OMEGA ZONE 8, ST HELENS

Omega St Helens Ltd / T. J. Morris Limited

Ground Investigation Report
& Remediation Strategy
Appendix D Part 8
OPP DOC. 2.12

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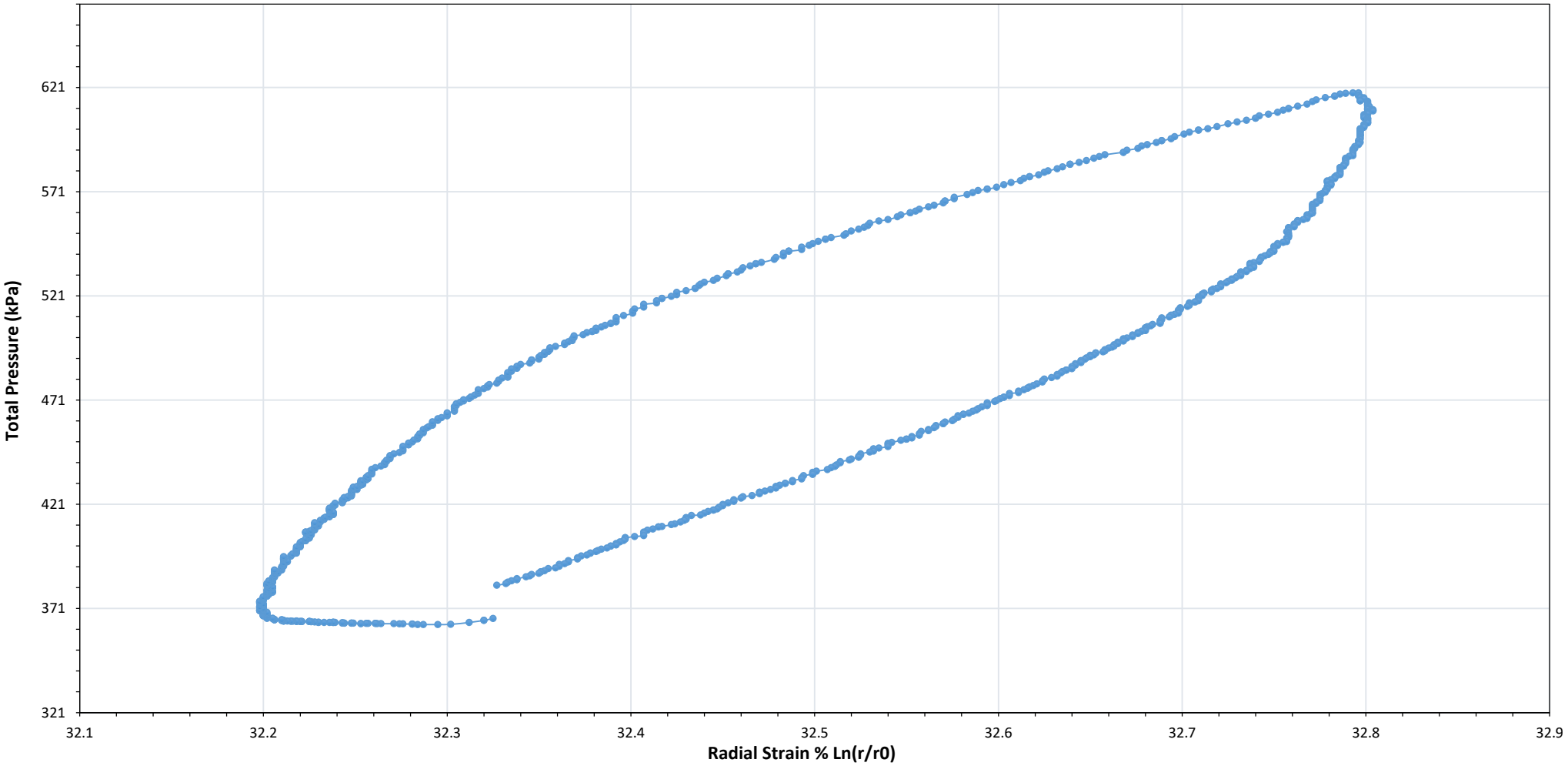
