



Alberta Upstream Petroleum Research Fund

Industry-Led Environmental R&D for Alberta's Upstream Sector

2024-25 Annual Report

Produced by PTAC Petroleum Technology Alliance Canada





DISCLAIMER

The results presented in this report are project-specific and context-dependent; they may not be directly transferable to other sites or applications. This report has been prepared by PTAC Petroleum Technology Alliance Canada for informational purposes only and should not be construed as professional advice (e.g., legal, engineering, financial). While every effort has been made to ensure accuracy and reliability, PTAC makes no representations or warranties regarding the completeness, accuracy, or suitability of the information contained herein.

[Disclaimer – 2](#)

[Introduction: What is AUPRF? – 4](#)

[Understanding the Distinction: AUPRF and PTAC – 5](#)

[Message from the AUPRF Oversight Committee – 6](#)

[2024-2025 Program Results – 7](#)

[AUPRF Focus Areas – 8](#)

[2024-2025 AUPRF Project Highlights – 9](#)

- [Air Research Planning Committee: Project highlight – 10](#)
- [Ecological Research Planning Committee: Project Highlight – 12](#)
- [Remediation and Reclamation Research Committee: Project Highlight – 14](#)
- [Water Innovation Planning Committee: Project Highlight – 16](#)
- [Well Decommissioning Research Committee: Project Highlight – 18](#)

[Industry Outreach: Sharing Knowledge & Driving Impact – 20](#)

- [CLRA Annual Conference 2025: Industry & Collaboration in Action – 21](#)
- [Harnessing eDNA Research in the Oil and Gas Industry: ESAA Environmental Summit 2025 – 22](#)
- [RemTech 2024: Spotlight on AUPRF-Funded Research – 23](#)

[AUPRF Program Outlook: Building on Success for 2025 and Beyond – 24](#)

[AUPRF's Call to Action For Producers – 26](#)

[Financial Report – 27](#)

[Appendix](#)

- **[2024-25 Launched, Ongoing, and Completed Projects – 28](#)**
 - [Air Research Planning Committee – 28](#)
 - [Ecological Research Planning Committee – 30](#)
 - [Remediation Reclamation Research Committee – 32](#)
 - [Water Innovation Planning Committee – 34](#)
 - [Well Decommissioning Research Committee – 35](#)
- **[AUPRF Background – 39](#)**
 - [Key Program Highlights – 40](#)
 - [AUPRF's Mandate from Producers – 41](#)
 - [AUPRF's Benefits for Producers – 42](#)
 - [AUPRF's Madate from CAPP and EPAC – 43](#)
- **[Committee Volunteers – 44](#)**

Introduction What is AUPRF?



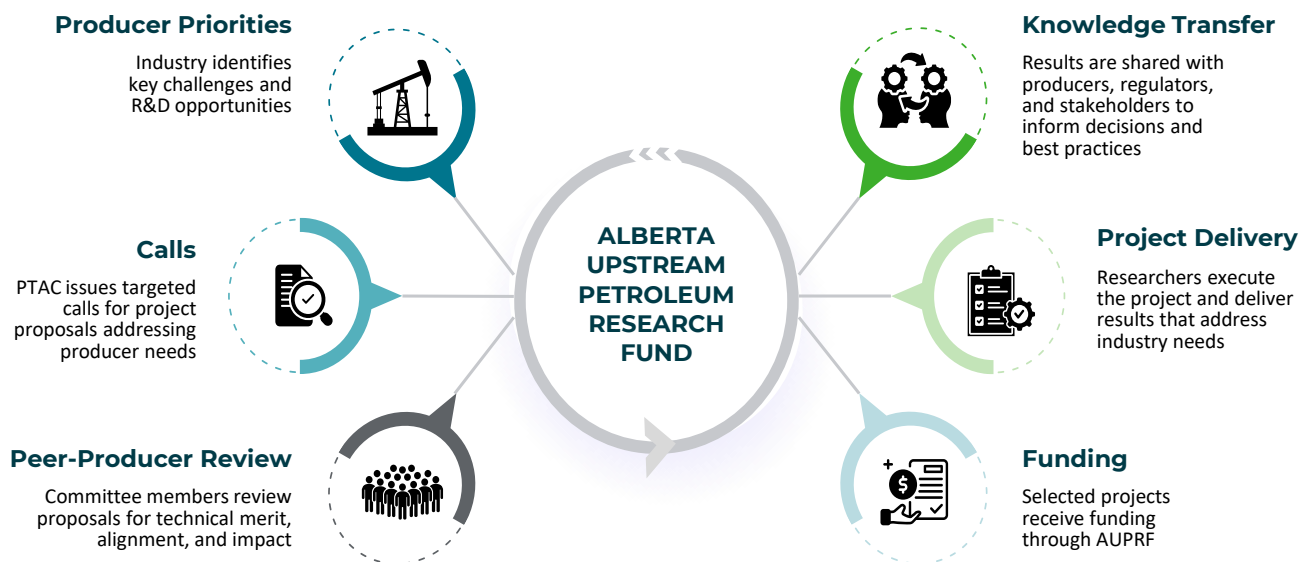
The Alberta Upstream Petroleum Research Fund (AUPRF) is an industry-led program that advances technology development and best practices for Alberta's upstream oil and gas industry.

AUPRF exists to help oil and gas producers in Alberta to collectively solve competitiveness and environmental challenges that no single company can tackle alone.

In 2024 – 2025, AUPRF supported **38 projects** across **air, ecology, remediation, water, and well decommissioning**, enabling practical, field-focused research and solutions for Canadian producers.

Funded voluntarily by **over 300 producers** through an annual levy, administered on behalf of the program by the **Alberta Energy Regulator**, the program has maintained a **60% average collection rate** over the past three years and has supported updates to **14 regulations and guidelines**.

PTAC Petroleum Technology Alliance Canada is the independent, neutral project manager, facilitator and fund administrator, ensuring that producer-driven priorities translate into credible, field-ready results – maximizing impact and operational savings.



Together, AUPRF and PTAC deliver science-based solutions that help Alberta's upstream oil and gas producers address today's challenges and prepare for the opportunities of tomorrow.

Understanding the Distinction **AUPRF and PTAC**



Alberta Upstream Petroleum
Research Fund



300+ Producers

contribute to fund
applied research &
tech development.



+35 Projects

ongoing in a
given year over
almost two decades.



14 Policy & Regulatory

revisions informed by
PTAC-facilitated AUPRF-
technical recommendations
and science-based evidence.



PTAC

PETROLEUM
TECHNOLOGY
ALLIANCE
CANADA



94 Active Projects

63 New Projects in 2024.
These include AUPRF and
non-AUPRF projects.



+\$20M in Cash and In-Kind Funding in 2024

from Government, Industry, Tech Developers, and PTAC revenue.

+160 PTAC Members in 2024 – 2025

Oil & Gas Producers | Midstream & Transport | Service & Supply Companies | Government Agencies | SMEs |
R&D Organizations | Academic Institutions

Why Both Matter

AUPRF delivers coordinated research impact at scale, governed by producers.

PTAC provides agile, customized innovation support and cross-sector collaboration.

While **AUPRF** tackles shared, sector-wide challenges, **PTAC** supports more nimble, targeted opportunities.

**Together, AUPRF and PTAC ensure producers' investments support both
immediate needs and long-term strategic advantage.**

Message from the AUPRF Oversight Committee



Dear Stakeholders,

As Chair of the AUPRF Oversight Committee, I am proud to report that the program continues to deliver real impact for Alberta's oil and gas sector. Over the past year, AUPRF has supported more than 30 projects (21 launched in the year) that are helping producers maintain competitiveness, lower costs, and reduce environmental impacts. These achievements are a testament to the power of collaboration and the dedication of our technical committees, industry partners, and public stakeholders.

Our work spans the full lifecycle of upstream operations—from pre-development ecological assessments, through emissions management during production, to well decommissioning and site reclamation. We are focused on practical solutions that move quickly from technology development to operational use, with a continued emphasis on near-commercial technologies (TRL 7 or higher). These projects are not just academic exercises—they are solutions that are closing the gap between research and implementation, ensuring producers can access tools to improve cost efficiencies, meet regulatory compliance and advance environmental stewardship.

I want to extend my sincere appreciation to our committee volunteers. These individuals, despite demanding professional schedules, consistently contribute their time, expertise, and insight to guide our research activities. Their commitment adds tremendous value to the quality and relevance of our work, and AUPRF would not be the same without their dedication.

Equally important is our commitment to stakeholder engagement. From project inception to results dissemination, we ensure that all voices are heard—operators, regulators, researchers, and community representatives. This inclusive approach has helped us maintain credibility, relevance, and impact across the board.

Still, we know AUPRF's potential can be even greater. **Today, about 60% of producers participate in the program. Broader engagement will amplify our collective impact—more producers involved in our discussions, more contributors to our funding pool, and more champions of collaborative innovation.** The benefits are clear; annual operational savings and accelerated regulatory compliance.

I invite all stakeholders—especially those not yet involved—to join us. Participate in a committee, help fund a project, become an advocate for collaborative innovation.

Together, we can shape the future of responsible oil and gas development in Alberta and beyond.

Sincerely,



Scott Volk, P.Eng, M.Sc.

