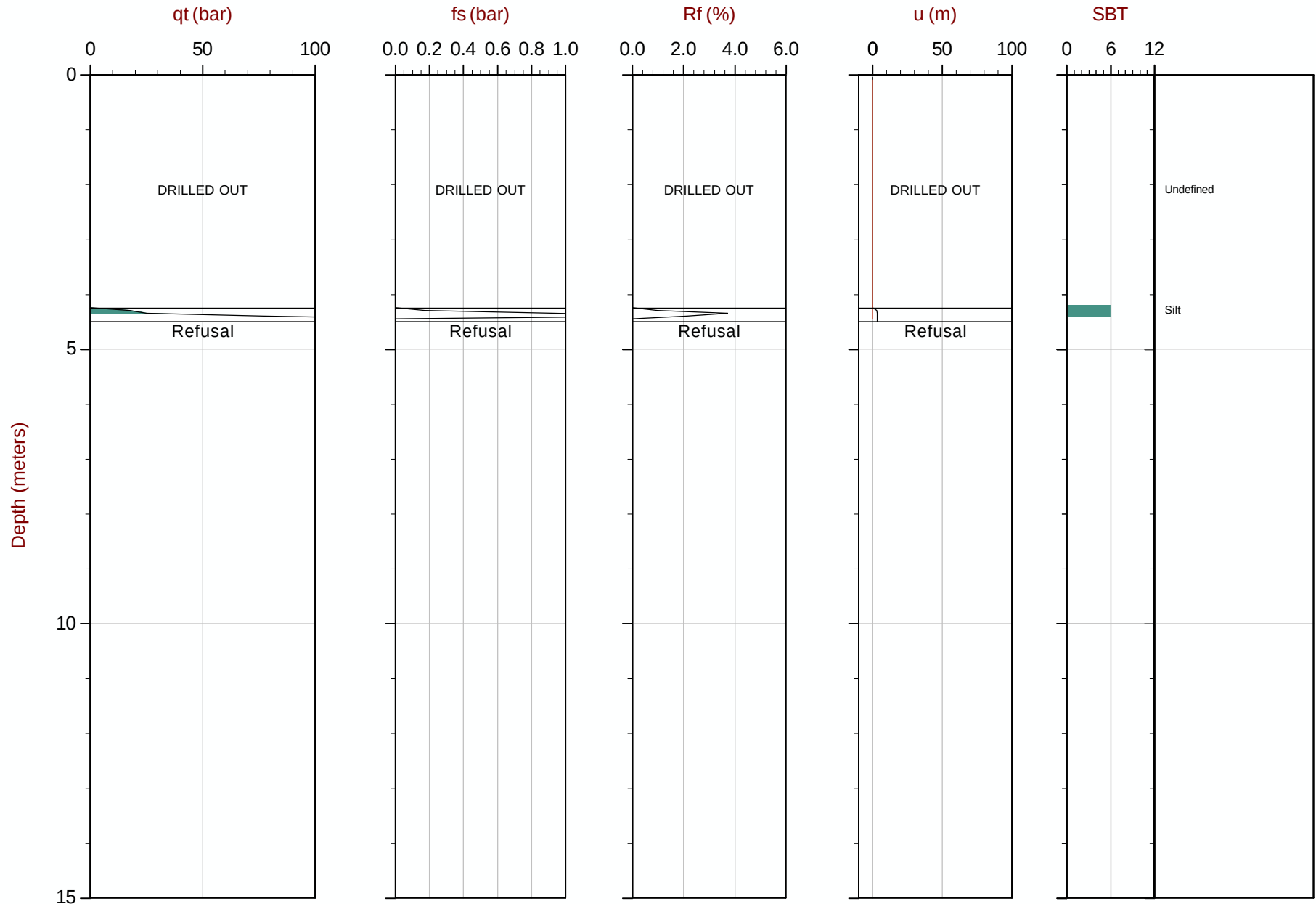
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:25:15 13:06
Site: Myra Falls Mine

Sounding: CPT15-A18
Cone: 421:T1500F15U500



Max Depth: 4.500 m / 14.76 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA18.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494512mE: 313148m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

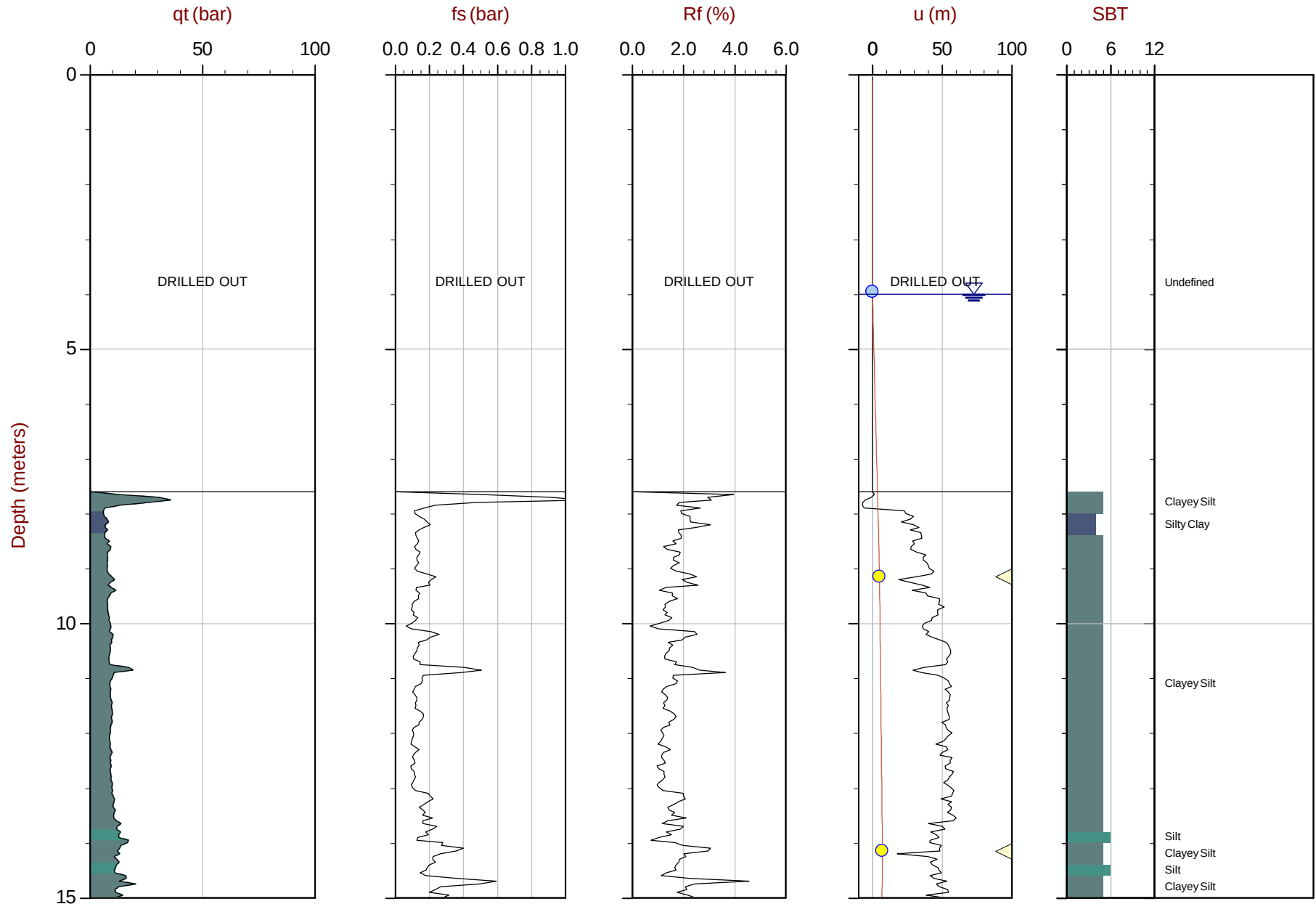
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500



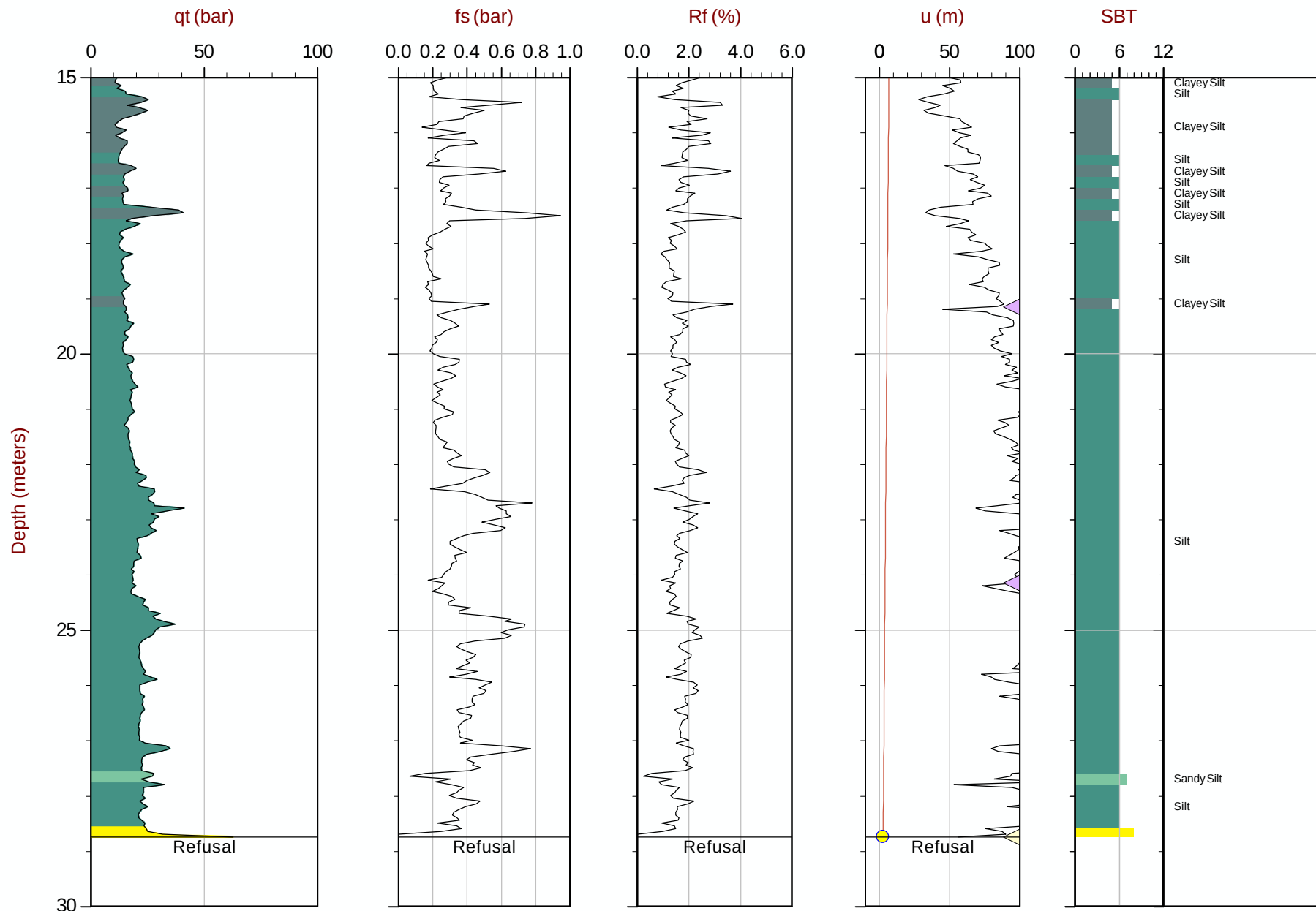
Max Depth: 28.750 m / 94.32 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA18B.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494518mE: 313145m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 28.750 m / 94.32 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA18B.COR
UnitWt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
 Coords: UTM Zone 10 N: 5494518m E: 313145m

● Assumed U_{eq}
● U_{eq}
— U_{eq} Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

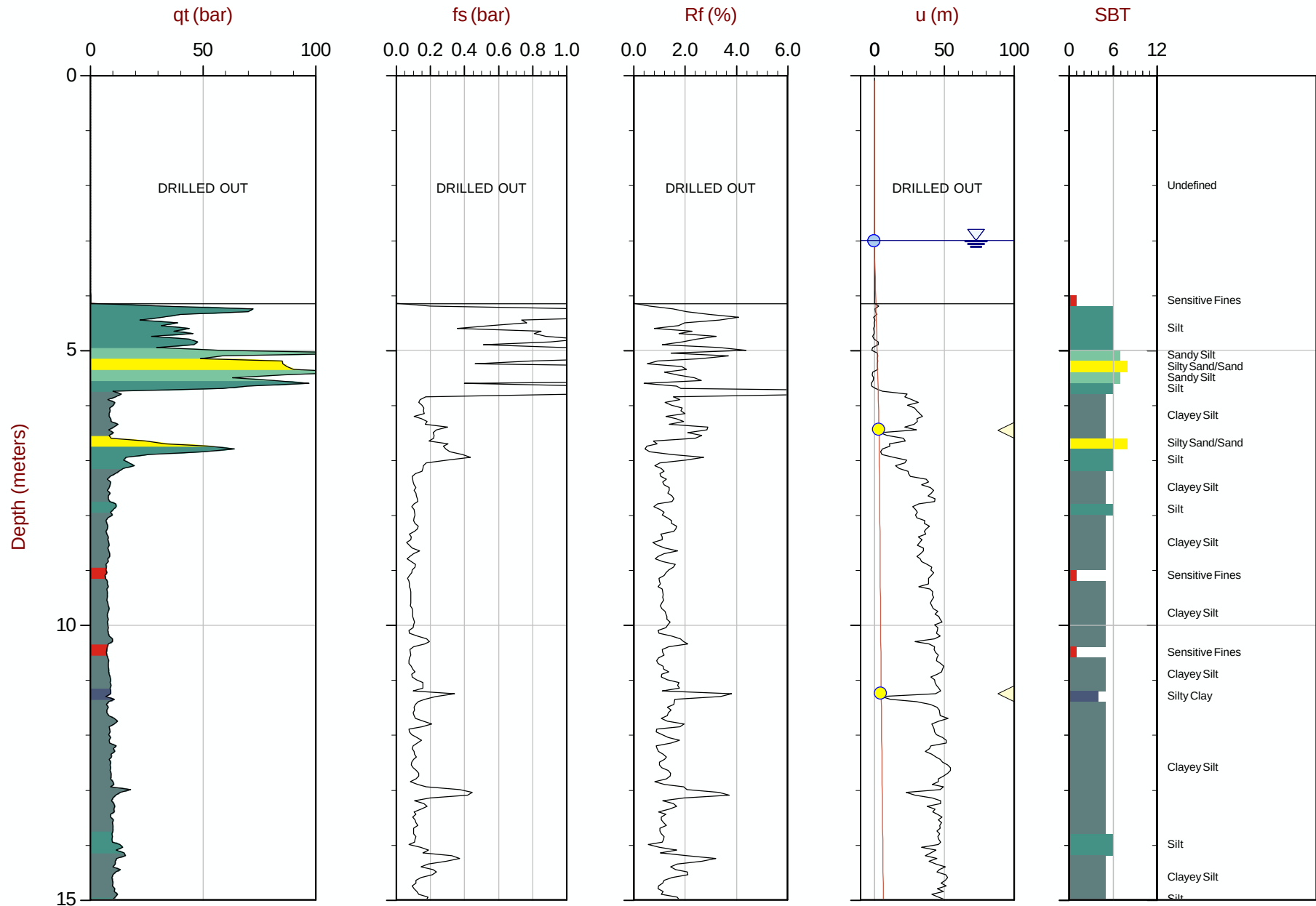
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:25:15 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500



Max Depth: 29.200 m / 95.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA19.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494502mE: 313163m

● Assumed Ueq ● Ueq — Ueq Profile

◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

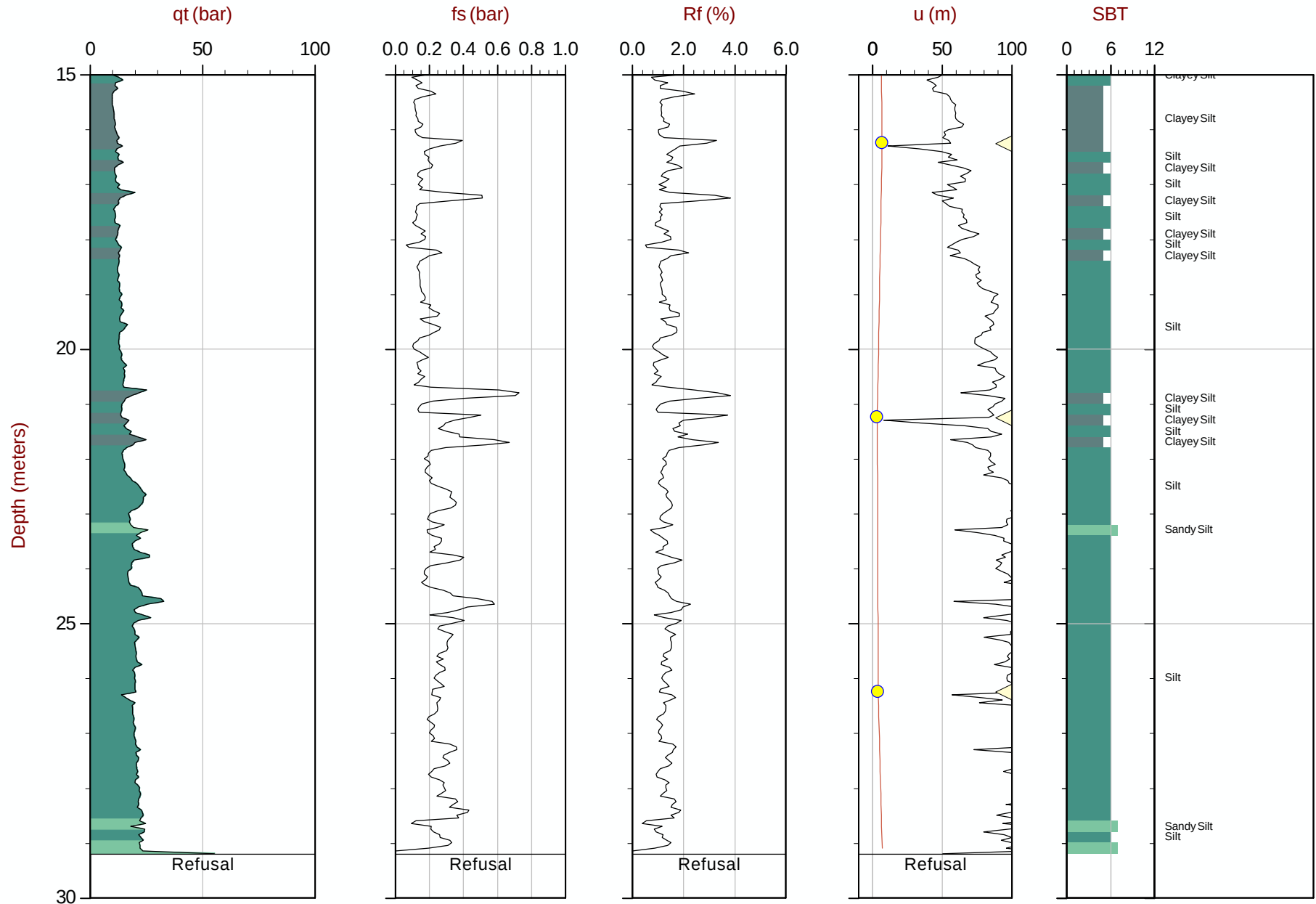
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:25:15 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500



Max Depth: 29.200 m / 95.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA19.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494502mE: 313163m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

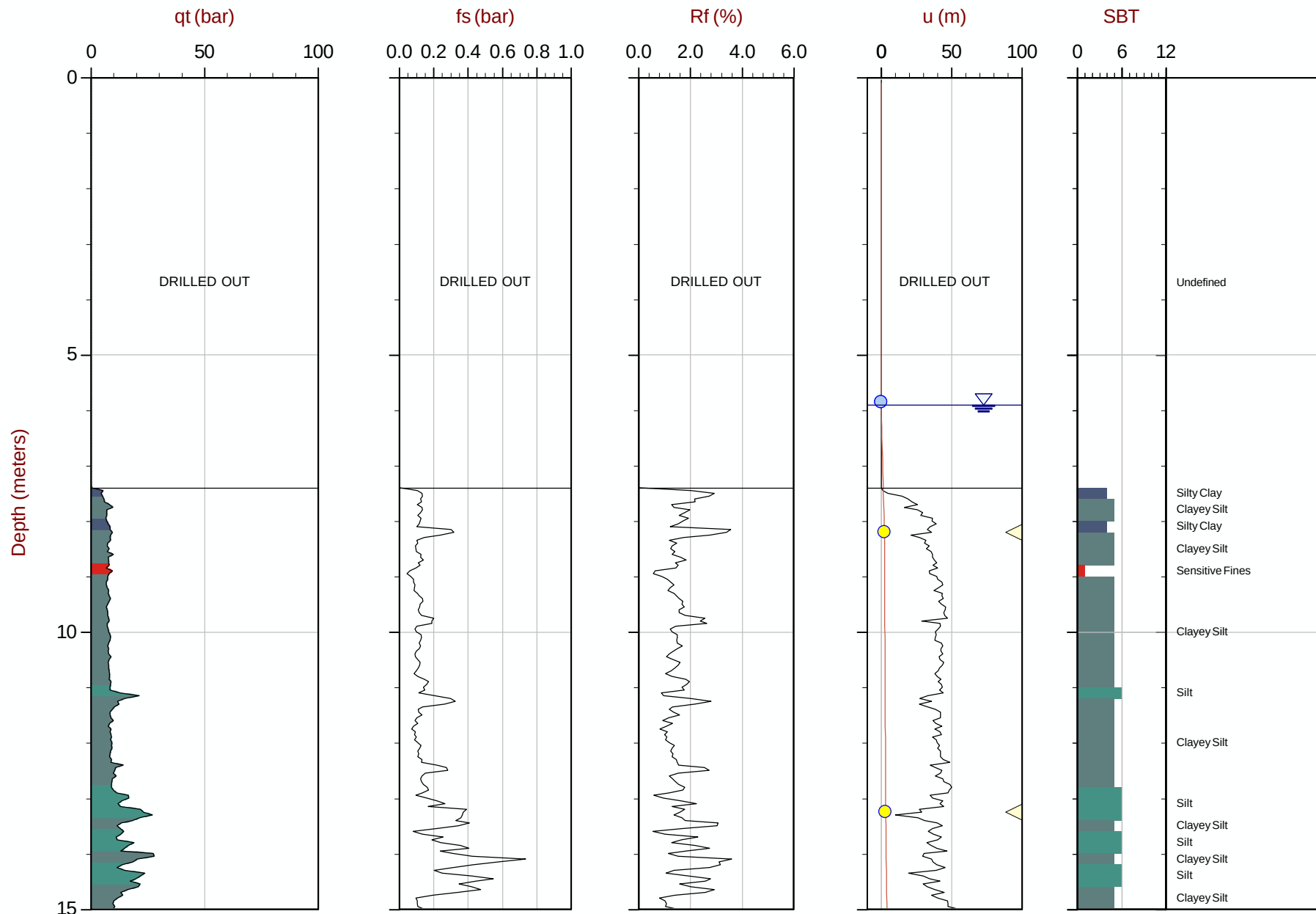
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA20.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494483mE: 313191m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

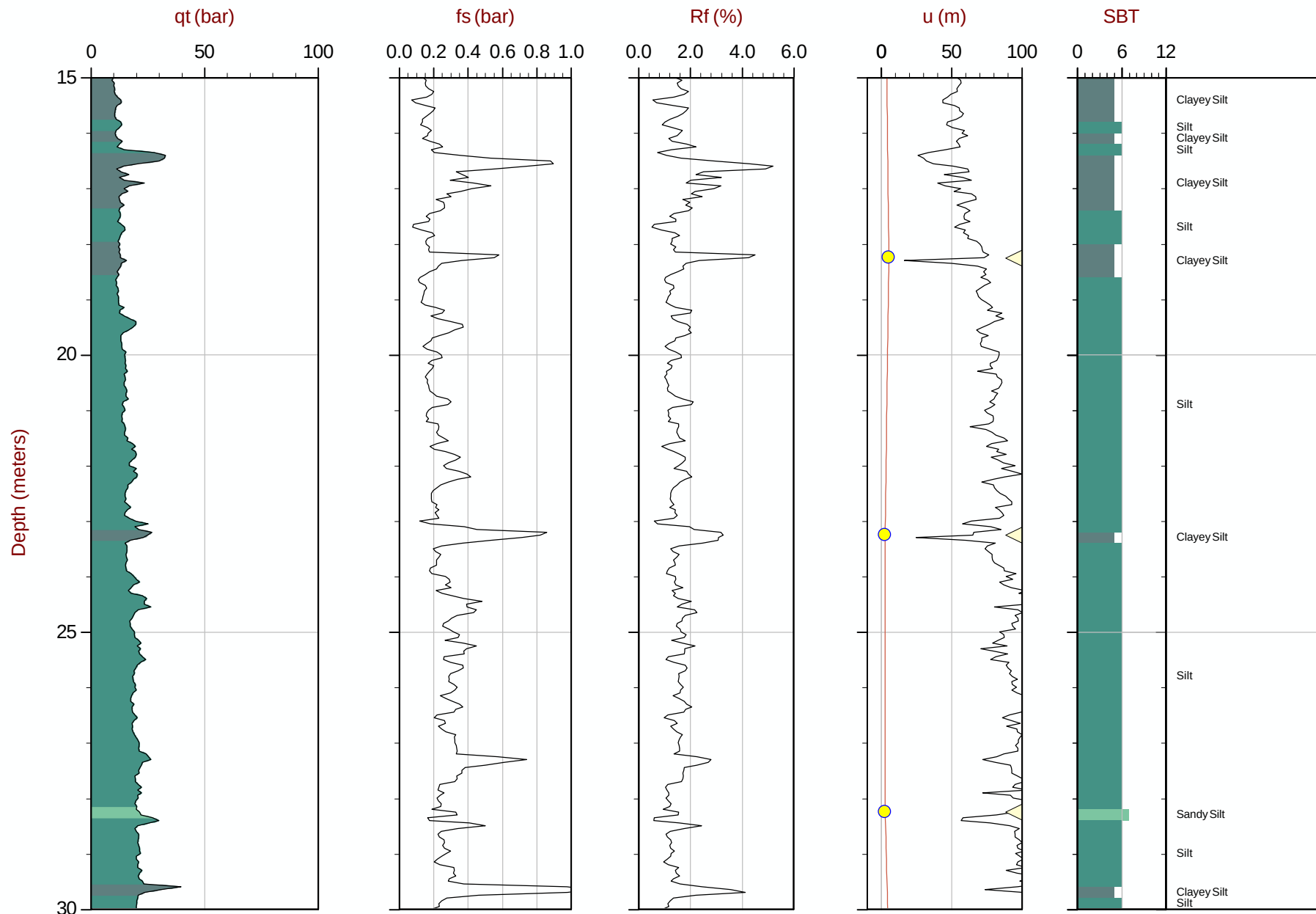
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA20.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494483mE: 313191m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

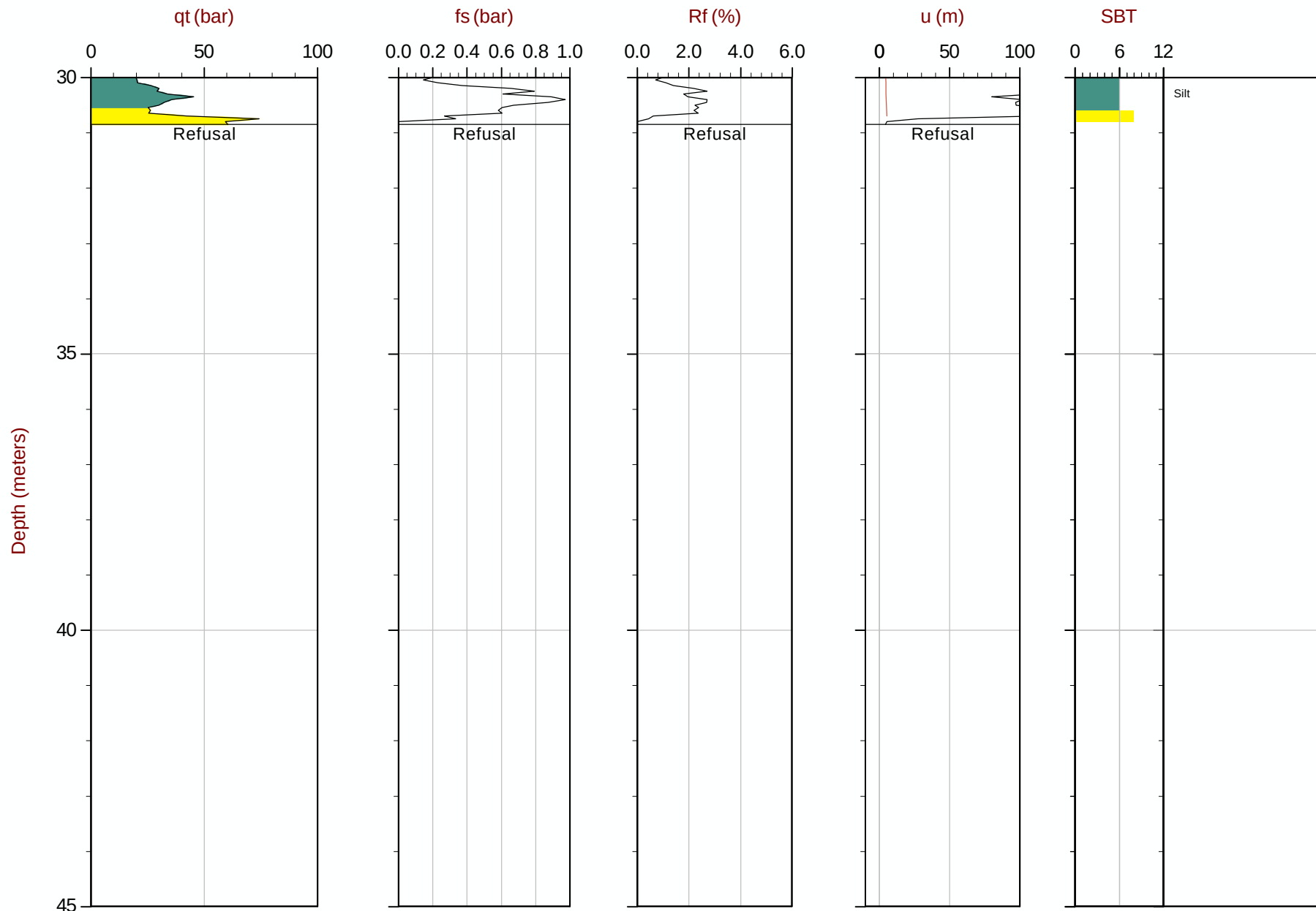
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_CPA20.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494483mE: 313191m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

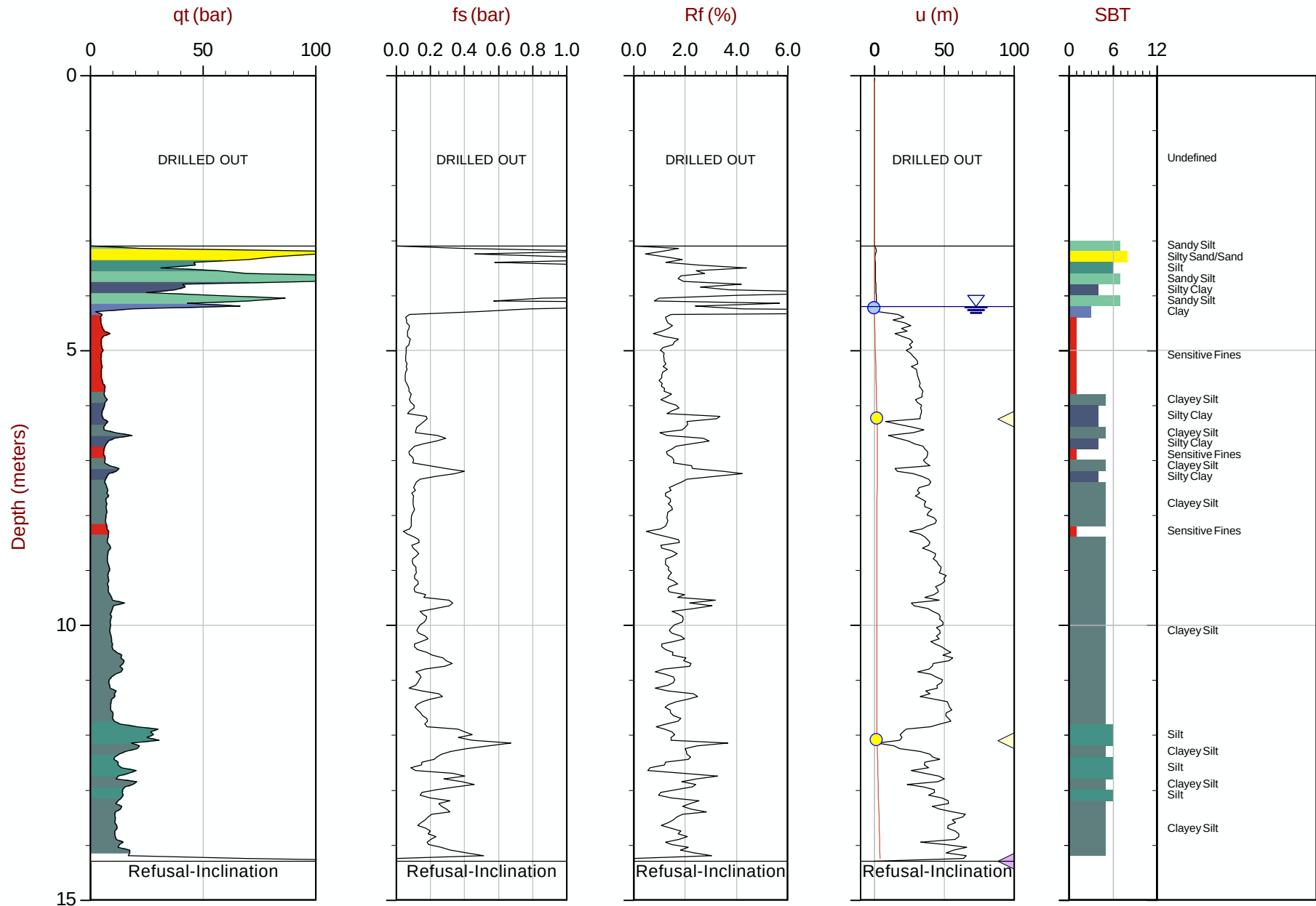
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:24:15 14:49
Site: Myra Falls Mine

Sounding: CPT15-A22
Cone: 327:T375F10U200



Max Depth: 14.300 m / 46.92 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA22.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494615m E: 313168m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



● Assumed U_{eq}
● U_{eq}
— U_{eq} Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

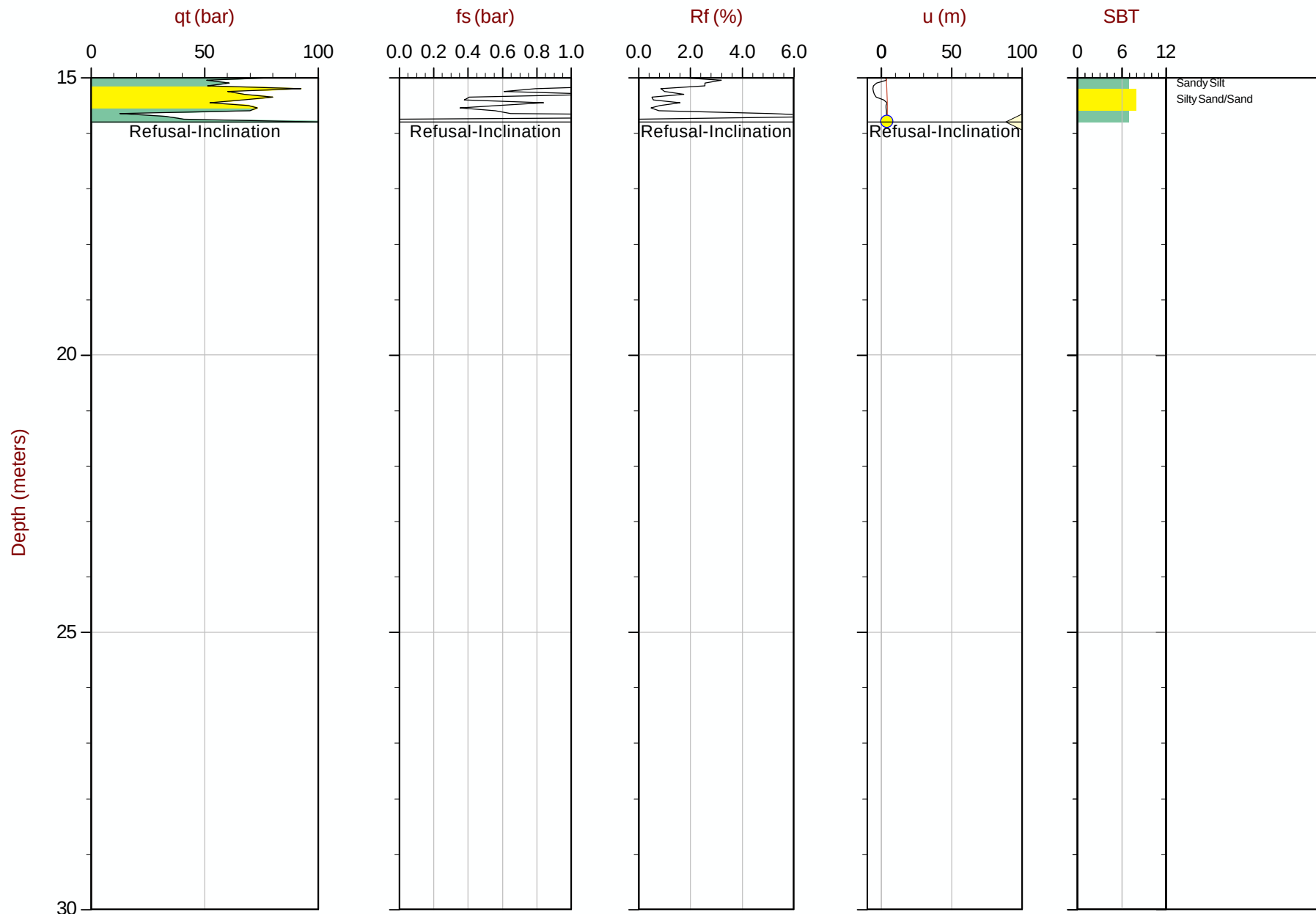
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:24:15 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500



Max Depth: 15.800 m / 51.84 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA23.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494613mE: 313178m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

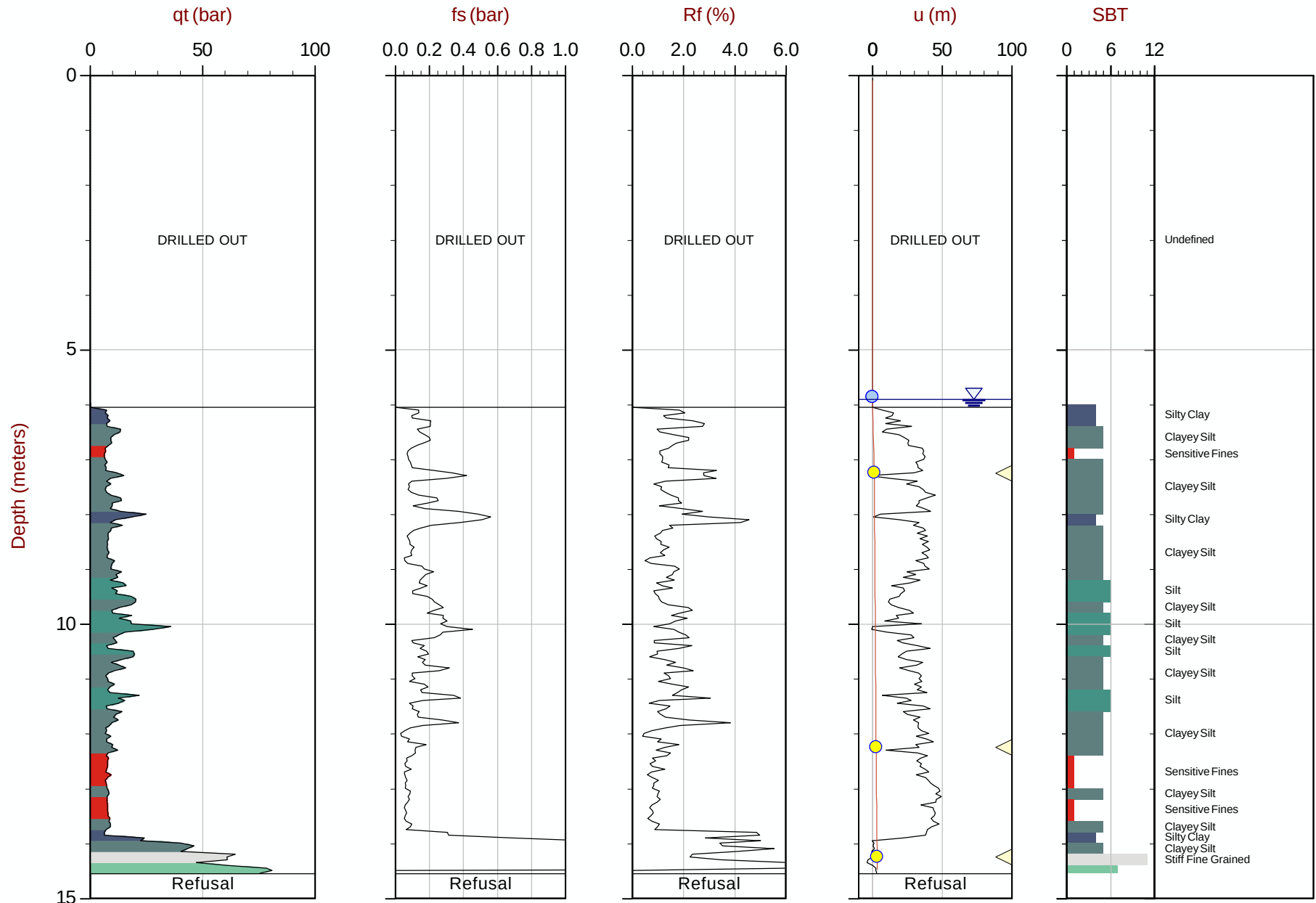
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 10:20
Site: Myra Falls Mine

Sounding: CPT15-A24
Cone: 378:T500F10U500



Max Depth: 14.550 m / 47.74 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA24.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494609mE: 313222m

● Assumed Ueq ● Ueq — Ueq Profile

◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

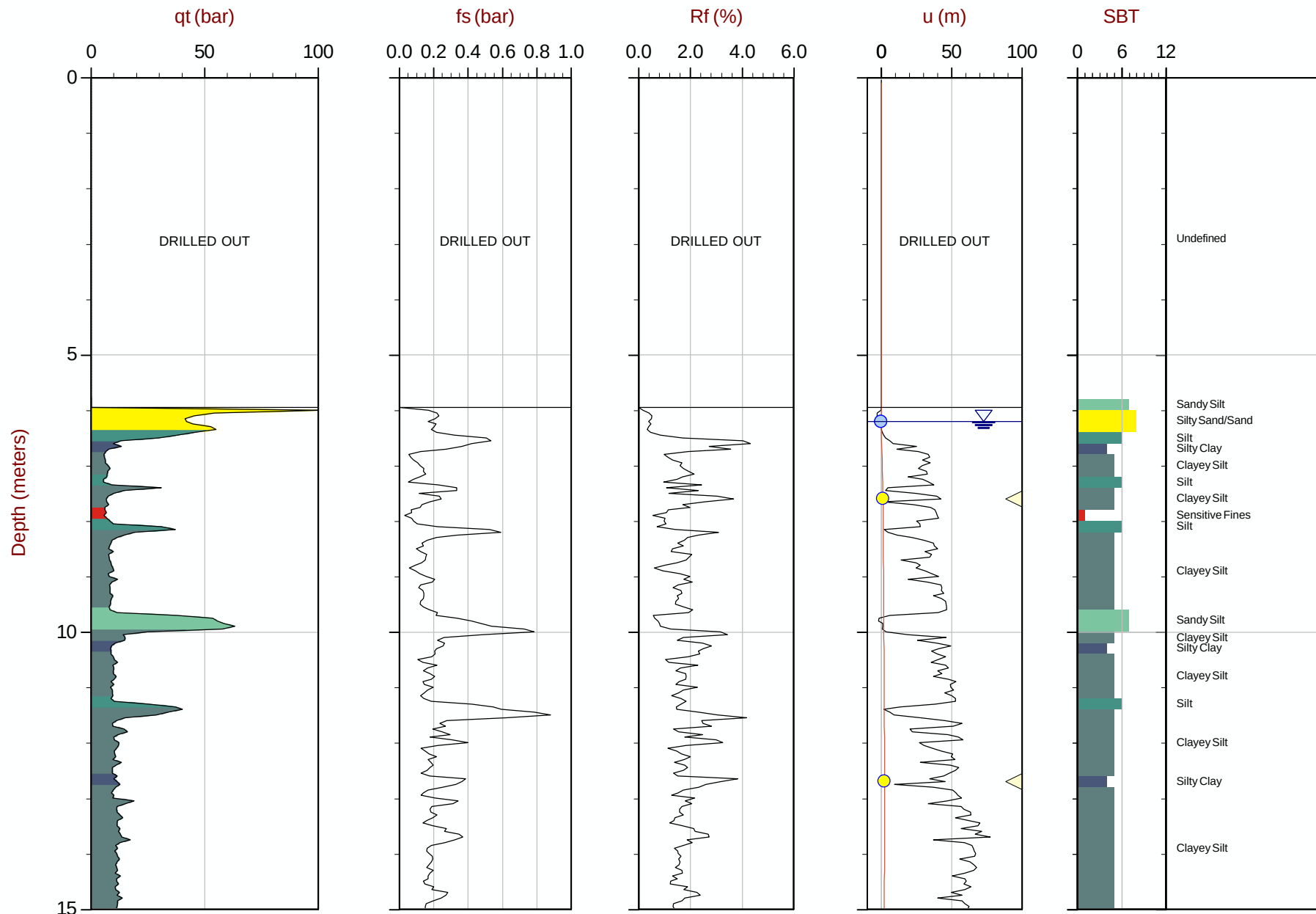
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500



Max Depth: 20.850 m / 68.40 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA02.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494561mE: 312407m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

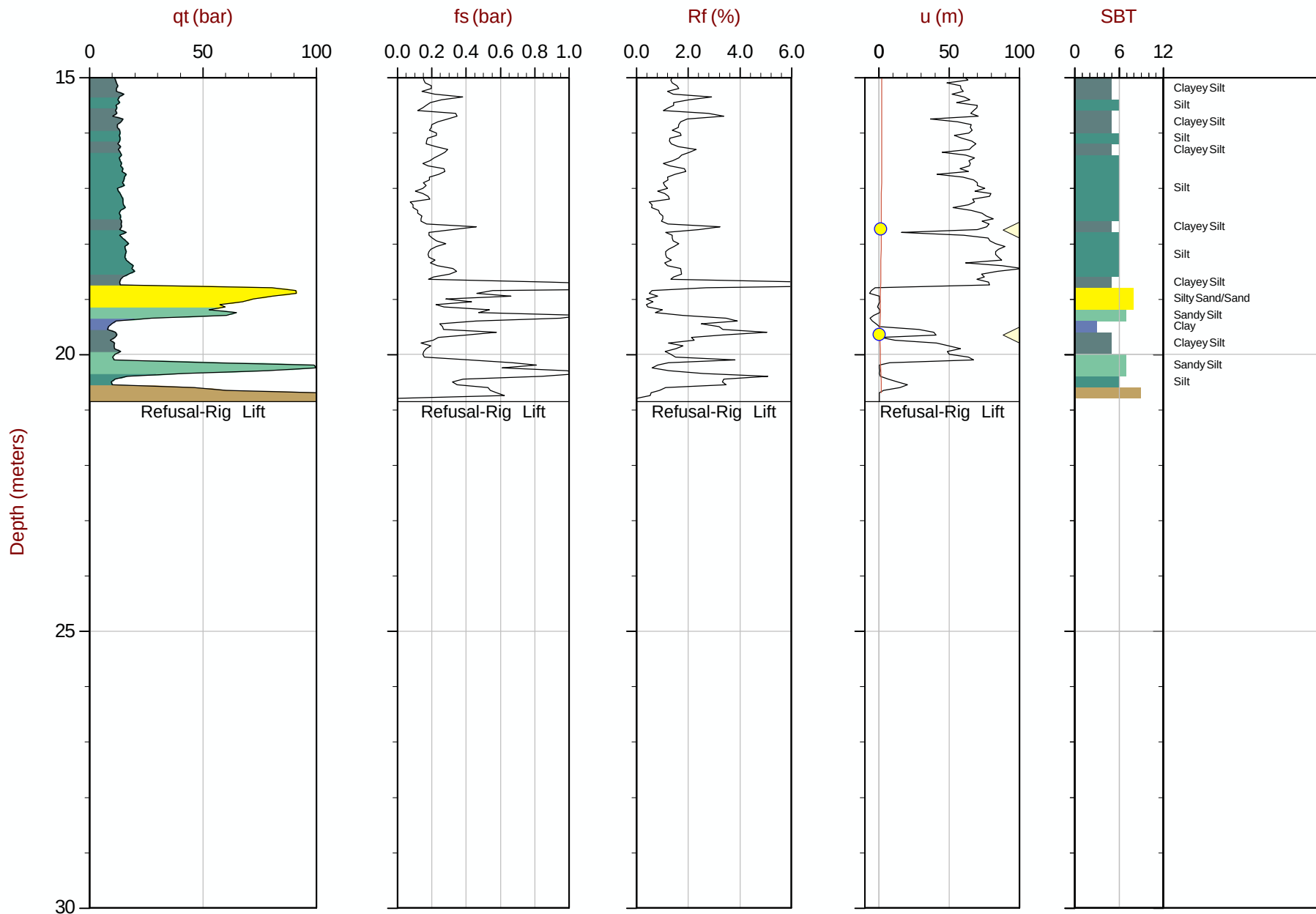
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500



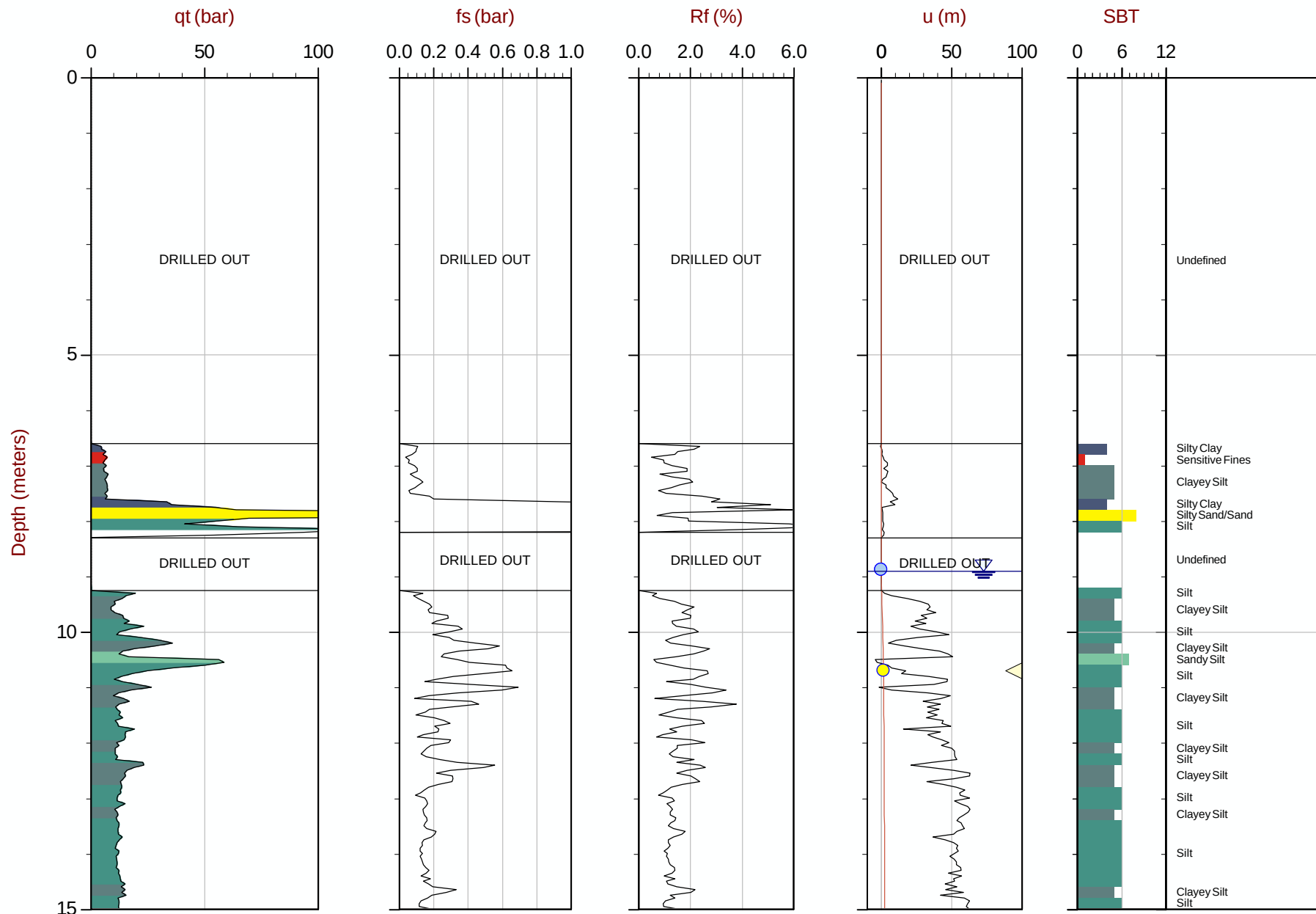
Max Depth: 20.850 m / 68.40 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA02.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494561mE: 312407m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 22.350 m / 73.33 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA03.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10 N: 5494557m E: 312395m

● Assumed U_{eq}
● U_{eq}
— U_{eq} Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

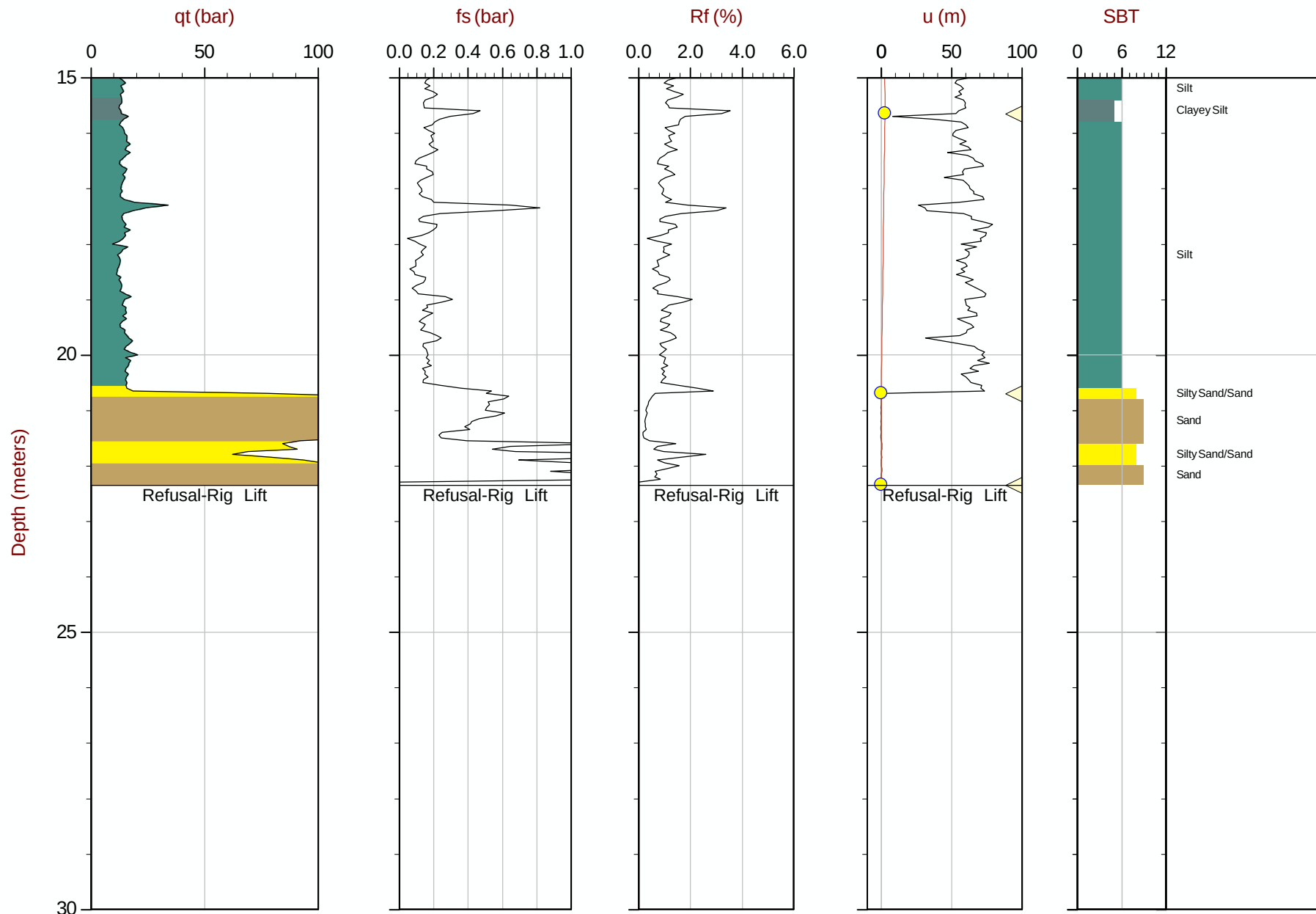
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500



Max Depth: 22.350 m / 73.33 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA03.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494557mE: 312395m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

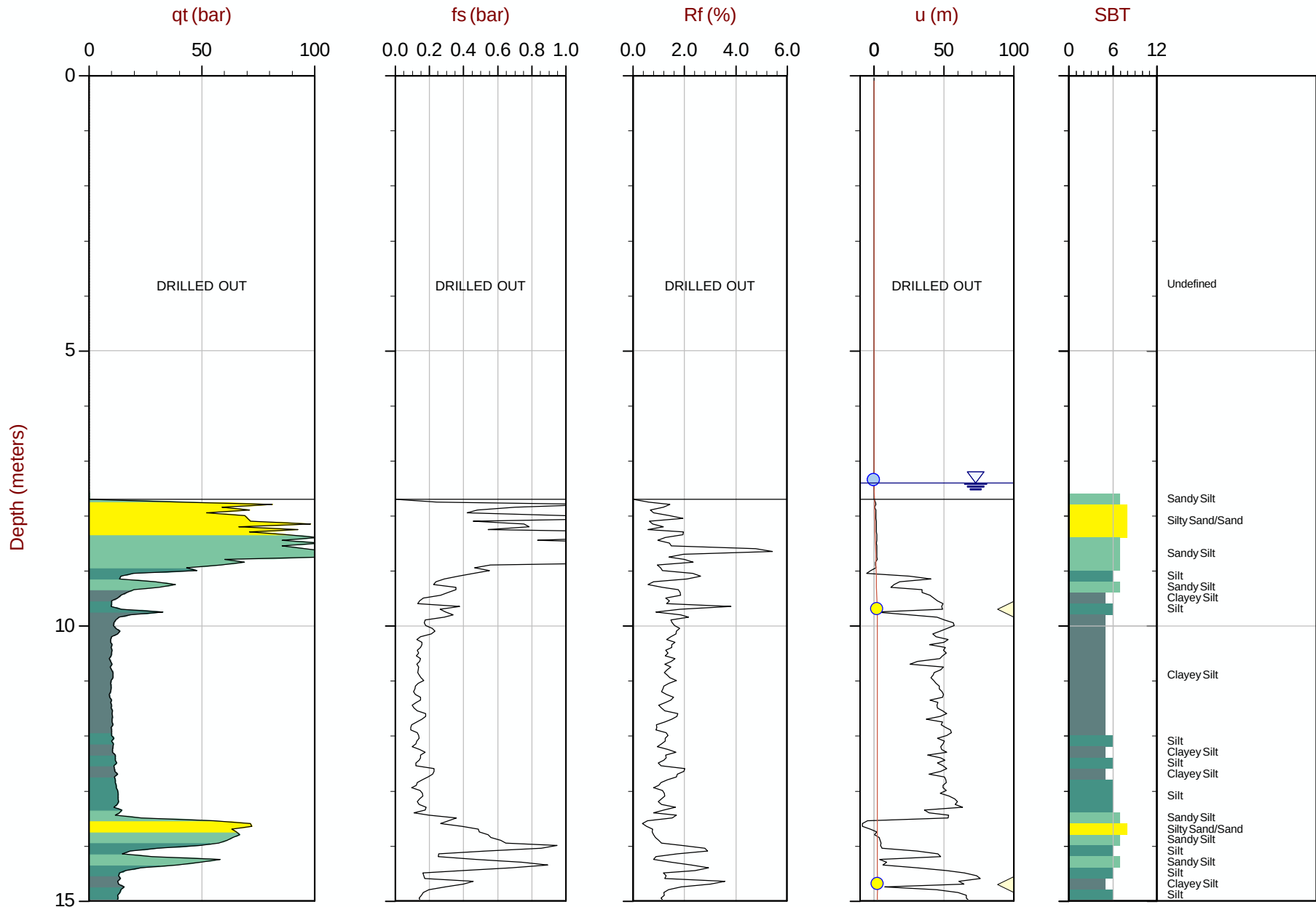
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:19:15 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500



Max Depth: 17.750 m / 58.23 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494558mE: 312379m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

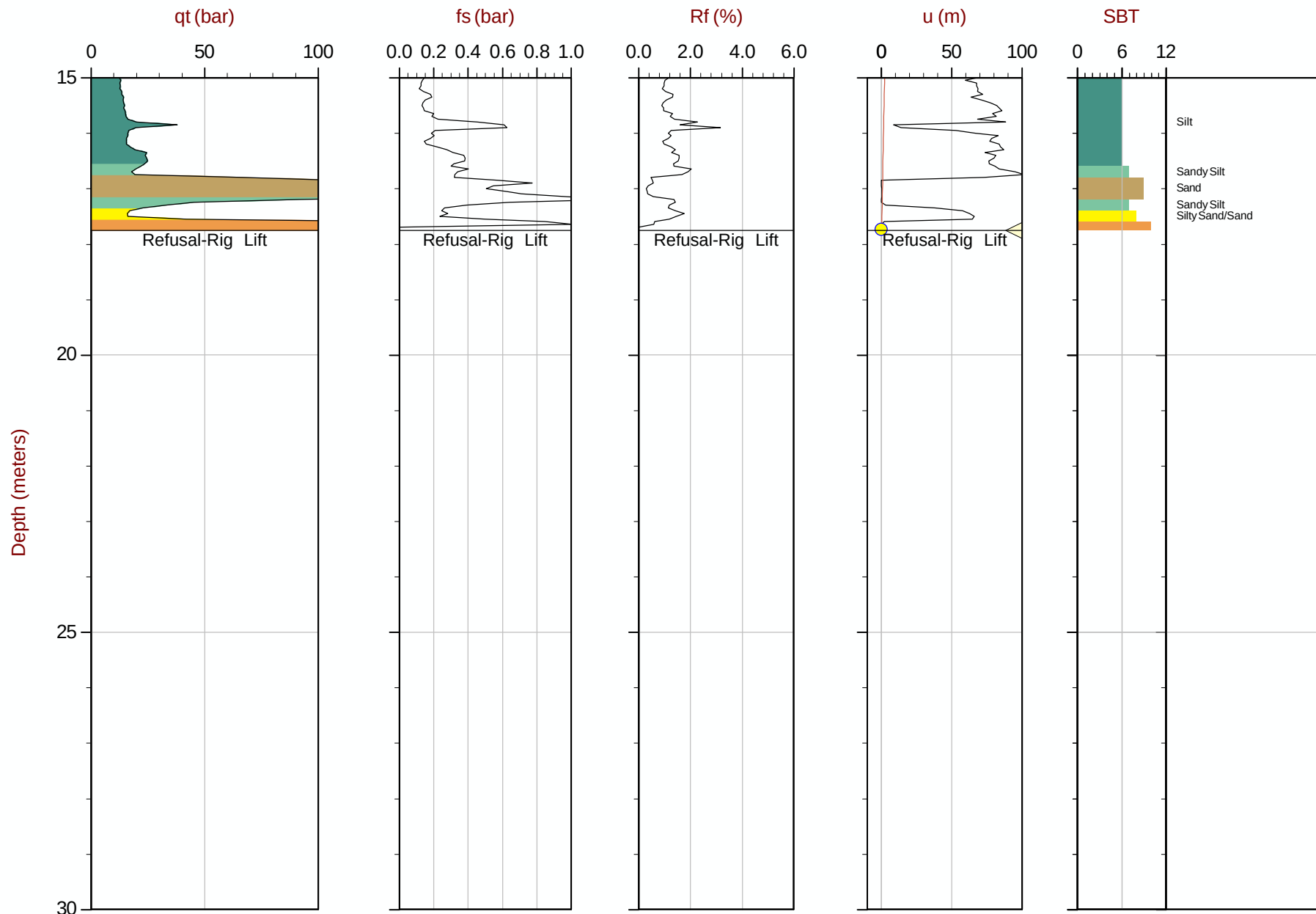
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:19:15 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500



Max Depth: 17.750 m / 58.23 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494558m E: 312379m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

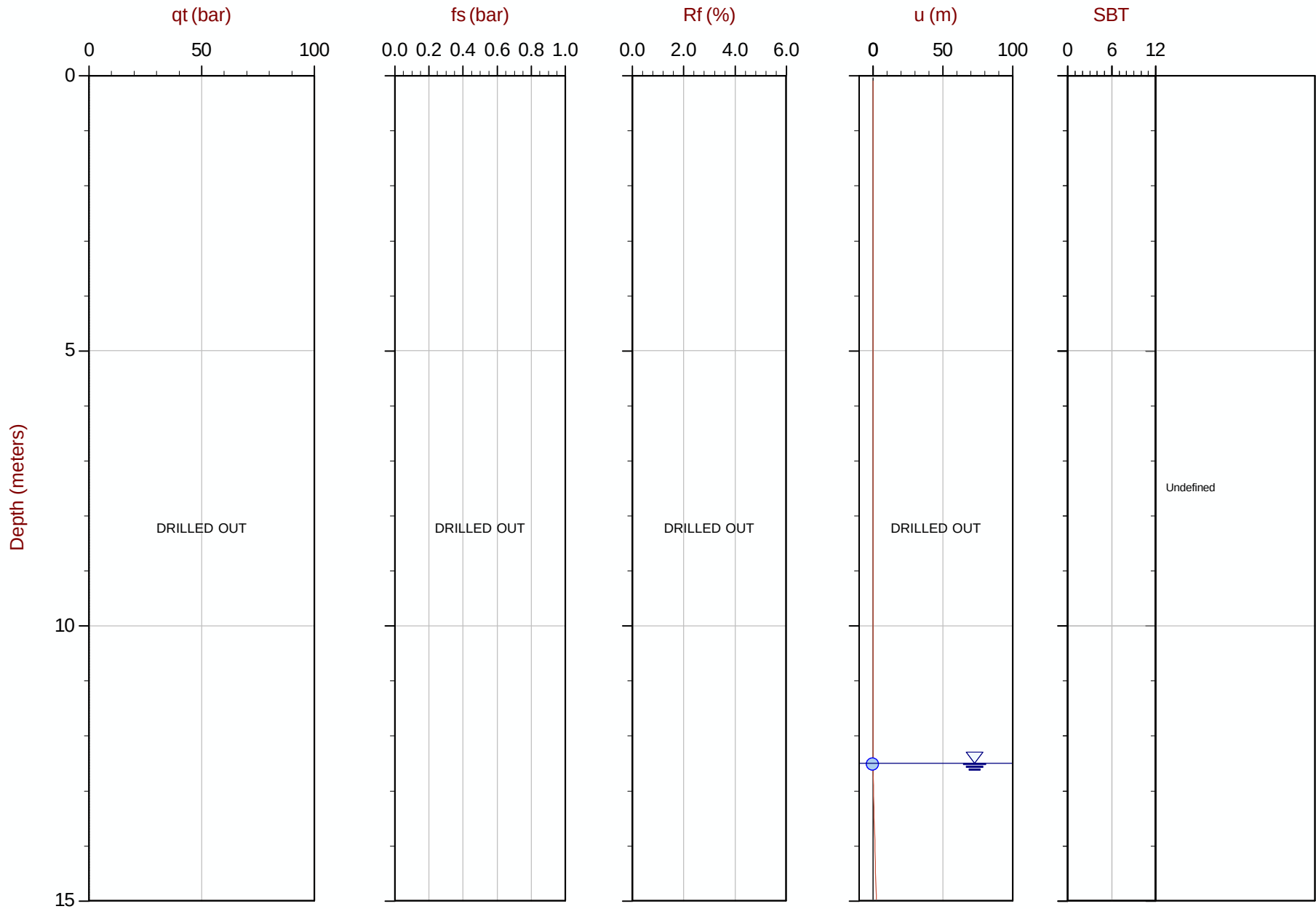
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:02:15 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500



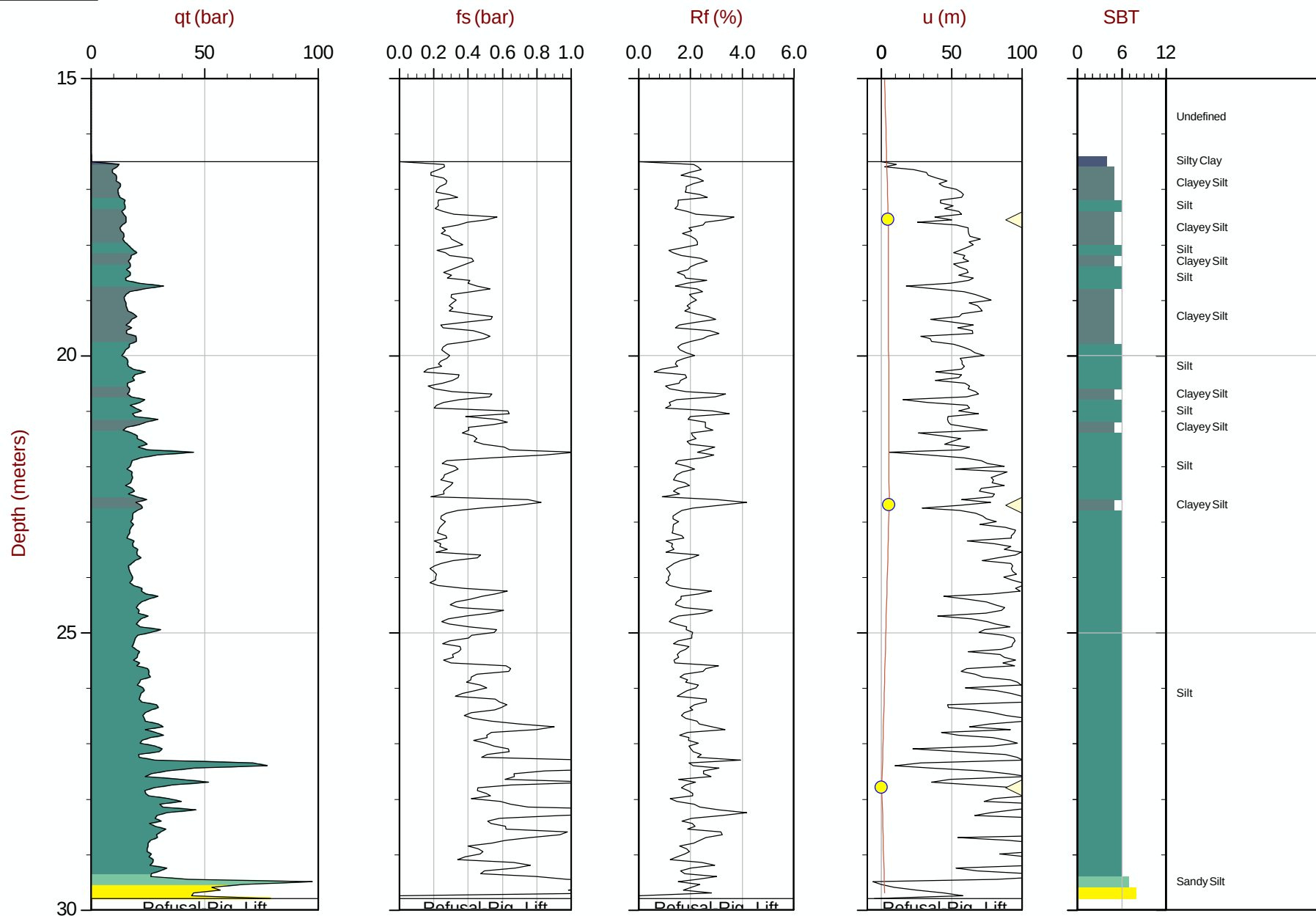
Max Depth: 29.800 m / 97.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA05.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494519m E: 312513m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 29.800 m / 97.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

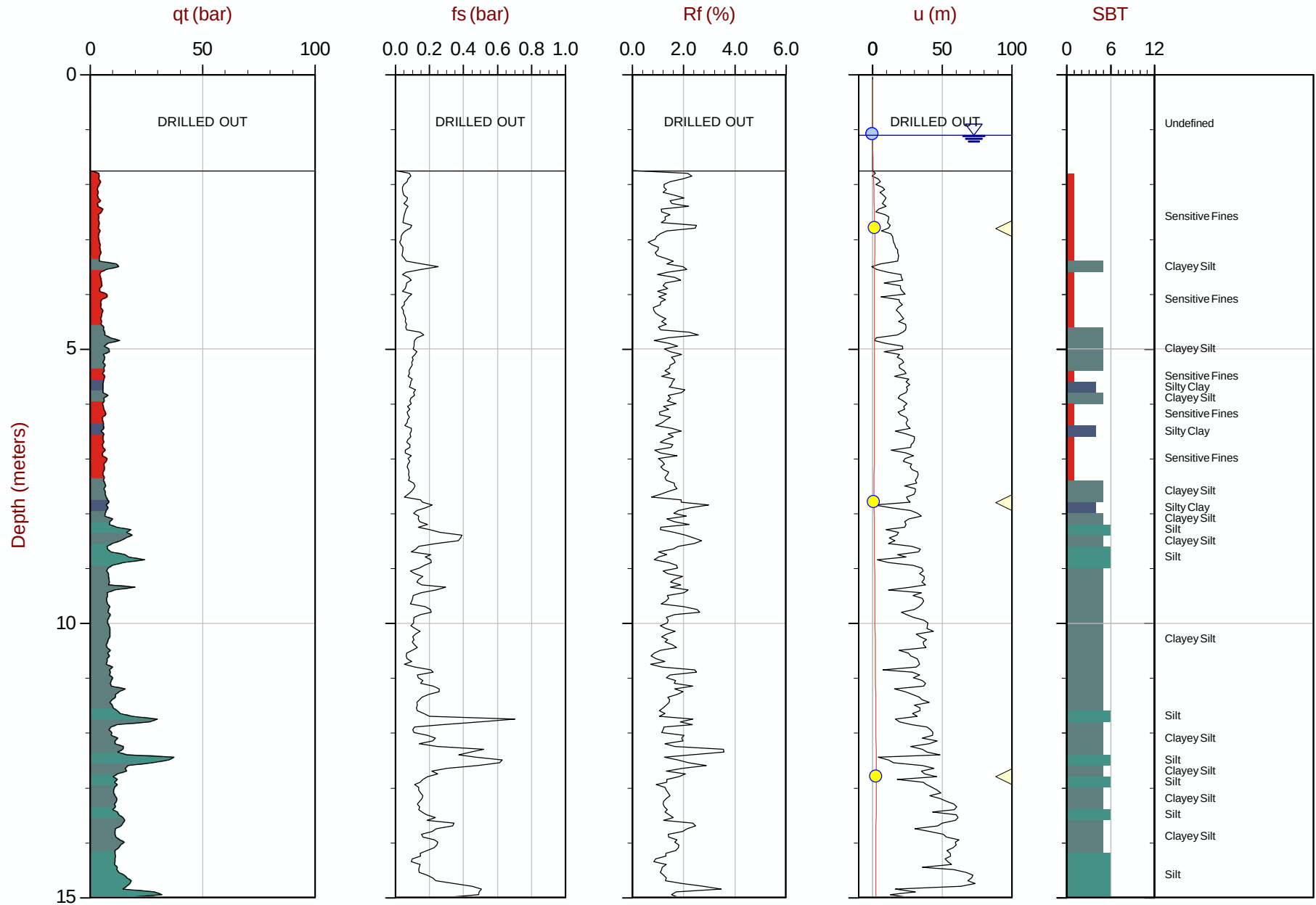
File: 15-02029_SPA05.COR
UnitWt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTMZone 10 N: 5494519m E: 312513m

● Assumed Ueq
 ● Ueq
 — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 24.250 m / 79.56 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA07.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10 N: 5494463m E: 312507m

● Assumed U_{eq}
● U_{eq}
— U_{eq} Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

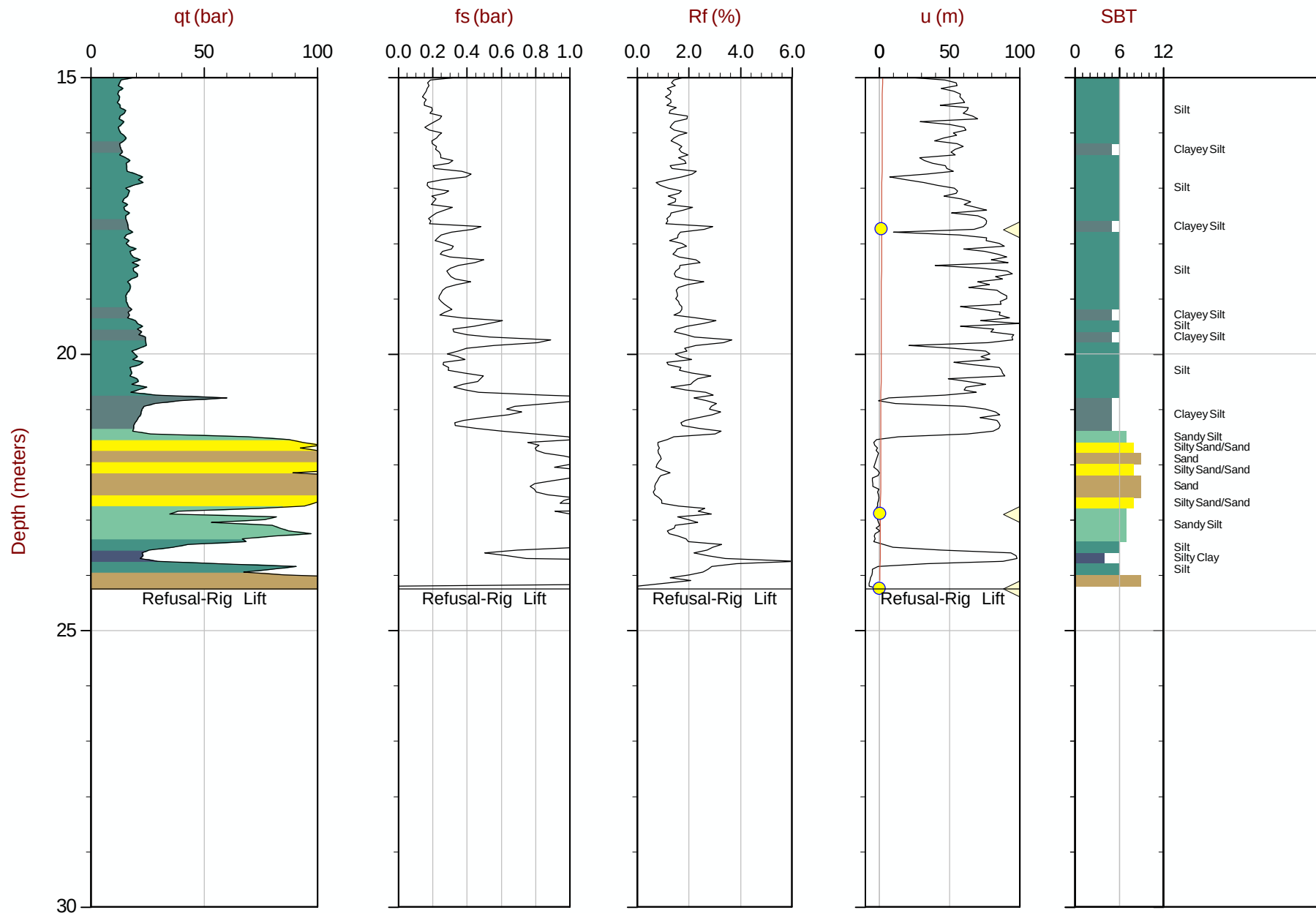
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:08:15 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500



Max Depth: 24.250 m / 79.56 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA07.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494463mE: 312507m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

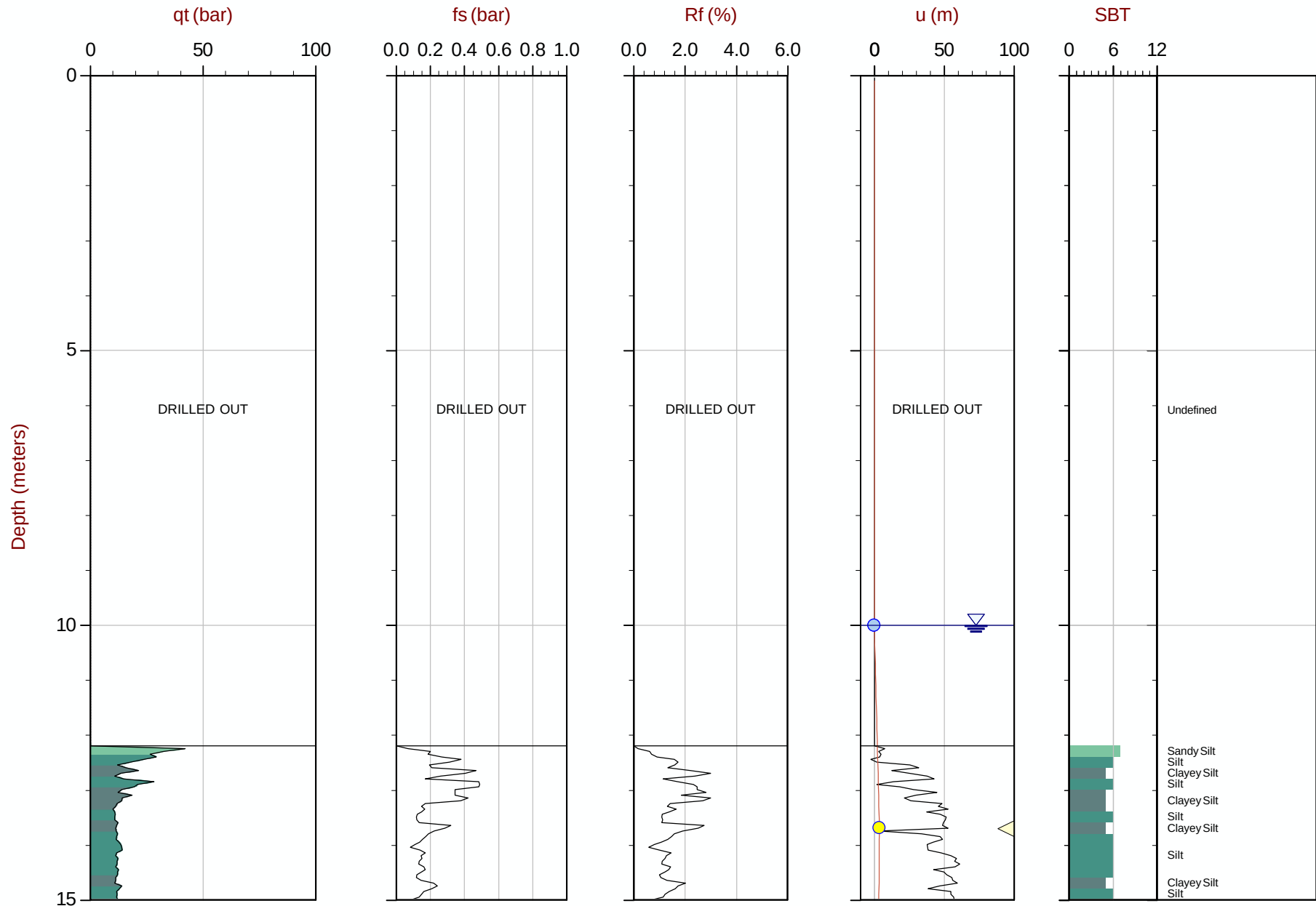
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:12:15 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500



Max Depth: 26.250 m / 86.12 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA09.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494493m E: 312678m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

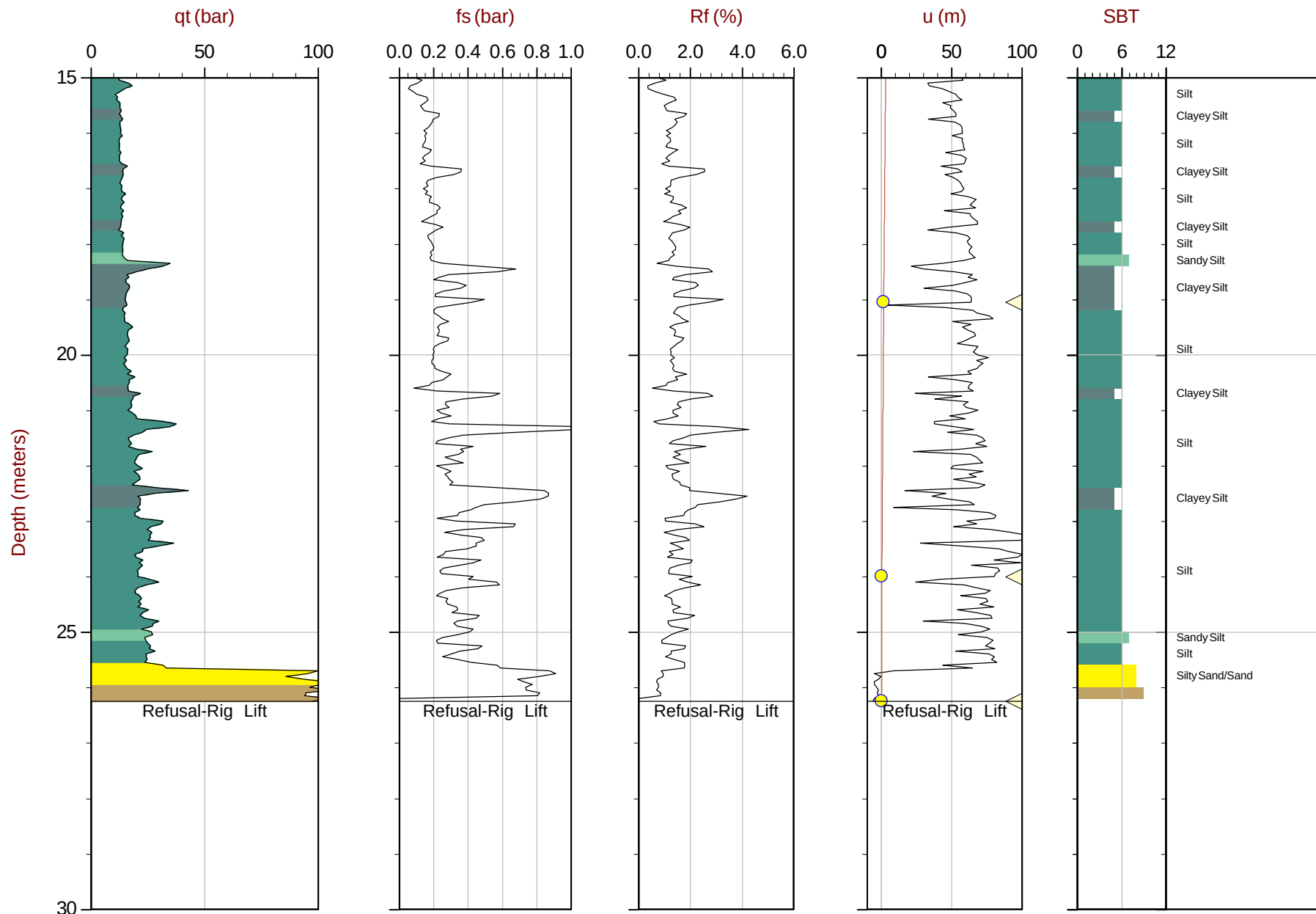
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:12:15 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500



Max Depth: 26.250 m / 86.12 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA09.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494493mE: 312678m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

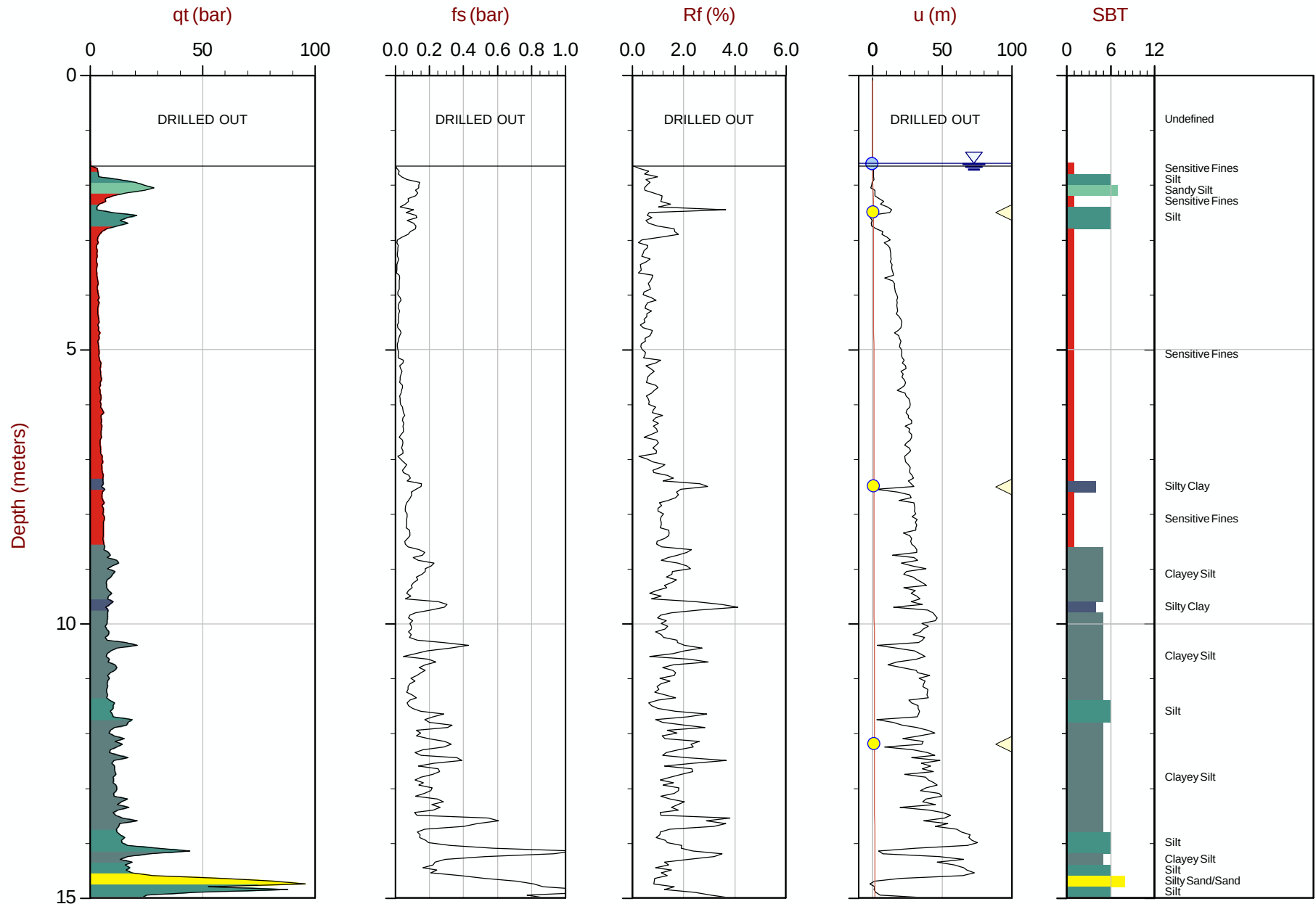
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:13:15 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500



Max Depth: 27.150 m / 89.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA11.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494424mE: 312669m

● Assumed Ueq ● Ueq — Ueq Profile

◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

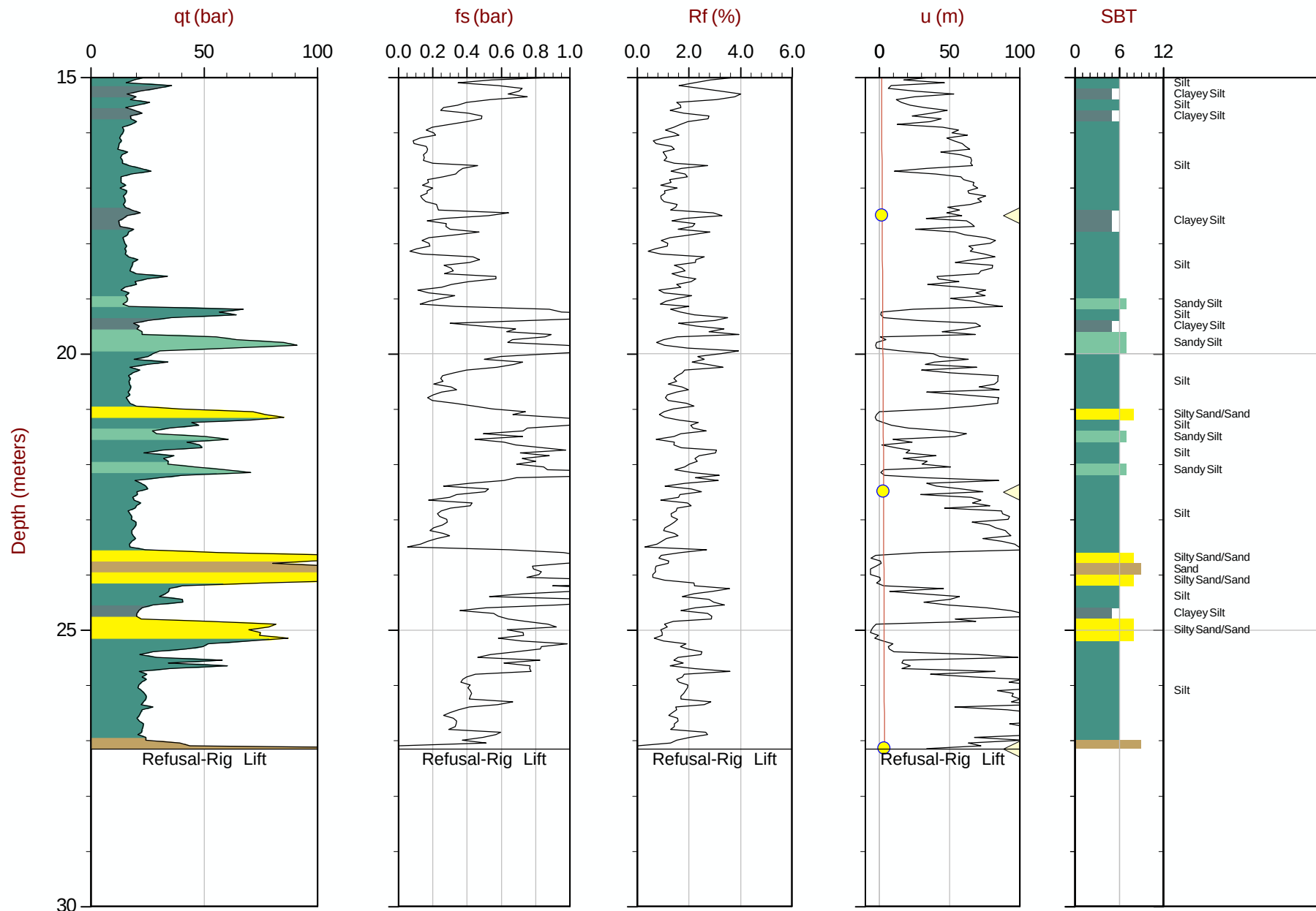
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:13:15 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500



Max Depth: 27.150 m / 89.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA11.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494424mE: 312669m

● Assumed Ueq ● Ueq — Ueq Profile

◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

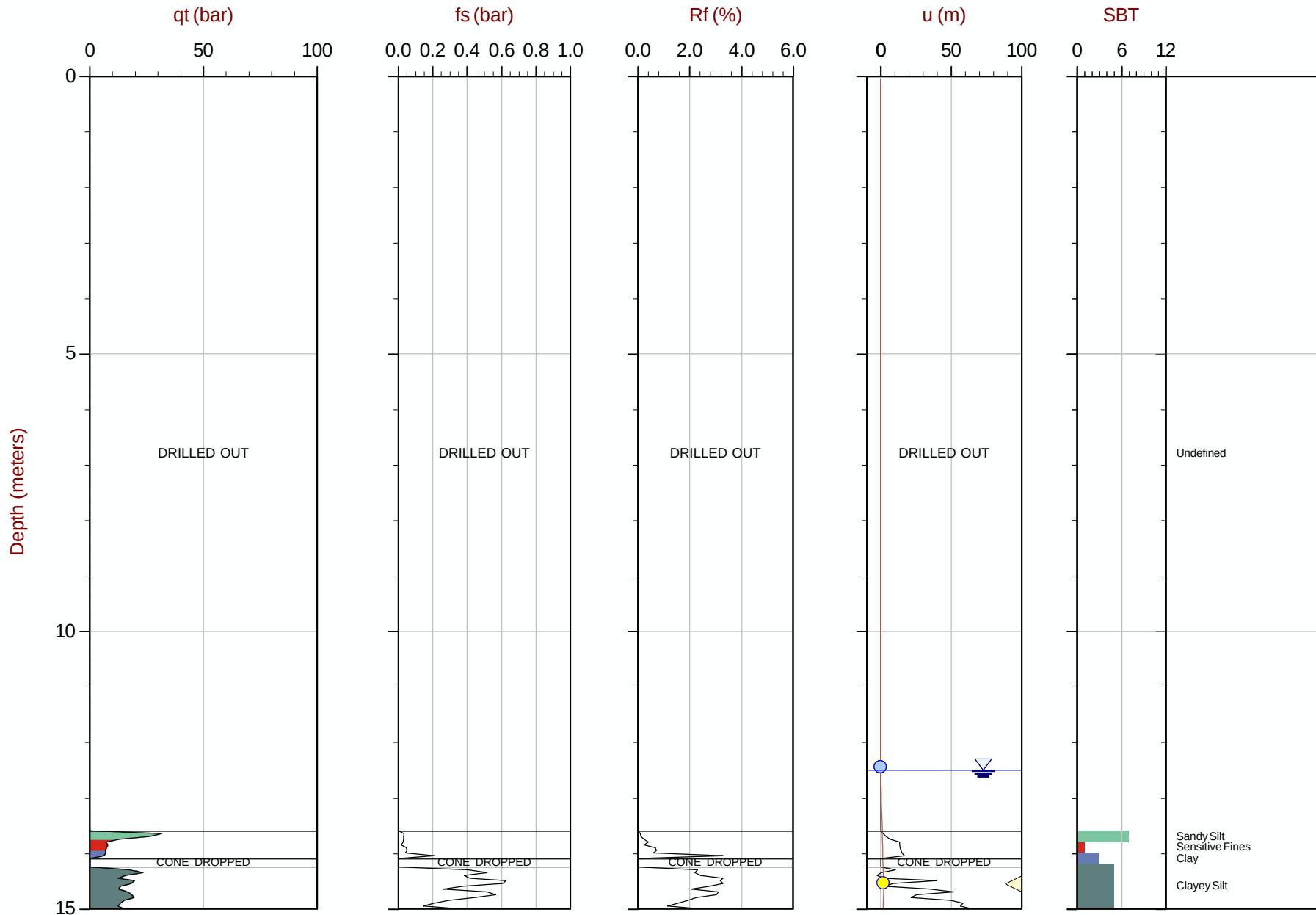
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:14:15 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500



Max Depth: 24.900 m / 81.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA13.COR
Unit Wt: SBT Chart Soil Zones

● Assumed Ueq ● Ueq — Ueq Profile

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494495m E: 312934m

◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

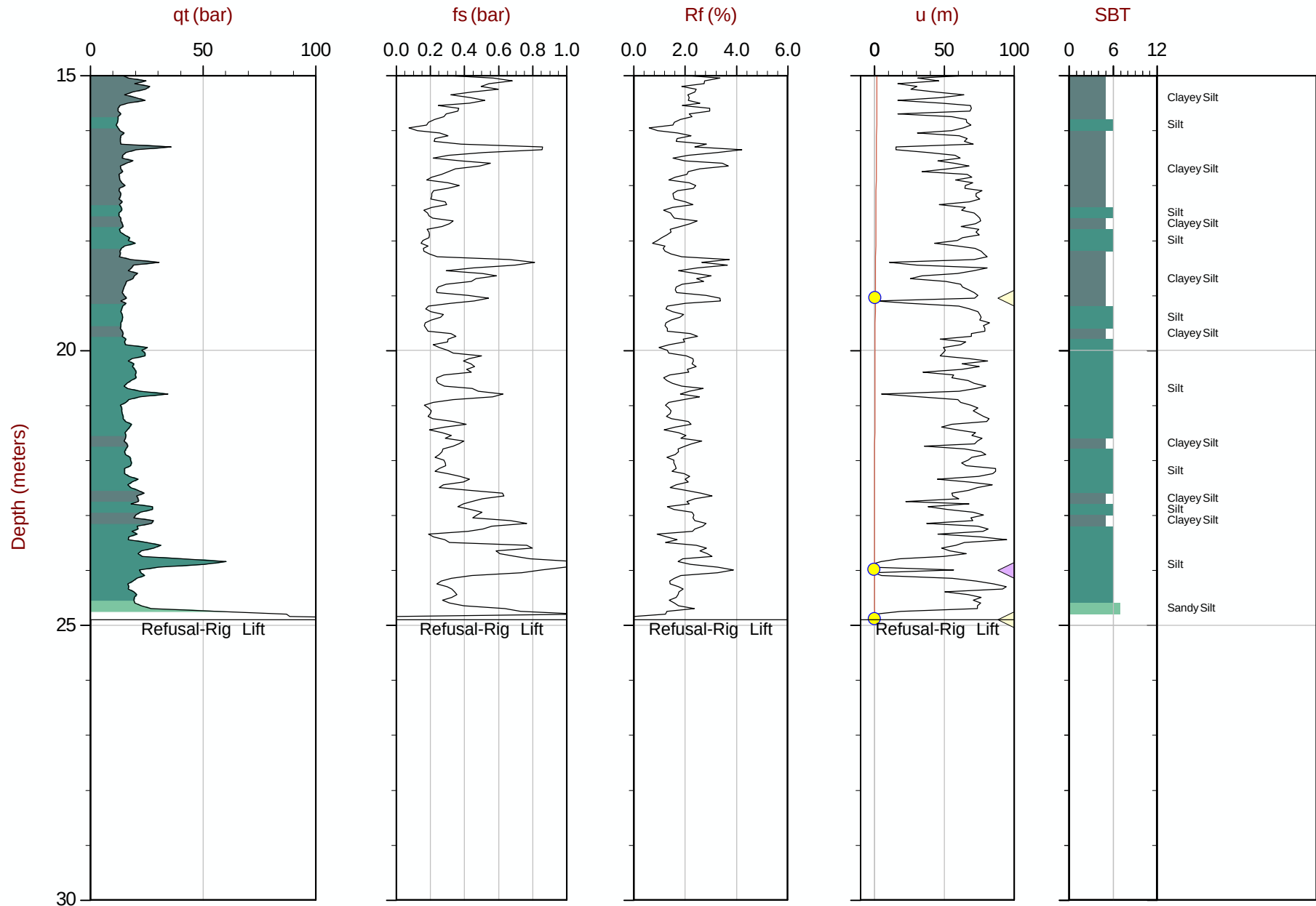
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:14:15 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500



Max Depth: 24.900 m / 81.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA13.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494495m E: 312934m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

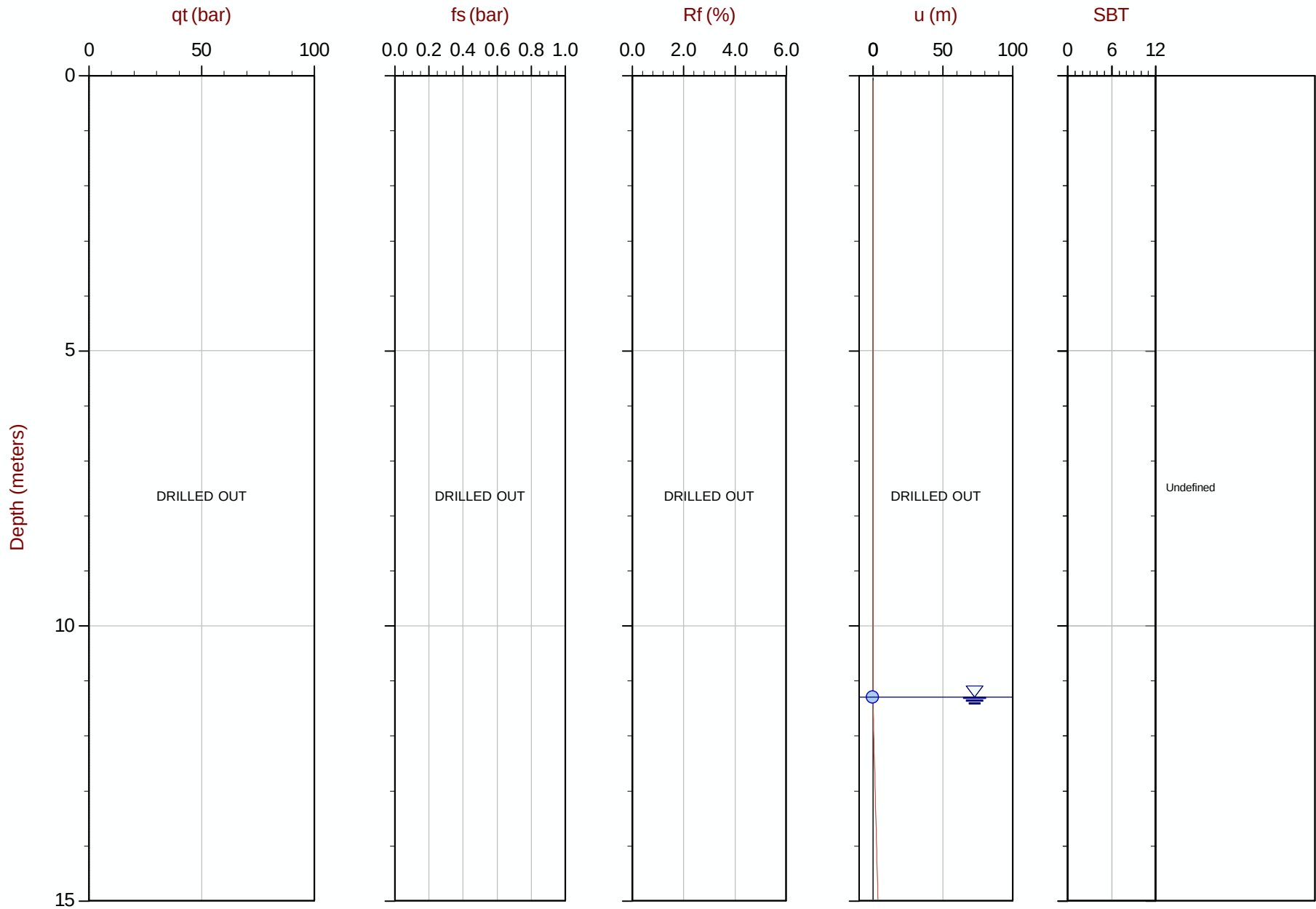
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500



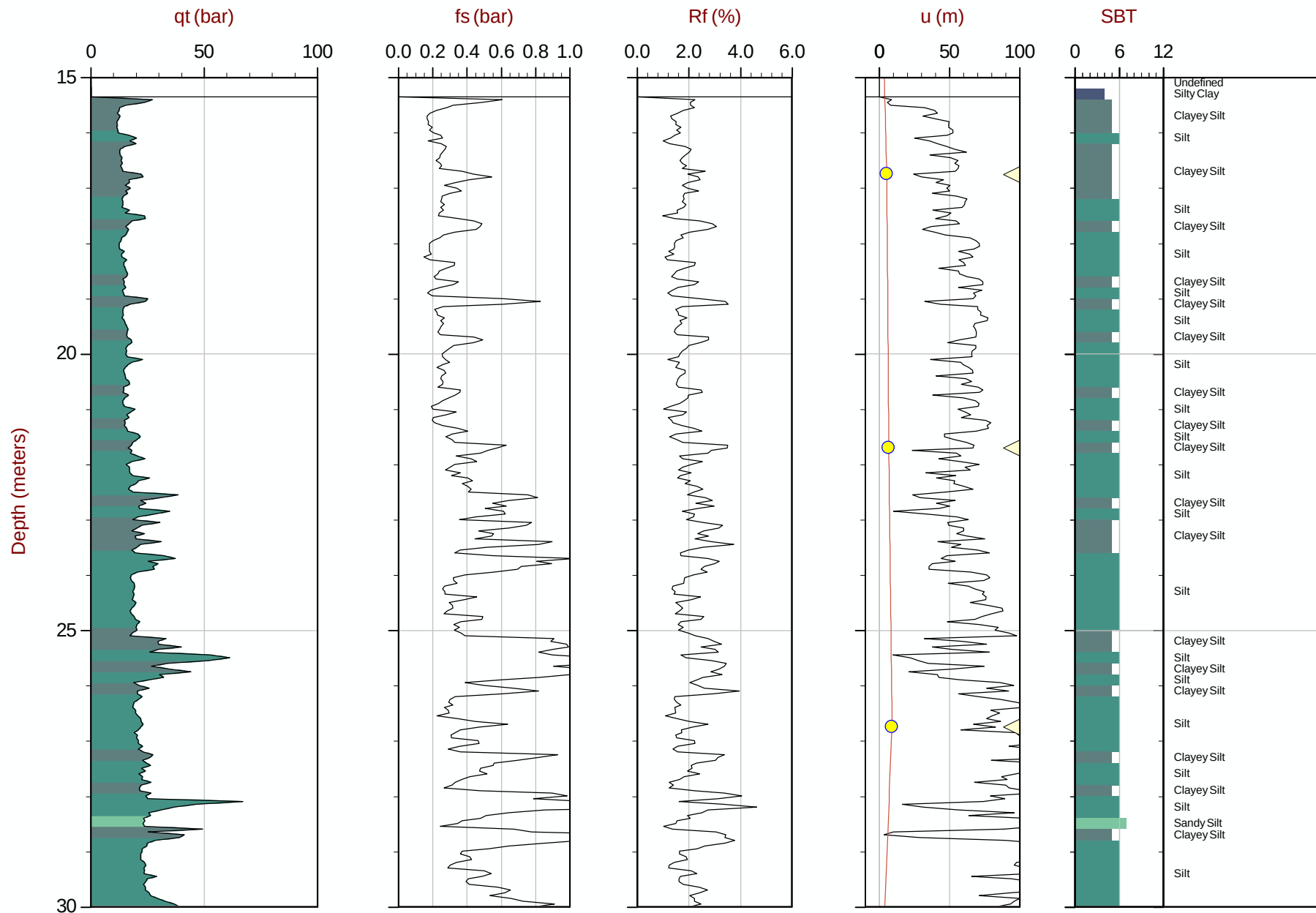
Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA17.COR
UnitWt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
 Coords: UTM Zone 10 N: 5494531m E: 313127m

● Assumed Ueq
 ● Ueq
 — Ueq Profile

 PPD, Ueq achieved
 PPD, Ueq not achieved

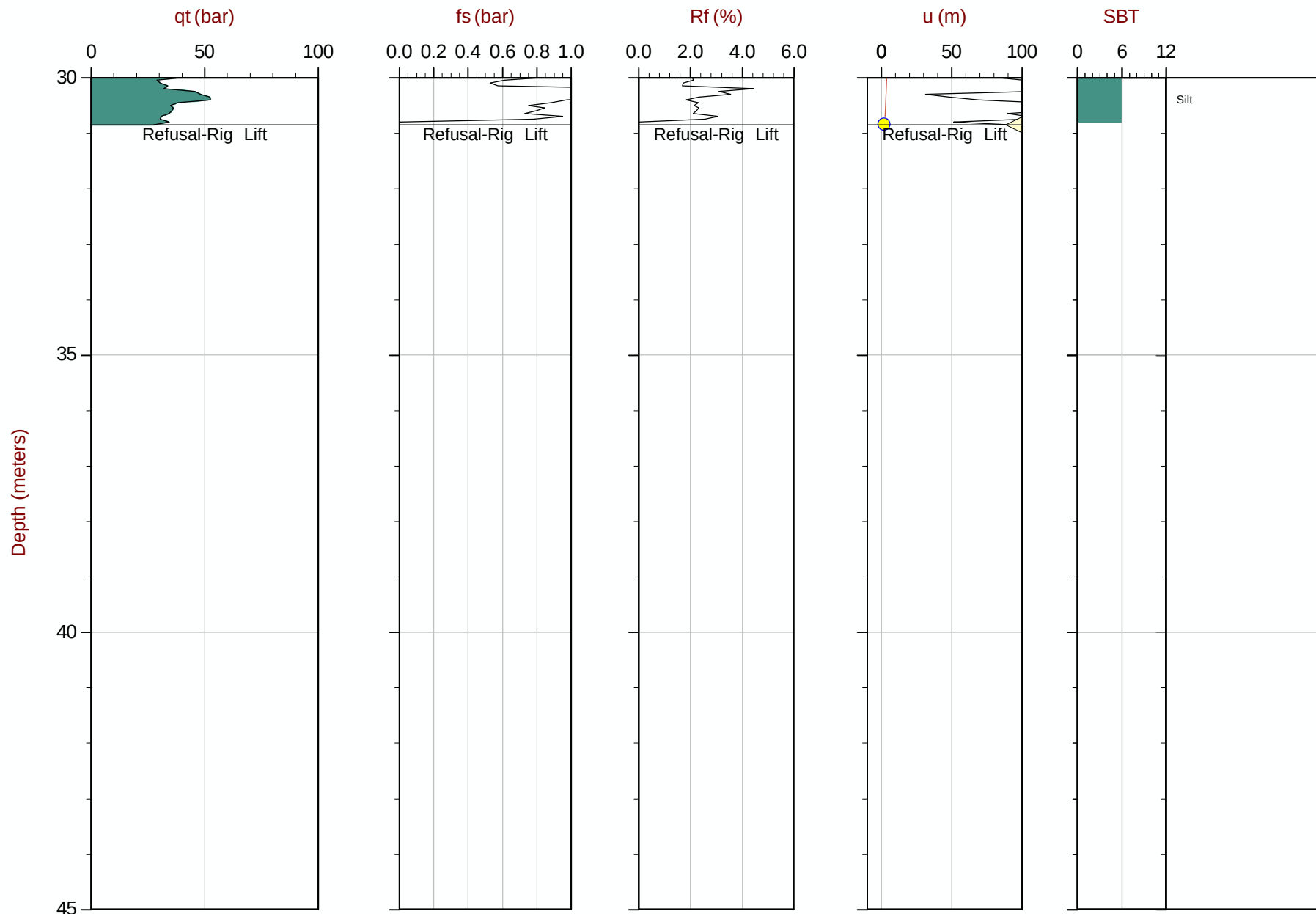
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

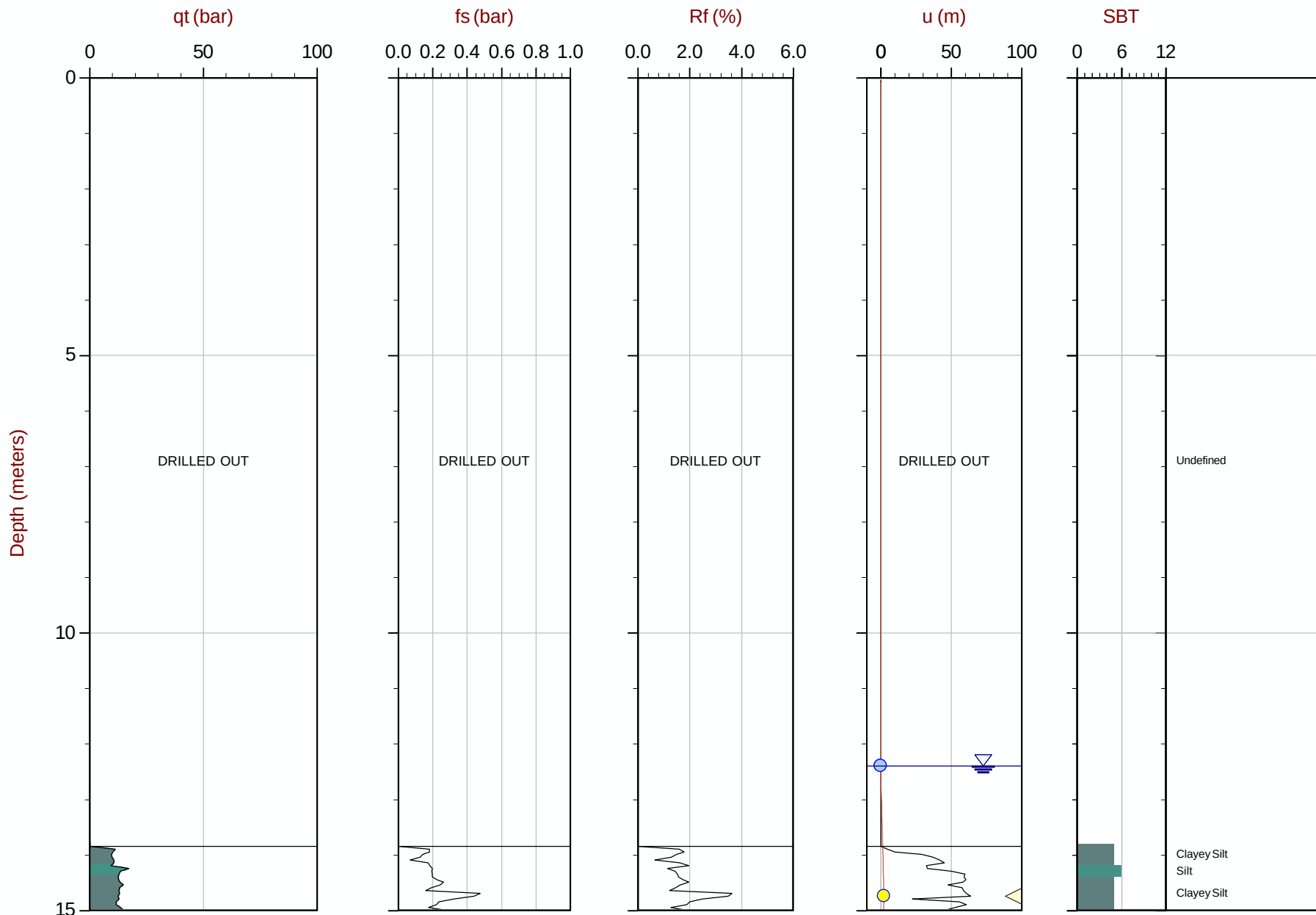
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500



Max Depth: 23.850 m / 78.25 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA21.COR
Unit Wt: SBT Chart Soil Zones

● Assumed Ueq ● Ueq — Ueq Profile

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494616mE: 313141m

◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

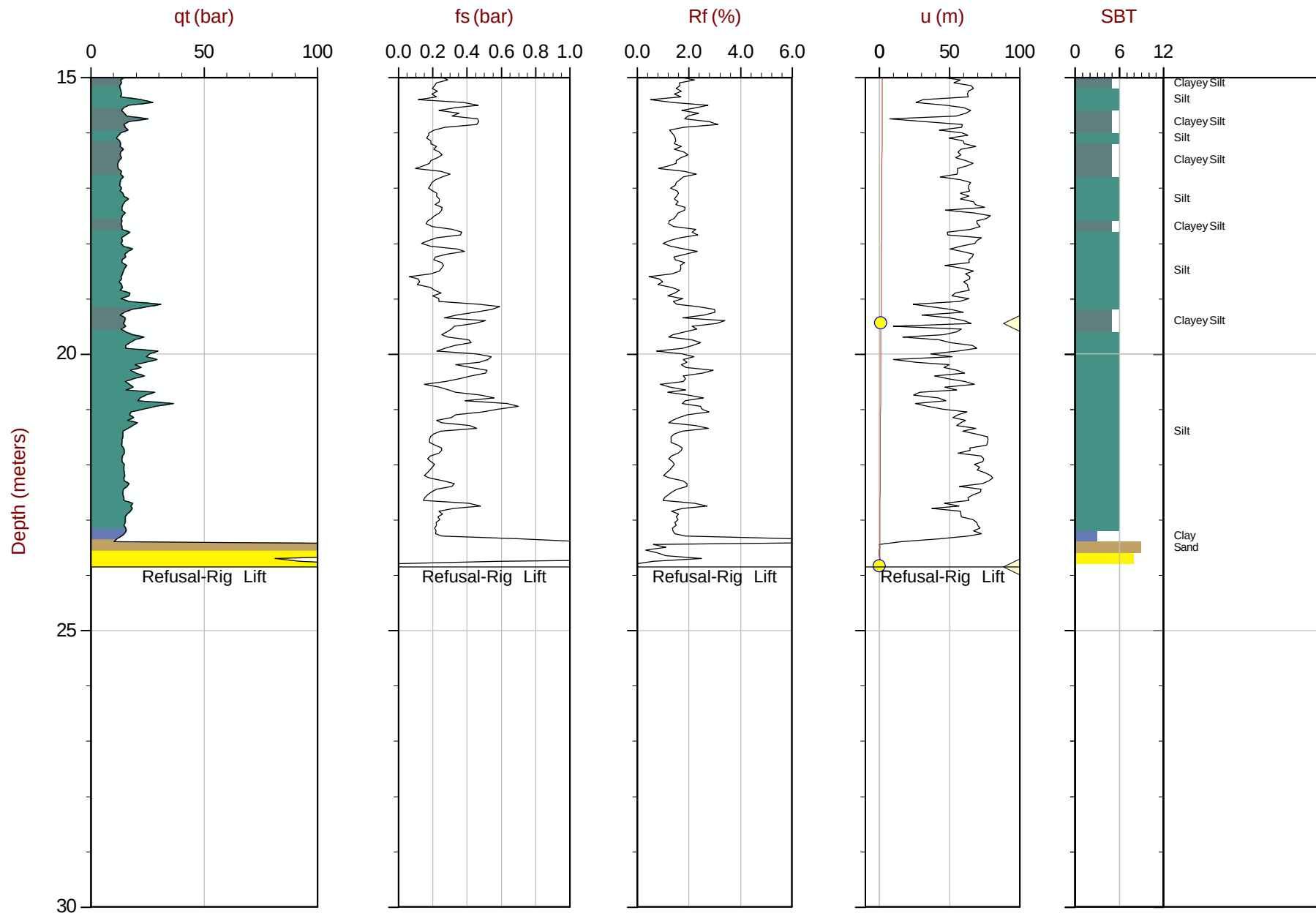
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500



Max Depth: 23.850 m / 78.25 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA21.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494616mE: 3131411m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

