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## EnviroTech

### PROFESSIONAL DEVELOPMENT COURSES AT ENVIROTECH 2018 DETAILS NOW AVAILABLE

**April 3rd, 2018  
Hyatt Regency Calgary**

ESAA is pleased to announce that **EnviroTech 2018** will feature three (3) **professional development courses** on Tuesday, April 3rd. The courses being offered are:

- Introduction to Air Quality
- Introduction to Environmental and Regulatory Law
- Waste Classification and Disposal in Alberta

Course fees include: Course materials, continental breakfast, lunch, coffee breaks and access to the *EnviroTech* opening reception.

Registration is limited to 25 students per course. Special pricing available for ESAA Members and Conference attendees.

Full details online at: <http://www.esaa.org/envirotech/agenda/courses/>

**Note:** No professional development courses will be offered in Edmonton during 2018.

### **GOVERNMENTS RENEW OIL SANDS MONITORING AGREEMENT**

The governments of Canada and Alberta today renewed their commitment to continue providing clear and scientifically rigorous information on the environmental impacts of oil sands development in northeastern Alberta.

Canada's Minister of Environment and Climate Change, Catherine McKenna, and Alberta's Minister of Environment and Parks, Shannon Phillips, today signed a memorandum of understanding formalizing their governments' shared responsibility to continue a long-term environmental monitoring program in the region.

The memorandum of understanding paves the way for greater Indigenous involvement in monitoring priorities and decisions. As a result, there will be more scientific expertise and funding available to Indigenous communities to assist with community-based monitoring.

Scientific data will provide objective information to help make evidence-based development decisions for the protection of our environment in Alberta's oil sands. Research, data and information generated by this program will be scientifically credible and publicly available.

“I’m proud to continue working with Alberta to ensure that reliable, robust and transparent environmental monitoring of oil sands development remains a priority. A strong economy depends on a healthy environment. Our government is committed to making sure that Canadian resources are developed responsibly and that environmental decision-making is based on the best available science, as well as Indigenous and traditional knowledge.” - *Catherine McKenna, Minister of Environment and Climate Change*

“Indigenous peoples are vital partners in managing Alberta’s resource economy. This agreement demonstrates our government’s commitment to reconciliation by creating greater opportunities to use both scientific and traditional knowledge in decisions that affect our environment, our economy and our communities. We know that protecting the environment and growing the economy are two sides of the same coin and that this will improve responsible, sustainable progress on both while creating good jobs for Indigenous people.” -*Shannon Phillips, Minister of Environment and Parks*

### **Quick facts**

- The enhanced monitoring outlined in the renewed agreement will be funded by industry up to \$50 million annually.
- The program will focus on the impact oil sands development has on air quality, water quality and quantity, wildlife health and biodiversity, and land disturbance.

### **Backgrounder: Canada-Alberta oil sands environmental monitoring**

Since 2012, the governments of Alberta and Canada have worked to implement an environmental monitoring program for the oil sands that integrates air, water, land and biodiversity. The intent is to improve characterization of the state of the environment and enhance understanding of the cumulative effects of oil sands development activities in the oil sands area.

In 2015, an external expert peer-review of the scientific integrity of the monitoring system concluded that the existing program was a substantial improvement over previous monitoring programs; however, several areas for improvement were also highlighted.

On Dec. 21, 2017, the ministers signed a bilateral Memorandum of Understanding to renew and strengthen their commitments to monitor the environmental impacts of oil sands development through a long-term Canada-Alberta collaboration, with the important new addition that discussions on future governance will include Indigenous peoples.

Some Indigenous communities publicly withdrew from the previous Joint Oil Sands Monitoring agreement in 2014, stating that it did not explicitly address treaty rights and lacked meaningful Indigenous input.

In order to strengthen efforts in reconciliation, regular consultations with Indigenous peoples began in early 2017 and remain ongoing, with clear support to date from many communities.

Building on existing monitoring, where possible, the approach to program implementation is adaptive to ensure that the program is responsive to emerging priorities, information, knowledge and input from key stakeholders and Indigenous peoples. The implementation plan is funded by industry up to \$50 million annually.

Discussions remain ongoing with the Canadian Association of Petroleum Producers (CAPP), Canada’s Oil Sands Innovation Alliance (COSIA) and the oil sands industry to ensure their industrial expertise and information informs oil sands monitoring.

Canada and Alberta will continue to work in parallel to engage Indigenous communities and other stakeholders to develop a framework that gives a decision-making role in oil sands monitoring for Indigenous communities that is mutually acceptable. Beginning in early 2018, this unprecedented approach will support reconciliation with Indigenous peoples.

Both governments remain committed to working with all partners to implement a robust, world-class and scientifically credible environmental monitoring program for the oil sands.

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### ***ALBERTA MUNICIPALITIES EXPLORE OPTIONS FOR ELIMINATING RECYCLABLE PRODUCTS*** ***New policy means certain paper and plastic products can no longer be sold to China***

(Source: Edmonton Journal) Starting Monday, Alberta municipalities will no longer be able to send certain paper and plastic products to China.

Like other Canadian cities, many Alberta municipalities have been shipping thousands of tonnes of items like plastic wrap, plastic grocery bags and cardboard to China each year.

But the Chinese government announced in July that it would stop accepting shipments of certain plastic and paper products by the end of 2017.

Christina Seidel with the Recycling Council of Alberta says this restriction is a "wake-up call" for Alberta cities and towns who now need to figure out what to do with their unsorted recyclables.

"This is something we should have always paid attention to but we've become lazy over the last three years. That's what has to change," she said.

#### **Recycling in Alberta's largest cities**

Some of Alberta's largest municipalities are already looking to other foreign markets to purchase their unsorted recyclable products.

Sharon Howland with Calgary's Waste and Recycling Services department said the implications of the Chinese government's restrictions on mixed paper and plastic is "astounding."

Before the policy change, Calgary's third-party recycling company sent all of the city's mixed paper products to China. Roughly 50 per cent of the city's mixed plastic products were also being sent to China. Howland

said although the restriction comes into effect Jan. 1, many Chinese companies stopped accepting recyclables in July.

"This is not something we haven't faced before. While China has always been a huge player in the recycling market and we've always been reliant on them, there's always been huge fluctuations in the recycling market," Howland said.

Calgary has been storing its unwanted recyclable items since the summer until the city can find another foreign buyer.

Edmonton currently sells about 10,000 tonnes of recyclables to China each year, according to city officials. That's about 25 per cent of Edmonton's collected recyclables.

The city, which already sells unwanted recyclable waste to other countries like Indonesia, will continue to rely on other markets to buy their plastic and paper products.

