AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

AMERICA'S ENERGY FUTURE PART II: A BLUEPRINT FOR DOMESTIC ENERGY PRODUCTION

HEARING

BEFORE THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

JULY 14, 2012

Serial No. 112–165

Printed for the use of the Committee on Oversight and Government Reform

Available via the World Wide Web: http://www.fdsys.gov
http://www.house.gov/reform

U.S. GOVERNMENT PRINTING OFFICE

75–521 PDF WASHINGTON : 2012

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

DARRELL E. ISSA, California, *Chairman*

DAN BURTON, Indiana
JOHN L. MICA, Florida
TODD RUSSELL PLATTS, Pennsylvania
MICHAEL R. TURNER, Ohio
PATRICK T. MCHENRY, North Carolina
JIM JORDAN, Ohio
JASON CHAFFETZ, Utah
CONNIE MACK, Florida
TIM WALBERG, Michigan
JAMES LANKFORD, Oklahoma
JUSTIN AMASH, Michigan
ANN MARIE BUERKLE, New York
PAUL A. GOSAR, Arizona
RAÚL R. LABRADOR, Idaho
PATRICK MEEHAN, Pennsylvania
SCOTT DESJARLAIS, Tennessee
JOE WALSH, Illinois
TREY GOWDY, South Carolina
DENNIS A. ROSS, Florida
FRANK C. GUINTA, New Hampshire
BLAKE FARENTHOLD, Texas
MIKE KELLY, Pennsylvania

ELIJAH E. CUMMINGS, Maryland, *Ranking Minority Member*
EDOLPHUS TOWNS, New York
CAROLYN B. MALONEY, New York
ELEANOR HOLMES NORTON, District of Columbia
DENNIS J. KUCINICH, Ohio
JOHN F. TIERNEY, Massachusetts
WM. LACY CLAY, Missouri
STEPHEN F. LYNCH, Massachusetts
JIM COOPER, Tennessee
GERALD E. CONNOLLY, Virginia
MIKE QUIGLEY, Illinois
DANNY K. DAVIS, Illinois
BRUCE L. BRALEY, Iowa
PETER WELCH, Vermont
JOHN A. YARMUTH, Kentucky
CHRISTOPHER S. MURPHY, Connecticut
JACKIE SPEIER, California

LAWRENCE J. BRADY, *Staff Director*
JOHN D. CUADERES, *Deputy Staff Director*
ROBERT BORDEN, *General Counsel*
LINDA A. GOOD, *Chief Clerk*
DAVID RAPALLO, *Minority Staff Director*

CONTENTS

	Page
Hearing held on July 14, 2012	1

WITNESSES

Mr. Al Anderson, Commissioner, North Dakota Department of Commerce	
Oral Statement	7
Written Statement	10
Ms. Lynn D. Helms, Director, North Dakota, Department of Mineral Resources	
Oral Statement	13
Written Statement	15
Mr. Michael Ziesch, Manager, Labor Market Information Center, Job Service North Dakota	
Oral Statement	22
Written Statement	24
Mr. Jack Ekstrom, Vice President, Corporate and Government Relations, Whiting Petroleum Corporation	
Oral Statement	41
Written Statement	43
Mr. Jack Stark, Senior Vice President of Exploration, Continental Resources, Inc.	
Oral Statement	60
Written Statement	62
Mr. Kevin Hatfield, Senior Director, Gathering Systems, Enbridge, Inc.	
Oral Statement	70
Written Statement	72
Mr. Henry "Tad" True, Vice President, Bridger Pipeline, LLC, Belle Fourche Pipeline Company	
Oral Statement	76
Written Statement	78

APPENDIX

Questions for Jack Ekstrom, response attached, Whiting Petroleum Corporation	96
Questions for Kevin Hattfield, response attached, Enbridge Pipelines (North Dakota) LLC	99
Questions for Lynn Helms, response attached, North Dakota Department of Mineral Resources	101
H.Z. Tad True, Bridger Belle Fourche Pipelines, response to questions	103

AMERICA'S ENERGY FUTURE PART II: A BLUEPRINT FOR DOMESTIC ENERGY PRODUCTION

Saturday, July 14, 2012

HOUSE OF REPRESENTATIVES
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
Washington, D.C.

The committee met, pursuant to call, at 9:02 a.m., at Beckwith Recital Hall, North Dakota State University, Fargo, North Dakota, Hon. Darrell E. Issa [chairman of the committee] presiding.

Present: Representatives Issa, Lankford, and Farenthold.

Also present: Representative Berg.

Staff present: Alexia Ardolina, Majority Assistant Clerk; Joe Brazauskas, Majority Counsel; Mark Main, Majority Director of Oversight.

Chairman ISSA. A couple of announcements before we start. First of all, this mic does not amplify. It is just for recording. Second of all, it is always on. Always on.

[Laughter.]

Chairman ISSA. Lastly, this is a conventional hearing in every sense, so there is no waiver of any rules. We have a quorum and so on. But it will be less formal and considerably less formal. I will tell you, you know, your written statements are here, but we are under a time constraint only in that, you know, we have to get to an end. But we are not under a time constraint in that if you really need to get something out, we are not going to cut you off and say, you know, the gentleman is next. That does not mean that you can ignore that light, okay.

So now we are really on.

The committee will come to order.

The Oversight Committee's mission statement is that we exist to secure two fundamental principles. First, Americans have a right to know that the money Washington takes from them is well spent. And, second, Americans deserve an efficient, effective government that works for them. Our duty on the Oversight and Government Reform Committee is to protect these rights. Our solemn responsibility is to hold government accountable to taxpayers because taxpayers have the right to know what they get from their government.

We have a responsibility to work tirelessly in partnership with citizen watch dogs to deliver the facts to the American people and bring genuine reform to the Federal bureaucracy.

I am pleased today to be joined by my colleagues, including my friend from the great State of North Dakota. And I now ask unanimous consent that Rick Berg be able to participate fully in the committee, including opening statement and questioning.

Without objection, so ordered.

Additionally, if you would like to introduce your witnesses today, it would be my honor to yield to you.

Today we are examining how oil production here in North Dakota has created jobs, but it more importantly has created the opportunity, spoken of since the Jimmy Carter era, to be energy self-sufficient. This shale formation is part of a new frontier of domestic oil production.

A new technology not available 20 years ago, in combination with hydraulic fracking or fracturing, and a technology that goes back more than 60 years, has shown us that we can produce from solid rock more oil, more billions of barrels of oil, than we thought existed in America just a few years ago.

North Dakota is not just producing oil, it is producing jobs, creating an extraordinary economic boon. Since 2004, the number of available jobs in the oil and gas production in this State has increased more than 100 percent. As of May 2012, North Dakota has the lowest unemployment rate in the country at 3 percent. And as we all know, 3 percent is effectively zero.

Compared to the current national average of 8.2 percent, much of the State's success has to do with its regulatory environment. Currently, it could take as few as 15 to 20 days to get a permit in this State to drill oil on private or State land. However, the ever-increasing red tape from Washington threatens to keep this positive effect from continuing. Transportation is key to bring oil to market.

The President's refusal to grant a permit for the Keystone XL pipeline, which would have transported 100,000 barrels a day from these fields to the American refineries in the Gulf of Mexico, is just the tip of the iceberg. North Dakota is producing in the neighborhood of 600,000 barrels a day. The most efficient way to move oil is never going to be by the bucket, by the truck, or even by the train. Pipelines have, in fact, been critical for both oil and natural gas for 100 years in America.

The recognition that by stopping an efficient distribution you slow the natural distribution would be bad enough. But ultimately what it does is it simply wastes additional carbon. Inefficiency of transportation, by definition, means we burn fossil fuels in order to get these fossil fuels to market. So for those who believe that reducing the carbon footprint is important, Washington is today working to the detriment of that very goal.

The amount of oil coming out of North Dakota will not affect the world's consumption of oil by one drop. It will affect the $600 billion that we might be paying in transfer costs to other countries if we do not become energy self-sufficient.

Today, everyday, more than a billion of U.S. dollars leave the country to pay for foreign oil. North Dakota and other new finds with new technology will allow us to in the future be oil self-sufficient, natural gas self-sufficient, coal self-sufficient, and ultimately prosperous enough to invest in and to bring sustainable next gen-

eration energy to market. So those who so often ask us why is it we are not for all of the above, we are. But all of the below are a great part of the affordable energy today that funds all of the above's future.

And with that, I recognize Mr. Lankford for his opening statement.

Mr. LANKFORD. Thank you, Mr. Chairman, and thank you to the witnesses for being here today, and for the University for hosting this as well.

Since the 1970s and all the energy crisis and the price spikes that we have experienced, our Nation has talked about how do we become energy independent. This is a common conversation for decades now. We focused on exploration. We focused on supply lines, diversification of fuels, renewable fuels, natural resources and the environment, and more. We have asked ourselves, do we consume too much? Do we produce too little? Is our resource in short supply? Do we lack the resources to move and refine what we produce?

In the middle of this 40-plus year journey, we have invested in oil, coal, natural gas, hydroelectric, solar, nuclear, geothermal, bio fuels, hydrogen, and a lot of experimental fuels. But we are not energy independent, not even North American energy independent. So I want to know why. What is preventing us from maintaining energy independence?

Our economy runs on inexpensive and reliable energy, and millions of jobs are connected to energy. If we can move from talking about this to actually doing it, our energy independence could make the difference in the American economy. Around $300 billion a year is spent on purchasing crude oil from foreign sources, which is a tremendous drain on our economy. We also have to deal with the national security implications of depending on foreign sources for our energy.

I want to know, is it a supply issue? The President has often quoted lately that America has 2 percent of the world's proven reserves, but we use 20 percent of the world's oil. He implies we are running out. I want to know, are we running out?

In the 1970s, President Jimmy Carter's Administration forced electricity generation towards coal because they believed that we running out of natural gas and we needed an abundant fuel for electricity generation. I want to know is it our regulatory environment. The Federal regulations and guidance appear to be in front of science at times. Are we getting ahead of science with our regulations?

BLM and EPA have already made major moves against hydraulic fracking, but the 2010 congressionally-mandated study of fracking has not even released its draft report yet. Not even the first of the year study is complete yet, and the final study is not to be done until 2014. Yet actions have already been taken from the Federal government based on a study that does not even exist yet. So I want to know is there something that we are doing that we are getting ahead of science in our regulatory scheme.

There are a lot of issues. We look forward to asking the questions and pummeling you with random different factoids of information to get on the Congressional Record. But it is important that we

continue on this conversation and that we get as much as we can of the facts and the details in.

We hear a lot when we are in Washington, D.C. hearings from EPA, from the regulatory environment there. We hear a lot from folks that speak often inside the beltway. These field hearings are important to us to get the other side of the story and to be able to get a balanced perspective of what is happening in the field. So I appreciate you being here today.

Mr. Chairman, I appreciate doing the opening statement as well.

Chairman ISSA. Mr. Farenthold.

Mr. FARENTHOLD. Thank you very much, Chairman Issa. I am a representative from Texas. I think we are the only State ahead of North Dakota right now.

Mr. LANKFORD. So far.

Mr. FARENTHOLD. But what Texas, I think, has learned is that the energy sector can lead a State's economic growth, economic development, and create jobs. I think we have seen a lot of the same effect here in North Dakota. But we also need to be constantly vigilant about what we can do to continue to create jobs, continue to bring affordable energy to market, especially in this country.

I think I agree with my colleagues that have spoken so far that energy independence is absolutely critical to this country, not just from a jobs standpoint, but from a national security standpoint. And the opportunity to create jobs, and not just jobs, but good-paying jobs associated with the energy sector is huge.

You know, we are blessed in this country that our wages are high, but we're also cursed that our wages are high because we sometimes particularly manufacturing to places overseas where labor costs are lower. But the low energy costs made available by new drilling technologies that have enabled North Dakota to prosper in their own oil production are great because what they do is they lower energy costs. And our lower energy costs in the United States can counteract some of the high labor costs that we have.

But another curse we have in the United States is excessive government regulation. And low energy costs can help with one or the other, but probably cannot overcome both. These same regulatory burdens that affect other industries are acutely present in the oil and gas industry, especially in a time where it seems like there is from some sectors a war on traditional energy.

There is a belief, I think, among some people, and it is an erroneous belief, that for green or new energy to succeed, traditional oil and gas needs to fail. And I think that is absolutely wrong-minded. That is looking at the cup is half empty when in America I think we have looked as the cup being half full. We are a land of plenty, and our ingenuity, and our technology, and God's grace are going to keep us as a prosperous, great country and best place in the world to live.

With that, I will yield back.

Chairman ISSA. And now for the gentleman from all of North Dakota, Mr. Berg.

Mr. BERG. Thank you. I really want to thank the panel for being here. Just for information, Chairman Darrell Issa is a businessman from California. And he is probably one of the most visionary people that we have in the House. He is one of those people that can

see a solution, and he can put the pieces together. And I am just thrilled to have him here to see what is going on because as we have put the pieces together to have energy independence, Chairman Issa will be a true leader in the House of Representatives for that.

So, I mean, this is a Saturday, too. I mean, I am not sure how many people are willing to do this type of work on a Saturday, so I certainly thank you for being here.

And, Congressman James Lankford, is one of my freshmen colleagues from Oklahoma, and he has really distinguished himself as a real expert and leader in the oil industry, as well as all of energy. But certainly been a hard worker and also communicating with both the public as well as within our conference the issues that are important.

And then certainly last but not least, Congressman Blake Farenthold, who is also a freshman colleague from Texas. And, you know, obviously Texas is doing a lot of things right. When you look at States that have good economies, growing economies, they have got that balance. And so I have seen a lot of parallels when it comes to the things we have done in North Dakota and the things that Texas has done. And also the things we need to do as a Nation probably reflect Oklahoma and Texas a little more than California.

[Laughter.]

Chairman ISSA. Let it be.

Mr. FARENTHOLD. But that is the path we are on. And the panel that is here, I am just so excited.

You know, I was thinking about today, some of these discussions happened in 1994. How do we increase energy production in North Dakota? This is not something where someone just kicked a rock and all of a sudden oil started squirting up. This precision hydraulic fracturing is a very scientific code that was broken by a partnership between really I would say the government research and the private sector, are really out there risking a lot of dollars.

And in doing so, you know, what we have created to be, and everyone knows about that. I mean, 3 percent unemployment. Actually, I should correct everyone. It is not 3 percent unemployment any longer.

Chairman ISSA. It is 2?

Mr. FARENTHOLD. Two point seven. Well, we have $2 billion in reserve. I mean, as you will hear from Michael later, what is going on in our jobs, I mean, there are a lot of good things. When I talk to people around the State that operate multiple States, they say, you know, North Dakota has very strong, strict regulations. They do. But we know what they are, and they are stable.

In 2005, I think one of the fundamental things we did in 2005 is we created what we called Empower North Dakota. And as leader at the time, we used to have all these political debates in our chamber between solar, and oil, and wind, and coal, and all these different things. We were wasting so much political energy. And we ended up, we stepped back and said, you know what? We all want energy independence, and we recognized that. And we said, you know what? Everyone has a piece of this long-term solution. It is not going to be without wind. It is not going to be without solar.

But it is not going to be totally solar. It is not going to be totally wind.

So what we did is we created this committee called Empower. Before our bill would be introduced in the North Dakota legislature, it would go through this Empower committee. And we had all the stakeholders on that committee. So at the end of the day, the bills that came through the legislature were well thought out. They had a plan, and their plan was to develop a logical process to really making North Dakota a key exporter of energy. And that is really when, if you crisscrossed the State, you would find all of the above here in North Dakota, from our wind, from our ethanol, to coal, our oil. And so there are a lot of partnerships that we have created.

My goal, quite frankly, is that we create and empower America. And I think we can do that by, again, getting our focus—as the businessmen know, we need to have crisp, clear focus. And I think we can pull those things together long term for our country's future. So I look at this as a big step and a good step to moving in that direction. Thank you.

Chairman ISSA. If you will introduce ——

Mr. FARENTHOLD. I would love to introduce the panel. The first, Al Anderson, who I think I first got to know Al when he was in charge of North Dakota's only refinery. And just really a visionary and a great person, and now as the head of our Commerce Department. Really has spent his whole life in the private sector, and now is in the government sector and knows how those work together.

Lynn Helms, who is—do you want me to introduce each one before they speak?

Chairman ISSA. Yeah. No, I have to swear them in after you introduce them, so go ahead.

Mr. FARENTHOLD. Do them all?

Chairman ISSA. Let us just do them all.

Mr. FARENTHOLD. All right. Get the formalities out of the way. Lynn Helms was the head of our regulatory here in North Dakota. I think typically you see, when you talk about a regulation in the private sector, you will see a barrier between those two, certainly from the EPA and a lot of things that happened in North Dakota. We had that barrier. Lynn has been, and I have been on all sides of the table with Lynn, from majority leader putting the budgets together and that kind of thing. And he has really, again been part of this long-term focus to help get things done. And I think the testament to his office and what he is doing.

You know, we went in 2005, we had 3,000 barrels a day coming out of the block.

Chairman ISSA. Three thousand.

Mr. FARENTHOLD. In 2012, we have 610,000 barrels a day coming out of the block. That was his office is trying to manage and done it very effectively with permits coming out, as you said, 10 to 15 days.

And Michael from Job Service. This is going to be the fun story today is what does all this mean, because that is the bottom line. You know, North Dakota has seen more income rising faster. The economy is growing faster than any other State in the Nation, and it is because of this economic engine. So I look forward hearing about that.

Chairman ISSA. Thank you. Pursuant to the committee rules, all witnesses must be sworn. Would you please rise to take the oath?

[Witnesses sworn.]

Chairman ISSA. Let the record reflect that all—please have a seat—all witnesses answered in the affirmative.

As I said before we opened, this is an official hearing no different than one in Washington. The lights that you are going to see come on in a moment in front of you are part of the universal system. Green means go, yellow means go faster so that you do not get caught underneath when it turns red, and red means stop. Please try to do that, particularly understanding your entire written statement is to be placed in the record.

Additionally, I am going to hold the record open both for other members who could not be here today and for additional remarks you may have.

Chairman ISSA. Before we begin, I would ask one more request, which is, would you all agree to answer additional written questions if we are not able to get all of our questions in during this time?

Okay then. By unanimous consent, we will hold the record open for members' questions and a reasonable amount of time for answering.

Chairman ISSA. And with that, Mr. Anderson, you are recognized for 5 minutes.

WITNESSES STATEMENTS

STATEMENT OF AL ANDERSON

Mr. ANDERSON. Mr. Chairman and members of the committee, I appreciate the opportunity to testify before this committee concerning America's energy future.

My name is Al Anderson. I serve as the commissioner of the North Dakota Department of Commerce. In that role, I also have the pleasure of serving as Empower North Dakota Commission chair. And Congressman Berg talked a little bit about that. And it is one of the exciting things that has truly made a difference in our growth over the past decade.

North Dakota has experienced tremendous growth, and because of the limited time, I will just touch on some of the real short ones. We are number one in strongest economy. Our GDP was 7.1 percent. We have added over 65,000 jobs in the last decade. We have gone from 38th in the Nation to ninth in the Nation in per capita personal income in that last decade. That is a 78 percent increase.

North Dakota has the lowest unemployment rate in the Nation, as you all noted, at 2.7 percent. What you did not note is that we have almost 23,000 jobs open today in North Dakota. We have also increased our exports dramatically, exceeding a billion for the first time in our State's history.

We have been blessed like Texas, like Oklahoma, with a lot of diverse natural resources. We are the second largest oil-producing state, and Lynn can talk about where we are at because it keeps going up so quickly, I cannot keep track.

But we are also number 10 in coal production. We have significant—4,000 megawatts of lignite and other coal generation from 7

facilities across the State. We lead in 9 different agricultural commodities, many of those tied to the energy crops.

We are ranked 10th in wind generation. We did not have a wind industry a decade ago, and now we deliver more than 1,400 megawatts of wind generated power.

In addition, we have increased our natural gas processing significantly. My numbers are slightly incorrect in here. We only have 17 of those facilities in place. It has only been a 383 percent increase, not the 389 percent increase.

We have also increased our—the State only has one oil refinery at the time, and that has gone through a 20 percent increase in its capacity. But we have 3 more that are considering.

So, you know, one of the questions is, why has North Dakota been so successful? And I would first acknowledge that the success is primarily a result of the private sector, who have taken the risks and invested their resources in developing our energy industries. What the State does is it supports this development through positive business climate and policies that encourage that type of private investment.

Empower—that is how Representative Berg identified it—is one of the primary vehicles in which we ensure that we have the appropriate policies in place. It was established by the legislature in 2007. The members are appointed by the Governor. It covers all of the industries that exist in North Dakota. And its role is to make recommendations concerning the State's energy policy. It brings individuals from the traditional side as well as the renewable energy side all together at the same table. The entire process has helped everyone work together. It has taken an in-depth look at the strengths, weaknesses, and opportunities in all of those key sectors, and helped develop policies to overcome those.

These are busy business leaders with demanding schedules, yet they make this a priority and that is ultimately it works.

Our EmPower Commission is currently working on its next version for our State legislature. It is on four topics: infrastructure, R&D, workforce, and regulatory environment. What I would like to focus on with my remaining comments, since it is turning yellow, is the regulatory environment, because the Federal government needs to provide a fair and responsible regulatory environment based on sound science and the capacity of current technology to ensure future development. Federal regulations must be cost-effective. There is always that balance. It must include sufficient lead time for the industry to adapt to any of these requirements affecting production.

It is tempting for the Federal level to establish uniform regulatory policies; however this one-size-fits-all approach fails does not take into account the unique nature of each State and the scientific requirements to make good policy. We feel that Federal agencies need to recognize the unique environmental issues and partner with the States in regulations development.

We ask that you also recognize the additional burdens that new regulations put in place for not only the State agencies, but also the industry. Appropriate programs are a necessary part of ensuring that North Dakota can maintain its clean environment in conjunction with a healthy business environment. Industry needs that

reduced uncertainty when making those long-term investments. Both would be aided by a national energy policy that provides some certainty for the future.

We will learn by bringing individuals together from all sides, traditional and renewable; that that provides better solutions to our issues. This strategy might be a model for you to take forward at a national level.

Mr. Chairman, members of the committee, thank you very much for allowing me today to come and visit with you. And that concludes my testimony, and I very am happy to entertain any questions.

[Prepared statement of Mr. Anderson follows:]

TESTIMONY OF MR. ALAN R. ANDERSON
COMMISSIONER, NORTH DAKOTA DEPARTMENT OF COMMERCE
BEFORE THE
HOUSE COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
ON
"AMERICA'S ENERGY FUTURE, PART II: A BLUEPRINT FOR DOMESTIC ENERGY PRODUCTION"
JULY 14, 2012

Mr. Chairman and members of the committee, I appreciate the opportunity to testify before the committee concerning America's energy future.

My name is Al Anderson, and I serve as the commissioner of the North Dakota Department of Commerce. As Commerce Commissioner, I also have the pleasure of serving as chairman of the EmPower North Dakota Commission, a group tasked with developing energy policy recommendations for the state.

North Dakota has experienced tremendous growth over the past decade with a significant portion of that growth attributable to energy production.

Economic Growth in North Dakota's Five Targeted Industries

- **North Dakota has one of the strongest economies in the nation** and while oil plays a role it only makes up 25 percent of our state revenue collections. The fact is steady growth in North Dakota's targeted industries is key to our state's strong economy. These industries include advanced manufacturing, energy, value-added agriculture, technology-based business and tourism.

- **North Dakota has added over 65,000 new jobs since 2000.** The American economy grew at a pace of 2.9 percent last year, while North Dakota's economy increased by 7.1 percent, the strongest growth in the nation.

- **North Dakota has gone from 38th in the nation to 9th in in personal incomes over the past 10 years.** Per capita personal income has increased over 78 percent since 2000, according to statistics recently released by the U.S. Bureau of Economic Analysis (BEA). According to the BEA report, the per capita personal income in North Dakota in 2011 was $45,747; an increase of $20,155 since 2000 when the per capita personal income was $25,592. Nationally, per capital personal income increased by 37.4 percent over the same period.

- **North Dakota has the lowest unemployment rate in the nation at 2.7 percent (May 2012);** we have 22,695 plus jobs openings, with 67 percent of those outside of oil-producing counties. In fact, the counties with the greatest number of job openings right now are Cass (Fargo) with 5,735 and Burleigh (Bismarck) with 3,509.

- **North Dakota's exports for the first quarter of 2012 increased 35.1 percent over the same period in 2011, the second fastest growth rate in the nation after New Mexico.** North Dakota's first quarter export figures exceeded $1 billion for the first time in the history of the state. Top export products include front-end shovel loaders, agricultural tractors, soil-related ag equipment, wheat, legumes, crude oil and tractor parts.

North Dakota has been blessed with diverse natural resources related to energy production. Some highlights include:

- **North Dakota is the second largest oil-producing state** in the nation with production of 639,000 barrels per day. The industry has 210 drilling rigs operating, 8,000 producing wells, employs 65,000 direct and indirect jobs, and has a $12 billion economic impact.

- **The state supports 4,000 megawatts of lignite and other coal generation at seven locations providing low cost, reliable electric power to two million customers** in North Dakota, South Dakota, Minnesota, Montana and Iowa. North Dakota is one of the country's top 10 coal-producing states, mining approximately 30 million tons every year since 1988, which results in an annual economic impact of $3.5 billion and 17,000 direct and indirect jobs.

- **North Dakota leads the nation in the production of nine different agricultural commodities.** North Dakota is a top producer of several energy crops, has a successful biorefining industry and has several additional bioenergy processes ready for commercial development.

- **Natural gas processing in North Dakota has increased 389 percent over six years**. Seven new natural gas plants have been built in the past three years, joining 20 currently in operation. The State, through the Oil and Gas Research Council and their private partners, has invested more than $2 million dollars in new technologies to capture and use natural gas at well sites.

- **North Dakota ranked tenth in the nation in installed wind energy capacity**. North Dakota has 1,445 megawatts of installed wind generation capacity. In the last two years, installed wind capacity in the state has grown by over 250 megawatts with an additional 210 megawatts under construction in early 2012. Much of the growth in wind energy production in the state can be attributed to the federal production tax credit.

- **The state's only oil refinery has expanded by 20 percent or 10,000 barrels per day**. In addition, three new refineries were announced and are at various stages of planning, permitting and construction.

So why has North Dakota been so successful?

First, I would like to acknowledge that the success is primarily a result of those in the private sector who have taken the risks and invested their resources in developing our energy industries. The state supports this development through a positive business climate and policies that encourage private investment. EmPower North Dakota is one of the primary vehicles to ensure we have the appropriate policies in place.

The EmPower ND Commission was established by the legislature in 2007. Its members are appointed by the Governor and it is made up of representatives from all of North Dakota's energy industries. Its role is to make recommendations concerning the state's energy policy.

EmPower brings individuals from traditional and renewable energy together all at the same table.

