



**A P E G S**

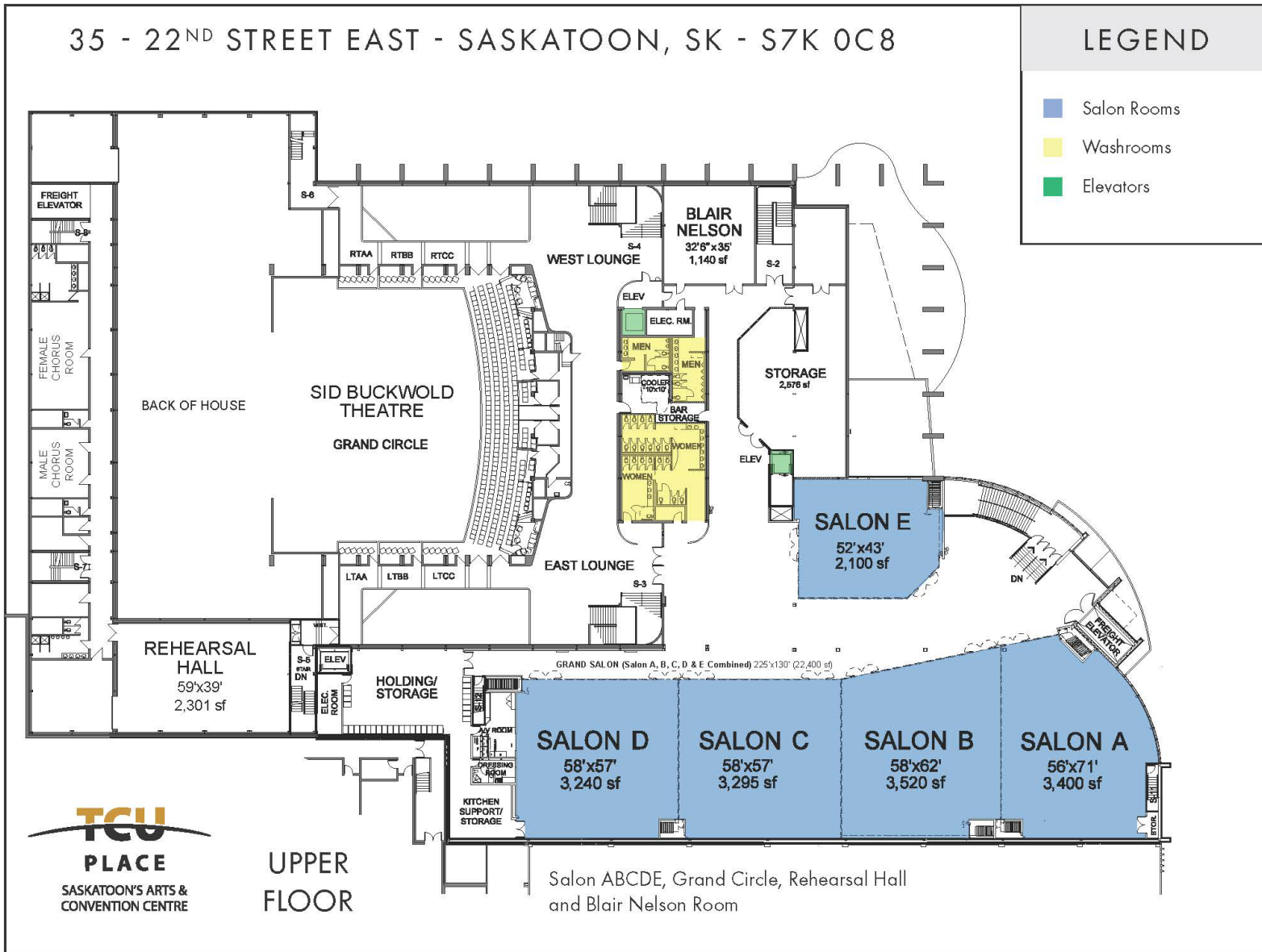
*Association of Professional Engineers  
& Geoscientists of Saskatchewan*

# **APEGS 94<sup>th</sup> Annual Meeting & Professional Development Conference**

# **Resilience in a Changing World**

**May 3 & 4, 2024 | TCU Place | Saskatoon SK**

# TCU Place Floor Plan



## Friday, May 3

### Breakfast and Keynote Speaker

7:30 AM – 9:45 AM (keynote starts at 8:30 AM)