Edmonton also uses its biofuel facility to get rid of unwanted waste.

Trent Tompkins, Edmonton's director of waste collection services, says China's upcoming restrictions are something city officials anticipated.

"It will have an impact, but some other municipalities who may not have the same options that we do are certainly going to be harder hit," he said.

### **The future of recycling in Alberta**

Seidel says because items collected through recycling programs in Alberta are unsorted, it's a challenge to sell to foreign markets. For many of the province's recycling programs, everything goes into one bin.

With little sorting happening, few markets are still willing to take the unsorted waste, she said.

It's then up to recycling programs on the municipal level — which are often funded by tax dollars — to deal with the unwanted waste.

"We need to take a closer look at our systems and design it more effectively so we get marketable materials coming out," she said.

Seidel says Alberta is the only province that still doesn't track how much recycling is sent to foreign markets. She says it's because each municipality is taking on recyclables collection itself.

In British Columbia, a program called Extended Producer Responsibility (EPR) puts the onus on the manufacturer of the materials to deal with the recycling of a product.

It's something the Recycling Council of Alberta would like to see implemented in Alberta so taxpayers will no longer be paying for municipal recycling programs. Instead, manufacturers could be held responsible for recycling.

"They're the one supplying materials and they're in the best position to actually deal with changing anything that needs to be done to make a better system," she said.

Tompkins and Howland both said EPR programs have been discussed with industry and city officials in their respective cities. Yet, provincial legislation would need to be put in place first before municipalities like Edmonton or Calgary can change their recycling programs.

"It's a topic being discussed," Tompkins said. "I don't think there's a significant push but I think these types of situations may start the conversation."

## ***AS GUNNAR MINE CLEANUP TOPS \$100 MILLION, SASK. TAXPAYERS COULD BE LEFT HOLDING FULL \$250-MILLION BILL***

(Source: The Star Phoenix) The provincial and federal governments have not yet reached an agreement on who will pay for the \$268-million cleanup project.

Saskatchewan taxpayers could be left holding a quarter-billion-dollar bill if provincial officials can't convince the federal government to honour a 12-year-old pledge to pay half the cost of cleaning up an abandoned uranium mine near the Northwest Territories border.

The provincial government has now sunk \$102 million into the \$268-million project, the cost of which has ballooned to ten times the original estimate. Ottawa, meanwhile, won't commit any more than the \$12.3 million it pledged when the project began 12 years ago.

"We continue to urge the federal government to contribute more money to this cost shared project. Discussions are continuing," Saskatchewan government spokesman James Parker said this week in an email.

Natural Resources Canada, meanwhile, contends the massive cost overrun is a provincial responsibility because the Gunnar mine site is owned by the Saskatchewan government. Both the federal and provincial government turned down interview requests.

Gunnar Mining Ltd. built the mine on a peninsula jutting into Lake Athabasca, about 800 kilometres north of Saskatoon, and [operated it from 1955 to 1963](#). The mine, its open pit flooded with water, was abandoned and the company dissolved the following year.

More than four decades later, the provincial and federal governments agreed to split the estimated \$24.6-million cost of cleaning up the site, a project that included tearing down buildings filled with asbestos and covering radioactive tailings and waste rock piles with earth.

A memorandum of agreement signed in 2006 stated both parties must discuss the financing of any additional or unforeseen costs. Parker said cost overruns were expected, and the province will continue to urge Natural Resources Canada to honour the original deal.

"In the late 1950s when these mines were developed, the federal government exerted significant influence on uranium development in Canada and all production was required to be sold through the federal Crown Corporation Eldorado Mining and Refining Ltd.," he said.

Despite saying it places the "highest priority" on environmental protection, the federal ministry has committed only to paying the remaining \$11.1 million once final approvals for the remediation work are issued by provincial and federal regulators.

"The Saskatchewan government is the owner of the Gunnar site and is responsible for developing remediation plans, funding and management of the remediation project," spokeswoman Jocelyn Argibay said in an email.

The province's argument that Ottawa should be partly responsible for the cost because it had a monopoly on exports has previously been made by provincial and federal politicians, as well as the Saskatchewan Environmental Society, which said [Ottawa's position did not seem reasonable](#).

NDP MP Georgina Jolibois, whose Desnethé-Missinippi-Churchill River constituency encompasses the abandoned mine, said Wednesday it is the responsibility of both the federal and provincial governments to clean up the site, as both profited from its existence.

Asked whether the provincial government will be able to extract more cash from Ottawa and avoid leaving Saskatchewan taxpayers footing the bill, Jolibois replied: "With enough pressure, there's always a possibility."

Remediation work at the mine is expected to wrap up in 2021 or 2022, at which point the project will enter a longer-term monitoring phase.

### ***PROPOSED NEW REGULATIONS TO PROTECT CANADIANS FROM EXPOSURE TO ASBESTOS***

Breathing in asbestos fibres can cause life-threatening diseases, such as asbestosis, mesothelioma and lung cancer. The World Health Organization has declared all types of asbestos carcinogenic to humans.

Recognizing the significant health risks from exposure to asbestos, in December 2016 the Government of Canada launched a strategy to ban asbestos and products containing asbestos by 2018. As part of this strategy, Environment and Climate Change Canada and Health Canada have proposed new regulations which would prohibit, with a limited number of exclusions, the use, sale, import and export of asbestos and products containing asbestos, as well as the manufacture of products containing asbestos.

The objective of these regulations is to ensure that no new asbestos or products containing asbestos are allowed entry into Canada. Risks related to the continued use and sale of legacy asbestos and products containing asbestos – such as in existing buildings, equipment and vehicles – will continue to be managed by existing federal, provincial and municipal rules and regulations.

These proposed new regulations are subject to a period of public consultation. Comments received during this period will be considered in the development of the final regulations, which will come into force later in 2018.

In addition to the development of the new regulations to prohibit asbestos and products containing asbestos from entering the Canadian market, the government-wide strategy includes other activities to protect Canadians from asbestos exposure.

For example:

- Employment and Social Development Canada is establishing new federal workplace health and safety rules that would drastically limit the risk of people coming into contact with asbestos on the job;
- Public Services and Procurement Canada is expanding the current online list of asbestos-containing buildings owned or leased by the Government of Canada;
- The National Research Council is working in collaboration with our provincial and territorial partners to change the national, provincial and territorial building codes to prohibit the use of asbestos in new construction and renovation projects across Canada;
- Health Canada is working to raise awareness of the health impacts of asbestos to help reduce the incidence of lung cancer and other asbestos-related diseases.

