

**MINISTRY OF HEALTH
INFORMATION BRIEFING NOTE**

Cliff # 985435

PREPARED FOR: Honourable Rich Coleman, Deputy Premier and Minister of Natural Gas Development and Minister Responsible for Housing
Honourable Terry Lake, Minister of Health
Honourable Mary Polak, Minister of Environment
Honourable John Rustad, Minister of Aboriginal Relations and Reconciliation
Honourable Todd Stone, Minister of Transportation and Infrastructure - **FOR INFORMATION**

TITLE: Human Health Risk Assessment for Oil and Gas Development in Northeast British Columbia

PURPOSE: To provide an update on phase two of the project.

BACKGROUND:

The Northeast Oil and Gas Human Health Risk Assessment is a three-phase project that will identify, explore and assess concerns about human health risks relating to oil and gas activities in northeastern BC. Phase one, an engagement process to identify the public's major concerns, was completed on March 31, 2012, and a report was publicly released in June 2012. Phase one did not make any attempt to link public perception and existing scientific data. Phase two started in November 2012, and will be completed by March 31, 2014.

Phase two will look at the health concerns raised by the public and local stakeholders in phase one by focusing on the potential impacts on air, water, land, and food quality from chemicals of concern resulting from oil and gas activities. Phase two follows a conventional approach that will assess potential health risks as a result of environmental exposures using methodologies adopted by Health Canada, the United States Environmental Protection Agency and the World Health Organization. Phase two will also include a review of the current oil and gas regulatory framework in BC with regards to human health protection.

A contract for phase two with a value of \$898,630 was awarded to Intrinsik Environmental Sciences through a competitive procurement process. The Intrinsik project team has specialists in toxicology, epidemiology, medicine, air quality, water quality, risk assessment, geomatics, geology, engineering, and emergency response planning, as well as legal advisors.

A communication plan, direction document and a final draft of the literature review have been completed to date. The first draft of the screening level risk assessment was recently submitted for review to the project's executive governance committee consisting of Assistant Deputy Ministers from the Ministries of Health, Environment, Aboriginal Relations and Reconciliation, Natural Gas Development, and Transportation and Infrastructure. Executive staff from the BC Oil and Gas Commission and the Northern Health Authority are also members of this committee.

DISCUSSION:

The Northeast Oil and Gas Human Health Risk Assessment project has reached an important milestone with the submission of the draft screening level risk assessment. The screening level risk assessment builds on the research and science undertaken with the direction document and literature review. The intention of the screening level risk assessment is to identify potential oil and gas related chemical emission sources in northeastern BC that present the greatest potential risk to human health.

The Province committed to publicly report out on the project. To date, there have been two press releases and a progress report posted to the Ministry of Health's website.

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**MINISTRY OF HEALTH
INFORMATION BRIEFING NOTE**

Cliff # 985233

PREPARED FOR: Stephen Brown, Deputy Minister - **FOR INFORMATION**

TITLE: Human Health Risk Assessment for Oil and Gas Development in
Northeast British Columbia

PURPOSE: To provide an update on Phase Two of the project.

BACKGROUND:

The Northeast Oil and Gas Human Health Risk Assessment is a three-phase project that will identify, explore and assess concerns about human health risks relating to oil and gas activities in northeastern BC. Phase one was completed on March 31, 2012, and a report was publicly released in June 2012. Phase two started in November 2012, and will be completed by March 31, 2014.

Phase two will look at health concerns raised by local stakeholders in phase one by focusing on the potential impacts on air, water, land, and food quality from chemicals of concern resulting from oil and gas activities. Phase two follows a conventional approach that will assess potential health risks as a result of environmental exposures using methodologies adopted by Health Canada, the United States Environmental Protection Agency and the World Health Organization. Phase two will also include a review of the current oil and gas regulatory framework in BC with regards to human health protection.

