



Spectra Energy Fort Nelson Carbon Capture & Storage Feasibility Project

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Capture & Storage Project

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Forward Looking Statements

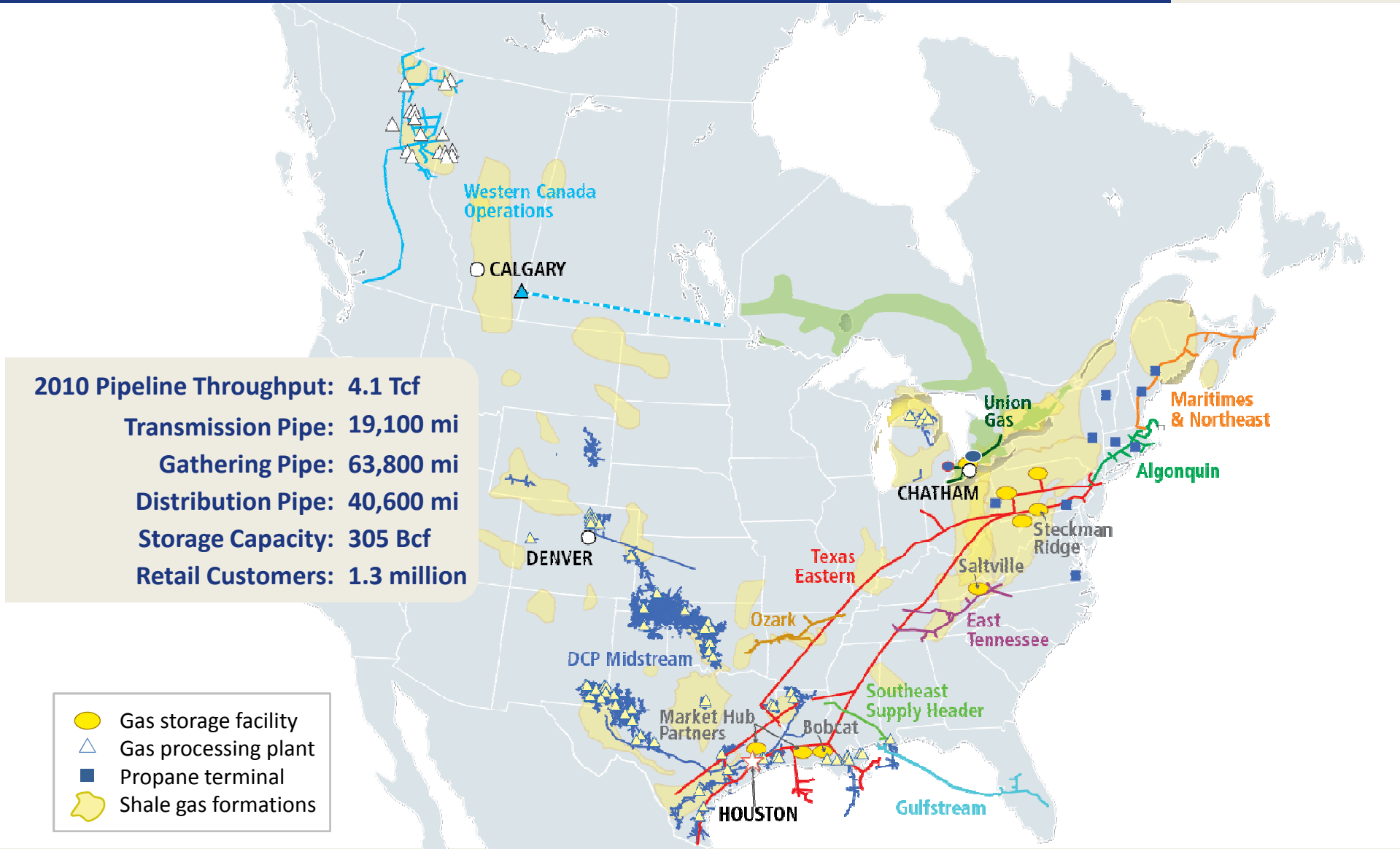
This presentation includes forward-looking statements. The forward-looking statements reflect management's current beliefs and assumptions with respect to such things as the outlook for general economic trends, industry trends, commodity prices, capital markets, and the governmental, legal and regulatory environment.

