PTAC

Alberta Upstream Petroleum Research Fund

PTAC

26-WDRC-RFP-02

DECISION-SUPPORT SOFTWARE TOOL FOR WELL DECOMMISSIONING IN ALBERTA

BUDGET: $200,000

PUBLICATION DATE: MARCH 19, 2026

PROPOSAL SUBMISSION DEADLINE: MAY 8, 2026 BY 5:00 PM

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1. Background & Rationale

In Alberta, well abandonment and decommissioning planning is tightly coupled to Alberta Energy Regulator (AER) requirements and to designated digital submission systems used for approvals, notifications, and reporting (e.g., OneStop and Digital Data Submission (DDS)). Directive 020 sets minimum technical requirements and the objective to protect nonsaline groundwater and isolate/cover porous zones. While this project is Alberta-first, it must be designed to be configurable and extensible to other Canadian jurisdictions without re-architecting the tool.

Producers face recurring challenges that reduce abandonment success rates and increase cost and environmental risk: incomplete well history and integrity evidence; uncertain leakage mechanisms; difficulty matching barrier materials (cement and non-cement alternatives) to pathway geometry and compatibility constraints; placement/access uncertainty; and inconsistent QA/QC evidence capture that limits auditability and learning. A digital tool would provide rapid integration of up-to-the-minute physics-based engineering understanding with targeted data collection and a digital workflow that makes decisions reproducible and auditable.

Producers already use multiple systems, well integrity management systems (WIMS), P&A design/visualization tools, portfolio/project platforms, and regulatory portals. This RFP seeks a decision-support layer that (a) adds engineering intelligence and structured decision logic for decommissioning, and (b) integrates into existing toolchains via exports/APIs rather than requiring wholesale replacement of corporate systems.

2. Key Features and Benefits to Producers

The tool must provide benefits in two phases: planning (front-end design) and operations (execution and verification).

2.1 Planning Phase — Key Features

- Evidence Pack Builder (Profile): guided compilation of well history, integrity tests, SCVF/GM indicators, key intervals (groundwater/porous zones), and explicit data-gap/uncertainty flags.
- Leak Source Identification Support: structured hypothesis of likely leakage pathways with confidence scoring and rationale logging.
- Diagnostics Selector: risk- and uncertainty-based recommendations for diagnostic methods to confirm leak source(s) and inform barrier placement.
- Barrier Material Selector (Products): fit-for-purpose selection of cement and non-cement barrier options matched to pathway geometry, contamination/compatibility limits, temperature/fluid constraints, deployment constraints, and expected failure modes.

- Placement/Access Planner (Placement): recommendations for access strategy and placement design (e.g., annulus access, perforation/tooling strategies, volumes/pressures) with contingency logic where diagnostic resolution is limited.

2.2 Operational Phase — Key Features

- Execution Work Pack Generator (Procedure): standardized work-pack outputs including assumptions, sequence, QC points, evidence capture plan, and contingencies.
- QA/QC Evidence Capture: structured capture for volumes/pressures/returns/holds/tool strings/time-series execution data; supports manual entry and import from common field data formats.
- Verification & Performance Logging (Performance): links acceptance criteria to observed outcomes; separates planned vs executed vs observed results to enable learning and auditability.
- Portfolio Learning Loop: ability to aggregate outcomes across jobs/wells to refine screening logic and update libraries (materials/diagnostics) as new information becomes available.

3. Research Objectives

1. Develop an Alberta-first decision-support tool implementing a decommissioning "5P" workflow (Profile, Products, Placement, Procedure, Performance) across planning and operations.
2. Improve material selection by explicitly linking barrier choices (cement and alternatives) to diagnosed/hypothesized leakage mechanisms and pathway geometries, including applicability limits and failure modes.
3. Improve leak source identification and diagnostics planning to use structured, explainable logic with uncertainty handling and rationale capture.
4. Produce audit-ready outputs (work packs, decision memos, evidence checklists) aligned to Directive 020 requirements and digital workflow awareness (OneStop/DDS) while remaining extensible to other Canadian jurisdictions.
5. Provide a sustainable update pathway: the tool must be maintainable and able to incorporate new engineering understanding, new materials, and new diagnostics as knowledge and practices evolve.