A contract for phase two with a value of \$898,630.00 was awarded to Intrinsik Environmental Sciences through a competitive procurement process. The Intrinsik project team has specialists in toxicology, epidemiology, medicine, air quality, water quality, risk assessment, geomatics, geology, engineering, and emergency response planning and law.

A communication plan, direction document, and the literature review have been completed to date. The first draft of the screening level risk assessment was recently submitted for review to the project's executive governance committee consisting of Assistant Deputy Ministers from the Ministries of Health, Environment, Aboriginal Relations and Reconciliation, Energy and Mines, Natural Gas Development, and Transportation and Infrastructure. Executive staff from the BC Oil and Gas Commission and the Northern Health Authority are also members of this committee.

DISCUSSION:

The Northeast Oil and Gas Human Health Risk Assessment project has reached an important milestone with the submission of the draft screening level risk assessment. The screening level risk assessment builds on the research and science undertaken with the direction document and literature review. The intention of the screening level risk assessment is to identify potential oil and gas related chemical emission sources in northeastern BC that present the greatest potential risk to human health.

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The Province committed to publicly report out on the project. To date, there have been two press releases and a progress report posted to the Ministry of Health's website.

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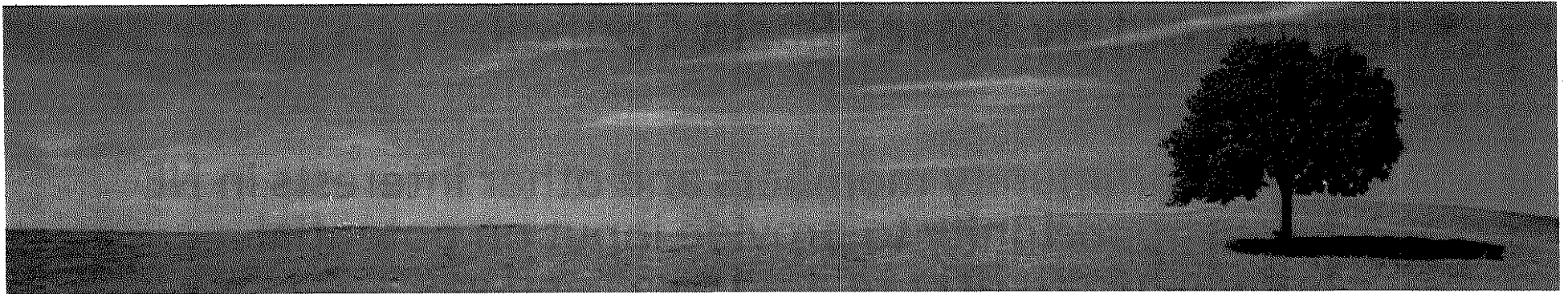
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Phase 2 Human Health Risk Assessment of Oil and Gas Activity in Northeastern BC