Salon A and Salon B

### Professional Development Sessions

9:45 AM – 12:00 PM

Various

### Lunch and Keynote Speaker

12:15 PM – 2:15 PM (keynote starts at 1:00 PM)

Salon A and Salon B

### Professional Development Sessions

2:30 PM – 4:45 PM

Various

### Presidents' Reception

5:00 PM – 8:00 PM

Convention Foyer

## Saturday, May 4

### Breakfast

7:30 AM – 8:30 AM

Salon A and Salon B

### APEGS 94<sup>th</sup> Annual Meeting

Registration: 8:00 AM – 9:00 AM

Business Meeting: 9:00 AM

Salon C

### Kids Science Camp (ages 4 to 6)

8:30 AM – 11:30 AM

Salon E

### Youth Science Camp (ages 7 to 12)

8:30 AM – 11:30 AM

Salon E

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## Continuing Professional Development Credits

Are you aware that attendance and participation at the APEGS 94<sup>th</sup> Annual Meeting and Professional Development Conference can earn you continuing professional development credits? The below table has been developed to help you record your activities.

| Day      | Event                             | CPD Credit Category |               |
|----------|-----------------------------------|---------------------|---------------|
|          |                                   | Formal Activity*    | Participation |
| Friday   | Breakfast Keynote                 | X                   |               |
|          | Professional Development Sessions | X                   |               |
|          | Lunch Keynote                     | X                   |               |
|          | Presidents' Reception             |                     | X             |
| Saturday | Annual Meeting                    |                     | X             |

\*Certificates of attendance will be made available to attendees who sign in and attend each keynote and professional development session.

**2024 Professional Development Conference Schedule**  
**Resilience in a Changing World**  
 May 3, 2024

|                           |   |
|---------------------------|---|
| <b>7:30 AM - 8:30 AM</b>  | Breakfast Buffet (Salon A/B)  |
| <b>8:30 AM - 9:45 AM</b>  | Morning Keynote (Salon A/B)<br><b>Unlocking the Power of Generational Collaboration: Thriving in a Changing Work Landscape</b><br>Eddie LeMoine |
| <b>9:45 AM - 10:45 AM</b> | APEGS Information Session (Salon A/B)<br><b>Modern Regulation for a Resilient World</b><br>APEGS Staff  |

|                            | <b>Track 1 (Salon E)</b><br><b>Innovating for Resilience</b>   | <b>Track 2 (Salon D)</b><br><b>Designing Resilience</b>  | <b>Track 3 (Salon A/B)</b><br><b>Managing Resilience</b>                                       |
|----------------------------|--|--|--|
| <b>11:00 AM - 12:00 PM</b> | <b>Lafleche Dam Low Level Outlet Remediation Project</b><br>Jon Friesen, P.Eng.  | <b>Resilience in Design – Begin with the end in mind</b><br>Jim Boire, P.Eng., PMP   | <b>Putting Succession Planning into Practice</b><br>Lana Gray                                  |
| <b>12:15 PM - 1:00 PM</b>  | Buffet Lunch (Salon A/B)   |  |  |
| <b>1:00 PM - 2:15 PM</b>   | Lunch Keynote (Salon A/B)<br><b>Now, Next, Never: A strategic exploration of the future of Artificial Intelligence (AI)</b><br>Ramy Nassar |  |  |
| <b>2:30 PM - 3:30 PM</b>   | <b>Supply Chain Management - Adaptability is Paramount</b><br>DonnaLyn Thorsteinson, CAE<br>Harley Camsell                                 | <b>Making Your Operations Cyber Resilient</b><br>Chris Rothecker   | <b>Born on the Prairies: The Critical Infrastructure Advisory Network</b><br>Robert Brown, PhD |
| <b>3:45 PM - 4:45 PM</b>   | <b>Overview of Carbon Capture Storage in Saskatchewan</b><br>Zeinab Movahedzadeh, P.Eng.   | <b>Co-op Refinery Production Planning, Finished Fuels Quality, Supply Chain Challenges and Lessons Learned</b><br>David Walker, P.Eng. | <b>Building Resilience Through Focused Leadership</b><br>Evan Bray                             |

## Resilience in a Changing World

In today's dynamic landscape, where disruptions and transformations are the norm, resilience becomes paramount. Our conference theme, "Resilience in a Changing World," delves into strategies, insights, and practical approaches to navigate uncertainty and build robust systems.

### **Track Session #1: Innovating for Resilience**

Explore groundbreaking ideas and cutting-edge technologies that foster adaptability and fortitude. Learn from thought leaders who have successfully harnessed innovation to enhance resilience.