The entire process has helped everyone work together. We have taken an in-depth look at the strengths, weaknesses and opportunities in a number of key sectors and developed policies to overcome obstacles, eliminate barriers and encourage growth. EmPower members have fully embraced this approach. These

are busy business leaders with demanding schedules, yet they have made this a priority and that's ultimately why it works.

The EmPower North Dakota Commission is currently working on the next version of its policy recommendations. The four key areas of focus that impact all energy providers include:

1. **Infrastructure** – Adequate and maintained infrastructure is the foundation for continuing existing development and expanding into new areas.
2. **Research and Development** – Research and development serves as the bridge for industry to move from ideas to new development.
3. **Workforce** – As the energy industry expands, workforce must be available to meet the demands. Without adequate workforce development, expansion is not possible.
4. **Regulatory Environment** –A regulatory environment, at both the federal and state levels, that encourages economic development while ensuring environmentally-responsible development of natural resources.

The area I'd like to focus the remainder of my comments on is the regulatory environment.

The federal government should provide a fair and responsible regulatory environment based on sound science and the capacity of current technology to ensure future energy development. Federal regulations must be cost-effective and include sufficient lead time for industry to adapt to new statutory requirements affecting production or products. Federal regulations must be structured in ways to minimize placing new barriers on investment and development.

It may be tempting at the federal level to establish uniform regulatory policies; however this "one-size" fits all approach fails to take into account the unique nature of each state. We feel that federal agencies need to recognize the unique environmental issues and partner with the states in regulations development.

We ask that you also recognize the additional burdens new regulations place on state regulatory agencies and industry. Appropriate regulatory programs are a necessary part of ensuring that North Dakota can maintain its clean environment in conjunction with a healthy business environment. Industry also needs reduced uncertainty when making long-term investments. Both would be aided by a national energy policy that provides some certainty for the future.

We have learned from bringing individuals from traditional and renewable energy together, all at the same table, often results in improved solutions to issues. This strategy might be a model for you to consider at the national level.

Mr. Chairman and members of the committee, thank you for allowing me the time to visit with you today. That concludes my testimony and I am happy to entertain any questions.

Chairman ISSA. Thank you. Mr. Helms.

STATEMENT OF LYNN HELMS

Mr. HELMS. Thank you, Chairman Issa, and members of the committee for coming to the great State of North Dakota and for this opportunity to address you.

I will keep my remarks brief on the first part. You are going to have experts talk about the size of the Bakken Resource. Let me just say that the State of North Dakota recognizes that the part of the Bakken that lies in the new State of North Dakota is probably 2 to 4 times the size of the USGS assessed in 2008 when they said it was the largest in the lower 48 States.

One of the things I want to draw your attention to is it is so large that a 1 percent increase in recovery from this resource is equal to 5 months' consumption in the United States. It is this that gives us the hope that North America can be energy independent. A 1 percent increase is equal to 5 months of U.S. oil consumption. And we are currently able to extract about 5 percent of the Bakken Resources, so a tremendous upward potential.

We have vaulted from number 8 to number 2 in U.S. daily oil production amongst the States. We have added over 35,000 new jobs to the State's economy. But we are not at the peak yet. We need to hire 10 people a day between now and the year 2020 in order to satisfy the needs of this growing oil industry sector in the State. It does produce real jobs with real income.

North Dakota's geology is unique, and I have included in my written testimony a characterization of that geology to show you why hydraulic fracturing is safe in North Dakota, why water disposal is safe in North Dakota, and how it all works. I think that is critical when you look at regulation and look at the fact that it needs to be state-based because each basin is unique. Each State is unique in their geology and in their approach to extracting oil and gas resources.

I think the key, and Mr. Anderson touched on it, is that North Dakota's resources are in excess of 80 percent owned by the private sector. Surface ownership is 89 percent private. Mineral ownership is 82 percent private. And our drilling rigs reflect that; 86 percent of them are working on private lands.

Within the State, we average 15 to 20 days. So far in the year 2012, we have averaged 18 days to issue a drilling permit. On the Federal level, our Federal counterparts at the BLM are exceeding 6 months in approval of a drilling permit for Federal lands.

What happens in the State of North Dakota is that most of the blocks of Federal acreage are very small. Thirty-four percent of our Bakken spacing units contain a small piece of Federal minerals.

The average size of that Federal mineral tract is 27 acres, and yet if a wellbore is going to penetrate that Federal mineral tract, it requires one of those 6-month plus Federal permits in order to drill that wellbore. It also requires all of the NEPA studies and things like that, and imposes those upon private surface ownership. That is not good regulation.

North Dakota has worked hard to have a stable tax and regulatory environment. Our regulations undergo a two-year review cycle, and every single comment has to be responded to in writing

by my Department of Oil and Gas. The industry always knows what the regulations are. They know what is coming. They know that their comments are going to be considered, as well as the public. Every comment from every individual has to be considered in writing, and it has to pass muster with the State legislature before those rules can take effect.

So we keep them modern. The rules are modern. They keep up with the economics. They keep up with the technology. But there is that stable environment of knowing what the rules are, and how they are going to be enacted, and how they are going to be imposed.

The North Dakota Industrial Commission Oil and Gas Division has commented on the EPA and BLM proposed hydraulic fracturing rules, and I have summarized those comments in my written testimony. What I really want to say is much of that is being driven by some agenda other than science.

This is a States' right issue. The geology is unique State by State and basin by basin, and it should be approached that way. States that have hydraulic fracturing rules should be exempted from the Federal rules.

These proposals are going out, as Congressman Lankford said, even before the EPA–Congress mandated study is completed at the end of this year. They are going out without proper consultation with our Native American tribes. Their definitions of things like "diesel fuel" are not science based, nor are the concentrations of these chemicals science based.

Just a little research from the Federal Consumer Product Safety Commission would reveal that you can have up 10 percent petroleum products in something under your sink, and it does not even require a Mr. Yuck Sticker. And yet there is no cutoff for the concentration of these products in hydraulic fracturing fluid. It is not science based. We need that stable regulatory environment across the Nation.

I will be happy to answer questions later. Thank you.

[Prepared statement of Mr. Helms follows:]

U.S. House of Representatives
Committee on Oversight and Government Reform
Field Hearing
July 14, 2012
Fargo, North Dakota

Testimony by Lynn D. Helms, Director
North Dakota Industrial Commission
Department of Mineral Resources

North Dakota's Bakken Resource

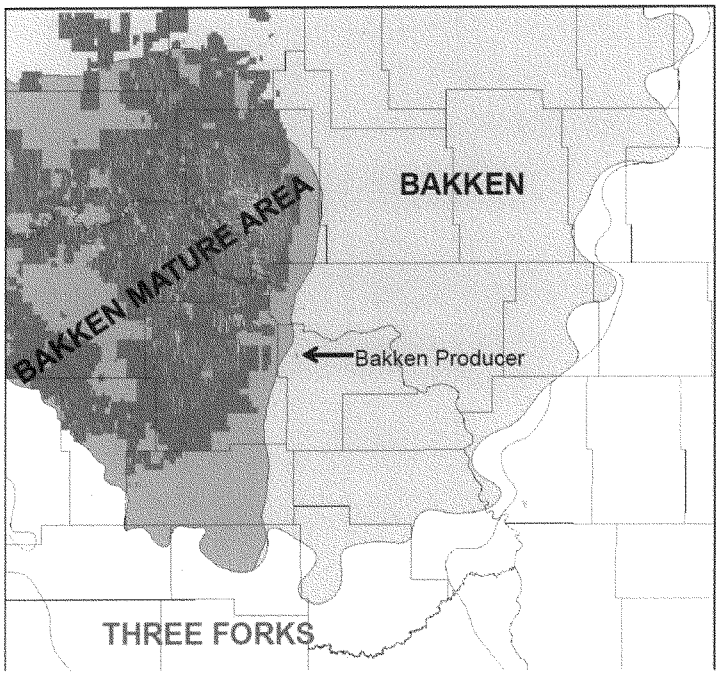
The Bakken Formation is a large unconventional resource that underlies most of the western portion of the state of North Dakota. The United States Geological Survey (USGS) stated in their April 2008 report that it is the largest continuous resource they have assessed in the lower 48 states.

The upper and lower members of the Bakken are world class source rocks. Published estimates of Bakken oil generation potential range from 10 billion barrels (Dow 1974) to 300 billion barrels (Flannery and Krause 2006). The unpublished work of Price estimated the Bakken oil generation potential at up to 503 billion barrels. The geological models presented by Price (unpublished) and by Flannery and Kraus (2006) were based on considerable input from North Dakota Geological Survey geologists, samples from the North Dakota Core and Sample Library, and the well files from the North Dakota Oil and Gas Division.

The original oil in place in the Bakken and Three Forks Formations within the thermally mature portion of the State of North Dakota is estimated by the North Dakota Department of Mineral Resources to be more than **300 billion barrels**. This estimate validates the highest oil generation estimates of Price (unpublished) and Flannery and Kraus (2006).

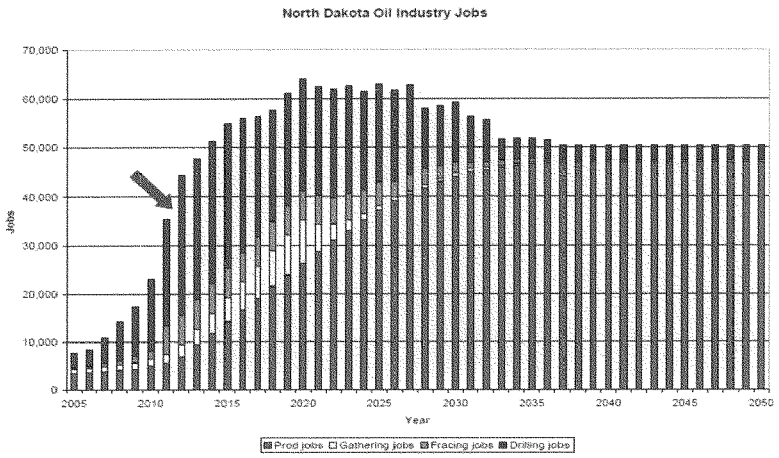
The Bakken estimated ultimate recovery using current drilling and completion practices has been estimated at approximately **2.5 – 5.0 percent** of original oil in place, which is equal to **7–15 billion barrels.** North Dakota Bakken wells are still undergoing adjustments and modifications to the drilling and completion practices. Technology and the price of oil will dictate what is ultimately recoverable from this formation. A one percent increase in recovery equals three billion barrels, which is equal to five months of United States consumption.

The thermally mature portion of the Bakken underlies 7-9 million acres in western North Dakota. The current North Dakota drilling rig fleet is capable of drilling 2,150-2,580 wells each year full development could require 16 to 18 years.

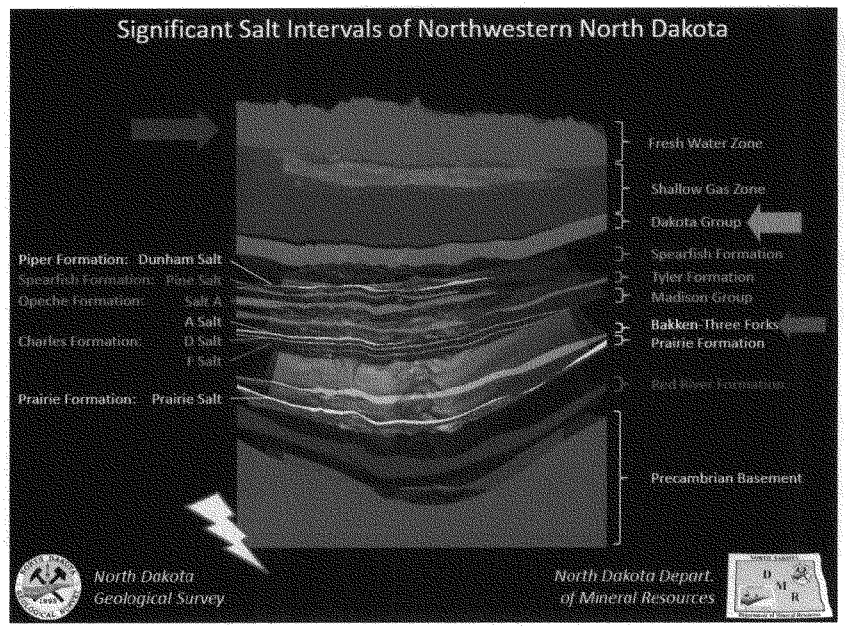


Production from Bakken development has moved North Dakota from number eight to number two among US states in daily production. To achieve those production levels has required significant increases in pipeline, natural gas processing, electric generation and transmission, and refining capacity.

Workforce has now exceeded 35 thousand new workers and is not expected to peak until 2020 at approximately 65 thousand or more than 10 new hires per day. These new workers and their families will need housing, medical facilities, schools, recreation facilities, and all of the other services expected by our modern culture.



North Dakota's geology is ideal for application of 21st century unconventional resource play technology. The figure below illustrates how drinking water resources are separated from the disposal zone by one-half mile of bentonite shale and from the hydraulic fracturing in the Bakken pool by 1 ½ miles of rock that includes nine layers of impermeable unfracable salt. In addition the disposal zone is approximately two miles above the basal granite where earthquakes originate.



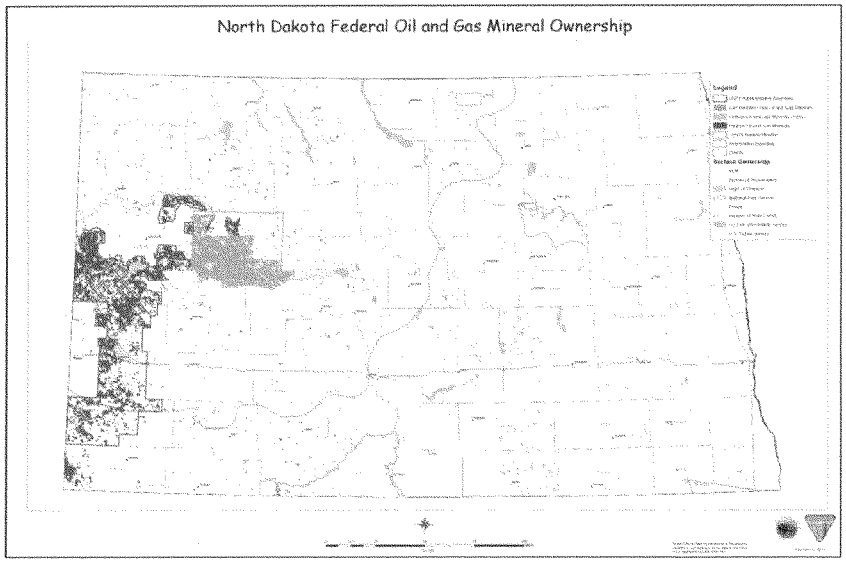
Not only is North Dakota's geology ideal, but our geography is as well. Mineral ownership is 82 percent private, 12 percent federal, and six percent state while surface ownership is 89 percent private, nine percent federal, and two percent state. It is this private ownership in a rural setting and the protections afforded private contracts in our state constitution that have made the development of the Bakken possible.

For example, of the current 215 drilling rigs operating in North Dakota 184 are operating on private, three on state, 27 on Indian Trust, and one on other federal lands. This is primarily due to the length of time required to obtain a federal drilling permit. These permits typically involve approval from more than one federal agency and more than six months compared to a drilling permit on private lands that involves one state agency and 15-20 days.

While the federal permitting process may make sense on where large blocks of land are managed for federal ownership or trust responsibilities, outside Fort Berthold and the Dakota Prairie Grasslands federal mineral tracts are small parcels that resulted from right of way acquisitions and bankruptcies. In nearly every case the surface estate has been sold resulting in a split estate situation where the processes required to obtain a federal permit impose regulatory burdens and development delays on private property owners. The following is a discussion of federal ownership in the current 7,289 Bakken pool spacing units in North Dakota:

> 91 percent of all Bakken spacing units contain some federal mineral ownership or trust responsibility.
>
> In one-half of all spacing units federal mineral ownership or trust responsibility is less than 40 percent.

Outside of Fort Berthold reservation 34 percent of spacing units contain less than 160 acres of federal minerals. This is not enough ownership to determine whether development will occur, but is enough to prevent or delay the drilling of up to one-half the potential wells in the spacing unit. Federal rules will not permit a well bore to penetrate a federal mineral tract, no matter how small, without a federal lease and a federal drilling permit. The current Bureau of Land Management (BLM) hydraulic fracturing rule proposal will also require pre-approval of fracturing processes and chemicals.



North Dakota has worked hard to create a stable tax and regulatory environment that promotes venture capital investment. Our oil and gas rules are reviewed at least every two years through a public comment process where every comment must be considered in writing. This ensures that North Dakota regulations keep up with new technologies and economic conditions.

The North Dakota Industrial Commission has taken the following position on recent federal hydraulic fracturing rules and guidance:

1) This is a state's rights issue. States that have adopted hydraulic fracturing rules which include chemical disclosure, well construction, and well bore pressure testing should be exempted from the BLM rules and the EPA guidance.

2) The EPA study of potential hydraulic fracturing effects on ground water mandated by congress is not finished and there are currently no proven environmental contamination incidents.

3) As Chairman Hall has testified, the required consultation with the Three Affiliated Tribes has not occurred.

4) The definition of diesel fuel in the EPA guidance is too broad. It includes six CASRNs as well as any material referred to by one of their primary names or any associated common synonyms.

5) EPA made no attempt to identify what concentrations of the materials they propose to define as diesel fuel are dangerous. Hydraulic fracturing treatments that utilize concentrations of less than 10 percent of any material defined as diesel fuel should be exempt from permitting requirements.

6) The EPA guidance is written for Enhanced Oil Recovery wells or disposal wells completed with tubing and packer. Most of the requirements will not work mechanically on wells completed with swell packers and fractured down the production casing as is common in North Dakota.

Chairman ISSA. Thank you. Mr. Ziesch.

Mr. ZIESCH. Yes.

Chairman ISSA. Thank you. You are recognized.

STATEMENT OF MICHAEL ZIESCH

Mr. ZIESCH. Chairman Issa, members of the Committee, Representative Berg. I am happy this morning to be here to speak to the Committee on Oversight and Government Reform to testify on a blueprint for domestic energy production and North Dakota's contribution towards the Nation's energy independence.

Among many other activities, our office—and for the record, I am Michael Ziesch, manager of the Labor Market Information Center of Job Service North Dakota. And among many other activities, our office produces the labor force statistics and the supply/demand analysis for the State of North Dakota. So we handle much of the labor force data for the State. It gets produced out of our office.

And North Dakota has experienced a long period of economic strength and employment opportunity. Activity has been led in recent years by agriculture and energy. But the economic gains have also been more widespread through the industries of North Dakota. This gives evidence of a balanced economy in the State and is highlighted in several labor force statistics. For instance, the 2.7 percent; 3 percent unemployment rate. They are both correct in that one is seasonally adjusted, and one is not seasonally adjusted. So you can both be correct on that. And as lowest in the Nation, it is a position we have held for approximately 3 years.

As mentioned, energy development is an important contributor to the State's strength. And also as mentioned earlier and touched upon, North Dakota has many components of energy production: coal and gas, oil and gas, coal, biomass, geothermal, solar, hydroelectric, and wind. But to keep on topic with this morning's committee hearing, we will focus on oil and gas exploration and production activity in the Bakken Formation.

The impact of the Bakken Formation on employment and wage levels in the State has been significant. However, measuring its total contribution to the State's economy is challenging. This is because the activities taking place in the Bakken include companies involved that are the direct oil exploration company codes, industry codes, which are subsets of the mining industry and easily identified. But as well, subsets of related industries are involved. For instance, a portion of employment and wages from companies across all industries codes could possibly be associated with the Bakken play, especially those located in the northwest part of our state.

Industries with strong Bakken relationships that are not in the mining code which include such things as transportation, the movement of oil, water, sand and gravel, and other material and supplies, construction of roads, bridges, well pads, commercial and residential buildings, through many other industries, even utilities, the providing of infrastructure and power supply to the rig sites.

And then we can get into the next tier of service, which would include such things as lodging and eating establishments, and even public administration and support, the rise in support of the Bakken. With that being said, to get an idea of the Bakken impact, we will look at employment and wage levels geographically for just

those oil and gas producing counties to see how they have changed since pre- and post-Bakken, as well as the oil and gas company subset that I spoke of earlier. We will use 2004 as our benchmark period, and we will 2011 as our post-period. That is the most recent annual average we have available.

In looking at the total economy of the 17 oil and gas producing counties, total employment grew by almost 50 percent over that period compared to 18.2 percent for the State. Total covered wages or payroll in those counties increased by almost 180 percent over that period compared to 70 percent for the State. And annual average wages in those counties increased from slightly over $27,000 in 2004 to over $51,000 in 2011, almost an 88 percent increase, approximately double that of the State.

Looking specifically at oil and gas producing companies during the same time frame, in 2004 there were approximately 2,050 workers in oil and gas companies in the State under our industry codes. And that has increased to nearly 15,000 by 2011, about a 631 percent increase.

Total average covered wages for those types of companies also increased almost double over that period from about $50,000 a year in 2004 to over $90,000 a year in 2011. And that does include the influence of such things as overtime and bonuses, which are prevalent in the industry.

For the current condition and in terms of job openings, as alluded to earlier, our labor exchange system administered by Job Service North Dakota had 22,695 open and available positions, almost a 50 percent increase over the year. These jobs occur in all occupational groups, including those are a little more general and mainstream, such as those in healthcare and sales related, to those that are more Bakken-focused, such as those in construction, extraction, transportation, material. However, only about a third of the job openings in the State are in oil and gas-producing counties. The balance are in the rest of the State anchored by the 3 largest cities: Bismarck, Fargo, and Grand Forks.

As I see, I only have 10 seconds left. I would be happy to answer any questions. I thank you for this opportunity this morning to visit with you.

[Prepared statement of Mr. Ziesch follows:]

***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

Chairman Issa, Ranking Member Cummings, and members of the Committee on Oversight and Government Reform, thank you for the opportunity to testify on: A Blueprint for Domestic Energy Production, and North Dakota's contribution towards the Nation's energy independence.

I am Michael Ziesch, Manager of the Labor Market Information (LMI) Center of Job Service North Dakota (JSND). Ours is the state workforce agency that administers the unemployment insurance program, labor exchange systems connecting job seekers with openings posted by employers, and various workforce programs for North Dakota. Detailed information related to our agency and its mission, as well as links to job openings, and our LMI website can be accessed at www.jobsnd.com

As a subset of JSND, the Labor Market Information Center operates as the provider of choice for data related to North Dakota's labor market by policy makers, businesses, the public and media. Our staff collect, edit, compile, and disseminate employment, wage and labor force data under cooperative agreements with the Bureau of Labor Statistics. We also conduct special survey activities related to labor market and economic topics in North Dakota.

Background

North Dakota has experienced a long period of economic strength and employment opportunity. Activity has been led in recent years by agriculture and energy. But, the economic gains have also been more widespread throughout the industries of North Dakota. This gives evidence of a balanced economy in the state and is highlighted in several labor force statistics. For example:

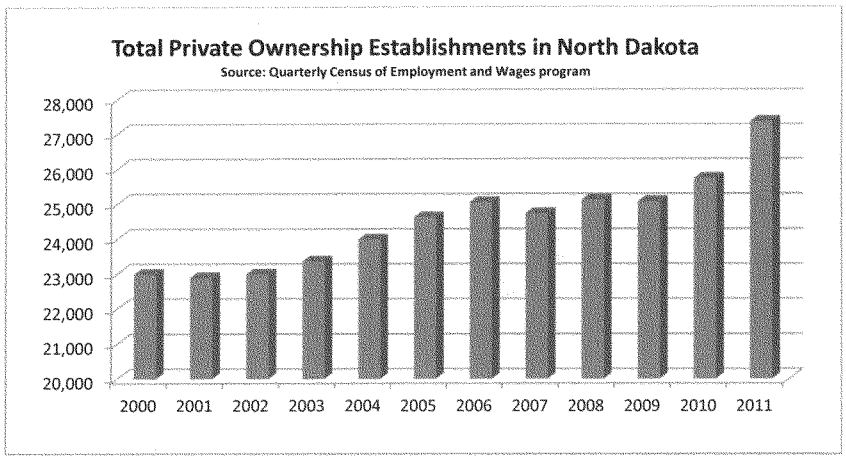
- In the month of May 2012 (the most recent period state data are available) North Dakota's not seasonally adjusted unemployment rate was 2.7%; compared to 7.9% nationally.
    - North Dakota has posted the lowest not seasonally adjusted unemployment rate in the nation since April 2009.

***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

- Not seasonally adjusted Nonfarm Employment year-over-year, for the month of May, showed an increase of 6.8%; compared to 1.4% for the nation.
    - All employment sectors showed increase, with the exception of Government.

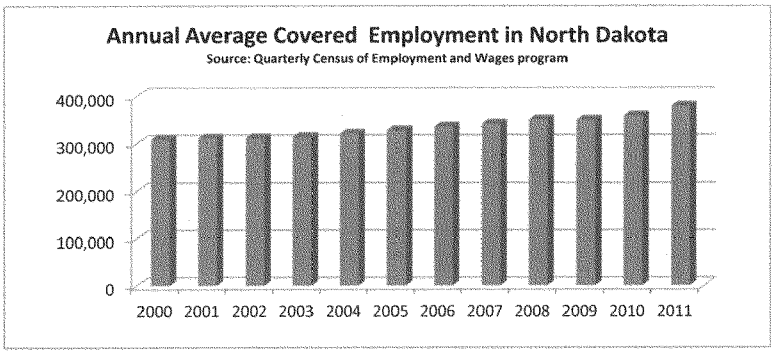
For a longer term perspective, comparing calendar year 2000 and 2011 annual averages, there has also been considerable growth in Covered Employment and Wage levels. Please consider:

- The number of employer worksites increased 4,374 (19.0%); from 22,994 to 27,368

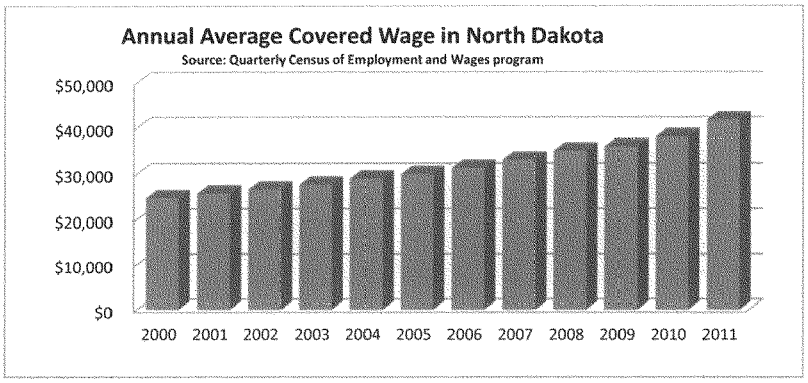


***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

- Covered employment grew by 70,210 (22.3%); from 309,223 to 379,433



- Annual average covered wages increased $17,095 (69.3%); from $24,683 to $41,778



As mentioned, energy development has been an important contributor to the State's strength. In North Dakota there are many components to energy production. A subset includes:

***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

- Oil & Gas
- Coal
- Biomass
- Geothermal
- Solar
- Hydroelectric
- Wind

On topic with this morning's Committee Hearing, oil & gas exploration and production activity in the Bakken Formation will be focused upon.