4. In Scope

4.1 Engineering and Domain Scope

- Well characterization and integrity evidence capture (construction, history, tests, failures, SCVF/GM indicators, key intervals) with explicit uncertainty representation.
- Leak mechanism/pathway hypothesis support and diagnostic planning to localize leakage sources and guide access/placement decisions.
- Barrier materials selection logic that includes both Portland cement and alternative sealing technologies (e.g., geopolymers, resins/polymers, bismuth-based or metal seals, mineralization approaches), represented as a configurable library.
- Placement/access decision support and procedure/QC design to increase the likelihood of successful barrier formation.
- Verification planning, capture acceptance criteria, and post-job performance logging to support learning.

4.2 Software and Implementation Scope

- Deliver a producer-usable product as either (a) a web application, (b) a desktop application, and/or (c) an analysis engine with a user interface. Proponents must explicitly justify the recommended deployment model(s) based on typical Canadian producer IT environments and constraints (e.g., security, connectivity, identity management, data residency, patching, and offline field use).
- Provide a clear architecture describing where data is stored, how it is secured, and how it integrates/exports to existing systems (WIMS, well history systems, portfolio/project platforms) and to corporate document management.
- Include role-based workflows for planners, integrity engineers, abandonment engineers, and operations staff.
- Support interoperability via standard exports (PDF for work packs; CSV/JSON for data exchange) and optional APIs.
- Reliance on off-the-shelf digital modules rather than customized code. Digital tools must use open-source digital elements to ensure the tool can be widely deployed.

4.3 Pilot and Validation Scope

- Demonstrate the end-to-end workflow on a representative set of cases (real or synthetic) spanning planning and operations.
- Conduct usability testing with producer users and incorporate improvements.
- Provide a documented approach to validating decision logic and updating libraries over time.

5. Out of Scope

- Performing physical repairs, well servicing, construction, abandonment field work, or regulatory submissions on behalf of licensees.
- Replacing AER OneStop or DDS systems; the tool may produce checklists/exports to support producer submissions, but will not submit to AER portals.
- Building a full corporate portfolio cost-estimation platform intended to replace existing A&D portfolio tools; the project may integrate with such platforms via exports.
- Acting as an authoritative regulatory interpreter or providing any recommendations dealing with the regulatory framework. The tool must support configurable, jurisdiction-aware checklists and references.

6. Key Deliverables

- Project workplan with milestones, schedules and dates.
- Operational Software Tool, maximizing the use of generic off-the-shelf and open source elements, with planning and operational workflows that are immediately deployable for field crews.
- Architecture & Deployment Plan: explicit options analysis for web/desktop/engine deployments aligned to typical Canadian producer IT infrastructure, including security model, identity/role management, data residency, and offline/field considerations.
- Decision Logic Documentation: transparent explanation of the tool's recommendations (materials, diagnostics, placement/procedure) and how uncertainty affects outputs.
- Barrier Materials Library: properties, applicability limits, compatibility constraints, and expected failure modes; mechanism to add/update materials as new information becomes available.
- Diagnostics Library: diagnostic methods, use cases, resolution/limitations, evidence value, and selection logic; mechanism to add/update diagnostics.
- Standard Work Pack Templates and Audit Package Outputs.
- Pilot Demonstration Report with results, user feedback, and a prioritized enhancement backlog.
- User Documentation & Training Package enabling producer field staff to use the tool without external modelling support.
- Operations-to-Learning Workflow: guidance for capturing outcomes and feeding them back into library updates and decision-logic refinements.

7. Success Criteria

- A workable and mobile computer tool for oil and gas field crews to guide their decision process dealing with well decommissioning technical requirements.
- Traceability: 100% of tool recommendations include an exportable rationale linking evidence → uncertainty → recommendation.
- Repeatability: independent analysts using the same inputs reproduce the same recommendation class and audit package structure.
- Audit readiness: the tool produces a complete, consistent evidence package suitable for internal audit and regulator-facing documentation.
- Deployment feasibility: proponents demonstrate the tool can be deployed in typical Canadian producer IT environments, including consideration of security controls and field connectivity.
- Workflow efficiency: demonstrated reduction in time to create a complete work pack compared to a documented baseline process.
- User acceptance: positive usability results from target roles, with documented iteration.
- Updateability: the tool includes a governed method to update engineering logic, materials libraries, and diagnostics libraries as new information becomes available, including versioning and change logs.