### **Track Session #2: Designing Resilience**

Uncover principles and methodologies for designing systems that withstand shocks, whether in business, infrastructure, or community contexts. Engage with experts who have crafted resilient frameworks to thrive amidst volatility.

### **Track Session #3: Managing Resilience**

Organizations face disruptions that test their mettle. The ability to withstand, adapt, and thrive becomes paramount. Learn from seasoned experts who share insights into effective management practices that sustain resilience over the long term.

## Keynotes and Professional Development Track Sessions Friday, May 3, 2024

8:30 AM to 9:45 AM – Keynote Presentation (in person and live stream) – Salon AB



### **Unlocking the Power of Generational Collaboration: Thriving in a Changing Work Landscape**

Eddie LeMoine

Are you looking to be inspired and equipped with actionable strategies for success in a post-pandemic work landscape? Join celebrated speaker and author Eddie LeMoine for an engaging and insightful keynote that promises to unlock the secrets of adapting to changing demographics and labour shortages. Discover how to cultivate a resilient, diverse team capable of overcoming obstacles and fostering collaboration between all five generations in the workforce. Eddie will guide you through practical ways to successfully communicate and work across these generational divides.

This session offers fundamental strategies you can apply immediately to build a flexible and robust workforce. With expert analysis, real-life stories, and advanced ideas, Eddie equips you with the tools to lead your team through an era of endless change and challenges. Attending will unlock your full potential and secure your organization's prosperity in an ever-evolving world. Join us and take the first step in transforming your team's success today.

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**Eddie LeMoine** is a renowned Canadian author, speaker, and trainer with over four decades of extensive experience in the business world. Eddie is highly respected in the industry for his expertise in various areas, such as changing demographics, diversity and enhancing performance and productivity. In recognition of his remarkable influence on Canadian business leaders, Eddie was awarded the TEC Canada Speaker of the Year in 2022. He is widely known for his exceptional ability to inspire and motivate people to make lasting changes. Eddie's unique talent lies in connecting personal growth with business success, empowering individuals to unlock their full potential. Drawing from his own experiences, he delivers relatable and inspiring talks on diverse topics such as leadership, employee engagement, and the psychology of success.

## 9:45 AM – 10:45 AM – APEGS Presentation (in person and live stream) – Salon AB

### Modern Regulation for a Resilient World

APEGS Leadership Team

Self-regulating bodies in Saskatchewan are enhancing resilience by modernizing their governing acts and regulations. This session highlights fundamental changes APEGS has embarked on in modernizing regulation for engineers and geoscientists in Saskatchewan. Attendees will receive an overview of the proposed changes and a status update on when they can expect these changes to take effect.

**CPD Program:** In 2024, the CPD Program has undergone significant changes. Notably, the Professional Practice category has been removed, and new annual credit and category requirements have been introduced.

**Act and Bylaws:** *The Engineering and Geoscience Professions Act*, and its bylaws, is undergoing a comprehensive review. This is the first full scale review since 1997. The objective is to optimize regulatory effectiveness and align with evolving industry standards.

**Firm Regulation:** In March 2023, APEGS Council approved recommendations related to corporate regulation. The program to support these recommendations is in development.

## 11:00 AM – 12:00 PM

### Track 1: Innovating for Resilience – Salon E



#### Lafleche Dam Low Level Outlet Remediation Project

Jon Friesen, P.Eng.

Lafleche Dam is located in southwestern Saskatchewan and was originally constructed in 1958. The water retaining structures consist of an earth embankment dam, gated concrete spillway, and a low-level outlet (LLO) conduit. An inspection of the LLO downstream of the gate well was completed in recent years and revealed severe deterioration of the pipe and indications of voids behind the conduit. The condition of the conduit presented a dam safety risk in terms of internal erosion through or along the conduit. This risk necessitated the detailed design and construction of the LLO. The solution involved use of an 862 mm diameter structural cured in place liner, grout injection to fill the voids, and slip-lining of a new 660 mm diameter HDPE carrier pipe, and open trench pipe replacement near the embankment dam toe. An instrumented monitoring plan was implemented during construction to observe the performance of the dam structures.

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**Jon Friesen** is a senior geotechnical engineer, and geotechnical assistant department head with KGS Group for 23 years, and is based out of Winnipeg, Manitoba. He graduated from Red River College with a Civil Technology diploma in 2000, from the University of Manitoba with a Bachelor of Science degree in 2006, and from the University of Manitoba with a master's in engineering in 2013. His work focuses on dams and water control structures for owners across Alberta, Saskatchewan, Manitoba, Ontario and Quebec. For the subject project, Jon acted as the geotechnical designer and contract administrator during the construction phase in 2019.