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### ***CANADIAN GOVERNMENT TO SPEND \$80 MILLION TO STUDY OIL SPILLS***

(Source: HazMat Magazine) Building on the announcements of \$3 million in funding for R&D on oil spill response technology, the federal government recently announced it is spending \$80-million on oil spill research on preventing spills as well as their effect on the marine environment.

There will be \$45.5-million set up for a research program that will foster collaboration among researchers in Canada and around the world, with \$10-million a year to bring scientists together to study how oil spills behave, how to clean and contain them and how to minimize environmental damage.

The [Centre for Offshore Oil, Gas and Energy Research](#) in Halifax will also get some of the \$16.8-million in funding for new scientists and specialized equipment. It will support oil spill research to better understand how oil degrades in different conditions.

Another \$17.7-million will be used to fund research and development of enhanced ocean computer models of winds, waves and currents to allow responders to better track spills.

The funds are part of the \$1.5-billion [Oceans Protection Plan](#), which is aimed at developing a marine safety system.

## ***SENATORS, MPs CALL FOR \$1.4-BILLION IN CONSERVATION FUNDING FROM FEDERAL GOVERNMENT***

(Source: The Globe and Mail) More than 100 MPs and senators have signed a letter to Finance Minister Bill Morneau asking for a historic expansion of Canada's protected land and marine areas to be financed with an investment of \$1.4-billion over three years that would be included in the next federal budget.

The letter drafted by Quebec Liberal MP William Amos, a former environmental lawyer, says the money is needed for development of national parks and for protected areas being created by Indigenous groups, provinces, territories, municipalities and private interests. The pledge would ensure that Canada meets its commitment under the United Nations Convention on Biological Diversity to protect at least 17 per cent of its land by 2020. According to recent reports, just more than 10 per cent of Canada's land is currently protected.

"I am absolutely convinced that the federal government has underinvested for the better part of the last 15 years," said Mr. Amos, who stressed that the letter, a copy of which was obtained by The Globe and Mail, is a non-partisan effort to increase spending in wilderness preservation.

"This isn't just about the conservation of our most special land and waters," he said, "it's about enabling what we have promised to do internationally while recognizing that there are major economic conservation opportunities, notably in the form of tourism for rural regions."

Mr. Morneau's office said on Monday that it is still engaged in prebudget consultations and will not speculate what might be under consideration.

The letter's 115 signatories include Liberal MPs and senators, New Democrat MPs and a Conservative senator. It asks for an initial investment of \$1.4-billion over the next three years and then \$470-million annually to pay for the enhancement of protected areas.

That is the same amount requested in a recent report by the Green Budget Coalition, a group of 19 of Canada's top environmental organizations including the Canadian Parks and Wilderness Society, the World Wildlife Fund, Greenpeace, Nature Canada, Ducks Unlimited, the David Suzuki Foundation and Ecojustice Canada, which is Mr. Amos's former employer.

The letter points to a poll of 2,001 Canadians conducted in November by the Earncliffe Strategy Group for the Schad Foundation and the Boreal Songbird Initiative in which 87 per cent of respondents said Canada should meet the 2020 target for land protection. Four out of five of those surveyed agreed they would support increased funding for that initiative.

"It's easy to focus on \$1.4-billion and say 'Wow, that sounds like a lot of money,'" Mr. Amos said. But, he said, studies suggests that, for every dollar invested in conservation, there is a \$6 economic return. "This is a classic example of the environment and the economy going hand in hand."

Deborah Schulte, the Liberal MP who is also chair of the Commons standing committee on environment and sustainable development, helped Mr. Amos gather names of signatories for the letter, as did others including Wayne Stetski, the NDP MP for Kootenay-Columbia in British Columbia who is his party's critic for national parks.

Story continues below advertisement

Mr. Steski pointed out that the committee chaired by Ms. Schulte, of which he and Mr. Amos were members, released a unanimous report in March, 2017, calling for more investment in conservation to meet Canada's international commitments.

Éric Hébert-Daly, the national executive director of the Canadian Parks and Wilderness Society, said \$1.4-billion over three years would be a massive generational investment in environmental protection.

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## **REMEDATION TECHNOLOGY NEWS AND RESOURCES**

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(The following are selected items from the US EPA's Tech Direct - <http://clu-in.org/techdirect/>)

### **Upcoming Live Internet Seminars**

**ITRC Groundwater Statistics for Environmental Project Managers - January 23, 2018, 1:00PM-3:15PM EST (18:00-20:15 GMT).** Statistical techniques may be used throughout the process of cleaning up contaminated groundwater. It is challenging for practitioners, who are not experts in statistics, to interpret, and use statistical techniques. ITRC developed the Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) and this associated training specifically for environmental project managers who review or use statistical calculations for reports, who make recommendations or decisions based on statistics, or who need to demonstrate compliance for groundwater projects. The training class will encourage and support project managers and others who are not statisticians to: use the ITRC Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) to make better decisions for projects; apply key aspects of the statistical approach to groundwater data; and answer common questions on background, compliance, trend analysis, and monitoring optimization. ITRC's Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) and this associated training bring clarity to the planning, implementation, and communication of groundwater statistical methods and should lead to greater confidence and transparency in the use of groundwater statistics for site management. For more information and to register, see <http://www.itrcweb.org> or <https://clu-in.org/live>.

**ERTP Presents?Pragmatic Approaches to Remedial Investigation, Technology Selection, and Remediation Success - January 24, 2018, 1:00PM-3:00PM EST (18:00-20:00 GMT).** This webinar will discuss high resolution site characterization using direct-sensing and data visualization tools to rapidly build the conceptual site model in an adaptive process. We strive for timeframes of months, not years, by starting with the end in mind and employing a collaborative team approach, including our state, tribal, industrial and community counterparts. Goal one is to gain a confident understanding of the spatial and matrix distribution of contaminants of concern. Goal two is to rapidly gather information essential to informing potential remedy choices focused on root causes. Goal three is to minimize mobilizations and transaction costs by evaluating data and identifying data gaps in real-time while the investigation team is still in the field. By including all project stakeholders in the investigation and decision-making process, the report becomes a reflection of the team's findings, interpretations and decisions, rather than one party's opinion piece subject to debate. This presentation will briefly describe the approach and focus on recent work at sites of different scales to showcase the process and workflows that demonstrate its effectiveness. For more information and to register, see <https://clu-in.org/live>.