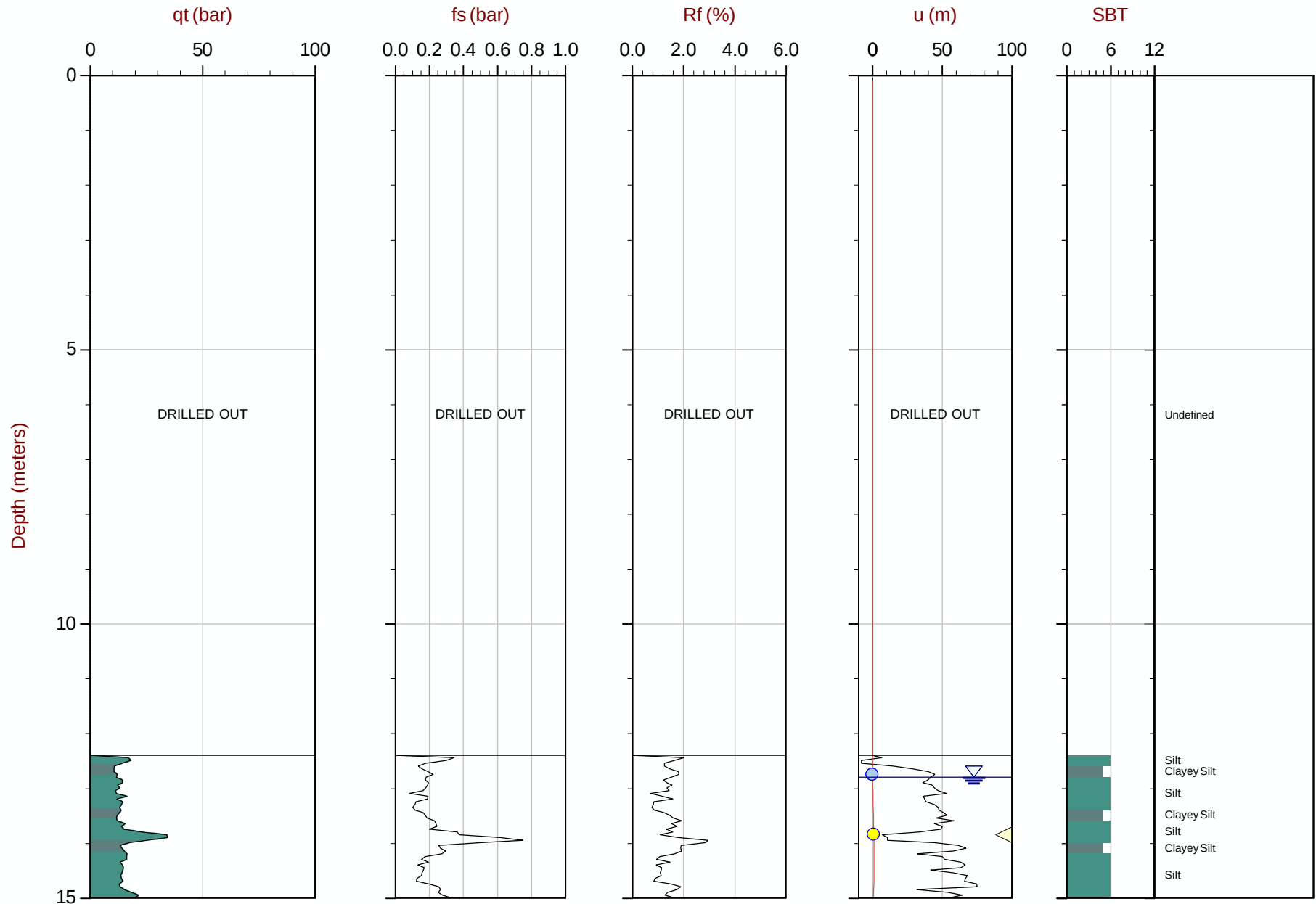
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:03:15 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500



Max Depth: 22.750 m / 74.64 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA25.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494453m E: 313232m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

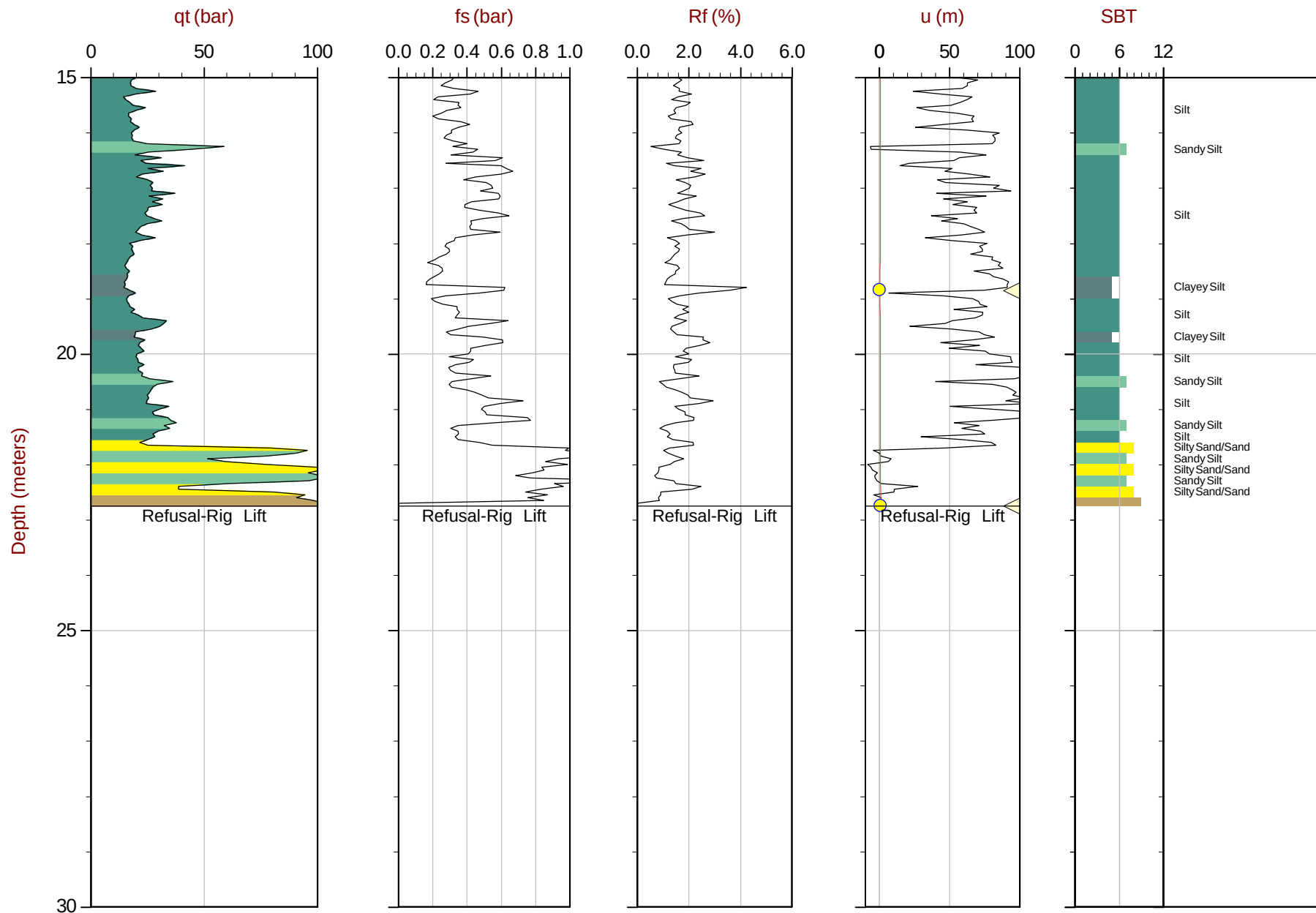
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:03:15 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500



Max Depth: 22.750 m / 74.64 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA25.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494453m E: 313232m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

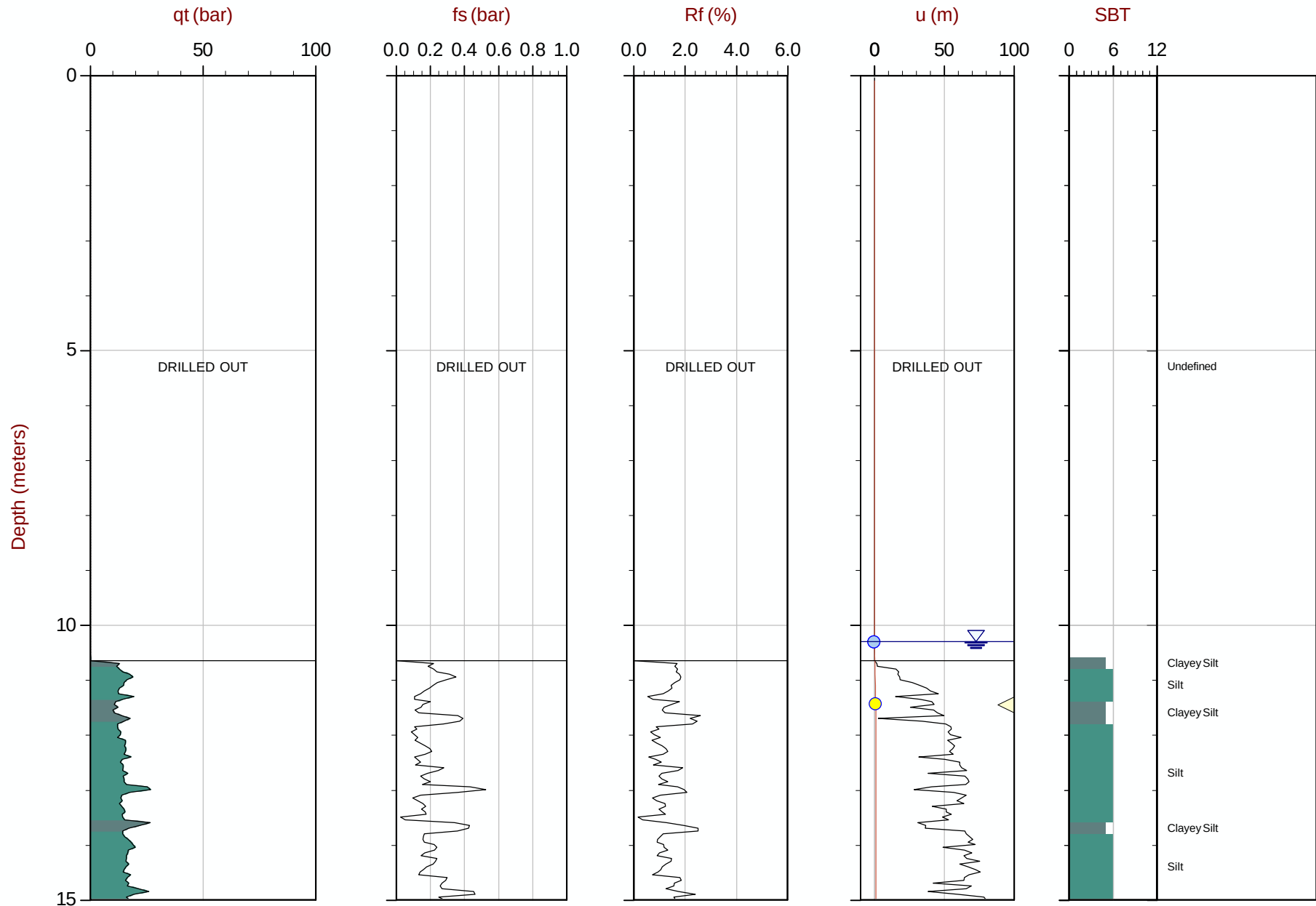
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA26.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494393m E: 312498m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

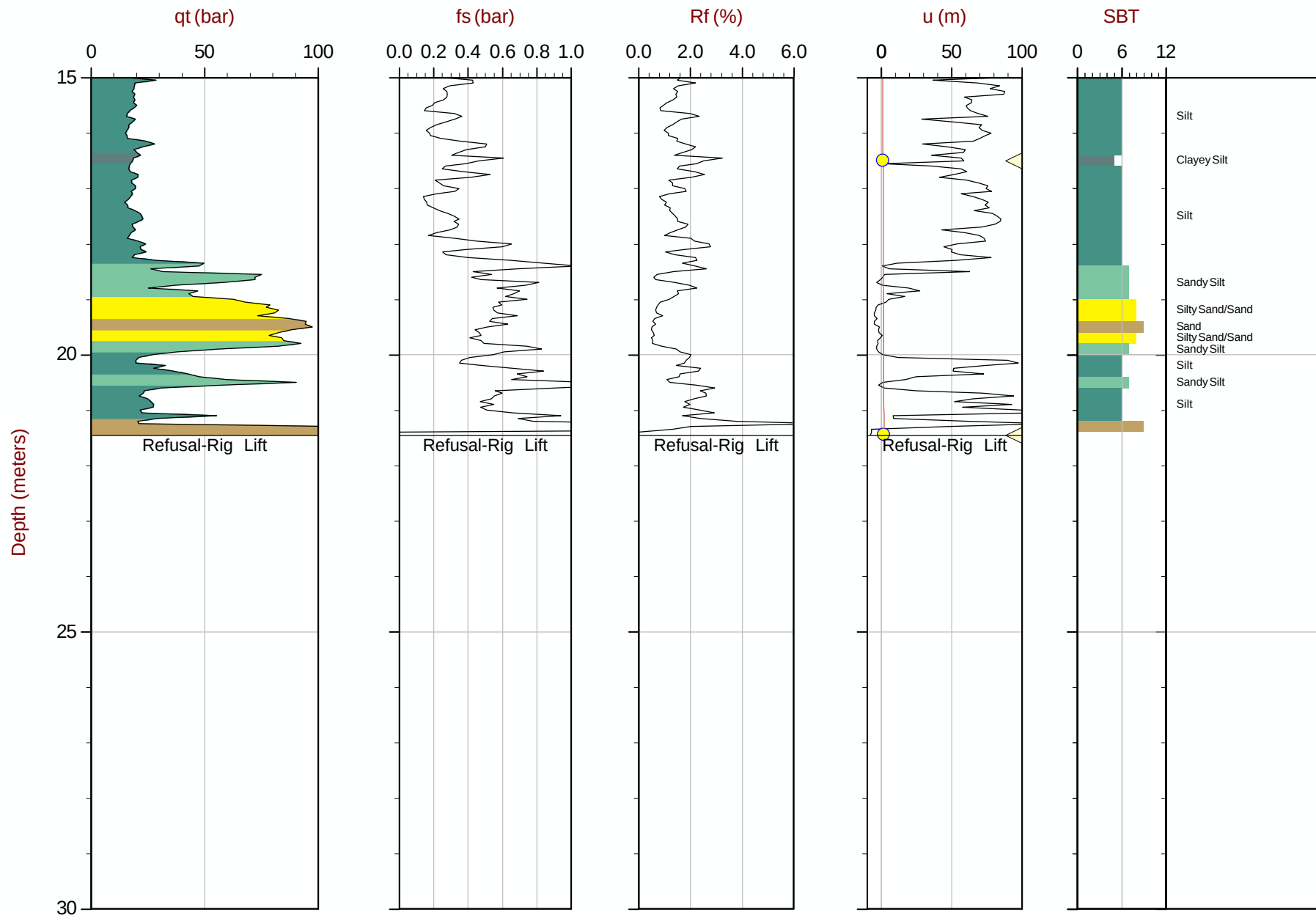
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA26.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494393mE: 312498m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

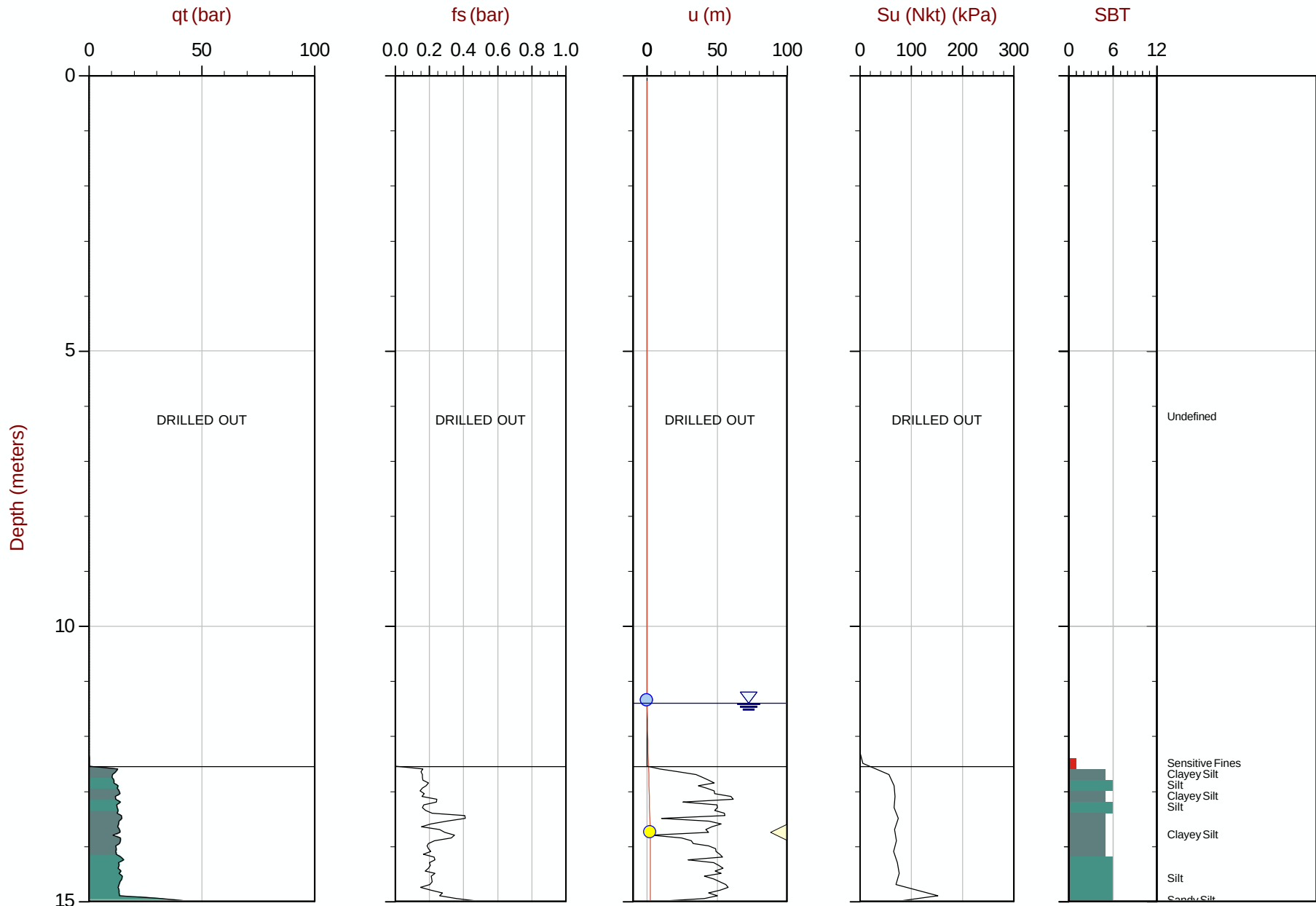
Cone Penetration Test Advanced Plots (SuNkt)



Amec Foster Wheeler

Job No: 15-02029
Date: 04:01:15 13:09
Site: Myra Falls Mine

Sounding: CPT15-A01
Cone: 187:T1000F10U500



Max Depth: 22.250 m / 73.00 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA01.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494570m E: 312422m

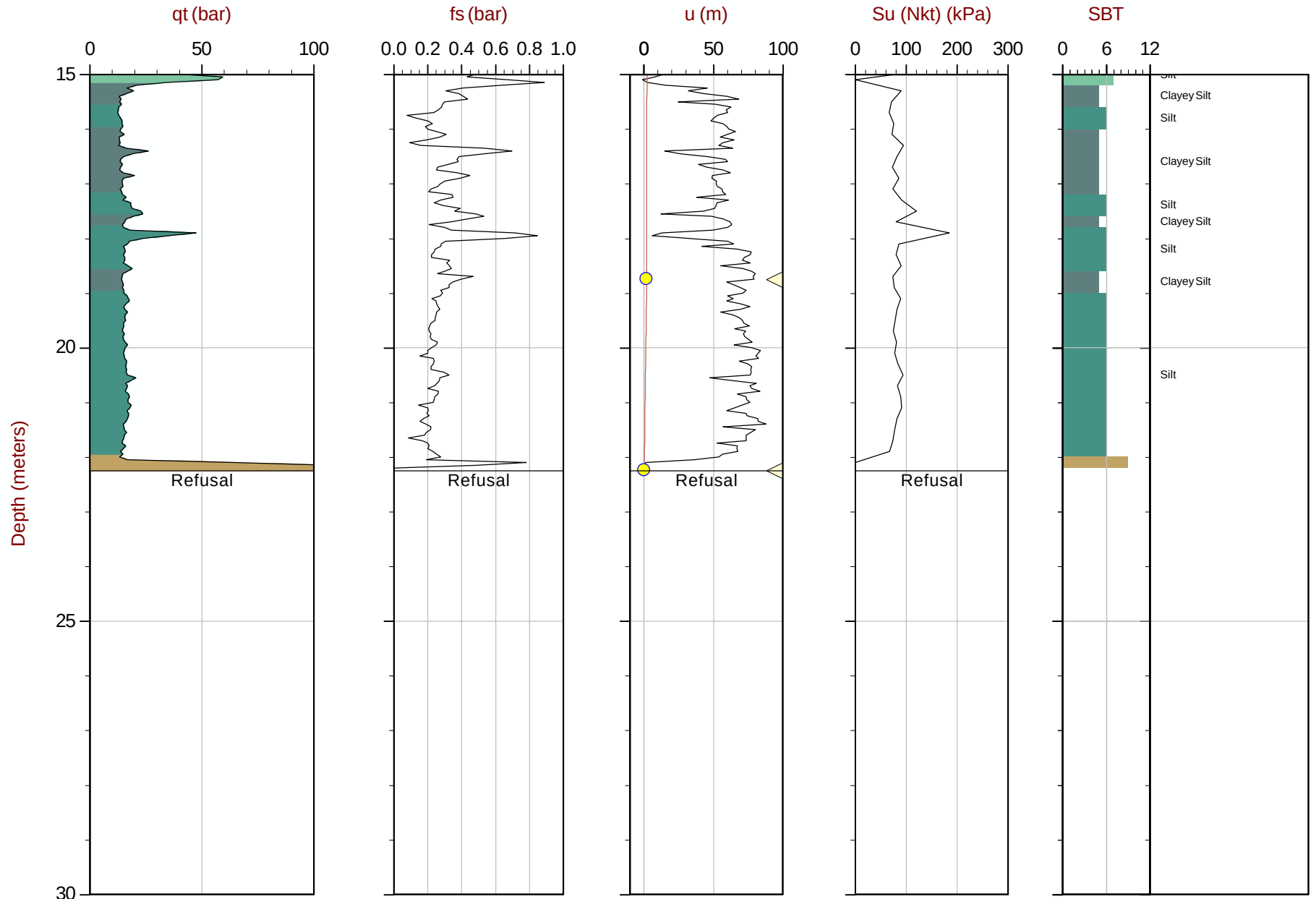
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:01:15 13:09
Site: Myra Falls Mine

Sounding: CPT15-A01
Cone: 187:T1000F10U500



Max Depth: 22.250 m / 73.00 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA01.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494570mE: 312422m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

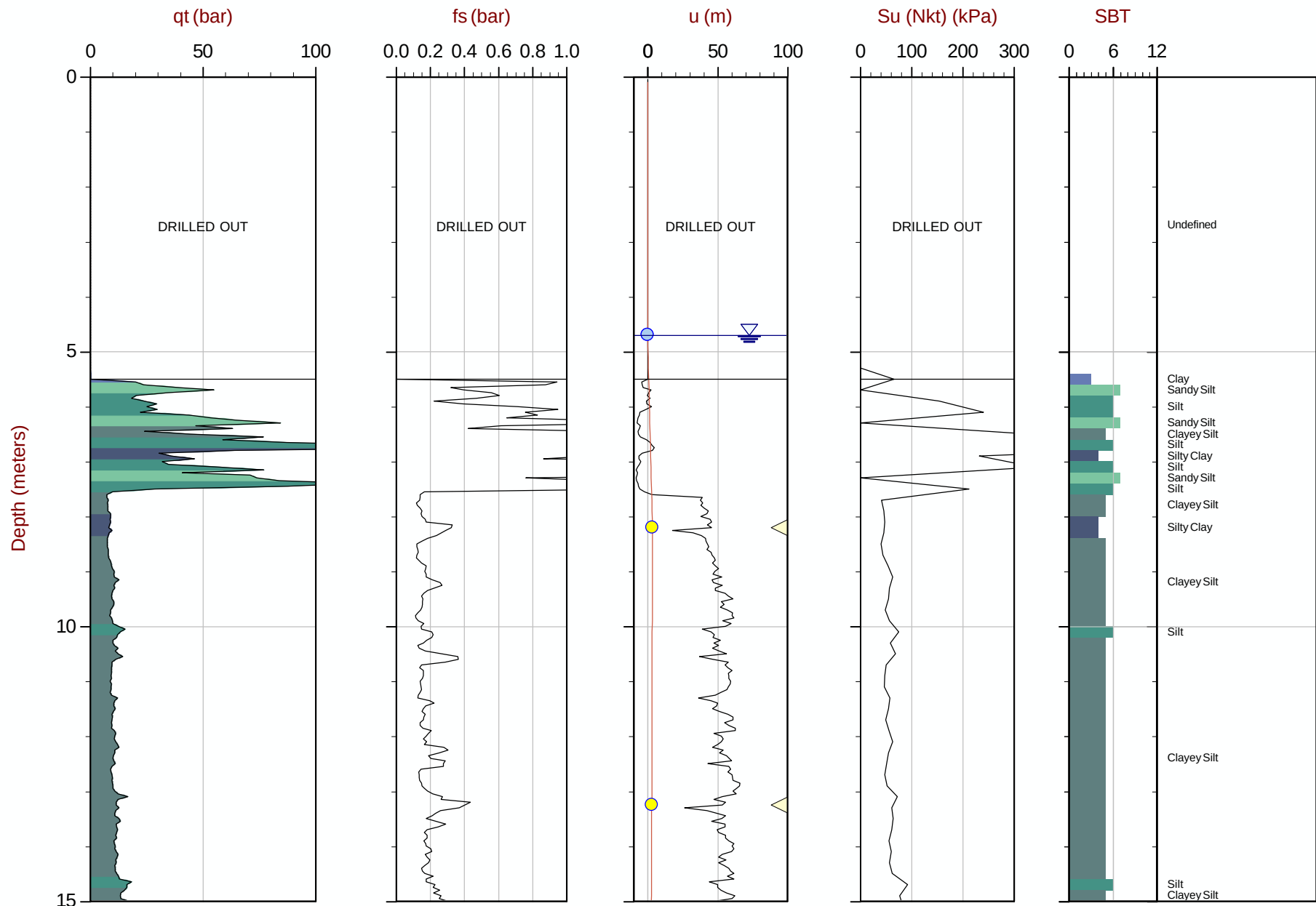
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500



Max Depth: 23.550 m / 77.26 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA06.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494508mE: 312513m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

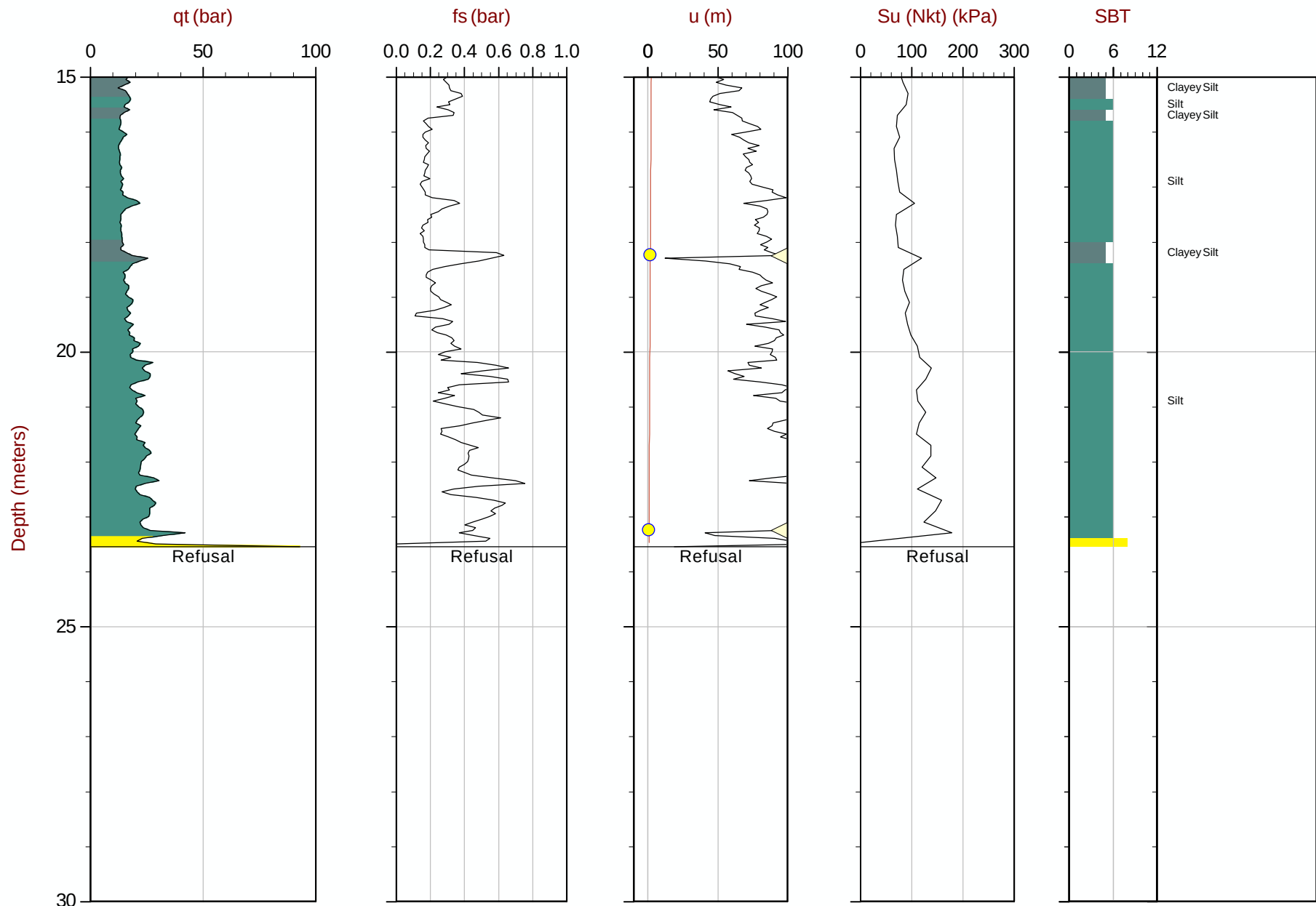
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500



Max Depth: 23.550 m / 77.26 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA06.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494508mE: 312513m

Su Nkt:15

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

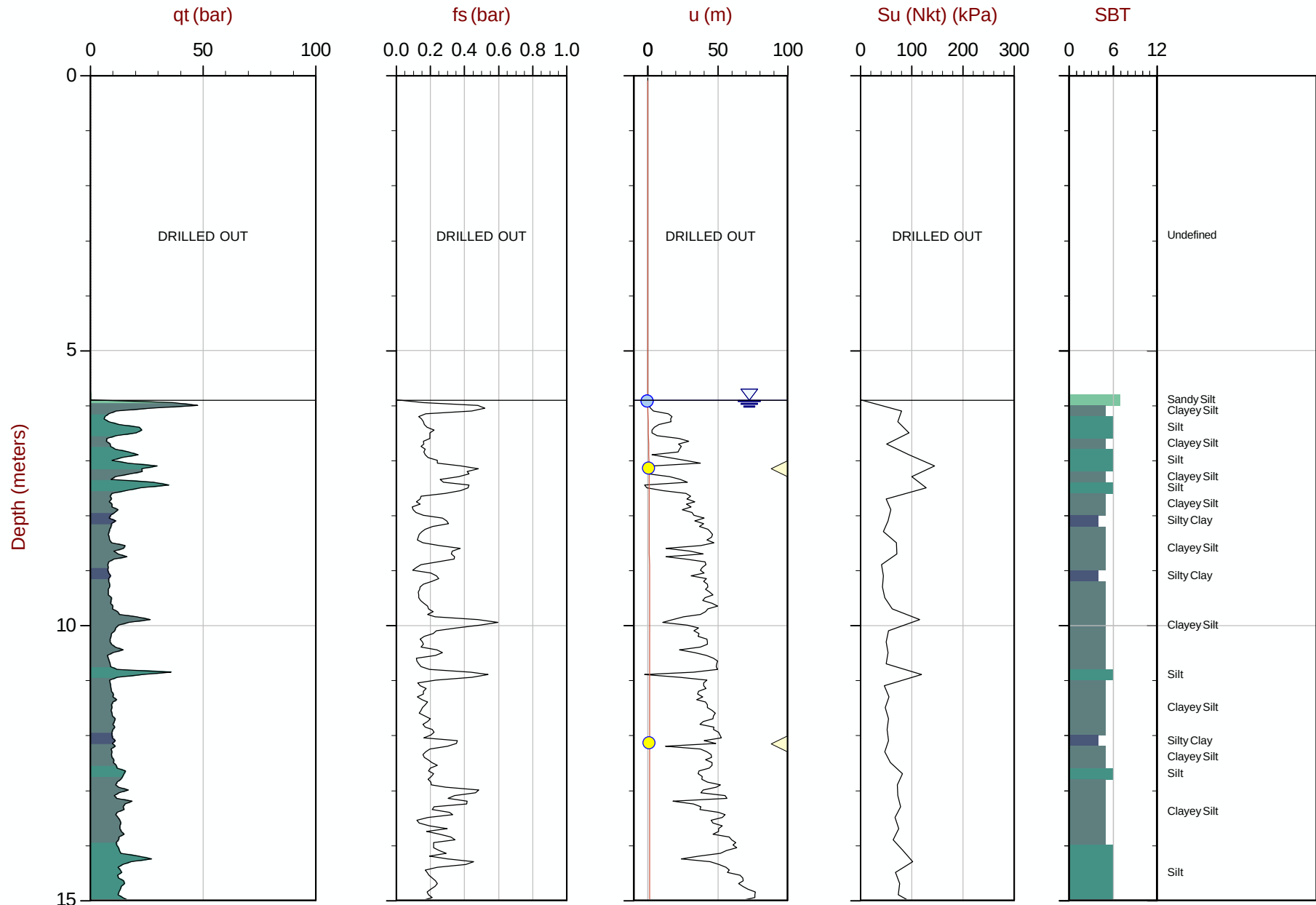
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



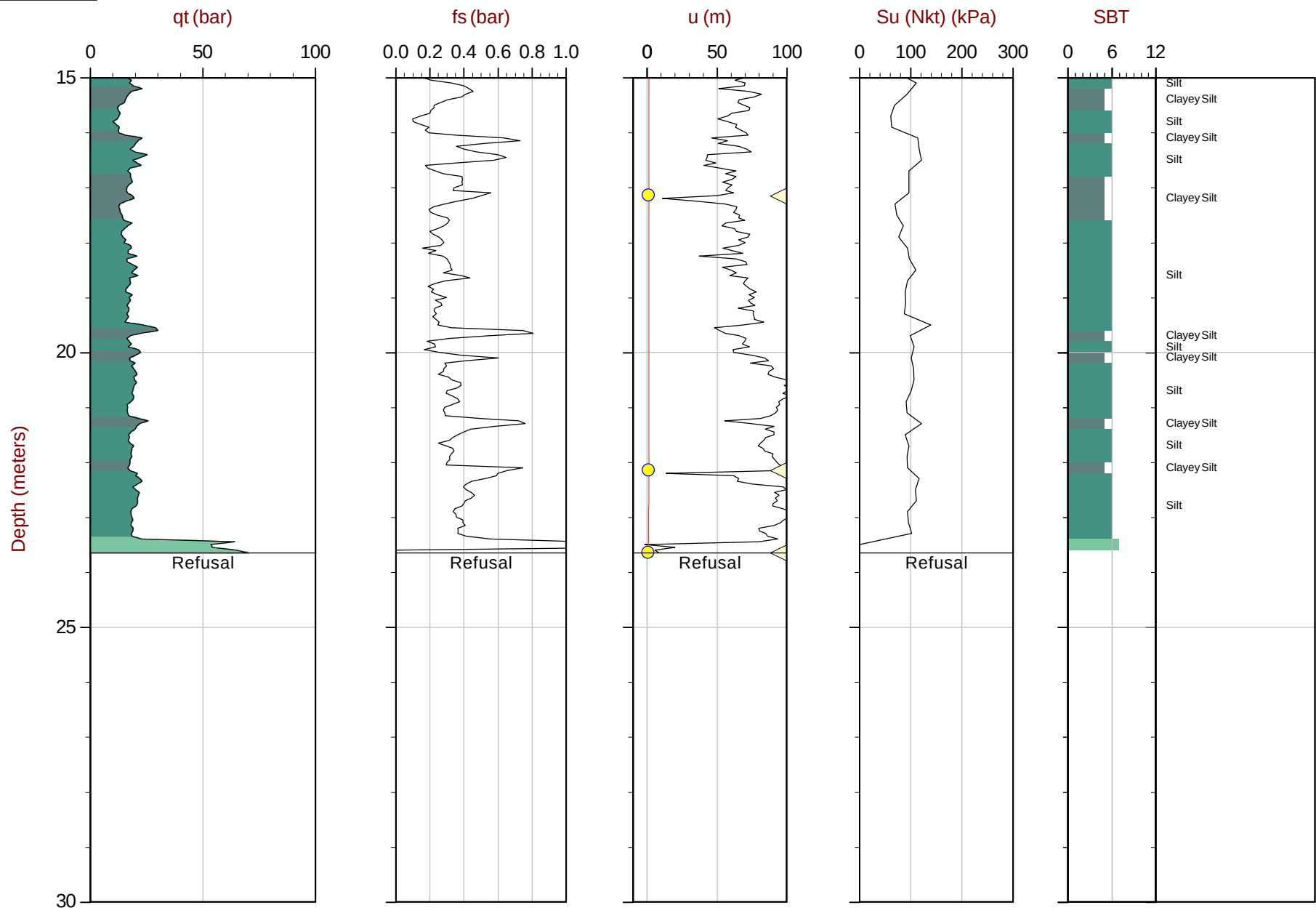
Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500



The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 23.650 m / 77.59 ft

Depth Inc: 0.050 m / 0.164 ft

Avg Int: 0.200m

Su Nkt:15

File: 15-02029_CPA08.COR

Unit Wt: SBT Chart Soil Zones

 Su VST

● Assumed Ueq ● Ueq

- Ueq

—— Ueq Profile

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10 N: 5494432m E: 312501m

Profile  PPD, Ueq achieved  PPD, Ueq not achieved

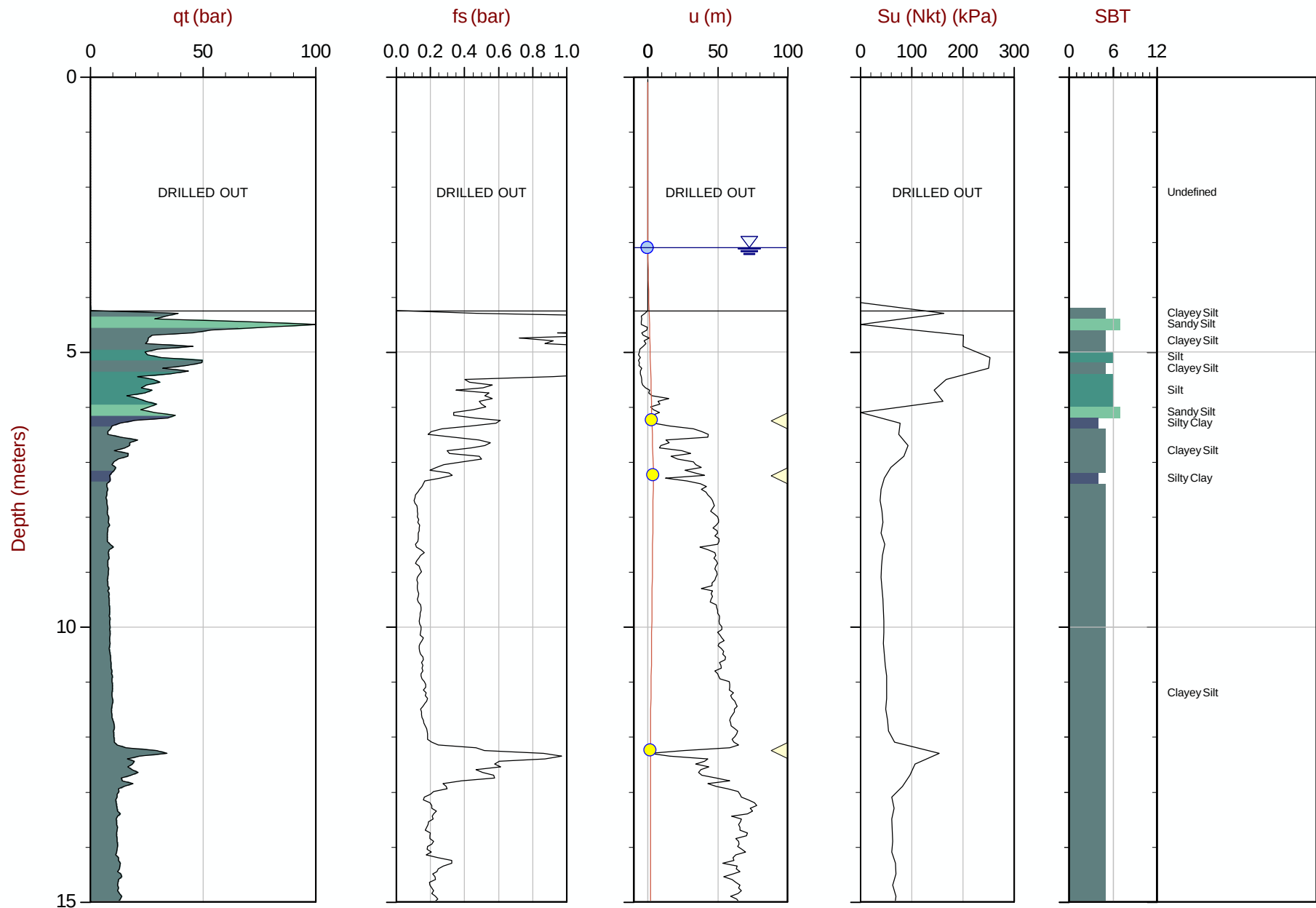
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500



Max Depth: 20.100 m / 65.94 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Su Nkt:15

File: 15-02029_CPA10.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494478mE: 312672m

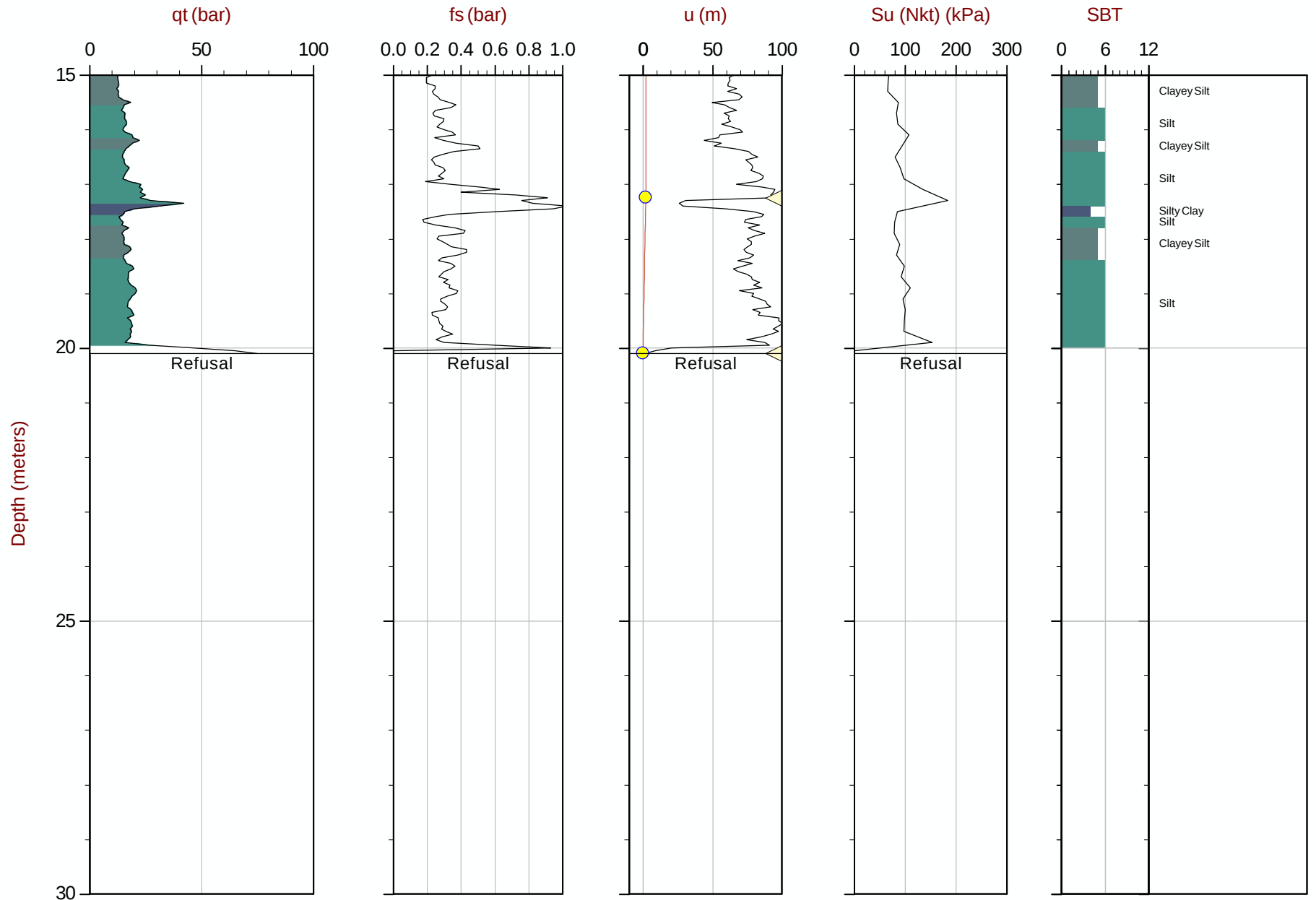
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:27:15 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500



Max Depth: 20.100 m / 65.94 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA10.COR
Unit Wt: SBT Chart Soil Zones

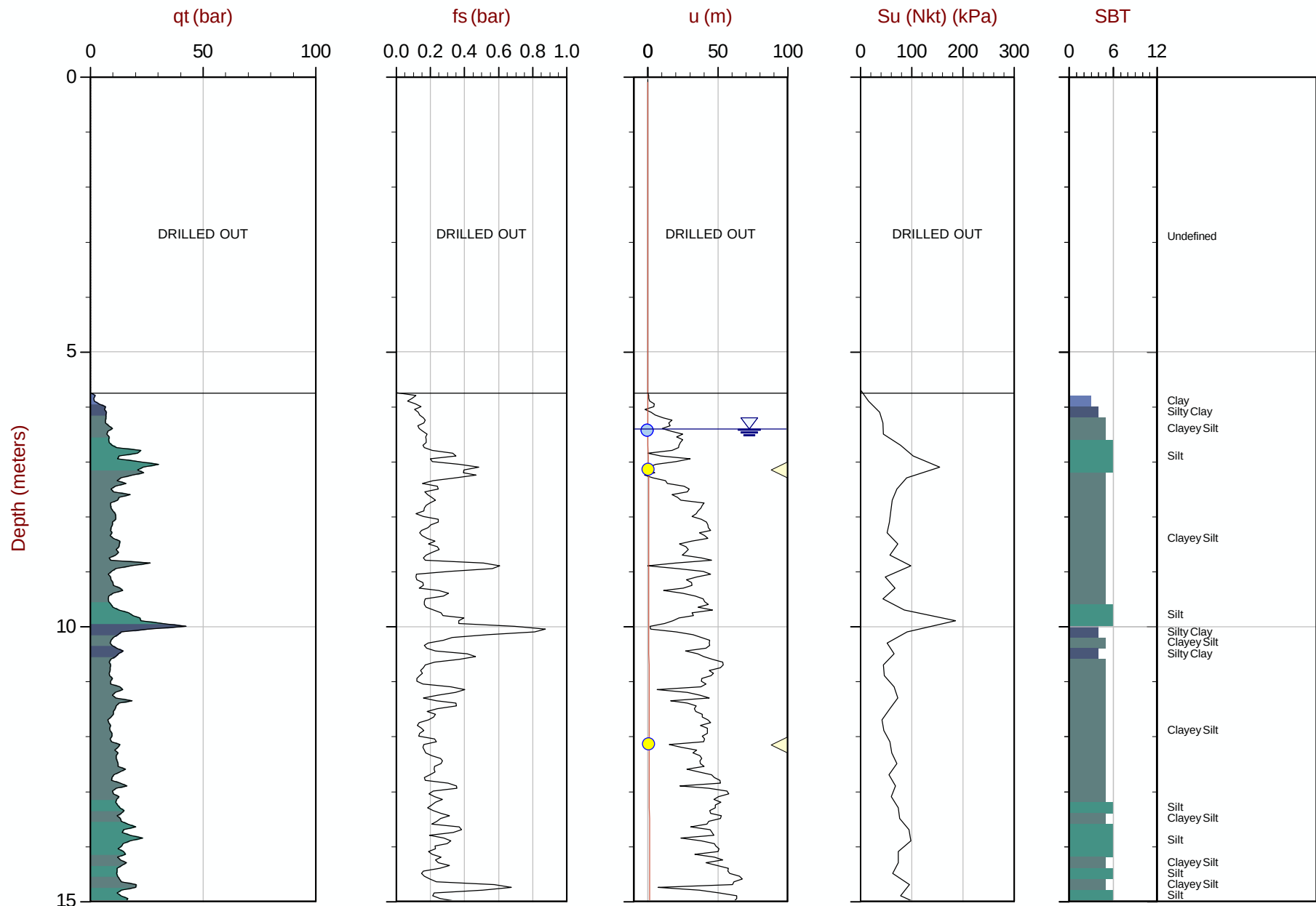
SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494478mE: 312672m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 24.100 m / 79.07 ft

Depth Inc: 0.050 m / 0.164 ft

Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_CPA12.COR

Unit Wt: SBT Chart Soil Zones

 Su VST

- Assume

- Ueq

Ue

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10 N: 5494389m E: 312667m

Profile PPD, Ueq achieved PPD, Ueq not achieved

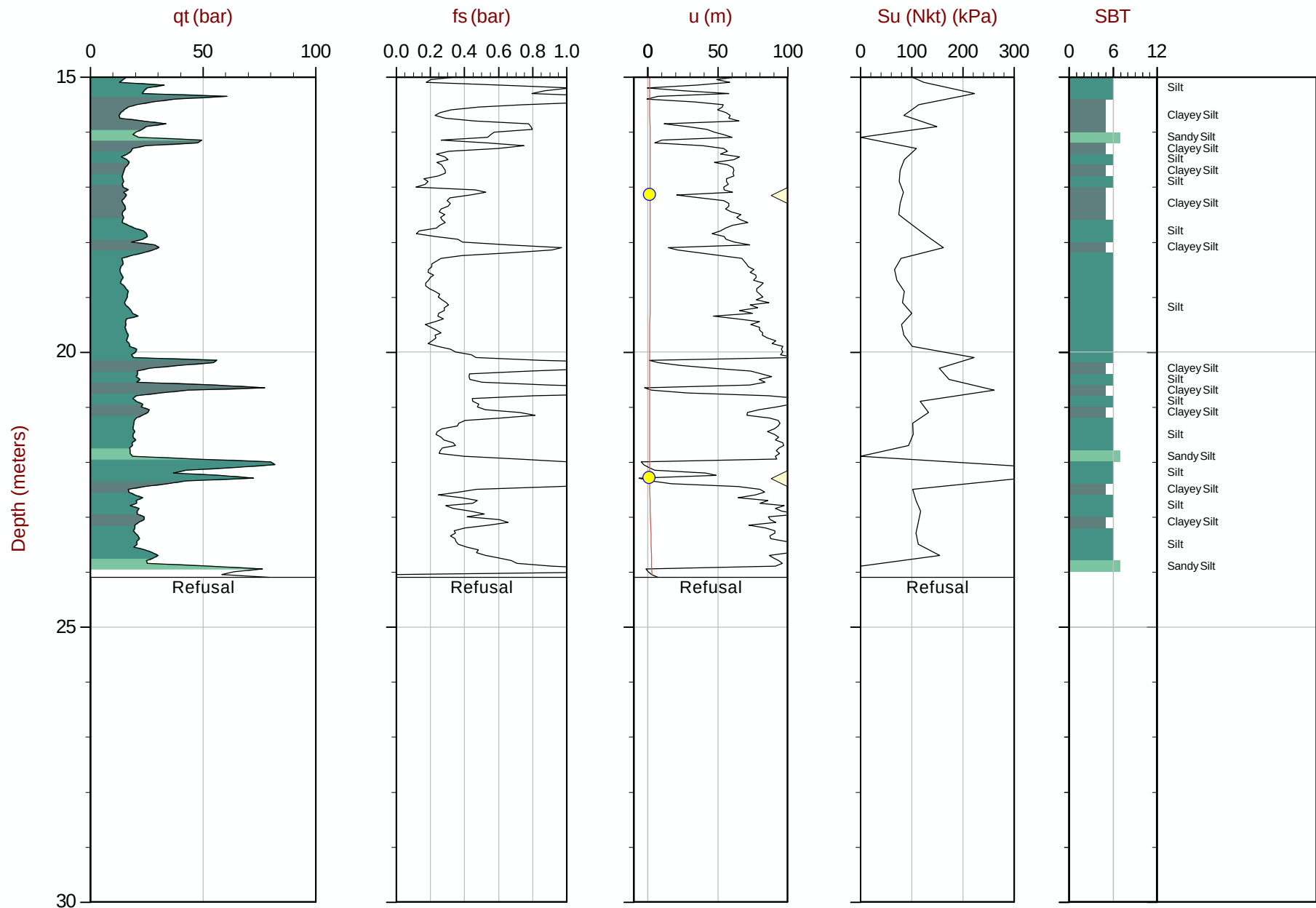
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500



Max Depth: 24.100 m / 79.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

Su Nkt:15

File: 15-02029_CPA12.COR
Unit Wt: SBT Chart Soil Zones



Su VST



Assumed Ueq



Ueq



Ueq Profile



PPD, Ueq achieved



PPD, Ueq not achieved

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10N: 5494389mE: 312667m

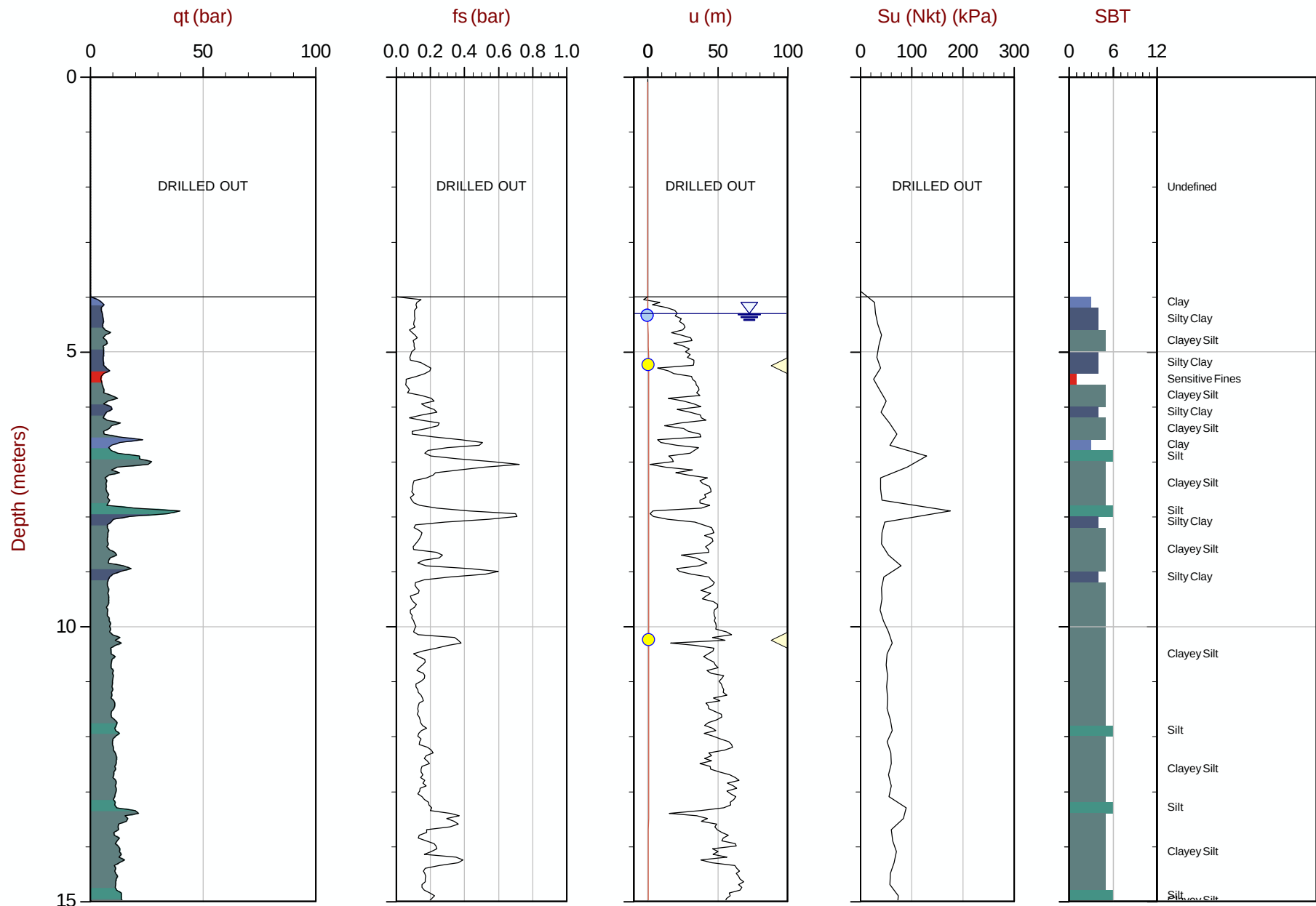
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 14:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500



Max Depth: 17.400 m / 57.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA14.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494468mE: 312939m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

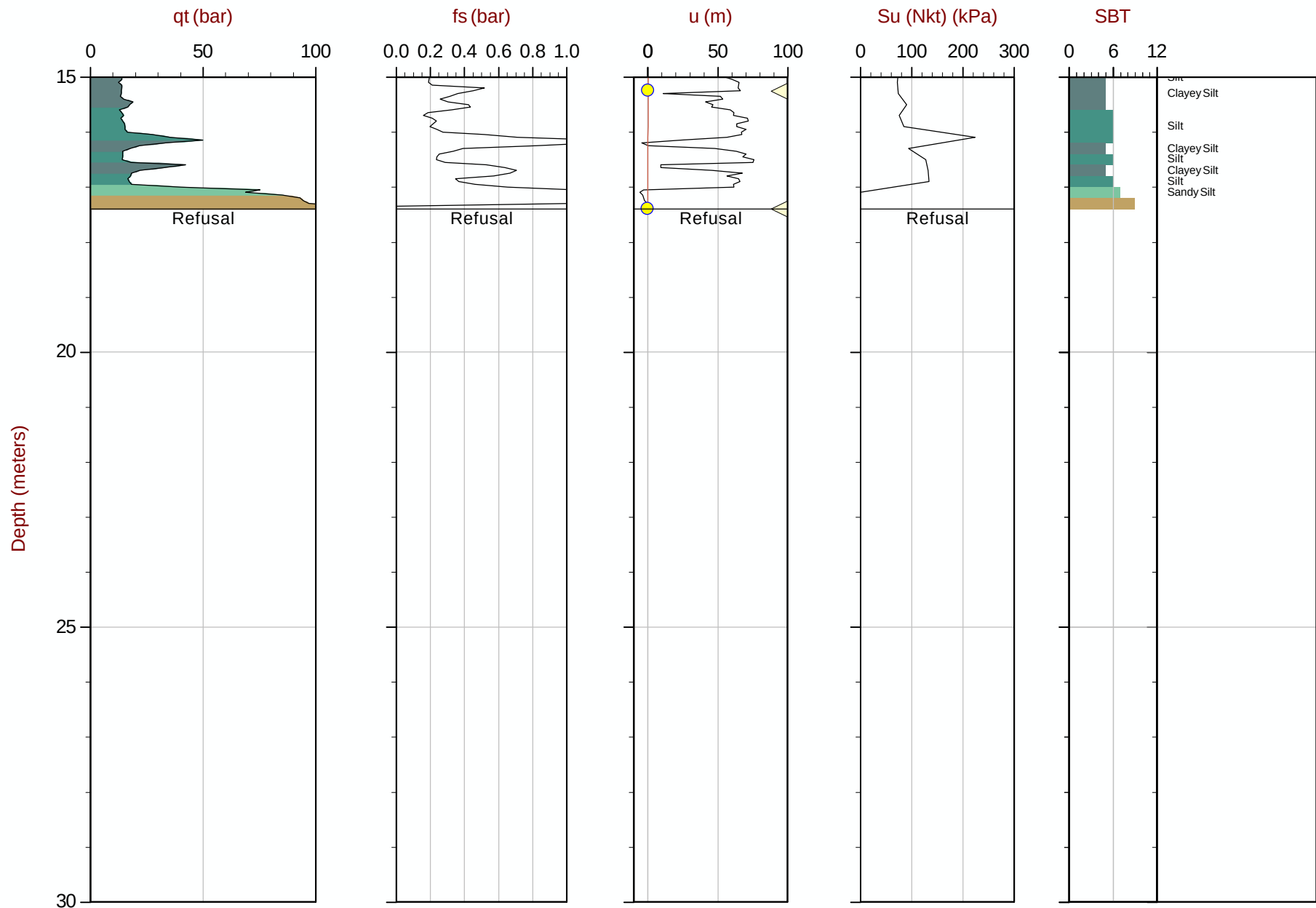
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 14:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500



Max Depth: 17.400 m / 57.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA14.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494468m E: 312939m

Su Nkt:15

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

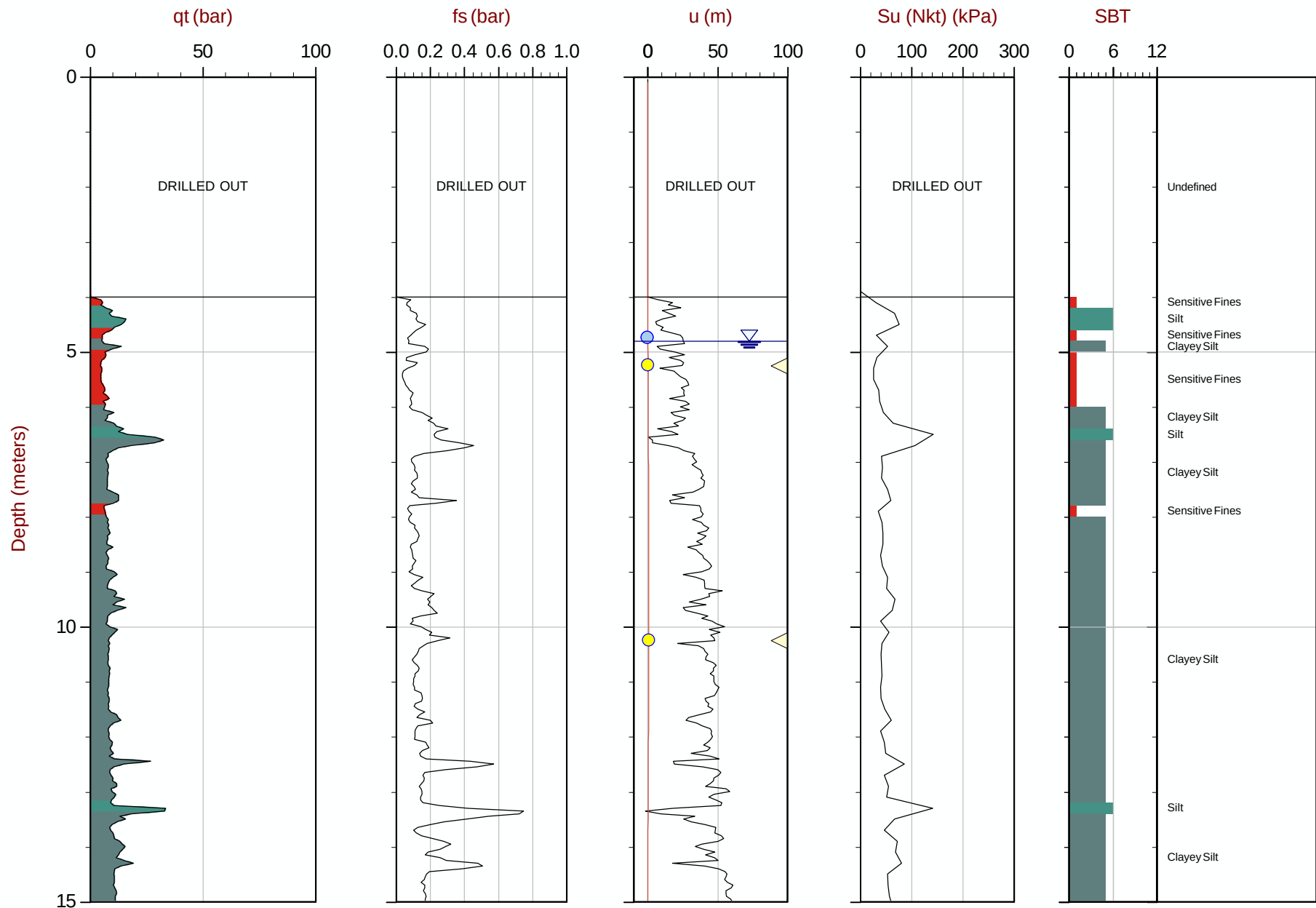
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA15.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494444mE: 3129399m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

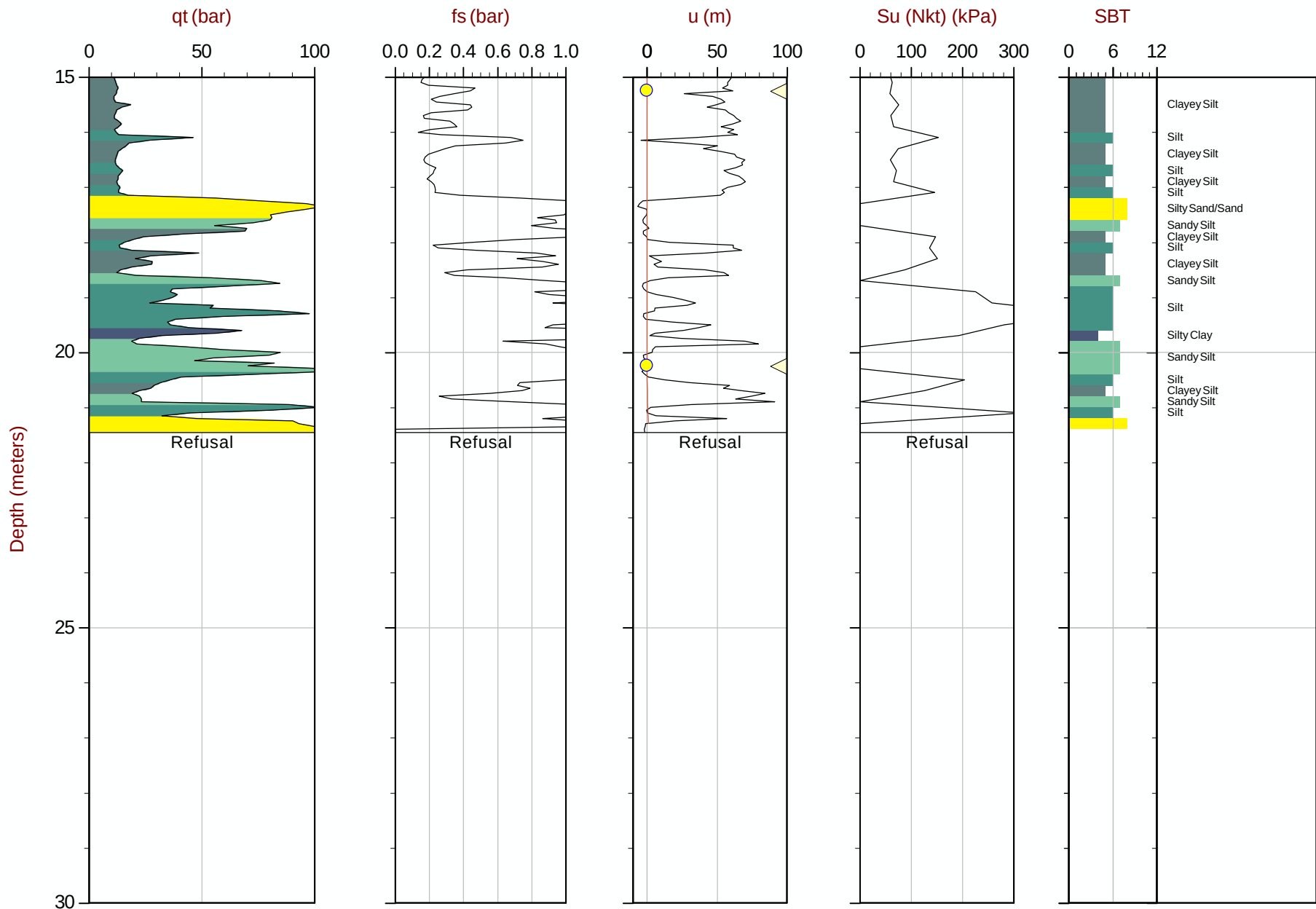
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:26:15 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA15.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494444mE: 312939m

■ Su VST ● Assumed Ueq ● Ueq Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

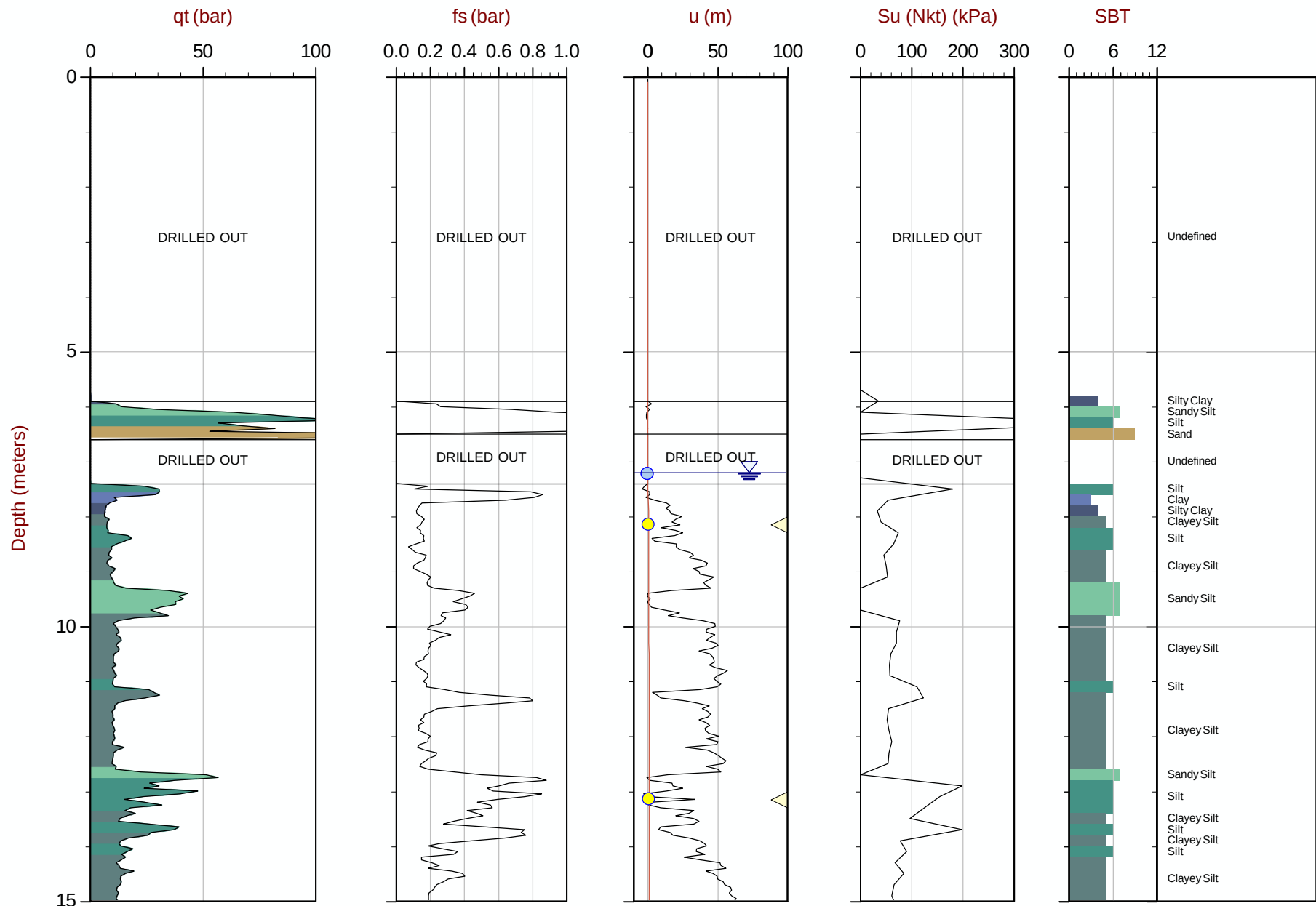
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500



Max Depth: 23.000 m / 75.46 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA16.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494422mE: 312950m

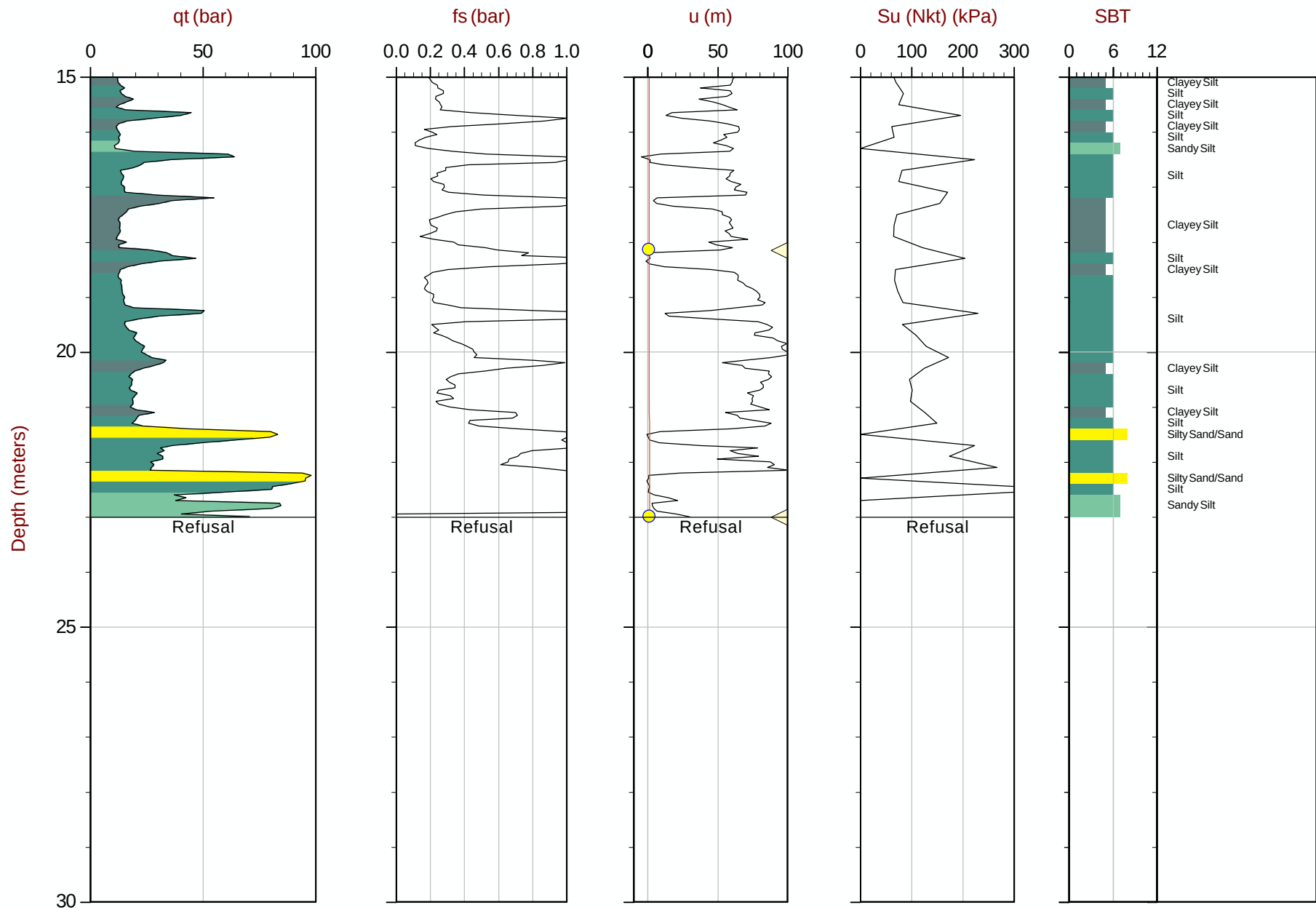
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:29:15 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500



Max Depth: 23.000 m / 75.46 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Su Nkt:15

File: 15-02029_CPA16.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494422mE: 312950m

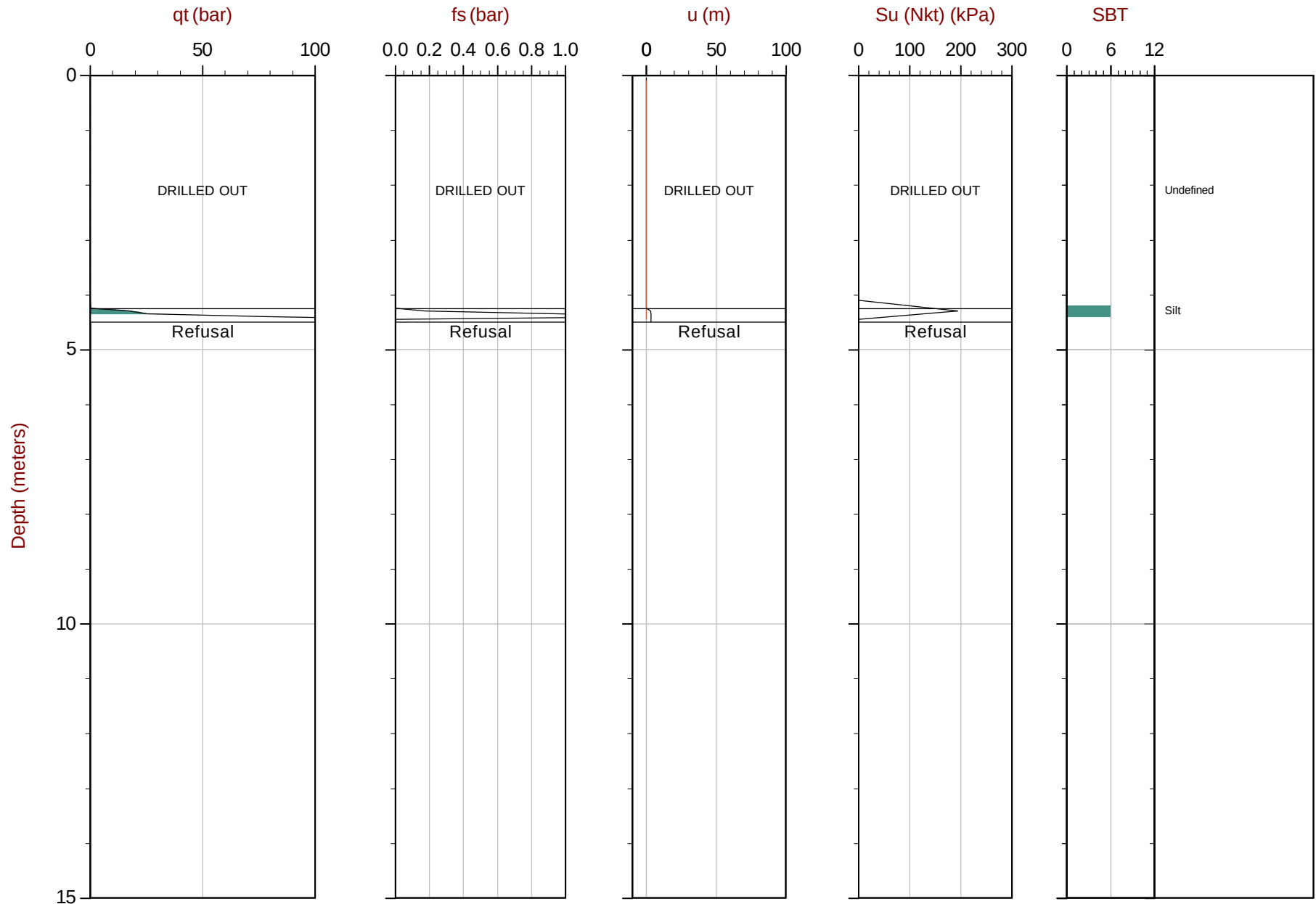
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:25:15 13:06
Site: Myra Falls Mine

Sounding: CPT15-A18
Cone: 421:T1500F15U500



Max Depth: 4.500 m / 14.76 ft

Depth Inc: 0.050 m / 0.164 ft

Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_CPA18.COR

Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10N: 5494512mE: 313148m

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

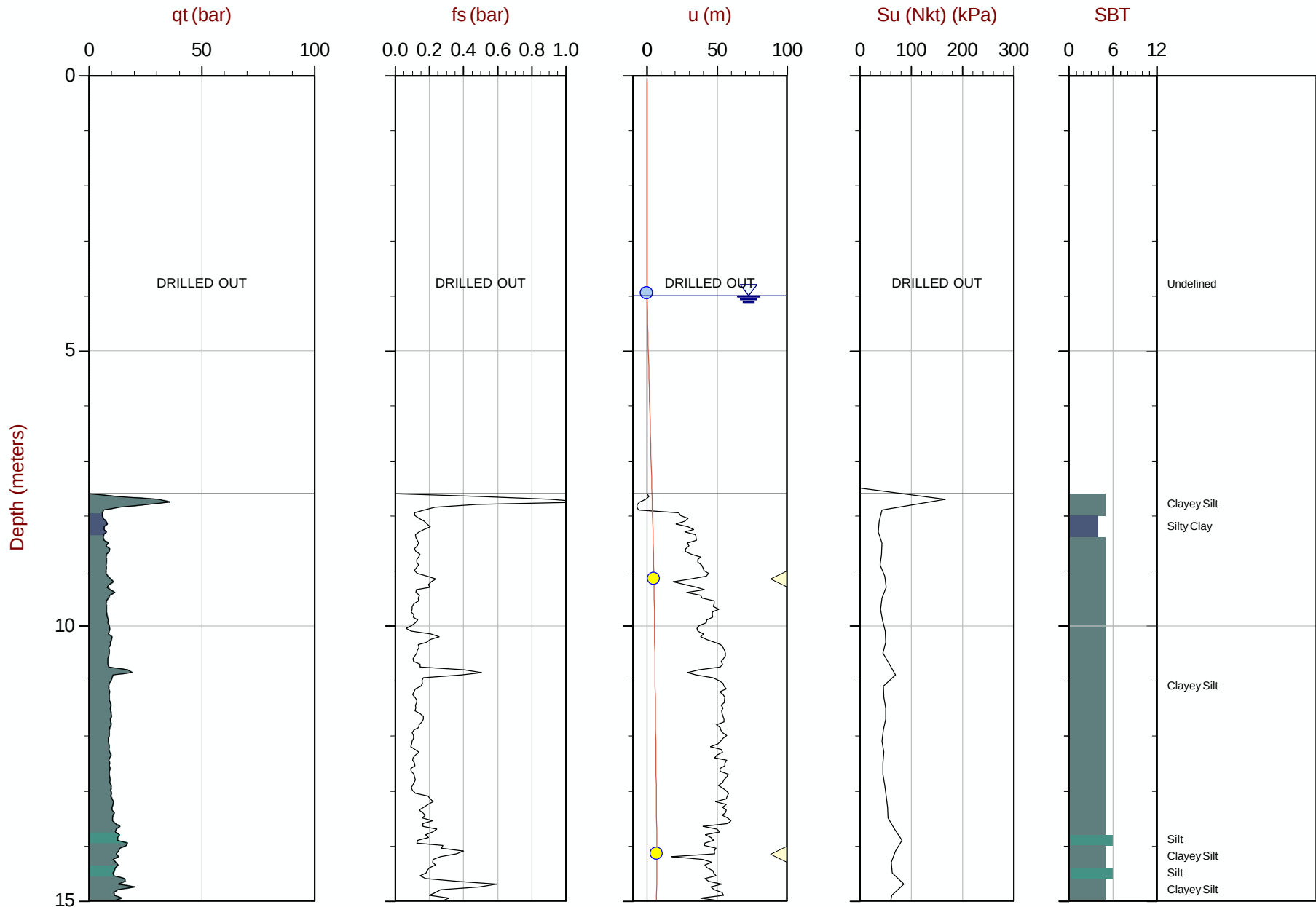
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500



Max Depth: 28.750 m / 94.32 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA18B.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494518mE: 313145m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

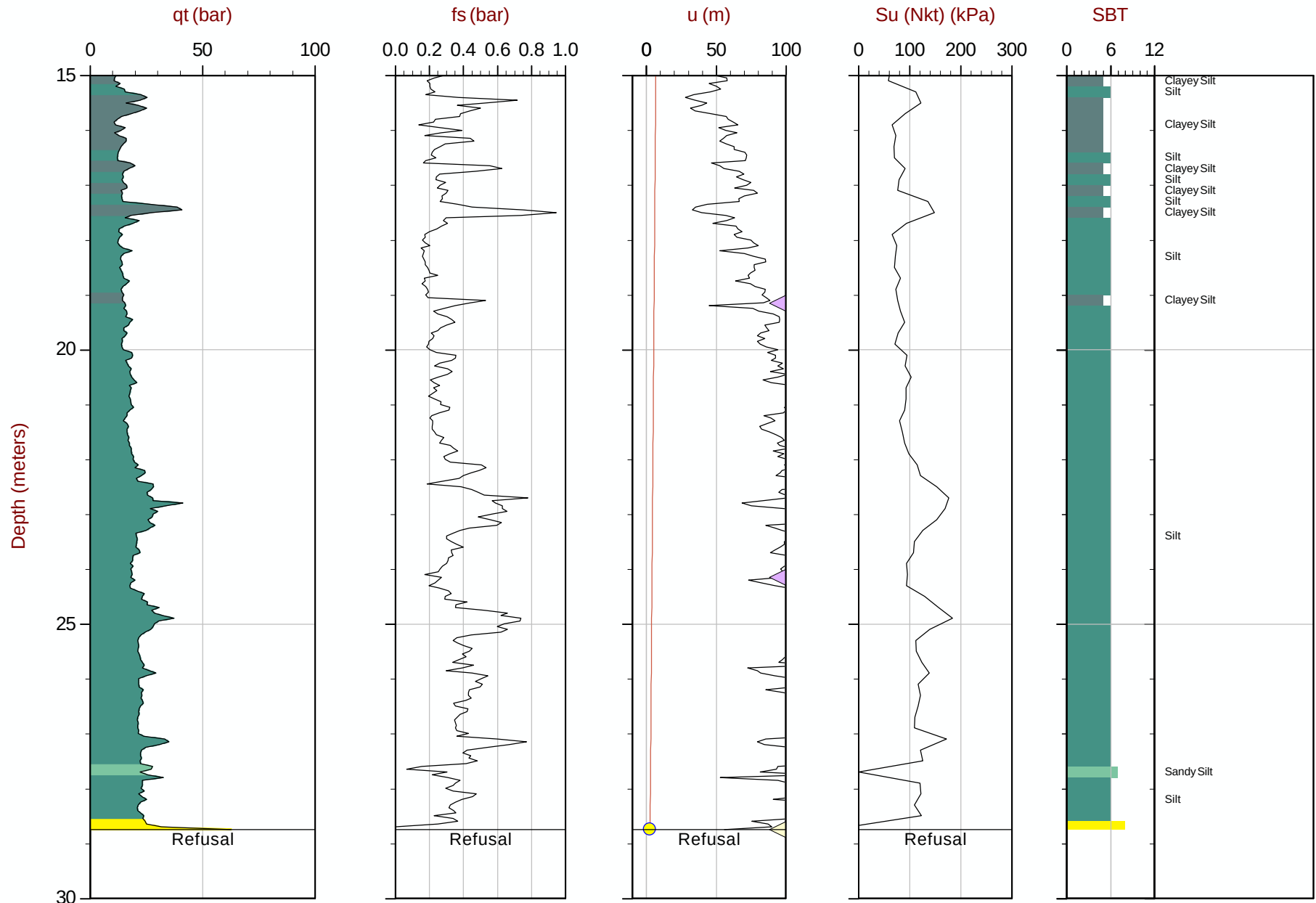
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500



Max Depth: 28.750 m / 94.32 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA18B.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494518mE: 313145m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

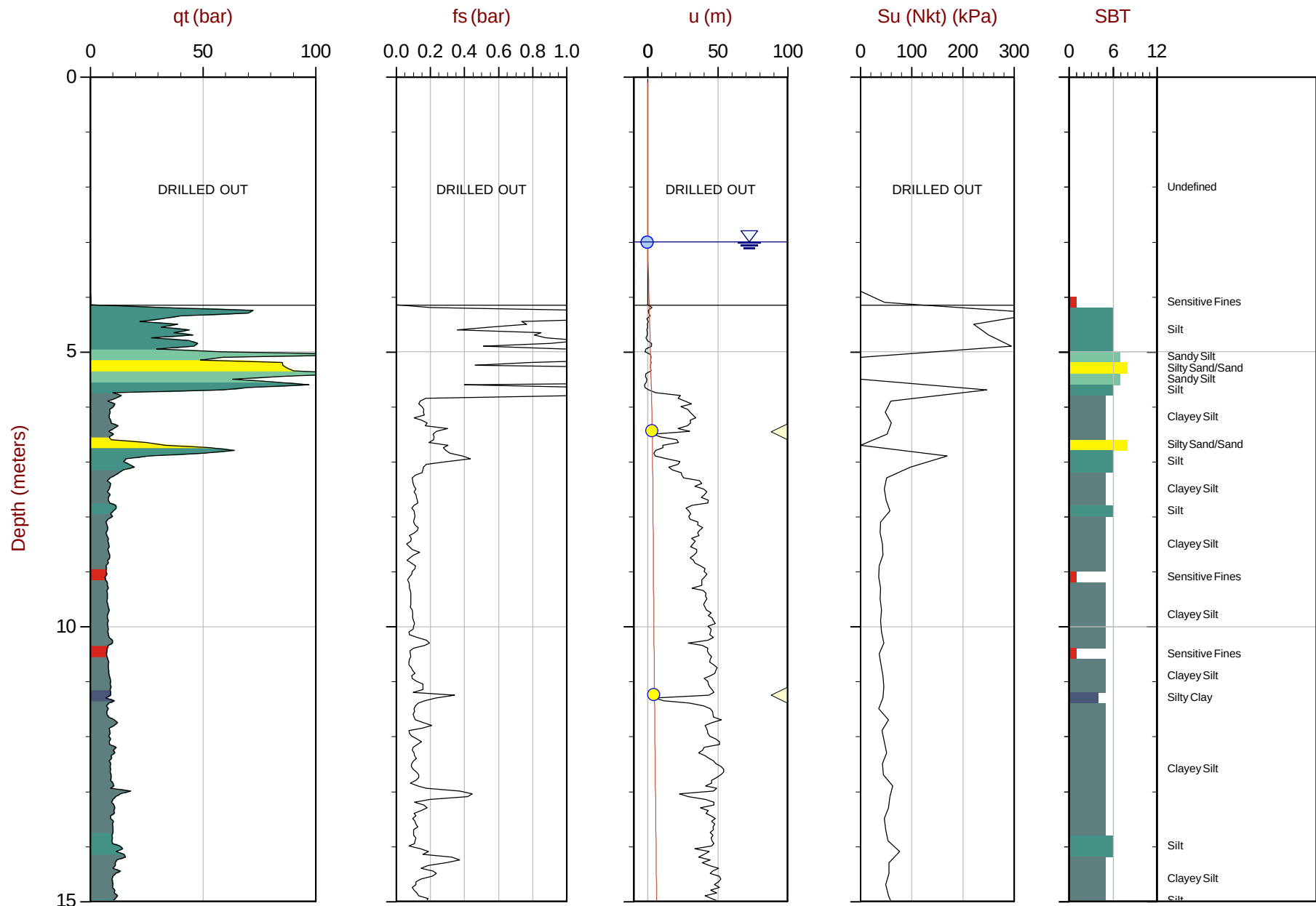
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:25:15 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500



Max Depth: 29.200 m / 95.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Su Nkt:15

File: 15-02029_CPA19.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494502m E: 313163m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

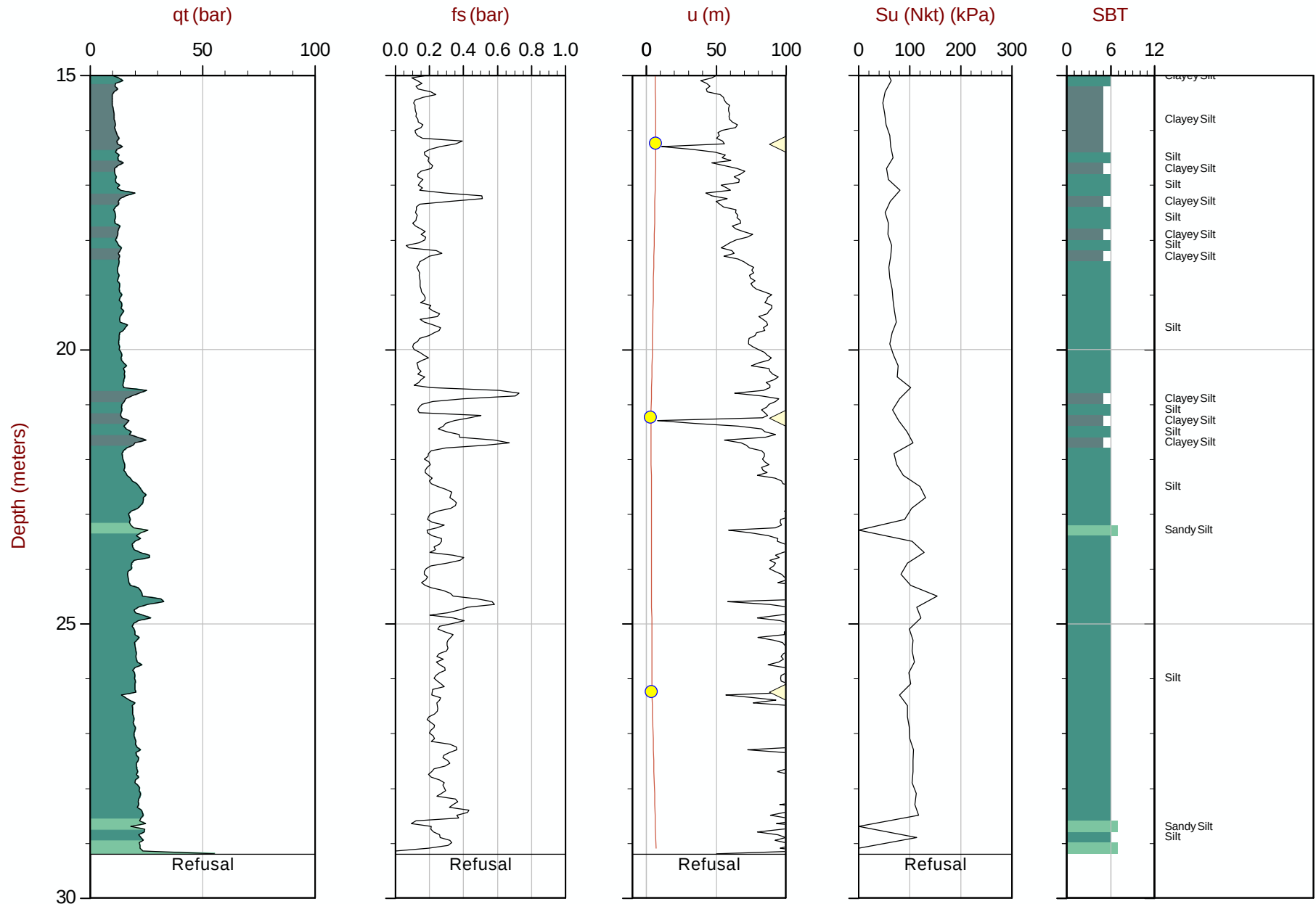
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:25:15 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500



Max Depth: 29.200 m / 95.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_CPA19.COR
UnitWt: SBT Chart Soil Zones



Su VST



Assumed Ueq



Ueq



Ueq Profile



PPD, Ueq achieved



PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

SBT: Lunne, Robertson and Powell, 1997

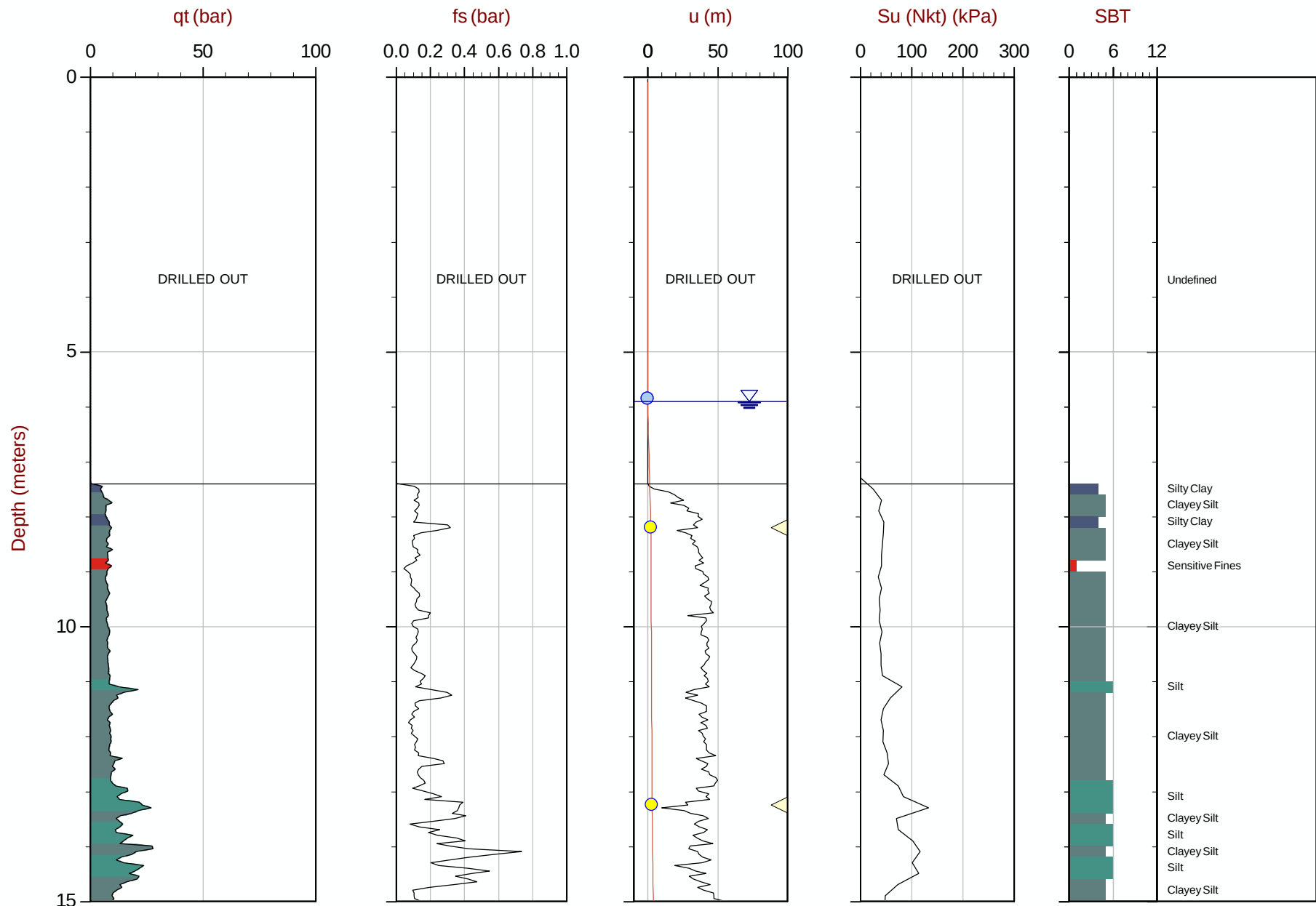
Coords: UTM Zone 10N: 5494502mE: 313163m



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Su Nkt:15

File: 15-02029_CPA20.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494483mE: 313191m

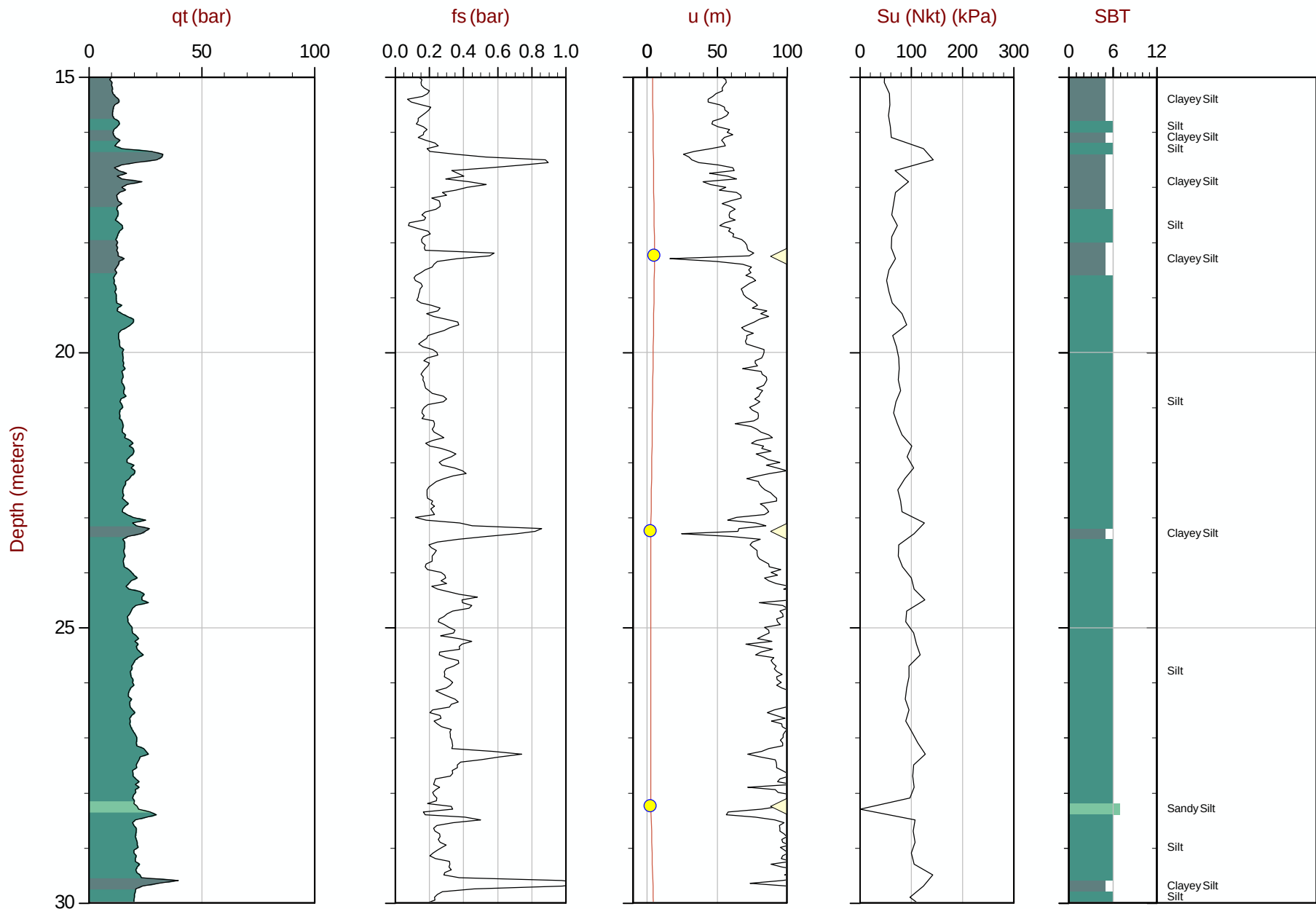
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500



Max Depth: 30.850 m / 101.21 ft
Depth Int: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_CPA20.COR
Unit Wt: SBT Chart Soil Zones

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494483mE: 313191m

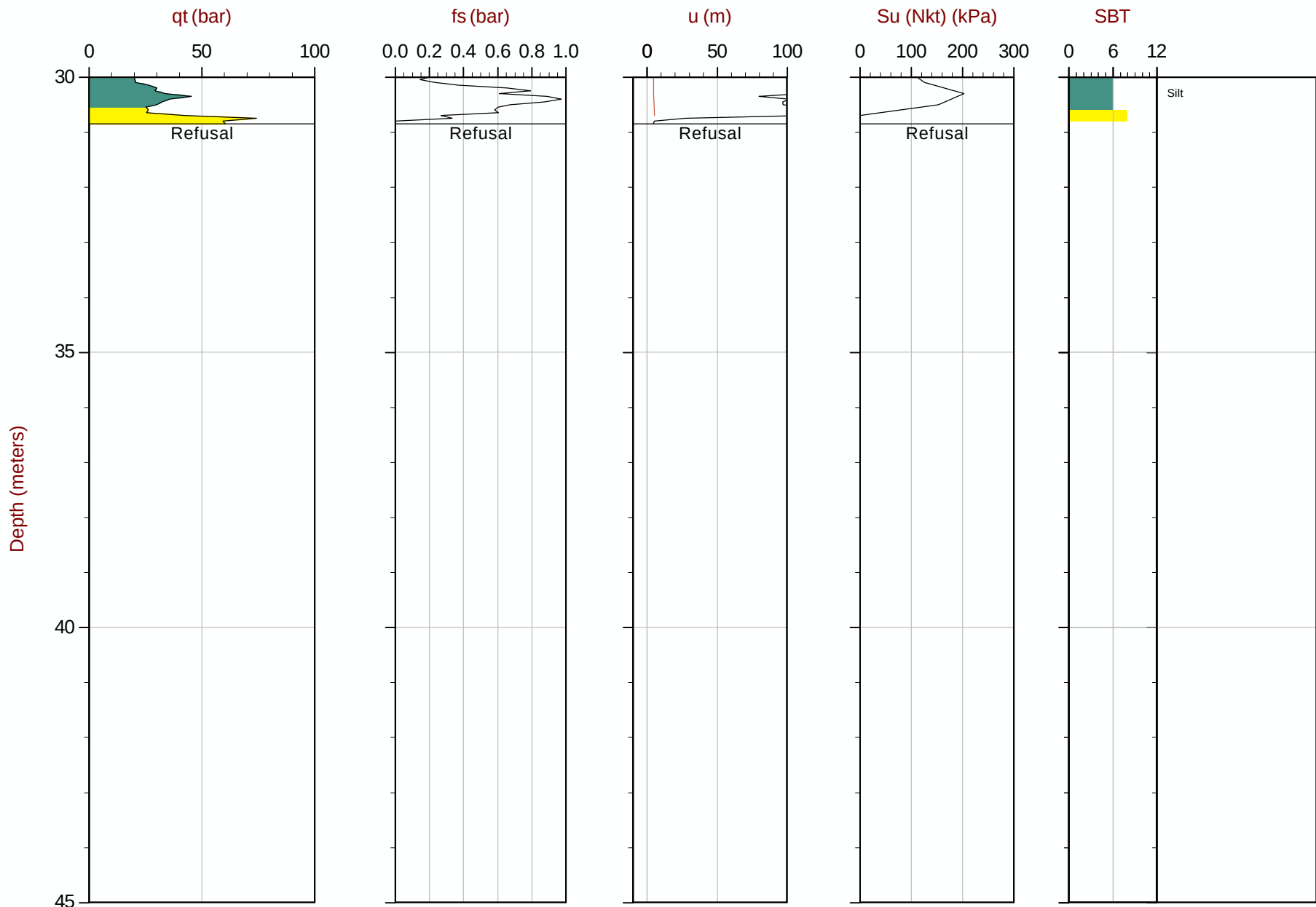
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA20.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494483mE: 313191m

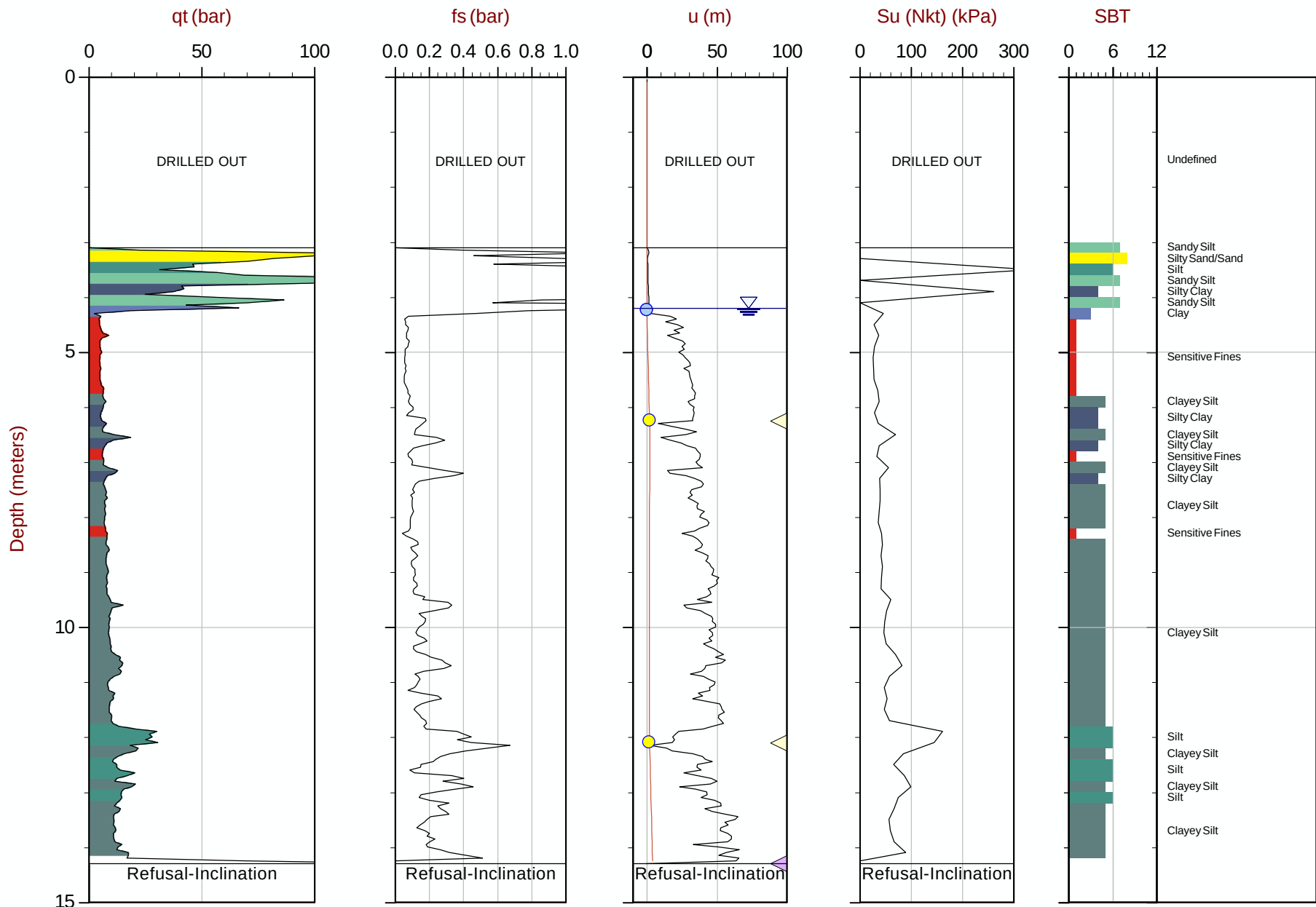
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:24:15 14:49
Site: Myra Falls Mine

Sounding: CPT15-A22
Cone: 327:T375F10U200



Max Depth: 14.300 m / 46.92 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_CPA22.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494615mE: 313168m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

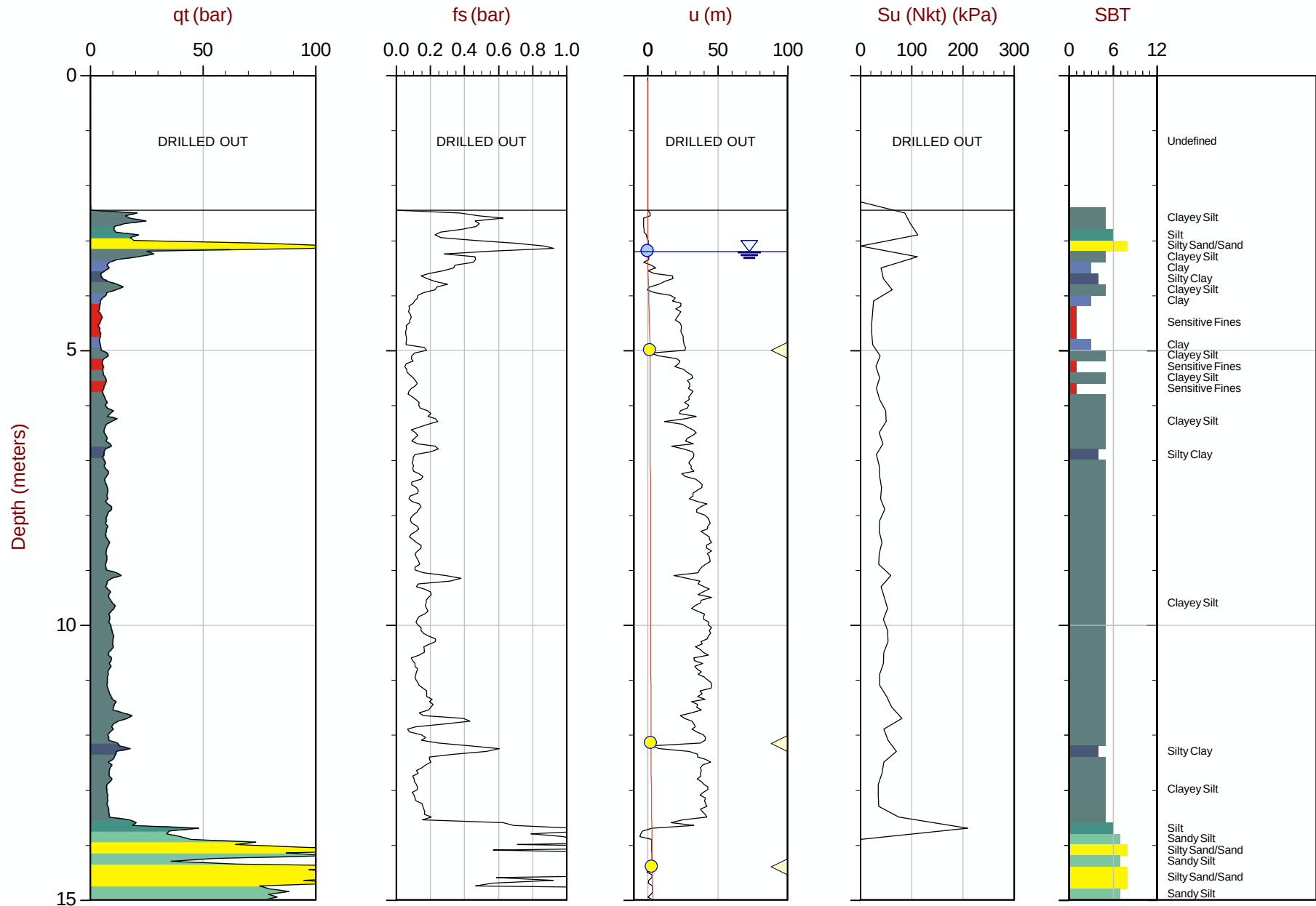
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:24:15 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500



Max Depth: 15.800 m / 51.84 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_CPA23.COR
Unit Wt: SBT Chart Soil Zones

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10N: 5494613mE: 313178m

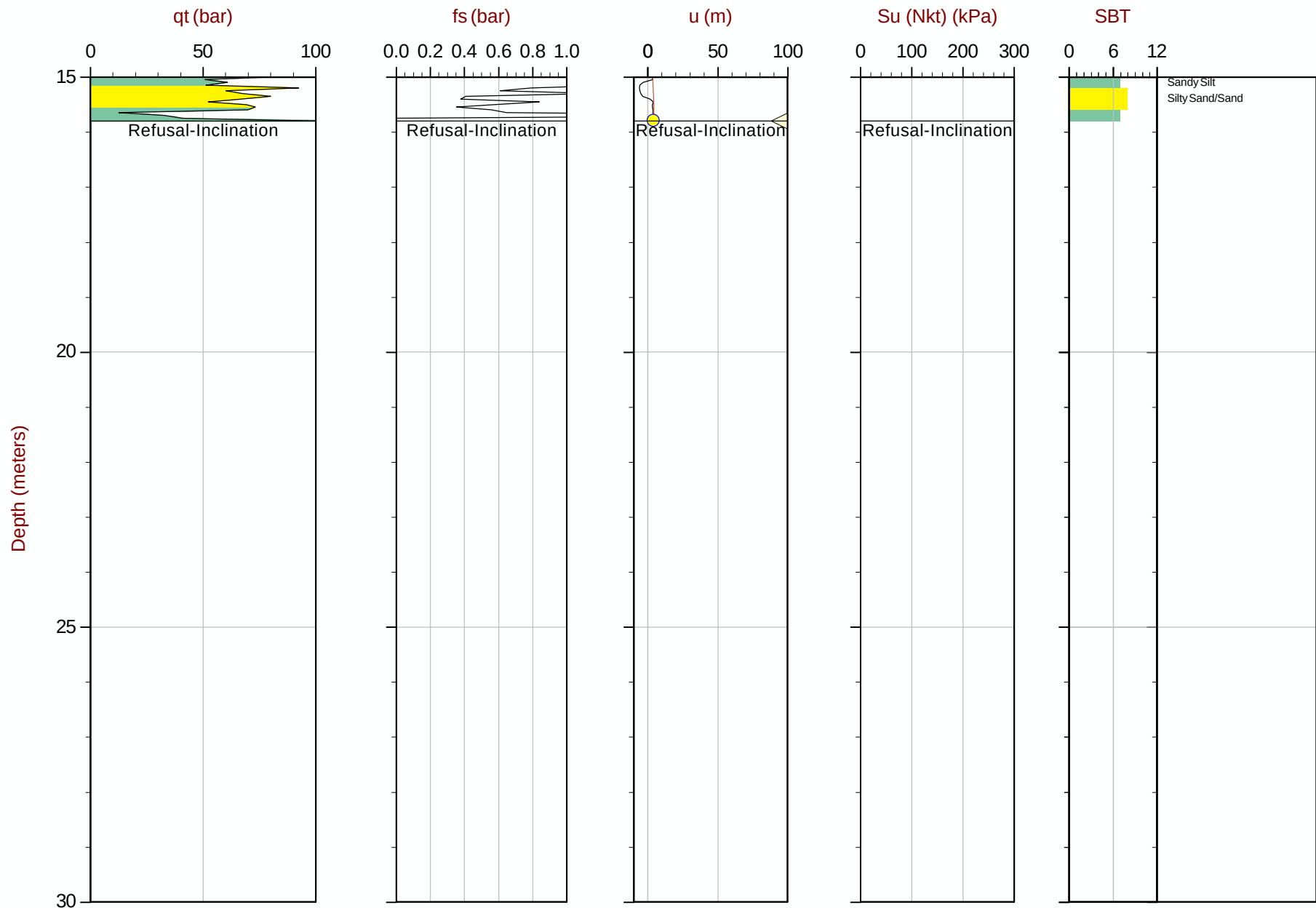
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:24:15 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500



Max Depth: 15.800 m / 51.84 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_CPA23.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494613mE: 313178m

Su Nkt:15

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

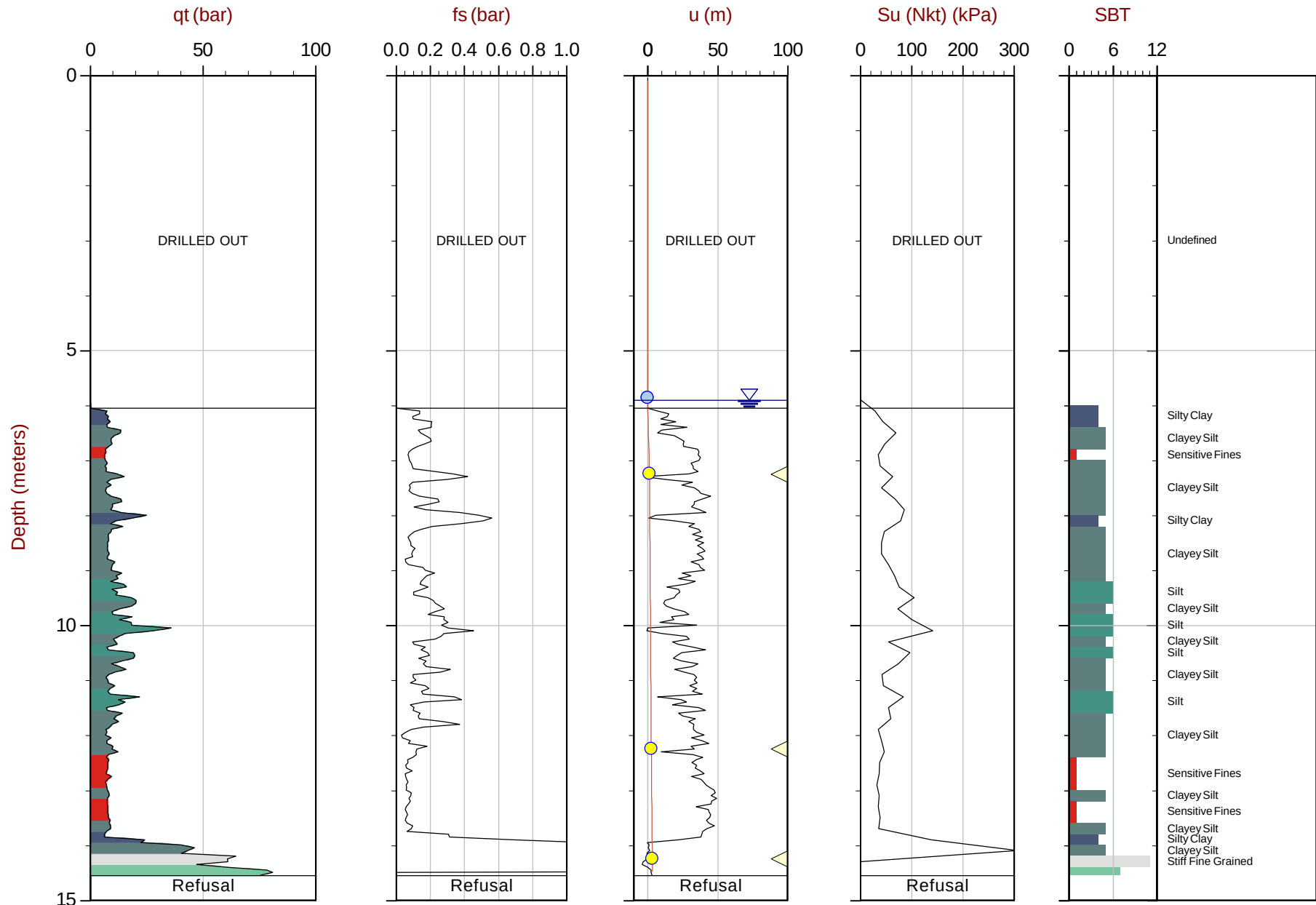
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 03:28:15 10:20
Site: Myra Falls Mine

Sounding: CPT15-A24
Cone: 378:T500F10U500



Max Depth: 14.550 m / 47.74 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Su Nkt:15

File: 15-02029_CPA24.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494609mE: 313222m

