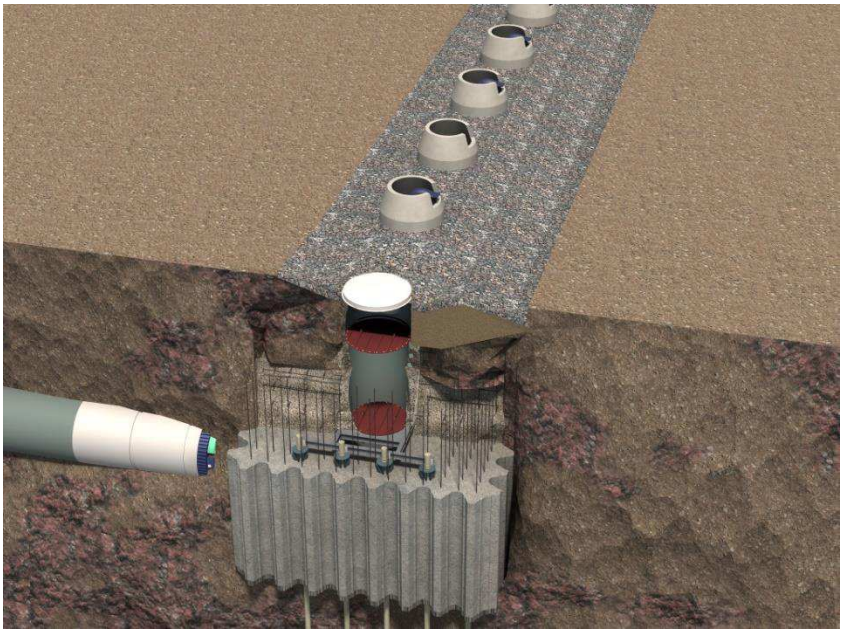
APPENDIX B
GEOTECHNICAL REPORTS

B.1: Geotechnical Data Report

Part C: Appendix A, CPT Logs

Annacis Island WWTP New Outfall System

Vancouver Fraser Port Authority
Project and Environmental Review Application



metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

CDM Smith

Golder Associates

This page intentionally left blank

APPENDIX A

Records of Boreholes and CPT Logs

Cone Penetration Test Summary and Standard Cone Penetration Test Plots

CONETEC

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Start Date:	02-Jul-2015
End Date:	15-Jul-2015

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface[1] (m)	Final Depth (m)	Northing[2] (m)	Easting (m)
CPT15-04	15-02048_CP04	14-Jul-2015	338:T1500F15U500	3.5	30.70	5445256	503436
SCPT15-06	15-02048_SP06	02-Jul-2015	274:T1500F15U500	3.0	48.70	5445500	503397
CPT15-15	15-02048_CP15	15-Jul-2015	338:T1500F15U500	2.8	55.00	5445767	503680

1. Assumed phreatic surface was based on pore pressure dissipation tests. Hydrostatic conditions were assumed for the interpretation tables.
2. Coordinates were collected using a consumer grade GPS device with datum: WGS84/UTM Zone 10 North.

Job No:	15-02048
Client:	Golder Associates
Project:	AIWWTP Transient Mitigation and Outfall System
Start Date:	16-Sep-2015
End Date:	17-Sep-2015

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface[1] (m)	Final Depth[2] (m)	Northing[3] (m)	Easting (m)	Mudline Elevation[4] (m)	Refer to Notation Number
SCPT15-01	15-02048_SP01	16-Sep-2015	408:T1500F15U500	-10.1	34.275	5445017.42	503466.24	-9.20	
CPT15-02	15-02048_CP02	16-Sep-2015	408:T1500F15U500	-6.3	37.200	5445082.46	503461.32	-5.51	
SCPT15-11	15-02048_SP11	17-Sep-2015	408:T1500F15U500	-11.8	55.150	5445202.58	503897.45	-10.91	5
CPT15-12	15-02048_CP12	17-Sep-2015	408:T1500F15U500	-7.7	45.000	5445251.16	503862.23	-8.03	5

1. The phreatic surface was determined using pore pressure dissipations. Hydrostatic conditions were used for the interpretation tables.
2. The penetration depths are referenced to the existing mudline at the time of testing.
3. Coordinate were surveyed using RTK as-built survey and were collected in WGS 1984 UTM Zone 10 North.
4. Elevations are referenced to the existing mudline at the time of testing.
5. Sleeve friction appears to be subdued in the lower portion of the test.

Job No:	15-02048.04
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Start Date:	03-Oct-2015
End Date:	04-Oct-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
CPT15-03	15-02048_CP03	03-Oct-2015	330:T1500F15U500	4.2	28.95	5445176	503427	
SCPT15-13	15-02048_SP13	04-Oct-2015	330:T1500F15U500	4.0	58.00	5445318	503819	3

1. Assumed phreatic surface was based on pore pressure dissipation tests. Hydrostatic conditions were assumed for the interpretation tables.
2. Coordinates were collected using a consumer grade GPS device with datum: WGS84/UTM Zone 10 North, unless otherwise noted.
3. Coordinates were collected using Google Earth with datum: WGS84/UTM Zone 10 North, unless otherwise noted.

Job No:	15-02048.08
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Start Date:	20-Mar-2016
End Date:	24-Mar-2016

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
SCPT16-01	15-02048_SP01	22-Mar-2016	457:T1500F15U500	4.7	78.00	5445633	503521	
SCPT16-02	15-02048_SP02	23-Mar-2016	457:T1500F15U500	3.4	60.00	5445610	503366	
SCPT16-03	15-02048_SP03	20-Mar-2016	457:T1500F15U500	3.3	63.00	5445694	503281	
SCPT16-04	15-02048_SP04	21-Mar-2016	338:T1500F15U500	2.6	70.35	5445893	503148	
SCPT16-05	15-02048_SP05	24-Mar-2016	457:T1500F15U500	3.1	63.95	5445544	503393	

1. Assumed phreatic surface was based on pore pressure dissipation tests unless otherwise noted. Hydrostatic conditions were assumed for the interpretation tables.
2. Coordinates were obtained using consumer-grade GPS device with datum: WGS84/UTM Zone 10 North.

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Start Date:	23-Nov-2016
End Date:	15-Dec-2016

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date From	Date To	Rig	Cone	Assumed Phreatic Surface[1] (m)	Final Depth (m)	Northing[2] (m)	Easting (m)	Elevation (m)	Refer to Notation Number
SCPT16-06	16-02063_SP06	24-Nov-2016	25-Nov-2016	C14	474:T1500F15U500	2.8	62.650	5445534	503467		
SCPT16-07	16-02063_SP07	25-Nov-2016	26-Nov-2016	C14	474:T1500F15U500	2.9	66.450	5445457	503535		
SCPT16-08	16-02063_SP08	23-Nov-2016	23-Nov-2016	C14	474:T1500F15U500	3.7	76.525	5445368	503591		
SCPT16-09	16-02063_SP09	24-Nov-2016	24-Nov-2016	C14	474:T1500F15U500	3.6	73.675	5445234	503698		
SCPT16-10	16-02063_SP10	15-Dec-2016	15-Dec-2016	Barge portable	477:T1500F15U1K	-14.4	51.725	5445097.745	503815.306	-12.75	3

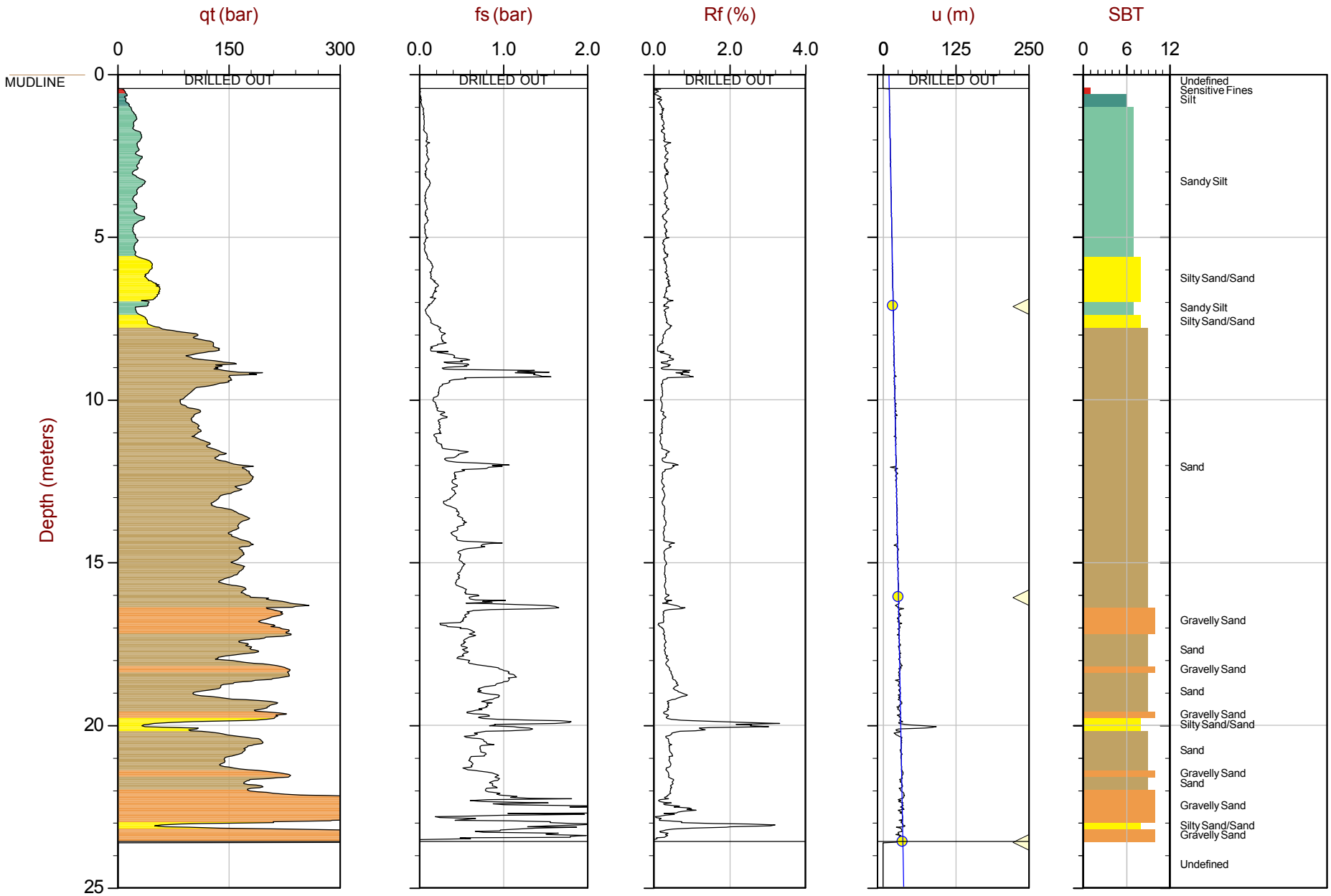
1. The assumed phreatic surface was based on pore pressure dissipation tests. Hydrostatic conditions were assumed for the interpretation tables.
2. Coordinates were acquired using consumer grade GPS equipment unless otherwise noted, datum: WGS 1984 / UTM Zone 10 North.
3. Coordinates and elevation were acquired using ConeTec Trimble Survey (Can-Net). Elevation is of the mudline at the time of testing.

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:16:15 19:56
Site: Fraser River near Annacis Island

Sounding: SCPT15-01
Cone: 408:T1500F15U500



Max Depth: 34.275 m / 112.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445017.42 E: 503466.24 Elev: -9.20m

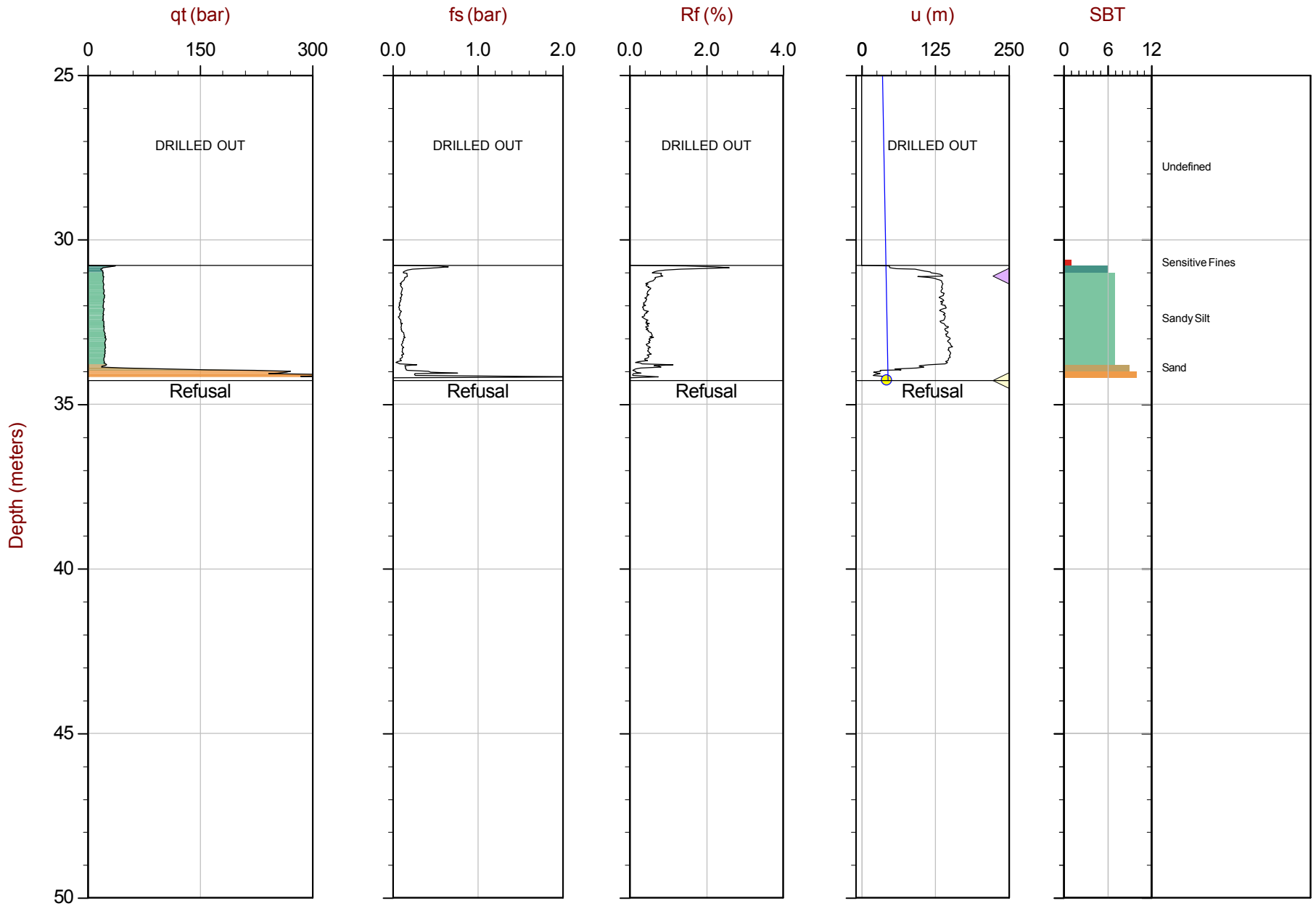
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:16:15 19:56
Site: Fraser River near Annacis Island

Sounding: SCPT15-01
Cone: 408:T1500F15U500



Max Depth: 34.275 m / 112.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445017.42 E: 503466.24 Elev: -9.20m

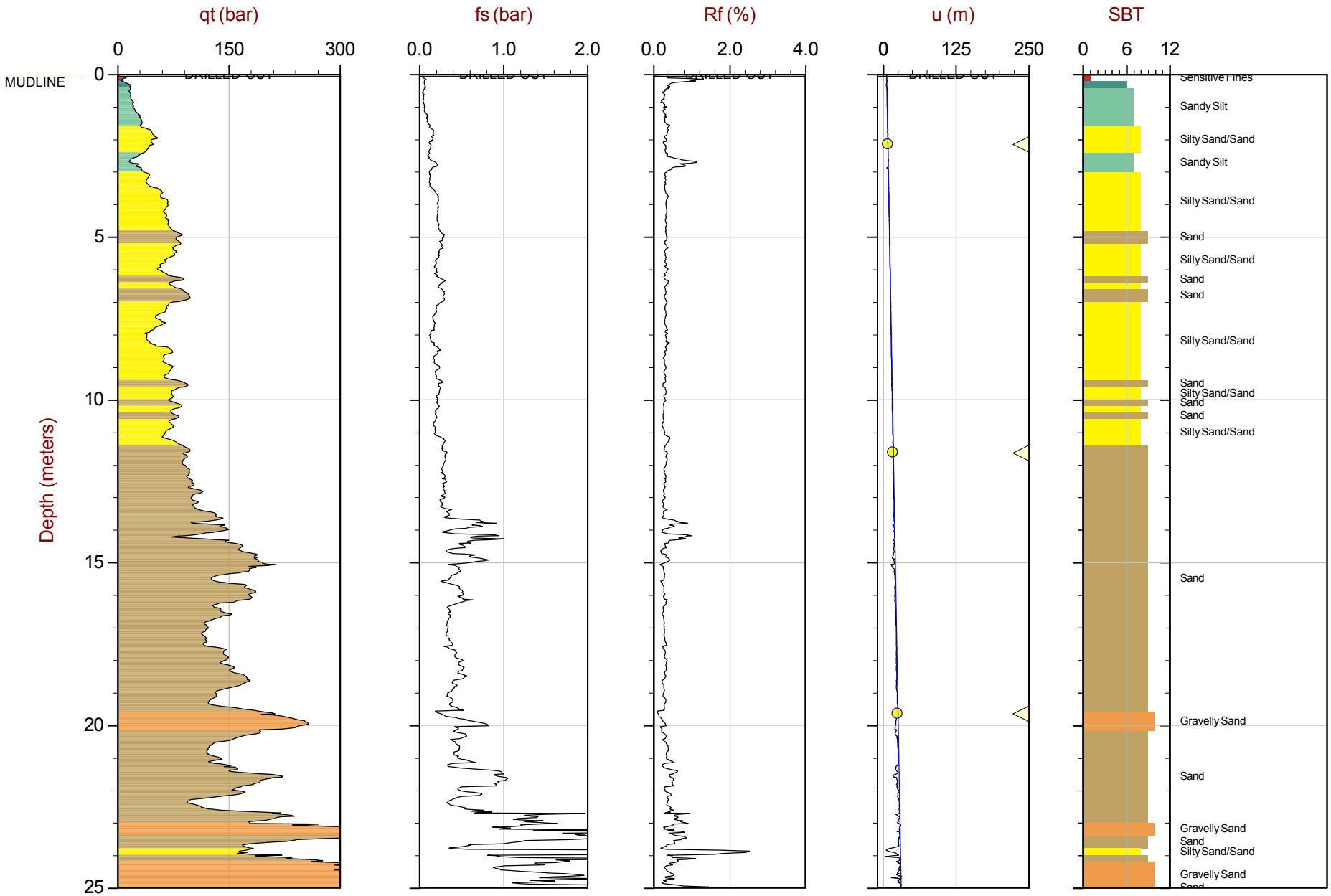
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:16:15 11:04
Site: Fraser River near Annacis Island

Sounding: CPT15-02
Cone: 408:T1500F15U500



Max Depth: 37.200 m / 122.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_CP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445082.46 E: 503461.32 Elev: -5.51m

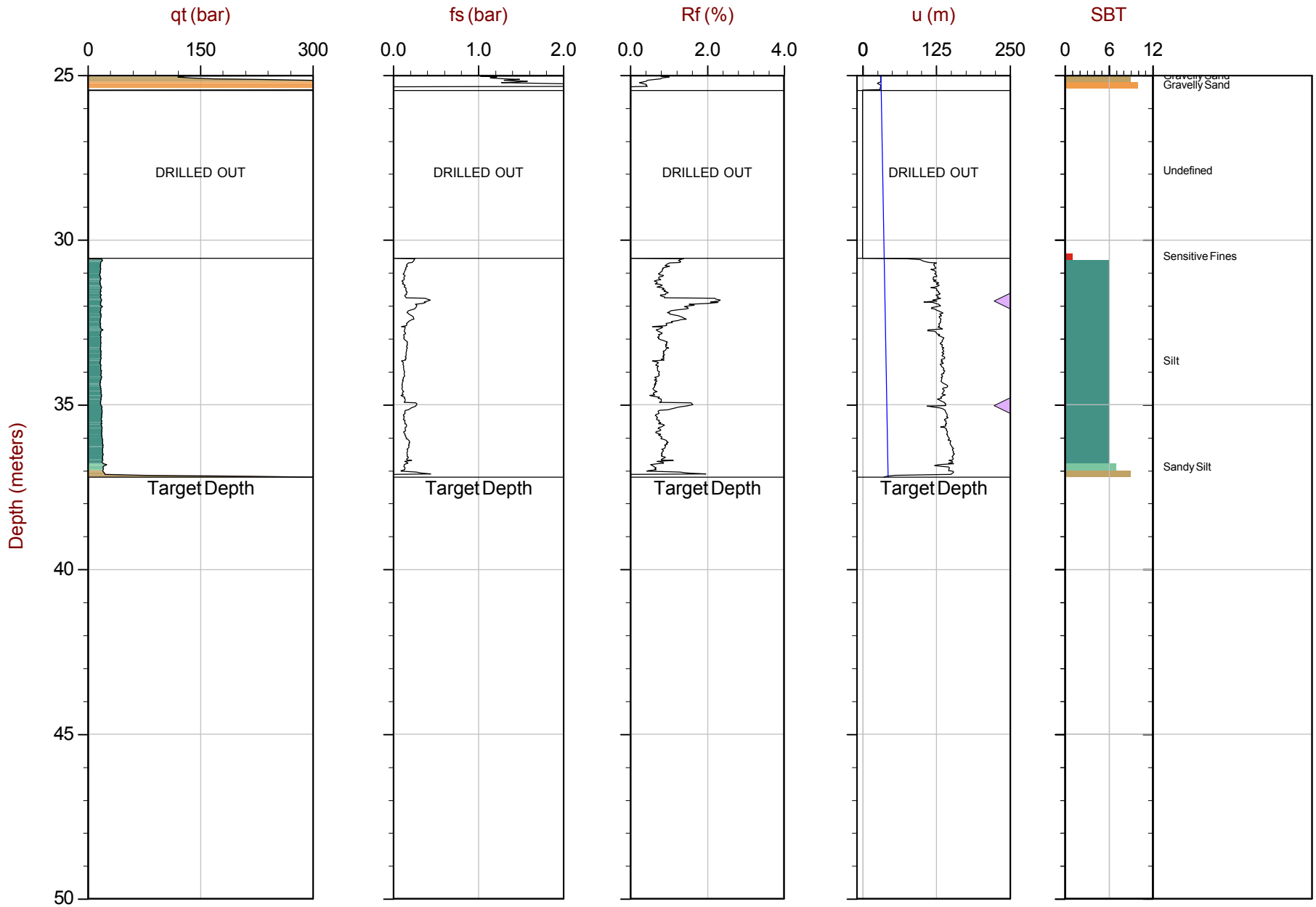
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:16:15 11:04
Site: Fraser River near Annacis Island

Sounding: CPT15-02
Cone: 408:T1500F15U500



Max Depth: 37.200 m / 122.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_CP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445082.46 E: 503461.32 Elev: -5.51m

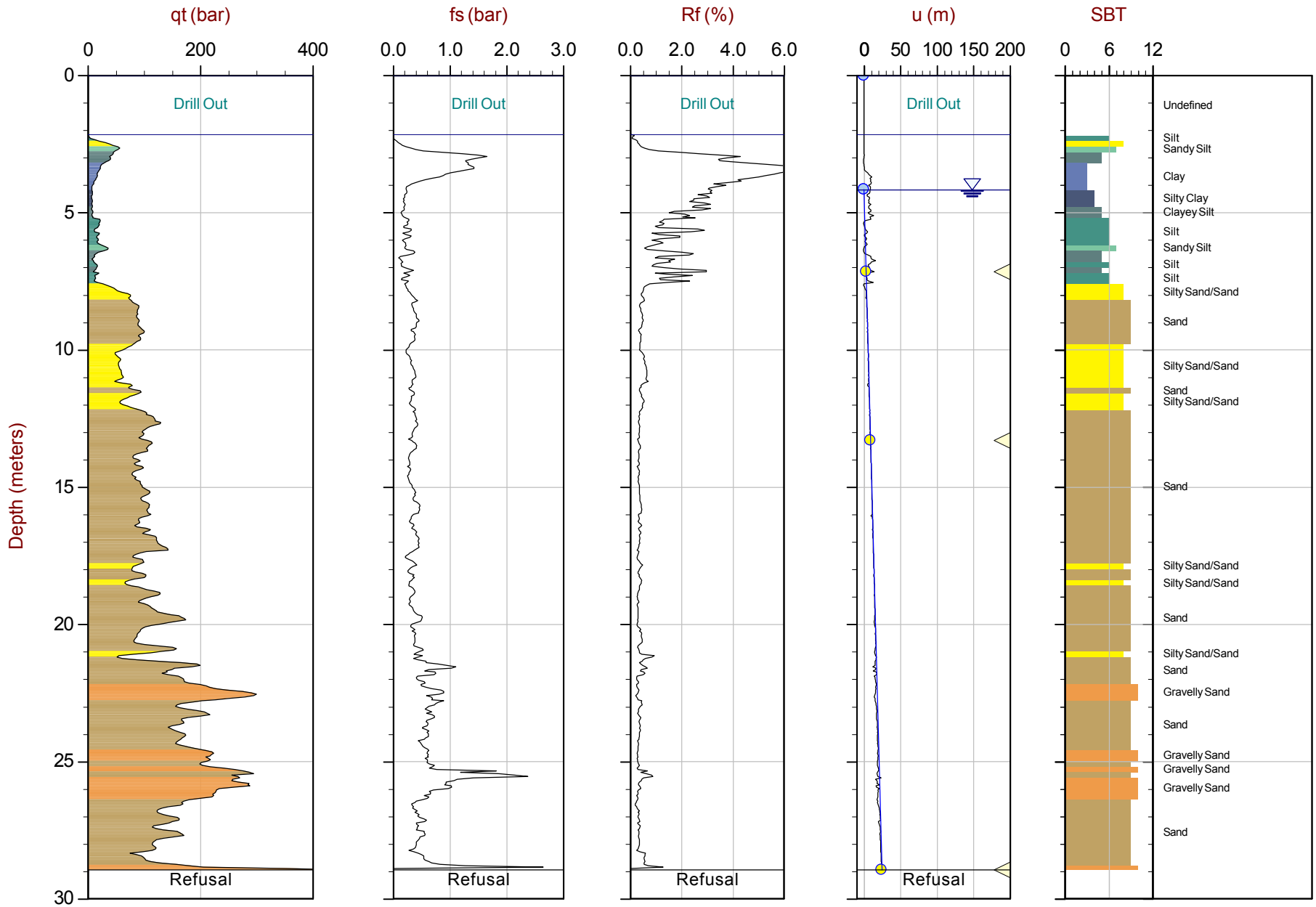
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder

Job No: 15-02048
Date: 10:03:15 09:42
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: CPT15-03
Cone: 330:T1500F15U500



Max Depth: 28.950 m / 94.98 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_CP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445176m E: 503427m
Sheet No: 1 of 1

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

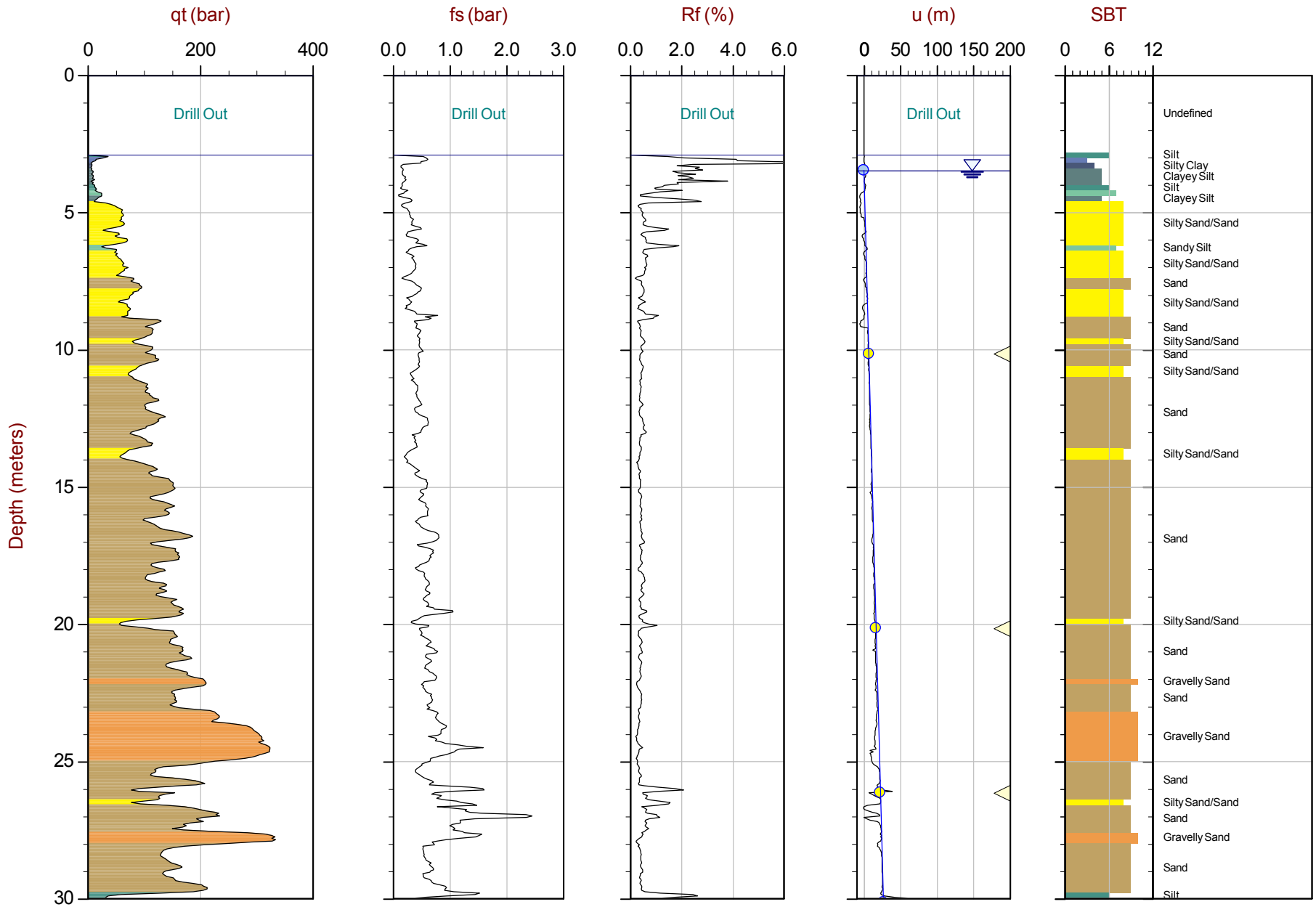
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:14:15 07:53
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: CPT15-04
Cone: 338:T1500F15U500



Max Depth: 30.700 m / 100.72 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_CP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445256m E: 503436m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

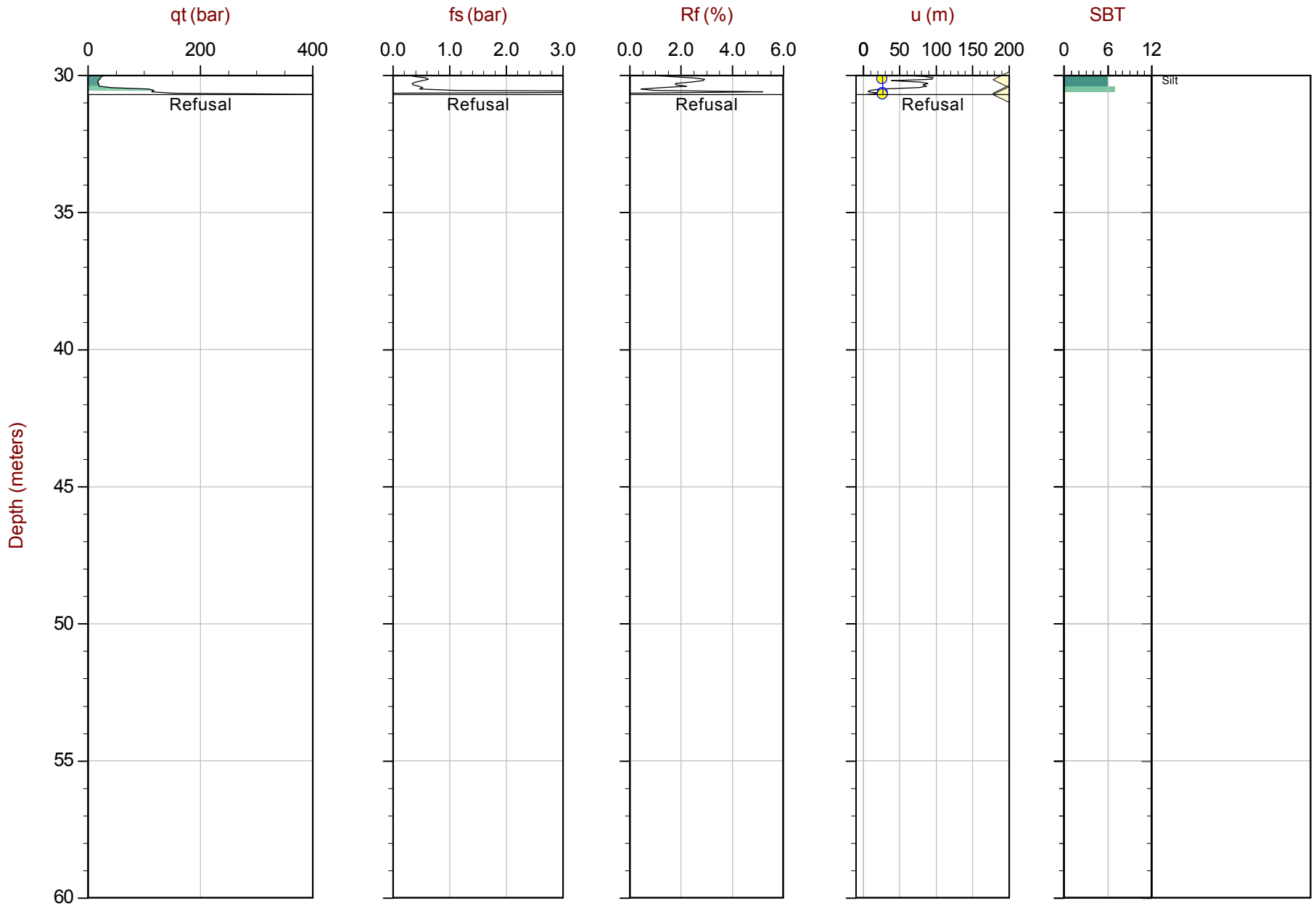
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:14:15 07:53
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: CPT15-04
Cone: 338:T1500F15U500



Max Depth: 30.700 m / 100.72 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_CP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445256m E: 503436m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

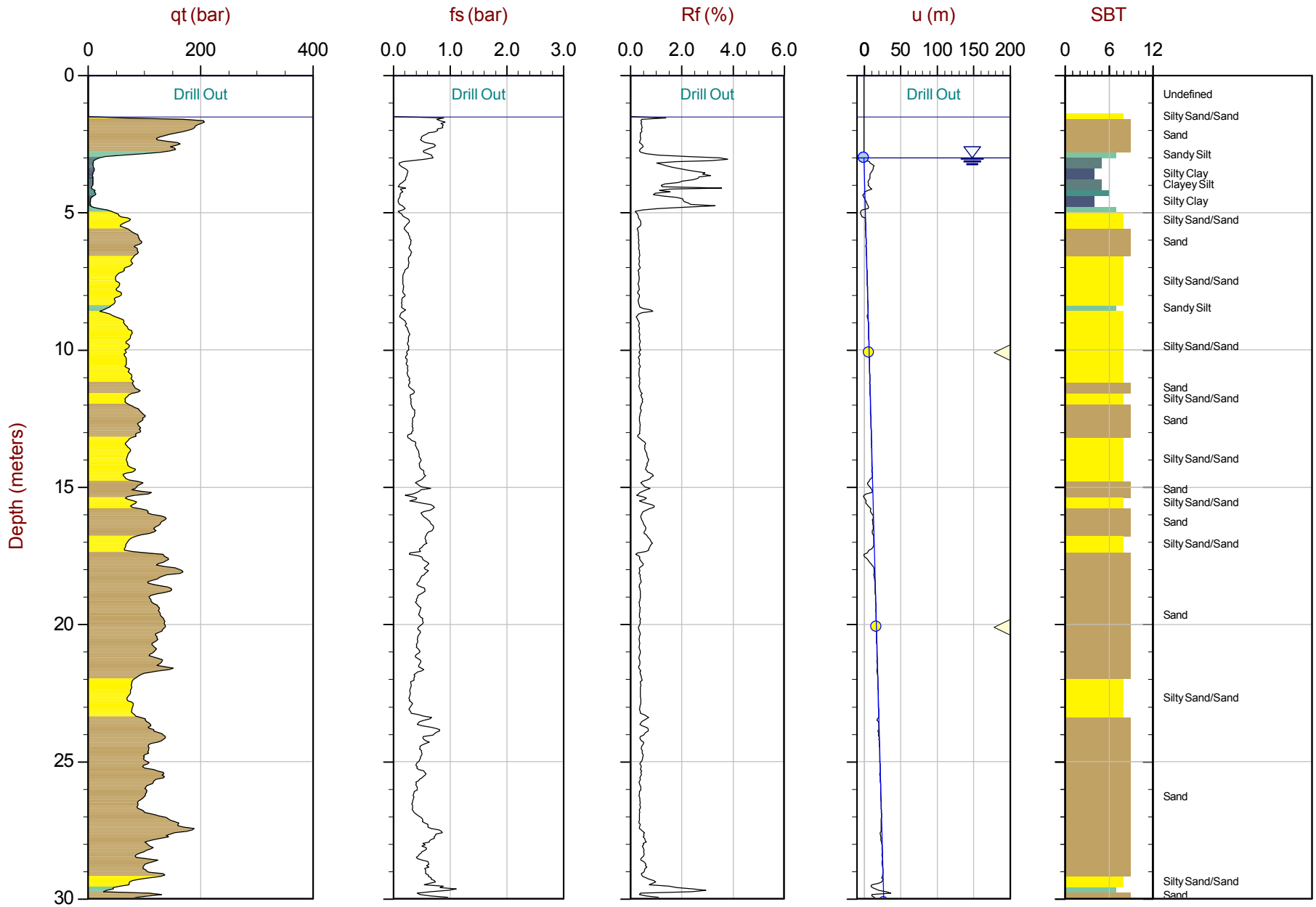
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:15:15 08:02
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-06
Cone: 274:T1500F15U500



Max Depth: 48.700 m / 159.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445500m E: 503397m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

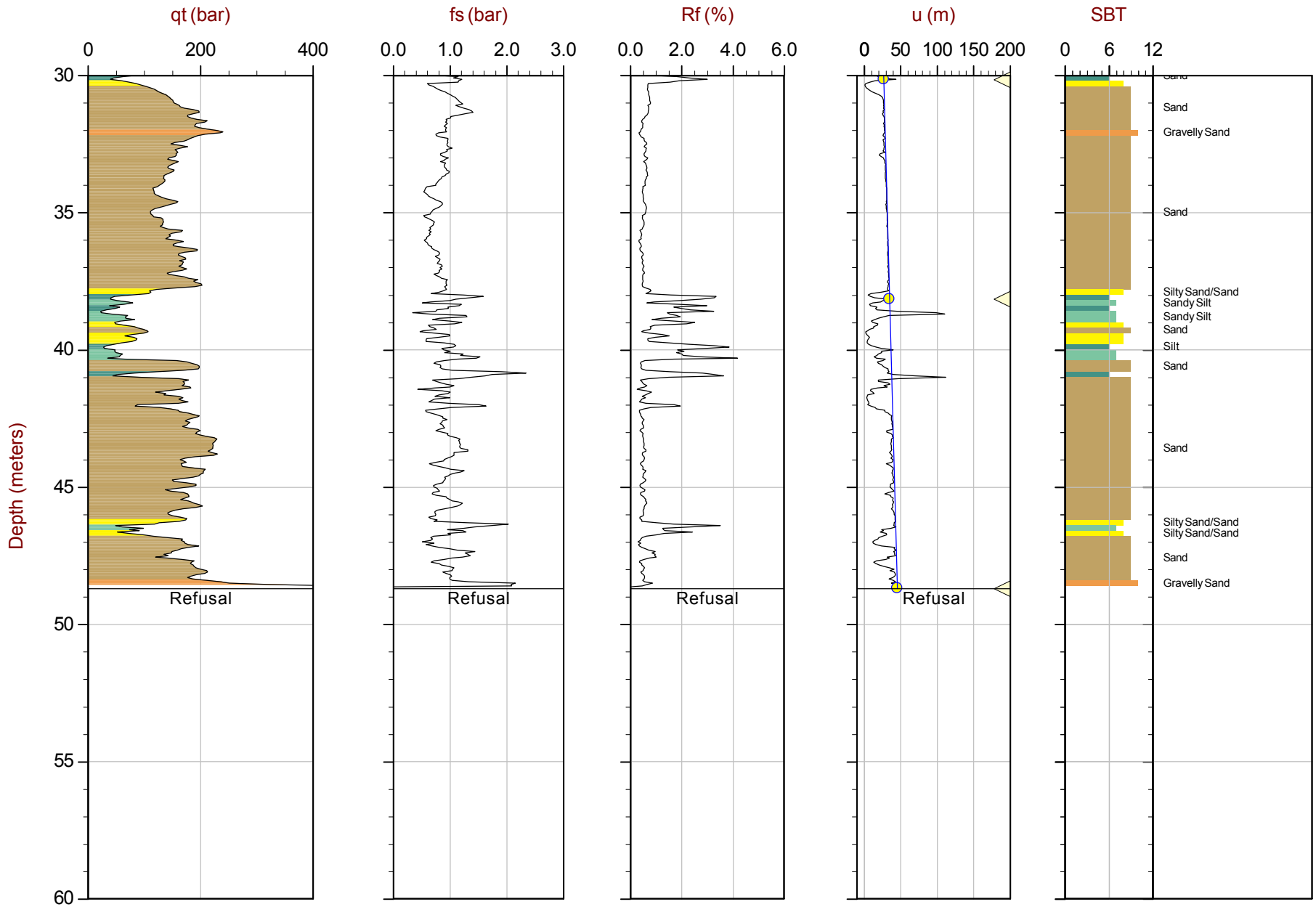
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:15:15 08:02
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-06
Cone: 274:T1500F15U500



Max Depth: 48.700 m / 159.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445500m E: 503397m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

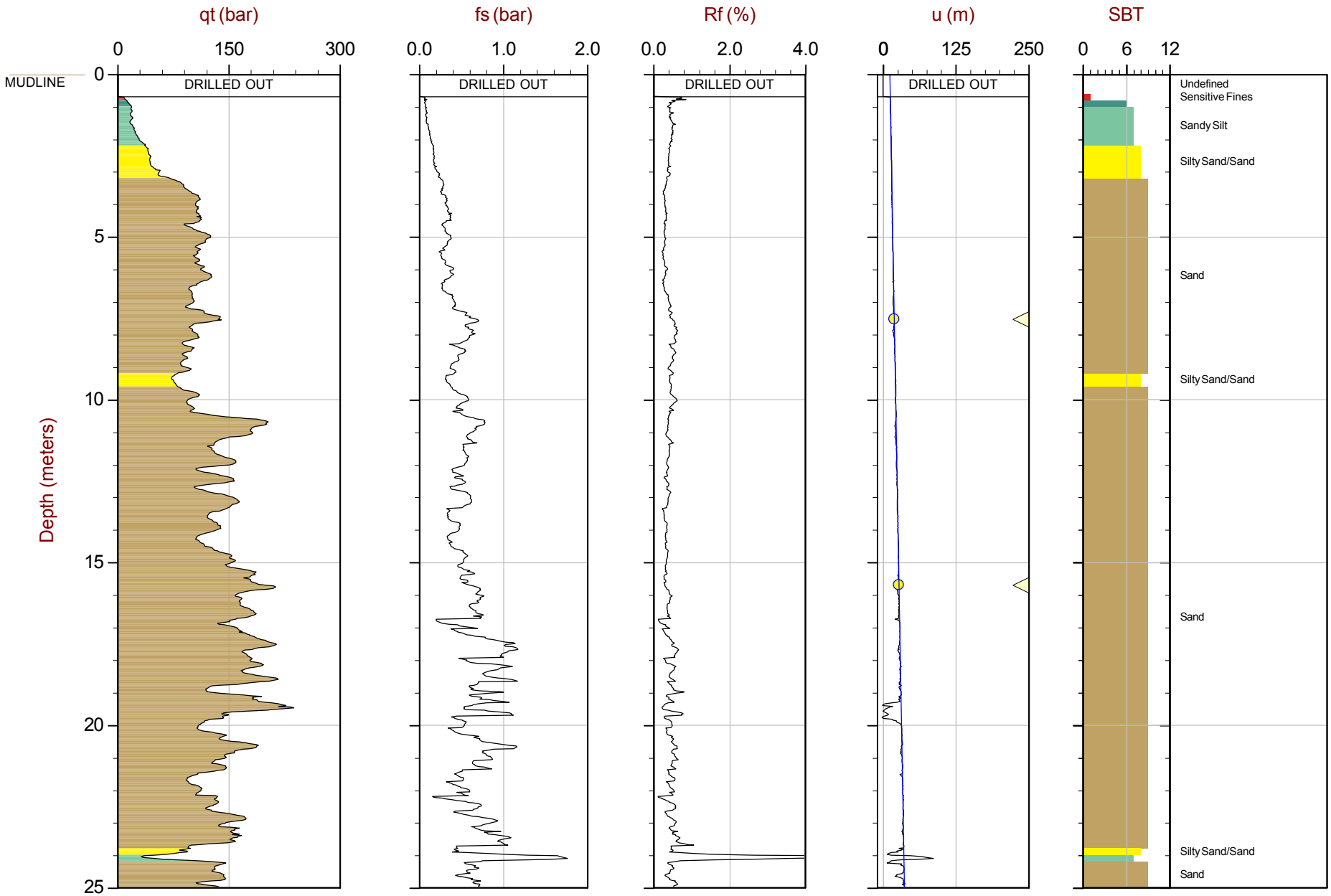
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 08:02
Site: Fraser River near Annacis Island

Sounding: SCPT15-11
Cone: 408:T1500F15U500



Max Depth: 55.150 m / 180.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_SP11.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445202.58 E: 503897.45 Elev: -10.91m

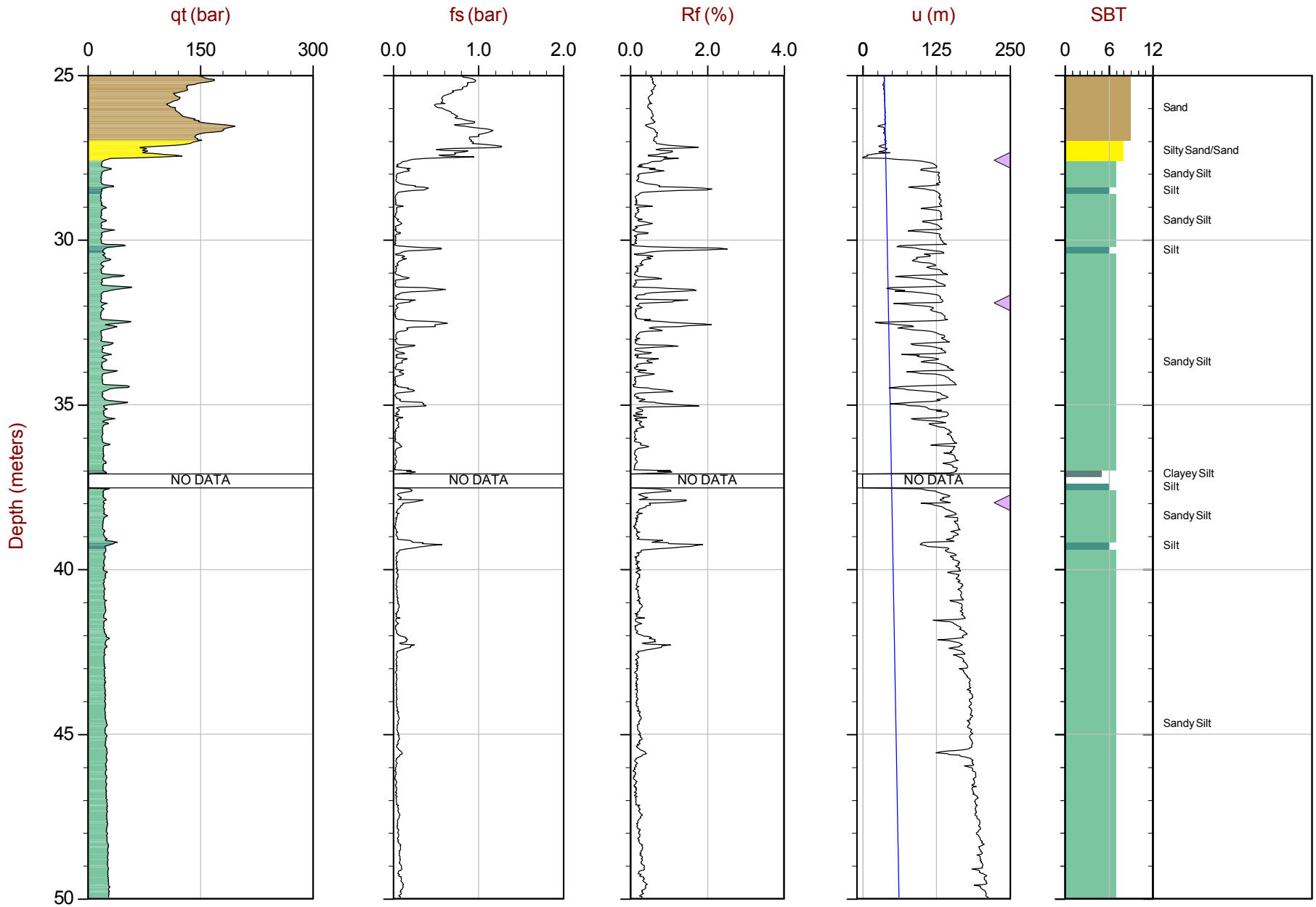
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 08:02
Site: Fraser River near Annacis Island

Sounding: SCPT15-11
Cone: 408:T1500F15U500



Max Depth: 55.150 m / 180.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_SP11.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445202.58 E: 503897.45 Elev: -10.91m