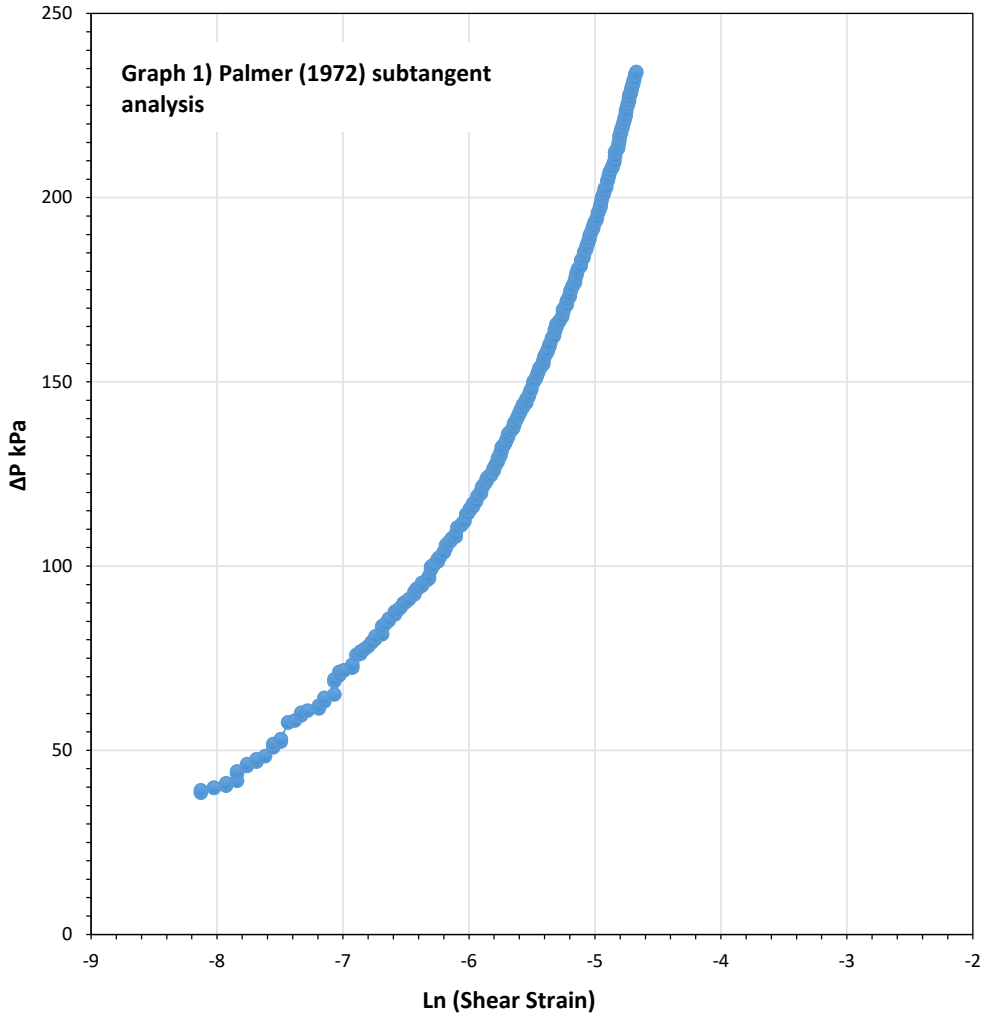
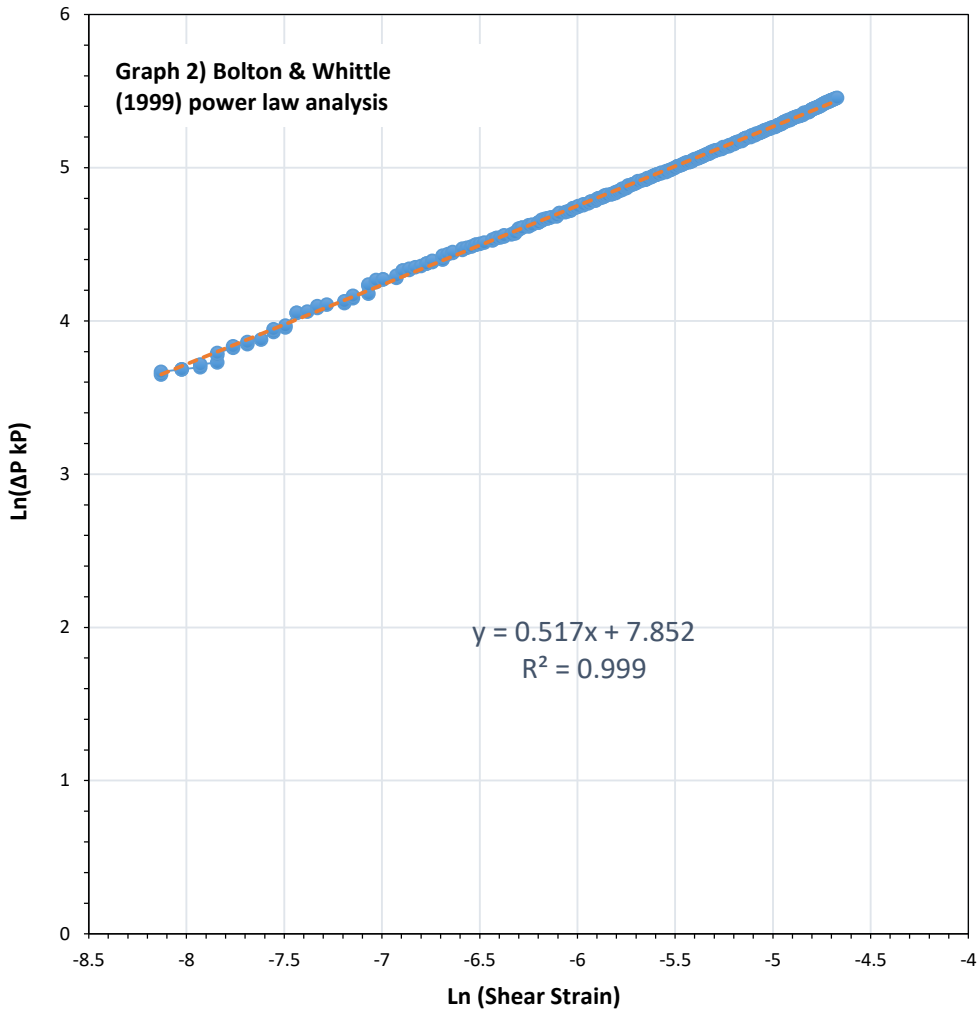
Loop 2 Total Pressure with Radial Cavity Strain