Director of Emissions & Innovation, Tourmaline Oil Corp
Chair, AUPRF Oversight Committee

[Learn more about the AUPRF Program](#) or continue reading to learn about AUPRF's 2024 – 2025 Results.



Our partnerships strengthen the credibility and uptake of AUPRF-funded research and technology development.

By combining the collective strengths of the **Canadian Association of Petroleum Producers (CAPP)**, the **Explorers and Producers Association of Canada (EPAC)**, and **Producer organizations**, AUPRF ensures that funded projects address real-world industry needs, generate credible evidence for business challenges and policy considerations and accelerate the adoption of innovative solutions.

This collaboration positions Alberta's oil and gas sector to continue improving environmental performance while maintaining operational efficiency.

In 2024–25, AUPRF-led collaboration delivered:



98 expressions of interest submitted to address industry priorities in Air, Water, Reclamation & Remediation, Ecology, and Well Decommissioning.



21 projects launched with direct input from CAPP and EPAC members, including 16 Projects with Field Trials.



4:1 leverage ratio through \$3.2 million in funding, leveraged by an additional \$7.2 million for applied research and technology development.



300+ Canadian producers engaged in funding the AUPRF program.



59 industry member volunteers & 30 government & regulatory members on volunteer committees



Practical & tangible outcomes such as the incorporation of technology development into regulatory pilots, the accelerated adoption of monitoring tools, and policy discussions informed by project results

Testimonial

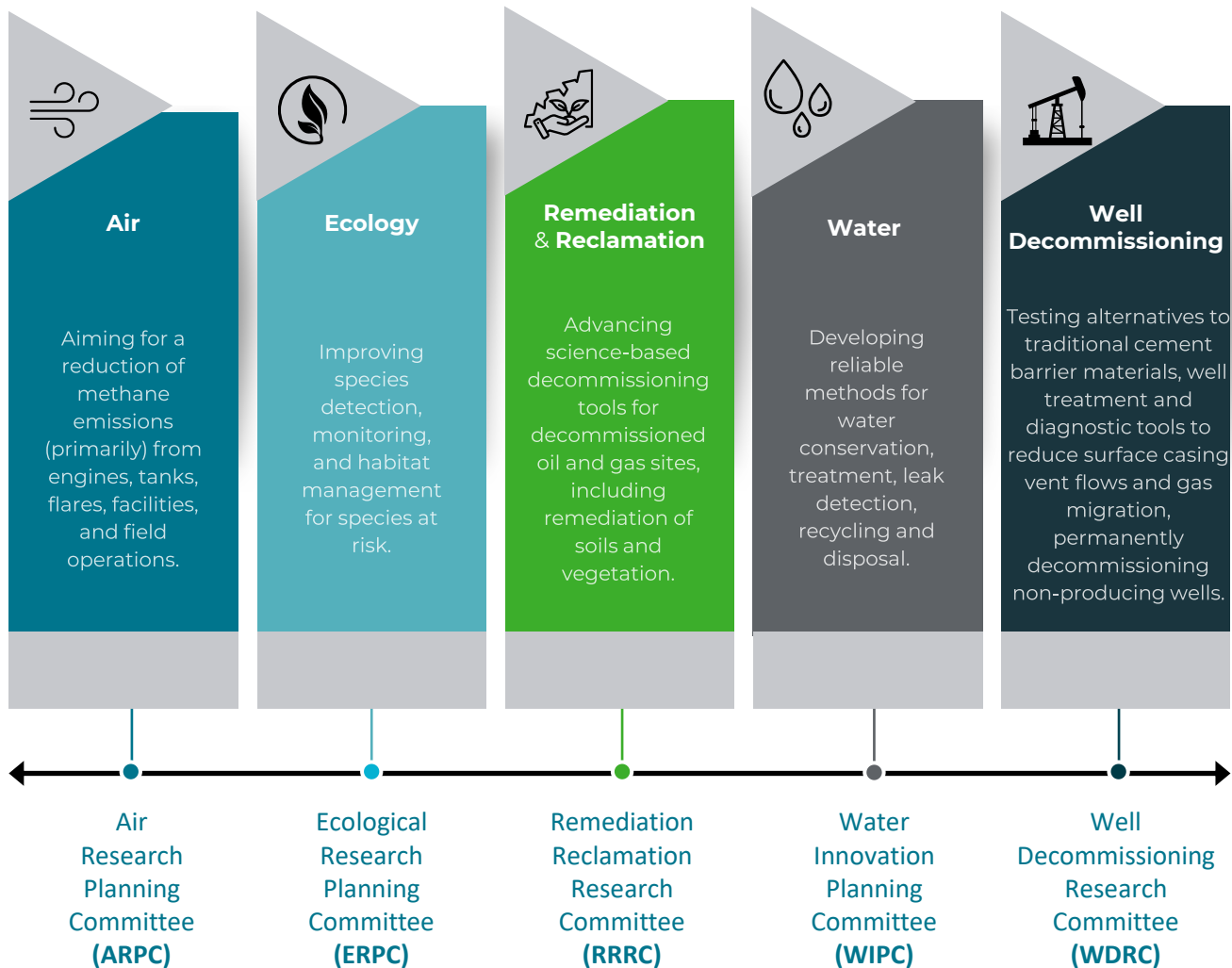
"There is significant value that the industry gains through its involvement and funding. Properly designed regulations that reflect scientific and engineering facts improve all parties' credibility. This can avoid processes that increase transactional timelines, lead to unwanted delays and potentially adversarial hearings."

– **Randy Dobko, Alberta Environment and Protected Areas**

AUPRF Focus Areas



To navigate research and technology development obstacles, Alberta's oil and gas producers, through the AUPRF committees, come together to chart a collaborative course in **5 main focus areas** that reflect the full lifecycle of upstream operations:



Together, these focus areas provide a balanced portfolio of technology development and innovation that supports producers in meeting today's operational challenges while preparing for tomorrow's competitive markets, regulatory and environmental expectations.

"AUPRF is where innovation meets practicality. By pooling resources, producers are advancing technologies and developing best practices that help reduce costs, improve operational efficiency, and inform regulatory and policy development to accelerate technology adoption."

– James Agate, Canadian Natural & Vice-Chair, AUPRF Oversight Committee



The 2024 – 2025 AUPRF projects portfolio features a diverse range of research initiatives that address real-world challenges in Alberta’s upstream oil and gas sector. While there are many impactful projects underway, a handful were selected to highlight in this report—each chosen for its potential to deliver practical, science-based solutions.

2024 – 2025 Highlighted Projects



Air Research: [The Oxiperator – Innovation in Emissions Reduction](#)



Ecological Research: [Novel Molecular Test to Detect Canadian Toad Environmental DNA](#)



Remediation & Reclamation Research: [Certification of Mineral Soil Pads in the Boreal Region](#)



Water Innovation: [New & Emerging Leak Detection Technologies for Monitoring Water Surface Pipelines](#)



Well Decommissioning Research: [Advancing Well Integrity Through Evaluating Alternatives to Cement](#)

2024 – 2025 Complete Portfolio of Projects

A high-level overview of all launched, ongoing, and completed projects is provided in the report with links to the descriptions via the table below. We welcome the opportunity to discuss the complete portfolio of 38 projects in more detail.

	 ARPC	 ERPC	 RRRC	 WIPC	 WDRC
Launched	4	4	5	2	6
Ongoing	2	2	2	-	7
Completed	-	1	2	-	1
Total	6	7	9	2	14

The Oxiperator – Innovation in Emissions Reduction

Problem We Are Addressing

Methane slip from lean-burn engines is a hard-to-mitigate emissions source for upstream oil and gas. With 40,000+ engines in Alberta, options are limited – existing oxidizers are costly, prone to fouling, and difficult to scale.

What AUPRFF Funded

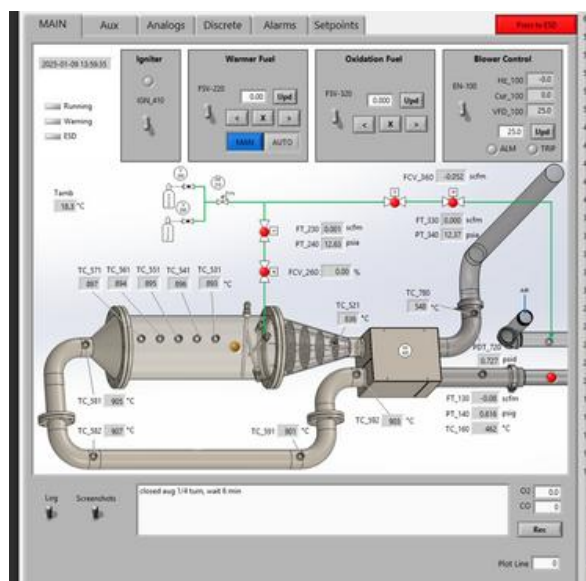
The Air Research Planning Committee (ARPC) selected the Prabhu Energy Labs' Oxiperator technology and provided funding in 2023-24, followed up with further funding in 2024-25. This support helped catalyze a \$6 million program with NRCan, NGIF, and industry partners to advance development and field trials.

Impact

Preliminary field tests indicate high percentages of methane reduction. The Oxiperator's all-metal, porous heat exchanger is designed to oxidize methane, VOCs, and CO without catalysts—aiming at improving durability and lowering fouling risk. Field demonstrations on lean-burn engines in Alberta are underway.



