



Archaeology Audit Program
Procedure Manual
VERSION 5.1: Dec 2023

About the Regulator

The BC Energy Regulator (Regulator or BCER) is the single-window regulatory agency with responsibilities for regulating oil and gas activities in British Columbia, including exploration, development, pipeline transportation and reclamation.



The Regulator's core roles include reviewing and assessing applications for industry activity, consulting with First Nations, ensuring industry complies with provincial legislation and cooperating with partner agencies. The public interest is protected by ensuring public safety, protecting the environment, conserving petroleum resources and ensuring equitable participation in production.

Vision, Mission and Values

Vision

A resilient energy future where B.C.'s energy resource activities are safe, environmentally leading and socially responsible.

Mission

We regulate the life cycle of energy resource activities in B.C., from site planning to restoration, ensuring activities are undertaken in a manner that:



Protects public safety and the environment



Supports reconciliation with Indigenous peoples and the transition to low-carbon energy



Conserves energy resources



Fosters a sound economy and social well-being



Values

Respect is our commitment to listen, accept and value diverse perspectives.

Integrity is our commitment to the principles of fairness, trust and accountability.

Transparency is our commitment to be open and provide clear information on decisions, operations and actions.

Innovation is our commitment to learn, adapt, act and grow.

Responsiveness is our commitment to listening and timely and meaningful action.

Additional Guidance

As with all Regulator documents, this document does not take the place of applicable legislation. Readers are encouraged to become familiar with the acts and regulations and seek direction from Regulator staff for clarification.

The Regulator publishes both application and operations manuals and guides. The application manual provides guidance to applicants in preparing and applying for permits and the regulatory requirements in the planning and application stages. The operation manual details the reporting, compliance and regulatory obligations of the permit holder. Regulator manuals focus on requirements and processes associated with the Regulator's legislative authorities. Some activities may require additional requirements and approvals from other regulators or create obligations under other statutes. It is the applicant and permit holder's responsibility to know and uphold all legal obligations and responsibilities. For example, Federal Fisheries Act, Transportation Act, Highway Act, Workers Compensation Act and Wildlife Act.

Throughout the document there are references to guides, forms, tables and definitions to assist in creating and submitting all required information. Additional resources include:

- [Glossary and acronym listing](#) on the Regulator's website.
- [Documentation and guidelines](#) on the Regulator's website.
- [Frequently asked questions](#) on the Regulator's website.
- [Advisories, bulletins, reports and directives](#) on the Regulator's website.
- [Regulations and Acts](#) listed on the Regulator's website.

In addition, this document may reference some application types and forms to be submitted outside of the Application Management System but made available on the Regulator's website. Application types and forms include:

- Heritage Conservation Act, Section 12
- Road use permits
- Water licences
- Master licence to cut
- Certificate of restoration
- Waste discharge permit
- Experimental scheme application
- Permit extension application

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Manual Revisions

The Regulator is committed to the continuous improvement of its documentation. Revisions to the documentation are highlighted in this section and are posted to the Documentation Section of the Regulator's website.

Stakeholders are invited to provide input or feedback on Regulator documentation to servicedesk@bc-er.ca or submit feedback using the feedback form.

Version Number	Posted Date	Effective Date	Chapter Section	Summary of Revision(s)
5.0	May 6, 2022	May 6, 2022	Various	<p>This document has been updated to reflect the Regulator's 2023 Archaeology Audit Procedures.</p> <p>Users are encouraged to review the document in full.</p> <p>For further information, refer to the 2021 Archaeology Audit Program Report on the Regulator's website.</p>
5.1	Dec.18, 2023	Dec. 18, 2023	Various	<p>Replace BCOGC with BCER; OGAA with ERAA; new logos, references and associations</p>