Project Ref:	107284	**Drainage behaviour:**	Undrained	**Shear modulus Gur:**	1987.4 MPa	**Location ID:**	**CPTP8A01**
Client:	Geotechnics	**Test type:**	FDPM	**Cavity strain range:**	0.37 %	**Depth:**	**4 m**
Client Ref:		**Loop duration:**	26.4 mins			**Comments:**	
Location:	Warrington, UK						

Loop 2 Non-Linear Stress-Strain Analysis





Project Ref:	107284	**Obtained Power Law Parameters (right hand side graph)**		**Location ID:**	**CPTP8A01**
Client:	Geotechnics	**Non-linearity exponent (β) (gradient):**	0.517	**Depth:**	**4 m**
Client Ref:		**Intercept (η):**	2.57 MPa	**Comments:**	
Location:	Warrington, UK	**Shear stress constant α (β*η):**	1.329 MPa		

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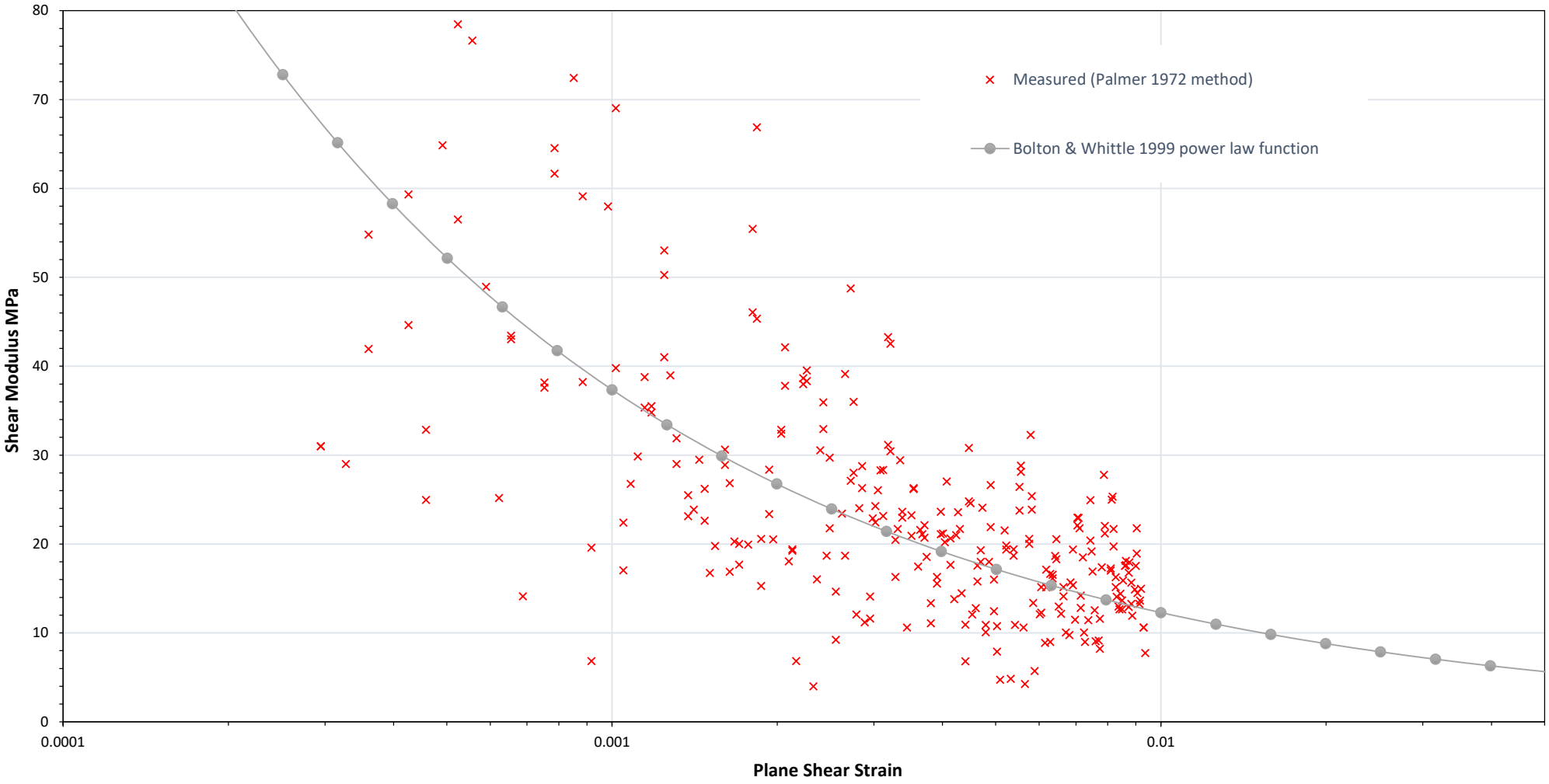
Loop 2 Non-Linear Analysis - Secant Shear Modulus with Plane Shear Strain



Project Ref:	107284	**Bolton & Whittle 1999 power law parameters applied**		**Location ID:**	**CPTP8A01**
Client:	Geotechnics	**Non-linearity exponent (β):**	0.517	**Depth:**	**4 m**
Client Ref:		**Intercept (η):**	2.57 MPa	**Comments:**	
Location:	Warrington, UK	**Shear stress constant α = (β*η):**	1.329 MPa		