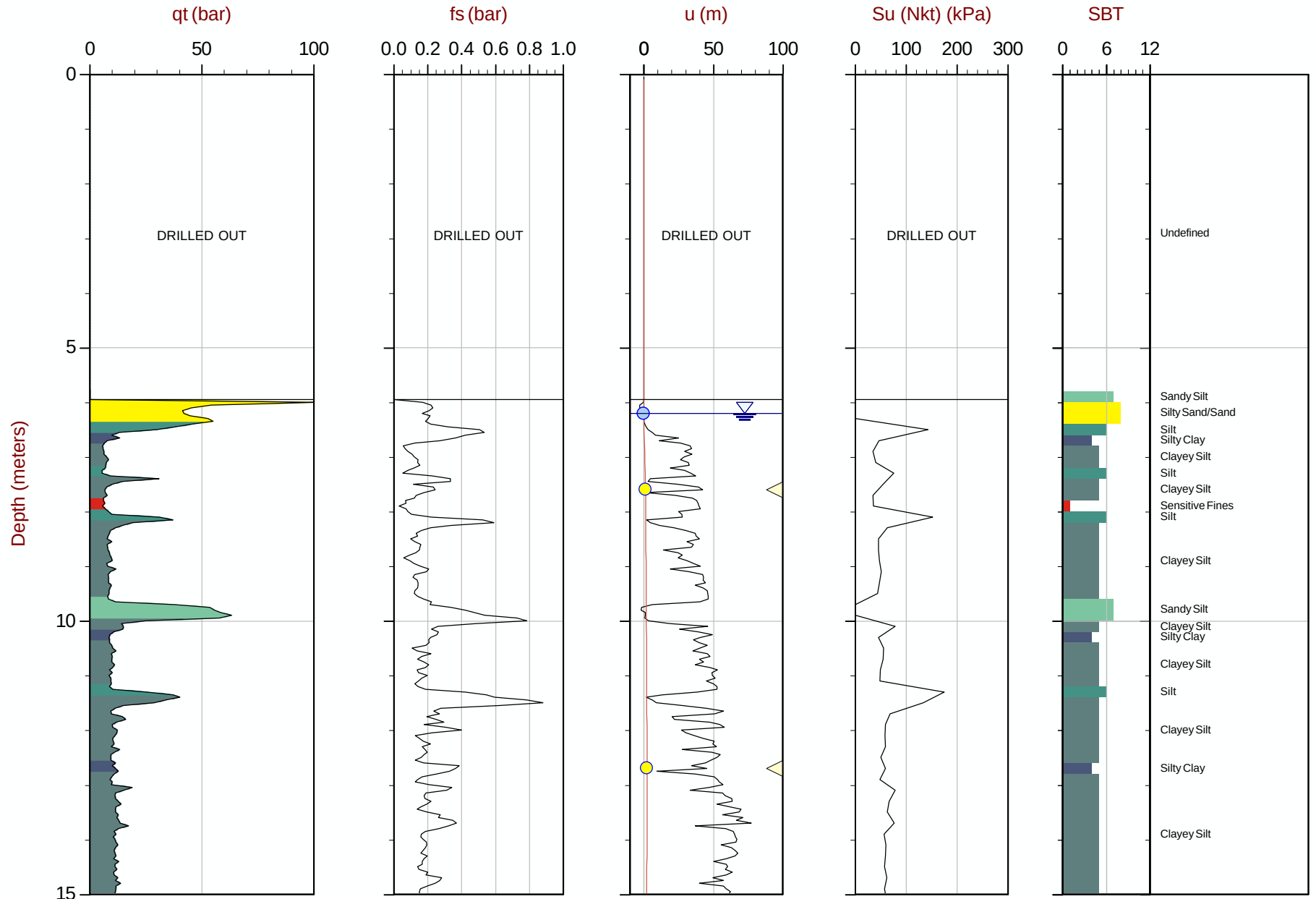
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500



Max Depth: 20.850 m / 68.40 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Su Nkt:15

File: 15-02029_SPA02.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494561mE: 312407m

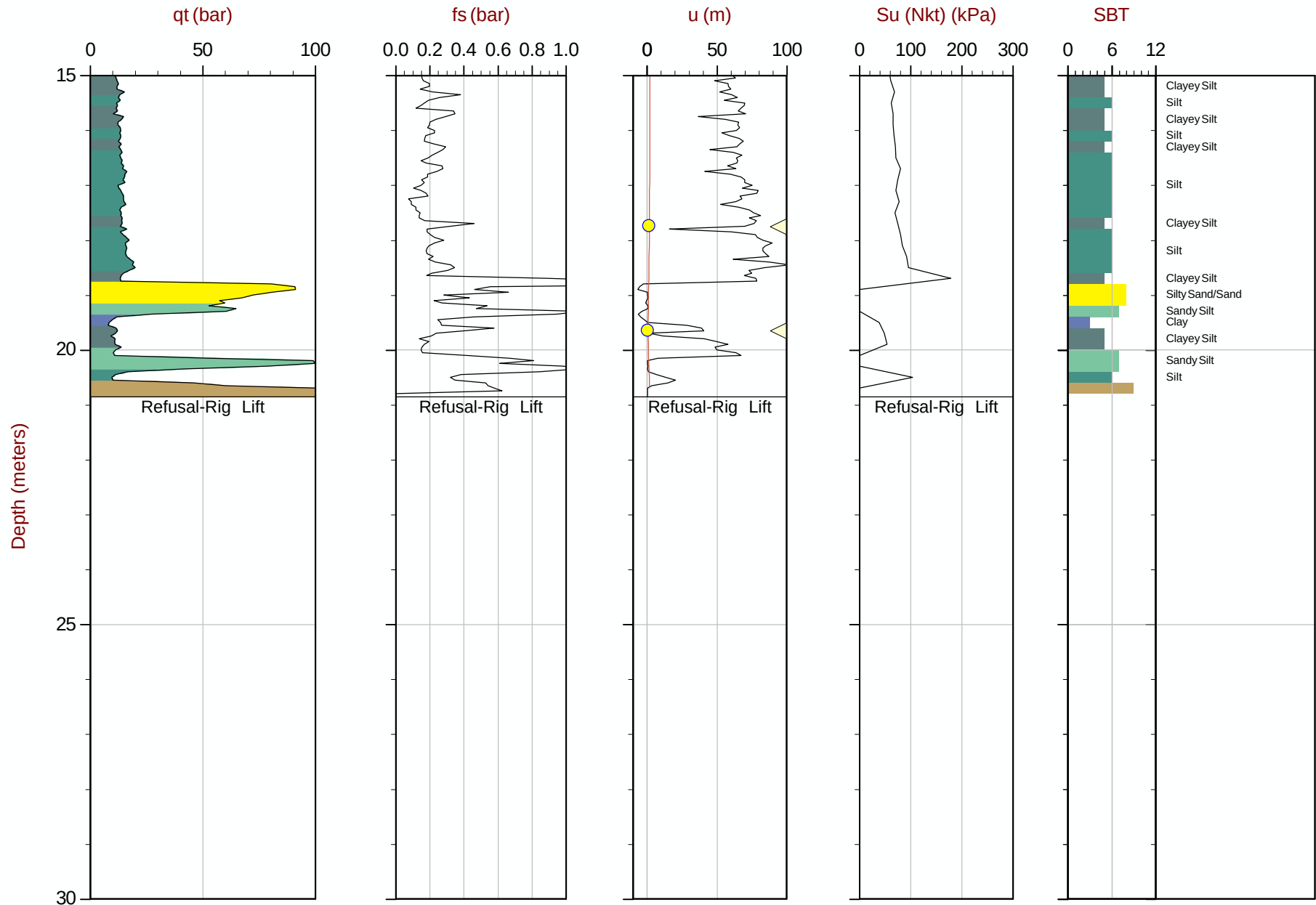
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500



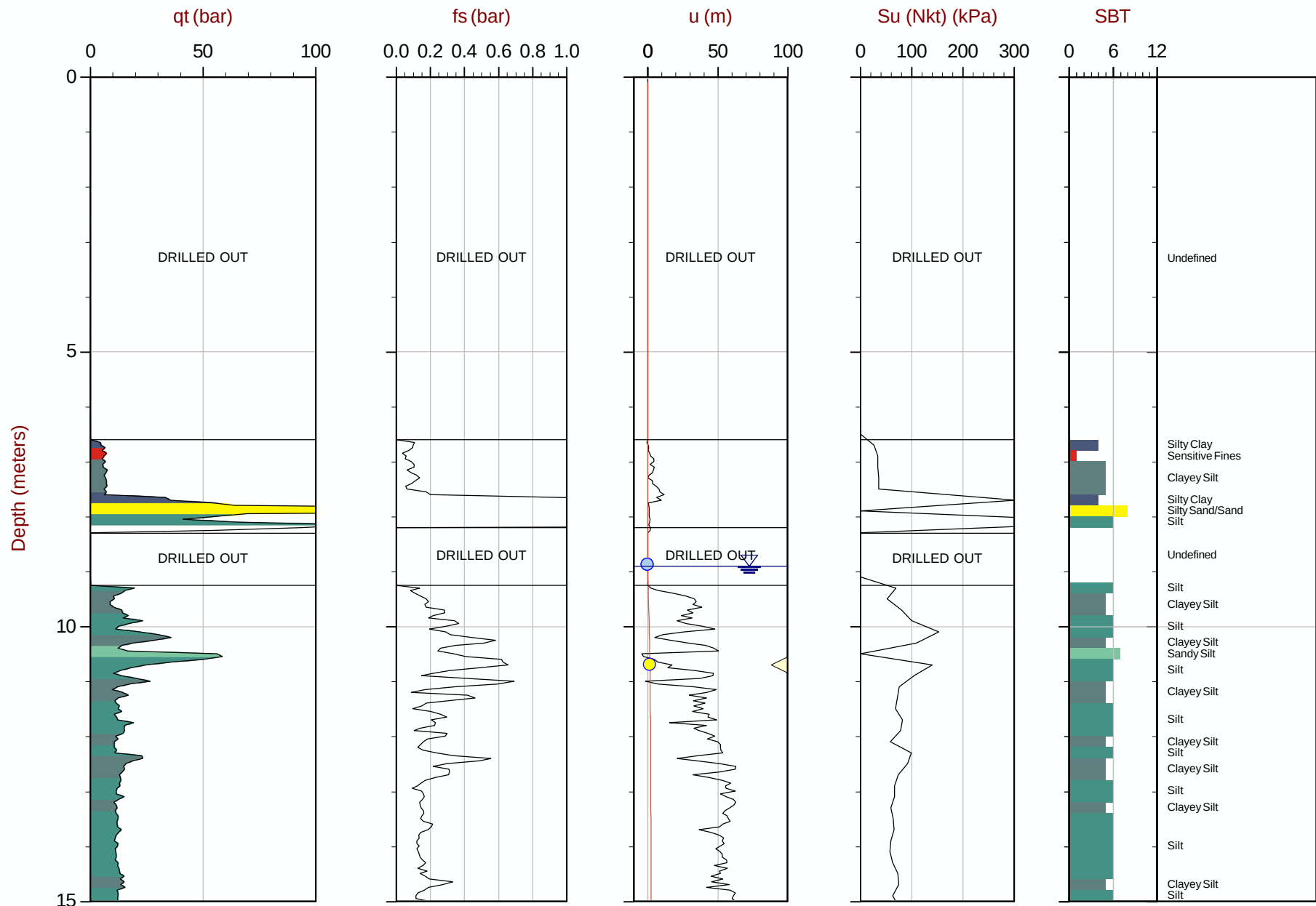
Max Depth: 20.850 m / 68.40 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA02.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494561mE: 312407m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 22.350 m / 73.33 ft

Depth Inc: 0.050 m / 0.164 ft

Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_SPA03.COR

Unit Wt: SBT Chart Soil Zones

■ Su VST

- Assum

$$U_{eq} \bigcirc U_{eq}$$

Ueq P

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10 N: 5494557m E: 312395m

profile ◀ PPD, Ueq achieved

PPD, U_{eq} not achieved

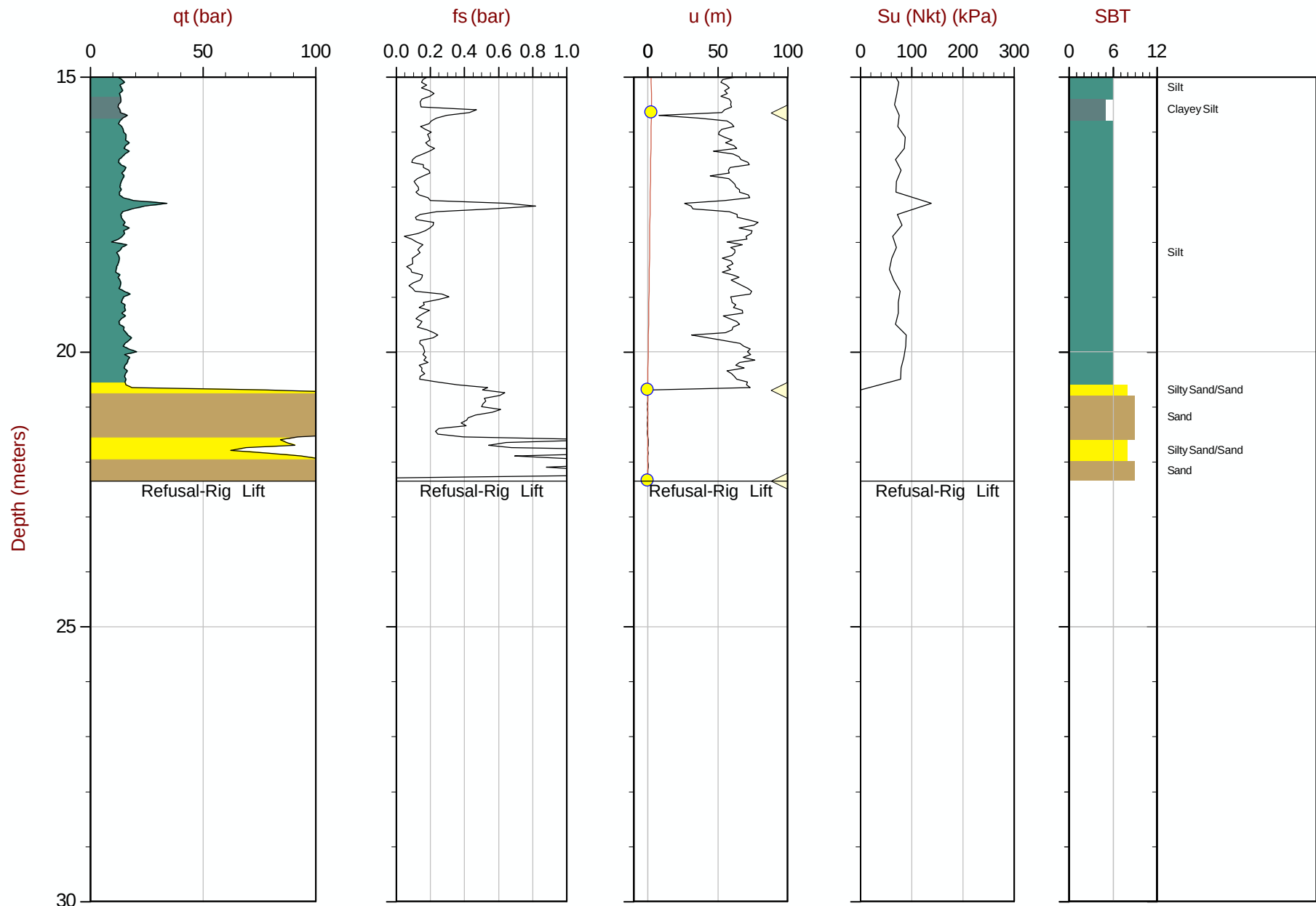
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500



Max Depth: 22.350 m / 73.33 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA03.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494557mE: 312395m

Su Nkt:15

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

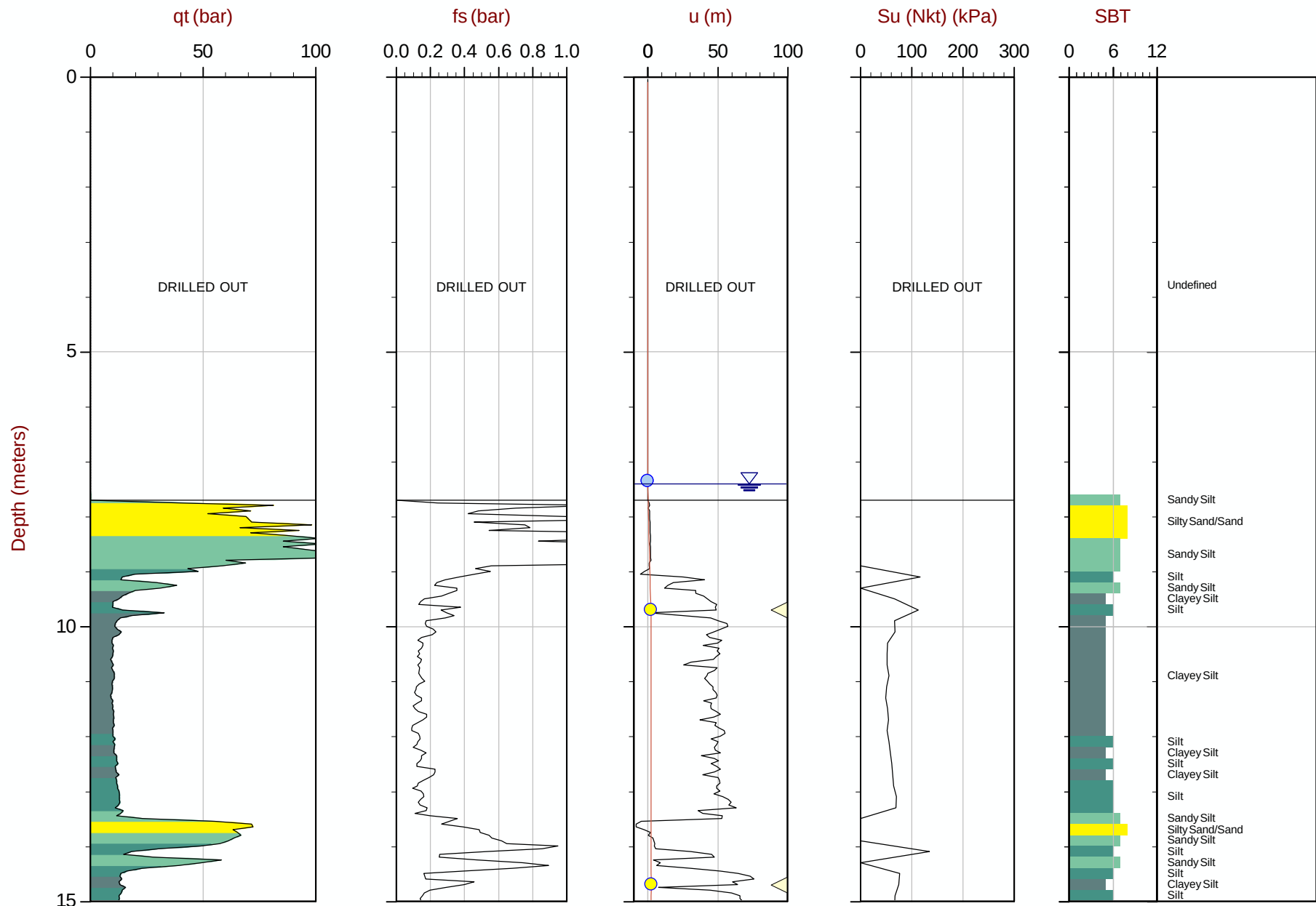
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:19:15 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500



Max Depth: 17.750 m / 58.23 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494558m E: 312379m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

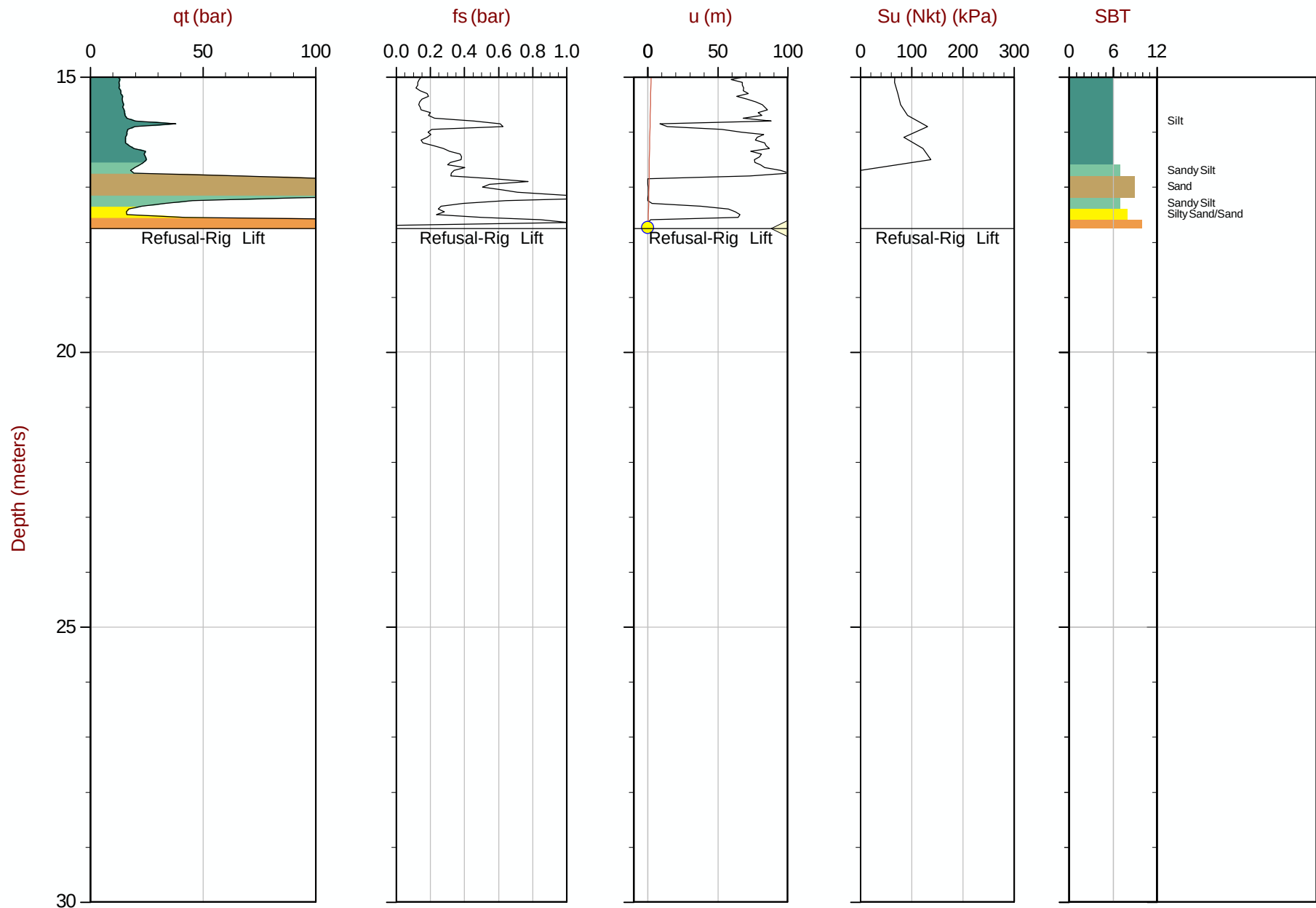
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:19:15 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500



Max Depth: 17.750 m / 58.23 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494558m E: 312379m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

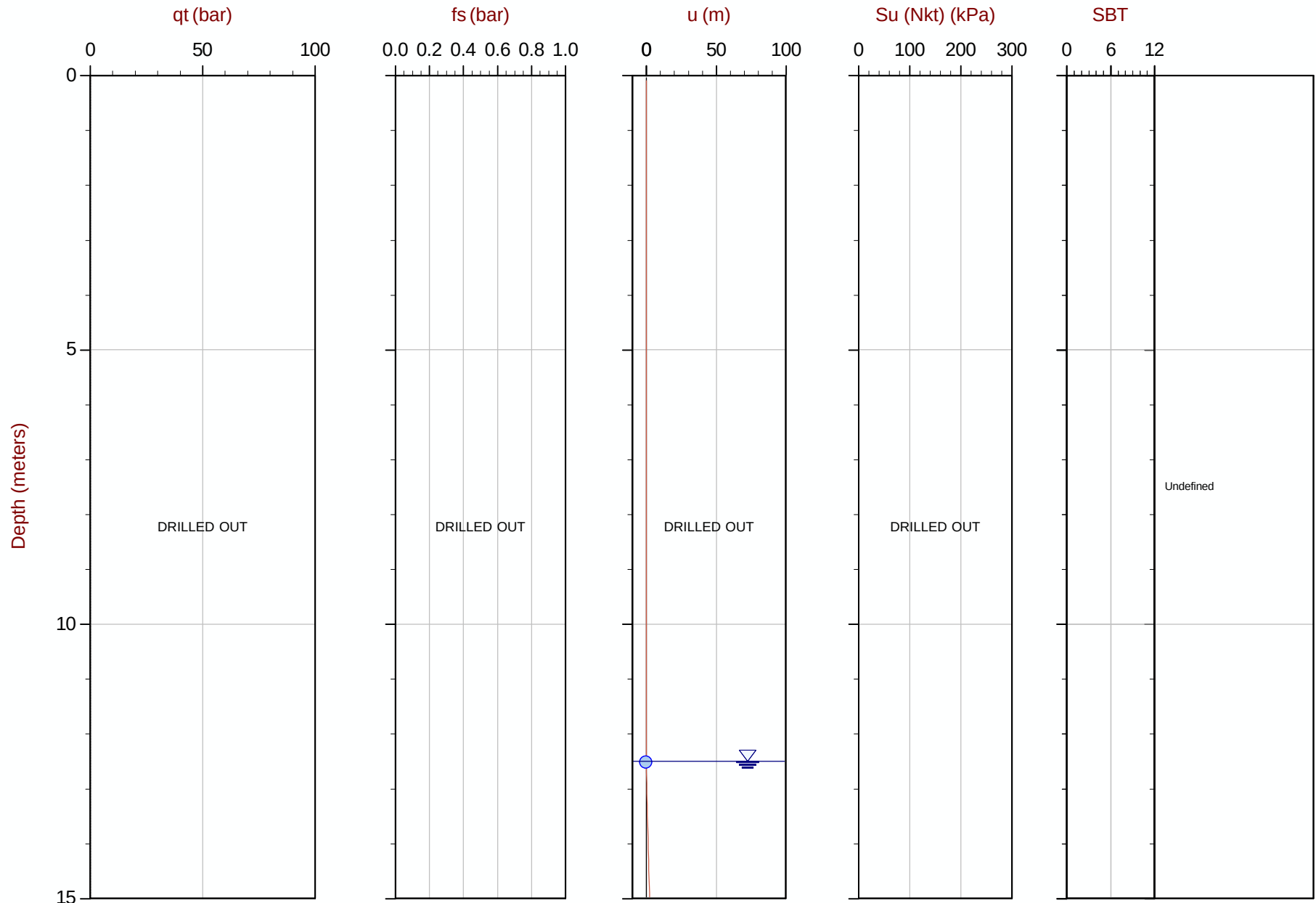
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:02:15 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500



Max Depth: 29.800 m / 97.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA05.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494519mE: 312513m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

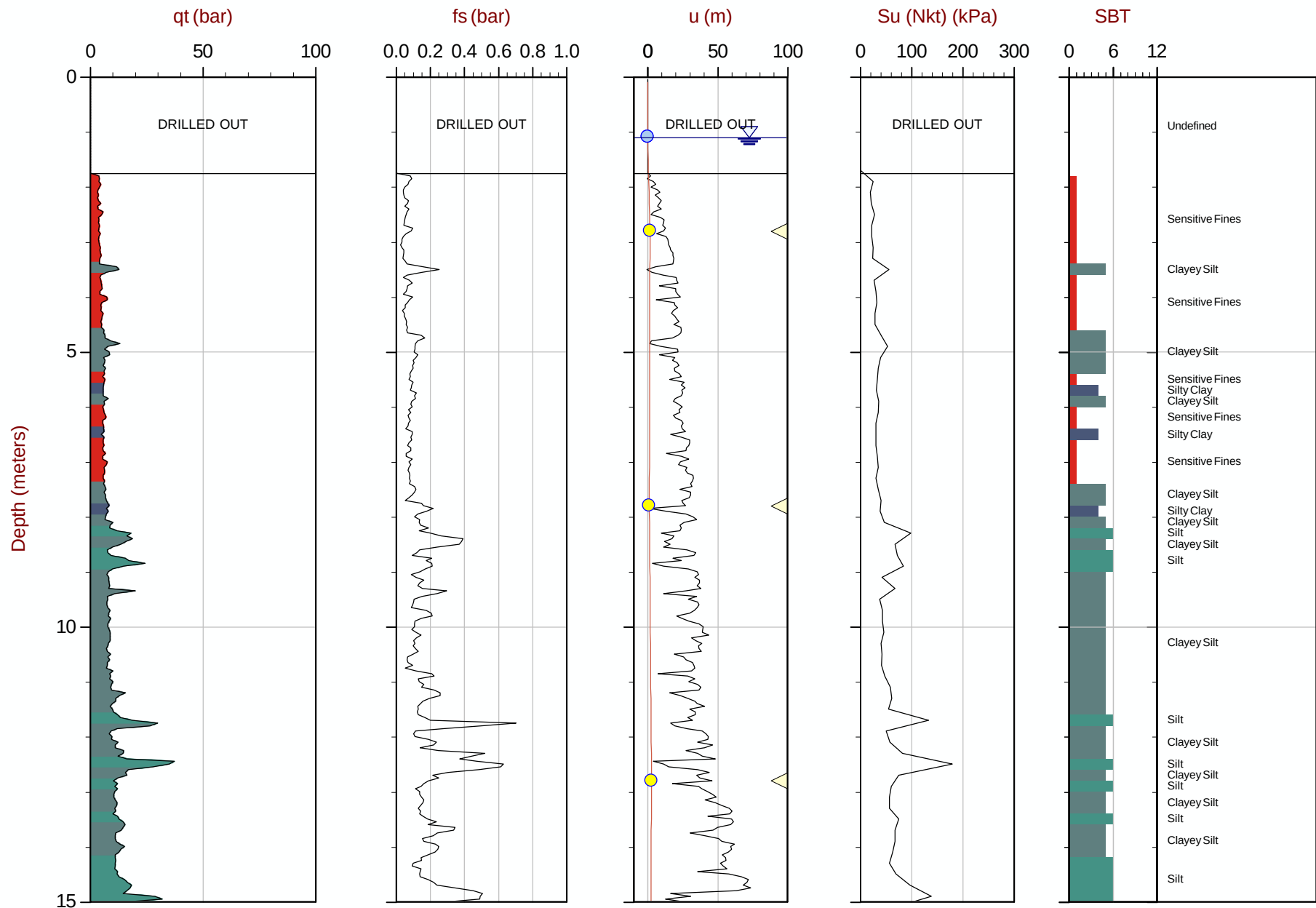
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10 N: 5494519m E: 312513m

Int: 0.200m Su Nkt:15 ■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 24.250 m / 79.56 ft

Depth Inc: 0.050 m / 0.164 ft

Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_SPA07.COR

Unit Wt: SBT Chart Soil Zones

■ Su VST ● Assumed Ueq ● Ueq

SBT: Lunne, Robertson and Powell, 1997

Coords: UTM Zone 10 N: 5494463m E: 312507m

Profile PPD, Ueq achieved PPD, Ueq not achieved

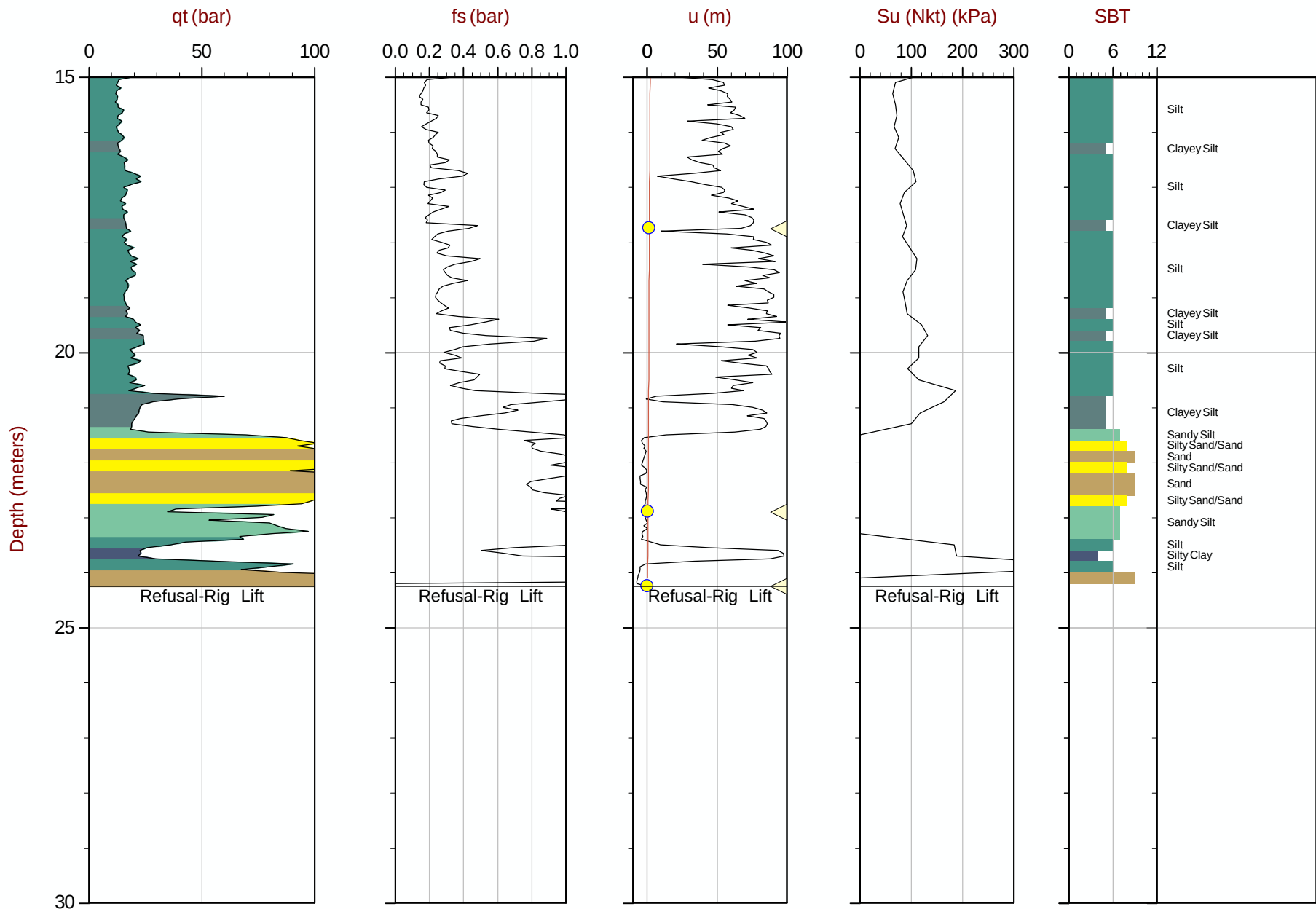
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:08:15 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500



Max Depth: 24.250 m / 79.56 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA07.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494463mE: 312507m

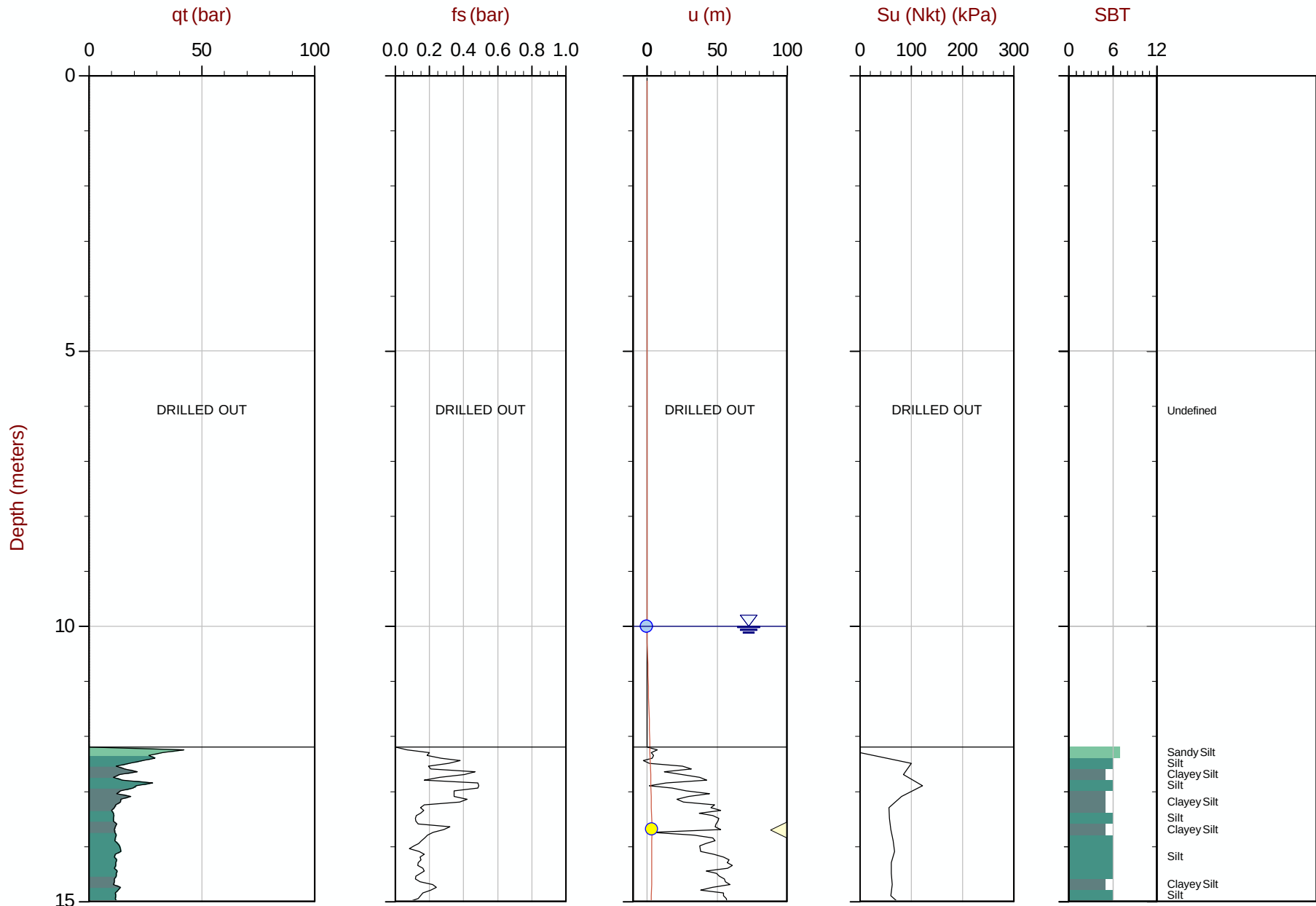
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:12:15 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500



Max Depth: 26.250 m / 86.12 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA09.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494493m E: 312678m

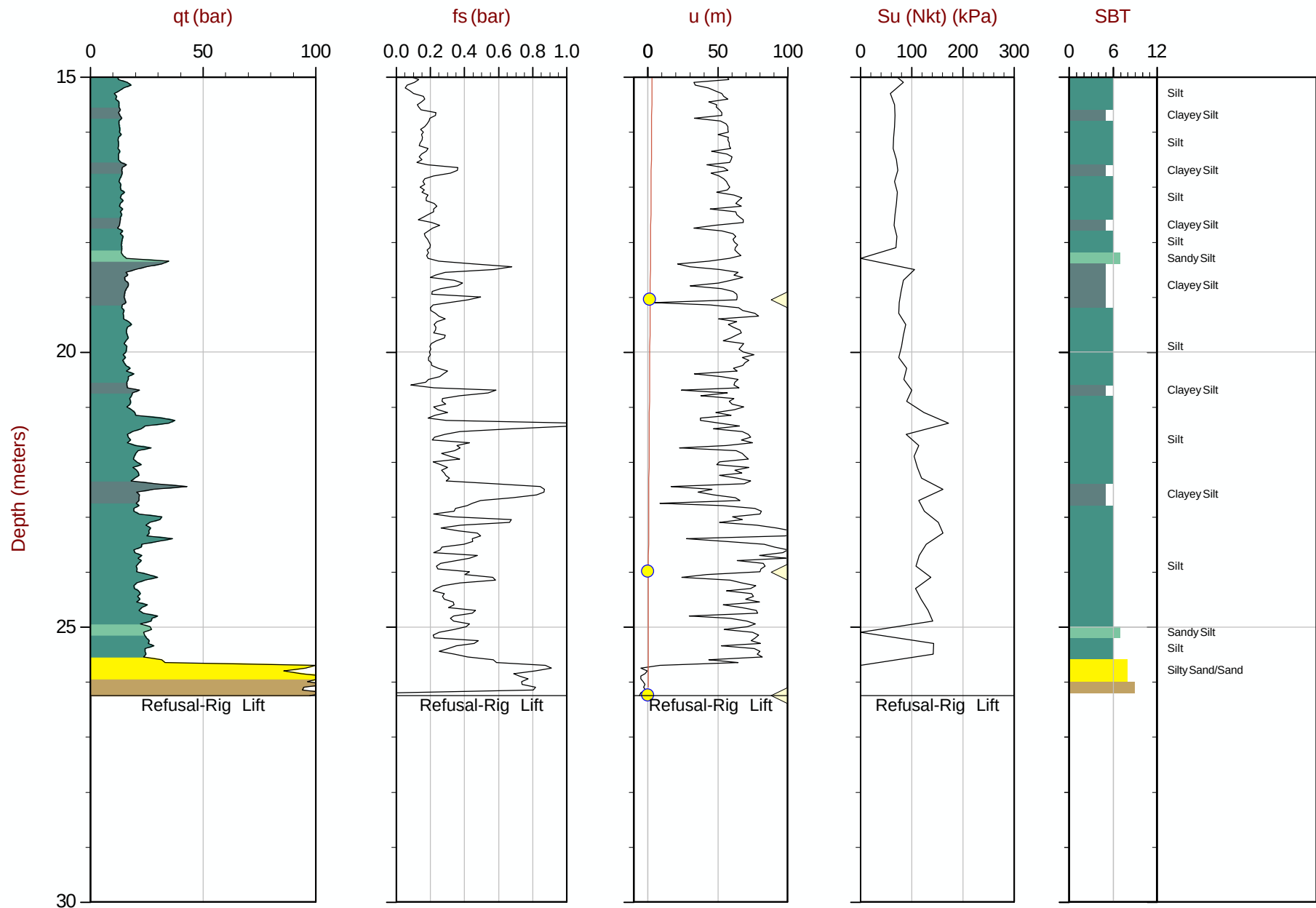
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:12:15 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500



Max Depth: 26.250 m / 86.12 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Su Nkt:15

File: 15-02029_SPA09.COR
Unit Wt: SBT Chart Soil Zones

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

SBT: Lunne, Robertson and Powell, 1997

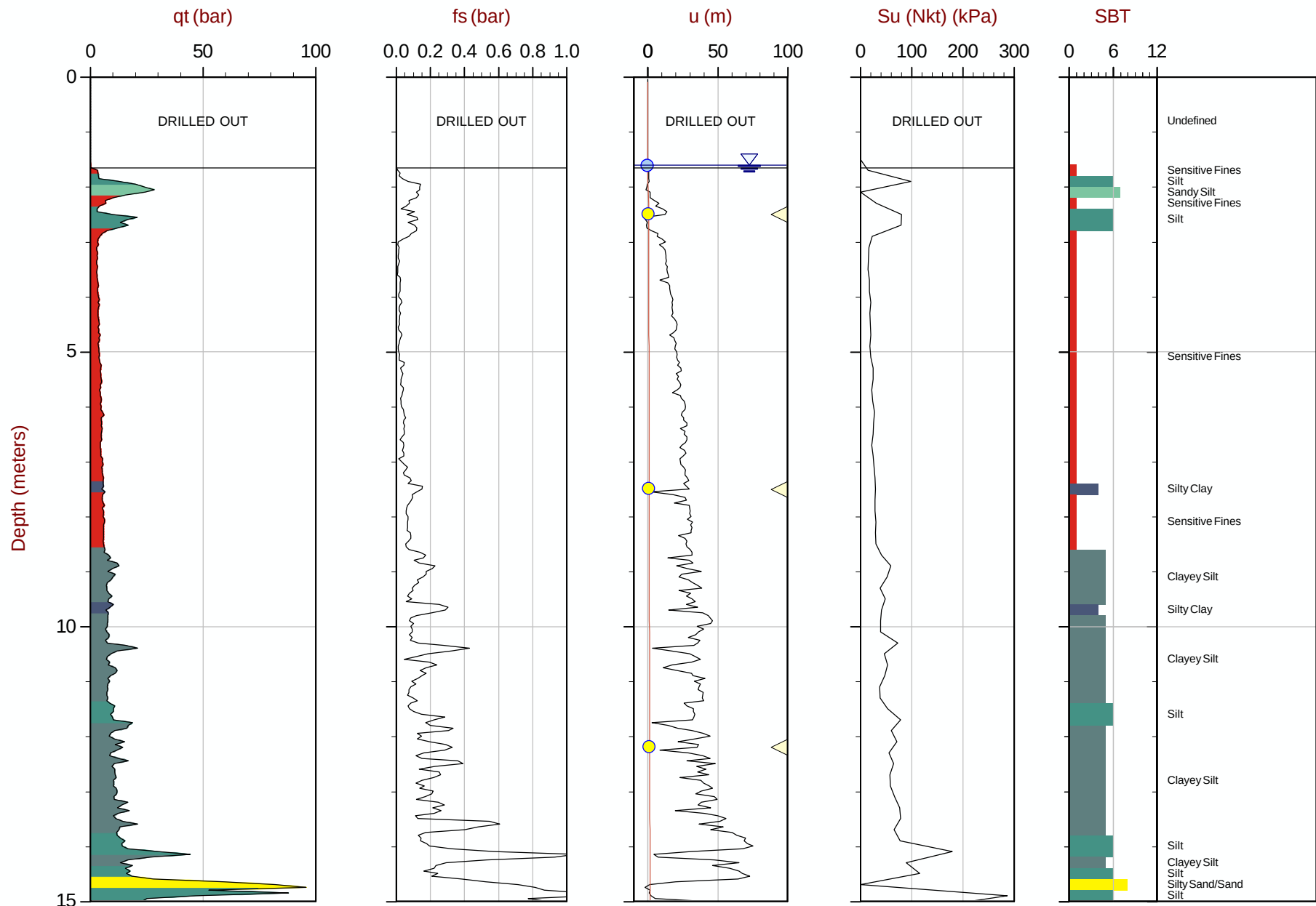
Coords: UTM Zone 10N: 5494493mE: 312678m



Amec Foster Wheeler

Job No: 15-02029
Date: 04:13:15 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500



Max Depth: 27.150 m / 89.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA11.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494424mE: 312669m

Su Nkt:15

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

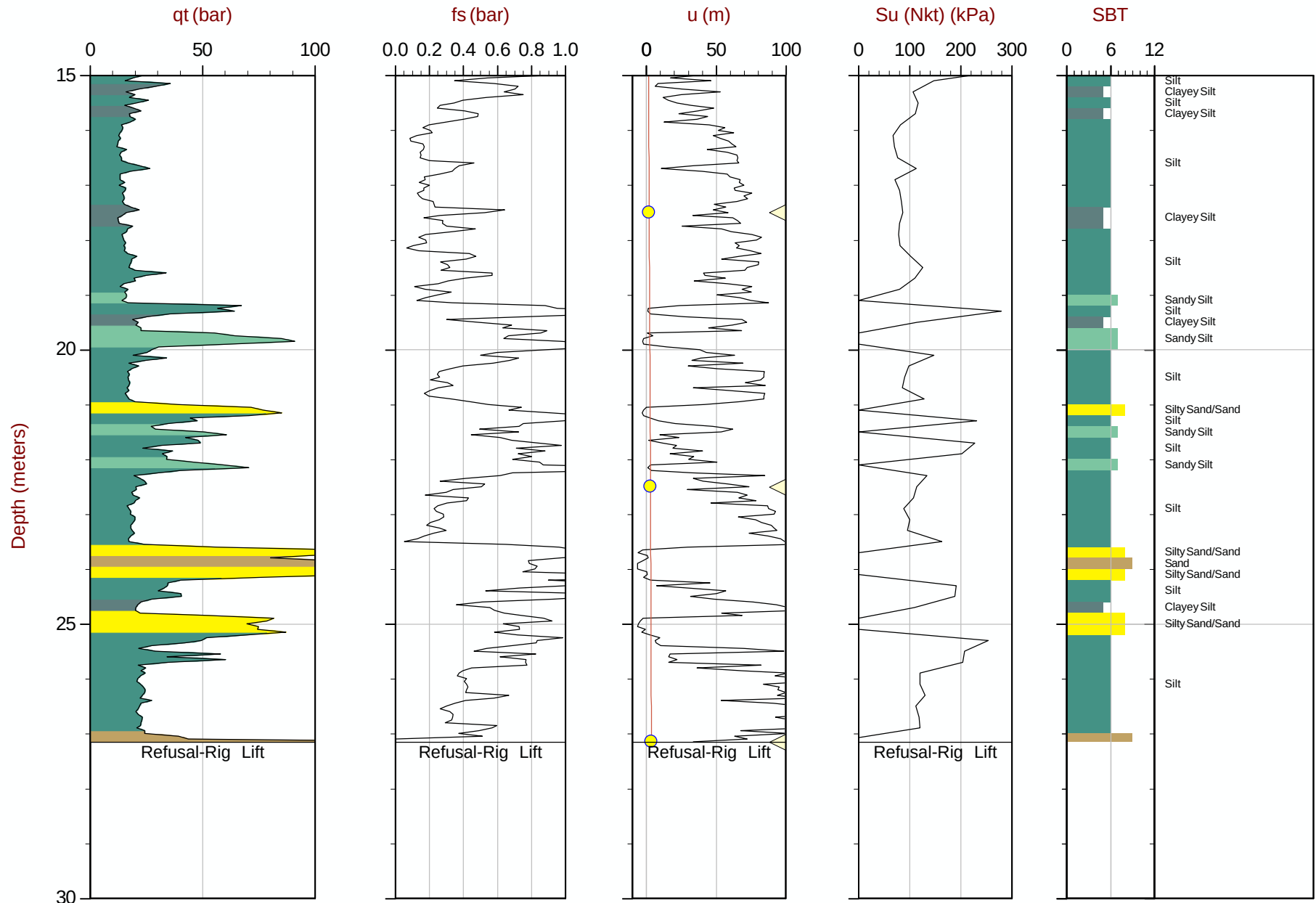
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:13:15 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500



Max Depth: 27.150 m / 89.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

Su Nkt:15

File: 15-02029_SPA11.COR
UnitWt: SBT Chart Soil Zones

■ Su VST

● Assumed Ueq

● Ueq

— Ueq Profile

◁ PPD, Ueq achieved

◁ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

SBT: Lunne, Robertson and Powell, 1997

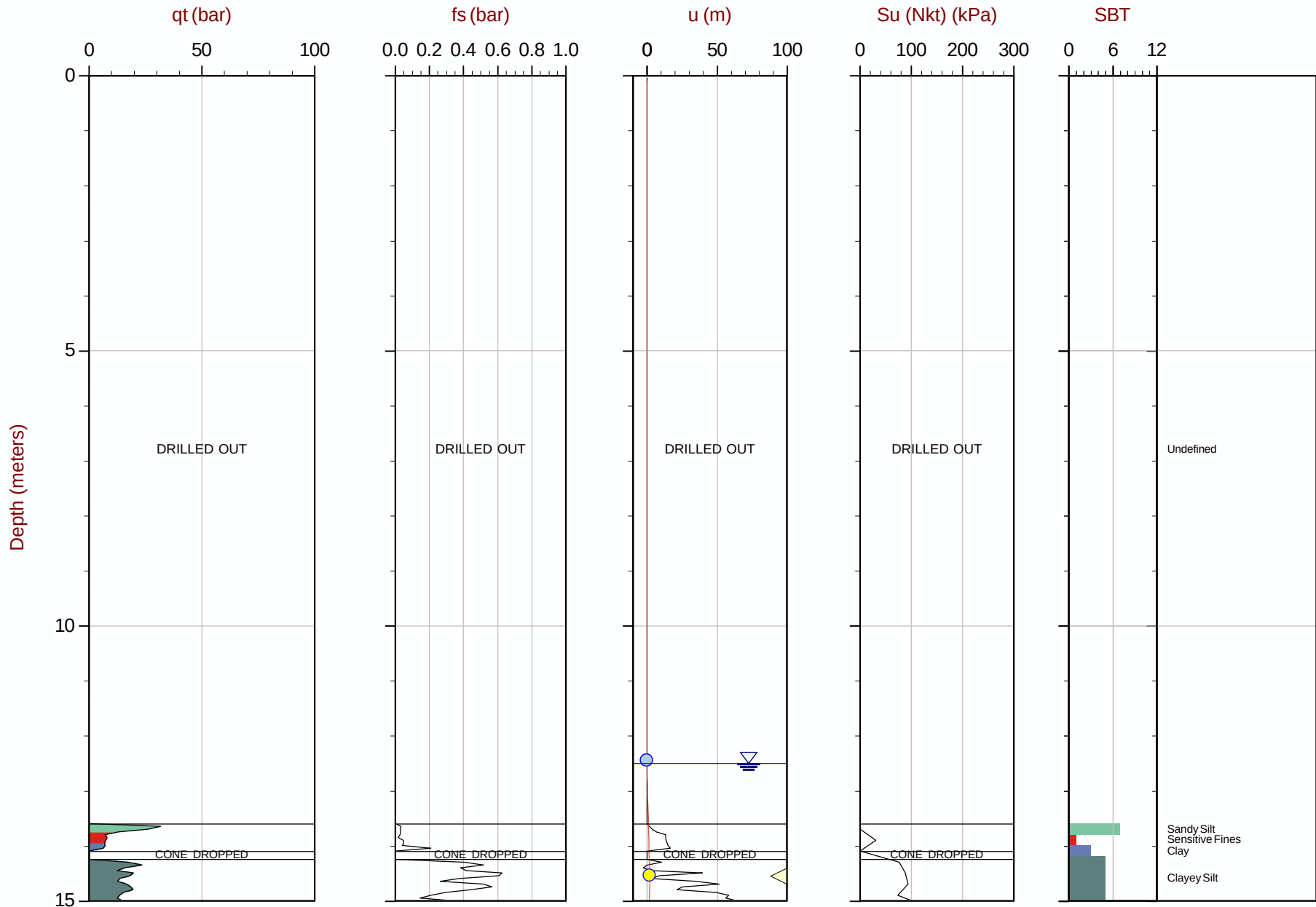
Coords: UTM Zone 10N: 5494424mE: 312669m



Amec Foster Wheeler

Job No: 15-02029
Date: 04:14:15 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500



Max Depth: 24.900 m / 81.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA13.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494495m E: 312934m

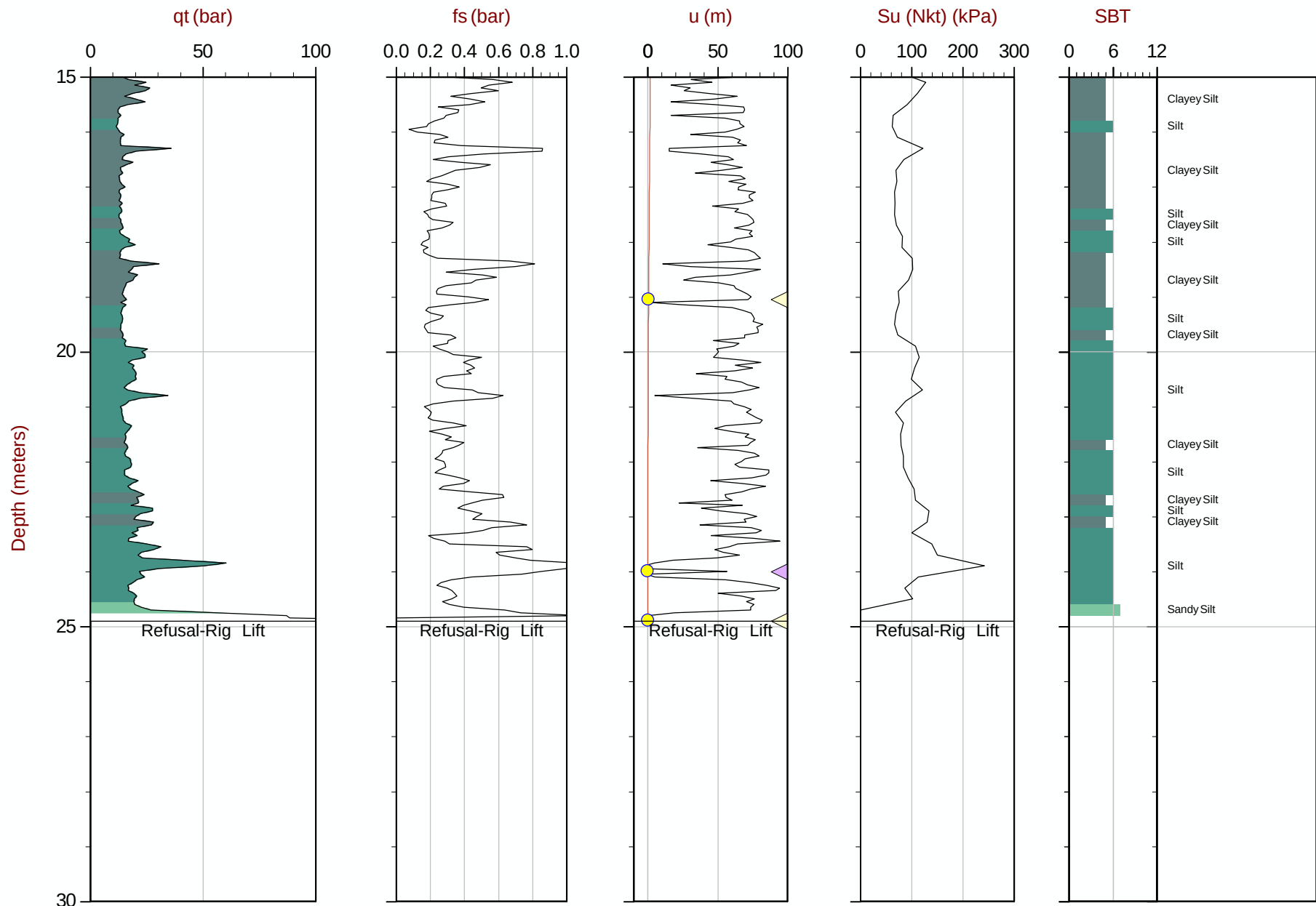
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:14:15 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500



Max Depth: 24.900 m / 81.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA13.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494495mE: 312934m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

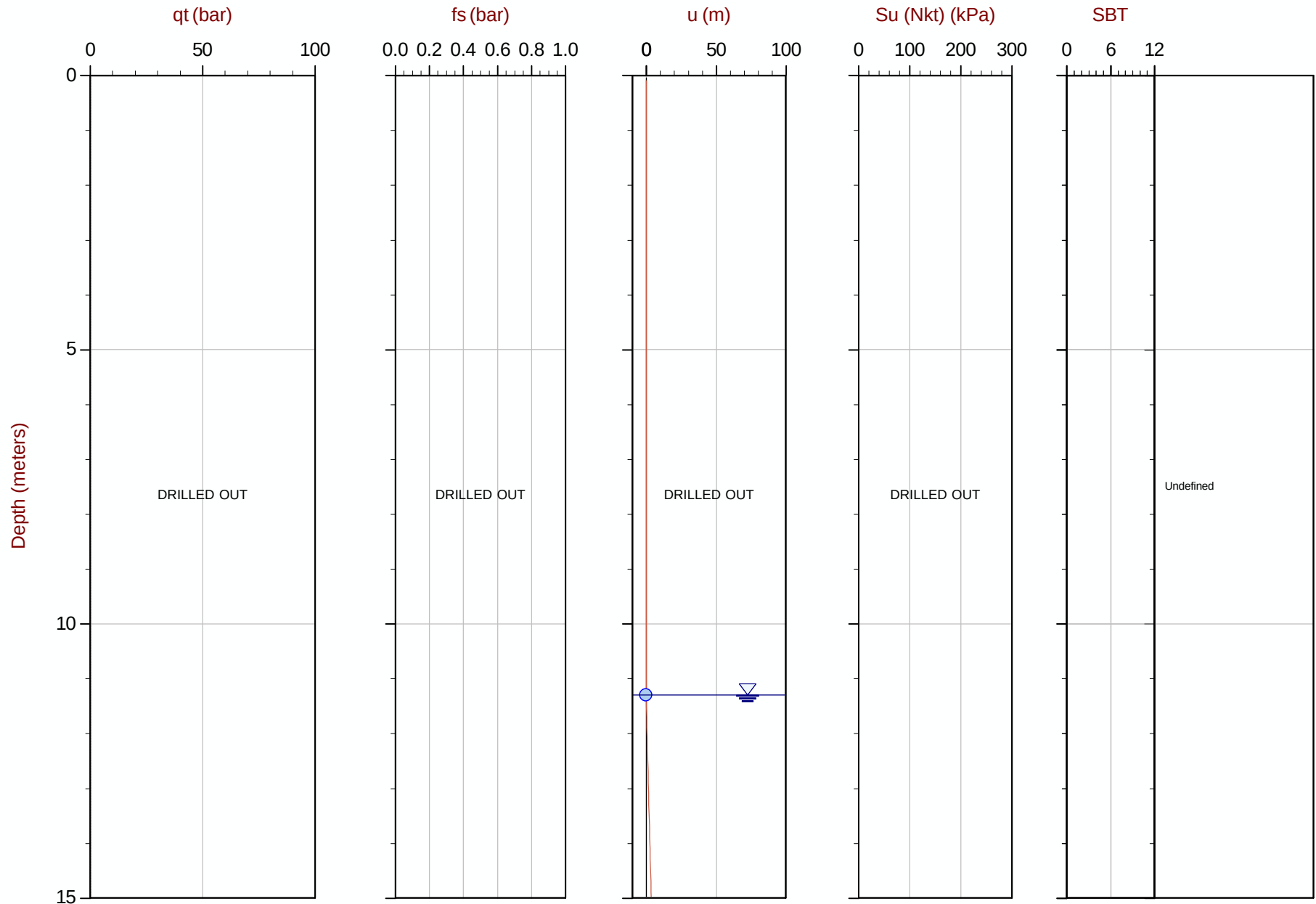
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500

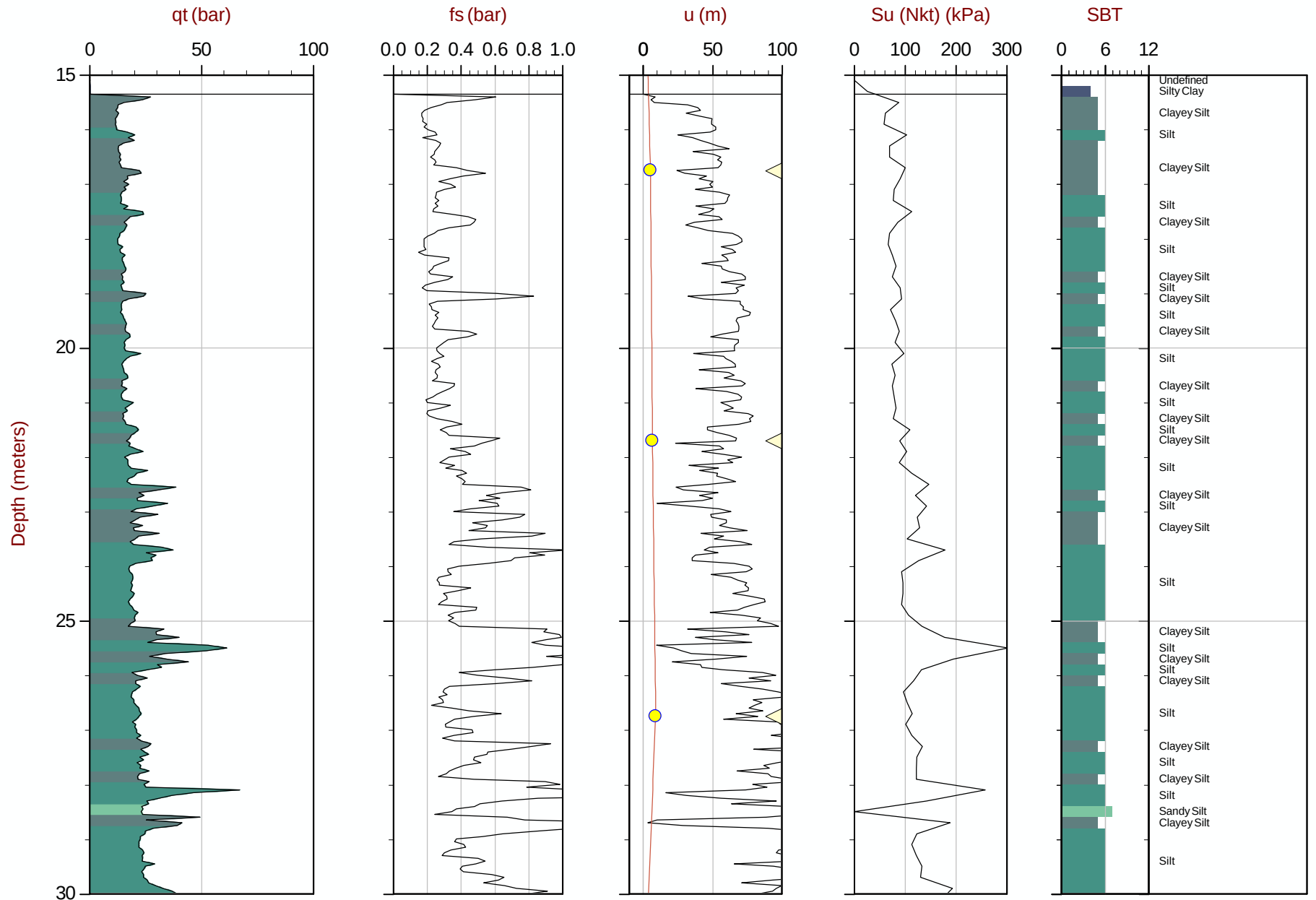


Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10 N: 5494531m E: 313127m

Legend: 0.200m Su Nkt:15 ■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

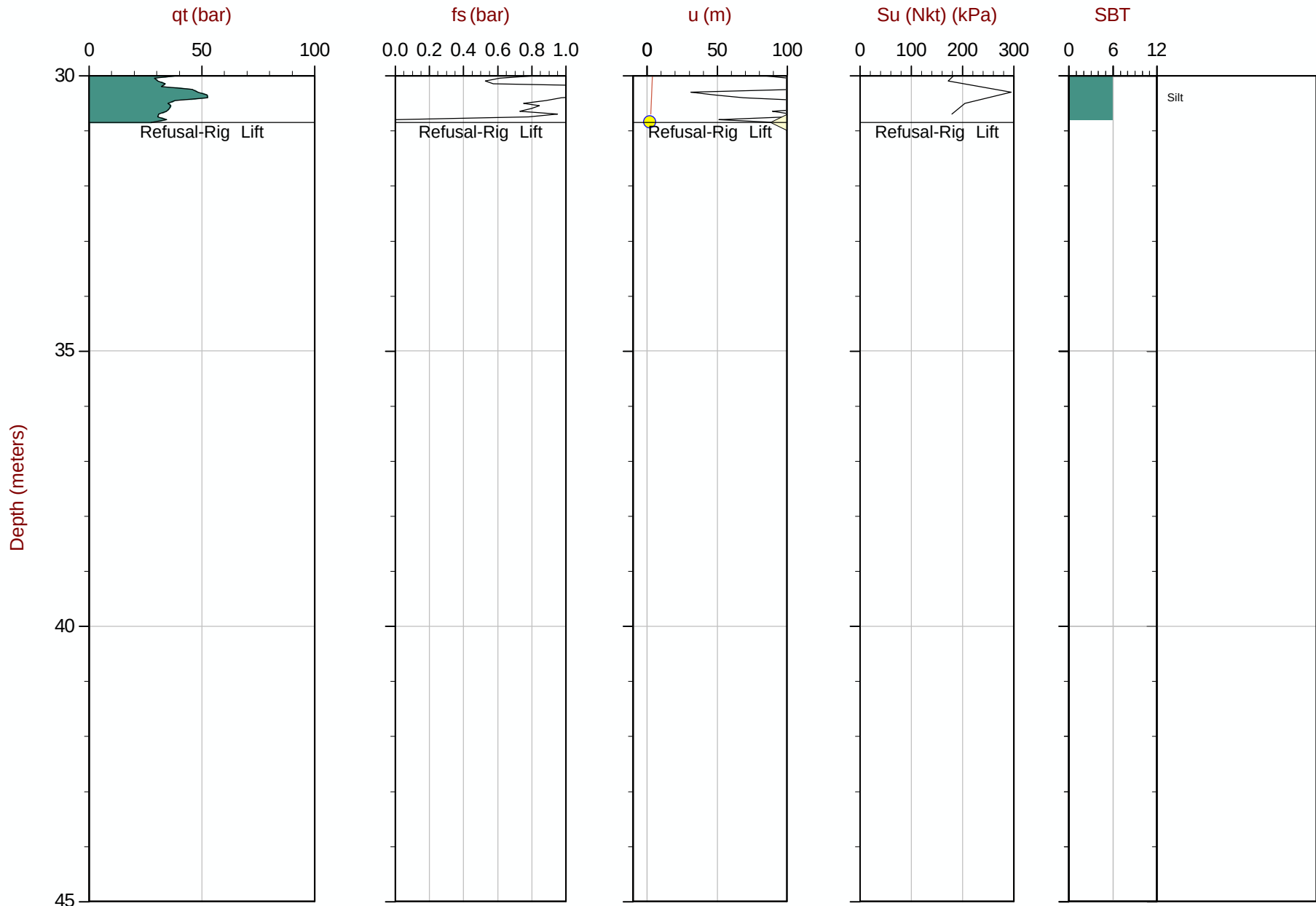
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

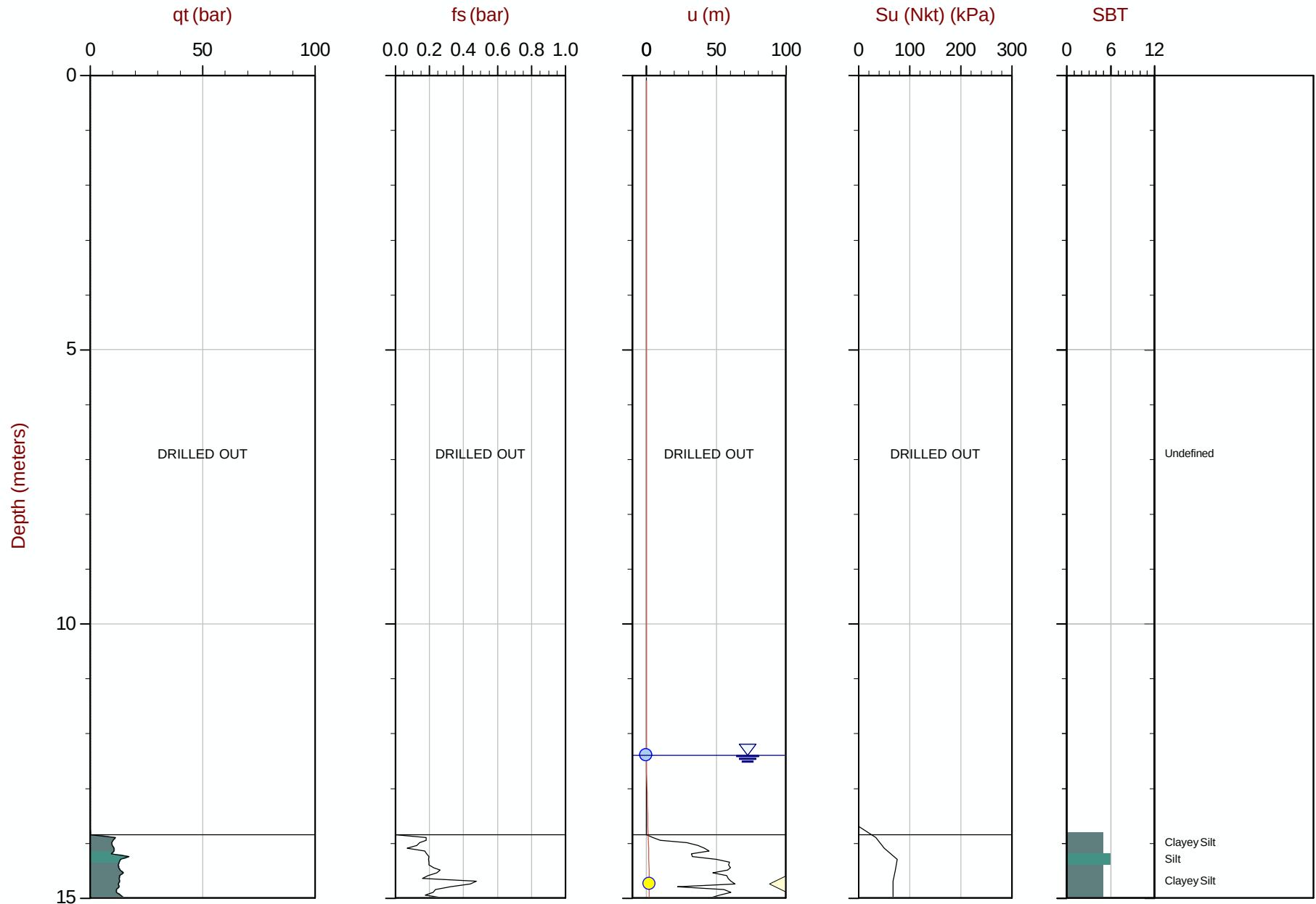
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500



Max Depth: 23.850 m / 78.25 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA21.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494616mE: 313141m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

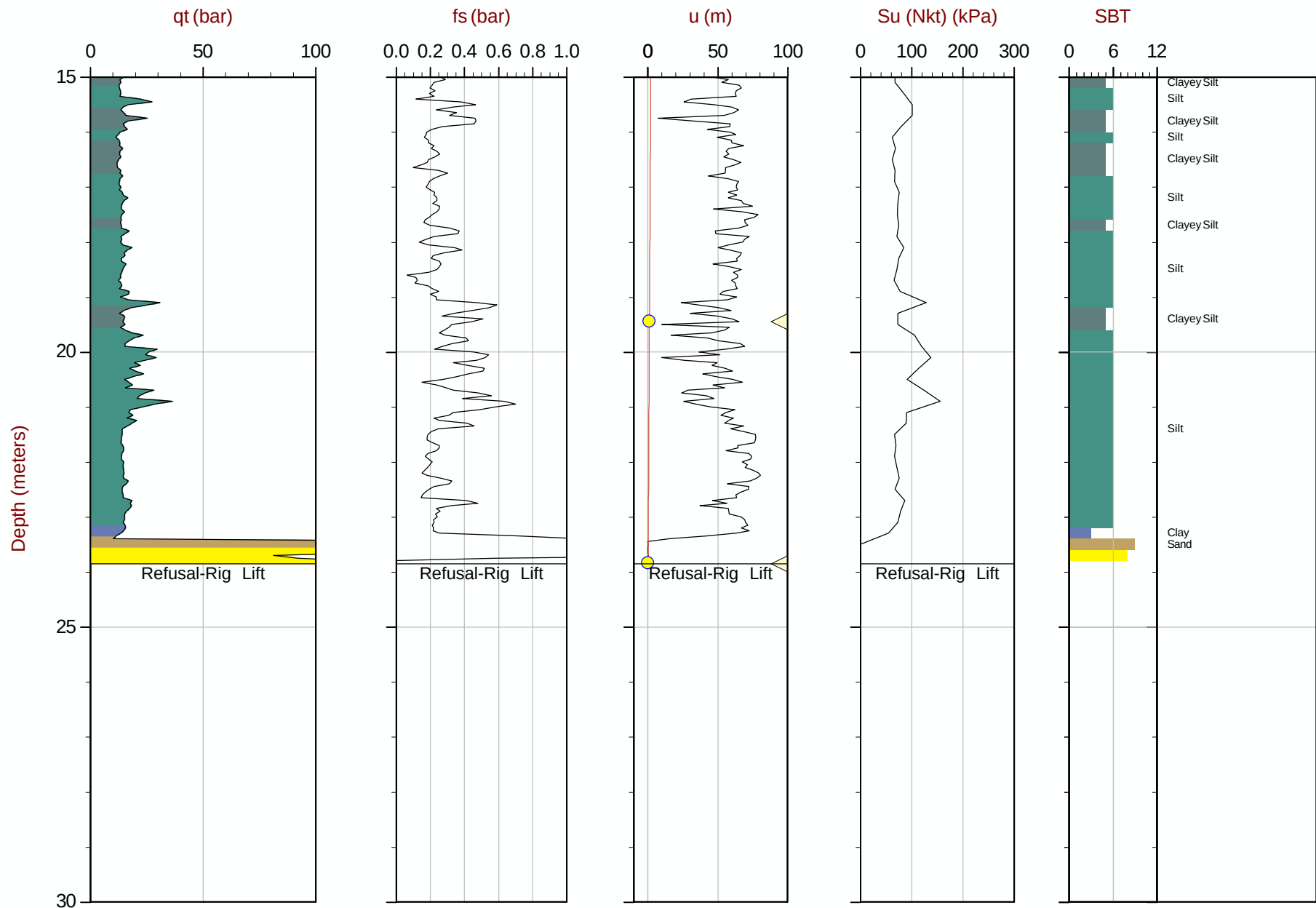
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500



Max Depth: 23.850 m / 78.25 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA21.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494616mE: 313141m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

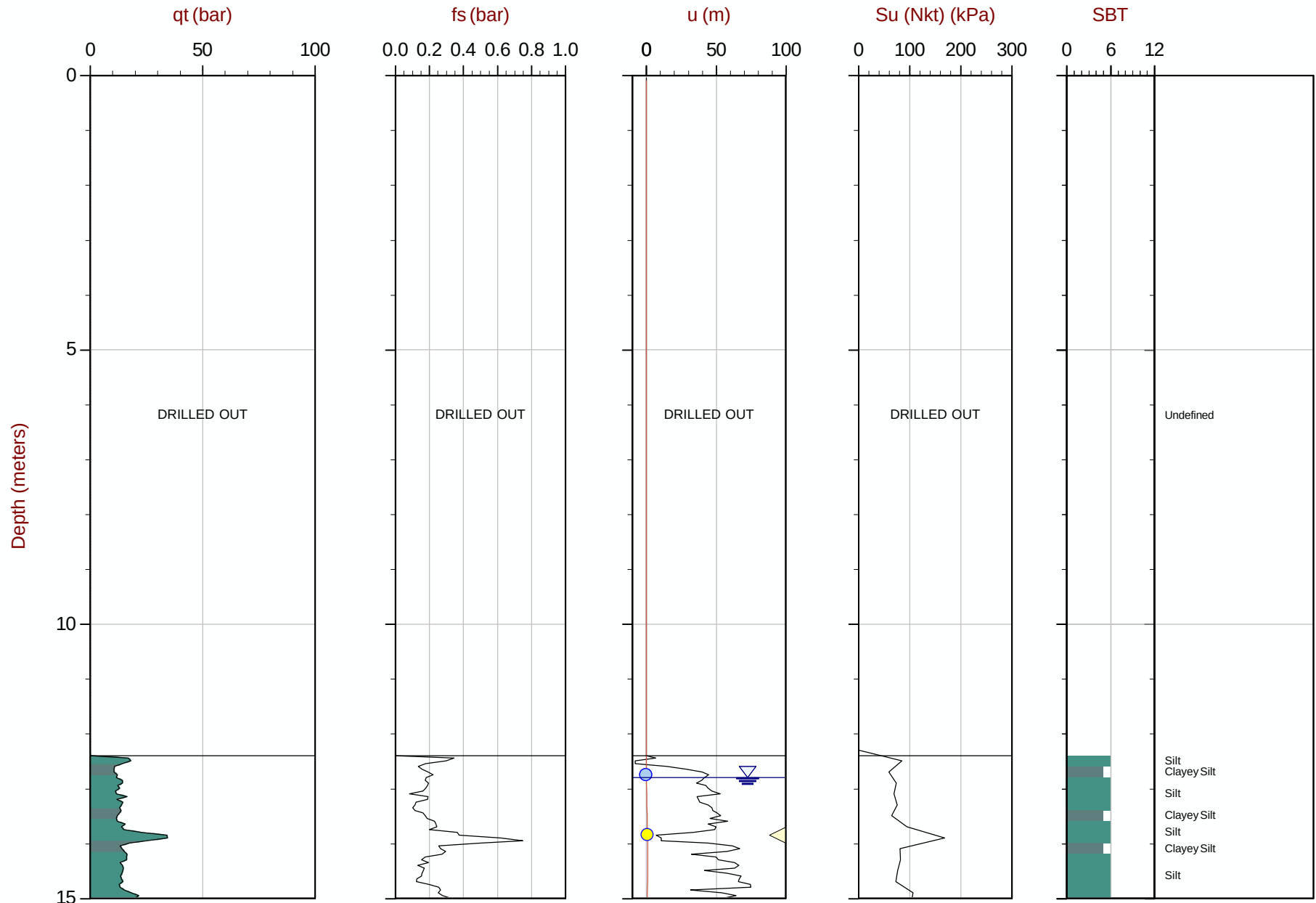
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:03:15 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500



Max Depth: 22.750 m / 74.64 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m
Su Nkt:15

File: 15-02029_SPA25.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494453m E: 313232m

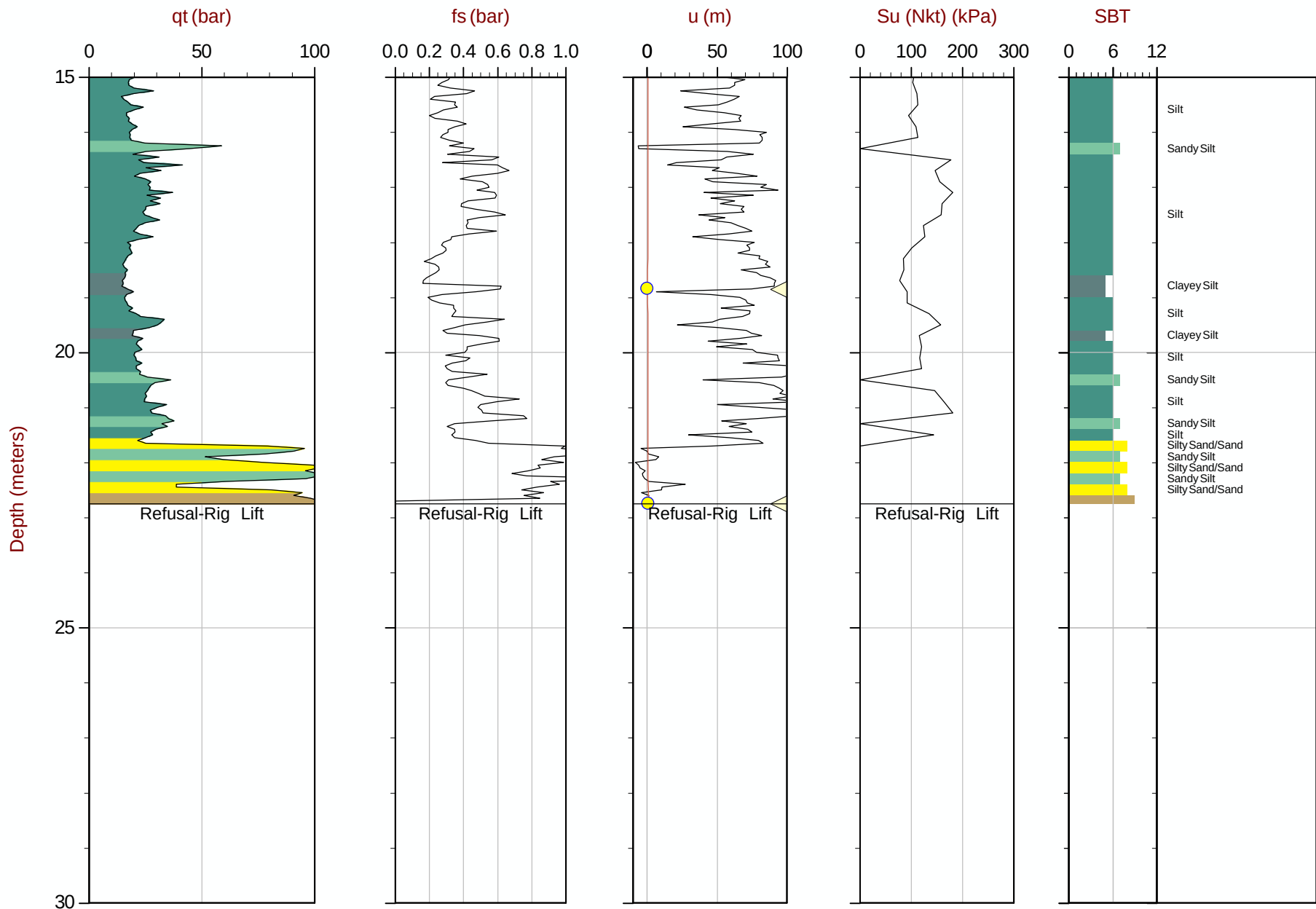
■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:03:15 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500



Max Depth: 22.750 m / 74.64 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA25.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494453mE: 313232m

Su Nkt:15

■ Su VST ● Assumed Ueq ● Ueq

— Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

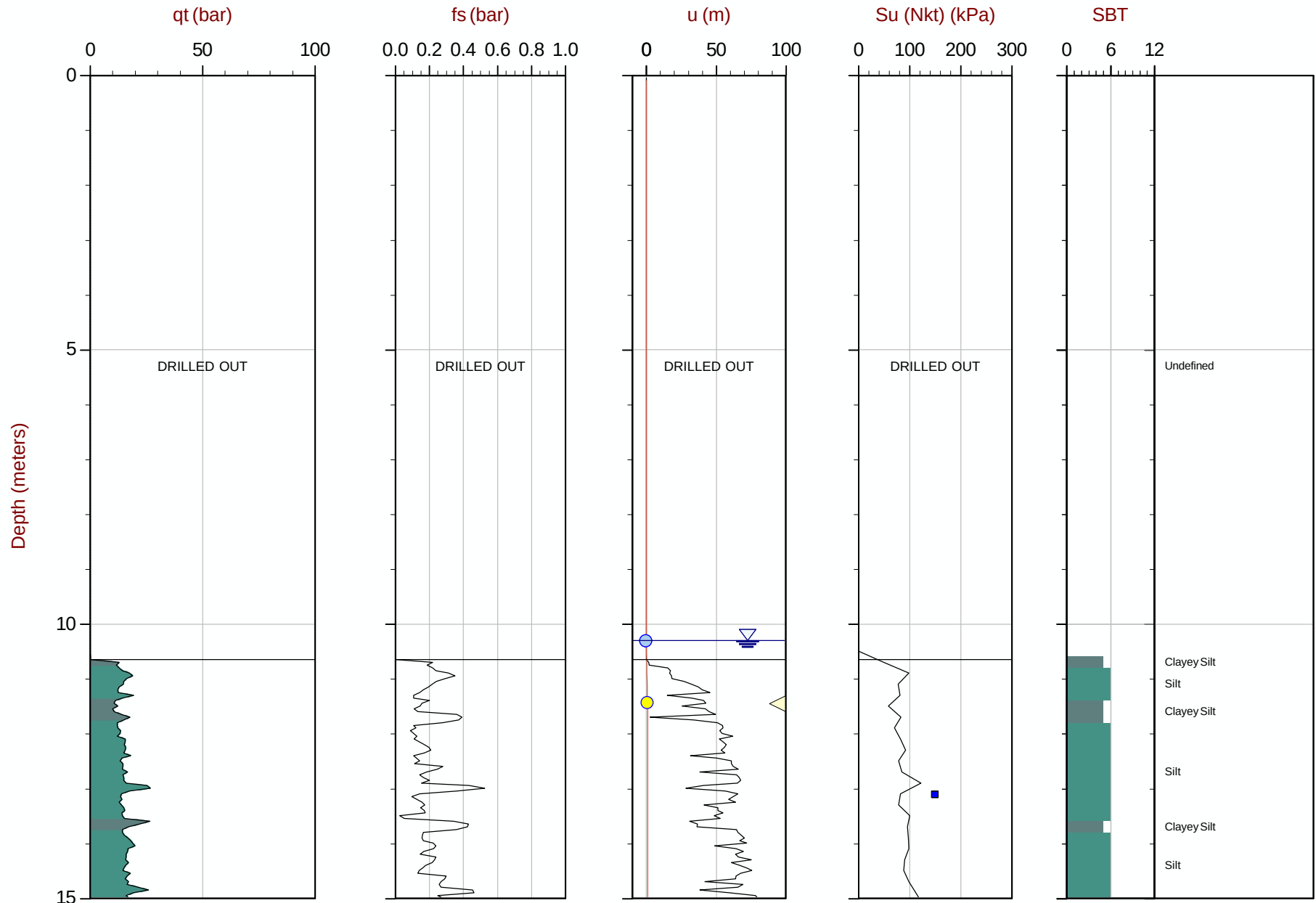
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA26.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494393m E: 312498m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

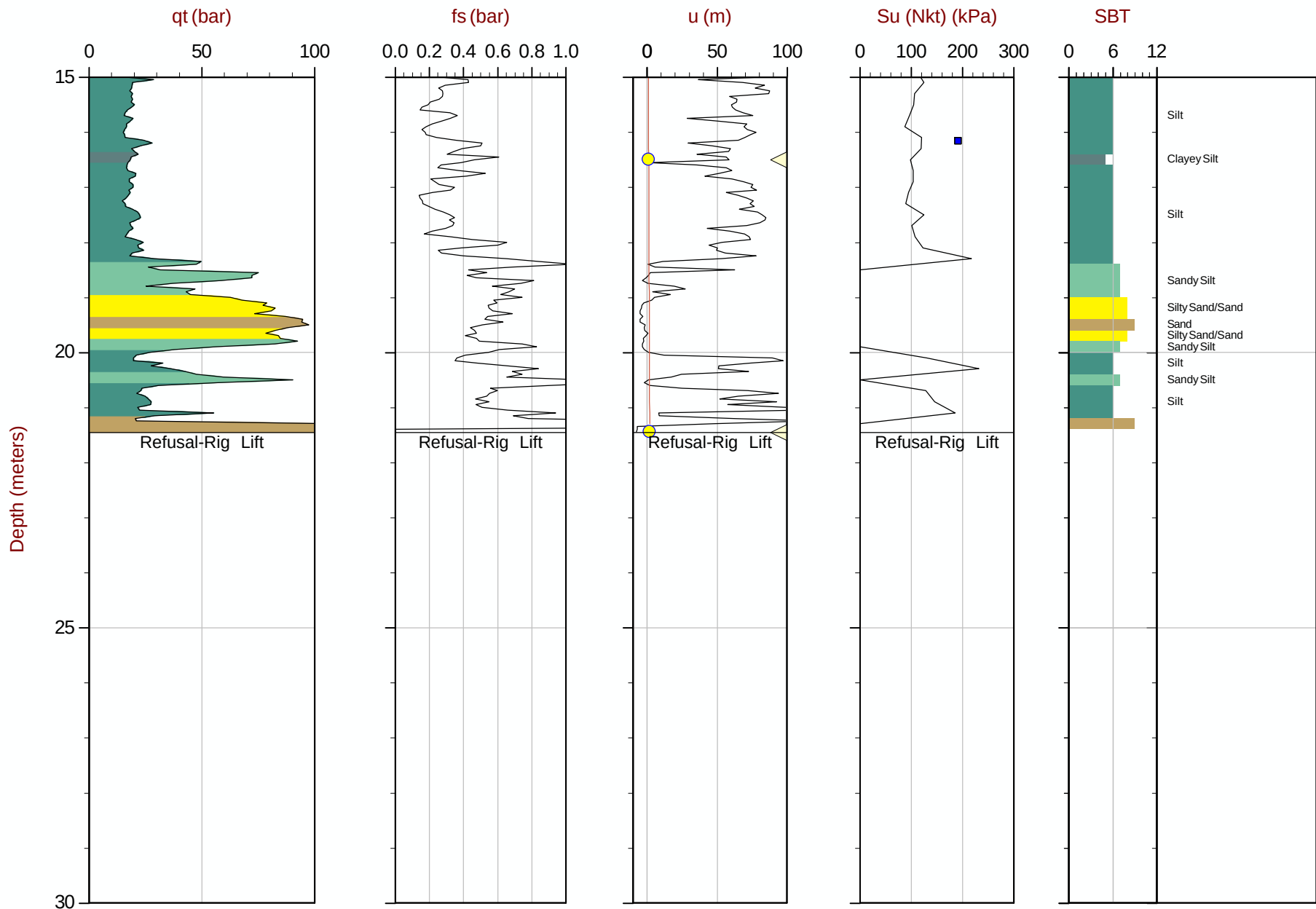
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m Su Nkt:15

File: 15-02029_SPA26.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494393mE: 312498m

■ Su VST ● Assumed Ueq ● Ueq — Ueq Profile ◁ PPD, Ueq achieved ▷ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

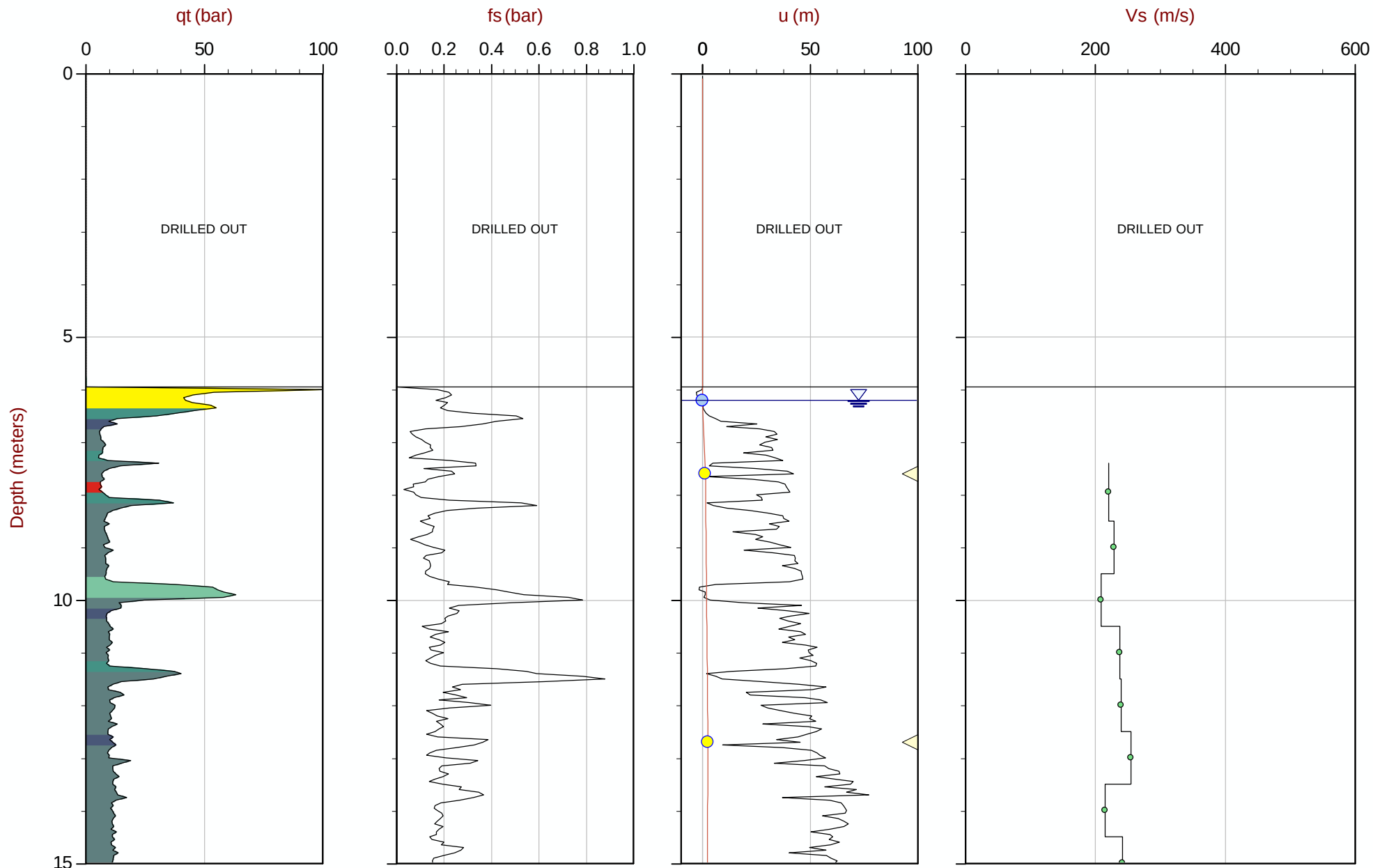
Seismic Cone Penetration Test Plots



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500



Max Depth: 20.850 m / 68.40 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA02.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494561mE: 312407m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

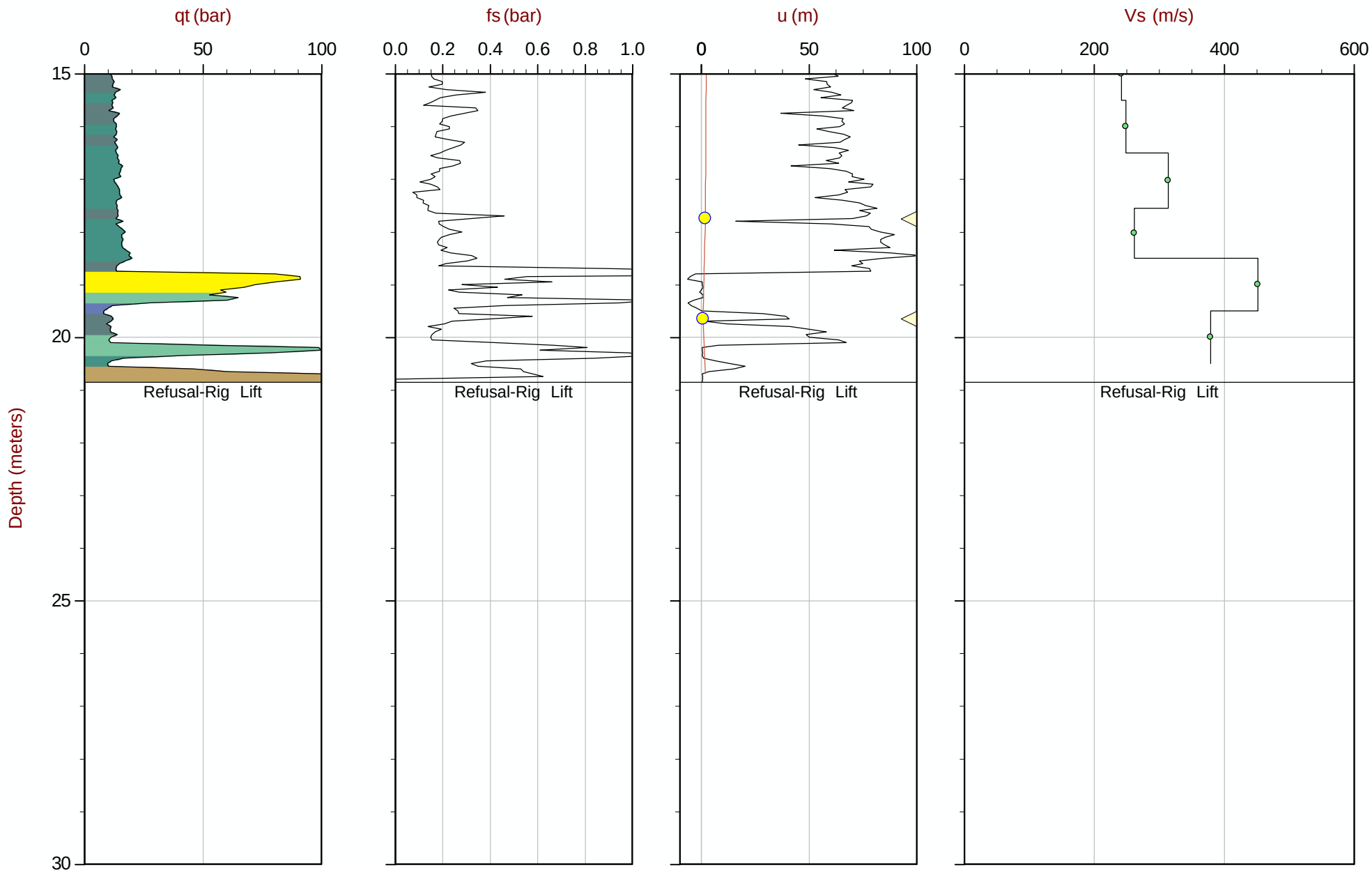
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500



Max Depth: 20.850 m / 68.40 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA02.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494561mE: 312407m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

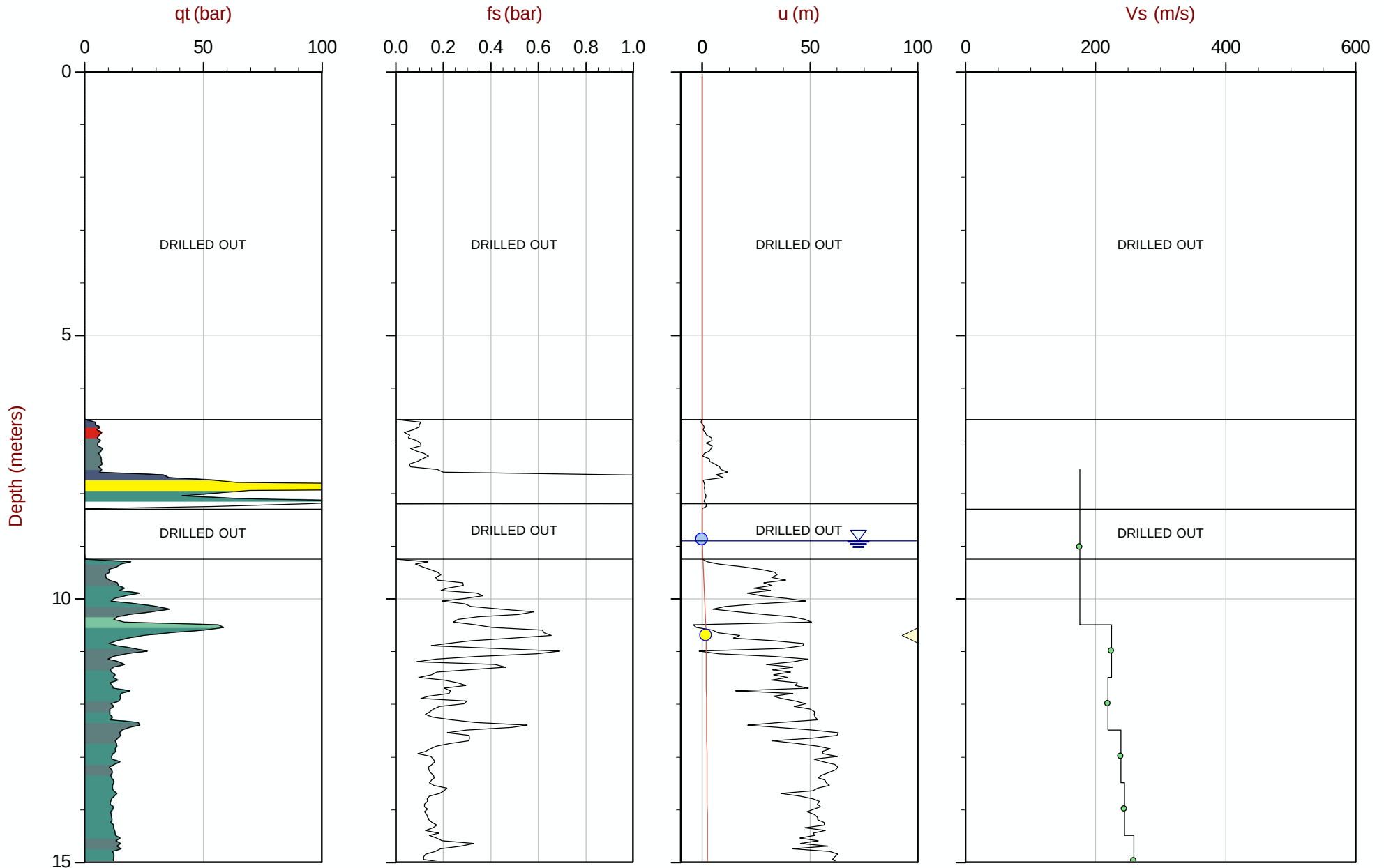
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500



Max Depth: 22.350 m / 73.33 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA03.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494557mE: 312395m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

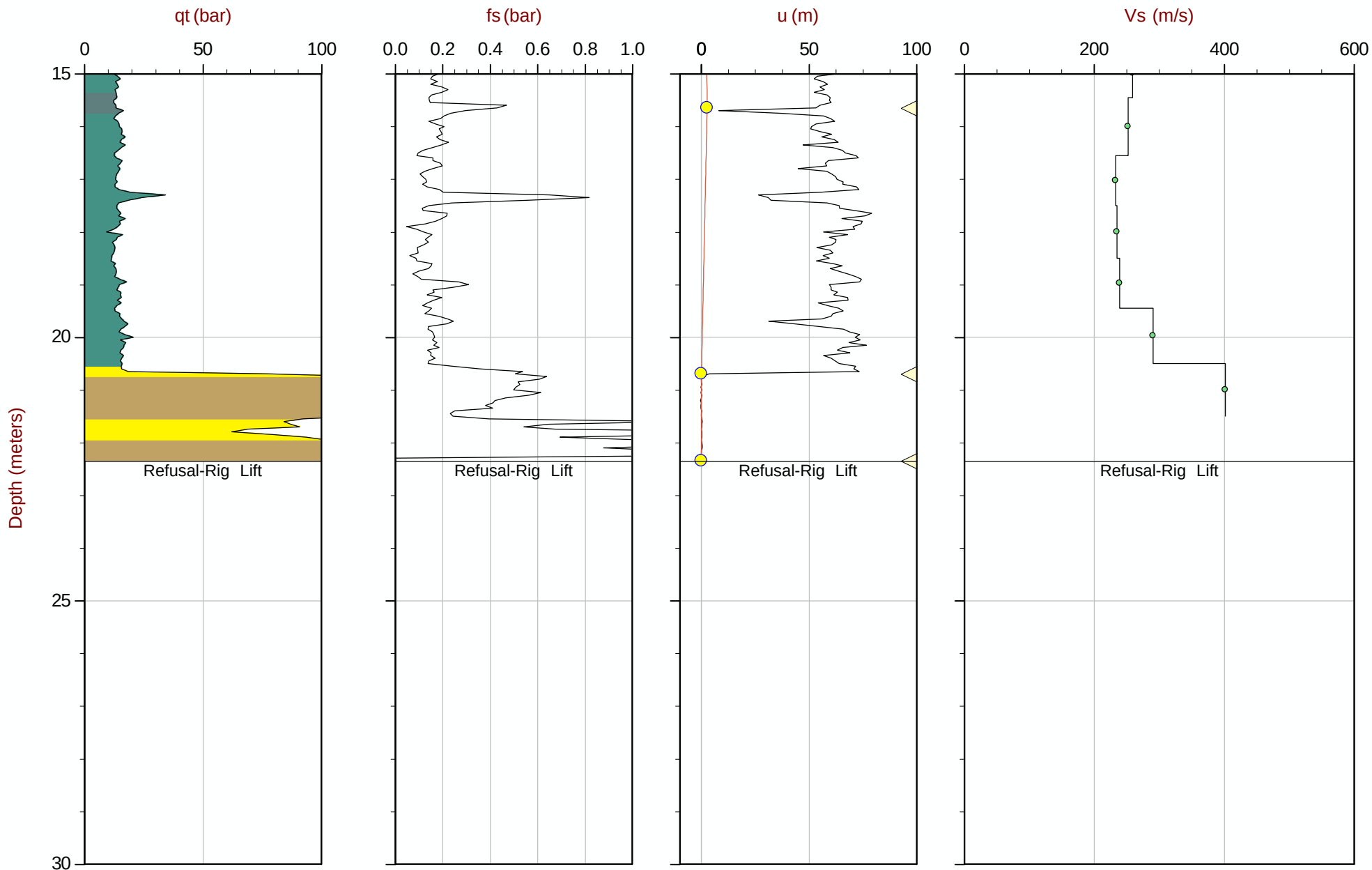
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:18:15 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500



Max Depth: 22.350 m / 73.33 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA03.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494557mE: 312395m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

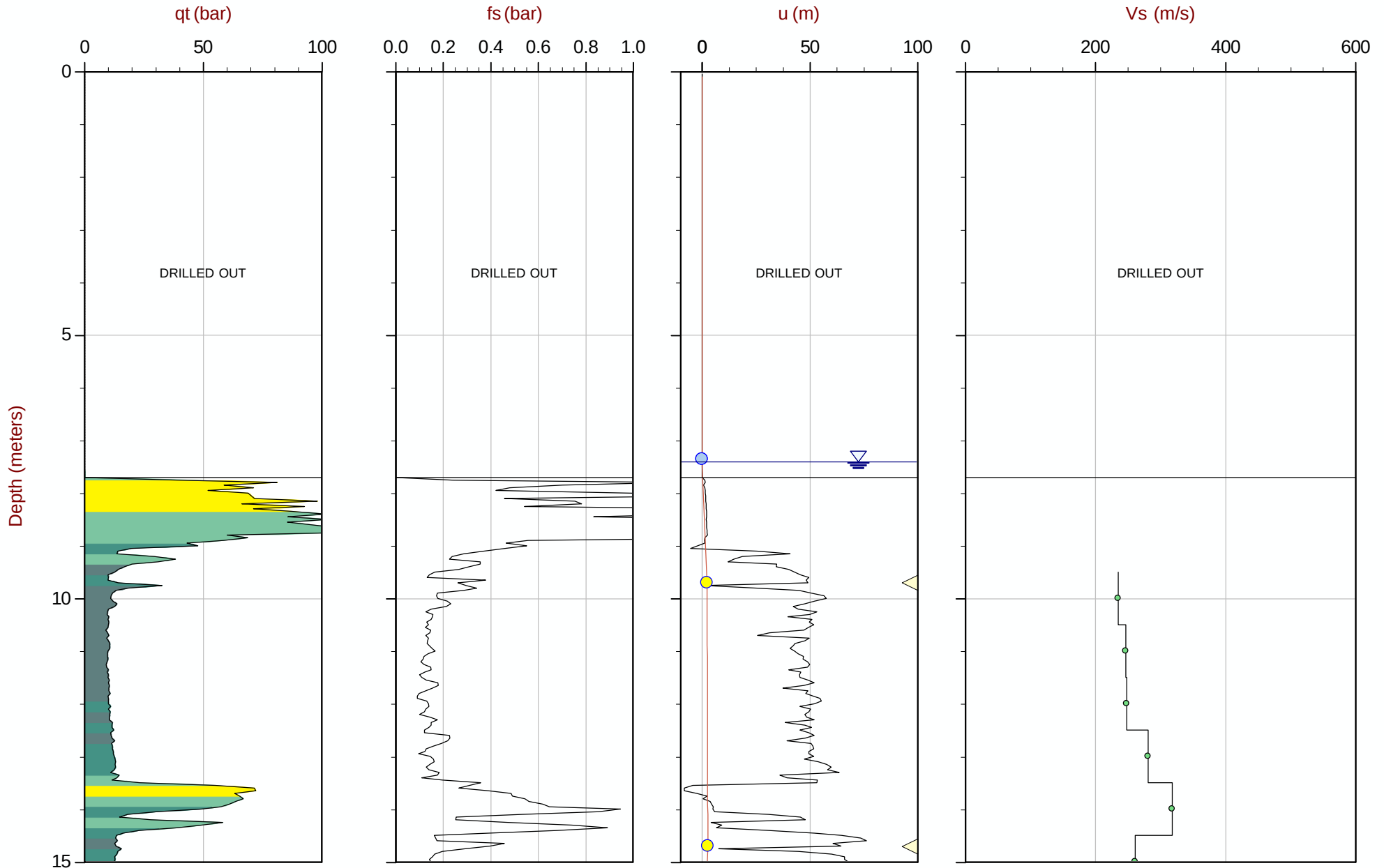
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:19:15 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500



Max Depth: 17.750 m / 58.23 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494558mE: 312379m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

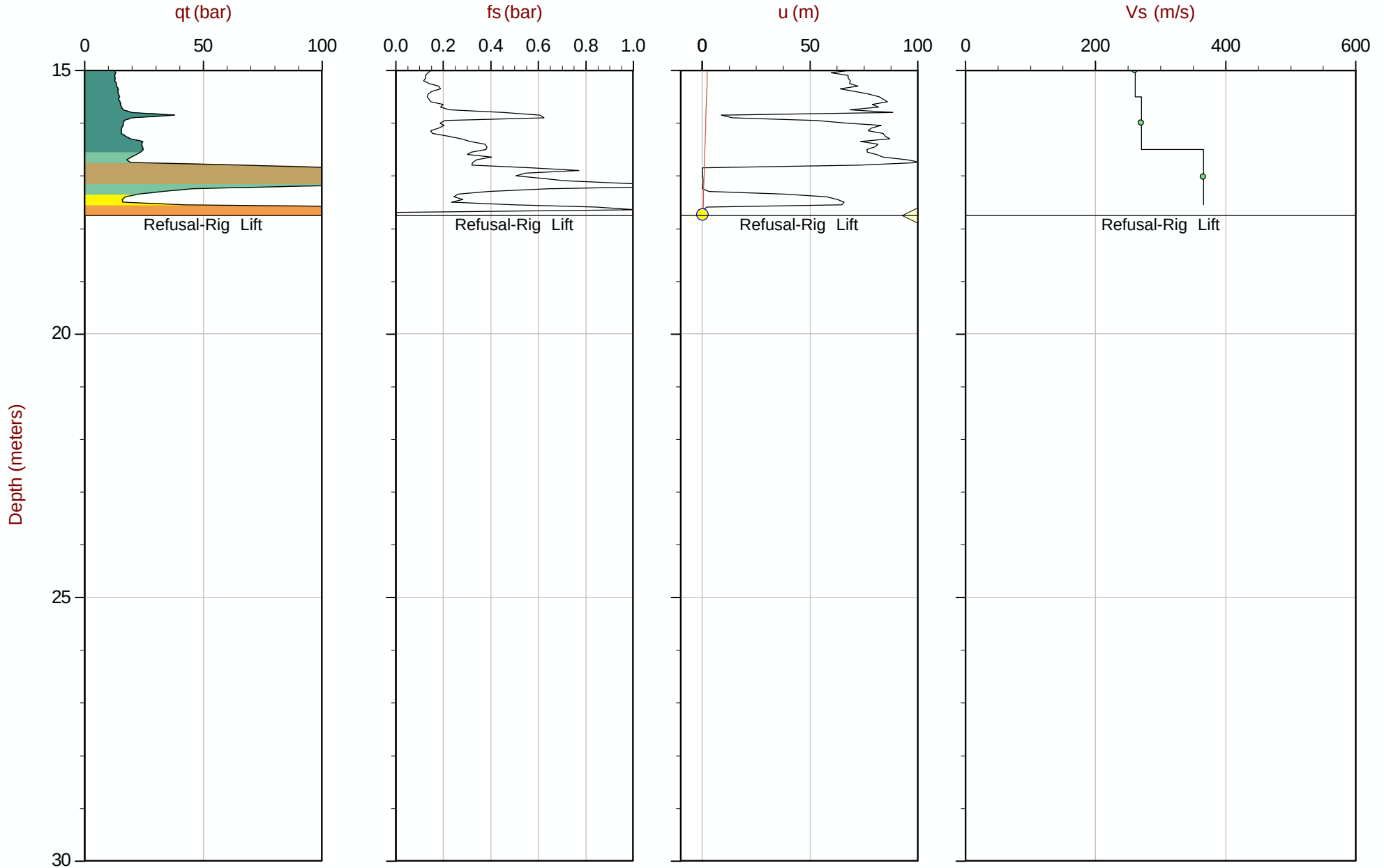
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:19:15 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500



Max Depth: 17.750 m / 58.23 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494558mE: 312379m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

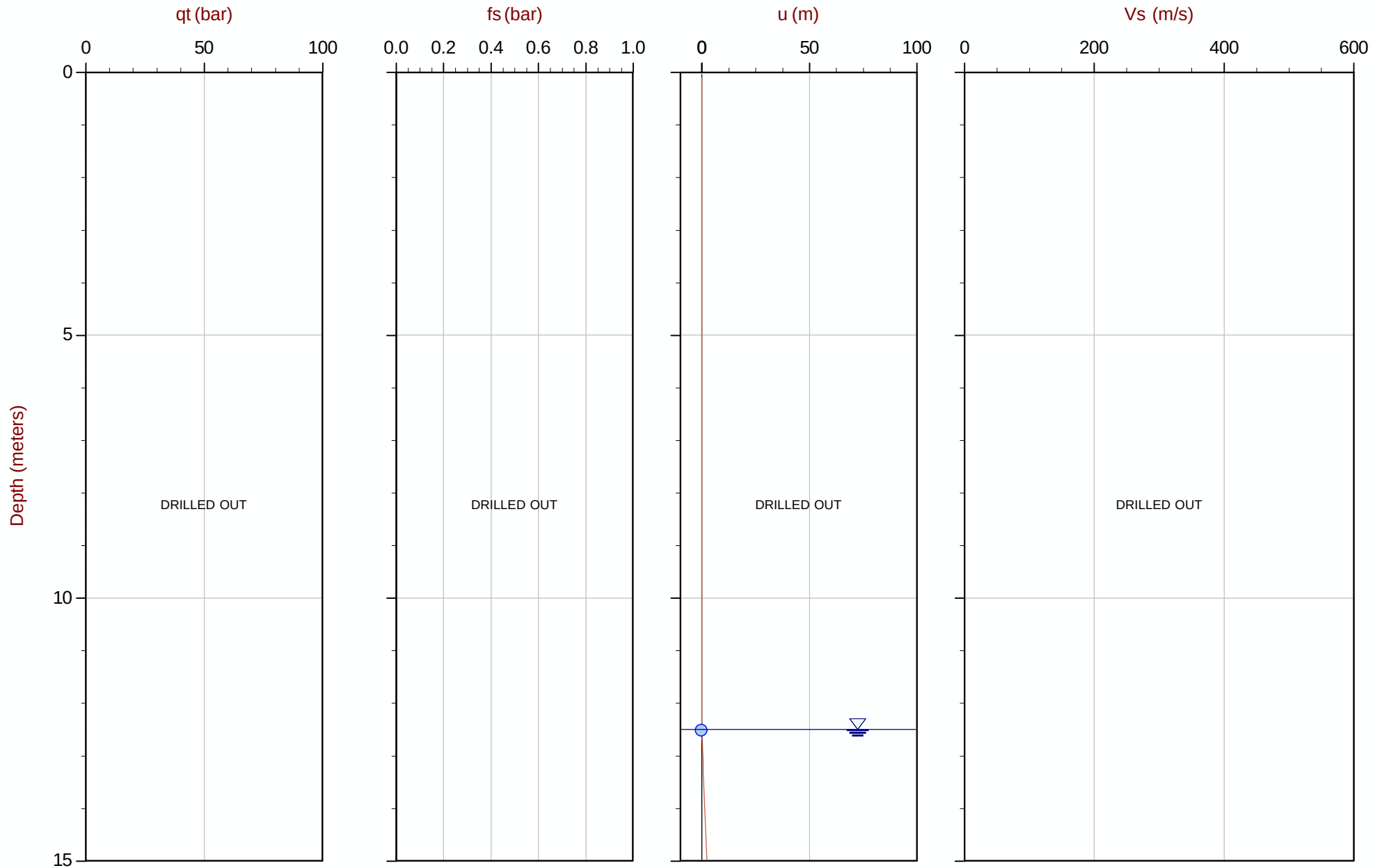
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:02:15 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500



Max Depth: 29.800 m / 97.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA05.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494519mE: 312513m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

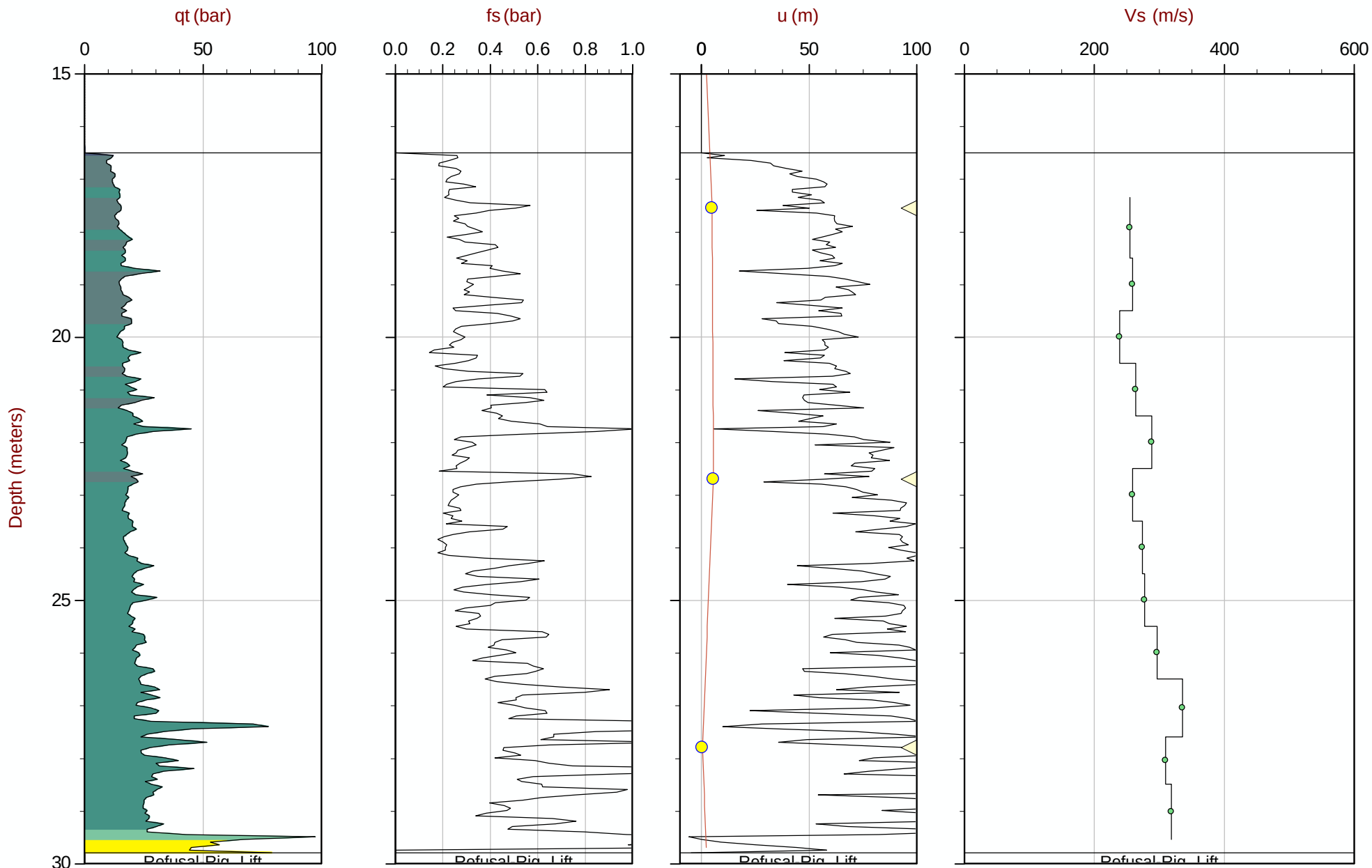
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:02:15 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500



Max Depth: 29.800 m / 97.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA05.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494519mE: 312513m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