Forward-looking statements relate to, among other things, anticipated financial performance, business prospects, strategies, regulatory developments, new services, market forces, commitments and technological developments.

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Spectra Energy - Strategically Located Assets vs. Unconventional Basins



Spectra Energy's Western Canadian Operations

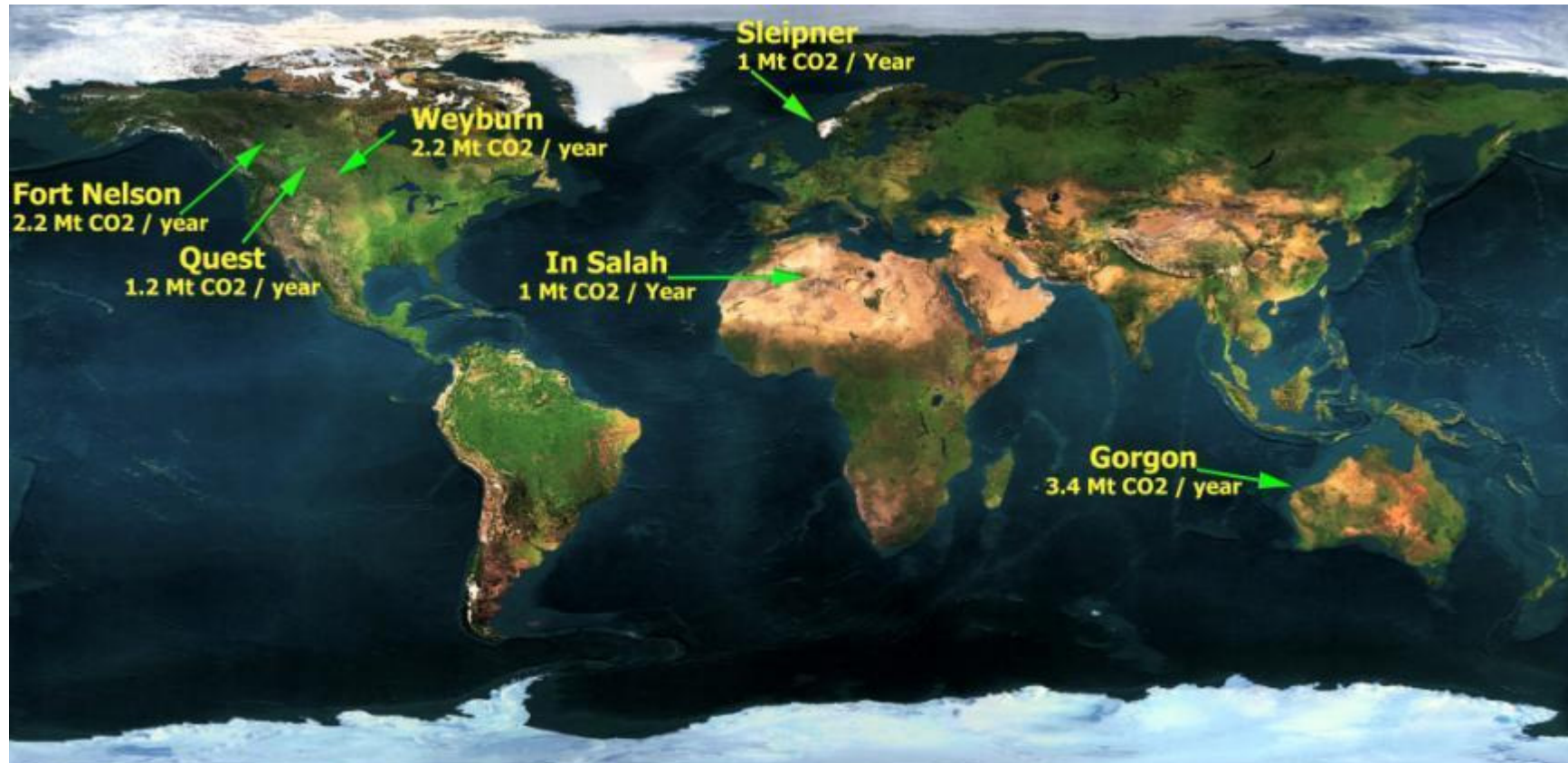


Gathering & Processing
Processing Capacity: 3.3 Bcf/d
Processing Plants: 16
Major Markets: BC, Alberta