The impact of the Bakken Formation on employment and wage levels in the state has been significant. However, measuring its total contribution to the state's economy is challenging. This is because the activities taking place in the Bakken include companies involved in direct exploration and production industry codes (which are subsets of the mining industry and easily identified), as well subsets of related industries. For instance, a portion of employment and wages from companies across all industries codes could possibly be associated with the Bakken play, especially those located in the northwest portion of our state. Industries with strong Bakken relationships would include:

- Transportation
  - Oil, water, sand & gravel, other materials and supplies.
- Construction
  - Roads, bridges and well pads, commercial and residential buildings, specialty trade contractors.
- Wholesale trade
  - Equipment, supplies, and material.
- Professional and business services

***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

  - Engineering, surveying, and geology companies.
- Utilities
  - Providing infrastructure and supply.
- Manufacturing
  - Storage tanks and specialized equipment.
- Other services
  - Repair and maintenance of equipment.

With that being said, to get an idea of the Bakken's impact, we will look at employment and wage impact geographically (oil & gas producing counties), and by industry. We will look at the data pre-Bakken, using 2004 calendar year, with 2011 annual average being the most recent time period available. Comparing 2004 and 2011 annual averages in oil & gas producing counties versus North Dakota show:

- Total covered employment grew 48.3% in oil & gas producing counties; compared to 18.2% statewide.
  - From 67,911 to 100,717 in oil & gas counties.
  - From 321,108 to 379,433 statewide.
- Total covered wages (payroll) grew 178.6%; compared to 70.3% statewide.
- Annual average wages increased from $27,275 to $51,244 (87.9%)
  - This was nearly double the statewide percentage increase of 44.1% in the same period ($28,987 to $41,778).

More specifically, the impact of just the oil & gas exploration and production companies can be viewed over time. For instance:

***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

- In calendar year 2004 annual average covered employment, of exploration and production companies, was approximately 2,050; increasing to nearly 15,000 by 2011 (631.7%).
- Annual average covered wages nearly doubled from approximately $50,000 a year in 2004 to over $90,000 in 2011.
    - Annual average wages include the influence of such things as over-time pay and bonuses.

Current Condition

The current period job creation environment, which is a demand indicator for North Dakota, can be gauged by looking at labor exchange system data administered by JSND. For the most recent time period, (June 2012), there were 22,695 open and available positions posted with our agency. This was an increase of 8,321 (57.9%) from prior year.

The job openings, posted by employers in the state, were across all major occupational groups. They varied from those more general and statewide in nature such as:

- STEM (Science, Technology, Engineering and Math) related in:
    - Business and Financial Operations
    - Computer and Mathematical
    - Architectural and Engineering
    - Life, Physical and Social Science.
- Health Care Practitioner and Support
- Sales and Related
- Office and Administrative Support

To those more closely related to Bakken activity:

***** THIS TESTIMONY IS EMBARGOED UNTIL *****
***** July 14, 2012 at 9:00 A.M. *****

- Construction and Extraction
  - 1,915 in June 2012; up from 1,188 in 2011 (61.2%)
- Transportation and Material Moving
  - 2,298 in June 2012; up from 1,796 in 2011 (28.0%)

As mentioned, job opening activity in the state has been influenced by the strength of the Bakken. However, slightly less than 1/3 of the state's job openings are in the oil and gas producing counties of western North Dakota. The majority of open and available positions are in the balance of state, anchored by the three largest metro areas (Fargo, Bismarck and Grand Forks).

Current supply information is available by incorporating job seeker data from the labor exchange system. In June 2012 job seekers, posting resumes, numbered 15,099; down slightly from 15,835 in prior year. The data include both out-of-state job seekers, and North Dakotans, utilizing the system to find employment.

Future State

The Job Service LMI Center also produces industry and occupational projections for short-term (2 year) and long-term (10 year) periods.

We have recently completed a new set of projections for each time period. During the process we relied heavily on data from our state's Department of Mineral Resources regarding production activity forecasts.

The next set of short-term projections, which cover the 2011 to 2013 time period, will be available in August of this year. The current data covers the 2010 to 2012 time period, with percent change of employment expected to be 4.4%. Gains were projected to be widespread

among most industries and occupations, with the largest increases in those most closely related to the Bakken activity.

The new set of long-term employment projections will be available on July 20th 2012 and will cover the 2010 to 2020 time period. This puts us at the end of the 2008-2018 data set. During that timeline (2008-2018) employment was projected to have a percent change growth of 9.2% and occur across most industries. As with short-term projections, industry gains will be led by those associated strongly with the Bakken (Mining, Construction, and Transportation). Occupational growth is also expected to be widespread and led by jobs closely associated with Bakken activity (construction & extraction, and transportation and material moving positions).

Conclusion

North Dakota has enjoyed a long period of economic strength among businesses and employment opportunities for job seekers. It has benefited greatly by activity related to oil & gas exploration and production in the Bakken fields. But, it's employment and wage growth has also been balanced across other industry sectors and geographies in the state.

I thank you for this opportunity to present and would welcome any questions you may have.

Chairman ISSA. Thank you. I recognize myself for a round of questions.

Mr. Ziesch, you are the best witness, so I will go with you first. The best witness who somebody who answers questions and answers them quickly. Average in the field oil worker about $97,000. Is that a pretty good figure?

Mr. ZIESCH. It is.

Chairman ISSA. And that is so much higher than the average American salary. Is it fair to say that a rising tide helps all ships; that, in fact, people who make that kind of money, families who have one or more work are making nearly $100,000, that ripples into the grocery store, the restaurants, the addition put on the house, all the other things that add to a vibrant economy?

Mr. ZIESCH. Mr. Chairman, it does indeed cause wage compression. It does indeed reflect in competition for workers amongst other industries. And as I alluded to, in those oil- and gas-producing counties, that was totally economy effect. So indeed it does.

Chairman ISSA. So even when the growth ceases when you get to a level area, if your makeup of jobs includes jobs that pay $100,000 a year, in other words, high-paying jobs, the element of high-paying jobs is, in fact, where the success of an economy goes.

If you are at full employment, but the average wage is $35,000, I would presume you are not as well off as if you have more and more of those positions that pay the high dollars.

Mr. ZIESCH. Mr. Chairman, that is indeed correct. It becomes a function of discretionary income and ability to buy beyond subsistence.

Chairman ISSA. And when you mentioned the 29,000 job openings, what is 3 percent of your workforce, or 2.7 percent, Mr. Anderson. How many people would that be roughly?

Mr. ZIESCH. It is 23,000 open and available positions. Three percent of that——

Chairman ISSA. No, 3 percent unemployment means how many people in this State?

Mr. ZIESCH. The number of unemployed for the most current months was 10,611.

Chairman ISSA. Okay. So, Rick, you know, you were kind of sandbagging us. What you are really saying is you have negative 6 percent unemployment because you have about 9 percent of the force in job openings, while you have 3 percent in people who say they cannot find a job.

Mr. ZIESCH. Mr. Chairman, the labor force statistic only includes native North Dakotans. So we do benefit from the influence of commuters and out-of-state job seekers.

Chairman ISSA. Well, of course you would. You have got to import labor when you have got more job openings than you have people to fill them. You folks are really kind of—that 3 percent, you should go aw, shucks when you say.

[Laughter.]

Chairman ISSA. The truth is anybody that walks in that can meet the minimum requirement for a job, you are going to hire them in the State right now based on these openings without people to fill them. Is that not true? I am not trying to say that you have the easiest job in America.

[Laughter.]

Chairman ISSA. But it is looking pretty good.

Mr. ZIESCH. Mr. Chairman, you bring up an interesting side light to what happens here. I do interact almost on a daily basis with out-of-state job seekers. And one of the myths that we want to dispel or one of the messages that we want to instill, and I am sure Mr. Anderson would support me on this because his office has a lady that works specifically for this, is we work very hard with out-of-state job seekers to make sure that when they look for a position in North Dakota, that they do an honest assessment of their skills, knowledge, and abilities. Are they able to pass the drug test, pass a criminal background check?

We want them to come up here and be successful, but we hope that they utilize our services at seekjobsnd.com, and do their homework prior to coming up to maximize their chance for success.

Chairman ISSA. Okay. You have got a hard job. You have got to try to bring only good people in to fill these jobs.

Okay. Mr. Helms, you mentioned the small tracts of Federal lands. Just real quickly, when you go from, in the Bakken field, when you go from State land to private land—under the land, if you will—to Federal, is there any change in the hydrology, in the geology, in the water table? Does it change when there is a title change of that sort?

Mr. HELMS. Mr. Chairman, you are on track. Absolutely none. The geology is consistent that as you cross those boundaries of property ownership, the only thing that changes is the regulatory burden.

Chairman ISSA. So from a Federal need to produce all these additional red tape, all this additional—if you're laterally drilling and you happen to go from private land to State land and then to Federal land, since there is no change at all, there is absolutely no difference to the American people or the people of North Dakota in that. Where is the Federal need to have you change your standards? Let me rephrase that. You have an additional permit. I am assuming there is no need. no demonstrated need.

Mr. HELMS. Mr. Chairman, I would agree with you. We do not believe that there is any need for that Federal permit when you are just crossing into Federal lands from private or State lands.

Chairman ISSA. So now your pad, I would assume, almost always—and we have a second panel—but almost always selected not to be on Federal lands. So let us assume that the pad is not on Federal land, but laterally you are drilling under Federal land. Since you are going through or the companies are going through 6 months or more of paperwork and additional studies. At the end of the day, is there a material difference in the drilling? Do you see, as somebody who sees these permits, do you see a change?

Mr. HELMS. Mr. Chairman, there is no material change in environmental protection——

Chairman ISSA. Same drill bits? Same drill bits?

Mr. HELMS. Same drill, same permits.

Chairman ISSA. Same crews?

Mr. HELMS. Same crews. Same completion.

Chairman ISSA. So we are going through cost and a lot of paper studies, and at the end of the day 10,000 feet under the ground make no difference in the actual production.

Mr. HELMS. Mr. Chairman, that is correct.

Chairman ISSA. I will reserve the rest of mine for a second round, Mr. Anderson.

With that, Mr. Lankford.

Mr. LANKFORD. I was thinking along the same things on that. Mr. Ziesch, by the way, sitting behind me on the plane last night was a plumber who was on his way to North Dakota to come find a job. And so it was interesting to get a chance to interact with him a little bit on that.

Mr. Helms, I want to talk to you briefly about the diesel guidance that has just come out. There is a, as you mentioned, a little cornucopia of new regulations that are coming out ahead of the study. One of them deals with diesel. Can you dive a little bit more into that, because this should be an issue that is traditionally a State primacy issue for making decisions on that. What has changed or has anything changed on that?

Mr. HELMS. Representative Lankford, the diesel guidance that was proposed, and now the comment period has been extended into September, which we are grateful for, expands greatly the regulation under the Safe Drinking Water Act, and actually puts the Federal government oversight in a position of stepping over State primacy where it has been granted for 20 or 30 years in underground injection controls, and begins to require permitting and consideration of permitting schemes among States that have been granted primacy over that program.

Yet one of the problem is that it takes a long-standing and very successful program of regulating water disposal or waste disposal in the oil fields, and shoehorns an energy policy act 2005 allowance to regulate diesel in the Safe Drinking Water Act into that program, into the UIC class.

Mr. LANKFORD. Why was diesel put into that in 2005?

Mr. HELMS. I was in this position in 2005 when that occurred, and it was placed there because companies were hydraulically fracturing coal bed methane wells, using diesel fuel as the carrier fluid. And it was believed that that created some endangerment where those coal seams were being used as drinking water resources. That was logical and thoughtful and probably a good move.

What has happened with this guidance is to take any amount of anything that is defined in the guidance as diesel fuel as under the regulatory realm of UIC class 2 and shoehorn it into that regulation.

Mr. LANKFORD. So go back to 2005. Thousands of gallons of diesel fuel are used as the primary fluid that is going through to get fracked. Now shifting it to say if you put 6 ounces in 3 million gallons worth of water, anything that we could remotely call diesel, we are now going to impose all these new regulations. Is that where we are?

Mr. HELMS. Mr. Congressman, that is where we are.

Mr. LANKFORD. Solution wise, we have got to put some boundaries around EPA not only to get back to the intent of what the

2005 law intended to do rather than its huge overreach it is currently participating in.

What is an appropriate amount to balance out that? I think you mentioned a 10 percent level before. Is it a 50 percent level of diesel? Is it a 5 percent level? What would you recommend, or is it just a classification issue to make sure the classification of diesel is correct?

Mr. HELMS. Well, Mr. Congressman, I think it is sort of all of the above. I think if the Consumer Product Safety Commission has done all of the studies, which they have, to determine what is a safe level of petroleum products in consumer products under the sink without requiring any labeling or warning labels at 10 percent, then 10 percent is a pretty good rule of thumb to start with. That perhaps ought to be the starting point, and then allow comments one way or the other to adjust that slightly up or down.

But at the same time, States like Oklahoma and like North Dakota understand their local geology. And many of the States have adopted hydraulic fracturing regulation that requires certain wellbore construction techniques, testing, and chemical disclosure on the nationwide tract focused program.

If a State has taken those 3 steps, it should be explicitly exempted from this guidance. If it has not, perhaps Federal oversight is a good idea. But States understand their geology and ought to be explicitly exempt.

And then finally, I really think we need to wait for the EPA study, and we also need to base the definition of diesel fuel on science. It needs to be something we would recognize as diesel fuel. It does not need to be any synonym or possible future name that somebody might think looks or acts like diesel fuel. It needs to be science-based.

Mr. LANKFORD. I had some interesting interaction with some leadership on the water side of EPA because some of their definitions, I said if I had my diesel truck and I put this into the tank, will it run? And they said, yes, but it comes from the same origin. And I said, I understand, but it is not diesel by any means. So with that, I yield back.

Chairman ISSA. If the gentleman would yield for a second.

Mr. LANKFORD. Absolutely.

Chairman ISSA. Mr. Helms, I just want the record to be clear. What you are really saying is that if I have one sub element, some part that is found in diesel fuel, and I put 1 drop into a thousand gallons, 1 drop of something that is a component of diesel fuel, EPA wants to say that hook now allows us to call it diesel and regulate it. Is that basically what you are seeing in the proposed rule?

Mr. HELMS. That is what we see, Chairman Issa, in the proposed guidance as it is proposed. Any amount of anything that contains a component, like diesel fuel, and that is brought in under the synonyms, would then provide the hook for it to be regulated under the UIC class 2 program and permits be issued.

Chairman ISSA. But in order to get that hook, you could have an amount of benzene or something, that I could still drink the water you are injecting, and they would still say the hook got them in. Is that right? They are not talking about a concentration of something that is terrible. They are talking about something that may

already be diluted before it ever hits anywhere else. And they still want to regulate it. It is something I could drink from under my sink, and they want me to keep from doing it.

Mr. HELMS. Mr. Chairman, that is how we see this guidance in its current form.

Chairman ISSA. But I can take it out from underneath my sink, and I can pour it into my sink into the water supply, and it would be okay.

Mr. HELMS. That is correct.

Chairman ISSA. Oh, so it is okay to pour it into the water supply, but not okay to inject it 10,000 feet down.

Mr. HELMS. That is how this current guidance works.

Chairman ISSA. Mr. Farenthold?

Mr. FARENTHOLD. Thank you, Mr. Chairman. Actually, Mr. Chairman, I would like to follow up on something that the chairman was asking about, and it is about the additional permitting requirement once you have made it to Federal lands.

Let me make sure I understand this correctly. I could have a drilling platform, let us say, half a mile from government land. What is the typical depth of the Bakken well?

Mr. HELMS. About 10,000 feet.

Mr. FARENTHOLD. All right. So I am a half a mile away. I have drilled 10,000 feet—2 miles underground, and the way these horizontal wells work, you get 10,000 feet below, you hang a right, and you go out a mile. So you creep under some Federal lands 2 miles deep, and you have to jump through these hoops.

Mr. HELMS. That is correct, Congressman.

Mr. FARENTHOLD. There is nothing on the surface of the Federal land. There is nothing within 2 miles of the surface—well, half a mile in my scenario. There is nothing within a half a mile on the surface and 2 miles underground, is that correct?

Mr. HELMS. That is correct?

Mr. FARENTHOLD. And 2 miles underground, those two miles, it is just rocks.

Mr. HELMS. That is correct. Nothing changes at the end of that drill hole. Nothing changes.

Mr. FARENTHOLD. I just wanted to make sure we were clear on the absurdity, what I consider to be the absurdity of that.

Let me shift gears a little bit and talk to Mr. Anderson. You know, we have got some shale formations in Texas, the Eagle Ford in particular. And we are experiencing some real growing pains as a result of that. I have been curious how you all are dealing with the issues like housing for the variety of new residents, additional road wear on the roads, qualified an oil field, traffic. And how your cities are dealing with the increased truck traffic through the city center.

Mr. ANDERSON. And, Representative, thank you for that question. We have actually worked with several Texas representatives on sharing notes on those specific challenges because they are very similar in Texas and in North Dakota.

And let me—even though I may not be the best witness, I want to expand a little bit on it because western North Dakota was—you know, the roads in that is two-lane roads. They were agriculture. They were not set up for the heavy traffic and things like that. So

it is understandable where that infrastructure needs to be beefed up.

What our State legislatures did in the last session was they identified $1.2 billion set aside specifically for construction issues. Within that $1.2 billion, a significant amount is tied to highway, whether it is State, whether it is county, or whether it is township, to help out in that particular area.

Other programs, like the Housing Incentive Fund, which are tax credits that are given to developers to give low and affordable housing, has been established. And those are set up to—it is not the Federal government's designation of low income. It is a designation that the State has done itself because it is the folks on Main Street. While we are waiting for the wage inflation to hit others in all of those particular areas while that settles out. There are folks that are in ——

Mr. FARENTHOLD. And companies are very cooperative with you on this, or there is an adversarial relationship?

Mr. ANDERSON. Industry has been outstanding on it. Some members have gone as far as doing their own developments in talks. Many others, as in Marathon, has donated a significant amount of their tax revenues ——

Mr. FARENTHOLD. I am running out of time. I did want to ask Mr. Ziesch a quick question. With the high wages the oil companies are paying, is that driving wages in other sectors? I mean, are your folks in fast food restaurants doing better wage wise because they come to you, and you might come hire them away.

Mr. ZIESCH. Representative Farenthold, indeed the wages have spilled over into those leisure and hospitality type industries as well, and restaurants have had to pay considerably more shift differentials during the lunchtime hours, yeah.

Mr. FARENTHOLD. Would it be fair to say you all have full employment? Anybody who wants a job, willing to show up, can pass a drug test, and do the work is going to be able to get a job?

Mr. ZIESCH. Mr. Farenthold, Representative, certainly some employment is always frictional, but we are at full employment. I would say as much.

Mr. FARENTHOLD. Yeah, I would imagine that, you know, the 2 percents are people who are between jobs because they quit because they did not like it or they got fired for something else. I mean, that figure looks pretty close to full employment.

Mr. ZIESCH. Representative Farenthold, you are exactly correct. Some of it is frictional. Some of it seasonal. Very little would be structural.

Mr. FARENTHOLD. Thank you.

Chairman ISSA. The gentleman from North Dakota, Mr. Berg.

Mr. BERG. Thank you, Mr. Chairman. I really appreciate the panel discussion. I want to just briefly talk about the regulatory partners. In North Dakota, there is a unique difference between how Washington and North Dakota operate. In North Dakota, we have an administrative rules committee, and so when the legislature passes a bill having to do with the energy industry, whatever department is closest to that will write the rules. And before those rules are put out in the public or enforceable, they go through a

bipartisan committee, House and Senate, Republican and Democrat, called administrative rules.

And once in a while we will have rules that come down that really do not make any common sense. And typically, everyone is aware of that before it even gets to the committee. Everyone comes to the table, they talk it out, and they figure out a better way of applying that regulation to get the right outcome in a common sense manner.

And in Washington, we passed a bill called the REINS Act that was similar in the fact that if there was a major rule before it would be imposed, it would go through for an up or down vote in the House and Senate.

I guess I would just like, Mr. Helms, for you to address the checks and balances in our regulatory process here that really end up with common sense regulations and stability.

Mr. HELMS. Well, Representative Berg, thank you for the opportunity. I touched on that a little bit in my testimony, but we have a continuous improvement cycle, as I stated, in our rulemaking within the oil and gas division. Not every agency does that, but we do because technology and economics change so rapidly in this industry.

What makes it work in North Dakota partially is the fact that our Administrative Practices Act requires every comment to be addressed in writing. And so they can be lumped. I mean, if we get a thousand comments from citizens that are very, very similar, we can sort of summarize that. But it has to be addressed in writing as to how we are going to deal with that in the rulemaking.

That addressment in writing has to go the State's attorney general, first of all, to make sure that we follow the proper legal practice in making that rule. And then it does have to be presented to the administrative rules committee, which is bipartisan, and can look at that and say, I do not believe you have really addressed these comments coming from industry or from the general public. We need to remand this back to you for some reconsideration, some changes, and bring it back to us in the future.

That is what keeps the practice common sense. That is what keeps it very stable and creates this regulatory environment where everybody knows what the rules are and how they are going to be imposed upon industry or the public. And it provides that stability that this industry needs to be making the kind of investments we are talking about.

If you are going to put $10 million on the table to drill a Bakken well, you need to know what the rules are going to be 120 days from now when it goes on production in order to make that kind of investment. And it drives investment when you have that kind of common sense.

Mr. BERG. Thank you. You know, the example was used about a drop in a thousand barrels compared to 20 percent petroleum under the sink. I mean, that is the uncertainty that is created in this industry when there is not that consistent rulemaking. So whenever you can have your elected officials can have a final veto on the rulemaking, I think that is real positive.

Mr. HELMS. It is beneficial. And—continue.

Mr. BERG. Well, I just wanted to make two summary points and then yield back. The first point I think that has been made is when you have wages of $87,000, that does not mean that that is the only wage of $87,000. That means that every wage all the way down is being driven up. And I think, you know, we have heard stories of the McDonald's and Dairy Queen with $500 bonuses and $15 to $17 an hour. I mean, that is really what we are seeing happening. It is really pulling across the whole State.

The other point that I wanted to make, and, Mr. Helms, you pointed this out to me before that I thought was real good, that there are easements, old easements that the government has that might be for a road, or a pipeline, or something. And so that easement would go all the way down to the center of the earth.

And so part of when we are doing these permittings, some of these Federal lands are because of that, you know, narrow, but really going all the way down, creates a challenge.

Mr. HELMS. Absolutely. We have got a couple of situations where we have a 1,280-acre Bakken spacing unit. Then the horizontal wellbore is going to be 2 miles long. It needs to cross a hundred feet of Federal easement, and that triggers going from an 18-day State permit to a 6-month Federal permit. All the archaeology studies on the private land, all of those things that come in with a Federal permit. That is not common sense regulation.

Mr. BERG. I yield back.

Chairman ISSA. Thank you. And we are going to do just a one-minute second round. So let me understand this. Has the Federal government at the end of 6 months of cost and paperwork ever said no?

Mr. HELMS. Mr. Chairman, I think at the end of that 6 months, they have said maybe, but I do not recall them ever saying no.

Chairman ISSA. Okay. And just to ask the question one more time. The EPA wants to regulate something I can drink if it put it 10,000 feet under the ground.

Mr. HELMS. I think that is an accurate description.

Chairman ISSA. Certainly I pour it into the water supply.

Mr. HELMS. Yep.

Chairman ISSA. Okay. Last but not least, Mr. Berg is with us, and of course he was a leader in the legislature before he came to Congress. Which, in each of your opinions, has more to do with the current economy here in North Dakota? His effort and the efforts of the State legislature and the governor, or President Obama's current strategy for energy production, including obviously Keystone pipe and so on. If you could just briefly say which one do you think wins that.

[Laughter.]

Mr. HELMS. Without a doubt, our local leadership has set the stage because that was set 10 years ago on our vision, so there is no doubt——

Chairman ISSA. So the State is where it is because of the State, not because of what we in Washington have done for you.

Mr. HELMS. Mr. Chairman, I think that is accurate. If you look at oil production in the United States, it is up in general, but it is down on federal lands. And it is because of the actions of the

State over a long period of time to create this stable environment that the investment has occurred.

Chairman ISSA. Does anyone else have a quick follow-up? Mr. Lankford.

Mr. LANKFORD. I do. I have a quick one, thank you. This is for Mr. Anderson. You made an offhand comment—and it might not have been offhand at all. But you mentioned that there are 3 more refineries considering coming to North Dakota. Can you tell me a little bit about the timing, the when issues of that, and what are the issues—are you talking about expanding existing refineries or entirely new and starting ones in an area that previously did not have a refinery.

Mr. ANDERSON. Thank you, Representative. These would be 3 brand new ones. And that is why there is always some skepticism when it comes to that, but they are at different stages. The why is because——

Mr. LANKFORD. Why the skepticism of 3 new refineries? What would hold them back from being in an area like this?

Mr. ANDERSON. We, as the U.S., has not built a refinery since 1976, so with all of the regulatory hurdles and challenges, as well as the marginal economic environment from their standpoint over a long period of time, that uncertainty associated with the regulations makes it very difficult for people to invest in.

Mr. LANKFORD. So you are saying we could have 3 more refineries here if it were not for the Federal government. Now those refineries exist somewhere in the world, so the oil will be refined. So the issue really is we could have three more refineries here, all the construction, all the billions in investment, all the jobs, everything else here, if it was not for the Federal government prohibiting it basically.

Mr. ANDERSON. That is definitely a factor in the decision to invest that much capital.

Mr. LANKFORD. Does anyone have a set of ideas that you have seen on how we get past that, identifying what the regulations are? I mean, Rick Berg is working on it as hard he can, I know. But does anyone have ideas on some of these things to say how do we solve this?

Mr. ANDERSON. And the best way I could answer that, and it probably is not very effective, is that having an understanding what the regulatory environment would be at five years, 10 years, 15 years down the road, if you had an energy policy that was clearer on that would encourage investment.

Mr. LANKFORD. So you are talking about current regulations, plus the uncertainty of the future.

Mr. ANDERSON. Absolutely.

Mr. LANKFORD. Okay. With that, I yield back. Thank you.

Chairman ISSA. Thank you.

Mr. FARENTHOLD. Yeah, I just want to follow up with that, Mr. Anderson. In this period since the 70s when there has been no new refinery built in the United States, that is not because the demand for the product—the refinery was built elsewhere. Is that not correct?

