FOUR-DAY COURSE

Filtered, Paste & Thickened Tailings

THE COLORADO SCHOOL OF MINES, GOLDEN, COLORADO, USA

11 - 14 JUNE 2024

BOOK NOW

Paterson & Cooke

KNOWLEDGE | EXPERIENCE | PASSION
Course Introduction

Filtered, paste and thickened tailings is developing into a mature technology with wide application in mine tailings management. Several large tonnage operations are being developed based on paste and filtered tailings systems.

The successful implementation of filtered, paste and thickened tailings technology is dependent on a sound understanding of slurry colloidal behavior, thickening and thickener operation, filtration, rheology, pump and pipeline transport systems, conveyor transport and disposal methodologies.

Objectives

The course objectives are:

- An introduction to the fundamental concepts related to dewatering, transportation and deposition of filtered, paste and thickened tailings.
- To demonstrate the application of these concepts to the design and implementation of appropriate cost effective tailings systems.

Continuing Education

The Colorado School of Mines will award 2.3 Continuing Education Units (CEU’s) upon successful completion of this course.

Content & Program

The intensive four-day course consists of lectures and laboratory demonstration sessions. Each participant is issued with a set of notes and reference materials.

Presenters

This course is presented by senior staff from Paterson & Cooke in collaboration with Professor Ward Wilson of the University of Alberta. Key presenters are:

- **Ward Wilson** ~ Management and disposal of mining waste, soil mechanics, tailings behavior, paste and filtered tailings disposal, dry stacking and environmental geotechnics.
- **Todd Wisdom** ~ Thickening and separation technology including equipment design and sizing, mechanical and process commissioning, site audits and operational optimization.
- **Rachel Jansen** ~ Metallurgical test work, process development, plant design, process control and optimization.

Who Should Attend

The course is designed for all professionals involved in filtered, paste and thickened tailings applications, including:

- Geotechnical engineers
- Mechanical engineers
- Operations engineers
- Chemical and mineral processing engineers
- Consulting and design engineers.
The course will be held from Tuesday, June 11, through Friday, June 14, 2024 in the Green Centre on the campus of the Colorado School of Mines in Golden, Colorado.

The course registration fee is $2,695 (US) if received by April 15, 2024. The fee is $2,895 (US) after that date. Payment must accompany the application form. Enrollment applications will be accepted in the order received. To register on-line, use the following web address: https://mines.eventsair.com/24sp1027a-fptt/24sp1027a-fpttreg

The sponsor reserves the right to cancel the course and return registration fees if enrollment is insufficient. Personnel substitutions may be made at any time without penalty. Cancellations will be charged a $275 service fee. No refunds will be made to participants who fail to substitute or cancel at least five working days prior to the start of the course.

Registration Enquiries: Continuing and Professional Education Services, Colorado School of Mines, 1600 Jackson St., Suite 190, Golden, CO 80401. Tel: 303-384-2690; Fax 303-384-2695; Learn@mines.edu

Technical Enquiries: Rachel Jansen, Rachel.Jansen@PatersonCooke.com

### Course Agenda

<table>
<thead>
<tr>
<th>Session</th>
<th>Tuesday June 11</th>
<th>Wednesday June 12</th>
<th>Thursday June 13</th>
<th>Friday June 14</th>
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<tbody>
<tr>
<td>07:45–08:00</td>
<td>Tea/Coffee</td>
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<tr>
<td>08:00–10:00</td>
<td>Registration (until 8:10)</td>
<td>Fundamentals of Tailings Geotechnics</td>
<td>Thickener Technology</td>
<td>Mine Backfill Introduction</td>
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<td>10:00–10:30</td>
<td>Course Introduction</td>
<td>Test Work Programs</td>
<td>Thickener Operation and Control</td>
<td>Case Studies</td>
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<tr>
<td>10:30–12:00</td>
<td>Geotechnical Properties of Tailings</td>
<td>Methods of Disposal and Stability Issues</td>
<td>Filtration Technology</td>
<td>The Big Picture - Putting it all together</td>
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<td>12:00–13:00</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Filtration Testing Considerations</td>
<td>Course Ends</td>
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<tr>
<td>13:00–14:30</td>
<td>Mine Water Management</td>
<td>Dewatering Properties of Tailings</td>
<td>Truck Transport</td>
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<td>14:30–15:00</td>
<td>Tea/Coffee</td>
<td>Bus ride to P&amp;C</td>
<td>Conveyor Transport and Stacking</td>
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<td>15:00–17:00</td>
<td>Rheology Fundamentals of Transport Systems</td>
<td>Laboratory Demonstrations</td>
<td>Free Afternoon</td>
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<td>Evening</td>
<td>Social Function</td>
<td>Free evening</td>
<td>Case Studies (17:00 to 20:00); including dinner</td>
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Note: The Agenda is presented for information purposes only and illustrates the topics that will be covered. Adjustments to the schedule or content are not expected, but may be required at the organiser's discretion.