



8th International Workshop on Micropiles
Toronto, ON, Canada September 26-30, 2007

Demonstration / Field Day

September 28, 2007



Organizing Committee:

Isherwood

Monir

Geo-Foundations

Con-Tech



Donating Micropile Practitioners:

Geo-Foundations

Monir

Isherwood



Donating Suppliers:

Con-Tech

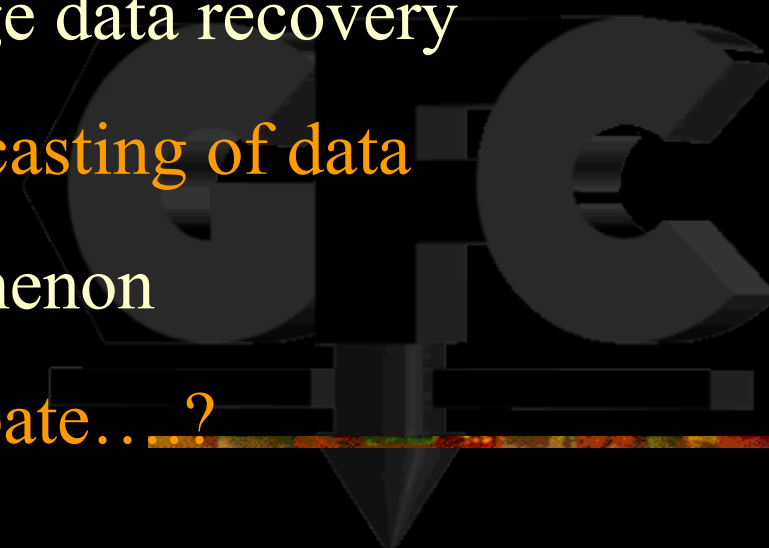
Williams Form Hardware

Dywidag Systems

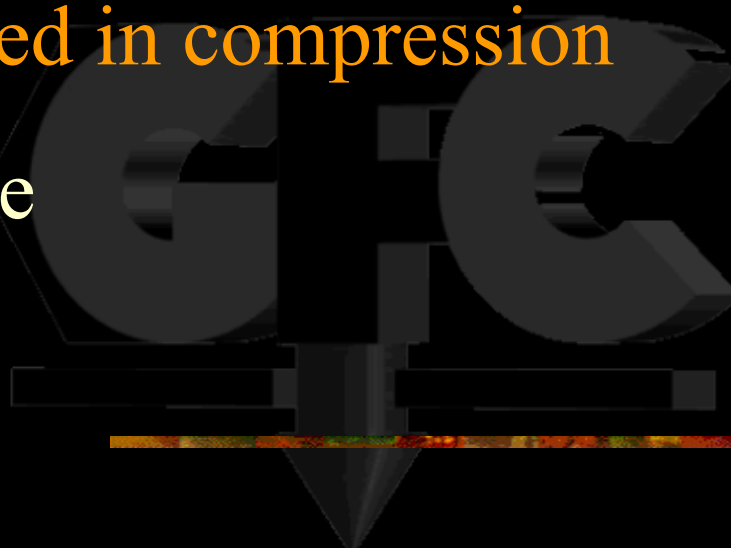
King Packaged Materials



Goals:

1. Demonstrate low-headroom, restricted access piling
 2. Showcase portable test beam
 3. Showcase *Accel Array* instrument
 4. Demonstrate “dial-less” gauge data recovery
 5. Demonstrate real time broadcasting of data
 6. Explore the buckling phenomenon
 7. ignite some healthy debate... ?
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The Programme:

- Geotechnical investigation as first phase
 - 3 test micropiles + 6 rock anchors
 - Each to be statically load tested in compression
 - 2 buckle tests; 1 “control” pile
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Common to all 3 piles:

Tip elevation at least 0.45m above top of rock

250mm diameter hole, drag bit, polymer flush

3.65 m bond zone grouted with 40 MPa grout

Axial reinforcement – Titan 52/26 (air filled)

Pile cap with void form on underside

Installed 2nd week of September



Buckle Tests – Test #1 and Test #3

2-stage grouting completed over 2 days

Controlled, low strength material encapsulates upper 4.2 m of pile

Test #1 upper grout – $C_u = 15 \text{ kPa}$

Test #3 upper grout – $C_u = 3 \text{ kPa}$



Control Pile

1-stage grouting

Grease-papered unbonded length













900H
SULLAIR

FINE
MIX CEMENT GROUT
SULLAIR

50 LB BAGS



08.29.2007



08.31.2007



09.10.2007





IM



This afternoon:

Ok to visit Rack House without PPE – no load being applied that hasn't already safely been resisted by pile and beam

3:00 pm Plunge Test – PPE required!



Questions ?