**ITRC Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management - January 25, 2018, 1:00PM-3:15PM EST (18:00-20:15 GMT).** Chemical contaminants in soil and groundwater can volatilize into soil gas and migrate through unsaturated soils of the vadose zone. Vapor intrusion (VI) occurs when these vapors migrate upward into overlying buildings through cracks and gaps in the building floors, foundations, and utility conduits, and contaminate indoor air. If present at sufficiently high concentrations, these vapors may present a threat to the health and safety of building occupants. Petroleum vapor intrusion (PVI) is a subset of VI and is the process by which volatile petroleum hydrocarbons (PHCs) released as vapors from light nonaqueous phase liquids (LNAPL), petroleum-contaminated soils, or petroleum-contaminated groundwater migrate through the vadose zone and into overlying buildings. The ITRC Technical and Regulatory Guidance Web-Based Document, Petroleum Vapor Intrusion: Fundamentals of Screening, Investigation, and Management (PVI-1, 2014) and this associated Internet-based training provides regulators and practitioners with consensus information based on empirical data and recent research to support PVI decision making under different regulatory frameworks. The PVI assessment strategy described in this guidance document enables confident decision making that protects human health for various types of petroleum sites and multiple PHC compounds. This guidance provides a comprehensive methodology for screening, investigating, and managing potential PVI sites and is intended to promote the efficient use of resources and increase confidence in decision making when evaluating the potential for vapor intrusion at petroleum-contaminated sites. By using the ITRC guidance document, the vapor intrusion pathway can be eliminated from further investigation at many sites where soil or groundwater is contaminated with petroleum hydrocarbons or where LNAPL is present. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

**ITRC Geospatial Analysis for Optimization at Environmental Sites - January 30, 2018, 1:00PM-3:15PM EST (18:00-20:15 GMT).** The purpose of ITRC's Geospatial Analysis for Optimization at Environmental Sites (GRO-1) guidance document and this associated training is to explain, educate, and train state regulators and other practitioners in understanding and using geospatial analyses to evaluate optimization opportunities at environmental sites. With the ITRC GRO-1 web-based guidance document and this associated training class, project managers will be able to: evaluate available data and site needs to determine if geospatial analyses are appropriate for a given site; for a project and specific lifecycle stage, identify optimization questions where geospatial methods can contribute to better decision making; for a project and optimization question(s), select appropriate geospatial method(s) and software using the geospatial analysis work flow, tables and flow charts in the guidance document; with geospatial analyses results (note: some geospatial analyses may be performed by the project manager, but many geospatial analyses will be performed by technical experts), explain what the results mean and appropriately apply in decision making; and use the project manager's tool box, interactive flow charts for choosing geospatial methods and review checklist to use geospatial analyses confidently in decision making. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

### **New Documents and Web Resources**

**ITRC Characterization and Remediation of Fractured Rock.** This ITRC guidance addresses significant advances in skills, tools, and lessons-learned in understanding contaminant flow and transport in fractured rock environments. If the unique characteristics of fractured rock sites are understood, then modern tools and approaches can be applied to successfully set and meet characterization and remediation goals at these sites (December 2017). View and use at <http://fracturedrx-1.itrcweb.org>.

**New CL:AIRE Technical Bulletin TB16 Complete Continuous Monitoring in Underfloor Voids (2017).** Post construction monitoring of passively ventilated underfloor voids is not routinely required. The design and performance of passive venting systems for ground gas follows well established principles and has been proven to be effective over the past twenty five years. There are however occasions when there is value in carrying out monitoring of underfloor voids to help provide a more robust assessment of the risk posed by ground gas on a site. In such cases this bulletin explains a best practice approach using complete continuous monitoring. View or download at <https://www.claire.co.uk/home/news/773-new-cl-aire-technical-bulletin>.

TSS and TDS loads at three locations within a mining-influenced watershed in Colorado. View at <http://rdcu.be/vcio>.

**Technology Innovation News Survey Corner.** The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at <https://clu-in.org/products/tins/>. The following resources were included in recent issues:

- Cost-Effective and High-Resolution Subsurface Characterization Using Hydraulic Tomography
- In Situ Treatment Train for Remediation of Perfluoroalkyl Contaminated Groundwater: In Situ Chemical Oxidation of Sorbed Contaminants (ISCO-SC)
- Review and Synthesis of Evidence Regarding Environmental Risks Posed by Munitions Constituents (MC) in Aquatic Systems
- Groundwater and PFAS: State of Knowledge and Practice
- Contaminant Flux Reduction Barriers for Managing Difficult-to-Treat Source Zones in Unconsolidated Media: Technical Guidance Manual
- CO<sub>2</sub> Sparging: Phase 3 Full-Scale Implementation and Monitoring Report, LCP Chemicals Site, Brunswick, GA
- Technical Memorandum: ISB Phase I and ISCO Phase II Results and Downgradient Area Pilot Study Work Plan, Georgetown Facility, Seattle, Washington

**Derivation and Use of Soil Screening Values for Assessing Ecological Risks (2017).** This UK Environment Agency report adapts Soil screening values (SSVs) which were first proposed by the Environment Agency as part of a broader framework for ecological risk assessment (ERA) for historical soil contamination, for use in a different purpose, setting out their use in the technical assessment of the recovery of waste and waste-derived materials to land. It updates their scientific basis, taking into account recent developments in international methods on assessing and characterizing the terrestrial ecotoxicity of chemicals published by the European Chemicals Agency. It expands the coverage of chemicals for which an SSV is proposed to include a wider range of common trace elements and persistent organic pollutants that are relevant to wastes applied to land. View or download at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/657723/Soil\\_screening\\_values\\_for\\_assessing\\_ecological\\_risk\\_-\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/657723/Soil_screening_values_for_assessing_ecological_risk_-_report.pdf)

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## ***New ESAA Member***

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ESAA's Board of Directors and staff would like to welcome the following new member:

**Full Member:**



**Terrapure Environmental**

6024-27<sup>th</sup> Street NW  
Edmonton, AB T6P 1Y5

**Phone:** (780) 450-7666

**Website:** [www.terrapureenv.com/](http://www.terrapureenv.com/)

Kelly Dressler, Sales & Marketing-West Central Alberta

**e-mail:** [kdressler@terrapureenv.com](mailto:kdressler@terrapureenv.com)

**Profile:**

At Terrapure we offer a complete range of environmental services to meet virtually every industry's needs. We find new ways to increase reuse and recycling of waste while reducing or eliminating disposal. We offer customized solutions from our facilities and directly on customer sites, from waste processing and water treatment to oil recycling and services that help customers meet zero landfill objectives. With an integrated network of over 30 government regulated facilities from coast to coast, Terrapure can manage virtually every type of waste stream in virtually every industry sector across Canada.