1. Introduction

The BC Energy Regulator's (Regulator) Archaeology Audit Program (AAP) was created as a necessary component of the performance based and professional reliance regulatory approach to archaeology. Under this approach to archaeology assessments and review, oil and gas industry permit holding companies (permit holders) are responsible and accountable for ensuring that planning and development activities comply with the Heritage Conservation Act (HCA). Familiarity and adherence to the application requirements in Chapter 5.5 of the [Oil and Gas Activity Application Manual](#) will ensure oil and gas permit holders in B.C. meet legislative and regulatory requirements. Best management practices for archaeology in the oil and gas sector are outlined in Section 9 of this manual. Permit holders are encouraged to reference the list of best practices to ensure a functional and quality management system for archaeology.

The annual archaeology audit is conducted on BCER permit holders to evaluate the effectiveness of their archaeology management systems. The Archaeology Audit Program Procedure Manual has been developed by the Regulator's Heritage Conservation Program staff. The manual is updated prior to each annual audit to reflect changes in the industry and to incorporate any learnings from previous audits. The manual is published on the Regulator's website as a support guide and reference tool.

The audit protocols contained within the manual are designed to assess permit holders' management systems through interviews, document reviews and field inspections. The audit is intended to identify practices deemed to be proactive and innovative as well as identify opportunities for improvement.

The annual archaeology audit supports the Regulator's commitment to continual improvement of processes. The audits are conducted by the Regulator's Heritage Conservation Program staff, and are attended by oil and gas permit holders (auditees) and, as appropriate, their contractors. Audit observers may also include First Nations partners from communities with interests in the audited locations and other BCER employees.

Subsequent to completion of the annual audit, audited permit holders will receive individual reports containing recognition of best practices as well as any recommendations for improvement formed during the audit process.

A general report is published with cumulative findings and recommendations based on observed deficiencies and positive practices. The names of audited companies are kept in confidence within the context of the published cumulative report.

Future audits will incorporate past audit selection and results to focus audit resources on permit holders that have not been previously audited and to exempt permit holders that have had consistently excellent audit results in previous years.

2. Audit Objectives

The AAP has two primary objectives:

1. **Ensure that the permit holder's management systems are adequate for meeting legislative and regulatory obligations.** Through the document and field examination process, the annual archaeology audit analyzes the ability of the permit holder's management system to meet their obligations as they apply to legislation, permit conditions and other requirements under which industry permit holders are operating

The annual archaeology audit was not intended to be a compliance audit, however, it is the duty of the audit team to notify BCER enforcement staff of any breaches in legislation or policy.

2. **Gather baseline data to establish procedures for best management practices for archaeology resource management within the oil and gas sector of B.C.** Innovative and successful practices will be highlighted annually in the Archaeology Audit Report within the context of cumulative recommendations for improvement. The Archaeology Audit Report recommendations should be used by all companies as best management practices to continually improve their processes.

3. Archaeology Audit Structure and Processes

3.1 Audit Structure

The archaeology audit consists of interviews with the permit holding company's personnel and field inspections of selected projects. Based on the results of the audit, a second more comprehensive phase may be implemented if vulnerabilities are detected in an auditee's management system or if a non-conformance has been found. The auditee will be notified of the requirement for an additional audit within the context of reporting on the primary audit results.

The overall effectiveness of a management system depends on the strength of individual system components. The audit questions are designed to analyze and rate the various components of an archaeology management system and pinpoint any vulnerabilities.

An interview with the field construction supervisor for the selected audited development is a required component of the audit. Although welcome to attend as observers, company directors, managers or administrative staff cannot substitute for the development supervisor. Special consideration is given in instances where the construction supervisor is no longer with the company and substitute personnel will

be mutually agreed upon. It is the responsibility of the oil and gas permit holder to ensure that arrangements are made for the supervisor's attendance at the field audit.

Upon audit completion, the audit team prepares preliminary audit conclusions, backed by audit evidence. All findings are analyzed and used in the production of final audit reports. If requested by either the auditee or auditor, the information is presented at a closing meeting with appropriate representatives from both parties present. The closing meeting provides an opportunity to discuss the accuracy of the audit evidence and issues related to the preliminary conclusions.