Oxiperator and Recuperator in Box



Testing in progress of the Oxiperator



The Oxiperator – Innovation in Emissions Reduction

Benefits to Producers



Lower emissions: Potential of high percentages of methane slip reduction.



Fuel efficiency: Targeting more complete combustion, resulting in reduced costs.



Lower Risk: Catalyst-free design minimizes downtime and maintenance.

Next Steps

Field trials to determine commercial readiness and scalability. Producers and partners will use this data to decide whether to advance toward broader deployment and commercialization.

Leverage

Initial AUPRF investment attracted national co-funding and technology collaboration, expanding into a \$6 million initiative with support from NRCan, NGIF, and industry partners. This high leverage demonstrates how producer-driven funding accelerates solutions with sector-wide benefits.

“Supporting the Oxiperator project is important because it represents a truly unique approach to tackling methane slip in lean-burn engines that is complementary to other technologies coming from the engine manufacturers. The Oxiperator is a non-catalytic system designed to break down methane and volatile organic compounds (VOCs). It has been built and tested in engine labs and the early lab results have been very promising.

By contributing funding now, producers gain early access to technology that has the potential to deliver consistent, scalable emissions reductions once it reaches field deployment.”

– Andrew Cattran, NuVista Energy

Novel Molecular Test to Detect Canadian Toad Environmental DNA

Problem We Are Addressing

Canadian toads are a species of management concern. Their breeding ponds often create costly planning challenges for operators. Lack of reliable detection methods has historically led to regulatory uncertainty, costly salvage operations, year-round setbacks around potential breeding habitats, and complex translocation procedures at upstream production sites.

What AUPRF Funded

In 2024, the Ecological Research Planning Committee (ERPC) partnered with SLR Consulting and academic experts to develop a rapid, safe, and cost-effective molecular test to detect Canadian toad environmental DNA (eDNA) in wetland samples.

Evidence of Impact (lab → pilot → field)

- A sensitive eDNA assay has been created and validated, able to distinguish Canadian toads from similar species.
- Daytime sampling methods are being refined to improve safety and efficiency compared to nighttime surveys.
- A robust genetic database is being built with breeding pond samples collected alongside industry partners.



Field sampling in progress



Analyzing environmental samples



Novel Molecular Test to Detect Canadian Toad Environmental DNA

Benefits to Producers



Lower costs & fewer delays: Early detection reduces salvage operations and project setbacks.



Improved safety: Daytime eDNA sampling eliminates the need for nighttime fieldwork



Regulatory clarity: Reliable data supports permitting and planning.



Wildlife-friendly planning: Enables biodiversity protection while advancing development.

Next Steps

Further field validation will test reliability under varied conditions. Scaling for industry-wide use and integration into regulatory and conservation processes are the next priorities.

Leverage

This AUPRF-funded project, led by SLR Consulting with academic and industry partners, aims to produce scientifically robust and operationally relevant result.

“The support from AUPRF was instrumental in advancing our eDNA work for Canadian toad detection. This project demonstrates how targeted, producer-driven research can provide practical tools that improve species monitoring while reducing costs and delays for industry.

– Stephen Symes, SLR Consulting

Certification of Mineral Soil Pads in the Boreal Region Decision Framework and Support Tools

Problem We Are Addressing

Legacy oil and gas sites in Alberta's boreal region often include mineral soil pads on peatlands. Uncertainty about whether these pads could remain in place slowed well decommissioning, created inconsistent outcomes, and left industry and regulators without a defensible process.

What AUPRF Funded

From 2018 to 2024-2025, the Remediation and Reclamation Research Committee (RRRC) supported the development of a Decision Framework and Support Tools, delivered by **InnoTech Alberta**, **Vertex**, and **Enviro Q&A Services**. The framework has been field-validated and updated in 2023 to strengthen decision nodes, improve terminology, and align with Alberta's evolving regulatory context.

Impact

- Transparent, science-based methodology to assess ecological function, site stability, and long-term outcomes.
- Provided technical input to Alberta Environment and Protected Areas' Peatland Reclamation Pilot Project (December 2023).
- Enables the Alberta Energy Regulator to evaluate and approve end land-use change requests (e.g., certifying pads as forest land) using a defensible process.



Field monitoring to evaluate site conditions



Assessing reclamation success through aerial imaging



Certification of Mineral Soil Pads in the Boreal Region Decision Framework and Support Tools

Benefits to Producers



Regulatory clarity: Consistent, defensible guidance for end land-use decisions.



Efficiency: Streamlines certification, reducing delays.



Risk reduction: Minimizes costly rework by ensuring ecological outcomes.



Policy alignment: Embedded in Alberta's evolving regulatory framework.

Next Steps

The framework is being operationalized through Alberta's 2025 Peatland Pilot Project. Feedback from the pilot and a stakeholder workshop (Fall 2025) will guide future policy refinement and adoption.

Leverage

Developed with AUPRF funding and collaboration from InnoTech Alberta, Vertex, Enviro Q&A Services, and regulators—now directly shaping provincial peatland reclamation policy.

"This framework is a vital step forward for producers, providing a transparent, regulator-recognized path to certify legacy peatland pads and reduce liabilities. It also serves as a valuable tool for environmental and reclamation practitioners, supporting consistent application of the new protocol and advancing well decommissioning across the sector."

—Lori Neufeld, Imperial Oil Resources



Technical Evaluation of New & Emerging Leak Detection Technologies for Monitoring Water Surface Pipelines

Problem We Are Addressing

Temporary surface pipelines (TSPs) are increasingly used to transport saline and non-saline water in Alberta. Updates to the Alberta Energy Regulator (AER) Directive 077 expanded their use, but reliable leak detection remains limited. Current methods—like “walking the line”—are labor-intensive, less effective in winter, and pose safety risks. Producers and regulators need cost-effective solutions that provide real-time monitoring, early warning, and rapid response.

What AUPRF Funded

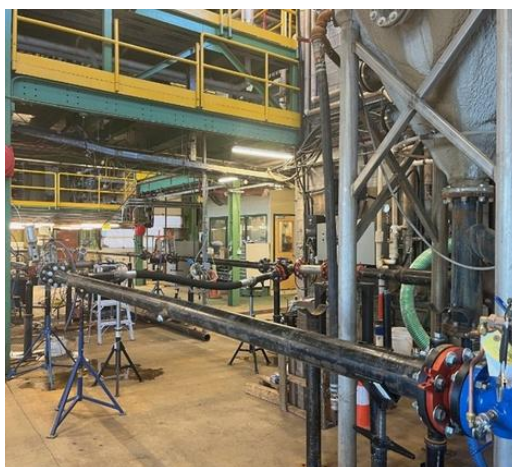
From 2023–2025, AUPRF’s Water Innovation Planning Committee (WIPC) partnered with **InnoTech Alberta** to evaluate leak detection systems (LDS) for TSPs. Building on PTAC’s 2023 assessment of pressure testing, this work benchmarks existing tools and screens emerging technologies under Alberta-specific conditions.

Impact

- **Benchmarking:** Acoustic sensors, pressure monitors, and flowmeters assessed against operational and environmental needs.
- **Screening:** Twelve emerging LDS technologies reviewed; six identified with strong potential for TSP use.
- **Validation framework:** Pilot and field-testing protocols designed to evaluate real-world and extreme environmental performance.



Temporary surface pipeline field verification



Temporary surface pipeline lab testing



Leak-detection sensors evaluated under field conditions



Technical Evaluation of New & Emerging Leak Detection Technologies for Monitoring Water Surface Pipelines

Benefits to Producers



Efficiency: Guides informed technology selection to reduce monitoring costs.



Environmental protection: Early leak detection lowers spill risk and water impacts.



Regulatory alignment: Generates data to support industry understanding of AER Directive 077 requirements.



Safety: Reduces reliance on hazardous winter “walk-the-line” inspections.

Next Steps

Winter field trials will test the top 1–4 LDS technologies for cold-weather performance. Results will guide industry adoption and provide AER with evidence to shape regulatory guidance and best practices.

Leverage

AUPRF-funded and led in partnership with InnoTech Alberta, with strong engagement from producers and regulators to ensure results are both practical and policy-relevant.

*As a producer, we recognize that temporary surface pipelines are an increasingly important tool for moving water safely and efficiently. Participating in this project gives us early access to see how emerging leak detection systems perform in real-world Alberta conditions. **It helps us make informed decisions about which technologies are practical, reliable, and cost-effective—while also improving worker safety** by reducing the need for manual ‘walking the line’ inspections and ensuring we meet regulatory expectations.*

– Sharla Howard, Cenovus

Advancing Well Integrity: Evaluating Alternatives to Cement

Problem We Are Addressing

Maintaining long-term wellbore integrity is a persistent challenge for well decommissioning. Traditional squeeze cementing often leads to repeated interventions, higher costs, and insufficient methane emissions reduction. Producers need alternative sealing materials that improve performance, reduce emissions, and lower costs.

What AUPRF Funded

From 2023–2025, the Well decommissioning Research Committee partnered with **InnoTech Alberta, Frontier Project Solutions, the Net Zero Technology Centre, CRIN, and five Alberta operators** to launch the Alternatives to Cement Project. AUPRF's \$200,000 investment leveraged a \$4M program spanning lab and field demonstrations.