Mr. ANDERSON. Yes, sir.

Mr. FARENTHOLD. Okay. Thank you.

Chairman ISSA. Okay. I want to thank our panel. You have been very good. And, Mr. Anderson, you did not need to be quite as scared that we were going to hurt you if you went long. We have gotten done within our timeline. We thank you, and we will now take a quick recess and set up for the next panel.

[Recess.]

Chairman ISSA. The committee will reconvene.

We now recognize our second panel: Mr. Jack Ekstrom is Vice President of Corporate and Government Relations at Whiting Petroleum Corporation. Mr. Jack Stark is Senior Vice President of Exploration at Continental Resources. Mr. Kevin Hatfield is Senior Director of Gathering Systems at Enbridge, Inc. And Mr. Tad True is Vice President of Bridger Pipeline, LLC.

As you saw in the first panel, all witnesses on this committee must be sworn. Would you please rise and raise your right hands to take the oath?

[Witnesses sworn.]

Chairman ISSA. Let the record reflect all witnesses answered in the affirmative.

You have also seen our stoplights. I give a B plus to our first panel. They were pretty good. See if you folks can get an A.

Mr. Ekstrom.

STATEMENT OF JACK EKSTROM

Mr. EKSTROM. Mr. Chairman and members of the committee, good morning. I am Jack Ekstrom, vice president of Whiting Petroleum Corporation, a Denver-based New York Stock Exchange trading exploration of production company. Whiting was founded in 1980 and became a publicly-traded company in 2003, and through acquisitions doubled the size of the firm in 2004, and again in 2005. Among those were properties in North Dakota that provided Whiting with a toehold that has allowed us to become the number 3 oil producer in this State.

How does this translate into jobs? When Whiting went public in 2003, we had 110 employees. As of July 1st, 2012, Whiting employed 776 individuals, and we have over 150 open positions in North Dakota. Currently, we have 21 drilling rigs operating in the State and in Montana drilling in the Bakken field.

The drilling rig employs approximately 25 individuals, the frack crew employs approximately 65, and we employ two full-time frack crews. There are approximately 40 vendors involved in the drilling of each well. If each vendor had only one employee, that would be another 40 jobs. Add it all up and it approached 100 indirect jobs created by our activity alone.

These people need housing, food, daycare, schools, and churches. So the impact of our efforts on the economy is far reaching. Our saying is if you drill a hole, money and jobs come out.

Whiting, like the vast majority of our peers, strives to be a good steward of our assets for our shareholders, for the State and governmental areas where we operate, and for the mineral interest owners who have allowed us to develop their resource. We are good stewards of the environment to preserve the environmental resource for future generations.

I have provided a Whiting map partially in your packet there of some of our operations in North Dakota. It provides graphic evidence of how our operational focus and many other operators is on private- and State-owned lands. On this map, the green shaded acreage is federally owned. You will note that in comparison to private- and State-owned acreage, there is little drilling, but the Federal acreage is clearly within areas known to be productive. Well, why is that? Because the process on Federal lands is so bureaucratic and time consuming that companies avoid Federal acreage if at all possible.

Obtaining permits from the State of North Dakota is a reasonable process. The one area we are having difficulty is in Stark County where there is Federal surface and mineral ownership near Teddy Roosevelt National Park. And by the way, the park is off limits.

The average time to receive an approved drilling permit for us on this acreage is 298 days. On average, we receive an approved drilling permit from the North Dakota Industrial Commission in just a matter of days. That is why oil production on private lands was up 14 percent last year, was down 11 percent on Federal lands.

If the Bakken were largely on Federal lands, operators would be tied up somewhere in the Federal process. Production would be considerably lowered, and North Dakota would not be enjoying a 2.7 percent unemployment with a billion dollar budget surplus.

The Federal government owns millions of acres prospected for oil and gas across the Intermountain West. The unmistakable conclusion is that the prosperity, the jobs, the harvesting of domestic resources from unconventional oil and gas ways, enhanced recovery projects, and technology breakthroughs to come can only be realized by mandating the Department of the Interior plan to encourage development, provide leasing certainty, and streamline oil and gas permitting.

In addition, Interior is seeking to regulate well completion operations, as we have discussed earlier. These would directly overlay and duplicate individual State regulations that now apply on Federal lands. The Department has neither the staff nor the technical expertise to regulate such activities.

The cost of the proposed rule for western States as calculated by John Donovan Associates for the Western Energy Alliance is about $1.6 billion annually. The copy of the Donovan report is attached for your reference.

It must be noted that individual States have effectively regulated such operations for decades. Of the 1 million plus wells hydraulically fractured since the 1950s, not a single case of contaminated drinking water has been documented. The North Dakota template should and could be the model for western State with prospective oil and gas resources under Federal lands designated for multiple use.

Recent regulation in partnership with resource developers works well here. Thank you very much for the opportunity to present our views.

[Prepared statement of Mr. Ekstrom follows:]

Mr. Chairman Issa, and members of the committee. Good morning. I am Jack Ekstrom, Vice President of Whiting Petroleum Corporation, a Denver-based, New York Stock Exchange traded Exploration and Production Company. Whiting was founded in 1980 and has endured the ups and downs of the E&P business since then. Whiting became a publicly traded company in 2003 and through acquisitions doubled the size of the firm in 2004 and again in 2005. Those acquisitions provided three assets that today comprise approximately 95% of our 345 million barrels of oil equivalent (BOE) reserves. Those assets are the Postle Field, located in Texas County, Oklahoma; the North Ward Estes Field located in Ward and Winkler Counties, Texas; and several properties in the Williston Basin of North Dakota that provided Whiting with the toe hold that has allowed us to become the number three oil producer in that state.

What sets Whiting apart from many of our peers is we are an oil company. Based on either production or reserves we are approximately 85% oil. In January of 2012 our net production was just over 76,000 BOE per day. What has enabled Whiting to grow production from 33,100 BOE per day in 2005 to over 76,000 BOE per day in 2012 is technology. Drilling horizontal Bakken wells in North Dakota is not a new concept. In the late 1980's and early 90's several operators were drilling horizontal wells in the Bakken. However it was taking them XXX days and they were relying totally on Mother Nature to provide the fracturing. Sometimes she provided it, sometimes she did not. That activity was followed by a round of drilling in 2000 through 2005 in the Elm Coulee Field in Richland County, Montana. In this round of drilling, horizontal wells were drilled not in the Bakken Shale, but in a dolomitic section in what was identified the Middle Bakken. These 4000 to 7000 foot laterals were fracture stimulated with one big frac job. This effort was very successful and was responsible for the big production increase that occurred in Montana during the early part of this century.

Whiting did not have a very material lease position in the Bakken in Montana, so we tasked our technical staff to look other places in the Williston Basin and in other basins where we might repeat what had occurred in the Elm Coulee field. We had learned that we probably did not want to drill in the shale, we needed a poor grade reservoir rock to provide the conduit for the oil to get from the shale to the horizontal wellbore. Staff identified an area on the Eastern side of the Williston Basin in a very lightly drilled area in Mountrail County, North Dakota. Whiting leased around 100,000 acres and drilled several wells utilizing the same technology that had been employed in Montana and the results were not very encouraging. Other operators were also attempting to get the Bakken to produce in North Dakota and they were also having mixed results. In August of 2007 Whiting drilled a well named the Locken 11-22H. This well was drilled across two sections, two square miles, with a lateral length of approximately 10,000 feet. A new Frac Point technology being developed by Baker Hughes was utilized where we ran 10 swell packers on the outside of the 4-1/2" diameter pipe that was installed in the horizontal portion of the well. When swell

packers come in contact with hydrocarbons, they adsorb the hydrocarbon, swell, and create a seal between the pipe and the rock walls of the borehole. This segregates the horizontal wellbore into 10 separate sections. In between each set of swell packers is a sliding sleeve that is opened by dropping successively larger ceramic balls to activate the sleeves. This allows the horizontal wellbore to be hydraulically fracture stimulated 10 times, rather than just a single time as earlier technology allowed. This technology was a game changer. The Locken had an initial production rate over 1600 BOE per day.

Today, in the Bakken, Whiting drills down 10,000' vertically, close to two miles, turns and drills a 6-1/4" diameter hole horizontally for another two miles. We run 4-1/2" pipe in the well. Sliding sleeve technology has advanced and now allows us to run up to 40 sliding sleeves and swell packers on the outside of the pipe. The drilling rig is moved off, production facilities are constructed, frac tanks are moved on location and filled with up to 50,000 barrels (2.1 million gallons) of water. A pressure pumping company is moved on location and the wells are frac'd with up to 2 million pounds of sand in 40+/- individual frac stages. This entire fracture stimulation treatment is completed in around 24 hours. The pressure pumping company is moved off location and the well is placed on production.

Our goal is to have zero gas emissions from the well during flowback. The associated gas produced with the Bakken oil must be processed before it can be sold. The gas has a high BTU content in its native state. Whiting has constructed two gas plants in North Dakota; one in Mountrail County and a second in Stark County to process this gas. Liquids are removed from the gas and we sell the residue into the local market. We are processing as much gas from other operator's wells as we are from the wells Whiting has drilled. We have built two oil gathering systems and we are transporting as much of the produced oil as possible from the basin via pipeline.

If the frac job is performed in Sanish Field, a micro-seismic survey of the frac is recorded to determine what portion of the reservoir was frac'd. In March of 2010 Whiting completed the installation of 298 permanent seismic monitors across the Sanish field. This installation allows us to record data and map the fracture stimulations to determine the rock volume contacted with the frac job.

Much of what I have discussed would not have been possible even five years ago. Unconventional resource plays and technology have impacted every facet of our business from consummating the lease to reporting production. Because of the size of the resource plays we have gone from leasing portions of townships to leasing counties. To assist with this effort we have digitized lease records for entire counties. We routinely drill a 20,000' horizontal well in 15 to 20 days. We utilize technology to send information being recorded at the bit to the surface in real time. The engineers and geologists in Denver can access this information at their desk. Sliding sleeve technology has continued to advance. Whiting was the first company to pump a 24 and 40 stage frac utilizing sliding sleeves.

We have a rock lab located in our Denver office where we have two scanning electron microscopes (SEM) to help us understand how oil is produced from these unconventional reservoirs. The resolution with these microscopes is about a nanometer, about the size of a methane molecule. The Helios Nanolab 650 SEM allows us to create a 3D visualization of a cube of the reservoir rock. With this 3D visualization we can examine the size and shape of the pore throats in the rock. What we have learned is although natural gas will flow through a shale, i.e. the Barnett, oil molecules are too large to fit through the pore throats. We need to find a pseudo-reservoir located in proximity to the shale to allow oil to be produced. Our goal is to transfer what we have learned in North Dakota to other basins. We are actively working in the DJ Basin in Colorado and the Delaware Basin in West Texas. In each of these areas our results are encouraging. We believe there is potential to utilize what we know in several other prospects located in other basins in the Lower 48 states.

How does this translate into jobs? When Whiting went public in 2003 we had 110 employees. As of July 1, 2012 Whiting employed 766 individuals. In Whiting we currently have over 200 open positions. Currently we have 24 drilling rigs operating in North Dakota and Montana drilling in the Bakken play. A drilling rig employs approximately 25 individuals. A frac crew employs approximately 65 individuals and we have two full time frac crews employed. There are approximately 40 vendors involved in the drilling of a well. If each vendor had one employee, that would be another 40 jobs. Add it all up and it approaches 700 indirect jobs created by our activity. These people need a place to live, they need food, and schools and Wal-marts. The impact of our efforts on the economy is far reaching.

We are fortunate that the Bakken exists in North Dakota and Montana. Much of the surface and mineral ownership in North Dakota is by individuals with a minor ownership by the federal and state governments. Obtaining permits in North Dakota is a reasonable process. The one area we are having difficulty is in Stark County, North Dakota near Theodore Roosevelt National Park where there is federal surface and mineral ownership (the park is off limits). The average time to receive an approved federal drilling permit is 298 days. On average we receive an approved drilling permit from the North Dakota Industrial Commission in less than 40 days. Many in government are not aware that a federal drilling permit is required even when the federal government owns none of the surface and a minute fractional interest in the subsurface minerals.

A topic getting a fair share of attention these days is the price of gasoline at the pump. Oil companies get lumped together and get blamed for the price of gas. In this regard, Whiting is similar to the farmer, we are price takers. We try to protect our cash flow utilizing hedges and the commodity markets but we have little influence on the overall price. To impose legislation that would make it more expensive to produce oil would make no sense. Along those lines, the Keystone XL pipeline was (or will be) scheduled to transport around 200,000 barrels per day of North Dakota production to

refining markets. This would be most beneficial and help alleviate the high price differentials that have been experienced in North Dakota. This would improve the net backs and increase the royalties paid to the Federal Government, the State of North Dakota and the private mineral interest owner.

Whiting, like the vast majority of our peers, strives to be a good steward of our assets for our shareholders, for the state and governmental areas where we operate, and for the mineral interest owners who have allowed us to develop their resource. We strive to be good stewards of the environment to preserve the environmental resource for future generations.

I am providing a Whiting map of operations in North Dakota to the committee. It provides graphic evidence of how our operational focus, and many other operators, is on private and state-owned lands. On this map the green shaded acreage is federally owned. You will note that in comparison to private and state-owned acreage, there is little drilling, though the federal acreage is clearly within the areas known to be productive. Why? Because the process on federal lands is so bureaucratic and time-consuming, that companies avoid federal acreage if at all possible. That is why while oil production on private lands increased 14% last year, it was down 11% on federal lands. If the Bakken were largely on federal lands, most producers would be tied up somewhere in the federal process, production would be considerably lower, and North Dakota would not be enjoying 3% unemployment and a billion-plus dollar budget surplus.

This is not only the case in North Dakota. The federal government owns millions of acres prospective for oil and gas across the Inter-Mountain West. The unmistakable conclusion is that the prosperity, the jobs, the harvest of domestic resources – from unconventional oil and gas plays, enhanced recovery projects and technology breakthroughs to come – can only be realized to their potential by mandating that the Department of the Interior: produce a specific plan to encourage development; provide leasing certainty and streamline oil and gas permitting.

Interior has not executed any of the above, to the detriment of the Federal Treasury. Instead it is pursuing additional regulation and regulatory burdens that would further hamper oil and gas development on federal lands. While permits now take 10 times the mandated time span to be issued, Interior is seeking to regulate well completion operations despite the fact that federal regulation would directly overlay and duplicate regulation already required on federal lands. The department has neither the staff nor the technical expertise to regulate such activities. The cost of the proposed rule for 13 western states, as calculated by John Dunham and Associates for Western Energy Alliance, is $1.6 billion annually. A copy of the Dunham report is attached for the committee's reference.

It must be noted, that individual states have effectively regulated such operations for decades, including on federal lands. Of the one million plus wells hydraulically fractured since the 1950s, not a single case of contaminated drinking water has been documented. And, I would point out to the committee that the current Secretary of Interior regulated hydraulic fracturing when he was Director of Colorado Department of Natural Resources. He did not see any requirement for federal oversight at that time, approving hundreds of permits to drill and approve attendant hydraulic fracturing operations. He was quoted last month, however, as saying, "State regulation is not good enough for me." This declared position has been assumed despite dramatic technological advances since his tenure at the Colorado DNR.

The spectre of additional federal regulatory burden, coupled with the department's disingenuous and deceptive statements over many months relating to so-called "unused" leases, have led many operators including Whiting, to make federal acreage the last choice for development. Our strategy is to lease private lands and state lands, while avoiding federal lands and related costs and delays if at all possible.

The direct result is declining federal leasing and federal revenues, missed opportunities to reduce federal balance of payments deficits, and above all good paying jobs that could employ hundreds of thousands across the West are not being developed. The North Dakota template could and should be the model for Western States with prospective oil and gas resources under federal lands. Reasoned regulation and partnership with resource developers works well. These are not lands with National Parks, wilderness, monuments or other special designations – these are lands designated for multiple use. Unfortunately one of their most valuable uses is being unnecessarily constricted by regulatory zealotry in the leadership of the Department of Interior.

Thank you for the opportunity to present our views.

MEMORANDUM

TO:	Kathleen Sgamma, VP of Government & Public Affairs, Western Energy Alliance
FROM:	John Dunham, Managing Partner
DATE:	June 11, 2012
RE:	Business Impact of Proposed Changes to Well Completion Regulations

As per your request, we have examined the impact of a proposal that would require that companies drilling new wells for the extraction of petroleum products submit a plan outlining the details of well completion operations for approval prior to performing them. The proposed regulation is being promulgated by the US Department of Interior's Bureau of Land Management (BLM) and as currently written would apply only to federal wells on or impacting Federal and Indian lands, or split estate lands. However, this definition is remarkably broad and could potentially be applied to companies drilling on private lands in the western states.[1]

In fact, assuming a best case scenario, where the BLM approves 100 percent of all applications and assuming capital costs of only 7 percent, these regulations – if applied to all projects in the western states – would cost at least $1.226 billion annually based on the carrying costs of the project. Based on the discounted lost value of petroleum output, the proposed regulations would cost about $1.342 billion annually. Averaging these two methods together suggests that a reasonable estimate for the cost of this proposed rule as applied to drilling in the western states is just over $1.284 billion. The average cost per well is estimated at $253,800. This figure does not even include the cost of the regulations for existing wells than will require re-work or re-stimulation. A conservative estimate of this cost is upwards of $233,100 per well or about $273 million per year. **Total aggregate annual costs for new permits and workovers would be at least $1.499 billion and as high as $1.615 billion.**

Proposed Regulation and Background:

The US Department of the Interior, Bureau of Land Management (BLM) recently proposed amendments to current regulations (43 CFR 3160.0-3) that would require significantly more permitting and operational expenses for companies drilling and completing oil and gas wells on federal lands.[2] While BLM claims that the amendments would not constitute a major change in existing regulations, the new rules would add a large number of new requirements for companies exploring for, and producing, oil and natural gas on federal and Indian lands. This rule change would among other things require operators to:

- Provide additional information and meet new requirements for all well stimulation (completion) activity when applying for a permit to drill (APD). A similar application would need to be filed prior to performing additional stimulation on an existing well. The BLM would have to review and verify the additional completions requirements when approving these permits.
- Submit additional cement bond logs for review and approval prior to completing the well.

1 For the purpose of this analysis the western states include: Arizona, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming

2 Bureau of Land Management proposed rule RIN 1004-AE26: Oil and Gas; Well Stimulation, Including Hydraulic Fracturing, on Federal and Indian Lands

- Report the specific source of water used in well completion operations.
- Submit a detailed engineering design and other information related to well stimulation operations to the BLM for approval.
- Submit detailed information related to how they will handle or treat all recovered fluids from well stimulation activities.
- Perform a successful mechanical integrity test prior to commencing any well completion activities.
- Store detail to the agency how recovered fluids are disposed of.

While many of the requirements are simply clarifications or minor additions to the existing permitting process, other components may add significantly to the cost of drilling and completing an oil or gas well. Obviously there will be additional costs to both operators and to the government simply due to the increase in the administrative burden contemplated by these rules. The potential for delay resulting not from any direct operational activity, but rather from waiting for permits and paperwork to be processed, could lead to significant financial costs for both operators and investors.[3] While any additional costs would reduce drilling activity (since marginal wells would no longer be financially practical to develop), were these costs to be high enough they could preclude companies from developing any additional resources on BLM-controlled or impacted land. This is particularly true for wells requiring some sort of workover or retreatment in order to continue to maximize their output. Since the new regulations will also apply to these wells, operators maintaining many of the current 90,452 producible and service drill holes on Federal leases will also experience greatly increased costs over time.[4]

Currently, once a company has obtained a lease for mineral extraction on Federal lands, and once it has completed a lengthy environmental analysis under the National Environmental Policy Act (NEPA) process, it must apply for a permit to actually begin drilling. The Energy Policy Act of 2005 specifies that BLM must approve Applications for Permit to Drill (APD) within thirty days, yet according to Bob Abby, the Director of the Bureau of Land Management, the average permit time is 298 days, [5] and depending on the field office, it is not that uncommon for APDs to take years.[6] In addition, data on the number of actual permits outstanding is not generally available in a timely fashion from BLM, making it difficult to estimate the actual amount of time needed to currently process a permit; however, the agency expects to process 5,500 APDs in fiscal year 2012 under the existing regulatory structure.[7]

Estimated Number of Wells Impacted by the Proposed Regulation:

---

3 BLM already takes about 10 months to approve an APD and there is a substantial backlog.

4 See: US Bureau of Land Management, *Well Stimulation Proposed Rule: Economic Analysis and Initial Regulatory Flexibility Analysis*, at: www.regulations.gov/#!documentDetail;D=BLM-2012-0001-0003.

5 Cappiello, Dina, *New process to expedite drilling on public lands*, Associated Press, April 3, 2012. On-line at: www.newsvine.mobi/_news/2012/04/03/11002223-new-process-to-expedite-drilling-on-public-lands

6 Sgamma, Kathleen, Vice President of Government & Public Affairs, Western Energy Alliance, *Testimony Before the House Natural Resources Committee Subcommittee on Energy and Mineral Resources Legislative Hearing on H.R. 4381, H.R. 4382 and H.R. 4383*, April 26, 2012.

7 *Secretary Salazar Visits North Dakota's Oil Boom; Unveils Initiatives to Accelerate Drilling Permits and Leases on Federal Lands*, US Department of Interior, Bureau of Land Management, Press Release, April 3, 2012, available at: www.blm.gov/wo/st/en/info/newsroom/2012/april/nr_04_03_2012.html

The Bureau of Land Management does not release detailed statistics on pending permits, however, a good estimate of the number of wells impacted by this proposed rule can be developed based on state permitting information. This analysis examines the impact of the proposed rule in 13 Western states.[8] Based on data from state regulatory authorities, there are approximately 12,300 oil wells, and 14,100 gas wells currently in the process of receiving a permit, or permitted but not yet drilled. Only some of these wells are on Federal or Indian lands, so not all would be required to go through the extra permitting process. In addition, at the present price for oil and natural gas, not all of the wells are economically viable. In fact, in many areas natural gas wells in particular are being capped because the actual cost of production exceeds the price of gas.

This analysis examines these wells as individual units at the state level. It estimates the number on federal permit lands based on a linear estimate of the number of permits issued over the past 24 years. In addition, the analysis assumes that no wells will be drilled in states where the average profits from either oil or gas plays are less than zero. Based on these limiting assumptions, the proposed regulation would impact about 1,800 currently proposed oil wells, and about 3,250 gas wells. Table 1 below outlines the number of wells currently waiting for permits or for drilling to commence by state, along with an estimate of impacted wells.

Table 1
Estimated Oil and Gas Wells Waiting to Be Permitted or Drilled

	Estimated Total			Estimated Impacted		
State	Oil Wells	Gas Wells	Total Wells	Oil Wells	Gas Wells	Total Wells
Arizona	3	1	4	-	-	-
Colorado	3,187	5,718	8,905	212	380	592
Idaho	-	5	5	-	-	-
Montana	398	240	638	63	-	63
Nebraska	106	11	117	-	-	-
Nevada	14	14	27	-	-	-
New Mexico	4,519	2,564	7,083	700	-	700
North Dakota	1,993	6	1,999	99	-	99
Oregon	-	6	6	-	-	-
South Dakota	22	2	24	1	-	1
Utah	1,392	2,098	3,490	252	380	632
Washington	-	3	3	-	-	-
Wyoming	685	3,461	4,146	491	2,480	2,971
Total	12,318	14,129	26,447	1,818	3,240	5,058

This of course represents only one moment in time. Were natural gas prices to rise above their current low levels, the resulting number of wells that could be impacted would increase substantially. In addition, were the Federal government to open more areas for oil and gas

[8] Arizona, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

exploration and leasing the number could also increase well beyond what is currently considered in this analysis. In fact, according to a report by the Congressional Research Service oil production on federal on-shore leaseholds was down slightly between 2007 and 2011.[9]

According to the BLM in its cursory examination of the benefits and costs of these proposed regulations, approximately 3,100 wells would be impacted each year. This analysis examines only the current impact of the proposed rules – in that they will impact 5,058 existing permits. No assumptions are made as to future permits on either existing or future leases or costs incurred on existing wells that may need future stimulation or acidization. Recent research conducted for the American Petroleum Institute suggests that about 93 percent of gas wells are completed with hydraulic fracture, and of these about 1.6 percent require some sort of work-over in a given year.[10] Based on these figures, and the number of wells on Federal leases, it is estimated that as many as 1,346 wells per year will need some sort of rework that falls under these regulations

Model Data and Assumptions:

This model was developed for the Western Energy Alliance by John Dunham and Associates (JDA), a New York City based economic consulting firm. It is based on a wide range of data sources and assumptions, each of which impacts the final results. JDA has strived to ensure that the assumptions are as cautious as possible leading to what is likely a low estimate of the overall cost of the proposed rule. Each of these assumptions, along with the data used in the development of the models in detailed below:

Average Drilling Costs are estimated based on data derived from the US Department of Commerce, Bureau of Economic Analysis, by the Minnesota IMPLAN Group in 2010. These data come from the Input/Output accounts of the United States. These data present detailed figures on the input costs for oil and gas well drilling including wages, capital costs, leasing costs, and costs of various materials and services used in the drilling and completion of oil and gas wells. The data are from 2010. The figures used in this model are based on the average cost per dollar of output (basically sales) multiplied by the estimated sale of oil and natural gas as the wellhead in each state as of 2011 which are the latest data available. Annual average prices and production volumes by state are gathered from the US Department of Energy.[11] Costs are divided between exploration/leasing/permitting, drilling and completion based on the type of input and labor costs are divided based on input commodity and service costs with about 52.4 percent of the drilling/completion cost assumed to be for drilling and the rest for completion.[12]

Production Costs are estimated based on data derived from the US Department of Commerce, Bureau of Economic Analysis by the Minnesota IMPLAN Group in 2010. These data come

---

9 Humphries, Marc, *U.S. Crude Oil Production in Federal and Non-Federal Areas*, Congressional Research Service, March 20, 2012, at: http://cnsnews.com/sites/default/files/documents/CRSreport%20Oil%20Production.pdf

10 Shires, Terri and Miriam Lev-On, *Characterizing Pivotal Sources of Methane Emissions from Unconventional Natural Gas Production*, prepared by URA Corporation and the LEVON Group for the American Petroleum Institute and American's Natural Gas Alliance, June 1, 2012.

11 See for example: *Domestic Crude Oil First Purchase Prices by Area*, US Department of Energy, Energy Information Administration, at: www.eia.gov/dnav/pet/pet_pri_dfp1_k_a.htm

12 The model is based on average costs and revenues. These can vary greatly by play, product and individual well.

from the Input/Output accounts of the United States. These data present detailed figures on the input costs for oil and gas production including wages, capital costs, leasing costs, and costs of various materials and services used in the exploration/leasing/permitting, production, infrastructure development and reclamation of oil and gas plays. The data are from 2010. The figures used in this model are based on the average cost per dollar of output (basically sales) multiplied by the estimated sale of oil and natural gas as the wellhead in each state as of 2011 which are the latest data available. Annual average prices and production volumes by state are gathered from the US Department of Energy.[13] Costs are divided between different activities based on the type of input and labor costs are divided based on input commodity and service costs.

