

The background features a large sunburst in shades of yellow and orange on the left side. A faint, light-colored map of Alberta is overlaid on the right side. The bottom half of the image shows a dark silhouette of an industrial facility with various towers, pipes, and structures.

ADDING VALUE TO ALBERTA'S ENERGY ADVANTAGE

AN UNPRECEDENTED INVESTMENT OPPORTUNITY

October 2007

ALBERTA GOVERNMENT PRIORITY

“The Alberta Government will develop policy to ensure that the raw bitumen from our oil sands is processed right here in Alberta.”

Premier Stelmach

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OBJECTIVES

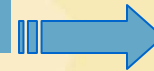
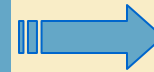
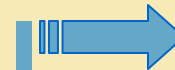
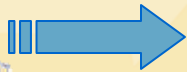
- Alberta's hydrocarbon resources will be the foundation for a series of world class chemical clusters.
- A chemical cluster further diversifies the economy while adding value to resources.
- Bitumen is a very complex feedstock, and processing provides many co-product, by-product and new feedstock opportunities.
- Upgrading activity planned for Alberta's Industrial Heartland makes Greater Edmonton the ideal location.
- Existing chemical operations will integrate well with a new cluster.
- Creating the environment for Alberta have one of the most competitive chemical clusters in North America.

WHAT ARE THE BENEFITS?

Industry	Government
<ul style="list-style-type: none">•Enhance Supply Chains•Access New Markets•Creation of Integration Synergies•Increase Competitiveness•Improve Common Infrastructure and Skill Sets•Environmental Management	<ul style="list-style-type: none">•Stewardship of the province's resources•Increase Economic Wealth in the Province•Stable, High Paying Jobs•Increase Global Competitiveness•Creation of New Diversified Industries for Sustained Growth•Environmental Management

INTEGRATION OPPORTUNITY

From bitumen production to value added processing



Fuel Products

Diesel
Kerosene
Gasoline
Fuel Oil

Petrochemicals

Ethylene
Propylene
Butadiene
SynGas
Hydrogen
Naphtha

Fertilizers

Ammonia
Ammonium Sulphate
Elemental Sulphur
Urea

AN INTEGRATED LAND MANAGEMENT OUTLOOK

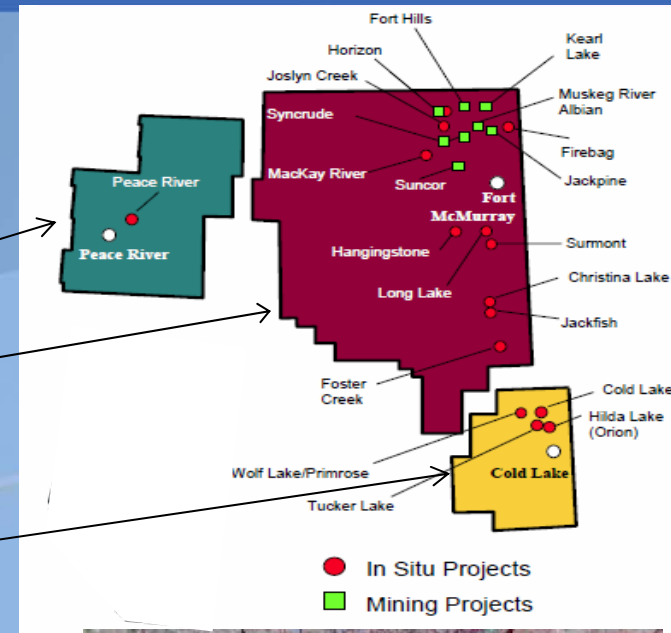
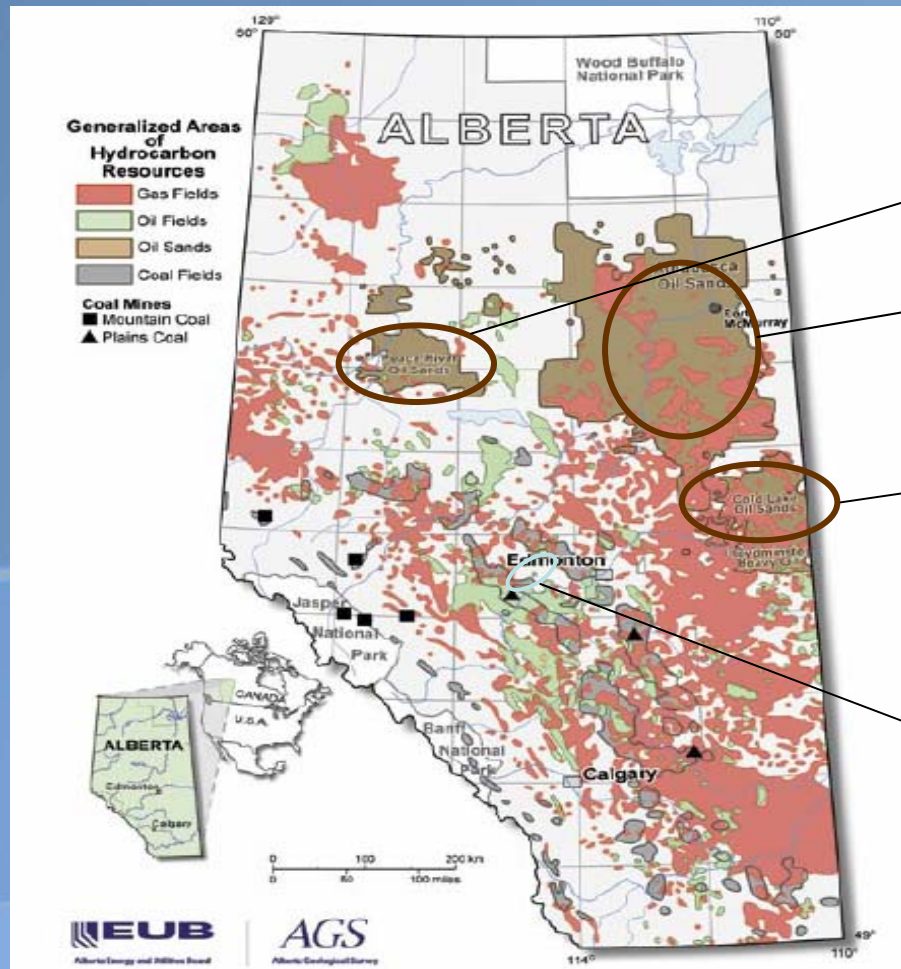


