

MODULE ENM2010: MANAGING ALBERTA’S RESOURCES

Level: Intermediate

Theme: Social and Cultural Perspectives

Prerequisite: None

Module Description: Students research agencies and structures used to manage the development of Alberta’s energy and mineral resources.

Module Parameters: Access to government agencies responsible for the sustainable management of energy and mineral resources (e.g., Alberta Energy and Utilities Board, Alberta Energy, Environment Canada).

Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> explain how Alberta’s energy and mineral resources are managed 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> completing a research project on the history of energy and mineral development in Alberta. Research to include: <ul style="list-style-type: none"> a historical account of changes that have occurred in the ownership and administration of energy and mineral resources in Alberta an explanation of public (provincial and federal Crown) and private (“freehold”) forms of land ownership that exist in Alberta today. <p><i>Assessment Tool</i> <i>Research Process: Administration of Energy/Mineral Resources, ENM2010–1</i></p> <p><i>Standard</i> <i>Complete all components of research to a standard of 2 on the rating scale</i></p>	<p>20</p>

MODULE ENM2010: MANAGING ALBERTA’S RESOURCES (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> • describe government legislation and policies that influence the development of an energy or mineral resource • explain methods of allocating land and resources for exploration and development • demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> • identifying and explaining the role of: <ul style="list-style-type: none"> – important government legislation in managing exploration and development activities within one of Alberta’s energy or mineral industries – regulations and/or guidelines established in association with government legislation for further managing activities within the industry. <p><i>Assessment Tool</i> <i>Relevant government legislation, regulations and/or guidelines available from Alberta Energy</i></p> <p><i>Standard</i> <i>Summarize 3 important government legislation and 5 regulations and/or guidelines</i></p> <ul style="list-style-type: none"> • a presentation or report on five or more different types of approvals (e.g., permits, licences, leases) used to grant exploration and/or development rights within a selected energy or mineral industry. For each approval, presentation/report to provide information regarding: <ul style="list-style-type: none"> – the authority granting approval – criteria for granting the approval – the intent of the approval – responsibilities of the holder. <p><i>Assessment Tool</i> <i>Presentations/Reports: Intermediate Level, ENMPRE–2</i></p> <p><i>Standard</i> <i>Achieve a minimum rating of 2 on the rating scale for Presentations/Reports</i></p> <ul style="list-style-type: none"> • observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>40</p> <p>40</p> <p>Integrated throughout</p>

MODULE ENM2010: MANAGING ALBERTA’S RESOURCES (continued)

Concept	Specific Learner Expectations	Notes
Administration of Energy and Minerals	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • describe major changes that have occurred from past to present in the ownership and administration of energy and mineral resources in Alberta; e.g.: <ul style="list-style-type: none"> – private ownership of mineral rights – federal jurisdiction – provincial status – aboriginal lands and Native rights – <i>Natural Resources Transfer Act</i> • describe the extent to which different types of resource ownership exist in Alberta today; e.g.: <ul style="list-style-type: none"> – public (provincial and federal Crown ownership) – private (“freehold”) ownership. 	<p>Use archives, films and library resources to research the history of energy or mineral development in Alberta.</p> <p>Construct a timeline of historical changes in administrative policies.</p> <p>Contact Alberta Energy to request maps of land ownership areas in Alberta. Construct graphs depicting land ownership distribution.</p>
Government Legislation and Policies	<ul style="list-style-type: none"> • explain the mandate and responsibilities of key government departments and agencies in managing energy and mineral resources within provincial boundaries; e.g.: <ul style="list-style-type: none"> – disposition of mineral rights – regulation of exploration and development – development of conservation practices and environmental standards – collection of fair returns from resource development • explain current and potential opportunities for industry involvement in managing energy and mineral resources within provincial boundaries • research the role of important federal and provincial legislation in managing exploration and development activities within one of Alberta’s energy or mineral industries 	<p>Research and report on the functions of:</p> <ul style="list-style-type: none"> • Alberta Energy and Utilities Board • Natural Resources Conservation Board • Alberta Energy • Alberta Environmental Protection. <p>Contact Alberta Energy to request various legislation, regulations and guidelines; e.g.:</p> <ul style="list-style-type: none"> • <i>Environmental Protection and Enhancement Act</i> • <i>Mines and Mineral Act</i> • <i>Public Lands Act</i> • <i>Surface Rights Act</i> • <i>Fisheries Act</i> • <i>Oil and Gas Conservation Act</i> • <i>Quarries Regulation Act</i> • <i>Small Power Research and Development Act.</i>

MODULE ENM2010: MANAGING ALBERTA’S RESOURCES (continued)

Concept	Specific Learner Expectations	Notes
<p>Government Legislation and Policies (continued)</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • research the role of regulations and guidelines established in association with government legislation in further managing activities within an energy or mineral industry • evaluate the short- and long-term effects of selected government legislation and regulations on one of Alberta’s energy or mineral resources. 	<p>For example:</p> <ul style="list-style-type: none"> • <i>Metallic Minerals Regulation</i> • <i>Environmental Impact Assessment Guidelines</i> • <i>Environmental Operating Guidelines</i> • <i>Waste Water Management Guidelines</i> • <i>Sand, Gravel, Clay and Marl Surface Operations Regulations.</i> <p>Avoid detailed analysis of legislation and regulations – <u>OVERVIEW ONLY.</u></p>
<p>Allocation Procedures</p>	<ul style="list-style-type: none"> • explain how approvals (in the form of permits, licences, leases and other legal agreements) are used to grant exploration and/or development rights • identify factors that determine the nature of approvals required for a development activity; e.g.: <ul style="list-style-type: none"> – resource ownership (public or private) – type of resource to be developed • identify criteria taken into consideration when reviewing development applications and granting project approvals; e.g.: <ul style="list-style-type: none"> – sustainable development – reclamation of land – environmental protection – market demands and fluctuations – estimated returns and production life – integrated use of land • research departments and/or agencies having authority to grant approval for a selected energy or mineral development project 	<p>Explain that although the government leases mineral rights to the private sector for development, it collects a fair share of resource rents through royalty payments, development fees and freehold mineral taxes.</p> <p>Prepare a flow chart outlining procedures followed by an industry to obtain project approval.</p> <p>For example:</p> <ul style="list-style-type: none"> • Alberta Energy and Utilities Board • Alberta Environmental Protection • Alberta Energy • Environment Canada.

MODULE ENM2010: MANAGING ALBERTA'S RESOURCES (continued)

Concept	Specific Learner Expectations	Notes
<p>Allocation Procedures (continued)</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • research the intent of different permits, licences and/or agreements required prior to commencing the development project • research requirements for the renewal and/or extension of different permits, licences and agreements • explain the role of consultation (with other resource users) and public involvement in allocating land and resources for development, and in balancing interests among key stakeholder groups. 	<p>For example:</p> <ul style="list-style-type: none"> • Surface Rights Leases/Agreements • Exploration Approvals/Licences • Development and Reclamation Approvals • Clean Air/Water Permits • Historical Resource Permits • Road Use Agreements. <p>Discuss what happens when particular leases/claims lapse.</p> <p>Involve students in role-playing activities that include negotiation and debate.</p>

