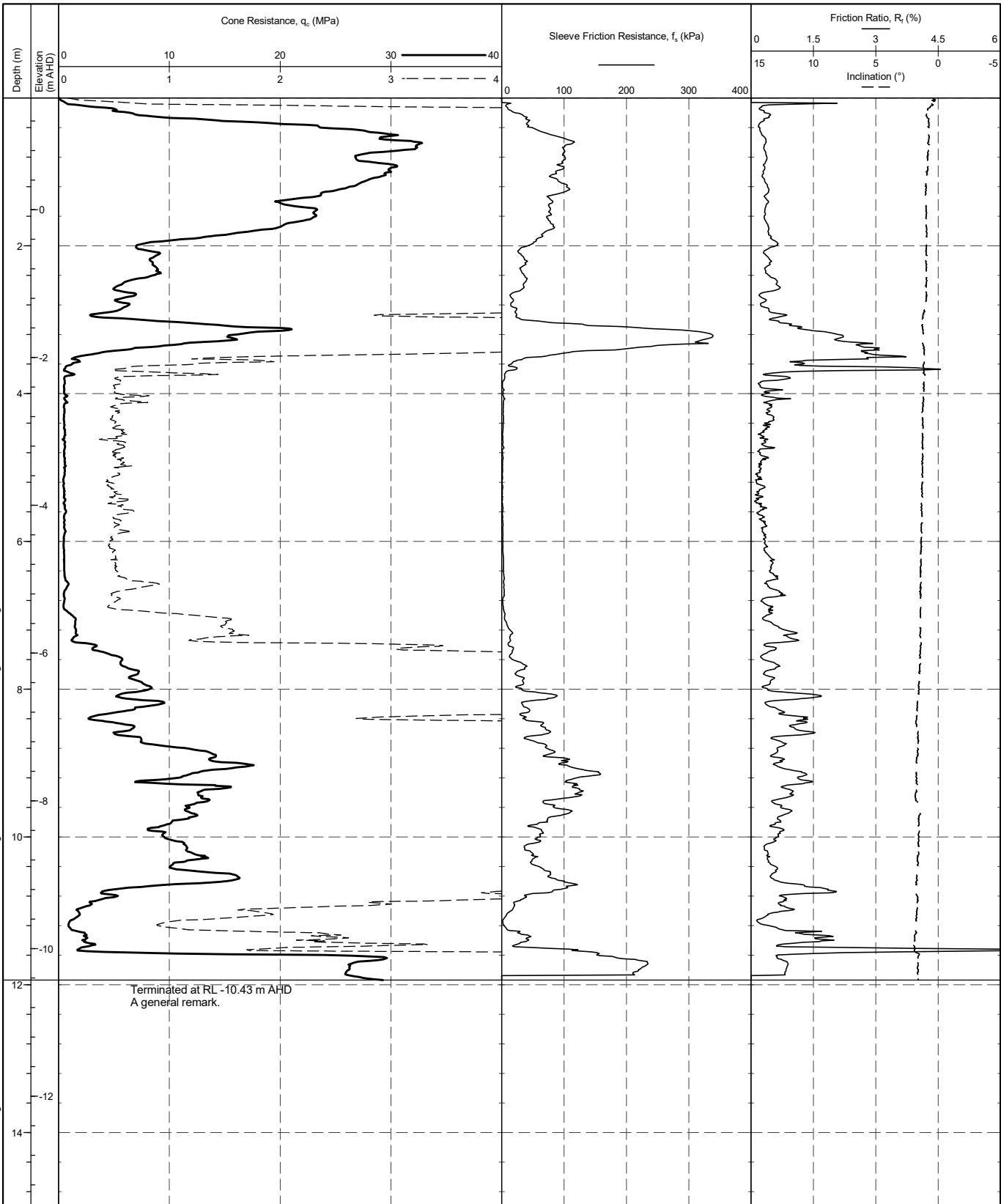


PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	

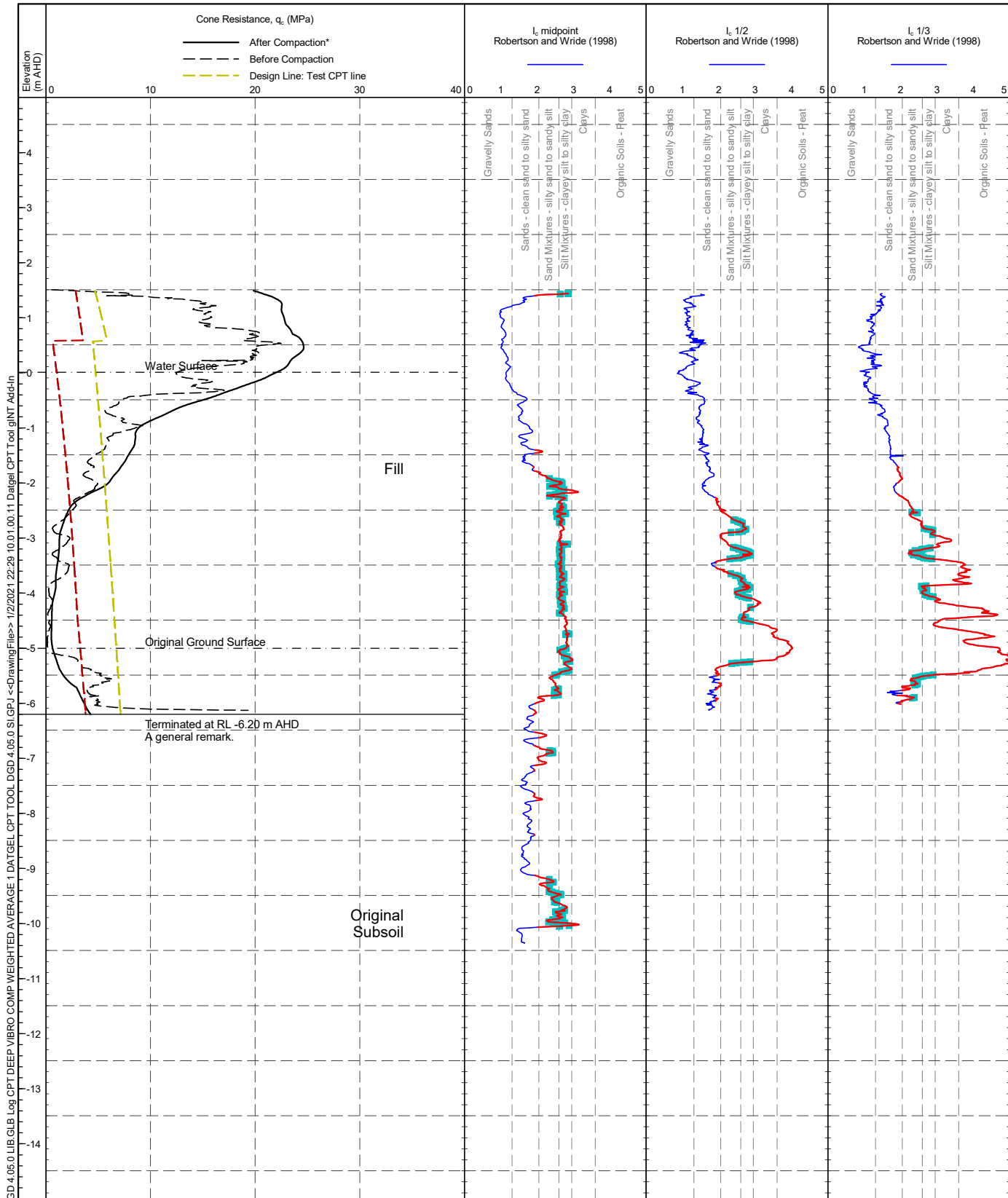


DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT A4P DATGEL CPT TOOL DGD 4.05.0 S.GPJ <<DrawingFile>> 1/2/2021 22:29:10.01.00.11 Datgel CPT Tool gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith	REMARK A general remark.
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009	
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe	
OPERATOR : Operator A	APPROVED DATE : 6/2/2009	

PointID  
**V-VibroCompaction**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	

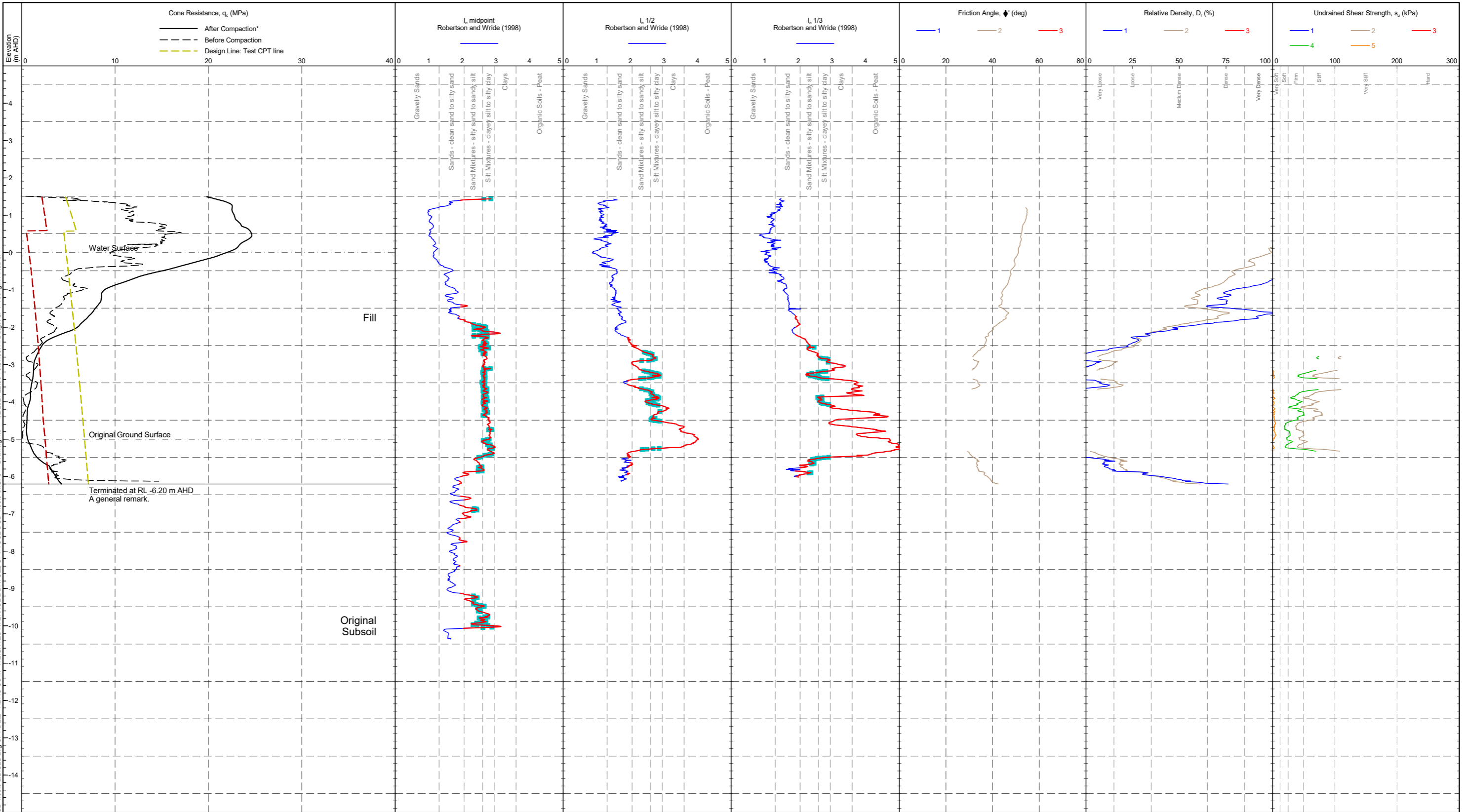


Locations	CPT Name	Ground Level (m)	Northing (m)	Easting (m)	
CPT-Midpoint	CPT 05	1.51	6266091.64	262947.60	— I <sub>c</sub> > 1.9
CPT-1/2	CPT 02	1.51	6266023.73	262860.58	■ Transition
CPT-1/3	CPT 04	1.20	6266066.74	262918.16	

\*Moving average of weighted average of 3 post compaction CPT's (Midpoint, 1/2 & 1/3)

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT DEEP VIBRO COMP WEIGHTED AVERAGE 1 DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles>> 1/2/2024 22:29 10.01.00.11 Datgel CPT Tool.cjint Add-In

CLIENT : Client 1	AREA : Place	RIG : Plant B	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE :	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID :	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT DEEP VIBRO COMP WEIGHTED AVERAGE 2 DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 22:30 10.01.00.11 Datgel CPT Tool gINT Add.h

Locations	CPT Name	Ground Level (m)	Northing (m)	Easting (m)	
CPT-Midpoint	CPT 05	1.51	6266091.64	262947.60	<ul style="list-style-type: none"> <li>— <math>I_c &gt; 1.9</math></li> <li>■ Transition</li> </ul> <p>*Moving average of weighted average of 3 post compaction CPT's (Midpoint, 1/2 &amp; 1/3)</p>
CPT-1/2	CPT 02	1.51	6266023.73	262860.58	
CPT-1/3	CPT 04	1.20	6266066.74	262918.16	

Friction Angle Method:

1. Senneker et al. (1988 & 1989); Mayne & Campanella (2005)
2. Robertson & Campanella (1983)
3. Kulhawy & Mayne (1990)

Relative Density Method:

1. Baldi et al. (1988), Al-Homoud & Wehr (2006)
2. Jamiolkowski et al. (2001)
3. Kulhawy & Mayne (1990)

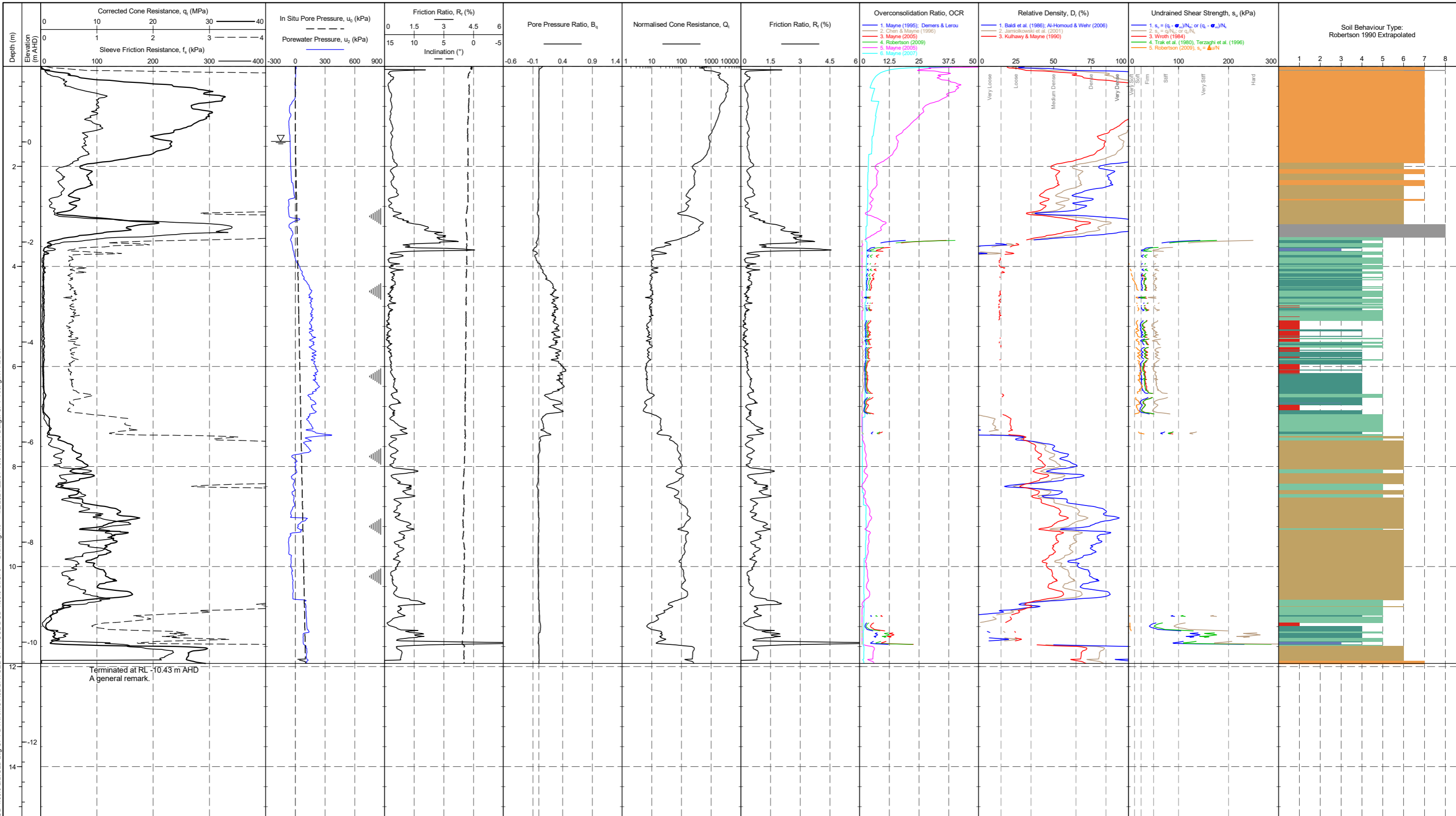
Undrained Shear Strength Method:

1.  $s_u = (q_c - \sigma_{vm})/N_c$ , or  $(q_c - \sigma_{vm})/N_c$
2.  $s_u = q_c/N_c$ , or  $q_c/N_c$
3. Wroth (1984)
4. Trak et al. (1980), Terzaghi et al. (1996)
5. Robertson (2009),  $s_u = \Delta u/N$

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:31 10.01.00.11 Datgel CPT Tool gINT Add-h

**Overconsolidation Ratio Method:**  
 1. Mayne (1995); Demers & Lerouel (2002)  
 2. Chen & Mayne (1996)  
 3. Mayne (2005)  
 4. Robertson (2009)  
 5. Mayne (2005)  
 6. Mayne (2007)

**Undrained Shear Strength Method:**  
 1.  $s_u = (q_c - \sigma_{v0})/N_{60}$ ; or  $(q_c - \sigma_{v0})/N_c$   
 2.  $s_u = q_c/N_{60}$ ; or  $q_c/N_c$   
 3. Wroth (1984)  
 4. Trak et al. (1980), Terzaghi et al. (1996)  
 5. Robertson (2009),  $s_u = \Delta u/N$

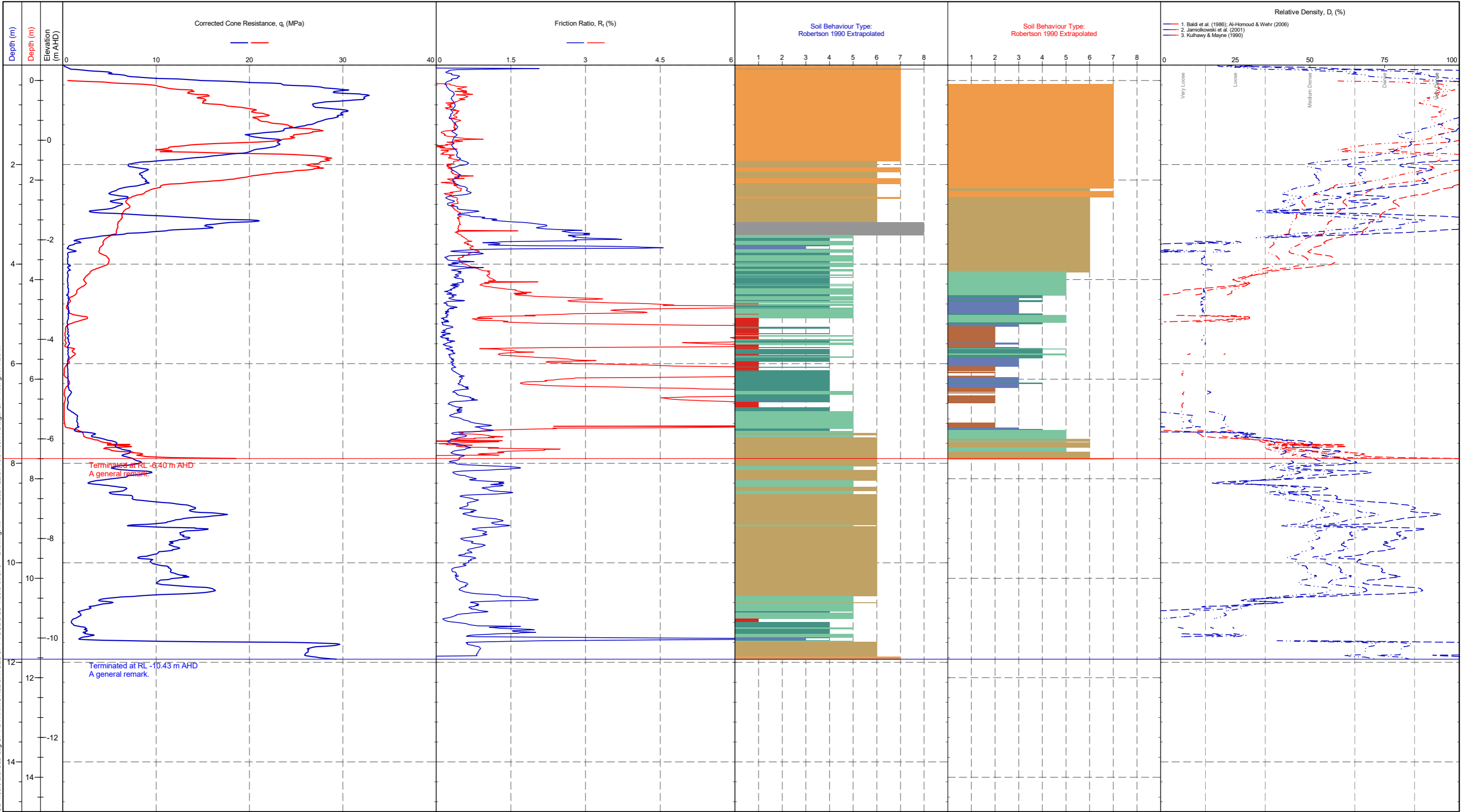
**Relative Density Method:**  
 1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
 2. Jamiolkowski et al. (2001)  
 3. Kulhawy & Mayne (1990)

**METHOD: Robertson 1990**

1 - Sensitive, fine grained	5 - SAND mixtures - silty SAND to sandy SILT	9 - Very stiff fine grained
2 - Organic soil - peats	6 - Sands - clean SAND to silty SAND	
3 - Clays - CLAY to silty CLAY	7 - Gravelly SAND to SAND	
4 - SILT mixtures - clayey SILT to silty CLAY	8 - Very stiff SAND to clayey SAND	

Dissipation Test

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0	RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	REMARK A general remark.  A general remark.	STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD	STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD
--	---	---	--	--	--



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT -<DrawingFile> 1/2/2021 22:31:10.01.00.11 Datgel CPT Tool gINT Add-h

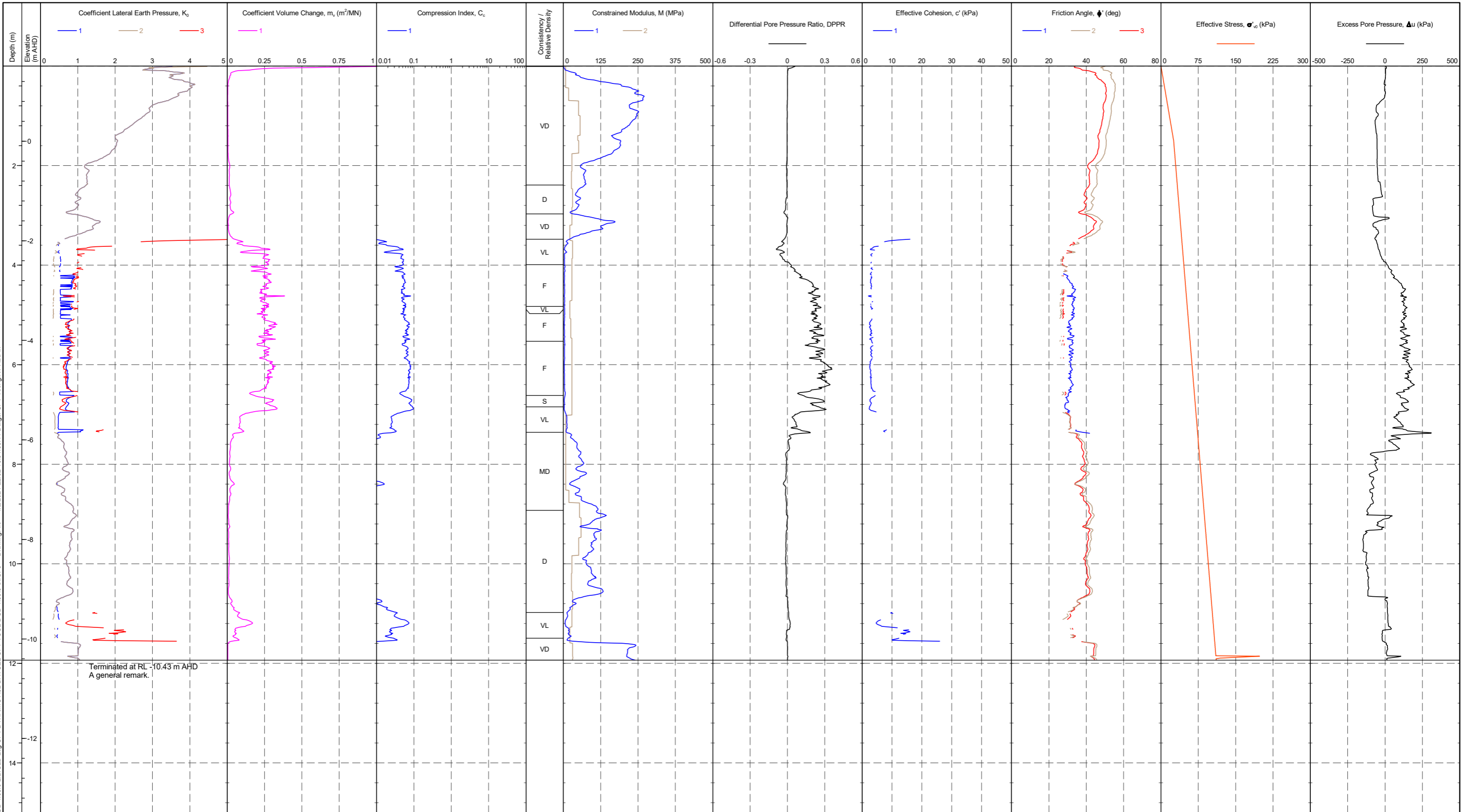
**METHOD: Robertson 1990**

1 - Sensitive, fine grained	5 - SAND mixtures - silty SAND to sandy SILT	9 - Very stiff fine grained
2 - Organic soil - peats	6 - Sands - clean SAND to silty SAND	
3 - Clays - CLAY to silty CLAY	7 - Gravelly SAND to SAND	
4 - SILT mixtures - clayey SILT to silty CLAY	8 - Very stiff SAND to clayey SAND	

▲ Dissipation  
▲ Test

**Relative Density Method:**  
 1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
 2. Jamiolkowski et al. (2001)  
 3. Kulhawy & Mayne (1990)

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				

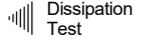


DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:32 10.01.00.11 Datgel CPT Tool gINT Add-h

Coefficient Lateral Earth Pressure Method:  
1. Mayne (2007)  
2. Mayne (2007)  
3. Kulhawy & Mayne (1990)

Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is  $\geq 70\%$  / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is  $\geq 77\%$   
Overall: Fail  
Details: 1: P; 2: F; 3: F; 4: F

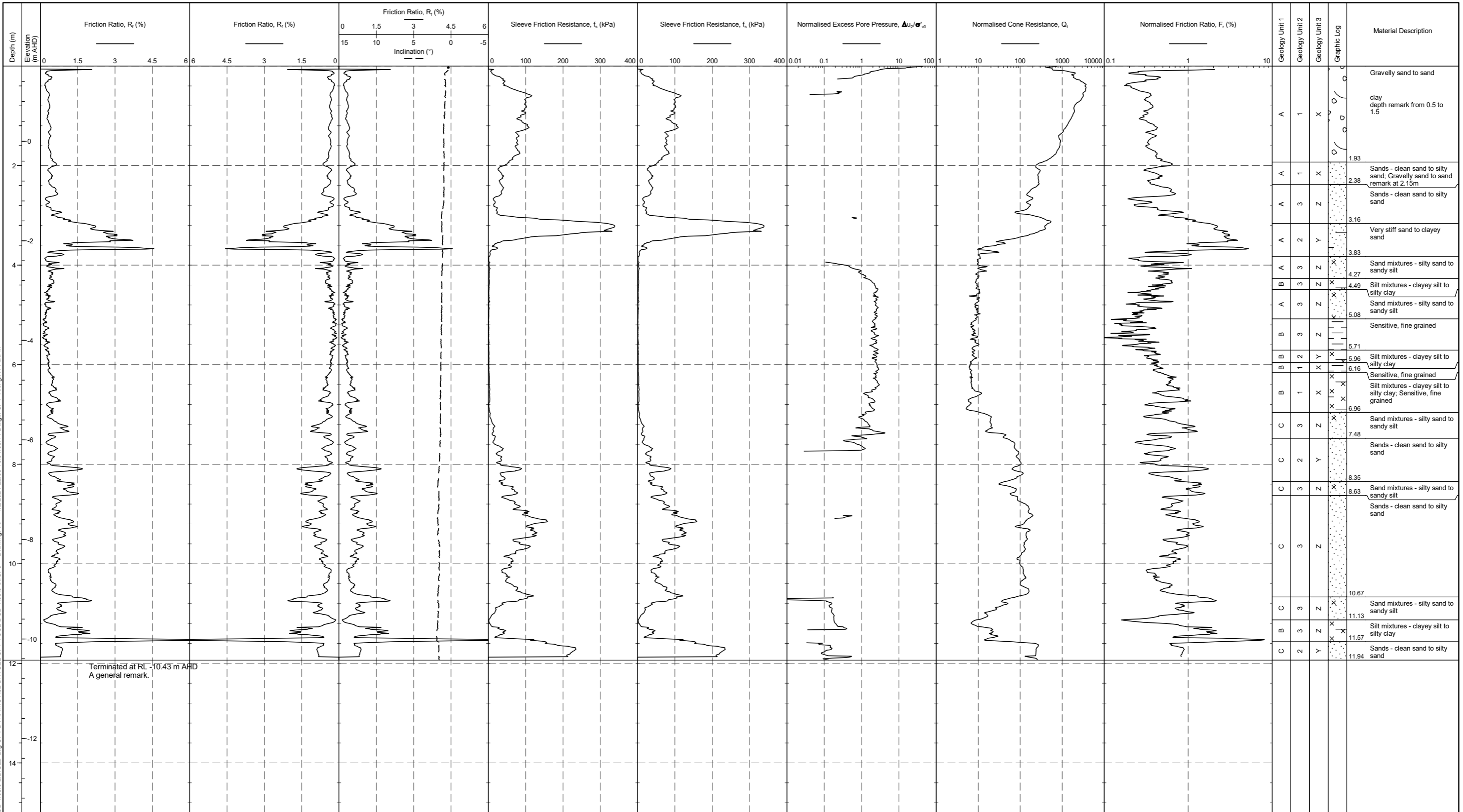
Constrained Modulus Method:  
1. Kulhawy & Mayne (1990)  
2. Burns & Mayne (2002)



PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



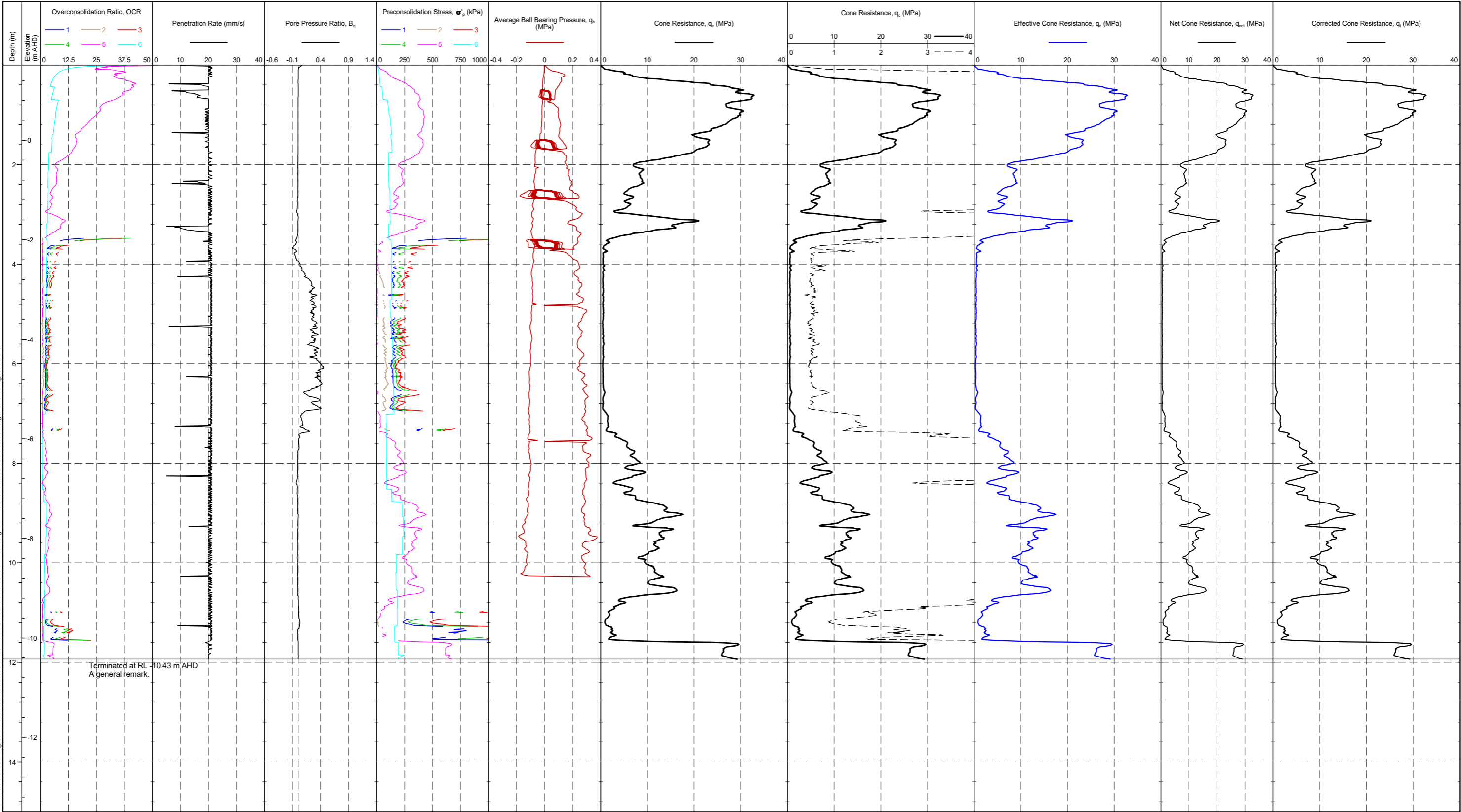
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:33 10.01.00.11 Datgel CPT Tool gINT Add-h

Dissipation Test

Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is  $\geq 70\%$  / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is  $\geq 77\%$   
Overall: Fail  
Details: 1: P; 2: F; 3: F; 4: F

PointID  
**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 12/2021 22:34 10.01.00.11 Datgel CPT Tool gINT Add-h



Overconsolidation Ratio Method:  
 1. Mayne (1995); Demers & Leroueil (2002)  
 2. Chen & Mayne (1996)  
 3. Mayne (2005)  
 4. Robertson (2009)  
 5. Mayne (2005)  
 6. Mayne (2007)

Preconsolidation Stress Method:  
 1. Mayne (1995); Demers & Leroueil (2002)  
 2. Chen & Mayne (1996)  
 3. Mayne (2005)  
 4. Robertson (2009)  
 5. Mayne (2005)  
 6. Mayne (2007)

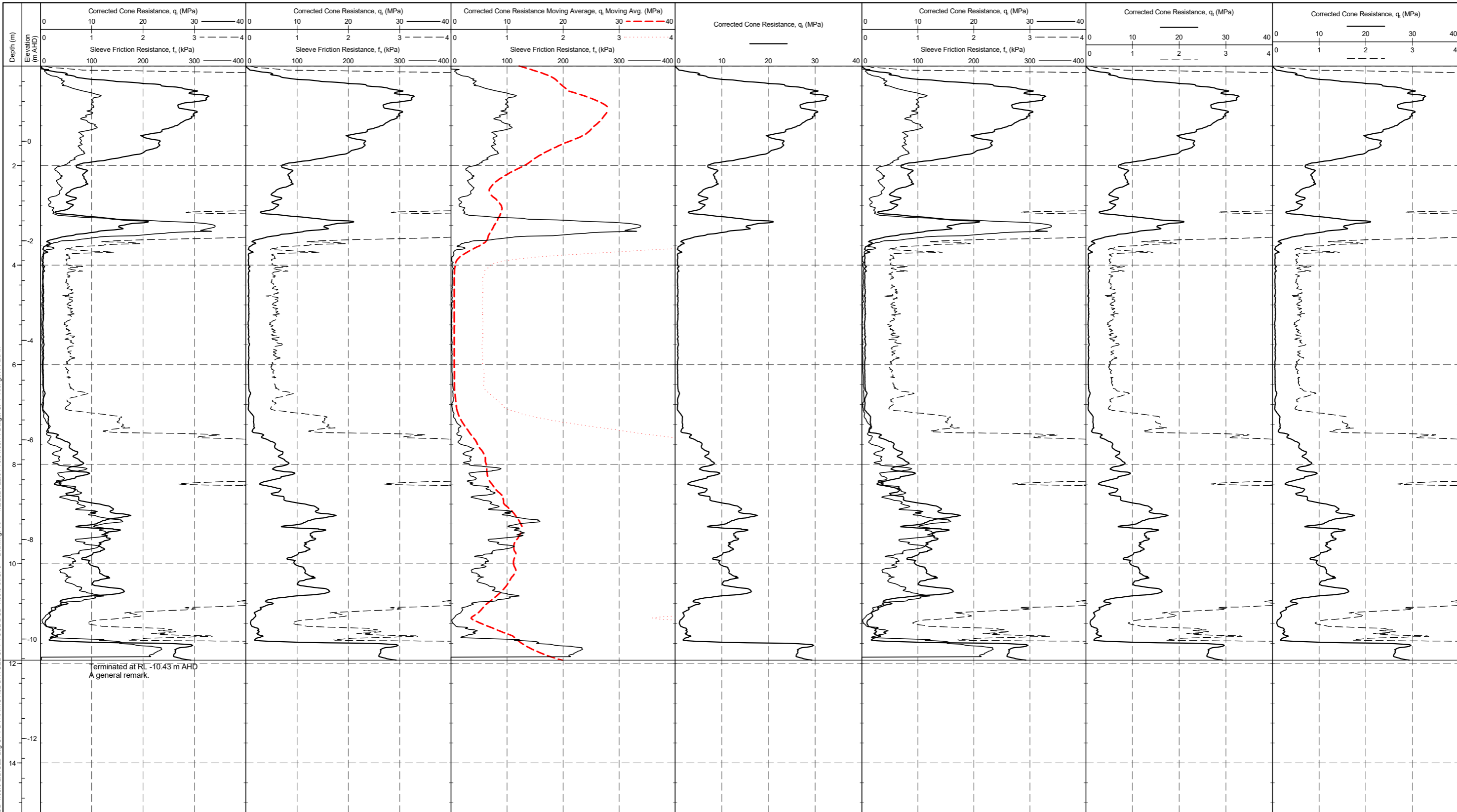
Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is  $\geq 70\%$  / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is  $\geq 77\%$   
 Overall: Fail  
 Details: 1: P; 2: F; 3: F; 4: F



PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



Terminated at RL -10.43 m AHD  
A general remark.

Dissipation Test

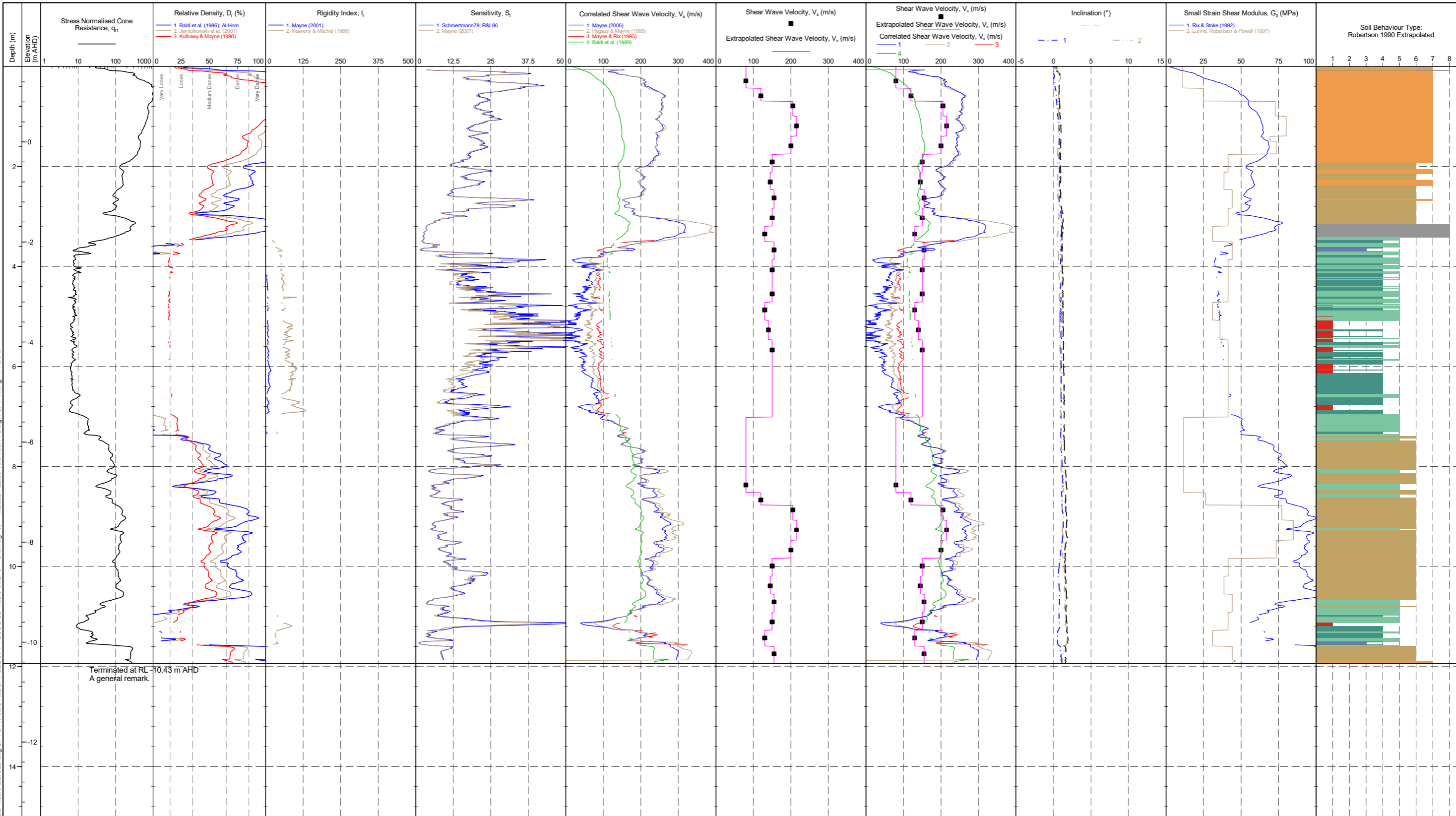
Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is >=70% / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is >=77%  
Overall: Fail  
Details: 1: P; 2: F; 3: F; 4: F

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFiles> 1/2/2021 22:34 10.01.00.11 Datgel CPT Tool gINT Add-h

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles> 1/2/2021 22:35:10.01.00.11 Datgel CPT Tool gINT Add-h

Relative Density Method:  
1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
2. Jamiolkowski et al. (2001)  
3. Kulhawy & Mayne (1990)

Rigidity Index Method:  
1. Mayne (2001)  
2. Keaveny & Mitchell (1986)

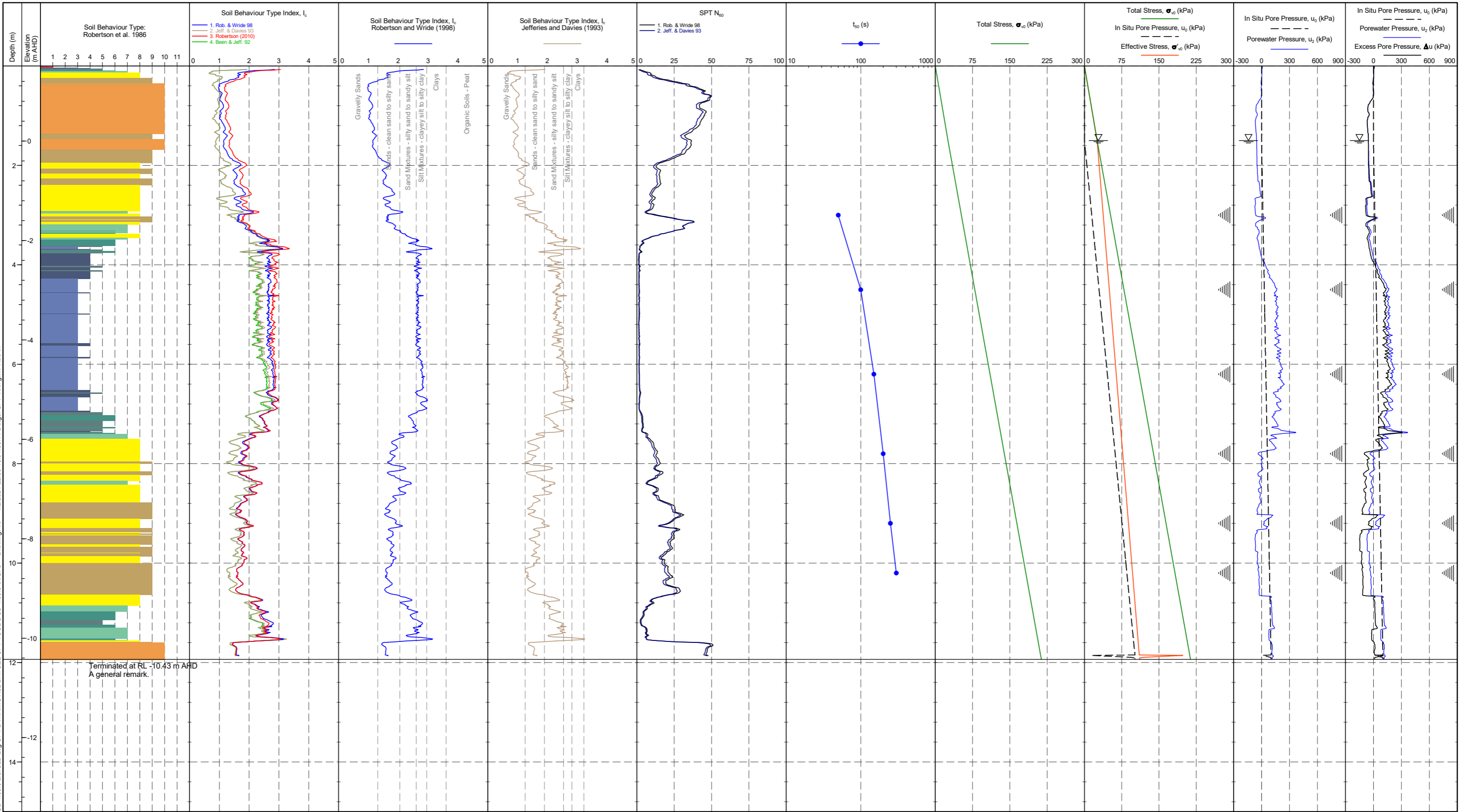
Sensitivity Method:  
1. Schmertmann78; R&L86  
2. Mayne (2007)

METHOD: Robertson 1990

1 - Sensitive, fine grained	5 - SAND mixtures - silty SAND to sandy SILT	9 - Very stiff fine grained
2 - Organic soil - peats	6 - Sands - clean SAND to silty SAND	
3 - clays - CLAY to silty CLAY	7 - Gravelly SAND to SAND	
4 - SILT mixtures - clayey SILT to silty CLAY	8 - Very stiff SAND to clayey SAND	



CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:36 10.01.00.11 Datgel CPT Tool gINT Add-h

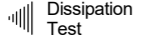
METHOD: Robertson et al. 1986

1 - Sensitive fine grained material	5 - Clayey SILT to silty CLAY	9 - SAND
2 - Organic material	6 - Sandy SILT to clayey SILT	10 - Gravelly SAND to SAND
3 - CLAY	7 - Silty SAND to sandy SILT	11 - Very stiff fine grained
4 - Silty CLAY to CLAY	8 - SAND to silty SAND	12 - SAND to clayey SAND

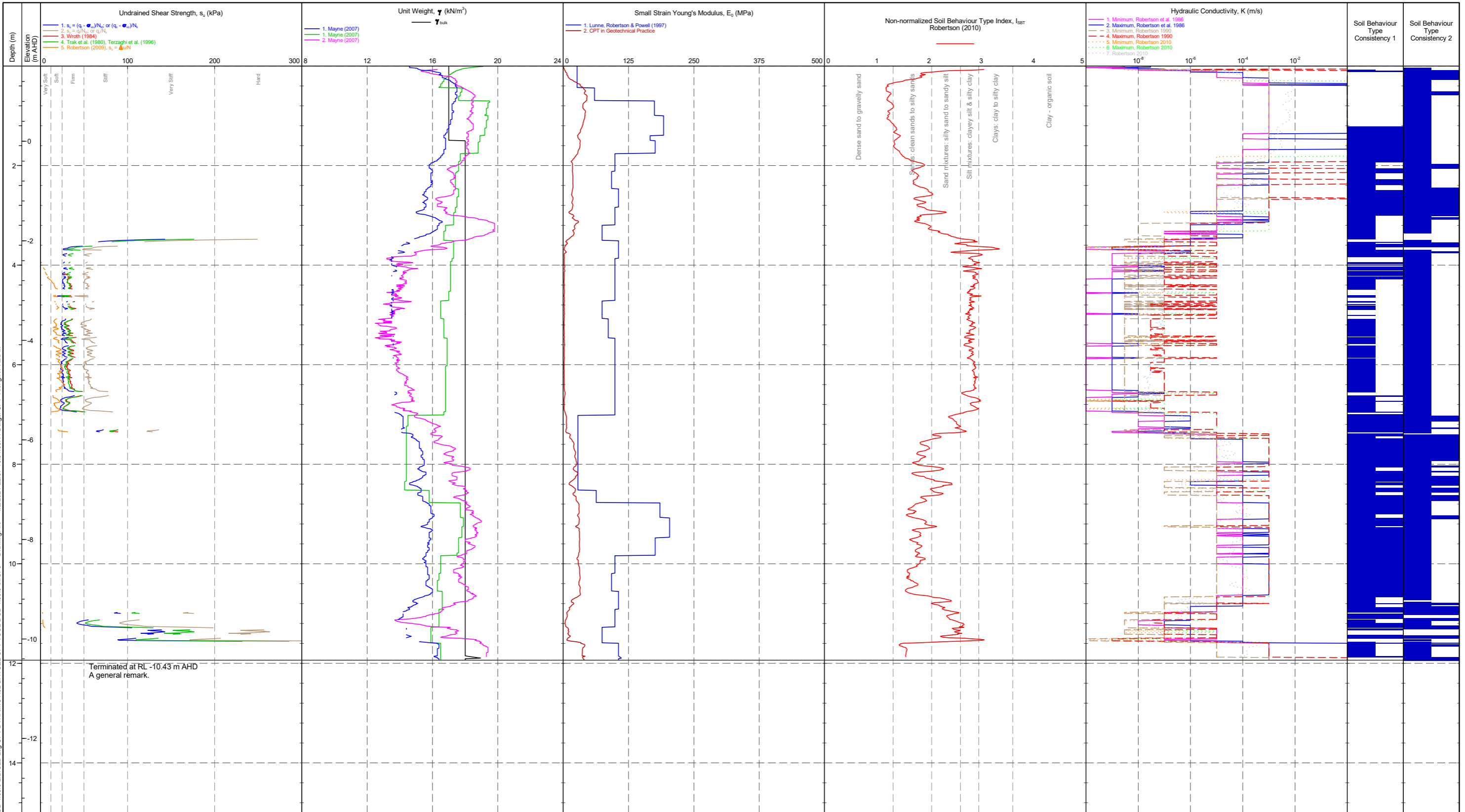
Soil Behaviour Type Index Method:

1. Rob. & Wride 98
2. Jeff. & Davies 93
3. Robertson (2010)
4. Been & Jeff. 92

SPT N60 Method:  
1. Rob. & Wride 98  
2. Jeff. & Davies 93



CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:37:10.01.00.11 Datgel CPT Tool gINT Add-h



Undrained Shear Strength Method:  
 1.  $s_u = (q_c - \sigma_{vc})/N_{60}$  or  $(q_c - \sigma_{vc})/N_k$   
 2.  $s_u = q_c/N_{60}$  or  $q_c/N_k$   
 3. **Wroth (1984)**  
 4. **Trak et al. (1980), Terzaghi et al. (1996)**  
 5. **Robertson (2009),  $s_u = \Delta u/N$**

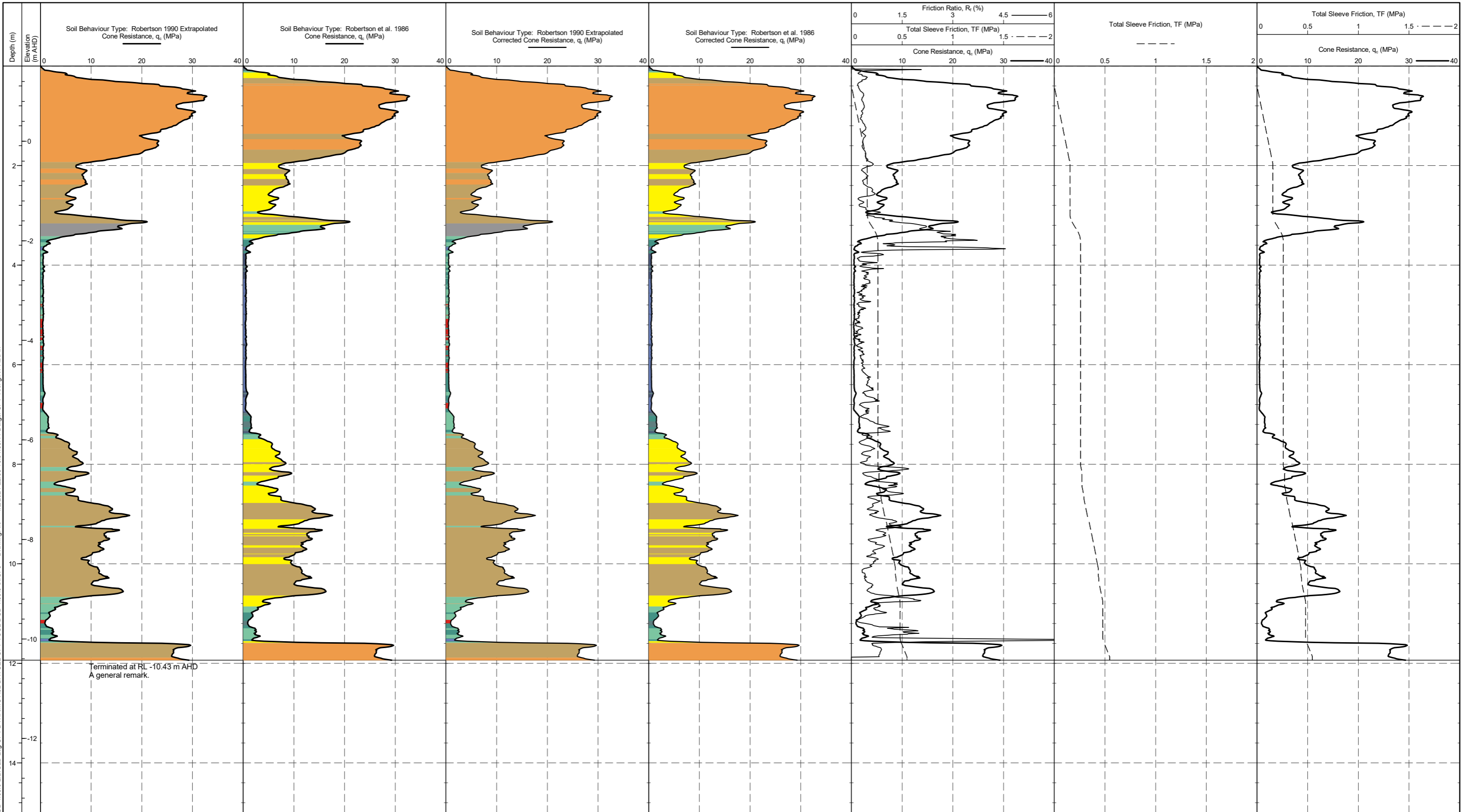
Unit Weight Method:  
 1.  $\gamma_b$  Applied in Calculation  
 1.  $\gamma_{sat}$  **Mayne (2007)**  
 2.  $\gamma_{sat}$  **Mayne (2007)**  
 1.  $\gamma_{dry}$  **Mayne (2007)**

Youngs Modulus Method:  
 1. **Lunne, Robertson & Powell (1997)**  
 2. **CPT in Geotechnical Practice**

Hydraulic Conductivity Method:  
 1. **Minimum, Robertson et al. 1986**  
 2. **Maximum, Robertson et al. 1986**  
 3. **Minimum, Robertson 1990**  
 4. **Maximum, Robertson 1990**  
 5. **Minimum, Robertson 2010**  
 6. **Maximum, Robertson 2010**

PointID  
**CPT 05**

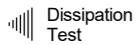
CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles> 1/2/2021 22:38 10.01.00.11 Datgel CPT Tool gINT Add-h

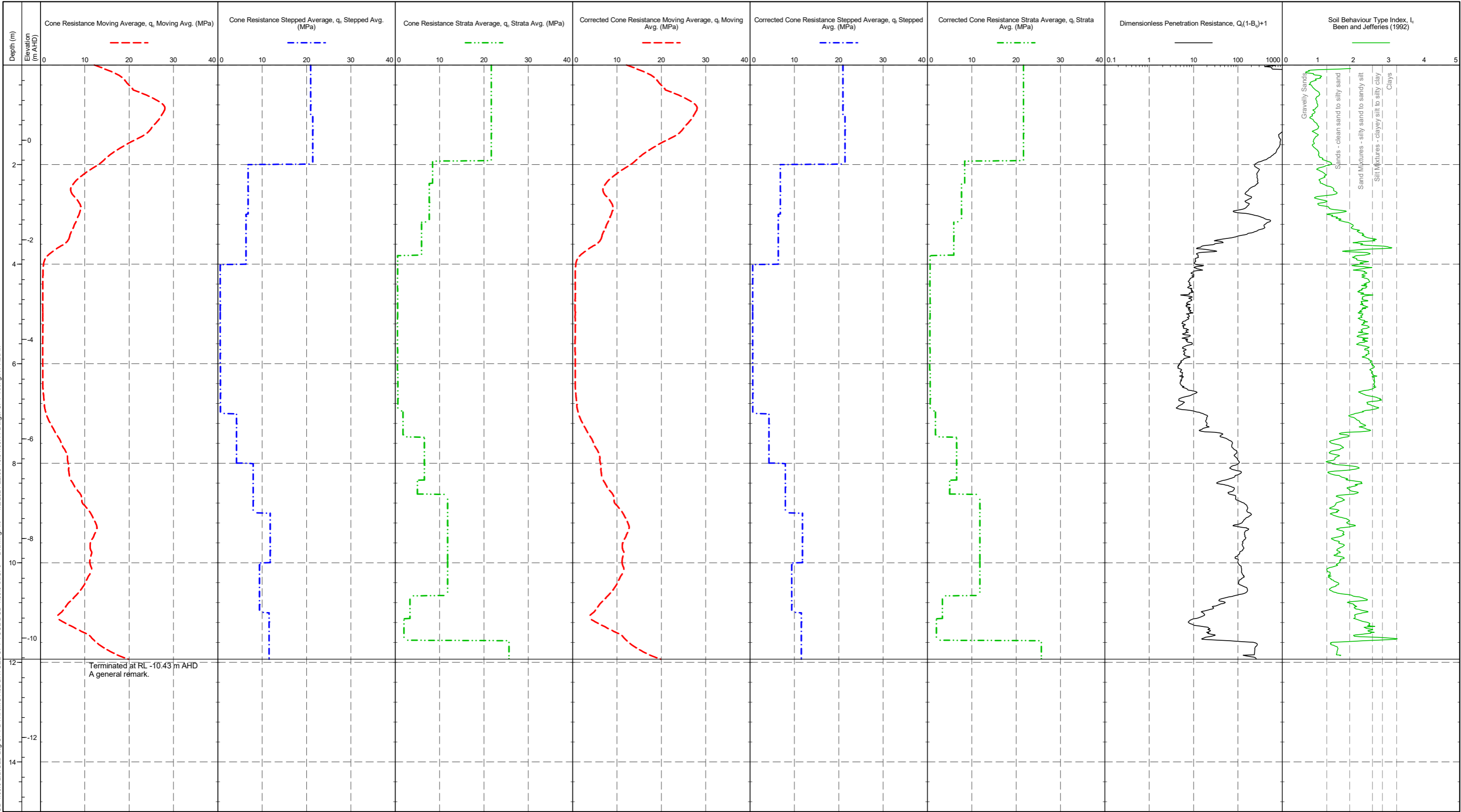
- METHOD: Robertson 1990
- 1 - Sensitive, fine grained
  - 2 - Organic soil - peats
  - 3 - Clays - CLAY to silty CLAY
  - 4 - SILT mixtures - clayey SILT to silty CLAY
  - 5 - SAND mixtures - silty SAND to sandy SILT
  - 6 - Sands - clean SAND to silty SAND
  - 7 - Gravelly SAND to SAND
  - 8 - Very stiff SAND to clayey SAND
  - 9 - Very stiff fine grained

- METHOD: Robertson et al. 1986
- 1 - Sensitive fine grained material
  - 2 - Organic material
  - 3 - CLAY
  - 4 - Silty CLAY to CLAY
  - 5 - Clayey SILT to silty CLAY
  - 6 - Sandy SILT to clayey SILT
  - 7 - Silty SAND to sandy SILT
  - 8 - SAND to silty SAND
  - 9 - SAND
  - 10 - Gravelly SAND to SAND
  - 11 - Very stiff fine grained
  - 12 - SAND to clayey SAND



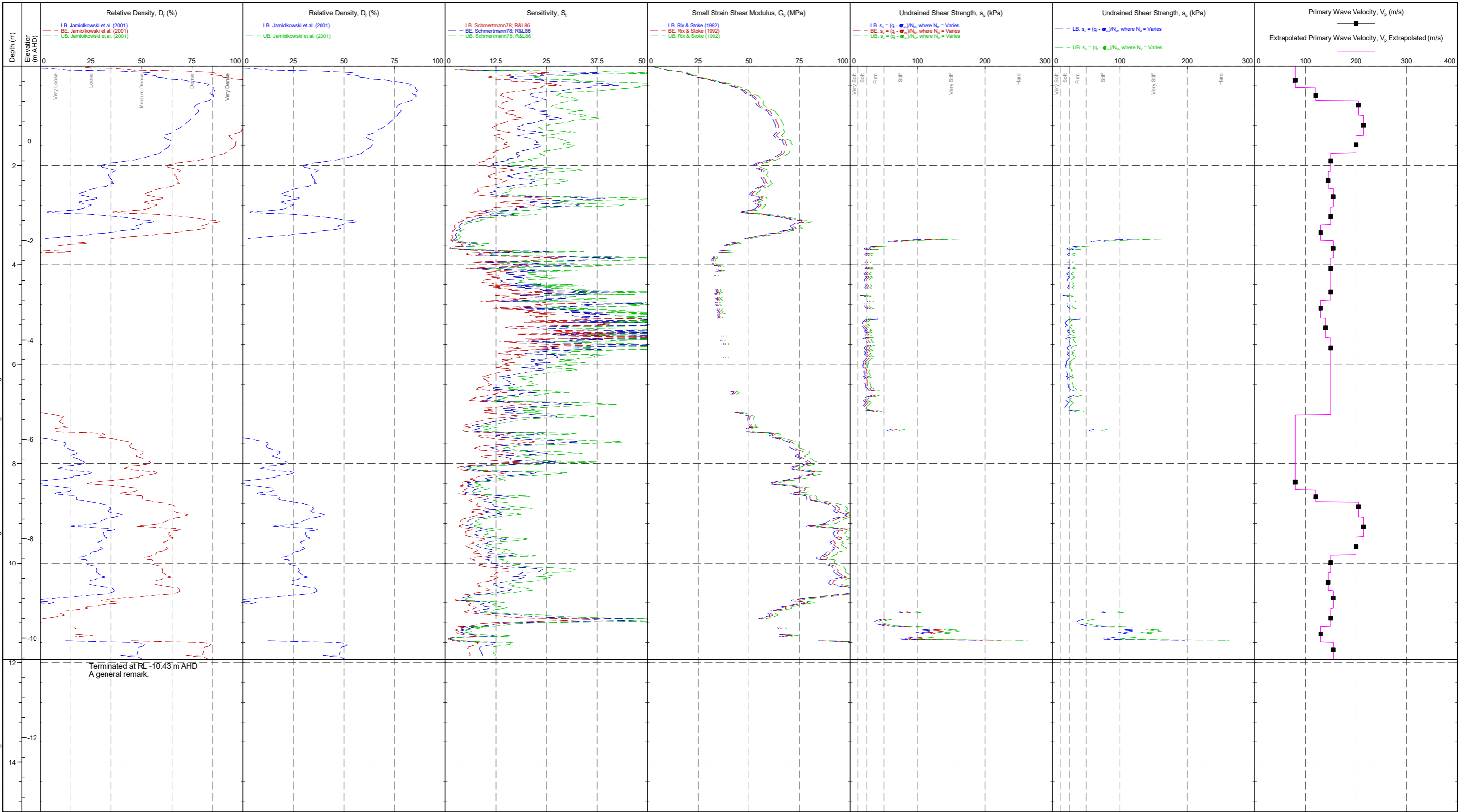
PointID  
**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



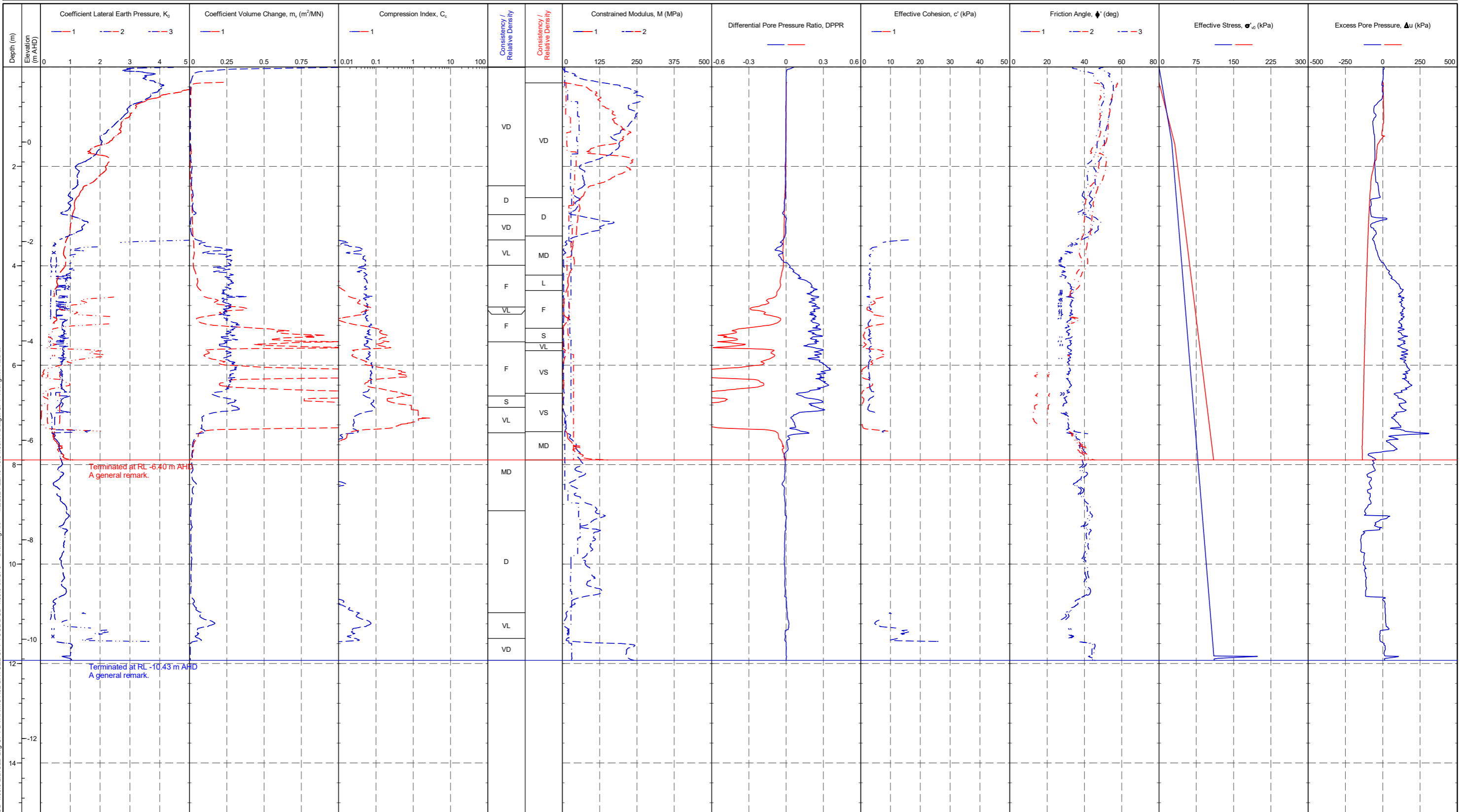
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:38 10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFile> 1/2/2021 22:39 10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0	RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	REMARK A general remark.  A general remark.	PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD	PointID 2 <b>CPT 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD
--	---	---	--	--	--



Effective Cohesion Method:  
1. Mayne & Stewart (1988); Mesri & Abdel-Ghaffar (1993)

Friction Angle Method:  
1. Senneset et al. (1988 & 1989); Mayne & Campanella (2005)  
2. Robertson & Campanella (1983)  
3. Kulhawy & Mayne (1990)

▲ Dissipation  
▲ Test

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFiles> 1/2/2021 22:40 10.01.00.11 Datgel CPT Tool gINT Add-h



CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

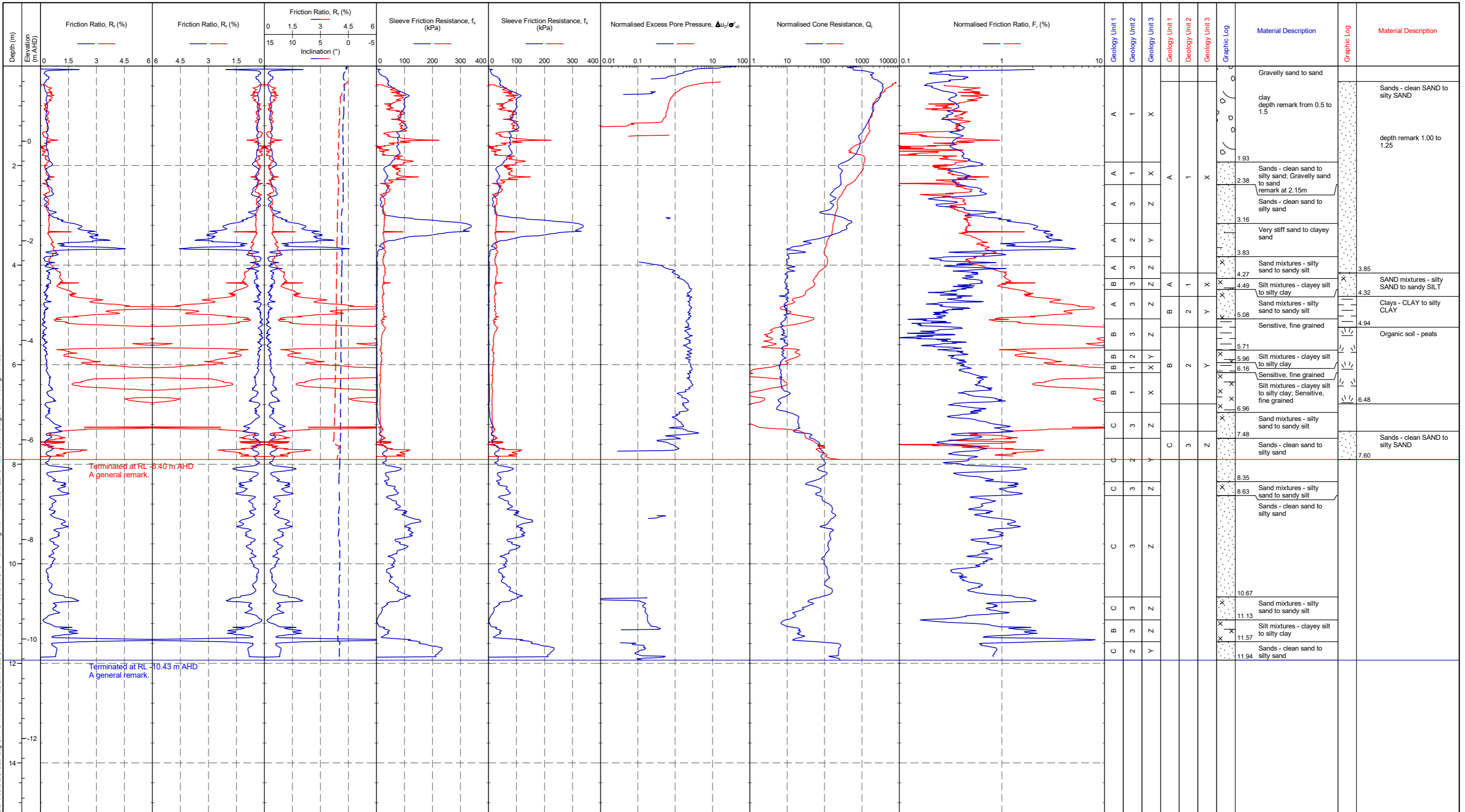
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

RIG : Crawler 1no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

REMARK  
A general remark.  
A general remark.

PointID 1  
**CPT 05**  
STATUS : 2  
DATE : 23/12/2009  
AREA : Place  
LAYER :  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
ELEVATION : 1.51 m AHD

PointID 2  
**CPT 04**  
STATUS :  
DATE : 12/11/2008  
AREA : Place  
LAYER :  
EASTING : 262918.2 m  
NORTHING : 6266066.7 m  
ELEVATION : 1.20 m AHD



Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is  $\geq 70\%$  / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is  $\geq 77\%$   
Overall: Fail  
Details: 1: P; 2: F; 3: F; 4: F

DATGEL\_CPT\_TOOL\_DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL\_CPT\_TOOL\_DGD 4.05.0 SI GPT -<DrawingFiles> 1/2/2021 22:40 10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

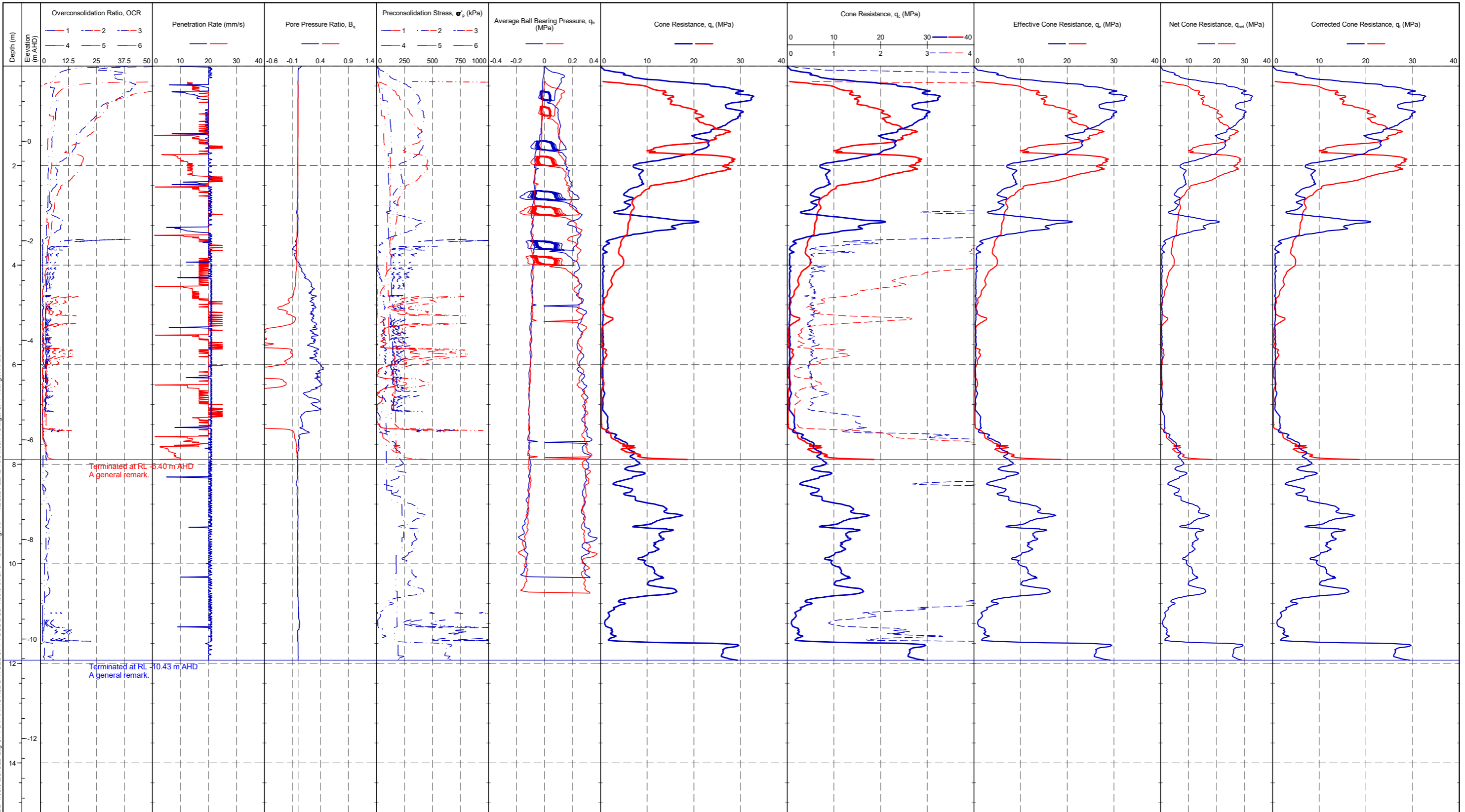
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

RIG : Crawler 1 no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

REMARK  
A general remark.  
A general remark.

PointID 1  
**CPT 05**  
STATUS : 2  
DATE : 23/12/2009  
AREA : Place  
LAYER :  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
ELEVATION : 1.51 m AHD

PointID 2  
**CPT 04**  
STATUS :  
DATE : 12/11/2008  
AREA : Place  
LAYER :  
EASTING : 262918.2 m  
NORTHING : 6266066.7 m  
ELEVATION : 1.20 m AHD

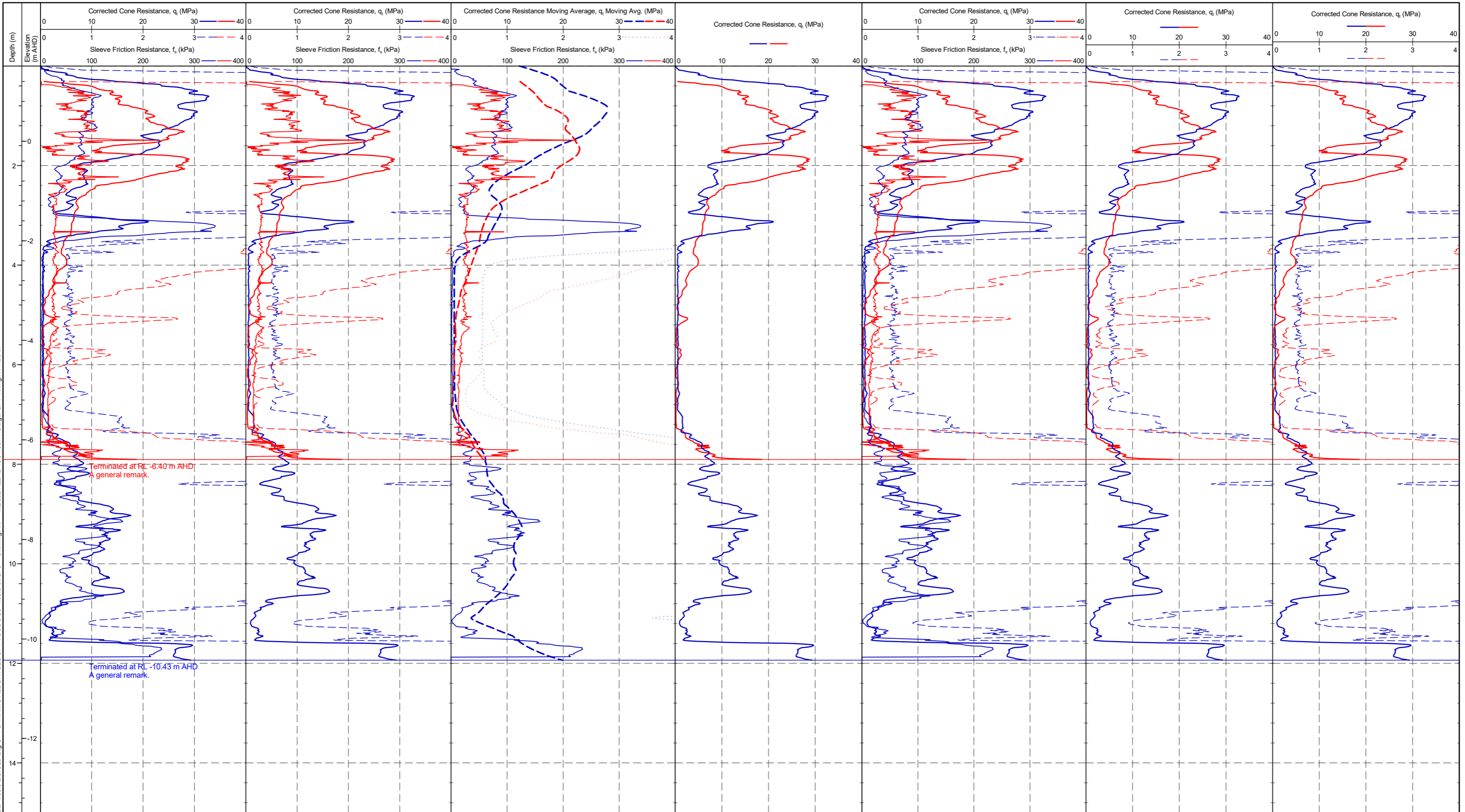


DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:42 10.01.00.11 Datgel CPT Tool gINT Add-h

▲ Dissipation  
▲ Test

Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is  $\geq 70\%$  / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is  $\geq 77\%$   
Overall: Fail  
Details: 1: P; 2: F; 3: F; 4: F

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0	RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	REMARK : A general remark.  A general remark.	PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD	PointID 2 <b>CPT 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD
--	---	---	--	--	--

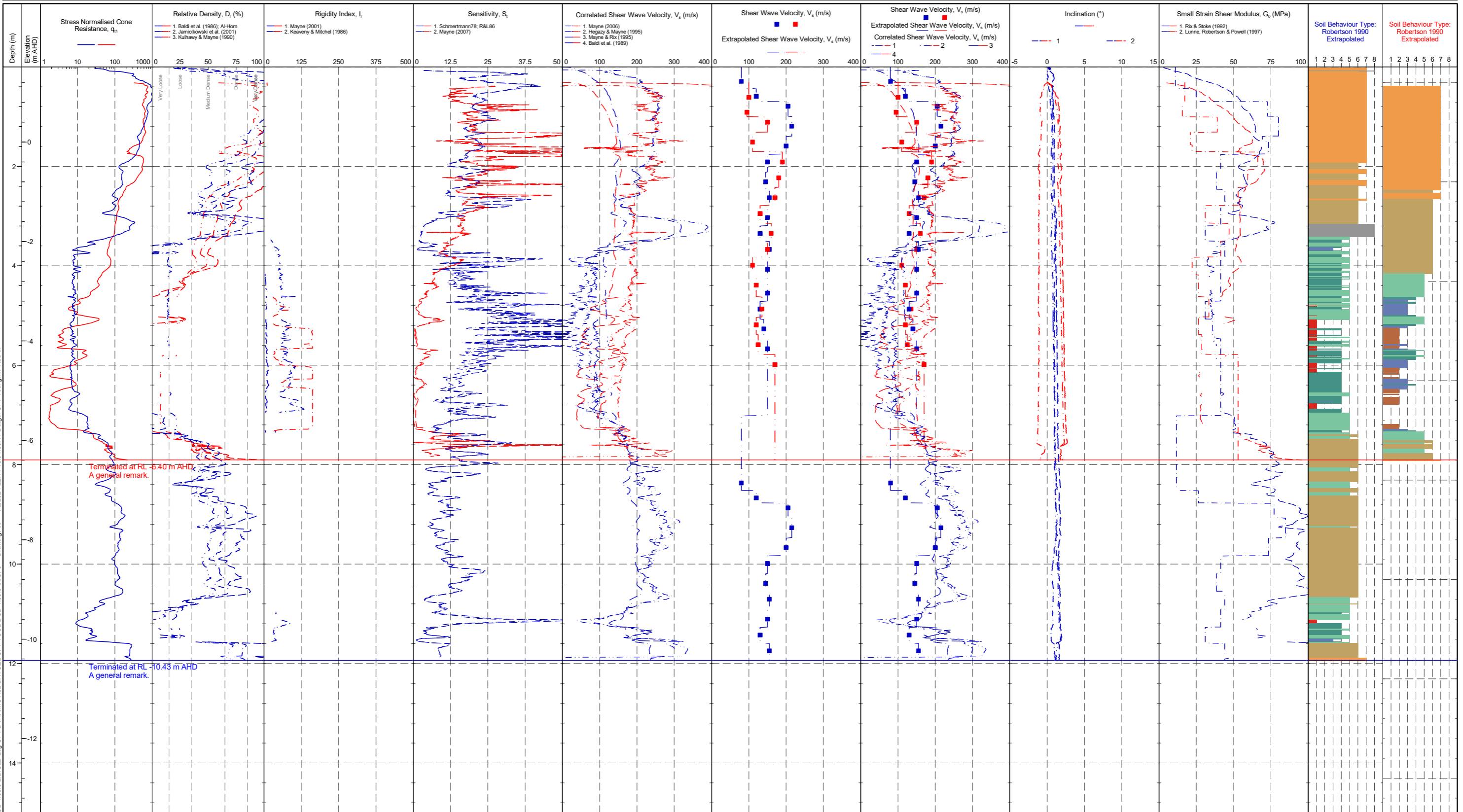


DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles> 1/2/2021 22:42 10.01.00.11 Datgel CPT Tool gINT Add-h

▲ Dissipation  
▲ Test

Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is >=70% / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is >=77%  
 Overall: Fail  
 Details: 1: P; 2: F; 3: F; 4: F

<b>CLIENT</b> : Client 1 <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : CPT Tool Project <b>LOCATION</b> : Somewhere <b>PROJECT No.</b> : 4.05.0	<b>RIG</b> : no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009	<b>RIG</b> : Crawler 1no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009	<b>REMARK</b> A general remark.  A general remark.	<b>PointID 1</b> <b>CPT 05</b> <b>STATUS</b> : 2 <b>DATE</b> : 23/12/2009 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262947.6 m <b>NORTHING</b> : 6266091.6 m <b>ELEVATION</b> : 1.51 m AHD	<b>PointID 2</b> <b>CPT 04</b> <b>STATUS</b> : <b>DATE</b> : 12/11/2008 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262918.2 m <b>NORTHING</b> : 6266066.7 m <b>ELEVATION</b> : 1.20 m AHD
---	---	--	---	--	--



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFile> 1/2/2021 22:44 10.01.00.11 Datgel CPT Tool gINT Add-h

Terminated at RL -6.40 m AHD  
A general remark.

Terminated at RL -10.43 m AHD  
A general remark.

Shear Wave Velocity Method:  
 1. Mayne (2006)  
 2. Hegazy & Mayne (1995)  
 3. Mayne & Rix (1995)  
 4. Baldi et al. (1989)

Small Strain Shear Modulus Method:  
 1. Rix & Stoke (1992)  
 2. Lunne, Robertson & Powell (1997)

METHOD: Robertson 1990

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - Sands - clean SAND to silty SAND
- 7 - Gravely SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

▲ Dissipation  
 ▲ Test

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

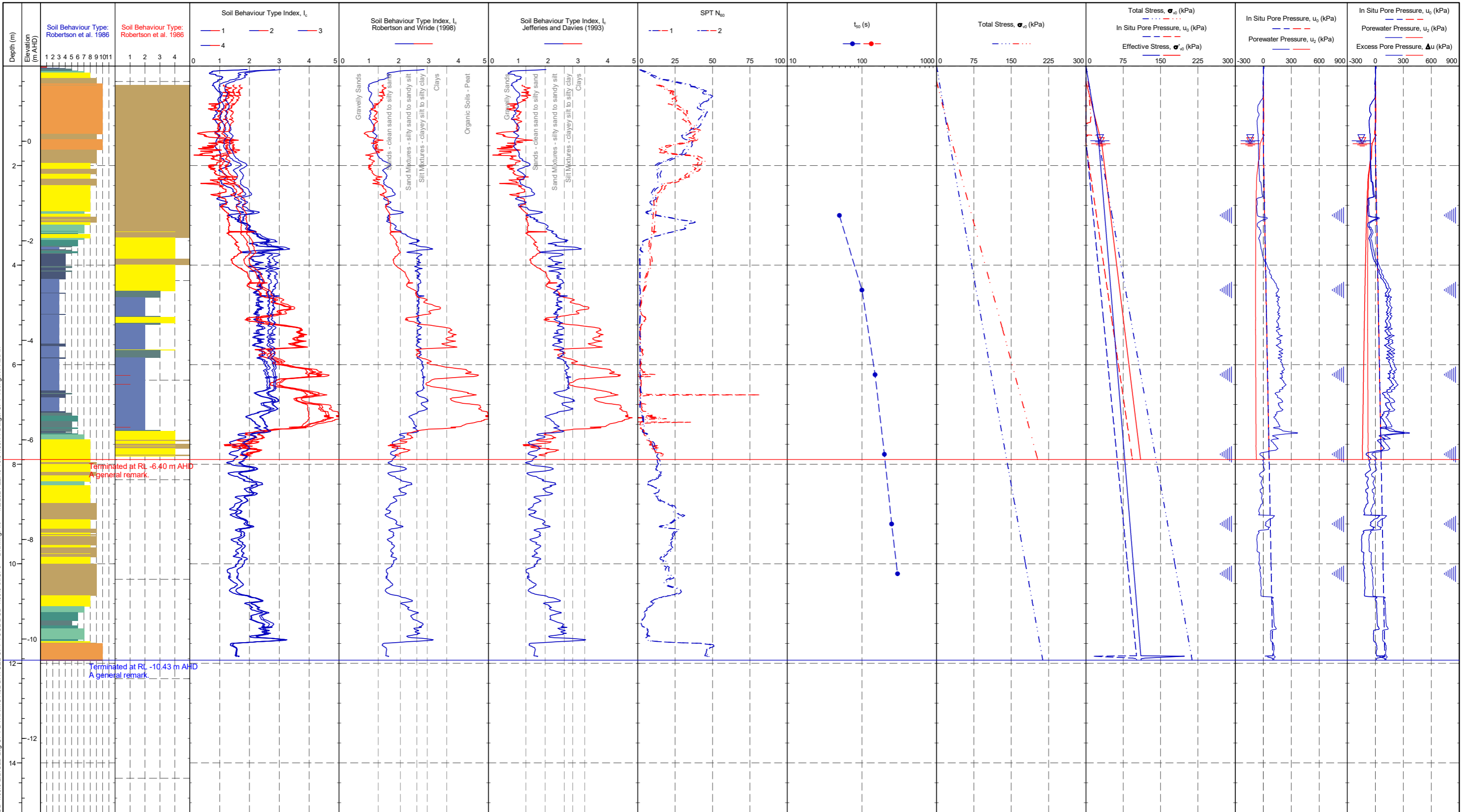
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

RIG : Crawler 1 no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

REMARK  
A general remark.  
A general remark.

PointID 1  
**CPT 05**  
STATUS : 2  
DATE : 23/12/2009  
AREA : Place  
LAYER :  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
ELEVATION : 1.51 m AHD

PointID 2  
**CPT 04**  
STATUS :  
DATE : 12/11/2008  
AREA : Place  
LAYER :  
EASTING : 262918.2 m  
NORTHING : 6266066.7 m  
ELEVATION : 1.20 m AHD

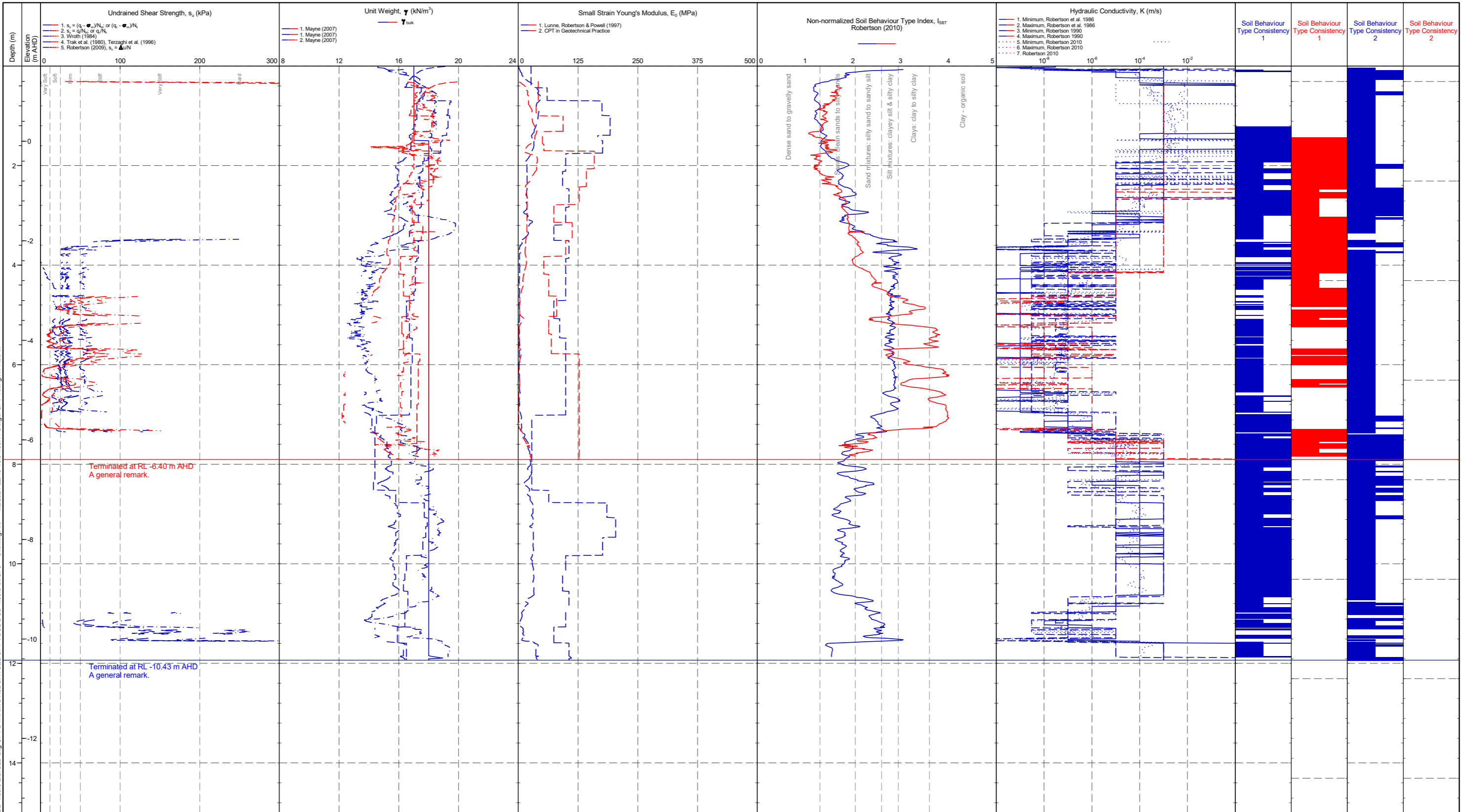


DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFiles> 1/2/2021 22:45 10.01.00.11 Datgel CPT Tool gINT Add-h

▲ Dissipation  
▲ Test

Specification Requirement: Mean Rel density in depth range 0 to 4 m, and if the value is  $\geq 70\%$  / Mean Rel density in depth range 0 to min of HoleDepth and DepthToNaturalGround, and if the value is  $\geq 77\%$   
Overall: Fail  
Details: 1: P; 2: F; 3: F; 4: F

<b>CLIENT</b> : Client 1 <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : CPT Tool Project <b>LOCATION</b> : Somewhere <b>PROJECT No.</b> : 4.05.0	<b>RIG</b> : no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009	<b>RIG</b> : Crawler 1no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009	<b>REMARK</b> A general remark.  A general remark.	<b>PointID 1</b> <b>CPT 05</b> <b>STATUS</b> : 2 <b>DATE</b> : 23/12/2009 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262947.6 m <b>NORTHING</b> : 6266091.6 m <b>ELEVATION</b> : 1.51 m AHD	<b>PointID 2</b> <b>CPT 04</b> <b>STATUS</b> : <b>DATE</b> : 12/11/2008 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262918.2 m <b>NORTHING</b> : 6266066.7 m <b>ELEVATION</b> : 1.20 m AHD
---	---	--	---	--	--



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:45 10.01.00.11 Datgel CPT Tool gINT Add-h

◀ Dissipation Test

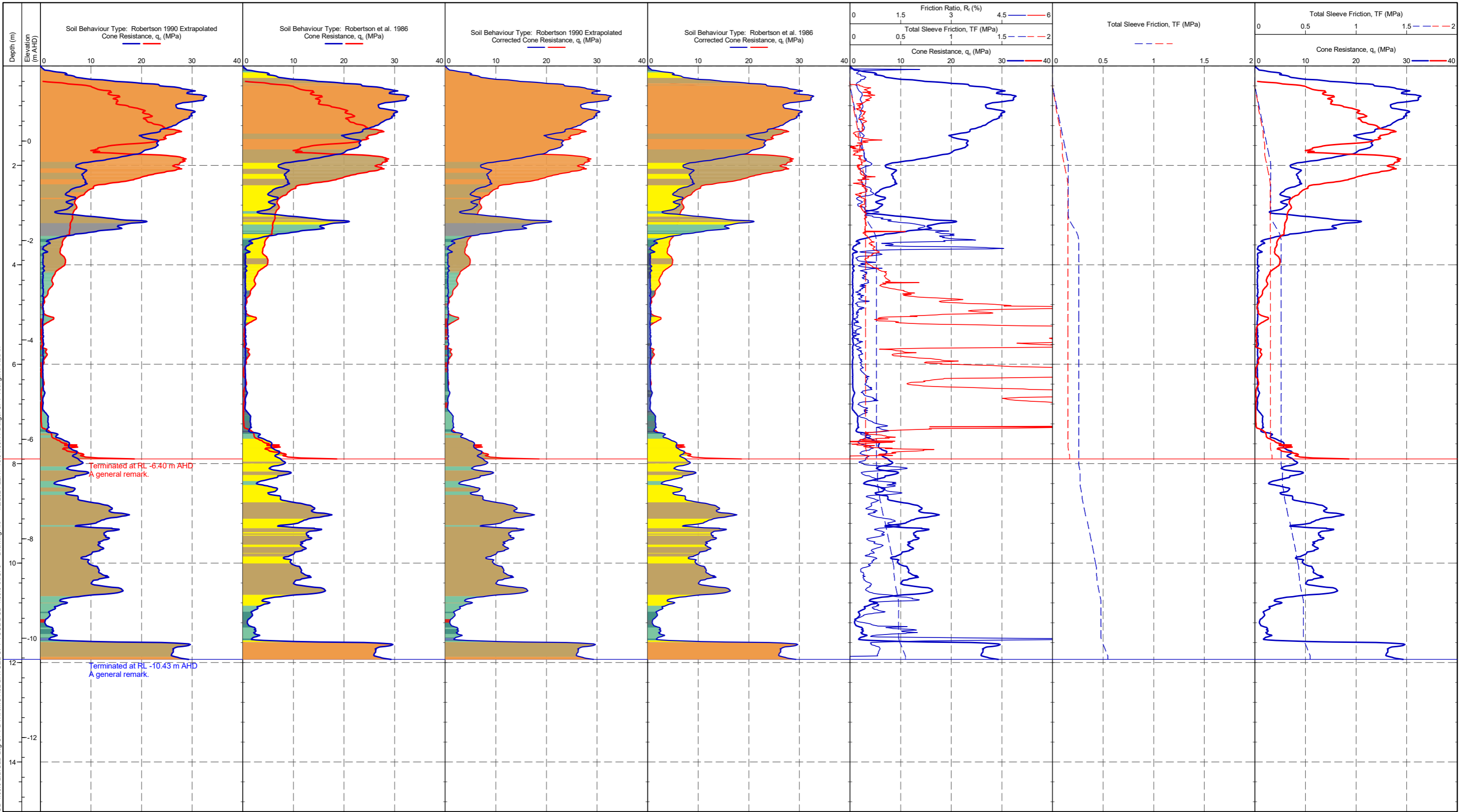
Undrained Shear Strength Method:  
 1.  $s_u = (q_c - \sigma_{vc})/N_{sk}$  or  $(q_c - \sigma_{vc})/N_k$   
 2.  $s_u = q/N_{sk}$  or  $q/N_k$   
 3. Wroth (1984)  
 4. Trak et al. (1980), Terzaghi et al. (1996)  
 5. Robertson (2009),  $s_u = \Delta u/N$

Unit Weight Method:  
 1.  $\gamma_b$  Applied in Calculation  
 1.  $\gamma_{sat}$  Mayne (2007)  
 2.  $\gamma_{sat}$  Mayne (2007)  
 1.  $\gamma_{dry}$  Mayne (2007)

Youngs Modulus Method:  
 1. Lunne, Robertson & Powell (1997)  
 2. CPT in Geotechnical Practice

Hydraulic Conductivity Method:  
 1. Minimum, Robertson et al. 1986  
 2. Maximum, Robertson et al. 1986  
 3. Minimum, Robertson 1990  
 4. Maximum, Robertson 1990  
 5. Minimum, Robertson 2010  
 6. Maximum, Robertson 2010

<b>CLIENT</b> : Client 1 <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : CPT Tool Project <b>LOCATION</b> : Somewhere <b>PROJECT No.</b> : 4.05.0		<b>RIG</b> : no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009		<b>RIG</b> : Crawler 1no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009		<b>REMARK</b> A general remark.  A general remark.		<b>PointID 1</b> <b>CPT 05</b> <b>STATUS</b> : 2 <b>DATE</b> : 23/12/2009 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262947.6 m <b>NORTHING</b> : 6266091.6 m <b>ELEVATION</b> : 1.51 m AHD		<b>PointID 2</b> <b>CPT 04</b> <b>STATUS</b> : <b>DATE</b> : 12/11/2008 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262918.2 m <b>NORTHING</b> : 6266066.7 m <b>ELEVATION</b> : 1.20 m AHD	
---	--	---	--	--	--	---	--	--	--	--	--



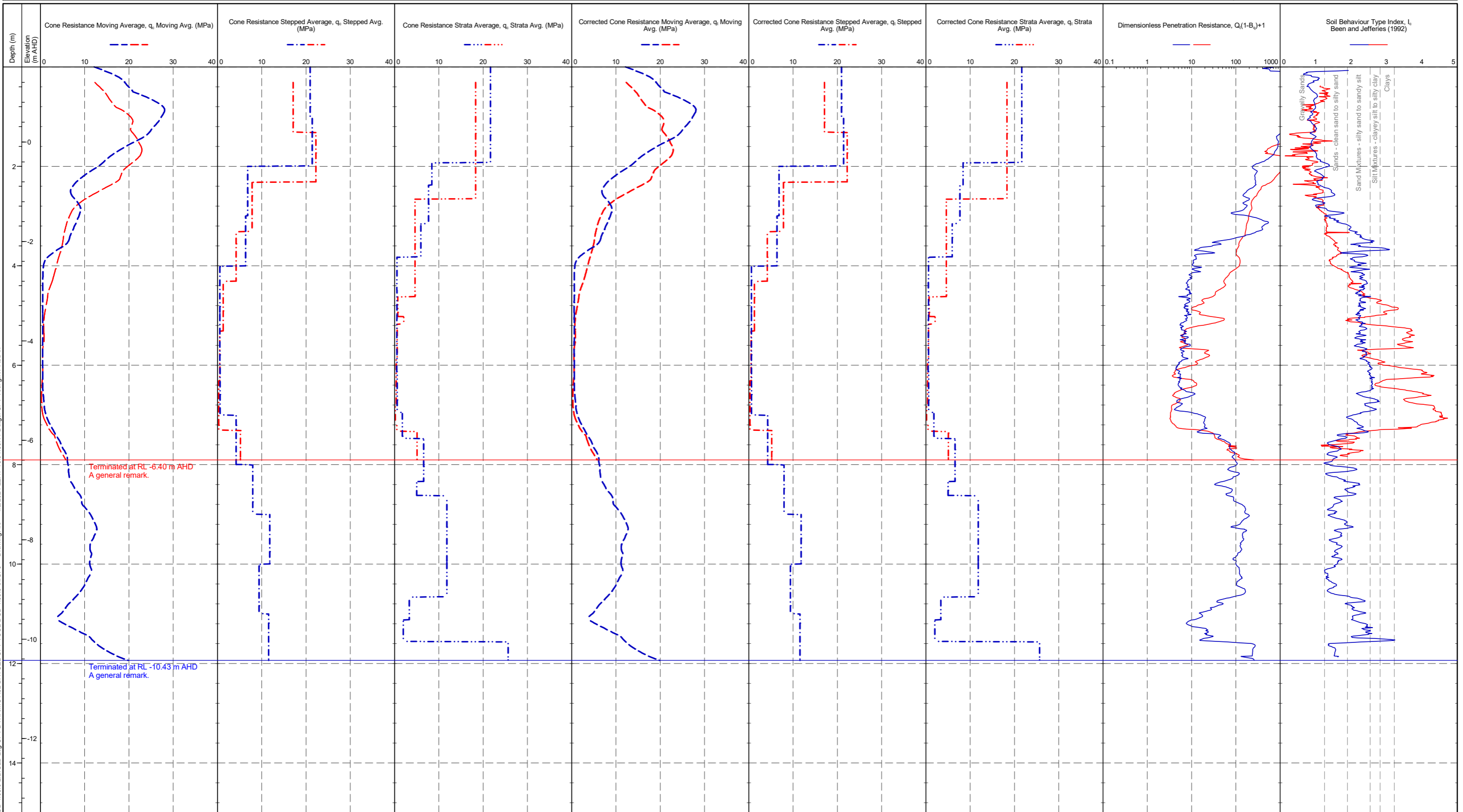
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles> 1/2/2021 22:47:10.01.00.11 Datgel CPT Tool gINT Add-h

- METHOD: Robertson 1990**
- 1 - Sensitive, fine grained
  - 2 - Organic soil - peats
  - 3 - Clays - CLAY to silty CLAY
  - 4 - SILT mixtures - clayey SILT to silty CLAY
  - 5 - SAND mixtures - silty SAND to sandy SILT
  - 6 - Sands - clean SAND to silty SAND
  - 7 - Gravelly SAND to SAND
  - 8 - Very stiff SAND to clayey SAND
  - 9 - Very stiff fine grained

- METHOD: Robertson et al. 1986**
- 1 - Sensitive fine grained material
  - 2 - Organic material
  - 3 - CLAY
  - 4 - Silty CLAY to CLAY
  - 5 - Clayey SILT to silty CLAY
  - 6 - Sandy SILT to clayey SILT
  - 7 - Silty SAND to sandy SILT
  - 8 - SAND to silty SAND
  - 9 - SAND
  - 10 - Gravelly SAND to SAND
  - 11 - Very stiff fine grained
  - 12 - SAND to clayey SAND

◀ Dissipation  
▶ Test

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0		RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		REMARK A general remark.  A general remark.		PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD		PointID 2 <b>Cpt 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD	
--	--	---	--	---	--	--	--	--	--	--	--



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:47 10.01.00.11 Datgel CPT Tool gINT Add-h



CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

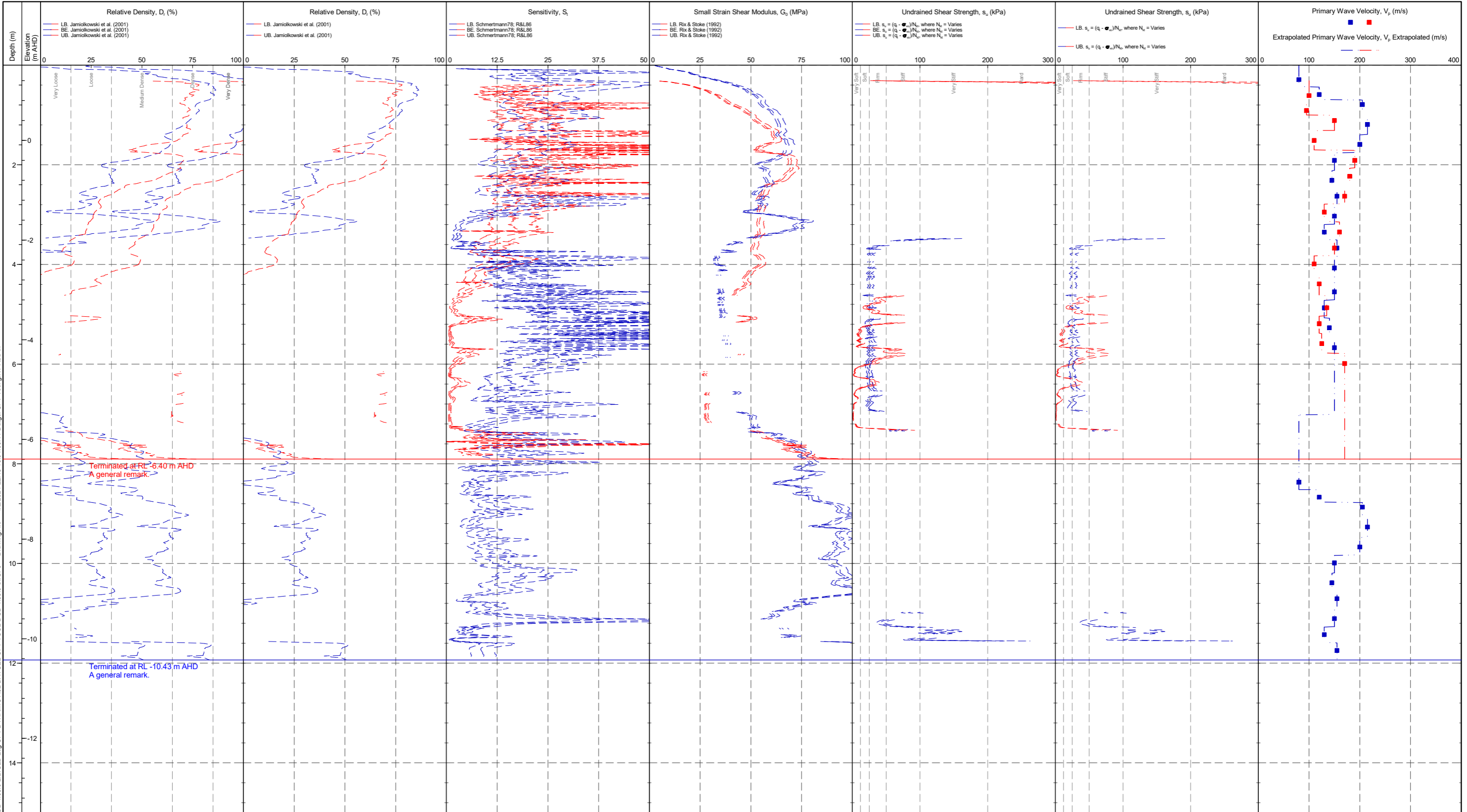
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

RIG : Crawler 1 no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

REMARK  
A general remark.  
A general remark.

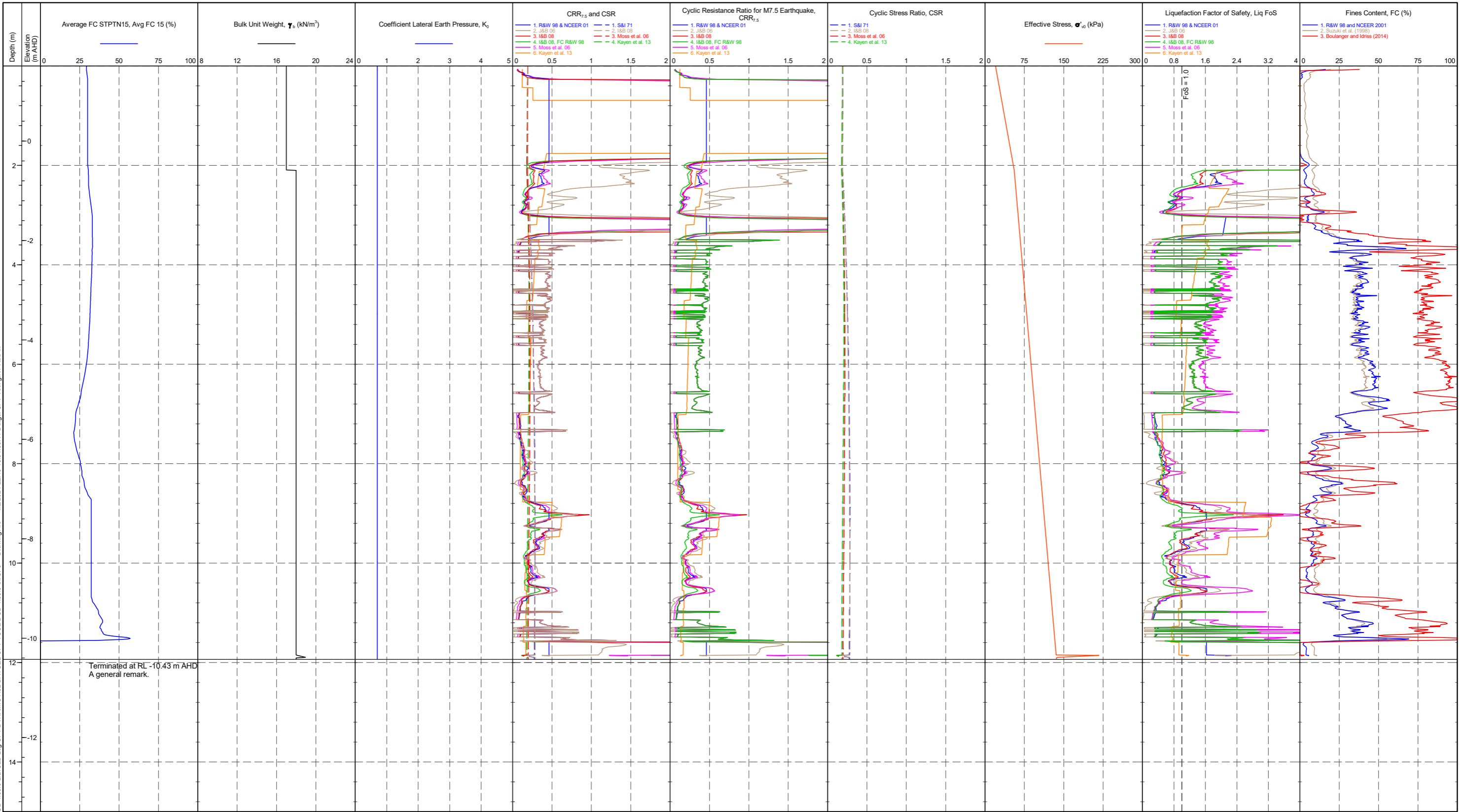
PointID 1  
**CPT 05**  
STATUS : 2  
DATE : 23/12/2009  
AREA : Place  
LAYER :  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
ELEVATION : 1.51 m AHD

PointID 2  
**Cpt 04**  
STATUS :  
DATE : 12/11/2008  
AREA : Place  
LAYER :  
EASTING : 262918.2 m  
NORTHING : 6266066.7 m  
ELEVATION : 1.20 m AHD



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPI <-DrawingFile> 1/2/2021 22:48 10.01.00.11 Datgel CPT Tool gINT Add-h

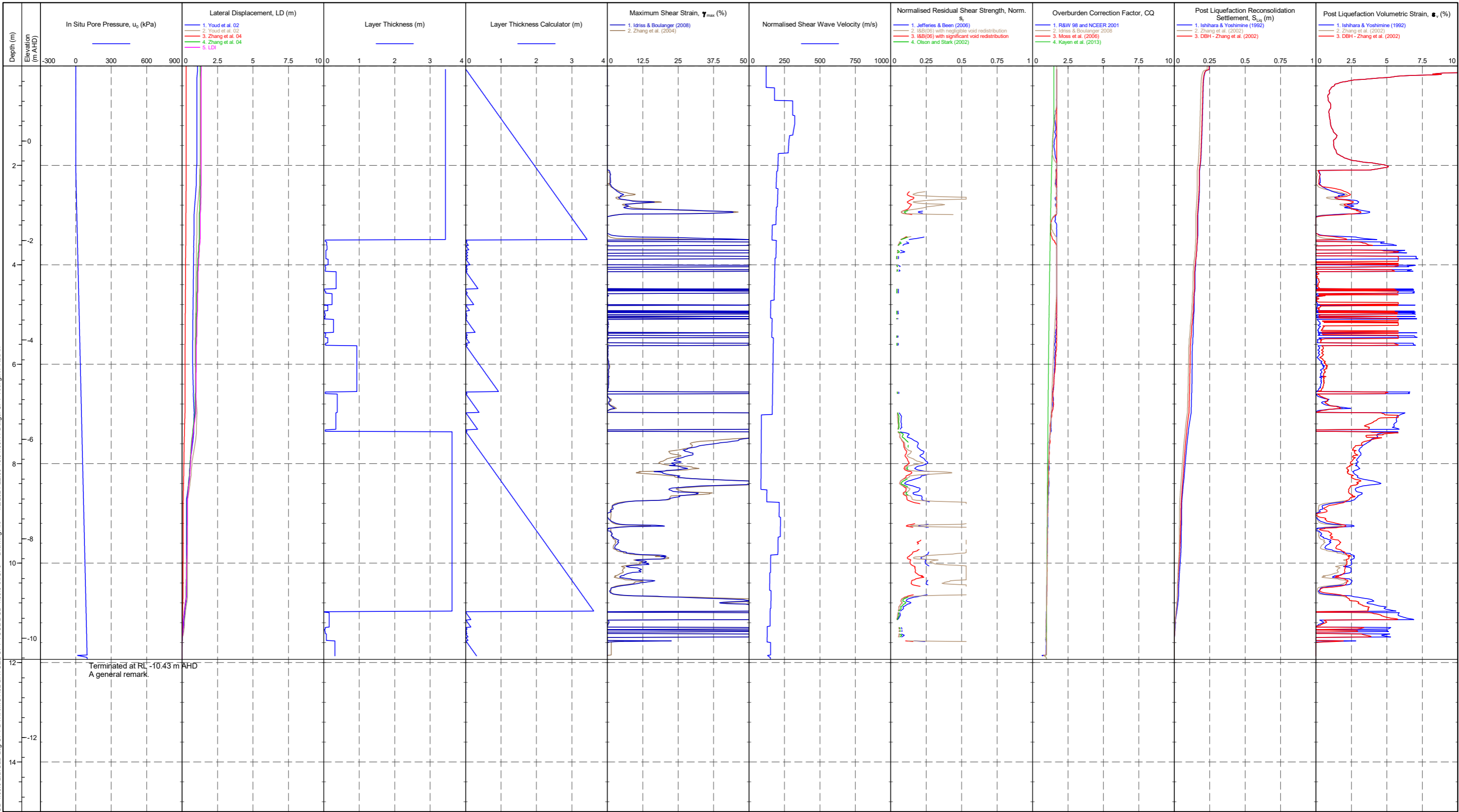
CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:49 10.01.00.11 Datgel CPT Tool gINT Add-h

Terminated at RL -10.43 m AHD  
A general remark.

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				

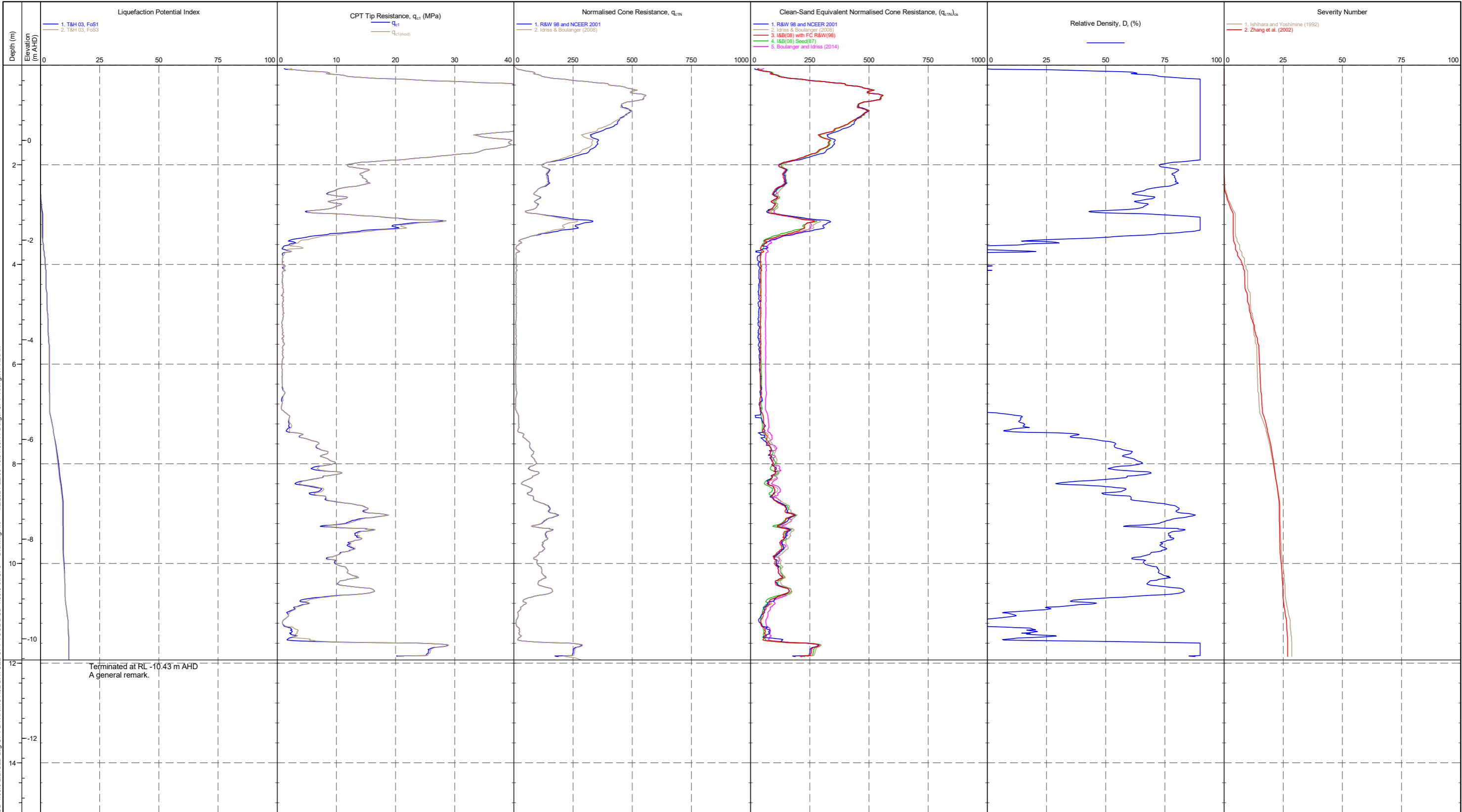


DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFiles> 1/2/2021 22:50 10.01.00.11 Datgel CPT Tool gINT Add-h

Terminated at RL -10.43 m AHD  
A general remark.

PointID  
**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				

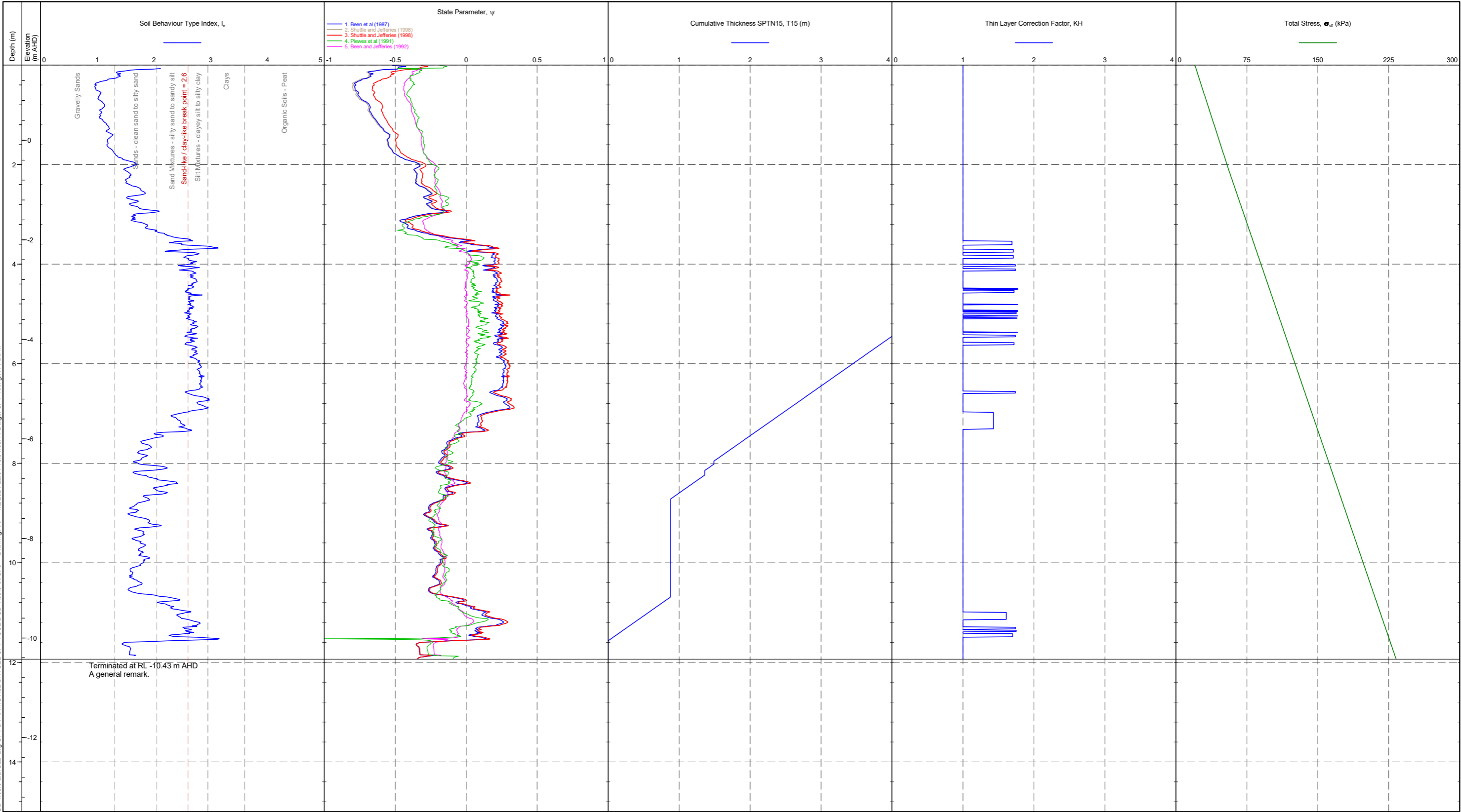


DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFile> 1/2/2021 22:50 10.01.00.11 Datgel CPT Tool gINT Add-h

Terminated at RL -10.43 m AHD  
A general remark.

PointID  
**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFile> 1/2/2021 22:51:10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

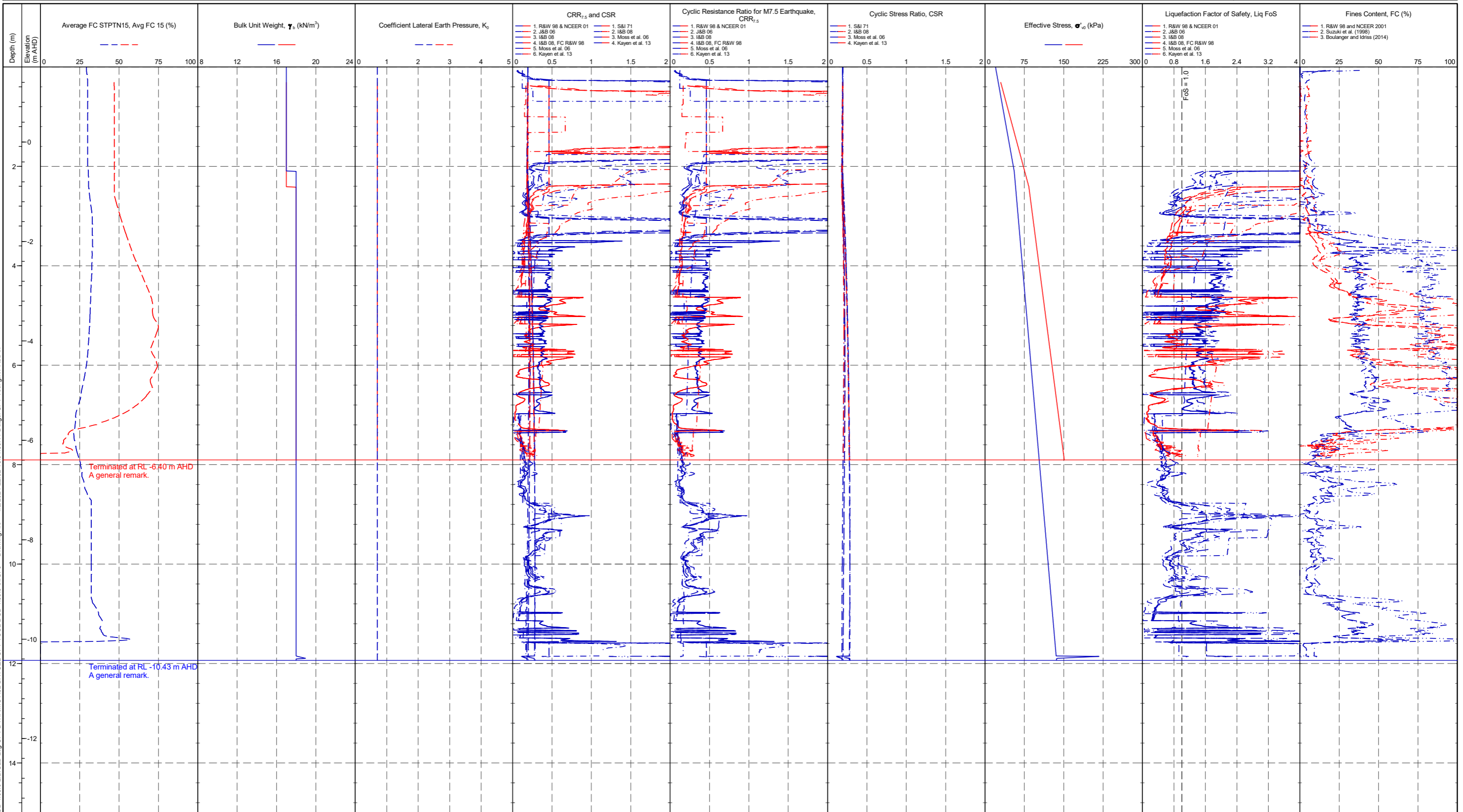
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

RIG : Crawler 1 no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

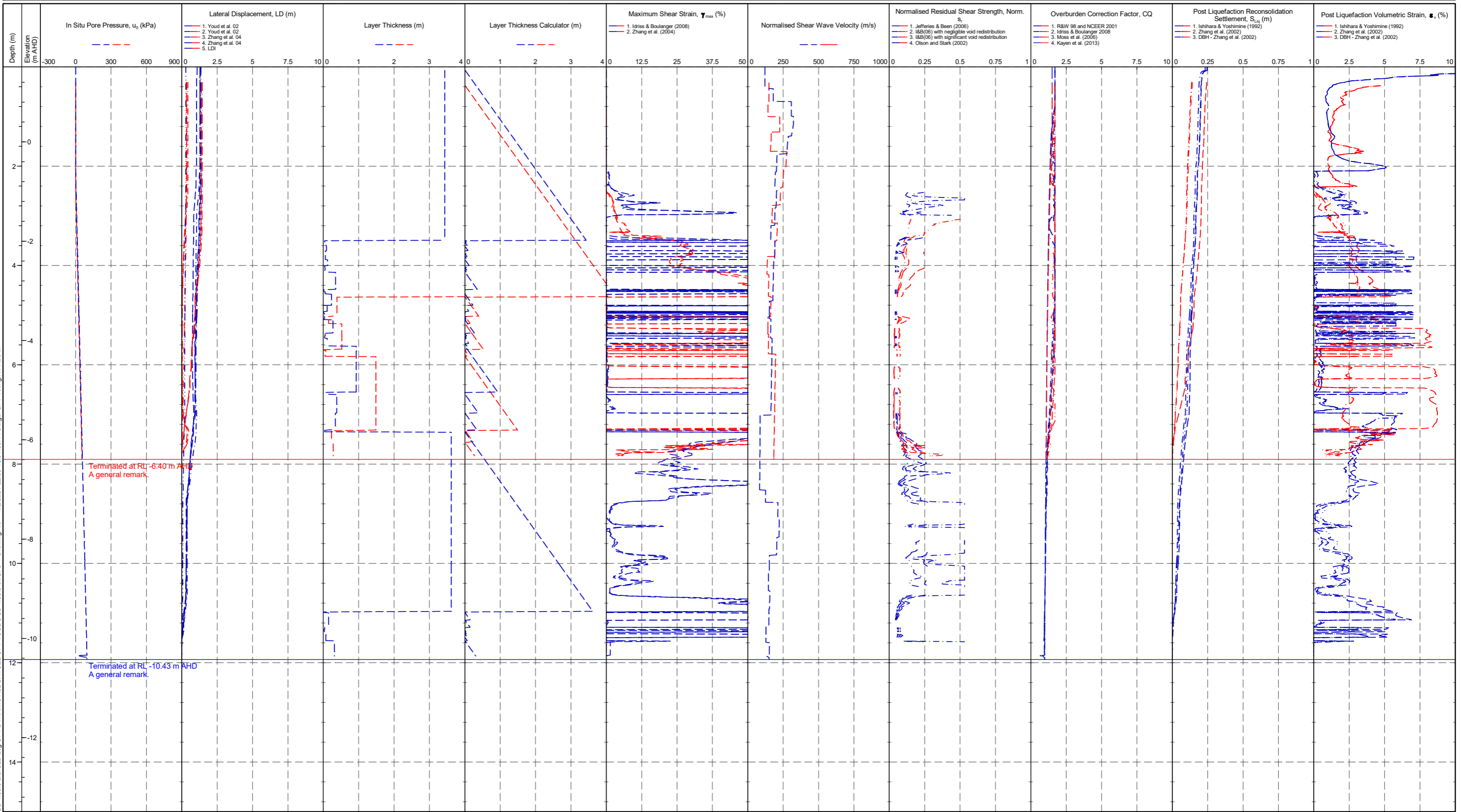
REMARK  
A general remark.  
A general remark.

PointID 1  
**CPT 05**  
STATUS : 2  
DATE : 23/12/2009  
AREA : Place  
LAYER :  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
ELEVATION : 1.51 m AHD

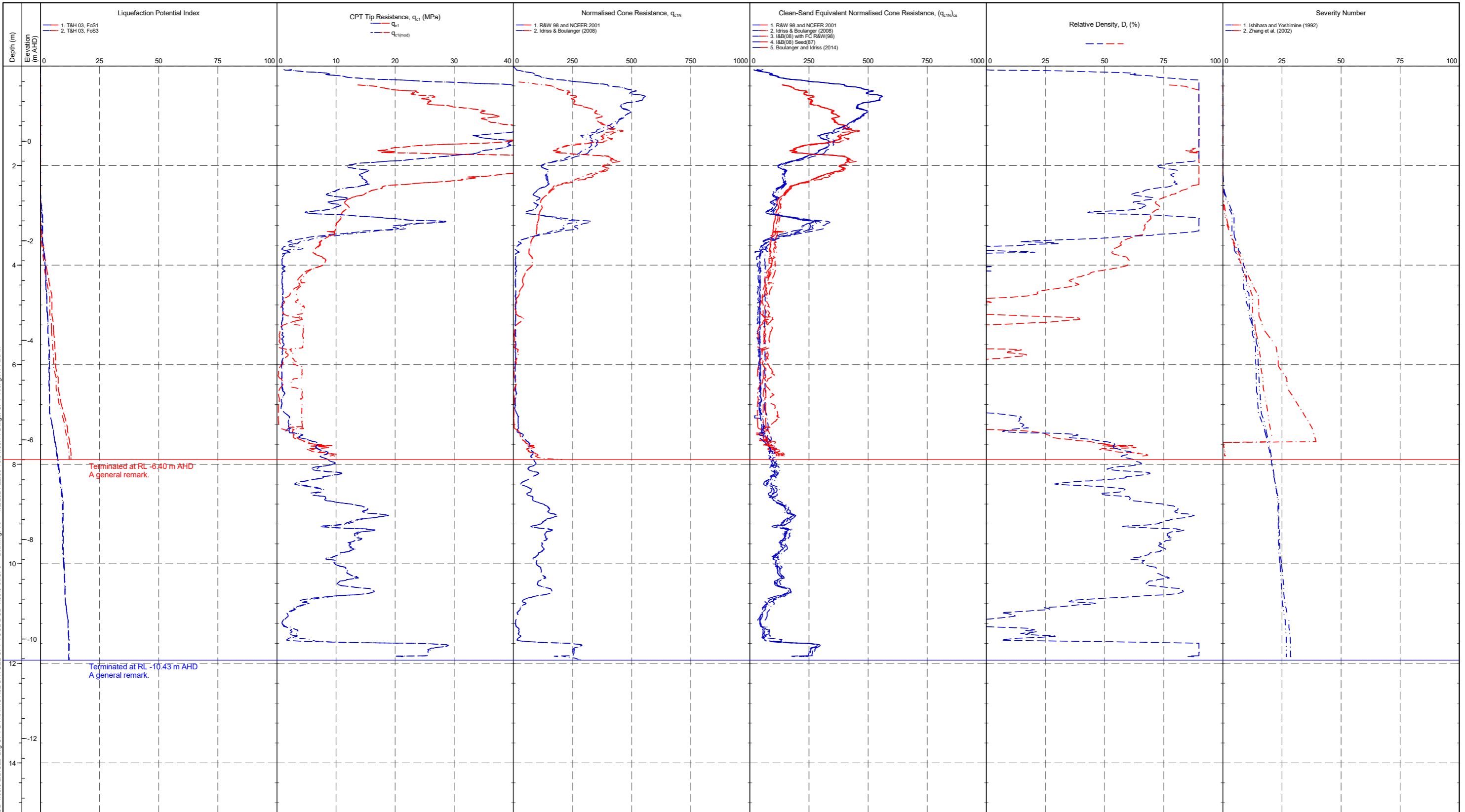
PointID 2  
**CPT 04**  
STATUS :  
DATE : 12/11/2008  
AREA : Place  
LAYER :  
EASTING : 262918.2 m  
NORTHING : 6266066.7 m  
ELEVATION : 1.20 m AHD



<b>CLIENT</b> : Client 1 <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : CPT Tool Project <b>LOCATION</b> : Somewhere <b>PROJECT No.</b> : 4.05.0		<b>RIG</b> : no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009		<b>RIG</b> : Crawler 1no anchoring <b>CONE TYPE</b> : C+F+W2 <b>CONE ID</b> : S15CFIIP.D76 <b>OPERATOR</b> : Operator A <b>CHECKED BY</b> : B. Smith <b>CHECKED DATE</b> : 6/2/2009 <b>APPROVED BY</b> : C. Doe <b>APPROVED DATE</b> : 6/2/2009		<b>REMARK</b> A general remark.  A general remark.		<b>PointID 1</b> <b>CPT 05</b> <b>STATUS</b> : 2 <b>DATE</b> : 23/12/2009 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262947.6 m <b>NORTHING</b> : 6266091.6 m <b>ELEVATION</b> : 1.51 m AHD		<b>PointID 2</b> <b>CPT 04</b> <b>STATUS</b> : <b>DATE</b> : 12/11/2008 <b>AREA</b> : Place <b>LAYER</b> : <b>EASTING</b> : 262918.2 m <b>NORTHING</b> : 6266066.7 m <b>ELEVATION</b> : 1.20 m AHD	
---	--	---	--	--	--	---	--	--	--	--	--



CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0		RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		REMARK A general remark.  A general remark.		PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD		PointID 2 <b>CPT 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD	
--	--	---	--	---	--	--	--	--	--	--	--



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFile> 1/2/2021 22:53 10.01.00.11 Datgel CPT Tool gINT Add-h



CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

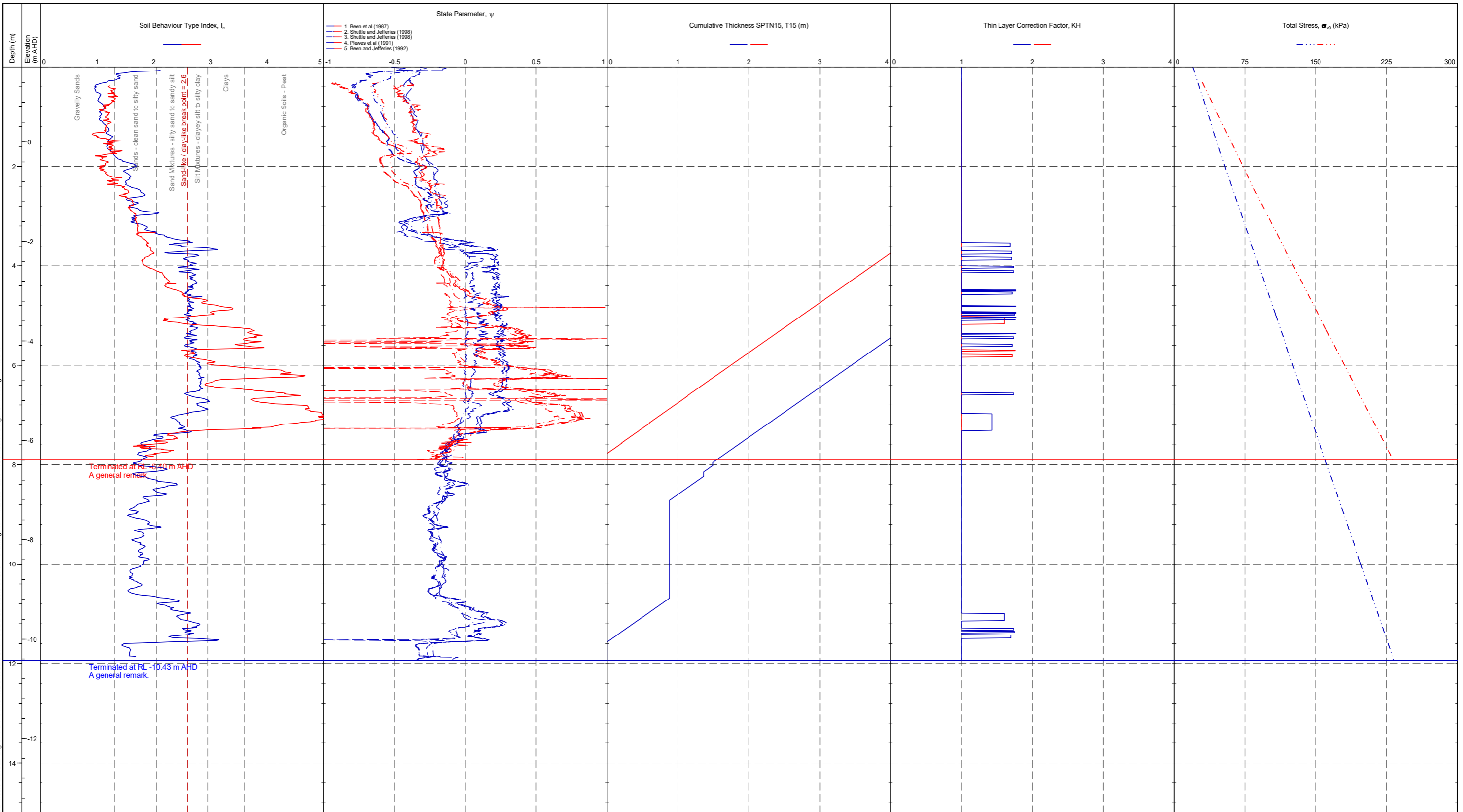
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

RIG : Crawler 1 no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A  
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

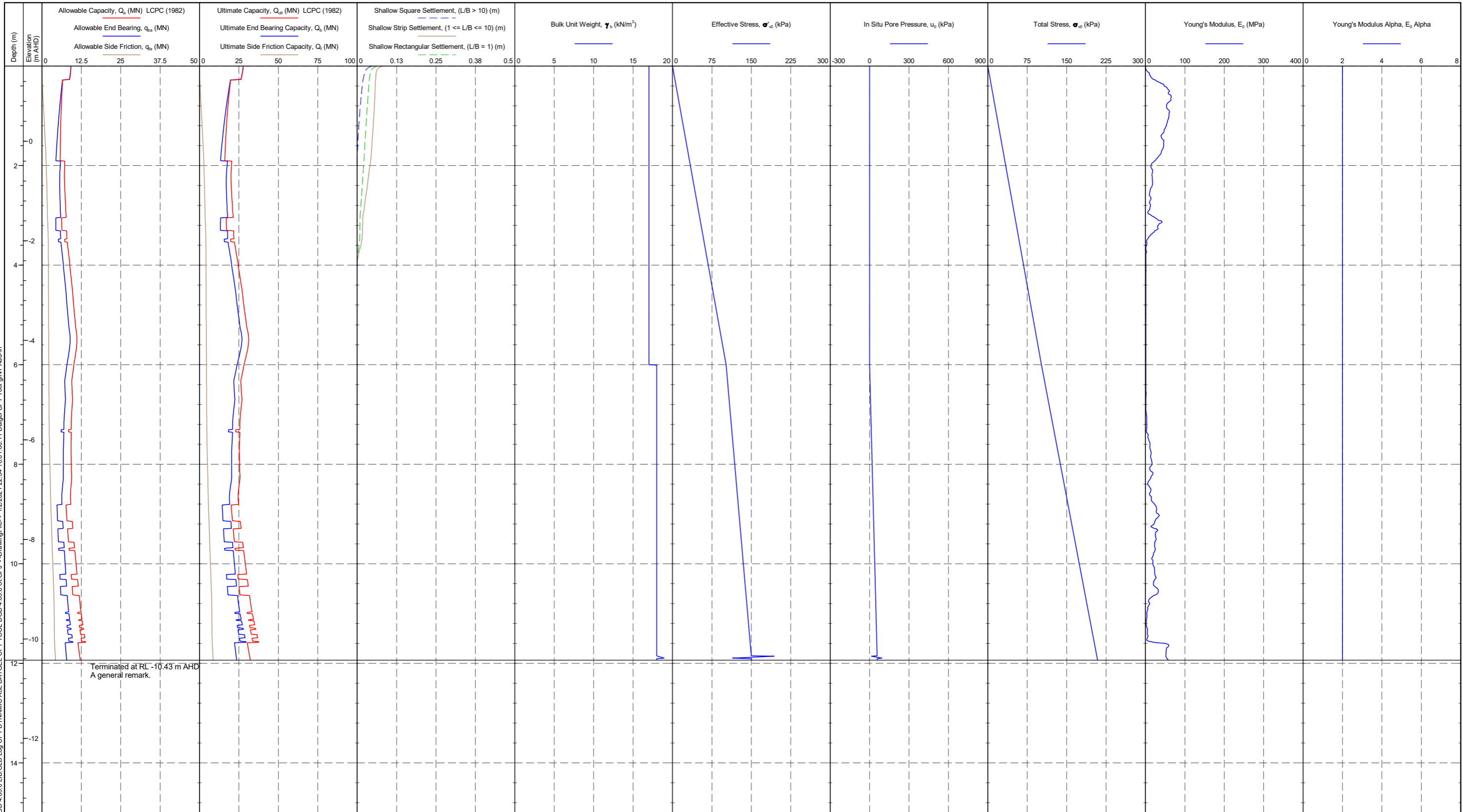
REMARK  
A general remark.  
A general remark.

PointID 1  
**CPT 05**  
STATUS : 2  
DATE : 23/12/2009  
AREA : Place  
LAYER :  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
ELEVATION : 1.51 m AHD

PointID 2  
**CPT 04**  
STATUS :  
DATE : 12/11/2008  
AREA : Place  
LAYER :  
EASTING : 262918.2 m  
NORTHING : 6266066.7 m  
ELEVATION : 1.20 m AHD

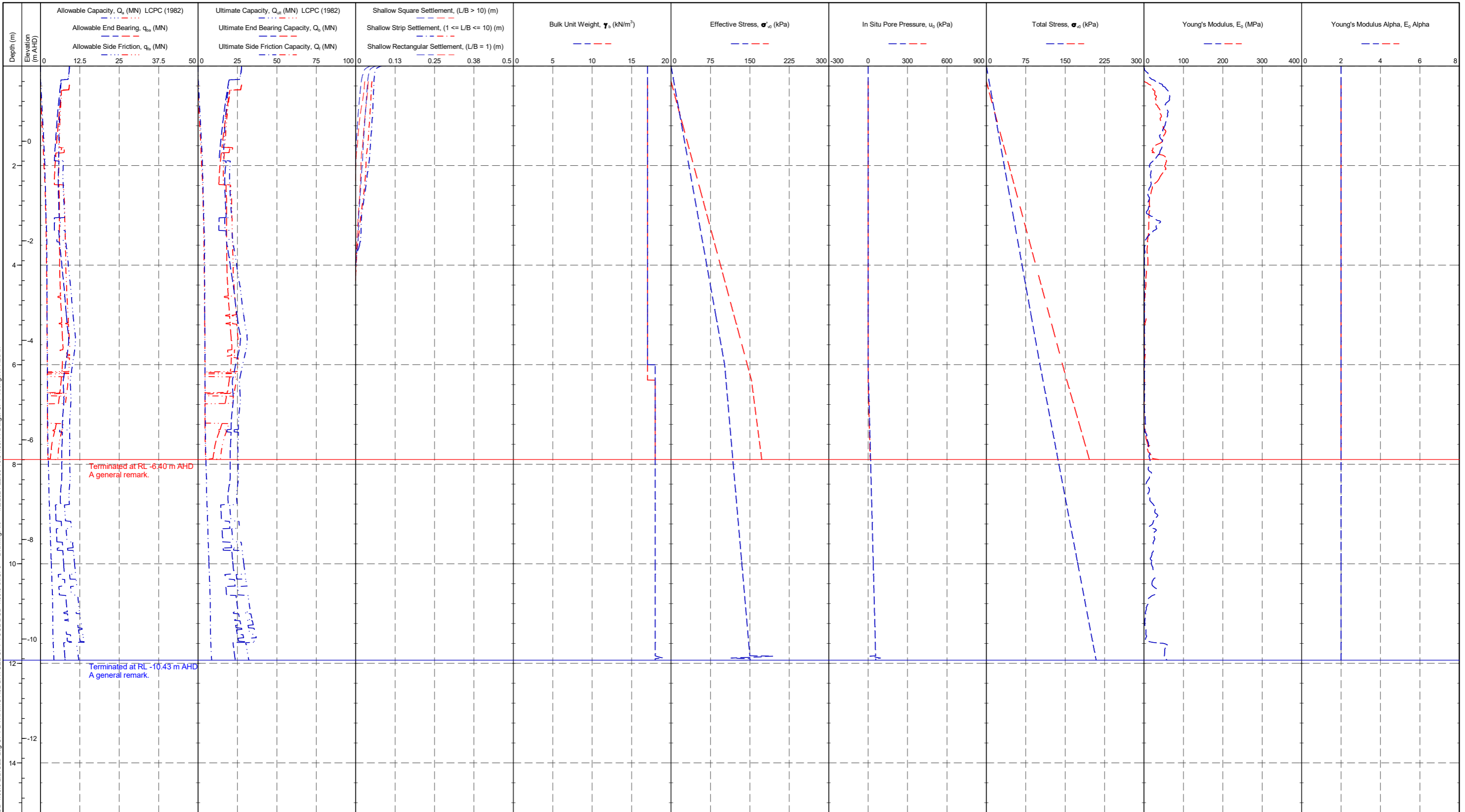


CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



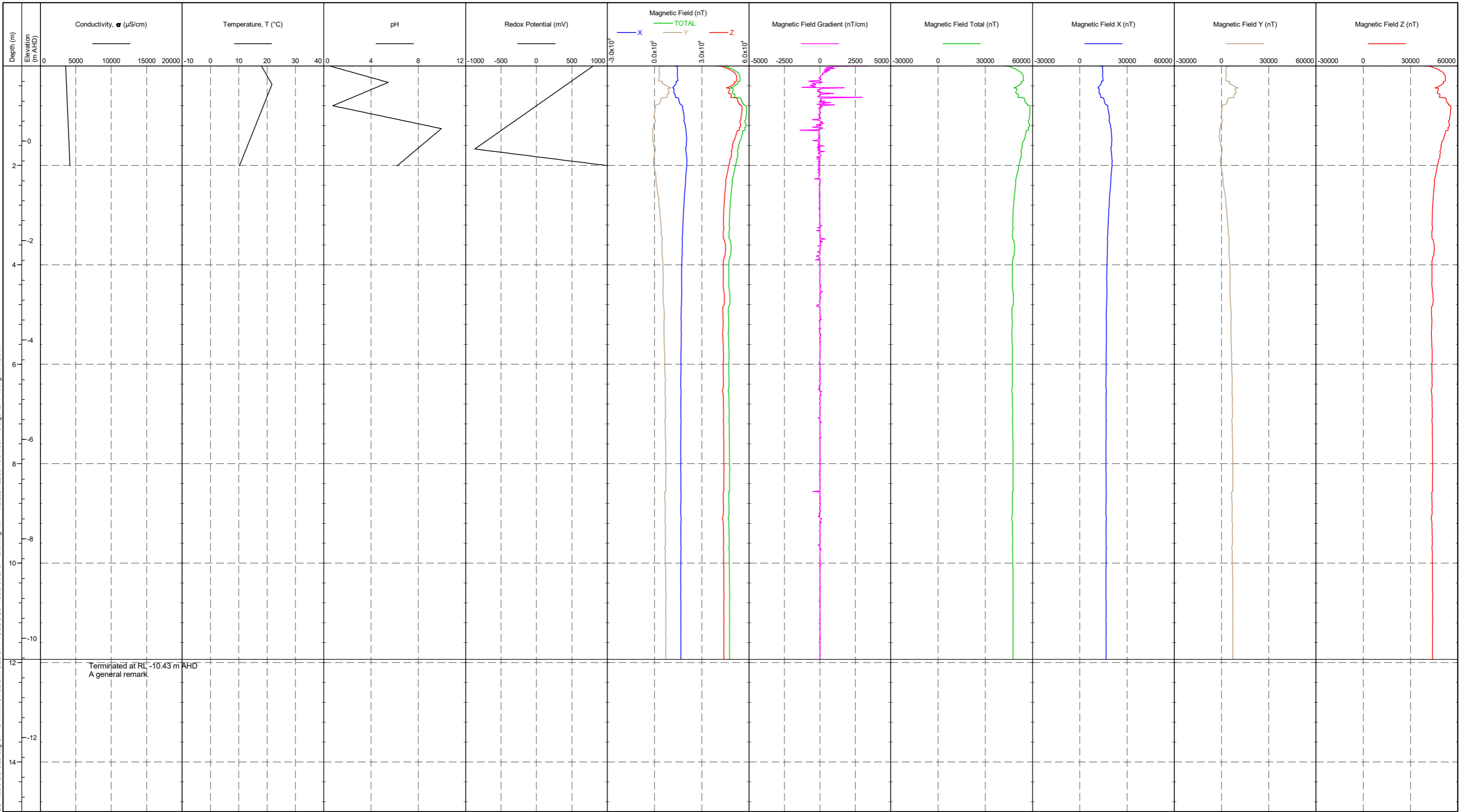
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFile> 1/2/2021 22:54 10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0		RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		REMARK : A general remark.  A general remark.		PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD		PointID 2 <b>CPT 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD	
--	--	---	--	---	--	---	--	--	--	--	--



PointID  
**CPT 05**

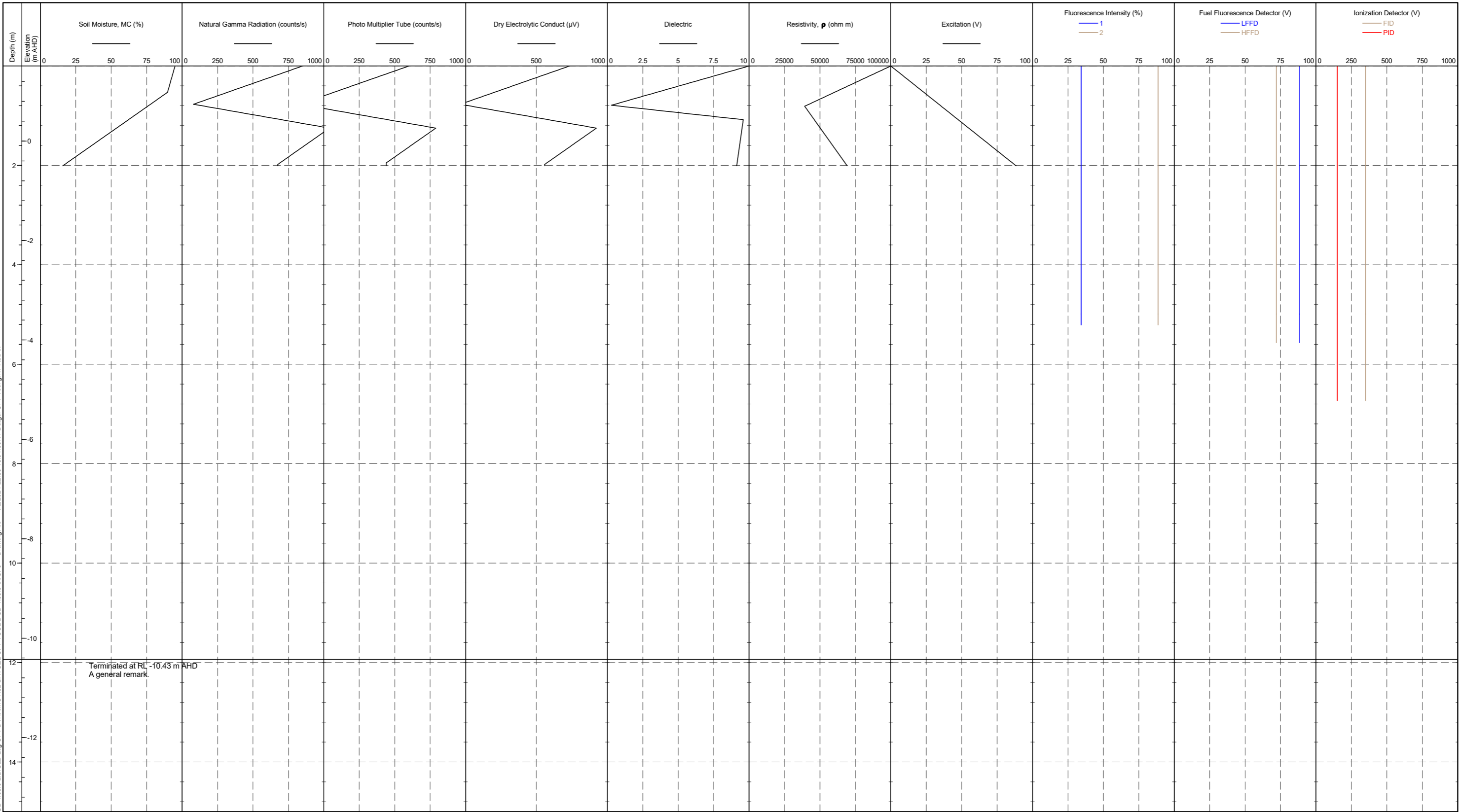
CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFiles> 1/2/2021 22:56 10.01.00.11 Datgel CPT Tool gINT Add-h

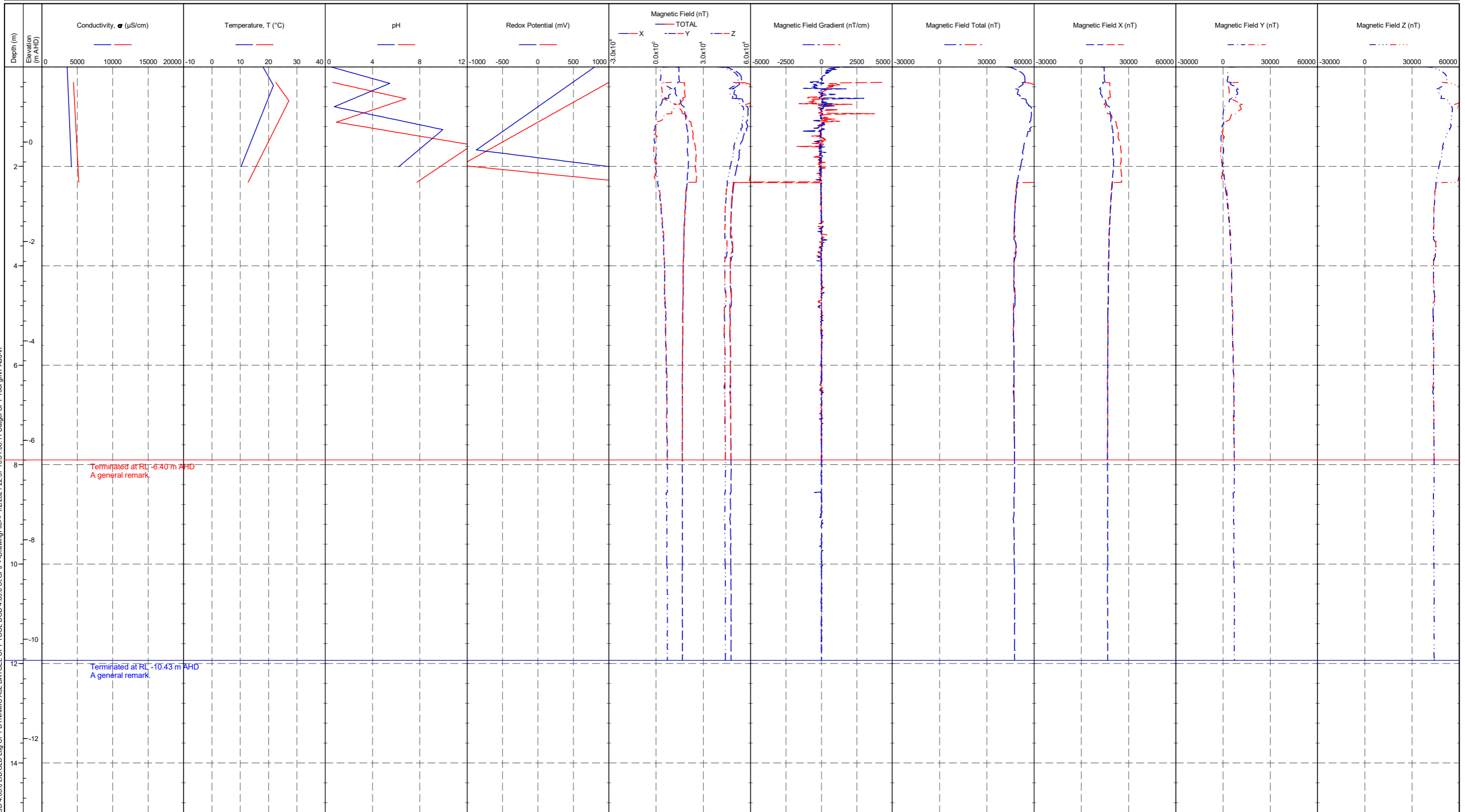
PointID  
**CPT 05**

CLIENT : Client 1	AREA : Place	RIG : no anchoring	CHECKED BY : B. Smith	REMARK : A general remark.	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	OPERATOR : Operator A	APPROVED DATE : 6/2/2009		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD				



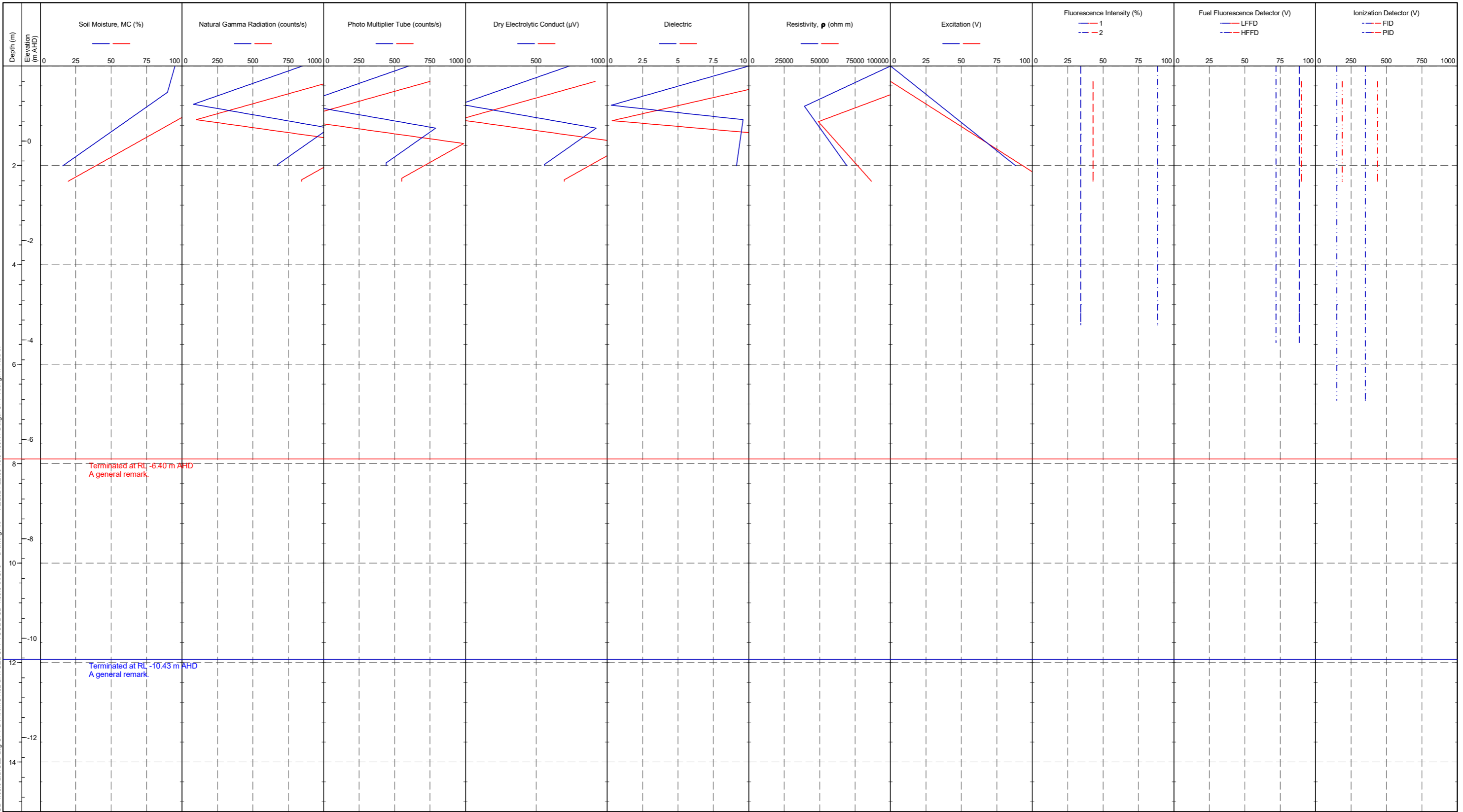
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFiles> 1/2/2021 22:56 10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0	RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009	REMARK A general remark.  A general remark.	PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD	PointID 2 <b>CPT 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD
--	---	---	--	--	--



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GRI <-DrawingFiles> 1/2/2021 22:57 10.01.00.11 Datgel CPT Tool gINT Add-h

CLIENT : Client 1 ENGINEER : Engineer 1 PROJECT : CPT Tool Project LOCATION : Somewhere PROJECT No. : 4.05.0		RIG : no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		RIG : Crawler 1 no anchoring CONE TYPE : C+F+W2 CONE ID : S15CFIIP.D76 OPERATOR : Operator A CHECKED BY : B. Smith CHECKED DATE : 6/2/2009 APPROVED BY : C. Doe APPROVED DATE : 6/2/2009		REMARK A general remark.  A general remark.		PointID 1 <b>CPT 05</b> STATUS : 2 DATE : 23/12/2009 AREA : Place LAYER : EASTING : 262947.6 m NORTHING : 6266091.6 m ELEVATION : 1.51 m AHD		PointID 2 <b>CPT 04</b> STATUS : DATE : 12/11/2008 AREA : Place LAYER : EASTING : 262918.2 m NORTHING : 6266066.7 m ELEVATION : 1.20 m AHD	
--	--	---	--	---	--	--	--	--	--	--	--



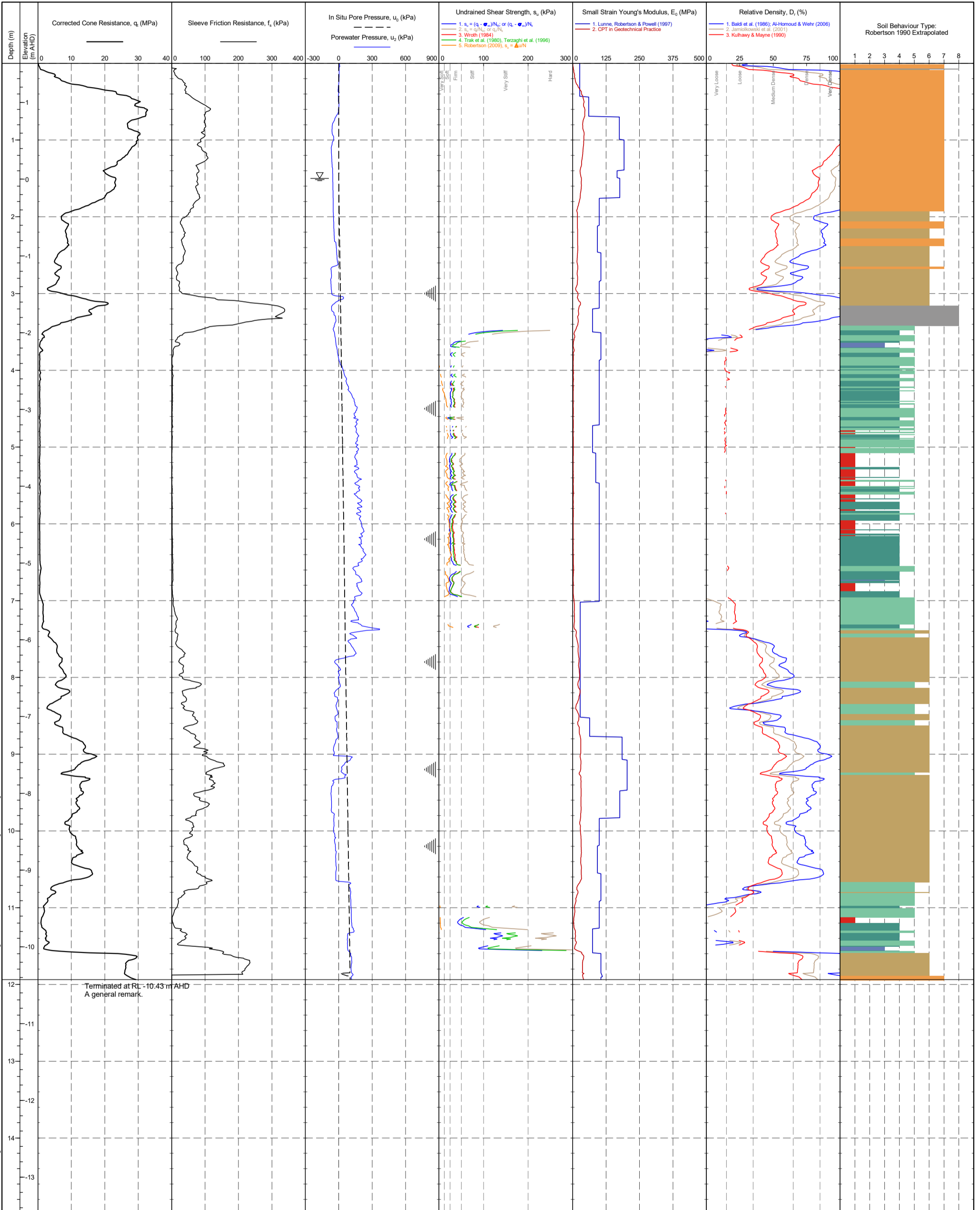
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPT DYNAMIC A3L DATGEL CPT TOOL DGD 4.05.0 SI GPT <-DrawingFile> 1/2/2021 22:58 10.01.00.11 Datgel CPT Tool gINT Add-h

PointID  
**CPT 05**

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD

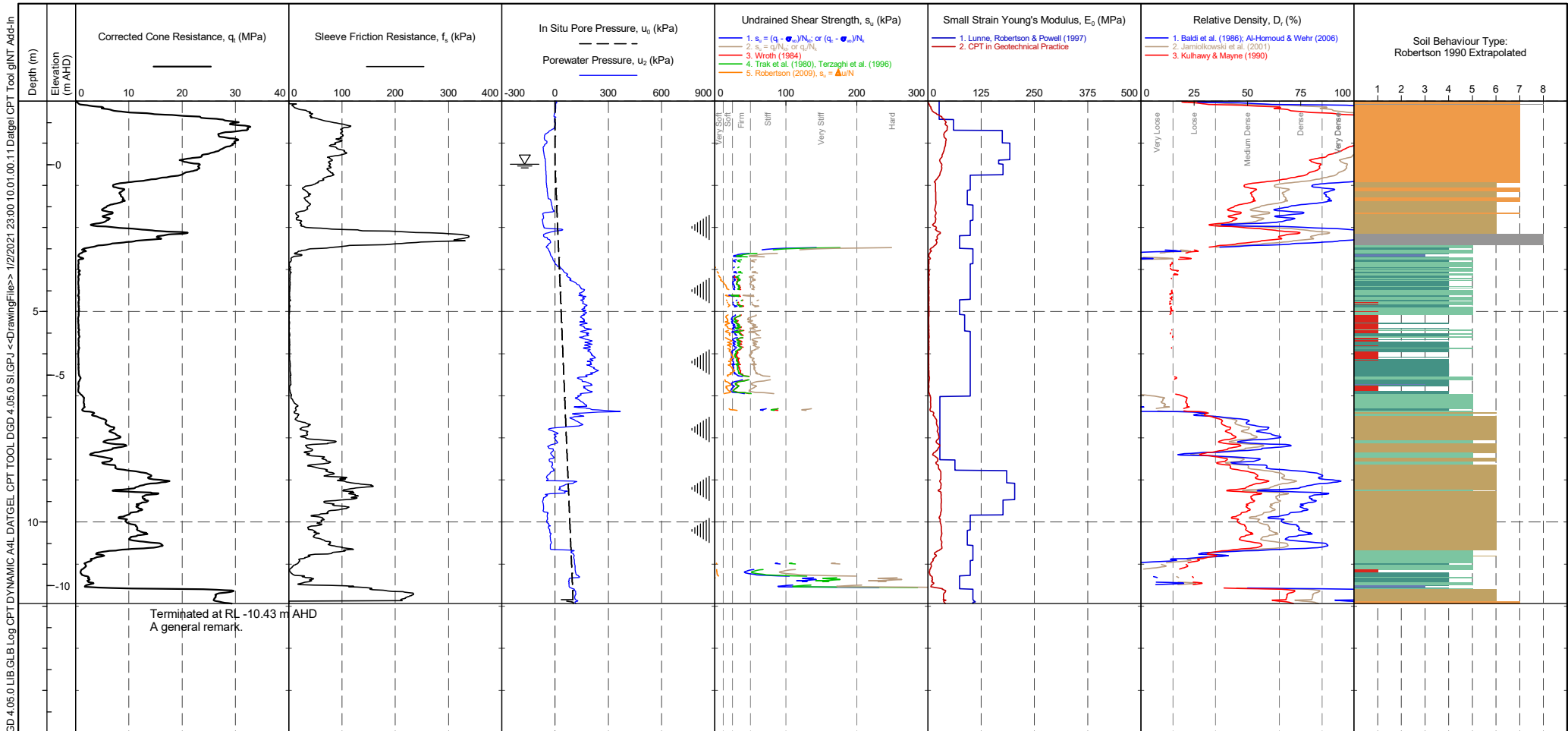
SHEET : 1 OF 1  
STATUS : 2  
DATE : 23/12/2009





PointID  
**CPT 05**

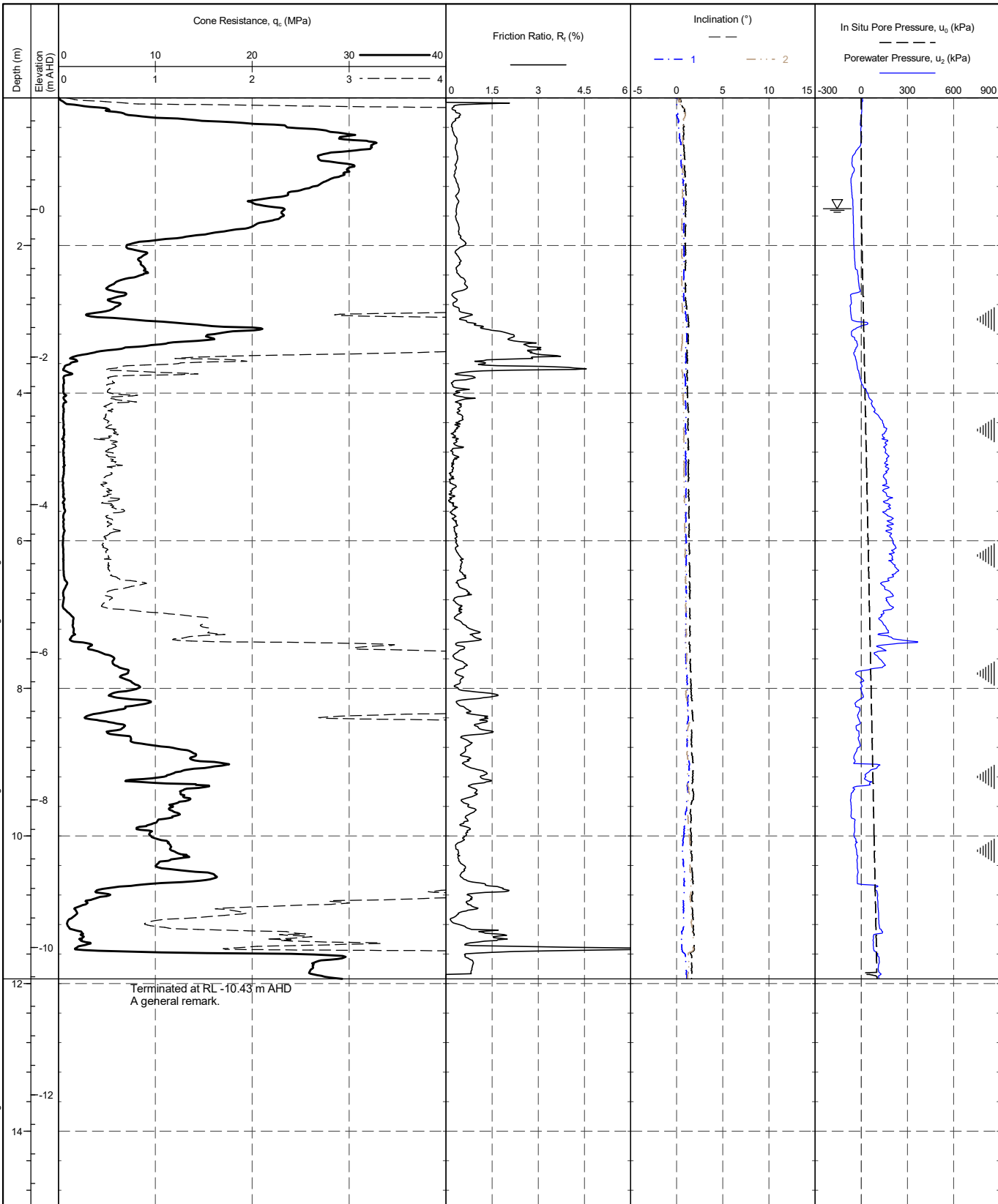
CLIENT : Client 1	AREA : Place		SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD		



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Log CPT DYNAMIC A4L DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 1/2/2021 23:00 10.01.00.11 Datgel CPT Tool gINT Add-in

PointID  
**CPT 05**

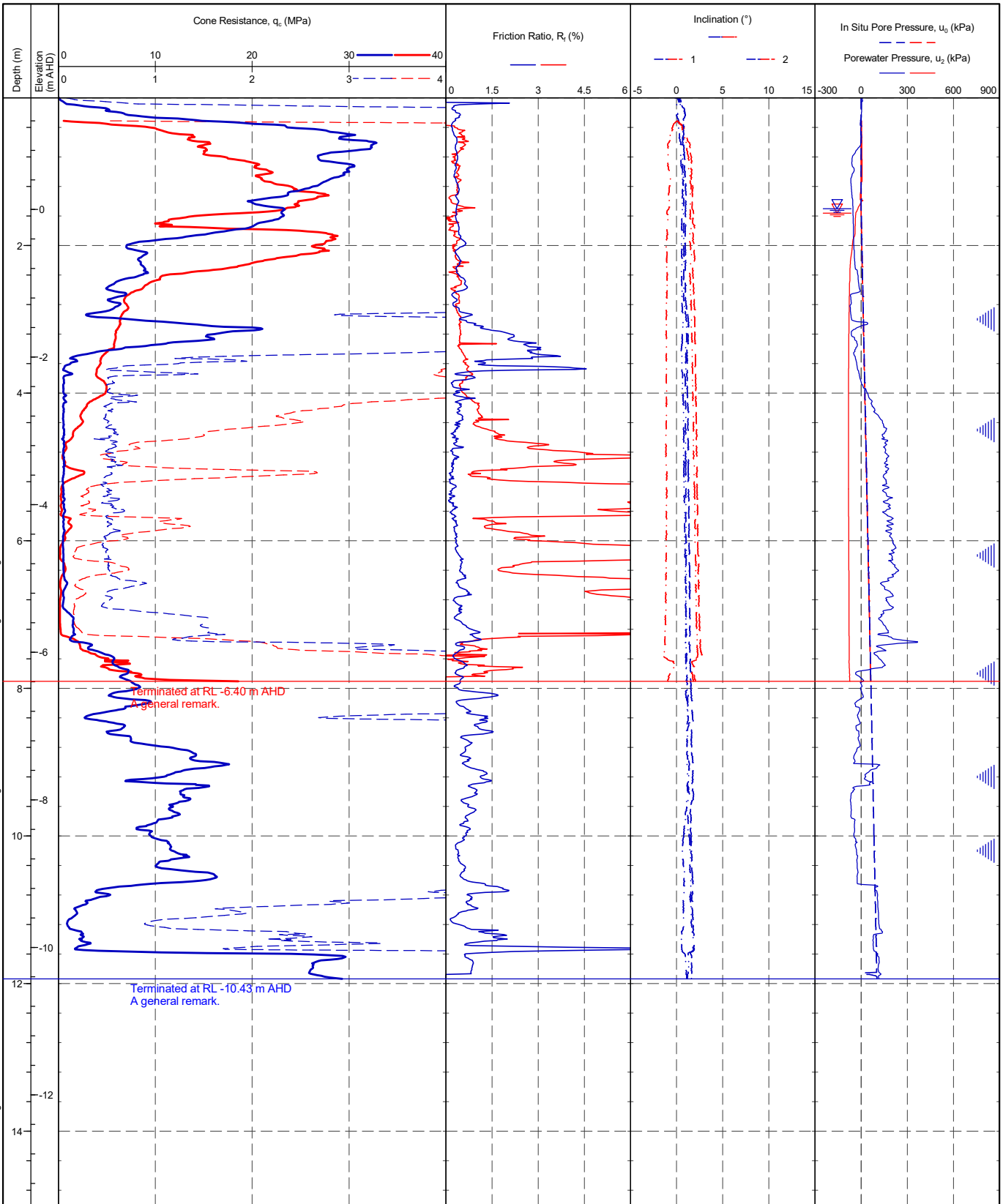
CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



Terminated at RL -10.43 m AHD  
A general remark.

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT DYNAMIC A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:00 10.01.00.11 Datgel CPT Tool gINT Add-In

PointID 1	<b>CPT 05</b>	PointID 2	<b>CPT 04</b>
CLIENT : Client 1	STATUS : 2	STATUS : 2	STATUS : 2
ENGINEER : Engineer 1	DATE : 23/12/2009	DATE : 12/11/2008	DATE : 12/11/2008
PROJECT : CPT Tool Project	AREA : Place	AREA : Place	AREA : Place
LOCATION : Somewhere	LAYER :	LAYER :	LAYER :
PROJECT No. : 4.05.0	EASTING : 262947.6 m	EASTING : 262918.2 m	EASTING : 262918.2 m
	NORTHING : 6266091.6 m	NORTHING : 6266066.7 m	NORTHING : 6266066.7 m
	ELEVATION : 1.51 m AHD	ELEVATION : 1.20 m AHD	ELEVATION : 1.20 m AHD

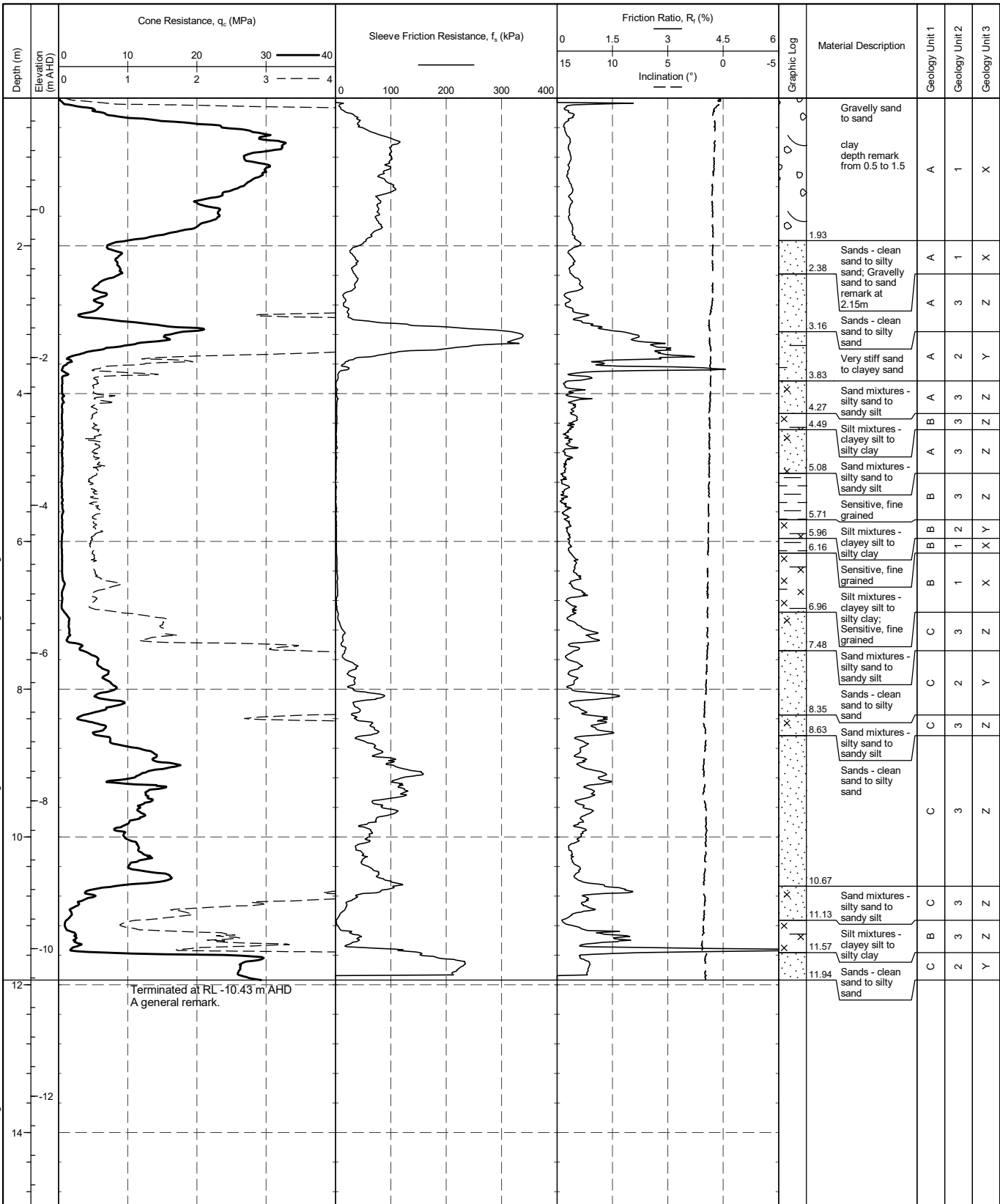


DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT DYNAMIC A4P DATGEL CPT TOOL DGD 4.05.0 SUGP <<DrawingFile>> 1/2/2021 23:01:10.01.00.11 Datgel CPT Tool.gINT Add-In

PointID

CPT 05

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	

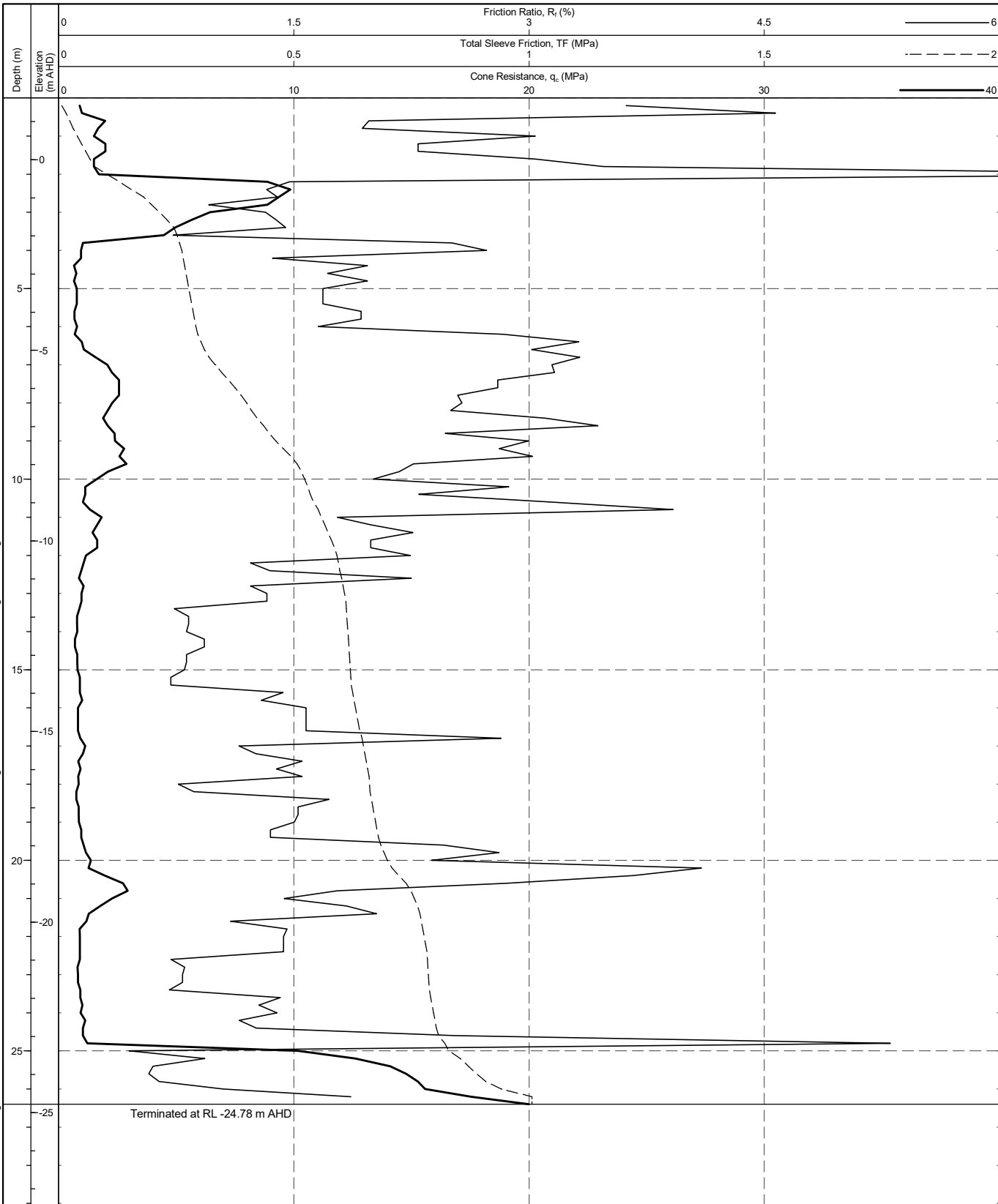


DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT MATERIAL\_APP DATGEL\_CPT\_TOOL.gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith	REMARK A general remark.
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009	
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe	
OPERATOR : Operator A	APPROVED DATE : 6/2/2009	

PointID  
**V-Beg 01**

CLIENT : Client 1	AREA :	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262817.5 m	STATUS :
PROJECT : CPT Tool Project	NORTHING : 6265980.4 m	DATE :
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.62 m AHD	



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB.Log CPT MECHANICAL A4P DATGEL CPT TOOL DGD 4.05.0 S:\GPJ <-DrawingFiles> 1/2/2021 23:02 10.01.00.11 Datgel CPT Tool gINT Add-In

RIG :	CHECKED BY :		REMARK
CONE TYPE :	CHECKED DATE :		
CONE ID : Beg 01	APPROVED BY :		
OPERATOR :	APPROVED DATE :		

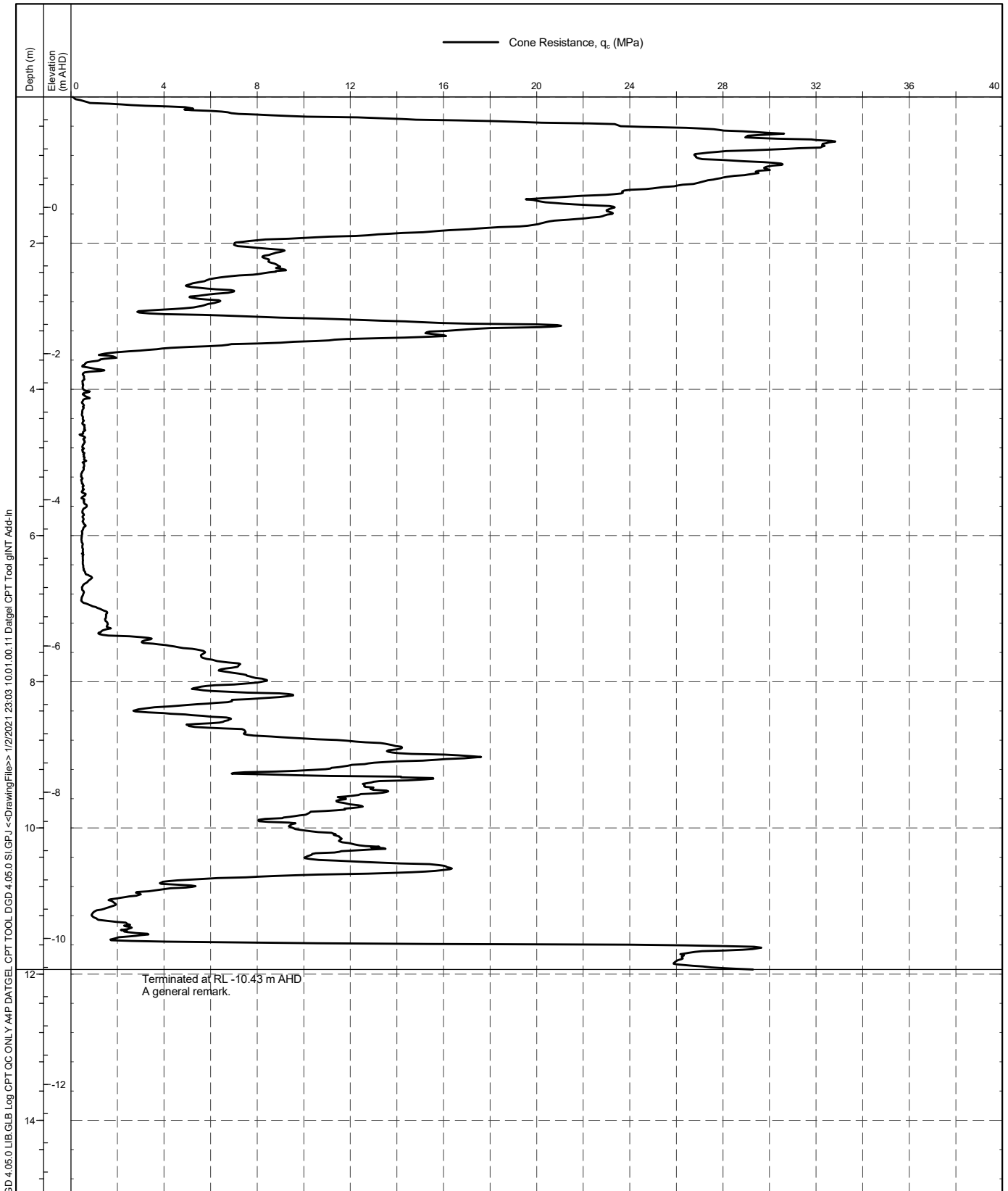
PointID

**CPT 05**

CLIENT : Client 1  
 ENGINEER : Engineer 1  
 PROJECT : CPT Tool Project  
 LOCATION : Somewhere  
 PROJECT No. : 4.05.0

AREA : Place  
 EASTING : 262947.6 m  
 NORTHING : 6266091.6 m  
 COORD. SYS. : MGA2020 Zone 56  
 ELEVATION : 1.51 m AHD

SHEET : 1 OF 1  
 STATUS : 2  
 DATE : 23/12/2009



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT QC ONLY A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:03 10:01.00.11 Datgel CPT Tool.gINT Add-In

RIG : no anchoring  
 CONE TYPE : C+F+W2  
 CONE ID : S15CFIIP.D76  
 OPERATOR : Operator A

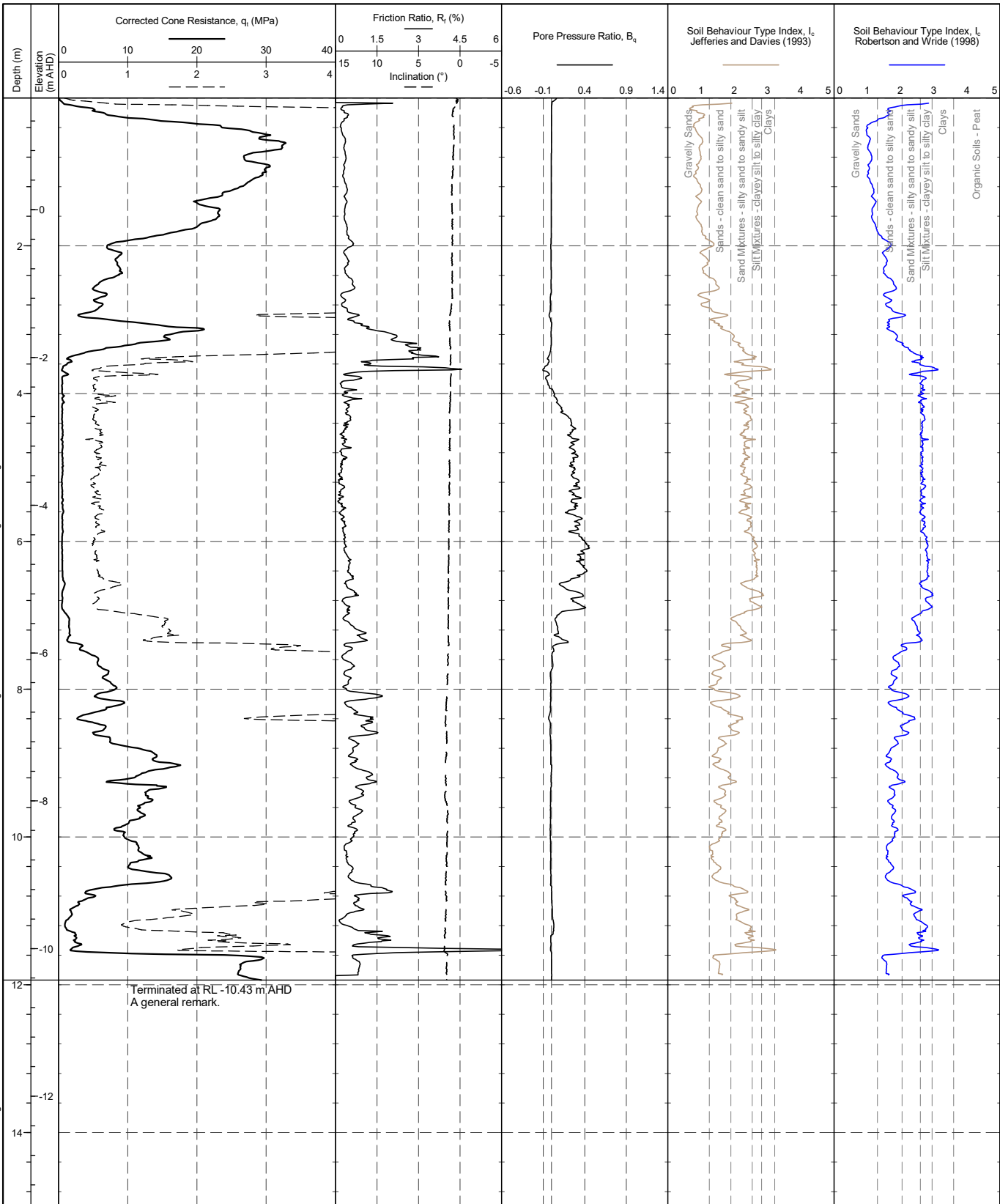
CHECKED BY : B. Smith  
 CHECKED DATE : 6/2/2009  
 APPROVED BY : C. Doe  
 APPROVED DATE : 6/2/2009

REMARK  
 A general remark.

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



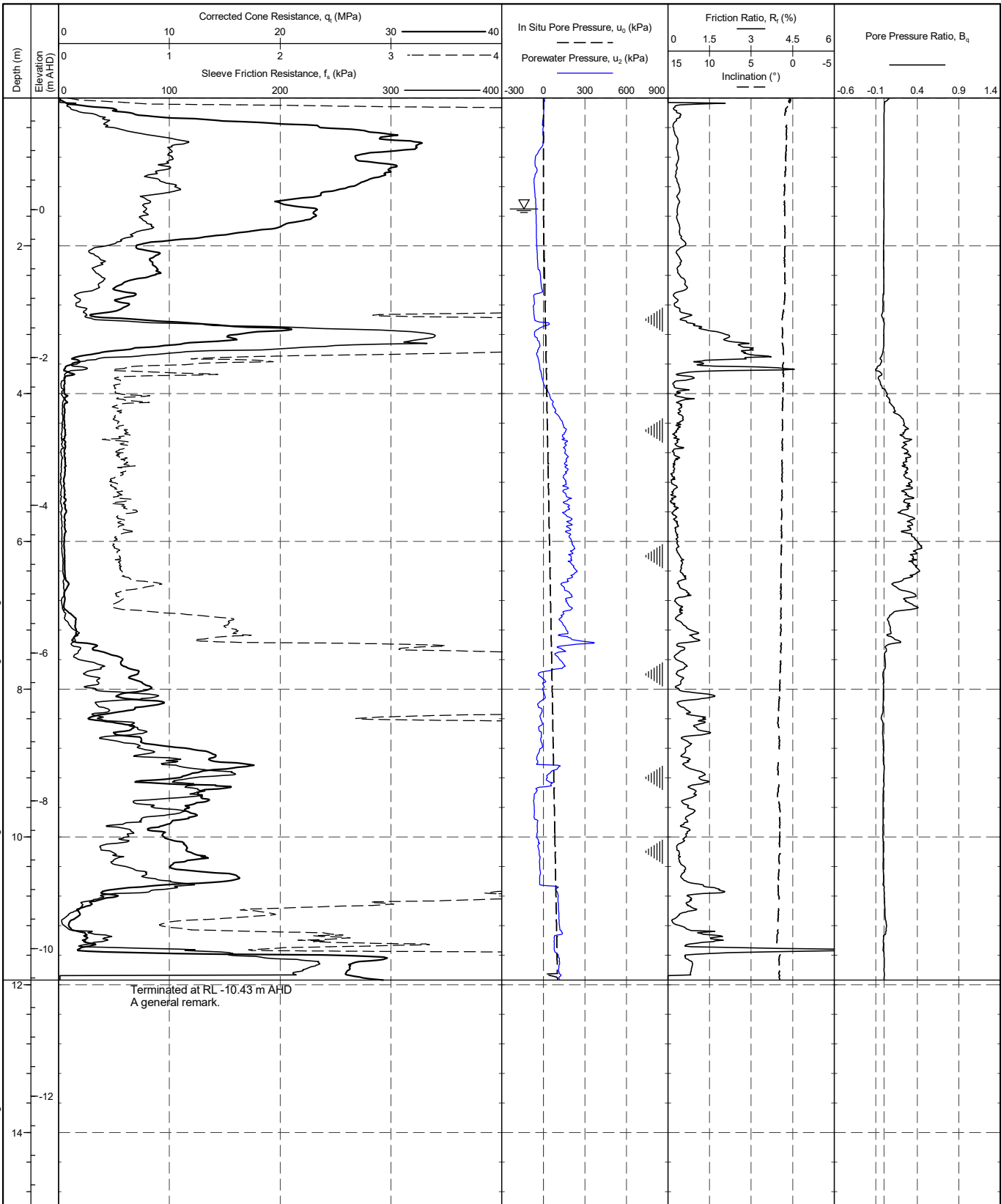
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPT SOIL BEHAVIOUR TYPE INDEX.ARP.DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:04 10.01.00.11 Datgel CPT Tool.gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith	REMARK A general remark.
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009	
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe	
OPERATOR : Operator A	APPROVED DATE : 6/2/2009	

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	

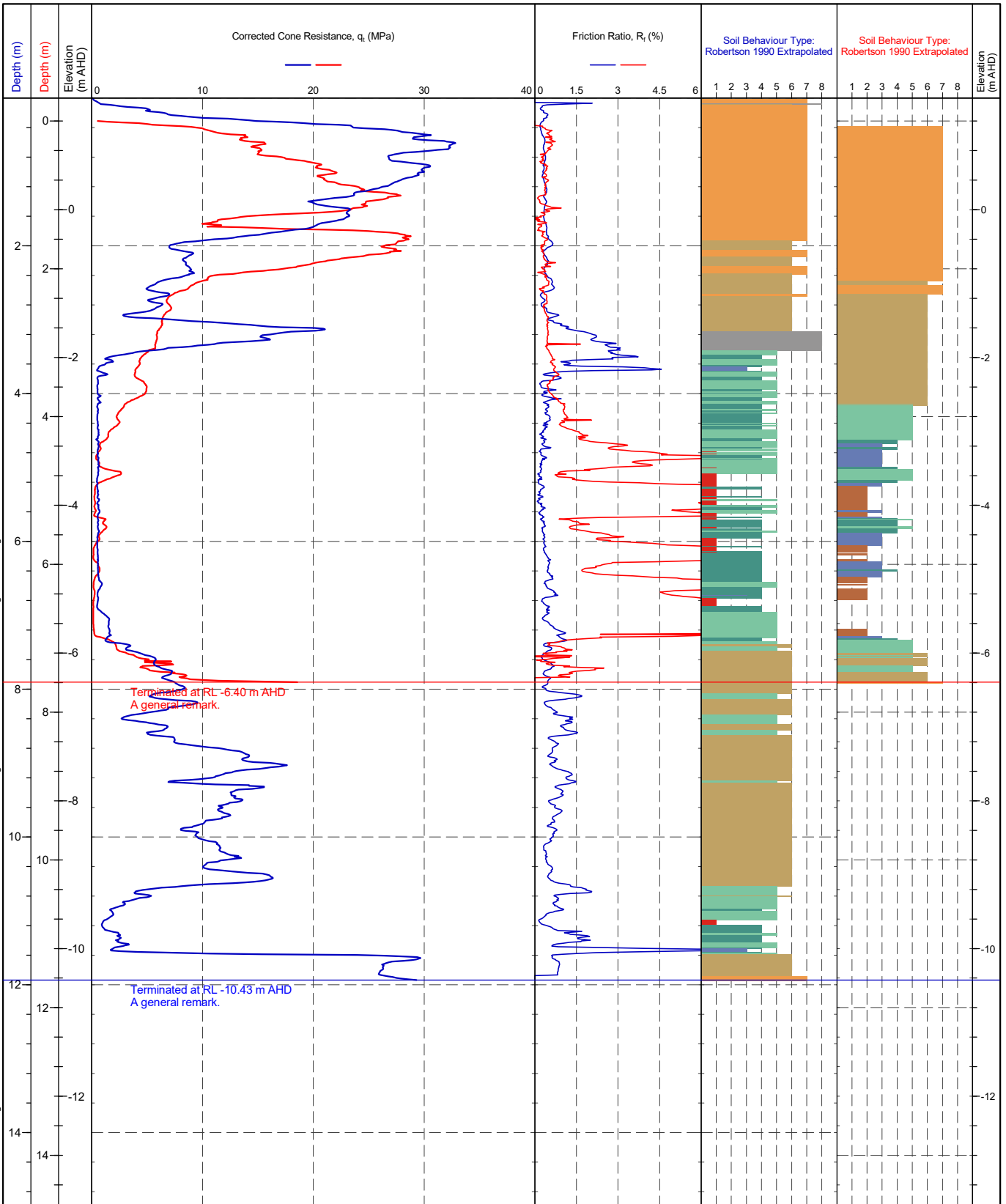


DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-cDrawingFiles> 1/2/2021 23:04 10.01.00.11 Datgel CPT Tool gINT Add-in

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		



	PointID 1	PointID 2
	<b>CPT 05</b>	<b>CPT 04</b>
CLIENT : Client 1	STATUS : 2	STATUS : 2
ENGINEER : Engineer 1	DATE : 23/12/2009	DATE : 12/11/2008
PROJECT : CPT Tool Project	AREA : Place	AREA : Place
LOCATION : Somewhere	LAYER :	LAYER :
PROJECT No. : 4.05.0	EASTING : 262947.6 m	EASTING : 262918.2 m
	NORTHING : 6266091.6 m	NORTHING : 6266066.7 m
	ELEVATION : 1.51 m AHD	ELEVATION : 1.20 m AHD



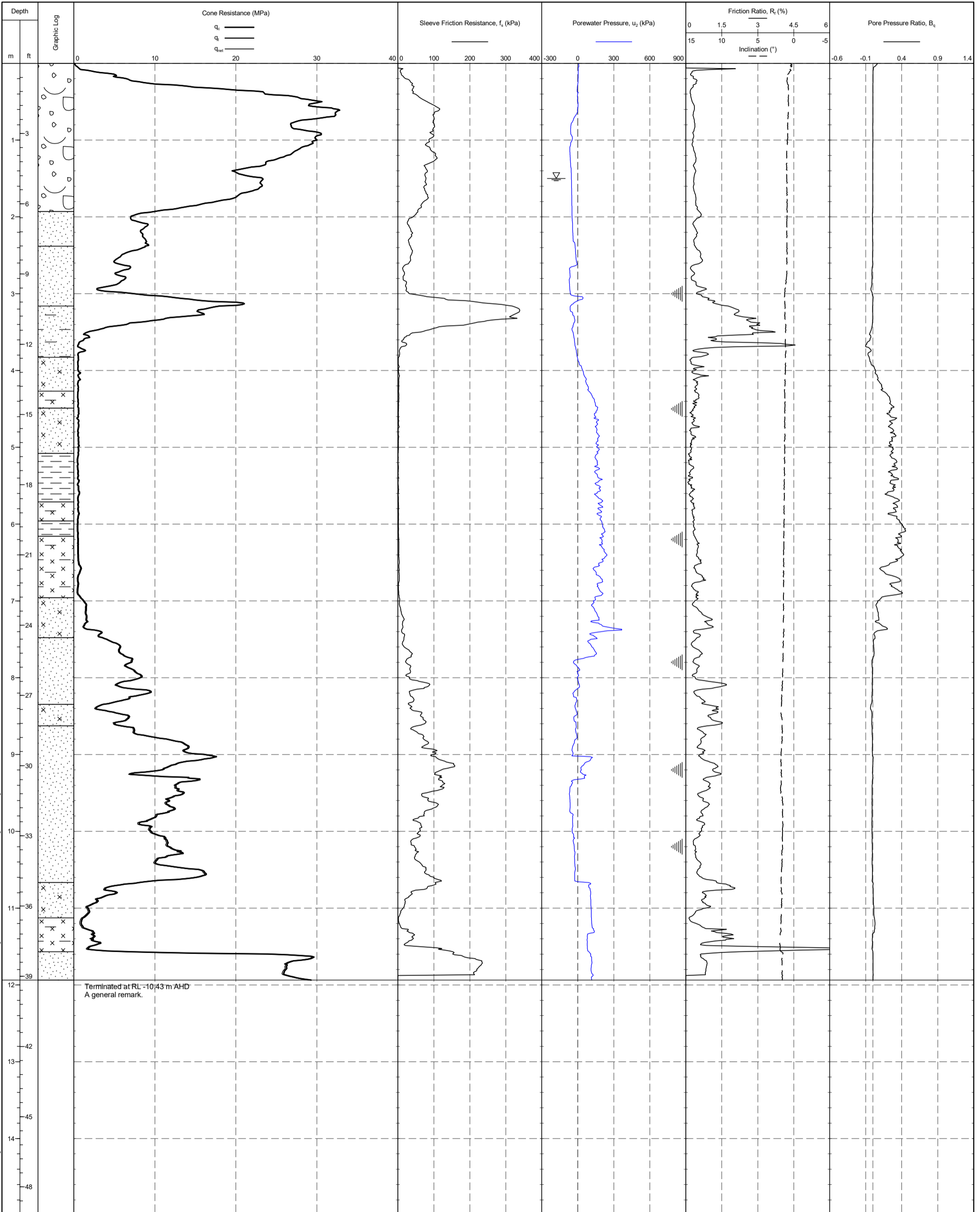
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU COMPARISON A4 DATGEL CPT TOOL DGD 4.05.0 S\GPJ <<DrawingFile>> 1/2/2021 23:07:10.01.00.11 Datgel\CPT Tool\gINT\_A4d.dgn

PointID  
**CPT 05**

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD

SHEET : 1 OF 1  
STATUS : 2  
DATE : 23/12/2009



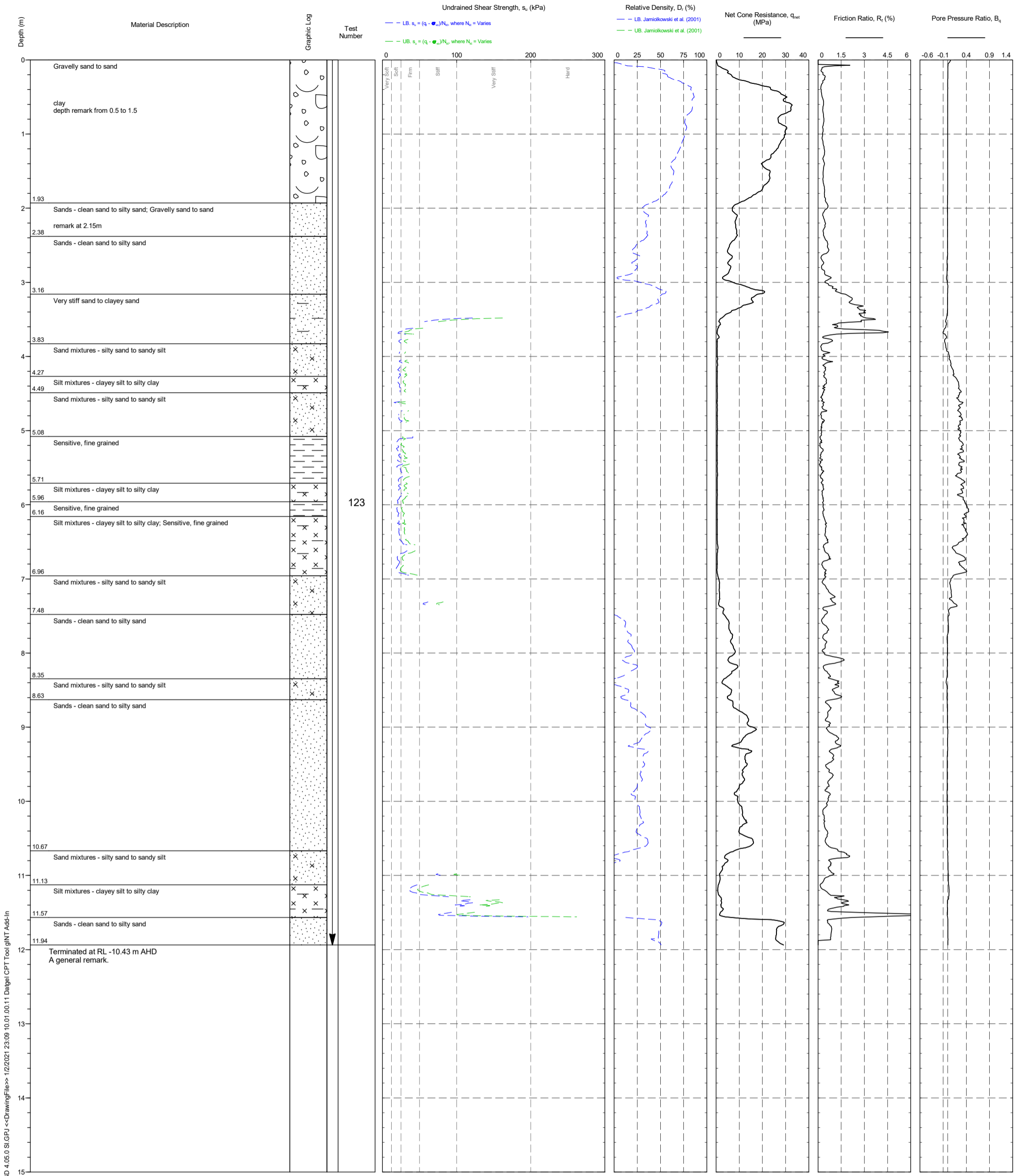
RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A

CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009



REMARK  
A general remark.