3.2 The Audit Selection Process

The audit scope includes an interview with the construction supervisor, a file specific document review and a field inspection(s). Inspections are focused in areas identified as having archaeology concerns to confirm mitigation recommendations have been implemented. Projects subject to field audits are selected at the discretion of the audit team prior to or during the audit process and based on specific criteria.

The parent sample for the 2023 audit was chosen from a total population of 5915 applications approved in 2018 through 2022 (including 2385 applications for amendments) applied for by 137 companies¹. Projects constructed in 2022 were selected and evaluated for archaeological concerns reducing the total to 20- permitted projects from seven companies. Two of the seven companies were excluded from the audit due to their high performance record in the previous audits. One of the companies was excluded, as they have no future development plans in the region. The sample for the 2023 audit consists of one constructed project from each of the remaining four companies and includes one midstream operator; for a total of five companies.

Field inspection projects are chosen by the Regulator's audit team. The field projects must be manually selected due to a number of variables that cannot be controlled through a random selection process, including archaeological values, small sample size, and accessibility.

4. The Audit Notification Process

All permit holding companies selected for the 2023 audit will be notified by letter via email attachment. The letter will state the established time period for the audit and outline the stages of the AAP process. The notification letter will include a checklist, which outlines required documentation for the auditee to provide at the time of audit activities.

There will be no grace period for documents missing at the time of the audit. Upon receipt of the selection letter, the permit holding company must contact the Regulator immediately to schedule the audit. Participation in the audit is required.

¹ The total number of companies includes duplicate entries as a result of permit holder name change(s) or subsidiary corporations.

5. Audit Code of Conduct and Roles & Responsibilities

5.1 Code of Conduct

The AAP is a systematic process that relies on the principles of independence and objectivity. Specifically, the following principles guide the conduct of this audit and the presentation of audit results:

- Auditors shall act in an ethical manner and make decisions applying due professional care based on evidence obtained during the audit. Auditors will not act outside of their areas of competence and knowledge.
- Auditors will be impartial and independent of the activity that they are auditing, and act without bias or prejudice.
- Confidential information reviewed or obtained during the audit process will be held in confidence by the auditors and only included in the audit report where the information is relevant to an audit finding.
- Audit results will be presented in a fair and accurate manner and will truthfully reflect the audit activity and evidence.

5.2 Roles and Responsibilities

The AAP will be executed by a Lead Auditor, an Audit Coordinator and may include additional members of the team comprised of BCER staff. The audit conclusions will be developed solely based on the audit evidence in a manner that may be reproducible by others based on the same audit evidence. Specific responsibilities for the respective parties are discussed below in Table 1.

Table 1: AAP Roles and Responsibilities

Roles	Responsibilities
Lead Auditor	Assigns areas of responsibility to audit team members, including the sections of the audit protocol or areas of inquiry. <ul style="list-style-type: none"> • Conducts audits or portions thereof. • Oversees the conduct of the audit team members. • Determines audit results with Audit Coordinator based solely on the audit evidence obtained during the audit. • Manages all projects within which a non-conformance has been identified and discusses recommendations and remedial actions with auditees as required.

	<ul style="list-style-type: none"> • Reports any instances of legislation breach, trespass or permit condition breaches to the Regulator's Manager of Enforcement and / or to the Archaeology Branch of the Ministry of Forests as appropriate. • Works with the Regulator's Enforcement staff and Archaeology Branch as required to resolve non-compliance issues. • Reviews preliminary audit reports prior to issuance.
Audit Coordinator	<ul style="list-style-type: none"> • Arranges logistics of individual AAP annual audits. • Conducts audits or portions thereof. • Coordinates the timely completion of the audit activities. • Determines audit results with Lead Auditor based solely on the audit evidence obtained during the audit. • Develops and submits a draft audit report to the BCER Executive and other relevant parties, including the auditee, as appropriate. • Discusses recommendations and remedial actions with auditees as required. • Discusses draft audit report with relevant parties and identifies any required revisions. • Prepares final audit report for submission to the BCER Executive. • Publishes final audit summary report on Regulator's website. • Forwards copy of the final individual permit holder reports to each auditee.