## Track 2: Designing for Resilience – Salon D



### Resilience in Design – Begin with the end in mind

Jim Boire, P.Eng., PMP

Whether you are designing an emergency use ventilator for use in a pandemic, or a wall manufacturing system used to build high rise buildings, you need to “begin with the end in mind”. While Stephen Covey covers this topic well in Seven Habits of Highly Effective People, this one point sets the stage for incorporating resilience into your project in all areas: your people, your customers, the end user, and ultimately the user of the product. This talk will use two recent projects as examples of what beginning with the end in mind can do to build resilience into a project, and what it can cost if it is left out.

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**Jim Boire** is the President and Founder of RMD Engineering. Jim is a Journeyman Machinist by trade and has a Bachelor of Science in Mechanical Engineering from the University of Saskatchewan (1996). Jim has been a project management professional (PMP) since 2017. During the Covid 19 Pandemic Jim lead the team that developed Canada’s only self-funded Emergency Use Ventilator that was Certified by Health Canada and sold to the province of Saskatchewan. Jim also founded the company One Health Medical Technologies that was certified as Saskatchewan’s only Medical device manufacturer. Jim is currently registered as a PhD Student in Biomedical Engineering at the University of Saskatchewan.

## Track 3: Managing Resilience (in person and live stream) – Salon AB



### Putting Succession Planning into Practice

Lana Gray

Whether you are an employee, a leader in a corporate setting, or a partner in a firm, there is value in understanding some of the nuances that deserve consideration when developing – or being a part of – a succession plan. This presentation will position succession planning as ‘Building a Readiness Strategy’, and provide insight from two perspectives:

- What are some of the important considerations for firm partners and organizational leaders when developing and maintaining a readiness strategy?
- How can I, as an individual professional, utilize readiness strategy concepts to help influence my own career opportunities and growth potential?

Lana will share lessons learned, reference client cases from her consulting portfolio, and discuss leading practices, all with the intention of helping you walk away with practical ideas to build or hone your organizational – or personal – Readiness Strategy!

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**Lana Gray** is a Saskatchewan-based People & Change Leader. With a style described as inclusive, collaborative, genuine, insightful and courageous, her passion is working with leaders inspired to make impactful change. Lana has 23 years of experience in the financial services industry. Positions in risk management, regulation, human resources, strategic planning, and corporate governance led her to the executive levels of leadership. Her shift to the consulting space began with the national firm of MNP and led to launching Lana Gray Leadership Services Ltd. in 2017. The business provides professional strategic human resource and executive coaching services. What sets it apart is an unwavering commitment to customize people-centered solutions through creative possibilities.



1:00 PM – 2:15 PM – Keynote (in person and live stream) – Salon AB



### **Now, Next, Never: A strategic exploration of the future of Artificial Intelligence (AI)**

Ramy Nassar

In the presentation "Now, Next, Never" participants delve into the multifaceted landscape of artificial intelligence as it stands today, anticipate its imminent advancements, and speculate on the realms it may never conquer. The "Now" segment illuminates AI's current capabilities, showcasing groundbreaking applications and their impact to engineers and geoscientists. Transitioning to "Next," we explore near-future innovations, focusing on emerging technologies and potential societal shifts. This section forecasts the evolution of AI, highlighting anticipated breakthroughs and the challenges they present. Lastly, the "Never" portion engages with the speculative, contemplating the limits of AI and the areas where human ingenuity may remain unrivalled. This interactive presentation will challenge participants to think about the impact of AI to their day-to-day work today and tomorrow.

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**Ramy Nassar** is an accomplished Canadian engineer, designer, and maker with a rich history of innovation and expertise in the intersection of technology and design. With a career spanning nearly 25 years, he is a renowned figure in the fields of digital product creation, AI integration, and design thinking. As the former Head of Innovation for Mattel, Ramy spearheaded the development of innovative toys that seamlessly integrated technology and imagination, changing the way children engage with play. Additionally, Ramy's tenure as the Managing Director of Design & Strategy at Architech marked his commitment to crafting disruptive digital solutions for a diverse clientele, including prominent names like Cadillac Fairview, Apple, Air Canada, Facebook, New Balance, Rogers, and CIBC.