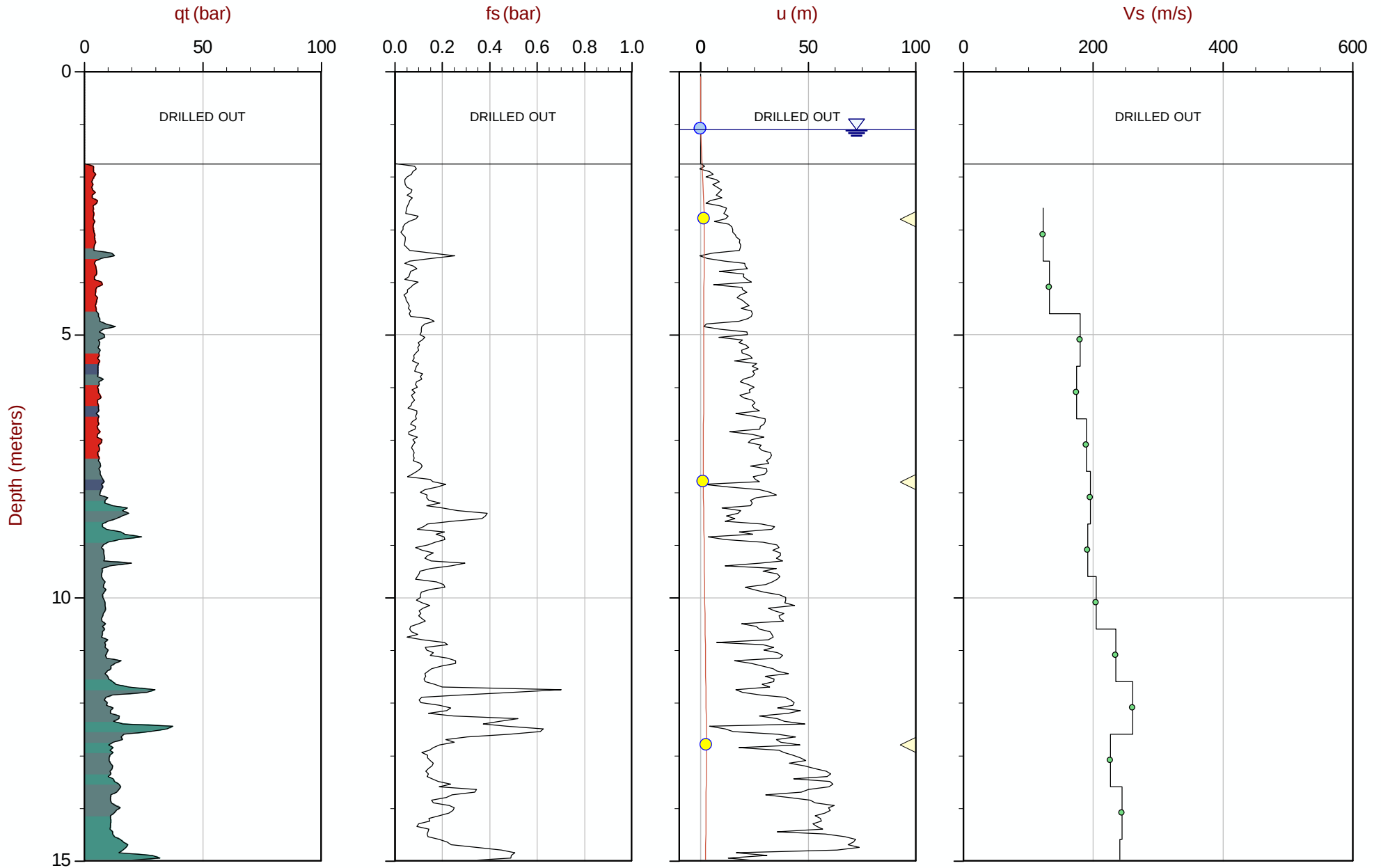
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:08:15 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500



Max Depth: 24.250 m / 79.56 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA07.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494463m E: 312507m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

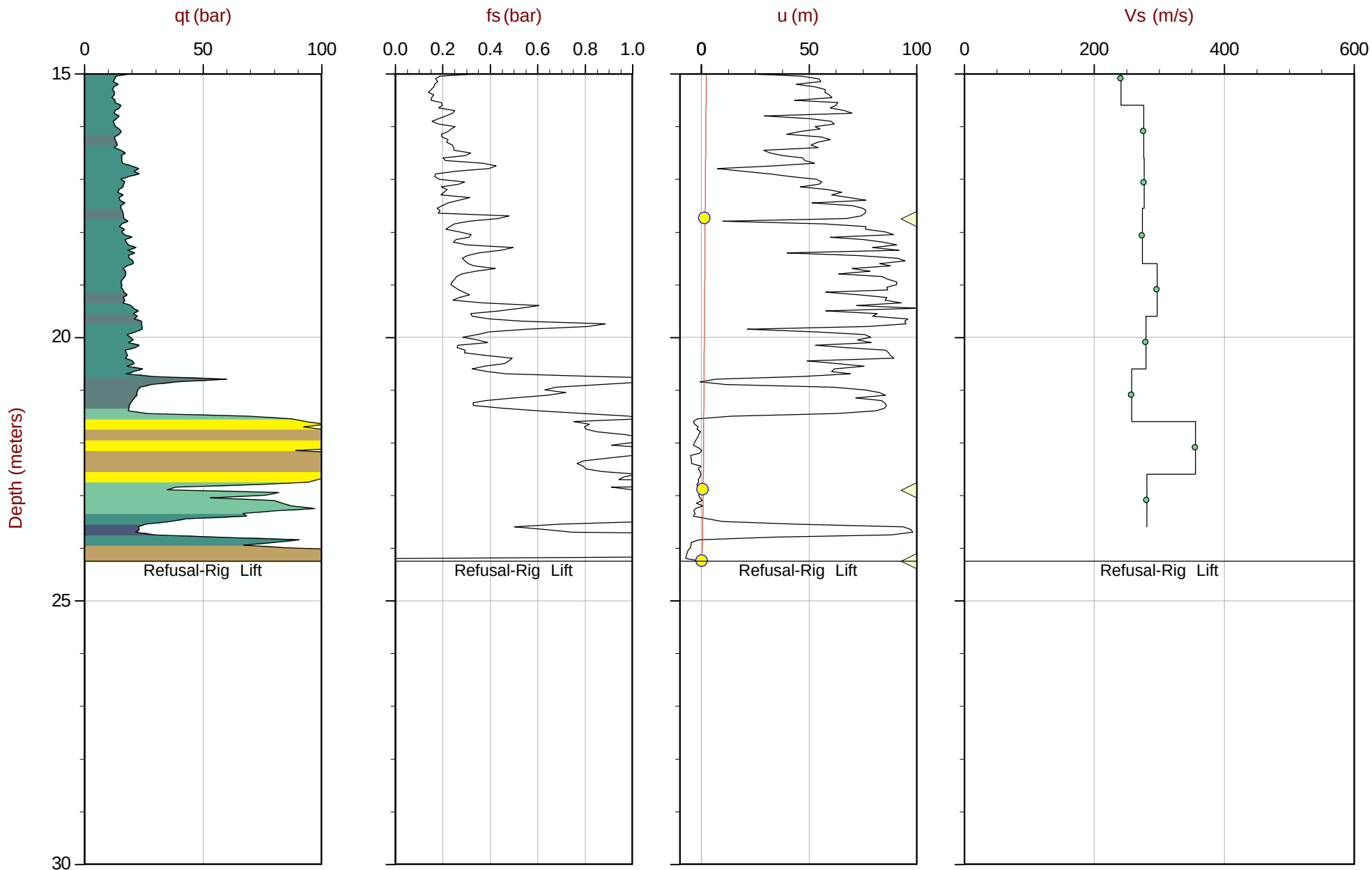
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:08:15 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500



Max Depth: 24.250 m / 79.56 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA07.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494463mE: 312507m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

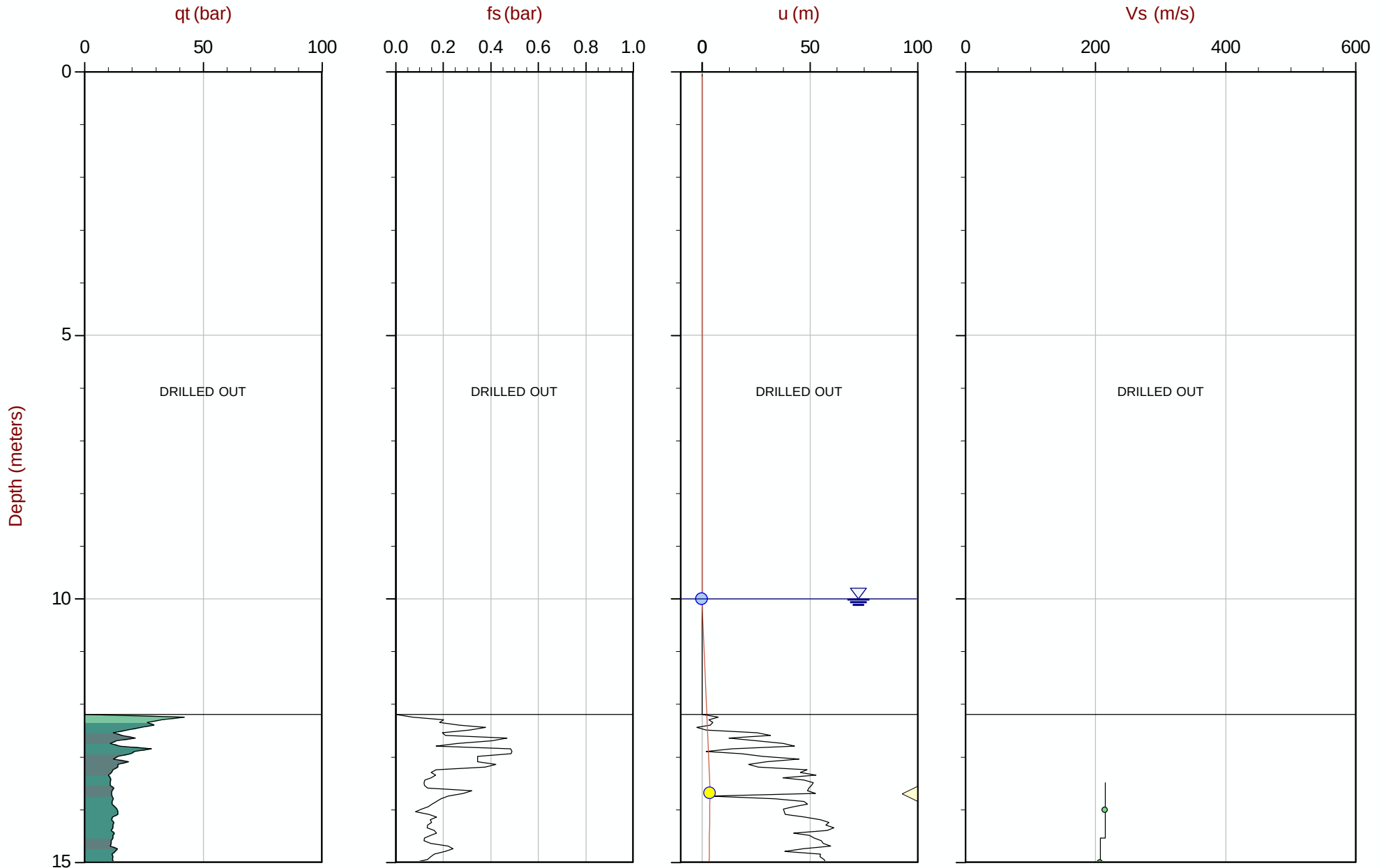
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:12:15 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500



Max Depth: 26.250 m / 86.12 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA09.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494493m E: 312678m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

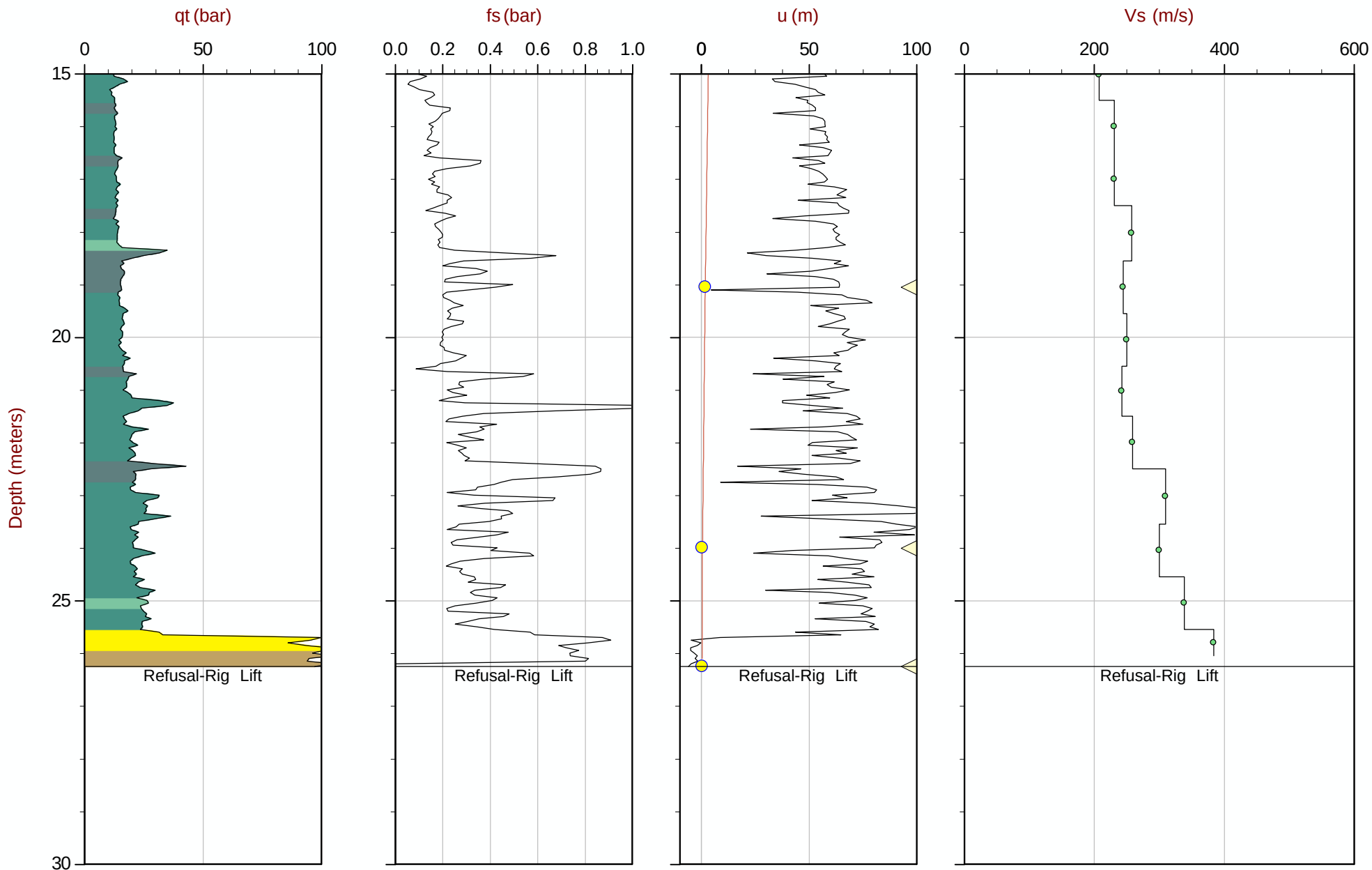
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:12:15 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500



Max Depth: 26.250 m / 86.12 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA09.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494493mE: 312678m

Assumed Ueq Ueq Ueq Profile PPD, Ueq achieved PPD, Ueq not achieved

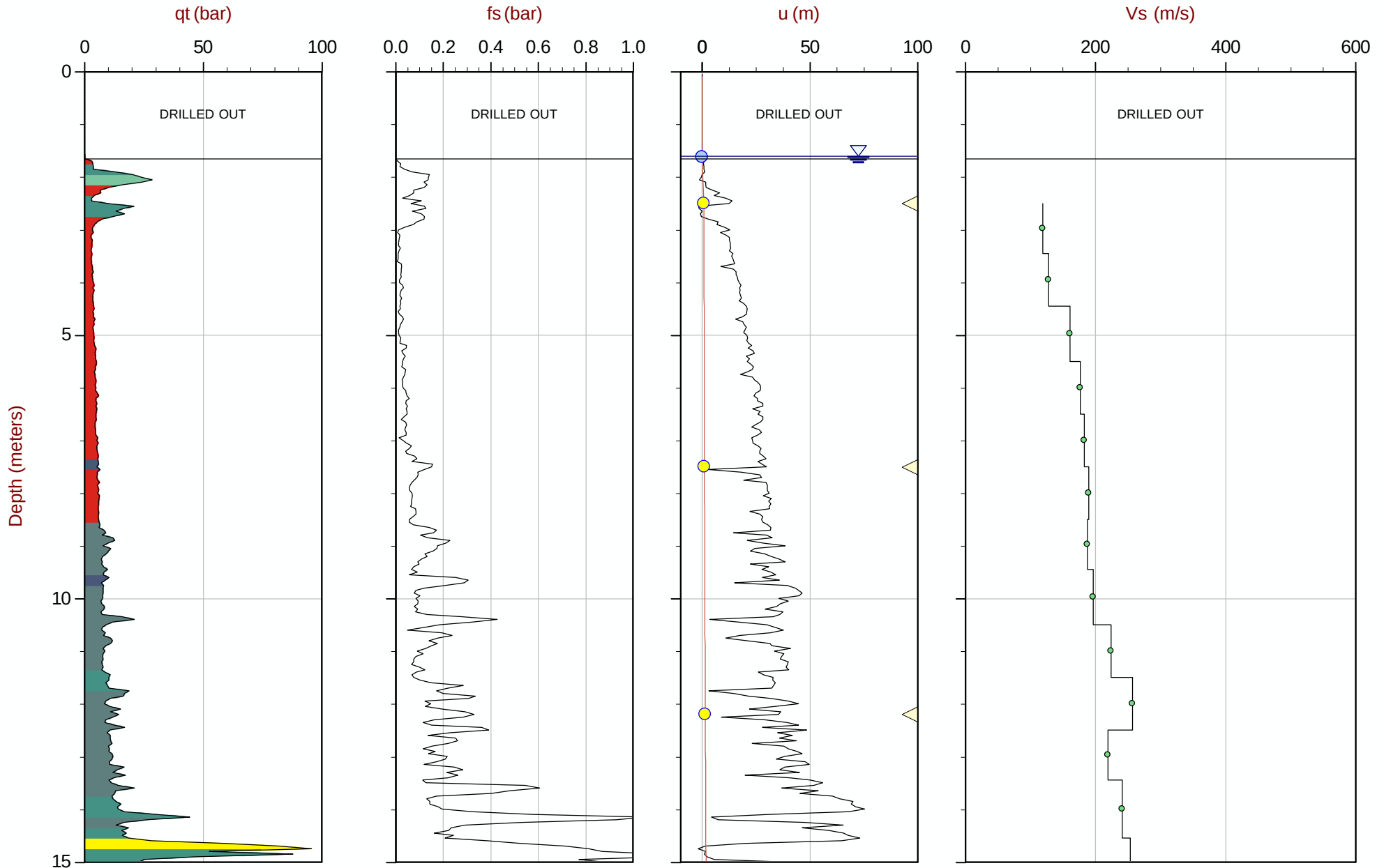
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:13:15 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500



Max Depth: 27.150 m / 89.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA11.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494424mE: 312669m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

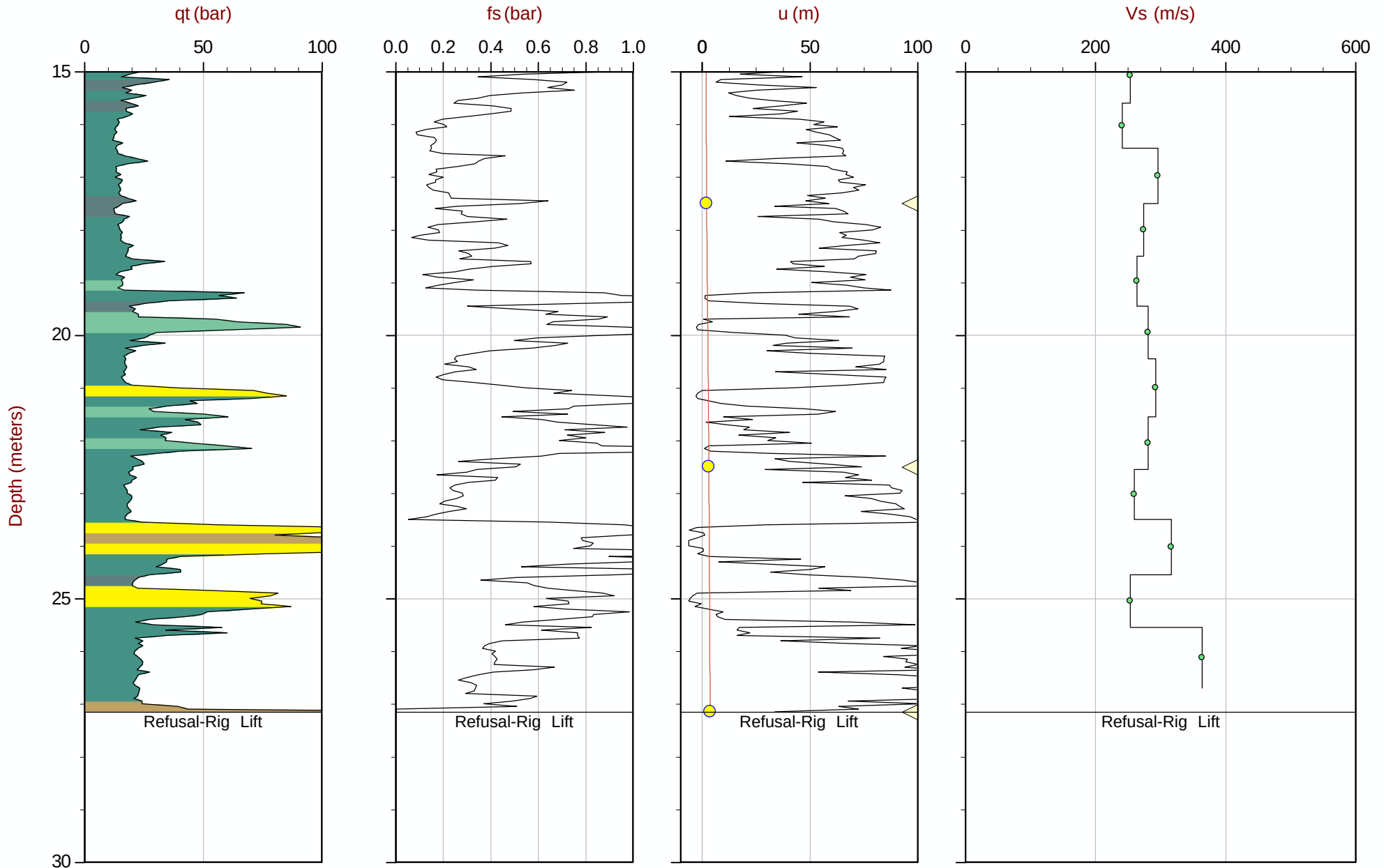
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:13:15 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500



Max Depth: 27.150 m / 89.07 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA11.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494424mE: 312669m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

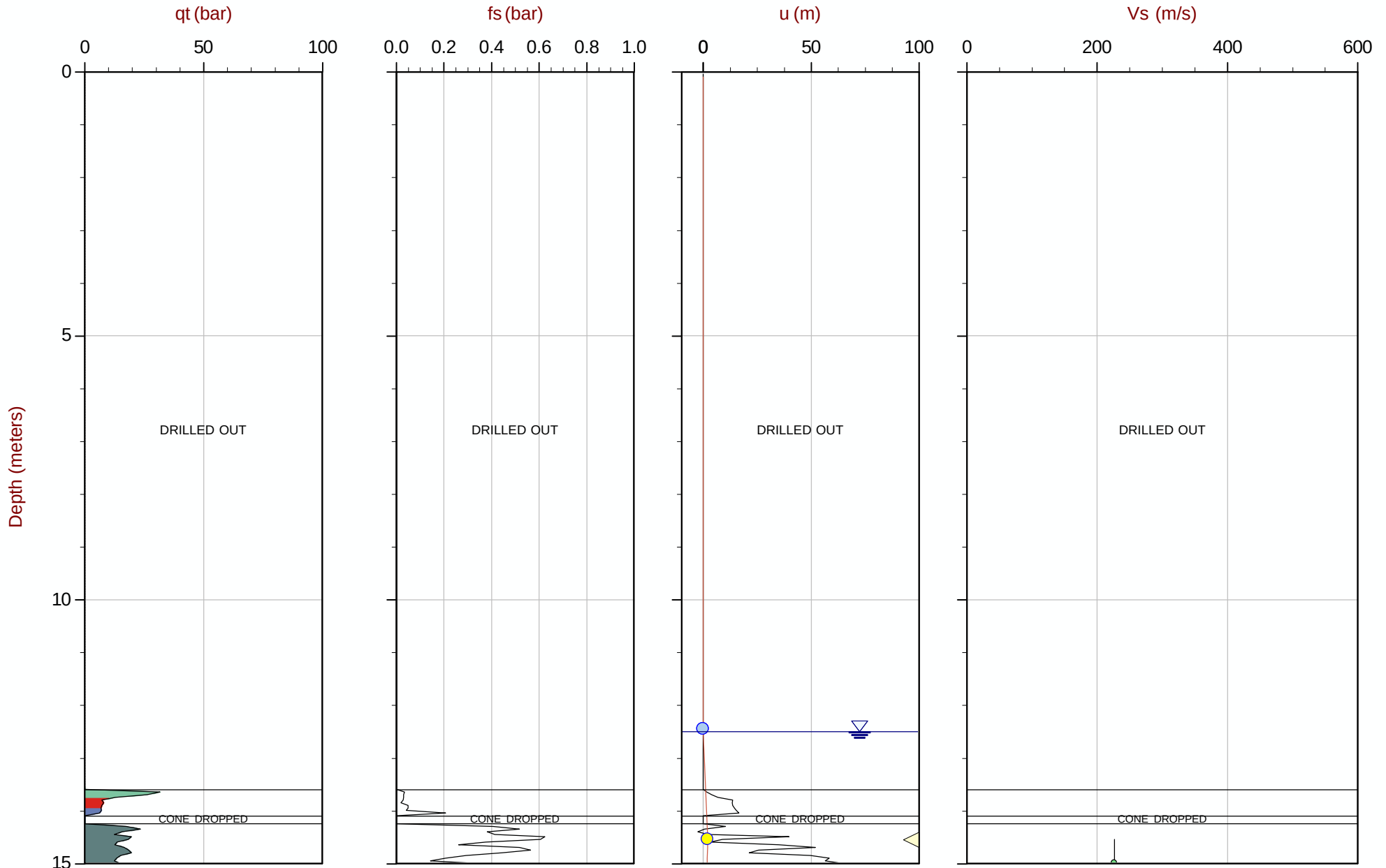
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:14:15 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500



Max Depth: 24.900 m / 81.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA13.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494495mE: 312934m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

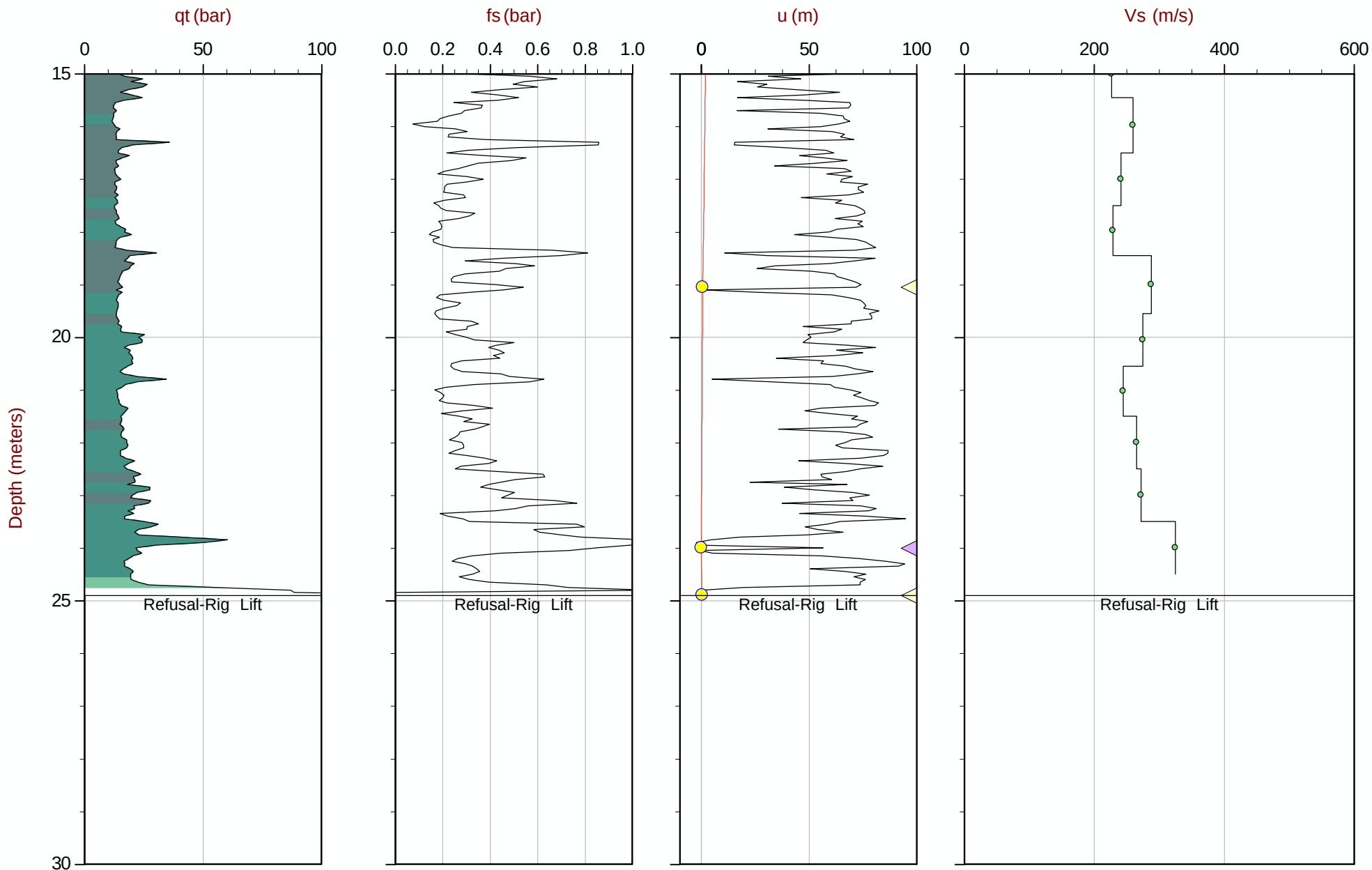
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:14:15 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500



Max Depth: 24.900 m / 81.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA13.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494495m E: 312934m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

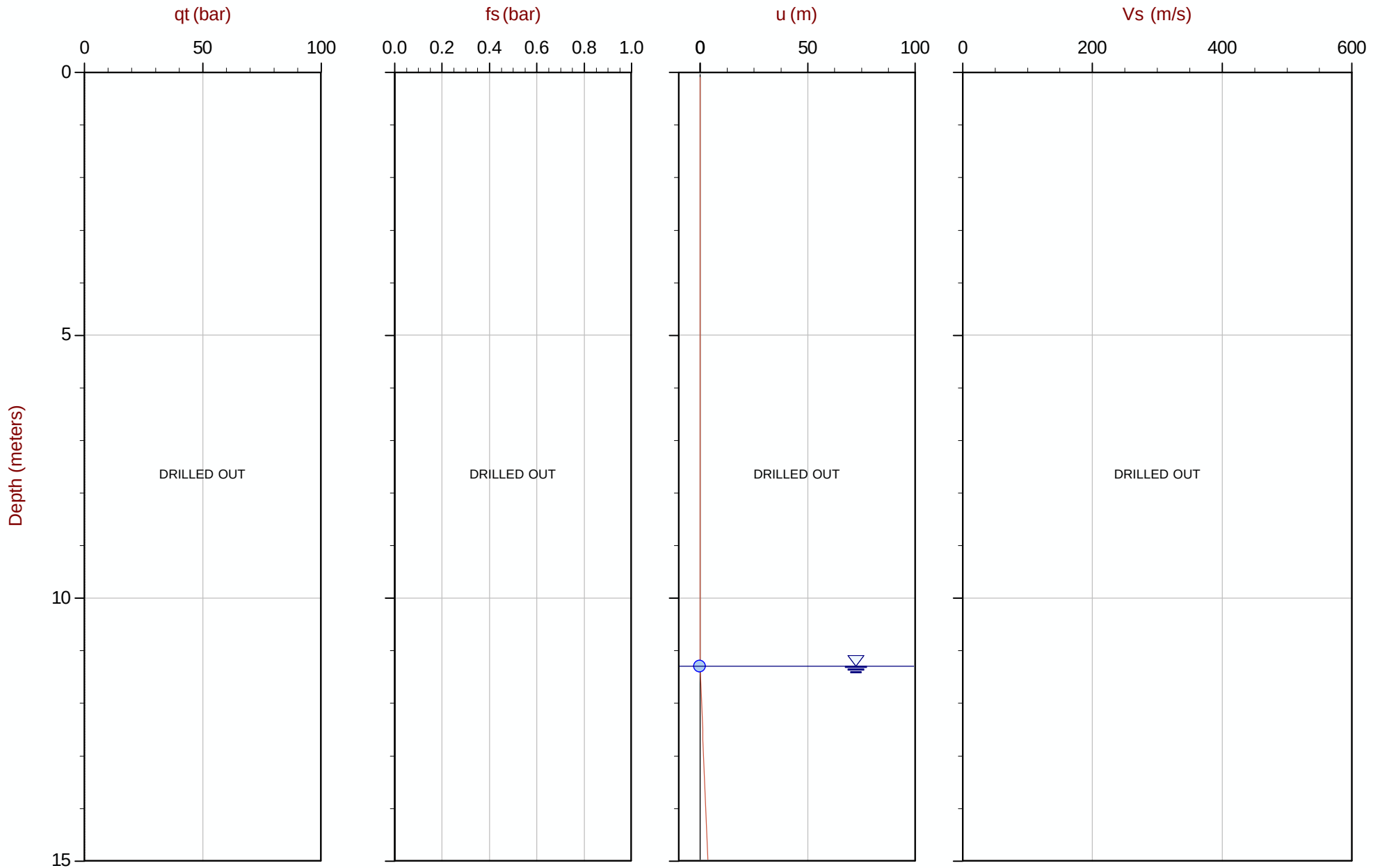
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

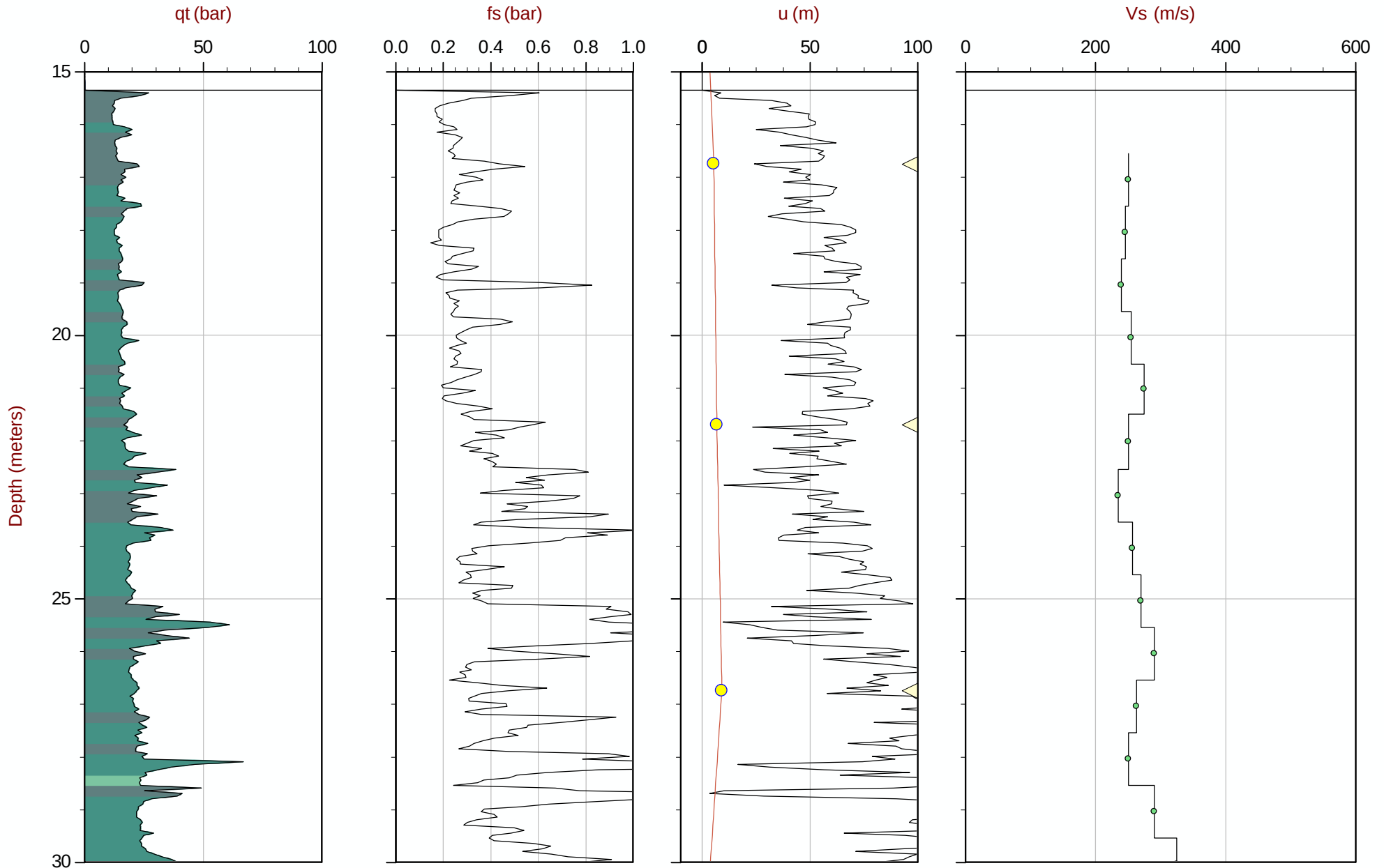
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

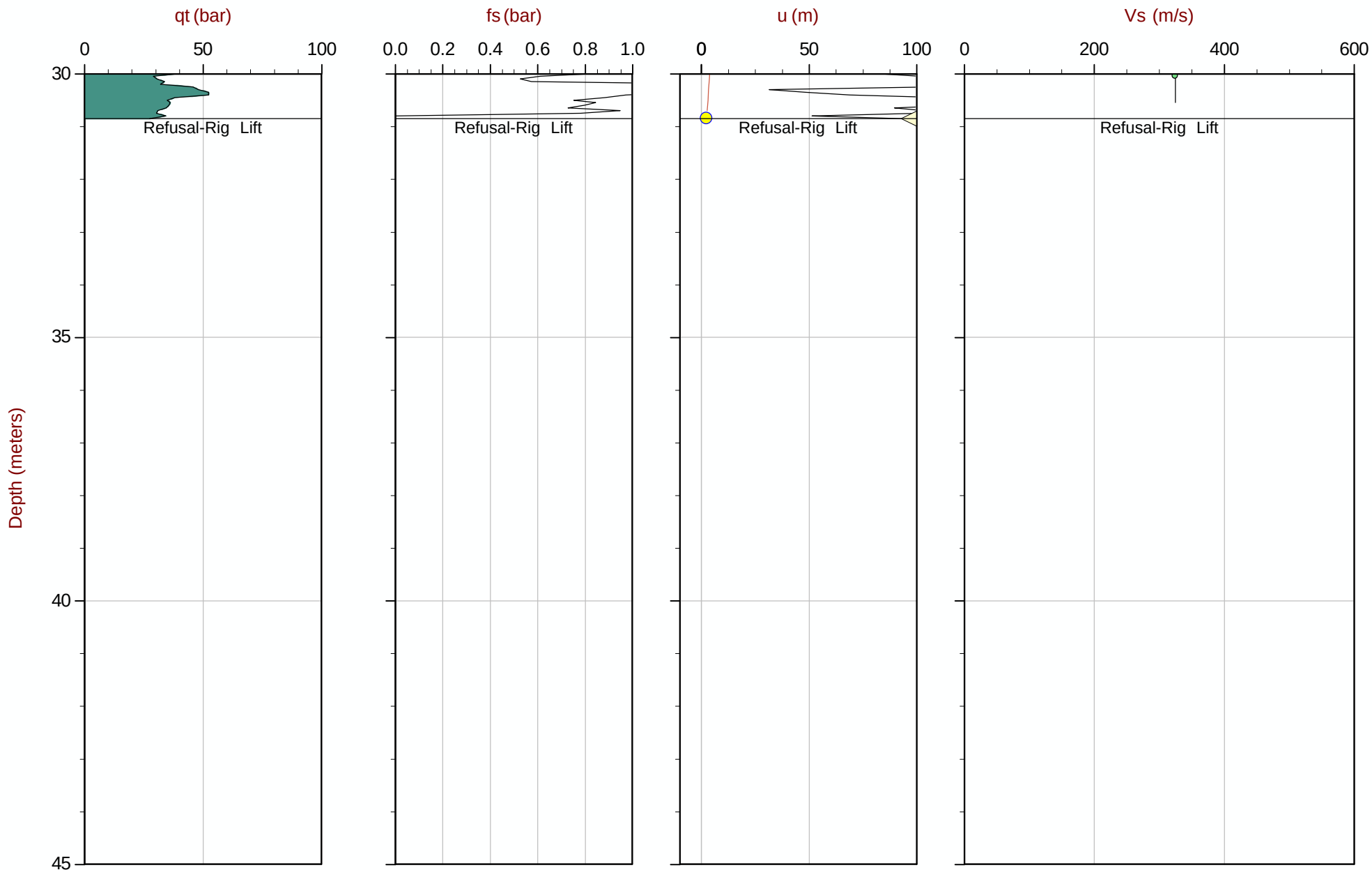
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:05:15 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500



Max Depth: 30.850 m / 101.21 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA17.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494531mE: 313127m

Assumed Ueq Ueq Ueq Profile PPD, Ueq achieved PPD, Ueq not achieved

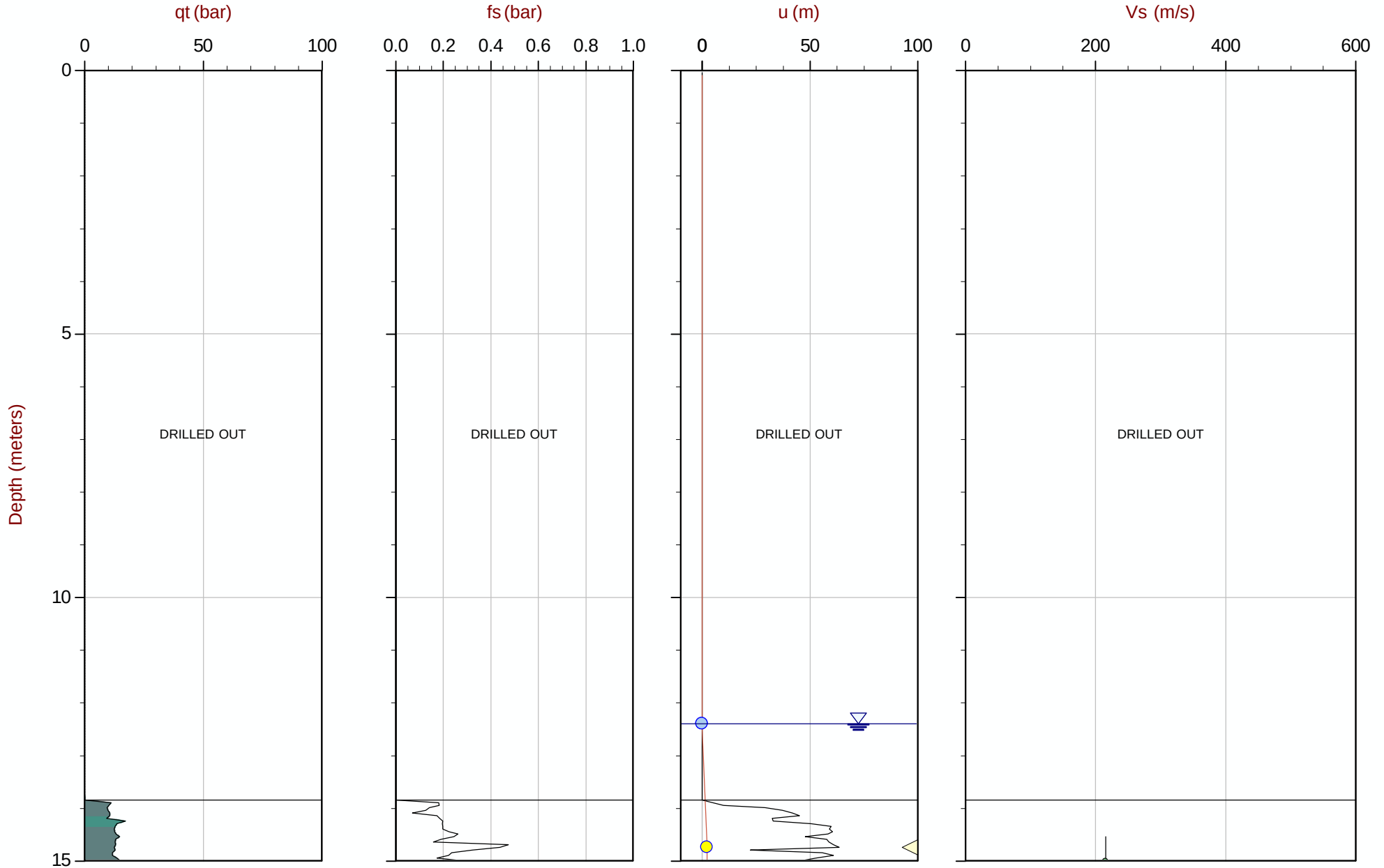
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500



Max Depth: 23.850 m / 78.25 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA21.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494616mE: 313141m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

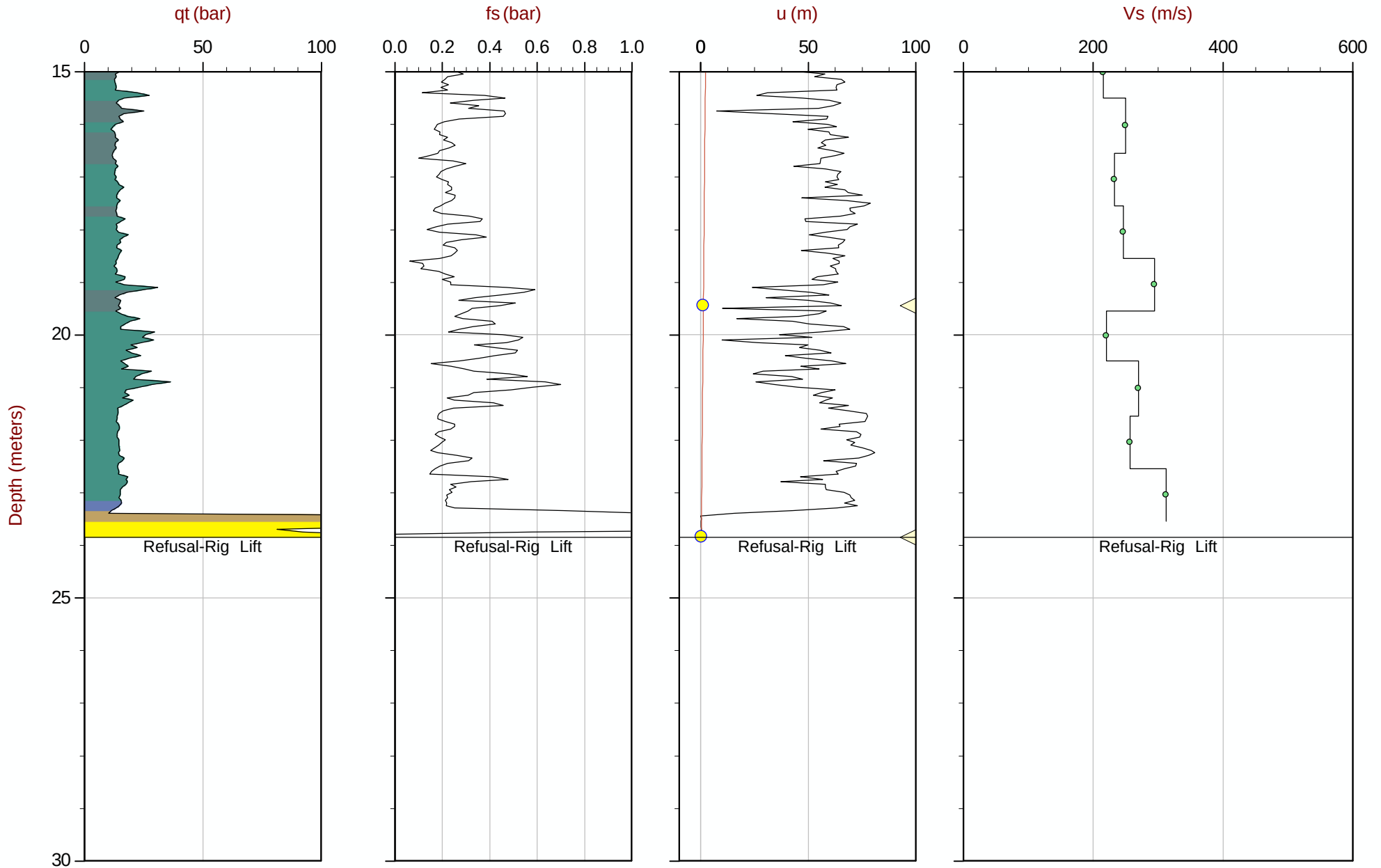
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500



Max Depth: 23.850 m / 78.25 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02029_SPA21.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494616mE: 313141m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

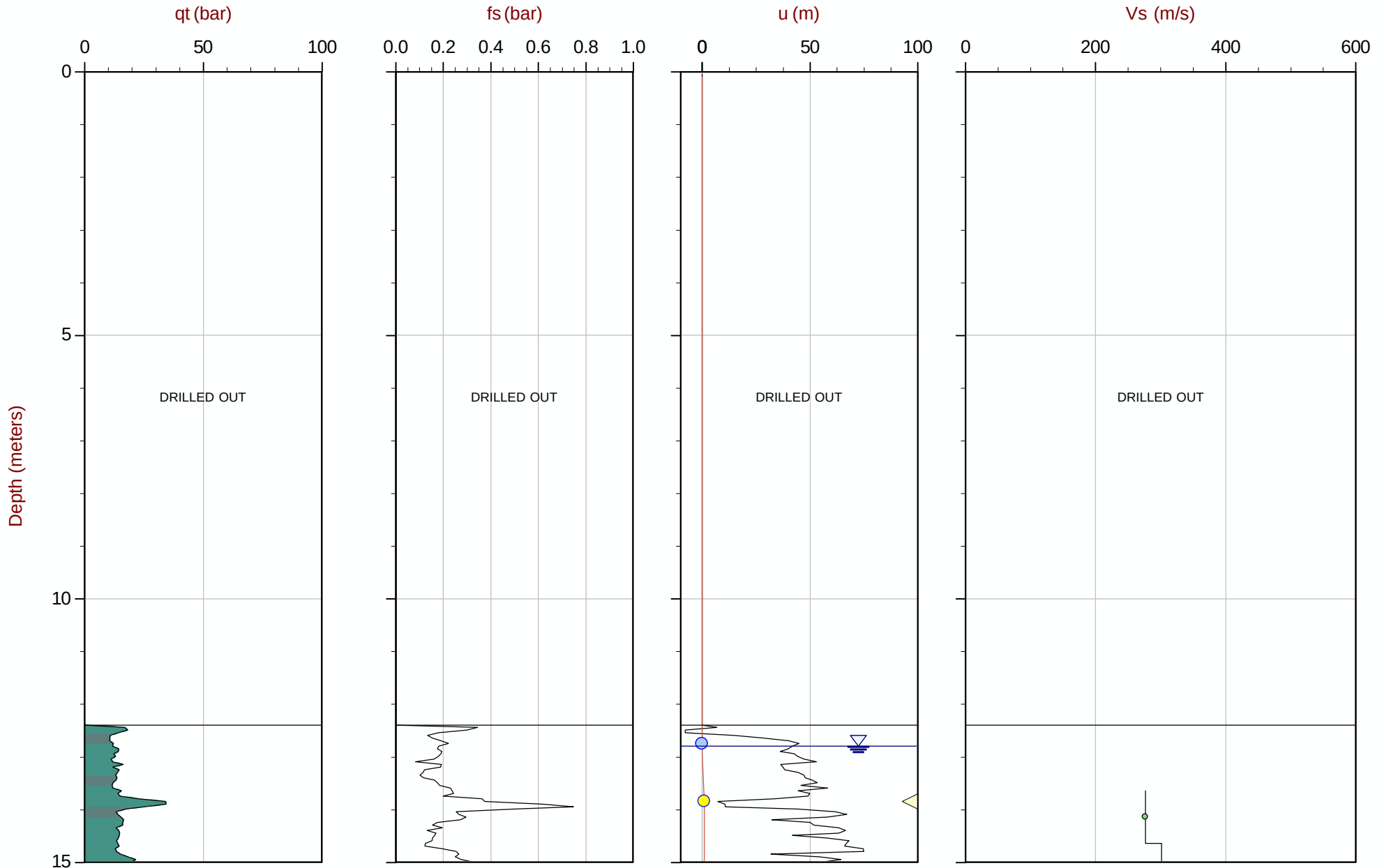
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:03:15 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500



Max Depth: 22.750 m / 74.64 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA25.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494453mE: 313232m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

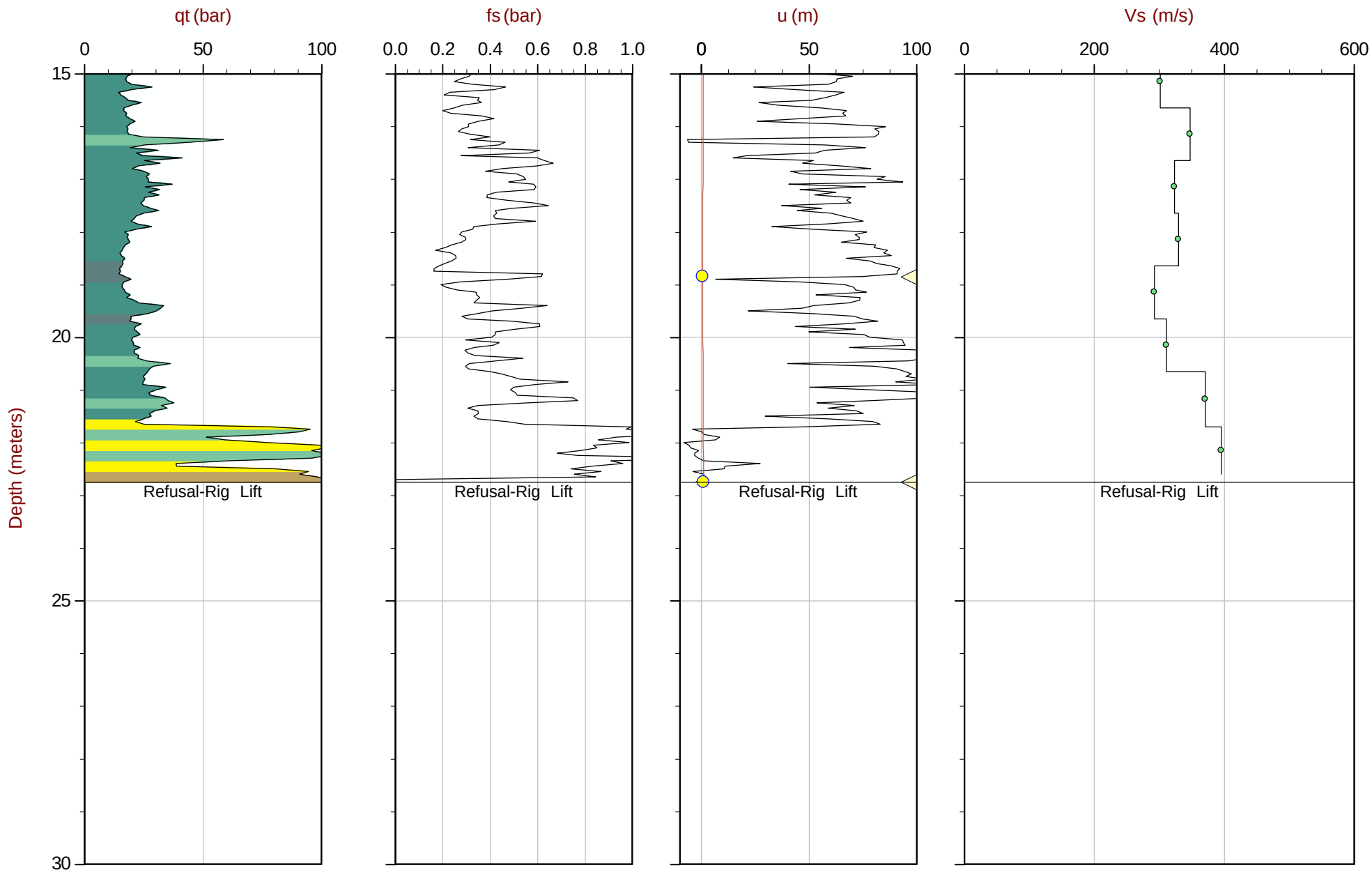
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:03:15 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500



Max Depth: 22.750 m / 74.64 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA25.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494453mE: 313232m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

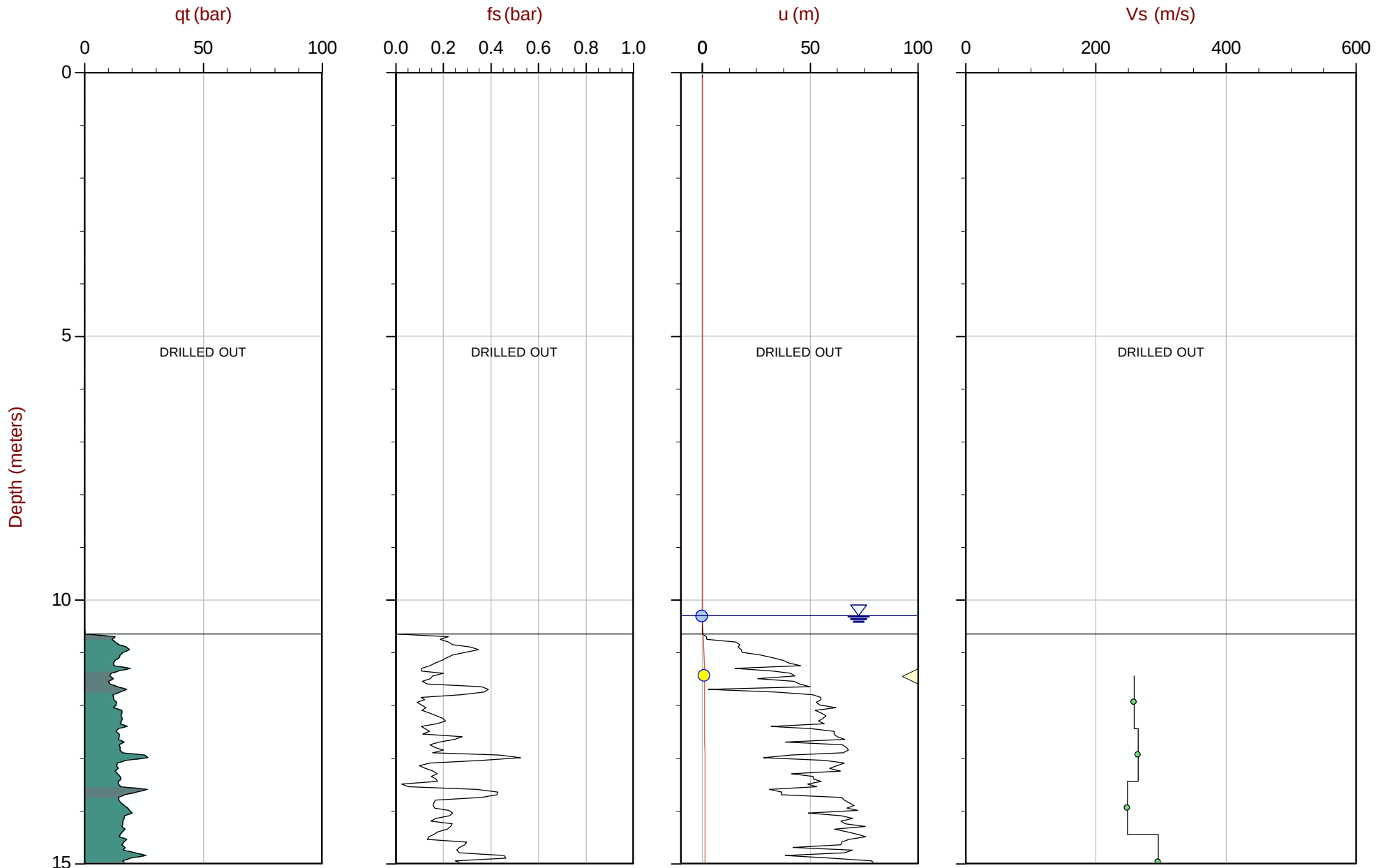
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA26.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494393mE: 312498m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

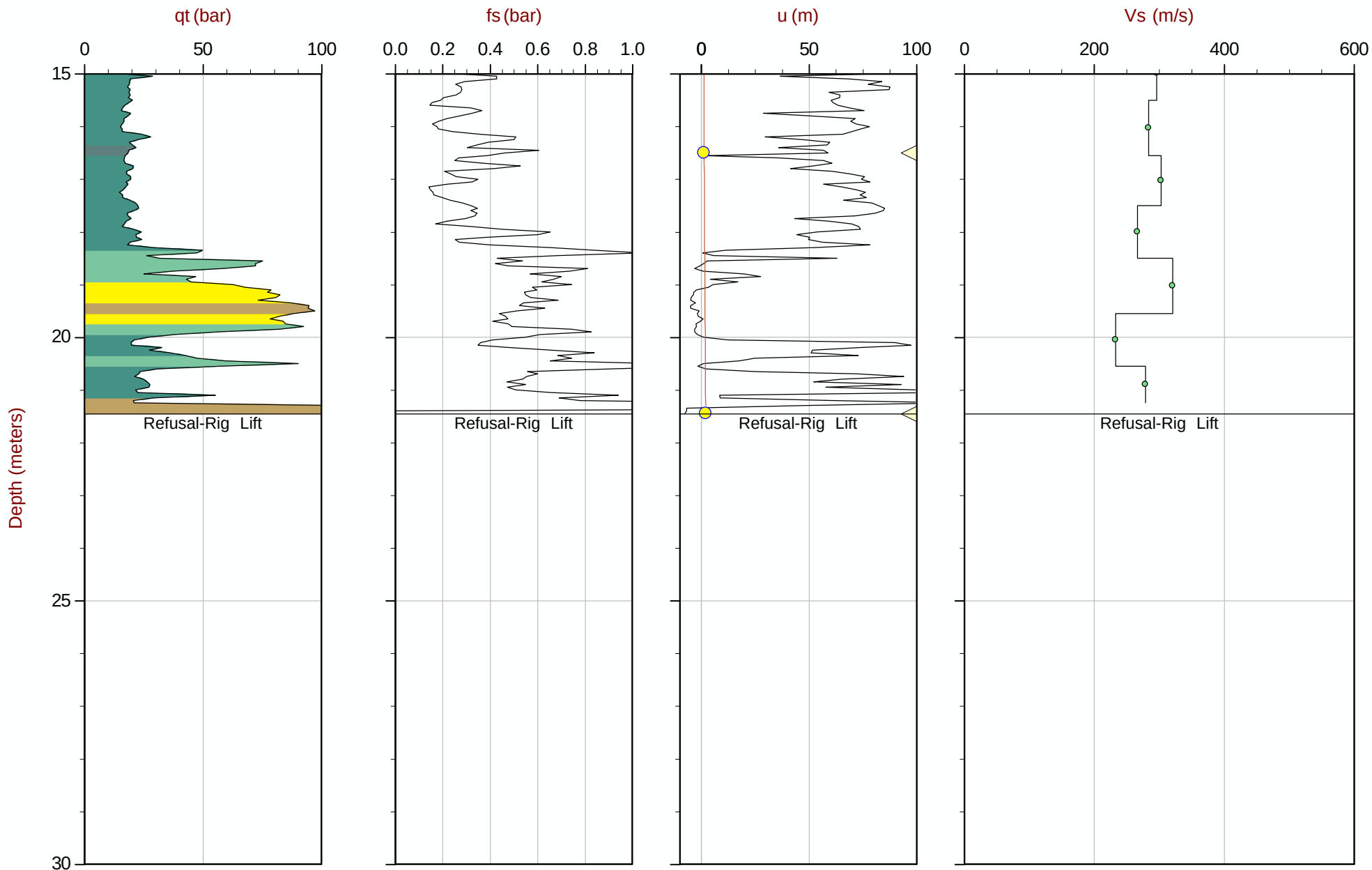
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Amec Foster Wheeler

Job No: 15-02029
Date: 04:16:15 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500



Max Depth: 21.450 m / 70.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200m

File: 15-02029_SPA26.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM Zone 10N: 5494393m E: 312498m

● Assumed Ueq ● Ueq — Ueq Profile ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Seismic Cone Penetration Test Tabular Results



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A02
Date: 18-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
7.60	7.40	7.45			
8.70	8.50	8.54	1.09	4.94	221
9.70	9.50	9.54	1.00	4.35	229
10.70	10.50	10.53	1.00	4.76	209
11.70	11.50	11.53	1.00	4.18	238
12.70	12.50	12.53	1.00	4.16	240
13.70	13.50	13.53	1.00	3.91	255
14.70	14.50	14.52	1.00	4.64	215
15.70	15.50	15.52	1.00	4.13	242
16.70	16.50	16.52	1.00	4.02	249
17.75	17.55	17.57	1.05	3.34	314
18.70	18.50	18.52	0.95	3.62	262
19.70	19.50	19.52	1.00	2.21	452
20.70	20.50	20.52	1.00	2.64	379



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A03
Date: 18-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
7.75	7.55	7.60			
10.70	10.50	10.53	2.94	16.66	176
11.70	11.50	11.53	1.00	4.44	225
12.70	12.50	12.53	1.00	4.55	219
13.70	13.50	13.53	1.00	4.18	239
14.70	14.50	14.52	1.00	4.08	245
15.65	15.45	15.47	0.95	3.66	259
16.75	16.55	16.57	1.10	4.37	252
17.70	17.50	17.52	0.95	4.08	233
18.70	18.50	18.52	1.00	4.24	235
19.65	19.45	19.47	0.95	3.97	239
20.70	20.50	20.52	1.05	3.60	291
21.70	21.50	21.52	1.00	2.48	402



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A04
Date: 19-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
9.70	9.50	9.54			
10.70	10.50	10.53	1.00	4.23	235
11.70	11.50	11.53	1.00	4.03	247
12.70	12.50	12.53	1.00	4.03	248
13.70	13.50	13.53	1.00	3.55	281
14.70	14.50	14.52	1.00	3.14	318
15.70	15.50	15.52	1.00	3.83	261
16.70	16.50	16.52	1.00	3.69	271
17.75	17.55	17.57	1.05	2.87	366



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A05
Date: 02-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
17.55	17.35	17.37			
18.70	18.50	18.52	1.15	4.51	255
19.70	19.50	19.52	1.00	3.86	259
20.70	20.50	20.52	1.00	4.19	239
21.70	21.50	21.52	1.00	3.78	264
22.70	22.50	22.52	1.00	3.46	289
23.70	23.50	23.52	1.00	3.86	259
24.70	24.50	24.51	1.00	3.65	274
25.70	25.50	25.51	1.00	3.59	278
26.70	26.50	26.51	1.00	3.37	297
27.80	27.60	27.61	1.10	3.27	336
28.70	28.50	28.51	0.90	2.90	310
29.75	29.55	29.56	1.05	3.29	319



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A07
Date: 08-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.80	2.60	2.74			
3.80	3.60	3.70	0.96	7.82	123
4.80	4.60	4.68	0.98	7.35	133
5.80	5.60	5.66	0.99	5.47	180
6.80	6.60	6.65	0.99	5.66	175
7.80	7.60	7.65	0.99	5.22	190
8.80	8.60	8.64	0.99	5.07	196
9.80	9.60	9.64	1.00	5.19	192
10.80	10.60	10.63	1.00	4.86	205
11.80	11.60	11.63	1.00	4.25	235
12.80	12.60	12.63	1.00	3.82	261
13.80	13.60	13.63	1.00	4.40	227
14.80	14.60	14.62	1.00	4.08	245
15.80	15.60	15.62	1.00	4.14	241
16.80	16.60	16.62	1.00	3.62	276
17.75	17.55	17.57	0.95	3.42	277
18.80	18.60	18.62	1.05	3.82	274
19.80	19.60	19.62	1.00	3.36	297
20.80	20.60	20.62	1.00	3.57	280
21.80	21.60	21.62	1.00	3.88	258
22.80	22.60	22.62	1.00	2.81	356
23.80	23.60	23.62	1.00	3.55	281



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A09
Date: 02-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
13.70	13.50	13.53			
14.75	14.55	14.57	1.05	4.89	215
15.70	15.50	15.52	0.95	4.56	208
16.70	16.50	16.52	1.00	4.32	231
17.70	17.50	17.52	1.00	4.32	231
18.75	18.55	18.57	1.05	4.07	258
19.75	19.55	19.57	1.00	4.07	245
20.75	20.55	20.57	1.00	3.99	250
21.70	21.50	21.52	0.95	3.91	243
22.70	22.50	22.52	1.00	3.85	259
23.75	23.55	23.57	1.05	3.38	310
24.75	24.55	24.56	1.00	3.33	300
25.75	25.55	25.56	1.00	2.95	339
26.25	26.05	26.06	0.50	1.30	384



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A11
Date: 13-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.70	2.50	2.64			
3.65	3.45	3.55	0.91	7.64	119
4.65	4.45	4.53	0.98	7.64	128
5.70	5.50	5.57	1.03	6.44	161
6.70	6.50	6.56	0.99	5.59	177
7.70	7.50	7.55	0.99	5.43	183
8.70	8.50	8.54	0.99	5.23	190
9.65	9.45	9.49	0.95	5.03	188
10.70	10.50	10.53	1.05	5.32	197
11.70	11.50	11.53	1.00	4.45	224
12.70	12.50	12.53	1.00	3.88	257
13.65	13.45	13.48	0.95	4.33	219
14.75	14.55	14.57	1.10	4.56	241
15.80	15.60	15.62	1.05	4.12	254
16.65	16.45	16.47	0.85	3.53	241
17.70	17.50	17.52	1.05	3.55	296
18.70	18.50	18.52	1.00	3.64	274
19.65	19.45	19.47	0.95	3.59	264
20.65	20.45	20.47	1.00	3.55	281
21.75	21.55	21.57	1.10	3.75	293
22.75	22.55	22.57	1.00	3.55	281
23.70	23.50	23.52	0.95	3.65	260
24.75	24.55	24.56	1.05	3.31	317
25.75	25.55	25.56	1.00	3.93	254
26.90	26.70	26.71	1.15	3.16	364



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A13
Date: 14-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
14.75	14.55	14.57			
15.65	15.45	15.47	0.90	3.95	227
16.70	16.50	16.52	1.05	4.03	260
17.70	17.50	17.52	1.00	4.14	241
18.65	18.45	18.47	0.95	4.14	229
19.75	19.55	19.57	1.10	3.82	288
20.75	20.55	20.57	1.00	3.64	275
21.70	21.50	21.52	0.95	3.87	245
22.70	22.50	22.52	1.00	3.77	265
23.70	23.50	23.52	1.00	3.67	272
24.70	24.50	24.51	1.00	3.08	325



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A17
Date: 05-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
16.75	16.55	16.57			
17.75	17.55	17.57	1.00	3.97	251
18.75	18.55	18.57	1.00	4.07	246
19.75	19.55	19.57	1.00	4.16	240
20.75	20.55	20.57	1.00	3.92	255
21.70	21.50	21.52	0.95	3.46	275
22.75	22.55	22.57	1.05	4.19	251
23.75	23.55	23.57	1.00	4.25	235
24.75	24.55	24.56	1.00	3.88	257
25.75	25.55	25.56	1.00	3.70	270
26.75	26.55	26.56	1.00	3.43	291
27.75	27.55	27.56	1.00	3.79	263
28.75	28.55	28.56	1.00	3.97	251
29.75	29.55	29.56	1.00	3.43	291
30.75	30.55	30.56	1.00	3.07	325



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A21
Date: 16-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
14.75	14.55	14.57			
15.70	15.50	15.52	0.95	4.39	216
16.75	16.55	16.57	1.05	4.19	250
17.75	17.55	17.57	1.00	4.29	233
18.75	18.55	18.57	1.00	4.04	247
19.75	19.55	19.57	1.00	3.39	295
20.70	20.50	20.52	0.95	4.29	221
21.75	21.55	21.57	1.05	3.89	270
22.75	22.55	22.57	1.00	3.89	257
23.75	23.55	23.57	1.00	3.19	313



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A25
Date: 03-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
13.85	13.65	13.68			
14.85	14.65	14.67	1.00	3.60	277
15.85	15.65	15.67	1.00	3.30	302
16.85	16.65	16.67	1.00	2.87	348
17.85	17.65	17.67	1.00	3.09	324
18.85	18.65	18.67	1.00	3.03	330
19.85	19.65	19.67	1.00	3.40	293
20.85	20.65	20.67	1.00	3.22	311
21.90	21.70	21.72	1.05	2.83	371
22.80	22.60	22.62	0.90	2.27	396



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Sounding ID: SCPT15-A26
Date: 16-Apr-2015

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
11.65	11.45	11.48			
12.65	12.45	12.48	1.00	3.85	259
13.65	13.45	13.48	1.00	3.76	265
14.65	14.45	14.47	1.00	4.01	249
15.70	15.50	15.52	1.05	3.54	296
16.75	16.55	16.57	1.05	3.69	284
17.70	17.50	17.52	0.95	3.13	303
18.70	18.50	18.52	1.00	3.75	267
19.75	19.55	19.57	1.05	3.27	321
20.75	20.55	20.57	1.00	4.28	233
21.45	21.25	21.27	0.70	2.51	279

Electronic Field Vane Shear Test Profile Summary and Results



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Start Date: 09-Apr-2015
End Date: 18-Apr-2015

ELECTRONIC FIELD VANE SHEAR TEST PROFILE SUMMARY

Sounding ID	File Name	Date	Northing ¹ (m)	Easting (m)	Refer to Notation Number
VST15-A05	15-02029_VSTA05	10-Apr-2015	5494521	312520	
VST15-A05b	15-02029_VSTA05b	11-Apr-2015	5494521	312520	
VST15-A08	15-02029_VSTA08	09-Apr-2015	5994432	312503	
VST15-A08b	15-02029_VSTA08b	10-Apr-2015	5994432	312503	
VST15-A26	15-02029_VST15-A26	18-Apr-2015	5494392	312496	

1. Coordinates obtained from consumer-grade GPS device with datum WGS84/UTM Zone 10 North.
2. Test depths were referenced to the existing ground surface at the time of testing.



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Start Date: 09-Apr-2015
End Date: 18-Apr-2015

ELECTRONIC FIELD VANE SHEAR TEST RESULTS

Sounding ID	File Name	Date	Load Cell Serial Number	Casing / Drillout Depth (m)	Test Depth ¹ (m)	Vane Diameter D (mm)	Vane Height H (mm)	Top Taper Angle i_T (deg)	Bottom Taper Angle i_B (deg)	Peak Torque (Nm)	Remolded Torque (Nm)	Su Peak (kPa)	Su Remolded (kPa)	Sensitivity	Refer to Notation Number
VST15-A05	15-02029_VSTA05	10-Apr-2015	AVLC011	13.40	14.60	50	110	0	31	60.7	35.2	118.8	68.9	2	
VST15-A05b	15-02029_VSTA05b	11-Apr-2015	AVLC011	16.45	17.70	50	110	0	31	75.0	38.7	146.8	75.8	2	
VST15-A05b	15-02029_VSTA05b	11-Apr-2015	AVLC011	21.05	22.25	50	110	0	31	81.2	41.5	158.9	81.1	2	
VST15-A08	15-02029_VSTA08	09-Apr-2015	AVLC011	14.95	16.20	50	110	0	31						2
VST15-A08	15-02029_VSTA08	09-Apr-2015	AVLC011	14.95	16.75	50	110	0	31						2
VST15-A08b	15-02029_VSTA08b	10-Apr-2015	AVLC011	21.35	23.00	50	110	0	31						2
VST15-A26	15-02029_VST15-A26	18-Apr-2015	AVLC011	11.90	13.10	50	110	0	31	76.3	45.6	149.4	89.2	2	
VST15-A26	15-02029_VST15-A26	18-Apr-2015	AVLC011	14.95	16.15	50	110	0	31	97.4	45.9	190.6	89.9	2	

1. Test depths are referenced to the middle of the vane.
2. Vane capacity maxed out.

Electronic Field Vane Shear Test Plots

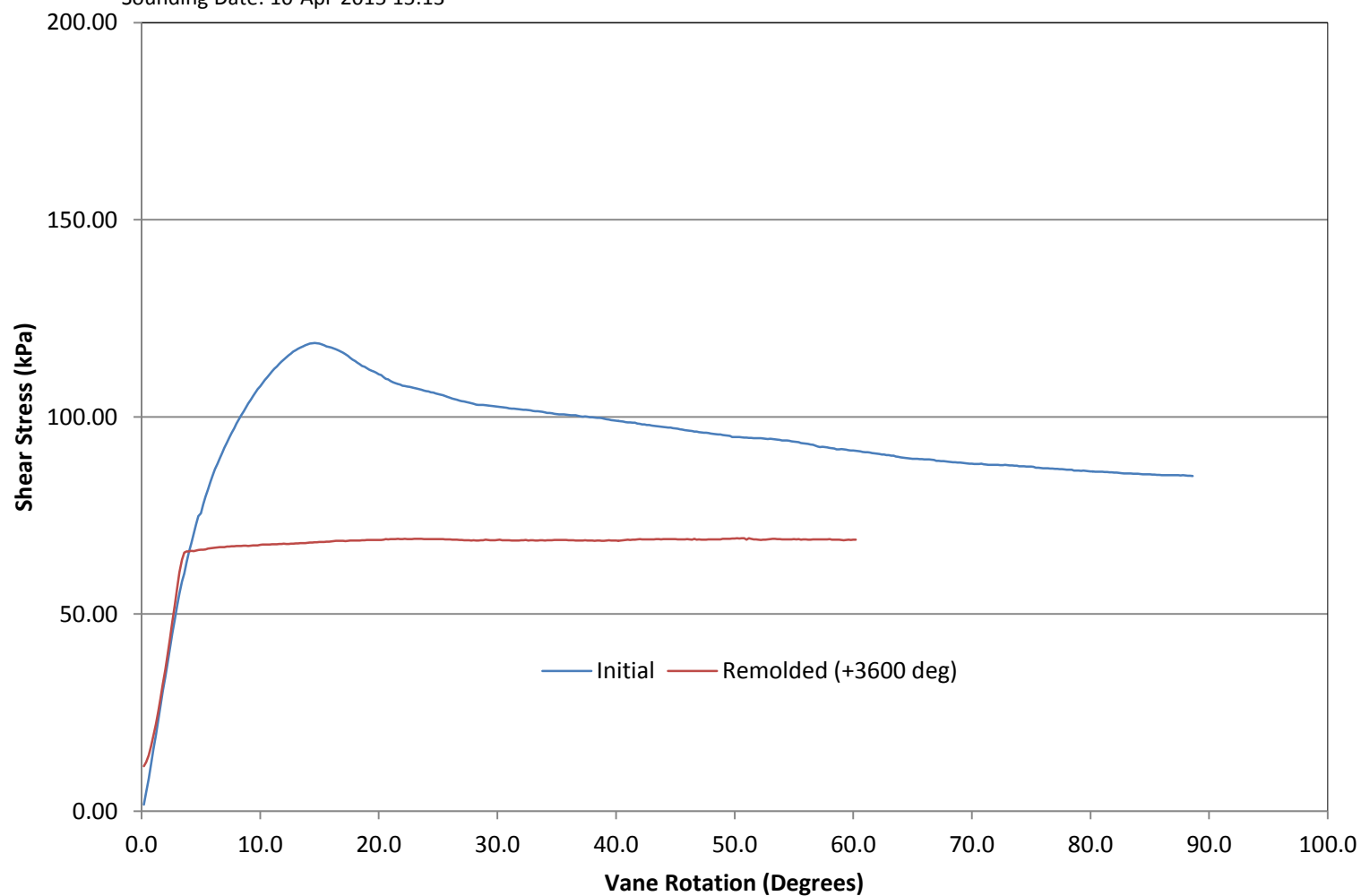


Job Number: 15-02029
Client: Amec Foster Wheeler
Project: APA Berm Evaluation
Sounding: VST15-A05
Sounding Date: 10-Apr-2015 15:13

Test Depth: (m): 14.60
Test Elevation: (m): N/A
Vane Type: Tapered one end 50 x 110 mm

Coordinate System: UTM North (WGS84)
Northing (m): 5494521
Easting (m): 312520
Surface Elevation: (m): N/A

Vane Shear Test



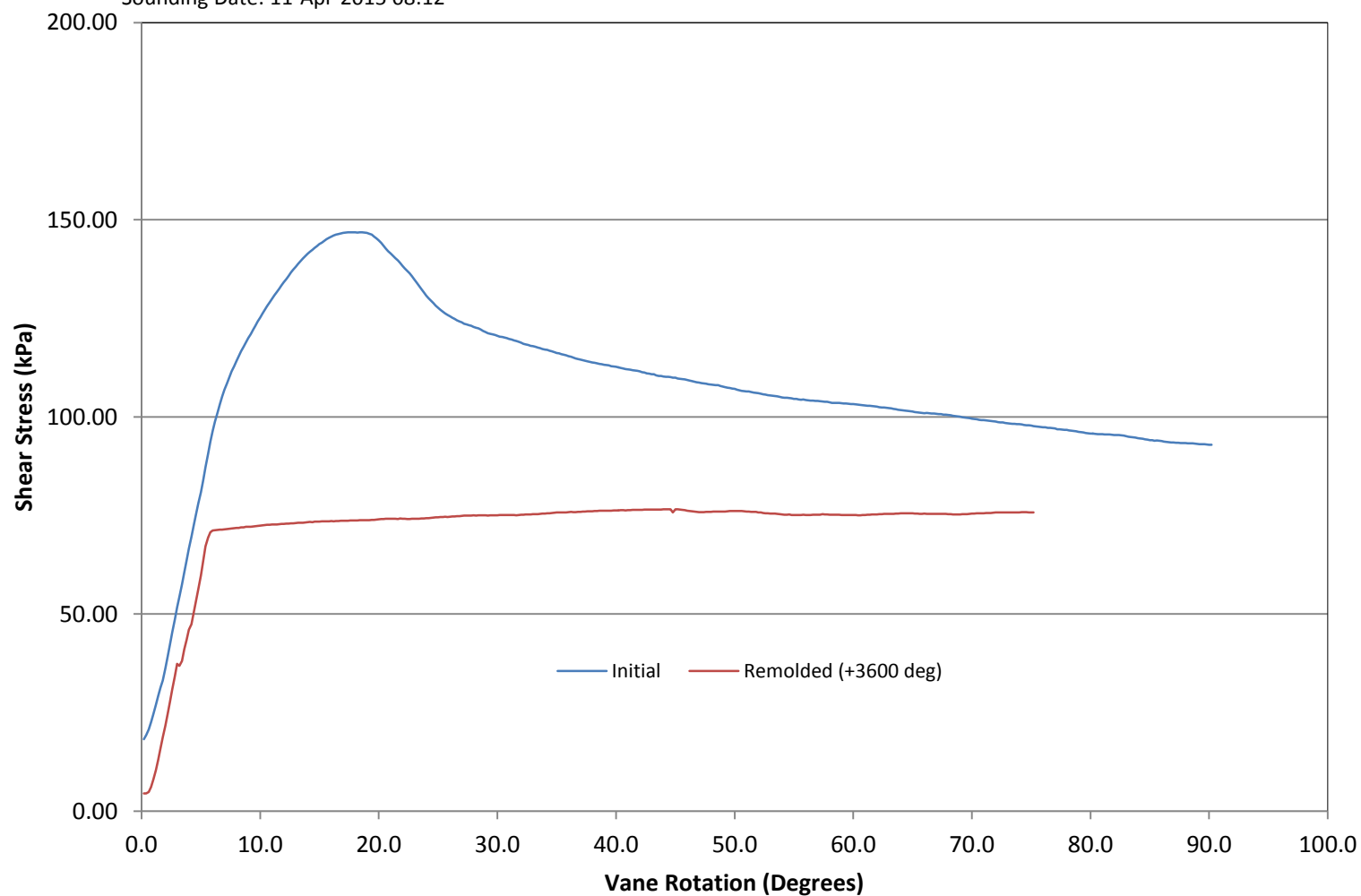


Job Number: 15-02029
Client: Amec Foster Wheeler
Project: APA Berm Evaluation
Sounding: VST15-A05b
Sounding Date: 11-Apr-2015 08:12

Test Depth: (m): 17.70
Test Elevation: (m): N/A
Vane Type: Tapered one end 50 x 110 mm

Coordinate System: UTM North (WGS84)
Northing (m): 5494521
Easting (m): 312520
Surface Elevation: (m): N/A

Vane Shear Test



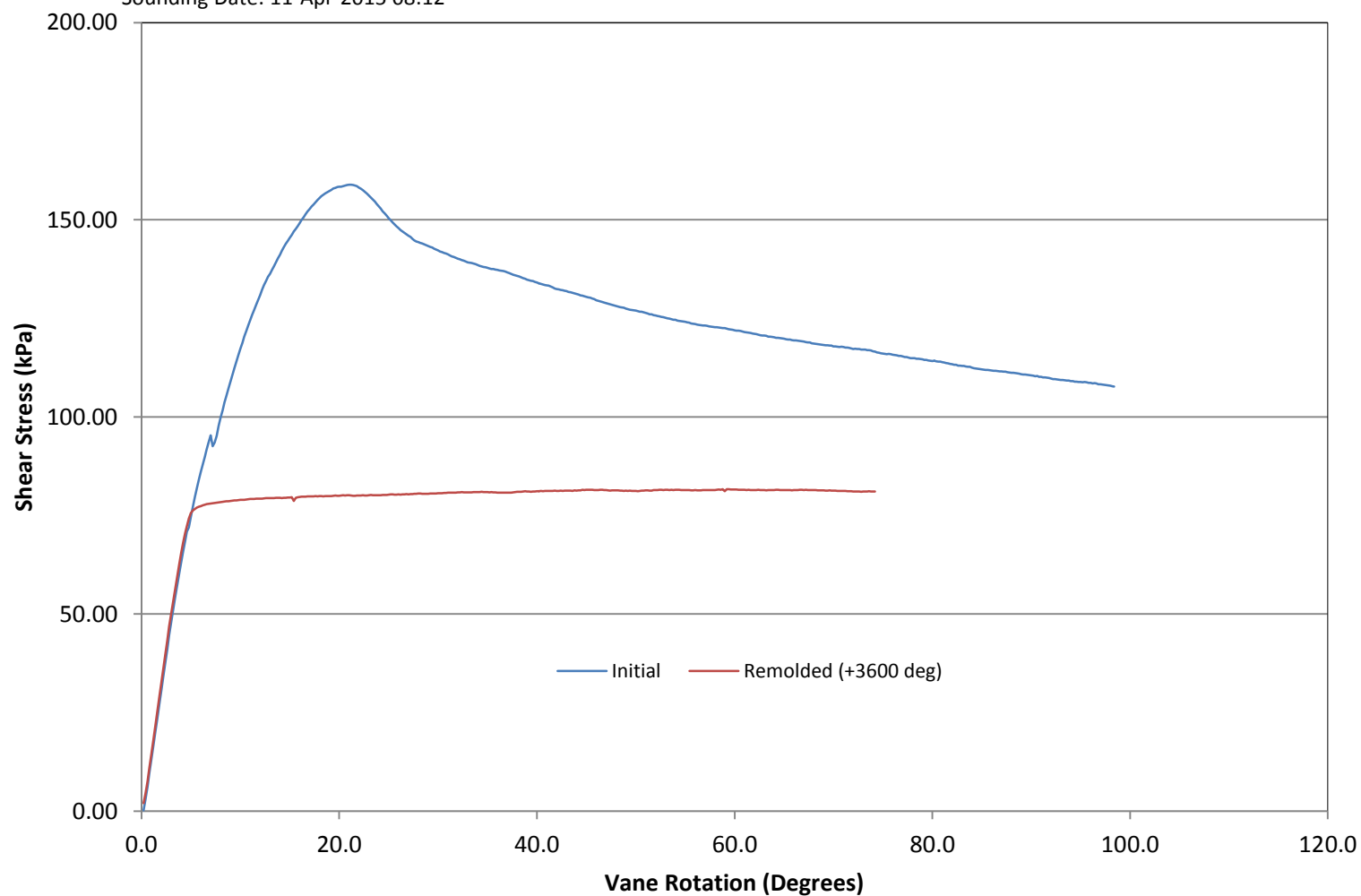


Job Number: 15-02029
Client: Amec Foster Wheeler
Project: APA Berm Evaluation
Sounding: VST15-A05b
Sounding Date: 11-Apr-2015 08:12

Test Depth: (m): 22.25
Test Elevation: (m): N/A
Vane Type: Tapered one end 50 x 110 mm

Coordinate System: UTM North (WGS84)
Northing (m): 5494521
Easting (m): 312520
Surface Elevation: (m): N/A

Vane Shear Test



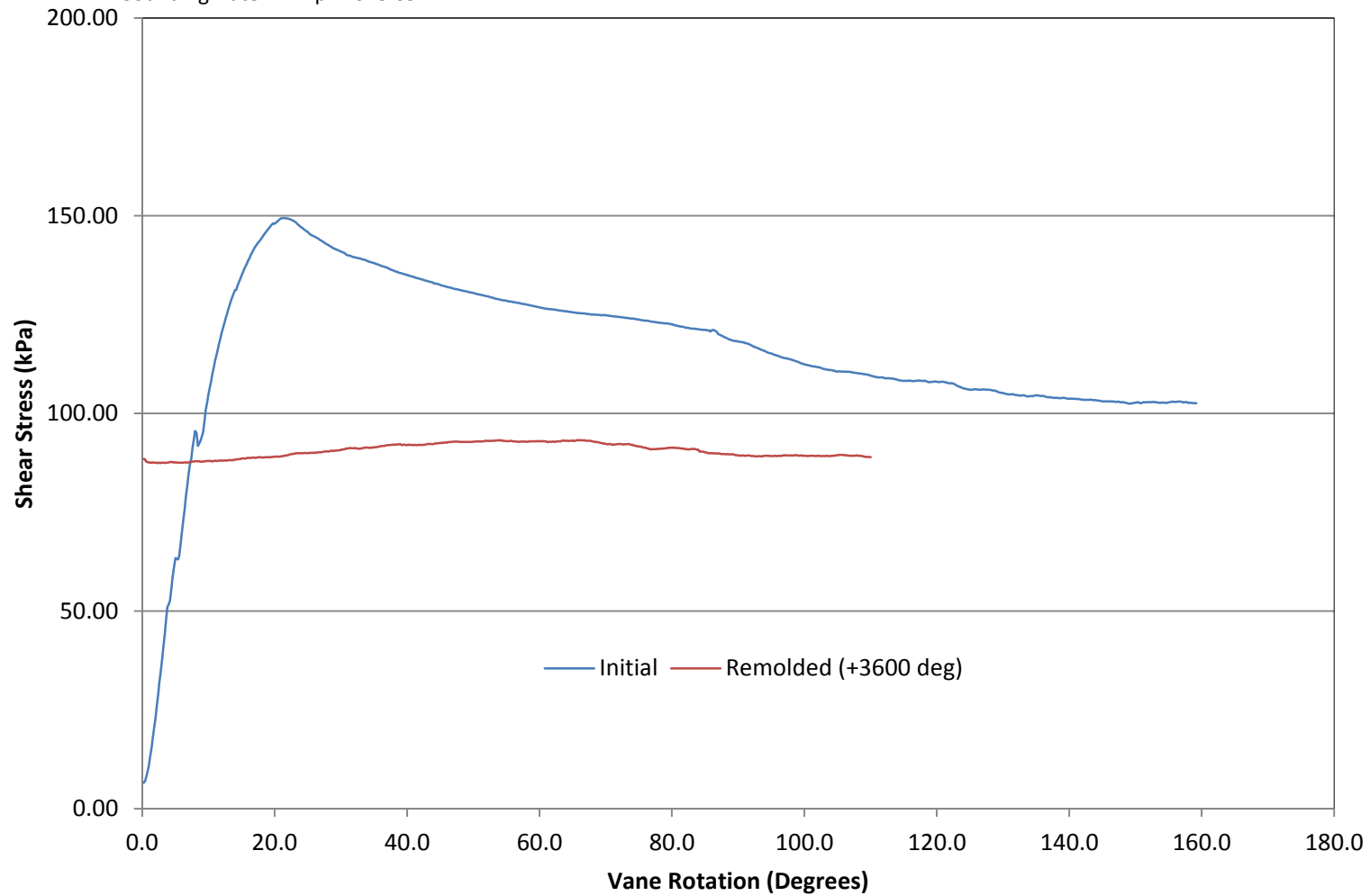


Job Number: 15-02029
Client: Amec Foster Wheeler
Project: APA Berm Evaluation
Sounding: VST15-A26
Sounding Date: 17-Apr-2015 09:47

Test Depth: (m): 13.10
Test Elevation: (m): N/A
Vane Type: Tapered one end 50 x 110 mm

Coordinate System: UTM North (WGS84)
Northing (m): 5494392
Easting (m): 312496
Surface Elevation: (m): N/A

Vane Shear Test



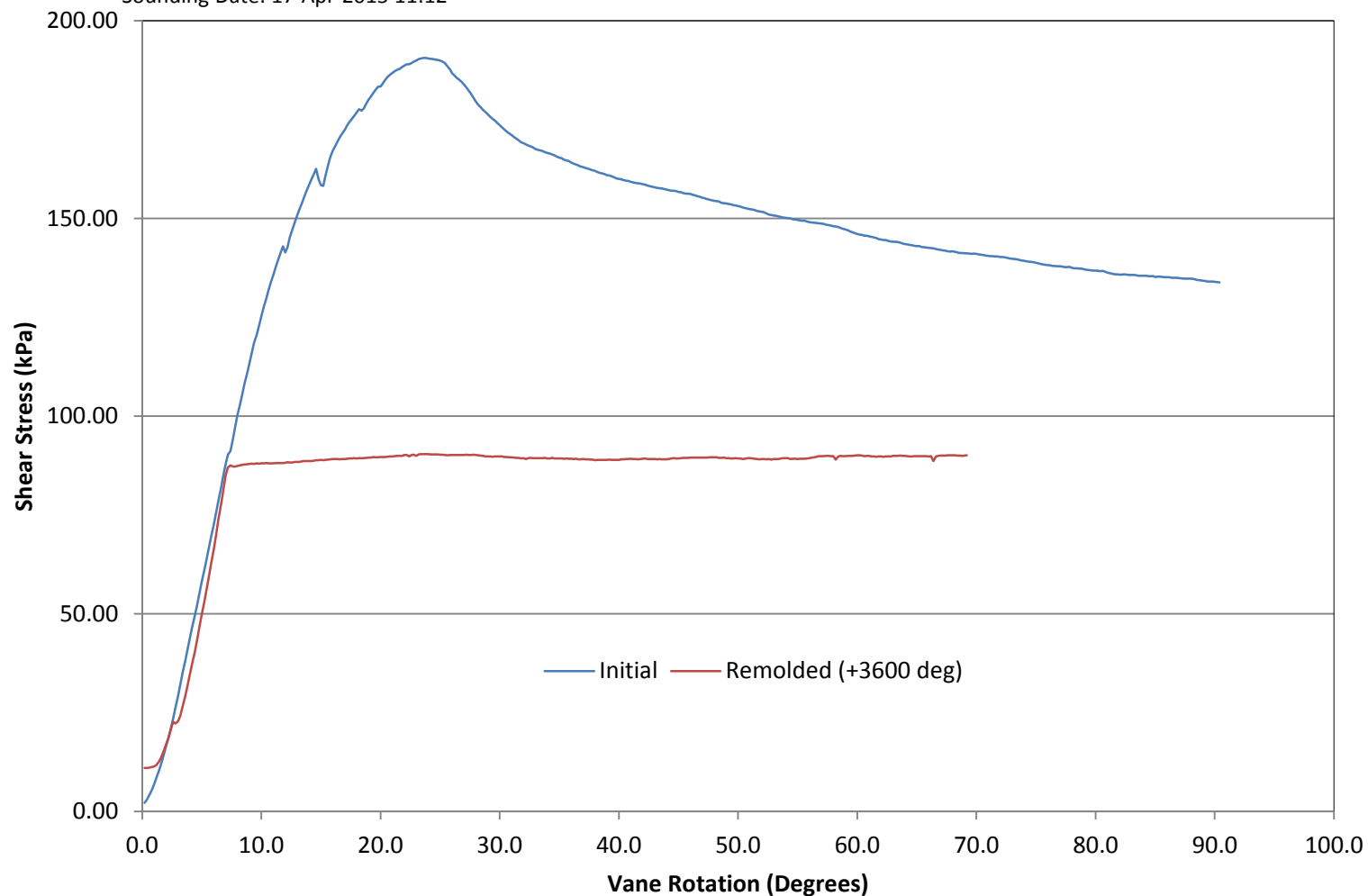


Job Number: 15-02029
Client: Amec Foster Wheeler
Project: APA Berm Evaluation
Sounding: VST15-A26
Sounding Date: 17-Apr-2015 11:12

Test Depth: (m): 16.15
Test Elevation: (m): N/A
Vane Type: Tapered one end 50 x 110 mm

Coordinate System: UTM North (WGS84)
Northing (m): 5494392
Easting (m): 312496
Surface Elevation: (m): N/A

Vane Shear Test



Pore Pressure Dissipation Summary and
Pore Pressure Dissipation Plots



Job No: 15-02029
 Client: Amec Foster Wheeler
 Project: Myra Falls Mine, Vancouver Island, BC
 Start Date: 24-Mar-2015
 End Date: 19-Apr-2015

CPTu PORE PRESSURE DISSIPATION SUMMARY

Sounding ID	File Name	Cone Area (cm ²)	Duration (s)	Test Depth (m)	Estimated Equilibrium Pore Pressure U _{eq} (m)	Calculated Phreatic Surface (m)	Estimated Phreatic Surface (m)	t ₅₀ ^a (s)	Assumed Rigidity Index (I _r)	c _h ^b (cm ² /min)	Refer to Notation
CPT15-A01	15-02029_CPA01	10	1550	13.75	2.4	11.4		16	100	29.68	
CPT15-A01	15-02029_CPA01	10	3000	18.75	2.2	16.6		38	100	12.23	
CPT15-A01	15-02029_CPA01	10	460	22.25	0.4	21.9					
CPT15-A06	15-02029_CPA06	15	500	8.20	3.5		4.7	60	100	11.70	c
CPT15-A06	15-02029_CPA06	15	300	13.25	3.0		10.3	38	100	18.70	c
CPT15-A06	15-02029_CPA06	15	350	18.25	2.0		16.3	59	100	11.92	c
CPT15-A06	15-02029_CPA06	15	200	23.25	1.0		22.3	11	100	62.44	c
CPT15-A08	15-02029_CPA08	15	600	7.15	1.2	5.9		10	100	68.38	
CPT15-A08	15-02029_CPA08	15	1900	12.15	1.6	10.6		28	100	24.71	
CPT15-A08	15-02029_CPA08	15	2300	17.15	1.6	15.6		35	100	20.10	
CPT15-A08	15-02029_CPA08	15	2500	22.15	1.5	20.7		38	100	18.71	
CPT15-A08	15-02029_CPA08	15	85	23.65	1.1	22.5		6	100	118.40	
CPT15-A10	15-02029_CPA10	15	500	6.25	3.1	3.1		9	100	77.59	
CPT15-A10	15-02029_CPA10	15	200	7.25	4.2		3.1	35	100	20.20	
CPT15-A10	15-02029_CPA10	15	400	12.25	2.0	10.2		10	100	73.43	
CPT15-A10	15-02029_CPA10	15	550	17.25	2.1	15.2		20	100	35.05	
CPT15-A10	15-02029_CPA10	15	180	20.10	0.0						
CPT15-A12	15-02029_CPA12	15	900	7.15	0.7	6.4		10	100	67.09	
CPT15-A12	15-02029_CPA12	15	1800	12.15	1.1	11.0		14	100	51.84	
CPT15-A12	15-02029_CPA12	15	1800	17.15	1.9	15.3		21	100	33.34	
CPT15-A12	15-02029_CPA12	15	700	22.30	1.4	20.9		8	100	93.43	
CPT15-A14	15-02029_CPA14	15	2600	5.25	0.9	4.3		36	100	19.74	
CPT15-A14	15-02029_CPA14	15	350	10.25	1.0		9.3	32	100	21.90	c
CPT15-A14	15-02029_CPA14	15	300	15.25	0.5		14.8	34	100	20.46	c
CPT15-A14	15-02029_CPA14	15	100	17.40	0.0						



Job No: 15-02029
 Client: Amec Foster Wheeler
 Project: Myra Falls Mine, Vancouver Island, BC
 Start Date: 24-Mar-2015
 End Date: 19-Apr-2015

CPTu PORE PRESSURE DISSIPATION SUMMARY

Sounding ID	File Name	Cone Area (cm ²)	Duration (s)	Test Depth (m)	Estimated Equilibrium Pore Pressure U _{eq} (m)	Calculated Phreatic Surface (m)	Estimated Phreatic Surface (m)	t ₅₀ ^a (s)	Assumed Rigidity Index (I _r)	c _h ^b (cm ² /min)	Refer to Notation
CPT15-A15	15-02029_CPA15	15	400	5.25	0.5		4.8	35	100	20.07	c
CPT15-A15	15-02029_CPA15	15	300	10.25	1.0		9.3	37	100	18.94	c
CPT15-A15	15-02029_CPA15	15	400	15.25	0.0		15.3	38	100	18.52	c
CPT15-A15	15-02029_CPA15	15	150	20.25	0.0						
CPT15-A16	15-02029_CPA16	15	800	8.15	0.9	7.2		21	100	34.22	
CPT15-A16	15-02029_CPA16	15	900	13.15	1.1	12.1		6	100	113.58	
CPT15-A16	15-02029_CPA16	15	700	18.15	1.0	17.1		4	100	180.48	
CPT15-A16	15-02029_CPA16	15	400	23.00	1.5	21.5		5	100	147.41	
CPT15-A18b	15-02029_CPA18b	10	500	9.15	5.2	4.0		17	100	41.72	
CPT15-A18b	15-02029_CPA18b	10	300	14.15	7.2	7.0		16	100	43.63	
CPT15-A18b	15-02029_CPA18b	10	350	19.15	Not Achieved						
CPT15-A18b	15-02029_CPA18b	10	200	24.15	Not Achieved						
CPT15-A18b	15-02029_CPA18b	10	450	28.75	2.8	25.9		8	100	88.10	
CPT15-A19	15-02029_CPA19	15	1800	6.45	3.4	3.0		49	100	14.32	
CPT15-A19	15-02029_CPA19	15	2400	11.25	4.9	6.3		51	100	13.66	
CPT15-A19	15-02029_CPA19	15	2400	16.25	7.0	9.2		24	100	29.38	
CPT15-A19	15-02029_CPA19	15	2150	21.25	3.6	17.7		41	100	17.19	
CPT15-A19	15-02029_CPA19	15	2400	26.25	4.2	22.1		31	100	22.45	
CPT15-A20	15-02029_CPA20	15	2050	8.20	2.3	5.9		29	100	24.25	
CPT15-A20	15-02029_CPA20	15	1400	13.25	3.3	10.0		6	100	119.68	
CPT15-A20	15-02029_CPA20	15	2900	18.25	5.5	12.8		36	100	19.63	
CPT15-A20	15-02029_CPA20	15	4150	23.25	2.8	20.4		17	100	41.77	
CPT15-A20	15-02029_CPA20	15	3250	28.25	2.9	25.3		29	100	24.07	
CPT15-A22	15-02029_CPA22	15	2000	6.25	2.0	4.2		46	100	15.33	
CPT15-A22	15-02029_CPA22	15	500	12.10	2.0	10.1		9	100	80.04	



Job No: 15-02029
 Client: Amec Foster Wheeler
 Project: Myra Falls Mine, Vancouver Island, BC
 Start Date: 24-Mar-2015
 End Date: 19-Apr-2015

CPTu PORE PRESSURE DISSIPATION SUMMARY

Sounding ID	File Name	Cone Area (cm ²)	Duration (s)	Test Depth (m)	Estimated Equilibrium Pore Pressure U _{eq} (m)	Calculated Phreatic Surface (m)	Estimated Phreatic Surface (m)	t ₅₀ ^a (s)	Assumed Rigidity Index (I _r)	c _h ^b (cm ² /min)	Refer to Notation
CPT15-A22	15-02029_CPA22	15	400	14.30	Not Achieved						
CPT15-A23	15-02029_CPA23	15	1800	5.00	1.8	3.2		52	100	13.41	
CPT15-A23	15-02029_CPA23	15	900	12.15	2.4	9.7		5	100	152.30	
CPT15-A23	15-02029_CPA23	15	180	14.40	3.3	11.1					
CPT15-A23	15-02029_CPA23	15	305	15.80	4.6	11.2					
CPT15-A24	15-02029_CPA24	10	750	7.25	1.4	5.9		3	100	204.39	
CPT15-A24	15-02029_CPA24	10	2100	12.25	2.7	9.6		9	100	76.05	
CPT15-A24	15-02029_CPA24	10	250	14.25	3.4	10.8					
SCPT15-A02	15-02029_SPA02	10	1400	7.60	1.4	6.2		31	100	15.17	
SCPT15-A02	15-02029_SPA02	10	1800	12.70	2.6	10.1		15	100	30.27	
SCPT15-A02	15-02029_SPA02	10	2750	17.75	1.9	15.8		38	100	12.23	
SCPT15-A02	15-02029_SPA02	10	3600	19.65	0.8	18.8		135	100	3.47	
SCPT15-A03	15-02029_SPA03	10	515	10.70	1.8	8.9		6	100	78.51	
SCPT15-A03	15-02029_SPA03	10	3000	15.65	2.7	12.9		36	100	13.18	
SCPT15-A03	15-02029_SPA03	10	200	20.70	0.0						
SCPT15-A03	15-02029_SPA03	10	80	22.35	0.0						
SCPT15-A04	15-02029_SPA04	10	2500	9.70	2.3	7.4		16	100	28.40	
SCPT15-A04	15-02029_SPA04	10	1800	14.70	2.7	12.0		28	100	16.93	
SCPT15-A04	15-02029_SPA04	10	250	17.75	0.4	17.4					
SCPT15-A05	15-02029_SPA05	10	2100	17.55	5.0	12.5		19	100	24.89	
SCPT15-A05	15-02029_SPA05	10	2505	22.70	5.7	17.0		9	100	51.39	
SCPT15-A05	15-02029_SPA05	10	2700	27.80	0.5	27.3		9	100	51.53	
SCPT15-A07	15-02029_SPA07	10	3450	2.80	1.7	1.1		84	100	5.54	
SCPT15-A07	15-02029_SPA07	10	2300	7.80	1.3	6.5		21	100	21.99	
SCPT15-A07	15-02029_SPA07	10	2000	12.80	2.8	10.0		15	100	30.41	



Job No: 15-02029
 Client: Amec Foster Wheeler
 Project: Myra Falls Mine, Vancouver Island, BC
 Start Date: 24-Mar-2015
 End Date: 19-Apr-2015

CPTu PORE PRESSURE DISSIPATION SUMMARY

Sounding ID	File Name	Cone Area (cm ²)	Duration (s)	Test Depth (m)	Estimated Equilibrium Pore Pressure U _{eq} (m)	Calculated Phreatic Surface (m)	Estimated Phreatic Surface (m)	t ₅₀ ^a (s)	Assumed Rigidity Index (I _r)	c _h ^b (cm ² /min)	Refer to Notation
SCPT15-A07	15-02029_SPA07	10	2400	17.75	1.8	16.0		20	100	23.98	
SCPT15-A07	15-02029_SPA07	10	900	22.90	0.9	22.0		20	100	23.38	
SCPT15-A07	15-02029_SPA07	10	300	24.25	0.5	23.7					
SCPT15-A09	15-02029_SPA09	10	1800	13.70	3.7	10.0		38	100	12.21	
SCPT15-A09	15-02029_SPA09	10	2400	19.05	1.8	17.2		29	100	15.92	
SCPT15-A09	15-02029_SPA09	10	2800	24.00	0.6	23.4		24	100	19.76	
SCPT15-A09	15-02029_SPA09	10	600	26.25	0.5	25.7					
SCPT15-A11	15-02029_SPA11	10	1500	2.50	0.9	1.6		7	100	68.11	
SCPT15-A11	15-02029_SPA11	10	2500	7.50	1.1	6.4		36	100	13.06	
SCPT15-A11	15-02029_SPA11	10	2000	12.20	1.5	10.7		13	100	36.71	
SCPT15-A11	15-02029_SPA11	10	2100	17.50	2.1	15.4		10	100	46.36	
SCPT15-A11	15-02029_SPA11	10	1500	22.50	3.2	19.3		8	100	59.43	
SCPT15-A11	15-02029_SPA11	10	2405	27.15	3.8	23.4		32	100	14.56	
SCPT15-A13	15-02029_SPA13	10	2100	14.55	2.1	12.5		26	100	18.26	
SCPT15-A13	15-02029_SPA13	10	2400	19.05	0.7	18.3		18	100	25.61	
SCPT15-A13	15-02029_SPA13	10	1800	24.00	0.0						
SCPT15-A13	15-02029_SPA13	10	300	24.90	0.4	24.5					
SCPT15-A17	15-02029_SPA17	10	2500	16.75	5.4	11.3		5	100	95.17	
SCPT15-A17	15-02029_SPA17	10	2700	21.70	6.9	14.8		17	100	28.28	
SCPT15-A17	15-02029_SPA17	10	3600	26.75	9.2	17.5		28	100	17.01	
SCPT15-A17	15-02029_SPA17	10	1805	30.85	2.5	28.3		8	100	58.71	
SCPT15-A21	15-02029_SPA21	10	2700	14.75	2.3	12.4		33	100	14.10	
SCPT15-A21	15-02029_SPA21	10	2700	19.45	1.3	18.1		30	100	15.58	
SCPT15-A21	15-02029_SPA21	10	600	23.85	0.4	23.5					
SCPT15-A25	15-02029_SPA25	10	1800	13.85	1.1	12.8		7	100	67.25	



Job No: 15-02029
Client: Amec Foster Wheeler
Project: Myra Falls Mine, Vancouver Island, BC
Start Date: 24-Mar-2015
End Date: 19-Apr-2015

CPT_u PORE PRESSURE DISSIPATION SUMMARY

Sounding ID	File Name	Cone Area (cm ²)	Duration (s)	Test Depth (m)	Estimated Equilibrium Pore Pressure U _{eq} (m)	Calculated Phreatic Surface (m)	Estimated Phreatic Surface (m)	t ₅₀ ^a (s)	Assumed Rigidity Index (I _r)	c _h ^b (cm ² /min)	Refer to Notation
SCPT15-A25	15-02029_SPA25	10	3100	18.85	0.6	18.2		35	100	13.35	
SCPT15-A25	15-02029_SPA25	10	455	22.75	1.0	21.7					
SCPT15-A26	15-02029_SPA26	10	900	11.45	1.1	10.3		16	100	29.02	
SCPT15-A26	15-02029_SPA26	10	1800	16.50	1.3	15.2		23	100	20.02	
SCPT15-A26	15-02029_SPA26	10	600	21.45	2.1	19.4					

a. Time is relative to where u_{max} occurred

b. Houlsby and Teh, 1991

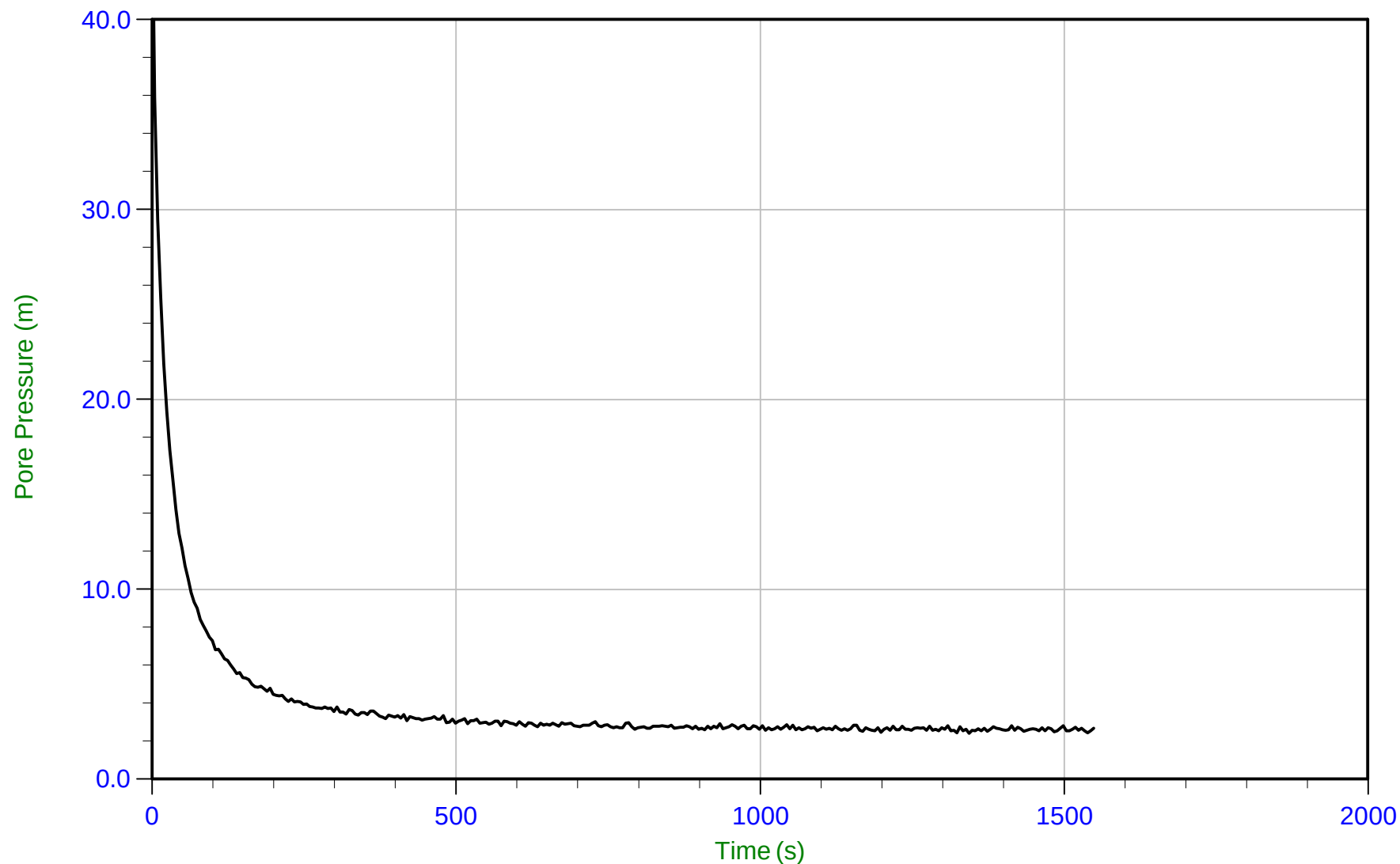
c. Estimated equilibrium based on incomplete dissipation test.