Audit Team Members	<ul style="list-style-type: none"> • Review the sections of the audit protocols and other documentation or records relevant to their assignment(s) within the audit. • Assist Lead Auditor and Audit Coordinator in audit preparations, including gathering of required documents and preparation of site access information. • Conduct portions of audit as assigned by Audit Coordinator or Lead Auditor. • Conduct audits according to set schedules, audit protocols and as assigned by Lead Auditor or Audit Coordinator. • Communicate concerns or other relevant issues to Lead Auditor or Audit Coordinator for resolution. • Participate in review of audit evidence, audit documents, data organization, and draft reports as required.
Auditees	<ul style="list-style-type: none"> • Will respond to the audit selection letter and schedule audits within the timeframe set out in the selection letter. • Cooperate with the Regulator's audit team. • Disclose all audit documents as requested and detailed in individual selection letters at the time of or prior to the audit.

	<ul style="list-style-type: none"> • Ensure appropriate personnel represent the permit holder at the audit. • Disclose required information during the audit inquiry in a thorough, factual and accurate manner. • Review draft audit findings report and provide comments, additional information or clarification requests to the Audit Coordinator and/or Lead Auditor as appropriate. • Where a remedial action plan is required, the auditee will create and submit the plan to the Regulator within the agreed schedule.
Observer	<ul style="list-style-type: none"> • Person who accompanies the audit team but does not audit. • Observes the audit but does not influence or interfere with the conduct of the audit. • May include First Nations partners with interests in the audited locations or other BCER staff.
Guide	<ul style="list-style-type: none"> • Person appointed by the auditee or auditor to assist the audit team. • May help facilitate access to audited locations.

6. Determination of Audit Medium

Management systems consist of several components that work together and may be examined independently to evaluate the overall strength of the system. This audit examines nine (9) main components, referred to in this audit as modules. Each module is designed to examine specific aspects of the permit holder's management system in order to analyze the extent to which the management system is functioning. The information gathered from each module helps identify gaps between the recommended approach and the approach used by the permit holder. The results of document reviews, interviews and field inspections may identify possible weaknesses that could cause a system failure. Table 2 outlines the criteria measured and corresponding functional objective for each module.

Table 2: Module Descriptions

	Criteria Measured	Functional Objective
Module 1	Process Creation and Management	Supports adherence to legislation and regulatory requirements through established processes.
Module 2	Previous Audit	To establish if recommendations from the previous audit have been implemented.

Module 3	Risk and Risk Management	To establish the level of risk a permit holder is willing to take and how that risk is managed.
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Module 4	Communication	To establish communication competence between administrative/office personnel and field crews.
Module 5	Record ² and Document ³ Control	Transfer of information between relevant parties to support project success and regulatory compliance.
Module 6	Compliance Process and Knowledge	Level of knowledge for processes that ensure compliance with regulatory requirements and legislation.
Module 7	Heritage Management System Questions	To establish strength of the permit holder's heritage management system in consideration of current heritage management trends.
Module 8	Document Review	To establish if the appropriate documents were provided for the audit.
Module 9	Field Inspection(s)	To observe and determine if the management system functioned successfully in the field.

A series of questions were formed for each module and designed to examine the management and control systems employed by permit holders. A list of basic questions are included within the context of the audit selection letter; additional questions are added as necessary during the audit process.