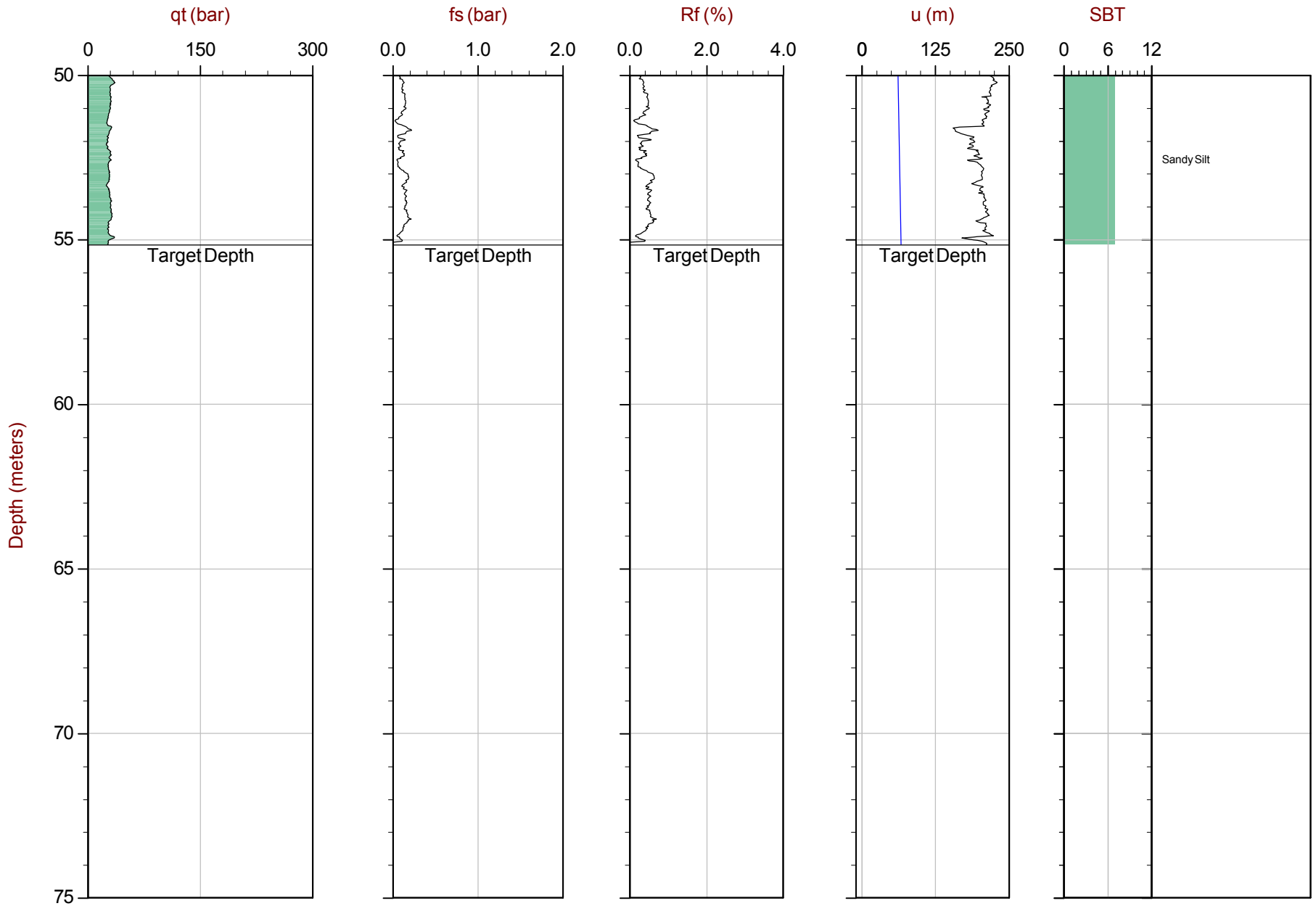
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 08:02
Site: Fraser River near Annacis Island

Sounding: SCPT15-11
Cone: 408:T1500F15U500



Max Depth: 55.150 m / 180.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_SP11.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445202.58 E: 503897.45 Elev: -10.91m

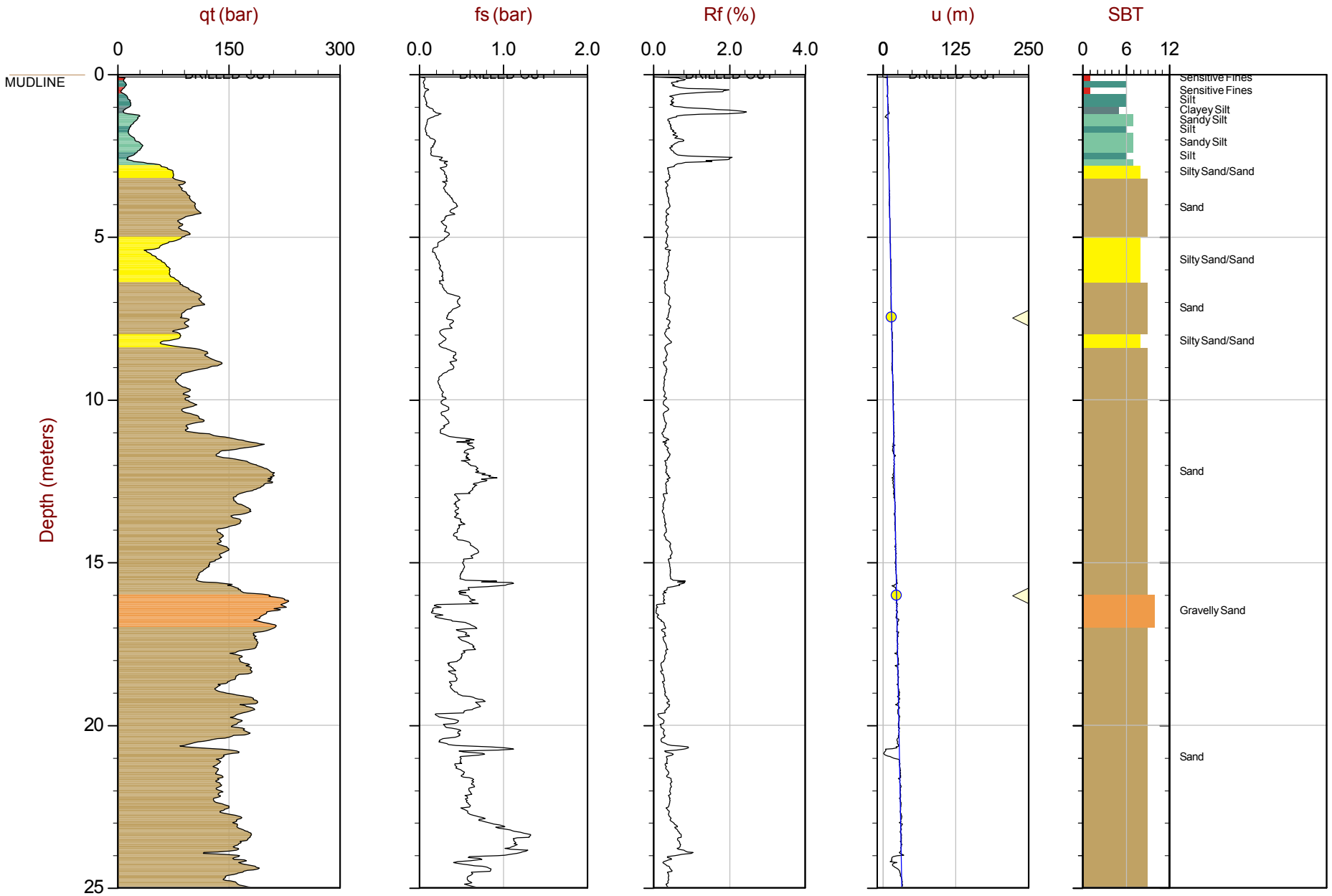
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 16:05
Site: Fraser River near Annacis Island

Sounding: CPT15-12
Cone: 408:T1500F15U500



Max Depth: 45.000 m / 147.64 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_CP12.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445251.16 E: 503862.23 Elev: -8.03m

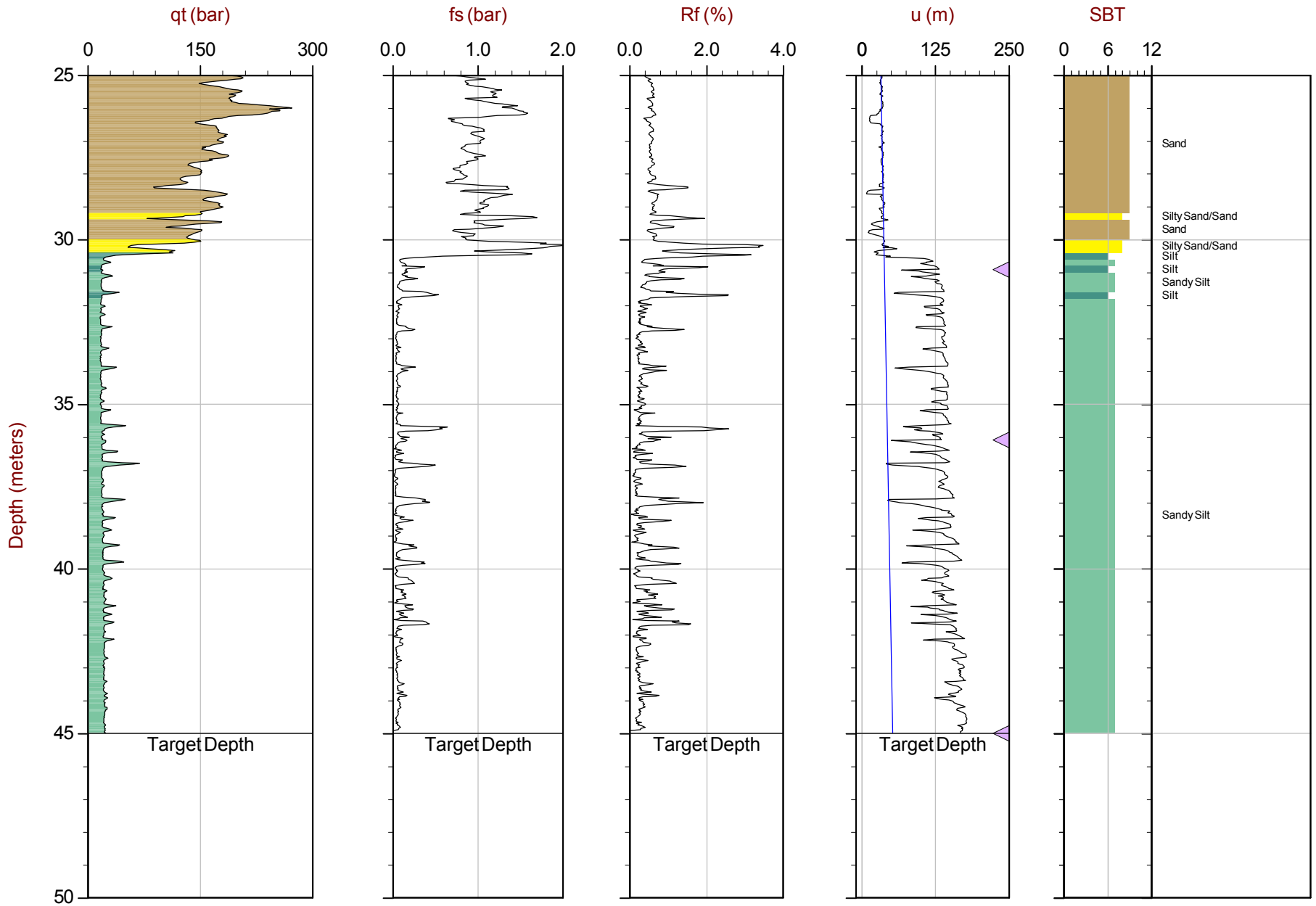
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 16:05
Site: Fraser River near Annacis Island

Sounding: CPT15-12
Cone: 408:T1500F15U500



Max Depth: 45.000 m / 147.64 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: 0.200 m

File: 15-02048_CP12.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445251.16 E: 503862.23 Elev: -8.03m

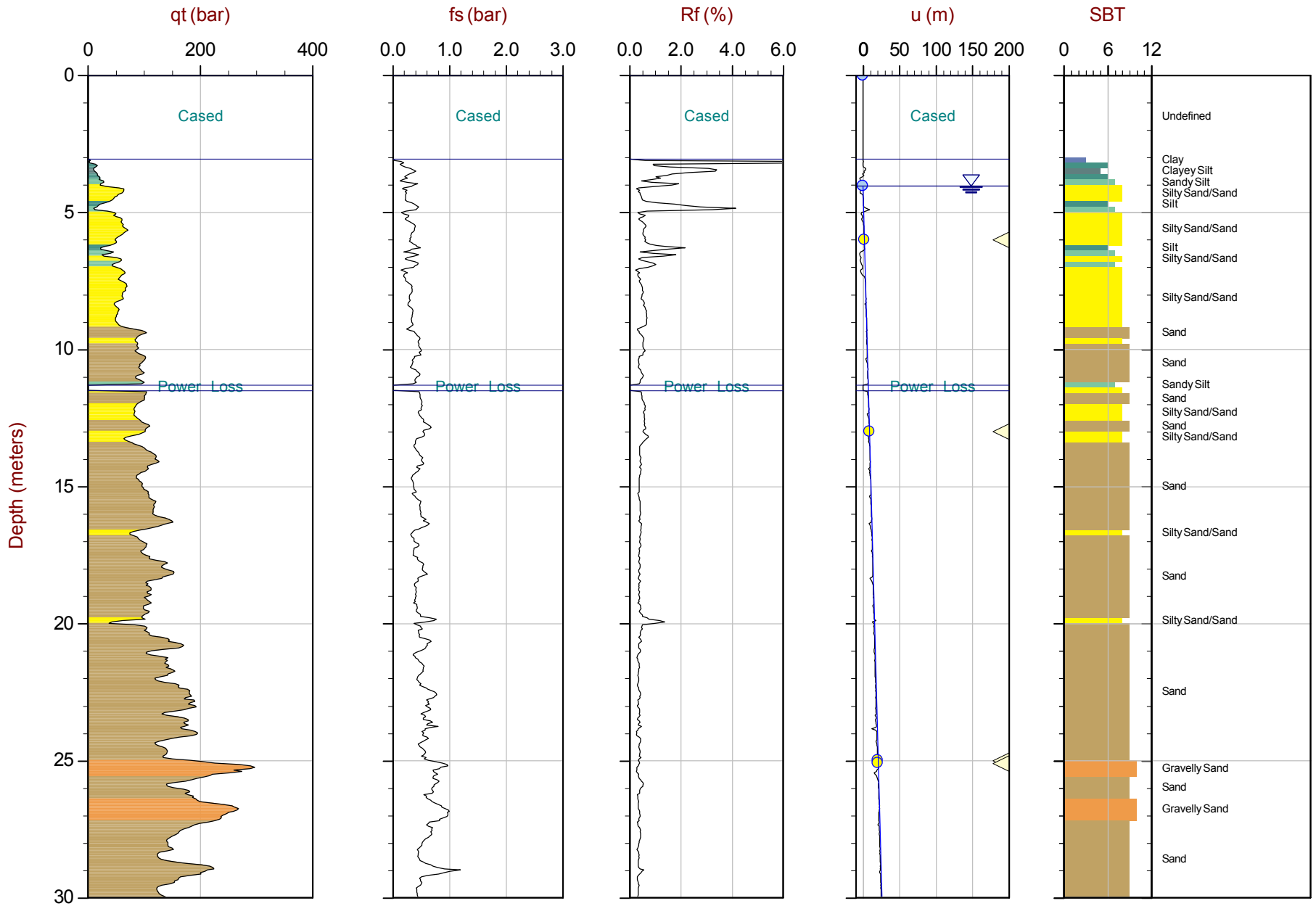
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder

Job No: 15-02048
Date: 10:04:15 09:28
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-13
Cone: 330:T1500F15U500



Max Depth: 58.000 m / 190.29 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP13.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445318m E: 503819m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

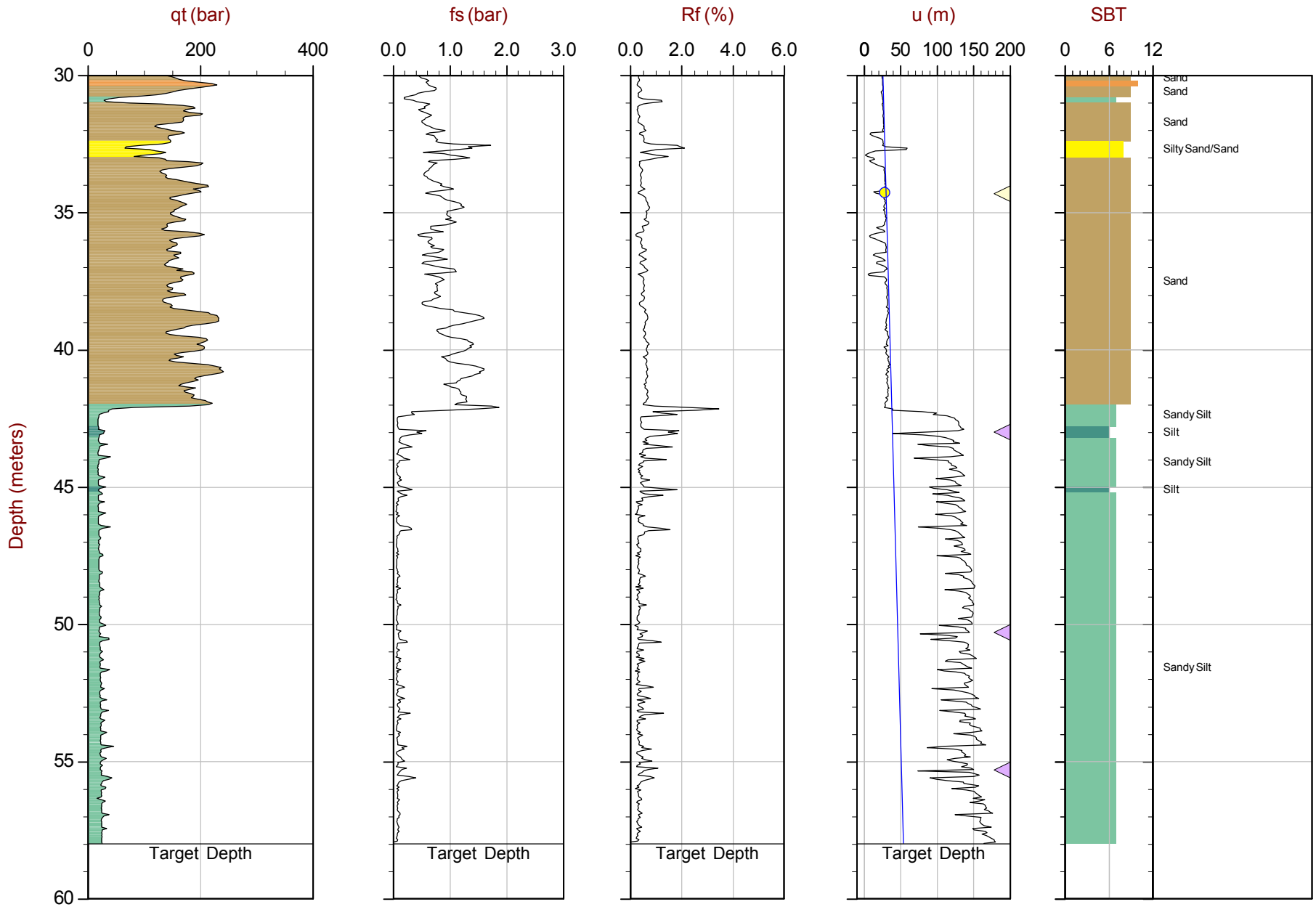
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 10:04:15 09:28
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-13
Cone: 330:T1500F15U500



Max Depth: 58.000 m / 190.29 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP13.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445318m E: 503819m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

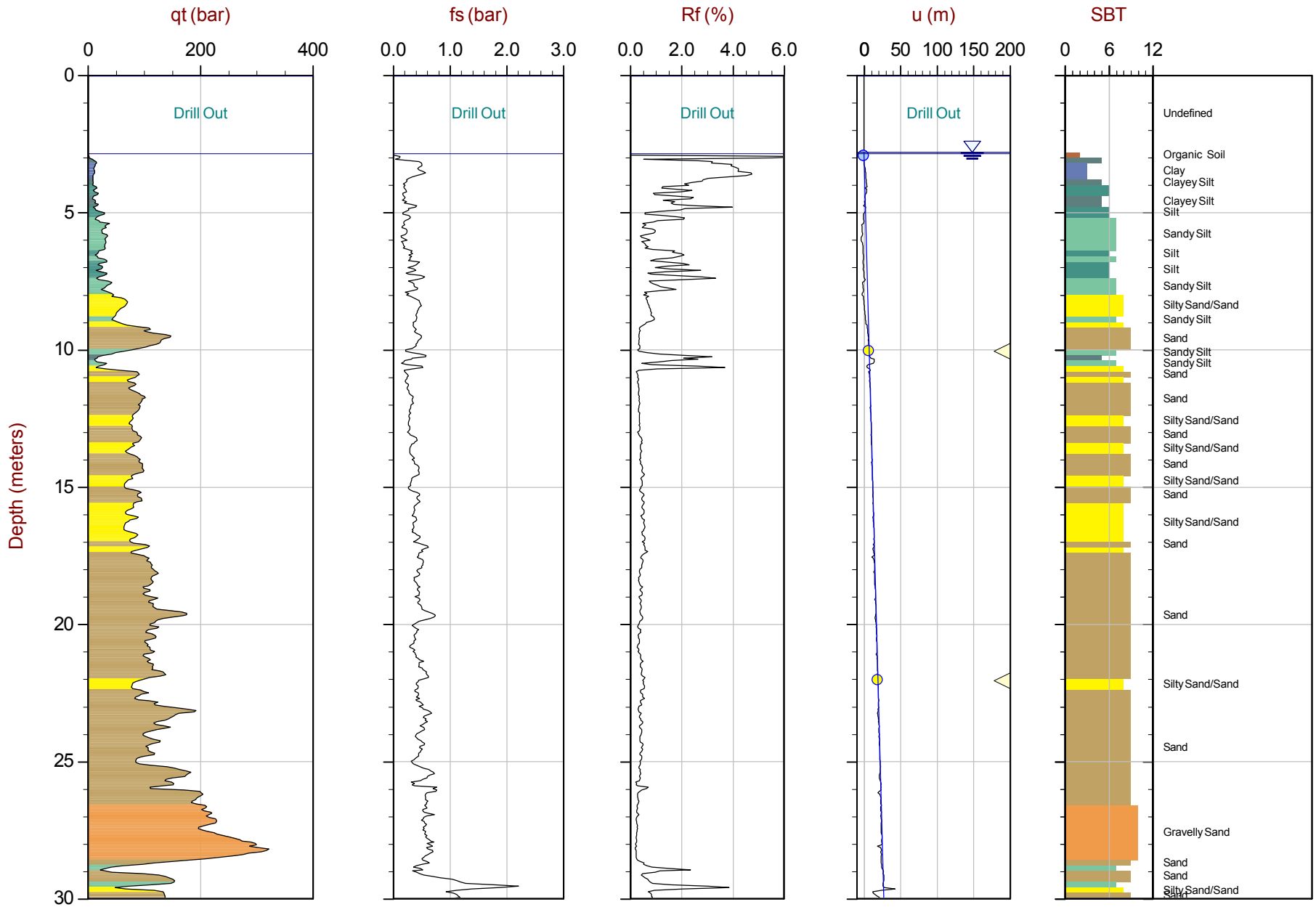
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:02:15 08:22
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: CPT15-15
Cone: 338:T1500F15U500



Max Depth: 55.000 m / 180.44 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_CP15.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445767m E: 503680m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

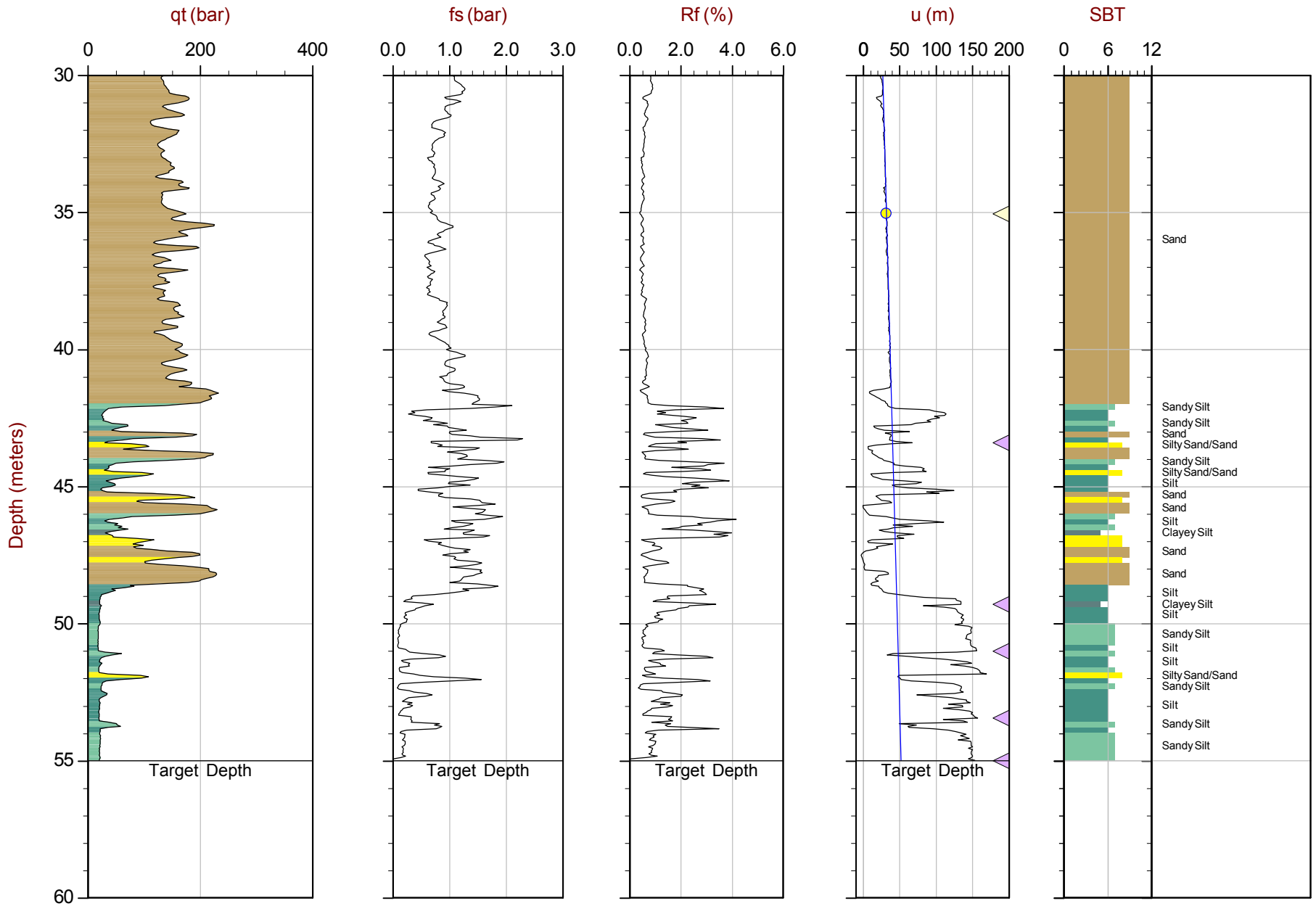
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:02:15 08:22
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: CPT15-15
Cone: 338:T1500F15U500



Max Depth: 55.000 m / 180.44 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_CP15.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445767 m E: 503680 m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

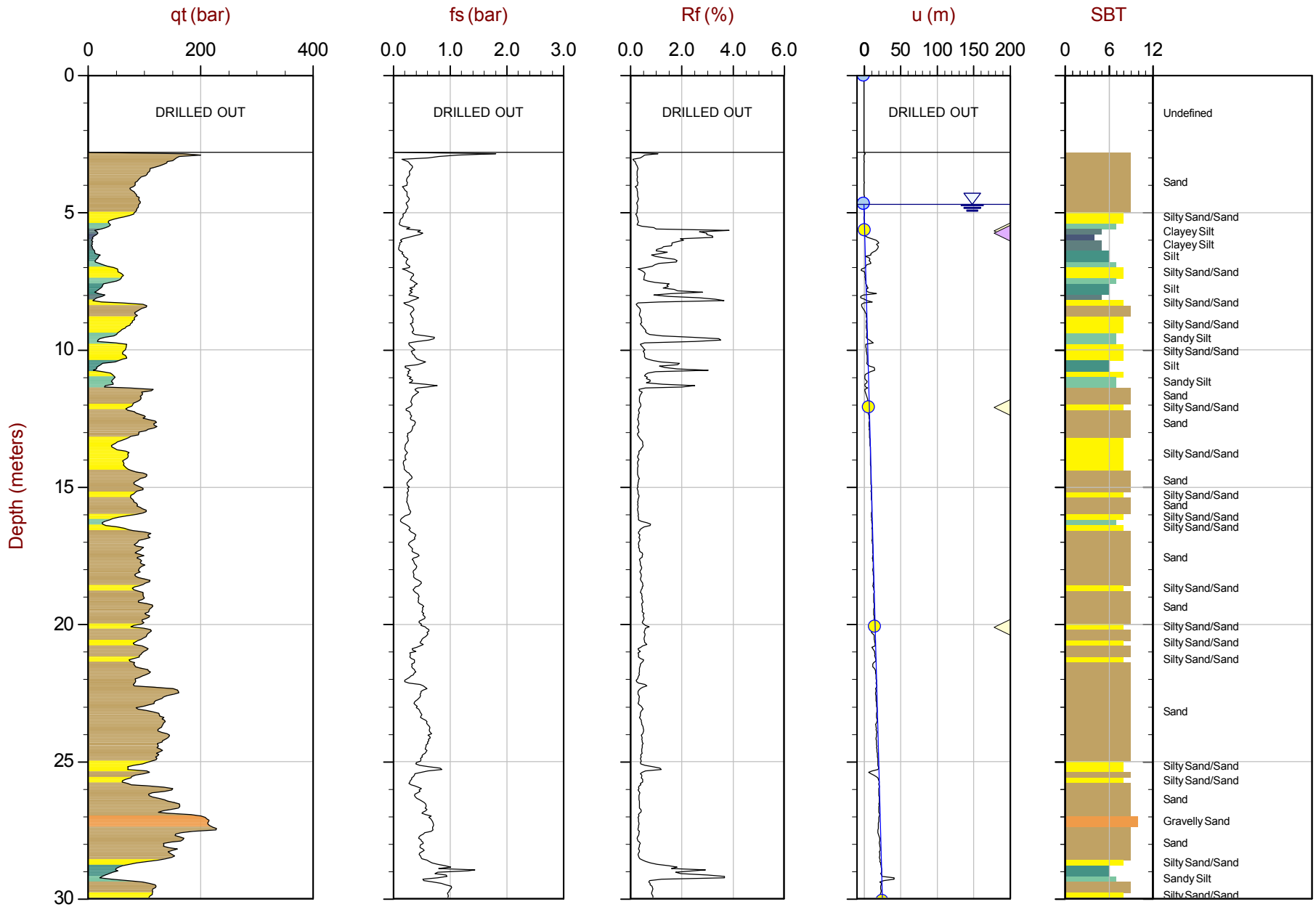
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:22:16 11:39
Site: Annacis WWTP

Sounding: SCPT16-01
Cone: 457:T1500F15U500



Max Depth: 78.000 m / 255.90 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445633m E: 503521m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

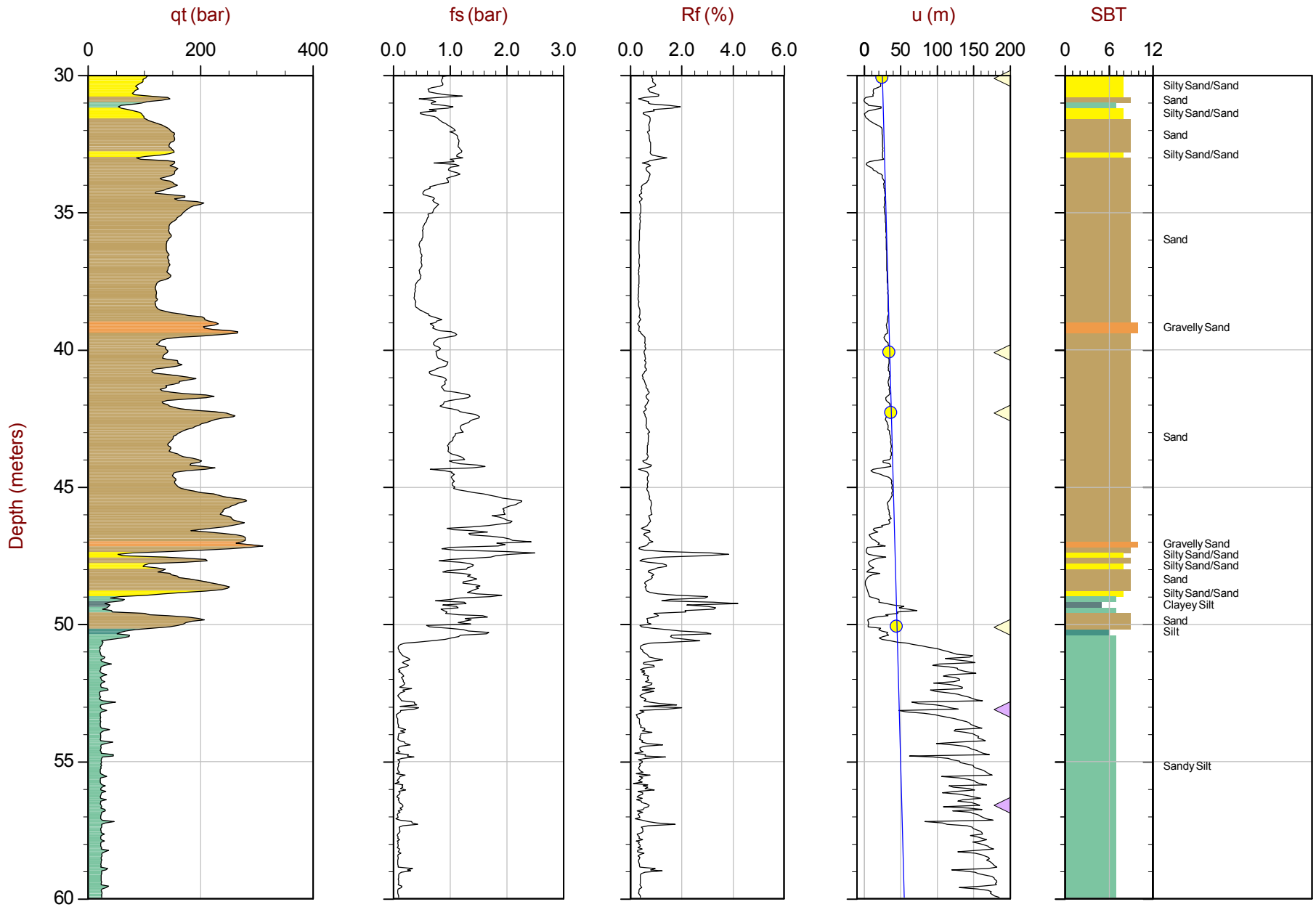
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:22:16 11:39
Site: Annacis WWTP

Sounding: SCPT16-01
Cone: 457:T1500F15U500



Max Depth: 78.000 m / 255.90 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445633m E: 503521m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

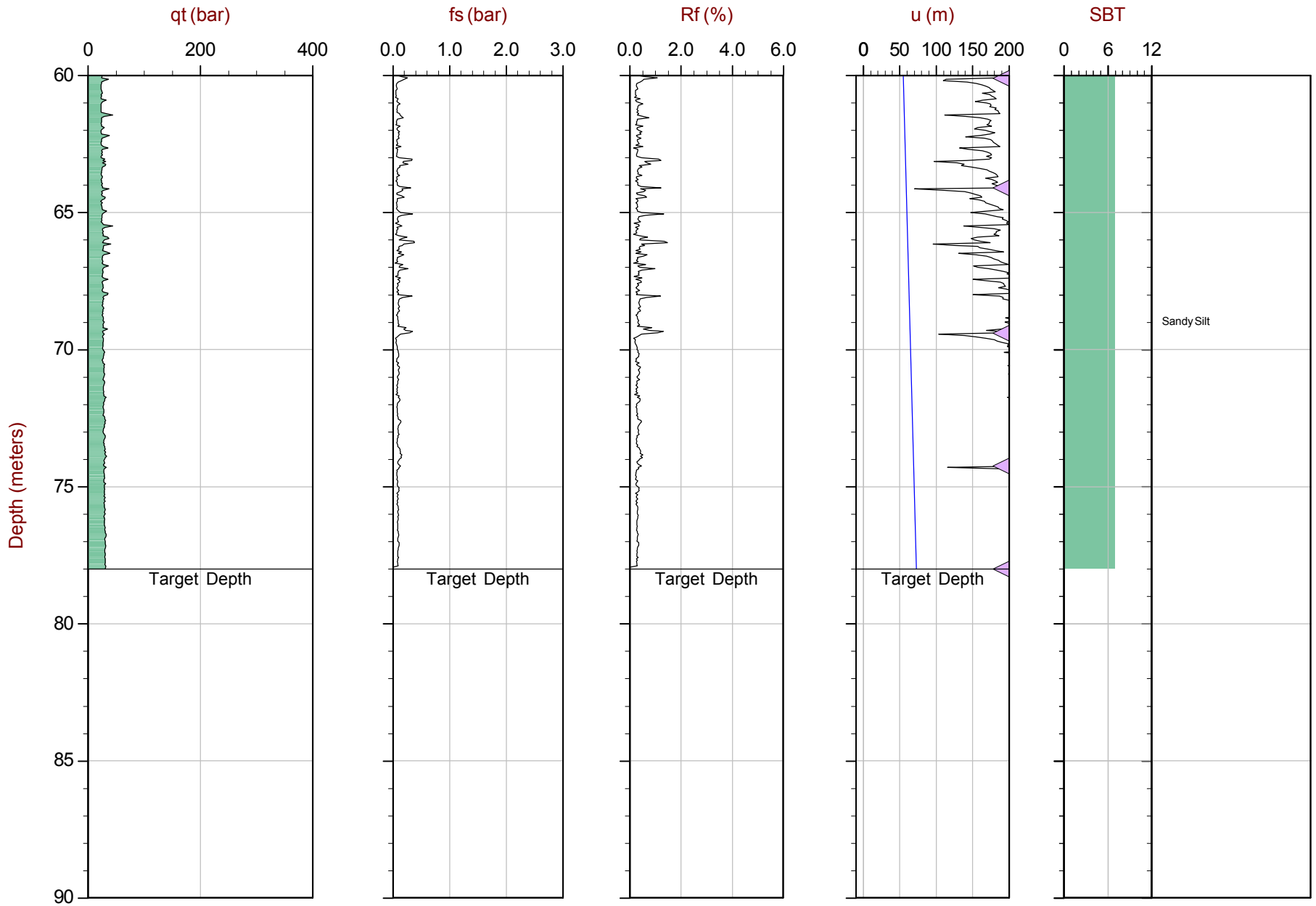
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:22:16 11:39
Site: Annacis WWTP

Sounding: SCPT16-01
Cone: 457:T1500F15U500



Max Depth: 78.000 m / 255.90 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445633m E: 503521m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

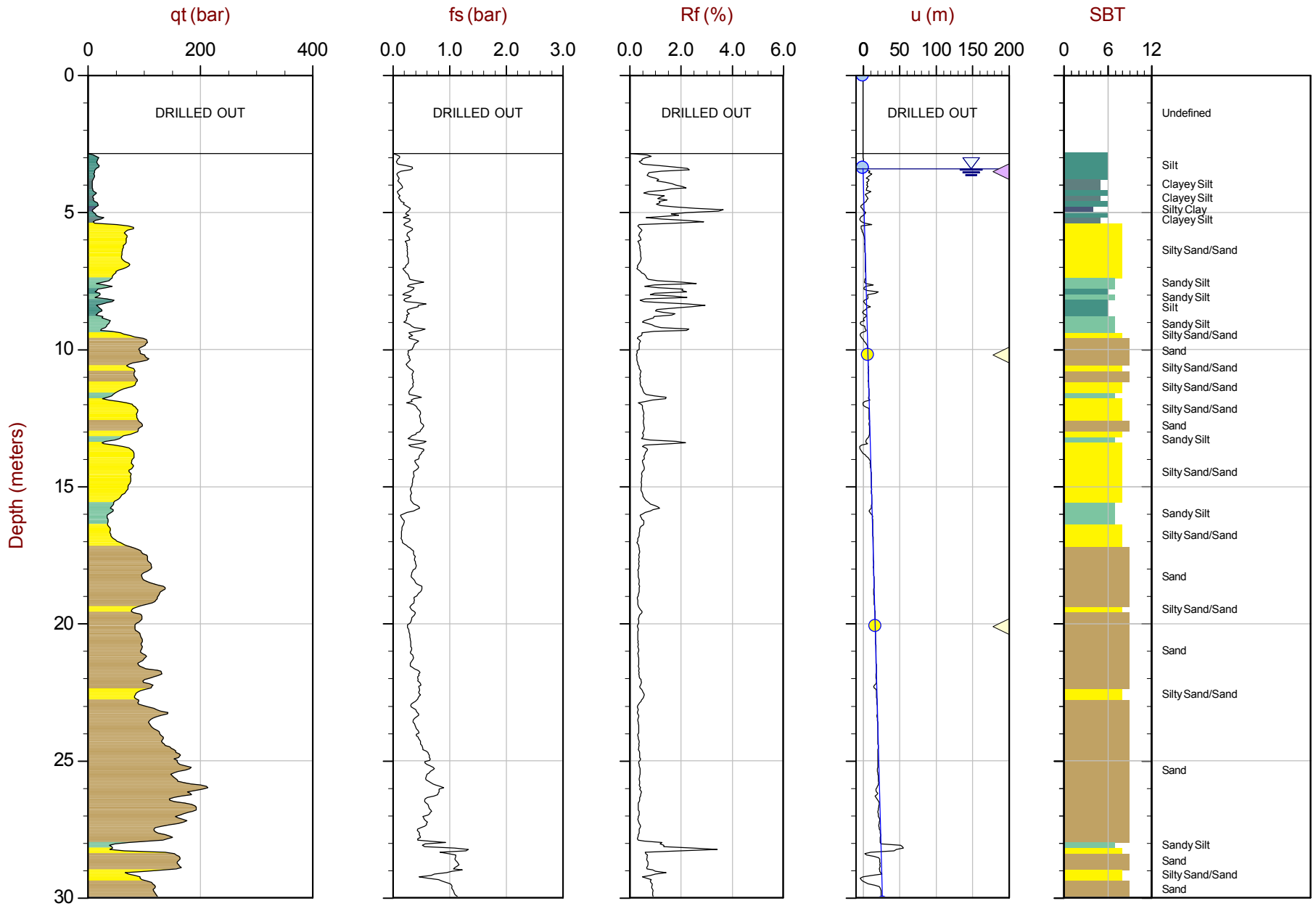
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:23:16 08:20
Site: Annacis WWTP

Sounding: SCPT16-02
Cone: 457:T1500F15U500



Max Depth: 60.000 m / 196.85 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445610m E: 503366m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

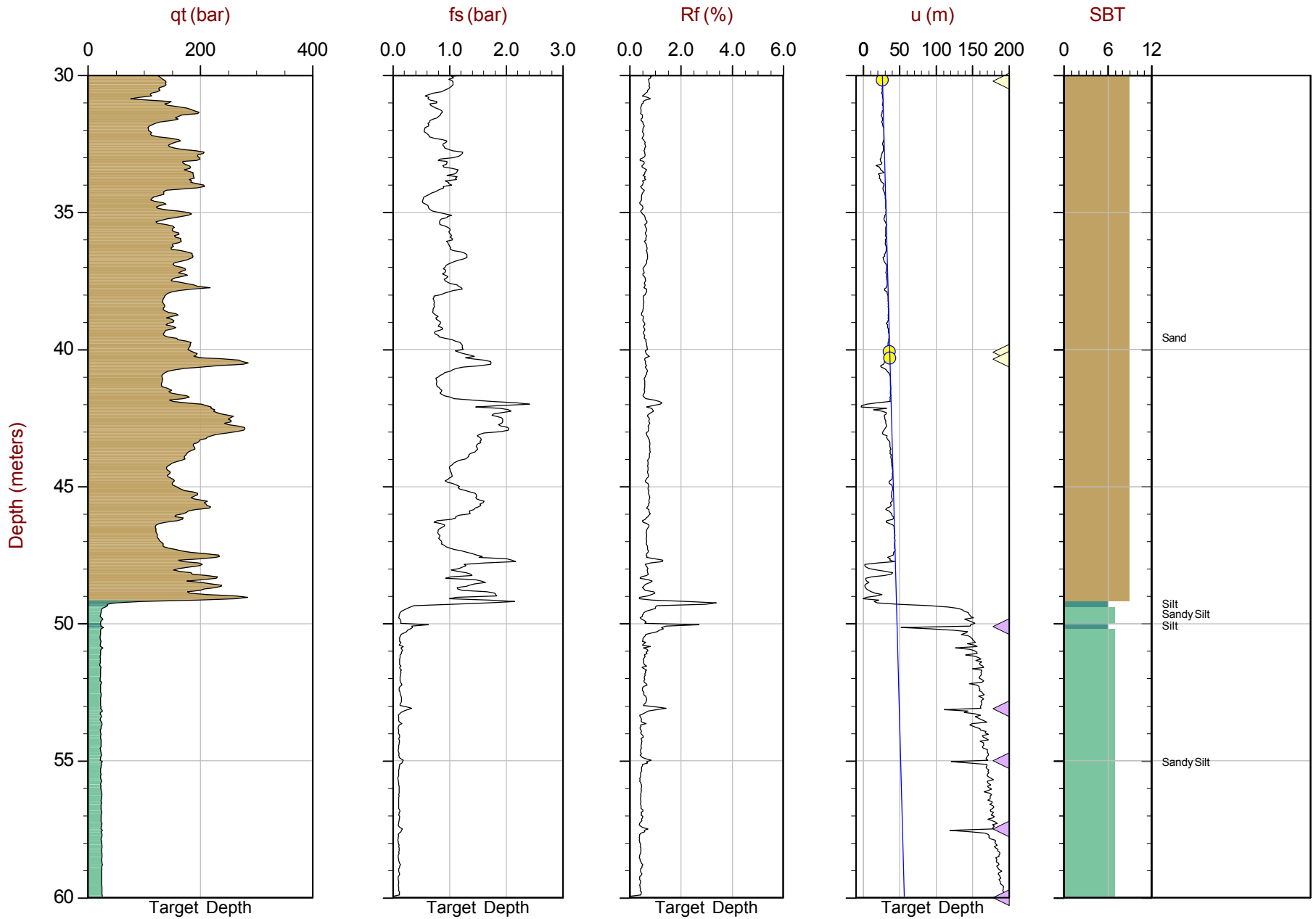
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:23:16 08:20
Site: Annacis WWTP

Sounding: SCPT16-02
Cone: 457:T1500F15U500



Max Depth: 60.000 m / 196.85 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445610m E: 503366m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

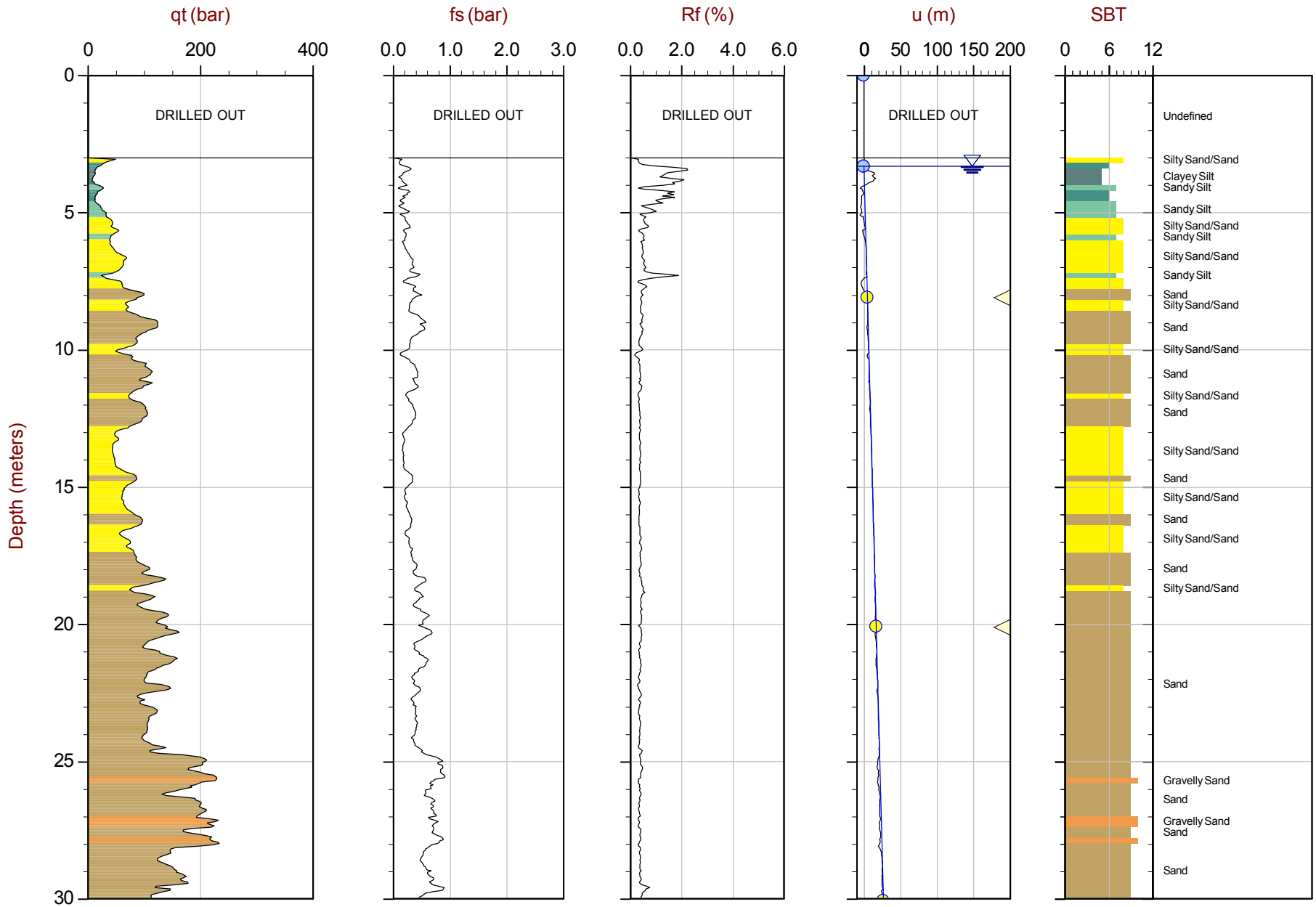
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:20:16 07:58
Site: Annacis WWTP

Sounding: SCPT16-03
Cone: 457:T1500F15U500



Max Depth: 63.000 m / 206.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445694m E: 503281m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

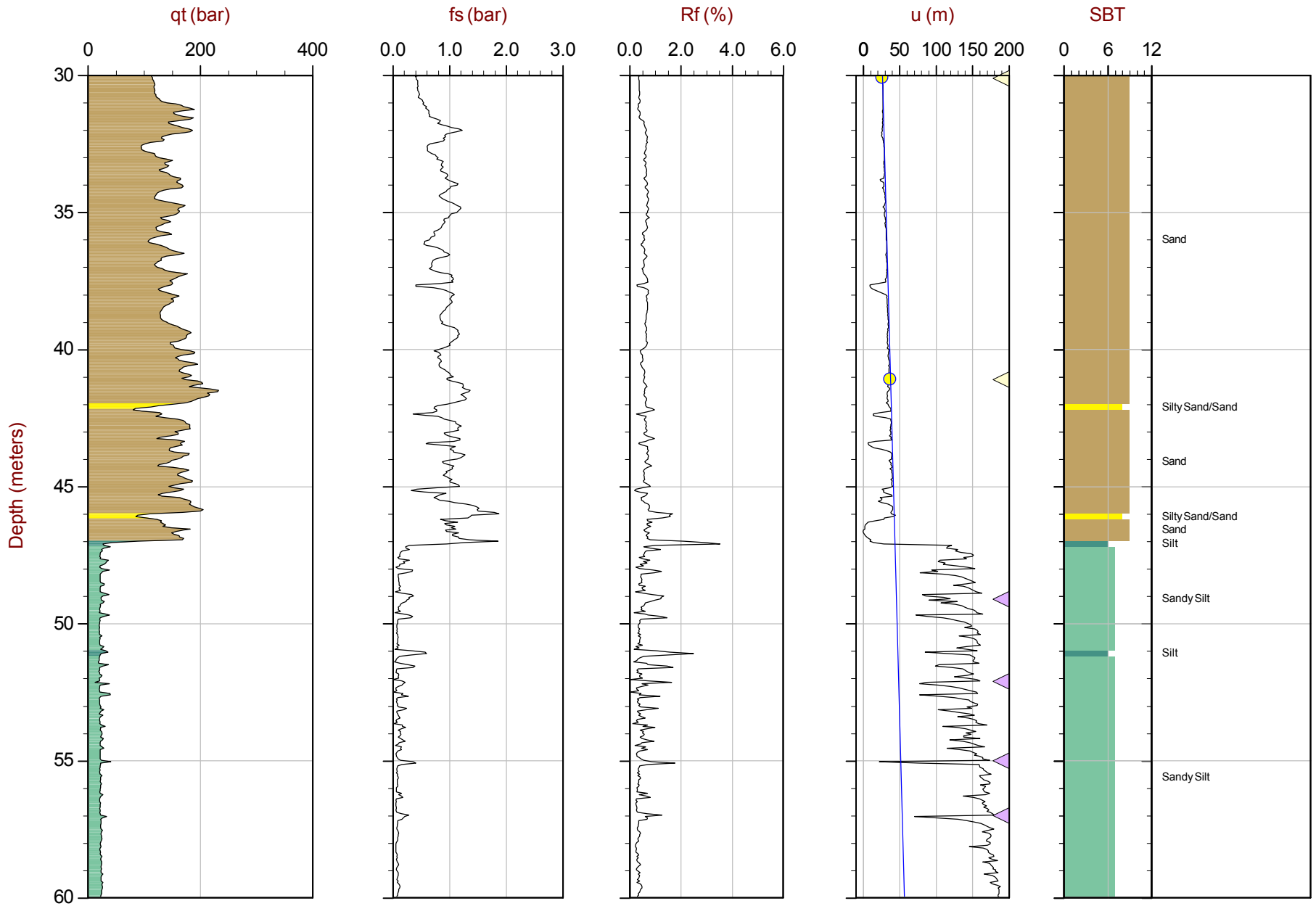
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:20:16 07:58
Site: Annacis WWTP

