

PROVINCE OF SASKATCHEWAN



11-12

ANNUAL REPORT

MINISTRY OF  
ENERGY AND RESOURCES



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# Letter of Transmittal from the Ministers



July 2012

Her Honour, the Honourable Vaughn Solomon Schofield  
Lieutenant Governor of Saskatchewan

May it Please Your Honour:

We respectfully submit the Annual Report of the Saskatchewan Ministry of Energy and Resources for the fiscal year ending March 31, 2012.

The ministry's report reflects our government's commitment to increased transparency and accountability and to responsible management of public expenditures. Through the programs and initiatives of the ministry, we continued to deliver on our government's visions and goals as well as honour and build on the promises we made to Saskatchewan people.



The reporting period proved to be an active year for the ministry in advancing its role of managing responsible growth and development of Saskatchewan's rich and diverse energy, mineral and forestry resources. The major transformation of the government's oil and gas business systems for industry continued, with the Petroleum Registry going "live" in Saskatchewan just after fiscal year-end. Significant progress was made on a parallel process of an online system for mineral tenure. New conservation standards were introduced for the handling of associated natural gas by the oil and gas industry, and the ministry played a facilitation role in new companies assuming ownership of the Prince Albert Pulp Mill and re-establishing a sawmill complex near Big River.

The province's oil industry performed very strongly during the reporting period, celebrating its second-best calendar year in 2011 for both oil production and the drilling of oil wells, and breaking a year-old record for drilling of horizontal oil wells. Mineral sales and mineral exploration expenditures were also robust, with potash once again leading the way in investment interest.

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In May 2012 a major reorganization of government resulted in the Ministry of Energy and Resources becoming part of a larger Ministry of the Economy. The report which follows is thus the final report of the ministry. It provides a comprehensive summary of actions the Ministry of Energy and Resources undertook to achieve sustainable resource development. Such actions will continue under the new Ministry of the Economy as it strives to ensure that the resources with which we have been blessed are used to deliver on, and maintain, the Saskatchewan Advantage for the benefit of us all.



Bill Boyd  
Minister of the Economy



Tim McMillan  
Minister Responsible for Energy and Resources



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# Letter of Transmittal from the Deputy Minister



July 2012

The Honourable Bill Boyd  
Minister of the Economy

The Honourable Tim McMillan  
Minister Responsible for Energy and Resources

Dear Sirs:

I have the honour of submitting the Annual Report of the Ministry of Energy and Resources for the fiscal year ending March 31, 2012.

The management of the ministry assumes responsibility for the accuracy of the information in this report and the completeness and fairness of its presentation, including all disclosures. To the best of our knowledge and belief, the enclosed information is accurate in all respects and is reported in a manner that presents fairly the status of the Ministry of Energy and Resources. As well, I accept responsibility for the financial administration and management costs of the ministry.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kent Campbell', written in a cursive style.

Kent Campbell  
Deputy Minister of the Economy

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# Introduction

This annual report for the Ministry of Energy and Resources presents the ministry's results on activities and outcomes for the fiscal year ending March 31, 2012. It reports to the public and elected officials on public commitments made and other key accomplishments of the ministry.

Although a renewed vision and set of goals were introduced as a result of the 2011 provincial election, the 2011-12 Annual Report will be presented in relation to the vision and goals that guided the development of the 2011-12 Ministry Plan.

Results are provided on publicly committed strategies, actions and performance measures identified in the 2011-12 Plan. The report also demonstrates progress made on government commitments as stated in the *Government Direction for 2011-12: The Saskatchewan Advantage*, the Minister's Mandate letter, throne speeches and other commitments and activities of the ministry.

The annual report demonstrates the ministry's commitment to effective public performance reporting, transparency and accountability to the public.

## Alignment with Government's Direction

The ministry's activities in 2011-12 align with the government's vision and three goals:

### Our Government's Vision

A secure and prosperous Saskatchewan, leading the country in economic and population growth, while providing a high quality of life for all.

### Government's Goals

- Sustain economic growth for the benefit of Saskatchewan people, ensuring the economy is ready for growth and positioning Saskatchewan to meet the challenges of economic and population growth and development.
- Secure Saskatchewan as a safe place to live and raise a family where people are confident in their future, ensuring the people of Saskatchewan benefit from the growing economy.
- Keep the government's promises and fulfill the commitments of the election, operating with integrity and transparency, accountable to the people of Saskatchewan.

Together, all ministries and agencies support the achievement of the government's three goals and work towards a secure and prosperous Saskatchewan.

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# Ministry Overview

The Ministry of Energy and Resources has been mandated to deliver on a number of government commitments related to Saskatchewan's extensive energy, mineral and forestry resources.

The ministry works to achieve sustainable development of Saskatchewan's diverse energy, mineral and forestry resources, including oil and gas, potash and uranium. It has a regulatory role with industry and develops and administers various tax and royalty structures related to resources. It also has a major development and promotional thrust, with programs and policies that encourage exploration, research and value-added investment in resources and resource projects.

The development of Saskatchewan's resource sectors is the focus of the ministry's efforts. Programs and services were delivered through the following major areas within the ministry:

## Minerals, Lands and Policy

- Conducts economic and geoscientific research and identifies, analyzes and develops policies to encourage economic growth and promote energy conservation and resource development.
- Designs and maintains tax structures for coal and industrial and metallic minerals to optimize revenues.
- Implements the mineral provisions of Treaty Land Entitlement and other Aboriginal land agreements and provides land policy support to provincial initiatives affecting mineral lands of the province.
- Works in partnership with businesses, communities and other provincial ministries and agencies to develop and deliver policies that enhance forest industry competitiveness, increase investment in the forest sector, support value-added production and increase First Nations participation in forest businesses.

## Petroleum and Natural Gas

- Responsible for all areas related to provincial jurisdiction over oil and gas resources.
- Develops and administers tax structures to optimize revenues from the oil and gas industry, promotes continued resource development and administers Crown oil and gas rights.
- Regulates the industry by establishing and enforcing conservation and environmental standards.
- Collects, analyzes and distributes production and sales statistics and information on oil and gas reserves to assist in revenue collection and resource management.

## Public Affairs

- Responsible for the organization's corporate and general communications.
- Develops strategic communications plans and activities around the energy and resource policies and programs of both the ministry and, in some instances, the government at large.
- Plans, develops and implements non-paid and paid media activities that promote the strength of Saskatchewan's resource sectors and the positive business/investment climate associated with those sectors.
- Provides communications management support and public relations counsel to the Minister's Office and to the senior executive of the ministry.
- Oversees advertising and the development of trade show materials that promote Saskatchewan resources.

## Corporate and Financial Services

- Provides centrally managed services in the areas of finance, information management

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and other operational services that include program-based accommodations and capital improvements.

- Manages non-renewable resource revenue audit services, resource royalty assessment and collection.
- Undertakes various strategic planning and evaluation activities.
- Manages external relations, including working with the federal government and other governments on policy and program issues.
- Oversees process review, including the Process Renewal and Infrastructure Management Enhancements (PRIME) Project, which is modernizing and transforming the government's oil and gas business systems for industry.

The ministry utilized 268.8 full-time equivalent (FTE) employee positions in 2011-12, a variance of 10.3 relative to the budgeted FTE count of 258.5. Overall, the ministry's FTE usage variance was over four per cent and was primarily due to the ministry taking an active role in employing summer/co-operative education students.

The ministry has ten offices, four in Regina, and one each in Estevan, Swift Current, Kindersley, Lloydminster, Prince Albert and La Ronge. Please see the appendix for more information.

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## Progress in 2011 - 12

The ministry's annual report for 2011-12 is organized around the strategies and key actions articulated in the ministry's plan for 2011-12 – strategies and actions that are in turn grouped around key government commitments as well as the three broad government goals outlined and discussed below.

### **Government Goal: Economic Growth**

The Ministry of Energy and Resources supports the government's goal of sustaining economic growth for the benefit of Saskatchewan people, ensuring the economy is ready for growth and positioning Saskatchewan to meet the challenges of economic and population growth and development.

#### **STRATEGY: Modernize Energy and Resource Sector Business and Regulatory Systems**

##### ***Key 2011-12 Actions Under This Strategy***

**Action: Design and develop new oil and gas systems solutions to meet all legislative, regulatory and stakeholder requirements. (*Government Direction 2011-12*)**

The ministry's multi-year, multi-project Process Renewal and Infrastructure Management Enhancements (PRIME) program continues to progress towards its goal of designing, developing and implementing new oil and gas business processes and information systems. Three business, three technical and two affiliated projects are currently being advanced under PRIME, including the Registry Saskatchewan Inclusion Project, revenue management and billing, monitoring and analytics, conversion and legacy integration, central operations repository, transition to operations, regulatory modernization and industry consultation.

On August 31, 2011, PRIME completed its first technical project. The accelerated

application development (XDE) project team created a set of productivity tools, code, techniques and procedures, standards, models, training materials and documentation to support and accelerate the development of applications using a vendor's suite of products. The XDE will ensure that development and maintenance of a number of enterprise-level, business critical applications are built using standards, patterns and templates that encompass industry best practices for stability, performance and maintainability. The XDE can also be leveraged by government to speed development and improve application quality for other provincial ministries.

**Action: Continue work to facilitate the system and business requirements of the ministry and oil and gas industry for infrastructure reporting, volumetric reporting, valuation reporting and royalty taxpayer information.**

The ministry met its April 2012 implementation goal for the inclusion of Saskatchewan oil and gas data – such as infrastructure reporting, volumetric and valuation reporting and royalty taxpayer information – onto the Petroleum Registry of Alberta through PRIME's Registry Saskatchewan Inclusion Project (RSIP).

The adoption of the Petroleum Registry is part of a comprehensive modernization of the business processes used by the ministry for regulating the oil and gas industry. The switch from paper-based reporting systems to new electronic reporting systems required changes to eight existing regulations and the development of one new set of regulations. Regulations approved in 2011-12 included:

- *The Freehold Oil and Gas Production Tax Regulations, 2012*
- *The Recovered Crude Oil Tax Regulations, 2012*
- *The Crown Oil and Gas Royalty Regulations, 2012*
- *The Oil and Gas Conservation Regulations, 2012*

- *The Petroleum Registry and Electronic Documents Regulations (new)*
- *The Petroleum Research Incentive Amendment Regulations, 2012*
- *The Helium and Associated Gases Amendment Regulations, 2012*
- *The Weyburn Unit CO<sub>2</sub> Freehold Oil and Gas Production Tax Amendment Regulations, 2012*
- *The Weyburn Unit CO<sub>2</sub> Crown Oil and Gas Royalty Amendment Regulations, 2012*

Overall, the proposed changes represented the first comprehensive modernization of the province's oil and gas regulations in over 30 years. Wherever possible, the ministry has also taken steps to ensure that the new regulations focus on outcomes rather than specific procedural steps. This will provide greater flexibility in the future for adopting more efficient electronic systems for receiving applications and issuing approvals. This includes the eventual development of web-based well and facility licensing systems.