2:30 PM – 3:30 PM

Track 1: Innovating for Resilience – Salon E



**Supply Chain Management - Adaptability is Paramount**

DonnaLyn Thorsteinson, CAE and Harley Camsell, Volunteer President of Supply Chain Canada, Saskatchewan Institute

In the realm of supply chain management, adaptability is paramount. Traditional point-to-point, static connections have proven inadequate in the face of sudden disruptions. What we require are dynamic, flexible connections that can swiftly navigate unforeseen challenges. Enter the modern supply chain platform—an agile and responsive solution tailored to the demands of today's business landscape. Join us as we explore the necessity of transitioning towards a more flexible and dynamic approach, forging stronger connections between trading partners to navigate the ever-changing currents of supply chain disruptions.

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**DonnaLyn Thorsteinson** joined Supply Chain Canada, Saskatchewan Institute as the CEO and Executive Director in November 2022. She has 15 years of experience in the not-for-profit sector, including management roles with the Saskatoon Public Schools Foundation, Saskatoon Regional Economic Development Authority, Square One, and the Humboldt & District Chamber of Commerce. In 2019, she achieved her CAE (Certified Association Executive) designation. Prior to this, DonnaLyn spent 10 years in the agriculture sector after obtaining her Diploma in Agriculture from the University of Saskatchewan.

**Harley Camsell** received his Certificate in Purchasing in 2008. He has had several roles in Supply Chain and business, including working with a new startup partnership of PAFHQ (now Great Plains contracting). This role allowed creation of meaningful engagement within local First Nations and job creation for multiple construction disciplines. He further engaged with indigenous businesses for subcontractors, with a firm belief in working with industry to engage Indigenous businesses and communities for win-win scenarios. He has been involved with Supply Chain Canada at a high level for years holding a director role on the national board, as well as currently the President of the local Saskatchewan institute.

## Track 2: Designing for Resilience – Salon D



### **Making Your Operations Cyber Resilient**

Chris Rothecker

Cybersecurity is one of the four pillars of digital resilience but how do organizations ensure cyber resilience? Today, every organization is a potential target for cyber-attacks and every organization needs to build foundational cybersecurity practices into their business operations. This presentation focuses on techniques that can be employed to anticipate and withstand cyber-attacks, recover from cybersecurity events and adapt to ensure that impacting events don't recur.

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**Chris Rothecker** has been an IT professional for the past 30 years working in various information technology disciplines. Chris has worked as a consultant for many companies from startups to some of the largest IT companies in the world. Chris has also been an active member of the global Open-Source community working on a number of Open-Source projects including Flock and Nagios. For the past 17 years, Chris has focused his efforts on Cyber Security and consults with companies of all sizes and government organizations around the world to help them deliver secure digital services and respond to Cyber threats.

## Track 3: Managing Resilience (in person and live stream) – Salon AB



### **Born on the Prairies: The Critical Infrastructure Advisory Network**

Robert Brown, PhD

The Critical Infrastructure Advisory Network (CIAN) is a structure unique to Saskatchewan. Since 2008 members of the critical infrastructure sectors defined by Public Safety Canada (Energy and Utilities, Finance, Food, Government, Health, Information and Communication Technology, Manufacturing, Safety, Transportation, Water) have met to share information and collaborate on approaches to risk management. At the core of CIAN are the expert working groups, which focus on physical and cyber-security, emergency management, business continuity and interdependencies.

In this session we'll review recent successes of the network, and the new 5-year strategic plan. We'll also look at opportunities for involvement with the network and various no cost tools to improve the resilience of infrastructure.

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**Robert Brown** earned his PhD in Neuroscience from Memorial University of Newfoundland in 2002 and continued his research program in mental health and addictions at UCLA until 2009 when he returned to Canada and joined the public sector. He has maintained a strong interest in community development, safety, and wellness across multiple roles with Health Canada, Alberta Health Services, and the Saskatchewan Public Safety Agency.

3:45 PM – 4:45 PM

## Track 1: Innovating for Resilience – Salon E



### Overview of Carbon Capture Storage in Saskatchewan

Zeinab Movahedzadeh, P.Eng.

Carbon Capture and Storage (CCS) is a critical technology for reducing greenhouse gas emissions from industrial processes such as power generation, cement production, iron and steel production, and the chemical industry. Saskatchewan has been home to two major CCS projects: the International Energy Agency Green House Gas (IEAGHG) Weyburn-Midale CO<sub>2</sub> Monitoring and Aquistore project.