Sounding: SCPT16-03
Cone: 457:T1500F15U500



Max Depth: 63.000 m / 206.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445694m E: 503281m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

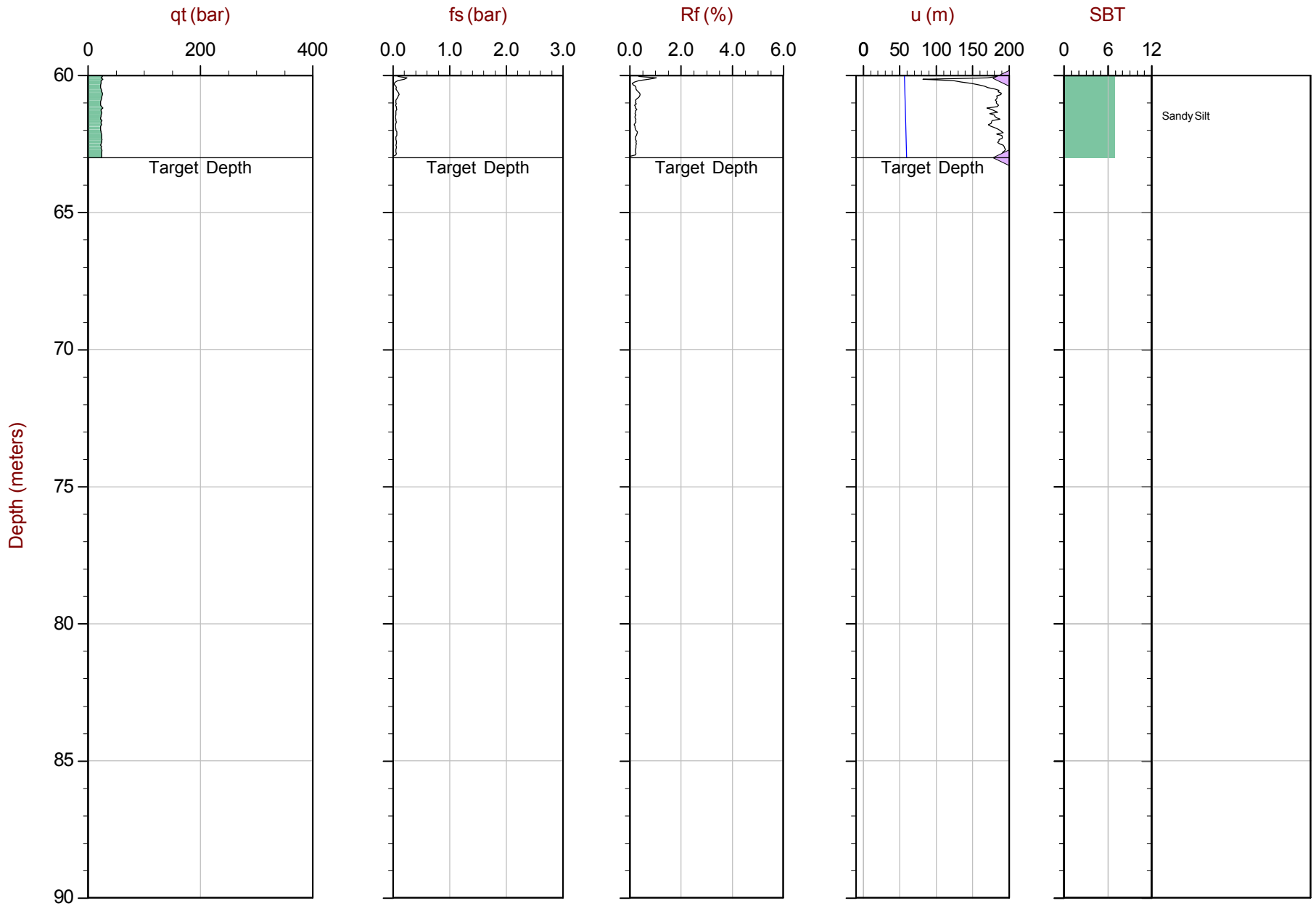
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:20:16 07:58
Site: Annacis WWTP

Sounding: SCPT16-03
Cone: 457:T1500F15U500



Max Depth: 63.000 m / 206.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445694m E: 503281m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

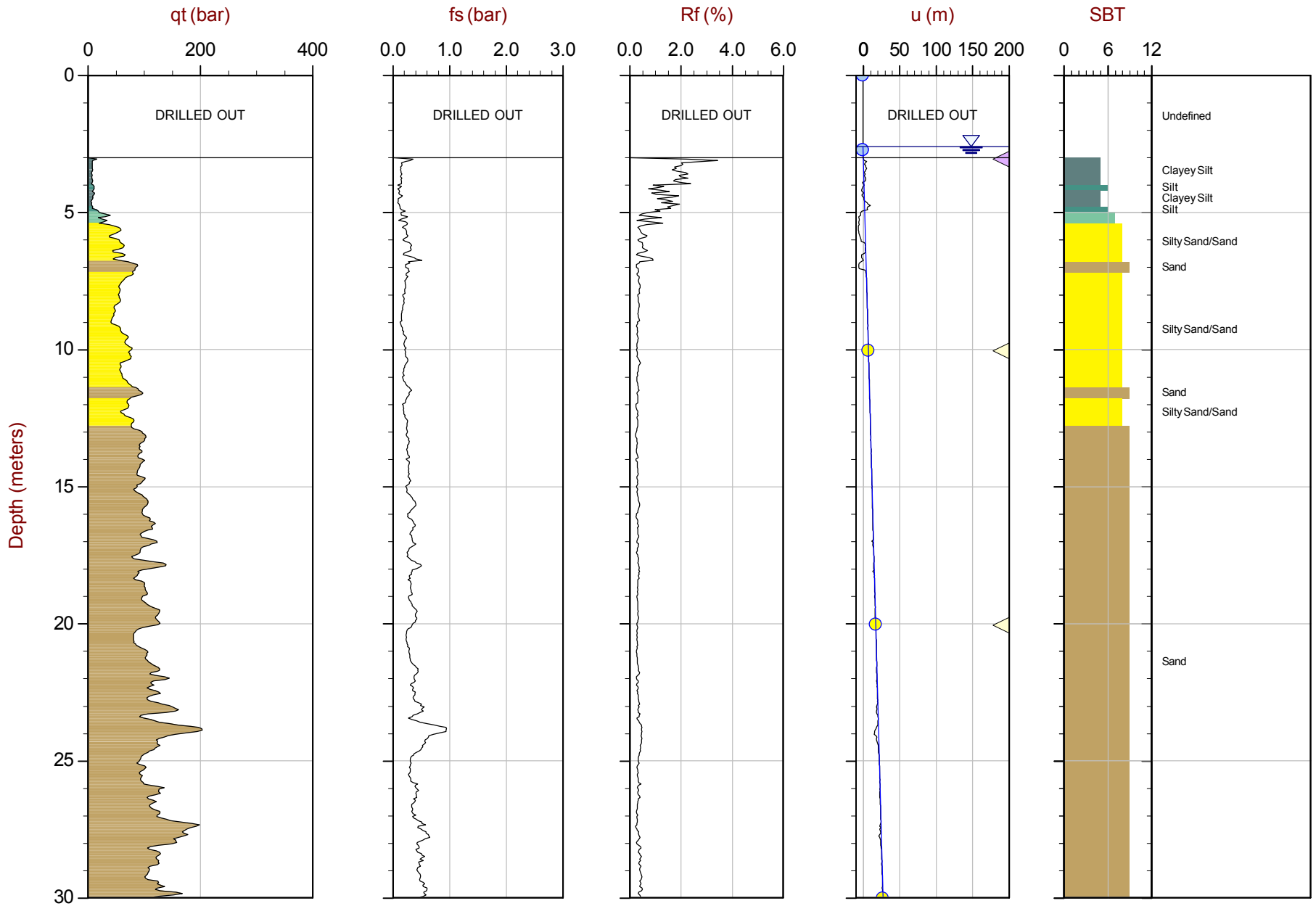
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:21:16 08:28
Site: Annacis WWTP

Sounding: SCPT16-04
Cone: 338:T1500F15U500



Max Depth: 70.350 m / 230.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445893m E: 503148m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

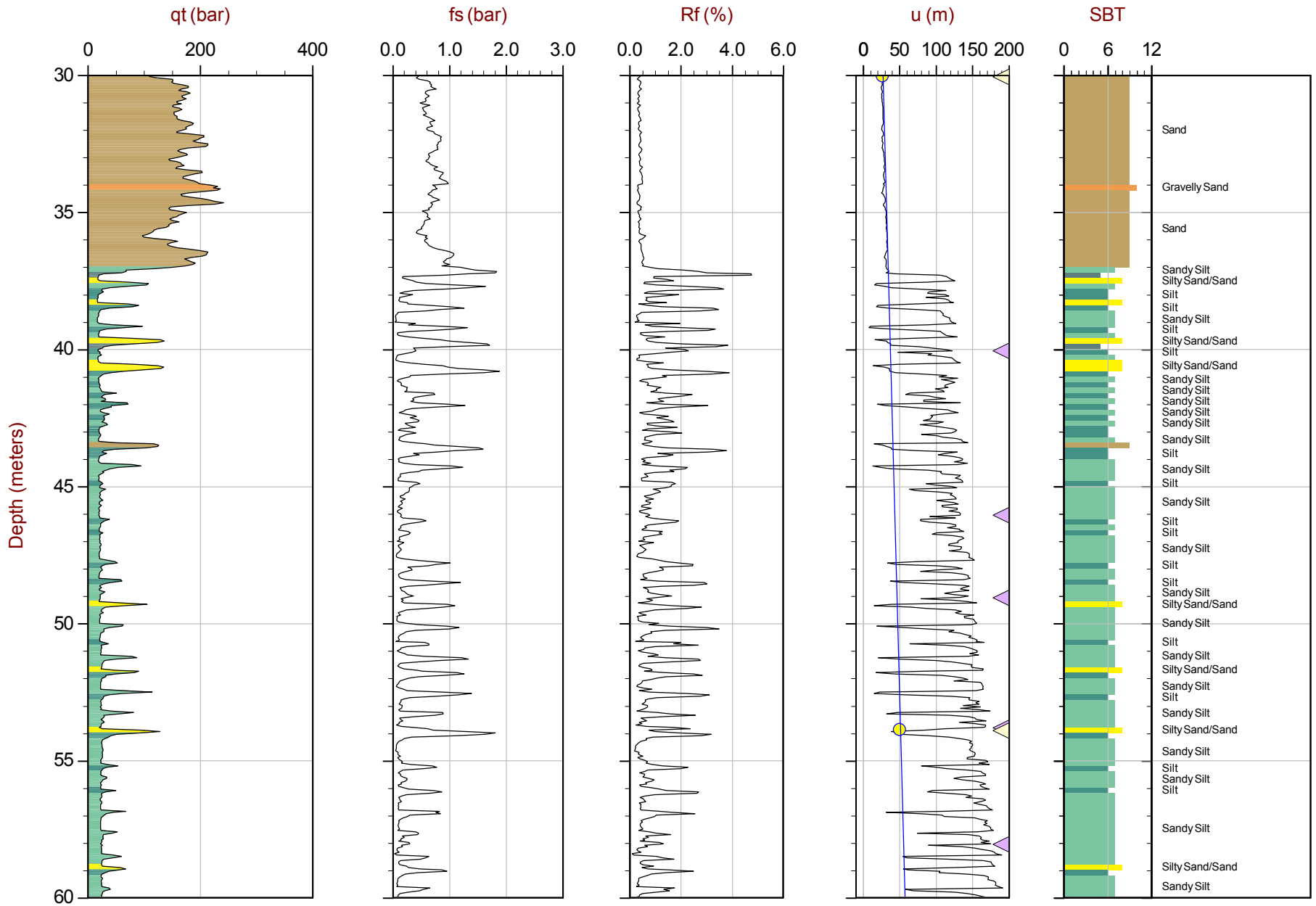
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:21:16 08:28
Site: Annacis WWTP

Sounding: SCPT16-04
Cone: 338:T1500F15U500



Max Depth: 70.350 m / 230.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445893m E: 503148m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

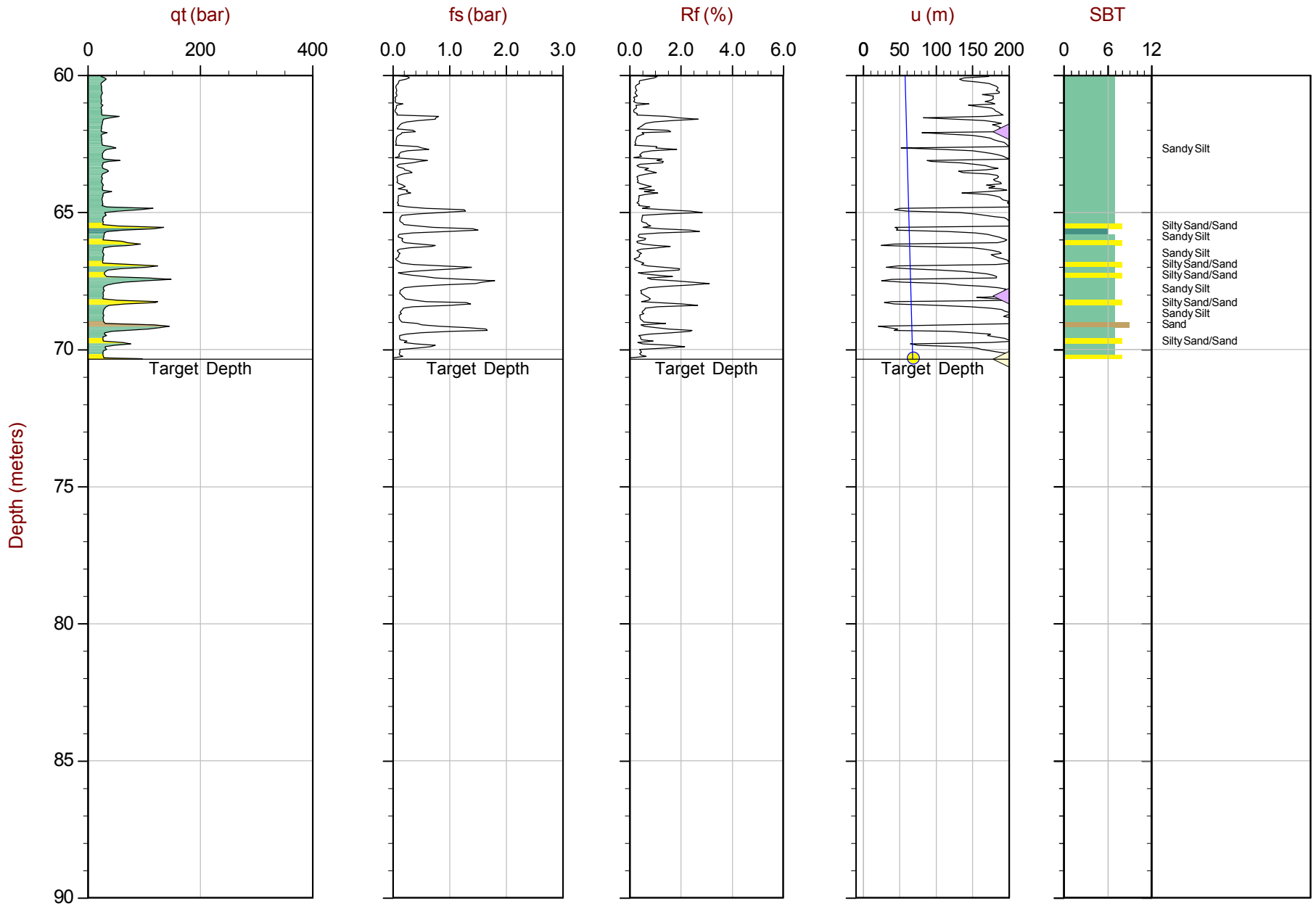
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:21:16 08:28
Site: Annacis WWTP

Sounding: SCPT16-04
Cone: 338:T1500F15U500



Max Depth: 70.350 m / 230.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445893m E: 503148m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

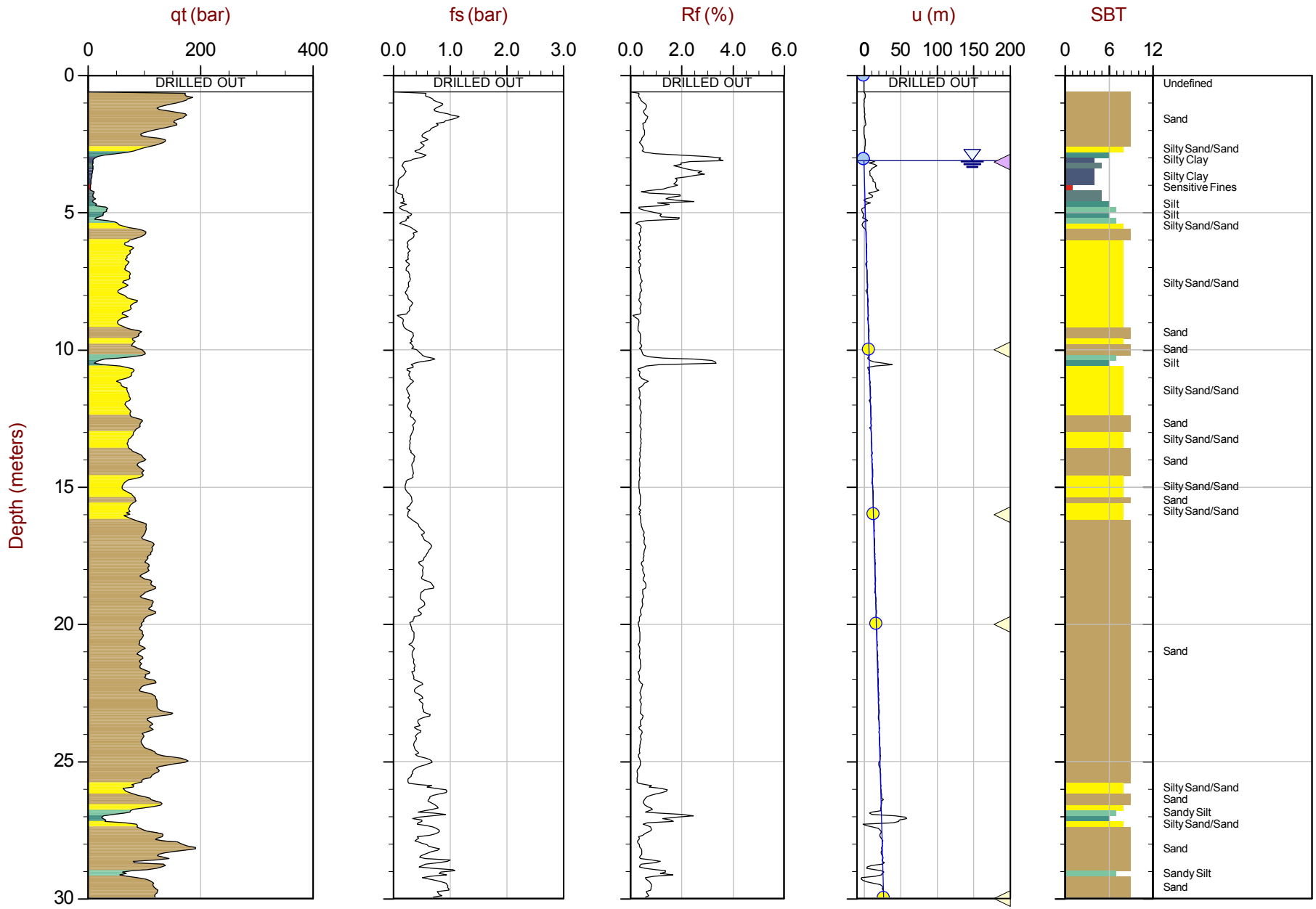
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:24:16 08:10
Site: Annacis WWTP

Sounding: SCPT16-05
Cone: 457:T1500F15U500



Max Depth: 63.950 m / 209.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP05.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445544m E: 503393m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

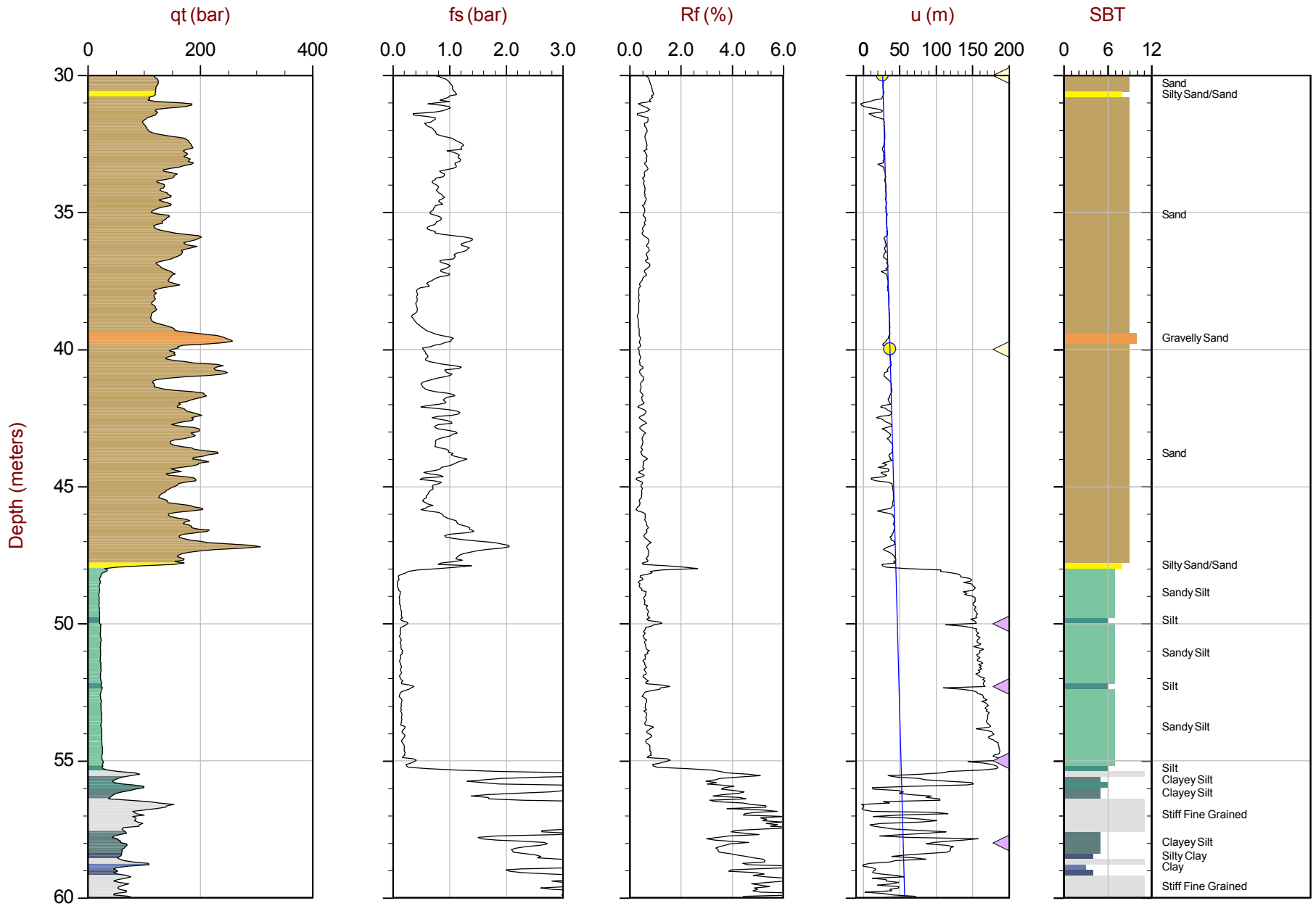
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:24:16 08:10
Site: Annacis WWTP

Sounding: SCPT16-05
Cone: 457:T1500F15U500



Max Depth: 63.950 m / 209.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP05.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445544m E: 503393m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

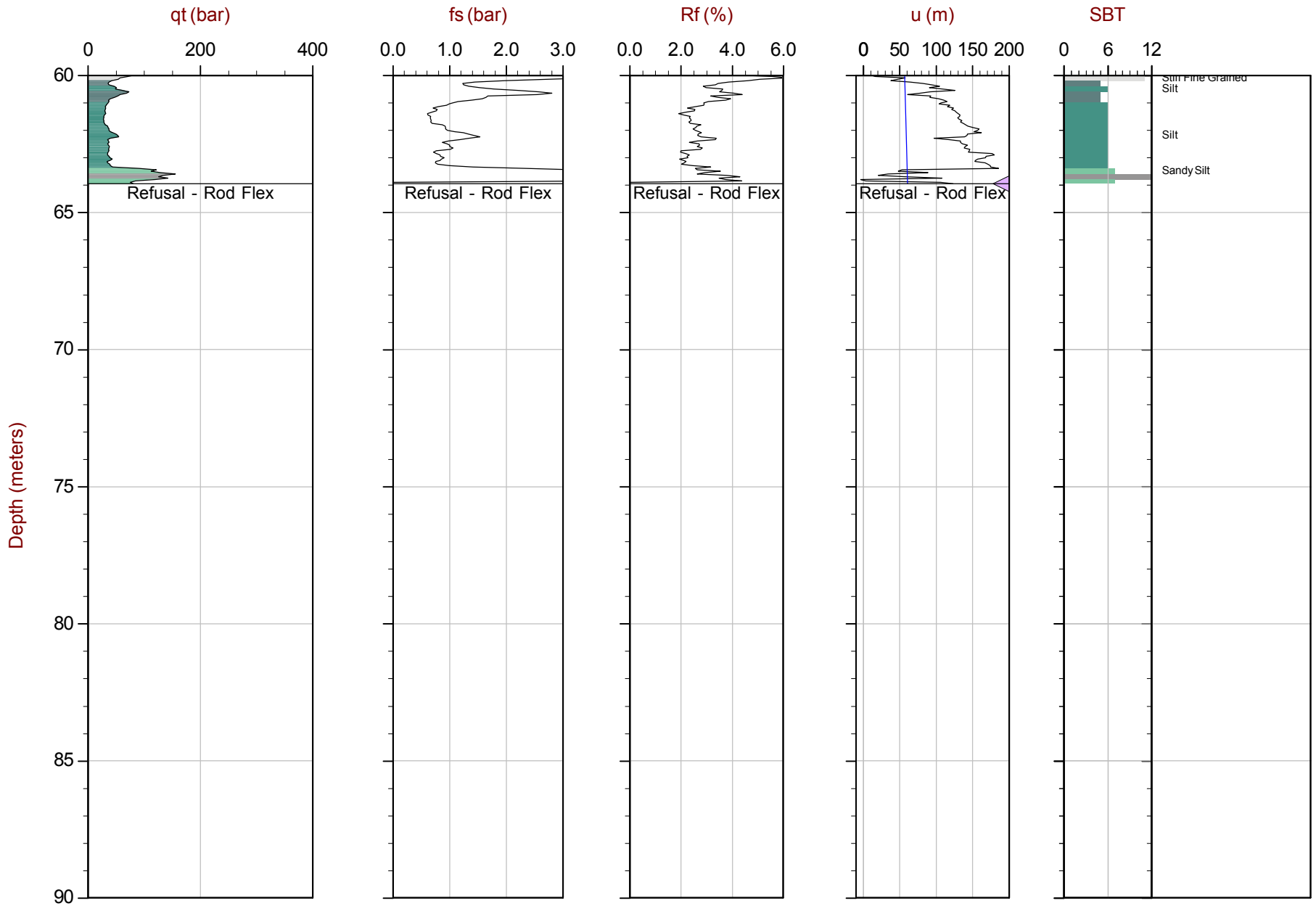
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:24:16 08:10
Site: Annacis WWTP

Sounding: SCPT16-05
Cone: 457:T1500F15U500



Max Depth: 63.950 m / 209.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP05.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445544m E: 503393m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

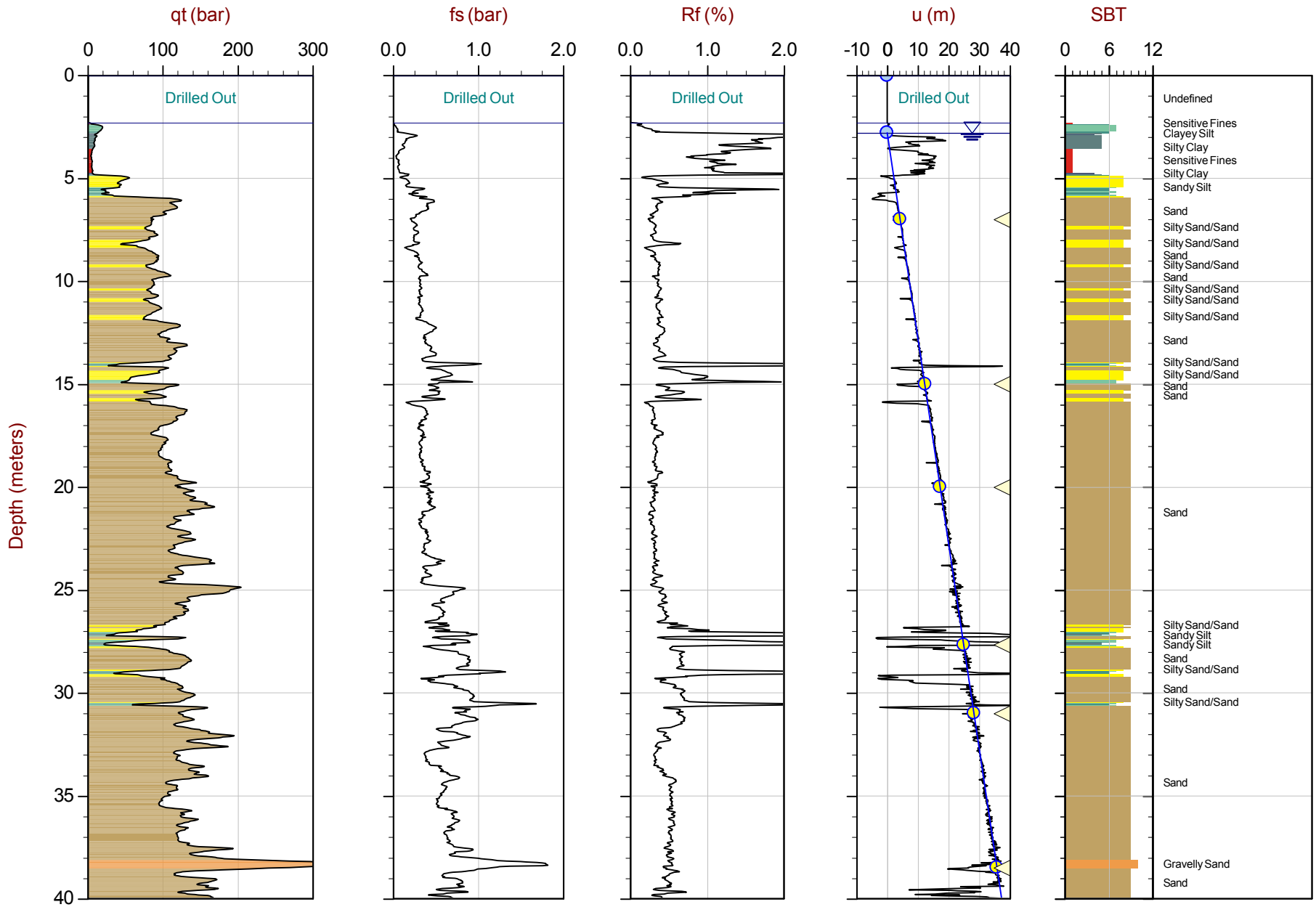
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 15:06
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-06
Cone: 474:T1500F15U500



Max Depth: 62.650 m / 205.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445534m E: 503467m
Sheet No: 1 of 2

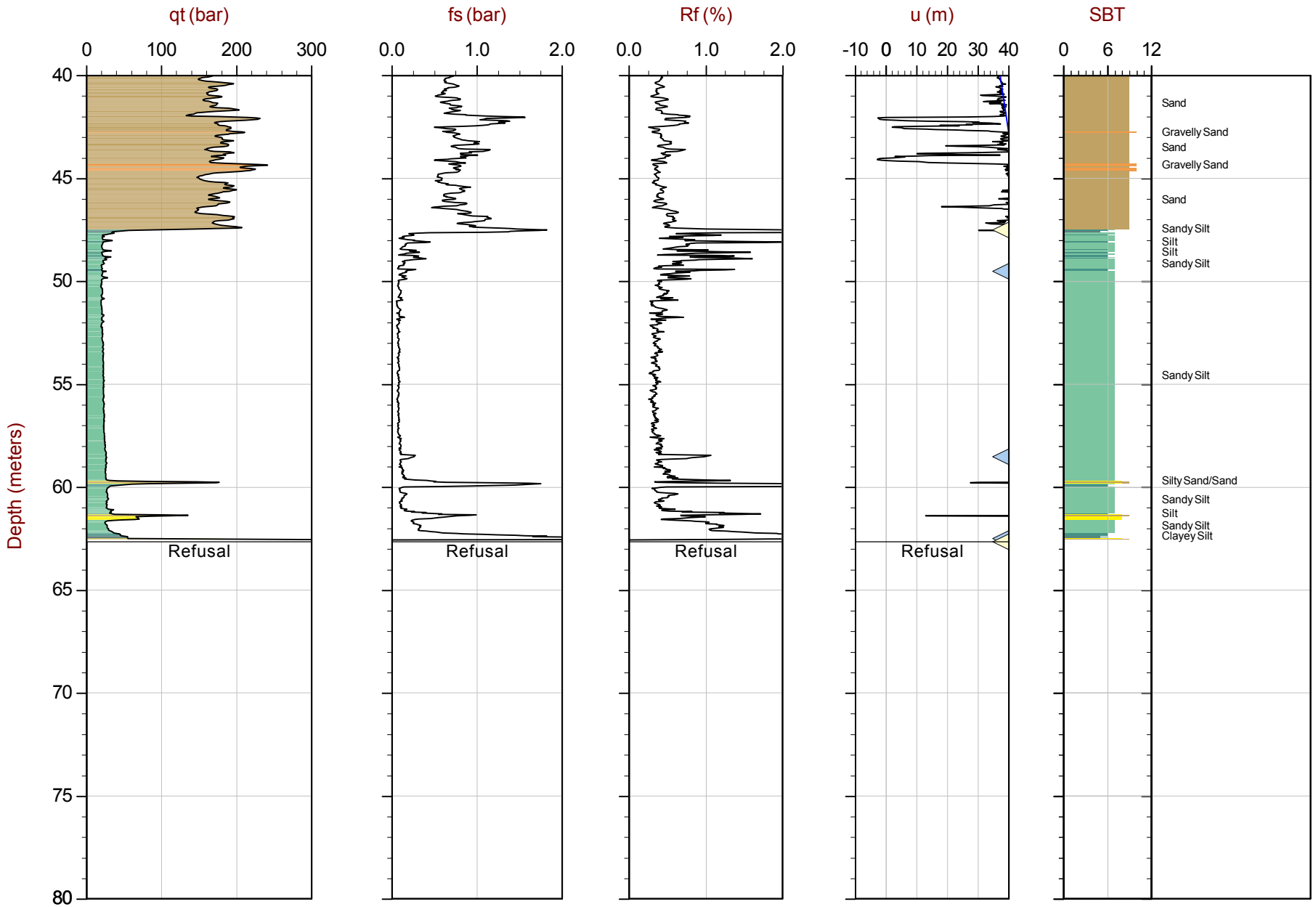
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 15:06
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-06
Cone: 474:T1500F15U500



Max Depth: 62.650 m / 205.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445534m E: 503467m
Sheet No: 2 of 2

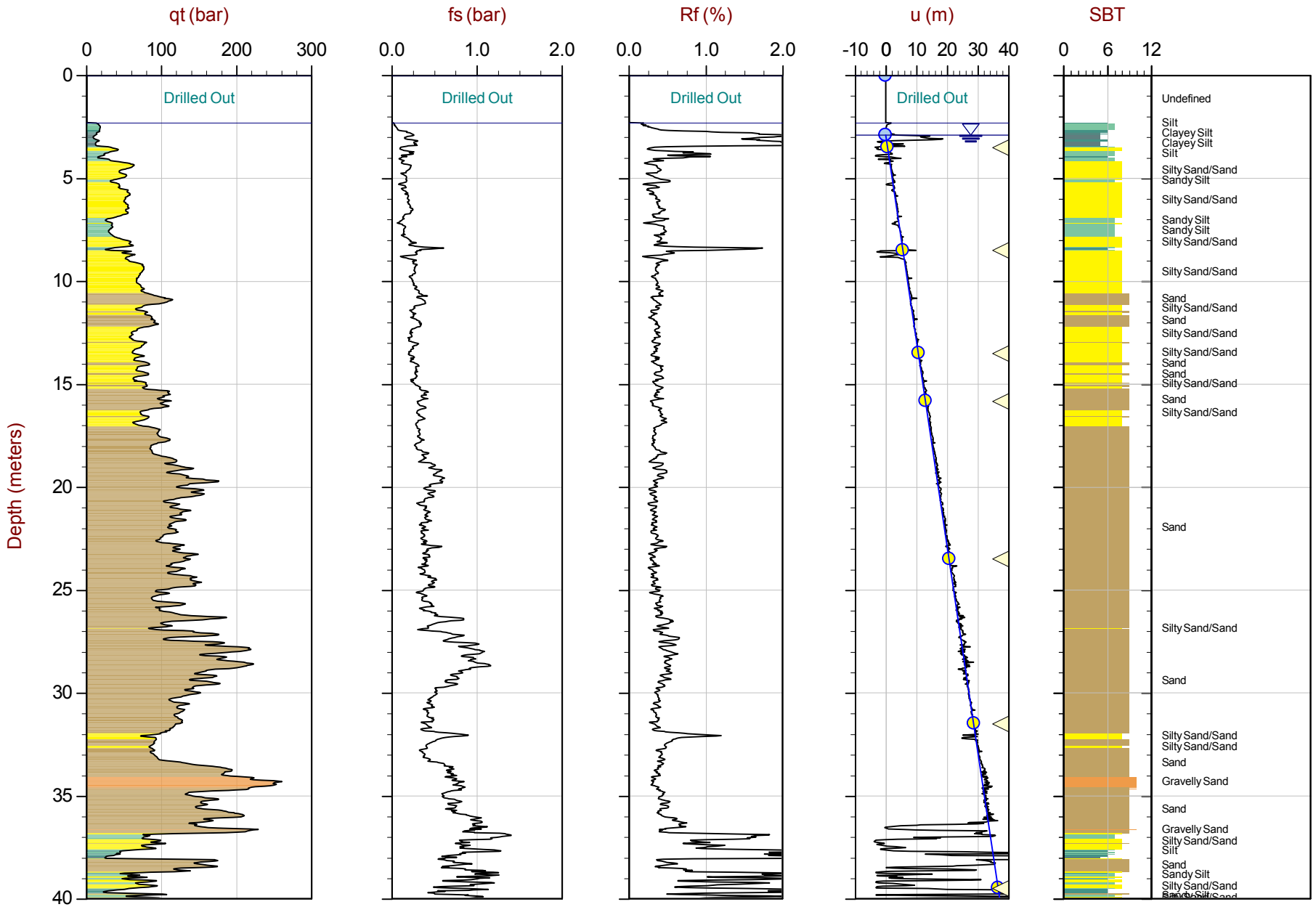
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/25 13:38
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-07
Cone: 474:T1500F15U500



Max Depth: 66.450 m / 218.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP07.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445457m E: 503535m
Sheet No: 1 of 2

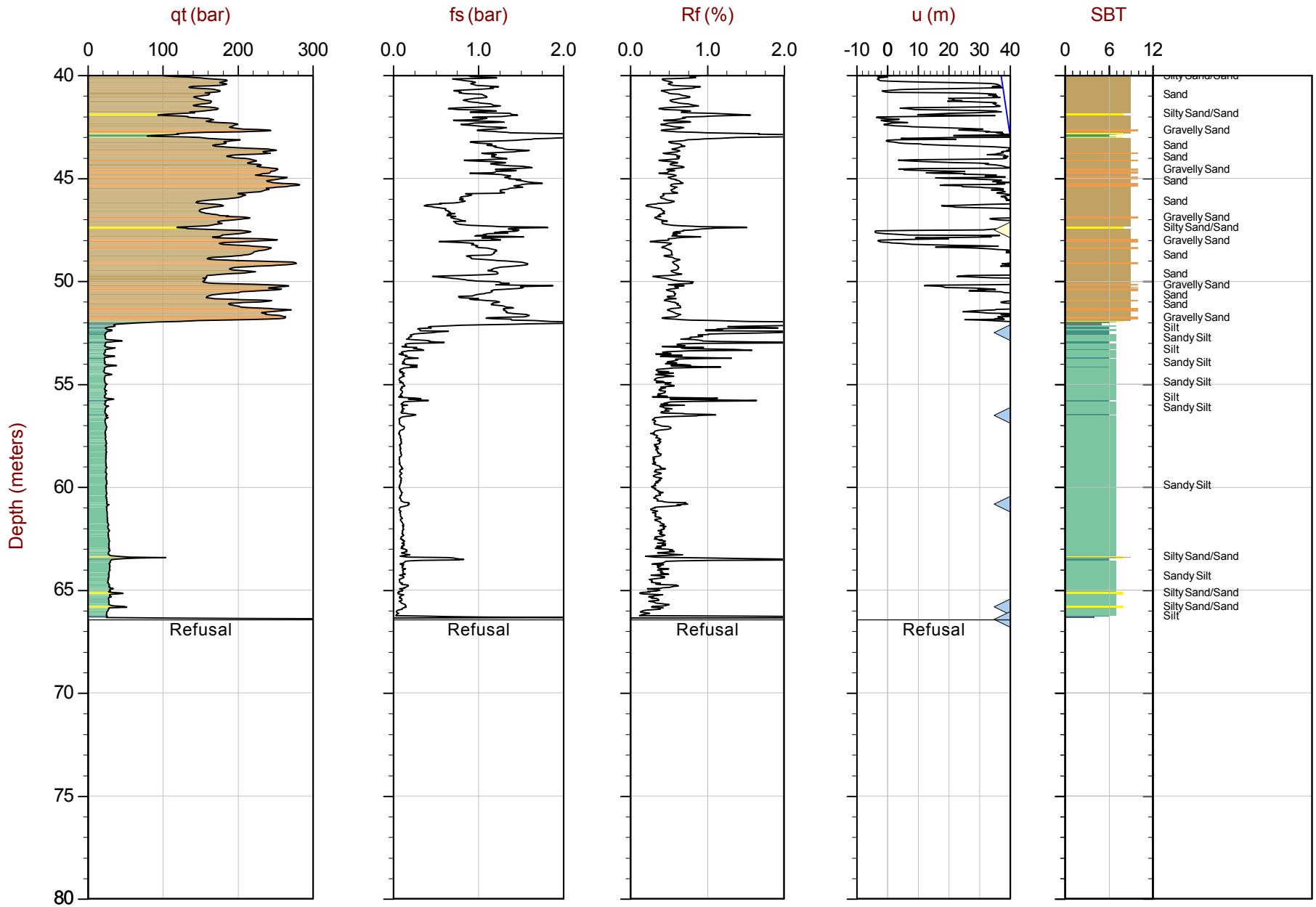
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/25 13:38
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-07
Cone: 474:T1500F15U500



Max Depth: 66.450 m / 218.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP07.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445457m E: 503535m
Sheet No: 2 of 2

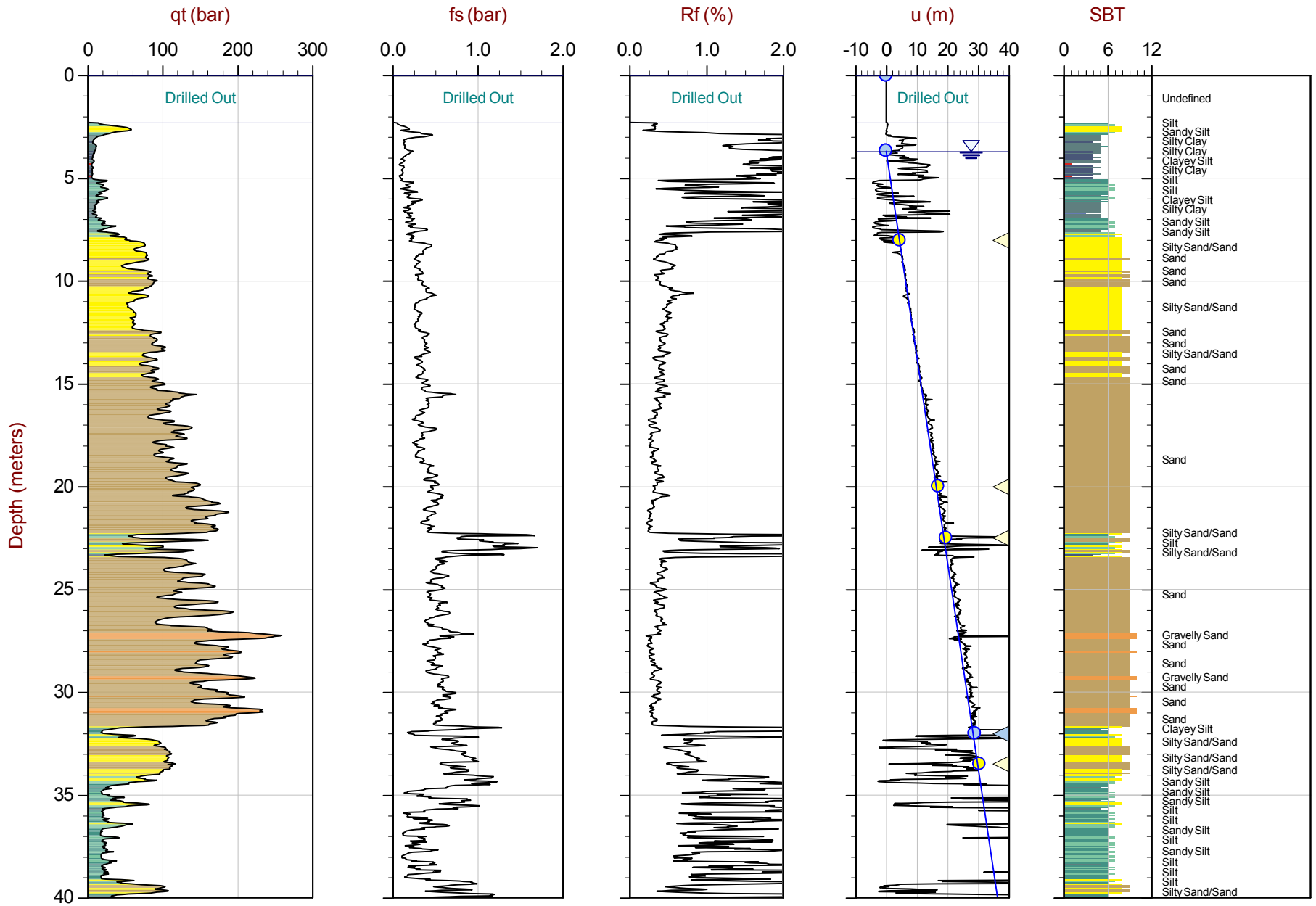
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/23 07:59
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-08
Cone: 474:T1500F15U500



Max Depth: 76.525 m / 251.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP08.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445368m E: 503591m
Sheet No: 1 of 2

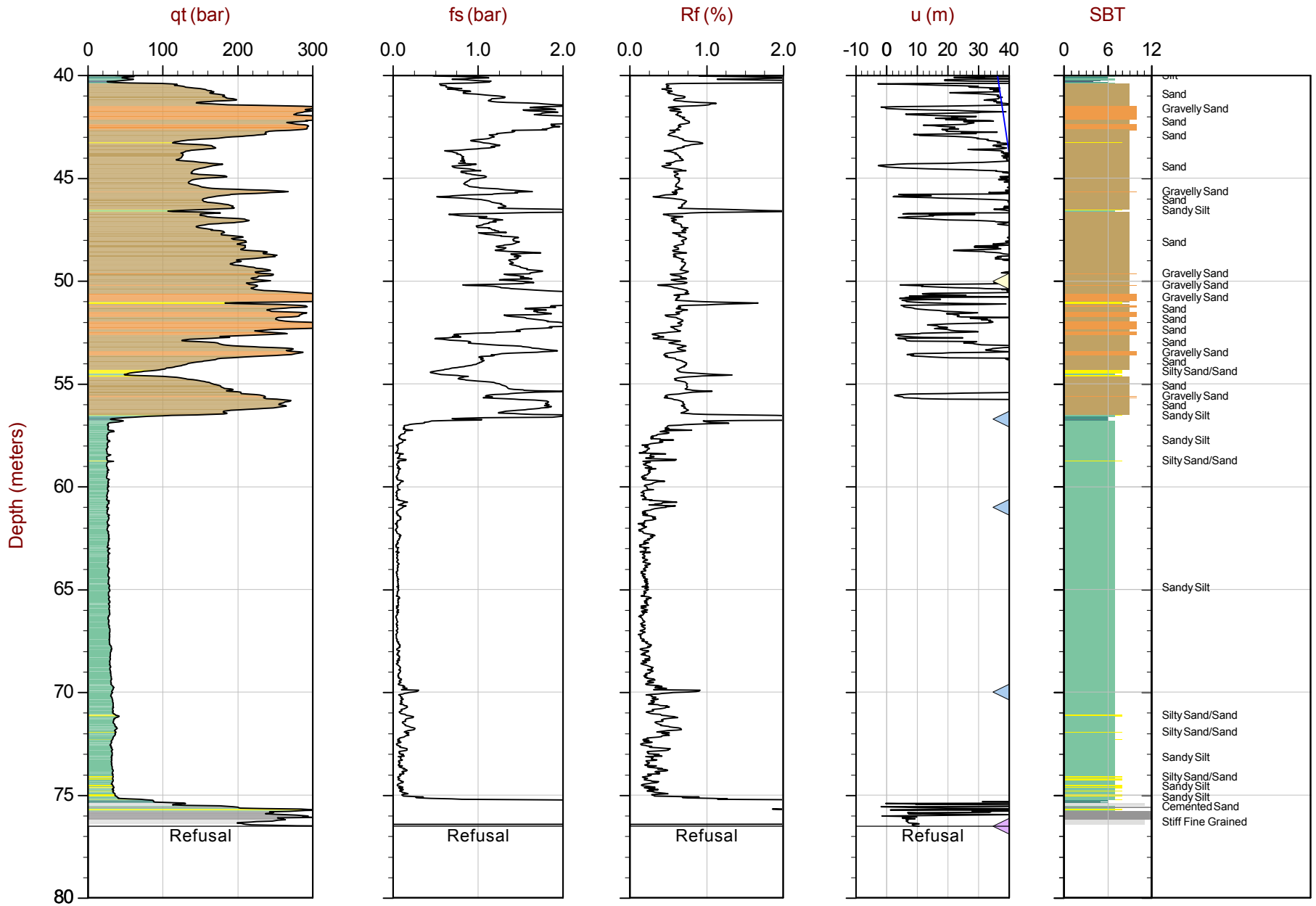
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/23 07:59
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-08
Cone: 474:T1500F15U500



