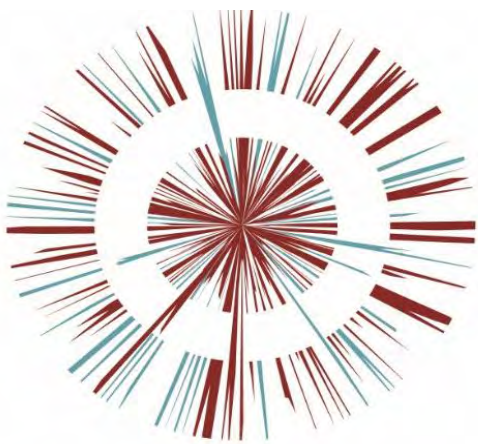




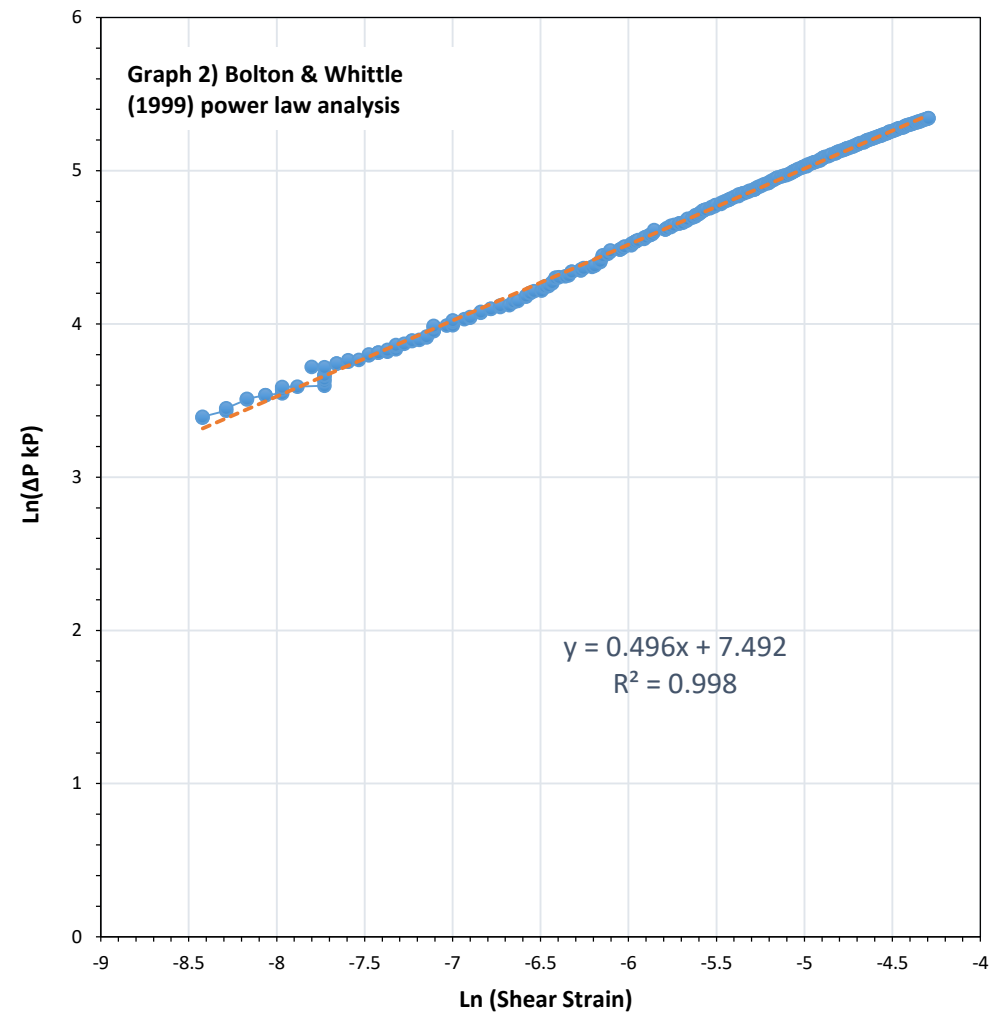