**Action: Advance the revenue management and billing project to improve the efficiency and effectiveness of existing business processes.**

PRIME's revenue management and billing project will deliver new billing and penalty assessment systems to the ministry in a number of releases; the first to coincide with the implementation of the Petroleum Registry in April 2012. The project team has completed development and testing activities for non-compliance billing, provisional royalty, and oil and gas royalties/taxes. These activities were ready for implementation in conjunction with implementation of the RSIP project in April 2012.

**Action: Develop electronic submission capability for licences, permits, approvals and other oil and gas business applications.**

The development of electronic submission capability of licences, permits, approvals

and other oil and gas business applications will be delivered in different phases of the project as part of the ministry's multi-year PRIME program. The implementation of the Petroleum Registry in April 2012 will provide industry with online submission of infrastructure reporting, volumetric and valuation reporting, and royalty taxpayer information. Electronic submission capabilities for licences, permits and approvals will be developed and implemented as part of PRIME's infrastructure project which began in June 2012.

**Action: Implement the first e-tenure (electronic tenure) system for mineral dispositions for commodities such as precious metals, base metals, uranium and diamonds.**

The implementation of the new Mineral Administration Registry Saskatchewan (MARS) system is scheduled for the second quarter of 2012-13. Final user acceptance testing of the software began in March 2012 and is expected to be completed by the fall.

The ministry employed Lean management techniques to enhance work assessment reporting under its various mineral disposition programs. One of the principal recommendations arising from this review was leveraging the capabilities of the MARS system to simplify how industry submits these reports and how the ministry internally manages this geological information. Initial design work for the required enhancements to the MARS system was completed during 2011-12. The development of new work reporting applications was deferred until after the launch of the MARS system in the fall of 2012.

**Action: Complete e-tenure design work for expansion to other commodities such as oil, gas, potash and coal.**

The development of an e-tenure system for oil and gas will occur as part of the PRIME project. A preliminary review of *The Quarrying Regulations, 1957* and *The Alkali Regulations* suggested dispositions issued pursuant to

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these regulations could be eliminated and replaced with other forms of dispositions administered as part of the MARS system.

This form of regulatory consolidation eliminates the need for developing new electronic systems while simplifying the administration of Crown mineral tenure. More research is required, including consultations with industry, before a formal proposal can be developed. This will likely occur after MARS is implemented in 2012-13.

The development of e-tenure systems for potash cannot occur until a full review of *The Subsurface Mineral Regulations, 1960* is completed. These regulations require further consultations with industry before any new e-tenure systems can be developed.

As well as examining its existing regulations, the ministry also began early design work on a data system that will allow it to directly access and interpret land titles information maintained by the Information Services Corporation. The proposed Mineral Lands Information Registry would enhance the capabilities of the MARS system for issuing new mineral tenure and provide core data required for a number of PRIME applications. The development of this registry is essential for expanding the ministry's e-tenure initiative to other commodities.

**Action: Modernize mineral tenure regulations to support the implementation of new e-tenure systems.**

A final draft of *The Mineral Tenure Registry Regulations* which will guide the operation of the MARS system was sent out for industry review in December 2011. It is expected that the draft regulations will be put forward for review by the Legislative and Regulatory Review Committee of Cabinet by mid-2012.

**Action: Implement regulatory system enhancements to ensure they effectively balance the need for regulatory protection while supporting industry to develop Saskatchewan's rich natural resources. (2010 Mandate Commitment)**

For the past several years, the ministry has been engaged in updating its legislation and regulations in support of both the PRIME and MARS projects. These changes are necessary to accommodate the introduction of new internet-based systems for administering the ministry's business activities.

In 2011-12, nine new sets of regulations (as discussed earlier), were approved by the Lieutenant Governor in Council in support of the implementation of the Petroleum Registry.

The changes represent the first comprehensive modernization of the province's oil and gas regulations in over 30 years. Wherever possible, the ministry has also taken steps to ensure that the new regulations focus on outcomes rather than specific procedural steps. This will provide greater flexibility in the future for adopting more efficient electronic systems for receiving applications and issuing approvals. This includes the eventual development of web-based well and facility licensing systems.

**STRATEGY: Advance innovation and research in the energy and resource sectors**

**Key 2011-12 Actions Under This Strategy:**

**Action: Advance geosciences research in support of further developing the petroleum and mineral sectors including the development of new geosciences partnerships with provincial universities, research organizations and the federal government. (2007 Mandate Commitment)**

The ministry undertook new geoscience research during the reporting period that documented the context and potential for rare earth elements, nickel, uranium, base metals, coal, gold, a brine based industry and potash. The ministry has also undertaken some minerals-focused research with the federal government under the auspices of its Targeted Geoscience Initiative 4.

During the reporting period the ministry also provided support for thesis-based petroleum

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and minerals research at the Universities of Saskatchewan and Regina and undertook further collaborative work with South Australia on the three-dimensional geological modeling of the Athabasca Basin and a study of its uranium. Petroleum research was ongoing during the fiscal year.

**Action: Continue to administer the Mineral Exploration Tax Credit to encourage investment in exploration and long-term sustainable development of mineral resources.**

The Saskatchewan Mineral Exploration Tax Credit was extended for an additional year, to March 31, 2012. The credit encourages long-term, sustainable development of Saskatchewan's mineral resources and enhances the province's competitiveness in mineral exploration. The credit also offers a non-refundable 10 per cent tax credit to Saskatchewan taxpayers who invest, or have invested, in eligible flow-through shares issued by mining or exploration companies after March 31, 2010.

**Action: Continue the Saskatchewan Petroleum Research Incentive (SPRI) program to 2015.**

This incentive allows for up to \$30 million in oil and natural gas royalty credits over the five-year period covering 2010-15. The extension in additional funding, as well as the term of the incentive, was expected to result in at least 10 new projects testing new technology and/or piloting enhanced oil recovery techniques. The current allocation for SPRI will accommodate two projects of this size per year over the term of the SPRI program.

The Husky Heavy Oil Hot Water Vapour Process Pilot Project was approved in March 2012 and is being implemented.

**Action: Continue funding the Petroleum Technology Research Centre (PTRC) for research and capacity development in next generation oil production technologies to maintain future viability of the Saskatchewan oil industry. (2007 Mandate Commitment; Government Direction 2011-12)**

The ministry provided the PTRC with \$2.25 million in core funding in 2011-12 to ensure it could operate while securing funding from industry, the federal government, and other jurisdictions for individual projects. The ministry also provided the PTRC with \$200,000 to undertake a project involving the assessment of fluid flows in the subsurface – such research may help identify new oil reservoirs or new areas for long-term storage of carbon dioxide.

The PTRC has an impressive track record of research excellence. The federal government acknowledged that research excellence in January 2009 when it awarded \$10.5 million to the PTRC, through its networks of Centres of Excellence program to expand and enhance existing enhanced oil recovery research, including creation of the "Sustainable Technologies for Energy Production Systems" (STEPS).

Through research, development and demonstration of advanced technologies, the STEPS business-led network of centres of excellence aims to become the national focus for leading-edge scientific and engineering innovations that address energy production sustainability challenges for hydrocarbon resources that are difficult to access and monetize. The ministry undertook geoscience work in support of the PTRC's research activities.

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**Action: Expand the Subsurface Geological Laboratory in Regina for the benefit of industry and research institutions. (Government Direction 2011-12)**

The expansion project at the Subsurface Geological Laboratory continued to advance with an anticipated completion date in 2012-13.

**STRATEGY: Support the restructuring of the province's forest industry**

**Key 2011-12 Actions Under This Strategy:**

**Action: Promote the full utilization of the forest resources in the Prince Albert Forest Management Agreement (PAFMA) and other licensed areas in order to maximize the economic development potential of the sustainable wood supply and enhance social and economic benefits. (2010 Throne Speech)**

The government approved transfer of responsibility for management of the 3.3 million hectare PAFMA previously managed by Domtar in the name of Weyerhaeuser to a new entity, Sâkaw Askiy Forest Management Inc. (Sâkaw). Allocations of nearly two million cubic metres of wood volume were announced in November 2009 and finalized in a signing ceremony in October 2010.

With secure wood supplies, Sâkaw is better positioned to provide effective management and support an improved competitive position of the forestry product partners.

The sale of the Big River saw mill to Carrier Forest Products was announced in September 2011. The government provided the new mill owner with a secure fibre supply of 200,000 cubic metres, an allocation from the PAFMA of 175,000 cubic metres and access to an additional 175,000 cubic metres from other available fibre sources.

**Action: Support research and development activities for value-added forest products, market expansion opportunities and investment attraction. (2007 Mandate Commitment)**

Under a contract with FPIInnovations, research studies have been conducted and findings reported and shared with relevant forestry businesses in the areas of forest management innovation, forest energy, fibre utilization and manufacturing competitiveness, demand development and transportation systems.

FPIInnovations' national Interface BiOS model was produced in conjunction with timber harvest operations and tested in Saskatchewan.

Other programs delivered by FPIInnovations included:

- Delivery of BioPathways Phase II presentations in August 2011 through two focused workshops for Saskatchewan industry;
- Completion in its Vancouver testing laboratory of micronized copper and organic treatment systems for Saskatchewan producers of lumber (systems currently being processed to provide sample penetration data); and
- Research on comparative productivity, capital and operating costs for mobile chipping and grinding equipment, and resulting recommendations concerning chip and hog fuel (bark accumulated from debarking tree stems) storage in the bush, plus recommendations regarding trailer and haul management.