Max Depth: 76.525 m / 251.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP08.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445368m E: 503591m
Sheet No: 2 of 2

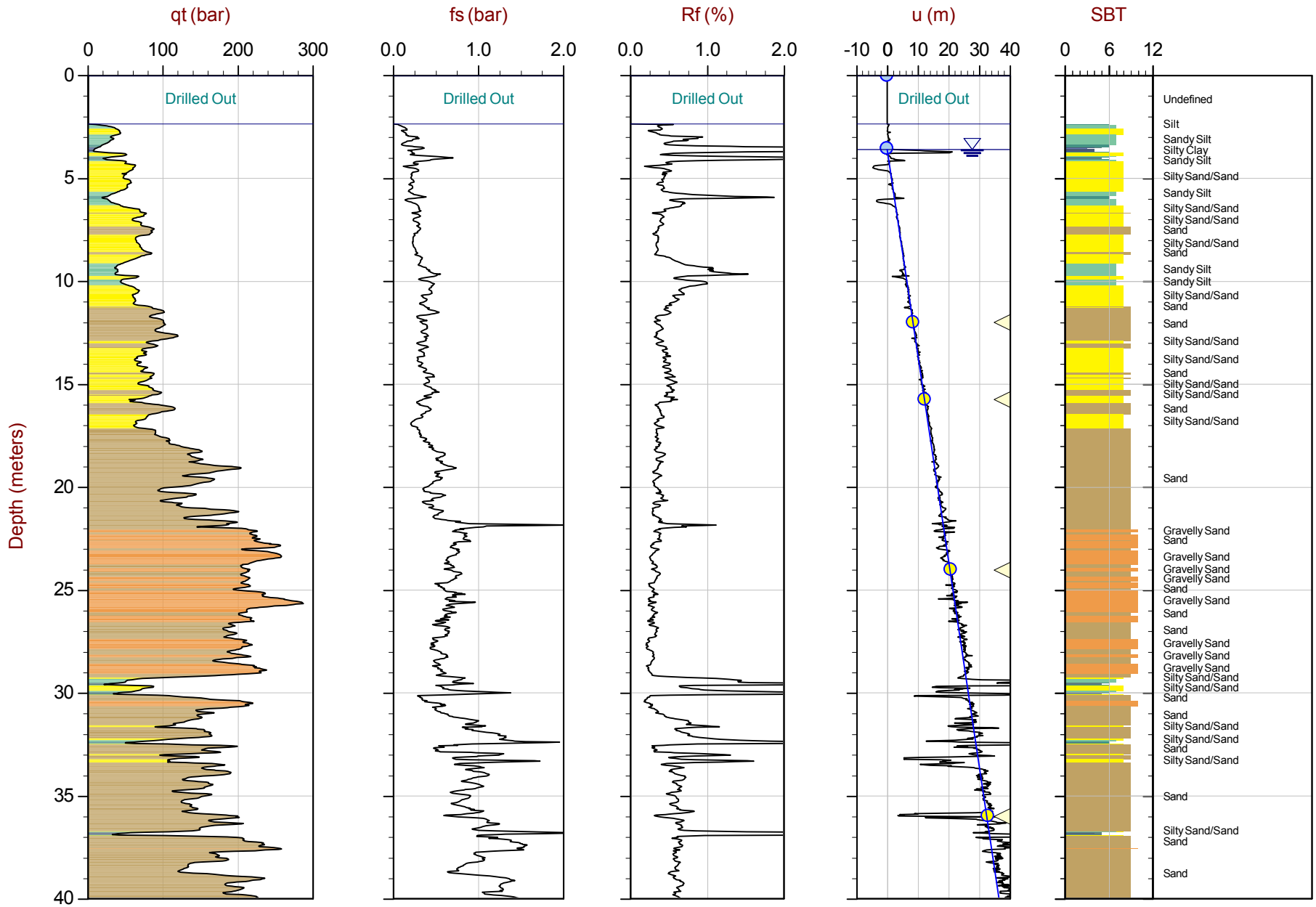
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 07:28
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-09
Cone: 474:T1500F15U500



Max Depth: 73.675 m / 241.71 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP09.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445234m E: 503698m
Sheet No: 1 of 2

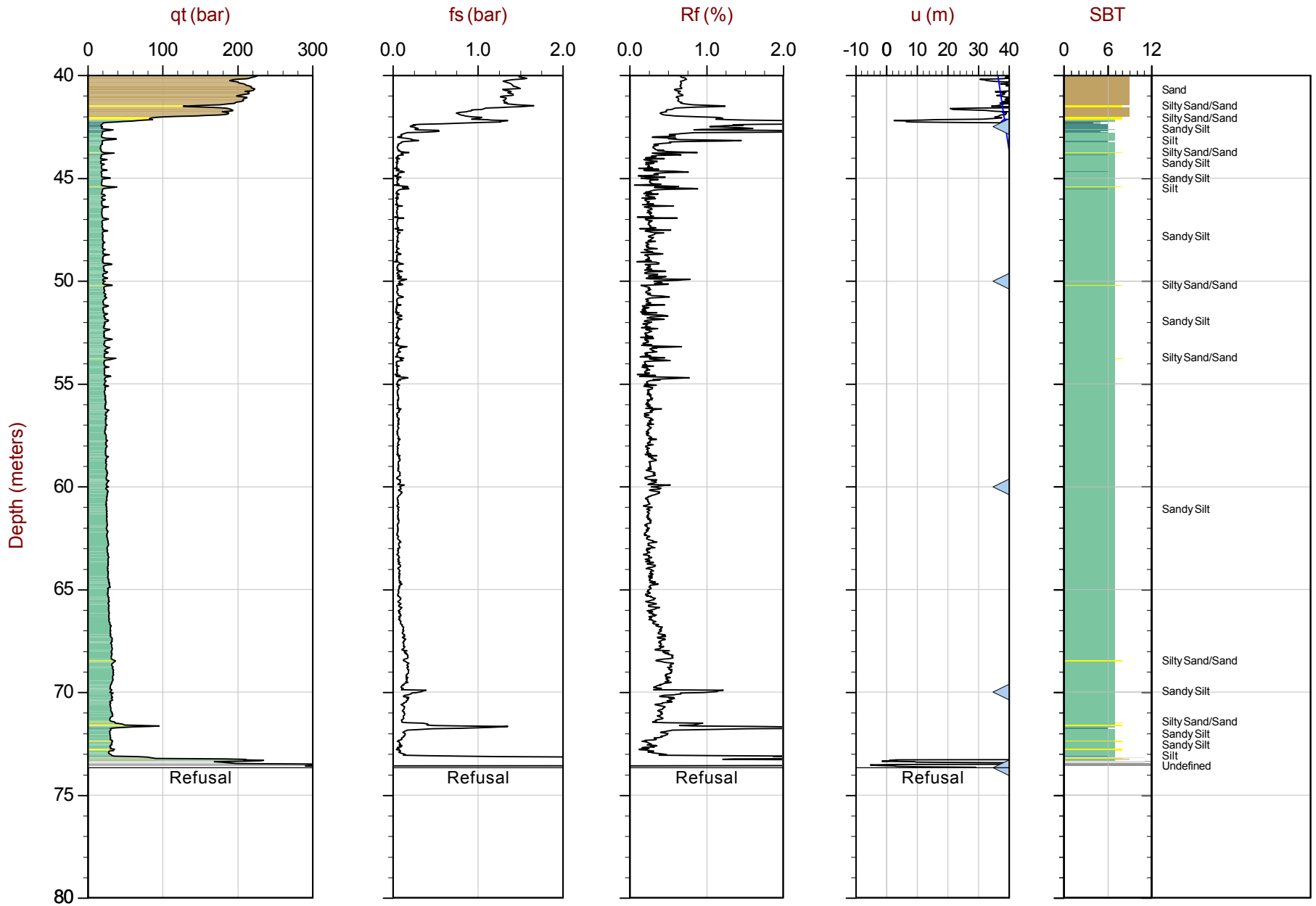
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 07:28
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-09
Cone: 474:T1500F15U500



Max Depth: 73.675 m / 241.71 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP09.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445234m E: 503698m
Sheet No: 2 of 2

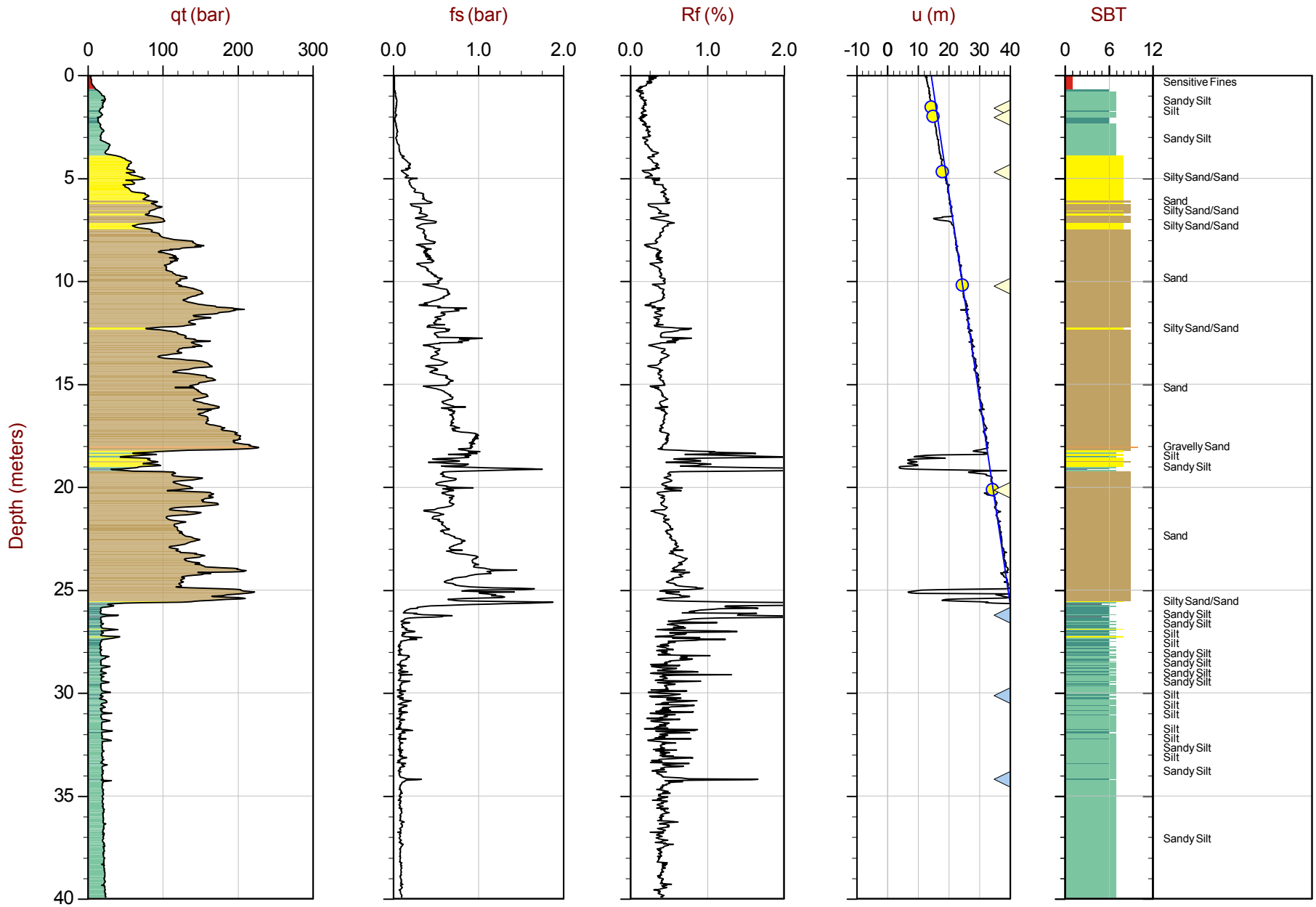
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/12/15 11:11
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-10
Cone: 477:T1500F15U1K



Max Depth: 51.725 m / 169.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP10.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM10N N: 5445097.745m E: 503815.306m Elev: -12.75m
Sheet No: 1 of 2

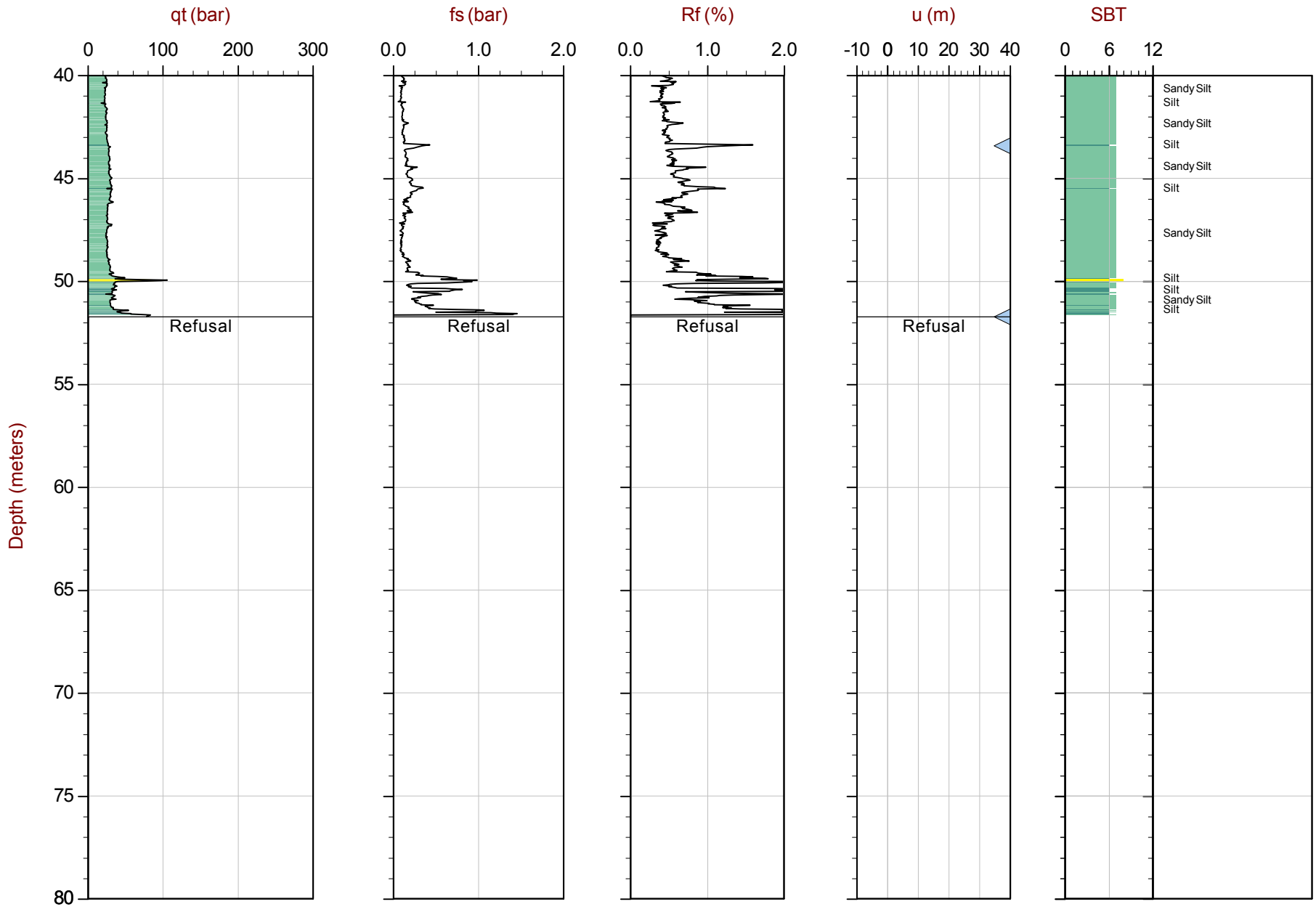
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/12/15 11:11
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-10
Cone: 477:T1500F15U1K



Max Depth: 51.725 m / 169.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP10.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM10N N: 5445097.745m E: 503815.306m Elev: -12.75m
Sheet No: 2 of 2

Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

Seismic Cone Penetration Test Plots

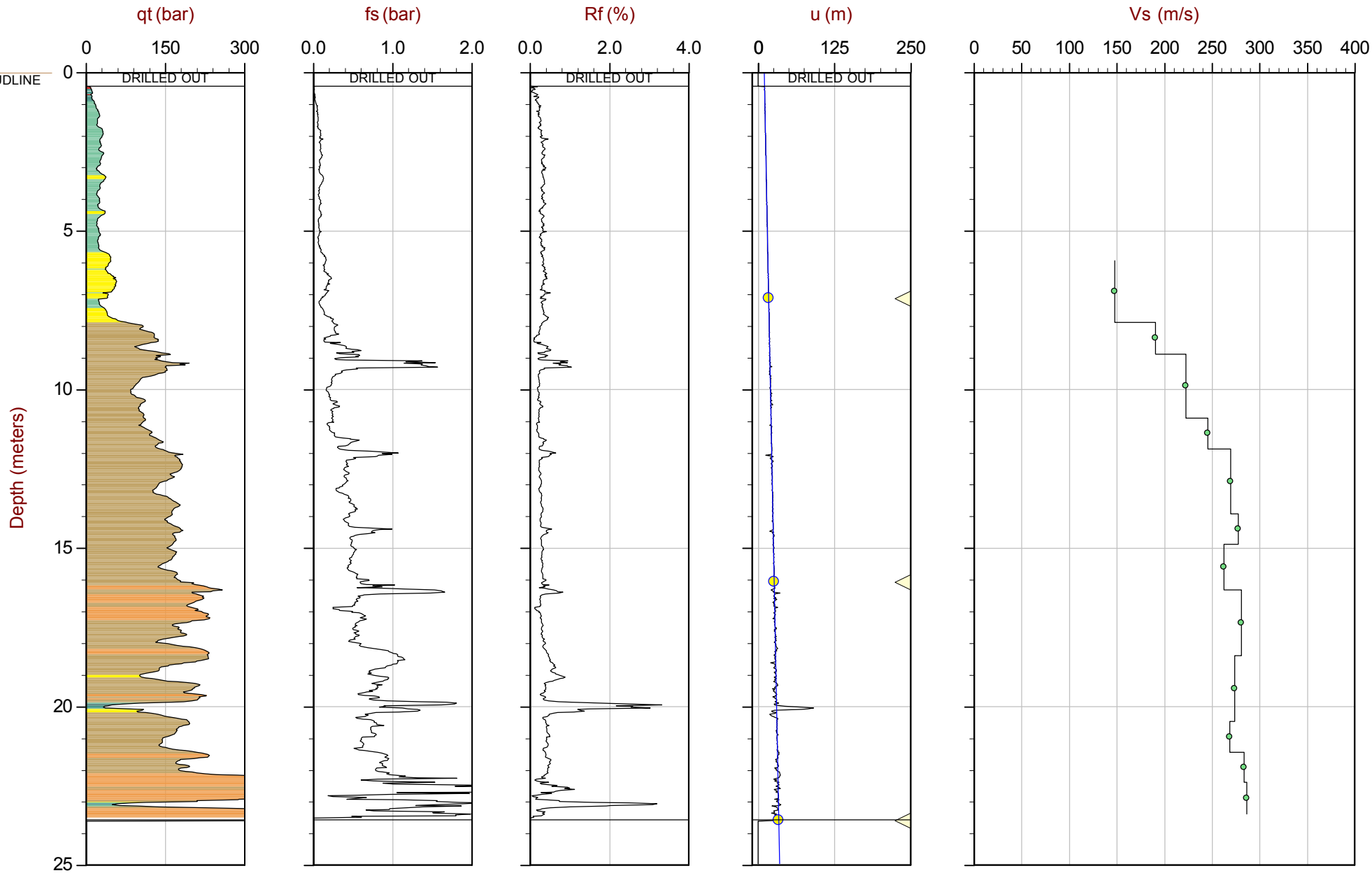
CONETEC

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:16:15 19:56
Site: Fraser River near Annacis Island

Sounding: SCPT15-01
Cone: 408:T1500F15U500



Max Depth: 34.275 m / 112.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445017.42 E: 503466.24 Elev: -9.20m

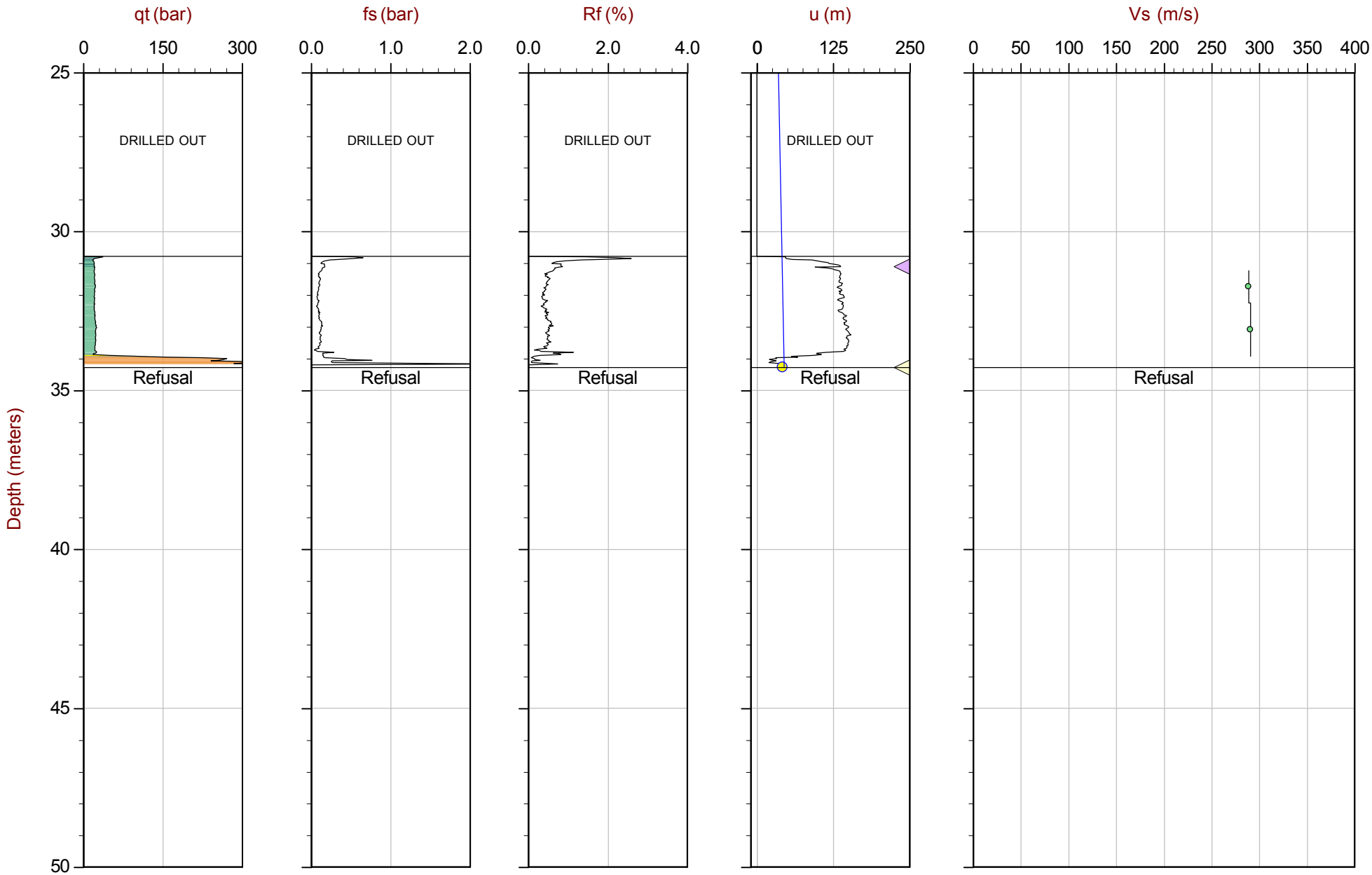
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:16:15 19:56
Site: Fraser River near Annacis Island

Sounding: SCPT15-01
Cone: 408:T1500F15U500



Max Depth: 34.275 m / 112.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445017.42 E: 503466.24 Elev: -9.20m

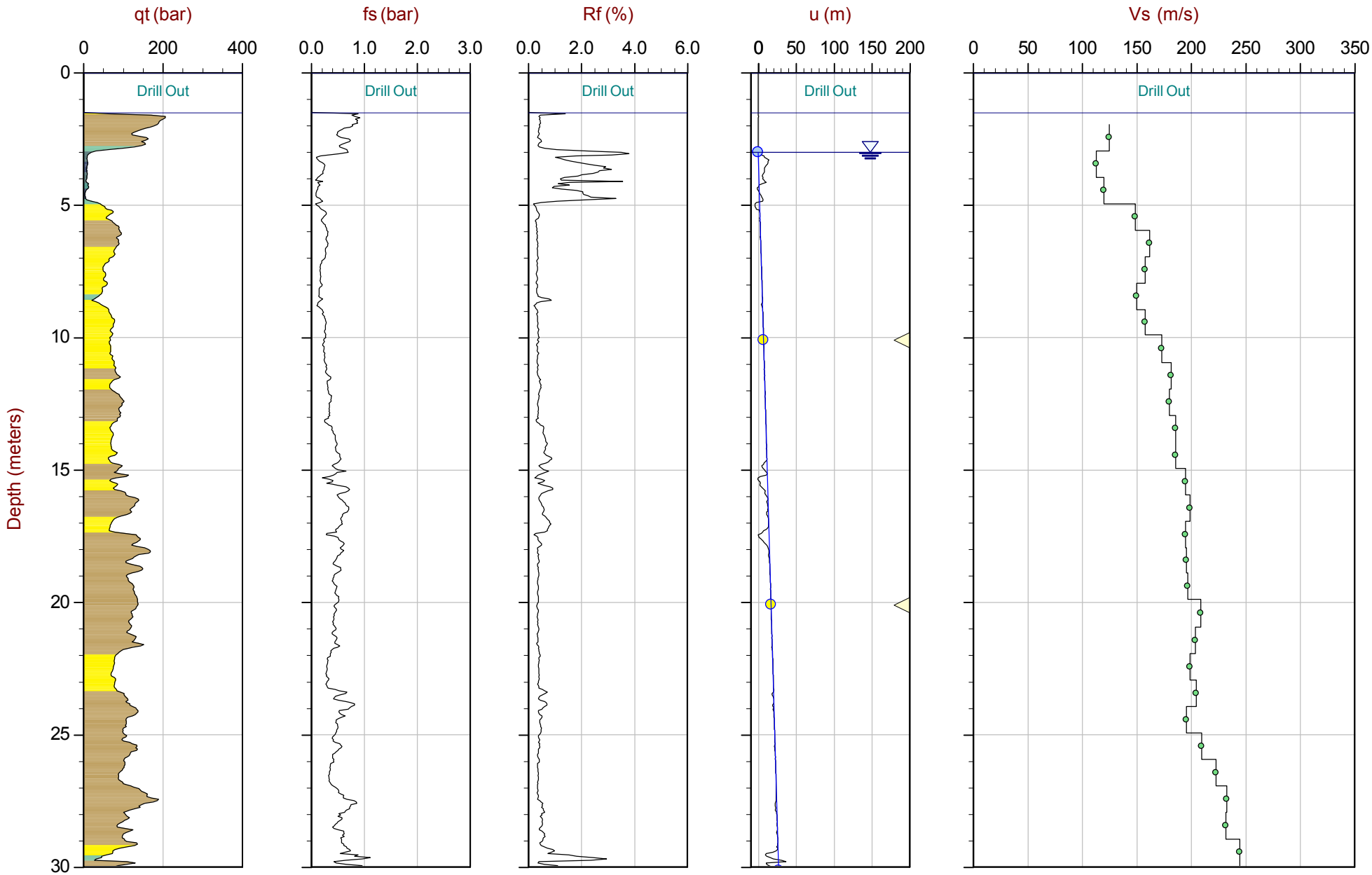
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder

Job No: 15-02048
Date: 07:15:15 08:02
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-06
Cone: 274:T1500F15U500



Max Depth: 48.700 m / 159.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445500m E: 503397m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

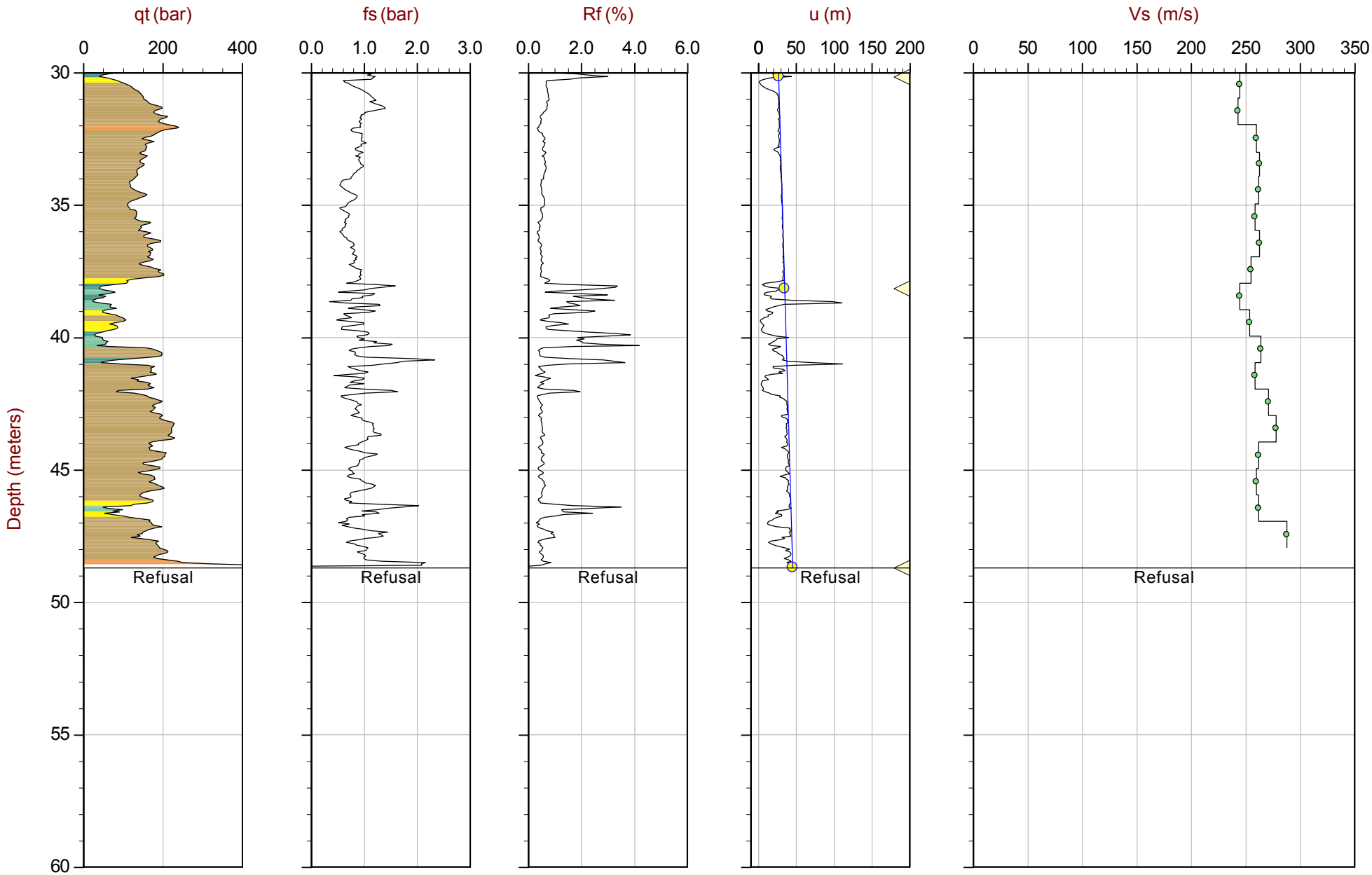
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 07:15:15 08:02
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-06
Cone: 274:T1500F15U500



Max Depth: 48.700 m / 159.77 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N: 5445500m E: 503397m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

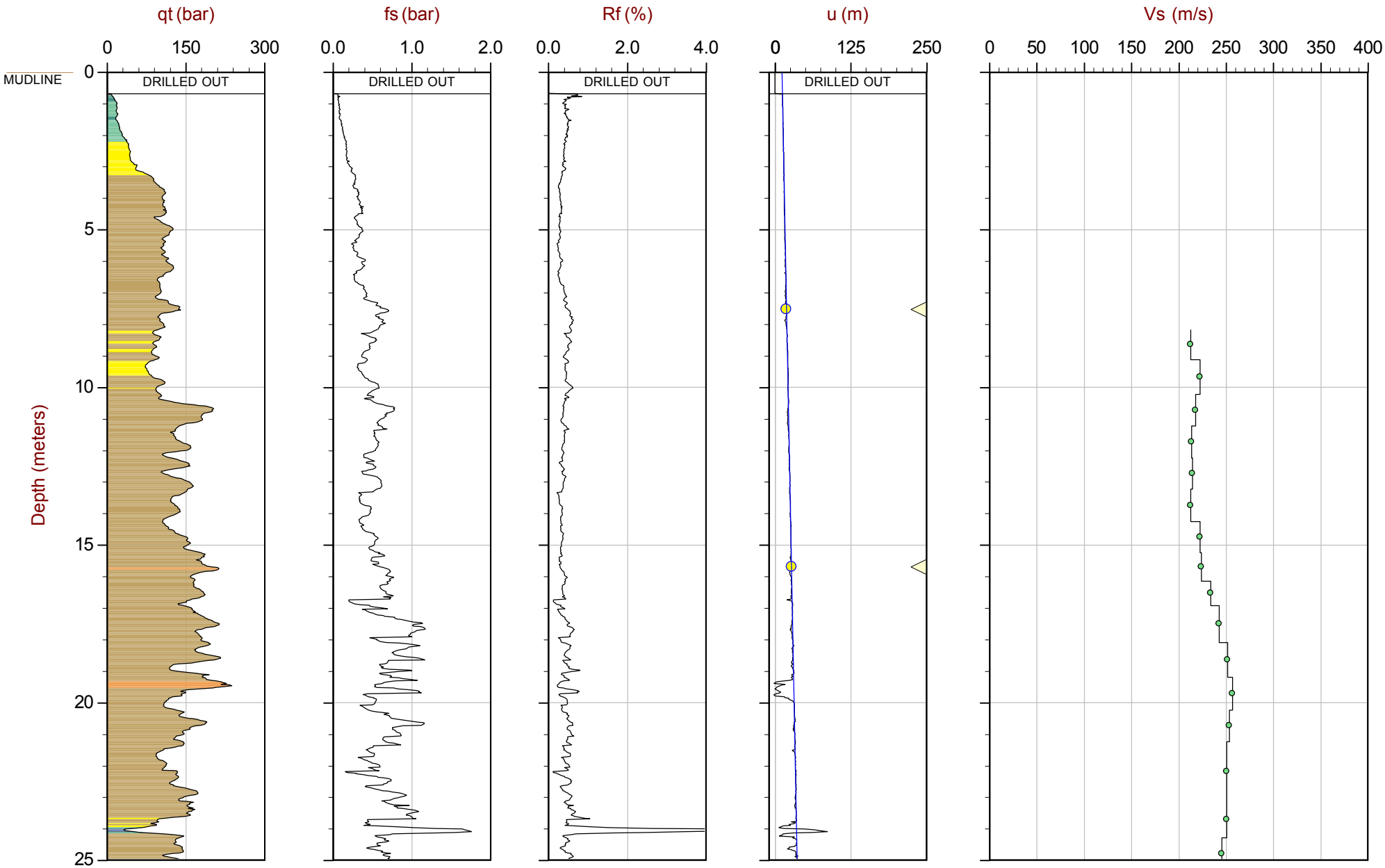
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 08:02
Site: Fraser River near Annacis Island

Sounding: SCPT15-11
Cone: 408:T1500F15U500



Max Depth: 55.150 m / 180.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 15-02048_SP11.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445202.58 E: 503897.45 Elev: -10.91m

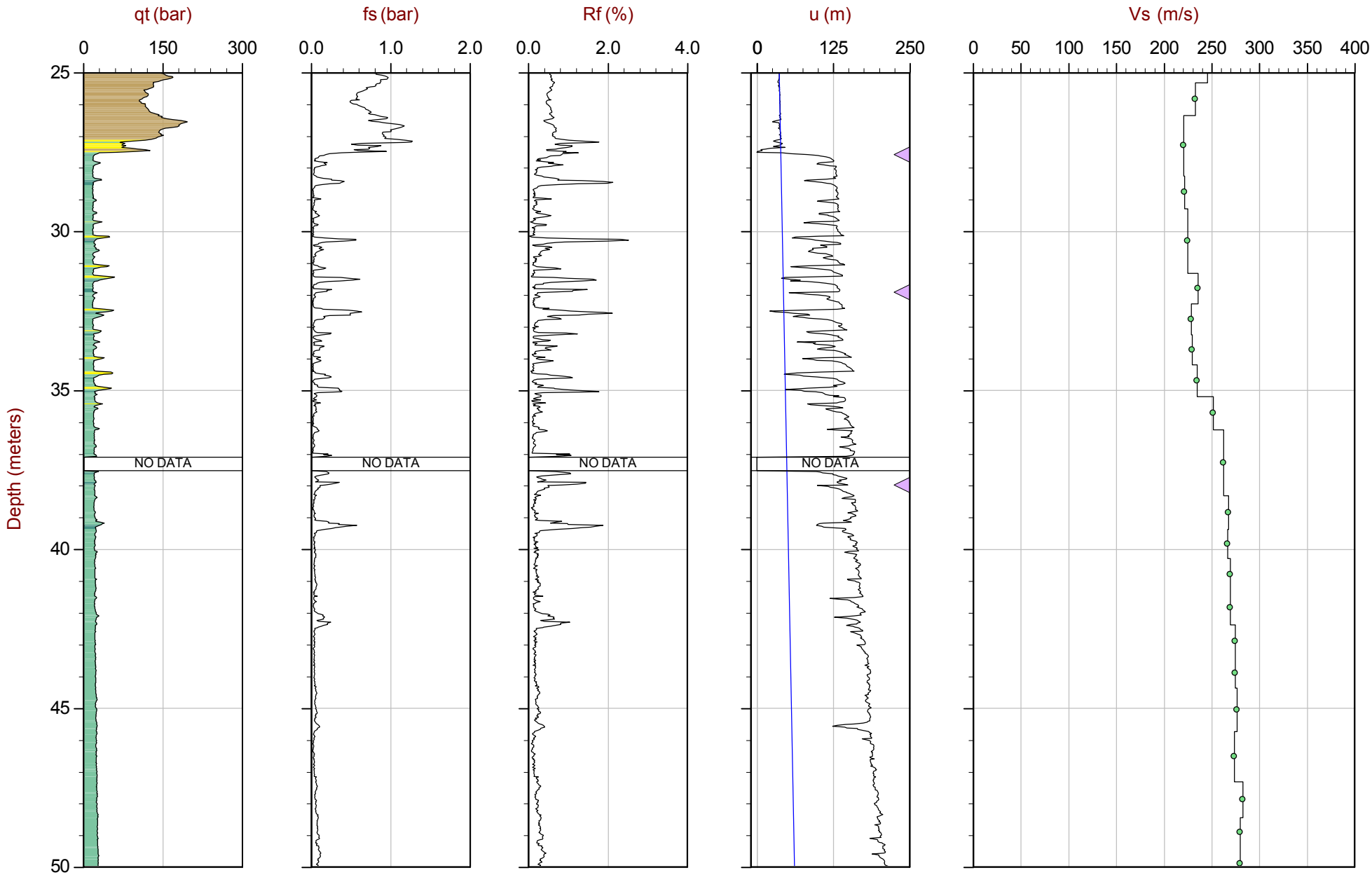
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 08:02
Site: Fraser River near Annacis Island

Sounding: SCPT15-11
Cone: 408:T1500F15U500



Max Depth: 55.150 m / 180.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 15-02048_SP11.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445202.58 E: 503897.45 Elev: -10.91m

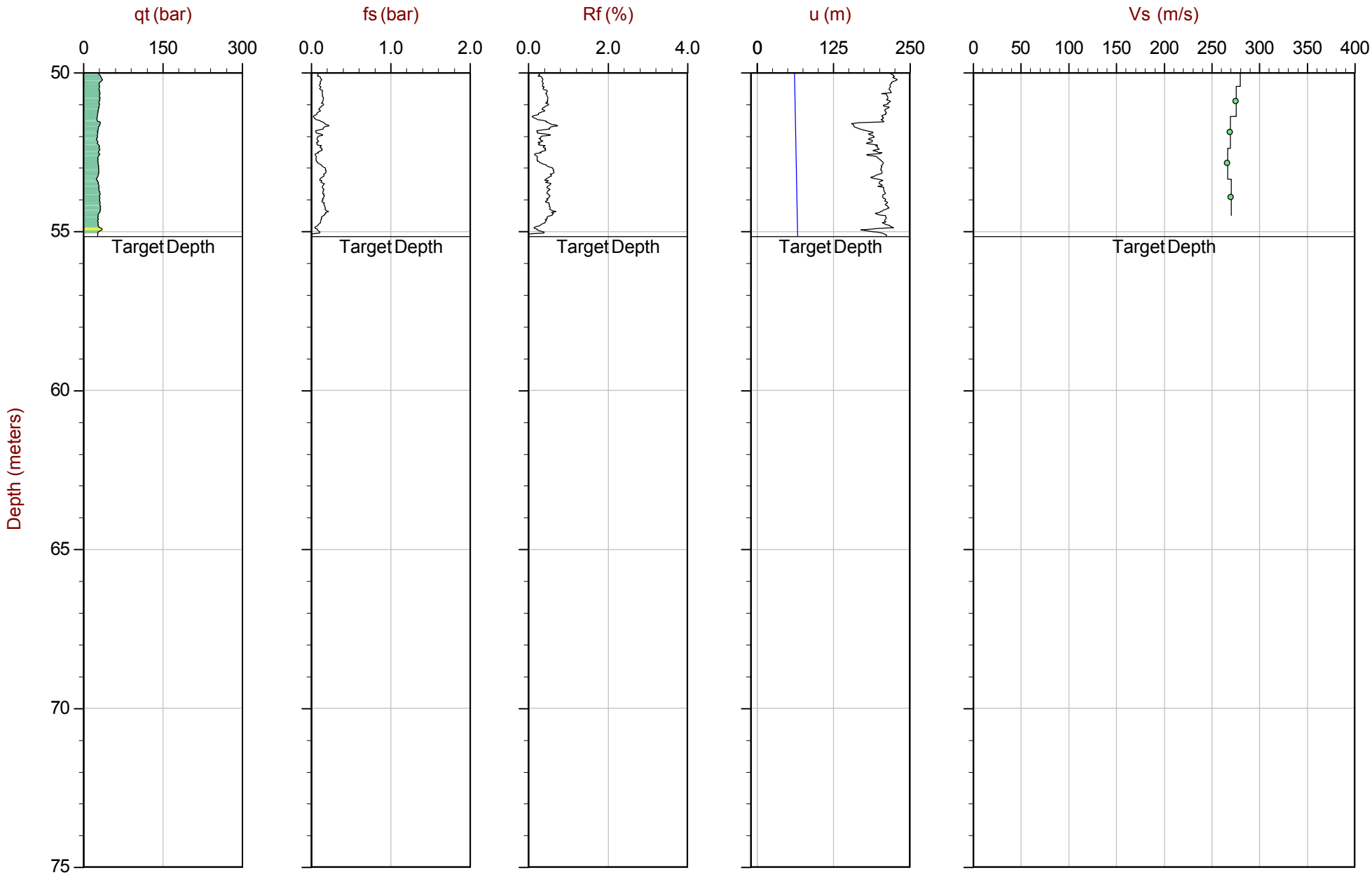
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder Associates

Job No: 15-02048
Date: 09:17:15 08:02
Site: Fraser River near Annacis Island

Sounding: SCPT15-11
Cone: 408:T1500F15U500



Max Depth: 55.150 m / 180.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 15-02048_SP11.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: N: 5445202.58 E: 503897.45 Elev: -10.91m

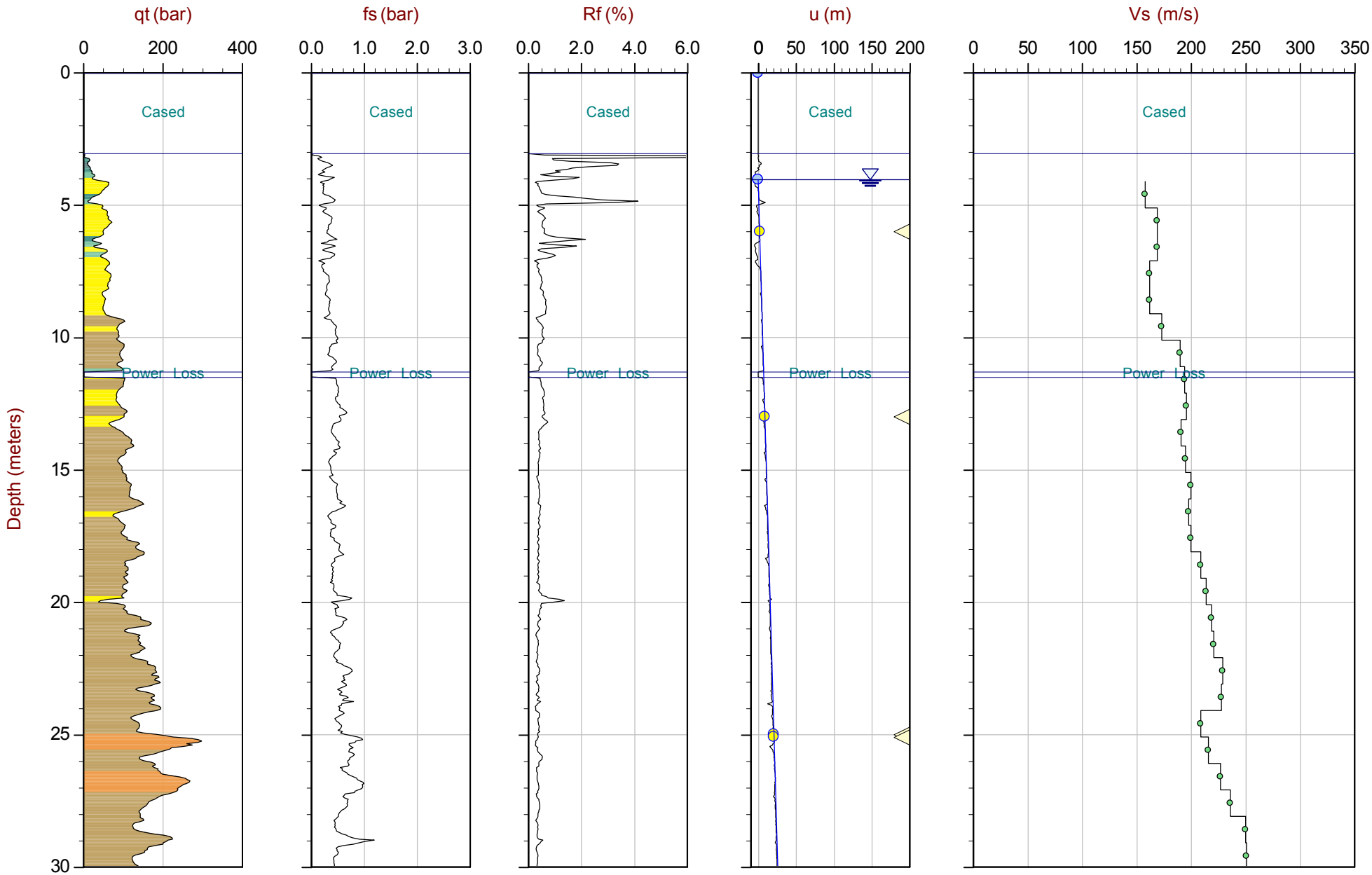
Equilibrium Pore Pressure (Ueq)
Dissipation, Ueq achieved
Assumed Ueq
Dissipation, Ueq not achieved
Hydrostatic Line

CONETEC

Golder

Job No: 15-02048
Date: 10:04:15 09:28
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-13
Cone: 330:T1500F15U500



Max Depth: 58.000 m / 190.29 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP13.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445318m E: 503819m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

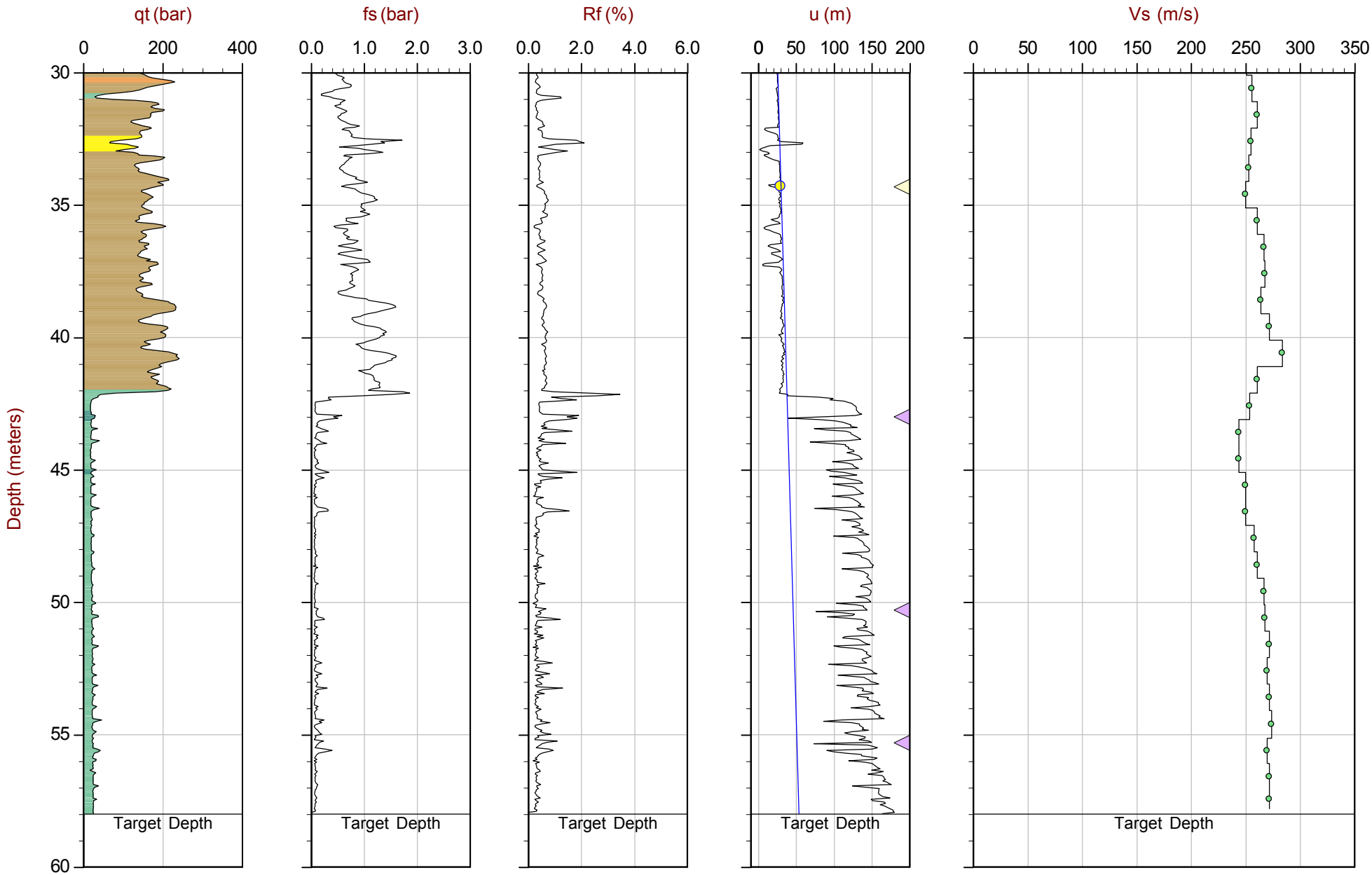
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 15-02048
Date: 10:04:15 09:28
Site: AIWWTP Transient Mitigation and Outfall System

