

Mining Association of
Nova Scotia

Why Uranium?

Presentation to
Nova Scotia Liberal Caucus
January 16, 2008

Should we or shouldn't we?

- * NS has not allowed uranium exploration for 27 years
- * What has changed in that time that would cause us to change that position?
- * You may wish to consider such things as social responsibility, energy generation, carbon footprint, other environmental impacts

What is Uranium?

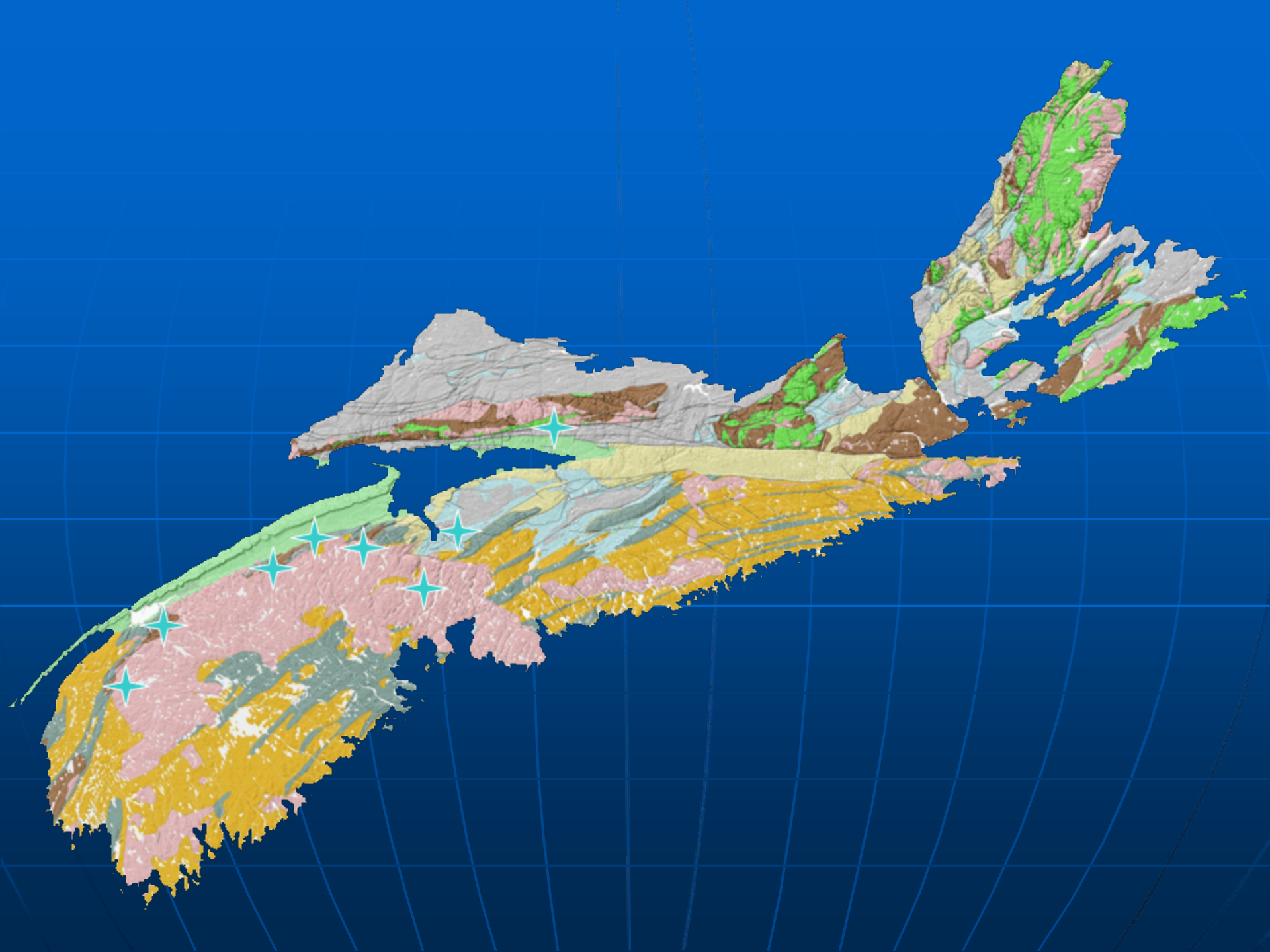
- * Uranium is a naturally occurring element
- * Commonly occurs as an oxide in a mineral called pitchblende
- * It is heavy and is radioactive
- * These properties make it useful for many industrial uses including energy generation

Where is it found?

- * Deposits of uranium occur in several geological environments
- * Rock types where it may be found include granites, sandstones, volcanic rocks and metamorphic rocks

Is there any in Nova Scotia?

- * We have the right geology
- * From 1975 to 1981 extensive exploration in NS
- * Largest occurrence found was Millet Brook
- * Many other occurrences found on South Mountain, Valley, Cobequids



Basics of Radiation

- * Uranium naturally produces radiation (energy)
- * Radiation comes in wide variety of types and energy levels
- * Different types of ionizing radiation – x-rays, gamma rays, alpha particles, beta particles, neutrons and more

Uranium Exploration

- * Techniques are similar to those used in exploring for tin, tungsten, molybdenum or many other common metals
- * Exploration programs generally follows the following steps:

Uranium Exploration

- * Choice of area
- * Geochemistry – including radon content of the soil
- * Geophysics – regional airborne surveys
- * Prospecting
- * Geological mapping
- * Trenching, drilling, bulk sampling

Uranium Exploration Impact

- * Noticeable impacts occur with trenching, diamond drilling and road building and are therefore carefully monitored and controlled
- * Hazards are similar to other types of mineral exploration

Mining techniques

- * Open pit mining
- * Underground mining

Controlling exposure of workers

- * Ventilation
- * Source isolation and diversion
- * Air cleaning
- * Respiratory protection
- * Job rotation
- * Air monitoring

Milling and Tailings Management

- ★ Milling process – similar to other ores
- ★ Tailings management
 - Store solids and confine them
 - Water issues– impoundment, control of possible seepage and confinement of seepage

Nuclear fuel cycle

- * Environmentally clean
- * Cost factor of power generation
- * Allows for self sustainability for province of Nova Scotia
- * Promotes employment in rural areas
- * World wide safety guidelines

Why change anything?

- ★ No rational reason for not knowing what resources we have
- ★ Potential to add to sustainability of our energy systems
- ★ Social responsibility – we use power from Lepreau, live in the world's largest uranium producing nation, have safe technology, reduce carbon footprint
- ★ Do we not have an obligation and/or responsibility to change?

Thank you