

# The Implementation of IRIS at the Government of Saskatchewan: What it Means to the Oil and Gas Industry

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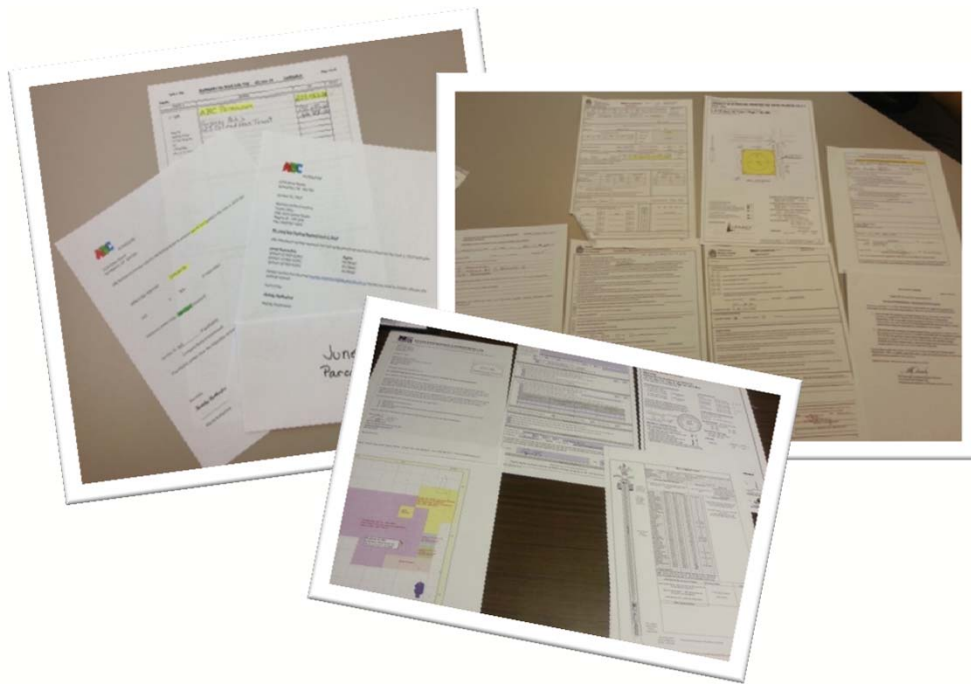
Assistant Deputy Minister  
Petroleum and Natural Gas Division  
Ministry of the Economy

# Agenda

- Making it easier to do business in Saskatchewan
- IRIS: What's in it for industry?
  - Petroleum Tenure Module
  - Well and Facility Infrastructure Module
- Industry readiness information

# Making it Easier to do Business in Saskatchewan

- Renewing how government delivers services to industry
  - **Process Renewal and Infrastructure Management Enhancements (PRIME)** program
  - Implementation of the **Integrated Resource Information System (IRIS)**



# Concepts Key to IRIS's Development

## Industry self-service

- Industry submits applications online
  - Applications to transfer or extend dispositions, well licence, etc.
  - Some applications processed for routine approval
- Industry securely inputs data and attaches supporting documentation directly into IRIS business modules
- Business activities, such as submitting land sale posting requests, land sale bid submissions and transferring and surrendering dispositions, completed through IRIS

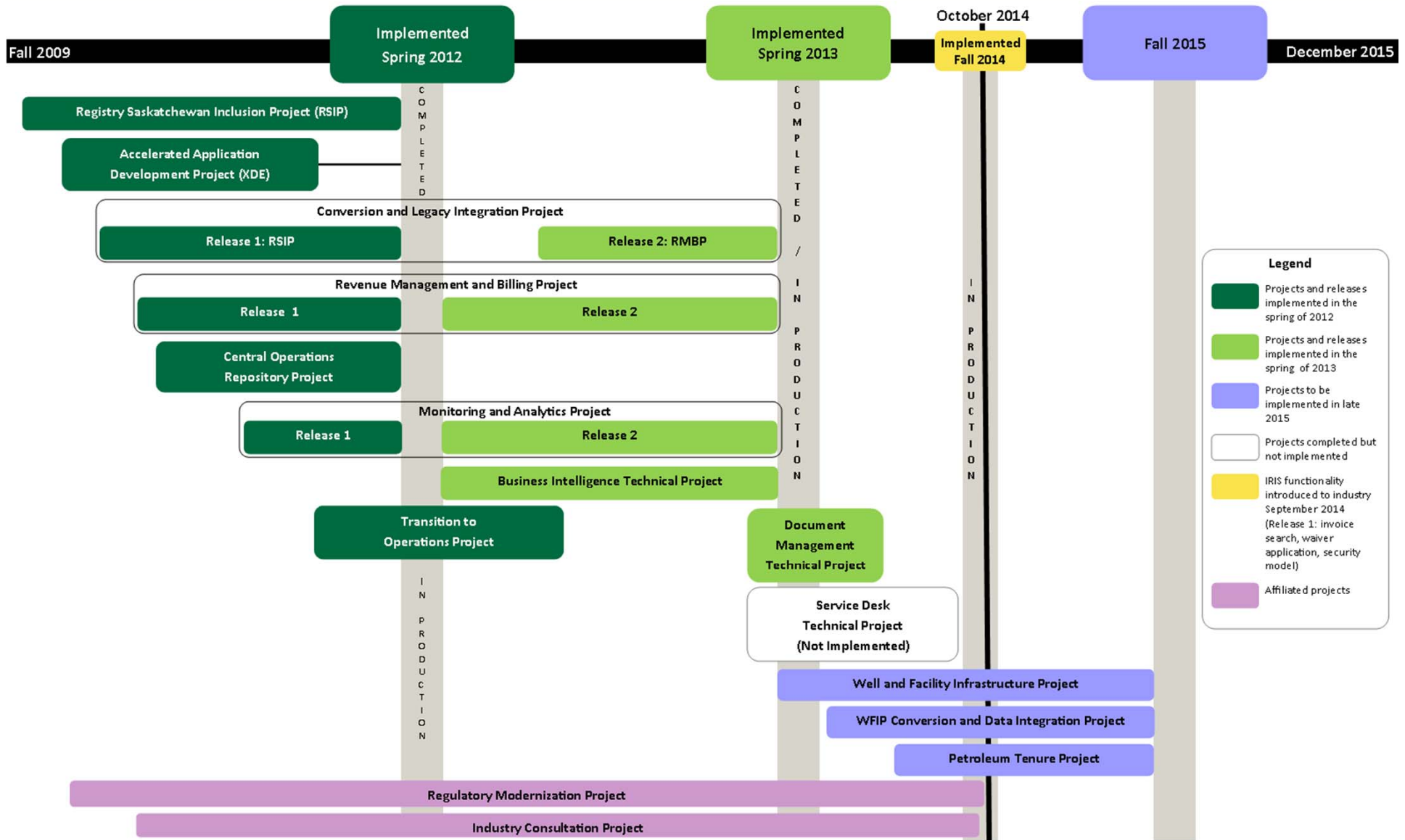
## One system for all

- Develop an integrated petroleum and natural gas resource system that supports business processes for both ministry and industry

# Making it Easier to do Business in Saskatchewan

- Introduction of a single window well licence application
- New service model
  - Industry self-service and integrated system requires a different kind of client support
    - More nimble and flexible to react to industry needs
  - Specialized service desks for regulatory questions

# PRIME and IRIS Module Implementation Schedule



# Petroleum Tenure Module

# Online Functionality

- Land sale parcel posting and bidding
- Application for non-advertised dispositions
- Various applications – transfers, surrenders, change of designated representative, register instruments, extension to dispositions
- Registry search for dispositions and instruments
  - Basic – active lands, rights and instruments
  - Historical – land, rights, instruments from current to original view
- Invoicing



# Industry Benefits

- Single point of access for all tenure related applications
- Electronic format for dispositions and instruments are legal agreements
- Prompt and paperless
- Secure and confidential
- Validation that applications meet basic requirements upon submission
- Immediate notification when an application is approved or denied

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# Well and Facility Infrastructure Module

# Online Functionality

- Single window well licence application
- Generic applications and authorizations
- Well data submissions
- Well document submissions
  - i.e. logs, reports, tests
- Obligation and non-compliance tracking
- Incident reporting
- Field inspection records and tracking

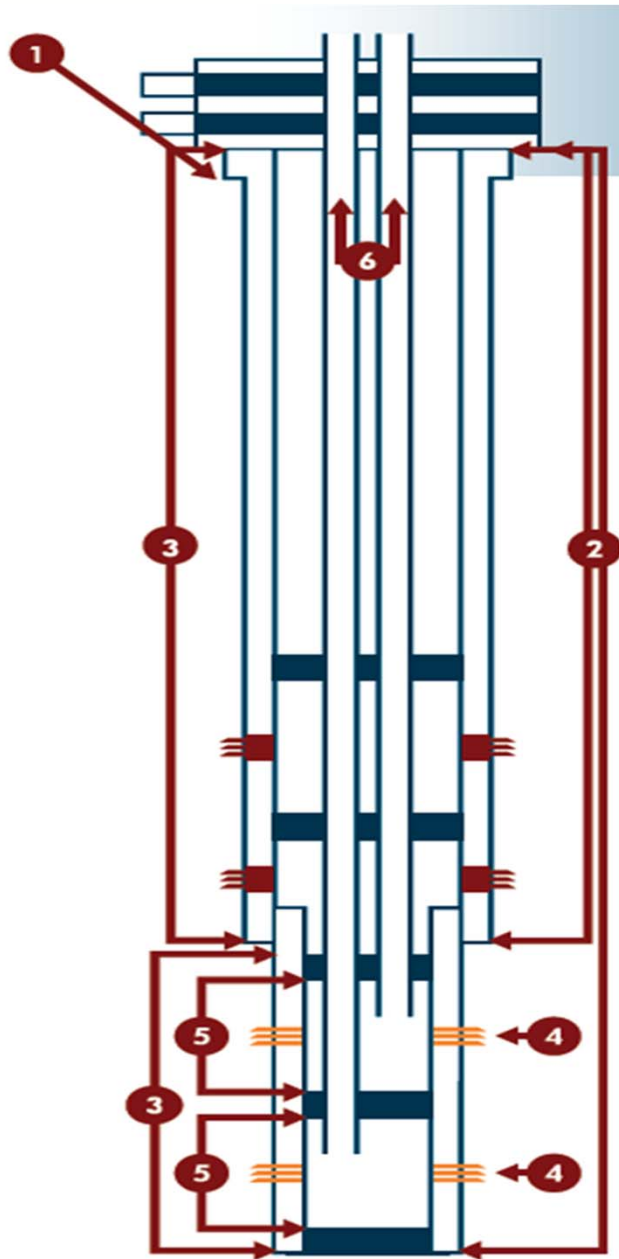
# Single Window Well Licence Application

- No longer need separate approvals for some horizontal, injection or off-target wells
- Requirements from the Government of Saskatchewan's Environment and Agriculture ministries included in application process
- Processing
  - Routine:
    - All pre-work completed with no high-risk issues
    - Automatic approval of licence and issuance
  - Non-routine:
    - High-risk issues identified and need review by the ministry prior to issuing a licence
- Non-routine applications will not hold up routine licence applications in the queue

# Fundamental Business Changes

- Regulation by Declaration
  - Disclosure questions:
    - Industry must know and understand the rules (Directives)
    - Industry disclose they've met the rules or provided mitigation in accordance with policy
    - Answers to disclosure questions may result in the application entering the non-routine queue, or cause an obligation that industry will be required to meet
  - Government performs risk-based and random audits
    - Government has the ability to cancel or suspend an issued licence, withhold future approvals or force abandonment
- Proactive non-compliance management
- Additional data knowledge and entry
- Understanding of data submission sequencing
- Knowledge of the *What is a Well* terminology and well identification (UWI or CWIS) systems

# PPDM Well Components



Active Perforation Squeezed Perforation

1. **Well Origin (WO):** A Well Origin is the location on the surface of the earth or sea bed where the drill bit is planned to penetrate or does penetrate the earth to establish or rework a Well.
2. **Wellbore (WB):** A Wellbore is a path of drilled footage, from the Well Origin (top/start) to a terminating point (bottom/end).
3. **Wellbore Segment (WS):** A Wellbore Segment is a unique drilled interval within the Well, either the original Wellbore from the Well Origin to the terminating point, or additional footage from a point in an existing Wellbore to a new terminating point.
4. **Wellbore Contact Interval (CI):** A Wellbore Contact Interval is a measured depth range within a Wellbore that is intended to put the Wellbore into contact with one or more stratigraphic zones for the purpose of production, injection or service.
5. **Well Completion (C):** A Well Completion is a set of one or more Wellbore Contact Intervals that function as a unit to produce or inject fluids.
6. **Wellhead Stream (WHS):** A Wellhead Stream is a flow of fluids through a conduit determined by an installed wellhead configuration.
7. **Well Set:** A Well Set is a grouping mechanism for Well Components used to maintain an end-to-end link through all stages of the Well life cycle (planning to disposal). A Well Set will contain one parent Well and its components, and may also contain associated Wells (and their components) drilled for the purpose of re-entry, skidding, relief or service specific to the parent Well's operation.

# Canadian Well Identification System (CWIS)

## The Canadian Well Identification System Standard

An Identification System for Petroleum Industry Wells in Canada

Purpose

The purpose of a Well Identifier is to enable rapid and unambiguous identification and retrieval of information related to a Well or Well component.

This standard is a response to the industry's need to overcome the limitations of the Canadian Unique Well Identifier (UWI) standard developed by the Canadian Petroleum Association (now the Canadian Association of Petroleum Producers) in the 1970's.

Structure

Each Identifier is constructed in a similar way and is designed to be permanent and unique. The Wellbore ID and Well Reporting Stream ID contain an explicit reference to the parent Well.

The **Well Identifier** consists of two semantic parts:

- Province / Territory Code (2 character code)
- Well Number (7 digit number, zero-padded)

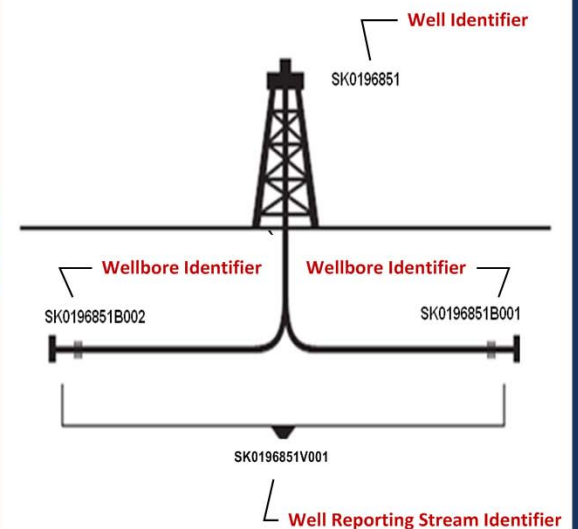
The **Wellbore Identifier** consists of three semantic parts:

- Well ID (parent Well ID)
- Component Type Code (1 character code 'B')
- Component Value (3 digit number, zero-padded)

The **Well Reporting Stream Identifier** consists of three semantic parts:

- Well ID (parent Well ID)
- Component Type Code (1 character code 'V')
- Component Value (3 digit number, zero-padded)

Example



# Industry Benefits

- Improved data quality
  - Industry has responsibility and ownership for their data
  - Ministry can concentrate on areas of issue
  - See data changes in real-time
- Improved access and integrated view of data
  - IRIS users can view their well data and all of industry's non-confidential well data
    - Attachments (reports, tests, analysis)
    - Authorizations (applications)
    - Incidents and inspections
    - Obligations



# Industry Benefits

- Track obligations to avoid non-compliance penalties
- Receive automated communications from the ministry regarding submissions, authorizations and issues
- Many support mechanisms
  - Online, page-specific IRIS help content
  - Central IRIS service desk for technical issues
  - Business unit service desks for regulatory issues

# Industry Readiness Information

- Visit:

**<https://iris.gov.sk.ca>**

- *IRIS Readiness Communiqué*
- Industry Readiness Town Hall Presentations
- *IRIS Industry Readiness and Orientation Guide*

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Thanks. Questions?

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