Impact

- **Toolbox of solutions:** Bismuth alloys, polymers, resins, and precipitates were evaluated for their performance, along with several casing perforation processes.
- **Transparent testing:** Standardized lab methods ensured fair comparisons while protecting proprietary intellectual property.
- **Field learnings:** Field trials demonstrations showed that accurate leak path identification and proper placement are key to success, along with the sealing properties of the different barrier materials.
- **Shared Learnings:** Results of this project have been shared at 3 international conferences to disseminate the advanced research being conducted supported in Alberta.



Field Trial Demonstration



Downhole testing tools staged for field use



Advancing Well Integrity: Evaluating Alternatives to Cement

Benefits to Producers



Fewer repeat interventions: Higher first-time success rates reduce costly rework.



Lower costs & downtime: Innovative sealants simplify operations.



Reduced emissions: Expected to reduce methane leakage based on early field indication.



Regulatory confidence: Transparent data supports evidence-based decisions.

Next Steps

Additional field trials in Saskatchewan to expand the evidence of materials, source detection, and perforation tools. Remaining gaps include reliable leak path identification, sealant placement, and long-term performance verification. To address these, PTAC and InnoTech Alberta co-founded the **International Well Decommissioning Consortium (IWDC)**, advancing global collaboration on next-generation well decommissioning solutions.

Leverage

AUPRF's \$200K investment unlocked \$4M in collaborative investment and helped establish the IWDC—positioning Alberta and Canada as leaders in low-emission well decommissioning.

Through our lab work, we were able to rigorously test alternative sealing materials under controlled conditions and generate the data producers need to make informed decisions. This project reflects AUPRF's collaborative model—bringing together researchers, producers, and international partners to share knowledge and field learnings. By advancing cost-effective, science-based solutions here in Alberta, we are positioning the province as a global leader in next-generation well decommissioning practices.

— Jonathan Heseltine, Innotech Alberta

Participating in this project gave us early access to trial innovative sealing materials in the field. Thanks to AUPRF's funding support, we were able to see how these products actually perform, helping us identify options that lower costs, reduce methane emissions, and strengthen well decommissioning outcomes.

— Richard Wong, Cenovus



AUPRF's Industry Outreach

Sharing Knowledge

&

Driving Impact

Showcasing the achievements of the AUPRF program expands the impact of those accomplishments in support of the Alberta upstream oil and gas sector.

The importance and impact of this collaborative model demonstrate the value of the program and encourage greater engagement among companies, researchers, and other stakeholders.

Throughout the year, **AUPRF** and **PTAC** participated in key industry events—including the [Canadian Land Reclamation Association \(CLRA\) Annual Conference](#), the [Environmental Services Association of Alberta \(ESAA\) Environmental Summit](#), and the [Remediation Technologies Symposium \(RemTech\)](#)—to share project outcomes, foster collaboration, and highlight how research is being applied in the field.

These outreach activities strengthen cross-sector connections and ensure that science-based innovation continues to drive progress across Alberta's upstream oil and gas industry.

CLRA Annual Conference 2025: Industry & Collaboration in Action

At the Canadian Land Reclamation Association (CLRA) Annual Conference 2025, PTAC and the Canadian Oil Sands Innovation Alliance (COSIA) partnered to co-host the Industry & Collaboration breakout session, drawing a diverse group of members, funders, and delegates. The session focused on how these organizations provide complementary platforms for producers to collaborate and share research findings that directly impact industry operations. Presentations explored innovative approaches to reclamation and restoration, shared long-term lessons from peatland pad reclamation, and introduced new strategies for managing noxious weeds. The event highlighted the importance of cross-organization collaboration, ensuring that practical, science-based knowledge is widely disseminated among stakeholders.



Amanda Schoonmaker, NAIT



Industry & Collaboration in Action Session

Key Takeaways

- Collaboration between PTAC and COSIA strengthens industry-wide knowledge sharing.
- Practical technology development findings are being translated into field applications.
- Innovative reclamation and weed management strategies are being adopted.
- Cross-organization efforts amplify the impact and reach of science-based solutions

Harnessing eDNA Research in the Oil and Gas Industry: ESAA Environmental Summit 2025

At the 2025 Environmental Services Association of Alberta (ESAA) Environmental Summit, PTAC hosted a panel showcasing the application of environmental Deoxyribonucleic Acid (eDNA) research in the oil and gas sector. The panel featured outcomes from AUPRF-funded projects and demonstrated how collaboration is accelerating the adoption of eDNA as a tool for environmental monitoring. Experts discussed real-world applications such as early detection of species at risk, reclamation assessment, and water management. The session illustrated how advancements in genomics and strong partnerships among industry, researchers, and regulators are moving eDNA from research into practical use, providing producers with efficient and credible methods for environmental stewardship.

Key Takeaways

- eDNA is becoming a practical tool for environmental monitoring in oil and gas.
- Collaborative research accelerates the adoption of innovative technologies.
- Real-world applications include species detection, reclamation, and water remediation.
- Genomics advancements and partnerships are driving efficient stewardship solutions.



Tannis Such - PTAC, Carolina Berdugo – Imperial, Joni Harrison - Innotech Alberta, Stephen Symes - SLR Consulting

Remediation Technologies Symposium 2024 (RemTech): Spotlight on AUPRF-Funded Research

During RemTech 2024, also hosted by Environmental Services Association of Alberta, PTAC hosted a dedicated session focused on AUPRF-funded research, attracting a full room of delegates and generating lively discussion. The session highlighted Alberta-specific research, technology development and practical tools for remediation and reclamation, including soil and water quality guidelines, technology-based assessments for reclamation certification, salt contamination process guidance, and updates to Alberta's Tier 1 & 2 Guideline Tool. The strong turnout and engagement underscored the importance of AUPRF-funded projects in providing science-based solutions that can be directly applied in the field.

Key Takeaways

- Alberta-specific technology development is producing practical tools for remediation and reclamation.
- New guidelines and technology-based assessments are supporting certification processes.
- Salt contamination guidance and updated technology tools are improving field practices.
- AUPRF-funded projects are essential for delivering actionable, science-based solutions.



PTAC-AUPRF Remediation Reclamation Research Committee Session



Paul Fuellbrandt, Statvis



*Ashley Morgan presenting and
Sheila Luther, Montrose Environmental*

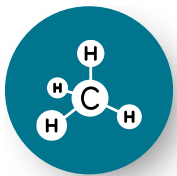
As we take stock of the achievements to date, new paths, opportunities and expectations emerge for the years ahead.



AUPRF Program Outlook

Building on Success for 2025 and Beyond & Call to Action

Looking ahead to 2025 and beyond, AUPRF is building on this legacy with a portfolio focused on three strategic themes:



**Methane
Measurement
-to-Mitigation
Integration**

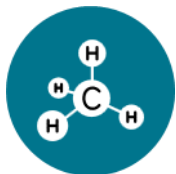


**Well and Site
Decommissioning
Technologies**



**Decision-Support
for Certification**

Each theme is supported by targeted actions and success metrics, making sure the program stays focused and delivers measurable results.



Methane Measurement-to-Mitigation Integration

Significant progress has been made in developing methane monitoring solutions and therefore the focus is shifting to **practical** emissions reduction.

In 2025, AUPRF will continue to fund the sector's priorities to improve inventory management. However, the industry's perspective is shifting to a concentration on mitigation and reducing those emissions. With sufficient information to know where the emission sources are, oil and gas producers are focused on developing and deploying technologies to reduce them by deploying advanced measurement technologies that feed directly into day-to-day operational decision making.

This program will aim to pilot next-generation mitigation solutions at engines, tanks, and wellsites – planning to evaluate their effectiveness in real-world conditions. By publishing new guidance documents and engaging a broad group of producers in these pilots, AUPRF seeks to accelerate the adoption of best practices and support Alberta's progress toward its methane reduction targets.



Well and Site Decommissioning Technologies

The focus for well decommissioning is on developing and deploying technologies that improve site remediation and well decommissioning outcomes.

AUPRF will advance materials science and microbe-infused biocover technologies (genomic technologies) to reduce methane emissions, refine soil and salinity assessment methods, and leverage remote sensing for vegetation management and decommissioning verification. Field trials will validate these technologies under diverse site conditions, ensuring scalability and effectiveness.



Decision-Support for Certification

This theme empowers producers with the tools and information needed for cost savings, effective regulatory compliance and site decommissioning.

AUPRF is developing science-based decommissioning strategies for site remediation and decommissioning, as well as pilot projects aimed at improving produced water treatment, recycling and leak detection. The program will also explore other technology solutions to enhance water and soil resource management, ensuring that technology development findings translate into actionable recommendations.



To realize these ambitious goals, AUPRF relies on active producer participation, including:

- Committee involvement,
- Contributions to the well levy,
- Hosting sites for field trials, and
- Sharing operational data to validate technologies.

This collaborative approach ensures that technology development remains relevant, practical, and widely adopted.

"AUPRF's potential can be even greater. Today, about 60% of producers participate in the program. Broader engagement will amplify our collective impact—more producers involved in our discussions, more contributors to our funding pool, and more champions of collaborative innovation." – Scott Volk, Tourmaline Oil Corp

Key Takeaways



Proven Track Record

AUPRF's history of successful projects lays a strong foundation for future innovation—showing it can consistently deliver meaningful solutions.



