WRITTEN STATEMENT

HEARING ON THE EFFECTS OF MIDDLE EAST EVENTS ON U.S. ENERGY MARKETS

GARY MAR, ALBERTA REPRESENTATIVE IN WASHINGTON, D.C.

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CANADIAN OIL SANDS AND U.S. ENERGY SUPPLY

SUMMARY OF MAJOR POINTS

- Growing oil production in the Western Canadian province of Alberta provides a key alternative to U.S. oil imports from less secure and reliable sources.
- Most of this production growth will come from the ongoing development of oil sands resources. This development offers benefits to the U.S. beyond energy and national security, including economic growth, jobs, and socially and environmentally responsible energy production.
- Canada is already the largest supplier of oil to the U.S., accounting for almost one-quarter of U.S. imports, and expanded production from Alberta's oil sands offers the potential for this proportion to increase.
- Americans companies are not only major investors in the oil sands, but many U.S. businesses throughout the country benefit from supplying goods and services required for ongoing oil sands operations and expansion.
- Alberta's oil sands industry is one of the most regulated in the world, with strict legislation and standards to protect our air, land, water, and wildlife and manage greenhouse gas (GHG) emissions.

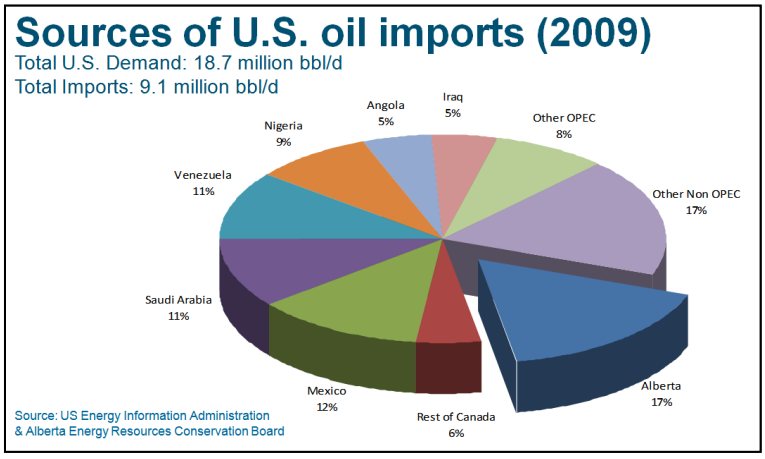
OIL SANDS OVERVIEW

The western Canadian province of Alberta is home to the largest proven oil reserve in the world open to international investment and not controlled by a state-run oil company. The bulk of this 171 billion barrel reserve is comprised of oil sands, a viscous form of oil that, over time, has combined with sand and water. About 20 per cent of the resource is close enough to the surface to allow it to be mined in a manner similar to many coal, iron ore, copper and diamond mine operations. Images of mining operations tend to dominate perceptions of oil sands production, so it is important to note that over 80 per cent of the resource, and about 45 per cent of current production, lies deep below the surface, and can only be recovered through underground production methods, including drilling operations that, although technologically advanced, are not unlike traditional oil production.

Alberta's oil sands have placed Canada in a unique position in the industrialized world: an open and transparent democracy with First World environmental and social standards also capable of substantially increasing oil production to meet future domestic, North American and international demand. It is forecast that by 2019 Alberta will be producing 3.3 million barrels of oil per day, about 70 per cent more than current levels.

ENERGY SECURITY BENEFITS

Alberta is now the largest global supplier of oil to the U.S. With the recent declines in U.S. oil demand, and increased oil sands production, oil from Alberta is now displacing



imports from overseas sources, many of which are less secure, friendly, or socially and environmentally responsible.

In examining the growing significance of Alberta oil sands production to U.S. energy security, the Council on Foreign Relations found that:

> *The prospect of sourcing oil from a stable, friendly, nearby country is naturally appealing to U.S. policymakers.*[1] *…world oil markets would also gain from shifting to supply chains that are less vulnerable to terrorism.* [2]

The Council on Foreign Relations went on to say:

> *Revenues from oil sales can empower adversaries in two ways. They can finance spending on hostile activities. More subtly but perhaps more dangerously, they can also lessen the value to states of participating responsibly in the international economic system, blunting the tools of economic statecraft on which the United States and its allies often depend.*[3]

The U.S. Department of Energy recently commissioned a study to examine the impacts of increased pipeline capacity, most notably the Keystone XL proposal, on U.S. crude supply. The report found that, while increased pipeline capacity will have little impact on U.S. oil

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[1] Council on Foreign Relations "The Canadian Oil Sands: Energy Security vs. Climate Change". Page 15 www.cfr.org/canada/canadian-oil-sands/p19345
[2] Ibid. Page 23.
[3] Ibid. Page 16.