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## ***UPCOMING EVENTS***

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# **SCIENCE AND TECHNOLOGY TALKS 2018**

CALGARY • JANUARY 19<sup>th</sup>, 2018 | EDMONTON • FEBRUARY 2<sup>nd</sup>, 2018  
LLOYDMINSTER • MARCH 23<sup>rd</sup>, 2018 | GRANDE PRAIRIE • APRIL 13<sup>th</sup>, 2018

### ***AGAT SCIENCE AND TECHNOLOGY SEMINARS 2018***

AGAT Laboratories' **Science and Technology Talks 2018** offer the opportunity for industry professionals to join together to learn and discuss relevant topics in the Energy, Environmental, Industrial and Health and Safety Sectors. Additionally, it offers an opportunity to present their unique challenges and questions to our industry leaders from a variety of backgrounds such as governmental, laboratory, energy and environmental consulting professions.

Calgary/Edmonton - FULL DAY Seminar registration opens at 7:15 AM on each day and will include a number of presentations, breakfast, lunch and networking breaks throughout the day. Registration deadline is January 15th (Calgary) and January 29th (Edmonton), and delegate passes are \$175.00 (includes GST).

Lloydminster/Grande Prairie - HALF DAY Seminar registration opens at 7:15 AM on each day and will include a number of presentations, breakfast, and a networking break throughout the day. Registration deadline is March 19th (Lloydminster) and April 9th (Grande Prairie), and delegate passes are \$90.00 (includes GST).

Visit: <http://www.agatlabs.com/seminars/techtalks-2018.cfm> to register for one of the seminars.

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### ***THE CANADIAN ENVIRONMENTAL & ENGINEERING EXECUTIVES CONFERENCE***



The Canadian Environmental & Engineering Consulting Industry comprises thousands of professionals in various engineering and scientific disciplines. The services provided by the industry supports major sectors of the Canadian economy, generates billions of dollars in revenue while creating thousands of direct and indirect employment opportunities for Canadian professionals.

The conference provides a venue whereby the senior executives of the Canadian Environmental & Engineering Consulting Industry can meet and discuss key issues facing the industry. Through a high-level benchmarking of the industry the senior executives will be able to track Key Performance Indicators while discussing the KPIs and other topics important to their Canadian operations in a panel session forum at the conference.

#### **Who should attend:**

- Presidents & CEOs
- Senior Executives
- Leaders responsible for strategy development and execution
- Chairman of your Board
- Senior executives responsible for your Canadian operations

#### **Conference Registration**

- Registration Fee: \$1,900/per participant
- Registration deadline: April 31st, 2018
- Early Registration Fee: \$1,600
- Early Registration deadline: February 28th, 2018
- Maximum participants for 2018: 175
- Benchmarking package deadline: June 1st, 2018

For further information about the conference, registration, full agenda and hotel accommodation please visit our website - [WWW.CE3C.CA](http://WWW.CE3C.CA)

CE<sup>3</sup>C is organized and delivered by F&M Management Ltd., corporate advisory consultant to the Environmental and Engineering Industry. Please visit our website to learn more about F&M Management Ltd. - [WWW.FMMLTD.COM](http://WWW.FMMLTD.COM)

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### ***Soil Sterilant Remediation: Workshop Invitation***

InnoTech Alberta's Reclamation Team has initiated a project to assess the **needs and challenges** associated with **reclamation and remediation** of sites impacted by **soil sterilant** residues. In Alberta, the problems associated with soil sterilants are becoming more evident as legacy oil and gas sites are abandoned and slated for remediation and reclamation. The actual number of sites impacted by sterilants (industrial facilities, oil and gas sites, etc.) is unknown, however Cotton and Sharma (1992) estimated the number of oil and gas sites in Alberta with soil sterilant residues to be over 60,000. Many of these sites have been stalled at the remediation phase due to the challenging nature of the contaminants, resulting in a liability and financial burden for industry and an inability to achieve site closure. Sterilants are particularly challenging for a number of reasons: 1) they are difficult to treat, especially to guideline levels; 2) they are often widespread due to the amount of time they have had to migrate, making remedial excavation expensive; 3) each type of sterilant is unique, with a unique set of challenges; and 4) there are often confounding contaminant issues associated with remediation at legacy sites where sterilants are typically found.



Preliminary conversations with industry have indicated there is a **need** to find a **solution** to this problem and determine the best approach to manage sites impacted by sterilants. There is a strong indication that companies are interested in participating and would benefit from sharing information and resources therefore a **workshop** is being organized to **share learnings** and identify **opportunities** and **strategies** for managing sterilant-impacted sites. A considerable amount of research and operational activity has occurred over the past 20 years on this topic. Risk-based soil eco-contact remediation guidelines have been developed and adopted by AEP for bromacil and tebuthiuron; researchers have investigated the use of amendments for their effectiveness in remediating herbicide residues in soil as well as other technologies such as enhanced biodegradation, phytoremediation, absorption, thermal desorption and soil flushing. In addition, new technologies and approaches have been developed to remediate other contaminants which may be applicable to sterilant remediation. Past **learnings** are being **synthesized** and applicable **technologies** are being **investigated** and will be **provided** to workshop **participants** to set the framework for identifying opportunities and strategies for managing sterilant impacted sites.

#### ***What is occurring?***

- A half-day **workshop** is being organized to share past **learnings**, discuss applicable **approaches** and **technologies** for managing sterilant impacted sites and identify key **knowledge gaps** which could be addressed through research.
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#### ***Why is the workshop occurring?***

- The **objective** of the **workshop** is to develop a collective understanding of the number of sites impacted by soil sterilants and the specific challenges associated with their remediation and management.
- Intended **outcomes** from the workshop include; 1) an **advisory committee** is established to guide future direction and/or research needs, 2) a **research program plan**, including a business case is developed to identify and evaluate **strategies** and **best management practices** for companies operating in Alberta to manage sites impacted by soil sterilants, and 3) a workshop summary report is provided to participants.

#### ***When is it happening?***

- February 8, 2018

#### ***Where is it happening?***

- InnoTech Alberta's Calgary Office (3608-33 street NW)

#### ***Who will be attending?***

- Individuals with a **vested interest** in **soil sterilants** from industrial facilities, oil and gas industry, environmental services industry, researchers, policy makers and regulators are invited to participate in the workshop.