Sounding: SCPT15-13
Cone: 330:T1500F15U500



Max Depth: 58.000 m / 190.29 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP13.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445318m E: 503819m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

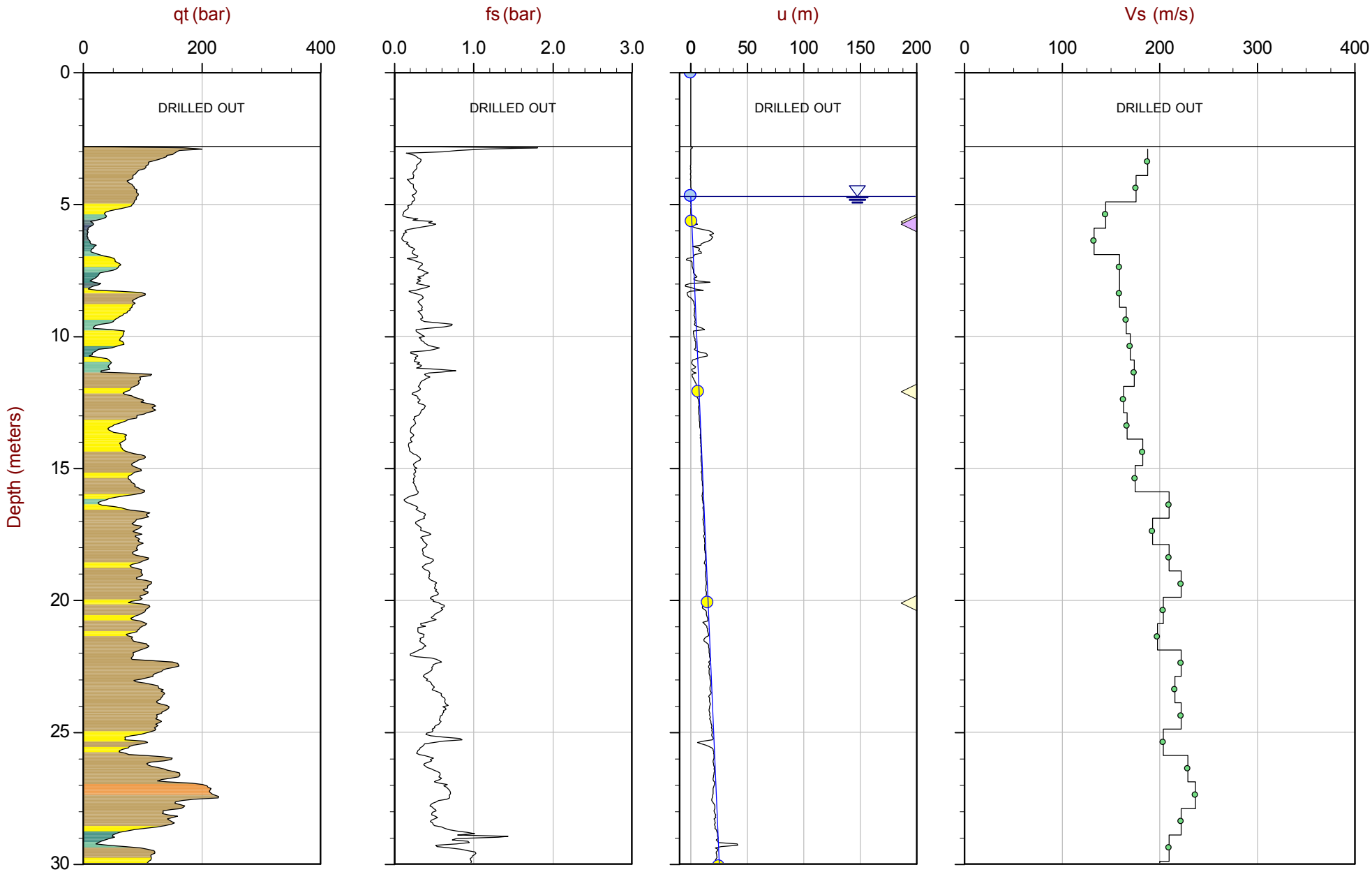
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:22:16 11:39
Site: Annacis WWTP

Sounding: SCPT16-01
Cone: 457:T1500F15U500



Max Depth: 78.000 m / 255.90 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445633m E: 503521m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

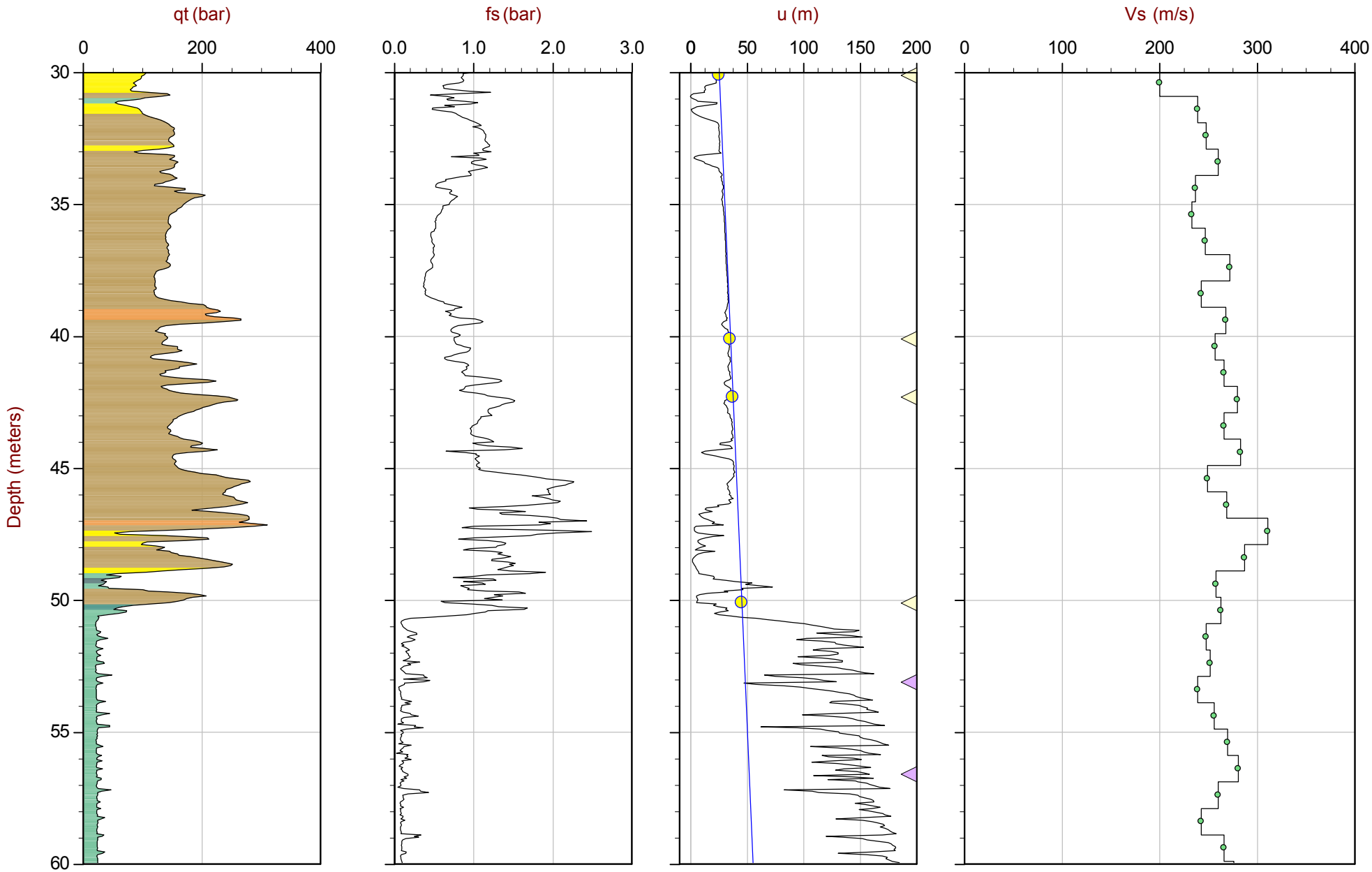
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:22:16 11:39
Site: Annacis WWTP

Sounding: SCPT16-01
Cone: 457:T1500F15U500



Max Depth: 78.000 m / 255.90 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445633m E: 503521m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

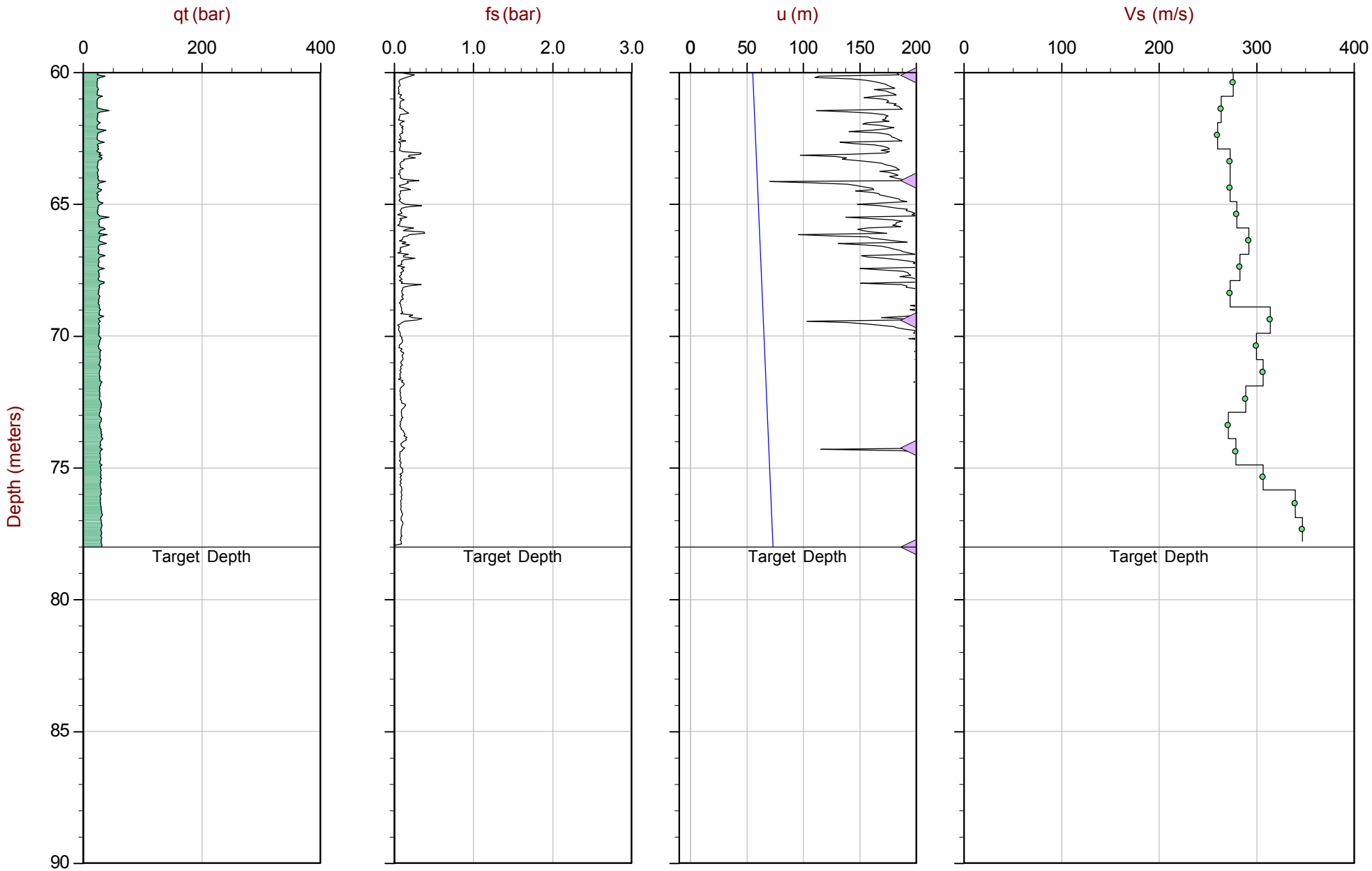
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:22:16 11:39
Site: Annacis WWTP

Sounding: SCPT16-01
Cone: 457:T1500F15U500



Max Depth: 78.000 m / 255.90 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP01.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445633m E: 503521m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

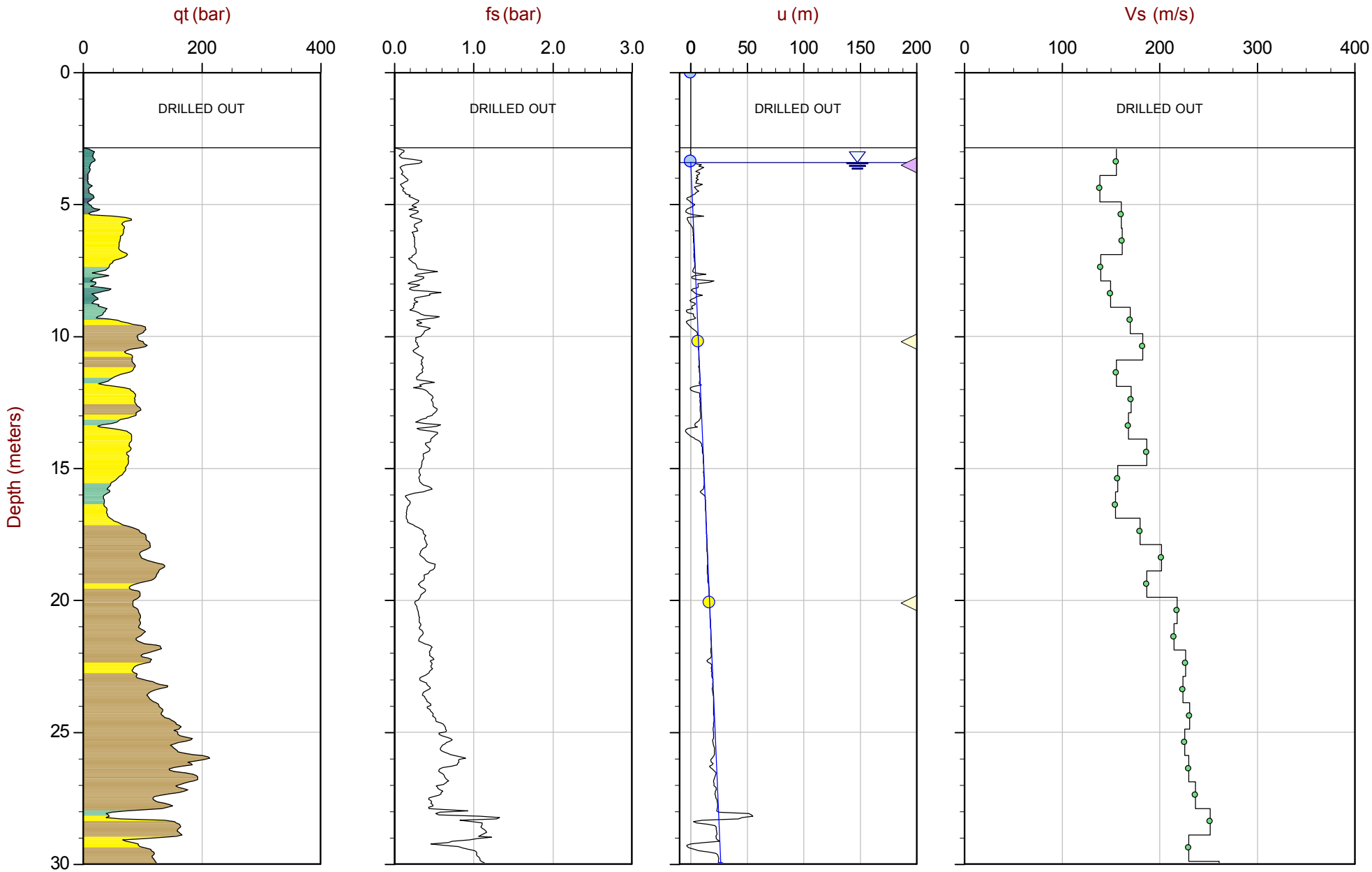
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:23:16 08:20
Site: Annacis WWTP

Sounding: SCPT16-02
Cone: 457:T1500F15U500



Max Depth: 60.000 m / 196.85 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445610m E: 503366m
Sheet No: 1 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

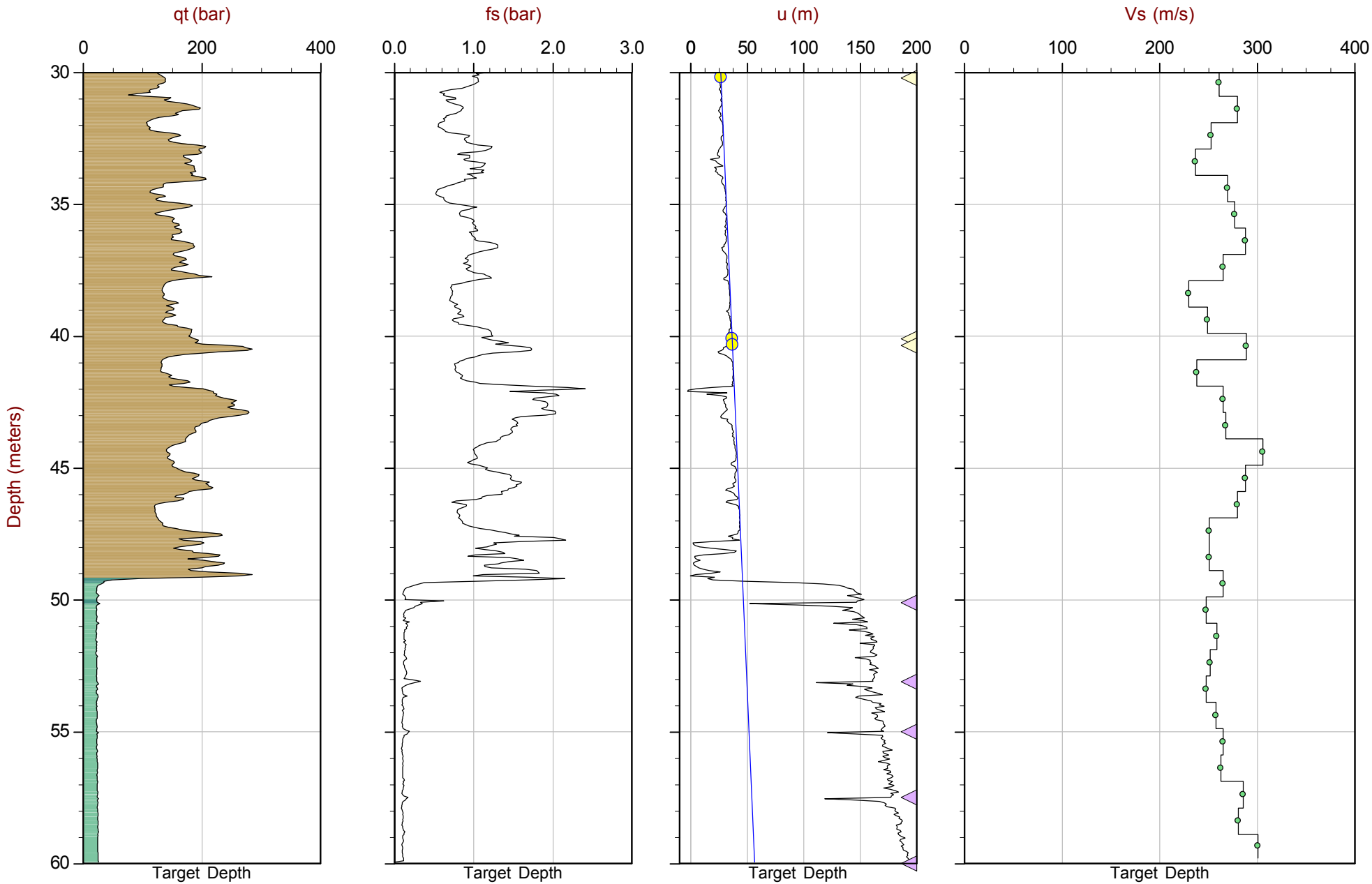
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:23:16 08:20
Site: Annacis WWTP

Sounding: SCPT16-02
Cone: 457:T1500F15U500



Max Depth: 60.000 m / 196.85 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP02.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445610m E: 503366m
Sheet No: 2 of 2

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

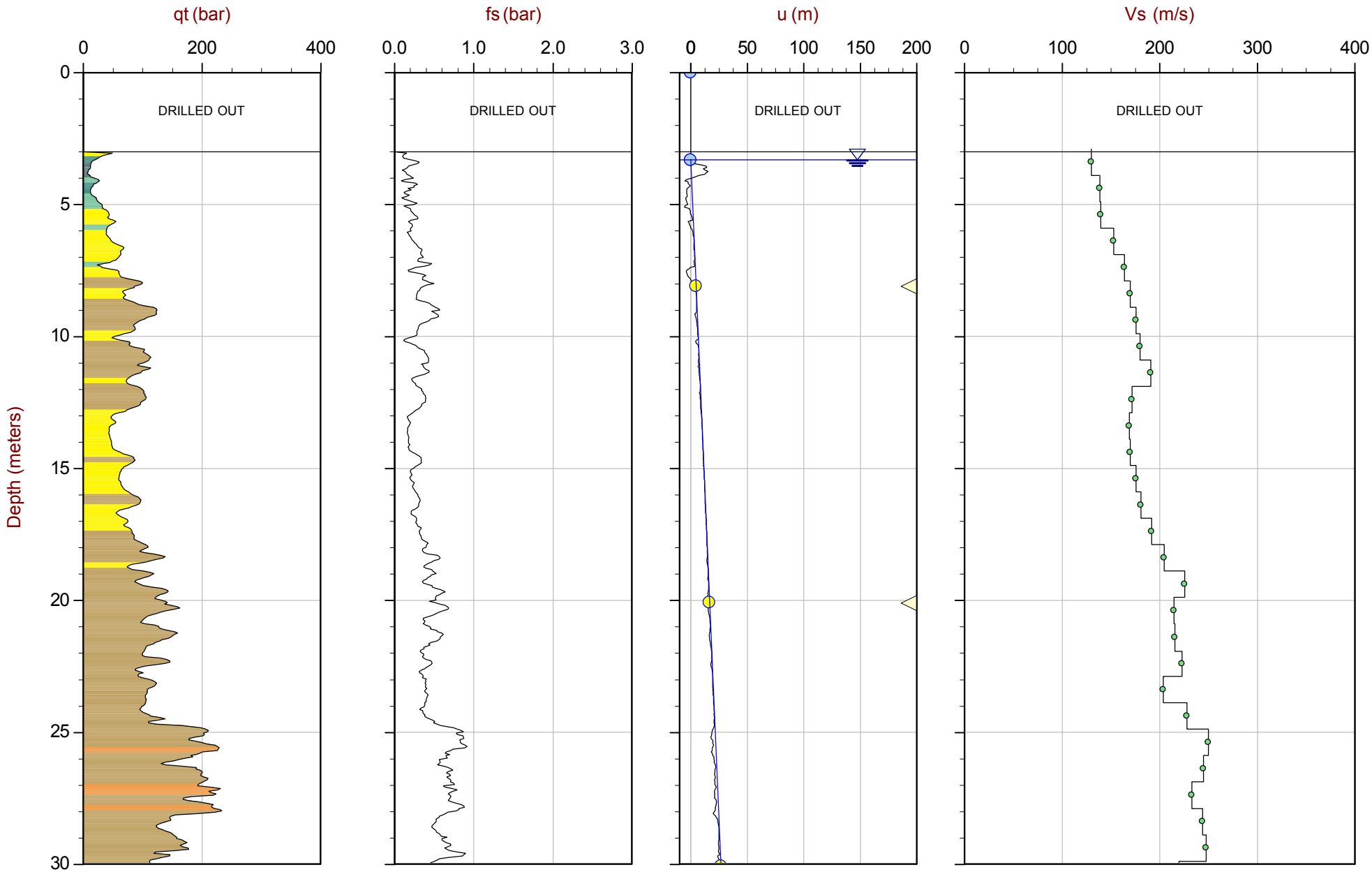
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:20:16 07:58
Site: Annacis WWTP

Sounding: SCPT16-03
Cone: 457:T1500F15U500



Max Depth: 63.000 m / 206.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445694m E: 503281m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

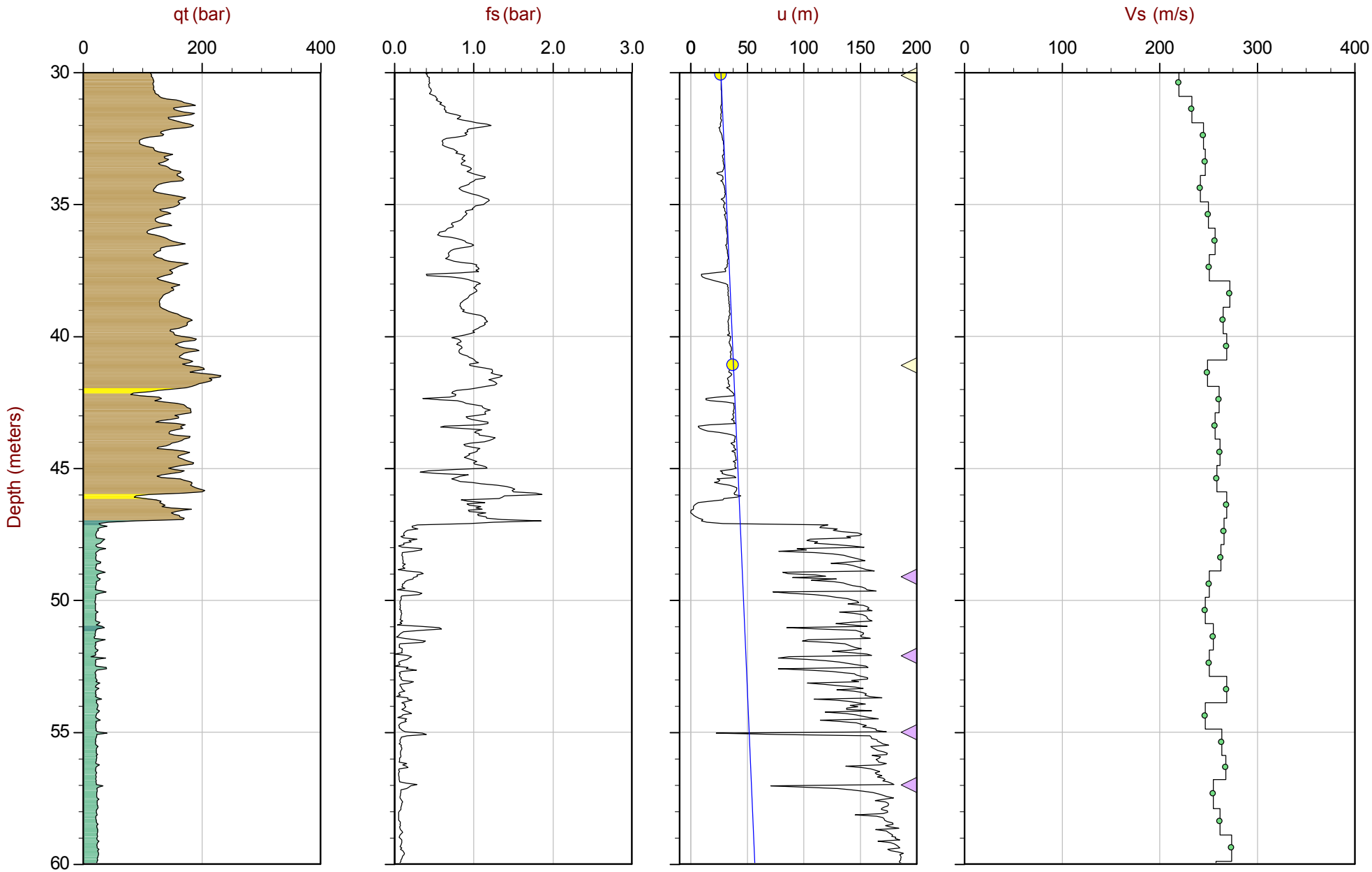
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:20:16 07:58
Site: Annacis WWTP

Sounding: SCPT16-03
Cone: 457:T1500F15U500



Max Depth: 63.000 m / 206.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445694m E: 503281m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

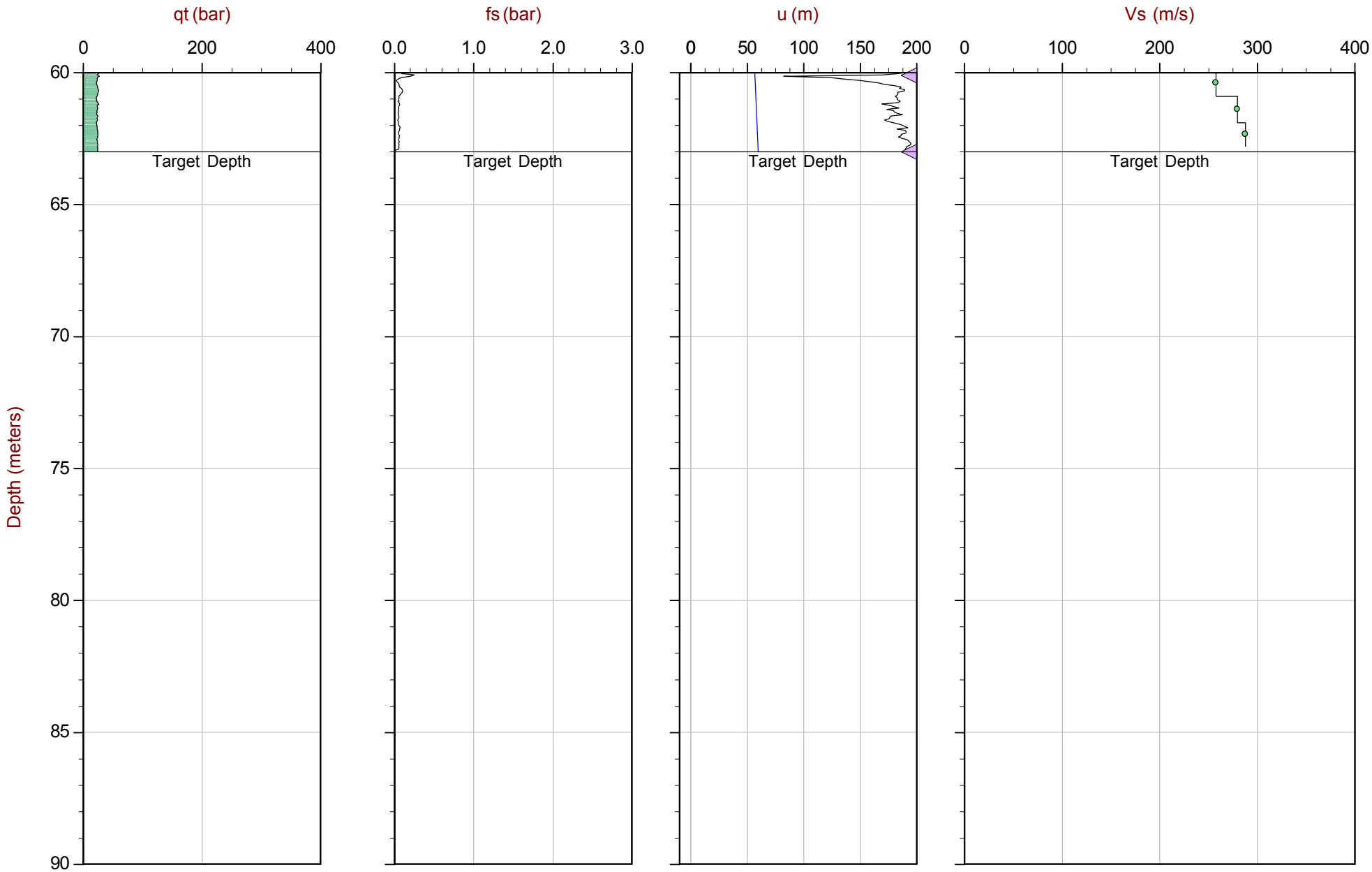
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:20:16 07:58
Site: Annacis WWTP

Sounding: SCPT16-03
Cone: 457:T1500F15U500



Max Depth: 63.000 m / 206.69 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP03.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445694m E: 503281m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

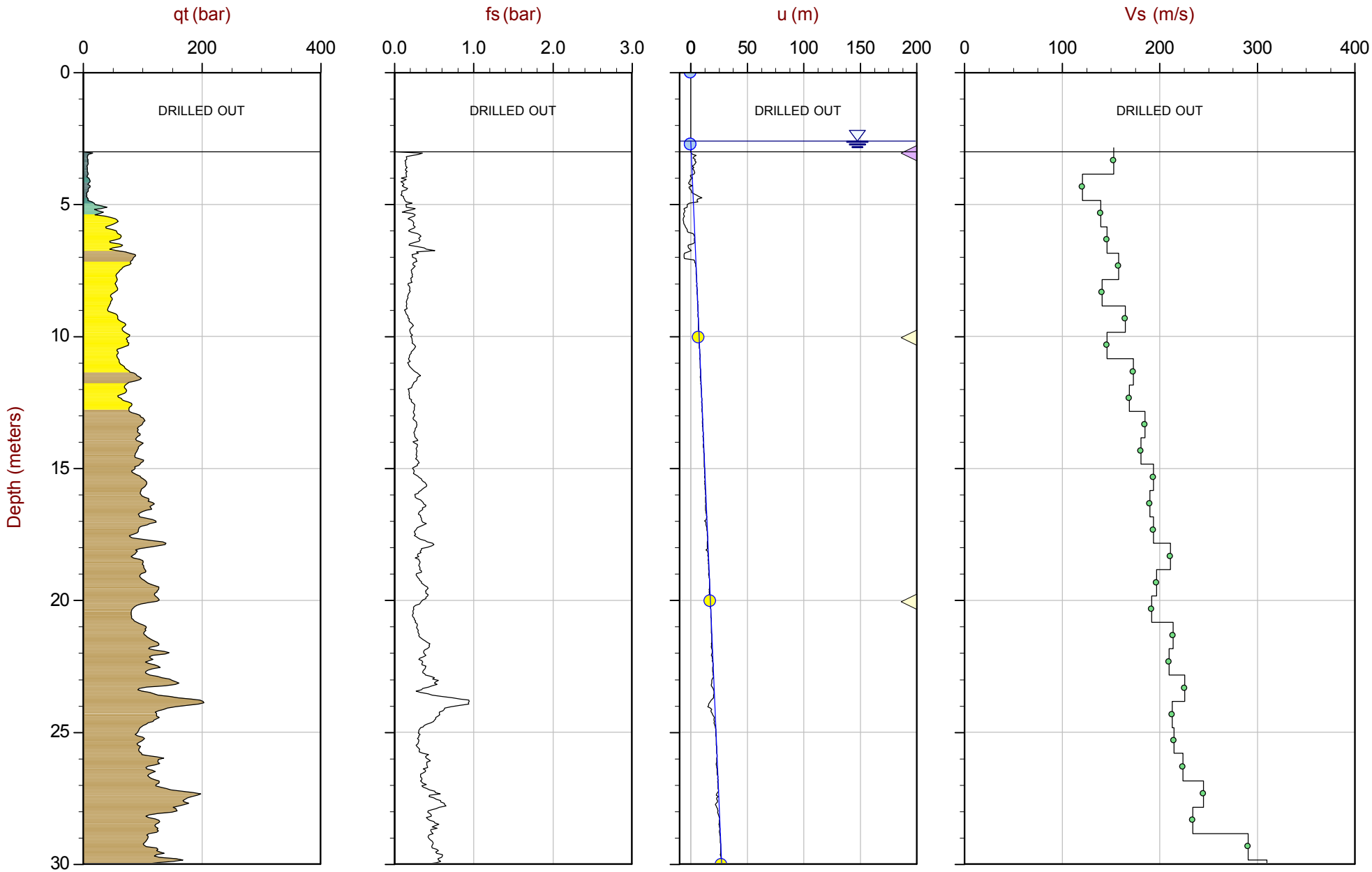
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:21:16 08:28
Site: Annacis WWTP

Sounding: SCPT16-04
Cone: 338:T1500F15U500



Max Depth: 70.350 m / 230.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445893m E: 503148m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

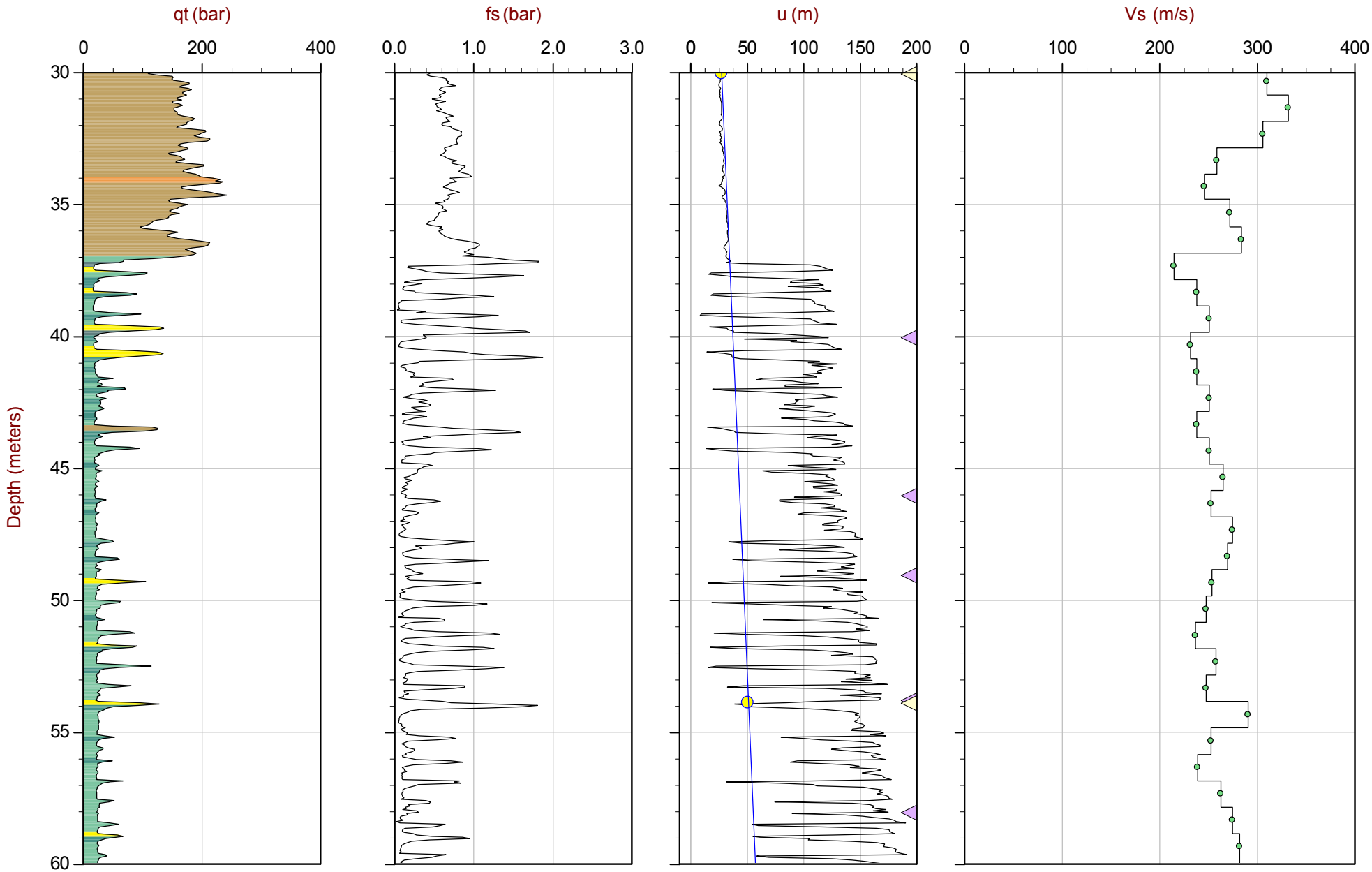
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:21:16 08:28
Site: Annacis WWTP

Sounding: SCPT16-04
Cone: 338:T1500F15U500



Max Depth: 70.350 m / 230.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445893m E: 503148m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

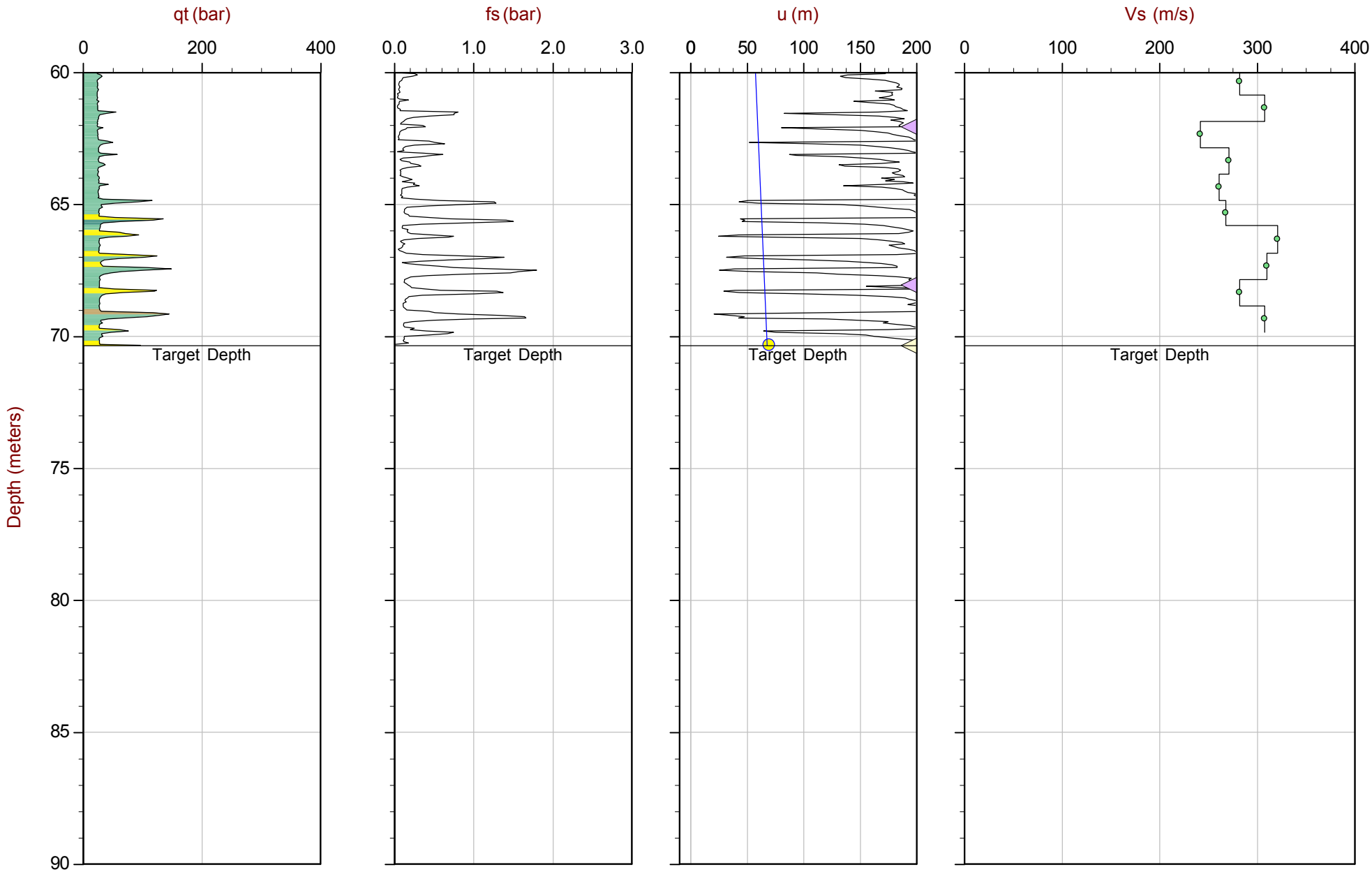
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:21:16 08:28
Site: Annacis WWTP

Sounding: SCPT16-04
Cone: 338:T1500F15U500



Max Depth: 70.350 m / 230.80 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP04.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445893m E: 503148m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

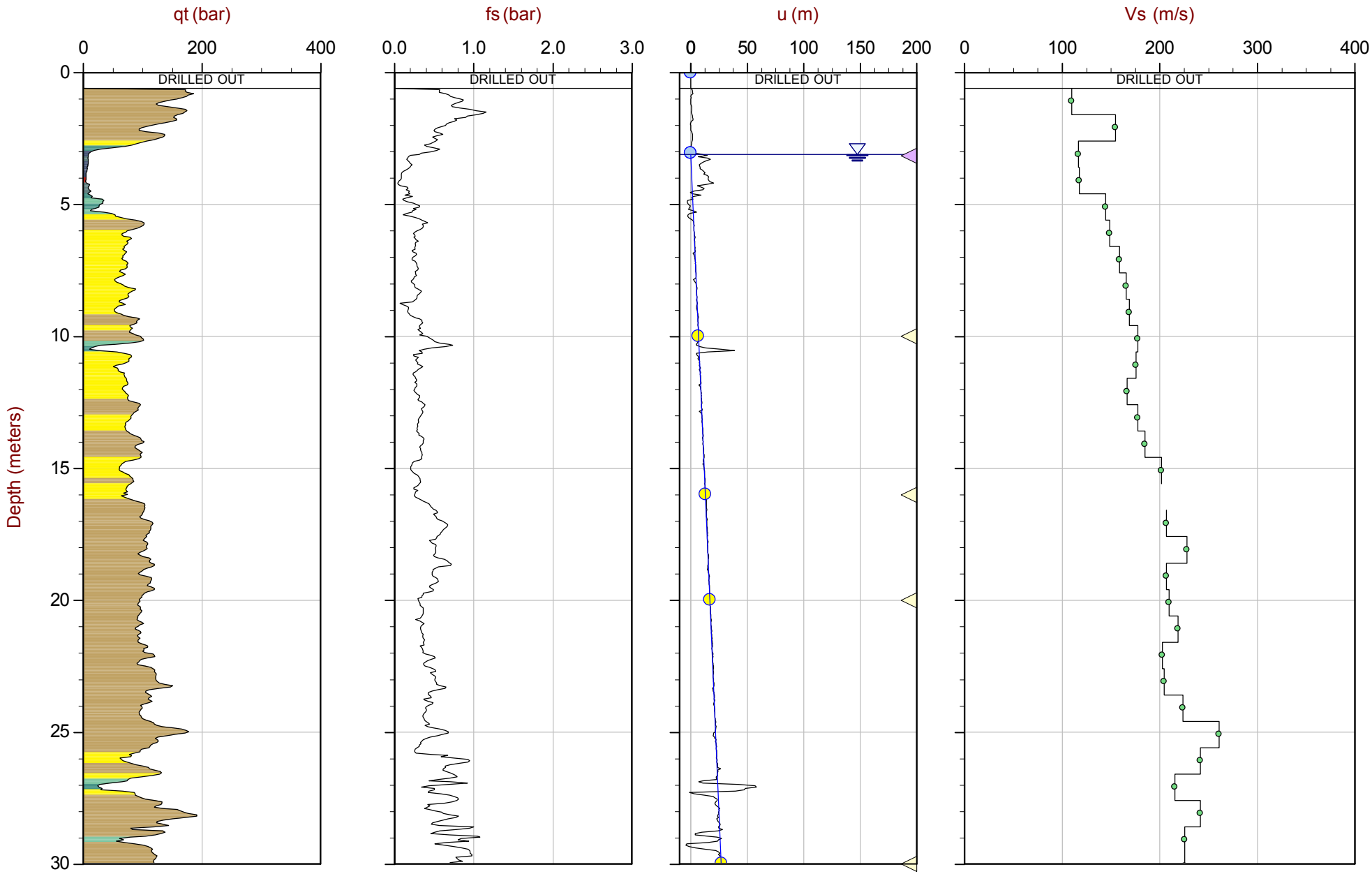
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:24:16 08:10
Site: Annacis WWTP

Sounding: SCPT16-05
Cone: 457:T1500F15U500



Max Depth: 63.950 m / 209.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP05.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445544m E: 503393m
Sheet No: 1 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

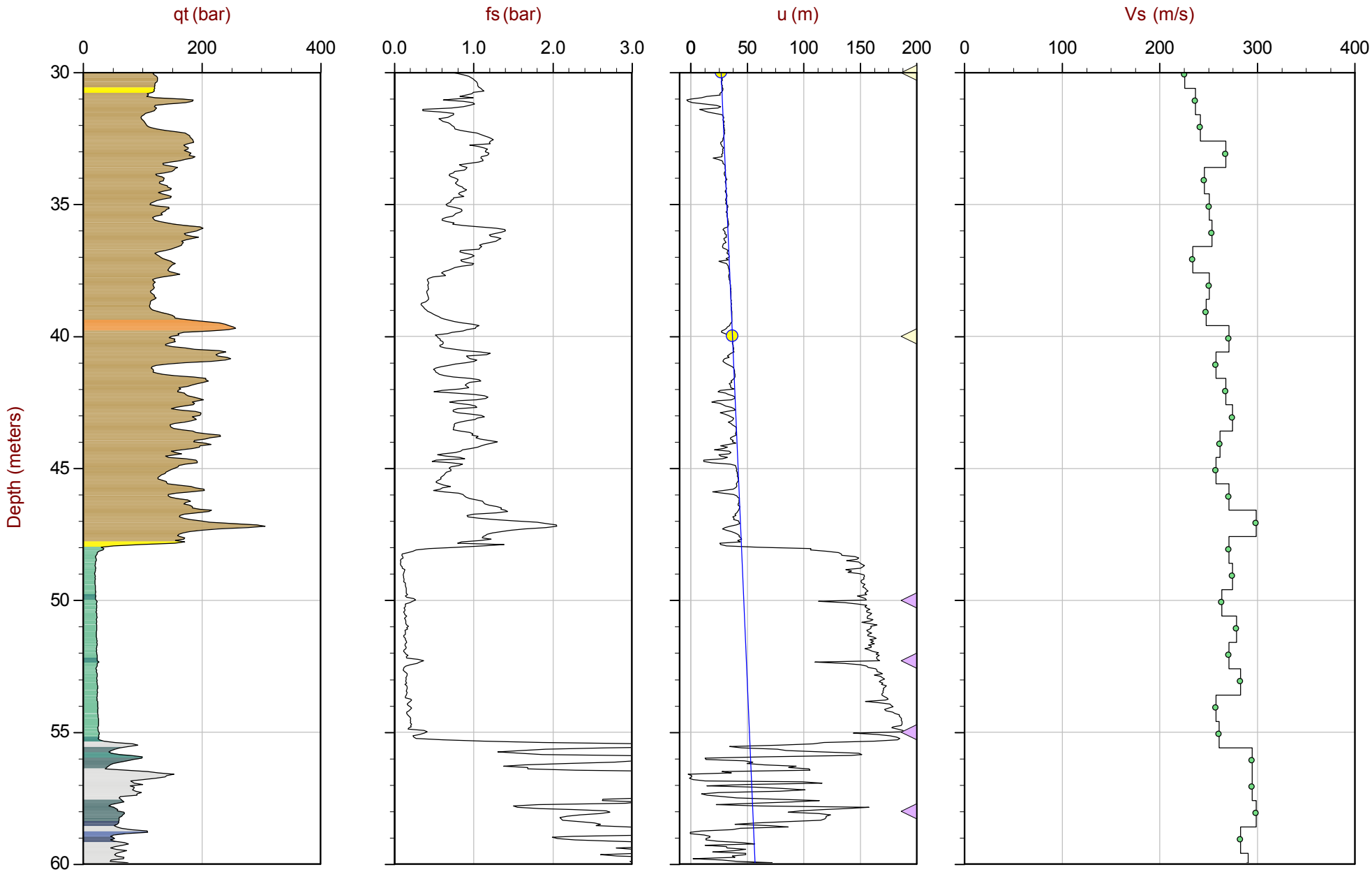
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:24:16 08:10
Site: Annacis WWTP

Sounding: SCPT16-05
Cone: 457:T1500F15U500



Max Depth: 63.950 m / 209.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP05.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445544m E: 503393m
Sheet No: 2 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