Purposeful 2025 Portfolio

The 2025 program is built around clear, measurable goals like launching pilots, expanding guidance datasets, advancing technologies, and deepening producer engagement—all aimed at driving real progress in environmental and operational performance.



Collaboration at the Core

By involving producers at every stage, AUPRF ensures that the technologies developed are practical, easy to adopt, and capable of shaping both industry practices and regulatory policies.

The AUPRF program empowers producers with the tools and information needed for cost savings, effective regulatory compliance and site decommissioning.

AUPRF is developing science-based decommissioning strategies for site remediation and decommissioning, as well as pilot projects aimed at improving produced water treatment, recycling and leak detection. The program's goals will also explore other technology solutions to enhance water and soil resource management, ensuring that technology development findings translate into actionable recommendations for Alberta's upstream oil and gas industry.

Financial Report



Detailed below are the financial results for the last five program years. These are based on the audited financial statements for PTAC. The differences in revenue and expense actuals are due to timing differences and accruals.

Please note:

- Leveraged funding includes funding from TIER, ERA, CRIN, PrairiesCan, Net Zero Technology Centre and others.

	2024/25		2023/24		2022/23		2021/22**		2020/21	
	AUPRF	Leveraged*	AUPRF	Leveraged*	AUPRF	Leveraged*	AUPRF	Leveraged*	AUPRF	Leveraged*
Air Emissions ARPC	\$ 793,755	\$ 2,618,900	\$ 974,514	\$ 5,031,840	\$ 728,793	\$ 870,000	\$ 758,652	\$ -	\$ 562,781	\$ 8,389,021
Ecological ERPC	\$ 273,708	\$ 1,283,956	\$ 336,039	\$ 287,746	\$ 427,223	\$ 3,386,854	\$ 60,692	\$ -	\$ 45,022	\$ 207,500
Reclamation RRRC	\$ 465,305	\$ 727,391	\$ 571,267	\$ 983,500	\$ 753,924	\$ 66,500	\$ 333,807	\$ -	\$ 247,624	\$ 927,300
Water WIPC	\$ 136,855	\$ -	\$ 168,020	\$ -	\$ 125,654	\$ -	\$ 30,346	\$ -	\$ 22,511	\$ -
Wells WDRC	\$ 1,815,104	\$ 2,608,200	\$ 2,228,451	\$ 1,417,000	\$ 477,485	\$ 2,100,000	\$ 333,807	\$ -	\$ 247,624	\$ 1,199,000
	\$ 3,484,728	\$ 7,238,447	\$ 4,278,291	\$ 7,720,086	\$ 2,513,078	\$ 6,423,354	\$ 1,517,304	\$ -	\$ 1,125,562	\$ 10,722,821
% of Well Levy Contributions	60%		60%		60%		0%		59%	
Revenue	\$ 3,484,728		\$ 4,278,291		\$ 2,513,078		\$ 1,517,303		\$ 1,125,562	
Expense	\$ 3,507,070		\$ 4,361,919		\$ 2,608,201		\$ 1,438,289		\$ 1,158,600	

** No Well Levy collected that year.

2024-25 Launched Projects – Air Research Planning Committee

#	Title	Project Description
1	Validating Oxiperator Technology to Reduce Methane Slip	The Oxiperator is an innovative non-catalytic oxidation system designed to reduce methane slip from lean-burn natural gas engines. Using a robust, all-metal heat exchanger, it oxidizes methane, VOCs, and CO without the need for catalysts—resisting fouling and minimizing maintenance. If successfully validated, the technology is expected to have the potential to achieve high percentages of methane reduction, may help improve fuel efficiency through more complete combustion, and could reduce operating costs and downtime due to its durable, low-maintenance design.
2	Advancing Solutions to Reduce Methane Slip from Engine Exhaust	This project conducted in-field testing on over 100 stationary natural gas engines to better quantify methane emissions and identify factors influencing methane slip under real operating conditions. The research is intended to develop and share evidence-based best practices that may help optimize combustion efficiency, reduce fuel waste, and lower emissions. For operators, the findings may support improved engine performance and contribute to cost savings through enhanced fuel efficiency.
3	Improving Gas-Liquid Separation Efficiency for Methane Recovery	The Project aims to address the unproven effectiveness of gas-liquid cyclone separators as methane mitigation solutions for light oil, single-well batteries by evaluating their real-world performance at sites. The research aims to address this knowledge gap by evaluating how technologies such as Calscan's gas-liquid cyclone separators may help support regulatory compliance, contribute to reducing vented emissions, and facilitate cost-efficient gas recovery.
4	Detecting and Quantifying Emissions from Unlit Flares	This project aims to quantify unlit flare rates across Western Canada using helicopter-based optical gas imaging. By assessing unlit flare fractions by infrastructure type and over time, the study is intended to help operators evaluate the potential methane-reduction performance of flaring and inform regulatory equivalency discussions. Operators may benefit from greater regulatory clarity, potential cost savings through the evaluation of flaring as a methane-mitigation option, and data that can help guide decisions on upgrades or replacements of flare systems.

2024-25 Ongoing Projects – Air Research Planning Committee

#	Title	Project Description
5	Assessing Methane and Air Emission Variability from Inactive Wells	This project aims to quantify how methane emissions vary over hourly, seasonal, and multi-year timescales using continuous and repeated measurements. Understanding this variability is intended to help improve emission inventories, monitoring strategies, and insights into well integrity and subsurface dynamics. The anticipated outcomes may help enhance the accuracy of reporting, inform mitigation efforts, and support cost-effective compliance.
6	Identifying Pathways to Reduce Methane Emissions from Inactive Wells	The project 'Pathways to Mitigating Methane Emissions from Inactive Oil and Gas Wells' focuses on quantifying methane emissions from non-producing wells and exploring mitigation strategies, including geothermal energy conversion. Using multi-scale measurement methods such as ground-based static chambers and aerial surveys, the project aims to identify high emitters and inform cost-effective and policy-relevant solutions

2024-25 Launched Projects – Ecological Research Planning Committee

#	Title	Project Description
7	Advancing Environmental Genomics for Regulatory Applications	This project aims to review environmental genomics methods relevant to regulatory monitoring in Alberta and develop practical guidance to support the integration of these tools into existing frameworks. It will also identify potential adoption barriers and outline strategies that may help facilitate regulatory acceptance. The results are intended to help enhance monitoring efficiency, improve data reliability, and support compliance efforts.
8	Using Remote Sensing to Manage Incidental Take Risk for Pileated Woodpeckers	This project applies remote sensing technologies to improve understanding of and support the detection and management of Pileated Woodpecker nest cavities, contributing to the development of a science-based, online decision-support tool for use in Alberta. The tool is intended to help support regulatory compliance and proactive habitat management under federal legislation. For operators, it may help reduce project delays, contribute to lowering field survey costs, and provide clearer, data-informed guidance to plan activities and assist in mitigating risks early in project design.
9	Evaluating Development Impacts on Moose, Deer, and Elk within Caribou Ranges	This project analyzes camera data to assess the reproductive success of moose, deer, and elk within caribou ranges in west-central and northwestern Alberta, evaluating how development, habitat, and environmental factors may influence these prey species. The findings are intended to help clarify interactions between industrial activity and wildlife populations. This research aims to support evidence-based land-use planning, may contribute to reducing regulatory uncertainty, and is intended to inform mitigation strategies that balance operational needs with wildlife management goals.
10	Evaluating Artificial Nest Use by Migratory Birds	This research aims to evaluate whether artificial nests or the relocation of inactive Pileated Woodpecker cavities may serve as effective mitigation approaches to help reduce habitat disruption. The goal is to explore ways to help development activities proceed with minimal delays while supporting compliance with wildlife-protection regulations. The results are intended to provide practical, science-based information that may help reduce project downtime, contribute to streamlining permitting processes, and support responsible environmental stewardship.



2024-25 Ongoing Projects – Ecological Research Planning Committee

#	Title	Project Description
11	Developing a Molecular Test to Detect Canadian Toad eDNA	This project is aimed at developing a rapid, cost-effective environmental DNA (eDNA) test to detect Canadian toads—a species of management concern that often causes costly project delays for operators. The new assay accurately distinguishes Canadian toads from similar species and enables safe, daytime sampling instead of traditional nighttime surveys. The anticipated outcomes may help lead to lower costs, enhanced safety, reduced potential for regulatory delays, and increased certainty in planning and permitting processes.
12	Enhancing Auto-Recognition and Data Management within the WildTrax Platform	This project supports wildlife monitoring by centralizing autonomous recording and camera data through the WildTrax platform. Advancements in automation aim to improve detection of sensitive species near oil and gas activity. These tools are intended to provide a cost-effective, science-based approach that may help demonstrate stewardship and support regulatory compliance.

2024-25 Completed Project – Ecological Research Planning Committee

#	Title	Project Description
13	Evaluating Seismic Line Impacts to Support Best Management Practices	The EcoSeis project conducted field demonstrations to assess the environmental impacts of seismic line operations and inform best management practices. Studies on vegetation regrowth and recovery are intended to help optimize line layouts, reduce disturbance, and support cost-effective reclamation. Outcomes may help operators improve planning, minimize environmental footprint, and enhance restoration strategies for new and legacy seismic programs.