7. Audit Findings

Using the results from each prior audit, the Regulator's Heritage Conservation Program staff have developed a list of best management practices. These are presented in the form of cumulative recommendations outlined in Section 9 of this manual as well as the concluding section of the annual Archaeology Audit Report. These best practices, as well as standard operating procedures, substandard practices and non-compliance discovery are utilized in the formation of standards to which findings are compared.

Table 3 details the criteria used to define each Finding Category, and standards used to compare evidence gathered during the audit process.

² Record: A thing constituting a piece of evidence about the past, especially an account of an act or occurrence kept in writing or some other permanent form.

³ Document: A piece of written, printed or electronic matter that provides information or evidence or that serves as an official record.

Table 3 Findings Category

Finding Category	Description
Exemplary Performance (EP)	<p>This rating category is assigned to permit holders with innovative, proactive processes or practices that exceed requirements such as:</p> <ul style="list-style-type: none"> • Conducting a project walk-through and orientation with construction crews to identify archaeology concerns and confirm mitigation measures are understood by construction crews. • Conducting a post construction field inspection to confirm mitigation strategies were followed. • Communication systems that are formalized and include details such as personnel assigned specifically to: track processes, ensure all requirements are met, deliver archaeology assessment and site mitigation strategies directly to field supervisor, and confirm regulatory obligations are met.
Satisfactory (S)	<p>This rating category describes a management system with practices that address most aspects of archaeology resource management and reporting. The system is generally sufficient to support permit holder's ability to meet legal and regulatory requirements:</p> <ul style="list-style-type: none"> • Areas of archaeology concerns are identified on project plans and the location(s) is discussed by crews in a pre-construction meeting. • All regulatory and legislated archaeological requirements are met without incident. • Basic tracking systems for processes and requirements are in place.
Opportunity for Improvement (OI)	<p>This rating category describes management practices with weaknesses that could lead to a system breakdown. A minimal effort has been given toward development of a specific management plan to manage archaeological resources or to ensure the permit holder meets legal and regulatory requirements. Examples include:</p> <ul style="list-style-type: none"> • Lack of pre-work meetings to discuss archaeology issues. • Appropriate archaeology documents are not provided in construction package for field supervisor. • Archaeology assessment reports are not tracked and/or have not been submitted to the Regulator. • Lack of consistency in transferring archaeology assessment status or information to field supervisor.

Non-Conformance (NC)	<p>This rating is used when regulatory or legal or other requirements are not met, or where the ability of the permit holder to meet said requirements is jeopardized. Examples of when this rating would be used include:</p> <ul style="list-style-type: none"> • Field inspection phase of the audit finds that Regulator approved archaeologist recommendations for site mitigation were not followed. • Finding that written instruction from the Regulator regarding any archaeological issues was not followed. • Any condition of approval for archaeology that is not followed. • Inability to provide applicable audit required documents. • Refusal of permit holder to participate in the archaeology audit. • Non-response from permit holder to audit selection letter. • Evidence from permit holding company's personnel gathered during the audit. • Interview that reveals system failure or a process that is inherently negligent and will ultimately lead to non-compliance issues.
Information Request (IR)	<p>This rating is assigned when additional information is requested from the permit holder to clarify the answer provided during the audit interview.</p> <p>This finding category will be used in the individual draft audit reports. Based upon the permit holder's responses to the draft reports the IR finding will be adjusted to one of the findings listed above in the final individualized audit reports.</p>

Recommendations are provided to any permit holder where deficiencies or weaknesses were detected within their archaeology management system. Permit holders are encouraged to incorporate these recommendations to reduce the possibility of being subject to future audits.

Finally, the audit report will identify any practices noted during the audit that are innovative and proactive. The permit holder will be afforded an exemplary performance (EP) rating and their practices will be incorporated into future BCER recommendations for management system improvement.

8. Reporting out and Concluding Actions

The Audit Coordinator will develop individual draft audit reports that will be submitted to the Lead Auditor. The audited permit holder will be invited to comment on any of the results or conclusions within the report. If the audit results were found to be incomplete during the evaluation process, the auditee may be asked to supply additional information or documents to support audit findings.