PTAC, on behalf of the Alberta Upstream Petroleum Research Fund (AUPRF), invites qualified proponents to submit proposals in accordance with the Proponent Standard Instructions below, including a clear workplan with outcome expectations, milestones and deadline dates, the required technical and financial content and the specified submission method (email submission to info@ptac.org). Late submissions will not be considered, and proposals must remain valid for 90 days from the submission deadline.

PTAC

Alberta Upstream Petroleum
Research Fund

PTAC

AUPRF 2026
Request for Proposals

INSTRUCTIONS FOR PROPOSAL SUBMISSIONS

MARCH 2026

www.ptac.org
Suite 1550,
520 Fifth Avenue SW
Calgary, AB. T2P 3R7

Instructions for Proposal Submissions
AUPRF 2026 RFPs

1 Purpose & Scope

These instructions apply to all competitive solicitations funded by the Alberta Upstream Petroleum Research Fund (AUPRF) and administered by PTAC Petroleum Technology Alliance Canada. They define how Proponents must prepare and submit proposals, how proposals are evaluated, the timelines for decisions and notifications, and key commercial and legal terms applicable to AUPRF-funded projects.

2 Submission – Content Requirements

2.1 Proponent & Company Information

- Legal name and address
- Primary contact name, title, email, and phone
- Brief company overview and relevant services

2.2 Technical Proposal

- Understanding of the problem statement and scope
- Proposed methodology and approach
- Work plan, milestones, and schedule
- Team composition; max 2-page bios/CVs with roles and expertise

2.3 Financial Proposal

- Itemized cost breakdown (e.g., labour categories and rates, materials, travel, subcontractors)
- Proposed milestone-based payment schedule (payments tied to deliverables)
- Leveraged funding

2.4 Formatting and Page Limits

Unless otherwise specified in a particular RFP, no strict page limits apply; include the content necessary to enable a thorough assessment.

3 Submission — Method & Logistics

Submit by email to info@ptac.org with subject line: *AUPRF – RFP ID – Proponent Company Name*. **Proposals submitted by other means will not be accepted.**

- Deadline: Proposals must be received on or before the RFP deadline indicated in each RFP document; late submissions will not be considered.

- File format: A single combined PDF is preferred, plus any required spreadsheets or forms specified in the RFP.
- Validity: Proposals must remain irrevocable and open for acceptance for 90 days from the submission deadline.
- Questions & FAQs: Refer to the AUPRF call for proposals landing page and any RFP-specific instructions for updates and clarifications.

4 Eligibility, Legal & Commercial Terms

- PTAC reserves the right to accept or reject any Proposal, in whole or in part, and to cancel or amend an RFP without liability.
- Proponents are responsible for all costs associated with preparing and submitting their Proposals.
- Confidentiality applies to information provided by PTAC; Proponents may be required to sign a non-disclosure agreement. Proposals will be kept confidential and will be accessed only by evaluators.
- Intellectual property (IP) arising from AUPRF projects may be owned by AUPRF funders, or AUPRF funders receive a royalty-free operational use right. No other IP ownership or sharing options (if IP is being generated) are acceptable.
- Minimum insurance: Commercial General Liability (CGL) of $5,000,000 and Professional Liability of $2,000,000.
- Disclosure of intent to subcontract and any actual or potential conflicts of interest is required.
- Governing law: Province of Alberta, Canada.

5 Evaluation Criteria & Process

5.1 Scored Criteria and Weights

Criterion	*Weight*
Technical Approach	30%
Relevant Experience	30%
Cost	25%
Leveraged Funds from Other funders	5%
Team Qualifications	10%

5.2 Screening & Completeness

Proposals are first screened for completeness and compliance (deadline, required sections, and required disclosures). Incomplete or non-compliant Proposals may be removed from further consideration at PTAC's discretion.