For more information contact

Bonnie Drozdowski  
[bonnie.drozdowski@innotechalberta.ca](mailto:bonnie.drozdowski@innotechalberta.ca)  
780-450-5230

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Technical Education Webinar

**Updates to Soil Vapour Sampling and Data Interpretation**  
January 25, 2018 at 1pm EST

**Maxxam**  
A Bureau Veritas Group Company

**REGISTER NOW!** 

**Speaker: Petro Oh, Business Development Manager, Air Toxics and HRMS**

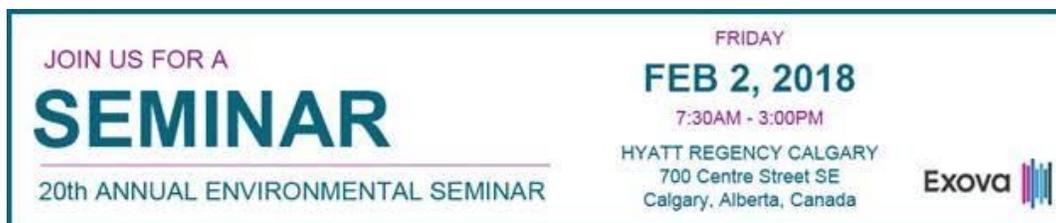
**Date / Time: Thursday, January 25, 2018, 1:00pm EST**

Soil vapour assessment is a common topic in the environmental industry, as it applies to site assessment, remediation and risk assessment. Staying up to date on developments to the science of it, including regulatory changes and data interpretation, is therefore crucial. In this webinar we examine the following:

- Put into context some changes as published in the Atlantic PIRI RBCA guidance

- Emerging Trends - What should we be sampling? What are we sampling?
- Meaning of Results – What do RPDs of Field Duplicates and Replicates indicate?
- Sharing some interpretations of soil vapour results.

Registration is required to attend this event. Please [register](#) now.



Registration for Exova Canada Inc's Annual 20<sup>th</sup> Environmental Seminar at the **Calgary Hyatt Downtown on February 2<sup>nd</sup>** is now open! This will be a full day of scheduled talks on new regulatory updates, remediation programs, environmental impact assessments and R&D. These sessions provide a great networking opportunity for our clients and provide them a chance to earn professional development credits towards their designation.

Please [click here](#) to access a copy of the seminar agenda.

Registration is \$99 + tax including a hot buffet breakfast and a plated lunch. This regulatory session is approved for professional development credits. Please call client services at (403) 291-2022 ext 3 for payment to confirm your spot.

Please contact [betsy.chai@exova.com](mailto:betsy.chai@exova.com) if you have any questions.

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## ***Industry Positions Openings***

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***For more information visit ESAA's Job Board under the news section of [www.esaa.org](http://www.esaa.org)***

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Wetland Specialist/ Vegetation Ecologist

**Term:** Full-Time

**Number of Positions:** 1

**Application Deadline:** January 20, 2018



### ***Career Opportunity***

Ridgeline Environment, a division within Ridgeline Canada Inc, is currently seeking a Wetland Specialist/Vegetation Ecologist based out of our Calgary, Edmonton, or Red Deer office. The successful candidates will have a diverse skill set with Oil and Gas experience, including; Pre-disturbance Site Assessment, Wildlife Surveys, Wetland Assessments, Habitat Evaluation, Enhanced Approval Process, EIA and Environmental Monitoring. Reclamation and Remediation experience is not required but would be considered an asset.

The successful candidate will work closely with the company professionals in our Environmental division by coordinating work for our clients, while maintaining excellent communication between the client and our field professionals.

**Required Qualifications:**

- Professional Biologist (P.Biol.) and Qualified Wetland Science Practitioner;
- Qualified Aquatic Environmental Specialist (QAES) an asset but not required
- 5 + years relevant terrestrial biology experience; including pre-disturbance assessments, wetland impact assessments, and wildlife surveys
- Must have strong vegetation, soils and wildlife identification skills
- Experience in initial Spill Response and Ongoing Monitoring of sensitive habitats
- Experience with field activities and technical report writing
- Knowledge of pertinent provincial and federal environmental regulations

**Required Competencies:**

- Strong commitment to client satisfaction
- Possess strong verbal and written communication skills, exemplary interpersonal skills and is very detail oriented and organized
- Precise attention to detail and ability to produce professional quality deliverables on time and on budget
- Ability to provide leadership and training while maintaining a positive team approach
- Accountable to all assigned duties

**Responsibilities:**

- Projects related to pre-disturbance wetland and vegetation assessments, Code of Practice Applications, Water Act Applications, Alberta Wetland Policy documents, etc.
- Create scopes of work in accordance with Ridgeline standards
- Travel for fieldwork to complete required assessments and projects
- Assign projects to field staff; initiating the fieldwork and providing training
- Ensure compliance with all safety regulations and SOP's are completed as regularly required and all safety documentation is forwarded to HSE from field staff. Educate field professionals of any hazards and provide hazard controls
- Remain current with environmental legislation and regulatory updates, provide updated information as it becomes available to staff
- Review completed reports for accuracy and formatting

**Compensation:**

- Competitive Salary
- HSE training & PPE
- Tech Set provided by Ridgeline Canada Inc.
- Subsistence and Mileage Allowances
- Group Life and Health Benefits
- Professional Development

At Ridgeline we invest in our personnel, we take pride of our open team orientated culture and strive to provide and sustain a balance between the professional and personal life style. We offer the opportunity to all our valued employees to be challenged and grow within Ridgeline through an energetic and supportive team environment.

**Contact Information**

For further information, please refer to our website at [www.ridgelinecanada.com](http://www.ridgelinecanada.com)

This posting will remain open until suitable candidates have been selected.

We thank all applicants for applying and advise that only those candidates selected for interviews will be contacted.

To apply for this position, please send your resume to the Human Resource Department;

[careers@ridgelinecanada.com](mailto:careers@ridgelinecanada.com) **Subject Line: Wetland/Vegetation Ecologist – (Office Location)**

Since 1999, Ridgeline Environment has prided ourselves with providing practical environmental strategies. Ridgeline provides its clients with a diverse team of experienced professionals able to plan and execute projects efficiently and effectively. Client dedicated teams of Project Managers, Professional Agrologists, Soil Scientists, Hydrogeologists, Biologists and Environmental Consultants keep Ridgeline clients at the forefront of changing or pending regulator legislation and industry needs in regard to our cradle to grave environmental services. Ridgeline's in-house expertise and experience gives us the capability to develop remediation and reclamation programs for environmental projects across Western Canada. Ridgeline provides an energetic and vibrant work environment dedicated to developing environmental professionals. Through Proactive Execution, Ridgeline's management and employees are committed to fostering a workplace team that values safety, quality, , integrity, & communication.