BC Pipeline
Transmission Capacity: 2.3 Bcf/d
Pipeline: 2,900 km/ 1,800 mi
Major Markets: BC, Alberta, Pacific NW

Empress System - NGLs
Processing Capacity – Nat Gas: 2.4 Bcf/d
– C₂+ 63,000 Bbls/d
Major Markets: W. Canada, Northern US

Spectra Energy's Proposed CCS Project Would Be Among the World's Largest



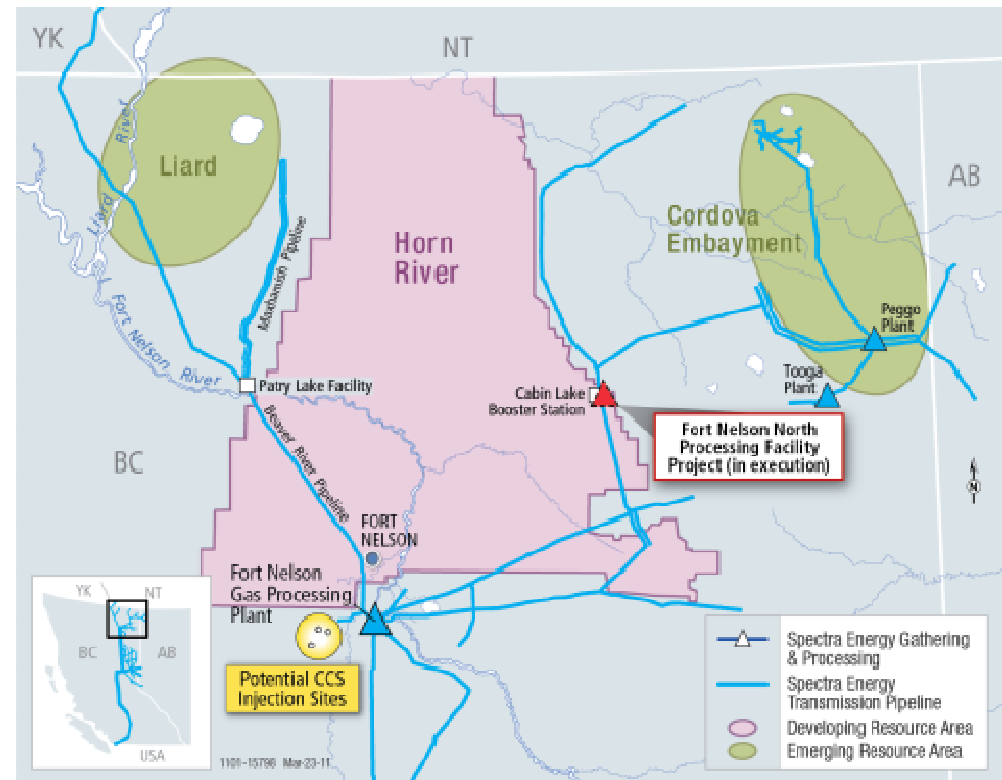
Fort Nelson CCS Design:

- Injection capacity : up to 2.2 MT/yr of CO₂
- Composition: 95% CO₂, 4% H₂S and 1% CH₄
- Sequestration reservoir needs to be very large and exhibit good injection characteristics to handle design volumes
- Containing formations & wells need to exhibit long term integrity

Fort Nelson Gas Plant



- 1 Bcf/d raw gas processing capacity
- Largest facility of its kind in N America
- Strategically positioned in the growing Horn River Basin
- A potential solution to mitigate CO₂ emissions as shale gas production grows



Fort Nelson CCS Feasibility Project



- **Capture ready**

- CO₂ currently captured at Fort Nelson gas processing plant; subsequently up to 50% more cost effective than other CCS projects in Canada
- Exceptional near-term CCS demonstration opportunity

- **Proximity to growing production**

- Northeast BC natural gas boom expected to double production
- Stands to make major reductions to GHG emissions in BC of 2.2 Mt/year

- **Proximity to permanent storage**

- The Fort Nelson geology is well suited to large scale CCS, as confirmed by pre-feasibility work

- **Common infrastructure model**

- Unique NEB-regulated model means CCS is accessible to all area natural gas producers