5.3 Committee Review, Scoring & Deliberation

The relevant AUPRF technical committee reviews Eligible Proposals. Committee members score Proposals using the standardized scoring sheet before a deliberation meeting, where compiled results are discussed, and recommendations are confirmed.

PTAC may request clarifications, additional information, or presentations from Proponents to support evaluation before final ranking.

6 AUPRF Review & Communication Timelines[1]

The following service levels apply to all **AUPRF RFPs for Well Decommissioning Research Projects (WDRC) and Water Innovation Planning Committee (WIPC)** unless a specific RFP states a different schedule:

Step	*Date*
1. **RFP Release** - **Well Decommissioning Research (WDRC)** - **Water Innovation Planning (WIPC)**	March 19, 2026
2. **Submission of Questions**	April 10, 2026
3. **Answers to Questions Posted** on PTAC Website	April 24, 2026
4. **Proposal submission deadline**	**May 8, 2026** **5 pm Mountain Time**
5. **Acknowledgement of receipt**	May 22, 2026
6. **Decision ratification**	June 19, 2026 or sooner
7. **Award notifications**	June 26 – July 7, 2026
8. **Target project start**	Summer 2026 (unless otherwise specified)

7 Communication

- All communications by the proponent to PTAC should be directed to **info@ptac.org** and AUPRF2026 RFPs should be included in the subject line.
- PTAC will notify the Proposal's primary contact by email of the outcome (award or non-award).
- Unsuccessful Proponents may request high-level feedback on strengths and areas for improvement.
- Public Communications: PTAC/AUPRF may publish award highlights after contract execution.

[1] AUPRF 2026 RFPs for Ecological Research Planning Committee (ERPC), Air Research Planning Committee (ARPC), and Reclamation Remediation Research Committee (RRRC) will follow a different timeline and deadline.

8 Contracting, Payments & Reporting

- A standard AUPRF Funding Agreement will be issued to successful Proponents for review and execution.
- Payments are quarterly milestone-based and tied to accepted deliverables, as specified in the Funding Agreement.
- Executed agreements are retained in the AUPRF contracts repository managed by PTAC.

9 Compliance & Reserved Rights

PTAC may amend or cancel an AUPRF RFP at any time; any changes will be communicated to all prospective Proponents. Proponents must comply with all instructions, including confidentiality, insurance, subcontracting disclosures, and conflict-of-interest requirements.

10 Proponent Checklist

- Company information (legal name, address, contacts, overview)
- Technical proposal (approach, work plan, schedule, team bios/CVs)
- Financials (itemized costs; milestone-based payment plan, leveraged funding)
- Disclosures (subcontracting intent; conflicts of interest)
- Insurance confirmation (CGL $5M; Professional Liability $2M)
- Submission format (single PDF + required forms); deadline; 90-day validity

11 Legal Conditions

11.1 Non-Binding Solicitation; No Obligation to Award

This Request for Proposals (RFP) is not an offer to contract. No contractual, quasi-contractual, fiduciary, or other legal obligations of any kind are created by this RFP or by any submission, communication, or conduct of PTAC unless and until a written Funding Agreement is executed by duly authorized representatives of PTAC and the successful Proponent. PTAC may cancel, amend, or suspend this RFP at any time without liability.

11.2 PTAC's Reserved Rights

Without limiting any other rights, PTAC may, in its sole discretion and without liability: (a) accept or reject any or all Proposals; (b) accept a Proposal in whole or in part; (c) waive non-material irregularities; (d) seek clarifications; (e) negotiate changes to scope, schedule, and pricing with one or more Proponents; and (f) cancel this RFP at any time. The lowest-priced Proposal will not necessarily be selected.

11.3 No Claim for Compensation; Bid Costs

Each Proponent is solely responsible for all costs associated with preparing and submitting its Proposal, as well as any related activities. PTAC shall not be liable for any such costs or damages, whether or not the Proponent is selected for award.