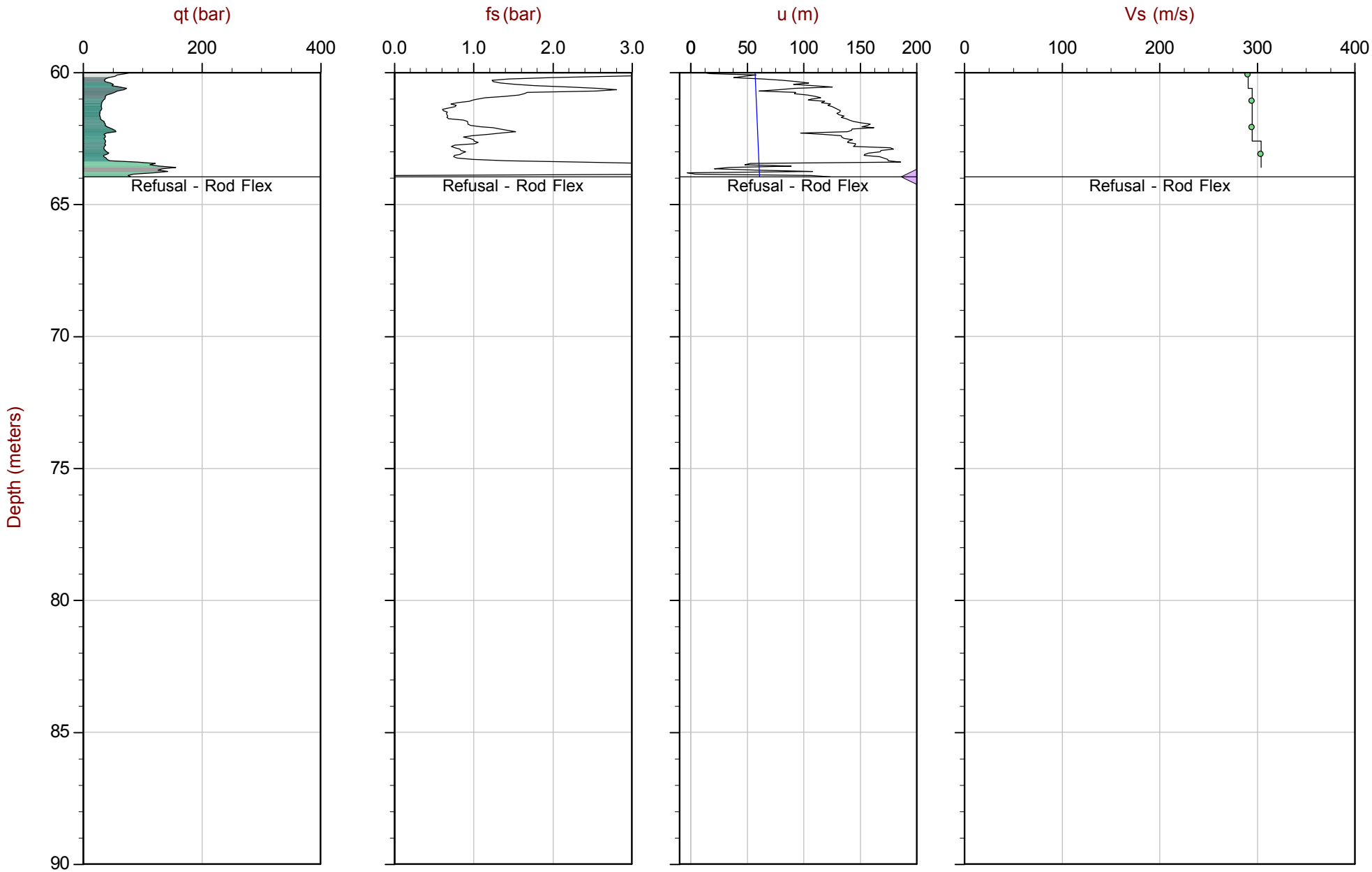
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder Associates

Job No: 15-02048
Date: 03:24:16 08:10
Site: Annacis WWTP

Sounding: SCPT16-05
Cone: 457:T1500F15U500



Max Depth: 63.950 m / 209.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02048_SP05.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM Zone 10 N: 5445544m E: 503393m
Sheet No: 3 of 3

Equilibrium Pore Pressure (Ueq)
Assumed Ueq
Dissipation, Ueq achieved
Dissipation, Ueq not achieved
Hydrostatic Line

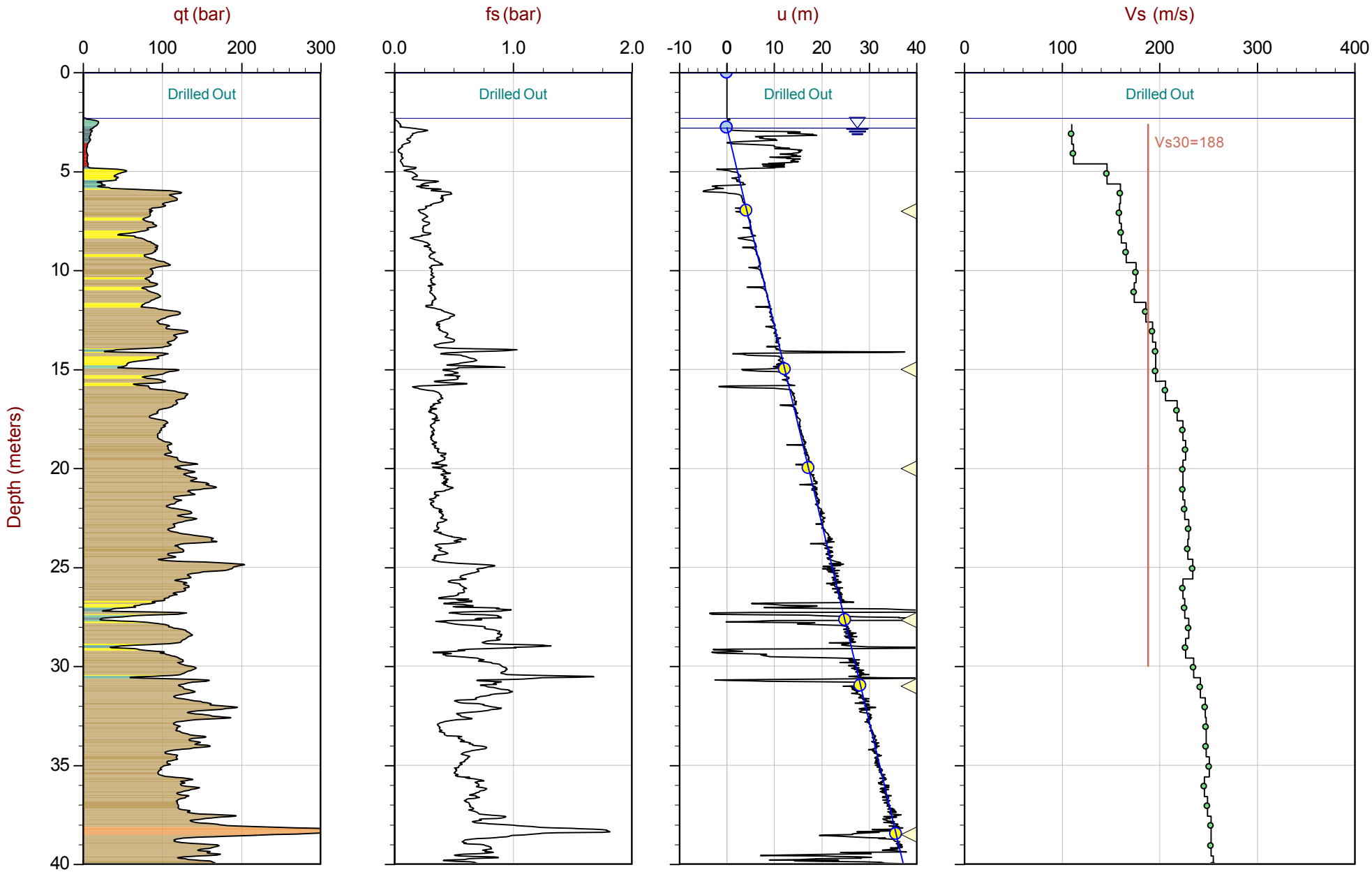
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 15:06
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-06
Cone: 474:T1500F15U500



Max Depth: 62.650 m / 205.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445534m E: 503467m
Sheet No: 1 of 2

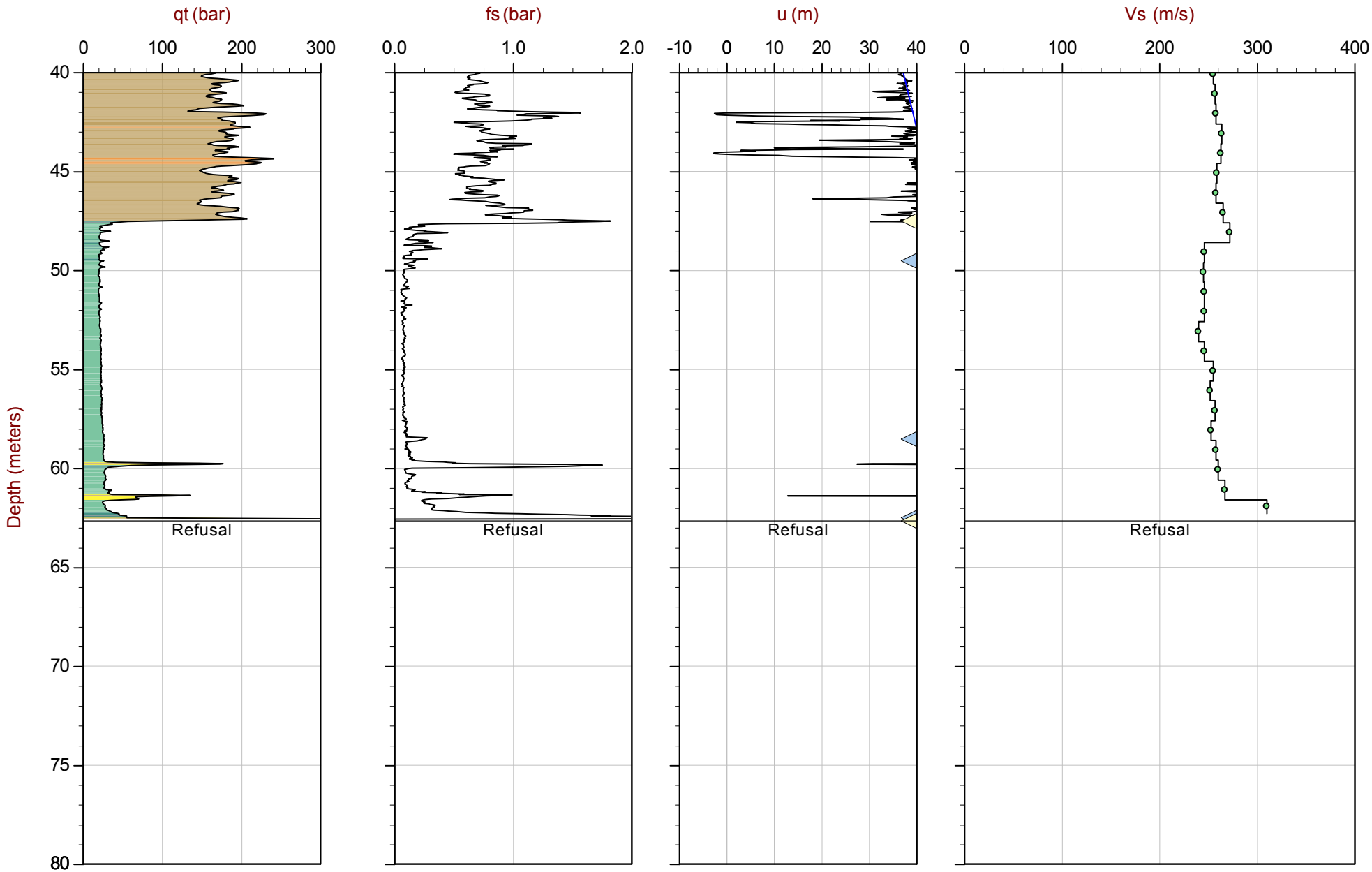
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 15:06
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-06
Cone: 474:T1500F15U500



Max Depth: 62.650 m / 205.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP06.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445534m E: 503467m
Sheet No: 2 of 2

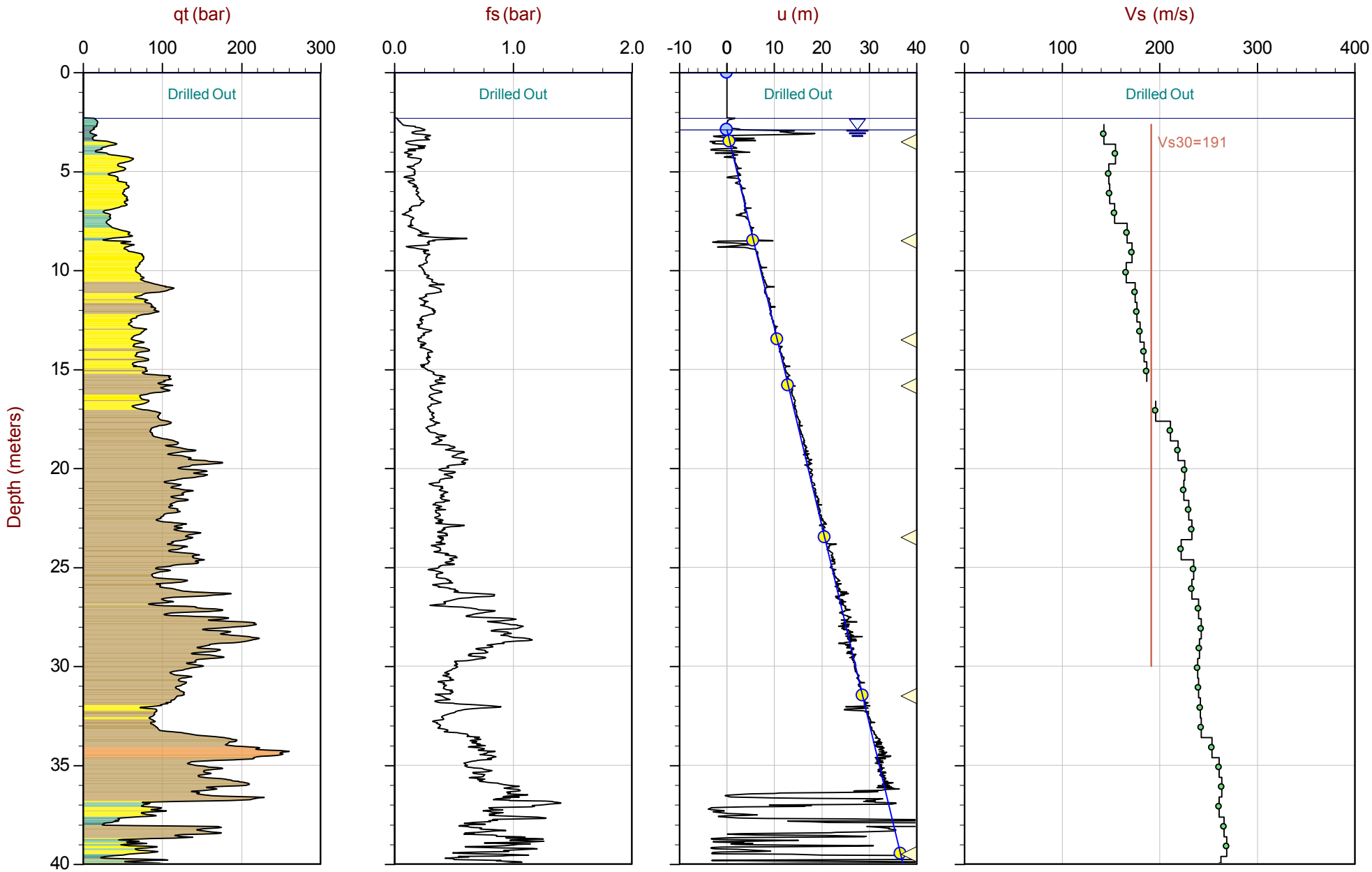
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/25 13:38
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-07
Cone: 474:T1500F15U500



Max Depth: 66.450 m / 218.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP07.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445457m E: 503535m
Sheet No: 1 of 2

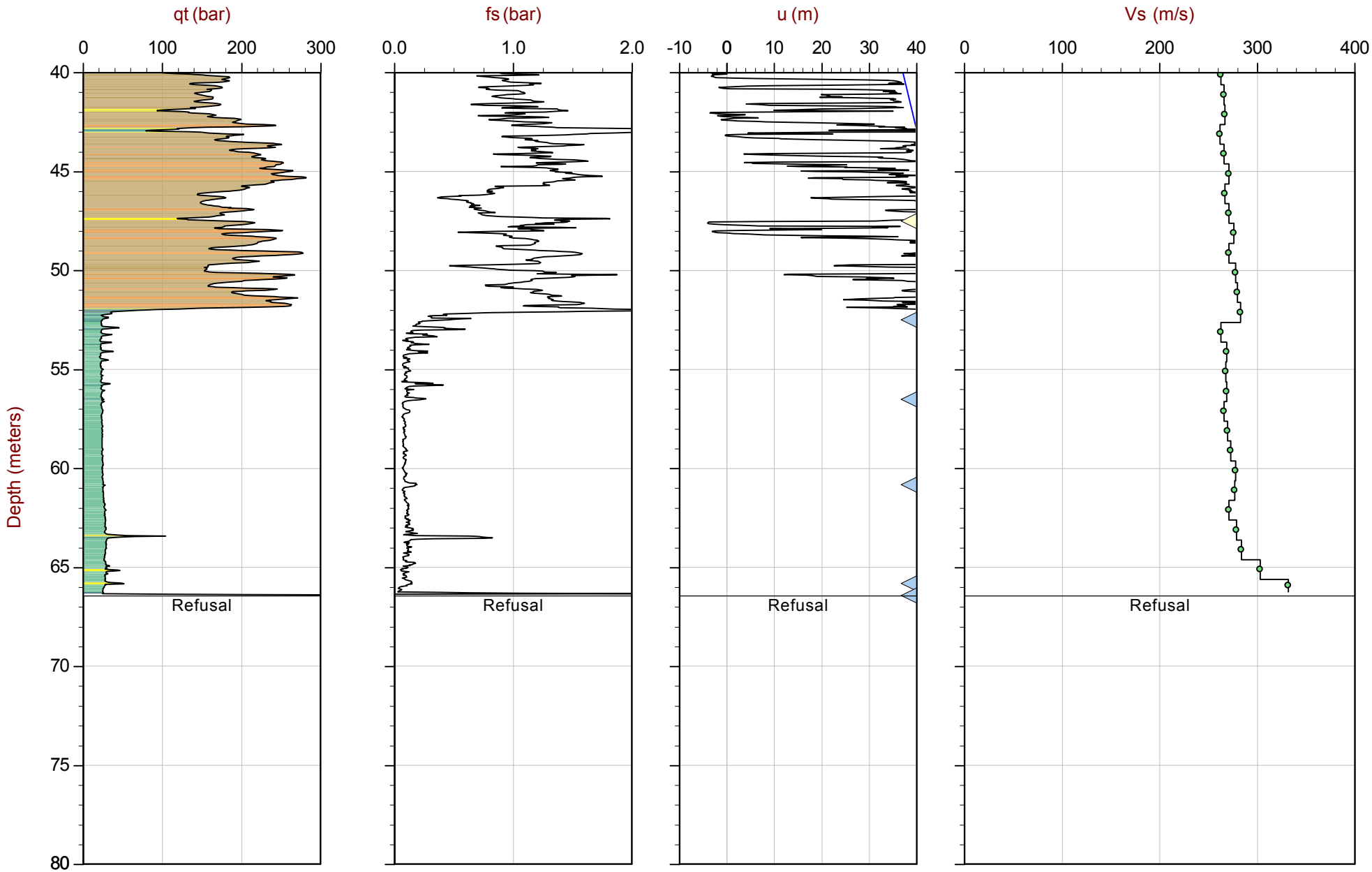
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/25 13:38
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-07
Cone: 474:T1500F15U500



Max Depth: 66.450 m / 218.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP07.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445457m E: 503535m
Sheet No: 2 of 2

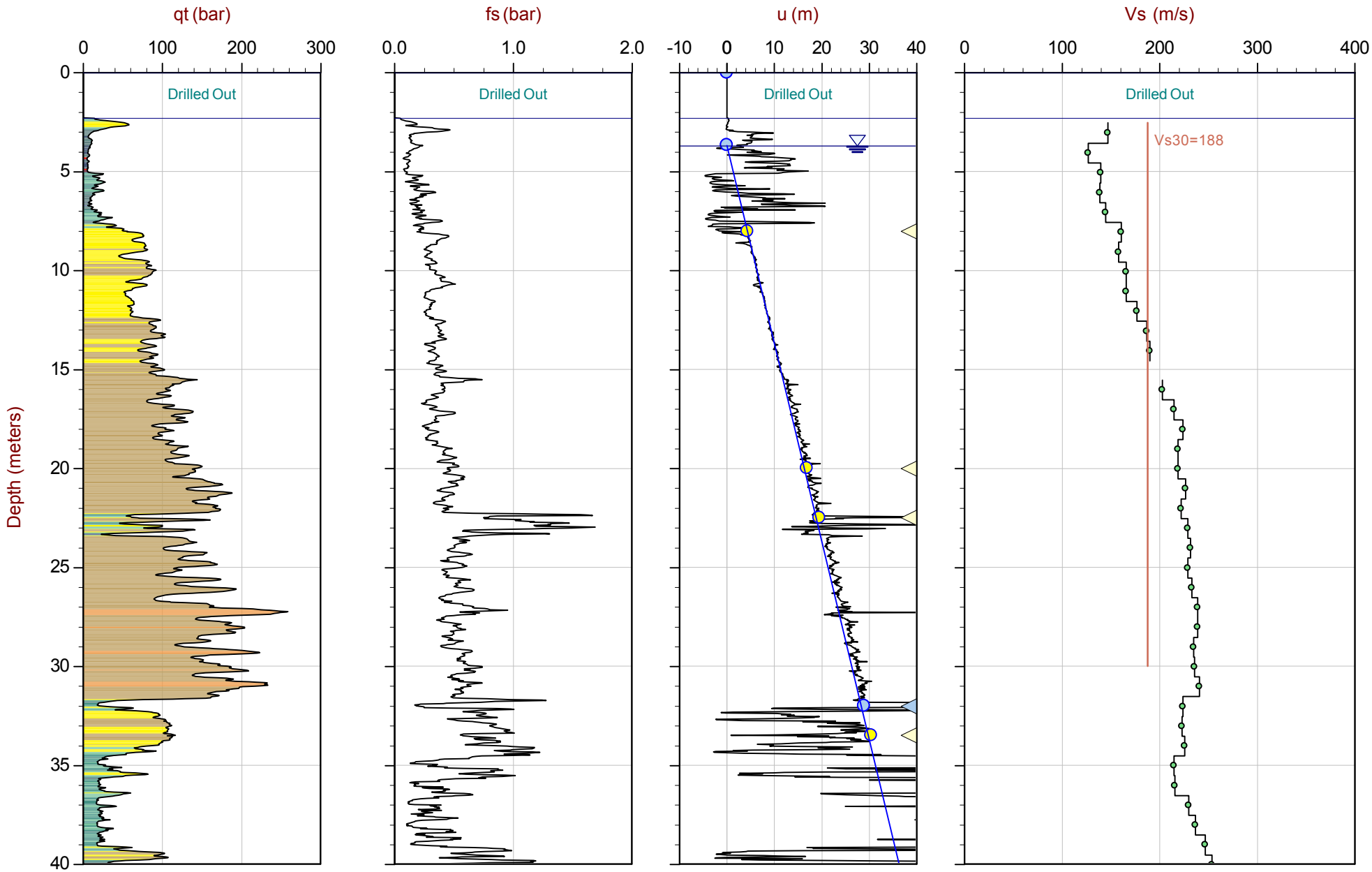
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/23 07:59
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-08
Cone: 474:T1500F15U500



Max Depth: 76.525 m / 251.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP08.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445368m E: 503591m
Sheet No: 1 of 2

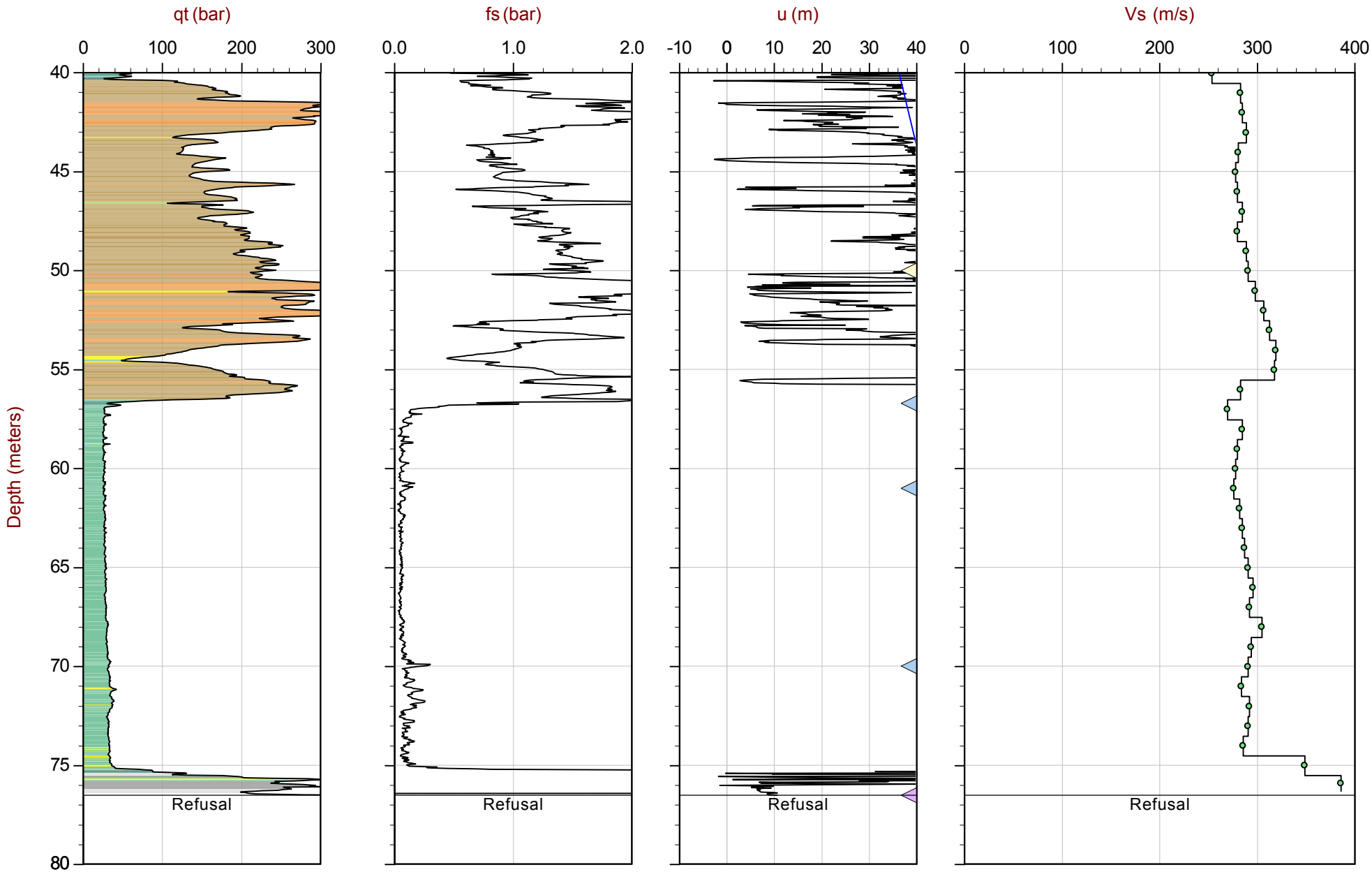
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/23 07:59
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-08
Cone: 474:T1500F15U500



Max Depth: 76.525 m / 251.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP08.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445368m E: 503591m
Sheet No: 2 of 2

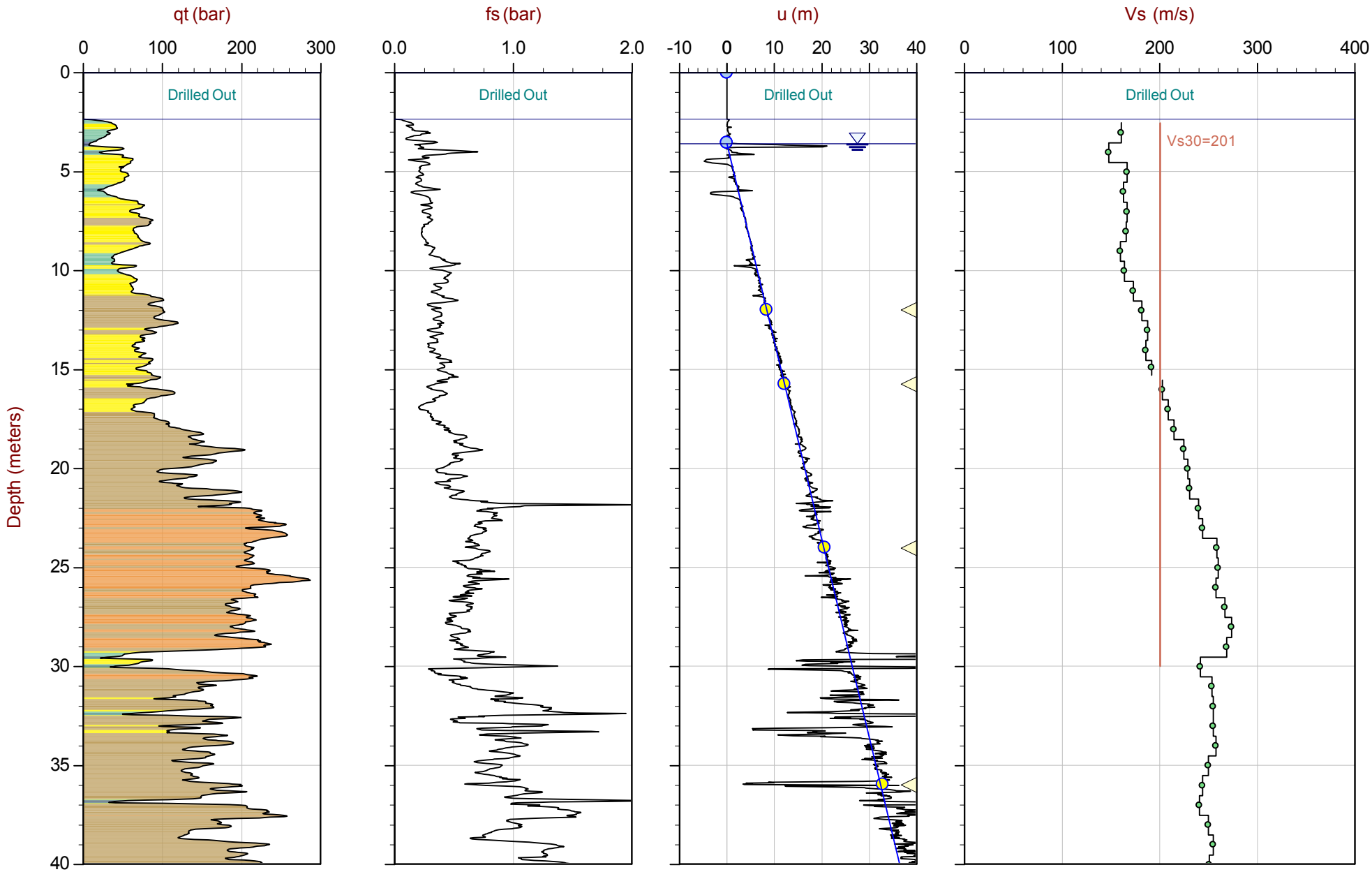
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 07:28
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-09
Cone: 474:T1500F15U500



Max Depth: 73.675 m / 241.71 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP09.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445234m E: 503698m
Sheet No: 1 of 2

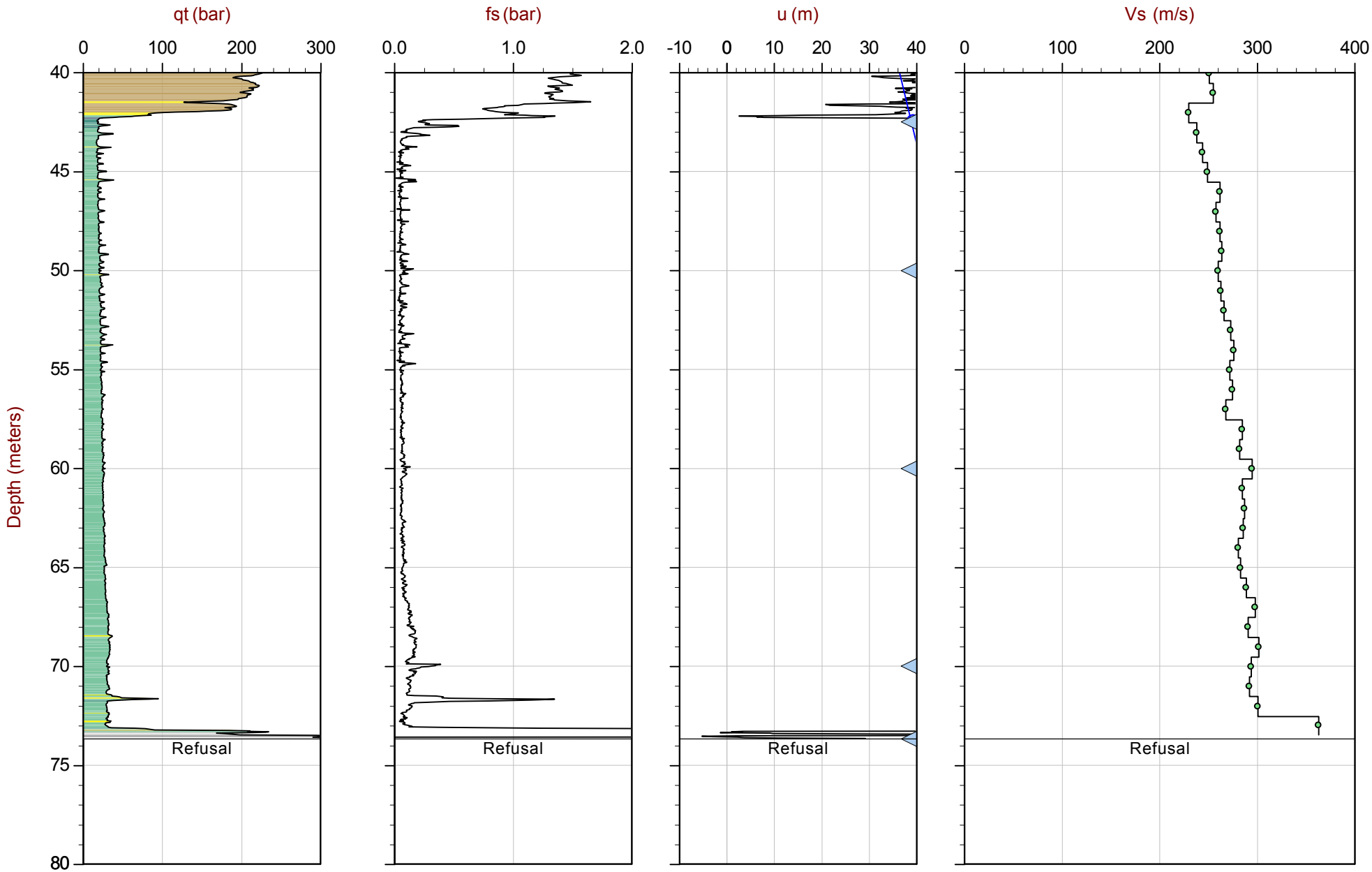
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/11/24 07:28
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-09
Cone: 474:T1500F15U500



Max Depth: 73.675 m / 241.71 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP09.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM 10N N: 5445234m E: 503698m
Sheet No: 2 of 2

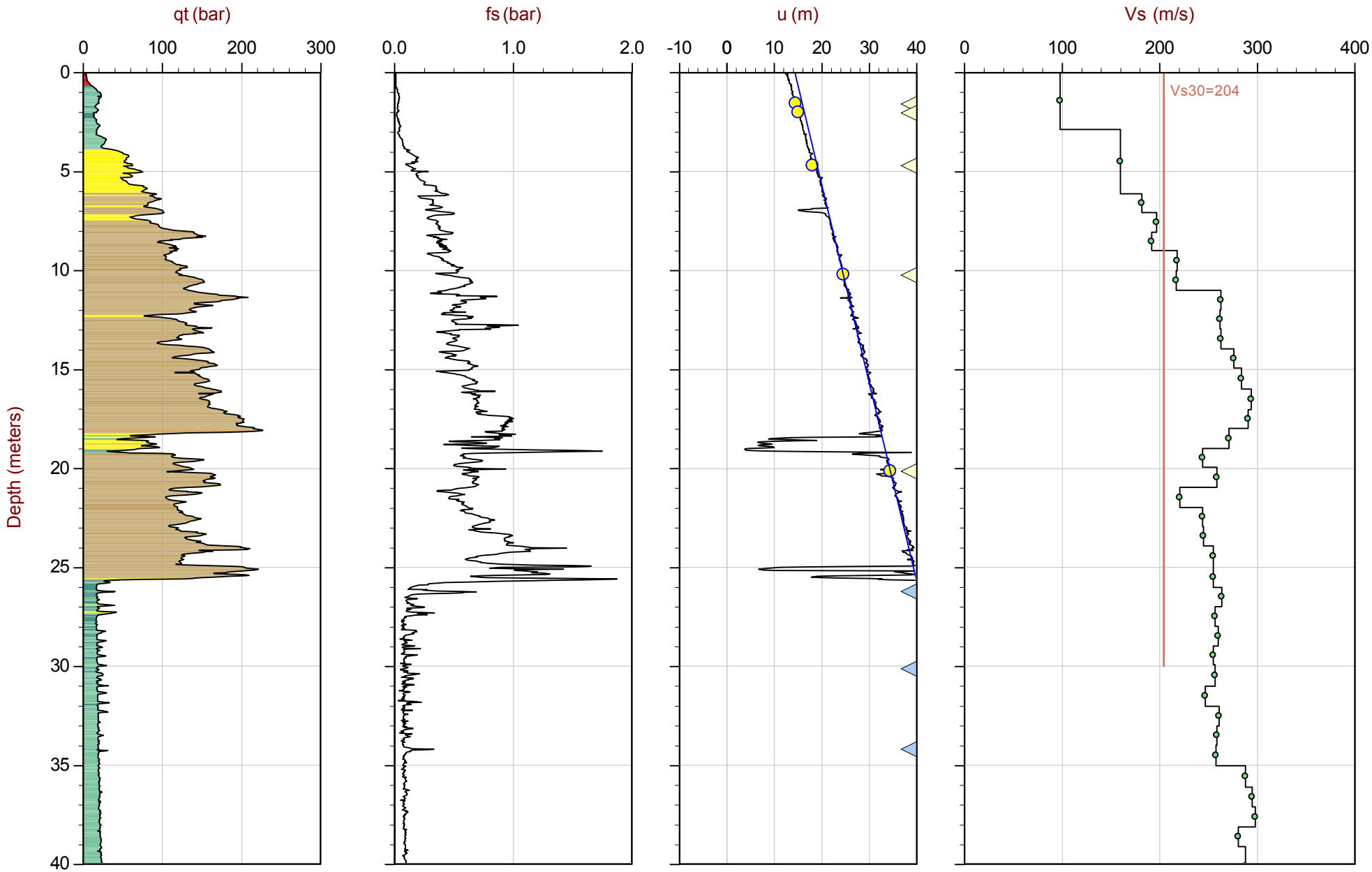
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/12/15 11:11
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-10
Cone: 477:T1500F15U1K



Max Depth: 51.725 m / 169.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP10.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM10N N: 5445097.745m E: 503815.306m Elev: -12.75m
Sheet No: 1 of 2

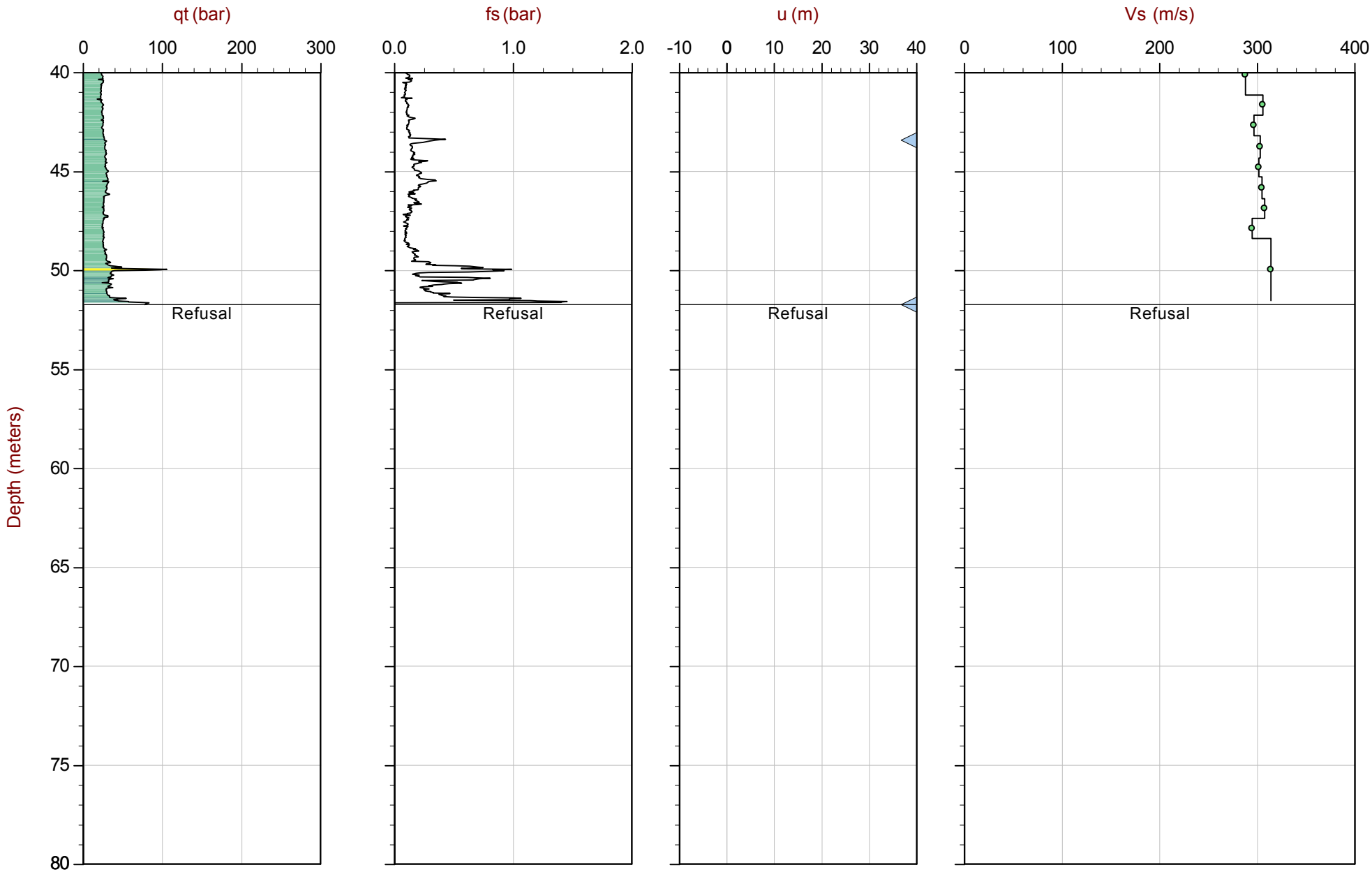
Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

CONETEC

Golder

Job No: 16-02063
Date: 2016/12/15 11:11
Site: Annacis Island Wastewater Treatment Plant

Sounding: SCPT16-10
Cone: 477:T1500F15U1K



Max Depth: 51.725 m / 169.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point
Overplot Item:

File: 16-02063_SP10.COR
Unit Wt: SBT Zones

SBT: Robertson and Campanella, 1986
Coords: UTM10N N: 5445097.745m E: 503815.306m Elev: -12.75m
Sheet No: 2 of 2

Ueq
Assumed Ueq
Dissipation, equilibrium achieved
Dissipation, equilibrium not achieved
Hydrostatic Line
Dissipation, equilibrium assumed

Seismic Cone Penetration Test Tabular Results

CONETEC

Job No:	15-02048
Client:	Golder Associates
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT15-01
Date:	16-Sep-2015

Seismic Source:	Auto-seis Hammer
Source Offset (m):	10.00
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
6.13	5.93	11.63			
8.08	7.88	12.73	1.11	7.49	148
9.08	8.88	13.37	0.64	3.37	191
11.10	10.90	14.79	1.42	6.36	223
12.08	11.88	15.53	0.74	2.99	246
14.13	13.93	17.15	1.62	5.99	270
15.08	14.88	17.93	0.78	2.81	278
16.53	16.33	19.15	1.22	4.64	263
18.60	18.40	20.94	1.79	6.38	281
20.68	20.48	22.79	1.85	6.75	274
21.65	21.45	23.67	0.88	3.26	269
22.60	22.40	24.53	0.86	3.05	284
23.60	23.40	25.45	0.92	3.19	287
31.43	31.23	32.79			
32.45	32.25	33.76	0.97	3.37	289
34.13	33.93	35.37	1.61	5.53	291

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT15-06
Date:	15-Jul-2015

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.15	1.95	2.13			
3.15	2.95	3.07	0.94	7.54	125
4.15	3.95	4.04	0.97	8.56	113
5.15	4.95	5.02	0.98	8.18	120
6.15	5.95	6.01	0.99	6.64	149
7.15	6.95	7.00	0.99	6.10	162
8.15	7.95	8.00	0.99	6.30	158
9.15	8.95	8.99	0.99	6.62	150
10.10	9.90	9.94	0.95	5.99	158
11.15	10.95	10.98	1.05	6.05	173
12.15	11.95	11.98	1.00	5.48	182
13.15	12.95	12.98	1.00	5.53	180
14.15	13.95	13.98	1.00	5.36	186
15.15	14.95	14.97	1.00	5.36	186
16.15	15.95	15.97	1.00	5.12	195
17.15	16.95	16.97	1.00	5.01	199
18.15	17.95	17.97	1.00	5.13	195
19.10	18.90	18.92	0.95	4.84	196
20.10	19.90	19.92	1.00	5.08	197
21.15	20.95	20.97	1.05	5.03	209
22.15	21.95	21.97	1.00	4.90	204
23.15	22.95	22.97	1.00	5.01	199
24.15	23.95	23.96	1.00	4.87	205
25.15	24.95	24.96	1.00	5.10	196
26.15	25.95	25.96	1.00	4.77	210
27.15	26.95	26.96	1.00	4.47	223
28.15	27.95	27.96	1.00	4.29	233
29.15	28.95	28.96	1.00	4.30	232
30.15	29.95	29.96	1.00	4.09	245

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT15-06
Date:	15-Jul-2015

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
31.15	30.95	30.96	1.00	4.09	245
32.15	31.95	31.96	1.00	4.12	243
33.20	33.00	33.01	1.05	4.04	260
34.10	33.90	33.91	0.90	3.42	263
35.15	34.95	34.96	1.05	4.00	262
36.15	35.95	35.96	1.00	3.85	259
37.15	36.95	36.96	1.00	3.80	263
38.15	37.95	37.96	1.00	3.92	255
39.15	38.95	38.96	1.00	4.08	245
40.15	39.95	39.96	1.00	3.94	254
41.15	40.95	40.96	1.00	3.78	264
42.15	41.95	41.96	1.00	3.86	259
43.15	42.95	42.96	1.00	3.68	271
44.15	43.95	43.96	1.00	3.60	278
45.15	44.95	44.96	1.00	3.82	262
46.15	45.95	45.96	1.00	3.85	260
47.15	46.95	46.96	1.00	3.81	262
48.15	47.95	47.96	1.00	3.47	288

Job No: 15-02048
Client: Golder Associates
Project: AIWWTP Transient Mitigation and Outfall System
Sounding ID: SCPT15-11
Date: 17-Sep-2015

Seismic Source: Auto-seis Hammer
Source Offset (m): 9.00
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
8.38	8.18	12.16			
9.32	9.12	12.81	0.65	3.05	213
10.43	10.23	13.63	0.81	3.64	223
11.43	11.23	14.39	0.77	3.51	218
12.45	12.25	15.20	0.81	3.78	214
13.43	13.23	16.00	0.80	3.72	215
14.47	14.27	16.87	0.87	4.08	213
15.45	15.25	17.71	0.84	3.75	223
16.35	16.15	18.49	0.78	3.48	224
17.13	16.93	19.17	0.69	2.93	234
18.30	18.10	20.21	1.04	4.29	243
19.40	19.20	21.20	0.99	3.93	252
20.45	20.25	22.16	0.96	3.71	257
21.45	21.25	23.08	0.92	3.61	254
23.35	23.15	24.84	1.76	7.03	251
24.50	24.30	25.91	1.08	4.28	251
25.52	25.32	26.87	0.96	3.90	246
26.55	26.35	27.84	0.97	4.18	233
28.45	28.25	29.65	1.80	8.15	221
29.48	29.28	30.63	0.98	4.43	222
31.52	31.32	32.59	1.96	8.69	225
32.48	32.28	33.51	0.92	3.91	236
33.45	33.25	34.45	0.94	4.08	229
34.40	34.20	35.36	0.92	4.00	230
35.40	35.20	36.33	0.97	4.12	235
36.45	36.25	37.35	1.02	4.03	252
38.52	38.32	39.36	2.01	7.65	263
39.58	39.38	40.40	1.03	3.86	268
40.50	40.30	41.29	0.90	3.36	267

Job No:	15-02048
Client:	Golder Associates
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT15-11
Date:	17-Sep-2015

Seismic Source:	Auto-seis Hammer
Source Offset (m):	9.00
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
41.52	41.32	42.29	1.00	3.69	270
42.58	42.38	43.33	1.04	3.84	270
43.63	43.43	44.35	1.03	3.73	275
44.58	44.38	45.28	0.93	3.39	275
45.95	45.75	46.63	1.34	4.85	277
47.52	47.32	48.17	1.54	5.62	274
48.65	48.45	49.28	1.11	3.92	283
49.58	49.38	50.19	0.91	3.26	280
50.63	50.43	51.23	1.03	3.70	280
51.58	51.38	52.16	0.94	3.40	276
52.58	52.38	53.15	0.99	3.65	270
53.55	53.35	54.10	0.96	3.58	267
54.70	54.50	55.24	1.13	4.19	271

Job No:	15-02048.04
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT15-13
Date:	04-Oct-2015

Seismic Source:	Beam
Source Offset (m):	0.45
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
4.30	4.10	4.12			
5.30	5.10	5.12	1.00	6.28	158
6.30	6.10	6.12	1.00	5.88	169
7.30	7.10	7.11	1.00	5.90	169
8.30	8.10	8.11	1.00	6.15	162
9.30	9.10	9.11	1.00	6.15	162
10.30	10.10	10.11	1.00	5.78	173
11.30	11.10	11.11	1.00	5.25	190
12.30	12.10	12.11	1.00	5.14	194
13.30	13.10	13.11	1.00	5.11	196
14.30	14.10	14.11	1.00	5.23	191
15.30	15.10	15.11	1.00	5.12	195
16.30	16.10	16.11	1.00	4.99	200
17.30	17.10	17.11	1.00	5.04	198
18.30	18.10	18.11	1.00	4.99	200
19.30	19.10	19.11	1.00	4.78	209
20.30	20.10	20.10	1.00	4.68	214
21.30	21.10	21.10	1.00	4.57	219
22.30	22.10	22.10	1.00	4.52	221
23.30	23.10	23.10	1.00	4.36	229
24.30	24.10	24.10	1.00	4.39	228
25.30	25.10	25.10	1.00	4.78	209
26.30	26.10	26.10	1.00	4.62	216
27.30	27.10	27.10	1.00	4.41	227
28.30	28.10	28.10	1.00	4.24	236
29.30	29.10	29.10	1.00	4.00	250
30.30	30.10	30.10	1.00	3.98	251
31.30	31.10	31.10	1.00	3.90	256
32.30	32.10	32.10	1.00	3.84	261

