

**Soil Test Services Pty Ltd**

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## **DAVID J TREWEEK**

**EDUCATIONAL** Auckland Polytechnical Institute – New Zealand  
**QUALIFICATIONS:** New Zealand Certificate in Civil Engineering, 1976

### **PROFESSIONAL AND TECHNICAL HISTORY:**

**January 1984 to date** Director; Laboratory & Earthworks Manager, Jeffery and Katauskas Pty Ltd then Soil Test Services Pty Ltd. Coordinator; Soilcheck Pty Ltd

Responsibilities:

- ◆ Control of the daily operation of Soil Test Services Laboratory and Field Laboratories.
- ◆ Organisation and designation of all:
  - Laboratory testing.
  - Earthworks testing.
  - Minor site investigations for small factories, housing developments, car parks and roadways
  - Training of laboratory staff.
  - Hiring of new laboratory personnel.
  - Client liaison including site meetings.
  - Maintenance of laboratory equipment.
  - Calibration of laboratory equipment.
  - Establishment of protocol within the laboratory and field testing staff.
  - Specialist recommendations to clients on earthworks equipment and techniques, and materials.
  - Liaison with company engineers, geologists etc for specific tasks.
  - Compilation and distribution of correspondence to clients.
  - Maintaining NATA registration.
  - Upgrading NATA registered testing procedures and extensions of such.
- ◆ Quality Assurance:
  - Overview of laboratory testing equipment.
  - Checking of all laboratory and field test results and procedures.
  - Review of input to computer program and accuracy of results obtained.
  - Overview of testing equipment calibration requirements.
  - Instigation of parallel testing of laboratory and field technicians testing procedures.
  - Development and completion of Jeffery and Katauskas (Services) Pty Ltd Laboratory and Field Manual.
  - Reviewing and updating test procedures to conform with current requirements.
  - Upgrading computer software.
  - Compliance of NATA testing requirements
  - Monitoring of checking procedures.



- 1983 Corbett Morris and Associates Pty Ltd**  
Involved with the construction and renovation of large building projects in the Sydney Metropolitan Area.
- 1979-1983 H V Lawmaster and Company (California, USA), Geotechnical Consulting Engineers**  
Employed as an Earthworks Inspector; responsible for the supervision and quality control of earthworks for various projects including roadways, highways, industrial and residential subdivisions throughout Southern California.  
Laboratory testing to ASTM Standards.
- 1975-1979 Ministry of Works and Development, Auckland, New Zealand – Job Manager**  
Entered above organisation in an Engineering Officer Cadet capacity while studying Civil Engineering part-time at the Auckland Polytechnical Institute. Duties initially involved engineering surveying and drafting before progressing into management of earthwork projects.  
Responsibilities included the surveying, designing and costing of earthwork projects, supervision and coordination with various contractors in all aspects of completion of:
- Auckland Southern Motorway extension and associated link roads.
  - Development of McLeans Road Secondary School.
  - Ngakaroa Bridge approaches and foundations, including pile driving.
  - Weymouth High School pavements.

### **Laboratory Testing Proficiency**

NATA Approved Signatory, Assessor

#### **Soils**

Moisture Content.

Liquid limit, plastic limit, plasticity index, linear shrinkage.

Solid density of soil particles.

Particle size distribution – hydrometer and sieve.

Dry density/moisture content relationship – standard and modified compactions.

Dry density insitu: sand replacement, nuclear densometer.

Lime and cement stabilisation.

California Bearing Ratio (CBR) Laboratory and insitu, unsoaked and soaked.

Permeability – falling head, constant head, triaxial permeability.

Unconfined compressive strength.

Oedometer compression.

Rock strength.

Soil shrink-swell instability index and swell pressure.

Soil dispersion by Turbidity, Emerson and Pinhole methods.

Soil pH and Sulphate.

Soil strength – Triaxial compression.

Organic content.

Benkelman Beam pavement deflection.

Dynamic Cone Penetrometer.

Shear testing using shear box, vane.

Bulk Density.

**Aggregates**

Sampling.  
Moisture Content.  
Particle Size Distribution.  
Unit Mass and Voids Ratios.  
Los Angeles Abrasion.  
Presence of friable particles in aggregates.  
Wet strength.  
Dry strength.  
Modified Texas triaxial.  
Accelerated weathering.  
Material finer than 75mm.  
Water absorption of coarse aggregate.  
Point load strength.  
Loose unit mass.  
Compacted unit mass.

**Concrete**

Sampling.  
Slump testing.  
Preparation and curing of concrete cylinders.  
Preparation and compression testing of cylinders.  
Mass per unit of volume of freshly mixed concrete.  
Compressive strength of concrete cores.

**Bituminous Materials**

Sampling asphalt.  
Bitumen content.  
Aggregate grading.  
Marshall stability and flow.  
Hubbard Field – Field Stability.  
Maximum density.  
Bulk density and voids content – density ratio.

**Rocks**

Point Load strength index.  
Compressive strength on rock core.



**Related and Completed Projects**

M4 Motorway extensions – Holroyd, Western Sydney. (Contractor – Lockyer Civil).  
Sydney Showground. (Sydney Olympic Authority, Contractor – Daracon Group).  
Telstra Olympic Stadium - Bulk Earthworks. (Contractor – Daracon Group).  
Boundary Road, Cherrybrook Asphaltic Concrete Overlay.  
Linden (Blue Mountains) Road realignment. (Contractor – Leightons).  
Leumeah Overpass.  
Eastern Arterial Road Reconstruction. (Ku ring gai Council).  
Rouse Hill Infrastructure Works. ( Contractor – John Holland).  
M2 Freeway Preliminary Works (Contractor – Boulderstone Hornibrook).  
Ropes Crossing Infrasture Works (Client – Delfin Lend Lease) Ongoing project.  
Port Botany Container Terminal.