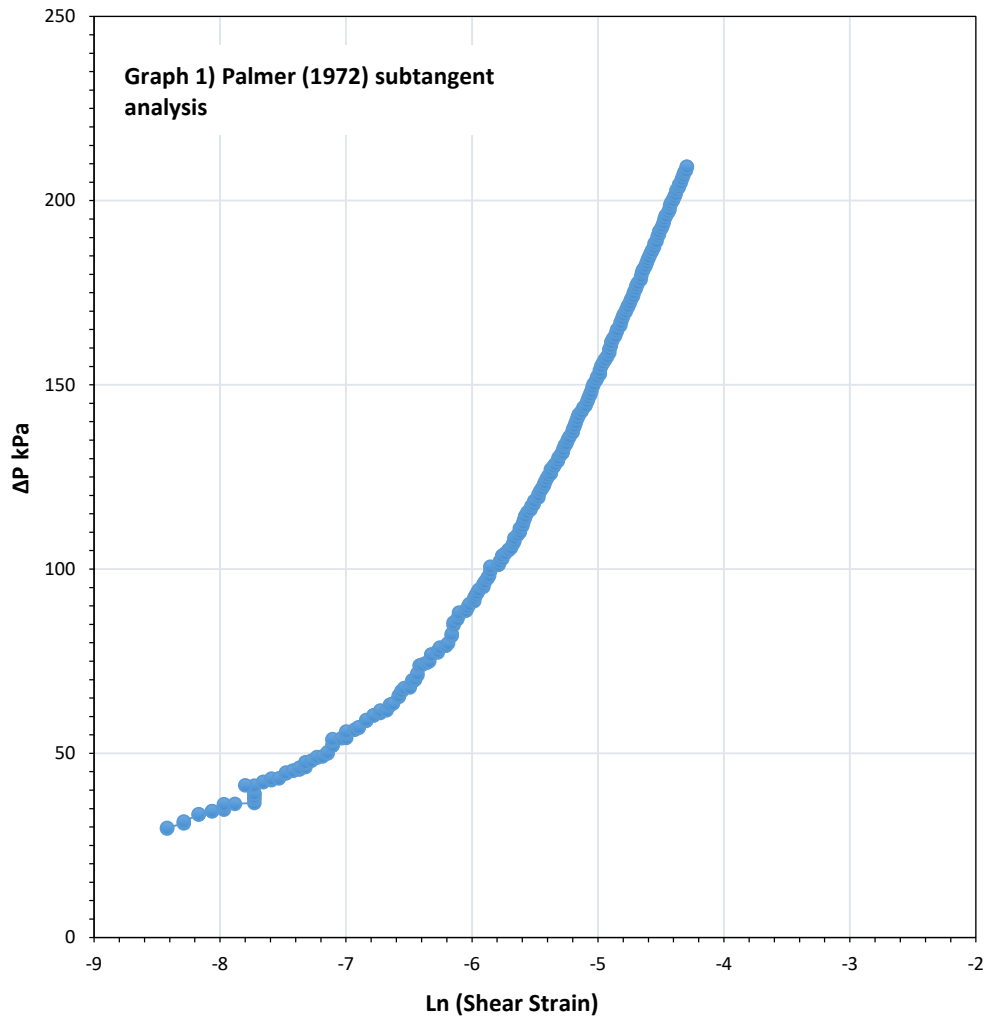
OMEGA ZONE 8, ST HELENS