Job No:	15-02048.04
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT15-13
Date:	04-Oct-2015

Seismic Source:	Beam
Source Offset (m):	0.45
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
33.30	33.10	33.10	1.00	3.92	255
34.30	34.10	34.10	1.00	3.95	253
35.30	35.10	35.10	1.00	3.99	250
36.30	36.10	36.10	1.00	3.82	261
37.30	37.10	37.10	1.00	3.74	267
38.30	38.10	38.10	1.00	3.73	268
39.30	39.10	39.10	1.00	3.78	264
40.30	40.10	40.10	1.00	3.68	272
41.30	41.10	41.10	1.00	3.52	284
42.30	42.10	42.10	1.00	3.84	261
43.30	43.10	43.10	1.00	3.93	254
44.30	44.10	44.10	1.00	4.10	244
45.30	45.10	45.10	1.00	4.10	244
46.30	46.10	46.10	1.00	3.99	250
47.30	47.10	47.10	1.00	3.99	250
48.30	48.10	48.10	1.00	3.88	258
49.30	49.10	49.10	1.00	3.83	261
50.30	50.10	50.10	1.00	3.75	267
51.30	51.10	51.10	1.00	3.73	268
52.30	52.10	52.10	1.00	3.68	272
53.30	53.10	53.10	1.00	3.71	270
54.30	54.10	54.10	1.00	3.68	272
55.35	55.15	55.15	1.05	3.84	274
56.30	56.10	56.10	0.95	3.52	270
57.30	57.10	57.10	1.00	3.68	272
58.00	57.80	57.80	0.70	2.57	272

Job No: 15-02048
Client: Golder Associates Ltd.
Project: AIWWTP Transient Mitigation and Outfall System
Sounding ID: SCPT16-01
Date: 22-Mar-2016

Seismic Source: Beam
Source Offset (m): 0.80
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
3.10	2.90	3.01			
4.10	3.90	3.98	0.97	5.17	188
5.10	4.90	4.96	0.98	5.58	176
6.10	5.90	5.95	0.99	6.81	145
7.10	6.90	6.95	0.99	7.49	133
8.10	7.90	7.94	0.99	6.26	159
9.10	8.90	8.94	1.00	6.26	159
10.10	9.90	9.93	1.00	5.99	166
11.10	10.90	10.93	1.00	5.85	170
12.10	11.90	11.93	1.00	5.72	174
13.10	12.90	12.92	1.00	6.13	163
14.10	13.90	13.92	1.00	5.99	167
15.10	14.90	14.92	1.00	5.45	183
16.10	15.90	15.92	1.00	5.72	175
17.10	16.90	16.92	1.00	4.77	210
18.10	17.90	17.92	1.00	5.17	193
19.10	18.90	18.92	1.00	4.77	210
20.10	19.90	19.92	1.00	4.49	222
21.10	20.90	20.92	1.00	4.90	204
22.10	21.90	21.91	1.00	5.04	198
23.10	22.90	22.91	1.00	4.49	222
24.10	23.90	23.91	1.00	4.63	216
25.10	24.90	24.91	1.00	4.49	222
26.10	25.90	25.91	1.00	4.90	204
27.10	26.90	26.91	1.00	4.36	229
28.10	27.90	27.91	1.00	4.22	237
29.10	28.90	28.91	1.00	4.49	222
30.10	29.90	29.91	1.00	4.77	210
31.10	30.90	30.91	1.00	5.00	200
32.10	31.90	31.91	1.00	4.19	239
33.10	32.90	32.91	1.00	4.03	248
34.10	33.90	33.91	1.00	3.85	260
35.10	34.90	34.91	1.00	4.22	237
36.10	35.90	35.91	1.00	4.30	233
37.10	36.90	36.91	1.00	4.05	247
38.10	37.90	37.91	1.00	3.68	272
39.10	38.90	38.91	1.00	4.12	243
40.10	39.90	39.91	1.00	3.74	268
41.10	40.90	40.91	1.00	3.88	257
42.10	41.90	41.91	1.00	3.76	266

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT16-01
Date:	22-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.80
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
43.10	42.90	42.91	1.00	3.57	280
44.10	43.90	43.91	1.00	3.76	266
45.10	44.90	44.91	1.00	3.54	283
46.10	45.90	45.91	1.00	4.02	249
47.10	46.90	46.91	1.00	3.72	269
48.10	47.90	47.91	1.00	3.21	311
49.10	48.90	48.91	1.00	3.48	287
50.10	49.90	49.91	1.00	3.88	258
51.10	50.90	50.91	1.00	3.80	263
52.10	51.90	51.91	1.00	4.03	248
53.10	52.90	52.91	1.00	3.97	252
54.10	53.90	53.91	1.00	4.19	239
55.10	54.90	54.91	1.00	3.91	256
56.10	55.90	55.91	1.00	3.70	270
57.10	56.90	56.91	1.00	3.56	281
58.10	57.90	57.91	1.00	3.85	260
59.10	58.90	58.91	1.00	4.12	243
60.10	59.90	59.91	1.00	3.75	266
61.10	60.90	60.91	1.00	3.63	276
62.10	61.90	61.91	1.00	3.79	264
63.10	62.90	62.90	1.00	3.85	260
64.10	63.90	63.90	1.00	3.67	273
65.10	64.90	64.90	1.00	3.67	273
66.10	65.90	65.90	1.00	3.57	280
67.10	66.90	66.90	1.00	3.42	292
68.10	67.90	67.90	1.00	3.54	283
69.10	68.90	68.90	1.00	3.66	273
70.10	69.90	69.90	1.00	3.18	314
71.10	70.90	70.90	1.00	3.34	300
72.10	71.90	71.90	1.00	3.26	307
73.10	72.90	72.90	1.00	3.46	289
74.10	73.90	73.90	1.00	3.69	271
75.10	74.90	74.90	1.00	3.59	279
76.05	75.85	75.85	0.95	3.09	307
77.10	76.90	76.90	1.05	3.09	340
78.00	77.80	77.80	0.90	2.59	347

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT16-02
Date:	23-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
3.10	2.90	3.02			
4.10	3.90	3.99	0.97	6.23	156
5.10	4.90	4.97	0.98	7.09	139
6.10	5.90	5.96	0.99	6.14	161
7.10	6.90	6.95	0.99	6.11	162
8.10	7.90	7.95	0.99	7.10	140
9.10	8.90	8.94	0.99	6.65	150
10.10	9.90	9.94	1.00	5.87	170
11.10	10.90	10.93	1.00	5.45	183
12.10	11.90	11.93	1.00	6.40	156
13.10	12.90	12.93	1.00	5.85	171
14.10	13.90	13.93	1.00	5.94	168
15.10	14.90	14.92	1.00	5.34	187
16.10	15.90	15.92	1.00	6.34	157
17.10	16.90	16.92	1.00	6.43	155
18.10	17.90	17.92	1.00	5.55	180
19.10	18.90	18.92	1.00	4.93	202
20.10	19.90	19.92	1.00	5.35	187
21.10	20.90	20.92	1.00	4.59	218
22.10	21.90	21.92	1.00	4.66	215
23.10	22.90	22.92	1.00	4.40	227
24.10	23.90	23.92	1.00	4.47	224
25.10	24.90	24.91	1.00	4.33	231
26.10	25.90	25.91	1.00	4.43	226
27.10	26.90	26.91	1.00	4.35	230
28.10	27.90	27.91	1.00	4.21	237
29.10	28.90	28.91	1.00	3.96	252
30.10	29.90	29.91	1.00	4.34	230
31.10	30.90	30.91	1.00	3.83	261
32.10	31.90	31.91	1.00	3.58	280
33.10	32.90	32.91	1.00	3.96	253
34.10	33.90	33.91	1.00	4.21	237
35.10	34.90	34.91	1.00	3.70	270
36.10	35.90	35.91	1.00	3.62	277
37.10	36.90	36.91	1.00	3.47	288
38.10	37.90	37.91	1.00	3.77	265
39.10	38.90	38.91	1.00	4.34	230
40.10	39.90	39.91	1.00	4.02	249
41.10	40.90	40.91	1.00	3.47	289
42.10	41.90	41.91	1.00	4.20	238

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT16-02
Date:	23-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
43.10	42.90	42.91	1.00	3.77	265
44.10	43.90	43.91	1.00	3.74	268
45.10	44.90	44.91	1.00	3.27	306
46.10	45.90	45.91	1.00	3.47	288
47.10	46.90	46.91	1.00	3.57	280
48.10	47.90	47.91	1.00	3.98	251
49.10	48.90	48.91	1.00	3.99	251
50.10	49.90	49.91	1.00	3.78	265
51.10	50.90	50.91	1.00	4.03	248
52.10	51.90	51.91	1.00	3.86	259
53.10	52.90	52.91	1.00	3.97	252
54.10	53.90	53.91	1.00	4.03	248
55.10	54.90	54.91	1.00	3.88	258
56.10	55.90	55.91	1.00	3.77	265
57.10	56.90	56.91	1.00	3.81	263
58.10	57.90	57.91	1.00	3.50	286
59.10	58.90	58.91	1.00	3.55	281
60.00	59.80	59.81	0.90	2.99	301

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT16-03
Date:	20-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
3.10	2.90	3.02			
4.10	3.90	3.99	0.97	7.48	130
5.10	4.90	4.97	0.98	7.08	139
6.10	5.90	5.96	0.99	7.08	140
7.10	6.90	6.95	0.99	6.47	153
8.10	7.90	7.95	0.99	6.07	164
9.10	8.90	8.94	0.99	5.86	170
10.10	9.90	9.94	1.00	5.66	176
11.10	10.90	10.93	1.00	5.55	180
12.10	11.90	11.93	1.00	5.21	191
13.10	12.90	12.93	1.00	5.79	172
14.10	13.90	13.93	1.00	5.89	169
15.10	14.90	14.92	1.00	5.86	170
16.10	15.90	15.92	1.00	5.66	176
17.10	16.90	16.92	1.00	5.51	181
18.10	17.90	17.92	1.00	5.21	192
19.10	18.90	18.92	1.00	4.86	205
20.10	19.90	19.92	1.00	4.43	226
21.10	20.90	20.92	1.00	4.65	215
22.15	21.95	21.97	1.05	4.85	216
23.10	22.90	22.92	0.95	4.25	223
24.10	23.90	23.92	1.00	4.90	204
25.10	24.90	24.91	1.00	4.38	228
26.10	25.90	25.91	1.00	4.00	250
27.10	26.90	26.91	1.00	4.09	245
28.10	27.90	27.91	1.00	4.29	233
29.10	28.90	28.91	1.00	4.09	244
30.10	29.90	29.91	1.00	4.04	248
31.10	30.90	30.91	1.00	4.54	220
32.10	31.90	31.91	1.00	4.29	233
33.10	32.90	32.91	1.00	4.09	245
34.10	33.90	33.91	1.00	4.04	247
35.10	34.90	34.91	1.00	4.13	242
36.10	35.90	35.91	1.00	4.00	250
37.10	36.90	36.91	1.00	3.89	257
38.10	37.90	37.91	1.00	3.98	251
39.10	38.90	38.91	1.00	3.68	272
40.10	39.90	39.91	1.00	3.77	265
41.10	40.90	40.91	1.00	3.71	269
42.10	41.90	41.91	1.00	4.02	249

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT16-03
Date:	20-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
43.10	42.90	42.91	1.00	3.84	261
44.10	43.90	43.91	1.00	3.90	257
45.10	44.90	44.91	1.00	3.82	262
46.10	45.90	45.91	1.00	3.86	259
47.10	46.90	46.91	1.00	3.72	269
48.10	47.90	47.91	1.00	3.75	266
49.10	48.90	48.91	1.00	3.80	263
50.10	49.90	49.91	1.00	3.99	251
51.10	50.90	50.91	1.00	4.05	247
52.10	51.90	51.91	1.00	3.92	255
53.10	52.90	52.91	1.00	3.98	251
54.10	53.90	53.91	1.00	3.72	269
55.10	54.90	54.91	1.00	4.04	247
56.10	55.90	55.91	1.00	3.79	264
57.00	56.80	56.81	0.90	3.35	268
58.10	57.90	57.91	1.10	4.31	255
59.10	58.90	58.91	1.00	3.82	262
60.10	59.90	59.91	1.00	3.65	274
61.10	60.90	60.91	1.00	3.88	258
62.10	61.90	61.91	1.00	3.57	280
63.00	62.80	62.81	0.90	3.12	288

Job No: 15-02048
Client: Golder Associates Ltd.
Project: AIWWTP Transient Mitigation and Outfall System
Sounding ID: SCPT16-04
Date: 21-Mar-2016

Seismic Source: Beam
Source Offset (m): 0.85
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
3.05	2.85	2.97			
4.05	3.85	3.94	0.97	6.35	153
5.05	4.85	4.92	0.98	8.09	121
6.05	5.85	5.91	0.99	7.06	140
7.05	6.85	6.90	0.99	6.81	146
8.05	7.85	7.90	0.99	6.29	158
9.05	8.85	8.89	0.99	7.06	141
10.05	9.85	9.89	1.00	6.04	165
11.05	10.85	10.88	1.00	6.81	146
12.05	11.85	11.88	1.00	5.78	173
13.05	12.85	12.88	1.00	5.91	169
14.05	13.85	13.88	1.00	5.39	185
15.05	14.85	14.87	1.00	5.52	181
16.05	15.85	15.87	1.00	5.14	194
17.05	16.85	16.87	1.00	5.27	190
18.05	17.85	17.87	1.00	5.16	194
19.05	18.85	18.87	1.00	4.74	211
20.05	19.85	19.87	1.00	5.06	197
21.05	20.85	20.87	1.00	5.19	192
22.05	21.85	21.87	1.00	4.67	214
23.05	22.85	22.87	1.00	4.76	210
24.05	23.85	23.87	1.00	4.43	226
25.05	24.85	24.86	1.00	4.70	213
26.00	25.80	25.81	0.95	4.41	215
27.05	26.85	26.86	1.05	4.68	224
28.05	27.85	27.86	1.00	4.08	245
29.05	28.85	28.86	1.00	4.28	234
30.05	29.85	29.86	1.00	3.44	291
31.05	30.85	30.86	1.00	3.23	310
32.05	31.85	31.86	1.00	3.01	332
33.05	32.85	32.86	1.00	3.27	306
34.05	33.85	33.86	1.00	3.86	259
35.00	34.80	34.81	0.95	3.86	246
36.05	35.85	35.86	1.05	3.86	272
37.05	36.85	36.86	1.00	3.52	284
38.05	37.85	37.86	1.00	4.66	215
39.05	38.85	38.86	1.00	4.20	238
40.05	39.85	39.86	1.00	3.98	251
41.05	40.85	40.86	1.00	4.32	232
42.05	41.85	41.86	1.00	4.20	238

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT16-04
Date:	21-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.85
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
43.05	42.85	42.86	1.00	3.98	251
44.05	43.85	43.86	1.00	4.20	238
45.05	44.85	44.86	1.00	3.98	251
46.05	45.85	45.86	1.00	3.77	265
47.05	46.85	46.86	1.00	3.96	253
48.05	47.85	47.86	1.00	3.64	275
49.05	48.85	48.86	1.00	3.70	270
50.05	49.85	49.86	1.00	3.93	254
51.05	50.85	50.86	1.00	4.04	248
52.05	51.85	51.86	1.00	4.22	237
53.05	52.85	52.86	1.00	3.88	258
54.05	53.85	53.86	1.00	4.03	248
55.05	54.85	54.86	1.00	3.43	291
56.05	55.85	55.86	1.00	3.95	253
57.05	56.85	56.86	1.00	4.18	239
58.05	57.85	57.86	1.00	3.81	263
59.05	58.85	58.86	1.00	3.63	275
60.05	59.85	59.86	1.00	3.54	282
61.05	60.85	60.86	1.00	3.54	282
62.05	61.85	61.86	1.00	3.25	308
63.05	62.85	62.86	1.00	4.13	242
64.05	63.85	63.86	1.00	3.69	271
65.05	64.85	64.86	1.00	3.84	261
66.00	65.80	65.81	0.95	3.54	268
67.05	66.85	66.86	1.05	3.27	321
68.05	67.85	67.86	1.00	3.23	310
69.05	68.85	68.86	1.00	3.54	282
70.05	69.85	69.86	1.00	3.25	308

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT 16-05
Date:	24-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.80
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
0.80	0.60	1.00			
1.80	1.60	1.79	0.79	7.18	110
2.80	2.60	2.72	0.93	6.02	155
3.80	3.60	3.69	0.97	8.26	117
4.80	4.60	4.67	0.98	8.34	118
5.80	5.60	5.66	0.99	6.79	145
6.80	6.60	6.65	0.99	6.64	149
7.80	7.60	7.64	0.99	6.25	159
8.80	8.60	8.64	1.00	5.98	166
9.80	9.60	9.63	1.00	5.90	169
10.80	10.60	10.63	1.00	5.60	178
11.80	11.60	11.63	1.00	5.68	176
12.80	12.60	12.63	1.00	5.97	167
13.80	13.60	13.62	1.00	5.61	178
14.80	14.60	14.62	1.00	5.40	185
15.80	15.60	15.62	1.00	4.94	202
16.80	16.60	16.62			
17.80	17.60	17.62	1.00	4.82	207
18.80	18.60	18.62	1.00	4.37	228
19.80	19.60	19.62	1.00	4.82	207
20.80	20.60	20.62	1.00	4.77	210
21.80	21.60	21.61	1.00	4.57	219
22.80	22.60	22.61	1.00	4.91	203
23.80	23.60	23.61	1.00	4.87	205
24.80	24.60	24.61	1.00	4.46	224
25.80	25.60	25.61	1.00	3.83	261
26.80	26.60	26.61	1.00	4.13	242
27.80	27.60	27.61	1.00	4.62	216
28.80	28.60	28.61	1.00	4.13	242
29.80	29.60	29.61	1.00	4.42	226
30.80	30.60	30.61	1.00	4.42	226
31.80	31.60	31.61	1.00	4.23	237
32.80	32.60	32.61	1.00	4.13	242
33.80	33.60	33.61	1.00	3.73	268
34.80	34.60	34.61	1.00	4.06	246
35.80	35.60	35.61	1.00	3.98	251
36.80	36.60	36.61	1.00	3.93	254
37.80	37.60	37.61	1.00	4.28	234
38.80	38.60	38.61	1.00	3.98	251
39.80	39.60	39.61	1.00	4.03	248

Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	SCPT 16-05
Date:	24-Mar-2016

Seismic Source:	Beam
Source Offset (m):	0.80
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
40.80	40.60	40.61	1.00	3.69	271
41.80	41.60	41.61	1.00	3.88	258
42.80	42.60	42.61	1.00	3.73	268
43.80	43.60	43.61	1.00	3.64	275
44.80	44.60	44.61	1.00	3.81	262
45.80	45.60	45.61	1.00	3.88	258
46.80	46.60	46.61	1.00	3.69	271
47.80	47.60	47.61	1.00	3.34	299
48.80	48.60	48.61	1.00	3.69	271
49.80	49.60	49.61	1.00	3.64	275
50.80	50.60	50.61	1.00	3.78	264
51.80	51.60	51.61	1.00	3.59	279
52.80	52.60	52.61	1.00	3.69	271
53.80	53.60	53.61	1.00	3.54	283
54.80	54.60	54.61	1.00	3.88	258
55.80	55.60	55.61	1.00	3.83	261
56.80	56.60	56.61	1.00	3.39	295
57.80	57.60	57.61	1.00	3.39	295
58.80	58.60	58.61	1.00	3.34	299
59.80	59.60	59.61	1.00	3.54	283
60.80	60.60	60.61	1.00	3.44	291
61.80	61.60	61.61	1.00	3.39	295
62.80	62.60	62.61	1.00	3.39	295
63.80	63.60	63.60	1.00	3.29	304

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-06
Date:	24-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.83	2.63	2.72			
3.83	3.63	3.69	0.98	8.91	110
4.83	4.63	4.68	0.99	8.78	112
5.83	5.63	5.67	0.99	6.78	146
6.83	6.63	6.66	0.99	6.20	160
7.83	7.63	7.66	1.00	6.25	159
8.82	8.62	8.65	0.99	6.14	161
9.82	9.62	9.64	1.00	6.00	166
10.82	10.62	10.64	1.00	5.68	176
11.82	11.62	11.64	1.00	5.75	174
12.82	12.62	12.64	1.00	5.36	186
13.82	13.62	13.64	1.00	5.16	193
14.82	14.62	14.64	1.00	5.10	196
15.82	15.62	15.63	1.00	5.10	196
15.80	15.60	15.61			
16.80	16.60	16.61	1.00	4.85	206
17.80	17.60	17.61	1.00	4.59	218
18.80	18.60	18.61	1.00	4.46	224
19.80	19.60	19.61	1.00	4.41	227
20.80	20.60	20.61	1.00	4.47	224
21.80	21.60	21.61	1.00	4.45	224
22.80	22.60	22.61	1.00	4.42	226
23.80	23.60	23.61	1.00	4.34	230
24.80	24.60	24.61	1.00	4.37	229
25.80	25.60	25.61	1.00	4.26	234
26.80	26.60	26.61	1.00	4.46	224
27.80	27.60	27.61	1.00	4.42	226
28.80	28.60	28.61	1.00	4.35	230
29.80	29.60	29.61	1.00	4.40	227

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-06
Date:	24-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
30.80	30.60	30.61	1.00	4.26	235
31.80	31.60	31.61	1.00	4.13	242
32.80	32.60	32.61	1.00	4.05	247
33.80	33.60	33.61	1.00	4.03	248
34.80	34.60	34.61	1.00	4.03	248
35.80	35.60	35.61	1.00	3.98	251
36.80	36.60	36.61	1.00	4.06	246
37.80	37.60	37.61	1.00	4.01	249
38.80	38.60	38.61	1.00	3.96	253
39.80	39.60	39.61	1.00	3.95	253
40.80	40.60	40.61	1.00	3.92	255
41.80	41.60	41.61	1.00	3.89	257
42.80	42.60	42.61	1.00	3.88	258
43.80	43.60	43.61	1.00	3.78	264
44.80	44.60	44.61	1.00	3.80	263
45.80	45.60	45.60	1.00	3.86	259
46.80	46.60	46.60	1.00	3.87	258
47.80	47.60	47.60	1.00	3.77	265
48.80	48.60	48.60	1.00	3.67	272
49.80	49.60	49.60	1.00	4.06	246
50.80	50.60	50.60	1.00	4.08	245
51.80	51.60	51.60	1.00	4.06	246
52.80	52.60	52.60	1.00	4.06	246
53.80	53.60	53.60	1.00	4.16	240
54.80	54.60	54.60	1.00	4.07	246
55.80	55.60	55.60	1.00	3.92	255
56.80	56.60	56.60	1.00	3.97	252
57.80	57.60	57.60	1.00	3.88	257
58.80	58.60	58.60	1.00	3.95	253

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-06
Date:	24-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
59.80	59.60	59.60	1.00	3.87	258
60.80	60.60	60.60	1.00	3.85	260
61.80	61.60	61.60	1.00	3.75	267
62.50	62.30	62.30	0.70	2.26	310

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-07
Date:	25-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.83	2.63	2.72			
3.83	3.63	3.69	0.98	6.83	143
4.83	4.63	4.68	0.99	6.38	155
5.83	5.63	5.67	0.99	6.68	148
6.83	6.63	6.66	0.99	6.68	149
7.83	7.63	7.66	1.00	6.48	154
8.82	8.62	8.65	0.99	5.91	167
9.82	9.62	9.64	1.00	5.78	172
10.82	10.62	10.64	1.00	6.01	166
11.82	11.62	11.64	1.00	5.71	175
12.82	12.62	12.64	1.00	5.63	177
13.82	13.62	13.64	1.00	5.56	180
14.82	14.62	14.64	1.00	5.43	184
15.82	15.62	15.63	1.00	5.33	187
16.82	16.62	16.63			
17.82	17.62	17.63	1.00	5.11	196
18.82	18.62	18.63	1.00	4.73	211
19.82	19.62	19.63	1.00	4.56	219
20.82	20.62	20.63	1.00	4.42	226
21.82	21.62	21.63	1.00	4.44	225
22.82	22.62	22.63	1.00	4.35	230
23.82	23.62	23.63	1.00	4.29	233
24.82	24.62	24.63	1.00	4.50	222
25.82	25.62	25.63	1.00	4.25	235
26.82	26.62	26.63	1.00	4.29	233
27.82	27.62	27.63	1.00	4.17	240
28.82	28.62	28.63	1.00	4.11	243
29.82	29.62	29.63	1.00	4.14	241
30.82	30.62	30.63	1.00	4.19	239

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-07
Date:	25-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
31.82	31.62	31.63	1.00	4.16	240
32.83	32.63	32.64	1.01	4.18	242
33.83	33.63	33.64	1.00	4.12	243
34.83	34.63	34.64	1.00	3.93	254
35.83	35.63	35.64	1.00	3.83	261
36.83	36.63	36.64	1.00	3.78	264
37.83	37.63	37.64	1.00	3.83	261
38.83	38.63	38.64	1.00	3.76	266
39.83	39.63	39.64	1.00	3.72	269
40.83	40.63	40.64	1.00	3.80	263
41.83	41.63	41.64	1.00	3.76	266
42.83	42.63	42.64	1.00	3.75	267
43.83	43.63	43.64	1.00	3.82	262
44.83	44.63	44.64	1.00	3.76	266
45.83	45.63	45.64	1.00	3.68	271
46.83	46.63	46.63	1.00	3.75	267
47.83	47.63	47.63	1.00	3.69	271
48.83	48.63	48.63	1.00	3.62	276
49.83	49.63	49.63	1.00	3.69	271
50.83	50.63	50.63	1.00	3.60	278
51.83	51.63	51.63	1.00	3.58	280
52.83	52.63	52.63	1.00	3.54	283
53.83	53.63	53.63	1.00	3.80	263
54.83	54.63	54.63	1.00	3.72	269
55.83	55.63	55.63	1.00	3.73	268
56.83	56.63	56.63	1.00	3.72	269
57.83	57.63	57.63	1.00	3.77	266
58.83	58.63	58.63	1.00	3.70	270
59.83	59.63	59.63	1.00	3.67	273

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-07
Date:	25-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
60.83	60.63	60.63	1.00	3.60	278
61.83	61.63	61.63	1.00	3.61	277
62.83	62.63	62.63	1.00	3.68	271
63.83	63.63	63.63	1.00	3.59	279
64.83	64.63	64.63	1.00	3.52	284
65.83	65.63	65.63	1.00	3.30	303
66.45	66.25	66.25	0.62	1.87	332

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-08
Date:	23-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.73	2.53	2.62			
3.77	3.57	3.63	1.01	6.89	147
4.78	4.58	4.63	1.00	7.82	127
5.78	5.58	5.62	0.99	7.06	140
6.78	6.58	6.62	0.99	7.15	139
7.78	7.58	7.61	1.00	6.87	145
8.78	8.58	8.61	1.00	6.20	161
9.78	9.58	9.60	1.00	6.30	158
10.78	10.58	10.60	1.00	6.01	166
11.78	11.58	11.60	1.00	6.00	166
12.78	12.58	12.60	1.00	5.63	177
13.78	13.58	13.60	1.00	5.34	187
14.78	14.58	14.60	1.00	5.25	190
15.75	15.55	15.56			
16.75	16.55	16.56	1.00	4.93	203
17.75	17.55	17.56	1.00	4.65	215
18.75	18.55	18.56	1.00	4.46	224
19.75	19.55	19.56	1.00	4.56	219
20.75	20.55	20.56	1.00	4.56	219
21.75	21.55	21.56	1.00	4.40	227
22.75	22.55	22.56	1.00	4.51	222
23.75	23.55	23.56	1.00	4.37	229
24.75	24.55	24.56	1.00	4.30	232
25.75	25.55	25.56	1.00	4.36	229
26.75	26.55	26.56	1.00	4.29	233
27.75	27.55	27.56	1.00	4.19	239
28.75	28.55	28.56	1.00	4.19	239
29.75	29.55	29.56	1.00	4.25	235
30.75	30.55	30.56	1.00	4.23	236
31.75	31.55	31.56	1.00	4.15	241

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-08
Date:	23-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
32.75	32.55	32.56	1.00	4.46	224
33.75	33.55	33.56	1.00	4.48	223
34.75	34.55	34.56	1.00	4.43	226
35.75	35.55	35.56	1.00	4.65	215
36.75	36.55	36.56	1.00	4.62	216
37.75	37.55	37.56	1.00	4.34	230
38.75	38.55	38.56	1.00	4.22	237
39.75	39.55	39.56	1.00	4.06	247
40.75	40.55	40.56	1.00	3.94	254
41.75	41.55	41.56	1.00	3.53	283
42.75	42.55	42.56	1.00	3.51	285
43.75	43.55	43.56	1.00	3.46	289
44.75	44.55	44.56	1.00	3.56	281
45.75	45.55	45.56	1.00	3.59	278
46.75	46.55	46.55	1.00	3.56	280
47.75	47.55	47.55	1.00	3.51	285
48.75	48.55	48.55	1.00	3.57	280
49.75	49.55	49.55	1.00	3.46	289
50.75	50.55	50.55	1.00	3.43	291
51.75	51.55	51.55	1.00	3.36	298
52.75	52.55	52.55	1.00	3.26	307
53.75	53.55	53.55	1.00	3.20	313
54.75	54.55	54.55	1.00	3.14	319
55.75	55.55	55.55	1.00	3.14	318
56.75	56.55	56.55	1.00	3.54	283
57.75	57.55	57.55	1.00	3.71	270
58.75	58.55	58.55	1.00	3.51	285
59.75	59.55	59.55	1.00	3.57	280
60.75	60.55	60.55	1.00	3.59	278
61.75	61.55	61.55	1.00	3.63	276

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-08
Date:	23-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
62.75	62.55	62.55	1.00	3.54	282
63.75	63.55	63.55	1.00	3.51	285
64.75	64.55	64.55	1.00	3.48	287
65.75	65.55	65.55	1.00	3.44	291
66.75	66.55	66.55	1.00	3.38	296
67.75	67.55	67.55	1.00	3.43	292
68.75	68.55	68.55	1.00	3.28	305
69.75	69.55	69.55	1.00	3.40	294
70.75	70.55	70.55	1.00	3.43	291
71.75	71.55	71.55	1.00	3.52	284
72.75	72.55	72.55	1.00	3.43	292
73.75	73.55	73.55	1.00	3.43	291
74.75	74.55	74.55	1.00	3.50	286
75.75	75.55	75.55	1.00	2.86	349
76.53	76.33	76.33	0.78	2.02	386

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-09
Date:	24-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
2.75	2.55	2.64			
3.75	3.55	3.61	0.98	6.05	161
4.75	4.55	4.60	0.99	6.65	148
5.75	5.55	5.59	0.99	5.93	167
6.75	6.55	6.59	0.99	6.10	163
7.75	7.55	7.58	1.00	5.96	167
8.75	8.55	8.58	1.00	6.00	166
9.75	9.55	9.57	1.00	6.24	160
10.75	10.55	10.57	1.00	6.08	164
11.75	11.55	11.57	1.00	5.77	173
12.75	12.55	12.57	1.00	5.48	182
13.75	13.55	13.57	1.00	5.31	188
14.75	14.55	14.57	1.00	5.37	186
15.50	15.30	15.32	0.75	3.90	192
15.75	15.55	15.56			
16.75	16.55	16.56	1.00	4.93	203
17.75	17.55	17.56	1.00	4.78	209
18.75	18.55	18.56	1.00	4.65	215
19.75	19.55	19.56	1.00	4.45	225
20.75	20.55	20.56	1.00	4.37	229
21.75	21.55	21.56	1.00	4.33	231
22.75	22.55	22.56	1.00	4.16	240
23.75	23.55	23.56	1.00	4.10	244
24.75	24.55	24.56	1.00	3.86	259
25.75	25.55	25.56	1.00	3.85	260
26.75	26.55	26.56	1.00	3.87	258
27.75	27.55	27.56	1.00	3.75	267
28.75	28.55	28.56	1.00	3.65	274
29.75	29.55	29.56	1.00	3.72	269

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-09
Date:	24-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
30.75	30.55	30.56	1.00	4.13	242
31.75	31.55	31.56	1.00	3.93	254
32.75	32.55	32.56	1.00	3.92	255
33.75	33.55	33.56	1.00	3.92	255
34.75	34.55	34.56	1.00	3.87	258
35.75	35.55	35.56	1.00	4.00	250
36.75	36.55	36.56	1.00	4.10	244
37.75	37.55	37.56	1.00	4.16	241
38.75	38.55	38.56	1.00	4.00	250
39.75	39.55	39.56	1.00	3.93	255
40.75	40.55	40.56	1.00	3.99	251
41.75	41.55	41.56	1.00	3.92	255
42.75	42.55	42.56	1.00	4.35	230
43.75	43.55	43.56	1.00	4.21	238
44.75	44.55	44.56	1.00	4.10	244
45.75	45.55	45.56	1.00	4.01	249
46.75	46.55	46.55	1.00	3.81	262
47.75	47.55	47.55	1.00	3.87	258
48.75	48.55	48.55	1.00	3.82	262
49.75	49.55	49.55	1.00	3.79	264
50.75	50.55	50.55	1.00	3.84	260
51.75	51.55	51.55	1.00	3.81	263
52.75	52.55	52.55	1.00	3.75	266
53.75	53.55	53.55	1.00	3.66	273
54.75	54.55	54.55	1.00	3.63	276
55.75	55.55	55.55	1.00	3.67	272
56.75	56.55	56.55	1.00	3.64	275
57.75	57.55	57.55	1.00	3.73	268
58.75	58.55	58.55	1.00	3.51	285

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-09
Date:	24-Nov-2016

Seismic Source:	Beam
Source Offset (m):	0.68
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)
59.75	59.55	59.55	1.00	3.55	282
60.75	60.55	60.55	1.00	3.39	295
61.75	61.55	61.55	1.00	3.51	285
62.75	62.55	62.55	1.00	3.48	287
63.75	63.55	63.55	1.00	3.50	286
64.75	64.55	64.55	1.00	3.56	281
65.75	65.55	65.55	1.00	3.53	283
66.75	66.55	66.55	1.00	3.46	289
67.75	67.55	67.55	1.00	3.35	298
68.75	68.55	68.55	1.00	3.43	291
69.75	69.55	69.55	1.00	3.32	302
70.75	70.55	70.55	1.00	3.40	294
71.75	71.55	71.55	1.00	3.42	292
72.75	72.55	72.55	1.00	3.32	301
73.68	73.48	73.48	0.93	2.56	363

Job No: 16-02063
Client: Golder Associates
Project: Annacis Island Wastewater Treatment Plant
Sounding ID: SCPT16-10
Date: 15-Dec-2016

Seismic Source: Auto-Seismic
Source Offset (m): 7.60
Source Depth (m): 0.00
Geophone Offset (m): 0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Arrival Time (ms)	Travel Time Interval (ms)	Interval Velocity (m/s)
3.08	2.88	8.12		82.8		98
6.33	6.13	9.76		79.1		160
7.28	7.08	10.39	0.62		3.43	182
8.28	8.08	11.09	0.71		3.58	197
9.20	9.00	11.78	0.69		3.58	192
10.22	10.02	12.58	0.80		3.66	218
11.22	11.02	13.39	0.81		3.74	217
12.20	12.00	14.20	0.82		3.11	263
13.15	12.95	15.02	0.81		3.09	262
14.18	13.98	15.91	0.90		3.41	263
15.15	14.95	16.77	0.86		3.11	276
16.20	16.00	17.71	0.94		3.32	284
17.23	17.03	18.65	0.94		3.18	294
18.20	18.00	19.54	0.89		3.06	291
19.20	19.00	20.46	0.92		3.41	271
20.15	19.95	21.35	0.88		3.62	244
21.18	20.98	22.31	0.97		3.73	259
22.18	21.98	23.26	0.94		4.27	221
23.15	22.95	24.18	0.92		3.76	244
24.13	23.93	25.11	0.93		3.80	245
25.18	24.98	26.11	1.00		3.94	255
26.23	26.03	27.12	1.01		3.94	255
27.20	27.00	28.05	0.93		3.53	264
28.20	28.00	29.01	0.96		3.76	257
29.20	29.00	29.98	0.97		3.71	260
30.13	29.93	30.88	0.90		3.53	255
31.23	31.03	31.95	1.07		4.15	257
32.23	32.03	32.92	0.97		3.94	247

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	SCPT16-10
Date:	15-Dec-2016

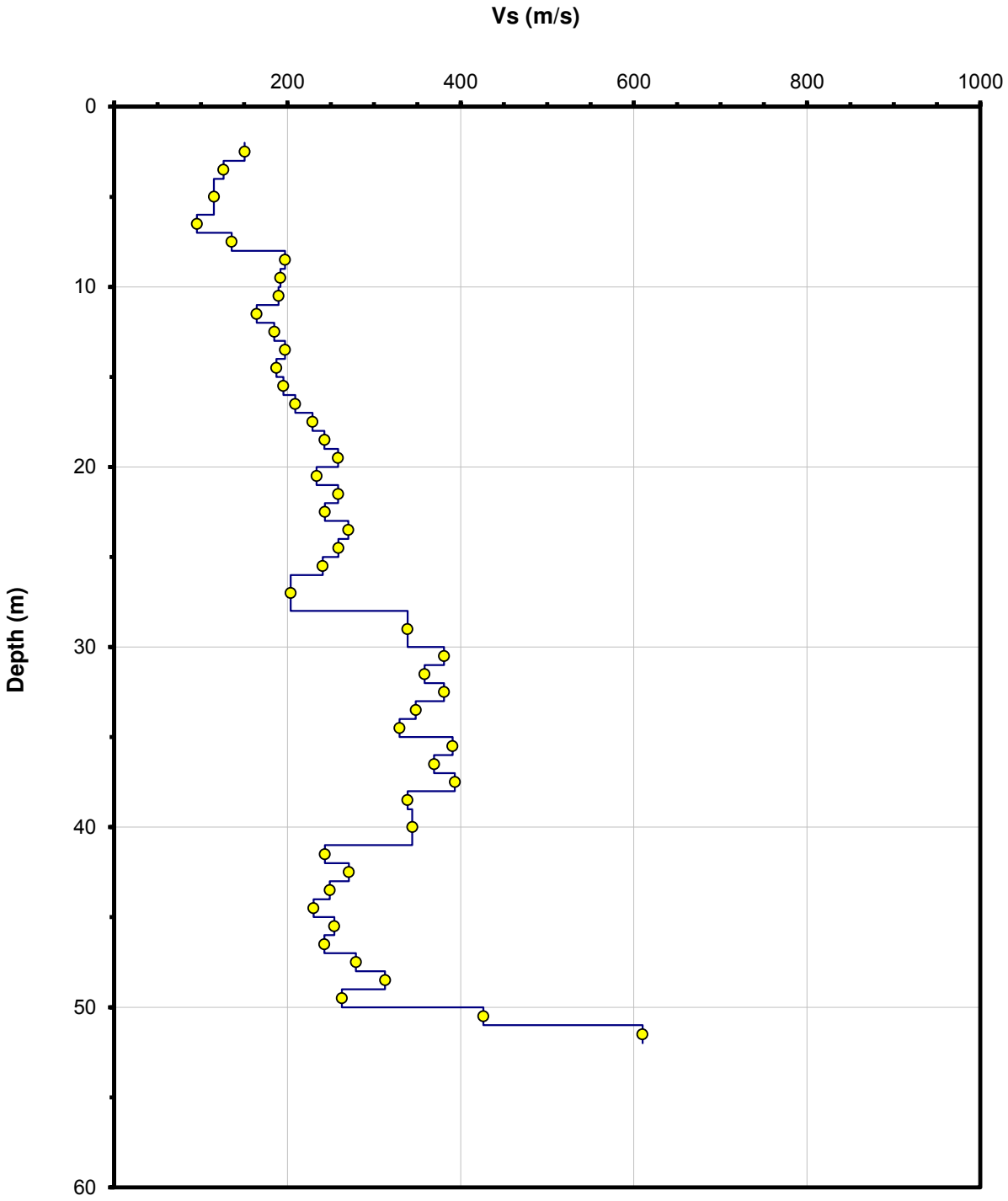
Seismic Source:	Auto-Seismic
Source Offset (m):	7.60
Source Depth (m):	0.00
Geophone Offset (m):	0.20

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (m)	Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Arrival Time (ms)	Travel Time Interval (ms)	Interval Velocity (m/s)
33.23	33.03	33.89	0.97		3.73	261
34.20	34.00	34.84	0.95		3.65	259
35.25	35.05	35.86	1.03		3.97	258
36.33	36.13	36.92	1.06		3.67	288
37.33	37.13	37.90	0.98		3.32	295
38.33	38.13	38.88	0.98		3.29	298
39.33	39.13	39.86	0.98		3.49	281
41.33	41.13	41.83	1.97		6.82	288
42.35	42.15	42.83	1.00		3.28	306
43.40	43.20	43.86	1.03		3.48	297
44.52	44.32	44.97	1.10		3.64	303
45.48	45.28	45.91	0.95		3.13	302
46.58	46.38	47.00	1.09		3.56	305
47.58	47.38	47.99	0.99		3.21	308
48.60	48.40	48.99	1.01		3.41	295
51.73	51.53	52.09	3.09		9.84	314

Downhole Seismic Test - Plots

Job No: 15-02048
Client: Golder Associates Ltd.
Project: AIWWTP Transient Mitigation and Outfall System
Sounding ID: BH-03 - Beam E-W south of borehole
Date: October 13th, 2015

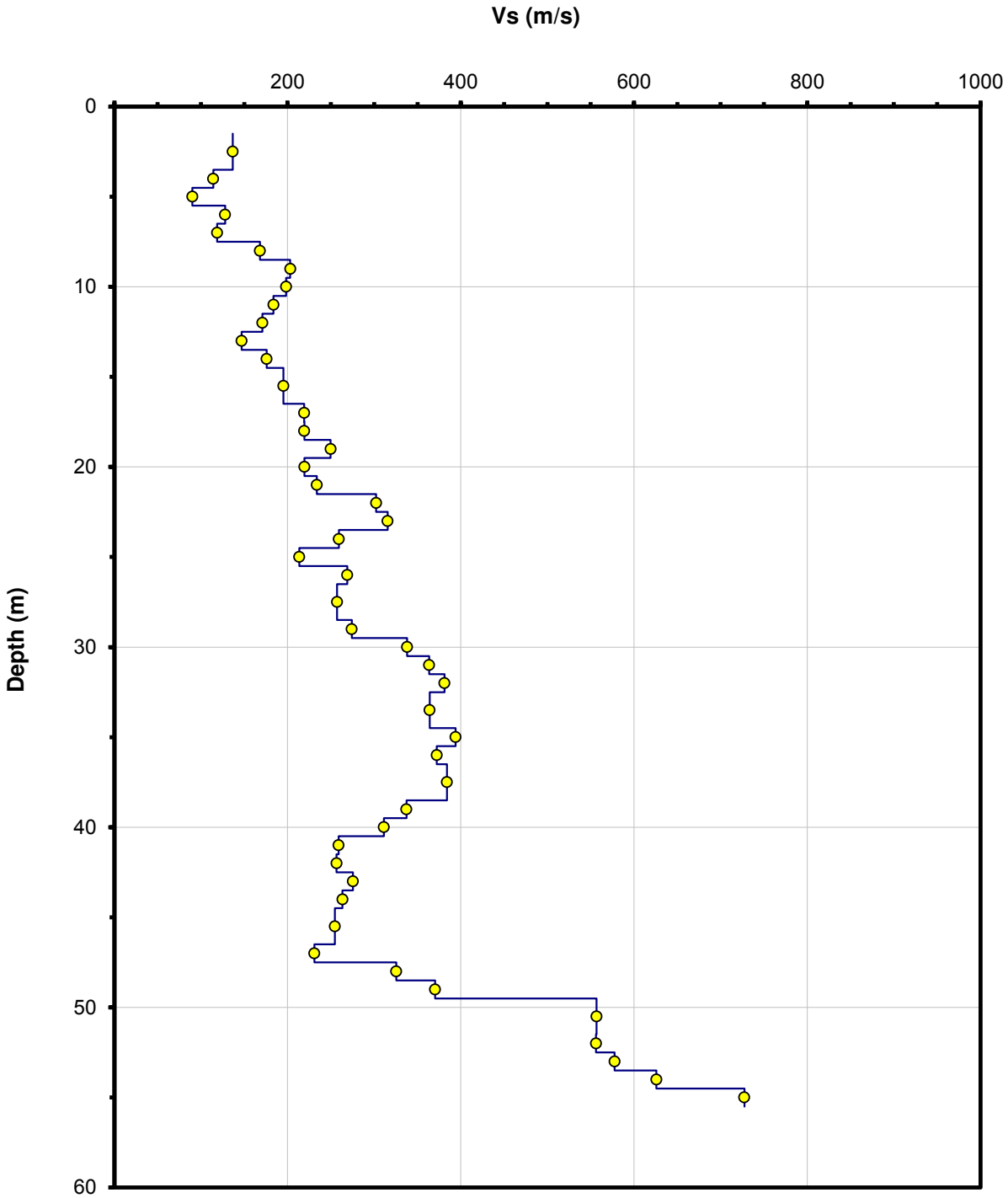


Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	BH-03 - Beam E-W south of borehole
Date:	13-Oct-2015
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	2.00
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Depth Interval (m)	Travel Time Interval (ms)	Vs (m/s)	Mid Layer (m)
2.00	2.83				
3.00	3.61	0.78	5.16	151	2.50
4.00	4.47	0.87	6.87	126	3.50
6.00	6.32	1.85	16.09	115	5.00
7.00	7.28	0.96	10.00	96	6.50
8.00	8.25	0.97	7.12	136	7.50
9.00	9.22	0.97	4.94	197	8.50
10.00	10.20	0.98	5.10	192	9.50
11.00	11.18	0.98	5.18	190	10.50
12.00	12.17	0.99	5.99	165	11.50
13.00	13.15	0.99	5.34	185	12.50
14.00	14.14	0.99	5.02	197	13.50
15.00	15.13	0.99	5.29	187	14.50
16.00	16.12	0.99	5.08	195	15.50
17.00	17.12	0.99	4.75	209	16.50
18.00	18.11	0.99	4.34	229	17.50
19.00	19.10	0.99	4.10	243	18.50
20.00	20.10	0.99	3.85	258	19.50
21.00	21.10	1.00	4.26	234	20.50
22.00	22.09	1.00	3.85	259	21.50
23.00	23.09	1.00	4.10	243	22.50
24.00	24.08	1.00	3.69	270	23.50
25.00	25.08	1.00	3.85	259	24.50
26.00	26.08	1.00	4.14	241	25.50
28.00	28.07	1.99	9.79	204	27.00
30.00	30.07	2.00	5.89	339	29.00
31.00	31.06	1.00	2.62	381	30.50
32.00	32.06	1.00	2.78	358	31.50
33.00	33.06	1.00	2.62	381	32.50
34.00	34.06	1.00	2.87	348	33.50
35.00	35.06	1.00	3.03	329	34.50
36.00	36.06	1.00	2.56	391	35.50
37.00	37.05	1.00	2.70	369	36.50
38.00	38.05	1.00	2.54	393	37.50
39.00	39.05	1.00	2.95	339	38.50
41.00	41.05	2.00	5.80	344	40.00
42.00	42.05	1.00	4.11	243	41.50
43.00	43.05	1.00	3.69	271	42.50
44.00	44.05	1.00	4.01	249	43.50
45.00	45.04	1.00	4.34	230	44.50
46.00	46.04	1.00	3.93	254	45.50
47.00	47.04	1.00	4.12	243	46.50
48.00	48.04	1.00	3.58	279	47.50
49.00	49.04	1.00	3.19	313	48.50
50.00	50.04	1.00	3.80	263	49.50
51.00	51.04	1.00	2.34	426	50.50
52.00	52.04	1.00	1.64	610	51.50

Job No: 15-02048
Client: Golder Associates Ltd.
Project: AIWWTP Transient Mitigation and Outfall System
Sounding ID: BH-03 - Beam N-S east of borehole
Date: October 13th, 2015

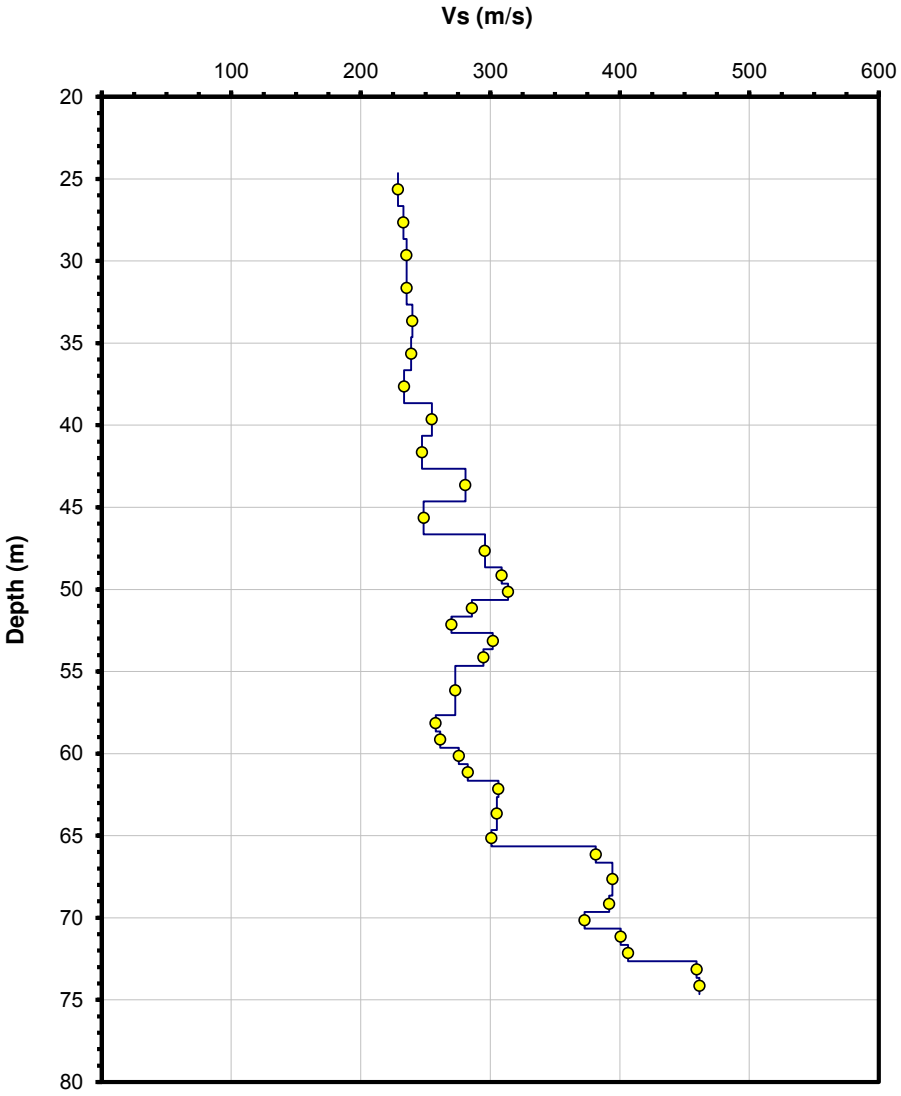


Job No:	15-02048
Client:	Golder Associates Ltd.
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	BH-03 - Beam N-S east of borehole
Date:	13-Oct-2015
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	2.00
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Depth Interval (m)	Travel Time Interval (ms)	Vs (m/s)	Mid Layer (m)
1.50	2.50				
3.50	4.03	1.53	11.20	137	2.50
4.50	4.92	0.89	7.83	114	4.00
5.50	5.85	0.93	10.30	90	5.00
6.50	6.80	0.95	7.41	128	6.00
7.50	7.76	0.96	8.10	119	7.00
8.50	8.73	0.97	5.77	168	8.00
9.50	9.71	0.98	4.81	203	9.00
10.50	10.69	0.98	4.94	198	10.00
11.50	11.67	0.98	5.36	184	11.00
12.50	12.66	0.99	5.77	171	12.00
13.50	13.65	0.99	6.73	147	13.00
14.50	14.64	0.99	5.63	176	14.00
16.50	16.62	1.98	10.16	195	15.50
17.50	17.61	0.99	4.53	219	17.00
18.50	18.61	0.99	4.53	219	18.00
19.50	19.60	0.99	3.98	250	19.00
20.50	20.60	1.00	4.53	220	20.00
21.50	21.59	1.00	4.26	234	21.00
22.50	22.59	1.00	3.30	302	22.00
23.50	23.58	1.00	3.16	315	23.00
24.50	24.58	1.00	3.84	259	24.00
25.50	25.58	1.00	4.67	214	25.00
26.50	26.58	1.00	3.71	269	26.00
28.50	28.57	1.99	7.76	257	27.50
29.50	29.57	1.00	3.64	274	29.00
30.50	30.57	1.00	2.95	338	30.00
31.50	31.56	1.00	2.75	363	31.00
32.50	32.56	1.00	2.62	381	32.00
34.50	34.56	2.00	5.48	364	33.50
35.50	35.56	1.00	2.53	394	35.00
36.50	36.55	1.00	2.68	372	36.00
38.50	38.55	2.00	5.20	384	37.50
39.50	39.55	1.00	2.96	337	39.00
40.50	40.55	1.00	3.21	311	40.00
41.50	41.55	1.00	3.86	259	41.00
42.50	42.55	1.00	3.89	257	42.00
43.5	43.55	1.00	3.63	275	43.00
44.5	44.54	1.00	3.79	263	44.00
46.5	46.54	2.00	7.85	254	45.50
47.5	47.54	1.00	4.33	231	47.00
48.5	48.54	1.00	3.07	326	48.00
49.5	49.54	1.00	2.70	370	49.00
51.5	51.54	2.00	3.59	557	50.50
52.5	52.54	1.00	1.80	556	52.00
53.5	53.54	1.00	1.73	578	53.00
54.5	54.54	1.00	1.60	626	54.00
55.5	55.54	1.00	1.37	727	55.00