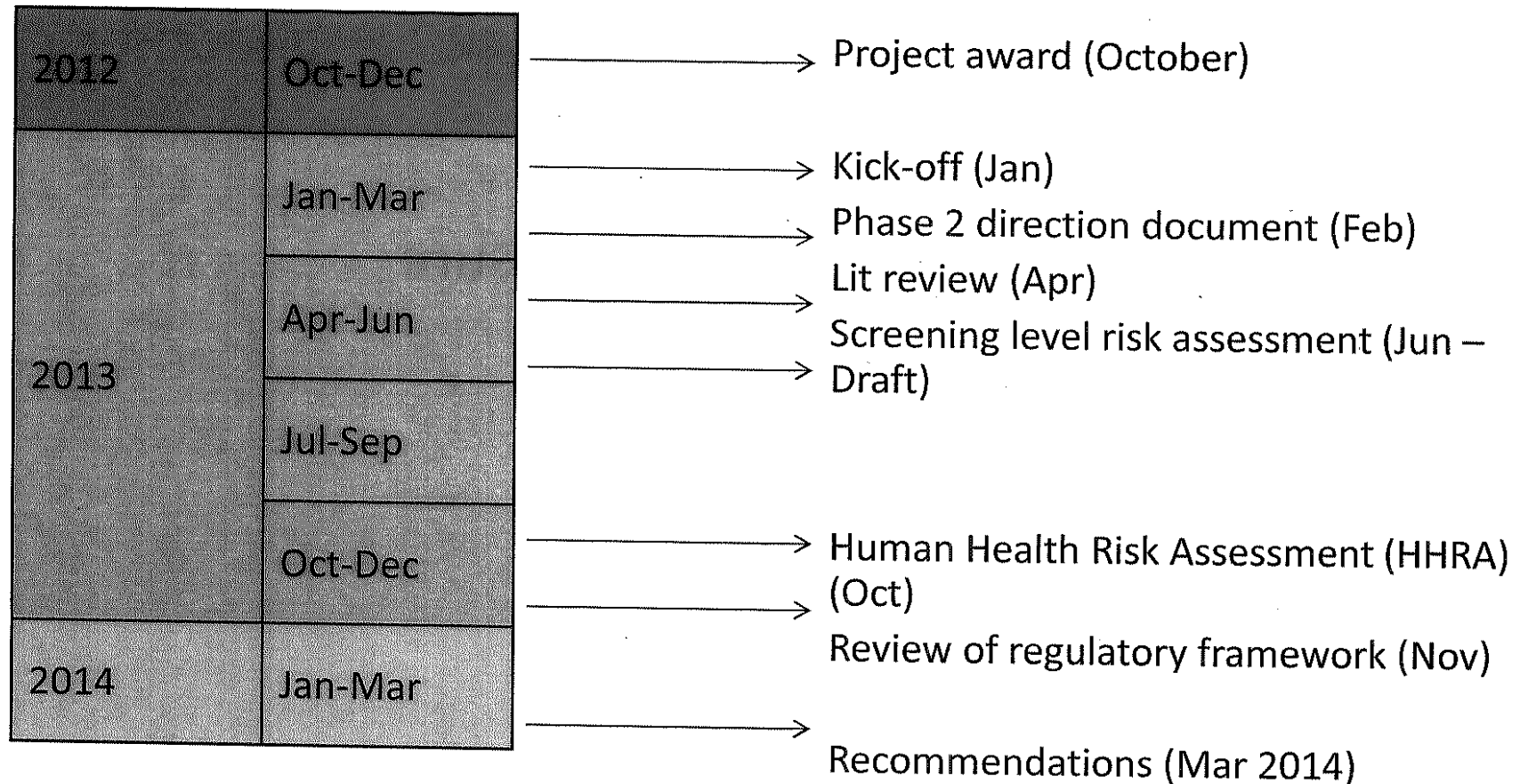
Background – Phase 1

- Started in January 2012, with a “What we heard” report released in June 2012
- Carried out by Fraser Basin Council
- Objectives:
 - “Give community members and other interests in NE BC an opportunity to provide input on potential human health risks related to oil and gas development; and
 - Identify areas of possible concern to inform the scope of the subsequent phases of the human health risk assessment”.

Background – Phase 1

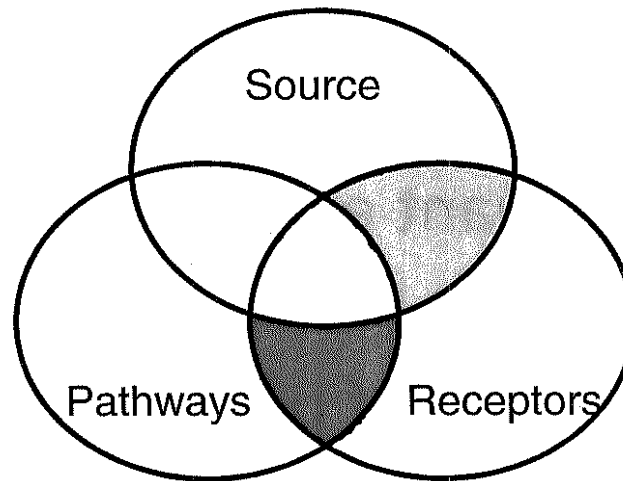
- Seven general themes identified:
 - Personal health issues
 - Environmental pathways of exposure
 - Related environmental issues
 - Changes to community
 - Community service issues
 - Oil and gas operational issues
 - Institutional framework issues