- **No net additional fuel/power requirements**

- Unlike many CCS projects, no net additional fuel burned or power required for CCS compression
- Exploring potential to generate 9MW of electric power through waste heat recovery which can be fed back to Fort Nelson and Horn River producers

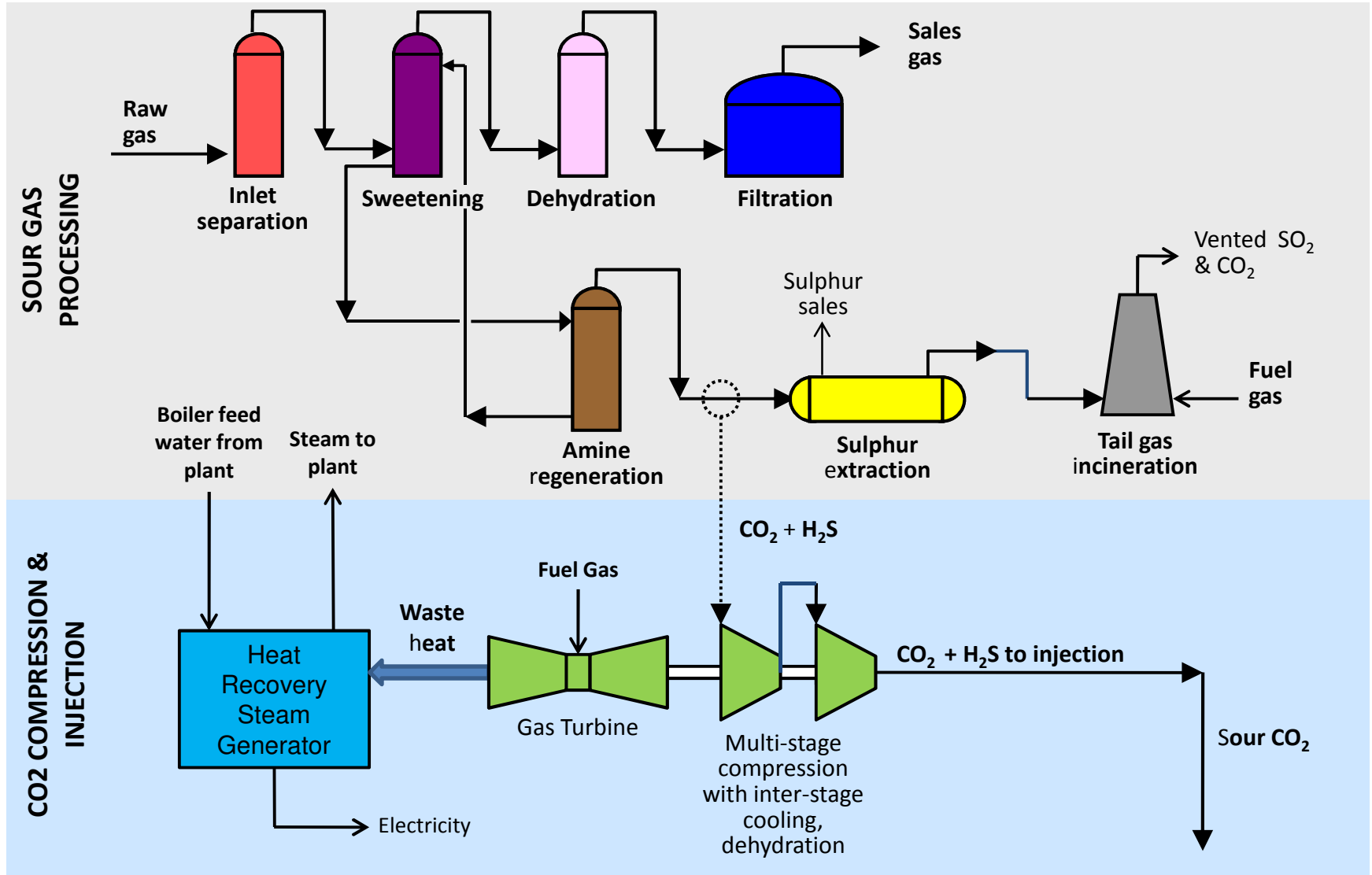
- **Multi-lateral Partnership**

- Province of BC, Government of Canada, US Department of Energy (PCOR) and Spectra Energy
- A key element of the Canada-US Clean Energy Dialogue