Amec Foster Wheeler

Job No: 15-02029
Date: 04/01/2015 13:09
Site: Myra Falls

Sounding: CPT15-A01
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



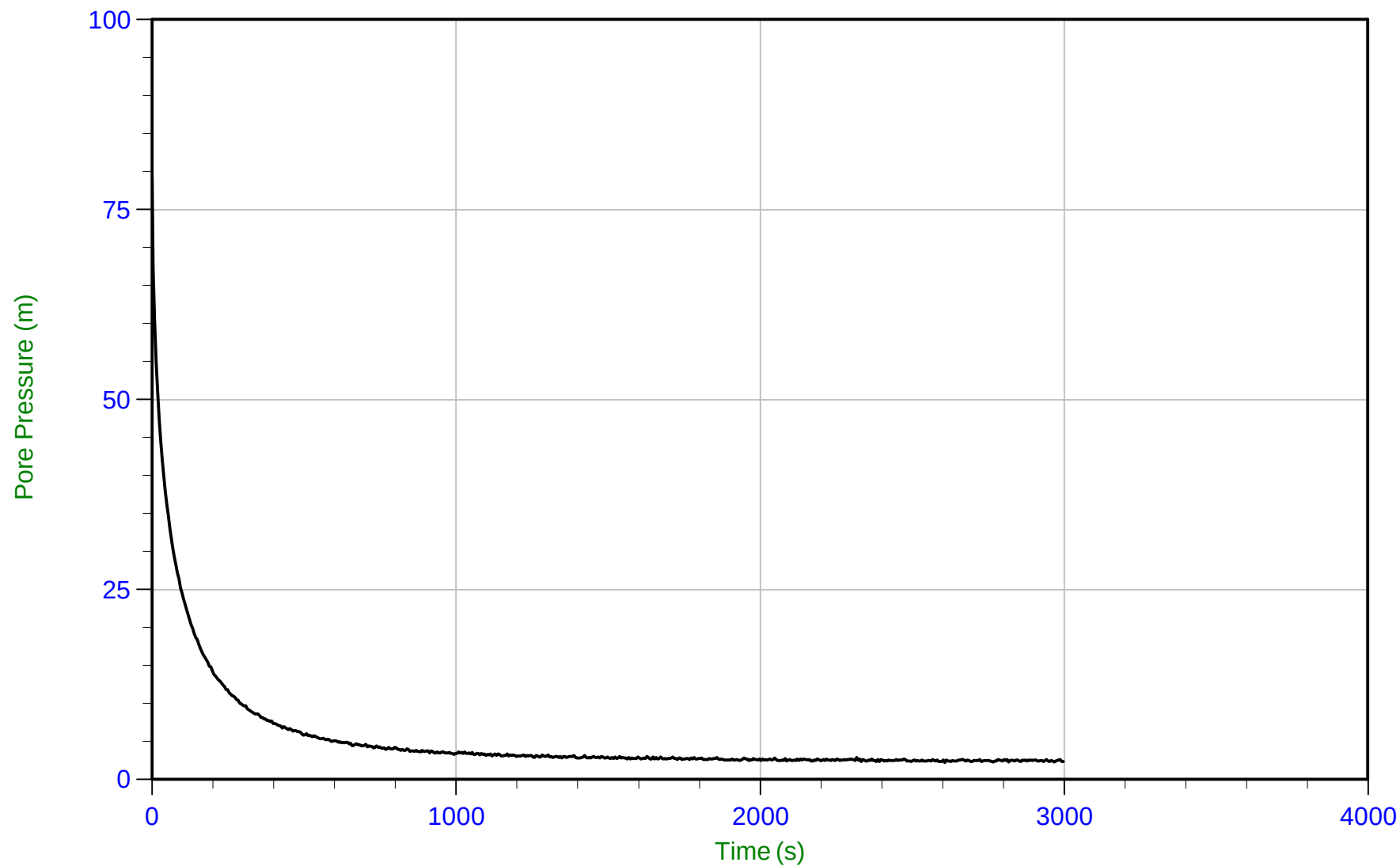
Trace Summary:	Filename: 15-02029_CPA01.PPF	U Min: 2.4 m	WT: 11.350 m / 37.237 ft	T(50): 15.8 s
	Depth: 13.750 m / 45.111 ft	U Max: 47.3 m	Ueq: 2.4 m	Ir: 100
	Duration: 1550.0 s		U(50): 24.84 m	Ch: 29.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/01/2015 13:09
Site: Myra Falls

Sounding: CPT15-A01
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



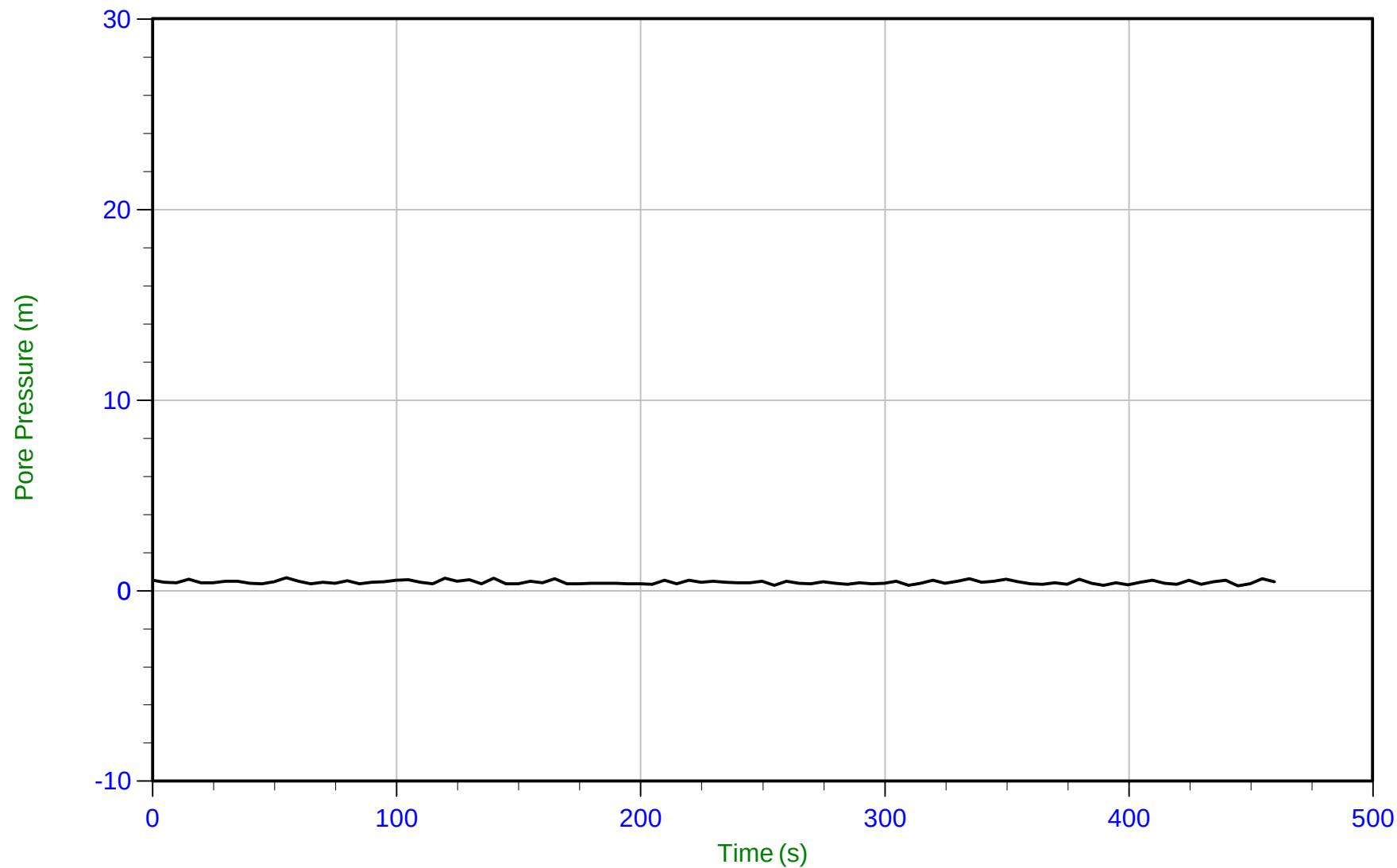
Trace Summary:	Filename: 15-02029_CPA01.PPF	U Min: 2.2 m	WT: 16.550 m / 54.297 ft	T(50): 38.3 s
	Depth: 18.750 m / 61.515 ft	U Max: 79.2 m	Ueq: 2.2 m	Ir: 100
	Duration: 3000.0 s		U(50): 40.71 m	Ch: 12.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/01/2015 13:09
Site: Myra Falls

Sounding: CPT15-A01
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_CPA01.PPF
Depth: 22.250 m / 72.998 ft
Duration: 460.0 s

U Min: 0.3 m
U Max: 0.7 m

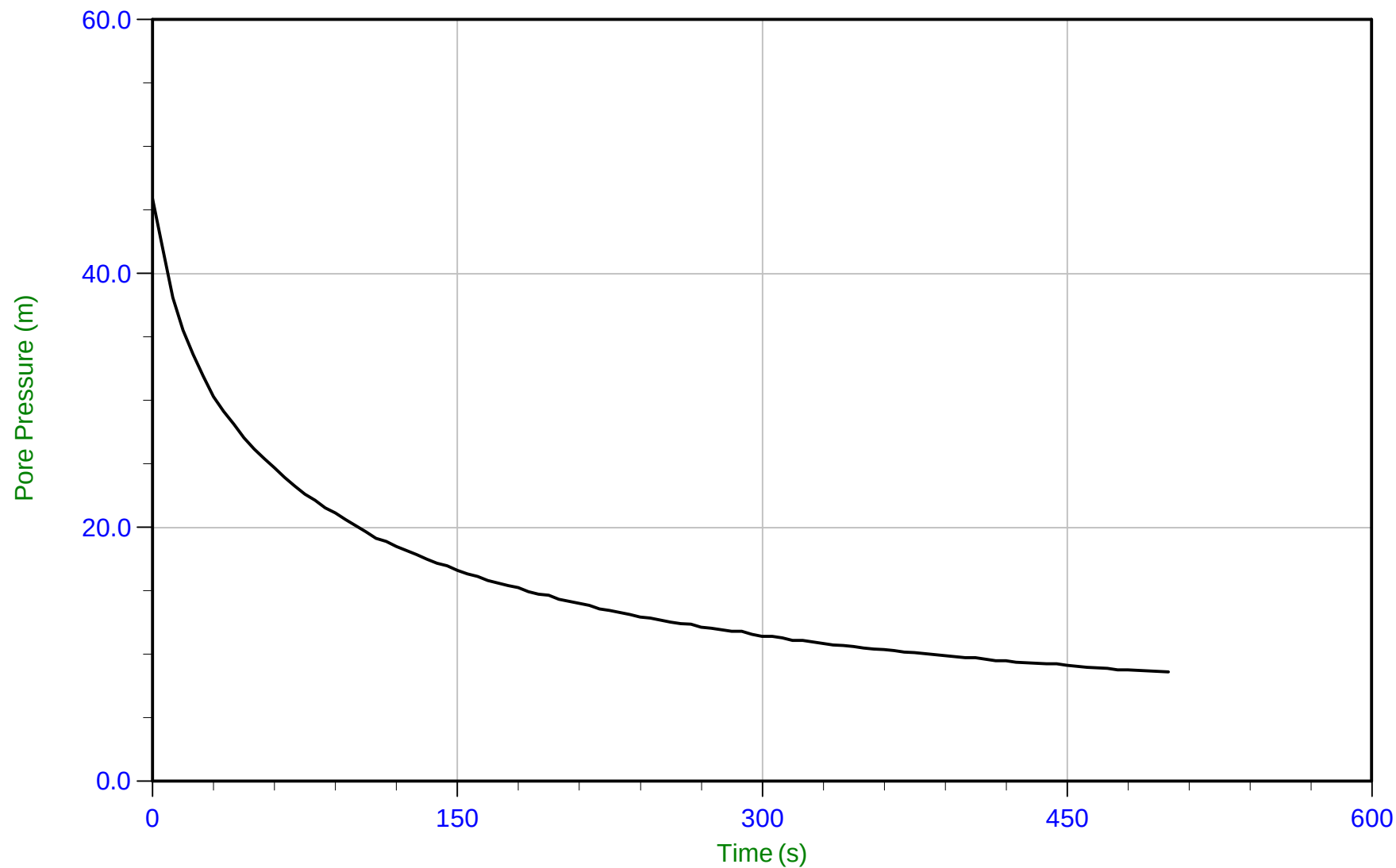
WT: 21.850 m / 71.685 ft
Ueq: 0.4 m



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



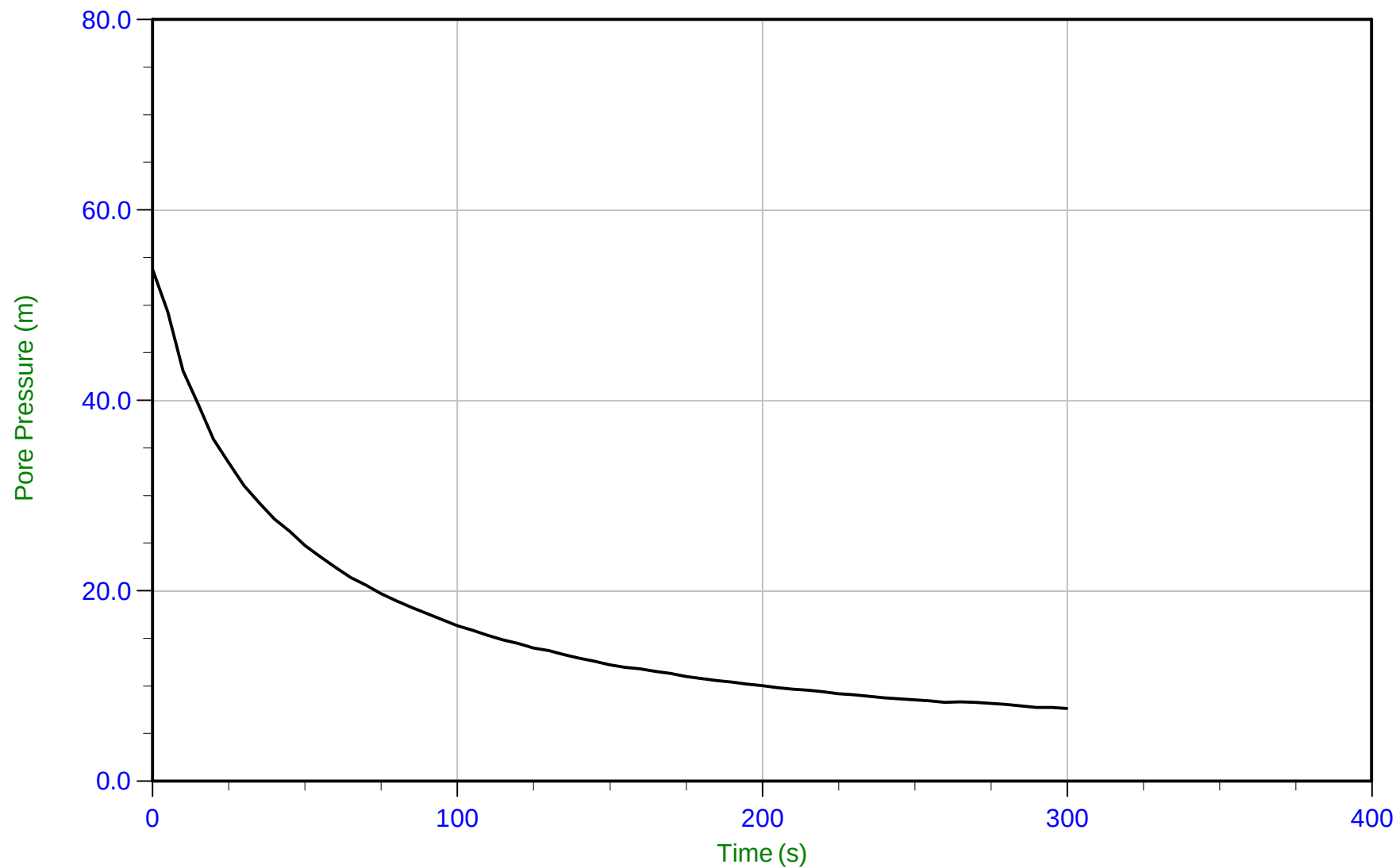
Trace Summary:	Filename: 15-02029_CPA06.PPF	U Min: 8.6 m	WT: 4.700 m / 15.420 ft	T(50): 60.0 s
	Depth: 8.200 m / 26.903 ft	U Max: 45.9 m	Ueq: 3.5 m	Ir: 100
	Duration: 500.0 s		U(50): 24.71 m	Ch: 11.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



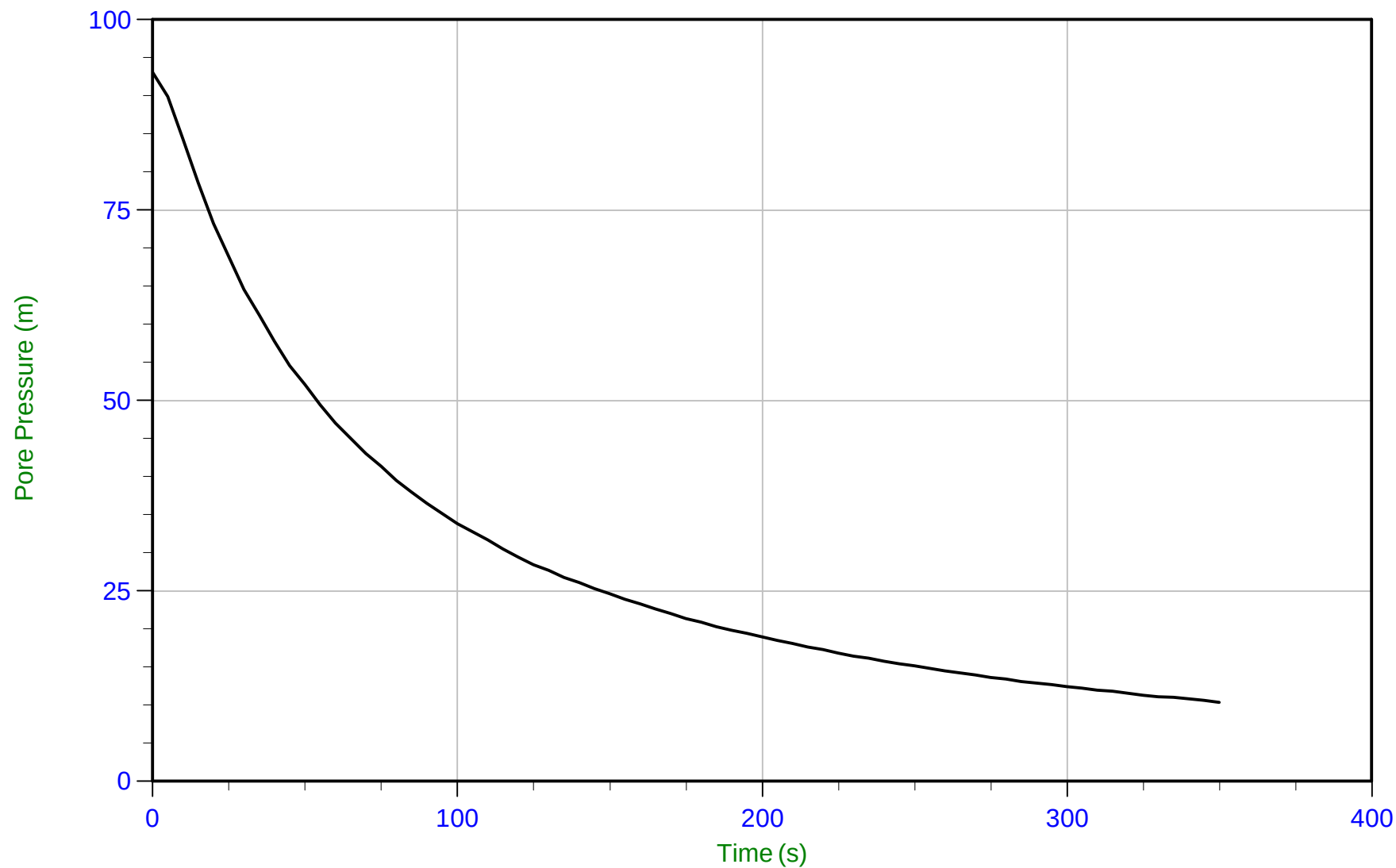
Trace Summary:	Filename: 15-02029_CPA06.PPF	U Min: 7.7 m	WT: 10.250 m / 33.628 ft	T(50): 37.5 s
	Depth: 13.250 m / 43.471 ft	U Max: 53.8 m	Ueq: 3.0 m	Ir: 100
	Duration: 300.0 s		U(50): 28.39 m	Ch: 18.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



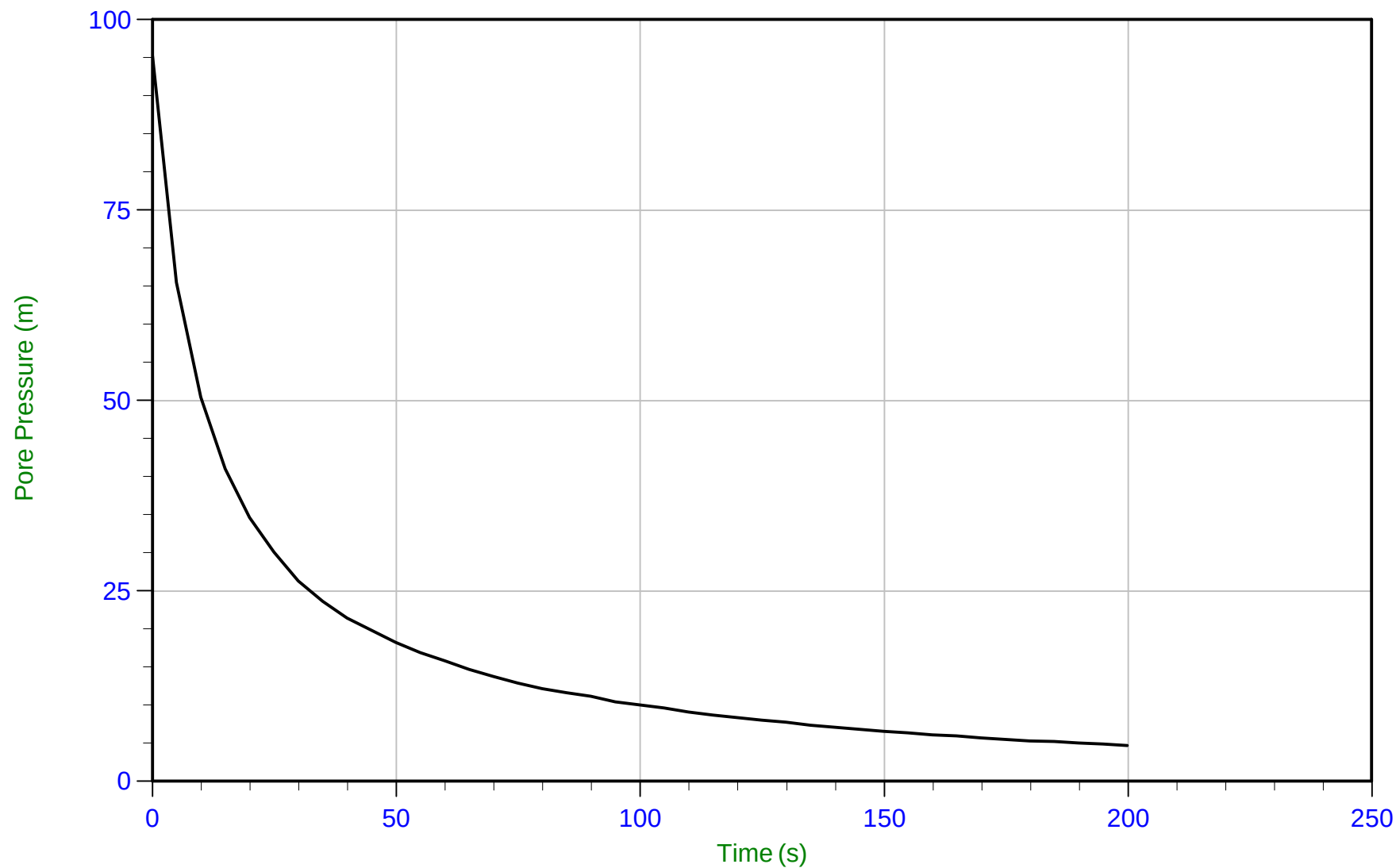
Trace Summary:	Filename: 15-02029_CPA06.PPF	U Min: 10.3 m	WT: 16.250 m / 53.313 ft	T(50): 58.9 s
	Depth: 18.250 m / 59.875 ft	U Max: 93.1 m	Ueq: 2.0 m	Ir: 100
	Duration: 350.0 s		U(50): 47.54 m	Ch: 11.9 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 14:30
Site: Myra Falls Mine

Sounding: CPT15-A06
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02029_CPA06.PPF
Depth: 23.250 m / 76.279 ft
Duration: 200.0 s

U Min: 4.7 m
U Max: 95.2 m

WT: 22.250 m / 72.998 ft
Ueq: 1.0 m
U(50): 48.11 m

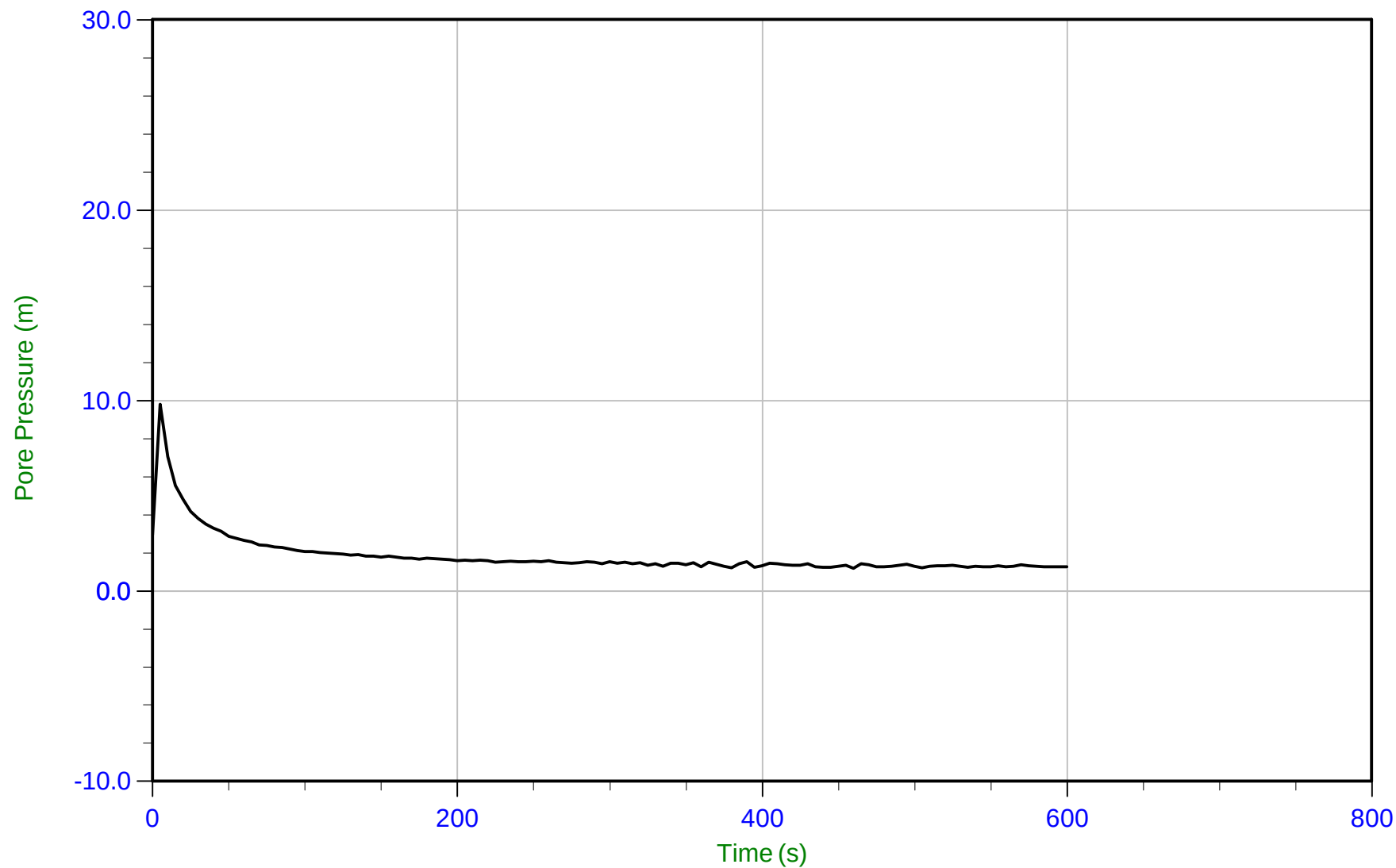
T(50): 11.2 s
Ir: 100
Ch: 62.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



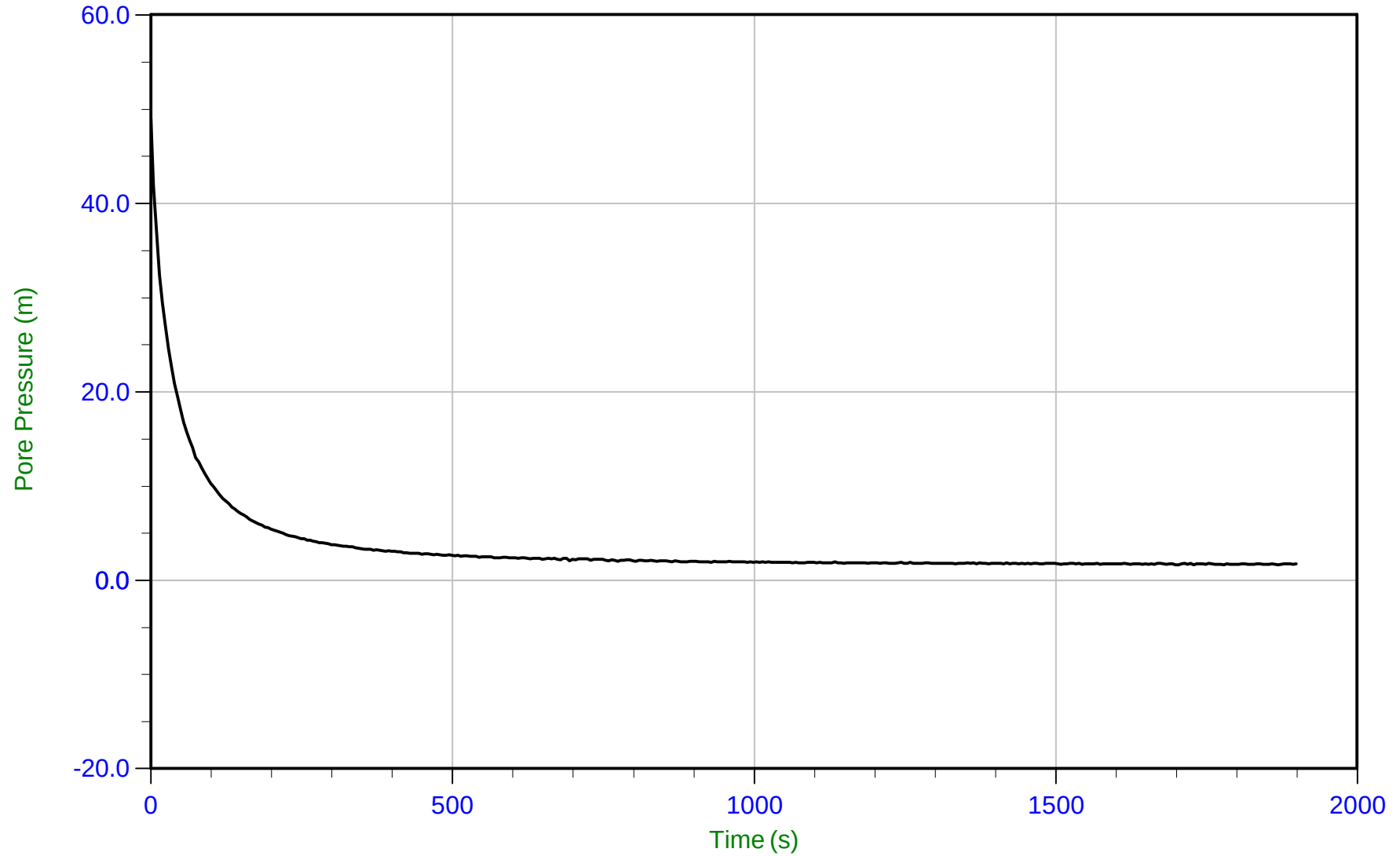
Trace Summary:	Filename: 15-02029_CPA08.PPF	U Min: 1.2 m	WT: 5.937 m / 19.478 ft	T(50): 10.3 s
	Depth: 7.150 m / 23.458 ft	U Max: 9.8 m	Ueq: 1.2 m	Ir: 100
	Duration: 600.0 s		U(50): 5.50 m	Ch: 68.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



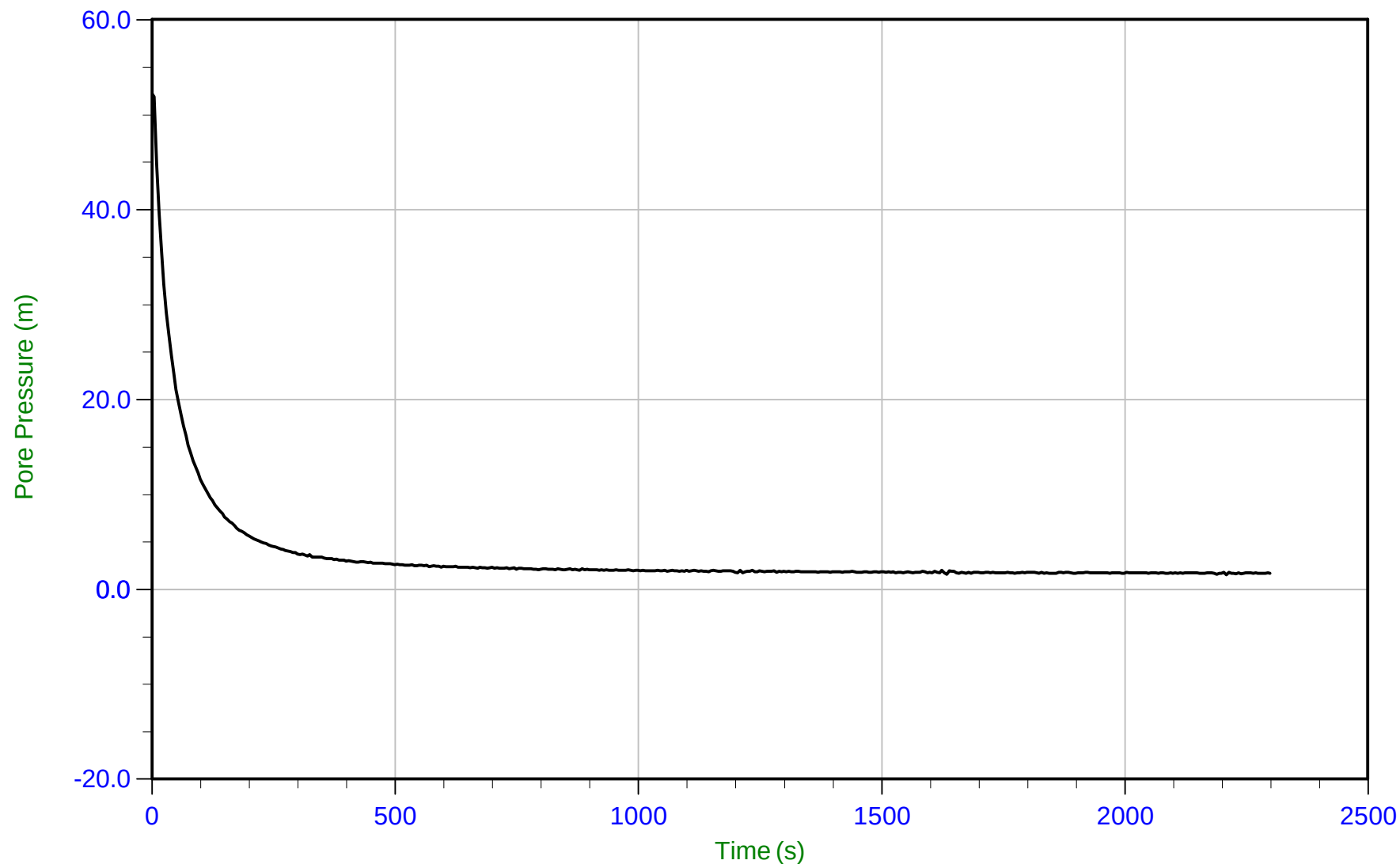
Trace Summary: Filename: 15-02029_CPA08.PPF U Min: 1.6 m WT: 10.560 m / 34.645 ft T(50): 28.4 s
Depth: 12.150 m / 39.862 ft U Max: 49.0 m Ueq: 1.6 m Ir: 100
Duration: 1900.0 s U(50): 25.30 m Ch: 24.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



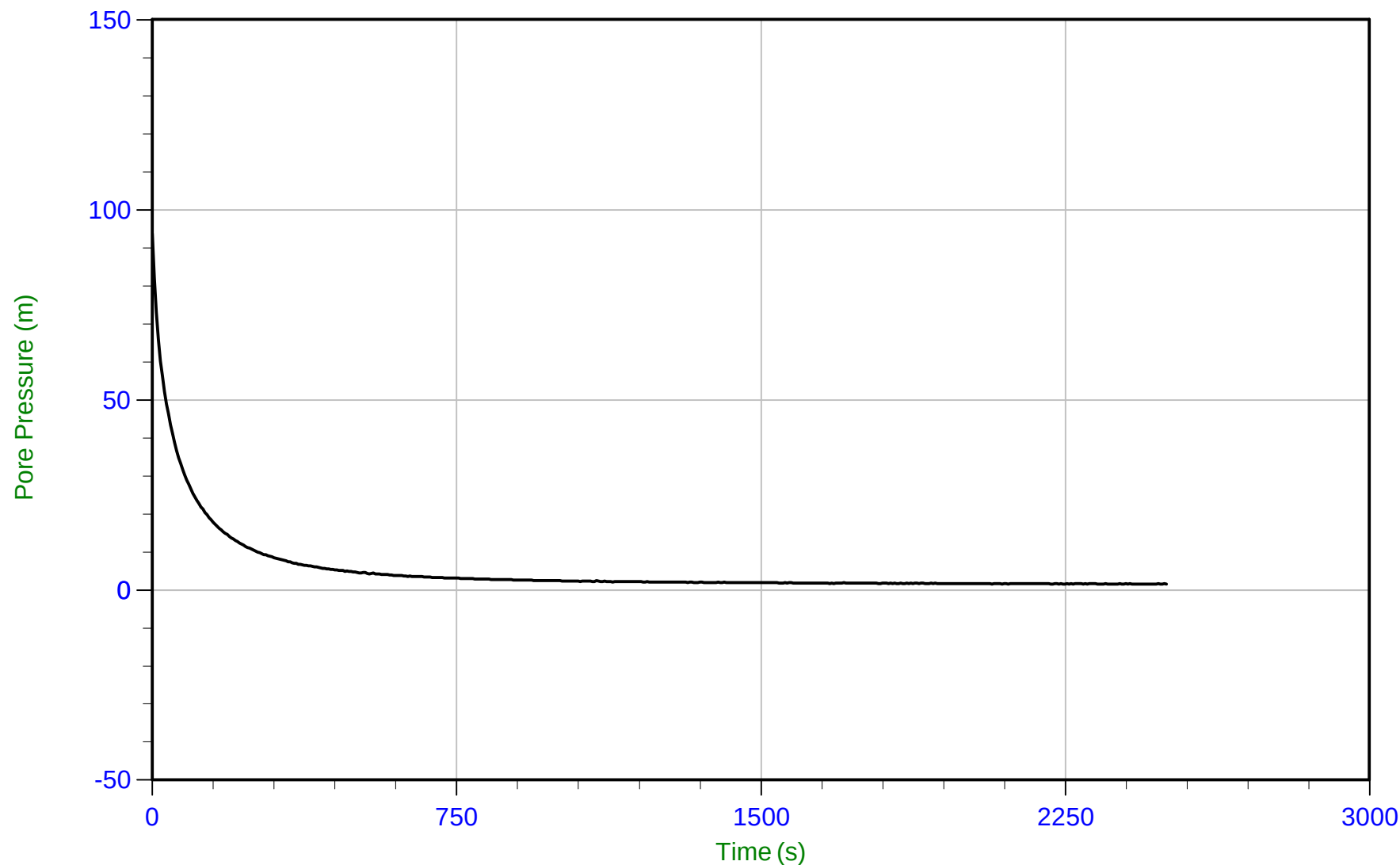
Trace Summary:	Filename: 15-02029_CPA08.PPF	U Min: 1.5 m	WT: 15.560 m / 51.049 ft	T(50): 34.9 s
	Depth: 17.150 m / 56.266 ft	U Max: 52.2 m	Ueq: 1.6 m	Ir: 100
	Duration: 2300.0 s		U(50): 26.88 m	Ch: 20.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



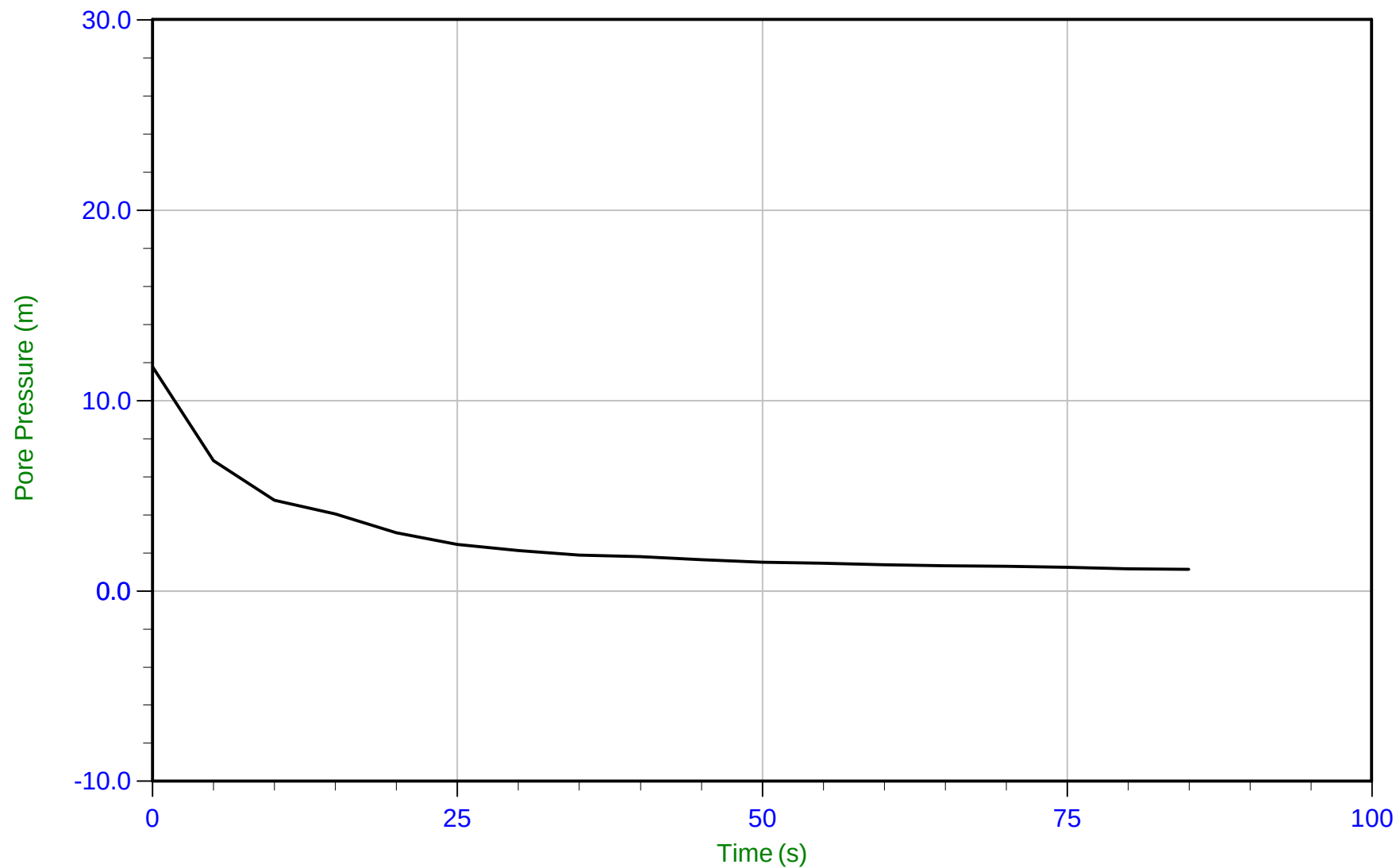
Trace Summary: Filename: 15-02029_CPA08.PPF U Min: 1.5 m WT: 20.686 m / 67.867 ft T(50): 37.5 s
Depth: 22.150 m / 72.670 ft U Max: 93.8 m Ueq: 1.5 m Ir: 100
Duration: 2500.0 s U(50): 47.62 m Ch: 18.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 10:53
Site: Myra Falls Mine

Sounding: CPT15-A08
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



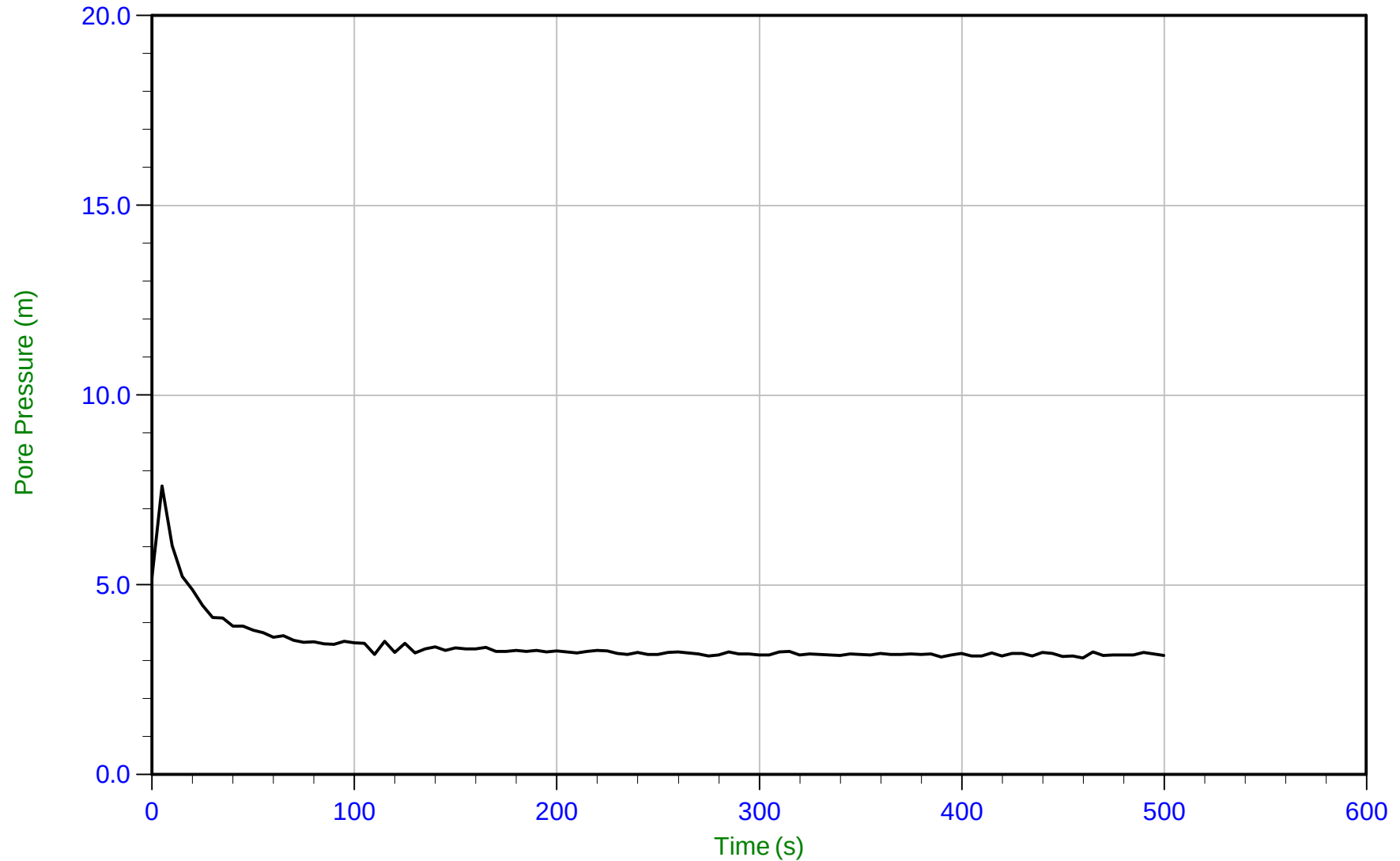
Trace Summary:	Filename: 15-02029_CPA08.PPF	U Min: 1.1 m	WT: 22.520 m / 73.884 ft	T(50): 5.9 s
	Depth: 23.650 m / 77.591 ft	U Max: 11.8 m	Ueq: 1.1 m	Ir: 100
	Duration: 85.0 s		U(50): 6.45 m	Ch: 118.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



Trace Summary: Filename: 15-02029_CPA10.PPF
Depth: 6.250 m / 20.505 ft
Duration: 500.0 s

U Min: 3.1 m
U Max: 7.6 m

WT: 3.112 m / 10.210 ft
Ueq: 3.1 m
U(50): 5.37 m

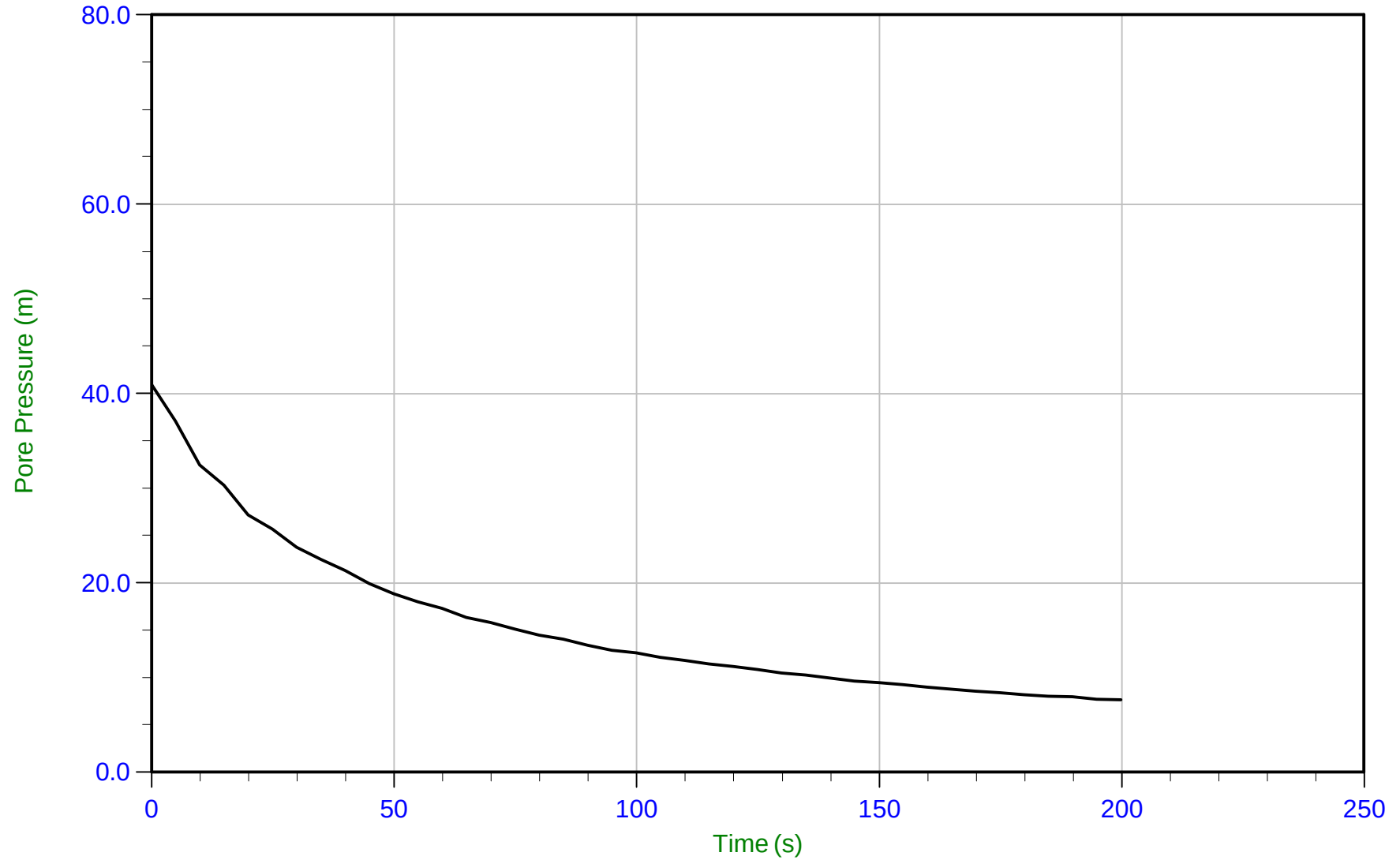
T(50): 9.0 s
Ir: 100
Ch: 77.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



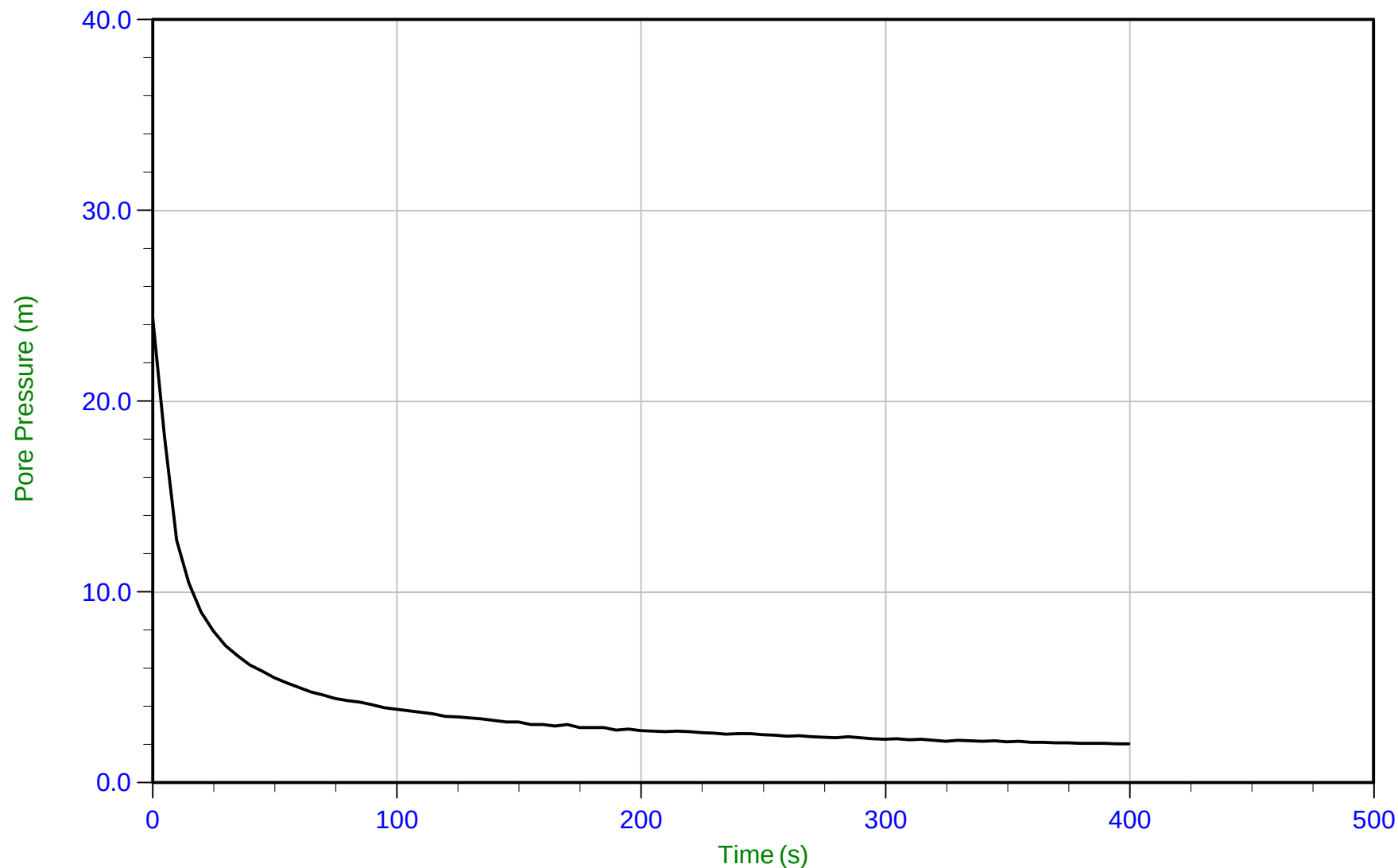
Trace Summary:	Filename: 15-02029_CPA10.PPF	U Min: 7.6 m	WT: 3.100 m / 10.170 ft	T(50): 34.7 s
	Depth: 7.250 m / 23.786 ft	U Max: 41.0 m	Ueq: 4.2 m	Ir: 100
	Duration: 200.0 s		U(50): 22.55 m	Ch: 20.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



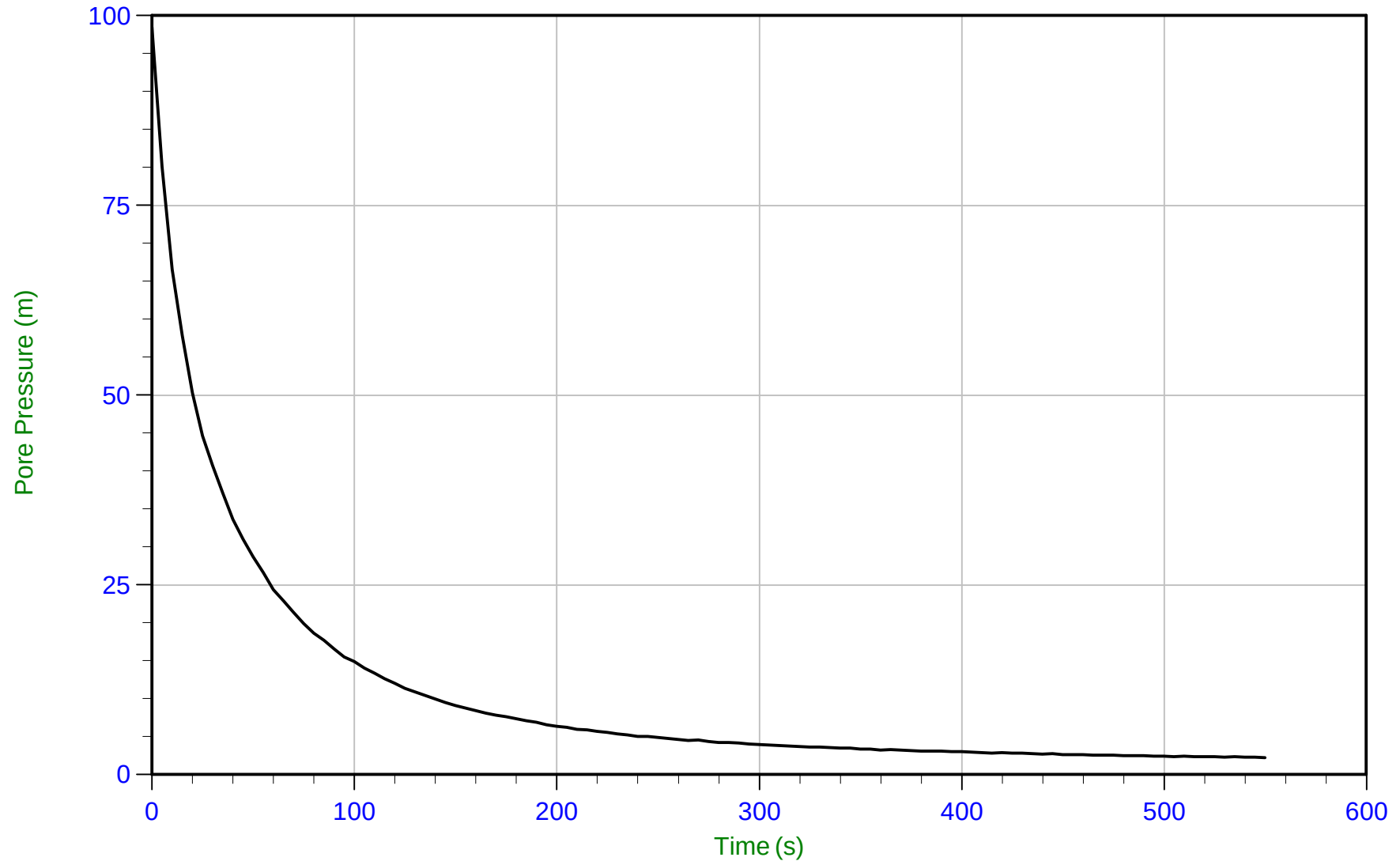
Trace Summary: Filename: 15-02029_CPA10.PPF U Min: 2.0 m WT: 10.242 m / 33.602 ft T(50): 9.6 s
Depth: 12.250 m / 40.190 ft U Max: 24.4 m Ueq: 2.0 m Ir: 100
Duration: 400.0 s U(50): 13.18 m Ch: 73.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



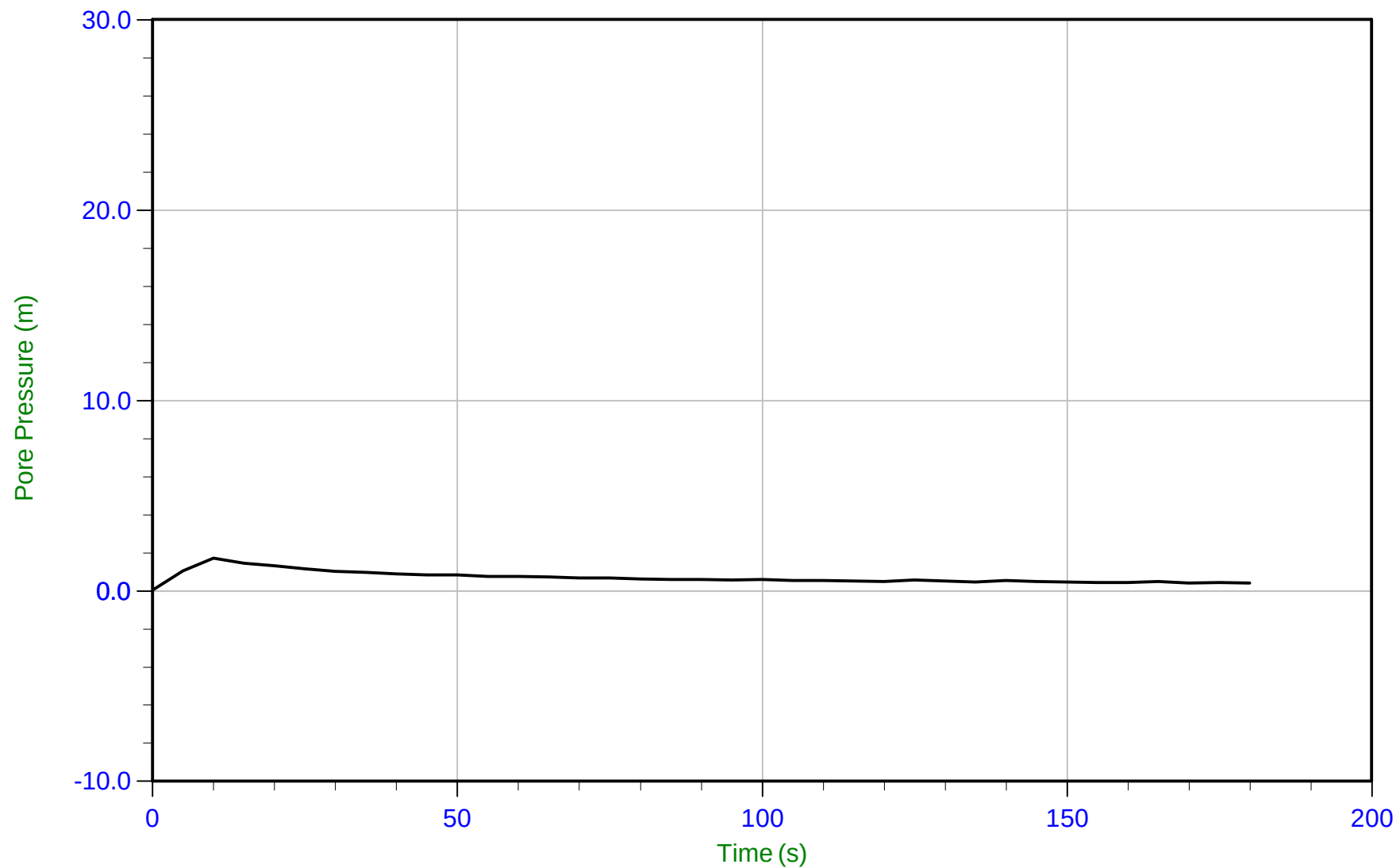
Trace Summary: Filename: 15-02029_CPA10.PPF U Min: 2.2 m WT: 15.158 m / 49.730 ft T(50): 20.0 s
Depth: 17.250 m / 56.594 ft U Max: 98.5 m Ueq: 2.1 m Ir: 100
Duration: 550.0 s U(50): 50.29 m Ch: 35.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/27/2015 08:42
Site: Myra Falls Mine

Sounding: CPT15-A10
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



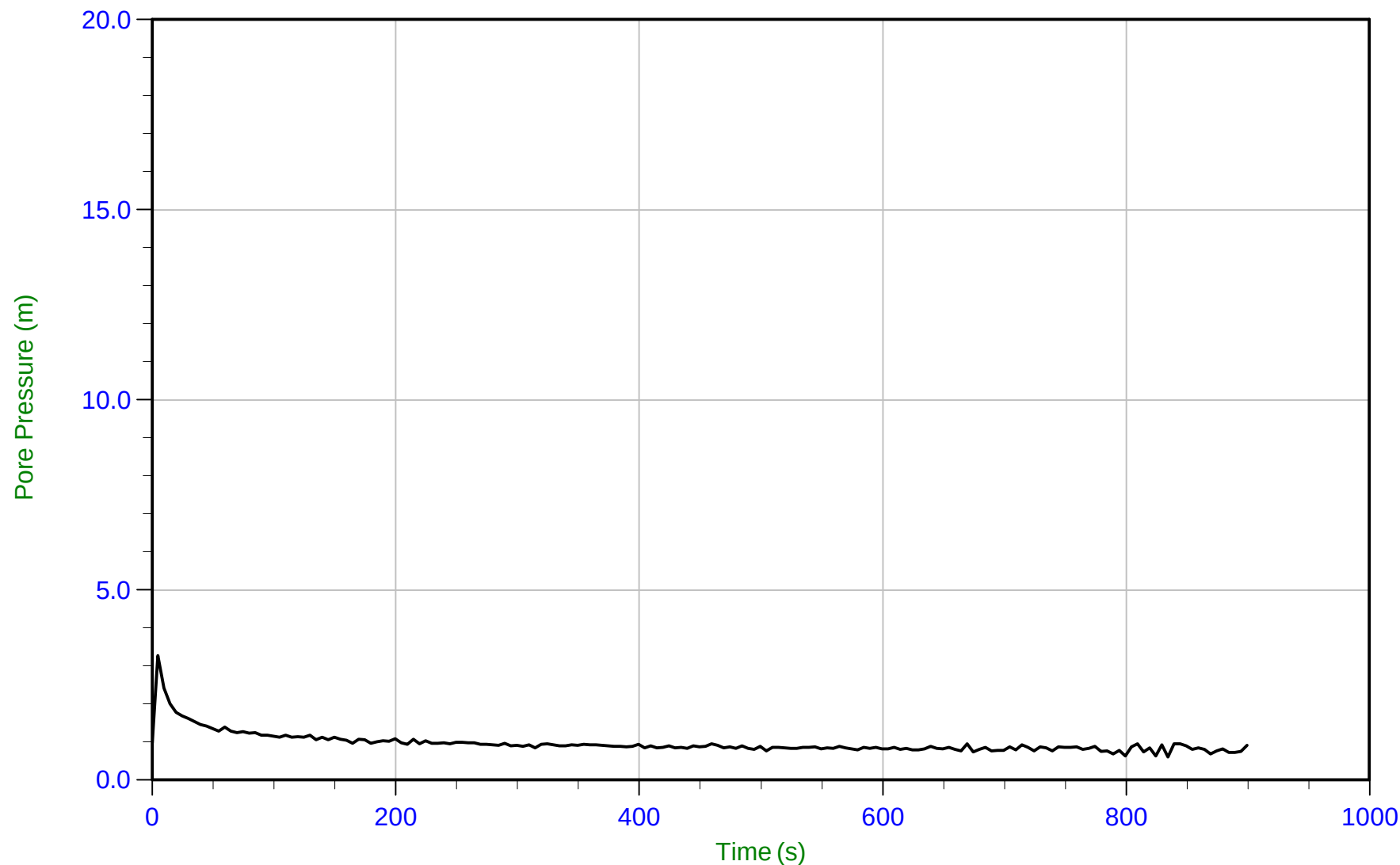
Trace Summary:	Filename: 15-02029_CPA10.PPF	U Min: 0.0 m	WT: 20.100 m / 65.944 ft
	Depth: 20.100 m / 65.944 ft	U Max: 1.7 m	Ueq: 0.0 m
	Duration: 180.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



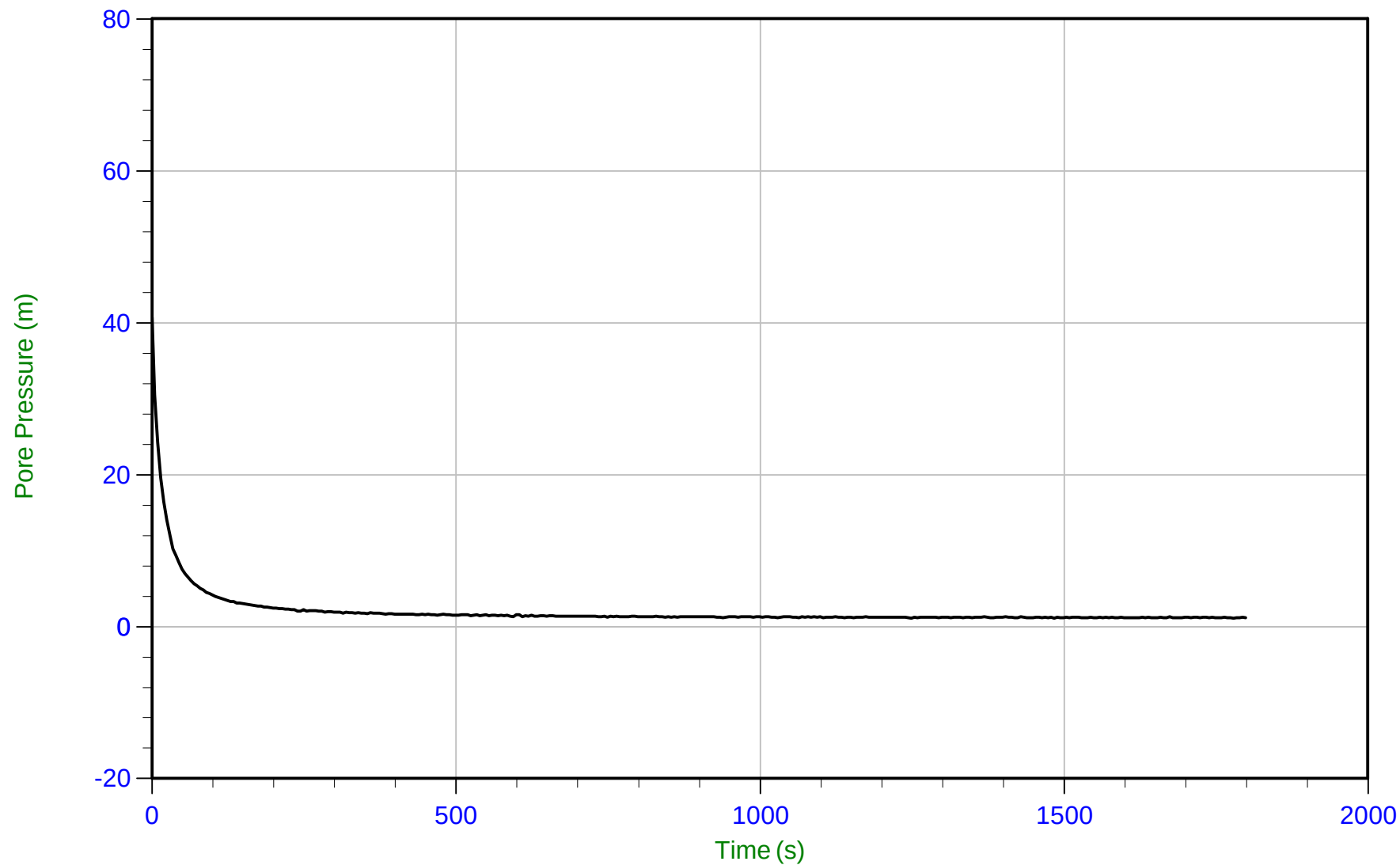
Trace Summary:	Filename: 15-02029_CPA12.PPF	U Min: 0.6 m	WT: 6.439 m / 21.125 ft	T(50): 10.5 s
	Depth: 7.150 m / 23.458 ft	U Max: 3.3 m	Ueq: 0.7 m	Ir: 100
	Duration: 900.0 s		U(50): 1.99 m	Ch: 67.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



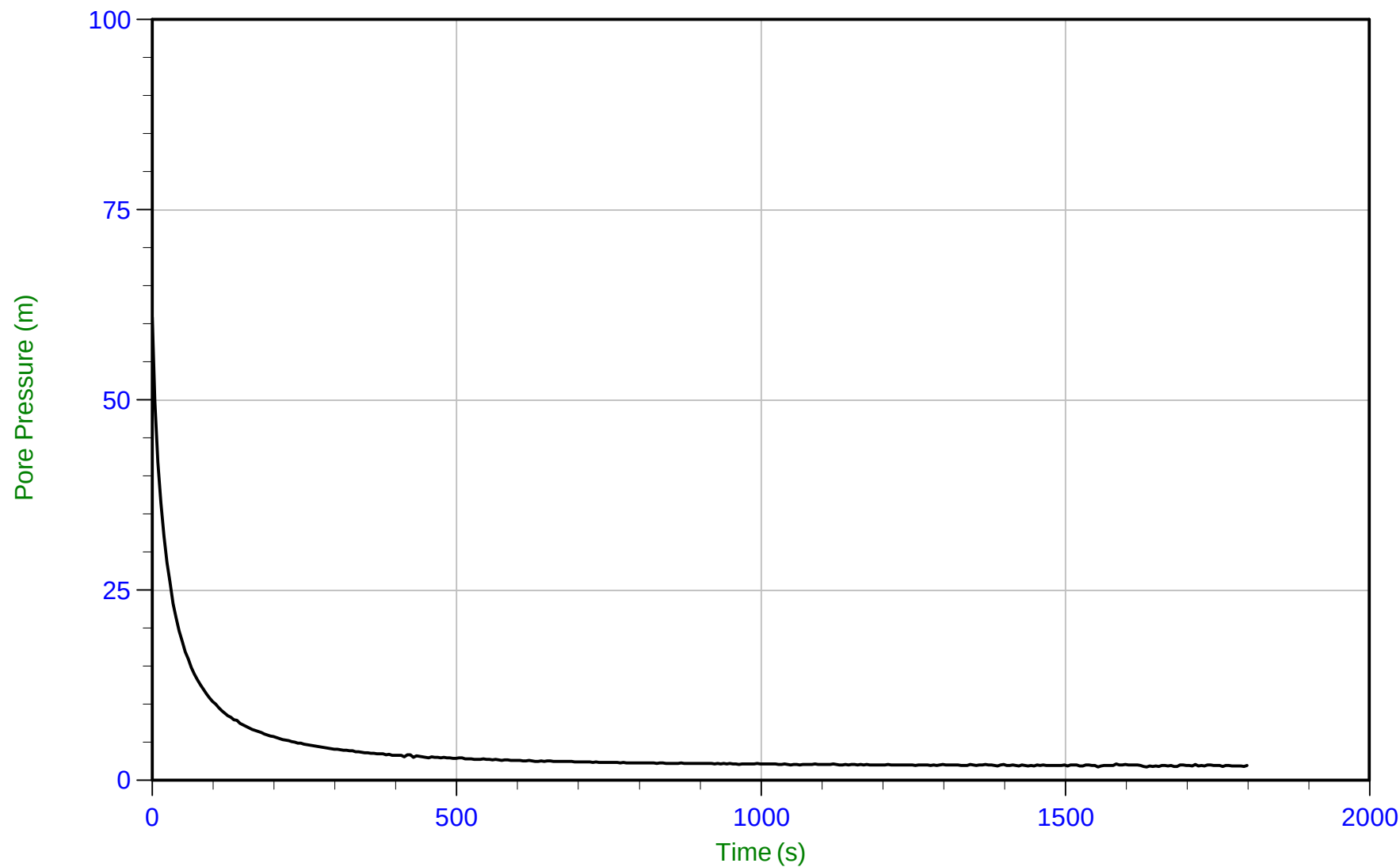
Trace Summary:	Filename: 15-02029_CPA12.PPF	U Min: 1.1 m	WT: 11.020 m / 36.154 ft	T(50): 13.5 s
	Depth: 12.150 m / 39.862 ft	U Max: 40.7 m	Ueq: 1.1 m	Ir: 100
	Duration: 1800.0 s		U(50): 20.93 m	Ch: 51.8 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



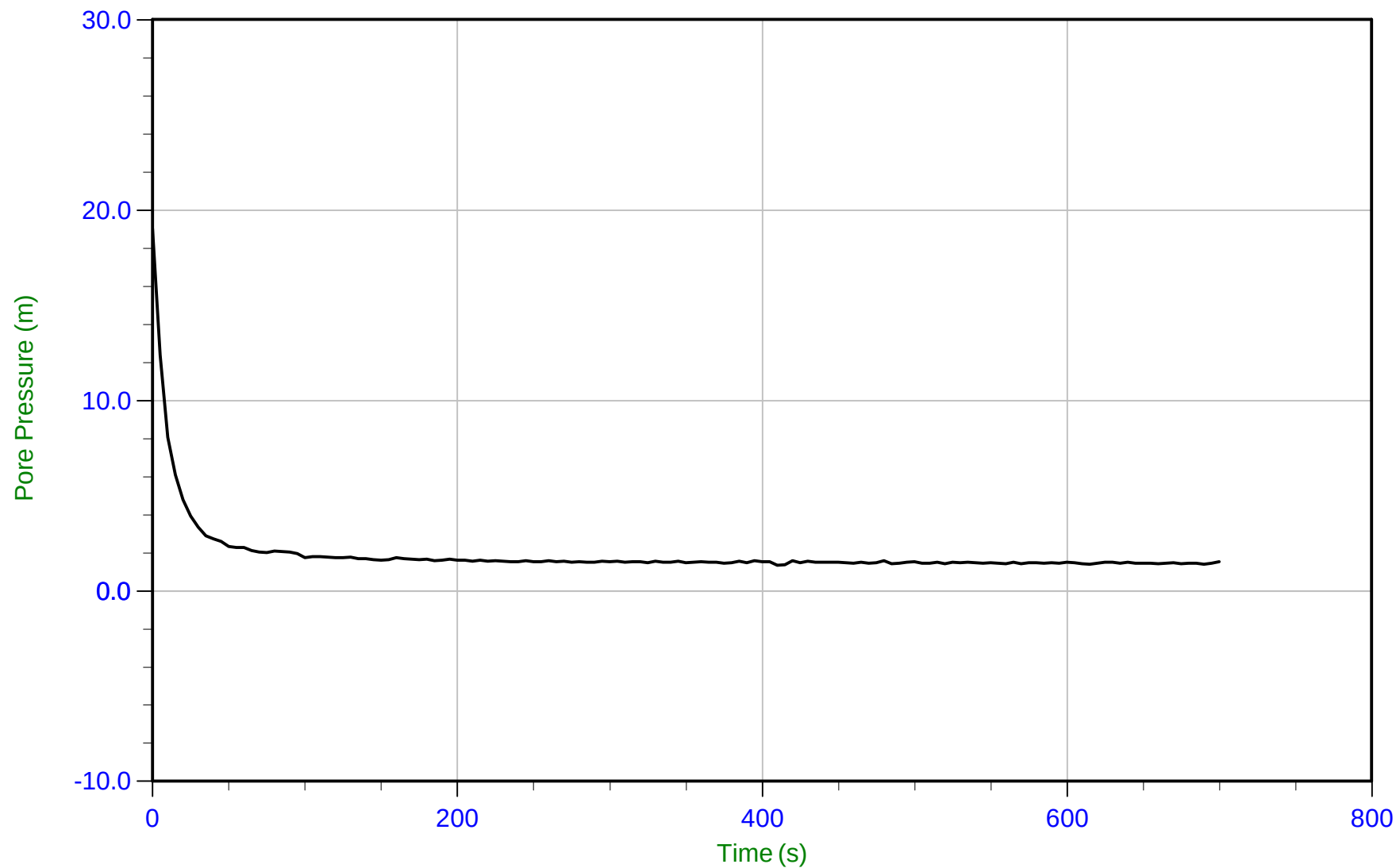
Trace Summary:	Filename: 15-02029_CPA12.PPF	U Min: 1.8 m	WT: 15.267 m / 50.088 ft	T(50): 21.1 s
	Depth: 17.150 m / 56.266 ft	U Max: 60.9 m	Ueq: 1.9 m	Ir: 100
	Duration: 1800.0 s		U(50): 31.41 m	Ch: 33.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 08:35
Site: Myra Falls Mine

Sounding: CPT15-A12
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



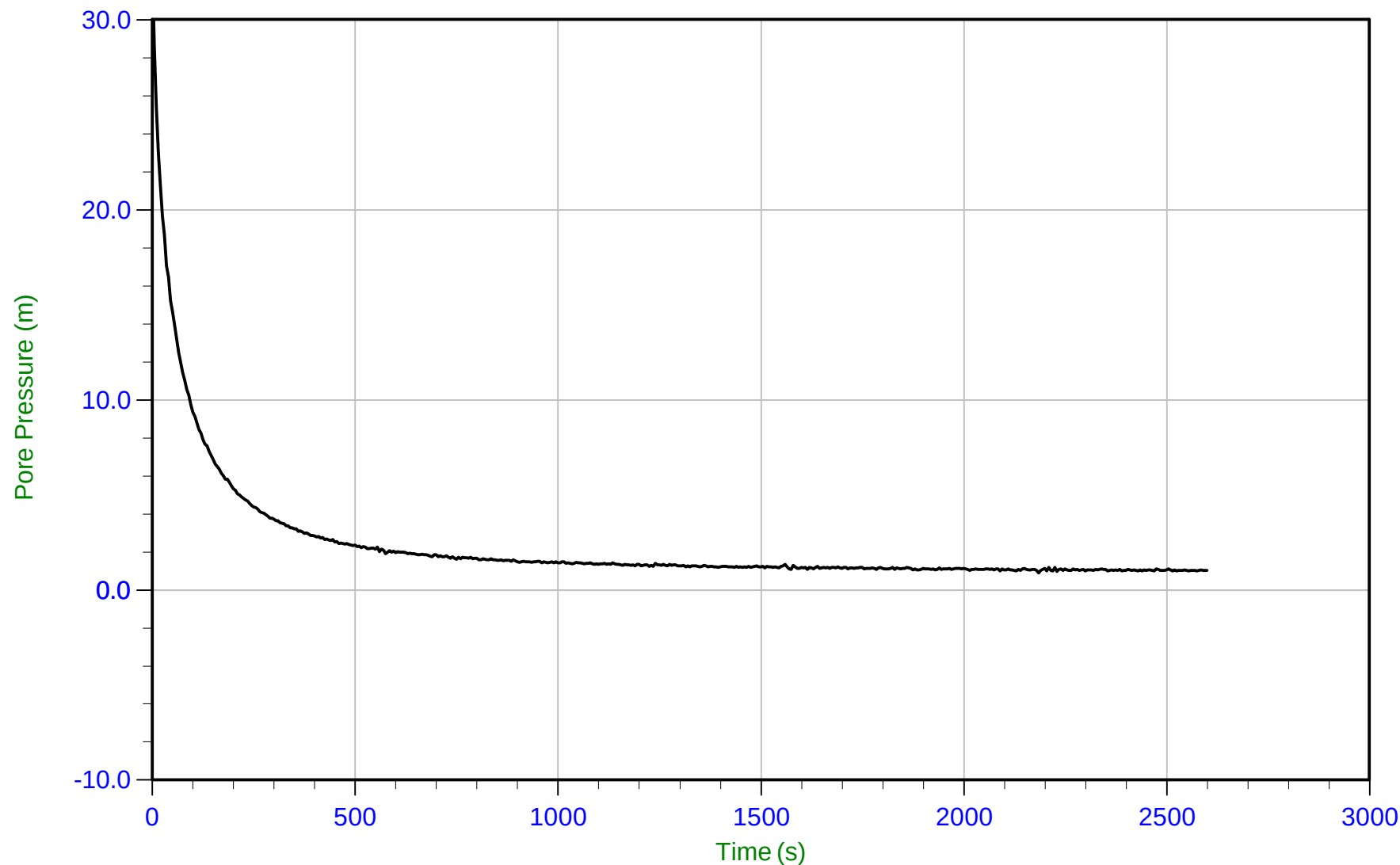
Trace Summary:	Filename: 15-02029_CPA12.PPF	U Min: 1.3 m	WT: 20.919 m / 68.631 ft	T(50): 7.5 s
	Depth: 22.300 m / 73.162 ft	U Max: 19.0 m	Ueq: 1.4 m	Ir: 100
	Duration: 700.0 s		U(50): 10.20 m	Ch: 93.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 09:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



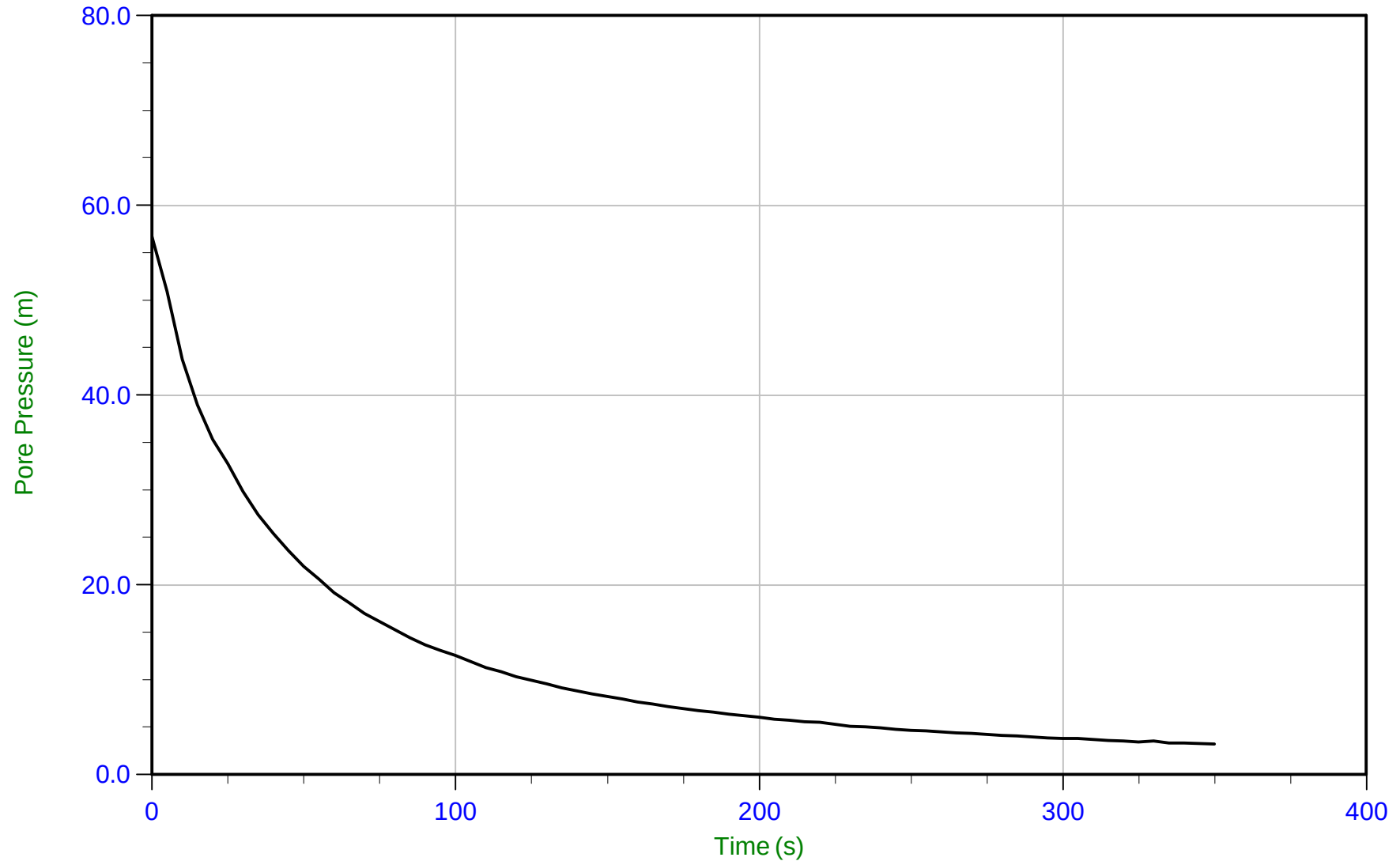
Trace Summary: Filename: 15-02029_CPA14.PPF U Min: 0.9 m WT: 4.350 m / 14.271 ft T(50): 35.5 s
Depth: 5.250 m / 17.224 ft U Max: 33.1 m Ueq: 0.9 m Ir: 100
Duration: 2600.0 s U(50): 16.99 m Ch: 19.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 09:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



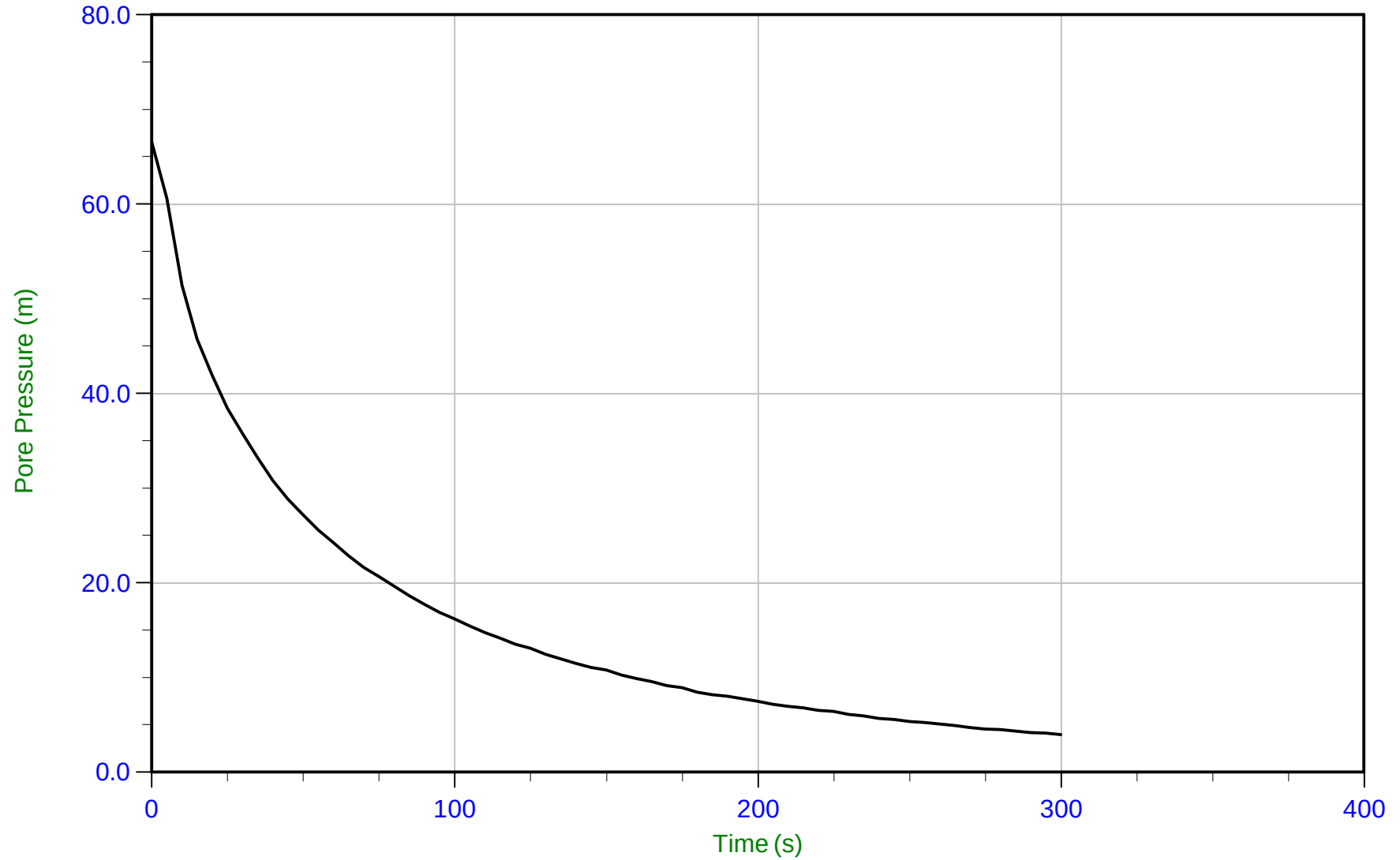
Trace Summary:	Filename: 15-02029_CPA14.PPF	U Min: 3.2 m	WT: 9.250 m / 30.347 ft	T(50): 32.0 s
	Depth: 10.250 m / 33.628 ft	U Max: 56.7 m	Ueq: 1.0 m	Ir: 100
	Duration: 350.0 s		U(50): 28.85 m	Ch: 21.9 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 09:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



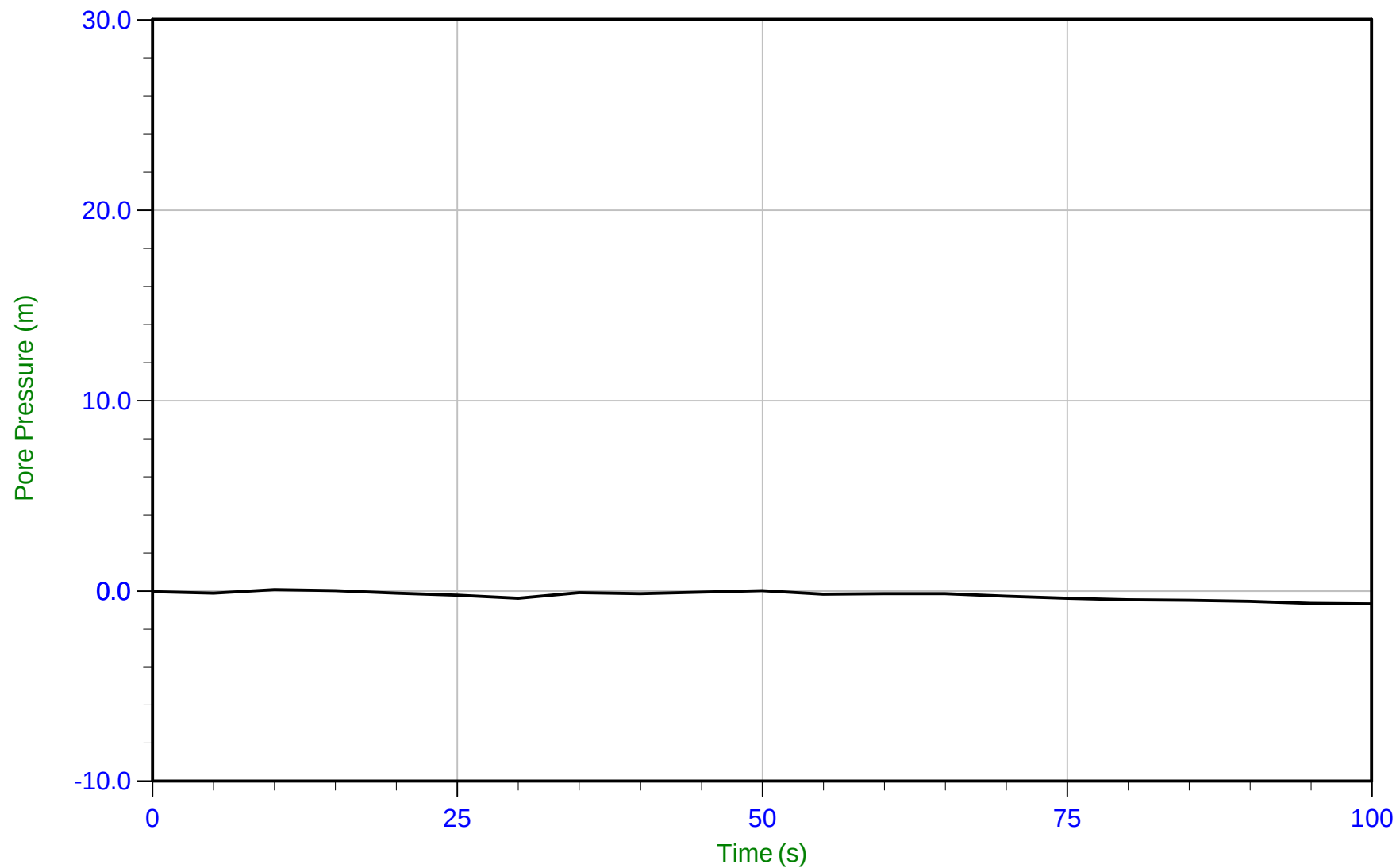
Trace Summary:	Filename: 15-02029_CPA14.PPF	U Min: 4.0 m	WT: 14.750 m / 48.392 ft	T(50): 34.3 s
	Depth: 15.250 m / 50.032 ft	U Max: 66.6 m	Ueq: 0.5 m	Ir: 100
	Duration: 300.0 s		U(50): 33.55 m	Ch: 20.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 09:07
Site: Myra Falls Mine

Sounding: CPT15-A14
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



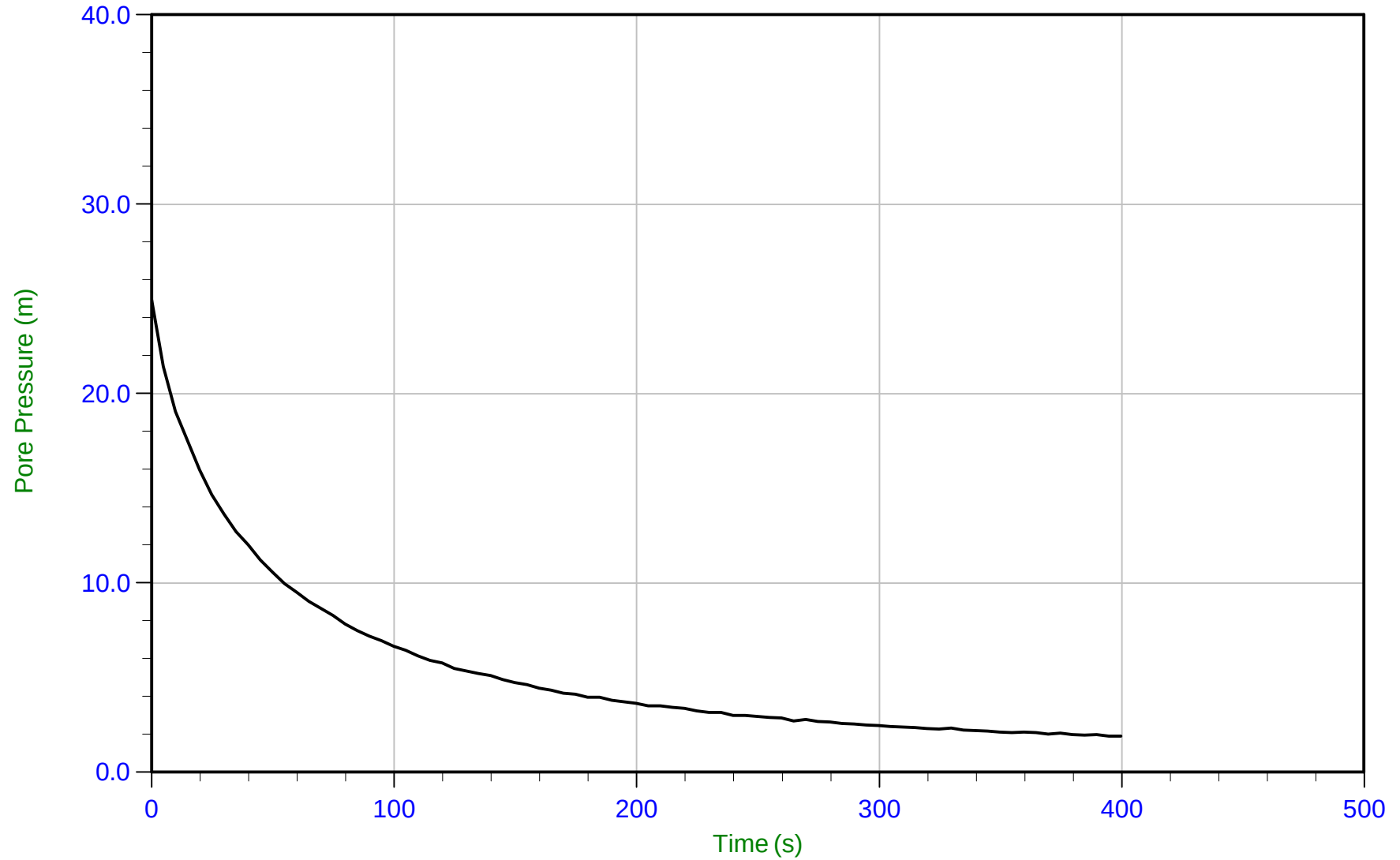
Trace Summary:	Filename: 15-02029_CPA14.PPF	U Min: -0.7 m	WT: 17.400 m / 57.086 ft
	Depth: 17.400 m / 57.086 ft	U Max: 0.1 m	Ueq: 0.0 m
	Duration: 100.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



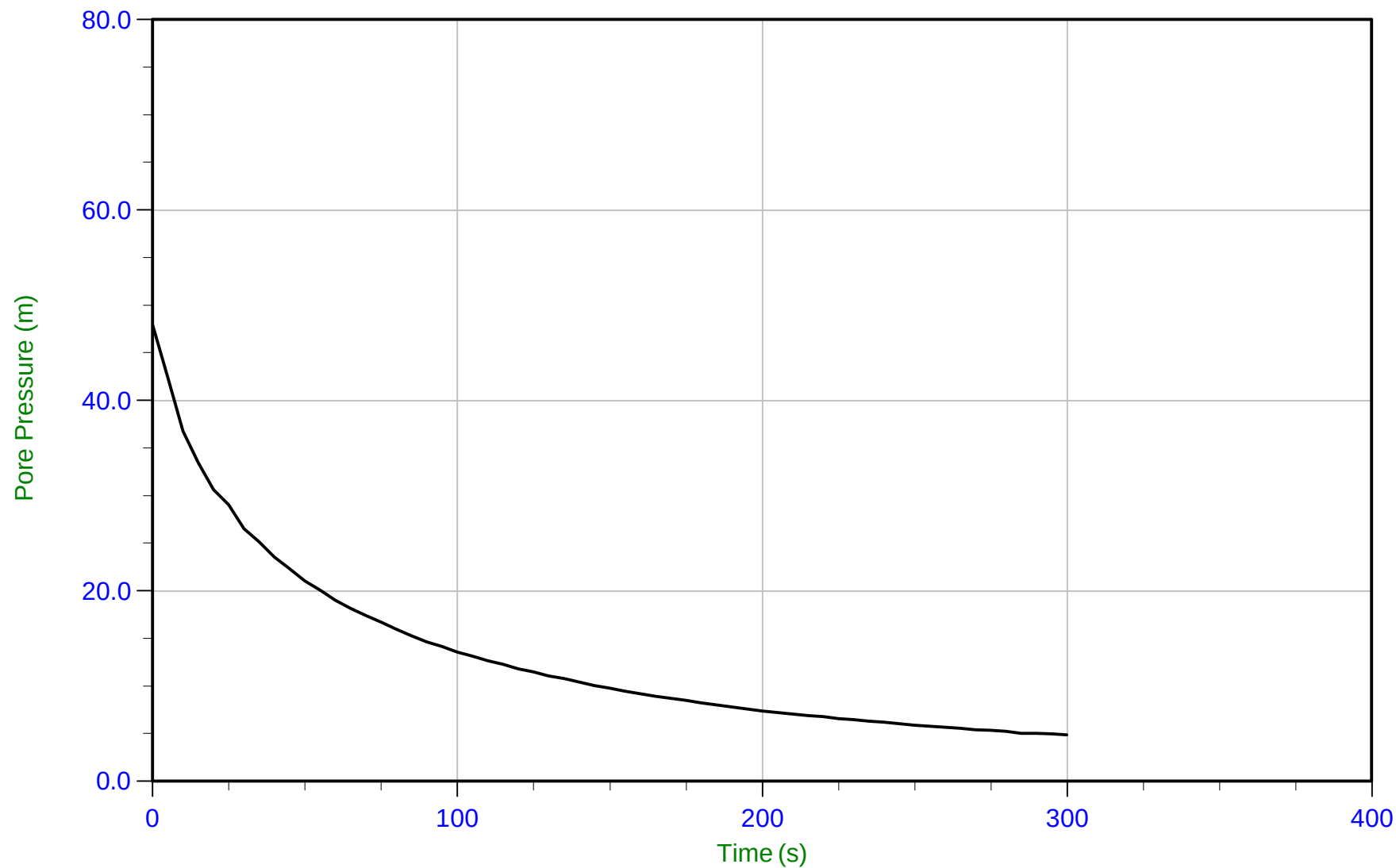
Trace Summary: Filename: 15-02029_CPA15.PPF U Min: 1.9 m WT: 4.750 m / 15.584 ft T(50): 35.0 s
Depth: 5.250 m / 17.224 ft U Max: 24.9 m Ueq: 0.5 m Ir: 100
Duration: 400.0 s U(50): 12.72 m Ch: 20.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



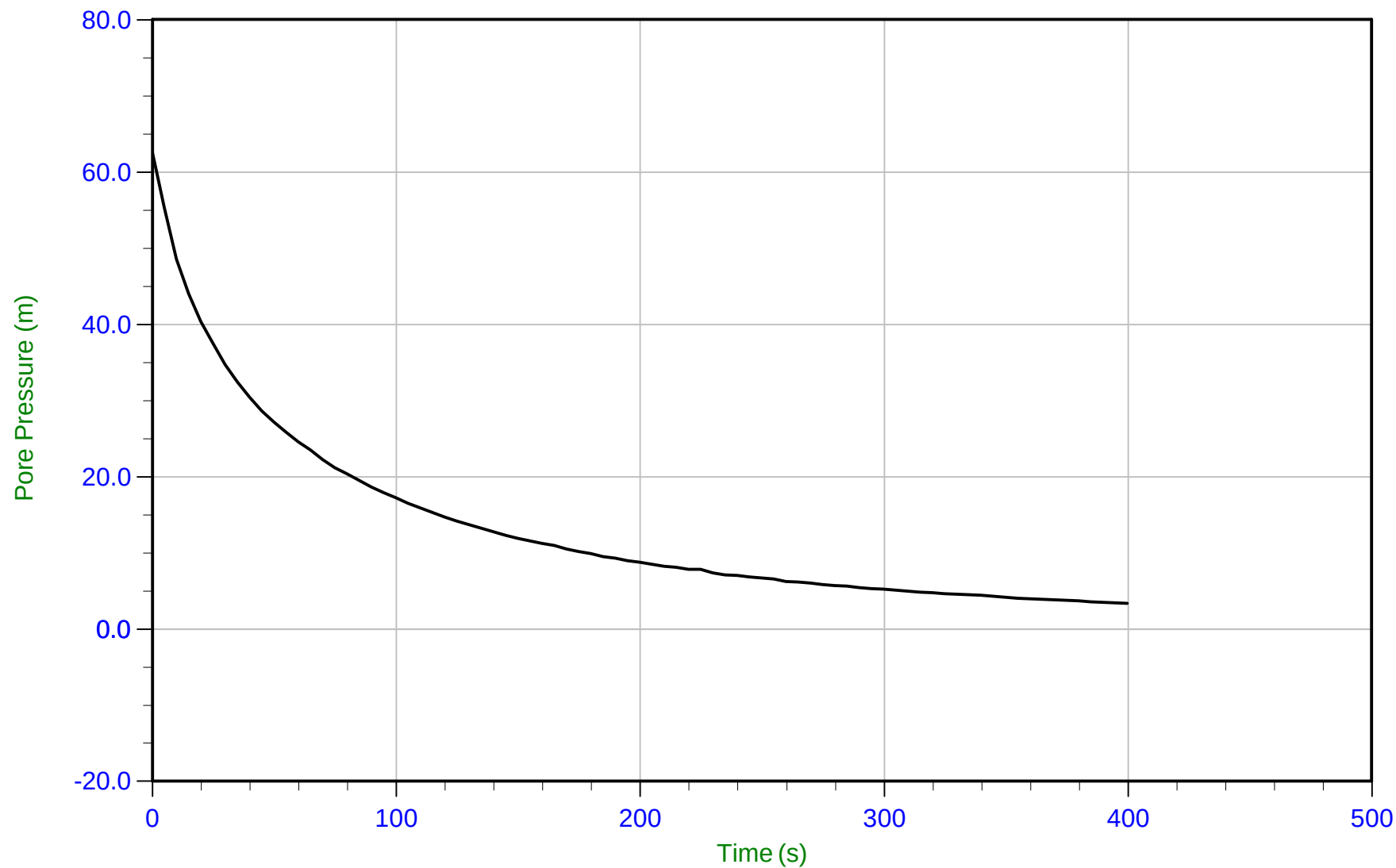
Trace Summary:	Filename: 15-02029_CPA15.PPF	U Min: 4.9 m	WT: 9.250 m / 30.347 ft	T(50): 37.1 s
	Depth: 10.250 m / 33.628 ft	U Max: 48.0 m	Ueq: 1.0 m	Ir: 100
	Duration: 300.0 s		U(50): 24.50 m	Ch: 18.9 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



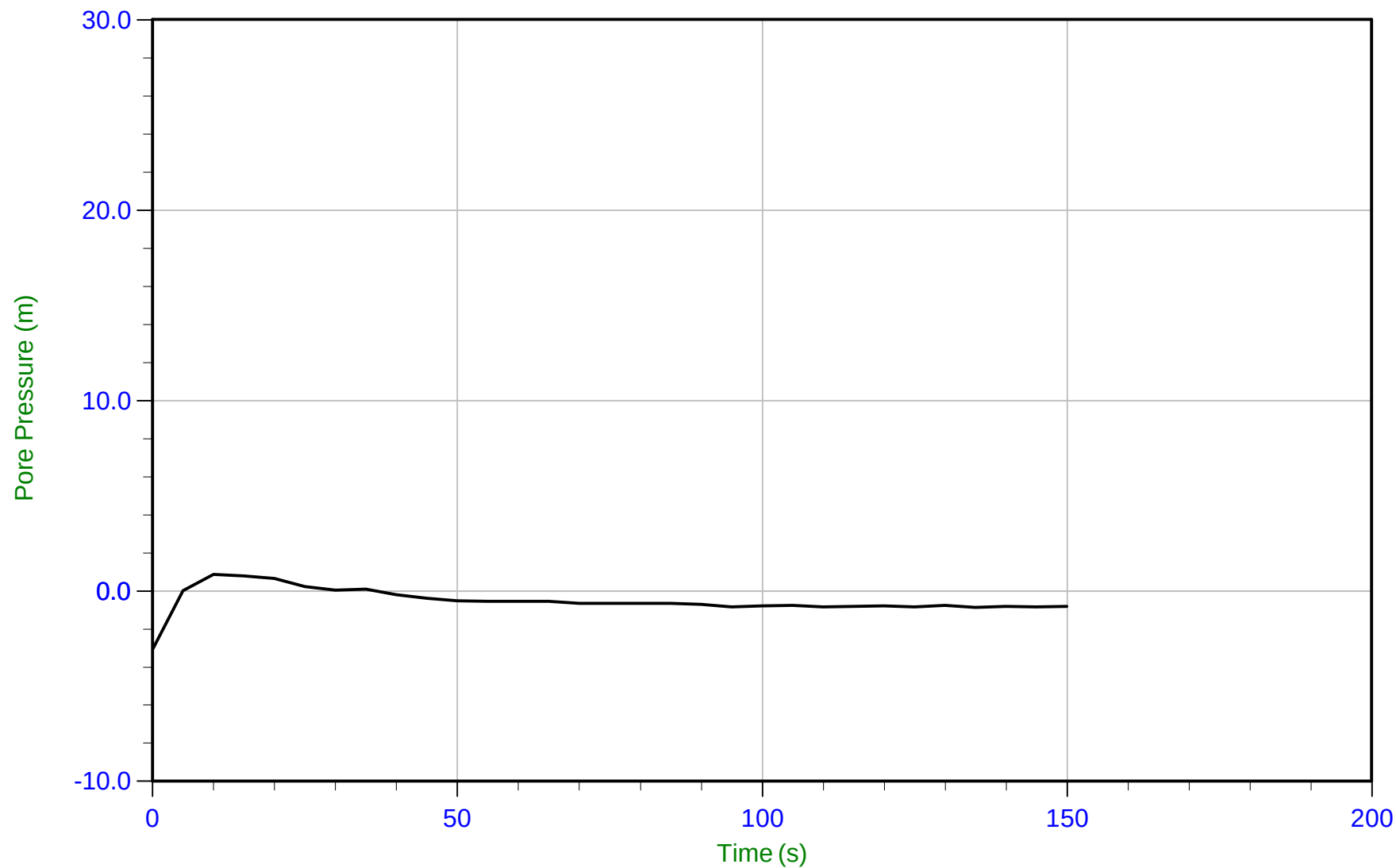
Trace Summary:	Filename: 15-02029_CPA15.PPF	U Min: 3.4 m	WT: 15.250 m / 50.032 ft	T(50): 37.9 s
	Depth: 15.250 m / 50.032 ft	U Max: 62.5 m	Ueq: 0.0 m	Ir: 100
	Duration: 400.0 s		U(50): 31.27 m	Ch: 18.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/26/2015 07:17
Site: Myra Falls Mine

Sounding: CPT15-A15
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



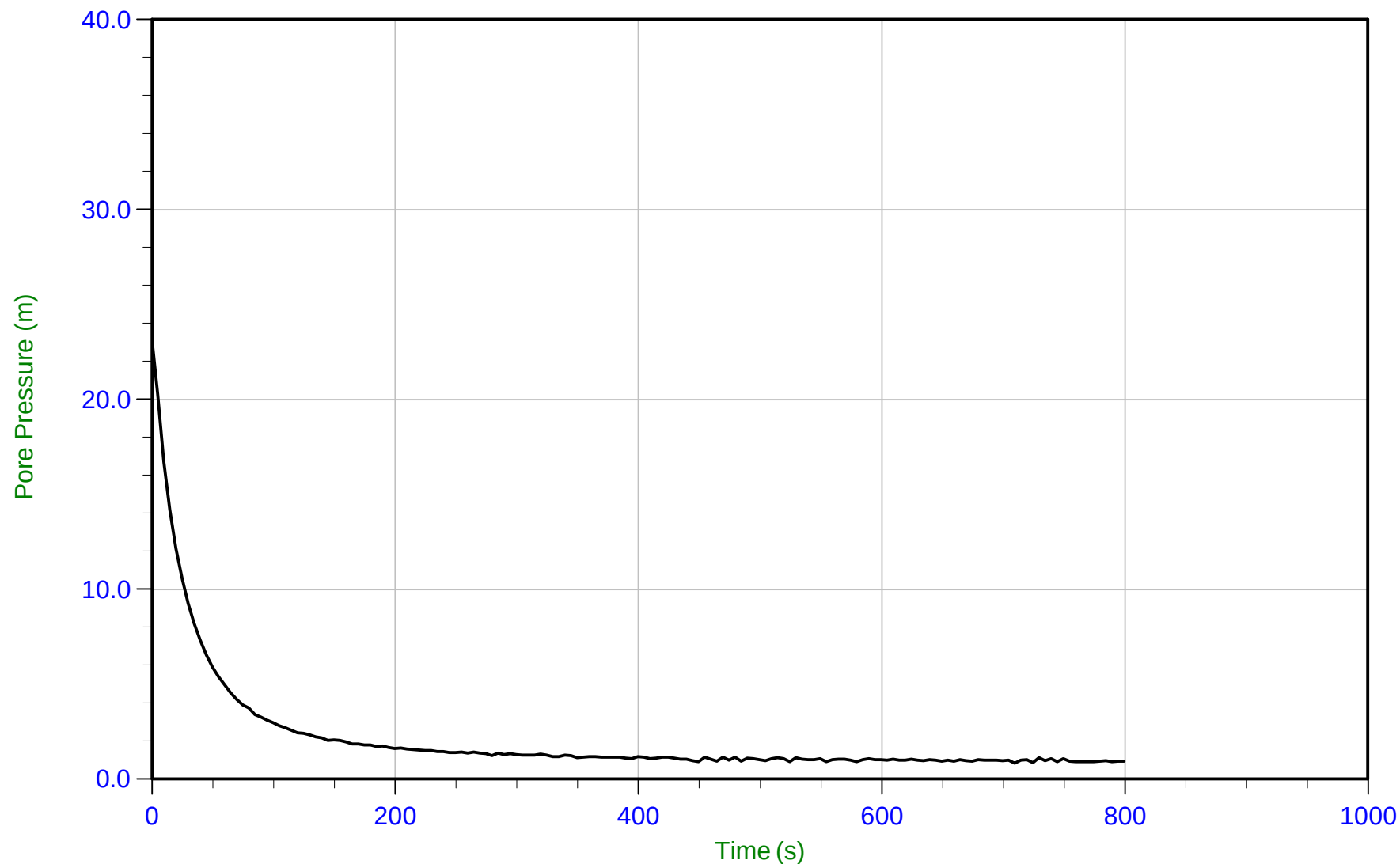
Trace Summary:	Filename: 15-02029_CPA15.PPF	U Min: -3.1 m	WT: 20.250 m / 66.436 ft
	Depth: 20.250 m / 66.436 ft	U Max: 0.9 m	Ueq: 0.0 m
	Duration: 150.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



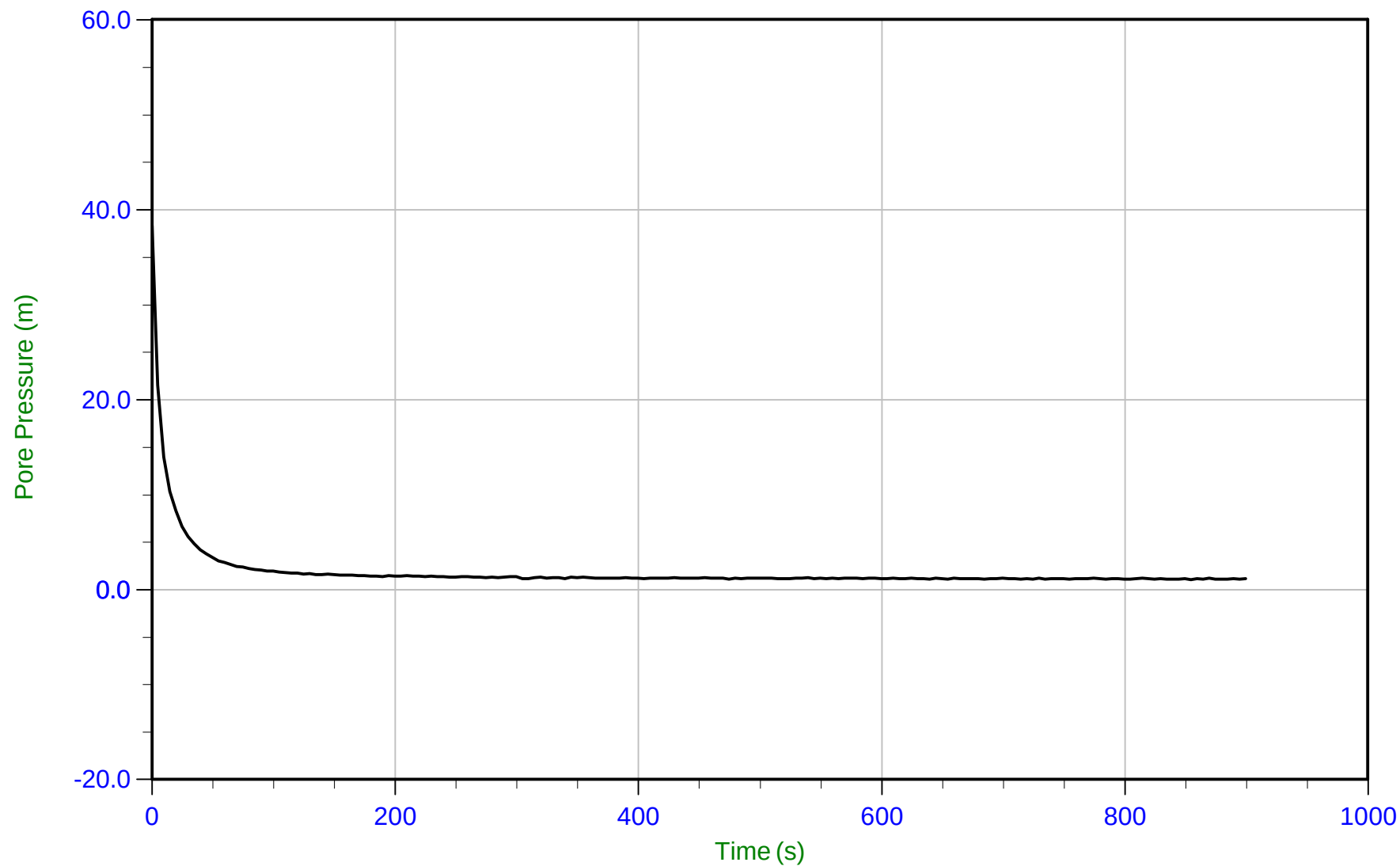
Trace Summary:	Filename: 15-02029_CPA16.PPF	U Min: 0.8 m	WT: 7.229 m / 23.717 ft	T(50): 20.5 s
	Depth: 8.150 m / 26.739 ft	U Max: 23.1 m	Ueq: 0.9 m	Ir: 100
	Duration: 800.0 s		U(50): 12.00 m	Ch: 34.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



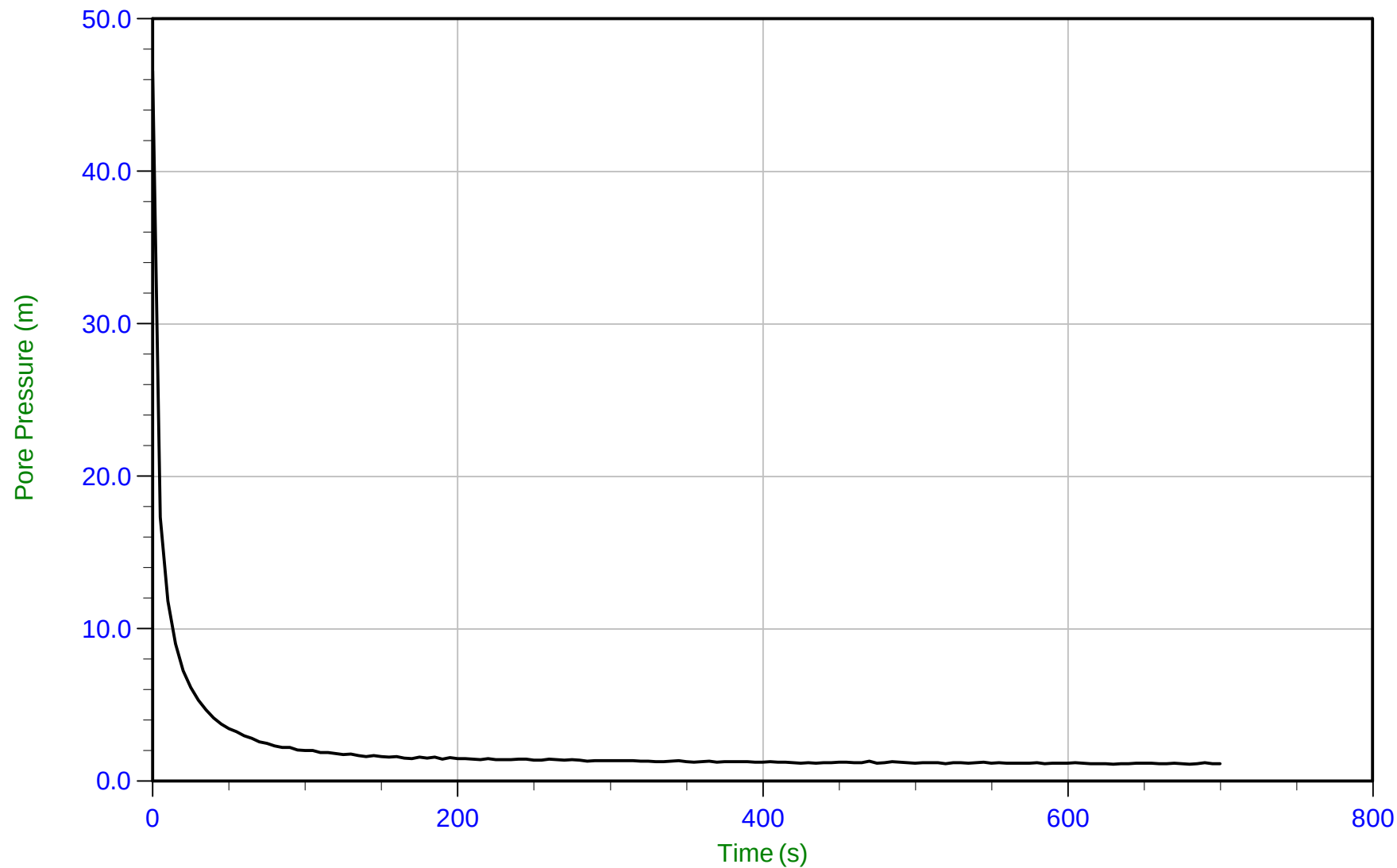
Trace Summary:	Filename: 15-02029_CPA16.PPF	U Min: 1.1 m	WT: 12.062 m / 39.573 ft	T(50): 6.2 s
	Depth: 13.150 m / 43.143 ft	U Max: 38.3 m	Ueq: 1.1 m	Ir: 100
	Duration: 900.0 s		U(50): 19.72 m	Ch: 113.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



Trace Summary: Filename: 15-02029_CPA16.PPF
Depth: 18.150 m / 59.547 ft
Duration: 700.0 s

U Min: 1.1 m
U Max: 46.6 m

WT: 17.104 m / 56.115 ft
Ueq: 1.0 m
U(50): 23.82 m

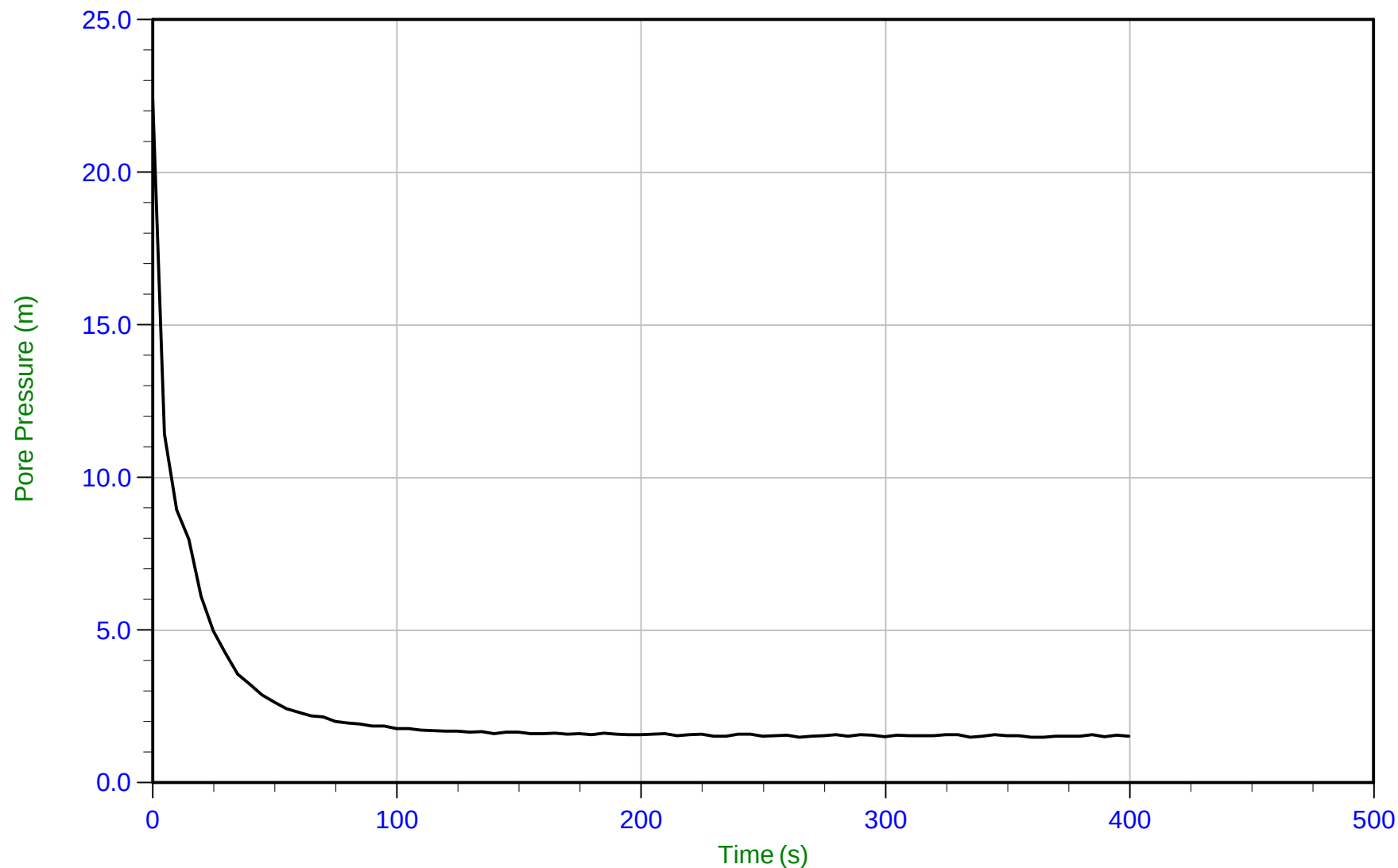
T(50): 3.9 s
Ir: 100
Ch: 180.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/29/2015 13:58
Site: Myra Falls Mine