Job No: 15-02048
Client: Golder Associates
Project: AIWWTP Transient Mitigation and Outfall System
Sounding ID: DST SH16-02
Date: 03-Apr-2016

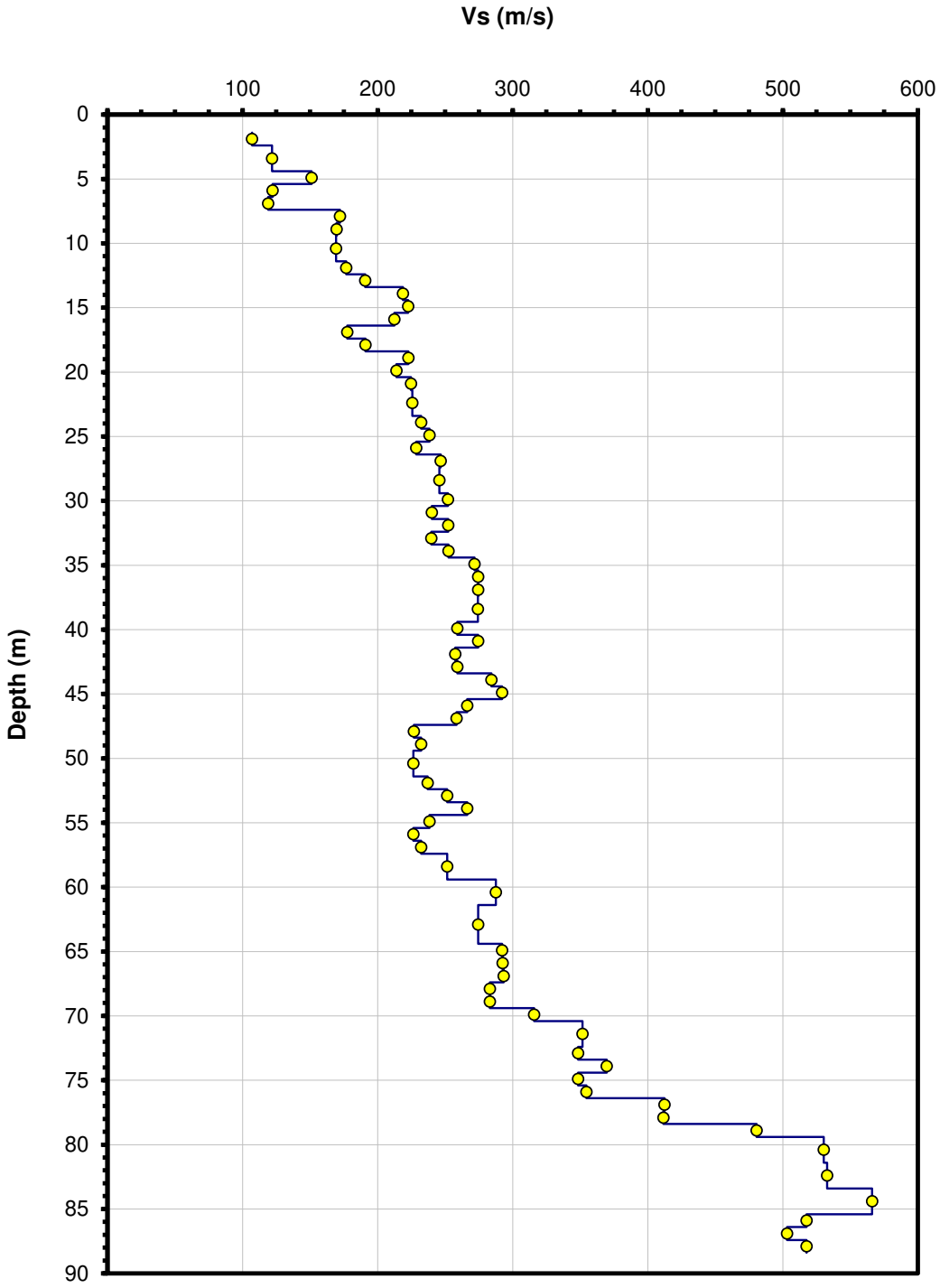


Job No:	15-02048
Client:	Golder Associates
Project:	AIWWTP Transient Mitigation and Outfall System
Sounding ID:	DST SH16-02
Date:	03-Apr-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	2.45
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Travel Path Interval (m)	Travel Time Interval (ms)	Vs (m/s)	Mid Layer (m)
24.65	24.77				
26.65	26.76	1.99	8.70	229	25.65
28.65	28.75	1.99	8.56	233	27.65
30.65	30.75	1.99	8.47	235	29.65
32.65	32.74	1.99	8.47	235	31.65
34.65	34.74	1.99	8.31	240	33.65
36.65	36.73	2.00	8.35	239	35.65
38.65	38.73	2.00	8.55	233	37.65
40.65	40.72	2.00	7.83	255	39.65
42.65	42.72	2.00	8.07	247	41.65
44.65	44.72	2.00	7.11	281	43.65
46.65	46.71	2.00	8.03	249	45.65
48.65	48.71	2.00	6.75	296	47.65
49.65	49.71	1.00	3.23	309	49.15
50.65	50.71	1.00	3.18	314	50.15
51.65	51.71	1.00	3.49	286	51.15
52.65	52.71	1.00	3.70	270	52.15
53.65	53.71	1.00	3.31	302	53.15
54.65	54.70	1.00	3.39	295	54.15
57.65	57.70	3.00	10.98	273	56.15
58.65	58.70	1.00	3.88	258	58.15
59.65	59.70	1.00	3.82	261	59.15
60.65	60.70	1.00	3.62	276	60.15
61.65	61.70	1.00	3.54	283	61.15
62.65	62.70	1.00	3.26	306	62.15
64.65	64.70	2.00	6.55	305	63.65
65.65	65.70	1.00	3.32	301	65.15
66.65	66.70	1.00	2.62	382	66.15
68.65	68.69	2.00	5.07	394	67.65
69.65	69.69	1.00	2.55	392	69.15
70.65	70.69	1.00	2.68	373	70.15
71.65	71.69	1.00	2.49	401	71.15
72.65	72.69	1.00	2.46	406	72.15
73.65	73.69	1.00	2.18	459	73.15
74.65	74.69	1.00	2.17	462	74.15

Job No: 16-02063
Client: Golder Associates
Project: Annacis Island Wastewater Treatment Plant
Sounding ID: DST16-05
Date: 23-Nov-2016



Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-05
Date:	23-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.15
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
1.40	1.41				
2.40	2.40	1.00	9.31	107	1.90
4.40	4.40	2.00	16.39	122	3.40
5.40	5.40	1.00	6.61	151	4.90
6.40	6.40	1.00	8.18	122	5.90
7.40	7.40	1.00	8.40	119	6.90
8.40	8.40	1.00	5.81	172	7.90
9.40	9.40	1.00	5.89	170	8.90
11.40	11.40	2.00	11.81	169	10.40
12.40	12.40	1.00	5.66	177	11.90
13.40	13.40	1.00	5.24	191	12.90
14.40	14.40	1.00	4.57	219	13.90
15.40	15.40	1.00	4.49	223	14.90
16.39	16.39	0.99	4.66	212	15.89
17.39	17.39	1.00	5.63	178	16.89
18.39	18.39	1.00	5.23	191	17.89
19.39	19.39	1.00	4.49	223	18.89
20.39	20.39	1.00	4.67	214	19.89
21.40	21.40	1.01	4.49	225	20.89
23.40	23.40	2.00	8.86	226	22.40
24.40	24.40	1.00	4.31	232	23.90
25.40	25.40	1.00	4.20	238	24.90
26.40	26.40	1.00	4.38	229	25.90
27.40	27.40	1.00	4.05	247	26.90
29.40	29.40	2.00	8.14	246	28.40
30.40	30.40	1.00	3.97	252	29.90
31.40	31.40	1.00	4.16	240	30.90

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-05
Date:	23-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.15
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

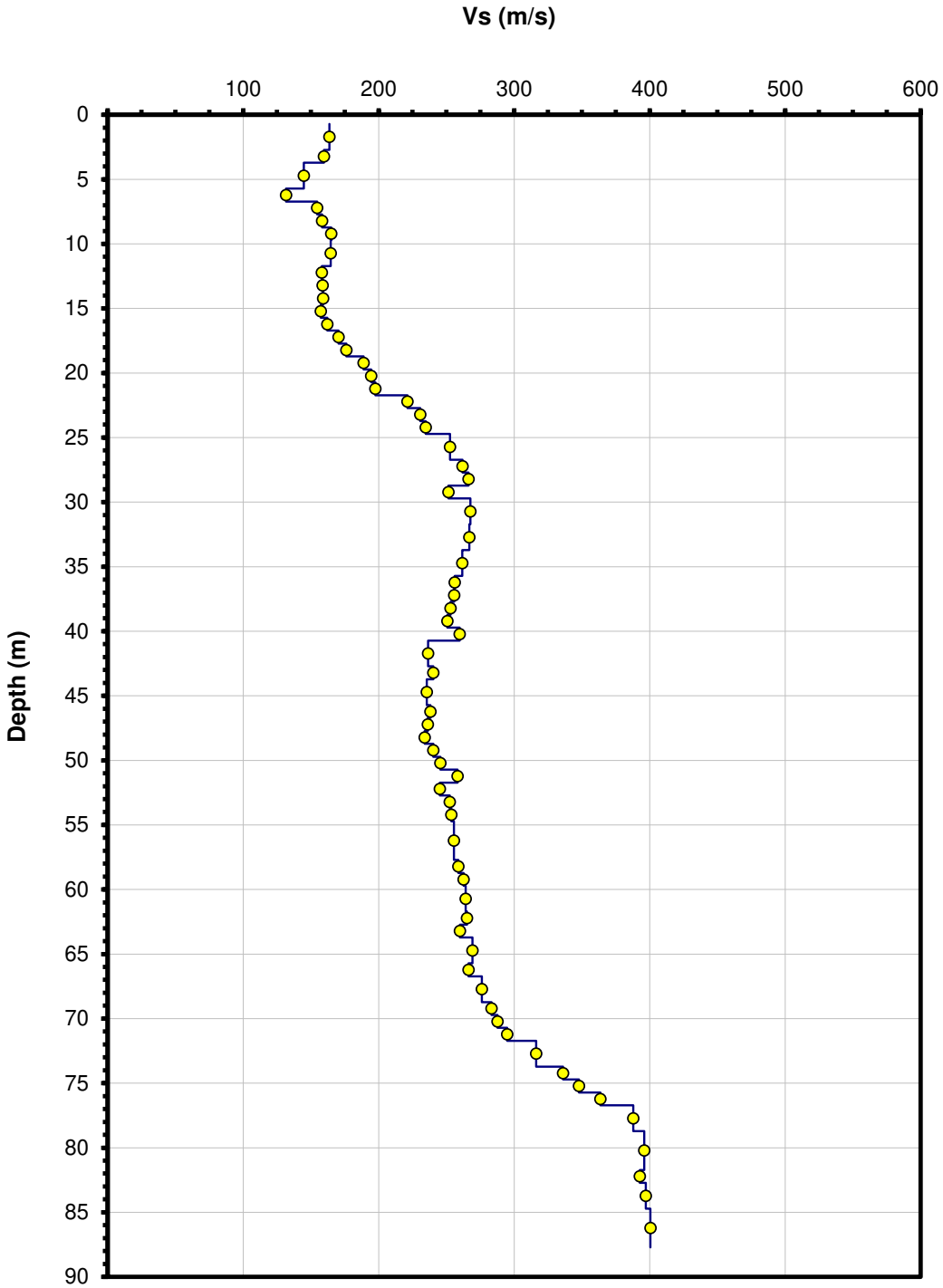
Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
32.40	32.40	1.00	3.96	252	31.90
33.40	33.40	1.00	4.17	240	32.90
34.40	34.40	1.00	3.96	252	33.90
35.40	35.40	1.00	3.68	272	34.90
36.40	36.40	1.00	3.64	274	35.90
37.40	37.40	1.00	3.64	274	36.90
39.40	39.40	2.00	7.29	274	38.40
40.40	40.40	1.00	3.86	259	39.90
41.40	41.40	1.00	3.64	274	40.90
42.40	42.40	1.00	3.88	257	41.90
43.40	43.40	1.00	3.86	259	42.90
44.40	44.40	1.00	3.52	284	43.90
45.40	45.40	1.00	3.42	292	44.90
46.40	46.40	1.00	3.75	266	45.90
47.40	47.40	1.00	3.87	258	46.90
48.40	48.40	1.00	4.41	227	47.90
49.40	49.40	1.00	4.31	232	48.90
51.40	51.40	2.00	8.83	226	50.40
52.40	52.40	1.00	4.22	237	51.90
53.40	53.40	1.00	3.97	252	52.90
54.40	54.40	1.00	3.75	266	53.90
55.40	55.40	1.00	4.20	238	54.90
56.40	56.40	1.00	4.42	226	55.90
57.40	57.40	1.00	4.31	232	56.90
59.40	59.40	2.00	7.95	252	58.40
61.40	61.40	2.00	6.96	288	60.40

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-05
Date:	23-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.15
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
64.40	64.40	3.00	10.93	274	62.90
65.40	65.40	1.00	3.42	292	64.90
66.40	66.40	1.00	3.42	292	65.90
67.40	67.40	1.00	3.41	293	66.90
68.40	68.40	1.00	3.53	283	67.90
69.40	69.40	1.00	3.53	283	68.90
70.40	70.40	1.00	3.17	316	69.90
72.40	72.40	2.00	5.69	352	71.40
73.40	73.40	1.00	2.87	348	72.90
74.40	74.40	1.00	2.70	370	73.90
75.40	75.40	1.00	2.87	348	74.90
76.40	76.40	1.00	2.82	355	75.90
77.40	77.40	1.00	2.42	412	76.90
78.40	78.40	1.00	2.43	412	77.90
79.40	79.40	1.00	2.08	481	78.90
81.40	81.40	2.00	3.77	530	80.40
83.40	83.40	2.00	3.75	533	82.40
85.40	85.40	2.00	3.53	566	84.40
86.40	86.40	1.00	1.93	518	85.90
87.40	87.40	1.00	1.99	503	86.90
88.40	88.40	1.00	1.93	518	87.90

Job No: 16-02063
Client: Golder Associates
Project: Annacis Island Wastewater Treatment Plant
Sounding ID: DST16-06
Date: 26-Nov-2016



Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-06
Date:	26-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.22
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
0.71	0.74				
2.72	2.73	1.99	12.13	164	1.71
3.72	3.73	1.00	6.25	160	3.22
5.72	5.72	2.00	13.81	145	4.72
6.72	6.72	1.00	7.59	132	6.22
7.72	7.72	1.00	6.46	155	7.22
8.72	8.72	1.00	6.31	158	8.22
9.72	9.72	1.00	6.06	165	9.22
11.72	11.72	2.00	12.14	165	10.72
12.72	12.72	1.00	6.33	158	12.22
13.72	13.72	1.00	6.30	159	13.22
14.72	14.72	1.00	6.29	159	14.22
15.72	15.72	1.00	6.36	157	15.22
16.72	16.72	1.00	6.17	162	16.22
17.72	17.72	1.00	5.87	170	17.22
18.72	18.72	1.00	5.68	176	18.22
19.72	19.72	1.00	5.29	189	19.22
20.72	20.72	1.00	5.14	195	20.22
21.72	21.72	1.00	5.06	198	21.22
22.72	22.72	1.00	4.52	221	22.22
23.72	23.72	1.00	4.33	231	23.22
24.72	24.72	1.00	4.26	235	24.22
26.72	26.72	2.00	7.92	253	25.72
27.72	27.72	1.00	3.82	262	27.22
28.72	28.72	1.00	3.76	266	28.22
29.72	29.72	1.00	3.97	252	29.22
31.72	31.72	2.00	7.47	268	30.72

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-06
Date:	26-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.22
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

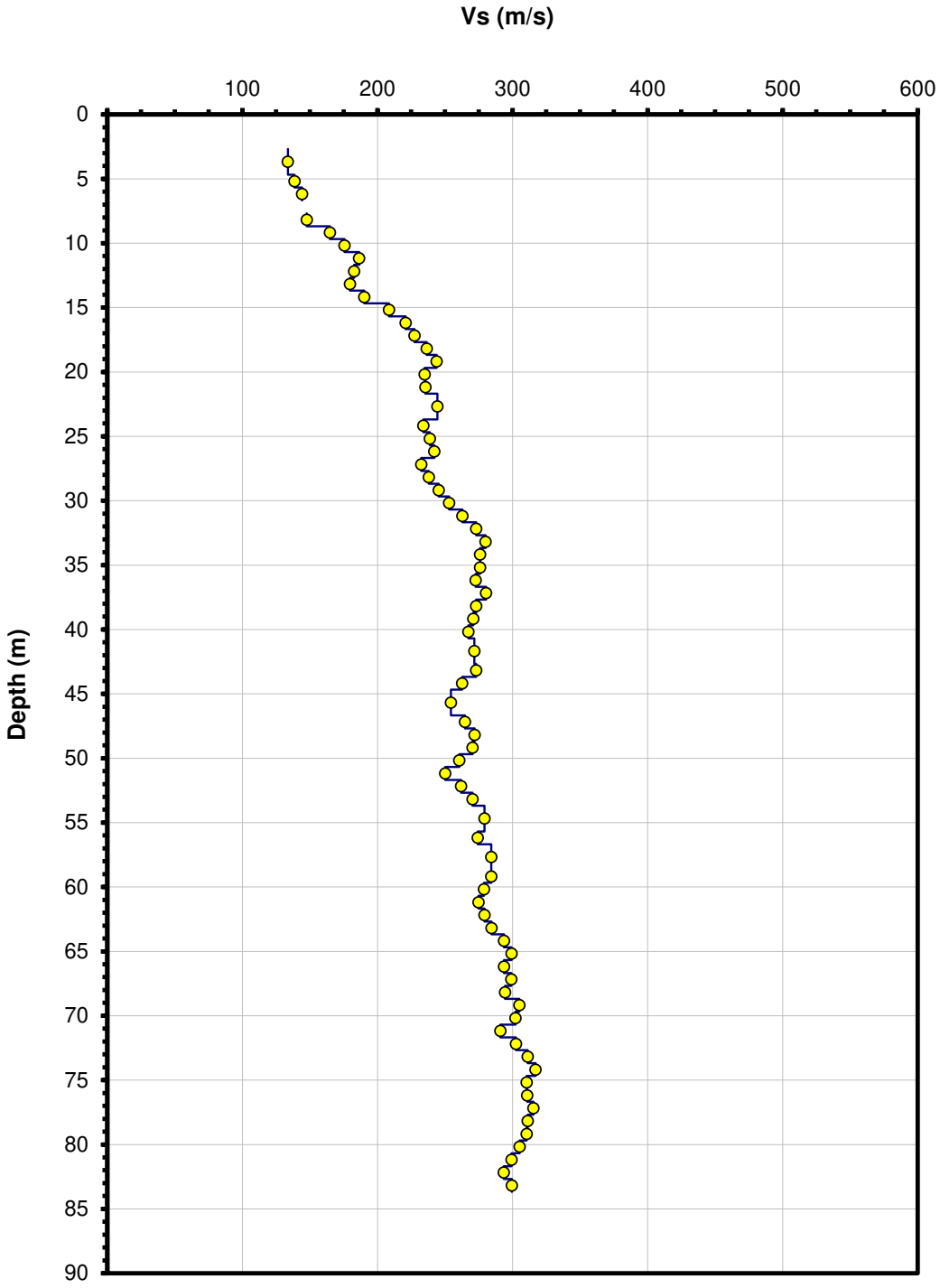
Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
33.72	33.72	2.00	7.49	267	32.72
35.72	35.72	2.00	7.64	262	34.72
36.72	36.72	1.00	3.90	256	36.22
37.72	37.72	1.00	3.91	256	37.22
38.72	38.72	1.00	3.95	253	38.22
39.72	39.72	1.00	3.99	251	39.22
40.72	40.72	1.00	3.85	260	40.22
42.72	42.72	2.00	8.46	236	41.72
43.72	43.72	1.00	4.16	240	43.22
45.72	45.72	2.00	8.49	235	44.72
46.72	46.72	1.00	4.20	238	46.22
47.72	47.72	1.00	4.23	236	47.22
48.72	48.72	1.00	4.27	234	48.22
49.72	49.72	1.00	4.16	240	49.22
50.72	50.72	1.00	4.07	246	50.22
51.72	51.72	1.00	3.87	258	51.22
52.72	52.72	1.00	4.08	245	52.22
53.72	53.72	1.00	3.96	252	53.22
54.72	54.72	1.00	3.94	254	54.22
57.72	57.72	3.00	11.74	256	56.22
58.72	58.72	1.00	3.86	259	58.22
59.72	59.72	1.00	3.81	263	59.22
61.72	61.72	2.00	7.57	264	60.72
62.72	62.72	1.00	3.77	265	62.22
63.72	63.72	1.00	3.85	260	63.22
65.72	65.72	2.00	7.43	269	64.72

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-06
Date:	26-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.22
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
66.72	66.72	1.00	3.76	266	66.22
68.72	68.72	2.00	7.24	276	67.72
69.72	69.72	1.00	3.53	283	69.22
70.72	70.72	1.00	3.48	288	70.22
71.72	71.72	1.00	3.39	295	71.22
73.72	73.72	2.00	6.32	316	72.72
74.72	74.72	1.00	2.98	336	74.22
75.72	75.72	1.00	2.87	348	75.22
76.72	76.72	1.00	2.75	364	76.22
78.72	78.72	2.00	5.15	388	77.72
81.72	81.72	3.00	7.58	396	80.22
82.72	82.72	1.00	2.55	393	82.22
84.72	84.72	2.00	5.04	397	83.72
87.72	87.72	3.00	7.49	401	86.22

Job No: 16-02063
Client: Golder Associates
Project: Annacis Island Wastewater Treatment Plant
Sounding ID: DST16-07
Date: 25-Nov-2016



Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-07
Date:	25-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.20
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
2.68	2.69				
4.68	4.68	2.00	14.94	134	3.68
5.68	5.68	1.00	7.21	139	5.18
6.68	6.68	1.00	6.93	144	6.18
7.68	7.68				
8.68	8.68	1.00	6.77	148	8.18
9.68	9.68	1.00	6.07	165	9.18
10.68	10.68	1.00	5.69	176	10.18
11.68	11.68	1.00	5.36	186	11.18
12.68	12.68	1.00	5.47	183	12.18
13.68	13.68	1.00	5.57	180	13.18
14.68	14.68	1.00	5.25	190	14.18
15.68	15.68	1.00	4.80	208	15.18
16.68	16.68	1.00	4.53	221	16.18
17.68	17.68	1.00	4.40	227	17.18
18.68	18.68	1.00	4.23	236	18.18
19.68	19.68	1.00	4.10	244	19.18
20.68	20.68	1.00	4.26	235	20.18
21.68	21.68	1.00	4.25	236	21.18
23.68	23.68	2.00	8.18	244	22.68
24.68	24.68	1.00	4.27	234	24.18
25.68	25.68	1.00	4.19	239	25.18
26.68	26.68	1.00	4.13	242	26.18
27.68	27.68	1.00	4.30	232	27.18
28.68	28.68	1.00	4.20	238	28.18
29.68	29.68	1.00	4.08	245	29.18
30.68	30.68	1.00	3.95	253	30.18

Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-07
Date:	25-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.20
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
31.68	31.68	1.00	3.80	263	31.18
32.68	32.68	1.00	3.66	273	32.18
33.68	33.68	1.00	3.57	280	33.18
34.68	34.68	1.00	3.62	276	34.18
35.68	35.68	1.00	3.62	276	35.18
36.68	36.68	1.00	3.67	273	36.18
37.68	37.68	1.00	3.57	280	37.18
38.68	38.68	1.00	3.66	273	38.18
39.68	39.68	1.00	3.69	271	39.18
40.68	40.68	1.00	3.74	267	40.18
42.68	42.68	2.00	7.36	272	41.68
43.68	43.68	1.00	3.66	273	43.18
44.68	44.68	1.00	3.81	263	44.18
46.68	46.68	2.00	7.86	254	45.68
47.68	47.68	1.00	3.78	265	47.18
48.68	48.68	1.00	3.68	272	48.18
49.68	49.68	1.00	3.70	270	49.18
50.68	50.68	1.00	3.84	261	50.18
51.68	51.68	1.00	4.00	250	51.18
52.68	52.68	1.00	3.82	262	52.18
53.68	53.68	1.00	3.70	270	53.18
55.68	55.68	2.00	7.16	279	54.68
56.68	56.68	1.00	3.65	274	56.18
58.68	58.68	2.00	7.03	284	57.68
59.68	59.68	1.00	3.52	284	59.18
60.68	60.68	1.00	3.59	279	60.18

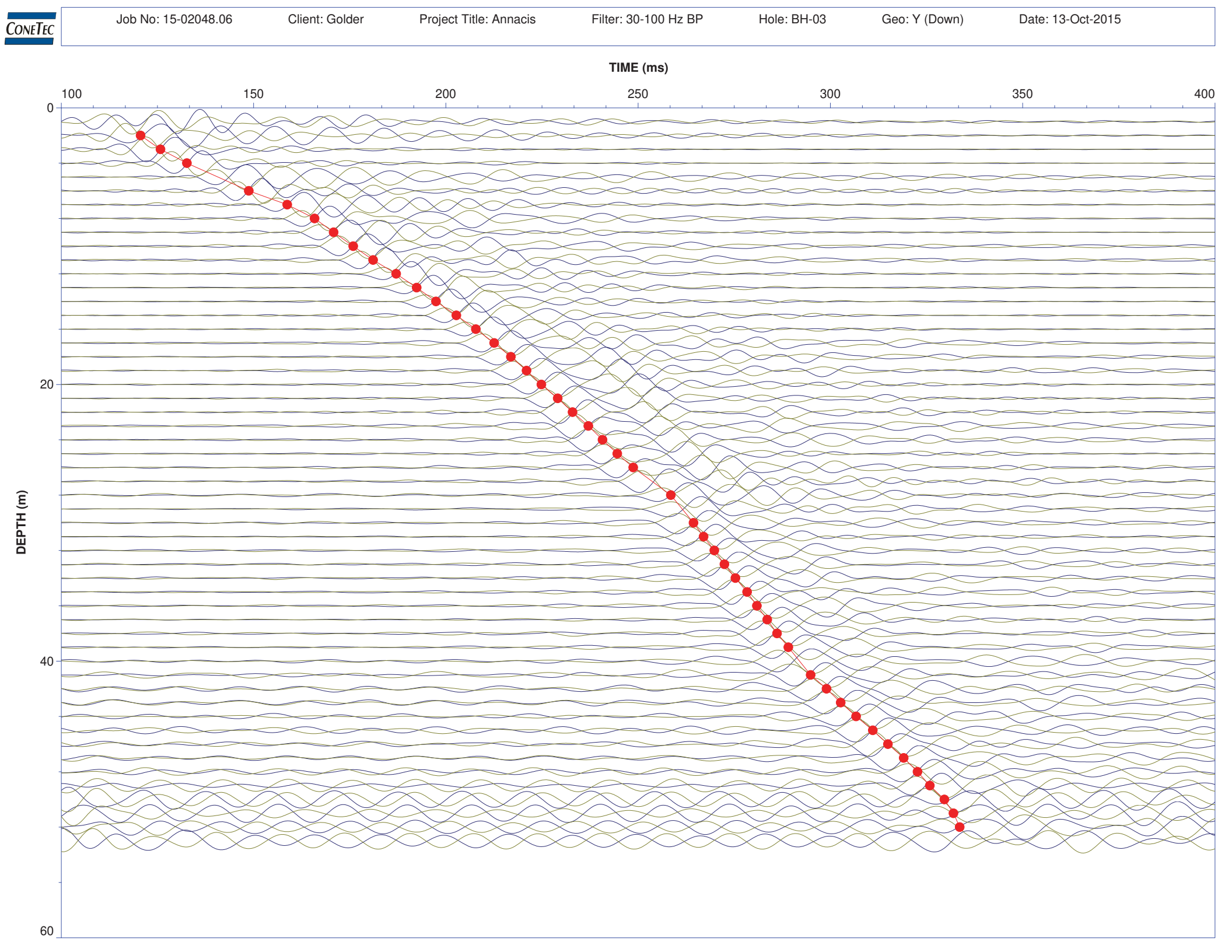
Job No:	16-02063
Client:	Golder Associates
Project:	Annacis Island Wastewater Treatment Plant
Sounding ID:	DST16-07
Date:	25-Nov-2016
Receivers:	Geostuff BHG-3 - Triaxial 15 Hz geophones
Seismograph:	Geometrics Geode
Seismic Source:	Beam
Source Offset (m):	0.20
Source Depth (m):	0.00
Geophone Offset (m):	0.00

DOWNHOLE SEISMIC - Vs

Geophone Depth (m)	Ray Path (m)	Ray Path Difference (m)	Travel Time Interval (ms)	Interval Velocity (m/s)	Average Interval Depth (m)
61.68	61.68	1.00	3.64	275	61.18
62.68	62.68	1.00	3.58	279	62.18
63.68	63.68	1.00	3.51	285	63.18
64.68	64.68	1.00	3.40	294	64.18
65.68	65.68	1.00	3.34	299	65.18
66.68	66.68	1.00	3.40	294	66.18
67.68	67.68	1.00	3.34	299	67.18
68.68	68.68	1.00	3.40	295	68.18
69.68	69.68	1.00	3.28	305	69.18
70.68	70.68	1.00	3.31	302	70.18
71.68	71.68	1.00	3.44	291	71.18
72.68	72.68	1.00	3.31	303	72.18
73.68	73.68	1.00	3.21	311	73.18
74.68	74.68	1.00	3.15	317	74.18
75.68	75.68	1.00	3.22	310	75.18
76.68	76.68	1.00	3.22	311	76.18
77.68	77.68	1.00	3.17	315	77.18
78.68	78.68	1.00	3.21	311	78.18
79.68	79.68	1.00	3.22	310	79.18
80.68	80.68	1.00	3.28	305	80.18
81.68	81.68	1.00	3.34	299	81.18
82.68	82.68	1.00	3.41	294	82.18
83.68	83.68	1.00	3.34	300	83.18

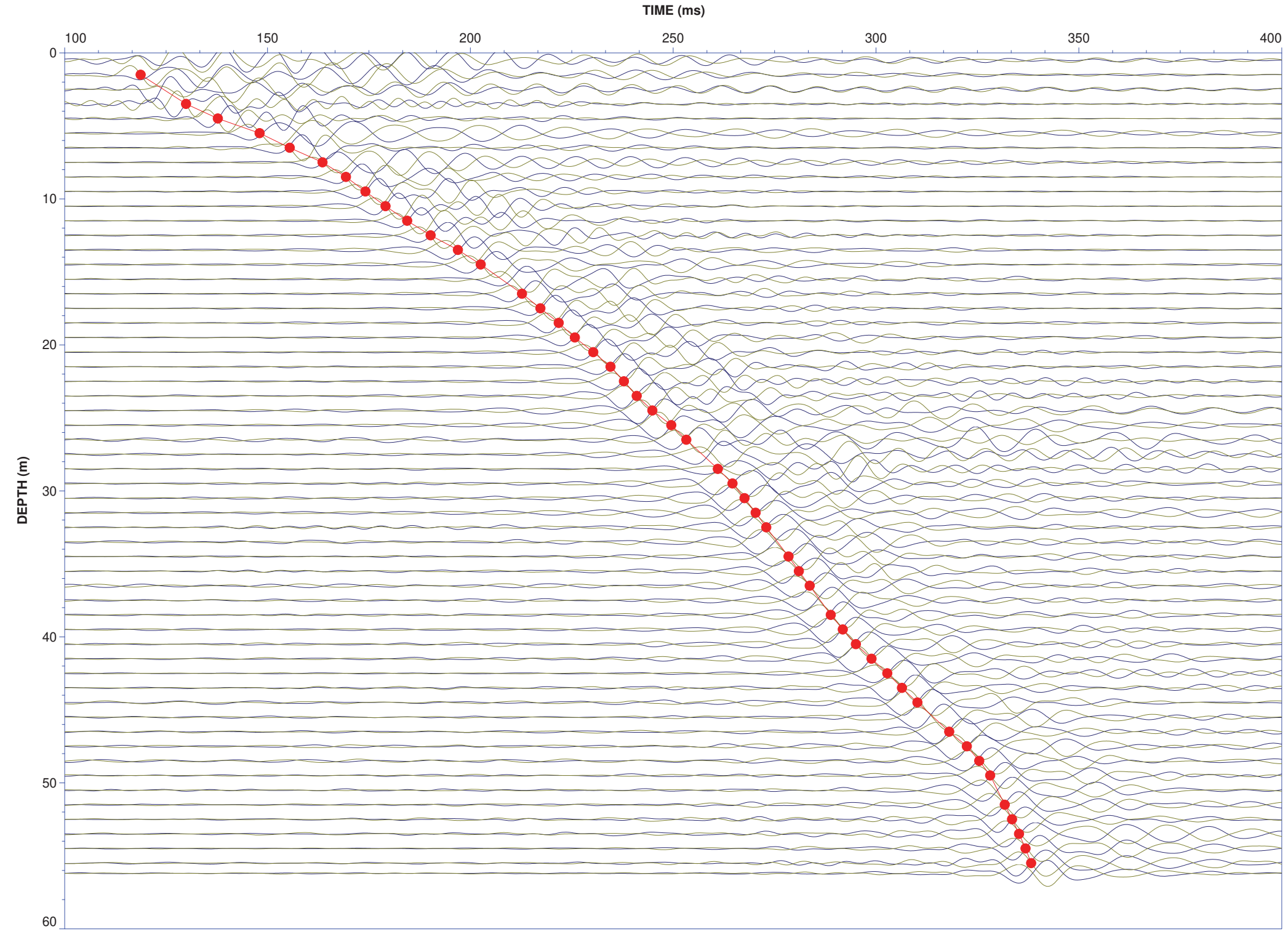
Downhole Seismic Test Time Domain Traces

CONETEC

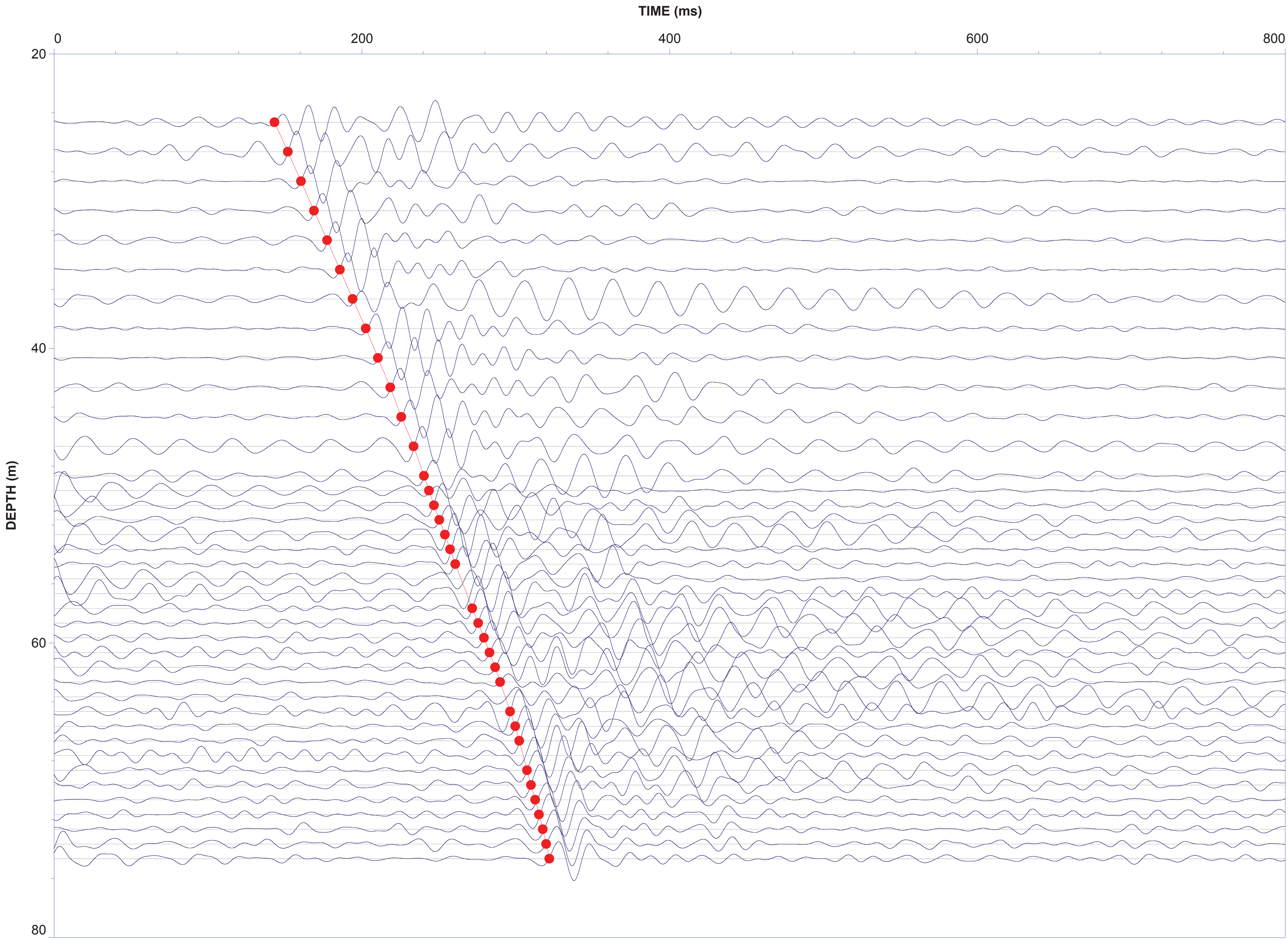

Job No: 15-02048.06
Client: Golder
Project Title: Annacis
Filter: 30-100 Hz BP
Hole: BH-03
Geo: Y (Down)
Date: 13-Oct-2015
TIME (ms)
100
150
200
250
300
350
400
DEPTH (m)
0
20
40
60

CONETEC

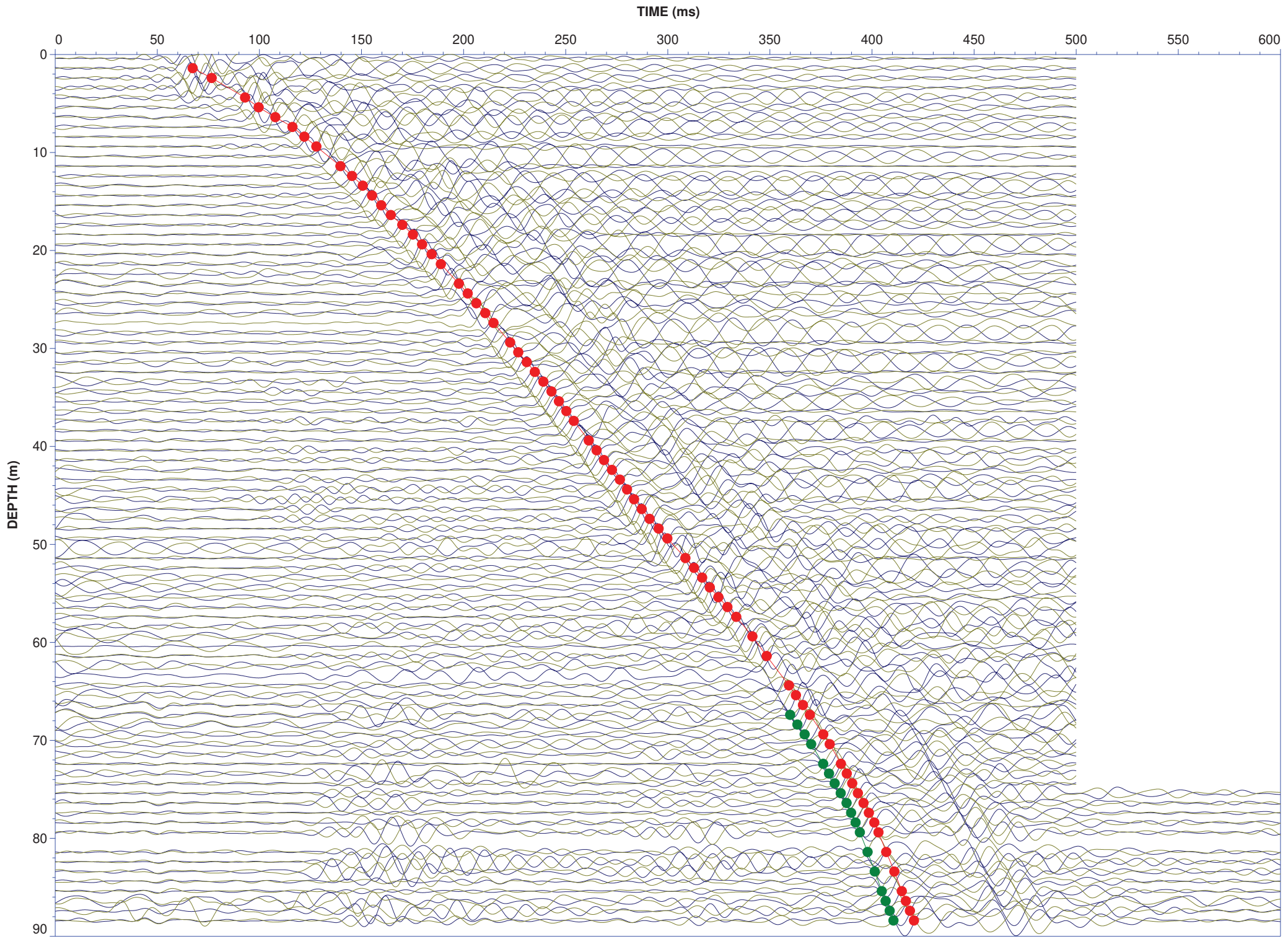
Job No: 15-02048.06 | Client: Golder | Project Title: Annacis | Filter: 40-150 Hz BP | Hole: BH-03 | Geo: X (Retract) | Date: 13-Oct-2015



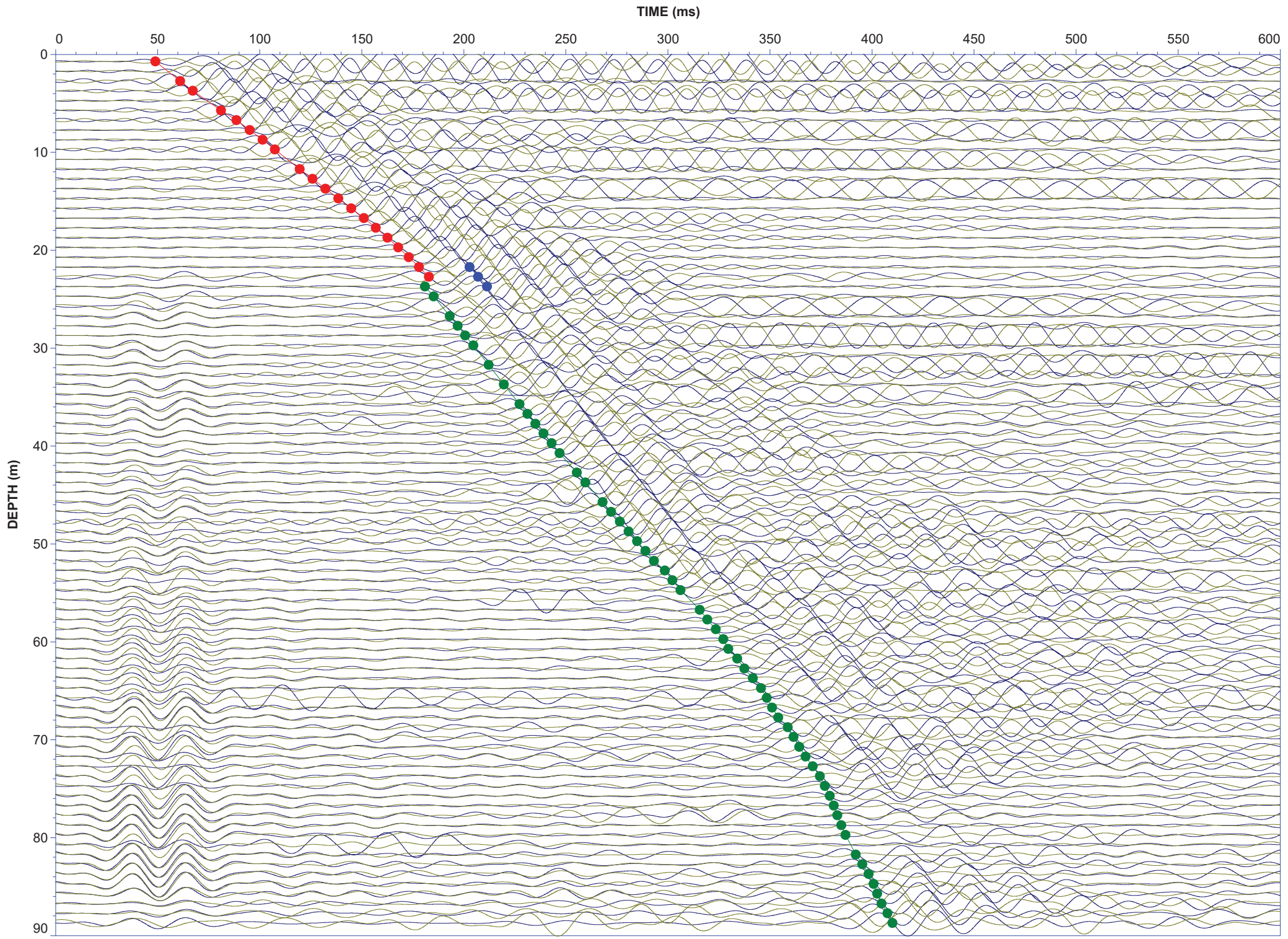
Job No: 15-02048 | Client: Golder Associates | Project Title: AIWWTP Transient Mitigation and Outfall System | Geo Y: 30-80 Hz Bandpass | Hole: SH16-02



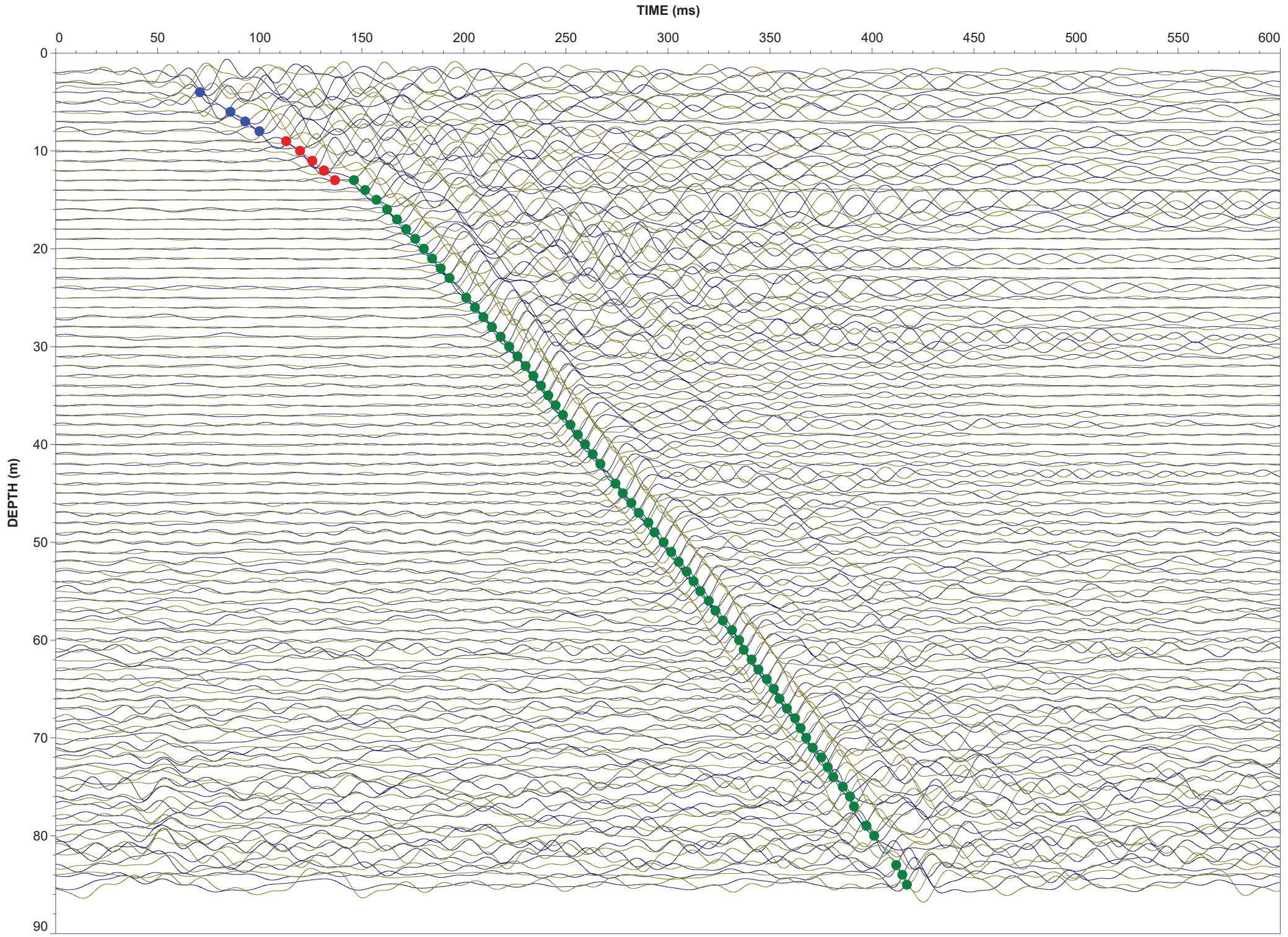
Job No: 16-02063 Client: Golder Filter: 30-100 Hz BP - Geo X Hole: DST 16-05 Date: 2016-Nov-23



Job No: 16-02063 Client: Golder Filter: 25-50 Hz BP - GEO Y Hole: DST16-06 Date: 26-Nov-2016



Job No: 16-02063 Client: Golder Filter: 0-70Hz BP - GEO X Hole: DST16-07 Date: 25-Nov-2016



CDM Smith

cdmsmith.com