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU DERIVED Asp DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/22/2021 23:09:10.01:00.11 Datgel CPT Tool gINT Add-In



NOTES:  
A general remark.

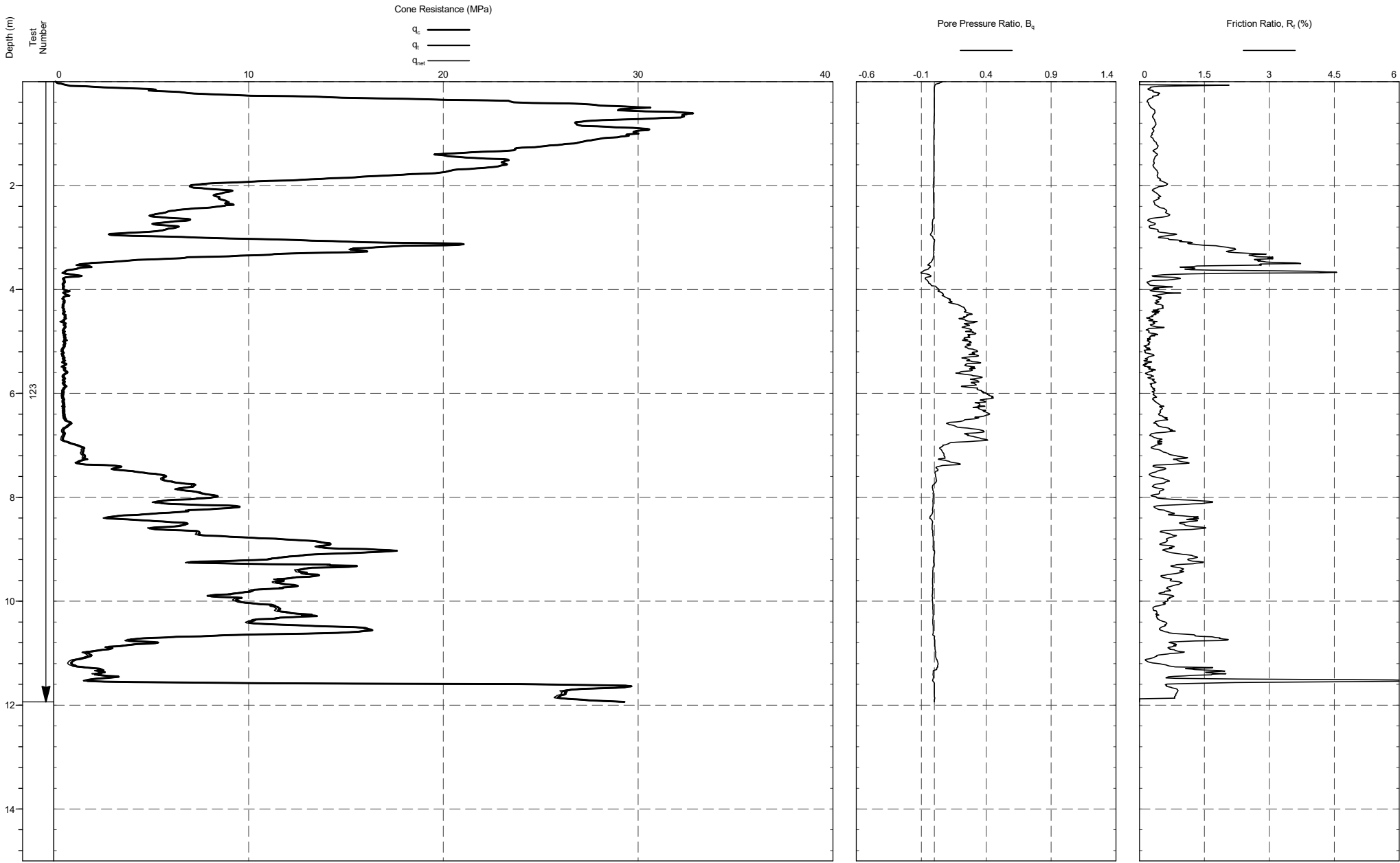
KEY

LOCATION : Somewhere  
 COORDINATES 262947.6 mE 6266091.6 mN MGA2020 Zone 56

MADE BY : Operator A  
 DATE : 23/12/2009  
 WATER DEPTH -1.51 m AHD

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log.CPTU DERIVED Asp.2 DATGEL CPT TOOL gINT Add-in 12/2021 23:09 10.01.00.11

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Log CPTU DERIVED A4L DATGEL CPT TOOL DGD 4.05.0 SI GPJ <<DrawingFile>> 1/2/2021 23:09 10.01.00.11 Datgel CPT Tool gINT Add-In



LOCATION : Somewhere  
 COORDINATES : 262947.6 mE 6266091.6 mN MGA2020 Zone 56

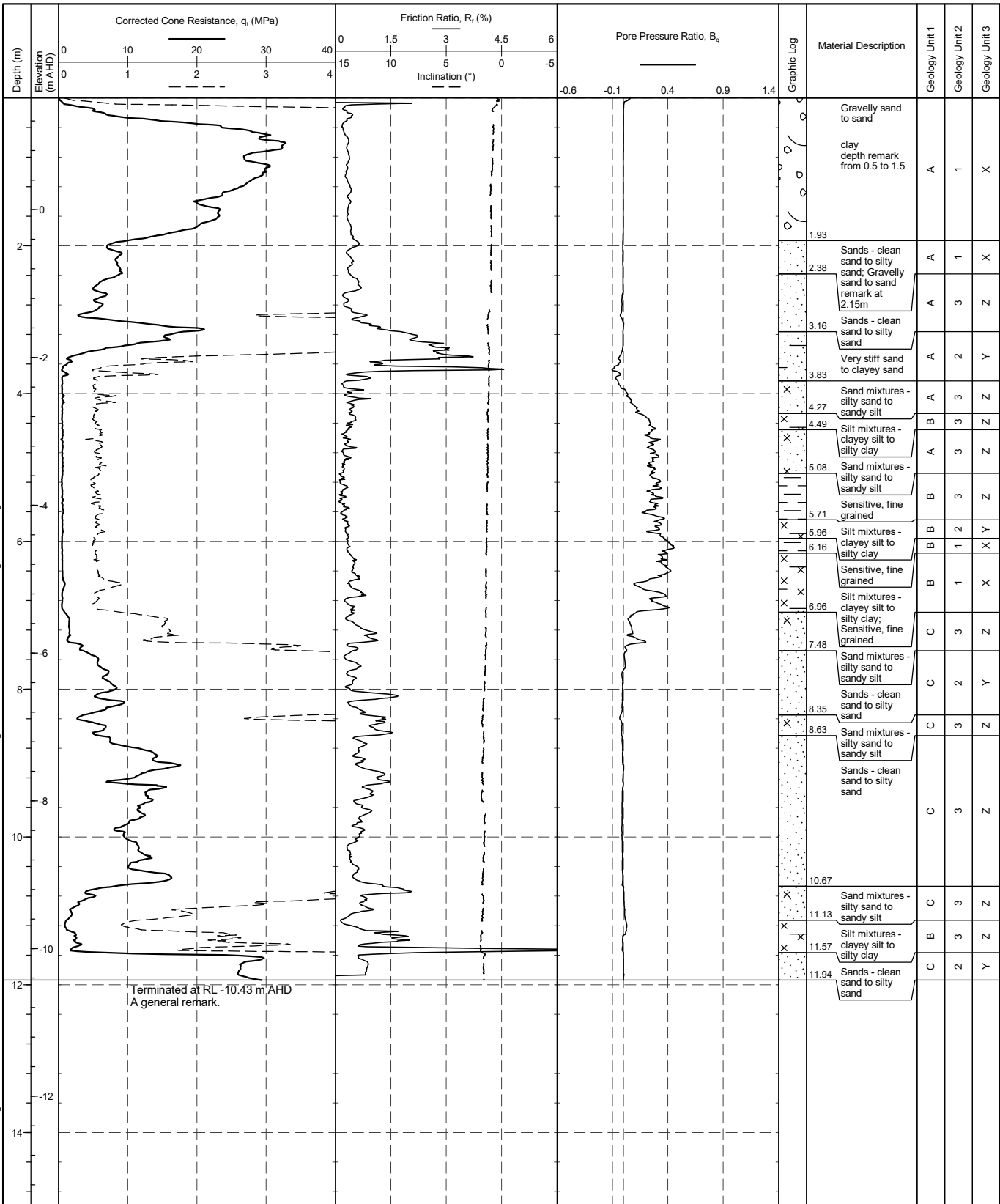
MADE BY : Operator A  
 DATE : 23/12/2009  
 WATER DEPTH : -1.51 m AHD

**SEABED CPT CPT 05 (SHEET 1 OF 1)**


PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



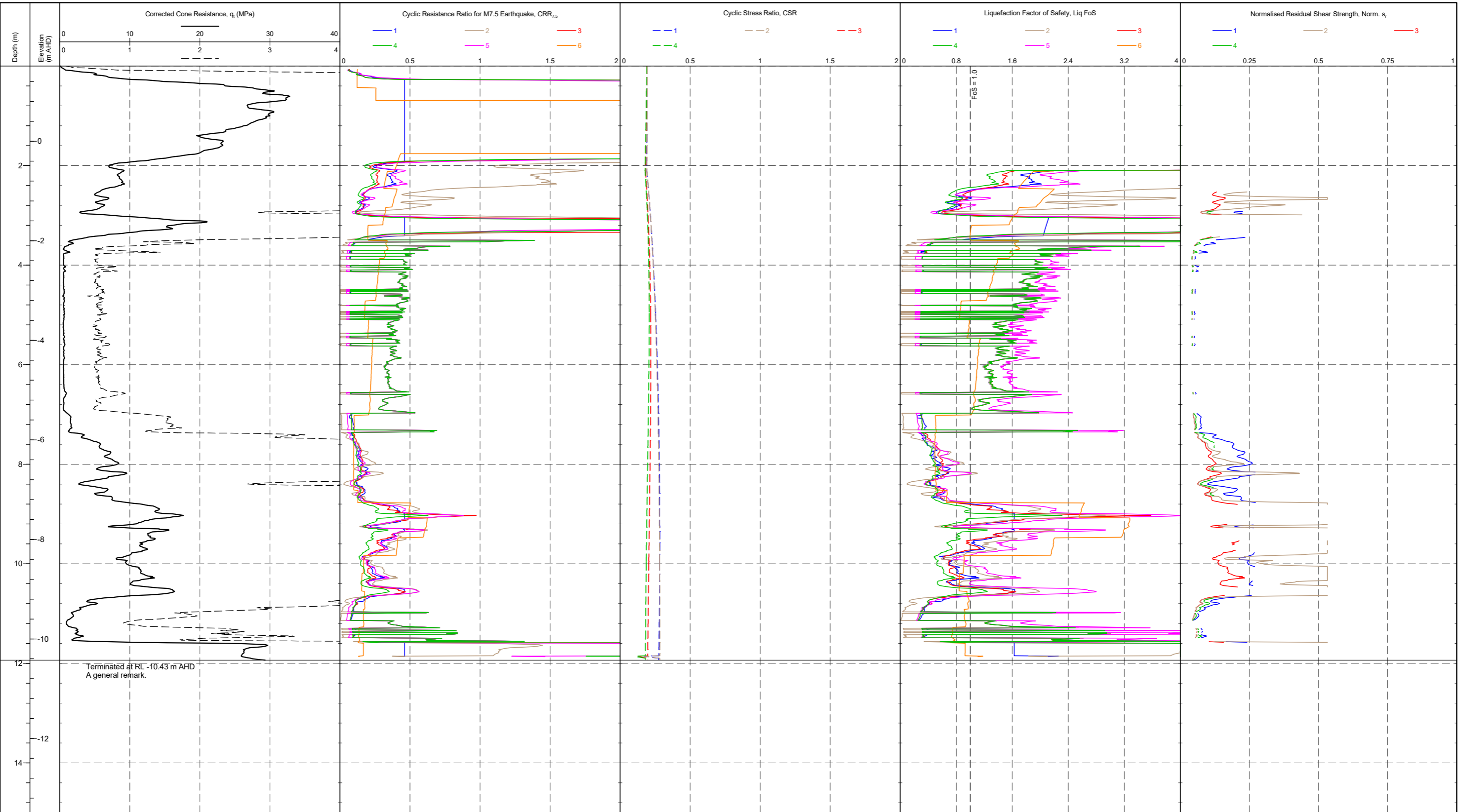
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU DERIVED MATERIAL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <-DrawingFile>> 1/2/2021 23:10:10.01.00.11 Datgel CPT Tool (INT Add-In)

RIG : no anchoring	CHECKED BY : B. Smith	 Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		

PointID  
**CPT 05**  
SHEET : 1 OF 1  
STATUS : 2  
DATE : 23/12/2009

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPTU LIQUEFACTION A3L DATGEL CPT TOOL DGD 4.05.0 ST.GPJ <<DrawingFile>> 1/2/2021 23:10 10.01.00.11 Datgel CPT Tool gINT Add-in

RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A

CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009

Liq Cyclic Resistance Ratio Method:  
1. R&W 98 & NCEER 01  
2. J&B 06  
3. I&B 08  
4. I&B 08, FC R&W 98  
5. Moss et al. 06  
6. Kayen et al. 13

Liq Normalised Residual Shear Strength Method:  
1. Jefferies & Been (2006)  
2. I&B(06) with negligible void redistribution  
3. I&B(06) with significant void redistribution  
4. Olson and Stark (2002)

REMARK  
A general remark.

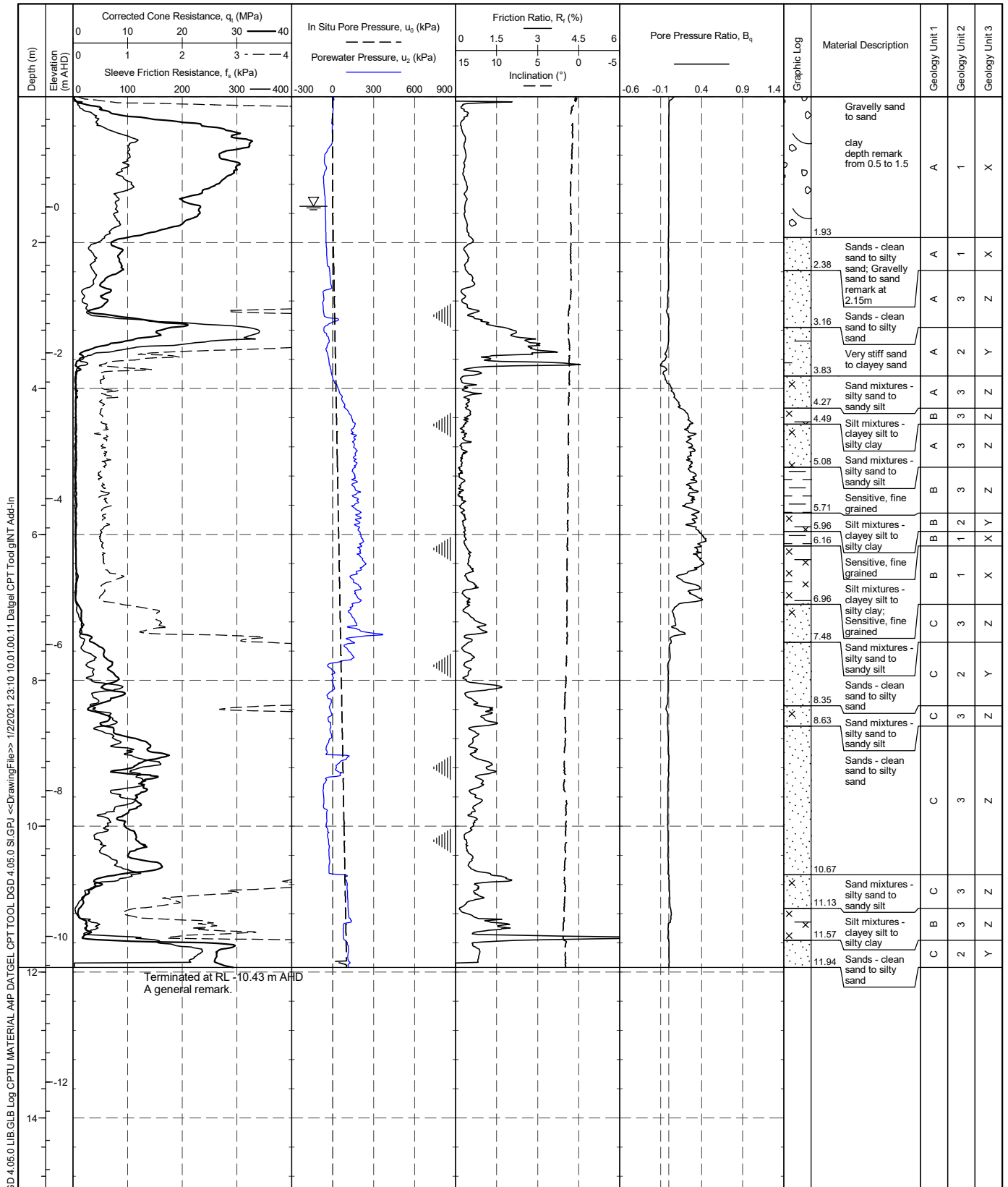
PointID

**CPT 05**

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD

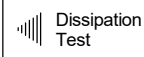
SHEET : 1 OF 1  
STATUS : 2  
DATE : 23/12/2009



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU MATERIAL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/22/2021 23:10:10.0100.11 Datgel CPT Tool.gINT Add-in

RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A

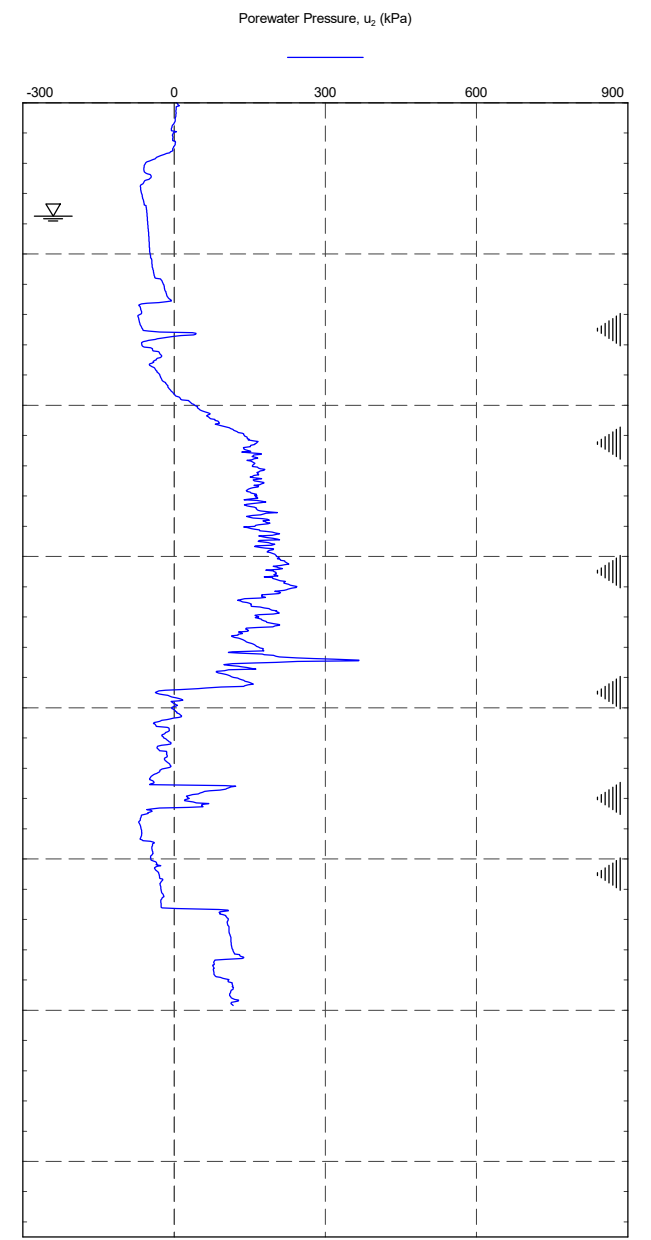
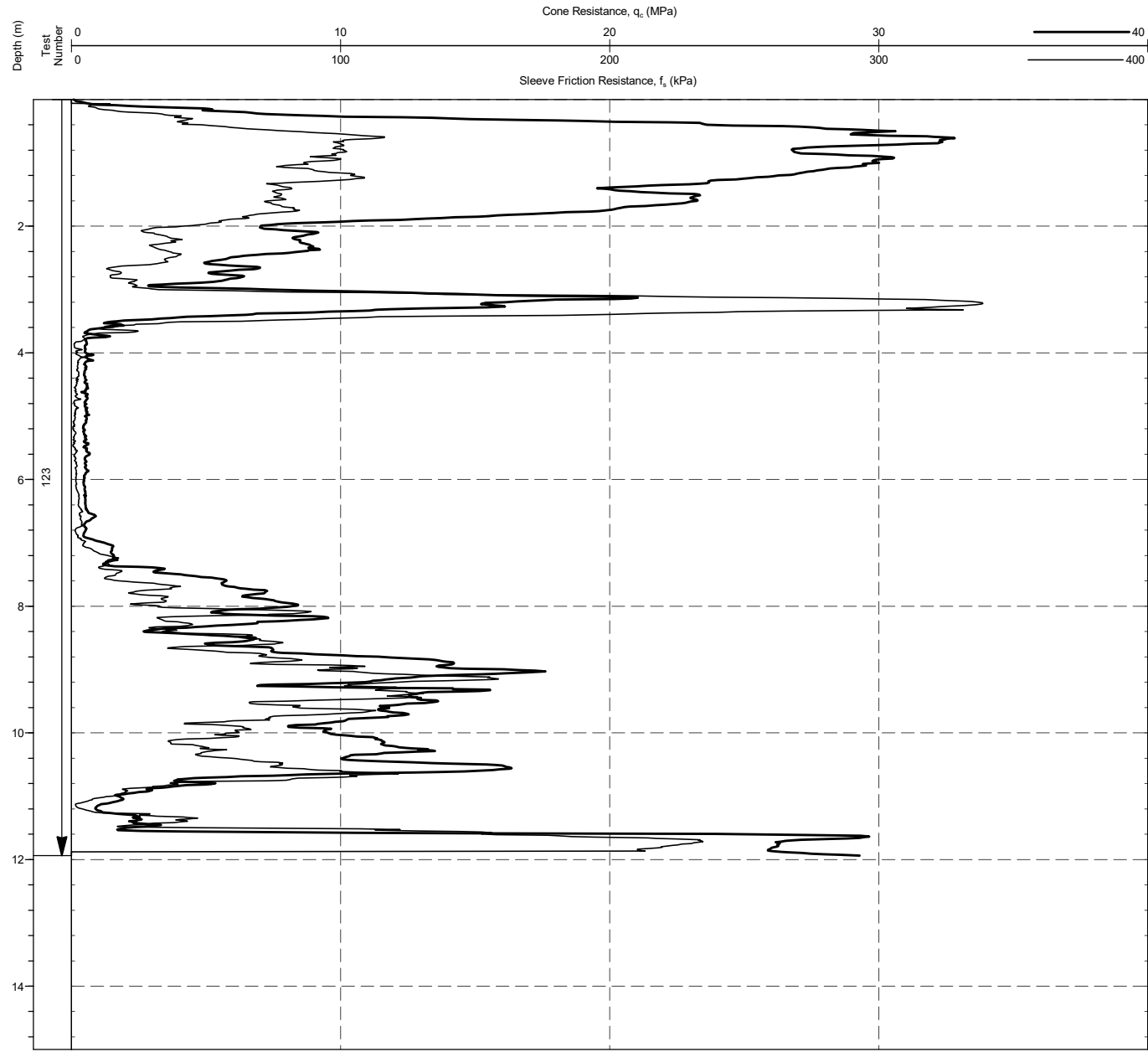
CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009



REMARK  
A general remark.

Graphic Log	Material Description	Geology Unit 1	Geology Unit 2	Geology Unit 3
	Gravelly sand to sand clay depth remark from 0.5 to 1.5	A	1	X
1.93				
2.38	Sands - clean sand to silty sand; Gravelly sand to sand remark at 2.15m	A	3	Z
3.16	Sands - clean sand to silty sand	A	2	Y
3.83	Very stiff sand to clayey sand	A	3	Z
4.27	Sand mixtures - silty sand to sandy silt	A	3	Z
4.49	Silt mixtures - clayey silt to silty clay	B	3	Z
5.08	Sand mixtures - silty sand to sandy silt	A	3	Z
5.71	Sensitive, fine grained	B	3	Z
5.96	Silt mixtures - clayey silt to silty clay	B	1 2	Y
6.16	Sensitive, fine grained	B	1	X
6.96	Silt mixtures - clayey silt to silty clay; Sensitive, fine grained	B	1	X
7.48	Sand mixtures - silty sand to sandy silt	C	3	Z
8.35	Sands - clean sand to silty sand	C	2	Y
8.63	Sand mixtures - silty sand to sandy silt	C	3	Z
	Sands - clean sand to silty sand	C	3	Z
10.67				
11.13	Sand mixtures - silty sand to sandy silt	C	3	Z
11.57	Silt mixtures - clayey silt to silty clay	B	3	Z
11.94	Sands - clean sand to silty sand	C	2	Y

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU MEASURED A4L DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 12/2021 23:11 10.01.00.11 Datgel CPT Tool gINT Add-in



LOCATION : Somewhere  
 COORDINATES : 262947.6 mE 6266091.6 mN MGA2020 Zone 56

MADE BY : Operator A  
 DATE : 23/12/2009  
 WATER DEPTH : -1.51 m AHD

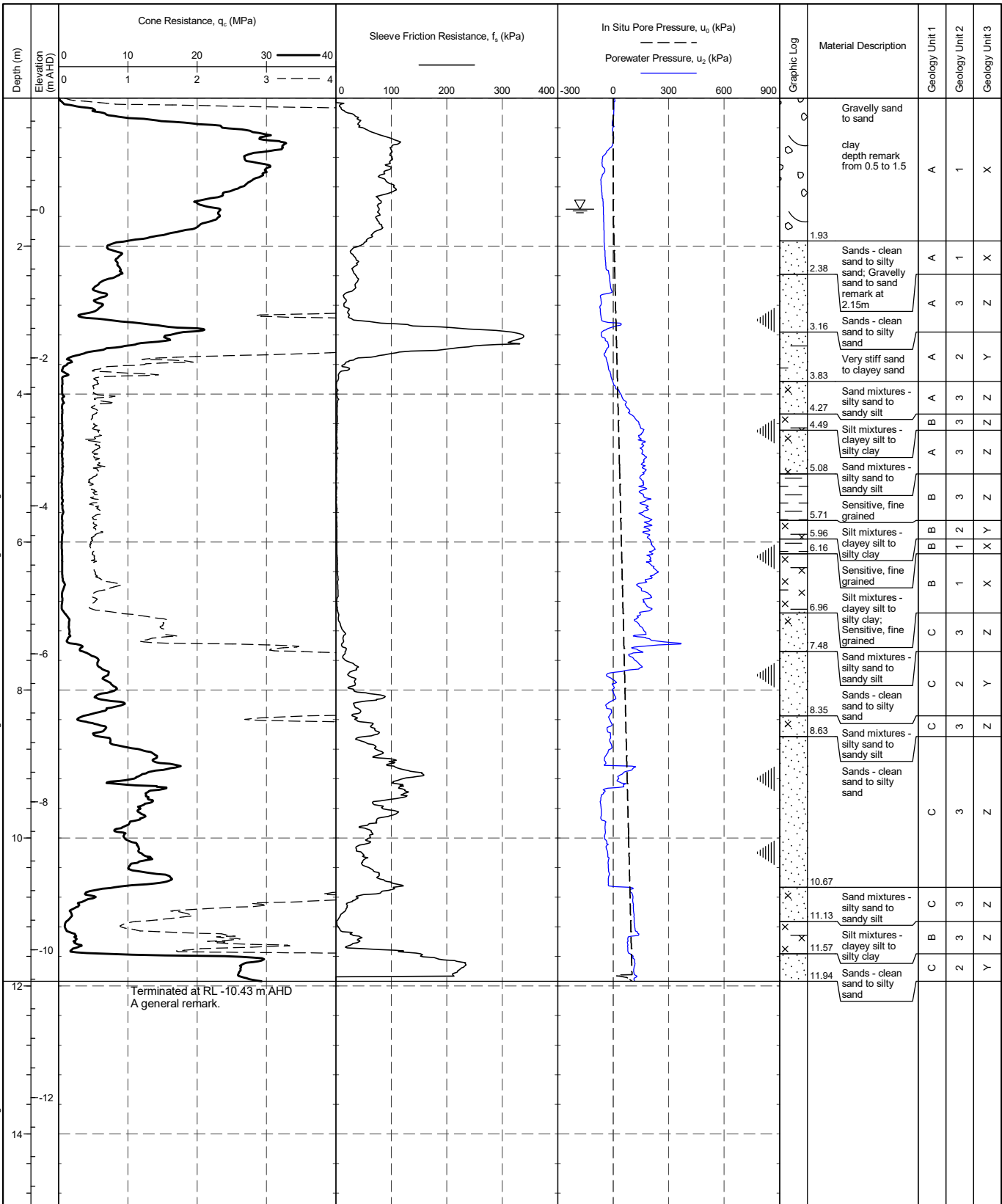
**SEABED CPT CPT 05 (SHEET 1 OF 1)**



PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log DATGEL CPT TOOL DGD 4.05.0 SIGPJ <-DrawingFile>> 1/2/2021 23:12:10.01.00.11 Datgel CPT Tool gINT Add-in

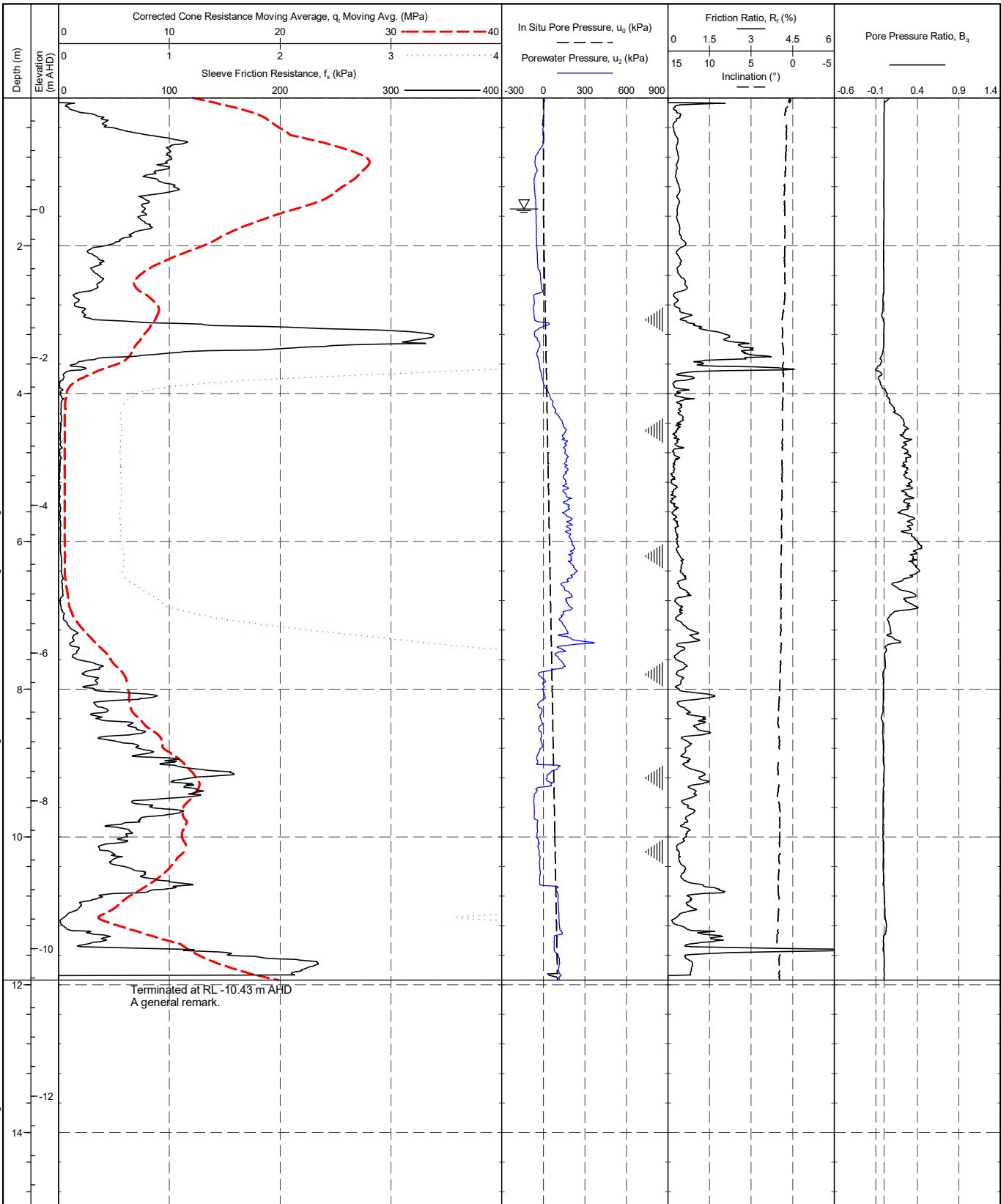
Terminated at RL -10.43 m AHD  
A general remark.

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK A general remark.
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		

PointID

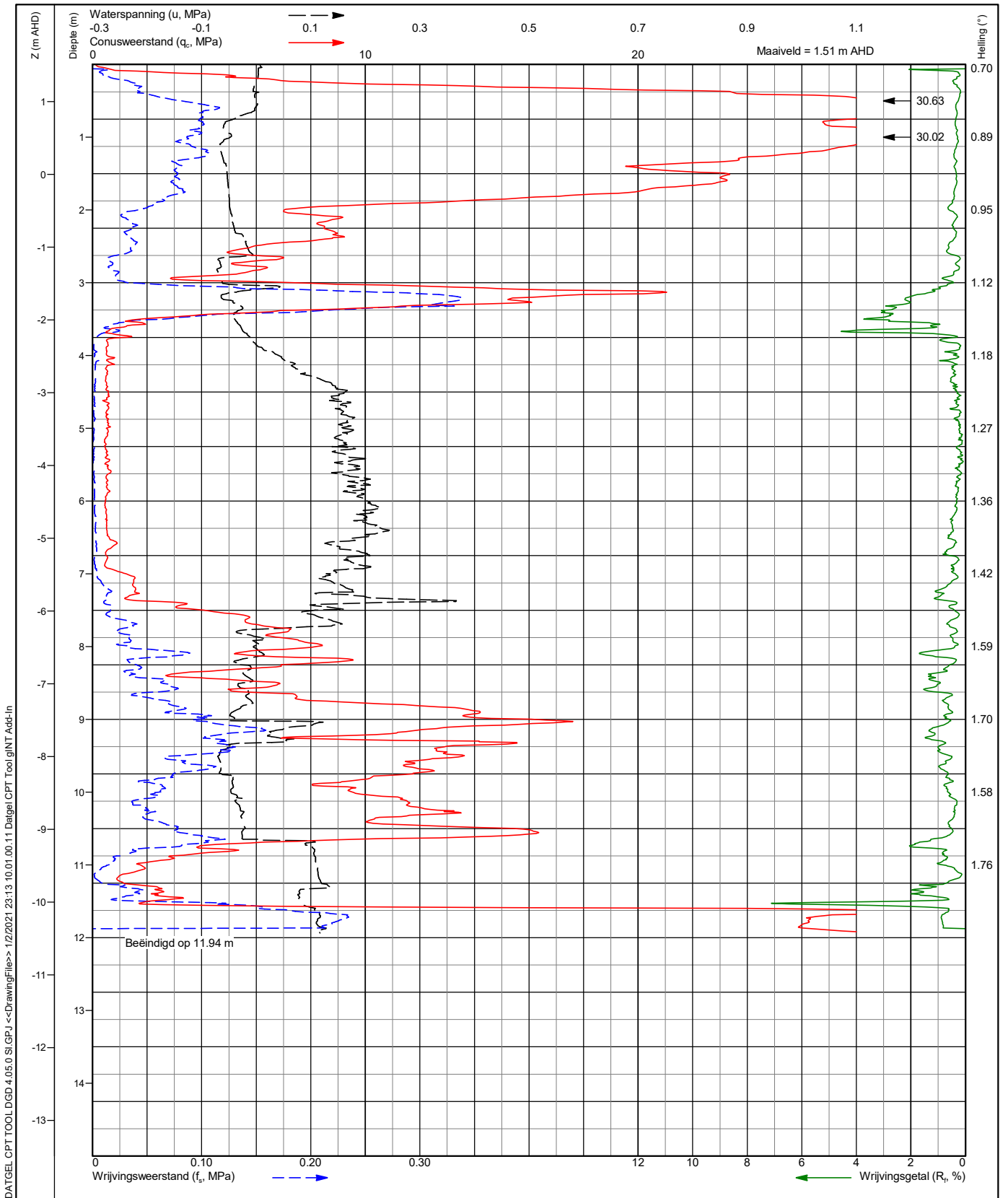
**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



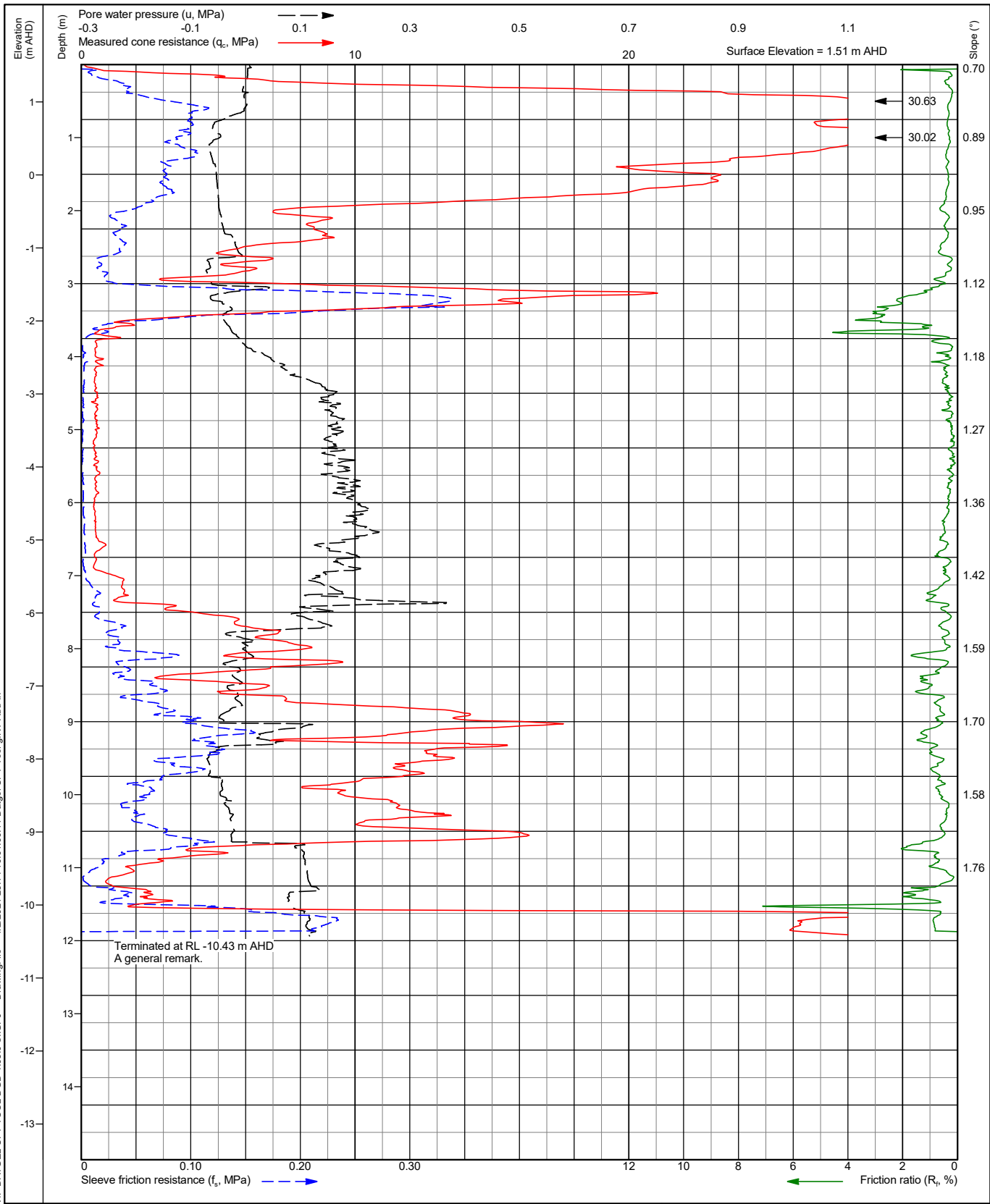
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU MOVING AVERAGE AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles> 1/2/2021 23:13 10.01.00.11 Datgel CPT Tool.gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		



DATGEL\_CPT\_TOOL\_DGD 4.05.0 LIB.GLB Log CPTU.NL.A4P DATGEL\_CPT\_TOOL\_DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:13 10:01.00.11 Datgel\_CPT\_Tool.giNT Add-In

Projectnummer : 4.05.0		Opdrachtgever: Client 1		Sondering : CPT 05	
Projectomschrijving : CPT Tool Project				Conusnr : S15CFIIP.D76	
Projectplaats : Somewhere		Status : 2		Conustype : ABC	
		Datum : 1/2/2021		Conusserie : ABC	
		Coord. : E 262947.6 m N 6266091.6 m MGA2020 Zone 56			
		Norm : NEN5140		Blad : 1 van 1	



Project Number : 4.05.0		Client : Client 1		PointID : CPT 05	
Project Name : CPT Tool Project				ConeID : S15CFIIP.D76	
Project Location : Somewhere			Status : 2		Cone Type : ABC
			Date : 1/2/2021		Cone Series : ABC
			Coords. : E 262947.6 m N 6266091.6 m MGA2020 Zone 56		
			Method : NEN5140		Sheet : 1 of 1

DATGEL\_CPT\_TOOL\_DGD\_4.05.0\_LIB\_GLB\_Log\_CPTU\_NL\_EN\_A4P\_DATGEL\_CPT\_TOOL\_DGD\_4.05.0\_S1.GPJ <-DrawingFile>> 1/2/2021 23:14 10.01.00.11 Datigel CPT Tool gINT Add-In

PointID

**CPT 05**

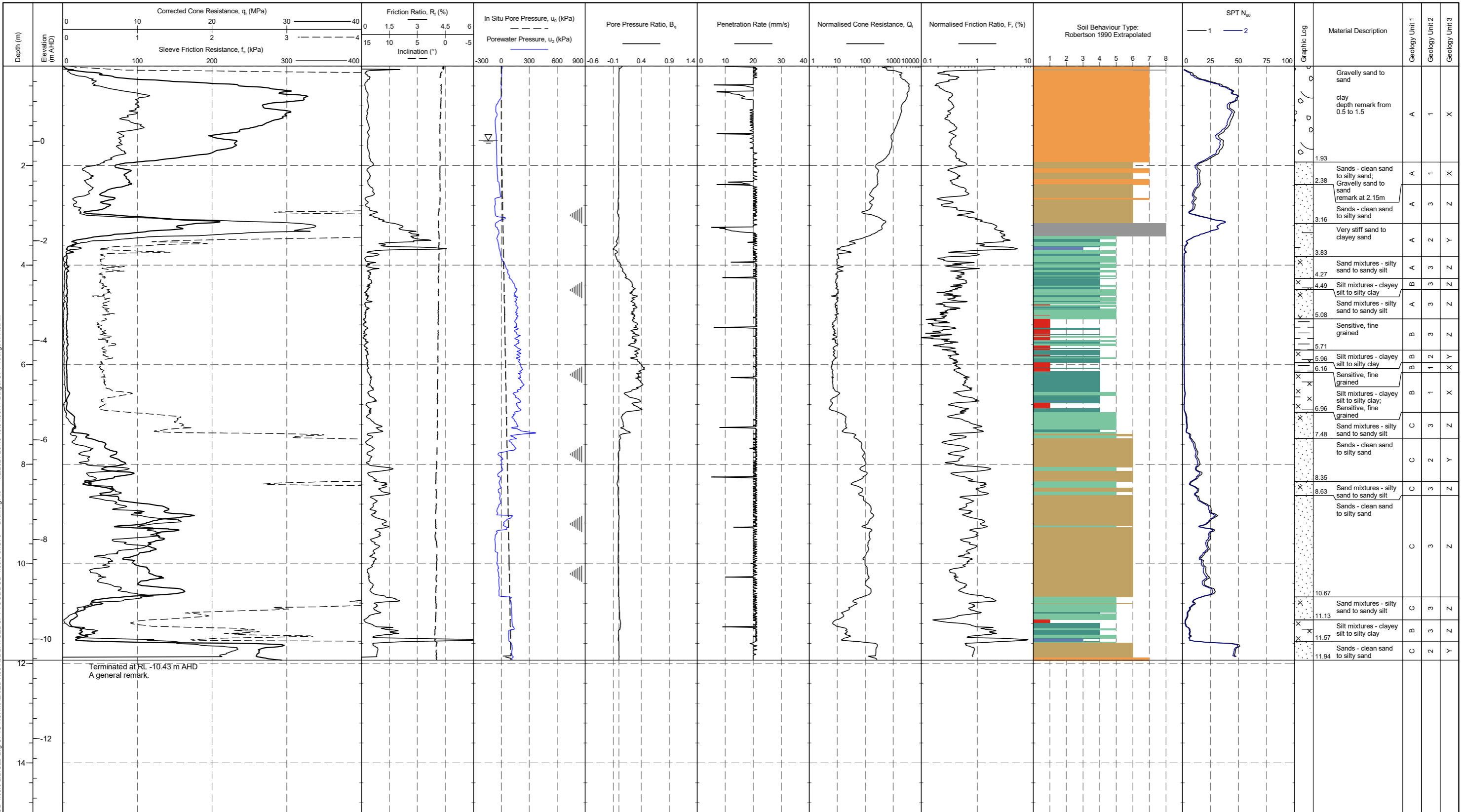
CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD

METHOD: Robertson 1990

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - Sands - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

SHEET : 1 OF 1  
STATUS : 2  
DATE : 23/12/2009



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPTU NORMALISED N60 ASL DATGEL CPT TOOL DGD 4.05.0 St.GPJ <<DrawingFile>> 1/22/2021 23:15 10.01.00.11 Datgel CPT Tool gINT Add-in

RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A

CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009



REMARK  
A general remark.

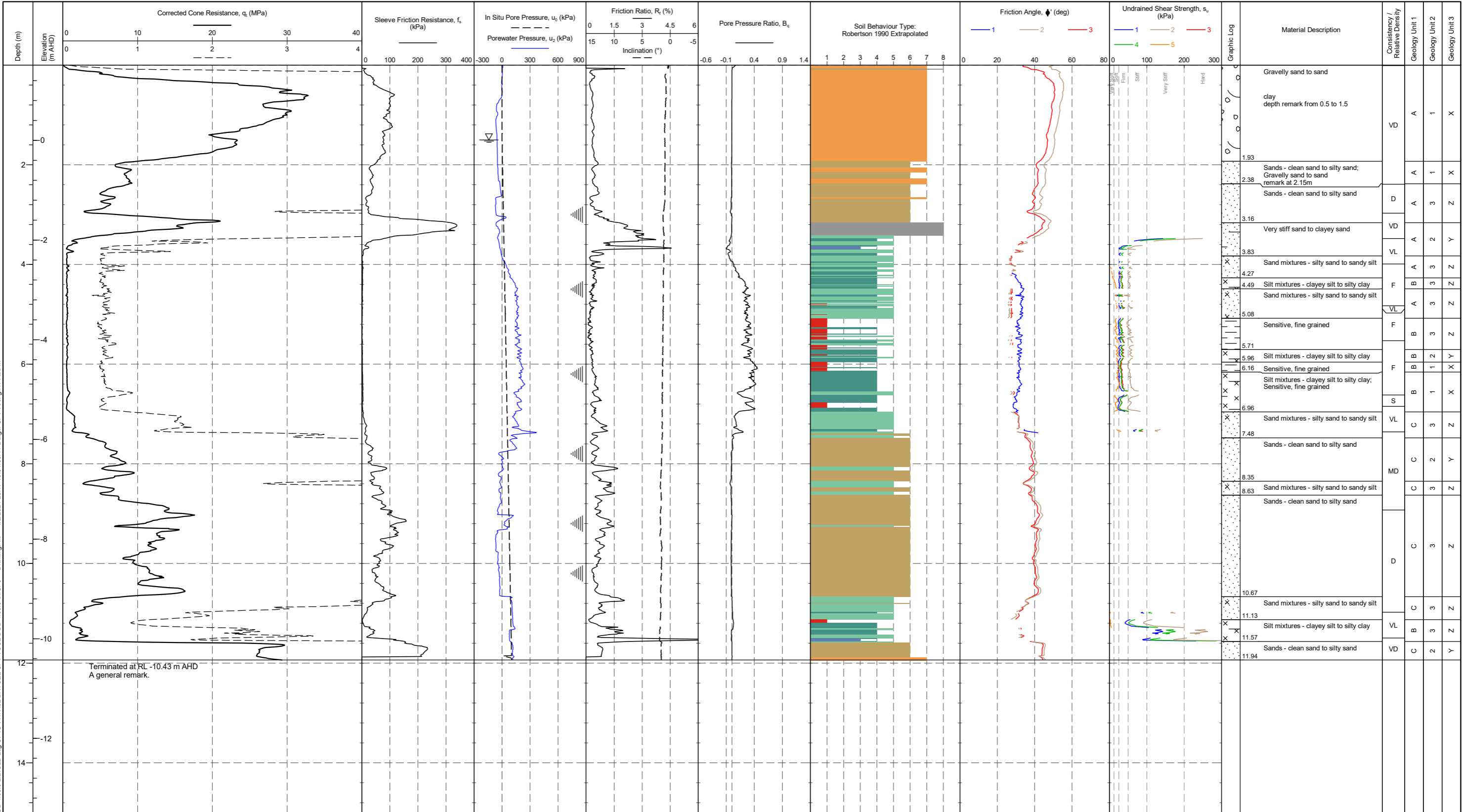
Terminated at RL -10.43 m AHD  
A general remark.

PointID	<b>CPT 05</b>
SHEET	: 1 OF 1
STATUS	: 2
DATE	: 23/12/2009

CLIENT : Client 1	AREA : Place
ENGINEER : Engineer 1	EASTING : 262947.6 m
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD

METHOD: Robertson 1990

1 - Sensitive, fine grained	5 - SAND mixtures - silty SAND to sandy SILT	9 - Very stiff fine grained
2 - Organic soil - peats	6 - Sands - clean SAND to silty SAND	
3 - Clays - CLAY to silty CLAY	7 - Gravelly SAND to SAND	
4 - SILT mixtures - clayey SILT to silty CLAY	8 - Very stiff SAND to clayey SAND	



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPTU PHI A3L DATGEL CPT TOOL DGD 4.05.0 SIGPJ <DrawingFile> 1/2/2021 23:17:10.01.00.11 Datgel CPT Tool gINT AddIn

RIG : no anchoring	CHECKED BY : B. Smith
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe
OPERATOR : Operator A	APPROVED DATE : 6/2/2009



Friction Angle Method:  
 1. Senneset et al. (1988 & 1989); Mayne & Campanella (2005)  
 2. Robertson & Campanella (1983)  
 3. Kulhawy & Mayne (1990)

Undrained Shear Strength Method:  
 1.  $s_u = (q_c - \sigma_{vm})/N_{cu}$ ; or  $(q_c - \sigma_{vm})/N_{cu}$   
 2.  $s_u = q_c/N_{cu}$ ; or  $q_c/N_{cu}$   
 3. Wroth (1984)  
 4. Trak et al. (1980), Terzaghi et al. (1996)  
 5. Robertson (2009),  $s_u = \Delta u/N$

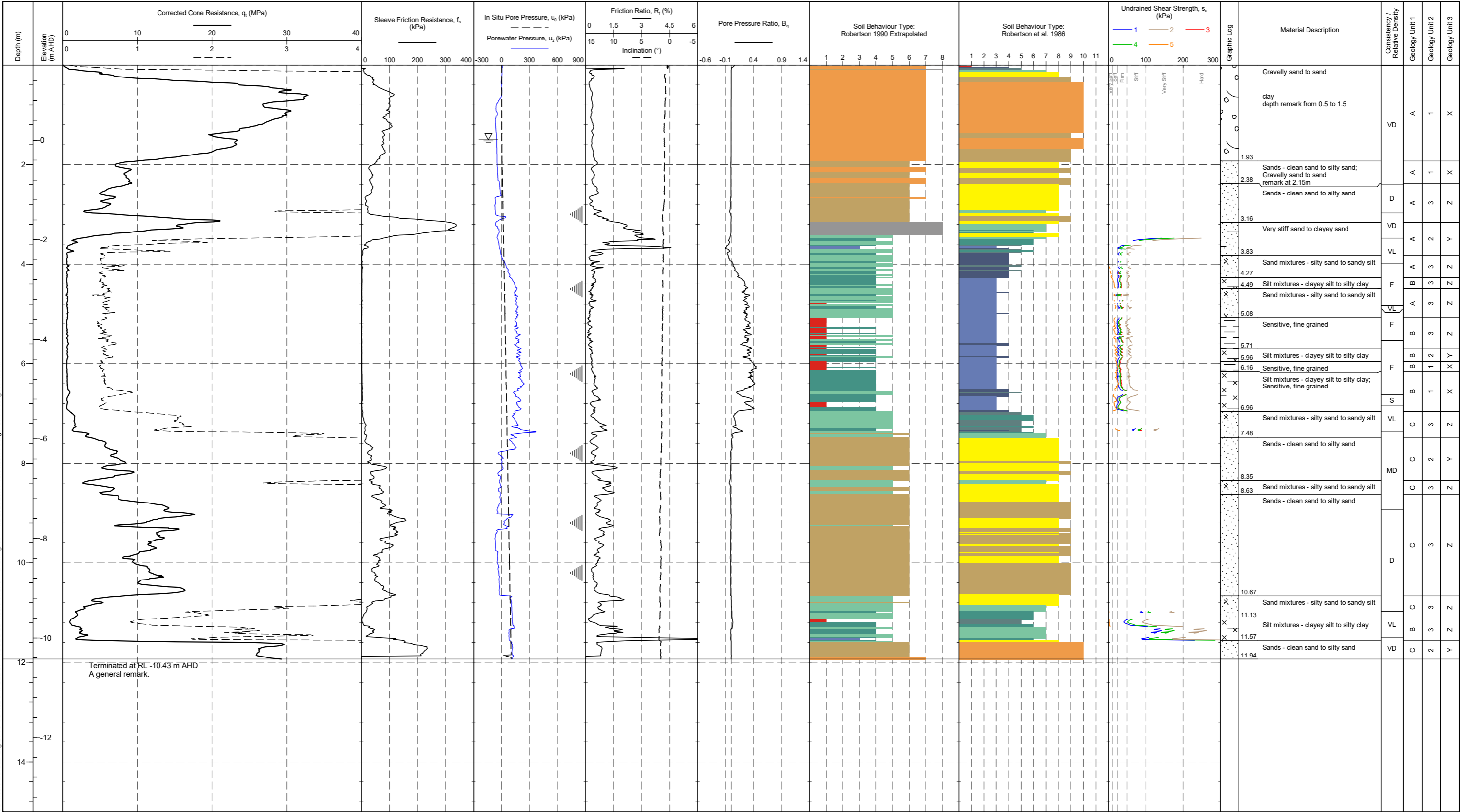
REMARK	A general remark.
--------	-------------------

PointID	<b>CPT 05</b>
SHEET	: 1 OF 1
STATUS	: 2
DATE	: 23/12/2009

CLIENT : Client 1	AREA : Place
ENGINEER : Engineer 1	EASTING : 262947.6 m
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD

METHOD: Robertson 1990

1 - Sensitive, fine grained	5 - SAND mixtures - silty SAND to sandy SILT	9 - Very stiff fine grained
2 - Organic soil - peats	6 - Sands - clean SAND to silty SAND	
3 - Clays - CLAY to silty CLAY	7 - Gravely SAND to SAND	
4 - SILT mixtures - clayey SILT to silty CLAY	8 - Very stiff SAND to clayey SAND	



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPTU SU A3L DATGEL CPT TOOL DGD 4.05.0 SI GPU <-DrawingFiles> 12/2021 23:17:10.01.00.11 Datgel CPT Tool gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe
OPERATOR : Operator A	APPROVED DATE : 6/2/2009



METHOD: Robertson et al. 1986

1 - Sensitive fine grained material	5 - Clayey SILT to silty CLAY	9 - SAND
2 - Organic material	6 - Sandy SILT to clayey SILT	10 - Gravely SAND to SAND
3 - CLAY	7 - Silty SAND to sandy SILT	11 - Very stiff fine grained
4 - Silty CLAY to CLAY	8 - SAND to silty SAND	12 - SAND to clayey SAND

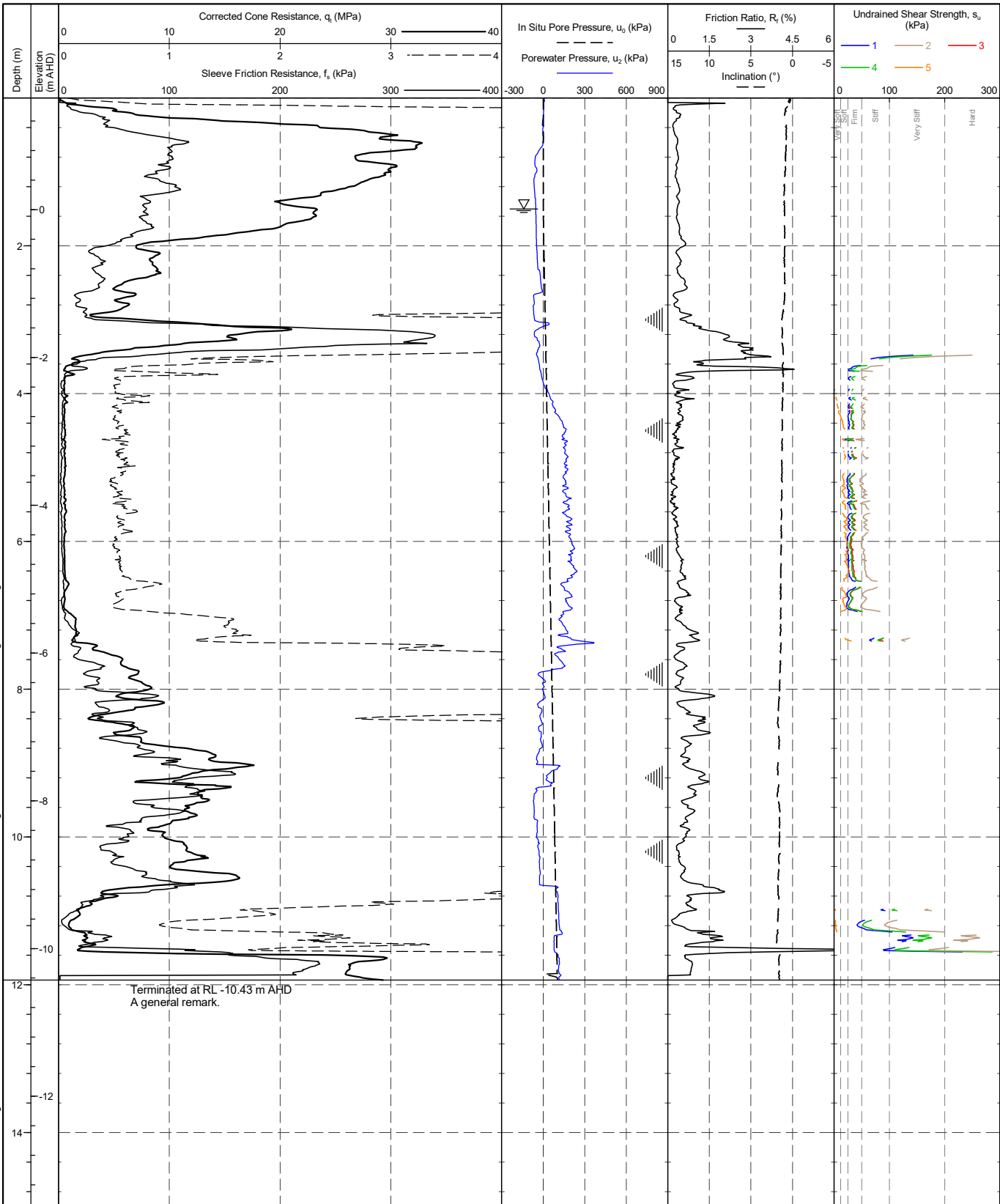
Undrained Shear Strength Method:  
 1.  $s_u = (q - \sigma_v) / N_c$ ; or  $(q - \sigma_v) / N_c$   
 2.  $s_u = q / N_c$  or  $q / N_c$   
 3. Wroth (1984)  
 4. Trak et al. (1980), Terzaghi et al. (1996)  
 5. Robertson (2009),  $s_u = \Delta u / N$

REMARK	A general remark.
--------	-------------------

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU SU /A4P DATGEL CPT TOOL DGD 4.05.0 SU.GPJ <<DrawingFile>> 1/2/2021 23:19:10.01.00.11 Datgel CPT Tool gINT Add-in

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		



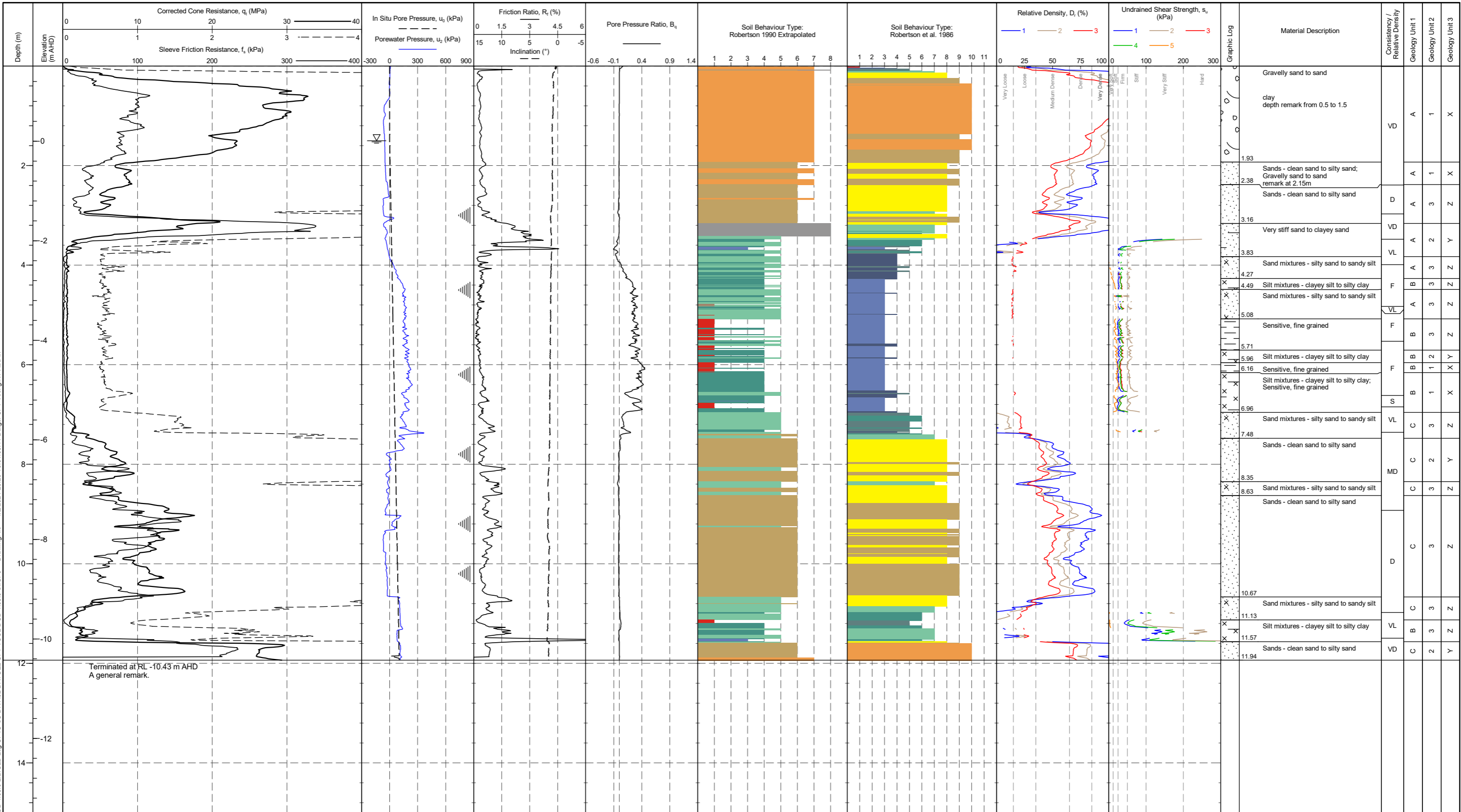
CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD

METHOD: Robertson 1990

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - Sands - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

Relative Density Method:  
1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
2. Jamiolkowski et al. (2001)  
3. Kulhawy & Mayne (1990)



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPTU SU DR A3L DATGEL CPT TOOL DGD 4.05.0 SI GPJ <DrawingFiles> 11/2/2021 10:01:00.11 Datgel CPT Tool.gINT Add-In

RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A

CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009



METHOD: Robertson et al. 1986

- 1 - Sensitive fine grained material
- 2 - Organic material
- 3 - CLAY
- 4 - Silty CLAY to CLAY
- 5 - Clayey SILT to silty CLAY
- 6 - Sandy SILT to clayey SILT
- 7 - Silty SAND to sandy SILT
- 8 - SAND to silty SAND
- 9 - SAND
- 10 - Gravelly SAND to SAND
- 11 - Very stiff fine grained
- 12 - SAND to clayey SAND

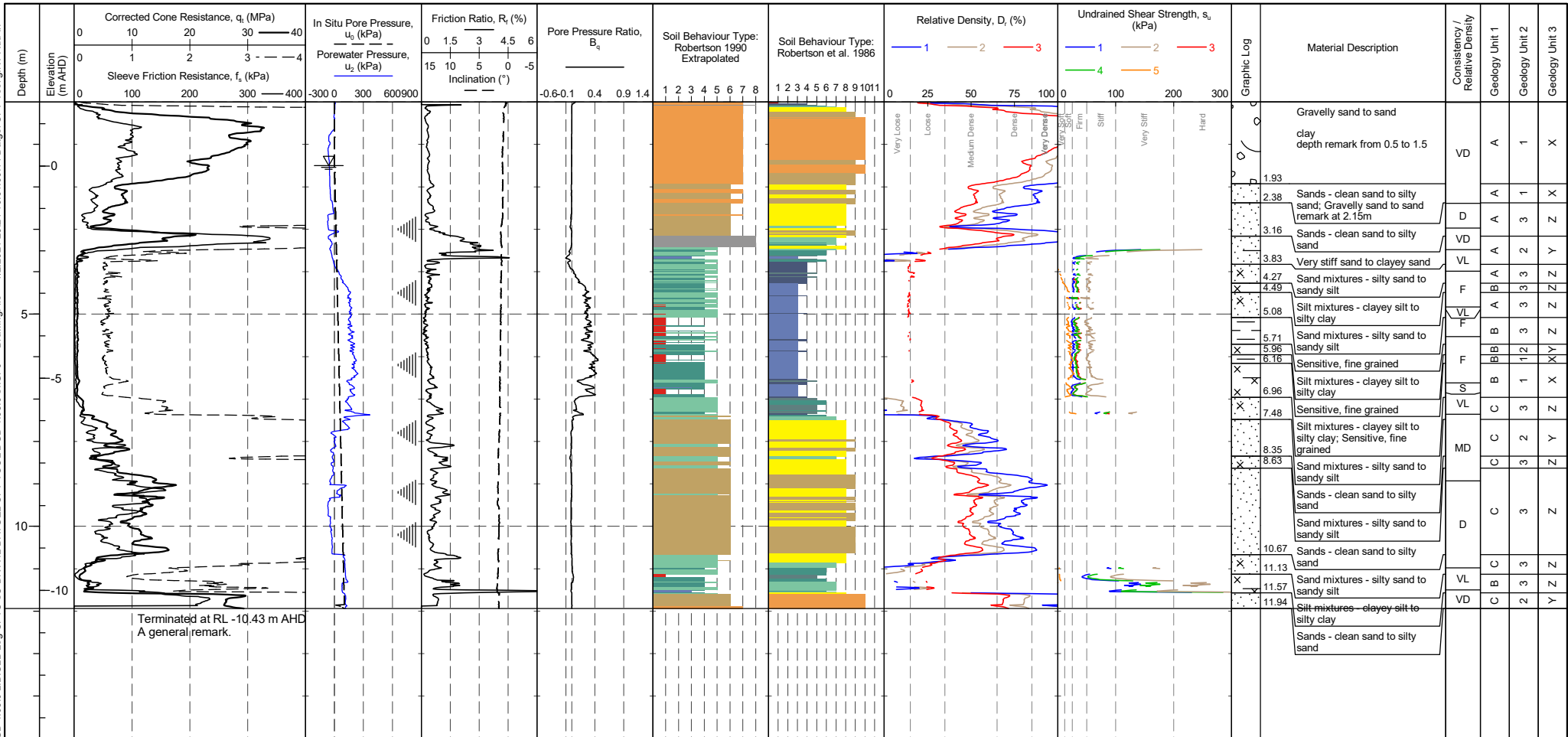
Undrained Shear Strength Method:  
1.  $s_u = (q_c - \sigma_{v0})/N_c$ ; or  $(q_c - \sigma_{v0})/N_c$   
2.  $s_u = q_c/N_c$  or  $q_c/N_c$   
3. Wroth (1984)  
4. Trak et al. (1980), Terzaghi et al. (1996)  
5. Robertson (2009),  $s_u = \Delta u/N$

REMARK  
A general remark.

PointID  
**CPT 05**

CLIENT : Client 1	AREA : Place	Relative Density Method: 1. Baldi et al. (1986); Al-Homoud & Wehr (2006) 2. Jamiolkowski et al. (2001) 3. Kulhawy & Mayne (1990)	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m		STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m		DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56		
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD		

DATGEL.CPT TOOL.DGD.4.05.0.LIB.GLB Log\_SU\_DR\_A4L\_DATGEL.CPT TOOL.DGD.4.05.0.SI.GPJ <<DrawingFiles>> 1/2/2021 10:01:00.11 Datgel.CPT Tool.gINT Add-In



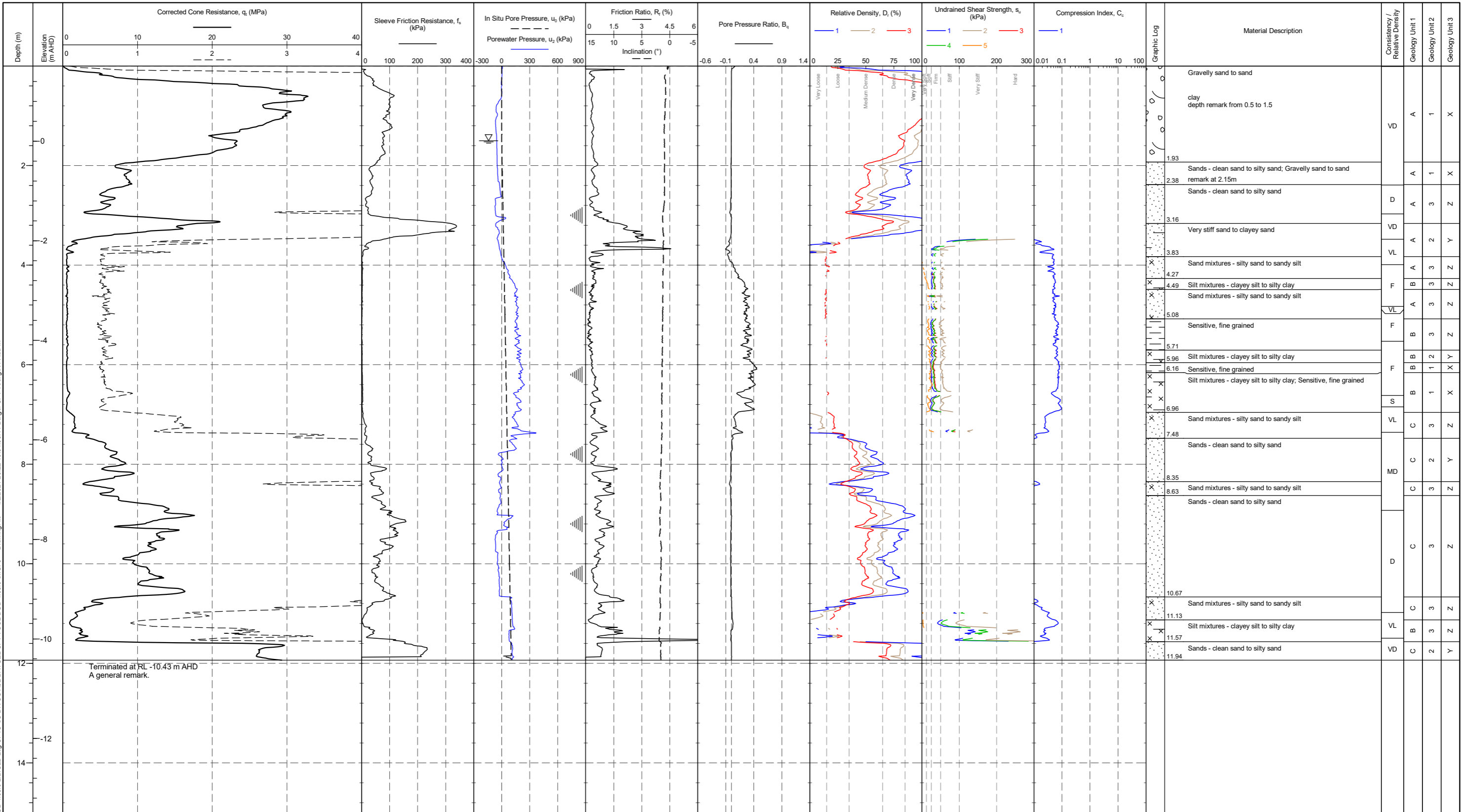
RIG : no anchoring	CHECKED BY : B. Smith	Undrained Shear Strength Method: 1. $s_u = (q_c - \sigma'_v)/N_k$ ; or $(q_c - \sigma'_v)/N_k$ 2. $s_u = q_c/N_k$ ; or $q_c/N_k$ 3. Wroth (1984) 4. Trak et al. (1980), Terzaghi et al. (1996) 5. Robertson (2009), $s_u = \Delta u/N$	REMARK A general remark.
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		



CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING : 262947.6 m  
NORTHING : 6266091.6 m  
COORD. SYS. : MGA2020 Zone 56  
ELEVATION : 1.51 m AHD

SHEET : 1 OF 1  
STATUS : 2  
DATE : 23/12/2009



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Log CPTU SU DR CC ASL DATGEL CPT TOOL DGD 4.05.0 St.GPJ <<DrawingFile>> 1/22/2021 23:22 10.01.00.11 Datgel CPT Tool gINT Add-In

RIG : no anchoring  
CONE TYPE : C+F+W2  
CONE ID : S15CFIIP.D76  
OPERATOR : Operator A

CHECKED BY : B. Smith  
CHECKED DATE : 6/2/2009  
APPROVED BY : C. Doe  
APPROVED DATE : 6/2/2009



Relative Density Method:  
1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
2. Jamiolkowski et al. (2001)  
3. Kulhawy & Mayne (1990)

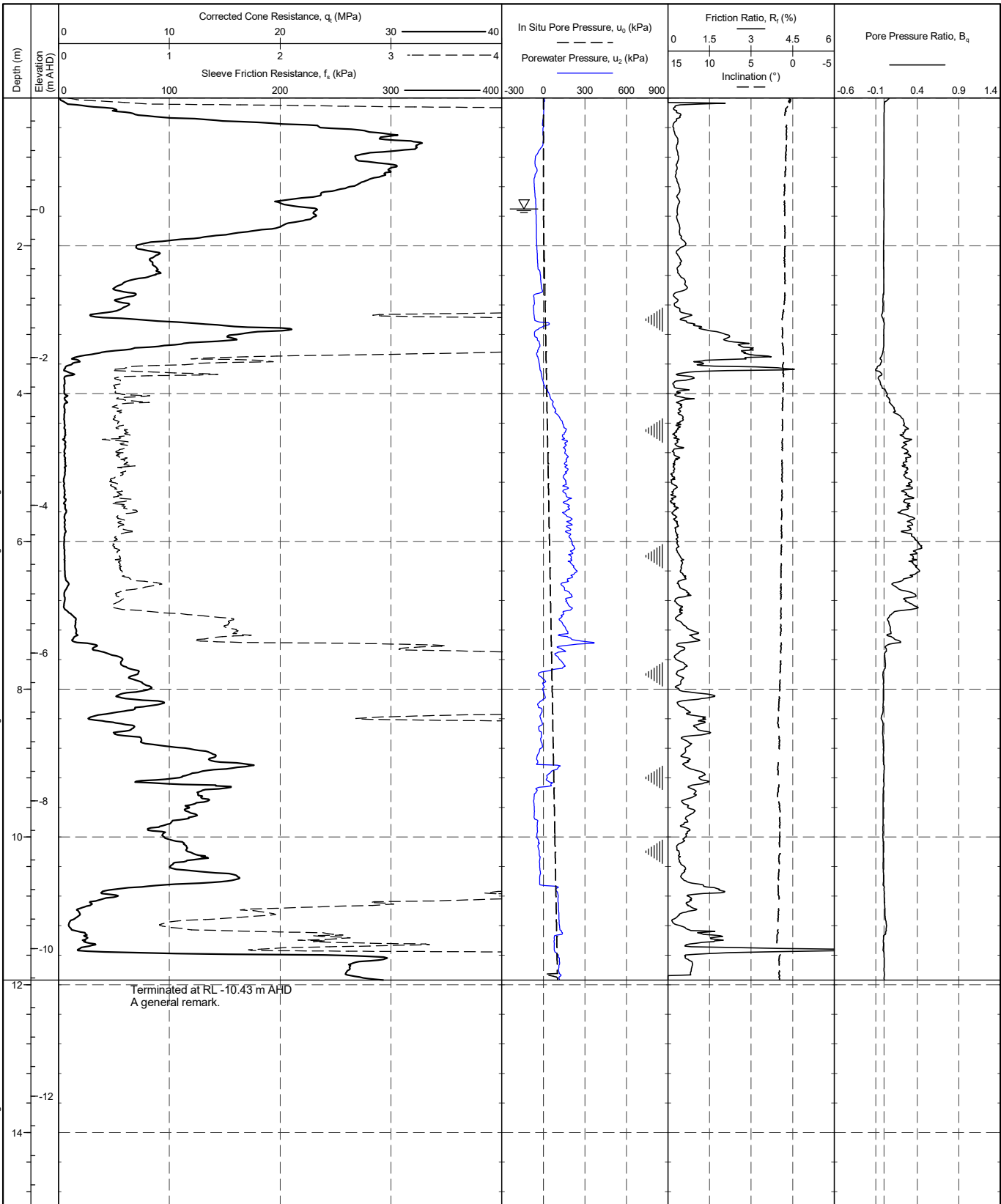
Undrained Shear Strength Method:  
1.  $s_u = (q_t - \sigma'_v)/N_c$  or  $(q_t - \sigma'_v)/N_s$   
2.  $s_u = q_t/N_c$  or  $q_t/N_s$   
3. Wroth (1984)  
4. Trak et al. (1980); Terzaghi et al. (1996)  
5. Robertson (2009);  $s_u = \Delta u/N$

REMARK  
A general remark.

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



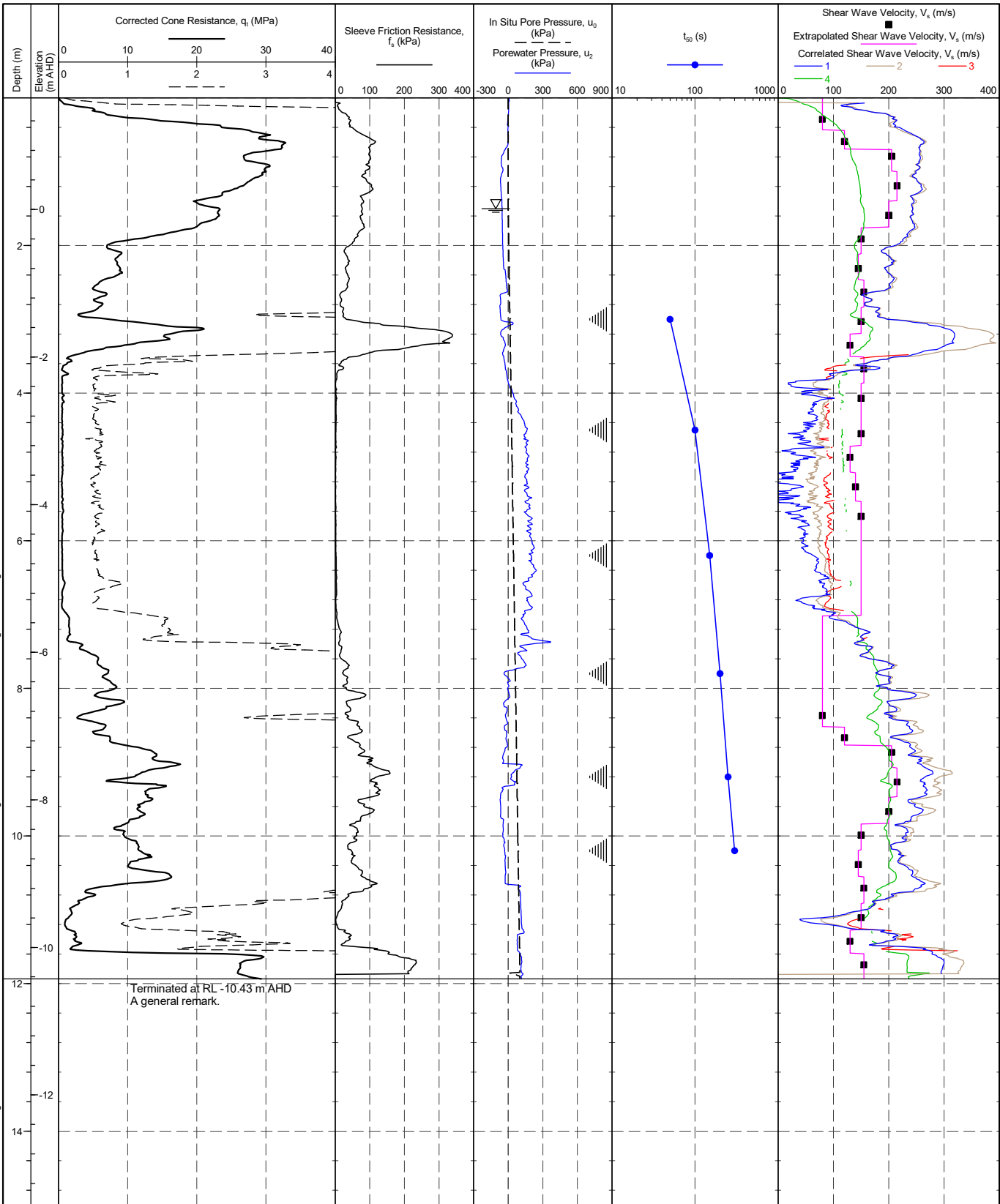
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log CPTU WITHOUT DESIGNLINE A4P DATGEL CPT TOOL DGD 4.05.0 S1.GPJ <<DrawingFile>> 1/2/2021 23:23:10.01.00.11 Datgel CPT Tool gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



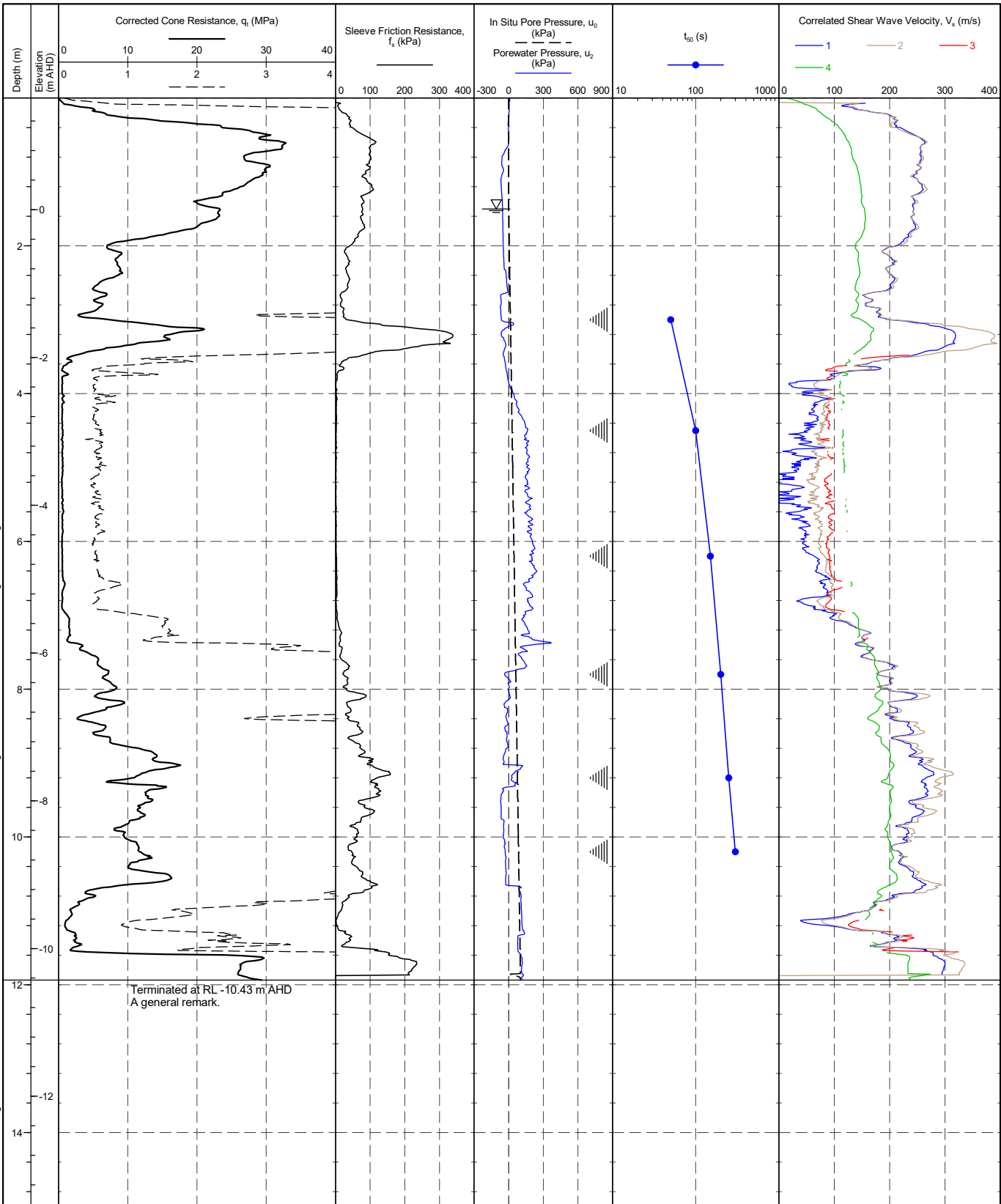
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log SCPTU ALL A4P DATGEL CPT TOOL DGD 4.05.0 S\GPJ <<DrawingFile>> 1/2/2021 23:24 10:01:00.11 Datgel CPT Tool.gj\NT Add-in

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		

PointID

**CPT 05**

CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



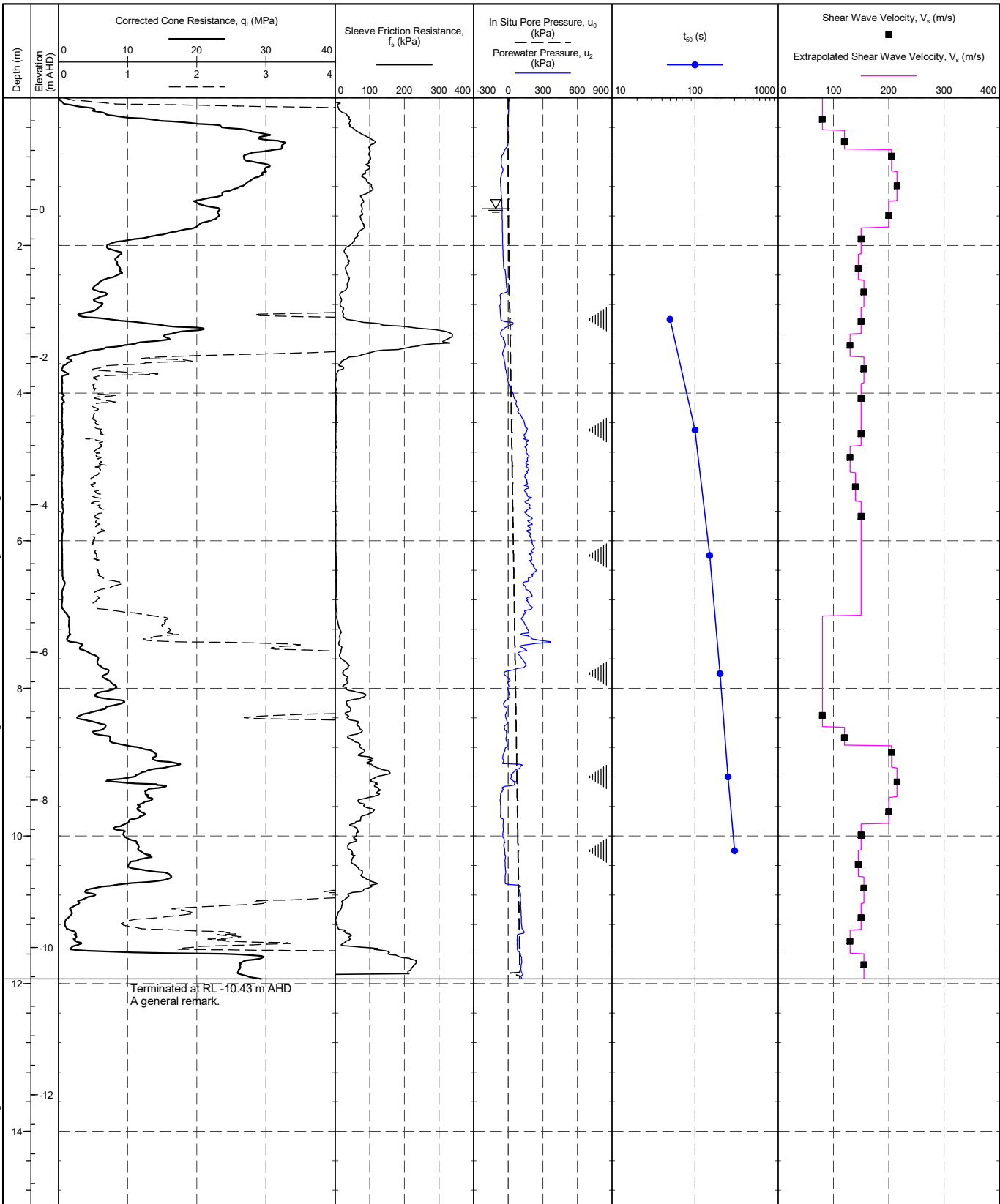
DATGSEL\_CPT\_TOOL\_DGD\_4.05.0.LIB.GLB\_Log\_SCP\_TTU\_CORRELATED\_A4P\_DATGSEL\_CPT\_TOOL\_DGD\_4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:24:10.01.00.11 Datgel CPT\_Tool.gINT Add-In

RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		

PointID

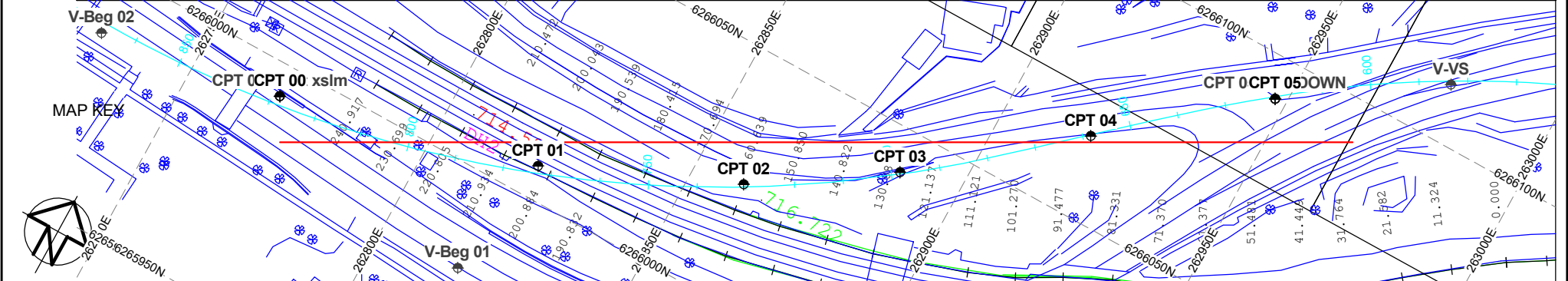
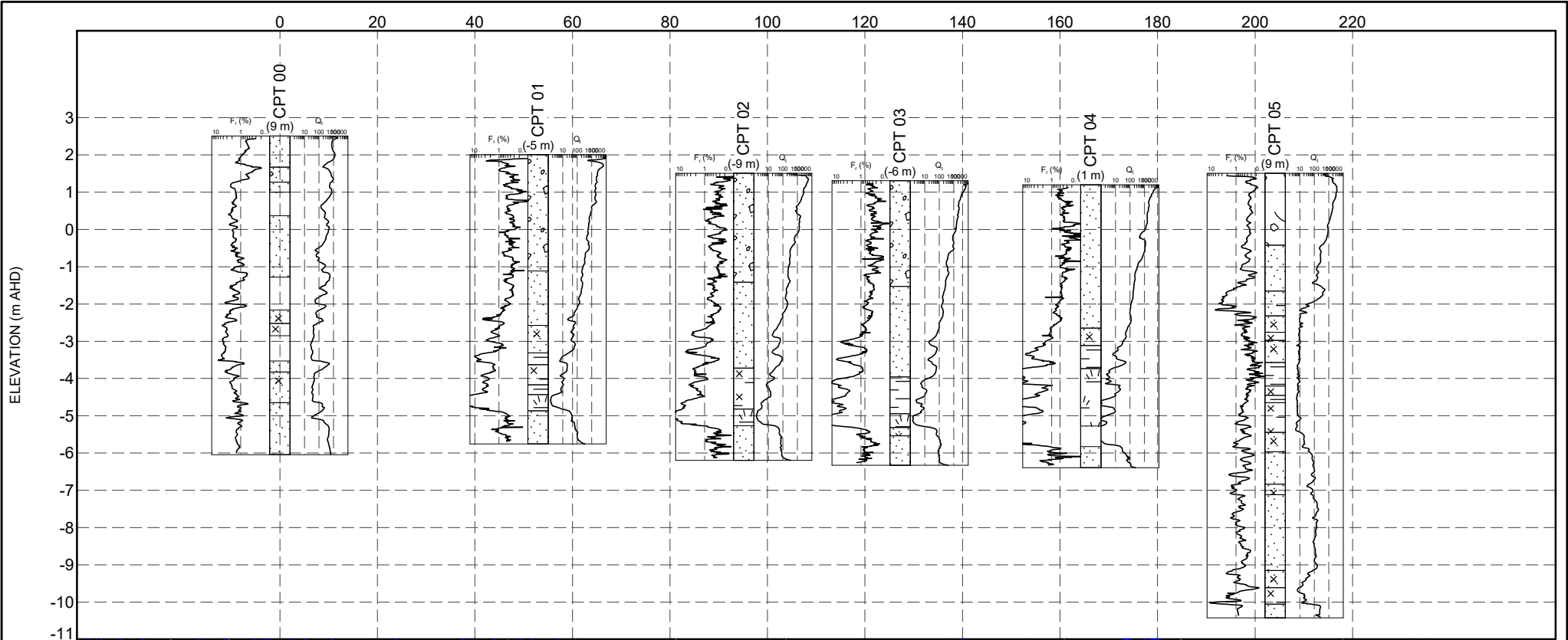
**CPT 05**


CLIENT : Client 1	AREA : Place	SHEET : 1 OF 1
ENGINEER : Engineer 1	EASTING : 262947.6 m	STATUS : 2
PROJECT : CPT Tool Project	NORTHING : 6266091.6 m	DATE : 23/12/2009
LOCATION : Somewhere	COORD. SYS. : MGA2020 Zone 56	
PROJECT No. : 4.05.0	ELEVATION : 1.51 m AHD	



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Log SCPTU I MEASURED EXTRAP A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFiles> 1/2/2021 23:25 10.01.00.11 Datgel CPT Tool gINT Add-In

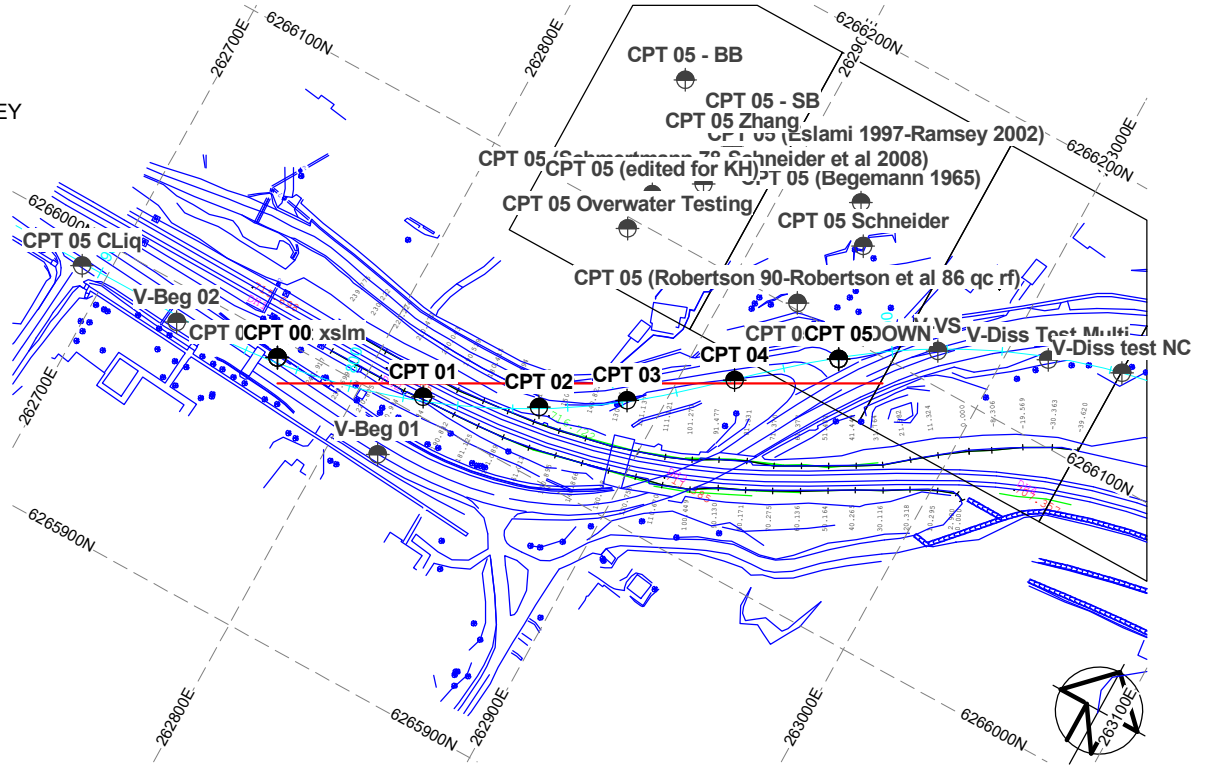
RIG : no anchoring	CHECKED BY : B. Smith	Dissipation Test	REMARK
CONE TYPE : C+F+W2	CHECKED DATE : 6/2/2009		A general remark.
CONE ID : S15CFIIP.D76	APPROVED BY : C. Doe		
OPERATOR : Operator A	APPROVED DATE : 6/2/2009		



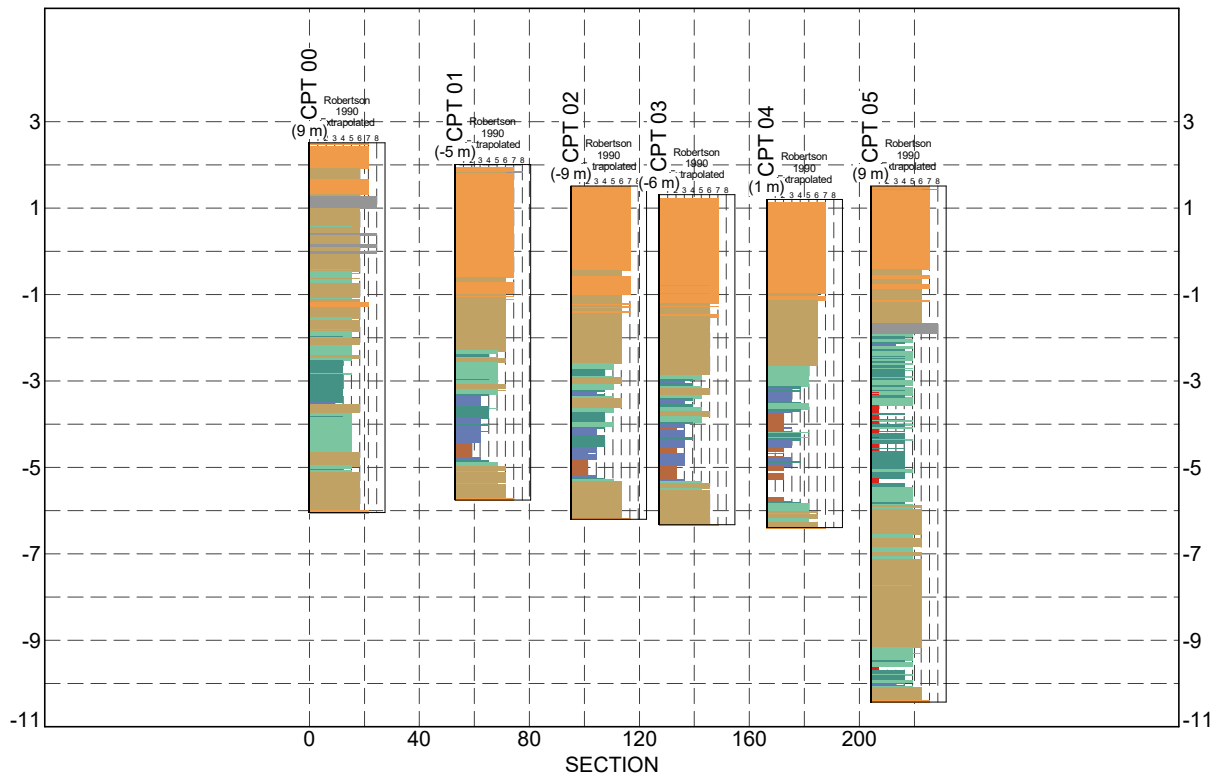
 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	TITLE		Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section	
	DRAWN	Datgel	DATE	1/2/2021
	CHECKED	Datgel	DATE	1/2/2021
	SCALE	H 1:1189 V 1:156		A4
PROJECT No	4.05.0	FIGURE No	72	



MAP KEY



PLAN



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT FENCE A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:27 10.01.00.11 Datgel CPT Tool gINT Add-In

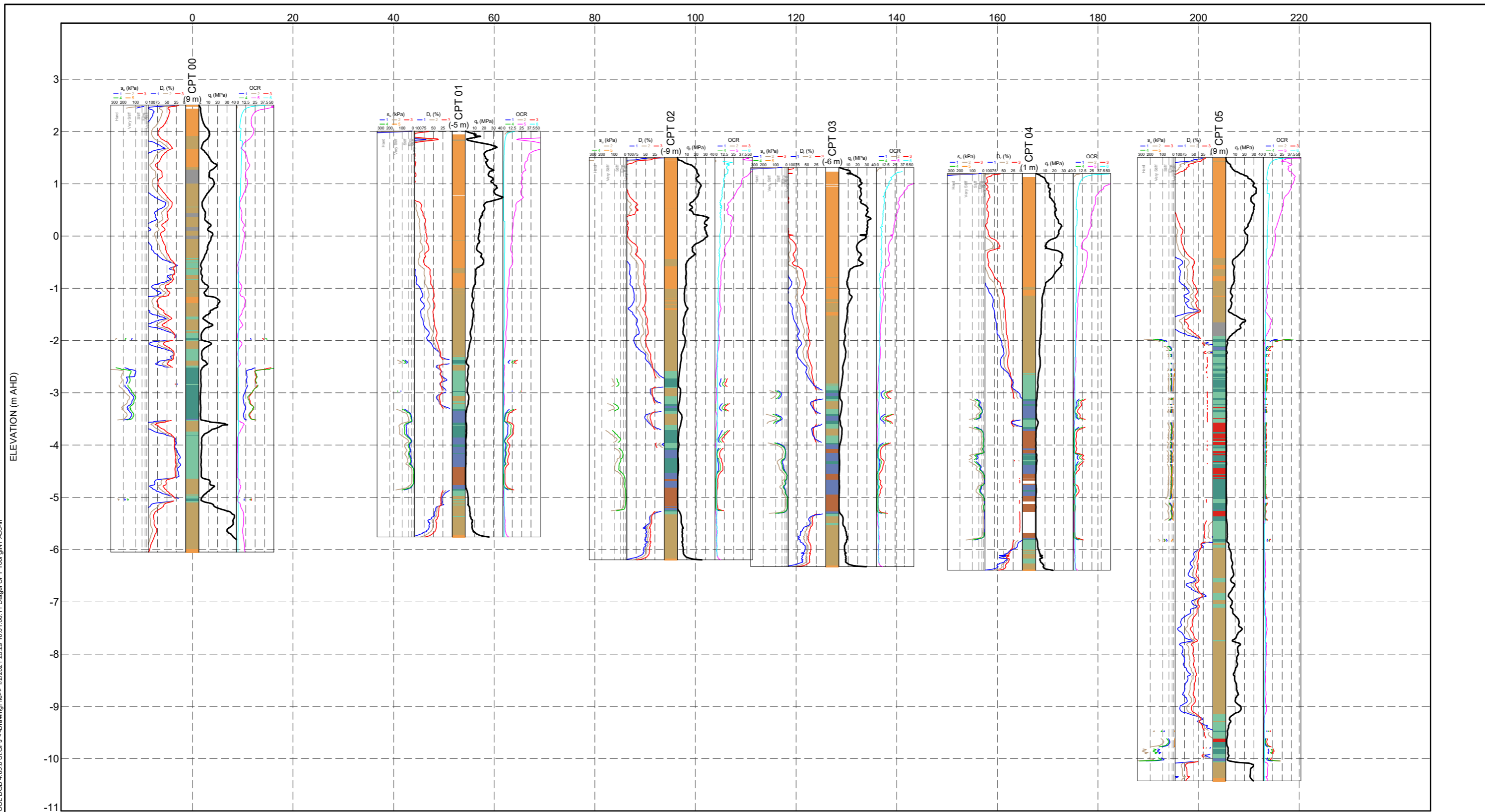
ELEVATION (m AHD)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Inferred Subsurface Section

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	H 1:2750 V 1:175		A4
PROJECT No	4.05.0	FIGURE No	73

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD 4.05.0 SLPJ <<DrawingFile>> 1/2/2021 22:29 10.01.00.11 Datgel CPT Tool gINT Add-In




**SBT METHOD: Robertson 1990**

- |  |   |  |
|--|---|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: green;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND           | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

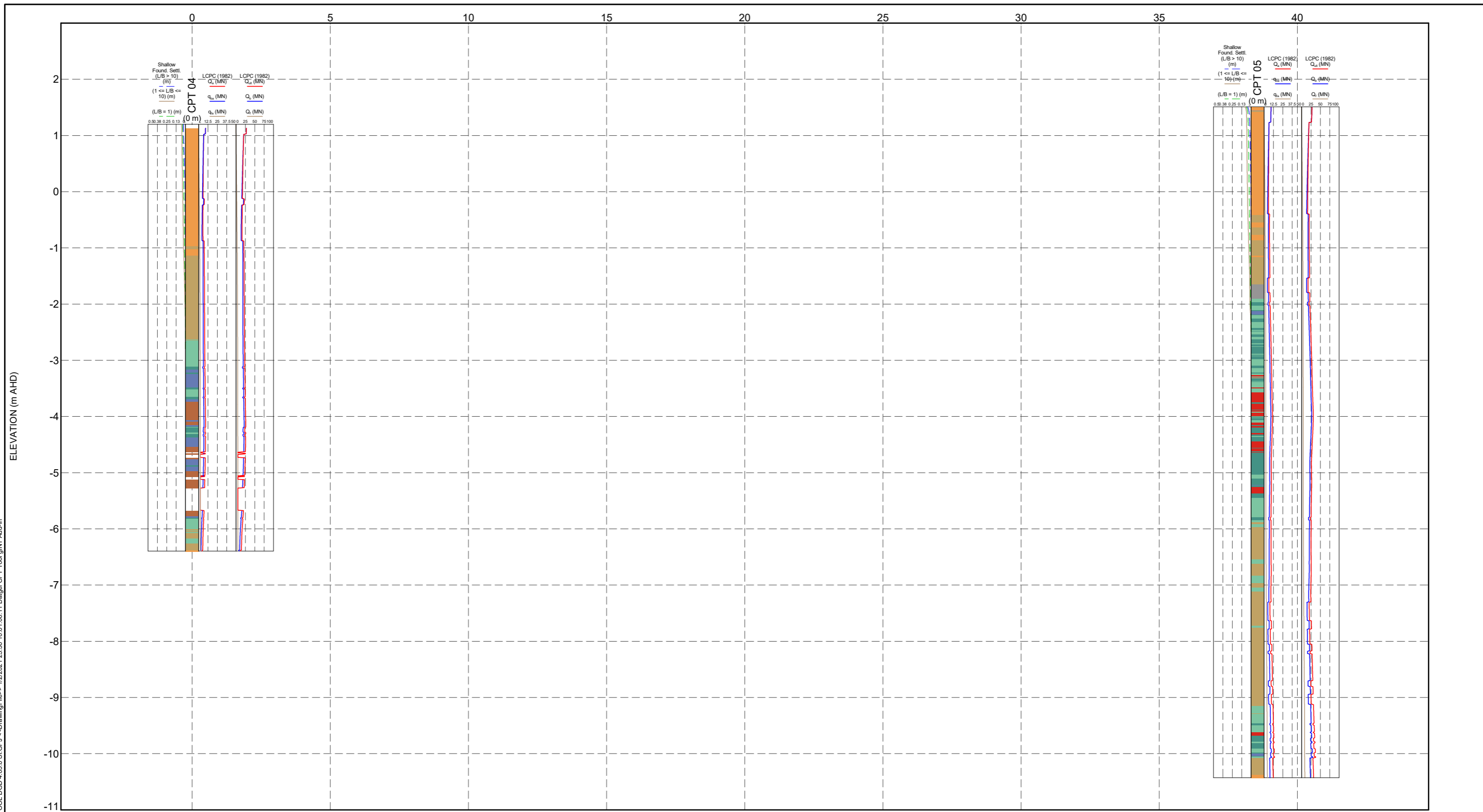
- Overconsolidation Ratio Method:
1. Mayne (1995); Demers & Leroueil (2002)
  2. Chen & Mayne (1996)
  3. Mayne (2005)
  4. Robertson (2009)
  5. Mayne (2005)
  6. Mayne (2007)

- Relative Density Method:
1. Baldi et al. (1986); Al-Homoud & Wehr (2006)
  2. Jamiolkowski et al. (2001)
  3. Kulhawy & Mayne (1990)

- Undrained Shear Strength Method:
1.  $s_u = (q_c - \sigma_{vc})/N_{qc}$ ; or  $(q_c - \sigma_{vc})/N_{qc}$
  2.  $s_u = q_u/N_{qu}$ ; or  $q_u/N_{qu}$
  3. Wroth (1984)
  4. Trak et al. (1980); Terzaghi et al. (1996)
  5. Robertson (2009),  $s_u = \Delta u/N$


 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel DATE 1/2/2021
			CHECKED Datgel DATE 1/2/2021
	SCALE H 1:746 V 1:72		A3
	PROJECT No 4.05.0		FIGURE No 74

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD 4.05.0 S.GPJ <<DrawingFile>> 1/2/2021 23:30 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |


 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel	DATE 1/2/2021	
			CHECKED Datgel	DATE 1/2/2021	
			SCALE H 1:136 V 1:67		A3
			PROJECT No 4.05.0	FIGURE No 75	

DATGEL CPT TOOL DGD.4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD.4.05.0 S1.GPJ <<DrawingFile>> 1/2/2021 23:30 10.01.00.11 Datgel CPT Tool gINT Add-In

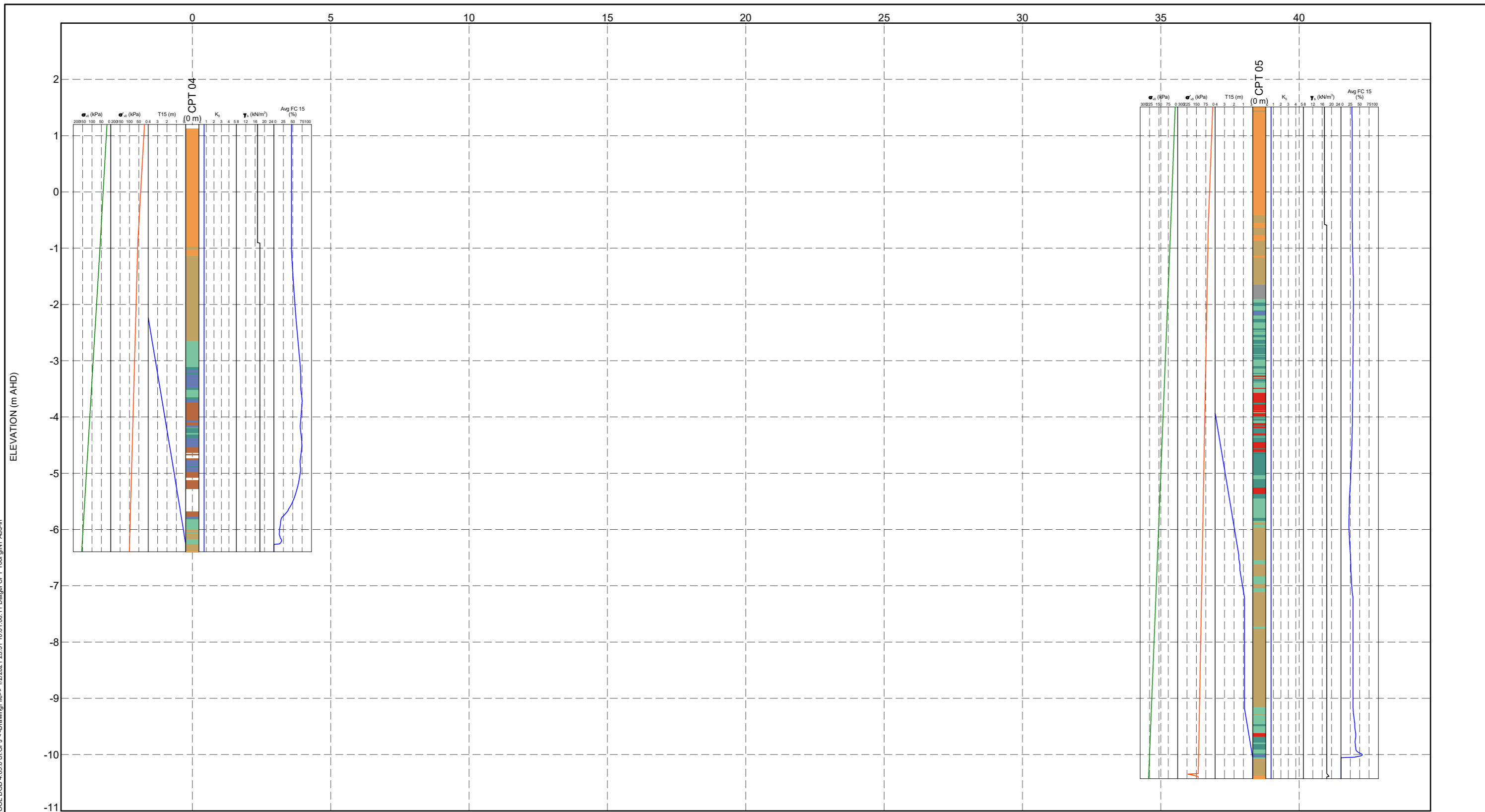


**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |


 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel	DATE 1/2/2021	
			CHECKED Datgel	DATE 1/2/2021	
	SCALE H 1:136 V 1:67			A3	
			PROJECT No 4.05.0	FIGURE No 76	

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD 4.05.0 S.L.G.P.J <<DrawingFile>> 1/2/2021 23:31 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section	DRAWN Datgel	DATE 1/2/2021	
			CHECKED Datgel	DATE 1/2/2021
			SCALE H 1:136 V 1:67	A3
			PROJECT No 4.05.0	FIGURE No 77

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD 4.05.0 S1.GPJ <<DrawingFile>> 1/2/2021 23:31 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: red; margin-right: 5px;"></span> 1 - Sensitive, fine grained</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: brown; margin-right: 5px;"></span> 2 - Organic soil - peats</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: blue; margin-right: 5px;"></span> 3 - Clays - CLAY to silty CLAY</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: darkgreen; margin-right: 5px;"></span> 4 - SILT mixtures - clayey SILT to silty CLAY</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: lightgreen; margin-right: 5px;"></span> 5 - SAND mixtures - silty SAND to sandy SILT</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: tan; margin-right: 5px;"></span> 6 - Sands - clean SAND to silty SAND</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: orange; margin-right: 5px;"></span> 7 - Gravelly SAND to SAND</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: grey; margin-right: 5px;"></span> 8 - Very stiff SAND to clayey SAND</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: lightgrey; margin-right: 5px;"></span> 9 - Very stiff fine grained</li> </ul> |
|--|--|--|

Relative Density Method:  
 1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
 2. Jamiolkowski et al. (2001)  
 3. Kulhawy & Mayne (1990)

 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section	DRAWN	Datgel	DATE	1/2/2021	
	PROJECT No 4.05.0	FIGURE No 78	CHECKED	Datgel	DATE	1/2/2021
	SCALE		H 1:136 V 1:67		A3	
	TITLE					
	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section					

DATGEL CPT TOOL DGD.4.05.0.LIB.GLB.Fence CPT FENCE A3L DATGEL CPT TOOL DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:32 10.01.00.11 Datgel CPT Tool gINT Add-In

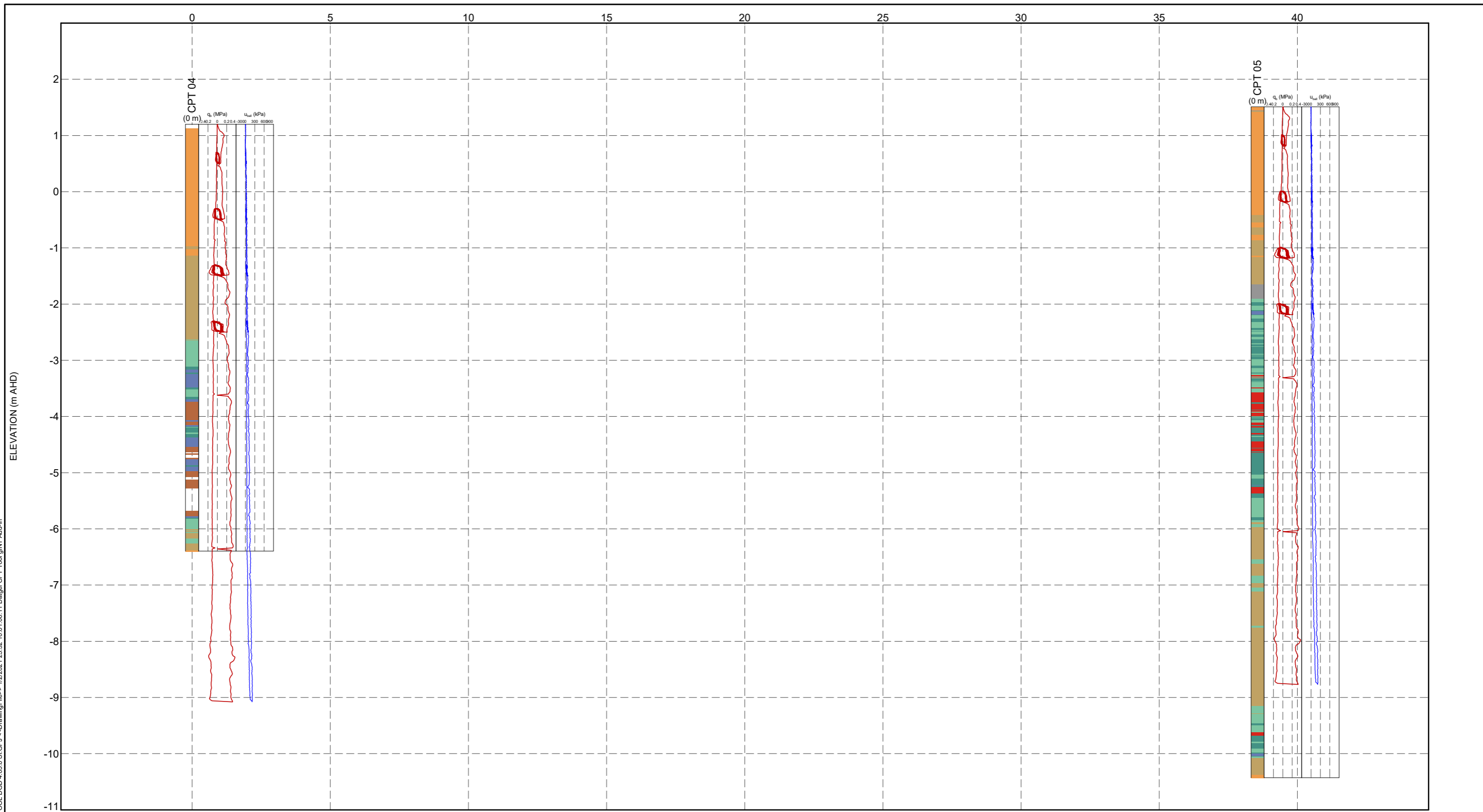


**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN	Datgel	DATE	1/2/2021
	CHECKED	Datgel	DATE	1/2/2021		
	SCALE	H 1:136 V 1:67		A3		
	PROJECT No	4.05.0	FIGURE No	79		

DATGEL CPT TOOL DGD.4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD.4.05.0 S.L.G.P.J <<DrawingFile>> 1/2/2021 23:32 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Inferred Subsurface Section

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	H 1:136 V 1:67		A3
PROJECT No	4.05.0	FIGURE No	80




DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT TOOL DGD 4.05.0 S.L.G.P.J <<DrawingFile>> 1/2/2021 23:33 10.01.00.11 Datgel CPT Tool gINT Add-In

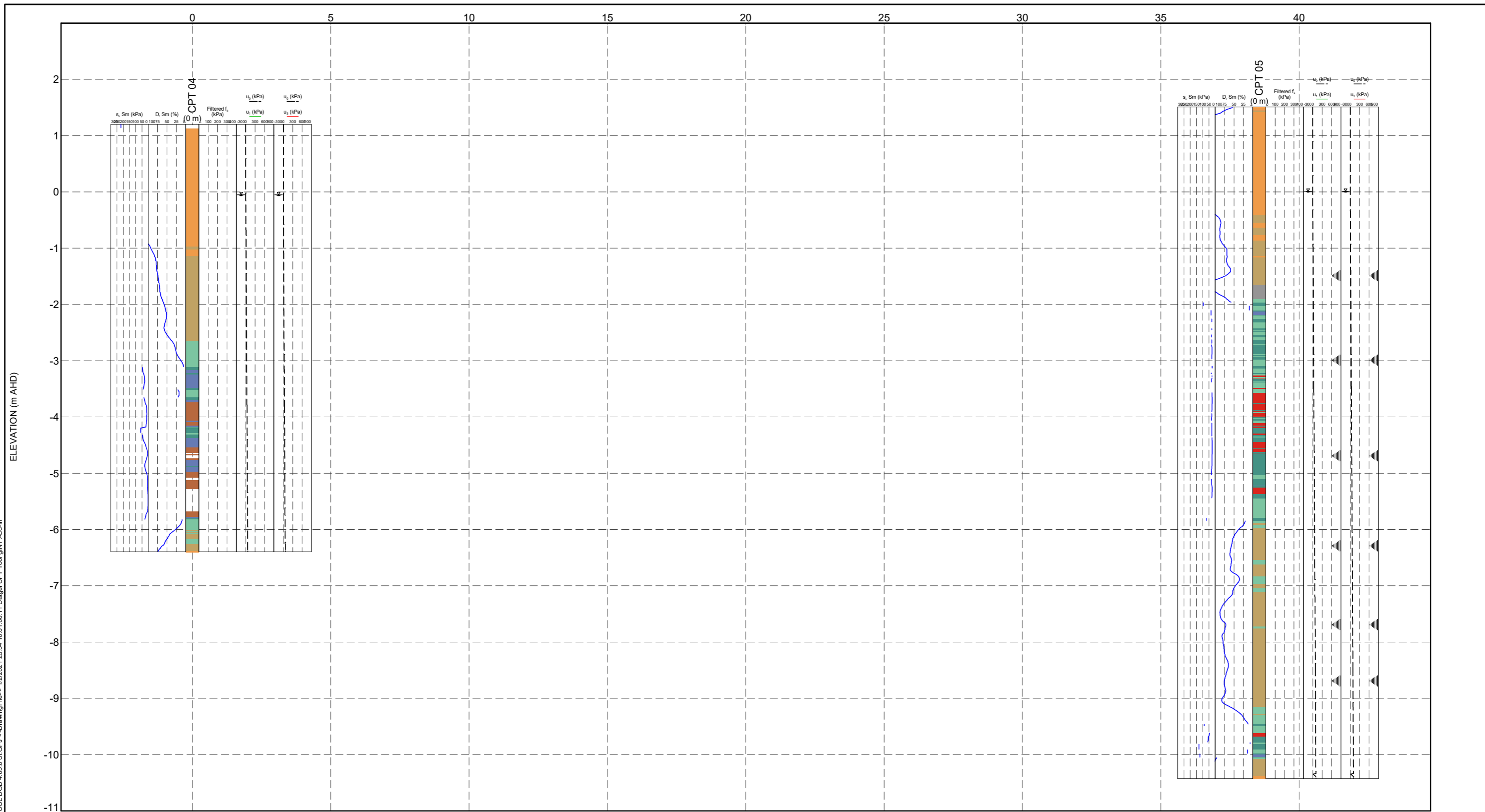


**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel	DATE 1/2/2021	
			CHECKED Datgel	DATE 1/2/2021	
	SCALE H 1:136 V 1:67			A3	
			PROJECT No 4.05.0	FIGURE No 81	

DATGEL CPT TOOL DGD.4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD.4.05.0 S1.GPJ <<DrawingFile>> 1/2/2021 23:34 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

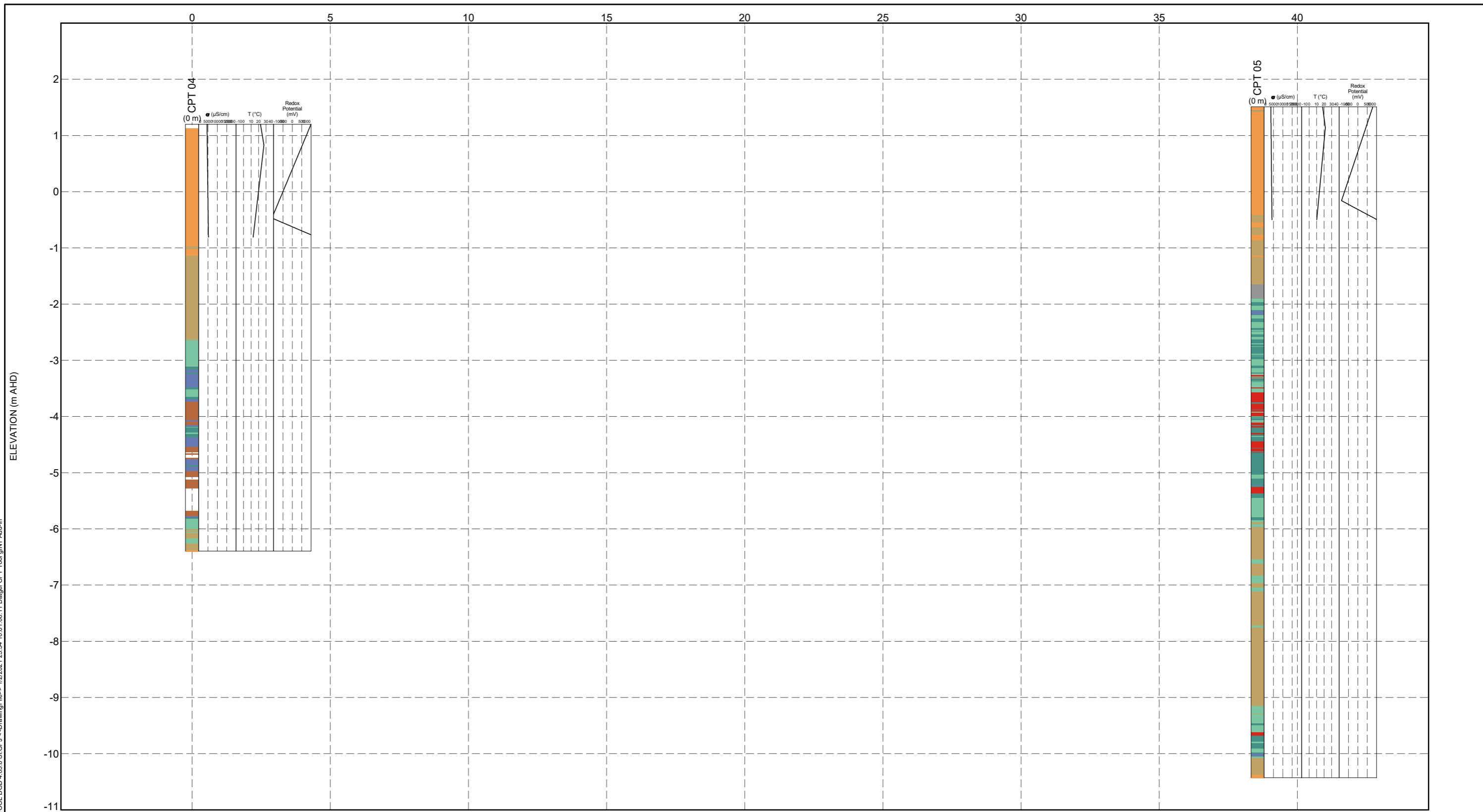
Relative Density Method:  
 1. Baldi et al. (1986); Al-Homoud & Wehr (2006)  
 2. Jamiolkowski et al. (2001)  
 3. Kulhawy & Mayne (1990)

Undrained Shear Strength Method:  
 1.  $s_u = (q_c - \sigma_{vc})/N_u$ ; or  $(q_c - \sigma_{vc})/N_s$   
 2.  $s_u = q_c/N_u$ ; or  $q_c/N_s$   
 3. Wroth (1984)  
 4. Trak et al. (1980), Terzaghi et al. (1996)  
 5. Robertson (2009),  $s_u = \Delta u/N$



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section	DRAWN	Datgel	DATE	1/2/2021
	CHECKED	Datgel	DATE	1/2/2021
	SCALE	H 1:136 V 1:67		A3
	PROJECT No	4.05.0	FIGURE No	82

DATGEL CPT TOOL DGD.4.05.0 LIB.GLB Fence CPT FENCE A3L DATGEL CPT TOOL DGD.4.05.0 S1.GPJ <<DrawingFile>> 1/2/2021 23:34 10.01.00.11 Datgel CPT Tool gINT Add-In

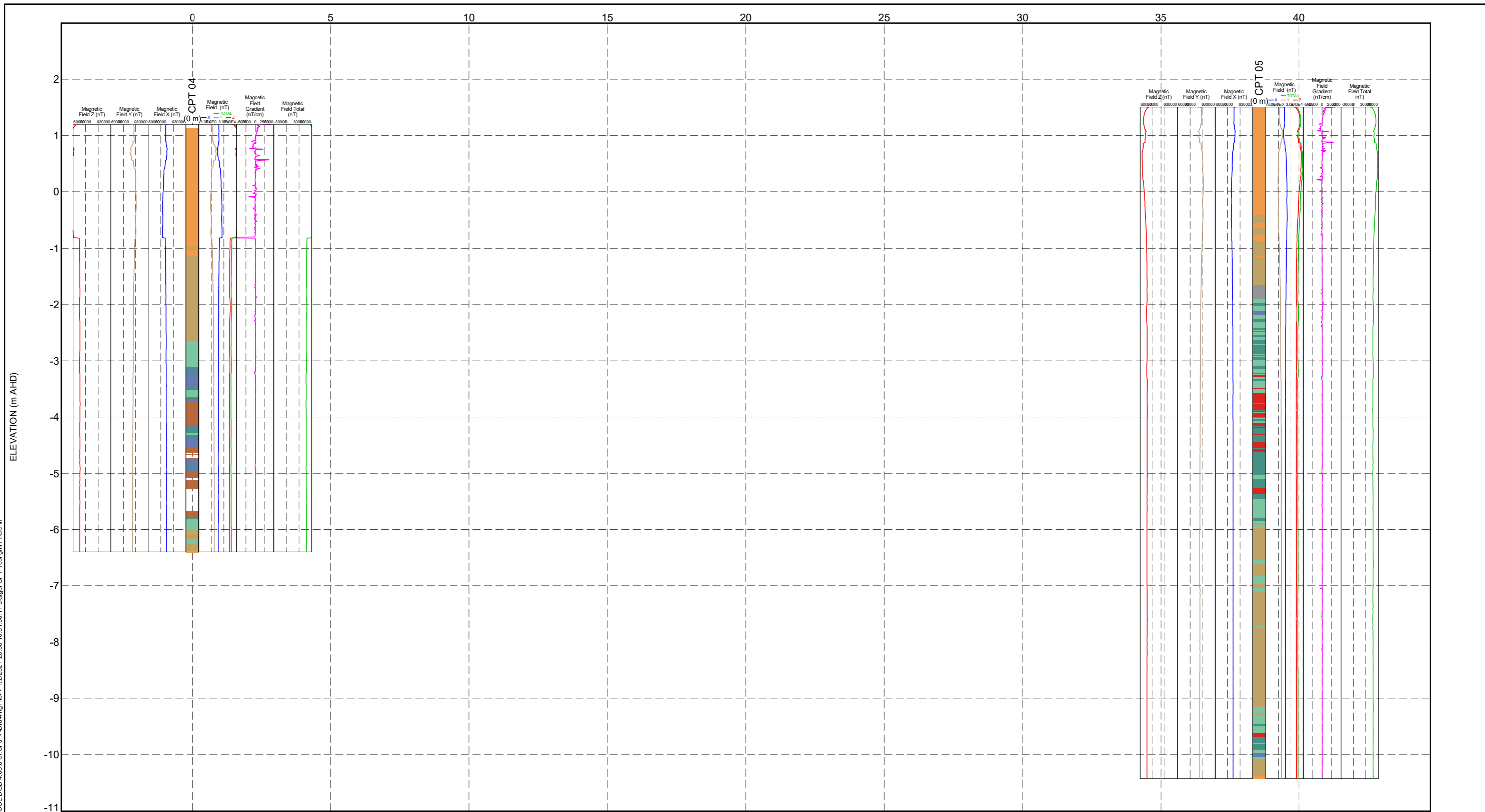


**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |


	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel	DATE 1/2/2021
			CHECKED Datgel	DATE 1/2/2021
			SCALE H 1:136 V 1:67	A3
			PROJECT No 4.05.0	FIGURE No 83

DATGEL CPT TOOL DGD.4.05.0.LIB.GLB.Fence CPT FENCE A3L.DATGEL.CPT TOOL DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:35 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |


 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel	DATE 1/2/2021	
			CHECKED Datgel	DATE 1/2/2021	
			SCALE H 1:136 V 1:67		A3
			PROJECT No 4.05.0	FIGURE No 84	

DATGEL CPT TOOL DGD.4.05.0 LIB.GLB Fence CPT FENCE A3L.DATGEL CPT TOOL DGD.4.05.0 S.L.G.P.J <<DrawingFile>> 1/2/2021 23:35 10.01.00.11 Datgel CPT Tool gINT Add-In



**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN	Datgel	DATE	1/2/2021	
			CHECKED	Datgel	DATE	1/2/2021	
			SCALE	H 1:136 V 1:67		FIGURE No	85
			PROJECT No	4.05.0		SCALE	A3

DATGEL CPT TOOL DGD.4.05.0.LIB.GLB.Fence CPT FENCE A3L.DATGEL.CPT TOOL DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:36 10.01.00.11 Datgel CPT Tool gINT Add-In

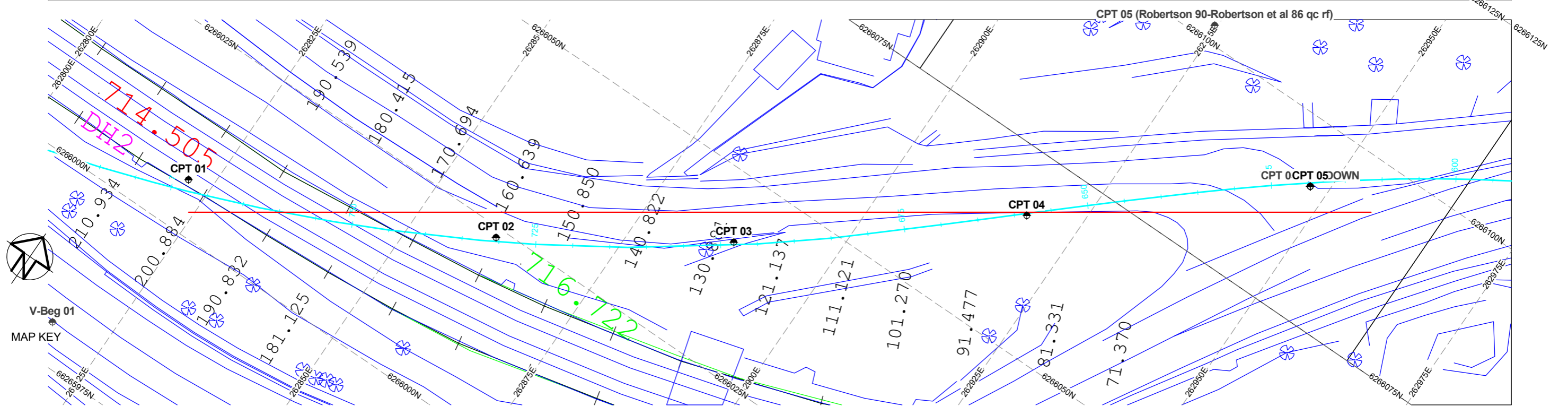
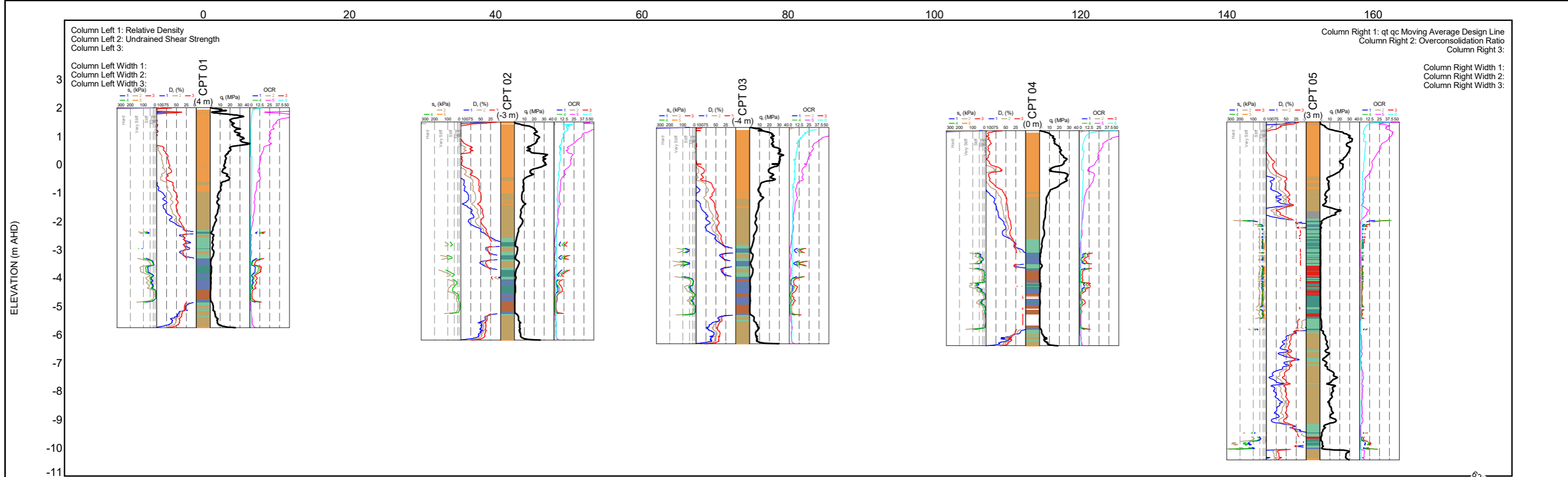


**SBT METHOD: Robertson 1990**

- |  |  |  |
|--|--|--|
| <span style="color: red;">■</span> 1 - Sensitive, fine grained     | <span style="color: teal;">■</span> 4 - SILT mixtures - clayey SILT to silty CLAY      | <span style="color: orange;">■</span> 7 - Gravelly SAND to SAND        |
| <span style="color: brown;">■</span> 2 - Organic soil - peats      | <span style="color: lightgreen;">■</span> 5 - SAND mixtures - silty SAND to sandy SILT | <span style="color: grey;">■</span> 8 - Very stiff SAND to clayey SAND |
| <span style="color: blue;">■</span> 3 - Clays - CLAY to silty CLAY | <span style="color: tan;">■</span> 6 - Sands - clean SAND to silty SAND                | <span style="color: lightgrey;">■</span> 9 - Very stiff fine grained   |

	Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section		DRAWN Datgel	DATE 1/2/2021
			CHECKED Datgel	DATE 1/2/2021
			SCALE H 1:136 V 1:67	A3
			PROJECT No 4.05.0	FIGURE No 86

DATGEL CPT TOOL DGD.4.05.0.LIB.GLB.Fence CPT TOOL DGD.4.05.0.SI.GPJ <DrawingFile> 1/2/2021 23:38 10.01.00.11 Datgel CPT Tool gINT Add-h



- SBT METHOD: Robertson 1990**
- 1 - Sensitive, fine grained
  - 2 - Organic soil - peats
  - 3 - Clays - CLAY to silty CLAY
  - 4 - SILT mixtures - clayey SILT to silty CLAY
  - 5 - SAND mixtures - silty SAND to sandy SILT
  - 6 - Sands - clean SAND to silty SAND
  - 7 - Gravelly SAND to SAND
  - 8 - Very stiff SAND to clayey SAND
  - 9 - Very stiff fine grained

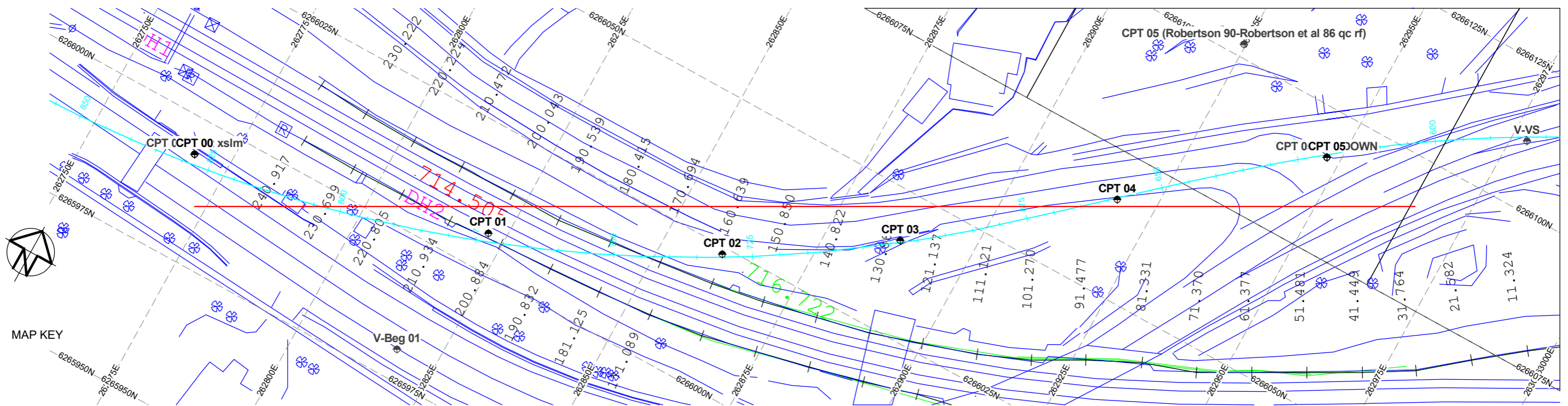
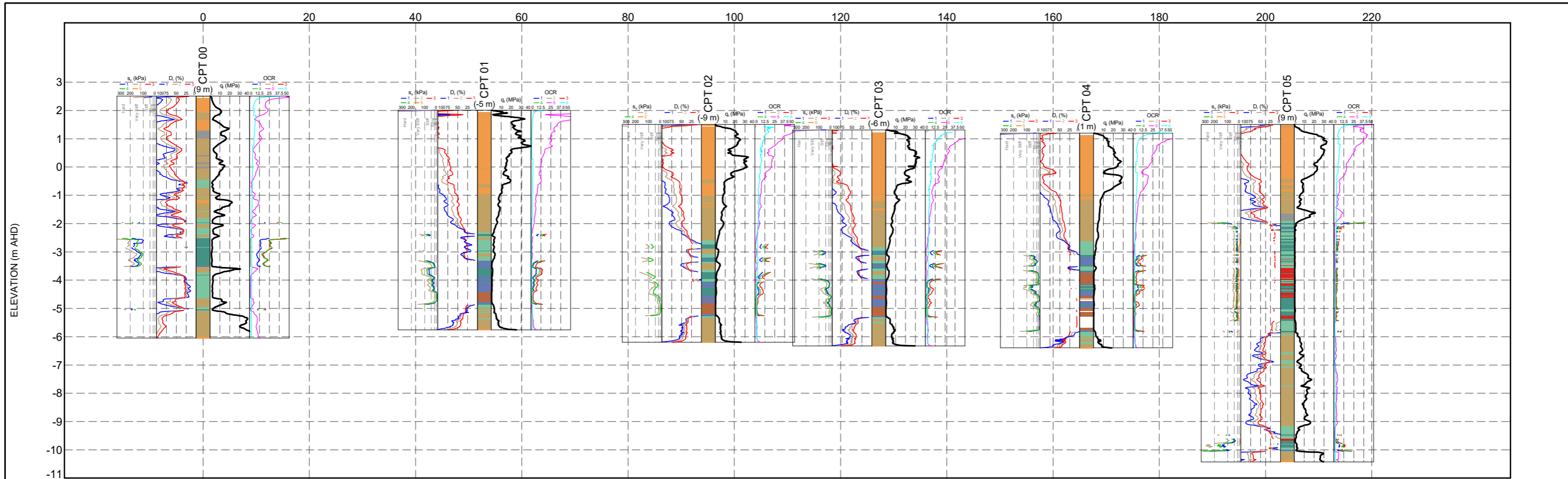
- Overconsolidation Ratio Method:**
1. Mayne (1995); Demers & Leroueil (2002)
  2. Chen & Mayne (1996)
  3. Mayne (2005)
  4. Robertson (2009)
  5. Mayne (2005)
  6. Mayne (2007)

- Relative Density Method:**
1. Baldi et al. (1986); Al-Homoud & Wehr (2006)
  2. Jamiolkowski et al. (2001)
  3. Kulhawy & Mayne (1990)

- Undrained Shear Strength Method:**
1.  $s_u = (q_c - \sigma_{vm})/N_{qc}$ ; or  $(q_c - \sigma_{vm})/N_{qc}$
  2.  $s_u = q/N_{qc}$ ; or  $q/N_{qc}$
  3. Wroth (1984)
  4. Trak et al. (1980); Terzaghi et al. (1996)
  5. Robertson (2009),  $s_u = \Delta u/N$

<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	TITLE		Client 1	DRAWN	Datgel	DATE	1/2/2021	
	Engineer 1		Somewhere	CHECKED	Datgel	DATE	1/2/2021	
	CPT Tool Project		Inferred Subsurface Section	SCALE	H 1:542 V 1:140		A3	
				PROJECT No	4.05.0		FIGURE No	87

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Fence CPT FENCE MAP A3L DATGEL CPT TOOL DGD 4.05.0 SIG.PU <<DrawingFile>> 1/22/2021 23:40:10.01.00.11 Datgel CPT Tool.gINT Add-In



- SBT METHOD: Robertson 1990**
- 1 - Sensitive, fine grained
  - 2 - Organic soil - peats
  - 3 - Clays - CLAY to silty CLAY
  - 4 - SILT mixtures - clayey SILT to silty CLAY
  - 5 - SAND mixtures - silty SAND to sandy SILT
  - 6 - Sands - clean SAND to silty SAND
  - 7 - Gravelly SAND to SAND
  - 8 - Very stiff SAND to clayey SAND
  - 9 - Very stiff fine grained

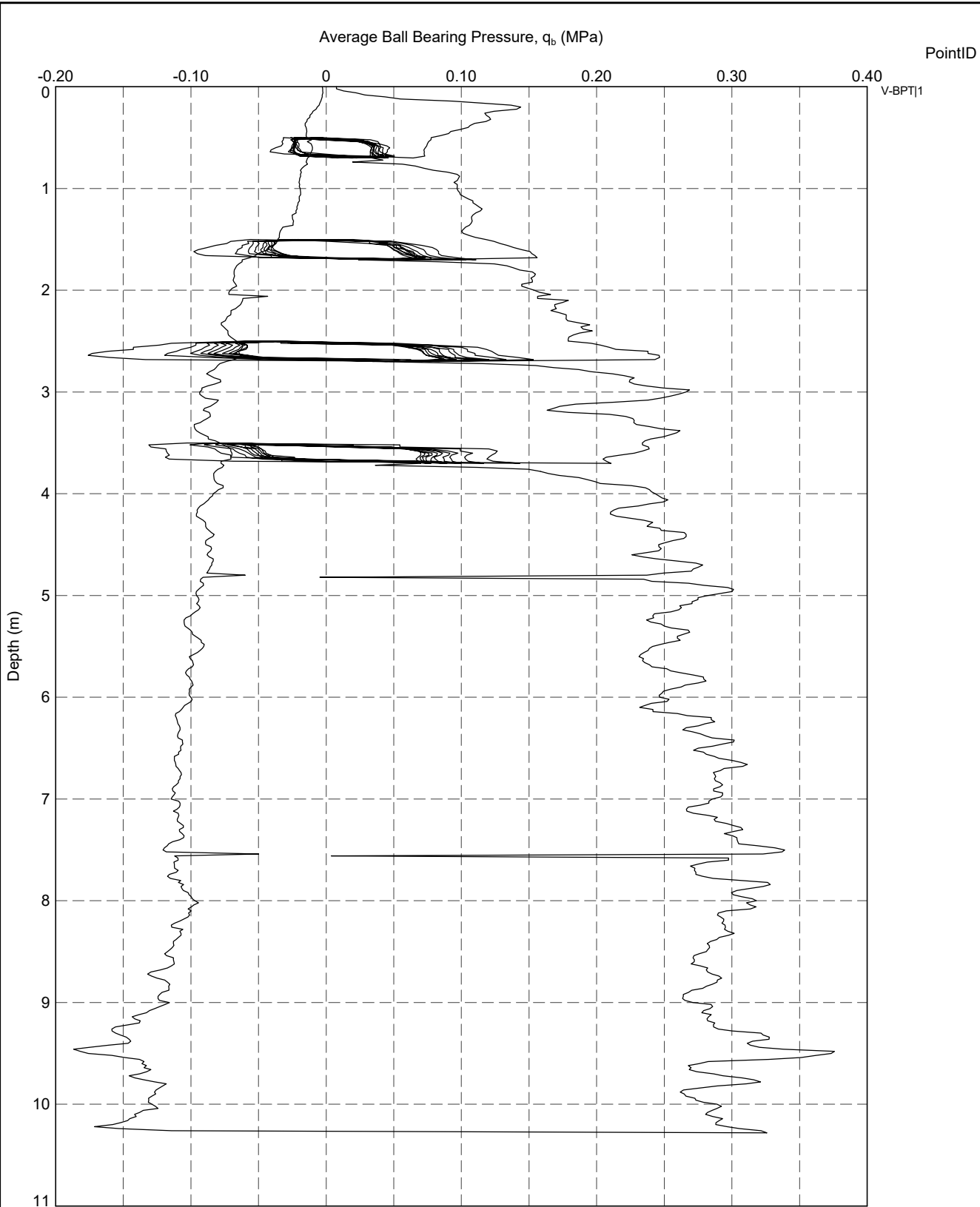
- Overconsolidation Ratio Method:**
1. Mayne (1995); Demers & Leroueil (2002)
  2. Chen & Mayne (1996)
  3. Mayne (2005)
  4. Robertson (2009)
  5. Mayne (2005)
  6. Mayne (2007)

- Relative Density Method:**
1. Baldi et al. (1986); Al-Homoud & Wehr (2006)
  2. Jamiolkowski et al. (2001)
  3. Kulhawy & Mayne (1990)

- Undrained Shear Strength Method:**
1.  $s_u = (q_c - \sigma_v) / N_c$ ; or  $(q_c - \sigma_v) / N_c$
  2.  $s_u = q / N_c$ ; or  $q / N_c$
  3. Wroth (1984)
  4. Trak et al. (1980); Terzaghi et al. (1996)
  5. Robertson (2009),  $s_u = \Delta u / N$

<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Inferred Subsurface Section</p>		<p>DRAWN</p> <p>Datgel</p>	<p>DATE</p> <p>1/2/2021</p>
			<p>CHECKED</p> <p>Datgel</p>	<p>DATE</p> <p>1/2/2021</p>
			<p>SCALE</p> <p>H 1:746 V 1:140</p>	<p>A3</p>
			<p>PROJECT No</p> <p>4.05.0</p>	<p>FIGURE No</p> <p>88</p>





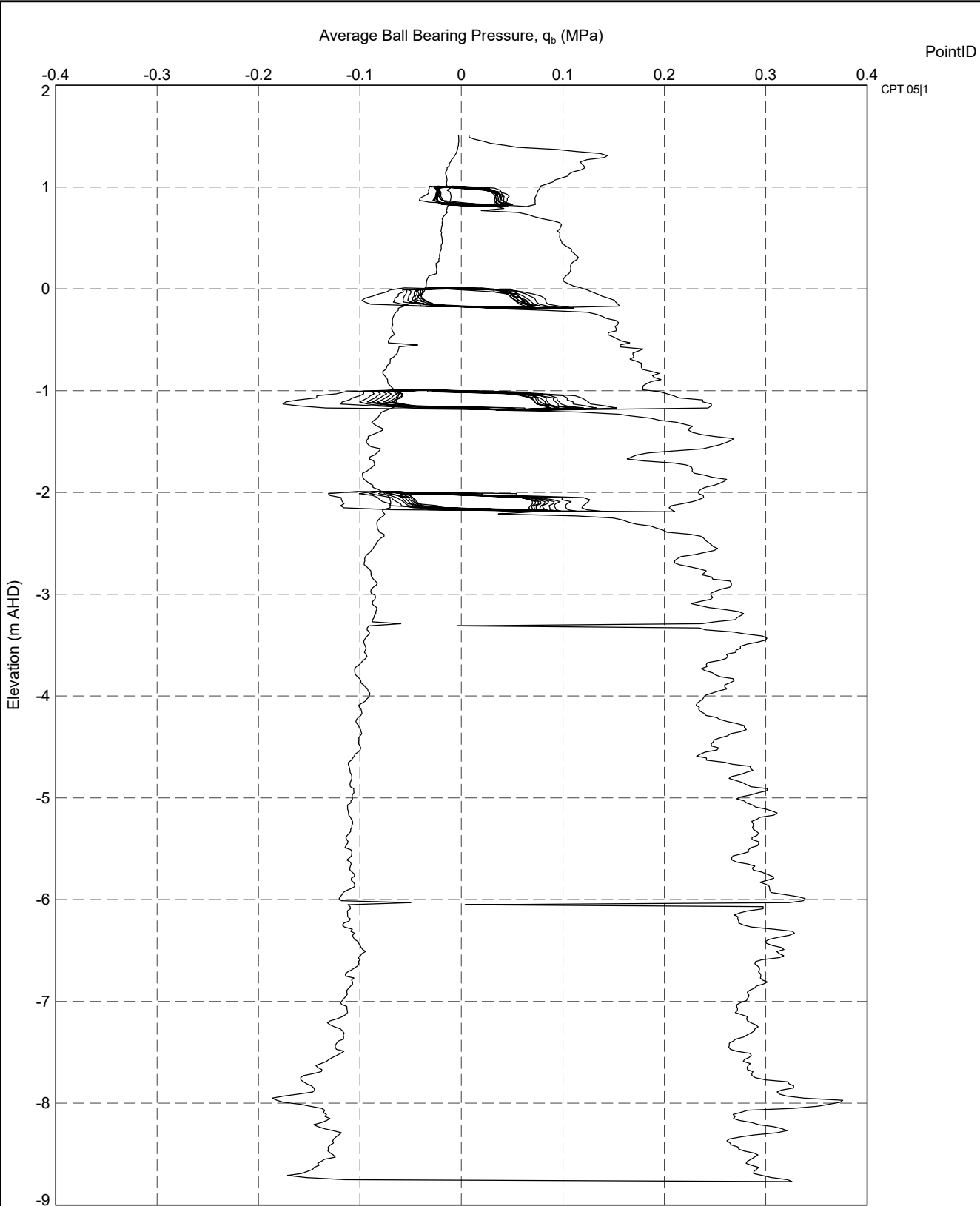
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph BPT QB DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 S1.GPJ <-DrawingFile> 1/2/2021 23:41 10.01.11 Datgel CPT Tool.gINT Add-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Ball Bearing Pressure versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	89



PointID  
CPT 05|1

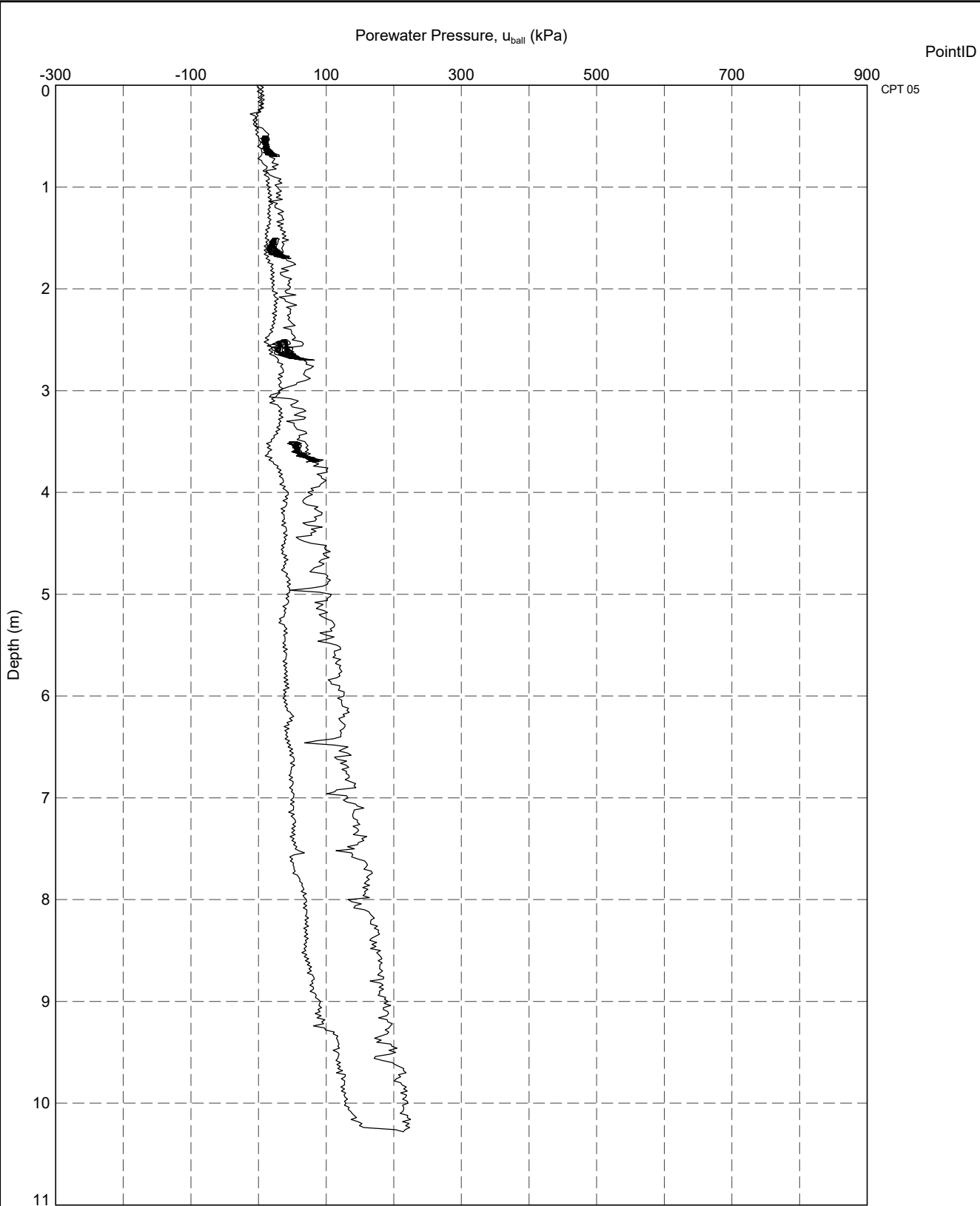
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph BPT QB RL AAP DATGEL CPT TOOL DGD 4.05.0 SI GPJ <<DrawingFile>> 1/22/2021 23:41 10.01.00.11 Datgel CPT Tool g|NT Add-in



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Ball Bearing Pressure versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	90



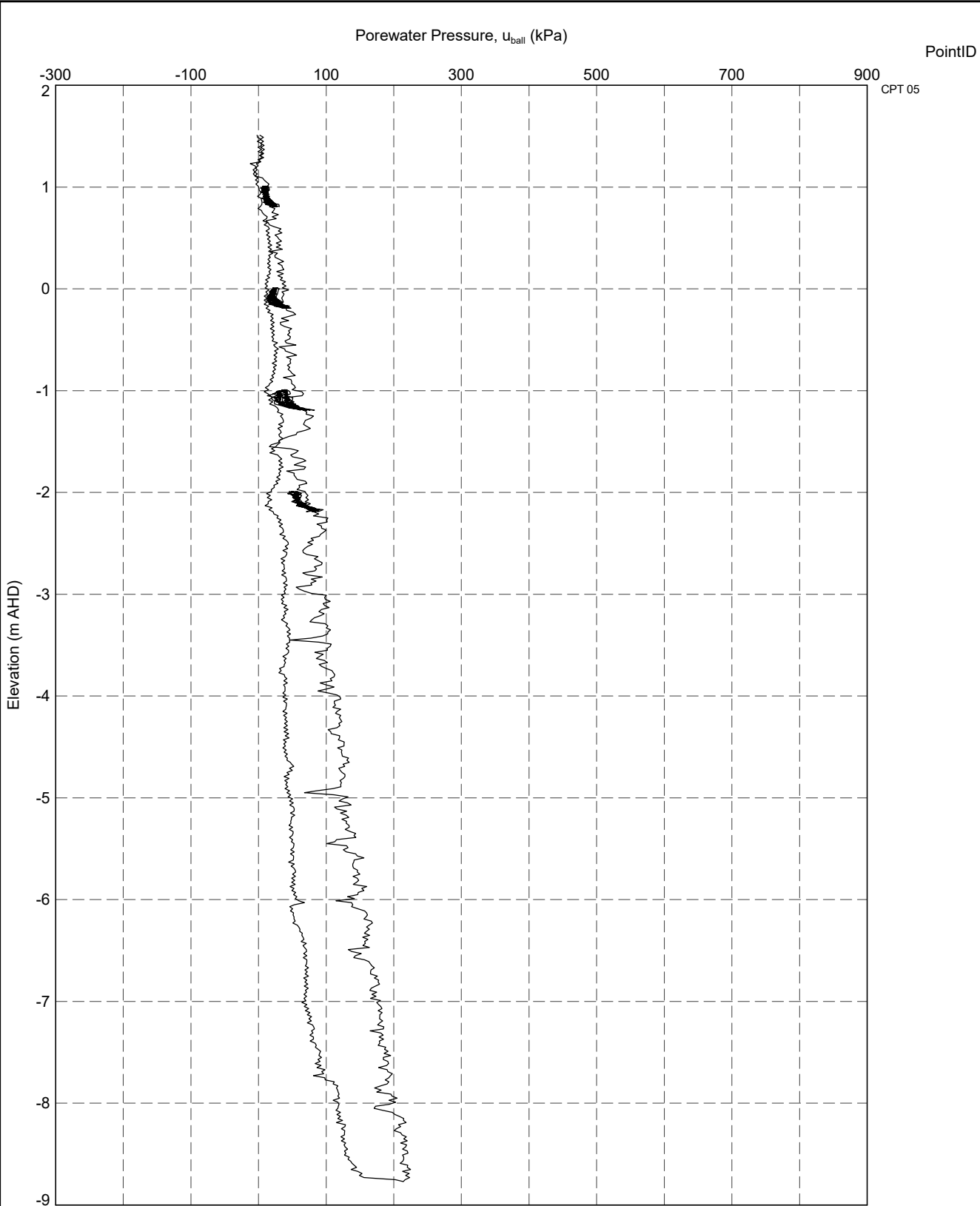
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.BPT UBALL DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:41:10.01.00.11 Datgel CPT Tool glNT AdId-In



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Ball Bearing Porewater Pressure versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	91



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph BPT UBALL RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:41 10.01.00.11 Datgel CPT Tool gINT Add-In



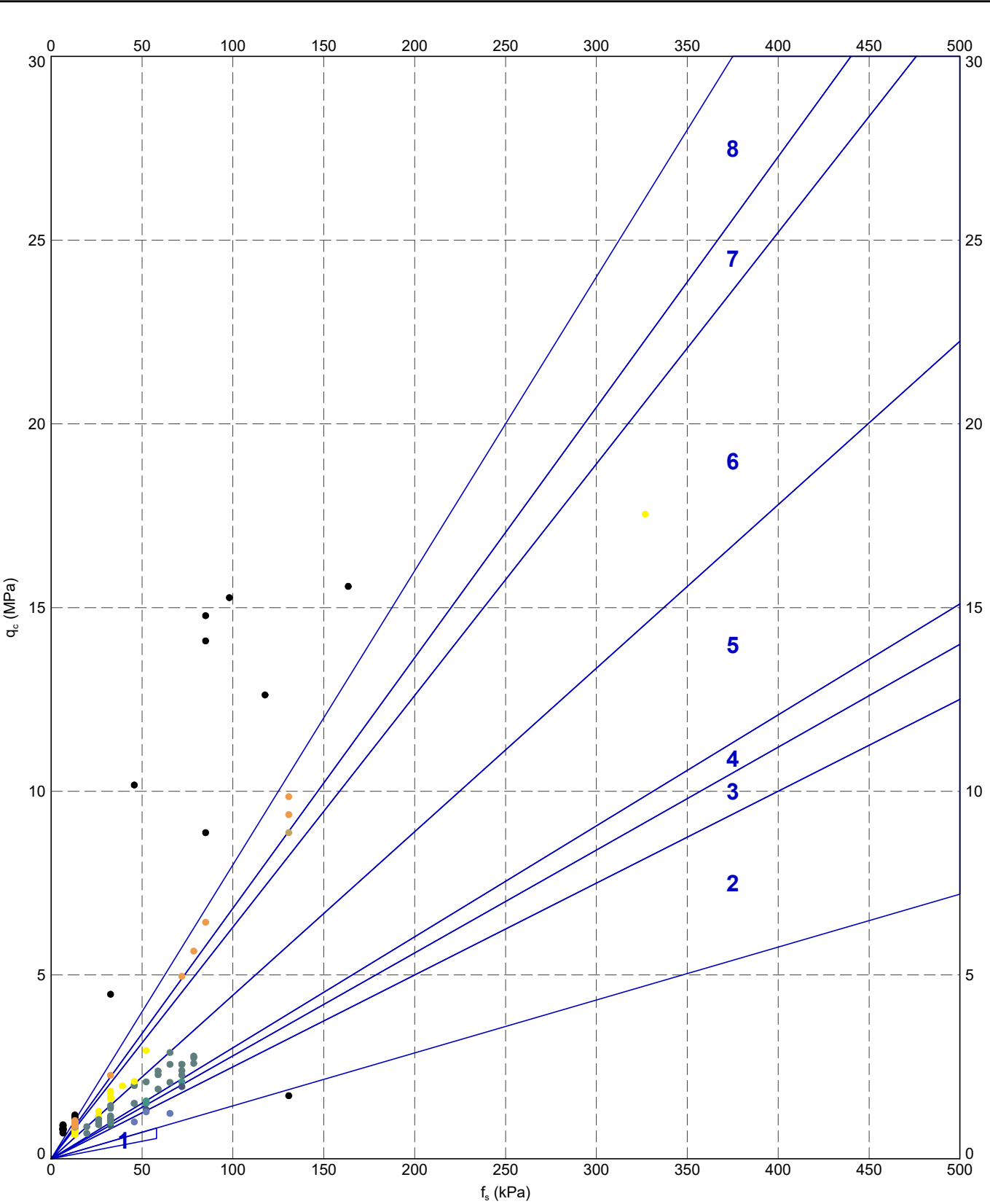
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Ball Bearing Porewater Pressure vs Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	92

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.BEGEMANN 1965 A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ.<<DrawingFile>> 1/2/2021 23:41 10.01.00.11 Datgel.CPT.Tool.gINT Add-In



METHOD: Begemann 1965

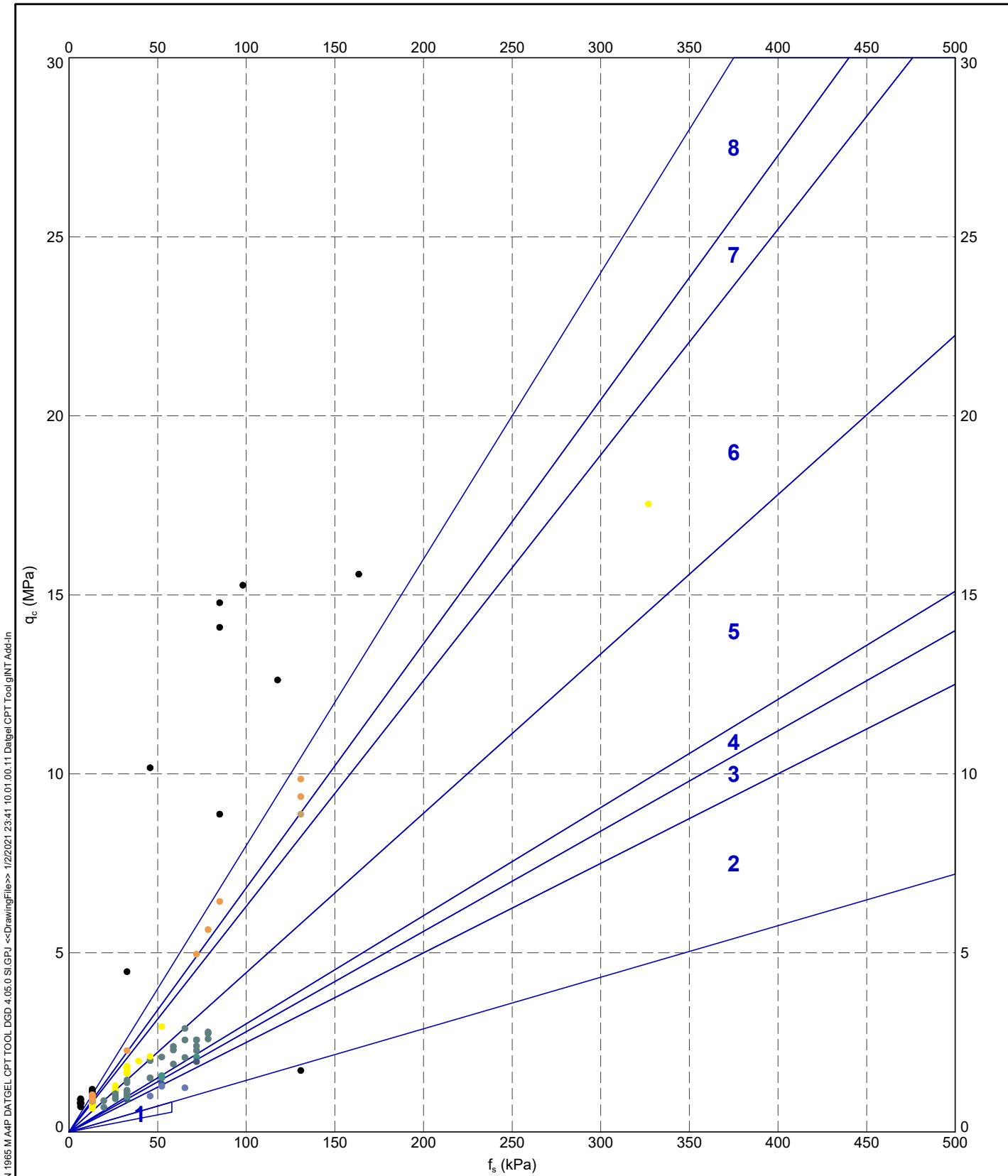
- 1 - PEAT
- 4 - LOAM
- 7 - Fine SAND
- 2 - CLAY
- 5 - SILT - CLAY - SAND
- 8 - Coarse SAND (with GRAVEL)
- 3 - CLAY - LOAM
- 6 - Silty SAND



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Begemann 1965  $q_c$  vs.  $f_s$  - V-Beg 01

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	93



DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.BEGEMANN 1965 M 4.4P DATGEL.CPT.TOOL.DGD 4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:41 10.01.00.11 Datgel.CPT.Tool.gINT.Acid.in

**METHOD: Begemann 1965**

- 1 - PEAT
- 4 - LOAM
- 7 - Fine SAND
- 2 - CLAY
- 5 - SILT - CLAY - SAND
- 8 - Coarse SAND (with GRAVEL)
- 3 - CLAY - LOAM
- 6 - Silty SAND

PointIDs: ● V-Beg 01

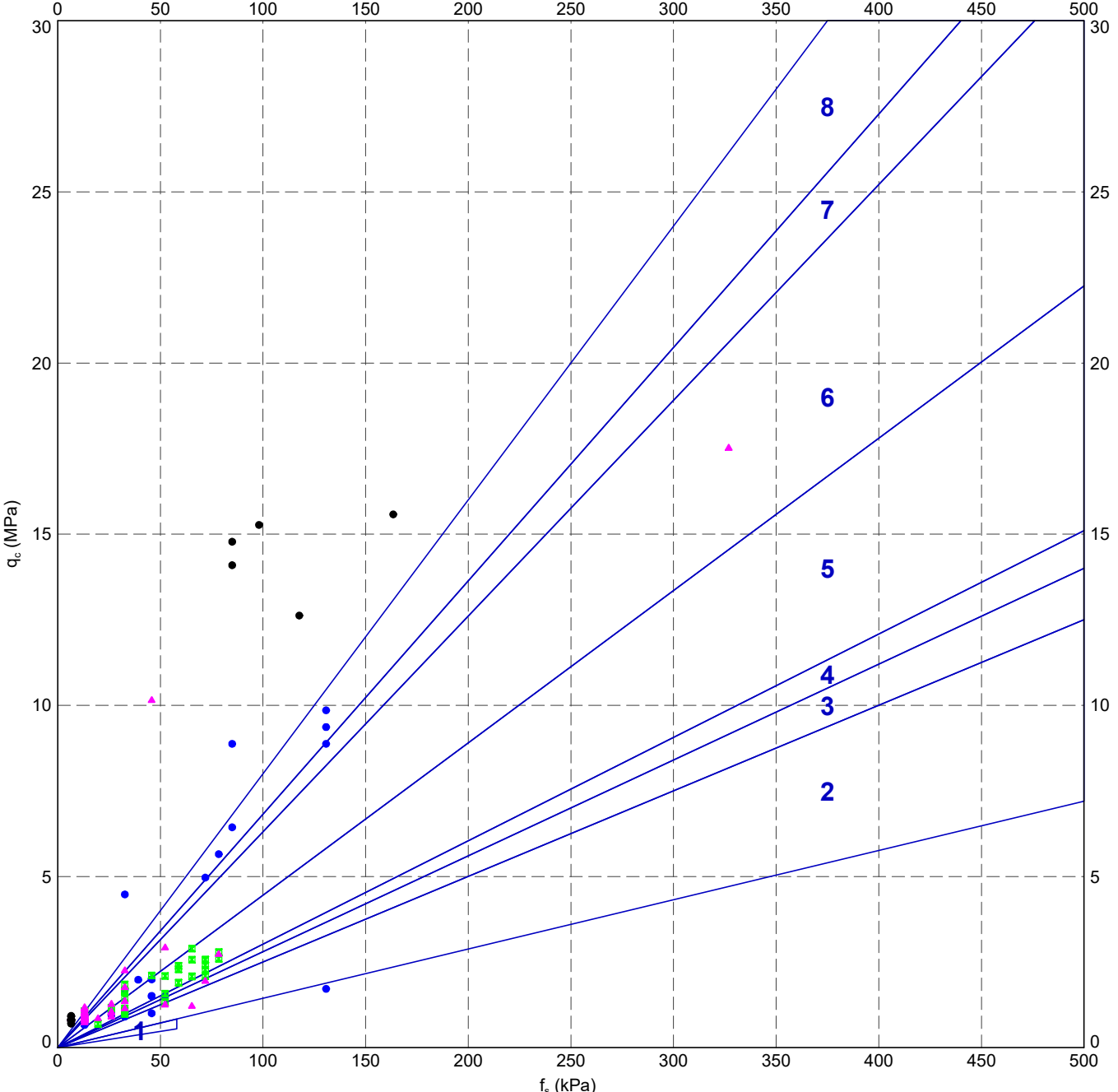


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Begemann 1965  $q_c$  vs.  $f_s$

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	94

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.BEGEMANN 1965 U A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:41:10.01.00.11 Datgel CPT Tool gINT Acad-In



**METHOD: Begemann 1965**

- 1 - PEAT
- 2 - CLAY
- 3 - CLAY - LOAM
- 4 - LOAM
- 5 - SILT - CLAY - SAND
- 6 - Silty SAND
- 7 - Fine SAND
- 8 - Coarse SAND (with GRAVEL)

**Geology Unit Legend**

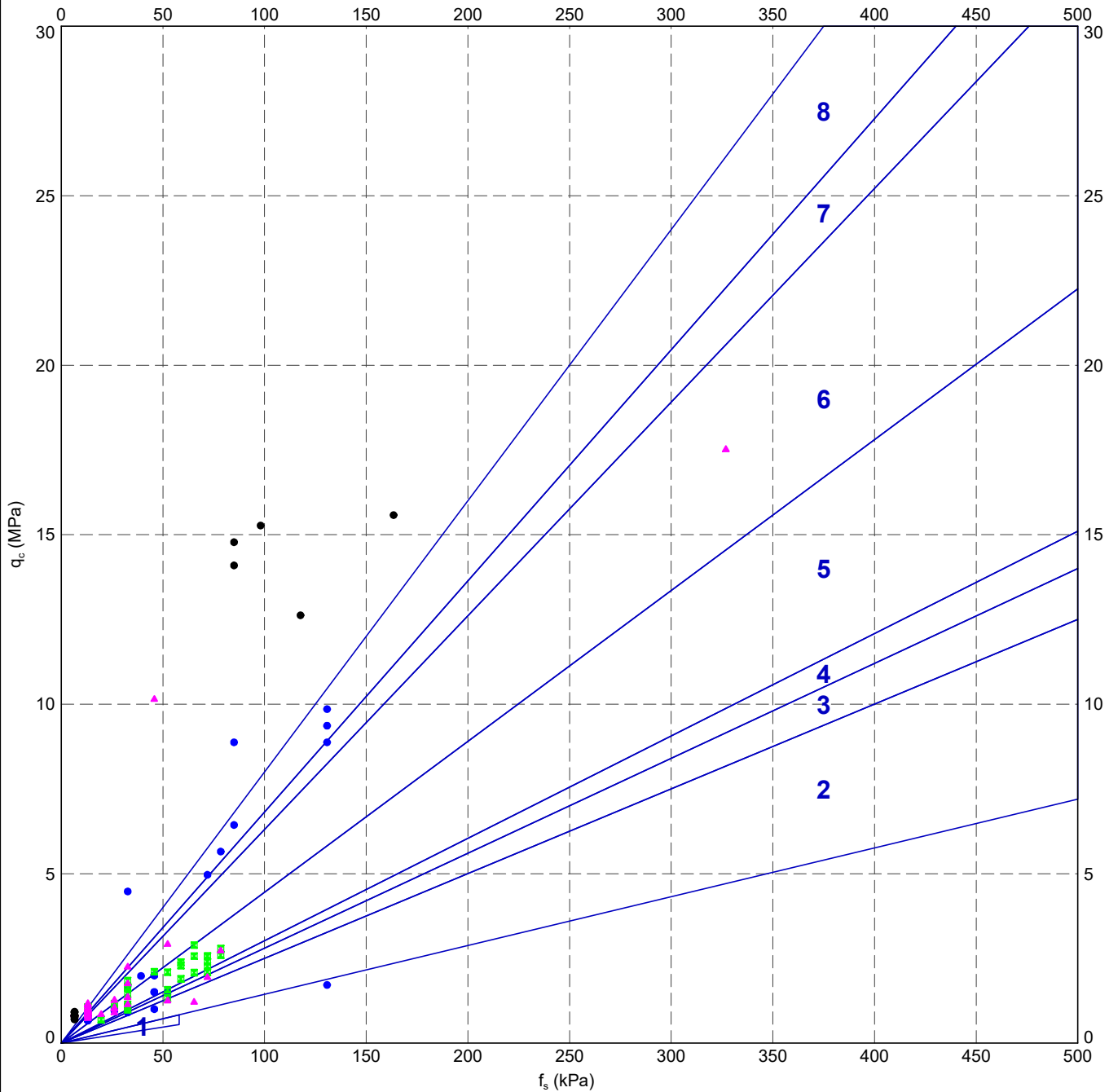
- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- +
- ⊕ F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I



**TITLE**  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Begemann 1965  $q_c$  vs.  $f_s$  - V-Beg 01

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	95

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.BEGEMANN 1965 UM A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:41 10.01.00.11 Datgel CPT Tool.gINT Add-In



**METHOD: Begemann 1965**

- |                 |                        |                               |
|-----------------|------------------------|-------------------------------|
| 1 - PEAT        | 4 - LOAM               | 7 - Fine SAND                 |
| 2 - CLAY        | 5 - SILT - CLAY - SAND | 8 - Coarse SAND (with GRAVEL) |
| 3 - CLAY - LOAM | 6 - Silty SAND         |                               |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: V-Beg 01



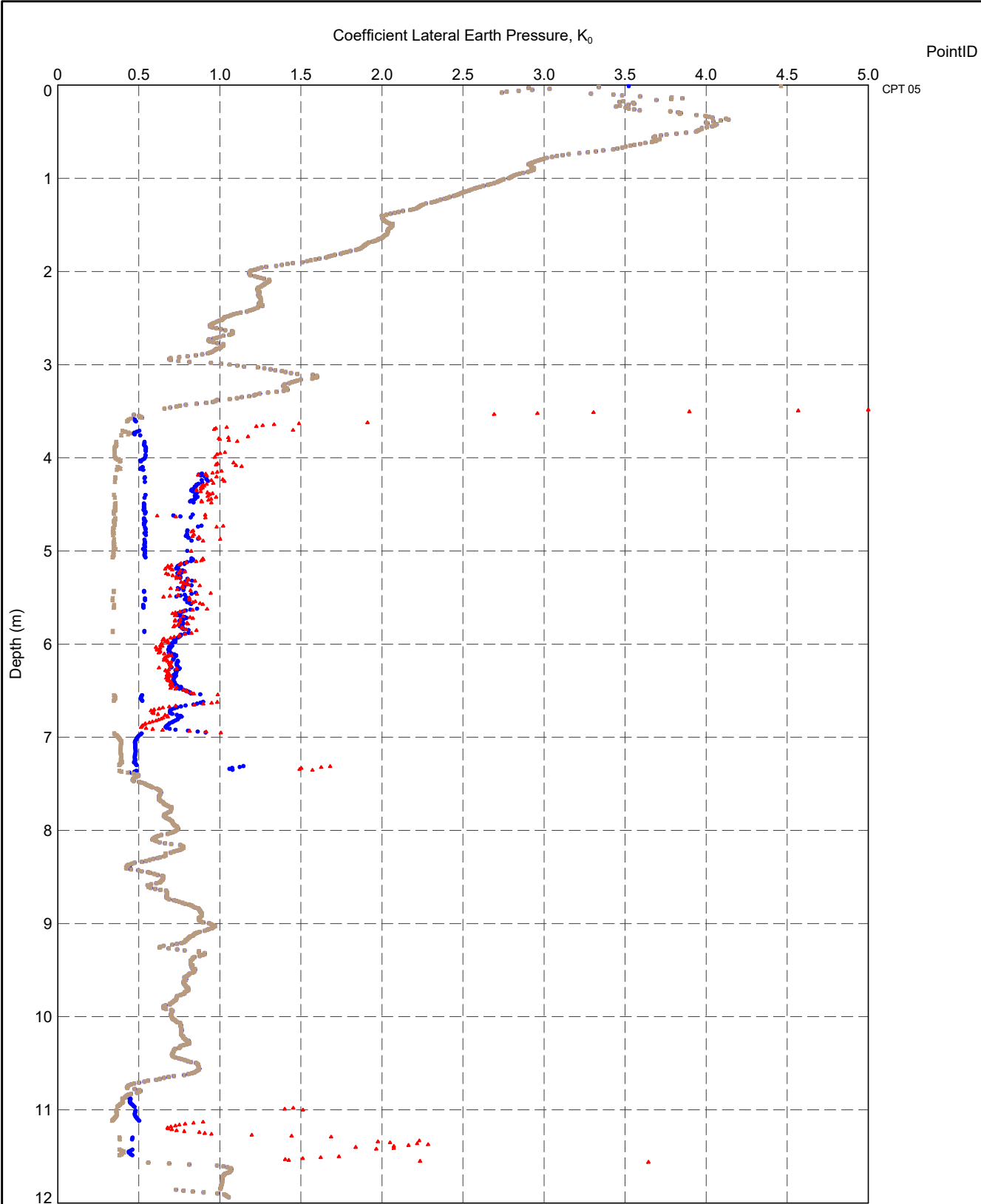
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Begemann 1965  $q_c$  vs.  $f_s$

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	96



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT COEFF LATERAL EARTH PRESS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0(SI)(GPJ <<DrawingFile>> 1/2/2021 23:42:10.01.00.11 Datgel CPT Tool glINT Add-In



PointID  
CPT 05

Method:  
 ● Mayne (2007)  
 ■ Mayne (2007)  
 ▲ Kulhawy & Mayne (1990)

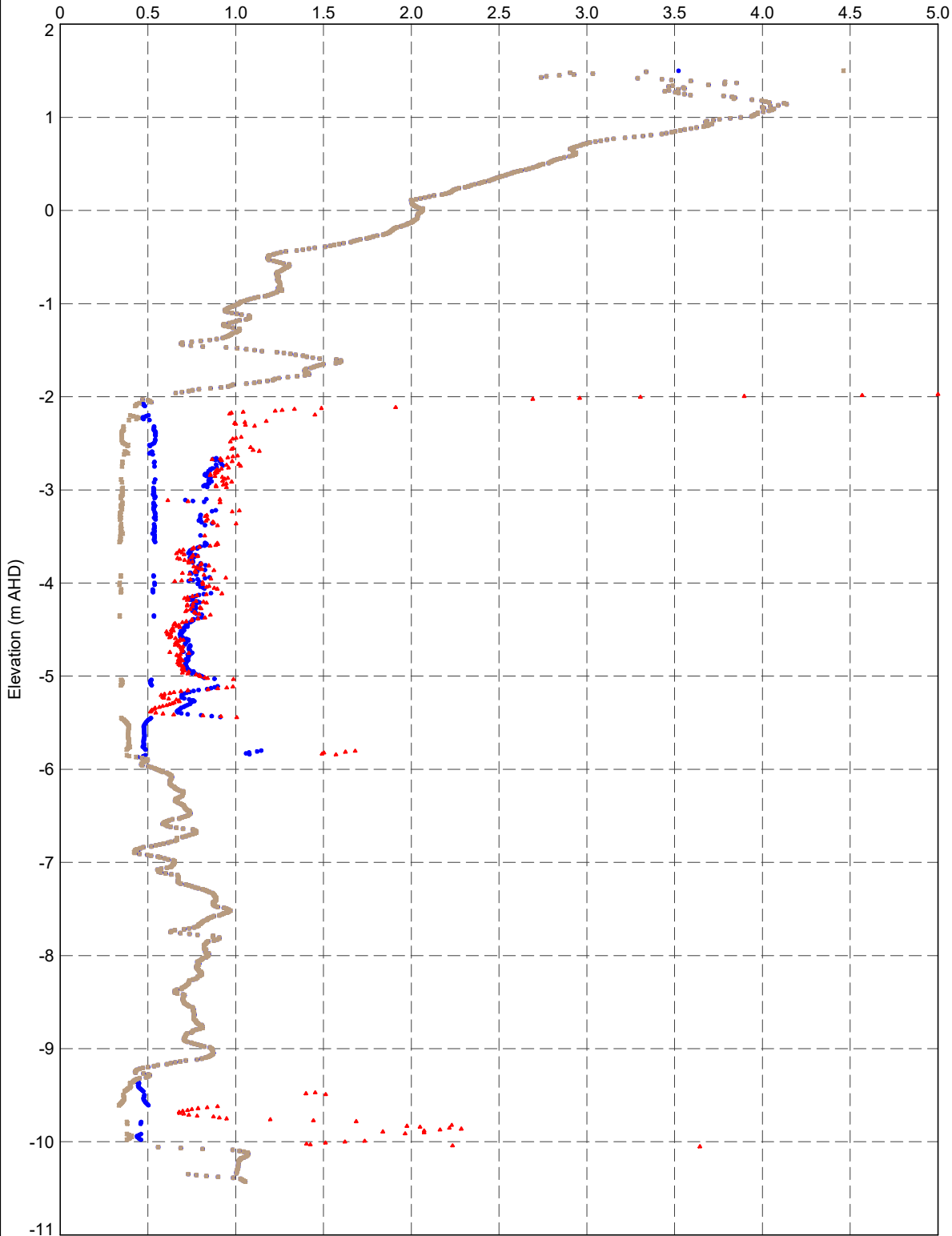


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Coefficient Lateral Earth Pressure vs. Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	97

Coefficient Lateral Earth Pressure,  $K_0$

PointID



- Method:
- Mayne (2007)
  - Mayne (2007)
  - ▲ Kulhawy & Mayne (1990)

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.COEFF.LATERAL.EARTH.PRESSURE.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:43:10.0100.11 Datgel.CPT.Tool.gINT.A4d.in



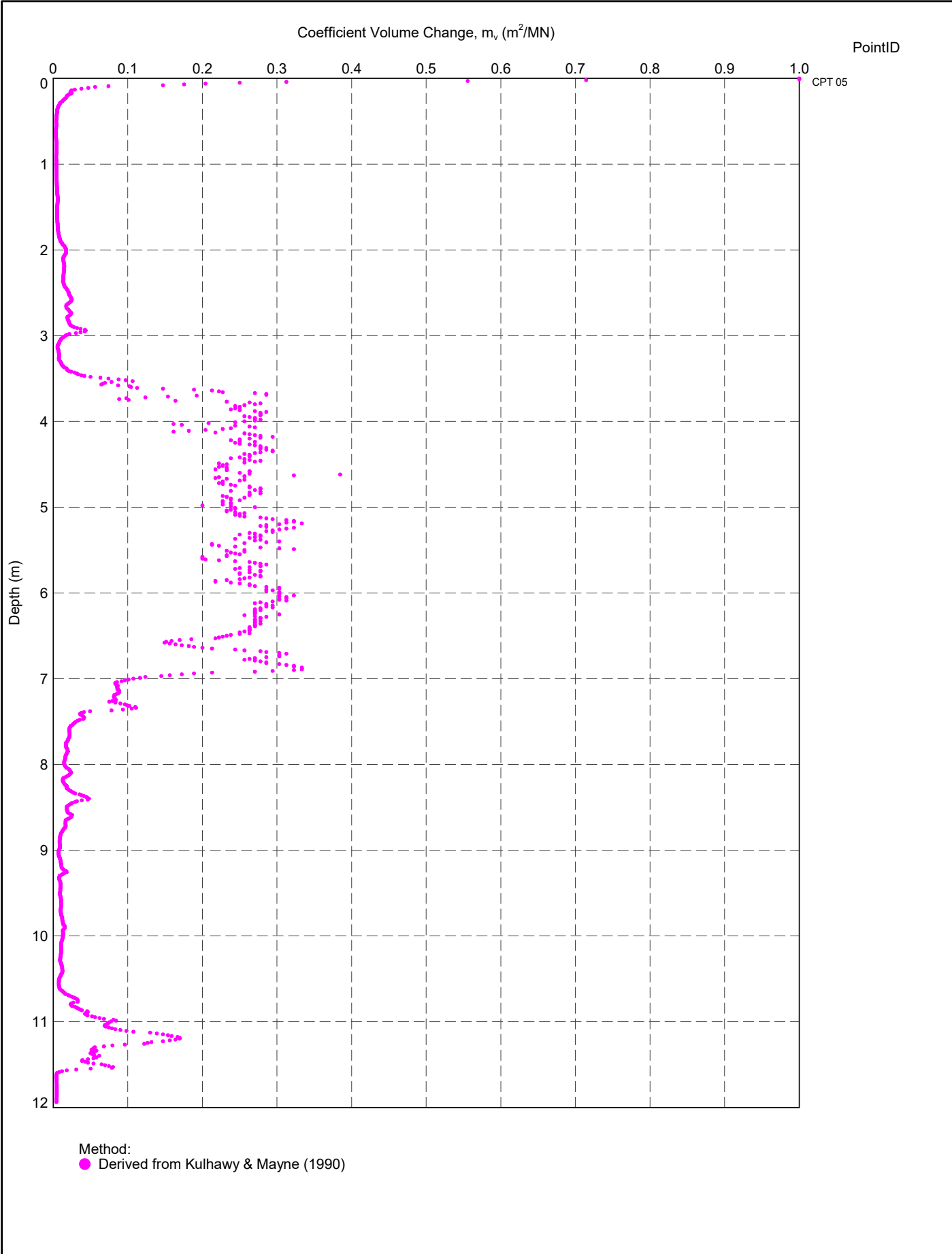
TITLE


Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Coefficient Lateral Earth Pressure vs. Elevation

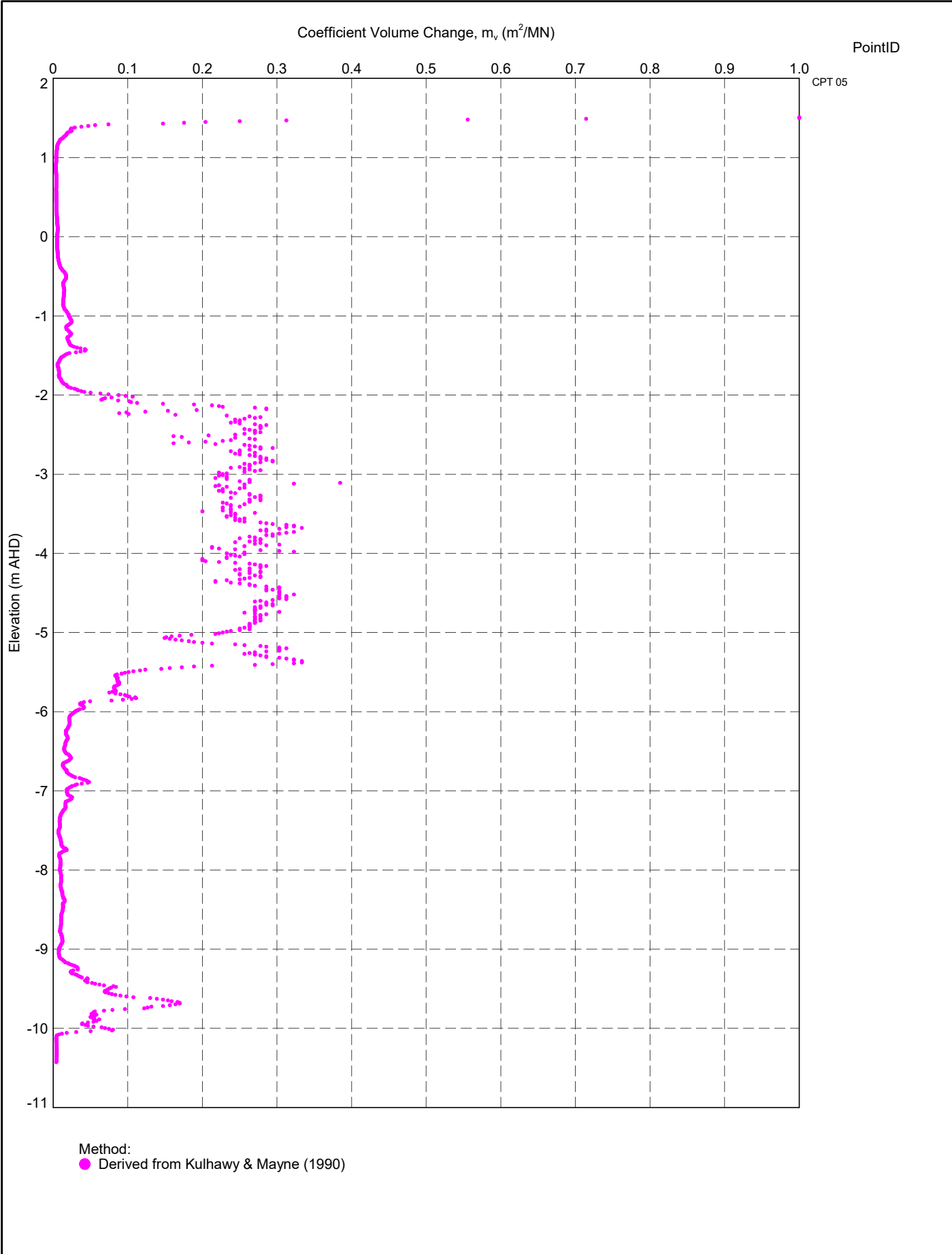
DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	98


DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT COEFFICIENT VOLUME CHANGE DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:43 10.01.00.11 Datgel CPT Tool.gINT Add-in



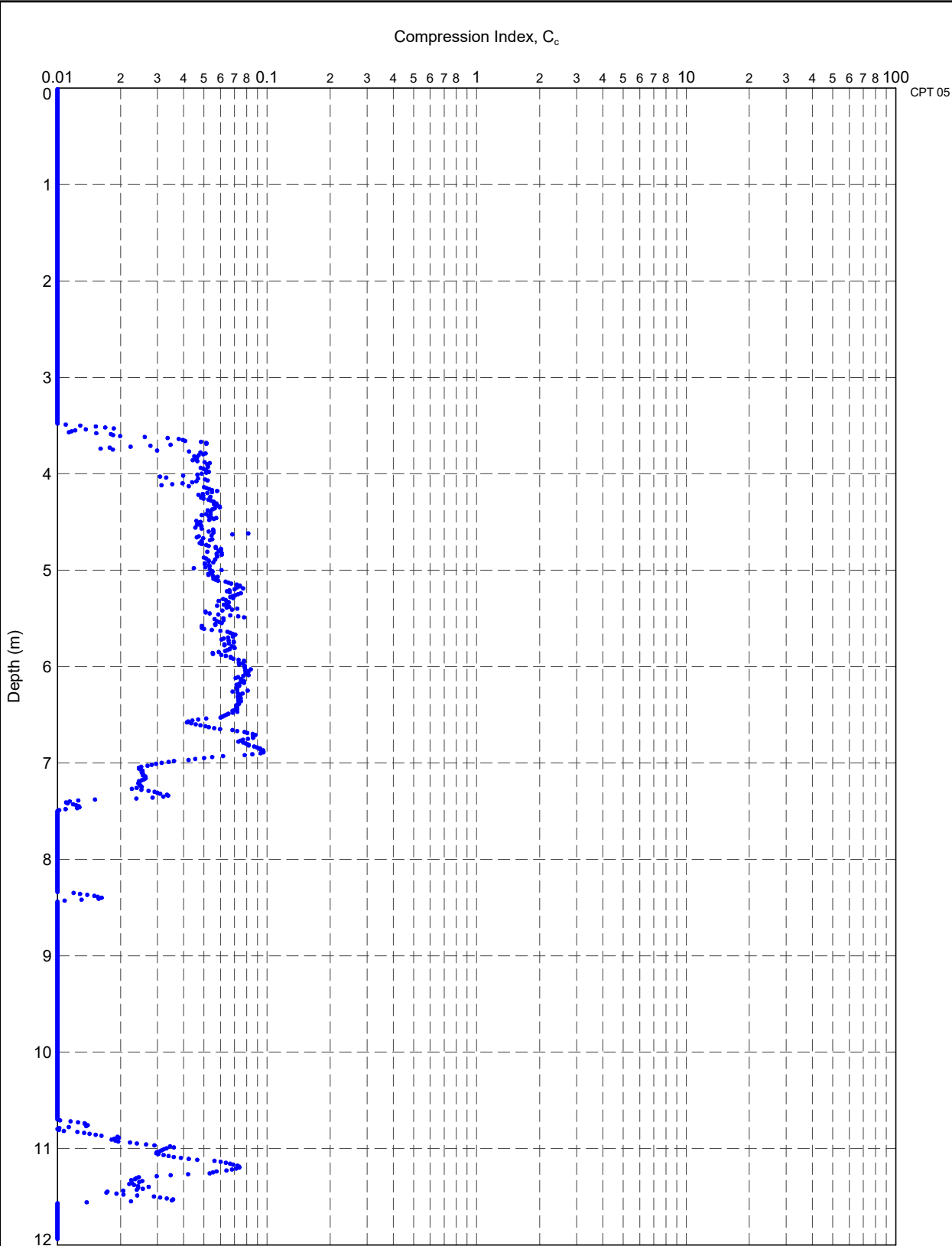
 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project</p> <p>Coefficient Volume Change versus Depth</p>	<p>DRAWN</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">1/2/2021</p>	
		<p>CHECKED</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">1/2/2021</p>	
		<p>SCALE</p> <p style="text-align: center;">Not To Scale</p>		<p>A4</p>
		<p>PROJECT No</p> <p style="text-align: center;">4.05.0</p>	<p>FIGURE No</p> <p style="text-align: center;">99</p>	

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT COEFFICIENT VOLUME CHANGE RL A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:44 10.01.00.11 Datgel CPT Tool.gINT Add-In



 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Coefficient Volume Change versus Elevation	DRAWN	Datgel	DATE	1/2/2021	
		CHECKED	Datgel	DATE	1/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	100

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.COMPRESSION.INDEX.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 1/2/2021 23:45 10.01.00.11 Datgel CPT Tool gINT Add-In



Method:  
● Derived from Kulhawy & Mayne (1990)

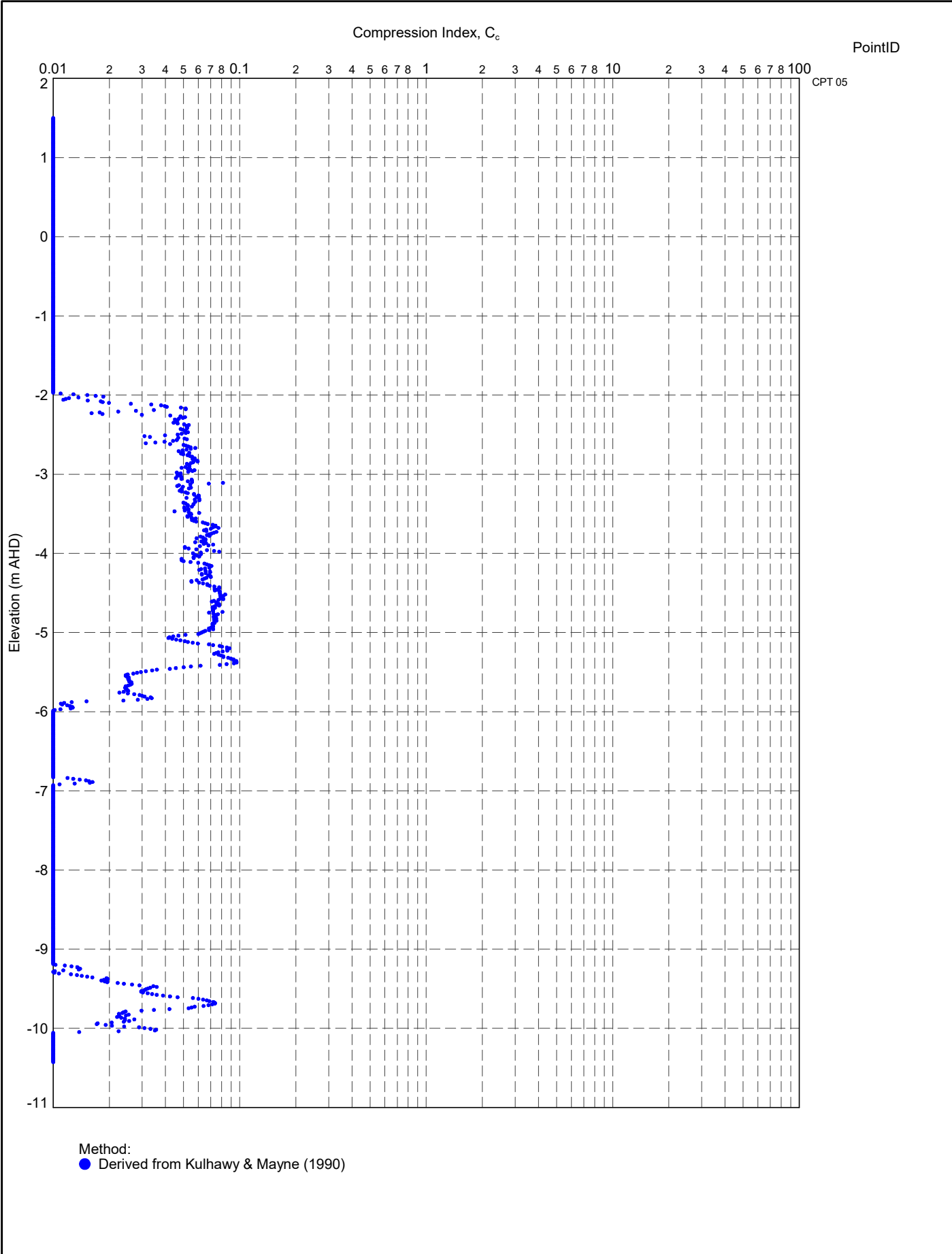


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Compression Index versus Depth