Sounding: CPT15-A16
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



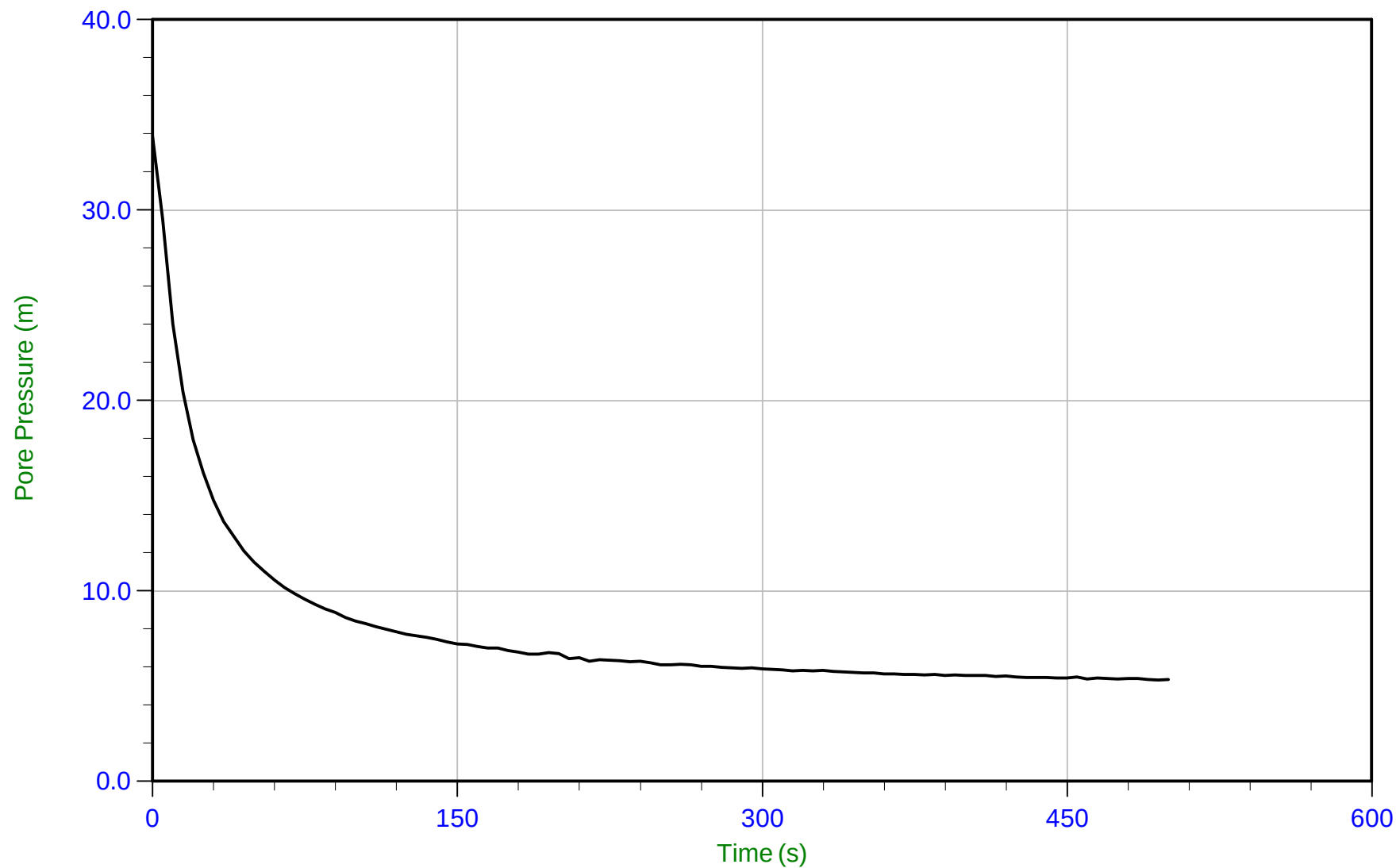
Trace Summary:	Filename: 15-02029_CPA16.PPF	U Min: 1.5 m	WT: 21.483 m / 70.481 ft	T(50): 4.8 s
	Depth: 23.000 m / 75.458 ft	U Max: 22.4 m	Ueq: 1.5 m	Ir: 100
	Duration: 400.0 s		U(50): 11.95 m	Ch: 147.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500
Cone Area: 10 sq cm



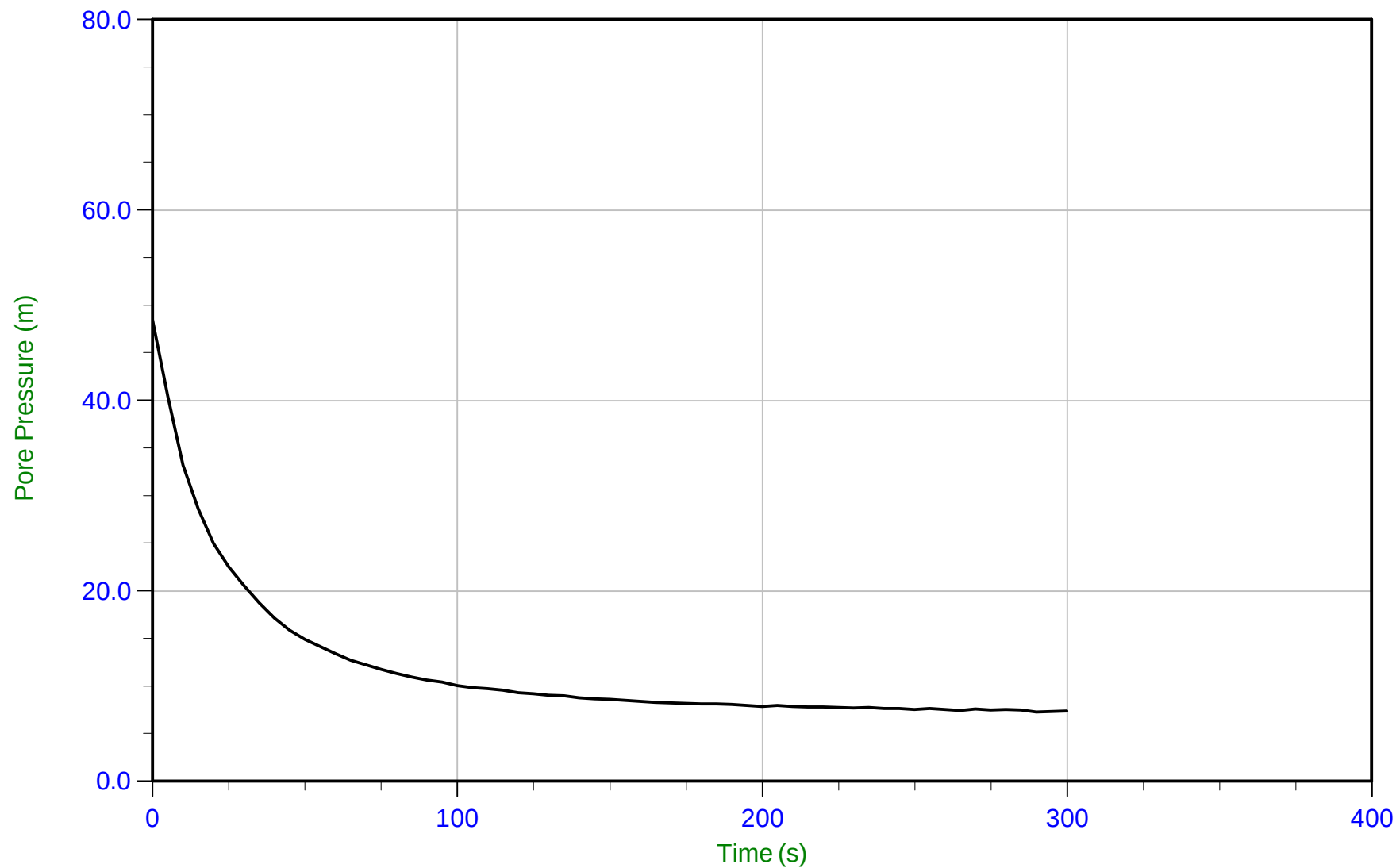
Trace Summary:	Filename: 15-02029_CPA18b.PPF	U Min: 5.3 m	WT: 3.962 m / 12.999 ft	T(50): 16.8 s
	Depth: 9.150 m / 30.019 ft	U Max: 33.9 m	Ueq: 5.2 m	Ir: 100
	Duration: 500.0 s		U(50): 19.53 m	Ch: 41.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500
Cone Area: 10 sq cm



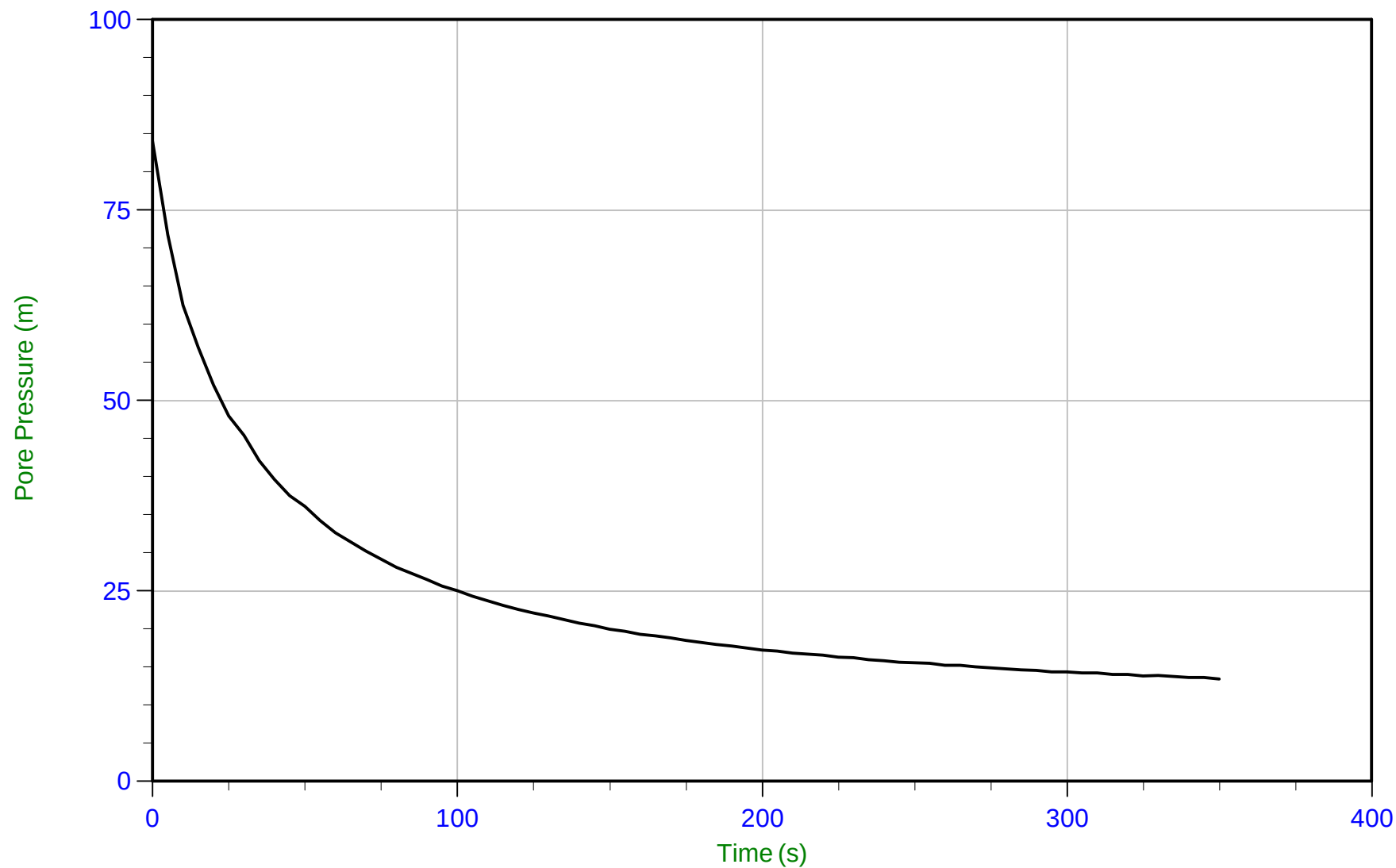
Trace Summary: Filename: 15-02029_CPA18b.PPF U Min: 7.3 m WT: 6.953 m / 22.811 ft T(50): 16.1 s
Depth: 14.150 m / 46.423 ft U Max: 48.5 m Ueq: 7.2 m Ir: 100
Duration: 300.0 s U(50): 27.83 m Ch: 43.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500
Cone Area: 10 sq cm



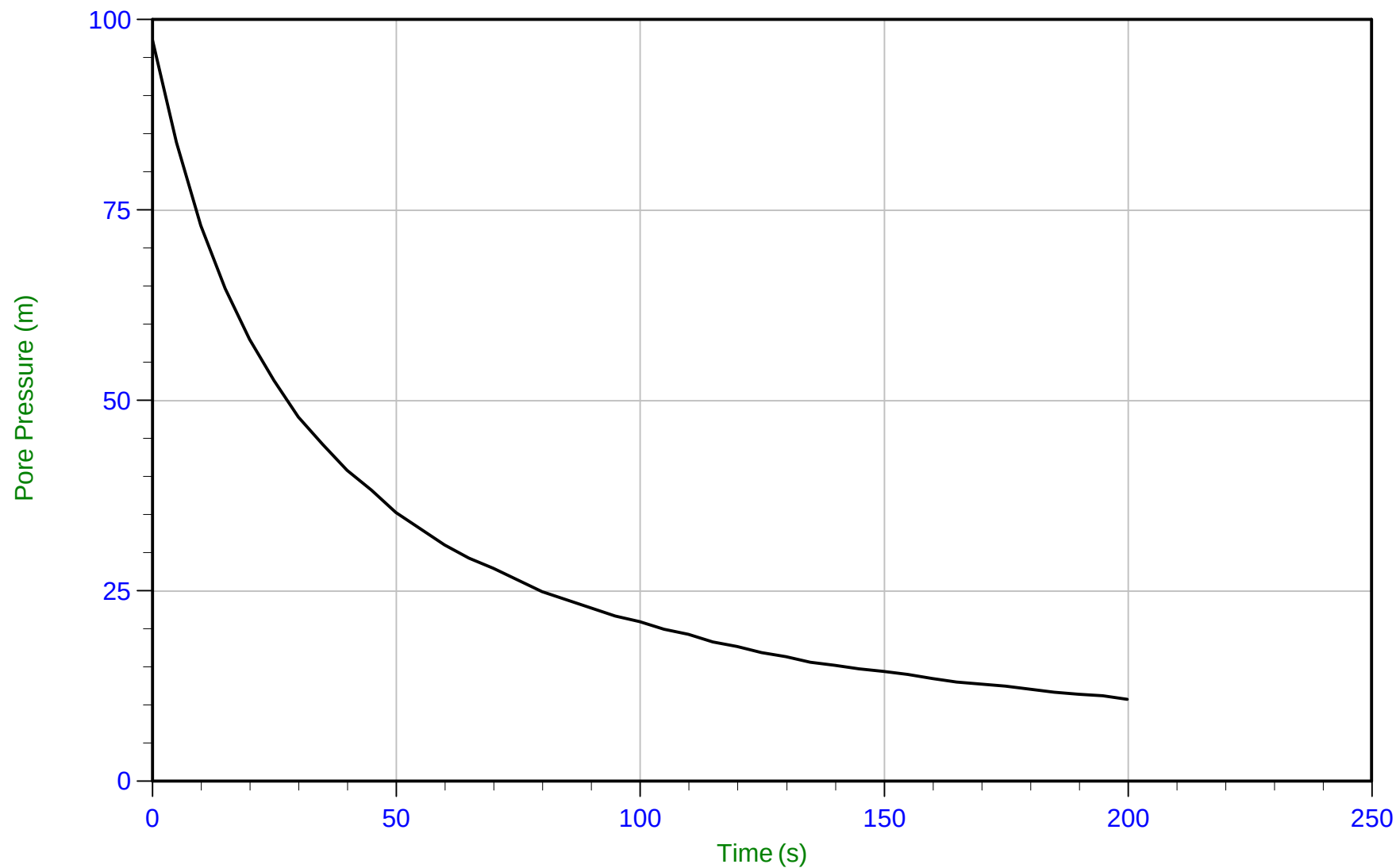
Trace Summary: Filename: 15-02029_CPA18b.PPF U Min: 13.4 m
Depth: 19.150 m / 62.827 ft U Max: 84.0 m
Duration: 350.0 s



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500
Cone Area: 10 sq cm



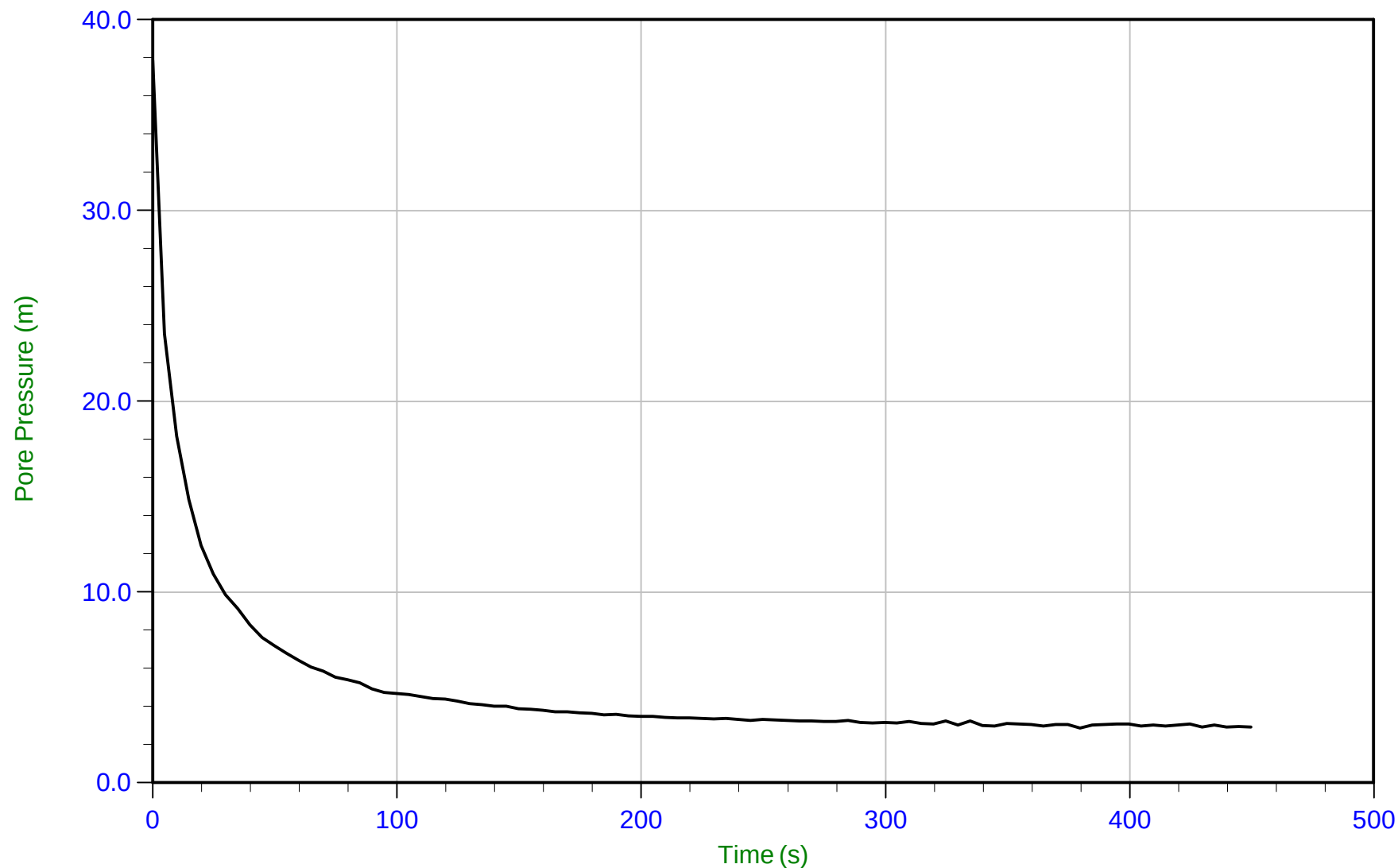
Trace Summary: Filename: 15-02029_CPA18b.PPF U Min: 10.8 m
Depth: 24.150 m / 79.231 ft U Max: 97.3 m
Duration: 200.0 s



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 08:27
Site: Myra Falls Mine

Sounding: CPT15-A18b
Cone: 378:T500F10U500
Cone Area: 10 sq cm



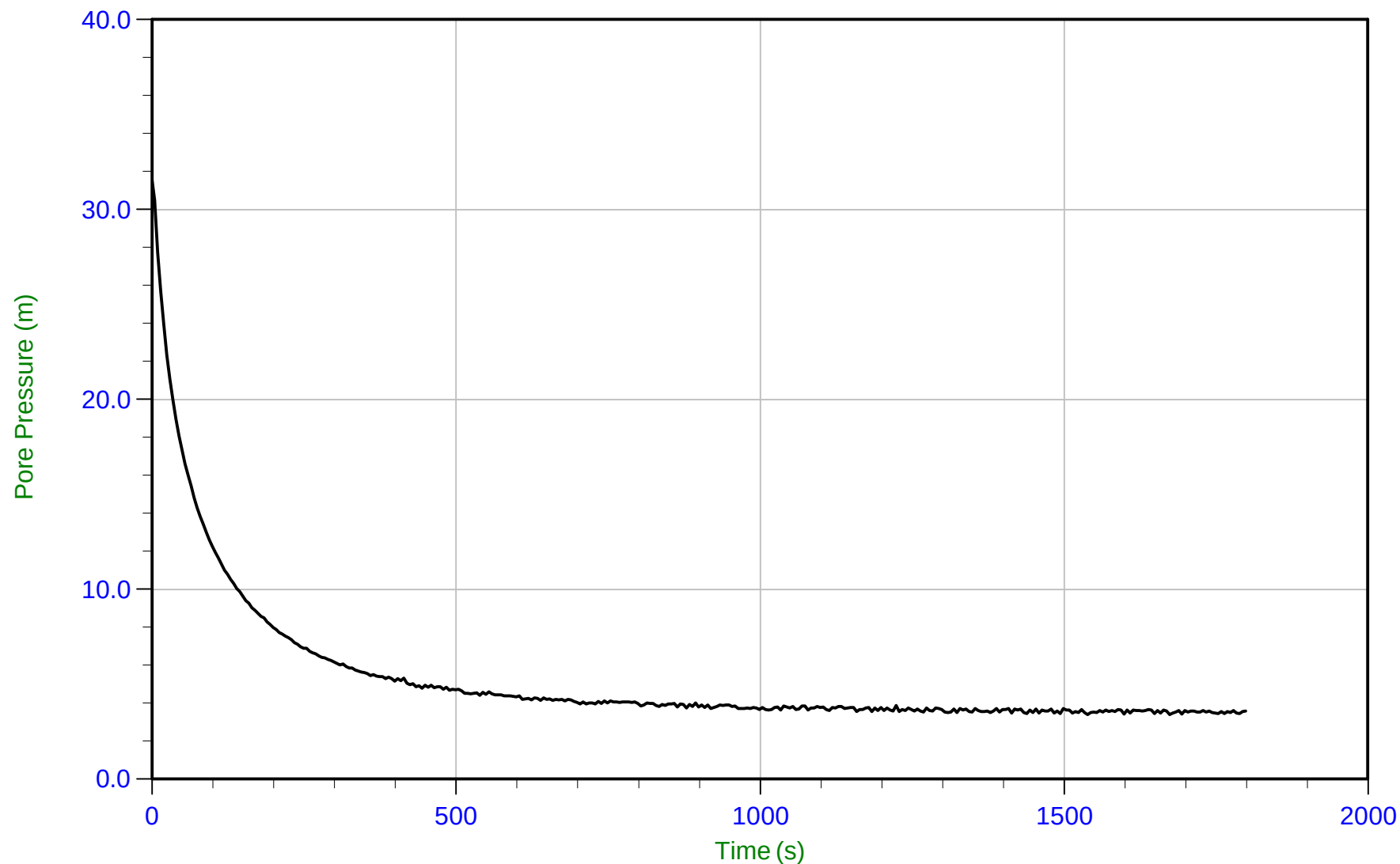
Trace Summary: Filename: 15-02029_CPA18b.PPF U Min: 2.9 m WT: 25.905 m / 84.989 ft T(50): 8.0 s
Depth: 28.750 m / 94.323 ft U Max: 37.9 m Ueq: 2.8 m Ir: 100
Duration: 450.0 s U(50): 20.36 m Ch: 88.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/25/2015 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



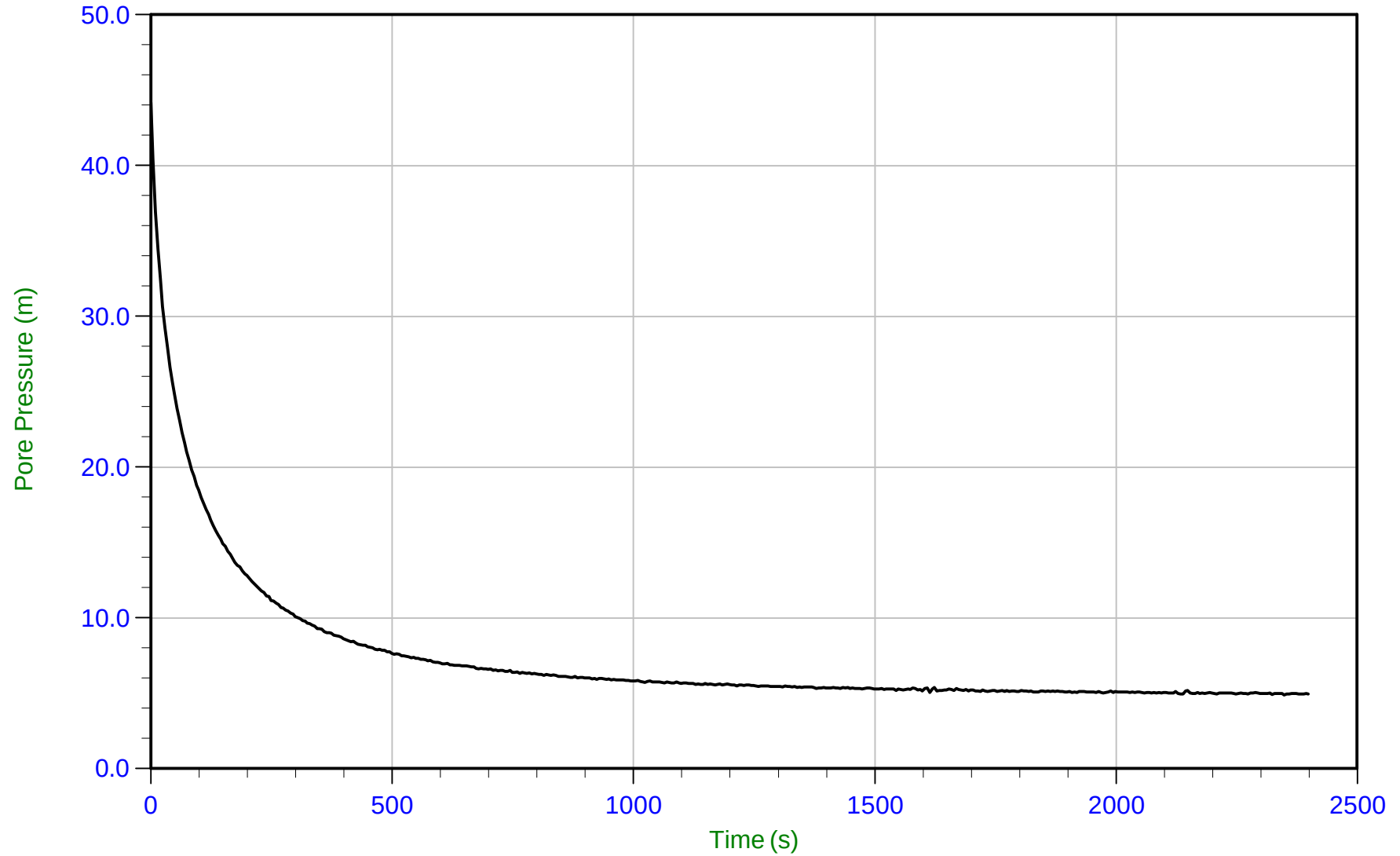
Trace Summary:	Filename: 15-02029_CPA19.PPF	U Min: 3.4 m	WT: 3.019 m / 9.905 ft	T(50): 49.0 s
	Depth: 6.450 m / 21.161 ft	U Max: 31.5 m	Ueq: 3.4 m	Ir: 100
	Duration: 1800.0 s		U(50): 17.48 m	Ch: 14.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/25/2015 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



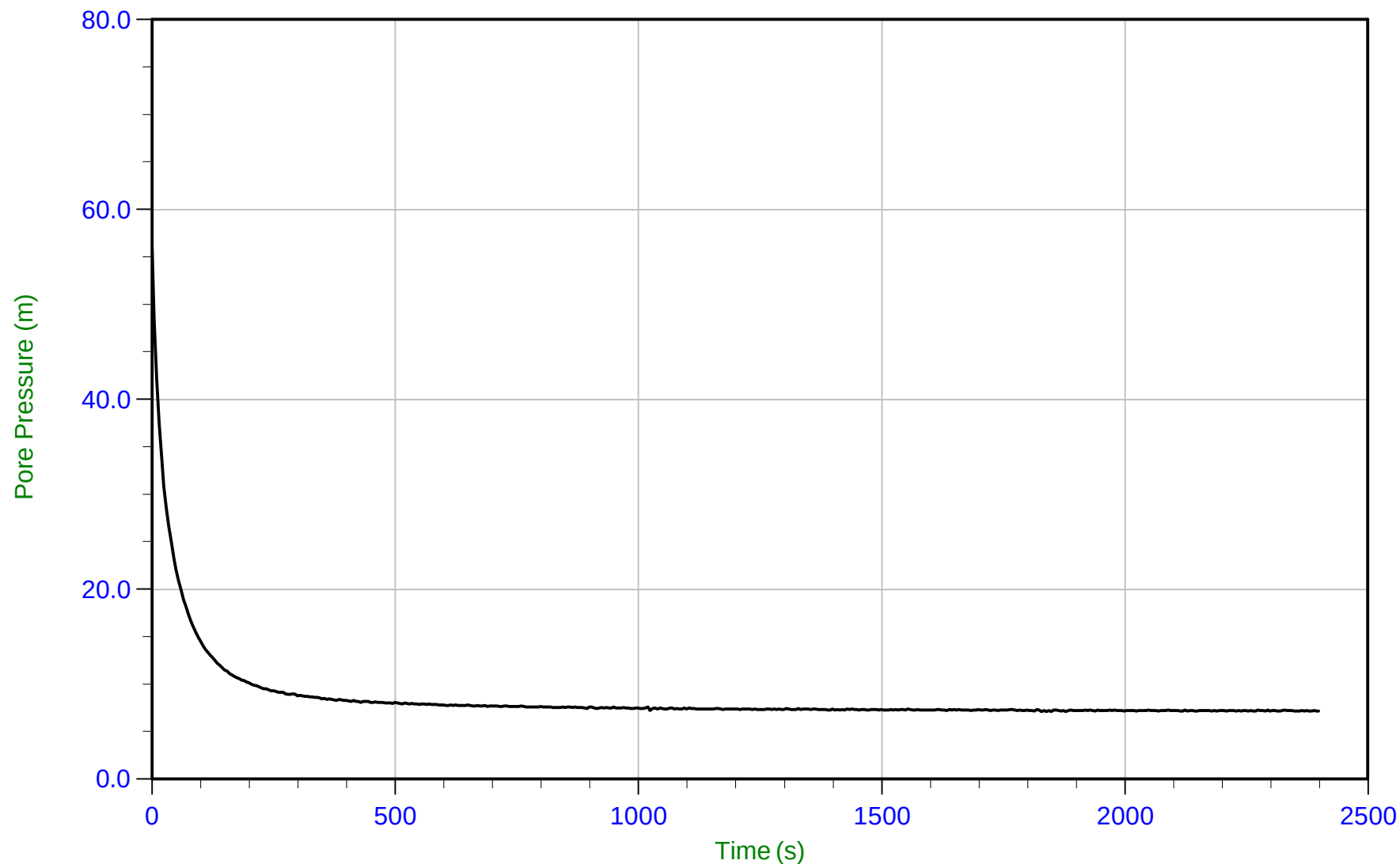
Trace Summary: Filename: 15-02029_CPA19.PPF U Min: 4.9 m WT: 6.334 m / 20.781 ft T(50): 51.4 s
Depth: 11.250 m / 36.909 ft U Max: 44.2 m Ueq: 4.9 m Ir: 100
Duration: 2400.0 s U(50): 24.56 m Ch: 13.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/25/2015 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



Trace Summary: Filename: 15-02029_CPA19.PPF
Depth: 16.250 m / 53.313 ft
Duration: 2400.0 s

U Min: 7.1 m
U Max: 56.0 m

WT: 9.221 m / 30.252 ft
Ueq: 7.0 m
U(50): 31.52 m

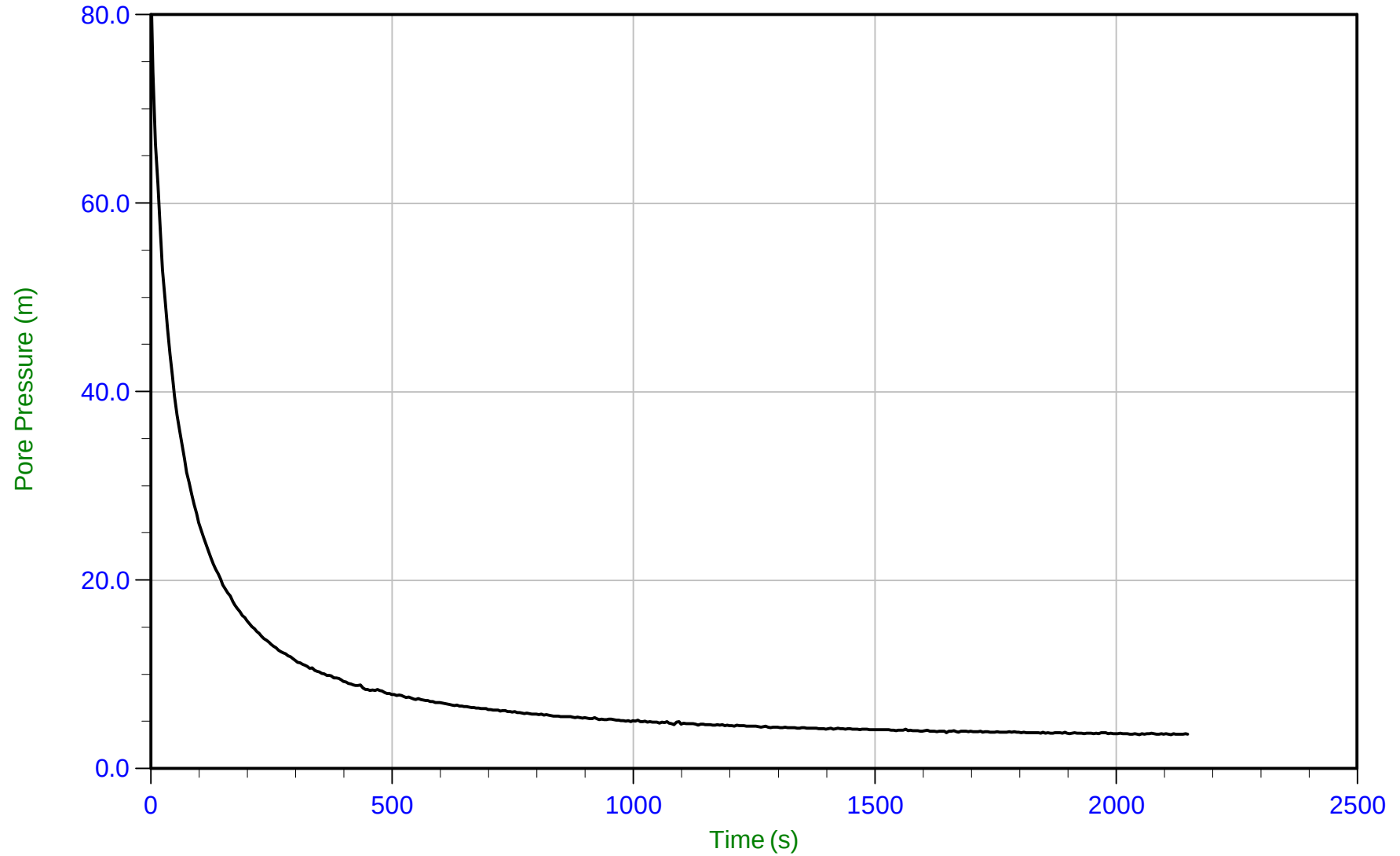
T(50): 23.9 s
Ir: 100
Ch: 29.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/25/2015 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



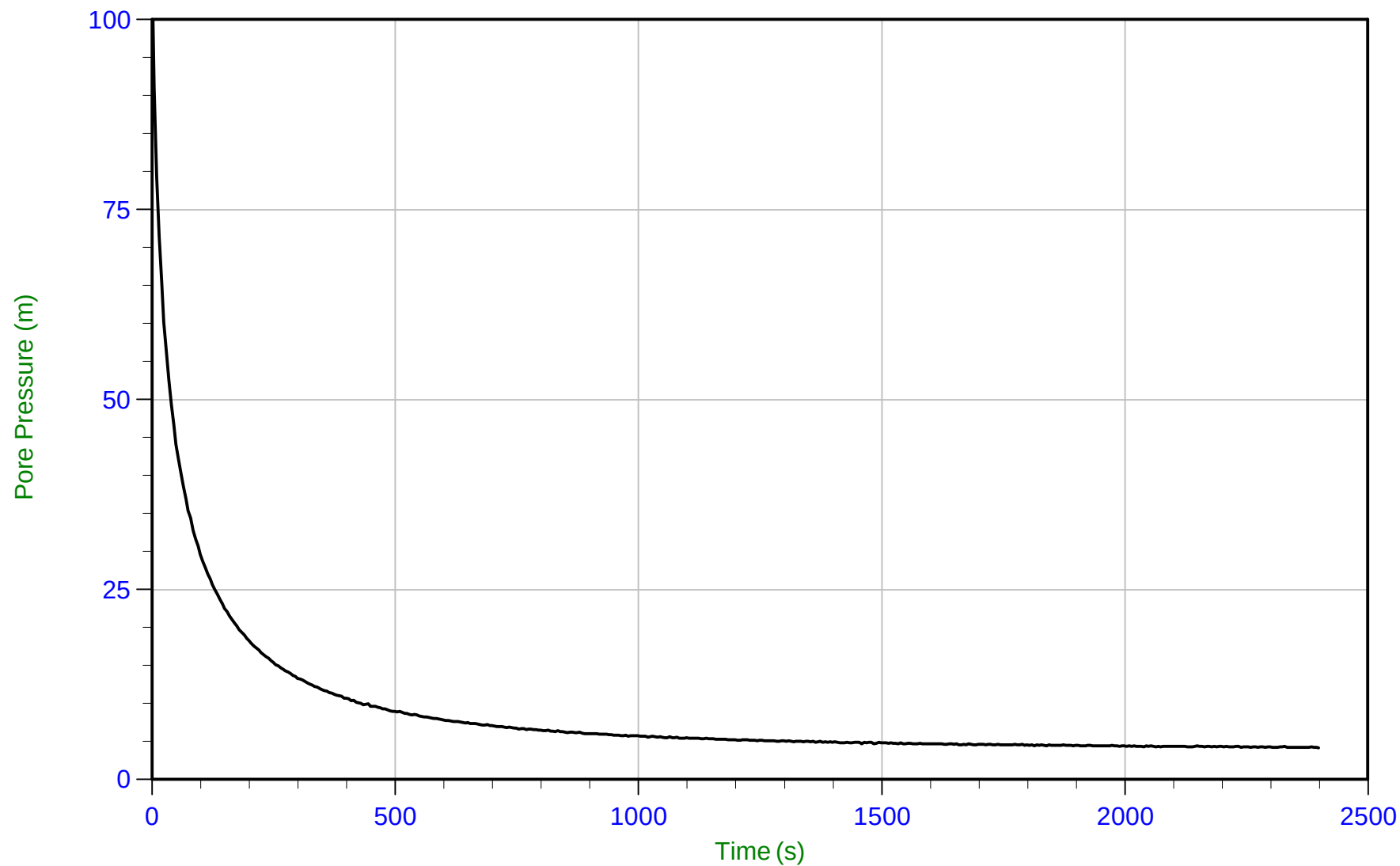
Trace Summary: Filename: 15-02029_CPA19.PPF U Min: 3.6 m WT: 17.694 m / 58.050 ft T(50): 40.8 s
Depth: 21.250 m / 69.717 ft U Max: 83.6 m Ueq: 3.6 m Ir: 100
Duration: 2150.0 s U(50): 43.56 m Ch: 17.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/25/2015 08:19
Site: Myra Falls Mine

Sounding: CPT15-A19
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



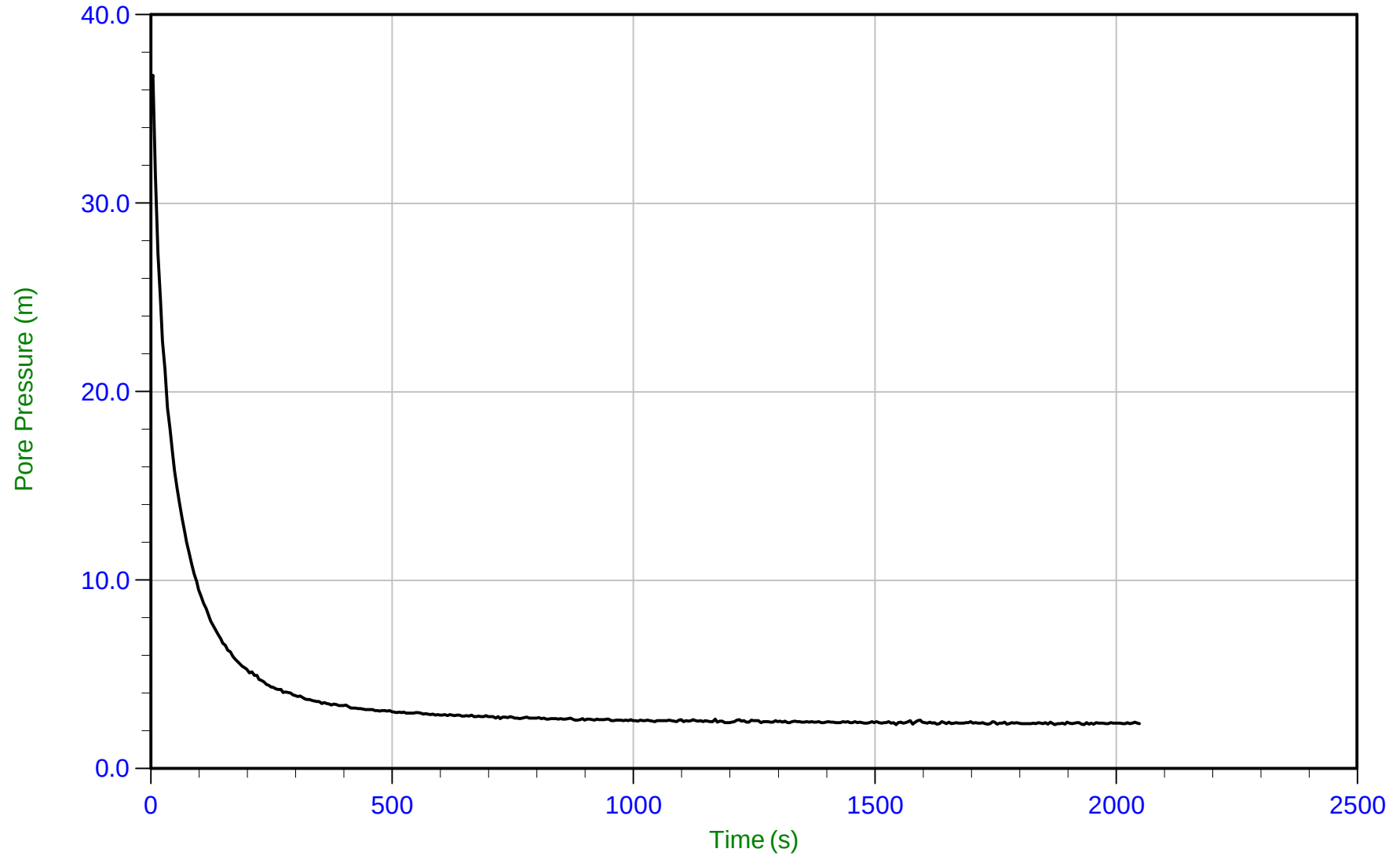
Trace Summary:	Filename: 15-02029_CPA19.PPF	U Min: 4.2 m	WT: 22.066 m / 72.394 ft	T(50): 31.3 s
	Depth: 26.250 m / 86.121 ft	U Max: 106.7 m	Ueq: 4.2 m	Ir: 100
	Duration: 2400.0 s		U(50): 55.46 m	Ch: 22.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



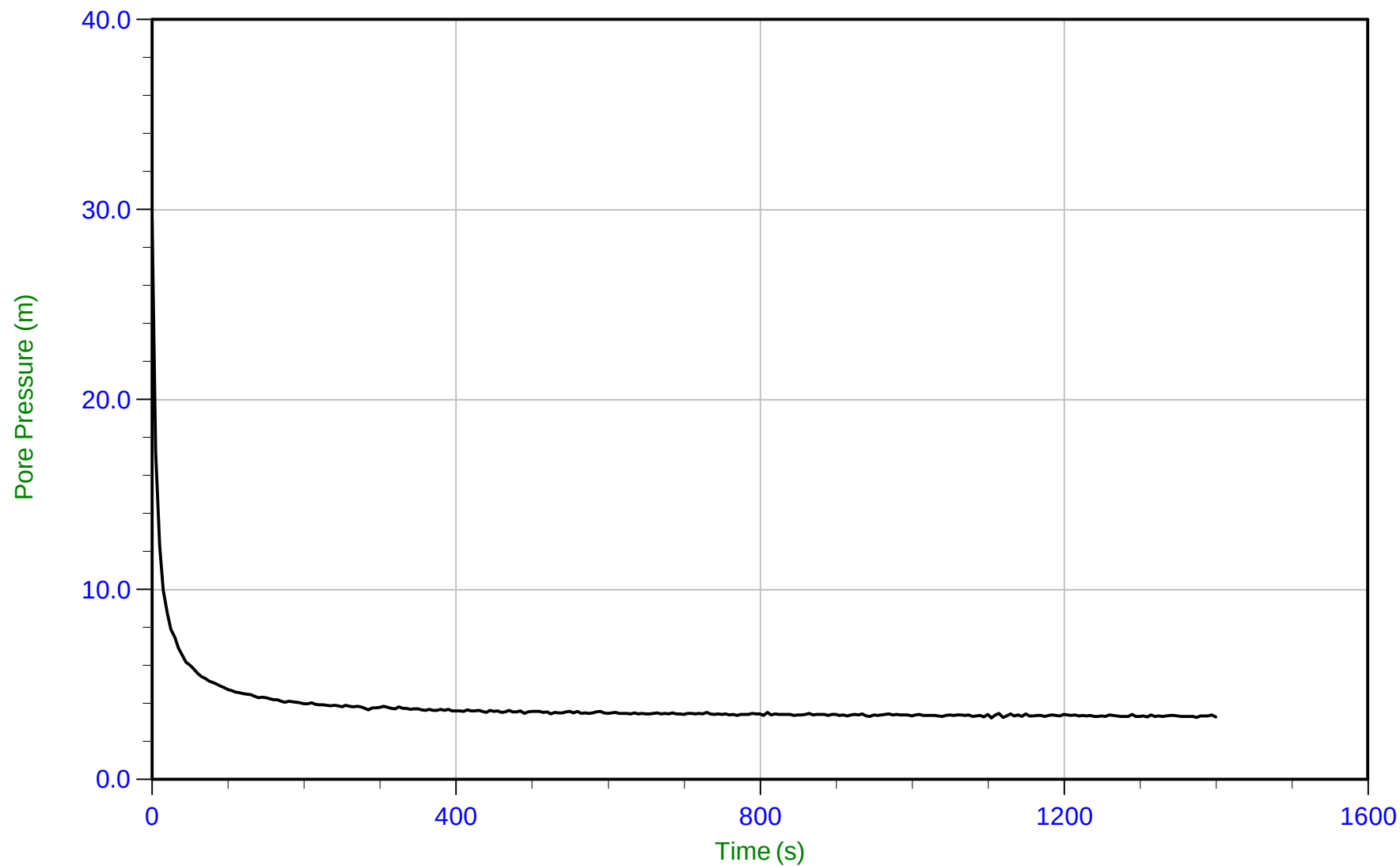
Trace Summary: Filename: 15-02029_CPA20.PPF U Min: 2.3 m WT: 5.857 m / 19.216 ft T(50): 28.9 s
Depth: 8.200 m / 26.903 ft U Max: 36.8 m Ueq: 2.3 m Ir: 100
Duration: 2050.0 s U(50): 19.56 m Ch: 24.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



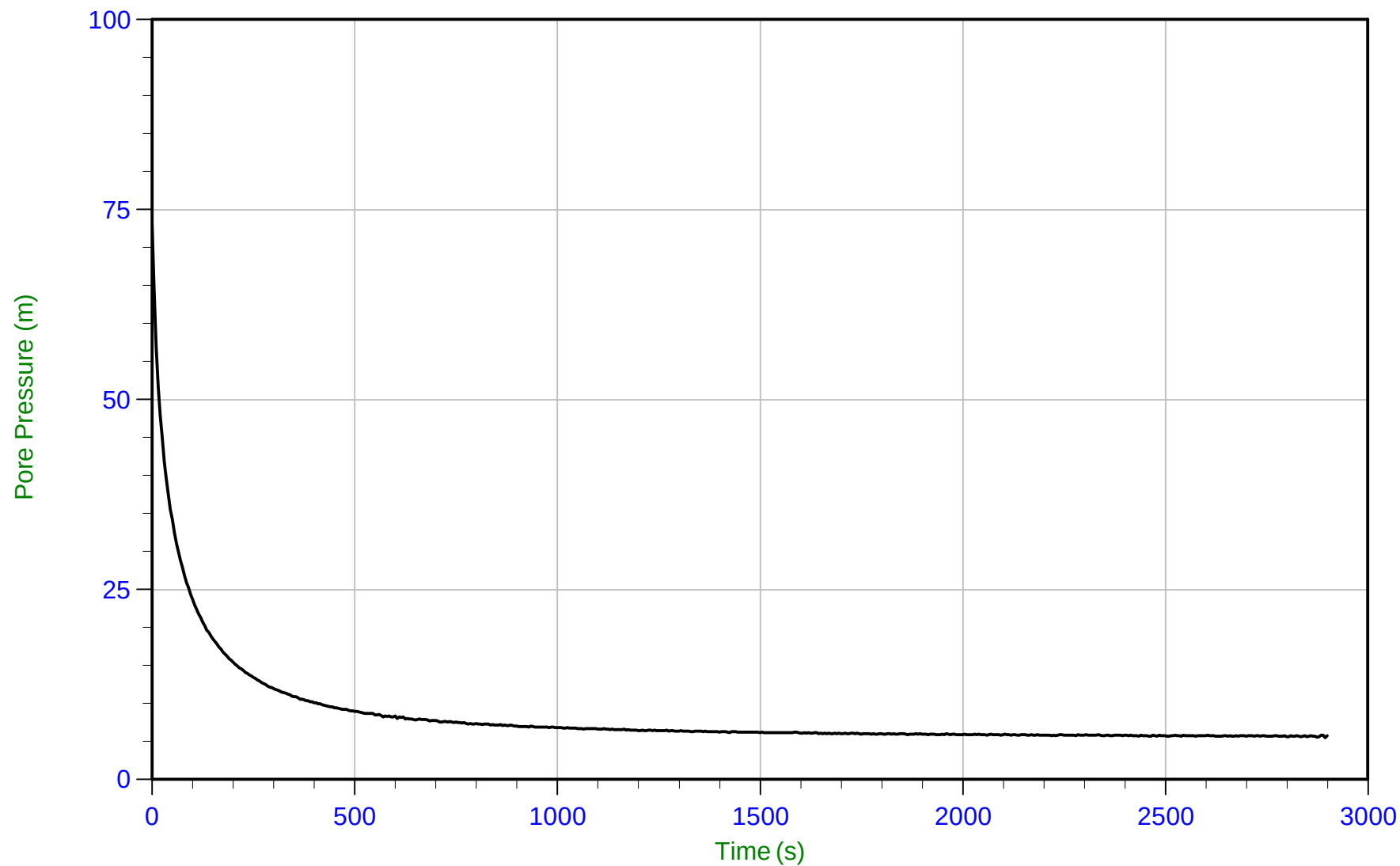
Trace Summary:	Filename: 15-02029_CPA20.PPF	U Min: 3.2 m	WT: 9.986 m / 32.762 ft	T(50): 5.9 s
	Depth: 13.250 m / 43.471 ft	U Max: 29.5 m	Ueq: 3.3 m	Ir: 100
	Duration: 1400.0 s		U(50): 16.38 m	Ch: 119.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



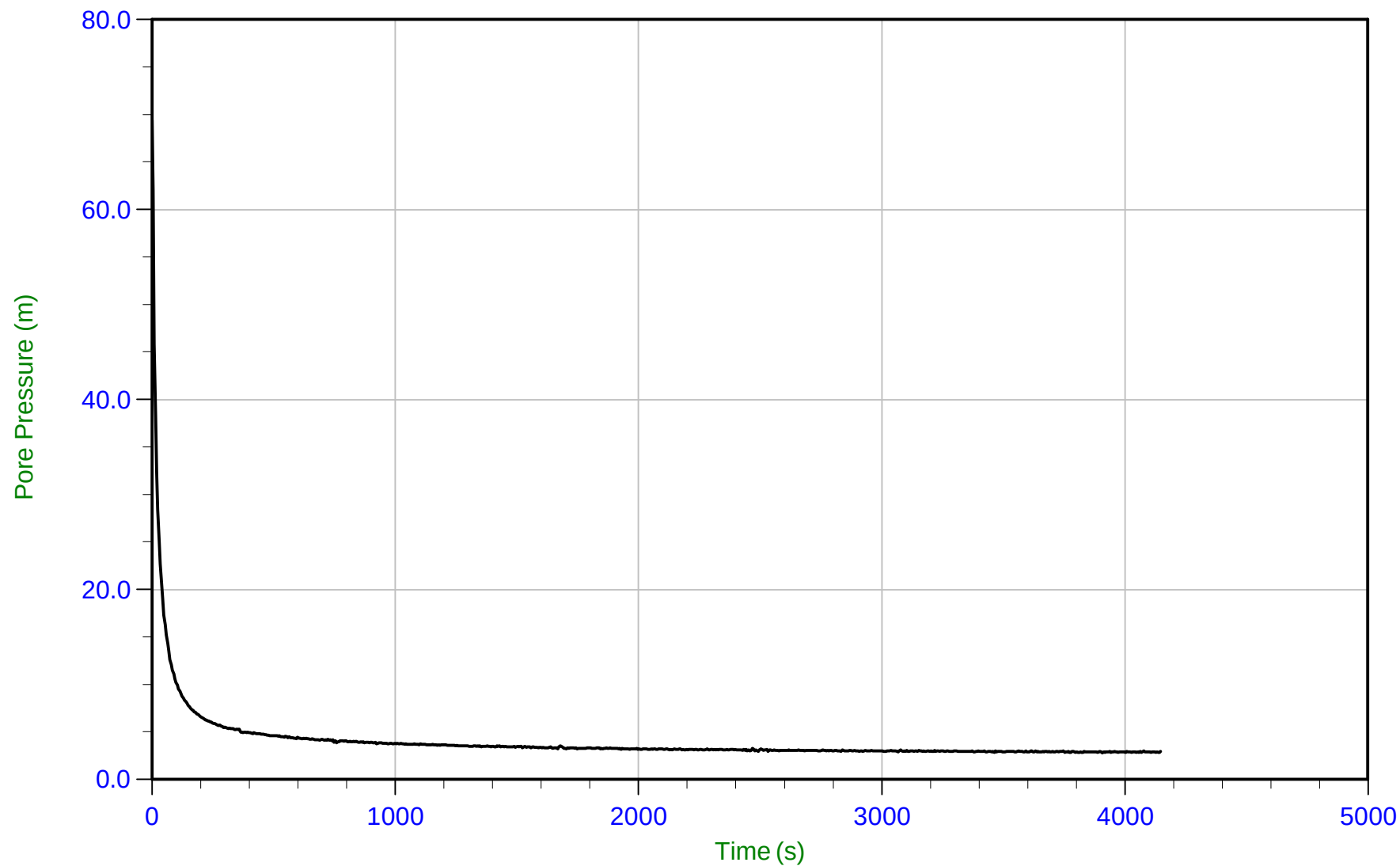
Trace Summary:	Filename: 15-02029_CPA20.PPF	U Min: 5.5 m	WT: 12.750 m / 41.830 ft	T(50): 35.8 s
	Depth: 18.250 m / 59.875 ft	U Max: 73.0 m	Ueq: 5.5 m	Ir: 100
	Duration: 2900.0 s		U(50): 39.25 m	Ch: 19.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



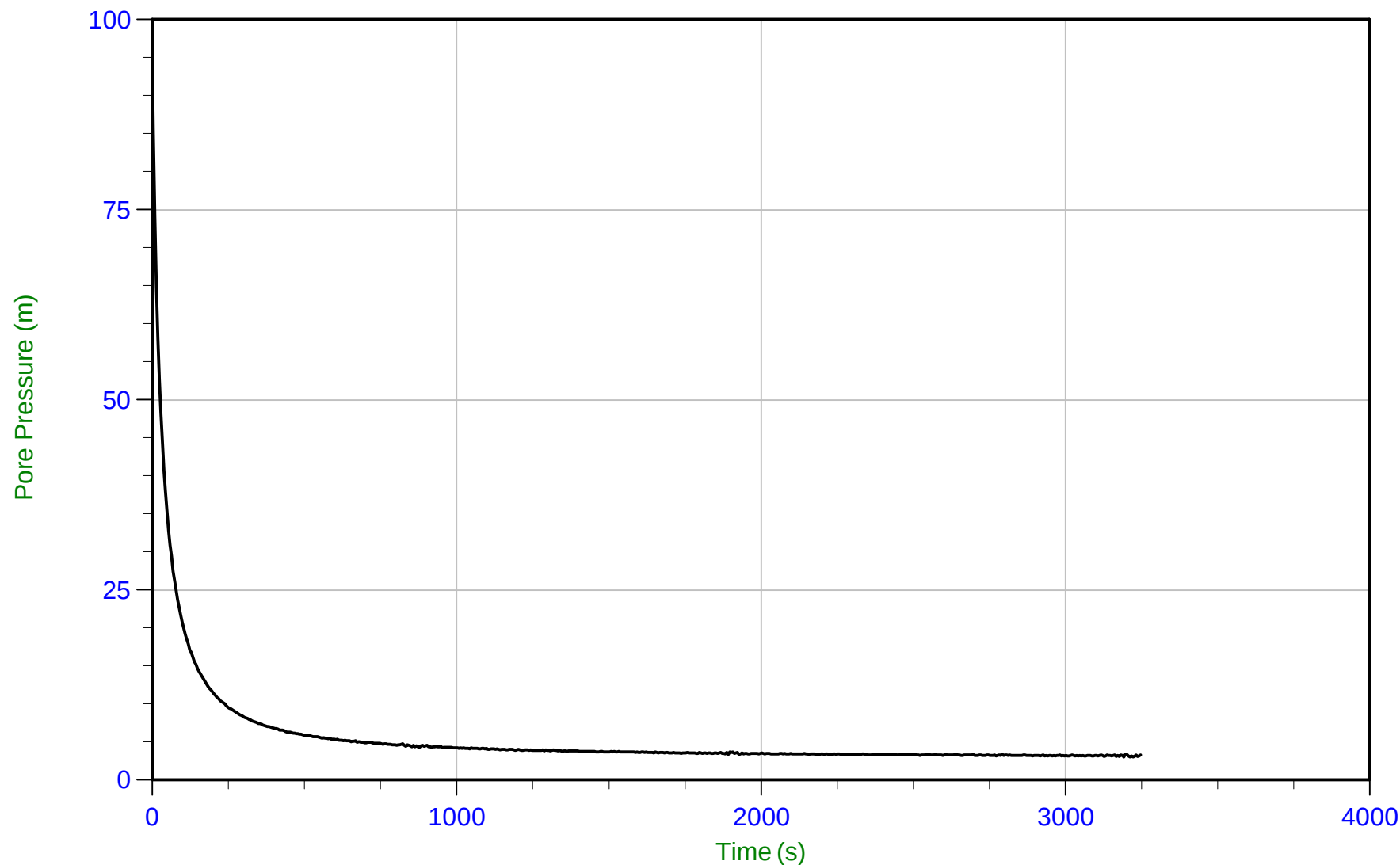
Trace Summary:	Filename: 15-02029_CPA20.PPF	U Min: 2.8 m	WT: 20.405 m / 66.945 ft	T(50): 16.8 s
	Depth: 23.250 m / 76.279 ft	U Max: 69.4 m	Ueq: 2.8 m	Ir: 100
	Duration: 4150.0 s		U(50): 36.13 m	Ch: 41.8 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 12:07
Site: Myra Falls Mine

Sounding: CPT15-A20
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



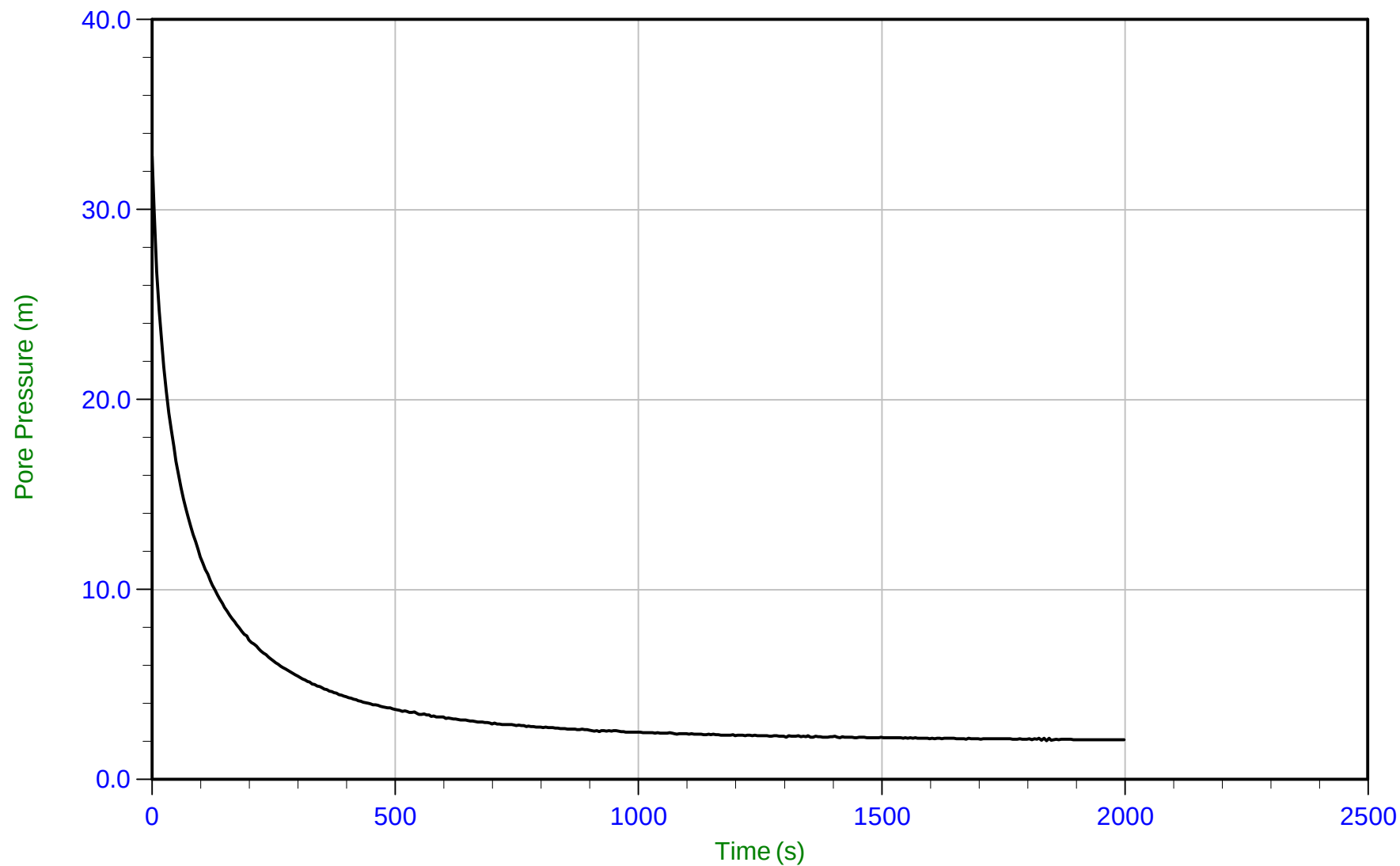
Trace Summary:	Filename: 15-02029_CPA20.PPF	U Min: 3.0 m	WT: 25.321 m / 83.073 ft	T(50): 29.2 s
	Depth: 28.250 m / 92.683 ft	U Max: 95.1 m	Ueq: 2.9 m	Ir: 100
	Duration: 3250.0 s		U(50): 49.00 m	Ch: 24.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 14:49
Site: Myra Falls Mine

Sounding: CPT15-A22
Cone: 327:T375F10U200
Cone Area: 15 sq cm



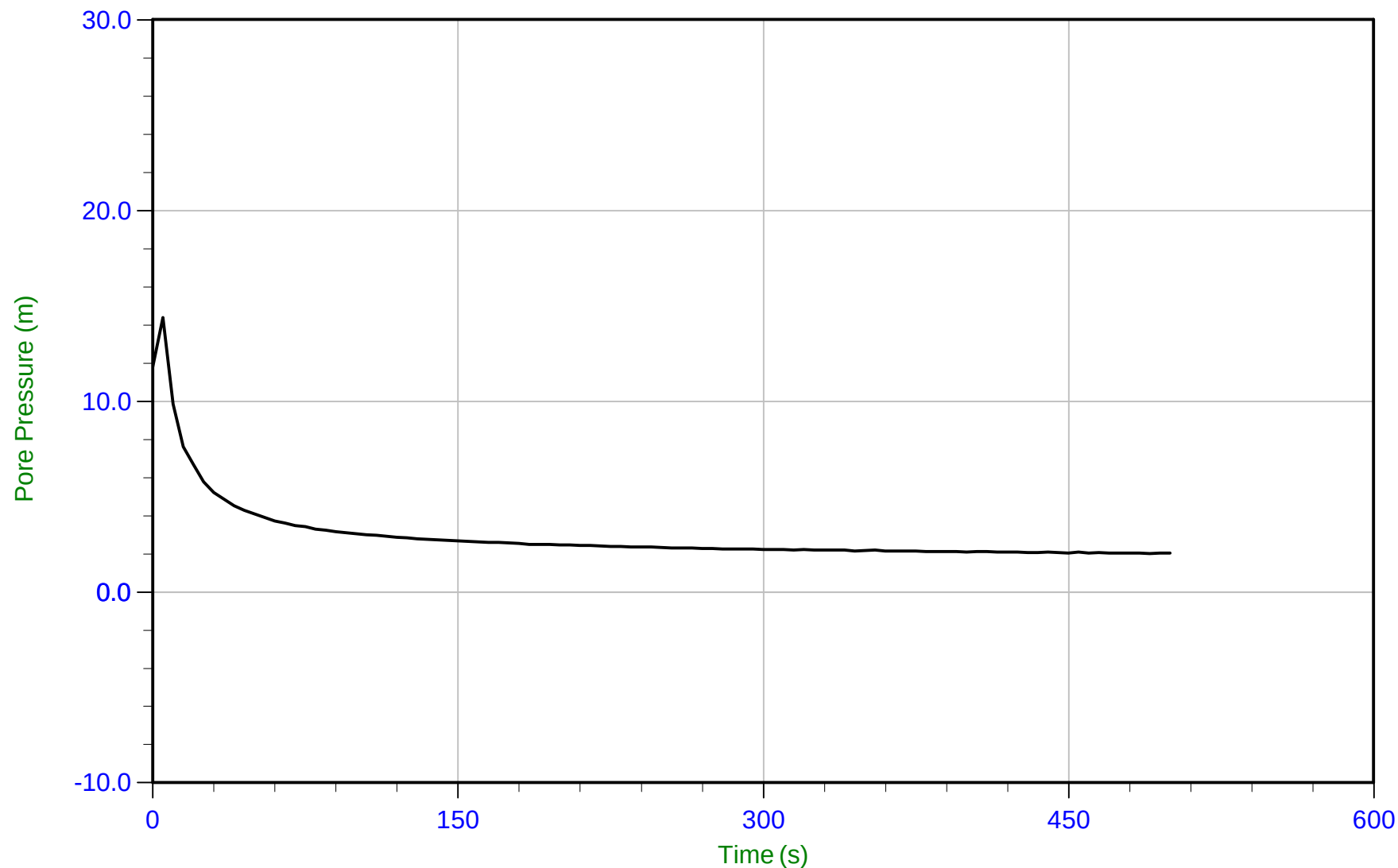
Trace Summary:	Filename: 15-02029_CPA22.PPF	U Min: 2.0 m	WT: 4.242 m / 13.917 ft	T(50): 45.8 s
	Depth: 6.250 m / 20.505 ft	U Max: 32.8 m	Ueq: 2.0 m	Ir: 100
	Duration: 2000.0 s		U(50): 17.41 m	Ch: 15.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 14:49
Site: Myra Falls Mine

Sounding: CPT15-A22
Cone: 327:T375F10U200
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02029_CPA22.PPF
Depth: 12.100 m / 39.698 ft
Duration: 500.0 s

U Min: 2.0 m
U Max: 14.4 m

WT: 10.133 m / 33.244 ft
Ueq: 2.0 m
U(50): 8.17 m

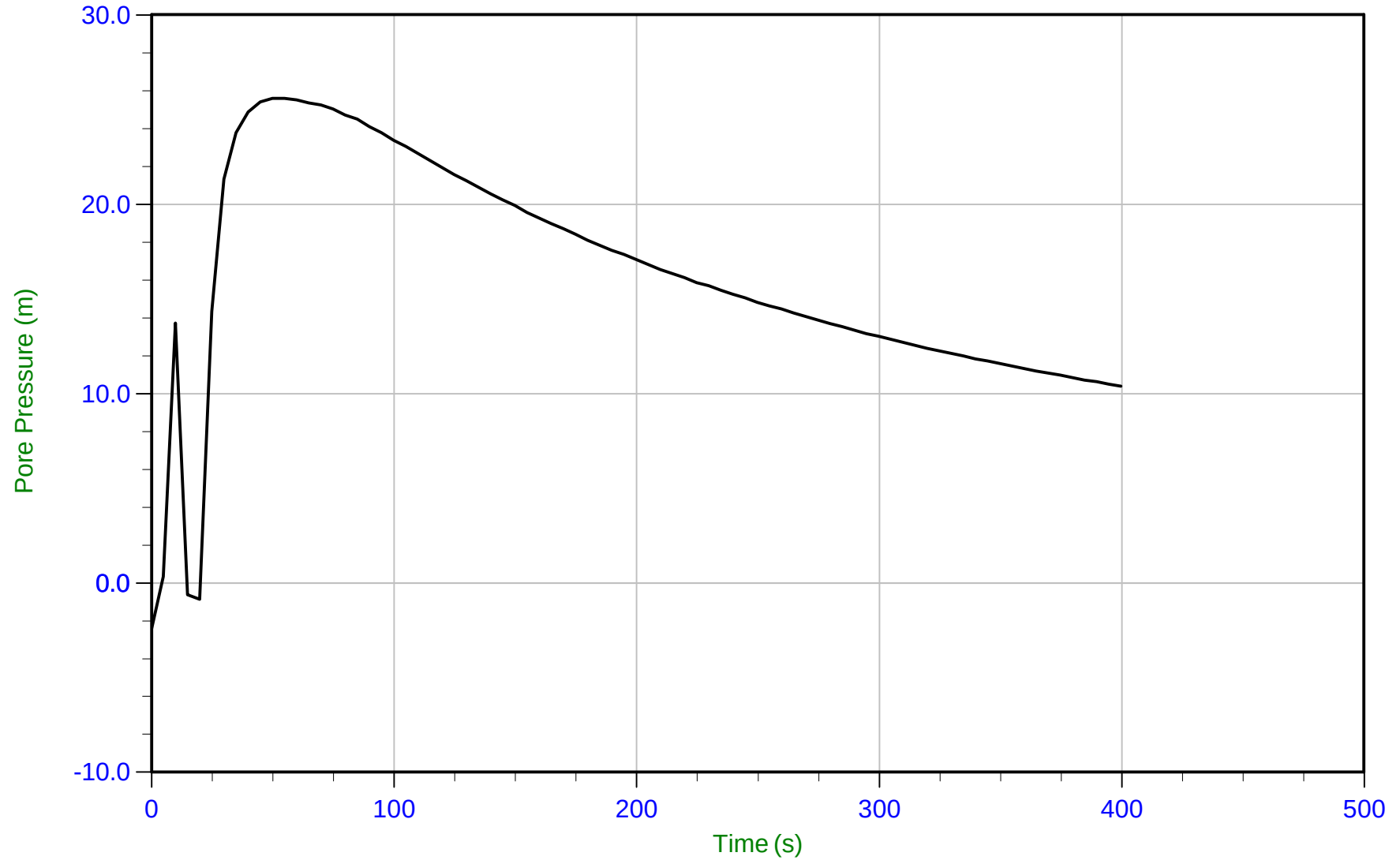
T(50): 8.8 s
Ir: 100
Ch: 80.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 14:49
Site: Myra Falls Mine

Sounding: CPT15-A22
Cone: 327:T375F10U200
Cone Area: 15 sq cm



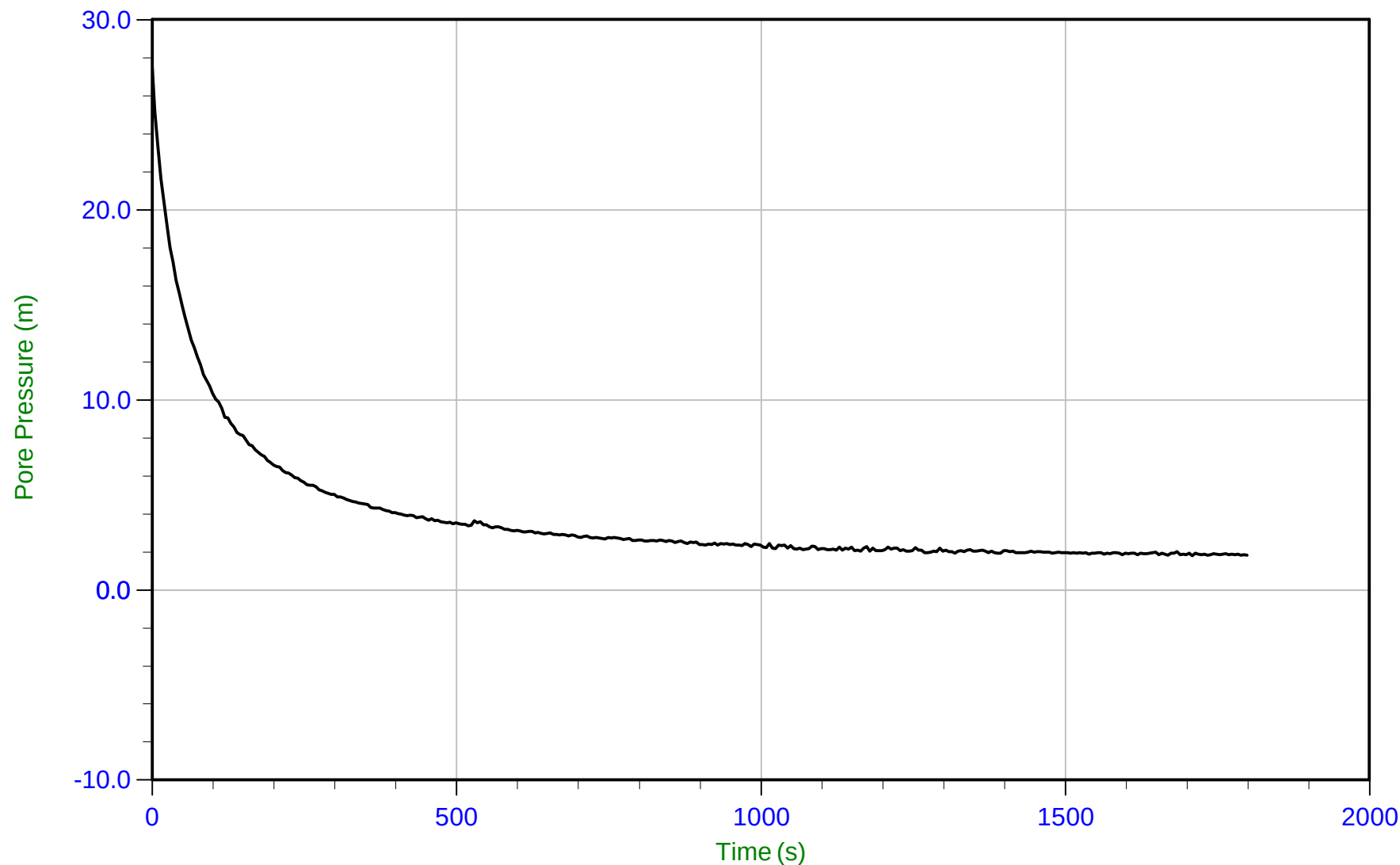
Trace Summary: Filename: 15-02029_CPA22.PPF U Min: -2.4 m
Depth: 14.300 m / 46.915 ft U Max: 25.6 m
Duration: 400.0 s



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



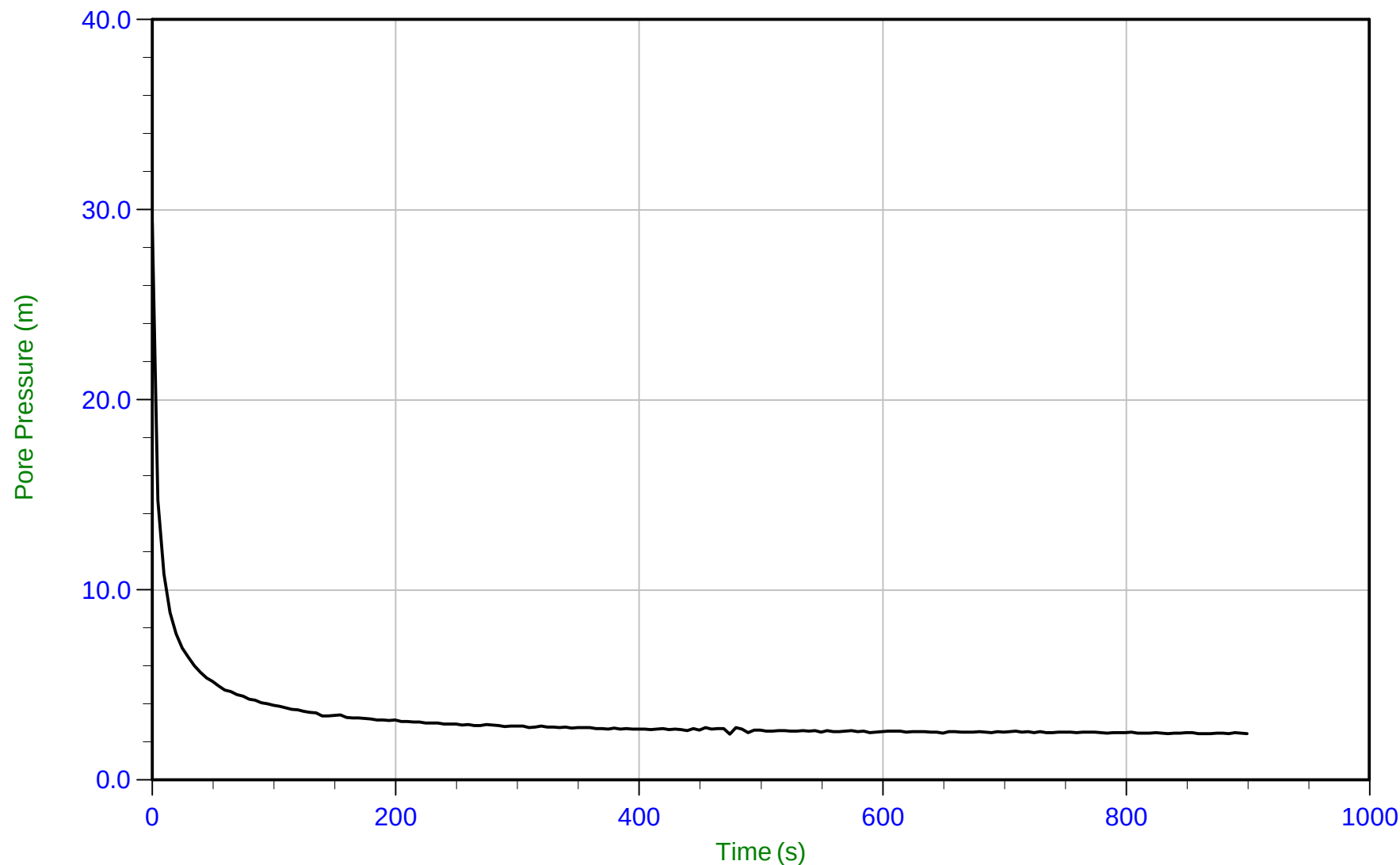
Trace Summary:	Filename: 15-02029_CPA23.PPF	U Min: 1.8 m	WT: 3.201 m / 10.502 ft	T(50): 52.3 s
	Depth: 5.000 m / 16.404 ft	U Max: 27.5 m	Ueq: 1.8 m	Ir: 100
	Duration: 1800.0 s		U(50): 14.64 m	Ch: 13.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



Trace Summary: Filename: 15-02029_CPA23.PPF
Depth: 12.150 m / 39.862 ft
Duration: 900.0 s

U Min: 2.4 m
U Max: 29.3 m

WT: 9.723 m / 31.899 ft
Ueq: 2.4 m
U(50): 15.87 m

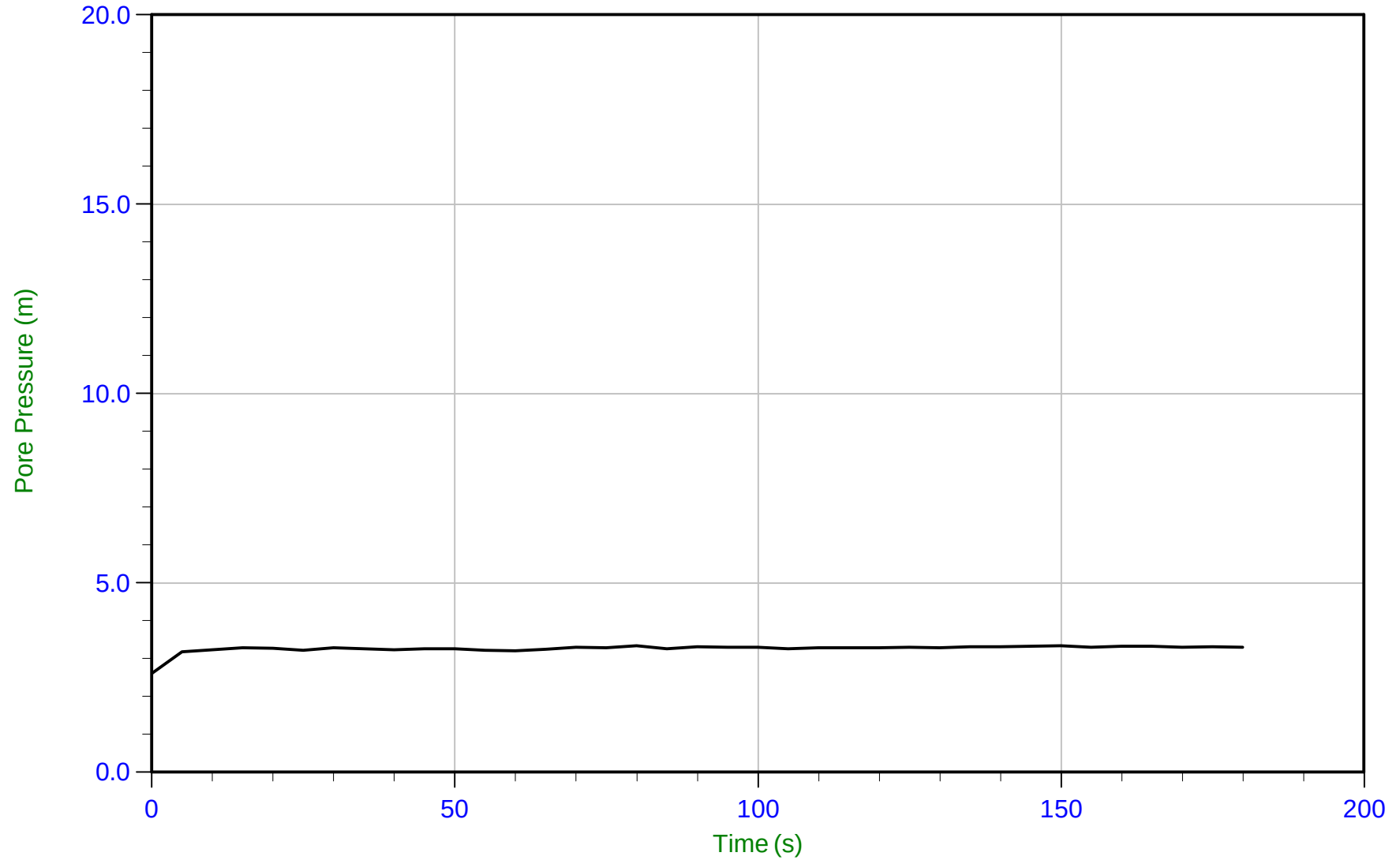
T(50): 4.6 s
Ir: 100
Ch: 152.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



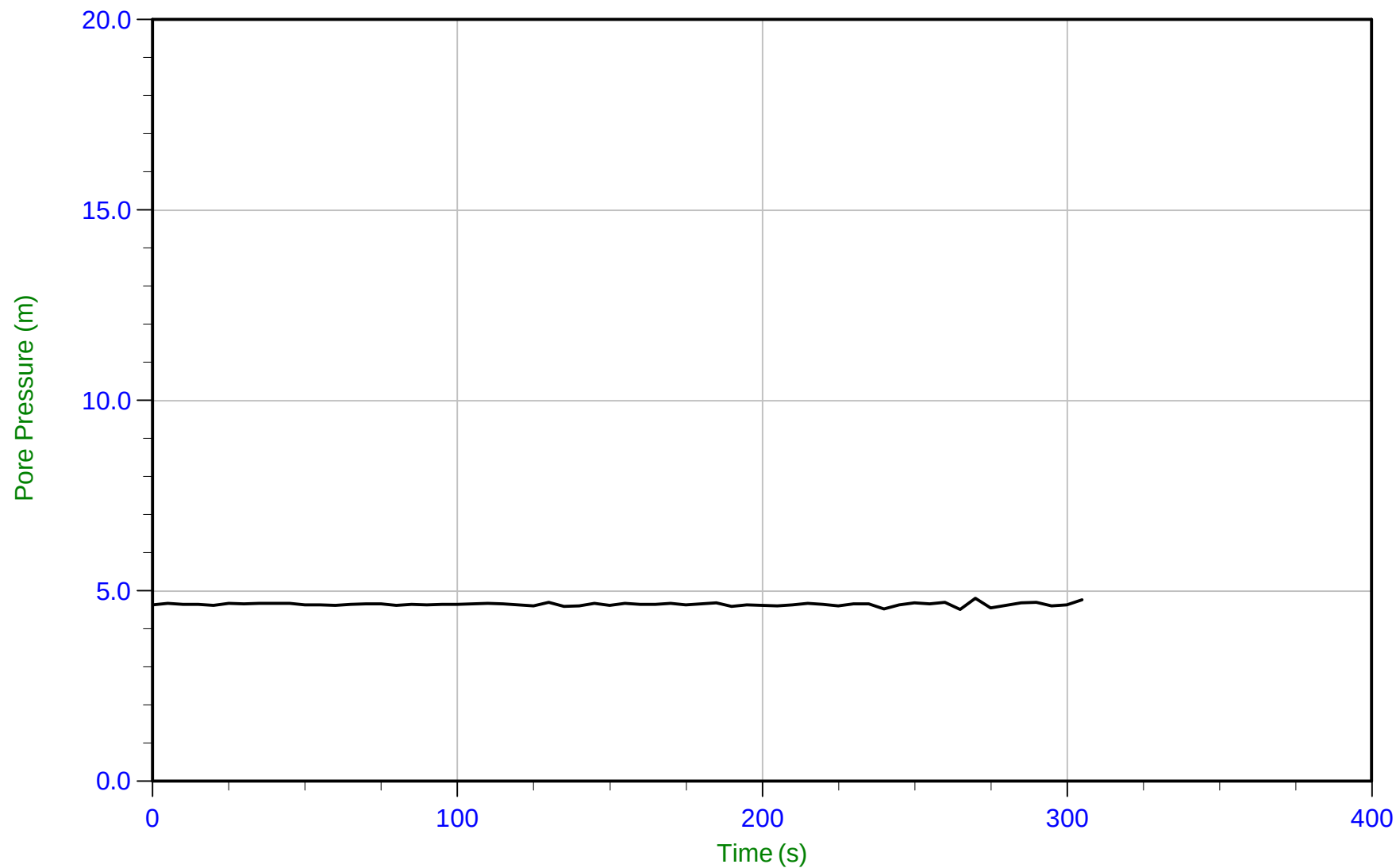
Trace Summary: Filename: 15-02029_CPA23.PPF U Min: 2.6 m WT: 11.095 m / 36.400 ft
Depth: 14.400 m / 47.244 ft U Max: 3.3 m Ueq: 3.3 m
Duration: 180.0 s



Amec Foster Wheeler

Job No: 15-02029
Date: 03/24/2015 13:03
Site: Myra Falls Mine

Sounding: CPT15-A23
Cone: 421:T1500F15U500
Cone Area: 15 sq cm



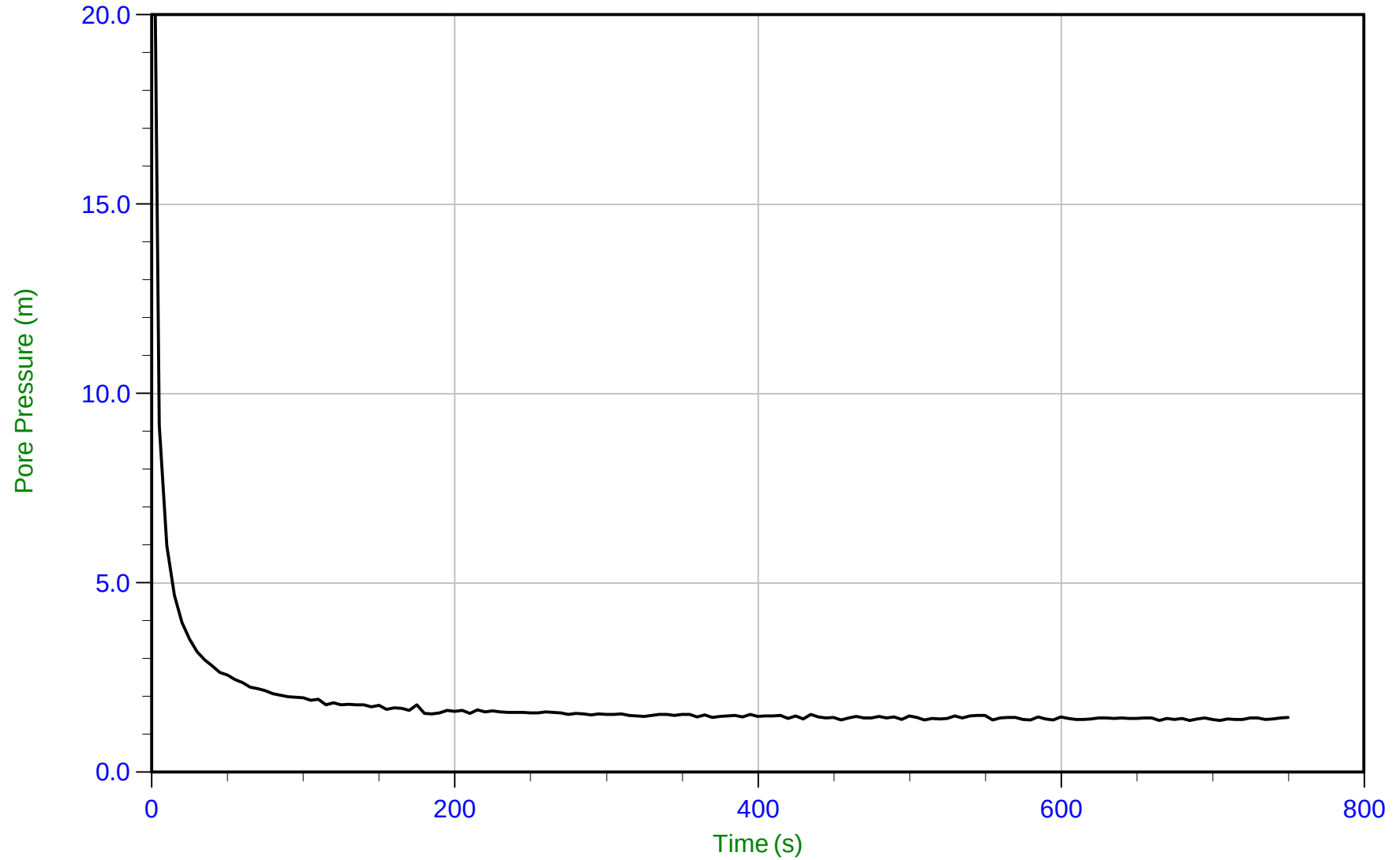
Trace Summary: Filename: 15-02029_CPA23.PPF U Min: 4.5 m WT: 11.156 m / 36.601 ft
Depth: 15.800 m / 51.837 ft U Max: 4.8 m Ueq: 4.6 m
Duration: 305.0 s



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 10:20
Site: Myra Falls Mine

Sounding: CPT15-A24
Cone: 378:T500F10U500
Cone Area: 10 sq cm



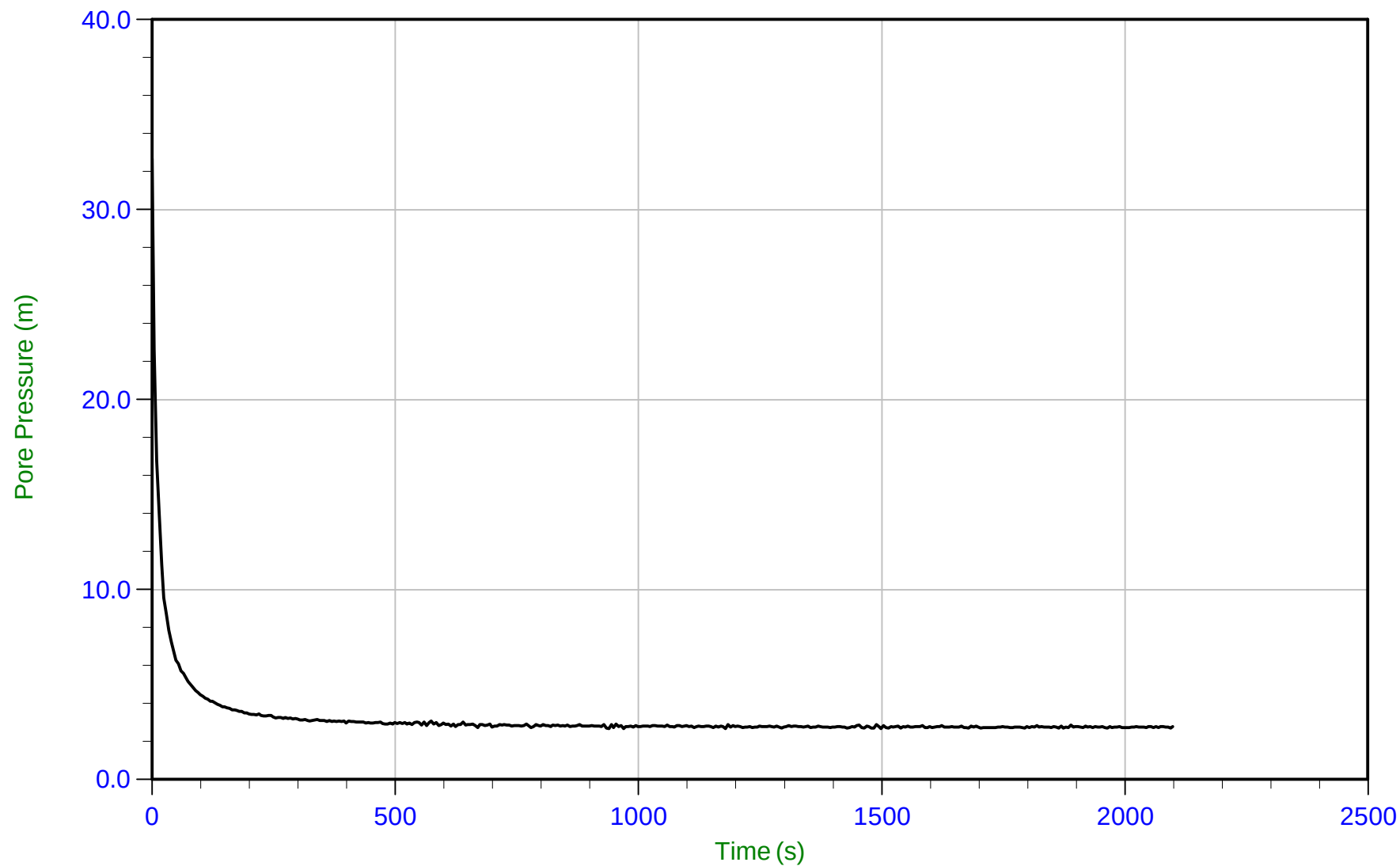
Trace Summary:	Filename: 15-02029_CPA24.PPF	U Min: 1.4 m	WT: 5.869 m / 19.255 ft	T(50): 3.4 s
	Depth: 7.250 m / 23.786 ft	U Max: 30.0 m	Ueq: 1.4 m	Ir: 100
	Duration: 750.0 s		U(50): 15.68 m	Ch: 204.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 10:20
Site: Myra Falls Mine

Sounding: CPT15-A24
Cone: 378:T500F10U500
Cone Area: 10 sq cm



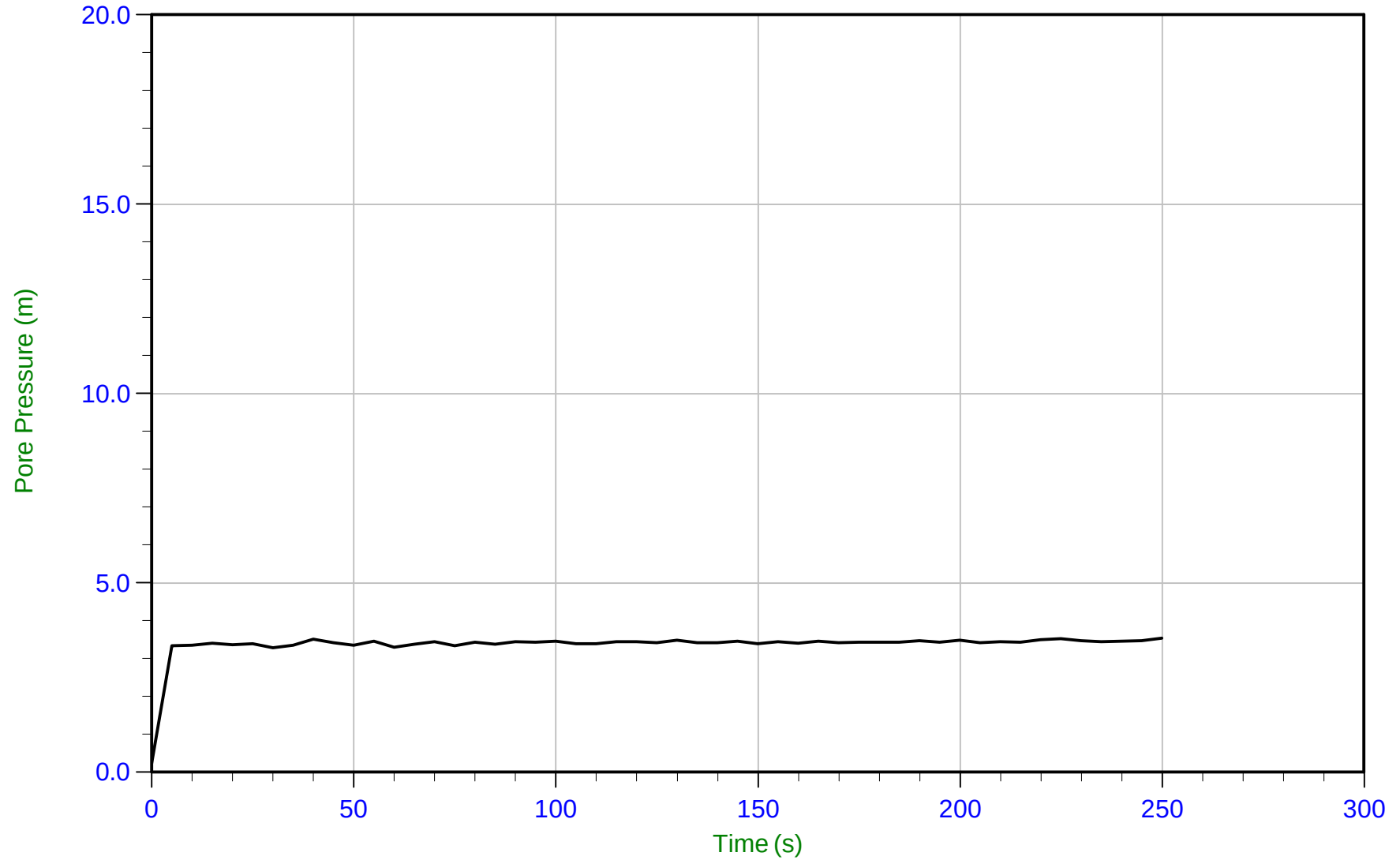
Trace Summary:	Filename: 15-02029_CPA24.PPF	U Min: 2.7 m	WT: 9.572 m / 31.404 ft	T(50): 9.2 s
	Depth: 12.250 m / 40.190 ft	U Max: 32.7 m	Ueq: 2.7 m	Ir: 100
	Duration: 2100.0 s		U(50): 17.68 m	Ch: 76.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 03/28/2015 10:20
Site: Myra Falls Mine

Sounding: CPT15-A24
Cone: 378:T500F10U500
Cone Area: 10 sq cm



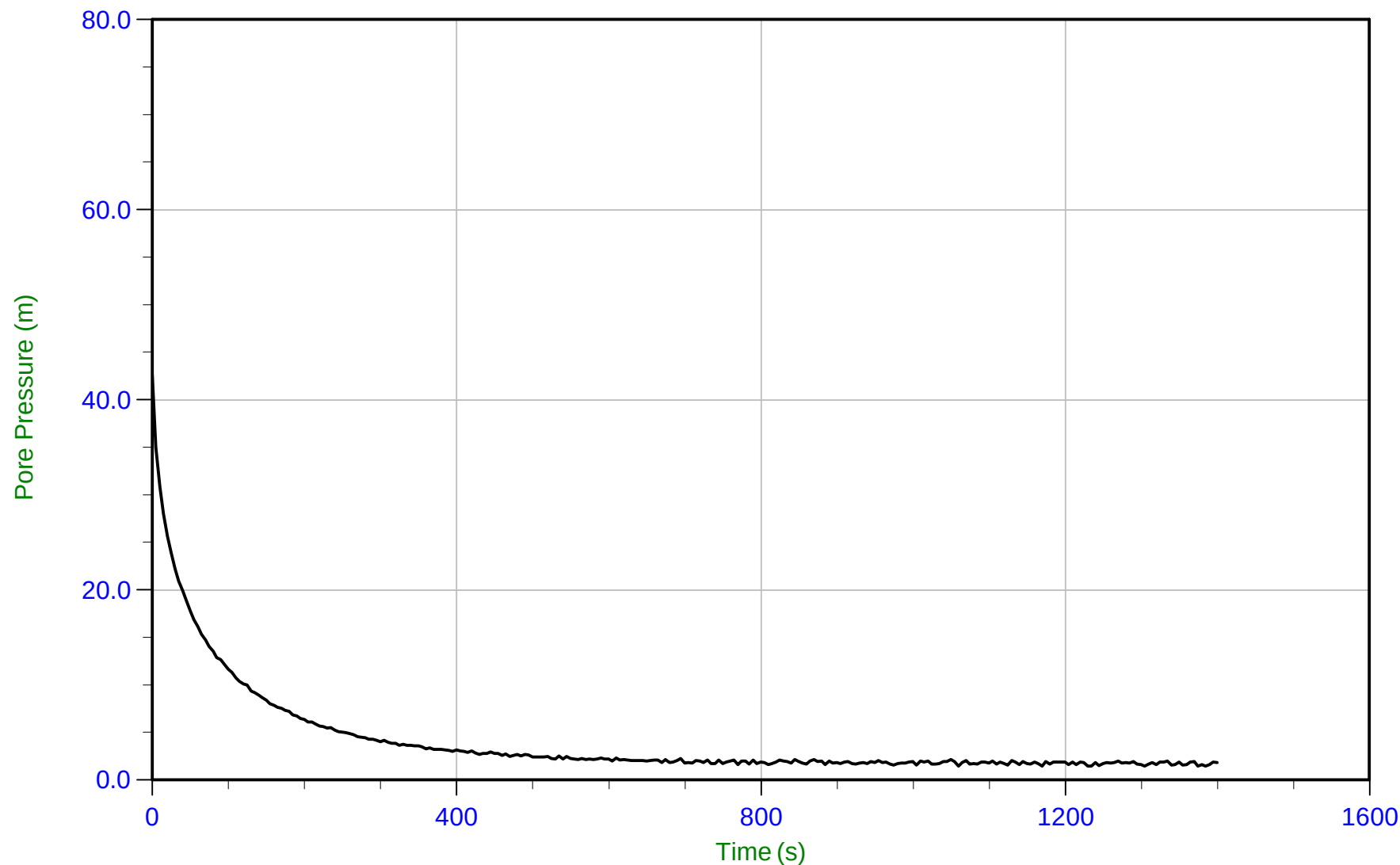
Trace Summary:	Filename: 15-02029_CPA24.PPF	U Min: 0.2 m	WT: 10.819 m / 35.495 ft
	Depth: 14.250 m / 46.751 ft	U Max: 3.5 m	Ueq: 3.4 m
	Duration: 250.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



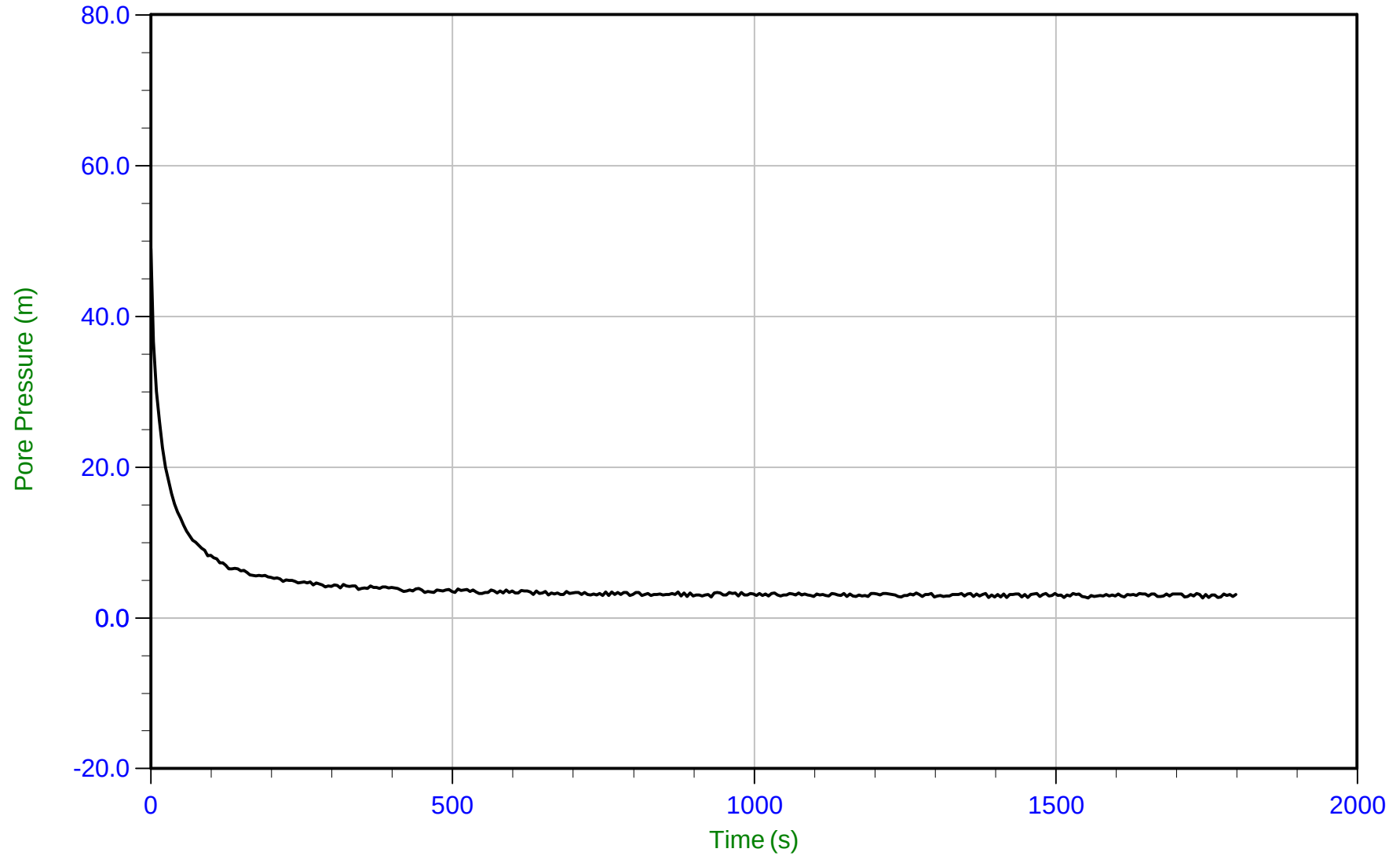
Trace Summary:	Filename: 15-02029_SPA02.PPF	U Min: 1.5 m	WT: 6.212 m / 20.380 ft	T(50): 30.8 s
	Depth: 7.600 m / 24.934 ft	U Max: 42.6 m	Ueq: 1.4 m	Ir: 100
	Duration: 1400.0 s		U(50): 22.00 m	Ch: 15.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



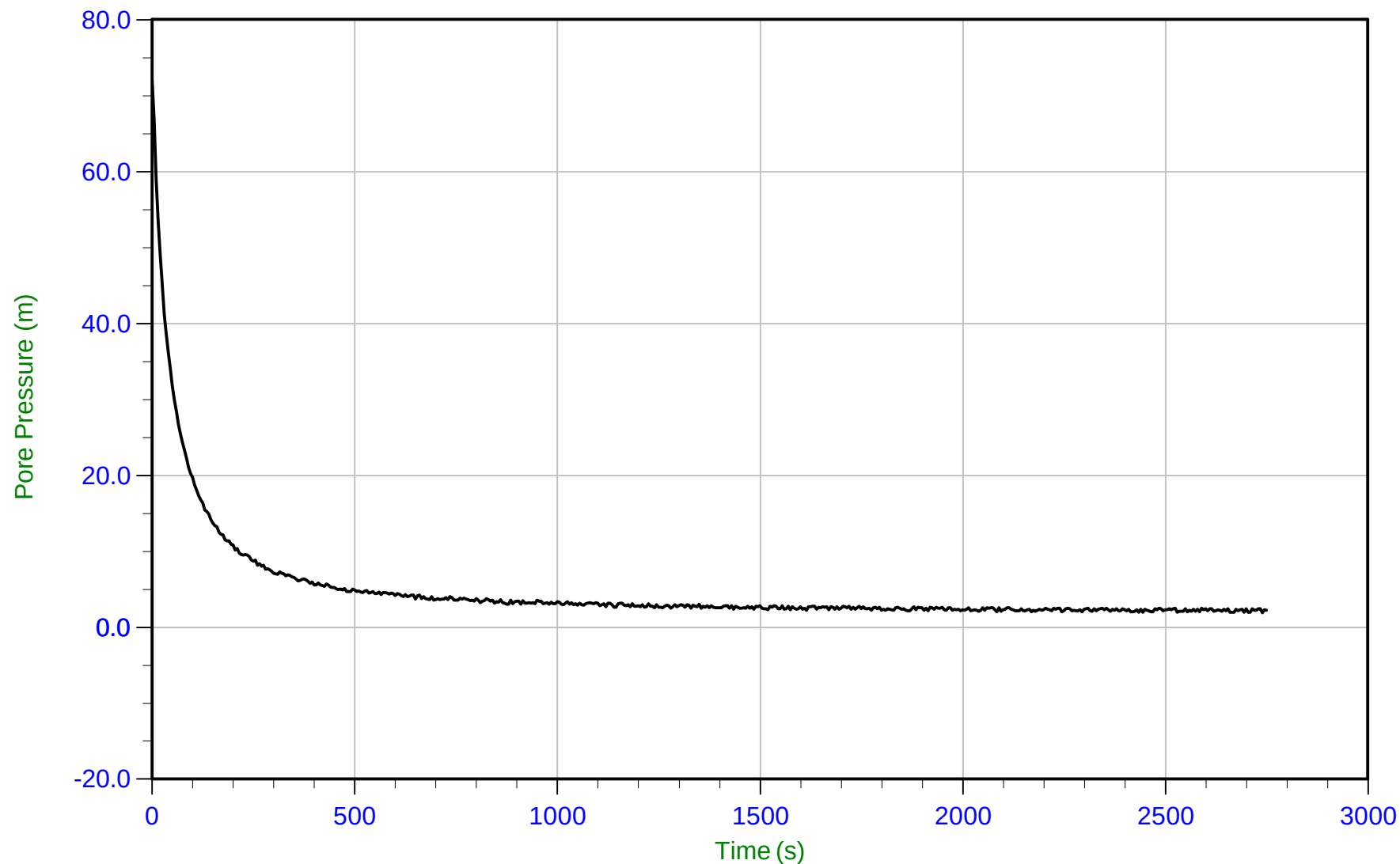
Trace Summary:	Filename: 15-02029_SPA02.PPF	U Min: 2.6 m	WT: 10.140 m / 33.267 ft	T(50): 15.5 s
	Depth: 12.700 m / 41.666 ft	U Max: 48.9 m	Ueq: 2.6 m	Ir: 100
	Duration: 1800.0 s		U(50): 25.75 m	Ch: 30.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



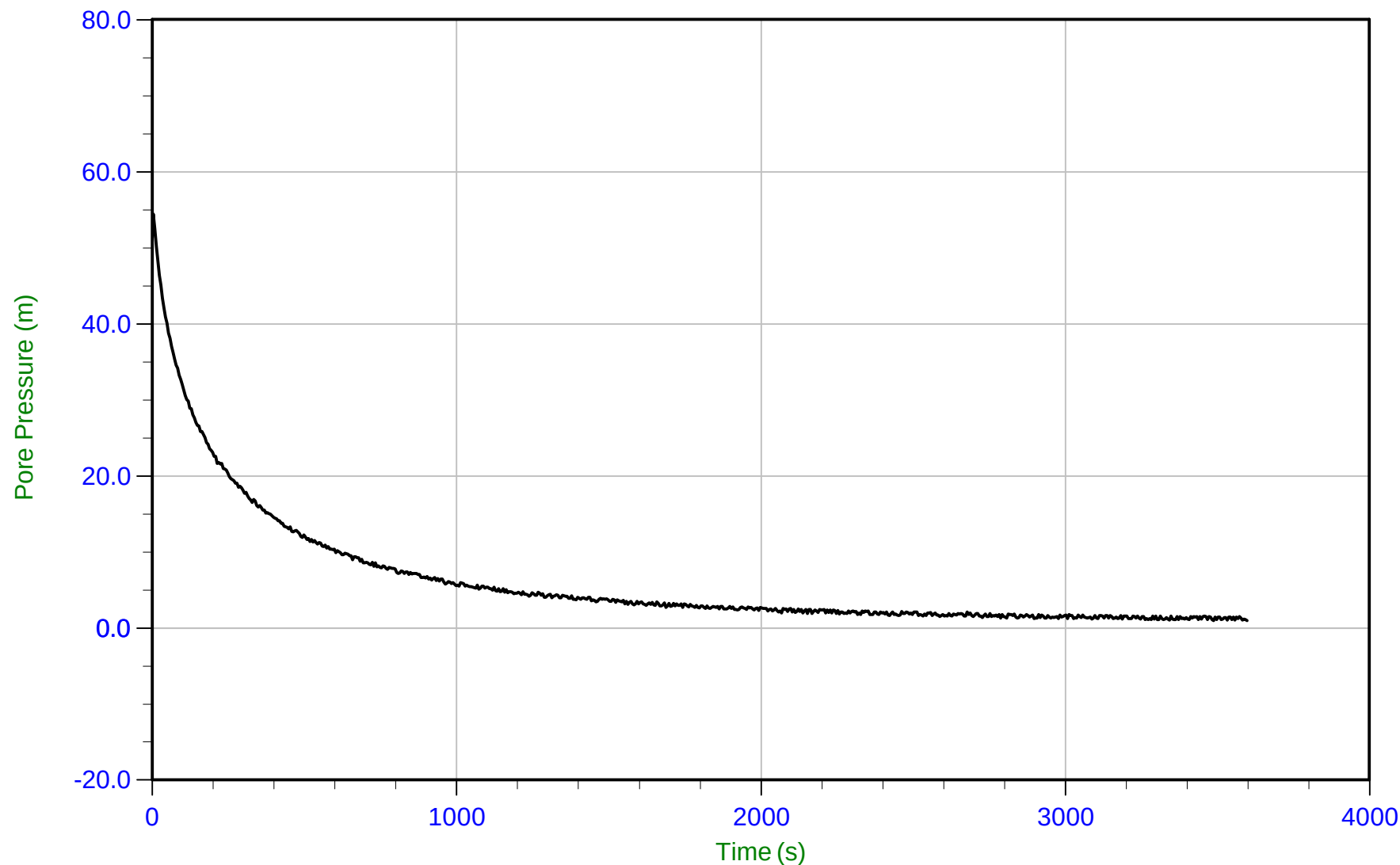
Trace Summary:	Filename: 15-02029_SPA02.PPF	U Min: 1.9 m	WT: 15.841 m / 51.971 ft	T(50): 38.3 s
	Depth: 17.750 m / 58.234 ft	U Max: 72.1 m	Ueq: 1.9 m	Ir: 100
	Duration: 2750.0 s		U(50): 36.99 m	Ch: 12.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 08:21
Site: Myra Falls Mine

Sounding: SCPT15-A02
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA02.PPF
Depth: 19.650 m / 64.468 ft
Duration: 3600.0 s

U Min: 1.0 m
U Max: 54.5 m

WT: 18.826 m / 61.764 ft
Ueq: 0.8 m
U(50): 27.64 m

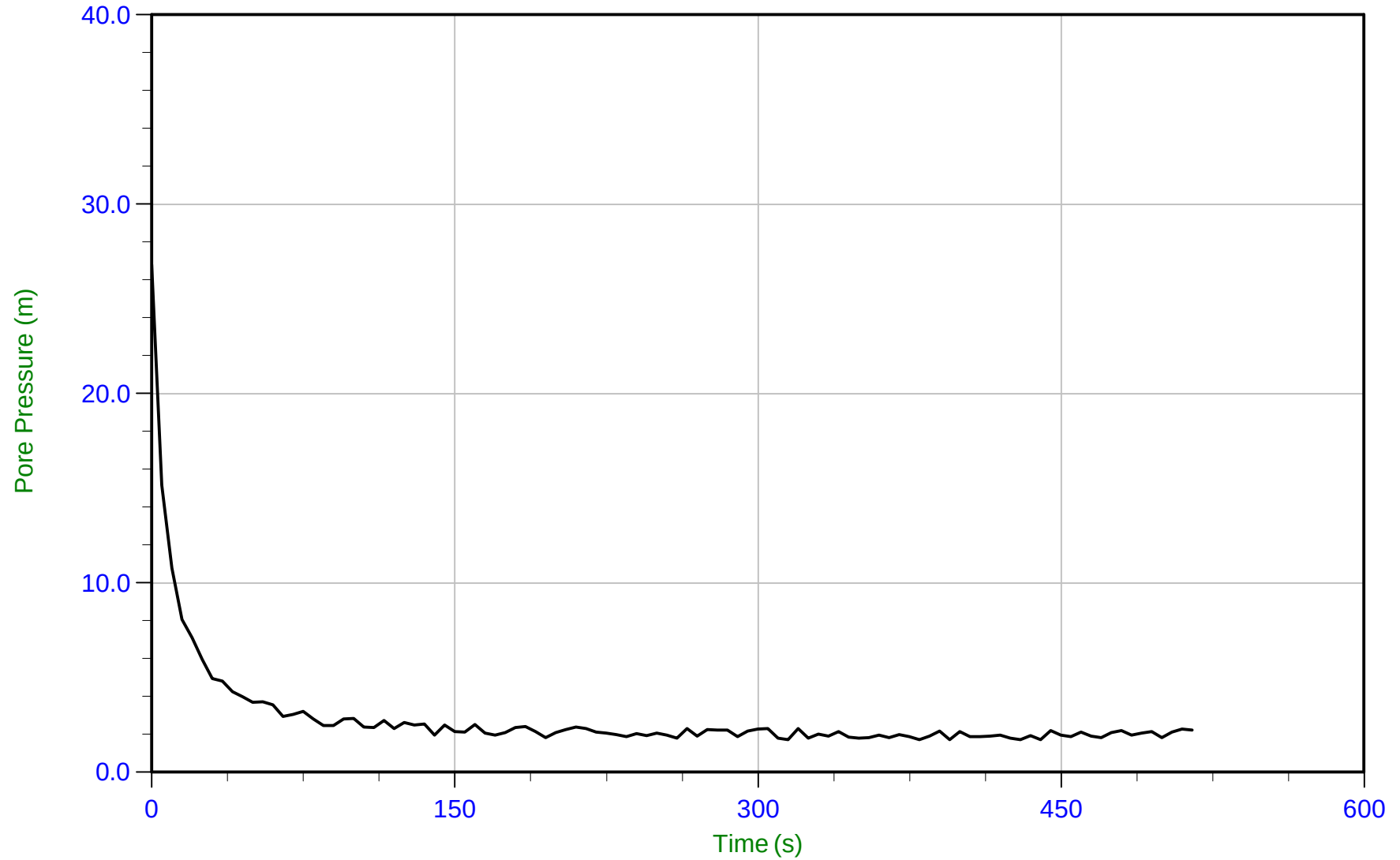
T(50): 134.7 s
Ir: 100
Ch: 3.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