Photo: Marl, Germany

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GREATER EDMONTON REGION

The Preferred Downstream Processing Location



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ANNOUNCED UPGRADING PROJECTS

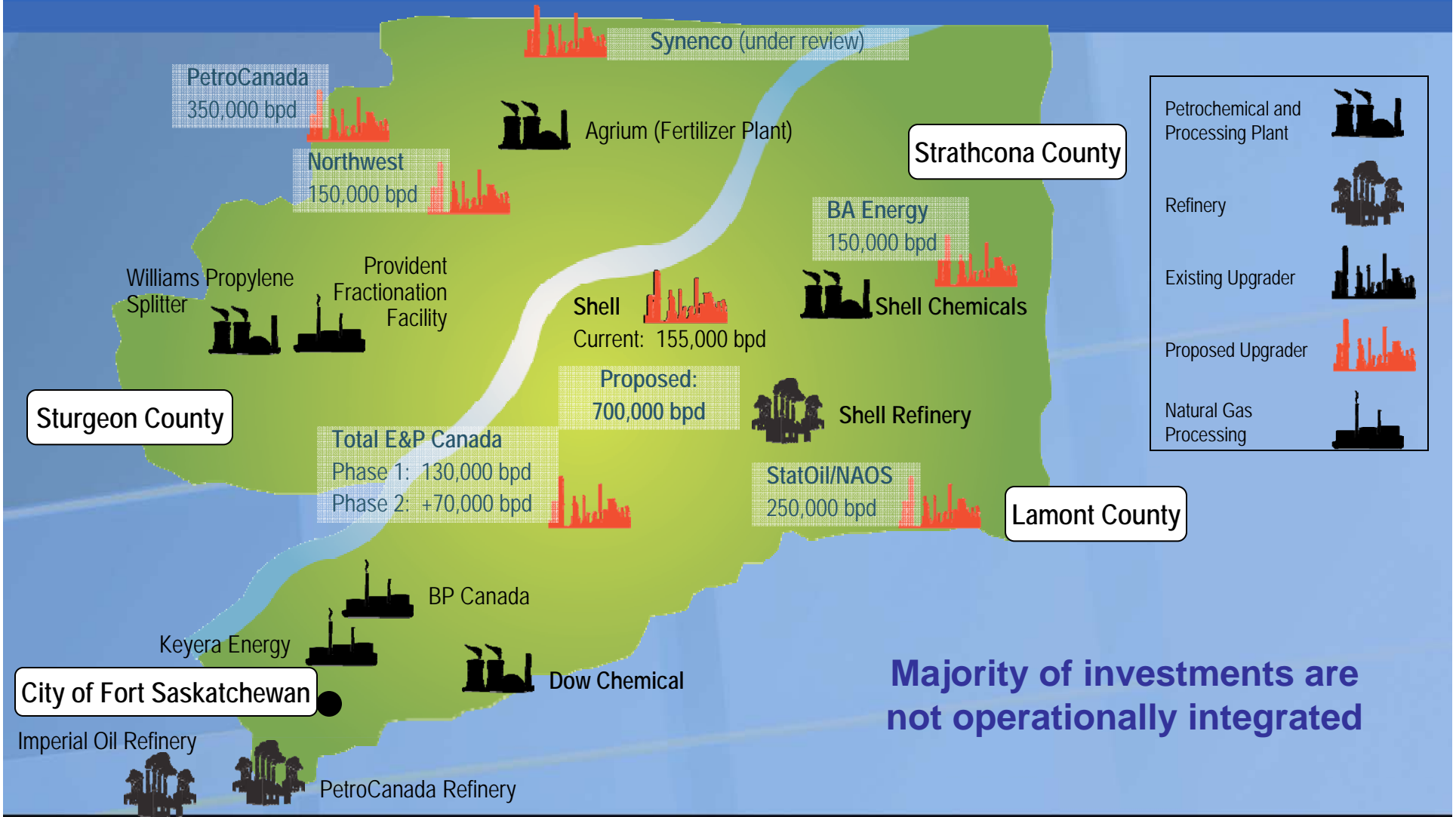
Existing Projects	Volume (bpd)	
Suncor	260,000	
Syncrude	350,000	
Husky-Lloydminster	59,000	
AOSP	158,000	
Project Expansions		
Suncor	287,000	
Syncrude	160,000	
Husky-Lloydminster	65,600	
AOSP	397,000	
New Projects		
Nexen/OPTI-Long Lake	173,000	
CNRL-Horizon	232,000	
Synenco-Northern Lights	100,000	tentative
BA Energy-Heartland	260,000	
PetroCanada/UTS-Fort Hills	240,000	
PetroCanada	85,000	
Northwest Upgrading	150,000	
Total SA	85,000	
North American	250,000	
Peace River Oil	50,000	