**Action: Continue to investigate and analyze wood bio-mass availability and utilization for forest-derived energy. (2007 Mandate Commitment)**

Discussions continued with Saskatchewan companies and communities interested in examining benefits and preparing feasibility studies for the development of biomass heating and combined heat and power projects. Further work is underway to refine

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the provincial available biomass estimates. The results will assist existing and potential biomass utilization investors to realize the full potential of Saskatchewan's biomass resource.

The ministry also worked with the Saskatchewan Trade and Export Partnership (STEP), Canadian trade commissions and Enterprise Saskatchewan to explore forest biomass product markets in other countries.

**Action: Continue to address recommendations and actions from the Forest Sector Team to improve industry competitiveness. (2007 Mandate Commitment)**

The ministry continued to work on several issues previously referred to by the Forest Sector Team as potentially affecting competitiveness including value-added market analysis, the Softwood Lumber Agreement, stumpage dues and wood supply analysis.

**Action: Facilitate the redevelopment of the Prince Albert pulp mill.**

In April 2011 Paper Excellence, a subsidiary of the Indonesian company Sinar Mas, finalized the purchase of the Prince Albert pulp mill from Domtar.

The mill is expected to be operational in early 2013 and it will produce dissolving pulp, used in the manufacture of clothing and related products. The first phase of the project is power and heat generation to be followed by the pulp production. Investments in the mill are estimated at approximately \$300 million.

**Action: Review and update provincial Crown forest dues and fees.**

The Ministries of Energy and Resources and Environment and an industry working group began a review of the provincial Crown dues structure over the course of the fiscal year. The group held several meetings and reached agreements in principle on the issues to be considered in establishing a revised dues and fees structure. Detail design work began in the 2011-12 fiscal year.

## **Government Goal: Security**

The Ministry of Energy and Resources supports the government's goal to secure Saskatchewan as a safe place to live and raise a family where people are confident in their future, ensuring the people of Saskatchewan benefit from the growing economy.

**STRATEGY: Ensure the sustainable development of petroleum and mineral resources**

**Key 2011-12 Actions Under This Strategy:**

**Action: Host the Saskatchewan Geological Survey Open House and the Williston Basin Petroleum Conference; participate in other key industry trade shows including the Prospectors and Developers Association of Canada Conference and the North America Prospect Expo.**

The Saskatchewan Geological Survey Open House in November 2011 featured a strong technical program that attracted over 700 registrants, including representatives from most companies active in Saskatchewan. Staff also participated in the Mineral Exploration Roundup Conference and Trade Show in Vancouver in January 2012, and the Prospectors and Developers Association of Canada (PDAC) Annual Convention and Trade Show in Toronto in March 2012.

The ministry hosted the annual Williston Basin Petroleum Conference in Regina in May 2011. Ministry staff made a number of geological presentations at this conference in addition to their organizational responsibilities. Staff were also involved in the Canadian Society of Petroleum Geologists Convention in Calgary, the North America Prospect Expo (NAPE) in Houston and petroleum investments forums in Denver.

A number of international delegations visited the ministry during the year, including several delegations from China and India.

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**Action: Continue to manage the environmental risk and liability associated with oil and gas wells and related facilities through the Orphan Well Program.**

Seven orphan wells were abandoned under the Orphan Well Program during the reporting period. There have been a total of 10 wells and sites decommissioned, abandoned and reclaimed since the inception of the program. Activity under the program included collection of approximately \$18.51 million in security deposits from companies, whose liabilities are greater than their assets, to cover their existing liabilities during this reporting period. The total security deposit amount held under the program is just over \$39.6 million.

**Action: Pursue investment attraction activities targeted at the mineral industry around the world and domestically to expand Saskatchewan's mineral and energy industries.**

The ministry worked with Executive Council and the Governments of British Columbia, Yukon, Quebec, Newfoundland and Labrador as well as the federal government to organize and participate in mineral investment forums in Beijing and Hong Kong and at the China Mining Conference in November 2011. Several companies with mineral exploration projects in Saskatchewan participated in the mineral investment attraction activities.

**Action: Participate in the review and development of national standards and guidelines related to oil and gas operations to ensure protection of the environment, and public health and safety.**

Staff attended Canadian Standards Association (CSA) technical committee meetings in May, September and October 2011 related to oil and gas pipeline systems and the storage of hydrocarbons in underground formations. A new edition of CSA Standard Z662 – Oil and Gas Pipeline Systems was published in July 2011. The ministry also participated in inter-jurisdictional regulatory forums including the Interstate Oil and Gas Compact Commission.

**Action: Promote the responsible development and conservation of oil and gas resources by providing effective regulatory oversight. (2007 Mandate Commitment)**

Consultation occurred between ministry staff and industry officials to develop and update regulations to deliver on this action. *The Oil and Gas Conservation Regulations, 2012* were approved in March 2012.

Staff continue to assess and monitor maximum allowable rates of production for oil and gas wells, evaluate the concurrent production of oil and natural gas from wells, and assign appropriate well spacing within oil and gas pools.

**Action: Promote and encourage efforts to reduce the venting and fugitive emissions from wells and facilities through new regulatory standards and environmental stewardship. (2007 Mandate Commitment)**

During the reporting period the ministry released Directive S-10, The Saskatchewan Upstream Petroleum Industry Associated Gas Conservation Standards. Directive S-10 provides enforceable regulatory requirements for reducing flaring and venting of associated gas.

Application of this new directive can lead to the realization of both environmental and economic benefits for Saskatchewan. It will be an important factor in reducing Saskatchewan's overall greenhouse gas emissions. Economic benefits include new investments made to develop gas gathering systems and gas processing infrastructures to collect and process the conserved associated gas.

**Action: Work with the Saskatchewan Research Council (SRC) and the federal government to ensure that abandoned mine clean-up activities continue.**

The ministry continues to work with the SRC and Natural Resources Canada (NRCan) to ensure that the clean-up of the northern abandoned uranium sites is done in a timely and cost-effective manner.

In the fall of 2011 the building demolition at the former Gunnar uranium mine was completed, marking a major milestone in the remediation of this site. Work continues on identifying a preferred remediation option at Gunnar to allow for the completion of the Environmental Assessment process. Progress is also being made on the Environmental Assessment at the former Lorado mine and mill.

The ministry has committed additional funding for this project and is continuing discussions with NRCan to ensure matching federal funding is available. The Environmental Assessment for the Lorado Mill site has been submitted and is currently under review. Progress is also being made at a number of satellite mine sites.

**Action: Support further development in the uranium industry by working with the federal government to secure removal of the non-resident ownership policy. (2010 Mandate Commitment)**

In 2011-12, the Government of Saskatchewan joined an industry/government committee that is reviewing potential options for the modification of the non-resident ownership policy (NROP) that will allow greater foreign ownership in the Saskatchewan uranium industry and be acceptable to the federal government. The provincial government continues to support the position of the removal of the NROP and continues dialogue with the federal government on this issue.

**STRATEGY: Ensure a competitive and effective fiscal regime for resource development**

**Key 2011-12 Actions Under This Strategy:**

**Action: Ensure competitive royalty and tax regimes across all resource sectors.**

Ministry staff monitored royalty/tax and land tenure policies and procedures adopted by surrounding jurisdictions and analyzed Alberta's royalty/tax changes and the expected impact on activity in Saskatchewan. The ministry set up a working group with industry

to discuss royalty/tax and incentive issues and concerns around encouraging further oil and gas development in the province and promoting the use of new technology.

Staff also made significant progress on a uranium royalty review in 2011-12 to develop modifications to the uranium royalty system that would improve the province's competitiveness with other jurisdictions. The review will continue in the 2012-13 fiscal year.

**Action: Evaluate new incentives and regulatory measures designed to promote new resource plays and improve recovery from existing fields through the adoption of new technologies.**

The ministry has a working group set up with industry to discuss royalty/tax and incentive issues, and concerns around encouraging further oil and gas development in the province and promoting the use of new technology. Staff met with industry on a number of occasions to discuss various incentive and regulatory issues.

In response to industry concerns, the ministry has agreed to review heavy oil waterflood incentives in the province in an effort to encourage improved recovery from existing heavy oil fields. Staff also consulted extensively with industry on proposed changes to the Crown royalty, freehold production tax, and conservation regulations and adoption of a provincial average gas price to value the Crown's royalty/tax share of natural gas.

**Action: Introduce royalty and tax incentives to promote the development and use of new and emerging technology in the oil and gas sector. (2010 Mandate Commitment)**

Staff met with industry on a number of occasions to discuss various incentive options. In response to industry concerns, the ministry will review heavy oil waterflood incentives in an effort to encourage improved recovery from existing heavy oil fields. As an interim measure, the ministry agreed to consider granting enhanced oil recovery (EOR) project status to new heavy oil waterfloods on a case by case basis.

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**Action: Work in collaboration with Enterprise Saskatchewan and Finance to ensure Saskatchewan's resource royalties, incentive programs and tax structures support continued economic growth and investment in the province. (2010 Mandate Commitment)**

Industry continues to invest heavily in Saskatchewan's oil and gas resources. A new record was set for horizontal oil well drilling in 2011 and direct and indirect employment levels exceeded 30,000 person-years. Oil and gas related revenues were estimated to be over \$1.8 billion in the 2011-12 fiscal year.

## **Government Goal: Promises**

The Ministry of Energy and Resources supports the government's goal of keeping its promises and fulfilling the commitments of the election, operating with integrity and transparency, accountable to the people of Saskatchewan.

**STRATEGY: Support government efforts to encourage First Nations and Métis participation in the resource industry**

**Key 2011-12 Actions Under This Strategy:**

**Action: Increase Aboriginal participation in the forestry sector through consultation on forestry projects and the facilitation of partnerships between the forest industry and First Nations. (2007 Mandate Commitment)**

The government approved transfer of responsibility for management of the 3.3 million hectare PAFMA previously managed by Domtar in the name of Weyerhaeuser to a new entity, Sâkaw Askiy Forest Management Inc., comprising six Saskatchewan forest businesses and two First Nations groups. The allocations included a total of 640,000 cubic metres of softwood and hardwood sawlogs from the PAFMA directly to the two First Nations companies.

This historic decision encouraged First Nations communities to become more engaged and participate in Saskatchewan's forest industry.

**Action: Support information-sharing forums and networking opportunities between the non-renewable resource sector and First Nations and Métis businesses.**

The ministry has participated in two forums hosted by the Saskatchewan First Nations Natural Resources Centre of Excellence for First Nations which have signed treaty land entitlement (TLE) agreements. The forums, TLE 101 and Oil and Gas 101, included First Nations, federal and provincial government officials and industry representatives. Staff also met with federal representatives to discuss the potash industry and mining requirements to assist Canada in establishing potash mines on reserve land.