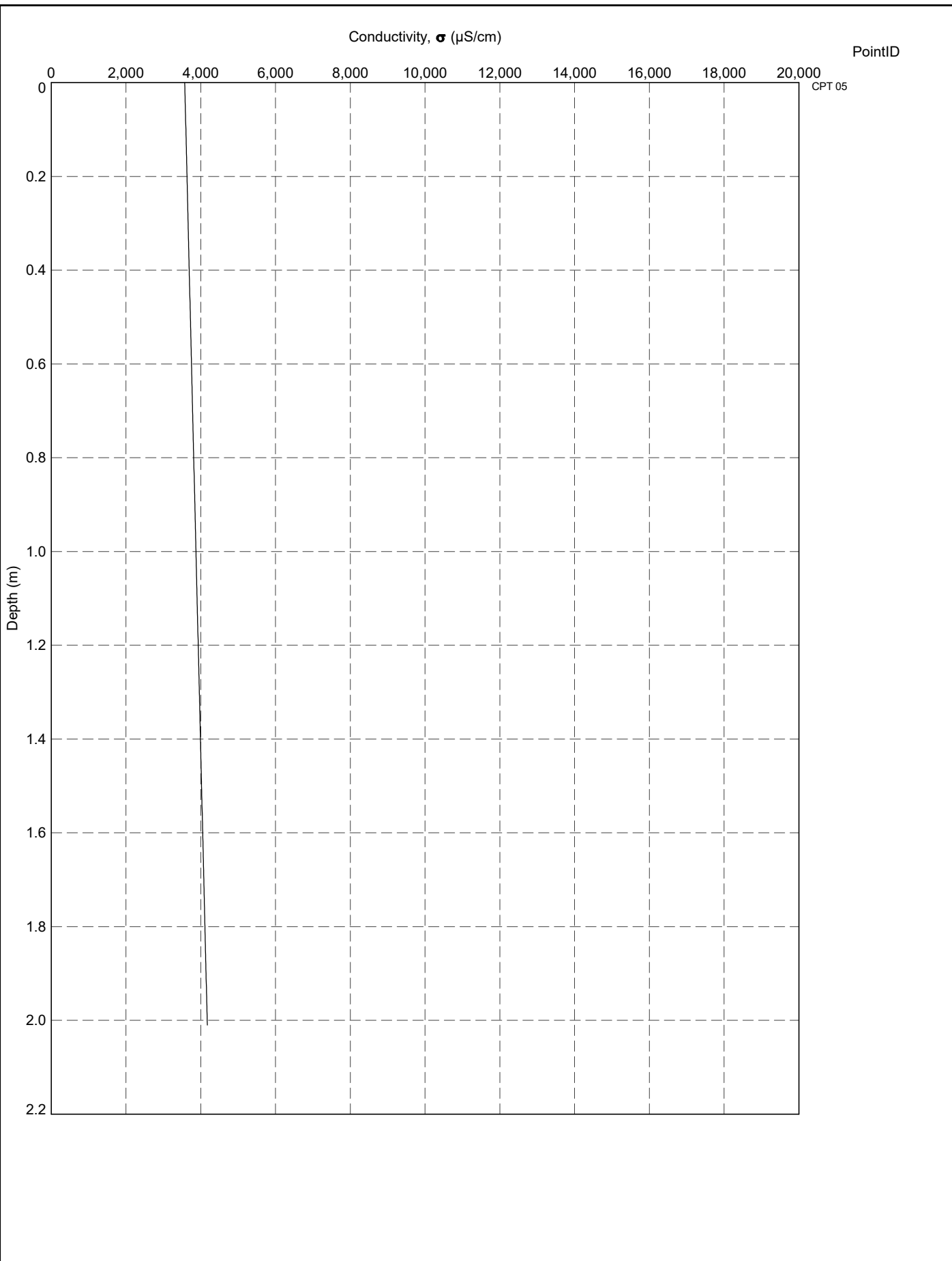
DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	101

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.COMPRESSION INDEX.RL.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/22/2021 23:46 10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



Method:  
● Derived from Kulhawy & Mayne (1990)

 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Compression Index versus Elevation	DRAWN	Datgel	DATE	1/2/2021	
		CHECKED	Datgel	DATE	1/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	102



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT CONDUCTIVITY DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:46 10.01.00.11 Datgel CPT Tool gJNT.Add-In

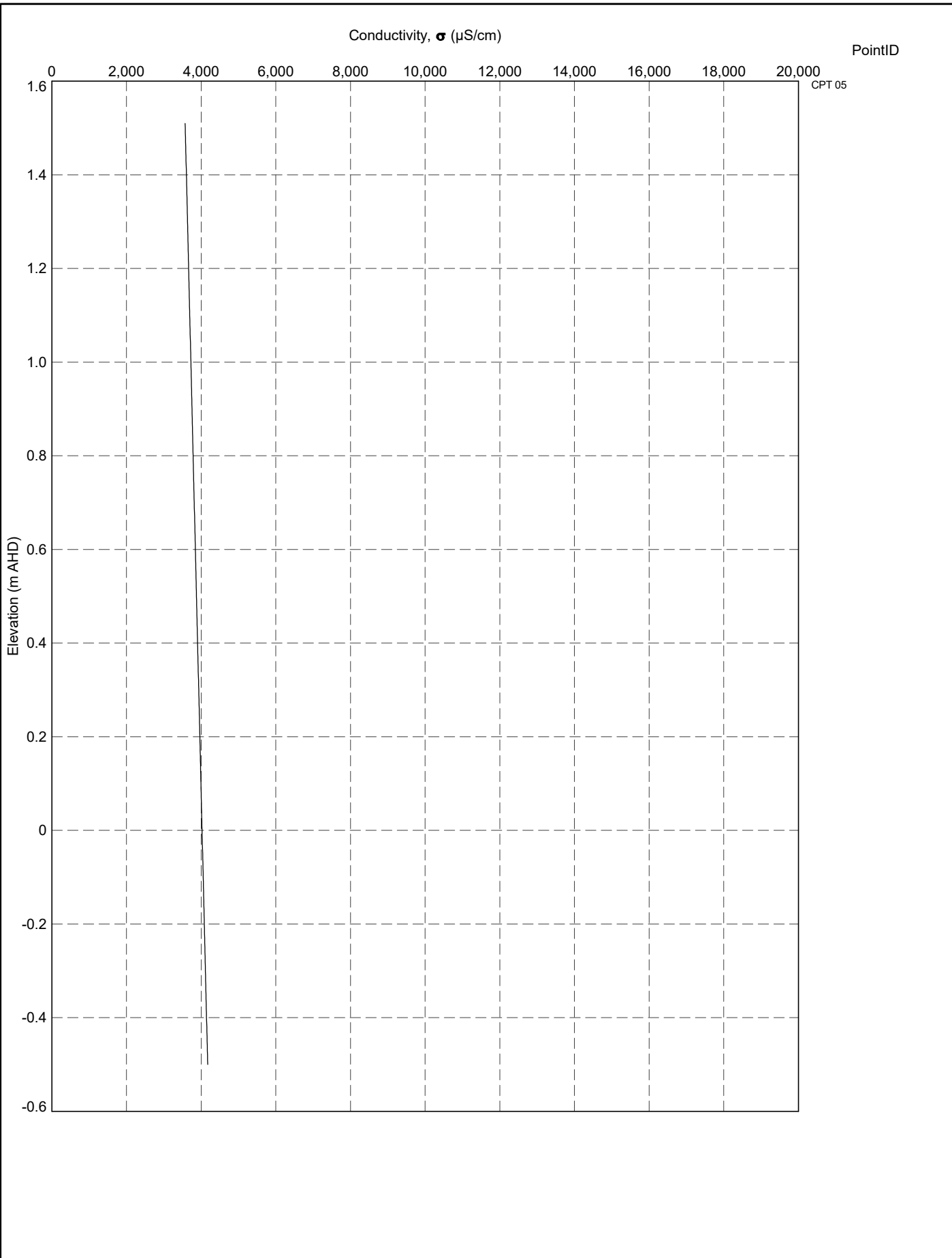


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Conductivity versus Depth


DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	103

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT CONDUCTIVITY RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:46 10:01:00.11 Datgel CPT Tool gINT Add-in



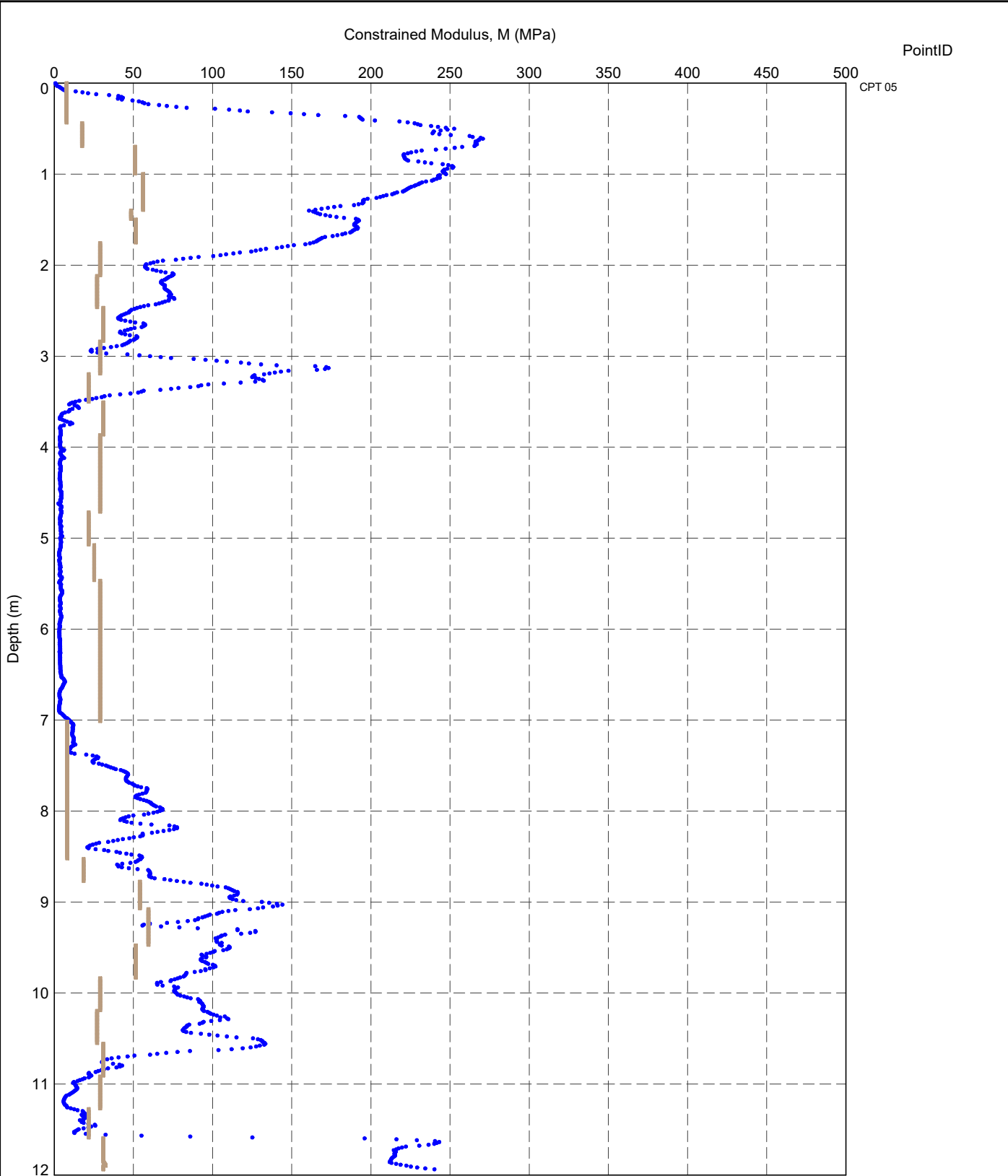
PointID

CPT 05

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Conductivity versus Elevation	DRAWN Datgel	DATE 1/2/2021
			CHECKED Datgel	DATE 1/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 104



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT CONSTRAINED MODULUS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:47:10.01:00.11 Datgel CPT Tool gINT Add-in



PointID  
CPT 05

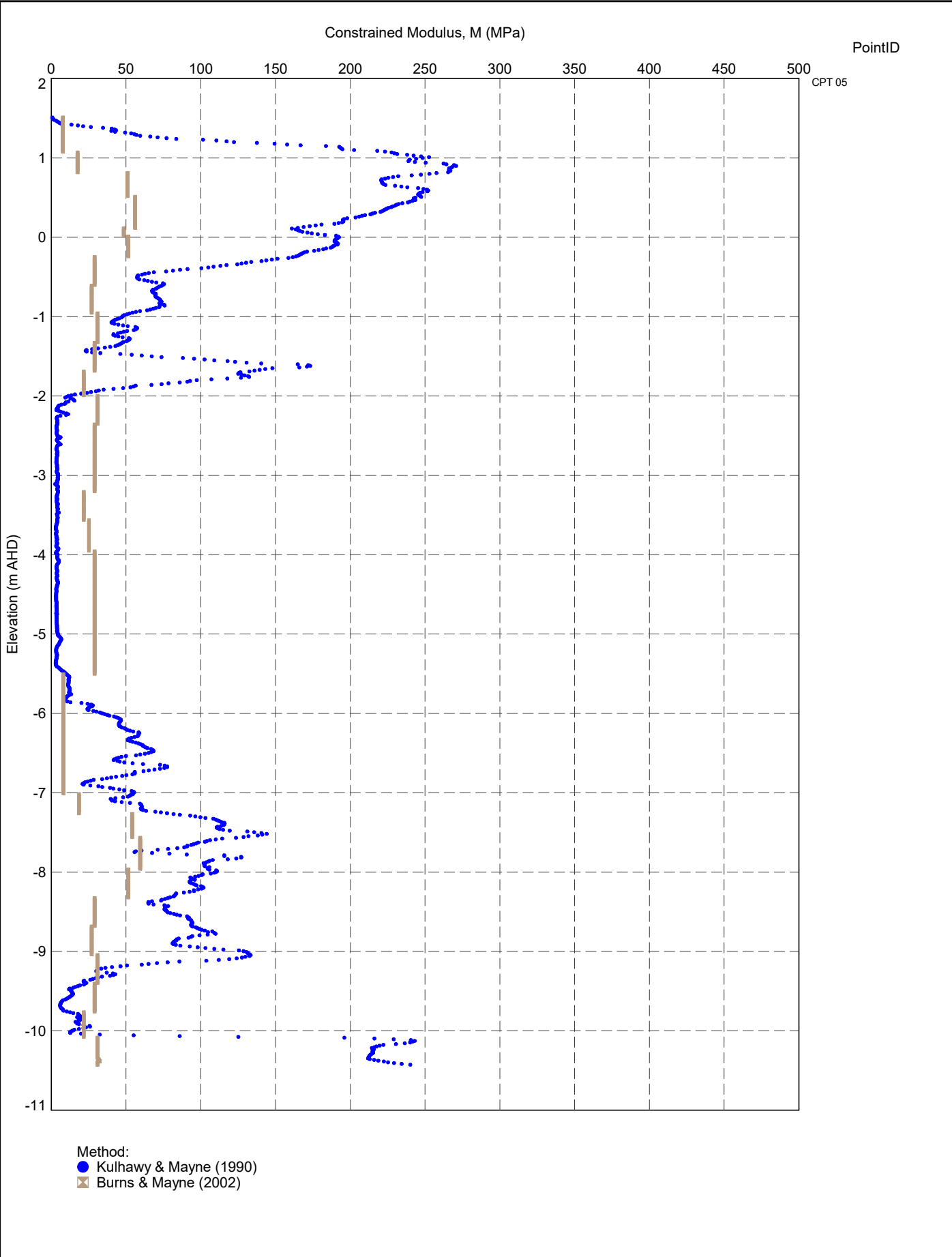
Method:  
● Kulhawy & Mayne (1990)  
■ Burns & Mayne (2002)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Constrained Modulus versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	105

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT CONSTRAINED MODULUS RL A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ <<DrawingFile>> 1/2/2021 23:47 10.01.00.11 Datgel CPT Tool glINT Add-In

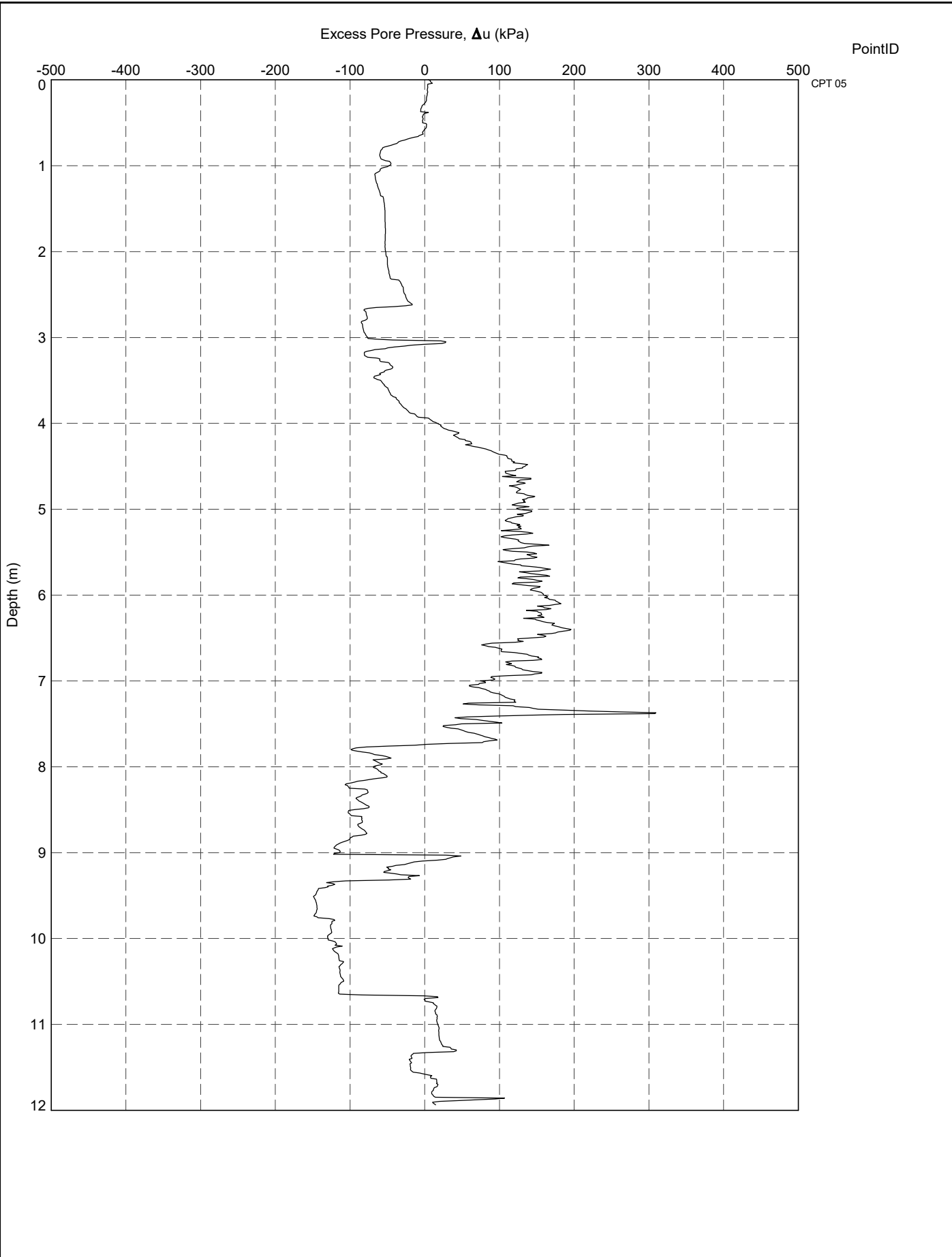


Method:  
 ● Kulhawy & Mayne (1990)  
 ☒ Burns & Mayne (2002)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Constrained Modulus versus Elevation

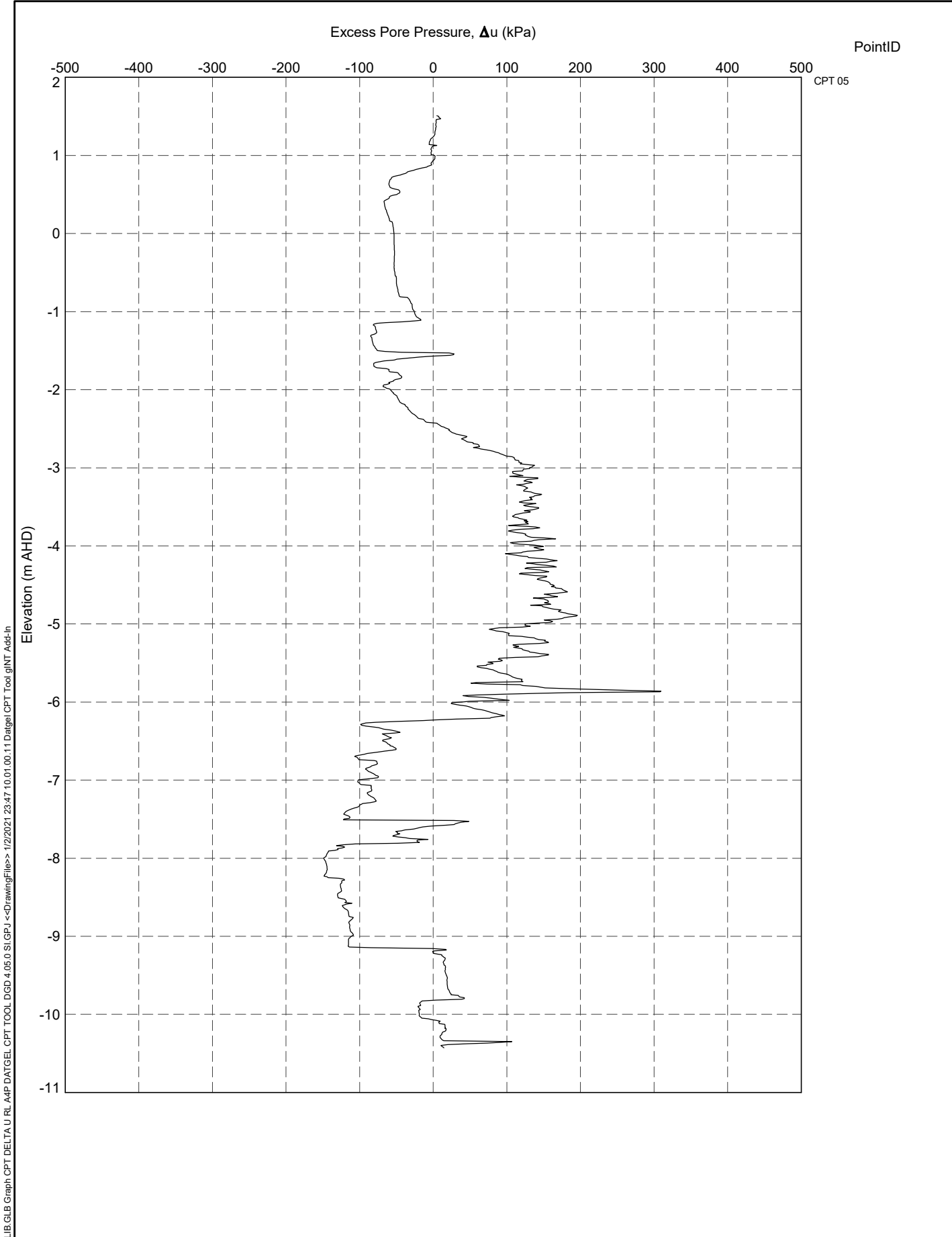
DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	106



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT DELTA U DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:47 10:01:00.11 Datgel CPT Tool gINT Add-in



<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Excess Pore Pressure versus Depth</p>	DRAWN	Datgel	DATE	1/2/2021	
	CHECKED	Datgel	DATE	1/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	107	



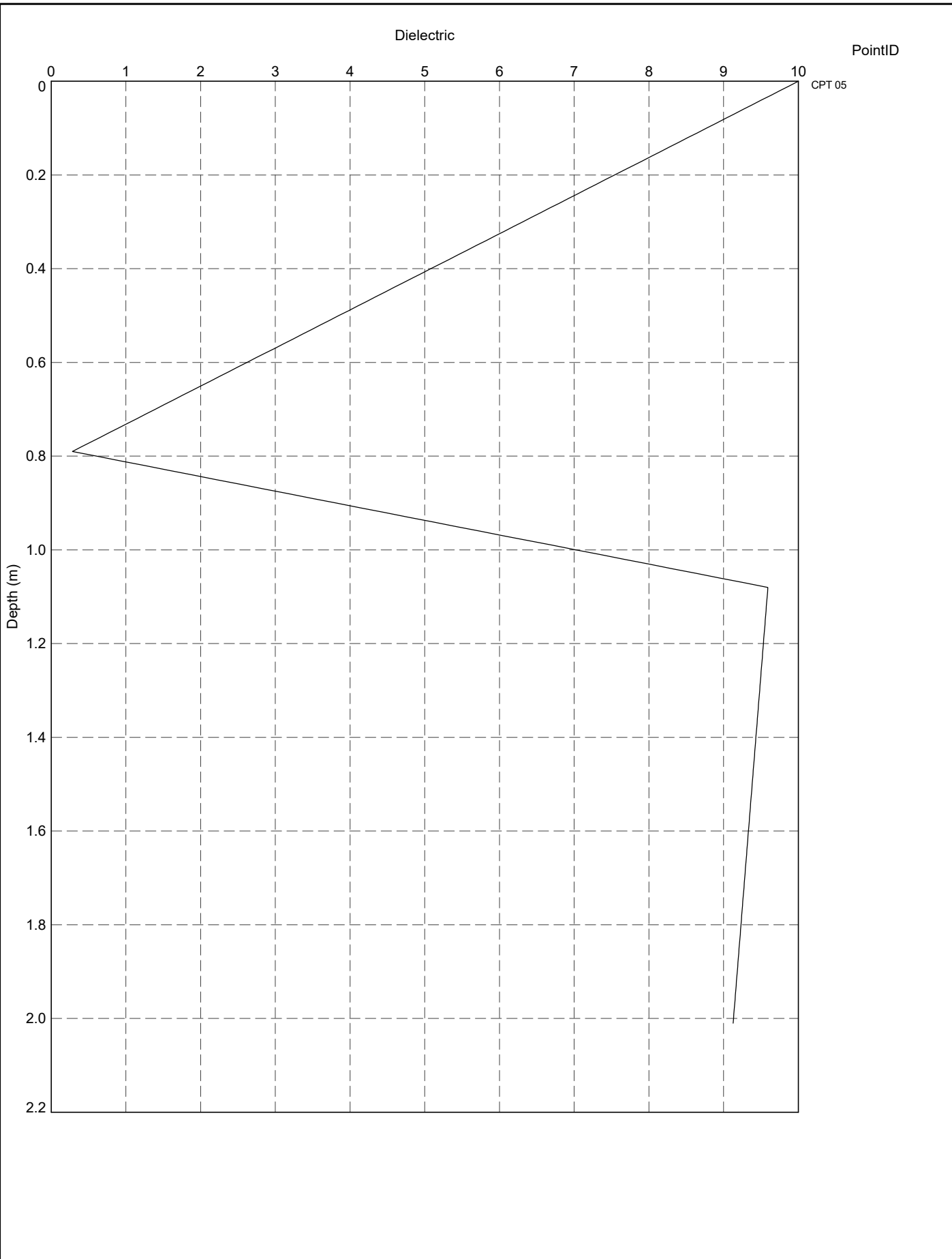
DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT DELTA U RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 1/2/2021 23:47 10.01.00.11 Datgel.CPT Tool glNT Add-In




TITLE

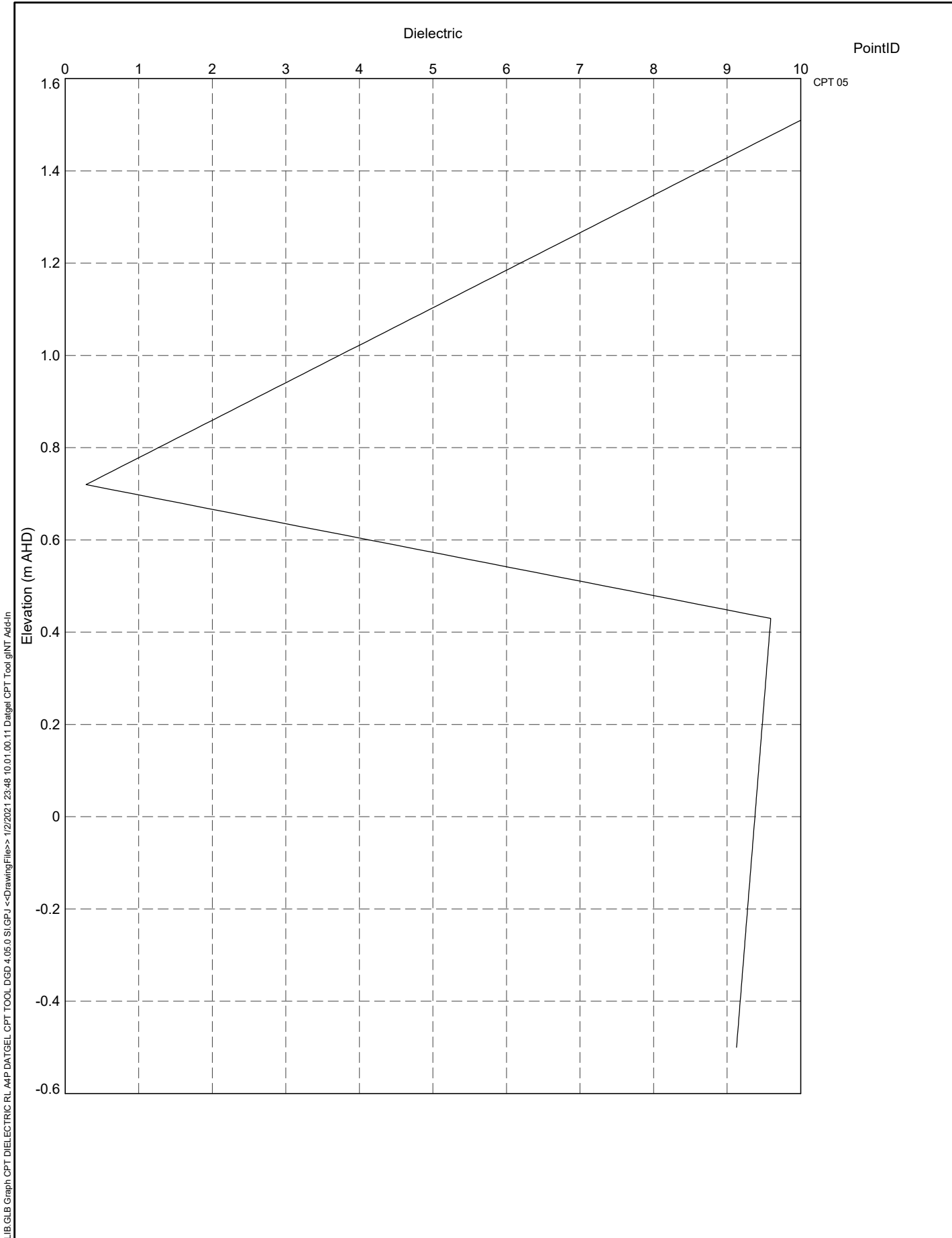
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Excess Pore Pressure versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	108



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT DIELECTRIC DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:48 10.01.00.11 Datgel CPT Tool\gINT Add-in

 <p>Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Dielectric versus Depth</p>	<p>DRAWN</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">1/2/2021</p>	
		<p>CHECKED</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">1/2/2021</p>	
		<p>SCALE</p> <p style="text-align: center;">Not To Scale</p>		<p>A4</p>
		<p>PROJECT No</p> <p style="text-align: center;">4.05.0</p>		<p>FIGURE No</p> <p style="text-align: center;">109</p>



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.DIELECTRIC.RL.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:48 10.01.00.11 Datgel CPT Tool.gINT.Add-In



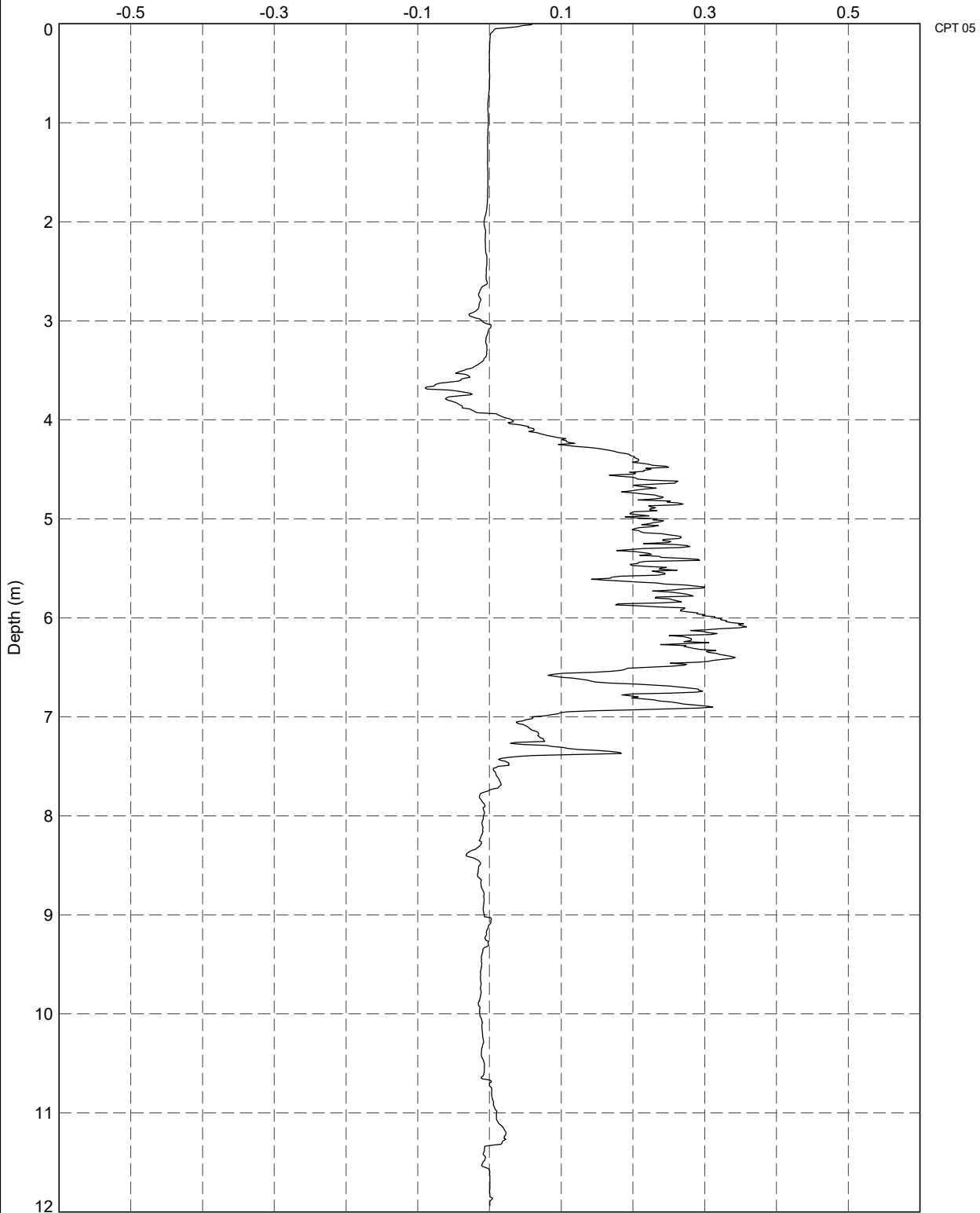
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dielectric versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	110

Differential Pore Pressure Ratio, DPPR

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.DPPR DEPTH A4P.DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <-DrawingFiles> 1/2/2021 23:48 10.01.00.11 Datgel CPT Tool gINT Add-In



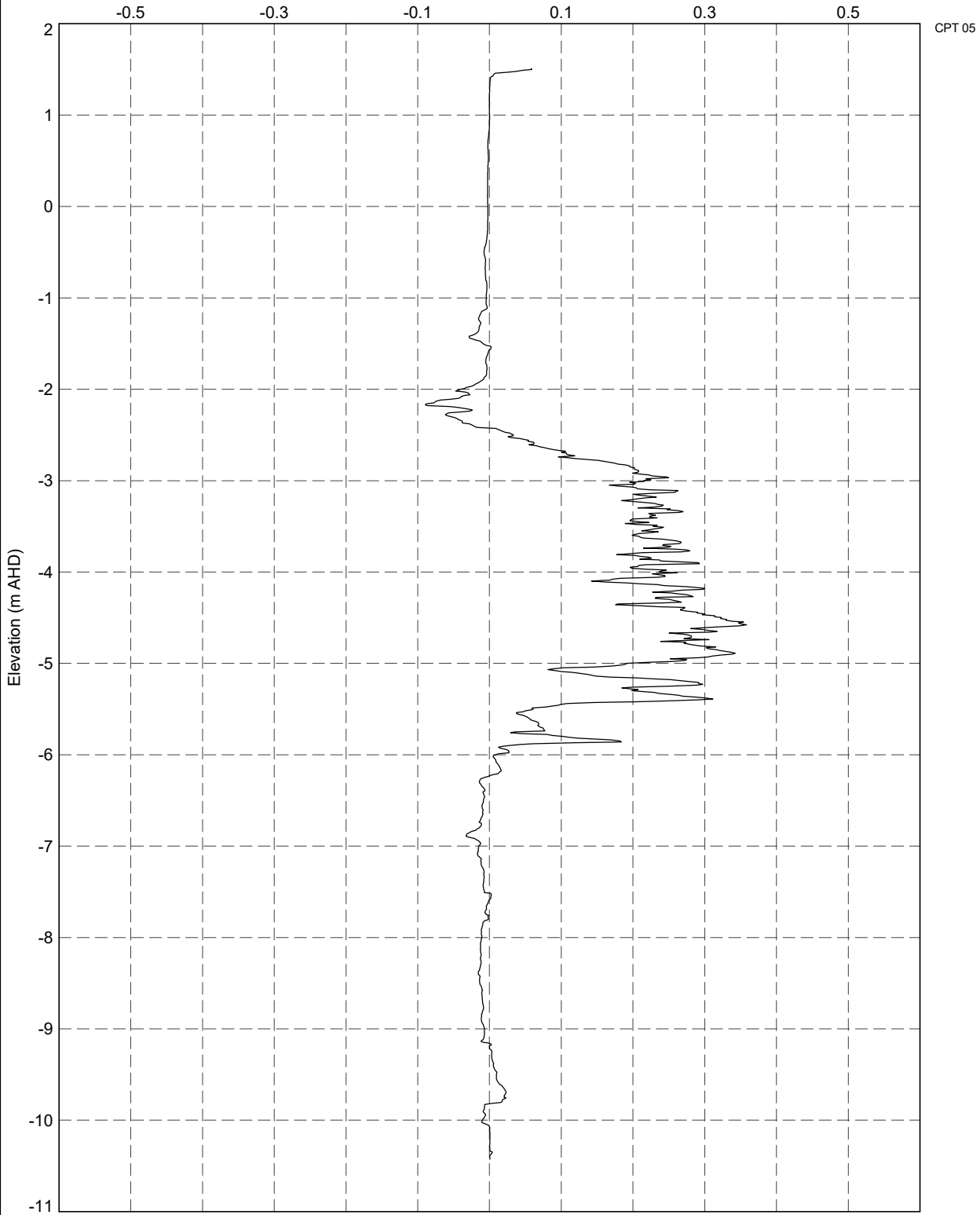
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Differential Pore Pressure Ratio versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	111

Differential Pore Pressure Ratio, DPPR

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.DPPR.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:48:10.01.00.11 Datgel CPT Tool glINT A4d-In

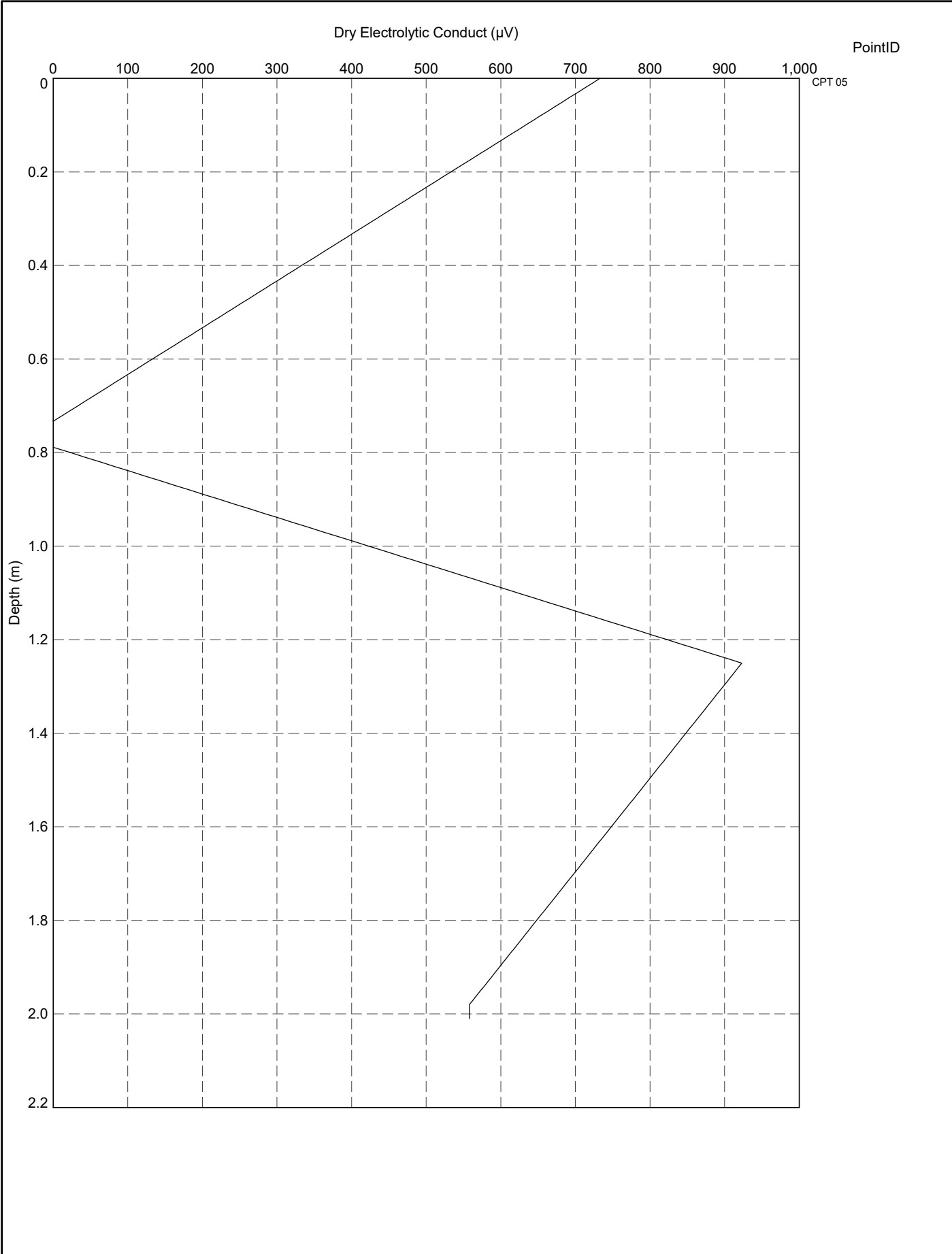


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Differential Pore Pressure Ratio versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	112



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.DRY ELECTROLYTIC CONDUCT DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/22/2021 23:48 10:01:00.11 Datgel.CPT.Tool.gINT Add-In

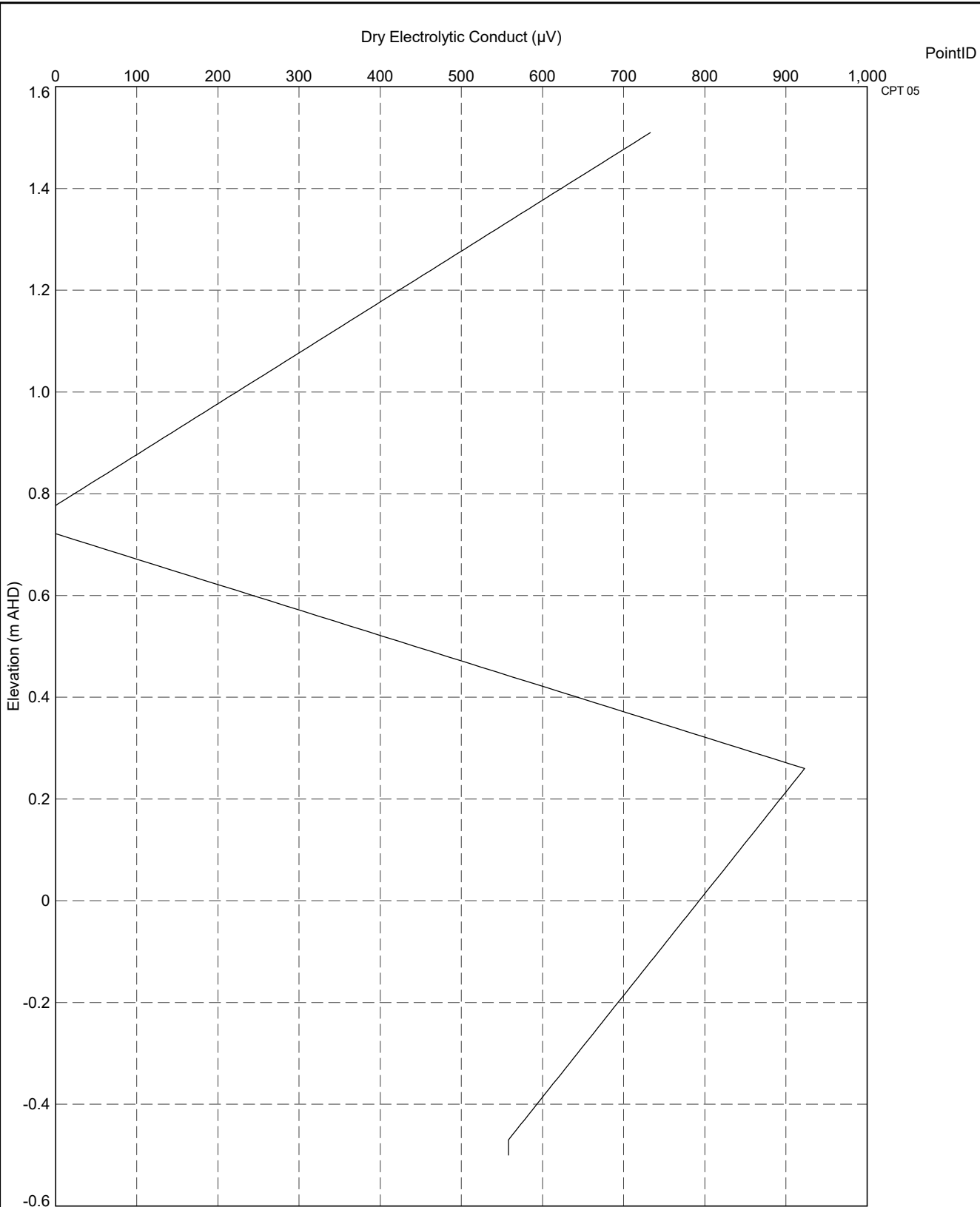


PointID  
CPT 05



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dry Electrolytic Conduct versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	113



PointID

CPT 05

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT DRY ELECTROLYTIC CONDUCT RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:48:10.01.00.11 Datgel CPT Tool glNT Add-In

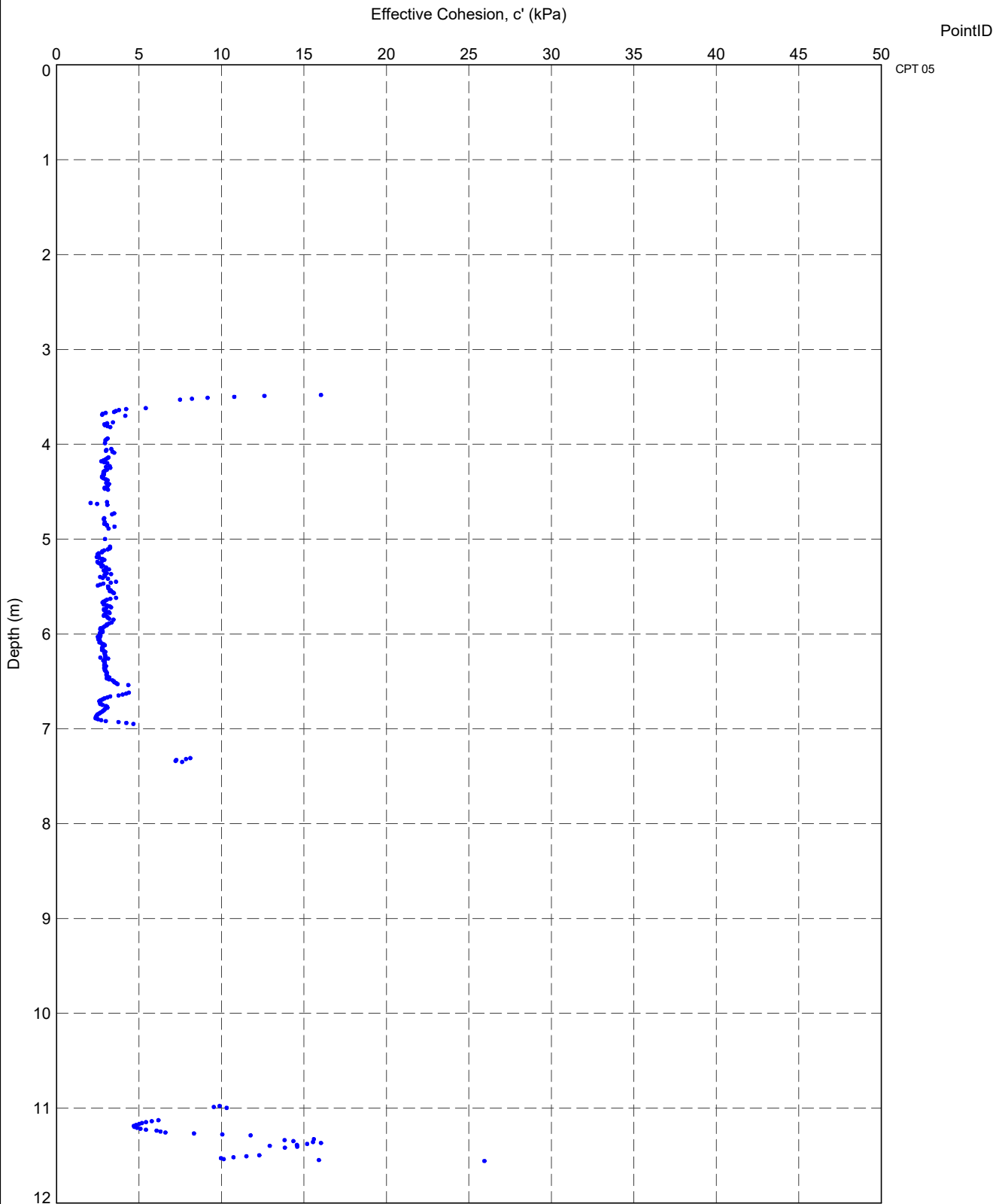


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dry Electrolytic Conduct versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	114

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.EFFECTIVE COHESION DEPTH.AMF.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/22/2021 23:48 10.01.00.11 Datgel CPT Tool.gINT Add-In

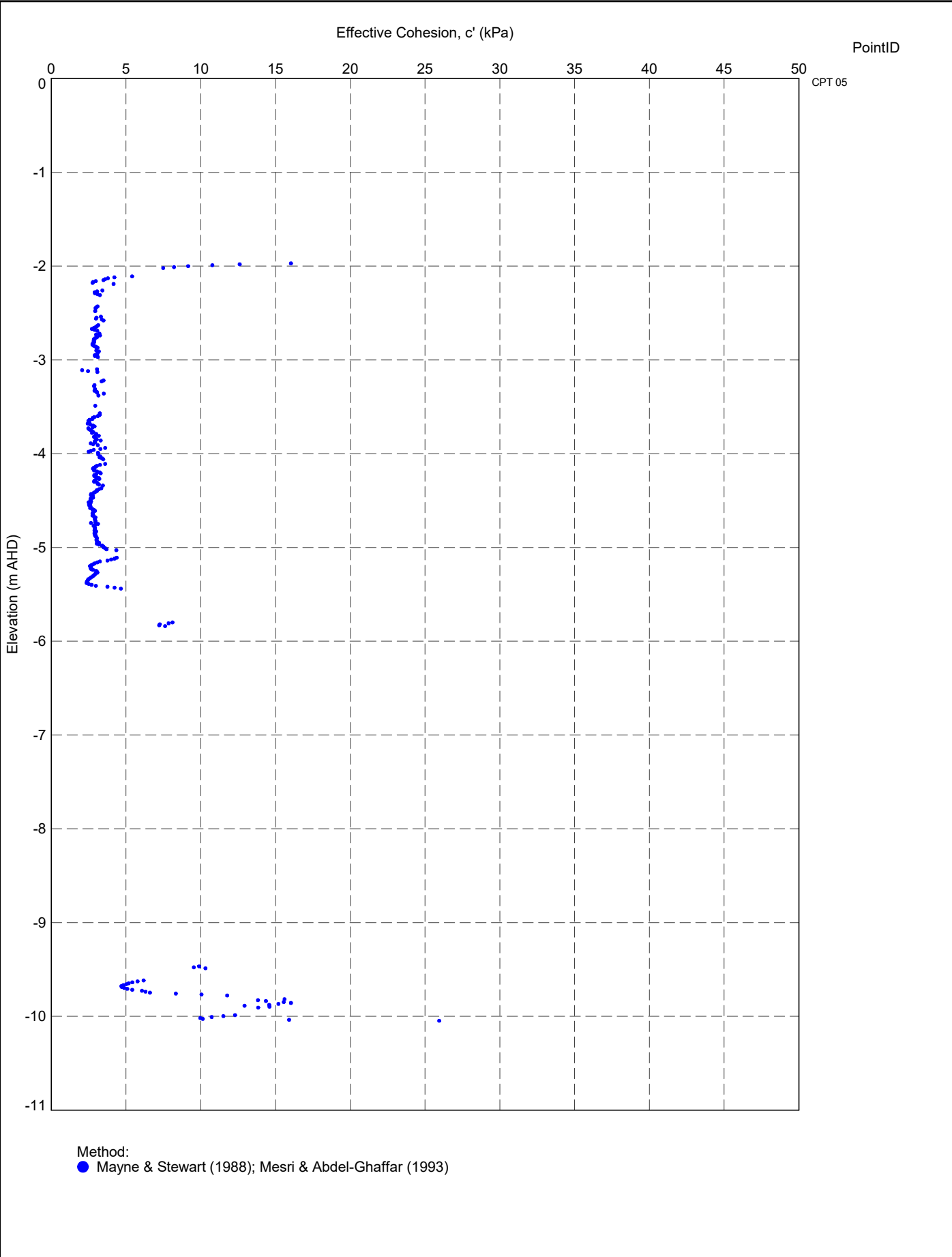


Method:  
● Mayne & Stewart (1988); Mesri & Abdel-Ghaffar (1993)



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Effective Cohesion versus Depth	DRAWN	Datgel	DATE	1/2/2021	
	CHECKED	Datgel	DATE	1/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	115	

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT EFFECTIVE COHESION RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:49 10:01:00.11 Datgel CPT Tool glNT Add-In



Method:  
● Mayne & Stewart (1988); Mesri & Abdel-Ghaffar (1993)

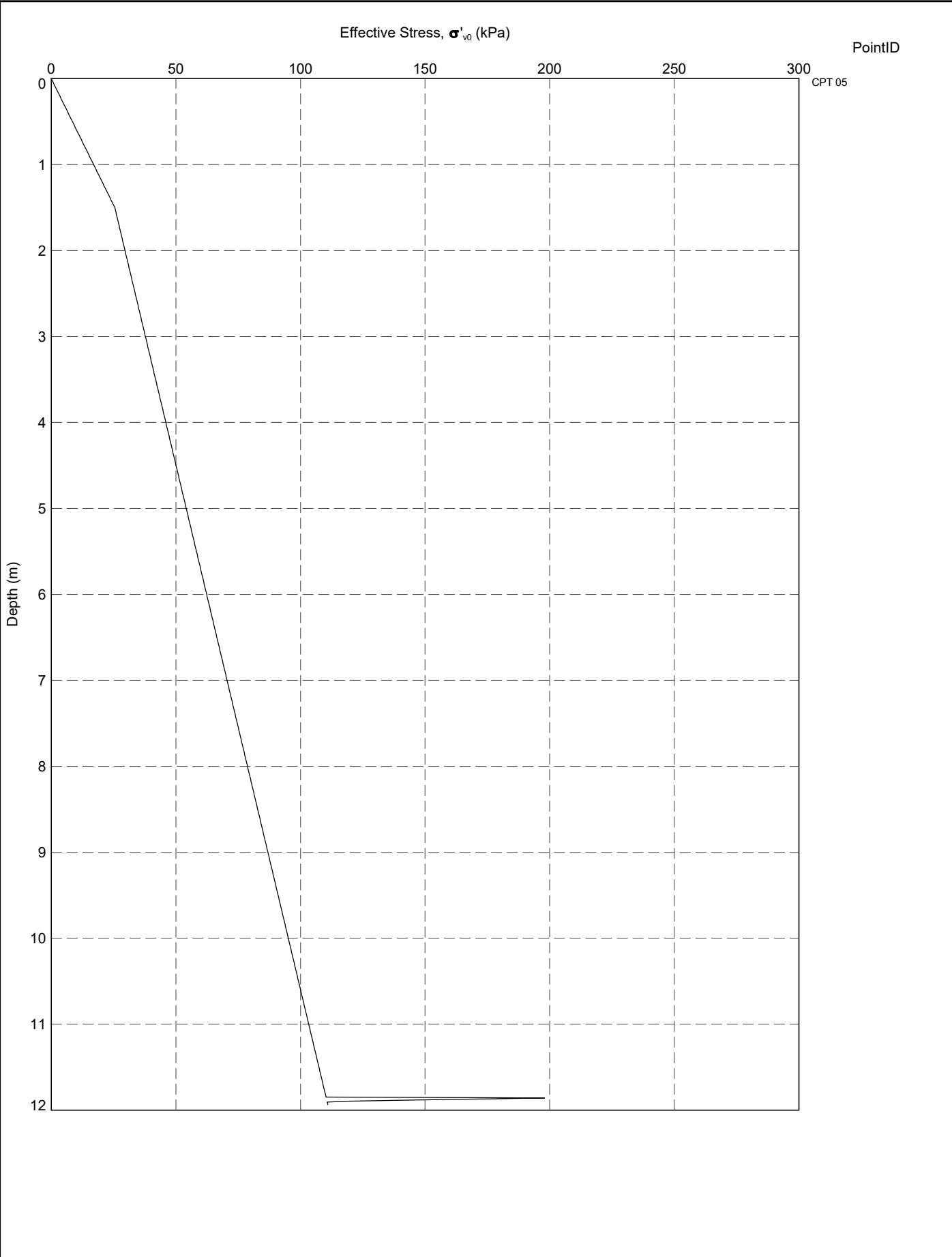


TITLE


Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Effective Cohesion versus Elevation

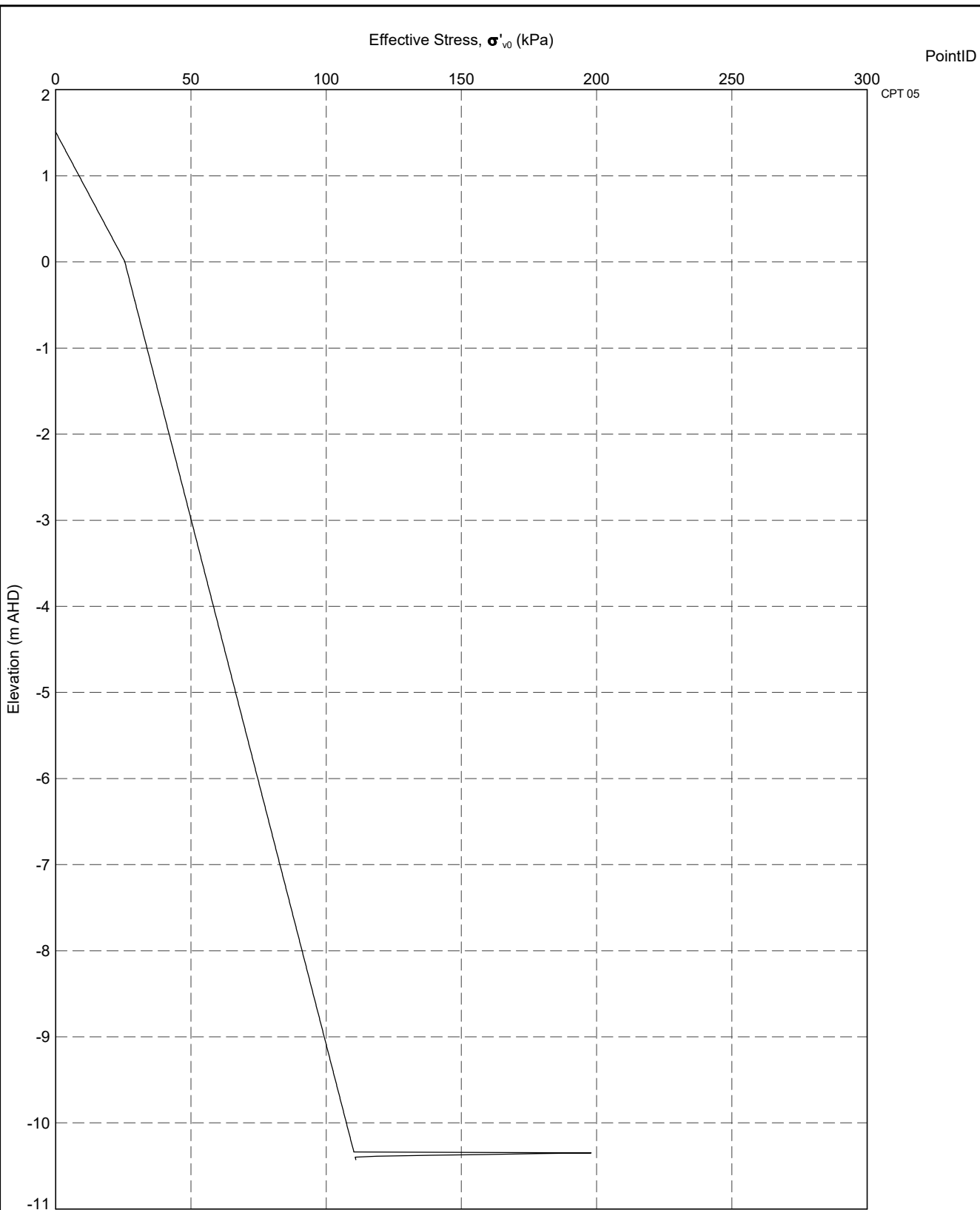
DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	116

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.EFFECTIVE STRESS.DEPTH.AMP.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 1/22/2021 23:49 10.01.00.11 Datgel CPT Tool.gINT.Add-in



PointID  
CPT 05

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Effective Stress versus Depth</p>	<p>DRAWN <b>Datgel</b>      DATE 1/2/2021</p>
		<p>CHECKED <b>Datgel</b>      DATE 1/2/2021</p>
		<p>SCALE <b>Not To Scale</b>      A4</p>
		<p>PROJECT No <b>4.05.0</b>      FIGURE No <b>117</b></p>



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.EFFECTIVE STRESS.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:49 10.01.00.11.Datgel.CPT.Tool.gNT.Add-In



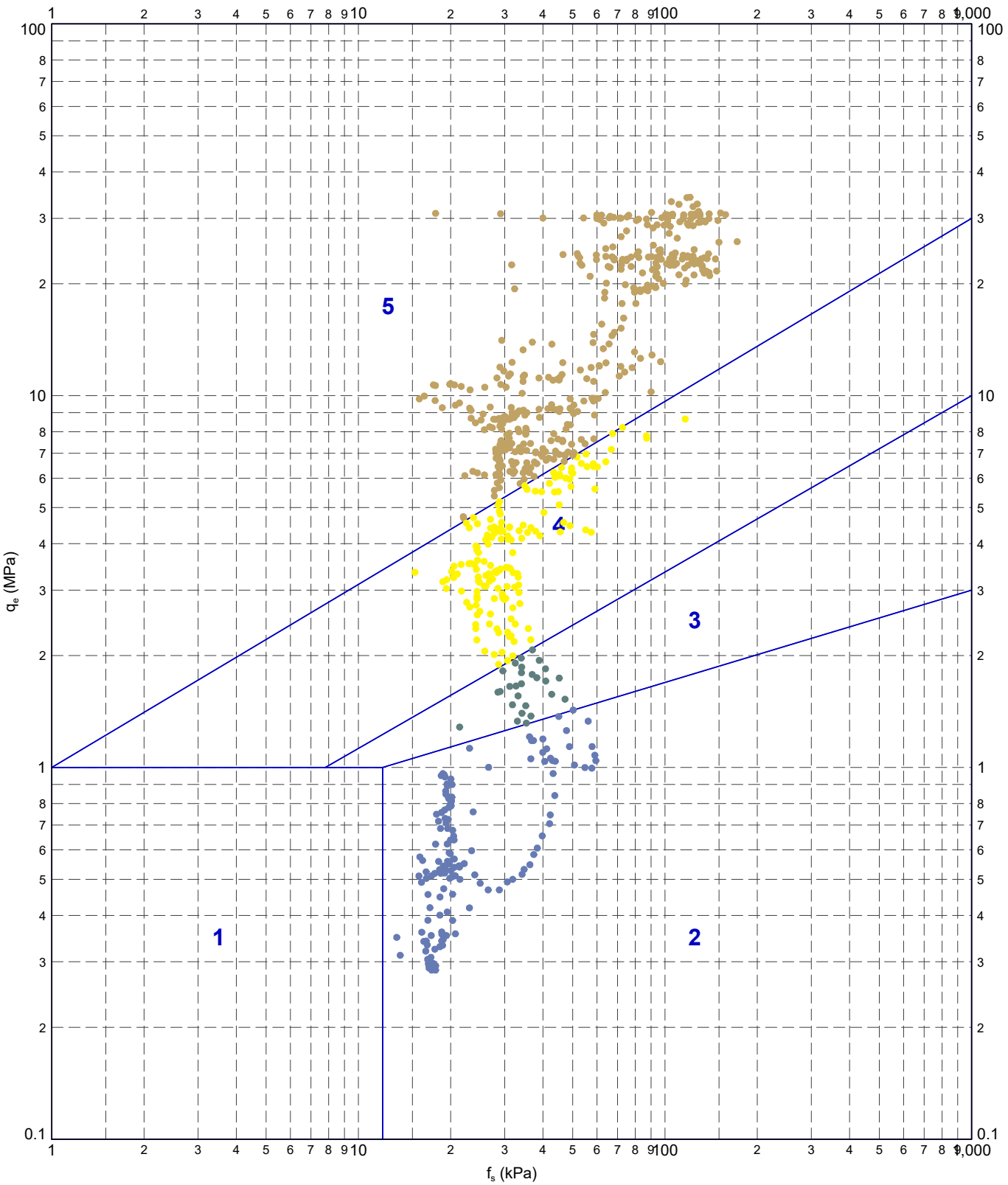
**Datgel**  
DATA SOLUTIONS  
Geotechnics • Geoenvironment • Laboratory

TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Effective Stress versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	118

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.ESLAMI.FELLENIUS.97.QE.VS.FS.AMP.DATGEL.CPT.TOOL.DGD.4.05.0.SI.OPJ <-DrawingFile> 1/2/2021 23:49 10.01.00.11 Datgel CPT Tool gINT Add-in



**METHOD: Eslami Fellenius 1997**

1 - Sensitive and Collapsible CLAY and/or SILT	4 - Sandy SILT and/or Silty SAND
2 - CLAY and/or SILT	5 - SAND and/or Sandy GRAVEL
3 - Silty CLAY and/or Clayey SILT	

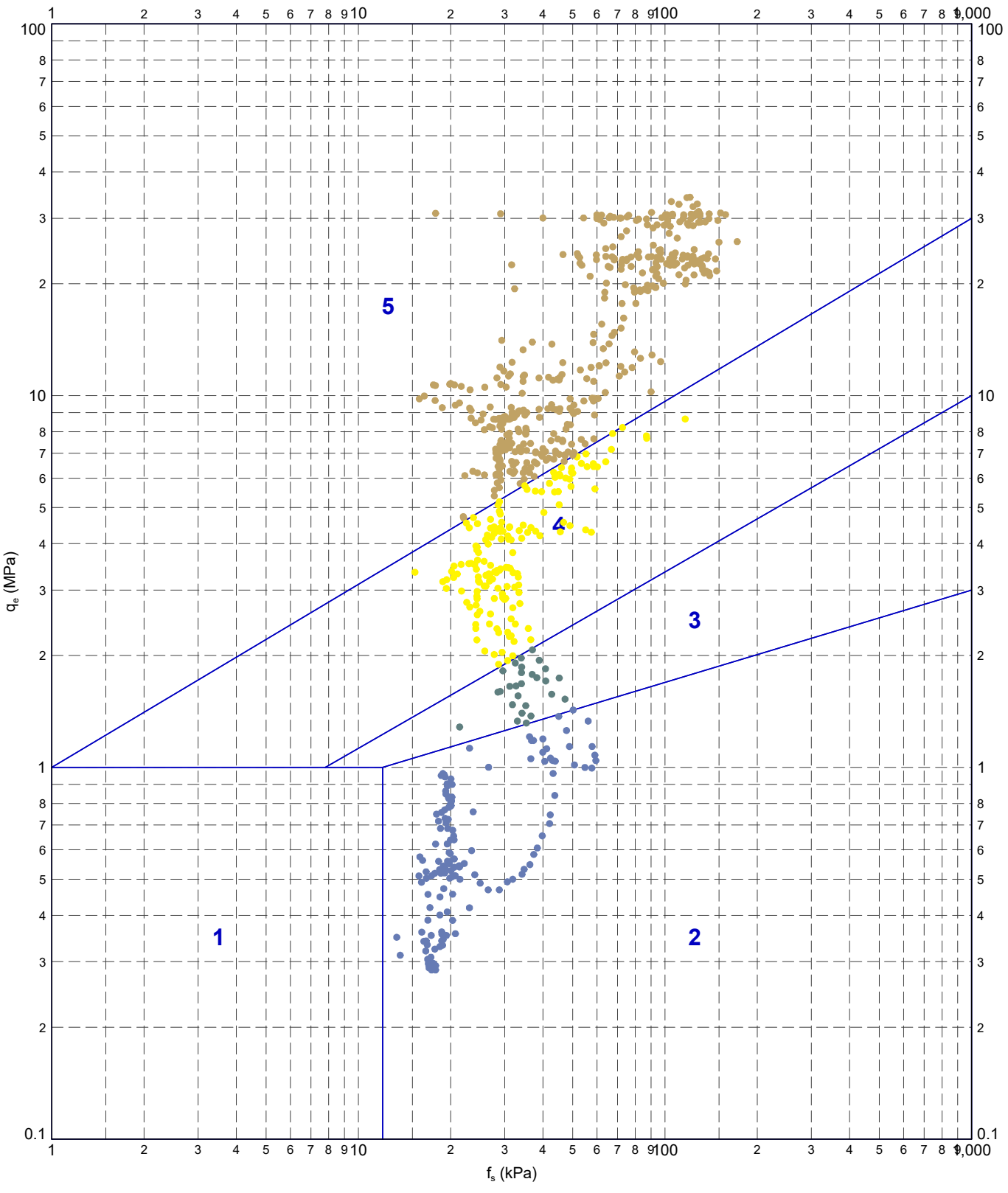


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Eslami Fellenius 1997  $q_e$  vs.  $f_s$  - CPT 03

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	119

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT ESLAMI FELLENIUS 97 QE VS FS M A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:49 10.01.00.11 Datgel CPT Tool.gINT Add-in



**METHOD: Eslami Fellenius 1997**

- 1 - Sensitive and Collapsible CLAY and/or SILT
- 2 - CLAY and/or SILT
- 3 - Silty CLAY and/or Clayey SILT
- 4 - Sandy SILT and/or Silty SAND
- 5 - SAND and/or Sandy GRAVEL

PointIDs: ● CPT 03



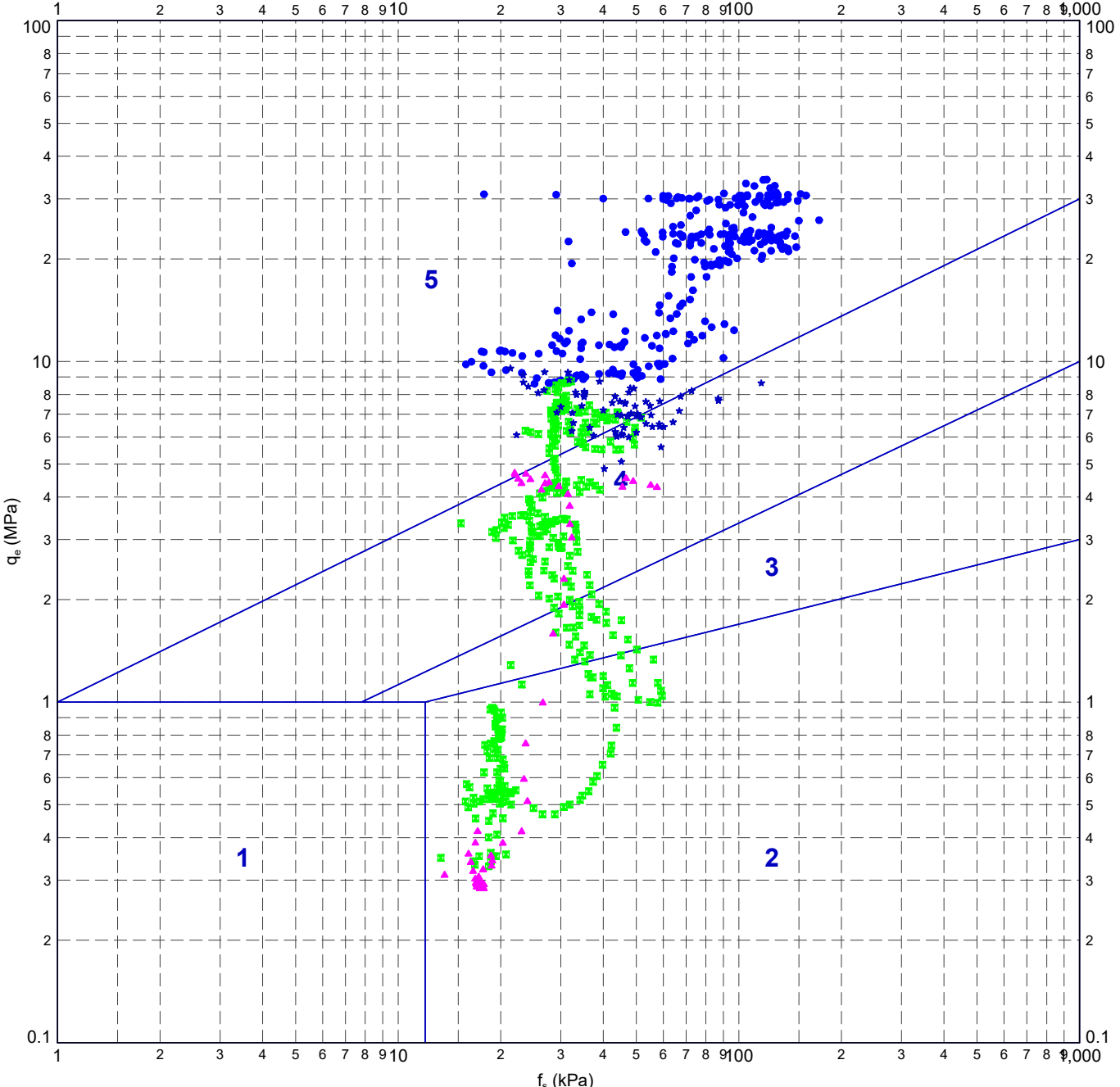
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Eslami Fellenius 1997  $q_e$  vs.  $f_s$

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	120



DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT:ESLAMI FELLENIUS 97 QE VS. FS U A4P:DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:50:10.01.00.11 Datgel CPT Tool glINT Add-In



**METHOD: Eslami Fellenius 1997**

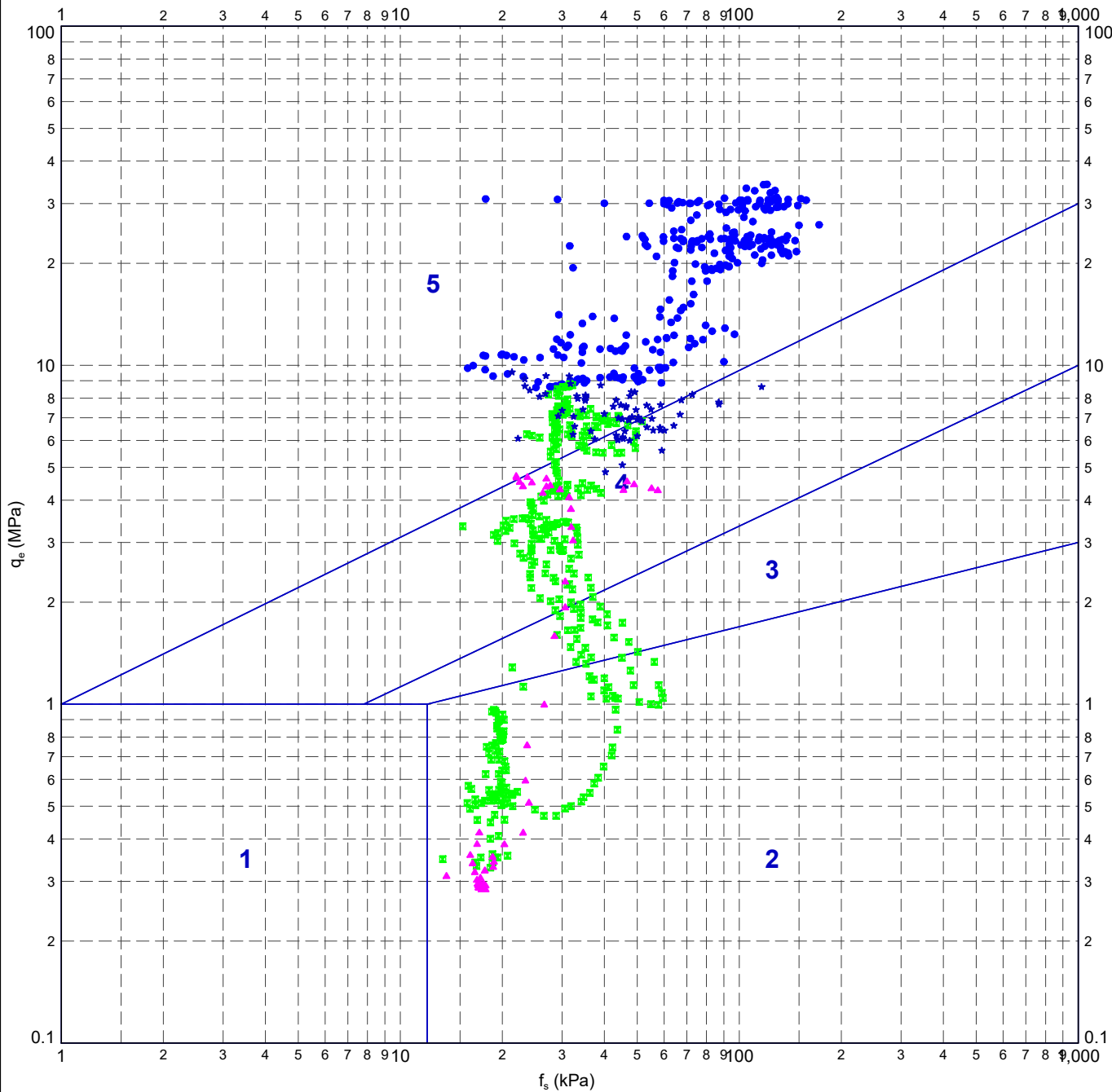
- 1 - Sensitive and Collapsible CLAY and/or SILT
- 2 - CLAY and/or SILT
- 3 - Silty CLAY and/or Clayey SILT
- 4 - Sandy SILT and/or Silty SAND
- 5 - SAND and/or Sandy GRAVEL

**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I

<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Eslami Fellenius 1997 <math>q_e</math> vs. <math>f_s</math> - CPT 03</p>	DRAWN	Datgel	DATE	1/2/2021
	CHECKED	Datgel	DATE	1/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	121	

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT ESLAMI FELLENIUS 97 QE VS. FS UM A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:50 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Eslami Fellenius 1997**

- 1 - Sensitive and Collapsible CLAY and/or SILT
- 2 - CLAY and/or SILT
- 3 - Silty CLAY and/or Clayey SILT
- 4 - Sandy SILT and/or Silty SAND
- 5 - SAND and/or Sandy GRAVEL

**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- +
- ⊕ F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I

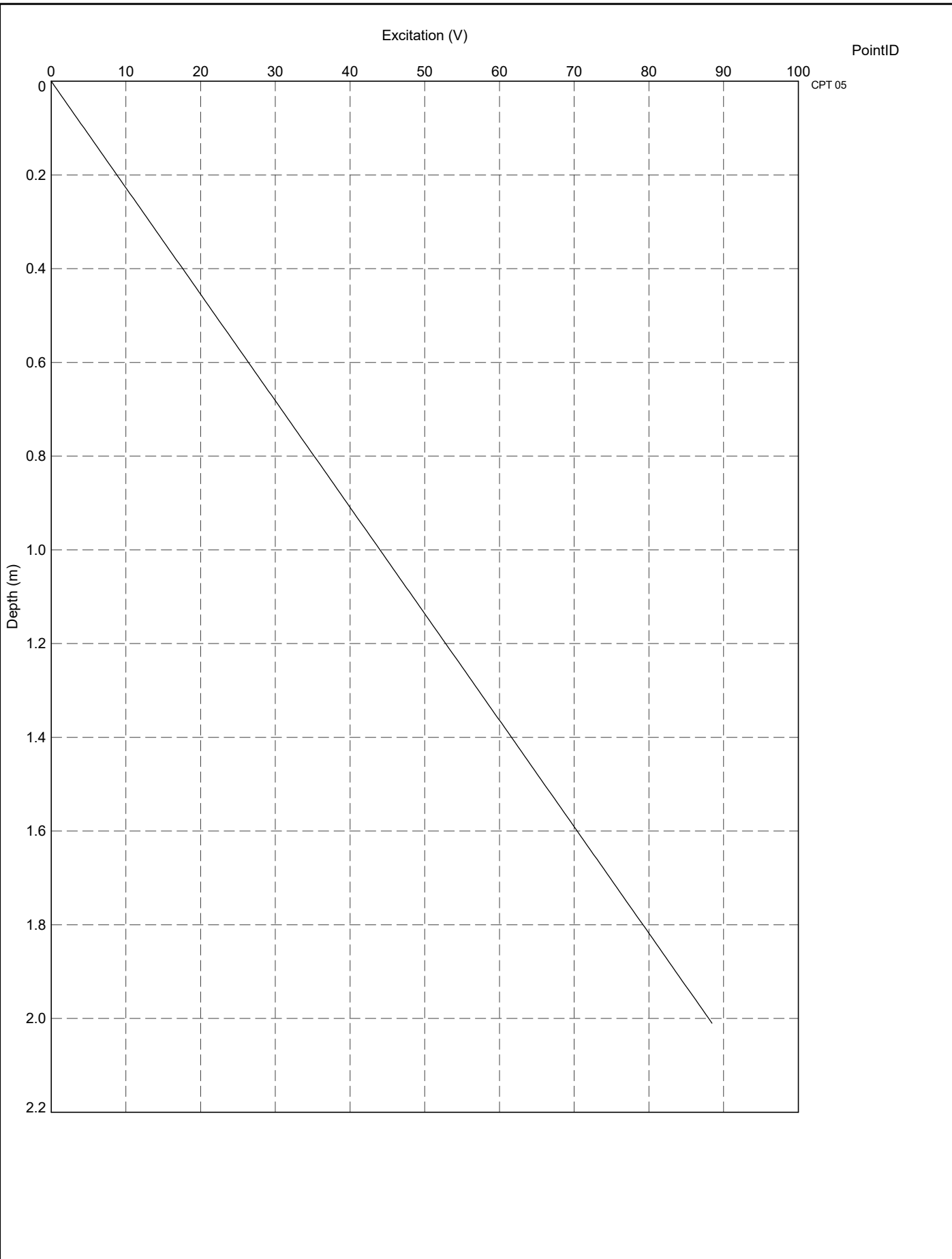
PointIDs: CPT 03



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Eslami Fellenius 1997  $q_e$  vs.  $f_s$

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	122



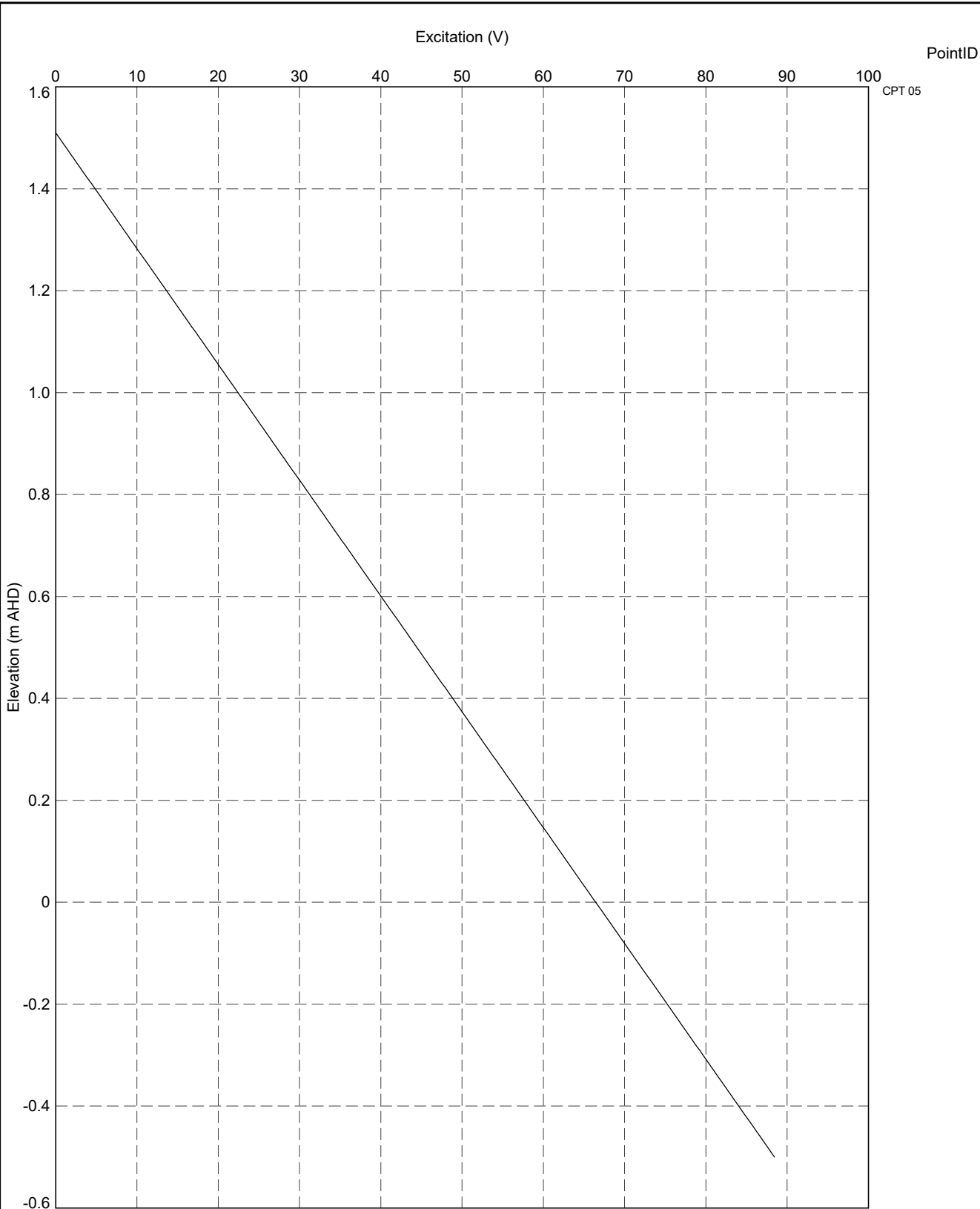
PointID

CPT 05

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT EXCITATION DEPTH AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:50 10.01.00.11 Datgel CPT Tool.gINT Add-in



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Excitation versus Depth	DRAWN	Datgel	DATE	1/2/2021	
	CHECKED	Datgel	DATE	1/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	123	



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT EXCITATION RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:50:10.01.00.11 Datgel CPT Tool gINT Add-In



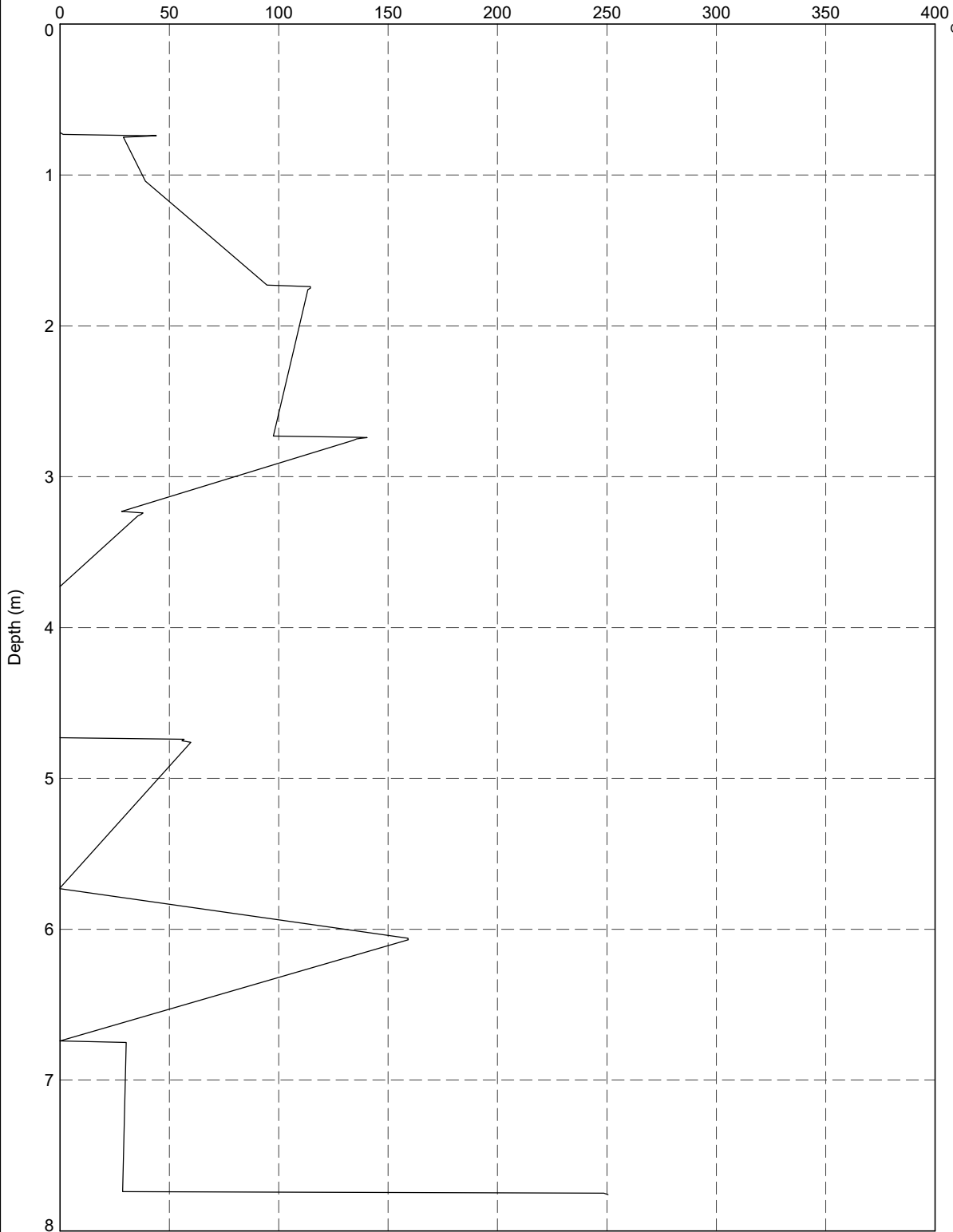
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Excitation versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	124

Filtered Sleeve Friction Resistance, Filtered  $f_s$  (kPa)

PointID



GEF 01

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT FILTERED FS DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:50 10.01.001.11 Datgel CPT Tool.gNT Add-In



Geotechnics • Geoenvironment • Laboratory

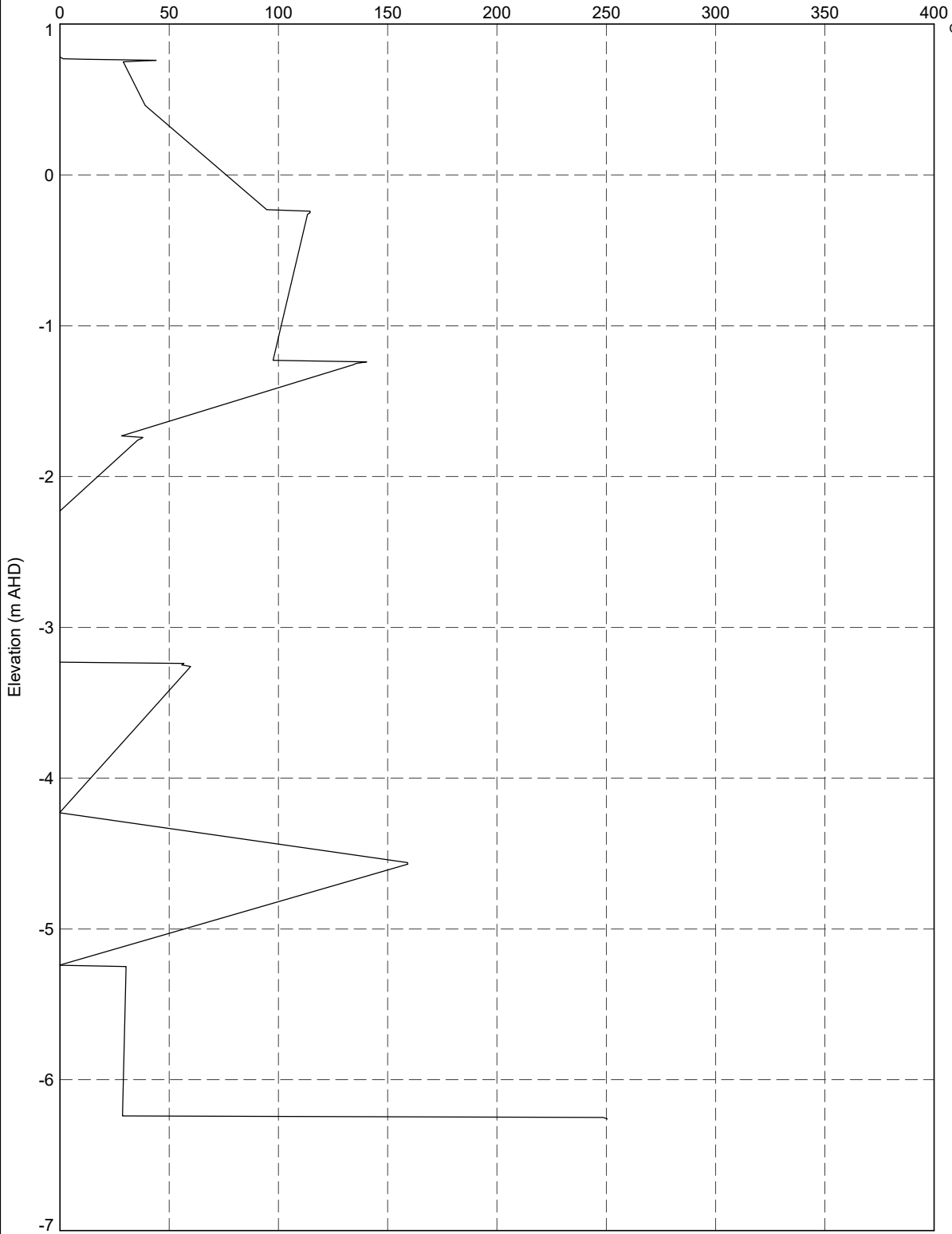
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Filtered Sleeve Friction Resistance versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	125

Filtered Sleeve Friction Resistance, Filtered  $f_s$  (kPa)

PointID



GEF 01

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FILTERED FS RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:50 10:01.00.11 Datgel CPT Tool glNT Add-In



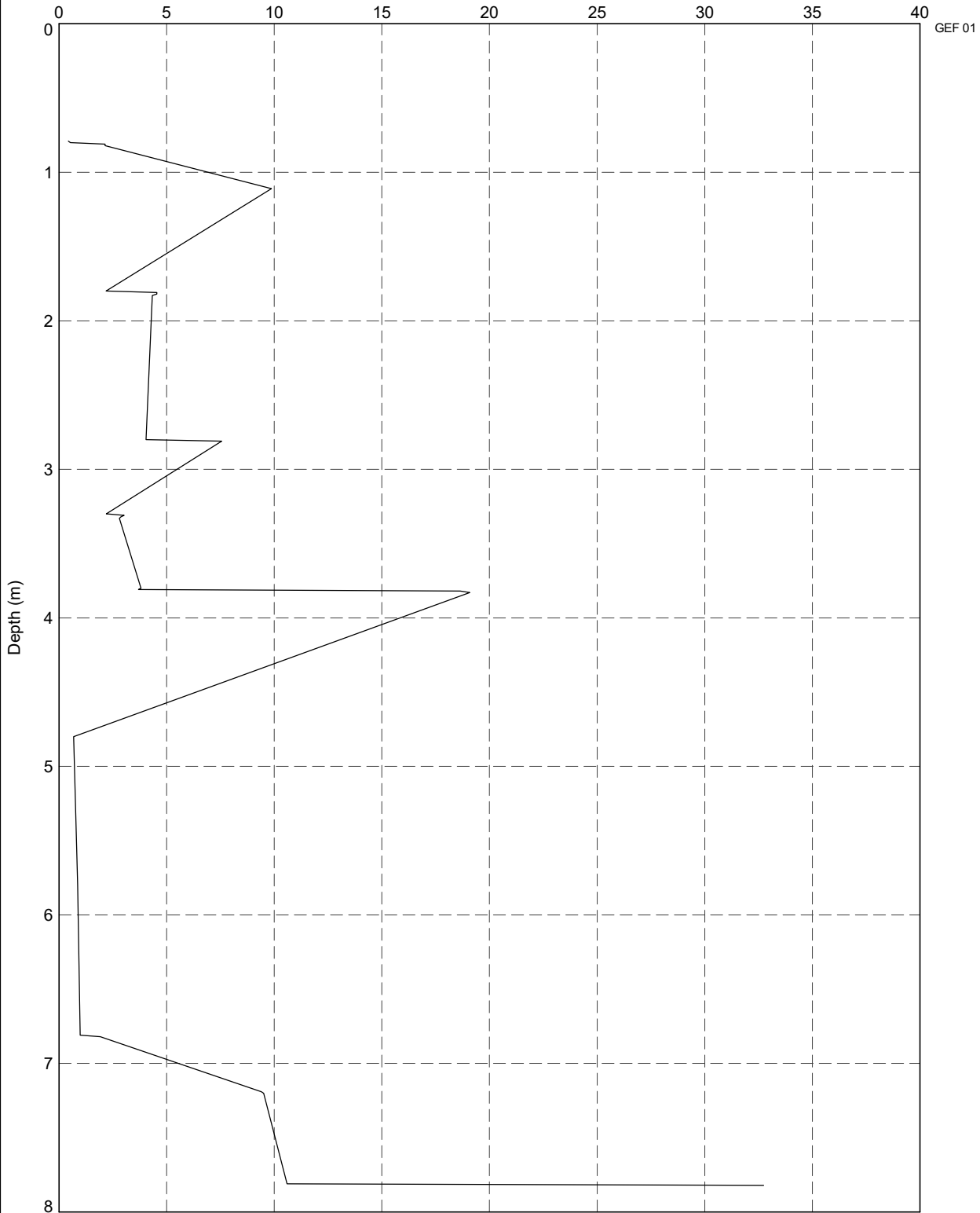
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Filtered Sleeve Friction Resistance versus  
 Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	126

Filtered Cone Resistance, Filtered  $q_c$  (kPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FILTERED OC DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:50 10.01.00.11 Datgel CPT Tool glNT Add-In



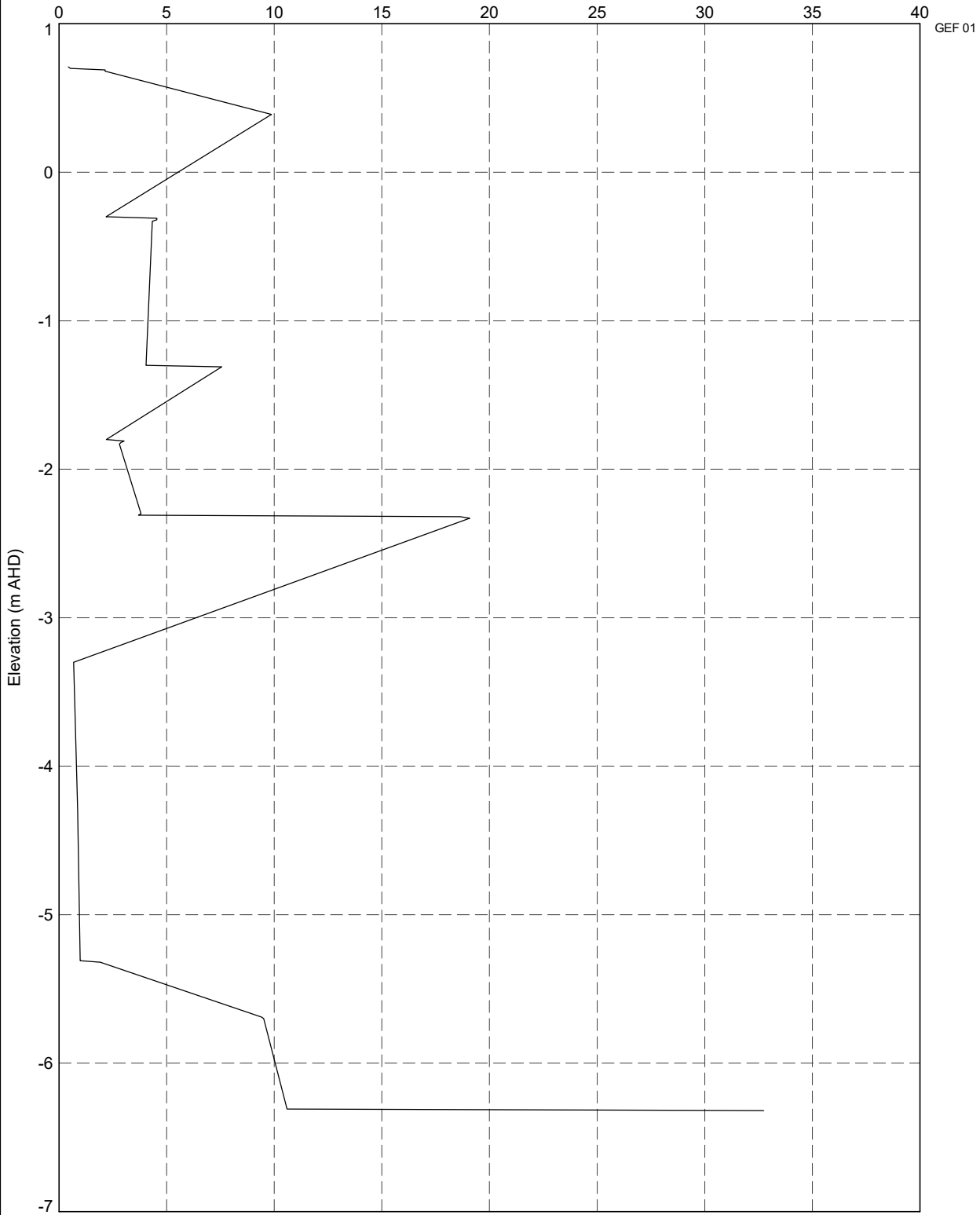
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Filtered Cone Resistance versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	127

Filtered Cone Resistance, Filtered  $q_c$  (kPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FILTERED OC RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:50 10.01.00.11 Datgel.CPT Tool glnt Add-in



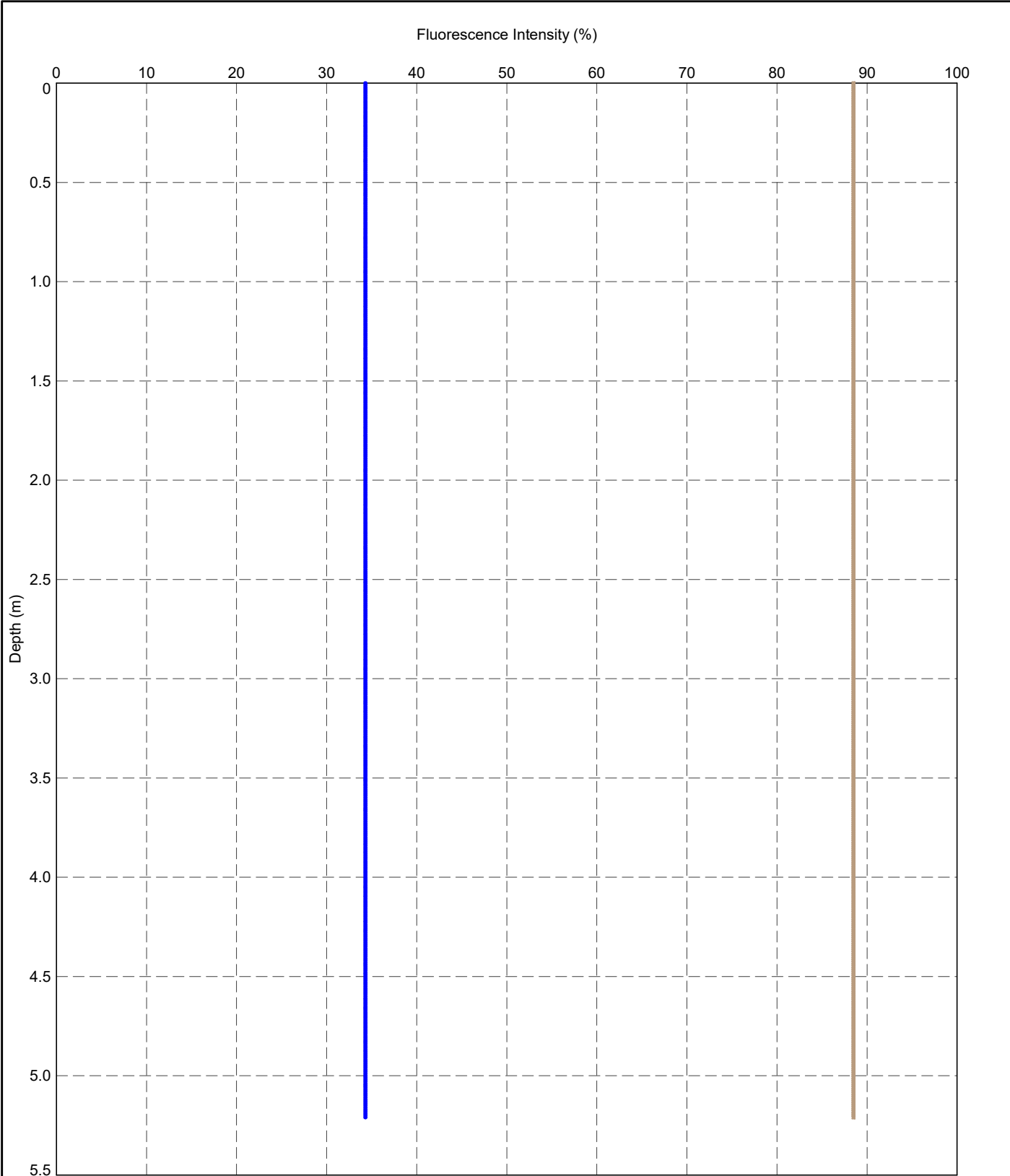
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Filtered Cone Resistance versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	128



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.FLUORESCENCE.INTENSITY.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 1/2/2021 23:51 10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



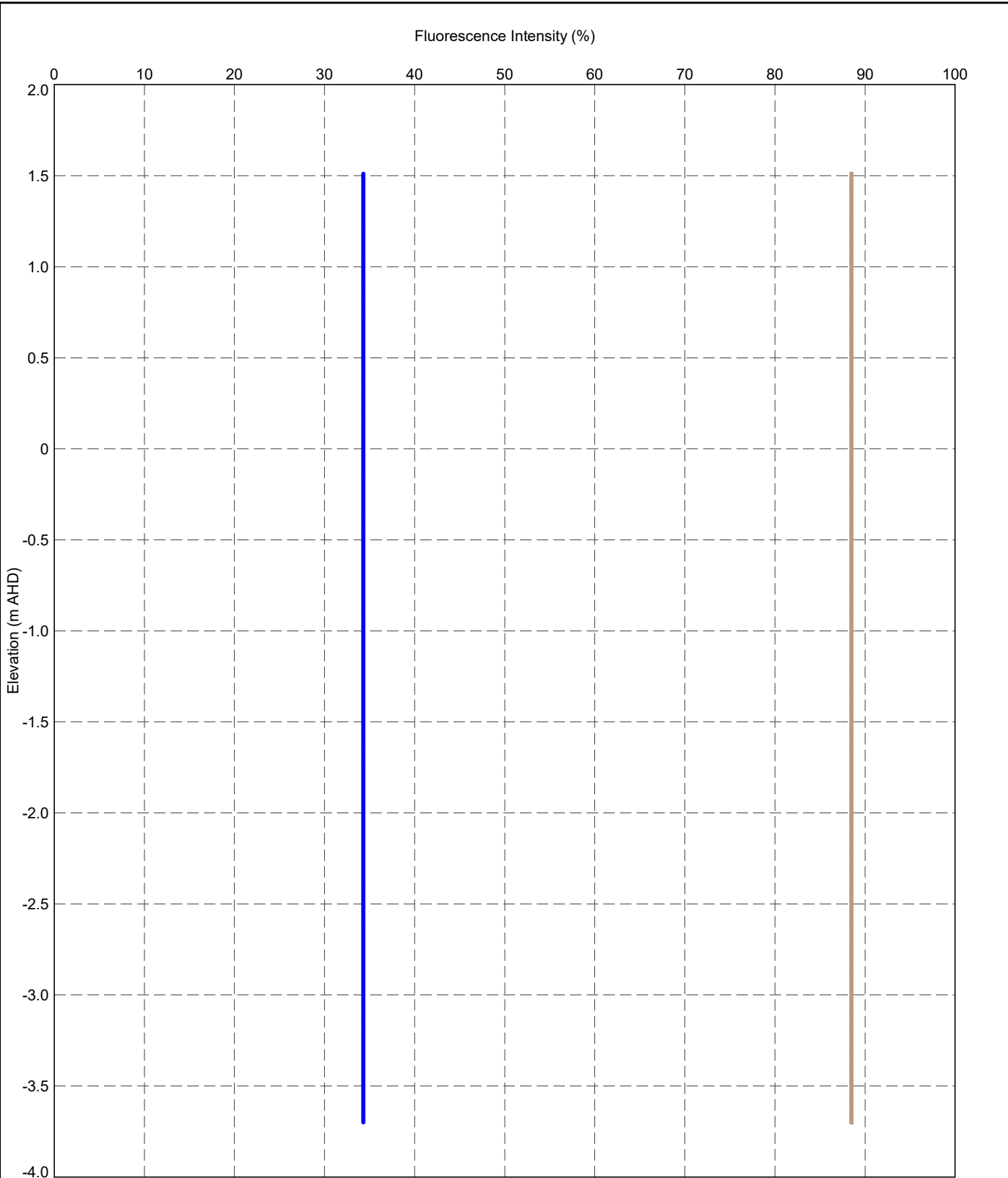
Legend:  
● Fluorescence Intensity 1 (%)  
■ Fluorescence Intensity 2 (%)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Fluorescence Intensity versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	129

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT FLUORESCENCE INTENSITY RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/22/2021 23:52 10:01:00.11 Datgel CPT Tool gINT Add-In



Legend:  
● Fluorescence Intensity 1 (%)  
■ Fluorescence Intensity 2 (%)

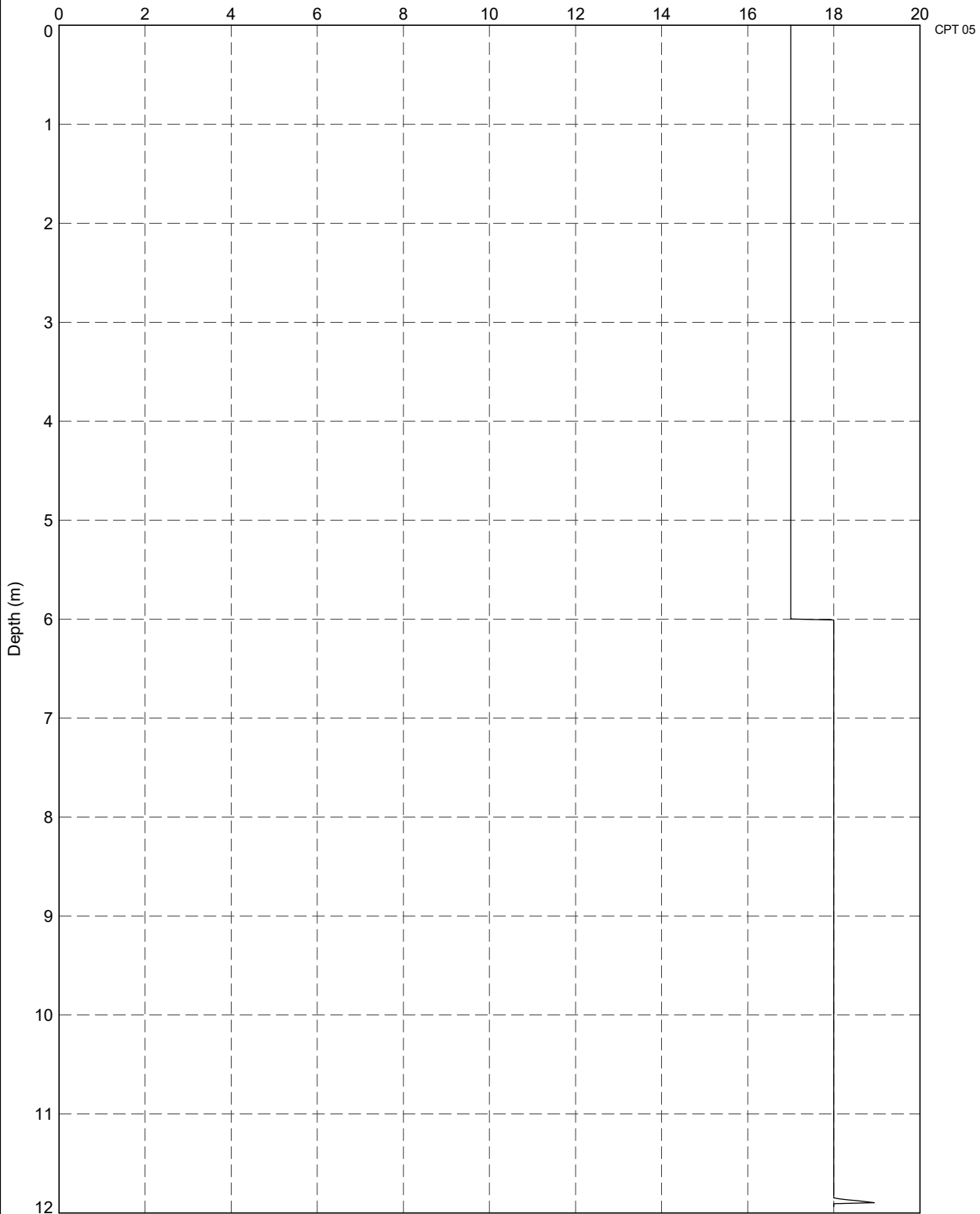


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Fluorescence Intensity versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	130

Bulk Unit Weight,  $\gamma_b$  (kN/m<sup>3</sup>)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT FOUND BULK UNIT WEIGHT DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel CPT Tool\gINT Add-in

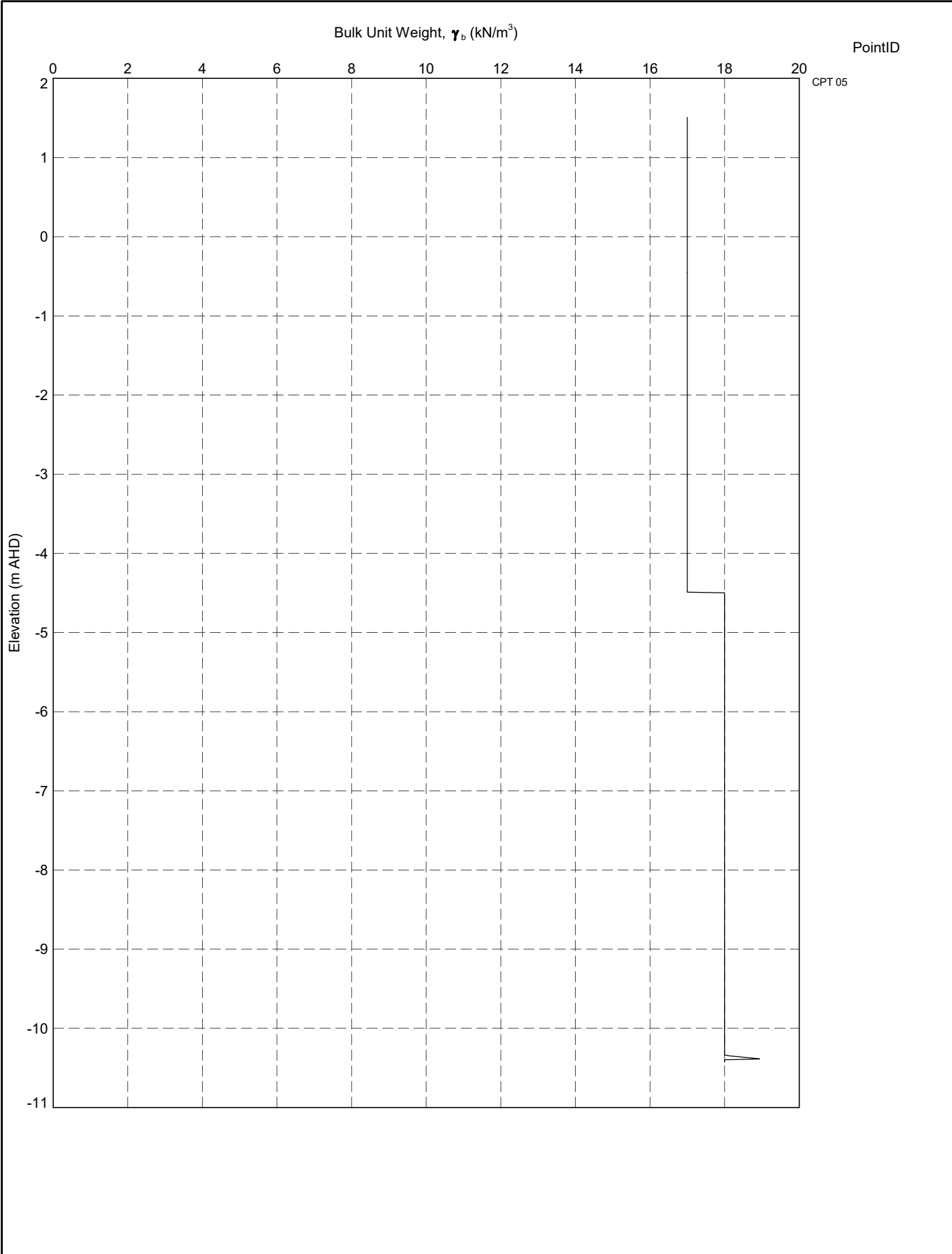


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Bulk Unit Weight versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	131

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT FOUND BULK UNIT WEIGHT RL A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel CPT Tool.gNT Add-In



PointID  
CPT 05

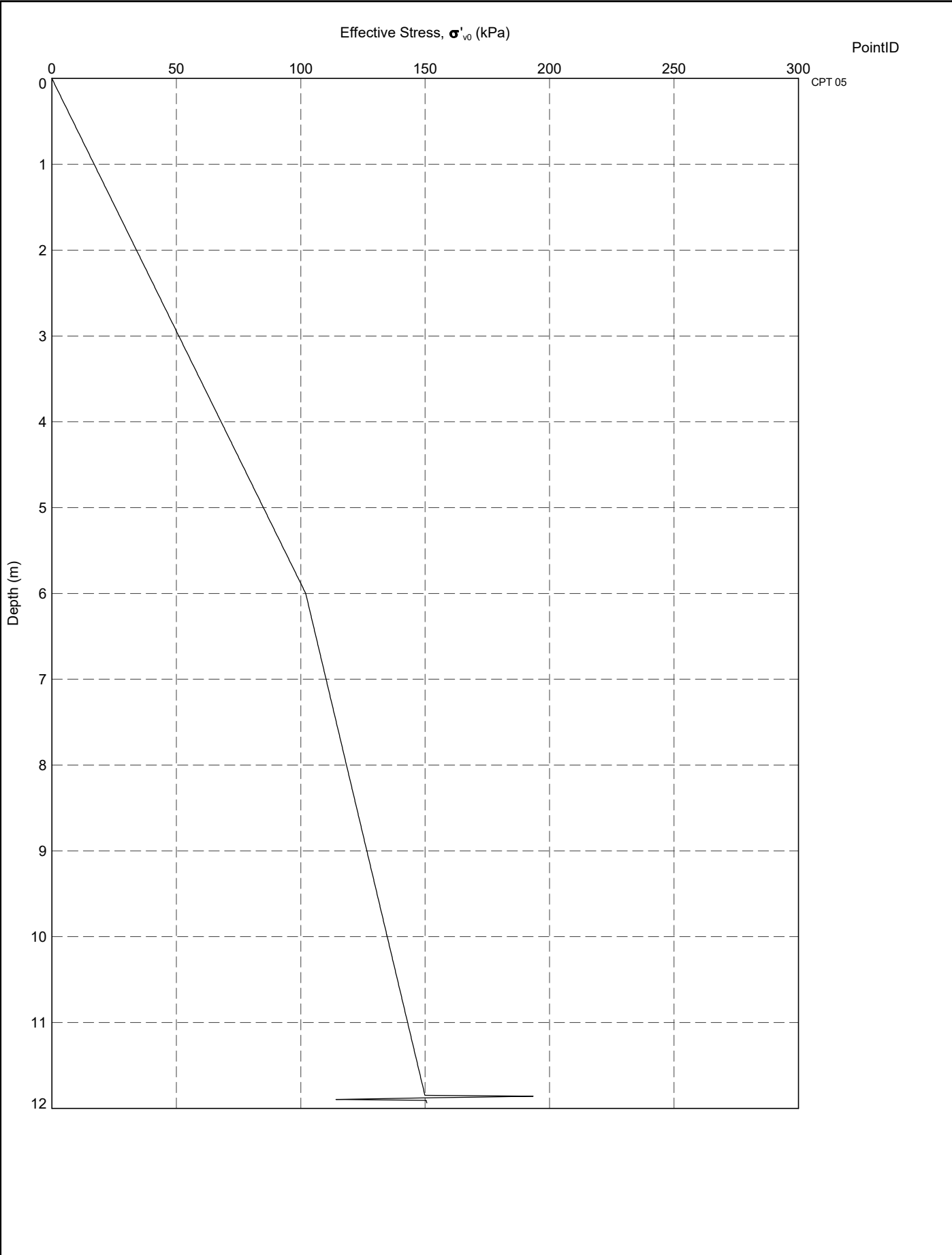


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Bulk Unit Weight versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	132

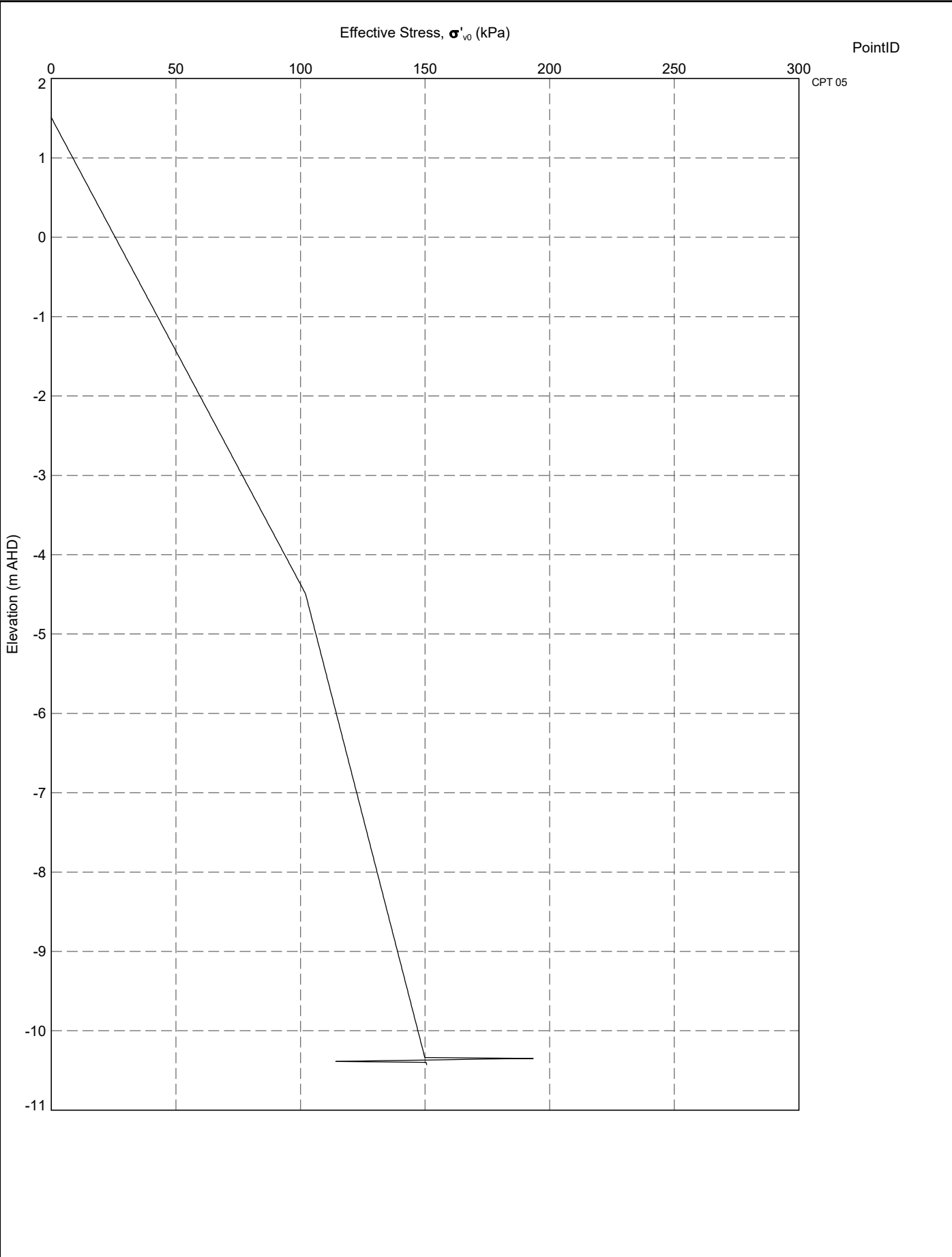
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FOUND EFFECTIVE STRESS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 1/2/2021 23:52 10.01.00.11 Datgel CPT Tool.gINT Add-In



PointID  
CPT 05

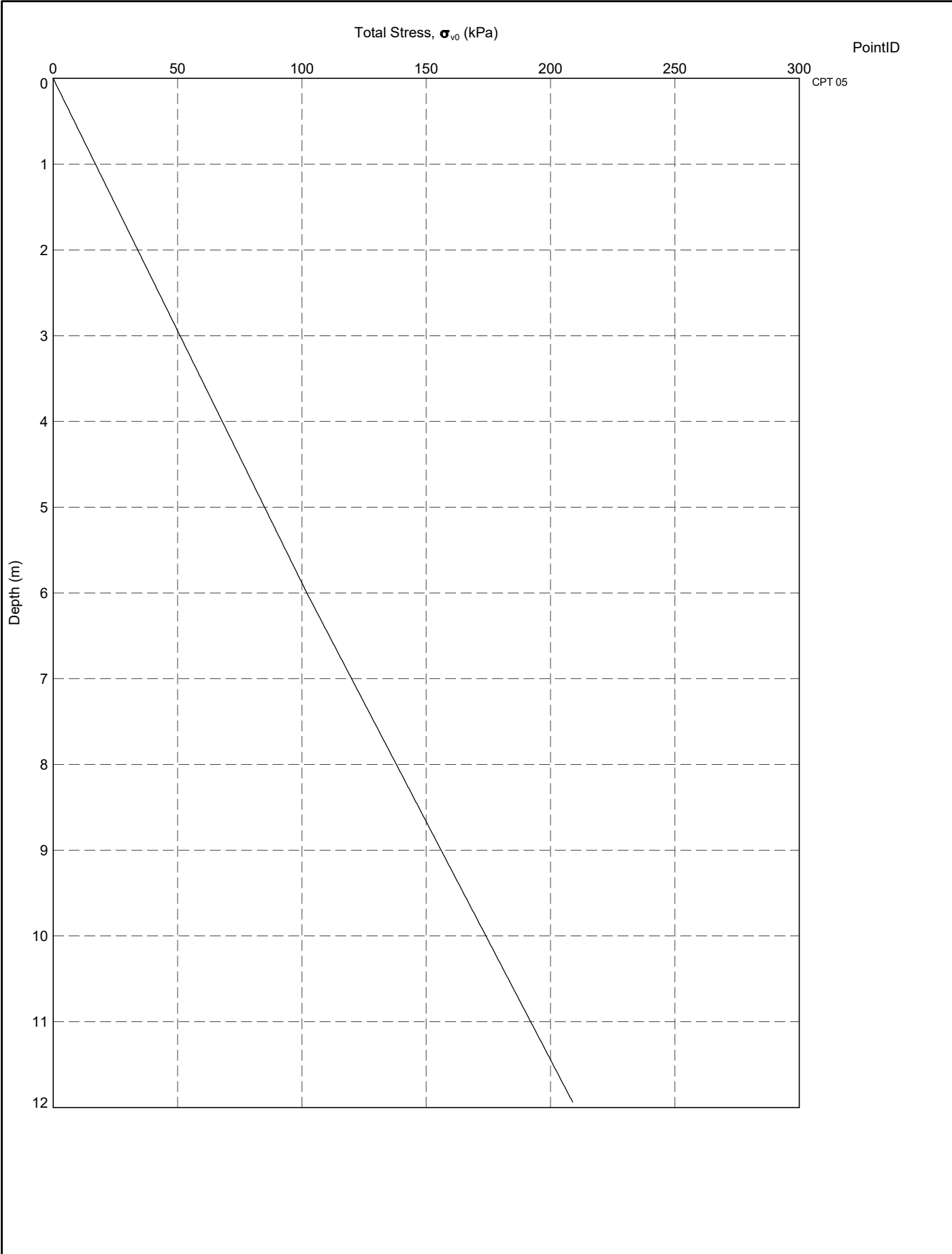
	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Effective Stress versus Depth	
	DRAWN	Datgel	DATE 1/2/2021
	CHECKED	Datgel	DATE 1/2/2021
	SCALE	Not To Scale	
PROJECT No	4.05.0	FIGURE No	133

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT FOUND EFFECTIVE STRESS RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel CPT Tool gINT Add-in



	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Effective Stress versus Elevation	DRAWN Datgel	DATE 1/2/2021
			CHECKED Datgel	DATE 1/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 134

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT FOUND TOTAL STRESS DEPTH A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel.CPT Tool.gINT Add-In



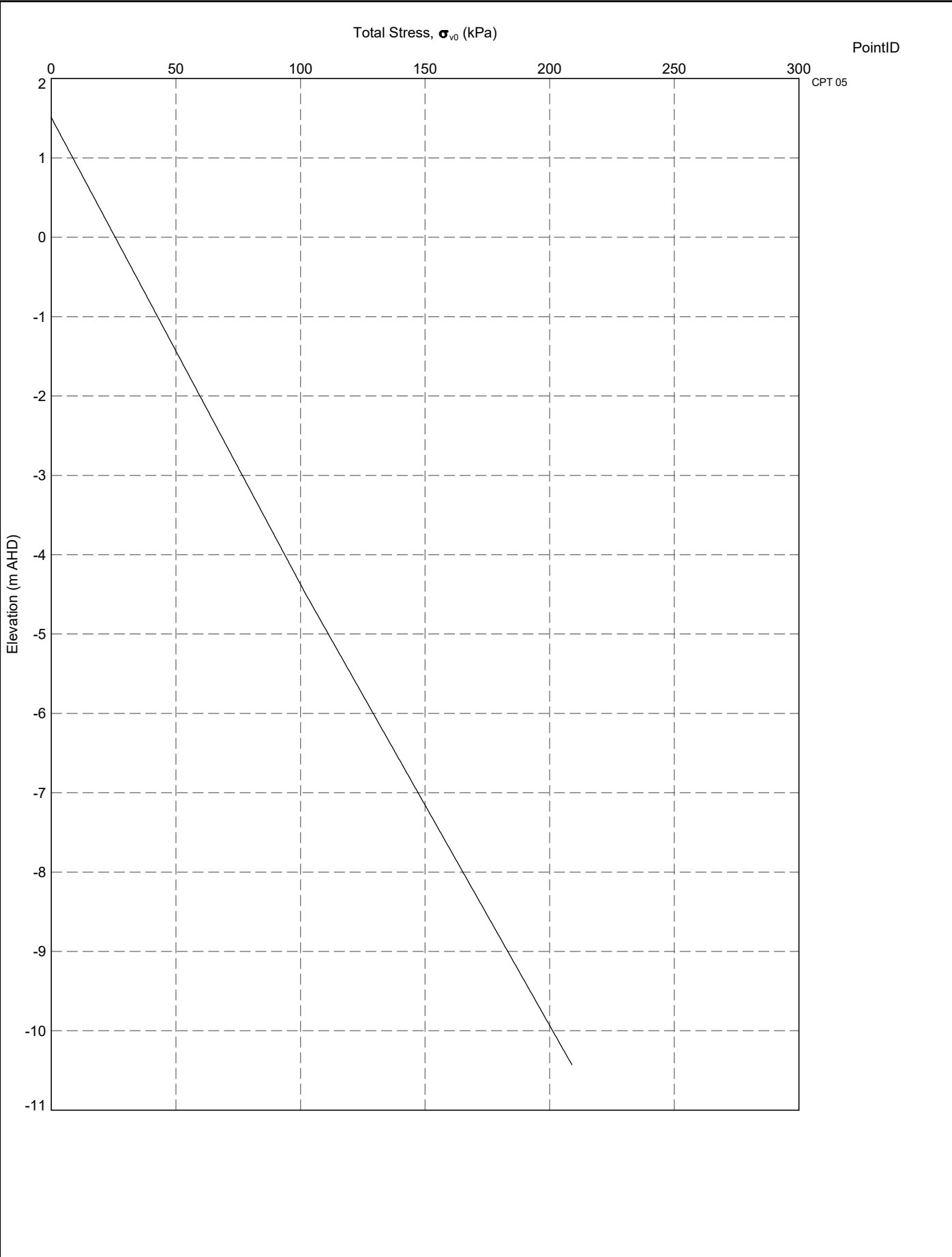
PointID  
CPT 05



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Total Stress versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	135

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FOUND TOTAL STRESS RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGJ <<DrawingFile>> 1/2/2021 23:52:10.01.00.11 Datgel.CPT Tool glNT Add-In



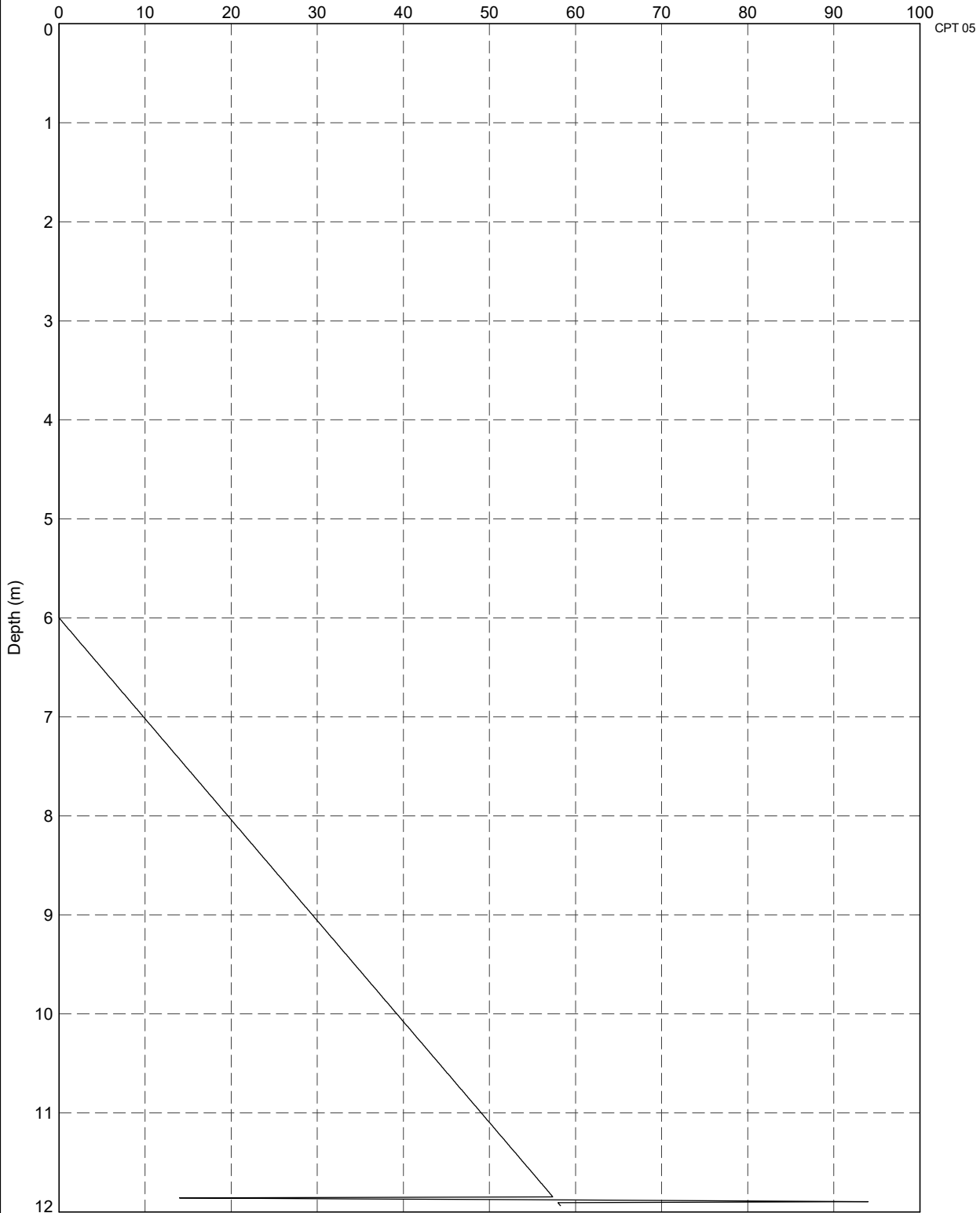
PointID  
CPT 05

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Total Stress versus Elevation	DRAWN Datgel	DATE 1/2/2021
			CHECKED Datgel	DATE 1/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 136



In Situ Pore Pressure,  $u_0$  (kPa)

PointID



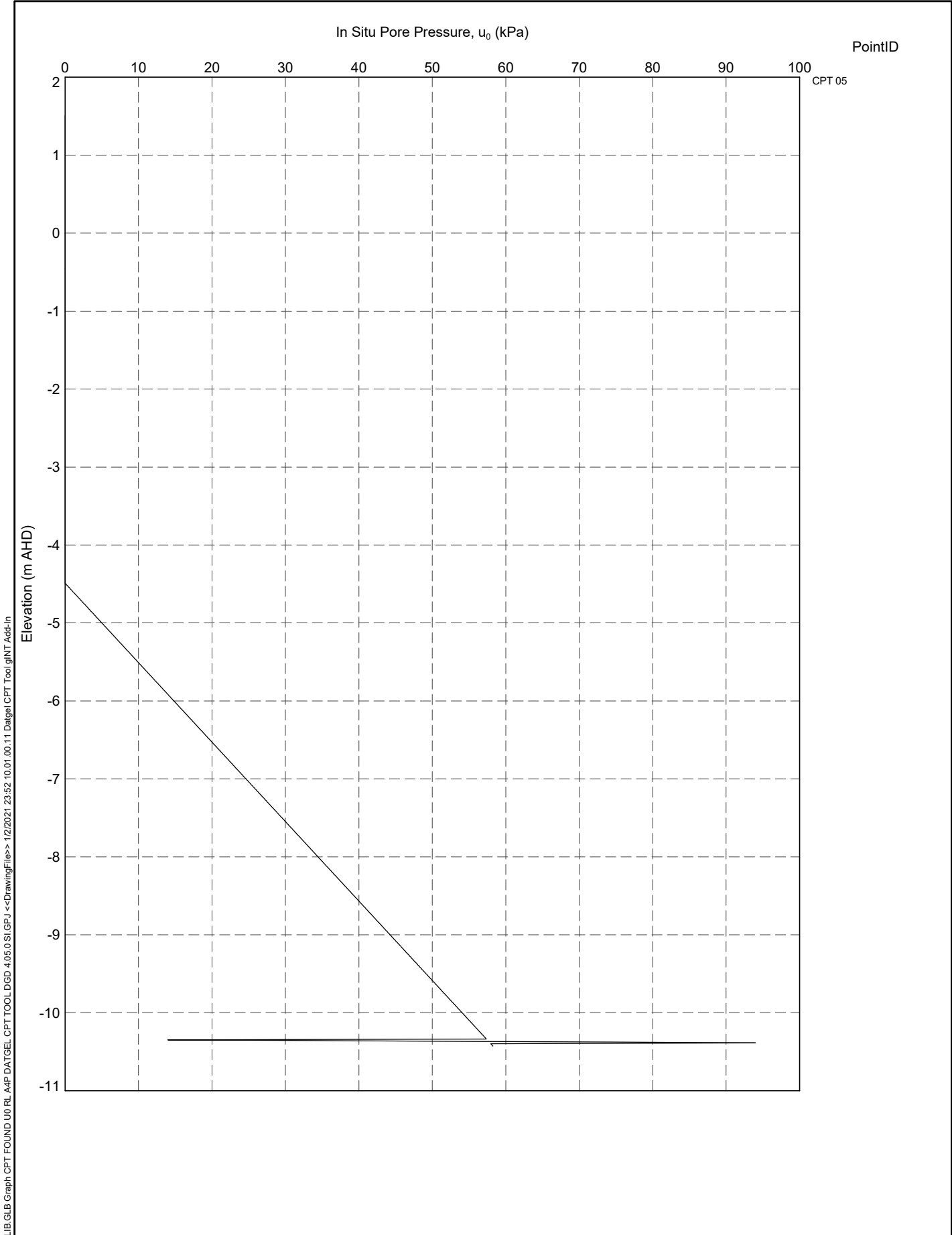
DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT FOUND.U0 DEPTH.A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel CPT Tool.gNT Add-In



Geotechnics • Geoenvironment • Laboratory

TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 In Situ Pore Pressure versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	137



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FOUND U0 RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:52:10.01.00.11 Datgel CPT Tool gINT Add-In



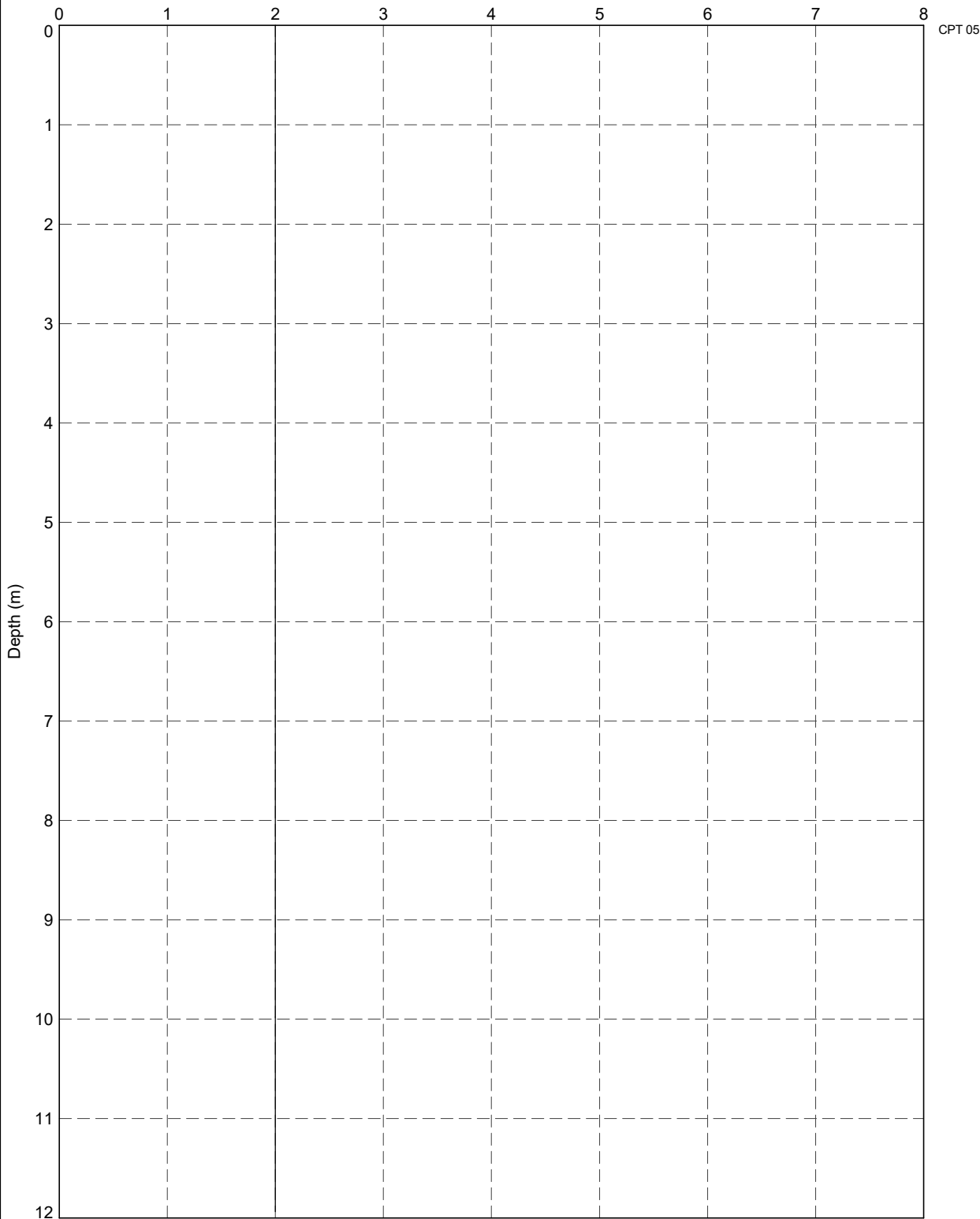
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 In Situ Pore Pressure versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	138

Young's Modulus Alpha, E<sub>0</sub> Alpha

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FOUND YOUNG MODULUS ALPHA DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel.CPT Tool glNT Add-In



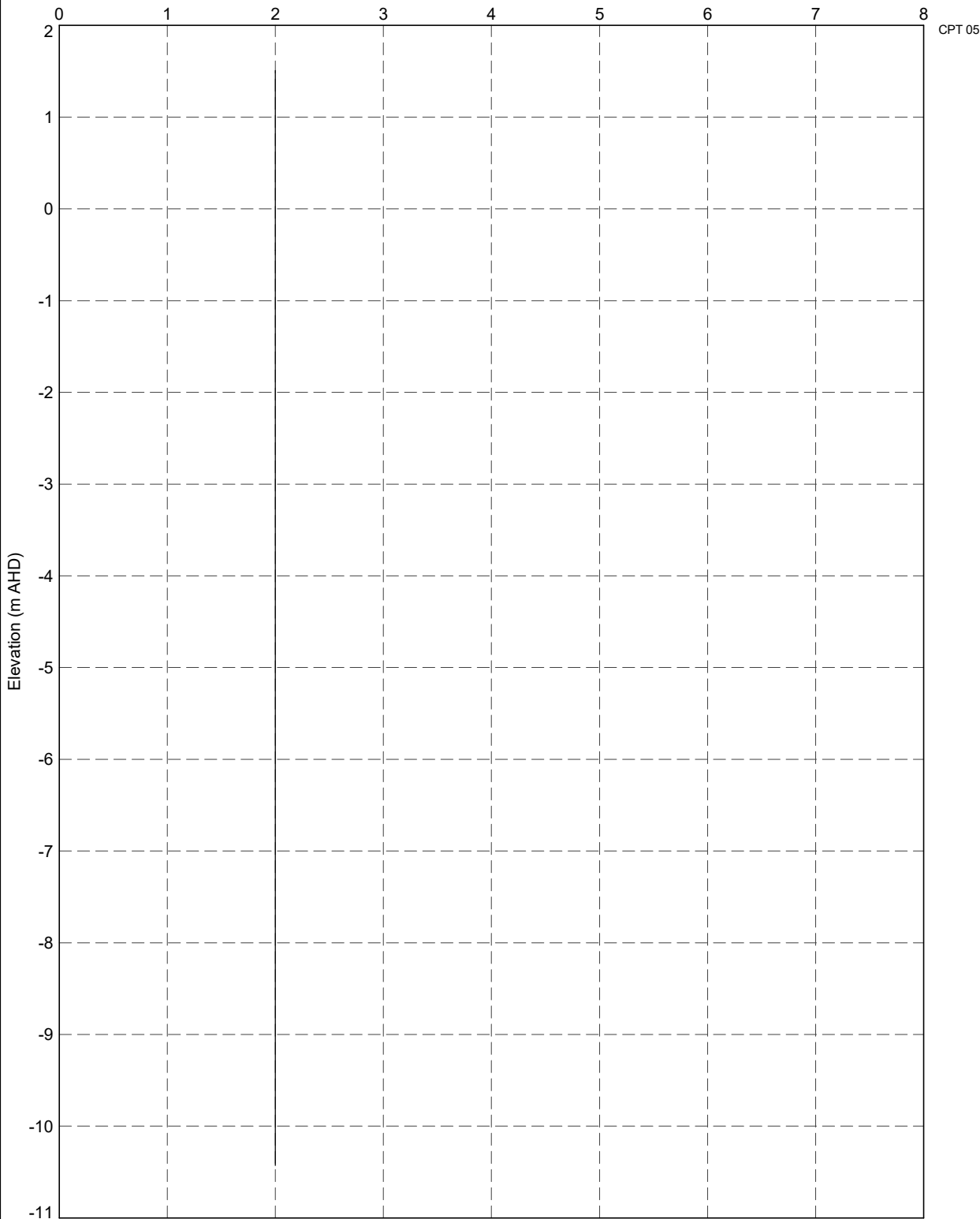
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Young's Modulus Alpha versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	139

Young's Modulus Alpha, E<sub>0</sub> Alpha

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FOUND YOUNG MODULUS ALPHA RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:52 10.01.00.11 Datgel.CPT Tool glnt Add-in

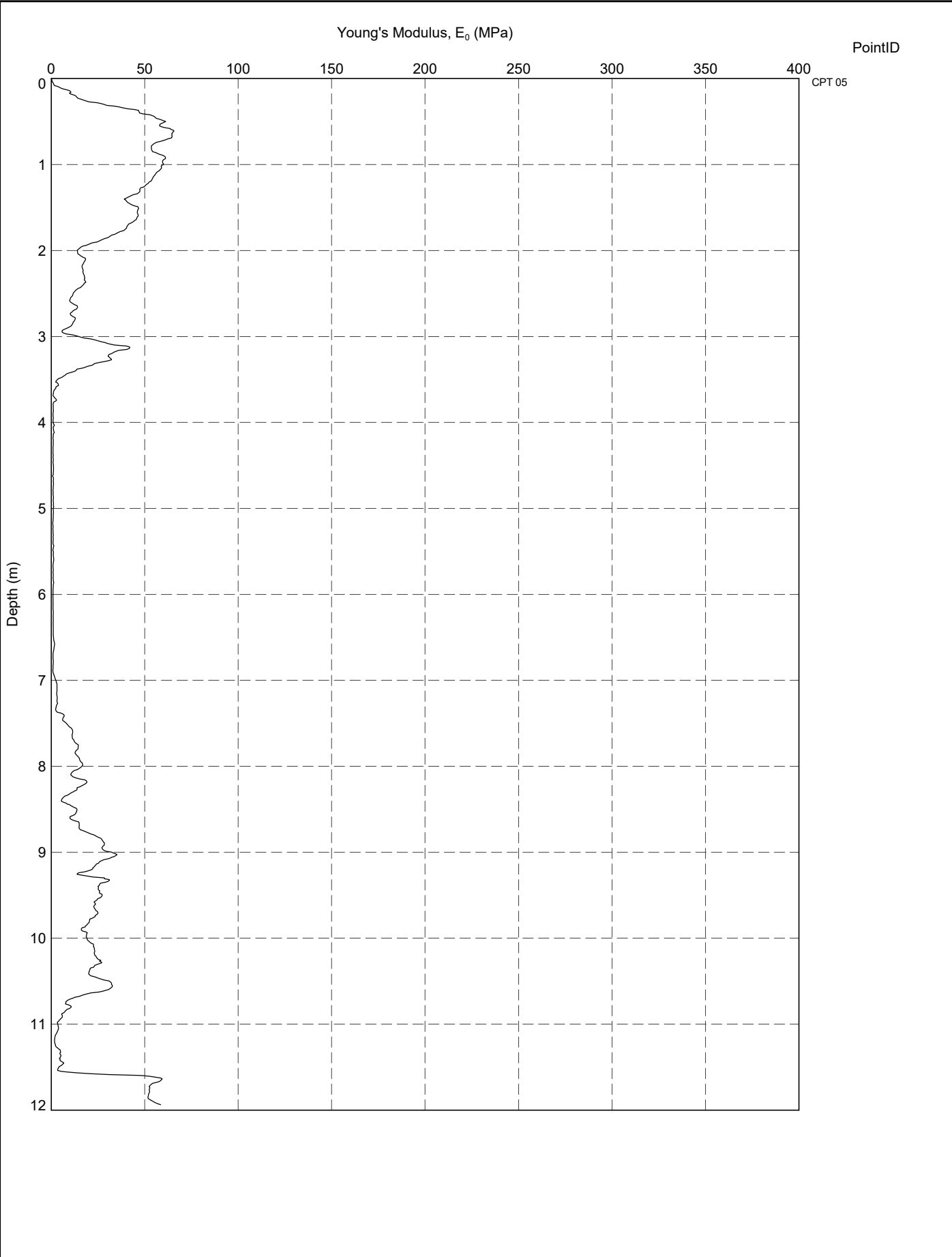



TITLE

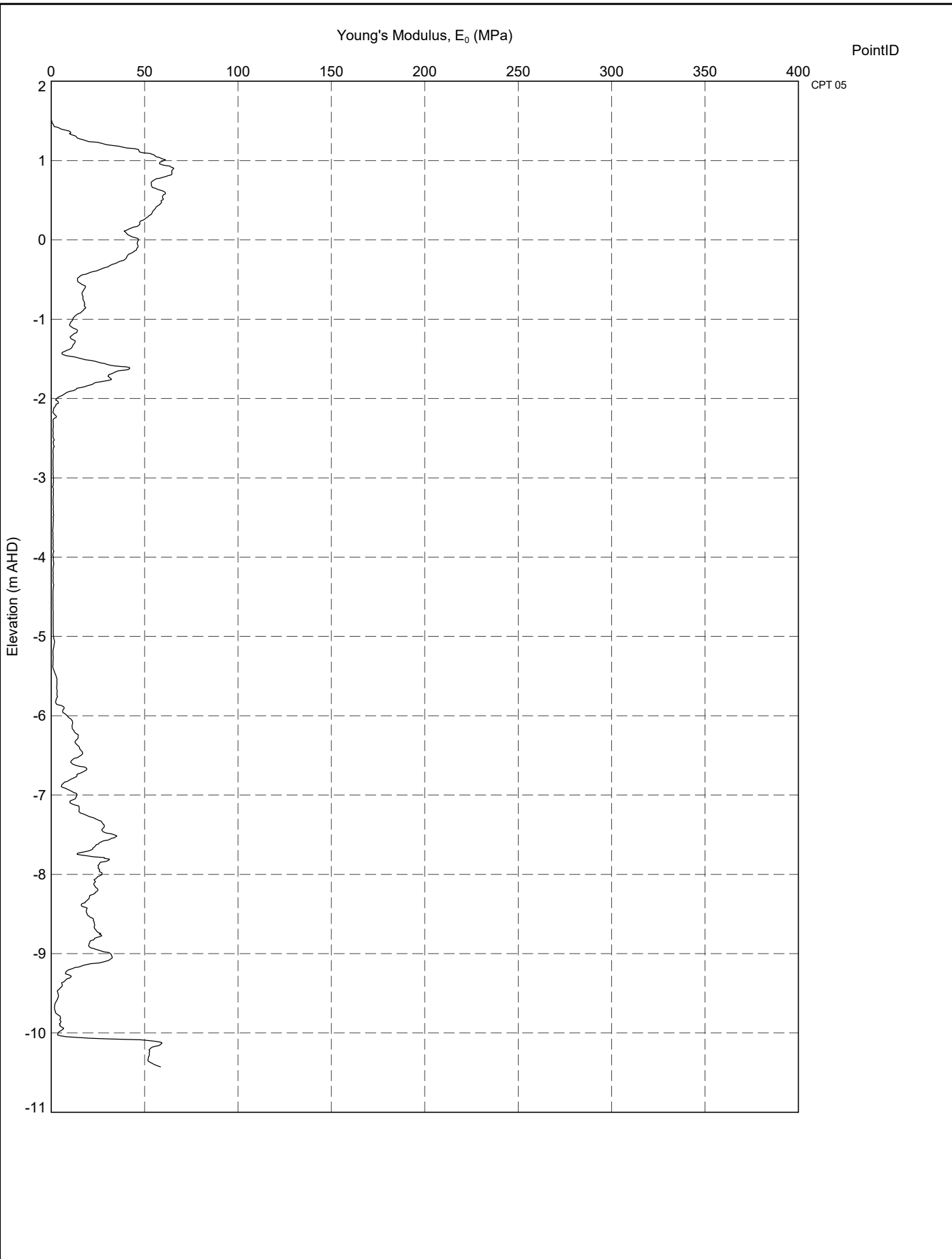
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Young's Modulus Alpha versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	140

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT FOUND YOUNG MODULUS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI GPJ <<DrawingFile>> 1/22/2021 23:52 10:01:00.11 Datgel CPT Tool gINT Add-In



 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Young's Modulus versus Depth</p>	<p>DRAWN <b>Datgel</b></p>	<p>DATE <b>1/2/2021</b></p>	
		<p>CHECKED <b>Datgel</b></p>	<p>DATE <b>1/2/2021</b></p>	
		<p>SCALE <b>Not To Scale</b></p>		<p><b>A4</b></p>
		<p>PROJECT No <b>4.05.0</b></p>	<p>FIGURE No <b>141</b></p>	



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT FOUND YOUNG MODULUS RL\_A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:52:10.01.00.11 Datgel CPT Tool.gINT Add-In

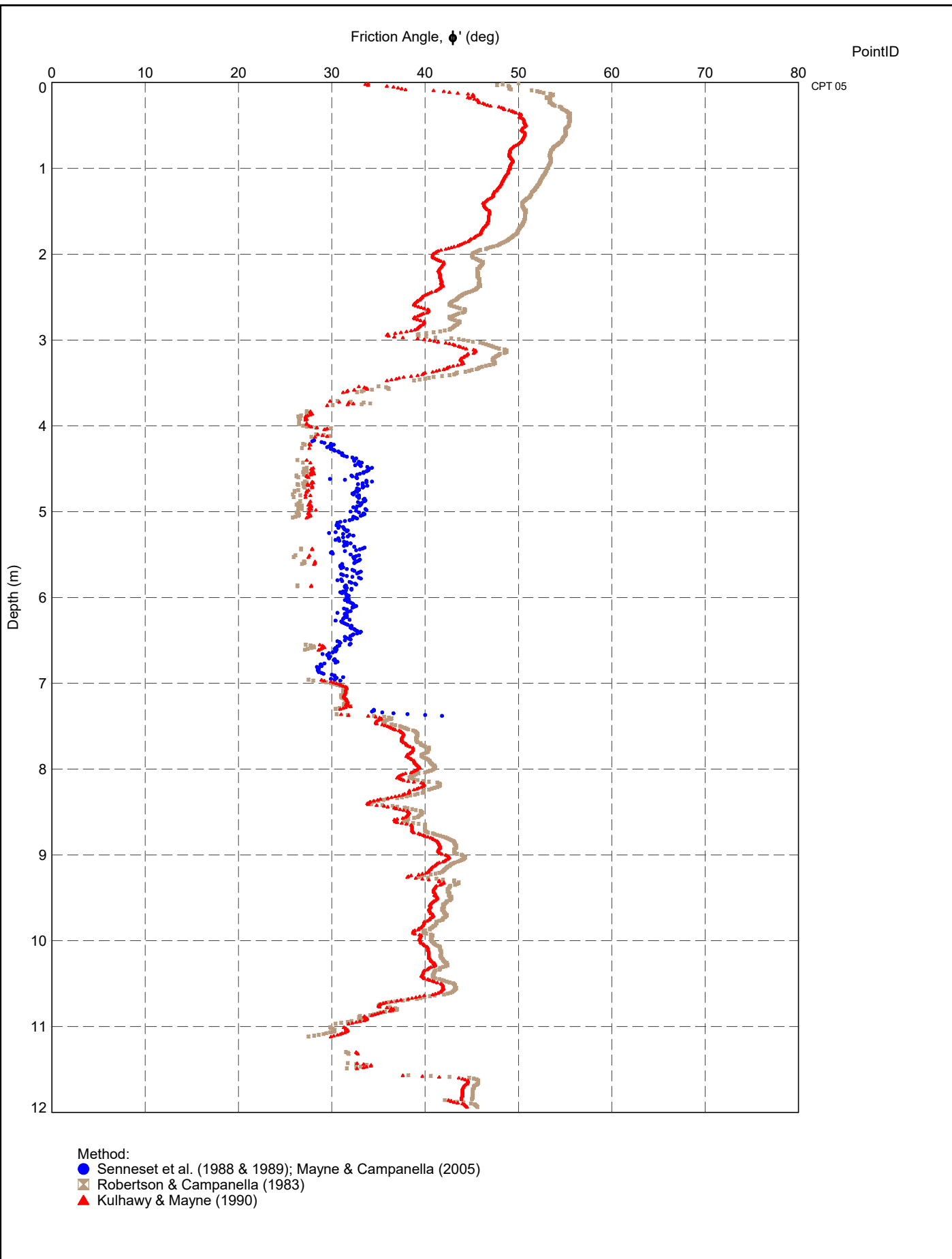


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Young's Modulus versus Elevation

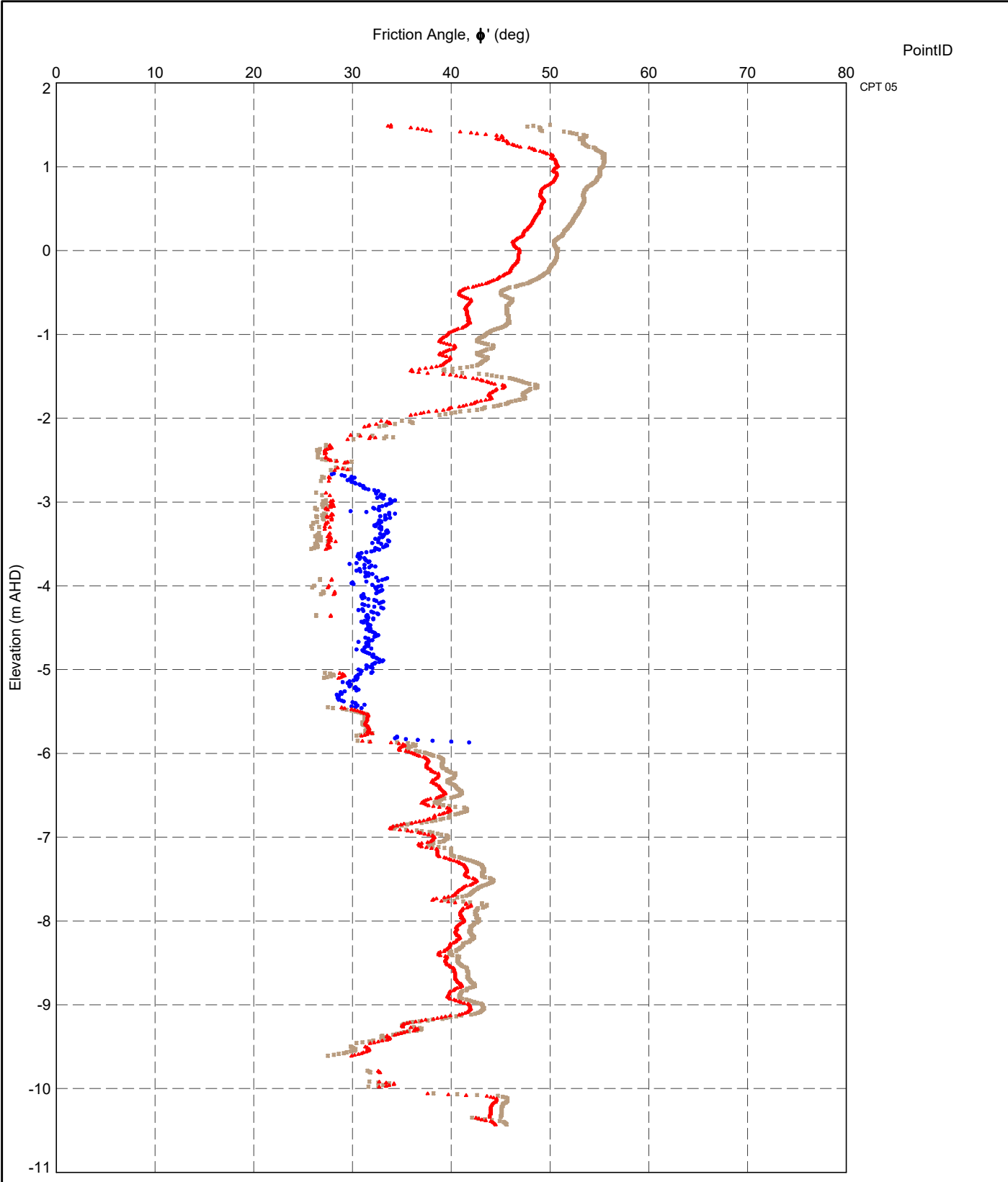
DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	142

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT FRICTION ANGLE DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:53 10.01.00.11 Datgel CPT Tool.iGINT Add-In



<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Friction Angle versus Depth	DRAWN	Datgel	DATE	1/2/2021	
		CHECKED	Datgel	DATE	1/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	143

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT FRICTION ANGLE.RL A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 1/2/2021 23:54 10.01.00.11 Datgel CPT Tool.gINT.Add-In



PointID  
CPT 05

- Method:
- Senneset et al. (1988 & 1989); Mayne & Campanella (2005)
  - Robertson & Campanella (1983)
  - ▲ Kulhawy & Mayne (1990)

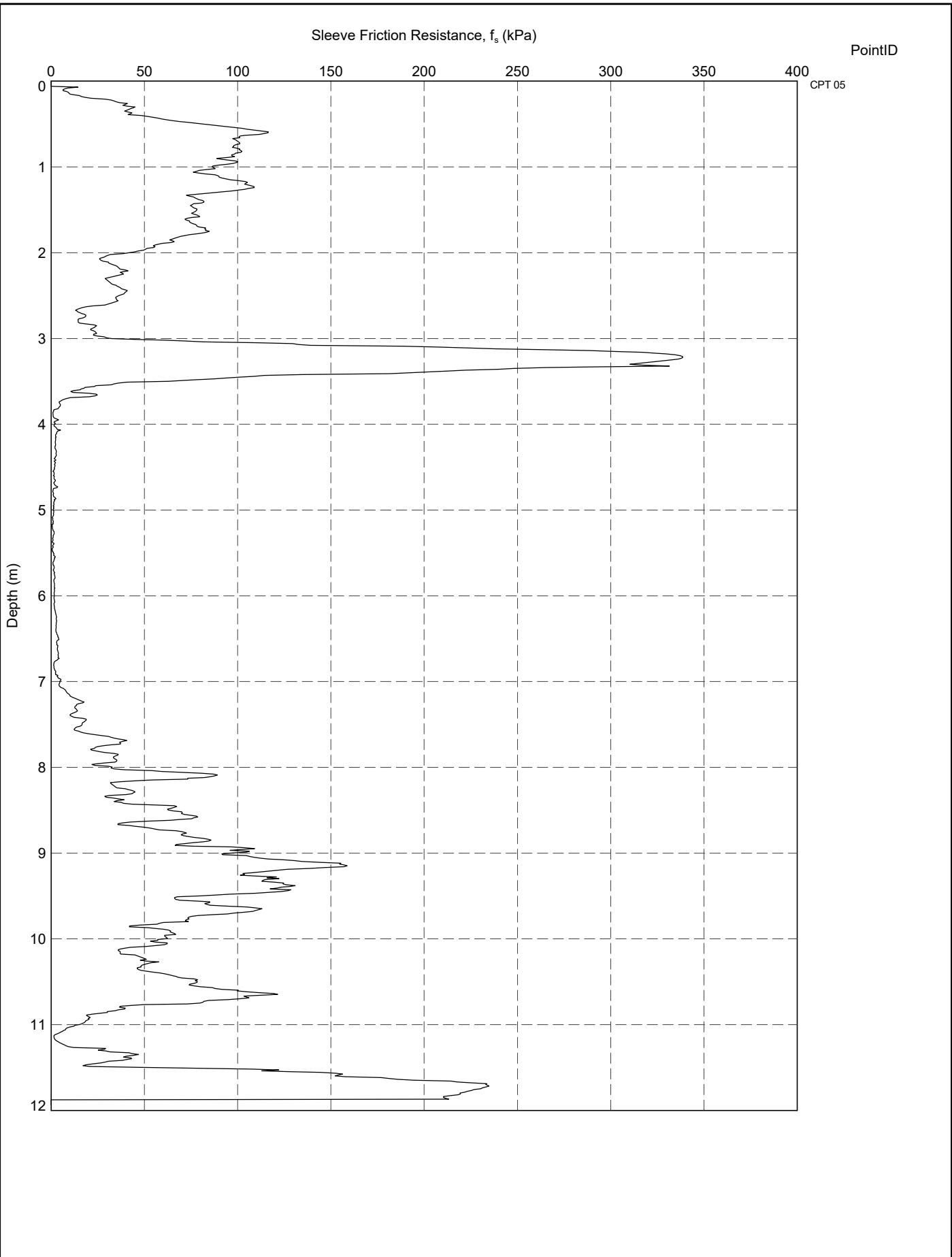


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Friction Angle versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	144





DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 1/2/2021 23:54 10.01.00.11 Datgel CPT Tool gINT Add-in

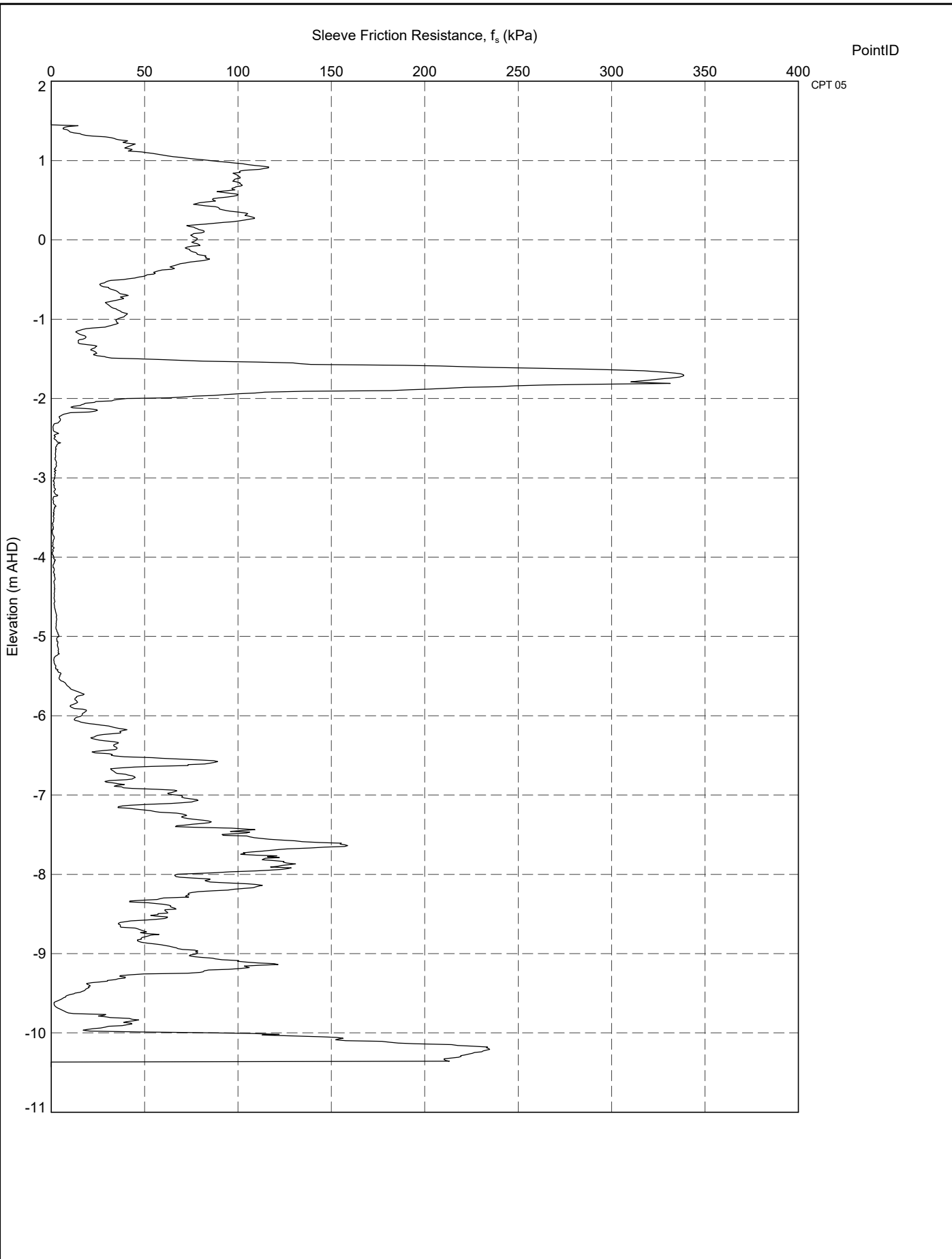


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Sleeve Friction Resistance versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	145



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT FS RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/22/2021 23:54 10:01:00.11 Datgel CPT Tool gINT Add-in

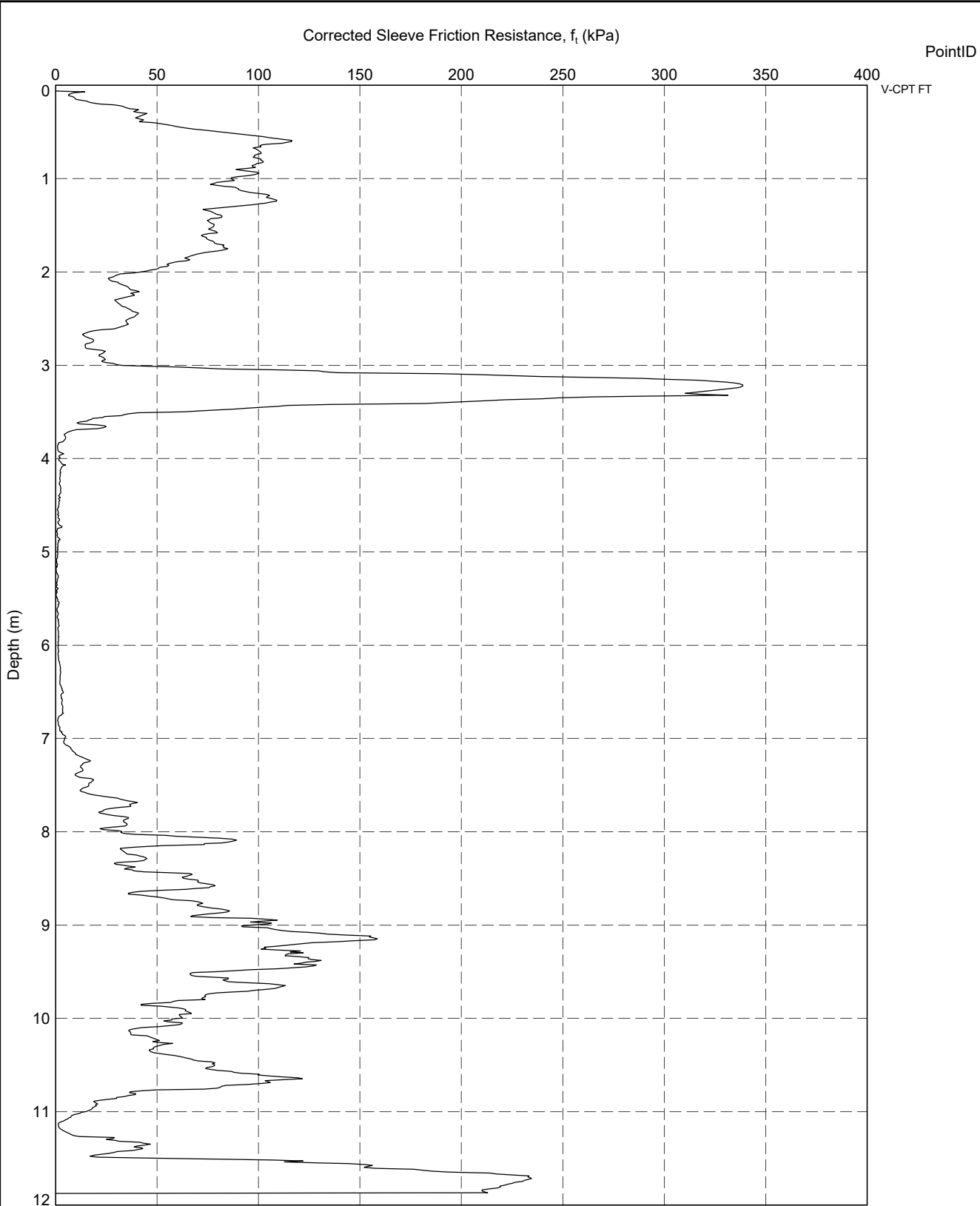
**Datgel**  
DATA SOLUTIONS  
Geotechnics • Geoenvironment • Laboratory

TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Sleeve Friction Resistance versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	146

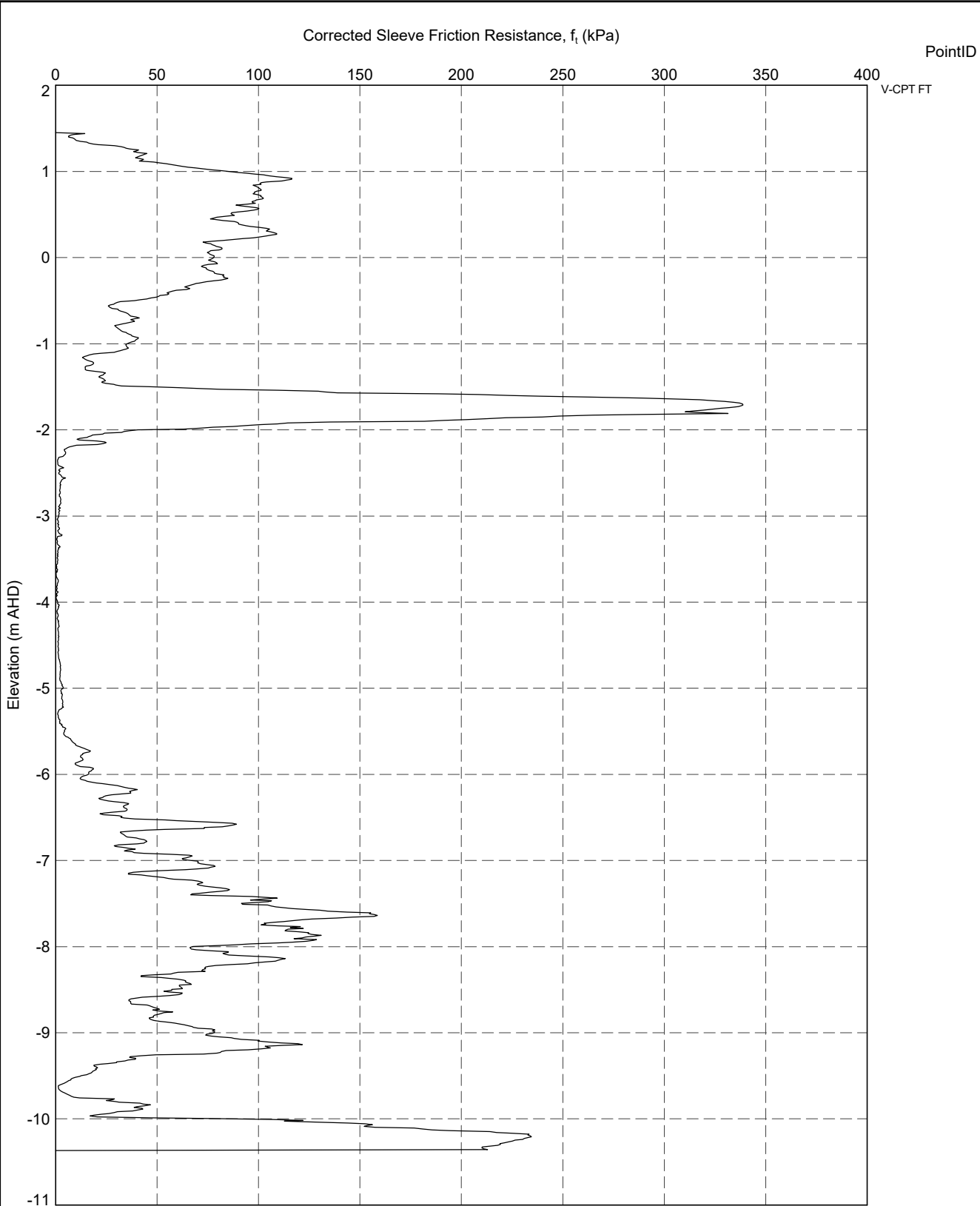


DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT FT DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 1/2/2021 23:54 10.01.00.11 Datgel CPT Tool.gINT Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Corrected Sleeve Friction Resistance Radiation  
 versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	147



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT FT RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <-DrawingFiles> 1/2/2021 23:54 10.01.00.11 Datgel CPT Tool gINT Add-In

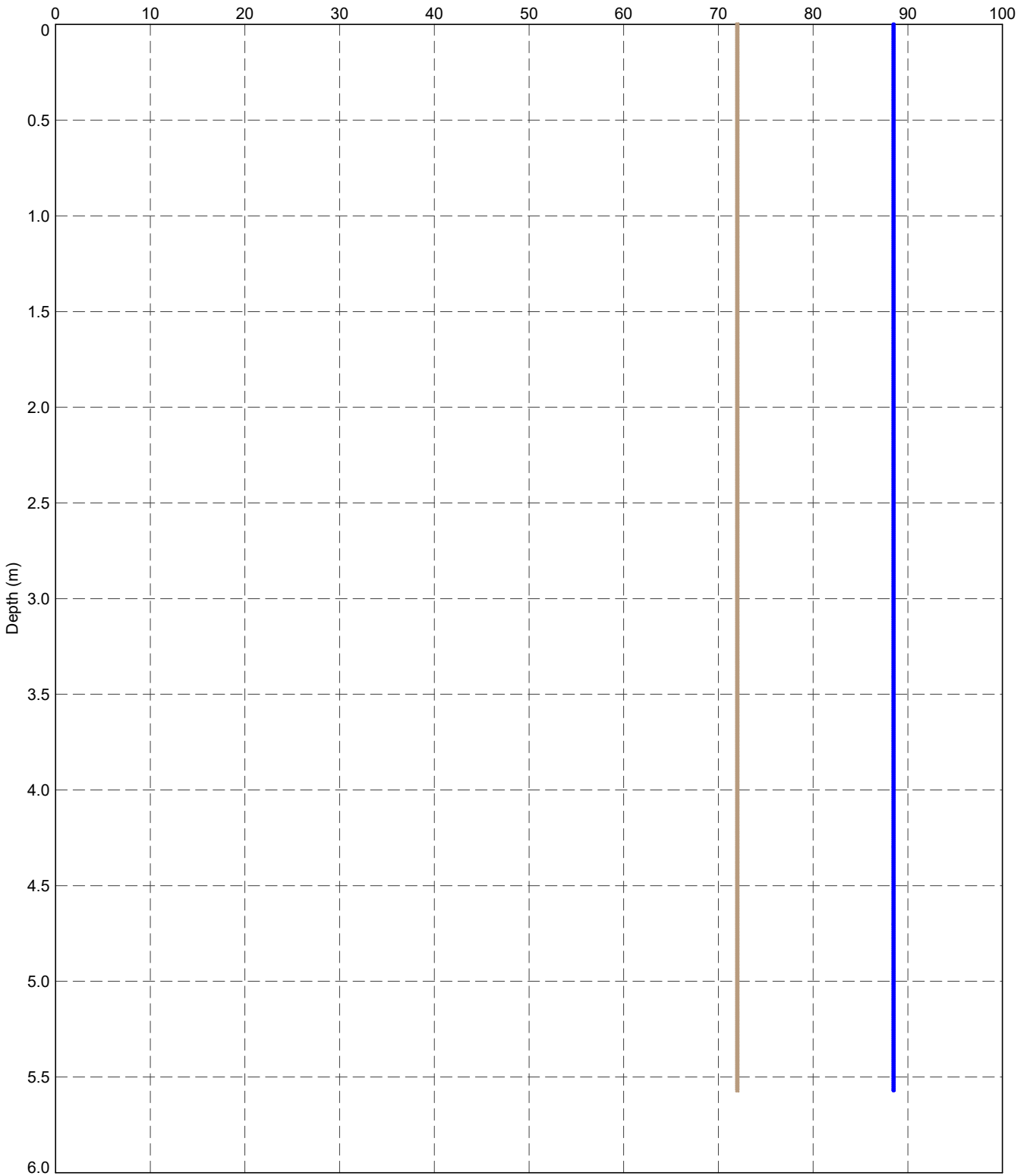


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Corrected Sleeve Friction Resistance Radiation  
 versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	148

Fuel Fluorescence Detector (V)



Legend:  
 ● Light Fuel Fluorescence Detector, LFFD (V)  
 ■ Heavy Fuel Fluorescence Detector, HFFD (V)

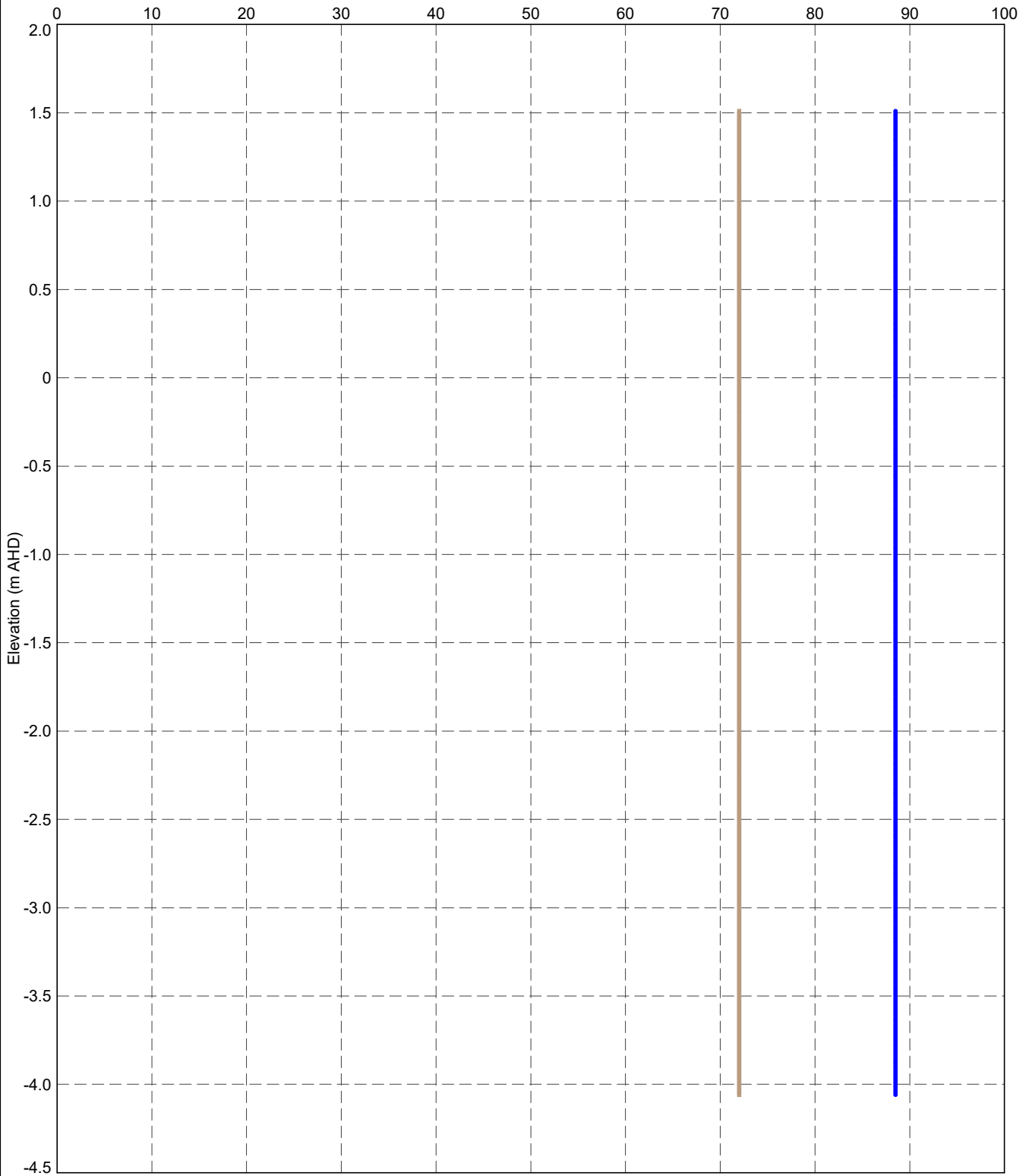
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT FUEL FLUORESC DETECTOR DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:55 10:01.00.11 Datgel CPT Tool glNT Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Fuel Fluorescence Detector versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	149

Fuel Fluorescence Detector (V)



Legend:  
 ● Light Fuel Fluorescence Detector, LFFD (V)  
 ■ Heavy Fuel Fluorescence Detector, HFFD (V)

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT FUEL FLUORESC DETECTOR RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:55 10.01.00.11 Datgel CPT Tool.gINT Add-in

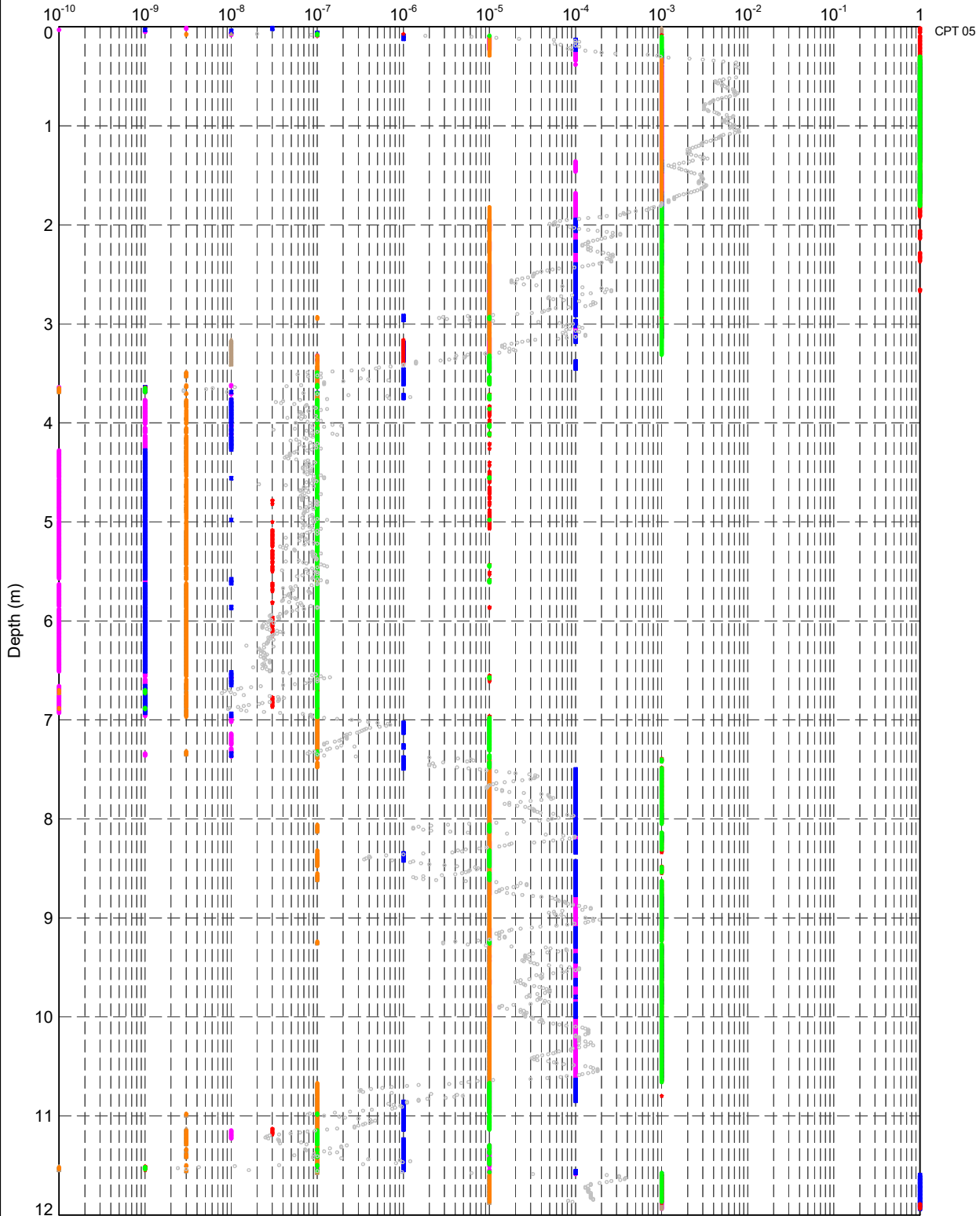


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Fuel Fluorescence Detector versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	150

Hydraulic Conductivity, K (m/s)

PointID



- Method:
- Minimum, Robertson et al. 1986    ○ Robertson 2010
  - Maximum, Robertson et al. 1986
  - ▲ Minimum, Robertson 1990
  - ★ Maximum, Robertson 1990
  - Minimum, Robertson 2010
  - Maximum, Robertson 2010

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.HYDRAULIC CONDUCTIVITY DEPTH.AMP.DATGEL.CPT.TOOL.DSD.4.05.0.SI.GPJ.5201986.GDW.1/2/2021.23:56.10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



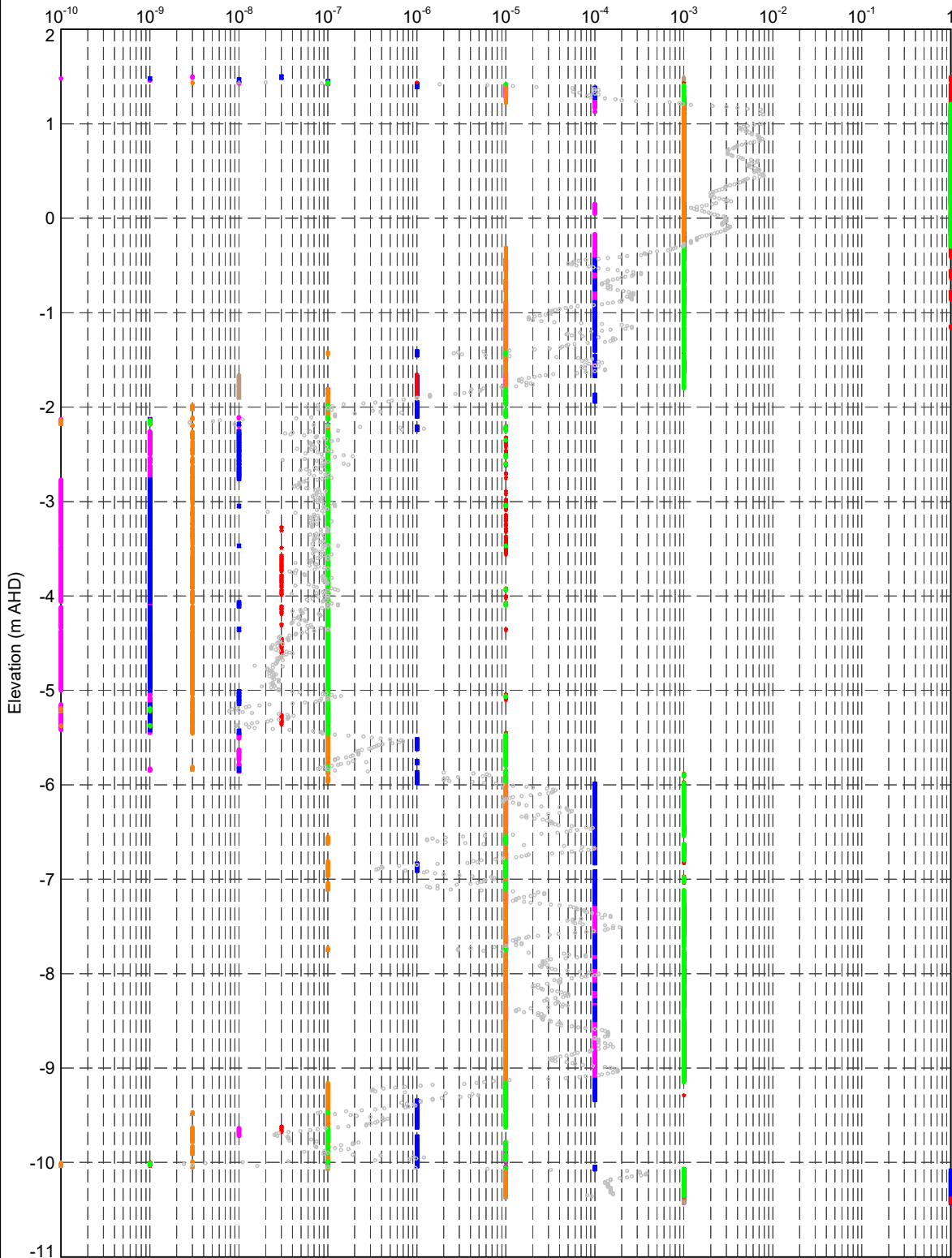
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Hydraulic Conductivity versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	151

Hydraulic Conductivity, K (m/s)

PointID



CPT 05

- Method:
- Minimum, Robertson et al. 1986    ○ Robertson 2010
  - Maximum, Robertson et al. 1986
  - ▲ Minimum, Robertson 1990
  - ★ Maximum, Robertson 1990
  - Minimum, Robertson 2010
  - Maximum, Robertson 2010

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT-HYDRAULIC CONDUCTIVITY.RL.A4P.DATGEL.CPT TOOL.DGD 4.05.0 SIGPJ 520196.GDW 1/22/2021 23:58 10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



TITLE

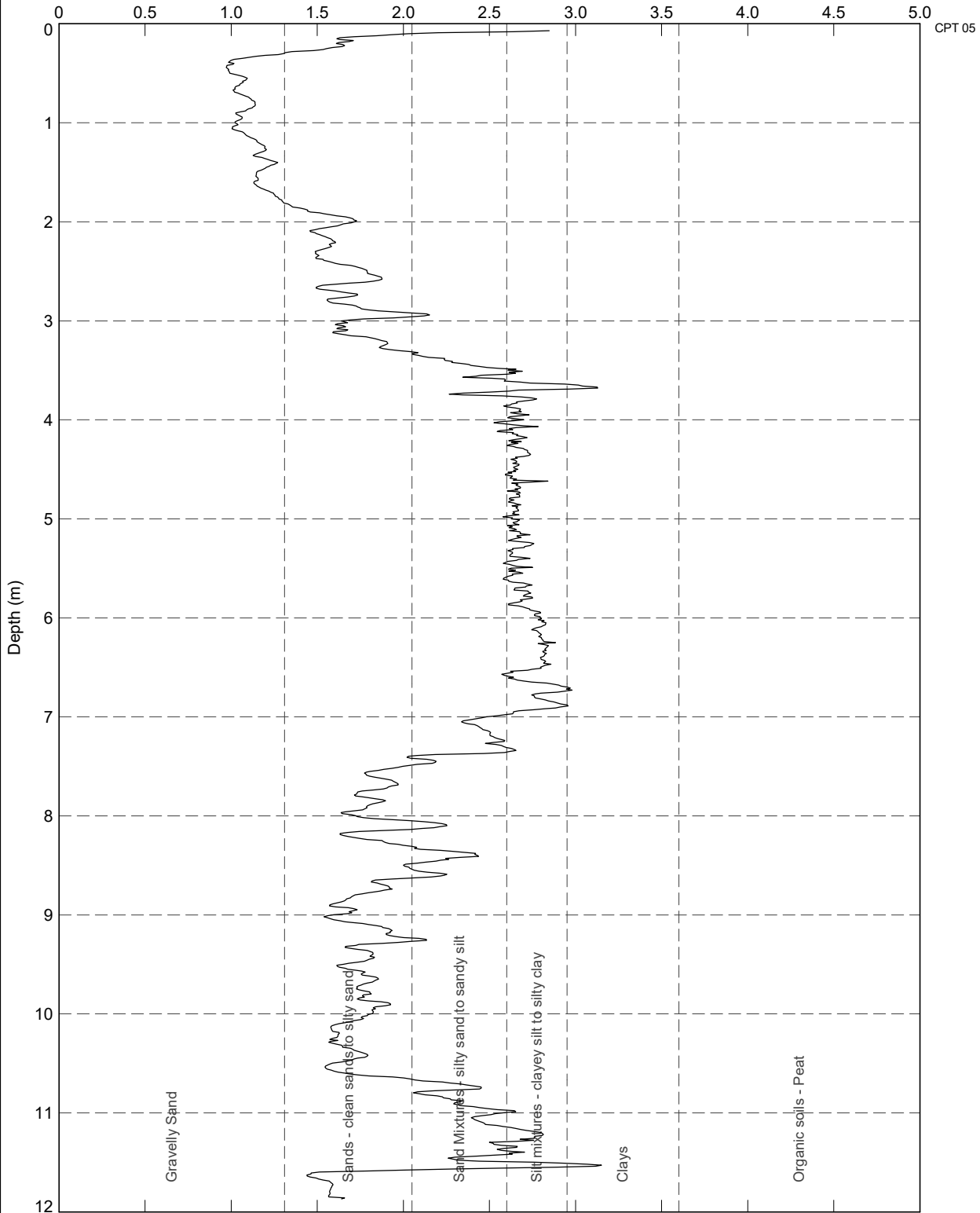
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Hydraulic Conductivity versus Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	153



Soil Behaviour Type Index,  $I_c$ , Robertson and Wride (1998)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 1 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58 10:01.00.11 Datgel.CPT.Tool.igNT.Add-In



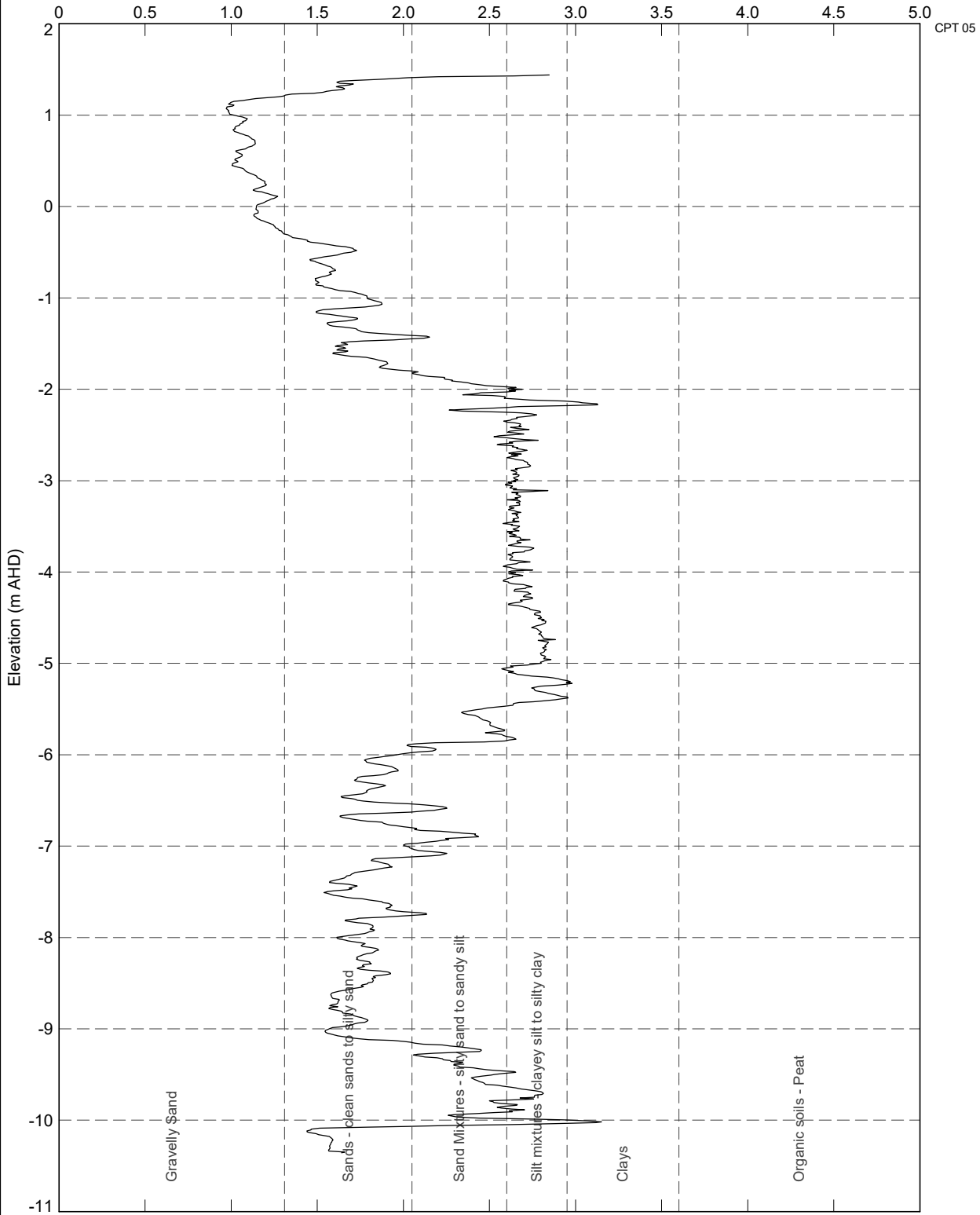
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	155

Soil Behaviour Type Index,  $I_c$ , Robertson and Wride (1998)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.IC 1 RL.A4P.DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:58 10.01.00.11 Datgel CPT Tool.gINT Add-In



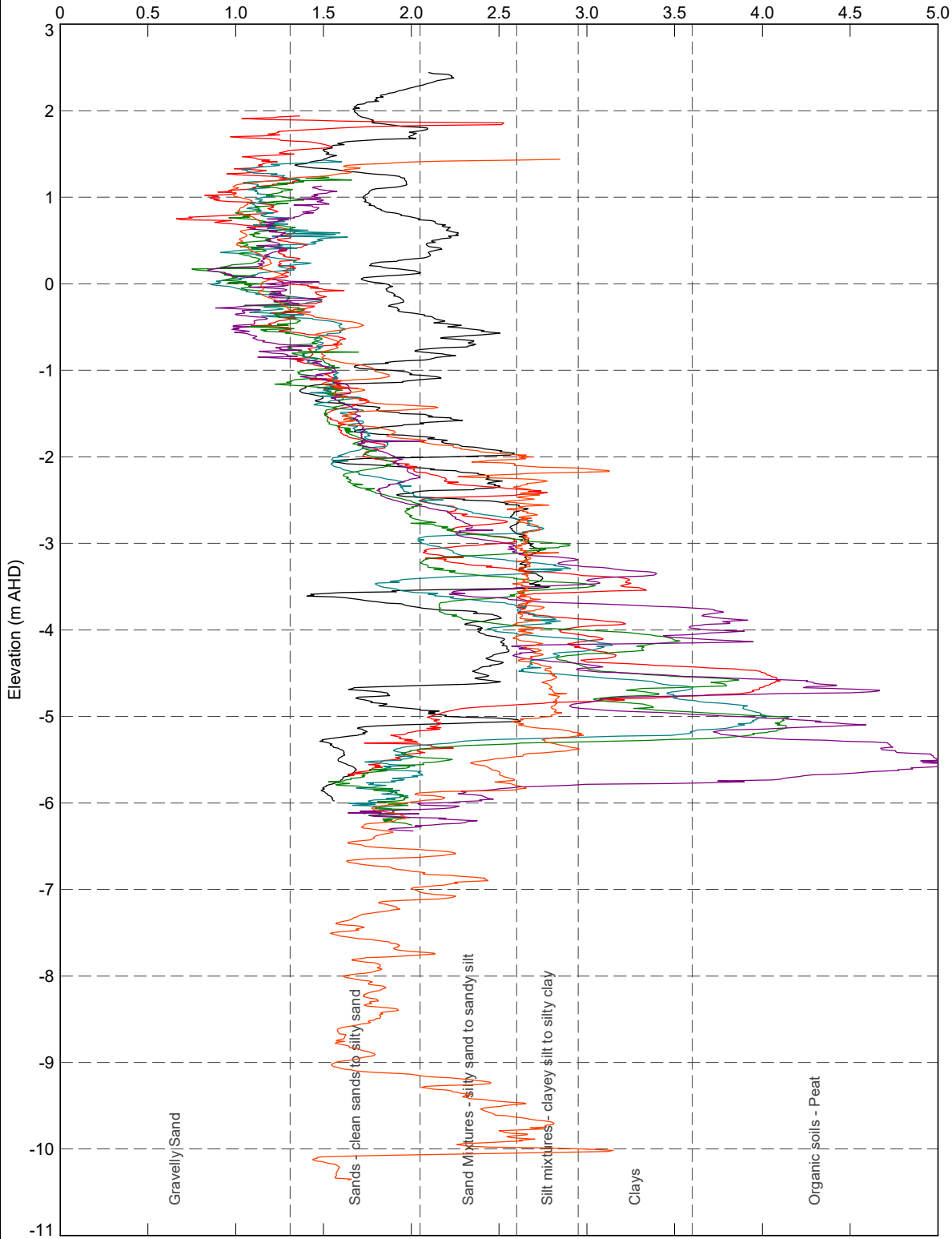
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	156

Soil Behaviour Type Index,  $I_c$ , Robertson and Wride (1998)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 1 RL.COLOUR A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58 10.01.00.11 Datgel.CPT.Tool.gINT Add-In



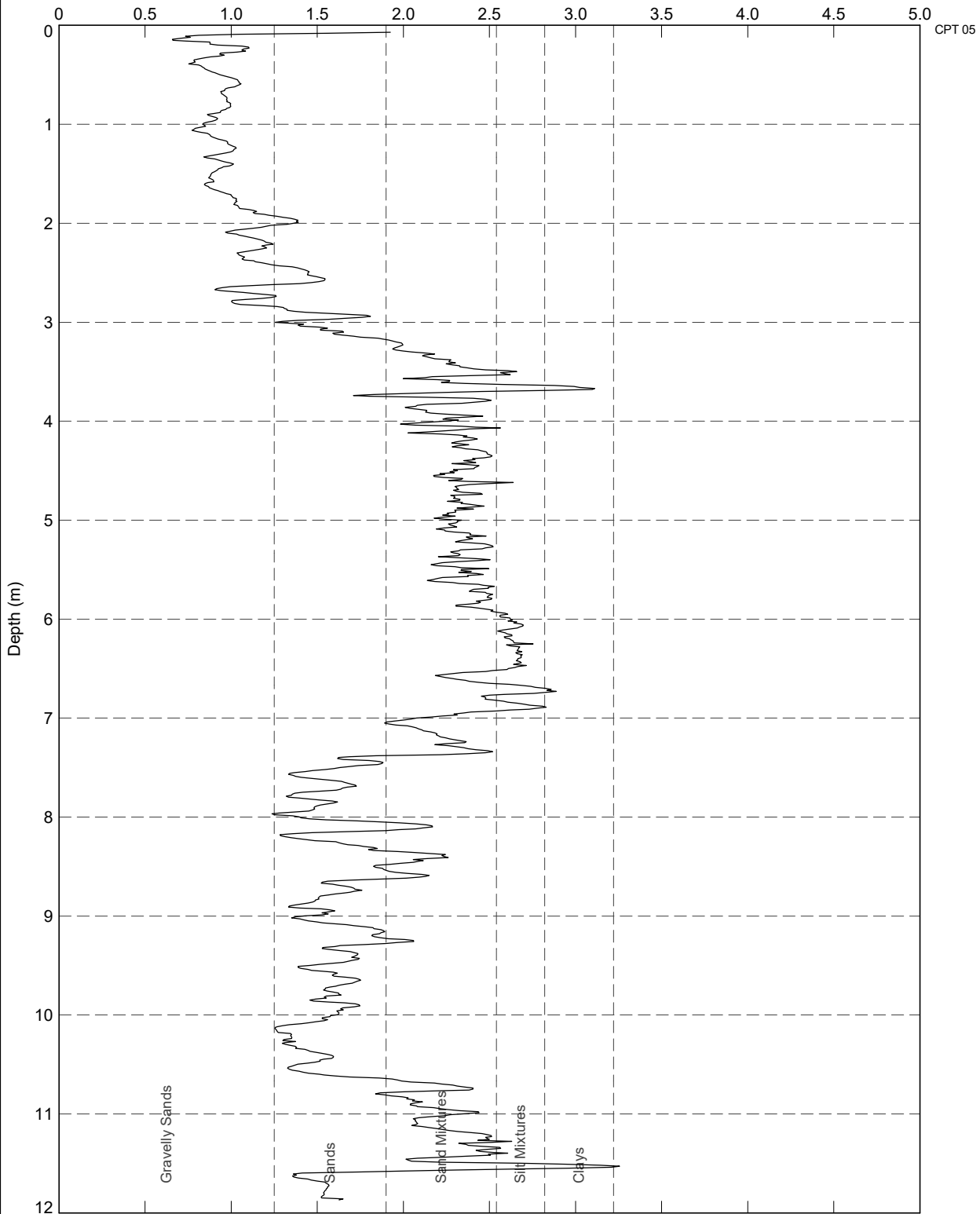
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	157