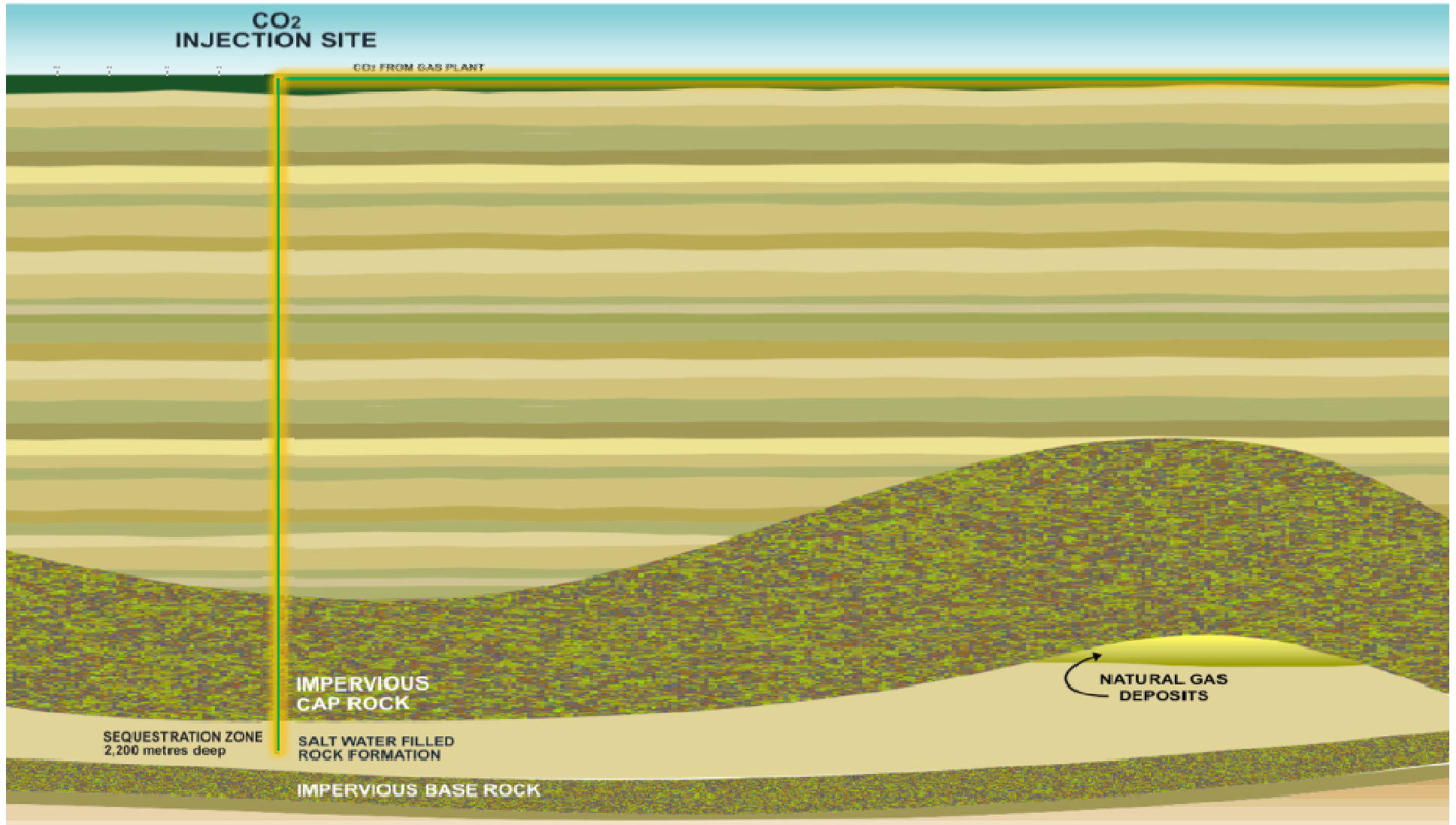


Application Of CCS

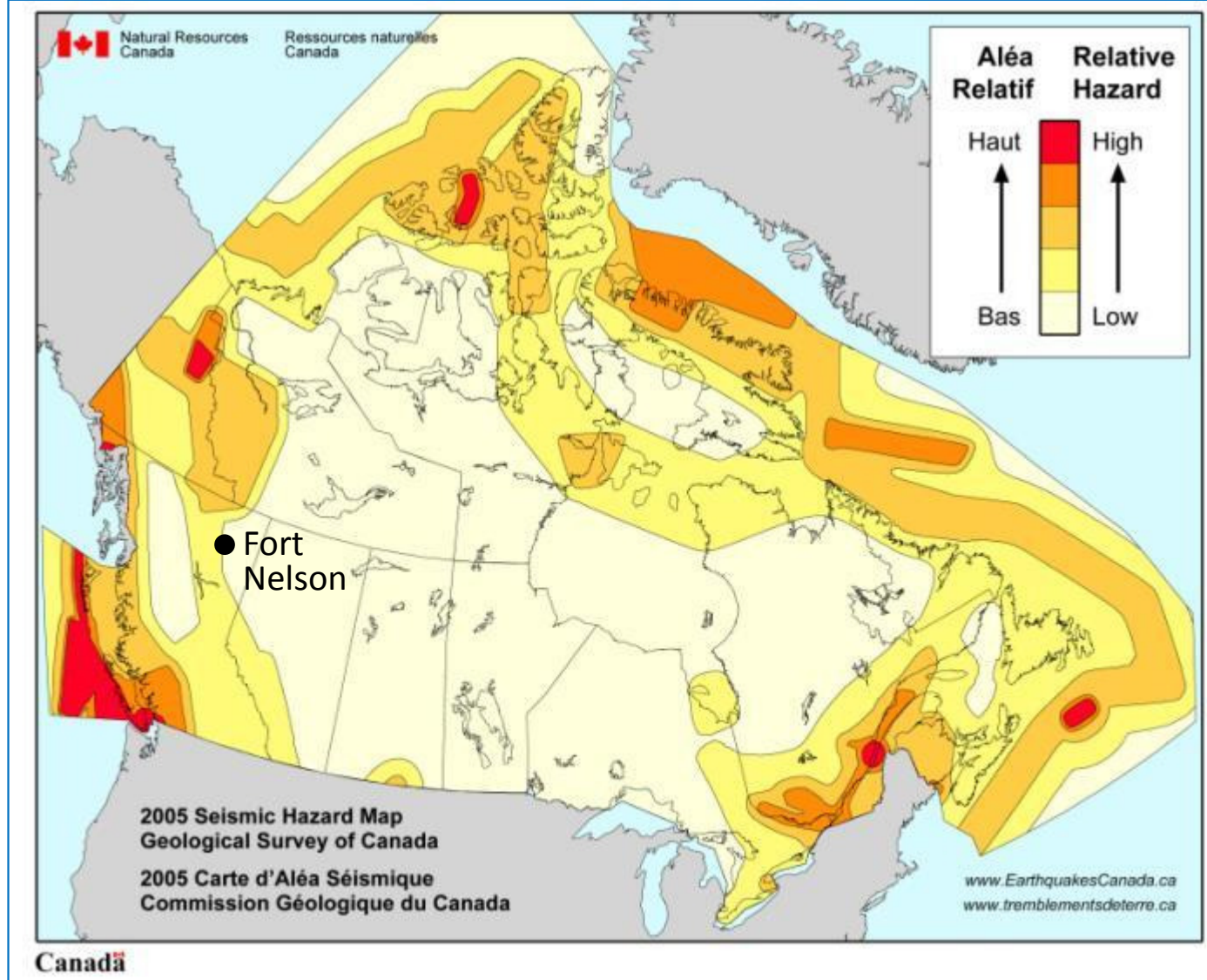
To Sour Gas Processing



CO₂ Injection Site

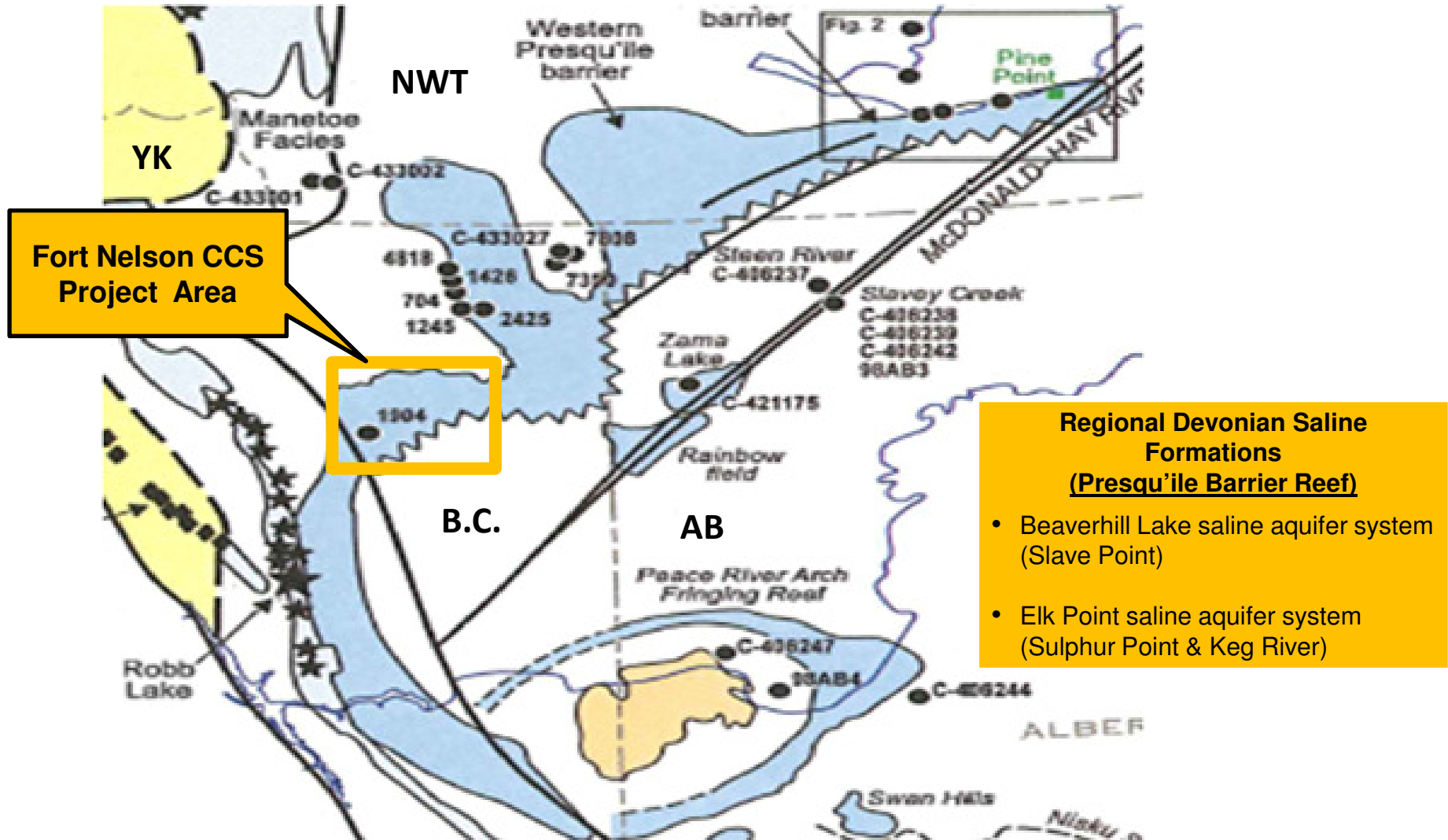


Regional Tectonic Stability



- Significant waste water disposal into Fort Nelson Area deep saline > 200 million bbls (no pressure increases & no increase in seismic activity)

Presqu'ile Barrier Reef



Fort Nelson CCS Project Area

- Regional Devonian Saline Formations (Presqu'ile Barrier Reef)**
- Beaverhill Lake saline aquifer system (Slave Point)
 - Elk Point saline aquifer system (Sulphur Point & Keg River)

Source: Stable & radiogenic isotopic signatures of mineralized Devonian carbonate rocks of the northern Rocky Mountains & the Western Canada Sedimentary Basin (S.Paradis, W.A. Turner, M. Coniglio, N. Wilson & J.L. Nelson)

Highlights of “Early Stage” Technical & Feasibility Assessment



Positive Emission Reduction Potential:

- Sequester up to 2 Mt/yr
- Significant SO₂ emission reduction potential with shut down of existing sulphur plant
- Project is fuel gas neutral – unique in CCS projects