**Action: Promote the adoption of best practices in First Nations and Métis engagement in the oil, gas and mining industries.**

The ministry worked with the Ministry of First Nations and Métis Relations, the Ministry of Environment and other provincial agencies on proponent guidelines for the province's resource industry, setting out the ministry's role in government consultations tied to the legal duty to consult. These guidelines draw heavily on best practices for successful First Nations and Métis engagement and clarify the link between industry engagement and government consultations.

**Action: Continue to work with stakeholders and northern communities to strengthen Saskatchewan's forest sector. (2010 Mandate Commitment)**

Cabinet approved transfer of responsibility for management of the 3.3 million hectare Forest PAFMA, previously managed by Domtar in the name of Weyerhaeuser, to a new entity, Sâkaw Askiy Forest Management Inc., comprising six Saskatchewan forest businesses and two First Nations communities. The allocations included a total

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of 640,000 cubic metres of softwood and hardwood sawlogs from the PAFMA directly to the two First Nations companies.

This historic decision encouraged First Nations communities to become more engaged and participate in Saskatchewan's forest industry.

The ministry also supported the design of wood-based heating systems to be installed in two First Nations communities later this fall with the assistance of the Saskatchewan Research Council and the Meadow Lake Tribal Council (MLTC).

Based on the success of MLTC, other northern communities are expressing interest in bioenergy heating systems. The ministry continues to encourage similar projects.

**STRATEGY: Support effective and efficient public and private infrastructure planning and development**

***Key 2011-12 Action Under This Strategy:***

**Action: Continue to work with other provincial agencies and industry stakeholders to ensure the requirements of the resource sectors are factored into infrastructure planning.**

The ministry continues to provide updates to other agencies and stakeholders on current and potential resource development and on future infrastructure needs. Staff are in regular communication with SaskPower, TransGas, the Ministry of Highways and Infrastructure, Saskatchewan Watershed Authority and other infrastructure providers to review future developments and to ensure that infrastructure requirements are met in a timely manner to allow projects to proceed on schedule.

Staff continue to monitor and participate in National Energy Board hearings related to oil and gas pipeline projects that impact Saskatchewan including the Northern Gateway Pipeline Project, the Vantage Pipeline Project and the Bakken Pipeline Project.

**STRATEGY: Support New West initiatives positioning Saskatchewan as a leader among western counterparts**

***Key 2011-12 Actions Under This Strategy:***

**Action: Work with Alberta and British Columbia to implement the Energy Memorandum of Understanding.**

The New West Partnership (NWP) Energy Memorandum of Understanding (Energy MOU) was signed by energy ministers in 2010 to establish a collaborative mechanism to strengthen and expand the region's energy sector. An Energy Deputy Ministers steering committee approves the work plan for the MOU. Individual initiatives are undertaken by various working groups. Major initiatives in 2011-12 included the industry water use and hydraulic fracturing technology review, the joint strategy on market diversification, and the development and evaluation of industry issues.

The Energy Deputy Ministers' steering committee held several conference calls to discuss energy policy issues of mutual concern and to develop a common approach toward issues such as the need for additional energy information and awareness.

**Action: Participate in promotion of Western Canadian resource and economic strengths in joint investment attraction missions.**

The ministry was actively involved during the reporting period in a number of federal-provincial undertakings to jointly promote the mining sector, including the annual China Mining Congress and Exposition in the People's Republic of China. Staff liaised with Intergovernmental Affairs colleagues to plan Saskatchewan's participation in resource-sector focused joint investment attraction missions with other western provinces. As well, the ministry worked with Intergovernmental Affairs and other provincial agencies to manage Saskatchewan's

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Shanghai representative who is co-located in offices there with Alberta and British Columbia representatives under the auspices of the New West Partnership.

Ministry staff worked with other western provinces to jointly participate in investment attraction missions. Saskatchewan organizations participated in a carbon dioxide capture and storage (CCS) technology forum organized by the federal government in Tokyo to promote contacts between western Canadian organizations and Japanese companies.

**Action: Promote new technologies related to carbon capture and storage and oil production which are key to Saskatchewan's energy future.**

Ministry staff participated in the Government of Alberta's CCS regulatory framework assessment process. The assessment will provide important information on the regulatory aspects of carbon capture and storage.

Staff attended the Plains CO<sub>2</sub> Reduction (PCO<sub>2</sub>R) partnership regulatory meeting in Denver in September 2011. The PCO<sub>2</sub>R partnership is a multi-year collaboration of over 80 American and Canadian stakeholders that is laying the groundwork for practical and environmentally sound carbon dioxide sequestration projects.

Staff participated with officials from Alberta, British Columbia and the Integrated Carbon Dioxide Network (ICO<sub>2</sub>N) as part of joint activities under the CCS MOU of the New West Partnership. The meetings discussed ways of jointly promoting the development of CCS technology in western Canada and best practices and appropriate regulatory oversight of hydraulic fracturing. Other work included the creation of a website where companies can voluntarily disclose the chemicals they use as additives in the fluids employed in the process.

The ministry continued to assess and map CO<sub>2</sub> storage capacity for various formations in the province through the Saskatchewan

Phanerozoic Fluids and Petroleum Systems Project.

Staff continued modelling and hydrogeology research for parts of the IEA Weyburn CCS Project and presented this research at various sponsor meetings.

**STRATEGY: Improve the effectiveness and efficiency of the ministry's programs and services so as to ensure the best use of public funds**

***Key 2011-12 Actions Under This Strategy:***

**Action: Practice continuous improvement to ensure a robust, objective, and multi-year assessment function.**

The ministry's PRIME program is the result of a systematic evaluation of its business processes and supporting information systems.

In addition to the project activities, PRIME is designing its processes to ensure ministry systems interact and work together to maximize the effectiveness of the entire organization.

Once completed, all business processes will fall into one of three categories: management processes (guide and direct all other processes), core processes (customer facing processes that generate or deliver services or products) and enabling processes (systems and tools to support the management and core processes).

**Action: Continue to work with Enterprise Saskatchewan to address resource development impediments.**

The ministry participated in an Intergovernmental Working Group Committee (IGWG) to advance concrete actions to align further federal and provincial review processes in order to enhance the efficiency and effectiveness of the overall regulatory framework governing new project development.

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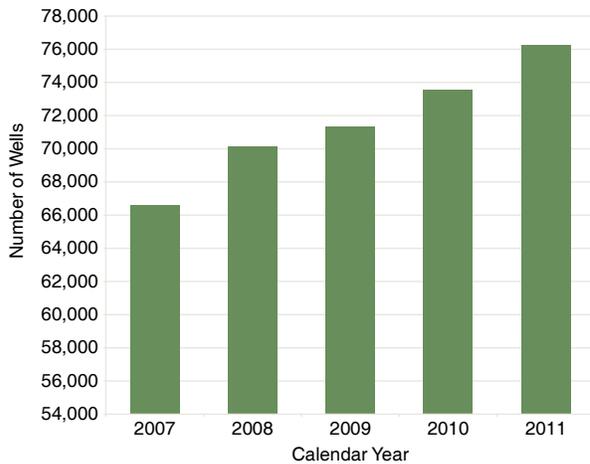
**Action: Continue to identify and implement Lean process improvements. (*Government Direction 2011-12*)**

The ministry completed the following four Lean value stream mapping (VSM) events and one additional “Kaizen” (rapid improvement) event during 2011-12:

- The sedimentary geocoding VSM addressed the opportunity to improve the efficiency and effectiveness of the geodata coding process in order to reduce a backlog of more than 7,000 well records, and improve customer service and staff morale while managing increased workloads with a smaller staff complement.
- The mineral work assessment reporting VSM looked at improving the process by which industry reports on its exploration expenditures on mineral lands, as required by the ministry. Companies must prove that sufficient work has been done and expenditures made to maintain their tenure. In turn, new information is made available to industry.
- Ministry field offices review, approve, inspect, audit, examine, investigate and enforce 10,000 applications, licenses, licensed sites, incidents and complaints. The field offices operations VSM identified and then improved, automated or eliminated non-essential services delivered by the ministry’s regional operations so that workloads can be reduced to focus on the timely delivery of essential services.
- The Subsurface Laboratory operations VSM looked at improving efficiency in the filing and processing of drill cuttings and core. Drill cuttings and core from petroleum well bores are used by companies to help them in their exploration and development programs and are therefore of great benefit to the province.
- The mineral statistics Kaizen on potash reporting developed a new template for the submission of a single potash report to government.

## Performance Measurement Results

### Total Capable Oil and Gas Wells



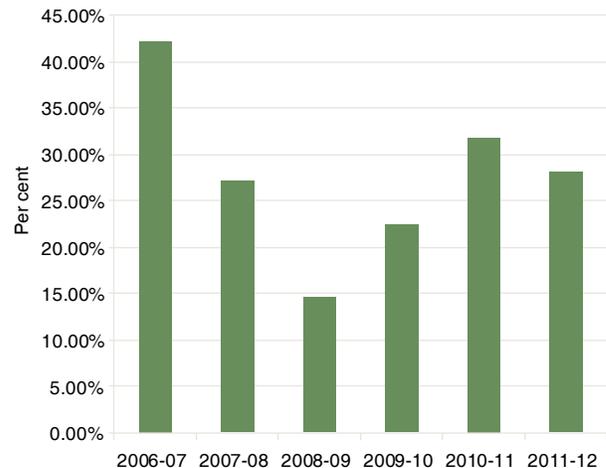
In the ten years from 2002 to 2011, the number of oil and gas wells capable of production in the province has increased by almost 55 per cent to stand at over 76,000. Ministry officials monitor all oil and gas wells in Saskatchewan because of the impact these wells have on the environment and the provincial economy. Saskatchewan is the second largest oil producer in Canada (after Alberta) and the third largest producer of natural gas (after British Columbia and Alberta).

The ministry closely monitors oil and gas well activity from a regulatory perspective (operational safety and reservoir management) and revenue perspective (royalties and taxation). The number of capable oil and gas wells provides an indication of the total amount of information that must be maintained about each well in the province. The information maintained includes well records, drilling information, well status, ownership, completion information, core analyses, pressure and fluid analyses, drill stem tests, logging surveys, casing details, geologic formation tops, oil, gas and water production levels, etc. for each well drilled under *The Oil and Gas Conservation Regulations, 2012*.