consumption, with sufficient pipeline capacity and the projected increase in Alberta production, oil sands have the potential to:

> *...curb dependency on crude oils from other sources notably the Middle East and Africa.*[4]

The study also noted that transportation projects bringing Canadian crude to the U.S. have the added benefit of enabling U.S. domestic energy production, security and employment. Referring specifically to the Keystone XL proposal, the study reported that:

> *The project could also potentially (a) enable Bakken crudes in North Dakota and Montana to be linked in to KXL and taken to Cushing and the Gulf Coast and (b) enable U.S. crudes in the Cushing area to be taken into the line and transported to the Gulf Coast*[5]

OIL SANDS IMPACT ON U.S. ECONOMY AND JOBS

Canada and the U.S. have the world's largest two-way trading relationship. Over half of Canada's imports come from the U.S. In terms of the bottom line, for every American dollar spent on products from Canada, including oil, 91 cents is returned to the American economy. When the same metrics are applied to trading relationships with some other major sources of U.S. crude oil imports, returns are much lower: Saudi Arabia is 49 cents, and Venezuela is 33 cents.

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[4] "EnSys Keystone XL Assessment Prepared for US Department of Energy". Page 117. www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf/AssmtDrftAccpt.pdf?OpenFileResource

[5] Ibid. Page 116.

Oil sands is "technology oil" and its development makes extensive use of U.S. products, technologies and expertise, creating a significant number of jobs throughout the U.S. A recent study by the Canadian Energy Research Institute (CERI) estimated that over the next 15 years, the development of Alberta's oil sands **will boost U.S. GDP by an average of $31 billion per year, creating over 624,000 jobs in the U.S., just over half of which will be created in the next four years.**[6] The study described the economic and employment benefits to each U.S. state, a breakdown of which can be found on Page 10.

With such strong direct benefits to the U.S. economy, it is not difficult to find local examples of supply chain connections throughout the U.S. The Canadian Association of Petroleum Producers (CAPP) has just surveyed its members and identified almost one-thousand U.S. companies that supplied parts, equipment, software and engineering and other technical services for oil sands and related pipeline projects between 2008 and 2010. A summary of the survey results can be found on Page 11. This survey is still a work in progress and so far identifies only a portion of all the U.S companies maintaining or building their businesses by partnering with us in the ongoing operation and expansion of the oil sands.

ENVIRONMENTALLY RESPONSIBLE

Not only can oil sands help to deliver energy and national security, jobs and economic growth for North America, they are and will continue to be developed responsibly. As with all major industrial development, including all forms of energy production, there are challenges associated with producing from the Alberta oil sands. Most of the challenges relate to ensuring continued environmental protection while increasing production. Alberta's

[6] Canadian Energy Research Institute, "The Impact of the Canadian Oil Sands Development on the United States' Economy", October 2009. http://www.api.org/Newsroom/upload/CERI_Study.pdf

oil sands industry is one of the most regulated in the world, with strict legislation and standards to protect our air, land, water, and wildlife and manage GHG emissions. That said, we recognize more can and will need be done to address continued growth. Alberta is currently consulting on a cumulative effects approach to managing environmental outcomes. Under this approach, in addition to environmental performance conditions placed on each project as a part of approvals, all parties will have to work on an ongoing basis to manage the total impact of human activity in the region.

Below are just a few examples of the regulations and policy frameworks currently in place.

WATER USE

The Athabasca River, which flows through Alberta's primary oil sands region, is one of the most protected waterways in North America and the Athabasca River Water Management Framework sets mandatory limits on withdrawals in order to maintain flows at or near natural conditions.[7] All existing and approved oil sands projects may withdraw no more than three per cent of the average annual flow of the Athabasca River and also require that most of the water used is recycled. Current use is less than one per cent of average annual flow. To protect local habitats, the framework puts a weekly cap

> ***"Net water use in oil sands production today averages about four barrels of water per barrel of bitumen for mining operations and 0.9 barrels of water per barrel of bitumen for in-situ production. Conventional oil uses about 0.1 to 0.3 barrels of water per barrel of oil produced, while oil produced through enhanced oil recovery can use up to 70 barrels of water per barrel of produced oil."*** [7]

[7] "Growth in the Canadian Oil Sands: Finding the New Balance" IHS-CERA, 2009. Page III-7. http://www2.cera.com/cos_form/