2024-25 Launched Projects – Remediation Reclamation Research Committee

#	Title	Project Description
14	Developing a Science-Based Selenium Soil Guideline	This project aims to assess selenium toxicity in key plant species to inform potential updates and refinements to the ecological soil guideline used in Alberta and Canada. Current limits may overestimate risk, which can lead to unnecessary remediation. The results are intended to help industry apply more accurate, regionally appropriate thresholds that may contribute to reducing costs and support regulatory efficiency.
15	Improving Chloride Guidelines through Soil-Groundwater Studies	This project aims to improve the management of contaminated sites by refining approaches for assessing salinity and other inorganic contaminants under Alberta's remediation guidelines. By incorporating background concentrations and regional variability, the work is intended to help clarify and modernize criteria for soil-chloride delineation. The anticipated outcomes may help reduce unnecessary remediation, contribute to lowering costs, and support the development of clearer, more defensible guidance for regulatory compliance and site closure.
16	Enhancing the Alberta Tier 1 & 2 Guideline Tool for Site Assessments	This project is developing a standardized tool to improve the consistency and accuracy of applying Alberta's Tier 1 and 2 soil and groundwater guidelines. By reducing uncertainty and misinterpretation, the tool will streamline site assessment, remediation, and reclamation processes. This work aims to support faster site closure, may help reduce remediation and transportation costs, contribute to fewer regulatory delays, and promote improved environmental and safety outcomes.
17	Advancing Technology-Based Approaches for Reclamation Certification	This project aims to provide a scientifically defensible evaluation of remote sensing technologies to assess their applicability in reclamation certification processes and in evaluating industrial impacts on the landscape. The goal is to determine their potential reliability and accuracy to help inform streamlined, evidence-based reclamation decisions. The outcomes are intended to help reduce field-verification costs, may contribute to shortening certification timelines, and support greater confidence in technology-informed closure assessments.
18	Standardizing Risk Assessments for Contaminated Sites	This project is advancing risk assessment practices by evaluating the use of residual mass as an alternative to traditional numerical endpoints. The goal is to develop a scientifically supported framework for site-specific risk evaluation that can inform future regulatory guidance. This approach may reduce the cost and complexity of remediation programs, improve review timelines, and support more practical, sustainable site closure decisions.

2024-25 Ongoing Projects – Remediation Reclamation Research Committee

#	Title	Project Description
19	Evaluating Weed Management Strategies for Boreal Reclamation	This project aims to generate scientific evidence comparing herbicide-based and forest-succession approaches to noxious weed management using a science-based framework. By engaging Indigenous communities and stakeholders, it seeks to inform best practices for boreal reclamation. Outcomes are intended to help reduce reclamation costs, may minimize re-vegetation failures, and support regulatory confidence in site-appropriate weed management.
20	Developing a Soil and Water Geodatabase for Southern Saskatchewan	This project aims to develop a comprehensive geodatabase of background soil and water quality across southern Saskatchewan. The resulting resource is intended to help industry make informed decisions related to environmental liability management, site assessment, and remediation planning.

2024-25 Completed Projects – Remediation Reclamation Research Committee

#	Title	Project Description
21	Updating Soil Texture Correlations for the Subsoil Salinity Tool (SST)	This project updated and expanded the soil texture correlation database used in the Subsoil Salinity Tool (SST) by integrating new Alberta-wide data linking saturation percentage, sieve, and hydrometer measurements. The updated correlations are intended to help improve the accuracy and defensibility of SST Version 3.0 assessments, supporting more reliable soil characterization without added lab costs. Outcomes may help enable more efficient, data-informed remediation planning and contribute to reducing analytical, soil removal, and overall project costs.
22	Technical Companion for the Subsoil Salinity Tool (SST) Version 3.0	This project developed a detailed technical companion to the Subsoil Salinity Tool (SST) Version 3.0, expanding guidance on chloride and sodium transport modeling to help improve the accuracy and defensibility of site assessments. By refining concepts such as linear scaling, lateral transport, and water table interactions, the updated framework aims to enhance understanding of contaminant movement in complex soil systems. These updates are intended to support more reliable remediation designs, reduce uncertainty in regulatory submissions, and help minimize unnecessary corrective actions and costs.



2024-25 Launched Projects – Water Innovation Planning Committee

#	Title	Project Description
23	Enhancing the Alberta Water Tool for Improved Water Management	The Alberta Water Tool provides real-time insights into Alberta's water resources to support producers, regulators, and communities in assessing water availability. Updated in 2024 to align with the Government of Alberta's Surface Water Allocation Directive, the tool aims to improve accuracy and regulatory relevance. It is intended to help streamline water-licensing processes, may reduce uncertainty, and support efficient, compliant water management.
24	Evaluating New Leak Detection Technologies for Surface Pipelines	This project benchmarks leak-detection technologies for temporary surface pipelines used in water transport to identify reliable, real-time monitoring solutions suited to Alberta's conditions. The outcomes are intended to help enhance safety, may contribute to reducing monitoring costs, support earlier spill detection, and strengthen regulatory confidence under AER Directive 077.



2024-25 Launched Projects – Well Decommissioning Research Committee

#	Title	Project Description
25	Developing a Risk Tool to Prioritize and Manage Methane Emission Sites	This project is intended to support the Minimum Emission Level (MEL) initiative by helping advance site abandonment, reclamation, habitat restoration, and closure processes while maintaining the protection of human and ecological health. The research aims to define the site-investigation and analytical requirements needed to develop defensible closure guidelines, including approaches to account for changes in surface-casing vent flow (SCVF) over time. By developing clear, science-based criteria to assess low-emission and low-risk status, this work may help operators streamline regulatory closure processes and contribute to reducing long-term monitoring costs.
26	Mitigating Methane Leakage through Improved Well Cement Integrity	This project aims to advance understanding of how leakage pathways form in oil and gas well cements through experimental and numerical studies of failure mechanisms and de-bonding. The findings are intended to help operators enhance well design, contribute to reducing gas migration risks, and inform strategies that may lower long-term maintenance and liability costs.
27	Pilot Testing Biocovers to Reduce Methane from Leaking Wells	This project aims to synthesize existing research on biocover and biofilter performance for methane oxidation, carry out a controlled methane-release pilot to evaluate field-scale biodegradation, and analyze engineered biocover components to assess performance factors such as water balance and oxidation rates. The results are intended to help operators assess low-cost, nature-based approaches that may contribute to reducing methane emissions and support compliance efforts.



2024-25 Launched Projects – Well Decommissioning Research Committee

#	Title	Project Description
28	Evaluating Cementing Materials for Challenging Wellbore Conditions	This project is intended to provide the oil and gas sector with reliable, data-driven guidance to support the selection of suitable cementing materials under challenging wellbore operational conditions. The results may help enhance well integrity, contribute to reducing maintenance and remediation costs, and support regulatory compliance.
29	Improving Well Plugging Performance for Long-Term Integrity	This project aims to simulate realistic field conditions to evaluate the performance of various casing plug materials and placement practices, including novel options such as expanding cement and resin mixtures. The findings are intended to help operators make science-based decisions that may enhance long-term wellbore isolation, contribute to reducing remediation costs, and support regulatory confidence in lower-cost abandonment methods such as dump bailing.
30	Characterizing Greenhouse Gas Emissions from Thermal Operations	This project aims to advance geochemical source-characterization techniques by shifting from reactive responses to predictive identification of well-integrity issues. The work is intended to develop robust methods to evaluate methane emissions, distinguish among shallow H ₂ S generation, casing failures, and zonal-isolation problems, and inform the development of science-based guidelines that could support the reclassification of repaired wells out of “serious” regulatory status. The outcomes may help reduce diagnostic uncertainty, contribute to streamlining regulatory closure, and support proactive management of well-integrity liabilities.

2024-25 Ongoing Projects – Well Decommissioning Research Committee

#	Title	Project Description
31	Testing Cement Alternatives for Well Decommissioning	This project aims to advance and field-test alternative wellbore sealants—such as bismuth alloys, polymers, and resins—to evaluate their potential to enhance well-decommissioning performance and contribute to reducing methane emissions. Through standardized lab testing and field demonstrations, the work is intended to provide transparent data to support informed, evidence-based decisions. The findings may help improve first-time success rates, contribute to lowering intervention costs, and support more efficient and reliable well-closure practices.
32	Evaluating Cement Alternatives for Well Remediation and Closure	This project aims to evaluate and qualify alternative sealing materials for wellbore remediation through laboratory testing of performance, gas invasion resistance, and long-term integrity. The results are intended to help inform regulatory acceptance processes, may contribute to reducing remediation costs, and support the more efficient deployment of wellbore sealing solutions.
33	Testing Alternative Products for Sealing Compromised Wellbore Cement	This project aims to evaluate alternative sealants to assess their potential to enhance wellbore integrity and contribute to reducing abandonment and remediation costs. The project findings may help support higher success rates with fewer remediation attempts, reduce time, equipment, and fuel use, enable potential rigless deployment, and inform strategies for performing multiple operations in fewer trips.
34	Comparing Gas Invasion Resistance among Wellbore Sealing Materials	This project evaluates five alternative sealants against Portland cement to assess their resistance to gas invasion during setting—a key factor contributing to well leakage. The results are intended to help operators identify materials that may reduce remediation attempts, support faster and lower-cost abandonment, and inform rigless or multi-operation deployment strategies.