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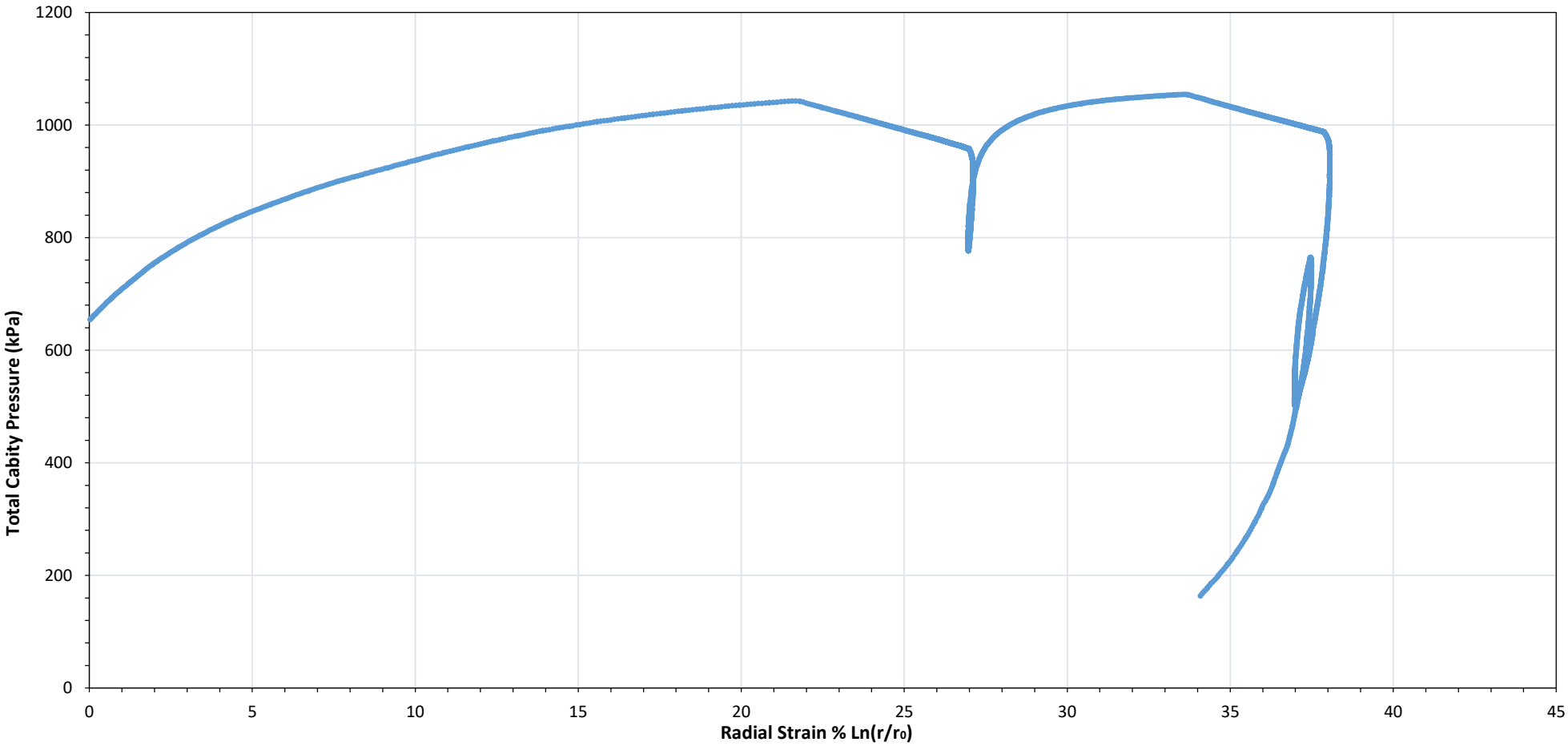
Pressuremeter Test - Total Pressure with Radial Strain



Project Ref:	107284	**Test Engineer:**	JH	**Unload-reload Loops:**	2	**Location ID:**	**CPTP8A03**
Client:	Geotechnics	**Date:**	30/09/2019	**Drainage behaviour:**	Undrained	**Depth:**	**3 m**
Client Ref:				**Test type:**	FDPM	**Comments:**	
Location:	Warrington, UK			**Duration:**	62 mins		