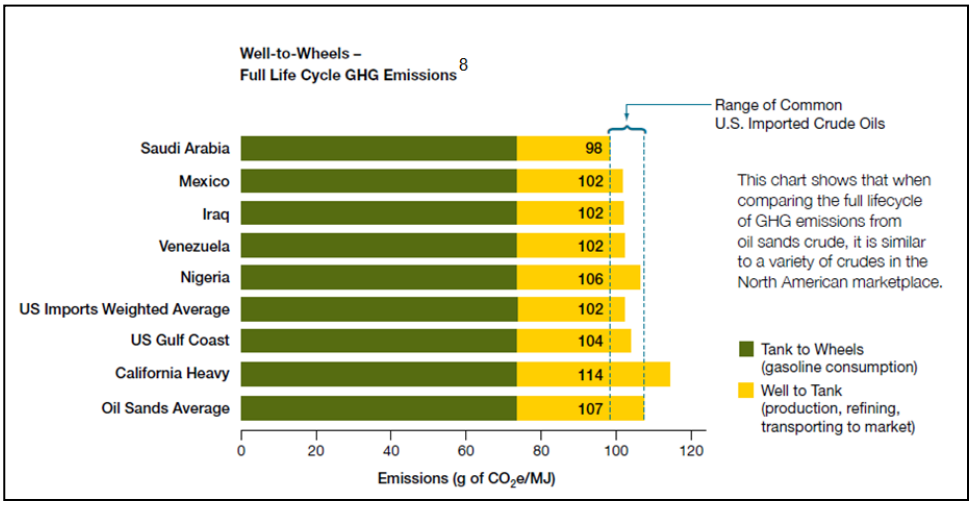
on the amount of water companies can withdraw according to the fluctuating flow of the river.

WATER QUALITY

Alberta has monitored water quality in the oil sands region since the early 1970s. Today, water monitoring has expanded to include government staff who monitor, approve and ensure compliance of projects, as well as consultants and multi-stakeholder groups that continuously assess water quality to ensure there is no adverse effect on the environment.

GREENHOUSE GAS EMISSIONS

Greenhouse gas emissions from oil sands production account for 15 per cent of Alberta's total emissions, 5 per cent of Canadian emissions, and less than 0.1 per cent of global emissions. Ongoing efforts have resulted in oil sands per barrel greenhouse gas emissions declining by an average of 39 per cent between 1990 and 2008. On a lifecycle, or wells-to-wheels basis, GHG emissions from oil sands derived fuels are, in fact, similar to a variety of crudes in the North American marketplace.[8] Alberta is the only jurisdiction in North America with mandatory GHG reduction targets for large emitters across all sectors, including the oil



[8] Jacobs Consultancy and Life Cycle Associates, Life Cycle Assessment Comparison for North American and Imported Crudes, July 2009. http://www.albertainnovates.ca/media/15753/life%20cycle%20analysis%20jacobs%20final%20report.pdf

sands. Our program includes a $15/tonne price on carbon, a regulated offset market, and a dedicated clean energy technology fund financed by compliance payments. Alberta, a province with a population of 3.6 million people, is also investing $2 billion in commercial scale carbon capture and storage (CCS).

LAND RECLAMATION

By law, industry must reclaim all lands to a state similar to that which existed prior to development. Of the 232 square miles that have been disturbed by oil sands mining operations, nearly 26 square miles have either been permanently reclaimed or are undergoing active reclamation. 7.5 million tree seedlings have already been planted.

PUBLIC HEALTH

The health of all Albertans potentially affected by any industrial development is the paramount concern of the government of Alberta. The largely aboriginal community of Fort Chipewyan in particular has expressed concerns regarding rare cancers and cancer rates in their community. Alberta takes these concerns very seriously and is currently pursuing follow-up community health studies. It is important to note that no study has found a statistically significant increase in cancer rates in the community and research has not identified any link between heath in this isolated northern community and oil sands development. The Royal Society of Canada, and independent group of some of Canada's most well respected scientists, very recently reviewed the issue and found:

There is currently no credible evidence of environmental contaminant exposures from oil sands reaching Fort Chipewyan at levels expected to cause elevated human cancer rates[9]

CONCLUSION

- Development of the oil sands has enabled Alberta, an open and transparent democracy, to become the number one supplier of oil to the U.S. The capacity for significantly increased production can further enhance U.S. security by reducing imports from less secure and reliable sources.

- In addition to energy and national security benefits, oil sands development will contribute to renewed U.S. prosperity in terms of GDP growth and job creation.

- Alberta is committed to growing production from the oil sands production in a socially and environmentally responsible manner. The oil sands industry is already one of most regulated in the world, with strict legislation and standards to protect our air, land, water, and wildlife, and future development will follow the same course. In doing so, we are very open to working with the U.S. on reducing the environmental impact of all energy production and consumption.