By monitoring the number of capable wells in Saskatchewan, the ministry is able to gauge ongoing activity in the oil and gas sector. This

is used to forecast investment, employment, production, and provincial revenues, and plan the human and financial resources the ministry will need to regulate the industry and collect royalties and production taxes. (Source: Ministry of Energy and Resources)

### Per cent of Annual Allowable Cut Harvested by Fiscal Year (2007 Mandate Commitment)



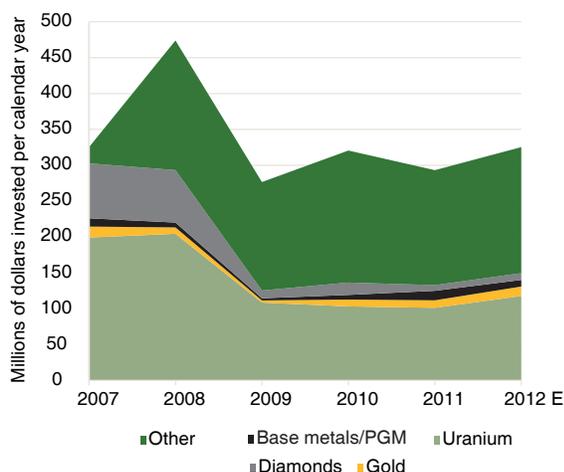
The percentage of annual allowable cut harvested reflects the effectiveness of the balance between environmental protection and economic development. The annual allowable cut is determined using a variety of environmental factors to ensure long-term forest sustainability. The Ministry of Environment determines the annual maximum allowable cut but individual companies determine the percentage of the allowable cut they will actually harvest based on a number of market-based factors that include demand and available prices for forest sector products. This measurement is for the commercial forest zone only and does not include the Suggi Lowlands and the Nemeiben Forest Area.

The chart above shows the extent to which Saskatchewan's forest sector has been negatively affected by external markets which forced downsizing of primary forest sector activity and the closure of lumber, oriented strand board (OSB), pulp and paper mills across Canada in recent years.

The Ministry of Energy and Resources' efforts in forestry development are designed to facilitate the long-term transition of the sector to a highly competitive, value-added industry. By monitoring the amount of wood cut each year, the ministry is able to gauge how well its efforts and programs function. This evaluation must also be considered in view of economic and market forces prevailing in the North American and the world markets. How well these forces can be mitigated with government responses is often dictated by fiscal capacity, international trade agreements and trade measures such as quotas which limit exports of our production.

The risks associated with this measure relate to external factors. Reliance upon the U.S. housing markets, the Canada-U.S. Softwood Lumber Agreement, and global demand for fibre heavily influence the results. The increased per cent harvest in 2010-11 is attributable to re-starts and increased production in other existing wood processing facilities. (Source: Ministry of Environment/ Ministry of Energy and Resources)

### Mineral Exploration in Saskatchewan



Saskatchewan's large and diverse mineral sector comprises three inter-related components: mineral exploration, mining,

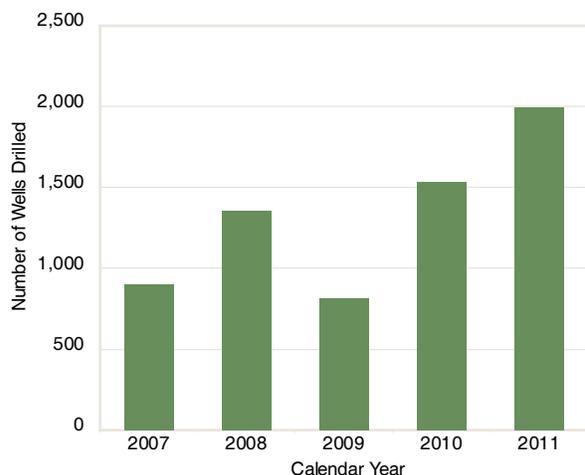
and value-added activities. It is one of the most technologically advanced industries in the province. Mineral exploration is crucial to sustaining and growing the sector. As natural resources continue to deplete, new mineral deposits must continually be explored for and discovered, not only to enable existing mining operations to continue to operate but also to enable the expansion and growth of the sector through the development of new mining operations. Ongoing exploration also commonly leads to the discovery of new commodities for development, broadening and diversifying the overall mineral sector. The exploration industry includes a variety of players ranging from prospectors to junior exploration companies to senior international corporations.

This measure tracks mineral exploration for select commodities ("Other" includes commodities such as coal, rare earth minerals and potash. While potash is the predominant mineral in this category, it must be combined with other minerals so that the ministry can maintain confidentiality about data that could reveal company-specific activities). The relatively high levels of mineral exploration present a variety of opportunities for direct employment and business development, particularly for geographic regions close to the major centres of exploration, as well as for more regional centres. The measure helps indicate demand for Saskatchewan mineral resources and identifies possible future developments, including the attractiveness of Saskatchewan, in particular, to Asian investors. According to a NRCan survey of provincial and territorial exploration spending, Saskatchewan ranked fifth in Canada in 2011, behind Ontario, Quebec, British Columbia and Nunavut.

In 2011, exploration spending decreased by about \$27 million compared to 2010, but remains significantly above historic levels. The Saskatchewan Geological Survey's regional bedrock mapping program was augmented by new geosciences initiatives, such as the development of 3D geologic

models of the Athabasca Basin (uranium), Prairie Evaporite (potash) and Flin Flon area sub-Phanerozoic (gold and base metals). The province has established agreements with South Australia, China and India which include exchanges of technical and policy information. (Source: Ministry of Energy and Resources)

### Horizontal Oil Well Drilling



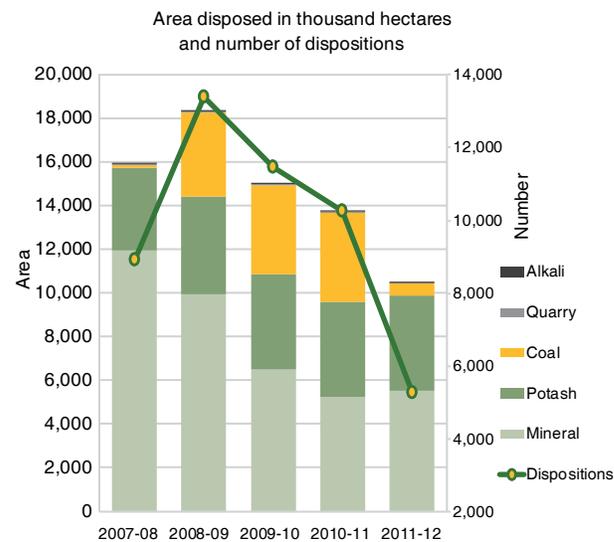
The level of horizontal drilling in the province is an indication of the effectiveness of the province’s regulatory and fiscal provisions. It is also an indicator of the application of improved technologies in the province as well as an important measure of the level of investment in the province. Horizontal well drilling continues to increase and has become an accepted or standard practice in many reservoirs in the province.

A rebound in oil prices in late 2009 contributed to a record 1,531 horizontal oil wells drilled in 2010. In 2011 Saskatchewan once again set a new horizontal oil well drilling record with 1,992 horizontal oil wells drilled. This new horizontal oil well drilling record is a 30 per cent increase over the 2010 record.

With current oil prices and oil production potential in Saskatchewan, industry has been able to develop new technologies and refine current techniques in order to increase the recoverable oil reserves in Saskatchewan. The application of these new techniques and refinements has allowed industry to successfully develop large oil plays such

as the southeast Bakken play and show a renewed interest in plays such as the Viking and Birdbear formations in the west as well as the Lower Shaunavon play in the southwest. (Source: Ministry of Energy and Resources)

### Crown Metallic and Industrial Mineral Dispositions



This measure shows the cyclical changes in mineral dispositions activity in Saskatchewan over the past five years. Since its peak in 2008-09, the amount of land subject to a metal and industrial mineral disposition has begun to decline as holders relinquish their rights in response to market conditions or exploration results. Most of this decline has been related to coal and minerals (uranium, gold, diamonds etc.).

Despite the decline, the amount of land subject to mineral claims or leases as of year-end (5.5 million hectares) is still significantly above the historic levels. The interest for uranium prospective land remains high and is due to the uranium price (which after an impressive spike in 2008 settled well above the historical price) and to a succession of discoveries in the Athabasca Basin.

The land disposed for potash exploration reached an all-time high of 4.5 million hectares in early 2009. The interest for potash remains extremely high and practically all the land available has been disposed and the level

of exploration is very high. This is due to the high price of potash since 2008, well above historical values.

The land disposed for coal reached an all-time high of 4.9 million hectares by the end of 2009. This level dropped dramatically in early 2012 to 500,000 hectares. Although several impressive coal accumulations were identified since 2008, the market did not support coal as well as potash. Coal prices did not benefit from the same variations as potash but exploration for coal still remains above historical values.

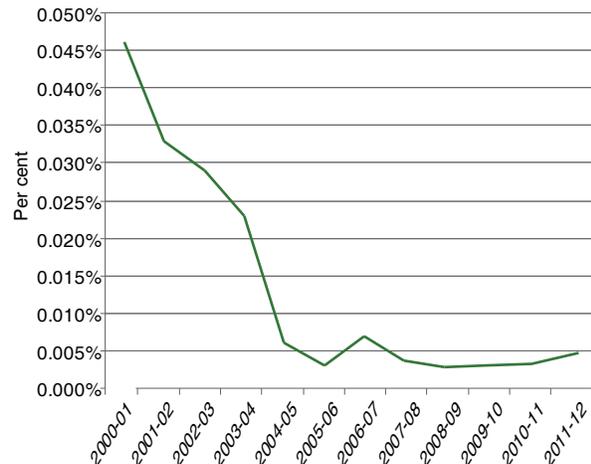
The most significant risk to the ministry is the potential that strengthening commodity prices, especially for metallic minerals, will trigger another rush for land in Saskatchewan. Significant delays were encountered during the 2006-08 period related to the issuance of new mineral dispositions. These delays impede the flow of investment capital into Saskatchewan at critical times for the exploration industry.