11.4 Limitation of Liability

To the maximum extent permitted by law, PTAC shall not be liable to any Proponent for indirect, incidental, consequential, special, punitive, or exemplary damages, loss of profit, loss of opportunity, or loss of reputation arising out of or related to this RFP, the evaluation process, or any decision to award or not award funding, even if advised of the possibility of such damages. Any direct liability of PTAC to a Proponent is strictly limited to the reasonable, proven out-of-pocket costs of preparing the Proposal, which the parties agree is disclaimed by Section 4.

11.5 Verification and Clarifications

PTAC may request clarifications, additional information, or presentations from any Proponent and may verify any information contained in a Proposal through interviews, reference checks, third-party sources, or site visits. Failure to respond promptly may result in disqualification.

11.6 Grounds for Disqualification

PTAC may, at any time, disqualify a Proposal or rescind a selection if: (a) the Proposal is late, incomplete, or non-compliant; (b) the Proponent fails to disclose or address an actual or potential conflict of interest; (c) the Proposal contains misrepresentations or misleading information; (d) the Proponent engages in collusion, unfair competition, improper influence, lobbying outside the authorized contact, or attempts to obtain confidential information not publicly available; or (e) adverse information materially affecting the Proponent's qualifications comes to PTAC's attention.

11.7 Proponent Representations & Warranties

By submitting a Proposal, the Proponent represents and warrants that: (a) the Proposal is accurate, complete, and not misleading; (b) all proposed work product will not infringe intellectual property or other rights of third parties; (c) the Proponent and proposed subcontractors are duly qualified and in good standing; and (d) it will maintain the insurance required by the RFP and Funding Agreement.

11.8 Confidentiality; Use and Disclosure

Information provided by PTAC in connection with this RFP is confidential and may be used solely for Proposal preparation and evaluation. Proponents must not disclose such information to any third party except their team members, advisors, or subcontractors who have a need to know and are bound by confidentiality obligations no less protective. PTAC may disclose Proposals to its funders, technical committees, advisors, and partners for evaluation and administration and may make disclosures as required by law or court/government order.

11.9 Intellectual Property & License to Use

Subject to the Funding Agreement, IP arising from the Project may be owned by AUPRF funders, or funders will receive a perpetual, royalty-free right to use the IP in their operations without additional compensation. Proponents must ensure they have all the rights necessary to grant such

ownership or licenses. If IP is generated by the proposal/project, no other IP ownership or sharing options are acceptable. If IP is not generated by this project, this provision is unnecessary.

11.10 Subcontracting

The Proponent must disclose its intent to subcontract any portion of the work. PTAC reserves the right to approve or reject proposed subcontractors. The Proponent remains fully responsible for all subcontracted work.

11.11 Proposal Validity

Proposals must remain irrevocable and open for acceptance for 90 days after the submission deadline.

11.12 Acceptance Not a Waiver

PTAC's acceptance of a Proposal, or its failure to identify deficiencies, does not waive any requirement of the RFP or Funding Agreement and does not relieve the Proponent from responsibility for compliance or performance.

11.13 Order of Precedence; Entire Agreement

In case of conflict, the following order of precedence applies: (1) the executed Funding Agreement (including schedules), (2) the specific RFP (including addenda), (3) these Proponent Instructions, and (4) the Proposal. The executed Funding Agreement constitutes the entire agreement for project performance.

11.14 Governing Law and Forum

This RFP and any related dispute are governed by the laws of the Province of Alberta and the federal laws of Canada applicable therein, without regard to conflict-of-laws rules. The parties attorn to the exclusive jurisdiction of the courts of Alberta, sitting in Calgary.

11.15 Insurance & Indemnities

At a minimum, the Proponent shall maintain CGL of $5,000,000 and Professional Liability of $2,000,000, as well as any other insurance required by the Funding Agreement. Proponents will indemnify and hold harmless PTAC, its officers, directors, employees, and agents from third-party claims arising out of the Proponent's acts or omissions in connection with the Proposal or the Project, subject to the Funding Agreement.

11.16 Addenda and Questions

Only written addenda issued by PTAC form part of the RFP. Proponents are responsible for monitoring the RFP communication channel (the PTAC website) and ensuring their Proposal reflects all addenda.