Anticipated Revenues are based on data from the US Department of Energy. It is simply equal to the annualized price of either oil or natural gas at the wellhead (by state) multiplied by annual production.[14] Revenues per well cannot be derived simply by dividing this by the number of producing wells since oil and gas wells tend to have either a hyperbolic or an exponentially declining production trend. Based on discussions with industry principles, a well will generally not be drilled and put into production unless it can recoup at least the direct drilling costs in the first year after completion. Using this assumption and a simple declining exponential function, the model suggests that about 97 percent of the production occurs in the first 4 years after drilling. The four year production total (multiplied by the current price of either oil or gas) was used to estimate total revenue per well. Operating costs were then multiplied by 4 to reflect the economic life of each well.

The Number of Wells To Be Drilled is estimated based on data from individual state permitting authorities. Each authority uses different methods to identify whether wells are gas or oil (or both) and the wells' stage in the production process. While complete standardization between the states is not possible, in general it is possible to label a well as oil or gas, and as in some stage of pre-production. These are aggregated for each state and the summary results are shown on Table 2 on the following page.

The Number of Producing Wells is also estimated based on data from individual state permitting authorities. Again, each authority uses different methods to identify whether wells are gas or oil (or both) and the wells' stage of production. While complete standardization between the states is not possible, in general it is possible to label a well as oil or gas, and that it is in some stage of production. Water wells, disposal wells, capped wells, injection wells, and other operations not directly used to extract petroleum are not included. A summary of these wells is also included in Table 2 on the following page.

The Number of Wells on Federal Land is estimated based on a linear trend of permits issues by state. These data come directly from the Bureau of Land Management.[15] Based on a linear trend, the BLM will approve 5,841 drilling permits on all Federal land in 2012, of which 87 percent (5,058) will be in the 13 subject states.

---

13 See for example: *Domestic Crude Oil First Purchase Prices by Area*, US Department of Energy, Energy Information Administration, at: www.eia.gov/dnav/pet/pet_pri_dfp1_k_a.htm

14 Ibid.

15 *Number of Drilling Permits Approved by Fiscal Year on Federal Lands*, US Department of the Interior, Bureau of Land Management, November 9, 2011. Available on-line at: www.blm.gov/wo/st/en/prog/energy/oil_and_gas/statistics.html

The Number of Wells requiring Rework: is estimated by multiplying the 90,452 existing wells on Federal leases by 87 percent (the estimated percentage in the 13 subject states) and then by 93 percent (the percentage completed using hydraulic fracture) and then by 1.6 percent or the annual rework rate in a given year.[16] Under these assumptions 1,171 wells in the subject states will require re-work in a given year.

Table 2
Summary of Wells Included in The Cost Analysis

	Estimated Number of Wells in			
	Production	Permitting Process	Federal Permit Process	Impacted
Oil	108,753	12,318	1,818	1,818
Gas	92,915	14,129	3,675	3,240
Total	201,668	26,447	5,493	5,058

The Number of Impacted Wells is calculated by taking the number of estimate permits on Federal lands (see above) and dividing them into oil or gas wells based on the overall number of oil versus gas wells in each state that are currently in the permitting process. These figures are then adjusted downward to remove all wells in states where the average oil or gas well would be unprofitable. While this does not mean that individual wells would not be profitable, and therefore subject to this new rule, it does ensure that the estimated costs calculated as part of this analysis are conservatively estimated.

The Discount Rate used in this analysis is 7 percent based on the rate used in the BLMs cursory analysis of the benefits and costs of these regulations.[17] The Federal government recommends that significantly lower discount rates be used in internal analyses; however, the cost of capital for government projects is significantly lower than that for risky ventures like oil and gas exploration, drilling and production. Industry sources have suggested to JDA that a discount rate of 12 to 15 percent is generally standard in the financial decision-making process;[18] however, this could not be independently substantiated. Therefore, this analysis assumes a cost of capital equal to the coupon of non-investment grade corporate bonds as of April 23, 2012.[19]

The Number of Delay Days is invariably difficult to predict since the permit in question currently does not exist. The proposed rule does not propose a limit on the number of days that the BLM can take to either approve or reject the permit. Currently the agency is taking about 10 months to approve a drilling permit, and there is already a substantial backlog. No additional funds to enforce the proposed rule could be found in the FY 2012 Federal Budget, so the agency

16 Shires, Terri and Miriam Lev-On, *Characterizing Pivotal Sources of Methane Emissions from Unconventional Natural Gas Production*, prepared by URA Corporation and the LEVON Group for the American Petroleum Institute and American's Natural Gas Alliance, June 1, 2012.

17 See: US Bureau of Land Management, *Well Stimulation Proposed Rule: Economic Analysis and Initial Regulatory Flexibility Analysis*, at: www.regulations.gov/#!documentDetail;D=BLM-2012-0001-0003.

18 John Dunham and Associates interviews with various industry principles and staff of drillers, operators, service companies and leaseholders.

19 From Bloomberg.com at: www.bloomberg.com/markets/rates-bonds/corporate-bonds/

will be required to process at least 5,000 expanded permit applications with its current staffing levels. As such it is probably not unreasonable to assume that the approval time for these permits with the additional requirements to add about a third of that of approving the existing drilling permits, and will likely be much longer. In this analysis, it is assumed that the additional permitting time will be about 49 days. This is based on a Monte Carlo analysis using a log-normal function and assuming an average increase in permitting time of 47 days, with on outside change of either zero additional days or 99 additional days (which is one-third of the current permitting time). In addition to this, it is assumed that about 13.5 additional days will be needed in between the drilling of a well and the stimulation process. Again, a Monte Carlo analysis is used which assumes a median of 7 additional days and an outside chance of either zero or 30 days.

Additional Casing Costs will be required under the provision that requires casing to protect the "usable groundwater" where this is defined as water containing 10,000 parts per million of total dissolved solids. This change in definition of usable ground water will require operators to run deeper surface casing, two stage cementing on the production casing or the addition of an intermediate string of casing. Currently this casing is brought down to an average depth of about 2,000 feet, but may now have to be brought down to a depth of 4,000 or even 7,500 feet or deeper depending on conditions. It costs about $37 per foot for casing of this type. Again, using a Monte Carlo simulation it is estimated that each well will require approximately 2,350 feet of additional casing.

Additional Cement Bond Log: The new regulations will require operators to maintain an additional Cement Bond Log for all pipes and other surface operations. This is an analysis which provides a representation of the integrity of the cement job on pipes and is generally only required or used on drill casings. According to the BLM this will be required on about $9,000 per well and will be required on 97.5 percent of covered wells.[20] However, on top of the cost of the CBL, operators will need to ensure that all drilling and field equipment is maintained at the site while the cement cures. Cost estimates provided by companies operating in the Williston, Piceance and San Juan basins suggest that on average the hourly cost for maintaining this equipment on-site (and idle) is as much as $1,950. Costs can be even higher in areas where deep, horizontal wells are being drilled. Assuming that 72 hours of additional delay time is required for the cement to cure this would mean that each well would require an additional $140,400 expense simply to cover the down time for the rig while the operator is completing the CBL, meaning that the total cost for this requirement will be $145,665 per well.

Mechanical Integrity Tests are assumed to be required on 20 percent of wells prior to commencing stimulation operations, and that these tests are assumed to cost approximately $10,000 as per the BLM.[21]

The Permit Approval Rate is assumed to be 100 percent. This ensures that the estimated cost generated by the model will be the lowest possible. A lower approval rate would result in a

---

20 See: US Bureau of Land Management, *Well Stimulation Proposed Rule: Economic Analysis and Initial Regulatory Flexibility Analysis*, at: www.regulations.gov/#!documentDetail;D=BLM-2012-0001-0003.

21 Ibid.

higher cost of the proposed rule. The administrative cost to operators is assumed to be only $495 per well as per the BLM.[22]

Detailed Results – Cost of the Proposed Regulations:

Based on the data and assumptions presented in the prior section it is possible to calculate the anticipated cost of the proposed rule on the oil and natural gas industry. There are two potential ways to calculate this cost. The first assumes that development stops for a period of time while the permitting/verification process takes place. The capital already tied up in the development of the well during this time can be discounted at a reasonable rate of interest which would represent the direct cost to the driller/producer. This method assumes that the well development would continue unabated following the completion of the regulatory process and that production from the well would occur at the same rate and with the same revenues as would have occurred 62.5 days earlier. In such, this model simply represents the additional cost of capital to the producer.

Table 3
Summary of Estimated Costs by State

	State	Method 1	Method 2	Average
AZ	Arizona	$ -	$ -	$ -
CO	Colorado	$ 140,597,918	$ 144,944,919	$ 142,771,418
ID	Idaho	$ -	$ -	$ -
MT	Montana	$ 15,676,353	$ 17,450,231	$ 16,563,292
NE	Nebraska	$ -	$ -	$ -
NV	Nevada	$ -	$ -	$ -
NM	New Mexico	$ 167,170,616	$ 169,003,720	$ 168,087,168
ND	North Dakota	$ 25,147,180	$ 33,310,119	$ 29,228,649
OR	Oregon	$ -	$ -	$ -
SD	South Dakota	$ 253,752	$ 286,759	$ 270,256
UT	Utah	$ 150,566,431	$ 159,886,215	$ 155,226,323
WA	Washington	$ -	$ -	$ -
WY	Wyoming	$ 726,475,894	$ 817,064,564	$ 771,770,229
Total	Total 13 States	$ 1,225,888,144	$ 1,341,946,527	$ 1,283,917,335

A second method can be used to calculate the cost to the industry. Under this method, it is assumed that the overall cost of completing a well would remain the same; however, there would be a delay to the producer in realizing a return. Under this model, the value of production over the delay period is discounted back representing a lost return on capital.

While either method can produce a reasonable assumption for the overall cost of the regulations, the magnitude of the difference between them would be impacted by the current market price of petroleum products and capital. In a market where prices are high, the lost return on capital would produce a higher figure, where in a market where interest rates are relatively high, the cost of capital method would produce a more substantial loss estimate. As such, the average value between these two approaches should serve as a good estimate of the cost of the proposed rule.

[22] Ibid.

Based on the first approach and the assumptions outlined above, the total cost of the proposed rule would be just over $1.225 billion, with nearly 60 percent of that coming from operations located on Federal lands in Wyoming. The second approach, which examines the lost value of production, leads to a forecast loss of about $1.342 billion, with Wyoming again accounting for the bulk of this cost. Table 3 on the prior page shows the estimated losses by state based on the two approaches.

The arithmetic average of these estimates is $1,284 billion which is John Dunham and Associates' estimate of the overall cost to the oil and gas industry of the proposed rule based on the existing wells in the regulatory pipeline. As the rule will impact future operations, it may also have significant costs as long as the industry continues to operate on Federal leases. This analysis does not examine future costs nor does it examine costs incurred for additional well stimulation efforts on existing – and either currently producing or capped wells.

Table 4
Cost Component Comparison

		BLM	Percent		JDA	Percent		Difference
Initial Delay Costs	$	-	0.00%	$	56,404,007	4.39%	$	56,404,007
Pre Completion Delay Costs	$	-	0.00%	$	38,326,948	2.99%	$	38,326,948
Administrative Costs	$	3,798,558	6.52%	$	2,503,710	0.20%	$	(1,294,848)
Enhanced Casing Costs	$	-	0.00%	$	439,793,100	34.25%	$	439,793,100
Cement Bond Log Costs	$	44,383,950	76.13%	$	736,773,570	57.38%	$	692,389,620
Mechanical Integrity Test Costs	$	10,116,000	17.35%	$	10,116,000	0.79%	$	-
Total Costs	$	58,298,508	100.00%	$	1,283,917,335	100.00%	$	1,225,618,827

Table 4 above presents these costs in comparison with those documented by the BLM in its cursory analysis of the benefits and costs of the proposed rules. As the table shows, the bulk of the additional costs (about 36 percent) come from the additional well casing that the new rules would require and 56.5 percent from the additional cement bond log. However, the costs related to delays are so substantial that even eliminating the additional casing expense and accepting the government's estimates for Mechanical Integrity Tests and administrative costs as given, the total cost to drillers and operators will still exceed $107 million even if the casing and cement bond log costs were not included.

On a per well basis the regulations will cost about $253,800. Obviously this is an average as the costs for a deep horizontal oil well on the Bakken will be significantly higher than that of a shallower vertical gas well drilled on the San Juan Basin. However, the actual per well costs could rise if the regulations were to eliminate the economic incentive for drilling marginal wells. Were that to happen, only deep, horizontal plays with high expected returns may be drilled on federal lands, and more marginal natural gas leases may simply lie fallow. Table 5 below outlines the costs of the proposed rule based on an average oil/gas well.

Table 5
Cost Component Comparison per Well

	BLM Estimate	JDA Estimate
Initial Delay Costs	$ -	$ 11,151
Pre Completion Delay Costs	$ -	$ 7,577
Administrative Costs	$ 751	$ 495
Enhanced Casing Costs	$ -	$ 86,950
Cement Bond Log Costs	$ 8,775	$ 145,665
Mechanical Integrity Test Costs	$ 2,000	$ 2,000
Total Costs	$ 11,526	$ 253,839

Costs from Reworking Existing Oil and Gas Wells:

Since the new regulations will also apply to maintenance stimulation of existing wells, operators maintaining many of the current 90,452 producible and service drill holes on Federal leases will also experience greatly increased costs over time.[23] Assuming that wells require stimulation in line with figures recently calculated for the American Petroleum Institute, as many as 1,171 wells in the subject states will require re-work in a given year.[24]

Assuming that re-work can re scheduled to minimize the costs and delays that will come about due to the proposed rules, and that operators already perform integrity tests prior to re-stimulation, these projects will incur additional costs related only to:

- Administration and permitting ($495 per well);
- Additional costs to ensure that casings meet the new requirements ($86,950 per well);
- Additional Cement Bond Log costs to ensure that all pipes and surface infrastructure conforms to the new requirements ($145,665 per well);

Based on the assumptions above, operators will incur additional costs equal to over $233,100 per well for the first re-stimulation event for all existing wells. Since it is difficult to determine the actual number of wells on federal lands that will be cost effective to maintain once these regulations are in effect, this analysis examines the costs for only one year. Assuming, therefore, that 1,171 wells on federal leaseholds will require re-work, the cost of the regulations for just workovers will be almost $273.0 million. This figure will only increase as wells require re-work or new stimulation activities over time.

In sum, the above analysis suggests that these proposed regulations will have a significant impact on the oil and gas production industry even without considering future discounted costs.

---

23 See: US Bureau of Land Management, *Well Stimulation Proposed Rule: Economic Analysis and Initial Regulatory Flexibility Analysis*, at: www.regulations.gov/#!documentDetail;D=BLM-2012-0001-0003.

24 Shires, Terri and Miriam Lev-On, *Characterizing Pivotal Sources of Methane Emissions from Unconventional Natural Gas Production*, prepared by URA Corporation and the LEVON Group for the American Petroleum Institute and American's Natural Gas Alliance, June 1, 2012.

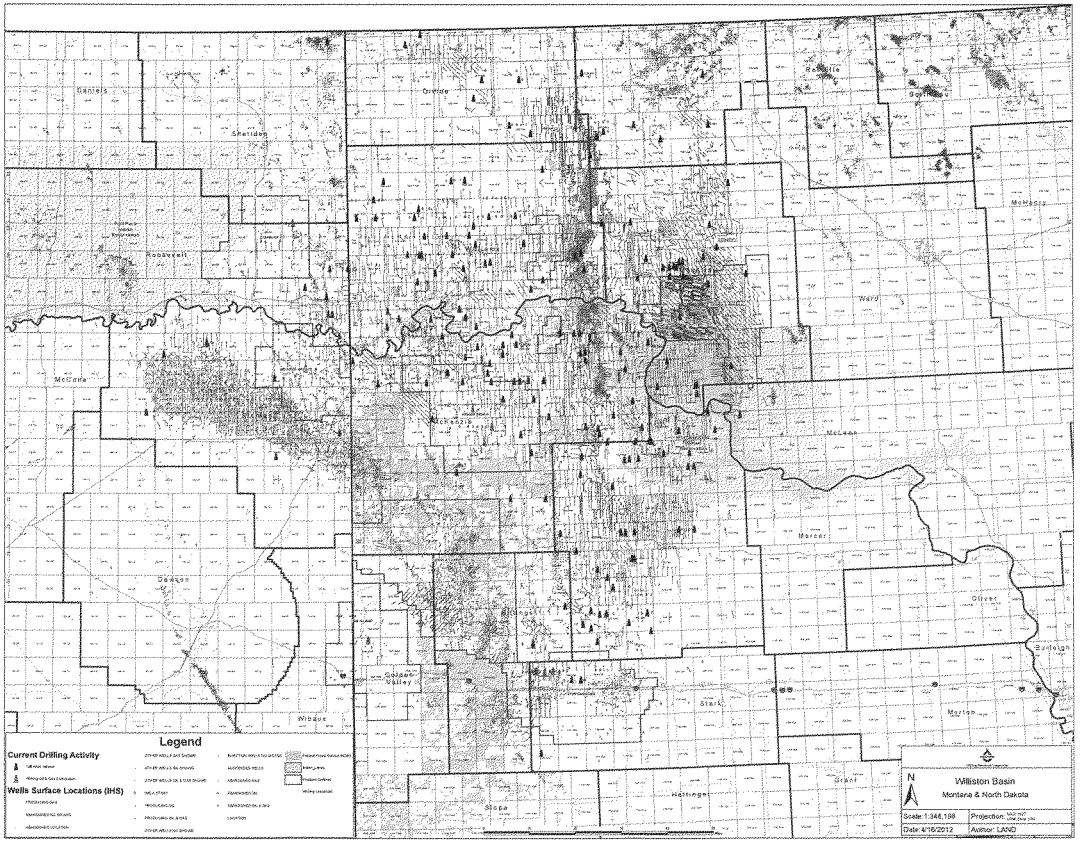
About John Dunham and Associates:

John Dunham and Associates is a leading New York City based economic consulting firm specializing in the economics of fast moving issues. JDA is an expert at translating complex economic concepts into clear, easily understandable messages that can be transmitted to any audience. Our company's clients include a wide variety of businesses and organizations, including some of the largest Fortune 500 companies in America, such as:

- Altria
- Diageo
- Feld Entertainment
- Forbes Media
- MillerCoors
- Verizon
- Wegmans Stores

John Dunham is a professional economist with over 25 years of experience. He holds a Master of Arts degree in economics from the New School for Social Research as well as a Masters of Business Administration from Columbia University. He also has a professional certificate in Logistics from New York University. Mr. Dunham has worked as a manager and an analyst in both the public and private sectors. He has experience in conducting cost-benefit modeling, industry analysis, transportation analysis, economic research, and tax and fiscal analysis. As the chief domestic economist for Philip Morris, he developed tax analysis programs, increased cost-center productivity, and created economic research operations. He has presented testimony on economic and technical issues in federal court and before federal and state agencies.

Prior to Phillip Morris John was an economist with the Port Authority of New York and New Jersey, the Philadelphia Regional Port Authority and the City of New York.


Daniels
Sheridan
Roosevelt
McCone
Dawson
Wibaux
Divide
Golden Valley
Billings
Slope
Bowman
Adams
Hettinger
Stark
Dunn
McKenzie
Ward
McLean
Mercer
Oliver
Burleigh
Morton
Grant
Sioux
Legend
Current Drilling Activity
Wells Surface Locations (IHS)
Williston Basin
Montana & North Dakota
N
Scale: 1:346,198
Projection: NAD 1927
Date: 4/16/2012
Author: LAND

Chairman ISSA. Mr. Stark.

STATEMENT OF JACK STARK

Mr. STARK. Yes, thank you, Chairman Issa, and committee members. And I am honored to be here today to speak with you about the prolific Bakken oil field in North Dakota and Montana.

I am a geologist by degree and serve as senior vice president of exploration for Continental Resources out of Oklahoma City. Continental is the 9th largest producer of petroleum liquids in the lower 48 and is the number one oil producer in the Wilson Basin where the Bakken field is located.

Continental has also been a leader in developing the Bakken field. It is currently the largest leasehold owner, and also the most active driller in the play with 940,000 net acres under lease and 26 rigs active in the play.

Now the committee asked that I provide some perspective on the size and the geology of the field, so I will start by stating the Bakken field could prove to be the largest oil field discovered in the world in the last 40 years. Current estimates of technically recoverable reserves for the field vary from a low of 3 to 4.3 billion barrels by the USGS to 24 billion barrels by Continental Resources.

For perspective, Prudhoe Bay, the largest oil field in the United States, has produced approximately 12.3 billion barrels of oil and has about 1.3 billion barrels left to be recovered. A more striking perspective is that the Bakken field could double the EIA's estimate of proved reserves for the United States, stand at 21 billion barrels.

As technology continues to improve, I expect, you know, reserves for the Bakken will grow. And, in fact, technology is growing and advancing so rapidly in the Bakken that the USGS is already updating its 2008 reserve estimates for the field, and expects to announce its revised estimates in 2013.

The Bakken is currently producing about 575,000 barrels of oil per day, and it is projected by many to grow to about 1.5 million barrels by year end 2015. For comparison, you know, Prudhoe Bay has produced approximately or did produce approximately 1.5 million barrels a day at its peak in production.

Now the Bakken field is known as an unconventional resource reservoir. It is the template for tight oil production worldwide. Resource reservoirs like the Bakken are a totally new class of reservoir that have emerged over the last 10 years thanks to horizontal drilling and fracture stimulation technology.

Resource reservoirs are typically very large, continuous accumulations of oil that are locked up in an assemblage of low porosity, low permeability rocks that are interbedded with organic-rich shales or source rocks. And these organic-rich shales are actually the source rocks that generated the oil and gas that we have been producing in conventional reservoirs for years.

However, as much as 95 percent of the oil that is generated in these shales remains locked up in these resource reservoirs or source rocks, and this could historically be considered immobile. Through technology, we are now able to produce a small percentage of this immobile oil. And, for example, the Bakken and the underlying Three Forks formation, which make up the Bakken petroleum

system, are estimated to contain 900 billion barrels of oil in place based on volumetric calculations.

With that, it means that current reserve estimates that we have for the Bakken represent less than 2½ percent of the total oil that exists in the Bakken-Three Forks reservoir rocks. And also you can take that one step further and say that you are looking at—each 1 percent increase in recovery actually translates to 9 billion barrels of oil.

Now the Bakken field was created by unique geologic conditions that generated an over-pressured cell of oil that gets up to 375 feet thick and covers approximately 9 million acres, which is equivalent to the size of, say, Massachusetts, Connecticut, and Rhode Island combined.

Now the over-pressuring of this rock is significant in that it helps push the oil through the rock in the micro pores of this rock, and it improves recovery. By comparison, natural gas obviously can move through this rock much more easily as a gas, and that is why most resource plays that you see today are natural gas. And of the 20 plus resource plays that are ongoing in the United States today, only a few can really be classified as true oil. And, in fact, the Bakken oil field is unique in that it does not really contained a continuous gas phase.

So the discovery of the Bakken oil field is made possible through technologies that have revolutionized our oil and gas industry and unleashed huge reserves. Various scenarios recently run by HIS CERA show that the tight oil reservoirs could add another 3 to 5 million barrels of oil a day to U.S. onshore production by 2020. HHS Global Insight further estimates that for each 1 million barrels of increase in U.S. daily oil production, approximately 430,000 direct and indirect jobs are generated.

With this renaissance in technology and newfound reserves, some project that North America will be energy independent by 2020. This is truly a remarkable achievement by the oil and gas industry and helps secure America's energy future, and creates jobs, and obviously keeps our dollars at home.

[Prepared statement of Mr. Stark follows:]

Congress of the United States, House of Representatives
Committee on Oversight and Government Reform

American Energy Future, Part II: A Blueprint for Domestic Energy Production

Jack H. Stark
Senior Vice President Exploration
Continental Resources, Inc.
July 14, 2012

Chairman Issa and committee members, I am honored to speak with you today about the prolific Bakken oil field of North Dakota and Montana.

I am a geologist by degree and serve as Senior Vice-President of Exploration for Continental Resources, Inc. based in Oklahoma City, Oklahoma. Continental Resources is the 9th largest producer of petroleum liquids in the Lower 48 and the number one oil producer in the Williston Basin where the Bakken oil field is located. Continental Resources has been a leader in the development of the Bakken oil field and remains the largest leasehold owner and the most active driller in the Bakken field with 940,000 net acres under lease and 26 rigs drilling in the field.

The Committee asked that I provide some perspective on the size and the geology of the Bakken field to gauge the impact of this discovery on the nation and America's energy independence. I will begin by stating that evidence suggests the Bakken oil field could be the largest oil field discovered in the world over the last 40 years. Current estimates of technically recoverable reserves for the Bakken field vary from a low of 3 – 4.3 billion barrels by the United States Geological Survey (USGS) to a high of 24 billion barrels by Continental Resources (figure 1). The North Dakota Industrial Commission estimates between 4 – 11 billion barrels of oil are technically recoverable from the North Dakota portion of the field alone.

Note, these reserve estimates are classified as "technically recoverable" and reflect the technology and geologic knowledge available at the time of the estimate. As technology improves, the volume of technically recoverable reserves typically grows. In fact, technology is advancing so rapidly in the Bakken field that the USGS is already updating its 2008 reserve estimate for the Bakken field and expects to announce revised estimates in 2013.

For perspective Prudhoe Bay, the largest oil field in the United States, has produced approximately 12.3 billion barrels of oil and is estimated to contain 1.3 billion barrels of remaining recoverable oil. A more striking perspective is that the U.S. Energy Information Administration currently estimates the recoverable reserves for the United States at 21 billion barrels. Should the high side reserve estimate for the Bakken oil field prove true, the Bakken could double the proved reserves for the United States.

The Bakken currently produces over 575,000 barrels of oil per day and has almost doubled in the last 12 months. Many project the Bakken will be producing from 1.0 - 1.5 million barrels of oil per day by 2015. For comparison, Prudhoe Bay produced approximately 1.5 million barrels of oil per day at its peak.