The ministry has responded to these cyclical pressures related to mineral disposition activity by developing the Mineral Administration Registry Saskatchewan (MARS) system. The MARS system, which the ministry plans to implement in 2012-13, will greatly speed up the granting of mineral dispositions through the use of web-based GIS technologies (referred to as “e-tenure”). The ministry expects to expand this system in the coming years to include other mineral commodities.

Other Canadian jurisdictions have also experienced significant volatility in their mineral land acquisition rates. Like Saskatchewan, these jurisdictions have adopted, or are in the process of adopting e-tenure systems such as MARS. Simplifying land acquisition, including lowering the cost

of acquiring land through map staking, is important for maintaining Saskatchewan’s overall competitiveness. (Source: Ministry of Energy and Resources)

### Uncollectible Resource Revenues



The term uncollectible revenues refers to the amount of non-renewable resource revenues that is written off as bad debts and which is expressed as a percentage of revenues recorded. The ministry ensures the timely and optimal collection of revenues, on behalf of the government, from the production and sale of Saskatchewan’s energy and mineral resources, the sale of Crown mineral rights and other associated taxes, services and fees.

The ministry takes action to achieve an acceptable level of assurance that all royalties, taxes and fees to which the province is entitled are properly determined and reflected in the ministry’s accounting records, and that the amounts owing are paid. In order to achieve an acceptable level of assurance, the ministry evaluates potential risks, establishes auditing and monitoring processes and procedures,

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and uses its human and technical resources to mitigate those risks. The ministry assesses the adequacy of these processes and resources on an ongoing basis, and enhances them as it deems necessary. The client groups affected by these programs are the mineral industry, the oil and gas industry, individuals and companies that have a working interest in the Saskatchewan oil and gas and mining industry, private mineral owners, and purchasers of products and services that the ministry provides.

Inherent in this measure is a reflection of the financial stability of resource companies carrying on business in Saskatchewan. A lower percentage of uncollectible revenues indicates greater stability in the private sector companies remitting payments to the province.  
*(Source: Ministry of Energy and Resources)*



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## **2011 - 12 Financial Overview**



# 2011 - 12 Financial Overview

## 2011-12 Budget vs. Actual Expense Variance Report

by Subvote and Subprogram

<b>Summary of Expenditures</b>				
The following table outlines information on actual and budgeted expenditures by subvote and subprogram, as per the structure for the Ministry of Energy and Resources. Variance explanations are provided for individual variances that are greater than \$100,000.				
<i>in thousands of dollars</i>				
<b>Subvote/Subprogram</b>	<b>Actual Expenditures 2010-11</b>	<b>Original Estimate 2011-12</b>	<b>Actual Expenditures 2011-12</b>	<b>Variance Over/(Under) 2011-12</b>
<b>ER01 Central Management and Services</b>				
Minister's Salary (Statutory)	\$ 45	\$ 45	\$ 45	\$ -
Executive Management	576	624	590	(34)
Central Services	16,238	20,289	17,275	3,014 <sup>1</sup>
Accommodation Services	3,396	3,274	3,487	213 <sup>2</sup>
Surface Rights Arbitration Board	120	162	135	(27)
<b>ER01 Central Management and Services Total</b>	<b>\$ 20,375</b>	<b>\$ 24,394</b>	<b>\$ 21,532</b>	<b>\$ (2,862)</b>
<b>ER18 Forestry Development Total</b>	<b>\$ 1,595</b>	<b>\$ 1,398</b>	<b>\$ 2,432</b>	<b>\$ 1,034</b> <sup>3</sup>
<b>ER04 Revenue and Program Services Total</b>	<b>\$ 3,530</b>	<b>\$ 3,169</b>	<b>\$ 2,886</b>	<b>\$ (283)</b> <sup>4</sup>
<b>ER05 Petroleum and Natural Gas Total</b>	<b>\$ 7,765</b>	<b>\$ 9,315</b>	<b>\$ 9,886</b>	<b>\$ 571</b> <sup>5</sup>
<b>ER16 Exploration and Geological Services Total*</b>	<b>\$ 1,416</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>ER06 Minerals, Lands and Policy</b>				
Mineral and Energy Policy	\$ 42,840	\$ 1,654	\$ 2,312	\$ 658 <sup>6</sup>
Green Initiatives - Energy	1,450	1,650	1,200	(450) <sup>7</sup>
Energy Sector Initiatives	399	501	454	(47)
Petroleum Technology Research Centre	1,500	1,000	1,250	250 <sup>8</sup>
Lands and Mineral Tenure	-	1,659	1,477	(182) <sup>9</sup>
Saskatchewan Geological Survey	-	4,383	4,146	(237) <sup>10</sup>
<b>ER06 Minerals, Lands and Policy Total</b>	<b>\$ 46,189</b>	<b>\$ 10,847</b>	<b>\$ 10,839</b>	<b>\$ (8)</b>
<b>Total Appropriation</b>	<b>\$ 80,870</b>	<b>\$ 49,123</b>	<b>\$ 47,575</b>	<b>\$ (1,548)</b>
Capital Asset Acquisition	(7,480)	(14,102)	(10,994)	3,108 <sup>11</sup>
Capital Asset Amortization	4,231	2,116	213	(1,903) <sup>12</sup>
<b>Total Expense</b>	<b>\$ 77,621</b>	<b>\$ 37,137</b>	<b>\$ 36,794</b>	<b>\$ (343)</b>

\*Note: These functions were reallocated to Minerals, Lands and Policy and Petroleum and Natural Gas in 2011-12.

**Variance Explanations (Amounts greater than \$100,000):**

1. PRIME and Geological Core Laboratory warehouse expansion capital projects carried forward to 2012-13.
2. Leasehold rent increases and new leases required to house Prince Albert's forestry development and PRIME project consultants.
3. PAFMA Tribal Council MOUs related to resource development.
4. Intergovernmental contractual obligations on Lean events, Shanghai office and PNWER.
5. Increase to support oil and gas activities and the mid-year increase to environmental liabilities.
6. Increase to fund additional clean-up work related to the uranium legacy mines.
7. Savings realized for project that did not proceed.
8. Additional funding offset by Green Initiatives – Energy.
9. General salary and operating savings.
10. General operating savings.
11. Geological Core Laboratory warehouse expansion and PRIME capital projects carried forward to 2012-13.
12. PRIME project implementations carried forward to 2012-13.

**Description of Third Party Funding**

<b>Funding Source</b>	<b>Amount (\$000)</b>	<b>Description</b>
Petroleum Technology Research Centre	<b>\$1,250</b>	Provides funding for core operating and research development to this industry- responsive research organization.
Energy Sector Initiatives	<b>\$454</b>	Provides funding to support a broad range of research, technology and program initiatives that promote the development of the province's energy resources.
Green Initiatives - Energy	<b>\$1,200</b>	Funding to support major technology development activities to reduce the environmental impact of Saskatchewan's fossil fuel industries while contributing to the industry's efficiency and economic competitiveness.

## Summary of Revenues

The ministry collects revenues, on behalf of the government, from the production and sale of Saskatchewan's energy and mineral resources, the sale of Crown mineral rights and other associated taxes, services and fees. All revenue collected is deposited in the General Revenue Fund. A summary of

the ministry's 2011-12 budgeted revenue compared to actual revenue is presented below. Variance explanations are provided for all variances that are greater than \$3.0 million. The ministry's actual revenue for 2011-12 was \$2.413 billion, \$24.7 million below the 2011-12 budget estimates. The most significant reasons for this decrease are explained below.

<b>Summary of Revenues</b> <i>in thousands of dollars</i>	<b>2011-12 Budget</b>	<b>2011-12 Actual</b>	<b>Variance Over/(Under)</b>
<b>Non-Renewable Resource Revenue</b>			
Oil	\$ 1,410,100	\$1,528,808	\$ 118,708 <sup>1</sup>
Crown Land Sales	436,400	235,507	(200,893) <sup>2</sup>
Natural Gas	22,500	17,389	(5,111) <sup>3</sup>
Potash	381,300	438,372	57,072 <sup>4</sup>
Other Minerals	140,300	149,074	8,774 <sup>5</sup>
<b>Total Non-Renewable Resource Revenue</b>	<b>\$ 2,390,600</b>	<b>\$2,369,150</b>	<b>\$ (21,450)</b>
<b>Other Own-Source Revenue</b>			
Mineral Rights Tax	\$ 8,000	\$ 8,413	\$ 413
Sales, Services and Service Fees	38,682	35,034	(3,648) <sup>6</sup>
Interest and Penalties	0	11	11
Other Miscellaneous Revenue	76	33	(43)
<b>Total Other Own-Source Revenue</b>	<b>\$ 46,758</b>	<b>\$ 43,491</b>	<b>\$ (3,267)</b>
<b>TOTAL REVENUE</b>	<b>\$ 2,437,358</b>	<b>\$2,412,641</b>	<b>\$ (24,717)</b>

### Explanations of Major Variances:

- Oil revenues increased by \$118.7 million, due to higher average wellhead prices (\$2.33 Canadian/barrel higher than in the budget estimate); the resulting increase in the price-sensitive royalty and tax rates; and increased EOR audit assessments in the amount of \$19.2 million.
- Crown land sales revenue decreased by \$200.9 million primarily due to industry focusing on drilling its existing inventories and extremely wet weather in 2011 that delayed drilling and completion activities which in turn slowed exploration to justify further expansion through land sales.
- Natural gas revenues decreased by \$5.1 million, primarily due to a decrease in natural gas prices (\$.55 per gigajoule decrease in the projected average field gate price).
- Potash revenues increased by \$57.1 million, primarily in Crown royalty and profit tax due to increases in production, sales and price (\$109.34/tonne increase in 2011 prices), offset by increased operating costs and a decrease in the profit tax loss carry-forward.
- Other minerals increased by \$8.8 million, primarily due to uranium increase in sales volumes, offset by a slight decrease in the average sales price (decrease of \$3.09 per kilogram).
- Sales, services and service fees decreased by \$3.6 million, as a result of decreased production and applicable taxes on federal treaty land entitlement (TLE) lands.