Phase 2 Overview - Milestones



Screening Level Risk Assessment (SLRA)

- **Qualitative evaluation of sources, pathways and receptors ... *in order to set practical boundaries for the HHRA***

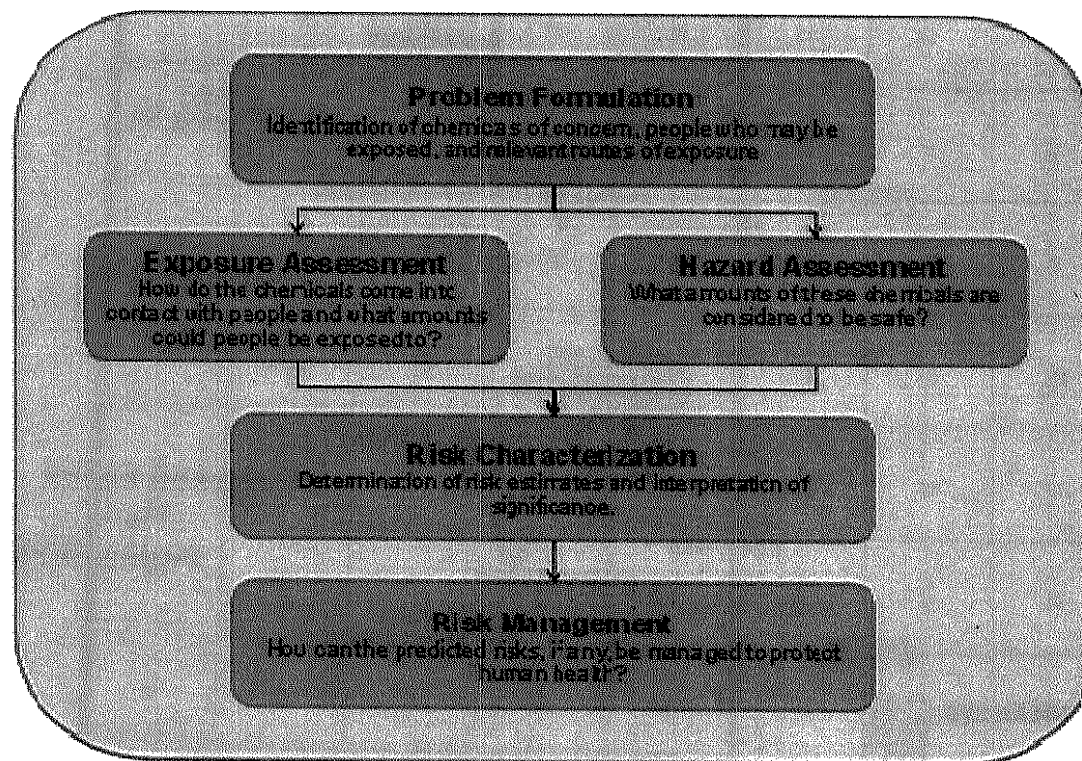


- **Characterize scenarios that we can realistically and reliably assess**

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Development of HHRA Approach



Human Health Risk Assessment Paradigm

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Next Steps

- **Detailed HHRA (fall 2013)**
 - Based on results of SLRA, a quantitative and comprehensive HHRA will be completed
- **Review of Regulatory Framework (fall/winter 2013)**

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- **Recommendations (winter/spring 2014)**
 - To be formulated based on the overall findings of the Phase 2 HHRA
 - Might include management strategies and monitoring