Soil Behaviour Type Index,  $I_c$ , Jefferies and Davies (1993)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC.2 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58:10.01.00.11 Datgel CPT Tool iglNT Add-In



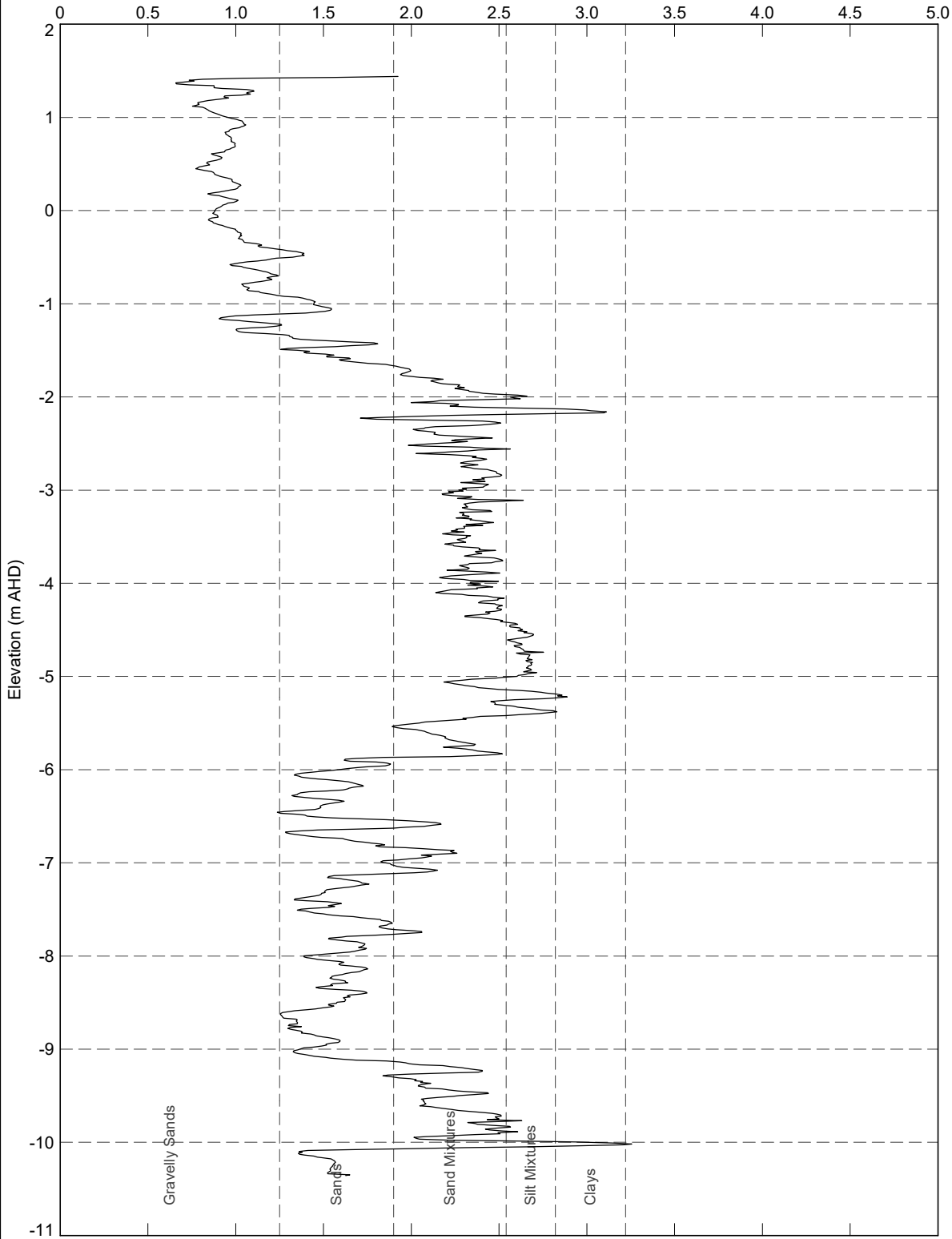
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	158

Soil Behaviour Type Index,  $I_c$ , Jefferies and Davies (1993)

PointID



CPT 05

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 2 RL.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:58 10.01.00.11 Datgel CPT Tool gINT Add-In



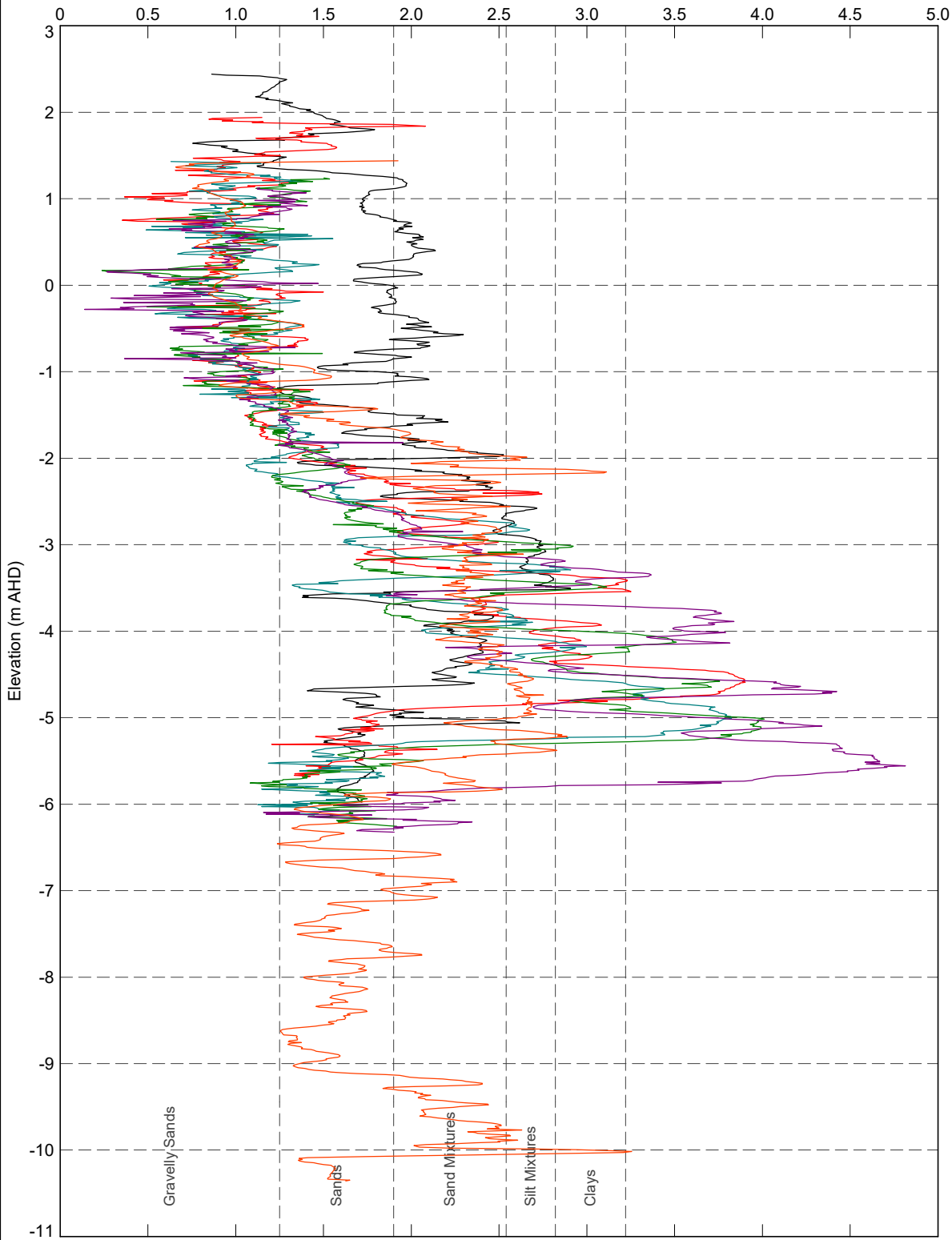
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	159

Soil Behaviour Type Index,  $I_c$ , Jefferies and Davies (1993)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 2 RL.COLOUR A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58 10.01.00.11 Datgel.CPT.Tool.gINT Add-In



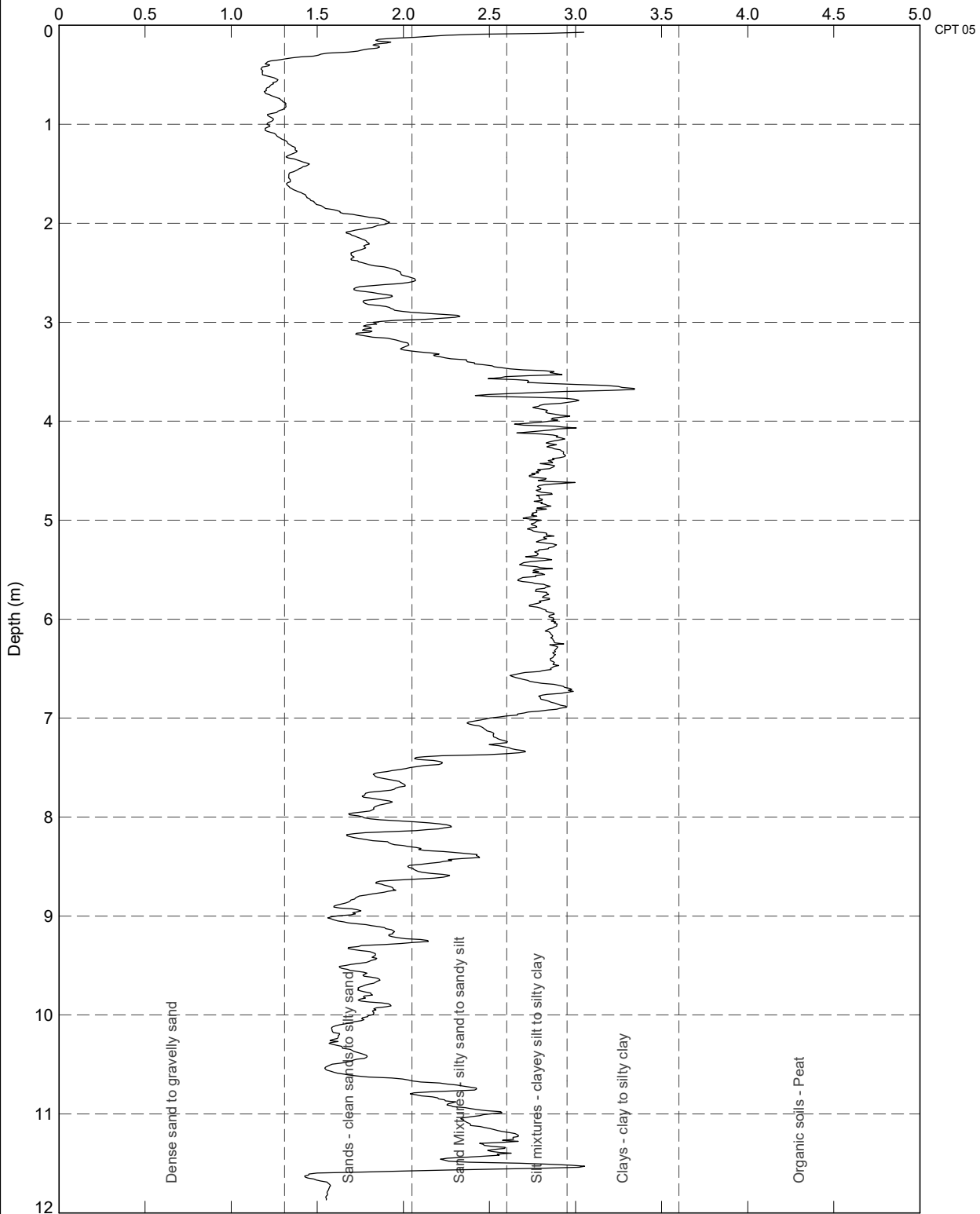
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	160

Non-normalized Soil Behaviour Type Index,  $I_{SBT}$ , Robertson (2010)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 3 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58 10:01.00.11 Datgel CPT Tool igiNT Add-In



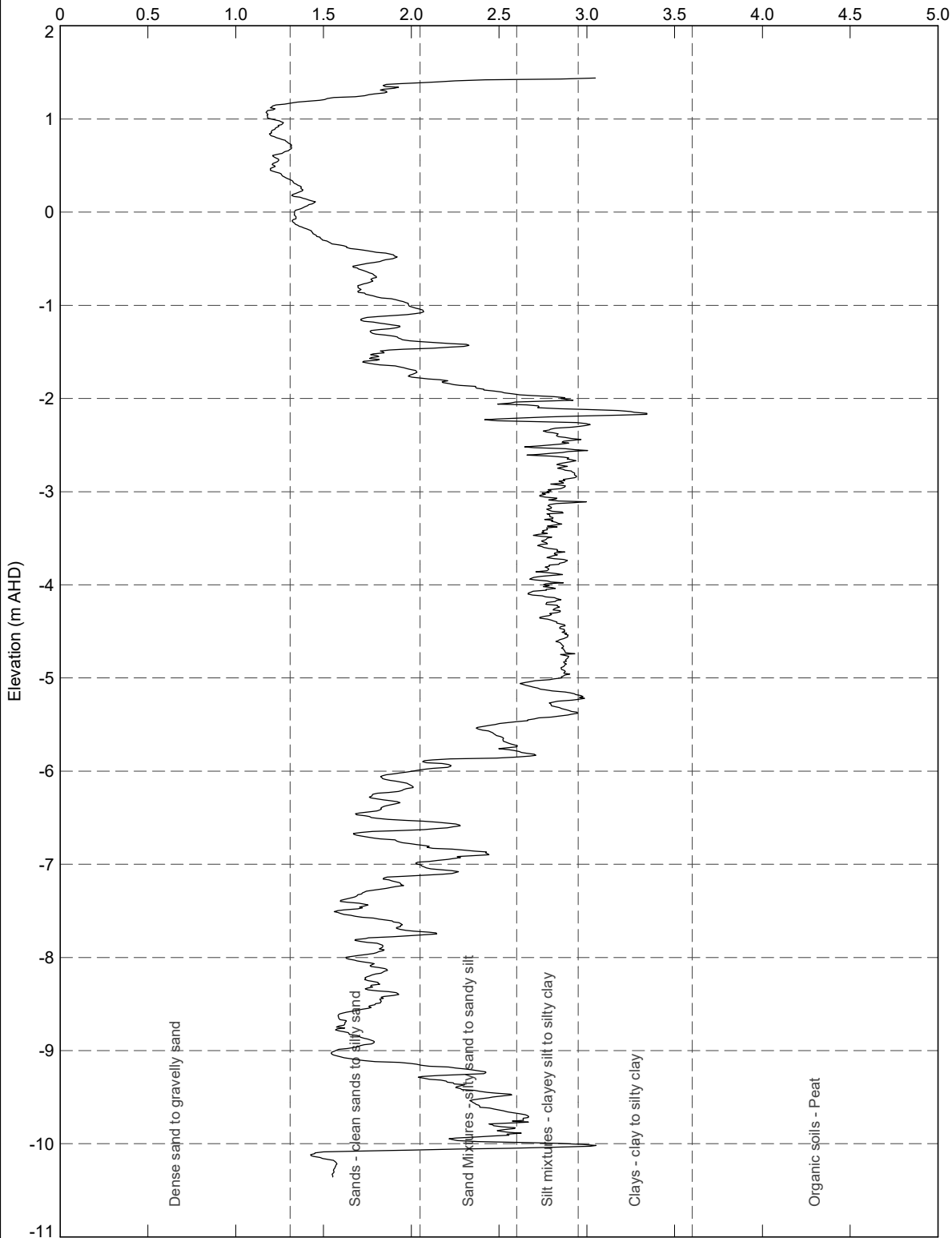
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	161

Non-normalized Soil Behaviour Type Index,  $I_{SBT}$ , Robertson (2010)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 3 RL.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:58 10.01.00.11 Datgel CPT Tool gINT Add-In



TITLE

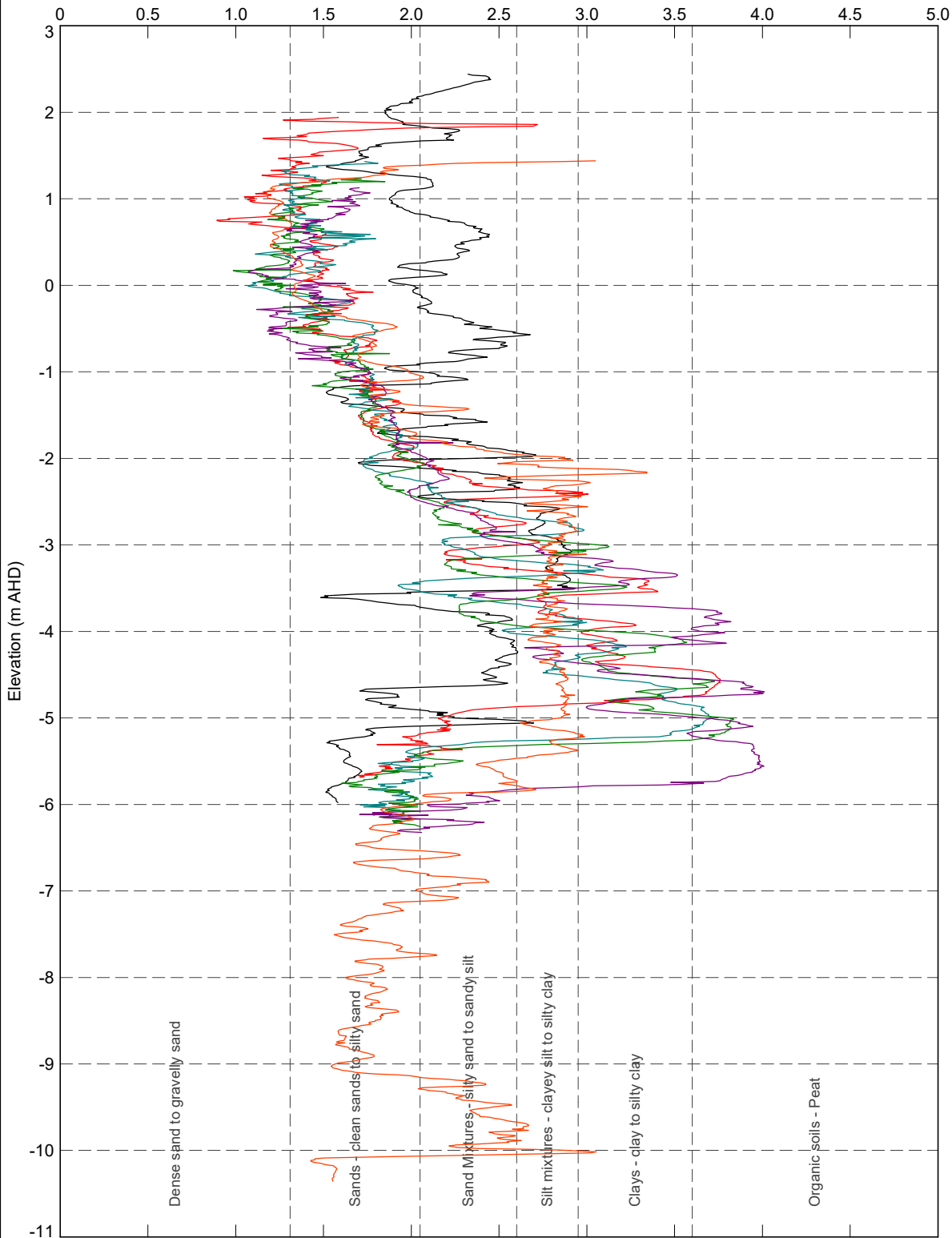
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	162



Non-normalized Soil Behaviour Type Index,  $I_{SBT}$ , Robertson (2010)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.IC 3 RL.COLOUR A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58 10.01.00.11 Datgel CPT Tool gINT Add-In



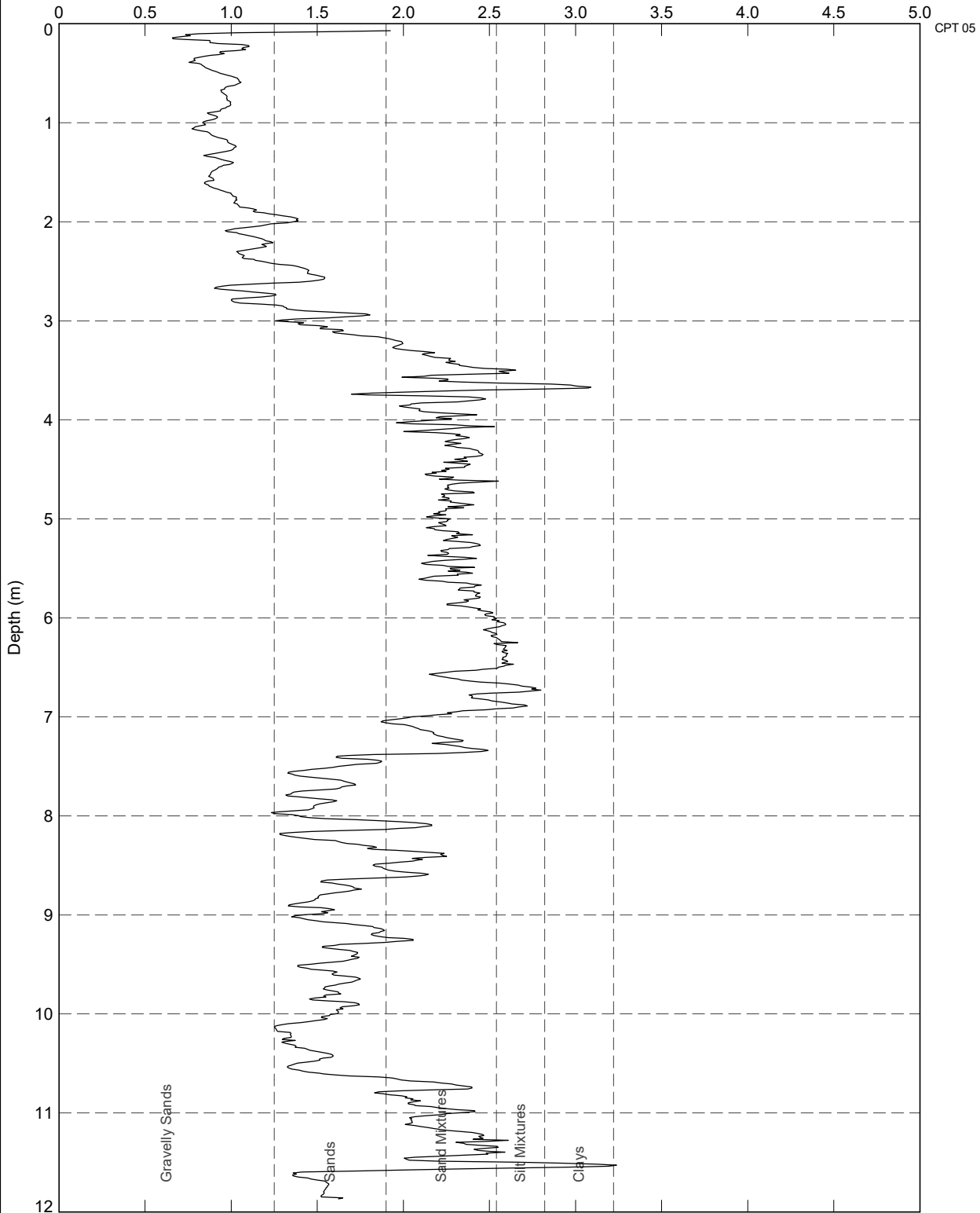
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	163

Soil Behaviour Type Index,  $I_c$ , Been and Jefferies (1992)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 4 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:58 10:01.00.11 Datgel CPT Tool iglNT Add-In



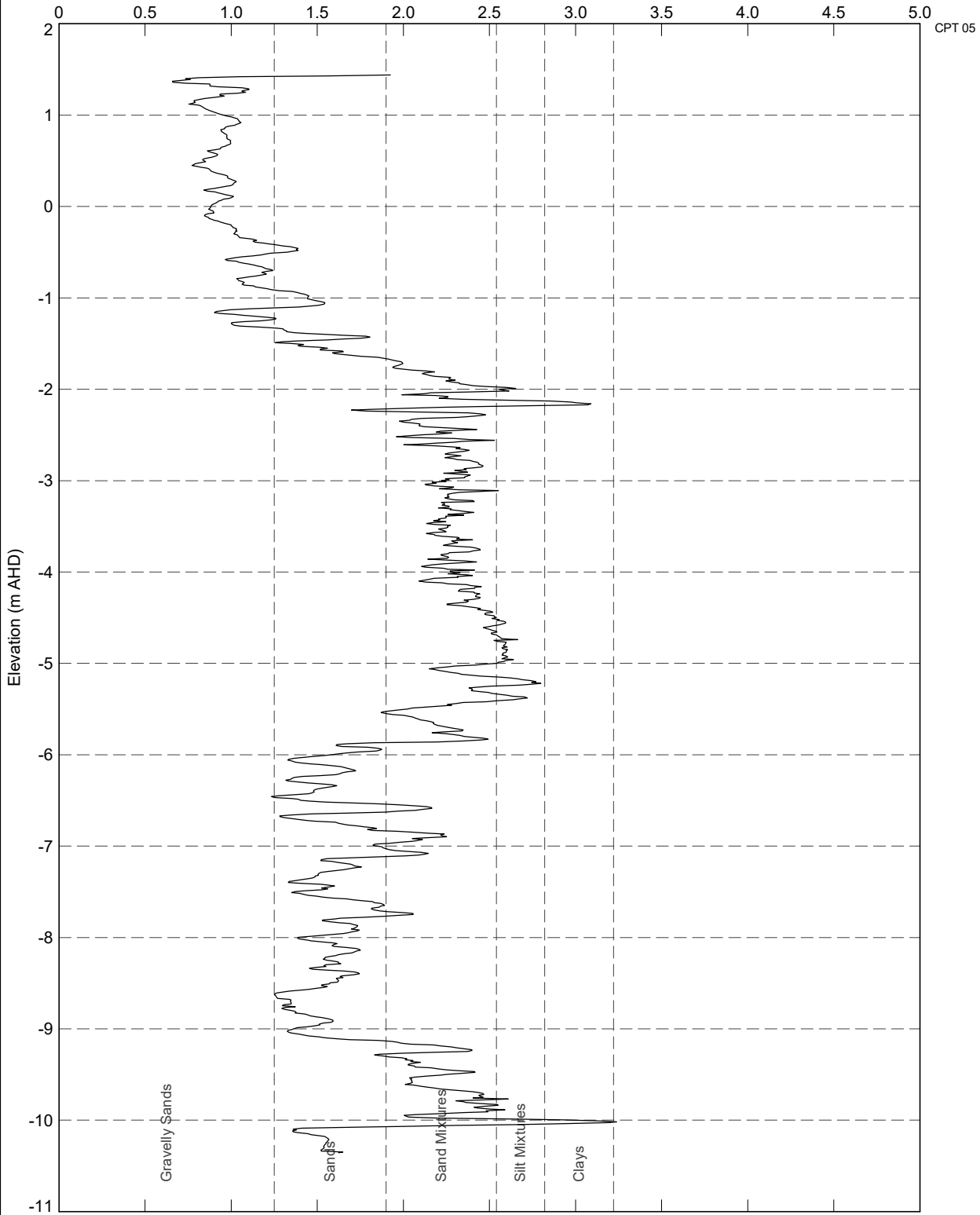
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	164

Soil Behaviour Type Index,  $I_c$ , Been and Jefferies (1992)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 4 RL\_A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/2/2021 23:59 10.01.00.11 Datgel CPT Tool gINT Add-In



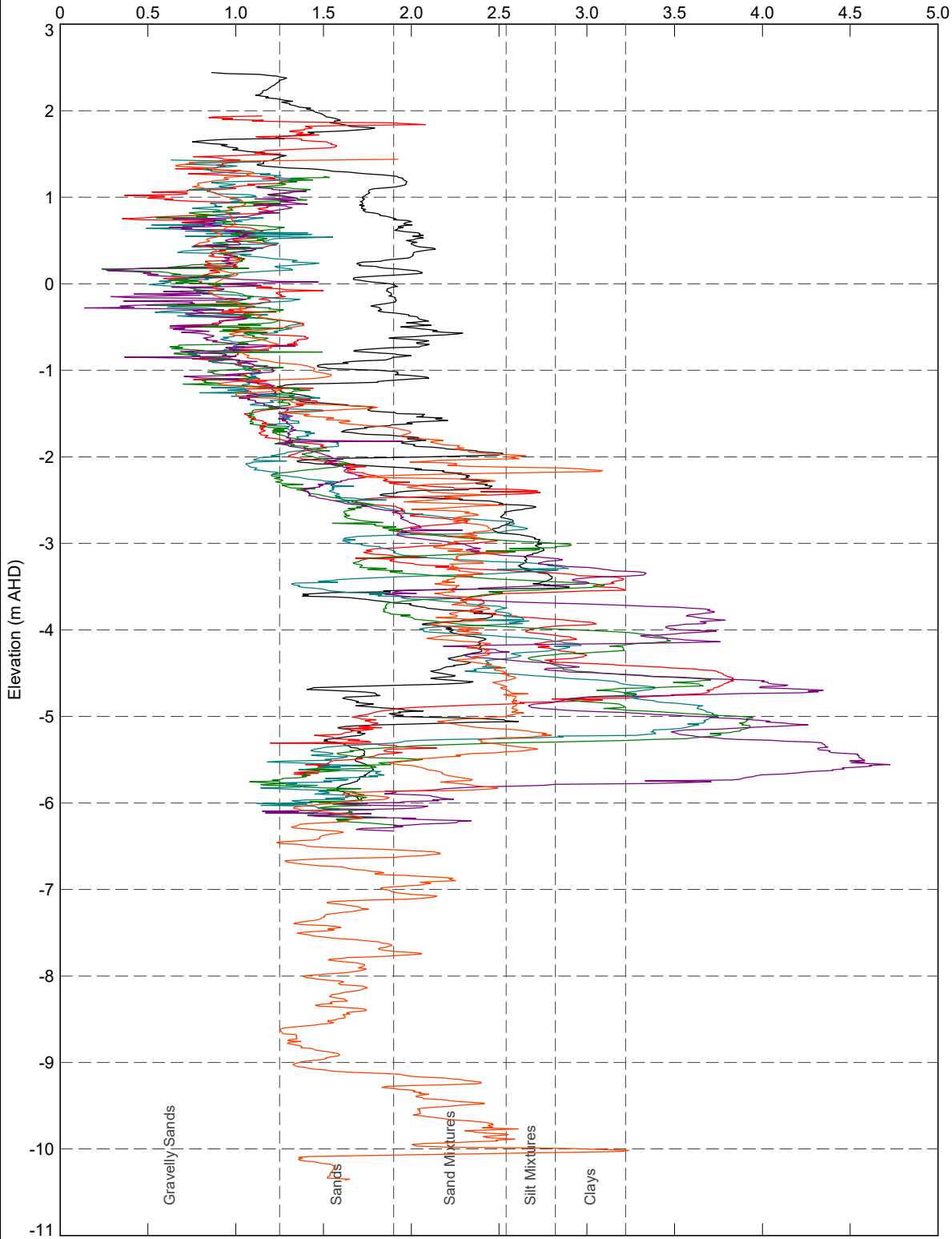
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index vs. Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	165

Soil Behaviour Type Index,  $I_c$ , Been and Jefferies (1992)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.IC 4 RL.COLOUR A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 1/2/2021 23:59 10.01.00.11 Datgel.CPT.Tool.gINT Add-In

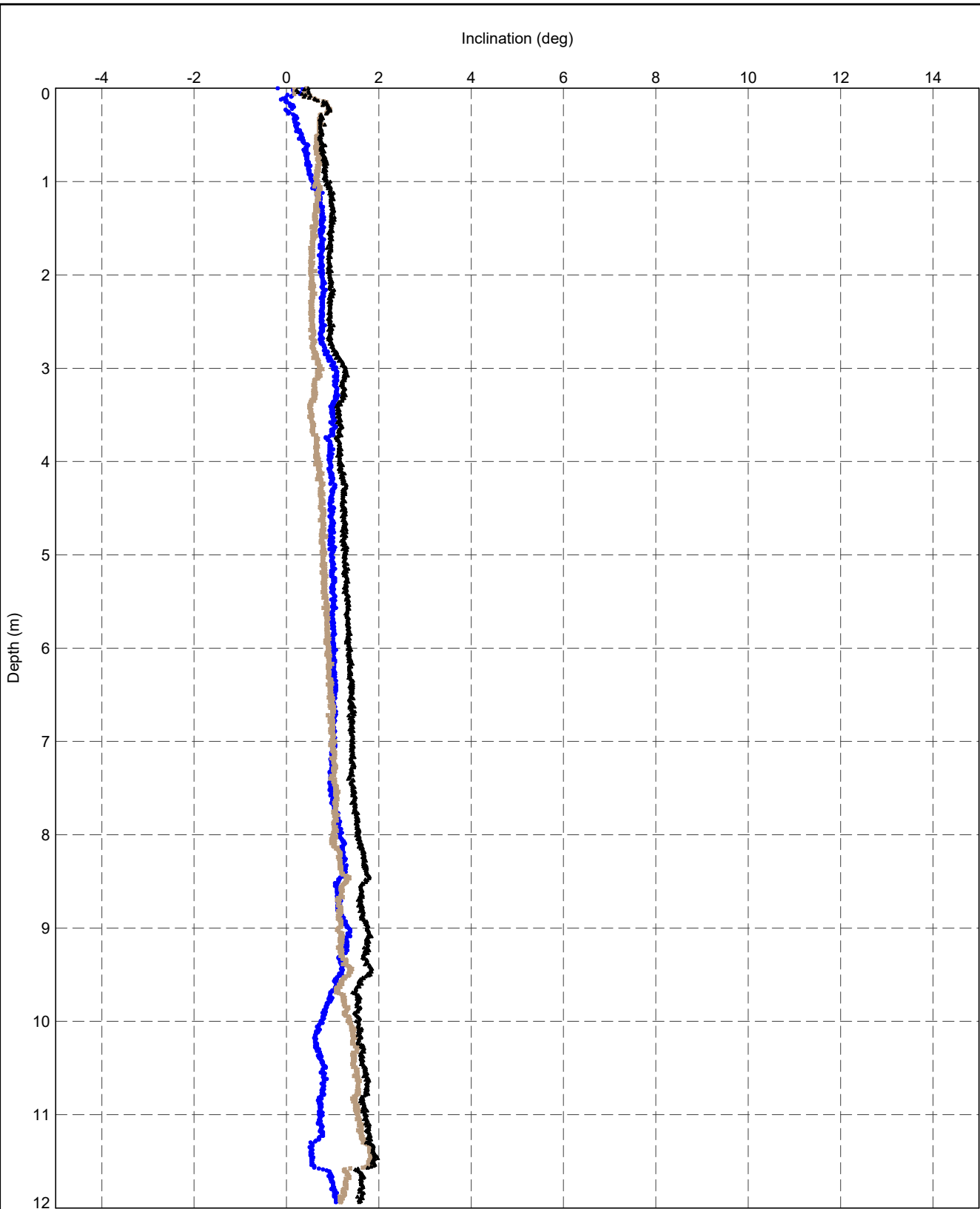


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index vs. Elevation

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	166

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.INCLINATION DEPTH A4P.DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 1/22/2021 23:59 10.01.00.11 Datgel CPT Tool.gINT.Add-in



- Legend:
- Inclination 1 (°)
  - Inclination 2 (°)
  - Inclination (°)

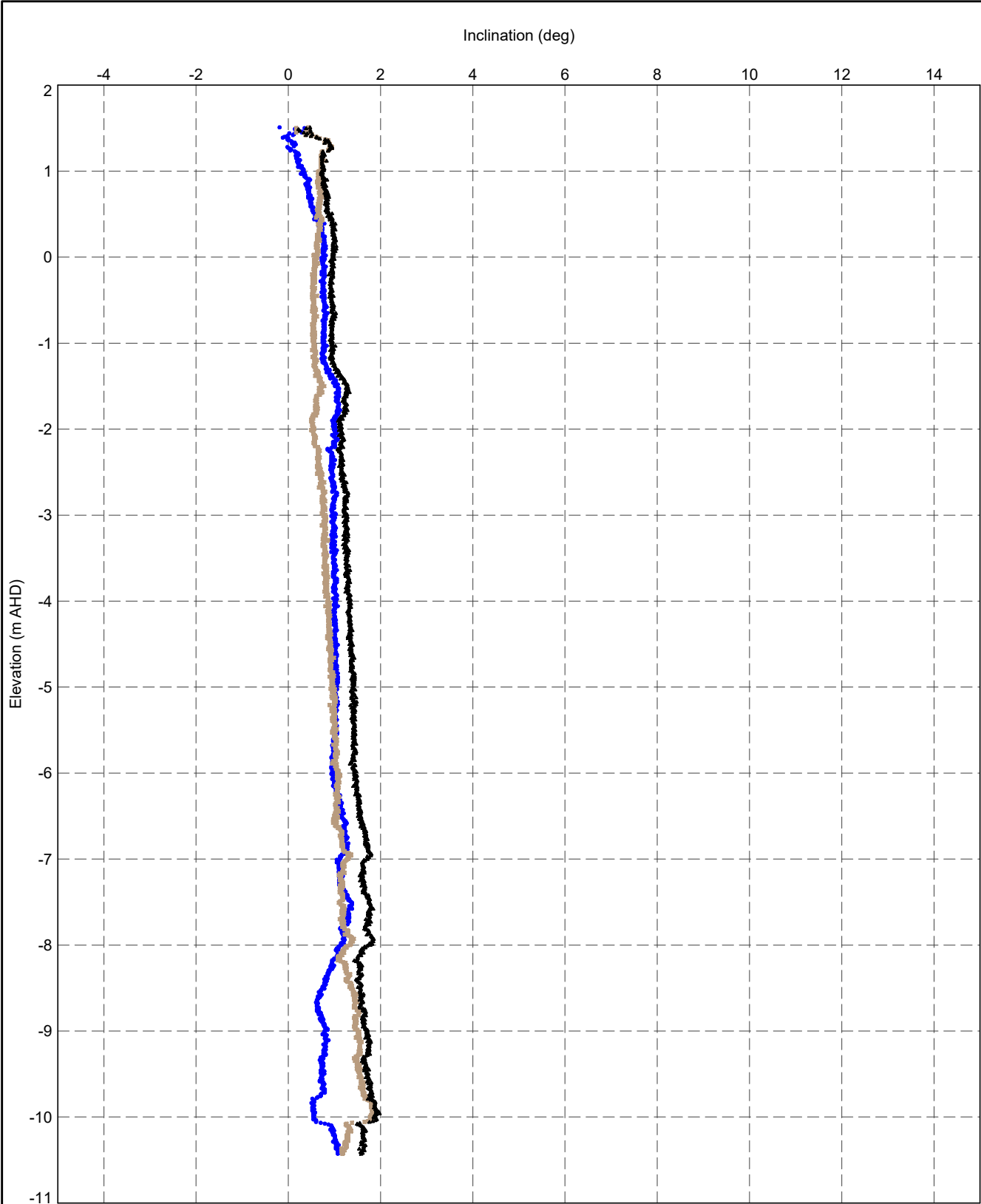


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Inclination versus Depth

DRAWN	Datgel	DATE	1/2/2021
CHECKED	Datgel	DATE	1/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	167

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT INCLINATION RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:00 10:01.00.11 Datgel CPT Tool gINT A4d-In



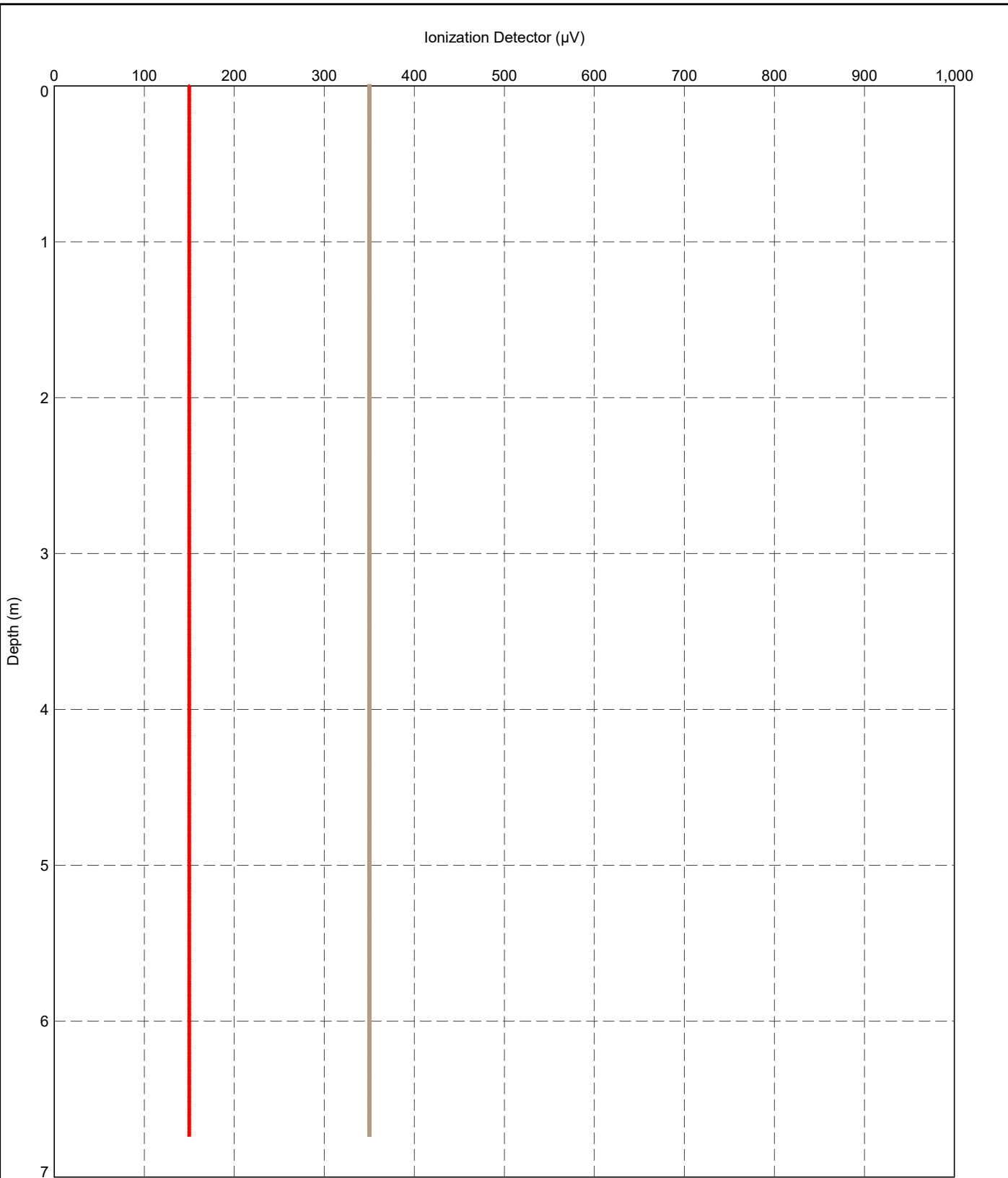
Legend:  
 ● Inclination 1 (°)  
 ■ Inclination 2 (°)  
 ● Inclination (°)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Inclination versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	168

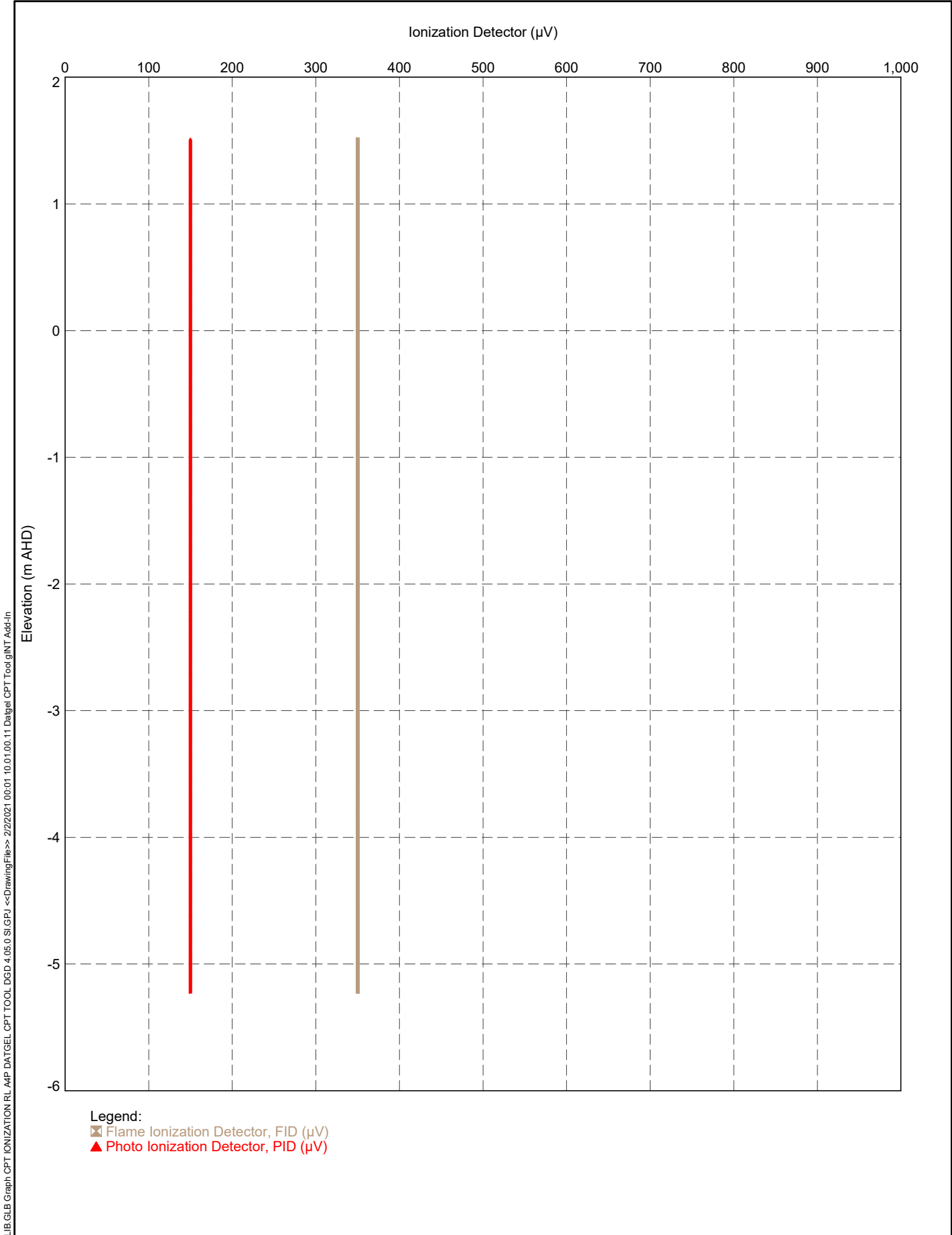
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT IONIZATION DEPTH A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:00 10.01.00.11 Datgel.CPT Tool glINT Add-In



**Legend:**  
■ Flame Ionization Detector, FID (µV)  
▲ Photo Ionization Detector, PID (µV)



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Ionization versus Depth	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	169	



DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT IONIZATION RL AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:01 10.01.00.11 Datgel CPT Tool gINT Add-in



TITLE

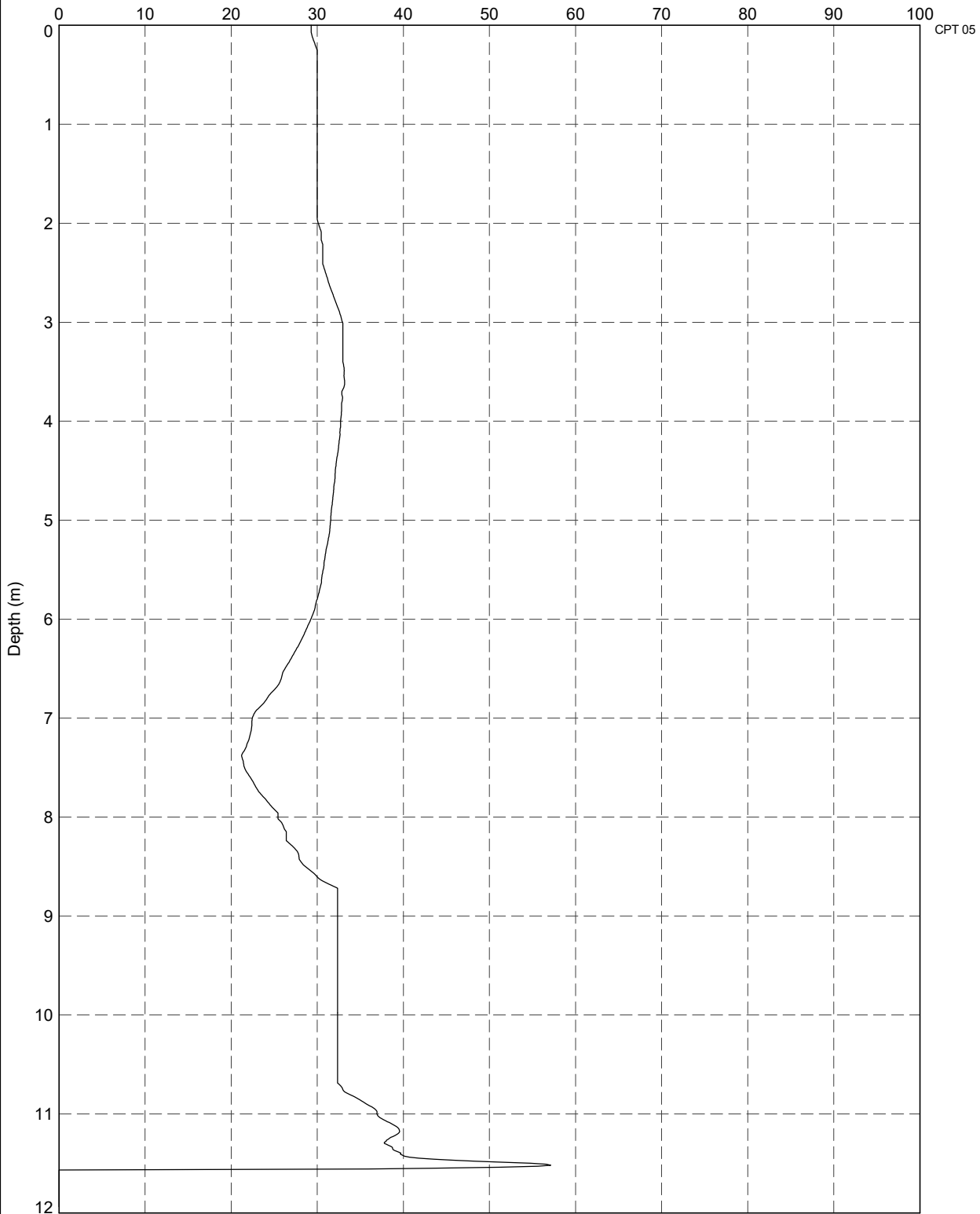
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Ionization versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	170



Average FC STPTN15, Avg FC 15 (%)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.AVG.FC.15.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 00:01 10.01.00.11 Datgel.CPT.Tool.giNT.Acd.in



Geotechnics • Geoenvironment • Laboratory

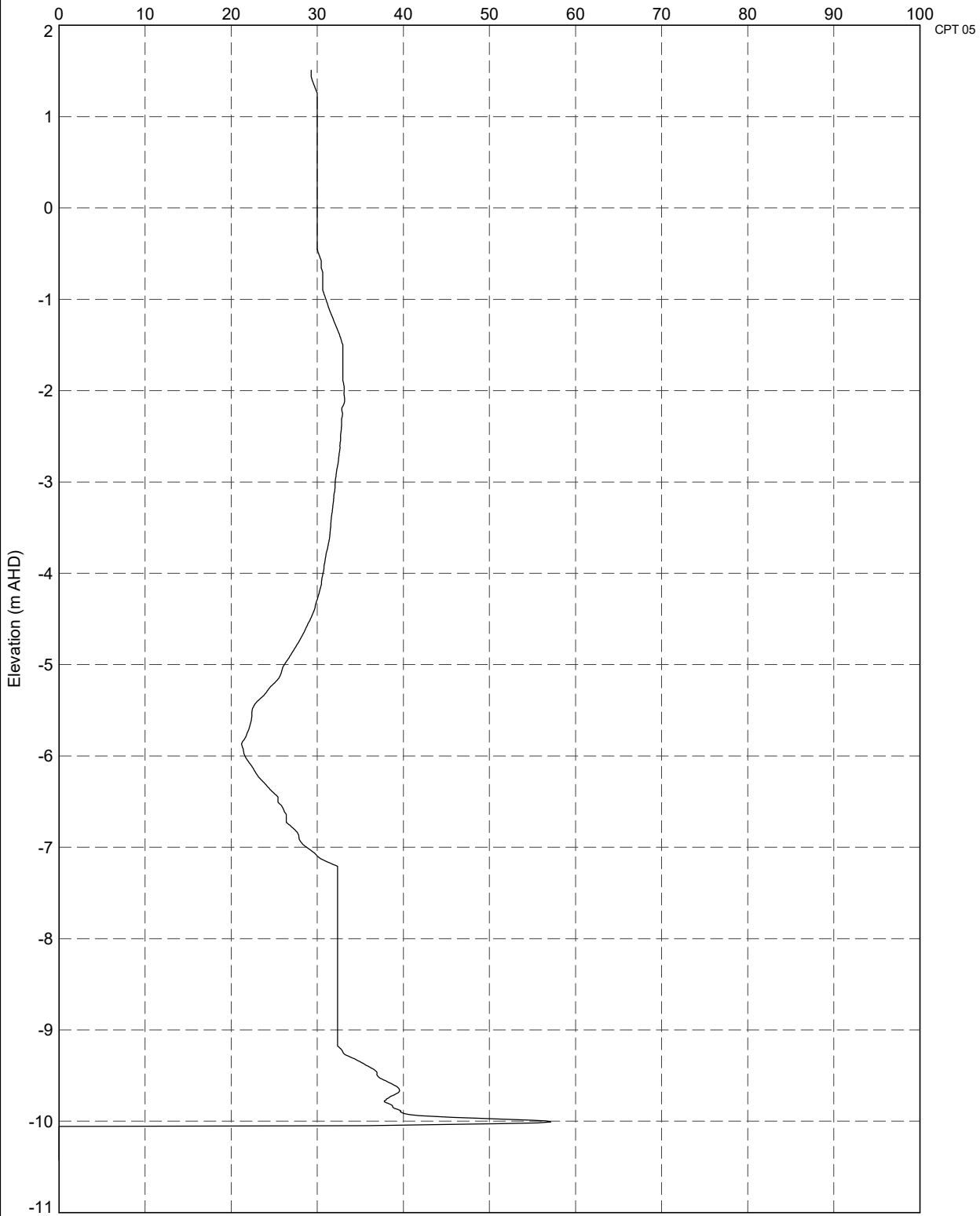
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Average FC SPT N 15 versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	171

Average FC STPTN15, Avg FC 15 (%)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT LIQ AVG FC 15 RL AMP DATGEL CPT TOOL DGD 4.05.0 SI GPJ <<DrawingFile>> 2/2/2021 00:01 10:01:00.11 Datgel CPT Tool gINT Add-in



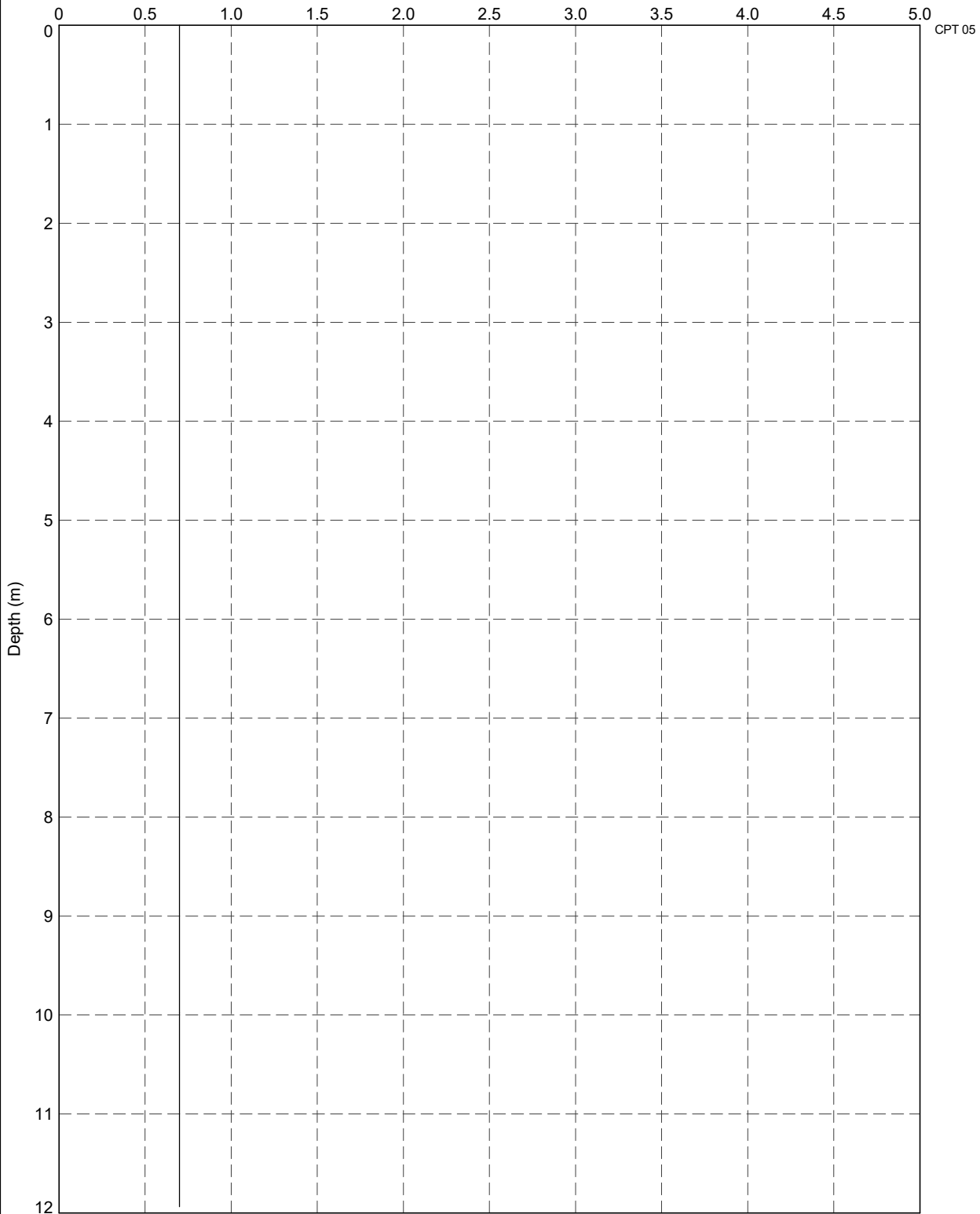
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Average FC SPT N 15 versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	172

Coefficient Lateral Earth Pressure,  $K_0$

PointID



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.COEFF.LAT.EARTH.PRESS.DEPH.AMP.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:01 10.01.00.11 Datgel CPT Tool.gINT Add-in



TITLE

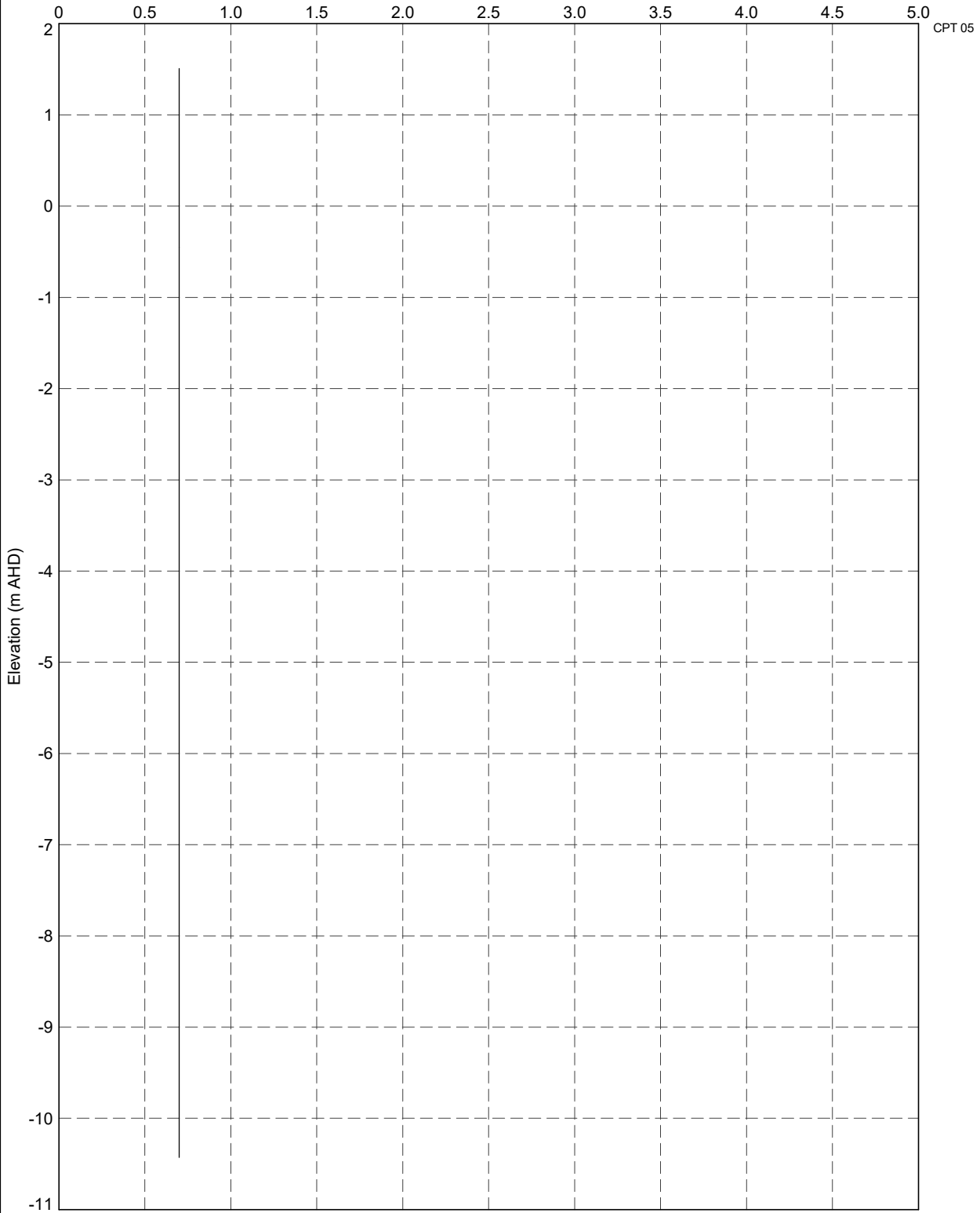
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Coefficient Lateral Earth Pressure versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	173

Coefficient Lateral Earth Pressure,  $K_0$

PointID



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ COEFF.LAT.EARTH.PRESS.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <-DrawingFile>> 2/2/2021 00:01:10:01:00:11.Datgel.CPT.Tool.gINT.Add-In

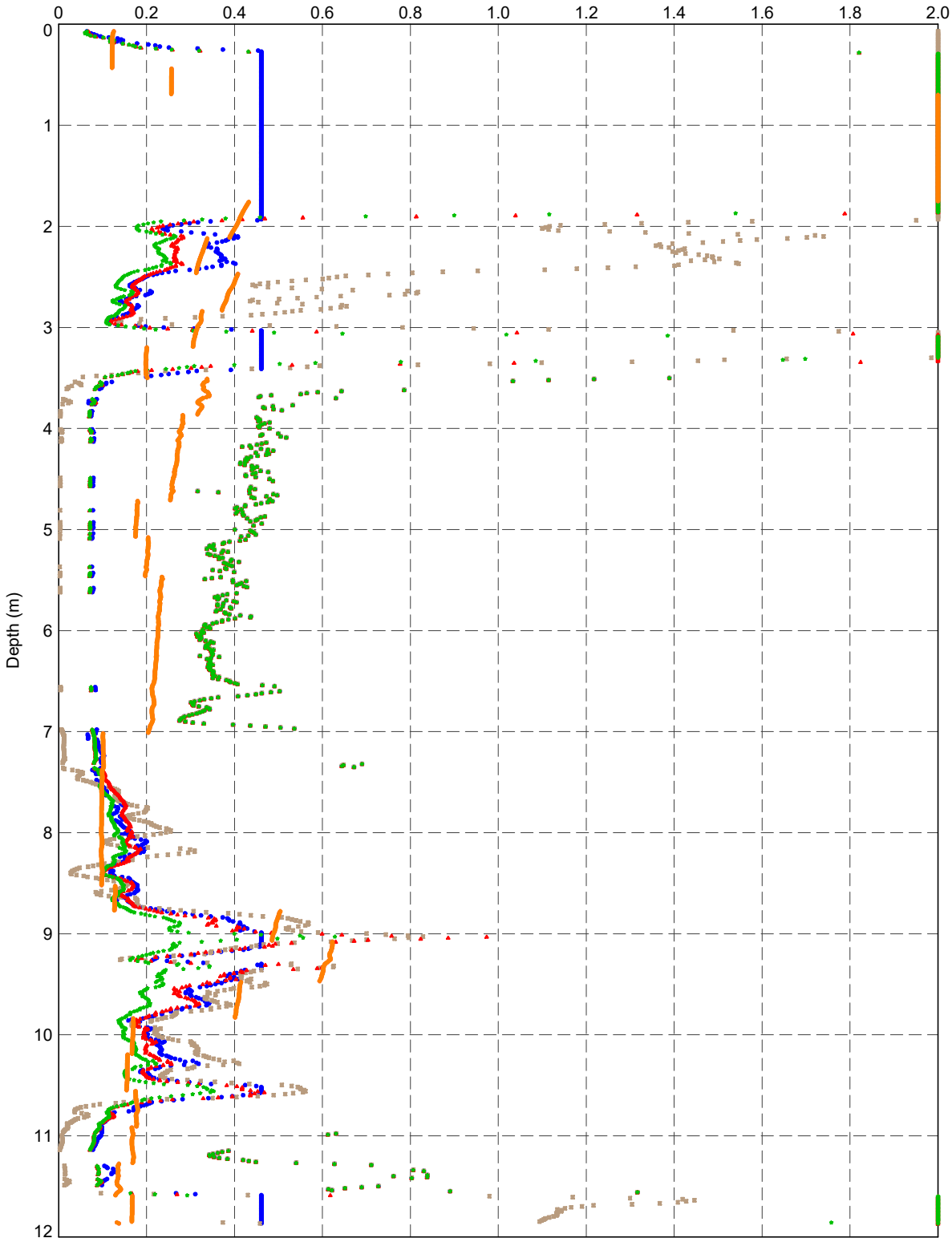


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Coefficient Lateral Earth Pressure vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	174

Cyclic Resistance Ratio for M7.5 Earthquake,  $CRR_{7.5}$

PointID



Method:

- Robertson & Wride (1998) / NCEER (2001)
- Jefferies & Been (2006)
- ▲ Idriss & Boulanger (2008)
- ★ Idriss & Boulanger (2008) with FC using R&W ('98) / NCEER ('01)
- Moss et al. (2006)
- Kayen et al. (2013)

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT LIQ CRR DEPTH AMP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 00:02 10:01:00.11 Datgel CPT Tool gINT Add-In



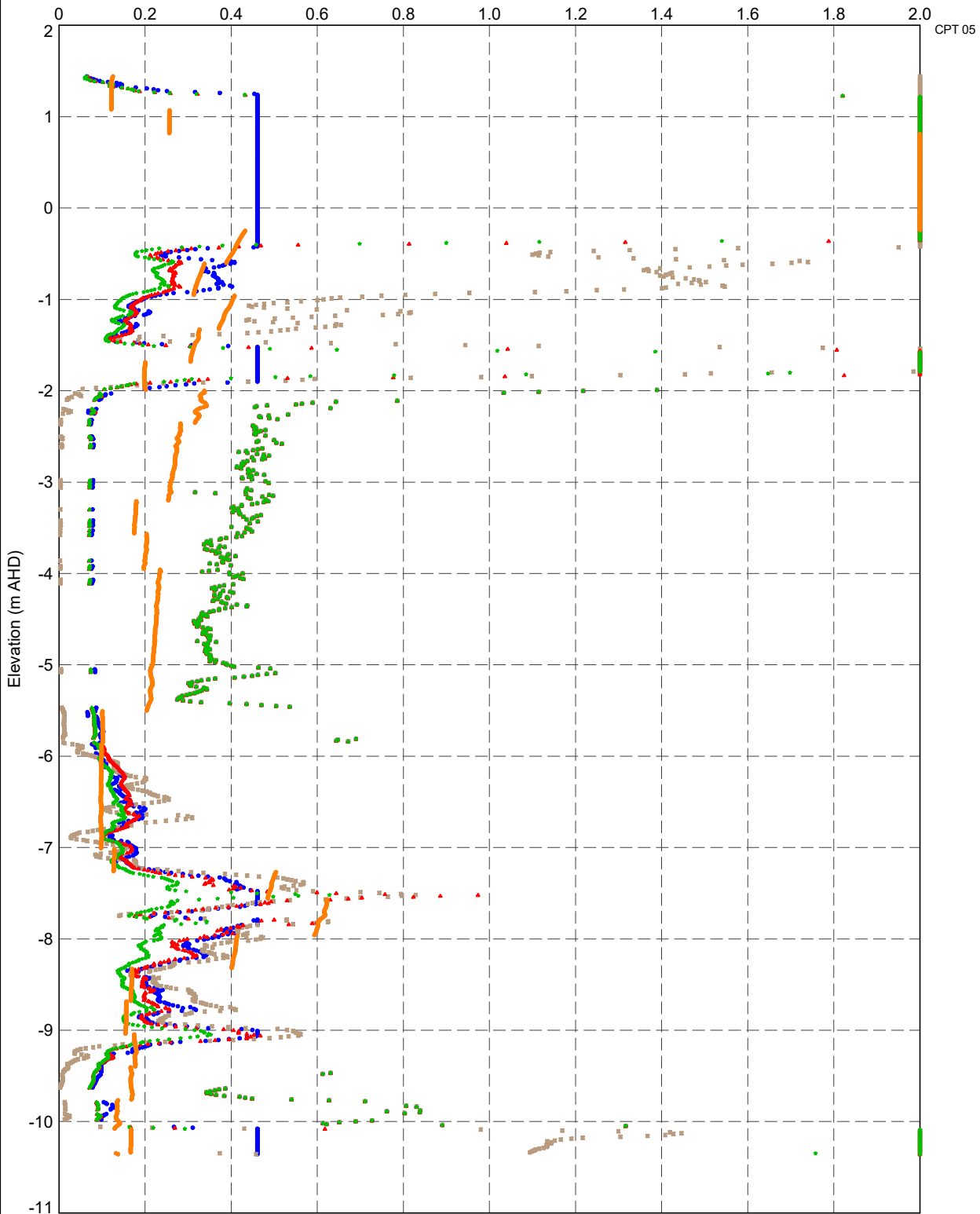
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cyclic Resistance Ratio versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	175

Cyclic Resistance Ratio for M7.5 Earthquake,  $CRR_{7.5}$

PointID



Method:

- Robertson & Wride (1998) / NCEER (2001)
- Jefferies & Been (2006)
- ▲ Idriss & Boulanger (2008)
- ★ Idriss & Boulanger (2008) with FC using R&W ('98) / NCEER ('01)
- Moss et al. (2006)
- ◻ Kayen et al. (2013)

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT.LIQ CRR RL A4P DATGEL.CPT TOOL DGD 4.05.0 SI(GPJ <<DrawingFile>> 2/2/2021 00:03:10.01.00:11 Datgel.CPT Tool gINT Add-In

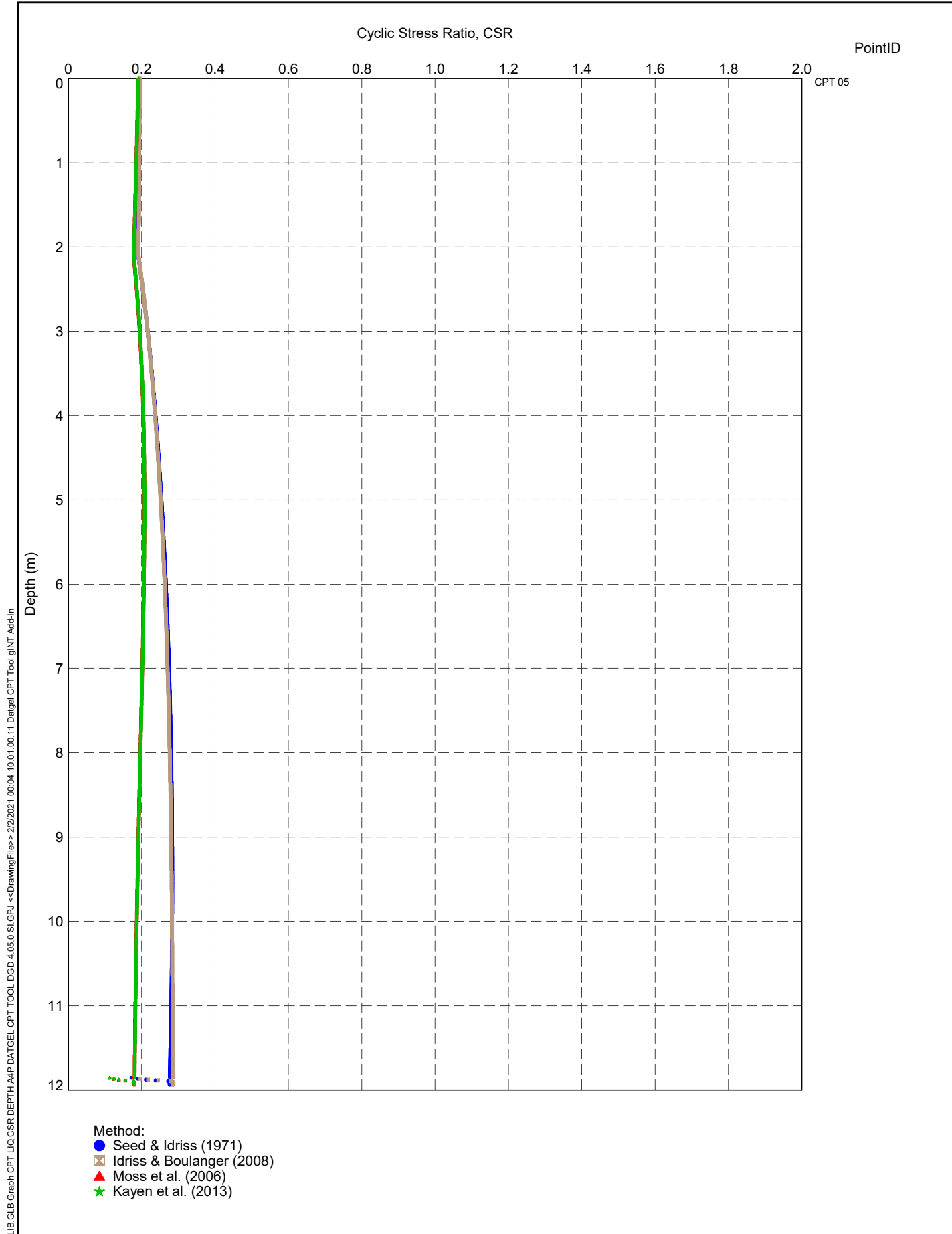


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Cyclic Resistance Ratio versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	176



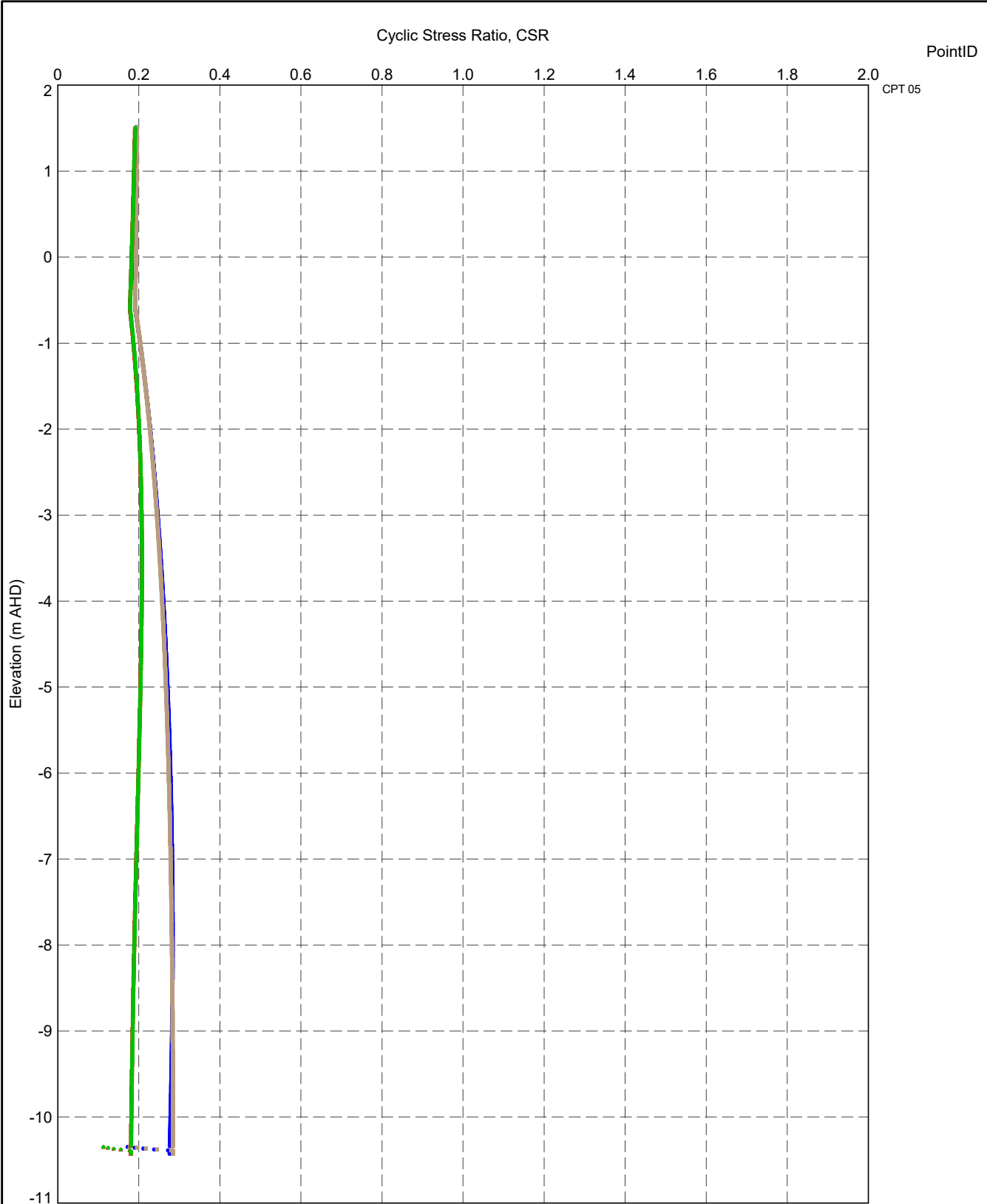
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ CSR DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFiles>> 2/2/2021 00:04:10 0.1.00.11 Datgel CPT Tool gINT Add-In



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Cyclic Stress Ratio versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	177



- Method:
- Seed & Idriss (1971)
  - Idriss & Boulanger (2008)
  - ▲ Moss et al. (2006)
  - ★ Kayen et al. (2013)

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT LIQ CSR RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:05:10.01.00.11 Datgel CPT Tool glINT Add-In



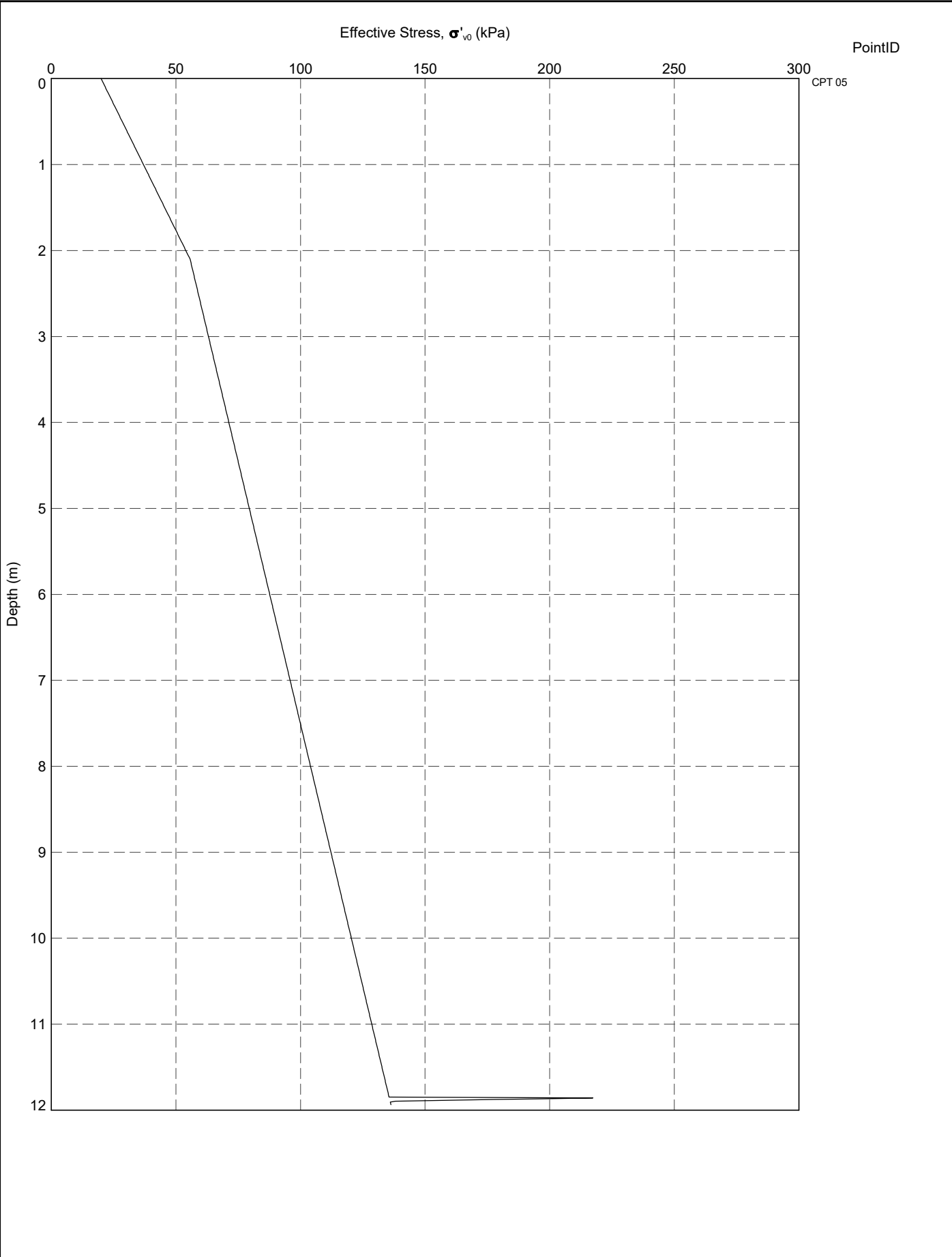
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cyclic Stress Ratio versus Elevation


DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	178



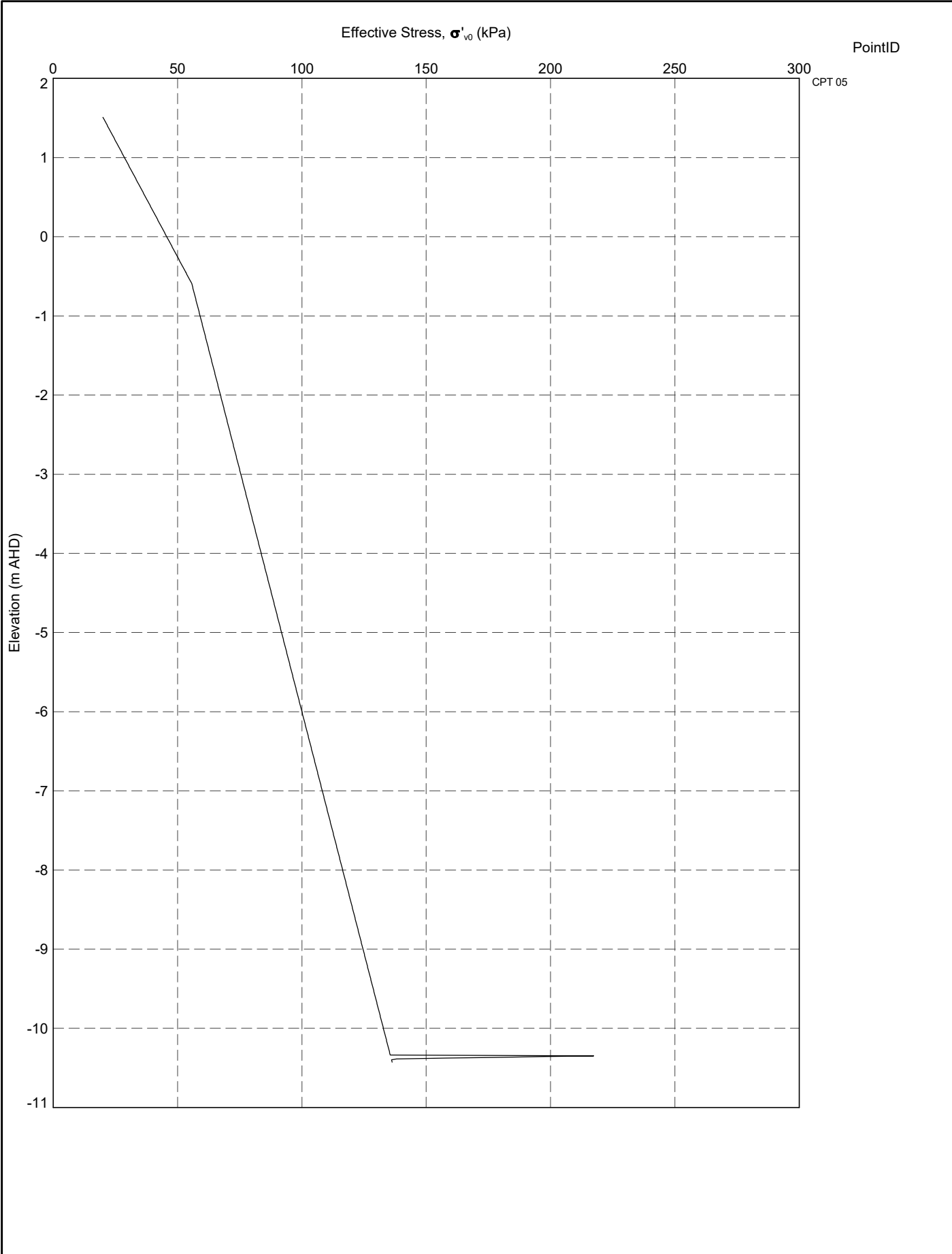
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ EFFECTIVE STRESS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:05 10:01.00.11 Datgel CPT Tool gINT Add-In



PointID  
CPT 05

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Effective Stress versus Depth</p>	<p>DRAWN <b>Datgel</b>      DATE <b>2/2/2021</b></p>
		<p>CHECKED <b>Datgel</b>      DATE <b>2/2/2021</b></p>
		<p>SCALE <b>Not To Scale</b>      A4</p>
		<p>PROJECT No <b>4.05.0</b>      FIGURE No <b>179</b></p>

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ EFFECTIVE STRESS.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ.<<DrawingFile>> 2/2/2021 00:05 10.01.00.11 Datgel CPT Tool.gINT Add-In



PointID  
CPT 05

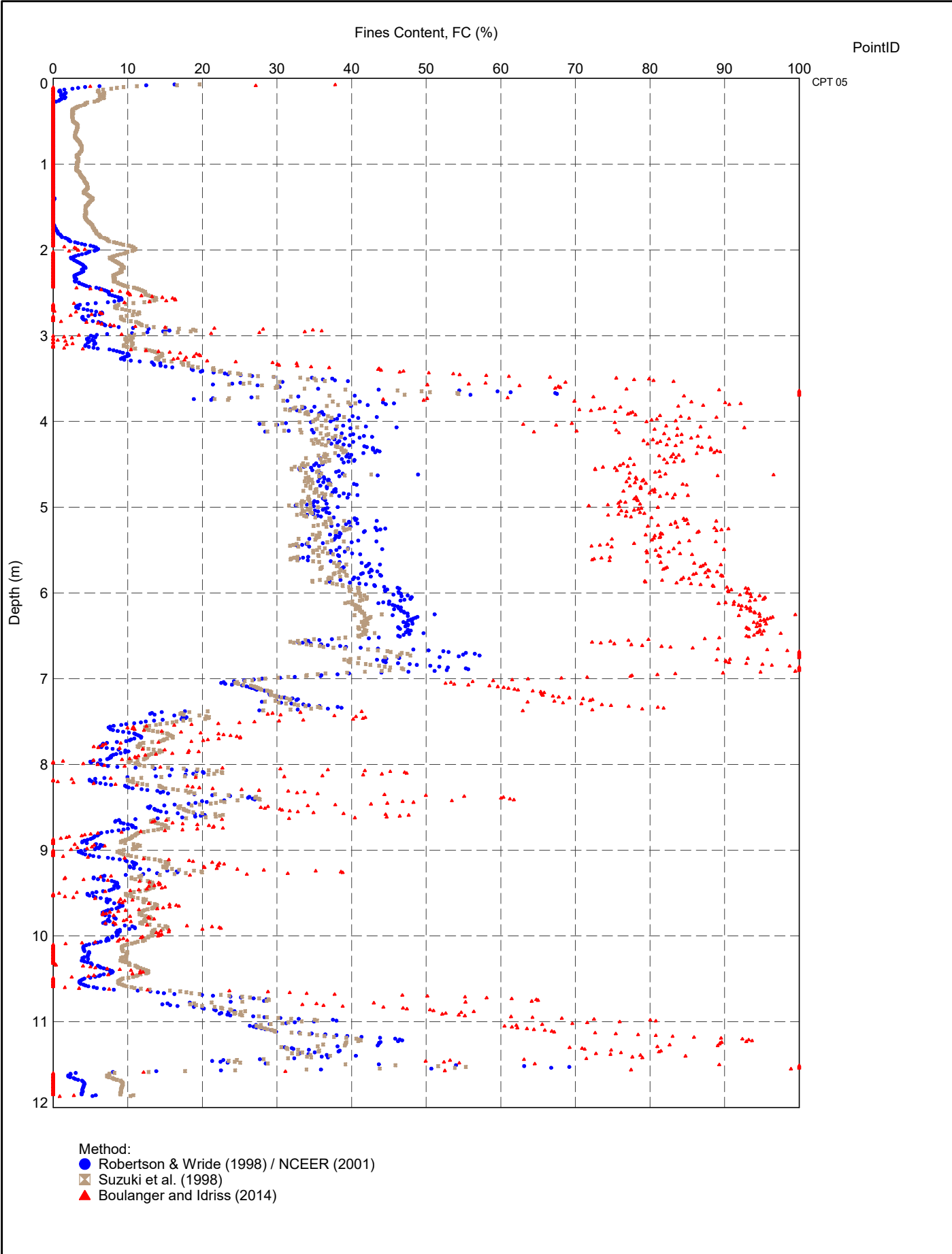


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Effective Stress versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	180

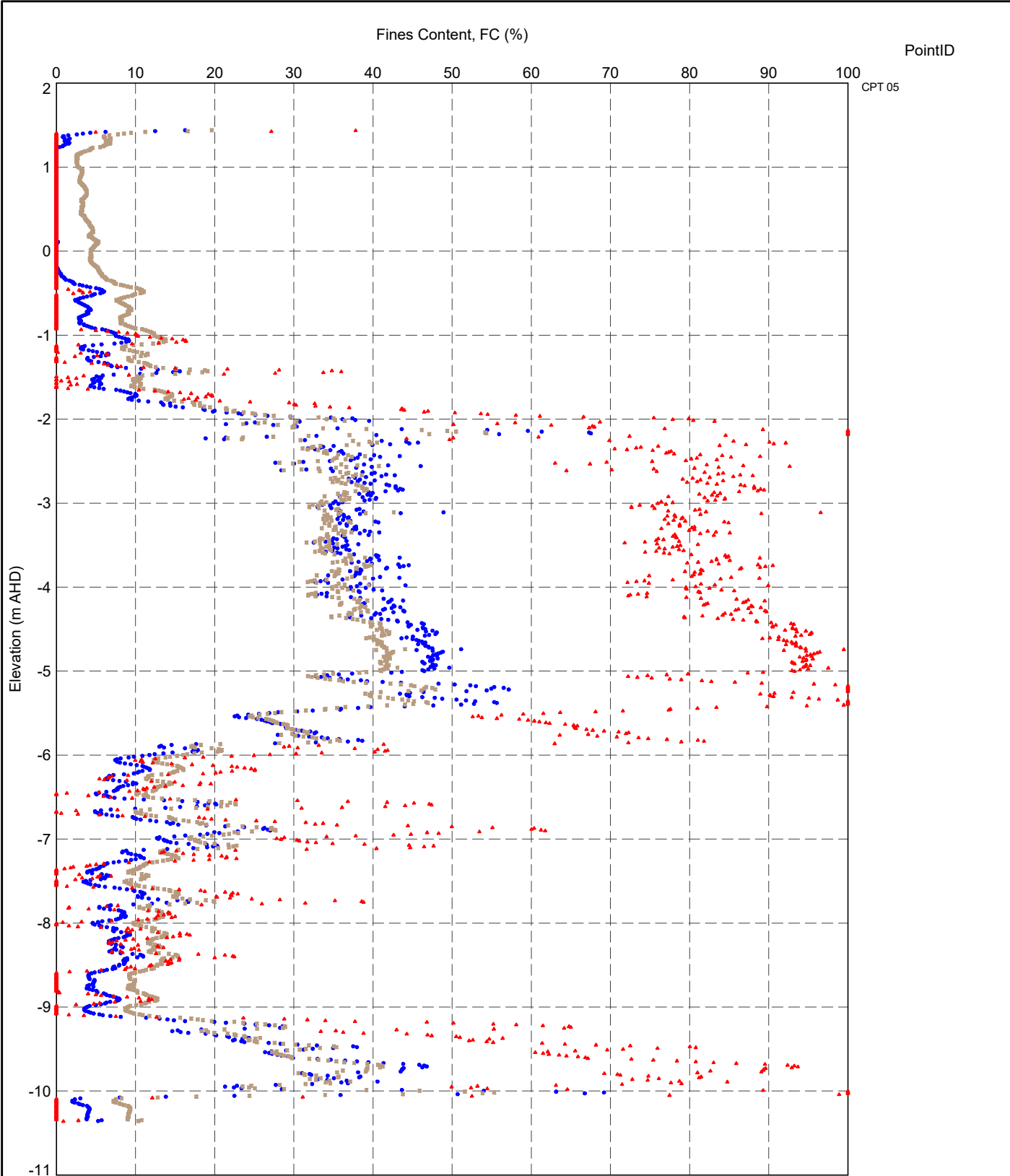
DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.FINES.CONTENT.DEPTH.AMP.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:06 10.01.00.11 Datgel CPT Tool.gINT Add-In



Method:  
 ● Robertson & Wride (1998) / NCEER (2001)  
 ■ Suzuki et al. (1998)  
 ▲ Boulanger and Idriss (2014)

	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Fines Content versus Depth	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 181	

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT LIQ FINES.CONTENT RL A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 00:07 10:01:00.11 Datgel.CPT Tool glNT Adid-In



PointID  
CPT 05

Method:  
 ● Robertson & Wride (1998) / NCEER (2001)  
 ■ Suzuki et al. (1998)  
 ▲ Boulanger and Idriss (2014)

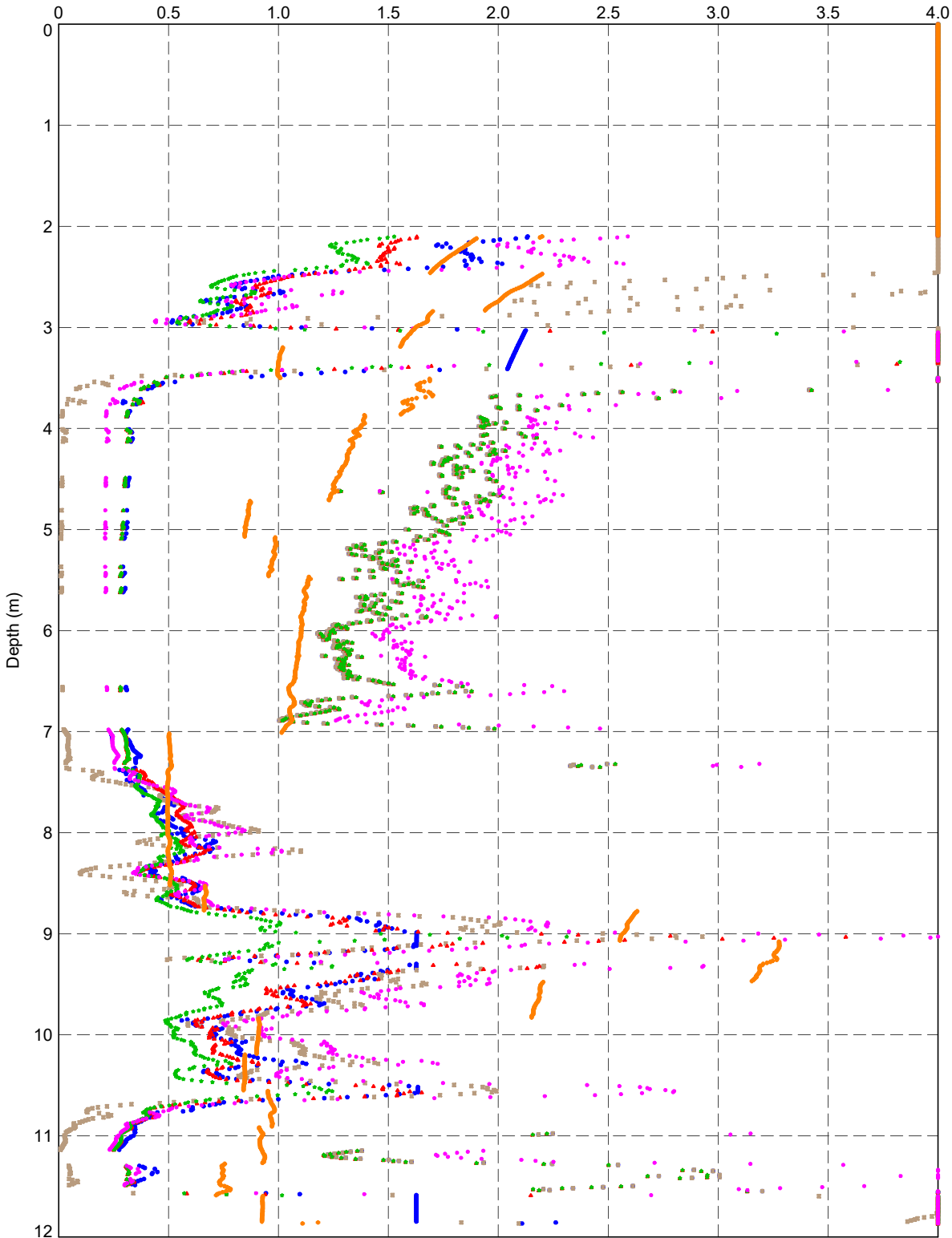


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Fines Content versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	182

Liquefaction Factor of Safety, Liq FoS

PointID



Method:

- Robertson & Wride (1998) / NCEER (2001)
- Jefferies & Been (2006)
- ▲ Idriss & Boulanger (2008)
- ★ Idriss & Boulanger (2008) with FC using R&W ('98) / NCEER ('01)
- Moss et al. (2006)
- ◻ Kayen et al. (2013)

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.FOS.DEPTH.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:08 10.01.00.11 Datgel CPT Tool gINT Add-in



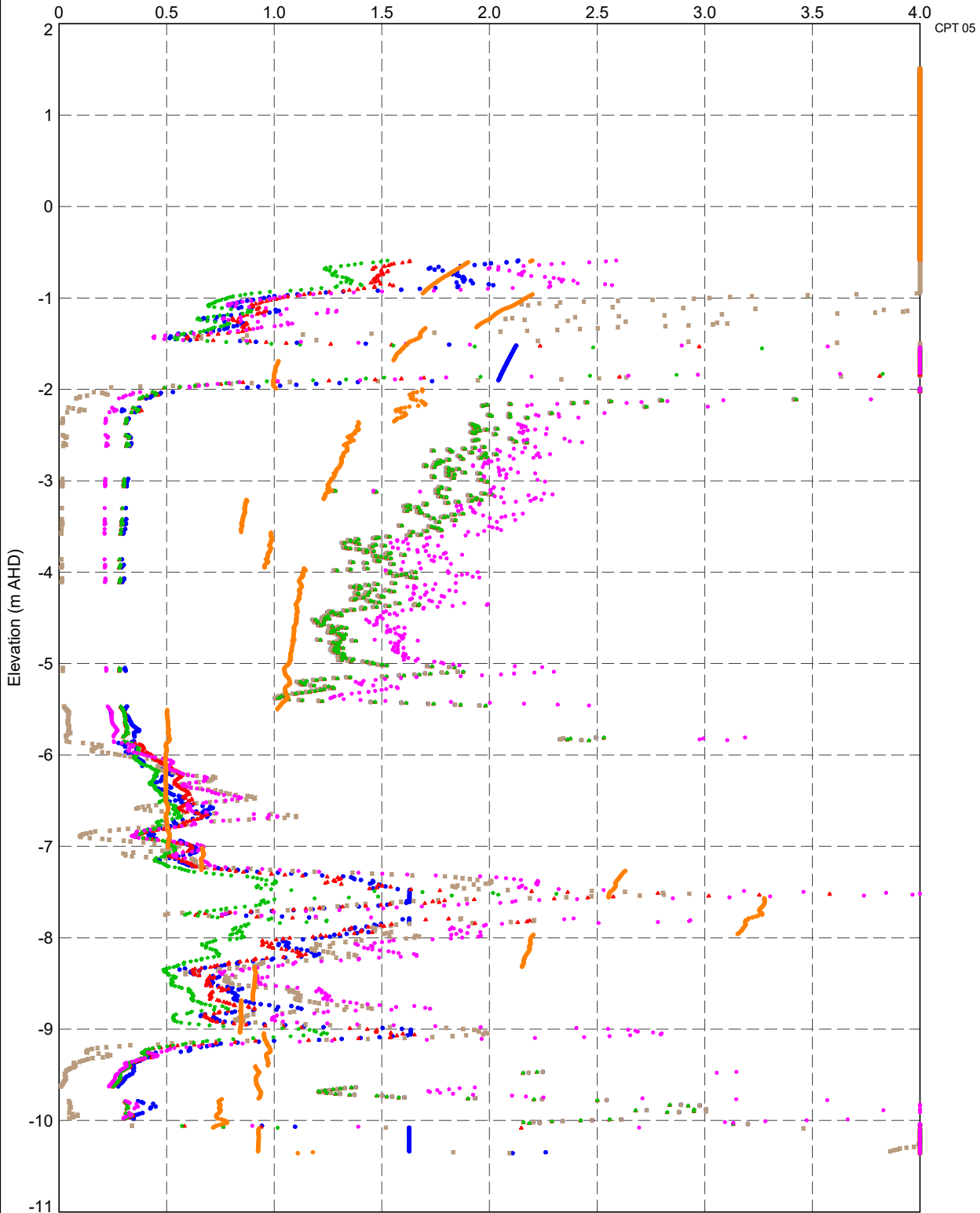
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Liquefaction Factor of Safety versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	183

Liquefaction Factor of Safety, Liq FoS

PointID



Method:

- Robertson & Wride (1998) / NCEER (2001)
- Jefferies & Been (2006)
- ▲ Idriss & Boulanger (2008)
- ★ Idriss & Boulanger (2008) with FC using R&W ('98) / NCEER ('01)
- Moss et al. (2006)
- ⊕ Kayen et al. (2013)

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT LIQ FOS RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:09:10:01:00:11 Datgel CPT Tool gINT Add-In

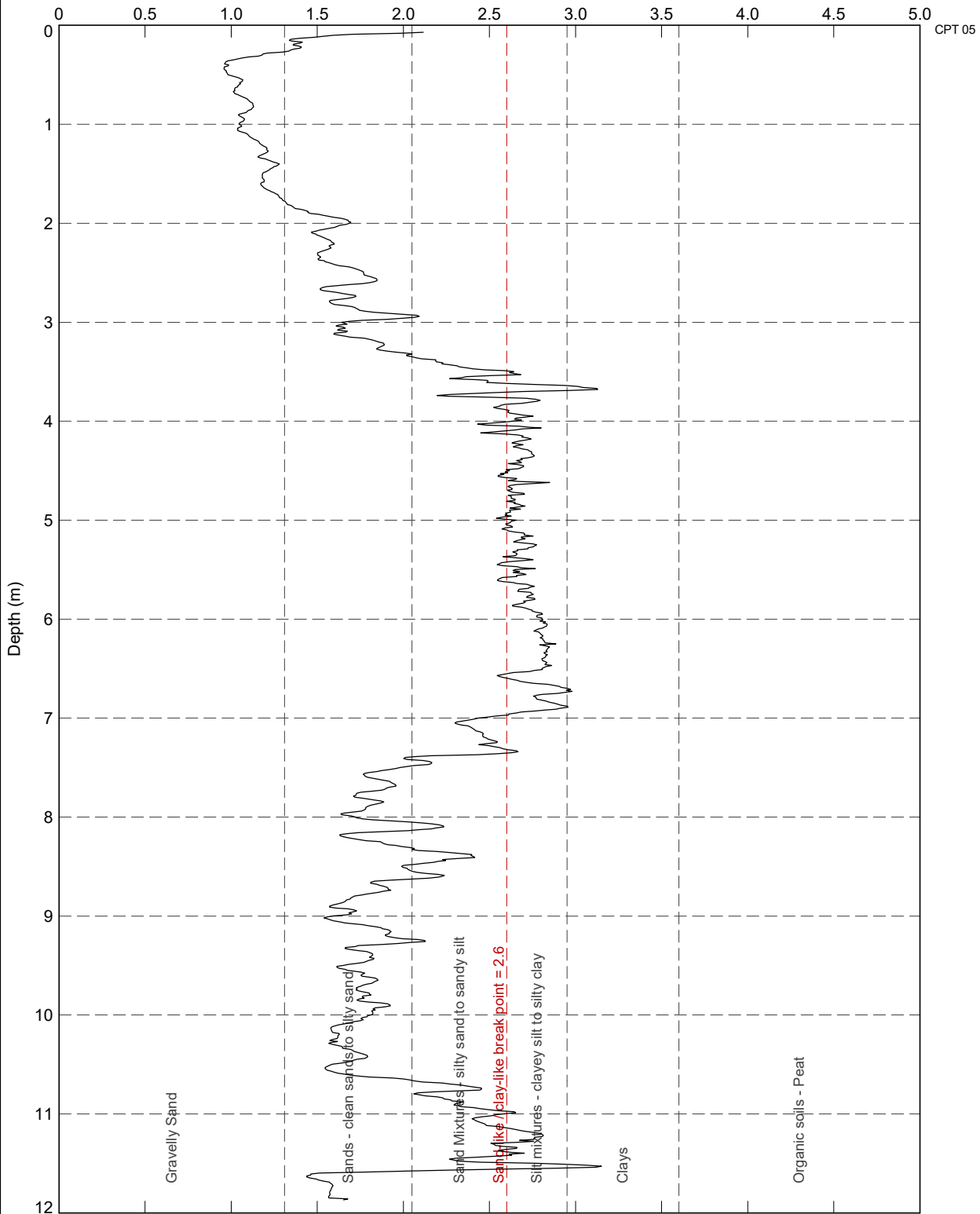


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction Factor of Safety versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	184

Soil Behaviour Type Index,  $I_c$ , Robertson and Wride (1998)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.IC.1 DEPTH.AMF.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile> 2/2/2021 00:10:10.01.00.11.Datgel.CPT.Tool.gINT.Add-in



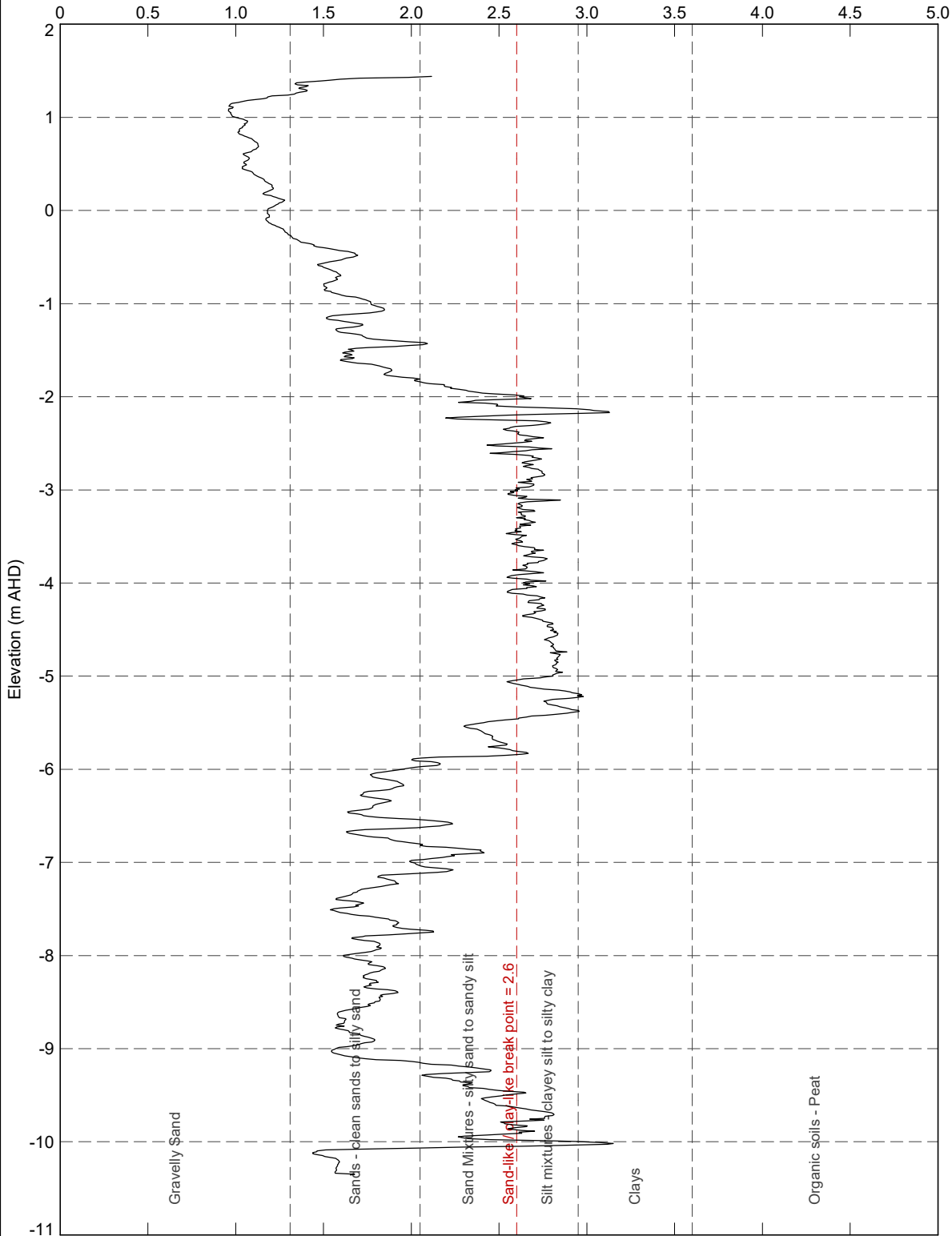
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	185

Soil Behaviour Type Index,  $I_c$ , Robertson and Wride (1998)

PointID



CPT 05

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.IC.1.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 00:10:10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



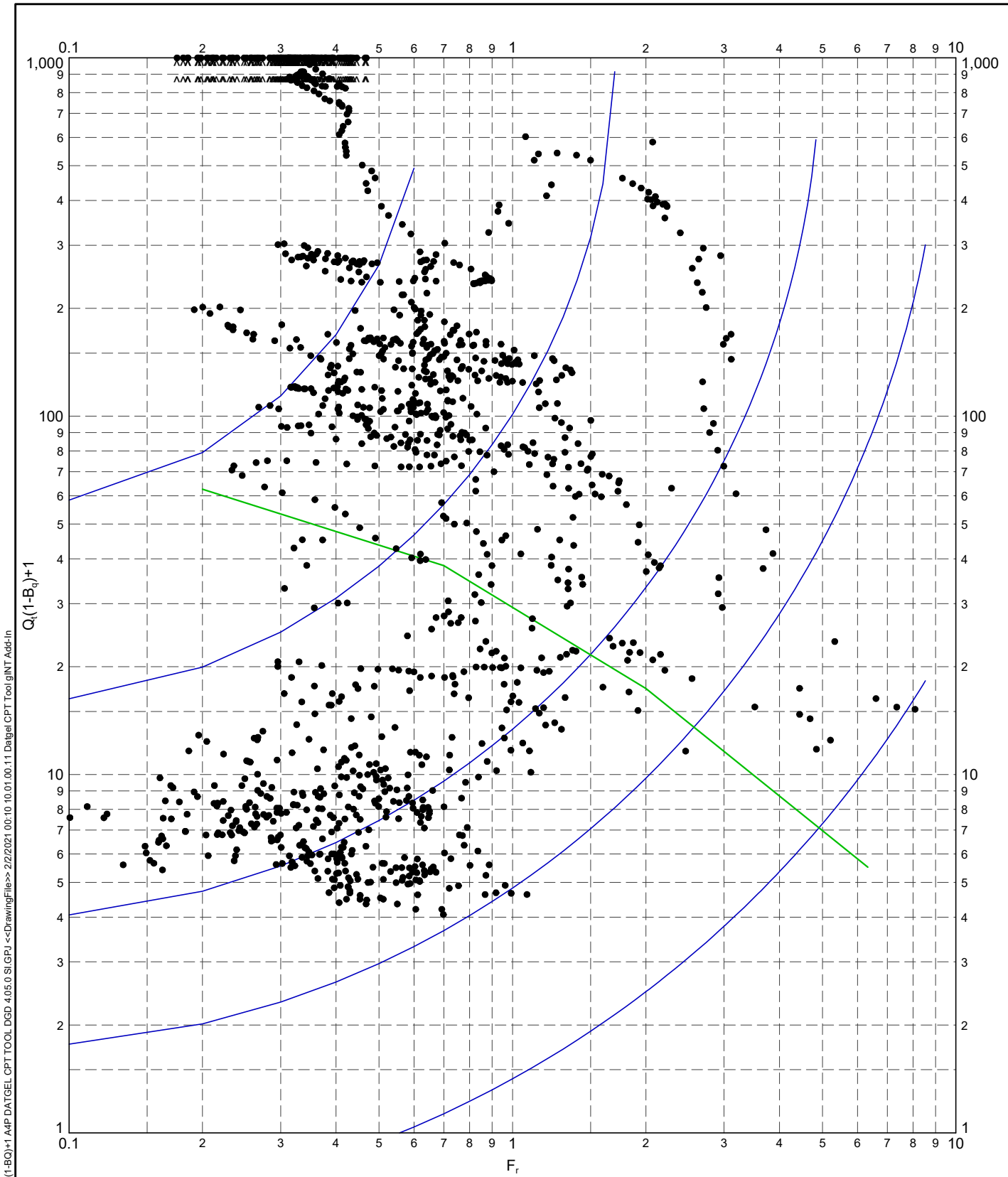
Geotechnics • Geoenvironment • Laboratory

TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil Behaviour Type Index vs. Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	186





Demarcation between strain softening and strain hardening behaviour following initial liquefaction (Shuttle & Cunning, 2008)

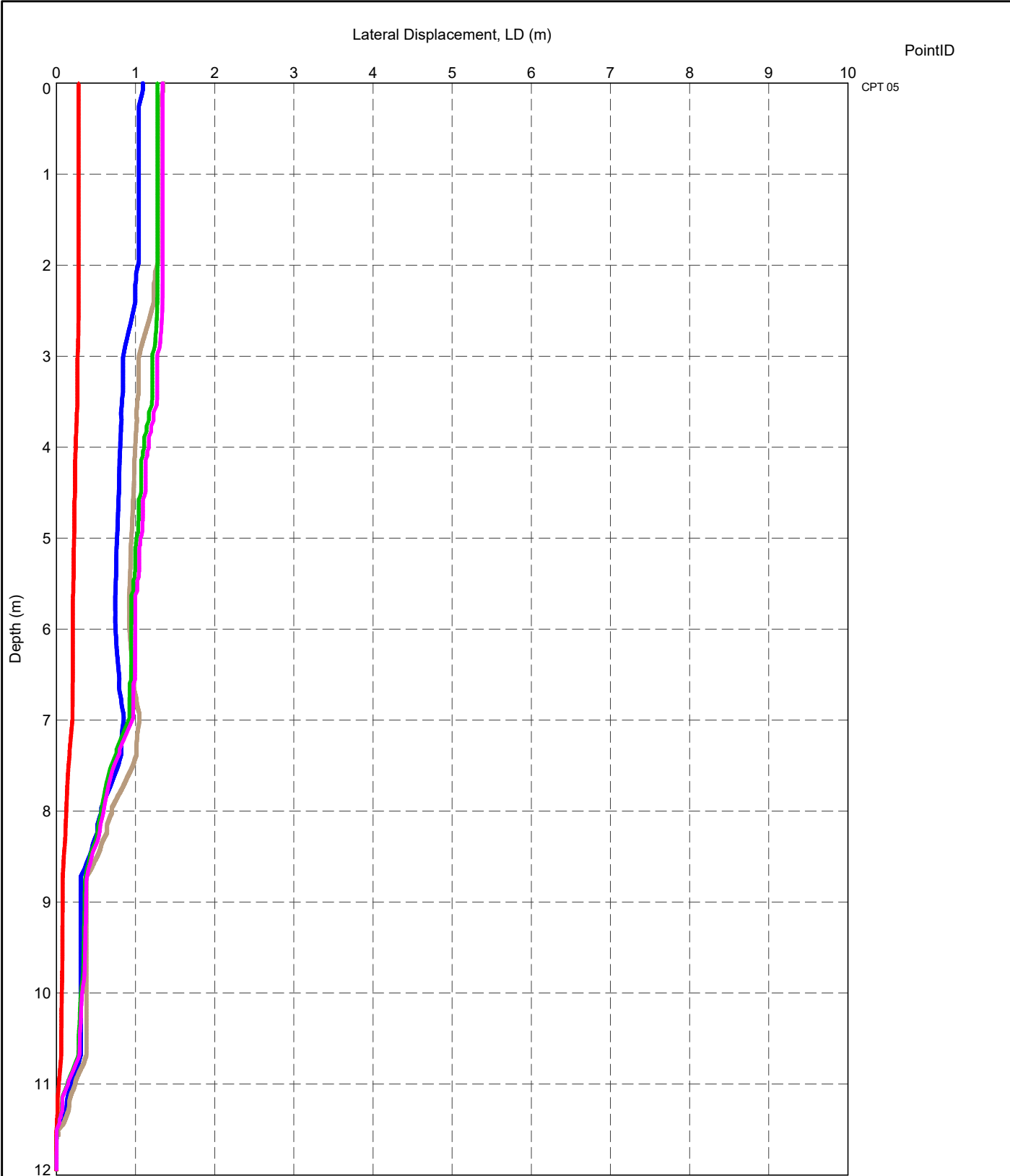
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.IC.4.QT(1-Bq)+1 A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 00:10:10.01.00.11 Datgel CPT Tool.gINT Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Been and Jefferies (1992) -  $Q_c(1-B_q)+1$  vs.  $F_r$  -  
 CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	187

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ LATERAL DISPLACEMENT DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:11 10.01.00.11 Datgel.CPT Tool.gINT Add-in



- Method:
- Youd et al. (2002) gently sloping
  - Youd et al. (2002) free face
  - ▲ Zhang et al. (2004) gently sloping
  - ★ Zhang et al. (2004) free face
  - ⊙ LDI

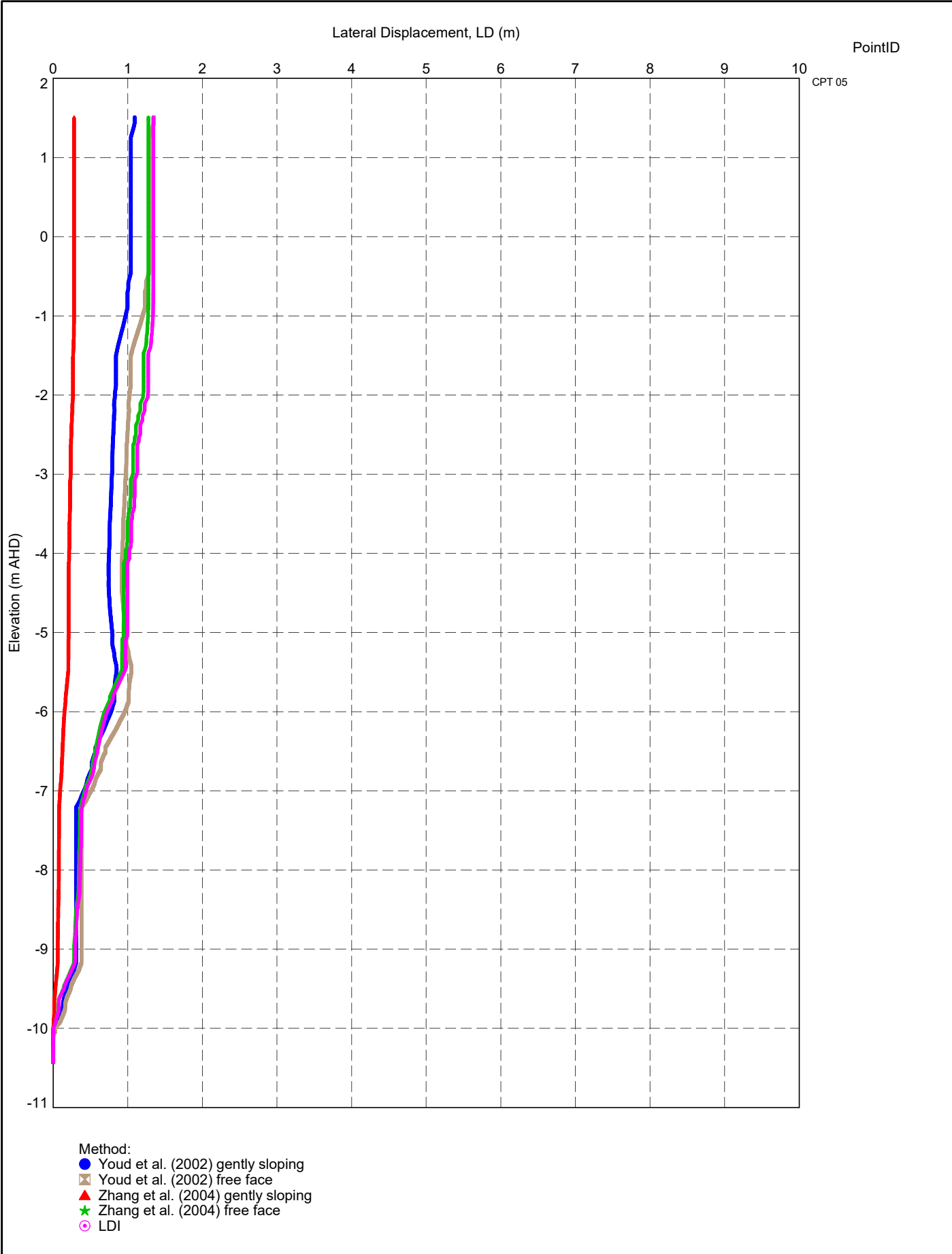


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Lateral Displacement versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	188

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ LATERAL DISPLACEMENT.RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 00:12 10:01:00.11 Datgel CPT Tool gINT Add-in



- Method:
- Youd et al. (2002) gently sloping
  - Youd et al. (2002) free face
  - ▲ Zhang et al. (2004) gently sloping
  - ★ Zhang et al. (2004) free face
  - LDI



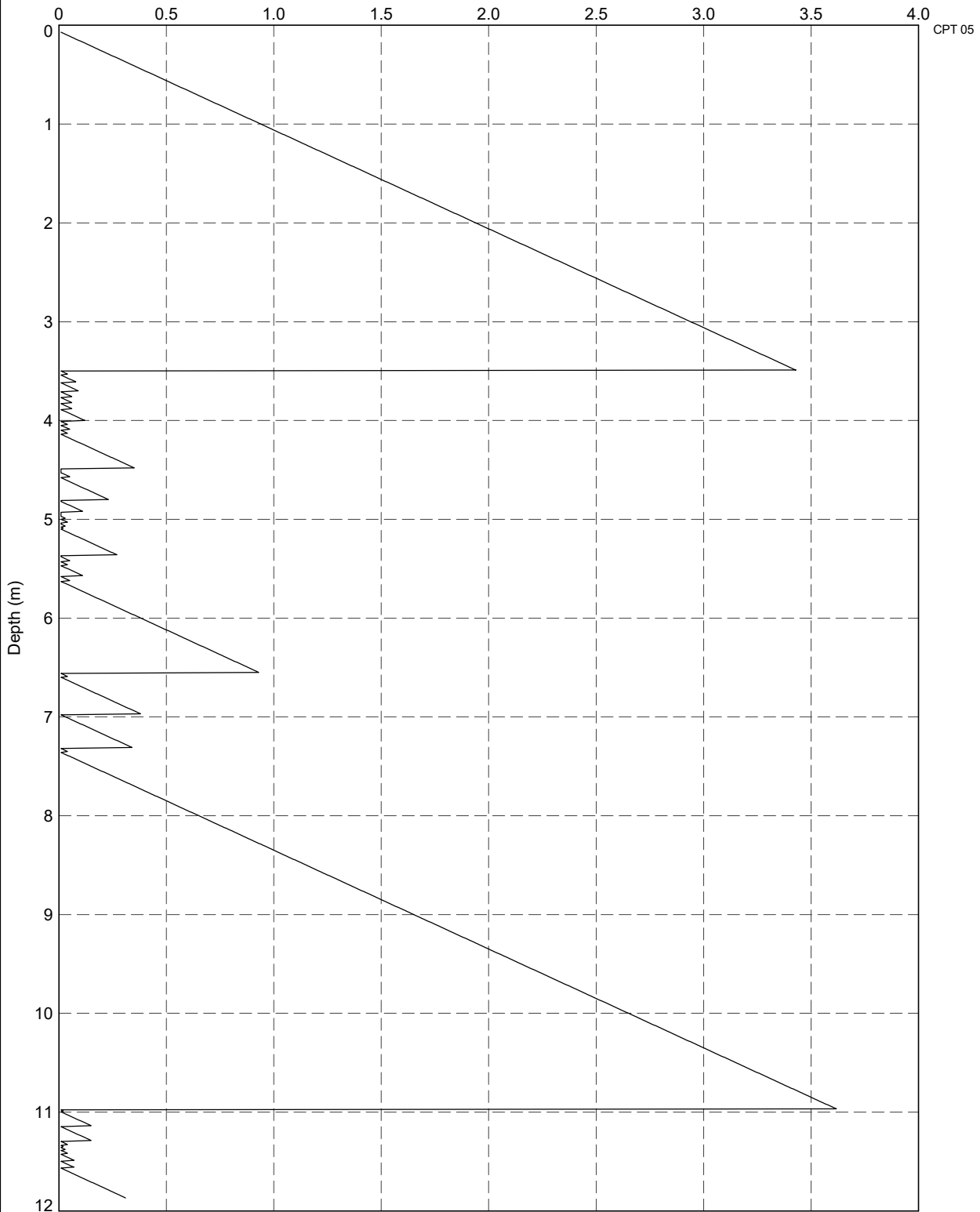
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Lateral Displacement versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	189

Layer Thickness Calculator (m)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ LAYER THICKNESS CALC DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:12:10.01.00.11 Datgel.CPT.Tool.gINT Adid-In



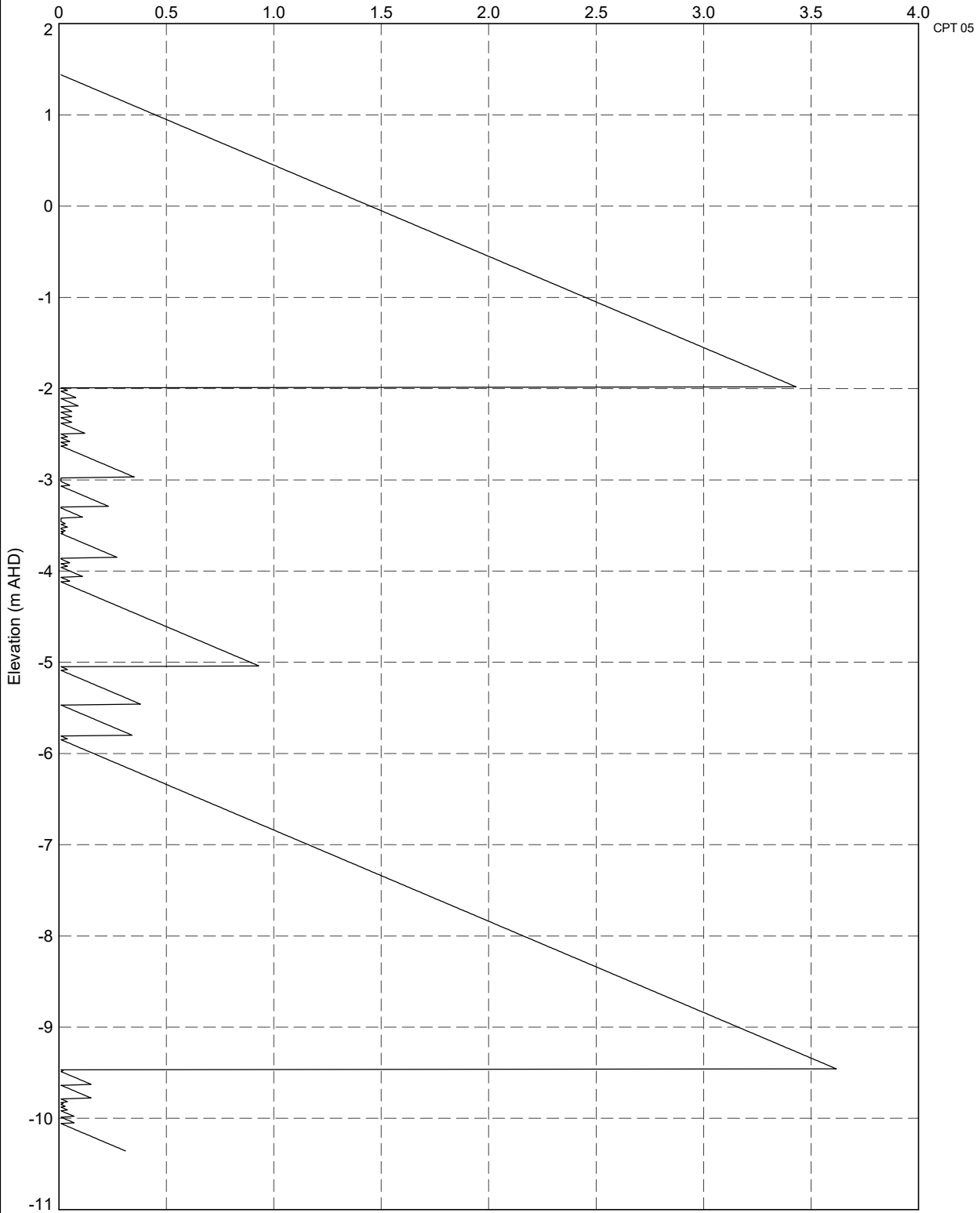
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Layer Thickness Calculator versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	190

Layer Thickness Calculator (m)

PointID



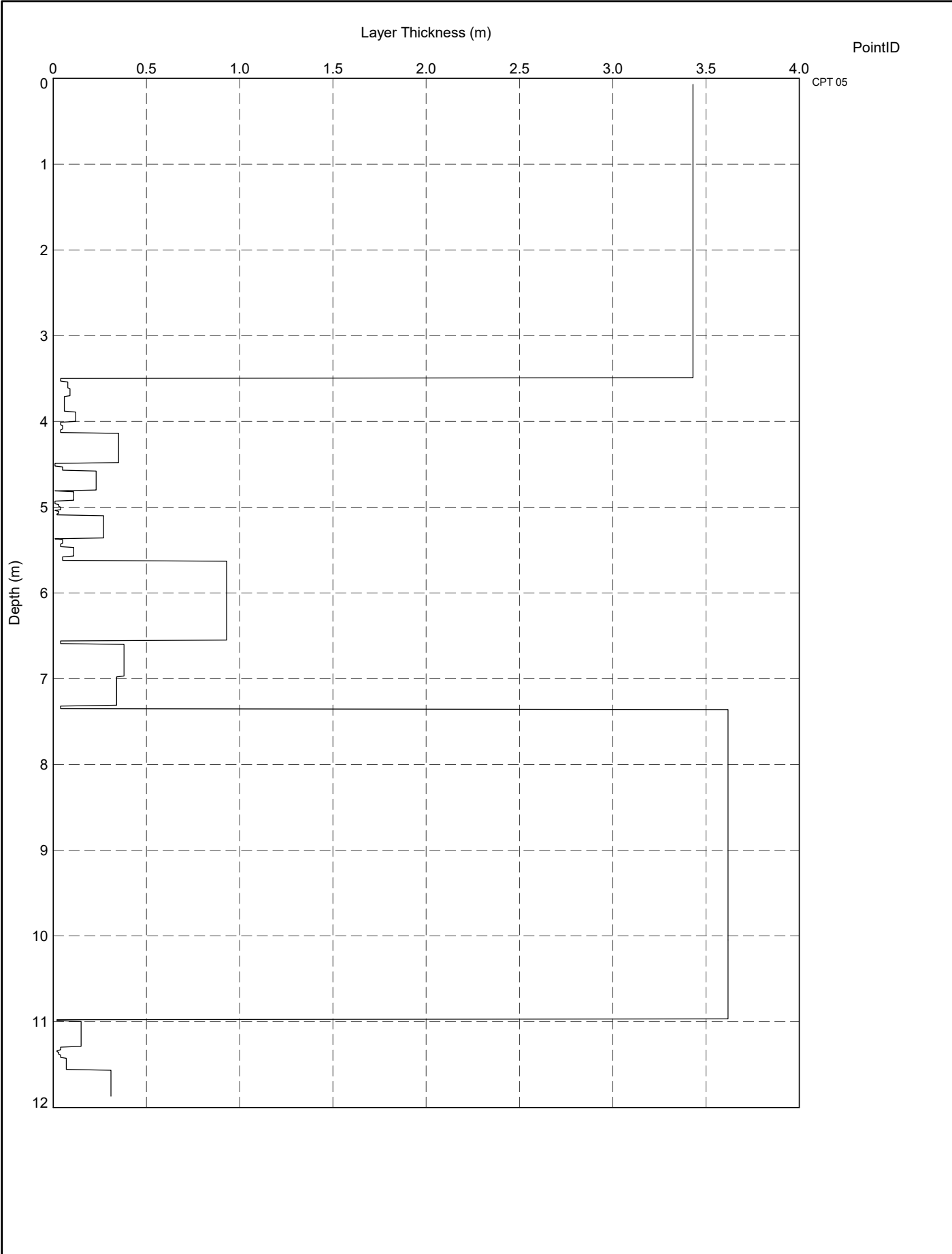
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT.LIQ LAYER THICKNESS CALC.RL.A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:12:10.01.00.11 Datgel CPT Tool.gINT Add-in



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Layer Thickness Calculator versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	191

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.LAYER.THICKNESS.DEPTH.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-<DrawingFile>> 2/2/2021 00:12:10.01.00.11.Datgel.CPT.Tool.gINT.Add-In

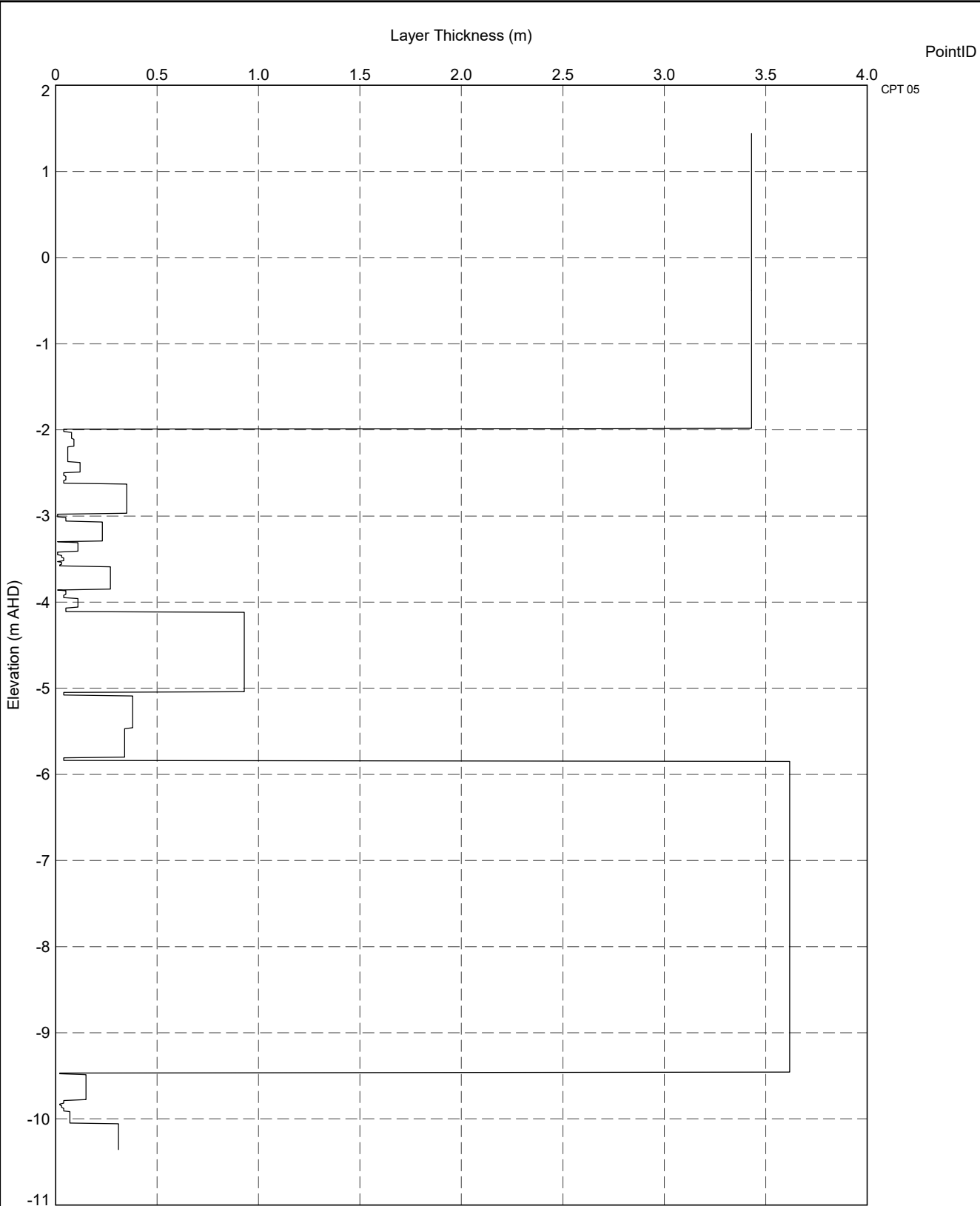


PointID  
CPT 05



TITLE  
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Liq Layer Thickness versus Depth

DRAWN Datgel	DATE 2/2/2021
CHECKED Datgel	DATE 2/2/2021
SCALE Not To Scale	A4
PROJECT No 4.05.0	FIGURE No 192



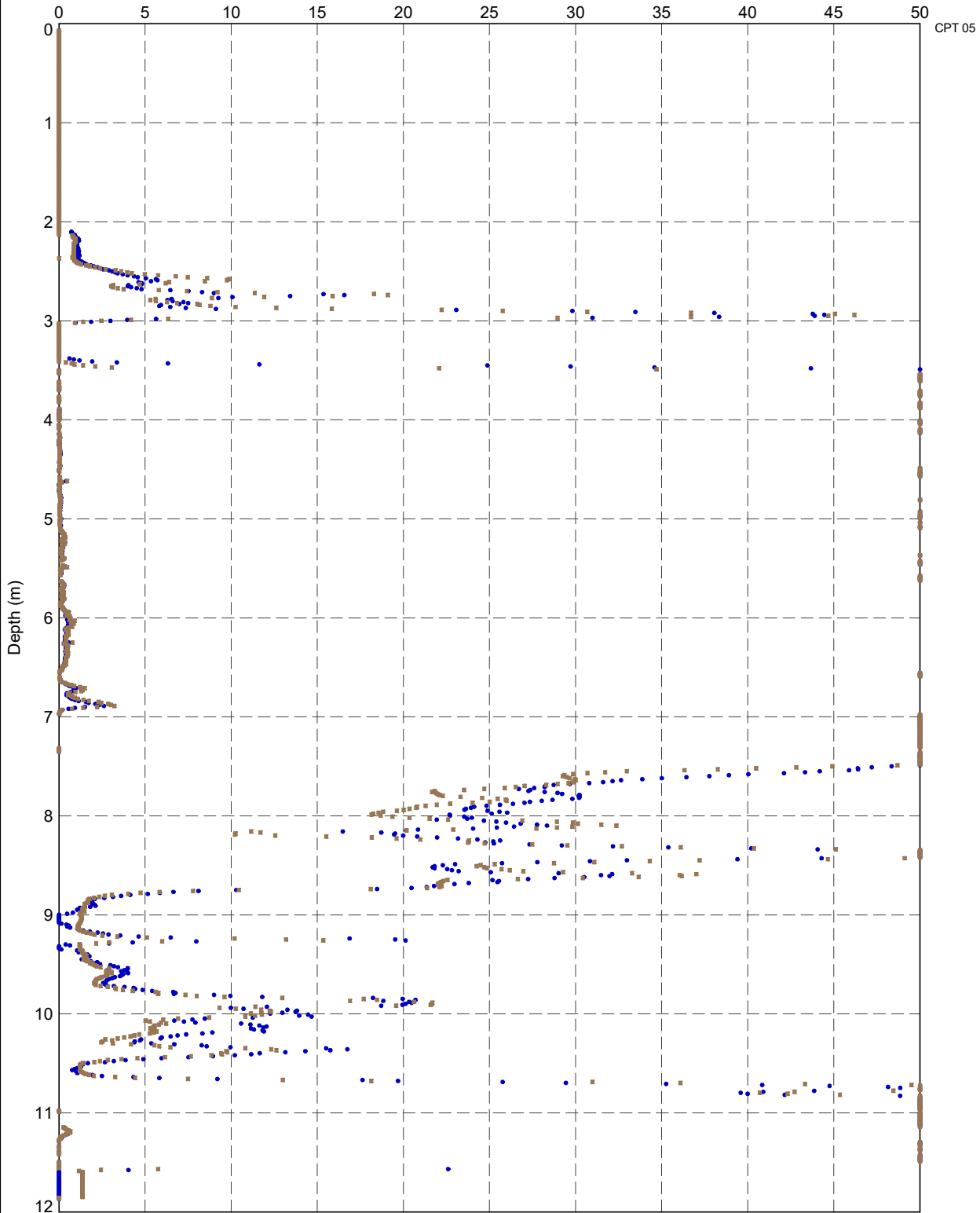
PointID  
CPT 05

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.LAYER.THICKNESS.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/22/2021 10:12:10.01.00.11.Datgel.CPT.Tool.gINT.Add-in

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Liq Layer Thickness versus Elevation	DRAWN Datgel	DATE 2/2/2021
			CHECKED Datgel	DATE 2/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 193

Maximum Shear Strain,  $\gamma_{max}$  (%)

PointID



Method:  
 ● Idriss & Boulanger (2008)  
 ■ Zhang et al. (2004)

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ MAXIMUM SHEAR STRAIN DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:13 10.01.00.11 Datgel.CPT Tool glINT Add-In

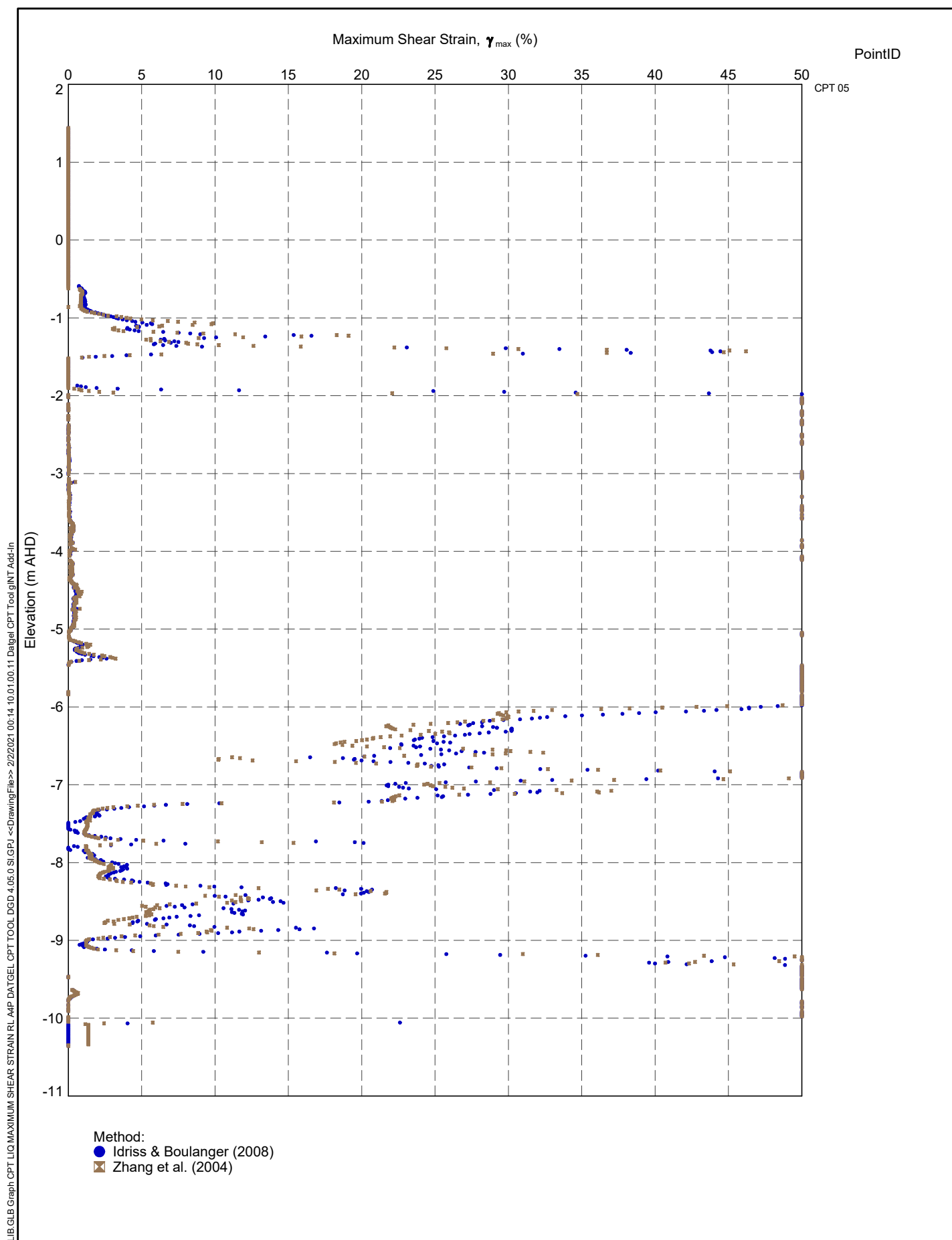


Geotechnics • Geoenvironment • Laboratory

TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Maximum Shear Strain versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	194

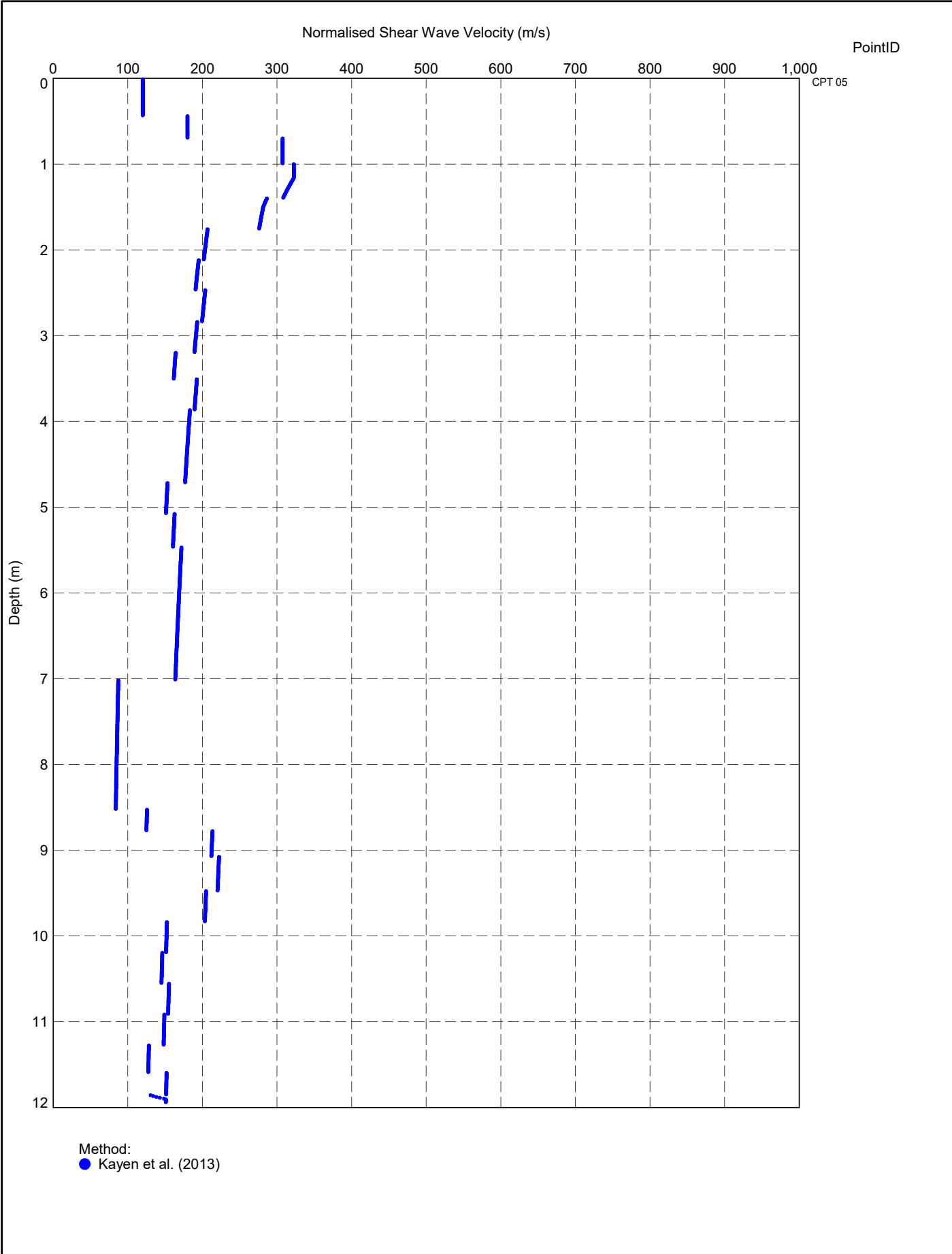




DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph CPT LIQ MAXIMUM SHEAR STRAIN RL AMP DATGEL CPT TOOL DGD 4.05.0 SI GFI <-DrawingFile>> 2/2/2021 00:14 10.01.00.11 Datgel CPT Tool gINT Add-in

 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Maximum Shear Strain versus Elevation	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	195

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ NORM SHEAR WAVE VEL DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:14 10:01:00.11 Datgel CPT Tool gINT Add-In



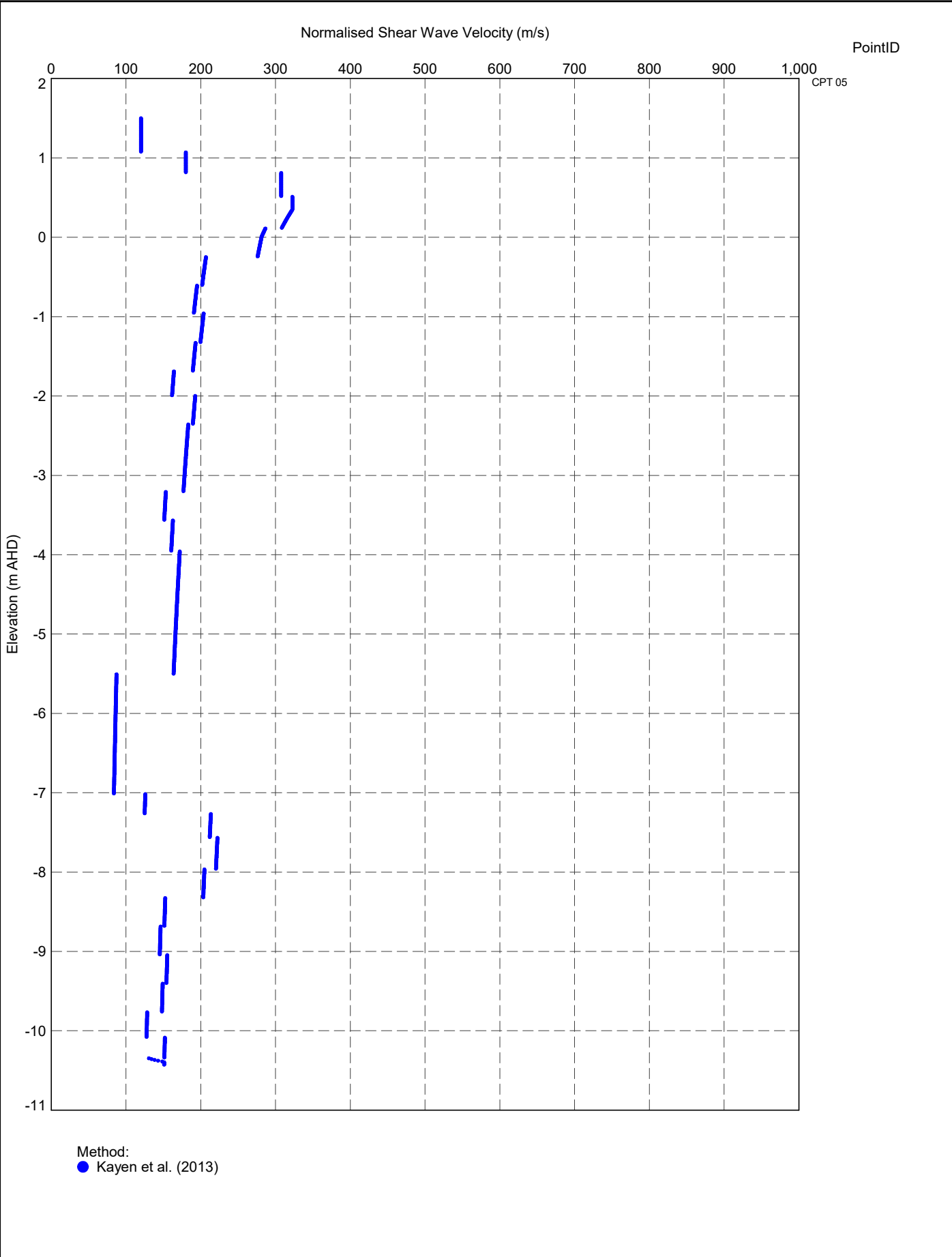
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Normalised Shear Wave Velocity versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	196

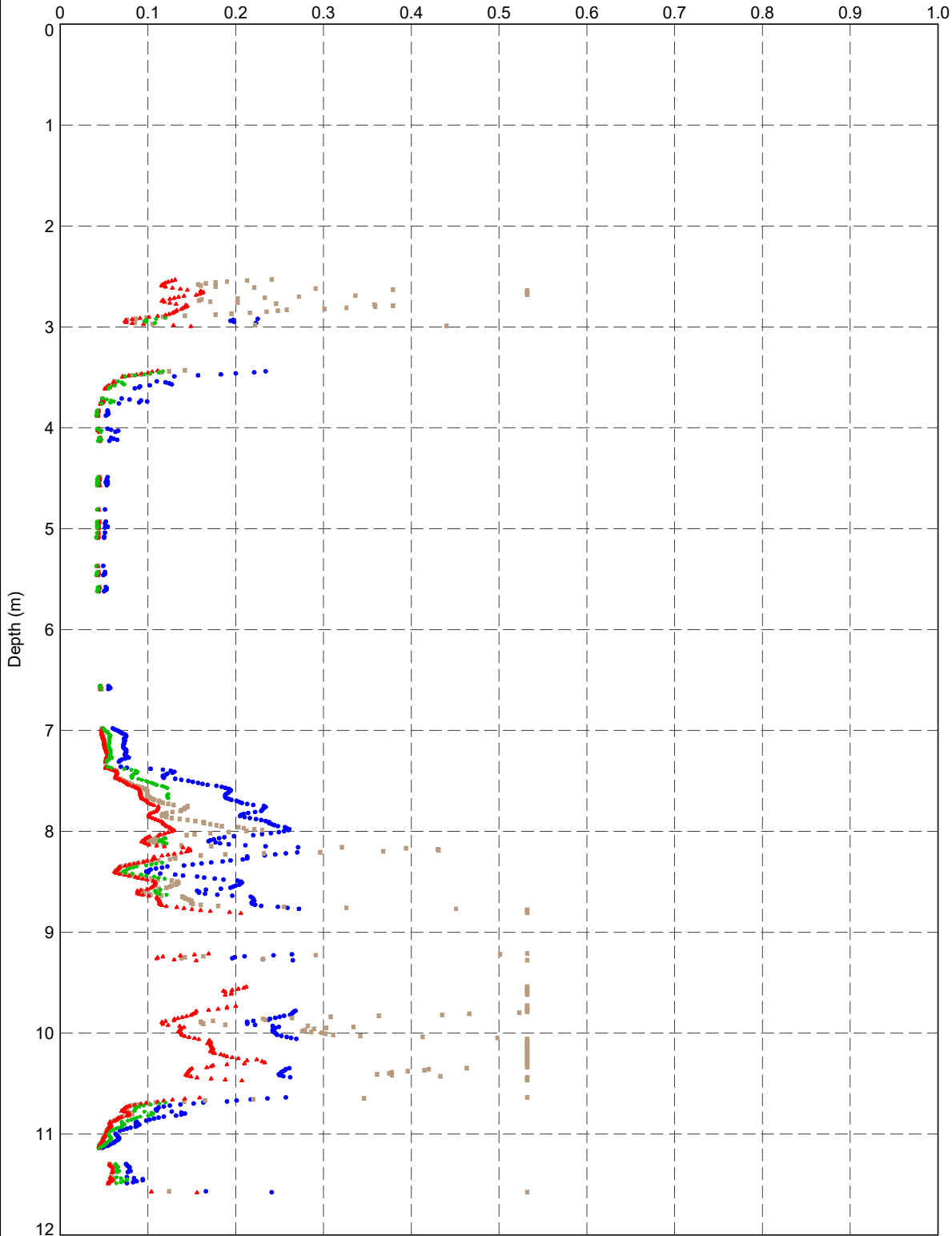
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ NORM SHEAR WAVE VEL RL A4P DATGEL CPT TOOL DGD 4.05.0 S(GPJ) <<DrawingFile>> 2/2/2021 00:14 10.01.00.11 Datgel.CPT Tool.gINT Add-in



	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Normalised Shear Wave Velocity vs Elevation	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 197	

Normalised Residual Shear Strength, Norm.  $s_r$

PointID



Depth (m)

CPT 05

Method:

- Jefferies & Been (2006)
- Idriss and Boulanger (2008)
- ▲ Idriss and Boulanger (2008)
- ★ Olson and Stark (2002)

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ NORM SR DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:15 10:01:00.11 Datgel CPT Tool glNT Add-In



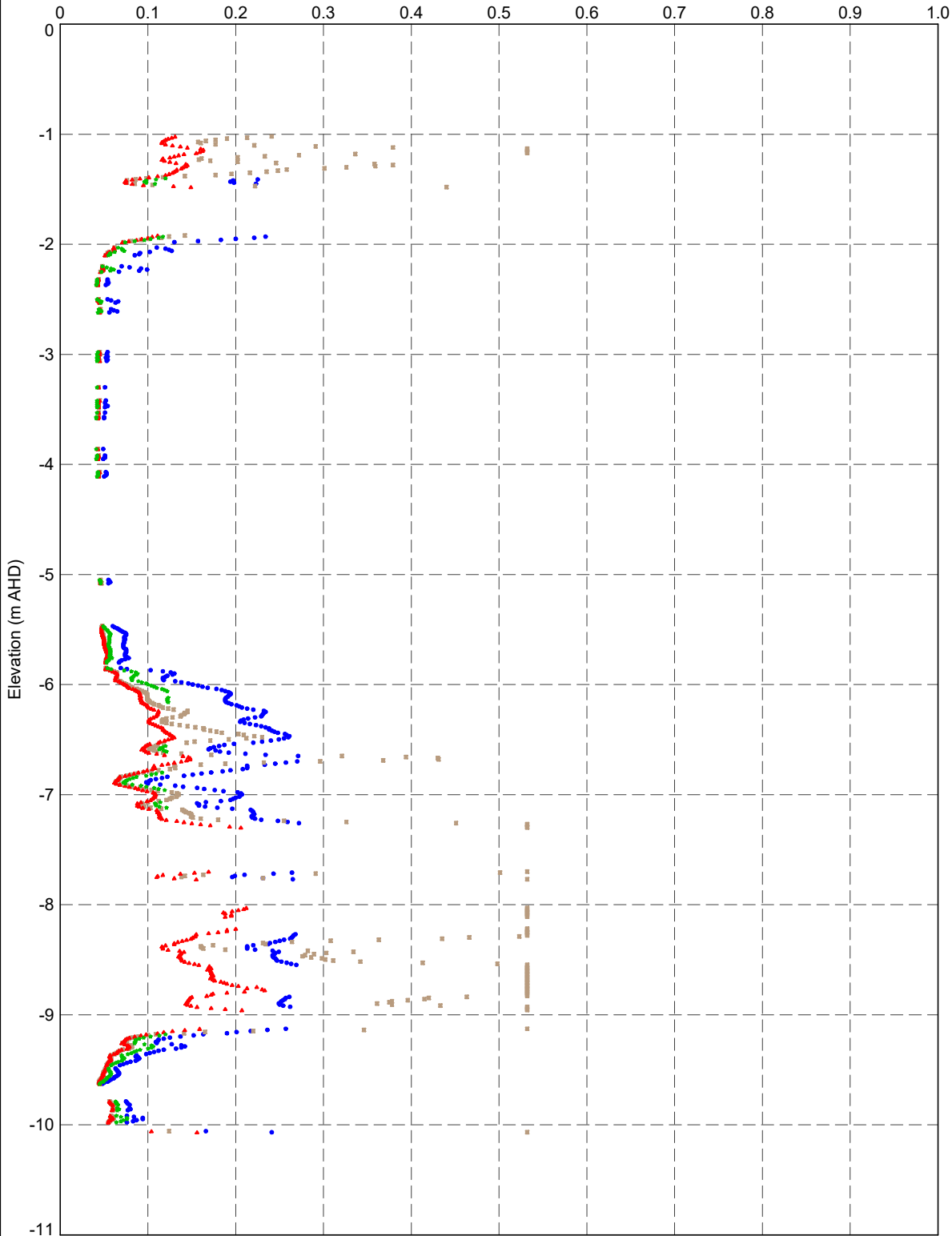
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Normalised  $S_r$  versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	198

Normalised Residual Shear Strength, Norm.  $s_r$

PointID



CPT 05

Method:

- Jefferies & Been (2006)
- Idriss and Boulanger (2008)
- ▲ Idriss and Boulanger (2008)
- ★ Olson and Stark (2002)

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.LIQ NORM SR RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:16 10.01.00.11 Datgel.CPT.Tool.gINT Add-in



Geotechnics • Geoenvironment • Laboratory

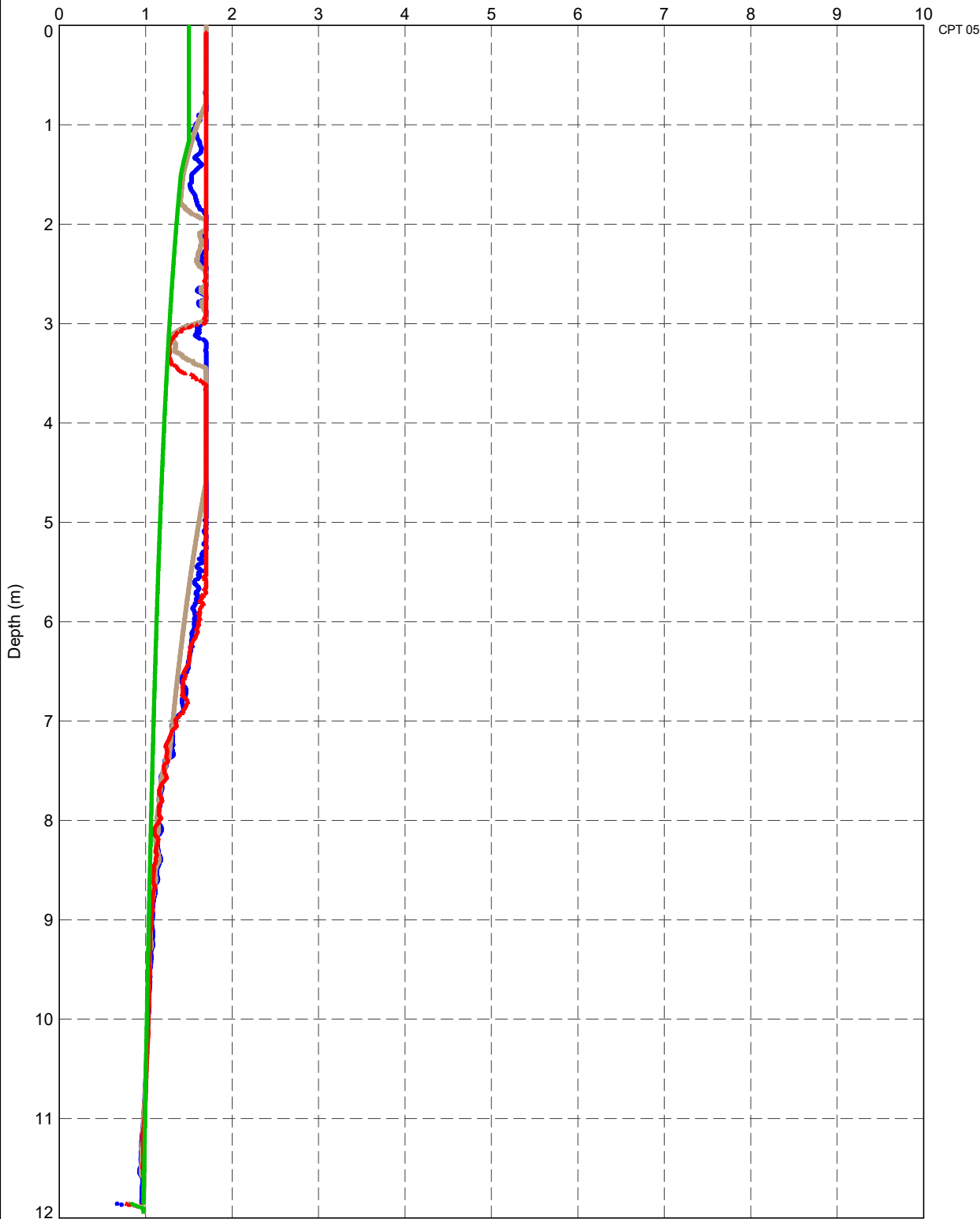
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Normalised  $S_r$  versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	199

Overburden Correction Factor, CQ

PointID



Method:

- Roberson & Wride, 1998, and NCEER 2001
- Idriss & Boulanger 2008
- ▲ Moss et al. (2006)
- ★ Kayen et al. (2013)

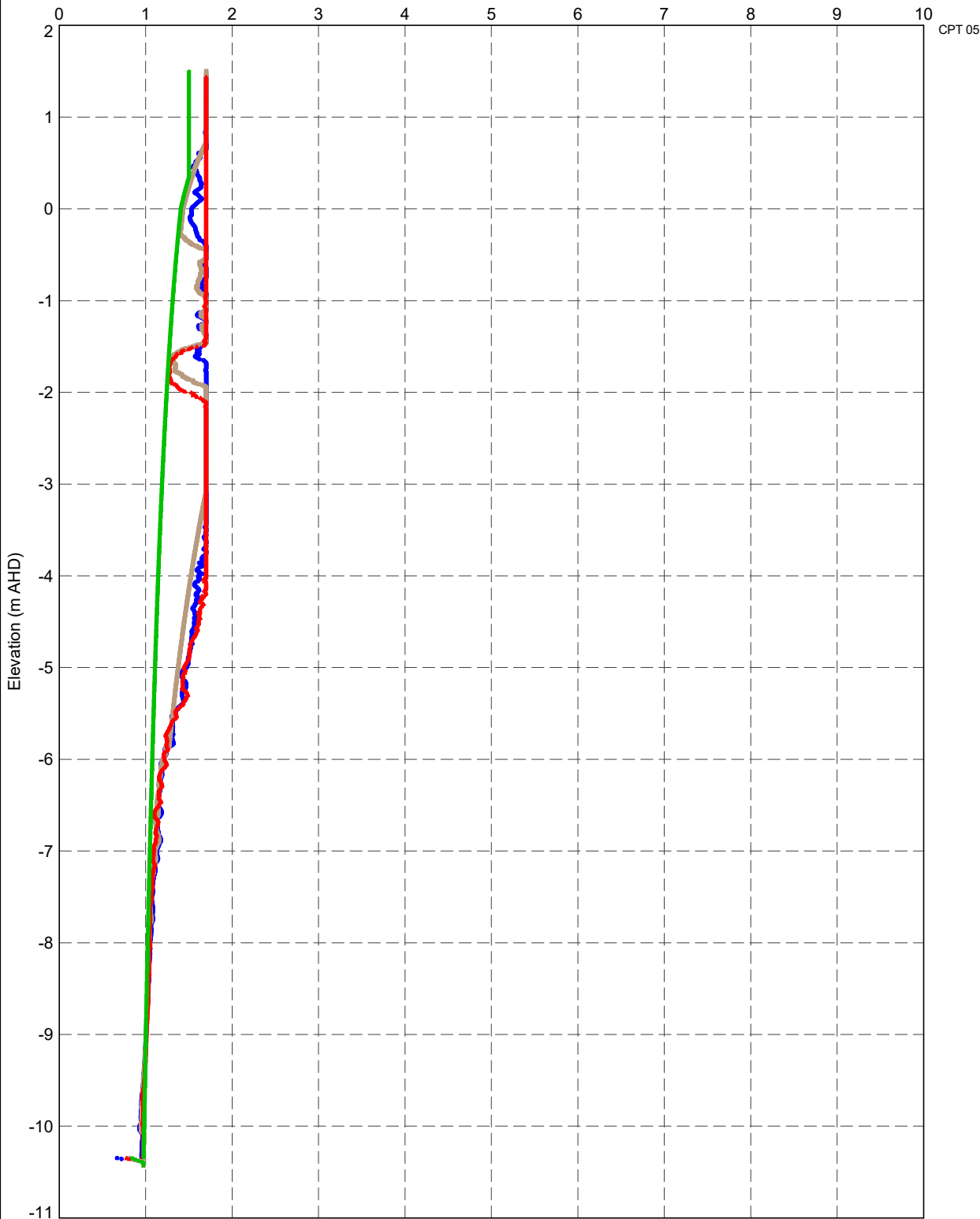
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ OVERBURDEN CORR FACTOR DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SI(GPJ <<DrawingFile>> 2/2/2021 00:17:10.01.00.11 Datgel.CPT.Tool.gINT Add-In



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Overburden Correction Factor versus Depth	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	200	

Overburden Correction Factor, CQ

PointID



- Method:
- Roberson & Wride, 1998, and NCEER 2001
  - Idriss & Boulanger 2008
  - ▲ Moss et al. (2006)
  - ★ Kayen et al. (2013)

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ OVERBURDEN CORR FACTOR RL.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:18 10.01.00.11 Datgel CPT Tool.gINT Add-in



TITLE

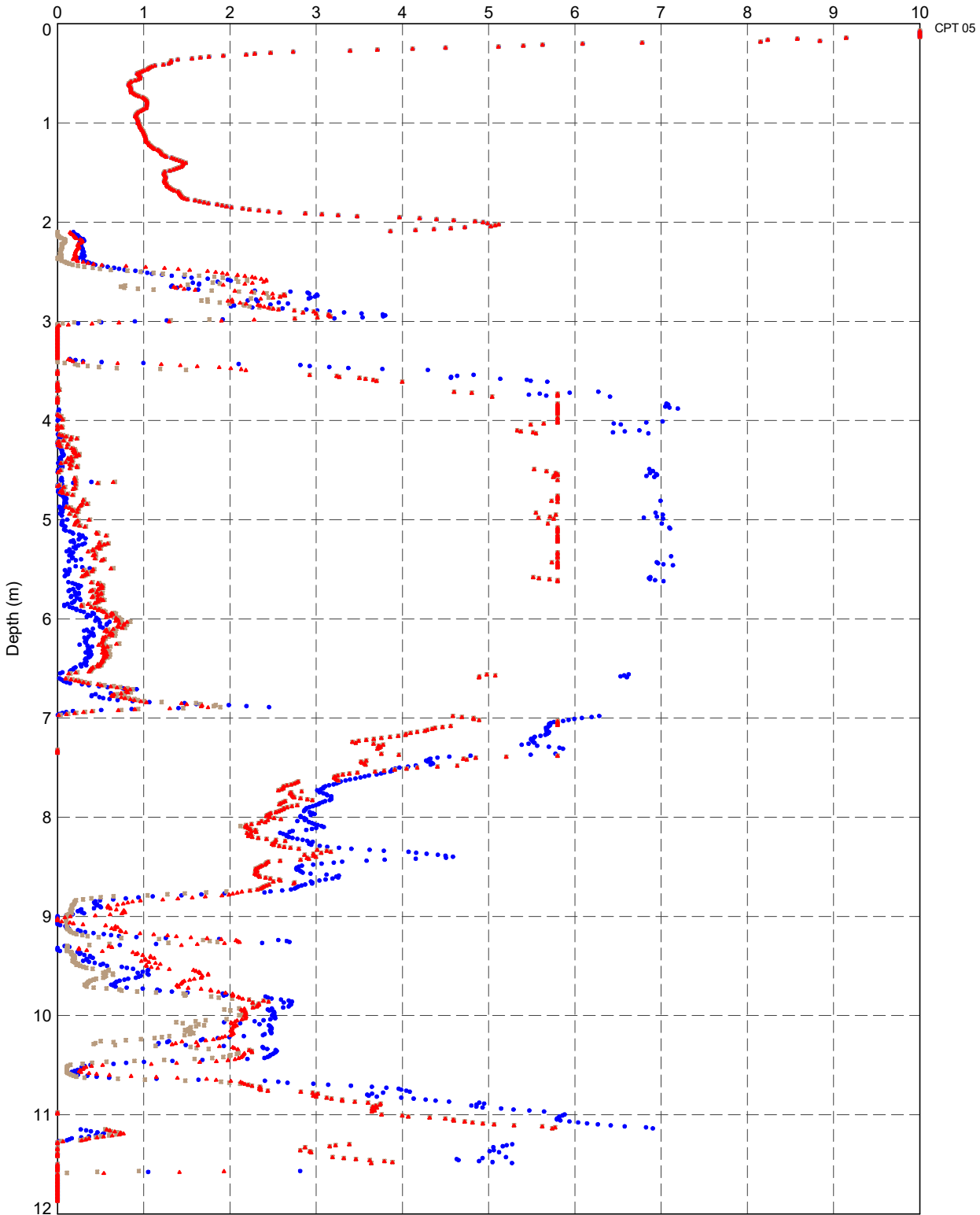
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Overburden Correction Factor versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	201

Post Liquefaction Volumetric Strain,  $\epsilon_v$  (%)

PointID



- Method:
- Ishihara & Yoshimine (1992)
  - Zhang et al. (2002)
  - ▲ DBH - Zhang et al. (2002)

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.LIQ POST.VOL STRAIN DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 00:19:10.01.00.11 Datgel CPT Tool gINT Add-in



Geotechnics • Geoenvironment • Laboratory

TITLE

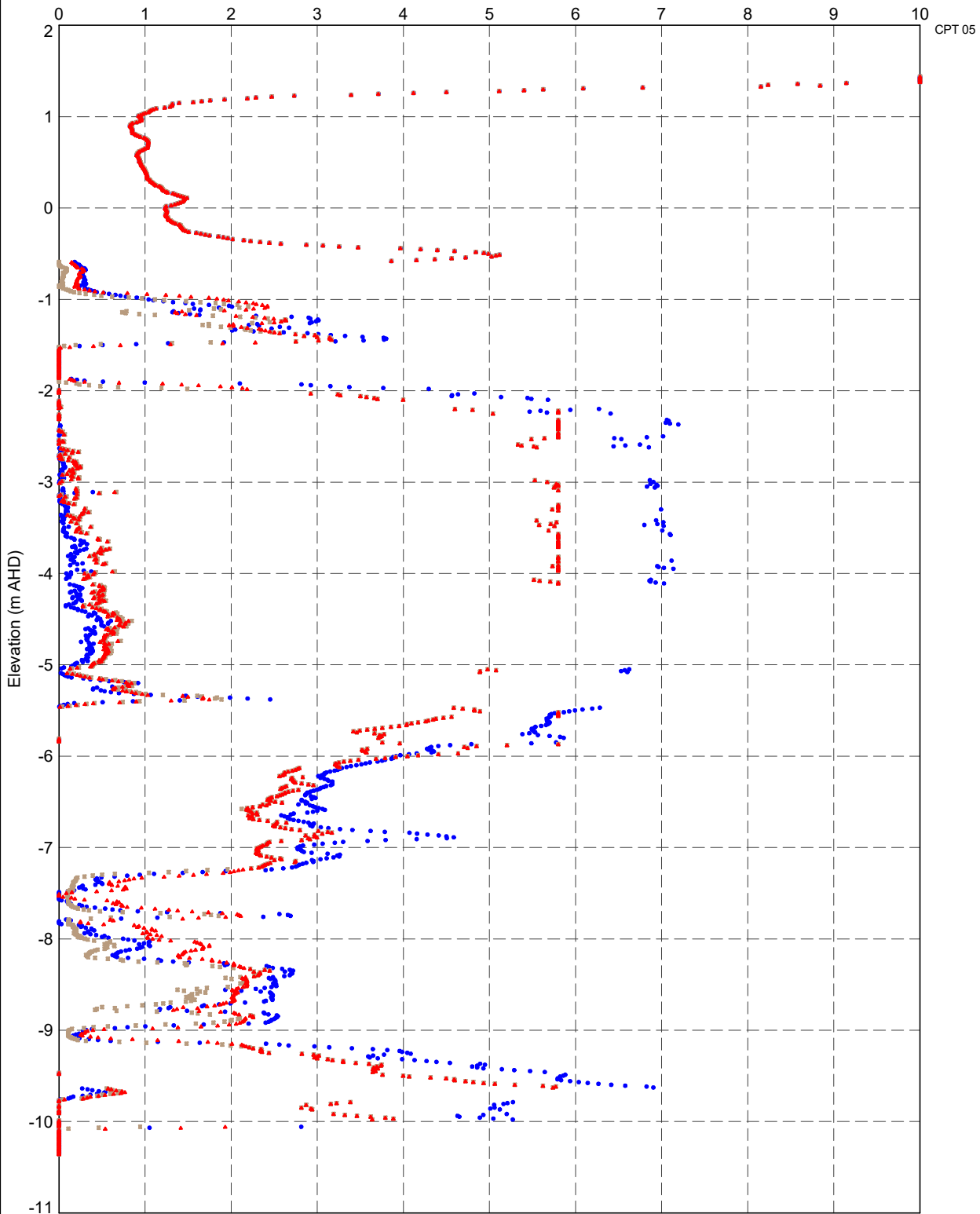
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Post Liquefaction Volumetric Strain versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	202



Post Liquefaction Volumetric Strain,  $\epsilon_v$  (%)

PointID



- Method:
- Ishihara & Yoshimine (1992)
  - Zhang et al. (2002)
  - ▲ DBH - Zhang et al. (2002)

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.POST.VOL.STRAIN.RL.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:20:10.01.11.Datgel.CPT.Tool.gINT.Add-In



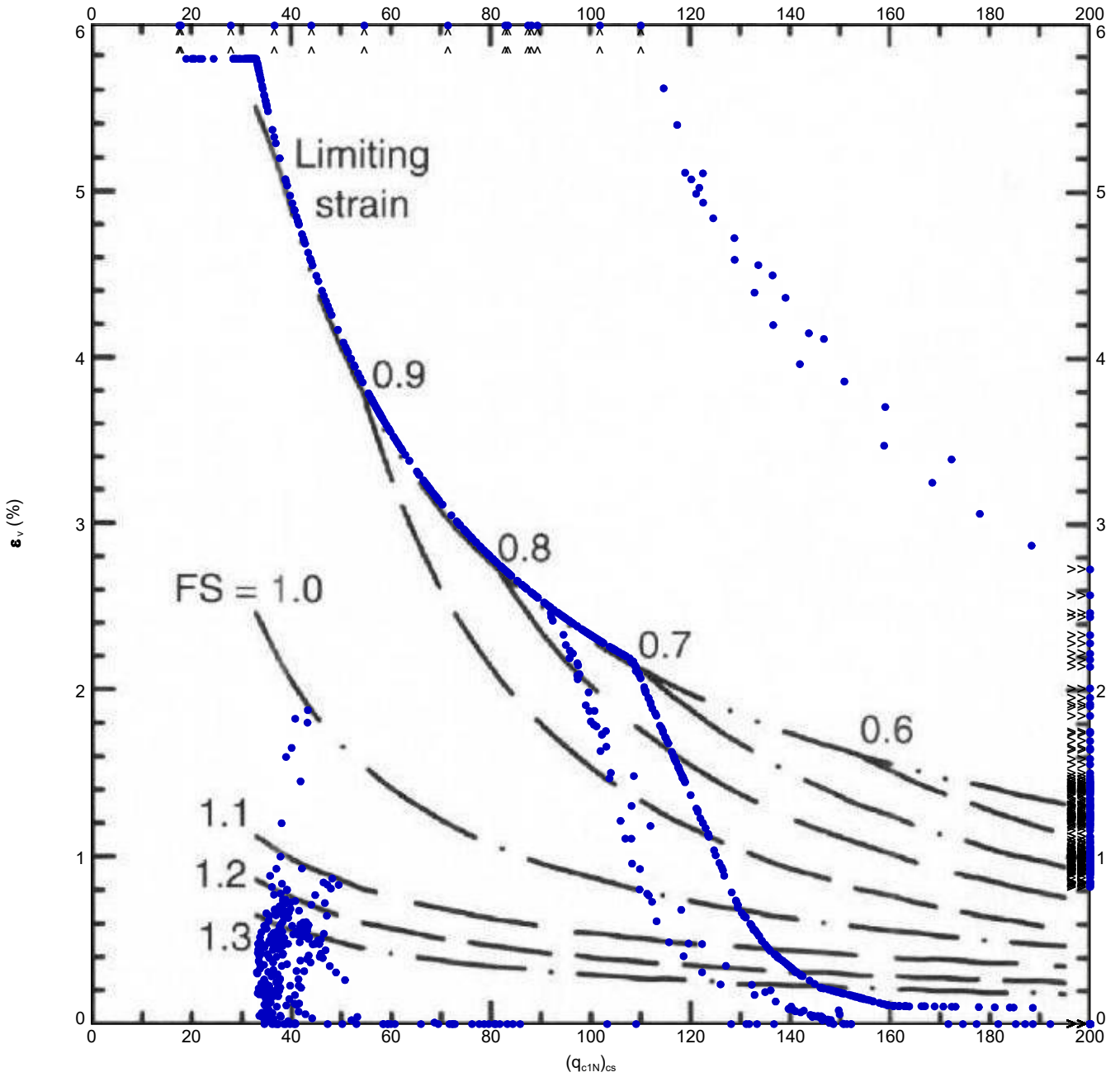
Geotechnics • Geoenvironment • Laboratory

TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Post Liquefaction Volumetric Strain versus  
Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	203

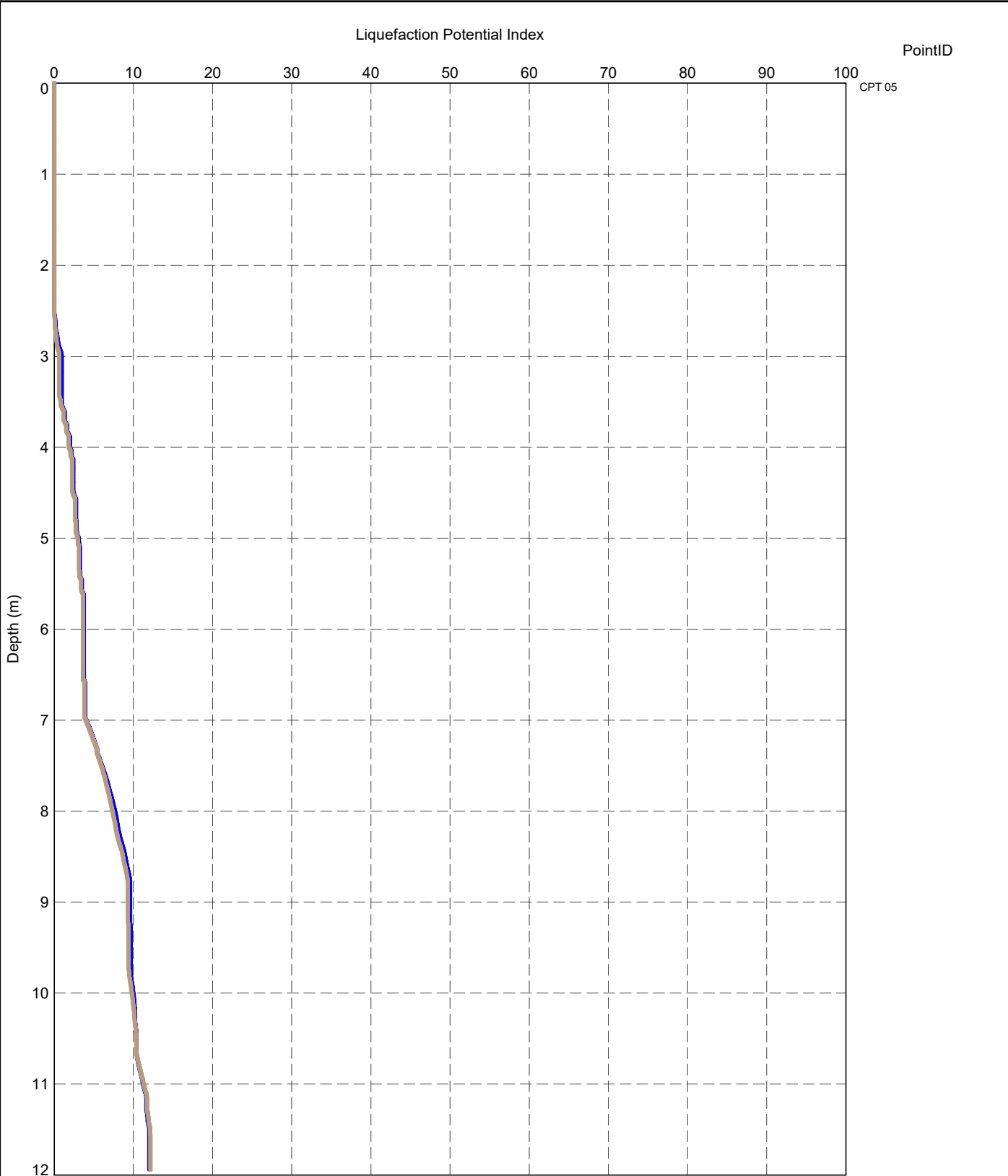
DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.LIQ POST VOL STRAIN ZHANG A4P DATGEL CPT TOOL DGD 4.05.0 SI:GP-J <-DrawingFile> 2/2/2021 00:20 10.01.00.11 Datgel CPT Tool:glnt Add-in



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Zhang et al. (2002) -  $\epsilon_v$  vs.  $(q_{c1N})_{cs}$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	204

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.LIQ POTENTIAL INDEX DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:21:10.01.00.11 Datgel CPT Tool.gINT Add-In

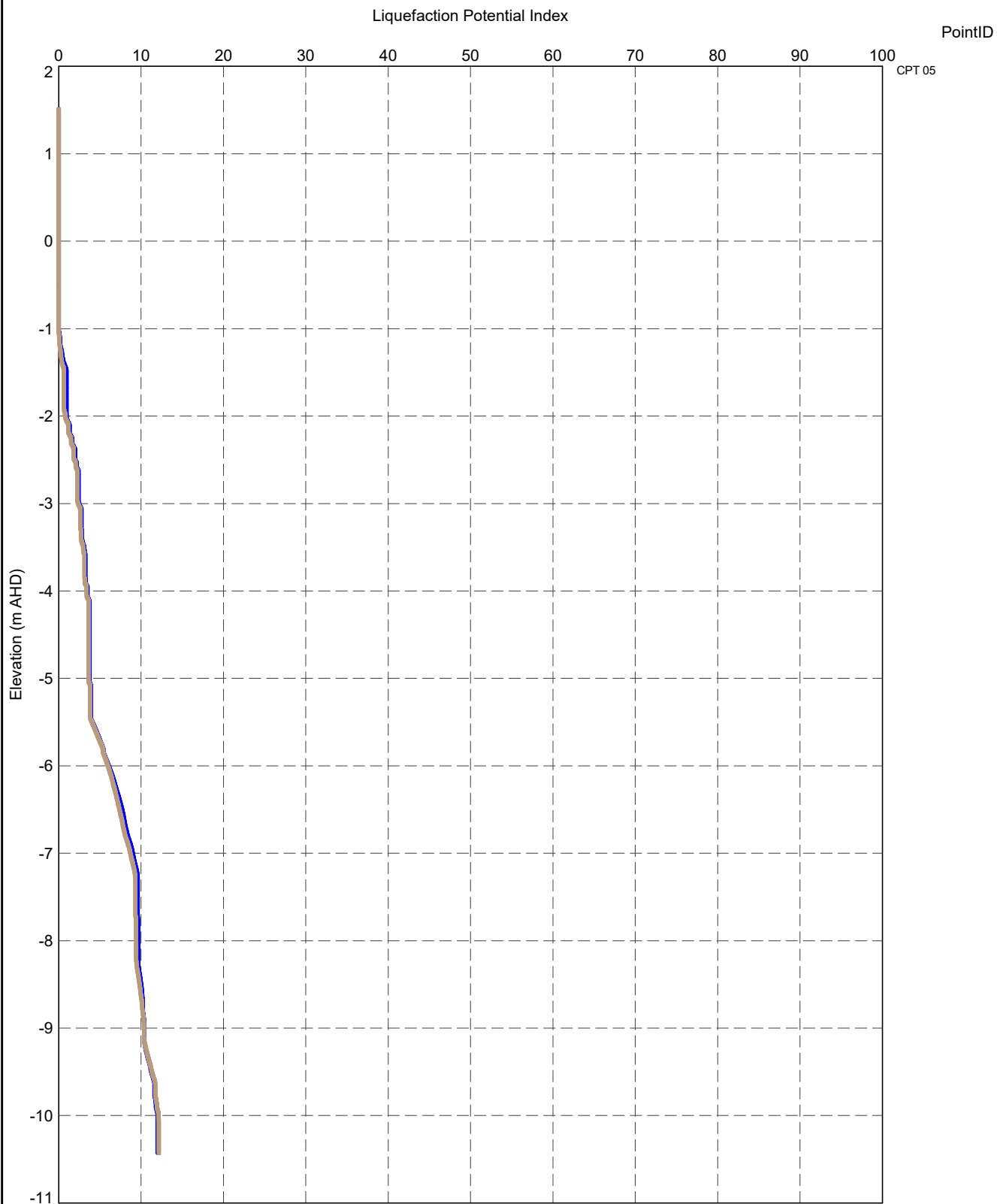


Method:  
 ● Toprak and Holzer (2003), based on FoS 1  
 ■ Toprak and Holzer (2003), based on FoS 3

TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction Potential Index versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	205

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.POTENTIAL.INDEX.RL.AMP.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 2/2/2021 00:22 10.01.00.11 Datgel CPT Tool.gINT Add-In



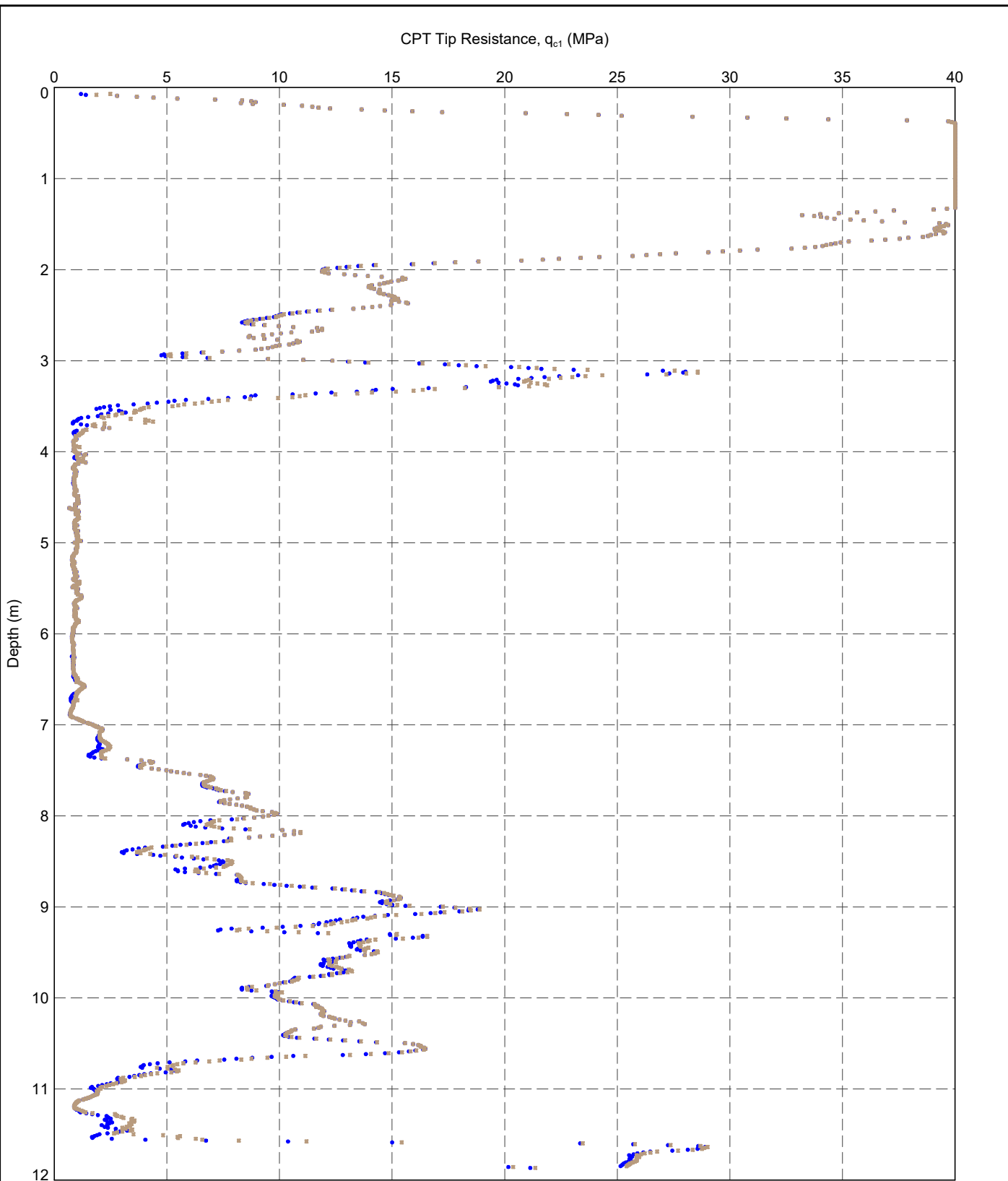
Method:  
 ● Toprak and Holzer (2003), based on FoS 1  
 ■ Toprak and Holzer (2003), based on FoS 3



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction Potential Index versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	206

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.CC1MOD DEPTH.AMF.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 2/2/2021 00:22 10.01.00.11 Datgel CPT Tool.gINT Add-In



Legend:  
● CPT Tip Resistance,  $q_{c1}$  (MPa)  
■ Modified CPT Tip Resistance,  $q_{c1(mod)}$  (MPa)

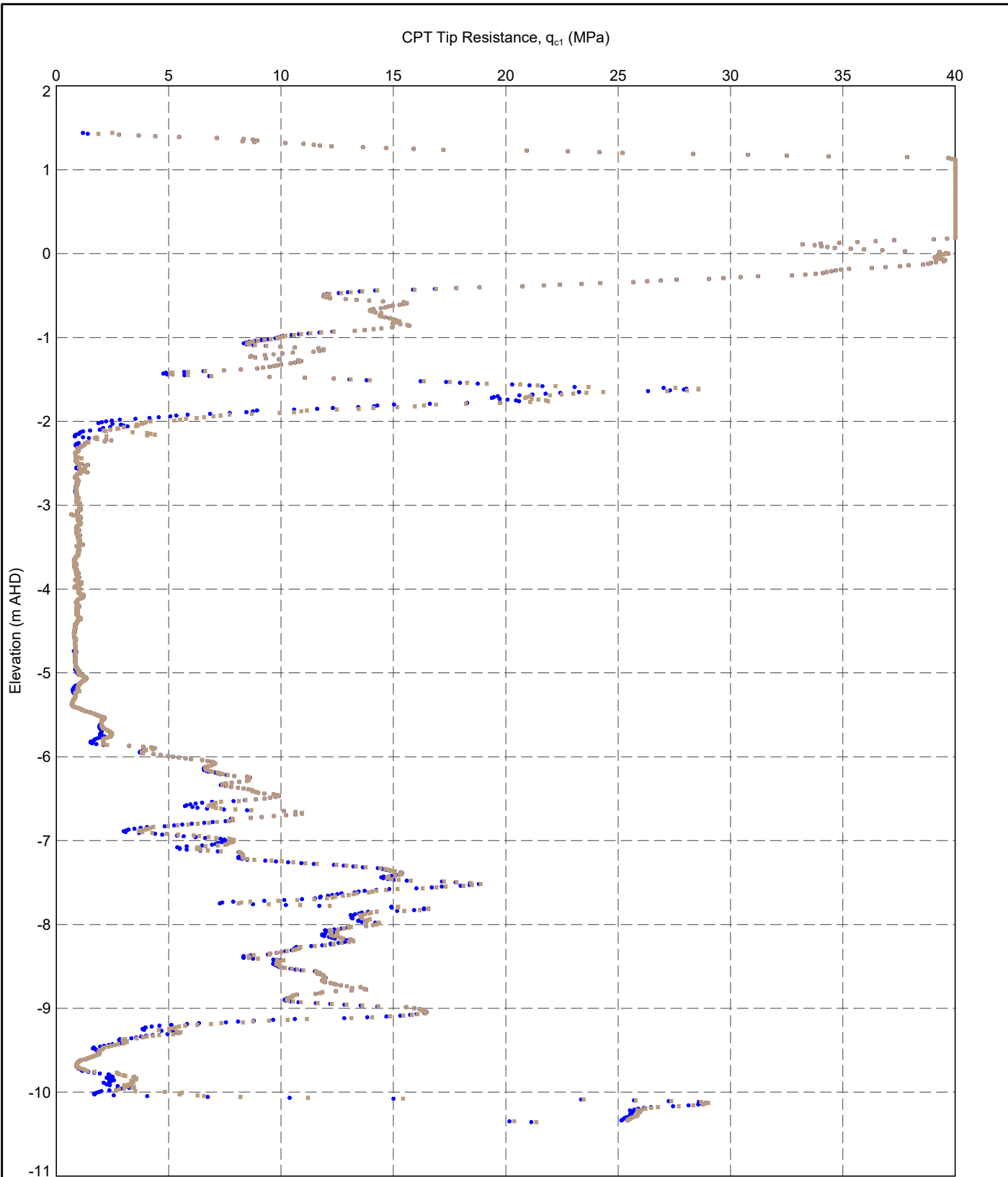


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction  $q_{c1}$  vs Depth - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	207

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.QC1.QC1MOD.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ.<<DrawingFiles>> 2/2/2021 10:01:00.11 Datgel.CPT.Tool.gINT.A4.d-In



Legend:  
 ● CPT Tip Resistance,  $q_{c1}$  (MPa)  
 ■ Modified CPT Tip Resistance,  $q_{c1(mod)}$  (MPa)

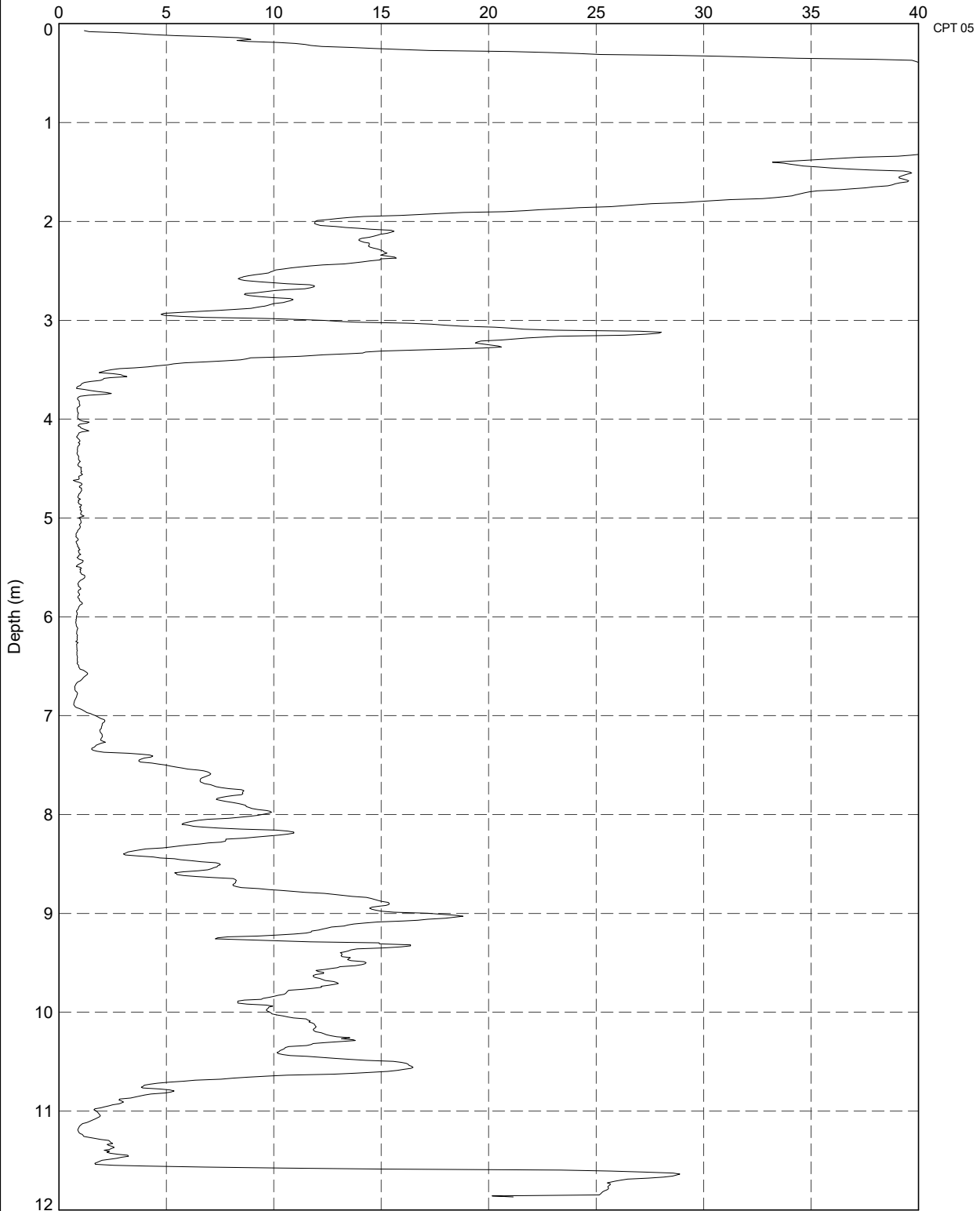


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction  $q_{c1}$  vs Elevation - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	208

CPT Tip Resistance,  $q_{c1}$  (MPa)

PointID



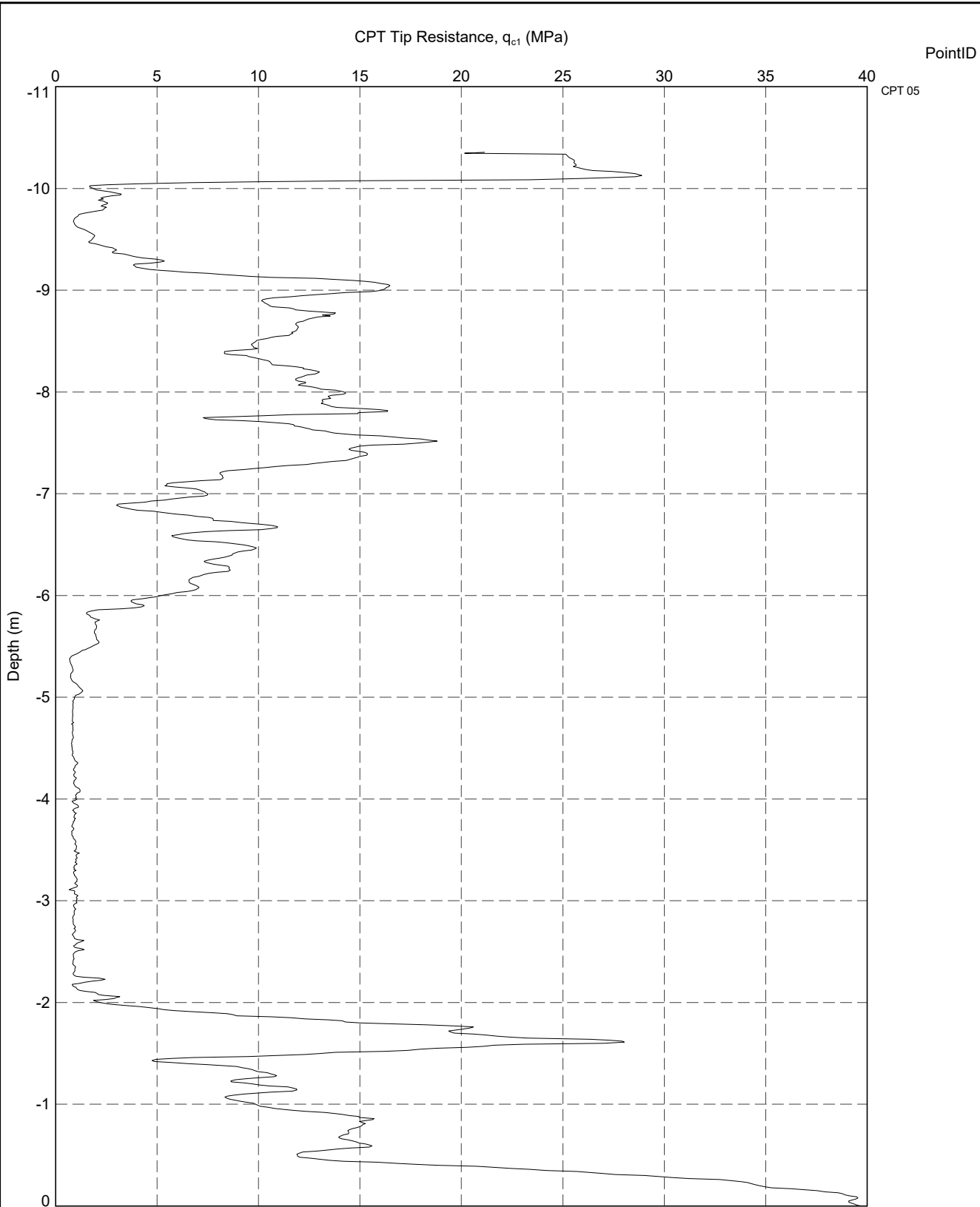
DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.QC1 DEPTH.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 S:IGPJ <<DrawingFile>> 2/2/2021 00:23 10:01:00.11 Datgel.CPT.Tool.gINT.Add-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction  $q_{c1}$  vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	209



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ.QC1.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/2/2021 00:23:10.01.00.11 Datgel.CPT.Tool.gINT.Add-In

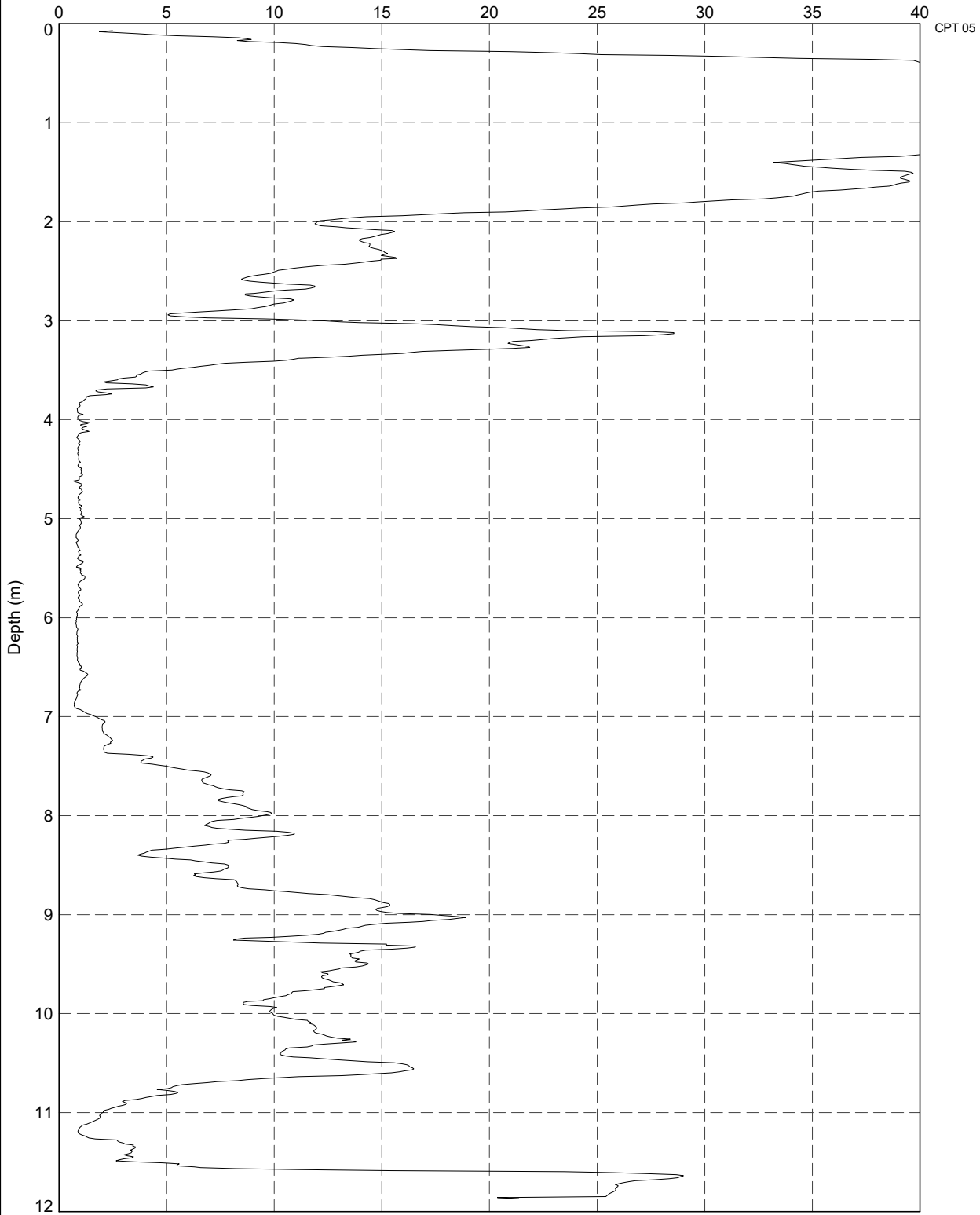


TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Liquefaction $q_{c1}$ vs Elevation	DRAWN	Datgel	DATE	2/2/2021
	CHECKED	Datgel	DATE	2/2/2021
	SCALE	Not To Scale		A4
	PROJECT No	4.05.0	FIGURE No	210



