

Matthew Treinen, MSc Eng



Matt Treinen has worked with Paterson & Cooke at the Denver office since 2008. He has been involved in the pipeline industry since 2006, initially as a research assistant in fatigue and fracture of high strength pipeline steels at the National Institute of Standards and Technology in Boulder, Colorado.

As a graduate engineer with Paterson and Cooke, Matt has assisted with several feasibility and basic engineering designs of conventional and paste backfill systems. His primary interests are hydraulic design, mechanical design and rheological testing.

Qualifications

2006, BSc (Mech) Eng.
Magna Cum Laude
University of Denver

2008, MSc (Civil) Eng.
University of Colorado-Boulder

Professional Status

Registered Engineer Intern
State of Colorado, 2005

Member of American Society of
Mechanical Engineers

Specialization

Rheological testing and analysis

Hydraulic design of pump and piping
systems

Mechanical design and specification of
equipment

Stress analysis including Caesar II and
finite element analysis

Notable Projects

Idaho Cobalt, USA

Hydraulic and mechanical design of paste backfill system for underground mine including rheological test work, pump specification, support design, and seismic analysis

Constancia Mine, Peru

Hydraulic design, pipe route selection and equipment selection for tailings transport system feasibility study

Efemçukuru, Turkey

Hydraulic and mechanical design of paste backfill system for underground mine including rheological test work, pump specification, support design, and seismic analysis

Pebble Gold-Copper Mine, USA

Hydraulic design and rheological analysis for pre-feasibility study of tailings transport system

Rheological Testing

Engineer responsible for coordinating and analyzing the rheological behaviour of various conventional tailings and paste backfill test campaigns at the Denver laboratory.

www.PatersonCooke.com

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Publications

JM Treinen, WE Luecke, PhP Darcis, JD McColskey, YY Wang "Anisotropic Behavior of X100 Pipeline Steel" International Offshore and Polar Engineering Conference 2008, Vancouver, Canada, July 2008.

JM Treinen, PhP Darcis, JD McColskey R Smith, J Merritt "Effects of Specimen Geometry on Fatigue-Crack Growth rates in Pipeline steels" Proceedings of the International Pipeline Conference 2008, Calgary Canada, September 2008.

E Drexler, Ph Darcis, C McCowan, JM Treinen, A Shtechman, R Reuven, T Siewart, R Smith, J Merritt, JD McColskey, "CTOA Measurements of Welds In X100 Pipeline Steels" Proceedings of the International Pipeline Conference 2008, Calgary Canada, September 2008.

A Shtechman, CN McCowan, R Reuven, PhP Darcis, E. Drexler, JM Treinen, TA Siewert, R. Smith, J Merritt, JD McColskey "Dynamic CTOA Measurements of Pipeline Steels" Proceedings of the International Pipeline Conference 2008, Calgary Canada, September 2008.

PhP Darcis, JM Treinen, JD McColskey "Fatigue Crack Growth Rates in Pipeline Steels Using Curved M(T) Specimens" ASTM Journal of Testing and Evaluation, Vol 37 No 6, 2009.