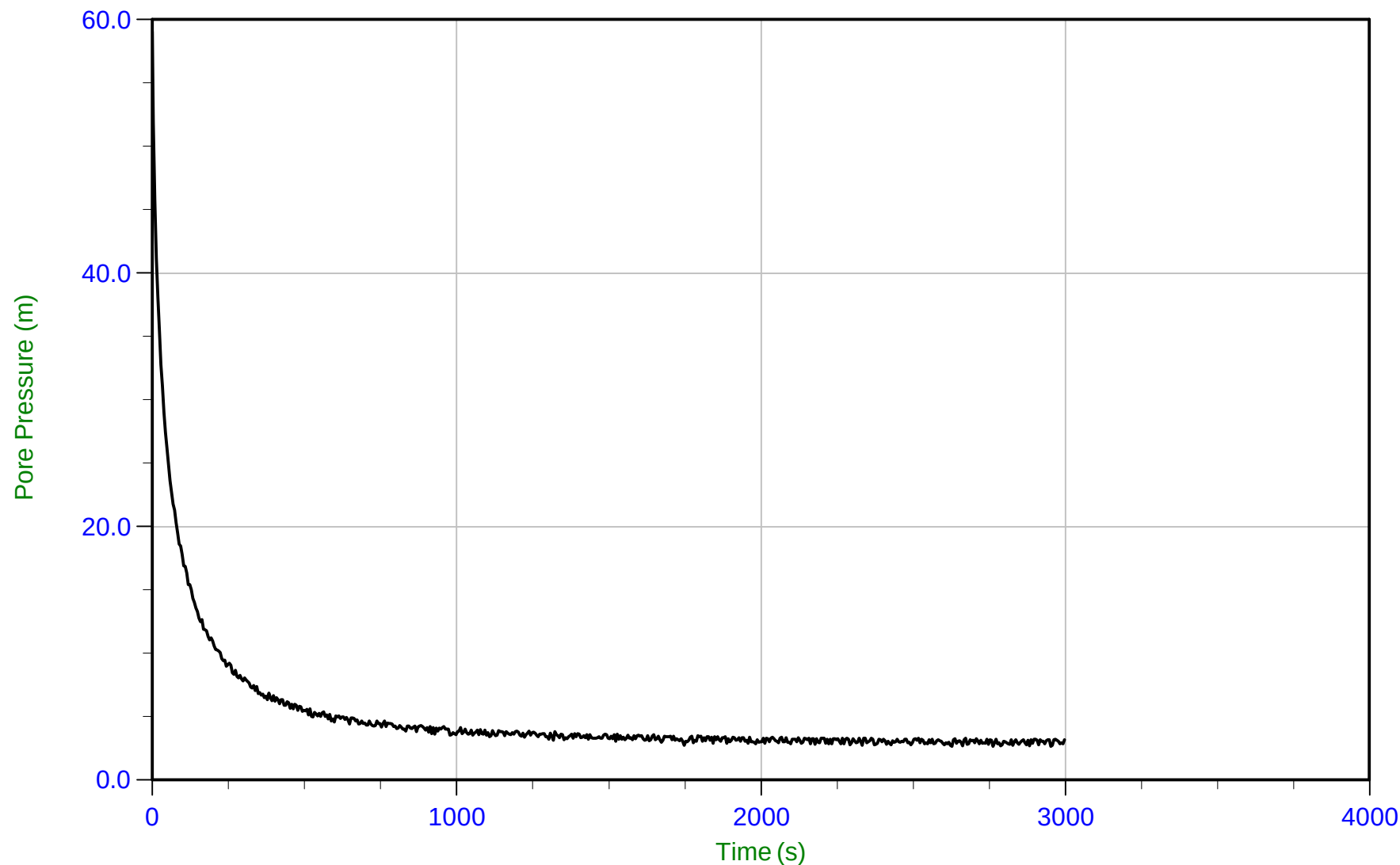
Trace Summary:	Filename: 15-02029_SPA03.PPF	U Min: 1.7 m	WT: 8.878 m / 29.127 ft	T(50): 6.0 s
	Depth: 10.700 m / 35.105 ft	U Max: 26.8 m	Ueq: 1.8 m	Ir: 100
	Duration: 515.0 s		U(50): 14.32 m	Ch: 78.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



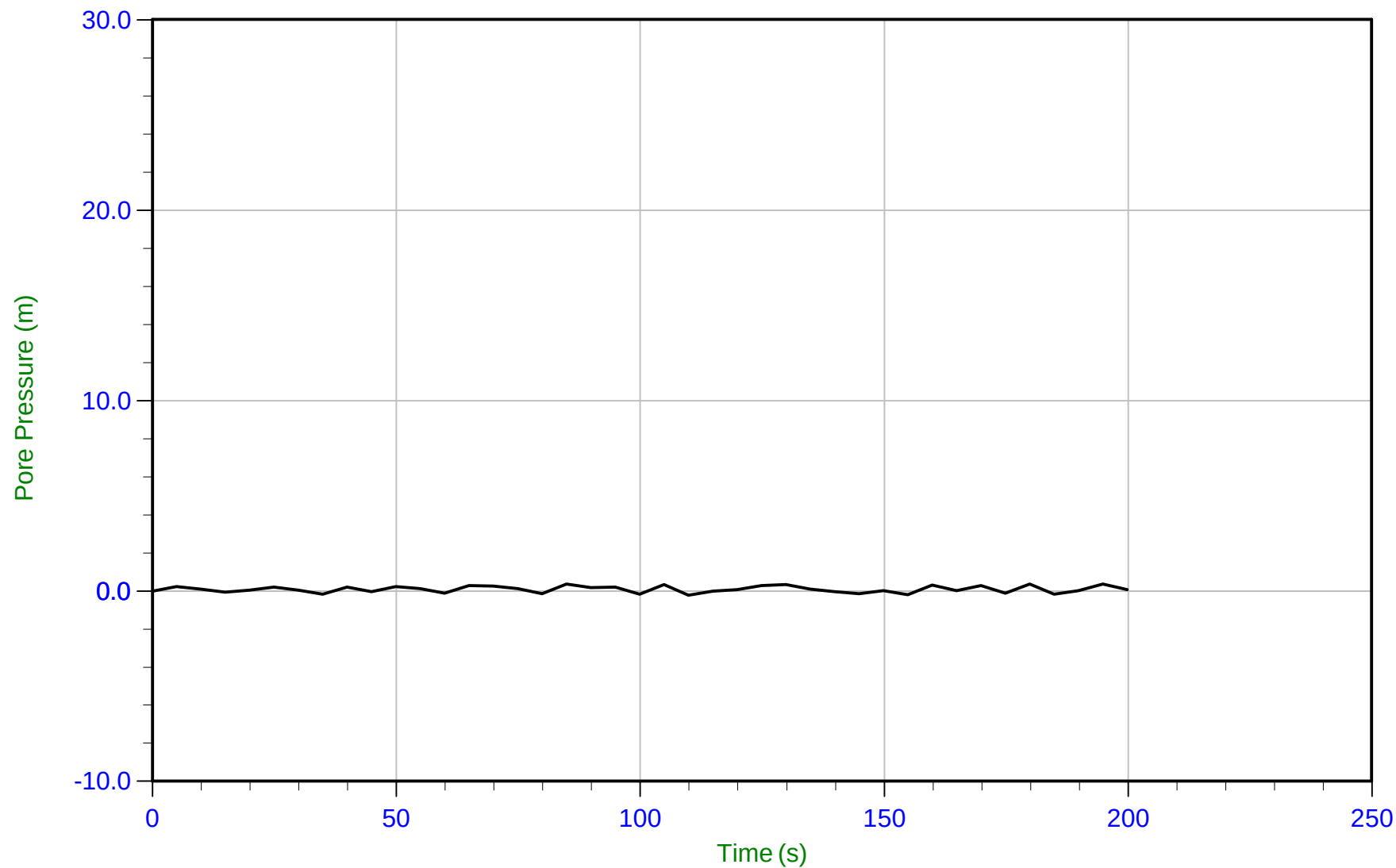
Trace Summary:	Filename: 15-02029_SPA03.PPF	U Min: 2.6 m	WT: 12.917 m / 42.378 ft	T(50): 35.5 s
	Depth: 15.650 m / 51.345 ft	U Max: 59.1 m	Ueq: 2.7 m	Ir: 100
	Duration: 3000.0 s		U(50): 30.90 m	Ch: 13.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



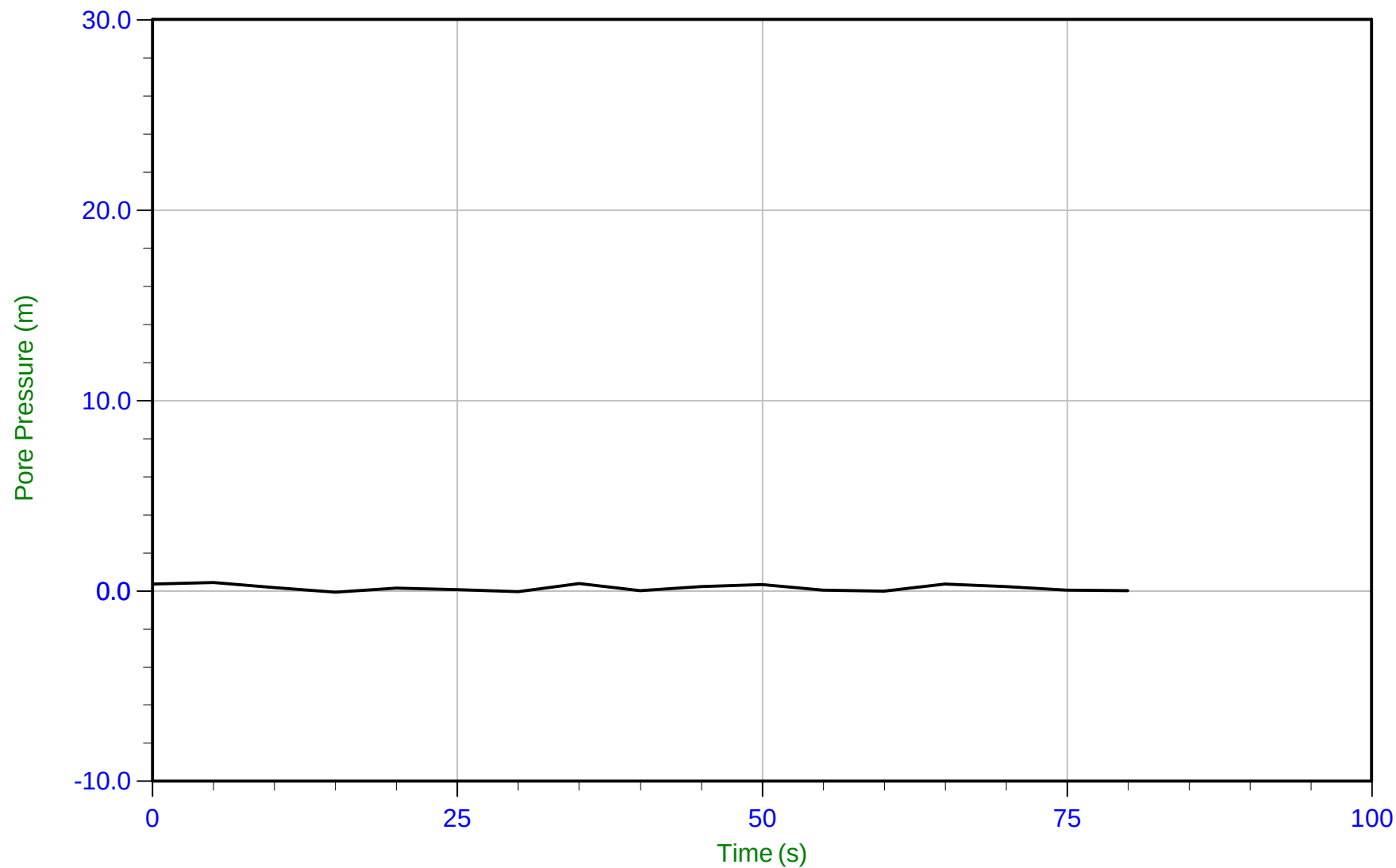
Trace Summary:	Filename: 15-02029_SPA03.PPF	U Min: -0.2 m	WT: 20.635 m / 67.699 ft
	Depth: 20.700 m / 67.913 ft	U Max: 0.4 m	Ueq: 0.1 m
	Duration: 200.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/18/2015 14:09
Site: Myra Falls Mine

Sounding: SCPT15-A03
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



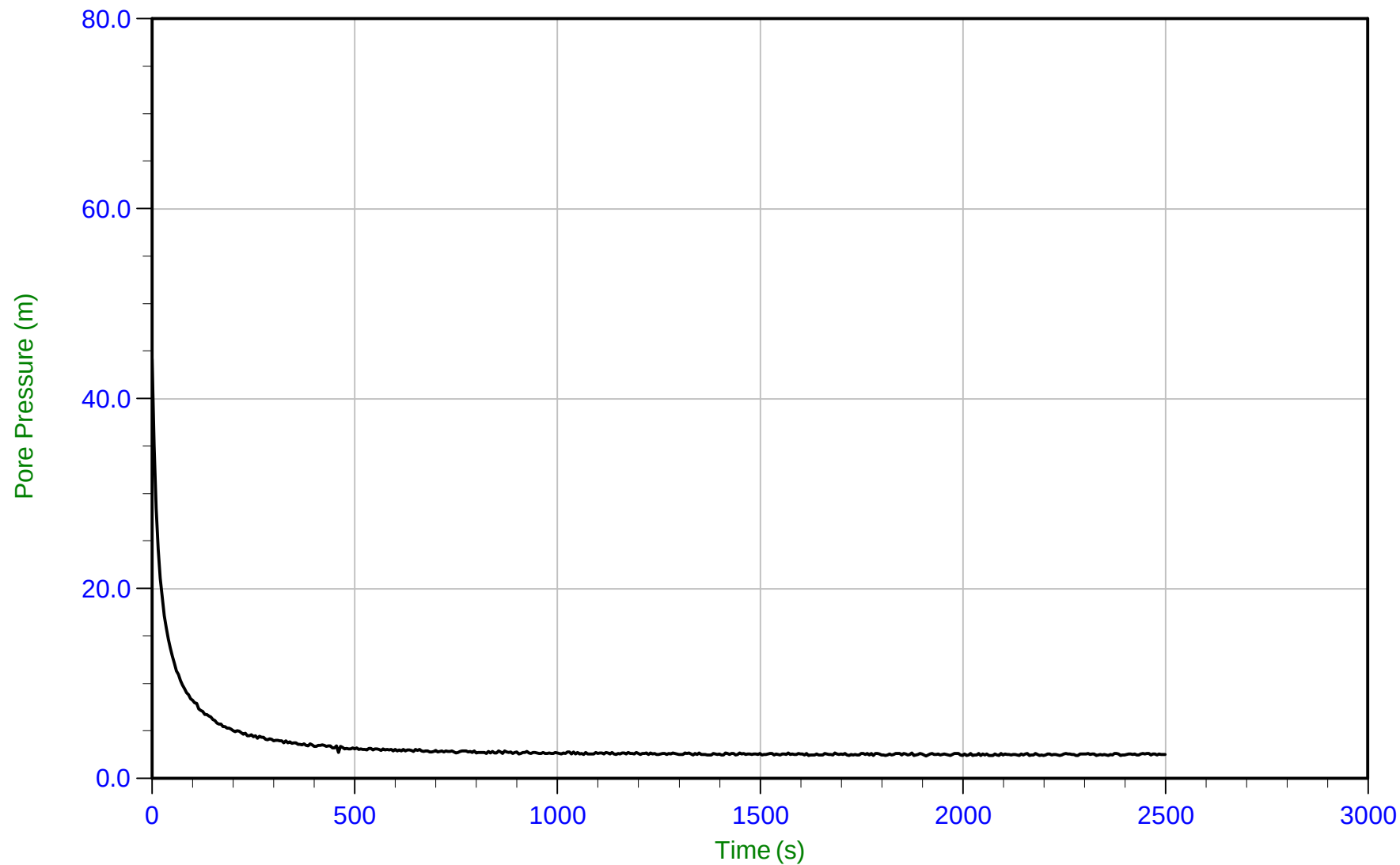
Trace Summary:	Filename: 15-02029_SPA03.PPF	U Min: -0.1 m	WT: 22.350 m / 73.326 ft
	Depth: 22.350 m / 73.326 ft	U Max: 0.4 m	Ueq: 0.0 m
	Duration: 80.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/19/2015 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



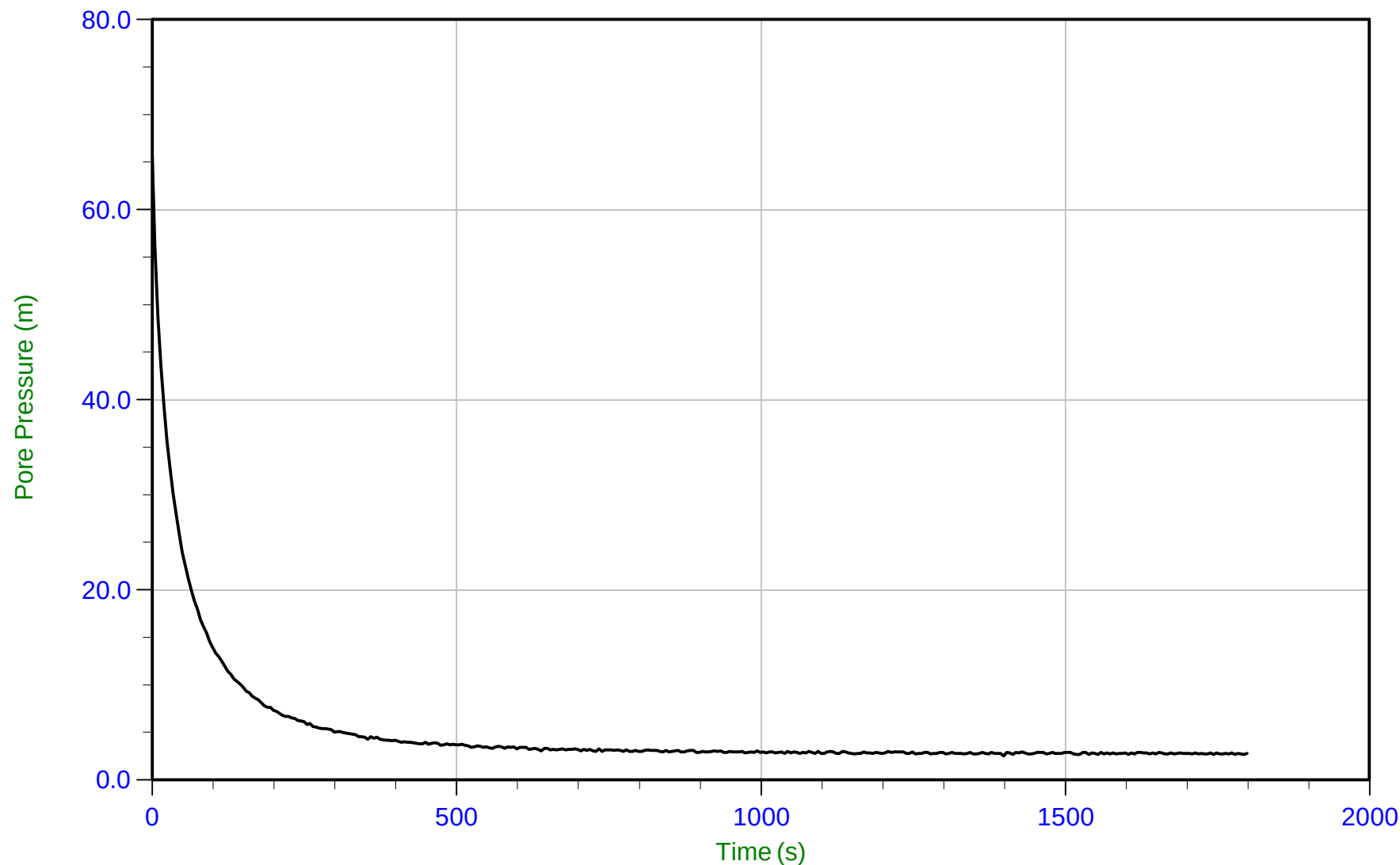
Trace Summary:	Filename: 15-02029_SPA04.PPF	U Min: 2.4 m	WT: 7.357 m / 24.137 ft	T(50): 16.5 s
	Depth: 9.700 m / 31.824 ft	U Max: 44.2 m	Ueq: 2.3 m	Ir: 100
	Duration: 2500.0 s		U(50): 23.28 m	Ch: 28.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/19/2015 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



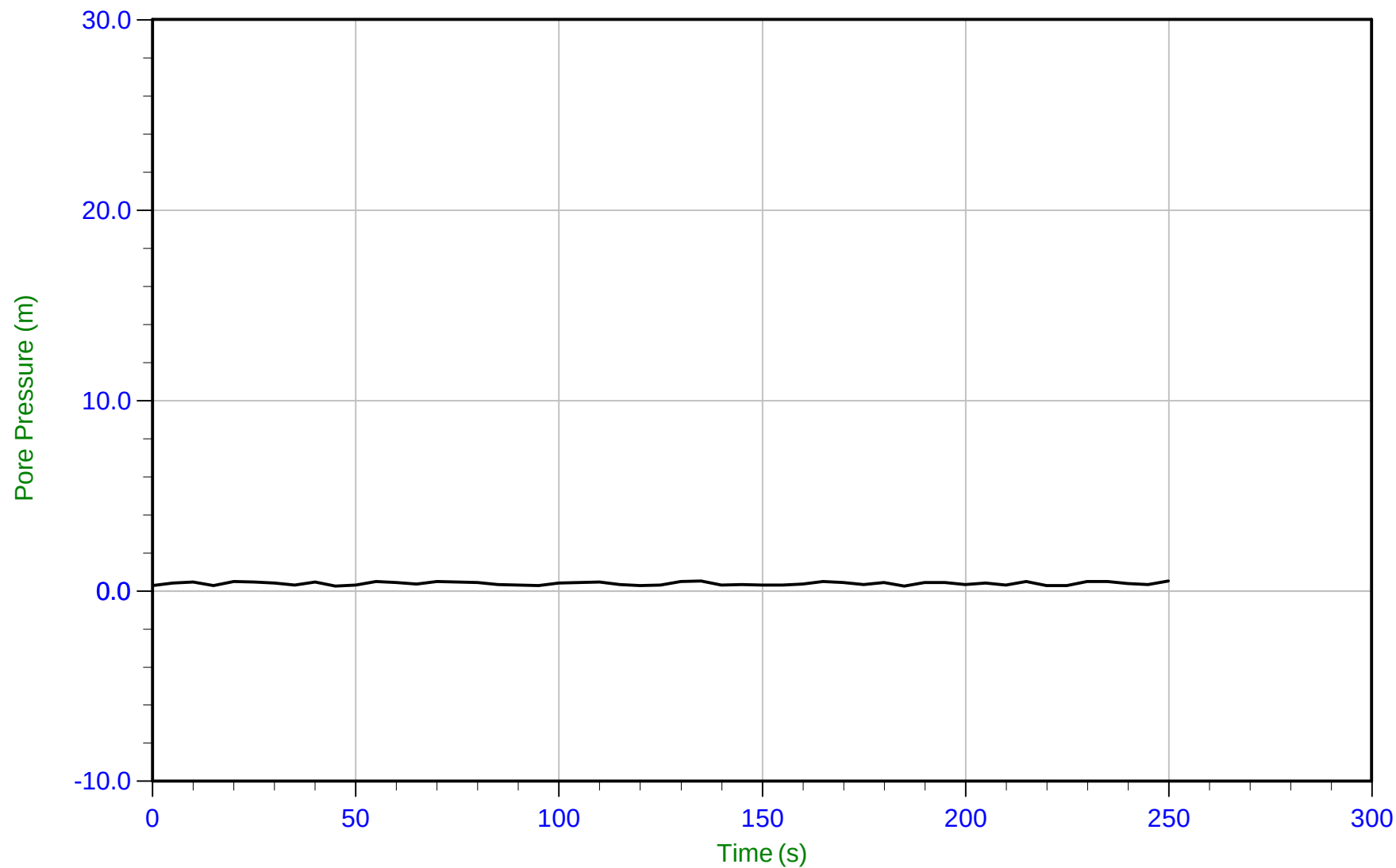
Trace Summary:	Filename: 15-02029_SPA04.PPF	U Min: 2.5 m	WT: 12.022 m / 39.442 ft	T(50): 27.6 s
	Depth: 14.700 m / 48.228 ft	U Max: 65.6 m	Ueq: 2.7 m	Ir: 100
	Duration: 1800.0 s		U(50): 34.16 m	Ch: 16.9 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/19/2015 09:00
Site: Myra Falls Mine

Sounding: SCPT15-A04
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



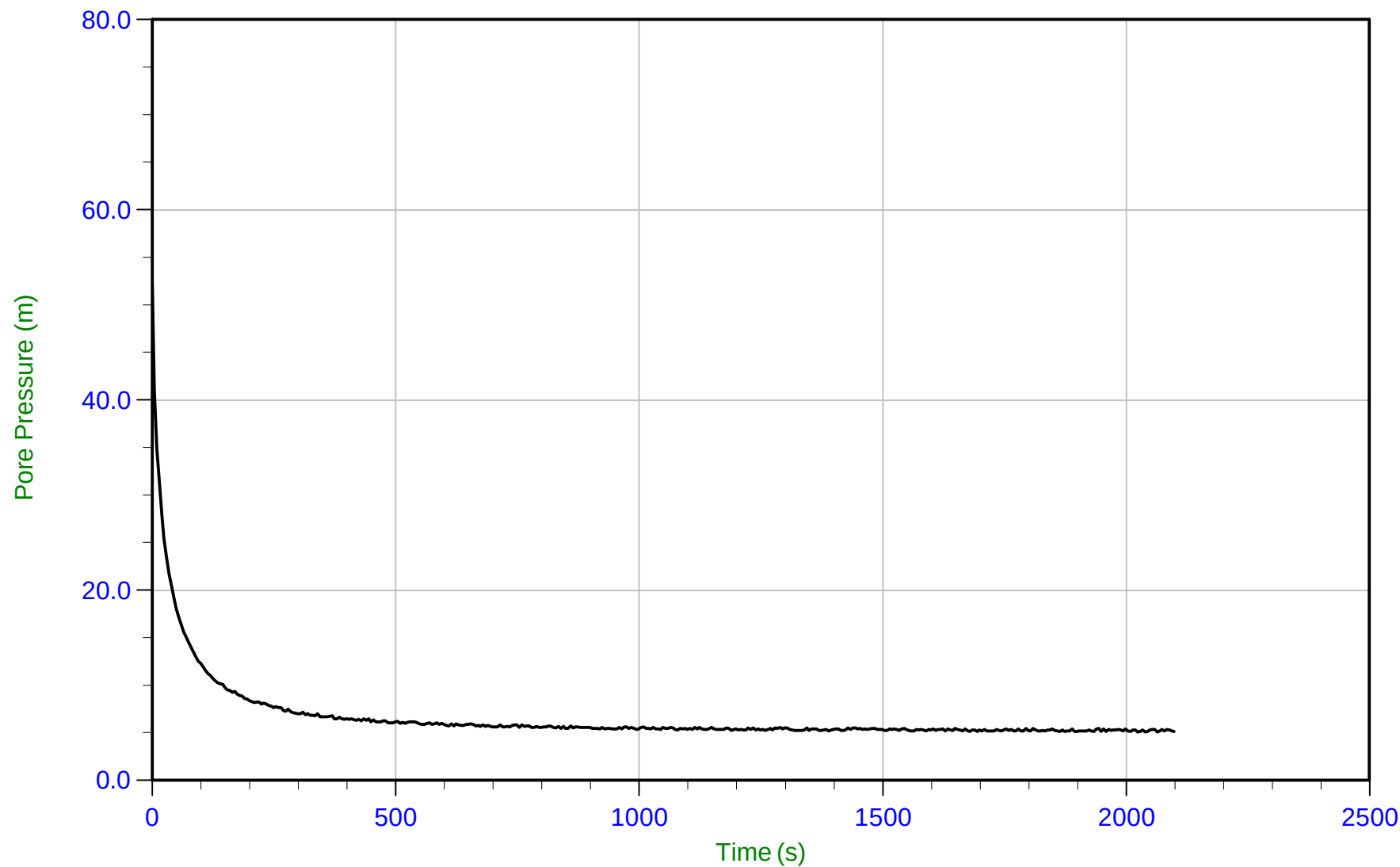
Trace Summary:	Filename: 15-02029_SPA04.PPF	U Min: 0.3 m	WT: 17.373 m / 56.997 ft
	Depth: 17.750 m / 58.234 ft	U Max: 0.5 m	Ueq: 0.4 m
	Duration: 250.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/02/2015 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



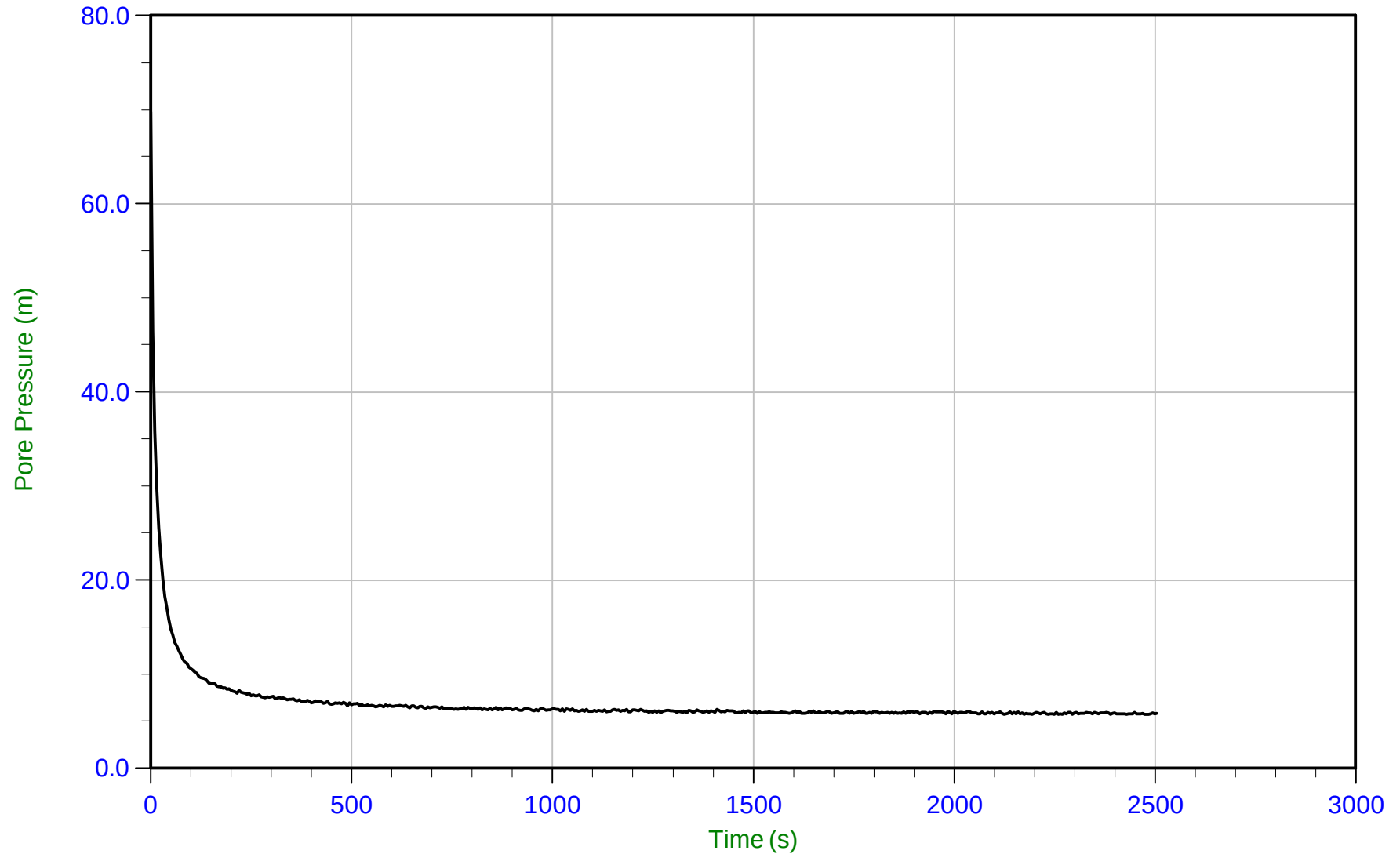
Trace Summary:	Filename: 15-02029_SPA05.PPF	U Min: 5.1 m	WT: 12.529 m / 41.105 ft	T(50): 18.8 s
	Depth: 17.550 m / 57.578 ft	U Max: 52.4 m	Ueq: 5.0 m	Ir: 100
	Duration: 2100.0 s		U(50): 28.70 m	Ch: 24.9 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/02/2015 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA05.PPF
Depth: 22.700 m / 74.474 ft
Duration: 2505.0 s

U Min: 5.7 m
U Max: 69.7 m

WT: 17.010 m / 55.806 ft
Ueq: 5.7 m
U(50): 37.71 m

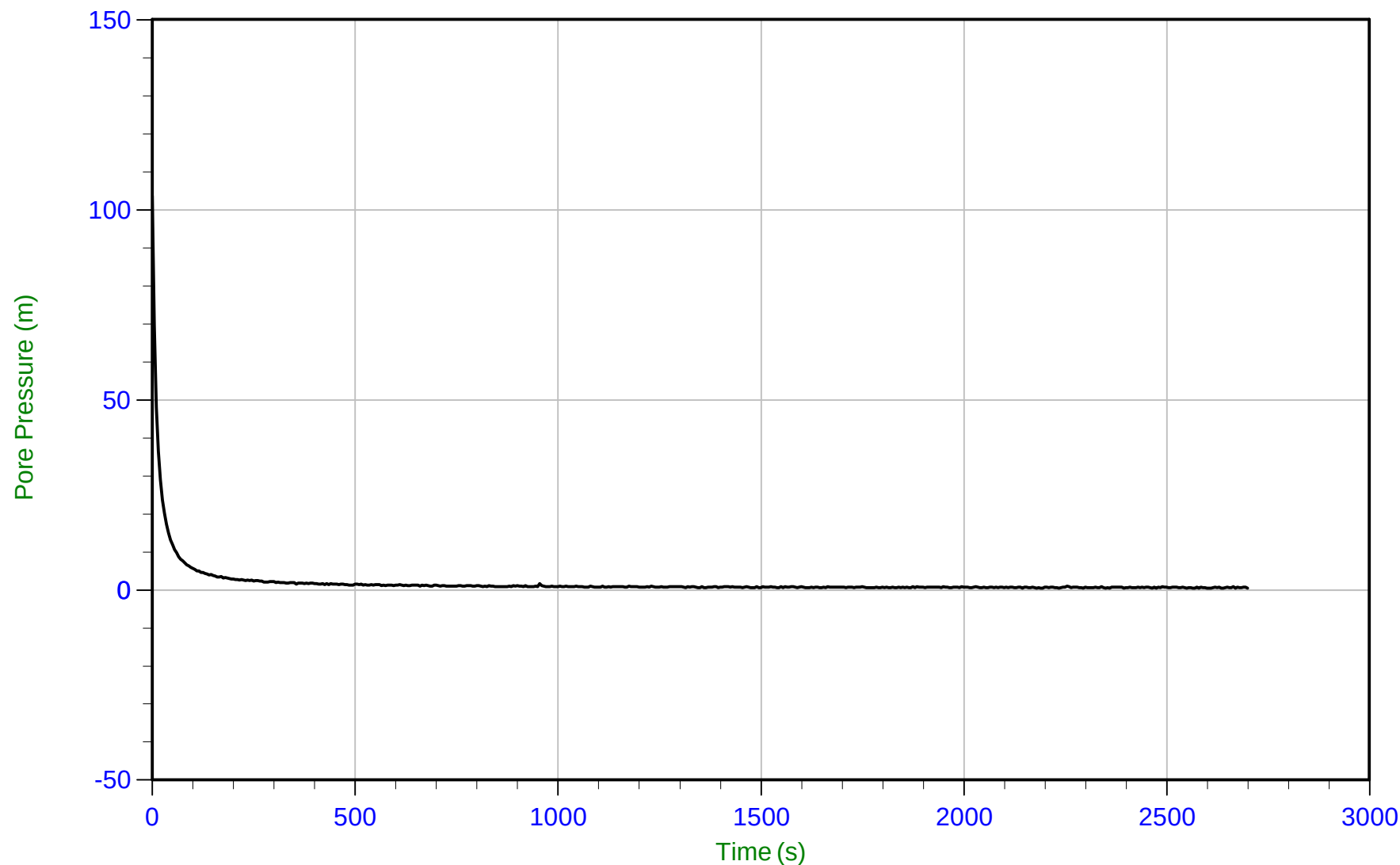
T(50): 9.1 s
Ir: 100
Ch: 51.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/02/2015 10:24
Site: Myra Falls Mine

Sounding: SCPT15-A05
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA05.PPF
Depth: 27.800 m / 91.206 ft
Duration: 2700.0 s

U Min: 0.5 m
U Max: 103.6 m

WT: 27.300 m / 89.566 ft
Ueq: 0.5 m
U(50): 52.06 m

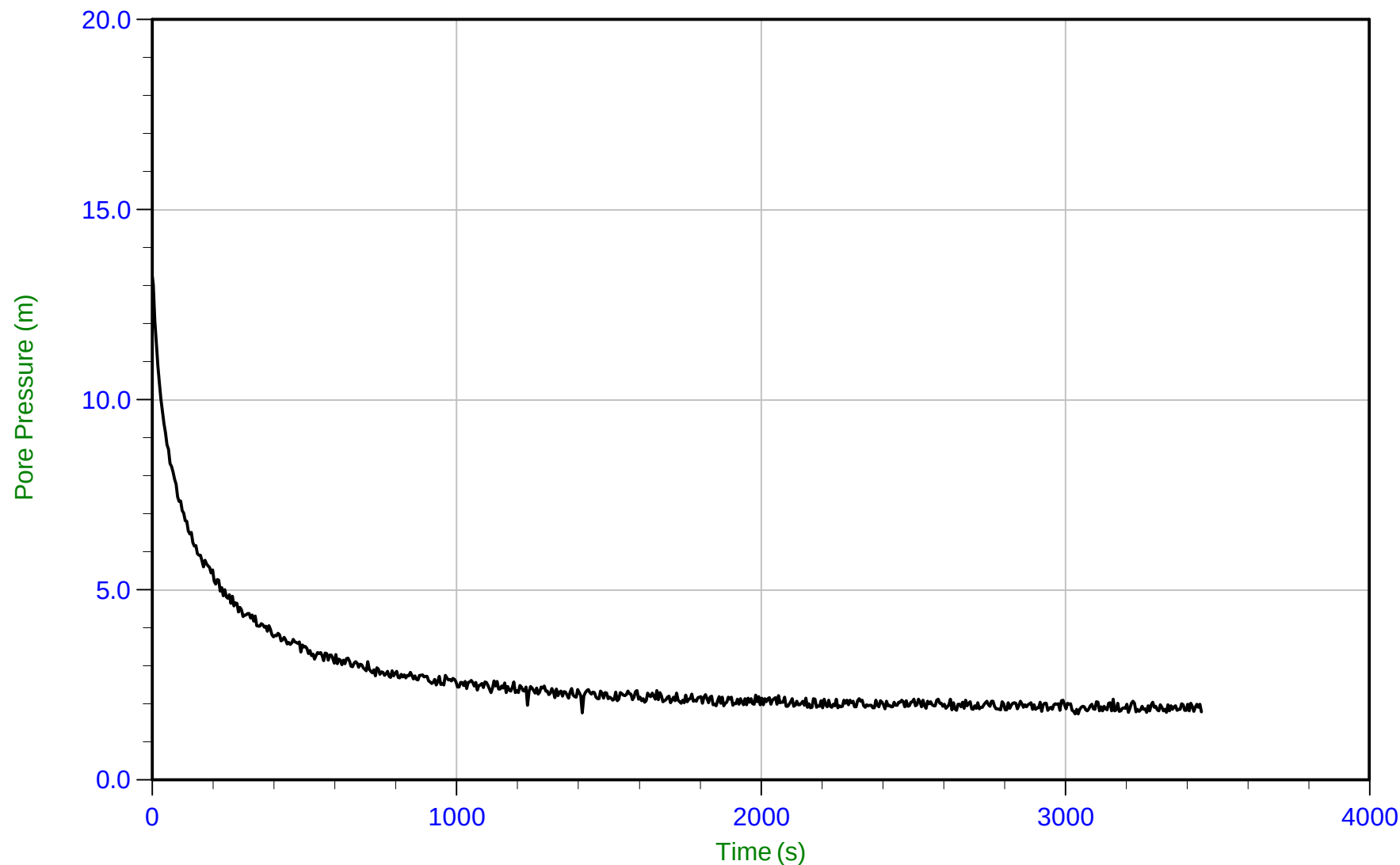
T(50): 9.1 s
Ir: 100
Ch: 51.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/08/2015 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA07.PPF
Depth: 2.800 m / 9.186 ft
Duration: 3450.0 s

U Min: 1.7 m
U Max: 13.2 m

WT: 1.091 m / 3.579 ft
Ueq: 1.7 m
U(50): 7.48 m

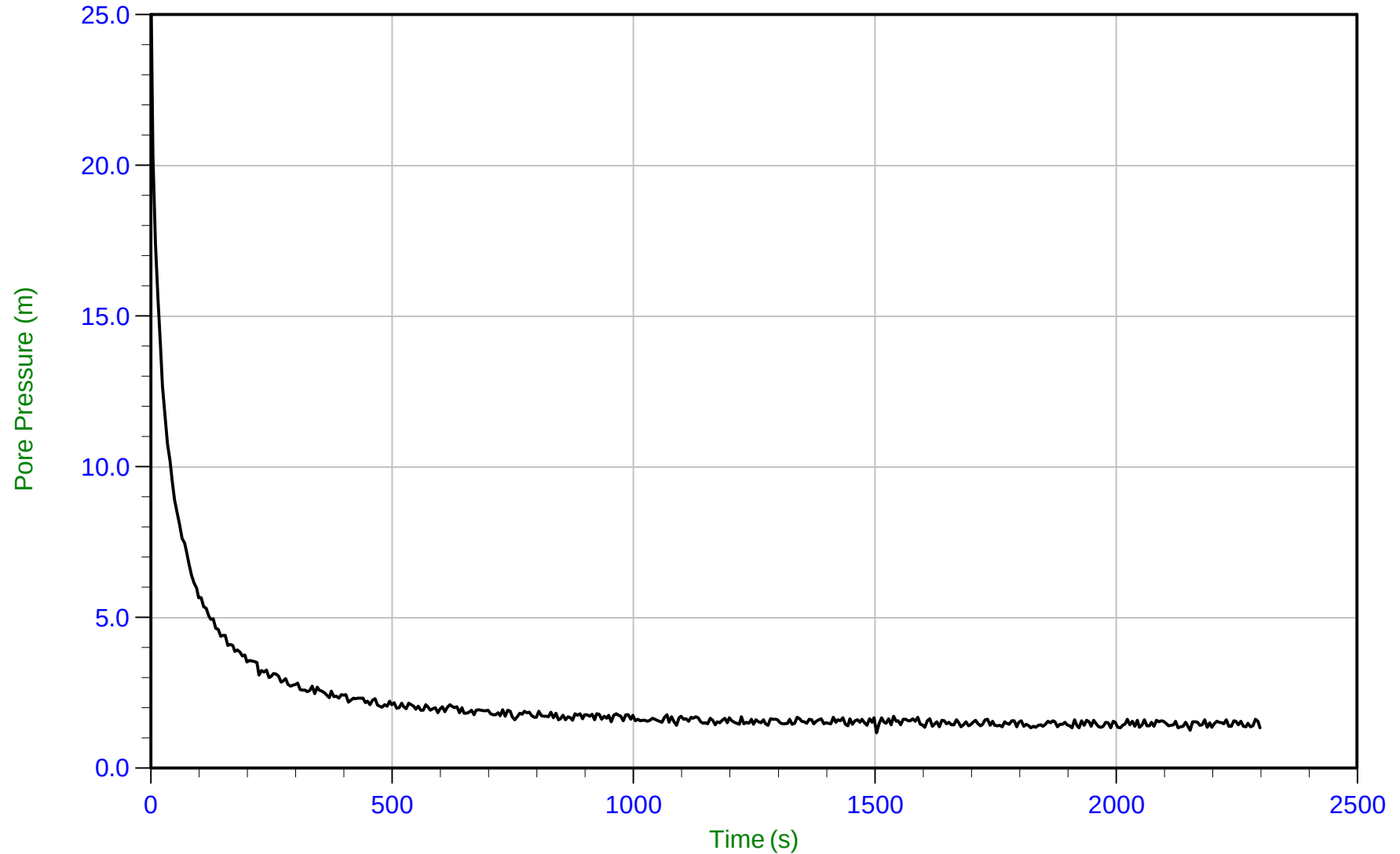
T(50): 84.5 s
Ir: 100
Ch: 5.5 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/08/2015 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



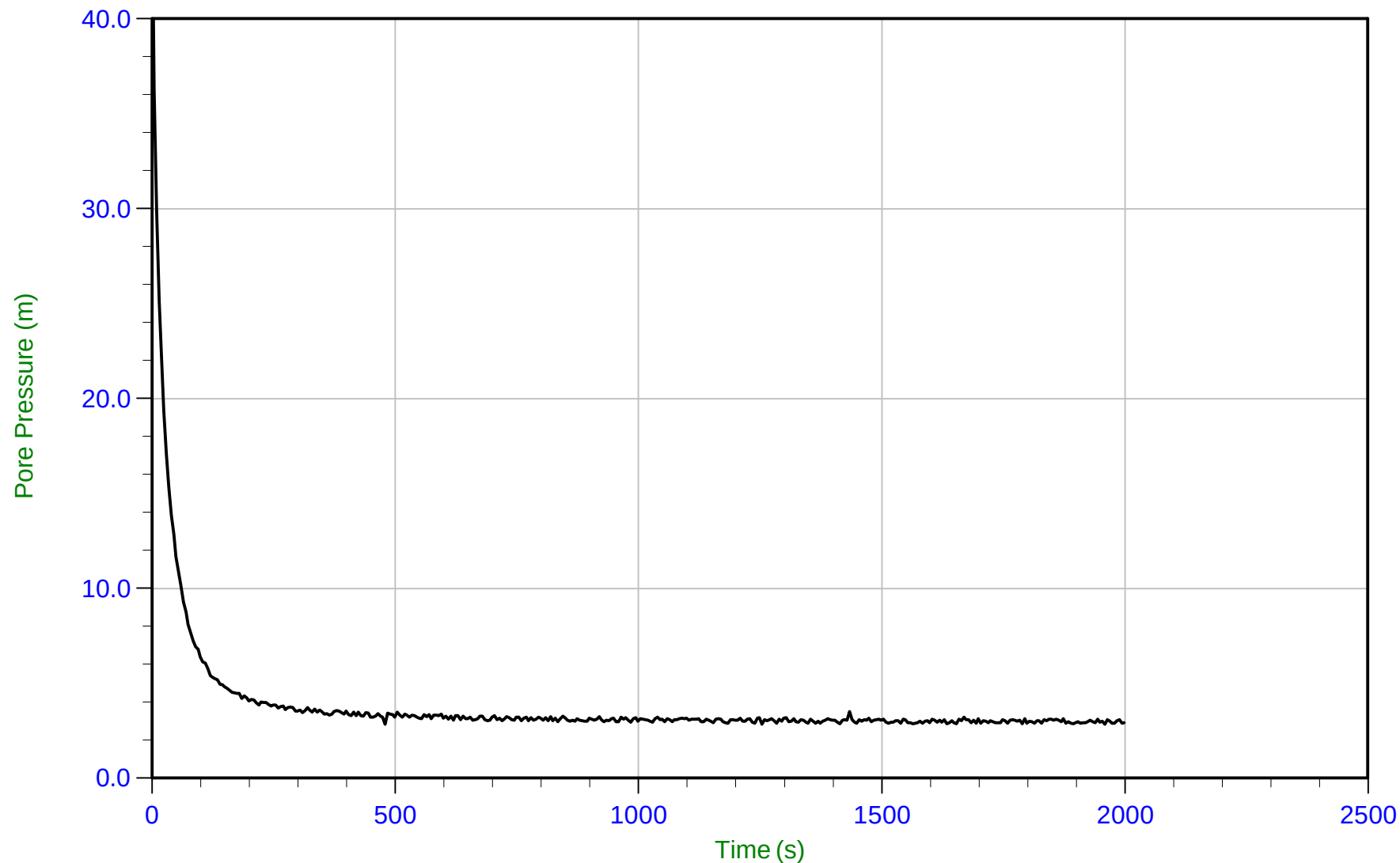
Trace Summary:	Filename: 15-02029_SPA07.PPF	U Min: 1.2 m	WT: 6.518 m / 21.384 ft	T(50): 21.3 s
	Depth: 7.800 m / 25.590 ft	U Max: 26.1 m	Ueq: 1.3 m	Ir: 100
	Duration: 2300.0 s		U(50): 13.68 m	Ch: 22.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/08/2015 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



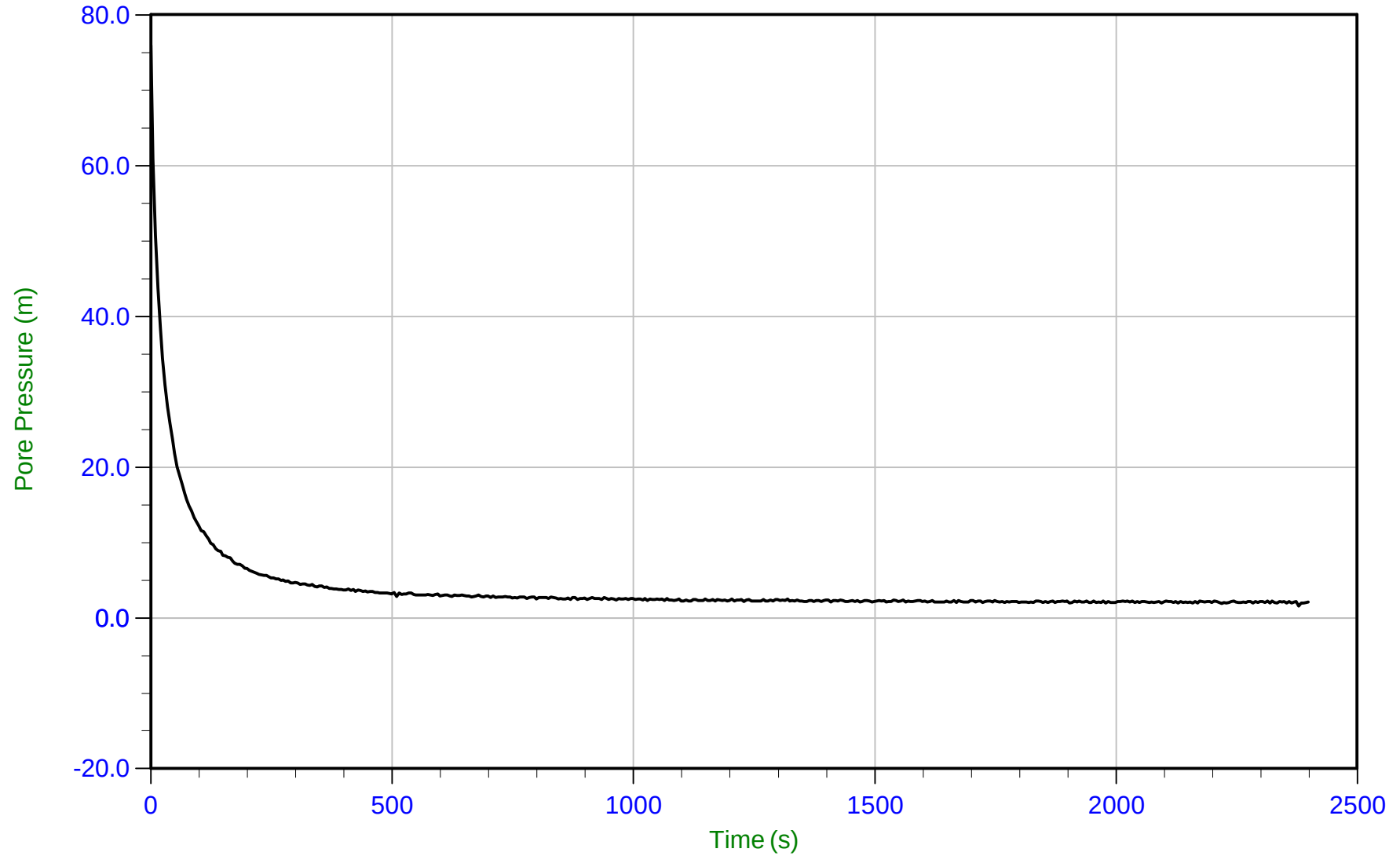
Trace Summary: Filename: 15-02029_SPA07.PPF U Min: 2.8 m WT: 9.979 m / 32.739 ft T(50): 15.4 s
Depth: 12.800 m / 41.994 ft U Max: 47.0 m Ueq: 2.8 m Ir: 100
Duration: 2000.0 s U(50): 24.89 m Ch: 30.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/08/2015 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



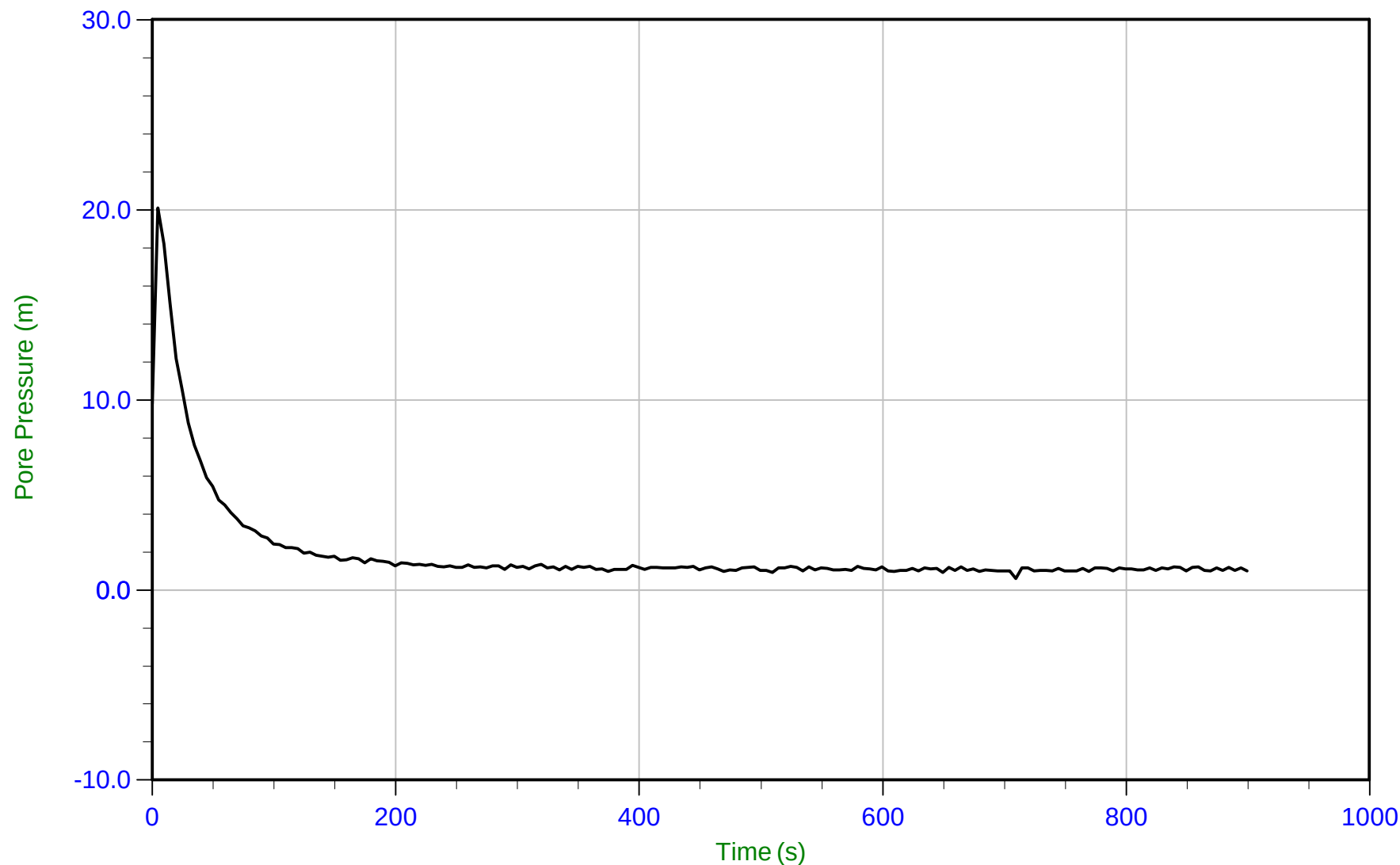
Trace Summary:	Filename: 15-02029_SPA07.PPF	U Min: 1.6 m	WT: 15.955 m / 52.345 ft	T(50): 19.5 s
	Depth: 17.750 m / 58.234 ft	U Max: 76.0 m	Ueq: 1.8 m	Ir: 100
	Duration: 2400.0 s		U(50): 38.88 m	Ch: 24.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/08/2015 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



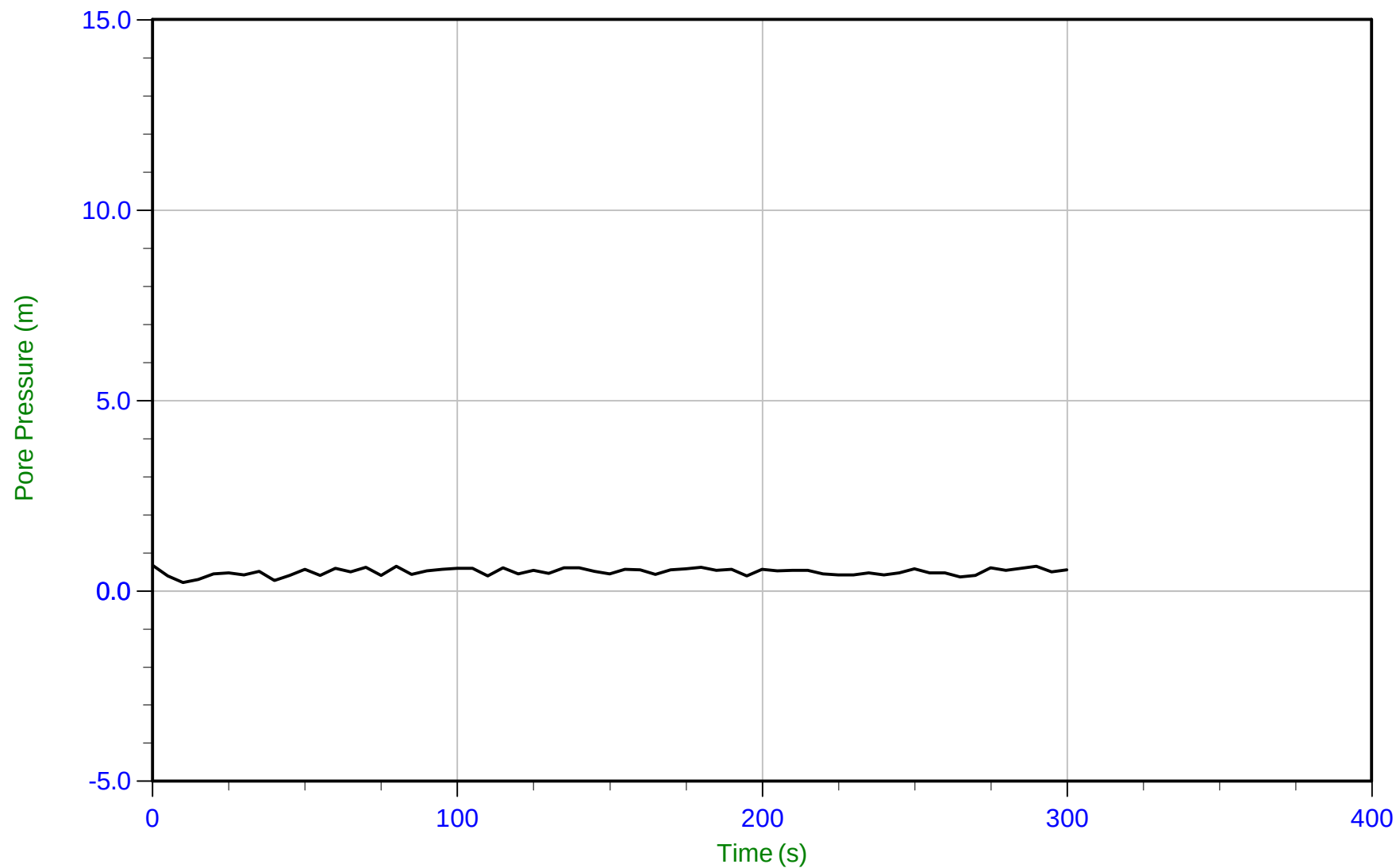
Trace Summary:	Filename: 15-02029_SPA07.PPF	U Min: 0.6 m	WT: 21.960 m / 72.046 ft	T(50): 20.0 s
	Depth: 22.900 m / 75.130 ft	U Max: 20.1 m	Ueq: 0.9 m	Ir: 100
	Duration: 900.0 s		U(50): 10.52 m	Ch: 23.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/08/2015 10:49
Site: Myra Falls Mine

Sounding: SCPT15-A07
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



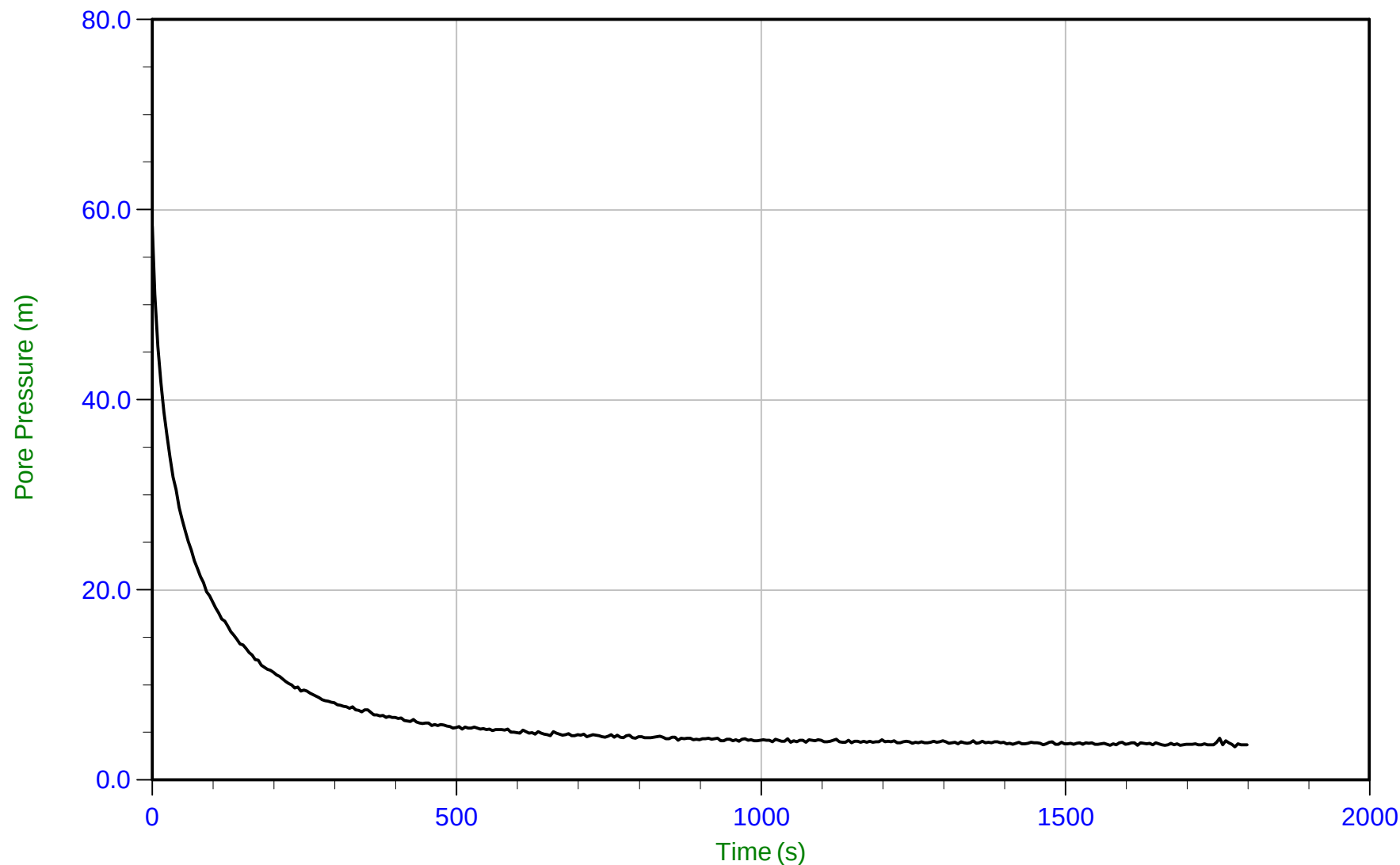
Trace Summary:	Filename: 15-02029_SPA07.PPF	U Min: 0.2 m	WT: 23.737 m / 77.876 ft
	Depth: 24.250 m / 79.559 ft	U Max: 0.7 m	Ueq: 0.5 m
	Duration: 300.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/12/2015 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



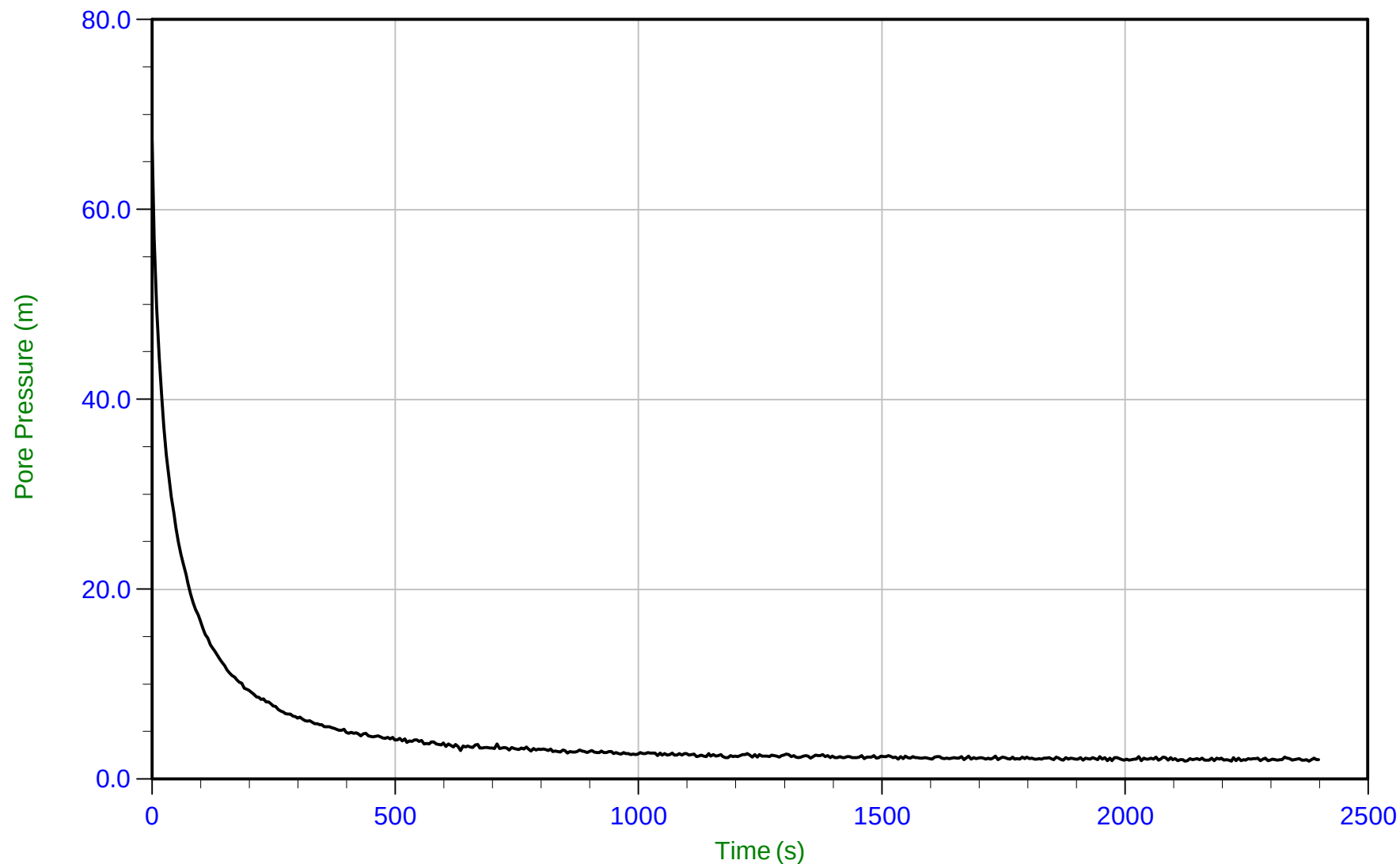
Trace Summary:	Filename: 15-02029_SPA09.PPF	U Min: 3.5 m	WT: 10.018 m / 32.867 ft	T(50): 38.3 s
	Depth: 13.700 m / 44.947 ft	U Max: 58.3 m	Ueq: 3.7 m	Ir: 100
	Duration: 1800.0 s		U(50): 30.98 m	Ch: 12.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/12/2015 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



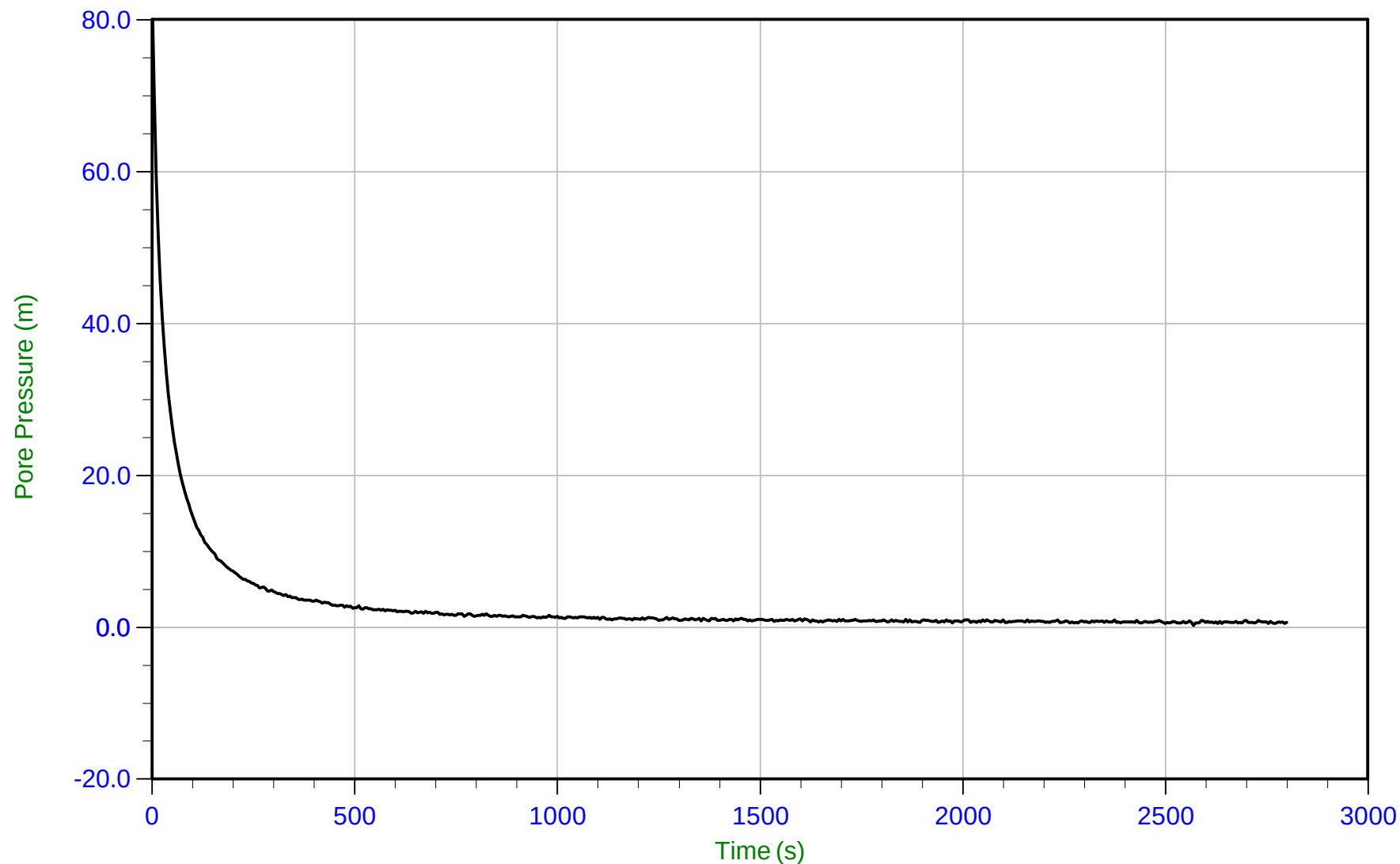
Trace Summary:	Filename: 15-02029_SPA09.PPF	U Min: 1.9 m	WT: 17.209 m / 56.459 ft	T(50): 29.4 s
	Depth: 19.050 m / 62.499 ft	U Max: 67.2 m	Ueq: 1.8 m	Ir: 100
	Duration: 2400.0 s		U(50): 34.54 m	Ch: 15.9 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/12/2015 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



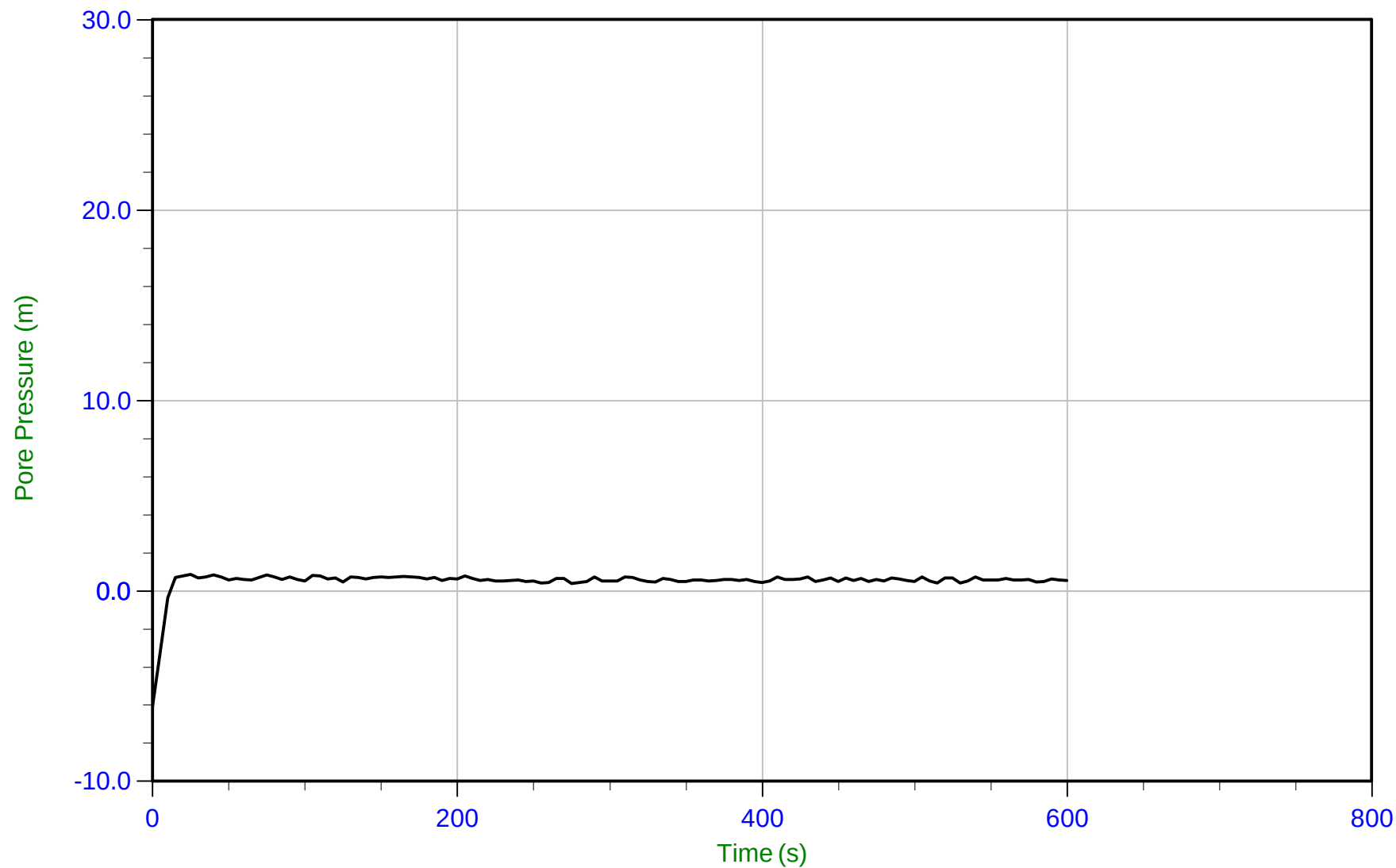
Trace Summary: Filename: 15-02029_SPA09.PPF U Min: 0.2 m WT: 23.446 m / 76.922 ft T(50): 23.7 s
Depth: 24.000 m / 78.739 ft U Max: 83.6 m Ueq: 0.6 m Ir: 100
Duration: 2800.0 s U(50): 42.07 m Ch: 19.8 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/12/2015 12:23
Site: Myra Falls Mine

Sounding: SCPT15-A09
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



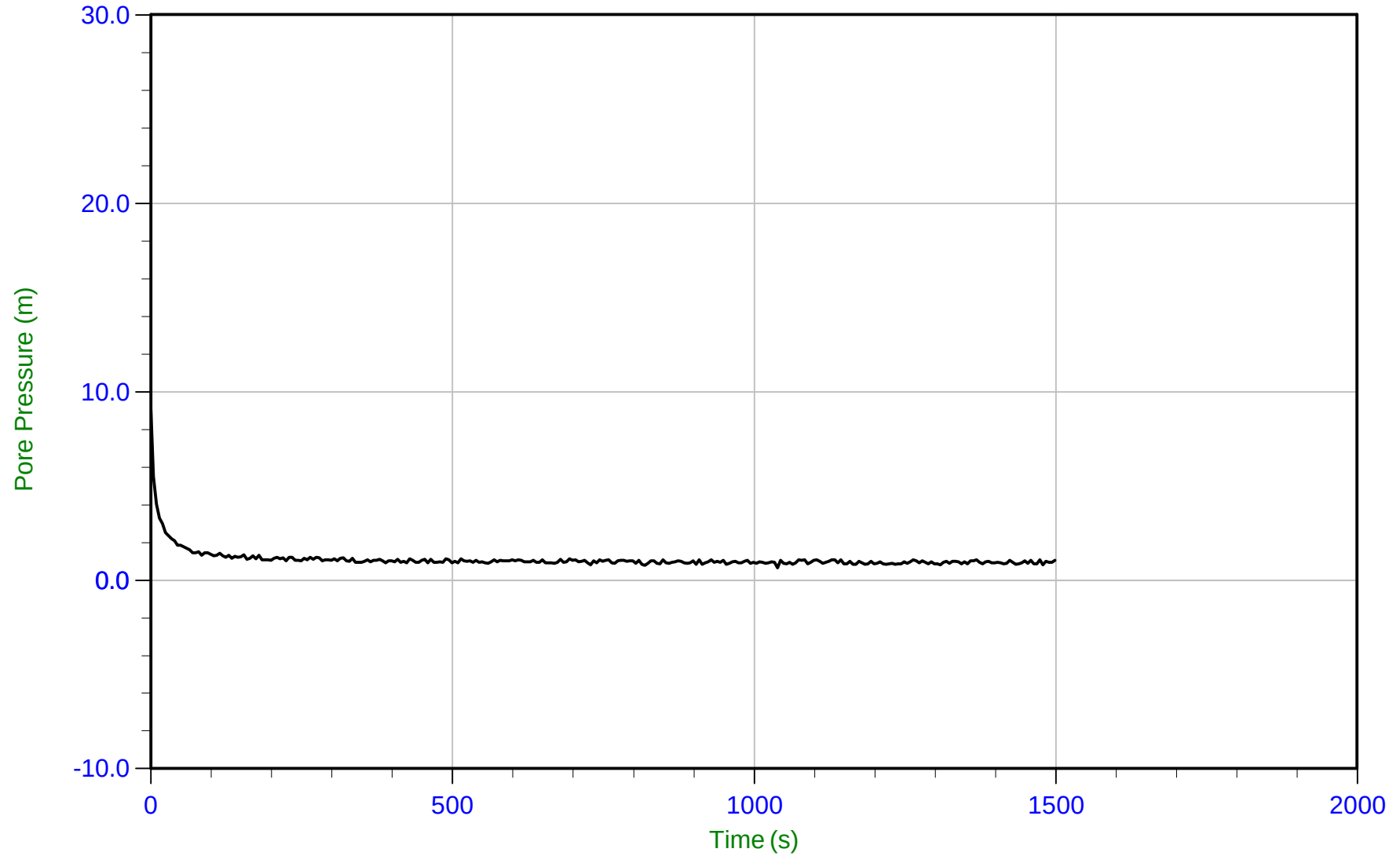
Trace Summary:	Filename: 15-02029_SPA09.PPF	U Min: -6.1 m	WT: 25.706 m / 84.336 ft
	Depth: 26.250 m / 86.121 ft	U Max: 0.9 m	Ueq: 0.5 m
	Duration: 600.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/13/2015 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



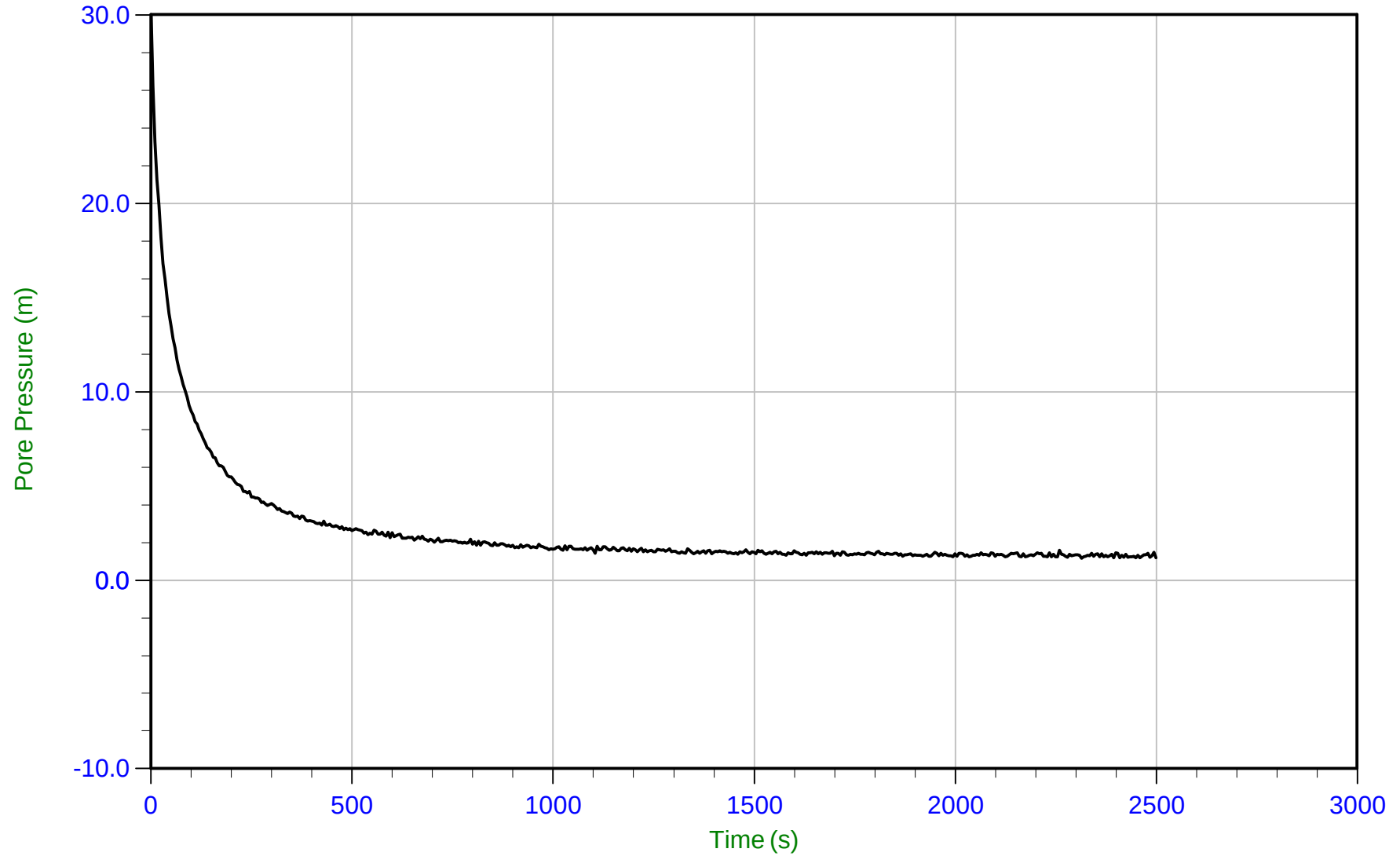
Trace Summary:	Filename: 15-02029_SPA11.PPF	U Min: 0.6 m	WT: 1.621 m / 5.318 ft	T(50): 6.9 s
	Depth: 2.500 m / 8.202 ft	U Max: 9.0 m	Ueq: 0.9 m	Ir: 100
	Duration: 1500.0 s		U(50): 4.95 m	Ch: 68.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/13/2015 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



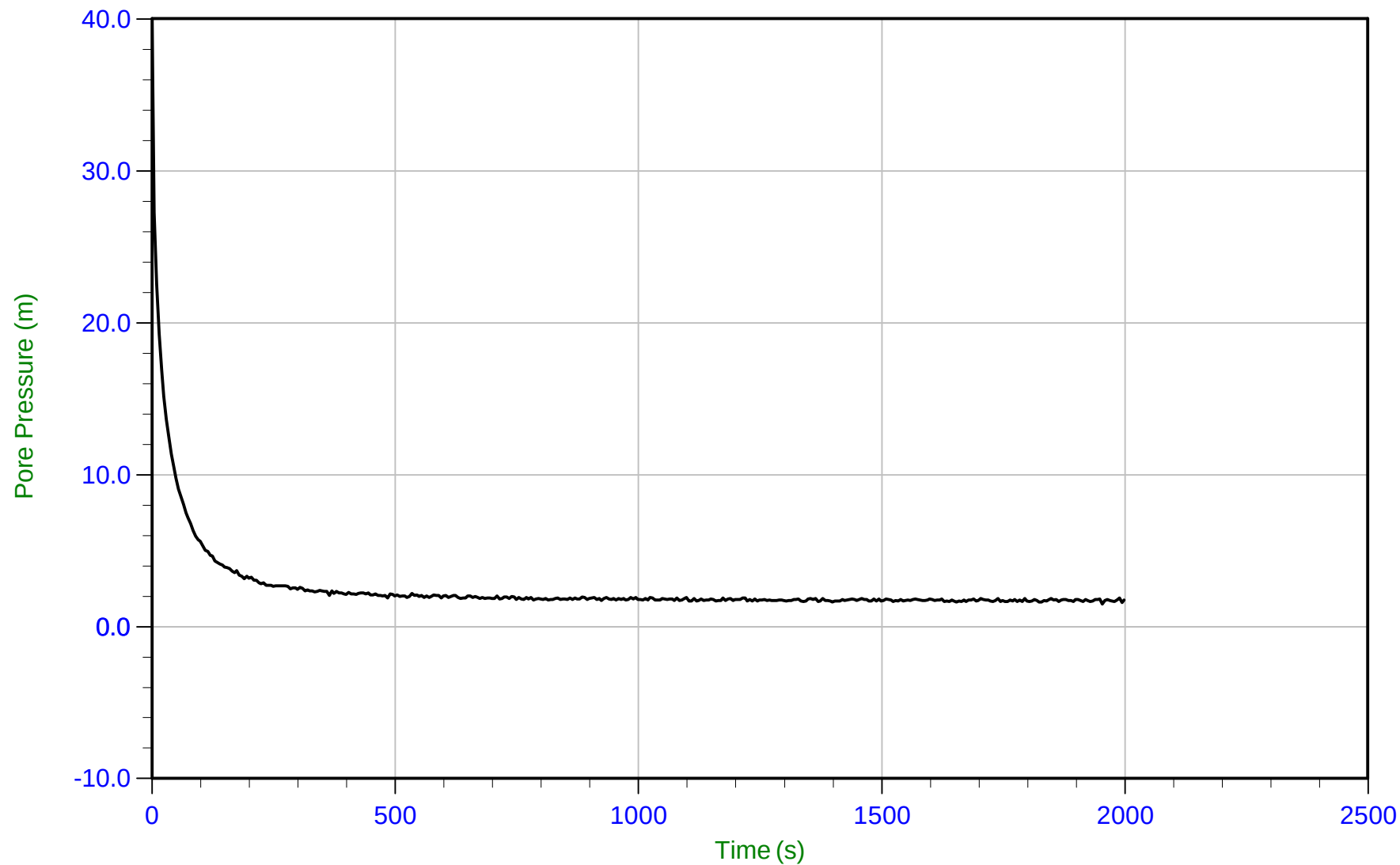
Trace Summary: Filename: 15-02029_SPA11.PPF U Min: 1.2 m WT: 6.370 m / 20.899 ft T(50): 35.8 s
Depth: 7.500 m / 24.606 ft U Max: 30.5 m Ueq: 1.1 m Ir: 100
Duration: 2500.0 s U(50): 15.83 m Ch: 13.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/13/2015 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



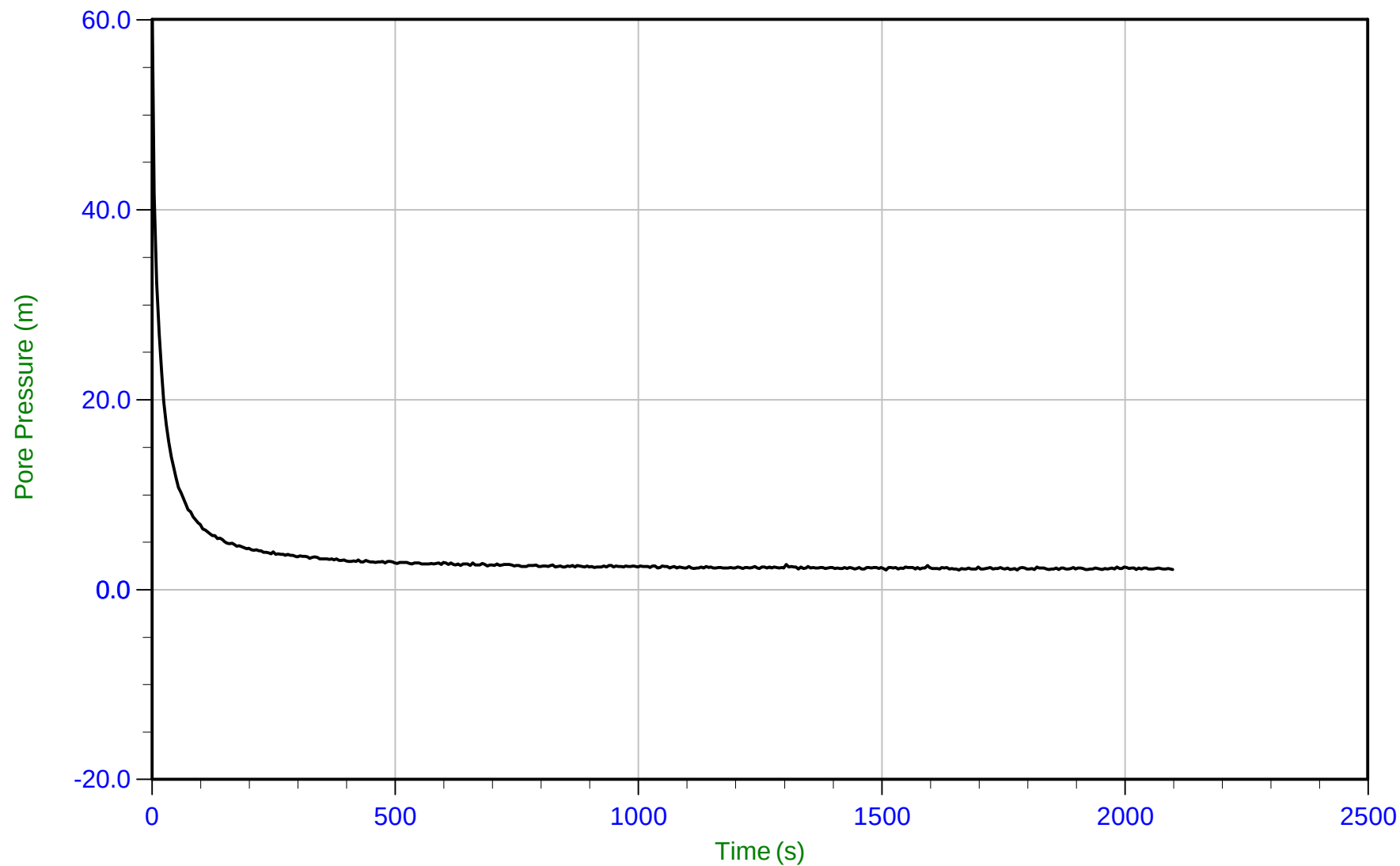
Trace Summary:	Filename: 15-02029_SPA11.PPF	U Min: 1.5 m	WT: 10.694 m / 35.085 ft	T(50): 12.7 s
	Depth: 12.200 m / 40.026 ft	U Max: 39.9 m	Ueq: 1.5 m	Ir: 100
	Duration: 2000.0 s		U(50): 20.72 m	Ch: 36.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/13/2015 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



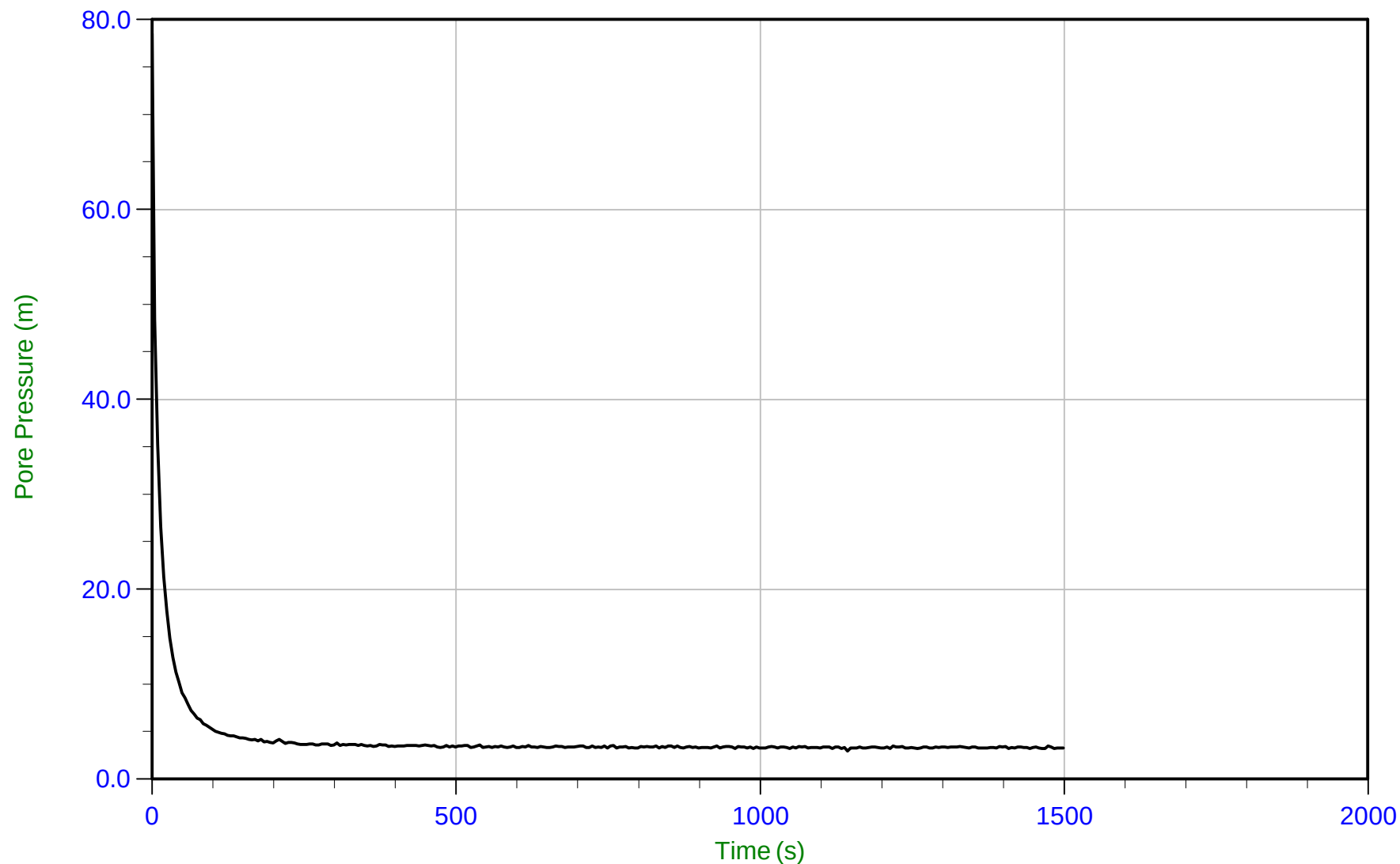
Trace Summary:	Filename: 15-02029_SPA11.PPF	U Min: 2.0 m	WT: 15.366 m / 50.413 ft	T(50): 10.1 s
	Depth: 17.500 m / 57.414 ft	U Max: 62.3 m	Ueq: 2.1 m	Ir: 100
	Duration: 2100.0 s		U(50): 32.22 m	Ch: 46.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/13/2015 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA11.PPF
Depth: 22.500 m / 73.818 ft
Duration: 1500.0 s

U Min: 2.9 m
U Max: 78.5 m

WT: 19.320 m / 63.385 ft
Ueq: 3.2 m
U(50): 40.86 m

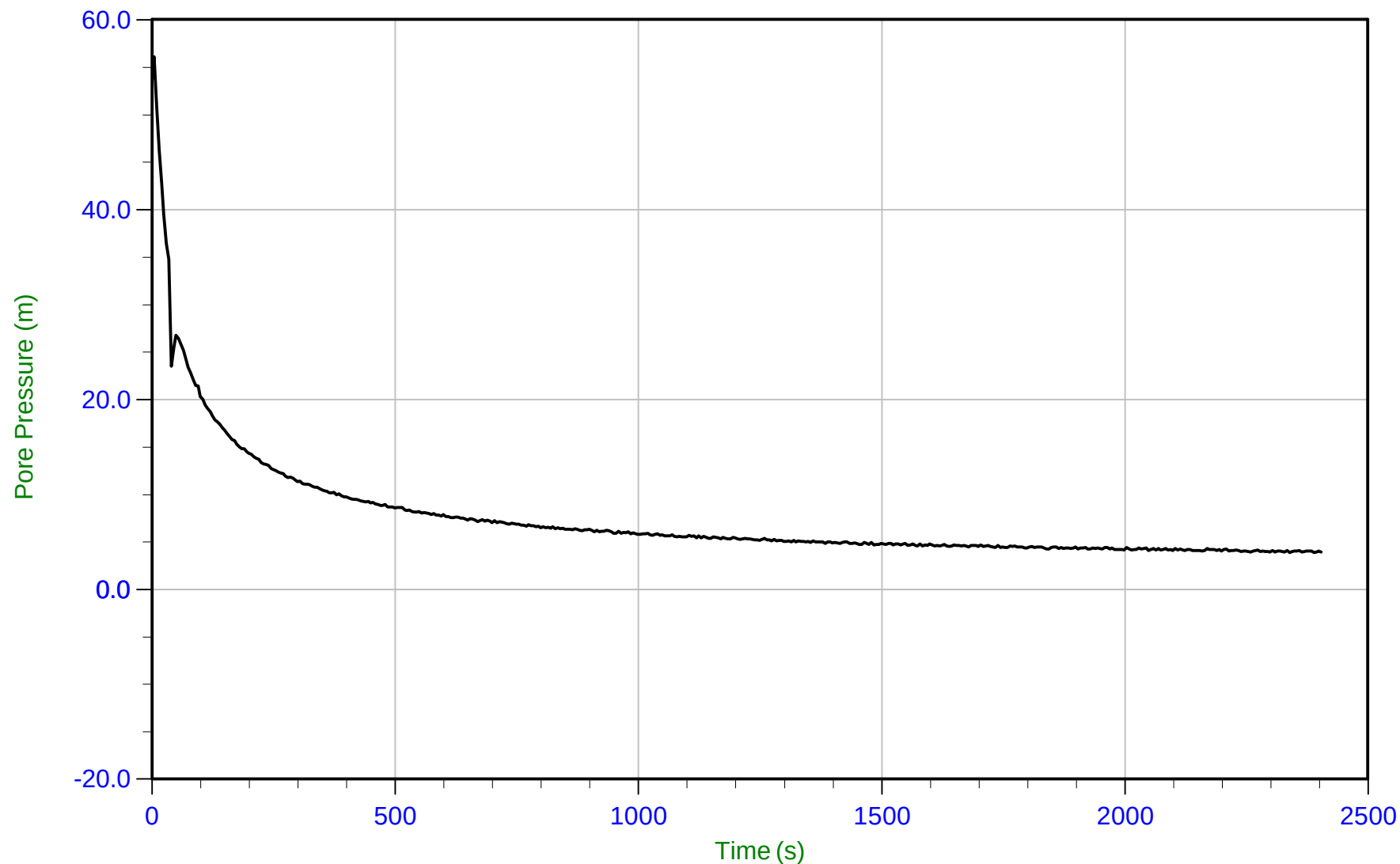
T(50): 7.9 s
Ir: 100
Ch: 59.4 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/13/2015 11:19
Site: Myra Falls Mine

Sounding: SCPT15-A11
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



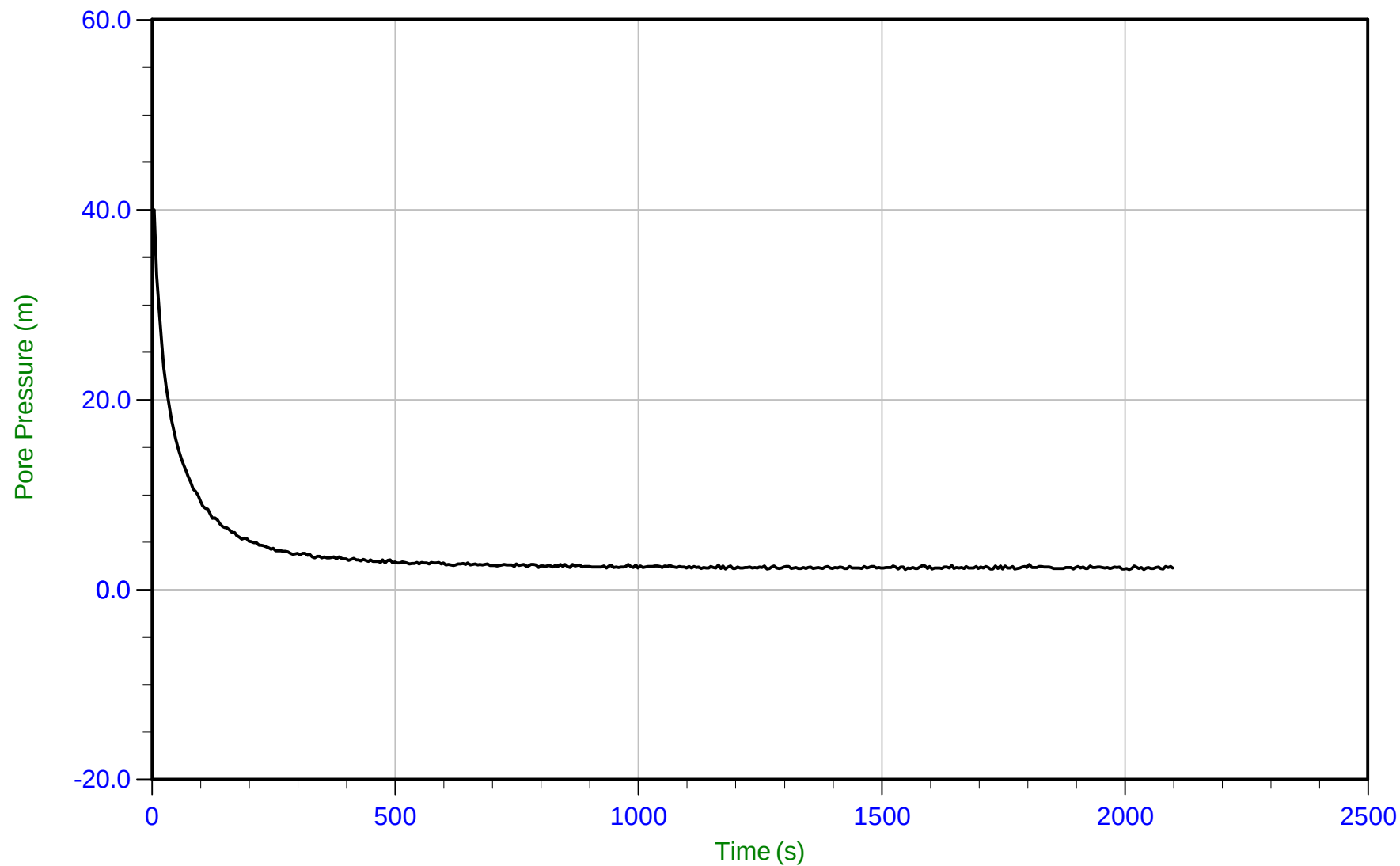
Trace Summary:	Filename: 15-02029_SPA11.PPF	U Min: 3.9 m	WT: 23.384 m / 76.718 ft	T(50): 32.1 s
	Depth: 27.150 m / 89.074 ft	U Max: 56.1 m	Ueq: 3.8 m	Ir: 100
	Duration: 2405.0 s		U(50): 29.94 m	Ch: 14.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/14/2015 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



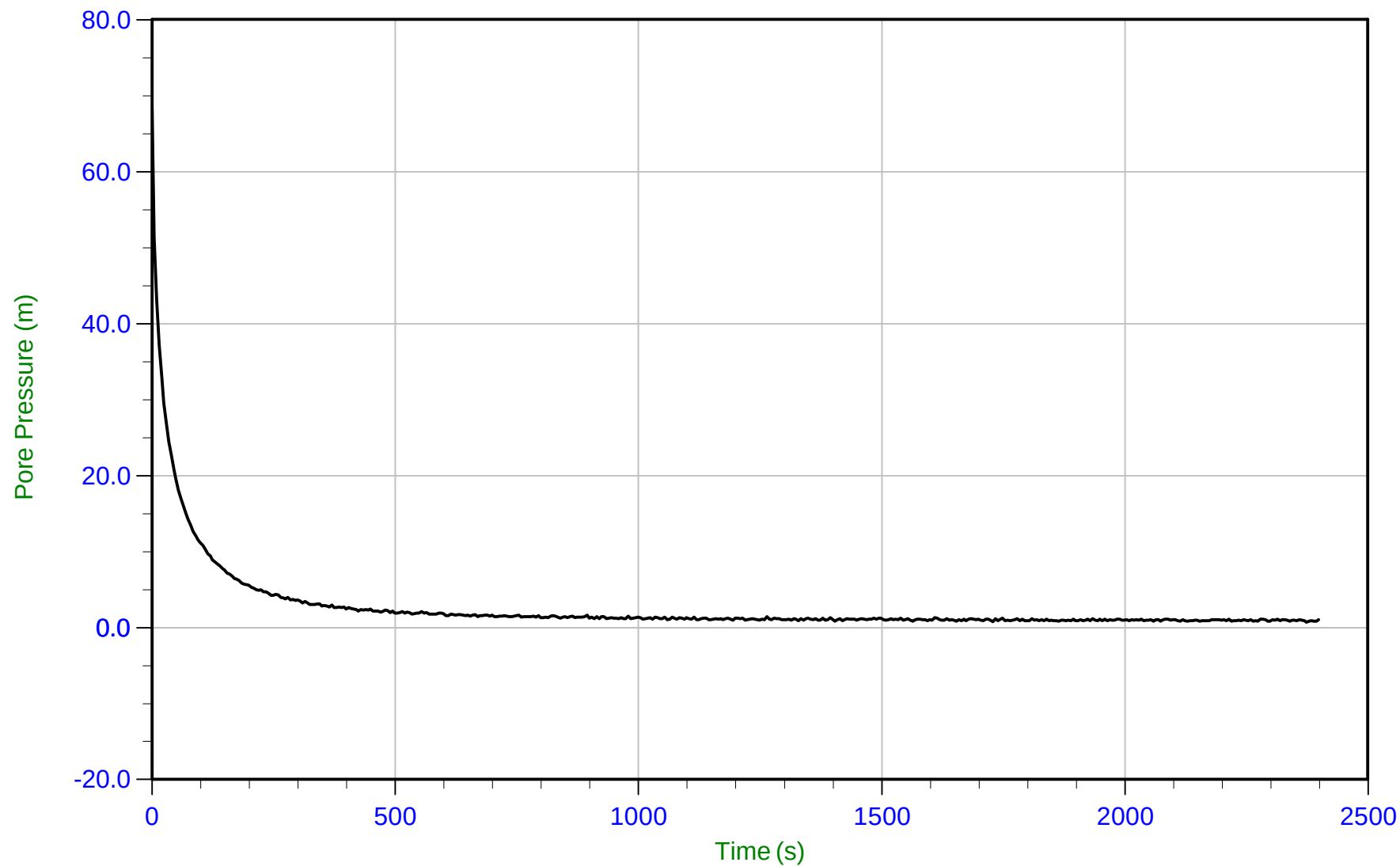
Trace Summary:	Filename: 15-02029_SPA13.PPF	U Min: 2.1 m	WT: 12.458 m / 40.872 ft	T(50): 25.6 s
	Depth: 14.550 m / 47.736 ft	U Max: 40.0 m	Ueq: 2.1 m	Ir: 100
	Duration: 2100.0 s		U(50): 21.02 m	Ch: 18.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/14/2015 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



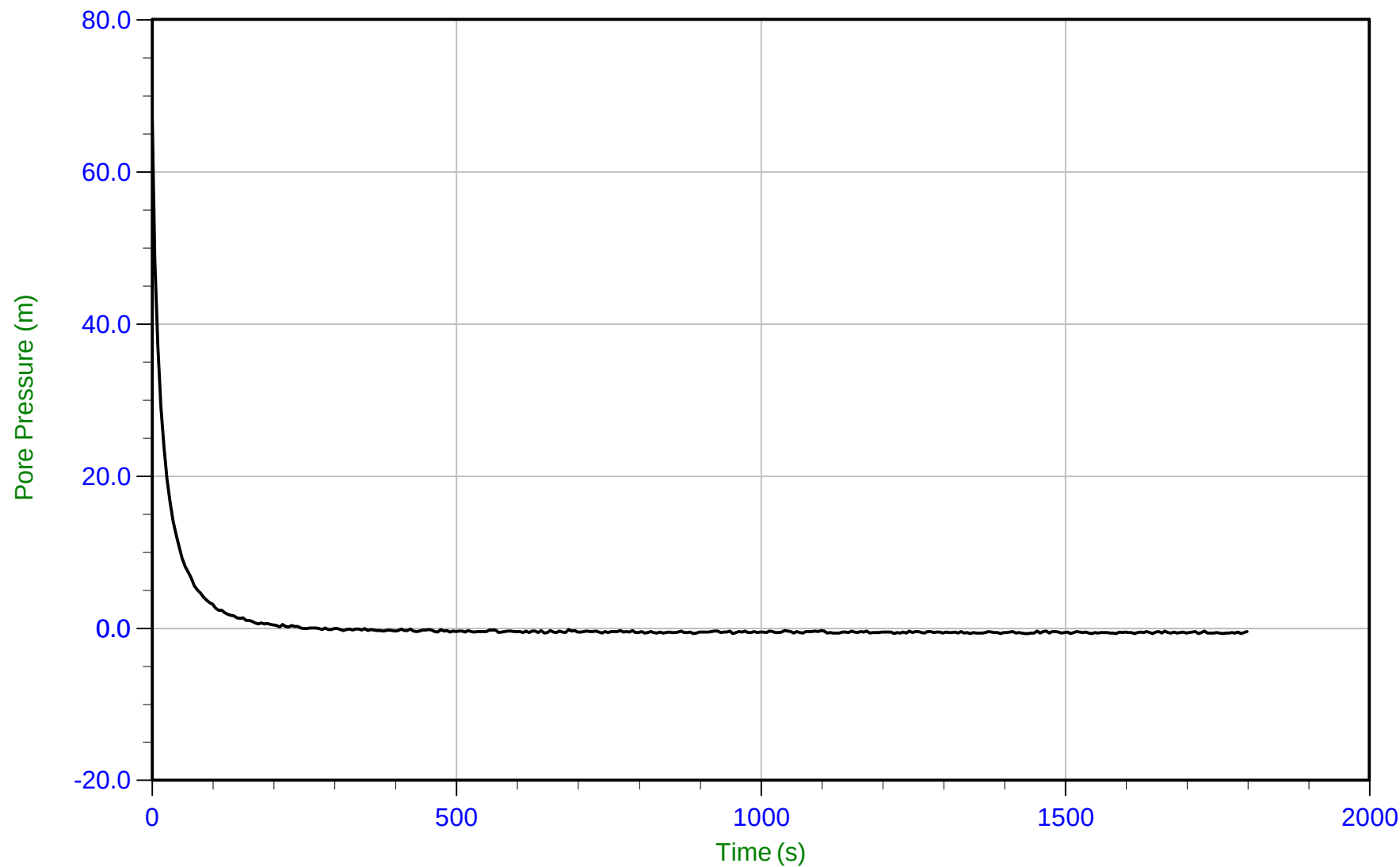
Trace Summary:	Filename: 15-02029_SPA13.PPF	U Min: 0.7 m	WT: 18.339 m / 60.167 ft	T(50): 18.3 s
	Depth: 19.050 m / 62.499 ft	U Max: 68.3 m	Ueq: 0.7 m	Ir: 100
	Duration: 2400.0 s		U(50): 34.52 m	Ch: 25.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/14/2015 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



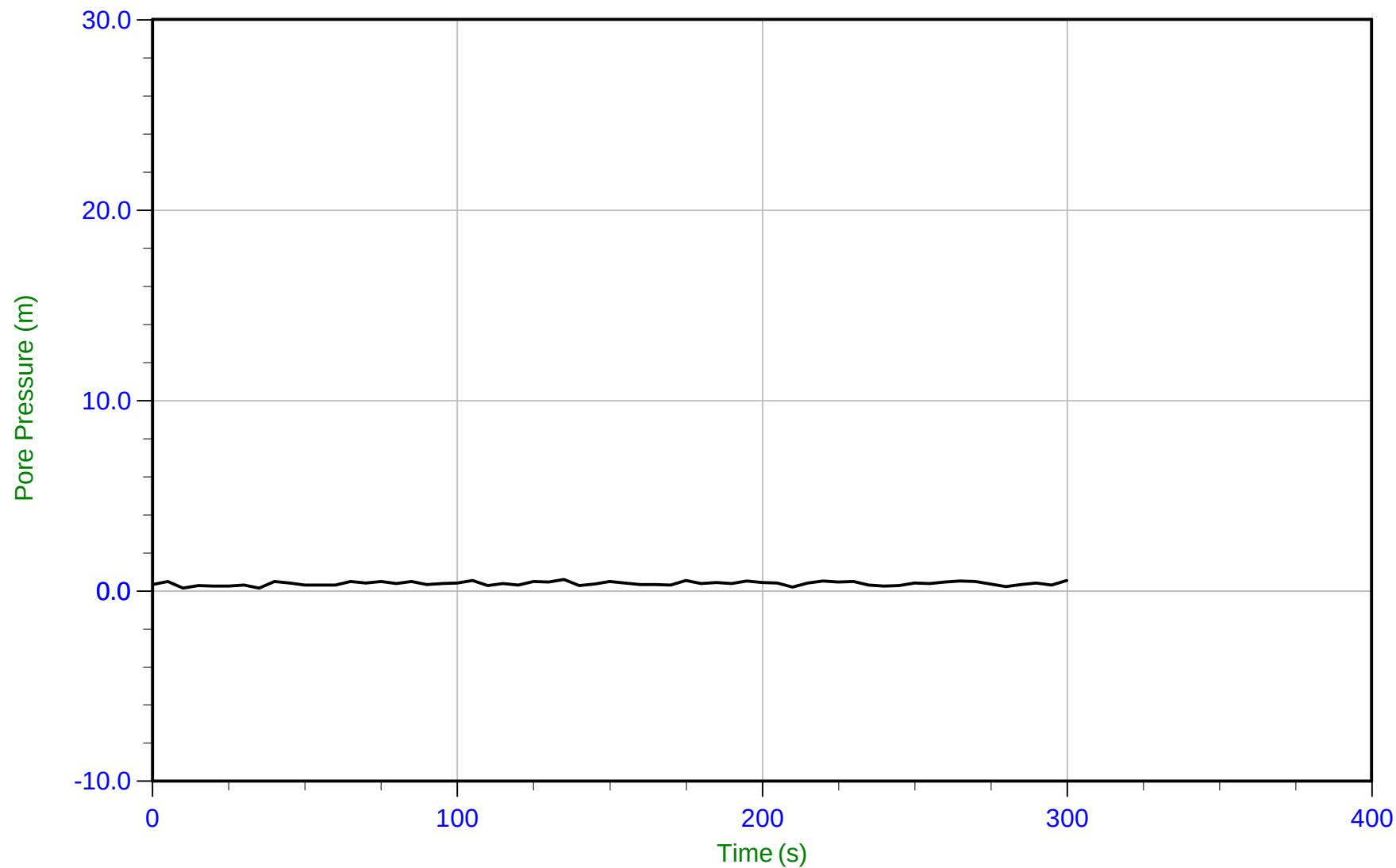
Trace Summary: Filename: 15-02029_SPA13.PPF U Min: -0.7 m
Depth: 24.000 m / 78.739 ft U Max: 66.8 m
Duration: 1800.0 s



Amec Foster Wheeler

Job No: 15-02029
Date: 04/14/2015 10:50
Site: Myra Falls Mine

Sounding: SCPT15-A13
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



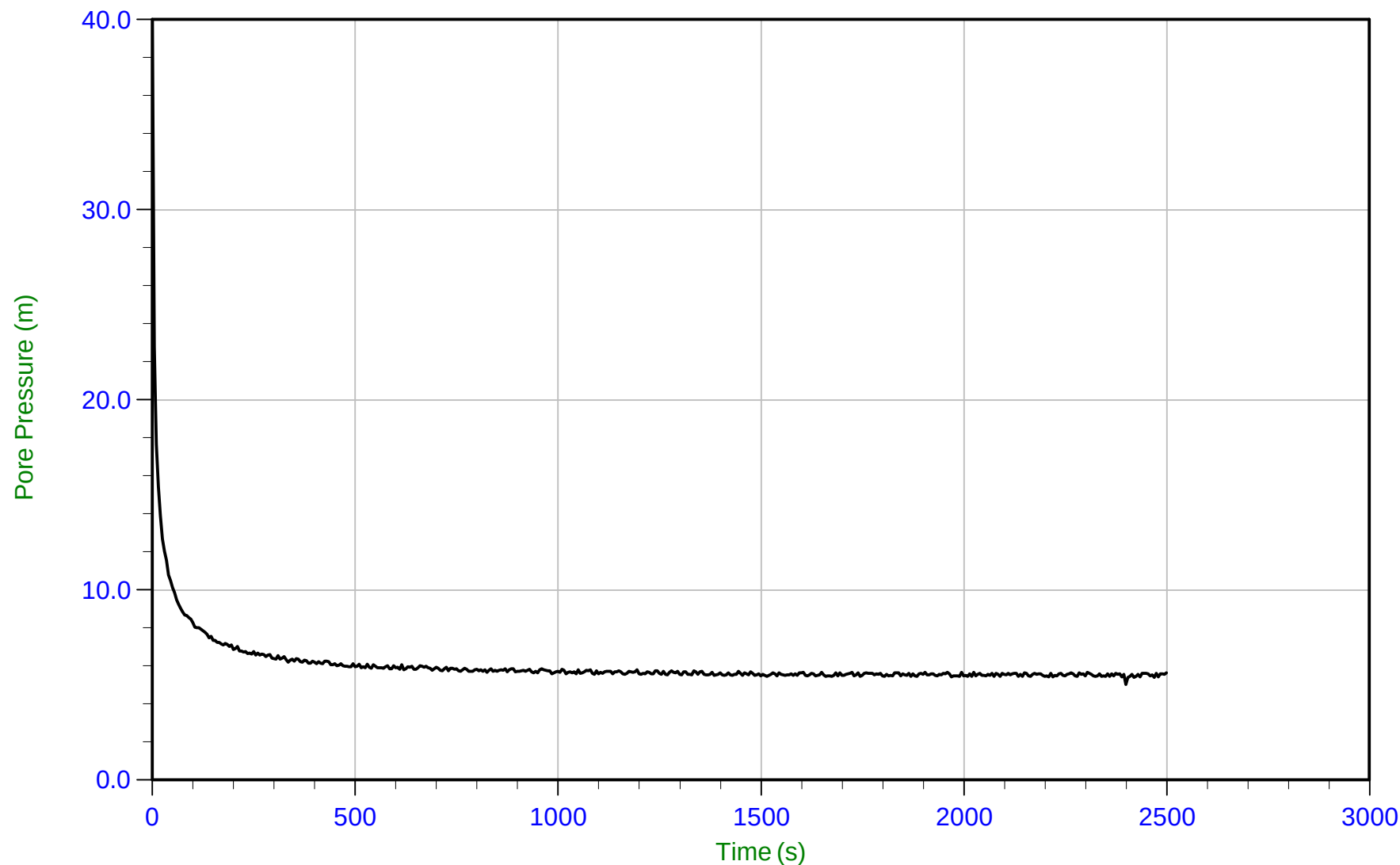
Trace Summary:	Filename: 15-02029_SPA13.PPF	U Min: 0.1 m	WT: 24.523 m / 80.455 ft
	Depth: 24.900 m / 81.692 ft	U Max: 0.6 m	Ueq: 0.4 m
	Duration: 300.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/05/2015 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA17.PPF
Depth: 16.750 m / 54.953 ft
Duration: 2500.0 s

U Min: 5.0 m
U Max: 40.7 m

WT: 11.311 m / 37.109 ft
Ueq: 5.4 m
U(50): 23.09 m

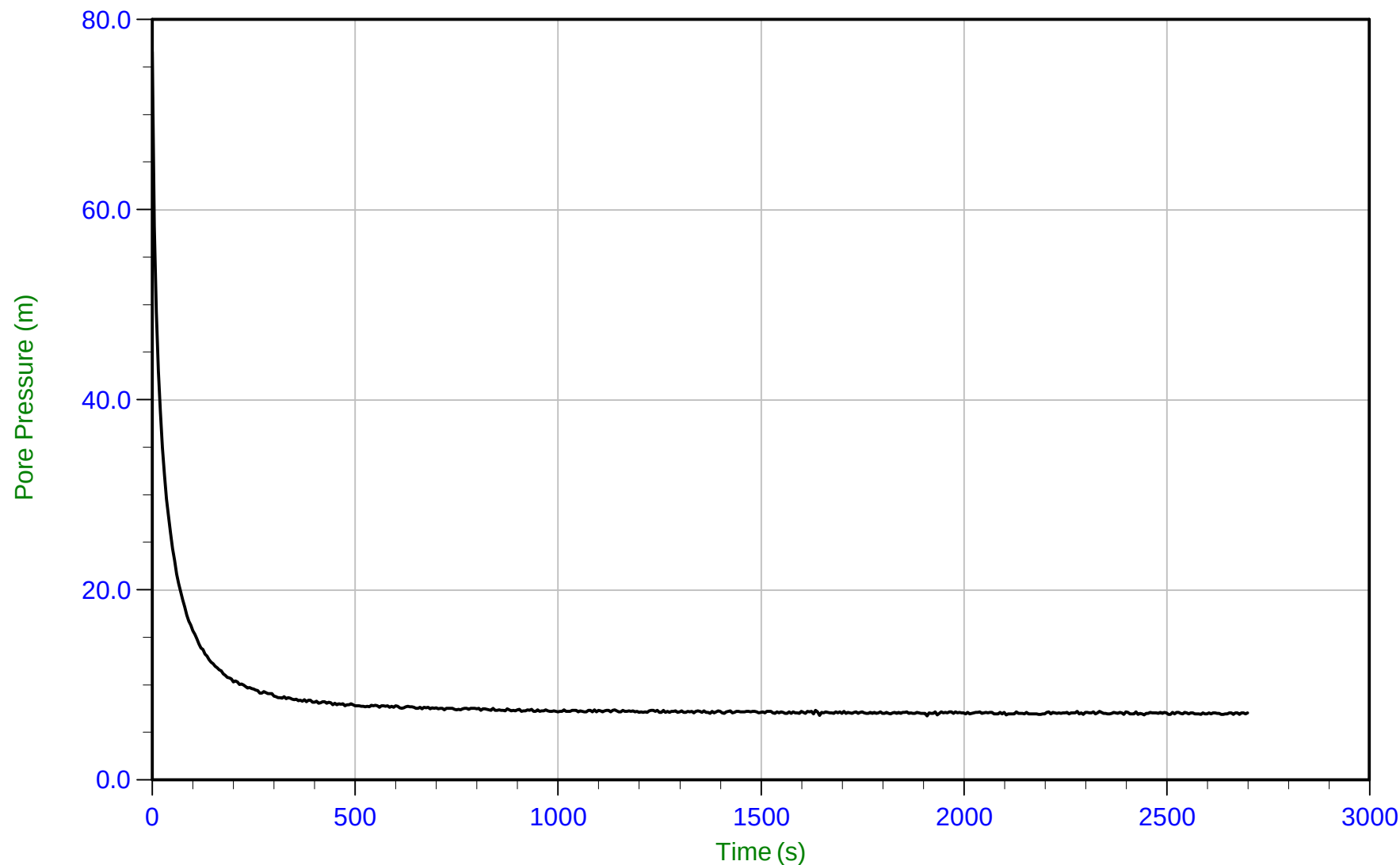
T(50): 4.9 s
Ir: 100
Ch: 95.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/05/2015 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