Modified CPT Tip Resistance,  $q_{c1}(\text{mod})$  (MPa)

PointID



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ QC:1MOD DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:23 10.01.00.11 Datgel CPT Tool gINT.Adc-In



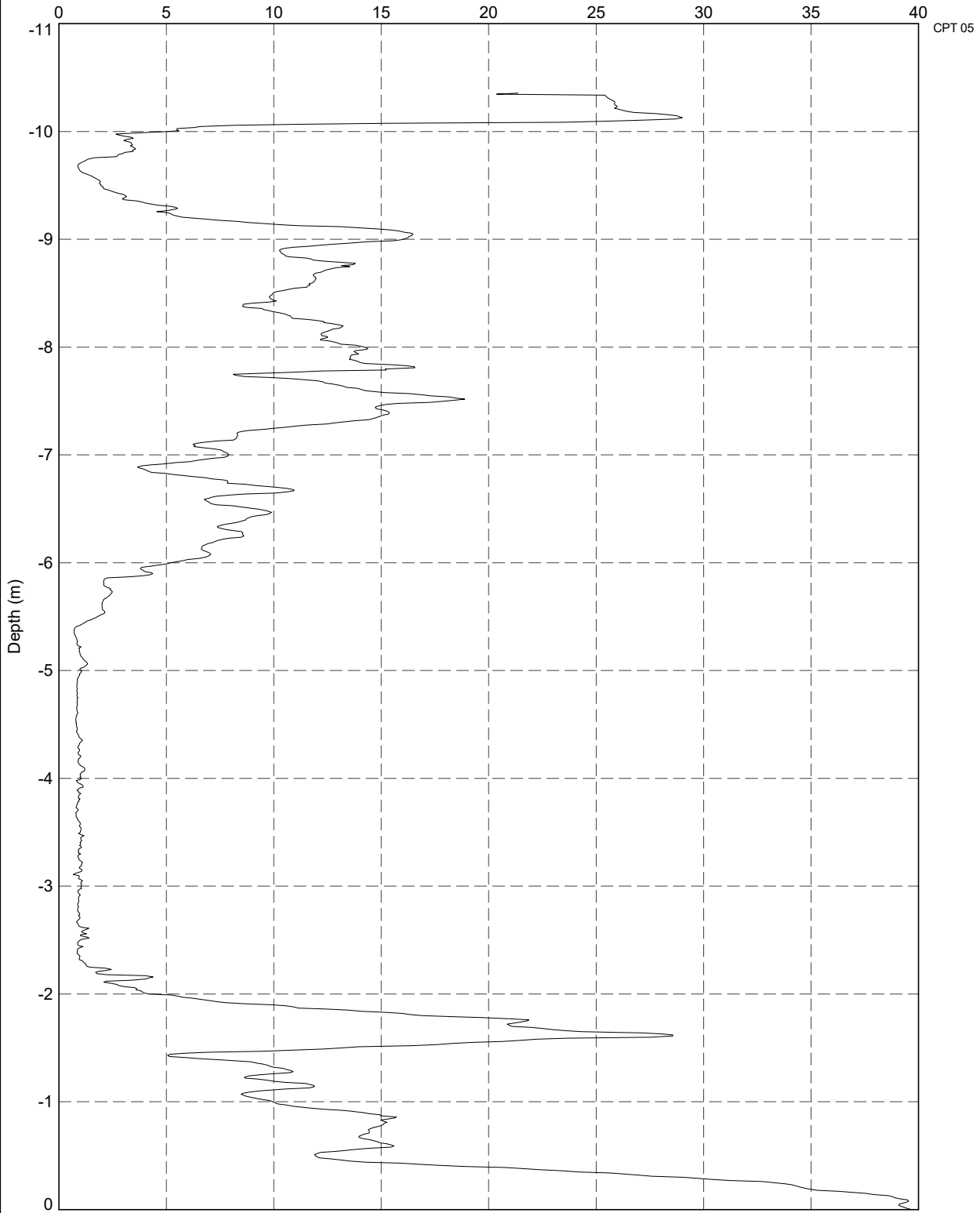
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction  $q_{c1}$  Mod vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	211

Modified CPT Tip Resistance,  $q_{c1}(\text{mod})$  (MPa)

PointID



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.QC1MOD.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/2/2021 00:24 10:01.00.11 Datgel.CPT.Tool.gINT.Add-In



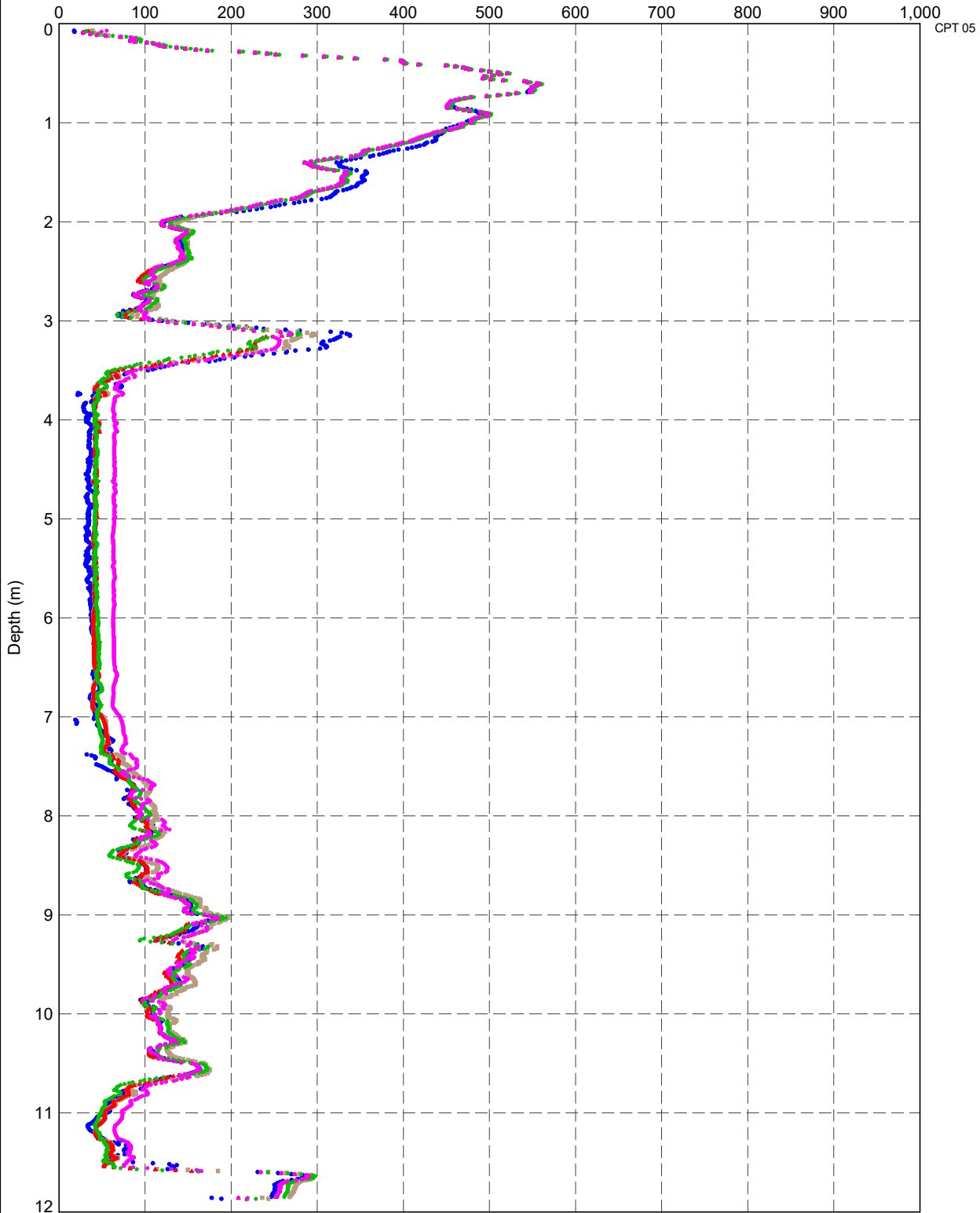
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction  $q_{c1}$  Mod vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	212

Clean-Sand Equivalent Normalised Cone Resistance, ( $q_{c1N}/cs$ )

PointID



Method:

- Robertson & Wride (1998) / NCEER (2001)
- ▲ Idriss & Boulanger (2008)
- ▲ Idriss & Boulanger (2008) with FC using R&W ('98) / NCEER ('01)
- ★ Idriss & Boulanger (2008) and Seed (1987)
- Boulanger and Idriss (2014)

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ.CC.IN CS DEPTH A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:25 10.01.00.11 Datgel CPT Tool.gINT.Add-In



Geotechnics • Geoenvironment • Laboratory

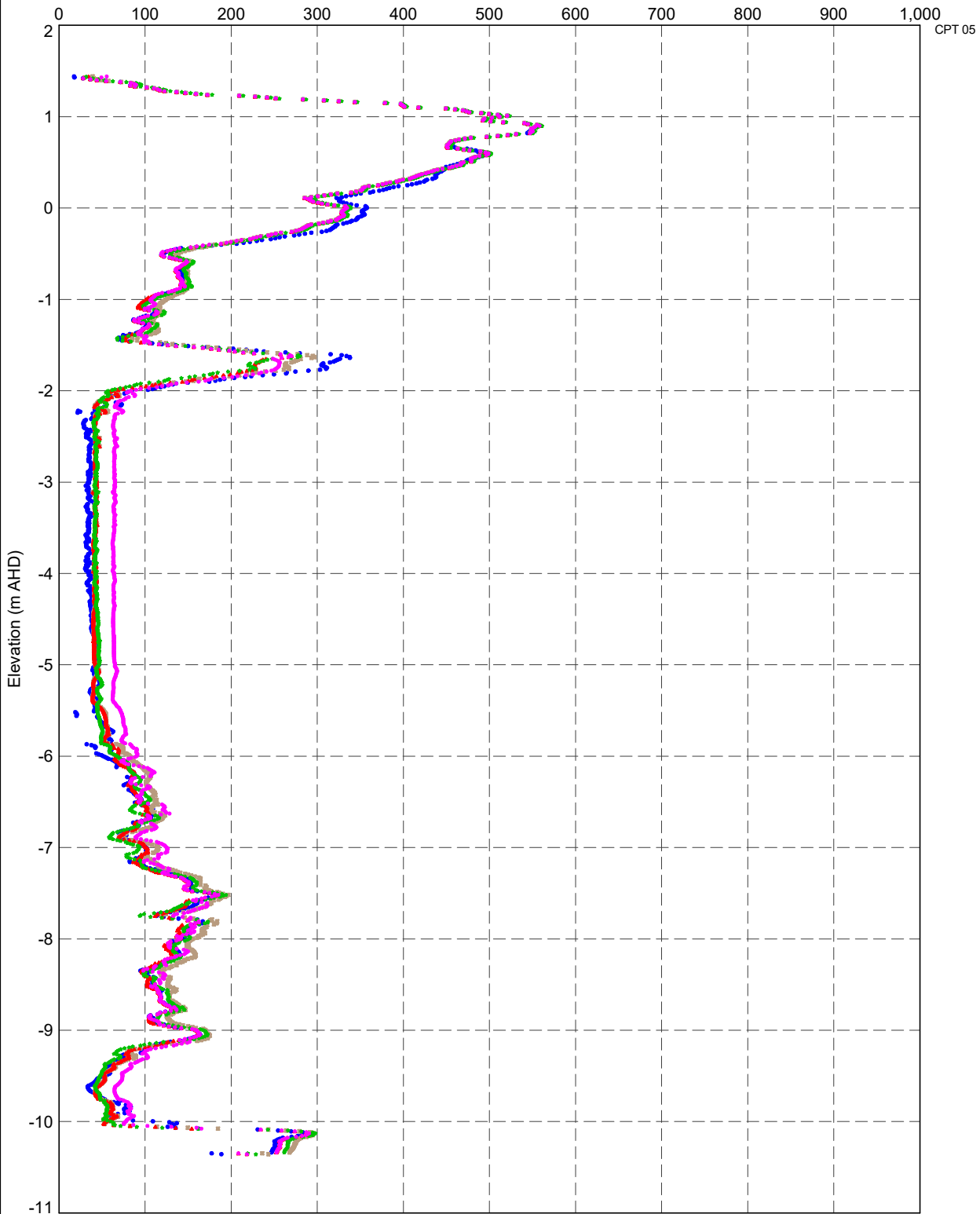
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 qc1N cs versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	213

Clean-Sand Equivalent Normalised Cone Resistance, ( $q_{c1N}/cs$ )

PointID



Method:

- Robertson & Wride (1998) / NCEER (2001)
- ⊠ Idriss & Boulanger (2008)
- ▲ Idriss & Boulanger (2008) with FC using R&W ('98) / NCEER ('01)
- ★ Idriss & Boulanger (2008) and Seed (1987)
- ⊙ Boulanger and Idriss (2014)

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT.LIQ OC:IN CS RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:26 10:01.00.11 Datgel CPT Tool gINT Acad-In

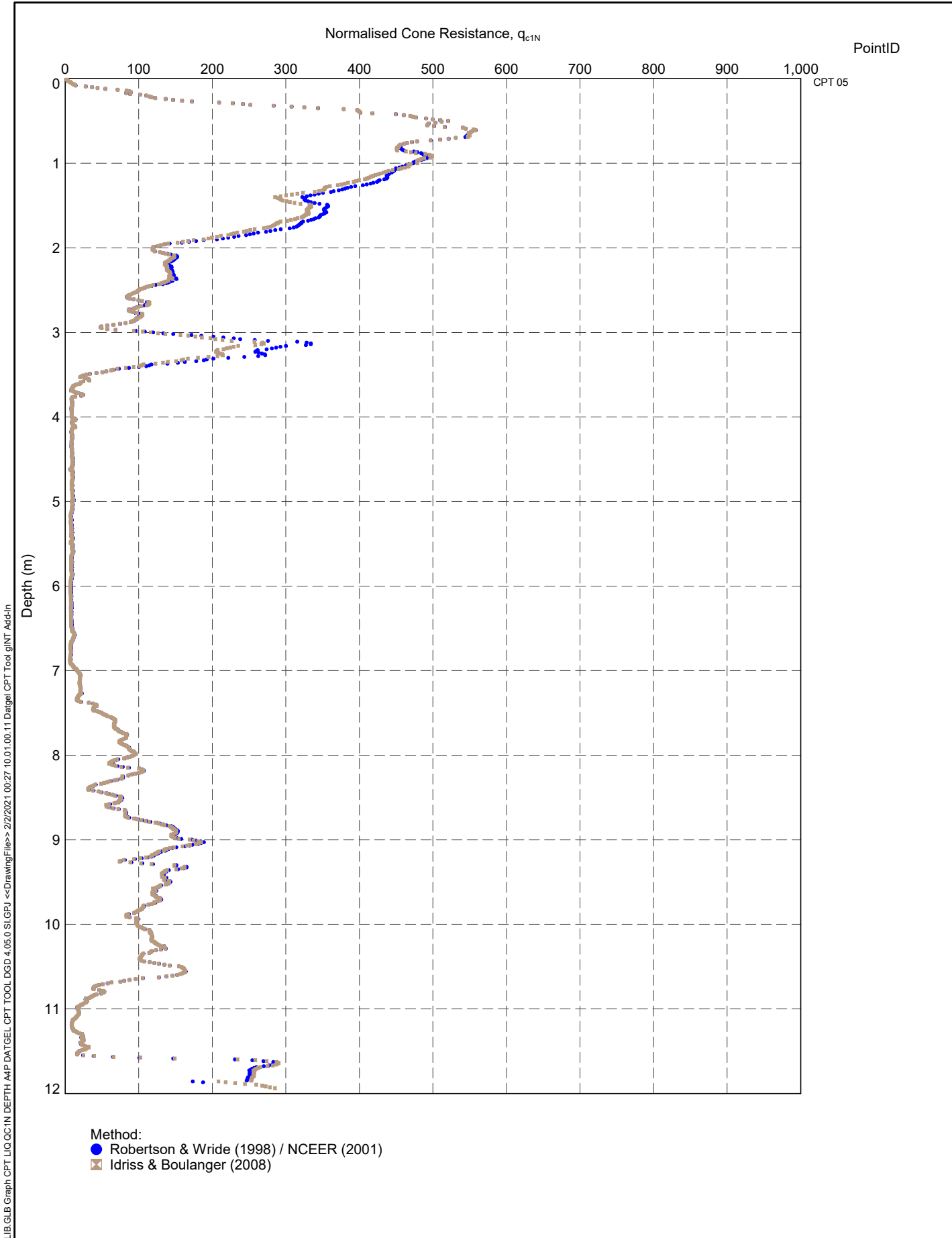


Geotechnics • Geoenvironment • Laboratory

TITLE

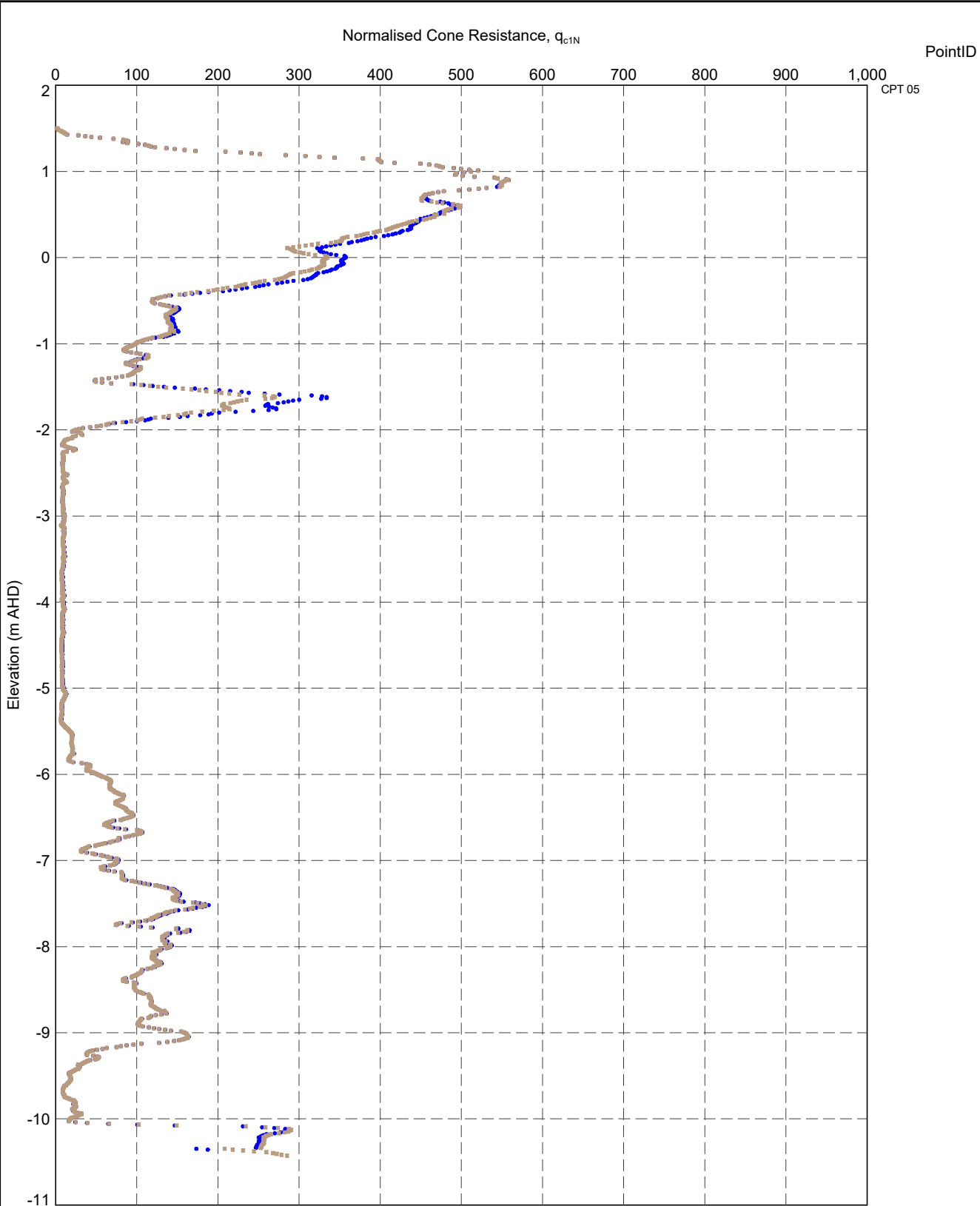
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 qc1N cs versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	214



DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph CPT LIQ QC1N DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:27 10.01.00.11 Datgel CPT Tool gINT Add-in

<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project qc1N versus Depth</p>	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	215



Method:  
 ● Robertson & Wride (1998) / NCEER (2001)  
 ■ Idriss & Boulanger (2008)

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT LIQ QC1N RL A4P DATGEL CPT TOOL DGD 4.05.0 S1 GPJ <-<DrawingFile>> 2/2/2021 00:27:10.01.00:11 Datgel CPT Tool gINT Add-In

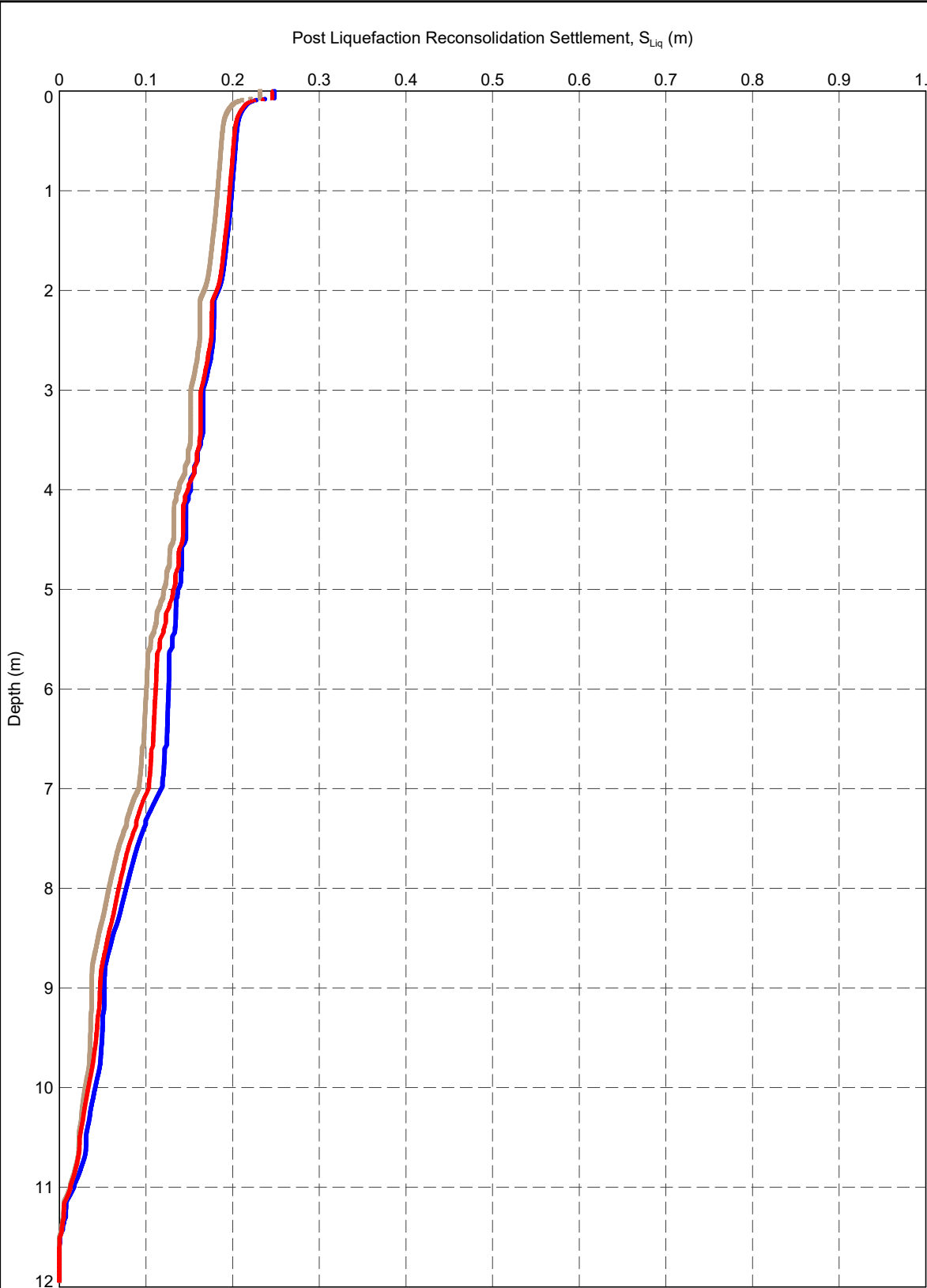


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 qc1N versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	216

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ RECONS SETTLEMENT DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:28 10.01.00.11 Datgel.CPT Tool glINT Add-In



PointID  
CPT 05

- Method:
- Ishihara & Yoshimine (1992)
  - Zhang et al. (2002)
  - ▲ DBH - Zhang et al. (2002)

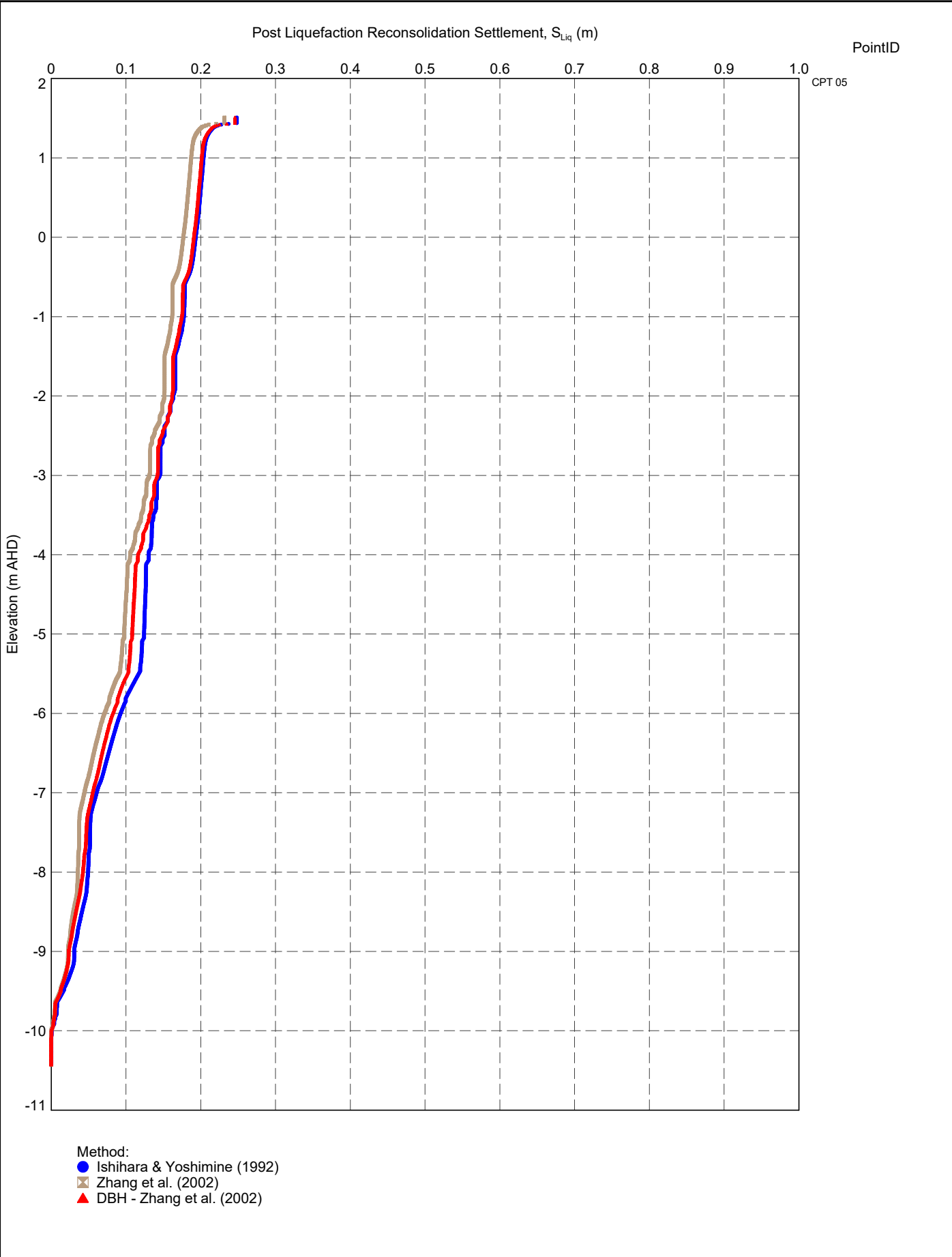



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Post Liquefaction Reconsolidation Settlement  
versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	217

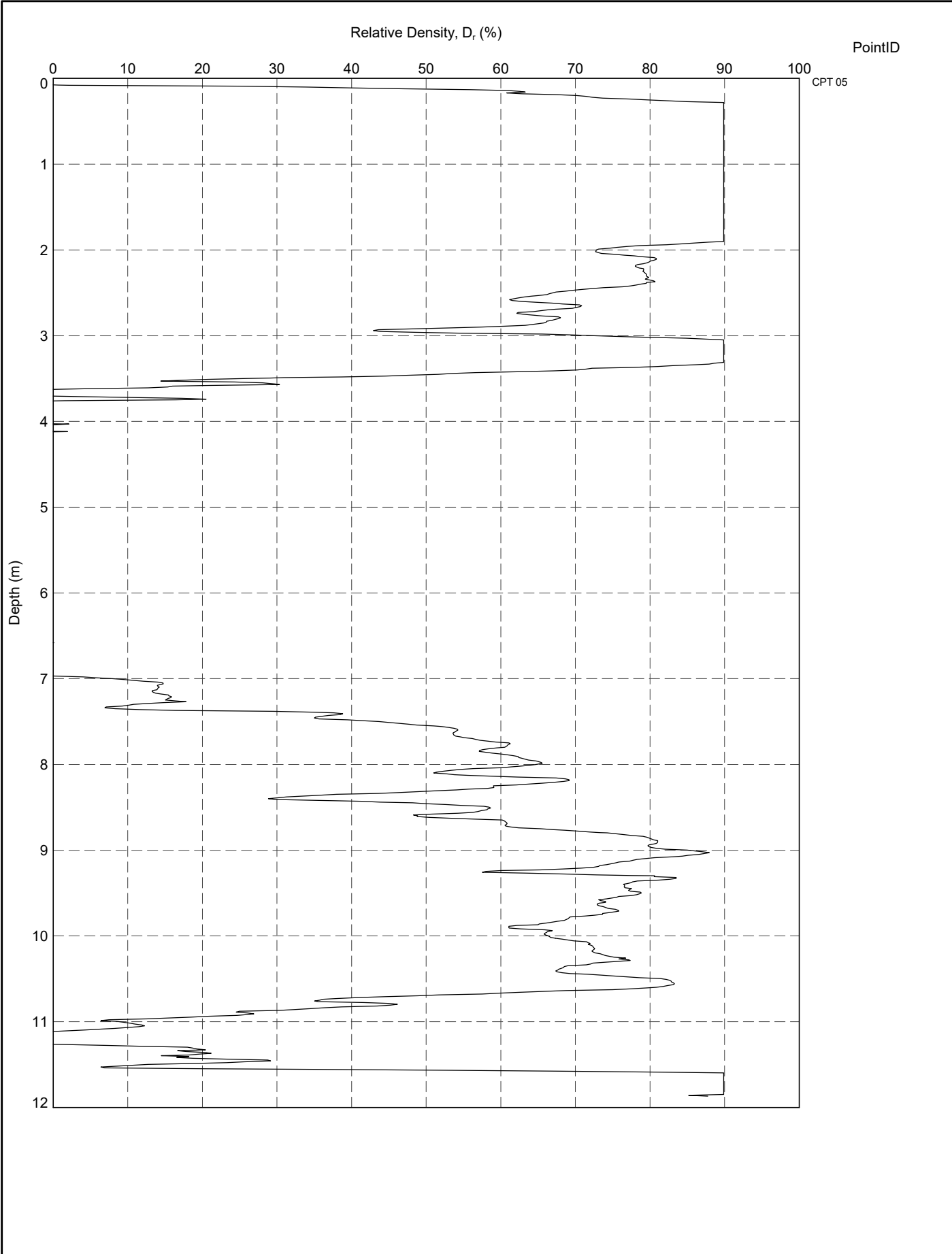
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ RECONS SETTLEMENT RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:29 10.01.00.11 Datgel CPT Tool.gINT.Add.in



 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Post Liquefaction Reconsolidation Settlement versus Elevation	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 218	



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ RELATIVE DENSITY DEPTH A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:29 10.01.00.11.Datgel.CPT.Tool.gINT.Add-In

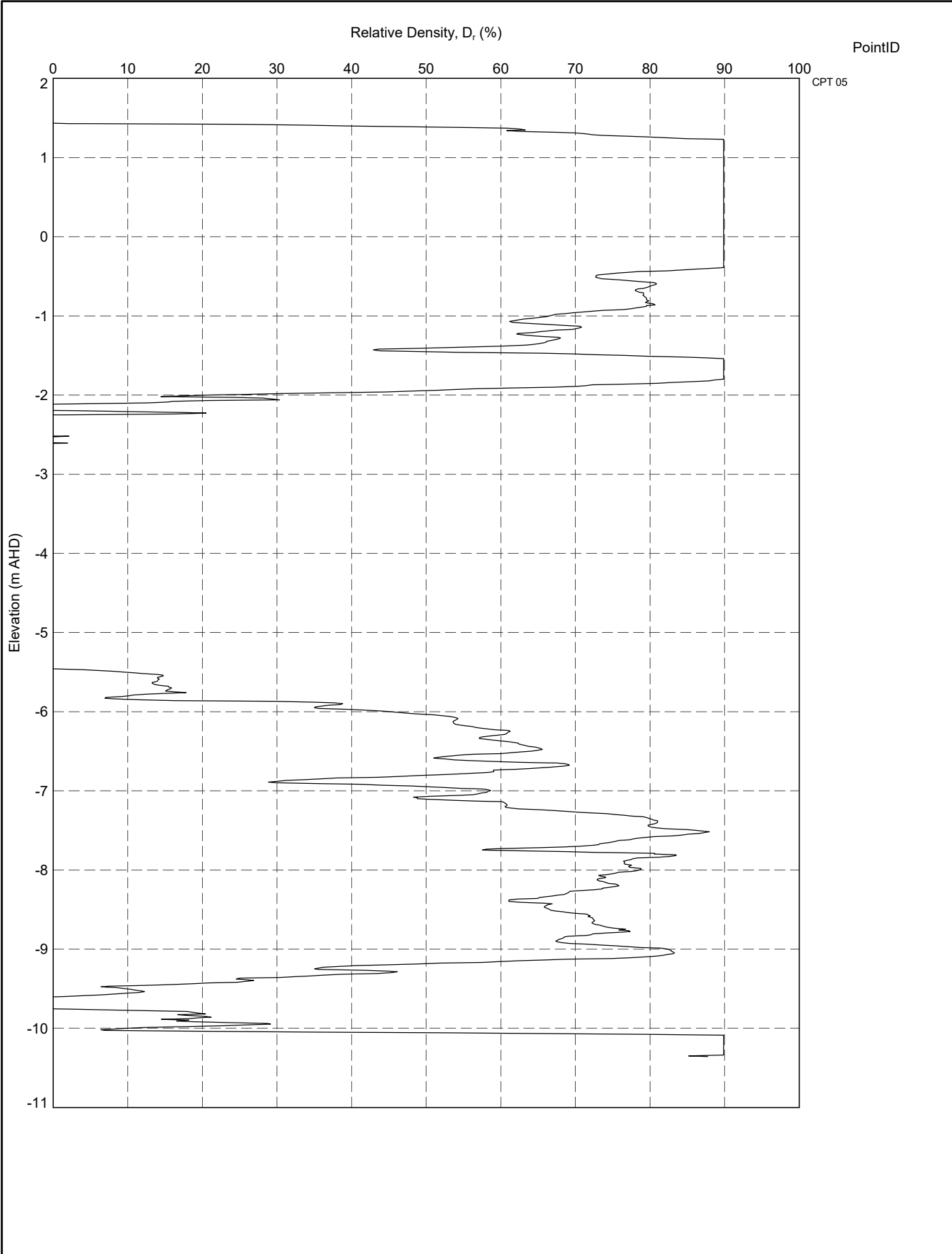


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Relative Density versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	219

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ RELATIVE DENSITY RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 00:29:10.01.00.11 Datgel CPT Tool gINT Add-in

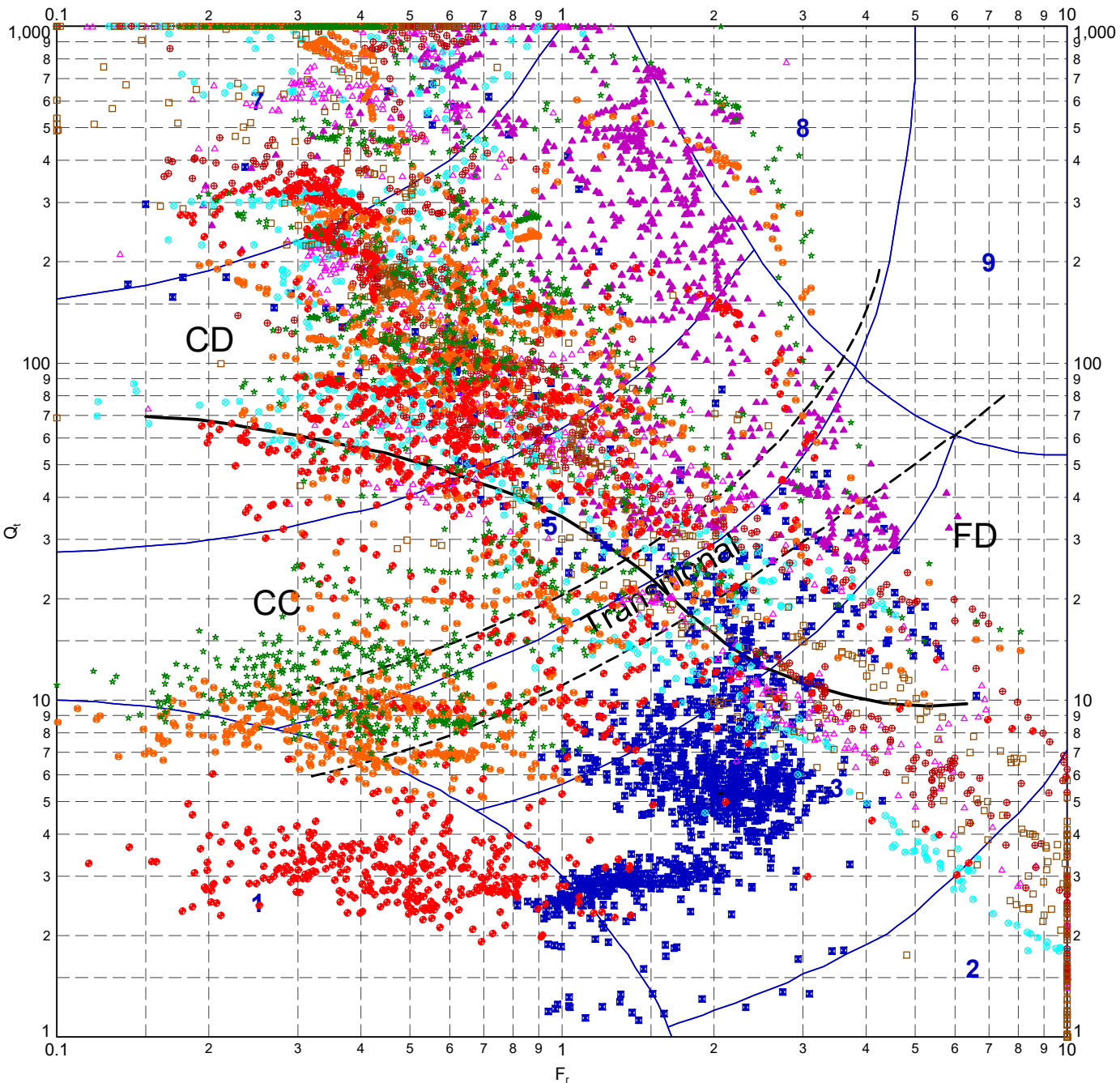


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Relative Density versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	220

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ ROBERTSON 90 QT VS FR MAMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 00:30 10.01.00.11 Datgel CPT Tool gINT Add-In



Modified from Robertson 2012

**Soil Legend**

- CD Coarse-grained Dilative soil - predominately drained CPT
- CC Coarse-grained Contractive soil - predominately drained CPT
- FS Fine-grained Dilative soil - predominately drained CPT
- FC Fine-grained Contractive soil - predominately drained CPT

**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - PEATS
- 3 - CLAYS - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - SANDS - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

**PointID Legend**

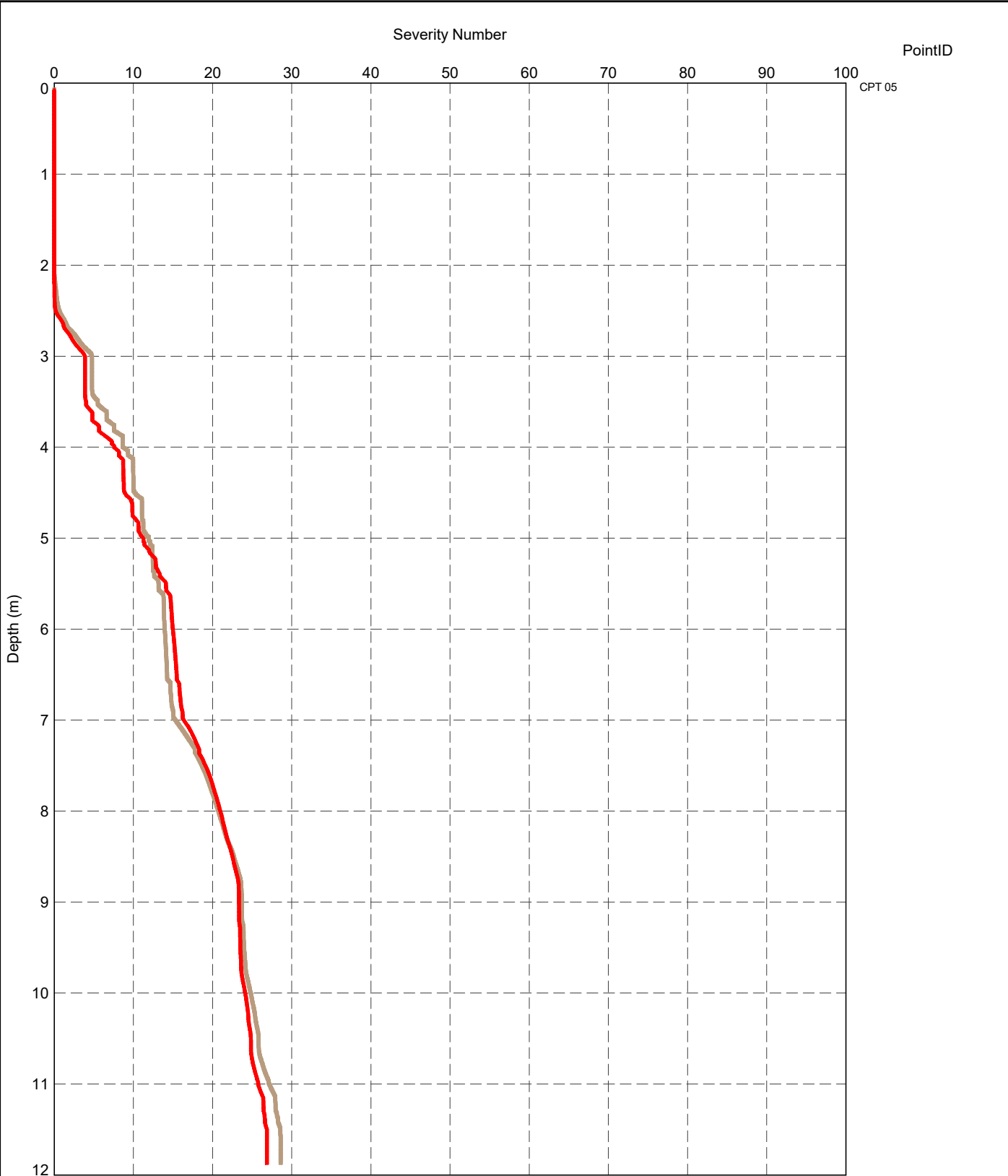
- ✘ COR-A
- ▲ CPT 00
- △ CPT 01
- ⊗ CPT 02
- ⊕ CPT 03
- CPT 04
- CPT 05
- ★ CPT 05 - BB
- ☆ CPT 05 - SB



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Normalized  $SBT_n$  chart,  $Q_t - F_r$  using general large strain 'soil behavior' descriptors

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	221

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT\_LIQ SEVERITY NUMBER DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 00:31:10 01:00.11 Datgel CPT Tool gINT Add-In



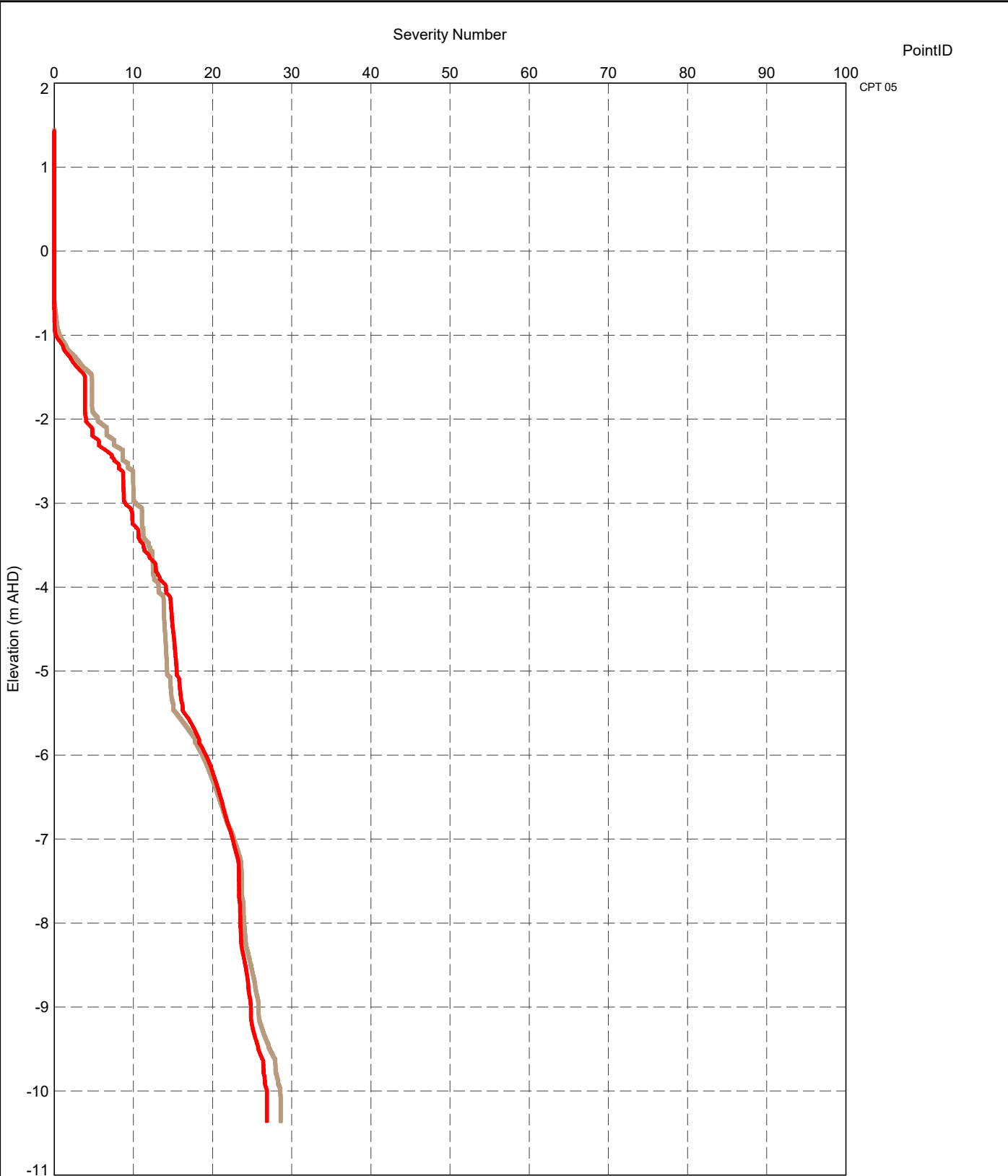
Method:  
■ Ishihara and Yoshimine (1992)  
▲ Zhang et al. (2002)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Liquefaction Severity Number versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	222

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT\_LIQ SEVERITY NUMBER RL A4P DATGEL.CPT TOOL DGD 4.05.0(SI)(GPJ <<DrawingFile>> 2/2/2021 00:31:10.01.00.11 Datgel.CPT Tool glINT Add-In



Method:  
■ Ishihara and Yoshimine (1992)  
▲ Zhang et al. (2002)



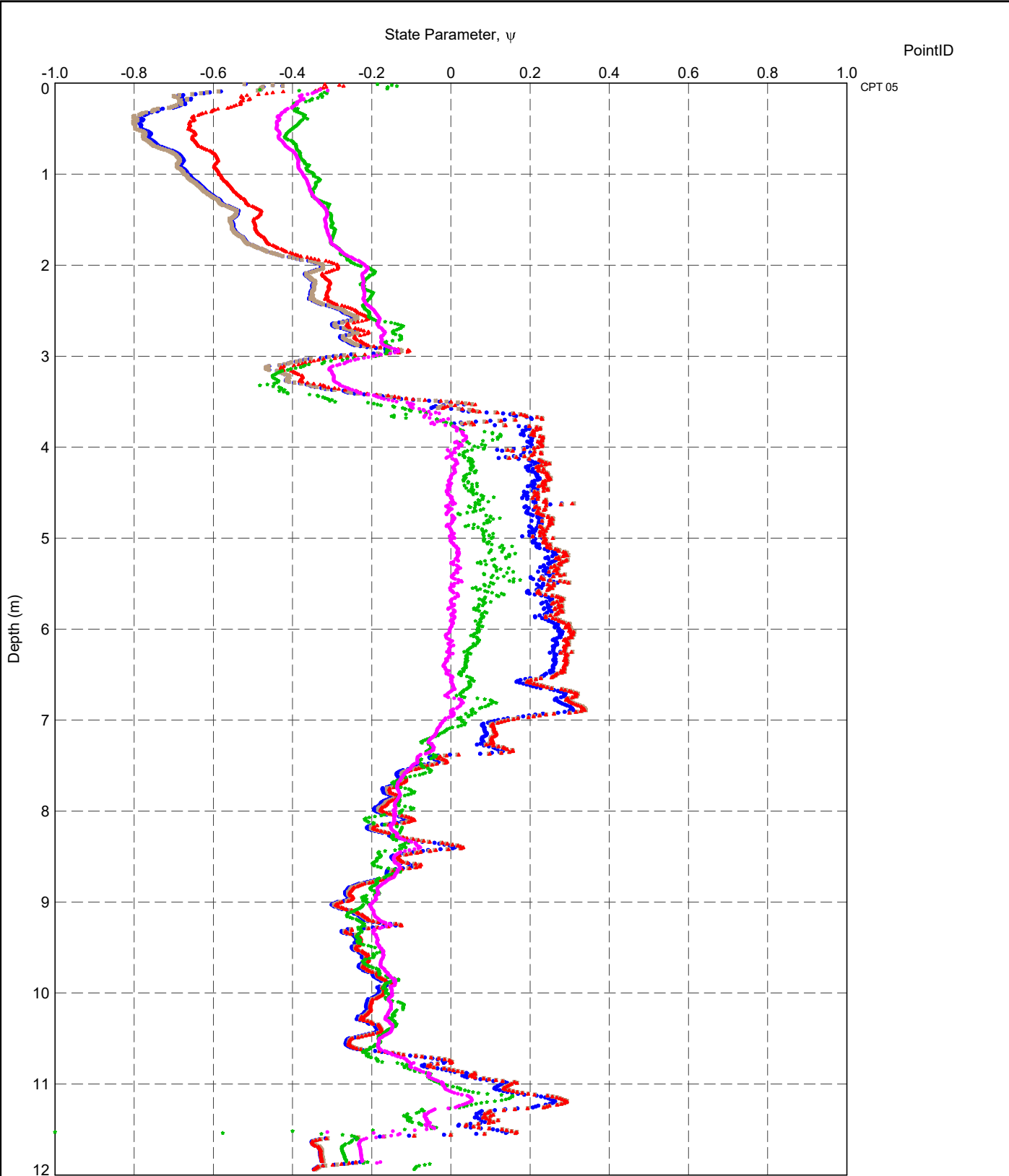
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Liquefaction Severity Number versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	223

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.LIQ STATE PARAMETER DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 00:32 10.01.00.11 Datgel.CPT Tool gINT Add-in



PointID  
CPT 05

- Method:
- Been et al (1987)
  - ⊠ Shuttle and Jefferies (1998)
  - ▲ Shuttle and Jefferies (1998)
  - ★ Plewes et al (1991)
  - Been and Jefferies (1992)

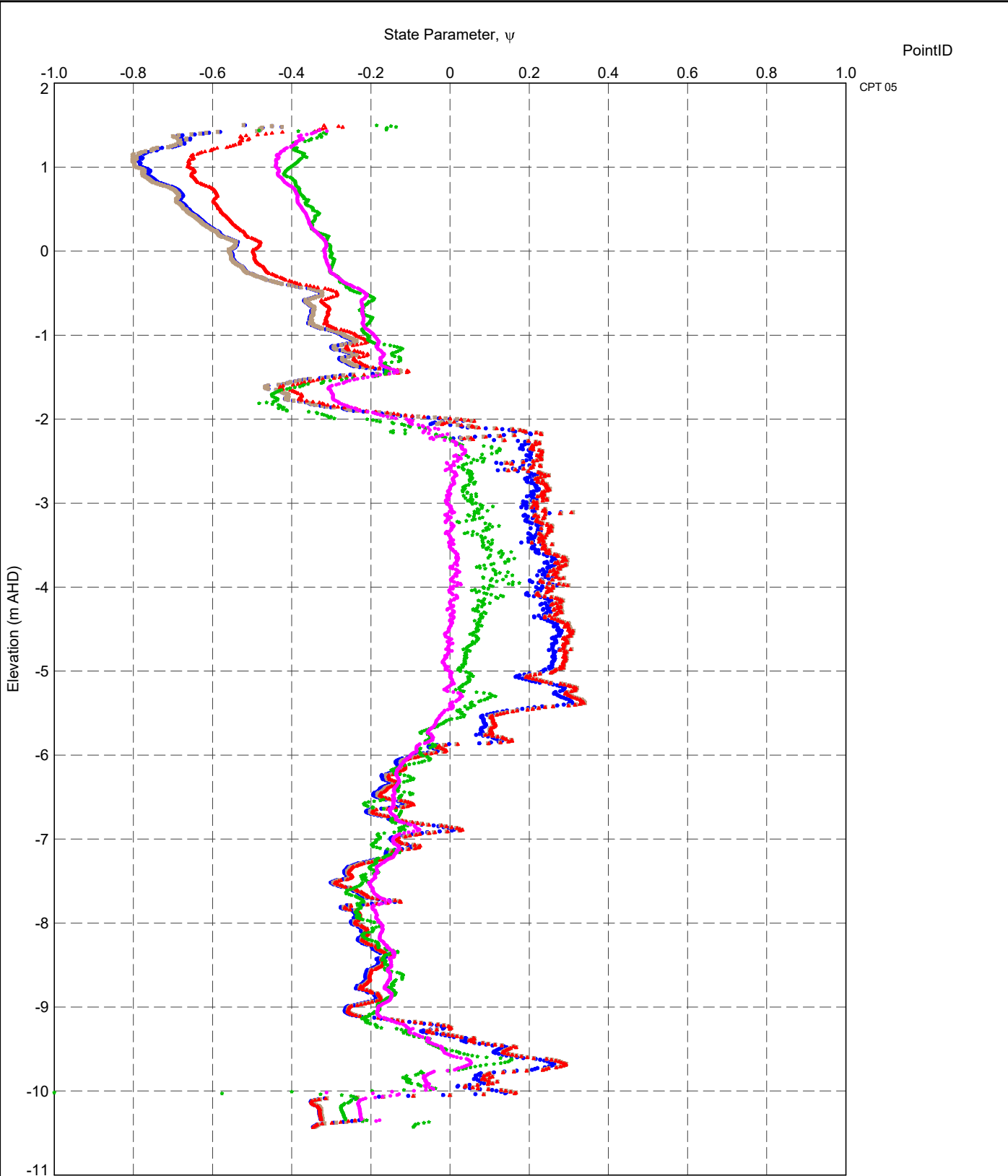


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
State Parameter versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	224

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.LIQ STATE PARAMETER RL.A4P.DATGEL.CPT TOOL DGD 4.05.0.SI.GPJ <<DrawingFiles>> 2/2/2021 00:34 10.01.00.11 Datgel.CPT Tool.giNT Add-In



- Method:
- Been et al (1987)
  - Shuttle and Jefferies (1998)
  - ▲ Shuttle and Jefferies (1998)
  - ★ Plewes et al (1991)
  - Been and Jefferies (1992)



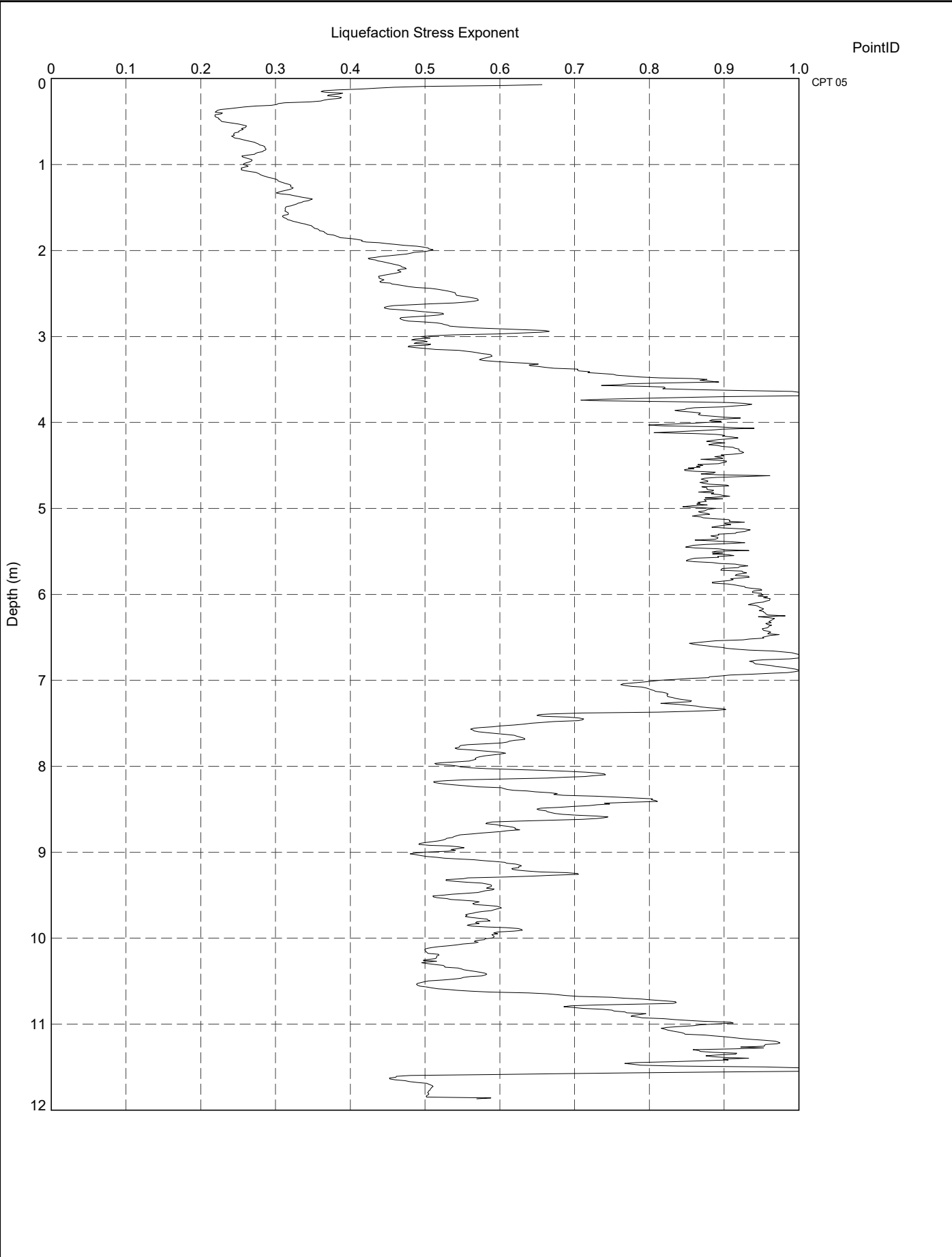
TITLE


Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 State Parameter versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	225

PointID  
CPT 05

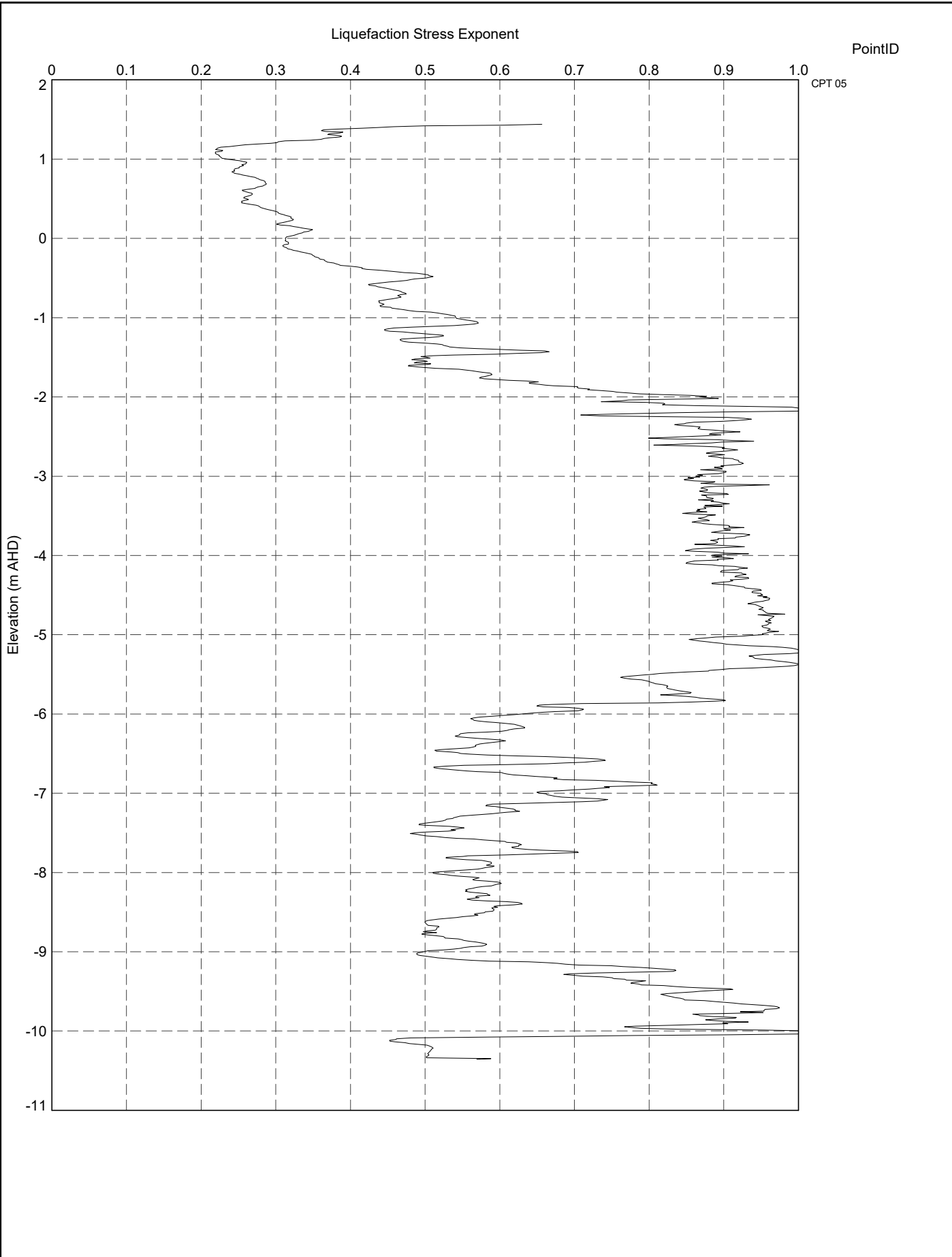
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ STRESS EXPONENT DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 00:34 10:01:00.11 Datgel.CPT Tool gINT Add-In




	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Liquefaction Stress Exponent vs Depth	DRAWN Datgel	DATE 2/2/2021
			CHECKED Datgel	DATE 2/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 226



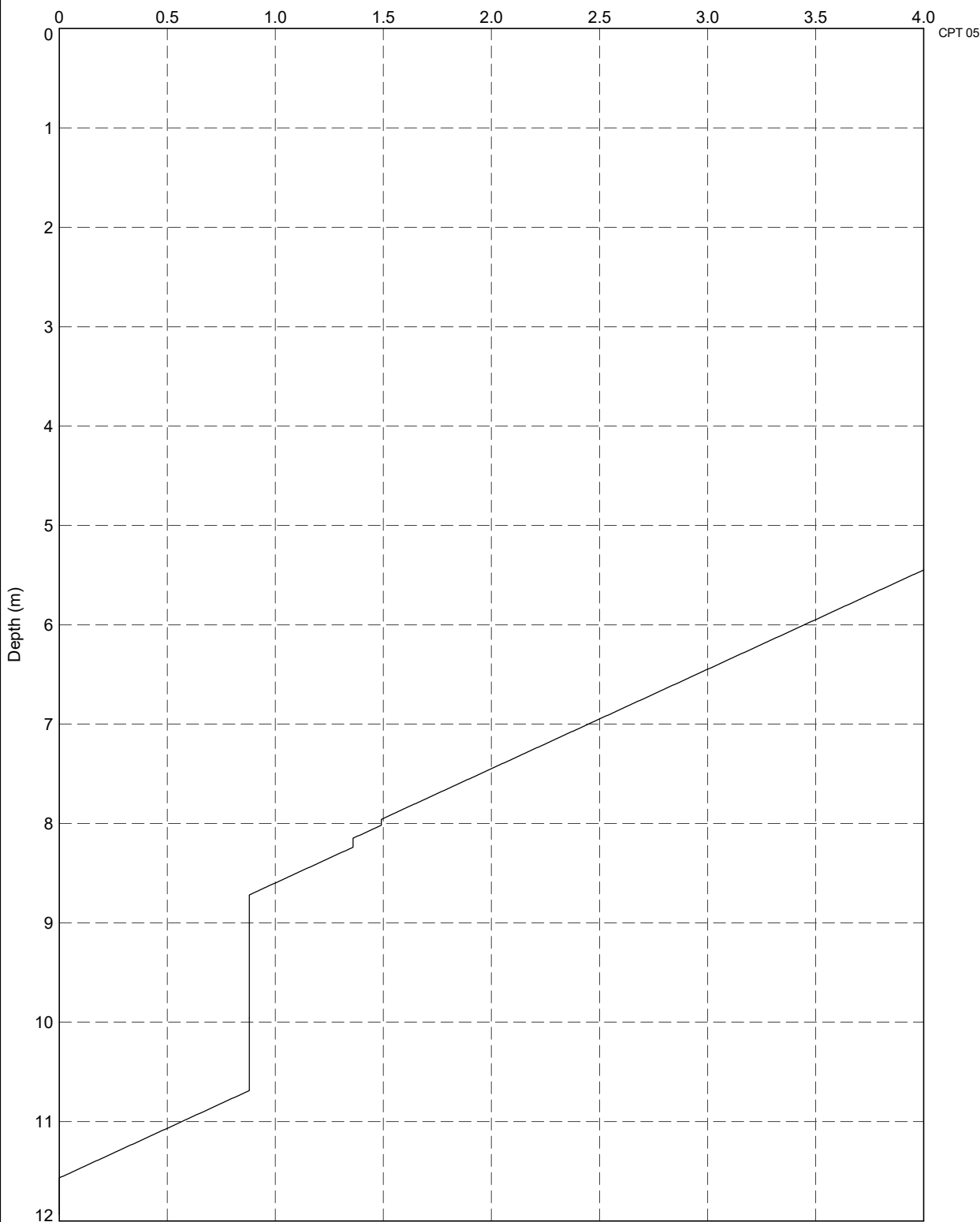
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ STRESS EXPONENT RL.A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 00:34:10.01.00.11 Datgel CPT Tool.gINT Add-In



 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Liquefaction Stress Exponent versus Elevation	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	227

Cumulative Thickness SPTN15, T15 (m)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ THICKNESS SPTN15 DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel CPT Tool gINT Add-In



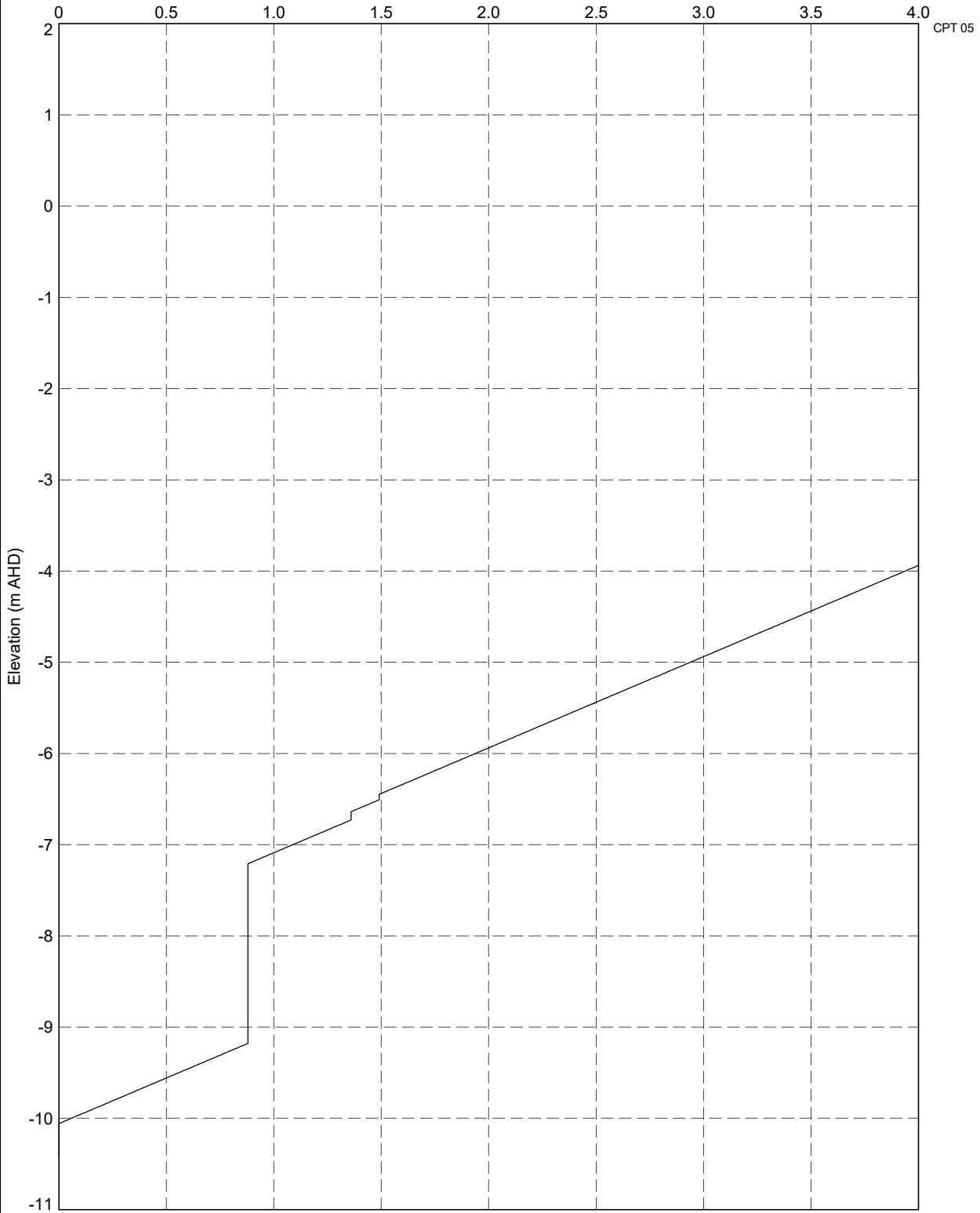
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cumulative Thickness SPT N 15 versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	228

Cumulative Thickness SPTN15, T15 (m)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ THICKNESS SPTN15 RL.A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel CPT Tool.gINT Add-In



TITLE

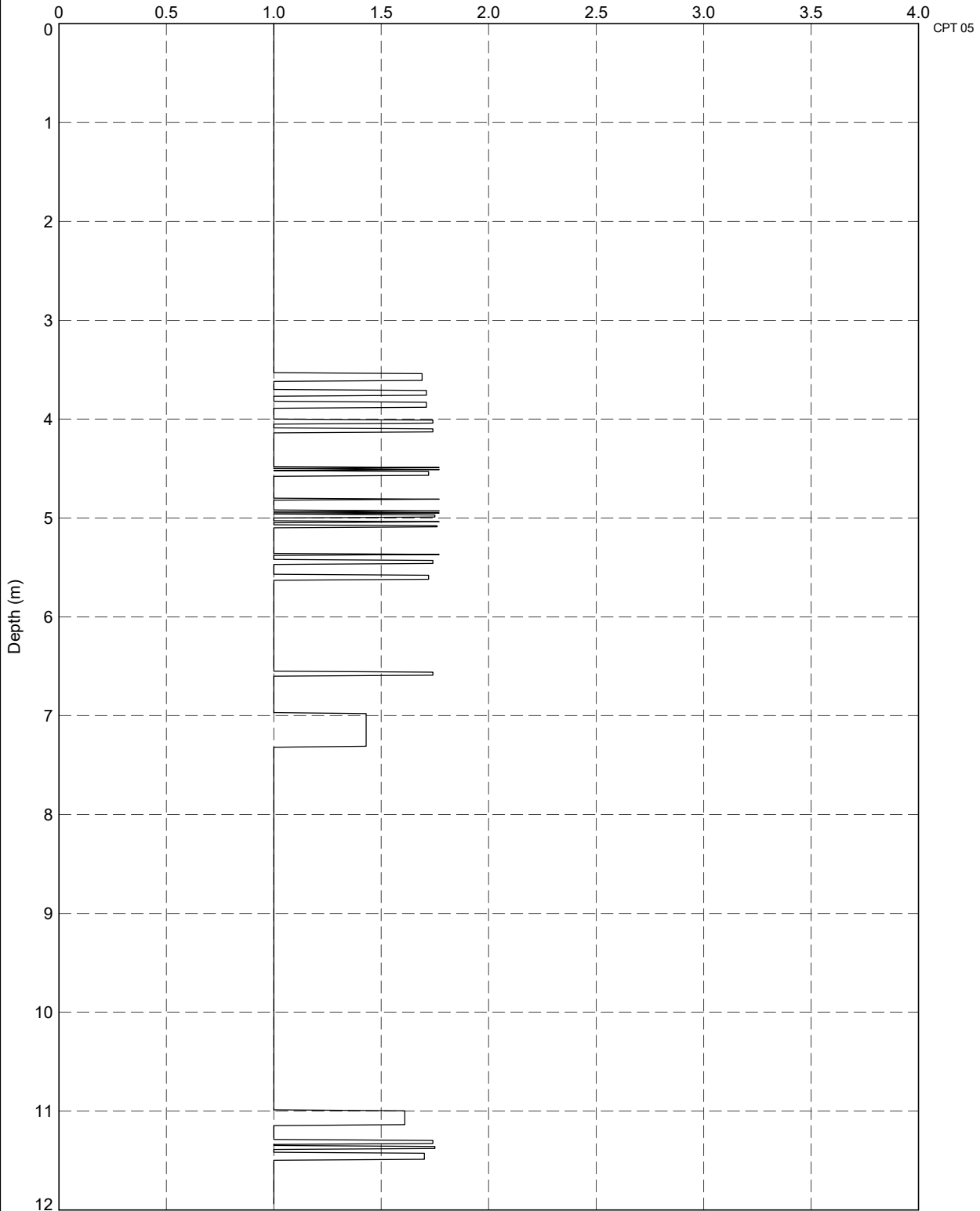
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Cumulative Thickness SPT N 15 vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	229

Thin Layer Correction Factor, KH

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ THIN LAYER CORR FACT DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:34 10:01:00.11 Datgel.CPT.Tool.gINT Add-in



TITLE

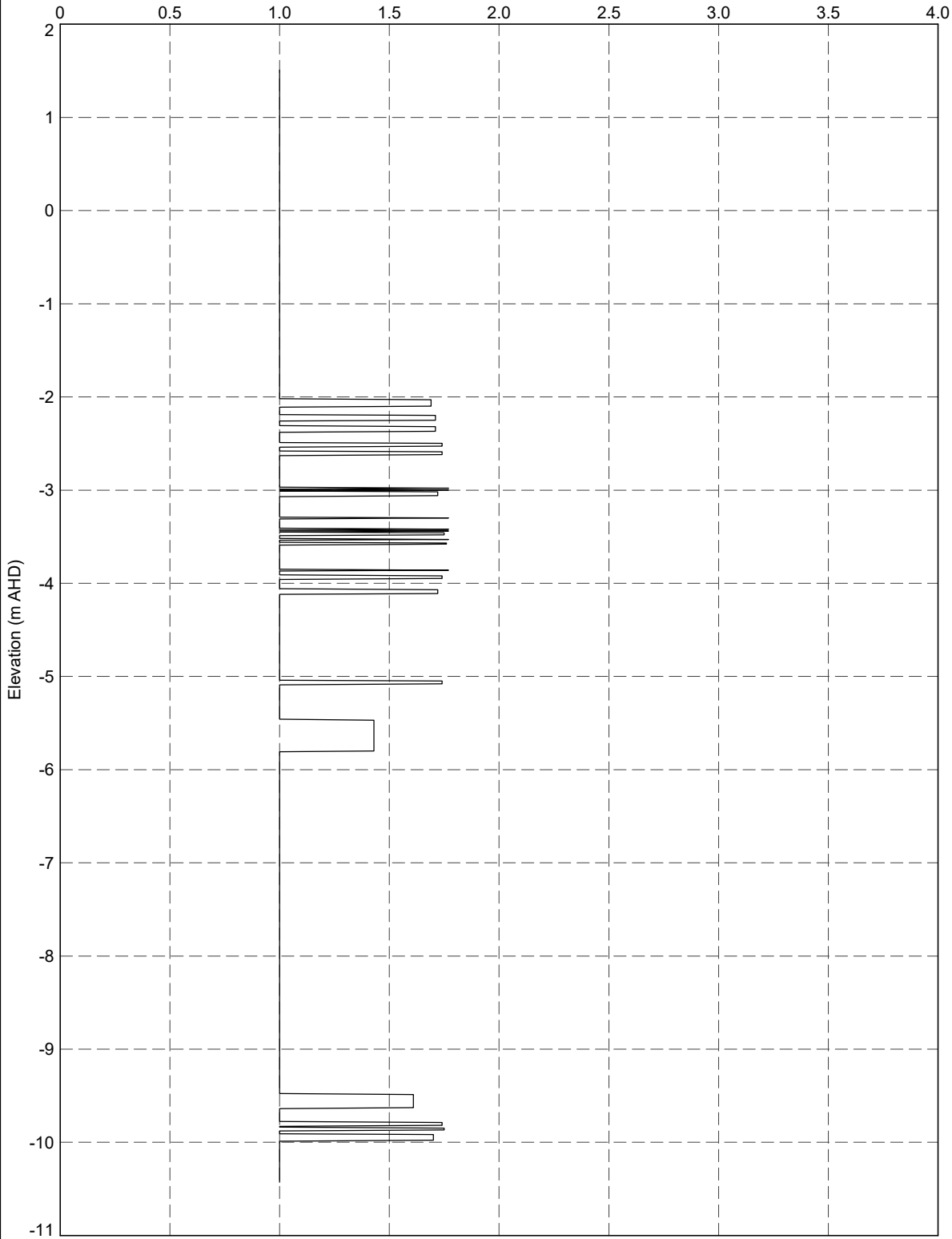
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Thin Layer Correction Factor versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	230

Thin Layer Correction Factor, KH

PointID



CPT 05

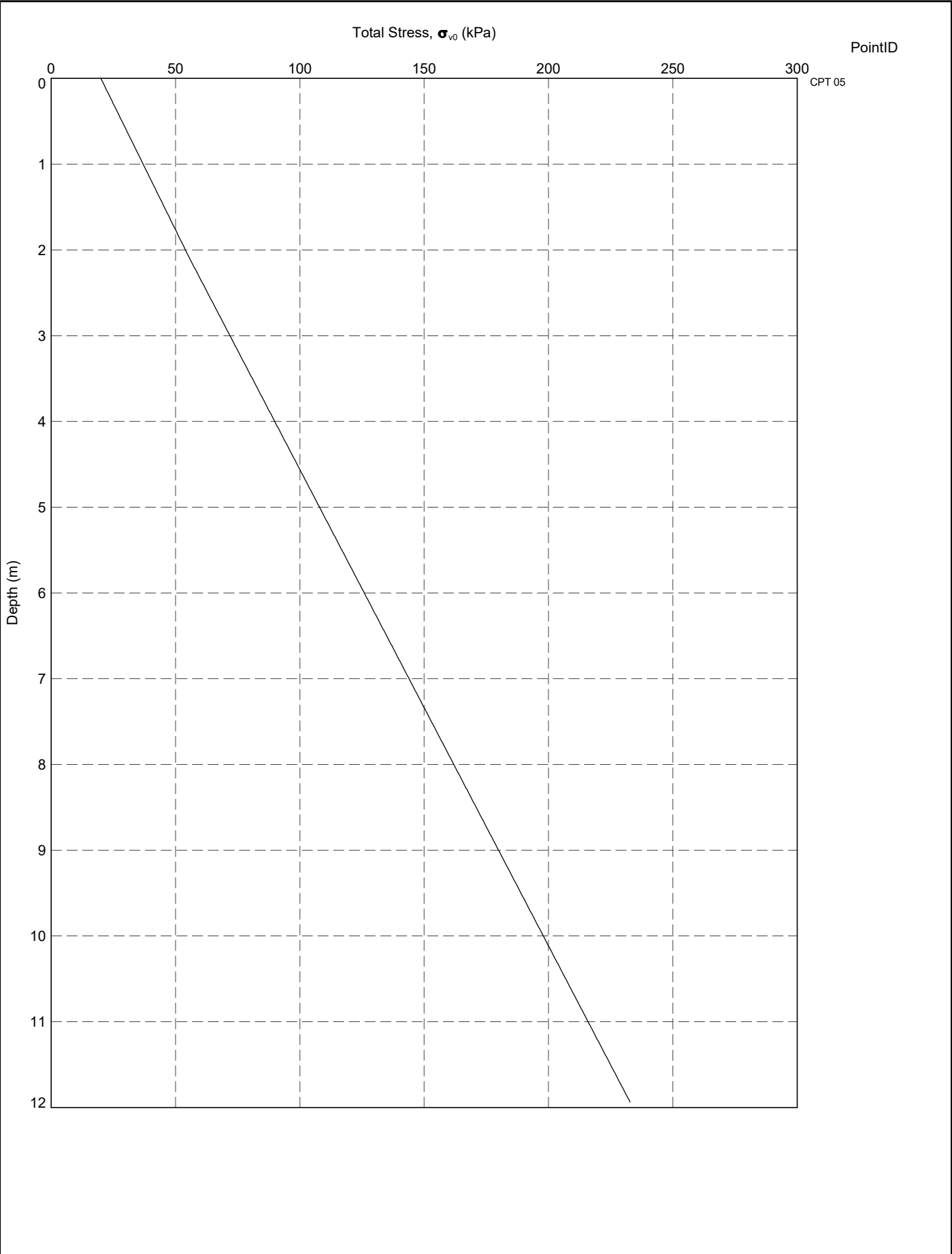
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ THIN LAYER CORR FACT RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel CPT Tool gINT Add-In




TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Thin Layer Correction Factor versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	231

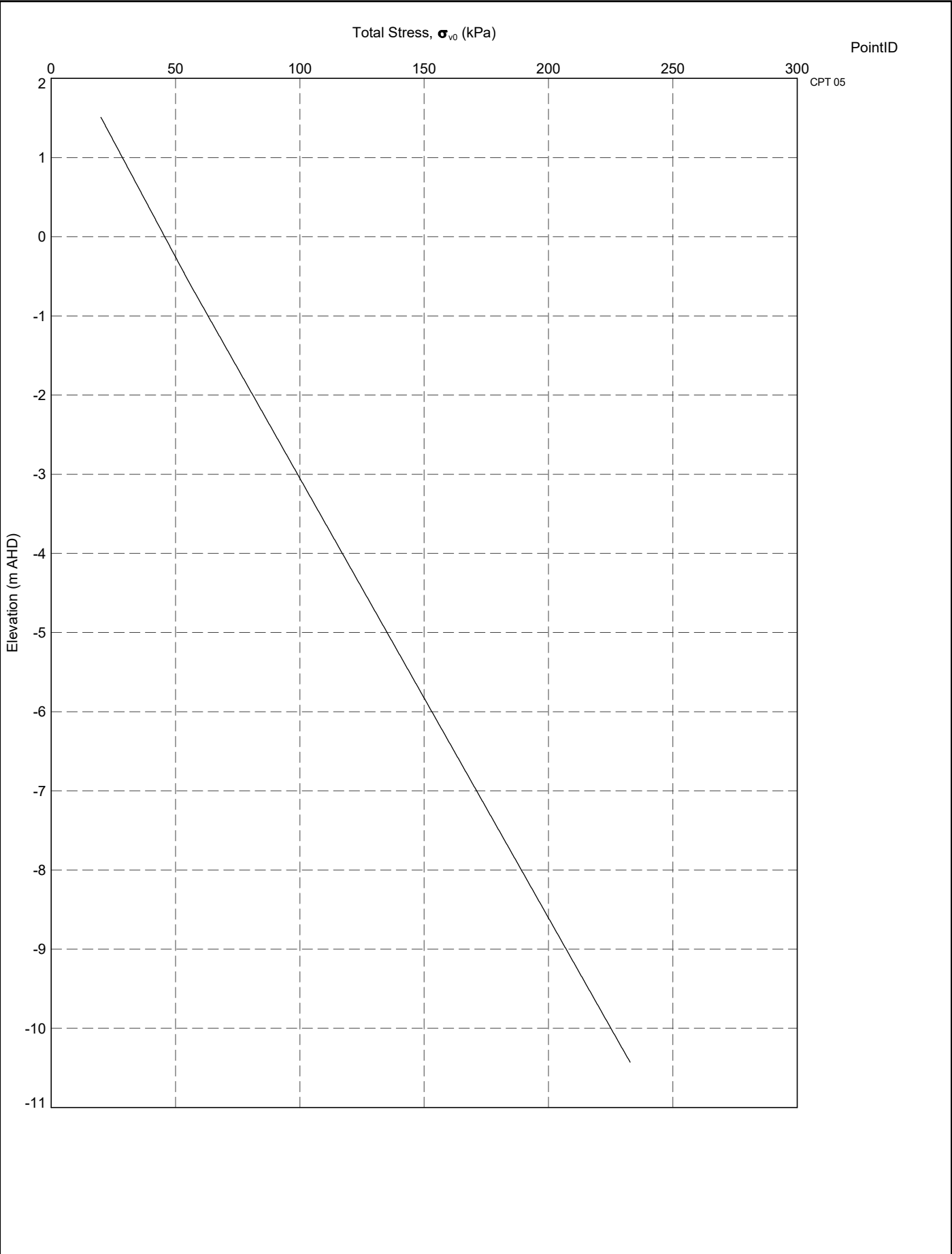
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ TOTAL STRESS DEPTH.A4P DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <DrawingFile> 2/2/2021 00:34:10.01.00.11 Datgel CPT Tool glINT Acid-In




PointID  
CPT 05

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Total Stress versus Depth</p>	<p>DRAWN <b>Datgel</b></p>	<p>DATE <b>2/2/2021</b></p>	
		<p>CHECKED <b>Datgel</b></p>	<p>DATE <b>2/2/2021</b></p>	
		<p>SCALE <b>Not To Scale</b></p>		<p>A4</p>
		<p>PROJECT No <b>4.05.0</b></p>	<p>FIGURE No <b>232</b></p>	

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ TOTAL STRESS RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel CPT Tool.iGINT Add-in

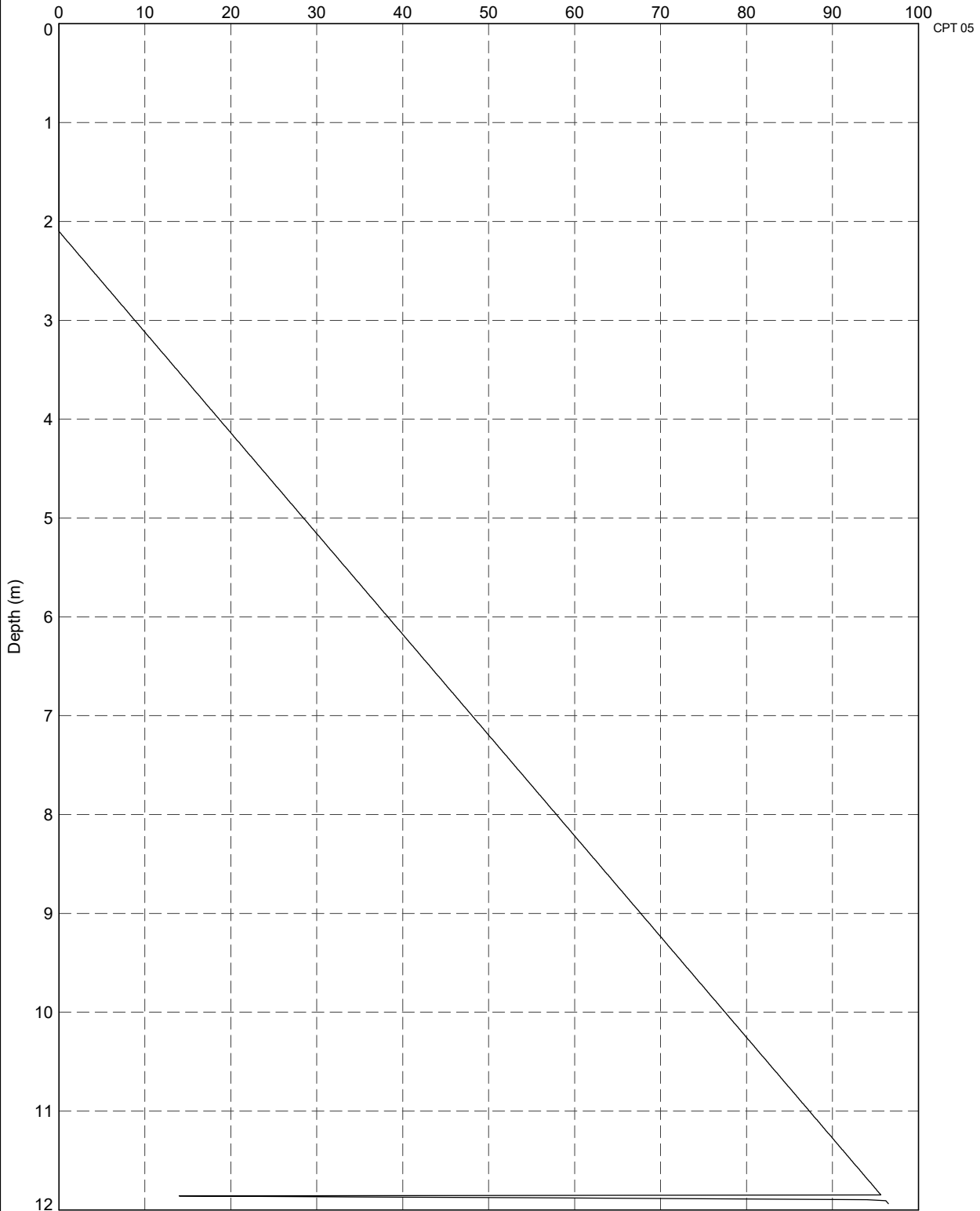


PointID  
CPT 05

	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Total Stress versus Elevation	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 233	

In Situ Pore Pressure,  $u_0$  (kPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT LIQ UO DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ) <<DrawingFile>> 2/2/2021 00:34:10.01.00.11 Datgel CPT Tool gINT Acid-In



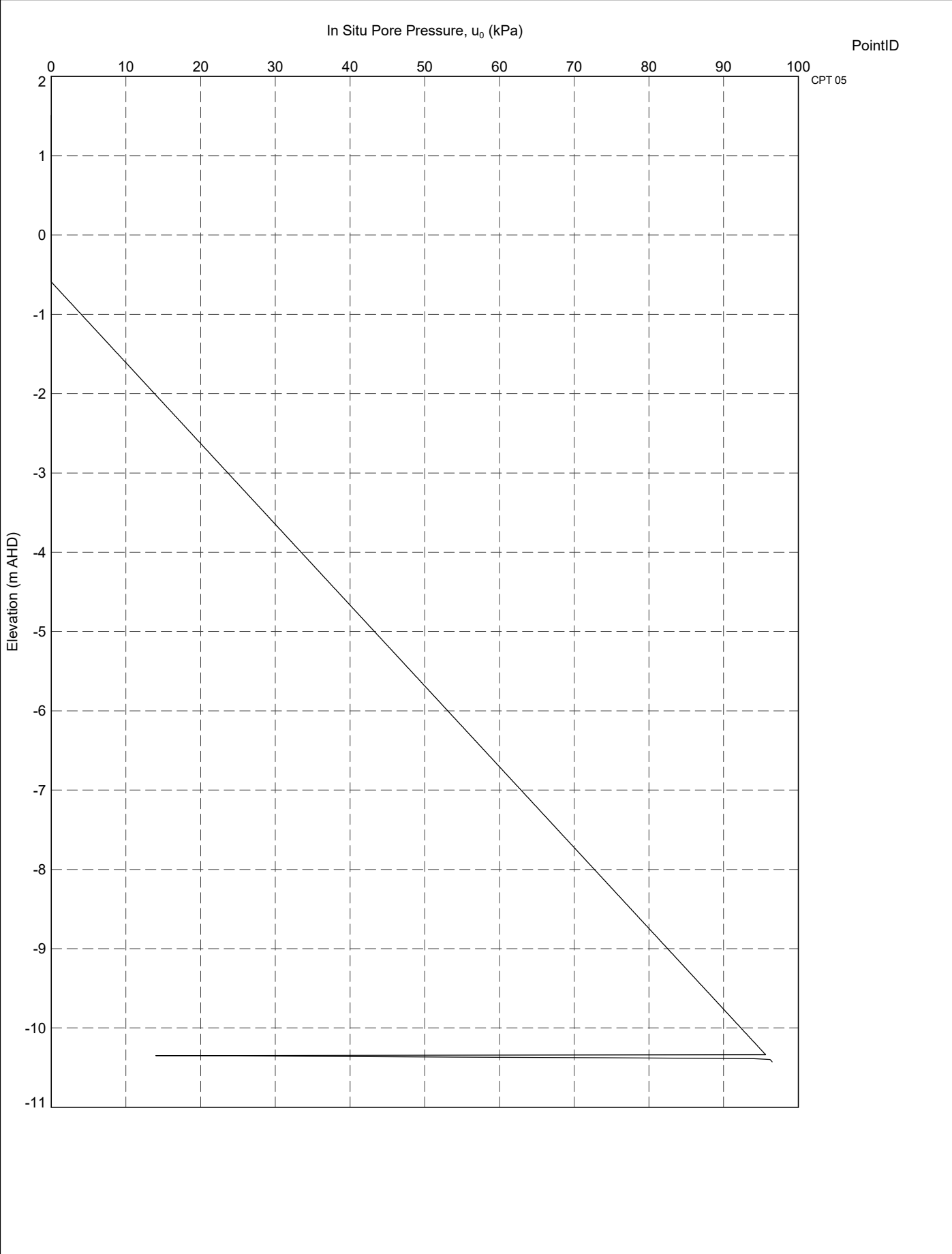
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 In Situ Pore Pressure versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	234



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.LIQ.U0.RL.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel CPT Tool\gINT Add-In

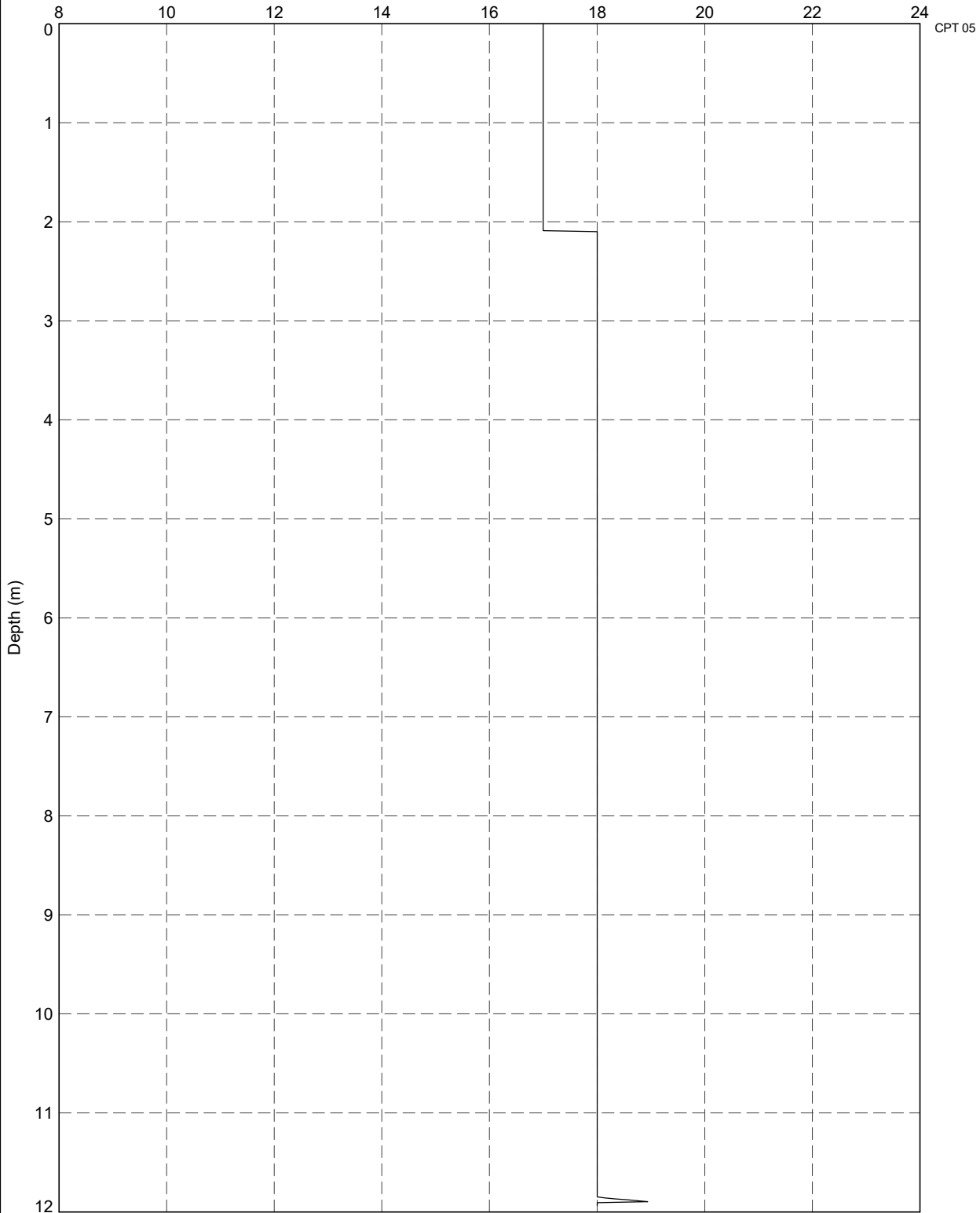


PointID  
CPT 05

	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project In Situ Pore Pressure versus Elevation</p>	<p>DRAWN</p> <p>Datgel</p>	<p>DATE</p> <p>2/2/2021</p>	
		<p>CHECKED</p> <p>Datgel</p>	<p>DATE</p> <p>2/2/2021</p>	
		<p>SCALE</p> <p>Not To Scale</p>		<p>A4</p>
		<p>PROJECT No</p> <p>4.05.0</p>	<p>FIGURE No</p> <p>235</p>	

Bulk Unit Weight,  $\gamma_b$  (kN/m<sup>3</sup>)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.LIQ UNIT WEIGHT DEPTH.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel CPT Tool.gINT Add-in

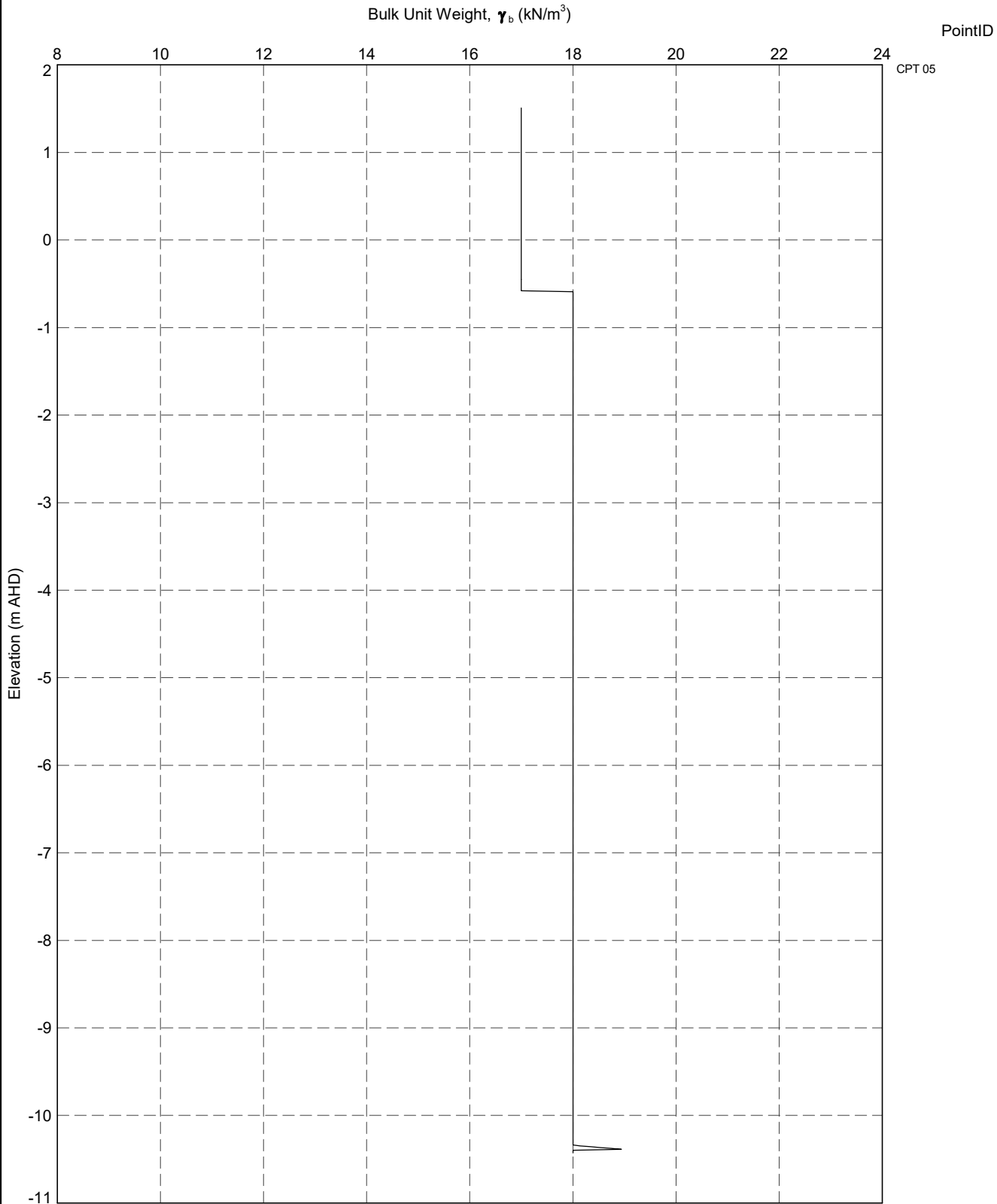


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Unit Weight versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	236

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.LIQ UNIT WEIGHT.RL.A4P DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:34 10.01.00.11 Datgel.CPT Tool.gINT Add-in

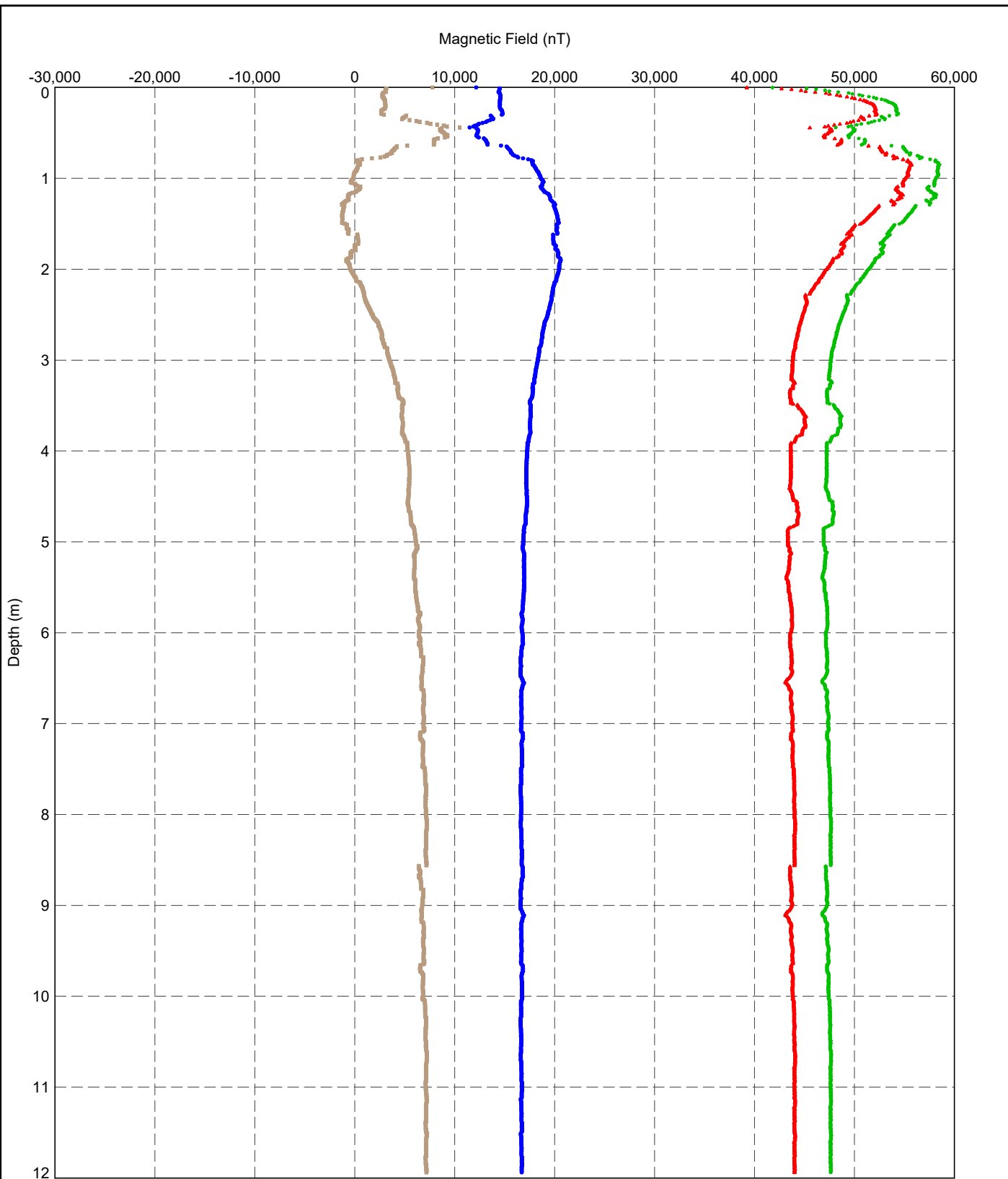


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Unit Weight versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	237

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT MAGNETIC FIELD DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:35 10.01.00.11 Datgel CPT Tool gINT Add-In



- Legend:
- Magnetic Field X (nT)
  - Magnetic Field Y (nT)
  - ▲ Magnetic Field Z (nT)
  - ★ Magnetic Field Total (nT)

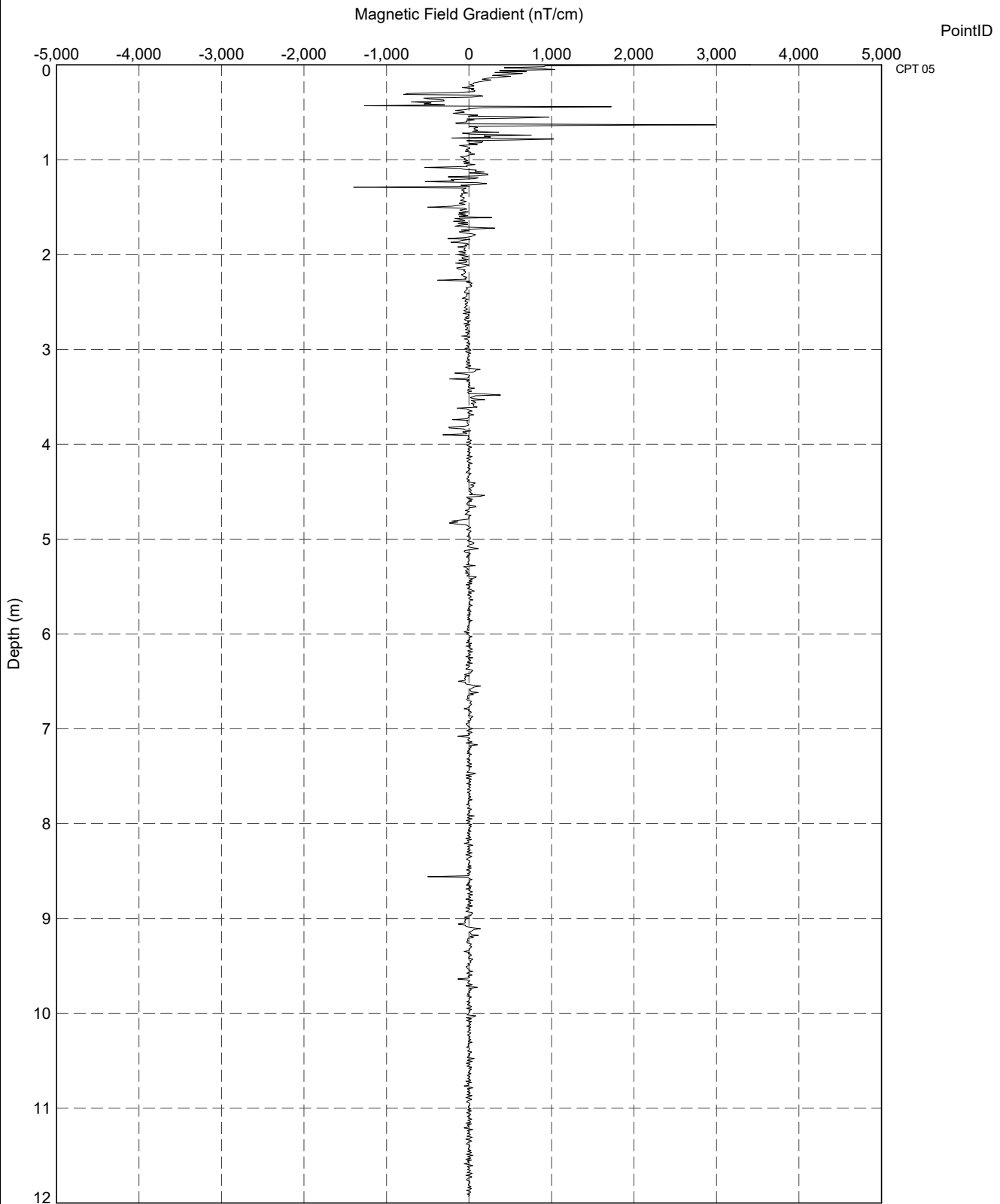


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Magnetic Field versus Depth

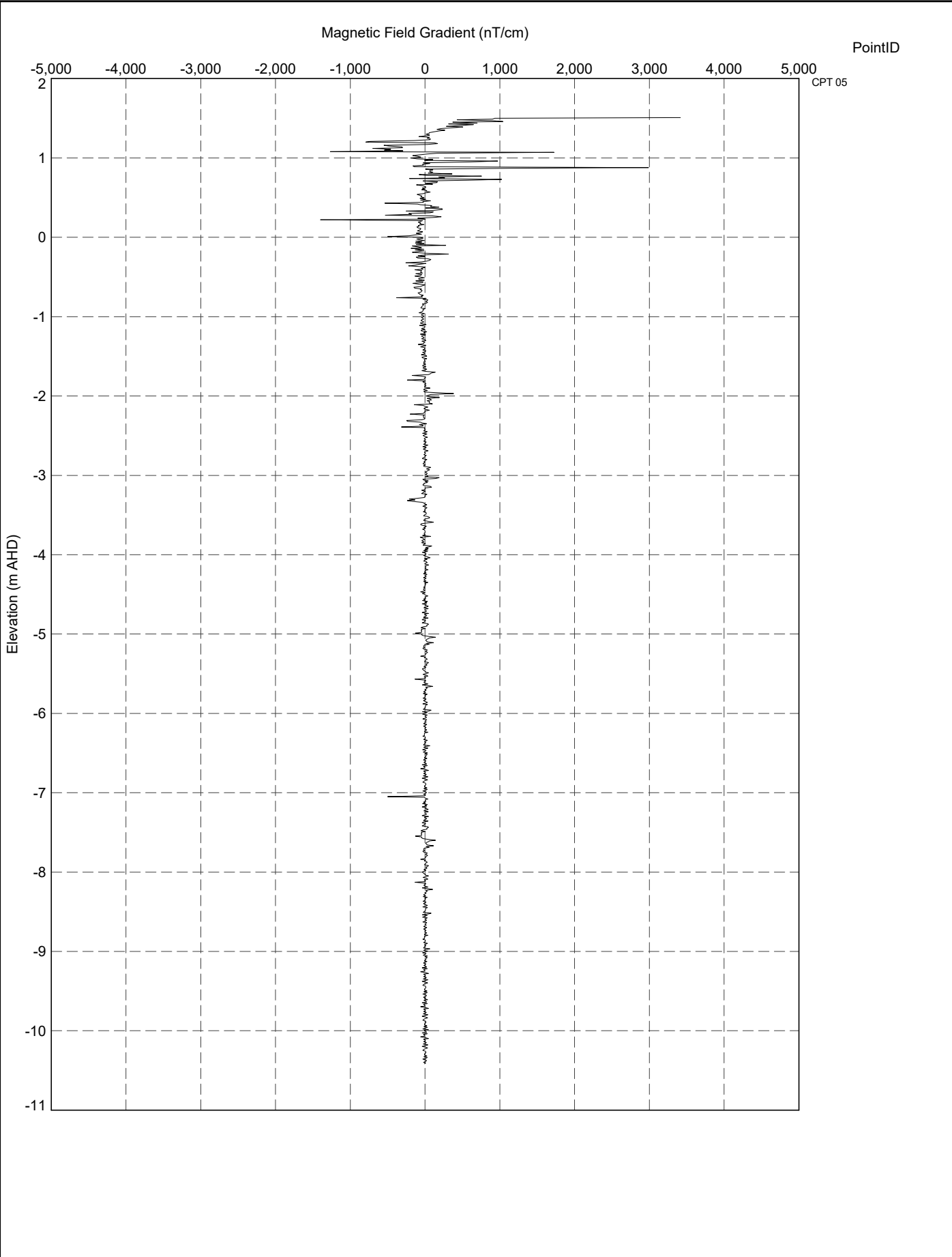
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	238


DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT MAGNETIC FIELD GRADIENT DEPTH A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:35 10:01:00.11 Datgel.CPT Tool.gINT Add-In



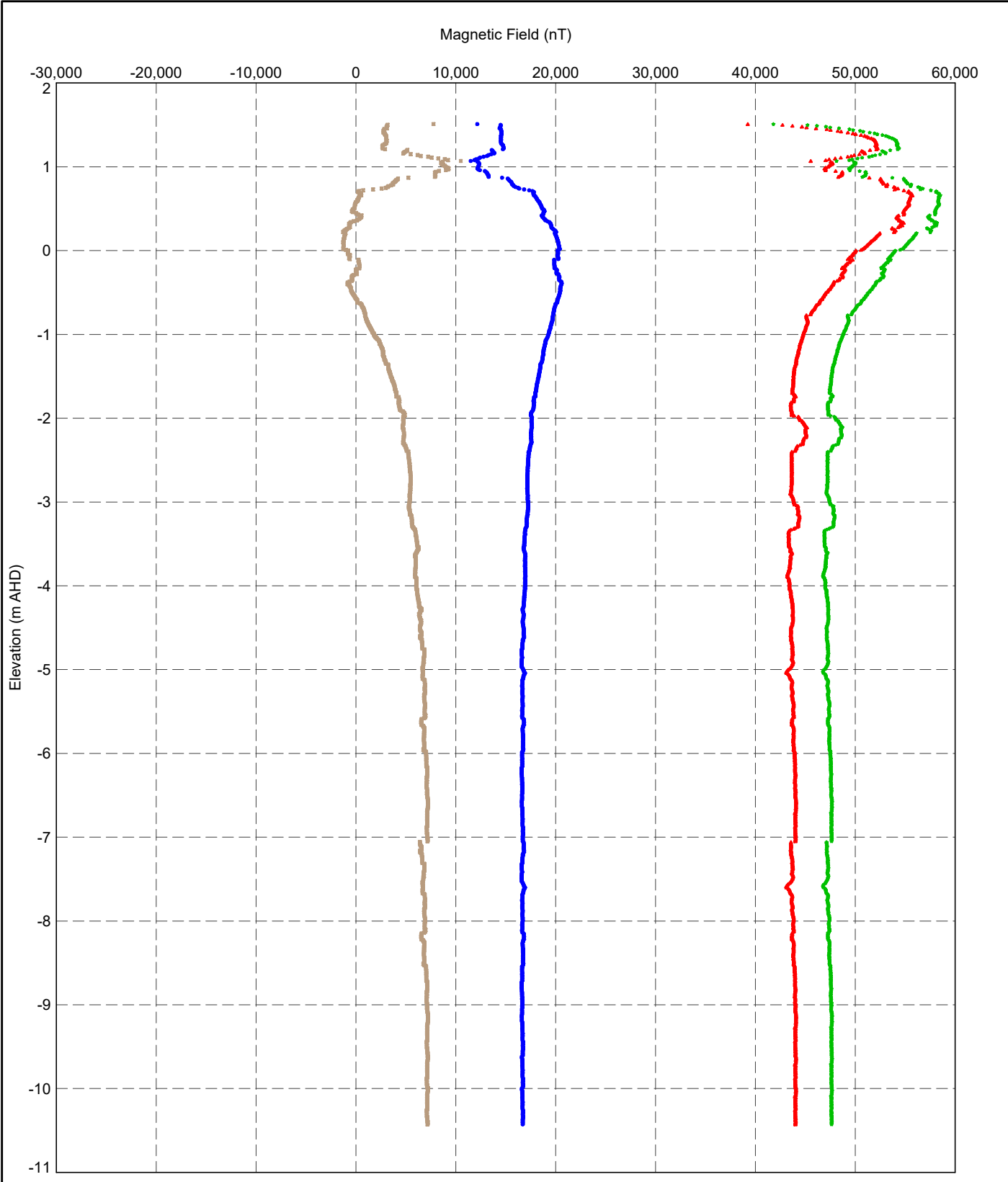
TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Depth	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	239	

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT MAGNETIC FIELD GRADIENT RL.A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:36:10.01.00.11 Datgel.CPT.Tool.gINT.A4d-In



 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Elevation	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	240

DATGEL CPT TOOL.DSD 4.05.0 LIB:GLB Graph.CPT MAGNETIC FIELD RL A4P DATGEL CPT TOOL.DSD 4.05.0 SI:GPIJ <<DrawingFile>> 2/2/2021 00:36 10.01.00.11 Datgel CPT Tool.gINT Add-In



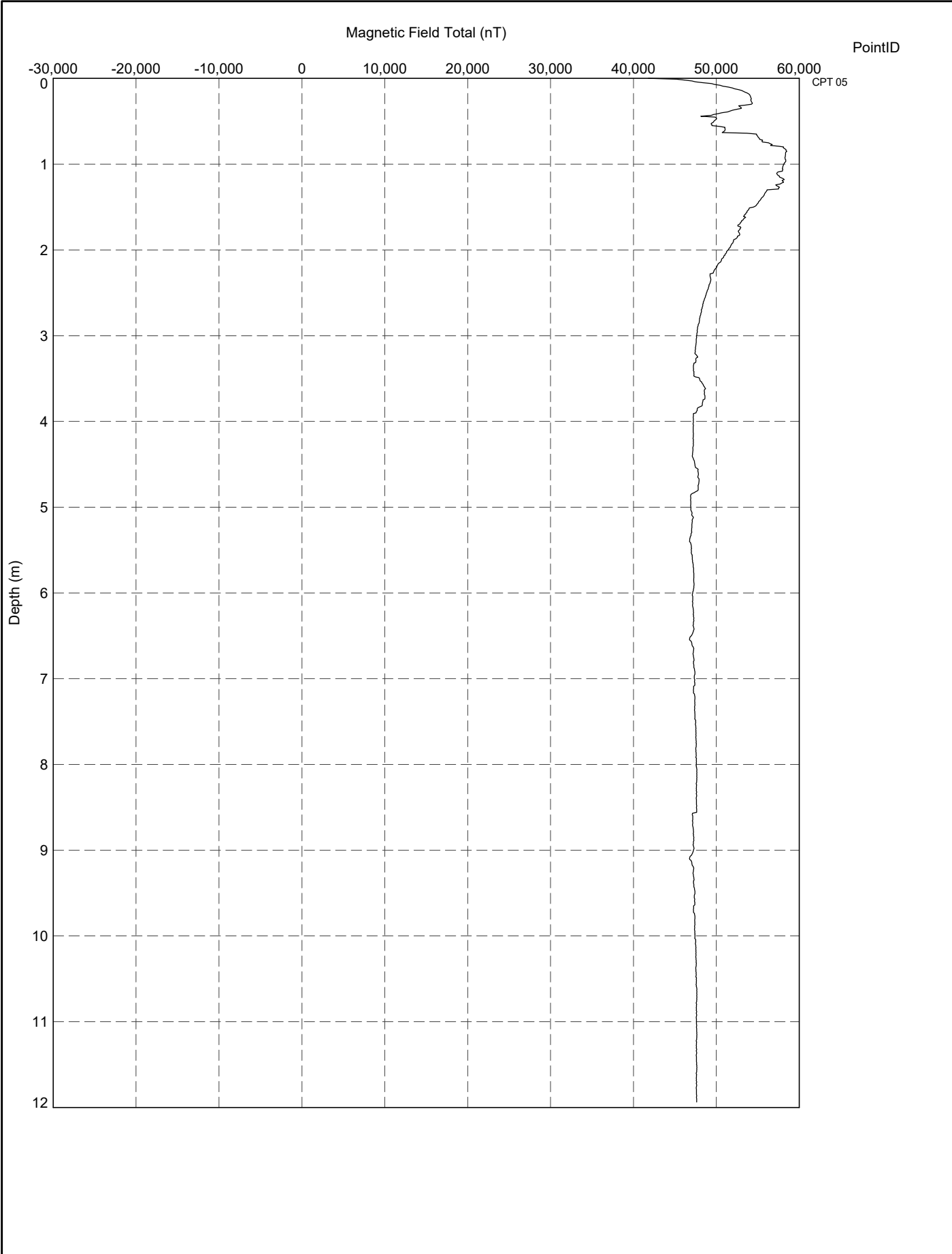
**Legend:**  
 ● Magnetic Field X (nT)  
 ⊠ Magnetic Field Y (nT)  
 ▲ Magnetic Field Z (nT)  
 ★ Magnetic Field Total (nT)




TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Magnetic Field versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	241

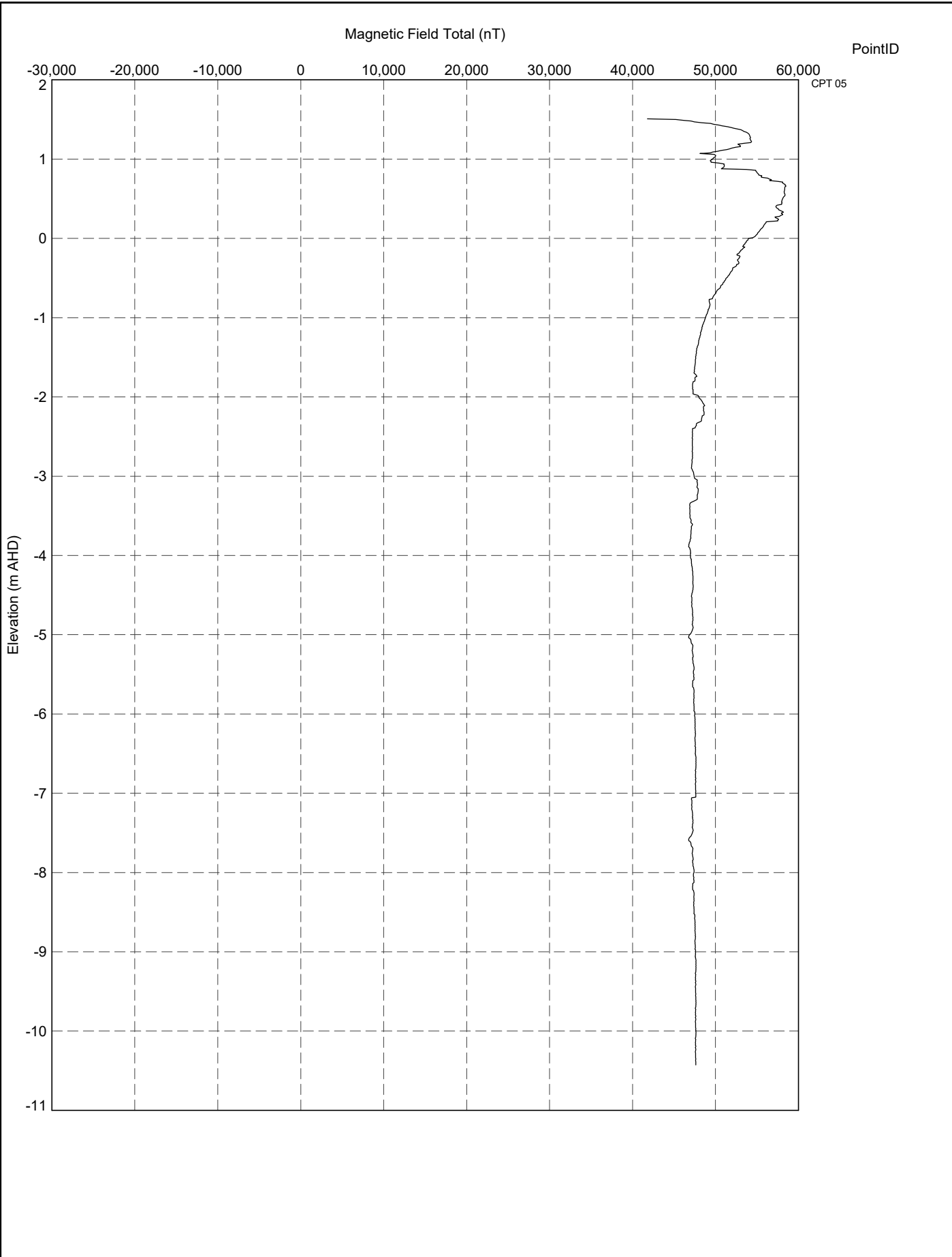
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT MAGNETIC FIELD TOTAL DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:37 10.01.00.11 Datgel CPT Tool gINT Add-In




 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Depth</p>	<p>DRAWN <b>Datgel</b>      DATE <b>2/2/2021</b></p>
		<p>CHECKED <b>Datgel</b>      DATE <b>2/2/2021</b></p>
		<p>SCALE <b>Not To Scale</b>      <b>A4</b></p>
		<p>PROJECT No <b>4.05.0</b>      FIGURE No <b>242</b></p>

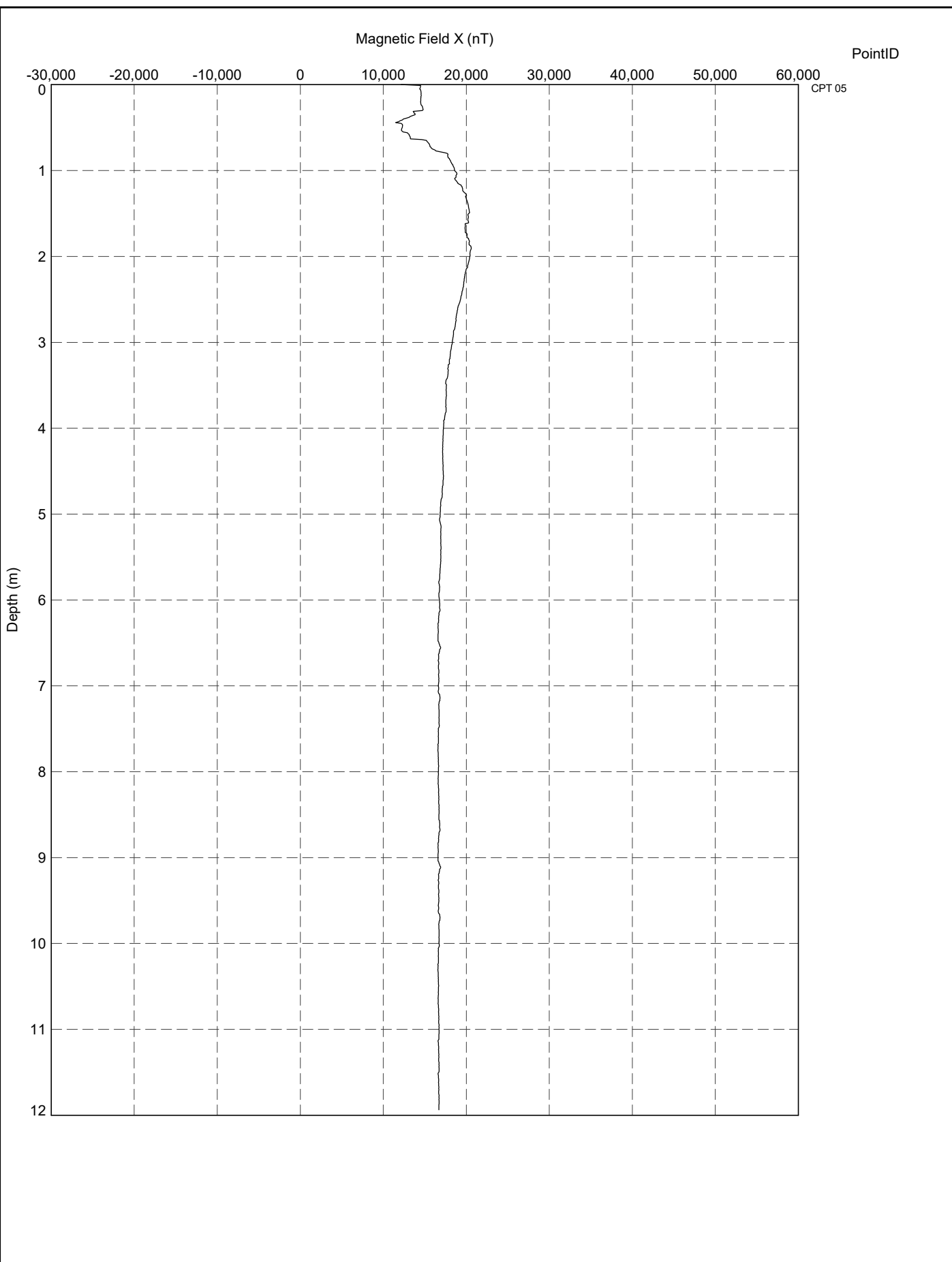


DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT MAGNETIC FIELD TOTAL.RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:37 10.01.00.11 Datgel CPT Tool.gINT Add-in




 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Elevation	DRAWN	Datgel	DATE	2/2/2021
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	243	

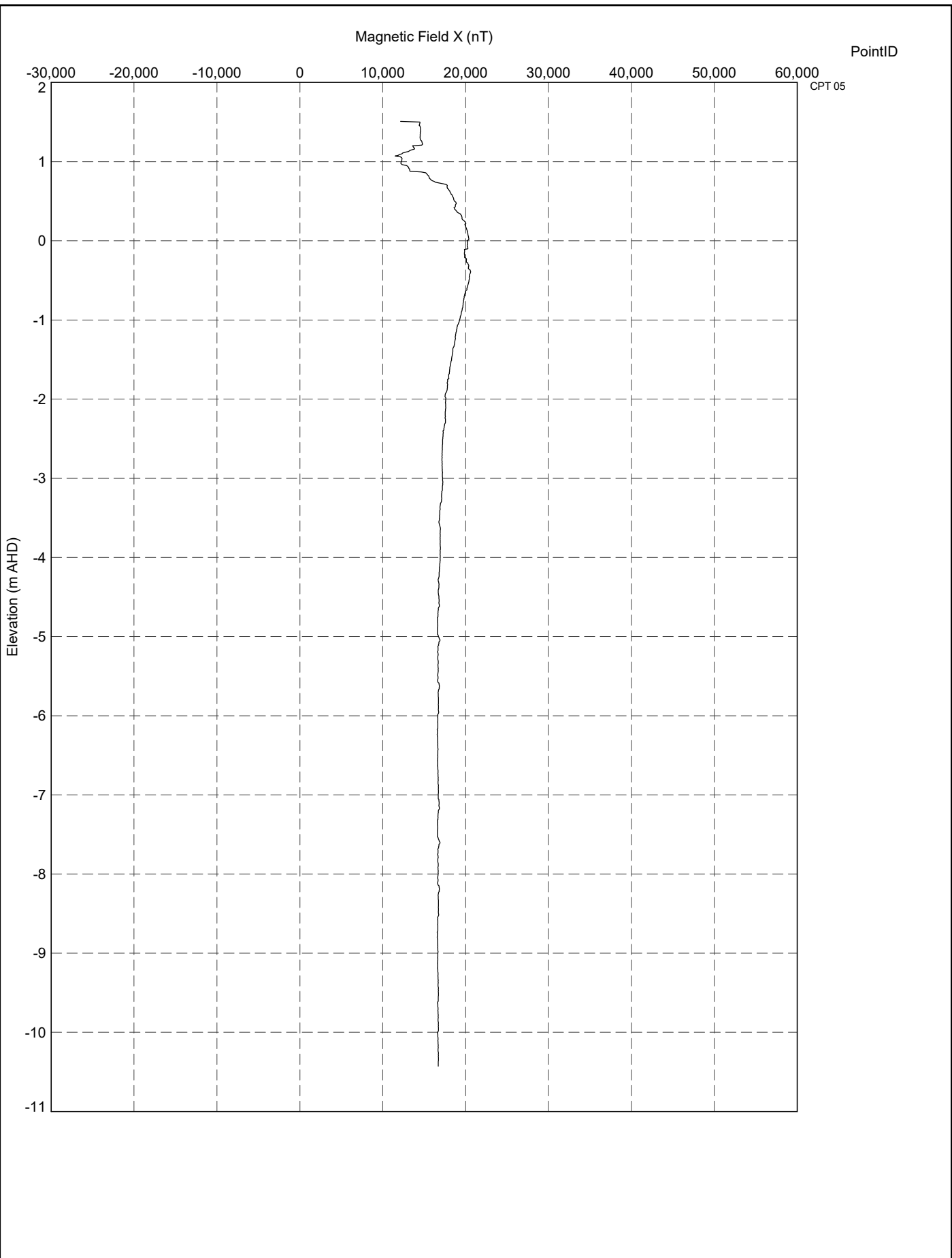
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT MAGNETIC FIELD X DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0(SI)(GPJ <<DrawingFile>> 2/2/2021 00:37:10.01.00.11 Datgel.CPT Tool glINT Add-In




PointID  
CPT 05

	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Depth	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 244	

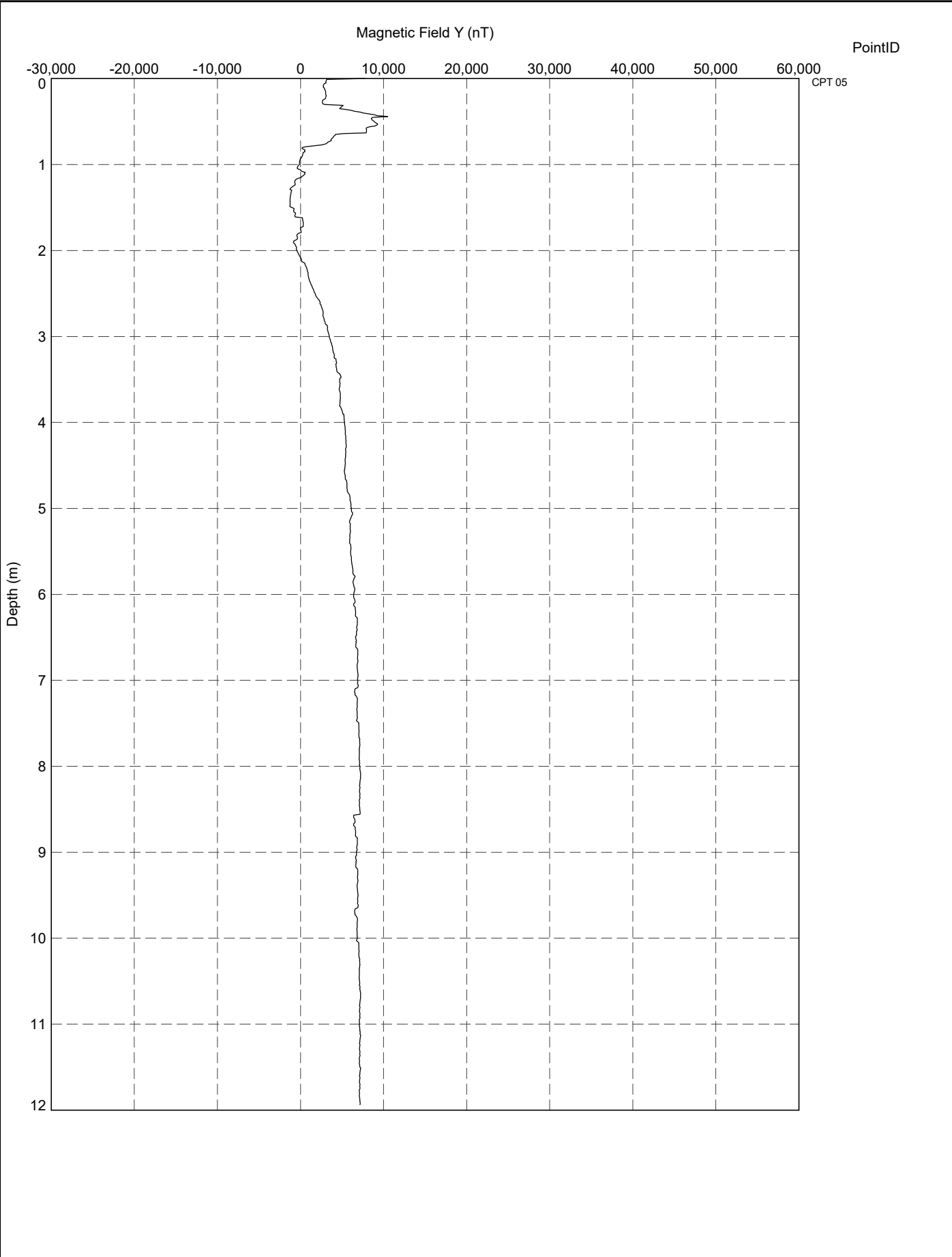
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT MAGNETIC FIELD X RL AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:37 10.01.00.11 Datgel CPT Tool.gINT Add-in




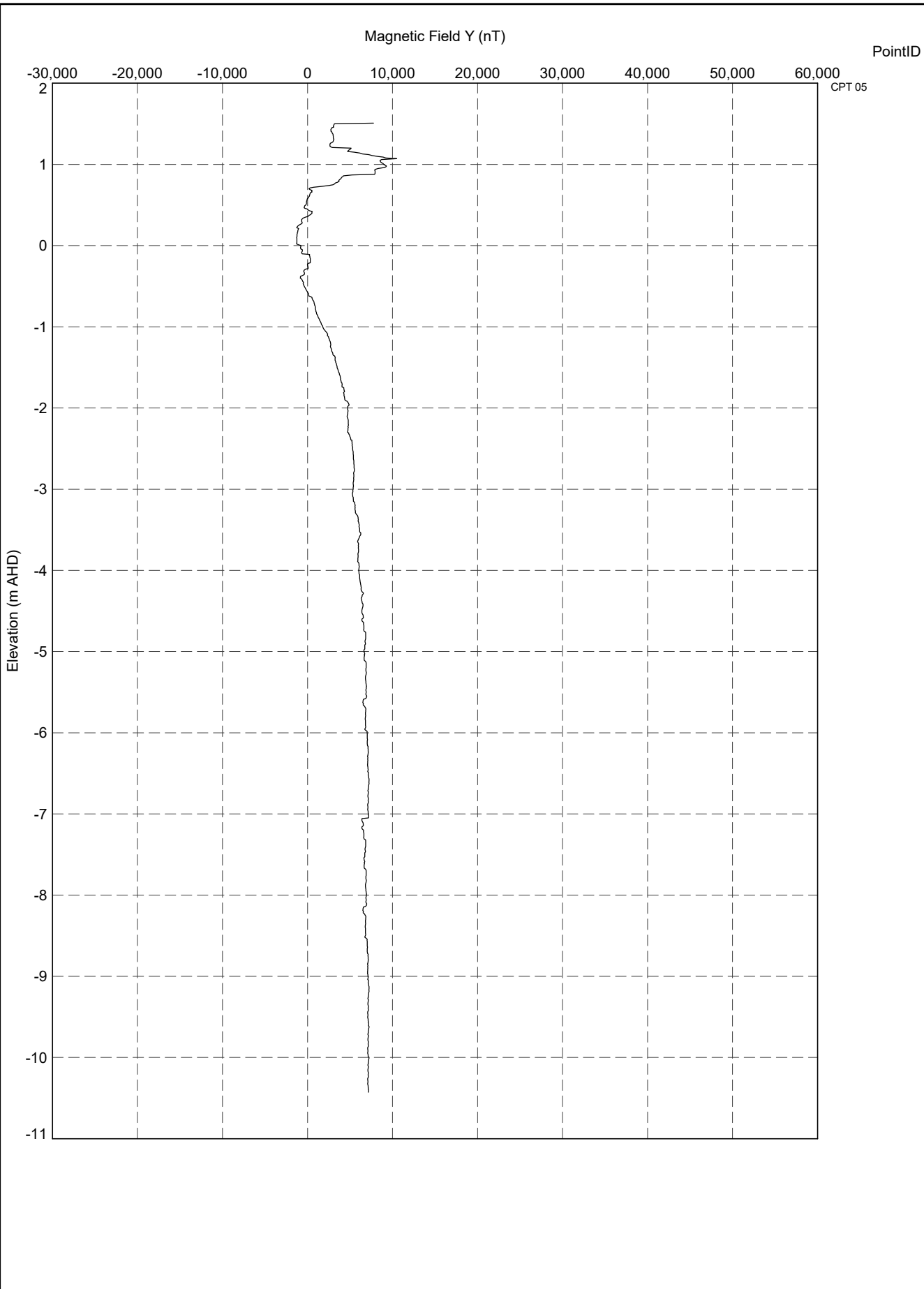
PointID  
CPT 05

	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Elevation	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 245	

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT MAGNETIC FIELD Y DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0(SI)(GPJ <<DrawingFile>> 2/2/2021 00:37:10.01.00.11 Datgel.CPT Tool glINT Add-In



 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Depth	DRAWN	Datgel	DATE	2/2/2021
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	246	

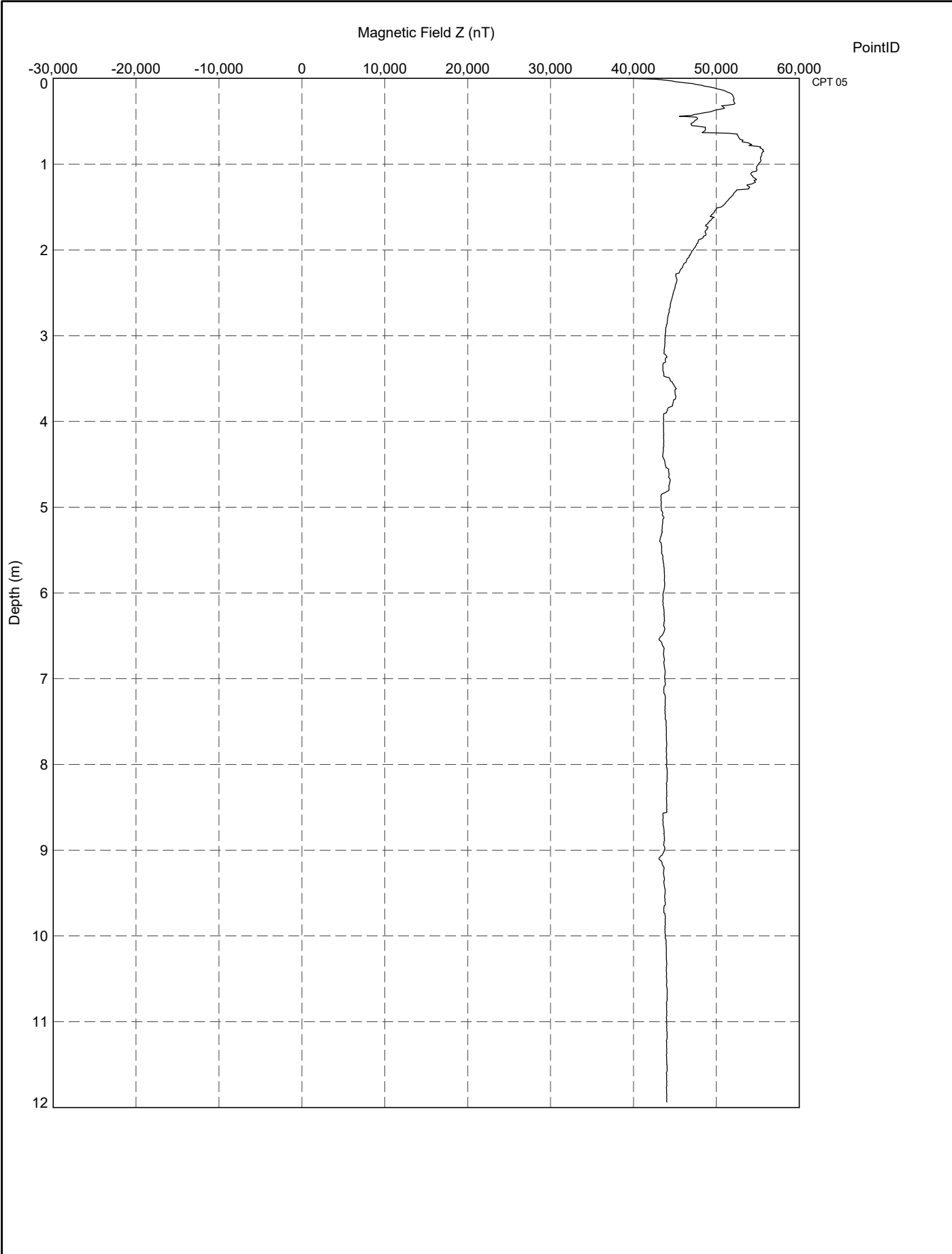



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT MAGNETIC FIELD Y RL AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:37 10.01.00.11 Datgel CPT Tool.gINT Add-in



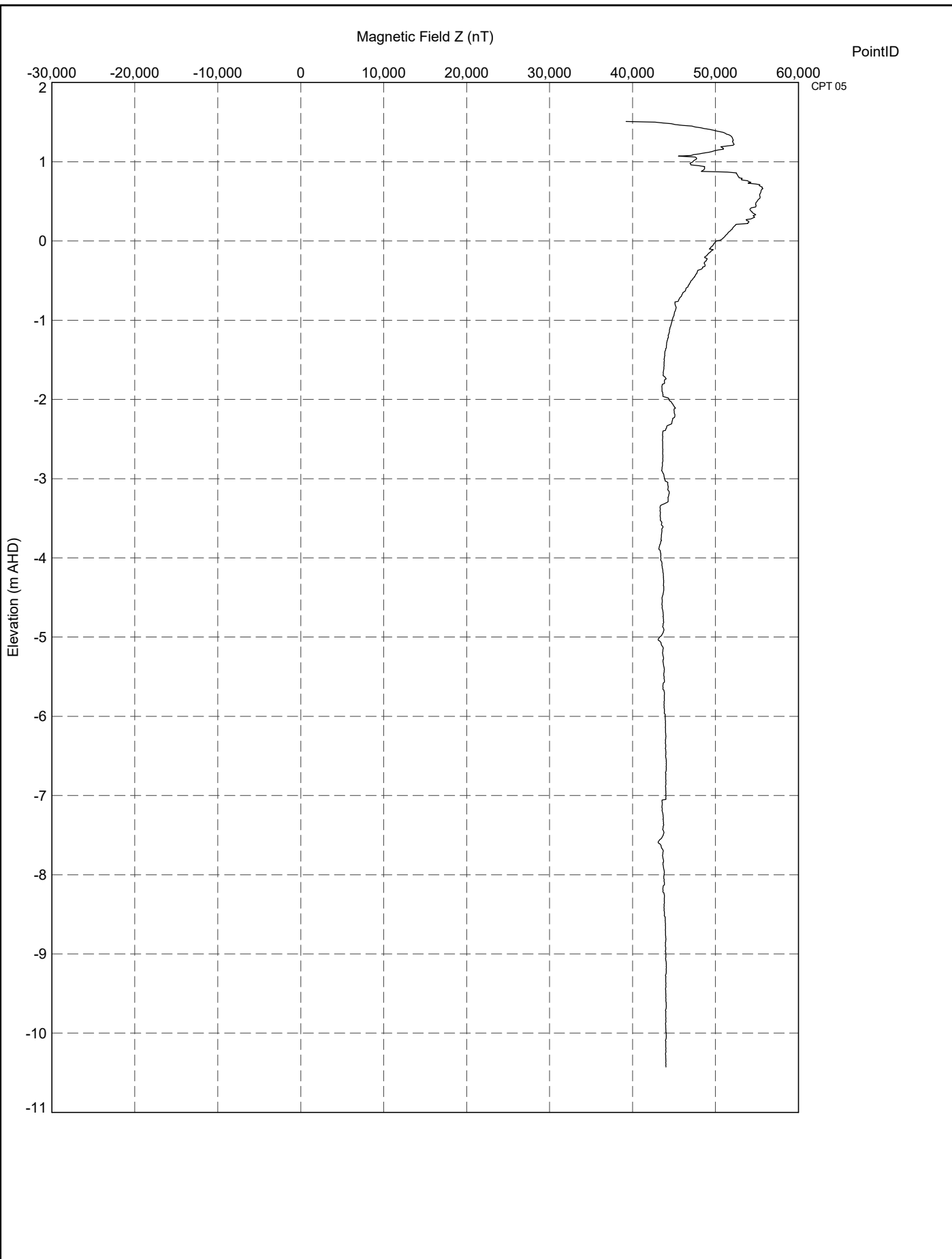
<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Elevation</p>	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	247	

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT MAGNETIC FIELD Z DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:38:10.01.00.11 Datgel.CPT.Tool.glnt.Add.in




	<b>TITLE</b> Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Depth	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 248	

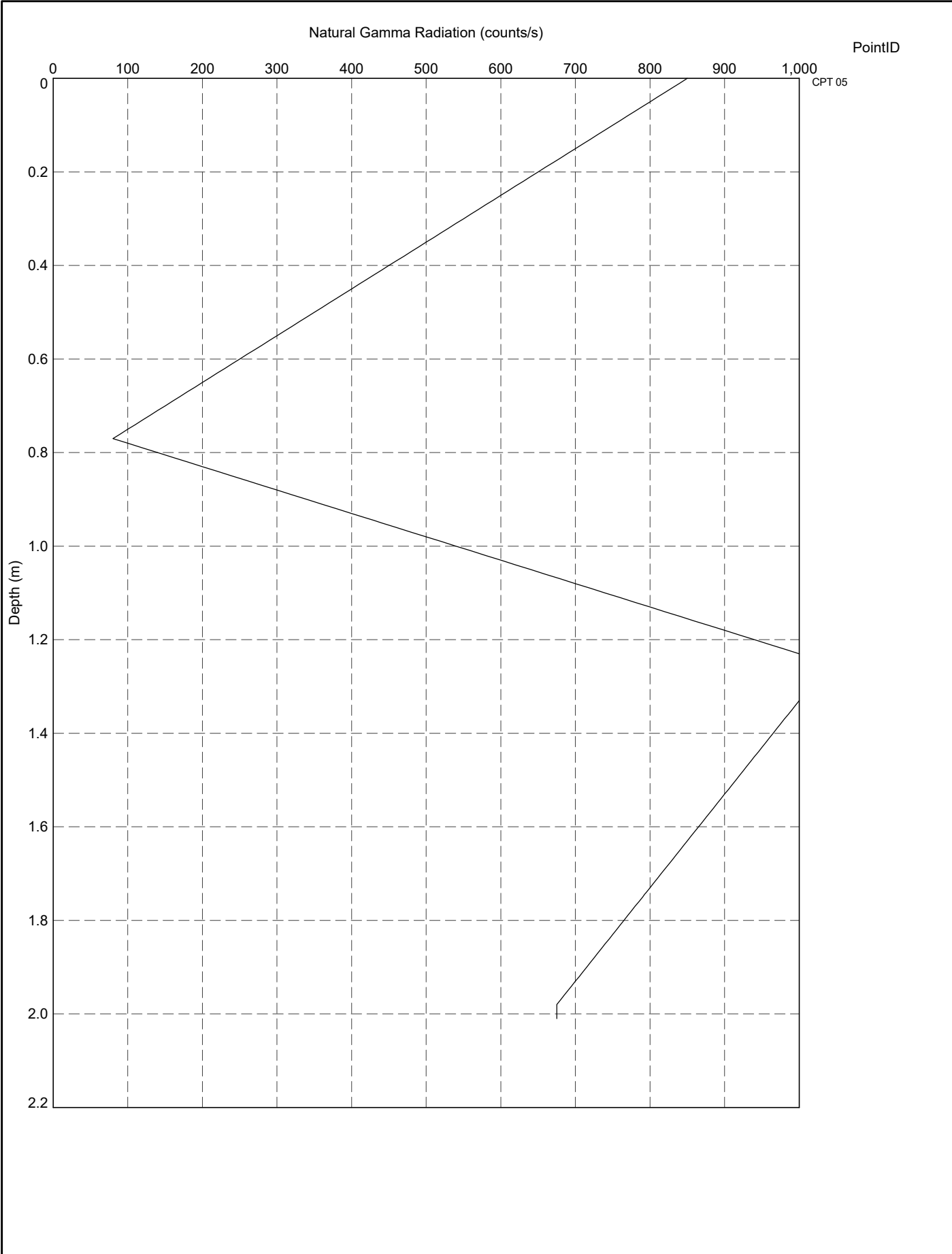
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT MAGNETIC FIELD Z RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:38 10.01.00.11 Datgel CPT Tool gINT Add-In



PointID  
CPT 05

	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Magnetic Field versus Elevation	DRAWN Datgel	DATE 2/2/2021	
		CHECKED Datgel	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 249	

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT NATURAL GAMMA RADIATION DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:38 10.01.00.11 Datgel CPT Tool gINT Add-in

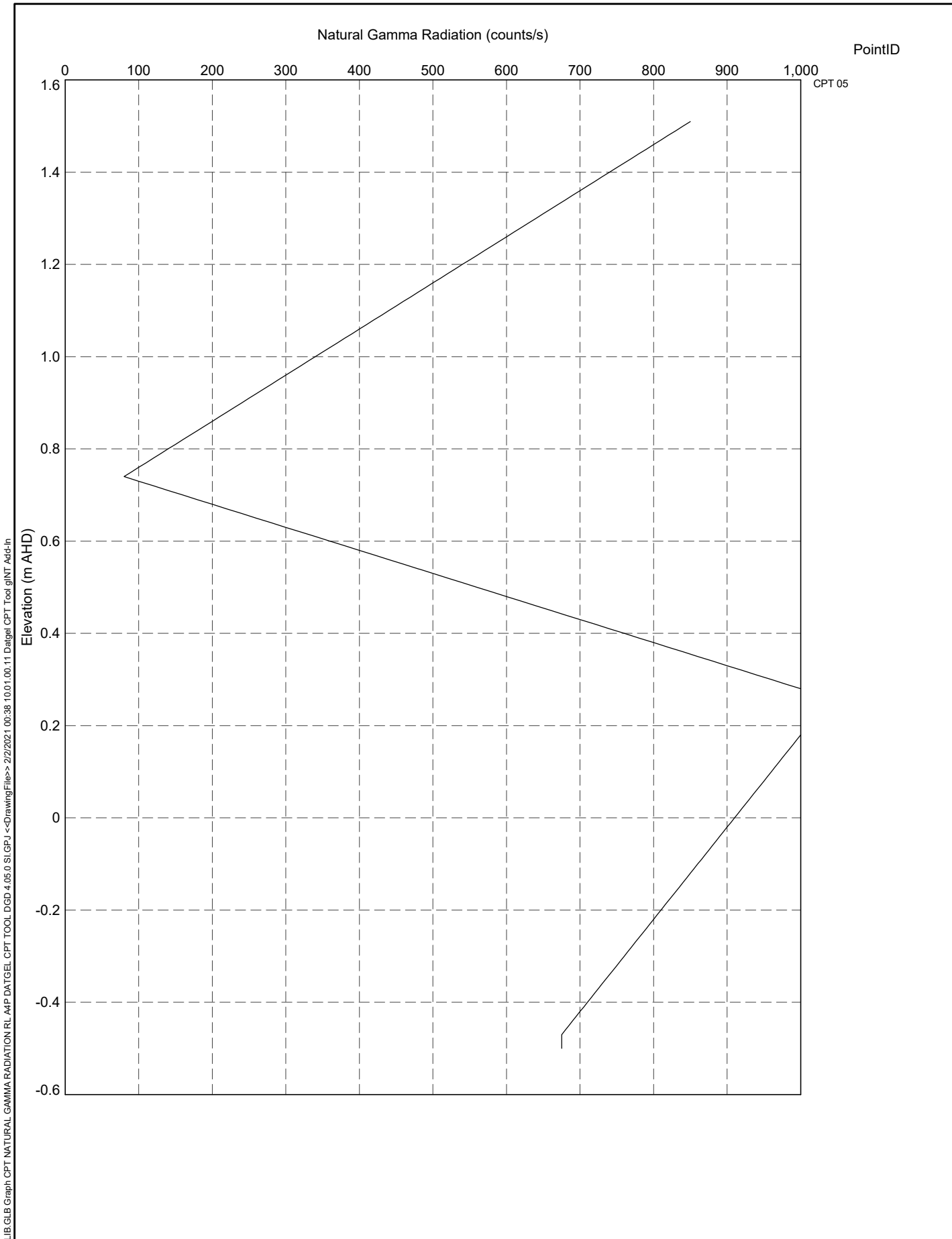


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Natural Gamma Radiation versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	250





DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT NATURAL GAMMA RADIATION RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:38 10.01.00.11 Datgel CPT Tool.gINT Add-In



TITLE

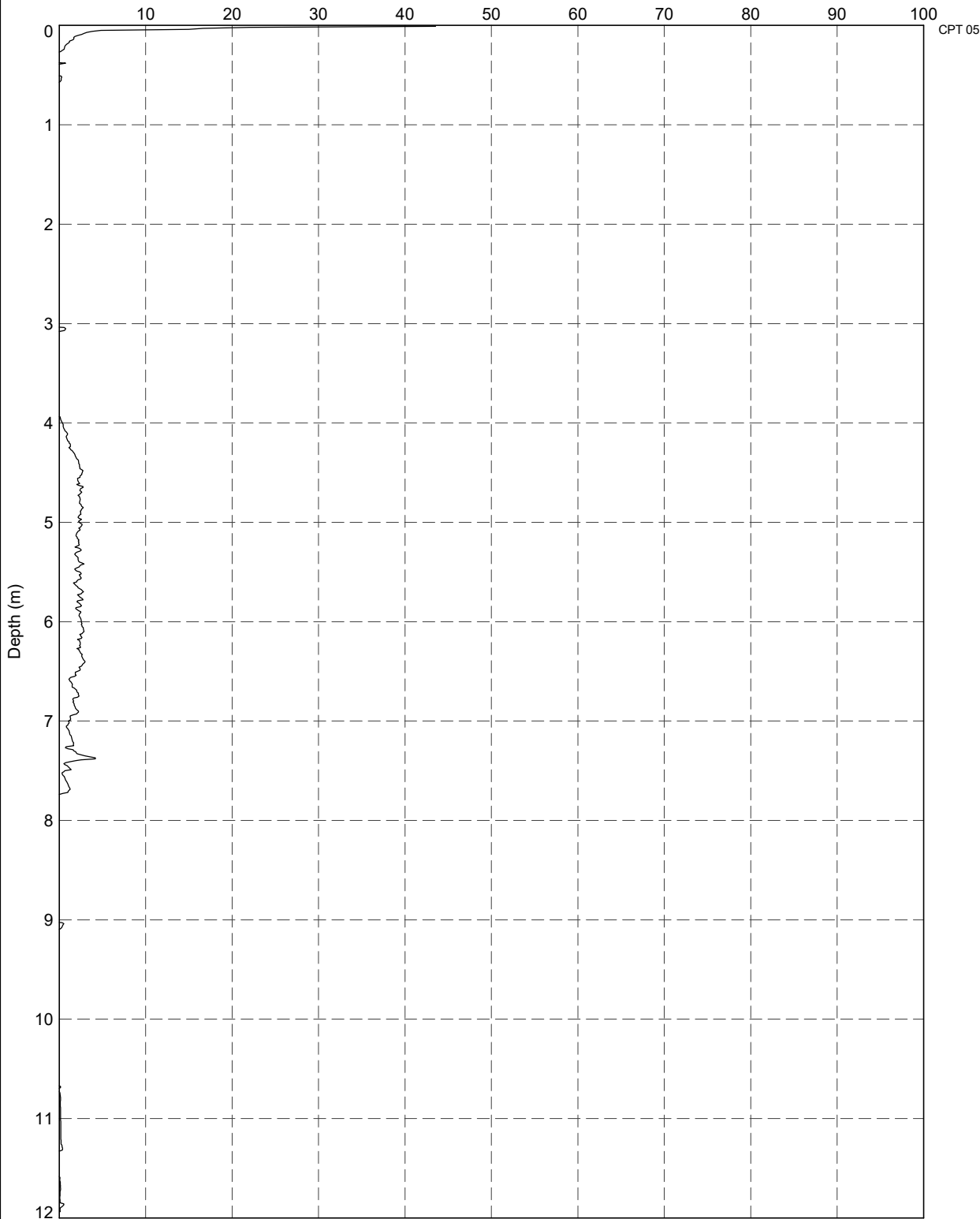
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Natural Gamma Radiation versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	251

Normalised Excess Pore Pressure,  $\Delta u_2 / \sigma'_{v0}$

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT NORM DELTA U DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:38 10.01.00.11 Datgel CPT Tool gINT Add-in



TITLE

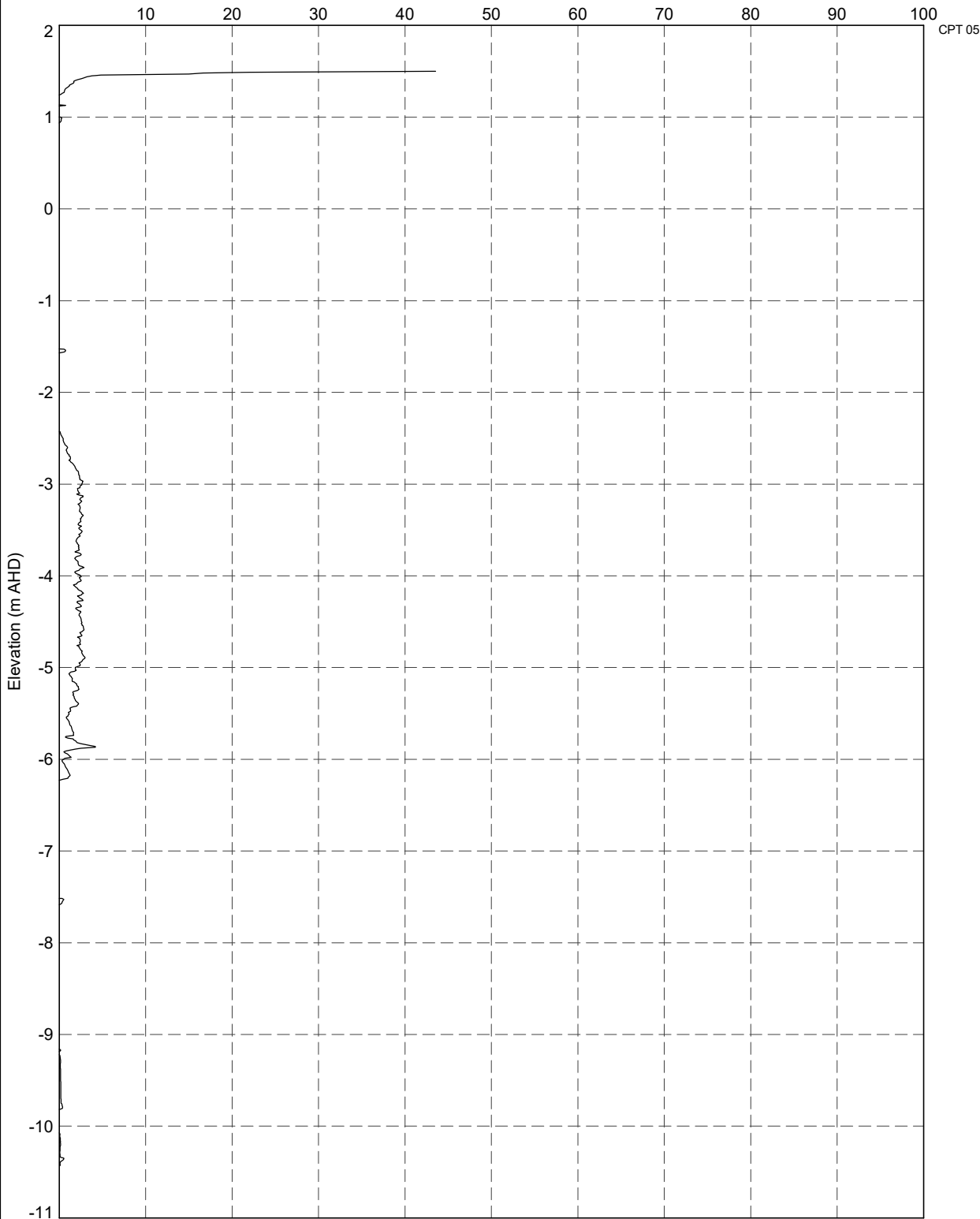
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Normalised Excess Pore Pressure vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	252

Normalised Excess Pore Pressure,  $\Delta u_2 / \sigma'_{v0}$

PointID

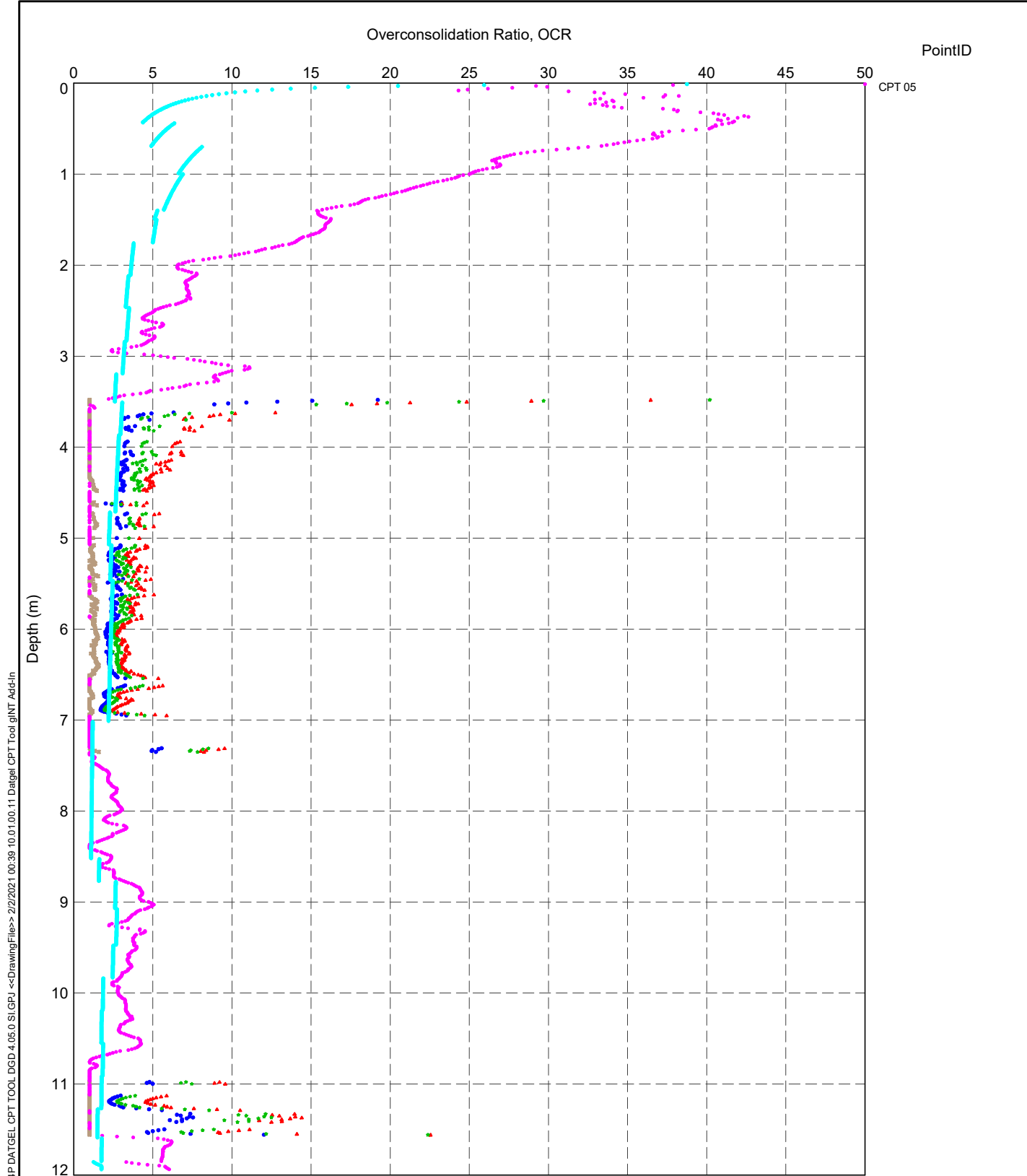


DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT NORM DELTA U RL\_A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:38 10.01.00.11 Datgel CPT Tool gINT Acad-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Normalised Excess Pore Pressure vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	253



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.OCR.DATGEL.CPT.TOOL.DGD.4.05.0.St.GPJ <<DrawingFile>> 2/2/2021 00:39 10.01.00.11 Datgel CPT Tool gINT Add-in

- Method:
- Mayne (1995); Demers & Leroueil (2002)
  - Chen & Mayne (1996)
  - ▲ Mayne (2005)
  - ★ Robertson (2009)
  - Mayne (2005)
  - ⊕ Mayne (2007)

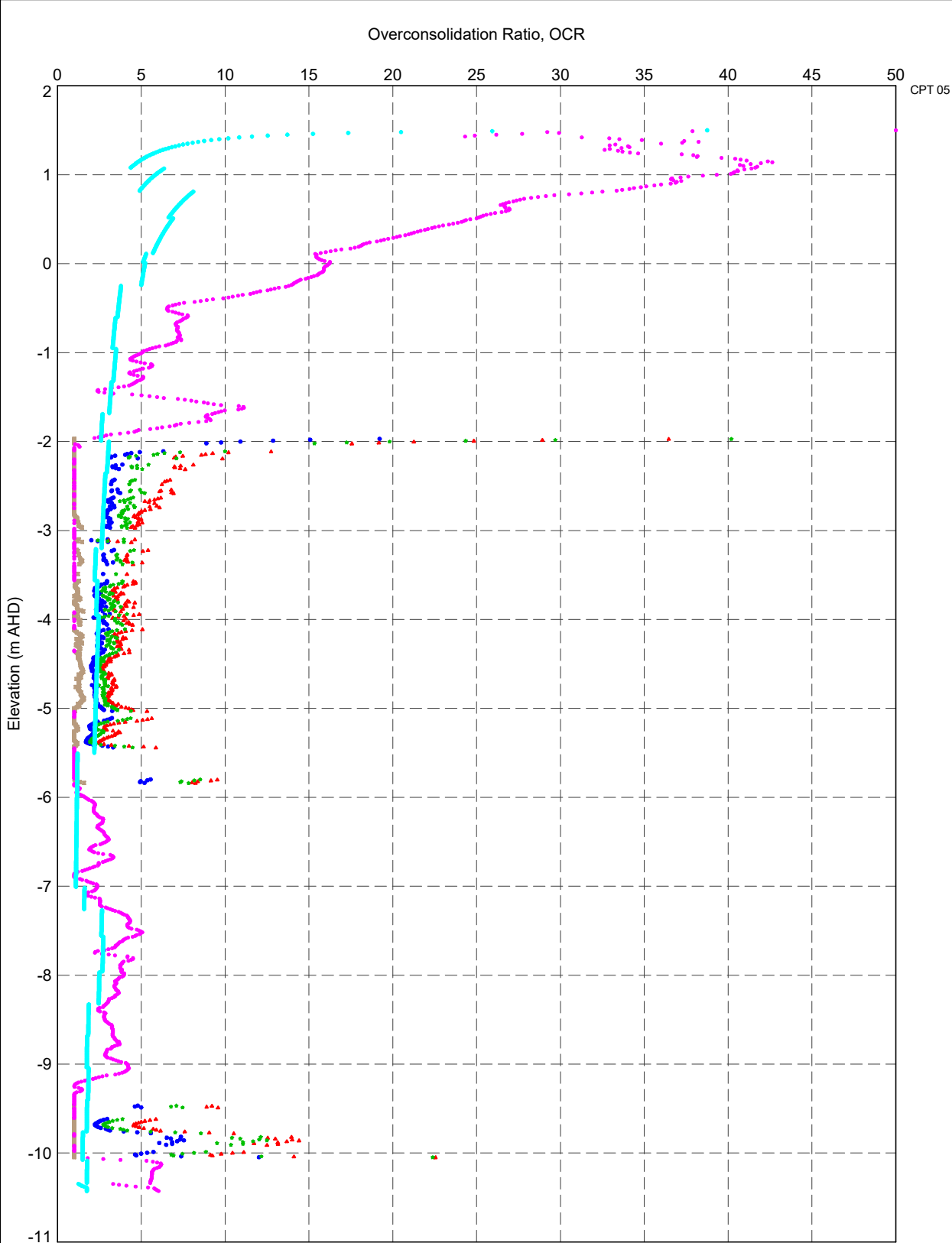


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Overconsolidation Ratio versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	254

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.OCR.RL.A4P DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-<DrawingFile>> 2/2/2021 00:40:10.01.11 Datgel.CPT.Tool.gINT Add-In



PointID  
CPT 05

- Method:
- Mayne (1995); Demers & Leroueil (2002)
  - ⊠ Chen & Mayne (1996)
  - ▲ Mayne (2005)
  - ★ Robertson (2009)
  - Mayne (2005)
  - ⊕ Mayne (2007)



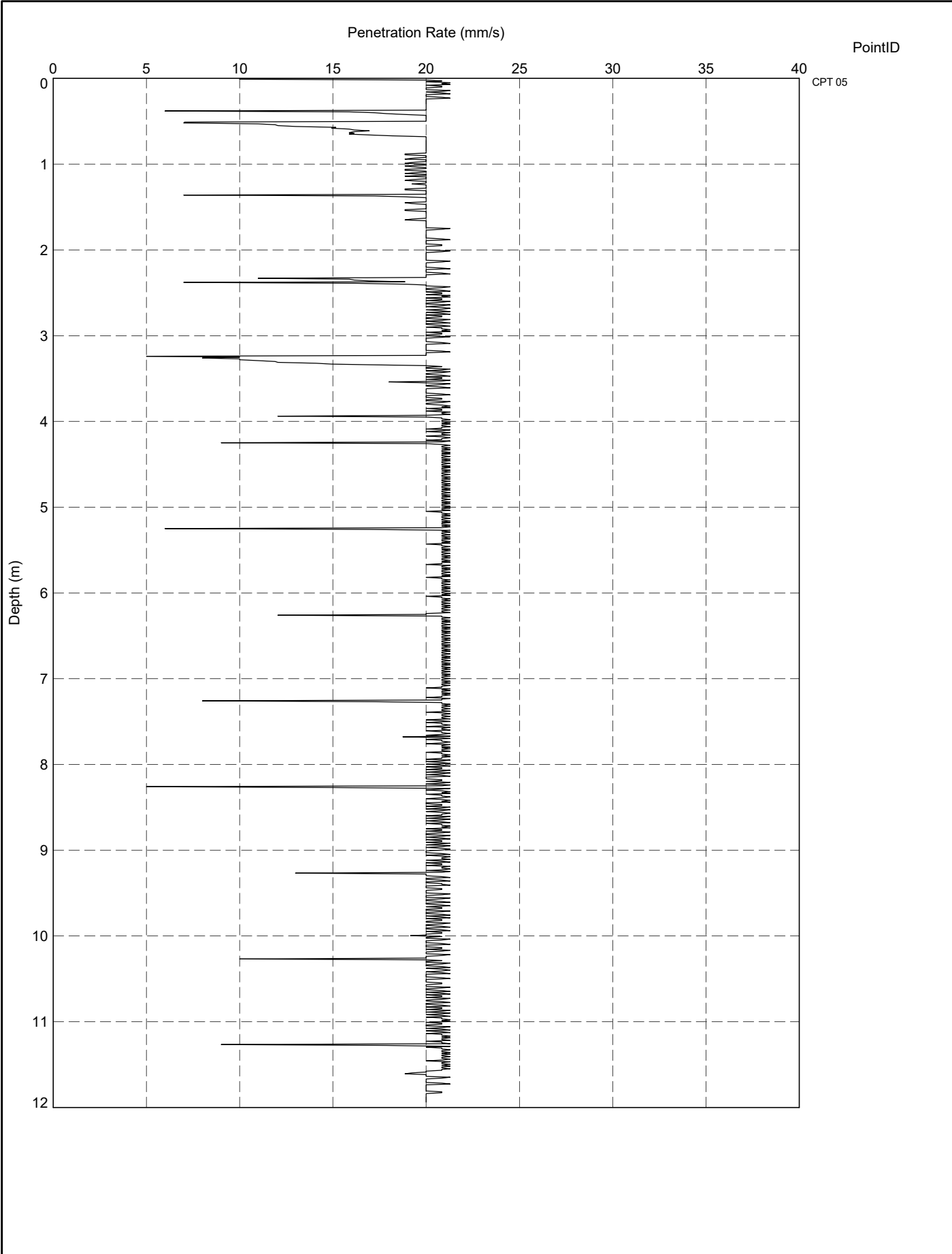
TITLE


Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Overconsolidation Ratio versus Elevation

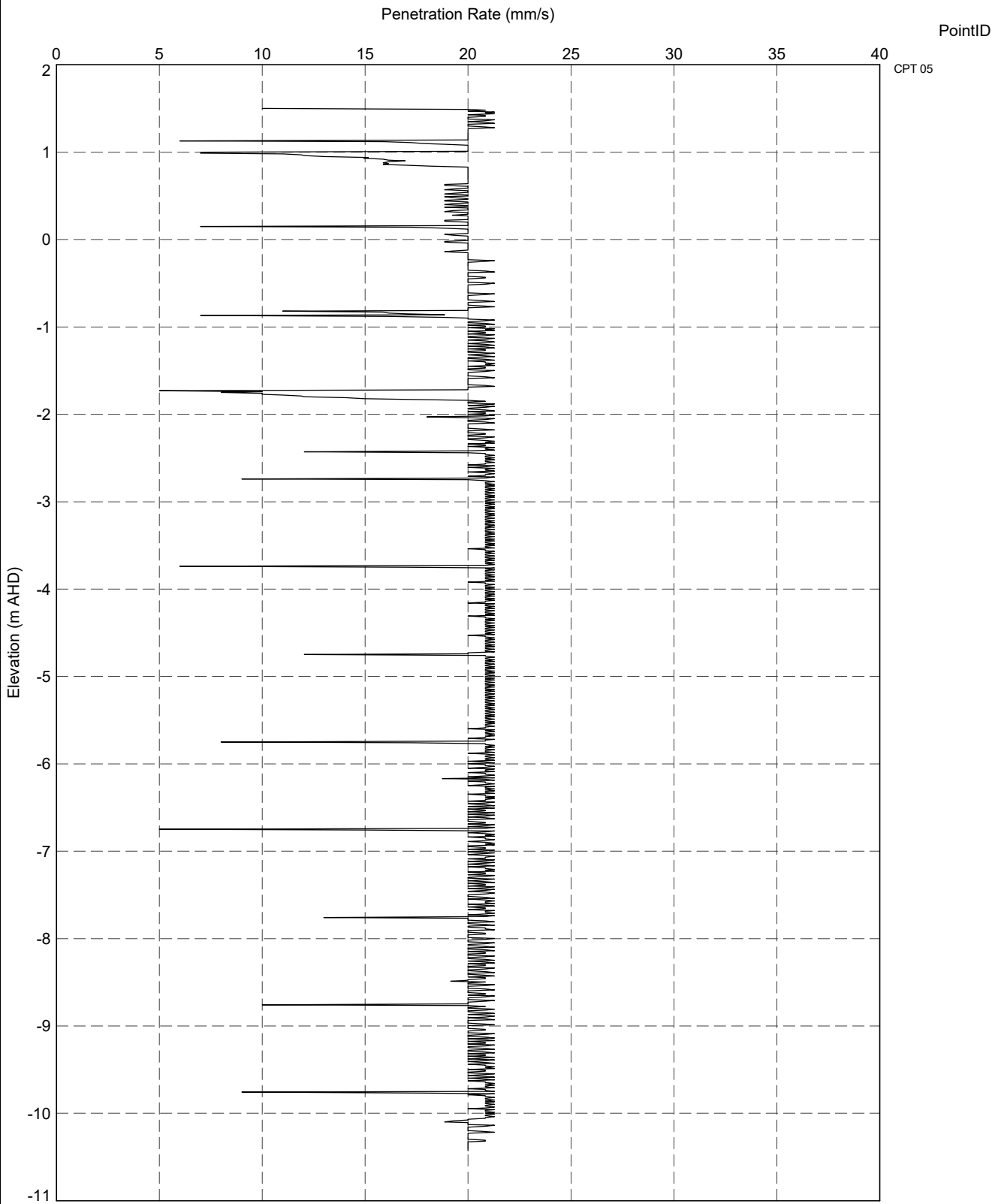
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	255

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT PENETRATION RATE DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 00:40 10.01.00.11 Datgel CPT Tool.gNT Add-In



 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Penetration Rate versus Depth	DRAWN <b>Datgel</b>	DATE 2/2/2021	
		CHECKED <b>Datgel</b>	DATE 2/2/2021	
		SCALE <b>Not To Scale</b>		A4
		PROJECT No <b>4.05.0</b>	FIGURE No <b>256</b>	

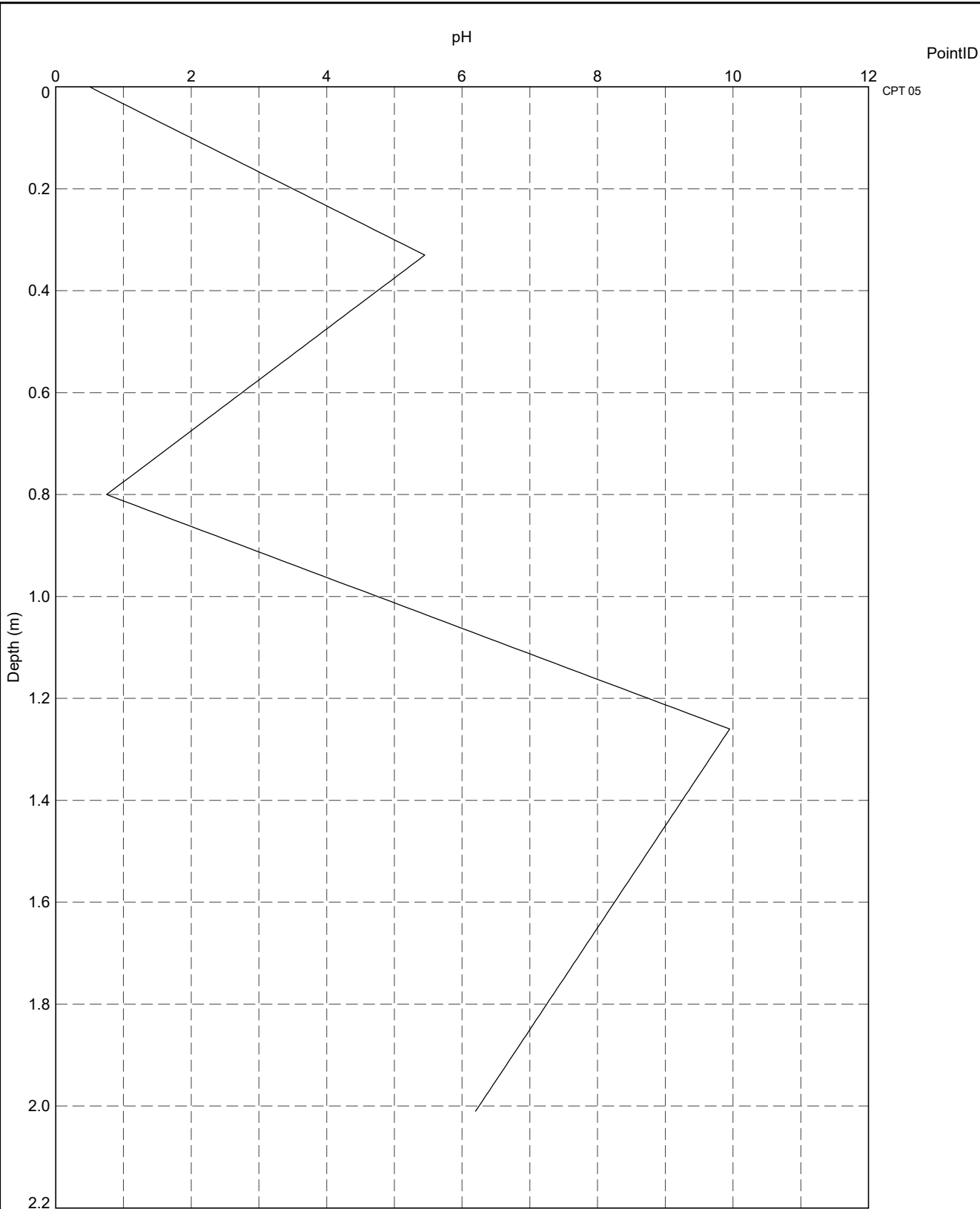
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT PENETRATION RATE RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:40 10:01.00.11 Datgel CPT Tool gINT Add-In



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Penetration Rate versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	257



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.PH.DEPH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 2/2/2021 00:40 10.01.00.11 Datgel CPT Tool.gINT Add-In

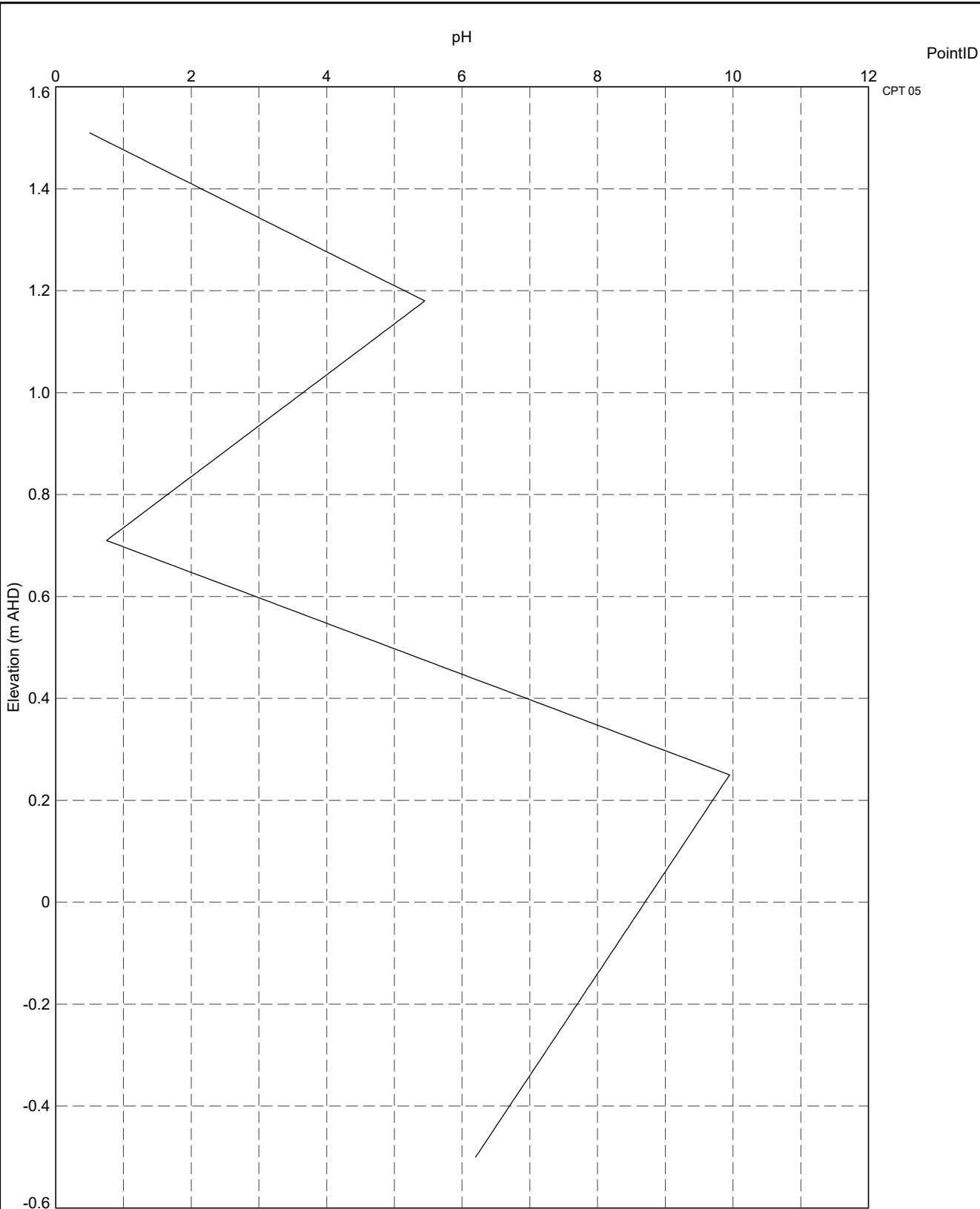


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil pH versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	258





CPT 05

PointID

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT PH RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:40 10.01.00.11 Datgel CPT Tool gINT Add-In



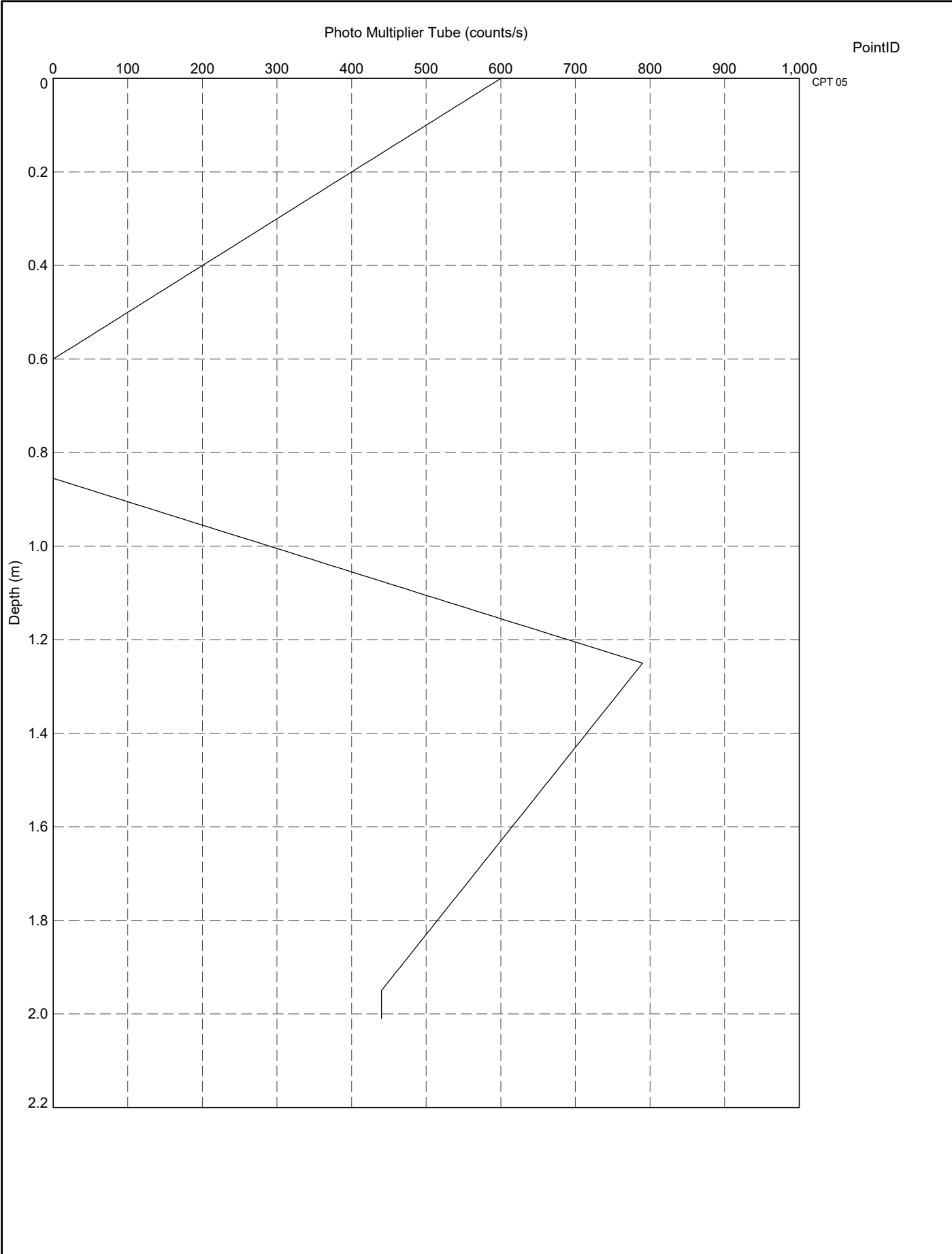
Geotechnics • Geoenvironment • Laboratory

TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Soil pH vs. Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	259

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.PHOTO.MUL.TIPLIER.TUBE.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/2/2021 00:40 10:01:00.11 Datgel.CPT.Tool.gINT.Add-In

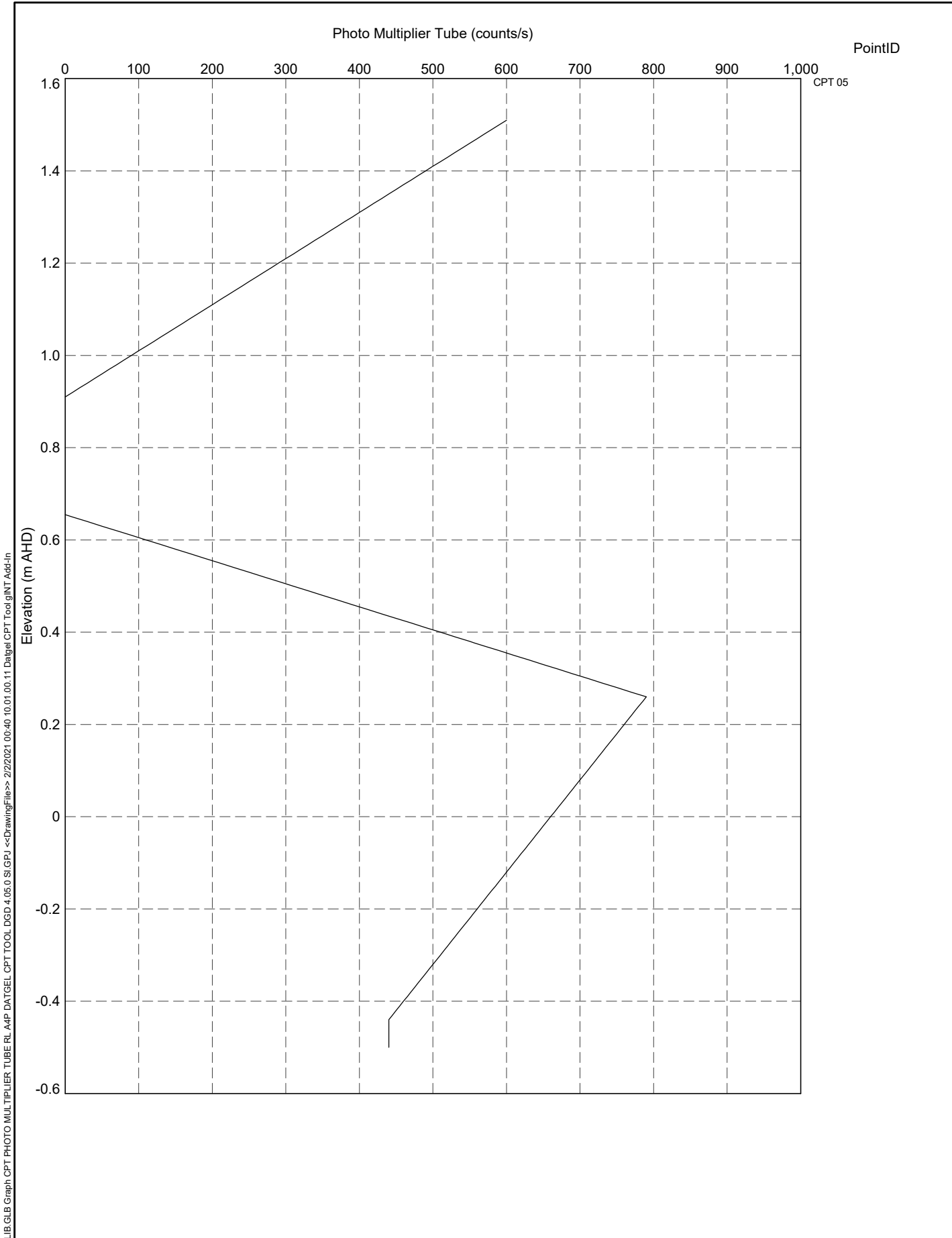


PointID  
CPT 05



TITLE  
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Photo Multiplier Tube versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	260



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.PHOTO.MULTIPLIER.TUBE.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 00:40:10.01.00.11 Datgel.CPT.Tool.gINT.Acid.in

PointID  
CPT 05

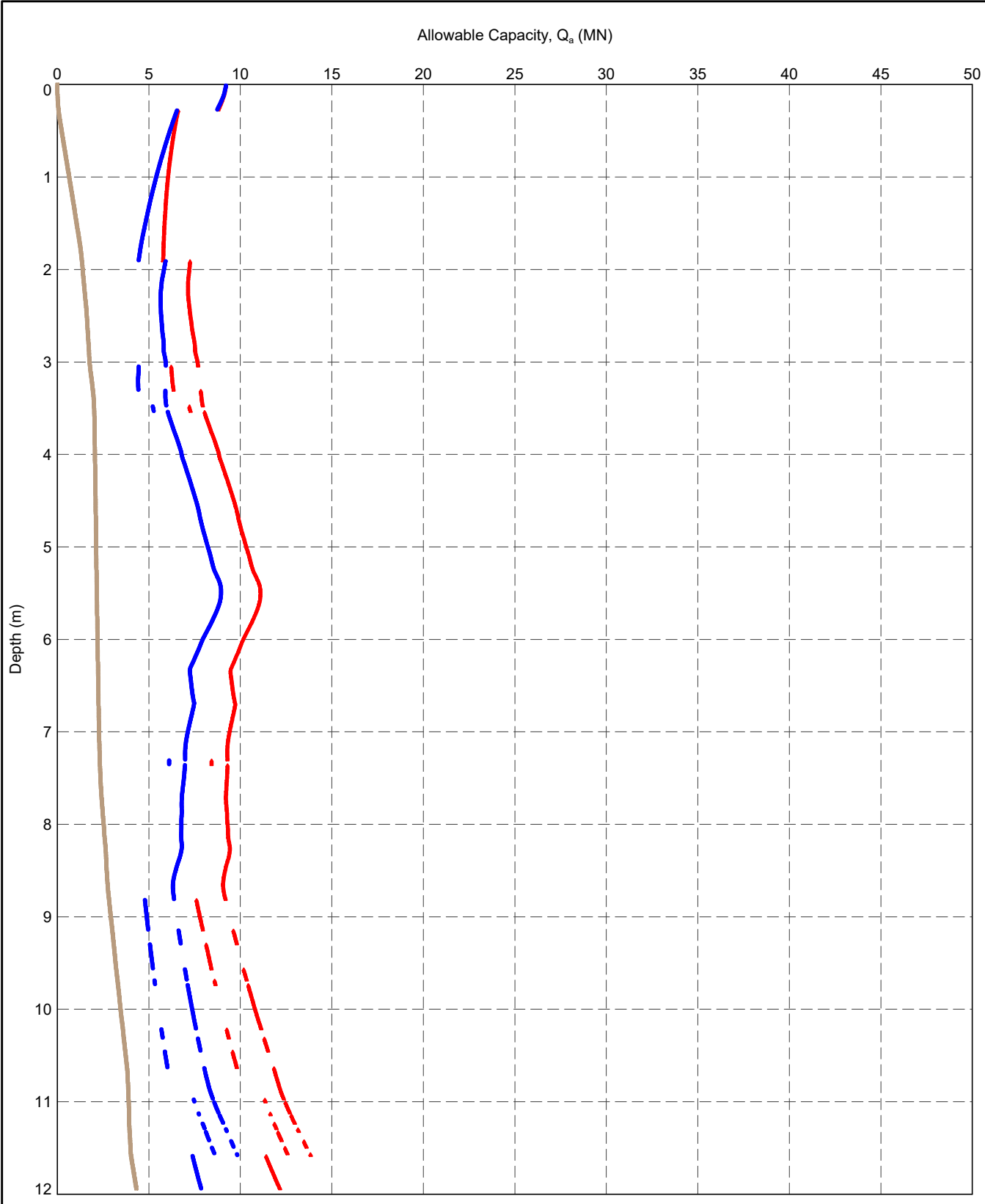


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Photo Multiplier Tube versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	261

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT PILE AXIAL ALLW CAPACITY DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 00:41 10:01:00.11 Datgel CPT Tool gINT Add-in



- Legend:**
- ▲ Allowable Capacity,  $Q_a$  (MN)
  - Allowable End Bearing,  $q_{ba}$  (MN)
  - ⊠ Allowable Side Friction,  $q_{fa}$  (MN)

Bustamante and Gianselli / LCPC (1982)

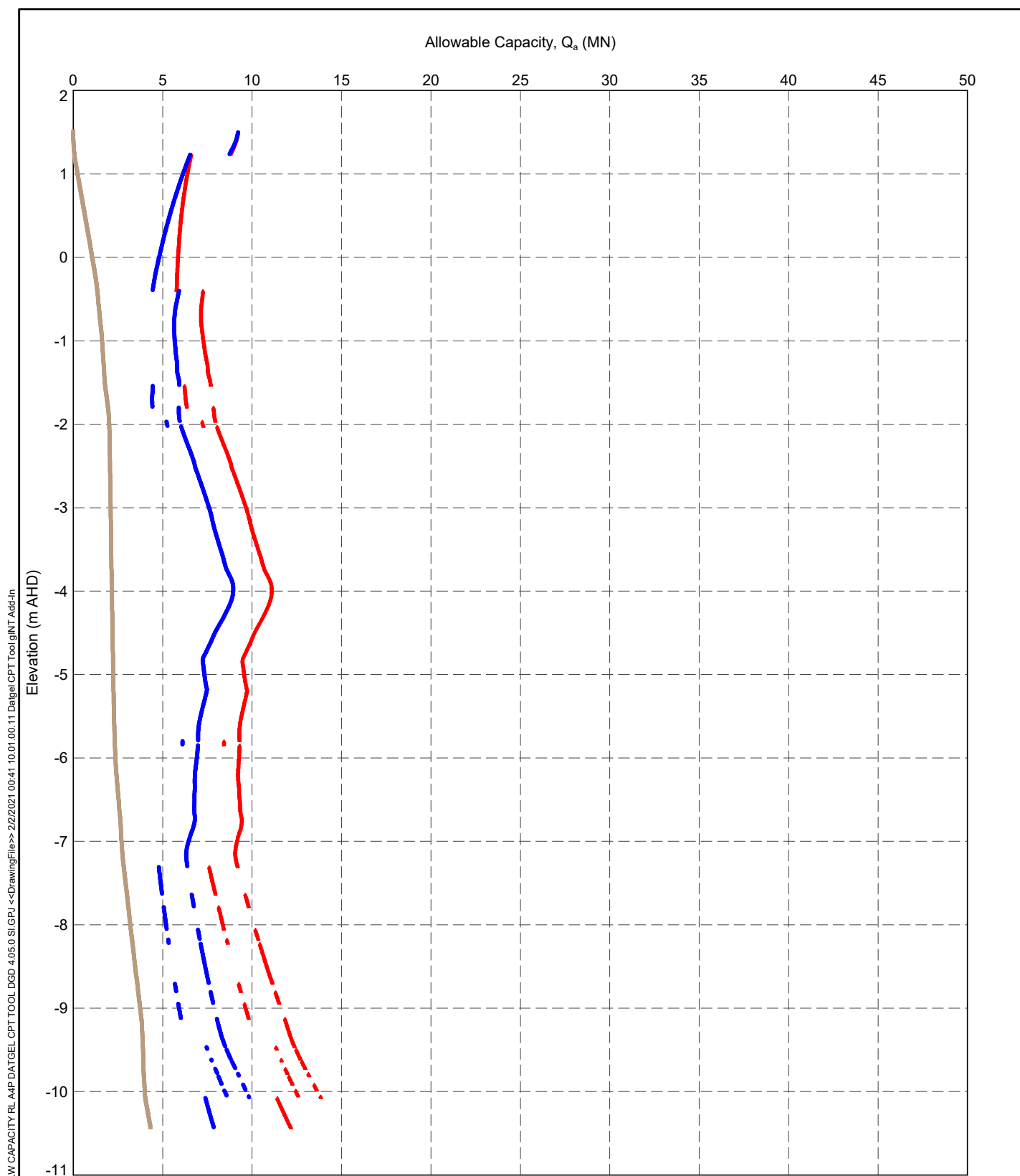


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Pile Axial Capacity versus Depth - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	262



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT PILE AXIAL ALLW CAPACITY RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 00:41 10:01:00.11 Datgel CPT Tool gINT Add-In

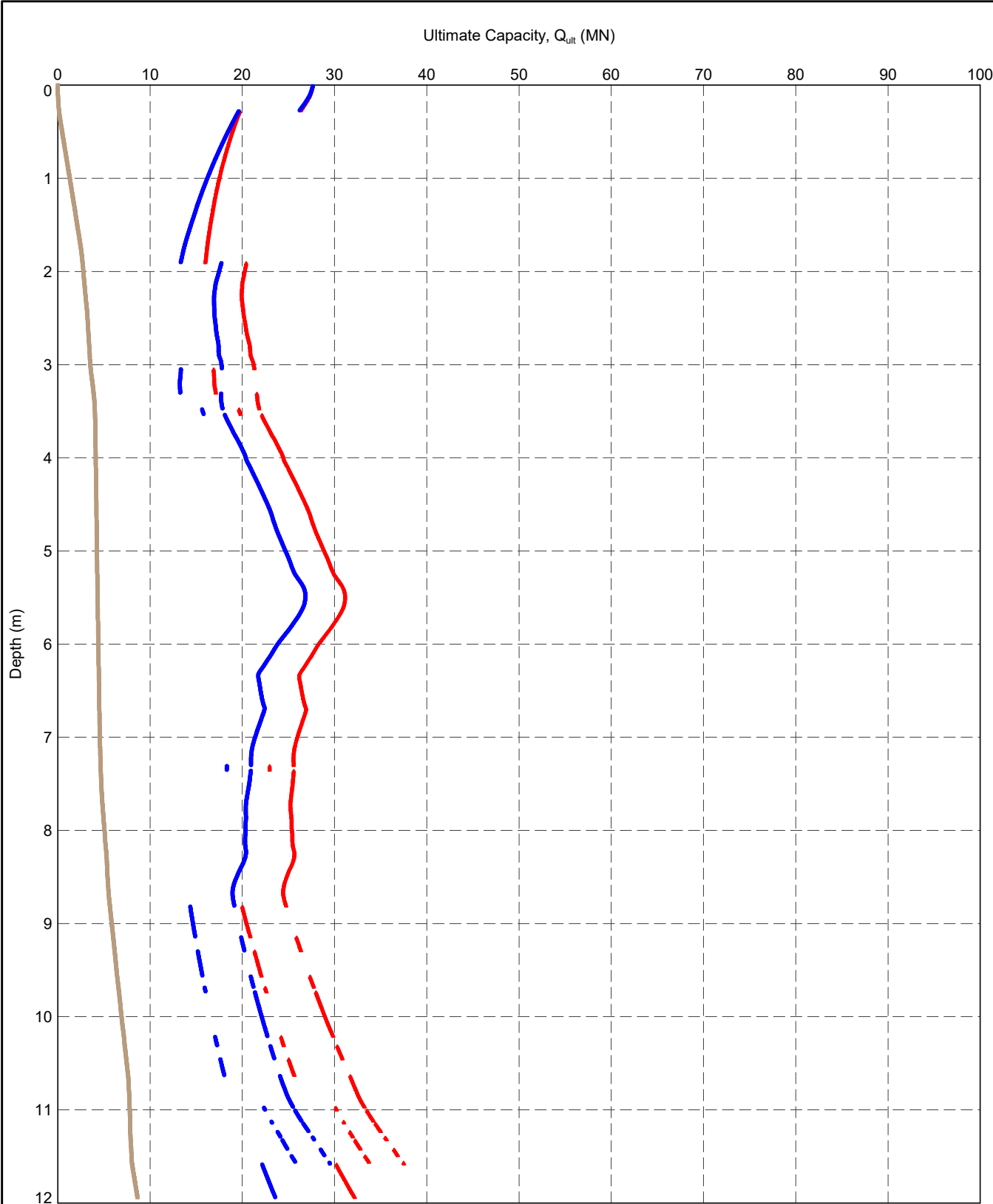


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Pile Axial Capacity versus Elevation - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	263

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph CPT PILE ULT AXIAL CAPACITY DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 00:42 10:01:00.11 Datgel CPT Tool gINT Add-In



**Legend:**  
▲ Ultimate Capacity,  $Q_{ult}$  (MN)  
● Ultimate End Bearing Capacity,  $Q_b$  (MN)  
■ Ultimate Side Friction Capacity,  $Q_r$  (MN)