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## **Emergency Response Team – Incident Commander** **Position**



**Term:** Full-Time

**Application Deadline:** January 23, 2018

**Job Location:** Multiple Locations

### ***Career Opportunity – Incident Commander***

Ridgeline Response, a Division of Ridgeline Canada Inc is looking for environmental leaders to support our existing emergency response team in our Swift Current, Kindersley, Lethbridge, Edmonton, and Grande Prairie offices.

The successful candidates will have a diverse skill set and experience including but not limited to; initial spill response (containment and recovery), environmental site assessment, planning and supervising remediation/reclamation projects, field data collection, wildlife, analytical interpretation, and technical writing.

### ***Qualifications and Experience***

- Degree (or Diploma) in Environmental Sciences or related discipline;
- 5 years of transferable work experience;
- Professional designation or working towards a professional designation;
- Previous experience in spill/release events in Western Canada, initial response, containment and recovery techniques, regulatory compliance, communication with stakeholders (clients, landowners, regulators) and experience in designing and executing site specific remediation action plans;
- Experience in reclamation and remediation practices on private and public lands;
- Experience in building and maintaining project scope of work and budgets;
- Experience with technical report writing, proposal support and preparation of borehole logging, site diagrams, formatting site and aerial photographs;
- Knowledge of pertinent provincial and federal environmental regulations;
- Experience in HAZMAT protocols and situations.

### ***Competencies and Safety Training***

- Strong commitment to customer satisfaction;
- Possess strong verbal and written communication skills, exemplary interpersonal skills and is very detail oriented and organized;
- Ability to work and be available on a 24/7 basis for mobilization (where required);
- Precise attention to detail and ability to produce professional quality deliverables on time and on budget;
- Accountable to all assigned portfolios;
- Accurate data entry into electronic project databases
- ICS/WCSS knowledge and training as well as possessing all current and relevant safety tickets is a definite asset.
- Class 5 Drivers License

## **Responsibilities**

- Overall project management for spill/release events in the region;
- Communicate project objectives and progress updates with clients;
- Establish cost estimates for overall projects;
- Create scopes of work in accordance with Ridgeline standards;
- Assign projects to field staff; initiate fieldwork;
- Review and interpret laboratory analytical results;
- Ensure all field work has been accurately documented and uploaded to site specific files by the field staff assigned, including safety documentation;
- Work with the support of our technical team to determine site specific guidelines objectives and project goals;
- Accurately track and manage project costs, data flow, the project timeframes and deliverables;
- Provide periodic updates on projected targets and actual costs to the Ridgeline General Manager;
- Work with the billings coordinator and or billings assistant to manage the invoicing process;
- Ensure compliance with all safety regulations and SOP's are completed as regularly required and all safety documentation is forwarded to HSE from field staff. Educate field professionals of any hazards and provide hazard controls;
- Remain current with environmental legislation and regulatory updates, provide updated information as it becomes available to staff;
- Provide opportunities for mentorship, training and development of field professionals;
- Review completed reports for accuracy and formatting.

## **Rewards**

- Competitive salary, expense reimbursement and vacation;
- Professional development opportunities;
- Internal and external training programs;
- Group life and health benefits;
- Work life balance.

At Ridgeline we invest in our personnel, we take pride of our open team orientated culture and strive to provide and sustain a balance between the professional and personal life style. We offer the opportunity to our valued employees to be challenged and grow within Ridgeline through an energetic and engaged team environment.

## **Contact Information**

For further information, please refer to our website at [www.ridgelinecanada.com](http://www.ridgelinecanada.com).

This posting will remain open until a suitable candidate has been selected.

We thank all applicants for applying and advise that only those candidates selected for interviews will be contacted.

To apply for this position, please send your resume to the Human Resource Department;

[careers@ridgelinecanada.com](mailto:careers@ridgelinecanada.com) - **Subject line: Incident Commander – Ridgeline Response**

*Since 1999, Ridgeline Canada Inc. has prided ourselves with providing practical environmental strategies. Ridgeline provides its clients with a diverse team of experienced professionals able to plan and execute projects efficiently and effectively. Client dedicated teams of Project Managers, Professional Agrologists, Soil Scientists, Hydrogeologists, Biologists and Environmental Consultants keep Ridgeline clients at the forefront of changing or pending regulator legislation and industry needs in regard to our cradle to grave environmental services. Ridgeline's in-house expertise and experience gives us the capability to develop remediation and reclamation programs for oilfield sites across Western Canada. Ridgeline provides an energetic and vibrant work environment dedicated to developing environmental professionals. Through Proactive Execution, Ridgeline's management and employees are committed to fostering a workplace team that values quality, accountability, integrity, communication and safety.*

## **Emergency Response Team – Emergency Responder Position**



**Term:** Full-Time

**Application Deadline:** January 23, 2018

**Job Location:** Multiple Locations

### ***Career Opportunity – Emergency Responder***

Ridgeline Response, a Division of Ridgeline Canada Inc is looking for environmental leaders to support our existing emergency response team in our Swift Current, Kindersley, Lethbridge, Edmonton, and Grande Prairie offices.

The successful candidates will have a diverse skill set and experience including but not limited to; initial spill response (containment and recovery), environmental site assessment, field data collection, wildlife, analytical interpretation, and technical writing.

### ***Qualifications and Experience***

- Degree (or Diploma) in Environmental Sciences or related discipline;
- Minimum of 2 years of transferable work experience;
- Professional designation or working towards a professional designation;
- Previous experience in spill/release events in Western Canada, initial response, containment and recovery techniques, regulatory compliance, communication with stakeholders (clients, landowners, regulators) and experience in the field execution of site specific remediation action plans;
- Experience in reclamation and remediation practices on private and public lands;
- Experience with technical report writing, preparation of borehole logging, site diagrams, formatting site and aerial photographs;
- Knowledge of pertinent provincial and federal environmental regulations;
- Experience in HAZMAT protocols and situations.

### ***Competencies and Safety Training***

- Strong commitment to customer satisfaction;
- Possess strong verbal and written communication skills, exemplary interpersonal skills and is very detail oriented and organized;
- Ability to work and be available on a 24/7 basis for mobilization (where required);
- Precise attention to detail and ability to produce professional quality field documentation;
- Accountable to all assigned project tasks;
- Accurate data entry into electronic project databases
- ICS/WCSS knowledge and training as well as possessing all current and relevant safety tickets is a definite asset.
- Class 5 Drivers License

### ***Responsibilities***

- Emergency response at a field level in the region;
- Communicate field observations and project status updates to direct supervisor (Incident Commander);
- Adhere to project objectives that are established by the regulator, client and direct supervisor;
- Perform field and office duties in accordance with Ridgeline standards;
- Ensure all work activities have been accurately documented and uploaded to project specific files (including safety documentation);
- Accountability to technical and financial project objectives;
- Provide daily project status updates to direct supervisor;
- Ensure compliance with all safety regulations and SOP's are completed as regularly required and all safety documentation is forwarded to HSE from field staff. Identify and communicate all safety hazards to direct supervisor and HSE manager and provide hazard controls;
- Remain current with environmental legislation, regulatory updates, and safety requirements;
- Work within a team environment and accountability structure;

- Technical report writing.

### **Rewards**

- Competitive salary, expense reimbursement and vacation;
- Professional development opportunities;
- Internal and external training programs;
- Group life and health benefits;
- Work life balance.

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To apply for this position, please send your resume to the Human Resource Department;

[careers@ridgelinecanada.com](mailto:careers@ridgelinecanada.com) - **Subject line: Emergency Responder – Ridgeline Response**

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### **Approval Officer**

**Term:** Full-Time

**Number of Positions:** 1

**Application Deadline:** January 26, 2018

**Job Location:** Lethbridge



**NRCB**

Natural Resources  
Conservation Board

The Natural Resources Conservation Board (NRCB) is the authority under the *Agricultural Operation Practices Act* (AOPA) responsible for regulating confined feeding operations and manure management practices in Alberta.

We are currently seeking an experienced professional to work as an Approval Officer based out of our Lethbridge office. As part of a team of professionals located across Alberta, you will work with operators, municipalities, and industry in Alberta to ensure environmentally sound and socially acceptable siting of confined feeding operations. You will be responsible for reviewing and assessing technical information on the planning, siting and development of confined feeding facilities and the issuance of written decisions. Opportunities may also be available for involvement in other NRCB projects and initiatives as they arise.

Qualified candidates will have as a minimum, a B.Sc. Degree and five years experience in related regulatory or environmental work. Good knowledge of agricultural practices and/or livestock operations is required. Strong communication skills and a proven ability to work well with others to achieve results are essential. Additional related education may be considered in lieu of some experience. The successful candidate will be a member in good standing, or be eligible for membership with a professional body.

Salary range for this position starts at \$75,293 based on experience and qualifications. The position also offers a generous benefits package and a defined contribution pension plan.

Additional information on this position is posted on our website [www.nrcb.ca](http://www.nrcb.ca). Interested applicants are asked to submit their resume to the attention of Human Resources by Friday January 26, 2018. We thank all applicants in advance, however, only those selected for an interview will be contacted.

Natural Resources Conservation Board  
4th Floor, 9940 – 106th Street  
Edmonton, AB  
T5K 2N2  
Fax: 780-427-0607  
Email: [hr@nrcb.ca](mailto:hr@nrcb.ca)

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### **Chief Legal Officer – Operations**



**NRCB** | Natural Resources  
Conservation Board

**Term:** Full-Time  
**Number of Positions:** 1  
**Application Deadline:** January 26, 2018  
**Job Start Date:** Available Immediately  
**Job Location:** Edmonton

The Natural Resources Conservation Board (NRCB) is an agency of the Government of Alberta that reviews proposed non-energy natural resource developments under the *Natural Resources Conservation Board Act* (NRCBA). The NRCB is also the authority under the *Agricultural Operation Practices Act* (AOPA) responsible for regulating confined feeding operations and manure management practices.

As Chief Legal Officer – Operations, you will provide legal support, primarily on AOPA matters, to the Chief Executive Officer, management team, and to approval officers and inspectors. This legal support includes reviewing draft permit decisions, compliance directives and enforcement orders; and assisting in developing operational policies under AOPA. You will also provide legal support to the Corporate Services Division. This work includes preparing and reviewing contracts; and providing legal advice on employment matters. As a representative of the Board you may also act as legal counsel for NRCBA non-energy project reviews. Ideally you will have experience in legislative process/statutory interpretation, litigation, and administrative law.

The successful candidate must have a minimum of five years of law practice experience, and must be a member in good standing of the Law Society of Alberta (or eligible to become such a member). Strong analytical skills and superior oral and written communications skills are essential for this position. Travel within Alberta is required.

The NRCB has offices throughout Alberta; location for this position is negotiable, however, Edmonton is preferred. Salary for this position is up to \$164,523 based on qualifications and experience. The position also offers a defined contribution pension plan and generous benefit package.

Additional information is posted on our website [www.nrcb.ca](http://www.nrcb.ca). Interested applicants are asked to submit their resume to the attention of Human Resources by Friday January 26, 2018. We thank all applicants in advance, however, only those selected for an interview will be contacted.

**Natural Resources Conservation Board**  
4th Floor, 9940 – 106th Street  
Edmonton, AB  
T5K 2N2  
Fax: 780-427-0607  
Email: [hr@nrcb.ca](mailto:hr@nrcb.ca)

## **Junior Environmental Advisor**



**Envirotech Engineering**  
Environmental Management & Consulting

**Term:** Full-Time

**Number of Positions:** 2

**Application Deadline:** January 31, 2018

**Job Start Date:** 01-02-2018

**Job Location:** Calgary

Envirotech Engineering Upstream Liability Management Division, is recruiting Junior Environmental Advisors for our Calgary, AB location. The successful candidates will be involved in various aspects of reclamation and remediation projects and will participate in both office and field work. The amount of field work will depend on the candidate's various skill sets and education.

### **Qualifications:**

Bachelor of Science degree, Environmental Engineering or other relevant technical diploma along with 2 years of experience. Experience with environmental site assessments phase I and II, soil sampling, site reclamation and vegetation management. Registration with a professional organization as either a professional or in-training. Possess strong interpersonal skills, communication skills and technical writing skills and be able to work as a member of a multi-disciplinary team and independently.

### **Duties and Responsibilities:**

Conducting all aspects of Phase I Environmental Site Assessments (ESA) and associated reporting. Planning and conducting Phase II ESAs, including:

- drilling and soil sampling activities
- conducting groundwater monitoring and sampling programs o interpreting analytical laboratory results
- analyzing and interpreting collected environmental data and writing reports
- contractor management and cost tracking
- Planning and completion of reclamation activities
- Coordinate and complete vegetation management activities
- Assist with Reclamation Application processes
- Comply with Health and Safety policies and principles
- Other tasks as assigned

To find out more about Envirotech Engineering please visit our website at: [www.envirotecheng.com](http://www.envirotecheng.com)

**Application Details:** Application Details: To apply for this positions, please email your cover letter and resume to [zan@envirotecheng.com](mailto:zan@envirotecheng.com) and clearly indicate which position you are applying for in the title bar of the email.