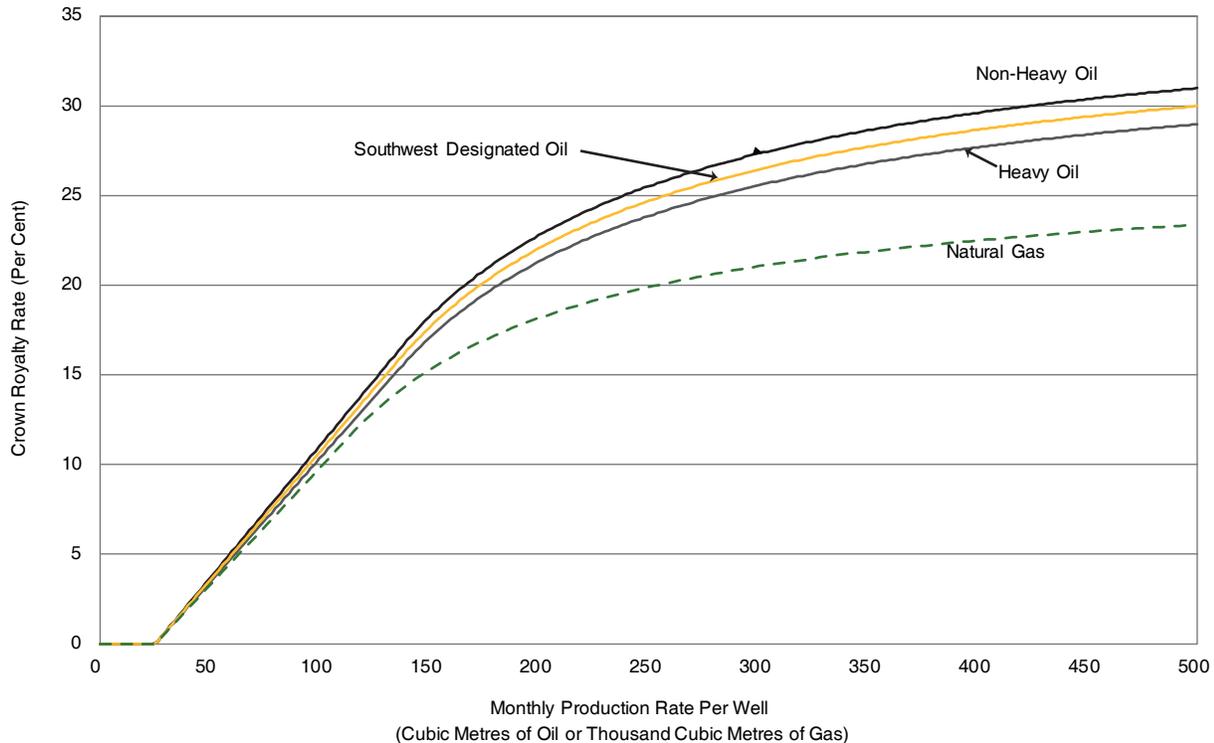
## 2011-12 Oil and Gas Tables

### New Oil and Gas Wells Drilled in 2011

Well Category	Producing	Abandoned	Service	Total
<b>Oil</b>				
Conventional				
Vertical	1233	42	236	1511
Horizontal	1904	5	34	1943
<b>Total Conventional</b>	<b>3137</b>	<b>47</b>	<b>270</b>	<b>3454</b>
Enhanced Oil Recovery (EOR*)				
Vertical	21	0	4	25
Horizontal	48	1	0	49
<b>Total EOR</b>	<b>69</b>	<b>1</b>	<b>4</b>	<b>74</b>
<b>Total Oil Wells</b>	<b>3206</b>	<b>48</b>	<b>274</b>	<b>3528</b>
<b>Gas</b>				
Vertical	43	1	0	44
Horizontal	1	0	5	6
<b>Total Gas Wells</b>	<b>44</b>	<b>1</b>	<b>5</b>	<b>50</b>
<b>Total Oil &amp; Gas</b>	<b>3250</b>	<b>49</b>	<b>279</b>	<b>3578</b>

\* EOR means enhanced oil recovery projects such as firefloods, steamfloods, and CO<sub>2</sub> floods but excludes waterfloods.

### March 2011 Crown Royalty Curves for Wells Drilled After September 2002



## CRUDE OIL AND NATURAL GAS STATISTICAL SUMMARY

CRUDE OIL	2007	2008	2009	2010	2011 <sup>3</sup>
Production (million barrels)	156.2	161.0	155.0	154.3	157.7
Remaining Recoverable Reserves (million barrels at December 31)	1,175.5	1,156.3	N/A	N/A	N/A
Value of Sales (\$ millions) <sup>1</sup>	\$8,276	\$13,218	\$8,880	\$10,212	\$12,249
Average Well-Head Price (\$ per barrel)	\$53.02	\$82.21	\$57.29	\$66.33	\$77.69
Average WTI Price (\$US per barrel)	\$72.41	\$99.75	\$62.09	\$79.61	\$95.11
Employment - Direct and Indirect (person-years)	24,975	27,375	25,125	28,325	31,300
Capital Spending (\$ millions)	\$2,890.8	\$4,505.7	\$2,686.9	\$4,438.7	\$4,448.2
Wells Drilled	2,297	2,824	1,610	2,730	3,528
Wells Capable of Producing at December 31	40,217	42,638	43,881	46,176	49,017
Wells Actively Producing at December 31	25,005	26,149	25,913	26,802	28,160
NATURAL GAS	2007	2008	2009	2010	2011 <sup>3</sup>
Production (billion cubic feet) <sup>2</sup>	314.8	292.1	272.2	242.3	218.9
Remaining Recoverable Reserves (billion cubic feet at December 31)	2,754	N/A	N/A	N/A	N/A
Value of Sales (\$ millions) <sup>1</sup>	\$1,469	\$1,684	\$745	\$639	\$491
Average Fieldgate Price (\$ per thousand cubic feet)	\$6.25	\$7.82	\$3.88	\$3.91	\$3.51
Employment - Direct and Indirect (person-years)	3,100	3,250	2,250	2,075	1,900
Capital Spending (\$ millions)	\$236.7	\$259.8	\$69.9	\$24.7	\$12.4
Wells Drilled	1,156	1,230	233	98	50
Wells Capable of Producing at December 31	26,393	27,521	27,487	27,378	27,268
Wells Actively Producing at December 31	19,537	20,328	20,162	19,741	19,111

Notes:

1. Crude oil sales are at the well-head and natural gas sales are at the fieldgate and gas plant inlets.
2. Natural gas production includes associated and non-associated gas.
3. The 2011 numbers are based on actuals where available.

Note: Industry continually amends data. Statistics are generally updated to reflect amendments going back as far as three years.

N/A - Not Available

## 2011-12 Mineral Tables

### Crown Metallic and Industrial Mineral Dispositions

	As of March 31, 2010		As of March 31, 2011		As of March 31, 2012	
	Number	Area (hectares)	Number	Area (hectares)	Number	Area (hectares)
<b>Mineral Dispositions</b>	<b>4,434</b>	<b>6,543,798</b>	<b>3,425</b>	<b>5,259,026</b>	<b>3,525</b>	<b>5,542,554</b>
Mineral Permits	0	0	0	0	0	0
Mineral Claims	4,356	6,515,982	3,340	5,230,068	3,440	5,513,596
Mineral Leases	78	27,816	85	28,958	85	28,958
<b>Potash Dispositions</b>	<b>184</b>	<b>4,331,096</b>	<b>179</b>	<b>4,367,673</b>	<b>181</b>	<b>4,381,751</b>
Potash Permits	167	3,959,749	157	3,879,385	159	3,893,469
Potash Leases	17	371,347	22	488,288	22	488,282
<b>Coal dispositions</b>	<b>6,455</b>	<b>4,068,893</b>	<b>6,456</b>	<b>4,067,193</b>	<b>1,378</b>	<b>544,172</b>
Coal permits	5,677	3,951,190	5,675	3,949,460	545	377,334
Coal leases	778	117,703	781	117,733	833	166,838
<b>Quarry Dispositions</b>	<b>350</b>	<b>68,671</b>	<b>149</b>	<b>29,789</b>	<b>149</b>	<b>32,890</b>
<b>Alkali Dispositions</b>	<b>34</b>	<b>12,242</b>	<b>30</b>	<b>10,155</b>	<b>46</b>	<b>10,681</b>
<b>TOTAL</b>	<b>11,457</b>	<b>15,024,700</b>	<b>10,239</b>	<b>13,733,836</b>	<b>5,279</b>	<b>10,512,048</b>
Transfers and change of name	1,200	1,833,383	233	1,056,074	334	1,867,671

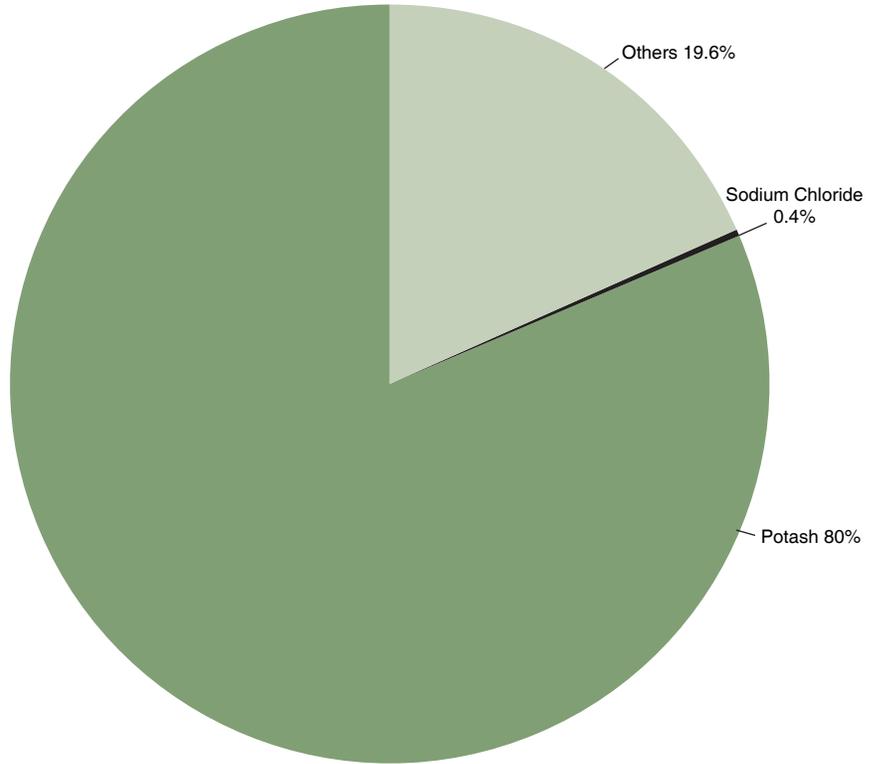
### Saskatchewan Mineral Exploration Expenditures

Commodity	2007 Actual \$Millions	2008 Actual \$Millions	2009 Actual \$Millions	2010 Actual \$Millions	2011 Actual \$Millions
Uranium	\$199.20	\$204.44	\$108.58	\$103.23	\$101.23
Diamonds	76.58	73.15	10.85	17.25	7.91
Gold	15.30	8.90	2.97	9.54	10.50
Base Metals/ Platinum Group Metals	11.55	6.76	3.00	6.49	13.26
Potash, Industrial Minerals, Rare Earth Elements	22.63	180.68	151.21	184.01	160.26
<b>TOTAL</b>	<b>\$325.26</b>	<b>\$473.92</b>	<b>\$276.61</b>	<b>\$320.52</b>	<b>\$293.17</b>

Data from survey conducted by Energy and Resources Saskatchewan Geological Survey.