The Bakken oil field is an unconventional resource reservoir and the template for tight oil production worldwide. Resource reservoirs like the Bakken are a totally new class of reservoir that have emerged over the last 10 years thanks to advances in horizontal drilling and fracture stimulation technology. Resource reservoirs are typically very large, continuous accumulations of oil and gas that are locked up in an assemblage of low porosity and low permeability reservoir rocks, inter-bedded with organic rich shales. Often referred to as tight oil or shale gas plays, these resource reservoirs contain the thermally mature, organic-rich source rocks that generated the oil and gas that has been produced from conventional reservoirs over the years. However, a vast majority of the oil and gas generated remains in these resource reservoirs and until recently this oil and gas has been considered "immobile". Using horizontal drilling and fracture stimulation technologies, we are now able to produce a small percentage of the vast accumulations of "immobile" oil and gas that remain in these resource reservoirs. For example, the Bakken and underlying Three Forks reservoir rocks which make up the Bakken Petroleum System are estimated to contain some 900 billion barrels of oil based on volumetric calculations (figure 2). Given current recoverable reserves estimates of between 3-24 billion barrels of oil, only 0.3% to 2.5% of oil held within the Bakken reservoir rocks will be produced. With further advances in technology, we anticipate significantly more oil will ultimately be recovered from the Bakken reservoir. Each 1% increase in recovery translates to 9 billion barrels of oil.

The Bakken oil field is located in the core or the "kitchen" of the Bakken petroleum system (figure 3). Unique geologic conditions have prevented oil generated from the organic rich Bakken shales to escape. These conditions created an over-pressured cell of oil up to 375' thick, covering approximately 9 million acres, or an area about the size of Massachusetts, Connecticut and Rhode Island combined. The over-pressuring is significant as it helps improve the oil recovery, since oil is more difficult to move through the micro pores and capillaries of the tight rocks than natural gas (methane). This is one of the reasons most of the active resource plays in the United States today are natural gas. Out of more than 20 active resource plays in the United States, only a few can be classified as primarily oil (figure 4). In fact the Bakken oil field is unique in that it does not have a continuous gas phase in the reservoir.

The discovery of the Bakken oil field was made possible through advances in horizontal drilling and fracture stimulation technology. This technology has revolutionized the oil and gas industry and unleashed huge reserves of oil and gas across the country that were not on our radar screen just 10 years ago. The discoveries that have followed have reversed the decline in domestic oil production and identified natural gas reserves counted in centuries. Since 2008 domestic oil production has increased over 15% and imports now stand at 45%, down from a high of 60%. Various scenarios run by IHS CERA (Cambridge Energy Research Association) show tight oil reservoirs could add

another 3-5 million barrels of oil per day to United States onshore oil production by 2020. Extrapolating from a study conducted for the Independent Petroleum Association of America, IHS Global Insight estimates that for each 1 million barrel per day increase in United States oil production, approximately 430,000 direct and indirect jobs are created. With this renaissance in technology and new found reserves, some project North America will be energy independent by 2020. This truly remarkable achievement by the oil and gas industry helps secure America's energy future, creates jobs and keeps our dollars at home.

Figure 1

Continental Resources, Inc.

Bakken Tight Oil Field Estimated Recoverable Reserves

2/4/2011

Continental Resources, Inc., announced October 2010 that the Bakken Tight Oil Field could potentially contain recoverable reserves of up to 24 billion barrels of oil equivalent. This includes 20 billion barrels of oil and 4 billion barrels of oil equivalent from associated natural gas. This estimate is based on the following facts and assumptions derived from technology available to the industry today.

Assumptions

1) 500,000 barrels of oil equivalent recoverable per well based on Continental's average results to date.
2) Middle Bakken and Three Forks act as separate reservoirs (i.e. 500,000 Boe per reservoir)
3) Dual-zone development (both Middle Bakken and Three Forks reservoirs)
4) 320-acre spacing per well (4 wells per zone, therefore 8 wells per 1280-acre spacing unit)
5) Estimated area of continuous oil reservoir
    a. Area 1: 10,314 square miles (6.6MM acres) thermally mature
    b. Area 2: 4,357 square miles (2.8MM acres) marginally mature/migrated

Risk factors

1) Area 1- the Middle Bakken risked at 100% and the Three Forks at 70%
2) Area 2- the Middle Bakken risked at 90 % and the Three Forks at 60 %

(Area 1 and Area 2 are shown on Figure 1, and reserve calculations based on the assumptions outlined above are shown on Table 1)

The fact that Continental's estimate is 5 times larger than the 4.3 billion barrel estimate published by the USGS in April 2008 has been a source of some concern and question by those not familiar with the Bakken Field.

Continental believes the USGS estimate was fair and reasonable given the data available at the time of its report. Like Continental, the USGS utilized existing producing Bakken wells to estimate ultimate oil recoveries per well and the effective drainage area. The difference between the estimates is that recoveries on a per-well basis have increased substantially since June 2007, which is the cutoff date for wells used by the USGS in its analysis. Since June 2007, approximately 1,680 new horizontal producing Bakken wells have been drilled, and these wells have been completed using almost exclusively single leg horizontal and multi-staged fracture stimulation technology. This improved completion technology has produced higher EURs across the Bakken field. Likewise, testing has shown the Three Forks acts as a separate reservoir, which in effect doubles the recoverable reserves in the Bakken Tight Oil field. The North Dakota Industrial Commission has recognized the improved well performance and added Three Forks potential and in January 2011 announced that recoverable oil reserves from the Bakken- Three Forks reservoirs could reach 11 billion barrels in North Dakota alone. This is over 5 times the NDIC's original estimate of 2.1 billion barrels in the ND Bakken, which was published in 2008.

It is a natural evolution for resource plays to grow over time through innovation and technology, as demonstrated by the growth of the Barnett, Fayetteville, Marcellus, Haynesville and Eagleford resource plays. As a play grows, it becomes necessary to re-assess and adjust reserve estimates based on new results and information. The Bakken Tight Oil field is no different. Production results and reserve estimates for Bakken and Three Forks wells have

improved and continue to improve in line with advancing technology. Based on these results, an upward revision of the 2008 estimates of recoverable reserves for the Bakken Tight Oil field is warranted. The growth of the Bakken is yet another testament to the ingenuity of the oil and gas industry.

Table 1

Bakken Field Estimated Potential Recoverable Reserves

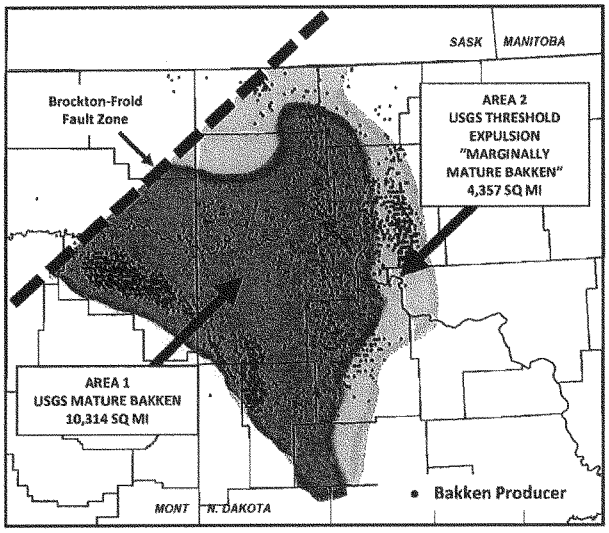
AREA 1

	Area (sq.mi)	Acres (millions)	320 Acre Well Count	Estimated Reserves Per Well (Mboe)	Risk	Estimated Reserves Recoverable (Mboe)
MB	10,314	6.6	20,628	500	100%	10,314,000
TF	10,314	6.6	20,628	500	70%	7,219,800
		13.2				17,533,800

AREA 2

	Area (sq.mi)	Acres (millions)	320 Acre Well Count	Estimated Reserves Per Well (Mboe)	Risk	Estimated Reserves Recoverable (Mboe)
MB	4,357	2.8	8,714	500	90%	3,921,300
TF	4,357	2.8	8,714	500	60%	2,614,200
		5.6				6,535,500
TOTAL:		14,671				24,069,300

Figure 1



Bakken Petroleum System
Volumetric Oil in Place Estimate

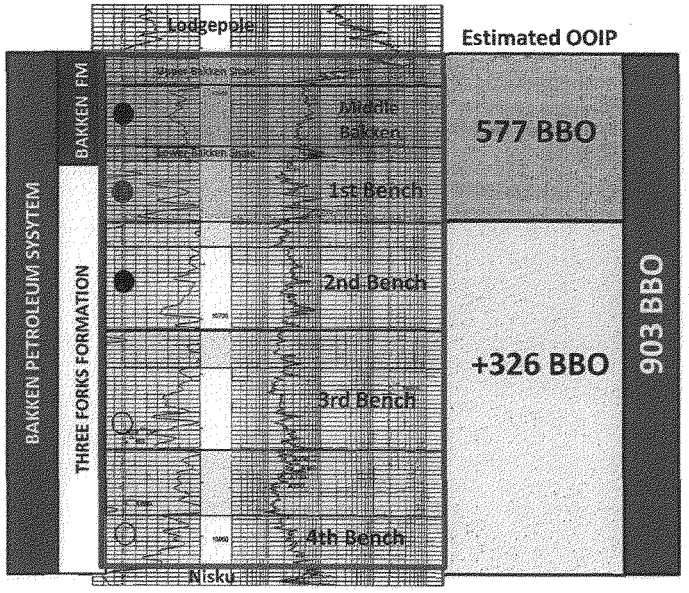


Figure 2

- **2010 estimate**
  - 577 BBO OOIP
  - 24 BBOE Recoverable
    - (20 BBO & 4 BBOE gas)
    - 320 spacing, 500 Mboe/well, Bakken and Three Forks
    - ~4% recovery
- **2012 estimate**
  - 903 BBO OOIP
    - Includes Lower Three Forks reservoirs
  - 27 BBO @ 3% recovery
  - 36 BBO @ 4% recovery
  - 45 BBO @ 5% recovery

Continental RESOURCES

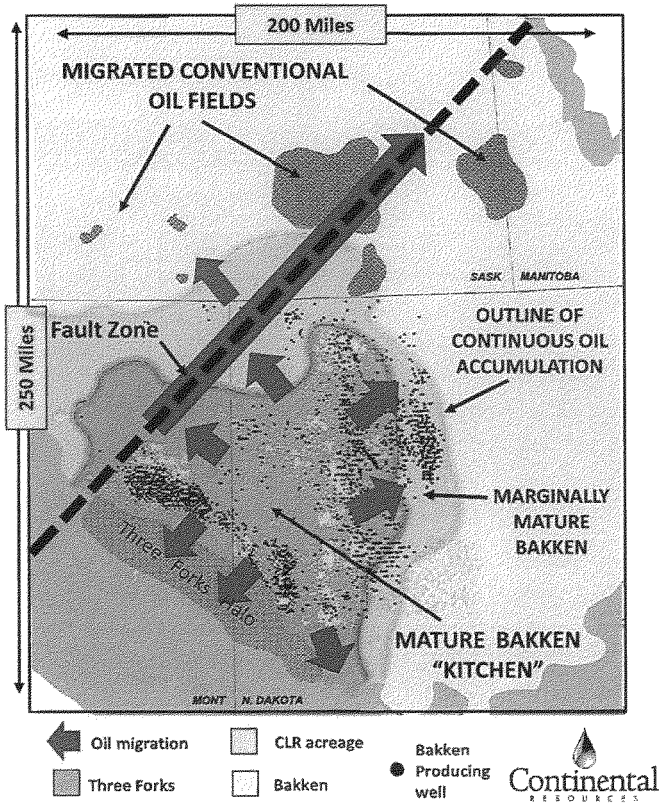
Bakken Tight Oil Field

North Dakota and Montana

- **Estimated to contain 3 billion to 24 billion barrels* of recoverable oil with today's technology**
- **Largest continuous oil accumulation ever assessed by U.S. Geological Survey**
  - ~14,700 square-miles ~9 million acres
  - Largest ever assessed by USGS
- **~4,500 horizontal producing wells**
- **224 active rigs as of 7/2/2012**
  - Adding ~ 2,500 new producing wells per year

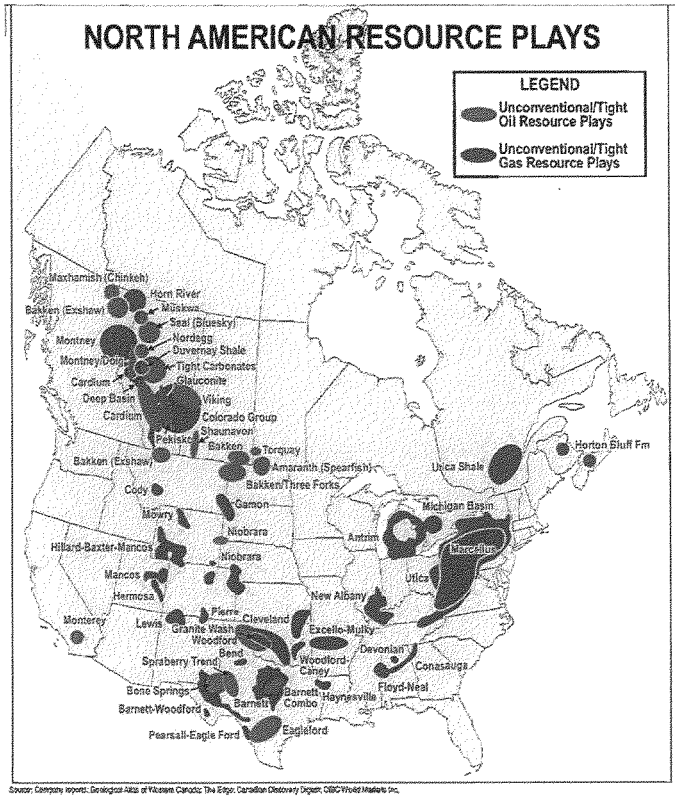
*Includes 20 billion barrels of crude oil and 4 billion of equivalent natural gas

Map of Bakken Petroleum System



Continental RESOURCES

Figure 3



Source: Company reports; Geological Atlas of Western Canada; The Edge; Canadian Discovery Digest; CIBC World Markets Inc.

Figure 4

Continental RESOURCES

Chairman ISSA. Thank you.
Mr. Hatfield.

STATEMENT OF KEVIN HATFIELD

Mr. HATFIELD. Thank you, and good morning, Mr. Chairman, and members of the committee. As senior director of the Gathering Systems, among other things, I am responsible for the oversight of the Enbridge pipeline system in North Dakota.

Enbridge is a leader of energy delivery and distribution, and has transported and delivered energy throughout North America for more than 60 years. As part of its crude oil delivery system, Enbridge operates the longest crude oil pipeline system in the world.

The Enbridge system spans from north in Northern Alberta, Canada to the western Gulf Coast refinery hub, and provides more than 2.5 million barrels per day of crude oil to the major refinery markets located throughout the United States.

In addition to crude oil and petroleum liquids, Enbridge operates natural gas pipeline systems throughout the U.S., owns and operates Canada's largest natural gas distribution company providing distributive services in eastern Canada and New York State, and has interests in almost 1,000 megawatts of renewable and alternative energy generating capacity, and wind and solar energy, geothermal, and hybrid fuel cells.

Enbridge employs approximately 7,000 people, including more than 2,500 people here in the U.S., and 150 people here in North Dakota alone.

Enbridge is continuing to expand its delivery system and has announced plans to invest another $11.8 billion in our energy generation and transportation infrastructure, including $6.6 billion in the United States over the next several years. These investments follow an equally impressive investment in over 1,500 miles of new pipelines along our mainline system over the last 5 years. These opportunities would not be possible nor necessary if not for the energy renaissance occurring in North America, such as what is happening in the Bakken here in North Dakota.

In North Dakota, Enbridge is celebrating its 50th anniversary as a pipeline company serving in the Williston Basin. However, the past decade has been by far the most exciting for the region and the company. In 2005, the capacity of the North Dakota pipeline system, which extends into northeast Montana, was 80,000 barrels per day. After completion of our current Bakken expansion project, and the Berthold rail project in early 2013, the total combined Enbridge rail and pipeline capacity out of the State of North Dakota will have increased to 475,000 barrels per day.

Once the proposed Sandpiper expansion is completed in late 2015, Enbridge's capacity to transport Bakken crude will be in excess of 850,000 barrels per day, or more than a tenfold increase over historic capacity.

The increased capacity out of North Dakota does create a need for Enbridge to look at capacity of the Enbridge mainline system downstream of its Clearbrook, Minnesota terminal into Superior, Wisconsin, the Chicago area, and beyond. Enbridge has provided additional capacity and market access through projects allowing

the first pipeline access for Bakken crude to not only Cushing, Oklahoma in 2008, but also to the U.S. Gulf Coast refineries in May 2012, with completion of the seaway reversal.

Also, Enbridge has announced pipeline expansions of its Great Lakes pipeline systems that include new pipe into Toledo, Ohio and early stages of developing rail import capacity, and potential future pipeline connections to the East Coast and, in particular, to the Philadelphia refinery markets.

Pipelines provide the safest and most reliable means of transporting crude oil from the wellhead to the refinery markets. However, with opportunities to grow our infrastructure come challenges to build it. Two of the biggest challenges are regulatory timelines and approvals and public scrutiny and acceptance.

With regard to regulatory timelines and approvals, interstate crude oil pipeline projects cross multiple State jurisdictions. Each State has its own regulatory regime and timelines, inconsistent regulations, and procedures of States in interstate projects require companies to conservatively plan for longer lead times and can lead to economic uncertainty for a project.

Federal and State governments need to ensure that regulatory processes are predictable, manageable, and balance the impacts of such long projects with the undeniable benefits to the United States.

Public scrutiny and acceptance. Developing production areas, such as the Bakken, have brought much economic benefit. This activity has also brought many challenges to the communities impacted, such as the infrastructure needs, housing, and highway safety, to name a few. Enbridge actively works in these communities to help mitigate the impact of energy production.

One example of our projects helping local communities is through reduced stress on the local roadways in North Dakota. By adding new facilities and pipelines or upgrading existing facilities in western North Dakota, it is estimated that Enbridge is saving approximately 143,000 truck miles per day.

Enbridge's commitment to the communities where we live, work, and raise our families is as strong as our long history of providing safe and reliable pipeline transportation, not only in North Dakota, but across North America. And our commitment to continuing to meet the challenge of providing additional capacity and more markets is as solid as our past.

Again, thank you, Mr. Chairman, for the opportunity, and I will be ready for questions.

[Prepared statement of Mr. Hatfield follows:]

Hearing before the
House Oversight and Government Reform Committee
on
"America's Energy Future Part II: A Blueprint for Domestic Energy Production"

Prepared Statement of
Kevin Hatfield, Senior Director, Gathering Systems
Enbridge Pipeline (ND) LLC

Saturday, July 14, 2012
Fargo, North Dakota

Mr. Chairman and members of the Committee, thank you for this opportunity to appear before you and to offer Enbridge's views on the growing domestic oil supplies, such as those in western North Dakota, and the challenges in getting these new resources to market.

As you may know, Enbridge is a leader in energy delivery throughout the U.S. and Canada. As part of its crude oil delivery system Enbridge operates the longest crude oil pipeline system in the world. That system provides more than 2.5 million barrels per day (bpd) of crude oil to the major refinery markets located throughout the United States especially the upper Mid-West region to Cushing, Oklahoma – America's heartland. With the recent acquisition of the Seaway Crude Pipeline System, along with partner Enterprise Products, the system now spans from northern Alberta to the western Gulf Coast refinery hub. Enbridge operates natural gas pipeline systems in the Gulf of Mexico, in shale gas plays in Texas and Oklahoma and as a partner in the Alliance Pipeline system seeks to expand gathering opportunities in the Bakken. As a distributor of energy, Enbridge owns and operates Canada's largest natural gas distribution company, and provides distribution services in Ontario, Quebec, New Brunswick and New York State. As a generator of energy, Enbridge has interests in almost 1,000 megawatts of renewable and alternative energy generating capacity and is expanding its interests in wind and solar energy, electric transmission, geothermal and hybrid fuel cells. Enbridge employs approximately 7,000 people, including more than 2,500 people in the U.S.

For more than sixty years, Enbridge has transported and delivered energy throughout North America, safely and reliably. Our job is to connect oil and gas supply with demand, and we do that through a network of pipelines and other transportation facilities. Over the next three years, Enbridge plans to invest another $11.8 billion in our energy generation, and transportation infrastructure, including $6.6 billion in the United States. These investments follow an equally impressive investment in over 1,500 miles of new pipelines along our Mainline System over the last five years. These opportunities would not be possible if not for the energy renaissance occurring in North America – including the Bakken here in North Dakota.

Here in North Dakota, Enbridge is celebrating its 50th Anniversary as a pipeline company through our acquisition of the Portal Pipeline Company. In 2005, the capacity of our North Dakota system, which extends into eastern Montana, was 80,000 bpd – quite inadequate for Bakken producer demand at that time. Enbridge has worked hard to catch up to the capacity demands since that time. After numerous capacity expansions Enbridge has increased capacity from that initial 80,000 bpd to 275,000 bpd today. In early 2013, Enbridge's pipeline capacity from North Dakota will exceed 355,000 bpd. ***This represents a four-fold increase in pipeline capacity during the past seven years.***

However, pipeline projects, by their nature, are time intensive involving land acquisition, permitting and construction. Additional capacity is needed to meet producer demand in the interim, and so Enbridge has included rail transportation as part of its energy delivery portfolio to meet the additional demand capacity. Enbridge delivers crude oil via pipeline to third party rail facilities today, and in early 2013, will supply its own pipeline customers with Bakken crude rail exports through a new Enbridge rail terminal that will be jointly operated with the farmers of Berthold, North Dakota. This current example of close integration with the local community to safely and responsibly develop our projects is merely a reflection of the way Enbridge does things not only in North Dakota but throughout North America. It reflects Enbridge's concern for the needs of our customers and those actively developing the Bakken resource by providing economical pipeline or rail "optionality" along with pipeline access to markets throughout the Great Lakes region, the Midcontinent, eastern Canada, the US East Coast, and the US Gulf Coast. Once Berthold Rail reaches full capacity in early 2013, Enbridge's total rail export capacity will exceed 120,000 bpd, bringing our total export capacity for Bakken crude from North Dakota to more than 475,000 bpd.

Our Bakken Pipeline Expansion Project ("BPEP") currently under construction reverses a cross-border pipeline so Bakken supplies can connect with the Canadian portion of our mainline system and, thus, reach most of the Mid-Continent's refineries, adding another 145,000 bpd. Our next major pipeline expansion, the Sandpiper Expansion project, will be a new line constructed adjacent to our existing pipeline in North Dakota, and will add another 225,000 to 325,000 bpd in capacity at an estimated cost in excess of $2 billion. The target is for Sandpiper to be in service late 2014-2015.

In addition to broad support in North Dakota, Enbridge will need to work with existing shippers on our Enbridge Mainline System downstream of Clearbrook to develop expanded pipeline capacity from Clearbrook into Superior, Wisconsin, the Chicago area and beyond.

Specifically, as export capacity from North Dakota increased, the need for additional pipeline capacity downstream of Clearbrook, across the United States and to new markets became evident. In 2008, Enbridge's Spearhead Pipeline project provided Bakken crude with its first access into Cushing, Oklahoma. In 2011, Enbridge acquired the Seaway Crude Pipeline System, and in May 2012, reversed the Seaway Pipeline to provide Bakken crude with its first pipeline access from Cushing to US Gulf refinery markets. Enbridge's has announced additional expansion projects along these Spearhead and Seaway corridors that are under construction

today. Also, Enbridge has announced pipeline expansions of its Great Lakes pipeline systems that include a new pipeline into Toledo, Ohio and the reversal of Line 9 into Montreal to provide access to refineries in eastern Canada. There also is a need for Bakken light crude in the Eastern seaboard area – particularly in the Philadelphia refinery markets. Enbridge is in the early stages of providing rail import capacity to these area refineries as an interim solution. It is likely that these rail imports may materialize into a pipeline into the area.

As I have stated earlier, pipelines provide the safest and most reliable means of transporting crude oil from the wellhead to the refinery markets. However, with opportunities to grow our infrastructure come challenges to build it. The biggest challenges include:

- Commercial certainty
- Regulatory timelines and approvals
- Public Scrutiny and acceptance

Commercial certainty:
Our discussions with shippers are aimed at developing the right-sized, right-priced, and right-timed expansion for take-away capacity into the future to connect to the right refineries in America. Whether the market supports Enbridge's solution or others, one way or another we must address the need for capacity south of Clearbrook to link to refineries hungry for Bakken sweet crude supply. We must keep in mind that as a common carrier, we are obliged to provide service to all that can meet and fund our standards for delivery without discrimination. Our biggest challenge is the ability to extend beyond northern Minnesota to tap refinery markets in the Midcontinent and throughout the United States. To connect to refineries, Enbridge needs to complete expansions on our mainline system east of Clearbrook, MN. This link is critical to ensure Bakken crude will have access to refineries already connected to the Enbridge system in the Chicago, Detroit, Toledo and eastern Canada and areas, as well as access to refineries along the gulf coast, home of more than 50 percent of America's refinery capacity. Part of that puzzle is now complete with the recent reversal of the Seaway Pipeline System and planned doubling of its capacity by mid-2014. Enbridge is now working with shippers to determine the best short term transportation solutions to extend to the East Coast and New England, including added capacity east of our current Michigan or Ohio destinations to extend as far as Pennsylvania and New Jersey - - home of refineries who are eager to tap Bakken supply and reduce their reliance on waterborne imports. While it may seem that meeting our customer's needs should come easily, our customers – producers, marketers and refiners – sometimes compete, so designing a system expansion that can be agreed to by all interests can be challenging.

Regulatory Timelines and Approvals:
Interstate crude oil pipeline projects cross multiple state jurisdictions. Each state has its own regulatory regime and timelines. To give some perspective of a project timeline I would like to cite an example from one of our most recently completed large-scale projects.

The Southern Access project involved building a 42 inch pipeline from Superior, Wisconsin to Flanagan, Illinois, mostly in existing pipeline corridor. The first permit application was filed in June 2006, the last permit approval was received in April 2008, and the project was completed and in service in March 2009 – about 34 months. Inconsistent regulations and procedures of states in interstate type projects require companies to conservatively plan for longer lead times and can lead to economic uncertainty for a project. However, our goal of North American energy independence can only be realized with the support of federal and state governments in ensuring that regulatory processes are predicable, manageable and balance the impacts of such long projects with the undeniable benefits to the United States. If we Americans are able to reduce our dependence on imports from countries often unstable or less friendly to our interests, both our economy and our national interests are improved.

Public Scrutiny and Acceptance

Developing production areas such as the Bakken have brought much economic benefit. This activity has also brought many challenges to the communities impacted such as infrastructure needs, housing and highway safety to name a few. To address these concerns Enbridge has greatly enhanced its resources in:

- public outreach and education,
- open houses to describe current operations and proposed projects,
- outreach, education, coordination and support with our local EMS units,
- public awareness programs and
- community investment.

A direct result of our pipeline projects in North Dakota is reduced stress on the local roadways. As an example, Enbridge is expanding the western portion of its system by adding new facilities and pipeline or upgrading existing facilities that have the maximum design capacity to save approximately ***143,000 truck miles per day.***

Hopefully, you can agree that Enbridge's commitment to the communities where we live, work and raise our families is as strong as our long history of providing safe and reliable pipeline transportation not only in North Dakota, but across North America, and that our commitment to continue to meet the challenge to pro-actively provide additional capacity to more markets is as solid as our past.