Omega St Helens Ltd / T J Morris Ltd



Ground Investigation Report
& Remediation Strategy
Appendix D Part 13
OPP DOC. 2.17

Loop 2 Non-Linear Stress-Strain Analysis



Project Ref: 107284

Client: Geotechnics

Client Ref:

Location: Warrington, UK

Obtained Power Law Parameters (right hand side graph)

Non-linearity exponent (β) (gradient): 0.496

Intercept (η): 1.793 MPa

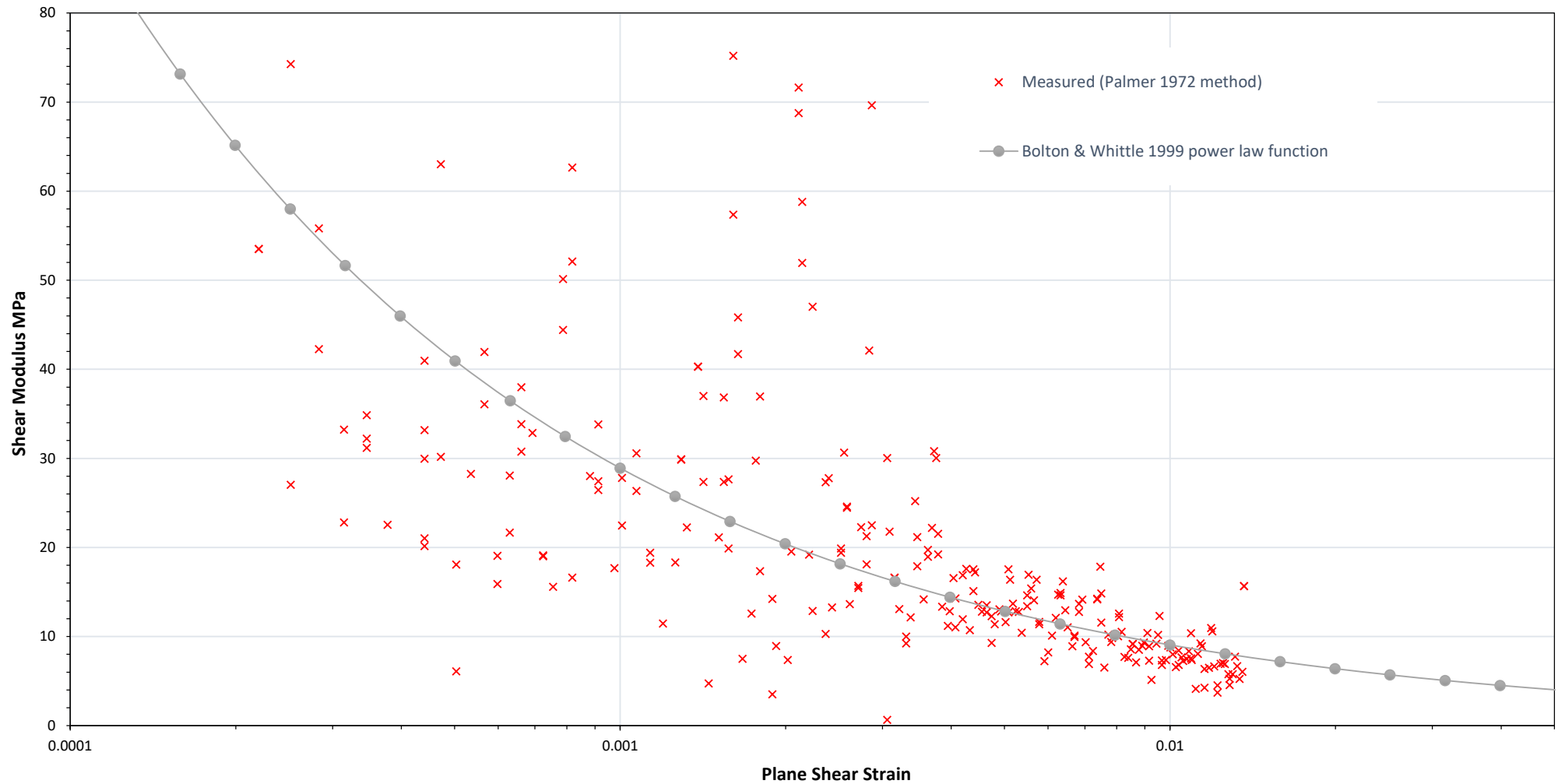
Shear stress constant α ($\beta \cdot \eta$): 0.889 MPa

Location ID: CPTP8A04A

Depth: 4.5 m

Comments:

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



Project Ref: 107284

Client: Geotechnics

Client Ref:

Location: Warrington, UK

Bolton & Whittle 1999 power law parameters applied

Non-linearity exponent (β): 0.496

Intercept (η): 1.793 MPa

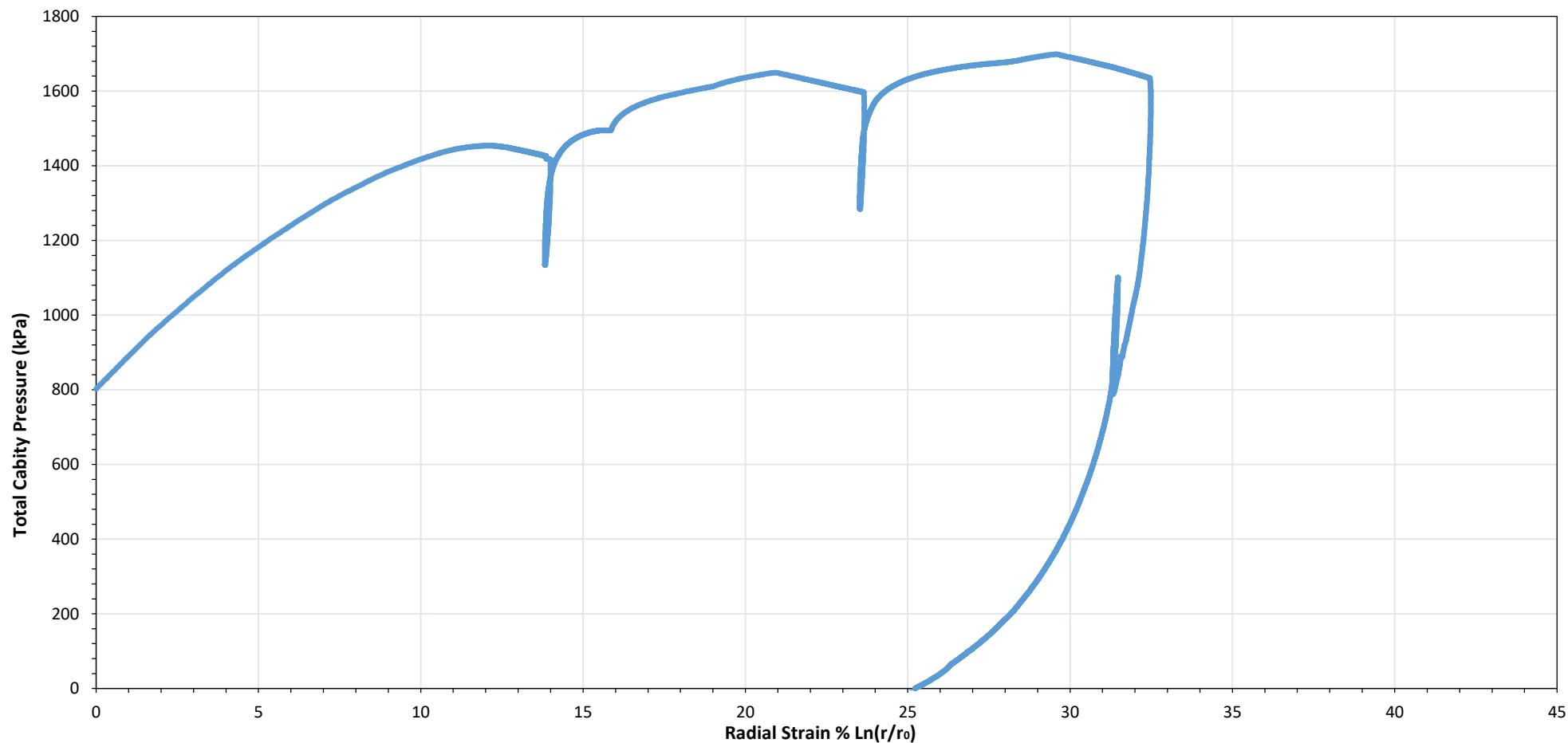
Shear stress constant $\alpha = (\beta \cdot \eta)$: 0.889 MPa

Location ID: **CPTP8A04A**

Depth: **4.5 m**

Comments:

Pressuremeter Test - Total Pressure with Radial Strain



Project Ref: 107284

Client: Geotechnics

Client Ref:

Location: Warrington, UK

Test Engineer: JH

Date: 26/09/2019

Unload-reload Loops: 3

Drainage behaviour: Undrained

Test type: FDPM

Duration: 82 mins

Location ID: CTP8B01

Depth: 2.75 m

Comments: