

## Saskatchewan Industry and Resources Air Quality Requirements

## Saskatchewan Industry and Resources



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

Saskatchewan  
Our Future is Wide Open®

## Act and Regulations

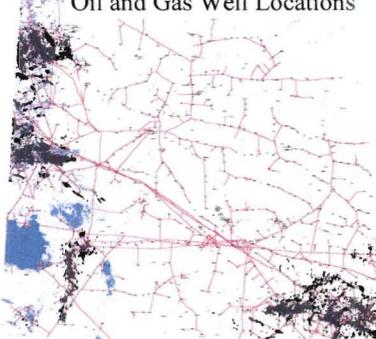
- *The Oil and Gas Conservation Act*
  - *The Oil and Gas Conservation Regulations, 1985*
    - *Well and Facility Licensing*
    - *Compliance and Enforcement*
    - *Conservation of Non-Renewable Resources*
    - *Wells and Facilities Operation Standards including Air Pollution Emission Control and Destructions*
    - *Environmental and Public Safety Protection*
    - *Emergency Response Plans*



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

## Saskatchewan

## Oil and Gas Well Locations



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

## Saskatchewan

## Facility Licensing

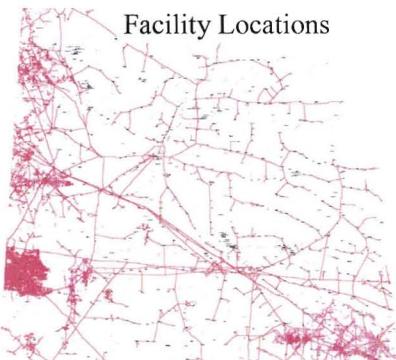
- 367 companies own 4867 facilities requiring licenses under the RFLA program:
  - Oil & Gas Single-Well Batteries: 1799
  - Oil Multi-Well Batteries: 1057
  - Injection/Disposal Wells: 848
  - Compressor/Gas Batteries/Gas Gathering: 506
  - Satellites: 335
  - Crude Oil Cleaning/Skim/Recovery Plants: 103
  - Gas Processing Plant: 26
  - Miscellaneous: 193



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

Saskatchewan  
Open for Business

## Facility Locations



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

Saskatchewan  
Open for Business

## Reduced Sulfur Compounds Emission Control Initiatives



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

Saskatchewan  
Open for Business

## RFLA H<sub>2</sub>S Survey Results

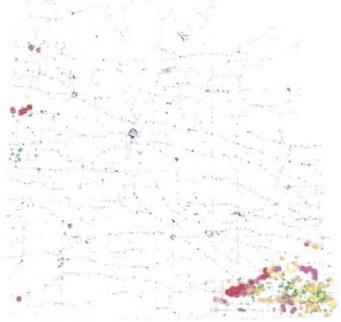
- 964 facilities reported H<sub>2</sub>S inlet gas stream concentration greater than zero
- Mean H<sub>2</sub>S concentration in inlet gas stream is 2.1%
- Highest reported H<sub>2</sub>S concentration is 30%
- 411 facilities reported H<sub>2</sub>S concentration less than 1% and 553 facilities reported H<sub>2</sub>S concentration equal to or greater than 1%
- Sour gas production is localized in defined areas of the province



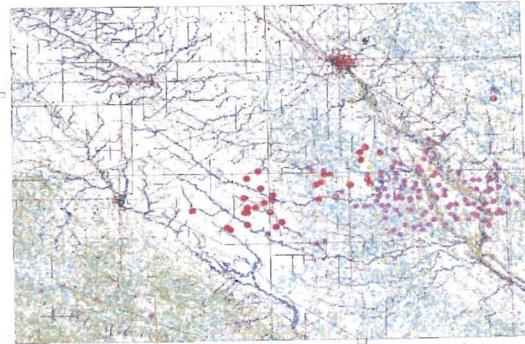
[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)



## Critical Sour Gas Locations

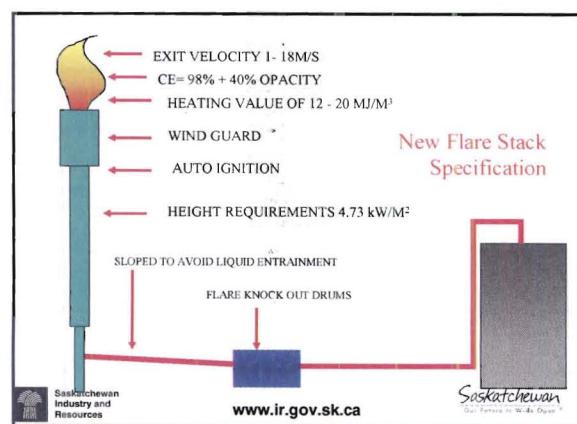
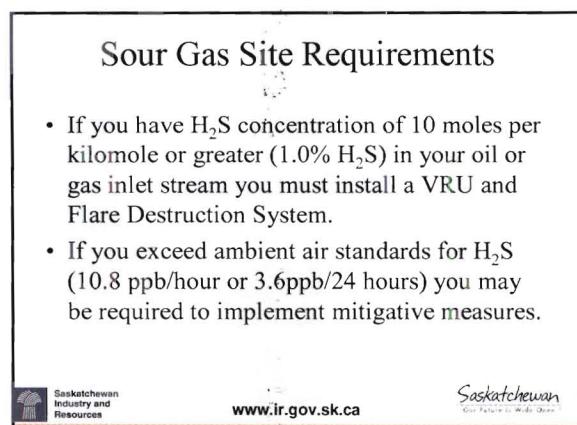


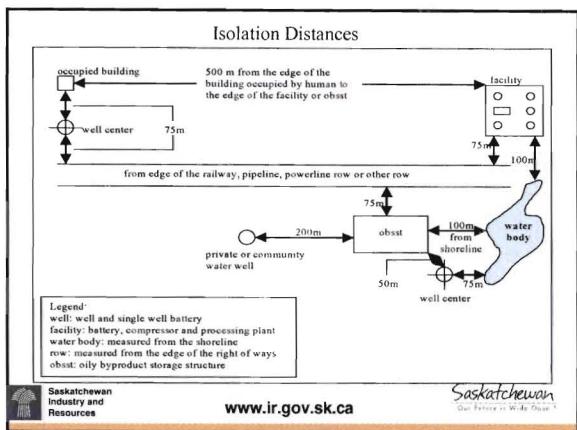
[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)







**Separation Distances**

**Table 2. Minimum Distance Requirements Separating New Sour Gas Wells/Facilities from Residential and Other Developments**

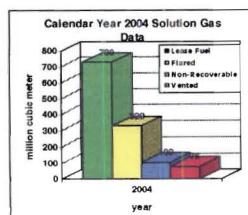
Level Of Sour Gas Facility	Sour Gas Well Release Rate m <sup>3</sup> /s	Sour Gas Facility Potential Release Volume m <sup>3</sup>	Minimum Separation Distance To Developments
1	<0.3	<300	<ul style="list-style-type: none"> <li>the standard spacing requirements as per Appendix 1</li> </ul>
2	0.3 - 2.0	300 - 2000	<ul style="list-style-type: none"> <li>for wells a minimum separation distance of 100m from a permanent dwelling and 500m from an urban centre or public facility</li> <li>for facilities a minimum separation distance of 500m from a permanent dwelling and urban centre or public facility</li> </ul>
3	2.0 - 6.0	2000 - 6000	<ul style="list-style-type: none"> <li>for wells a minimum separation distance of 100m from a permanent dwelling and 500m from an urban centre or public facility</li> <li>for facilities a minimum separation distance of 500m from a permanent dwelling and a maximum separation distance of 1500m from an urban centre or public facility</li> </ul>
4	>6.0	>6000	* as specified by SEM but not less than level 3

**Saskatchewan Industry and Resources** [www.ir.gov.sk.ca](http://www.ir.gov.sk.ca) **Saskatchewan** *Our Future is Wide Open*



## Emission Statistics

- During 2004 calendar year, 1,847 facilities flared and vented  $405 \times 10^6$  m<sup>3</sup> of associated gas. This equates to \$90 million dollars worth of natural gas or emission of 749,000 metric tonnes of carbon dioxide.



 Saskatchewan  
Industry and  
Resources

[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

## Saskatchewan

Saskatchewan  
Industry and  
Economy

[www.ijayak.com](http://www.ijayak.com)

## Saskatchewan

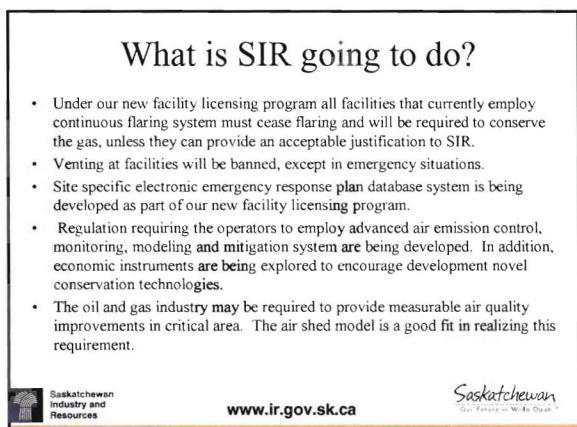
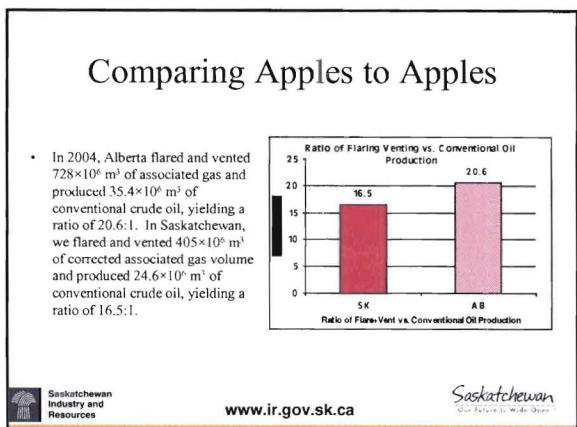
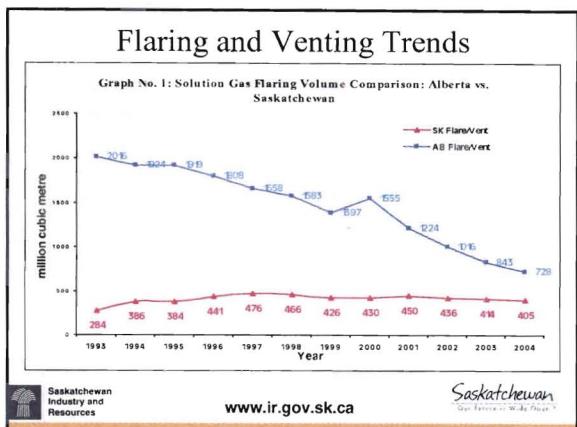
#### Flaring Volume by Township



Saskatchewan  
Industry and  
Trade

1000-1001

Saskatchewan



## Proposed Air shed Zones

- Southeast Saskatchewan Air shed Association Key Members:
  - Government:
    - Saskatchewan Environment
    - Saskatchewan Industry and Resources
    - Saskatchewan Agriculture and Food
    - Saskatchewan Health
    - Municipal Governments
  - Industry:
    - Power Generation Industry
    - Oil, Gas and Mining Industries
    - Agriculture and Intensive Livestock Operations
    - Transportation



[www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)