2024-25 Ongoing Projects – Well Decommissioning Research Committee

#	Title	Project Description
35	Assessing Long-Term Performance of Alternative Wellbore Sealing Materials	This project assesses the long-term durability of five alternative wellbore sealants under simulated corrosive subsurface conditions. By identifying materials with potential for superior longevity and resistance to degradation, the work is intended to help operators reduce remediation and abandonment costs, support enhanced environmental protection, and inform approaches for rigless, low-impact interventions in remote or challenging wells.
36	Investigating Methane Migration to Inform Industry Best Practices	This project expands detection methods for surface casing vent (SCV) gases and soil methane (GM) emissions across more well sites to support best management practice development. By integrating geospatial tools and long-term data, it aims to help operators gain better insight into well integrity risks, which may enable targeted interventions, reduce unnecessary remediation, and inform efficient, low-impact operations.
37	Advancing science-based Well Decommissioning Toward Net-Zero Emissions	This project develops science-based knowledge to inform engineering decisions for well integrity and decommissioning. Findings are intended to help industry improve well performance, reduce remediation costs, and support reliable closure practices.

2024-25 Completed Project – Well Decommissioning Research Committee

#	Title	Project Description
38	Gas Migration Measurements for Inventory Accuracy and Well Abandonment	This project generated insights into methane migration from leaky oil and gas wells to help operators better understand how fugitive gases interact with shallow groundwater over time. High-resolution monitoring and hydrogeological analysis provide a science-based foundation to inform targeted integrity assessments. The findings are intended to support proactive management strategies that may help reduce environmental risk, optimize monitoring, and improve cost efficiency in well remediation and abandonment planning.



AUPRF Background

AUPRF: A Collaborative Model Driving Practical Innovation

Through transparent governance, shared investment, and technical expertise, AUPRF turns collective priorities into actionable results—advancing technology, helping improve environmental performance, and supporting the competitiveness of Alberta’s oil and gas producers.

AUPRF exists to address challenges no single producer can solve alone. The following pages highlight the program’s key features and measurable impact:

[Key Program Highlights](#), which showcase the scale and focus of AUPRF-funded research; [AUPRF’s Mandate from Producers](#) and [AUPRF’s Benefits for Producers](#), which demonstrate how industry leadership and collaboration drive results; and [AUPRF’s Mandate from CAPP and EPAC](#), which reinforces alignment across producers of all sizes through joint governance, technical committees, and a commitment to continuous improvement.

With a strong foundation and a clear vision, AUPRF is well positioned to continue supporting the sector on its journey towards advancing competitiveness and reducing environmental impacts.



Producer-Driven Model:

- Producers set research priorities; PTAC facilitates project delivery.
- Shared investment spreads costs and risks.
- Long-running program (launched in 2006) with proven results.



Focus Areas:

- Air, Ecology, Remediation & Reclamation, Water, and Well Decommissioning.
- Separate committees with subject matter experts from industry, governments and regulators to address each focus area.



Impact:

- 38 projects supported in 2024-25 and 500 in total.
- Since inception, an initial investment of over \$39 million by producers has leveraged more than \$160 million in additional funding.
- Annual cost savings resulting from the improved technology and procedure solutions to date.



Knowledge Sharing:

- Research featured at PTAC-Methane Leadership Summit, Canadian Land Reclamation Association Conference and the Environmental Services Association of Alberta Remediation Technology Conference.
- 10+ networking events annually.



Future Outlook:

- Emphasis on near-commercial technology solutions and broader producer engagement.
- Increased engagement with non-participating producers.

AUPRF is not just a fund – it's a platform for shaping the future of competitive and sustainable oil and gas development in Alberta. Producers, regulators and governments work collaboratively on technical committees to help drive innovation and advance the oil and gas sector to a more efficient future.



AUPRF exists to deliver technology development and innovation that reflects the priorities of Alberta's upstream oil and gas producers. Producers choose projects through a transparent and collaborative process, ensuring relevance and practicality.

How the Mandate Works



Annual Priority-Setting Cycle – Producers propose and vote on technology development themes via a structured call and review process.



Oversight Committee Governance – The AUPRF Oversight Committee (AOC) is comprised of 6 producer representatives (four from and two from EPAC) and observers from the Alberta government and the Alberta regulator (see the Appendix for committee member names). The AOC approves funding decisions and ensures accountability.



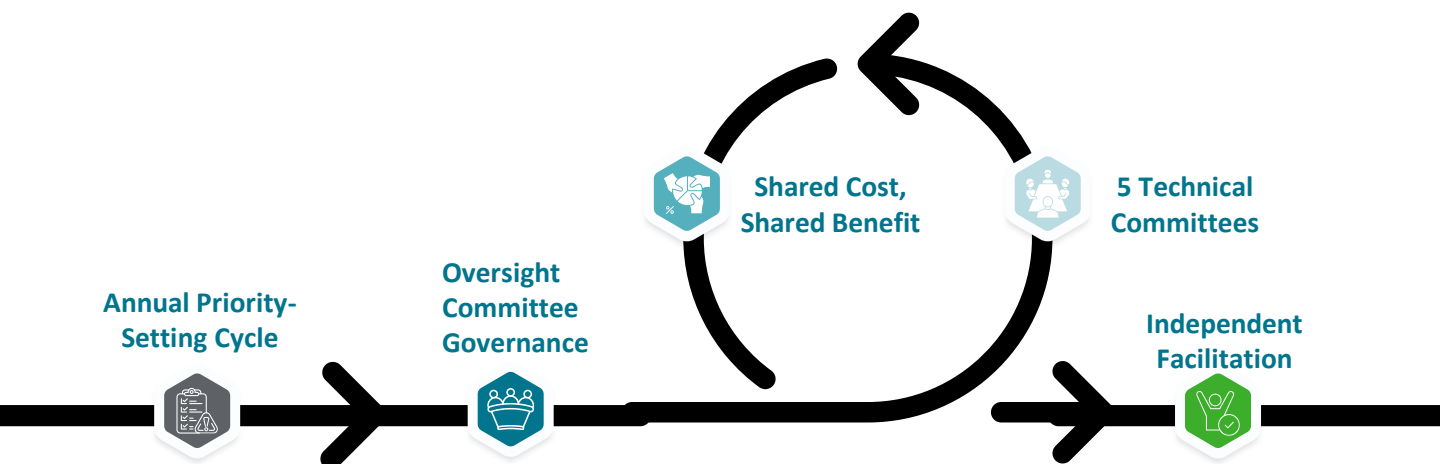
5 Technical Committees – Composed of representatives from the producer funders of the Well Levy program, and the focus area addressed by the committees (See the Appendix for committee member names).



Shared Cost, Shared Benefit – Producers pool contributions, spreading costs across the sector and gaining collective access to results.



Independent Facilitation – PTAC manages and facilitates the process but does not control priorities. Final decisions rest solely with industry.



AUPRF's value for its contributors grows with influence – active producers shape funding priorities and maximize alignment. By placing producers at the center of governance, AUPRF ensures that funding is directed toward solutions designed to be impactful and practical – **turning shared priorities into actionable results for the entire industry.**

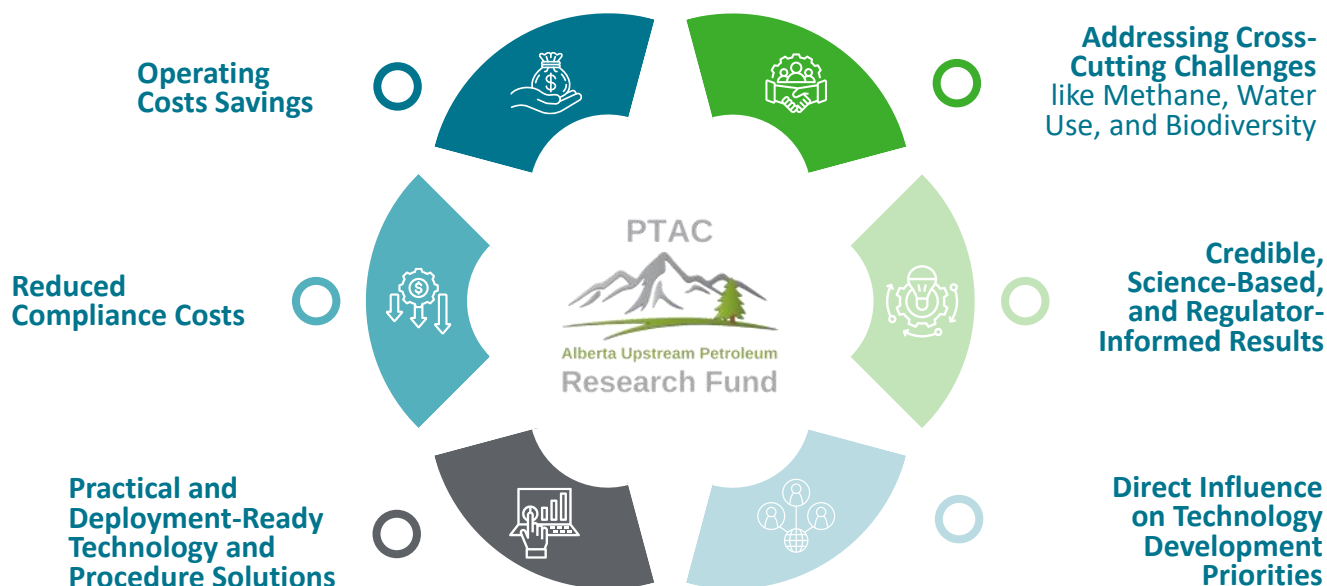
AUPRF's Benefits for Producers



Why This Matters for Producers

AUPRF exists to address issues no single producer can solve alone. By funding research on shared challenges, such as emissions reduction, water management, well decommissioning, land remediation and reclamation, and biodiversity protection, AUPRF ensures that industry has credible science, tested technologies, and practical tools to support safe, efficient, and environmentally responsible operations.