[9] Royal Society of Canada Expert Panel Report "Environmental and Heath Impacts of Canada's Oil Sands Industry. December 2010.
http://www.rsc.ca/documents/expert/RSC%20report%20complete%20secured%209Mb.pdf

APPENDIX A – ECONOMIC BENEFITS BY STATE

IMPACT OF ALBERTA OIL SANDS DEVELOPMENT ON U.S. STATE ECONOMIES (2009-2025)				
	Increase in Industry Output per Year ($ Millions)	Increase in GDP per Year ($ Millions)	Increase in Jobs* 2011-2015	Increase in Jobs* 2009-2025
Alabama	$ 736	$ 348	5,200	9,100
Alaska	$ 156	$ 82	900	1,700
Arizona	$ 1,100	$ 584	6,500	12,200
Arkansas	$ 427	$ 201	3,200	5,600
California	$ 8,545	$ 4,287	43,200	77,900
Colorado	$ 1,015	$ 542	6,000	11,200
Connecticut	$ 928	$ 498	4,000	7,400
Delaware	$ 277	$ 157	1,000	1,900
District of Columbia	$ 270	$ 162	1,200	2,200
Florida	$ 2,906	$ 1,663	20,300	37,700
Georgia	$ 1,641	$ 863	10,500	19,200
Hawaii	$ 211	$ 124	1,400	2,600
Idaho	$ 255	$ 122	1,900	3,300
Illinois	$ 2,769	$ 1,445	14,600	26,500
Indiana	$ 1,295	$ 569	7,600	13,200
Iowa	$ 629	$ 289	3,900	6,900
Kansas	$ 525	$ 249	3,200	5,800
Kentucky	$ 730	$ 336	4,800	8,500
Louisiana	$ 1,246	$ 471	4,800	8,800
Maine	$ 187	$ 98	1,700	2,900
Maryland	$ 966	$ 543	5,700	10,800
Massachusetts	$ 1,615	$ 844	7,700	14,200
Michigan	$ 1,821	$ 872	10,600	18,900
Minnesota	$ 1,181	$ 588	6,800	12,200
Mississippi	$ 399	$ 182	2,900	5,100
Missouri	$ 979	$ 496	6,800	12,300
Montana	$ 140	$ 75	1,200	2,200
Nebraska	$ 344	$ 171	2,300	4,100
Nevada	$ 548	$ 312	3,200	6,300
New Hampshire	$ 255	$ 133	1,600	2,900
New Jersey	$ 1,925	$ 1,063	9,300	17,300
New Mexico	$ 347	$ 164	2,000	3,800
New York	$ 4,687	$ 2,708	19,400	36,300
North Carolina	$ 1,883	$ 883	10,300	18,400
North Dakota	$ 126	$ 61	800	1,500
Ohio	$ 2,154	$ 1,031	13,200	23,500
Oklahoma	$ 602	$ 290	4,000	7,300
Oregon	$ 1,053	$ 436	4,700	8,200
Pennsylvania	$ 2,285	$ 1,170	13,800	24,900
Rhode Island	$ 184	$ 101	1,100	2,000
South Carolina	$ 642	$ 314	4,700	8,500
South Dakota	$ 154	$ 79	1,000	1,800
Tennessee	$ 1,118	$ 544	7,000	12,800
Texas	$ 5,475	$ 2,577	27,300	50,200
Utah	$ 475	$ 242	3,100	5,800
Vermont	$ 113	$ 55	800	1,400
Virginia	$ 1,513	$ 815	8,400	15,700
Washington	$ 1,300	$ 668	7,300	13,200
West Virginia	$ 252	$ 129	1,700	3,200
Wisconsin	$ 1,126	$ 523	7,200	12,600

Wyoming	$	159	$	83	800	1,600
US Total	**$**	**61,669**	**$**	**31,242**	**342,600**	**624,100**

Source: Canadian Energy Research Institute: "The Impact of the Canadian Oil Sands Development on the United States' Economy", October 2009

*Person-Years of Employment

APPENDIX B – OIL SANDS SUPPLER SURVEY RESULTS BY STATE

Number of Firms Supplying the Canadian Oil Sands

State	# Suppliers	State	# Suppliers	State	# Suppliers
Alabama	9	Massachusetts	38	Ohio	39
Arkansas	2	Maryland	7	Oklahoma	36
Arizona	8	Maine	1	Oregon	16
California	71	Michigan	21	Pennsylvania	67
Colorado	28	Minnesota	38	Rhode Island	3
Connecticut	17	Missouri	19	South Carolina	10
Delaware	4	Mississippi	3	South Dakota	2
Florida	29	Montana	5	Tennessee	8
Georgia	26	North Carolina	14	Texas	170
Iowa	6	North Dakota	4	Utah	10
Idaho	3	Nebraska	5	Virginia	12
Illinois	69	New	3	Vermont	2
Indiana	10	New Jersey	28	Washington	20
Kansas	7	New Mexico	2	Wisconsin	34
Kentucky	3	Nevada	2	West Virginia	2
Louisiana	11	New York	39	Wyoming	1

Source: The Canadian Association of Petroleum Producers, survey of members, partial listing as of January 2011

Preliminary U.S. Total: 964