Each audit report draft will include:

- Executive Summary
- Background and Scope
- Audit Objectives
- Audit Sampling and Methodology
- Findings Determination Process
- Audit Findings
- Recommendations and Conclusions

The Regulator will require all comments on the draft report to be submitted by the auditees to the Audit Coordinator within a specified time period after distribution of the draft audit report. The Audit Coordinator will distribute the final individualized audit report upon review by the Lead Auditor.

All audit working papers will be retained as a part of the record. All physical records presented by the auditee will be housed in a secured records area within the BCER and are only available to the auditors. Records will be retained according to BCER record classification schedules.

The Audit Coordinator will prepare a cumulative report summarizing the findings of the individual audit reports. This report will be published on the Regulator's website, along with an information letter. Specific audit findings will be published, but the names of the permit holders subject to audit will not be included in the report. The publication will highlight best management practices identified during the audits and will help oil and gas permit holders to identify opportunities for improvement in their own archaeological management systems.

In instances where non-conformances are found, the Regulator will require the auditee to develop and submit for approval a written management system plan that addresses specific negative audit findings.

9. Cumulative Recommendations

The following section summarizes recommendations based on previous years' audits and is updated annually.

Best management practices are based upon observations and conclusions drawn from previous years' audits; they are designed to support information flow and tracking and guide oil and gas permit holders in archaeology management system design.

1. An on-site construction supervisor provides field orientation for ground crews prior to project start-up when archaeologically sensitive areas exist within a development.
2. Specific individuals are responsible for ensuring all regulatory and legislated archaeological requirements are met within project developments.

3. Transfer and receipt of required paper documentation to construction crews is completed prior to project commencement. The documents include archaeology reports and Regulator accepted site mitigation strategies if applicable.

The Regulator issues a letter of acceptance for each archaeology site recovered during the course of an archaeological assessment. Receipt of this acceptance letter is required prior to job start-up and should be included with the archaeology report when transferring documents to construction supervisors.

4. Development of a written archaeology resource management plan and formalized standard operating procedures. The management plan fully addresses and includes the following:
 - Relevant legislative and regulatory requirements;
 - Processes for ensuring the completion of archaeological assessments and the timely submission of archaeological reports to the Regulator;
 - Checklists to ensure all archaeological requirements are completed prior to construction activities;
 - Processes for fulfillment of requirements surrounding archaeological assessment and site avoidance requirements should range from high level planning to individual task assignments;
 - A briefing of staff, contractors and land agents to ensure familiarity with the contents of the management plan.
5. Create or refine existing tracking systems to include project status and archaeology report submission dates. Emphasis placed on tracking and ensuring information regarding archaeology assessments and site management is accurately and graphically related to field staff.
6. Contact the Regulator periodically to reconcile records for regulatory obligations.
7. Develop a communication record, summarizing dates and information exchange. A project communication record serves as a valuable reference for project details and transactions. As well, it is the basis for development or improvement of data distribution processes, as the record illustrates where any breakdown in communication may have occurred.
8. Upon receipt of the audit selection letter, permit holders contact the Regulator to discuss scheduling. Participation in the audit is mandatory as the audit is a key process within the results based/professional reliance assessment system. Permit holders cannot remain in a results based/professional reliance system without participating in the archaeology audit. Audited permit holders ensure the appropriate personnel are present for the audit interview, as outlined in the selection letter and AAP manual.
9. Implement and distribute an archaeological Chance Find Procedure should artifacts be identified during construction. Training is provided to crews regarding this procedure, and training tracked

and signed off on.

10. Provide training to staff and field crews on the legislation protecting archaeology sites and the penalties associated with the disturbance of archaeology sites.
11. Implement a formal post-construction field inspection procedure to ensure mitigation strategies have been followed.