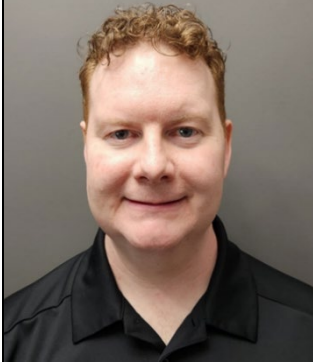
The IEAGHG Weyburn- Midale CO<sub>2</sub> Monitoring project studied CO<sub>2</sub> injection and storage into two depleted oilfields in Southeastern Saskatchewan. The project was operated in conjunction with two billion-dollar commercial CO<sub>2</sub> floods. The objective was to verify that the Weyburn oil reservoir could securely and economically contain CO<sub>2</sub> and to encourage the implementation of geological storage on a worldwide basis.

The Aquistore CCS Project in Estevan, Saskatchewan, Canada, has been injecting carbon dioxide from SaskPower's Boundary Dam, a coal-burning power generation facility equipped with Carbon Capture since 2015. To date, about 600,000 tonnes of CO<sub>2</sub> have been safely stored in the Cambrian Deadwood Formation. PTRC has been managing the Aquistore R&D program since before injection began. One objective of the Aquistore project is to offer start-up CO<sub>2</sub> storage projects a fundamental understanding of the reality of CO<sub>2</sub> injection and suggest minimum measurement and monitoring technologies required for a fully operational storage site.

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**Zeinab Movahedzadeh** graduated from the University of Regina with a degree in Petroleum System Engineering in 2011. After graduation, she worked for a consulting company, a team of engineers that provide services to the oil, gas, mining, refining, pipeline, and food industries to assist clients in leveraging their data to optimize operations and performance. She joined PTRC in January of 2019 and is responsible for managing the Carbon Storage Project, including Aquistore's Measurement, Monitoring, and Verification program.

## Track 2: Designing for Resilience – Salon D



### **Co-op Refinery Production Planning, Finished Fuels Quality, Supply Chain Challenges and Lessons Learned**

David Walker, P.Eng.

This presentation will outline the refinery production planning process including crude oil selection, operating unit objectives, and production requirements. There will be a detailed look at both gasoline and diesel fuel quality requirements and the significance of seasonal variations. Furthermore, lessons learned from supply chain challenges will be shared.

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**David Walker** has over 20 years of experience in the oil & gas industry across western Canada, including upstream, midstream, and downstream operations. His experience is in process operations, engineering design, maintenance & reliability, project management, and planning & economics. In his current position as Senior Manager, Production Planning at Co-op Refinery

Complex, his primary responsibility is to provide leadership and direction for all activities associated with the development, implementation, and evaluations of strategies and programs used to optimize the short-term, long term, and safe operation of the Co-op Refinery Complex. David is a chemical engineering graduate from the University of Saskatchewan.

## Track 3: Managing Resilience (in person and live stream) – Salon AB



### **Building Resilience Through Focused Leadership**

Evan Bray, Chief of Police (Retired) Regina Police Service and Host of The Evan Bray Show on 980 CJME/650 CKOM

Resilience stands as a cornerstone quality for leaders, serving as a guiding light during turbulent times. In the ever-evolving landscape of business and beyond, leaders encounter a myriad of challenges. It's in these moments that resilience shines brightest, enabling leaders to weather storms, adapt to change, and inspire others to do the same. In policing, day to day work is predictably unpredictable. In a nearly 30-year career, I learned valuable lessons of preparation, flexibility and adaptiveness. These skills, while essential to survival in the profession, are also truly life skills that prepare you for the unexpected twists and turns of life. In my time as Chief of Police, we had numerous situations arise that many would view as setbacks, but with focused determination, we explored the opportunity each unique situation presented. I look forward to walking through a “career of case studies” that ultimately possess life lessons for any leader!

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**Evan Bray** spent nearly 3 decades working with the Regina Police Service, predominantly as a front-line uniformed police officer. Evan was an instructor at the Saskatchewan Police College as well as a team member and Leader on the Crowd Control, Crisis Negotiator and Critical Incident Commander Teams. Evan was named Regina's 14th Chief of Police in 2016. Evan has received numerous awards and recognitions including the Police Services Exemplary Service Medal, the Provincial Protective Services Medal, the Queen's Diamond and Platinum Jubilee Medals and in 2022, received the Canadian Order of Merit for Police Services Medal at Rideau Hall in Ottawa. Evan retired in 2023 from policing and returned to his radio roots. He now hosts a daytime radio talk show on 980 CJME and 650 CKOM. Evan can be heard on his new show weekdays between 8:30am and 12:30 pm.