**TOTAL UPGRADING CAPACITY:
3,361,600 bpd**

Source: CAPP, March 2007

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GEA UPGRADERS: AN ILLUSTRATIVE VIEW



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CLUSTERS AROUND THE WORLD

What can we learn from the experts?

- Antwerp, Belgium
- Chemelot, Netherlands
- ChemSite, Germany
- Rotterdam, Netherlands
- Jurong Island, Singapore
- Wilton, U.K.

How do we stack up?

Kline's benchmarking analysis



KEY FINDINGS FROM CLUSTER VISITS

- Leadership and vision is key
- Infrastructure is vital
- Site management structure is critical
- Collaboration, integration is crucial
- Focus on advantages and strengths
- Supportive government/regulatory structure
- Stimulation, incentive, kick-start
- Access to downstream markets
- Environmental management

ALBERTA IS READY

- Oil sands are ranked as the second largest crude oil supply globally
- Strong and developing infrastructure accesses the growing North American and offshore markets
- International companies are already active in Alberta's oil sands and bring their expertise to the province
- Rising energy costs and increased environmental awareness emphasizes the need for integrated processes to remain competitive
- Governments are committed to value-added in Alberta and working with industry to turn our vision into a prosperous reality
- Along with a hydrocarbon upgrading economy, the opportunity exists to enhance our supply chains and create a supporting manufacturing hub for industrial development

NEXT STEPS

- Stage 1 – Finalize initial Cluster Study
- Stage 2 - Work towards the implementation – deliver the business case to relevant firms domestically and internationally
- Continue to work with stakeholders on a regional plan for land management and linear corridor development in the Greater Edmonton and Industrial Heartland region
- Look at ways to enhance value-added developments in the province and encourage downstream investment to strengthen the overall economy of the province
- Develop strong government policies that work towards resolving the challenges to oil sands development

CHEMICAL CLUSTER STUDY

FRED DU PLESSIS – KLINE AND COMPANY

- Senior Vice President, Europe – Kline and Company
- Over 25 years of experience in international chemicals and life science industries
- President of European Chemical Marketing and Strategy Association (ECMSA) and Treasurer of the European Chemical Site Promotion Platform (ECSPP)
- Involved in both the Antwerp-Rotterdam-Rhine-Ruhr and Tarragona chemical industry supply chain think tank working groups.