Again, thank you Mr. Chairman for this opportunity to testify before the Committee. I would be happy to answer any questions related to my testimony.

Chairman ISSA. Thank you.
Mr. True.

STATEMENT OF HENRY "TAD" TRUE

Mr. TRUE. Thank you, Mr. Chairman, and members of the committee. My name is Tad True, and I am the vice president of Belle Fourche Bridger Pipeline. I appreciate the opportunity to testify today. As background, our pipelines are part of a collection of family-owned companies that are referred to as the True Companies. The True companies were started by my grandfather as a one rig drilling company back in 1954. Since that time, the companies expanded into exploration, pipe supply, pipelines, trucking, trading, logistics, and other industries.

We are headquartered in Casper, Wyoming and have approximately 1,300 employees that work in 12 different states from North Dakota to Texas and Pennsylvania. My focus is running the pipeline operations of the True Companies.

Our pipeline operation consists of gathering and mainline systems in North Dakota, Montana, and Wyoming. We have approximately 3,800 miles of pipe in the ground, and over the past several years, most of our effort and construction has been focused on supporting the development of the Bakken in the Williston Basin.

Ten years ago, North Dakota's production was 84,000 barrels a day. It is now over 640,000 barrels a day, representing a 760 percent increase during that time. North Dakota is now the second largest oil producing State next to Texas. However, when you compare the infrastructure between the two, Texas has over 50,000 miles of liquid pipelines in the State, while North Dakota only has than 4,000 miles. Our estimates show that North Dakota production could reach 1.2 million barrels a day over the next 10 years, but there is clearly a significant infrastructure gap that needs to be solved.

When it comes to efficiency and transportation, pipelines are clearly the most efficient way to transport anything, including oil. I do not believe the impact of efficiency is really well understood. And to better understand this efficiency, I threw out this hypothetical example of what would happen to the Rocky Mountains if our pipelines, the ones we operate, were no longer for some reason able to pump oil. What would be the impact to the Bakken, and what would be the impact to the Rockies?

Number one, the cost for the Bakken barrel would increase by $10 per barrel for the Rocky Mountain refiners. That is simply the cost of transportation to get it to market.

Number two, the total number of trucks required to haul this oil would increase by 250,000 trucks per year that would 275,000,000 miles on U.S. and State Highways. Additionally, to support these trucks, you would actually have to build a 12,000 barrel a day refinery capable of producing enough diesel just to make sure those trucks go up and down the road.

From a different perspective, we just completed a new mainline in western North Dakota, called the Four Bears line. It is currently transporting over 75,000 barrels a day, and this means that the Four Bears line has taken off 300 trucks on a daily basis from

North Dakota's highway. And as I have heard several times, if you do not like trucks on the road, you have to like pipelines.

In 2007, our pipeline company had 80 employees. We now have 152 employees. Most of that increase is due to the explosive growth of the Bakken in North Dakota. As importantly to the number of jobs that we have created, we believe these are high quality jobs.

Fifteen years ago, I graduated from the University of Notre Dame and went to work for a firm specializing in hi-tech. This was during the Internet boom. At that time, I believed that I hit the mother lode. But today, we are paying our starting gaugers and starting station operators with no experience and only a high school education double what I was paid during the Internet boom.

We also provide comprehensive health insurance, a pension plan, and our employees average of 10 years of service from across all our companies. These are the type of jobs we are offering and, I believe, these are the types of jobs our Nation needs.

So in conclusion, three points. Number one, North Dakota is now the second-largest oil-producing State next to Texas, yet it has less than 10 percent of the necessary liquids pipelines to deliver the crude to market.

Number two, pipelines are the safest and most efficient means of transporting the oil. And number three, we as an industry are creating high-quality and sustainable jobs.

That concludes my testimony, and I look forward to questions.

[Prepared statement of Mr. True follows:]

Testimony before U.S. House of Representatives Committee on Oversight and Government Reform

A Blueprint for Domestic Energy Production

July 14, 2012

True companies: Belle Fourche and Bridger Pipeline

Noteworthy

- The original company, True Drilling was founded in 1954 by H.A. "Dave" True
- True companies have operations in Wyoming, North Dakota, Montana, Colorado, Utah, Texas, Oklahoma, New Mexico, Arizona, Louisiana, Mississippi and Pennsylvania.
- Belle Fourche Pipeline was founded in 1955.
- Bridger Pipeline was founded in 2003.
- Belle Fourche and Bridger Pipelines operate only in North Dakota, Montana and Wyoming.
- The combination of Belle Fourche and Bridger has 3,800 miles of pipeline in the ground.

My name is Tad True and I am the Vice President of Belle Fourche and Bridger Pipeline. I appreciate the opportunity to testify today. As background, our pipelines are part of a collection of family owned companies that we refer to as the True companies. The True companies were started by my grandfather in 1954 as a one-rig drilling company. Since that time, the companies expanded into exploration, pipe supply, pipelines, trucking, trading and logistics and other industries. We are headquartered in Casper, WY and have approximately 1,300 employees that work in 12 different states from North Dakota to Texas to Pennsylvania. My focus is running the pipeline operations of True companies.

Our pipeline operations consist of gathering and mainline systems in North Dakota, Montana and Wyoming. We have approximately 3,800 miles of pipe in the ground and service only crude oil. Over the past several years, most of our effort and construction has been focused on supporting the development of the Bakken in the Williston Basin.

The Bakken

Noteworthy

- The USGS estimated that the Bakken shale could produce up to 4.3 Billion barrels.

- Continental Resources estimates that the Bakken shale could produce over 20 Billion barrels, which would make the Bakken larger than Prudhoe Bay, currently the United States' largest oil field.
- North Dakota production is currently 639,000 barrels per day (bpd) an increase of 556,000 bpd from 10 years ago. This increase is approximately equal to the total reduction in
- In total, True pipelines transport approximately 250,000bpd of crude oil from the Williston Basin, the majority of which is Bakken oil.
- North Dakota is now the second to Texas in daily oil production.
- Texas has over 50,000 miles of active liquids pipelines.
- North Dakota has less than 4,000 miles of active liquid pipelines.

Oil is critical to our economy. We need reasonably priced gas, paved roads, diesel fuel, and we rely on countless petroleum products such as plastics. Our nation thrives on oil. With the discovery of the Bakken, our nation is suddenly privileged to have an incredible domestic supply.

Ten years ago, North Dakota's oil production was 84,000 bpd. It is now over 640,000bpd, representing a 760% increase during that time period. North Dakota is now 2nd to Texas in daily oil production. However, when you compare infrastructure, Texas has over 50,000 miles of liquids pipelines, while North Dakota has less than 4,000 miles. Our estimates show that North Dakota production could reach 1,200,000 bpd in the next decade; but, there is a clear and significant infrastructure gap that needs to be solved.

Pipelines

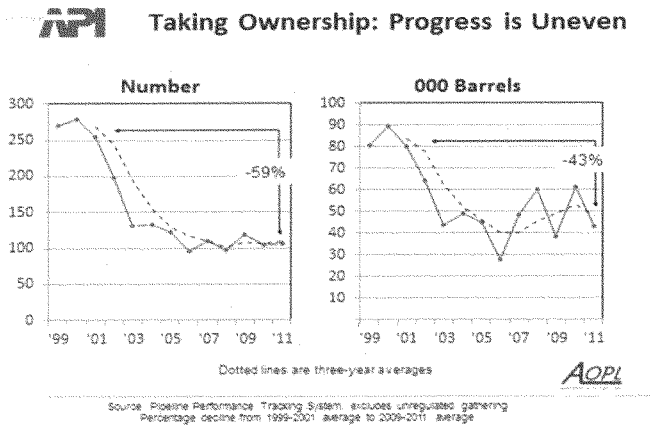
Noteworthy

- Bridger's Four Bears pipeline was completed in September, 2011. It is a 77 mile 12" epoxy coated pipeline with the capacity of 110,000bpd.
- Four Bears receives Bakken oil from New Town, ND and can deliver it to Butte Pipe Line at Baker, MT or the Bakken Oil Express rail facility at Dickinson, ND.
- We estimate that over 300 trucks per day were taken off of US Highway 85 and ND Highway 22. This translates into over 25,000,000 truck-miles off the roads in North Dakota.

Pipelines are Safe and Getting Safer

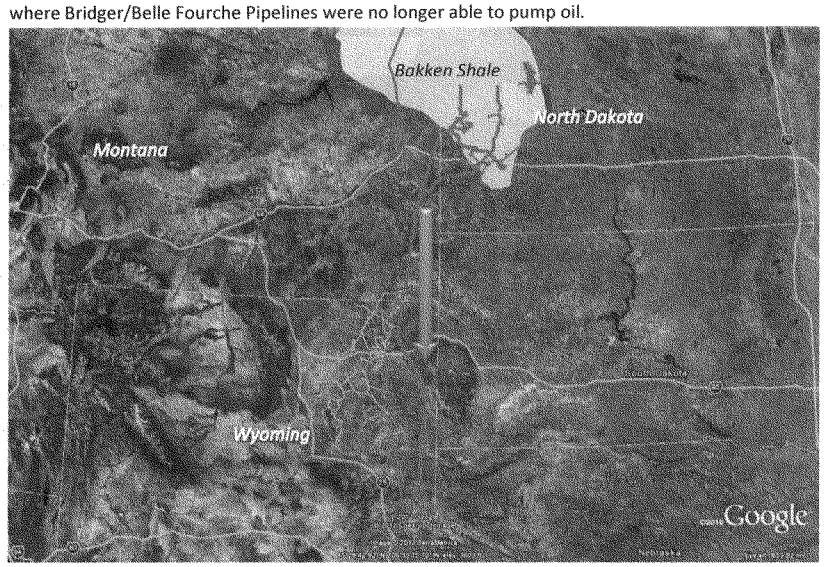
According to the U.S. Bureau of Transportation Statistics, pipelines are the safest way to transport oil. Accidents are 3,000 times more likely to occur with a large truck and 25 times more likely to occur by rail.

In addition, with the use of new inspection technology, pipelines have reduced their overall accident rate (see graph below) over 50% in the past ten years. Although, we are very proud of that fact, we still have work to do.



Efficiency

Pipelines are the most efficient means of oil transportation. I don't believe the impact of this efficiency is well understood. To better understand these efficiencies, we need to examine a simple hypothetical where Bridger/Belle Fourche Pipelines were no longer able to pump oil.



The impact in the Rocky Mountains and the Bakken would be significant.

1. **Cost**: The cost for Bakken oil would increase by $10 per barrel for Rocky Mountain refiners.
2. **Trucks on Highways**: The total number of trucks would increase by over 250,000 trucks per year that would travel over 275,000,000 miles on U.S. and State Highways.
3. **A new refinery**: Finally, you would need to build an additional refinery with the capacity of 12,000 bpd just to produce enough diesel to support these trucks.

Four Bears Pipeline: From a different perspective, we just completed a new mainline in western North Dakota, called the Four Bears line. It is currently transporting over 75,000 bpd. This means that the Four Bears line has taken over 300 trucks off of North Dakota's highways. As I have heard in North Dakota, if you don't like trucks on the road, you have to like pipelines.

Job Creation and Economic Impact

Noteworthy

- Pipelines are forecasted to construct over 1,300 miles of liquids pipeline per year for the next 20 years resulting in an investment of over $2 billion dollars per year (AOPL).

In 2007, our pipeline company had 80 employees. We now have 152, an increase of 190%. Most of that increase is due to the explosive growth of the Bakken in North Dakota. As importantly to the number of jobs that we have created, we believe they are high quality jobs. Fifteen years ago, I graduated from the University of Notre Dame and went to work for a firm specializing in hi-tech. This was during the internet boom. At that time, I believed that I hit the mother lode. Today though, we pay our starting gaugers and station operators an amount that is double what I was paid back then. We also provide comprehensive health insurance, a pension plan, and have an average of 10 years of service from our employees. These are the type of jobs we are offering and, I believe, these are the types of jobs our nation needs.

Conclusion

North Dakota is 2nd only to Texas in oil production; yet Texas has over 50,000 miles of pipeline and North Dakota has less than 4,000. Clearly, North Dakota has an infrastructure gap and the pipelines need to be built in order to support the Bakken, an essential domestic supply.

Pipelines are still the safest and most efficient mode of transportation. Considering the quality and quantity of jobs being created, investments in pipelines will continue to reap benefits for North Dakota, the Rocky Mountains and our nation as well.

This concludes my testimony and I look forward to your questions.

Chairman ISSA. Thank you, and I will recognize myself first and start as I did before.

Mr. True, what you are telling me, though, is that if you care about the environment and you want to reduce total carbon consumption, you can reduce 12,000 gallons or, I am sorry, 12,000 barrels a day by having pipelines rather than trucks?

Mr. TRUE. Right. I use that example that just to replace our pipeline with trucks would require a new 12,000 barrel a day refinery.

Chairman ISSA. Okay, but I am looking at 12,000 barrels a day and saying that is fuel that will be consumed and turned into CO2 or will not be consumed and will not be turned into it. That is one of those great offsets. You could probably sell that offset.

[Laughter.]

Mr. TRUE. Let me write that down.

Chairman ISSA. And if I were not in Congress, I would broker it for you.

[Laughter.]

Chairman ISSA. In all seriousness, though, very clearly, people will die because trucks will have accidents. Thousands of trucks day after day after day, will eventually, a certain amount of them will be in accidents. They will spill oil. They will kill the driver. They will damage the road. They will tie up traffic. All of that is a reality if you do not do the efficiency of moving as we have for generations into pipelines for more efficient travel. Is that correct?

Mr. TRUE. Pipelines are clearly the safest mode of transportation. I have in my written testimony, I state that pipelines are—or, I am sorry, trucking is 3,000 times more likely to have an accident than pipelines.

Chairman ISSA. And, Mr. Hatfield, you were shaking your head yes, so I will consider you as a yes on all of those same questions, that essentially we are really hurting the environment and snarling roads by not building these pipelines, including Keystone.

Mr. HATFIELD. We are in the southeast corner of North Dakota. If we were in the northwest corner of North Dakota, you would see the impact of the trucks on the roads out there. And you are right, on a daily basis, trucks are plugging roads, and there are issues with them as Tad, or Mr. True, had said.

We agree. The pipelines are the answer and the solution to the problem, and we need to keep moving forward in that regard.

Chairman ISSA. Now if I understand correctly, Mr. Stark, we are not going to hold you for proprietary costs. But it costs in direct costs $10 a barrel to get oil to the point where you are going to put it on a truck or put it on a train and move it out of the well. Now that does not include your huge investment and so on.

But that is what they call your lift costs. But your transportation costs, as I just heard, is equaling your entire lift cost in direct cost. It is a huge part. If you had $74 a barrel of oil, you have got $10 of lift costs, but you have got $10 of transportation costs that ultimately just evaporates from the profit and the taxes to the American people, is that not right?

Mr. STARK. Well, correct. You know, when you look at a pipeline as a means by which you transport your oil, it is the most cost effective. It takes trucks to gather it, trucks to deliver it to the gathering stations, and pipelines or rail to get it to refineries. And so

there are costs associated with each of those, and so those costs vary across the board.

And so anytime you can eliminate one component of cost in there and reduce those costs, it definitely translates immediately to your bottom line.

Chairman ISSA. Well, Mr. Ekstrom, I think you had said that—actually I think it was Mr. Stark. But if, in fact, Bakken can produce 1.5 million barrels a day, if I do—I am sorry. That is over and above what you are doing today. No, that is total. I am doing the arithmetic. That means that California, Nevada, Arizona, Oregon, and Washington's deficit—the amount that they import, that ultimately is imported from other countries would all be eliminated. California imports a little less than 1 million barrels a day. It is the big kahuna there. But you would be able to produce a surplus created in California's deficit.

Mr. EKSTROM. Sure. At this point, we are looking at about 575 thousand barrels a day coming from the Bakken alone. And so if you would look at the growth in the Bakken, you would be looking at an incremental 1 million barrels a day approximately by late 2015, some say 2020, in that range. But that is the level of impact the Bakken production can have.

Chairman ISSA. And my understanding is that we give to foreign countries about $300 billion a year to buy oil.

Mr. EKSTROM. Correct.

Chairman ISSA. And if your prediction is correct and we support these kinds of advancements in technology and facilitation, we can get to where we could save that $300 billion and have it all be generating jobs and income in America.

Mr. EKSTROM. Without a doubt.

Chairman ISSA. Now I am going to stress a most important point, I guess. You are obviously an expert, Mr. Stark, on the Bakken reserves. But would you say that in the world, and particularly in the United States, this will be duplicated. There will be other significant reserves that will be found in Texas or Pennsylvania or wherever that will yield similar improvements, allowing not just what you are doing here, but America to become oil and natural gas sustainable, independent for generations to come.

Mr. STARK. Yes. At this point, there are over 20, you know, basins in the U.S. that have resource plays within them. And each of these resource plays, they vary in their oil content. But most of these basins do have some degree of oil production that will come through production there. You will either have liquids in the sense stripped from gas, but in particular the crude oil and condensate that is produced that the well had is associated with most of these fields.

When I say the Bakken field is unique, it is unique in the sense it does not have a gas life to it. And it is truly an oil field. Eighty-five percent of the product that comes out of the Bakken is oil. These other fields like the Eagle Ford, does have a particular window in which oil is the main product, but that area is also tied to areas of gas. And so you have maybe a bit higher gas production.

Chairman ISSA. Conventionally, I think about people who say, you know, gas prices are too low; let us try to drill for oil and avoid

the gas. And then sometimes it reverses depending upon where we are over the last couple of decades.

If my colleagues will indulge me for one last question. When you were a geology student, I presume that you studied the world as it was in oil based on the known pools, right? And the President says that, you know, we only have 2 percent of the world's reserve. We consume 20 percent, that, in fact, it is a scarce resource.

Knowing now that the source rock can be harvested, what you are doing here in the Bakken, knowing the source rock can be harvested and the quantity of, if you will, ancient algae that has been put into these rocks all over the world, is it fair to say that 2 percent is simply a farce, a disingenuous, perhaps even a lie, to continue saying it? That, in fact, the world's energy by new technology just made a large leap in availability, and America's known reserves or likely reserves have now gone up so high that effectively to say that we cannot consume 20 percent of the world's—sorry. That that 2 percent known oil reserves, if properly stated, is America can produce all of the oil and natural gas for its own consumption for the rest of our lives and our children's lives.

Mr. STARK. Correct. You are looking at 21 billion barrels of oil for the U.S. today. It is just such a gross understatement of what reserves do exist here, and that has been unleashed by the recognition and the ability to access the source rocks themselves, as I said.

And so the multiples that we will have on this range anywhere from, I have heard as much as 10 times to 40 times the amount of oil that we are estimating that we have in the ground today.

Chairman ISSA. Well, lest anyone think that I called the President a liar, I would like to summarize by saying that clearly the President is telling the truth, but it is a truth of the past, not a truth of the present or the future.

Mr. STARK. Correct. It is not recognizing the change that has happened.

Chairman ISSA. Mr. Lankford.

Mr. LANKFORD. Mr. Hatfield, I want to get a chance to bounce a few things off of you, and Mr. True also as well.

There was a pipeline safety bill that was passed last year and signed on. How has the regulatory rollout worked for you all on that? There were some regulatory changes in the safety and permitting and such. How is that working? Is it working? What do you know at this point?

Mr. HATFIELD. I believe we all understand that one of the keys to being successful in permitting and continuing to build pipelines is to do that safely. From the standpoint of the bill itself, we are working with what is in it to apply that to our situation and our pipelines and ensure that we are keying on the development and the necessary points that we need to fall within it. I think overall it is a good thing. We need to make sure that we are towing the line with regard to it.

The predictability and the clarity of it is a good thing in making sure that we are going to know what we need to follow in the future.

Mr. LANKFORD. Okay. Mr. True, do you have any comments on that?

Mr. TRUE. Number one, it was developed in conjunction with industry.

Mr. LANKFORD. Right.

Mr. TRUE. And that was helpful. Number two, any time I look at a regulation, I call it the three Cs. It is clarity, common sense, consistency. Those are the three Cs that I deal with, and I think that fits all of them.

Mr. LANKFORD. Okay, terrific. Mr. Hatfield, again, you flipped the direction of the seaway.

Mr. HATFIELD. Excuse me?

Mr. LANKFORD. The seaway reversal that you had there from Houston to Cushing, you flipped it, and now Cushing to Houston. How has that gone? Is that complete at this point? Any major issues there?

Mr. HATFIELD. As of May 2012, we have got the successful reversal of that at approximately 150,000 barrels per day. By next year we will be up 400,000 barrels per day of crude moving from Cushing down to the Gulf Coast. And then with the twinning of that would be up to 850,000 in upcoming years.

Mr. LANKFORD. Terrific. In Oklahoma, we have a major pipeline starting in construction—well, actually it has stopped construction now. It is headed from the Cushing area all the way down to the Gulf as well because we have a burrowing beetle, and there has been strong limitations on when and how we can do construction. And there has been a stay on a lot of things.

And the beetle is common in Oklahoma. It is also a nasty beetle. If you saw it in your driveway, you would step on it. But that beetle has caused major issues for us in pipeline construction. Have you experienced anything like that in Fish and Wildlife, the Department of Interior, here in North Dakota on your construction for pipelines?

Mr. HATFIELD. Yes and no. We have, as Representative Berg had mentioned earlier, North Dakota does have a top regiment of policies and guidelines for insuring and permitting our projects. They do cover similar type of effects or impacts to pipelines. But the one thing I think that we do have in North Dakota that has benefitted us, and, again, Representative Berg referred to it, is the predictability of it. We know what those policies and procedures and our requirements are.

Mr. LANKFORD. This is the Federal Fish and Wildlife stepping in and saying this species in particular, you have to do additional protections for—mowing. There are all kinds of things you have to be able to determine on this. Every 2 days somebody has got to walk the area. It is amazing the regulations that are around this beetle in construction if you are going to turn the soil for that. Is there any Fish and Wildlife particularly on the Federal side is causing you any issues here in North Dakota?

Mr. HATFIELD. Absolutely. We have run into, whether in North Dakota or across the country, on larger pipeline lays. We run into the same impact of protected species and those type of things delaying the project. And so long as we are doing the right thing and doing it as quickly as possible, and we know that it is coming as a business commercially, we can deal with it. It is the unknowns that kill us. But, yes, absolutely, we have been impacted by that.

Mr. LANKFORD. Okay. A quick question as well dealing with this whole issue of the Federal leasing time versus State permitting time, the time to get into the permitting.

When Mr. Helms earlier had mentioned before, 290 days to permit on tribal or Federal lands, and 3 weeks or less if it is a State permit. You guys live and breathe this all the time. What are some solutions to this? We see the problem. What are some clear-cut if we did this, this, and this that would provide us some good solutions as well as good protections for Federal lands?

Mr. EKSTROM. Mr. Chairman, we visited the Department of Interior earlier this year and suggested to them that if they had a certain percentage of ownership or less that they simply accept a State permit since there is no surface disturbance involved.

Mr. LANKFORD. Okay. So if it is no surface, it is all below a certain percentage, did you recommend a certain percentage on that, or is that——

Mr. EKSTROM. We recommended less than 50 percent.

Mr. LANKFORD. Okay.

Mr. EKSTROM. There was not a positive response to that in the Department of Interior.

Chairman ISSA. Did you try 40, and then 30, and then 20, and then 10?

[Laughter.]

Mr. EKSTROM. It appeared they were not going to be in favor of it.

[Laughter.]

Mr. EKSTROM. I would like to add one other thing, if I may, about the pipelines. Private companies, producing companies also build their own pipelines. We built a 17-mile pipeline to hook into Enbridge in Montreal County, and happily that went swimmingly because it was all on private land, and we took virtually all of our trucks off that were going to that terminal. Producing companies did that as well as pipeline companies.

Mr. LANKFORD. Mr. Stark, any other ideas on specifically how we deal with this Federal land issue?

Mr. STARK. I second Mr. Ekstrom's recommendation there. If any time we can avoid duplicating permitting processes that do not need to exist. We need to eliminate that. The State does an excellent job of regulating and forming units and basically taking care of the permitting process. And I do not see the need for the Federal involvement where Federal lands are not involved.

Mr. LANKFORD. Thank you. I yield back.

Chairman ISSA. Mr. Farenthold.

Mr. FARENTHOLD. Thank you very much. Before we get started, Mr. True, I understand you are lamenting the size of the North Dakota pipeline infrastructure as opposed to the Texas infrastructure. I remind you everything is bigger in Texas.

[Laughter.]

Chairman ISSA. Especially the ego.

[Laughter.]

Mr. FARENTHOLD. I wanted to visit for a second with you, Mr. Stark. You were talking about the technology has greatly enhanced the recovery. And I think you mentioned that in the Bakken in particular, we are still not getting 100 percent recovery with the tech-

nology that we have got. It is still an inefficient recovery even as we start to do the fracking. We are not getting all that trapped oil.

Mr. STARK. No. By no means are we getting anywhere near, and nor do we ever get anything near 100 percent of the oil out of the reservoirs.

What we are looking at here is really, I put an exhibit in here that shows essentially, you know, the field itself or the reservoir as we see it. And if you consider most times you are looking at in reservoirs, you are going to get between 8 percent recovery, maybe 15 percent recovery out of a reservoir, on a conventional reservoir, on a primary basis. Here we are talking about a very, very low porosive permeability rocks that you are getting less than 5 percent recovery.

Mr. FARENTHOLD. Ten years ago you would have gotten zero percent recovery out of that.

Mr. STARK. Correct.

Mr. FARENTHOLD. So as the technology has improved, that percentage of the recovery—I guess you consider fracking a secondary recovery method.

Mr. STARK. Well, it is a new technology that allows us to access oil that was essentially immobile in this reservoir by conventional means. And so right now we estimate that we are getting maximum 5 percent recovery out of a reservoir using this technology. And we think, you know, as technology advances, we will be able to get significantly more because just the sheer volume of oil that is in place, 900 billion barrels, 1 percent increase in recovery equals 9 billion barrels.

Mr. FARENTHOLD. So we are getting easily less than 10 percent. And as technology improved, just like it did with fracking, that number could go way up.

Mr. STARK. Right.

Mr. FARENTHOLD. So it is way higher. I just wanted to make sure that we are clear about that.

Mr. Ekstrom, you were talking about the—and, Mr. True, you were both talking about employment and the folks you are hiring. What sort of skill sets are you looking for? Are there entry level jobs there and a lot of them? If you were looking to get a job in the oil and gas industry up here in North Dakota or anywhere else we have got a play going, what sort of skills should you be learning or getting or do you need?

Mr. EKSTROM. Well, Mr. Chairman, the skill sets range from the very most basic—being able to operate a machine or drive a vehicle—all the way up to executive level experiences or capabilities, I should say.