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**Value of Mineral Sales 2011-12**  
**Estimate: \$ 7.66 Billion**



## Major Saskatchewan Resource Industries

### Statistical Summary - Minerals (Millions of dollars unless otherwise noted)

<b>POTASH</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Production (thousand tonnes of K <sub>2</sub> O)	10,342	10,147	4,251	9,141	10,378
Value of sales	3,056	7,386	3,067	5,366	6,714
Royalty/Tax (See Note 1)	348.3	1,364.0	-183.9	62.5	38.4
Direct employment	3,033	3,838	3,916	4,443	4,455
Capital spending	557	1,025	1,760	2,127	2,537
<b>URANIUM</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Production (thousand tonnes of U <sub>3</sub> O <sub>8</sub> )	11.08	10.5	11.83	See Note 2	
Value of sales	1,106.47	956.2	1,260.4		
Royalty/Tax (See Note 1)	70.2	90.1	104.8		
Direct employment	2,167	2,532	2,523		
Capital spending	331	310	359.8		
<b>SALT</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Production (thousand tonnes)	1,166	1,311	1,255	1,067	1,283
Value of sales	26.3	29.5	27.8	28.6	30.3
Royalty/Tax (See Note 1)	1.1	1.3	1.3	1.0	1.3
Direct employment	163	142	150est.	133est.	132est.
<b>Other (See Note 2)</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Production (million tonnes)	10.6	10.0	10.8	10.8	9.8
Value of sales	189.9	217.0	237.9	1,247	1,371.2
Royalty/Tax (See Note 1)	23.2	30.0	25.3	132.6	147.8
Direct employment (See Note 3)	853	1,074	n/a	3,850est.	4,284est.
Capital spending	n/a	n/a	n/a	n/a	n/a

Note 1: Royalty/Tax are reported for fiscal year, remaining entries are calendar year.

Note 2: Confidentiality requirements pursuant to *The Crown Minerals Act* do not permit commodity-specific information to be released where there are fewer than three producing companies. This information is aggregated and presented in the "Other" category which includes Bentonite, Quarriable Materials, Coal, Sodium Sulphate, Uranium and Precious and Base Metals.

Note 3: Approximately 300 additional Saskatchewan residents are employed at the HudBay operations in Flin Flon, Manitoba.

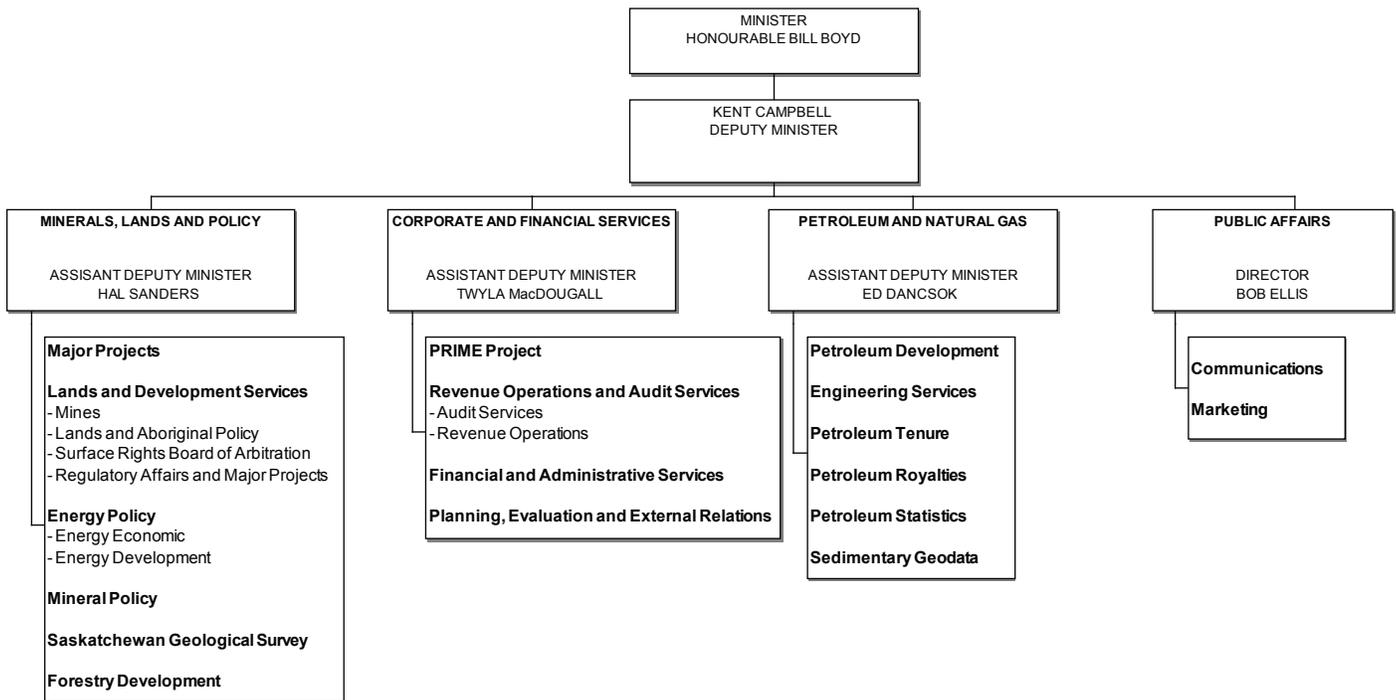
Non-Ministry Data Sources:

Employment information was derived from information from the Ministry of Advanced Education, Employment and Immigration (annual average).

Some capital spending figures were derived from the Natural Resources Canada Expenditure Survey.

# Appendices

## Internal Organization as of March 31, 2012



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## Legislative Responsibilities

The legislated mandate of the ministry and responsibilities of the Minister are set out in the following Acts, and regulations made pursuant to those Acts.

*The Crown Minerals Act* allows for the leasing of Crown mineral rights and provides the authority to collect royalties on Crown dispositions.

*The Energy and Mines Act* provides the Minister with the responsibility for the exploration for, and the development, management and conservation of, non-renewable resources, and the development, management and conservation of energy.

*The Freehold Oil and Gas Production Tax Act* provides the authority to tax freehold oil and gas and recovered crude oil in the province.

*The Mineral Resources Act, 1985* provides for the orderly exploration for, and the development, conservation and management of, the primary production of mineral resources in Saskatchewan.

*The Mineral Taxation Act, 1983* provides authority to tax mineral production and mineral rights.

*The Oil and Gas Conservation Act* allows for the orderly exploration for, and the development of, oil and gas in the province and optimization of recovery of these resources.

*The Pipelines Act, 1998* provides the authority regarding the construction, operation and abandonment of oil, natural gas and other pipelines.

*The Reclaimed Industrial Sites Act* establishes the legal framework to return Crown land held under surface lease back to the province when mining and reclamation activities have been completed.

*The Surface Rights Acquisition and Compensation Act* provides the authority regarding comprehensive procedure for acquiring surface rights; for the payment of just and equitable compensation for the acquisition of surface rights; and for the maintenance and reclamation of the surface of land acquired in connection with surface rights acquired under this Act.

The Minister of Energy and Resources also has joint responsibilities for sections of several other Acts which are required for the purpose of administering certain programs and regulations.

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## **Publications**

The Ministry of Energy and Resources produced the following publications during the reporting year:

### **Geological Reports**

261: The Geology and PGE Potential of the Peter Lake Domain, Saskatchewan, DVD

262: Saskatchewan Gold: Mineralization Styles and Mining History

### **Miscellaneous Reports**

2011 Weekly Drilling Activity Report <http://www.er.gov.sk.ca/Daily-Well-Bulletin-Weekly-Drilling-Reports>

2011-4.1: Summary of Investigations 2011, Volume 1 web post

2011-4.2: Summary of Investigations 2011, Volume 2 web post and map package

2011-7: Geological Atlas of Saskatchewan, version 14, CD-ROM

### **Open Files**

2011-1: Sub-Mesozoic unconformity subcrop map, west central Saskatchewan

2011-2 to -55: Geophysical series, airborne geophysical survey of the northwestern Athabasca Basin, released in conjunction with the Geological Survey of Canada

2011-56: Mississippian subcrop map and selected oil-producing data, southeastern Saskatchewan

2011-57: Saskatchewan descriptive mineral deposit models

2011-58: Geophysical series, geophysical compilation northern Saskatchewan

### **Data File Report**

29: Geochemical analyses of Athabasca Group outcrops in Saskatchewan (NTS 64L, 74F to 74K, and 74N to 74P)

## **Other Products**

Mineral Resource Map of Saskatchewan 2011 (English and Mandarin versions)

Prospect Saskatchewan – Birdbear Heavy Oil – new potential in west central Saskatchewan

For more information on geological publications, contact:

Ministry of the Economy  
Geological Publications  
2101 Scarth Street  
Regina, SK S4P 2H9

Tel: (306) 787-2528  
Fax: (306) 787-2488

E-mail: [er.publications@gov.sk.ca](mailto:er.publications@gov.sk.ca)

### **Other**

Ministry annual reports

For more information, contact:

Ministry of the Economy  
Public Affairs  
2103 11th Avenue  
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Tel: (306) 787-1691  
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## For More Information

This report provides information about our accomplishments. If you have any questions or comments, or would like additional copies of this report, we invite you to call (306) 787-1691.

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