Key Benefits for Producers Include:



Active participation by producers not only shapes the direction of research but also ensures outcomes are relevant, credible, and ready for adoption—turning industry priorities into actionable results.

AUPRF's Mandate from CAPP and EPAC



AUPRF was created in 2006 through a partnership among PTAC, the Canadian Association of Petroleum Producers (CAPP) and the Explorers and Producers Association of Canada (EPAC). This collaboration ensures that technology development priorities align with the Canadian oil and gas industry's most urgent competitiveness, as well as environmental and regulatory challenges.

Who Is Involved

Representative member companies from CAPP and EPAC actively collaborate on the AUPRF program via the AUPRF Oversight Committee (AOC) and technical steering committees.

Their roles include:

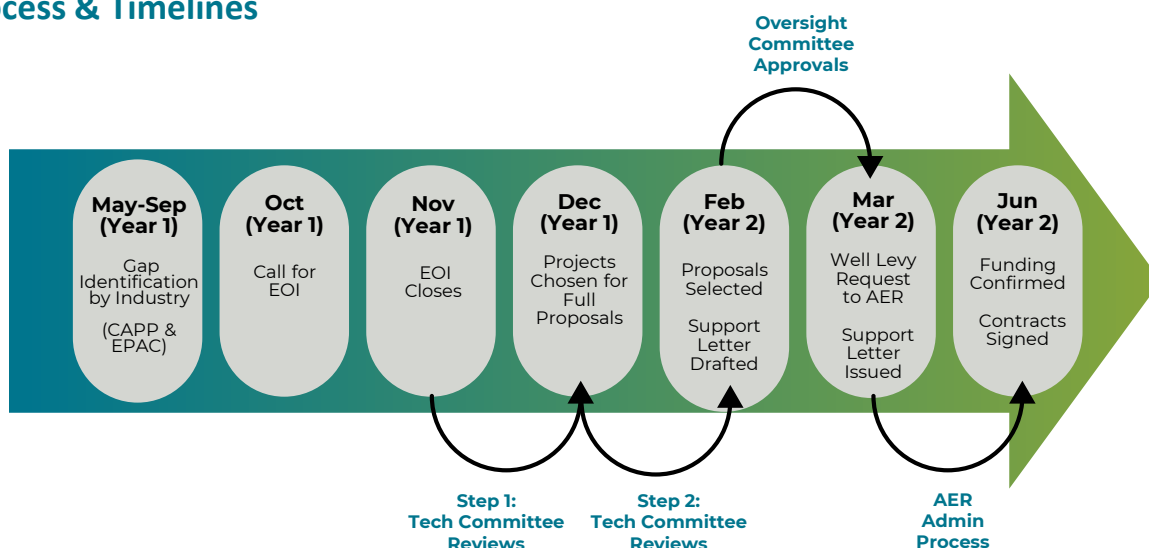
- Identifying competitiveness, regulatory and operational challenges needing evidence-based solutions.
- Ensuring producer perspectives are represented in priority-setting.
- Supporting broad industry alignment so project outcomes are relevant to both large and mid-sized operators.

How Collaboration Happens

Collaboration mechanisms include:

- Joint priority-setting processes at the start of each funding cycle.
- Ongoing participation in five technical committees.
- Contribution to project reviews and approvals alongside producer members.
- Communication of results back to member companies to amplify reach and adoption.

Process & Timelines



PTAC is always looking for continuous improvement and will be moving towards a faster, more efficient process. Instead of the current two-step Expression of Interest followed by a full proposal, we're shifting to a streamlined Request for Proposals with shorter timelines. More details will be shared in the next fiscal year.



Committee Volunteers

We extend our sincere appreciation to the dedicated committee members whose volunteer efforts have been instrumental to the success of the AUPRF program since its inception in 2006. Their commitment continues to drive progress in competitiveness and environmental stewardship across Alberta's oil and gas sector.

Air Research Planning Committee

Ajeev Ramnauth, Alberta Environment and Protected Areas
Andrea Zabloski, Canadian Natural
Andrew Cattran, NuVista Energy Ltd.
Carolyn Ussher, Alberta Energy Regulator
Dan Li, Whitecap
Don McCrimmon, Canadian Association of Petroleum Producers
Gerald Palanca, Alberta Energy Regulator
Graham Noble, Government of Saskatchewan
Jacob Bayda, Government of Saskatchewan
James Beck, Suncor Energy
Marie Johnson, Natural Resources Canada
Randy Dobko, Alberta Environment and Protected Areas
Sean Hiebert, Cenovus Energy **(Chair)**
Sean Smith, Environment and Climate Change Canada
Yaomin Jin, BC Ministry of Energy, Mines and Low Carbon Innovation

AUPRF Oversight Committee

James Agate, Canadian Natural*
Sharla Howard, Cenovus Energy*
Kellen Forman, Ovintiv*
Mike Fulsom, EPAC*
Scott Volk, Tourmaline* **(Chair)**
Alexandra Robertson, Alberta Energy Regulator
Jason Brunet, Alberta Energy Regulator
Susan McGillivray, Alberta Environment and Protected Areas
Scott Milligan, Alberta Environment and Protected Areas
Tara Payment, Canadian Association of Petroleum Producers*

* Voting members

Committee Volunteers

Ecological Research Planning Committee

Agnes Wajda-Plytta, Alberta Energy Regulator
Angela Waite, Alberta Environment and Protected Areas
Ben Hale, Cenovus Energy
Carol Engstrom, Independent
Devon Versnick-Brown, Canadian Natural
Jeremy Reid, Canadian Natural
Julianne Hayes, Alberta Environment and Protected Areas
Krista Phillips, Canadian Association of Petroleum Producers
Mark Boulton, Suncor Energy **(Chair)**
Shane Patterson, Alberta Innovates
Sherry Becker, Imperial Oil
Tara Bernat, Ovintiv

Reclamation and Remediation Research Committee

Adam Blair, Canadian Natural
Alana DeBusschere, Alberta Energy Regulator
Brett Reynolds, Shell
Cassandra Atkins, Canadian Natural
Deanna Cottrell, Shell
Charity Callahan, Rev Energy
Devin Scheck, BC Energy Regulator
Dianne Stuart, Canadian Natural
Elise Neumann, Alberta Environment and Protected Areas
Erin High, Ember Resources Inc.
Jason Desilets, Cenovus Energy **(Chair)**
Jeff Mills, Orphan Well Association
Jonas Fenn, Whitecap
Lisa Warren, Cenovus Energy
Lori Neufeld, Imperial Oil
Nadia Cruickshank, Alberta Energy Regulator
Paul Hartzheim, Canadian Association of Petroleum Producers
Sara Blacklaws, Alberta Energy Regulator
Shawn Glessing, Cenovus Energy
Shane Patterson, Alberta Innovates
Sheldon Exner, Whitecap
Steve Kullman, Canadian Natural
Tyrel Hemsley, Alberta Environment and Protected Areas



Committee Volunteers

Water Innovation Planning Committee

Deanna Cottrell, Shell
Geoff Webb, Canadian Natural
Guillaume Lafond, Ovintiv
Jarred Anstett, Murphy Oil Corp.
Julia Fletcher, Shell
Joey Hurley, Alberta Environment and Protected Areas
Matt Mclean, Cenovus Energy
Michael Bevan, Alberta Energy Regulator
Natasha Rowden, MEG Energy
Rodney Guest, Suncor Energy
Sarah Belak, Tourmaline Oil
Scott Hillier, Cenovus Energy **(Chair)**
Scott Rayner, MEG Energy
Shane Patterson, Alberta Innovates
Susan Satterthwaite, Alberta Environment and Protected Areas
Tara Payment, Canadian Association of Petroleum Producers

Well Decommissioning Research Committee

Andrew Robinson, Alberta Energy Regulator
Ben Fraser, Imperial Oil
Charity Callahan, Rev Energy
Claudette Panei, Canadian Association of Petroleum Producers
Dave Samuelson, Cenovus Energy
Deanna Cottrell, Shell
Leah Davies, Imperial Oil
Mitch Kosior, Whitecap
Rajan Varughese, Alberta Energy Regulator
Richard Wong, Cenovus Energy
Ryan McDowell, Whitecap
Shanna Nolan, Shell
Shawn Forster, Cenovus Energy **(Chair)**
Wade Hartzell, Canadian Natural

We invite all stakeholders to actively participate in shaping the future of Alberta's oil and gas sector. Join a committee, support a project, or contribute to the well levy to help advance innovation and sustainability.



PTAC

PETROLEUM
TECHNOLOGY
ALLIANCE
CANADA



Alberta Upstream Petroleum
Research Fund

THANK YOU!