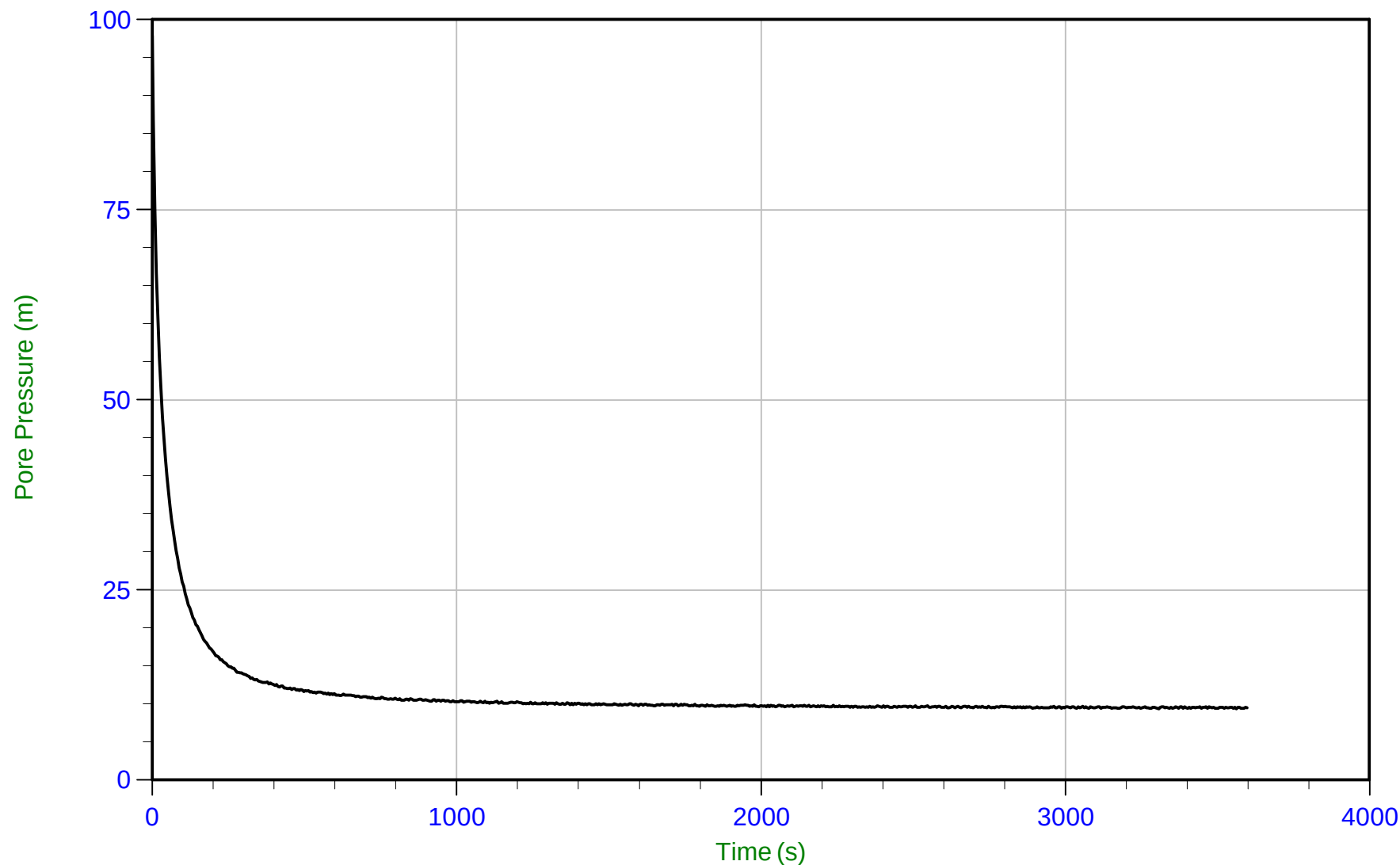
Trace Summary: Filename: 15-02029_SPA17.PPF U Min: 6.8 m WT: 14.838 m / 48.681 ft T(50): 16.5 s
Depth: 21.700 m / 71.193 ft U Max: 76.6 m Ueq: 6.9 m Ir: 100
Duration: 2700.0 s U(50): 41.75 m Ch: 28.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/05/2015 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



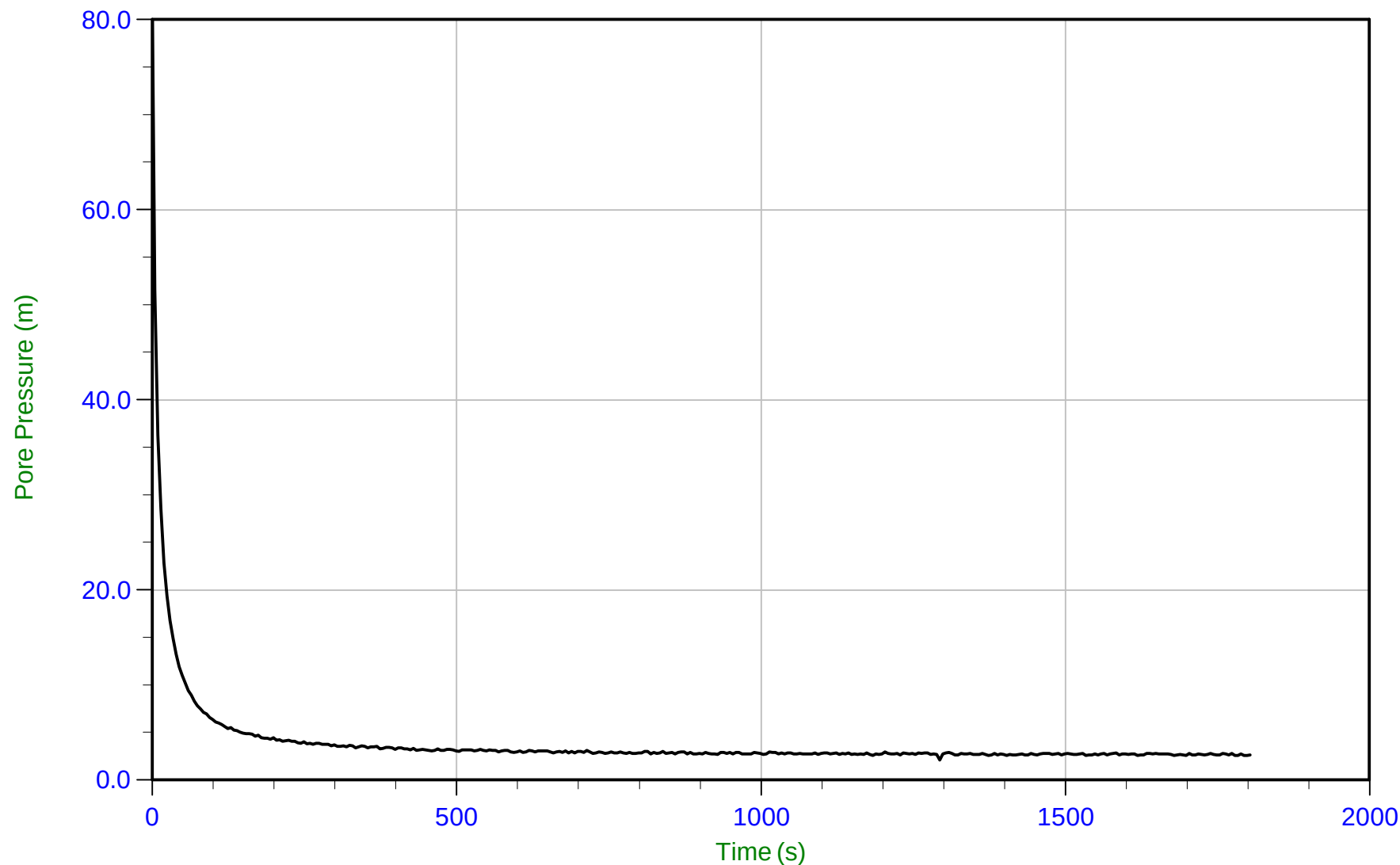
Trace Summary: Filename: 15-02029_SPA17.PPF U Min: 9.4 m WT: 17.545 m / 57.562 ft T(50): 27.5 s
Depth: 26.750 m / 87.761 ft U Max: 97.9 m Ueq: 9.2 m Ir: 100
Duration: 3600.0 s U(50): 53.55 m Ch: 17.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/05/2015 12:44
Site: Myra Falls Mine

Sounding: SCPT15-A17
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



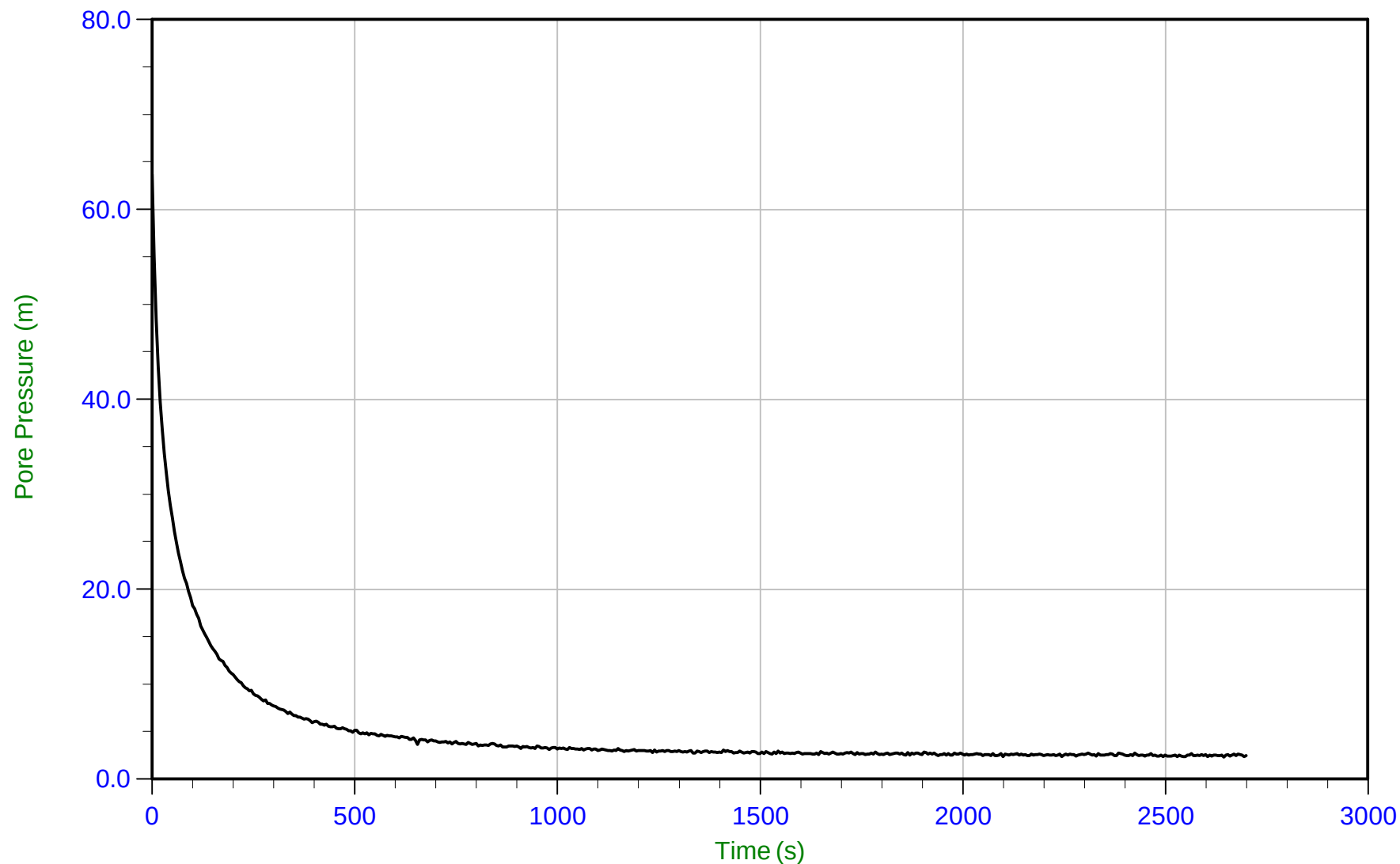
Trace Summary:	Filename: 15-02029_SPA17.PPF	U Min: 2.1 m	WT: 28.340 m / 92.978 ft	T(50): 8.0 s
	Depth: 30.850 m / 101.213 ft	U Max: 82.4 m	Ueq: 2.5 m	Ir: 100
	Duration: 1805.0 s		U(50): 42.48 m	Ch: 58.7 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/16/2015 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



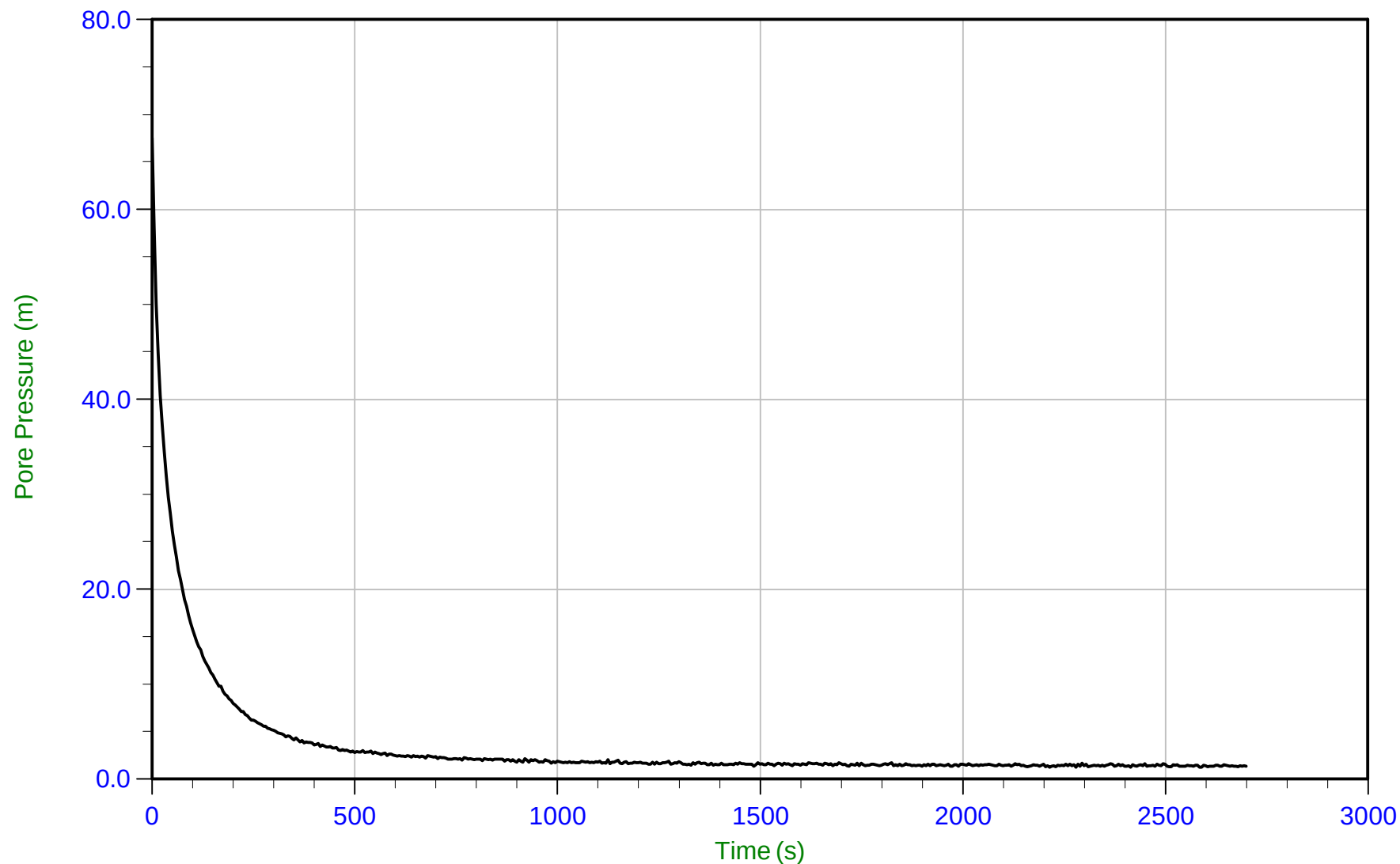
Trace Summary:	Filename: 15-02029_SPA21.PPF	U Min: 2.3 m	WT: 12.407 m / 40.705 ft	T(50): 33.2 s
	Depth: 14.750 m / 48.392 ft	U Max: 63.7 m	Ueq: 2.3 m	Ir: 100
	Duration: 2700.0 s		U(50): 33.04 m	Ch: 14.1 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/16/2015 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



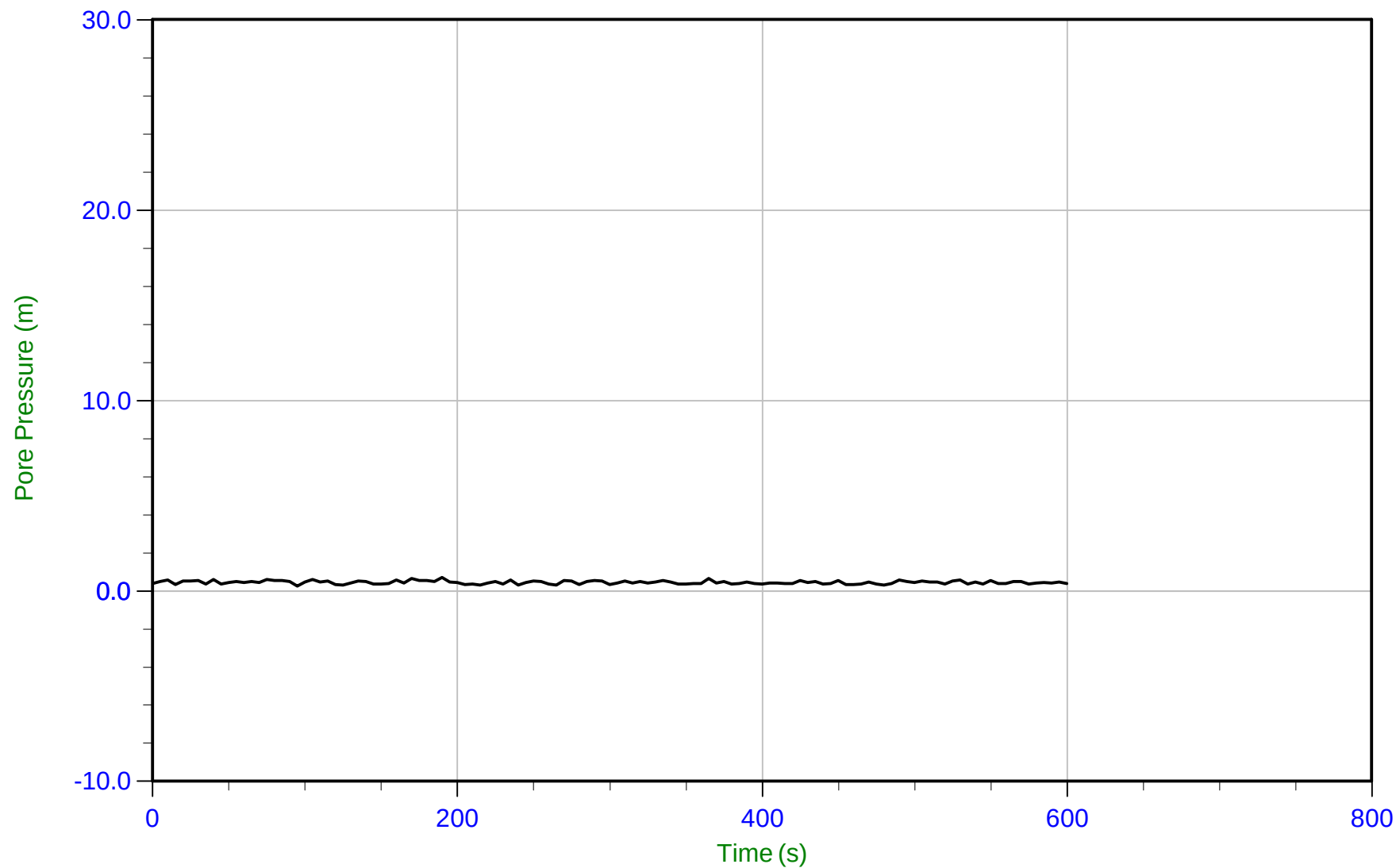
Trace Summary:	Filename: 15-02029_SPA21.PPF	U Min: 1.2 m	WT: 18.111 m / 59.419 ft	T(50): 30.0 s
	Depth: 19.450 m / 63.812 ft	U Max: 67.5 m	Ueq: 1.3 m	Ir: 100
	Duration: 2700.0 s		U(50): 34.44 m	Ch: 15.6 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/16/2015 08:38
Site: Myra Falls Mine

Sounding: SCPT15-A21
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



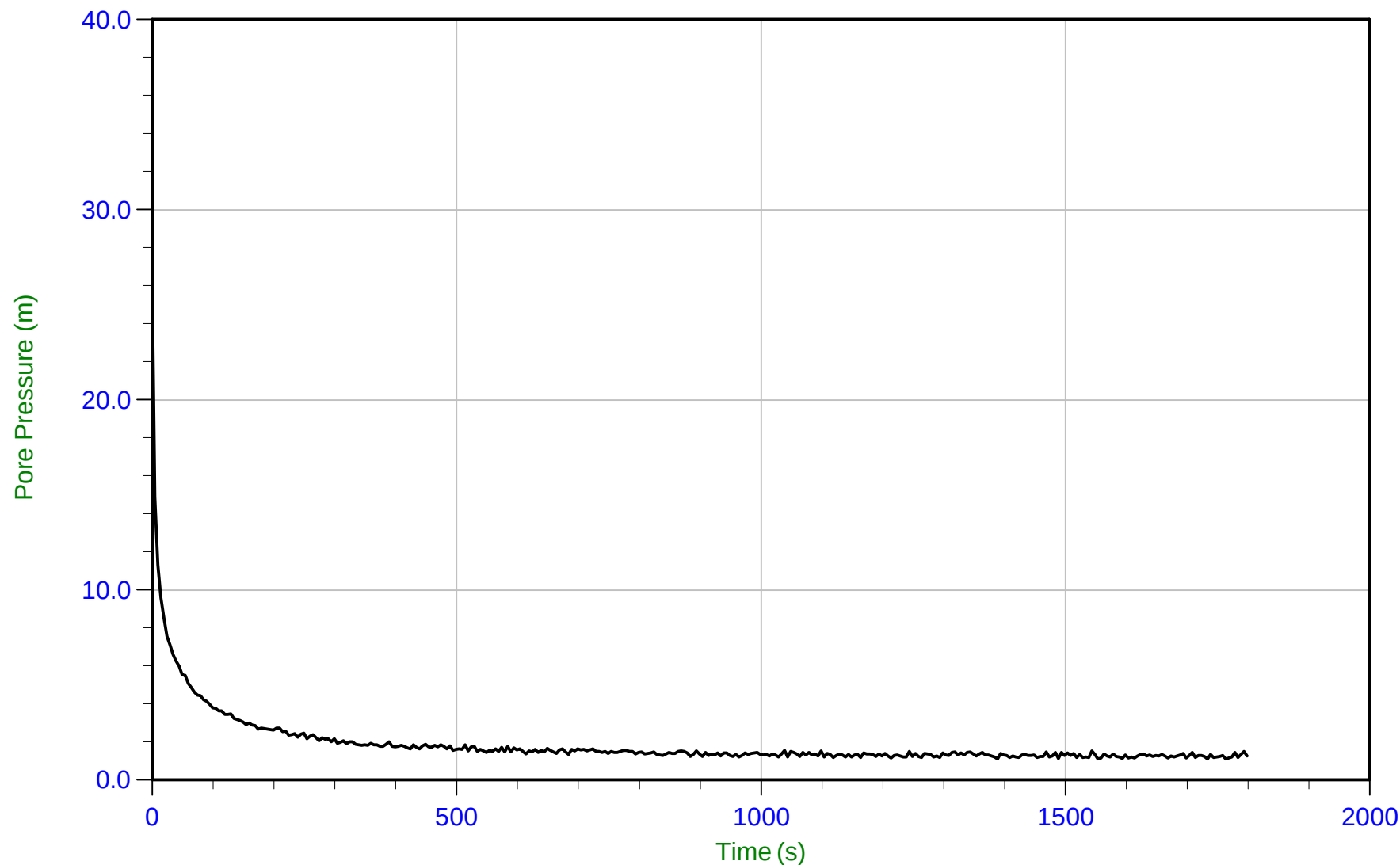
Trace Summary:	Filename: 15-02029_SPA21.PPF	U Min: 0.3 m	WT: 23.473 m / 77.010 ft
	Depth: 23.850 m / 78.247 ft	U Max: 0.7 m	Ueq: 0.4 m
	Duration: 600.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/03/2015 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



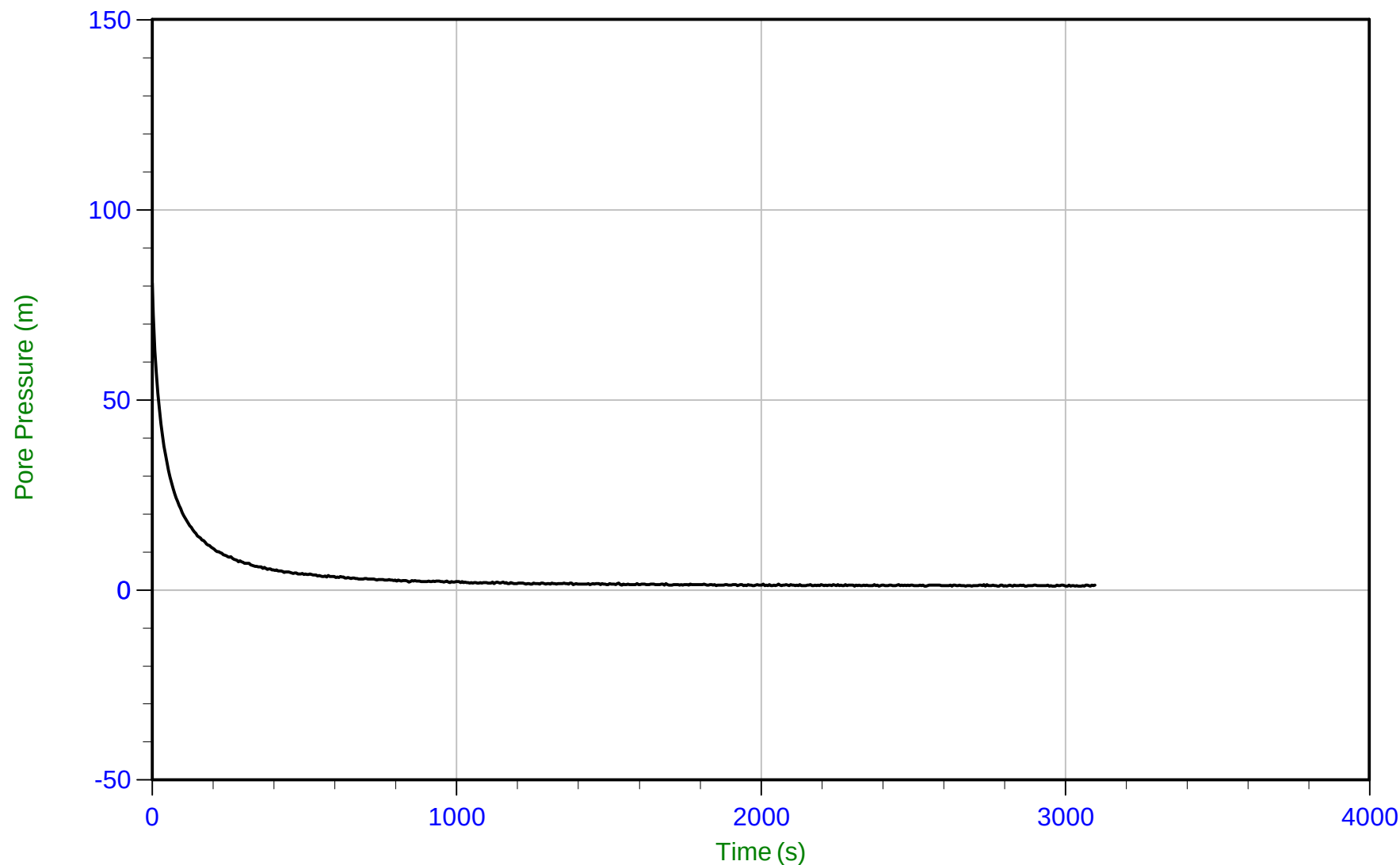
Trace Summary:	Filename: 15-02029_SPA25.PPF	U Min: 1.1 m	WT: 12.762 m / 41.870 ft	T(50): 7.0 s
	Depth: 13.850 m / 45.439 ft	U Max: 25.9 m	Ueq: 1.1 m	Ir: 100
	Duration: 1800.0 s		U(50): 13.48 m	Ch: 67.2 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/03/2015 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary:

Filename: 15-02029_SPA25.PPF
Depth: 18.850 m / 61.843 ft
Duration: 3100.0 s

U Min: 1.0 m
U Max: 80.8 m

WT: 18.222 m / 59.783 ft
Ueq: 0.6 m
U(50): 40.69 m

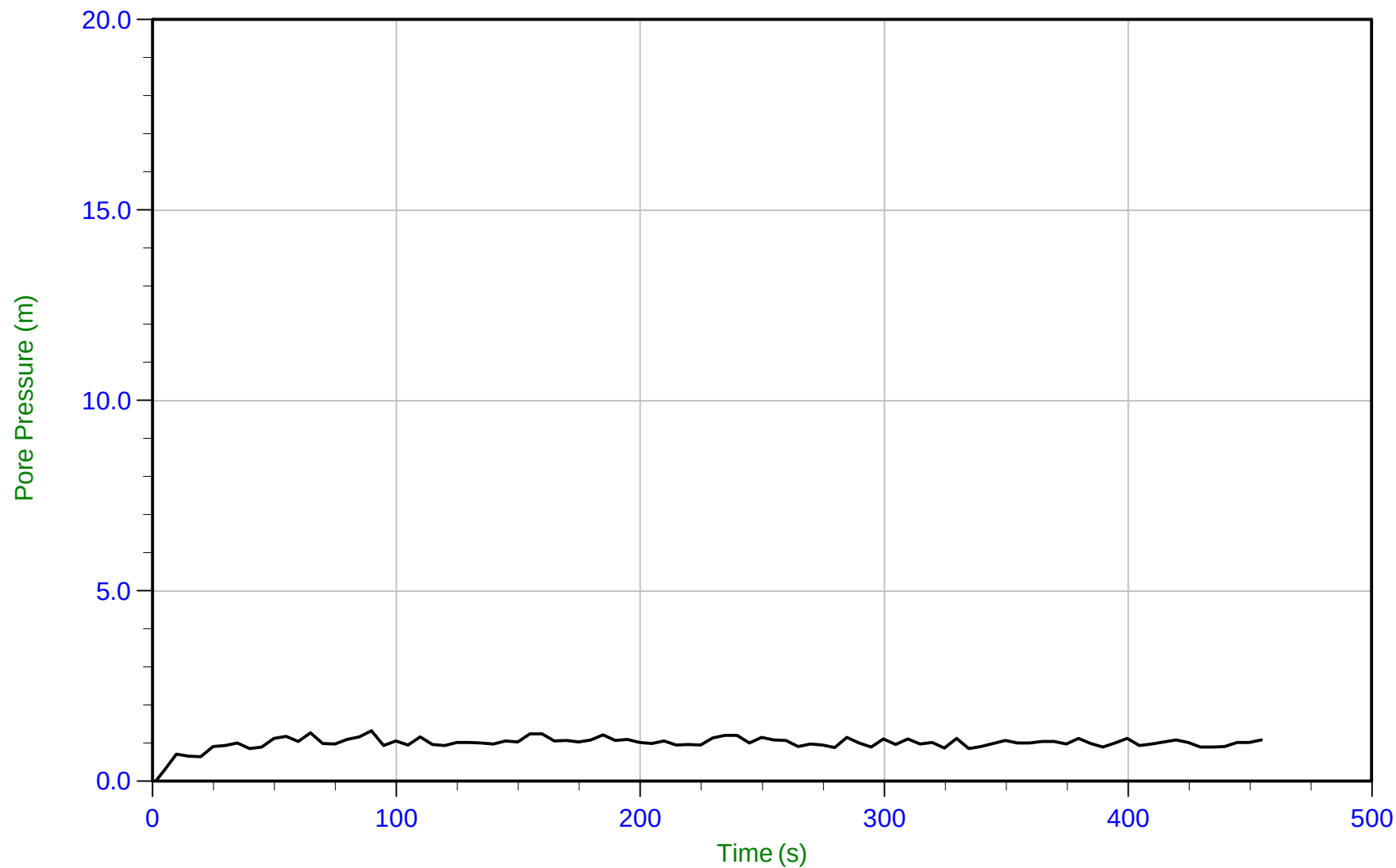
T(50): 35.1 s
Ir: 100
Ch: 13.3 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/03/2015 12:01
Site: Myra Falls Mine

Sounding: SCPT15-A25
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



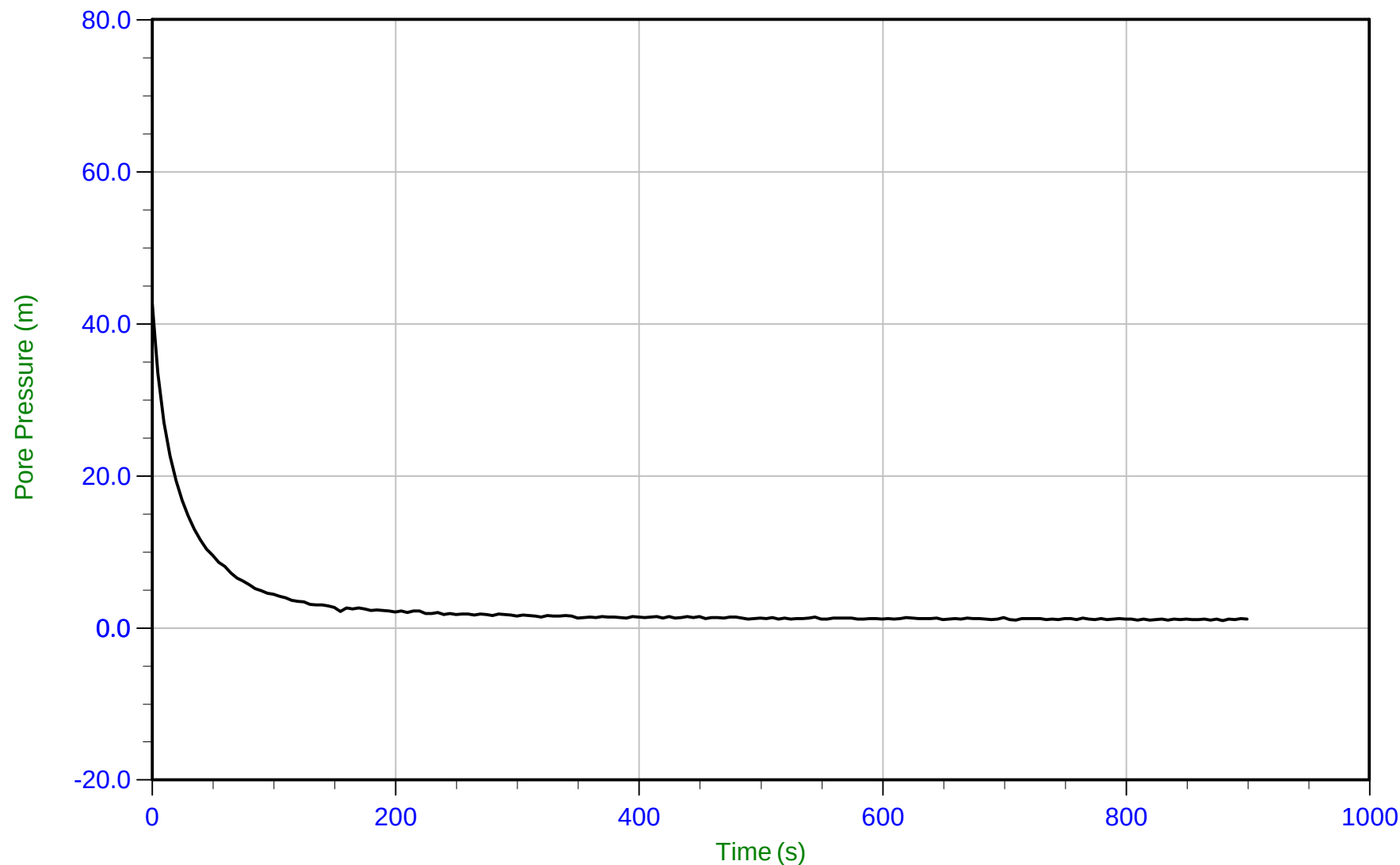
Trace Summary:	Filename: 15-02029_SPA25.PPF	U Min: -0.1 m	WT: 21.704 m / 71.206 ft
	Depth: 22.750 m / 74.638 ft	U Max: 1.3 m	Ueq: 1.0 m
	Duration: 455.0 s		



Amec Foster Wheeler

Job No: 15-02029
Date: 04/16/2015 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary:

Filename: 15-02029_SPA26.PPF
Depth: 11.450 m / 37.565 ft
Duration: 900.0 s

U Min: 1.0 m
U Max: 42.7 m

WT: 10.320 m / 33.858 ft
Ueq: 1.1 m
U(50): 21.89 m

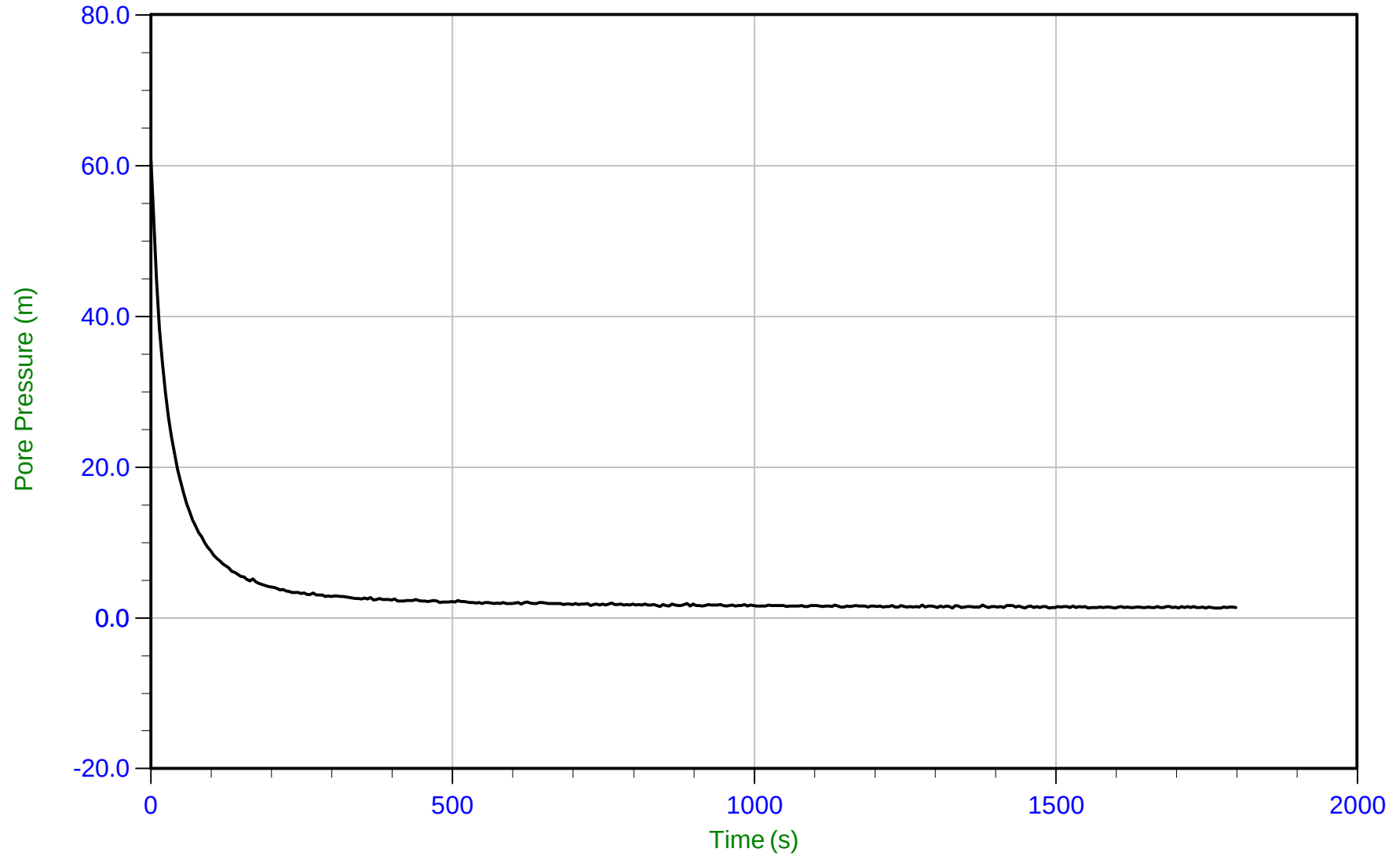
T(50): 16.1 s
Ir: 100
Ch: 29.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/16/2015 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



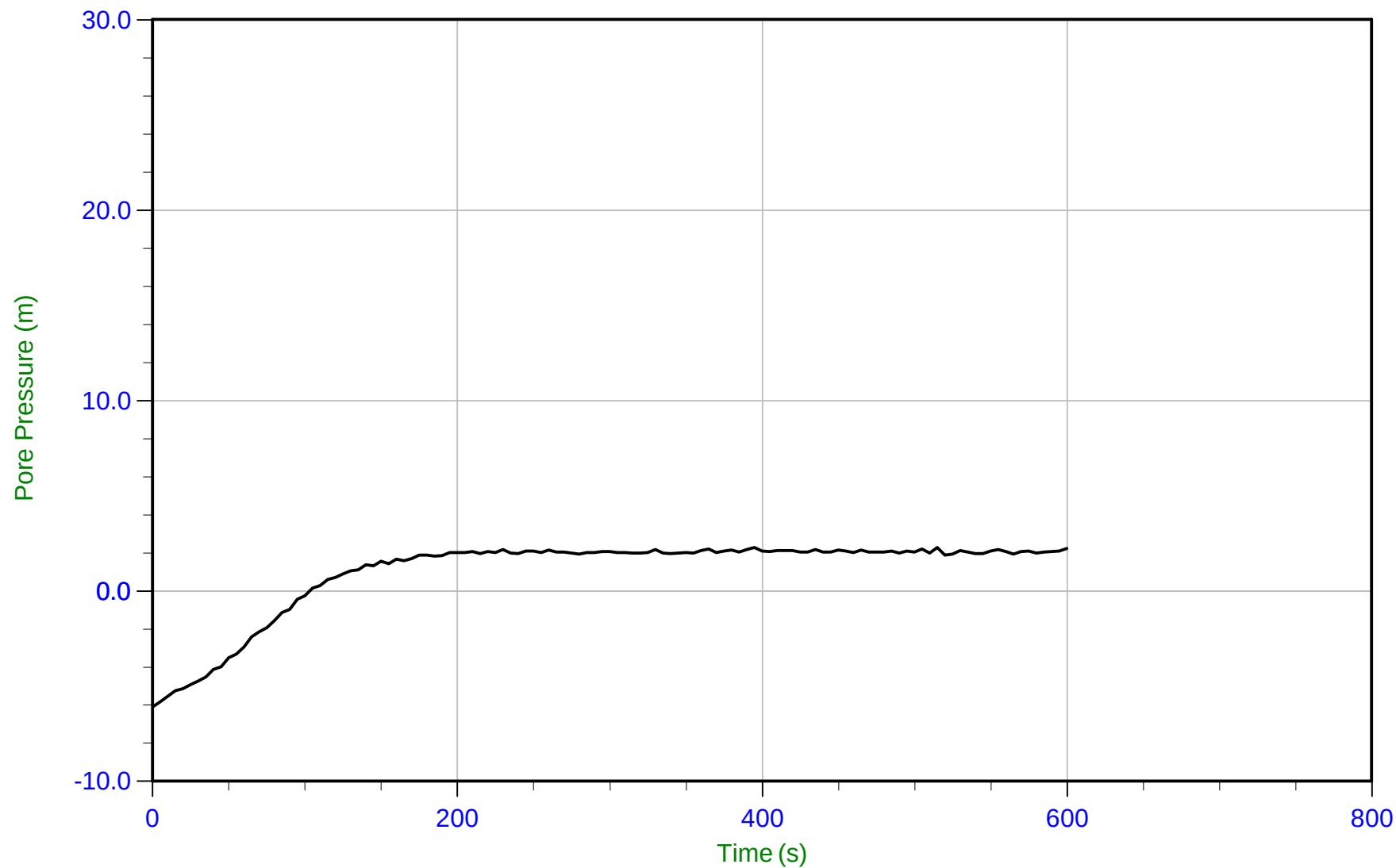
Trace Summary:	Filename: 15-02029_SPA26.PPF	U Min: 1.3 m	WT: 15.161 m / 49.740 ft	T(50): 23.4 s
	Depth: 16.500 m / 54.133 ft	U Max: 60.9 m	Ueq: 1.3 m	Ir: 100
	Duration: 1800.0 s		U(50): 31.11 m	Ch: 20.0 sq cm/min



Amec Foster Wheeler

Job No: 15-02029
Date: 04/16/2015 15:13
Site: Myra Falls Mine

Sounding: SCPT15-A26
Cone: 187:T1000F10U500
Cone Area: 10 sq cm



Trace Summary: Filename: 15-02029_SPA26.PPF U Min: -6.1 m WT: 19.400 m / 63.648 ft
Depth: 21.450 m / 70.373 ft U Max: 2.3 m Ueq: 2.0 m
Duration: 600.0 s



Appendix C

Calibration Certificates



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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32219
Mfg Number: 1505311
Range: 350.0 kPa
Temperature: 22.6 °C
Barometric Pressure: 1007.0 millibars
Work Order Number: 206667
Cable Length: 10 meters
Cable Markings: 785231 m - 785240 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8829	8829	8829	0.2	0.06	0.02
70.0	8176	8176	8176	69.9	-0.04	-0.03
140.0	7520	7520	7520	139.9	-0.04	-0.01
210.0	6863	6863	6863	209.9	-0.02	0.02
280.0	6206	6206	6206	280.0	0.01	0.01
350.0	5549	5549	5549	350.1	0.03	-0.01
Max. Error (%):					0.06	0.03

Linear Calibration Factor: C.F. = 0.10667 kPa/B unit
Regression Zero: At Calibration = 8831.0 B unit
Temperature Correction Factor: Tk = 0.01318 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.0615E-07 B: -0.10515 C: 936.69

Pressure is calculated with the following equations:

Linear: $P(kPa) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(kPa) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8840</u>	<u>21.5</u>	<u>1011.9</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk *A.C. per JS*

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32220
Mfg Number: 1504365
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 10 meters
Cable Markings: 785220 m - 785229 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8898	8898	8898	0.2	0.05	0.02
70.0	8157	8157	8157	70.0	-0.01	0.00
140.0	7418	7418	7418	139.6	-0.12	-0.10
210.0	6668	6668	6668	210.2	0.06	0.08
280.0	5926	5926	5926	280.1	0.03	0.03
350.0	5184	5184	5184	350.0	-0.01	-0.03
Max. Error (%):					0.12	0.10

Linear Calibration Factor: C.F. = 0.09418 kPa/B unit
Regression Zero: At Calibration = 8899.9 B unit
Temperature Correction Factor: Tk = -0.09547 kPa/°C rise

Polynomial Gage Factors (kPa) A: -5.1779E-08 B: -0.093454 C: 835.74

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (L_i - L_c) - [Tk(T_i - T_c)] + [0.10(B_i - B_c)]$

Polynomial: $P(\text{kPa}) = A(L_c)^2 + BL_c + C + Tk(T_c - T_i) - [0.10(B_c - B_i)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8877</u>	<u>21.4</u>	<u>1011.9</u>

L_i, L_c = initial (at installation) and current readings

T_i, T_c = initial (at installation) and current temperature, in °C

B_i, B_c = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32222
Mfg Number: 1504367
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 20 meters
Cable Markings: 785149 m - 785168 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8869	8869	8869	-0.3	-0.08	-0.04
70.0	8185	8186	8186	70.3	0.09	0.08
140.0	7511	7510	7511	140.0	0.00	-0.03
210.0	6832	6832	6832	210.1	0.02	-0.01
280.0	6156	6155	6156	280.0	-0.01	-0.02
350.0	5478	5478	5478	349.9	-0.02	0.02
Max. Error (%):					0.09	0.08

Linear Calibration Factor: C.F. = 0.10327 kPa/B unit
Regression Zero: At Calibration = 8866.3 B unit
Temperature Correction Factor: Tk = -0.03817 kPa/°C rise

Polynomial Gage Factors (kPa) A: 9.6573E-08 B: -0.10466 C: 920.49

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	27-Mar-15	8849	21.5	1011.9

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32223
Mfg Number: 1504368
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 20 meters
Cable Markings: 785169 m - 785188 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8839	8839	8839	0.3	0.08	0.01
70.0	8253	8253	8253	69.9	-0.02	-0.01
140.0	7665	7666	7666	139.8	-0.07	-0.01
210.0	7076	7076	7076	209.8	-0.05	0.01
280.0	6486	6486	6486	280.0	-0.01	0.01
350.0	5895	5895	5895	350.2	0.06	-0.01
Max. Error (%):					0.08	0.01

Linear Calibration Factor: C.F. = 0.11887 kPa/B unit
Regression Zero: At Calibration = 8841.3 B unit
Temperature Correction Factor: Tk = -0.02122 kPa/°C rise

Polynomial Gage Factors (kPa) A: -2.1425E-07 B: -0.11571 C: 1039.6

Pressure is calculated with the following equations:

Linear: $P(kPa) = C.F.(Li-Lc) - [Tk(Ti-Tc)] + [0.10(Bi-Bc)]$

Polynomial: $P(kPa) = A(Lc)^2 + BLc + C + Tk(Tc-Ti) - [0.10(Bc-Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8823</u>	<u>21.6</u>	<u>1011.9</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32224
Mfg Number: 1504369
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 20 meters
Cable Markings: 785190 m - 785209 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8864	8864	8864	0.1	0.03	-0.03
70.0	8188	8188	8188	70.2	0.06	0.07
140.0	7518	7518	7518	139.7	-0.09	-0.05
210.0	6841	6841	6841	209.9	-0.03	0.01
280.0	6166	6166	6166	279.9	-0.03	-0.02
350.0	5488	5488	5488	350.2	0.06	0.01
Max. Error (%):					0.09	0.07

Linear Calibration Factor: C.F. = 0.10371 kPa/B unit
Regression Zero: At Calibration = 8864.9 B unit
Temperature Correction Factor: Tk = -0.07726 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.2178E-07 B: -0.10196 C: 913.29

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8842</u>	<u>21.5</u>	<u>1011.9</u>

Li, Lc = initial (at installation) and current readings
Ti, Tc = initial (at installation) and current temperature, in °C
Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts
B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32225
Mfg Number: 1504370
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 30 meters
Cable Markings: 785118 m - 785148 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8928	8929	8929	0.1	0.04	-0.02
70.0	8232	8232	8232	70.1	0.03	0.04
140.0	7538	7538	7538	139.8	-0.05	0.00
210.0	6842	6842	6842	209.7	-0.08	-0.03
280.0	6143	6143	6143	279.9	-0.02	0.00
350.0	5443	5443	5443	350.3	0.07	0.01
Max. Error (%):					0.08	0.04

Linear Calibration Factor: C.F. = 0.10045 kPa/B unit
Regression Zero: At Calibration = 8929.9 B unit
Temperature Correction Factor: Tk = -0.05234 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.3844E-07 B: -0.098459 C: 890.05

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8906</u>	<u>21.5</u>	<u>1011.9</u>

Li, Lc = initial (at installation) and current readings
Ti, Tc = initial (at installation) and current temperature, in °C
Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts
B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32226
Mfg Number: 1504371
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 30 meters
Cable Markings: 785088 m - 785117 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8842	8842	8842	0.1	0.03	-0.03
70.0	8167	8167	8167	70.1	0.04	0.05
140.0	7495	7495	7495	139.8	-0.04	0.00
210.0	6821	6821	6821	209.8	-0.07	-0.02
280.0	6145	6145	6145	279.9	-0.03	-0.02
350.0	5467	5467	5467	350.2	0.07	0.02
Max. Error (%):					0.07	0.05

Linear Calibration Factor: C.F. = 0.10375 kPa/B unit
Regression Zero: At Calibration = 8843.0 B unit
Temperature Correction Factor: Tk = -0.02861 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.2608E-07 B: -0.10194 C: 911.15

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8820</u>	<u>21.5</u>	<u>1011.9</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

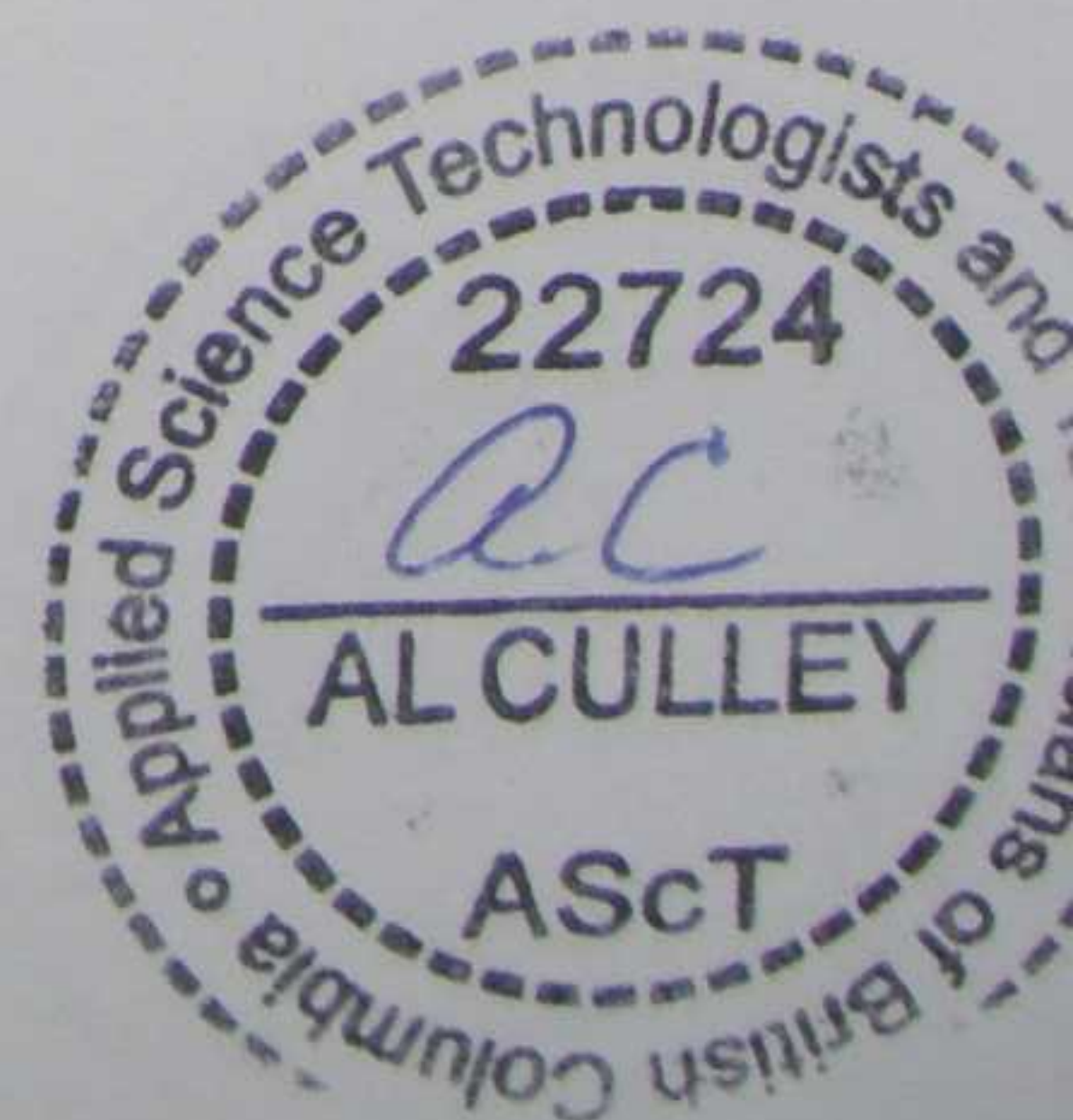
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32227
Mfg Number: 1504372
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 30 meters
Cable Markings: 785057 m - 785087 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	9011	9011	9011	0.2	0.05	0.01
70.0	8332	8332	8332	69.9	-0.03	-0.02
140.0	7650	7650	7650	139.9	-0.03	0.00
210.0	6968	6968	6968	209.9	-0.03	0.01
280.0	6285	6285	6285	280.0	0.00	0.01
350.0	5602	5602	5602	350.1	0.03	-0.01
Max. Error (%):					0.05	0.02

Linear Calibration Factor: C.F.= 0.10265 kPa/B unit
Regression Zero: At Calibration = 9012.9 B unit
Temperature Correction Factor: Tk = -0.04961 kPa/°C rise

Polynomial Gage Factors (kPa) A: -9.4579E-08 B: -0.10127 C: 920.23

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8993</u>	<u>21.5</u>	<u>1011.9</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

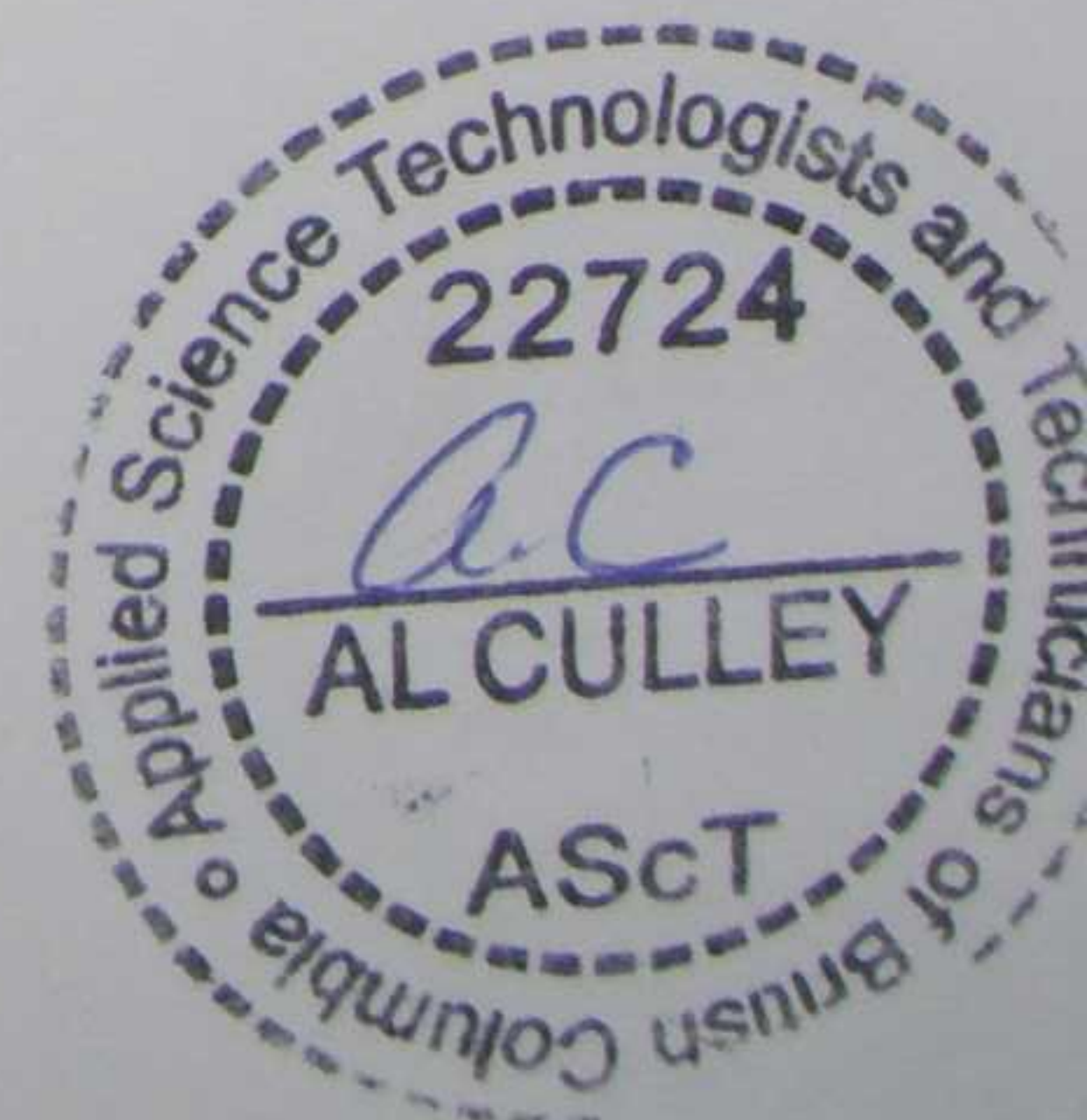
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: J. Somphanthabansouk

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32228
Mfg Number: 1504373
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 40 meters
Cable Markings: 785017 m - 785056 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8804	8805	8805	0.2	0.07	-0.01
70.0	8127	8127	8127	70.0	0.01	0.03
140.0	7451	7450	7451	139.7	-0.08	-0.01
210.0	6772	6770	6771	209.7	-0.08	-0.01
280.0	6089	6089	6089	280.0	0.00	0.02
350.0	5407	5407	5407	350.3	0.07	0.00
Max. Error (%):					0.08	0.03

Linear Calibration Factor: C.F. = 0.10302 kPa/B unit
Regression Zero: At Calibration = 8806.8 B unit
Temperature Correction Factor: Tk = -0.05851 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.7731E-07 B: -0.10050 C: 898.59

Pressure is calculated with the following equations:

Linear: $P(kPa) = C.F.(Li-Lc) - [Tk(Ti-Tc)] + [0.10(Bi-Bc)]$

Polynomial: $P(kPa) = A(Lc)^2 + BLc + C + Tk(Tc-Ti) - [0.10(Bc-Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>29-Mar-15</u>	<u>8777</u>	<u>19.6</u>	<u>1023.0</u>

Li, Lc = initial (at installation) and current readings
Ti, Tc = initial (at installation) and current temperature, in °C
Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts
B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: C. Luong

Date: 29-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32229
Mfg Number: 1504374
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 40 meters
Cable Markings: 784936 m - 784975 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8776	8777	8777	0.2	0.04	0.00
70.0	8155	8155	8155	69.9	-0.02	-0.01
140.0	7531	7532	7532	139.9	-0.02	0.02
210.0	6909	6909	6909	209.8	-0.05	-0.02
280.0	6284	6284	6284	280.0	0.00	0.01
350.0	5659	5660	5660	350.1	0.04	0.00
Max. Error (%):					0.05	0.02

Linear Calibration Factor: C.F.= 0.11228 kPa/B unit
Regression Zero: At Calibration = 8777.9 B unit
Temperature Correction Factor: Tk = -0.06313 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.0833E-07 B: -0.11072 C: 980.05

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>29-Mar-15</u>	<u>8749</u>	<u>19.7</u>	<u>1023.0</u>

Li, Lc = initial (at installation) and current readings
Ti, Tc = initial (at installation) and current temperature, in °C
Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts
B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: C. Luong

Date: 29-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32230
Mfg Number: 1504375
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 40 meters
Cable Markings: 784976 m - 785015 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8880	8880	8880	0.1	0.03	0.01
70.0	8245	8245	8245	69.9	-0.04	-0.04
140.0	7606	7606	7606	140.1	0.02	0.03
210.0	6970	6970	6970	210.0	-0.01	0.00
280.0	6333	6333	6333	280.0	-0.01	-0.01
350.0	5695	5695	5695	350.1	0.02	0.00
Max. Error (%):					0.04	0.04

Linear Calibration Factor: C.F. = 0.10988 kPa/B unit
Regression Zero: At Calibration = 8880.8 B unit
Temperature Correction Factor: Tk = -0.03589 kPa/°C rise

Polynomial Gage Factors (kPa) A: -3.3781E-08 B: -0.10939 C: 974.07

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>29-Mar-15</u>	<u>8861</u>	<u>19.8</u>	<u>1023.0</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

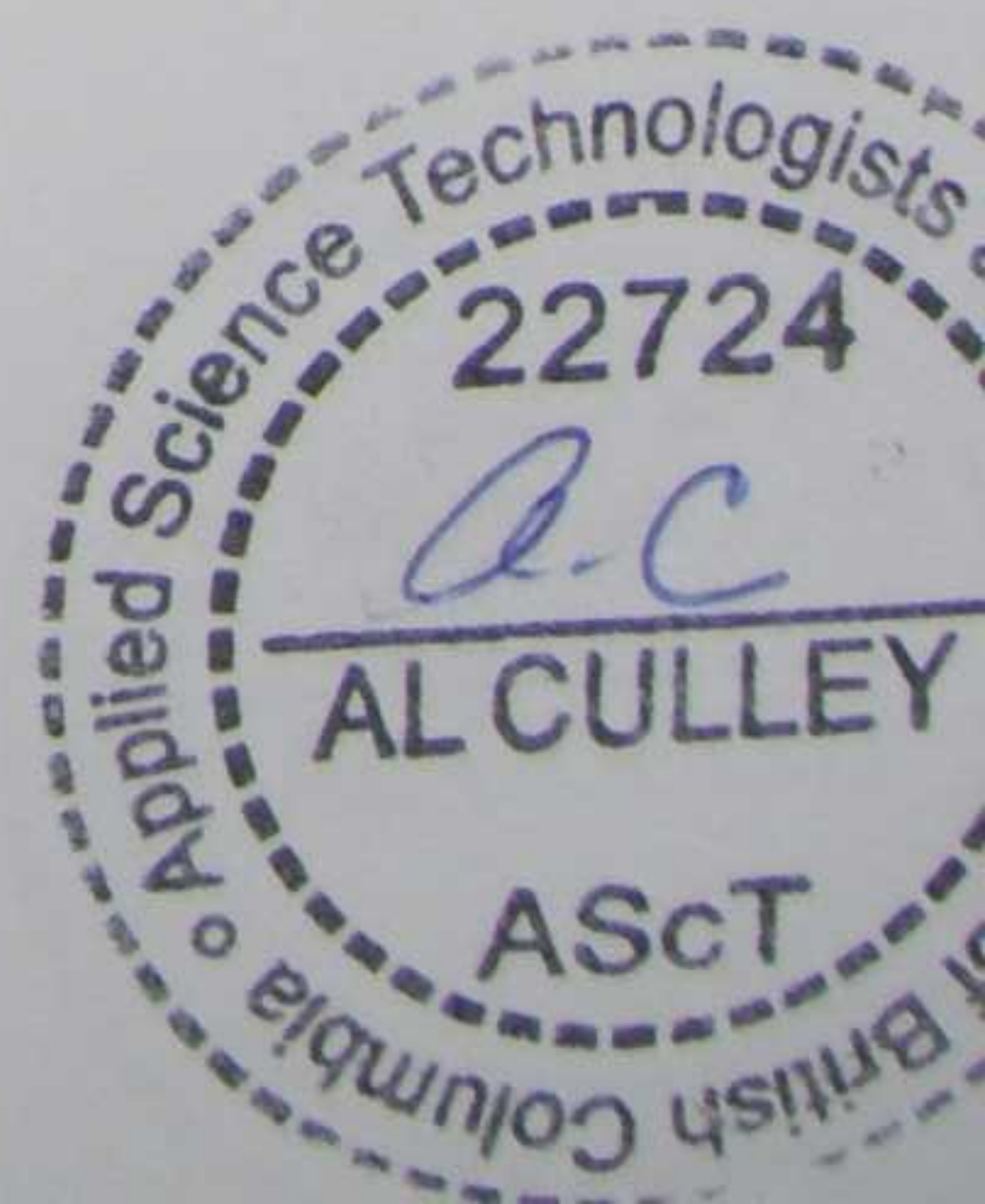
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: C. Luong

Date: 29-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32231
Mfg Number: 1504376
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 50 meters
Cable Markings: 784885 m - 784933 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8959	8959	8959	0.1	0.04	0.05
70.0	8289	8289	8289	69.7	-0.09	-0.10
140.0	7610	7610	7610	140.1	0.04	0.03
210.0	6936	6936	6936	210.1	0.03	0.02
280.0	6262	6262	6262	280.1	0.02	0.01
350.0	5589	5589	5589	349.9	-0.03	-0.02
Max. Error (%):					0.09	0.10

Linear Calibration Factor: C.F. = 0.10379 kPa/B unit
Regression Zero: At Calibration = 8960.2 B unit
Temperature Correction Factor: Tk = -0.05548 kPa/°C rise

Polynomial Gage Factors (kPa) A: 2.0754E-08 B: -0.10409 C: 931.07

Pressure is calculated with the following equations:

Linear: $P(kPa) = C.F.(Li-Lc) - [Tk(Ti-Tc)] + [0.10(Bi-Bc)]$

Polynomial: $P(kPa) = A(Lc)^2 + BLc + C + Tk(Tc-Ti) - [0.10(Bc-Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>29-Mar-15</u>	<u>8930</u>	<u>19.7</u>	<u>1023.0</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: C. Luong

Date: 29-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32232
Mfg Number: 1504377
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 50 meters
Cable Markings: 784834 m - 784884 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8735	8735	8735	0.2	0.05	-0.01
70.0	8053	8054	8054	70.0	0.01	0.02
140.0	7373	7373	7373	139.8	-0.06	-0.01
210.0	6690	6690	6690	209.8	-0.05	0.00
280.0	6006	6006	6006	279.9	-0.02	-0.01
350.0	5320	5320	5320	350.2	0.07	0.01
Max. Error (%):					0.07	0.02

Linear Calibration Factor: C.F. = 0.10251 kPa/B unit
Regression Zero: At Calibration = 8736.8 B unit
Temperature Correction Factor: Tk = -0.04140 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.4326E-07 B: -0.10049 C: 888.71

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>29-Mar-15</u>	<u>8706</u>	<u>19.7</u>	<u>1023.0</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

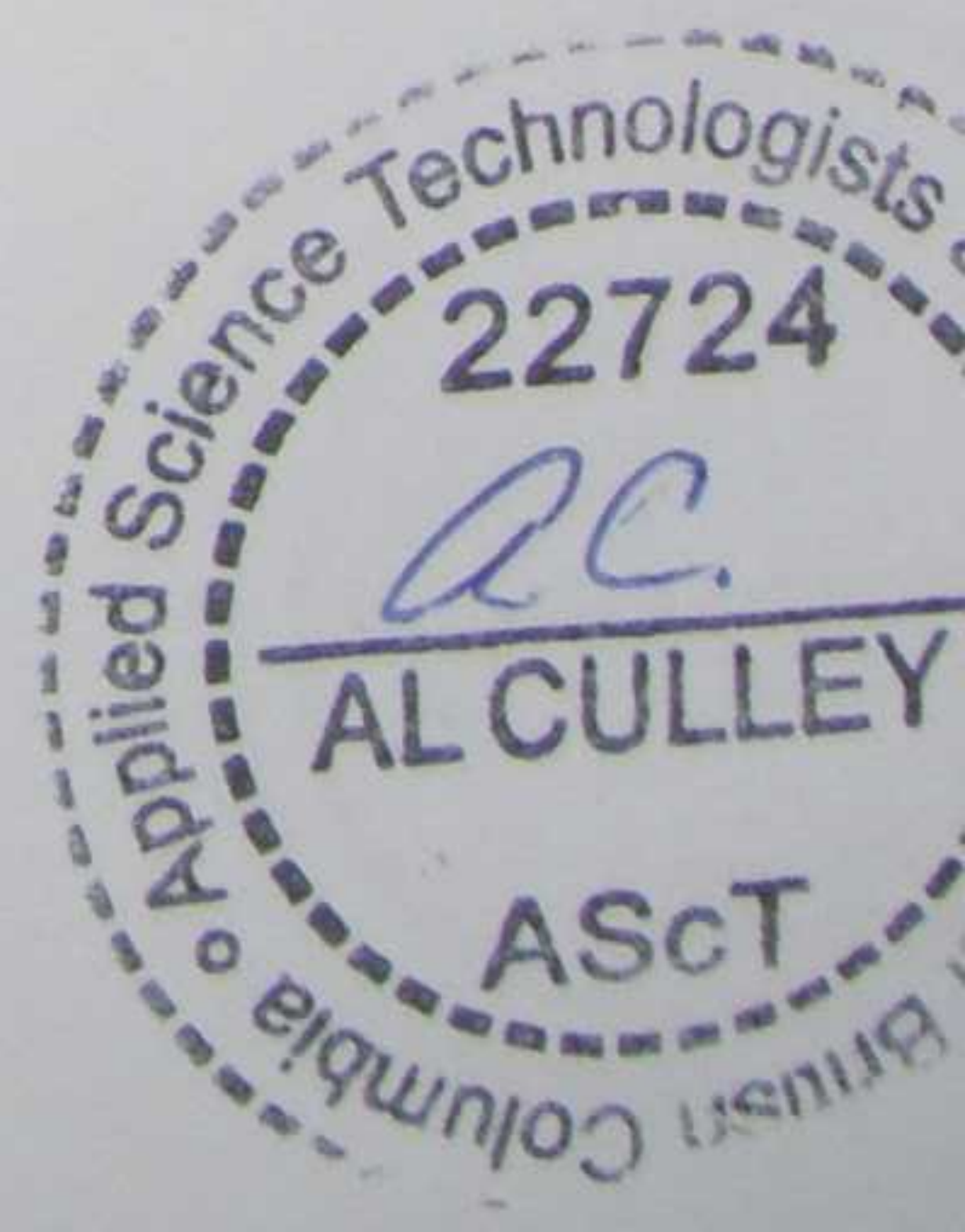
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: C. Luong

Date: 29-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32233
Mfg Number: 1504378
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 50 meters
Cable Markings: 784784 m - 784833 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8841	8842	8842	0.1	0.02	-0.02
70.0	8257	8257	8257	70.1	0.02	0.03
140.0	7674	7674	7674	139.9	-0.03	0.00
210.0	7090	7090	7090	209.9	-0.04	-0.01
280.0	6505	6505	6505	279.9	-0.02	-0.01
350.0	5919	5919	5919	350.1	0.04	0.01
Max. Error (%):					0.04	0.03

Linear Calibration Factor: C.F. = 0.11979 kPa/B unit
Regression Zero: At Calibration = 8842.0 B unit
Temperature Correction Factor: Tk = -0.04778 kPa/°C rise

Polynomial Gage Factors (kPa) A: -9.7061E-08 B: -0.11836 C: 1054.0

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>29-Mar-15</u>	<u>8815</u>	<u>19.7</u>	<u>1023.0</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: C. Luong

Date: 29-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32234
Mfg Number: 1504379
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 60 meters
Cable Markings: 784723 m - 784782 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8916	8916	8916	0.2	0.06	0.01
70.0	8331	8331	8331	69.9	-0.02	-0.01
140.0	7744	7744	7744	139.8	-0.05	0.00
210.0	7156	7156	7156	209.9	-0.03	0.01
280.0	6568	6568	6568	279.9	-0.02	-0.01
350.0	5978	5978	5978	350.2	0.06	0.00
Max. Error (%):					0.06	0.01

Linear Calibration Factor: C.F. = 0.11912 kPa/B unit
Regression Zero: At Calibration = 8917.9 B unit
Temperature Correction Factor: Tk = -0.04984 kPa/°C rise

Polynomial Gage Factors (kPa)

A: -1.7864E-07

B: -0.11646

C: 1052.6

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = \text{C.F.}(\text{Li} - \text{Lc}) - [\text{Tk}(\text{Ti} - \text{Tc})] + [0.10(\text{Bi} - \text{Bc})]$

Polynomial: $P(\text{kPa}) = \text{A}(\text{Lc})^2 + \text{BLc} + \text{C} + \text{Tk}(\text{Tc} - \text{Ti}) - [0.10(\text{Bc} - \text{Bi})]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	27-Mar-15	8898	21.3	1012.2

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: Benson Yu

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32236
Mfg Number: 1504381
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 70 meters
Cable Markings: 784511 m - 784580 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8835	8835	8835	0.1	0.02	0.02
70.0	8154	8155	8155	69.8	-0.05	-0.05
140.0	7468	7468	7468	140.2	0.05	0.05
210.0	6787	6787	6787	210.0	-0.01	-0.01
280.0	6104	6104	6104	279.9	-0.02	-0.01
350.0	5420	5420	5420	350.0	0.01	0.01
Max. Error (%):					0.05	0.05

Linear Calibration Factor: C.F. = 0.10248 kPa/B unit
Regression Zero: At Calibration = 8835.8 B unit
Temperature Correction Factor: Tk = -0.04660 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.3614E-08 B: -0.10228 C: 904.80

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8812</u>	<u>21.4</u>	<u>1012.2</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: Benson Yu

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.35
Serial Number: VW32237
Mfg Number: 1504382
Range: 350.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 985.0 millibars
Work Order Number: 206667
Cable Length: 70 meters
Cable Markings: 784581 m - 784651 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8863	8863	8863	0.1	0.03	-0.01
70.0	8204	8205	8205	70.1	0.04	0.05
140.0	7551	7551	7551	139.6	-0.11	-0.08
210.0	6888	6889	6889	210.1	0.01	0.05
280.0	6231	6231	6231	280.0	-0.01	0.00
350.0	5571	5571	5571	350.1	0.04	0.00
Max. Error (%):					0.11	0.08

Linear Calibration Factor: C.F. = 0.10632 kPa/B unit
Regression Zero: At Calibration = 8864.1 B unit
Temperature Correction Factor: Tk = -0.05497 kPa/°C rise

Polynomial Gage Factors (kPa) A: -1.0283E-07 B: -0.10484 C: 937.23

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = \text{C.F.} \cdot (\text{Li} - \text{Lc}) - [\text{Tk}(\text{Ti} - \text{Tc})] + [0.10(\text{Bi} - \text{Bc})]$

Polynomial: $P(\text{kPa}) = \text{A}(\text{Lc})^2 + \text{BLc} + \text{C} + \text{Tk}(\text{Tc} - \text{Ti}) - [0.10(\text{Bc} - \text{Bi})]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8843</u>	<u>21.2</u>	<u>1012.2</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

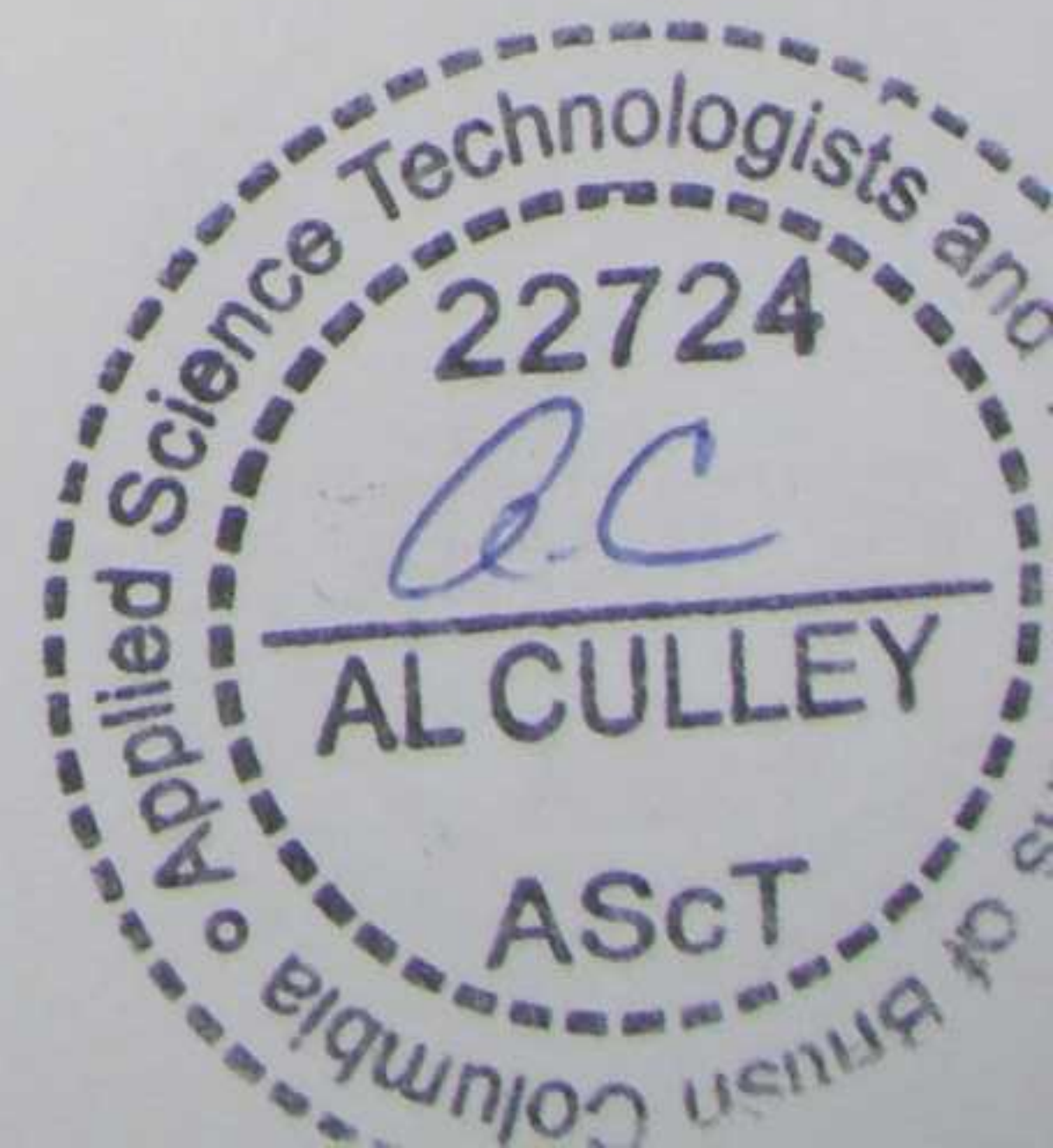
B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: Benson Yu

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.7
Serial Number: VW32238
Mfg Number: 1438174
Range: 700.0 kPa
Temperature: 22.2 °C
Barometric Pressure: 979.5 millibars
Work Order Number: 206667
Cable Length: 30 meters
Cable Markings: 784450 m - 784479 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8808	8809	8809	1.2	0.18	-0.01
140.0	7991	7992	7992	139.9	-0.02	0.02
279.9	7173	7173	7173	278.8	-0.16	-0.01
419.9	6348	6348	6348	418.8	-0.16	-0.01
560.1	5517	5517	5517	559.8	-0.04	0.00
700.1	4683	4683	4683	701.4	0.18	0.00
Max. Error (%):					0.18	0.02

Linear Calibration Factor: C.F. = 0.16972 kPa/B unit
Regression Zero: At Calibration = 8815.7 B unit
Temperature Correction Factor: Tk = 0.02098 kPa/°C rise

Polynomial Gage Factors (kPa) A: -5.6960E-07 B: -0.16203 C: 1471.4

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8795</u>	<u>20.8</u>	<u>1016.4</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: I. Kurchavov IK

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.7
Serial Number: VW32239
Mfg Number: 1438175
Range: 700.0 kPa
Temperature: 22.2 °C
Barometric Pressure: 979.5 millibars
Work Order Number: 206667
Cable Length: 30 meters
Cable Markings: 784480 m - 784509 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8999	8999	8999	1.1	0.15	0.01
140.0	8172	8172	8172	139.6	-0.06	-0.03
279.9	7338	7339	7339	279.2	-0.10	0.01
419.9	6502	6503	6503	419.3	-0.09	0.02
560.1	5664	5664	5664	559.7	-0.05	-0.02
700.1	4820	4820	4820	701.1	0.14	0.01
Max. Error (%):					0.15	0.03

Linear Calibration Factor: C.F. = 0.16752 kPa/B unit
Regression Zero: At Calibration = 9005.3 B unit
Temperature Correction Factor: Tk = 0.09969 kPa/°C rise

Polynomial Gage Factors (kPa) A: -4.1889E-07 B: -0.16173 C: 1489.4

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8987</u>	<u>20.7</u>	<u>1016.4</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: I. Kurchavov IK

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.7
Serial Number: VW32240
Mfg Number: 1438176
Range: 700.0 kPa
Temperature: 22.2 °C
Barometric Pressure: 979.5 millibars
Work Order Number: 206667
Cable Length: 40 meters
Cable Markings: 784369 m - 784408 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8939	8941	8940	1.2	0.16	0.00
140.0	8133	8134	8134	139.7	-0.04	-0.01
279.9	7322	7323	7323	279.1	-0.12	0.01
419.9	6508	6508	6508	419.0	-0.13	0.00
560.1	5688	5689	5689	559.8	-0.04	-0.01
700.1	4865	4865	4865	701.3	0.17	0.00
Max. Error (%):					0.17	0.01

Linear Calibration Factor: C.F. = 0.17181 kPa/B unit
Regression Zero: At Calibration = 8946.7 B unit
Temperature Correction Factor: Tk = 0.08210 kPa/°C rise

Polynomial Gage Factors (kPa) A: -5.1743E-07 B: -0.16466 C: 1513.5

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8928</u>	<u>21.0</u>	<u>1016.4</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: I. Kurchavov IK

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

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e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NYRSTAR MYRA FALLS LTD
Model: VW2100-0.7
Serial Number: VW32241
Mfg Number: 1438790
Range: 700.0 kPa
Temperature: 22.4 °C
Barometric Pressure: 980.2 millibars
Work Order Number: 206667
Cable Length: 40 meters
Cable Markings: 784409 m - 784448 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8998	8999	8999	1.5	0.22	0.00
140.0	8203	8204	8204	139.7	-0.04	0.00
279.9	7404	7404	7404	278.7	-0.18	-0.01
419.9	6598	6598	6598	418.7	-0.16	0.01
560.1	5786	5787	5787	559.8	-0.04	0.00
700.0	4971	4972	4972	701.5	0.21	0.00
Max. Error (%):					0.22	0.01

Linear Calibration Factor: C.F. = 0.17381 kPa/B unit
Regression Zero: At Calibration = 9007.2 B unit
Temperature Correction Factor: Tk = 0.02901 kPa/°C rise

Polynomial Gage Factors (kPa) A: -6.8886E-07 B: -0.16419 C: 1533.3

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>27-Mar-15</u>	<u>8993</u>	<u>20.8</u>	<u>1016.4</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = $\text{Hz}^2 / 1000$ ie: 1700Hz = 2890 B units

Technician: I. Kurchavov IK

Date: 27-Mar-15

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





Calibration Record

200 - 2050 Hartley Ave., Coquitlam, British Columbia, Canada V3K 6W5
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e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: NVI Mining Ltd
Model: VW2100-0.35
Serial Number: VW17730
Mfg Number: 1100675
Range: 350.0 kPa
Temperature: 21.4 °C
Barometric Pressure: 998.7 millibars
Work Order Number: Q020190
Cable Length: 150 meters
Cable Markings: 100419 m - 100569 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8915	8917	8916	0.4	0.12	0.04
70.0	8307	8308	8308	69.7	-0.10	-0.08
140.0	7690	7691	7691	139.8	-0.04	0.02
210.0	7075	7075	7075	209.9	-0.04	0.03
280.0	6459	6459	6459	279.9	-0.02	0.00
350.0	5841	5841	5841	350.3	0.07	-0.01
Max. Error (%):					0.12	0.08

Linear Calibration Factor: C.F. = 0.11376 kPa/B unit
Regression Zero: At Calibration = 8919.8 B unit
Temperature Correction Factor: Tk = -0.1231 kPa/°C rise

Polynomial Gage Factors (kPa) A: -2.3307E-07 B: -0.11032 C: 1002.3

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>9-Jun-11</u>	<u>8904</u>	<u>21.7</u>	<u>1021.6</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: J. Chung

Date: 9-Jun-11

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





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Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: AMEC Environment & Infrastructure - PRINCE GEORGE
Model: VW2100-0.35
Serial Number: VW21715
Mfg Number: 1146256
Range: 350.0 kPa
Temperature: 22.3 °C
Barometric Pressure: 999.8 millibars
Work Order Number: 033919
Cable Length: 20 meters
Cable Markings: 100292 m - 100312 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004
Thermistor Type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Polynomial Error (% FS)
0.0	8877	8878	8878	0.4	0.11	0.02
70.0	8178	8179	8179	69.8	-0.05	-0.03
140.0	7474	7475	7475	139.7	-0.07	0.01
210.0	6770	6770	6770	209.7	-0.08	0.00
280.0	6062	6063	6063	280.0	0.00	0.02
350.0	5354	5355	5355	350.3	0.09	-0.01
Max. Error (%):					0.11	0.03

Linear Calibration Factor: C.F. = 0.09932 kPa/B unit
Regression Zero: At Calibration = 8881.5 B unit
Temperature Correction Factor: Tk = 0.01556 kPa/°C rise

Polynomial Gage Factors (kPa) A: -2.1064E-07 B: -0.096323 C: 871.76

Pressure is calculated with the following equations:

Linear: $P(\text{kPa}) = C.F. \cdot (Li - Lc) - [Tk(Ti - Tc)] + [0.10(Bi - Bc)]$

Polynomial: $P(\text{kPa}) = A(Lc)^2 + BLc + C + Tk(Tc - Ti) - [0.10(Bc - Bi)]$

	Date (dd/mm/yy)	VW Readout Pos. B (Li)	Temp °C (Ti)	Baro (Bi)
Shipped Zero Readings:	<u>2-May-12</u>	<u>8870</u>	<u>19.8</u>	<u>1015.7</u>

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: H. Chang

Date: 2-May-12

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1



Document Number.: ELL0130K





Vibrating Wire Pressure Transducer Calibration

Customer: AMEC EARTH & ENV. - NANAIMO
 Model: VW2100-0.35
 Serial Number: VW1204
 Mfg Number: 04-12843
 Range: 350.0 kPa
 Date of Calibration: 22-Oct-04
 Temperature: 23.7 °C
 Barometric Pressure: 1005.1 millibars
 W.O. Number: Q03417
 Cable Length: 10 meters
 Cable Colour Code: red / black (coil) green / white (thermistor)
 Cable Insulation: Polyurethane
 Thermistor type: 3 Kohms

Applied Pressure (kPa)	First Reading (B units)	Applied Pressure (kPa)	Second Reading (B units)	Average Pressure (kPa)	Average Readings (B units)	Calculated Linear (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	8858	0.0	8857	0.0	8858	0.0	0.00	-0.02
70.0	8199	70.0	8198	70.0	8199	70.1	0.03	0.03
140.0	7542	140.0	7542	140.0	7542	139.9	-0.02	-0.01
210.0	6884	210.0	6884	210.0	6884	209.9	-0.03	-0.01
280.0	6225	280.0	6225	280.0	6225	280.0	0.00	0.00
350.0	5566	350.0	5566	350.0	5566	350.1	0.02	0.00
Max. Error (%):							0.03	0.03

Linear Calibration Factor: C.F. = 0.10636 kPa/B unit
 Regression Zero: At Calibration Bi = 8857.6 B unit
 Temperature Correction Factor: Tk = 0.0308 kPa/°C rise

Polynomial Gage Factors (kPa) A: -4.3799E-08 B: -0.10572 C: 939.829

Pressure is calculated with the following equations:

Linear, $P(\text{kPa}) = \text{C.F.} \times (\text{Li} - \text{Lc}) - [\text{Tk} (\text{Ti} - \text{Tc})] + [0.10 (\text{Bi} - \text{Bc})]$

Polynomial: $P(\text{kPa}) = \text{A}(\text{Lc})^2 + \text{BLc} + \text{C} + \text{Tk}(\text{Tc} - \text{Ti}) - [0.10(\text{Bc} - \text{Bi})]$

	DATE	VW2104	TEMP °C	BARO
	(dd/mm/yr)	Pos. B (Li)	(Ti)	(Bi)
FACTORY ZERO READINGS:	28-Oct-04	8847	21.5	1006.3
SHIPPED ZERO READINGS:	6-Dec-04	8860	18.5	999.1

Li, Lc = initial (at installation) and current readings

Ti, Tc = initial (at installation) and current temperature, in °C

Bi, Bc = initial (at installation) and current barometric pressure readings, in millibars

B units = B scale output of VW 2102, VW 2104 readouts

B units = Hz² / 1000 ie: 1700Hz = 2890 B units

Technician: J Sangdaan

Date: 6-Dec-04

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1





Appendix D

Laboratory Test Reports

BULK DENSITY AND VOLUME



PROJECT INFORMATION

Project :	Old TDF APA Berm Stabilizing	Project Number :	NX14001D.2.100
Location:	Myra Falls	Date :	2015-04-21
Client:	Nyrstar	Technician:	T. Renton

SAMPLE & TEST INFORMATION

Hole No.	BH15-A05	BH15-A17	BH15-A25		
Depth/Sample ID	59'	79'-81'	59'-61'		
Tracking Number:	S9406	S9407	S9408		
Weight of Wet Sample (g)	1549.9	1830.3	1097.7		
Length (mm)	180.9	205.0	123.5		
Diameter ₁ (mm)	72.0	72.3	71.8		
Diameter ₂ (mm)	72.4	72.3	72.4		
Average Diameter (mm)	72.2	72.3	72.1		
Volume of Wet Sample (mm ³)	740222.8	841553.0	504298.4		
Volume of Wet Sample (m ³)	0.000740	0.000842	0.000504		
Wet Density (kg/m ³)	2094	2175	2177		
Dry Density (kg/m ³)	1657	1658	1699		
Moisture Content (%)	26.4	31.2	28.1		
Hole No.					
Depth/Sample ID					
Tracking Number:					
Weight of Wet Sample (g)					
Length (mm)					
Diameter ₁ (mm)					
Diameter ₂ (mm)					
Average Diameter (mm)					
Volume of Wet Sample (mm ³)					
Volume of Wet Sample (m ³)					
Wet Density (kg/m ³)					
Dry Density (kg/m ³)					
Moisture Content (%)					

Comments :

Tested By :

Tyler Renton
Tyler Renton, ASCT.
Materials Testing

Reviewed By :

Tyler Patten
Tyler Patten, P.Eng.
Geotechnical Engineer

Amec Foster Wheeler Environment & Infrastructure, a Division of Amec Foster Wheeler Americas Limited

Reporting of these test results constitutes a testing service only.

Particle Size Analysis of Soil ASTM D422



PROJECT INFORMATION

Project: Old TDF APA Berm Stabilizing
Location: Myra Falls
Client: Nyrstar

Project Number: NX14001D.2.100
Laboratory Number: S9406
Technician: T. Renton, ASCT

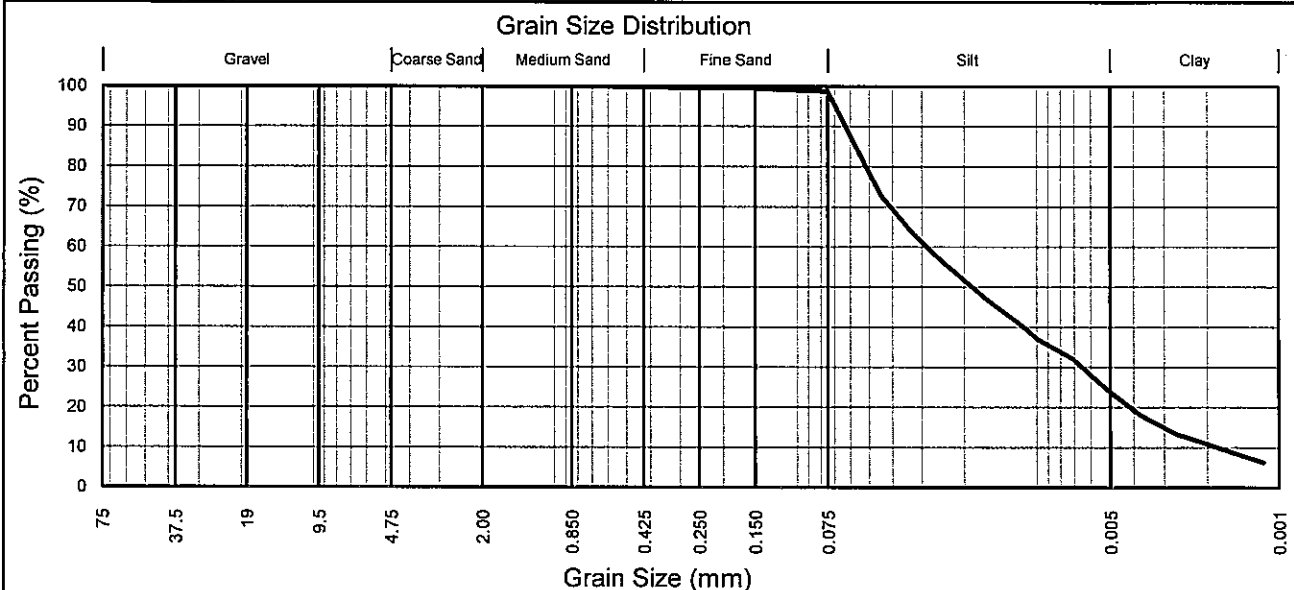
SAMPLE INFORMATION

Hole Number/Source: BH15-A05
Depth/Number: 59'
Sample Description:
Sample Description: Tailings

Date Sampled: 2015-04-11
Sampled By: D.G.
Date Tested: 2015-04-27

HYDROMETER ANALYSIS

Maximum Particle Size (mm): 0.85 mm Specific Gravity: 3.541
Description of Sand and Gravel Particles: Dispersion Device: Mixer
Hardness: N/A Dispersant Used: 4% Sodium Hexametaphosphate
Roundness: N/A Dispersion Period: 24 Hours
Hydrometer Separation on: 2.00 mm Sieve



GRAIN SIZE SUMMARY

Gravel	(75 to 4.75mm)	0%
Sand - Coarse	(4.75 to 2.00 mm)	0%
Sand - Medium	(2.00 to 0.425 mm)	0%
Sand - Fine	(0.425 to 0.075 mm)	1%
Silt	(0.074 to 0.005 mm)	74%
Clay	(0.005 to 0.001mm)	25%

Tested By:
T. Renton, ASCT
Materials Technician

Reviewed By:
T. Patten, P.Eng.
Geotechnical Engineer

AMEC Environment & Infrastructure, a division of AMEC Americas Limited

4385 Boban Drive, Nanaimo, BC, V9T 5V9

Ph: +1 (250) 758-1887 Fax: +1 (250) 758-1899

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Particle Size Analysis of Soil ASTM D422



PROJECT INFORMATION

Project: Old TDF APA Berm Stabilizing
Location: Myra Falls
Client: Nyrstar

Project Number: NX14001D.2.100
Laboratory Number: S9408
Technician: T. Renton, ASCT

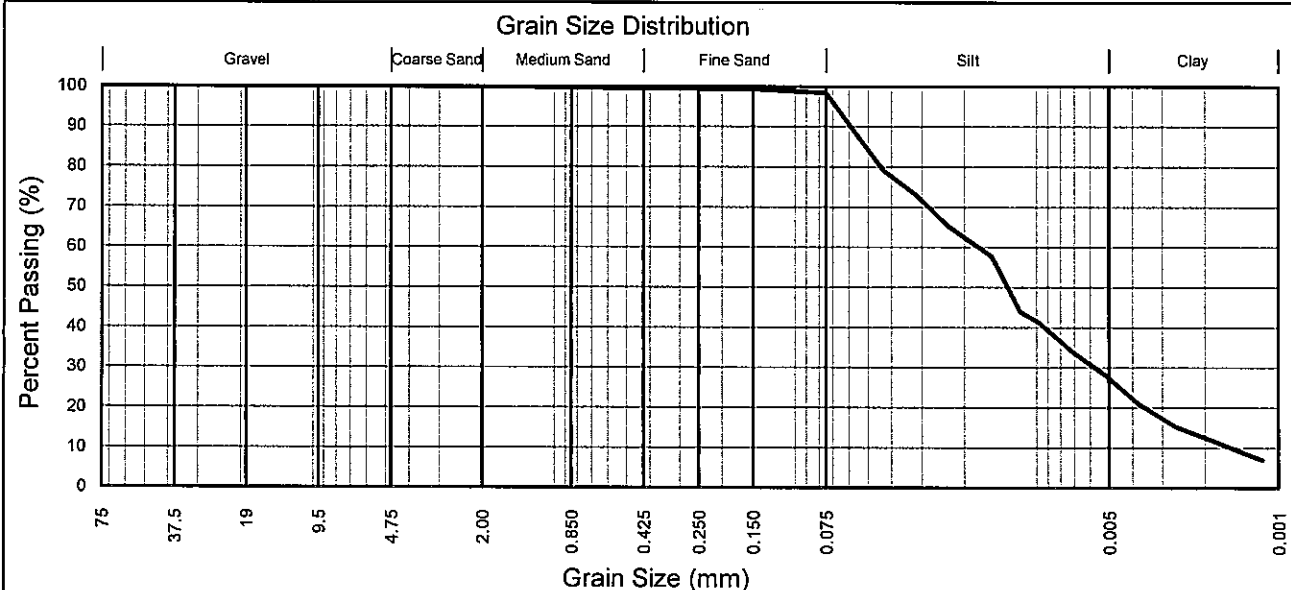
SAMPLE INFORMATION

Hole Number/Source: BH15-A05
Depth/Number: 89'-91'
Sample Description:
Sample Description: Tailings

Date Sampled: N/A
Sampled By: D.G.
Date Tested: 2015-04-27

HYDROMETER ANALYSIS

Maximum Particle Size (mm): 2.00 mm
Description of Sand and Gravel Particles:
Hardness: N/A
Roundness: N/A
Specific Gravity: 3.526
Dispersion Device: Mixer
Dispersant Used: 4% Sodium Hexametaphosphate
Dispersion Period: 24 Hours
Hydrometer Separation on: 2.00 mm Sieve



GRAIN SIZE SUMMARY

Gravel	(75 to 4.75mm)	0%
Sand - Coarse	(4.75 to 2.00 mm)	0%
Sand - Medium	(2.00 to 0.425 mm)	0%
Sand - Fine	(0.425 to 0.075 mm)	1%
Silt	(0.074 to 0.005 mm)	70%
Clay	(0.005 to 0.001mm)	28%

Tested By:

T. Renton, ASCT
Materials Technician

Reviewed By:

T. Patten, P.Eng.
Geotechnical Engineer

AMEC Environment & Infrastructure, a division of AMEC Americas Limited

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STANDARD TEST METHODS FOR LIQUID LIMIT,
PLASTIC LIMIT & PLASTICITY INDEX OF SOILS
ASTM D4318



PROJECT INFORMATION

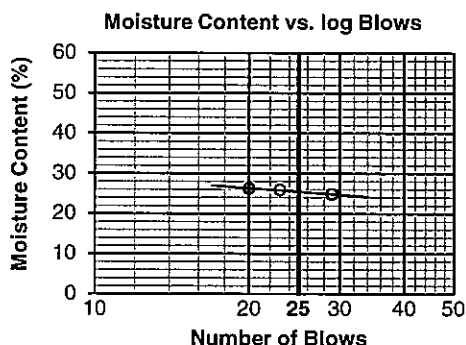
Project: Old TDF APA Berm Stabilizing Project Number: NX14001D.2.100
Location: Myra Falls Laboratory Number: S9406
Client: Nyrstar Technician: B. Hannah

SAMPLE INFORMATION

Hole Number/Source: BH15-A05 Date Sampled: 2015-04-11
Depth: 59' Sampled By: D.G.
Sample Number: SH02 Date Tested: 2014-04-27
Sample Description: Tailings

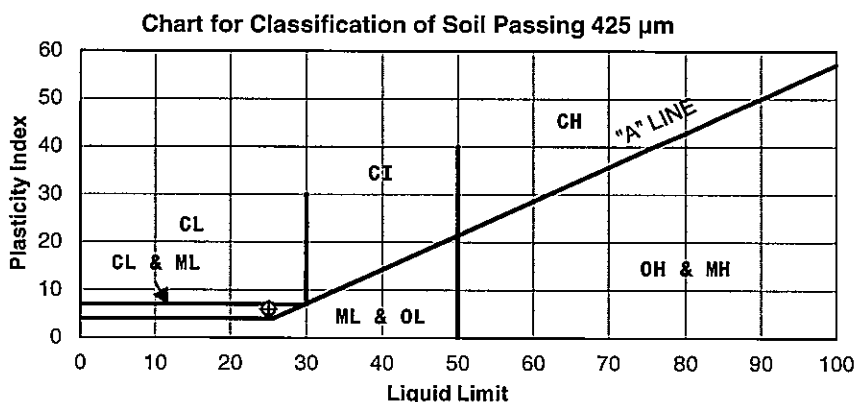
TEST INFORMATION

Limit Determination	Liquid Limit (w_L)			Plastic Limit (w_P)	
Trial Number	1	2	3	1	2
Number of Blows	20	23	29	-	-
Moisture Content (%)	26.2	25.8	24.7	19.1	18.4



Plastic Limit Rolling Equipment:
Liquid Limit Equipment:
Liquid Limit Grooving Tool:
Liquid Limit Method:
Sample Preparation Method:
Method of Removing > 425 μ m Particles:
Special Specimen Selection Process:
Maximum Grain Size (mm):
Percent Retained on 425 μ m:

Hand Rolled
Manual
Metal
A - Multipoint
Dry
No. 40 Sieve
none
0.425 mm
0%



RESULTS SUMMARY

Liquid Limit, w_L = 25

Plastic Limit, w_P = 19

Plasticity Index, I_P = 6

$$(I_P = w_L - w_P)$$

Water Content, w (%) = 26

USCS Soil
Classification: CL - ML

Comments:

Tested By: B. Hannah
Senior Technician

Reviewed By: T. Patten, P.Eng.
Geotechnical Engineer

STANDARD TEST METHODS FOR LIQUID LIMIT,
PLASTIC LIMIT & PLASTICITY INDEX OF SOILS
ASTM D4318



PROJECT INFORMATION

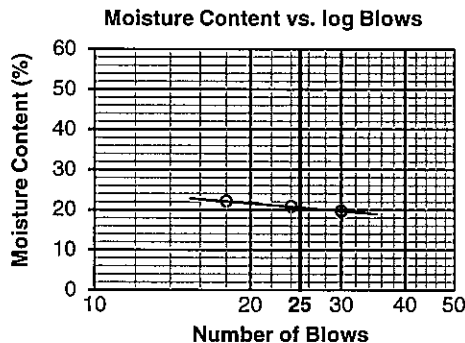
Project: Old TDF APA Berm Stabilizing Project Number: NX14001D.2.100
Location: Myra Falls Laboratory Number: S9407
Client: Nyrstar Technician: T. Renton, ASCT.

SAMPLE INFORMATION

Hole Number/Source: BH15-A17 Date Sampled: 2015-04-06
Depth: 79'-81' Sampled By: D.G.
Sample Number: SH02 Date Tested: 2015-04-27
Sample Description: tailings

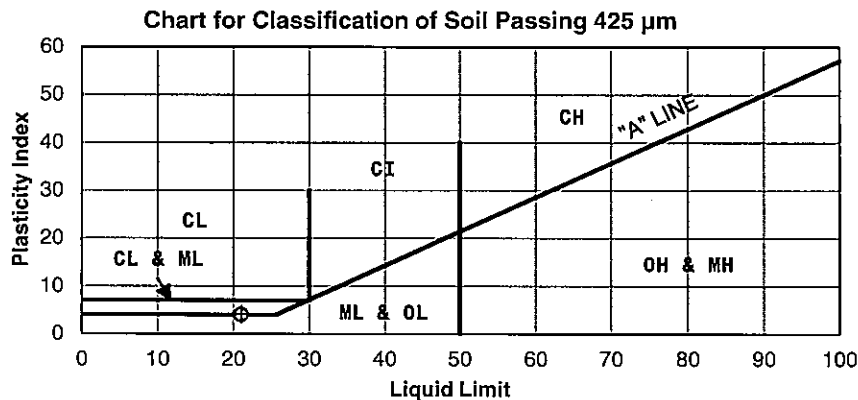
TEST INFORMATION

Limit Determination	Liquid Limit (w_L)			Plastic Limit (w_P)	
Trial Number	1	2	3	1	2
Number of Blows	18	24	30	-	-
Moisture Content (%)	22.0	20.8	19.6	17.4	17.5



Plastic Limit Rolling Equipment:
Liquid Limit Equipment:
Liquid Limit Grooving Tool:
Liquid Limit Method:
Sample Preparation Method:
Method of Removing > 425 μ m Particles:
Special Specimen Selection Process:
Maximum Grain Size (mm):
Percent Retained on 425 μ m:

Hand Rolled
Manual
Metal
A - Multipoint
Dry
No. 40 Sieve
none
0.425 mm
0%



RESULTS SUMMARY

Liquid Limit, w_L = 21
Plastic Limit, w_P = 17
Plasticity Index, I_P = 4
($I_P = w_L - w_P$)
Water Content, w (%) = 31
USCS Soil Classification: CL - ML

Comments:

Tested By:
T. Renton, ASCT.
Materials Technician

Reviewed By:
T. Patten, P.Eng.
Geotechnical Engineer

AMEC Environment & Infrastructure, a division of AMEC Americas Limited

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STANDARD TEST METHODS FOR LIQUID LIMIT,
PLASTIC LIMIT & PLASTICITY INDEX OF SOILS
ASTM D4318



PROJECT INFORMATION

Project: Old TDF APA Berm Stabilizing
Location: Myra Falls
Client: Nyrstar

Project Number: NX14001D.2.100
Laboratory Number: S9408
Technician: B. Hannah

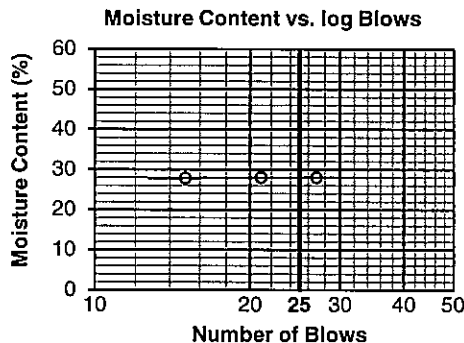
SAMPLE INFORMATION

Hole Number/Source: BH15-A25
Depth: 59'-61'
Sample Number: SH02
Sample Description: Tailings

Date Sampled: N/A
Sampled By: D.G.
Date Tested: 2015-04-27

TEST INFORMATION

Limit Determination	Liquid Limit (w_L)			Plastic Limit (w_P)	
Trial Number	1	2	3	1	2
Number of Blows	27	21	15	-	-
Moisture Content (%)	28.0	27.9	27.7	17.2	18.2



Plastic Limit Rolling Equipment:
Liquid Limit Equipment:
Liquid Limit Grooving Tool:
Liquid Limit Method:
Sample Preparation Method:
Method of Removing > 425 μ m Particles:
Special Specimen Selection Process:
Maximum Grain Size (mm):
Percent Retained on 425 μ m:

Hand Rolled

Manual

Metal

A - Multipoint

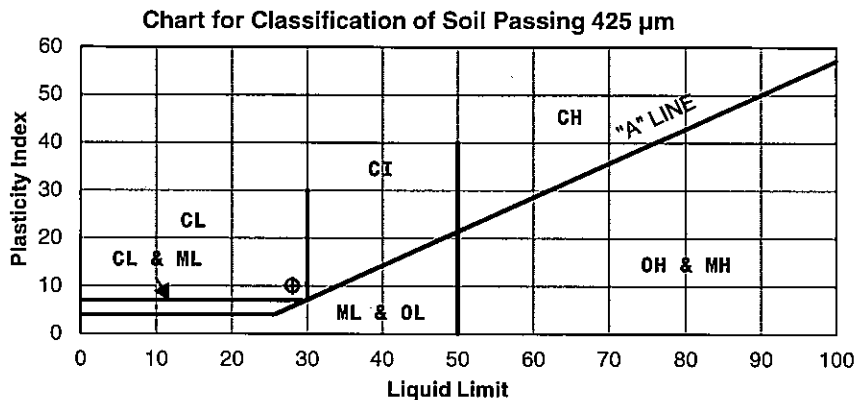
Dry

No. 40 Sieve

none

4.75 mm

0%



RESULTS SUMMARY

Liquid Limit, w_L = 28

Plastic Limit, w_P = 18

Plasticity Index, I_P = 10

$$(I_P = w_L - w_P)$$

Water Content, w (%) = 31

USCS Soil Classification: CL

Comments:

Tested By:

B. Hannah
Senior Technician

Reviewed By:

T. Patten, P.Eng.
Geotechnical Engineer

AMEC Environment & Infrastructure, a division of AMEC Americas Limited

4385 Boban Drive, Nanaimo, BC, V8T 5V9

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SPECIFIC GRAVITY BY WATER PYCNOMETER

ASTM D854



PROJECT INFORMATION

Project : Old TDF APA Berm Stabilizing	Project Number: NX14001D.2.100
Location : Myra Falls	Lab Number: S9406
	Date: 21/04/2015
Client : Nyrstar	Technologist: T. Renton

SAMPLE INFORMATION

Hole Number : BH15-A05	Date Sampled : 11/04/2015
Depth : 59'	Date Tested : 23/04/2015
Sample Number : SH02	Technologist : T. Renton

TEST DATA

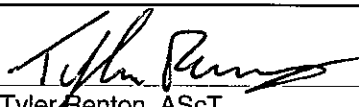
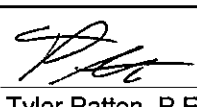
Trial Number	1	2	3	4
Flask Number	A9	A8		
Method of Air Removal	Vacuum and Boil			
Weight of Flask, Soil & Water (g)	735.65	747.32		
Temperature-T (°C)	20.0	19.9		
Weight of Flask & Water at Temperture -T (g)	694.50	707.16		
Weight of Soil + Tare (g)	155.21	151.30		
Weight of Tare (g)	97.85	95.36		
Weight of Dry Soil (g)	57.36	55.94		
Specific Gravity	3.538	3.544		
Average Specific Gravity	3.541			

DETERMINATION OF DRY WEIGHT OF SOIL (Ws) FROM WET SAMPLE

Weight of Wet Soil + Tare (g)				
Weight of Dry Soil + Tare (g)				
Weight of Tare (g)				
Weight of Water (g)				
Weight of Dry Soil (g)				
Water Content (%)				

$$\text{Specific Gravity} = W_s / (W_s + W_b + w) - (W_b + w + s)$$

Soil Description:	
Comments:	

Tested By : 	Reviewed By : 
Tyler Renton, ASCT.	Tyler Patten, P.Eng.
Materials Technician	Geotechnical Engineer

Amec Foster Wheeler Environment and Infrastructure, a Division of Amec Foster Wheeler Americas Limited

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SPECIFIC GRAVITY BY WATER PYCNOMETER

ASTM D854



PROJECT INFORMATION

Project : Old TDF APA Berm Stabilizing	Project Number: NX14001D.2.100
Location : Myra Falls	Lab Number: S9407
	Date: 21/04/2015
Client : Nyrstar	Technologist: T. Renton

SAMPLE INFORMATION

Hole Number : BH15-A17	Date Sampled : 06/04/2015
Depth : 79'-81'	Date Tested : 23/04/2015
Sample Number : SH02	Technologist : T. Renton

TEST DATA

Trial Number	1	2	3	4
Flask Number	A5	A4		
Method of Air Removal	Vacuum and Boiling			
Weight of Flask, Soil & Water (g)	711.25	729.73		
Temperature-T (°C)	19.2	19.3		
Weight of Flask & Water at Temperature -T (g)	670.96	689.76		
Weight of Soil + Tare (g)	316.27	150.48		
Weight of Tare (g)	260.02	94.65		
Weight of Dry Soil (g)	56.25	55.83		
Specific Gravity	3.524	3.519		
Average Specific Gravity	3.521			

DETERMINATION OF DRY WEIGHT OF SOIL (Ws) FROM WET SAMPLE

Weight of Wet Soil + Tare (g)				
Weight of Dry Soil + Tare (g)				
Weight of Tare (g)				
Weight of Water (g)				
Weight of Dry Soil (g)				
Water Content (%)				

$$\text{Specific Gravity} = W_s / (W_s + W_b + w) - (W_b + w + s)$$

Soil Description:

Comments:

Tested By :

Tyler Renton
Tyler Renton, ASCT.
Materials Technician

Reviewed By :

Tyler Patten
Tyler Patten, P.Eng.
Geotechnical Engineer

Amec Foster Wheeler Environment and Infrastructure, a Division of Amec Foster Wheeler Americas Limited

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SPECIFIC GRAVITY BY WATER PYCNOMETER

ASTM D854



PROJECT INFORMATION

Project : Old TDF APA Berm Stabilizing	Project Number: NX14001D.2.100
Location : Myra Falls	Lab Number: S9408
	Date: 21/04/2015
Client : Nyrstar	Technologist: T. Renton

SAMPLE INFORMATION

Hole Number : BH15-A25	Date Sampled : N/A
Depth : 59'-61'	Date Tested : 23/04/2015
Sample Number : SH02	Technologist : T. Renton

TEST DATA

Trial Number	1	2	3	4
Flask Number	A6	A3		
Method of Air Removal	Vacuum and Boiling			
Weight of Flask, Soil & Water (g)	742.35	734.54		
Temperature-T (°C)	19.2	19.2		
Weight of Flask & Water at Temperature -T (g)	700.89	693.97		
Weight of Soil + Tare (g)	233.03	309.75		
Weight of Tare (g)	175.21	253.08		
Weight of Dry Soil (g)	57.82	56.67		
Specific Gravity	3.533	3.519		
Average Specific Gravity	3.526			

DETERMINATION OF DRY WEIGHT OF SOIL (Ws) FROM WET SAMPLE

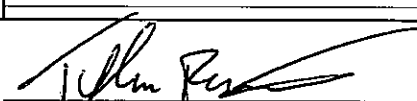
Weight of Wet Soil + Tare (g)				
Weight of Dry Soil + Tare (g)				
Weight of Tare (g)				
Weight of Water (g)				
Weight of Dry Soil (g)				
Water Content (%)				

$$\text{Specific Gravity} = W_s / (W_s + W_b + w) - (W_b + w + s)$$

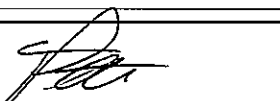
Soil Description:

Comments:

Tested By :


Tyler Renton, ASCT.
Materials Technician

Reviewed By :


Tyler Patten, P.Eng.
Geotechnical Engineer

Amec Foster Wheeler Environment and Infrastructure, a Division of Amec Foster Wheeler Americas Limited

Reporting of these test results constitutes a testing service only.

Engineering interpretation or evaluation of the test results is provided only on written request.



Appendix E

Nilcon Vane Graphs

Job #	Nx14001 APA	Hole #	BH15-A05
Date:	April 11	Nearest CPT Hole	
Location:	Myra Falls		
ConeTec Staff			
Vane Head #	MBone 01	Vane Constant (K):	
Test #		Vane Size:	Small
Test #		Depth	7.5
		Depth	

Note: Please write the test # and depth by the trace on the Vane Disk.

Top Base line for Remold
Low Base line for Peak

Remold

Peak

Job # Nix 14001 ARA Hole # BH15-A08
 Date: April 8 Nearest CPT Hole _____
 Location: Myra Falls Vane Constant (K): _____
 ConeTec Staff: J Vane Size: Small
 Vane Head # MB Vane 01 Depth: 275'
 Test # _____ * Sampled as "Vane 01"
 Test # _____
 Note: Please write the test # and depth by the trace on the Vane Disk.

rotation rate
 = 8 min start
 to here
 (same for remold)

Peak

Remold

Job # _____ Hole # BH15-A08
Date: APRIL 8/2015 Nearest CPT Hole _____
Location: MYRA FALLS
ConeTec Staff _____ Vane Constant (K): _____
Vane Head # MB VANC01 Vane Size: SMALL
Test # _____ Depth 38
Test # _____ Depth _____

Note: Please write the test # and depth by the trace on the Vane Disk.

BH15-A08

Job # NX14001APA Hole # BH5-A17
Date: April 6 Nearest CPT Hole _____
Location: Mggs Falls
ConeTec Staff _____ Vane Constant (K): _____
Vane Head # MB UAIN Vane Size: Small
Test # VST01 Depth 581
Test # _____ Depth _____
Note: Please write the test # and depth by the trace on the Vane Disk

Plow

Peak

head
Slip

Plot

Re mold

Job #	Nx14001 APA	Hole #	BH15-A17
Date:	April 6	Nearest CPT Hole	
Location:	Myra Falls		
ConeTec Staff			
Vane Head #	MB Vane 01	Vane Constant (K):	
Test #	VST02	Vane Size:	Small
Test #		Depth	78
Note: Please write the test # and depth by the trace on the Vane Disk.			

Job # _____
Date: April 7 Hole # IS-17A
Location: Myra Falls Nearest CPT Hole _____
ConeTec Staff _____
Vane Head # MB Vane 01 Vane Constant (K): _____
Test # _____ Vane Size: Small
Test # _____ Depth 98'
Depth _____
Note: Please write the test # and depth by the trace on the Vane Disk.

Perk Maxed out

Remold

Date: March 30, 2015

Hole #: BH15-A20

Depth: 33'

Depth: 47.5'
Name: [REDACTED]
BH15-A20
Location: Wala Tarp
Date: March 30, 2015
Test No. 5

Date: March 30, 2015

Hole #: BH15-A20

Depth: 47.5'

Date: March 30, 2015
Hole #: BH15-A20
Depth: 62.5'



Date: March 30, 2015

Hole #: BH15-A20

Depth: 72.5'

Calliper Factor: 1.1143 x 10⁻⁴ W/CW

Hole # 21 301

W/CW 100 YW

214-450

Date: April 4, 2015 Hole #: BH15-A25

Vane Head #: MB Vain 01
Vane Size: medium

Attempt @ 47.5'

(maxed)

switched
to small vane
and reattempted
@ 48.5'

Maxed out
NO PEAK

Job # _____
Date: April 4 Hole # BH15-A25
Location: Myra Falls Nearest CPT Hole A25
ConeTec Staff MJP Bay
Vane Head # MB Van 01 Vane Constant (K): _____
Test # _____ Vane Size: Small
Test # _____ Depth 48 1/2 feet
Depth _____
Note: Please write the test # and depth by the trace on the Vane Disk.

P

Re mold

5/12/15

257

VST attempt @ 575'

vane size: small

BH15-A25

April 04, 2015

→ @ gravelly material

"jumping around"

- spun several times

but could not reach
a peak or remould

Job # NK14001 RA Hole # BH15-A25
Date: April 3 Nearest CPT Hole _____
Location: Myra Falls
ConeTec Staff _____ Vane Constant (K): _____
Vane Head # MB V21A 01 Vane Size: Small
Test # _____ Depth 64'
Test # _____ Depth _____

Note: Please write the test # and depth by the trace on the Vane Disk.

Maked
out

Re-mold