Exhibiting Excellent CCS Characteristics:

- Storage capacity exists, regional saline formations
- Excellent permeability
- Good containment, thick shale cap rock and low number of existing wells

Stakeholders & Spectra Energy:

- +50 years of safe operations in the region
- Excellent relationships with local stakeholders
- High degree of community engagement and employment
- British Columbia Oil and Gas Commission an experienced regulator



- Current uncertainty on a market price for carbon in North America and the lack of clarity as to the future direction on carbon regulation
- We are focused on developing an economic model which does not rely on carbon pricing to underpin the investment and are working with the federal and provincial governments and the private sector to develop a commercial solution

Challenges Facing CCS Deployment

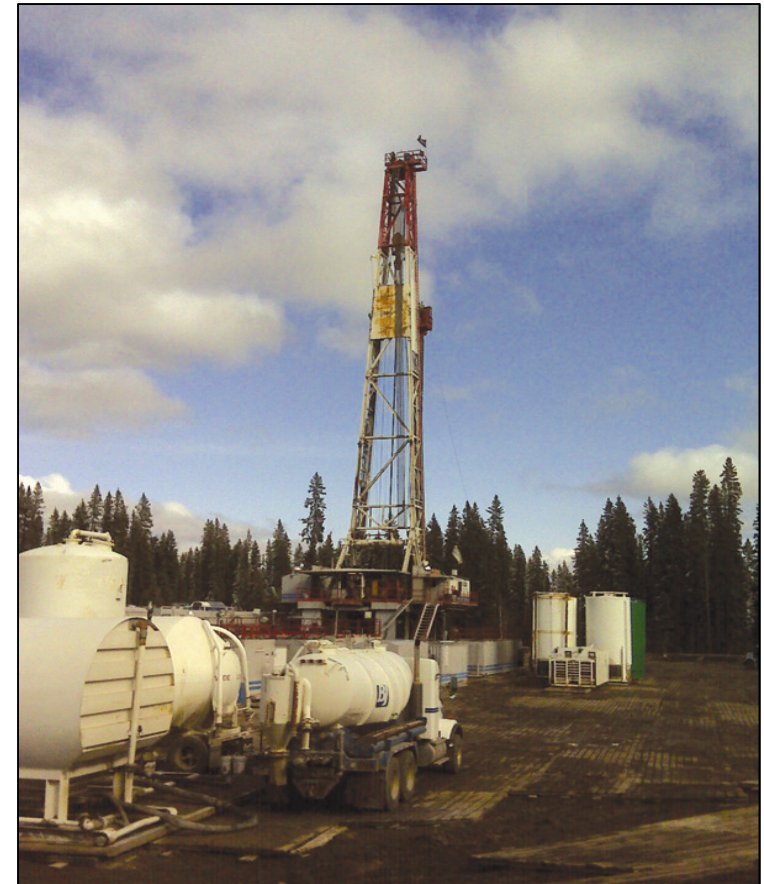
- Cost
- Risk
 - Technical
 - Economics
- Regulatory framework not yet fully in place
- Public acceptance
- Technology lock-in

Fort Nelson Carbon Capture and Storage Project

Next Steps – Near Term



- Continue Land Tenure application with Ministry of Energy and Mines
- Confirm a commercial model in the absence of a clear market price for carbon
- Continue reservoir evaluation – purchase additional seismic data
- Plan for and secure services for 2012 drilling season
- Continue work with PCOR to design Measurement Verification Accounting
- Continue consultation with the community of Fort Nelson and First Nations
- Work with the Province to clarify long term liability



Fort Nelson Carbon Capture and Storage Project

Next Steps – Longer Term



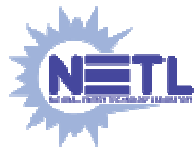
- Complete work and analyses required to prove formation injection capabilities: 120 mmscf/d over 25 yrs
- Drill second test well (provincial approvals in place)
- Work with BC Oil & Gas Commission to execute CCS Scheme Approval Process
- Potential to have project in-service by mid 2015



Fort Nelson CCS Project Funders



Spectra Energy is appreciative of the support received to-date from all the project funders, and is looking forward to further developing this exceptional opportunity for large-scale Carbon Capture and Storage in northeast British Columbia.



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