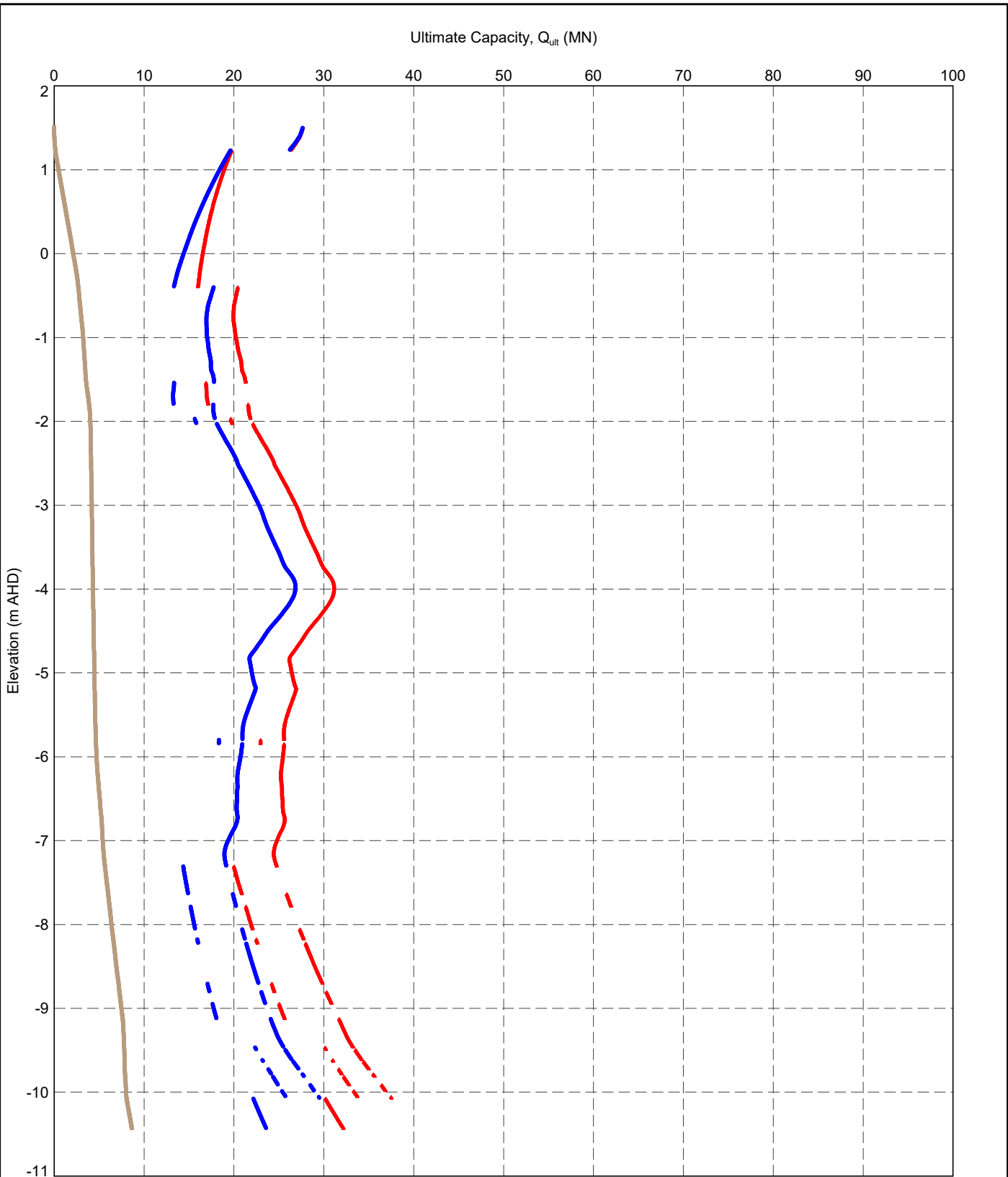
Bustamante and Gianselli / LCPC (1982)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Pile Axial Capacity versus Depth - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	264

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT PILE ULT AXIAL CAPACITY RL A4P DATGEL.CPT TOOL DGD 4.05.0 (SI) GPJ <<DrawingFile>> 2/2/2021 00:43:10.01.00.11 Datgel.CPT Tool glINT Acad-in



- Legend:
- ▲ Ultimate Capacity,  $Q_{ult}$  (MN)
  - Ultimate End Bearing Capacity,  $Q_b$  (MN)
  - ⊠ Ultimate Side Friction Capacity,  $Q_s$  (MN)

Bustamante and Gianselli / LCPC (1982)



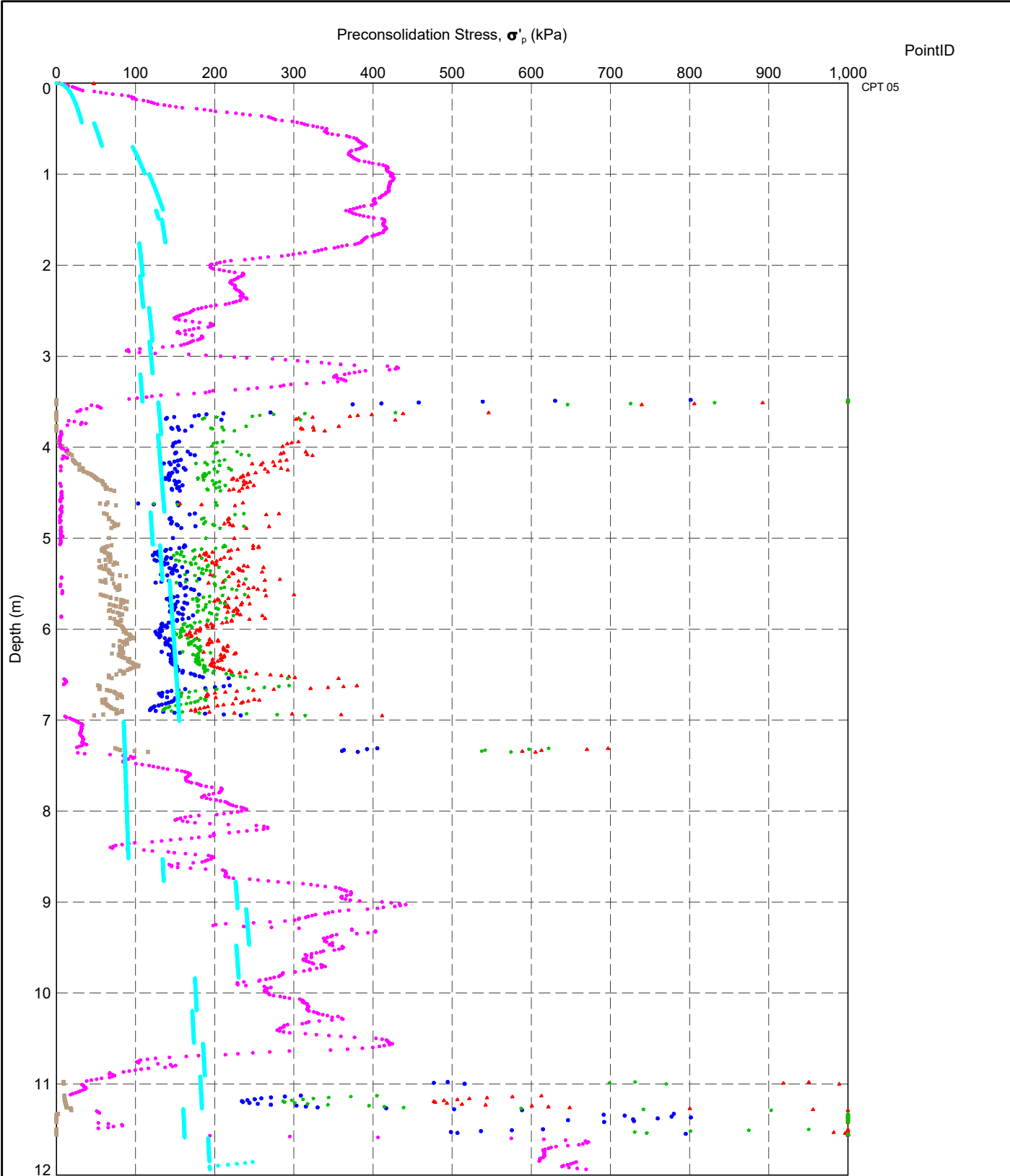
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

Pile Axial Capacity versus Elevation - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	265

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT PRECONSOLIDATION STRESS DEPTH.AMP.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 00:44 10.01.00.11 Datgel CPT Tool.gINT Add-in



- Method:
- Mayne (1995); Demers & Leroueil (2002)
  - Chen & Mayne (1996)
  - ▲ Mayne (2005)
  - ★ Robertson (2009)
  - Mayne (2005)
  - ⊕ Mayne (2007)



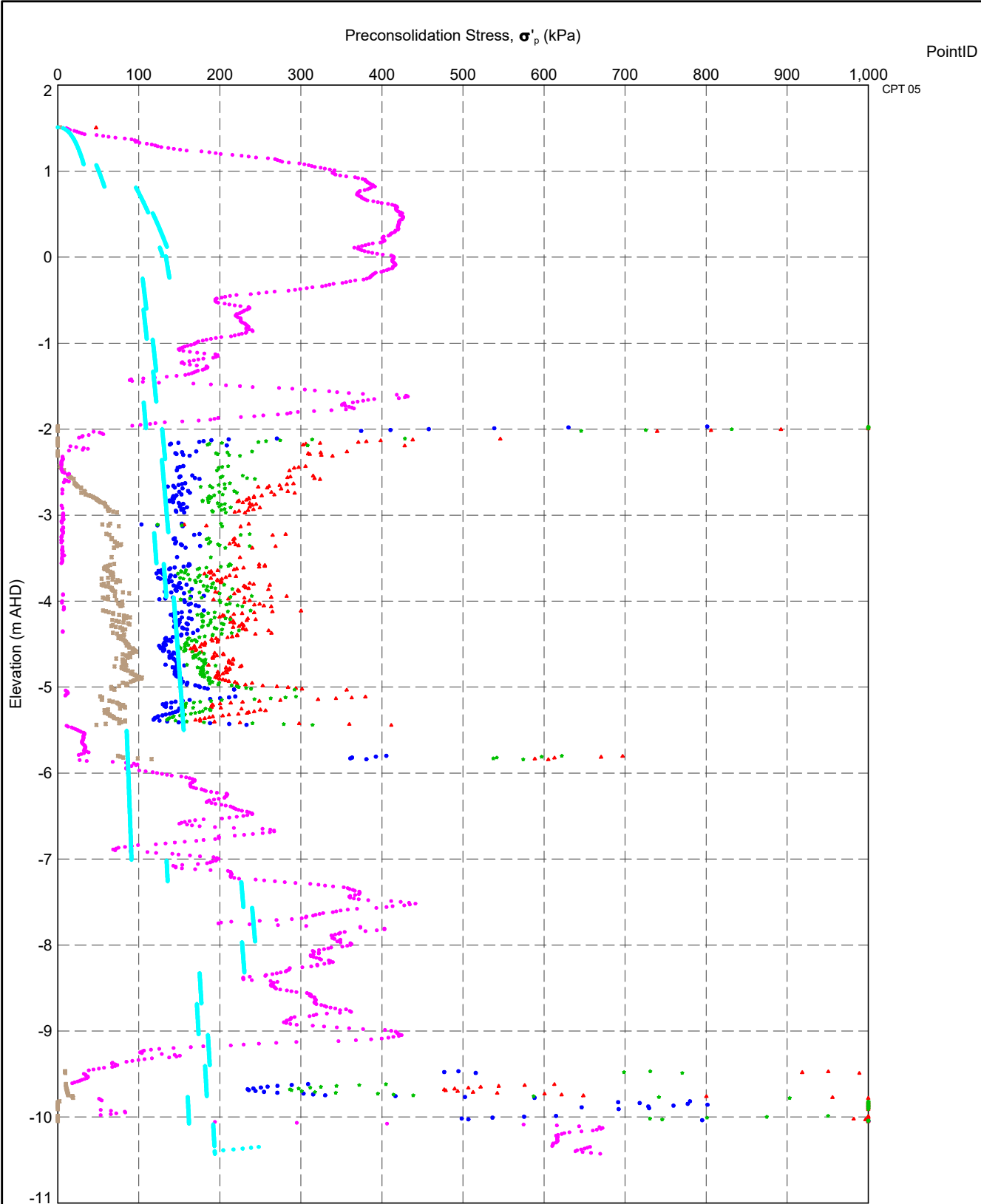
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Preconsolidation Stress versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	266



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT PRECONSOLIDATION STRESS.RL A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 00:45 10:01:00.11.Datgel.CPT.Tool.gINT.Add-In



PointID  
CPT 05

- Method:
- Mayne (1995); Demers & Leroueil (2002)
  - ⊠ Chen & Mayne (1996)
  - ▲ Mayne (2005)
  - ★ Robertson (2009)
  - Mayne (2005)
  - ⊕ Mayne (2007)

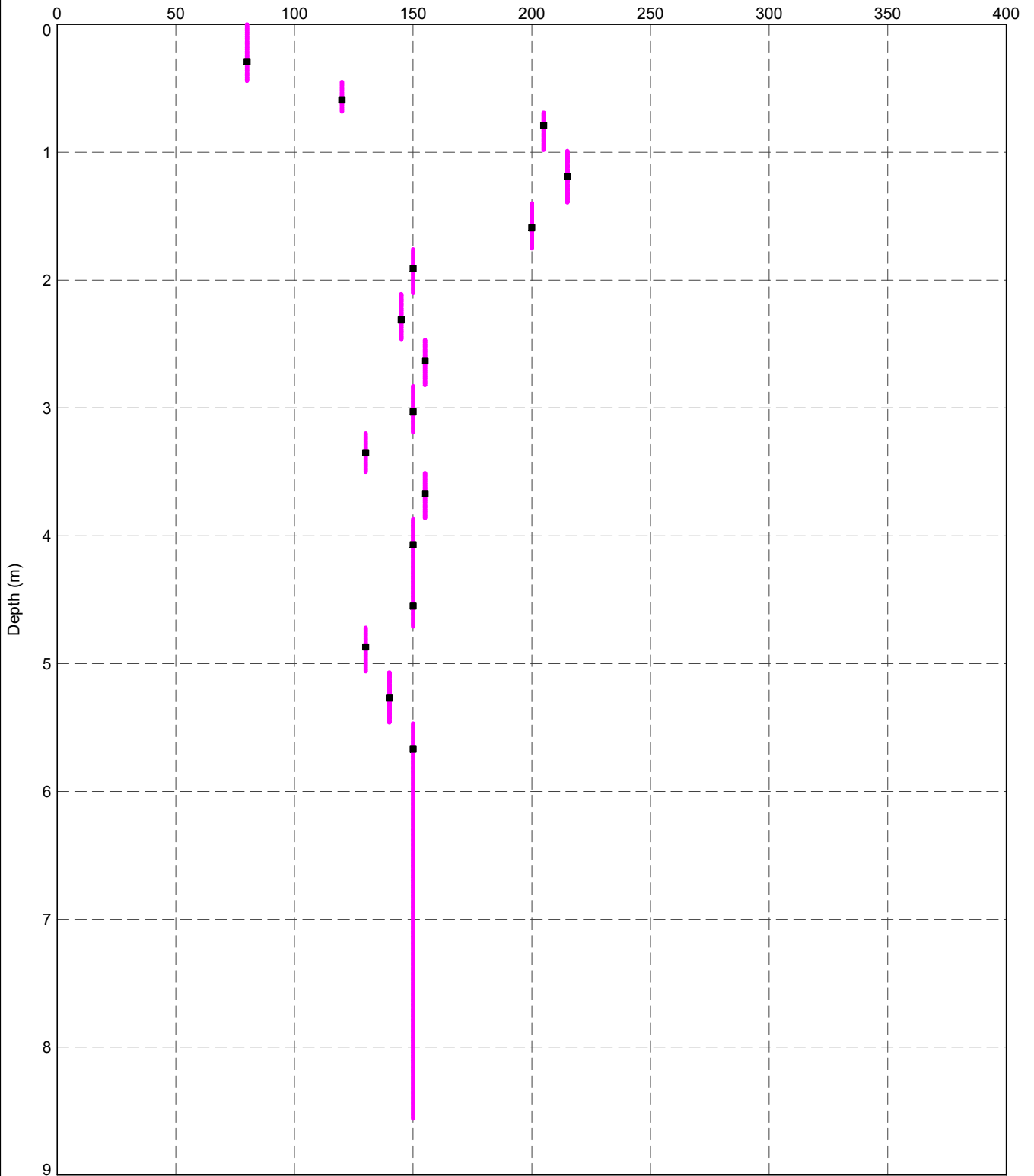


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Preconsolidation Stress versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	267

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT PRIMARY WAVE VELOCITY DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ <<DrawingFile>> 2/2/2021 00:45:10.01.00.11 Datgel CPT Tool gINT Adv-In



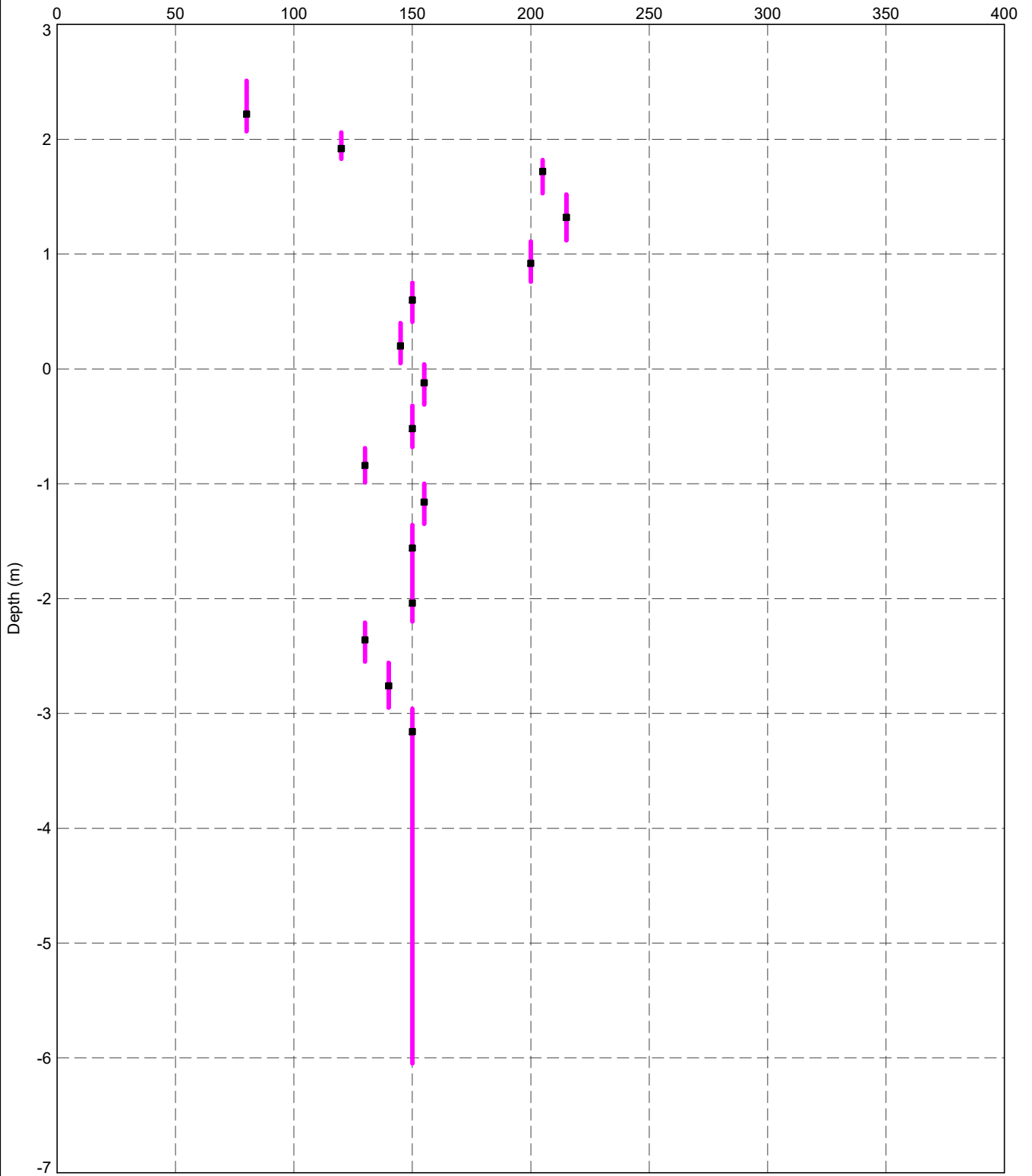
Legend:  
■ Primary Wave Velocity,  $V_p$  (m/s)  
● Extrapolated Primary Wave Velocity,  $V_p$  Extrapolated (m/s)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Primary Wave Velocity versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	268

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT PRIMARY WAVE VELOCITY RL\_A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 09:45 10.01.00.11 Datgel CPT Tool.gINT Add-In



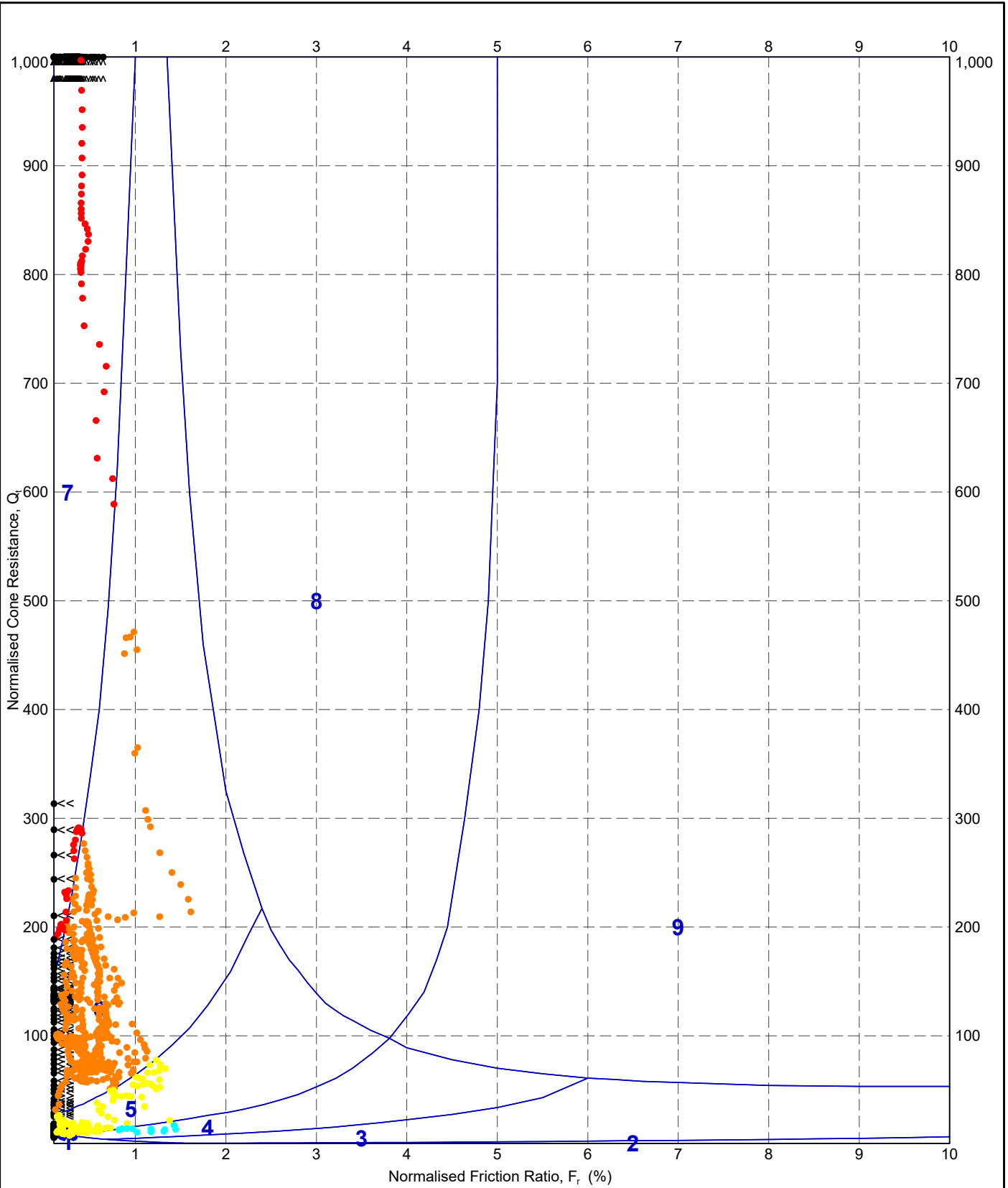
Legend:  
 ■ Primary Wave Velocity,  $V_p$  (m/s)  
 ● Extrapolated Primary Wave Velocity,  $V_p$  Extrapolated (m/s)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Primary Wave Velocity versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	269

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT PROJECT SBT:LINEAR-LINEAR A4P DATGEL CPT TOOL DGD 4.05.0 SI:GPJ <<DrawingFile>> 2/2/2021 00:54 10.01.00.11 Datgel CPT Tool (INT Add-in



METHOD: Robertson 1990

- 1 - Sensitive, fine grained
- 4 - Silt mixtures - clayey silt to silty clay
- 7 - Gravely sand to sand
- 2 - Organic soil - peats
- 5 - Sand mixtures - silty sand to sandy silt
- 8 - Very stiff sand to clayey sand
- 3 - Clays - clay to silty clay
- 6 - Sands - clean sand to silty sand
- 9 - Very stiff fine grained

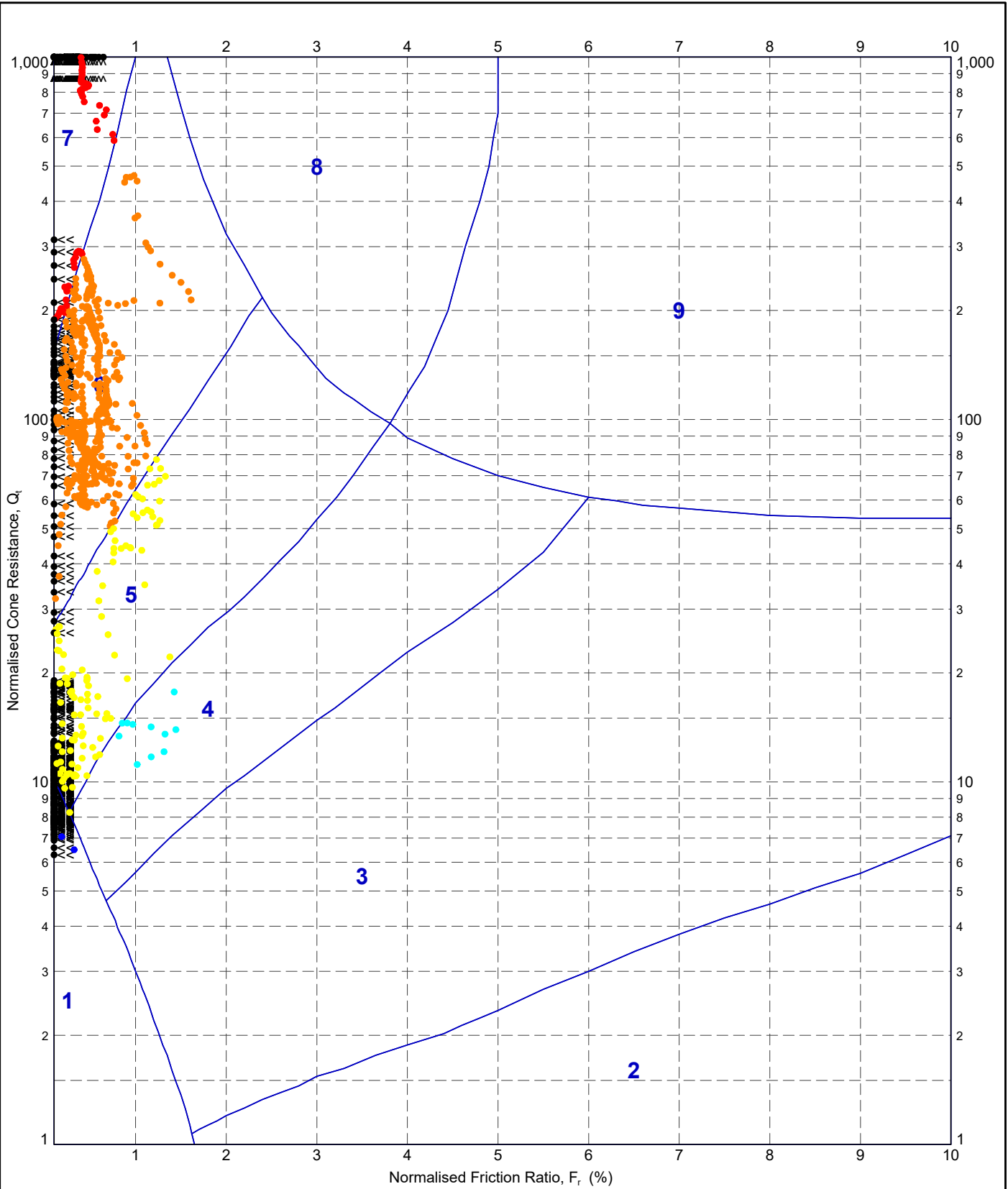


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990  $F_r$  vs.  $Q_t$  - CPT 06

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	270

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT PROJECT SBT LINEAR-LOG A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:03 10.01.00.11 Datgel CPT Tool glNT Add-in



**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - clay to silty clay
- 4 - Silt mixtures - clayey silt to silty clay
- 5 - Sand mixtures - silty sand to sandy silt
- 6 - Sands - clean sand to silty sand
- 7 - Gravelly sand to sand
- 8 - Very stiff sand to clayey sand
- 9 - Very stiff fine grained

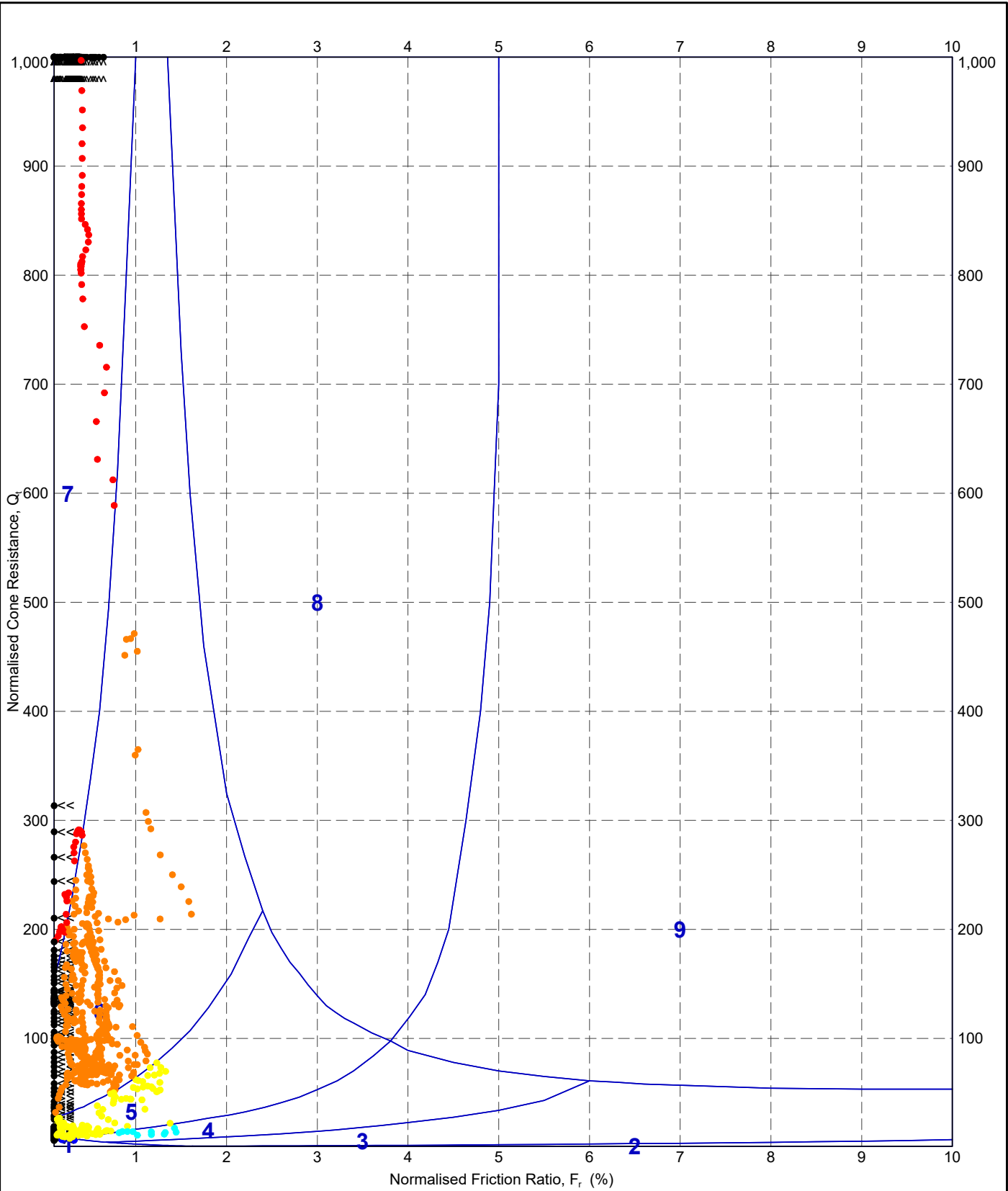


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $F_r$  vs.  $Q_t$  - CPT 06

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	271

DATGEL CPT TOOL DGD 4.05.0 LIB:GLOB Graph.CPT PROJECT SBT:LOG-LINEAR.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:13 10.01.00.11 Datgel CPT Tool gINT Add-in



METHOD: Robertson 1990

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - clay to silty clay
- 4 - Silt mixtures - clayey silt to silty clay
- 5 - Sand mixtures - silty sand to sandy silt
- 6 - Sands - clean sand to silty sand
- 7 - Gravelly sand to sand
- 8 - Very stiff sand to clayey sand
- 9 - Very stiff fine grained

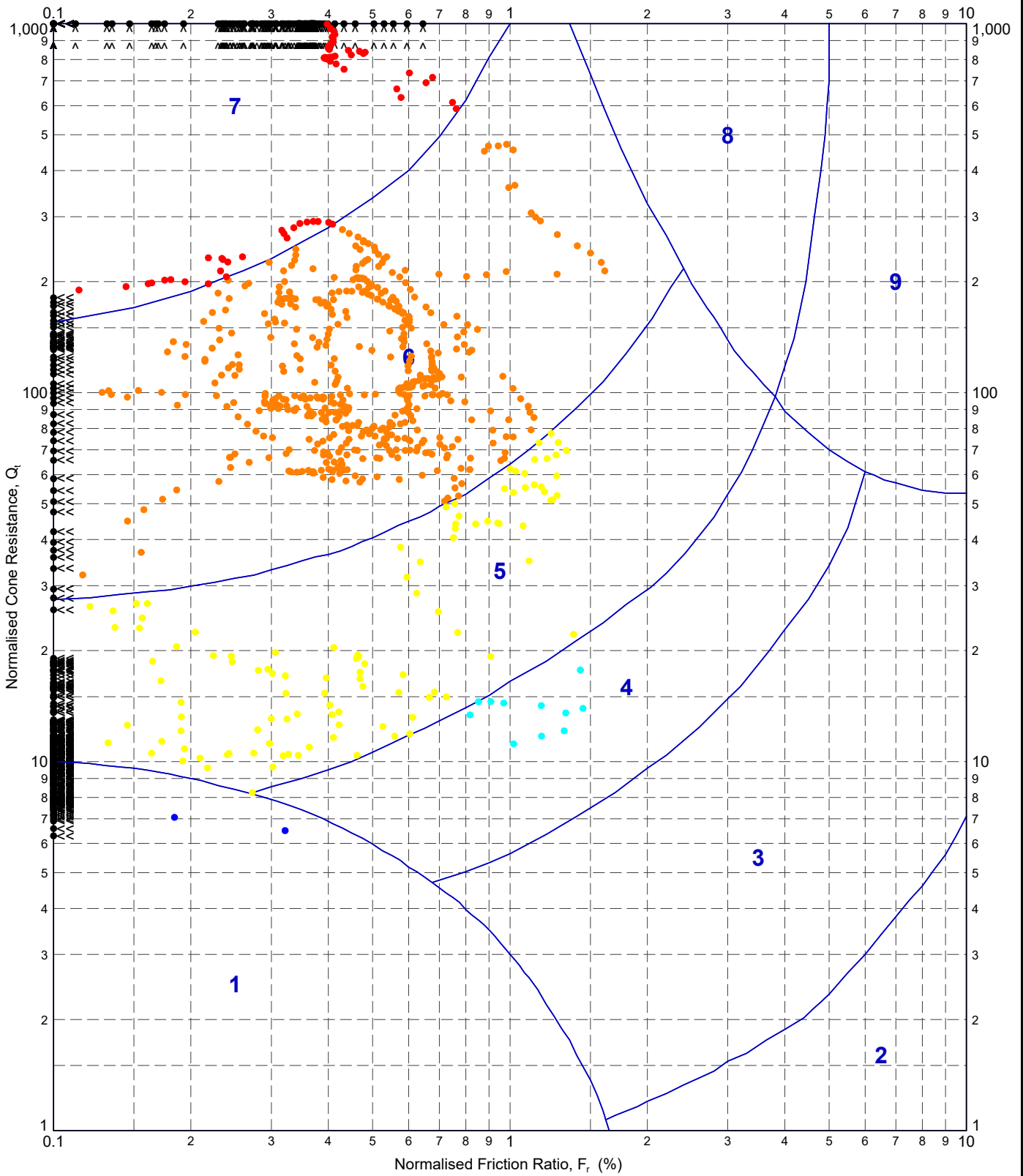


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990  $F_r$  vs.  $Q_t$  - CPT 06

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	272

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT PROJECT SBT LOG-LOG A4P DATGEL CPT TOOL DGD 4.05.0(SI)GPJ <<DrawingFile>> 2/2/2021 01:22:10.01.00.11 Datgel CPT Tool gINT Add-In



METHOD: Robertson 1990

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - clay to silty clay
- 4 - Silt mixtures - clayey silt to silty clay
- 5 - Sand mixtures - silty sand to sandy silt
- 6 - Sands - clean sand to silty sand
- 7 - Gravely sand to sand
- 8 - Very stiff sand to clayey sand
- 9 - Very stiff fine grained



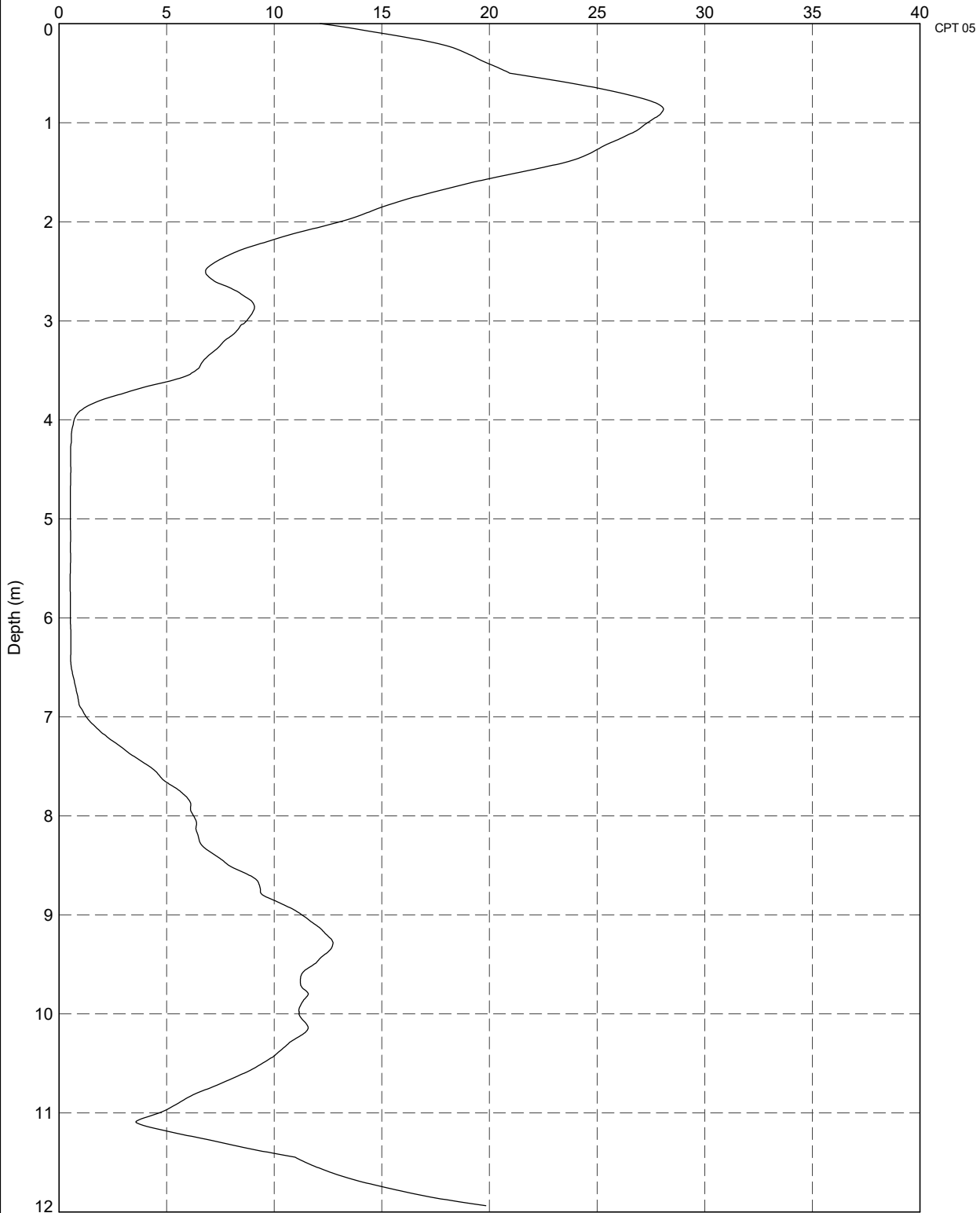
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $F_r$  vs.  $Q_t$  - CPT 06

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	273

Cone Resistance Moving Average,  $q_c$  Moving Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT QC MOVING AVG DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:22 10.01.00.11 Datgel.CPT Tool glINT Acid-In



TITLE

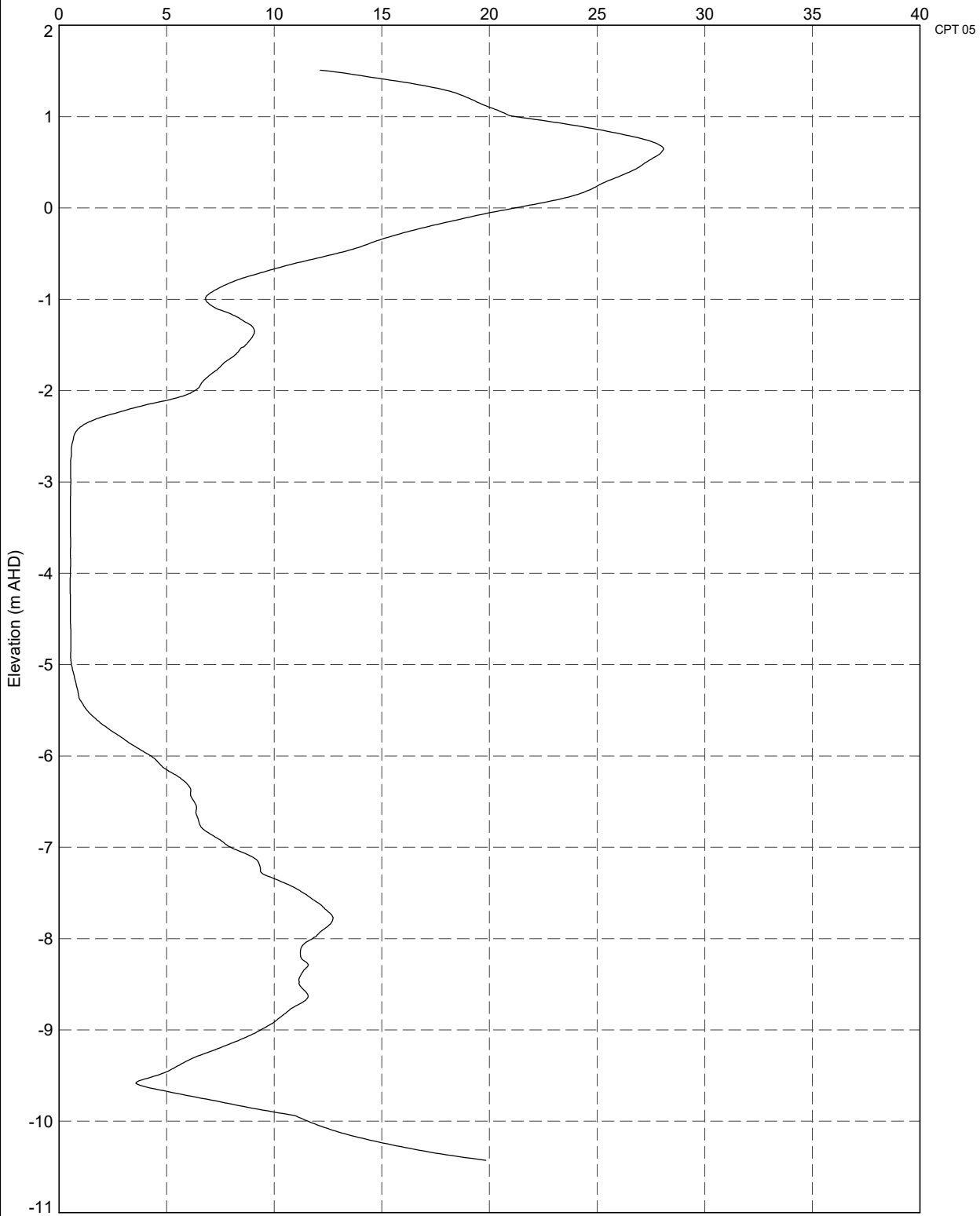
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance Moving Avg. vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	274



Cone Resistance Moving Average,  $q_c$  Moving Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT QC MOVING AVG RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:22 10.01.00.11 Datgel CPT Tool.gINT Add-In



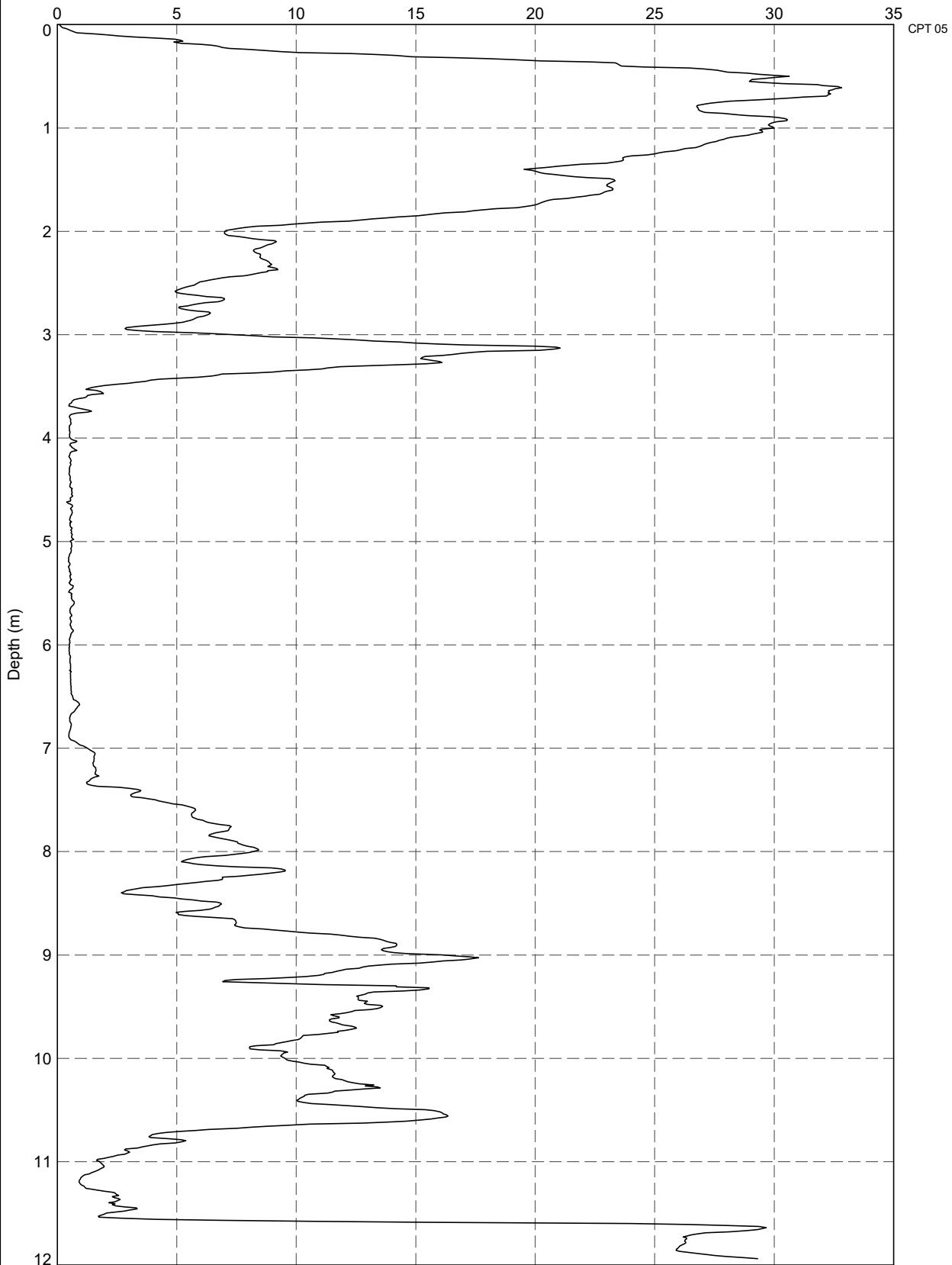
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance Moving Avg. vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	275

Cone Resistance,  $q_c$  (MPa) or Corrected Cone Resistance,  $q_t$  (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT QC QT DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ <-DrawingFile> 2/2/2021 01:22:10.01.00.11 Datgel CPT Tool g\INT Acad-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	276

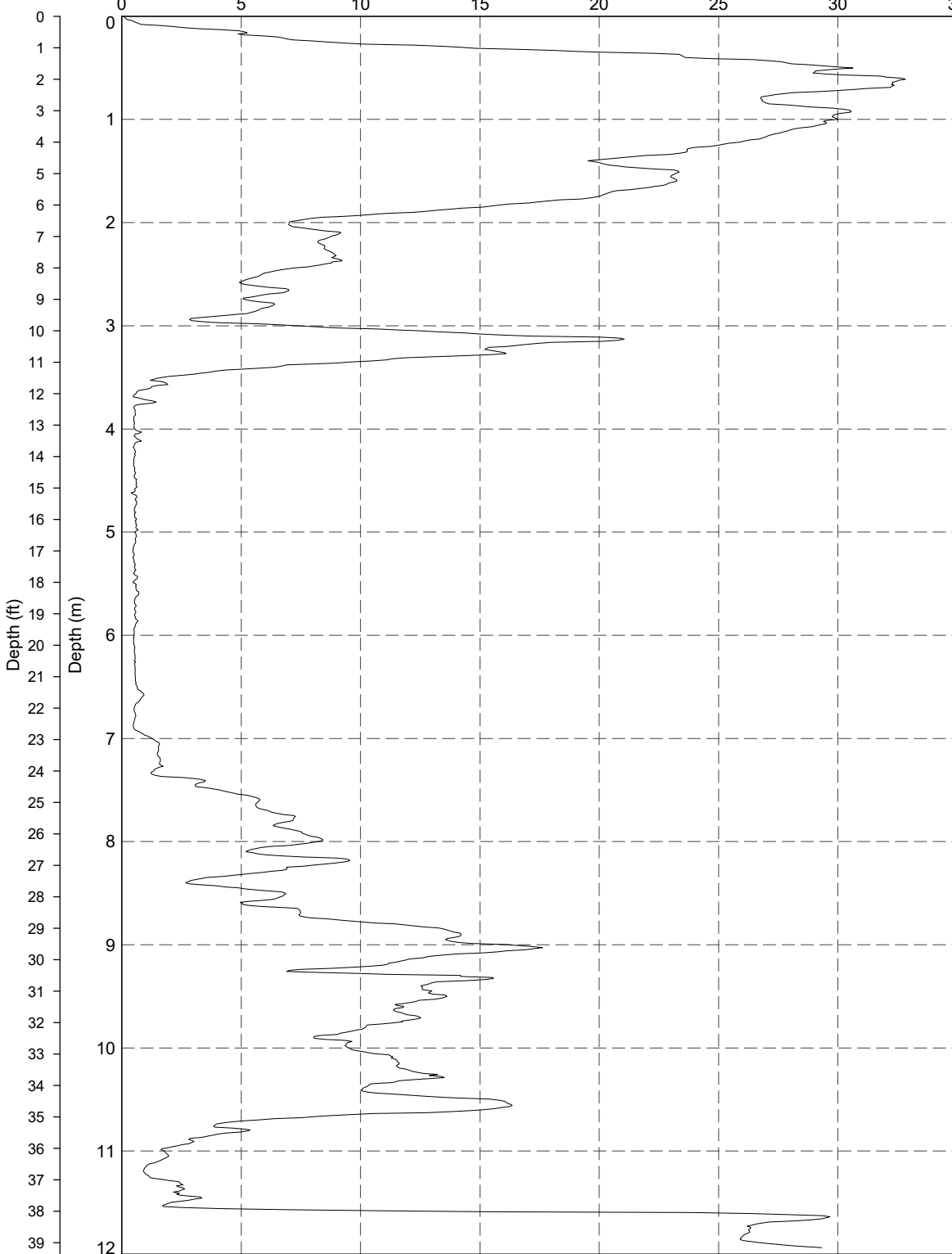
Cone Resistance,  $q_c$  (psi) or Corrected Cone Resistance,  $q_t$  (psi)

0 1000 2000 3000 4000 5000

Cone Resistance,  $q_c$  (MPa) or Corrected Cone Resistance,  $q_t$  (MPa)

PointID

CPT 05



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT QC QT DEPTH FT PSI A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 01:25 10:01:00.11 Datgel CPT Tool gINT Add-In



Geotechnics • Geoenvironment • Laboratory

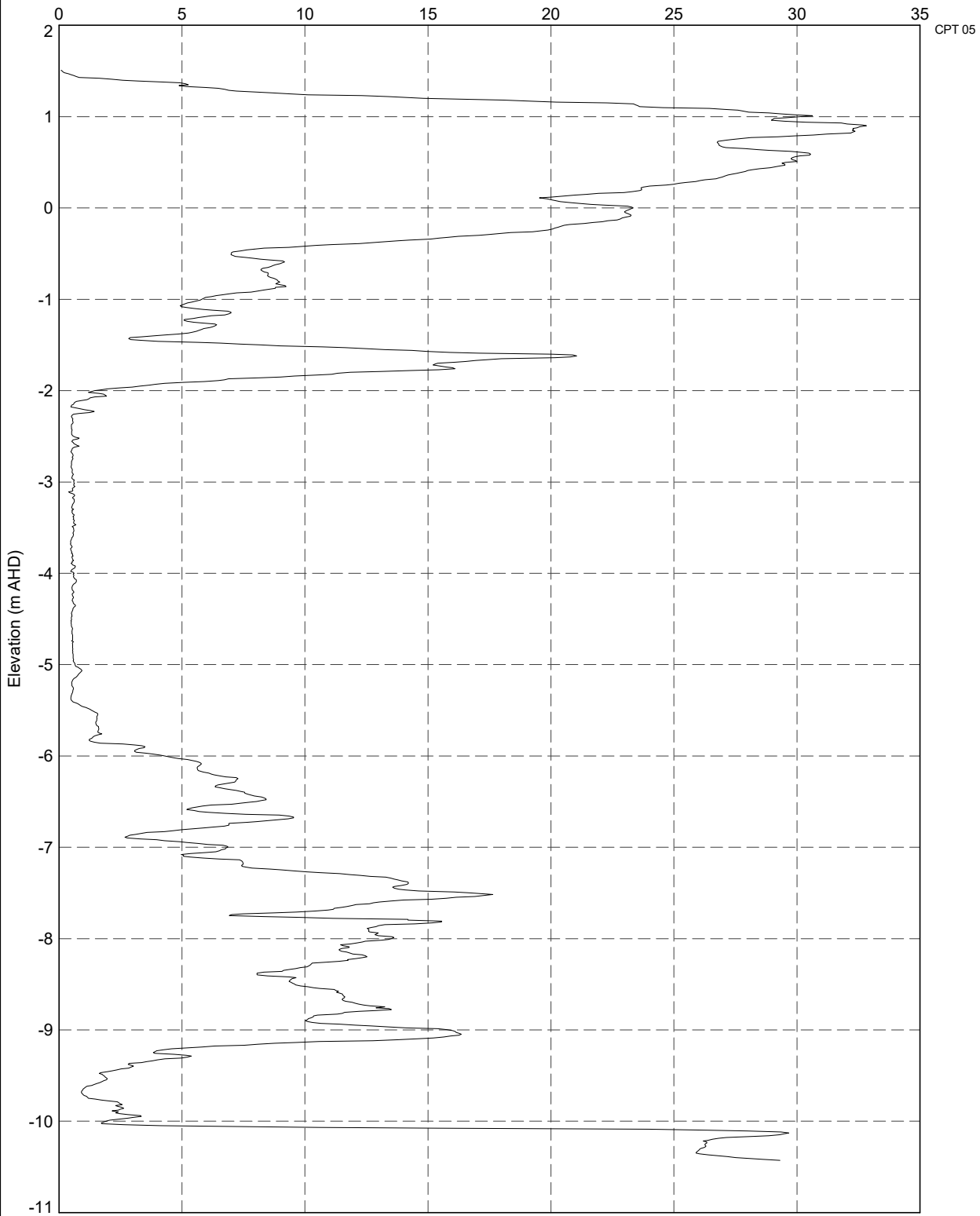
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	277

Cone Resistance,  $q_c$  (MPa) or Corrected Cone Resistance,  $q_t$  (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT QC QT RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:25 10.01.00.11 Datgel CPT Tool gINT Add-In



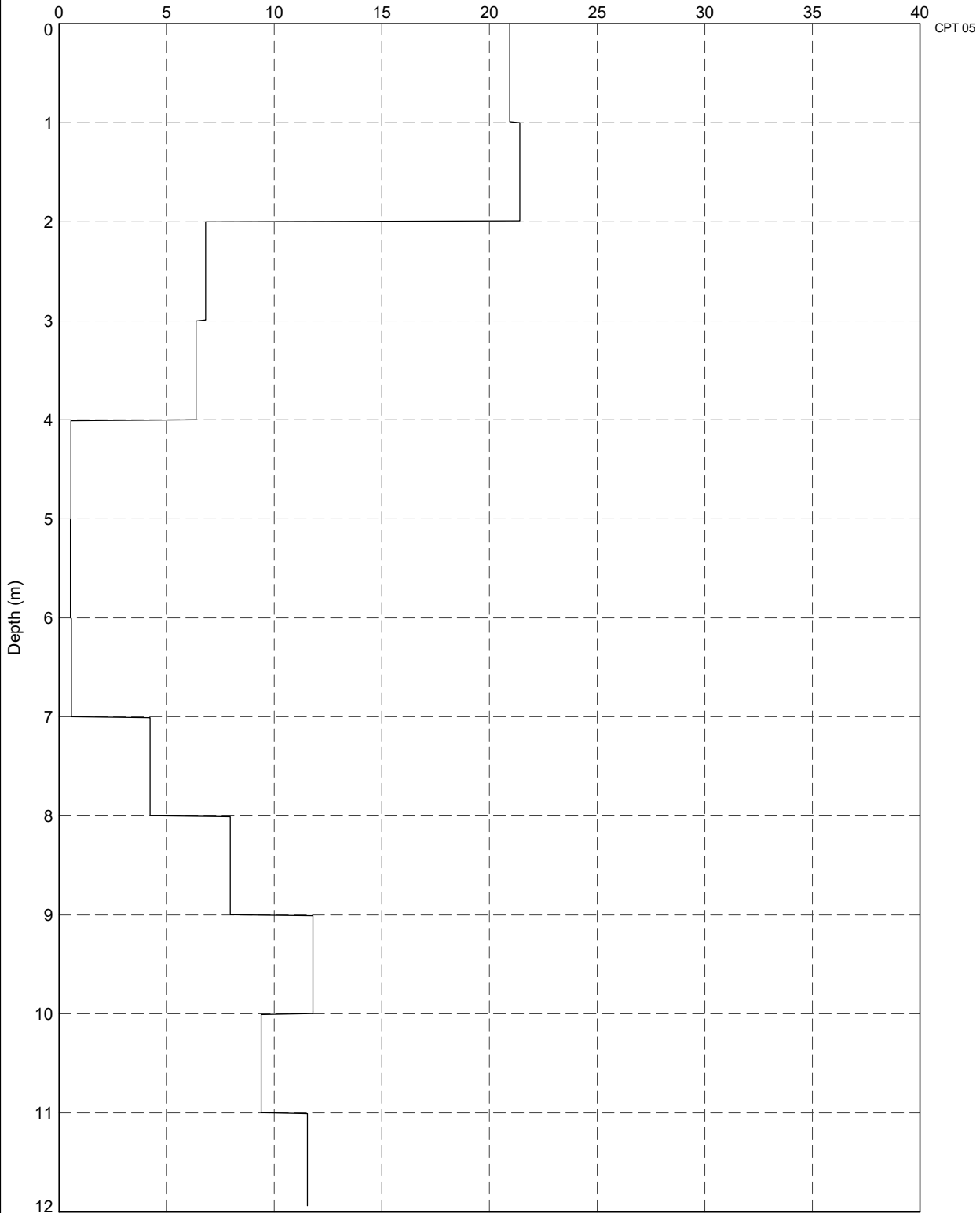
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Cone Resistance versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	278

Cone Resistance Stepped Average,  $q_c$  Stepped Avg. (MPa)

PointID



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.QC STEPPED AVG DEPTH A4P.DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:25 10.01.00.11 Datgel CPT Tool.gINT.Add-In

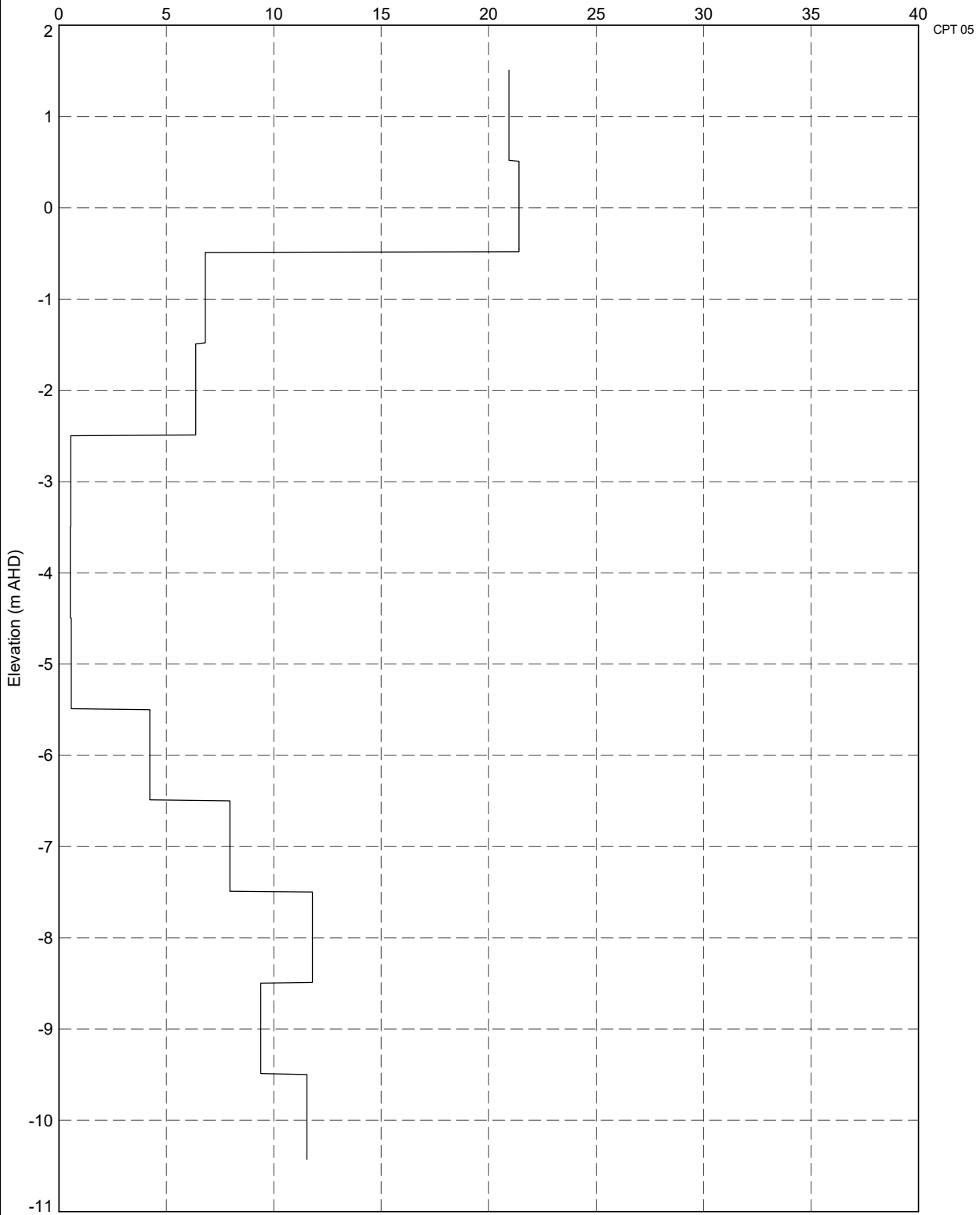


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance Stepped Avg. vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	279

Cone Resistance Stepped Average,  $q_c$  Stepped Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT QC STEPPED AVG RL\_A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:25 10.01.00.11 Datgel CPT Tool gINT Add-In



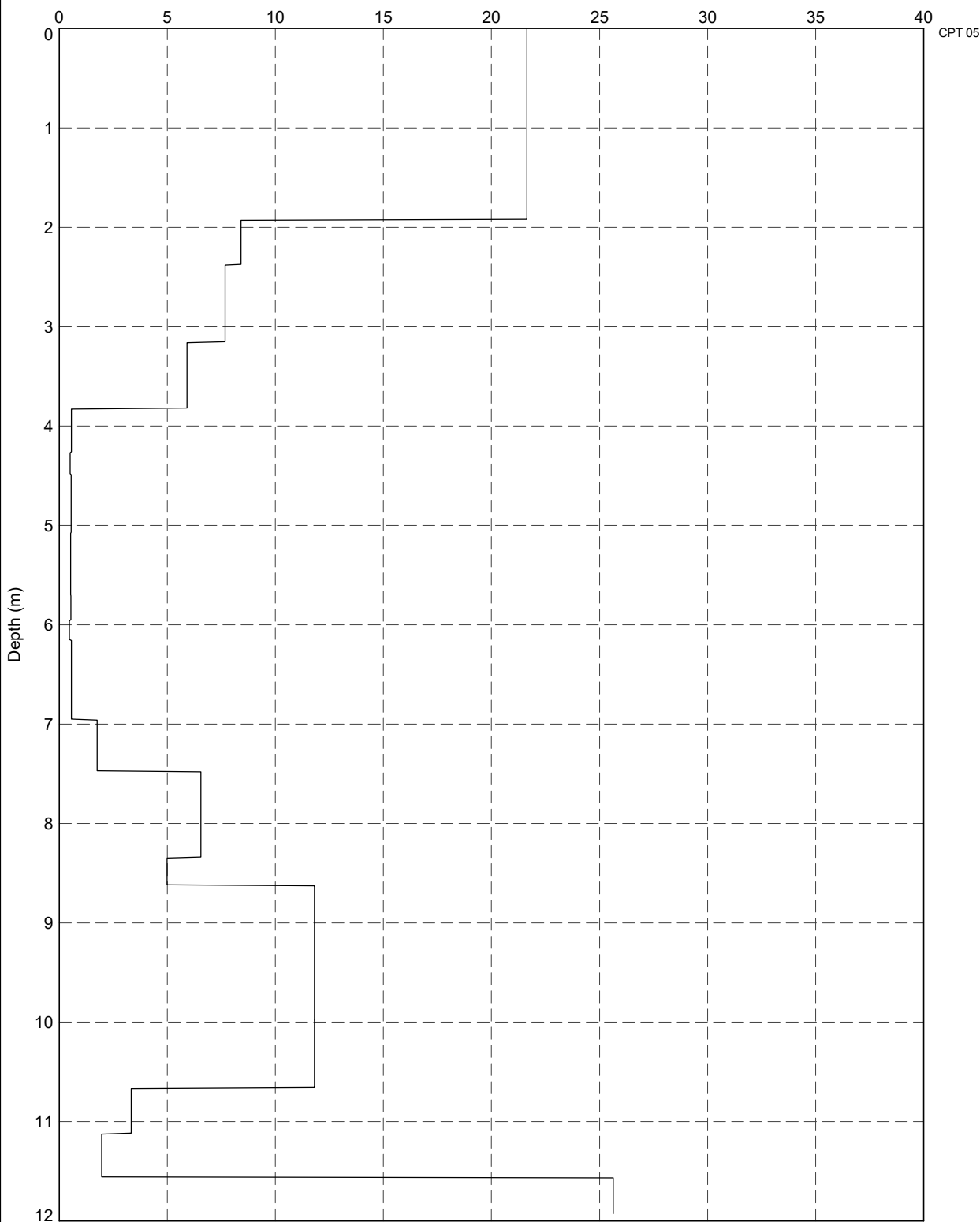
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance Stepped Avg. vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	280

Cone Resistance Strata Average,  $q_c$  Strata Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT QC STRATA.AVG DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0(SI)(GPJ <<DrawingFile>> 2/2/2021 01:25:10.01.00:11 Datgel.CPT Tool glINT Add-In



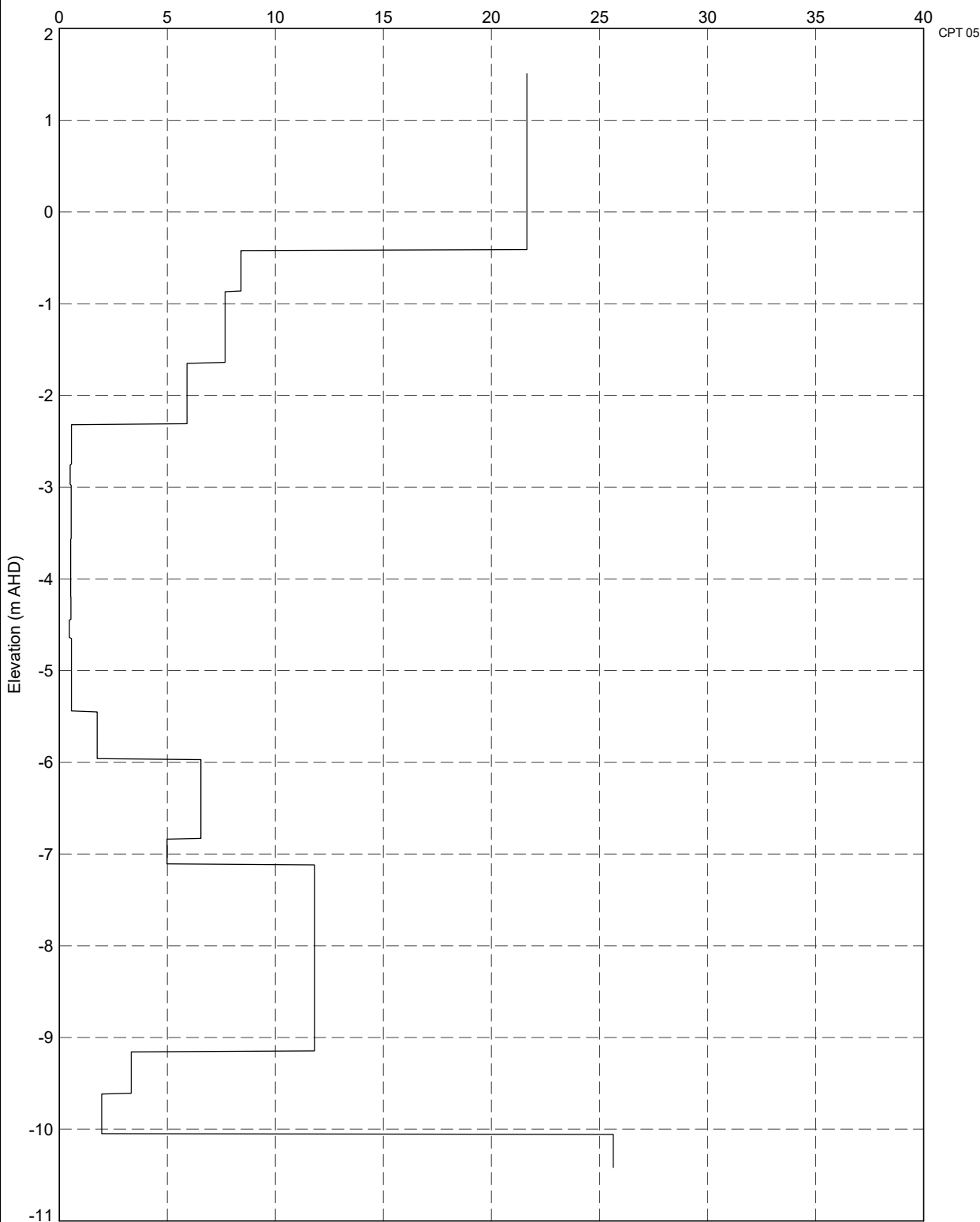
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance Strata Avg. vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	281

Cone Resistance Strata Average,  $q_c$  Strata Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT QC STRATA.AVG RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:26 10.01.00.11 Datgel CPT Tool.gINT Add-In



Geotechnics • Geoenvironment • Laboratory

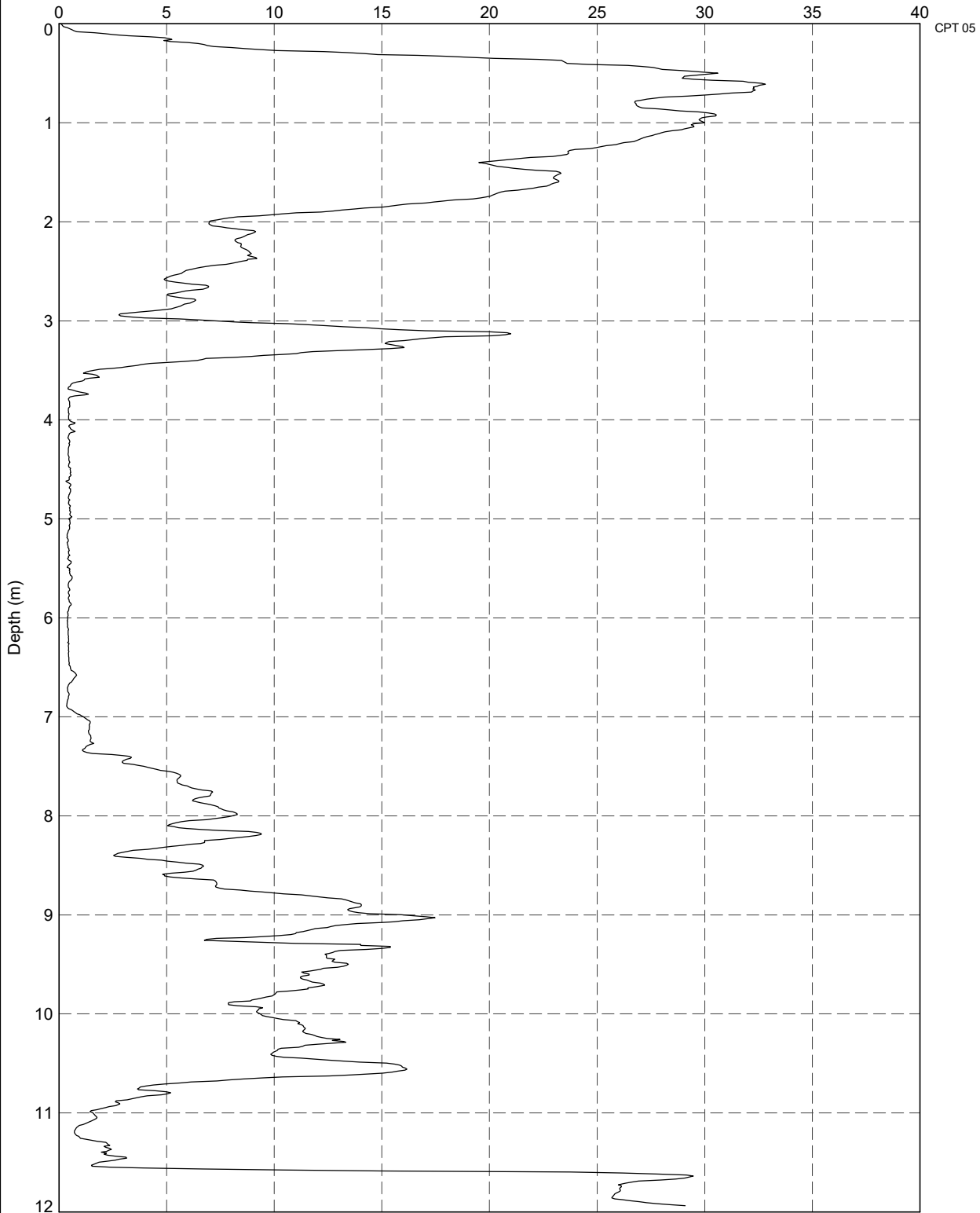
TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Cone Resistance Strata Avg. vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	282



Net Cone Resistance,  $q_{net}$  (MPa)

PointID



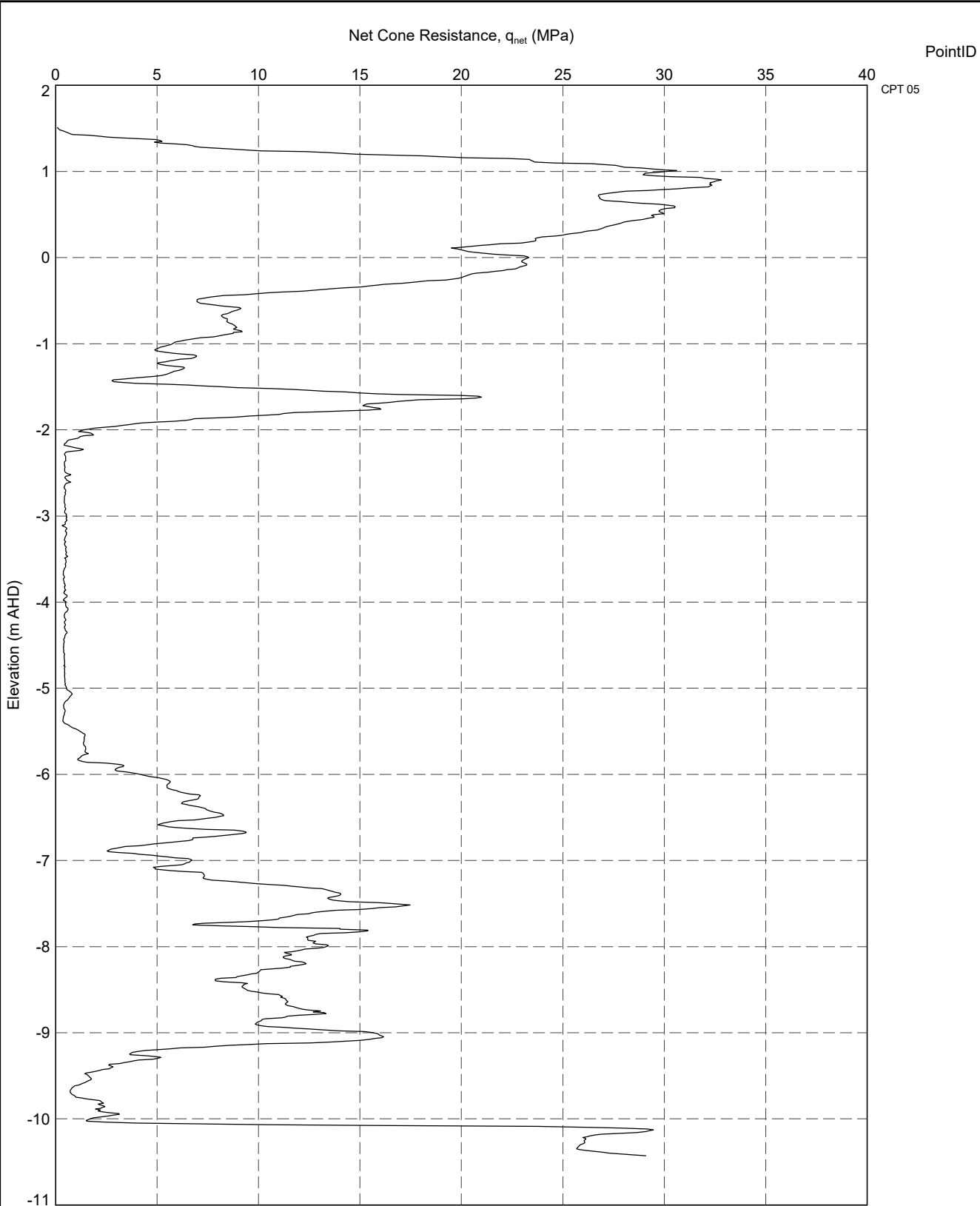
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.ON DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:26 10:01:00.11 Datgel CPT Tool gINT Add-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Net Cone Resistance versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	283



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT ON RL A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:26 10:01.00.11 Datgel.CPT Tool gINT Add-In



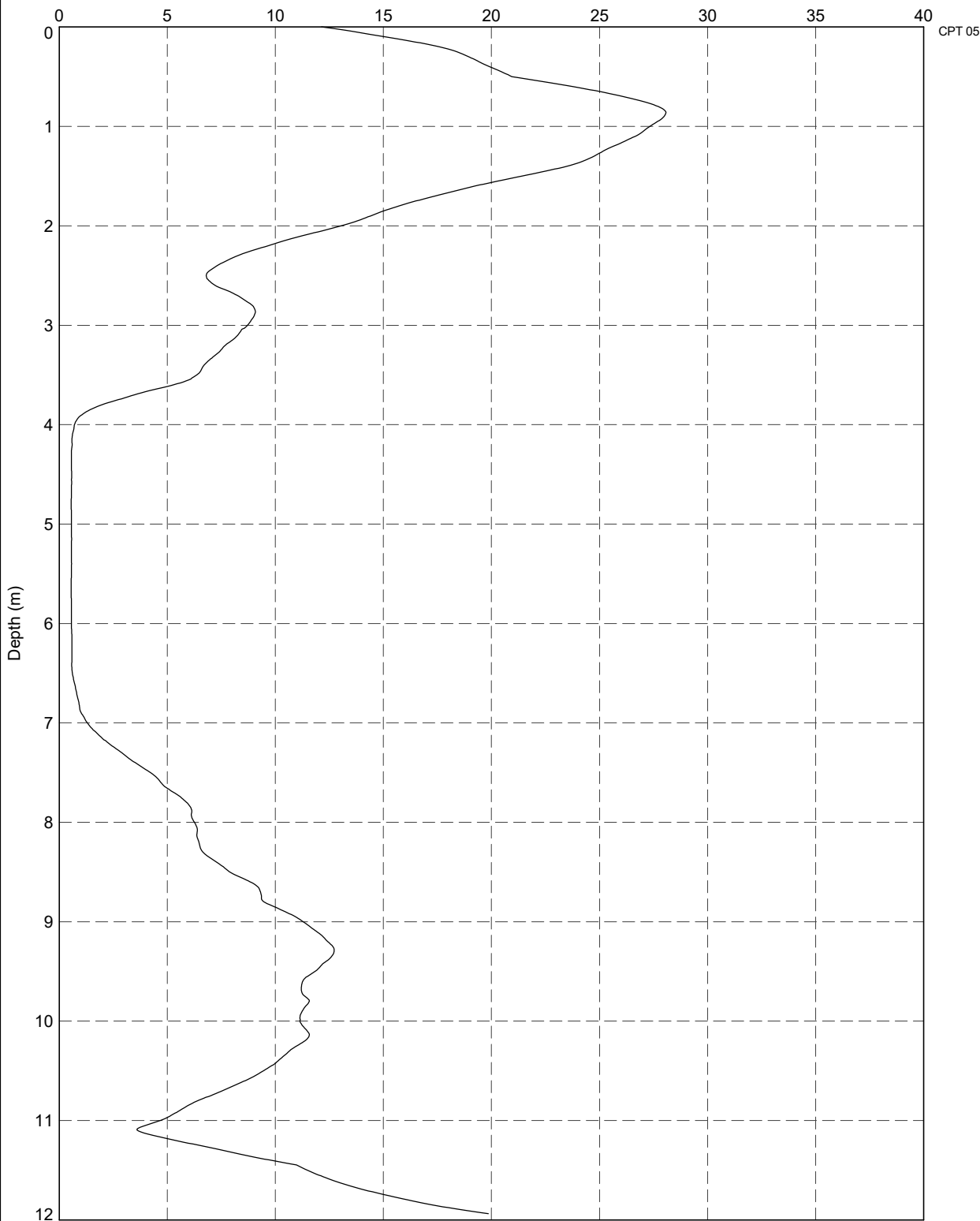
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Net Cone Resistance versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	284

Corrected Cone Resistance Moving Average,  $q_t$  Moving Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.QT MOVING AVG DEPTH A4P DATGEL.CPT TOOL DGD 4.05.0(SI)(GPJ <<DrawingFile>> 2/2/2021 01:26:10.01.00:11 Datgel.CPT.Tool.gIINT.Acd-In



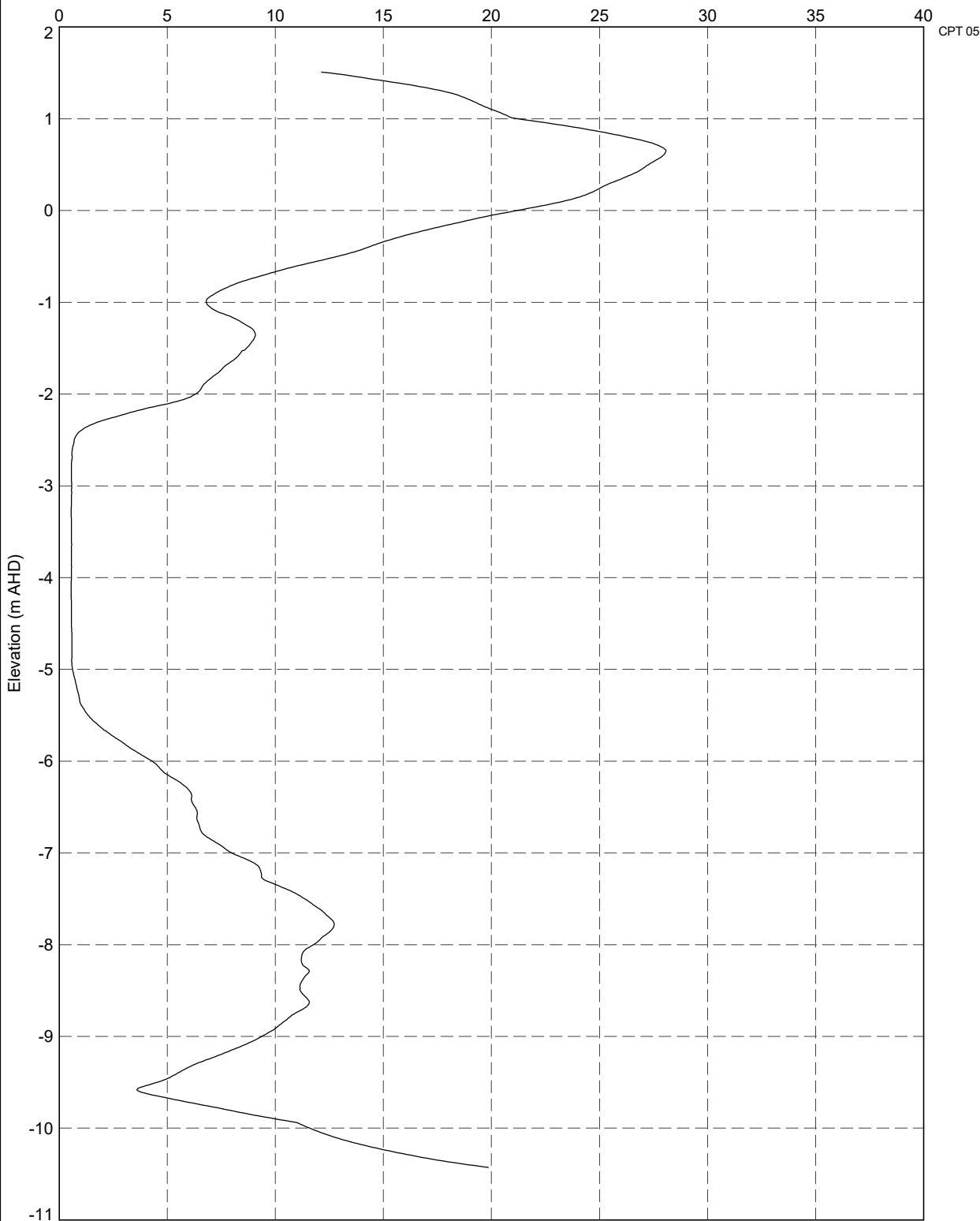
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Corrected Cone Resist. Moving Avg. vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	285

Corrected Cone Resistance Moving Average,  $q_t$  Moving Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT QT MOVING AVG RL AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:26 10.01.00.11 Datgel CPT Tool.gINT Add-in



TITLE

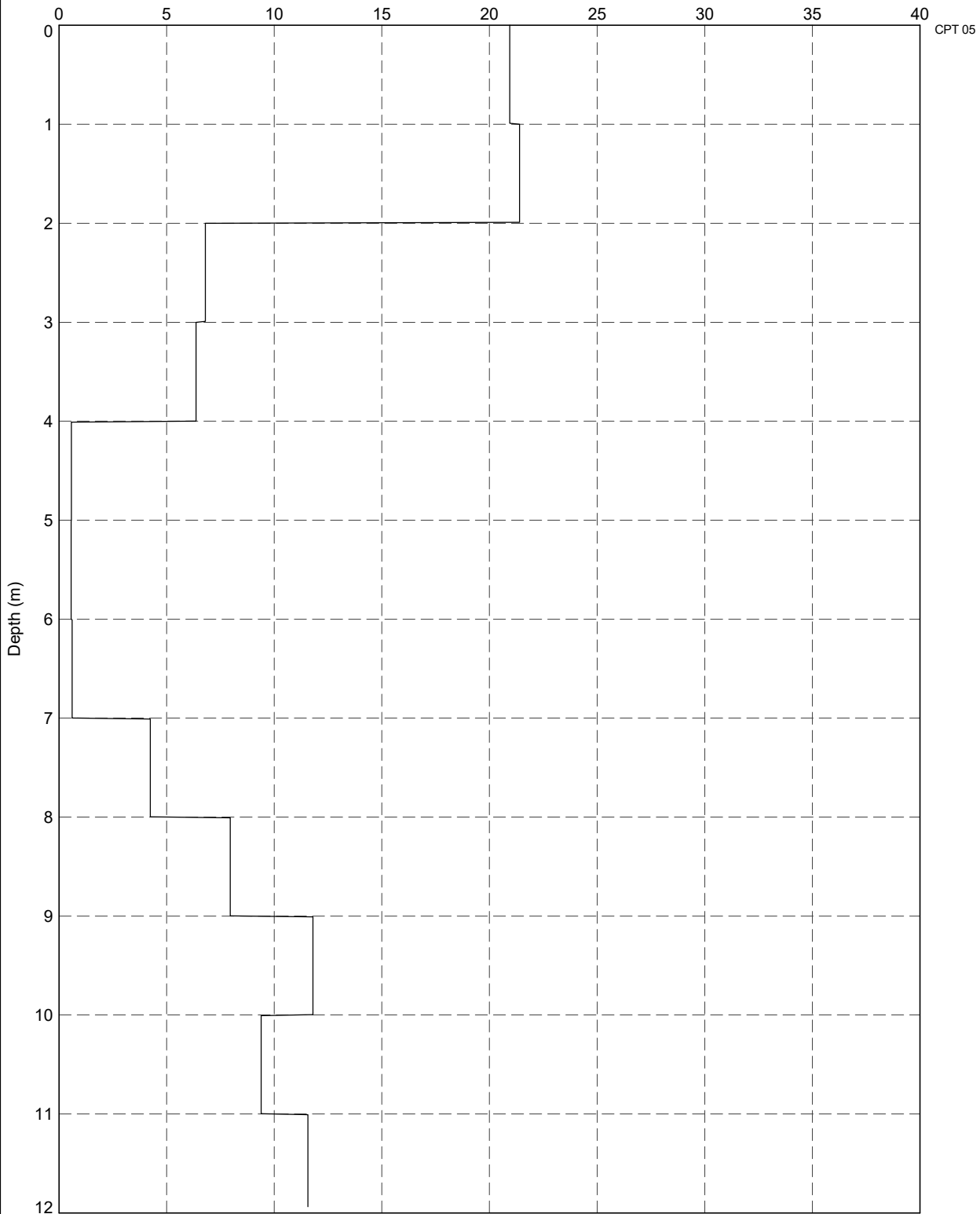
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Corrected Cone Resist. Moving Avg. vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	286

Corrected Cone Resistance Stepped Average,  $q_t$  Stepped Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT QT STEPPED AVG DEPTH AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:27 10.01.00.11 Datgel CPT Tool.gINT Add-In

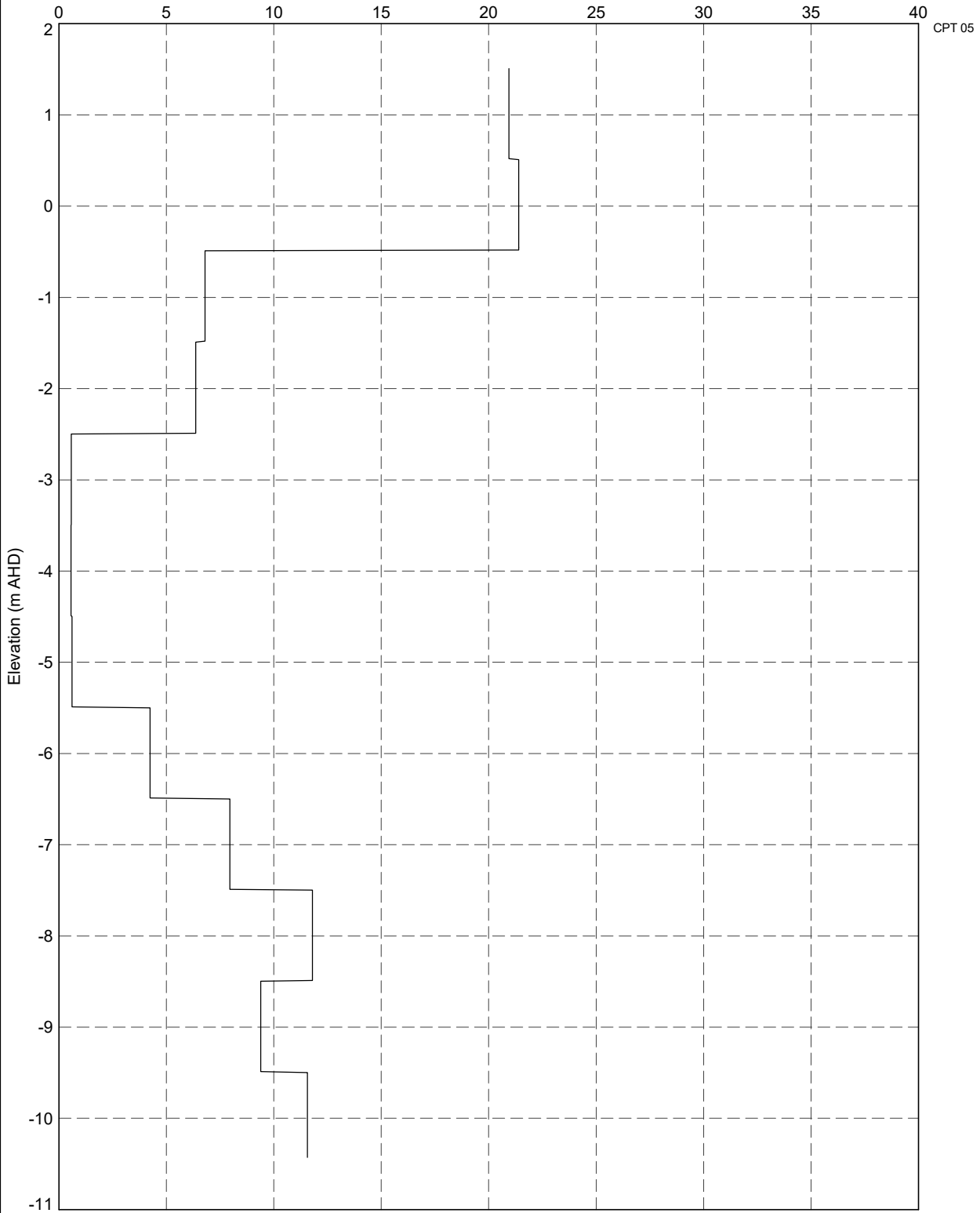


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Corrected Cone Resist. Stepped Avg. vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	287

Corrected Cone Resistance Stepped Average,  $q_t$  Stepped Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT QT STEPPED AVG RL AAP DATGEL CPT TOOL DGD 4.05.0 SI GPJ <<DrawingFile>> 2/2/2021 01:27 10:01.00.11 Datgel CPT Tool glNT Add-in



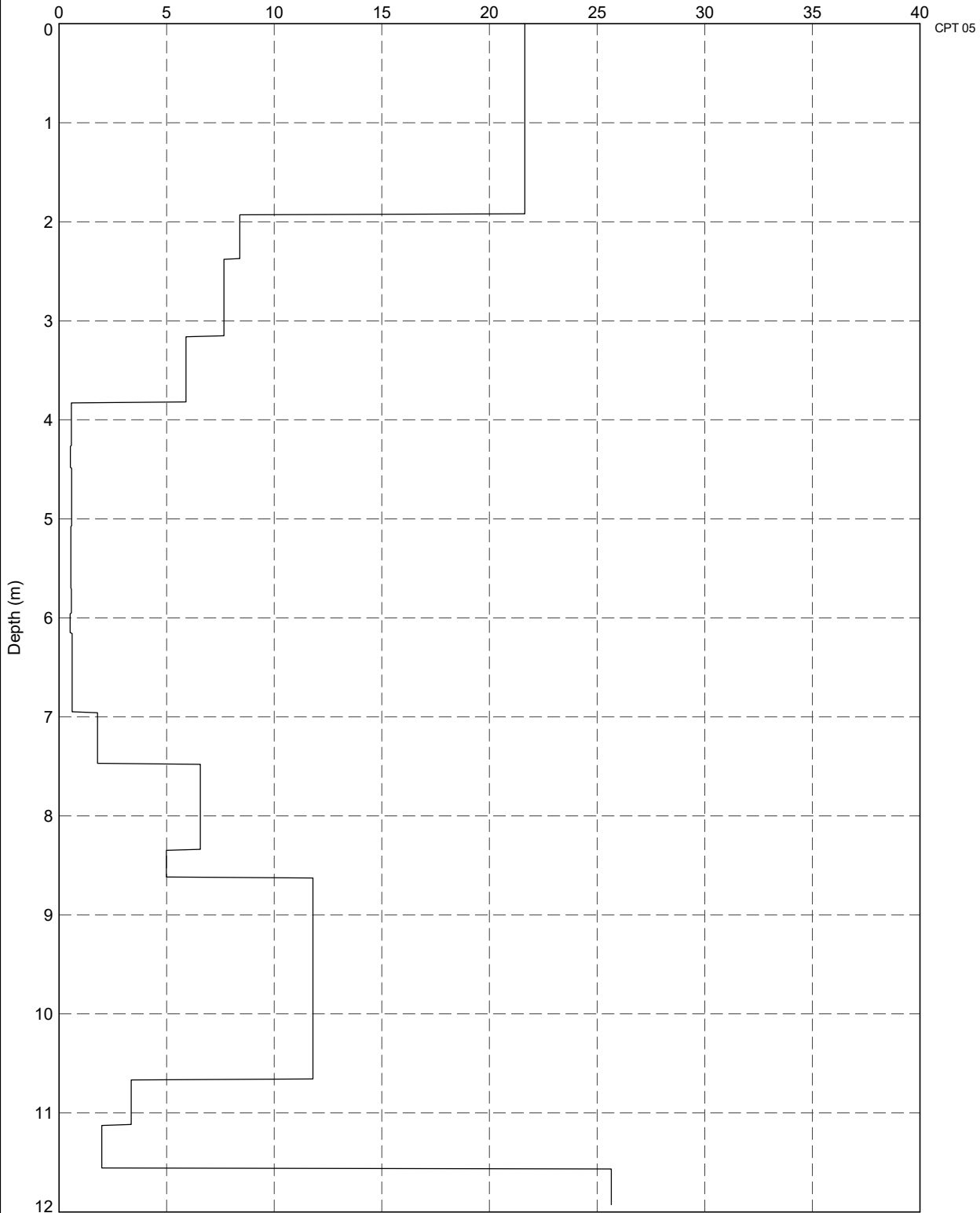
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Corrected Cone Resist. Stepped Avg. vs  
 Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	288

Corrected Cone Resistance Strata Average,  $q_t$  Strata Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.QT STRATA AVG DEPTH 4MP DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:27:10.01.00.11 Datgel.CPT.Tool.gINT Add-in



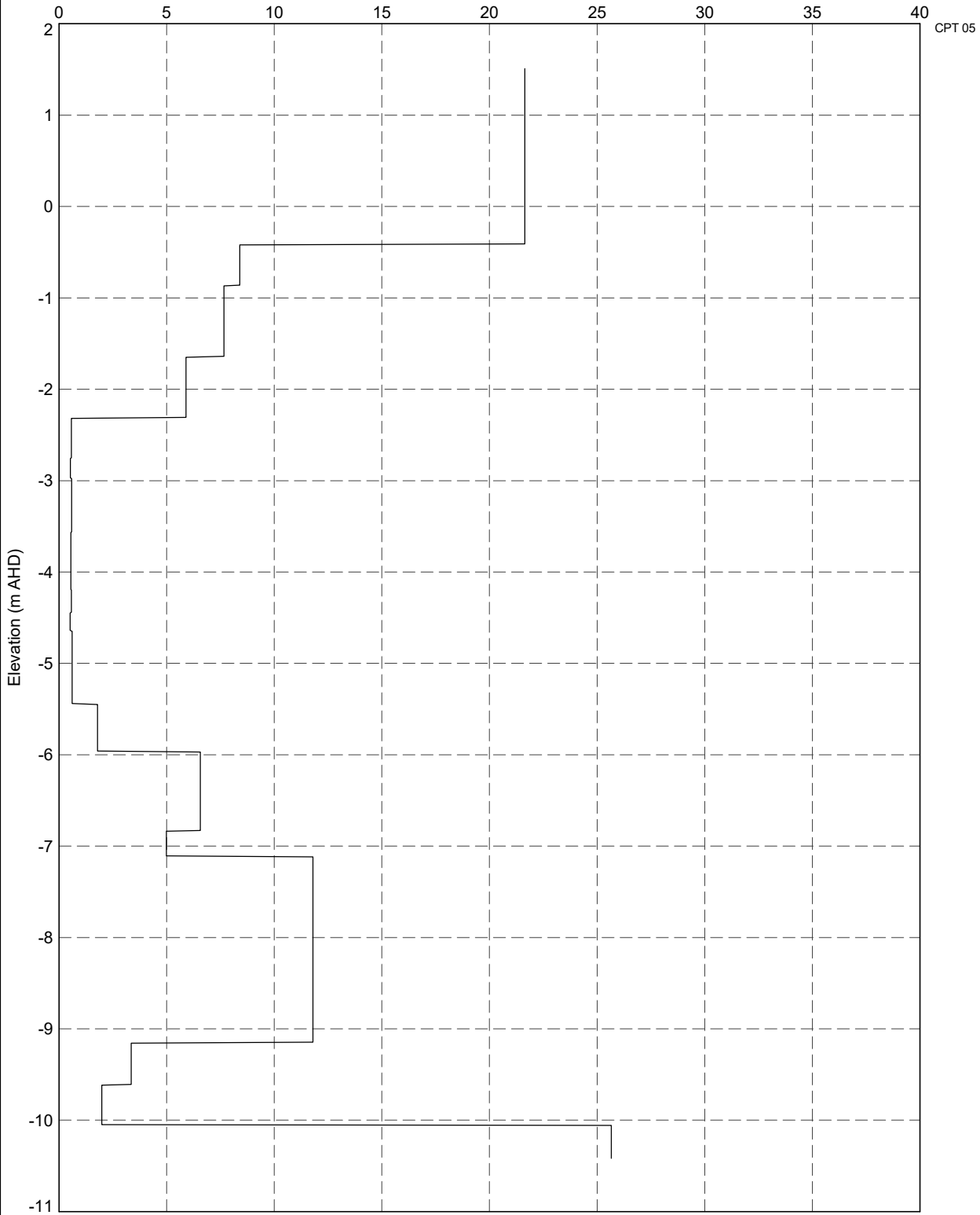
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Corrected Cone Resist. Strata Avg. vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	289

Corrected Cone Resistance Strata Average,  $q_t$  Strata Avg. (MPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT QT STRATA AVG RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:27 10.01.00.11 Datgel CPT Tool gINT Add-In



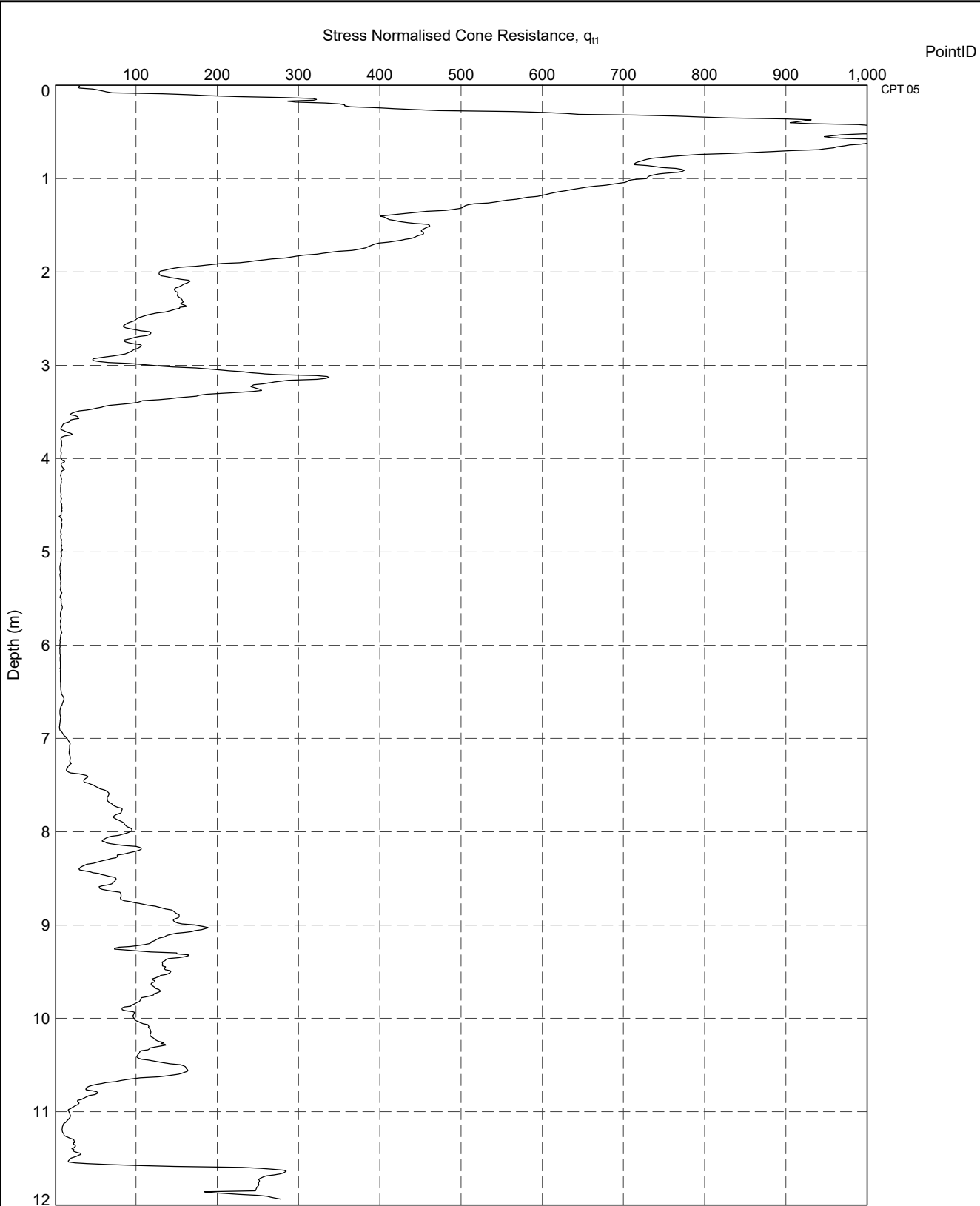
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Corrected Cone Resist. Strata Avg. vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	290





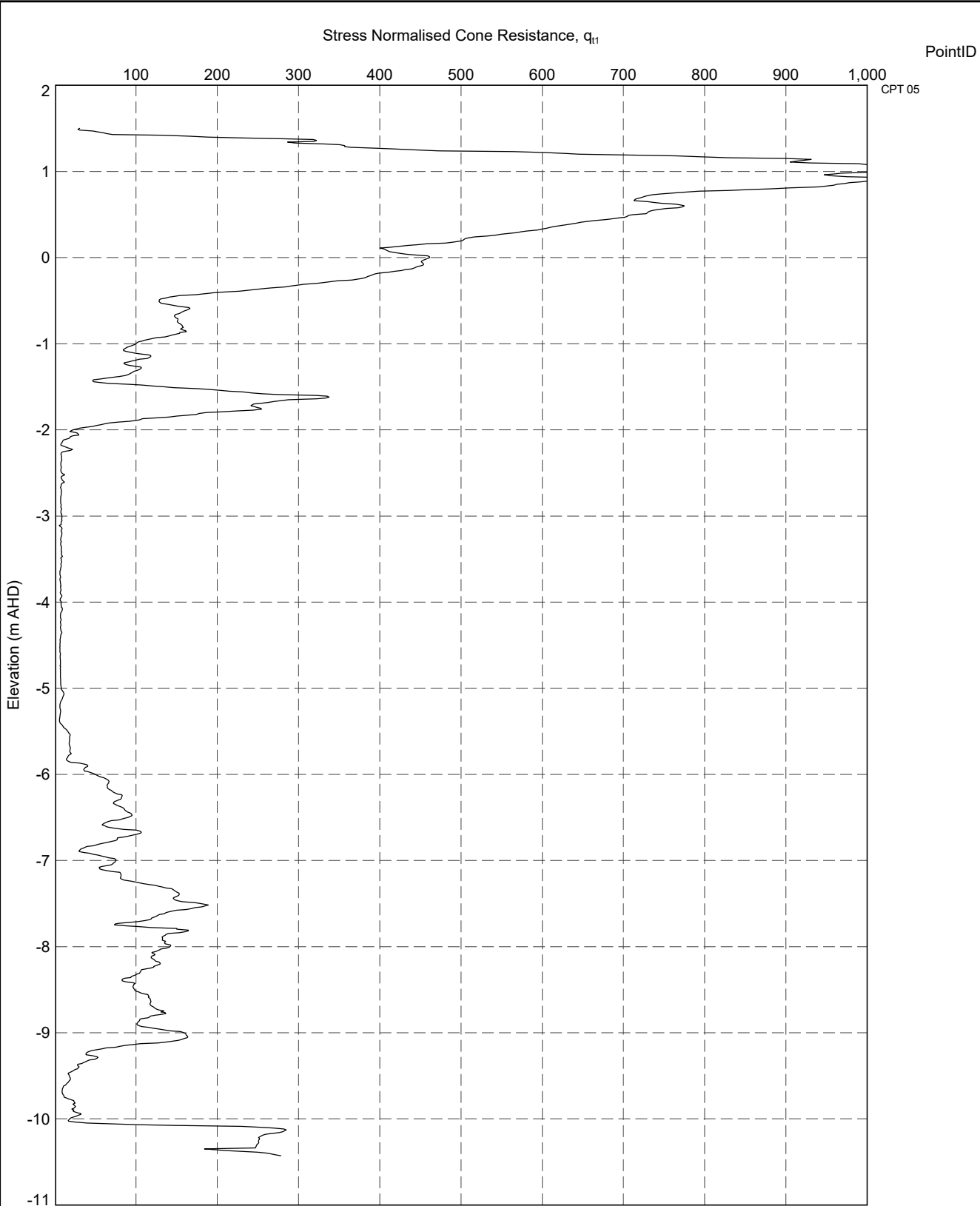
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.QT1 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ) <<DrawingFile>> 2/2/2021 01:27:10.01.00.11 Datgel CPT Tool glINT Acid-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Stress Normalised Cone Resistance versus  
 Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	291



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.QT1 RL\_A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:27 10.01.00.11 Datgel CPT Tool gINT Add-In

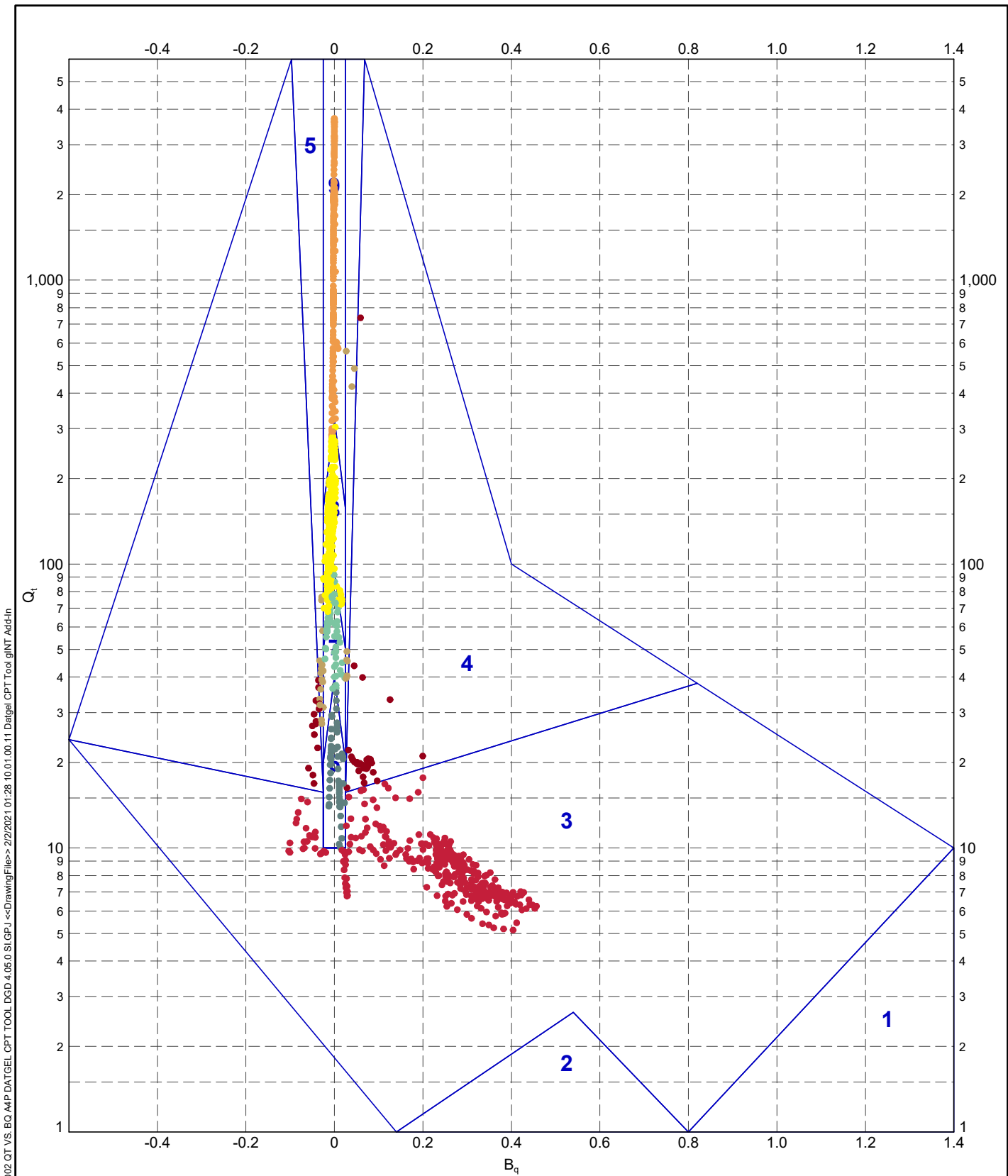


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Stress Normalised Cone Resistance vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	292



METHOD: Ramsey 2002

- 1 - Extra sensitive CLAY
- 2 - Organic CLAY and PEAT
- 3 - CLAY (su/po <=1)
- 4 - CLAY (su/po >1)
- 5 - Clayey SAND
- 6 - Sandy very clayey SILT
- 7 - Sandy SILT
- 8 - Silty SAND
- 9 - "Clean" to slightly silty SAND/GRAVEL

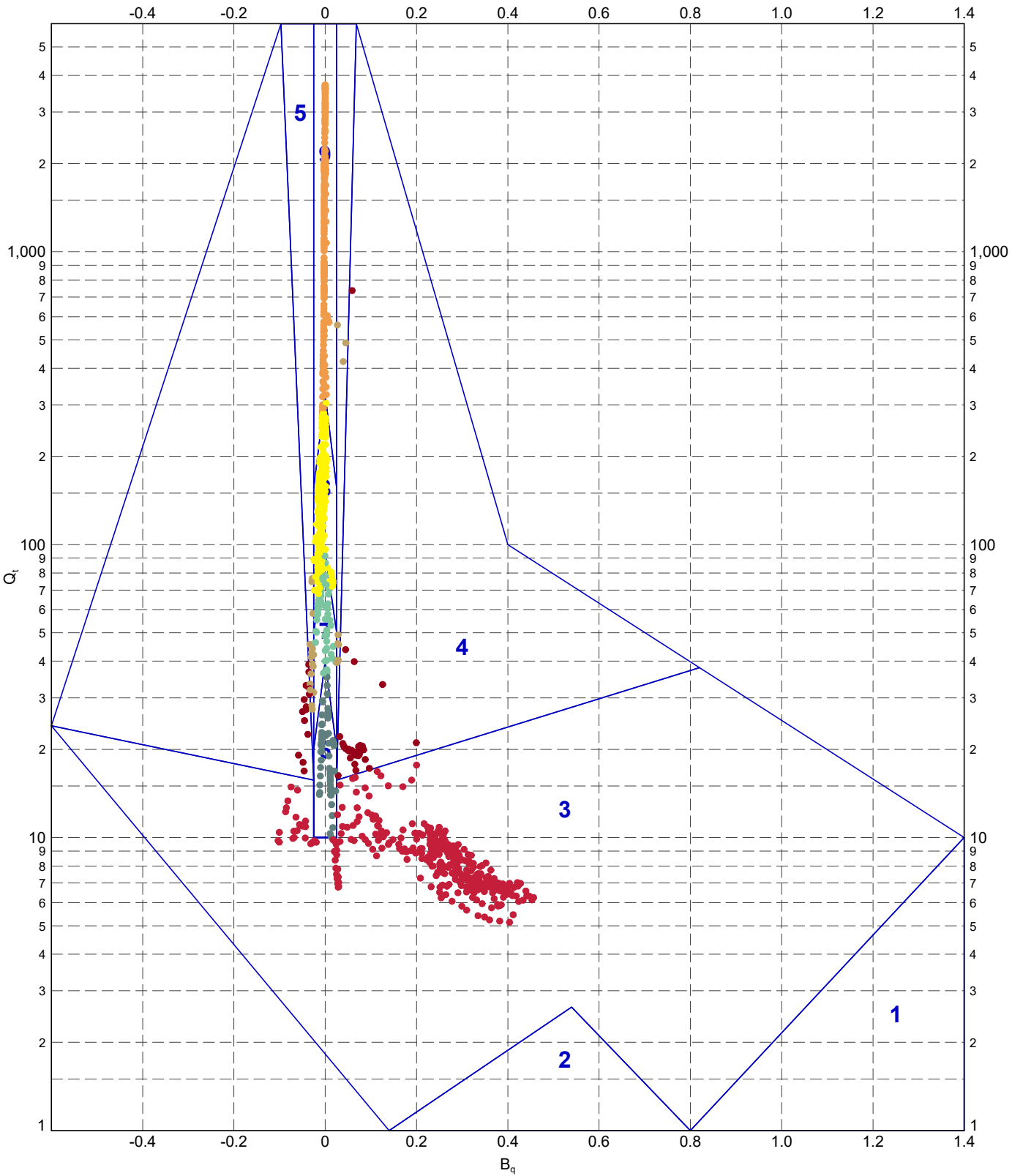


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Ramsey 2002  $Q_t$  vs.  $B_q$  - CPT 05 (Eslami  
 1997-Ramsey 2002)

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	293

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT RAMSEY 2002 QT VS. BQ A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:28 10.01.00.11 Datgel CPT Tool gINT Add-in


DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT RAMSEY 2002 QT VS. BQ.M4P.DATGEL.CPT TOOL DGD 4.05.0 S(LGPJ <<DrawingFile>> 2/2/2021 01:28 10.01.00.11 Datgel.CPT Tool glINT Add-In



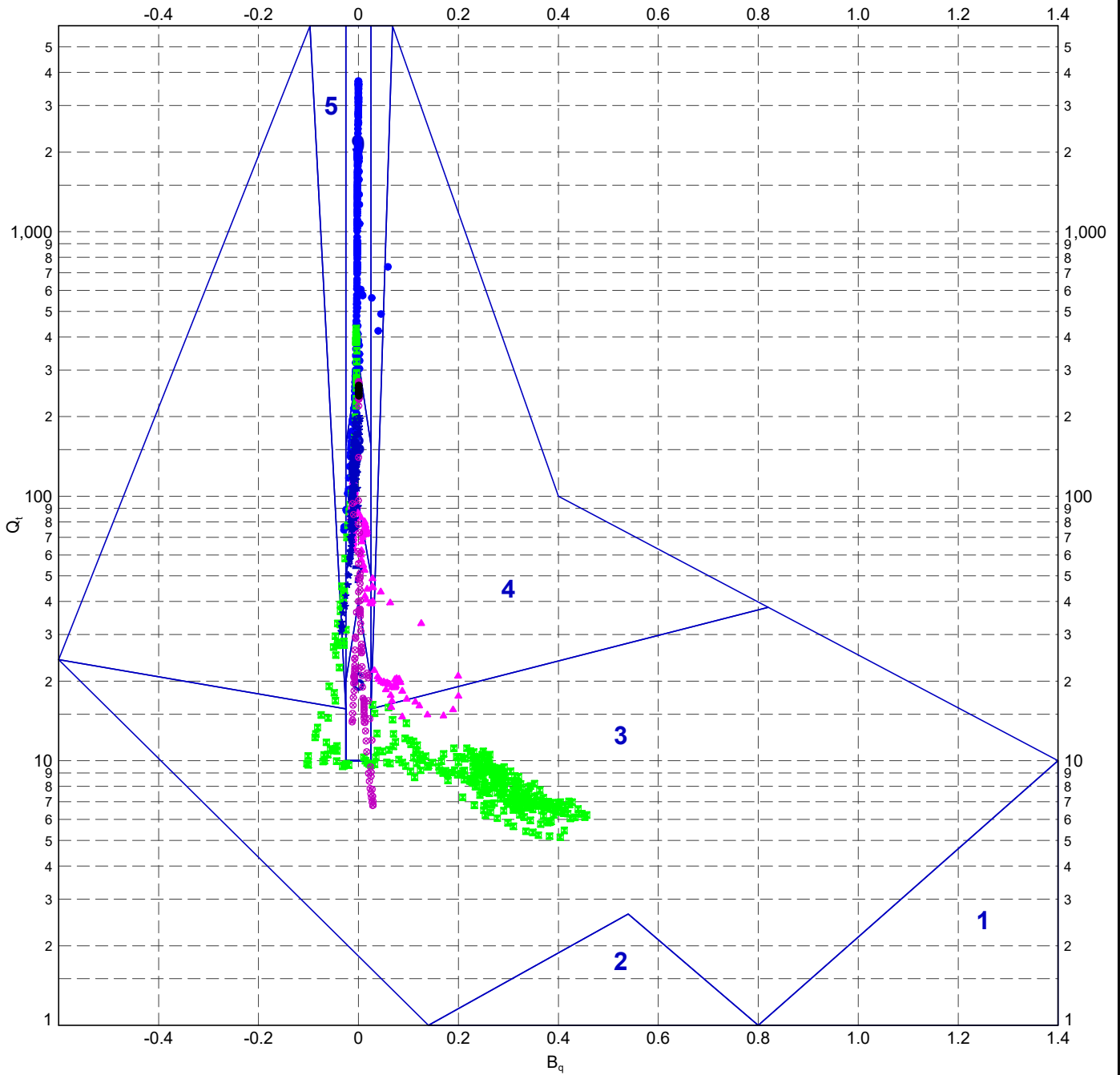
**METHOD: Ramsey 2002**

- 1 - Extra sensitive CLAY
- 2 - Organic CLAY and PEAT
- 3 - CLAY (su/po <=1)
- 4 - CLAY (su/po >1)
- 5 - Clayey SAND
- 6 - Sandy very clayey SILT
- 7 - Sandy SILT
- 8 - Silty SAND
- 9 - "Clean" to slightly silty SAND/GRAVEL

PointIDs: ● CPT 05 (Eslami 1997-Ramsey 2002)

	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Ramsey 2002 $Q_t$ vs. $B_q$	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	294

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT RAMSEY 2002 QT VS. BQ U A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ <-DrawingFile> 2/2/2021 01:28:10.01.00.11 Datgel CPT Tool glINT Acid-In



**METHOD: Ramsey 2002**

- |                           |                            |   |
|---------------------------|----------------------------|---|
| 1 - Extra sensitive CLAY  | 4 - CLAY (su/po >1)        | 7 - Sandy SILT                            |
| 2 - Organic CLAY and PEAT | 5 - Clayey SAND            | 8 - Silty SAND                            |
| 3 - CLAY (su/po <=1)      | 6 - Sandy very clayey SILT | 9 - "Clean" to slightly silty SAND/GRAVEL |

**Geology Unit Legend**

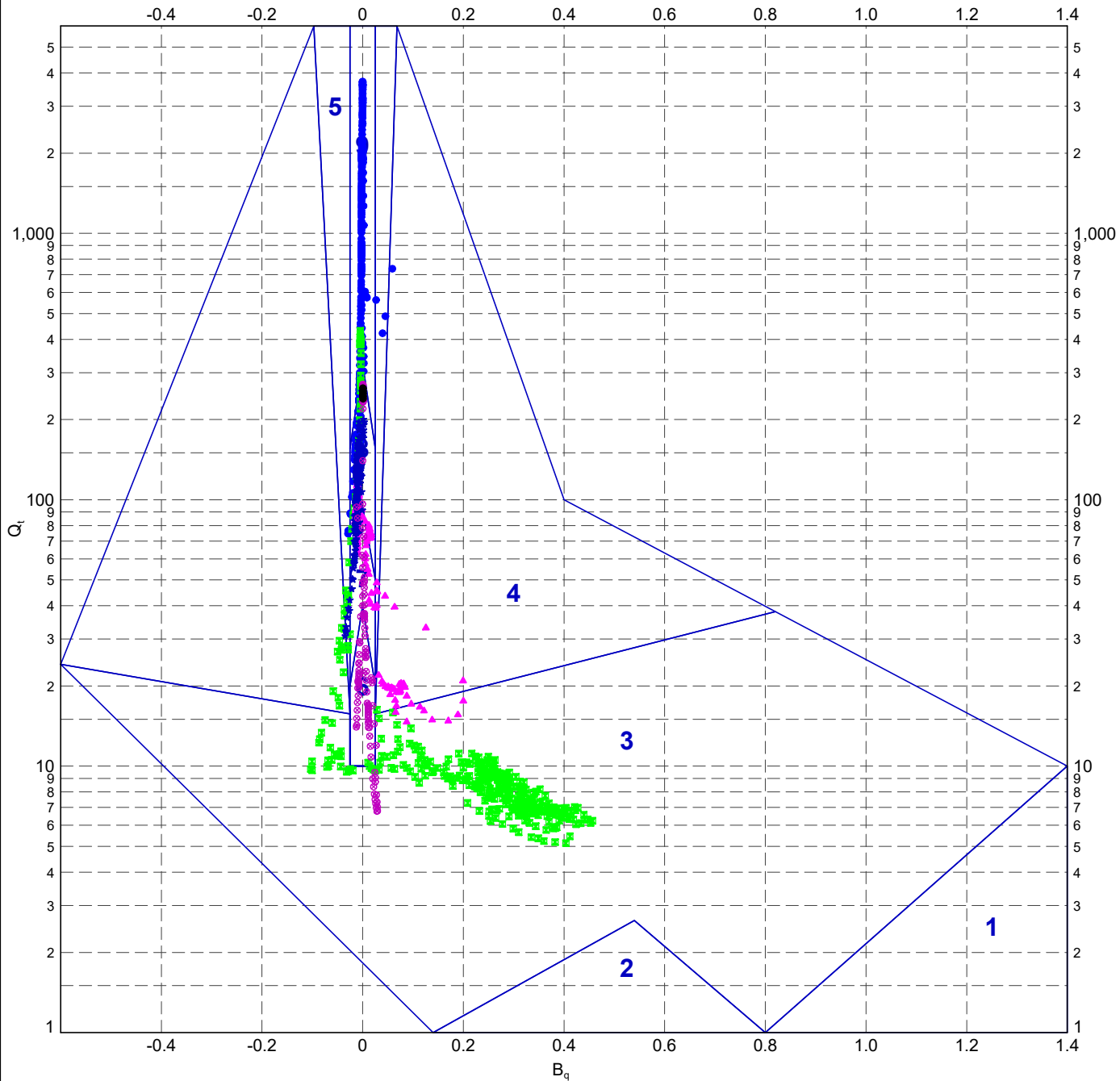
- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Ramsey 2002 Q<sub>t</sub> vs. B<sub>q</sub> - CPT 05 (Eslami  
 1997-Ramsey 2002)

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	295

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT RAMSEY 2002 QT vs. BQ UM A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <-DrawingFile>> 2/2/2021 01:28 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Ramsey 2002**

- 1 - Extra sensitive CLAY
- 2 - Organic CLAY and PEAT
- 3 - CLAY ( $su/po \leq 1$ )
- 4 - CLAY ( $su/po > 1$ )
- 5 - Clayey SAND
- 6 - Sandy very clayey SILT
- 7 - Sandy SILT
- 8 - Silty SAND
- 9 - "Clean" to slightly silty SAND/GRAVEL

**Geology Unit Legend**

- ★ D - Unit D
- A - Unit A
- B - Unit B
- ▲ C - Unit C
- ⊕ F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I
- ⊕ J - Unit J
- K - Unit K
- ◇ R - Rock

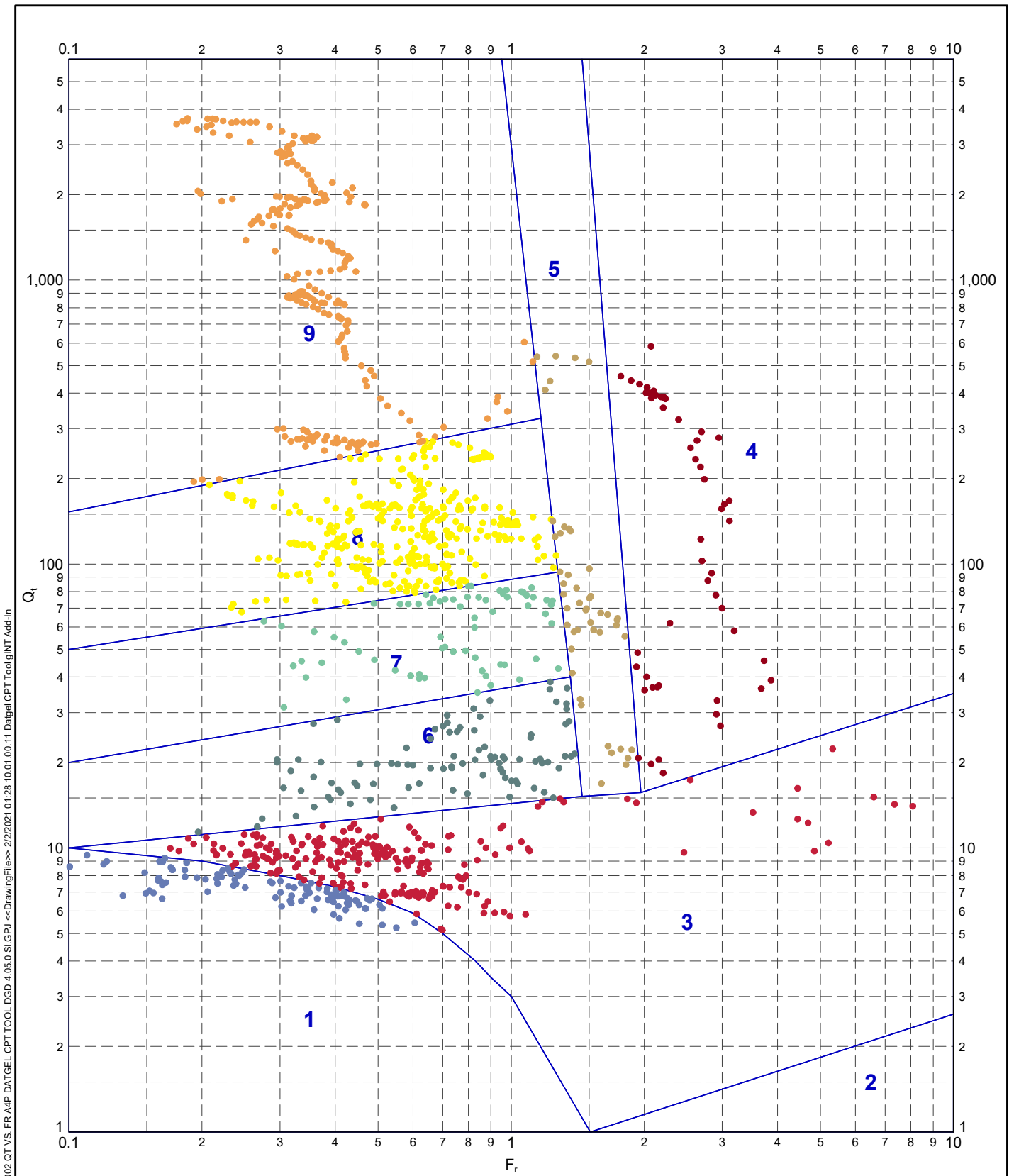
PointIDs: CPT 05 (Eslami 1997-Ramsey 2002)



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Ramsey 2002  $Q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	296



DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT RAMSEY 2002 QT vs. FR A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:28 10.01.00.11 Datgel.CPT.Tooling\INT Acid.in

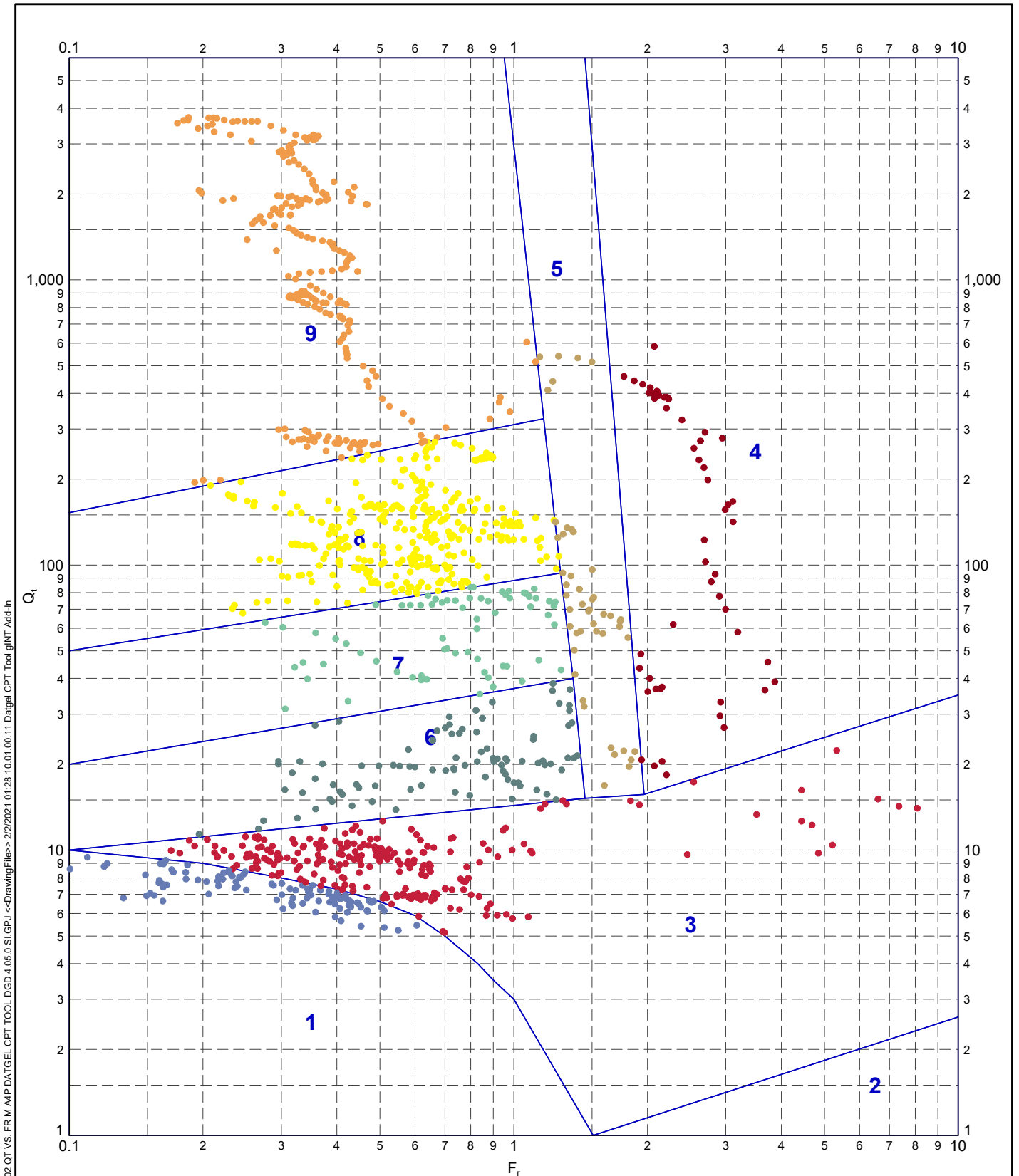
**METHOD: Ramsey 2002**

- 1 - Extra sensitive CLAY
- 2 - Organic CLAY and PEAT
- 3 - CLAY (su/po <=1)
- 4 - CLAY (su/po >1)
- 5 - Clayey SAND
- 6 - Sandy very clayey SILT
- 7 - Sandy SILT
- 8 - Silty SAND
- 9 - "Clean" to slightly silty SAND/GRAVEL



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Ramsey 2002  $Q_t$  vs.  $F_r$  - CPT 05 (Eslami  
 1997-Ramsey 2002)

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	297



**METHOD: Ramsey 2002**

- 1 - Extra sensitive CLAY
- 2 - Organic CLAY and PEAT
- 3 - CLAY (su/po <=1)
- 4 - CLAY (su/po >1)
- 5 - Clayey SAND
- 6 - Sandy very clayey SILT
- 7 - Sandy SILT
- 8 - Silty SAND
- 9 - "Clean" to slightly silty SAND/GRAVEL

PointIDs: ● CPT 05 (Eslami 1997-Ramsey 2002)



TITLE

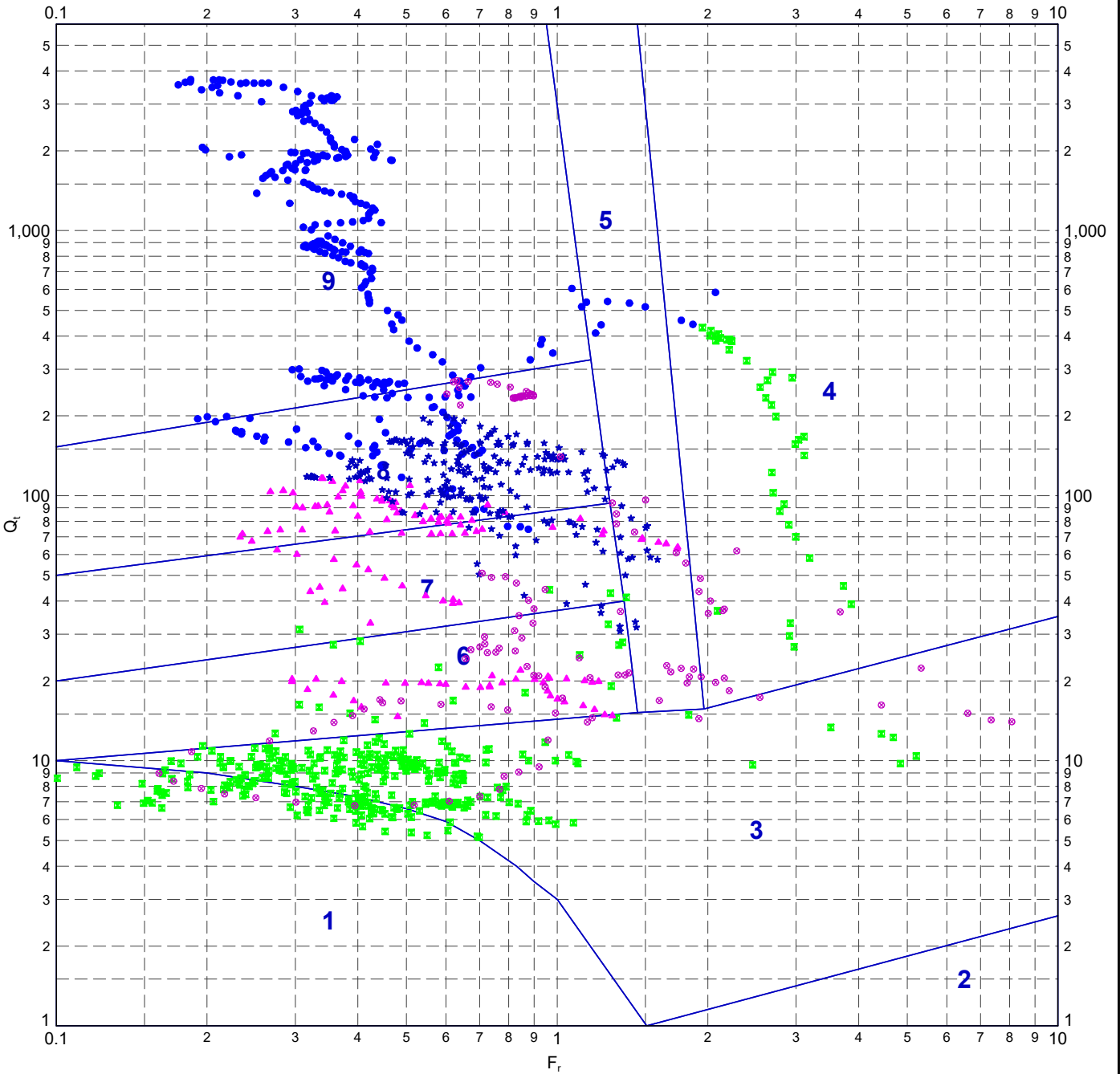
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Ramsey 2002  $Q_t$  vs.  $F_r$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	298

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT RAMSEY 2002 QT VS. FR M A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ <-DrawingFile-> 2/2/2021 01:28:10.01.00.11 Datgel CPT Tool glINT Add-In



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT RAMSEY 2002 QT vs. FR U A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 01:29:10.010.11 Datgel CPT Tool gINT Add-in



**METHOD: Ramsey 2002**

- |                           |                            |   |
|---------------------------|----------------------------|---|
| 1 - Extra sensitive CLAY  | 4 - CLAY (su/po >1)        | 7 - Sandy SILT                            |
| 2 - Organic CLAY and PEAT | 5 - Clayey SAND            | 8 - Silty SAND                            |
| 3 - CLAY (su/po <=1)      | 6 - Sandy very clayey SILT | 9 - "Clean" to slightly silty SAND/GRAVEL |

**Geology Unit Legend**

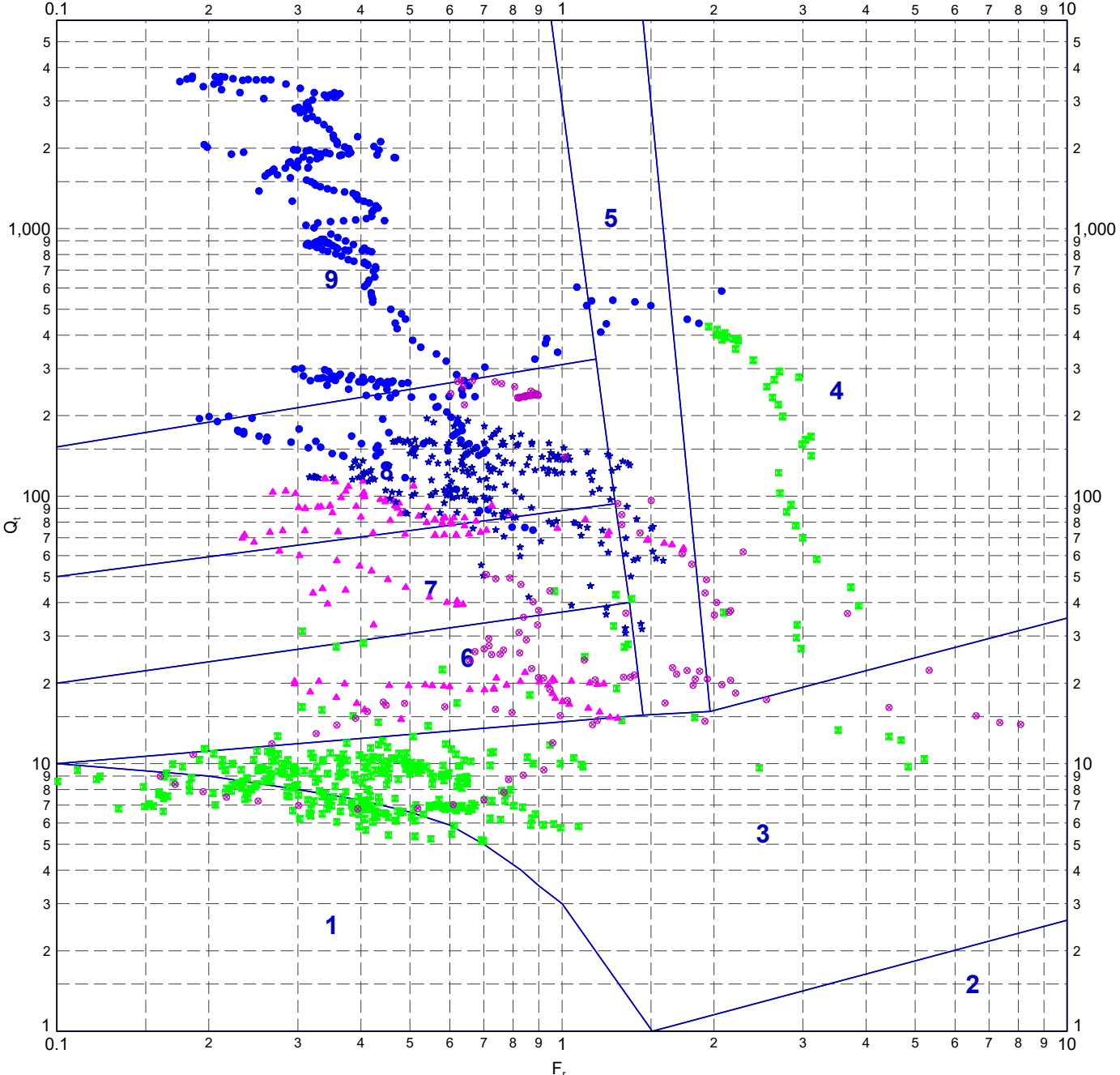
- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ◆ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Ramsey 2002  $Q_t$  vs.  $F_r$  - CPT 05 (Eslami  
 1997-Ramsey 2002)

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	299

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT RAMSEY 2002 QT vs. FR UM A4P DATGEL CPT TOOL DGD 4.05.0 SI:GFJ <<DrawingFile>> 2/2/2021 01:29 10.01.00.11 Datgel CPT Tool gINT Add-In




**METHOD: Ramsey 2002**

- |                           |                            |   |
|---------------------------|----------------------------|---|
| 1 - Extra sensitive CLAY  | 4 - CLAY (su/po >1)        | 7 - Sandy SILT                            |
| 2 - Organic CLAY and PEAT | 5 - Clayey SAND            | 8 - Silty SAND                            |
| 3 - CLAY (su/po <=1)      | 6 - Sandy very clayey SILT | 9 - "Clean" to slightly silty SAND/GRAVEL |

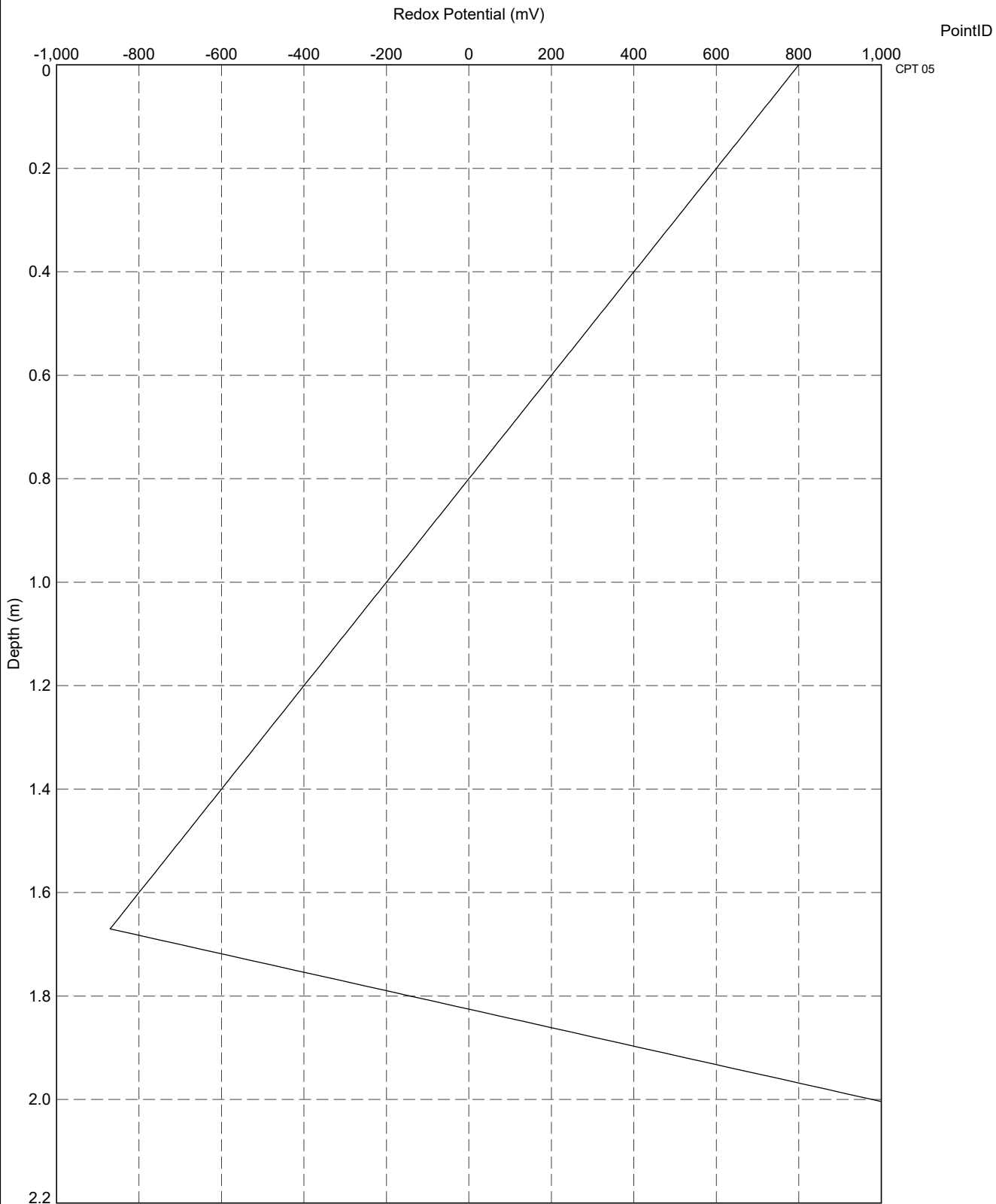
**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ★ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 05 (Eslami 1997-Ramsey 2002)

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Ramsey 2002 <math>Q_t</math> vs. <math>F_r</math></p>	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0	FIGURE No	300	

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT REDOX POTENTIAL DEPTH.A4P.DATGEL.CPT TOOL DGD 4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:29:10.01.00.11 Datgel.CPT Tool glINT Add-In



PointID  
CPT 05

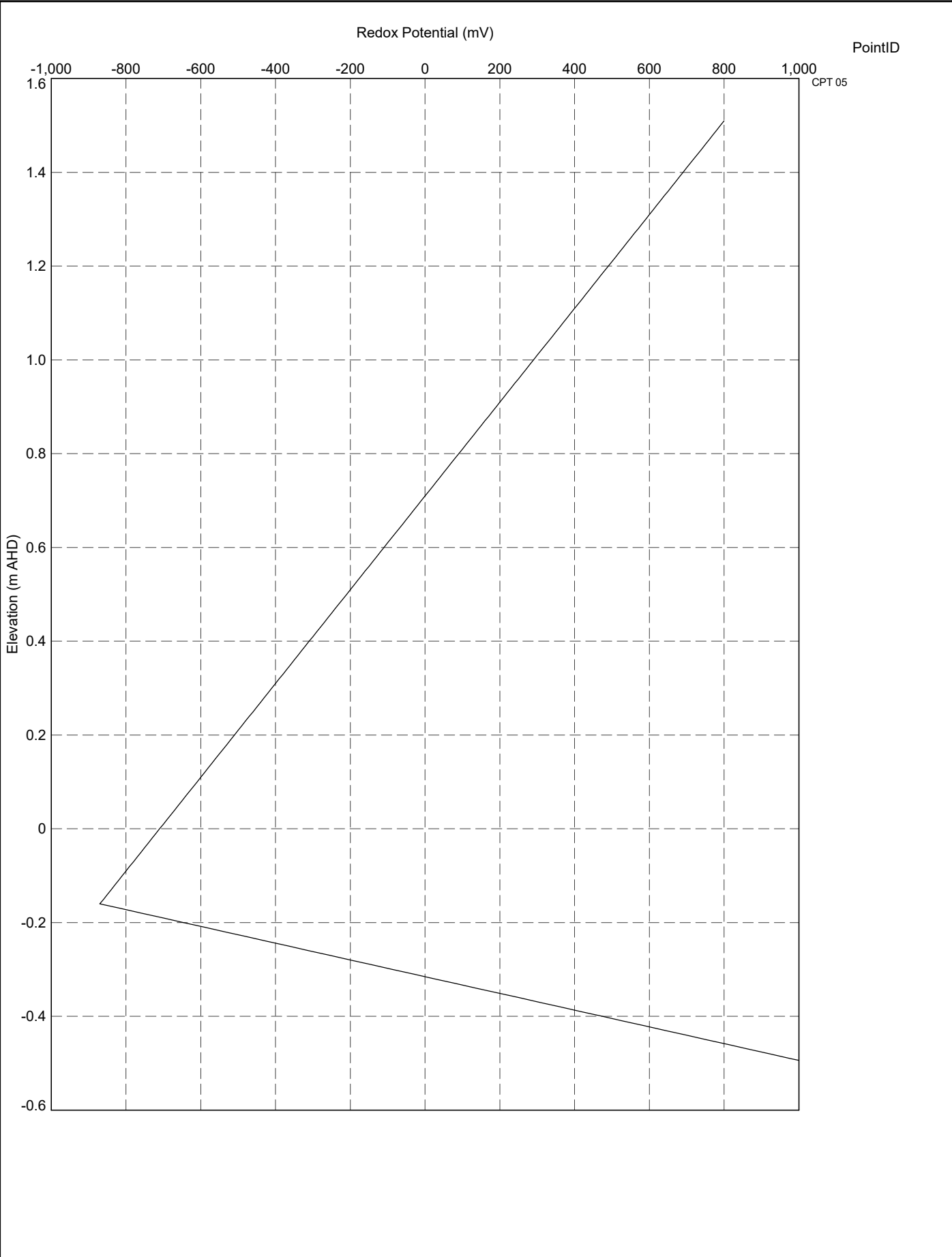


TITLE


Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Redox Potential versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	301

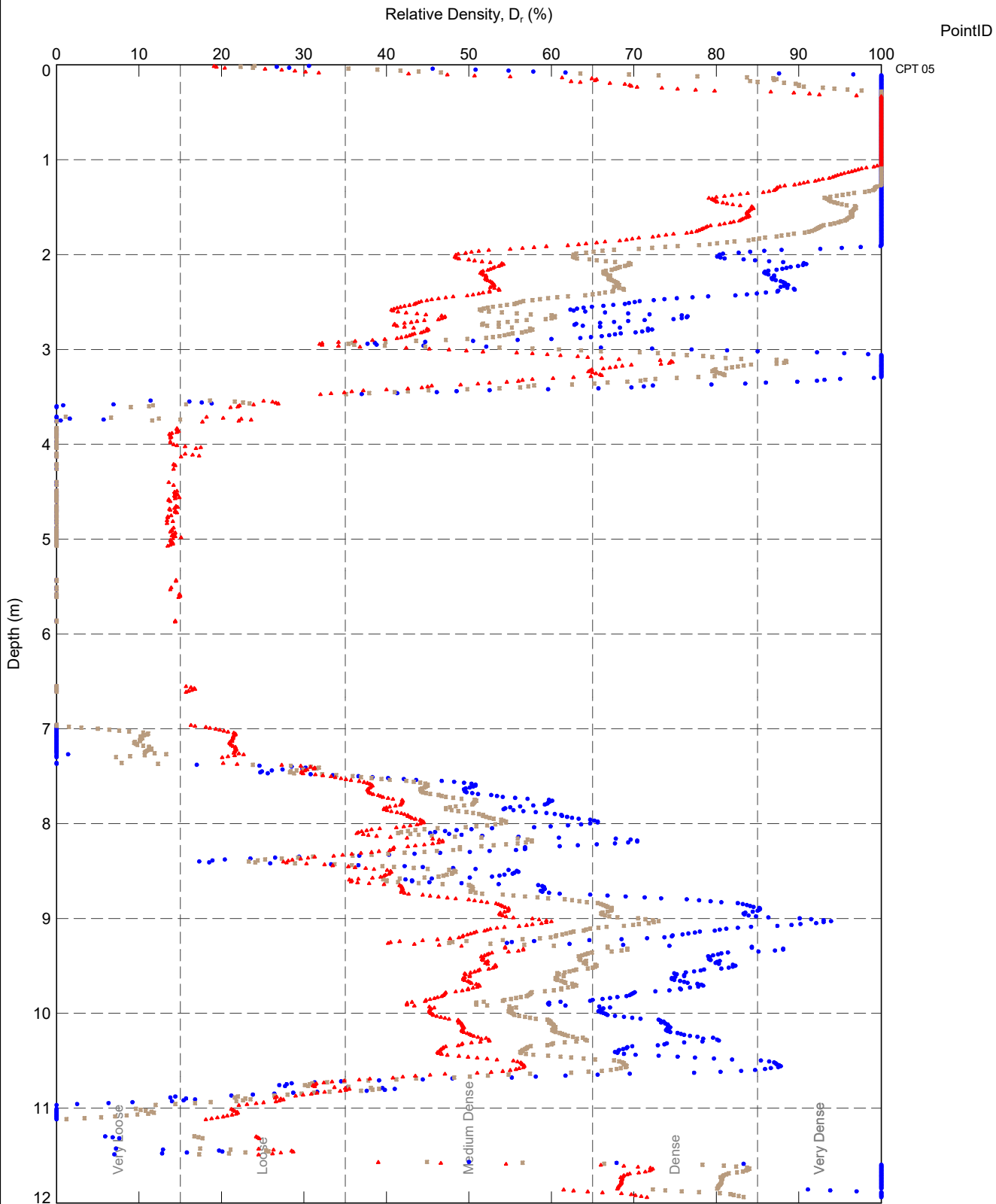
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT REDOX POTENTIAL RL.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:29 10.01.00.11 Datgel CPT Tool.gINT Add-in



PointID  
CPT 05

 <p>Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Redox Potential versus Elevation</p>	<p>DRAWN <b>Datgel</b></p>	<p>DATE <b>2/2/2021</b></p>	
		<p>CHECKED <b>Datgel</b></p>	<p>DATE <b>2/2/2021</b></p>	
		<p>SCALE <b>Not To Scale</b></p>		<p><b>A4</b></p>
		<p>PROJECT No <b>4.05.0</b></p>	<p>FIGURE No <b>302</b></p>	

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.RELATIVE.DENSITY.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:30 10.01.00.11 Datgel.CPT.Tool.glb\INT.Add-in

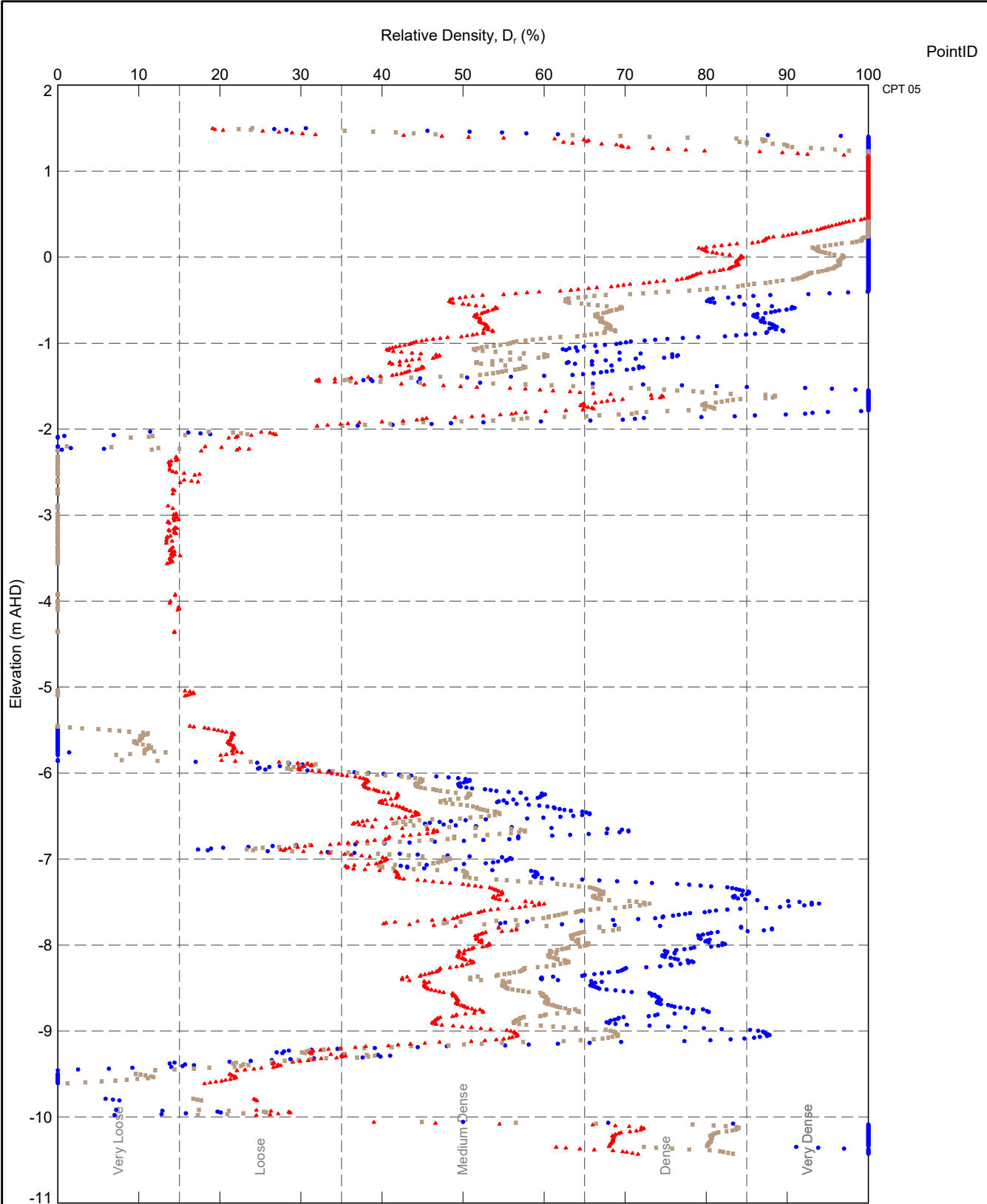


Method:  
 ● Baldi et al. (1986); Al-Homoud & Wehr (2006)  
 ■ Jamiolkowski et al. (2001)  
 ▲ Kulhawy & Mayne (1990)

TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Relative Density versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	303



Method:  
 ● Baldi et al. (1986); Al-Homoud & Wehr (2006)  
 ■ Jamiolkowski et al. (2001)  
 ▲ Kulhawy & Mayne (1990)

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT RELATIVE DENSITY.RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.OPJ <-DrawingFile> 2/2/2021 01:31 10:01:00.11 Datgel CPT Tool gINT Add-in

**Datgel**  
 DATA SOLUTIONS  
 Geotechnics • Geoenvironment • Laboratory

TITLE

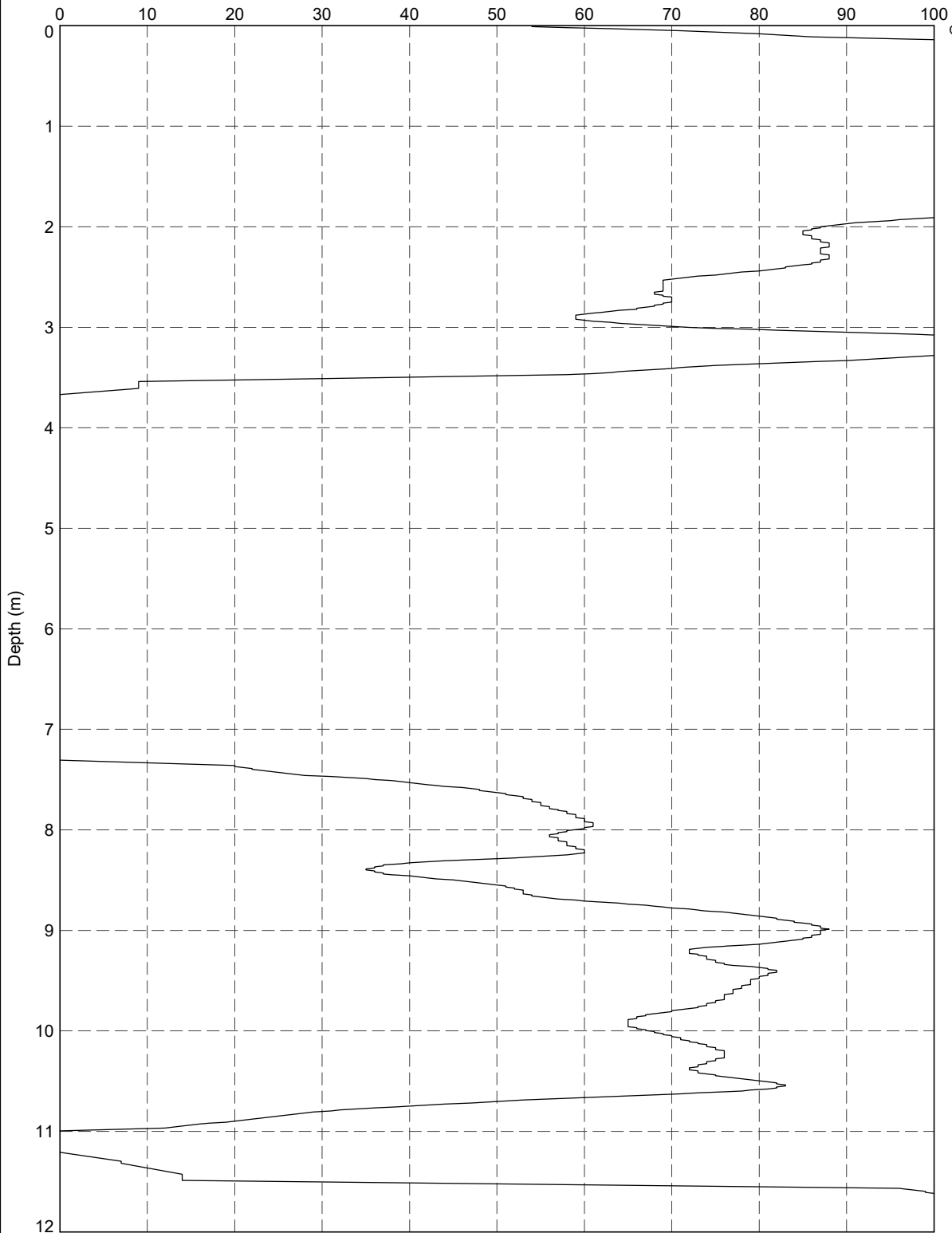
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Relative Density versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	304

PointID  
 CPT 05

Relative Density,  $D_r$  Sm (%)

PointID



CPT 05

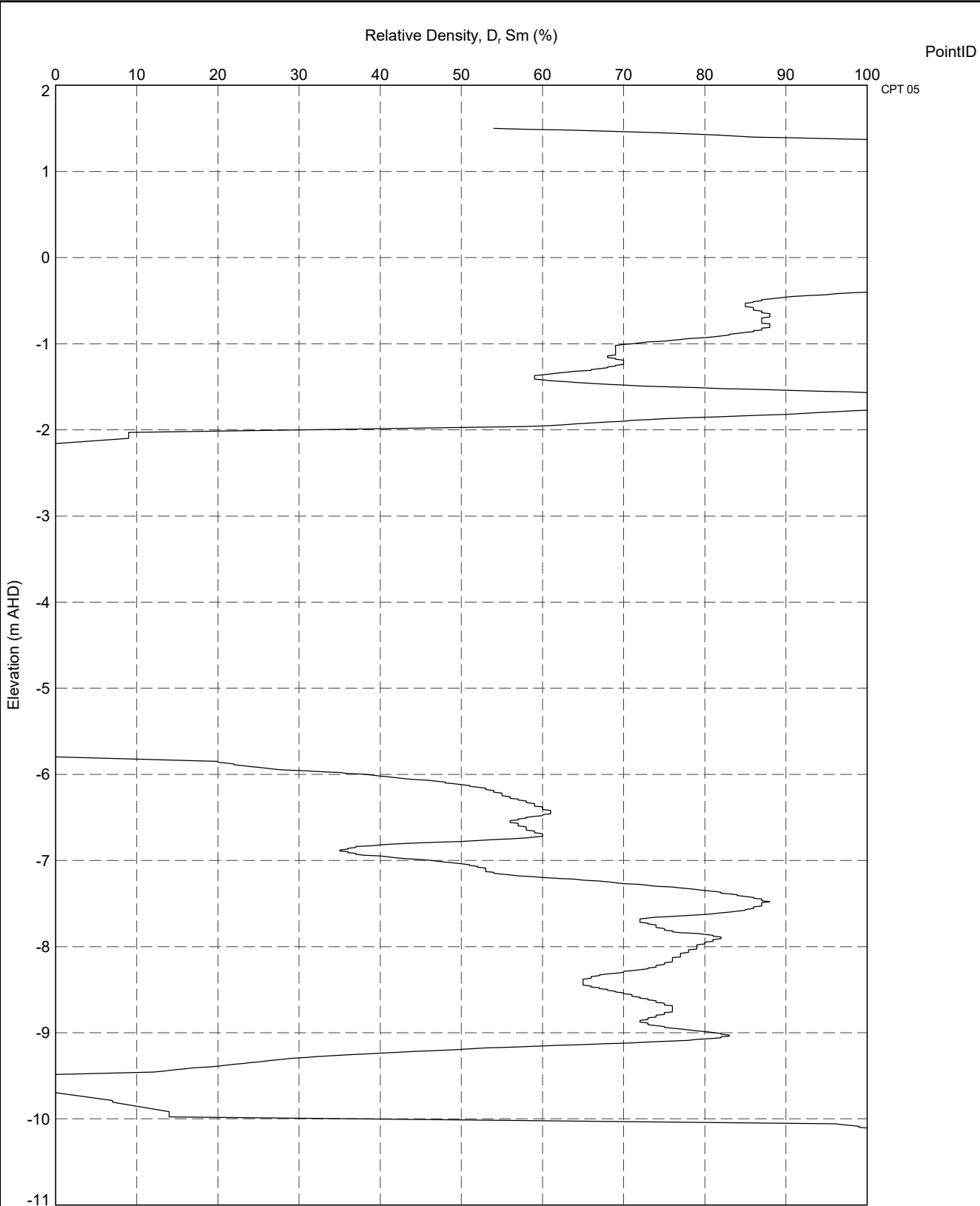
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT RELATIVE DENSITY SM DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:31 10.01.00.11 Datgel CPT Tool.gINT Add-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Smoothed Relative Density versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	305



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT RELATIVE DENSITY SM RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:31 10:01:00.11 Datgel CPT Tool gINT Add-In

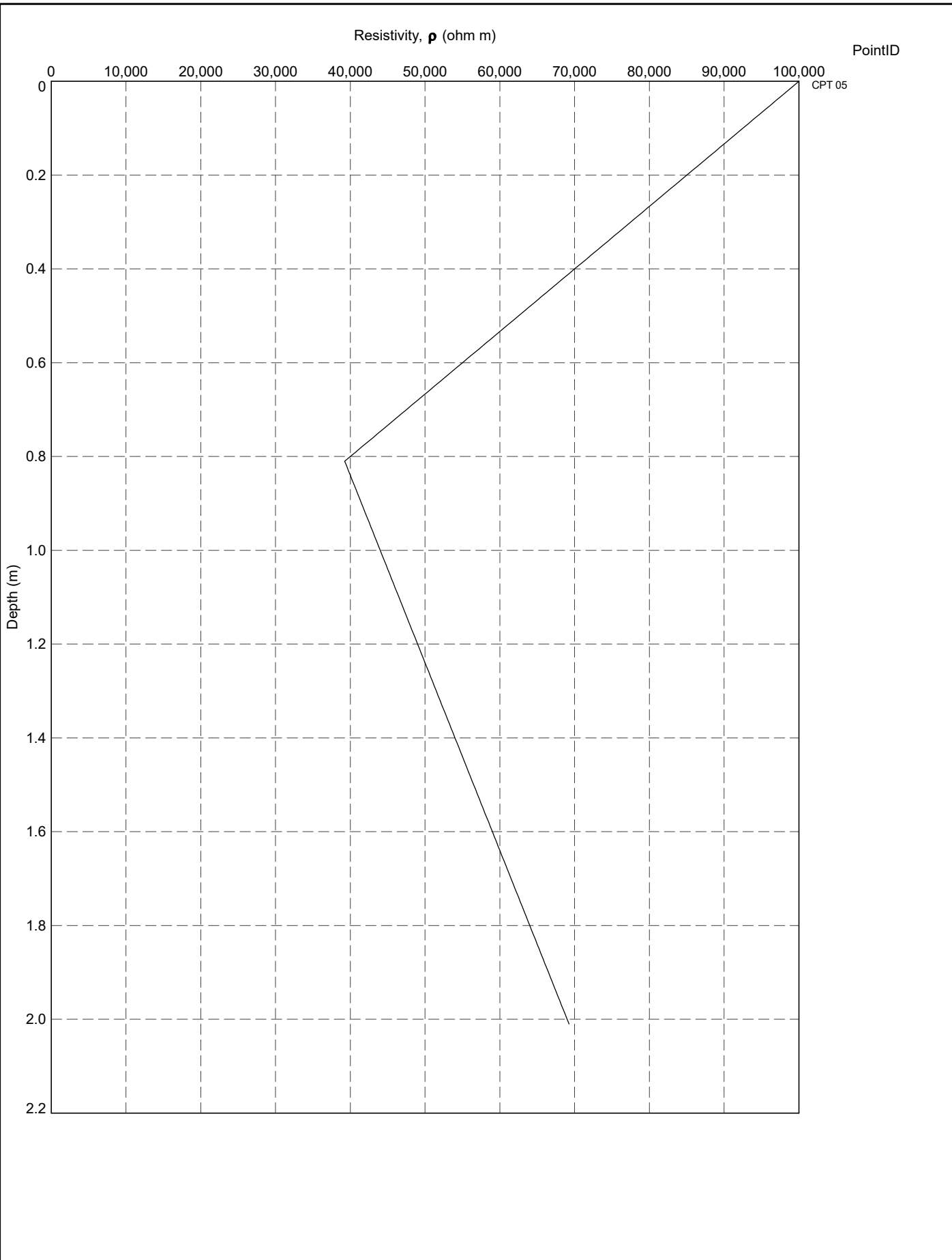


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Smoothed Relative Density versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	306





DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.RESISTIVITY.DEPTH.AMP.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 2/2/2021 01:31 10.01.00.11 Datgel CPT Tool.gINT Add-in

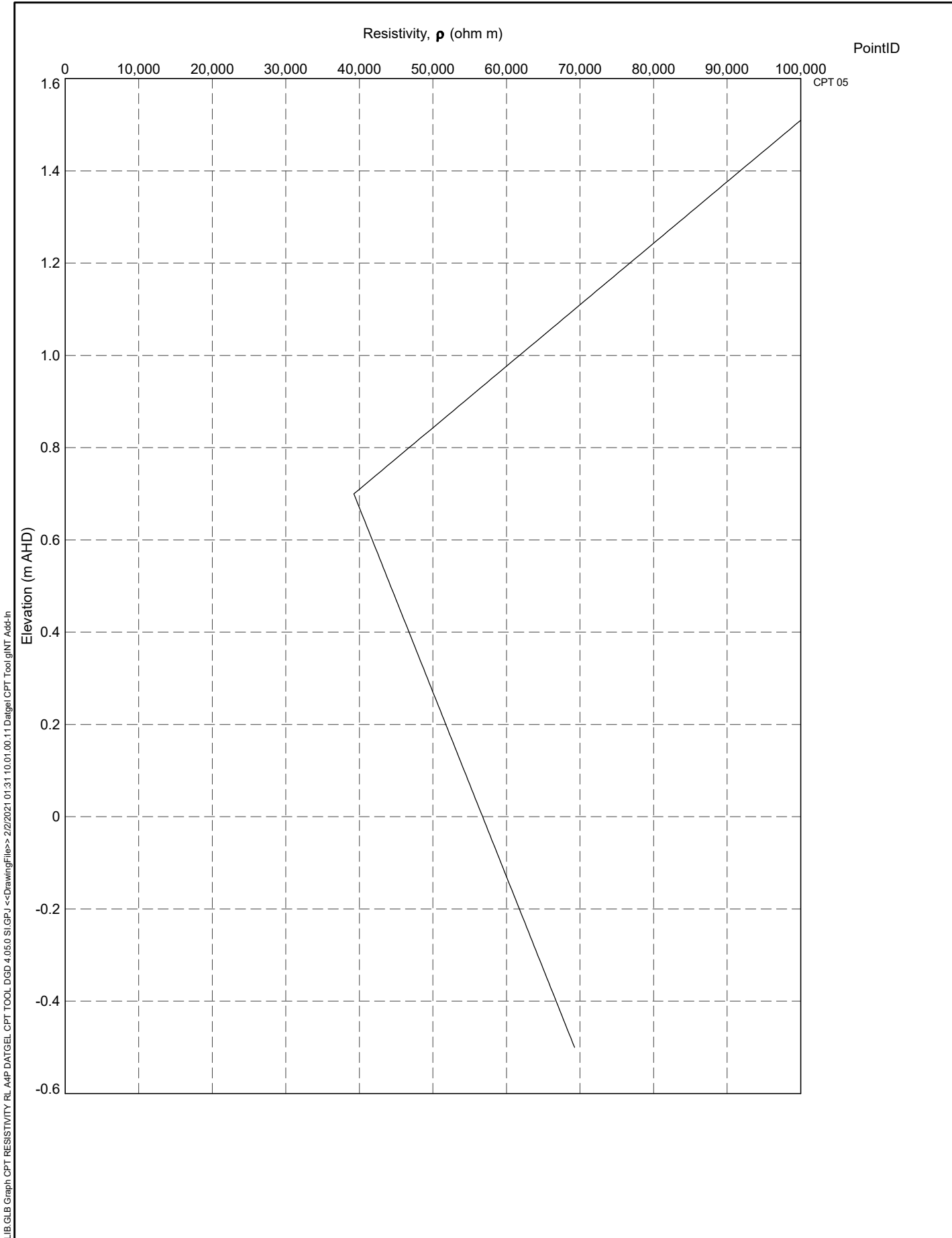


**Datgel**  
DATA SOLUTIONS  
Geotechnics • Geoenvironment • Laboratory

TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Resistivity versus Depth

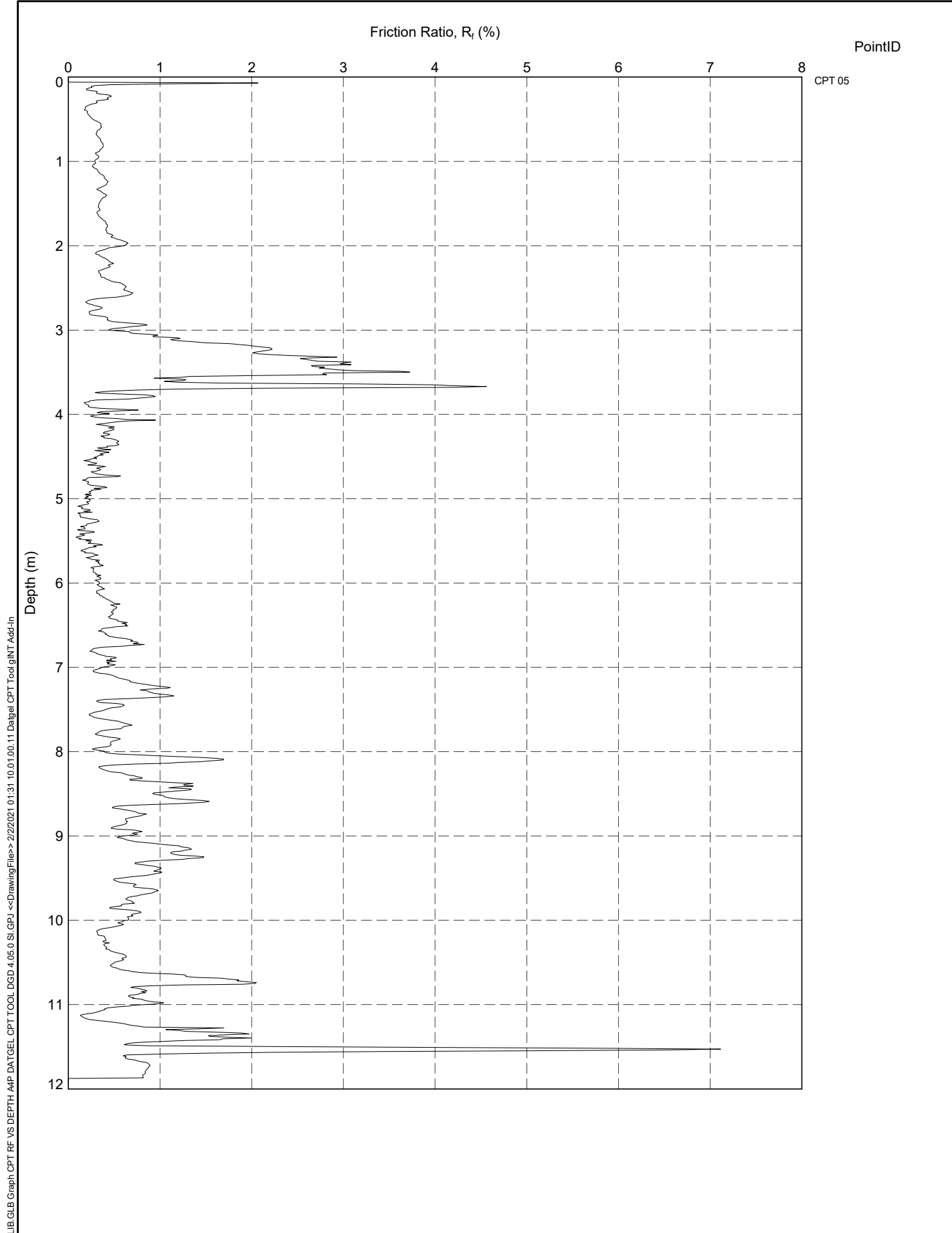
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	307



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.RESISTIVITY.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:31:10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



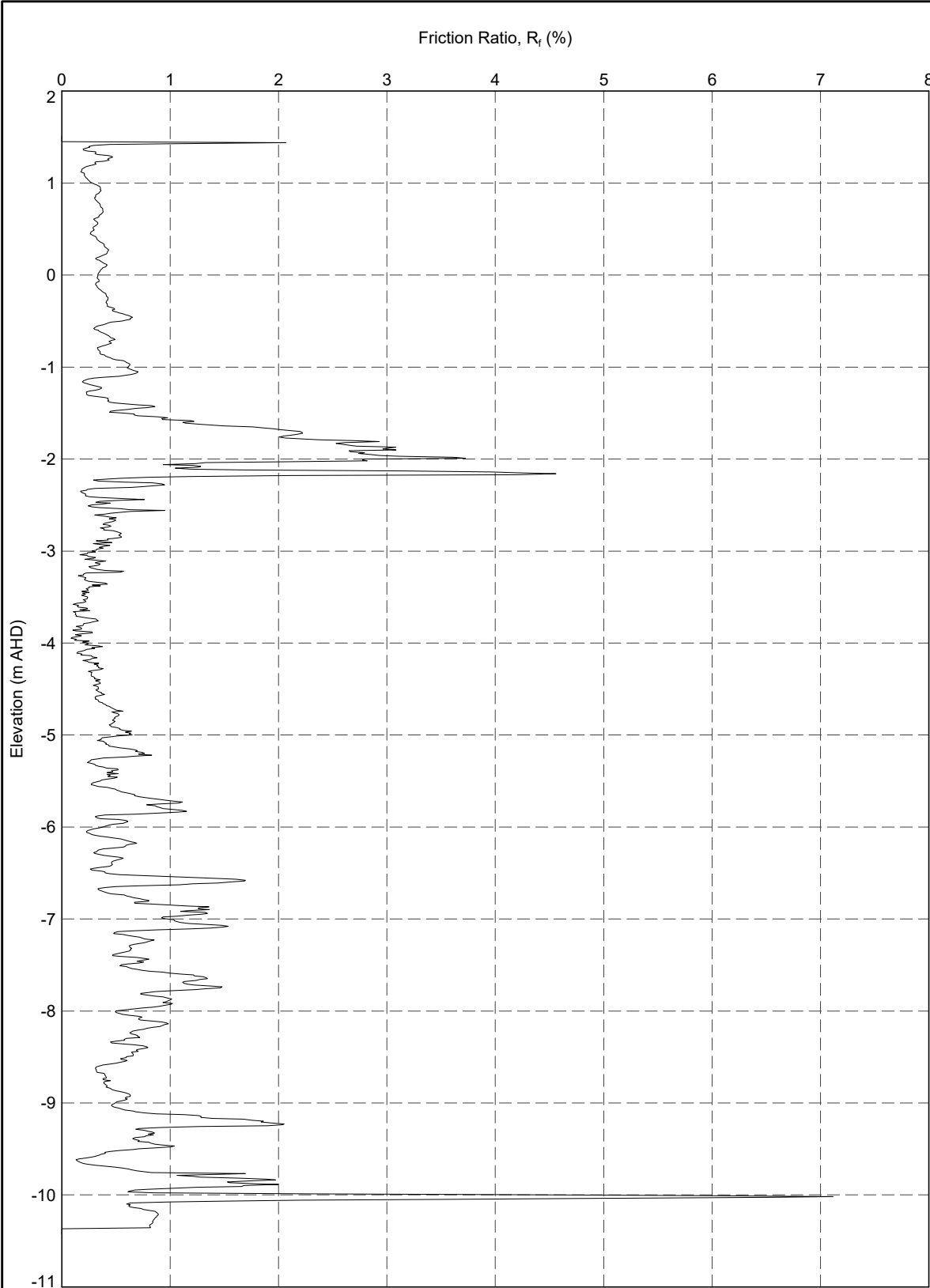
TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Resistivity versus Elevation	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	308	



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.RF VS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/22/2021 01:31 10:01:00.11 Datgel CPT Tool gINT Add-in

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Friction Ratio versus Depth		DRAWN Datgel	DATE 2/2/2021
				CHECKED Datgel	DATE 2/2/2021
		SCALE Not To Scale			A4
		PROJECT No 4.05.0	FIGURE No 309		

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.RF VS RL.A4P DATGEL.CPT TOOL DGD 4.05.0 S.L.GPJ <<DrawingFile>> 2/2/2021 01:31:10.01.00:11 Datgel.CPT Tool glINT Add-In



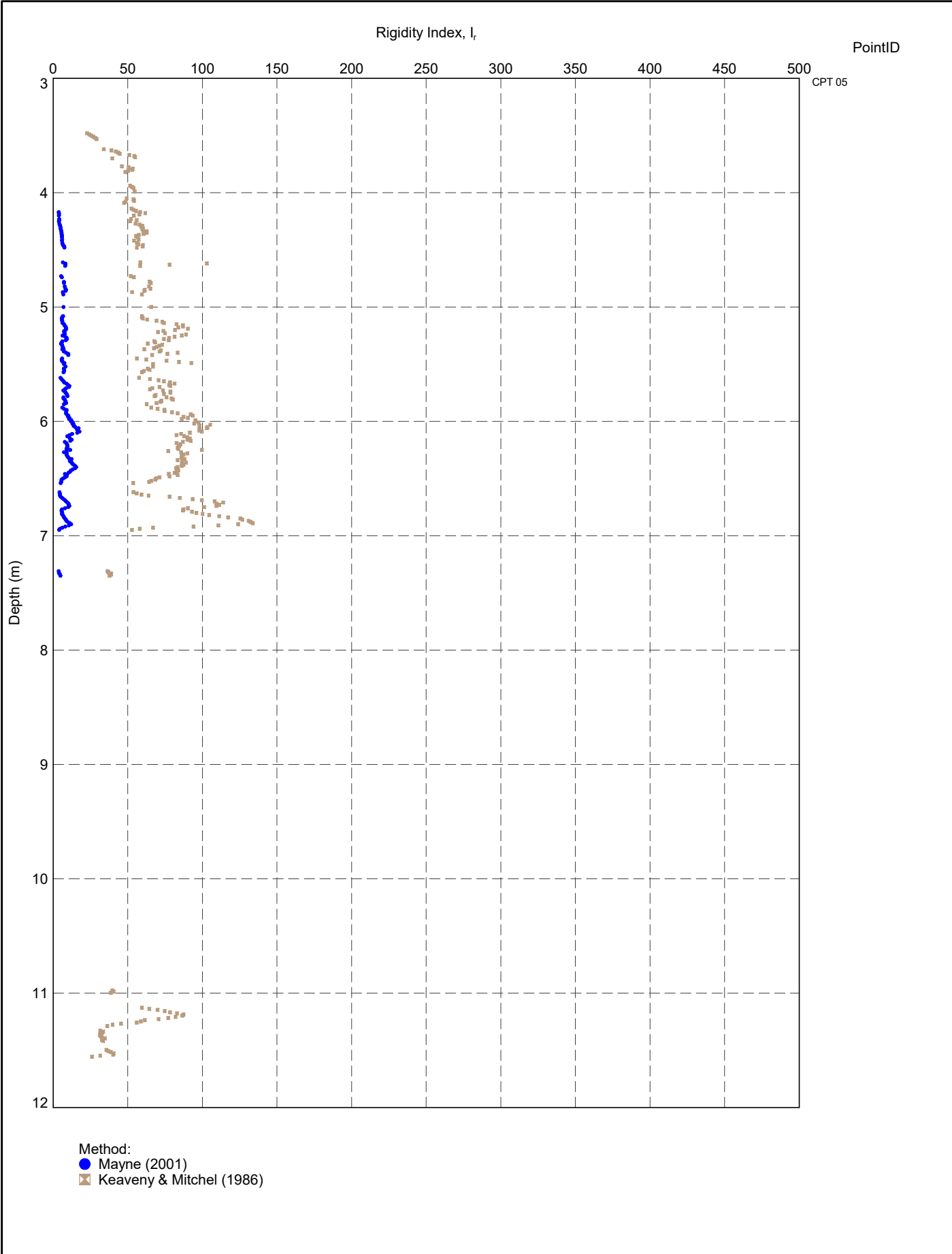
PointID  
CPT 05



TITLE  
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Friction Ratio versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	310

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.RIGIDITY.INDEX.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:32 10:01.00.11 Datgel.CPT.Tool.gINT.Add-in



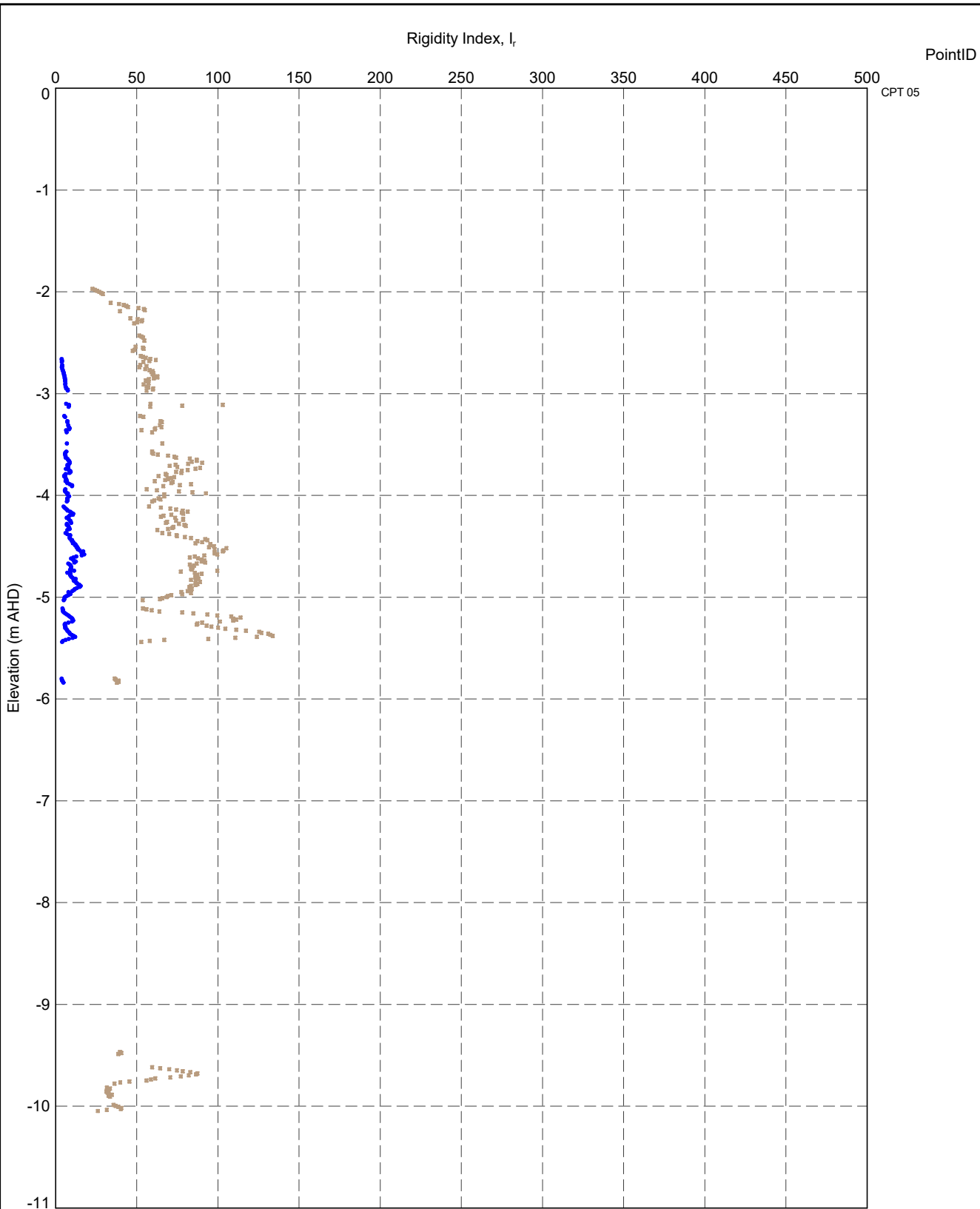
Method:  
 ● Mayne (2001)  
 ■ Keaveny & Mitchel (1986)



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Rigidity Index versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	311



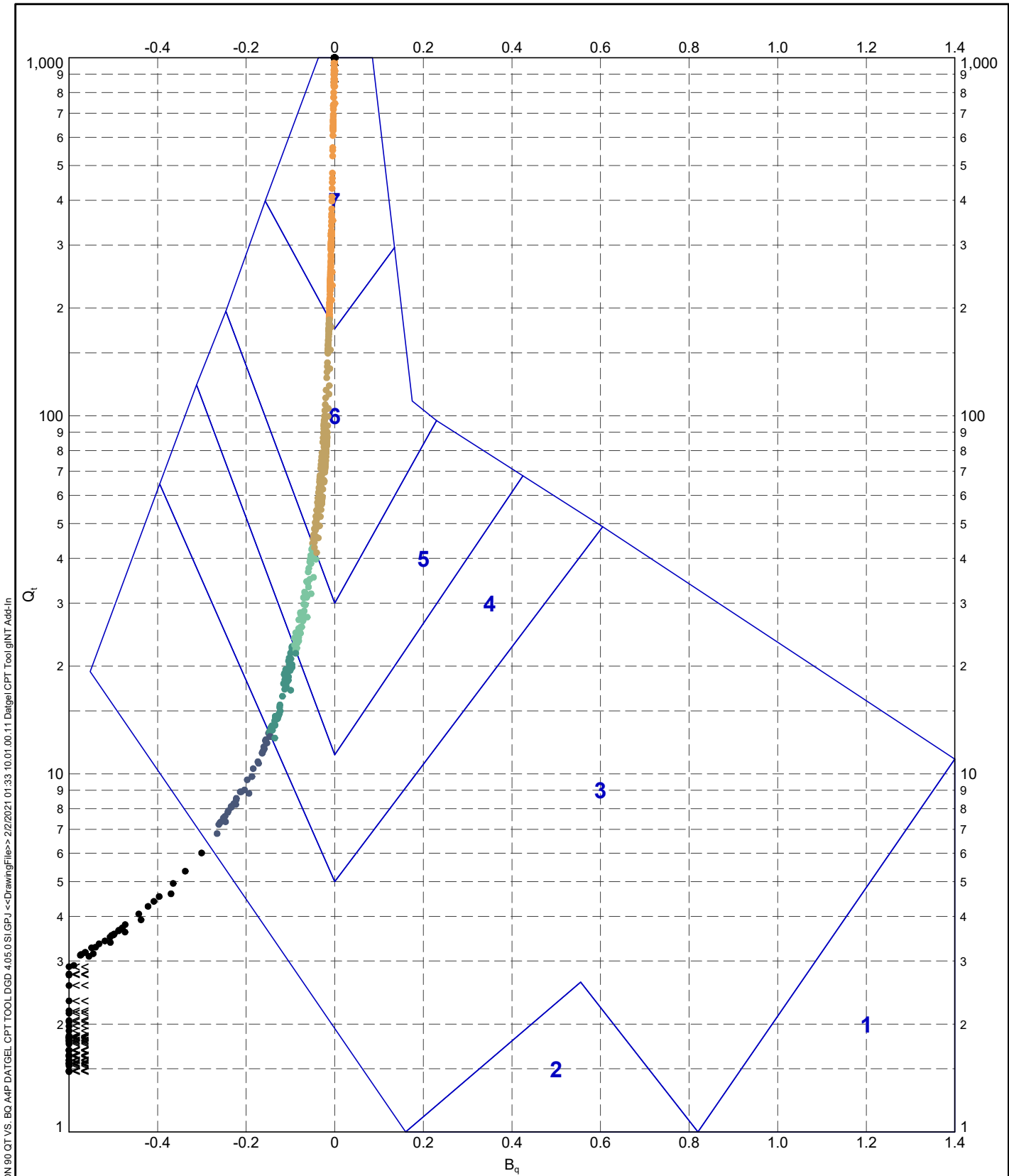
Method:  
 ● Mayne (2001)  
 ■ Keaveny & Mitchel (1986)

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT RIGIDITY INDEX RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:32 10.01.00.11 Datgel CPT Tool glNT Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Rigidity Index versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	312



DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT:ROBERTSON 90 QT.VS. BQ A4P DATGEL.CPT TOOL DGD 4.05.0(SI)GPJ <<DrawingFile>> 2/2/2021 01:33:10.01.00.11 Datgel CPT Tool glINT Add-In

**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - PEATS       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - CLAYS - CLAY to silty CLAY | 6 - SANDS - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

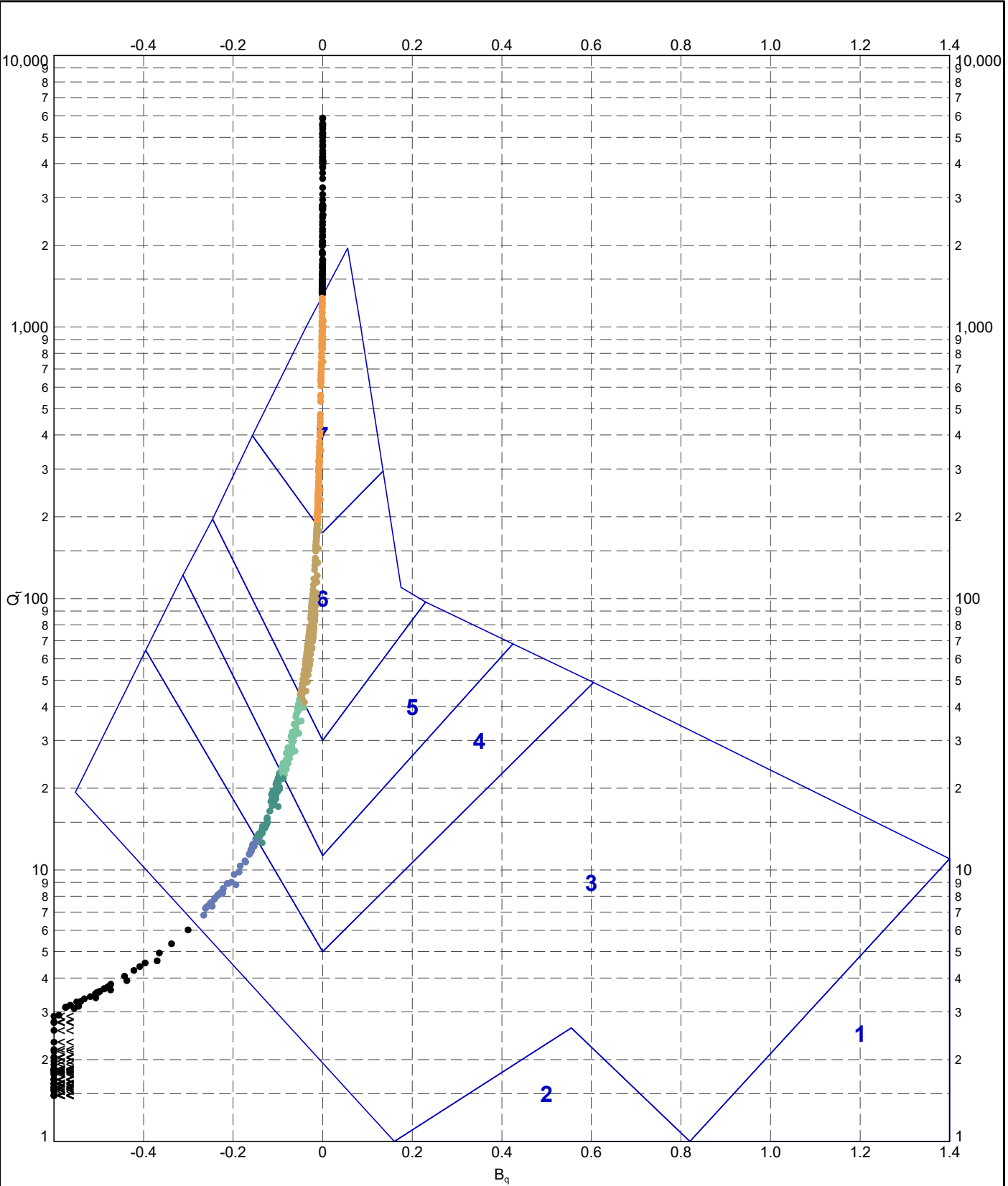


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $Q_t$  vs.  $B_q$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	313

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. BQ EXTRAP.AMP.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:33 10.01.00.11 Datgel.CPT.Tool.gINT.Add-In



**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
  - 2 - Organic soil - peats
  - 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
  - 5 - SAND mixtures - silty SAND to sandy SILT
  - 6 - Sands - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
  - 8 - Very stiff SAND to clayey SAND
  - 9 - Very stiff fine grained

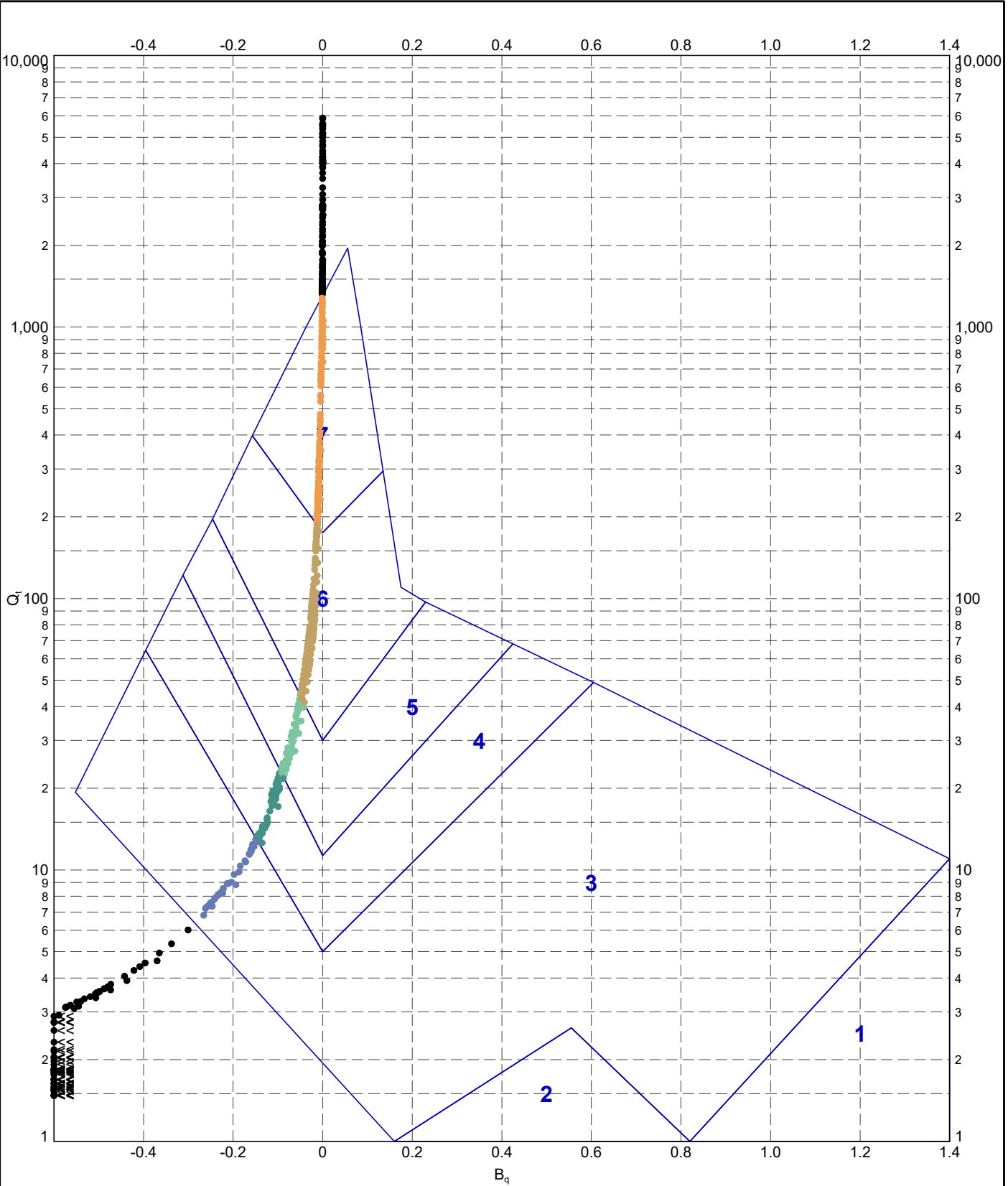


**TITLE**  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990 Extrap.  $Q_r$  vs.  $B_q$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	314



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT ROBERTSON 90 QT.VS. BQ EXTRAP.M.A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:33 10.01.00.11 Datgel CPT Tool.GINT Add-In



**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - peats       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - Clays - CLAY to silty CLAY | 6 - Sands - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

PointIDs: ● CPT 02

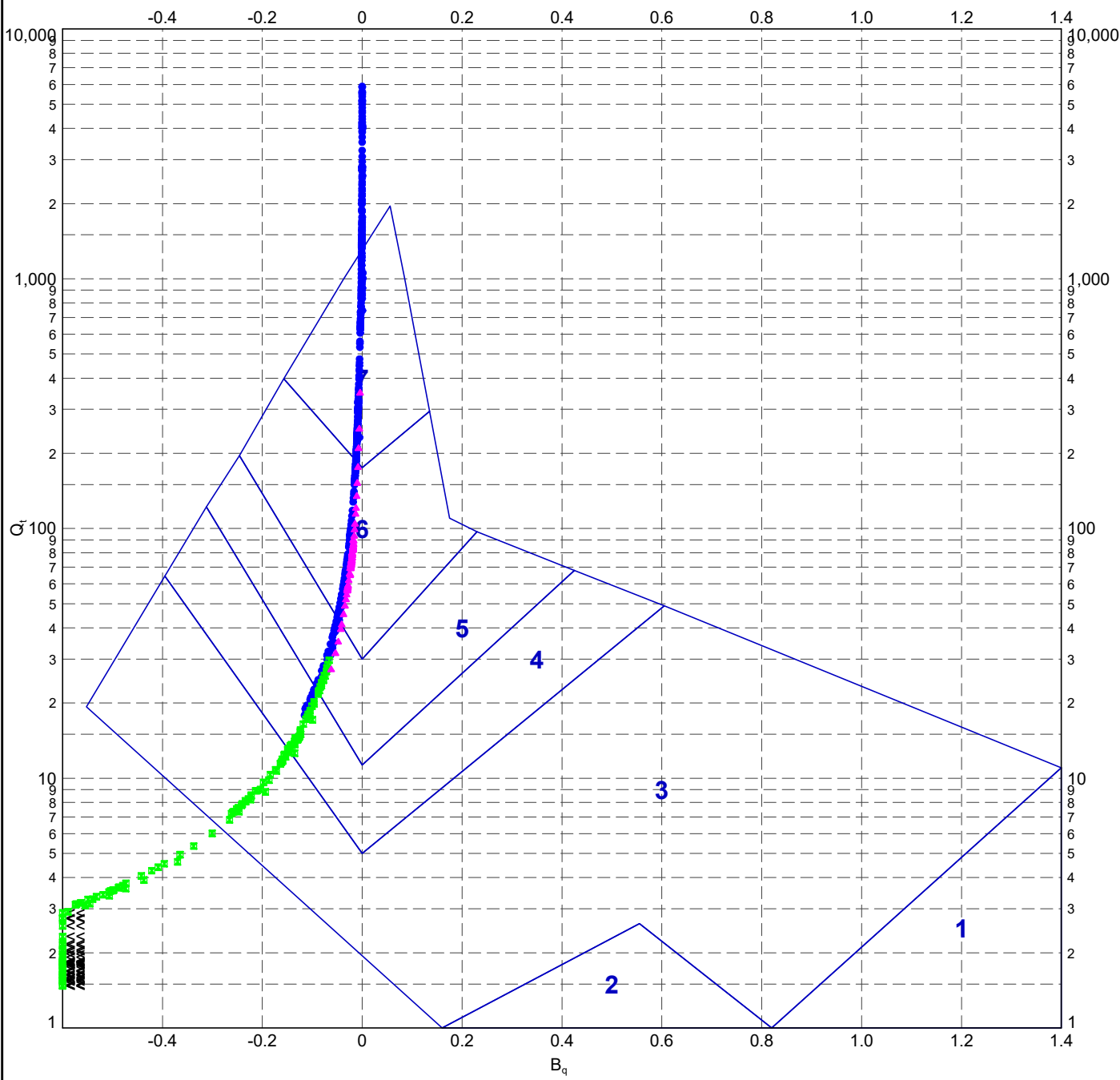


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990 Extrap.  $Q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	315

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. BQ EXTRAP.U.A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFiles> 2/2/2021 01:33 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - Sands - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

**Geology Unit Legend**

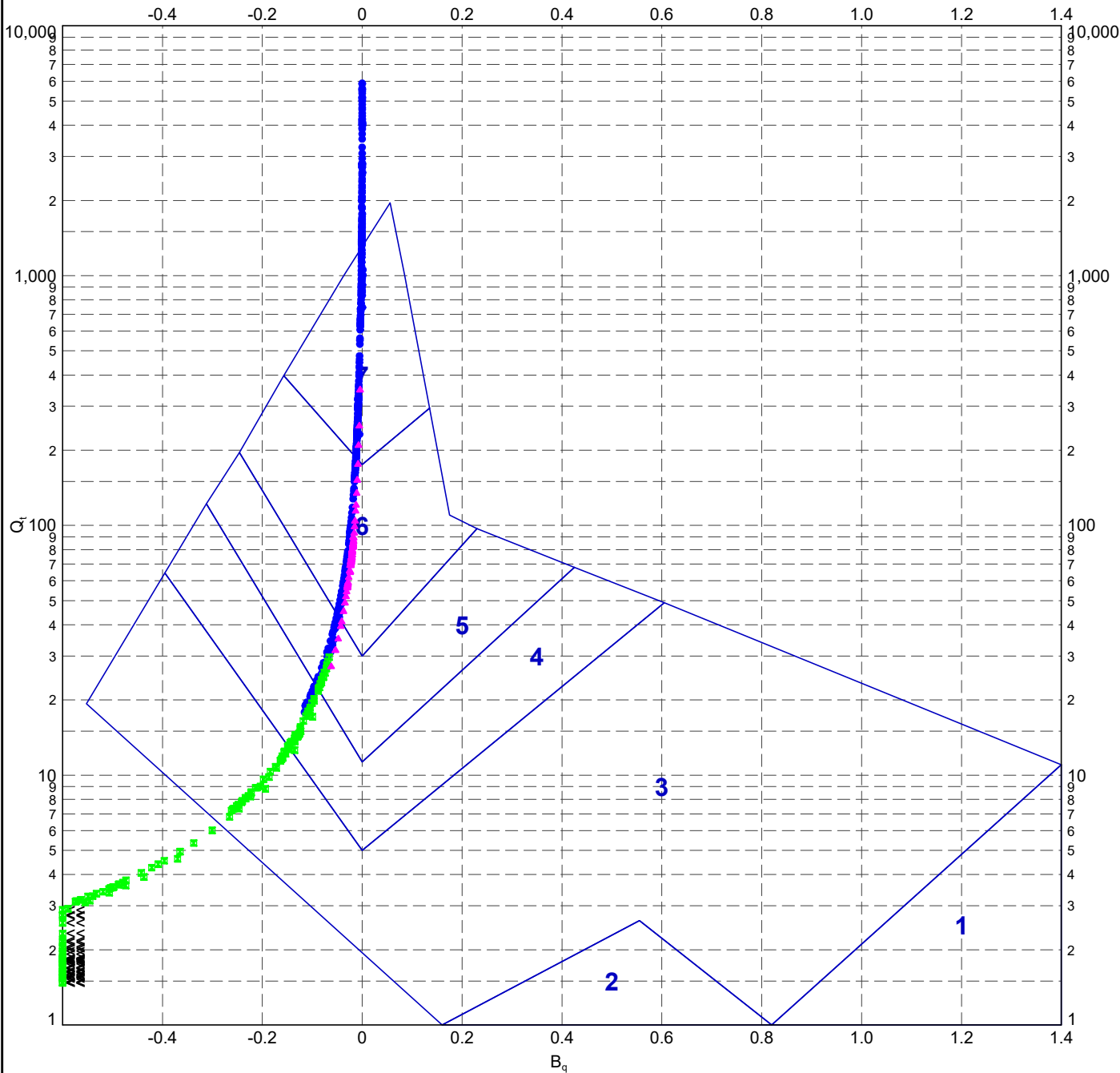
- ★ D - Unit D
- A - Unit A
- B - Unit B
- ▲ C - Unit C
- ◆ F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I
- ⊕ J - Unit J
- K - Unit K
- ◇ R - Rock



Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990 Extrap.  $Q_t$  vs.  $B_q$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	316

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT ROBERTSON 90 QT vs. BQ EXTRAP. UM /A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <-DrawingFile> 2/2/2021 01:33:10.01.00.11 Datgel CPT Tool glINT A4d-In



**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - Sands - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

**Geology Unit Legend**

- ★ D - Unit D
- A - Unit A
- B - Unit B
- ▲ C - Unit C
- ⊕ F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I
- ⊕ J - Unit J
- K - Unit K
- ◇ R - Rock

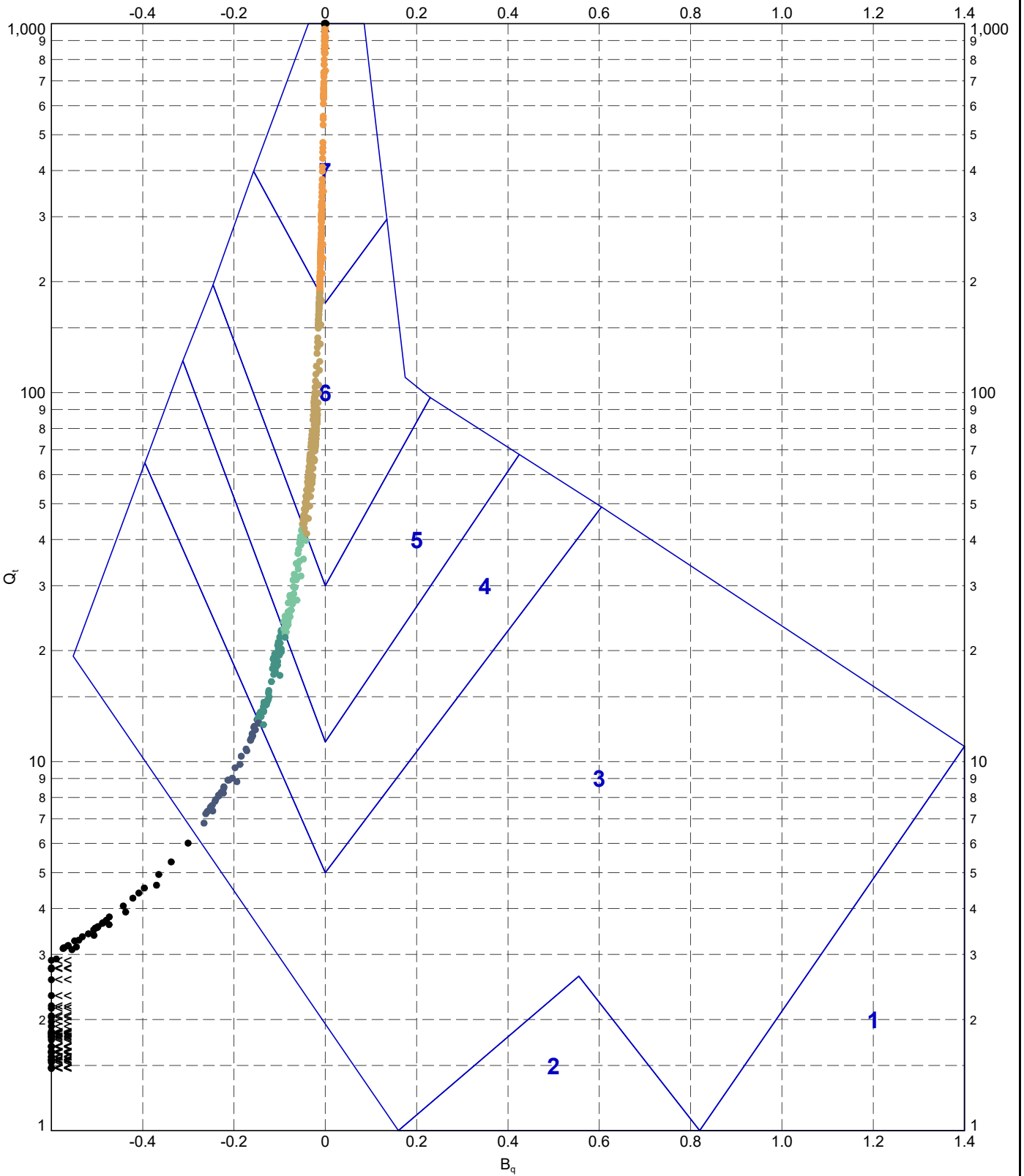
PointIDs: CPT 02



Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990 Extrap.  $Q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	317

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT ROBERTSON 90 QT.VS. BQ M A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 01:33 10:01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - PEATS       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - CLAYS - CLAY to silty CLAY | 6 - SANDS - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

PointIDs: ● CPT 02

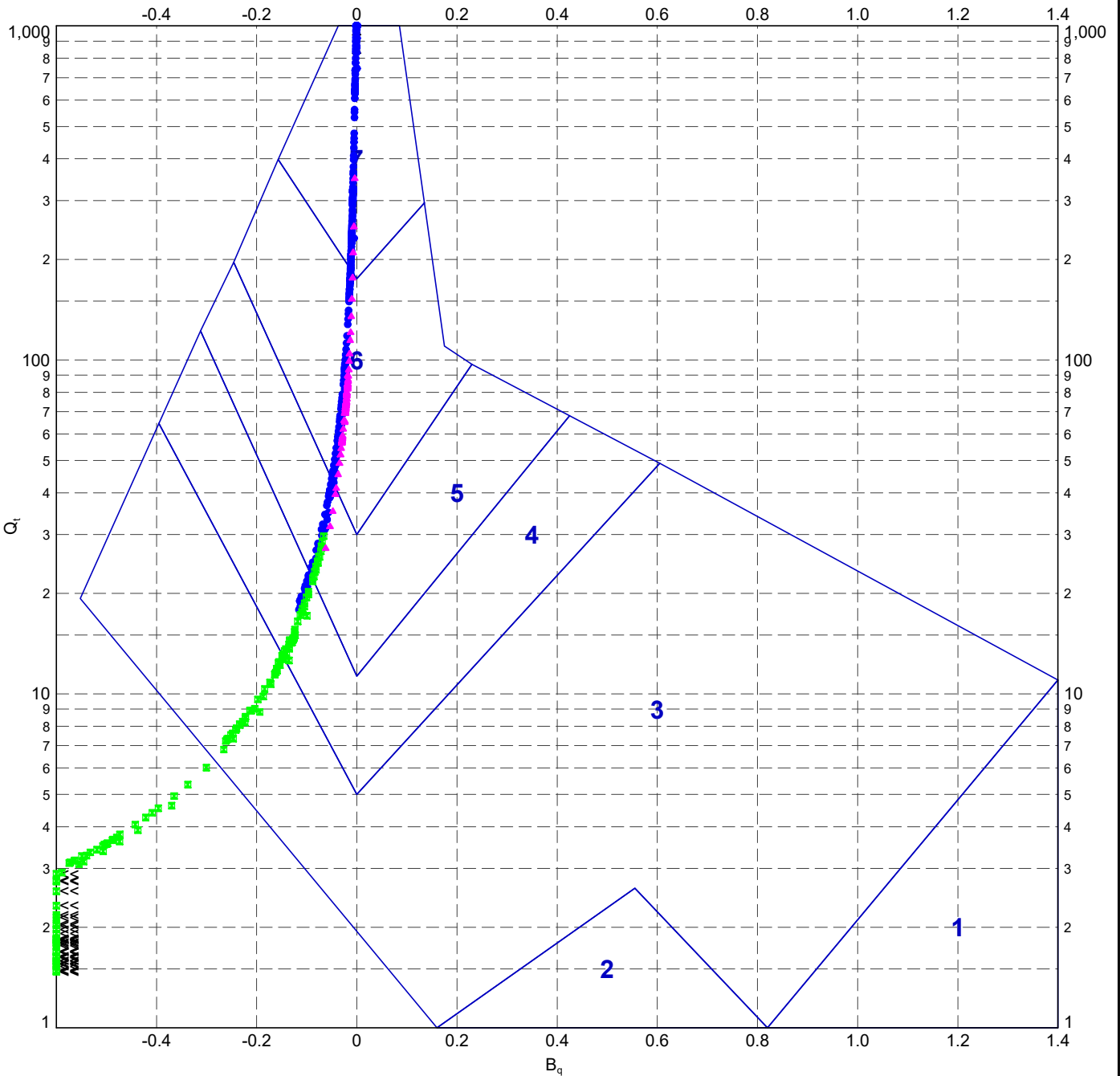


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990  $Q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	318

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. BQ.U.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/22/2021 01:33 10:01.00.11 Datgel.CPT.Tool.gINT.Add-In



**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - PEATS
- 3 - CLAYS - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - SANDS - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

**Geology Unit Legend**

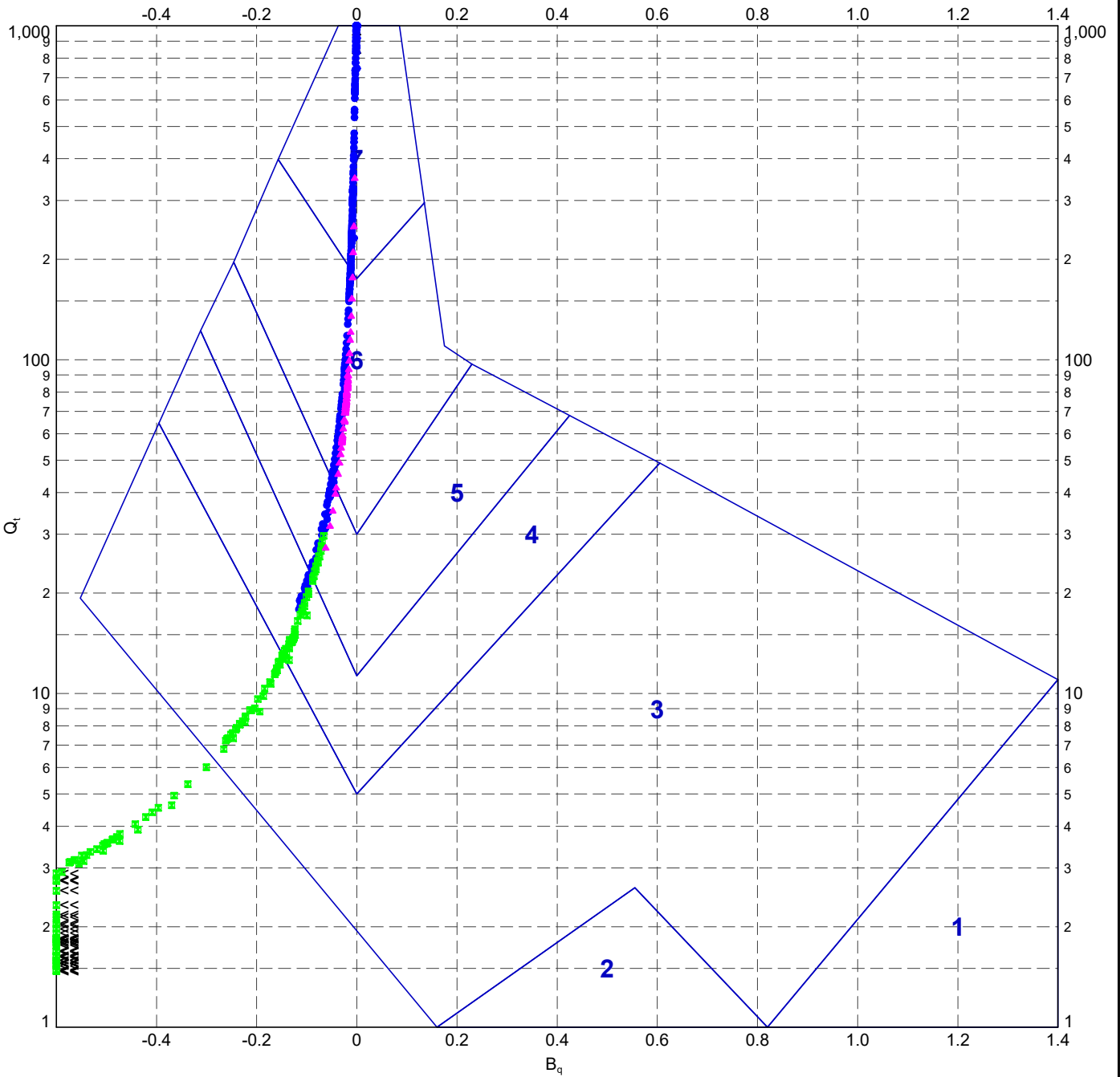
- ★ D - Unit D
- A - Unit A
- B - Unit B
- ▲ C - Unit C
- ⊕ F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I
- ⊕ J - Unit J
- K - Unit K
- ◇ R - Rock



Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990  $Q_t$  vs.  $B_q$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	319

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. BQ.UM.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:34 10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - PEATS       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - CLAYS - CLAY to silty CLAY | 6 - SANDS - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

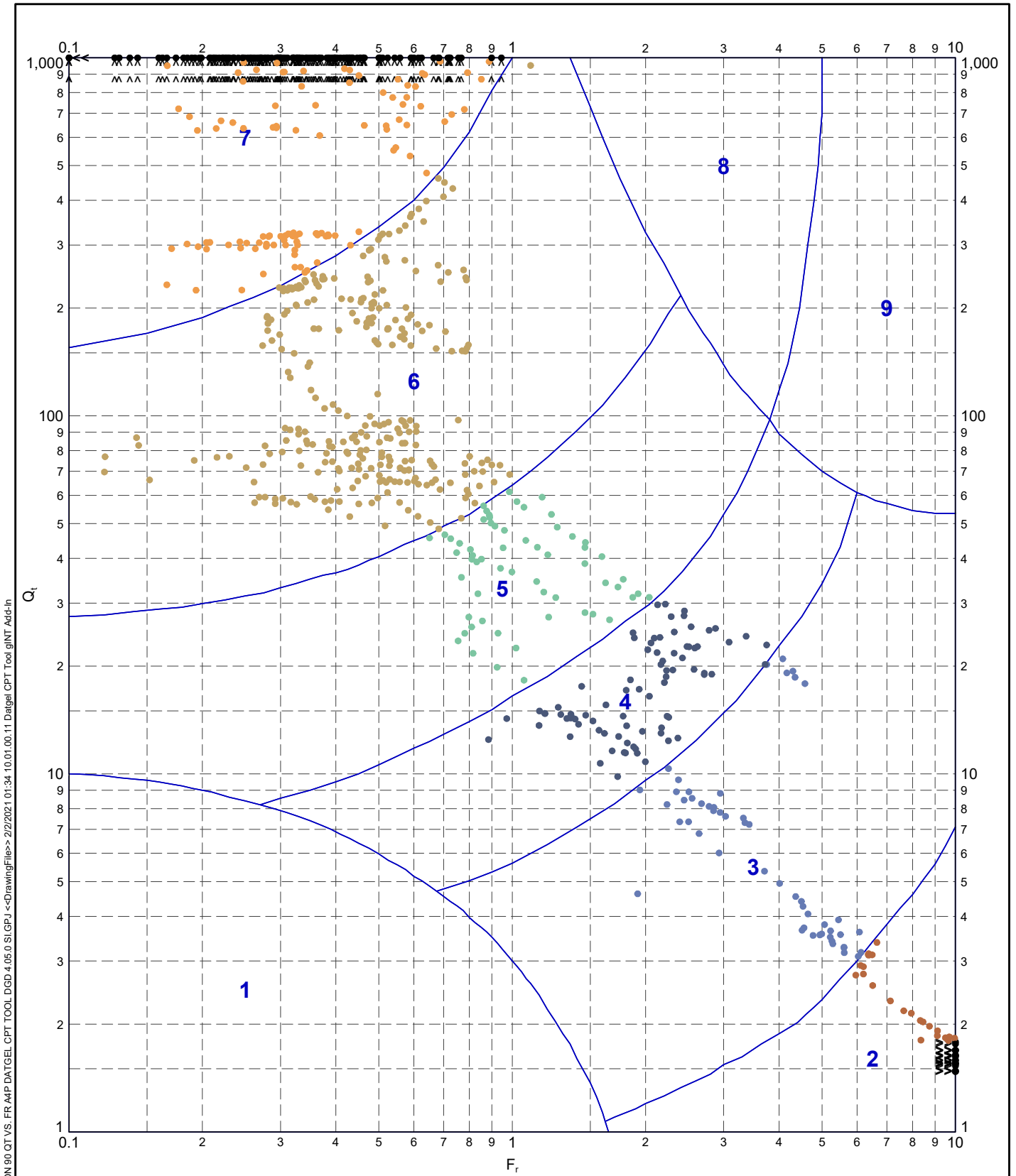
PointIDs: CPT 02



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $Q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	320



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT ROBERTSON 90 QT.VS. FR A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:34:10.01.00.11 Datgel CPT Tool gINT Add-In

**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - PEATS
- 3 - CLAYS - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - SANDS - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

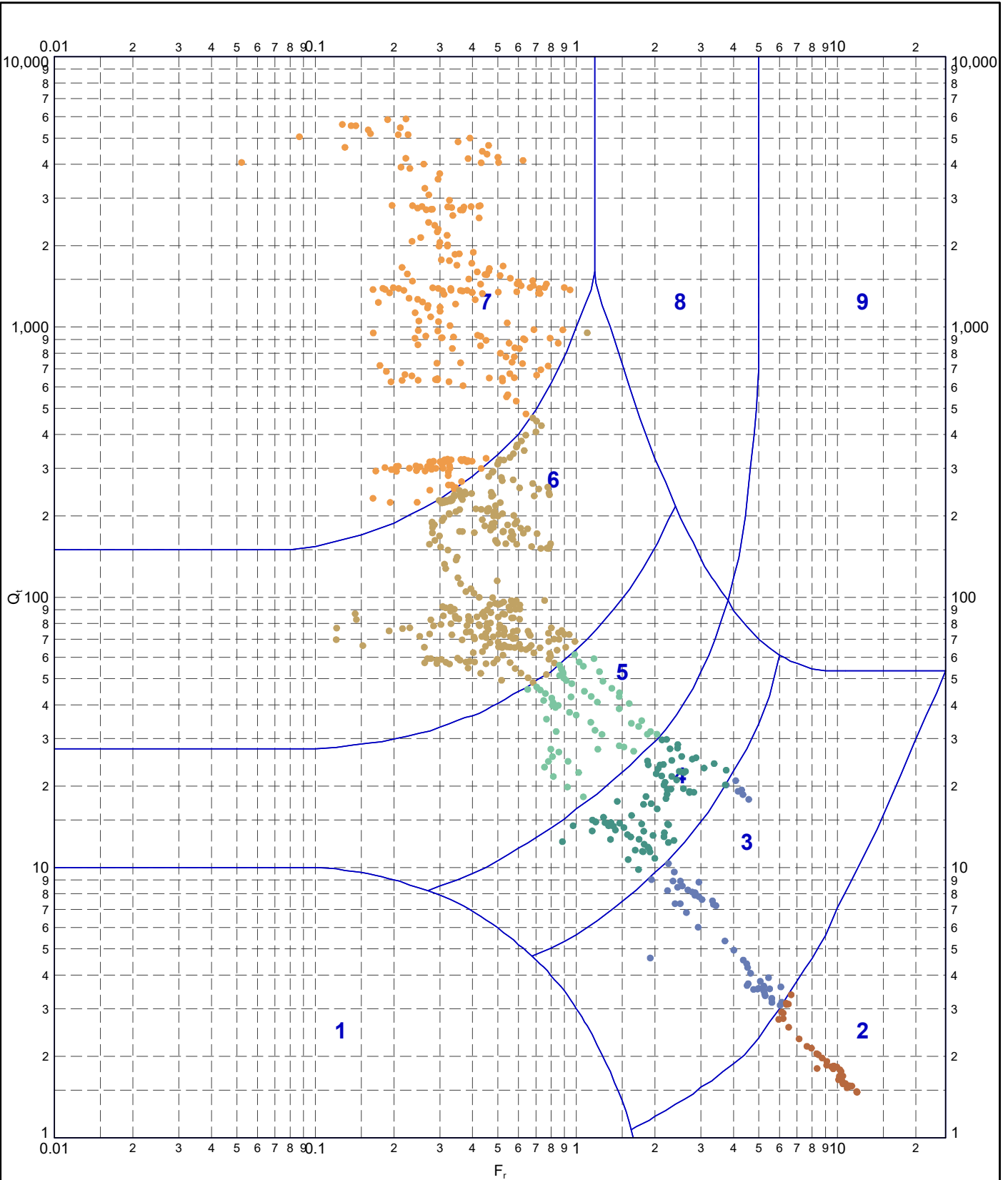


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $Q_t$  vs.  $F_r$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	321

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. FR EXTRAP A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:34 10.01.00.11 Datgel CPT Tool.gINT Add-in



**METHOD: Robertson 1990**

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>1 - Sensitive, fine grained</li> <li>2 - Organic soil - peats</li> <li>3 - Clays - CLAY to silty CLAY</li> </ul> | <ul style="list-style-type: none"> <li>4 - SILT mixtures - clayey SILT to silty CLAY</li> <li>5 - SAND mixtures - silty SAND to sandy SILT</li> <li>6 - Sands - clean SAND to silty SAND</li> </ul> | <ul style="list-style-type: none"> <li>7 - Gravelly SAND to SAND</li> <li>8 - Very stiff SAND to clayey SAND</li> <li>9 - Very stiff fine grained</li> </ul> |
|---|---|--|



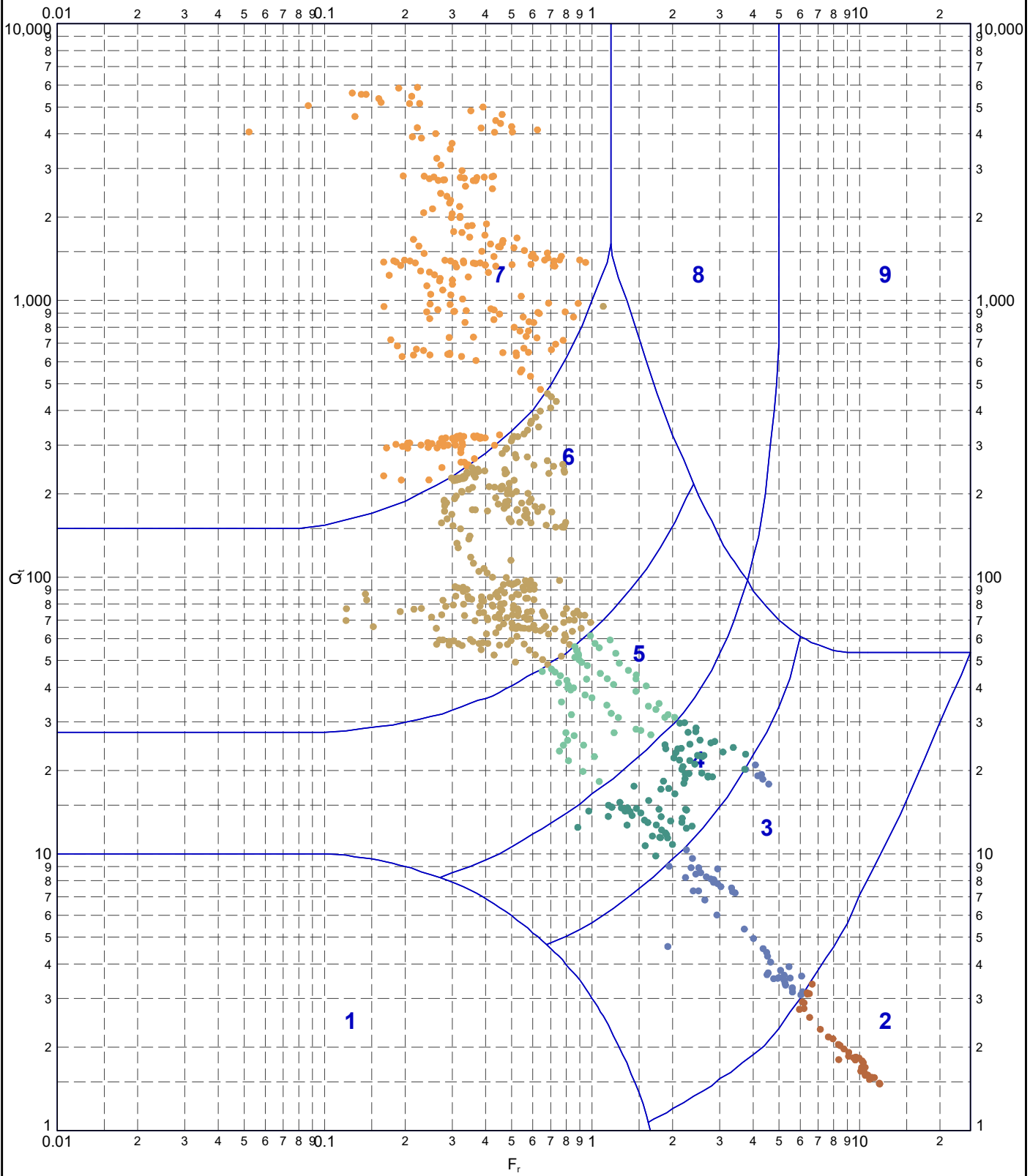
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990 Extrap.  $Q_t$  vs.  $F_r$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	322



DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT ROBERTSON 90 QT.VS. FR EXTRAP.M.A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:34 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Robertson 1990**

- 1 - Sensitive, fine grained
- 2 - Organic soil - peats
- 3 - Clays - CLAY to silty CLAY
- 4 - SILT mixtures - clayey SILT to silty CLAY
- 5 - SAND mixtures - silty SAND to sandy SILT
- 6 - Sands - clean SAND to silty SAND
- 7 - Gravelly SAND to SAND
- 8 - Very stiff SAND to clayey SAND
- 9 - Very stiff fine grained

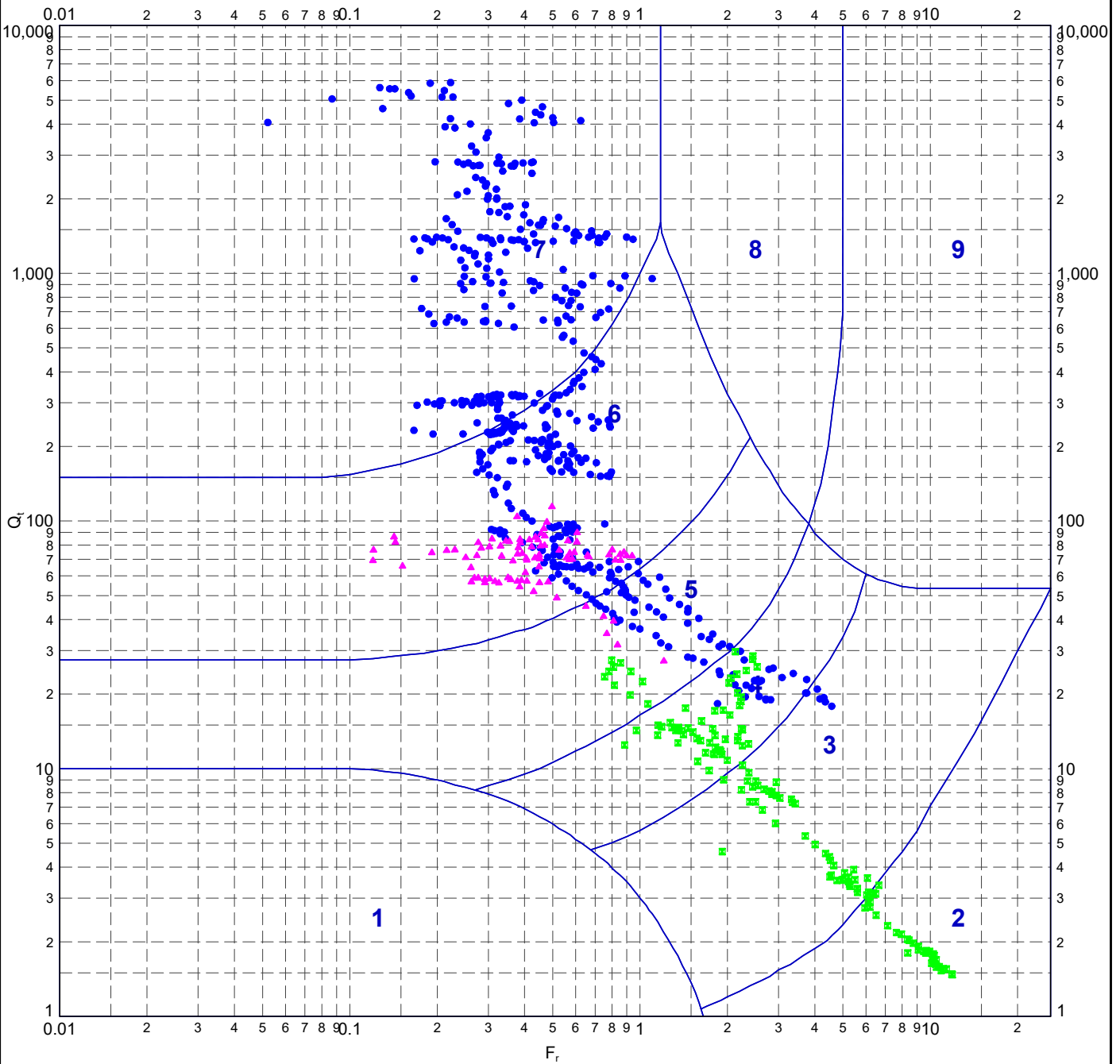
PointIDs: ● CPT 02



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson 1990 Extrap.  $Q_t$  vs.  $F_r$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	323

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. FR EXTRAP U A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:34 10.01.00.11 Datgel CPT Tool glNT Add-In



**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - peats       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - Clays - CLAY to silty CLAY | 6 - Sands - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ◆ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

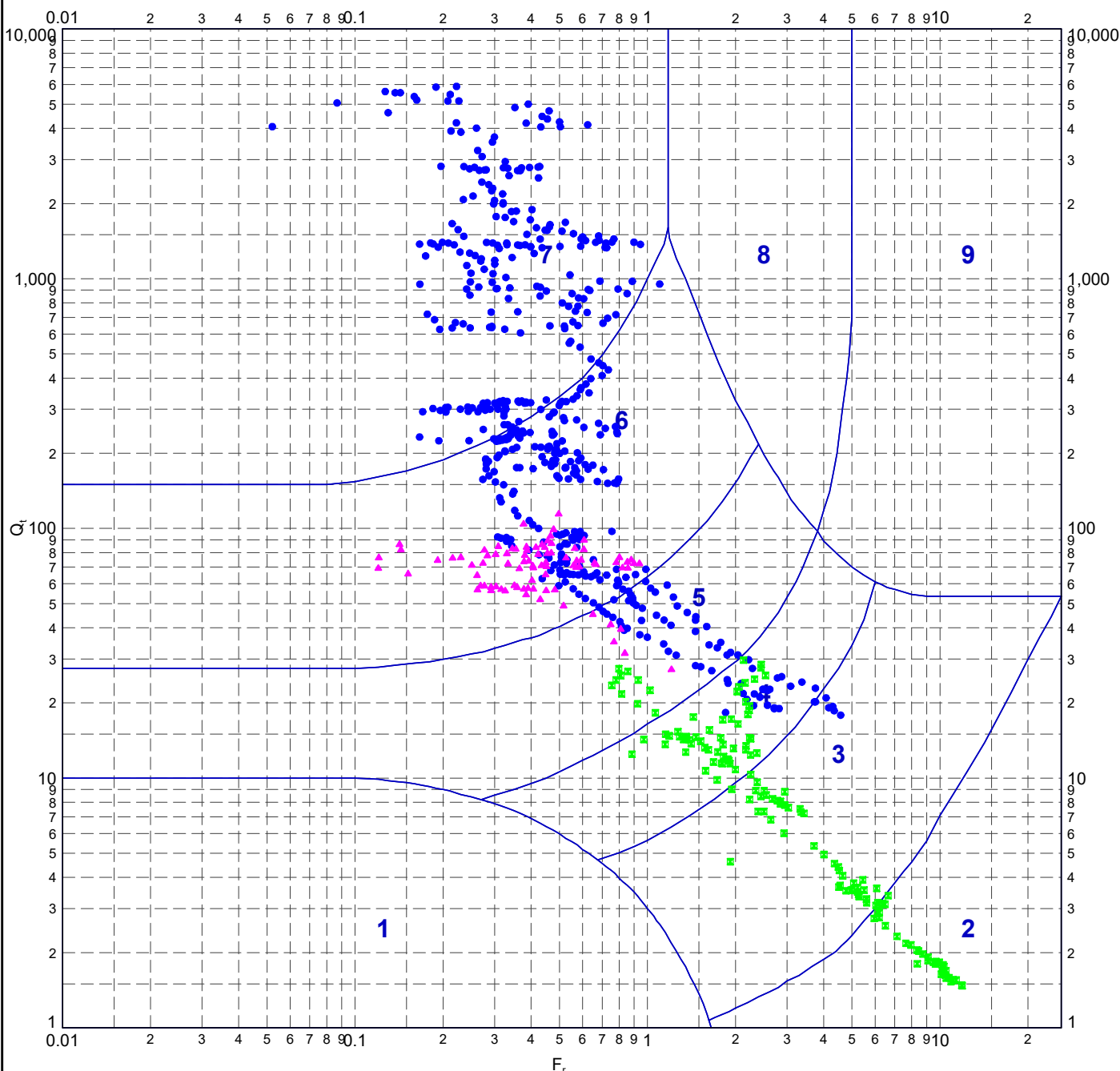


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990 Extrap.  $Q_t$  vs.  $F_r$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	324

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.ROBERTSON 90 QT.VS. FR EXTRAP LIM.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/22/2021 01:34:10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - peats       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - Clays - CLAY to silty CLAY | 6 - Sands - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

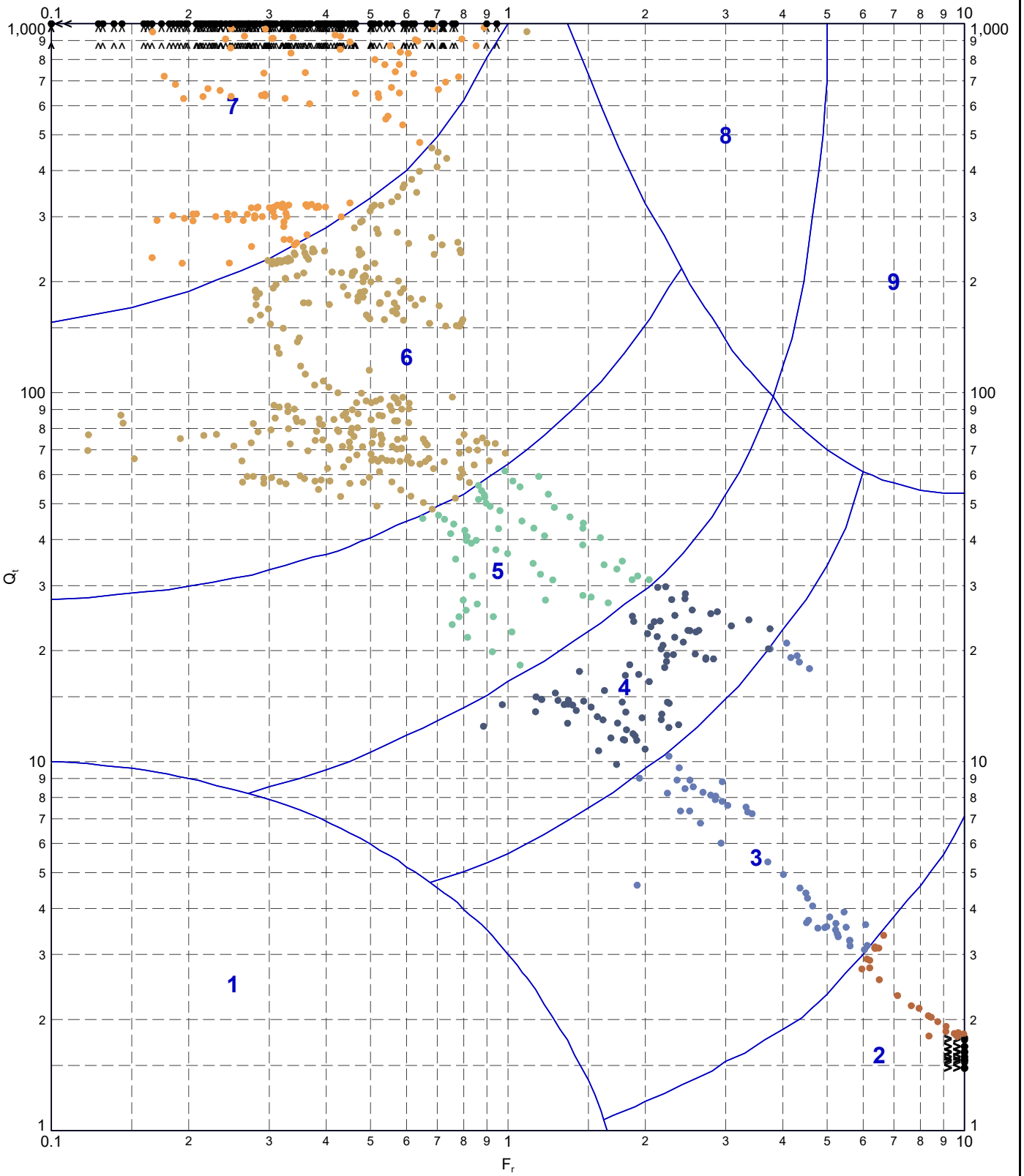
**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ◻ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 02

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Robertson 1990 Extrap. $Q_t$ vs. $F_r$	DRAWN Datgel	DATE 2/2/2021
			CHECKED Datgel	DATE 2/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 325

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT ROBERTSON 90 QT.VS. FR M A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 01:34 10:01.00.11 Datgel CPT Tool gINT Add-in



**METHOD: Robertson 1990**

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>1 - Sensitive, fine grained</li> <li>2 - Organic soil - PEATS</li> <li>3 - CLAYS - CLAY to silty CLAY</li> </ul> | <ul style="list-style-type: none"> <li>4 - SILT mixtures - clayey SILT to silty CLAY</li> <li>5 - SAND mixtures - silty SAND to sandy SILT</li> <li>6 - SANDS - clean SAND to silty SAND</li> </ul> | <ul style="list-style-type: none"> <li>7 - Gravelly SAND to SAND</li> <li>8 - Very stiff SAND to clayey SAND</li> <li>9 - Very stiff fine grained</li> </ul> |
|---|---|--|

PointIDs: ● CPT 02

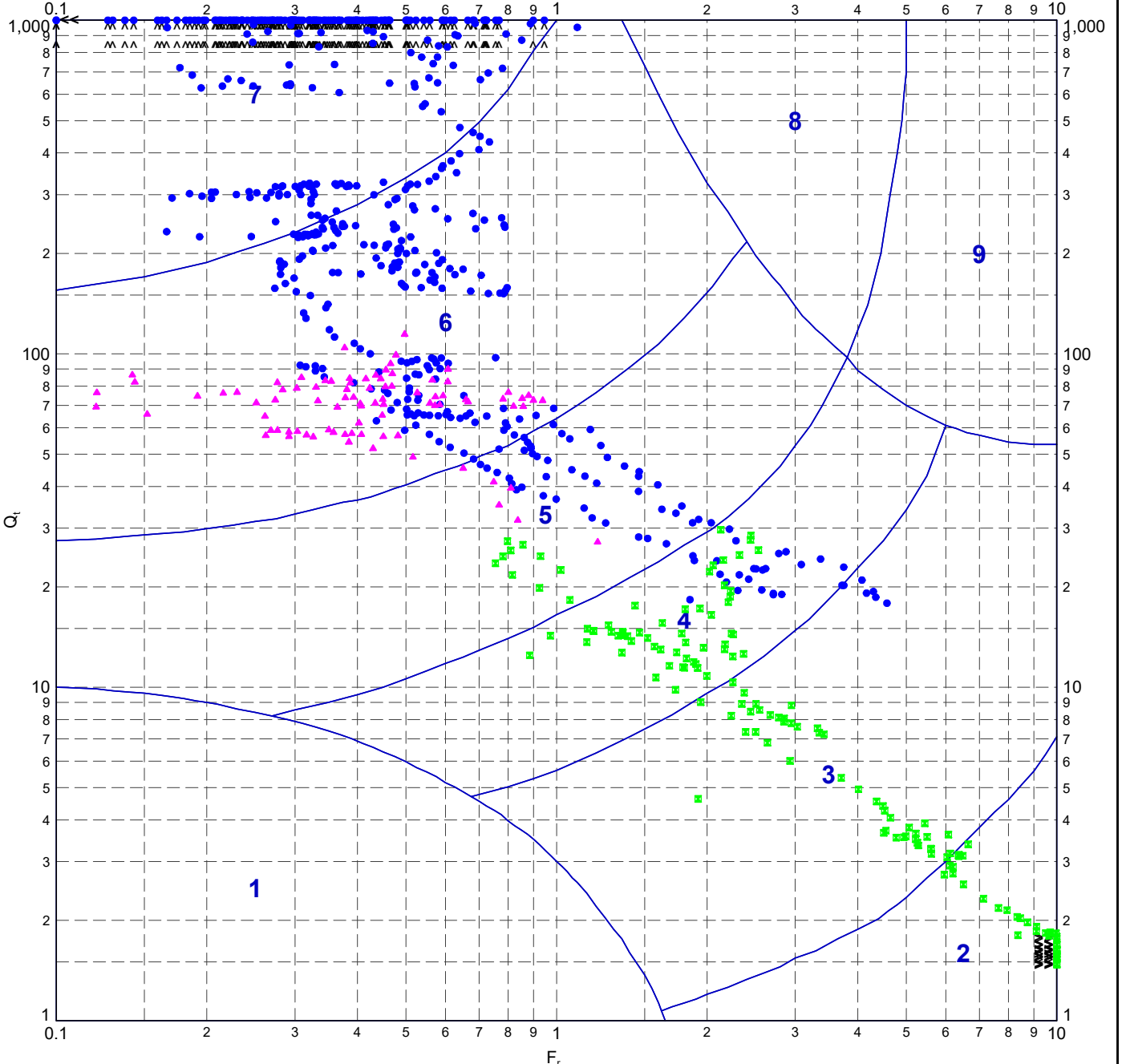


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $Q_t$  vs.  $F_r$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	326

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph CPT ROBERTSON 90 QT VS. FR U A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:34:10:01:00:11 Datgel CPT Tool gINT Add-In



**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - PEATS       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - CLAYS - CLAY to silty CLAY | 6 - SANDS - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

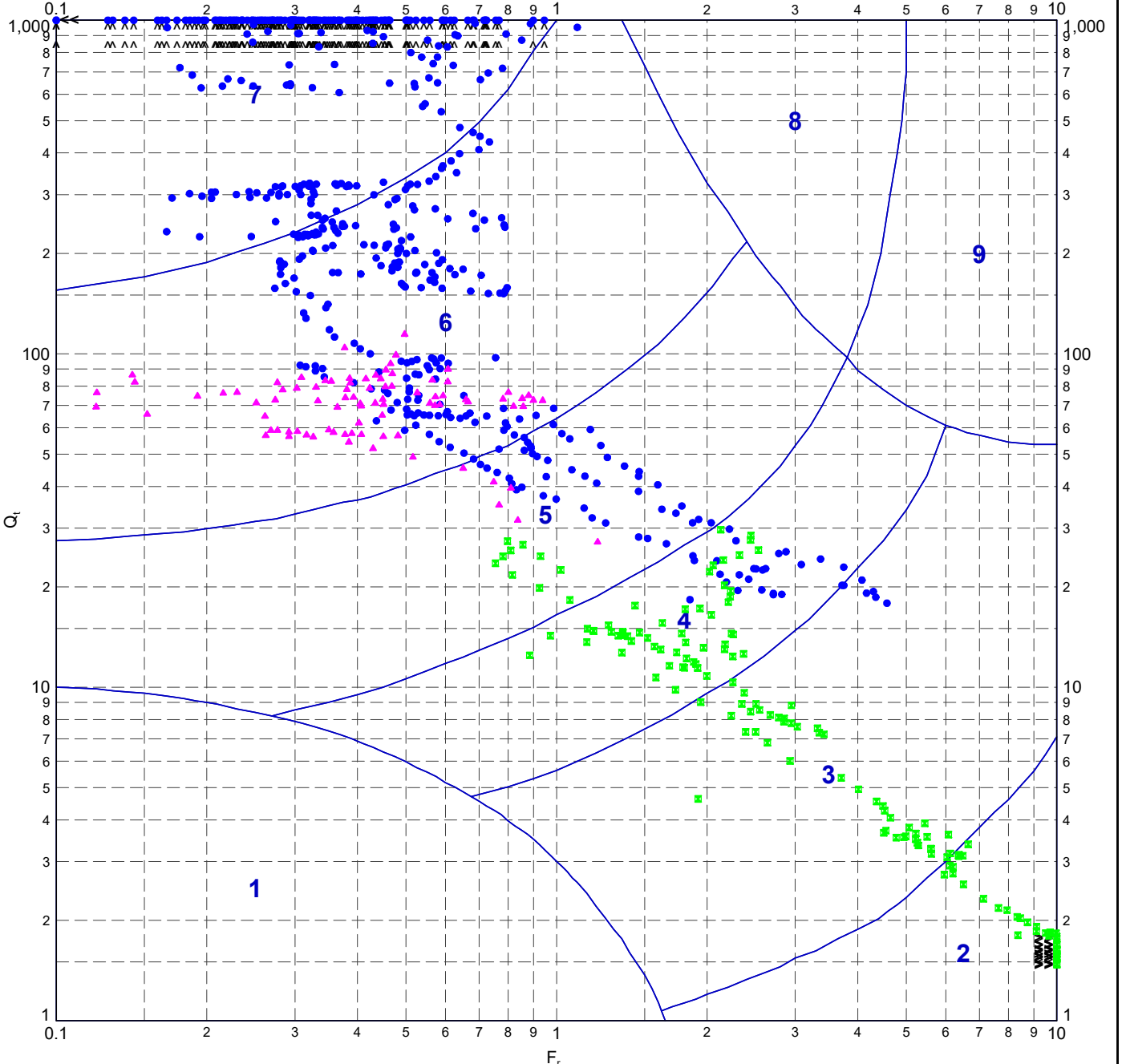


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson 1990  $Q_t$  vs.  $F_r$  - CPT 02

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	327

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT ROBERTSON 90 QT.VS. FR UM A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:35 10.01.00.11 Datgel CPT Tool gINT Add-in




**METHOD: Robertson 1990**

- |                                |   |                                    |
|--------------------------------|---|------------------------------------|
| 1 - Sensitive, fine grained    | 4 - SILT mixtures - clayey SILT to silty CLAY | 7 - Gravelly SAND to SAND          |
| 2 - Organic soil - PEATS       | 5 - SAND mixtures - silty SAND to sandy SILT  | 8 - Very stiff SAND to clayey SAND |
| 3 - CLAYS - CLAY to silty CLAY | 6 - SANDS - clean SAND to silty SAND          | 9 - Very stiff fine grained        |

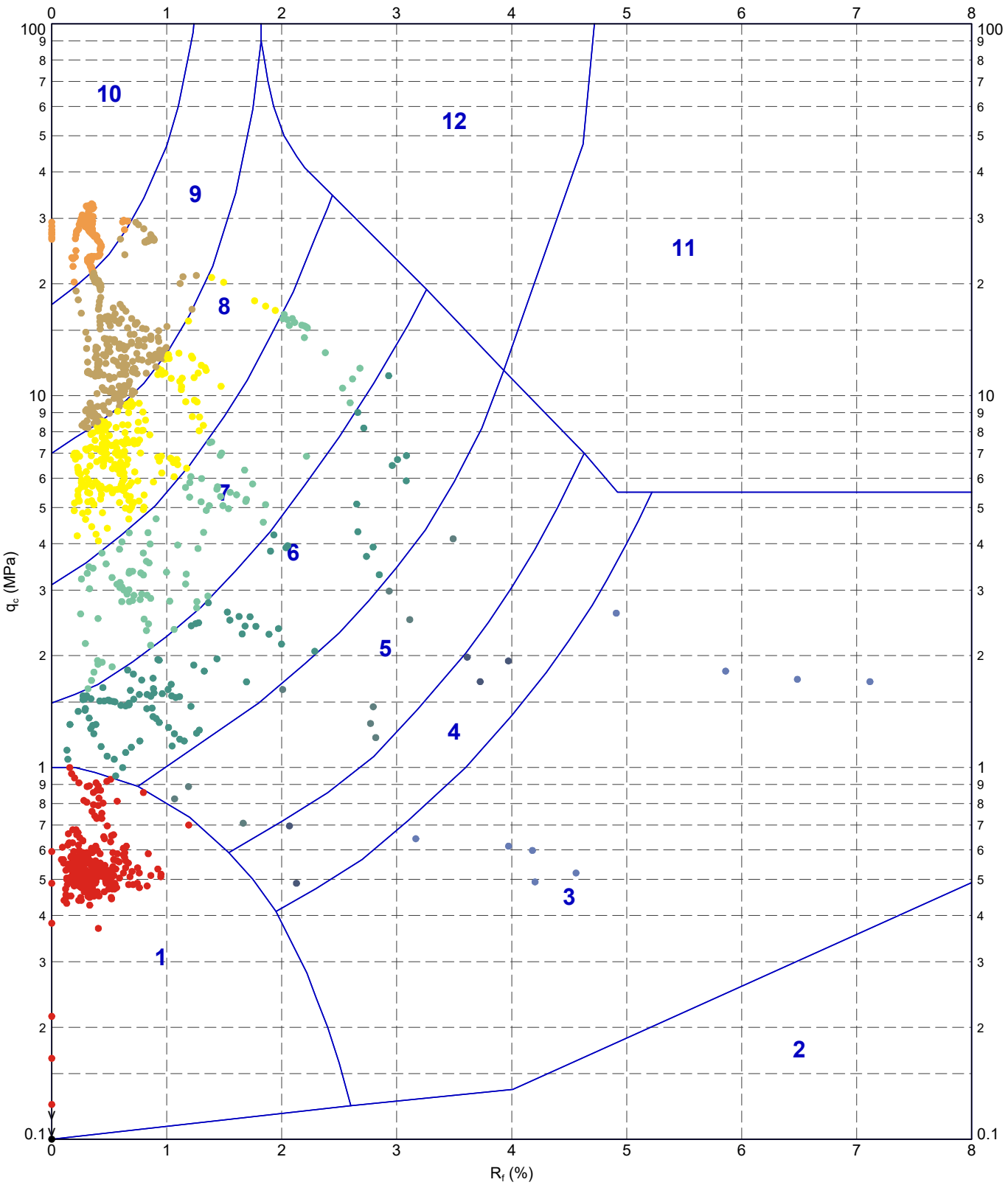
**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 02

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Robertson 1990 <math>Q_t</math> vs. <math>F_r</math></p>	<p>DRAWN</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">2/2/2021</p>	
		<p>CHECKED</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">2/2/2021</p>	
		<p>SCALE</p> <p style="text-align: center;">Not To Scale</p>		<p style="text-align: center;">A4</p>
		<p>PROJECT No</p> <p style="text-align: center;">4.05.0</p>	<p>FIGURE No</p> <p style="text-align: center;">328</p>	

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT ROBERTSON ET AL. 86 QC VS. RF AMP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:35:10 01:00:11 Datgel CPT Tool gINT Add-In



METHOD: Robertson et al. 1986 qc Rf

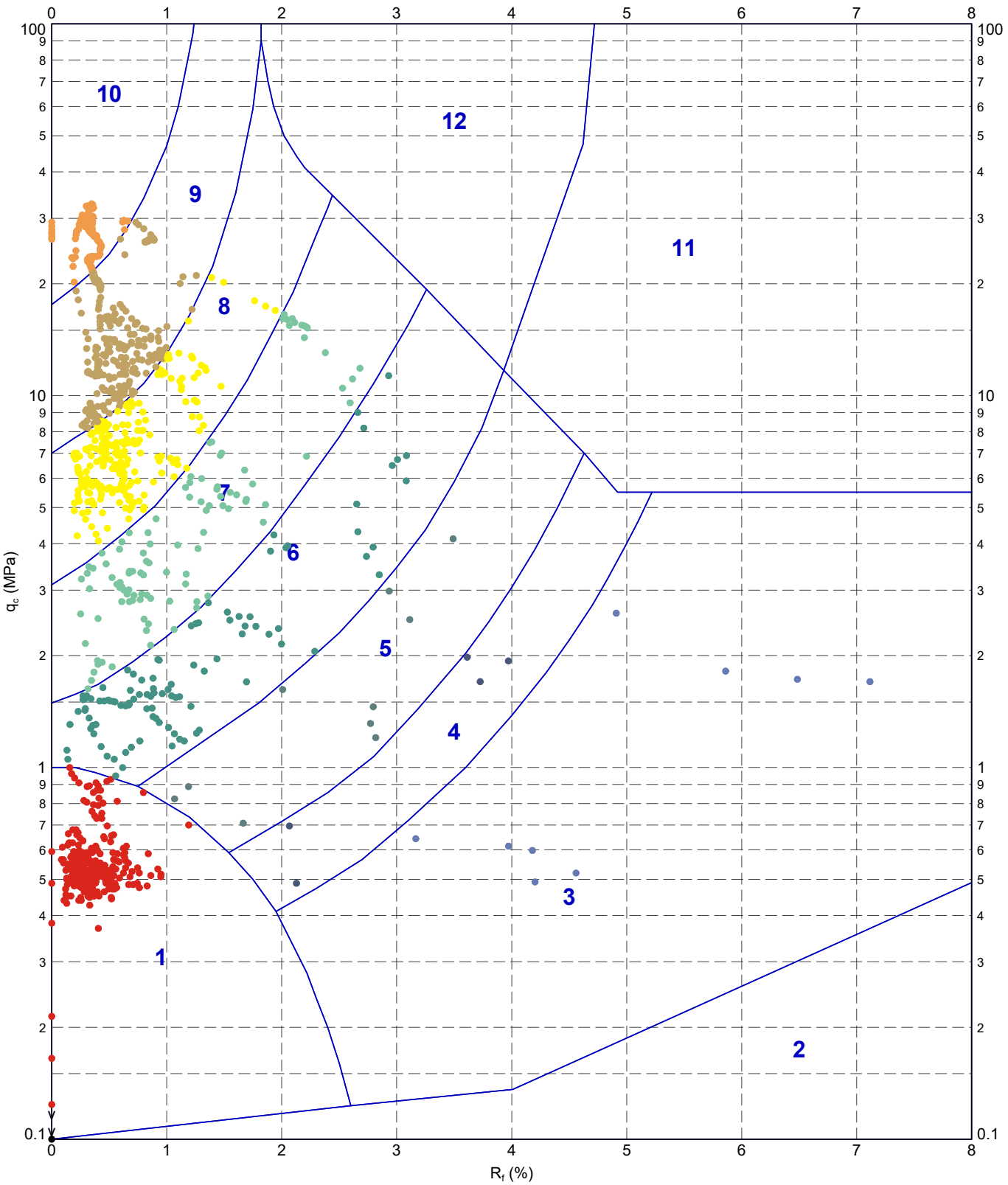
- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson et al. 1986 qc vs. Rf - CPT 05  
 (Robertson 90-Robertson et al 86 qc rf)

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	329

DATGEL CPT TOOL.DGD 4.05.0 LIB:GLB Graph.CPT.ROBERTSON ET AL. 86 QC VS. RF M A4P DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:35 10.01.00.11 Datgel.CPT Tool.gINT Add-In



METHOD: Robertson et al. 1986 qc Rf

- 1 - Sensitive fine grained material
- 2 - Organic material
- 3 - CLAY
- 4 - Silty CLAY to CLAY
- 5 - Clayey SILT to silty CLAY
- 6 - Sandy SILT to clayey SILT
- 7 - Silty SAND to sandy SILT
- 8 - SAND to silty SAND
- 9 - SAND
- 10 - Gravelly SAND to SAND
- 11 - Very stiff fine grained
- 12 - SAND to clayey SAND

PointIDs: ● CPT 05 (Robertson 90-Robertson et al 86 qc rf)



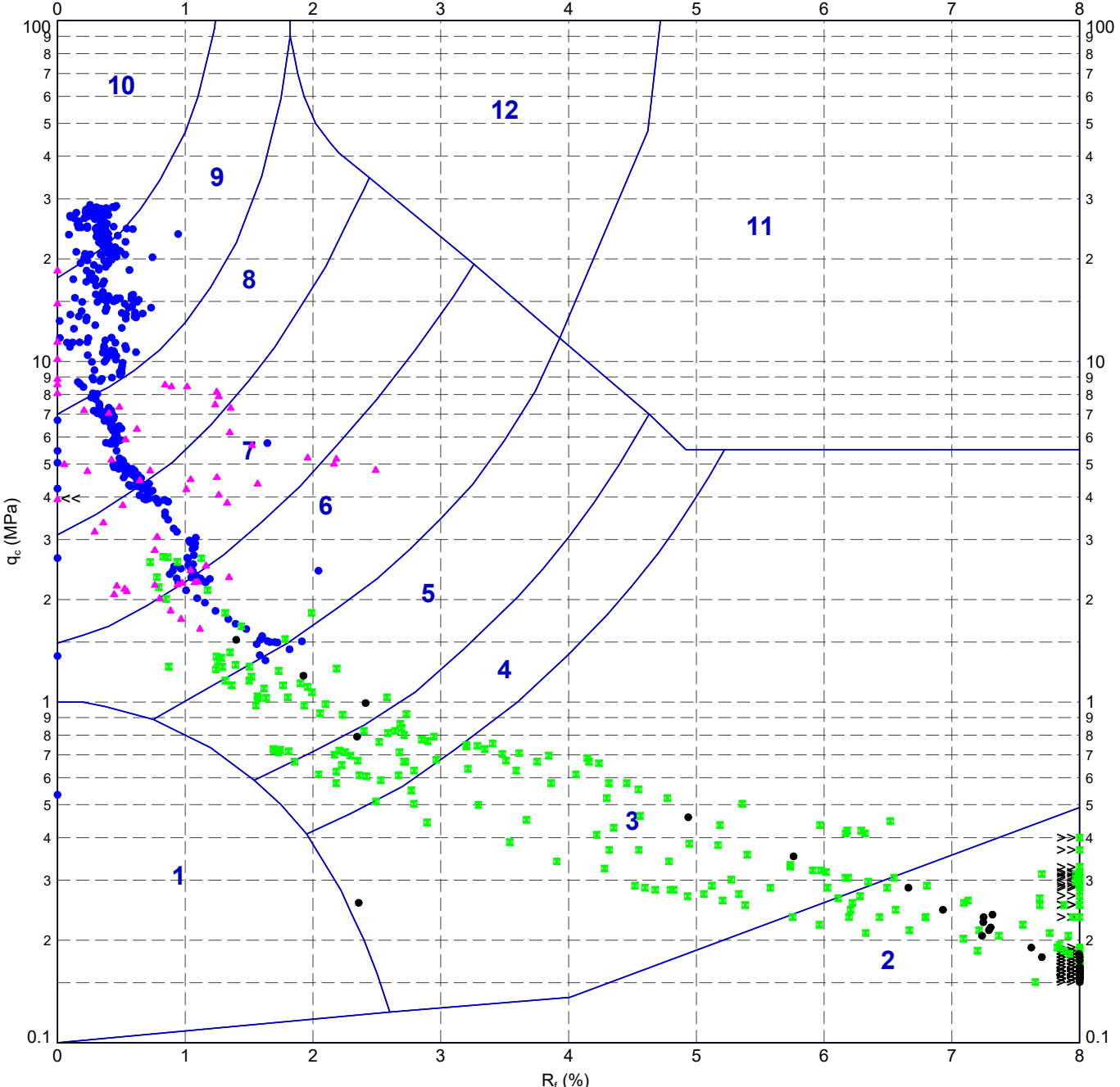
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986 qc vs. Rf

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	330



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT ROBERTSON ET AL. 86 QC VS. Rf U A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:35 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Robertson et al. 1986 qc Rf**

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

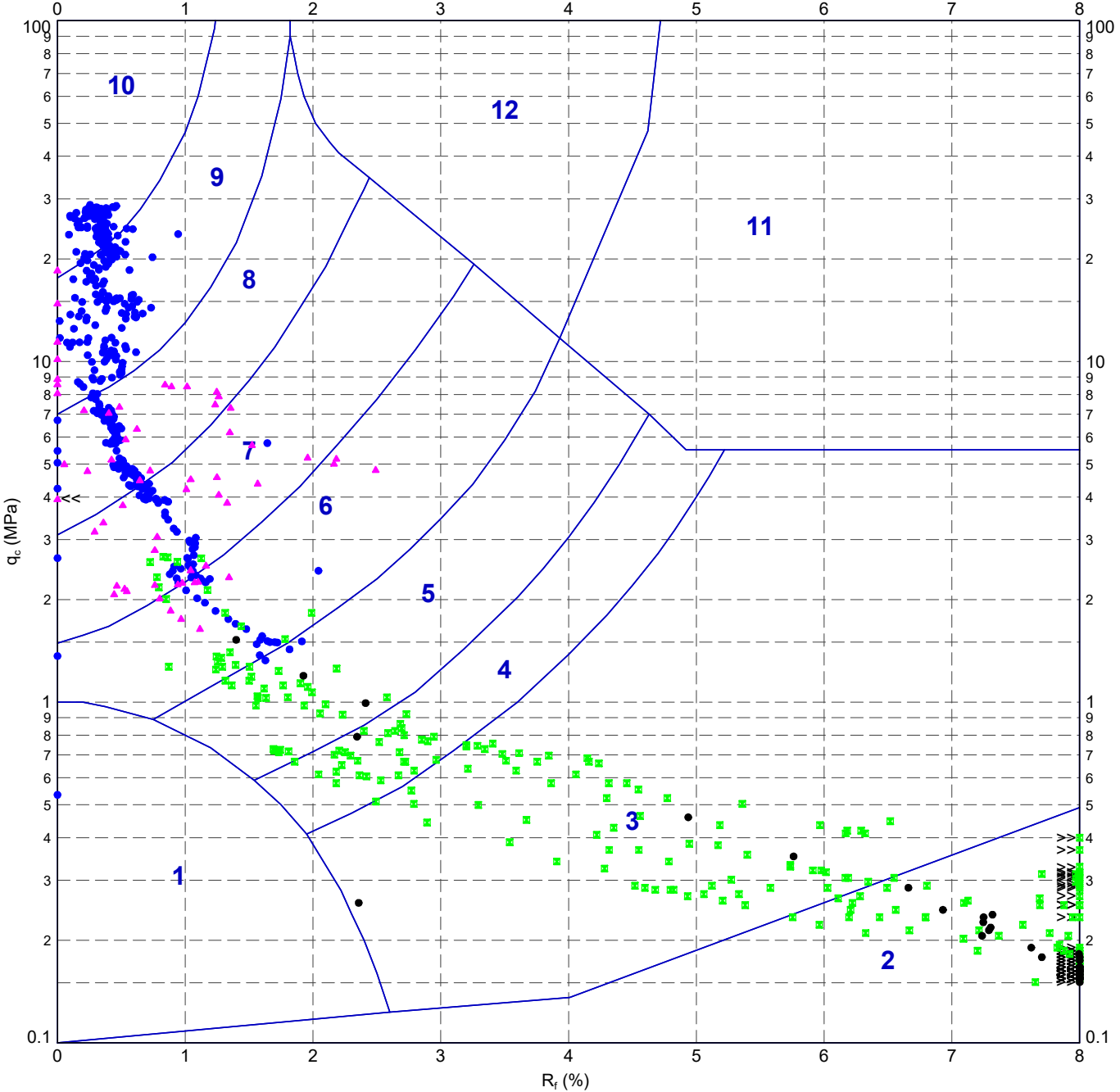


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986 qc vs. Rf - CPT 04

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	331

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT ROBERTSON ET AL. 86 QC VS. RF UM A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:35 10.01.00.11 Datgel CPT Tool glNT Add-in




**METHOD: Robertson et al. 1986 qc Rf**

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

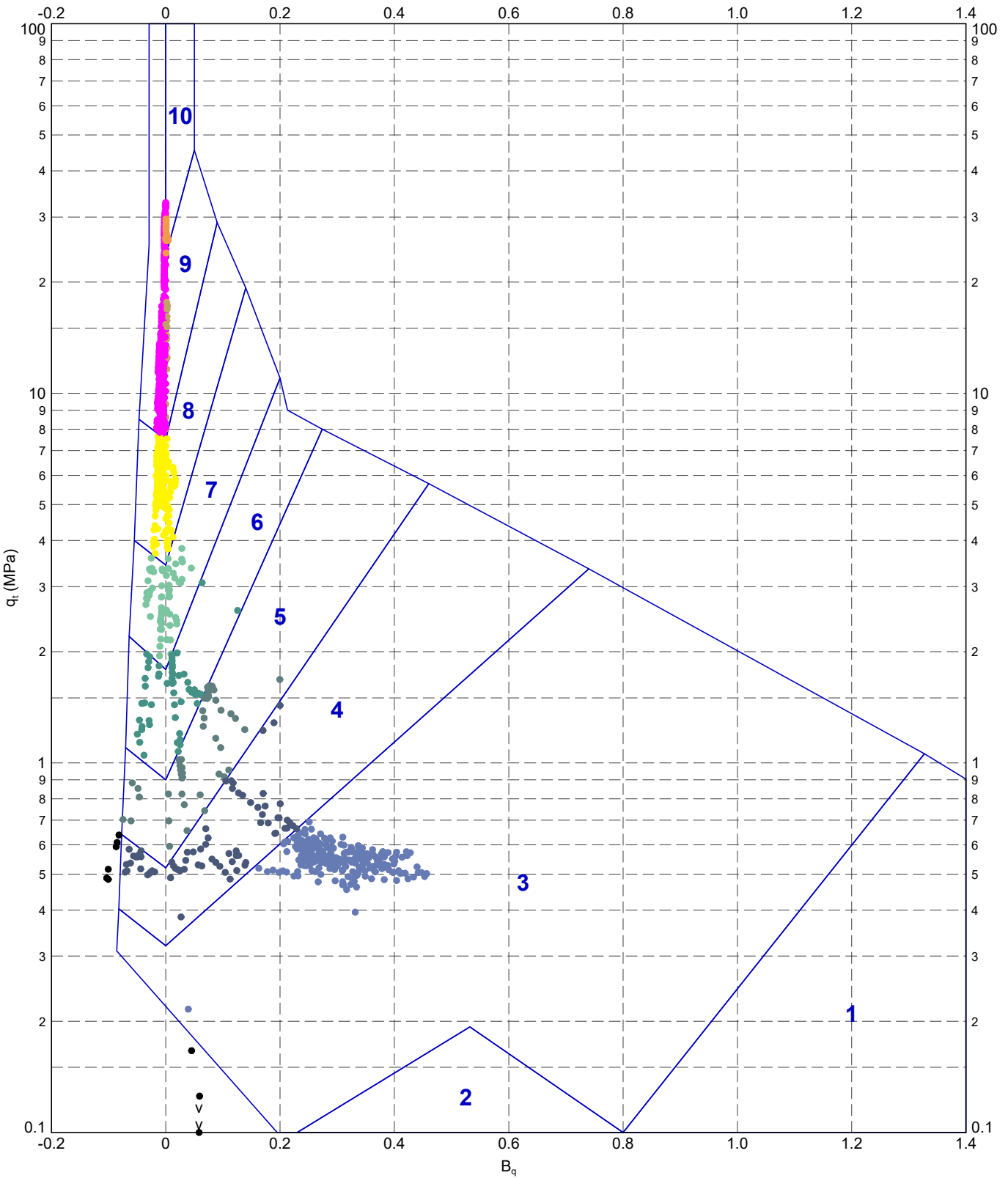
**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | ⊞ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ■ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 04

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Robertson et al. 1986 qc vs. Rf</p>	DRAWN <b>Datgel</b>	DATE 2/2/2021	
		CHECKED <b>Datgel</b>	DATE 2/2/2021	
		SCALE Not To Scale		A4
		PROJECT No 4.05.0	FIGURE No 332	

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.ROBERTSON ET AL. 86 QT VS. BQ.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/2/2021 01:36:10.01:00.11.Datgel.CPT.Tool.GINT.Add-In



METHOD: Robertson et al. 1986

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

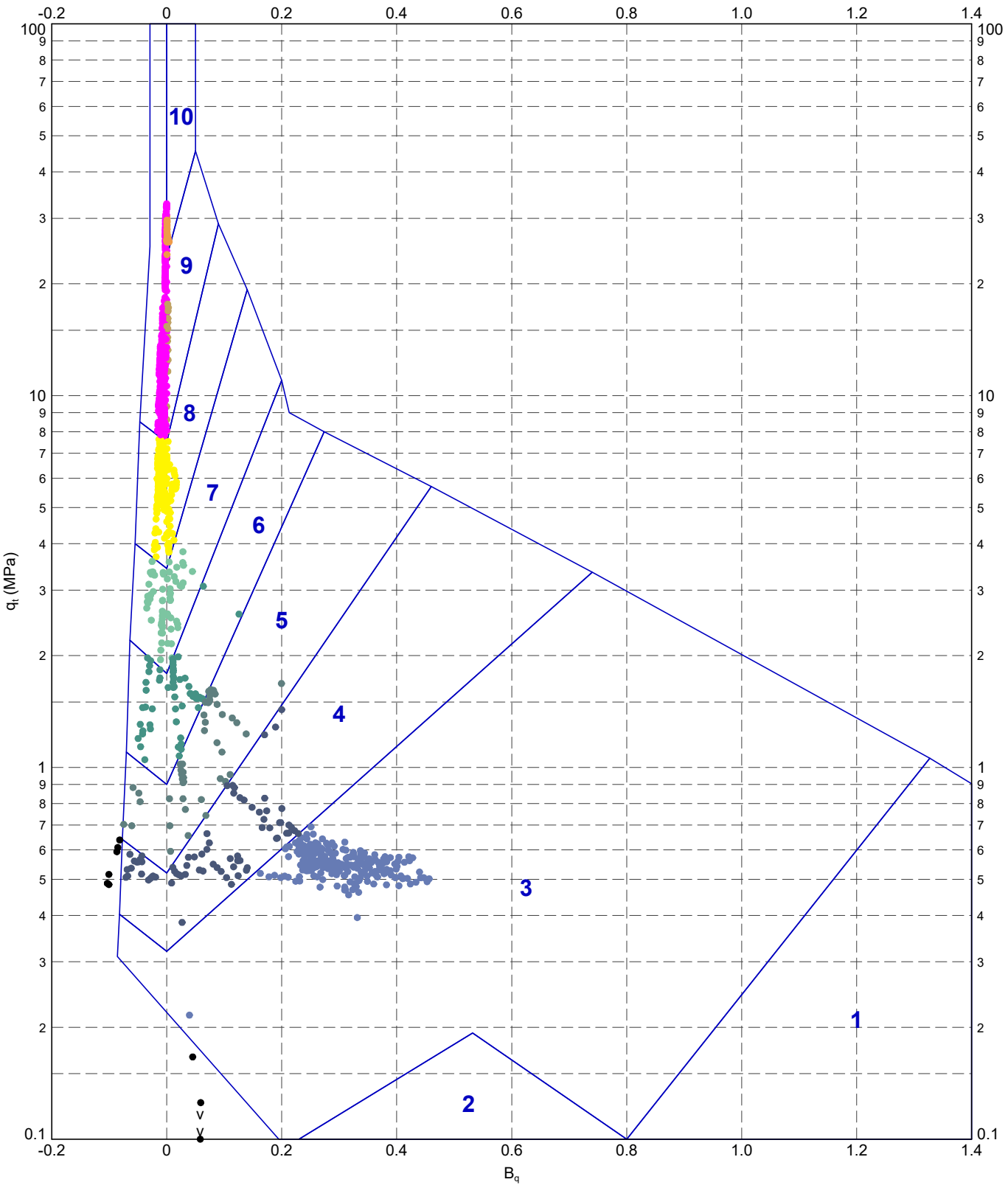


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986  $q_t$  vs.  $B_q$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	333

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.ROBERTSON ET AL. 86 QT vs. Bq M4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:36 10.01.00.11 Datgel CPT Tool gINT Add-In



METHOD: Robertson et al. 1986

- 1 - Sensitive fine grained material
- 2 - Organic material
- 3 - CLAY
- 4 - Silty CLAY to CLAY
- 5 - Clayey SILT to silty CLAY
- 6 - Sandy SILT to clayey SILT
- 7 - Silty SAND to sandy SILT
- 8 - SAND to silty SAND
- 9 - SAND
- 10 - Gravelly SAND to SAND
- 11 - Very stiff fine grained
- 12 - SAND to clayey SAND

PointIDs: ● CPT 05

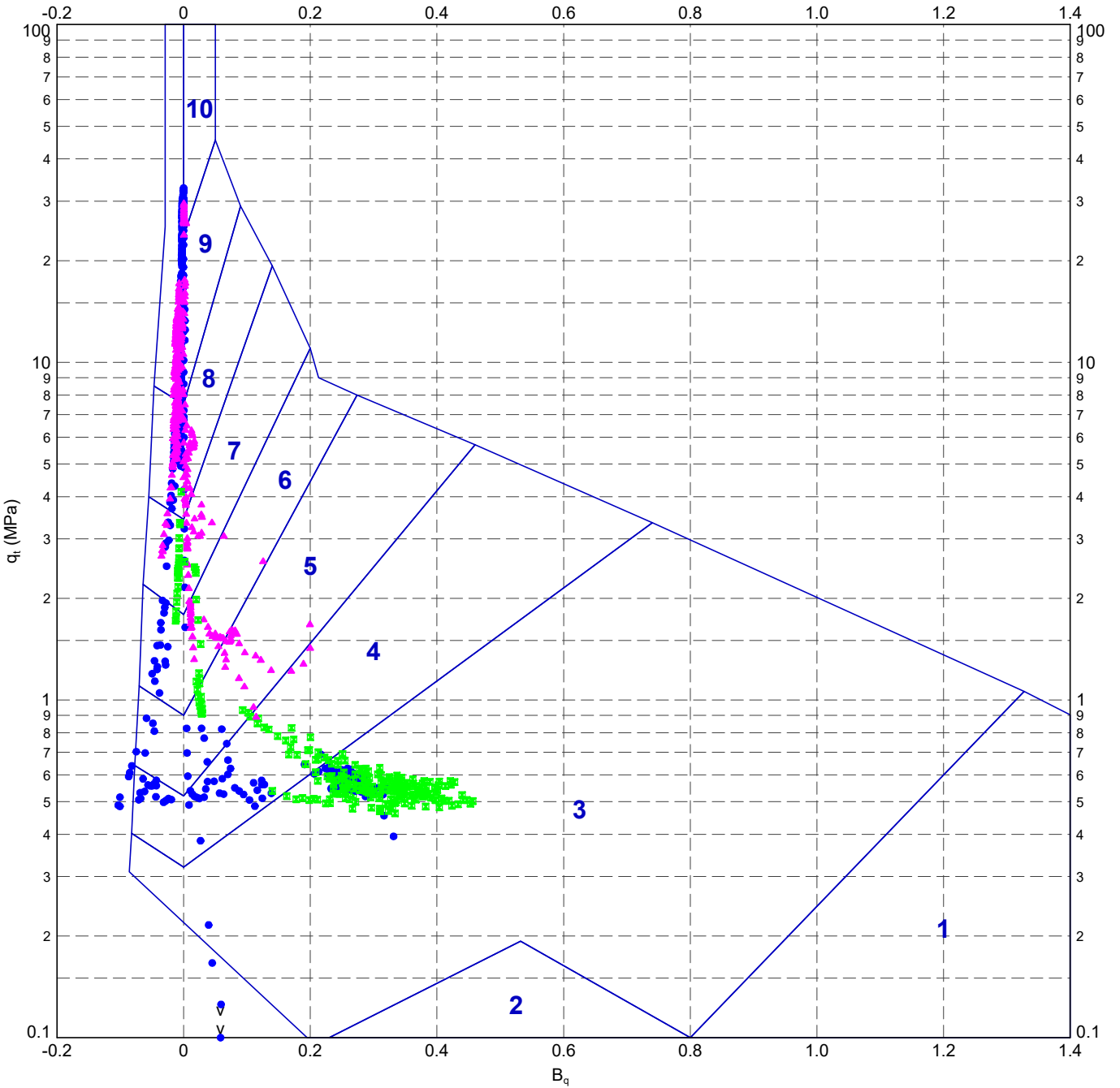


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson et al. 1986  $q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	334

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT ROBERTSON ET AL. 86 QT vs. Bq U A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:36 10.01.00.11 Datgel CPT Tool.gINT Add-In



**METHOD: Robertson et al. 1986**

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ■ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

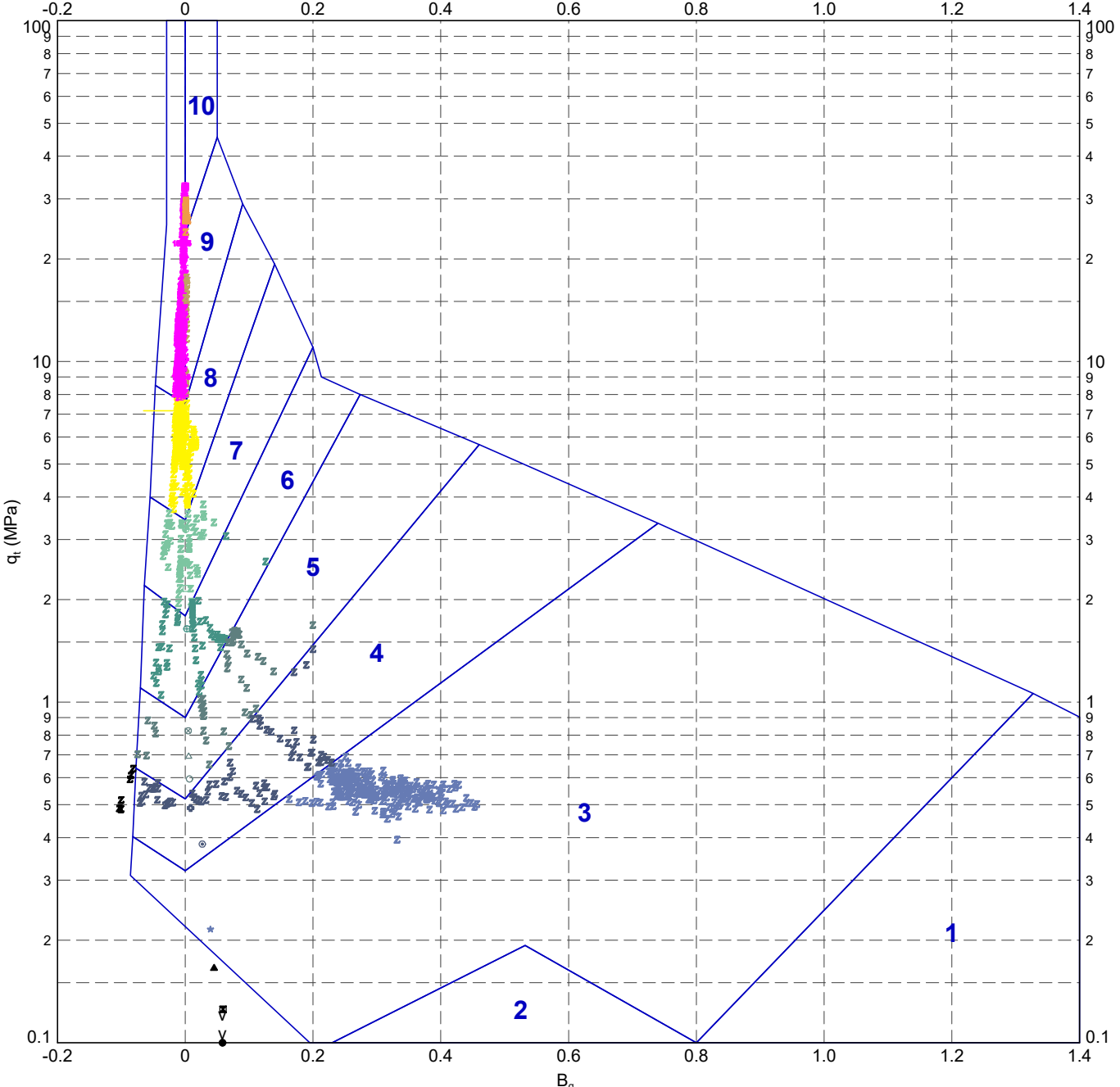


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986  $q_t$  vs.  $B_q$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	335

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT ROBERTSON ET AL. 86 QT vs. Bq UTM A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:36 10.01.00.11 Datgel CPT Tool.gINT Add-in



**METHOD: Robertson et al. 1986**

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ☆ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 05

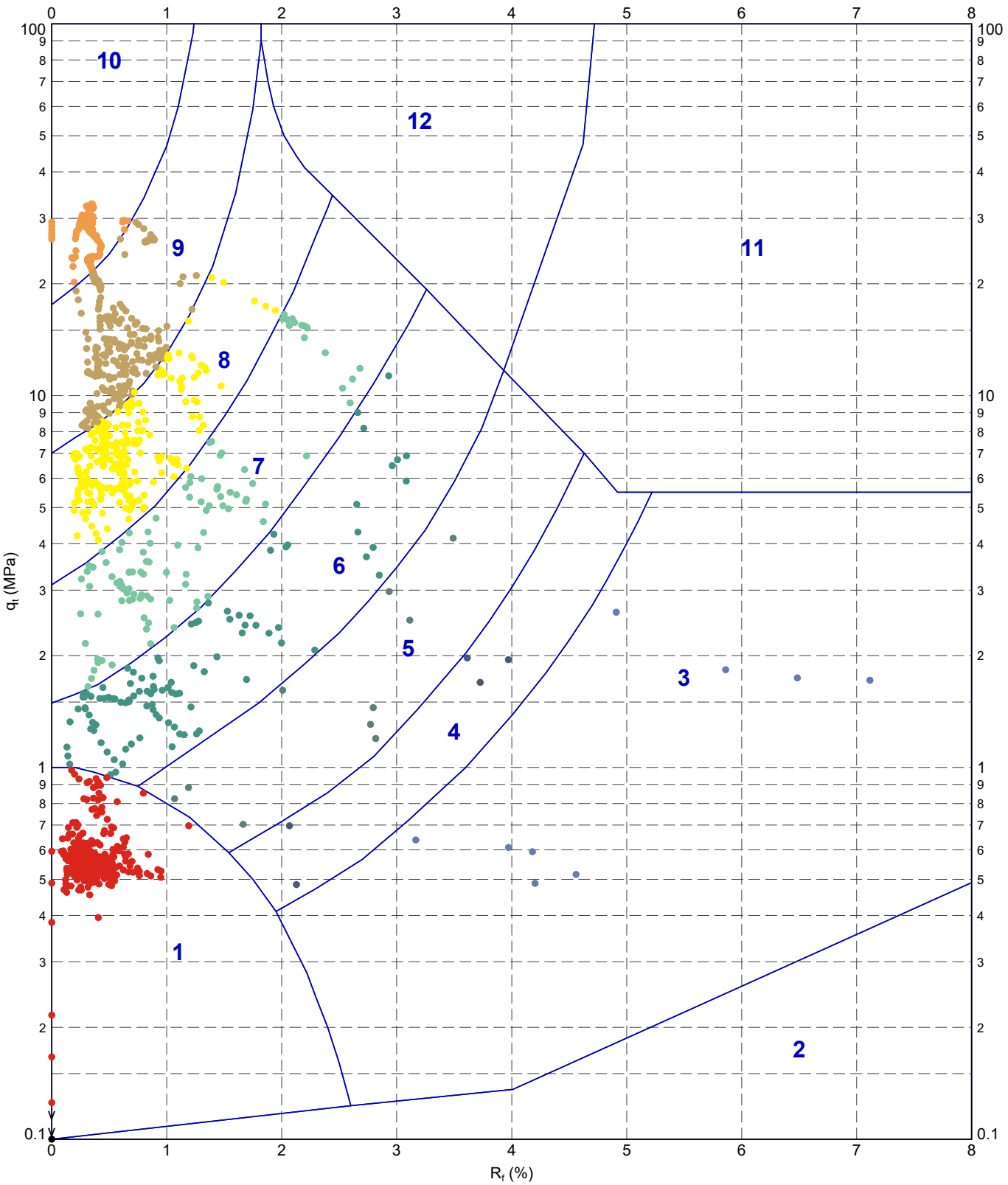


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Robertson et al. 1986 qt vs. Bq

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	336

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.ROBERTSON ET AL. 86 QT VS. RF A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:36 10:01:00.11 Datgel CPT Tool (gINT Add-In



METHOD: Robertson et al. 1986

- 1 - Sensitive fine grained material
- 2 - Organic material
- 3 - CLAY
- 4 - Silty CLAY to CLAY
- 5 - Clayey SILT to silty CLAY
- 6 - Sandy SILT to clayey SILT
- 7 - Silty SAND to sandy SILT
- 8 - SAND to silty SAND
- 9 - SAND
- 10 - Gravelly SAND to SAND
- 11 - Very stiff fine grained
- 12 - SAND to clayey SAND

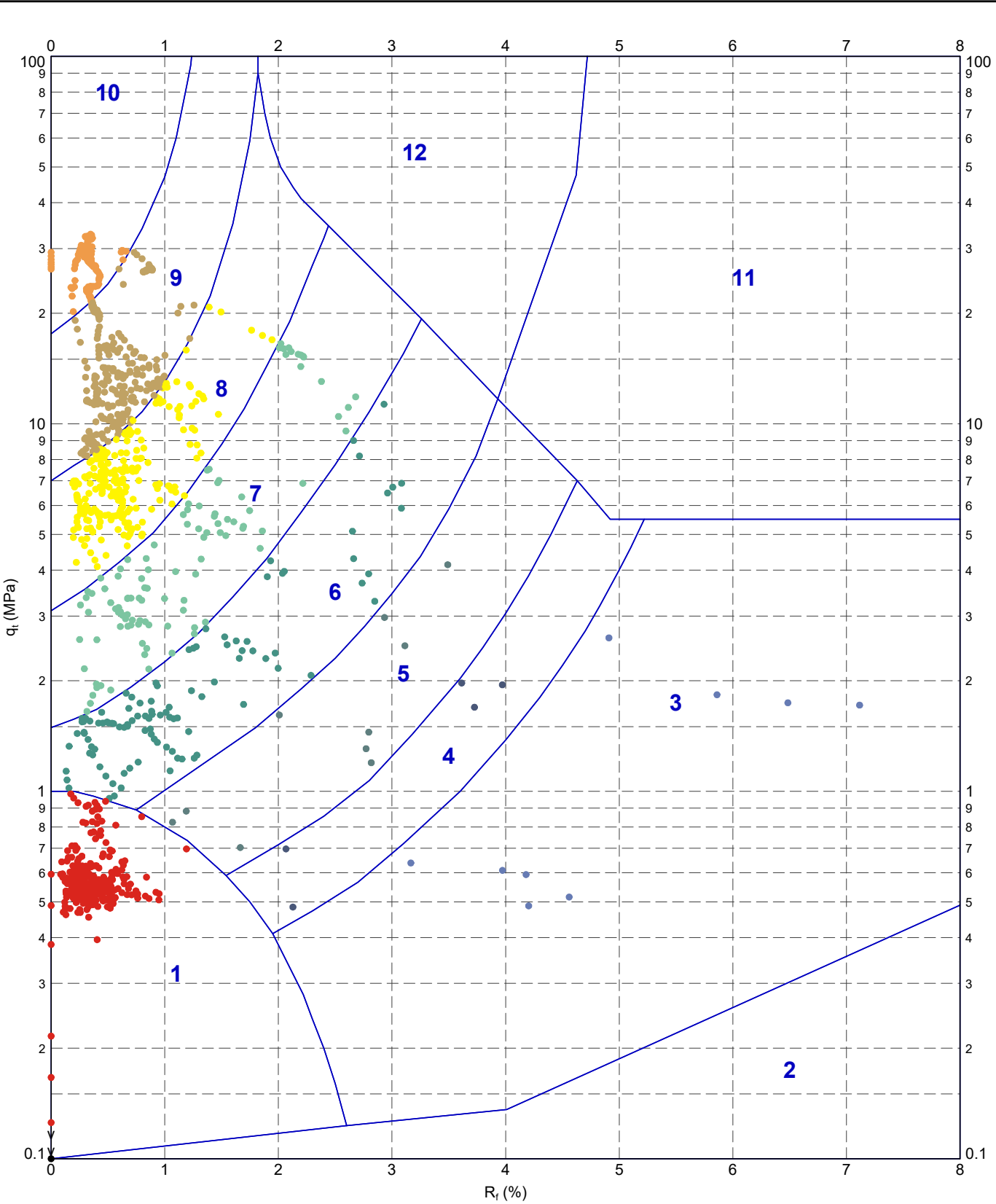


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986  $q_t$  vs.  $R_f$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	337

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.ROBERTSON ET AL. 86 QT vs. RF M:AFP DATGEL CPT TOOL DGD 4.05.0 SI:GPI <-DrawingFile>> 2/2/2021 01:36 10.01.00.11 Datgel CPT Tool.GINT Add-In



METHOD: Robertson et al. 1986

- 1 - Sensitive fine grained material
- 4 - Silty CLAY to CLAY
- 7 - Silty SAND to sandy SILT
- 10 - Gravelly SAND to SAND
- 2 - Organic material
- 5 - Clayey SILT to silty CLAY
- 8 - SAND to silty SAND
- 11 - Very stiff fine grained
- 3 - CLAY
- 6 - Sandy SILT to clayey SILT
- 9 - SAND
- 12 - SAND to clayey SAND

PointIDs: ● CPT 05



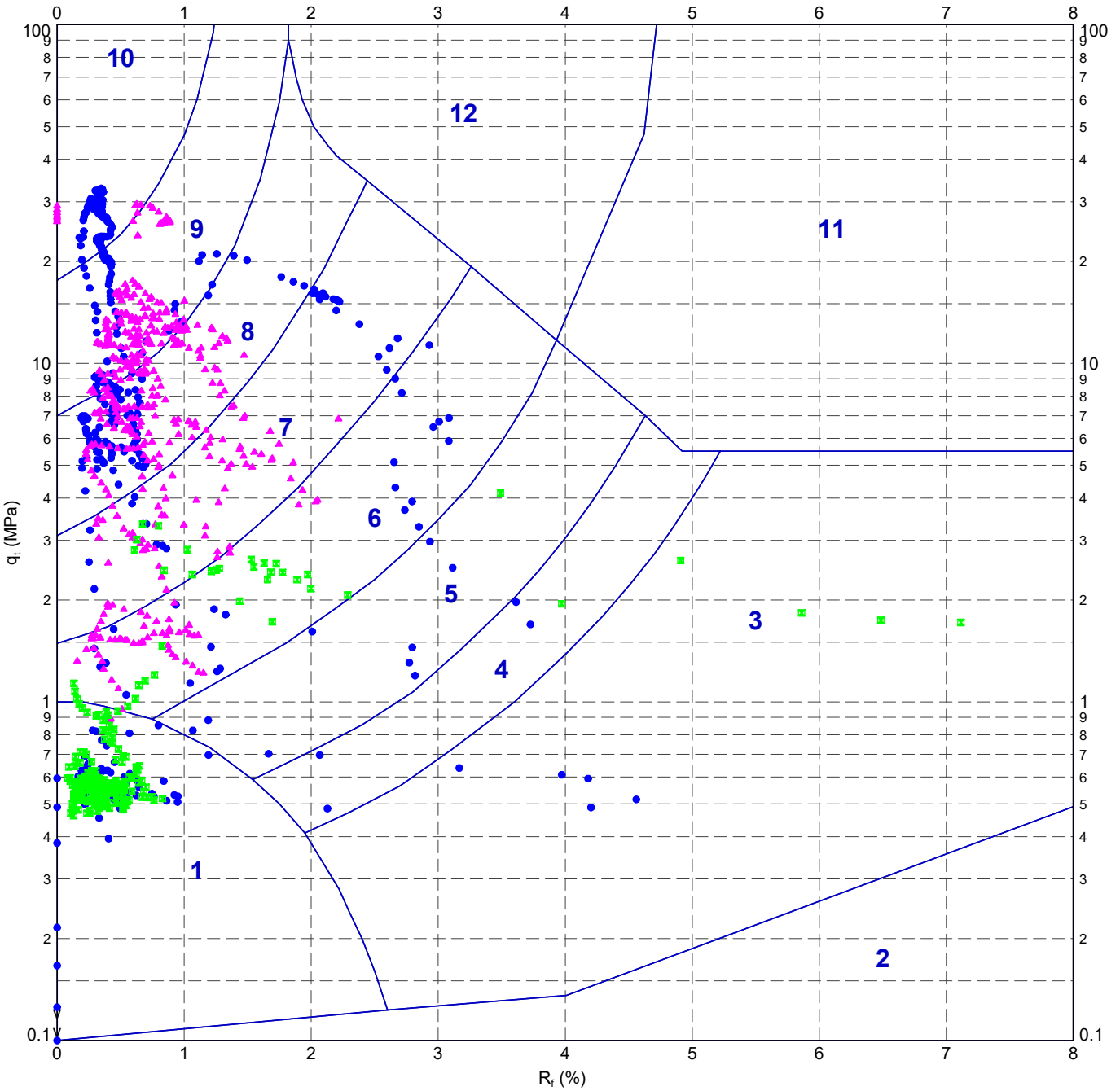
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986  $q_t$  vs.  $R_f$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	338



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT ROBERTSON ET AL. 86 QT VS. RF U.A.M.P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:37:10.01.00.11 Datgel CPT Tool (INT Add-In



**METHOD: Robertson et al. 1986**

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

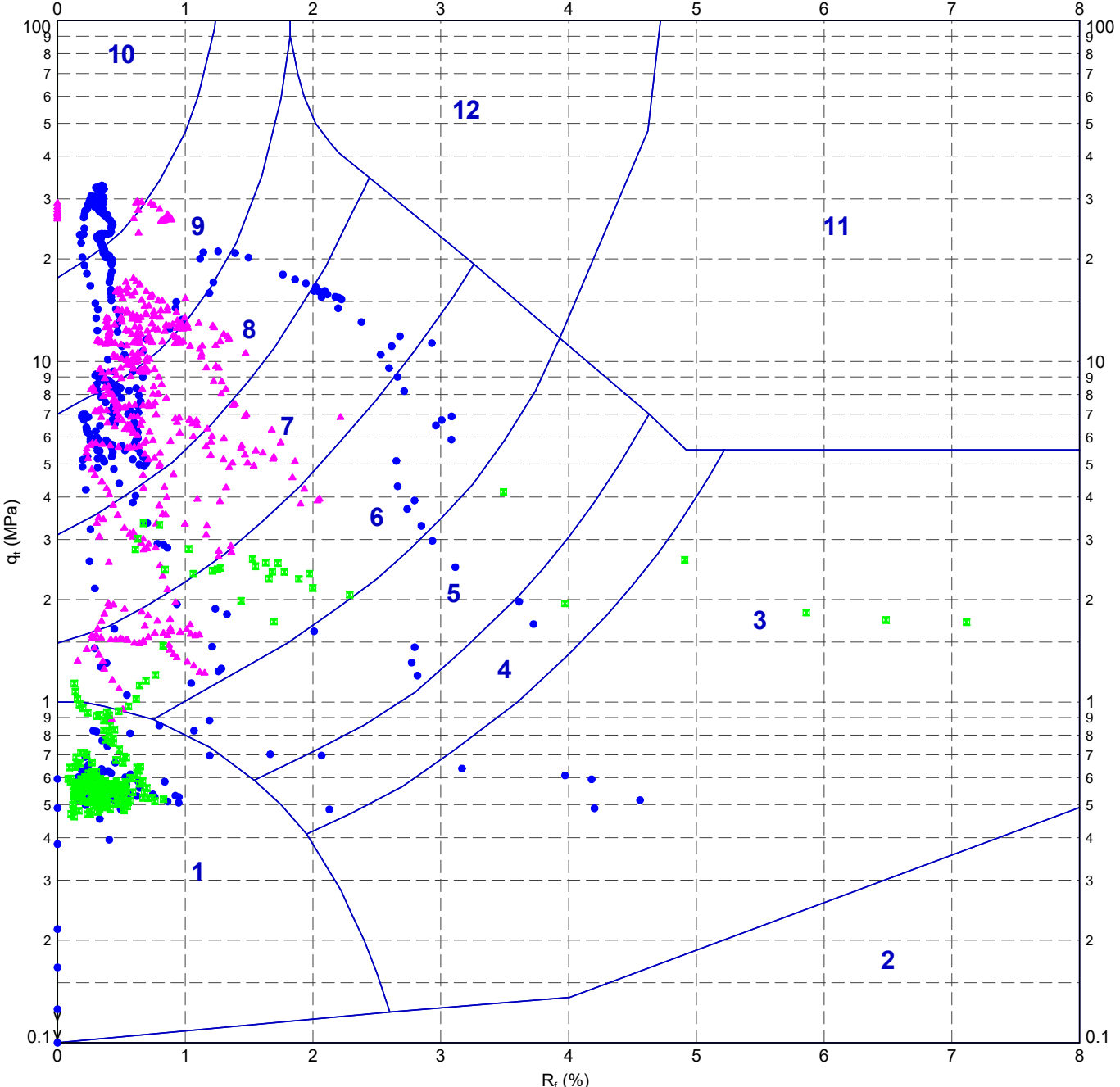


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Robertson et al. 1986  $q_t$  vs.  $R_f$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	339

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT ROBERTSON ET AL. 86 QT VS. RF UJM A4P DATGEL CPT TOOL DGD 4.05.0 S1.GPJ <<DrawingFile>> 2/2/2021 01:37 10.01.00.11 Datgel.CPT Tool.gINT Add-In




**METHOD: Robertson et al. 1986**

- |                                     |                               |                              |                              |
|-------------------------------------|-------------------------------|------------------------------|------------------------------|
| 1 - Sensitive fine grained material | 4 - Silty CLAY to CLAY        | 7 - Silty SAND to sandy SILT | 10 - Gravelly SAND to SAND   |
| 2 - Organic material                | 5 - Clayey SILT to silty CLAY | 8 - SAND to silty SAND       | 11 - Very stiff fine grained |
| 3 - CLAY                            | 6 - Sandy SILT to clayey SILT | 9 - SAND                     | 12 - SAND to clayey SAND     |

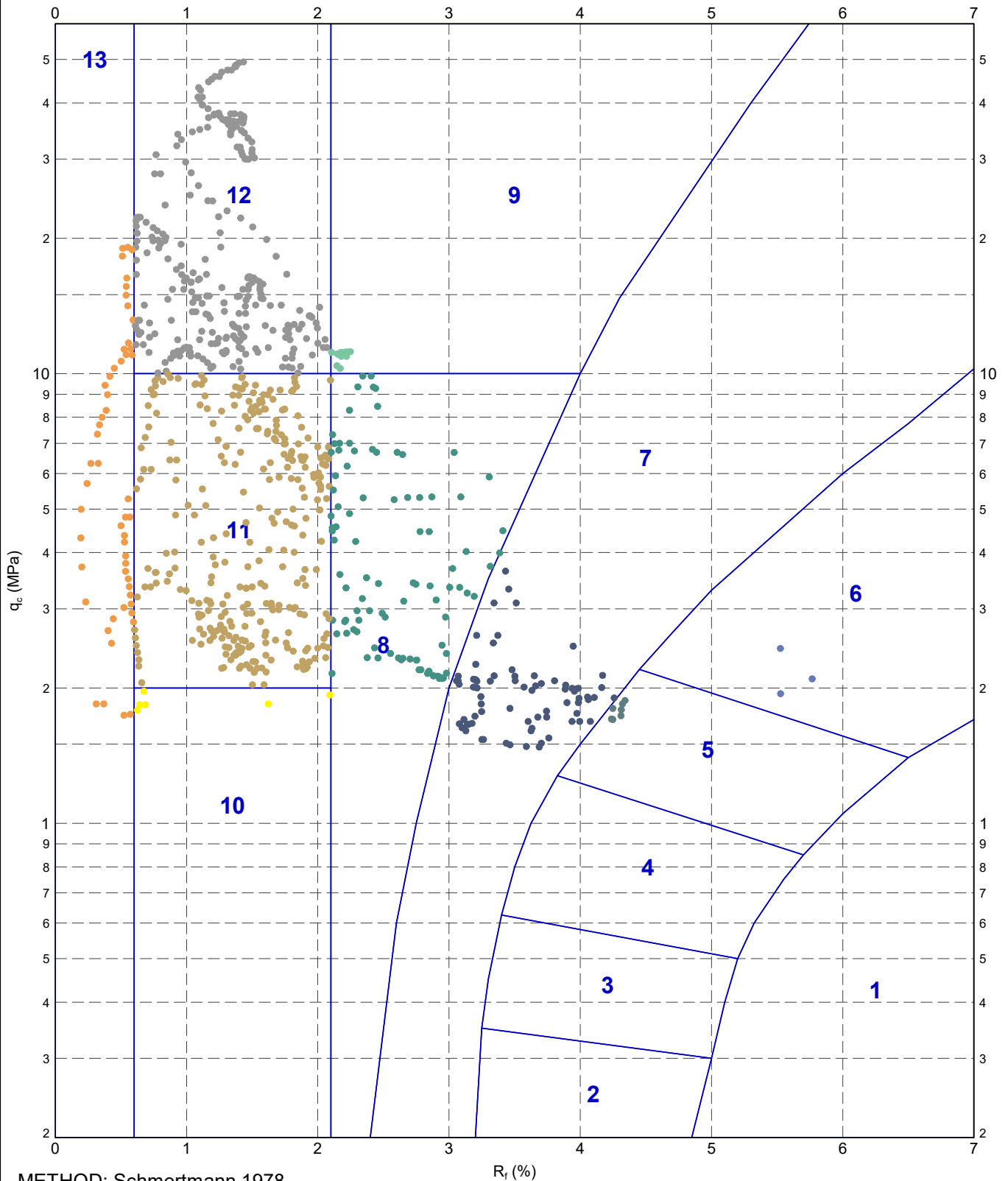
**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 05

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Robertson et al. 1986 qt vs. Rf	DRAWN Datgel	DATE 2/2/2021
			CHECKED Datgel	DATE 2/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 340

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT SCHMERTMANN 1978 A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:37:10.01.00.11 Datgel CPT Tool gINT Ad-d-In



**METHOD: Schmertmann 1978**

- |   |  |                             |                                  |
|---|--|-----------------------------|----------------------------------|
| 1 - Organic CLAYS & Mixed Soils                       | 5 - Stiff insensitive non-fissured inorganic CLAY      | 9 - SILT-SAND Mixtures      | 13 - Very SHELL SANDS, LIMEROCKS |
| 2 - Very soft insensitive non-fissured inorganic CLAY | 6 - Very stiff Insensitive non-fissured inorganic CLAY | 10 - Loose SAND             |                                  |
| 3 - Soft insensitive non-fissured inorganic CLAY      | 7 - Sandy and silty CLAYS                              | 11 - SAND                   |                                  |
| 4 - Medium insensitive non-fissured inorganic CLAY    | 8 - Clayey-SANDS and SILTS                             | 12 - Dense or cemented SAND |                                  |

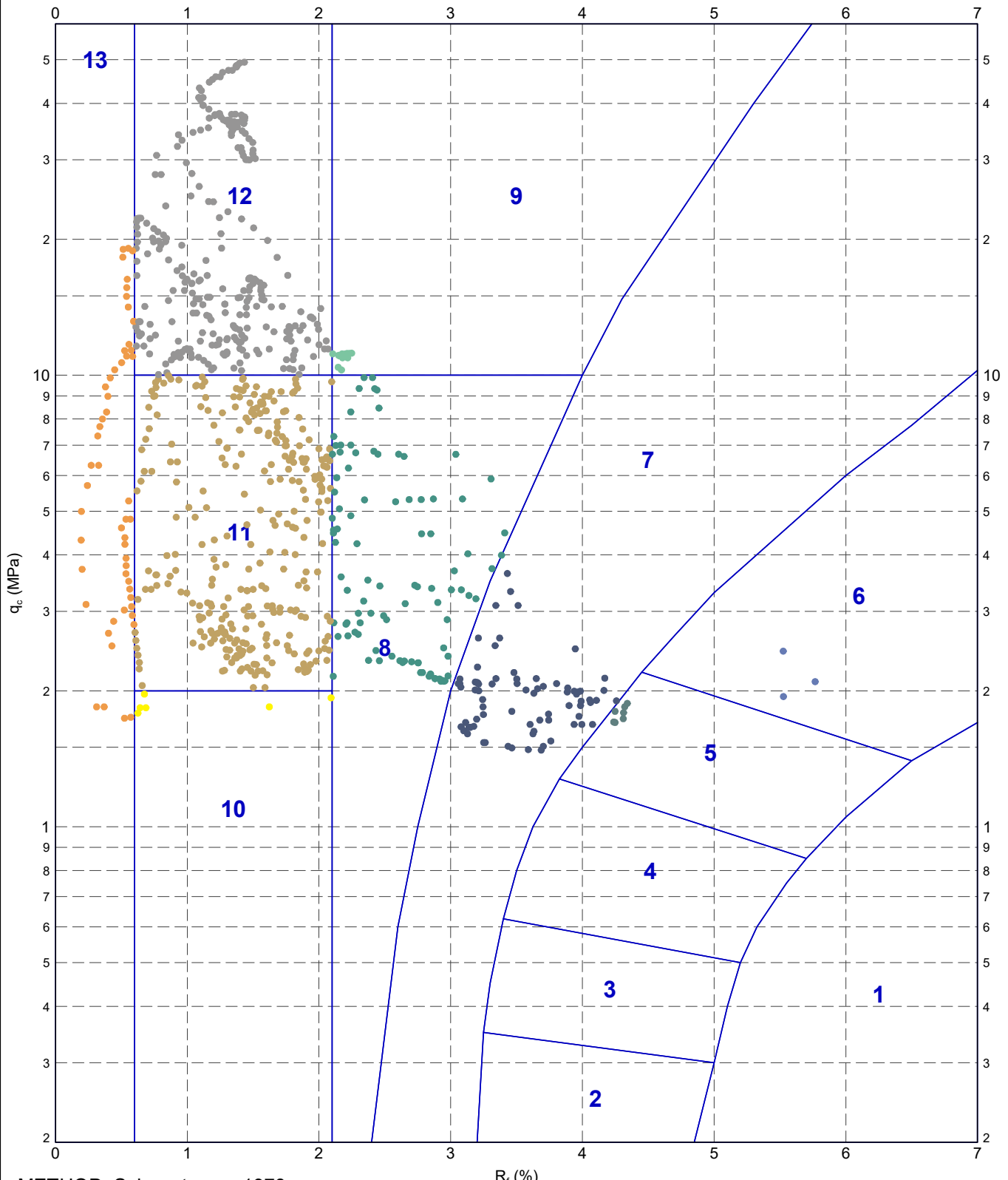


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Schmertmann 1978  $q_c$  vs.  $R_f$  - CPT 00

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	341

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT SCHMERTMANN 1978 M AAP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:37 10:01.00.11 Datgel.CPT Tool gINT Add-In



**METHOD: Schmertmann 1978**

- |   |  |                             |                                  |
|---|--|-----------------------------|----------------------------------|
| 1 - Organic CLAYS & Mixed Soils                       | 5 - Stiff insensitive non-fissured inorganic CLAY      | 9 - SILT-SAND Mixtures      | 13 - Very SHELL SANDS, LIMEROCKS |
| 2 - Very soft insensitive non-fissured inorganic CLAY | 6 - Very stiff Insensitive non-fissured inorganic CLAY | 10 - Loose SAND             |                                  |
| 3 - Soft insensitive non-fissured inorganic CLAY      | 7 - Sandy and silty CLAYS                              | 11 - SAND                   |                                  |
| 4 - Medium insensitive non-fissured inorganic CLAY    | 8 - Clayey-SANDS and SILTS                             | 12 - Dense or cemented SAND |                                  |

PointIDs: ● CPT 00

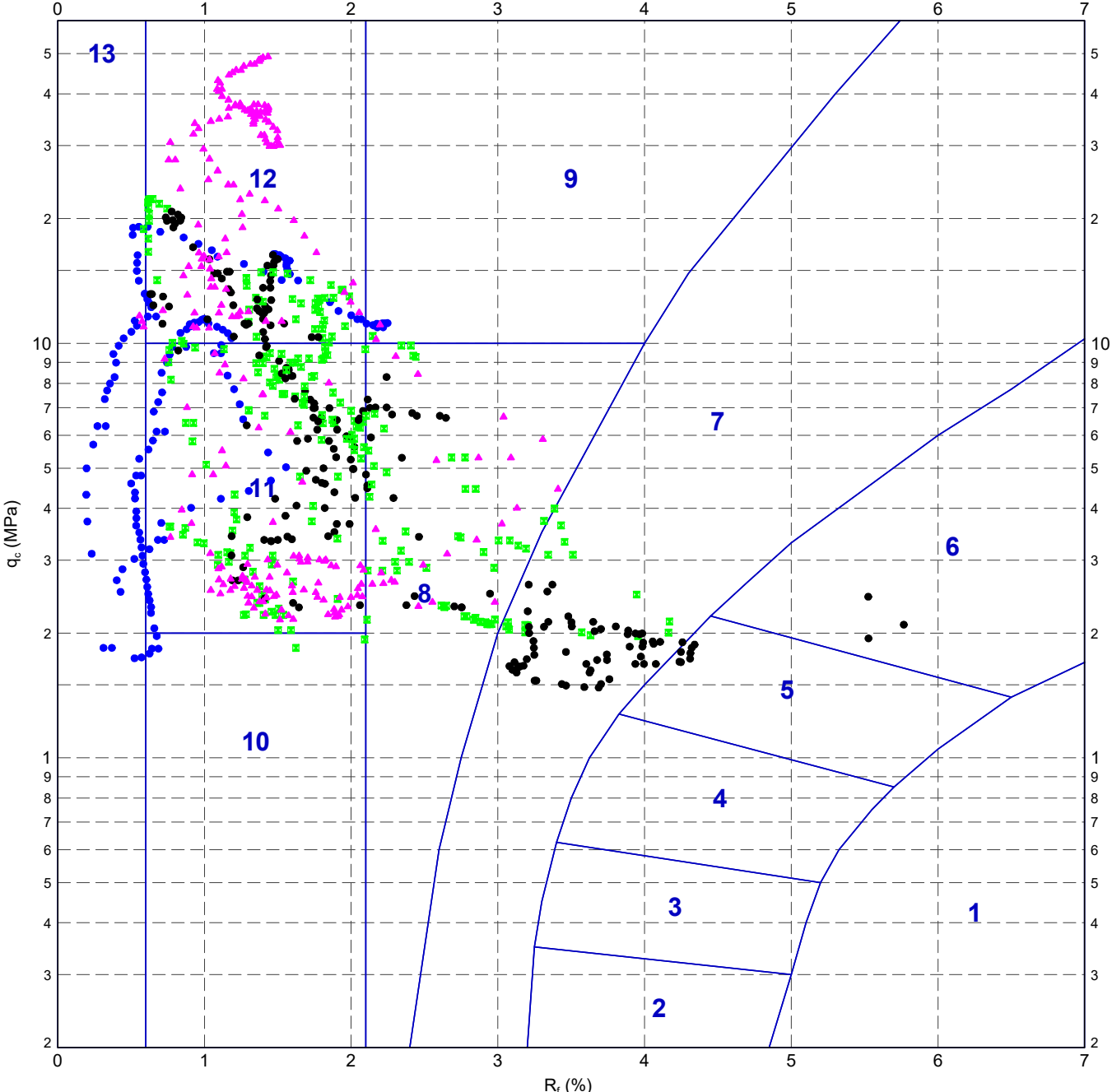


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Schmertmann 1978  $q_c$  vs.  $R_f$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	342

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SCHMERTMANN 1978 U.A4P.DATGEL.CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFiles>> 2/2/2021 01:37:10.01:00.11 Datgel.CPT Tool.q1NT Add-In




**METHOD: Schmertmann 1978**

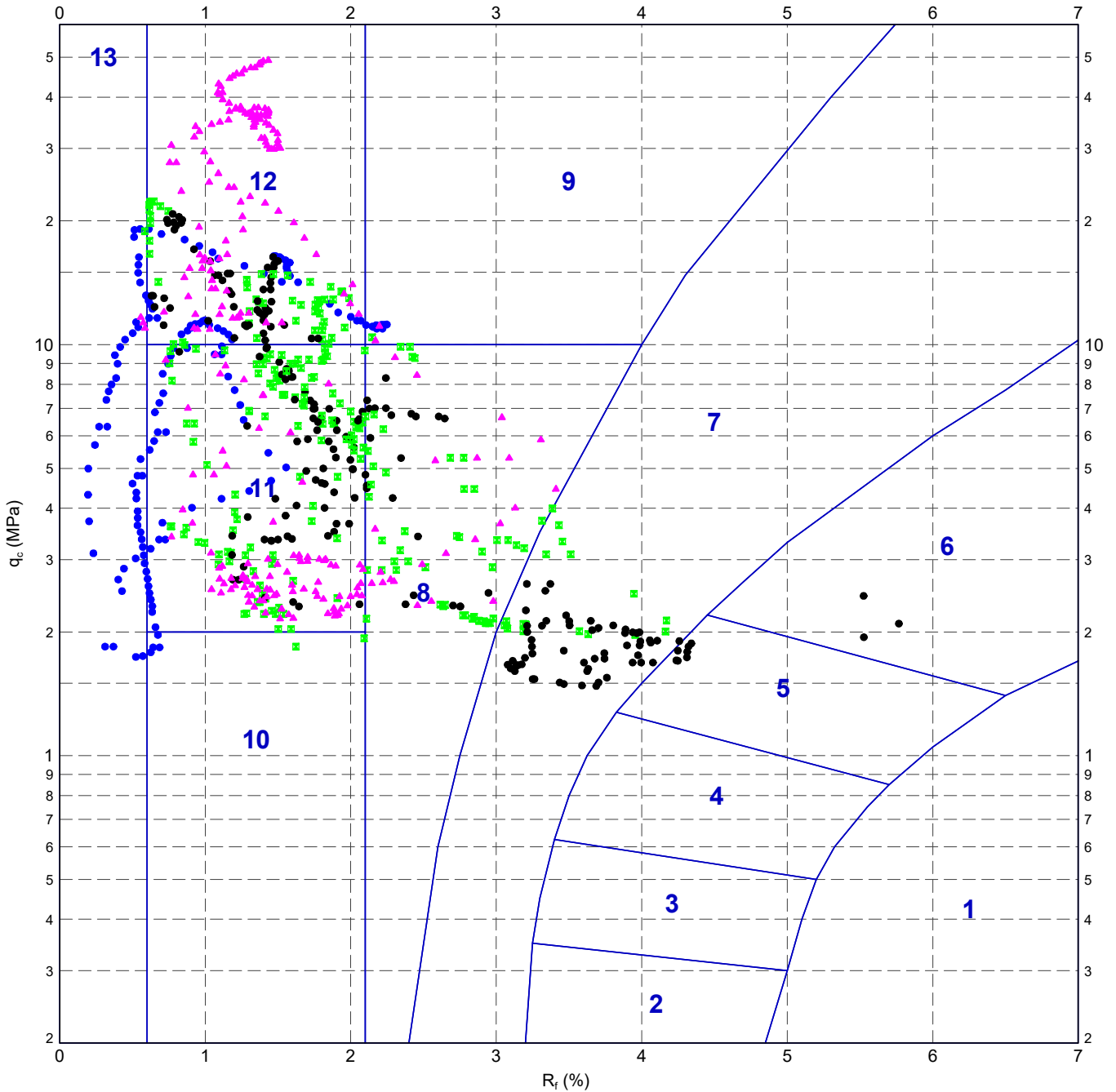
- |   |  |                            |                             |
|---|--|----------------------------|-----------------------------|
| 1 - Organic CLAYS & Mixed Soils                       | 4 - Medium insensitive non-fissured inorganic CLAY     | 7 - Sandy and silty CLAYS  | 10 - Loose SAND             |
| 2 - Very soft insensitive non-fissured inorganic CLAY | 5 - Stiff insensitive non-fissured inorganic CLAY      | 8 - Clayey-SANDS and SILTS | 11 - SAND                   |
| 3 - Soft insensitive non-fissured inorganic CLAY      | 6 - Very stiff Insensitive non-fissured inorganic CLAY | 9 - SILT-SAND Mixtures     | 12 - Dense or cemented SAND |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊕ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

 <p>Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Schmertmann 1978 <math>q_c</math> vs. <math>R_f</math> - CPT 00</p>	<p>DRAWN</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">2/2/2021</p>	
		<p>CHECKED</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">2/2/2021</p>	
		<p>SCALE</p> <p style="text-align: center;">Not To Scale</p>		<p style="text-align: center;">A4</p>
		<p>PROJECT No</p> <p style="text-align: center;">4.05.0</p>	<p>FIGURE No</p> <p style="text-align: center;">343</p>	

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SCHMERTMANN 1978 UM A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:38 10.01.00.11 Datgel CPT Tool gINT Add-in



**METHOD: Schmertmann 1978**

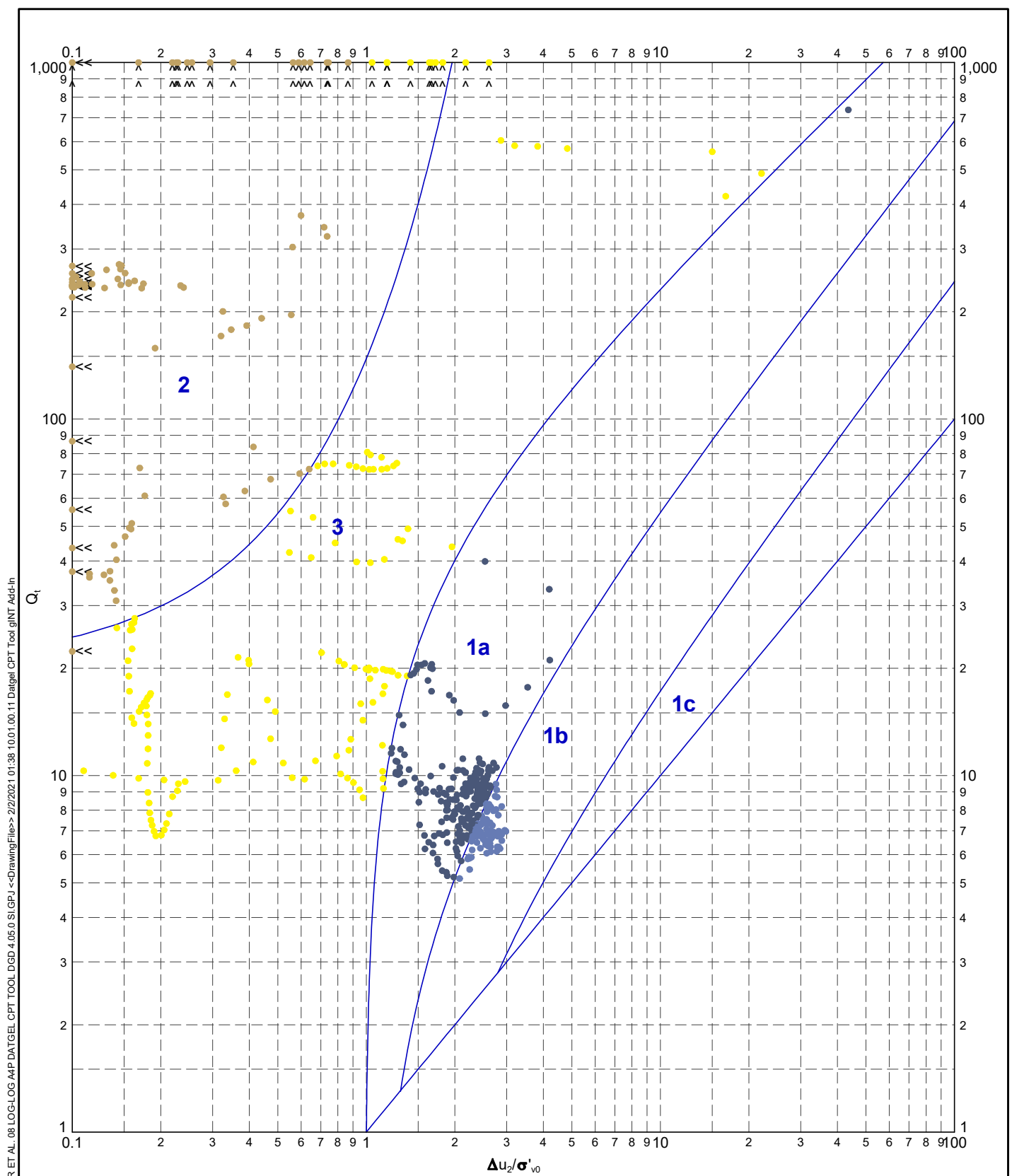
- |   |  |                            |                             |
|---|--|----------------------------|-----------------------------|
| 1 - Organic CLAYS & Mixed Soils                       | 4 - Medium insensitive non-fissured inorganic CLAY     | 7 - Sandy and silty CLAYS  | 10 - Loose SAND             |
| 2 - Very soft insensitive non-fissured inorganic CLAY | 5 - Stiff insensitive non-fissured inorganic CLAY      | 8 - Clayey-SANDS and SILTS | 11 - SAND                   |
| 3 - Soft insensitive non-fissured inorganic CLAY      | 6 - Very stiff Insensitive non-fissured inorganic CLAY | 9 - SILT-SAND Mixtures     | 12 - Dense or cemented SAND |

**Geology Unit Legend**

- |              |              |
|--------------|--------------|
| ★ D - Unit D | ⊕ J - Unit J |
| ● A - Unit A | □ K - Unit K |
| ■ B - Unit B | ◇ R - Rock   |
| ▲ C - Unit C |              |
| ⊗ F - Unit F |              |
| ○ G - Unit G |              |
| △ H - Unit H |              |
| ⊗ I - Unit I |              |

PointIDs: CPT 00

	TITLE	DRAWN	Datgel		DATE	2/2/2021		
	Client 1 Engineer 1 Somewhere CPT Tool Project Schmertmann 1978 $q_c$ vs. $R_f$	CHECKED	Datgel		DATE	2/2/2021		
		SCALE	Not To Scale				A4	
		PROJECT No	4.05.0		FIGURE No	344		



METHOD: Schneider et al. 2008

- 1a - Silts and 'Low I<sub>r</sub>' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT SCHNEIDER ET AL. 08 LOG-LOG A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:38 10.01.00.11 Datgel CPT Tool gINT Add-In

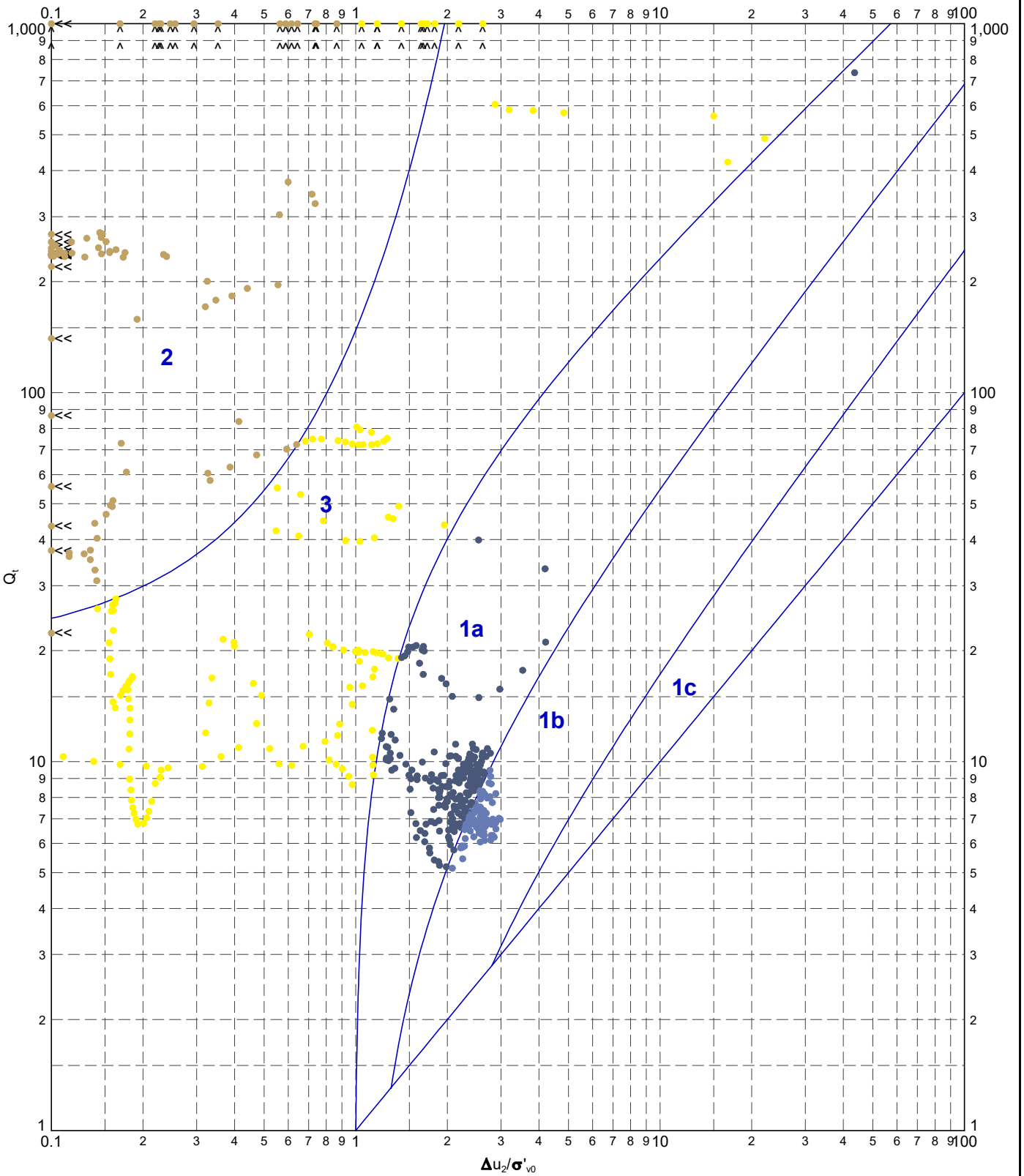


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2/\sigma'_{v0}$  - CPT  
05 Schneider

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	345

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SCHNEIDER.ET.AL.08.LOG-LOG.M.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/2/2021 01:38:10.01.00.11 Datgel CPT Tool gINT Add-In



METHOD: Schneider et al. 2008

- 1a - Silts and 'Low Ir' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

PointIDs: ● CPT 05 Schneider



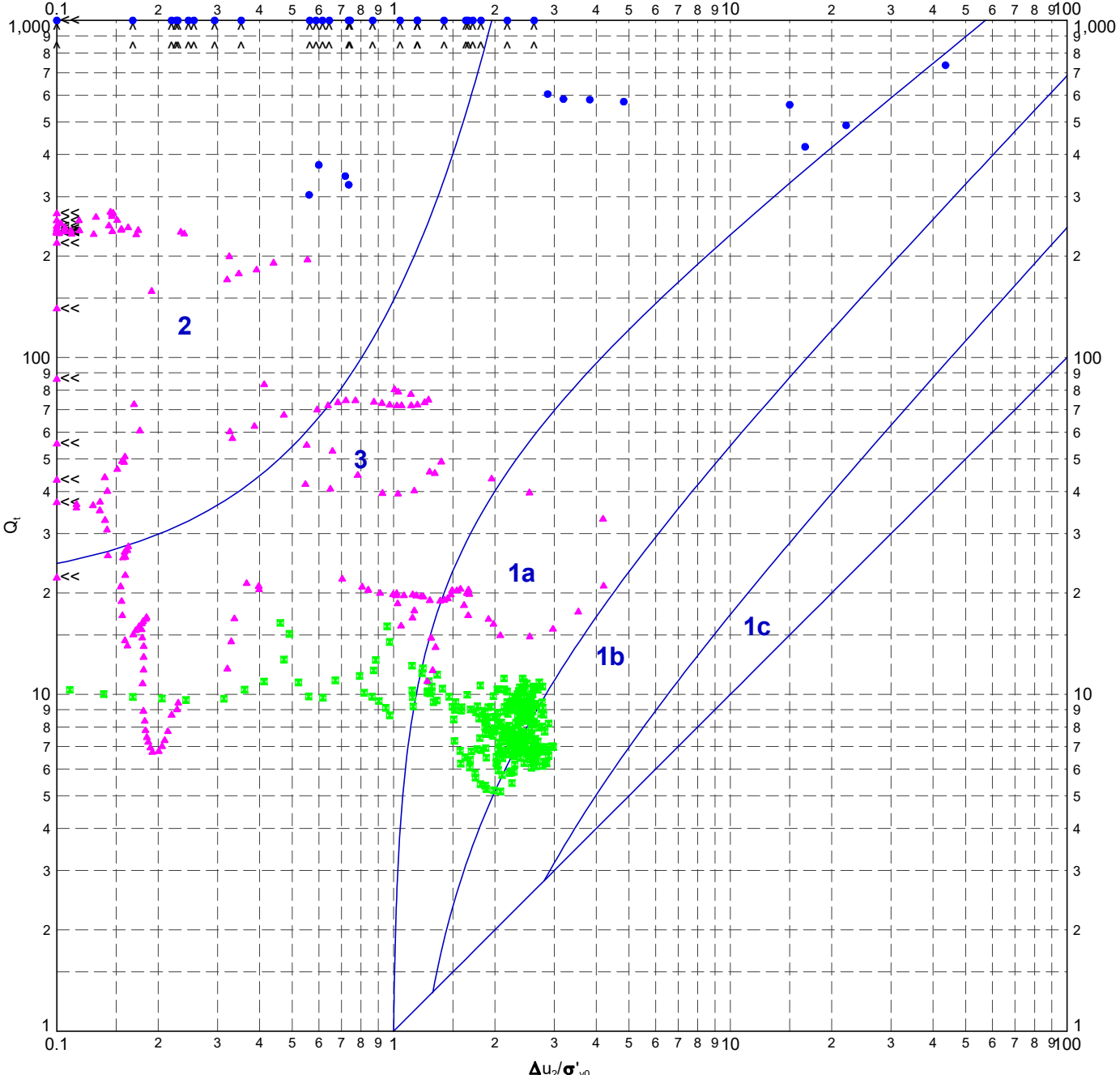
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2/\sigma'_{v0}$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	346



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT SCHNEIDER ET AL. 08 LOG-LOG U A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:38 10:01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Schneider et al. 2008**

- 1a - Silty and 'Low Ir' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

**Geology Unit Legend**

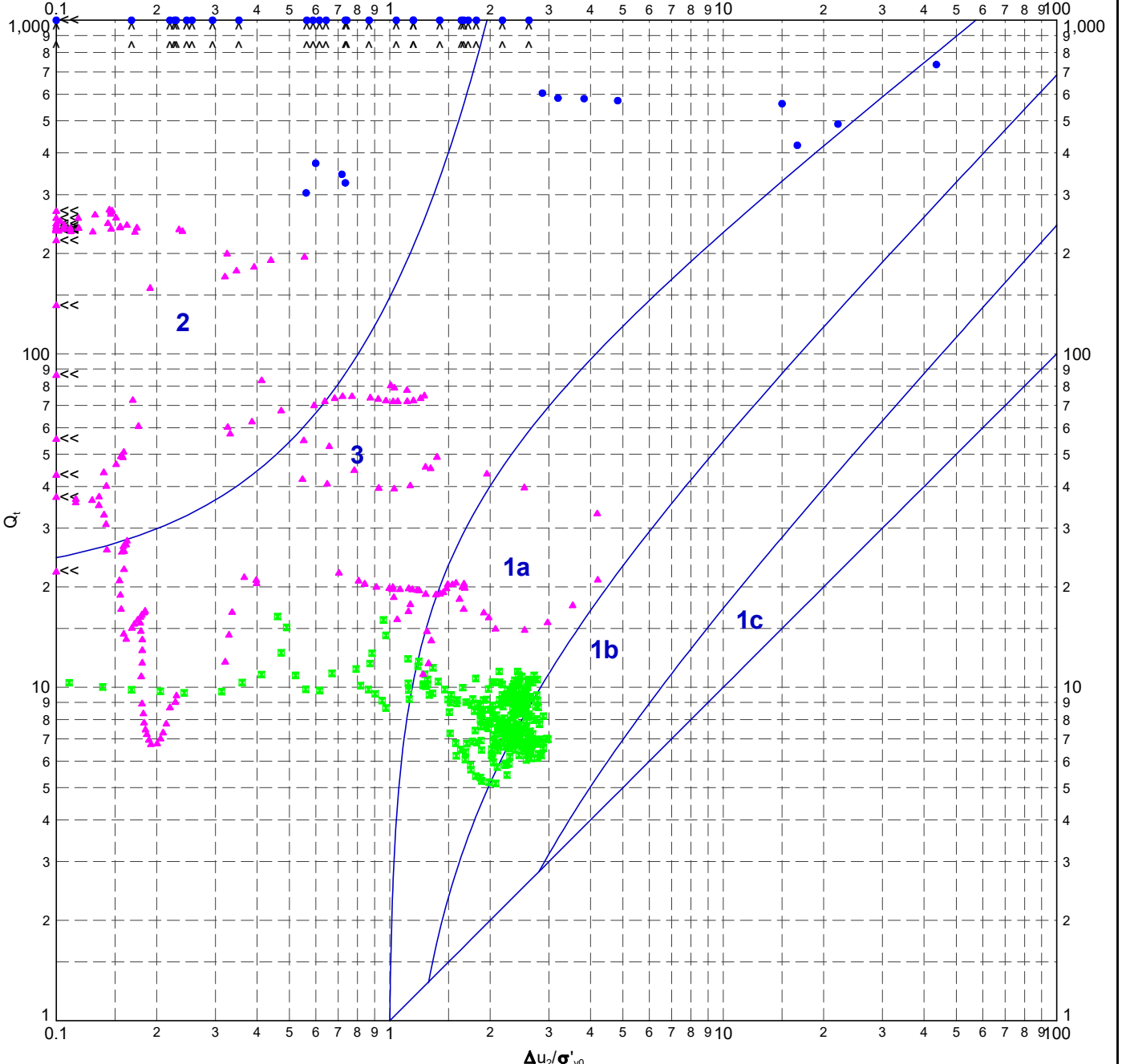
- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- 
- ◆ F - Unit F
- 
- G - Unit G
- 
- △ H - Unit H
- 
- ⊗ I - Unit I
- 



**TITLE**  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2/\sigma'_{v0}$  - CPT  
 05 Schneider

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	347

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.SCHNEIDER.ET.AL..08.LOG-LOG UM.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:38 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Schneider et al. 2008**

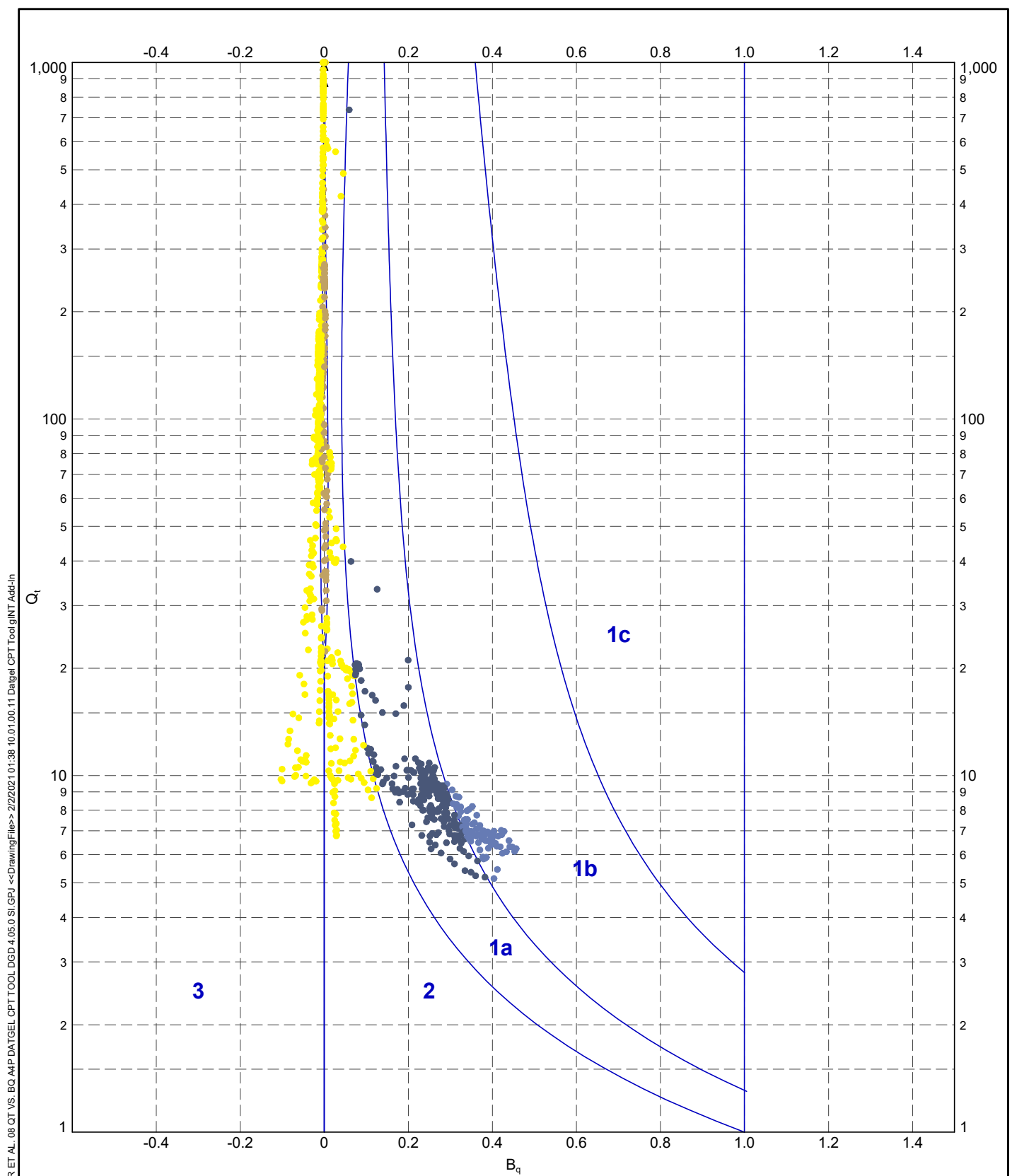
- 1a - Silts and 'Low Ir' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- 
- ⊕ F - Unit F
- 
- G - Unit G
- 
- △ H - Unit H
- 
- ⊗ I - Unit I
- 

PointIDs: CPT 05 Schneider

 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Schneider et al. 2008 $Q_t$ vs. $\Delta u_2/\sigma'_{v0}$	DRAWN	Datgel	DATE	2/2/2021
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	348	



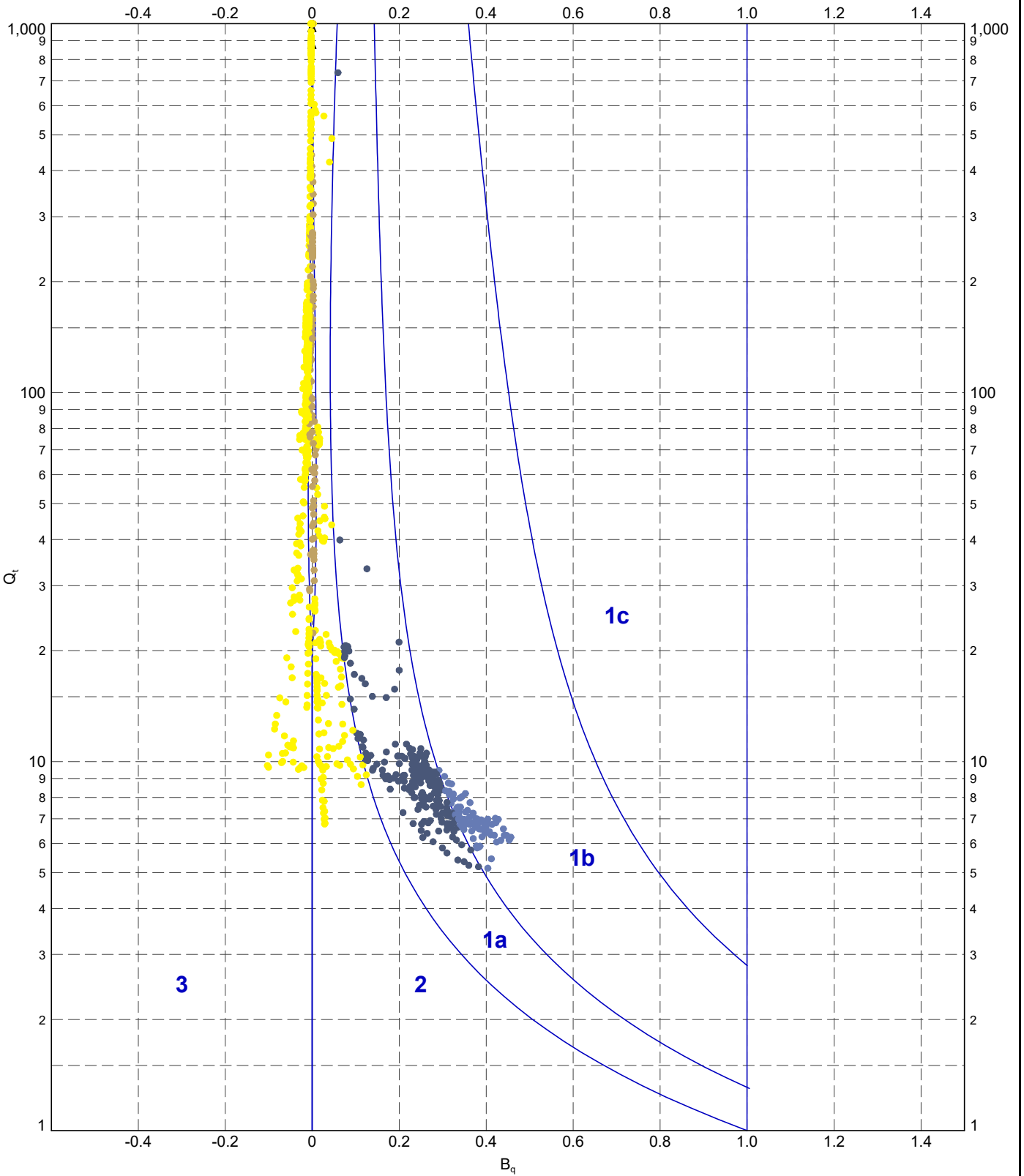
DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT SCHNEIDER ET AL. 08 QT VS. BQ.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:38 10.01.00.11 Datgel CPT Tool.gINT Add-in

**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low Ir' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

<p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Schneider et al. 2008 <math>Q_t</math> vs. <math>B_q</math> - CPT 05 Schneider</p>	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0	FIGURE No	349	

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT SCHNEIDER ET AL. 08 QT VS. BQ.M4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:39 10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low Ir' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

PointIDs: ● CPT 05 Schneider

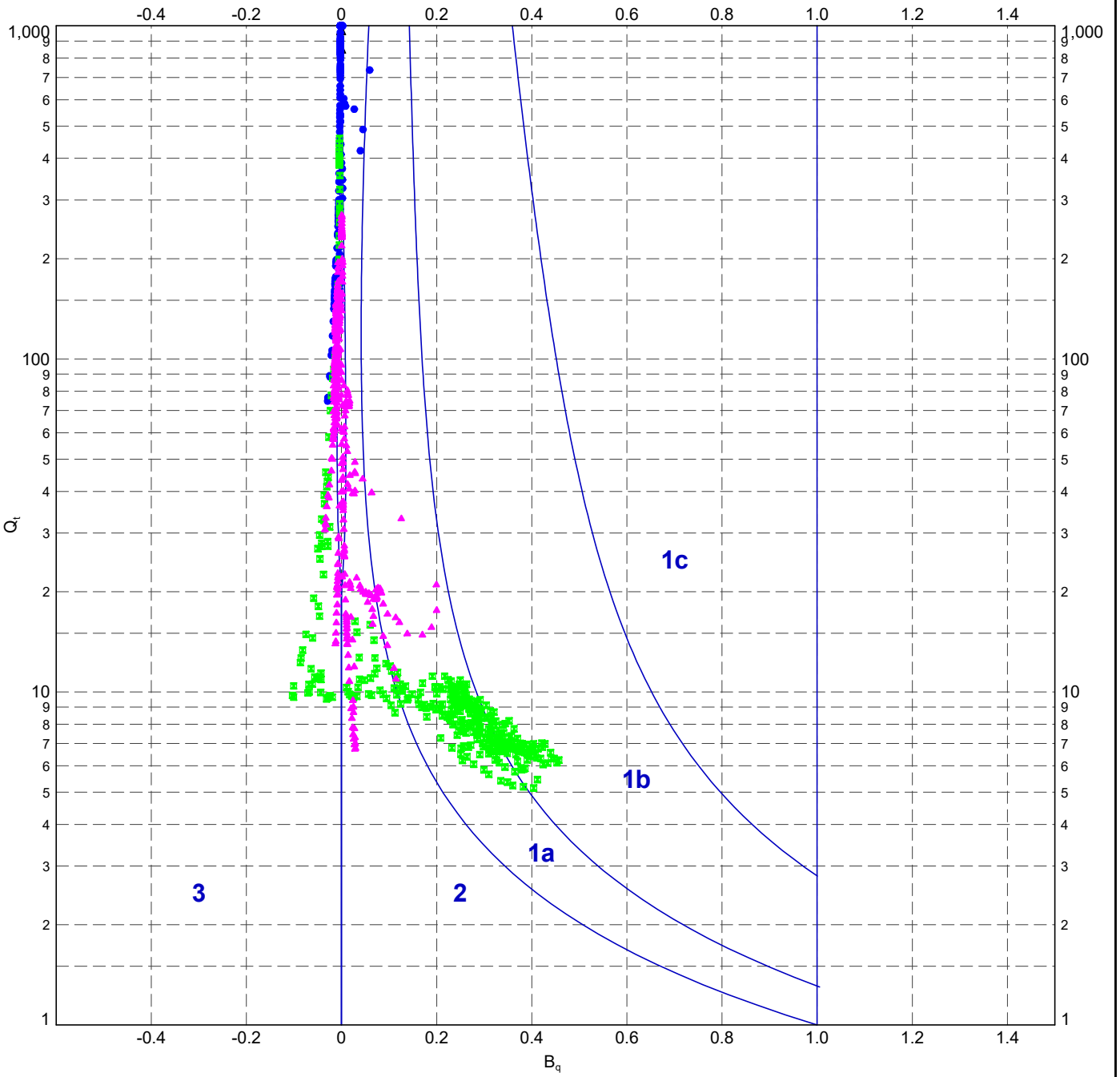


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Schneider et al. 2008  $Q_t$  vs.  $B_q$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	350

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT SCHNEIDER ET AL. 08 QT VS. BQ U A4P:DATGEL CPT TOOL DGD 4.05.0 ST.GPJ <<DrawingFile>> 2/2/2021 01:39 10.01.00.11 Datgel CPT Tool.gINT Add-In



**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low I<sub>r</sub>' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- 
- ⊕ F - Unit F
- 
- G - Unit G
- 
- △ H - Unit H
- 
- ⊗ I - Unit I
- 

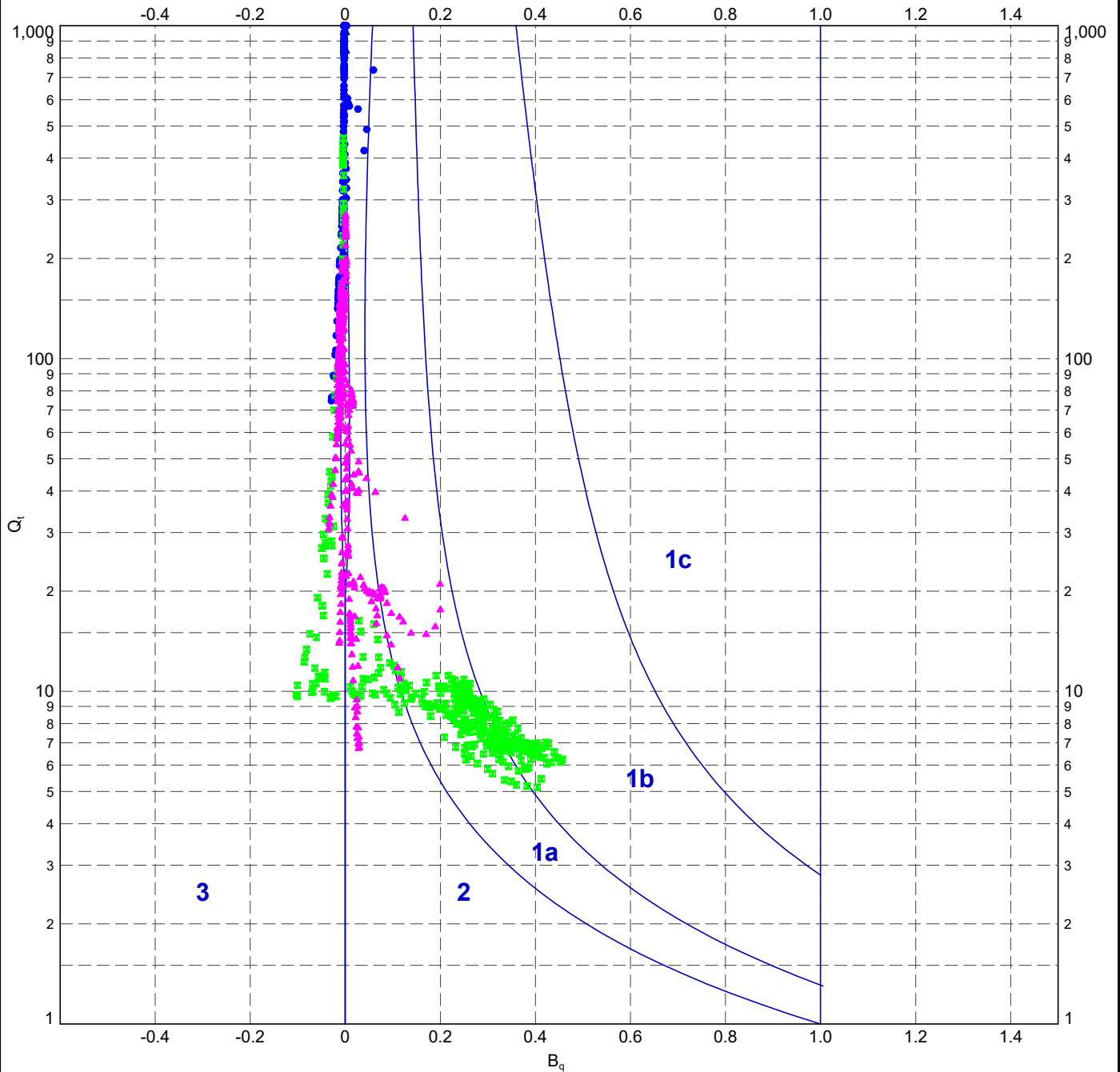


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Schneider et al. 2008  $Q_t$  vs.  $B_q$  - CPT 05  
 Schneider

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	351

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph CPT SCHNEIDER ET AL. 08 QT VS BQ UIM A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 01:39 10.01.00.11 Datgel CPT Tool gINT Add-in



**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low I<sub>r</sub>' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

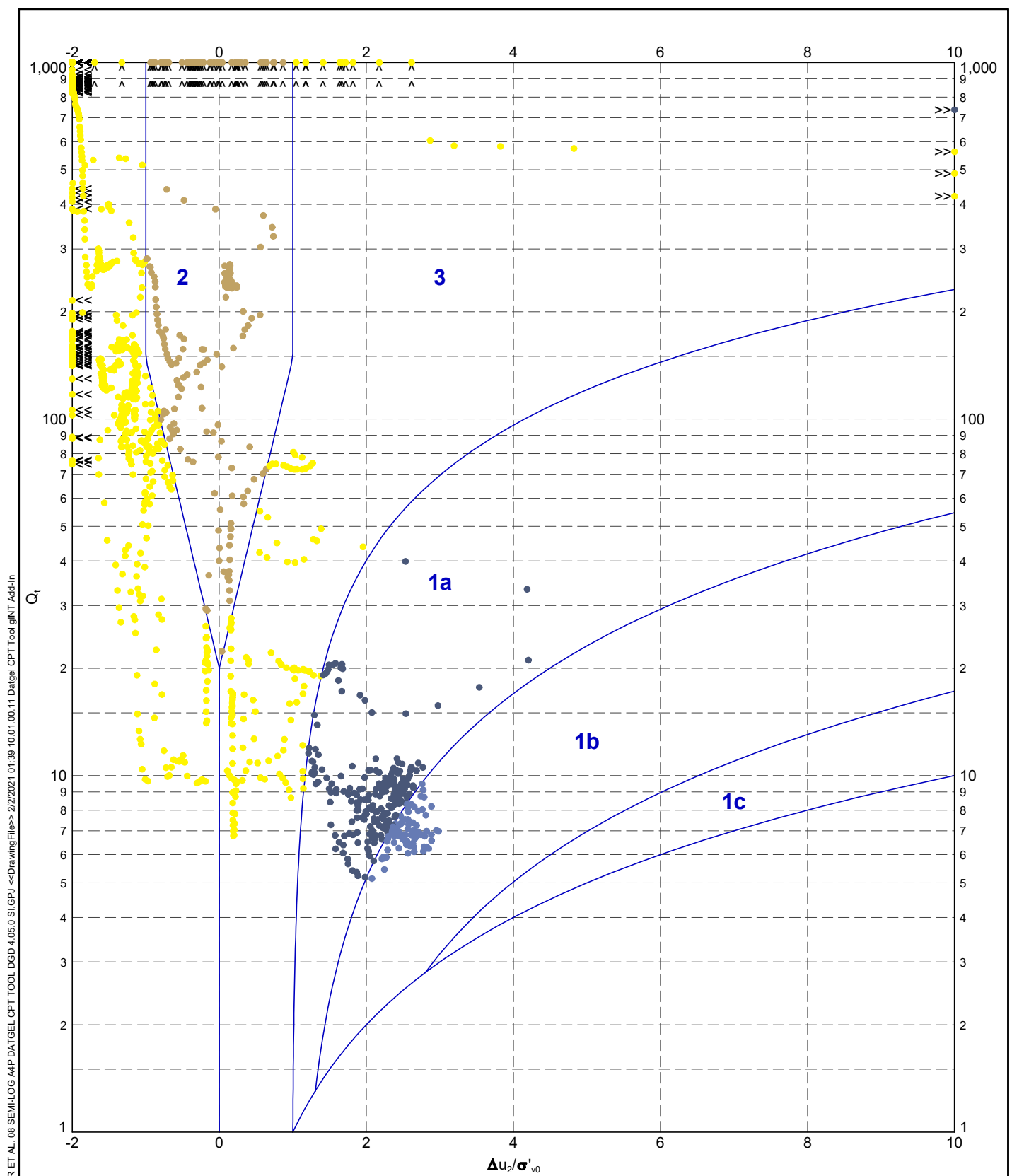
**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- 
- ⊕ F - Unit F
- 
- G - Unit G
- 
- △ H - Unit H
- 
- ⊗ I - Unit I
- 

PointIDs: CPT 05 Schneider



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Schneider et al. 2008 $Q_t$ vs. $B_q$	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	352	



DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT SCHNEIDER ET AL. 08 SEMI-LOG AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:39 10.01.00.11 Datgel CPT Tool gINT Add-in

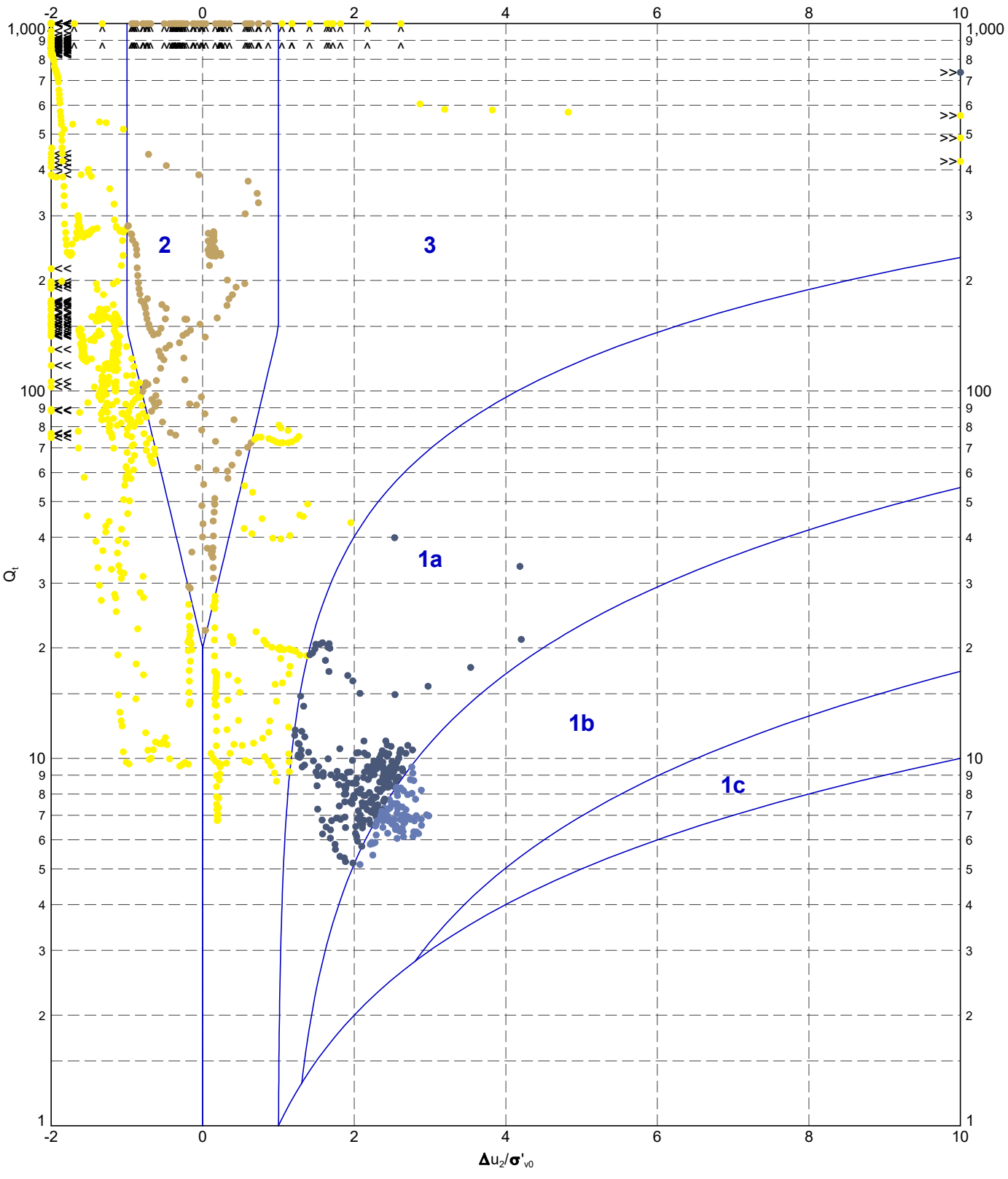
**METHOD: Schneider et al. 2008**  
 ■ 1a - Silts and 'Low I' CLAYS      ■ 2 - Essentially drained SANDS  
 ■ 1b - CLAYS      ■ 3 - Transitional soils  
 ■ 1c - Sensitive CLAYS



**TITLE**  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2 / \sigma'_{v0}$  - CPT  
 05 Schneider

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	353

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT SCHNEIDER ET AL. 08 SEMI-LOG M A&P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile-> 2/2/2021 01:39:10.01.00.11 Datgel CPT Tool gINT Add-In



**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low I<sub>r</sub>' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

PointIDs: ● CPT 05 Schneider



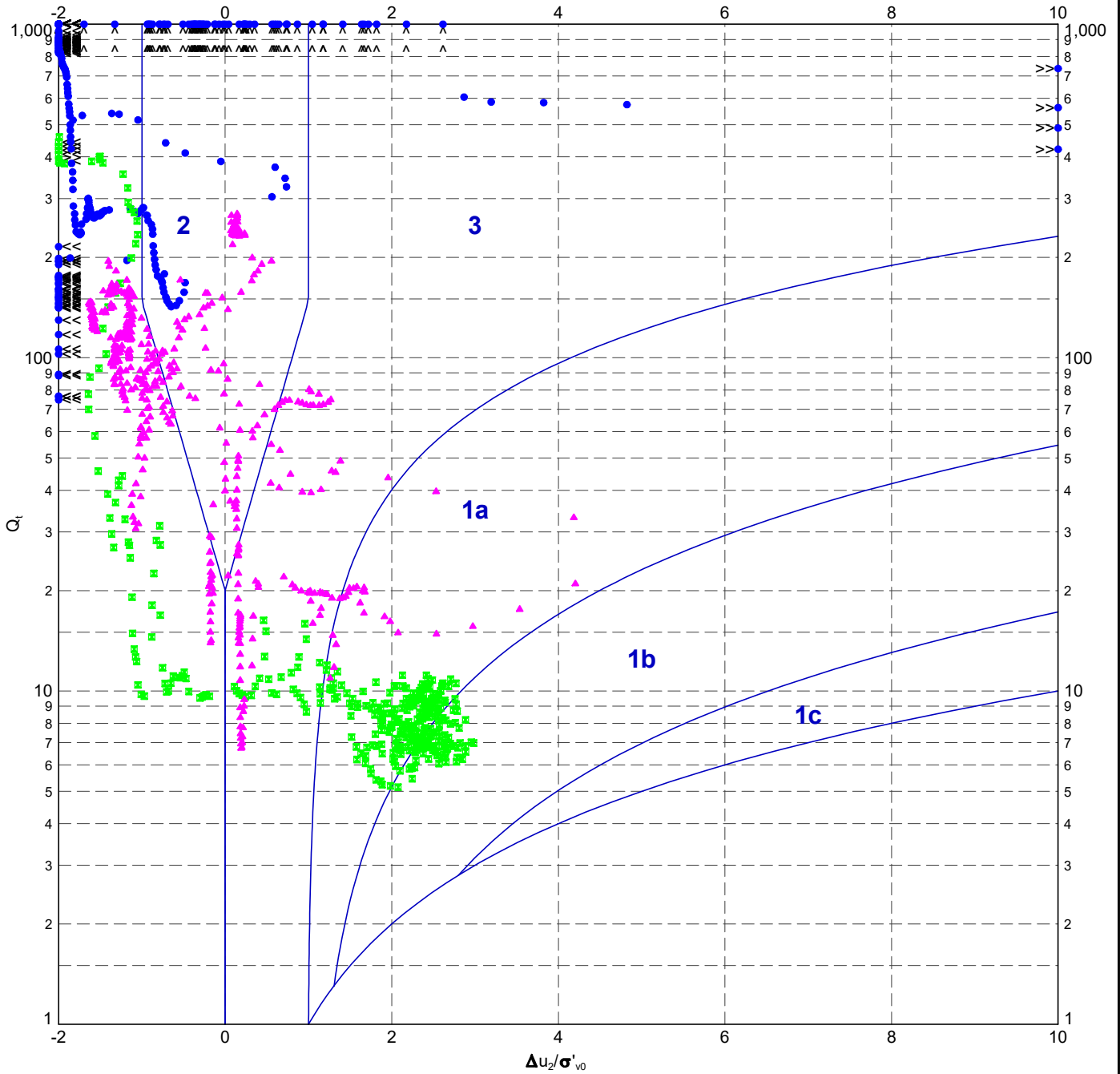
TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2 / \sigma'_{v0}$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	354



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SCHNEIDER.ET.AL.08 SEMI-LOG.U.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:40 10.01.00.11 Datgel.CPT.Tool.gINT.A4d-In



**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low Ir' CLAYS
- 2 - Essentially drained SANDS
- 1b - CLAYS
- 3 - Transitional soils
- 1c - Sensitive CLAYS

**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- 
- ⊕ F - Unit F
- 
- G - Unit G
- 
- △ H - Unit H
- 
- ⊗ I - Unit I
- 

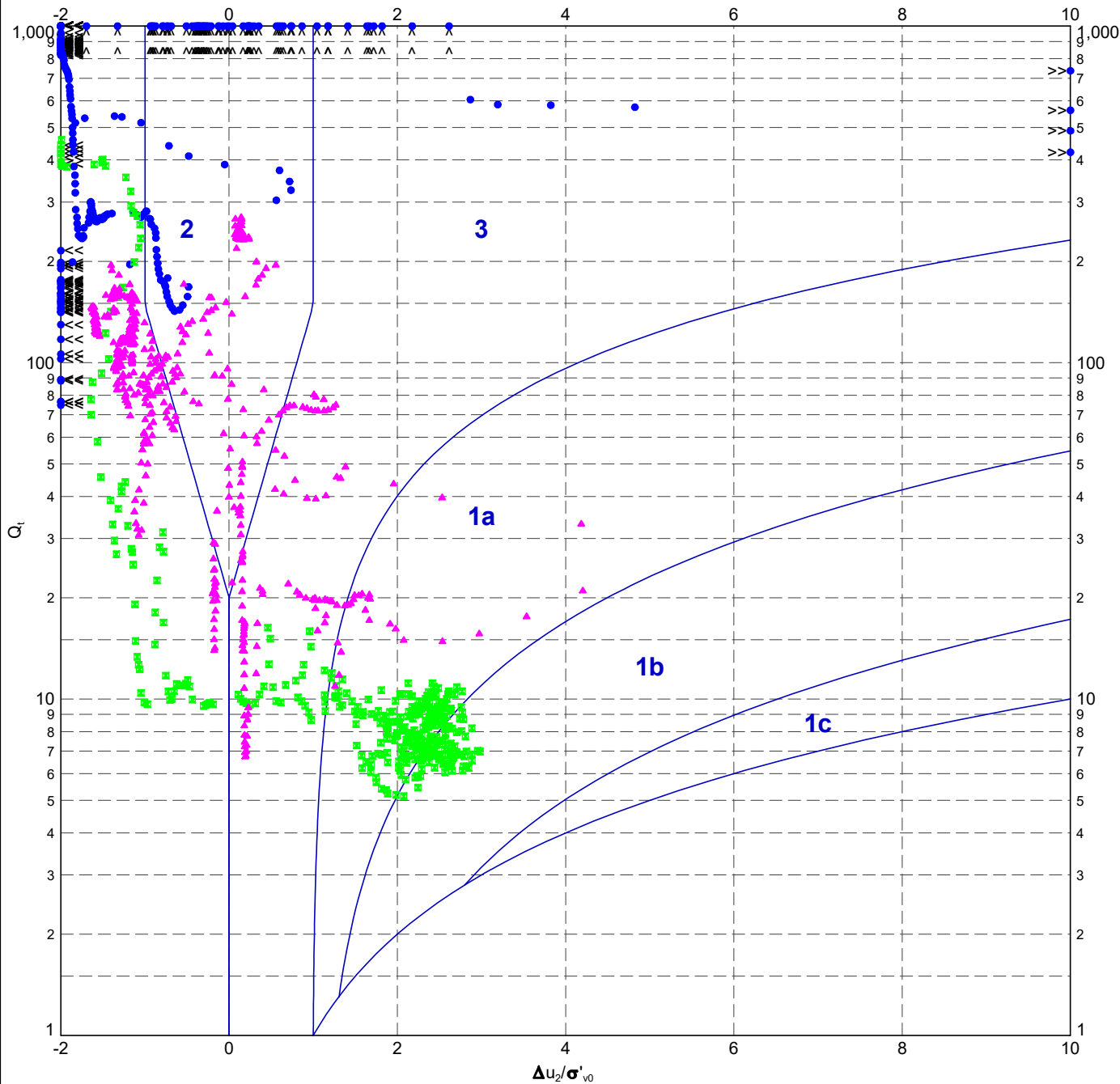


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2/\sigma'_{v0}$  - CPT  
 05 Schneider

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	355

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT SCHNEIDER ET AL. 08 SEMI-LOG UM AAP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/22/2021 01:40 10.01.00.11 Datgel CPT Tool gINT Add-in



**METHOD: Schneider et al. 2008**

- 1a - Silts and 'Low Ir' CLAYS
- 1b - CLAYS
- 1c - Sensitive CLAYS
- 2 - Essentially drained SANDS
- 3 - Transitional soils

**Geology Unit Legend**

- ★ D - Unit D
- ⊕ J - Unit J
- A - Unit A
- K - Unit K
- B - Unit B
- ◇ R - Rock
- ▲ C - Unit C
- F - Unit F
- G - Unit G
- △ H - Unit H
- ⊗ I - Unit I

PointIDs: CPT 05 Schneider

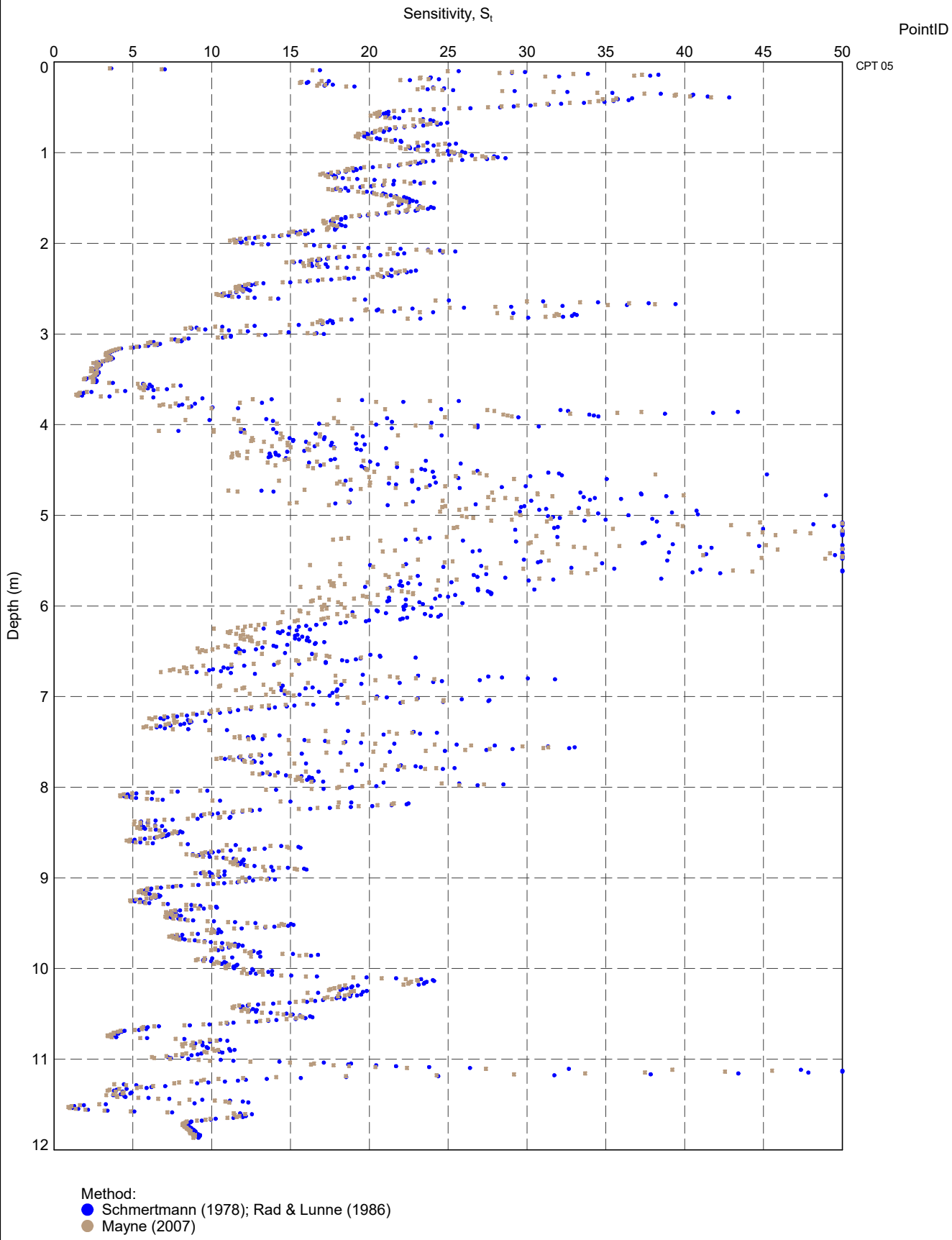


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Schneider et al. 2008  $Q_t$  vs.  $\Delta u_2 / \sigma'_{v0}$

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	356

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SENSITIVITY.DEPTH.AMP.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 2/2/2021 01:41 10.01.00.11 Datgel CPT Tool.gINT.Add.in



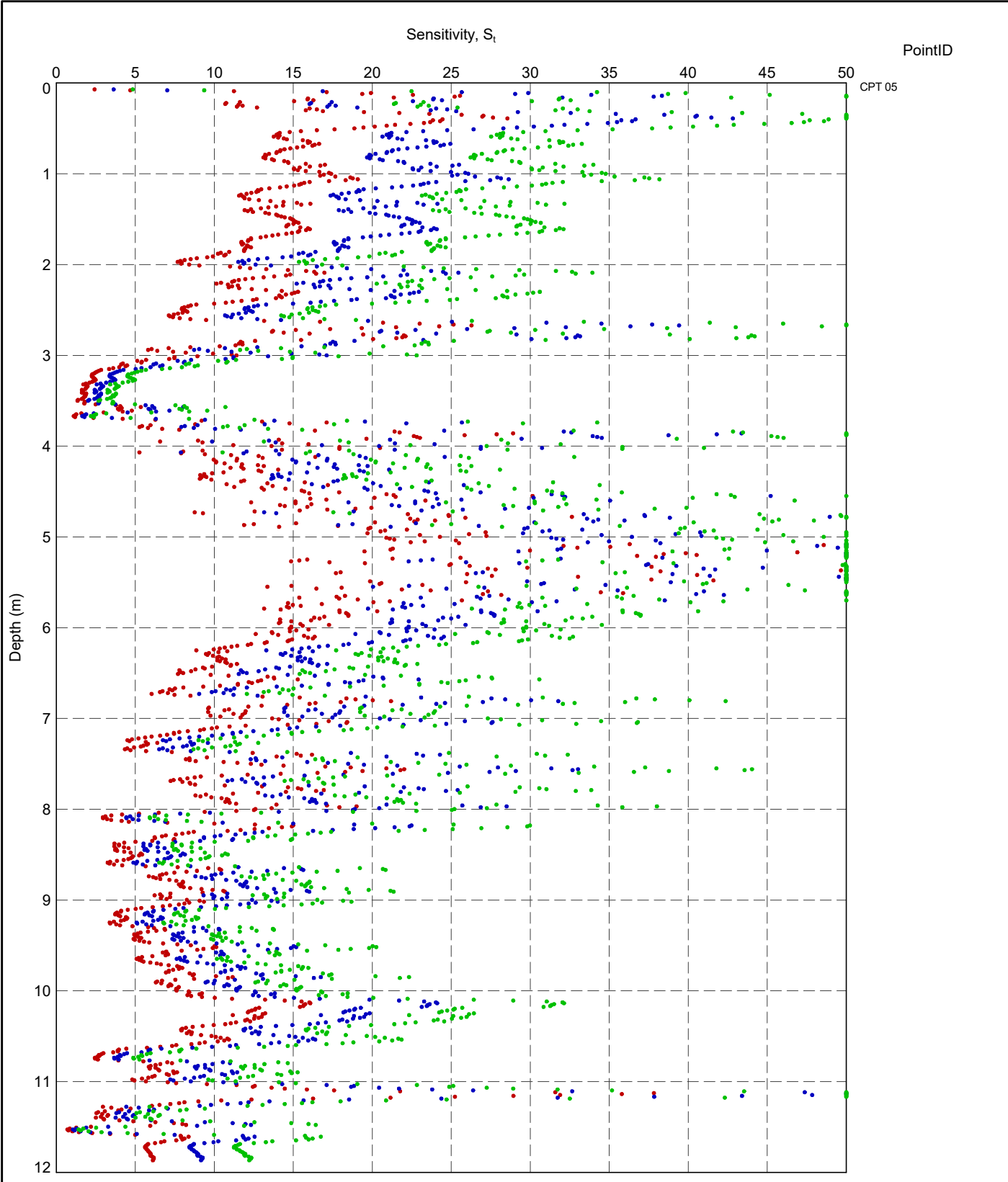
Method:  
 ● Schmertmann (1978); Rad & Lunne (1986)  
 ● Mayne (2007)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Sensitivity versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	357

DATGEL CPT TOOL DGD 4.05.0 LIB:GLB Graph.CPT.SENSITIVITY.LB.BE.UB.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <-DrawingFile>> 2/2/2021 01:41 10.01.00.11 Datgel CPT Tool gINT Add-in



Method:  
 ●  $S_t$  LB, Schmertmann (1978); Rad & Lunne (1986)  
 ●  $S_t$  BE, Schmertmann (1978); Rad & Lunne (1986)  
 ●  $S_t$  UB, Schmertmann (1978); Rad & Lunne (1986)

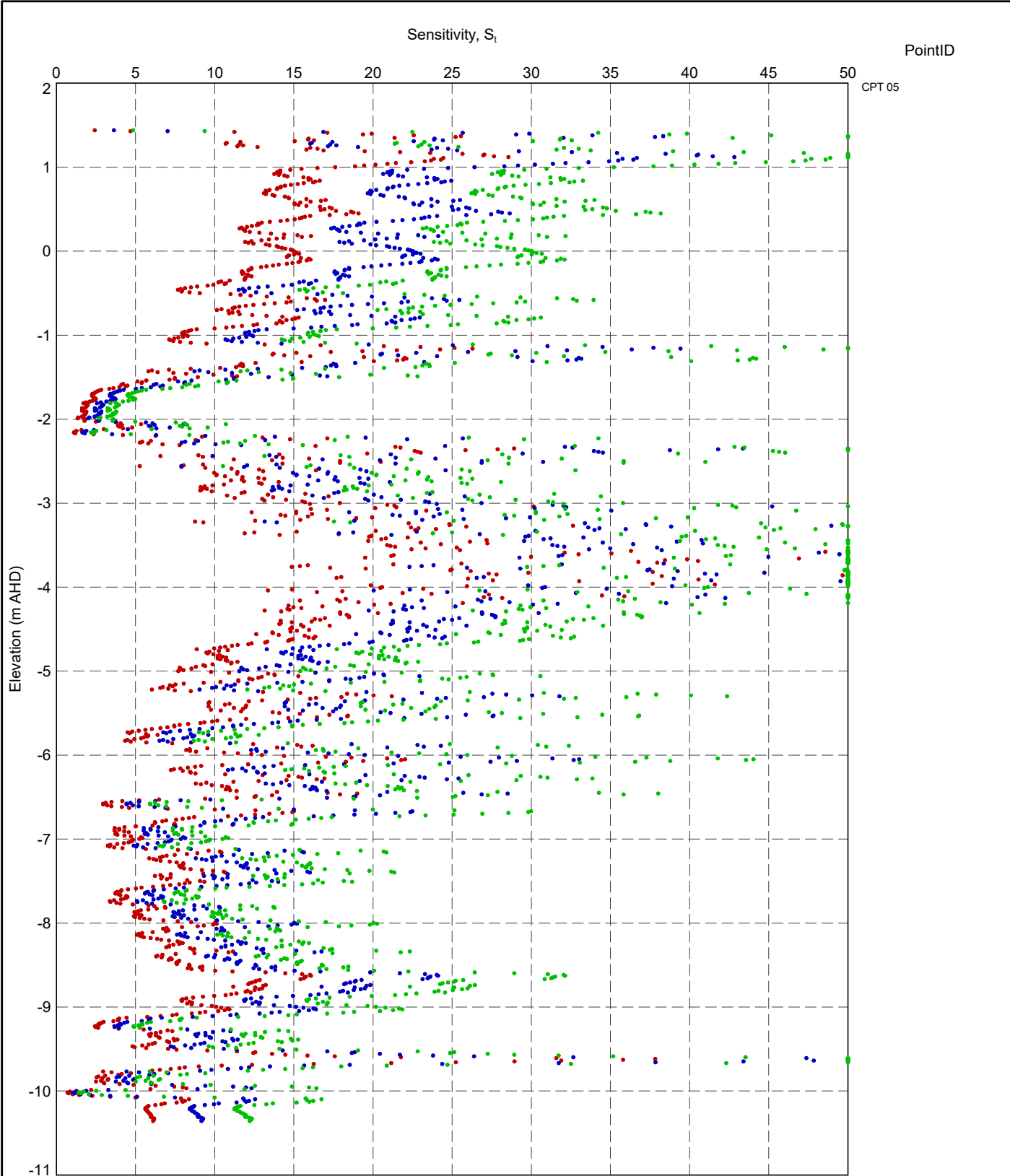


TITLE


Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Sensitivity versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	358

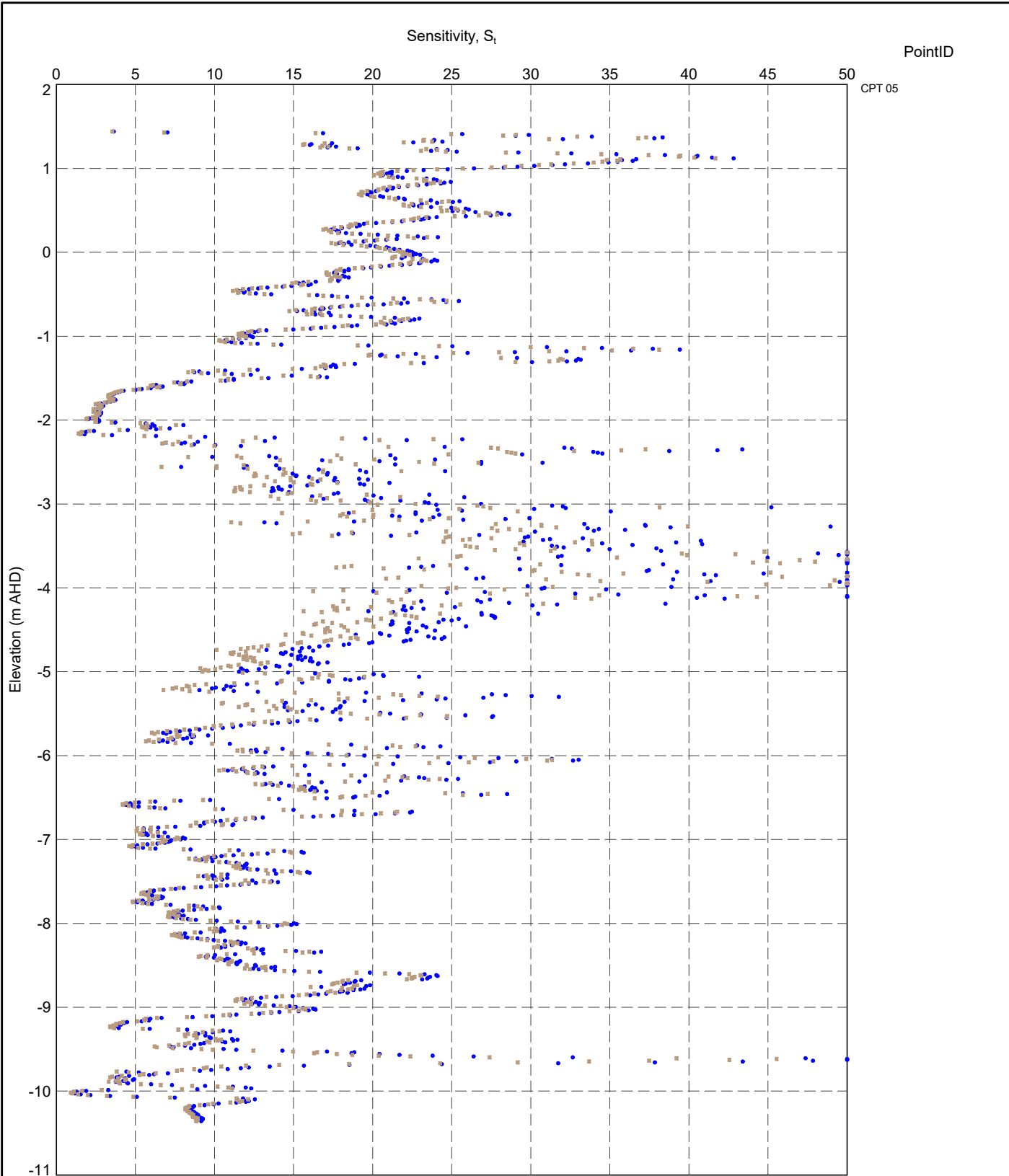
DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.SENSITIVITY.LB.BE.UB.RL.A4P.DATGEL.CPT.TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:42:10.01.00.11.Datgel.CPT.Tool.gINT.Add-In



- Method:
- $S_t$  LB, Schmertmann (1978); Rad & Lunne (1986)
  - $S_t$  BE, Schmertmann (1978); Rad & Lunne (1986)
  - $S_t$  UB, Schmertmann (1978); Rad & Lunne (1986)

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Sensitivity versus Elevation</p>	<p>DRAWN</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">2/2/2021</p>	
		<p>CHECKED</p> <p style="text-align: center;">Datgel</p>	<p>DATE</p> <p style="text-align: center;">2/2/2021</p>	
		<p>SCALE</p> <p style="text-align: center;">Not To Scale</p>		<p>A4</p>
		<p>PROJECT No</p> <p style="text-align: center;">4.05.0</p>	<p>FIGURE No</p> <p style="text-align: center;">359</p>	

DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.SENSITIVITY.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:43 10:01:00.11 Datgel.CPT.Tool.gINT.Add-In



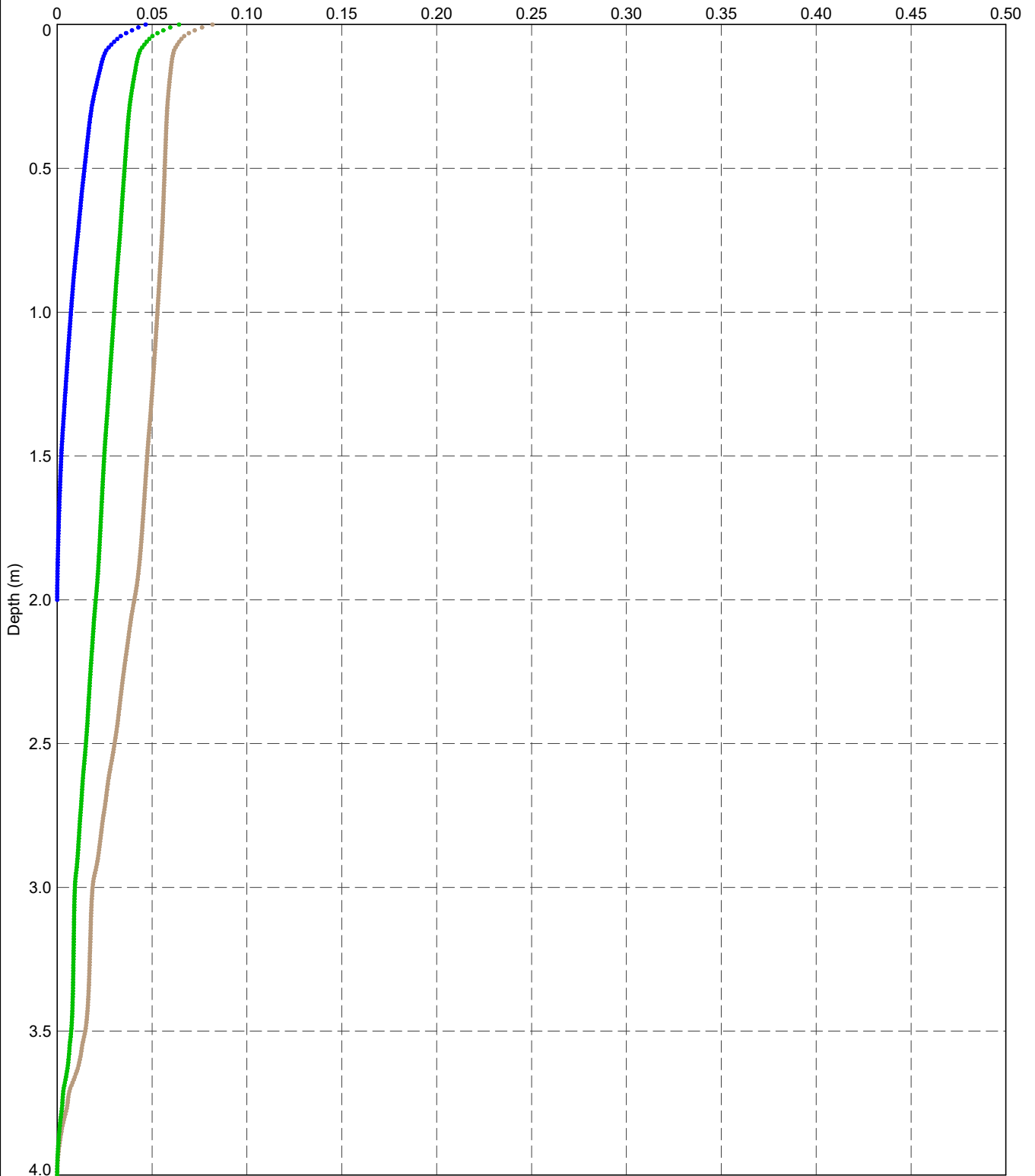
Method:  
 ● Schmertmann (1978); Rad & Lunne (1986)  
 ● Mayne (2007)



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Sensitivity versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	360

Shallow Foundation Settlement



Legend:

- Shallow Square Settlement, ( $L/B > 10$ ) (m)
- Shallow Strip Settlement, ( $1 \leq L/B \leq 10$ ) (m)
- Shallow Rectangular Settlement, ( $L/B = 1$ ) (m)

Schmertmann (1970)

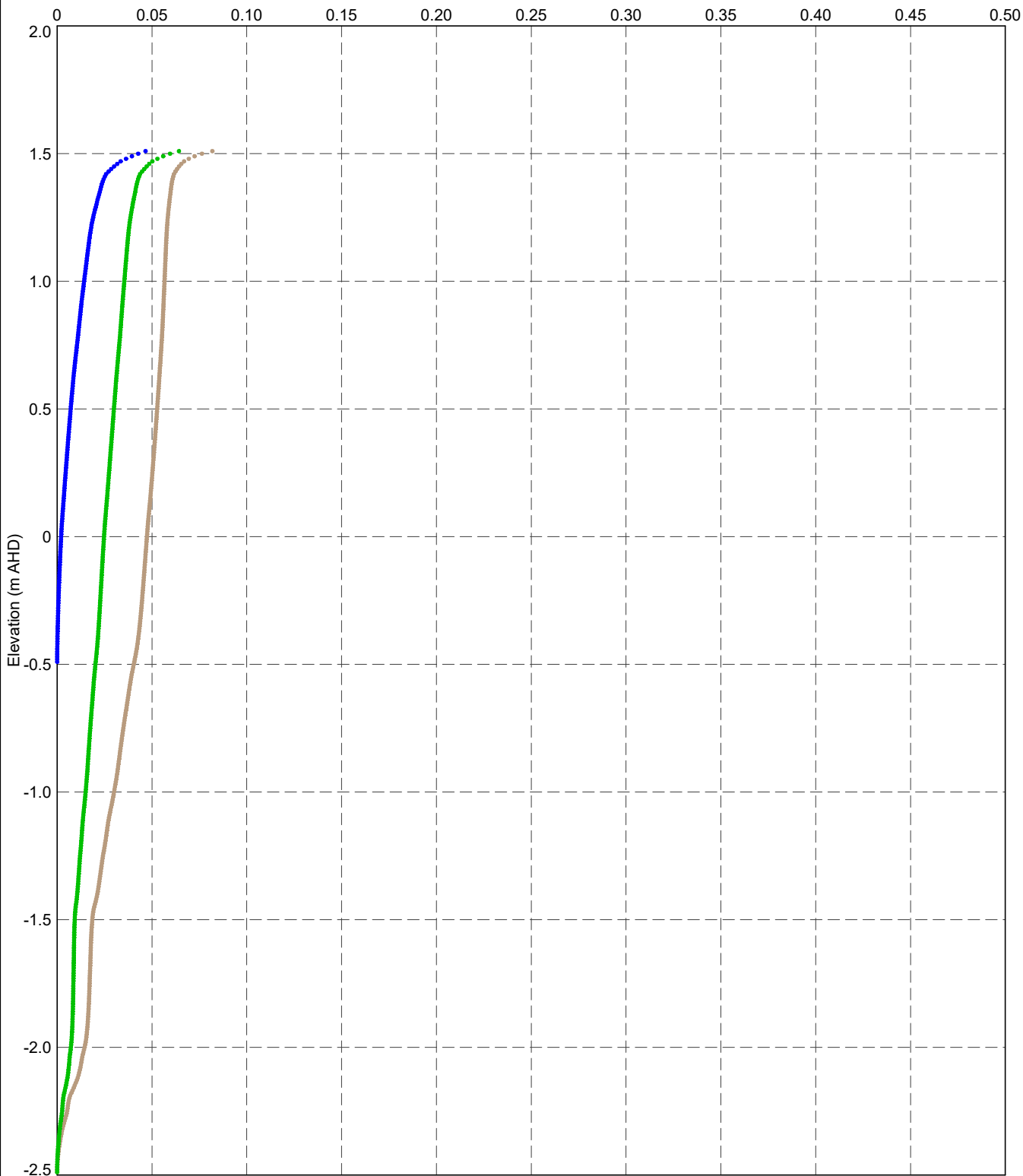
DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT SHALLOW FOUND SETTLEMENT DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:43:10.01.00.11 Datgel CPT Tool gINT Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Shallow Foundation Settlement versus Depth -  
 CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	361

Shallow Foundation Settlement



Legend:

- Shallow Square Settlement, ( $L/B > 10$ ) (m)
- Shallow Strip Settlement, ( $1 \leq L/B \leq 10$ ) (m)
- Shallow Rectangular Settlement, ( $L/B = 1$ ) (m)

Schmertmann (1970)

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT SHALLOW FOUND SETTLEMENT RL AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:44 10.01.00.11 Datgel CPT Tool.gINT Add-In



Geotechnics • Geoenvironment • Laboratory

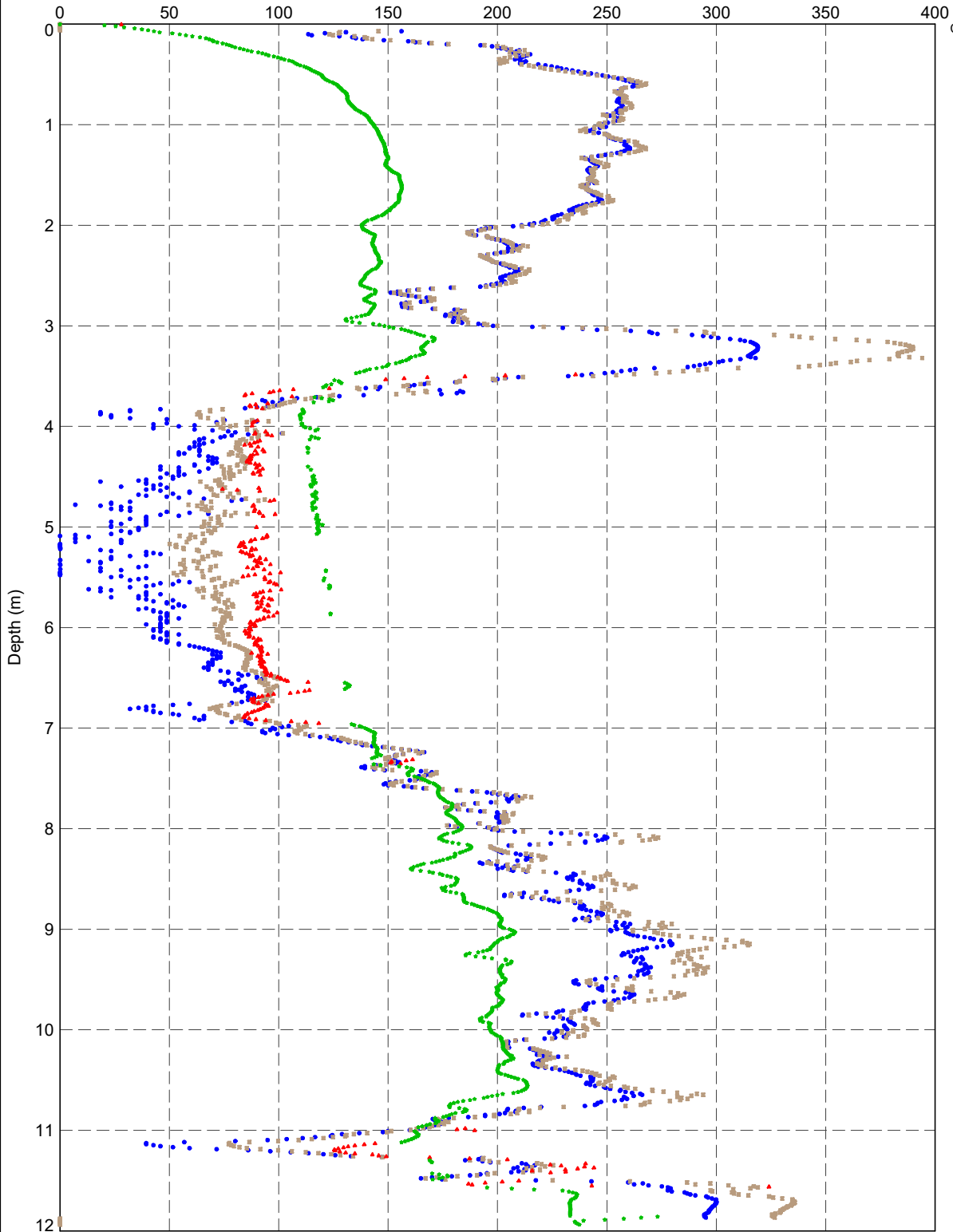
TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Shallow Foundation Settlement versus Elevation  
 - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	362



Correlated Shear Wave Velocity,  $V_s$  (m/s)

PointID



CPT 05

Method:

- Mayne (2006)
- Hegazy & Mayne (1995)
- Mayne & Rix (1995)
- Baldi et al. (1989)

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT SHEAR WAVE VELOCITY DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:45 10.01.00.11 Datgel CPT Tool\GINT Add-in



Geotechnics • Geoenvironment • Laboratory

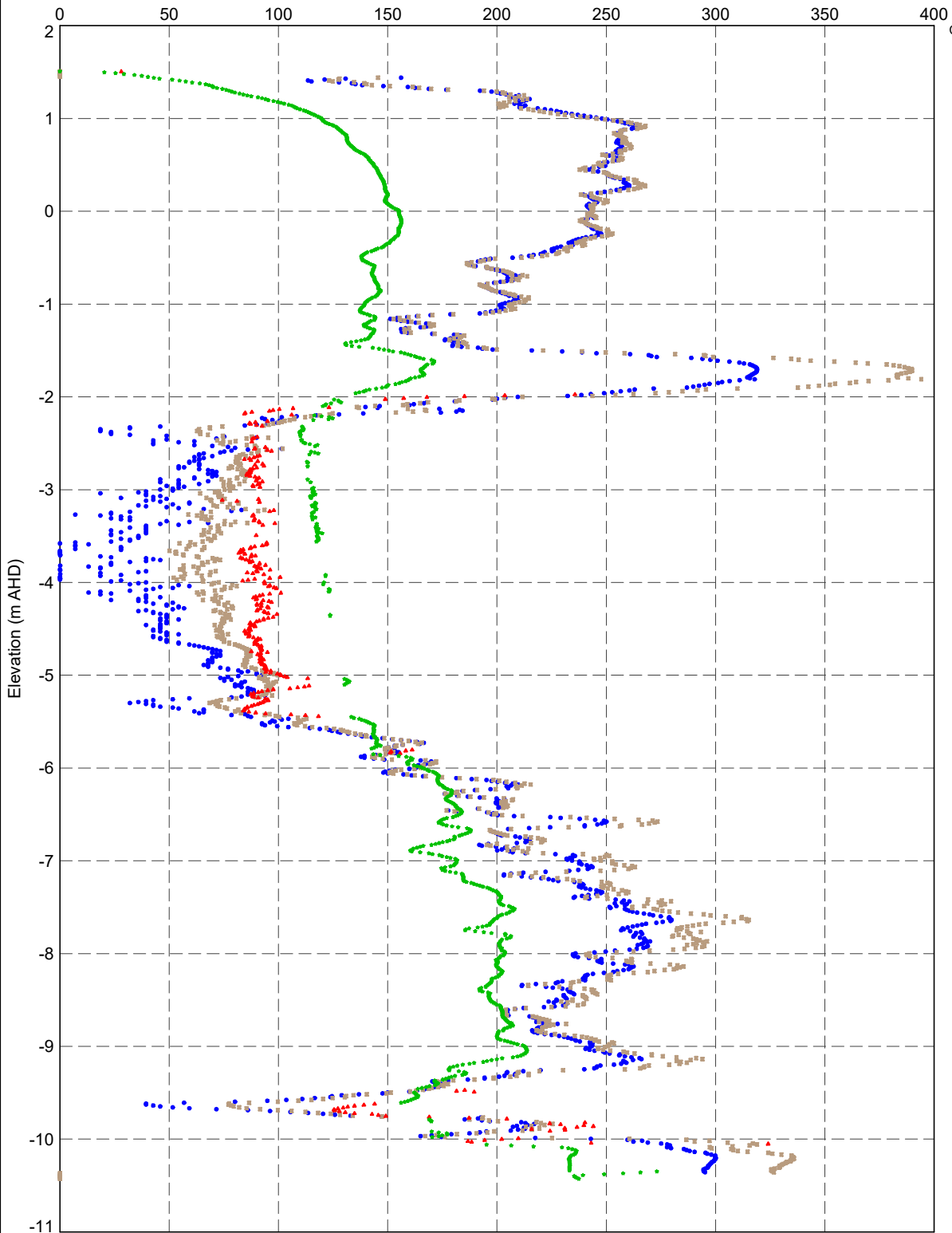
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Shear Wave Velocity versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	363

Correlated Shear Wave Velocity,  $V_s$  (m/s)

PointID



CPT 05

Method:

- Mayne (2006)
- Hegazy & Mayne (1995)
- Mayne & Rix (1995)
- Baldi et al. (1989)

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT SHEAR WAVE VELOCITY RL.AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:46 10.01.00.11 Datgel CPT Tool gINT Add-in

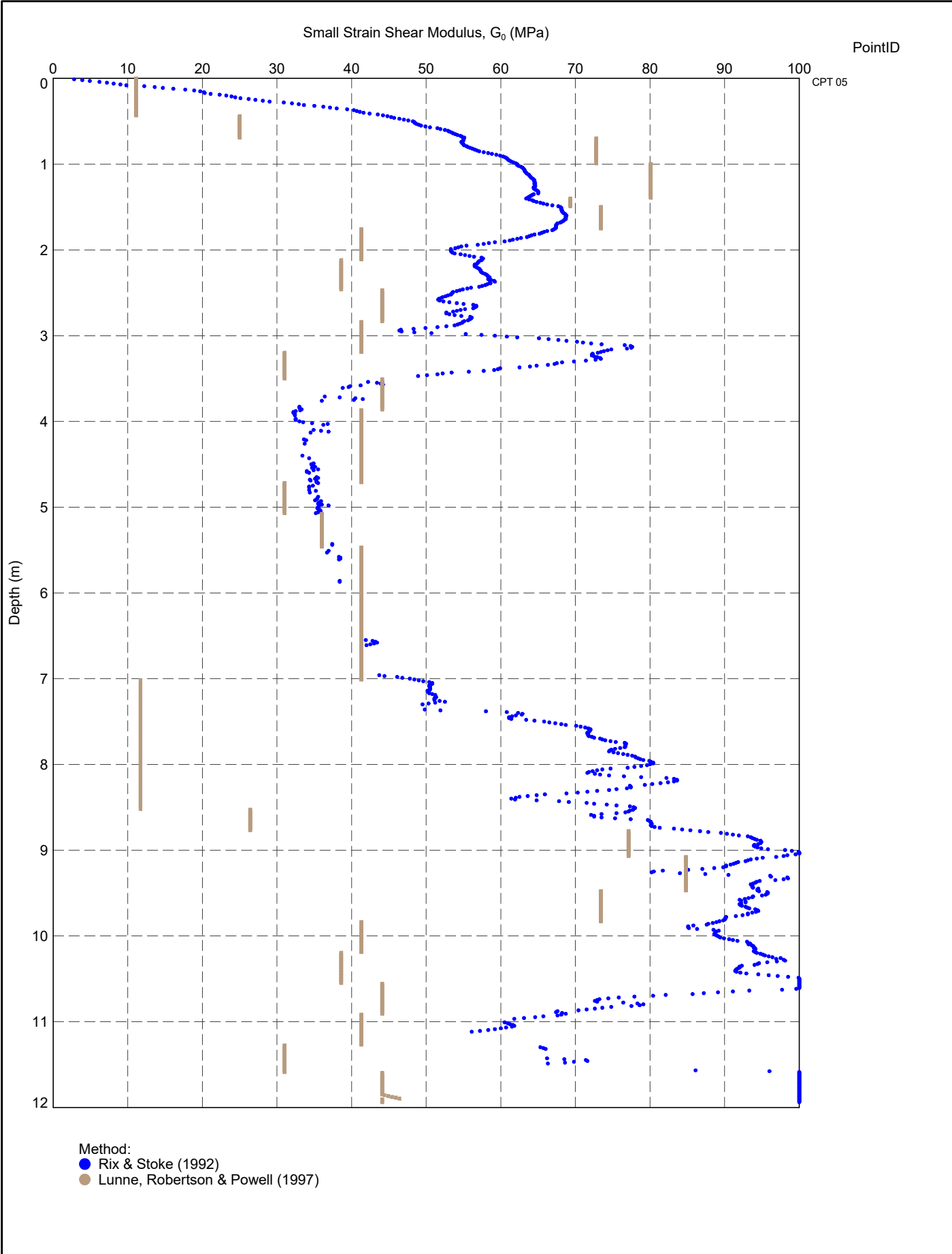



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Shear Wave Velocity versus Elevation

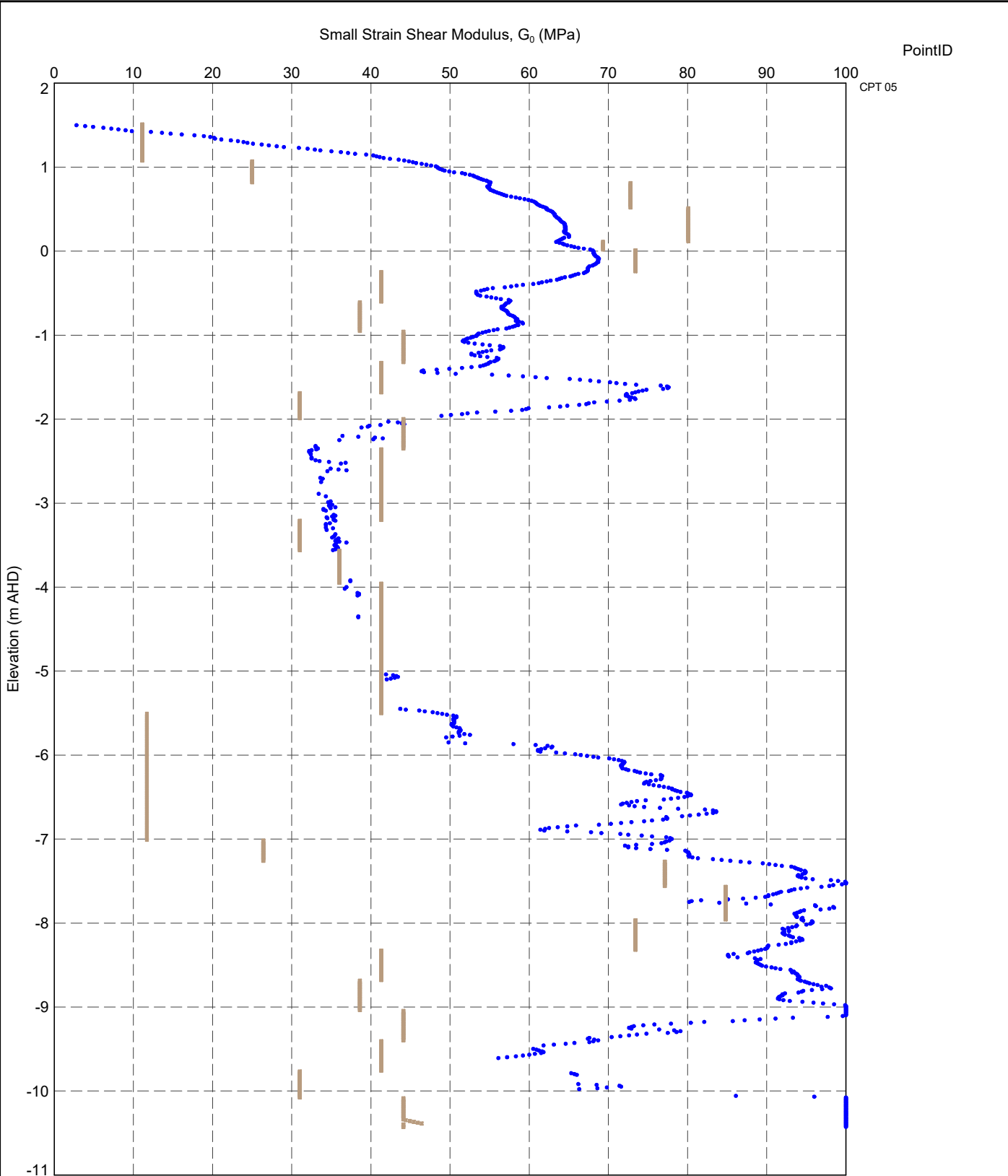
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	364

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT SMALL STRAIN SHEAR MOD DEPTH AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/22/2021 01:46 10.01.00.11 Datgel CPT Tool gINT Add-in

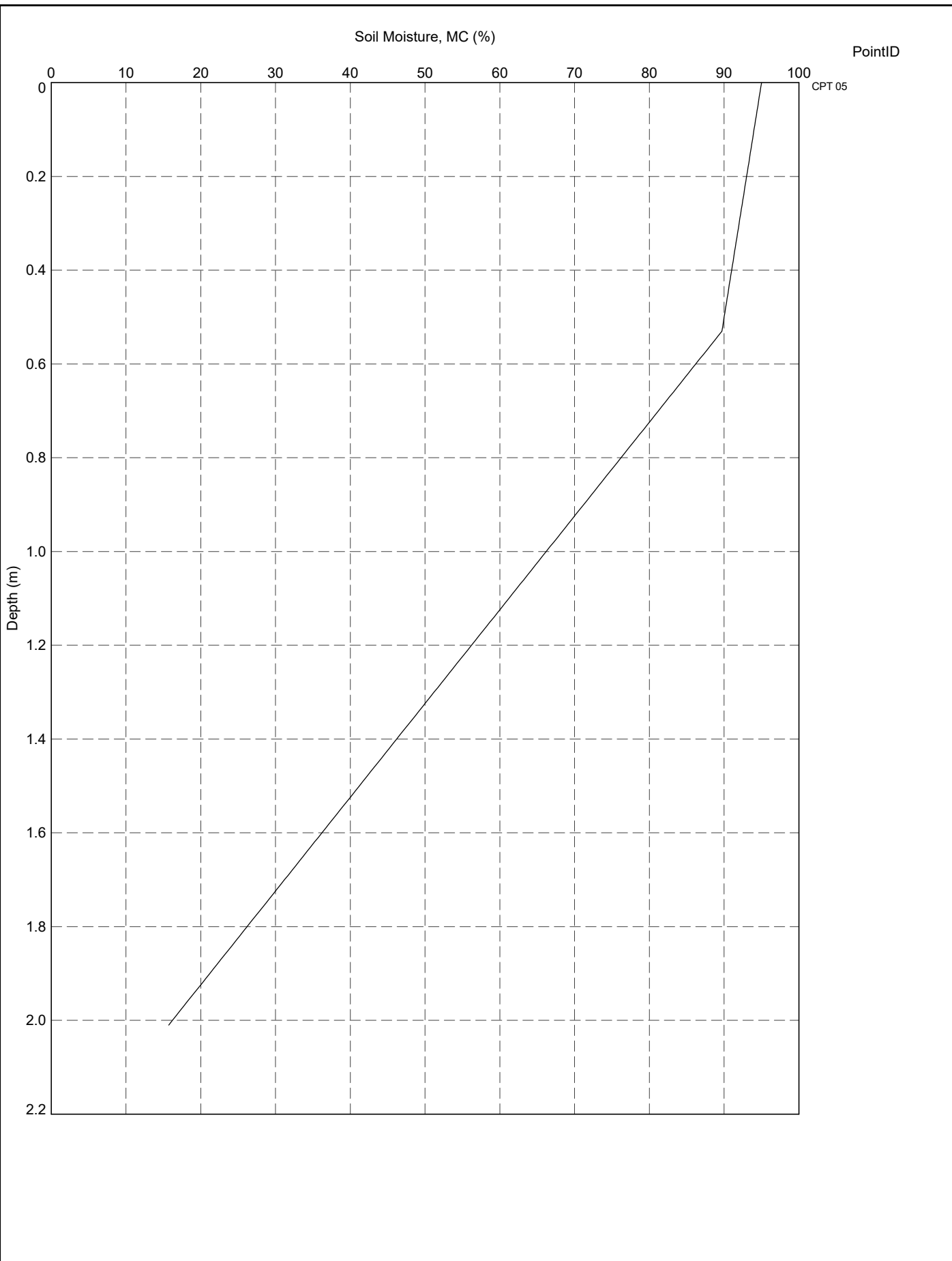


 <b>Datgel</b> <small>DATA SOLUTIONS</small> <small>Geotechnics • Geoenvironment • Laboratory</small>	TITLE Client 1 Engineer 1 Somewhere CPT Tool Project Small Strain Shear Modulus versus Depth	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	365

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT SMALL STRAIN SHEAR MODULUS RL A4P DATGEL.CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:47:10.01.00.11 Datgel.CPT Tool glNT Add-In



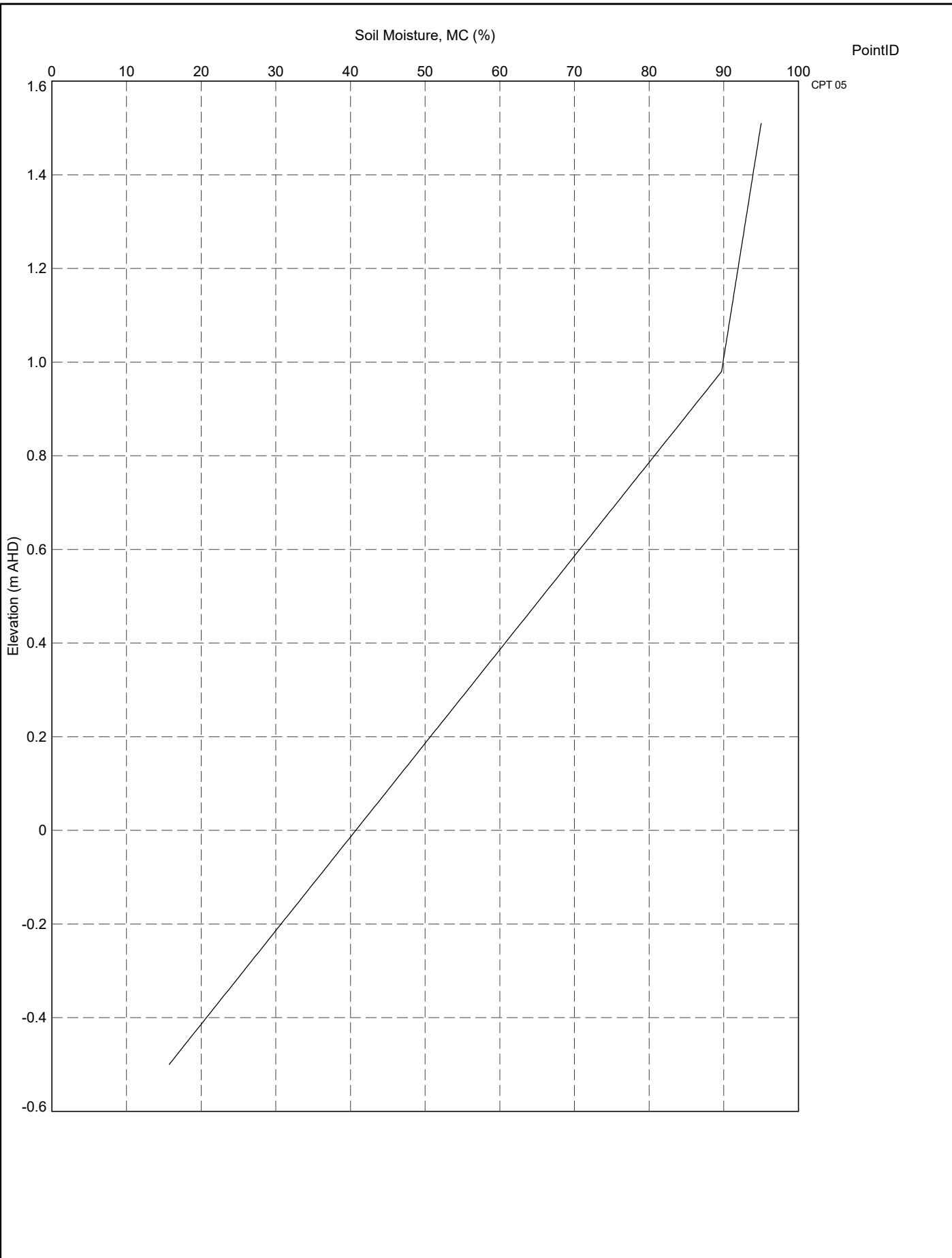
 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Small Strain Shear Modulus versus Elevation	DRAWN	Datgel	DATE	2/2/2021	
		CHECKED	Datgel	DATE	2/2/2021	
		SCALE	Not To Scale			A4
		PROJECT No	4.05.0		FIGURE No	366



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SOIL.MOISTURE DEPTH A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/22/2021 01:47 10.01.00.11 Datgel.CPT.Tool.GINT.Add-in

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Soil Moisture versus Depth	DRAWN Datgel	DATE 2/2/2021
			CHECKED Datgel	DATE 2/2/2021
			SCALE Not To Scale	A4
			PROJECT No 4.05.0	FIGURE No 367

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SOIL.MOISTURE.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:47:10.01.00.11 Datgel.CPT.Tool.gINT Add-In



PointID

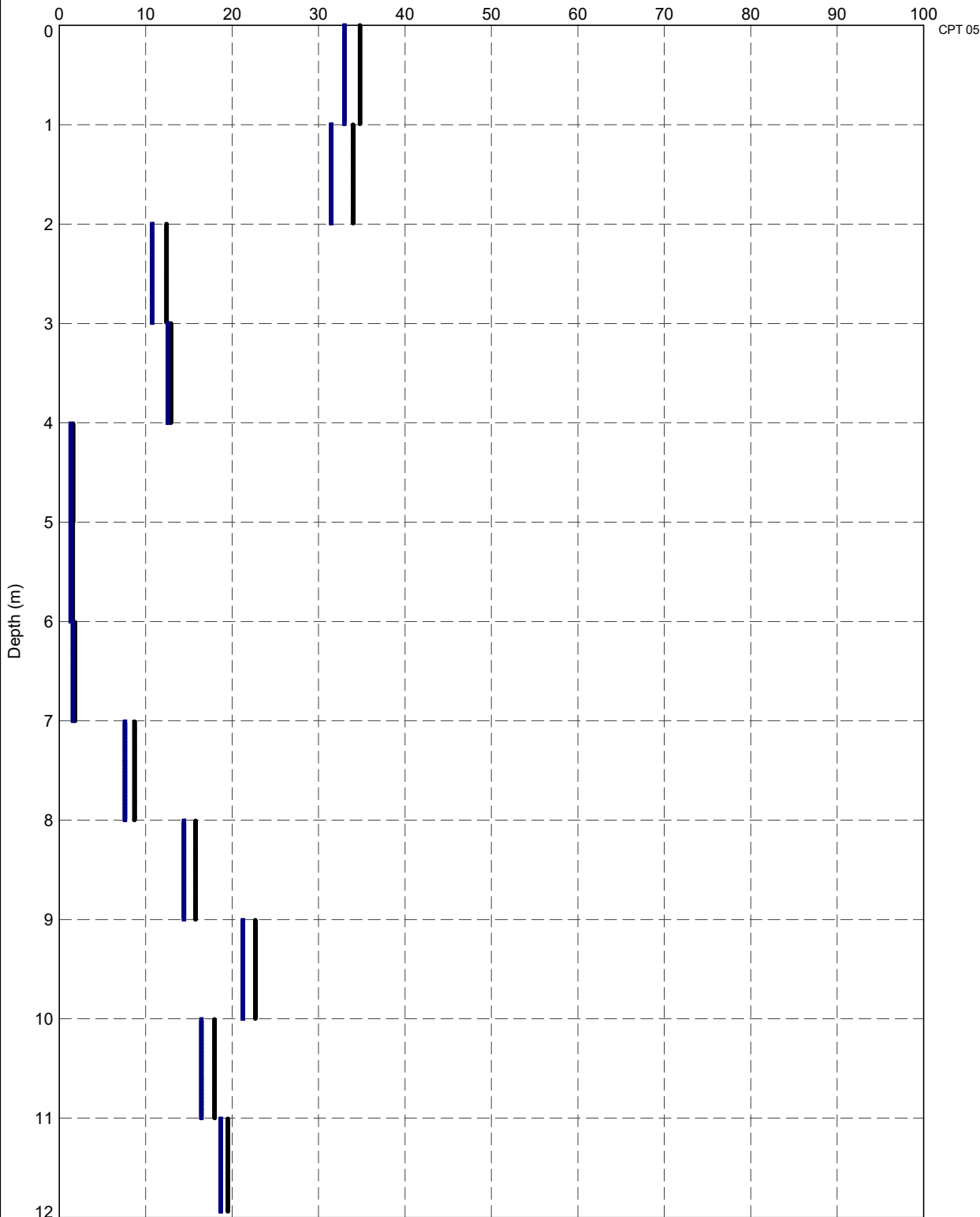
CPT 05



TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Soil Moisture versus Elevation	DRAWN	Datgel	DATE	2/2/2021
	CHECKED	Datgel	DATE	2/2/2021
	SCALE	Not To Scale		A4
	PROJECT No	4.05.0	FIGURE No	368

SPT Average N<sub>60</sub>

PointID



Method:  
 ● Robertson and Wride (1998)  
 ☒ Jefferies and Davies (1993)

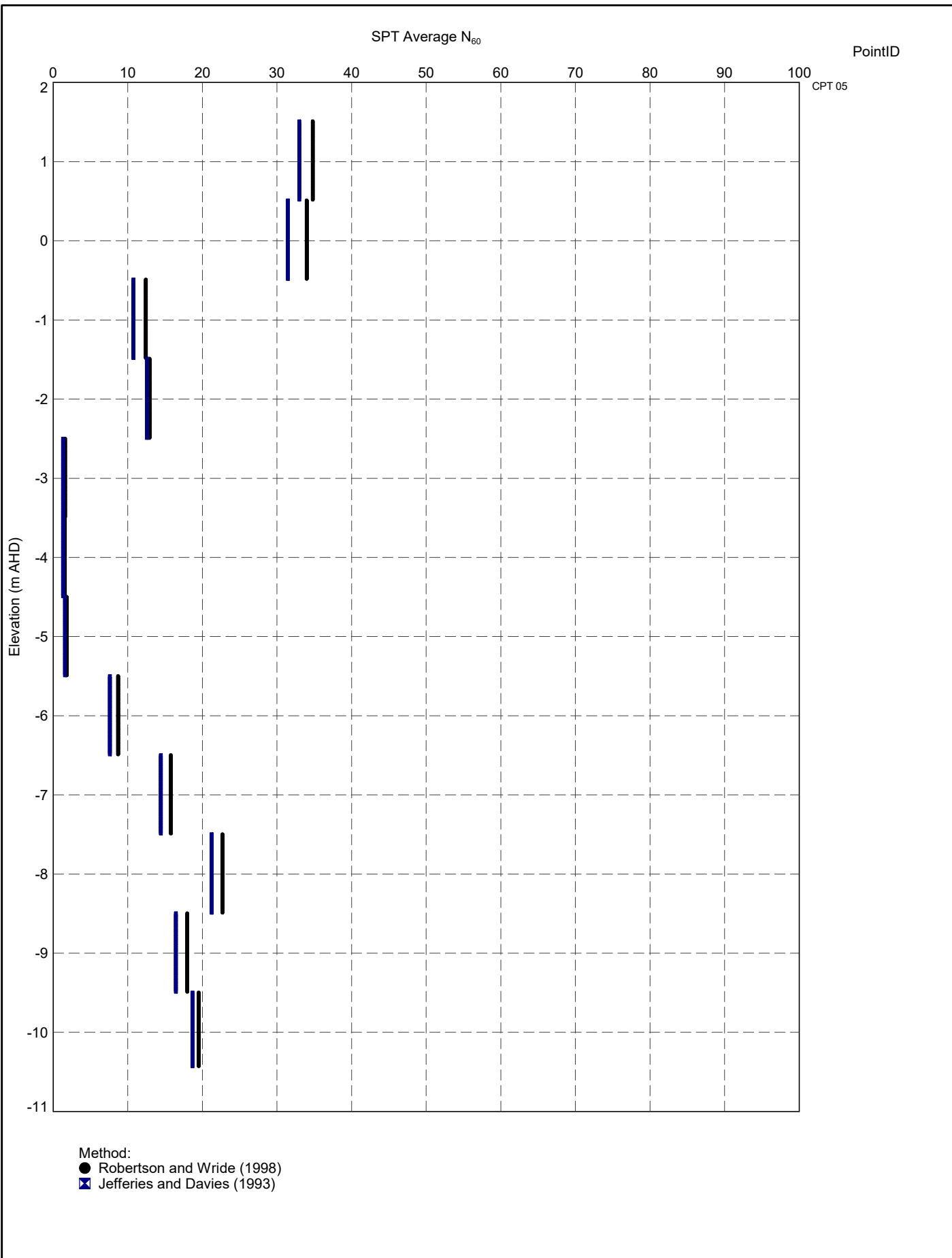
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.SPT.AVERAGE.N60.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFile>> 2/2/2021 01:48 10.01.00.11 Datgel.CPT.Tool.gINT.A4d-In



Geotechnics • Geoenvironment • Laboratory

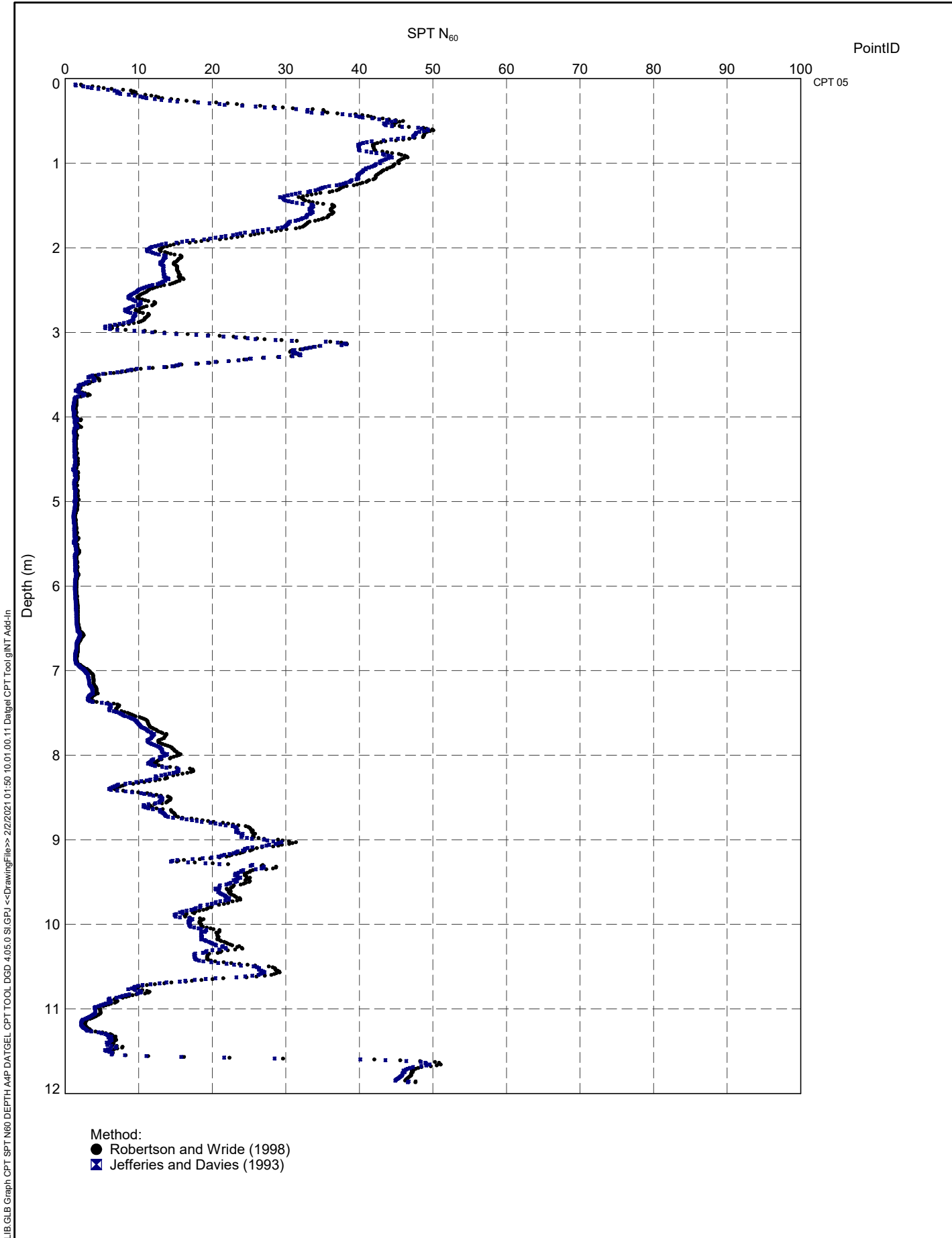
TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project SPT Average N60 versus Depth	DRAWN	Datgel	DATE	2/2/2021
	CHECKED	Datgel	DATE	2/2/2021
	SCALE	Not To Scale		A4
	PROJECT No	4.05.0	FIGURE No	369

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.SPT.AVERAGE.N60.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 22/2021 01:49 10.01.00.11 Datgel.CPT.Tool.gINT Add-in



	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project SPT Average $N_{60}$ versus Elevation	
	DRAWN	Datgel	DATE 2/2/2021
	CHECKED	Datgel	DATE 2/2/2021
	SCALE	Not To Scale	
PROJECT No	4.05.0	FIGURE No	370





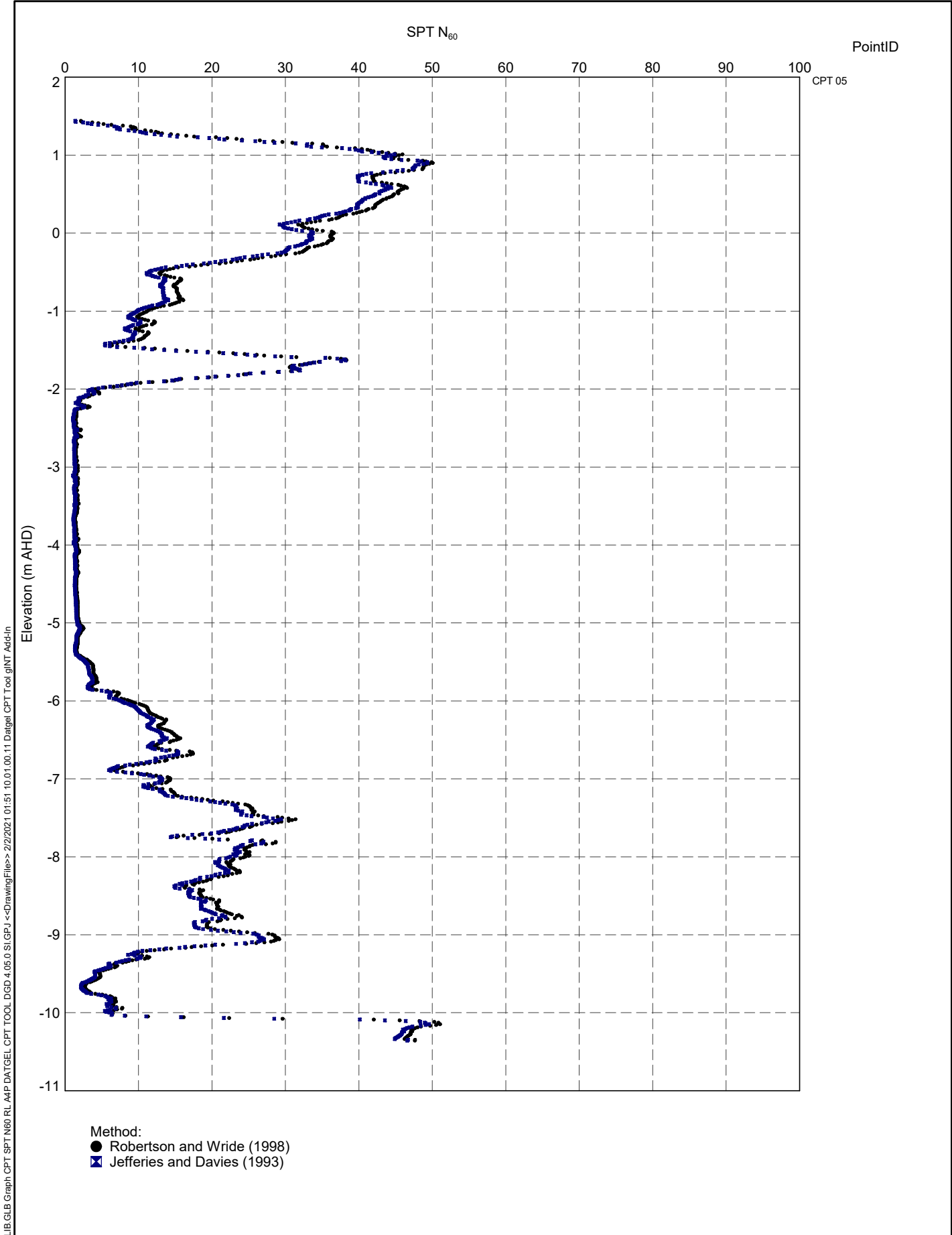
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.SPT.N60.DEPTH.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:50 10:01:00.11 Datgel.CPT.Tool.gINT Add-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 SPT N60 versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	371



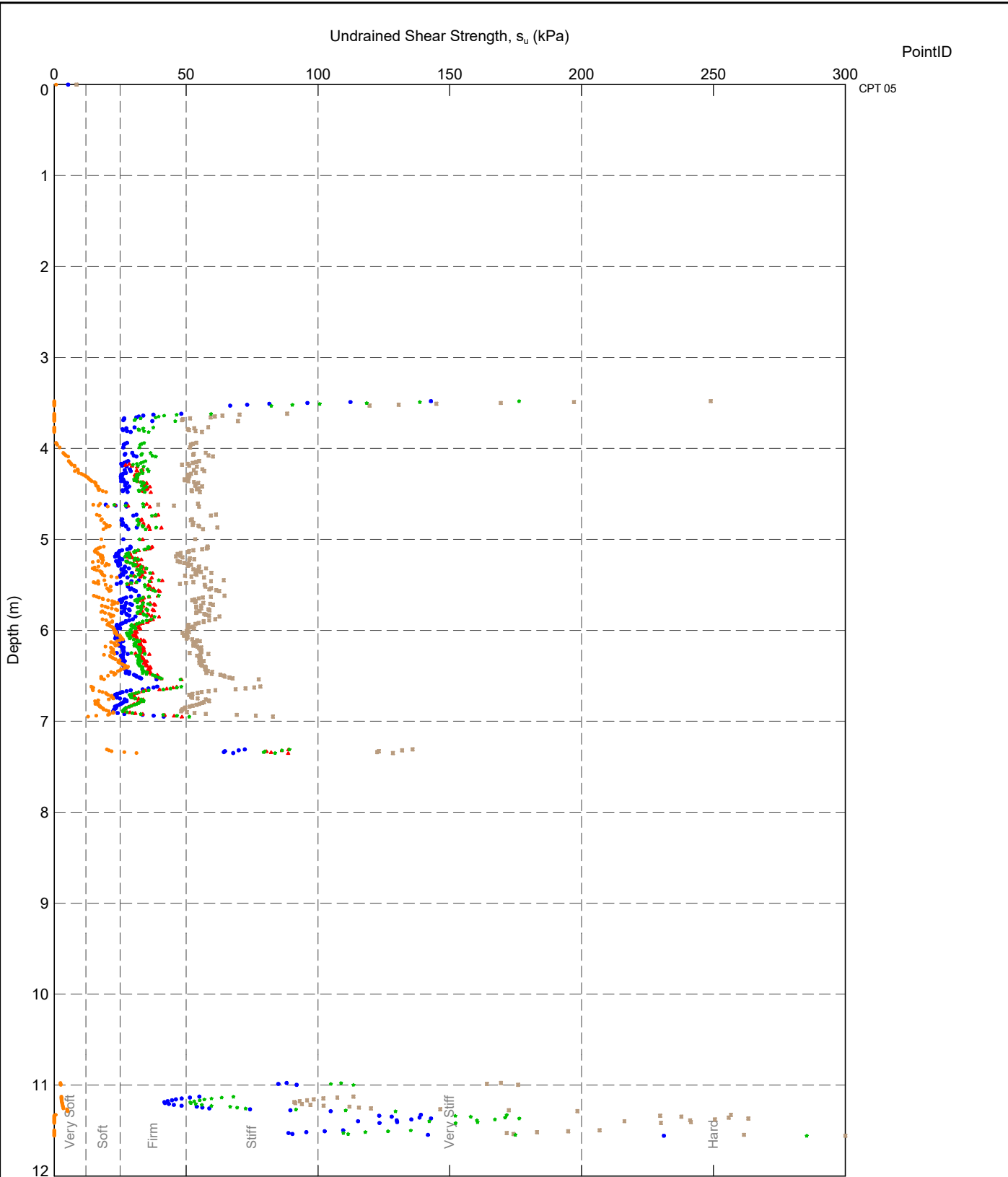
DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.SPT.N60.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:51:10.01.00.11 Datgel CPT Tool gINT Acad-In



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 SPT N60 versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	372



PointID

CPT 05

Method:

- Classical approach, when  $q_t$  has data  $s_u = (q_t - \sigma_{vo})/N_{kt}$ ; else,  $s_u = (q_c - \sigma_{vo})/N_k$ , where  $N_{kt} = \text{Varies}$  &  $N_k = \text{Varies}$
- Variation on classical approach, when  $q_t$  has data  $s_u = q_t/N_{kt}$ ; else,  $s_u = q_c/N_k$ , where  $N_{kt} = \text{Varies}$  &  $N_k = \text{Varies}$
- ▲ Wroth (1984)
- ★ Trak et al. (1980), Terzaghi et al. (1996)
- Robertson (2009),  $s_u = \Delta u/N$

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph.CPT.SU DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/22/2021 01:51 10.01.00.11 Datgel CPT Tool.gINT Add-In

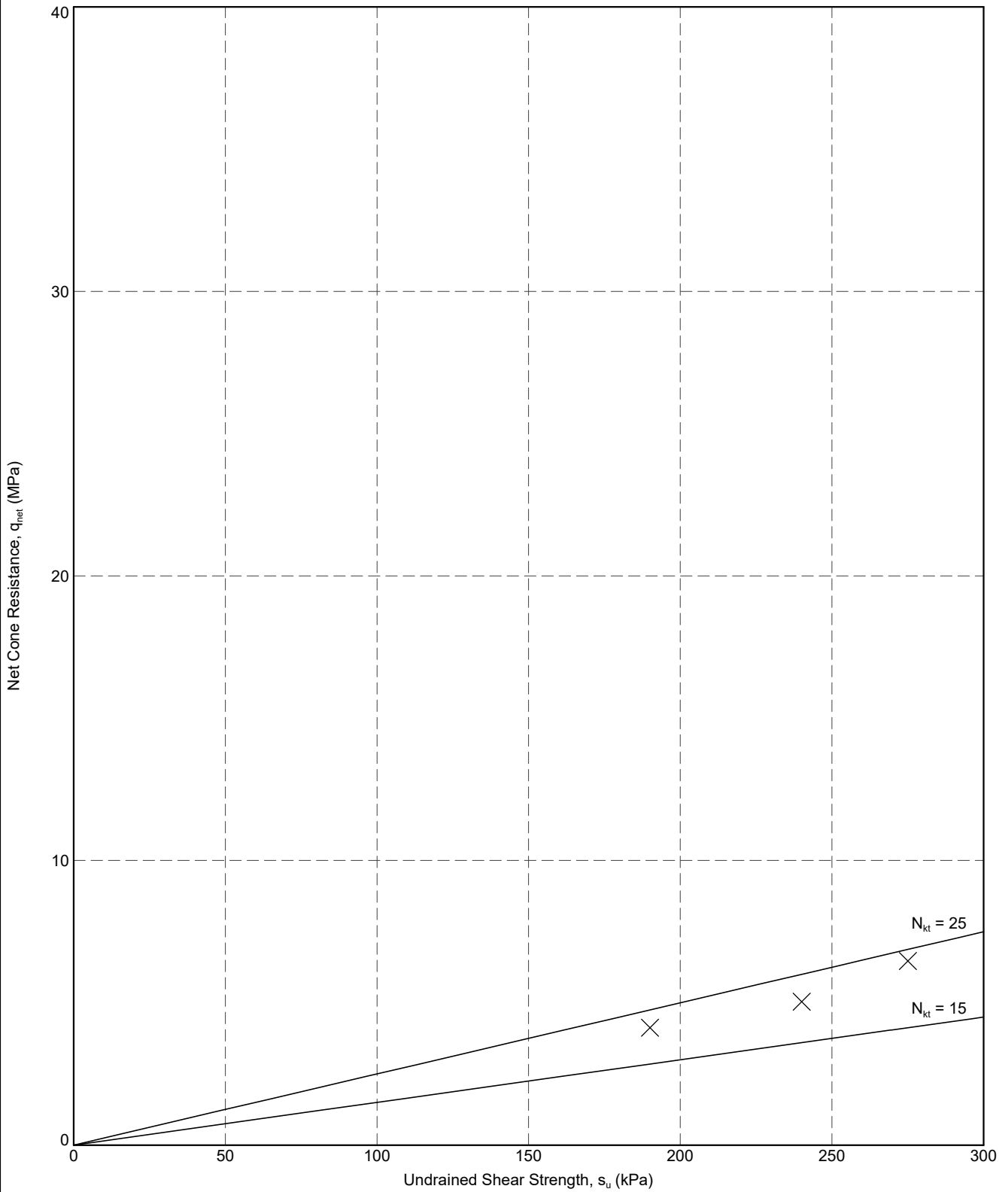


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Undrained Shear Strength versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	373

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph CPT SU IS VANE PEAK VS ONET A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:52:10.01.00.11 Datgel\CPT\_Tool\gINT Add-In

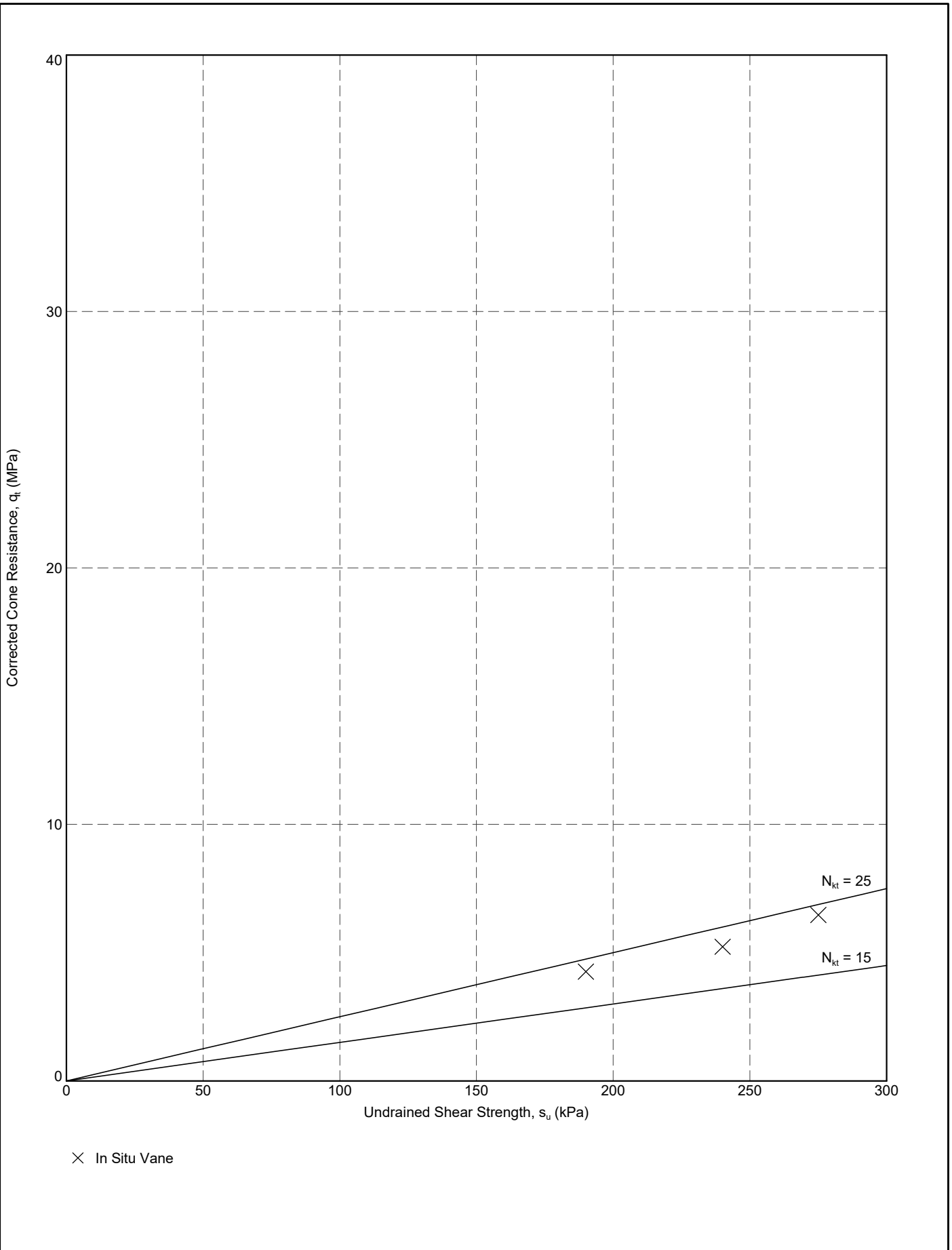


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 $q_{net}$  vs. In Situ Vane Shear  $s_u$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	374

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph CPT SU IS VANE PEAK VS QT AAP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 01:52 10:01.00.11.Datgel.CPT.Tool.giNT.Add-In

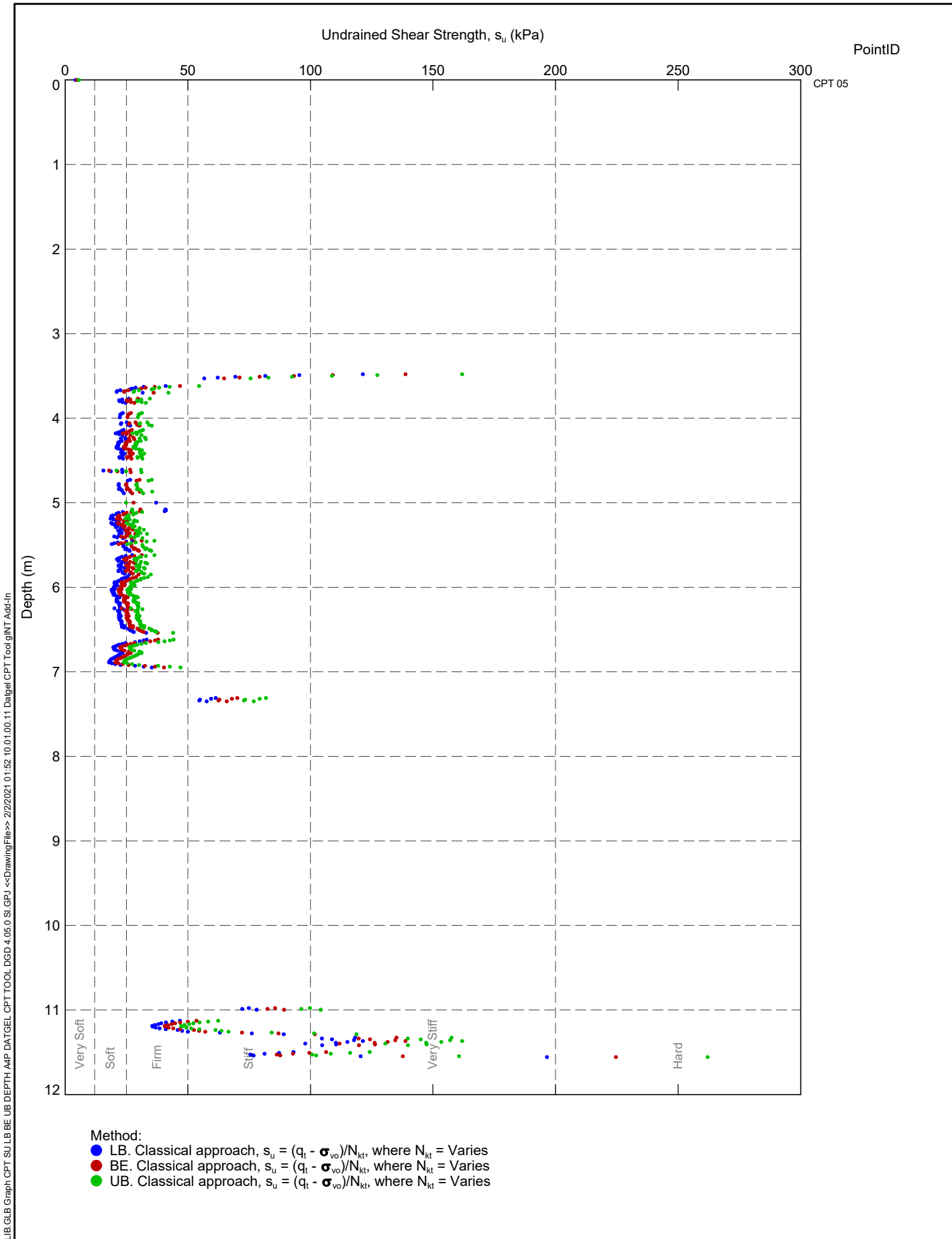


× In Situ Vane



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 $q_t$  vs. In Situ Vane Shear  $s_u$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	375



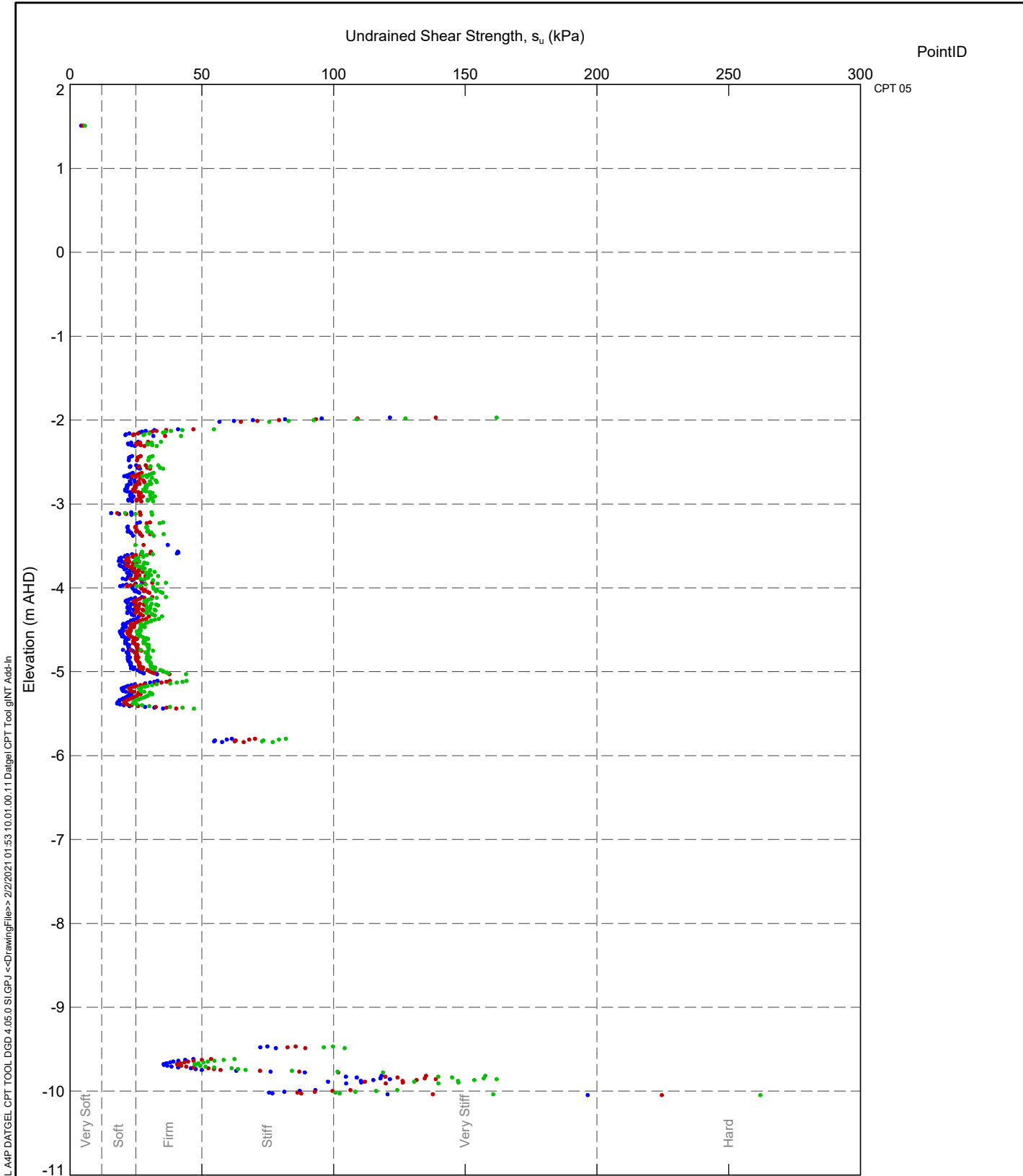
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.SU.LB.BE.UB.DEPTH.AMP.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:52 10.01.00.11 Datgel CPT Tool gINT Add-in



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Undrained Shear Strength versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	376



Method:  
 ● LB. Classical approach,  $s_u = (q_t - \sigma_{vo})/N_{kt}$ , where  $N_{kt}$  = Varies  
 ● BE. Classical approach,  $s_u = (q_t - \sigma_{vo})/N_{kt}$ , where  $N_{kt}$  = Varies  
 ● UB. Classical approach,  $s_u = (q_t - \sigma_{vo})/N_{kt}$ , where  $N_{kt}$  = Varies



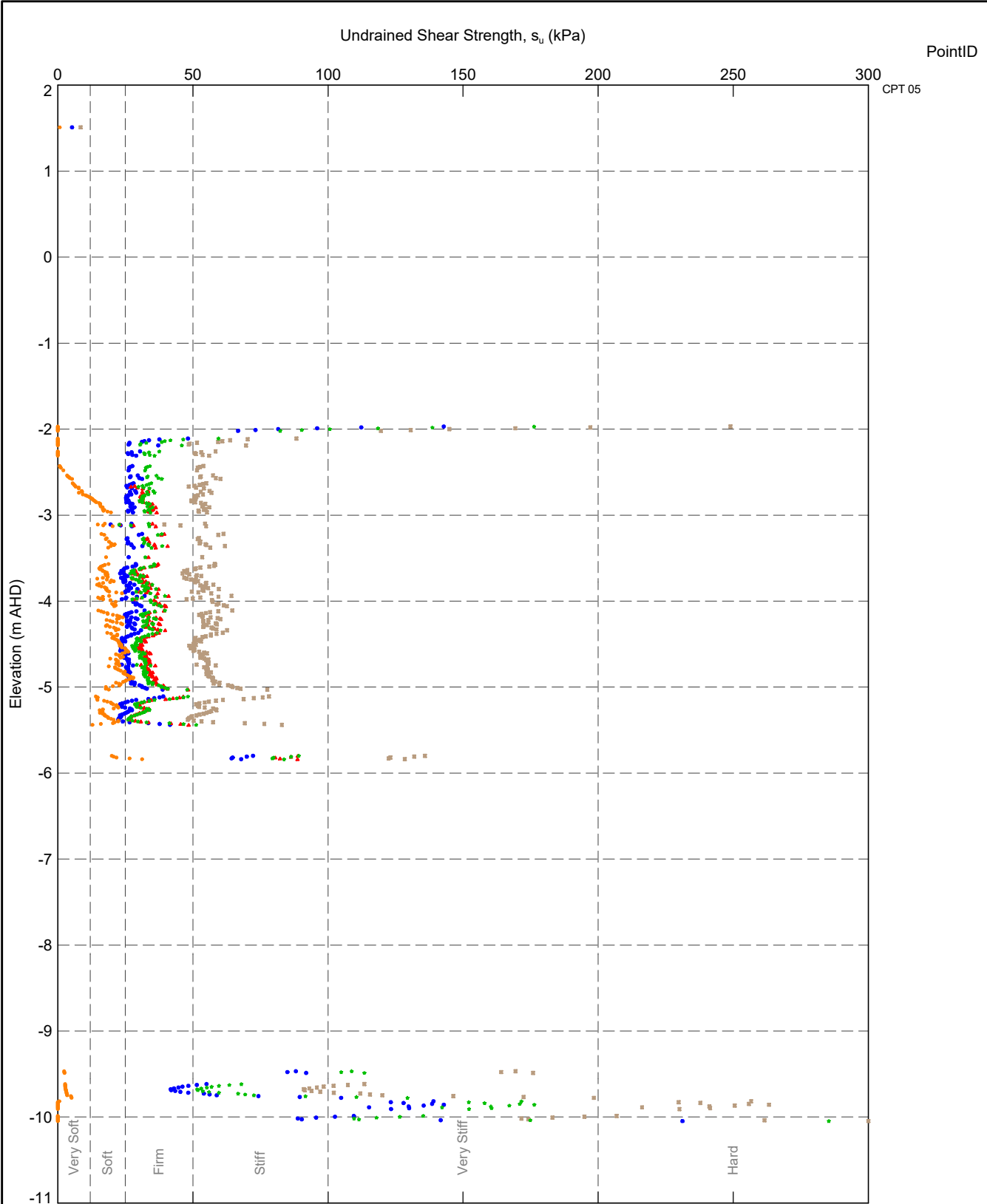
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project

Undrained Shear Strength versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	377

DATGEL CPT TOOL DGD 4.05.0 LIB GIB Graph CPT SU LB BE UB RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 01:53 10:01:00.11 Datgel CPT Tool gINT Add-In



Method:

- Classical approach, when  $q_t$  has data  $s_u = (q_t - \sigma_{vo})/N_{kt}$ ; else,  $s_u = (q_c - \sigma_{vo})/N_k$ , where  $N_{kt} = \text{Varies}$  &  $N_k = \text{Varies}$
- Variation on classical approach, when  $q_t$  has data  $s_u = q_t/N_{kt}$ ; else,  $s_u = q_c/N_k$ , where  $N_{kt} = \text{Varies}$  &  $N_k = \text{Varies}$
- ▲ Wroth (1984)
- ★ Trak et al. (1980), Terzaghi et al. (1996)
- Robertson (2009),  $s_u = \Delta u/N$

DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph CPT SU RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:53 10:01:00.11 Datgel CPT Tool gINT Add-In



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project

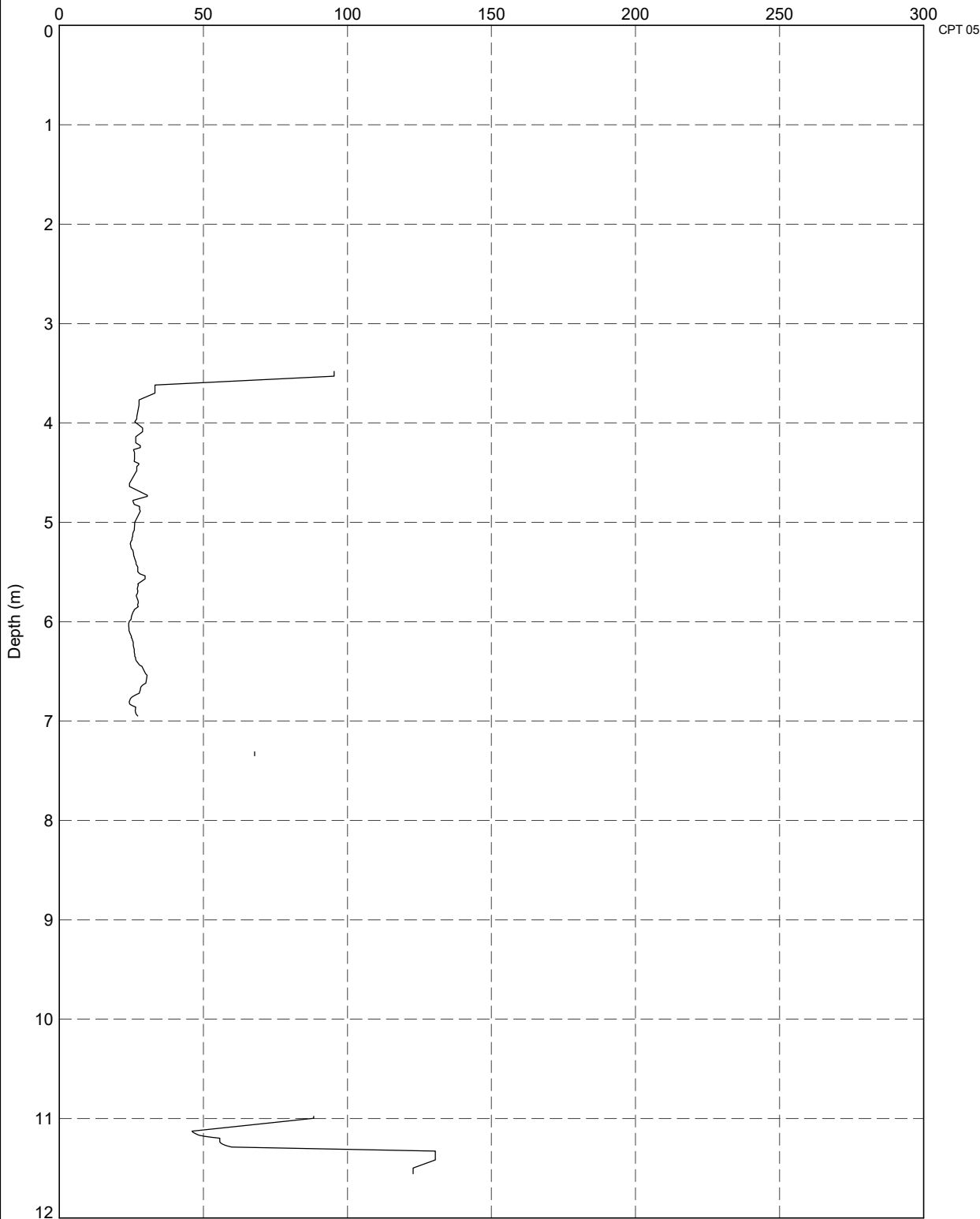
Undrained Shear Strength versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	378



Undrained Shear Strength Smoothed,  $s_u$  Sm (kPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT SU SM DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:54:10.01.00.11 Datgel CPT Tool glNT Add-In



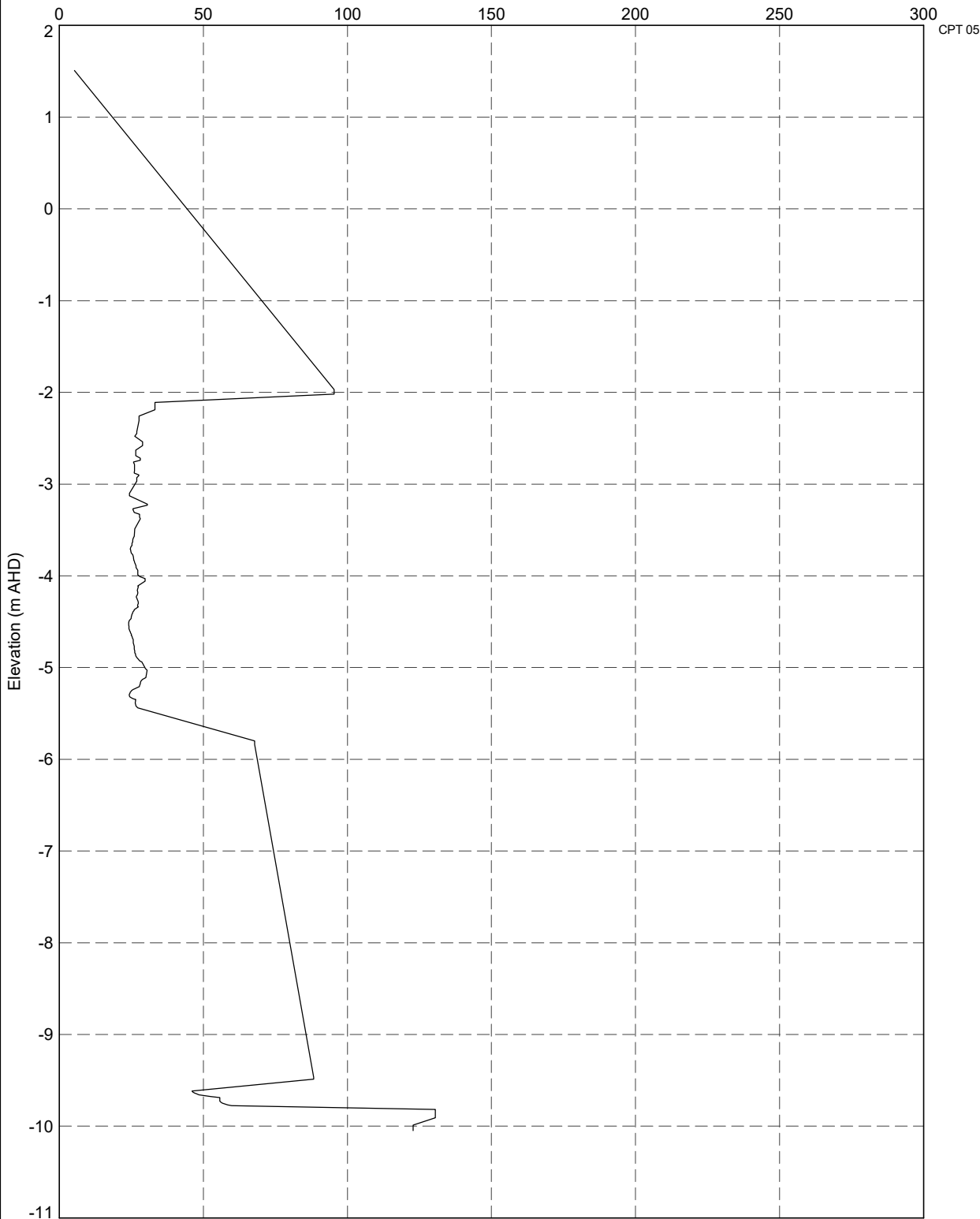
TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Smoothed  $s_u$  versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	379

Undrained Shear Strength Smoothed,  $s_u$  Sm (kPa)

PointID



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT SU SM RL A4P DATGEL CPT TOOL DGD 4.05.0 sl.GPJ <-DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool glNT Add-In

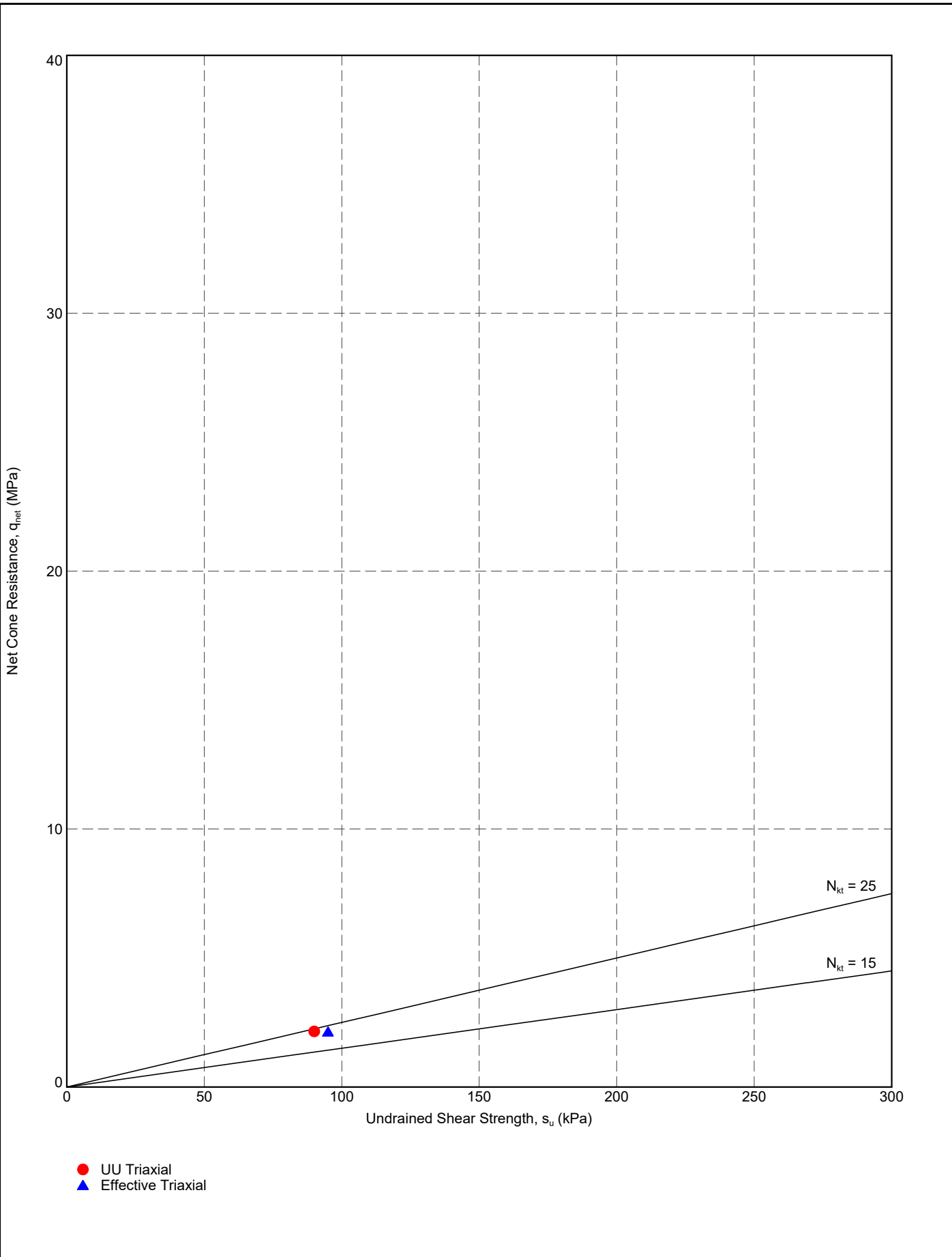


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Smoothed  $s_u$  versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	380

DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph CPT SU TRIAXIAL VS QNET A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool glNT Add-In

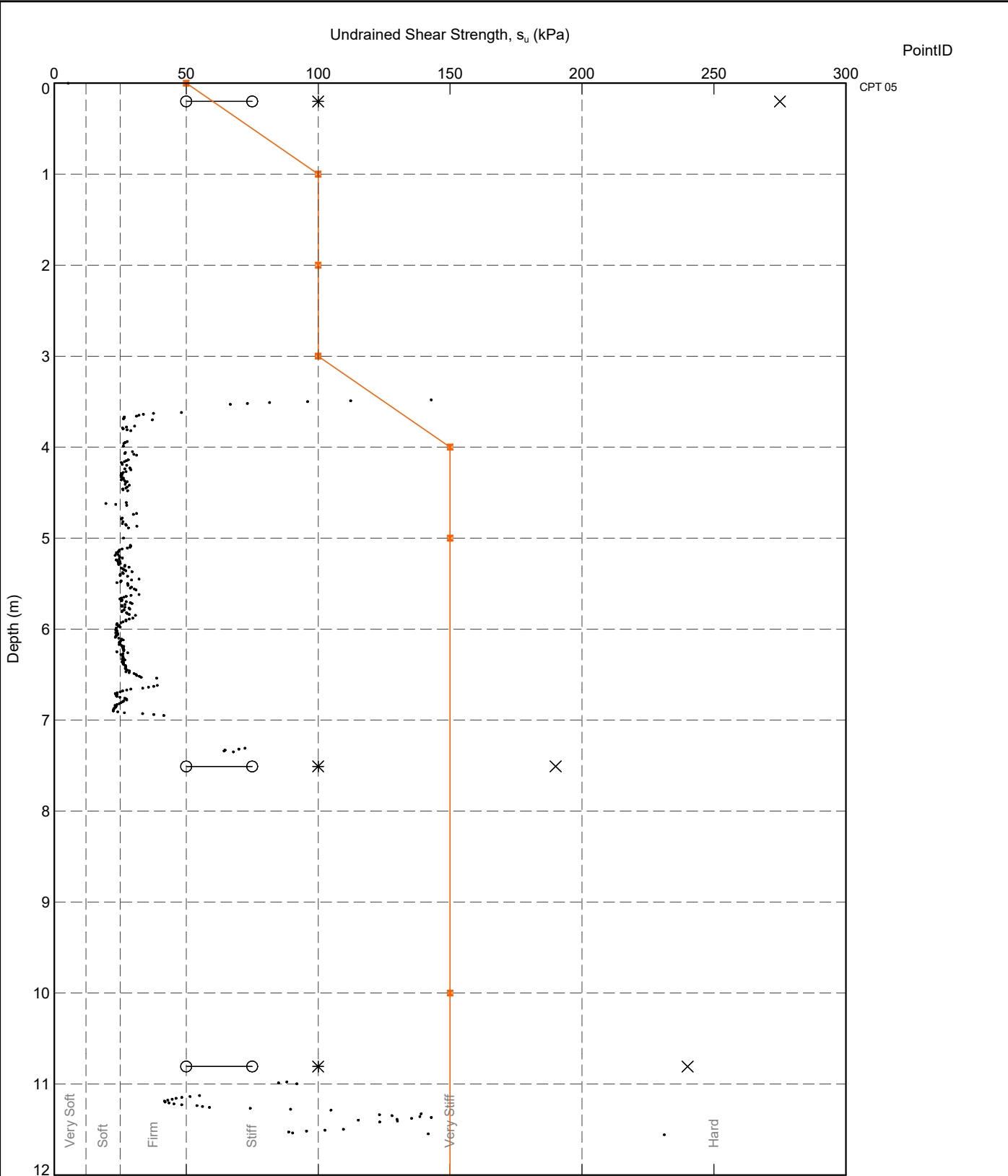


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 $q_{net}$  vs. Triaxial  $s_u$  - CPT 05

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	381

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.SU VS DEPTH VANE TV PP AAP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:54 10:01:00.11 Datgel CPT Tool glNT Add-In



**Legend**

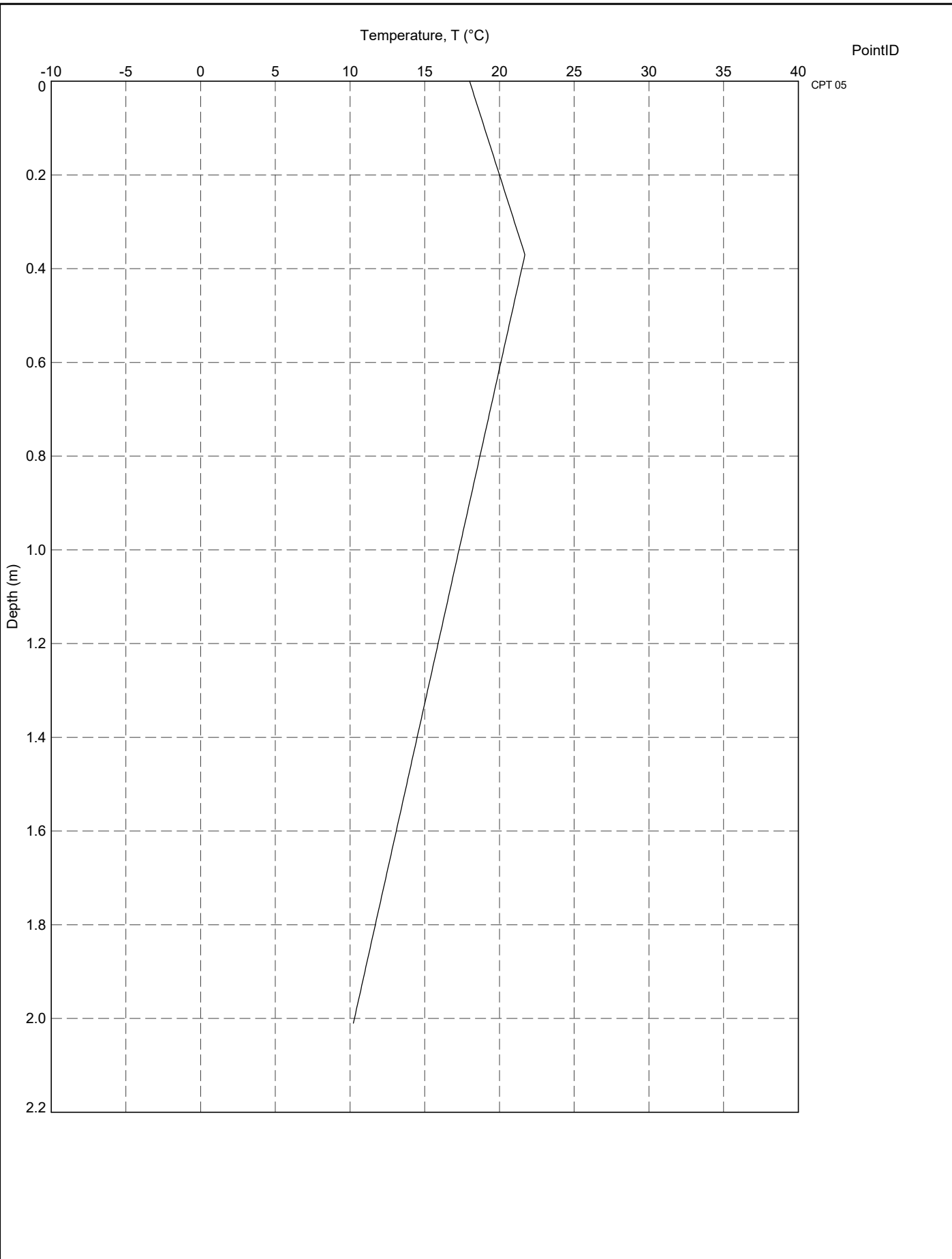
- CPT Correlation 1
- × Vane
- \* Torvane
- Pocket Penetrometer

—■— DC 10TONS




TITLE  
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Undrained Shear Strength versus Depth

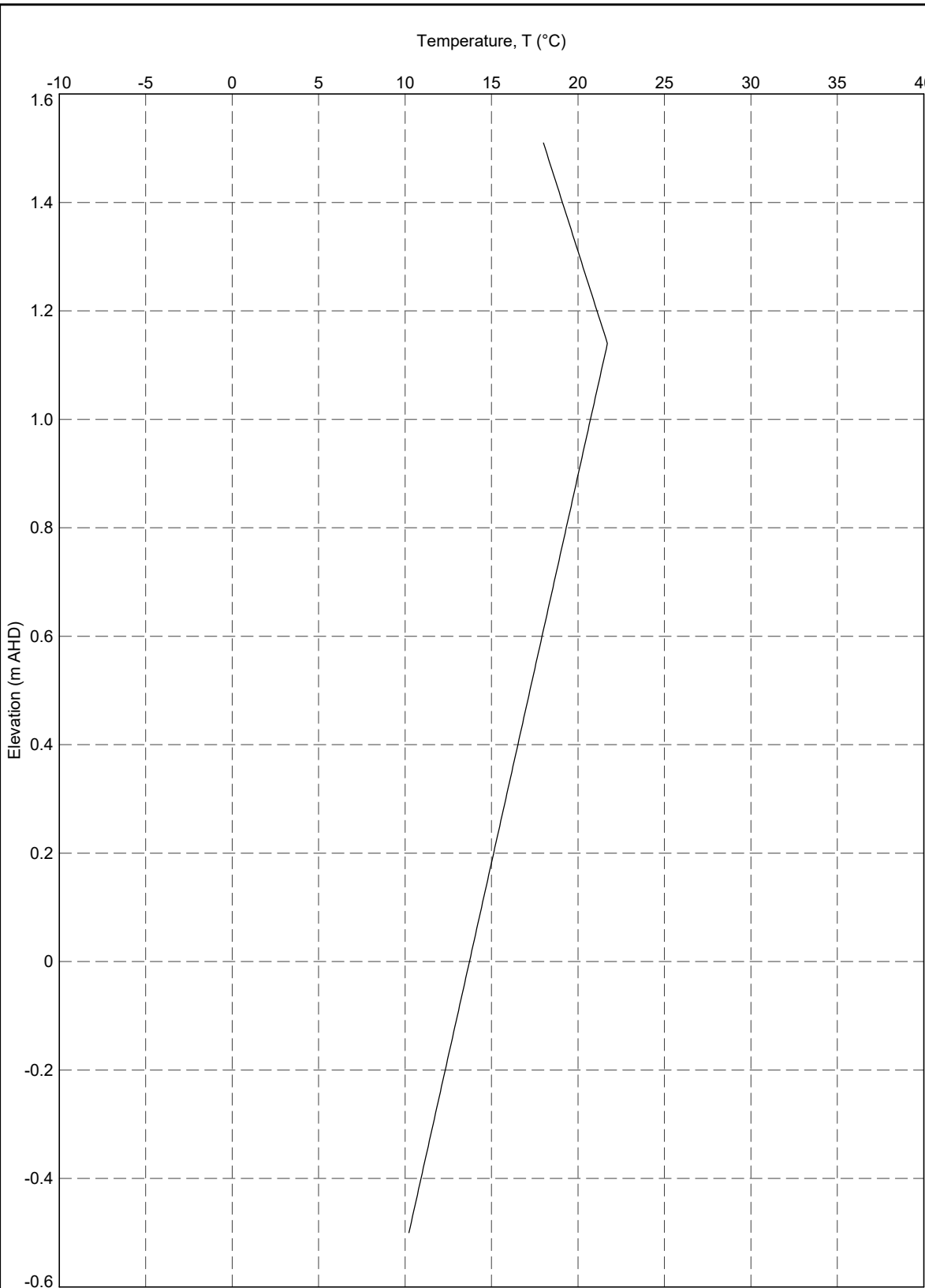
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	382



DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT TEMPERATURE DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool.gINT.Add-In

 <p><b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory</p>	<p>TITLE</p> <p>Client 1 Engineer 1 Somewhere CPT Tool Project Temperature versus Depth</p>	<p>DRAWN <b>Datgel</b></p>	<p>DATE <b>2/2/2021</b></p>	
		<p>CHECKED <b>Datgel</b></p>	<p>DATE <b>2/2/2021</b></p>	
		<p>SCALE <b>Not To Scale</b></p>		<p><b>A4</b></p>
		<p>PROJECT No <b>4.05.0</b></p>	<p>FIGURE No <b>383</b></p>	

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT TEMPERATURE RL AAP DATGEL CPT TOOL DGD 4.05.0 SI GPU <<DrawingFile>> 2/22/2021 01:54 10:01:00.11 Datgel CPT Tool gINT Add-in



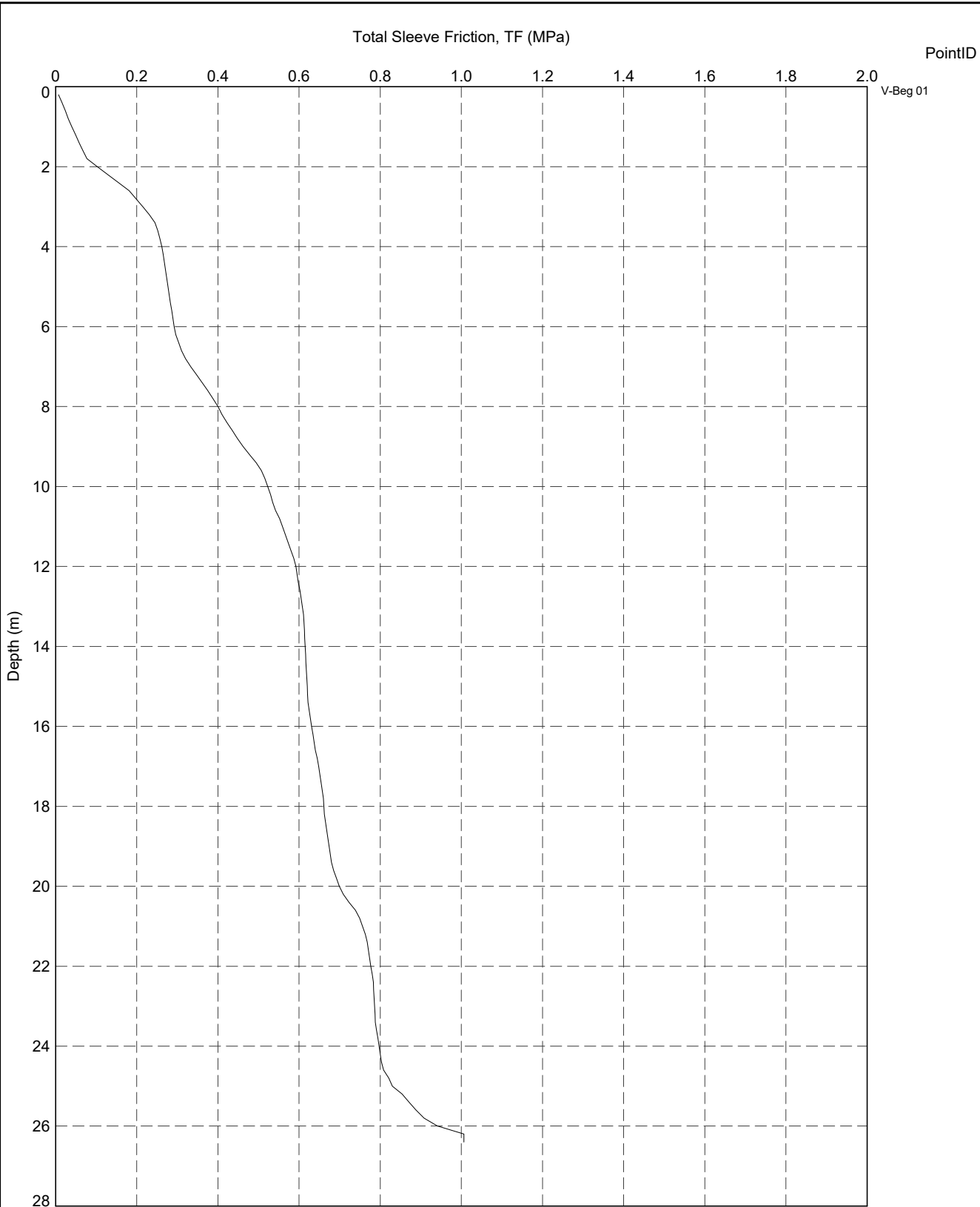
PointID

CPT 05



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Temperature versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	384



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT TOTAL FS DEPTH AMP DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool gINT Add-in

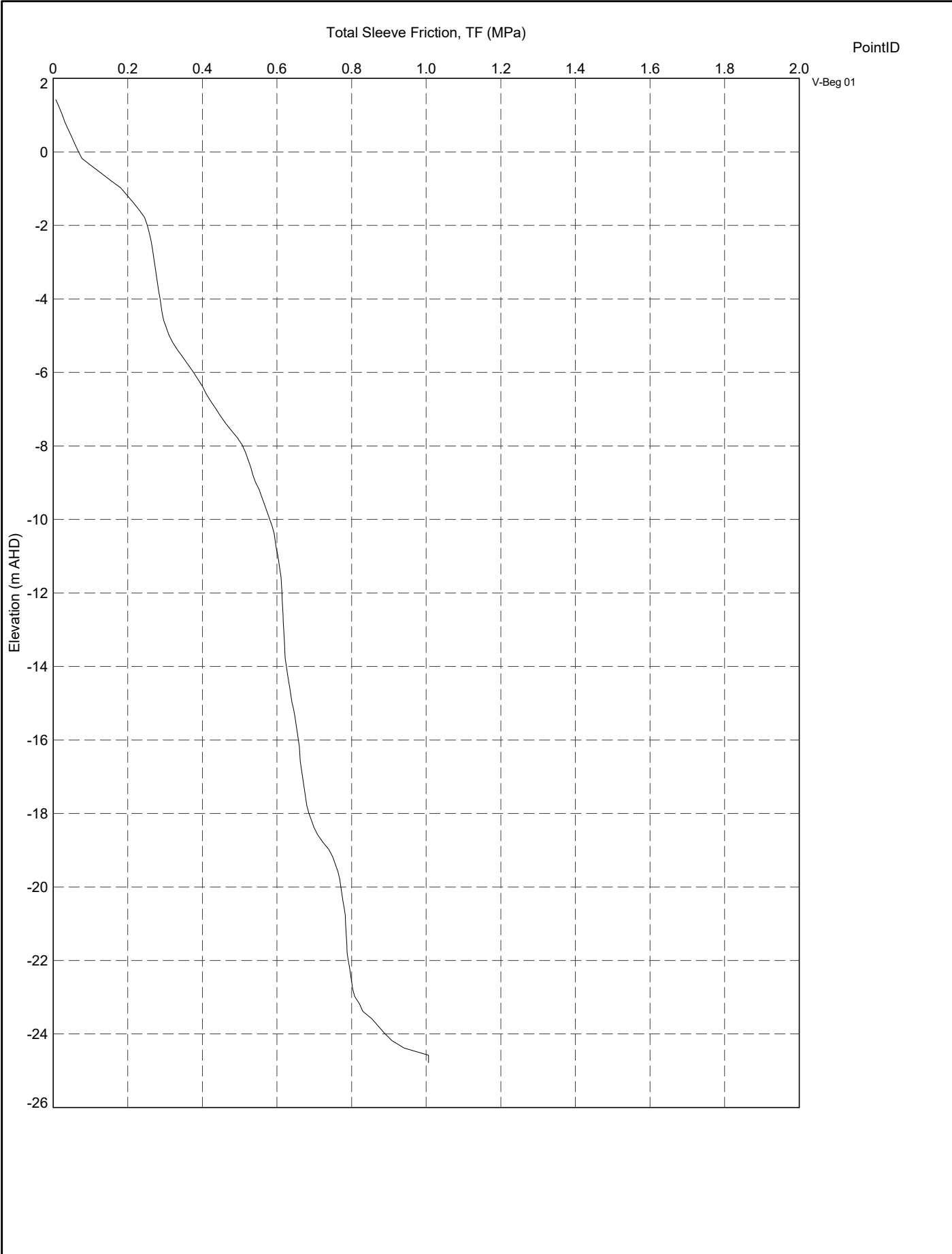


TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Total Sleeve Friction Resistance vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	385

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT TOTAL FS RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool gJNT Add-In



PointID  
V-Beg 01

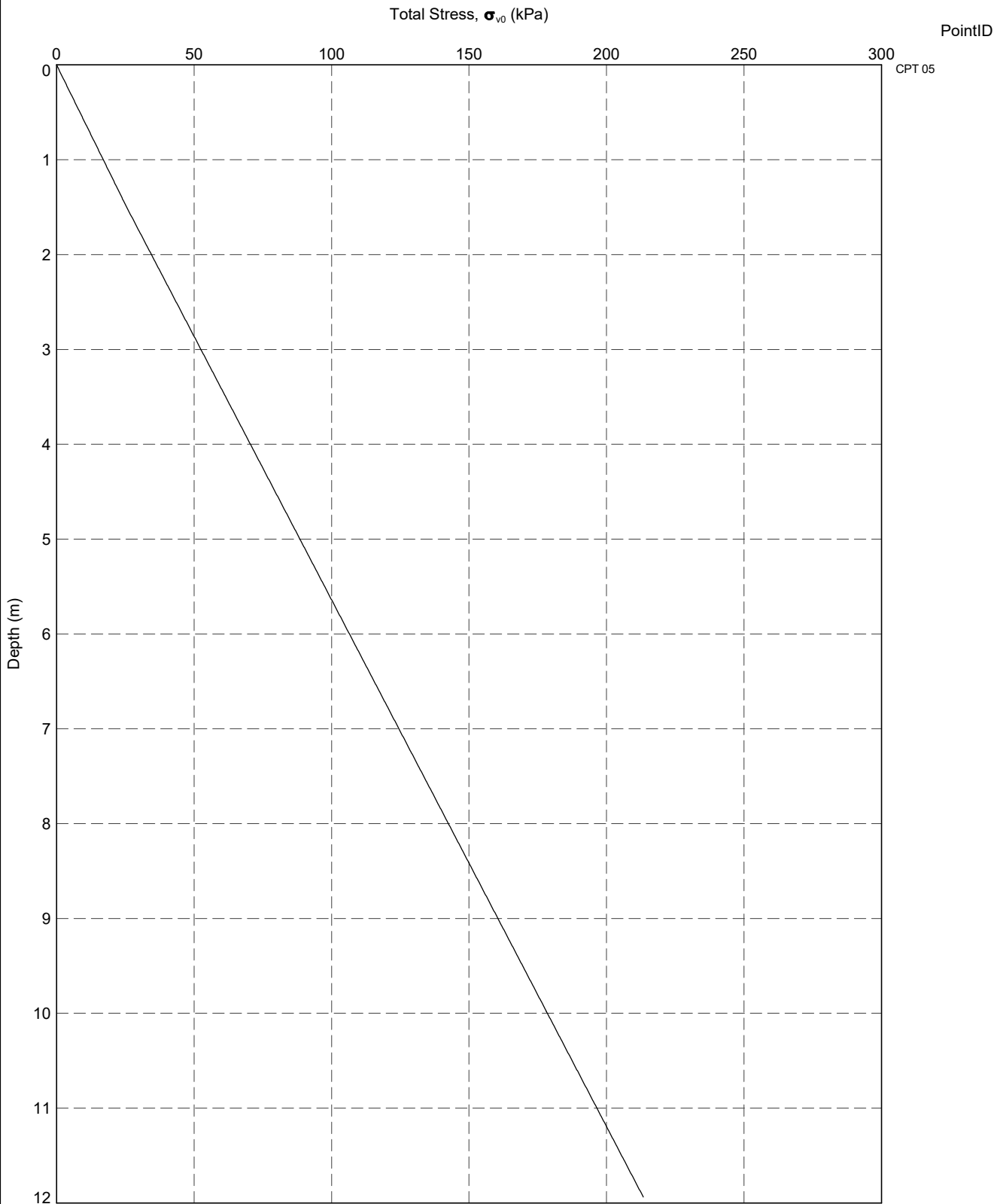


TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Total Sleeve Friction Resistance vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	386



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT TOTAL STRESS DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool.gINT Add-In

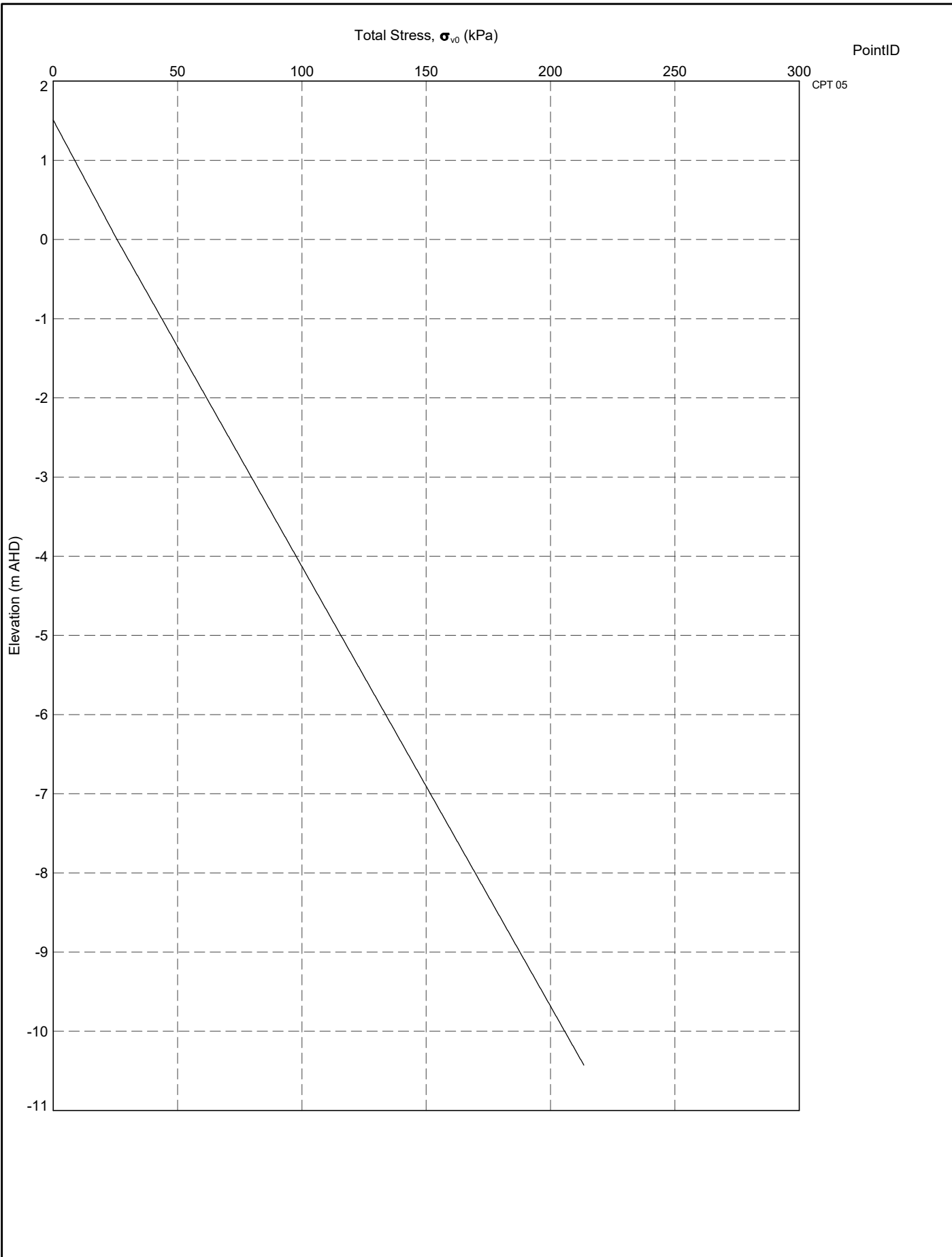


TITLE


Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Total Stress versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	387

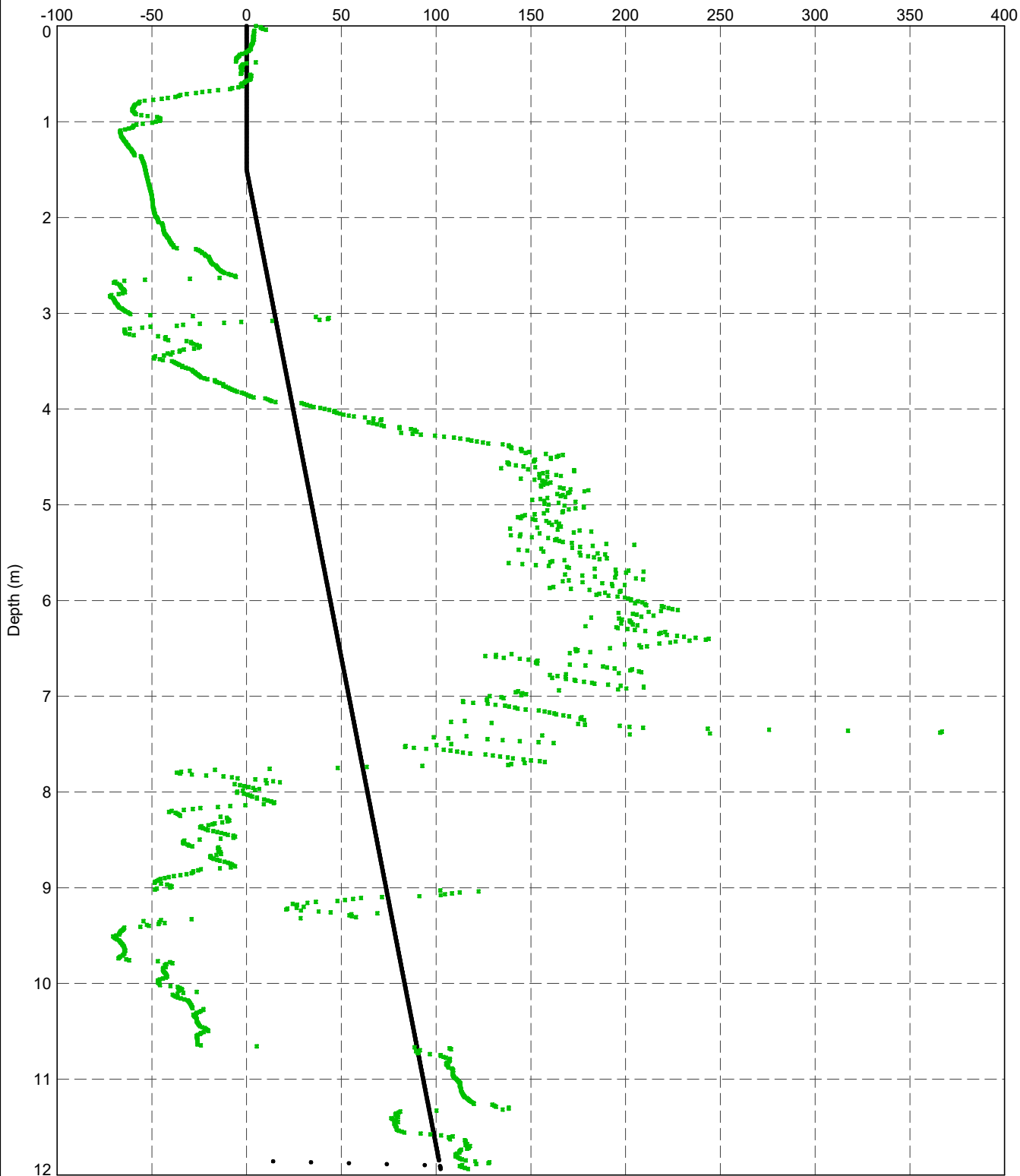
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT TOTAL STRESS RL.AAP DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:54 10.01.00.11 Datgel CPT Tool gINT Add-in



PointID  
CPT 05

	TITLE	Client 1 Engineer 1 Somewhere CPT Tool Project Total Stress versus Elevation		DRAWN	Datgel	DATE	2/2/2021
				CHECKED	Datgel	DATE	2/2/2021
				SCALE	Not To Scale		A4
				PROJECT No	4.05.0	FIGURE No	388

Porewater Pressure Porewater Pressure,  $u_1$  (kPa)



Legend:  
 ● Porewater Pressure,  $u_1$  (kPa)  
 ● In Situ Pore Pressure,  $u_0$  (kPa)

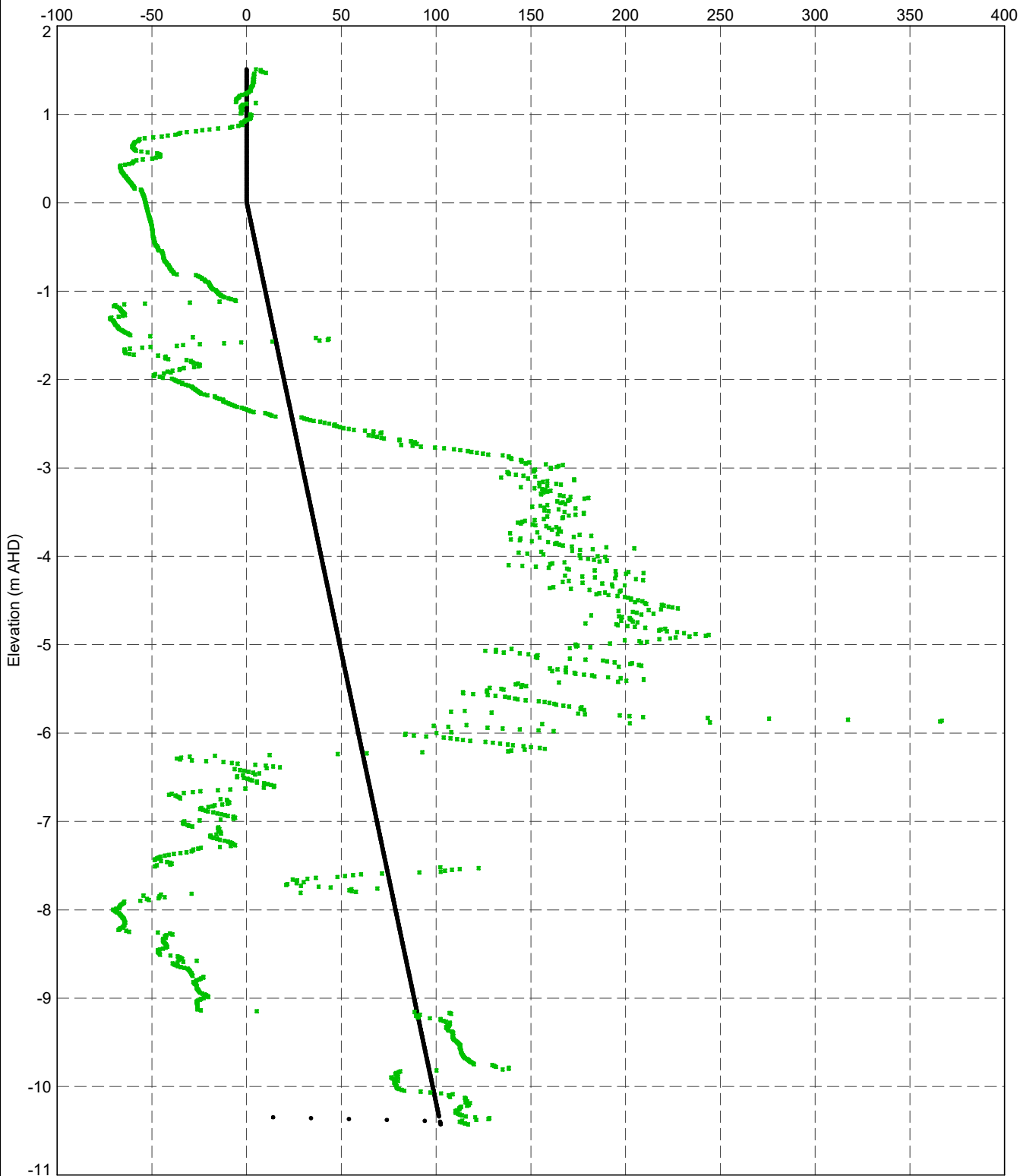
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.U0.U1 DEPTH A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFiles>> 2/2/2021 01:55 10:01:00.11 Datgel CPT Tool gINT Add-in



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	389

Porewater Pressure,  $u_1$  (kPa)



Legend:  
 ● Porewater Pressure,  $u_1$  (kPa)  
 ● In Situ Pore Pressure,  $u_0$  (kPa)

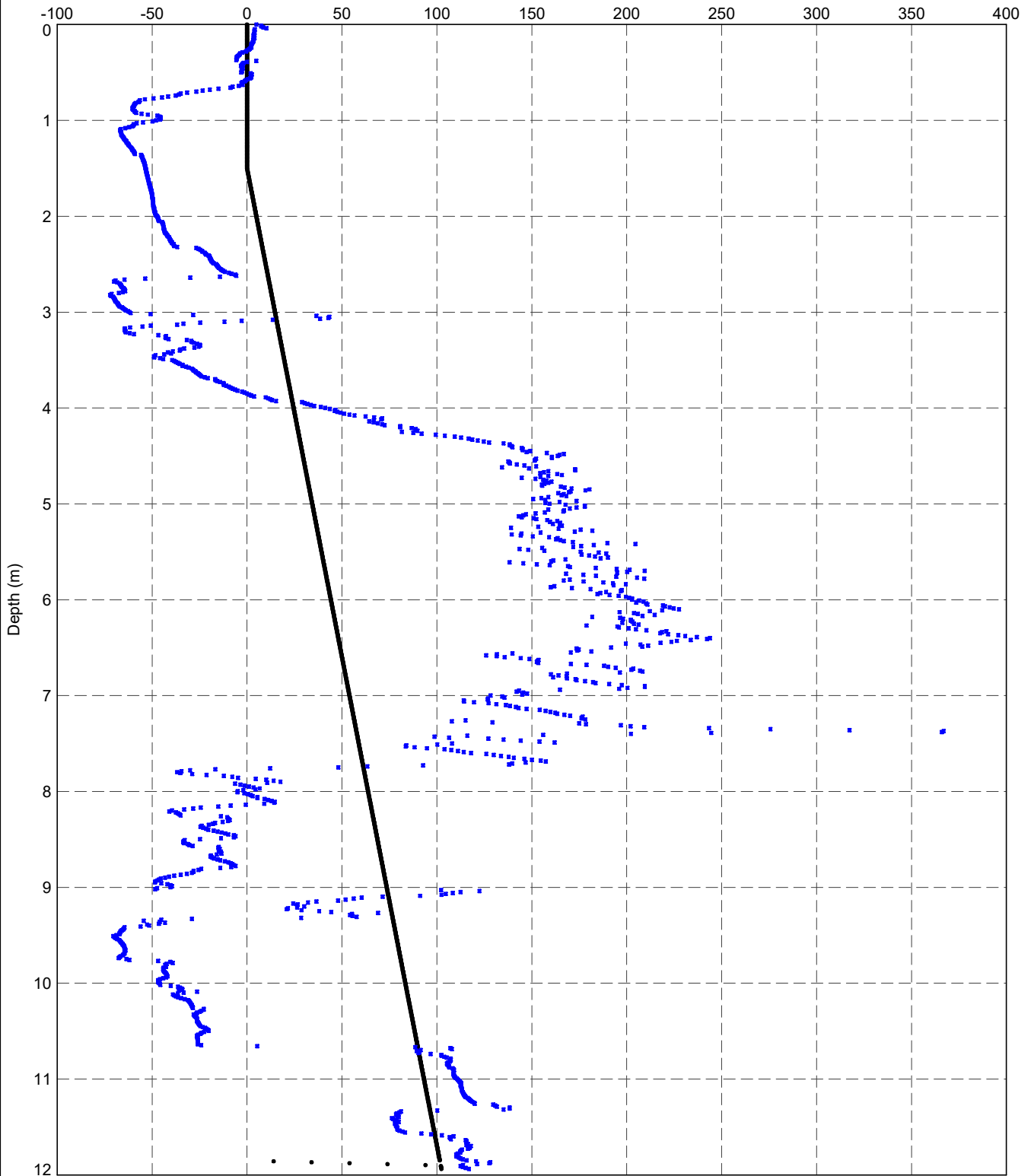
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.U0.U1.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:55:10.01.00:11.Datgel.CPT.Tool.gINT.Acd-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	390

Porewater Pressure Porewater Pressure,  $u_2$  (kPa)



Legend:  
 ● Porewater Pressure,  $u_2$  (kPa)  
 ● In Situ Pore Pressure,  $u_0$  (kPa)

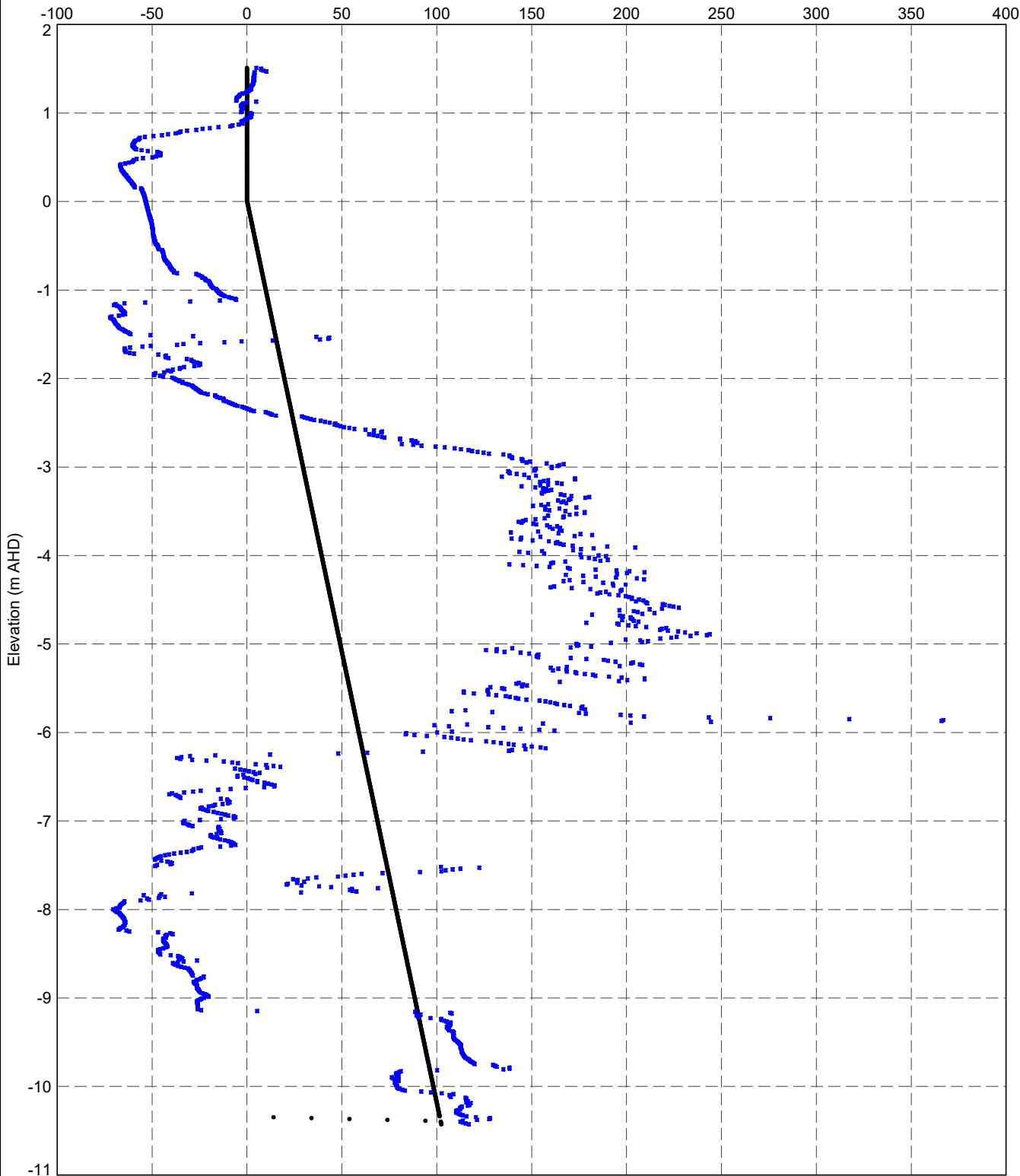
DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.U0.U2 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 01:55 10:01:00.11 Datgel CPT Tool gINT Add-in



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	391

Porewater Pressure,  $u_2$  (kPa)



Legend:  
 ● Porewater Pressure,  $u_2$  (kPa)  
 ● In Situ Pore Pressure,  $u_0$  (kPa)

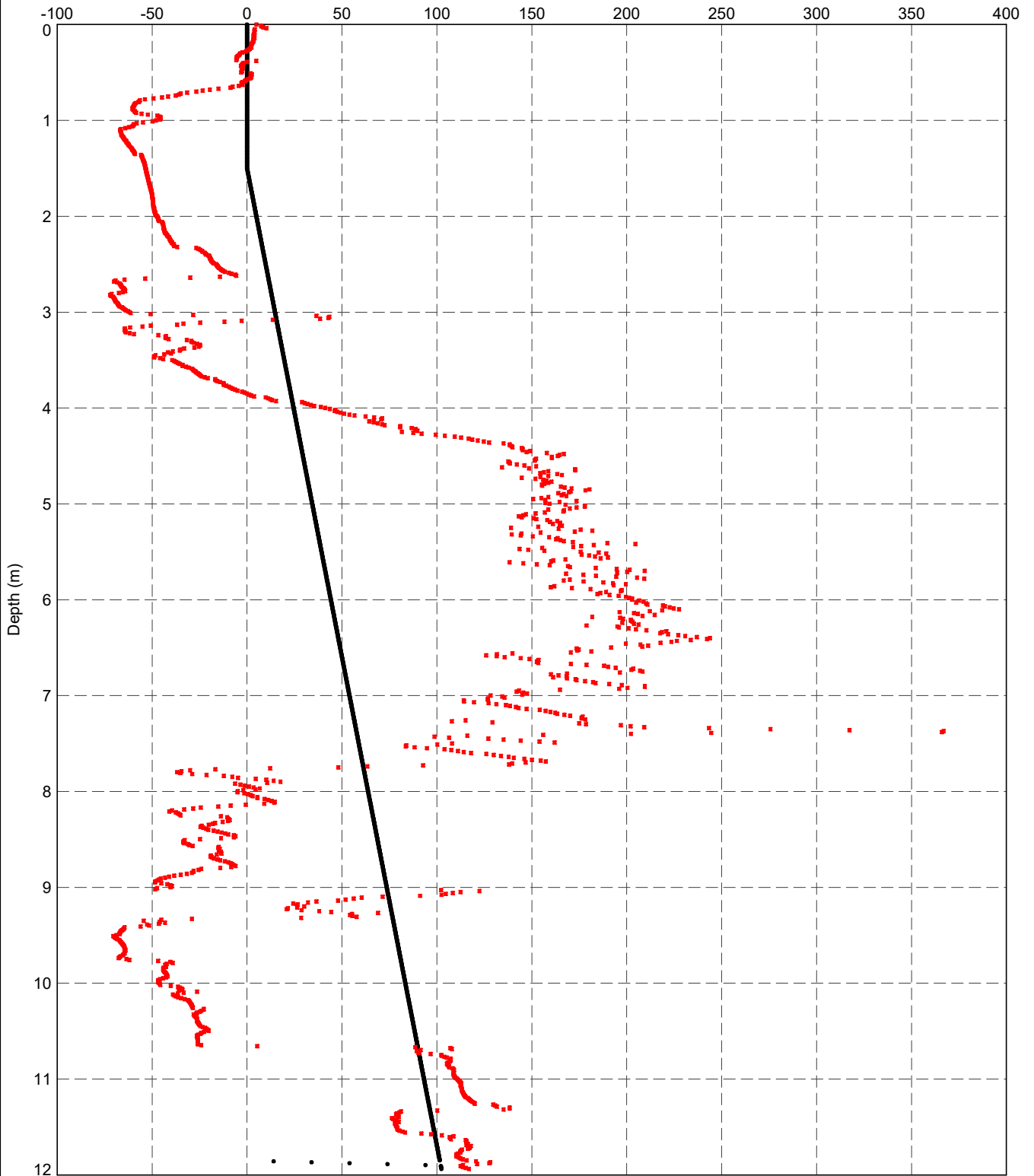
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.U0.U2.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:56:10.01.00:11.Datgel.CPT.Tool.gINT.Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	392

Porewater Pressure Porewater Pressure,  $u_3$  (kPa)



Legend:  
 ● Porewater Pressure,  $u_3$  (kPa)  
 ● In Situ Pore Pressure,  $u_0$  (kPa)

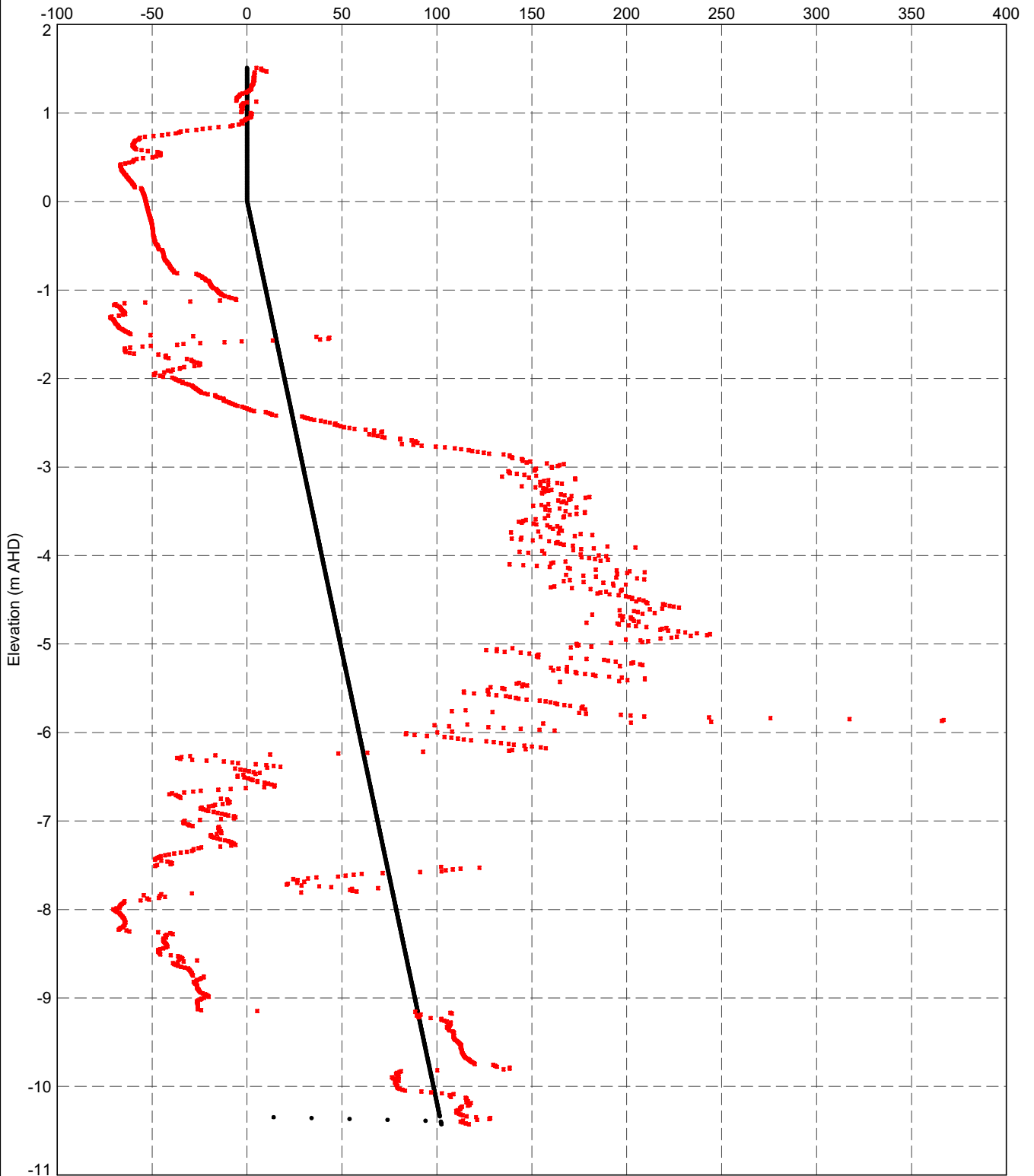
DATGEL CPT TOOL DGD 4.05.0 LIB GLOB Graph.CPT.U0.U3 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 01:56 10:01:00.11 Datgel CPT Tool gINT Add-in



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	393

Porewater Pressure,  $u_3$  (kPa)



Legend:  
 ● Porewater Pressure,  $u_3$  (kPa)  
 ● In Situ Pore Pressure,  $u_0$  (kPa)

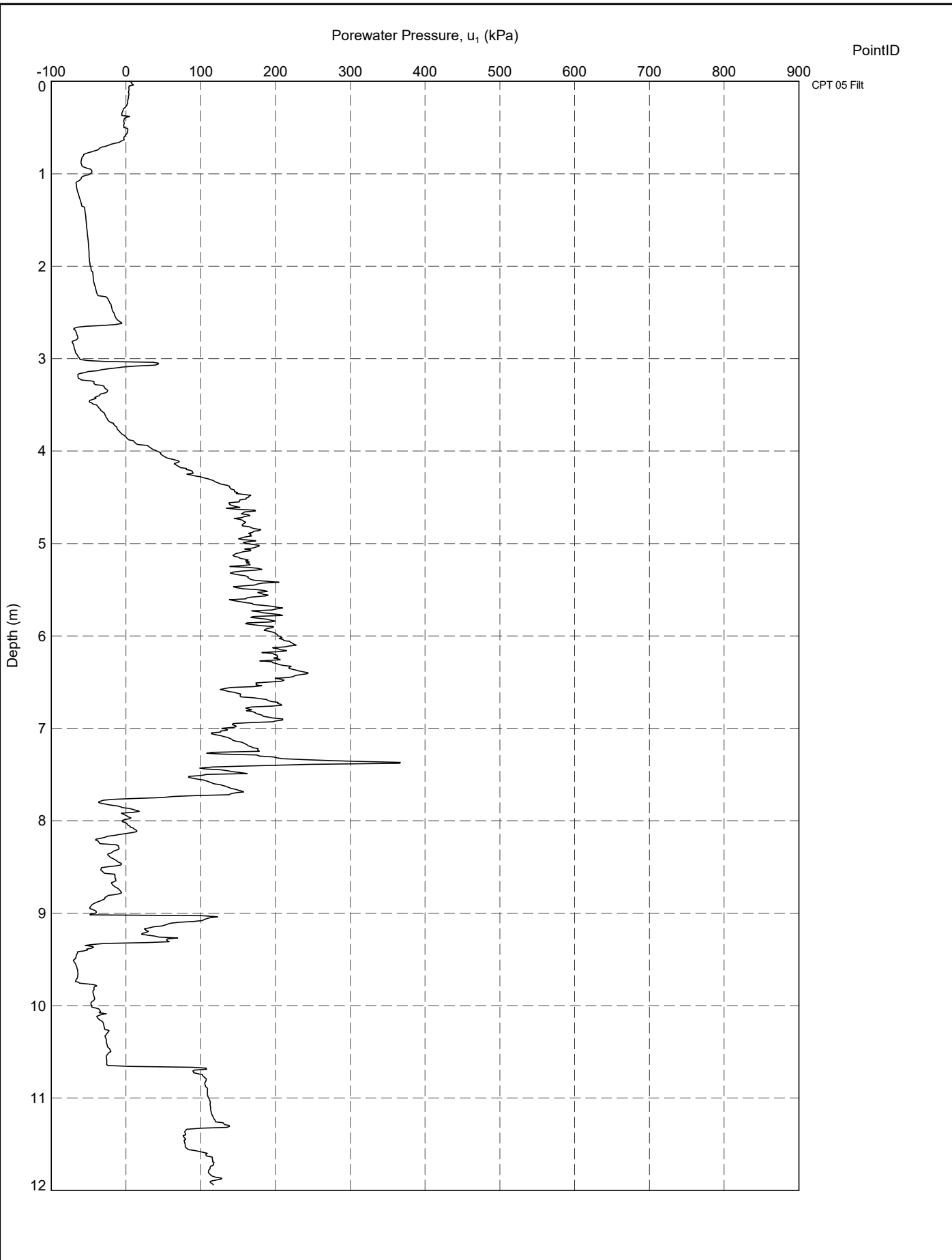
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.U0.U3.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SI.GPJ <<DrawingFile>> 2/2/2021 01:57:10.01.00:11.Datgel.CPT.Tool.gINT.Add-In



TITLE  
 Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	394





DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.U1 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:57 10.01.00.11 Datgel CPT Tool.gINT Add-In

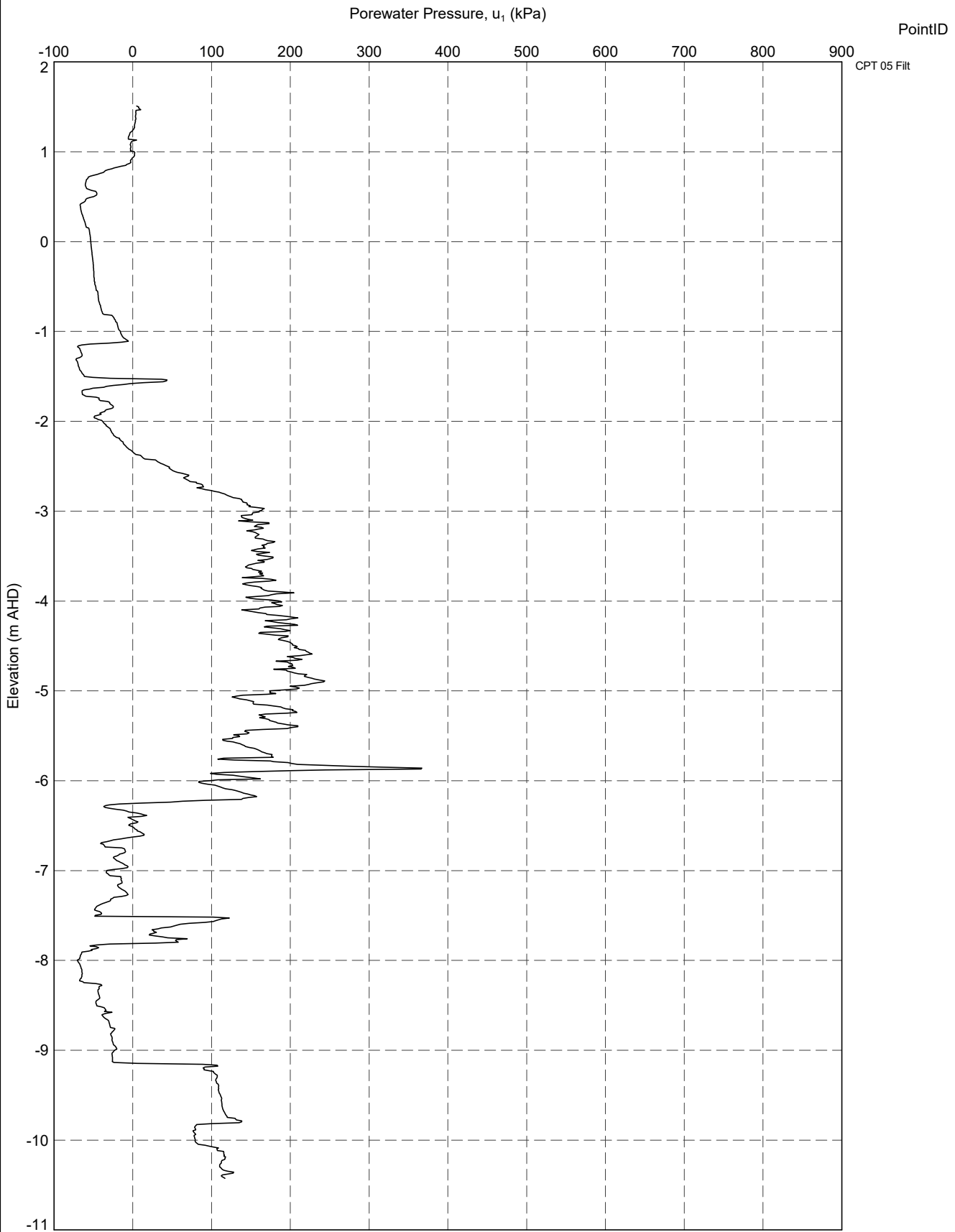


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Porewater Pressure 1 ( $u_1$ ) vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	395

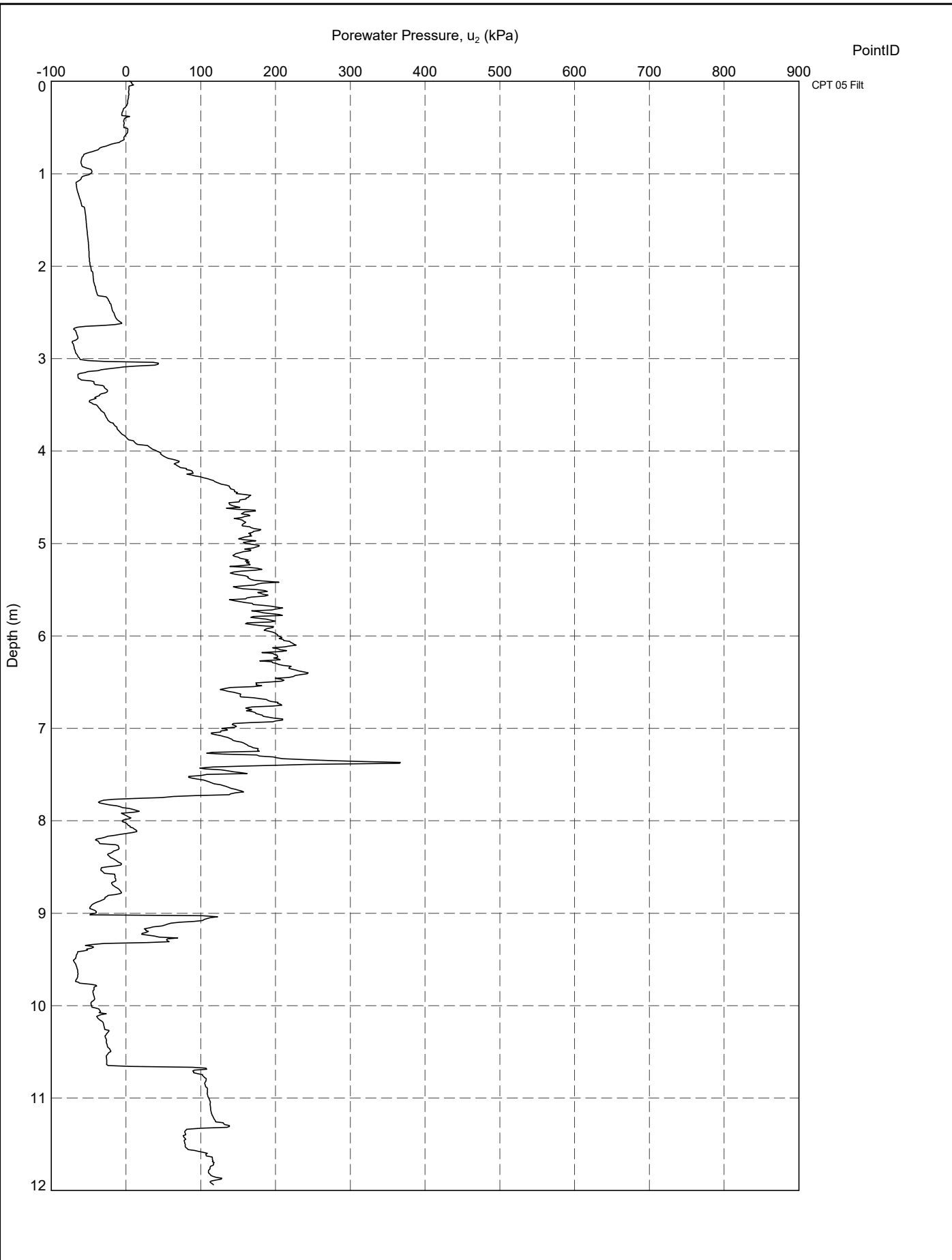
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.U1.RL.A4P.DATGEL.CPT.TOOL.DGD.4.05.0.SIGPJ <<DrawingFiles>> 2/2/2021 01:57 10.01.00.11 Datgel CPT Tool gINT Add-in



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Porewater Pressure 1 ( $u_1$ ) vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	396



DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT.U2 DEPTH.A4P.DATGEL.CPT TOOL.DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:57 10.01.00.11.Datgel.CPT.Tool.gINT.Add-In

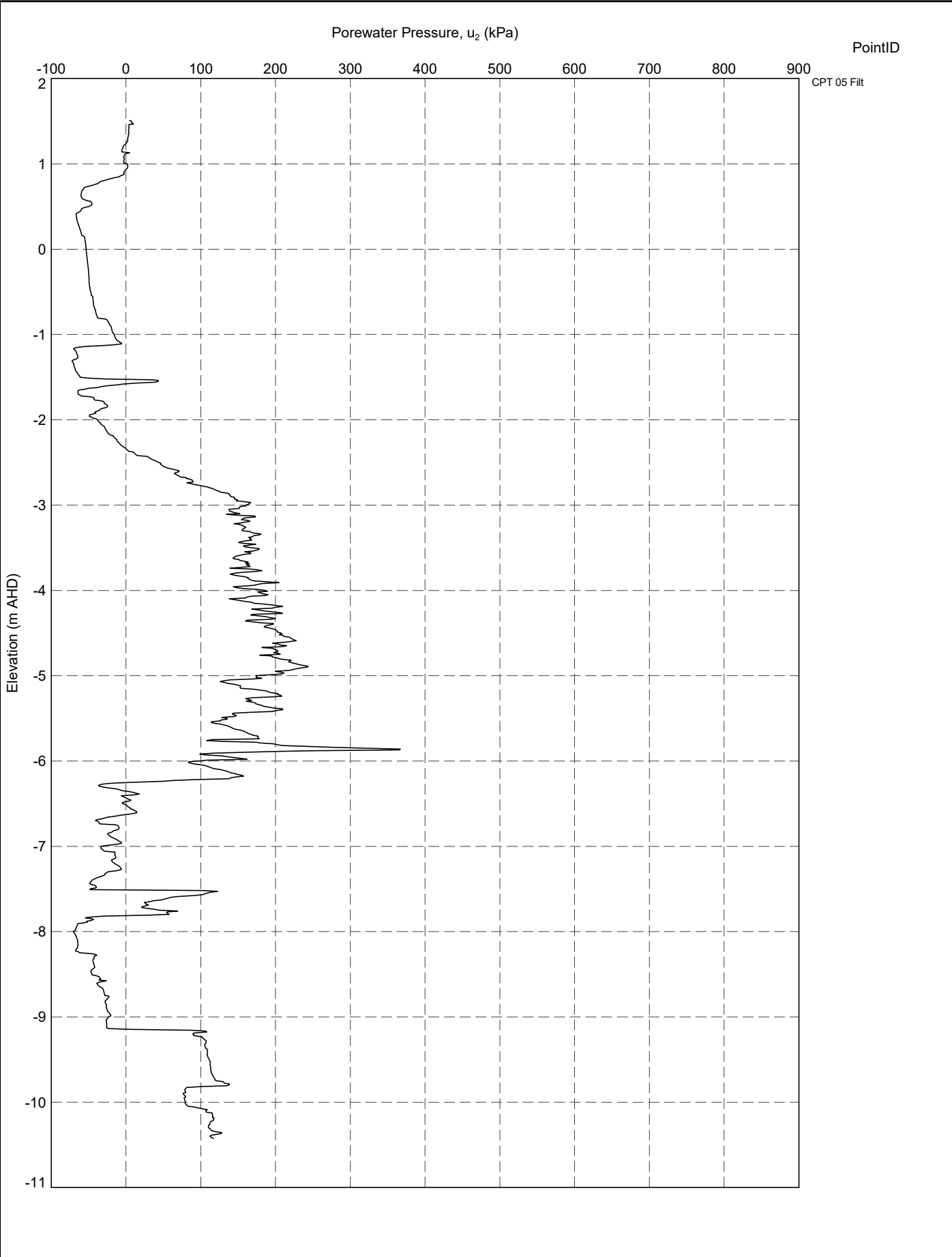


TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Porewater Pressure 2 ( $u_2$ ) vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	397

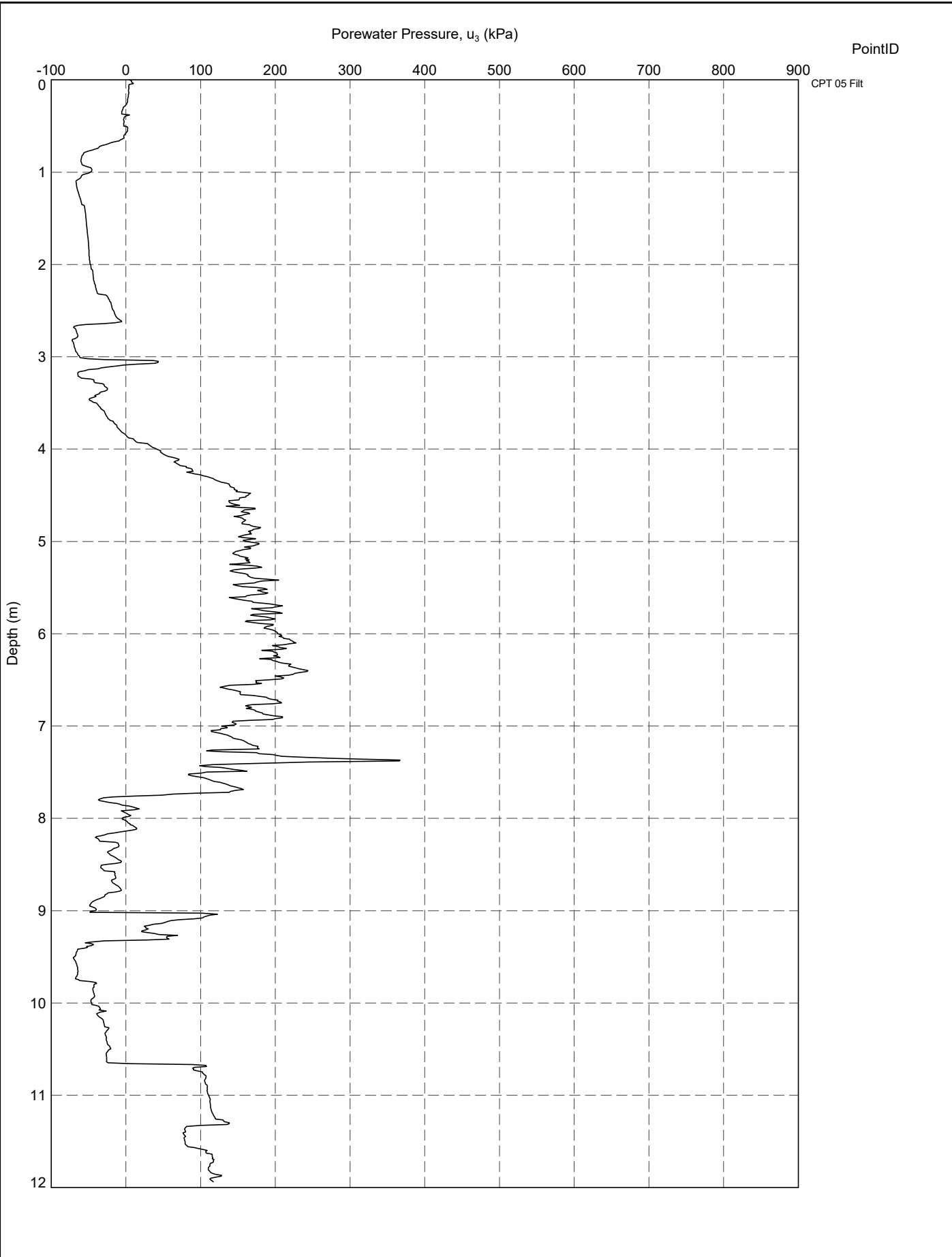
DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT U2 RL A4P DATGEL CPT TOOL DGD 4.05.0 SIGPJ <<DrawingFiles>> 2/2/2021 01:57 10.01.00.11 Datgel CPT Tool gINT Add-in



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure 2 (u2) vs Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	398



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT.U3 DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <-DrawingFile> 2/2/2021 01:57 10.01.00.11 Datgel CPT Tool.gINT Add-In

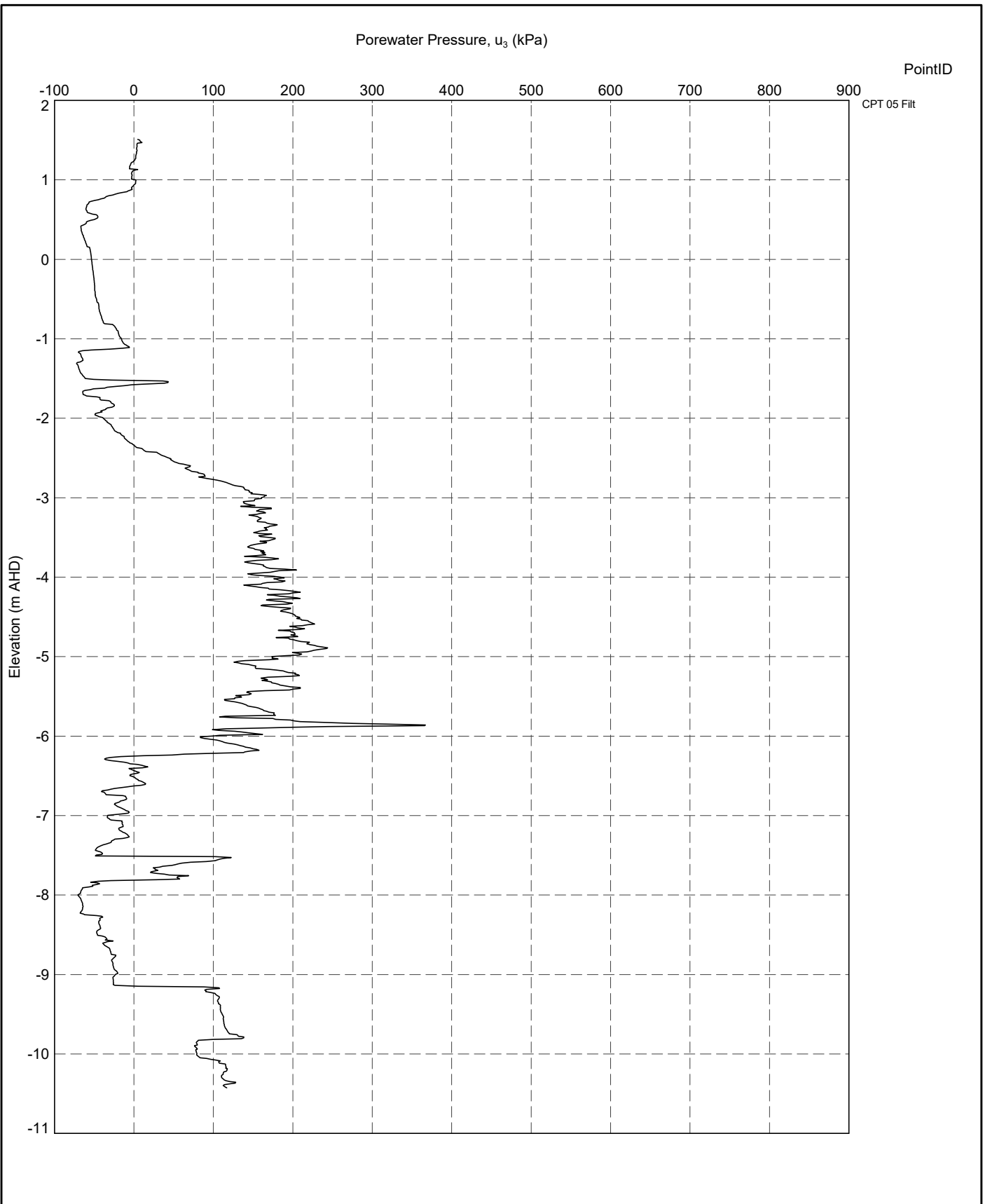



TITLE

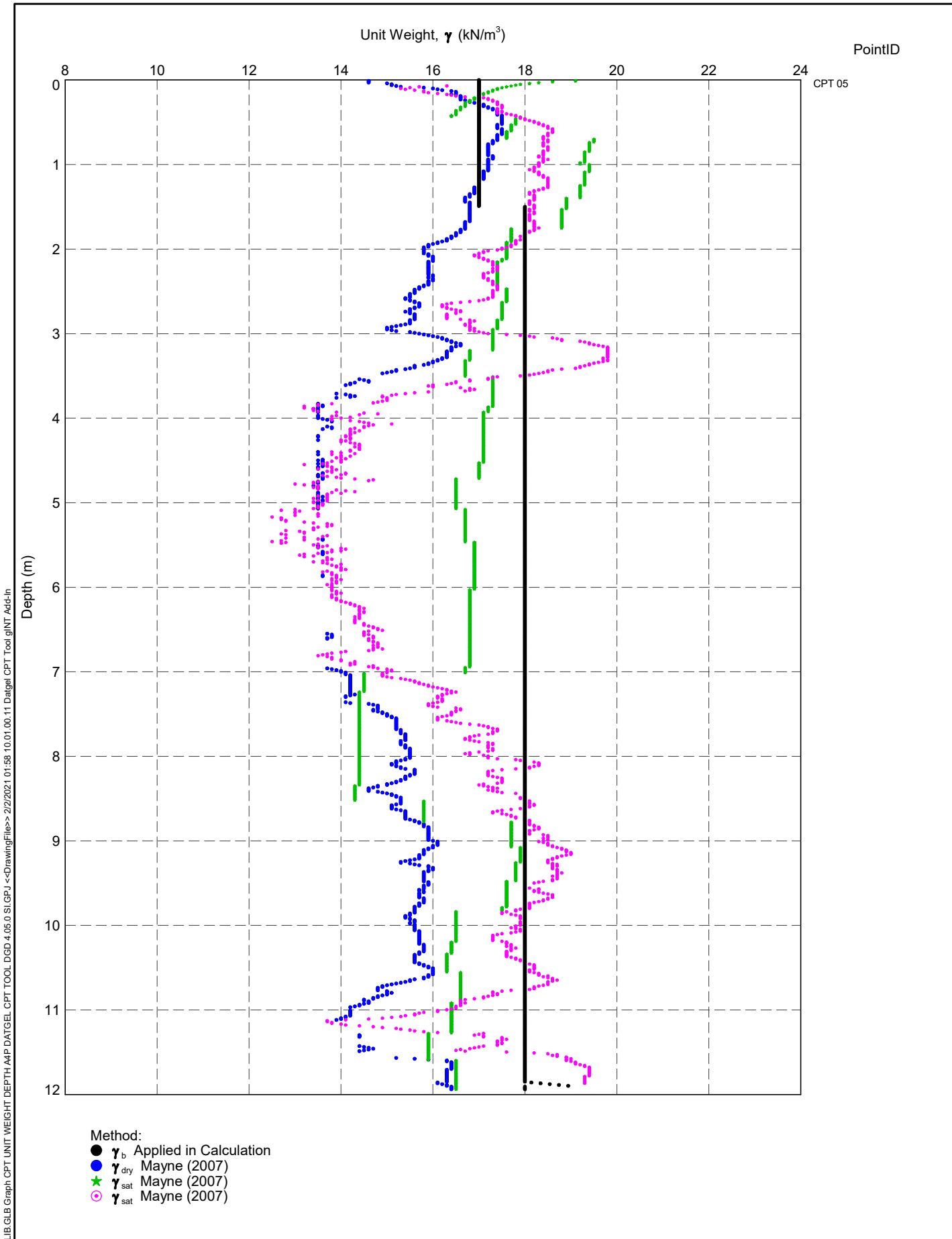
Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Porewater Pressure 3 ( $u_3$ ) vs Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	399

DATGEL CPT TOOL\_DGD\_4.05.0 LIB\_GLB Graph CPT U3 RL LETP DATGEL CPT TOOL\_DGD\_4.05.0 SI(GPJ) <<DrawingFile>> 2/2/2021 01:57 10.01.00.11 Datgel CPT Tool.gINT AddIn



 <b>Datgel</b> DATA SOLUTIONS Geotechnics • Geoenvironment • Laboratory	TITLE <p style="text-align: center;">Client 1 Engineer 1 Somewhere CPT Tool Project</p> <p style="text-align: center;">Porewater Pressure 3 (<math>u_3</math>) vs Elevation</p>	DRAWN <p style="text-align: center;">Datgel</p>	DATE <p style="text-align: center;">2/2/2021</p>	
	CHECKED <p style="text-align: center;">Datgel</p>	DATE <p style="text-align: center;">2/2/2021</p>	SCALE <p style="text-align: center;">Not To Scale</p>	
	PROJECT No <p style="text-align: center;">4.05.0</p>		FIGURE No <p style="text-align: center;">400</p>	
	Let			



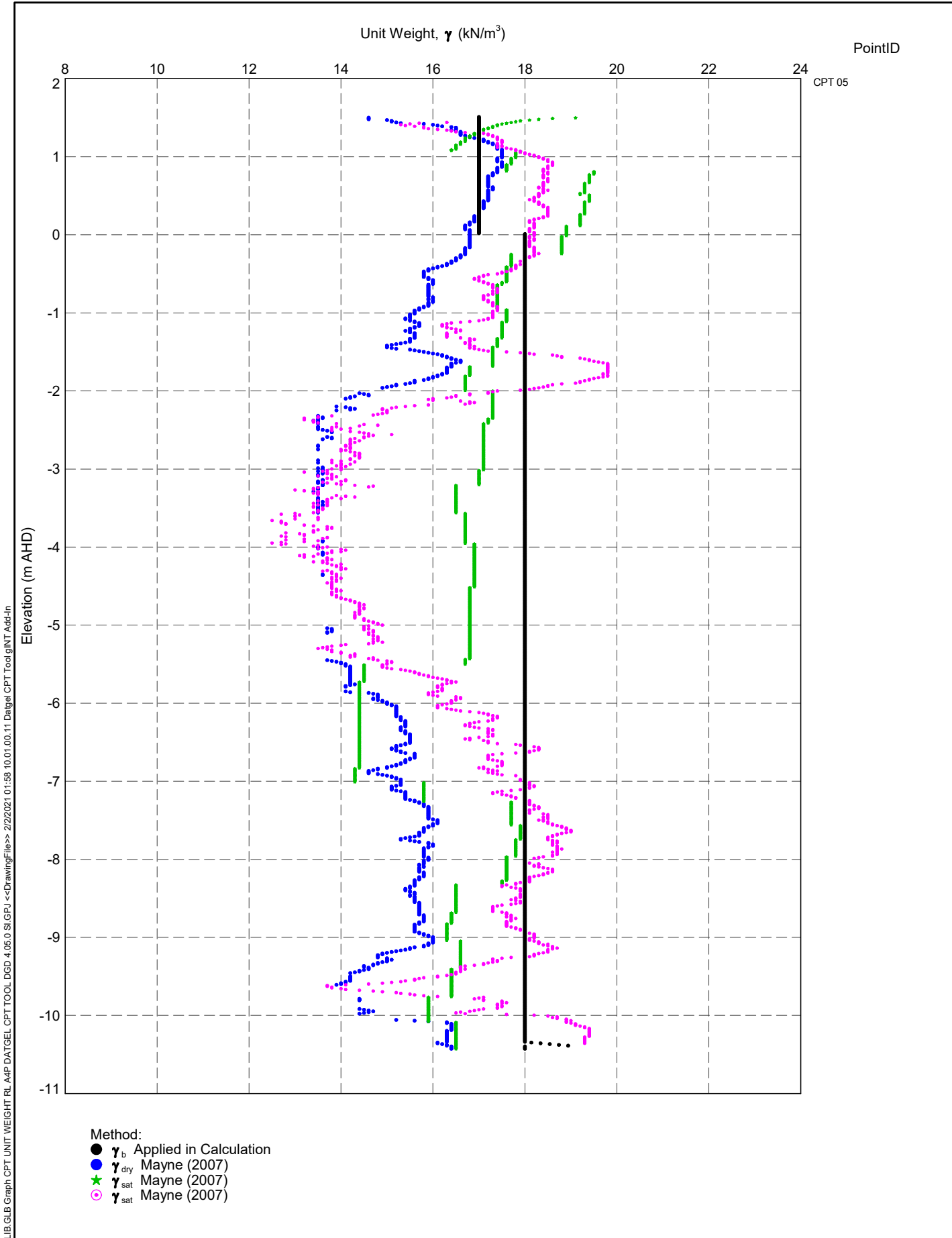
DATGEL CPT TOOL.DGD 4.05.0 LIB.GLB Graph.CPT UNIT WEIGHT DEPTH A4P DATGEL CPT TOOL.DGD 4.05.0 SIGPJ <<DrawingFile>> 2/2/2021 01:58 10.01.00.11 Datgel CPT Tool gINT Add-In



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Unit Weight versus Depth

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	401



DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph.CPT UNIT WEIGHT RL A4P DATGEL CPT TOOL DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 01:58 10.01.00.11 Datgel.CPT.Tool.gINT Add-in



TITLE

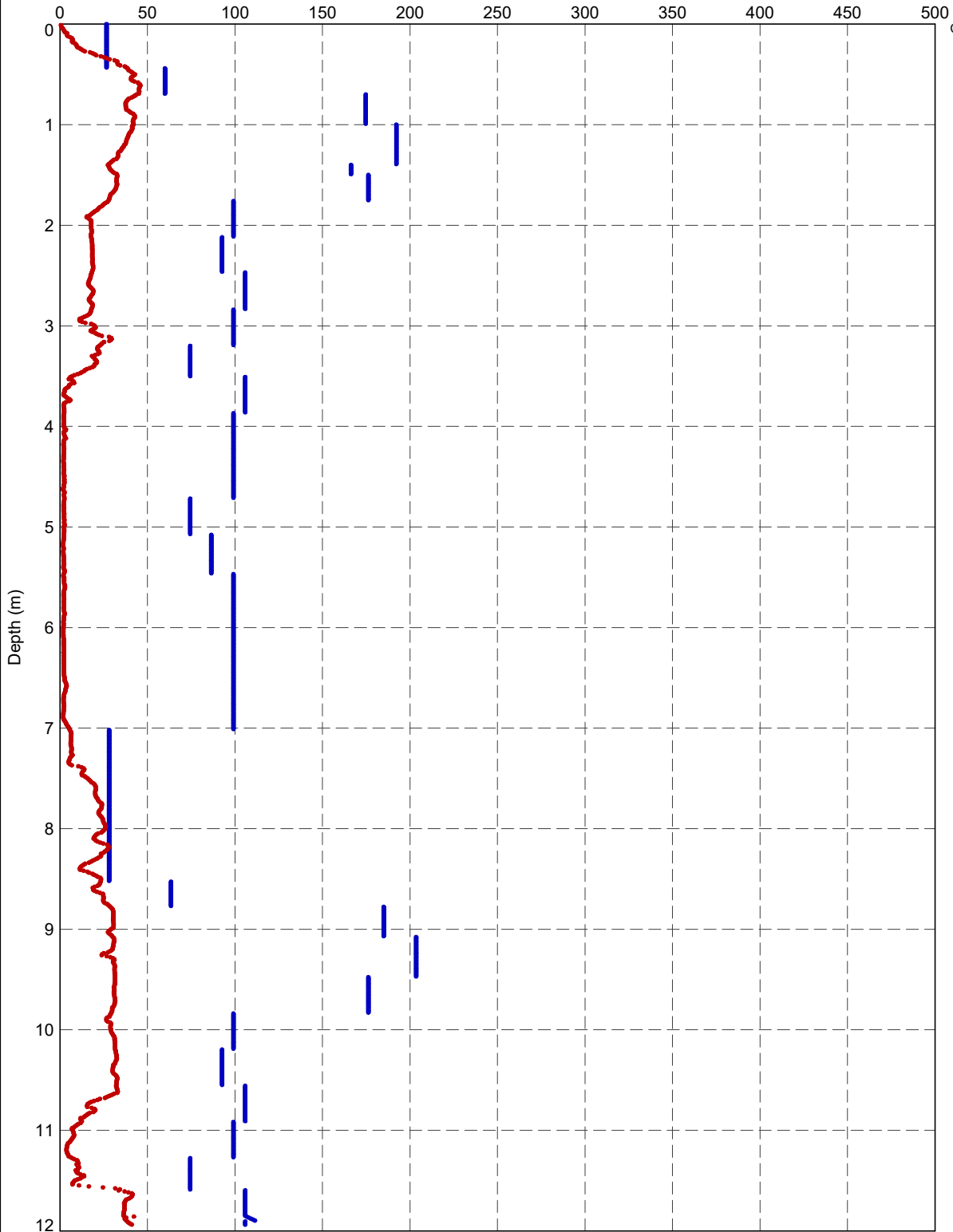
Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Unit Weight versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	402



Small Strain Young's Modulus,  $E_0$  (MPa)

PointID



CPT 05

Method:

- Lunne, Robertson & Powell (1997)
- CPT in Geotechnical Practice

DATGEL CPT TOOL DGD 4.05.0 LIB GLB Graph CPT YOUNGS MODULUS DEPTH A4P DATGEL CPT TOOL DGD 4.05.0 SI(GPJ <<DrawingFile>> 2/2/2021 01:59 10.01.00.11 Datgel CPT Tool glNT Add-in

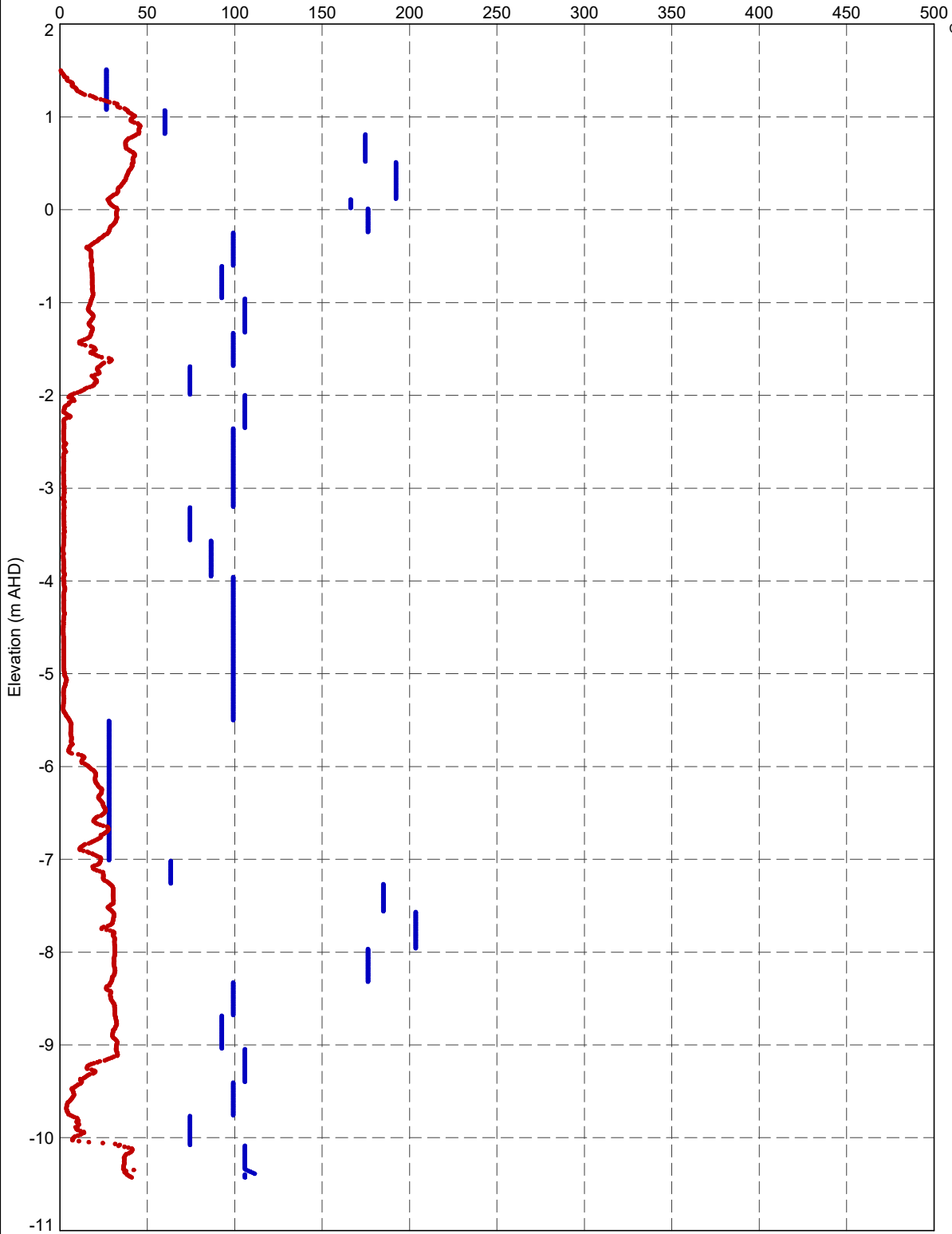


Geotechnics • Geoenvironment • Laboratory

TITLE  Client 1 Engineer 1 Somewhere CPT Tool Project Youngs Modulus versus Depth	DRAWN	Datgel	DATE	2/2/2021	
	CHECKED	Datgel	DATE	2/2/2021	
	SCALE	Not To Scale			A4
	PROJECT No	4.05.0	FIGURE No	403	

Small Strain Young's Modulus,  $E_0$  (MPa)

PointID



CPT 05

Method:

- Lunne, Robertson & Powell (1997)
- CPT in Geotechnical Practice

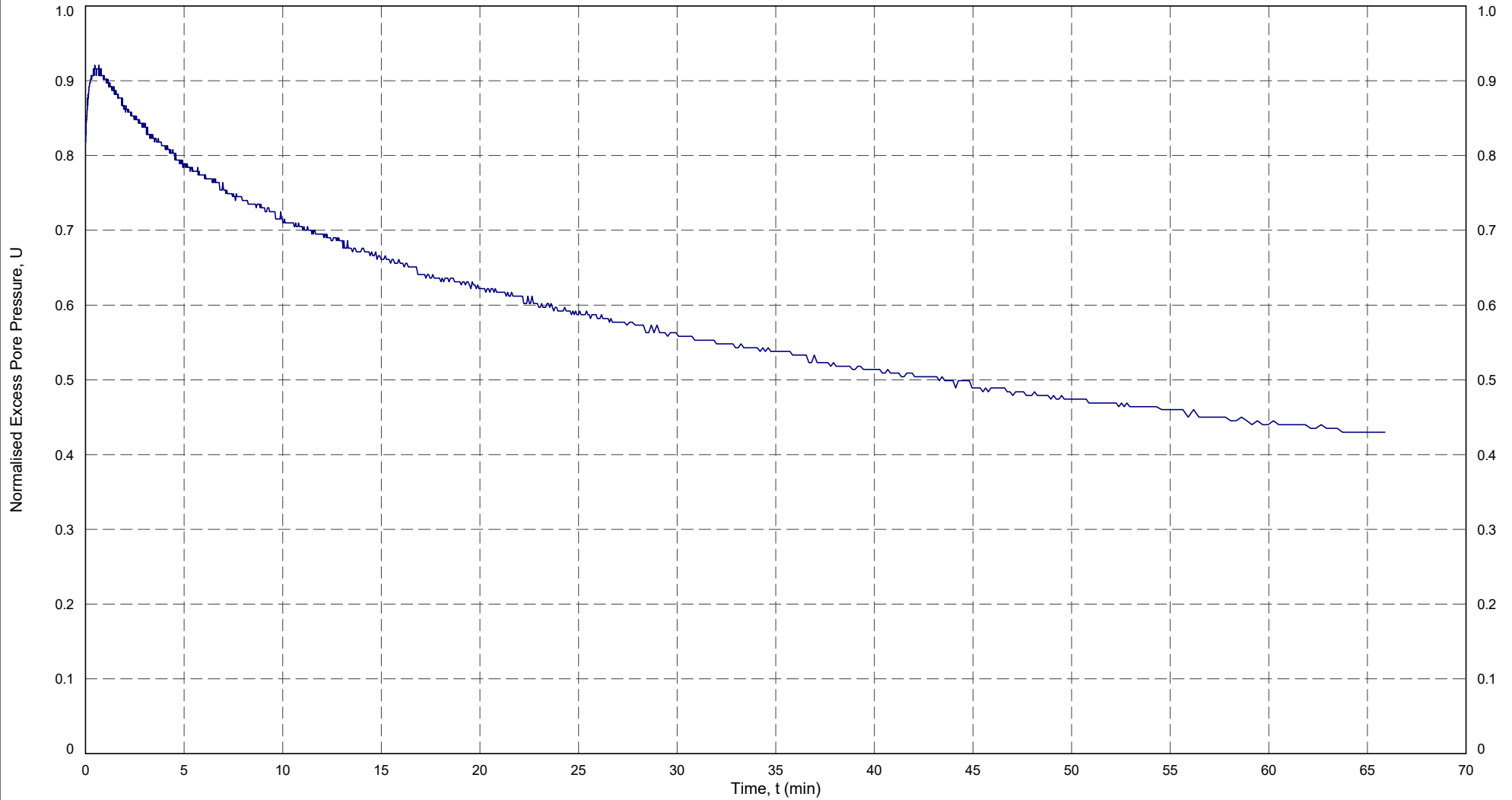
DATGEL CPT TOOL DGD 4.05.0 LIB.GLB Graph.CPT.YOUNGS MODULUS RL A4P DATGEL CPT TOOL.DGD 4.05.0 SI.GPJ <<DrawingFile>> 2/2/2021 02:00:10.01:00.11 Datgel CPT Tool.gINT.Add-In



TITLE

Client 1  
Engineer 1  
Somewhere  
CPT Tool Project  
Youngs Modulus versus Elevation

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	404



— 7.49 m



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dissipation Test - V-Diss test OC

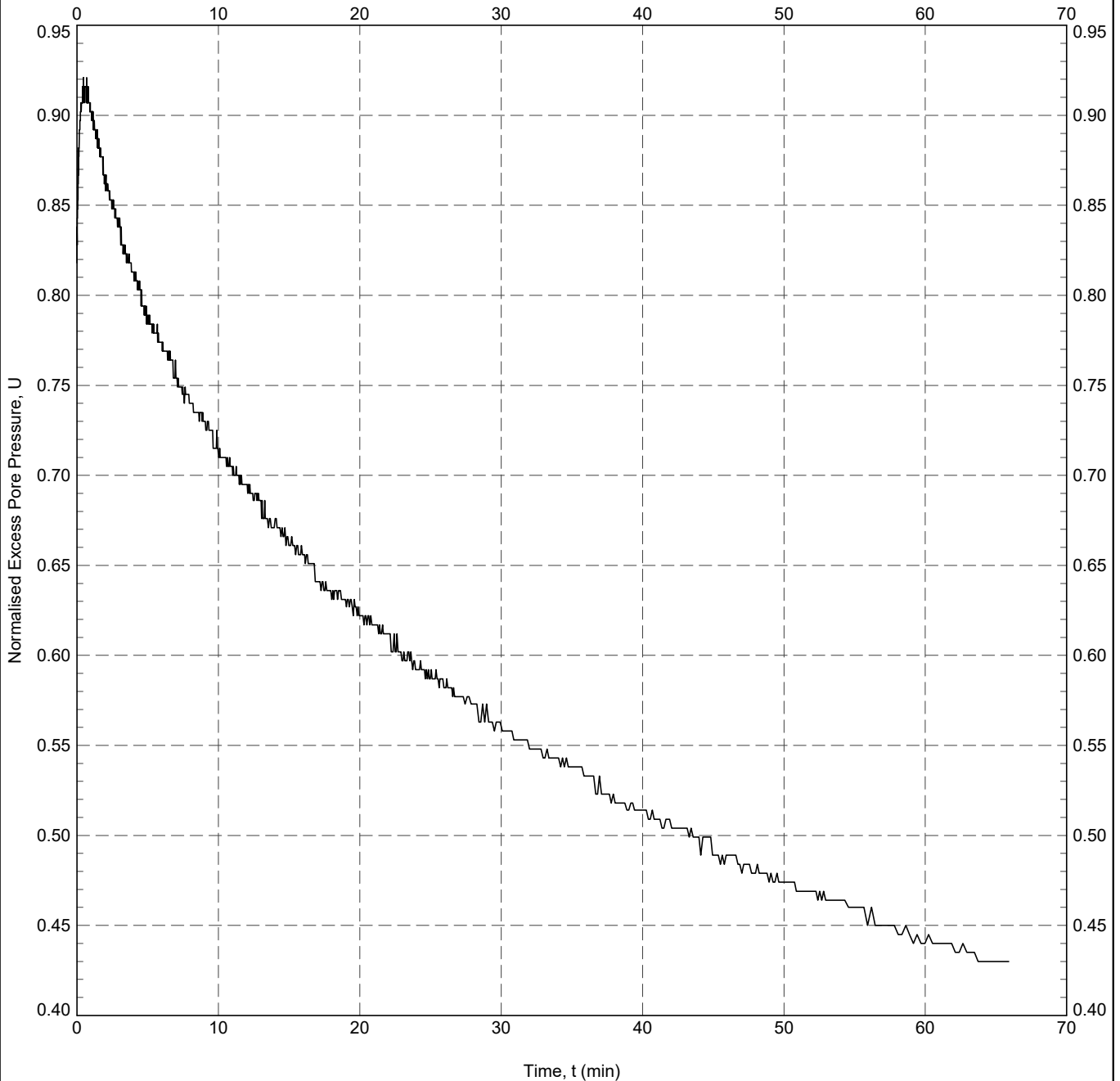
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	405

Test ID

**V-Diss test OC - 7.49 m**

 CLIENT : Client 1  
 ENGINEER : Engineer 1  
 PROJECT : CPT Tool Project  
 LOCATION : Somewhere  
 PROJECT No. : 4.05.0

 AREA : Place  
 EASTING :  
 NORTHING :  
 COORD. SYS.: MGA2020 Zone 56  
 ELEVATION :

 SHEET : 1 OF 1  
 STATUS : 3  
 DATE : 01/01/09


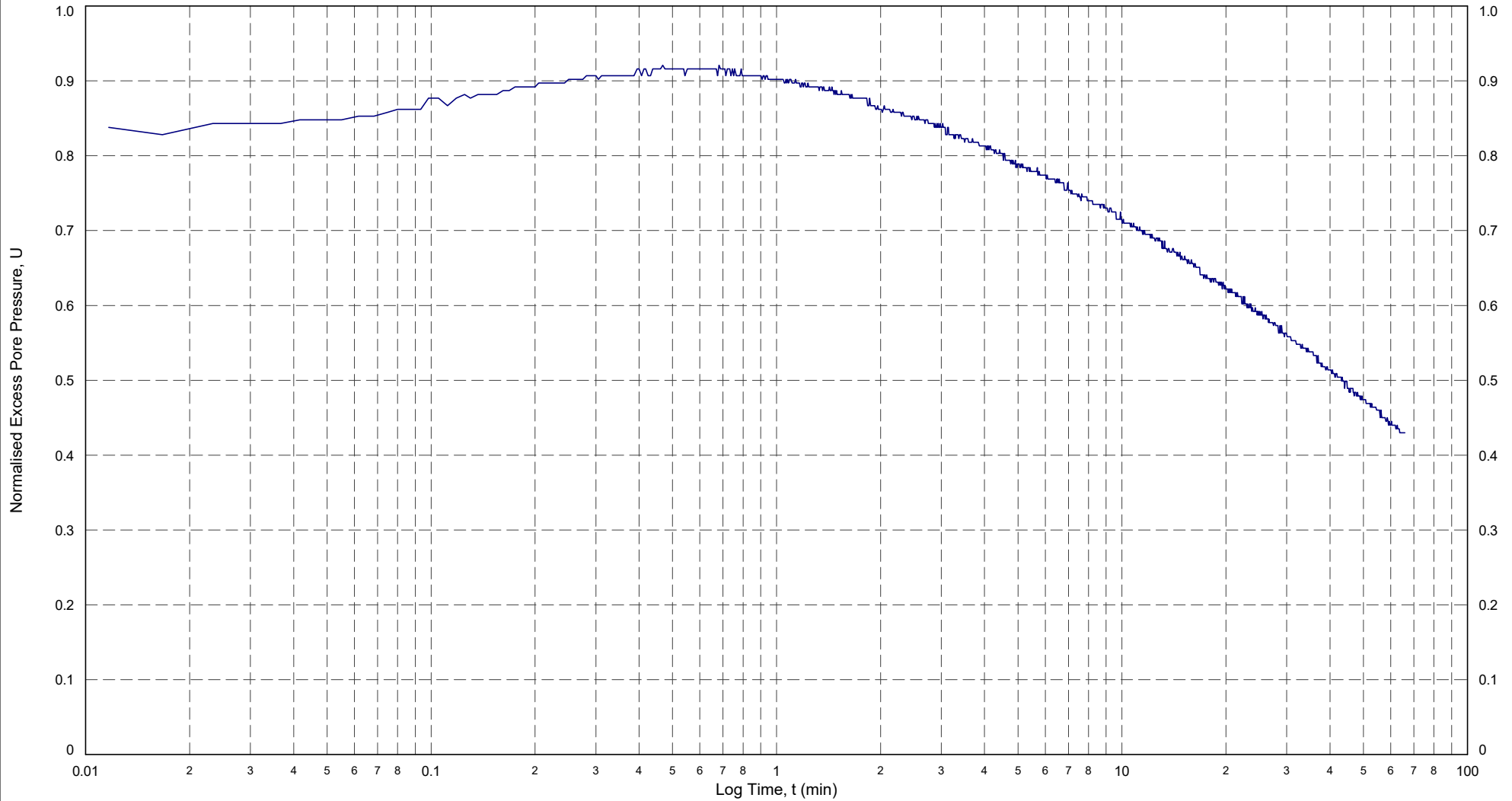
In Situ Pore Pressure, $u_0$ :	73 kPa	Rigidity Index, $I_r$ :	200
Initial Pore Pressure, $u_i$ :	240 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.33 \times 10^1 \text{ m}^2/\text{yr}$
Final Pore Pressure:	161 kPa	Ratio $c_h/c_v$ :	5
Back Extrapolated Pore Pressure, $u_c$ :	277 kPa	Vertical Coefficient of Consolidation, $c_v$ :	$2.66 \times 10^0 \text{ m}^2/\text{yr}$
Degree of Dissipation:	50%		
Dissipation Pressure:	175.2 kPa		
Time for 50% Dissipation, $t_{50}$ :	43.55 min		

 RIG : CPT Rig  
 CONE TYPE : ABC  
 CONE ID : 3167  
 OPERATOR : TB

 ANALYSED BY : PB  
 CHECKED BY : CB  
 APPROVED BY : AB

 DATE: 02/01/2009  
 DATE: 03/01/2009  
 DATE: 04/01/2009

 REMARK  
 adsf, var



— 7.49 m



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dissipation Test - V-Diss test OC

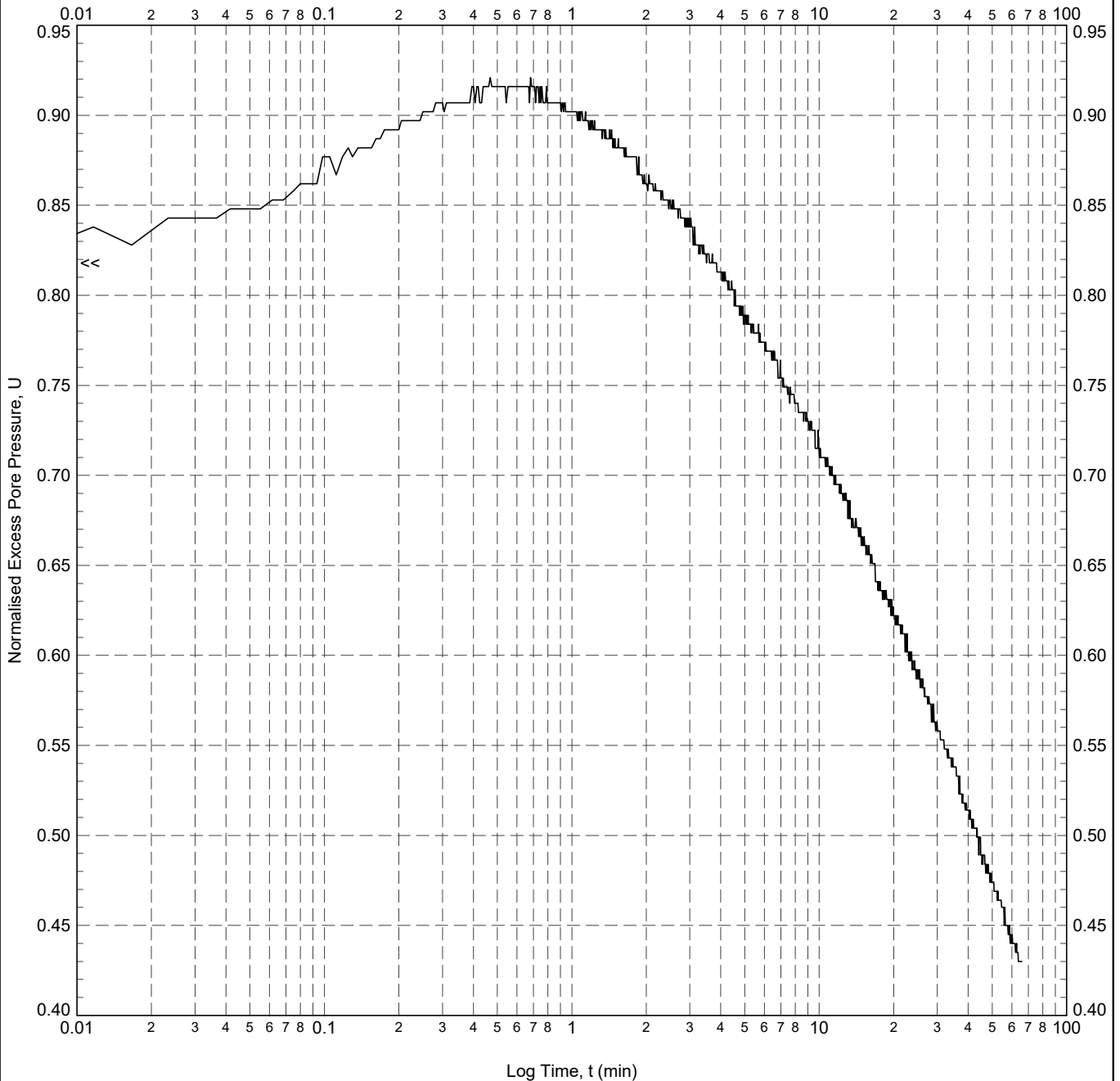
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	407

Test ID  
**V-Diss test OC - 7.49 m**

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING :  
NORTHING :  
COORD. SYS.: MGA2020 Zone 56  
ELEVATION :

SHEET : 1 OF 1  
STATUS : 3  
DATE : 01/01/09



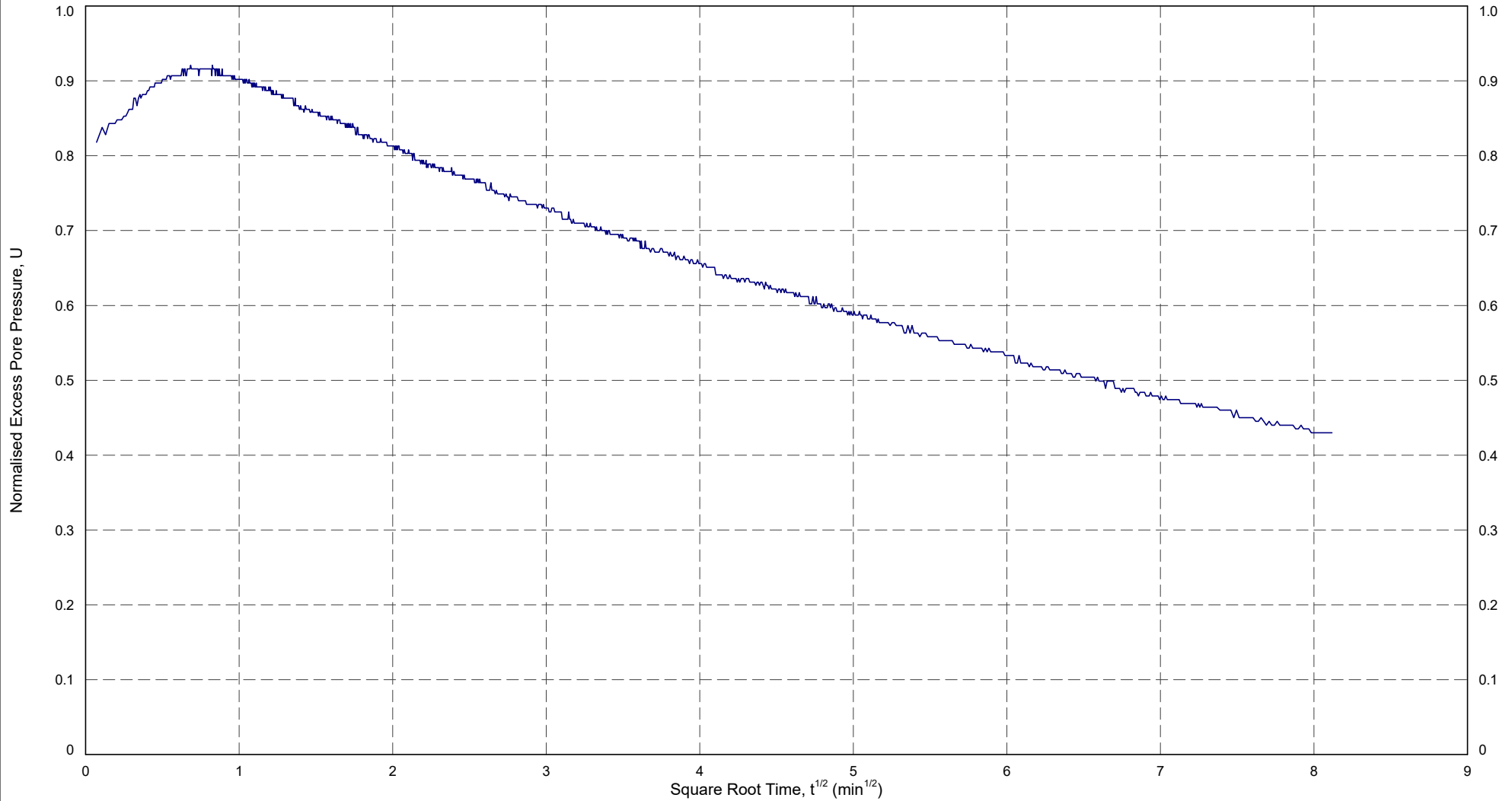
In Situ Pore Pressure, $u_0$ :	73 kPa	Rigidity Index, $I_r$ :	200
Initial Pore Pressure, $u_i$ :	240 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.33 \times 10^1 \text{ m}^2/\text{yr}$
Final Pore Pressure:	161 kPa	Ratio $c_h/c_v$ :	5
Back Extrapolated Pore Pressure, $u_c$ :	277 kPa	Vertical Coefficient of Consolidation, $c_v$ :	$2.66 \times 10^0 \text{ m}^2/\text{yr}$
Degree of Dissipation:	50%		
Dissipation Pressure:	175.2 kPa		
Time for 50% Dissipation, $t_{50}$ :	43.55 min		

RIG : CPT Rig  
CONE TYPE : ABC  
CONE ID : 3167  
OPERATOR : TB

ANALYSED BY : PB  
CHECKED BY : CB  
APPROVED BY : AB

DATE: 02/01/2009  
DATE: 03/01/2009  
DATE: 04/01/2009

REMARK  
adsf, var



— 7.49 m



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dissipation Test - V-Diss test OC

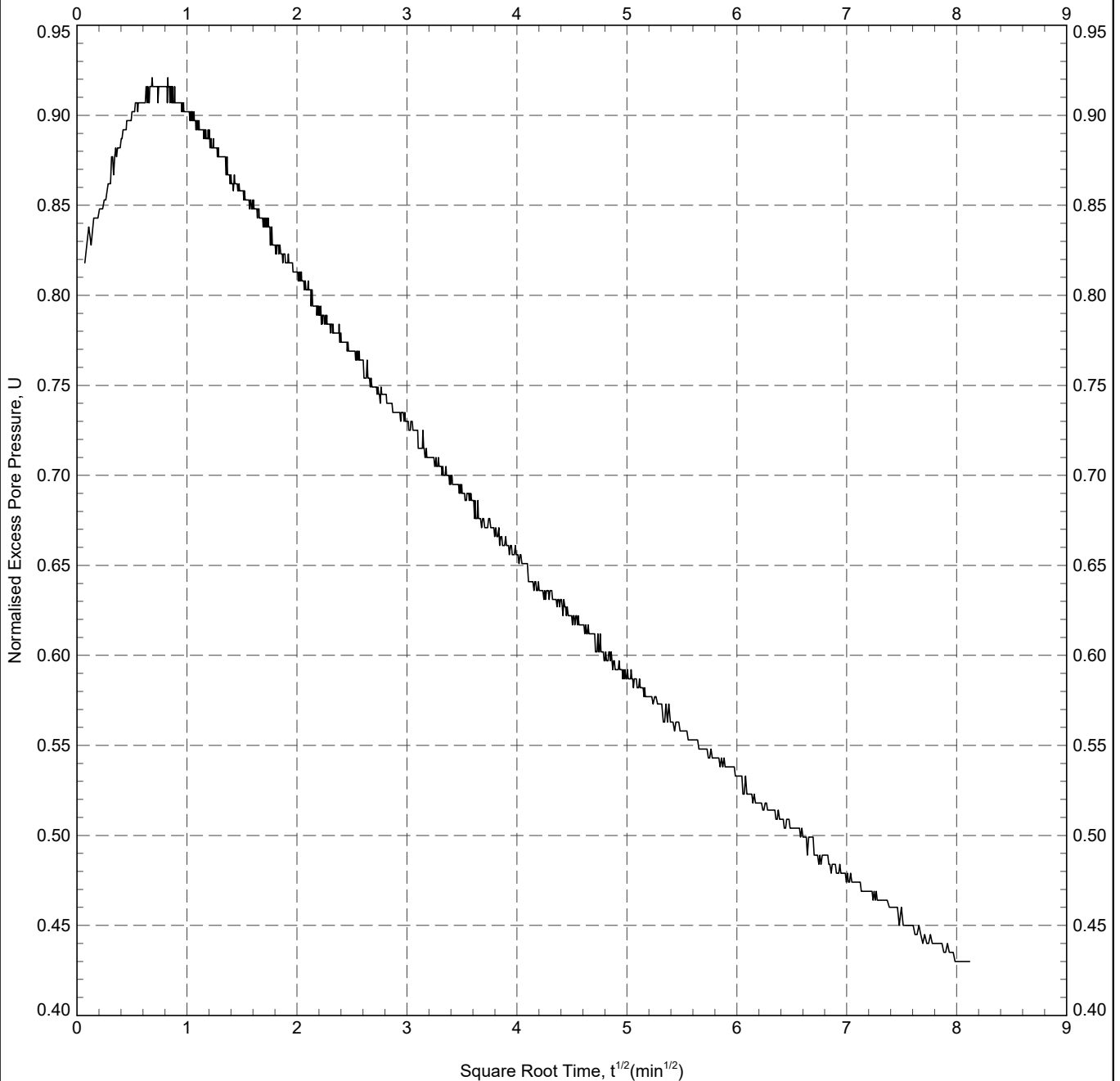
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	409

Test ID

**V-Diss test OC - 7.49 m**

 CLIENT : Client 1  
 ENGINEER : Engineer 1  
 PROJECT : CPT Tool Project  
 LOCATION : Somewhere  
 PROJECT No. : 4.05.0

 AREA : Place  
 EASTING :  
 NORTHING :  
 COORD. SYS.: MGA2020 Zone 56  
 ELEVATION :

 SHEET : 1 OF 1  
 STATUS : 3  
 DATE : 01/01/09


In Situ Pore Pressure, $u_0$ :	73 kPa	Rigidity Index, $I_r$ :	200
Initial Pore Pressure, $u_i$ :	240 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.33 \times 10^1 \text{ m}^2/\text{yr}$
Final Pore Pressure:	161 kPa	Ratio $c_h/c_v$ :	5
Back Extrapolated Pore Pressure, $u_c$ :	277 kPa	Vertical Coefficient of Consolidation, $c_v$ :	$2.66 \times 10^0 \text{ m}^2/\text{yr}$
Degree of Dissipation:	50%		
Dissipation Pressure:	175.2 kPa		
Time for 50% Dissipation, $t_{50}$ :	43.55 min		

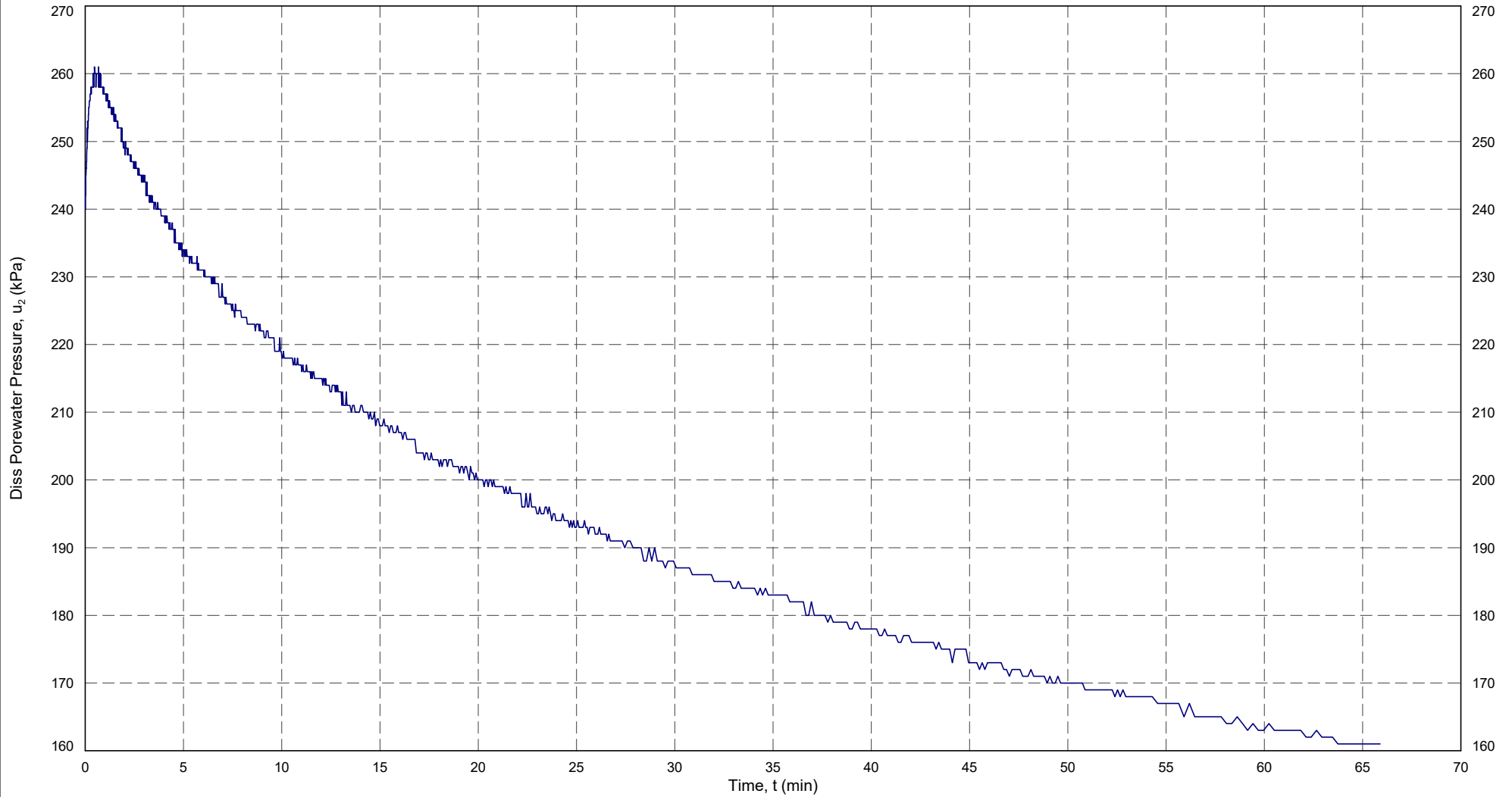
 RIG : CPT Rig  
 CONE TYPE : ABC  
 CONE ID : 3167  
 OPERATOR : TB

 ANALYSED BY : PB  
 CHECKED BY : CB  
 APPROVED BY : AB

 DATE: 02/01/2009  
 DATE: 03/01/2009  
 DATE: 04/01/2009

 REMARK  
 adsf, var





— 7.49 m



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dissipation Test - V-Diss test OC

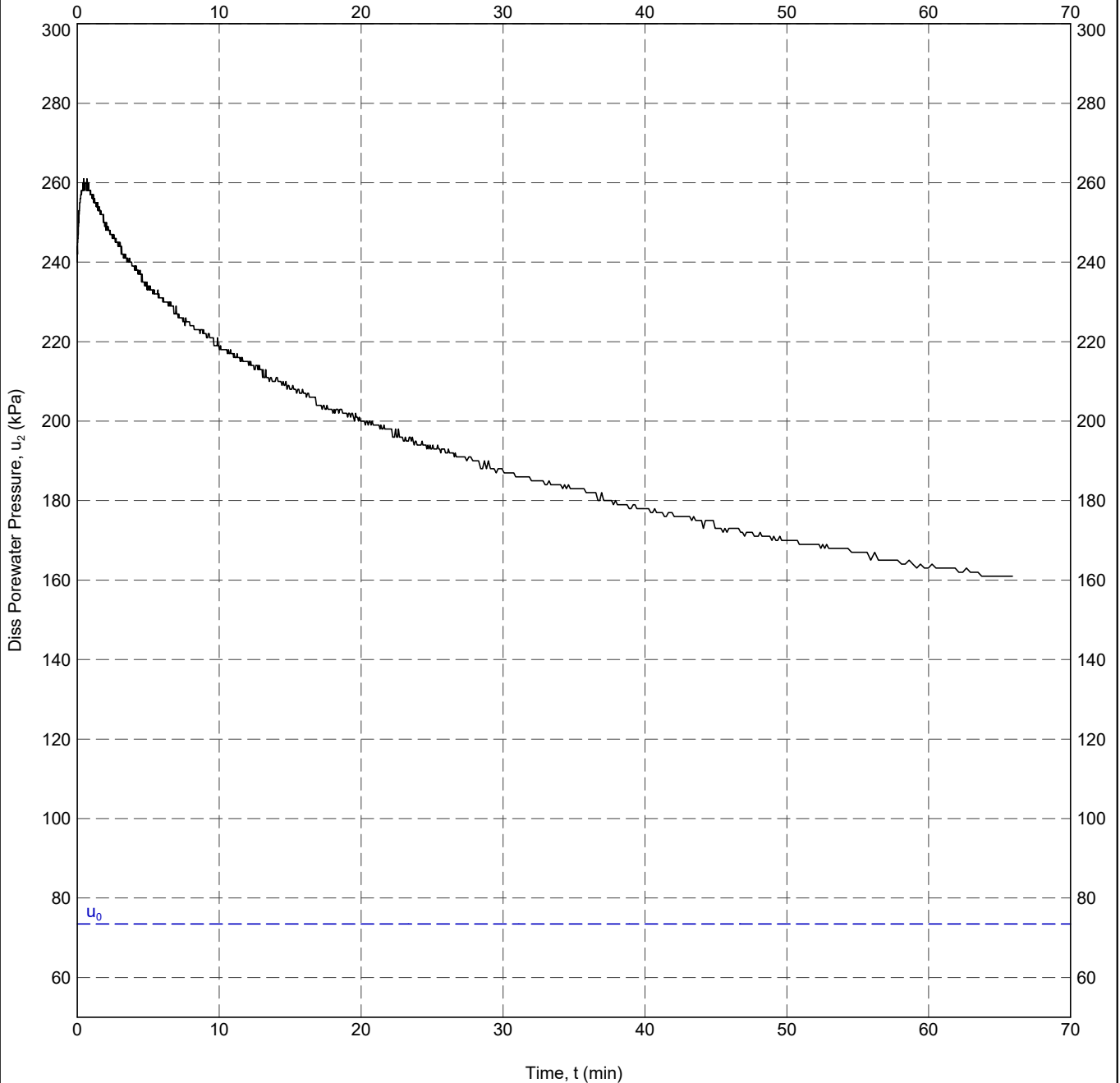
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	411

Test ID

**V-Diss test OC - 7.49 m**

 CLIENT : Client 1  
 ENGINEER : Engineer 1  
 PROJECT : CPT Tool Project  
 LOCATION : Somewhere  
 PROJECT No. : 4.05.0

 AREA : Place  
 EASTING :  
 NORTHING :  
 COORD. SYS.: MGA2020 Zone 56  
 ELEVATION :

 SHEET : 1 OF 1  
 STATUS : 3  
 DATE : 01/01/09


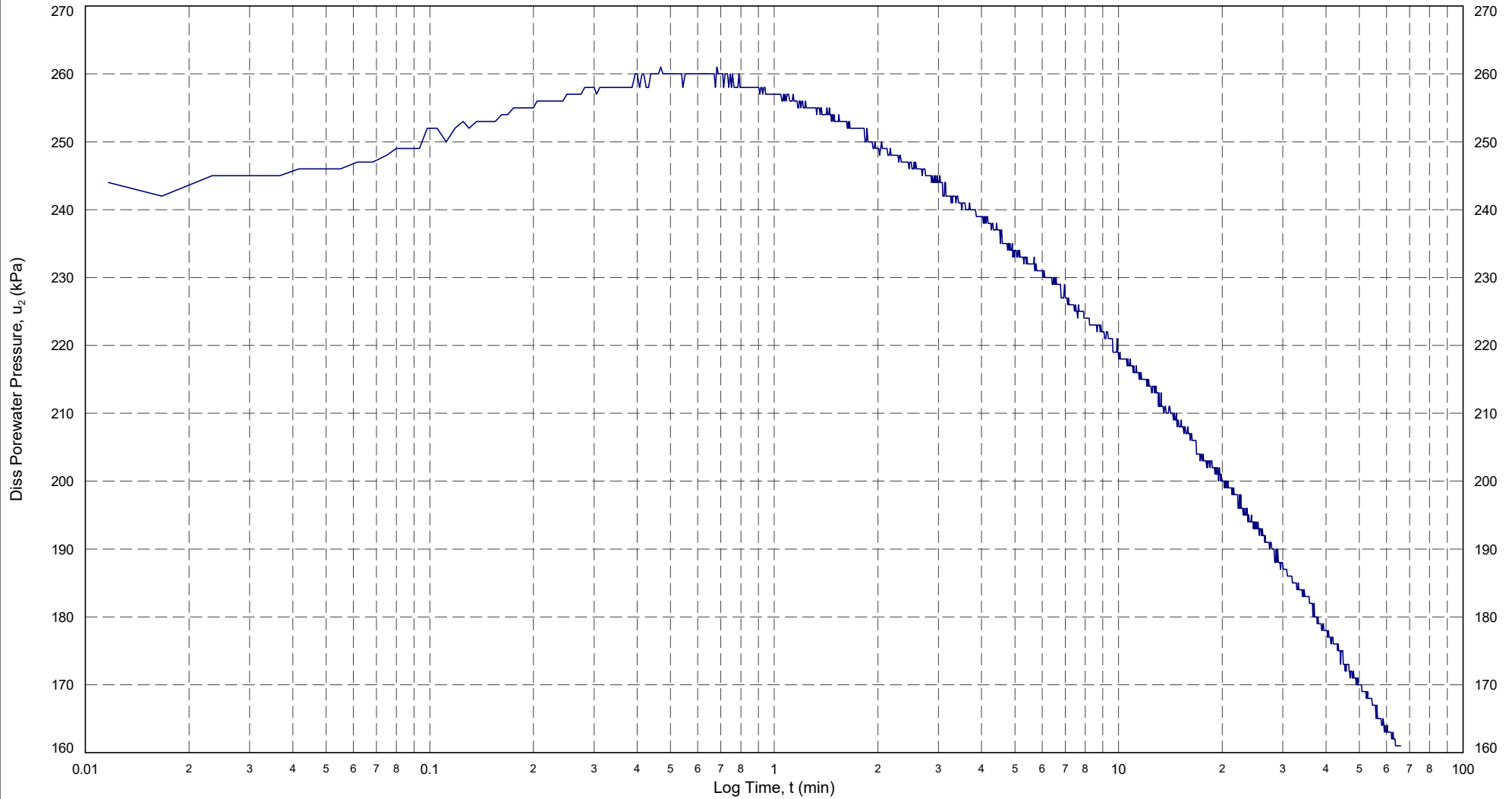
In Situ Pore Pressure, $u_0$ :	73 kPa	Rigidity Index, $I_r$ :	200
Initial Pore Pressure, $u_i$ :	240 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.33 \times 10^1 \text{ m}^2/\text{yr}$
Final Pore Pressure:	161 kPa	Ratio $c_h/c_v$ :	5
Back Extrapolated Pore Pressure, $u_c$ :	277 kPa	Vertical Coefficient of Consolidation, $c_v$ :	$2.66 \times 10^0 \text{ m}^2/\text{yr}$
Degree of Dissipation:	50%		
Dissipation Pressure:	175.2 kPa		
Time for 50% Dissipation, $t_{50}$ :	43.55 min		

 RIG : CPT Rig  
 CONE TYPE : ABC  
 CONE ID : 3167  
 OPERATOR : TB

 ANALYSED BY : PB  
 CHECKED BY : CB  
 APPROVED BY : AB

 DATE: 02/01/2009  
 DATE: 03/01/2009  
 DATE: 04/01/2009

 REMARK  
 adsf, var



— 7.49 m



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dissipation Test - V-Diss test OC

DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	413

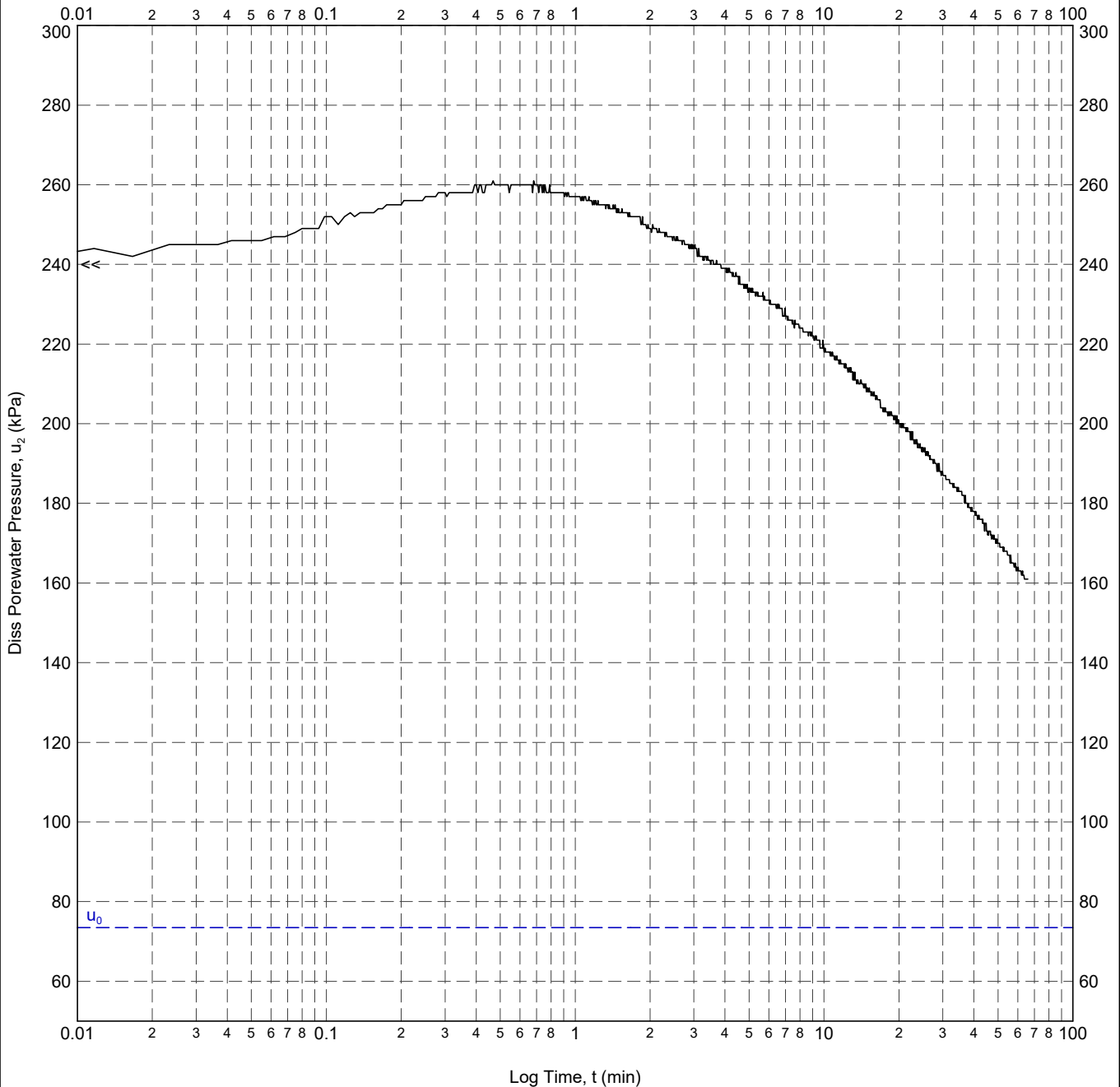
Test ID

**V-Diss test OC - 7.49 m**

CLIENT : Client 1  
ENGINEER : Engineer 1  
PROJECT : CPT Tool Project  
LOCATION : Somewhere  
PROJECT No. : 4.05.0

AREA : Place  
EASTING :  
NORTHING :  
COORD. SYS.: MGA2020 Zone 56  
ELEVATION :

SHEET : 1 OF 1  
STATUS : 3  
DATE : 01/01/09



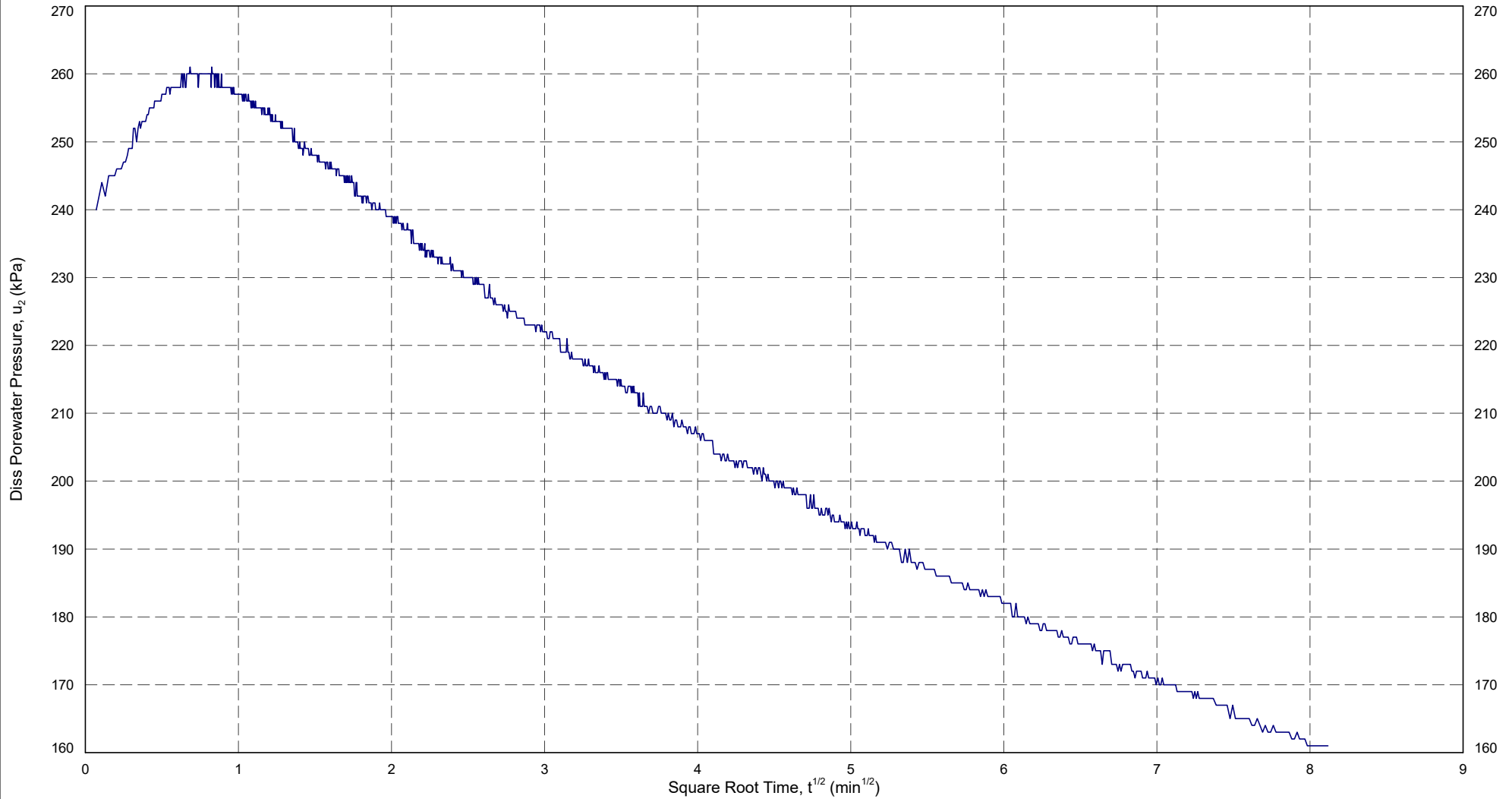
In Situ Pore Pressure, $u_0$ :	73 kPa	Rigidity Index, $I_r$ :	200
Initial Pore Pressure, $u_i$ :	240 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.33 \times 10^1 \text{ m}^2/\text{yr}$
Final Pore Pressure:	161 kPa	Ratio $c_h/c_v$ :	5
Back Extrapolated Pore Pressure, $u_c$ :	277 kPa	Vertical Coefficient of Consolidation, $c_v$ :	$2.66 \times 10^0 \text{ m}^2/\text{yr}$
Degree of Dissipation:	50%		
Dissipation Pressure:	175.2 kPa		
Time for 50% Dissipation, $t_{50}$ :	43.55 min		

RIG : CPT Rig  
CONE TYPE : ABC  
CONE ID : 3167  
OPERATOR : TB

ANALYSED BY : PB  
CHECKED BY : CB  
APPROVED BY : AB

DATE: 02/01/2009  
DATE: 03/01/2009  
DATE: 04/01/2009

REMARK  
adsf, var



— 7.49 m



TITLE

Client 1  
 Engineer 1  
 Somewhere  
 CPT Tool Project  
 Dissipation Test - V-Diss test OC

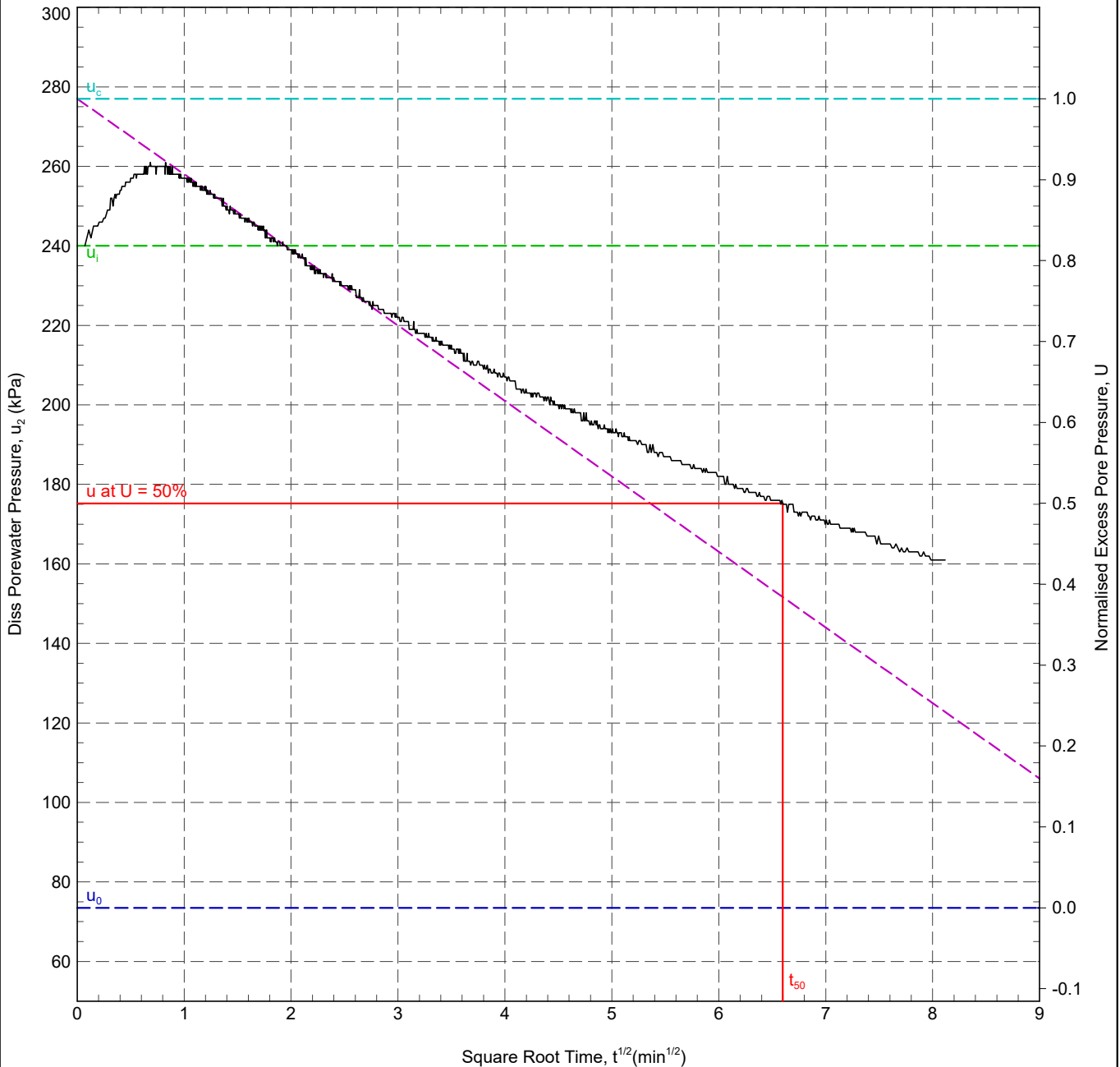
DRAWN	Datgel	DATE	2/2/2021
CHECKED	Datgel	DATE	2/2/2021
SCALE	Not To Scale		A4
PROJECT No	4.05.0	FIGURE No	415

Test ID

**V-Diss test OC - 7.49 m**

 CLIENT : Client 1  
 ENGINEER : Engineer 1  
 PROJECT : CPT Tool Project  
 LOCATION : Somewhere  
 PROJECT No. : 4.05.0

 AREA : Place  
 EASTING :  
 NORTHING :  
 COORD. SYS.: MGA2020 Zone 56  
 ELEVATION :

 SHEET : 1 OF 1  
 STATUS : 3  
 DATE : 01/01/09


In Situ Pore Pressure, $u_0$ :	73 kPa	Rigidity Index, $I_r$ :	200
Initial Pore Pressure, $u_i$ :	240 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.33 \times 10^1 \text{ m}^2/\text{yr}$
Final Pore Pressure:	161 kPa	Ratio $c_h/c_v$ :	5
Back Extrapolated Pore Pressure, $u_c$ :	277 kPa	Vertical Coefficient of Consolidation, $c_v$ :	$2.66 \times 10^0 \text{ m}^2/\text{yr}$
Degree of Dissipation:	50%		
Dissipation Pressure:	175.2 kPa		
Time for 50% Dissipation, $t_{50}$ :	43.55 min		

 RIG : CPT Rig  
 CONE TYPE : ABC  
 CONE ID : 3167  
 OPERATOR : TB

 ANALYSED BY : PB  
 CHECKED BY : CB  
 APPROVED BY : AB

 DATE: 02/01/2009  
 DATE: 03/01/2009  
 DATE: 04/01/2009

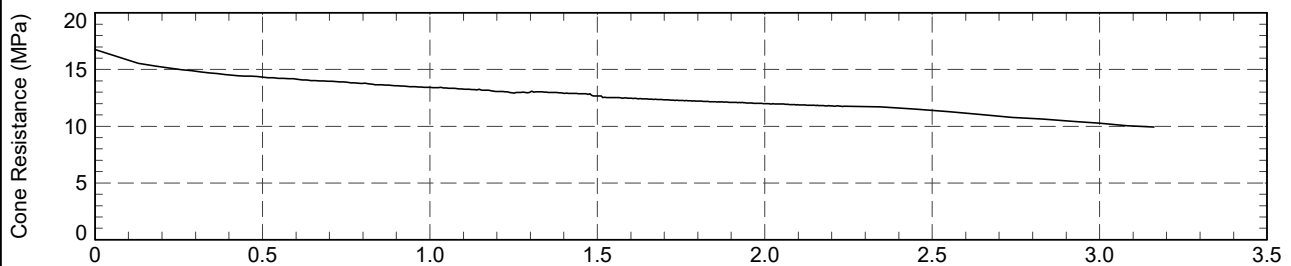
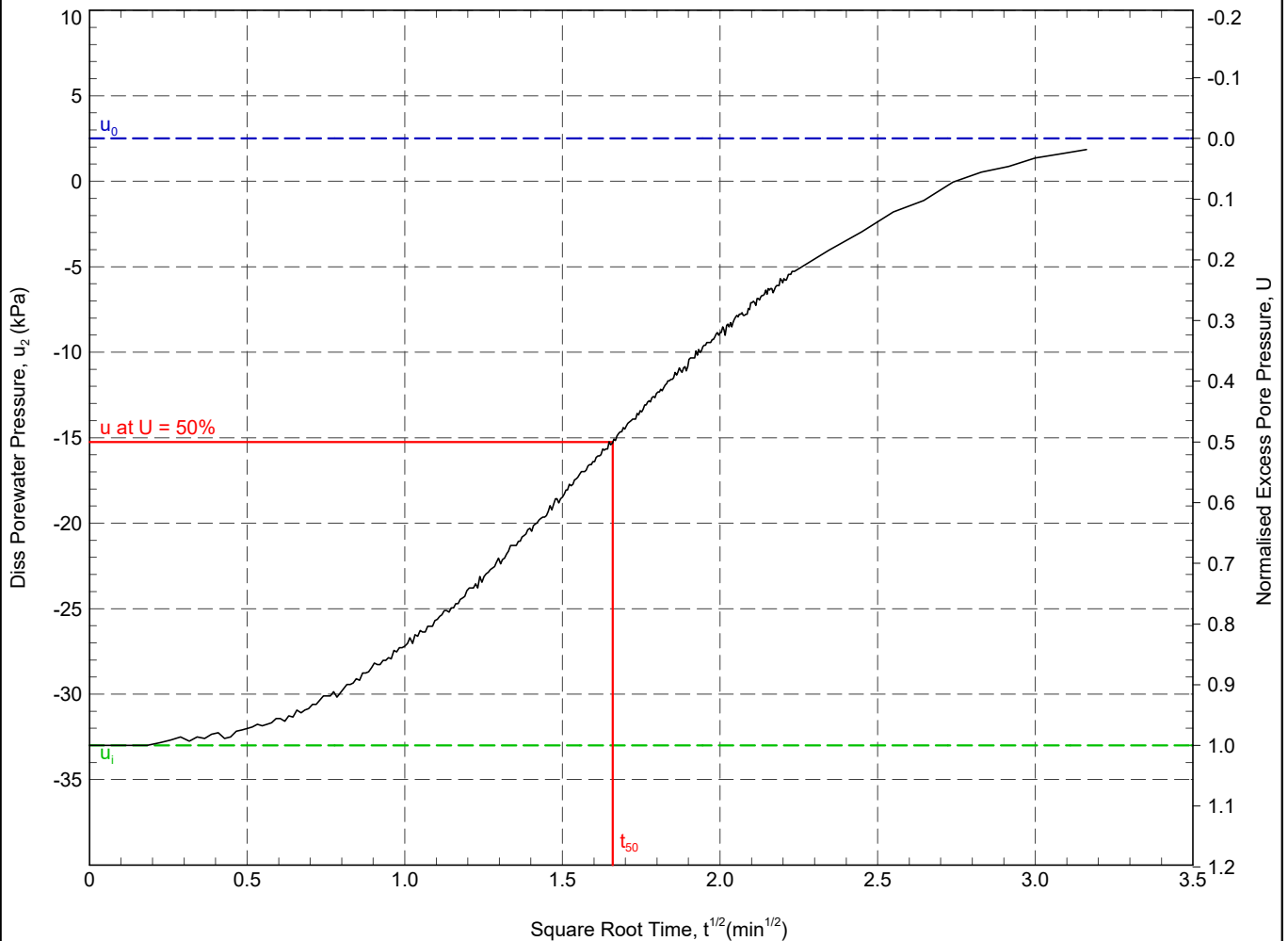
 REMARK  
 adsf, var

Test ID

**V-Diss OC Type V - 1.10 m**

 CLIENT : Client 1  
 ENGINEER : Engineer 1  
 PROJECT : CPT Tool Project  
 LOCATION : Somewhere  
 PROJECT No. : 4.05.0

 AREA :  
 EASTING :  
 NORTHING :  
 COORD. SYS.: MGA2020 Zone 56  
 ELEVATION : 0.00 m AHD

 SHEET : 1 OF 1  
 STATUS : 2  
 DATE : 01/07/10


In Situ Pore Pressure, $u_0$ :	2 kPa	Rigidity Index, $I_r$ :	150
Initial Pore Pressure, $u_i$ :	-33 kPa	Horizontal Coefficient of Consolidation, $c_h$ :	$1.82 \times 10^2 \text{ m}^2/\text{yr}$
Final Pore Pressure:	2 kPa	Ratio $c_h/c_v$ :	0.5
Degree of Dissipation:	50%	Vertical Coefficient of Consolidation, $c_v$ :	$3.65 \times 10^2 \text{ m}^2/\text{yr}$
Dissipation Pressure:	-15.3 kPa		
Time for 50% Dissipation, $t_{50}$ :	2.76 min		

 RIG : Datgel anchoring  
 CONE TYPE : ABC  
 CONE ID : C10CFIP.D71  
 OPERATOR : TB

 ANALYSED BY : PB  
 CHECKED BY : CB  
 APPROVED BY : AB

 DATE: 02/07/2010  
 DATE: 03/07/2010  
 DATE: 04/07/2010

REMARK