We have a particular focus right now on gas plant operations, so people who are used to working with heavy equipment or large kinds of mechanical installations are particularly favored. I might point out, and I regret not saying this earlier, but I put some Bakken core samples on the table if you wanted to see them and understand——

Chairman ISSA. We are hoarding them over here.

Mr. EKSTROM. Obviously we would like to have more geologists. We are funding educational institutions in the State. We have the National Energy Center of Excellence in Bismarck at Bismarck

State College. Any scientific discipline, just about any scientific discipline would find a home.

Mr. FARENTHOLD. If you are not a college-bound person, it is hard getting a job. I know in Texas, there are $5,000 signing bonuses for folks with a commercial driver's license and a clean driving record. I mean, is it a similar situation here?

Mr. EKSTROM. Similar situation here. In fact, we have a similar situation in Texas where we are involved the Bone Spring development out by Midland. We also have a CO2 flood there, which is another advanced technology. We also have one in Oklahoma out on the panhandle, Representative Lucas' district.

So the technology is moving inexorably. I like to think that we are at the end of the beginning. There are those in Washington who say it is——

Mr. FARENTHOLD. So you are saying your entry level jobs are gaugers. What are saying they are getting paid? Sixty plus, right?

Mr. TRUE. Sixty plus, $60 to $80.

Mr. FARENTHOLD. And what does a gauger do? I mean, I know, but would you tell——

Mr. TRUE. Okay. What a gauger does is when we are ready to ship oil down the pipeline from the lease, the gauger will go out to the well, climb up the tank using a gauge that—you got a plumb bob and stick it down, figure out how much oil is in there, turn on the equipment, and ship it.

Mr. FARENTHOLD. So they are pretty entry level jobs.

Mr. TRUE. We do not require a college education.

Mr. FARENTHOLD. Thank you. I do have some questions if we have time for a second round.

Chairman ISSA. Okay. Mr. Berg.

Mr. BERG. Thank you, Mr. Chairman. First of all, I want to thank everyone for being here. I do not know if it came out, but several years ago we were taking huge discounts in North Dakota, so we could not get out of the State. So, I mean, when the market was $70, $80 a barrel, we were getting $24 a barrel in North Dakota. There was just no capacity. So there has been just a lot of things that people have been trying to do to figure out how. So thank you for your expansion of the pipelines.

And, Tad, I thought your three Cs on regulation were just great. And this is one of our problems, you know. We talked about the Keystone pipeline, and obviously in the House, we have tried several different ways time and time again to get that through and go to the Senate, even the last time on the transportation bill. And it is not part of the highway transportation bill. Senator Reid has just continued to block that.

And I guess that is kind of one of the things that, again, you look at the President saying, you know, we have crossed all the boxes, crossed the Ts, dotted the Is, and he makes a ruling not to allow it to go forward.

I mean, this is that uncertainty that you are talking about regulation. This is the challenge that you have got. All the money that goes into planning the pipeline before you actually start to build it, let alone have it done and start earning income off it, I mean, these are all challenges that if we get the certainty in, we can make that happen.

I wanted to kind of just mention one thing that we did in North Dakota, and that is the pipeline authority that we enacted, and I do not know if anyone is doing that. But we set up the a special State fact pipeline authority that says if we want to put in a pipeline, the State will help finance or sign on the dotted line for the loan to do those things. And so, I mean, that is out there.

Chairman ISSA. Because it saves your State money.

Mr. BERG. Absolutely. Absolutely. And if there is not one entity that can get the financial backing to do the pipeline or someone to pull it together, that we would basically sign the note for them to do the pipeline. We did the same thing with the transmission authority years before for coal and electricity.

I wanted to just talk, Mr. Stark, just to kind of touch on—this is a renaissance that is going on. I mean, we are actually going into the source rock, and rather than waiting for this tool to develop, we are tapping into that source rock. I have heard the word that this is a renaissance in energy development, and I really think it is. When you think about our precision horizontal drilling and what we are doing, you know, we talked back in '94, 18 years ago we were working on this horizontal. Your company has been a real leader in this.

And I would like if you could just share—this is not something that just happened overnight, but what you went through trying to crack the code on the Bakken, and why this is kind of here to stay depending on the price of oil and the regulations.

Mr. STARK. Sure. Well, it has been an evolution, that it started back when I guess we first met back in '94. And, you know, at that time——

Chairman ISSA. He is not new in trying to help North Dakota do well and succeed.

Mr. STARK. No, he has been advocate for sure for quite a while. But, you know, horizontal drilling was just becoming a process that was being available to onshore operators. It was really starting to happen in that time frame. And at that time, we were not really looking at drilling horizontally and fracture stimulating the wells. We were just using horizontal drilling to harvest the rock. But yet it was very expensive, very risky because it was new technology.

And we were basically on the leading edge. And what we did is we actually worked together with the State. The State actually put a tax incentive in place in '95 actually that allowed that basically incentivized us and other operatives to go out and apply horizontal drilling in North Dakota.

We went ahead and we did that, and we actually found a very large field in North Dakota called the Cedar Hills Field, and it is probably 250 million barrels of oil ultimately it produced. And from that technology, and this is why I say it is an evolution. From that technology, then we started to recognize other applications that we could use this precision horizontal drilling in. And that is where the Bakken evolved. And so we ultimately started to apply this technology industry wide up in Montana where the Bakken actually was originated as far as the play as we know it today. That is where it started.

But the trick there was of saying, okay, horizontal drilling would tap into this rock and allow us to get oil out, but it still was not

at commercial rates, so what we could do next? Fracture stimulation technology was applied to it. So then we found that that worked in Montana, so if it worked in Montana, gosh, it could go over into North Dakota.

And so it is an iterative process of learning and gaining knowledge as we continue to get better and better at the technology we have got and what it has done. And it is not just in North Dakota. It has happened across the country with this technology because we have gleaned technology out of the Barnett shale, for instance, and the technology that was gained there and applied that up here.

So we went from doing horizontals and open hole completions, as we called them, to then staged fracks in North Dakota, which was required because when we went and took the Montana model and applied it to North Dakota, it did not work immediately. It did not. We had to find another key.

So each time we continue to tweak and work and grow our technology and our capabilities to tap into these remarkable reservoirs. When I was in school, I was not taught that these were ever rocks or reservoir rocks. They were source seal, never reservoir rock. And today that is what we are tapping. And if you consider these rocks generated the oil that we produce today by conventional means, but yet up to 95 percent of that oil still remains in these rocks. There is a huge resource of oil and gas in this country and worldwide that could be tapped with this technology.

So it is an evolution. This did not happen overnight. This evolved over a period of, you know, we are talking 15 years, 20 years of technological advancement that has taken us here. And you have to really admire the ingenuity and the persistence of the domestic energy independent or energy operators for the effort and the time they have put in and the money they have done to put into this. And support like we had in North Dakota from the tax incentive for horizontal wells was just instrumental in us kicking off our program up in North Dakota. And today we are the number one producer in the Williston Basin, which includes North Dakota.

And I will also mention, too, at that time when we were looking at horizontal drilling, it was kind of a novel thing that was really kind of going on up in Saskatchewan. But in North Dakota, it was just barely starting. And today, 99.5 percent of the wells drilling today are horizontal.

Chairman ISSA. Excellent. Following up on that, Mr. Stark, working for Continental, what countries do you operate in?

Mr. STARK. The United States.

Chairman ISSA. No other countries.

Mr. STARK. No.

Chairman ISSA. How many employees do you have?

Mr. STARK. We are right around 700.

Chairman ISSA. And growing.

Mr. STARK. Growing. Growing substantially here in the last few years.

Chairman ISSA. So when we in Washington talk about big oil, is that you?

Mr. STARK. No.

Chairman ISSA. So you are 700 employees, founder, CEO, still at the helm. You have been with them for decades. This is one of those sort of big family businesses in a way, is it not?

Mr. STARK. Yes.

Chairman ISSA. Mr. True, you are sort of in the same boat, are you not, big family business.

Mr. TRUE. Yes, we are a family business.

Chairman ISSA. It did kind of drag you back from that high tech job when the bus came?

[Laughter.]

Chairman ISSA. The reason I ask is, we have not talked about it here today, but in Washington they are constantly talking about subsidies. And the word "subsidy" is pretty easy to put in. But just for each of your companies, and, Mr. Stark, I will kind of just start with you, your company pays taxes?

Mr. STARK. Yes.

Chairman ISSA. You pay royalties when you are on Federal land?

Mr. STARK. Yes.

Chairman ISSA. So you pay income tax. You pay royalty taxes. You pay sales taxes, property taxes. You pay fees to all those leases. You are leasing them from individuals who own them, and they pay taxes on that income. Where is the subsidy? I mean, I am here from Washington. I just want to know what is it that we subsidize from Washington to your company?

Mr. STARK. It is a very good point. There is no subsidy for this industry.

Chairman ISSA. Now do we let you eventually take your investment as it depreciates write it off?

Mr. STARK. Correct.

Chairman ISSA. Is that what is often called a subsidy in Washington?

Mr. STARK. I have heard it called that.

Chairman ISSA. So I just want to understand because, my undergraduate degree was in accounting even though I worked in electronics as an engineer. I still try to put everything down to something, you know , decimal point and two zeroes. When we often talk about subsidies for your form of harvesting, often called manufacturing, but harvesting of this oil, what we are really doing is we are saying, you put your money up at risk, and if it busts, then we will let you write it off and not pay taxes on the money you invested in what yielded you zero. But if it yields something, we will let you depreciate your investment over time. Is that right?

Mr. STARK. Correct.

Chairman ISSA. So it is possible for you to actually pay taxes on income that is less than your carry cost of your investment. You sometimes pay the government taxes and then have to go to the bank to borrow, to pay those taxes because all of your money is reinvested in those holes you are drilling.

Mr. STARK. Correct.

Chairman ISSA. Now is your company—and it is my last question, and I think it probably is a good question for each of your companies. Are you essentially reinvesting every additional penny post-tax that you can into exploring and doing this very potentially lucrative development here in North Dakota?

Mr. STARK. Yes, we are and more.

Chairman ISSA. Okay.

Mr. HATFIELD. And the same with us. Our capital expenditure budget this year is $1.9 billion, and our cash flow is projected to be about $1.8 or $1.75. That is accurate. As far as subsidies go, we are still looking for our first check. It has not arrived.

Chairman ISSA. You have not gotten the check.

Mr. HATFIELD. No. Neither have the other two, same sort of thing even though you are on the non-drilling side.

Let me just ask one closing question because it is frustrating for us in Washington because we hear all these things, and we know they are true. We just cannot seem to find the verification of it. Are you sending any jobs offshore? Are you exporting jobs right now?

Mr. HATFIELD. Absolutely not. We operate in the United States.

Chairman ISSA. Are you outsourcing to India? Are you sending jobs? Is that what your company is doing?

Mr. HATFIELD. No.

Chairman ISSA. Are either of you exporting your production of pipelines and distribution outside the country?

So at a time when we are always hearing about people outsourcing and getting rid of jobs, I have 4 people in front of me whose companies, every single additional opportunity that we facilitate or at least get out of the way of means an additional U.S. job. One hundred percent U.S. jobs will be produced if you do better.

Mr. HATFIELD. Correct, Mr. Chairman.

Mr. STARK. Correct.

Chairman ISSA. That is enough for me. Anyone else have follow-up questions?

Mr. LANKFORD. A quick follow-up. Mr. Stark is a geologist. Just to push one more time this question. You made a statement that the Bakken is a completely new type of reservoir. Now I am not asking you to give any company secrets here publicly on the Congressional Record. Is it your gut there are reservoirs like this in the United States?

Mr. STARK. Well, there are. And that is why I say there are 20 plus resource type, oil and gas.

Mr. LANKFORD. That are major oil because the others are oil and gas, and that kind of stuff.

Mr. STARK. Correct. And so we have only begun to scratch the surface.

Mr. LANKFORD. But it is your gut there is undiscovered. You have got the 20 basins you have talked about. You think there are other undiscovered areas. Again, you go back 10 years ago, no one understood how plentiful the oil would be here. And understand, it is a gut.

Mr. STARK. Oh, without a doubt, I do not believe by any stretch that we have found all the resources here. And the technology will allow us to identify and unleash more if we are allowed to do that.

Mr. LANKFORD. Okay, thank you. I yield back.

Chairman ISSA. Mr. Farenthold?

Mr. FARENTHOLD. Yeah. I realize we are getting short on time, much like getting the oil out of North Dakota to Texas for refining.

It is several hops for us to get home on an airplane to Texas as well. But I did want to——

Chairman ISSA. Hopefully there are no beetles in our way.

[Laughter.]

Mr. FARENTHOLD. I have not had good luck with air travel these past couple of weeks. But I did want to take just a couple of minutes to talk about the pipelines and some of the issues that you are facing. Mr. Hatfield, you mentioned that as you do these transstate pipelines, you face a variety of different regulations in the States. And it is a time consuming and expensive process.

I am assuming you do not want the feds to take over regulating the pipelines. You are better off dealing with the States?

Mr. HATFIELD. What we would like is clarity and predictability. And the fact is, either side that they came from we would be happy with it. But I believe the answer to the question is, yes, we would be happy with States working and being more predictable in their——

Mr. FARENTHOLD. You talked a little bit about the seaway reversals. That was a pipeline that was taking refined product north, is that correct? And now you are bringing crude south to refine it.

Mr. HATFIELD. Yes. It was reversed, and we are bringing crude back south. You are exactly right, yes.

Mr. FARENTHOLD. All right. How does the product now get back north now that that capacity is gone? I guess the point I am making is, you all reversed that because it made economic sense to do that. It was much cheaper to reverse that pipeline. You felt like there was more of a demand and you could make more money bringing the crude south.

Did you revere that pipeline because it had taken too long and been too expensive to build another one? I mean, explain to me kind of the thought process in that.

Mr. HATFIELD. I have my focus in North Dakota. And so the fact is I do not have a huge amount of detail with regard to some of the bigger mainline projects. But any time that you do a project, if you have the opportunity to use a pipeline that is in place, it is going to be much more efficient and economical than going through the steps today. Whether that was absolutely the reason, I cannot say here.

Mr. FARENTHOLD. And you are talking about 21 of your other pipelines. That is going into your existing easement and putting in another pipeline. Is that what that means?

Mr. HATFIELD. What we will be doing is running a secondary pipeline along the existing easement in the same direction doing the same essential thing.

Mr. FARENTHOLD. I would say that that is substantially cheaper because in most of your easements, you have the ability to lay multiple pipelines. Do you have to get re-permit? Are there regulatory hurdles associated with that?

Mr. HATFIELD. You will essentially run some of the, and in many cases, most of the same regulatory requirements. But it will be—it should be a more effective process of going along with existing regulations.

Mr. FARENTHOLD. And for a trans-state pipeline, let say the Bakken. We will be nice to Lankford and only take it to Cushing and not bring it all the way to Houston.

Mr. LANKFORD. It is going to Cushing, though. I can tell you that.

Mr. FARENTHOLD. How long would it take to build that? If you said that you wanted to do it today, which you have, when would the first drop of oil flow down? How long would it take, and what are the big impediments there?

Mr. HATFIELD. If I could give you an example, on our southern access line, which was very simplified compared to what you just laid out from going from the Bakken to Oklahoma, which would require more States. This was a line, primarily an existing right-of-way, that encompassed 2 States. That permitting and approval process essentially took 34 months to go from initial permit to construction being completed. Construction was 11 months.

Mr. FARENTHOLD. And in the meantime, that product is being moved by rail or truck, which is inefficient and less environmentally friendly.

Mr. HATFIELD. It is has been moved by whatever mode the customers can find to move it to market.

Mr. FARENTHOLD. Thank you.

Mr. HATFIELD. Thank you.

Chairman ISSA. Mr. Berg.

Mr. BERG. Well, I just want to conclude and thank everyone for being here. Our goal, quite frankly, is to create energy independence in America, and I think some of these facts that are coming out in this committee makes it a critical committee. It becomes part of the record. A lays down really something for others to look at as we start to say and get serious about how do we reach that point of energy independence, which obviously is about national security. It is about economic security. We have heard that. And it is about American jobs. Thank you.

Chairman ISSA. I want to thank our witnesses. I think I am probably the only one on this side of the panel who is old enough to remember when the Alaskan find came in, and when similar to North Dakota jobs that paid incredible, unbelievable wages caused people to leave their families, and head north, and send home more money from Alaska than they could have made if they stayed there. I am glad to see that one State, in spite of the Federal Government's assistance, is finding a way to do that.

The record will remain open for additional questions and any additional ideas or inclusions you want to place in the record.

Chairman ISSA. Mr. Stark, I want to give you one last kudo, if you will. If I can find a way to get you back to Washington to explain to people just how significant this geology change, the change between when you were in college and today, has been, I hope you will be able to accept our invitation.

Now I probably should get somebody in to teach financial literacy first.

[Applause.]

Chairman ISSA. But second only to that, I think that you would be the greatest addition to the education of members of Congress.

And lastly, I want to thank my colleague. I know that successes like here in North Dakota do not begin overnight, and I know your years of service before you came to Congress meant a lot. And thank you for coming and adding so much to today's hearing.

And with that, we stand adjourned.

[Whereupon, at 11:15 a.m., the committee was adjourned.]

Questions for Jack Ekstrom

Whiting Petroleum Corporation

Rep. Rick Berg

Committee on Oversight and Government Reform

Hearing on "America's Energy Future, Part II: A Blueprint for Domestic Energy Production"

Full Committee field hearing in Fargo, ND

1. Mr. Ekstrom , you stated that Whiting Petroleum operates exclusively in the United States – meaning that Whiting creates American jobs, helps our nation move toward the goal of energy independence, generates domestic economic activity and quite frankly is a revenue source for State and Federal governments.

   My question to you is from an economic security and fiscal standpoint, why would the Obama Administration want to implement more burdensome regulations that could limit or put an end to hydraulic fracturing? Especially when we have seen here in North Dakota that a strong energy policy works. Wouldn't it be better to implement a national energy policy that encourages domestic production of all of our energy resources, so that our country could realize the benefits we've seen here in North Dakota?

Mr. Chairman, Representative Berg and committee members, while I cannot state with certainty the reasons for the Administration's desires relating to hydraulic fracturing regulations, we at Whiting surmise the Administration is motivated by several misconceptions:

Incremental and duplicative regulations will not impact industry's ability to find and deliver the resource to the public: In fact, the burden of federal regulation is in measureable part responsible for North Dakota's prosperity – the overwhelming majority of North Dakota lands are privately owned and are not and will not be subject to federal regulation relating to hydraulic fracturing. With effective state regulation, and oversight by experienced and knowledgeable regulatory professionals, the industry and the mineral owners prosper, reaping the economic benefits as oil and gas development proceeds safely.

The North Dakota experience is in stark contrast to other western states where surface and mineral ownership is dominated by the federal government under the stewardship of the Department of

Interior and the Department of Agriculture's US Forest Service. In fact, on state and private lands, permits are issued typically in time periods ranging from 15 to 45 days across the western states. Permit times and bureaucratic requirements extend that to up to 300 days on federal lands today, and I emphasize that **those permits are granted in the absence of hydraulic fracturing reporting requirements**. Estimates provided by a private study conducted for the Western Energy Alliance show **incremental delays of up to six months at a cost to industry of $1.5 billion annually**.

Ending hydraulic fracturing effectively terminates oil and gas exploration and drilling on public lands. Virtually every well drilled in the US and its waters is hydraulically fractured, and more than 1.5 million wells have been fractured in the US since the late 1940s. To date, not a single hydraulic fracture procedure anywhere in the US has a documented case of impacted drinking water been reported.

The declines in federal production and the dramatic decline in leases offered, means that production on private and state lands are far outpacing public lands. According to the Congressional Research Service, 96% of the oil production growth since 2007 has been on private lands. In the West, natural gas production on federal lands has declined 4% since 2008, whereas it's up 29% on private and state lands. Because of the Bakken in North Dakota, oil production is up 54% in the West on private lands, but only 26% on federal lands. Nationwide, federal oil production is down 1%."

I refer the committee to the Whiting Petroleum map of North Dakota showing lands held privately and lands owned by the federal government. The green-shaded areas are federally owned and are marked by the sparse oil and gas activity so typical in western states. Those lands are underlain by oil and gas resources, as confirmed by geoscience conducted by industry professionals.

The same is known about gas resources in the Piceance/Unita Basins of western Colorado and eastern Utah, the oil resources in the D-J Basin in the northeastern portion of Colorado, multiple basins across Wyoming, Montana and New Mexico. Even in Nevada, oil and gas exploration is in the early stages.

These vast, resource-rich basins are prospective for harvesting, but increasing restrictions such as new hydraulic fracturing regulations, recent BLM manual revisions for land management that effectively revise land use rules to align them with Secretary Salazar's defeated "Wild Lands" initiative, and informal Endangered Species Act "preferences" on top of existing ESA requirements, all act to inhibit development on public lands and drive industry onto private lands where draconian federal mandates do not exist.

Wouldn't it be better to implement a national energy policy that encourages domestic production of all of our energy resources, so that our country could realize the benefits we've seen here in North Dakota? Yes. Individual states have the experience, the expertise and the manpower to regulate oil and gas operations that are unique from state to state and basin to basin. An energy policy to encourage domestic production of all of our energy resources, overseen by the states where the development is occurring is a common sense, cost-effective policy. Such a policy safeguards local citizenry and assures that the public realizes the maximum economic value from the resources it owns, while protecting other values and the safety and well-being of the very same public. Benefits that have

accrued to North Dakota lie in waiting for western states dominated by federal ownership. Those benefits are not being realized, and will not be, until a federal energy policy mirroring the North Dakota model is crafted and enacted.

ENBRIDGE

Enbridge Pipelines (North Dakota) LLC
2505 16 Street SW
Minot, North Dakota 58701-6947
Telephone: (701) 857-0800
Fax: (701) 857-0859
www.enbridge.com

August 6, 2012

Congress of the United States
House of Representatives
Committee on Oversight and Government Reform
2157 Rayburn House Office Building
Washington, DC 20515-6143

Dear Committee Office:

Attached is our response to your question from the Hearing on "America's Energy Future, Part II: A Blueprint for Domestic Energy Production" Full Committee field hearing in Fargo, ND.

If you have any further questions, please don't hesitate to contact me.

Sincerely,

Kevin W. Hatfield
Vice President, Gathering Systems

Enclosure

Question for the Record

Question for Kevin Hatfield
Enbridge

Representative Rick Berg
Committee on Oversight and Government Reform

Hearing on "America's Energy Future, Part II: A Blueprint for Domestic Energy Production"
Full Committee field hearing in Fargo, ND

---

1. Given President Obama's and Senate Democrats' unwillingness to move forward on the Keystone XL pipeline and their apparent hostility towards the industry, how does this affect your business decisions and your ability to invest in new job creating projects? Do you feel that this is a potential threat to the future of your company?

ANSWER: Enbridge has invested more than $1 billion in additional infrastructure in North Dakota to help transport increasing Bakken volumes of crude oil to refineries in the Midwest and beyond. In general, we've had timely response in securing federal and state regulatory approvals for our expansions in North Dakota and Minnesota for projects over the last several years. In response to the demand from our customers, we will continue to review and invest in additional storage, pipeline interconnections, rail, and other projects to increase market access for Bakken producers.

In addition, Enbridge has announced and is proceeding with plans to invest more than $8 billion on projects along its existing crude oil pipeline system in the United States to allow greater access for Bakken Crude to refineries in the Midwest, in the East, and, through a joint venture acquisition, reversal and planned expansion of the Seaway System, will reach as far as the U.S. gulf coast.

In any project, company's such as Enbridge look for consistency and certainty of regulation from the Federal and state governments. Inconsistent regulations and uncertainties require companies to conservatively plan for longer lead times and can lead to economic uncertainty for a project. While the nature of major, cross-country projects will entail some unexpected issues, such as locating habitats or affecting previously unmapped wetlands, nevertheless the process for permitting projects that protect the environment and the need for safe transportation of energy needs to be well understood by the regulated community and proceed in a timely manner. This is especially true for many cross-country projects where dozens of state and federal agencies are involved, with none serving as a lead or coordination role.

Projects, such as the ones in which Enbridge is investing in North Dakota and throughout its system will help move us closer to the goal of North American energy independence and security, but this goal and these projects can only be realized with the support of federal and state governments in ensuring that regulatory processes are predicable, manageable and balance the impacts of such long projects with the undeniable benefits to the United States.

Department of Mineral Resources

Lynn D. Helms – Director

North Dakota Industrial Commission
www.dmr.nd.gov

August 6, 2012

Questions for Lynn Helms
North Dakota Department of Mineral Resources
Rep. Rick Berg
Committee on Oversight and Government Reform
Hearing on "America's Energy Future, Part II: *A* Blueprint for Domestic Energy Production"
Full Committee field hearing in Fargo, ND

1. Mr. Helms, in your testimony, you mentioned that the State of North Dakota issues permits in about 15 days while it takes the Bureau of Land Management (BLM) about six months to issue a permit. That's a pretty significant time difference. As someone with a great understanding of this process, could you tell us a little bit about North Dakota's permitting process and what makes it so efficient? Also, do you have suggestions for how the BLM could speed up its permitting process to make it more efficient?

The permitting group at the North Dakota Industrial Commission Oil and Gas Division is charged with making sure all state laws, rules, and regulations are being followed. Thousands of North Dakota mineral owners have leased their land and these leases are private contracts that are protected in Article 1, Section 18 of the State's Constitution.

"No bill of attainder, ex post facto law, or law impairing the obligations of contracts shall ever be passed."

It is also part of the Oil and Gas Division's mission to encourage and promote development in the state. We are required by law to ensure that oil and gas is utilized in a way which will prevent waste, maximize economic recovery and fully protect the correlative rights of all owners, producers, and the general public to realize the greatest possible good from these vital natural resources.
The North Dakota oil and gas well permitting process begins when an operator registers with the secretary of state, posts a well bond, and receives Industrial Commission approval of a spacing or drilling unit within which a well or wells can be drilled. Only then can an operator actually submit an application for permit to drill. At that point our permitting department begins the four step permit review process. North Dakota utilizes an electronic permitting system that assigns a permit number, identifies all missing permit information, tracks the permit status, and identifies what member of the permitting staff is currently working on the permit.
Step one includes ensuring all the necessary information has been entered into the permit form and the required supporting documents have been filed.
Step two includes checking the accuracy of the filed documents and reviewing maps and aerial photographs to identify topographical & environmental issues.
Step three includes rule compliance. We check Commission orders, verify well legality within the spacing/drilling unit and ensure that surface casing is set and cemented through the lower most aquifer.
Step four is a final review of steps one through three by another person, verifying well legality and adding environmental stipulations. Once all of these steps have been reviewed and all rules and regulations have been followed, the Oil and Gas Division will then issue a permit to drill.
It's important to note that topographical & environmental issues are addressed by at least two different people in the permitting department. At the Oil and Gas Division we have five full time permit application processors. The environmental issues that we review include areas that have been identified by the ND Health Department and Water Commission as well as Federal agencies. In addition, we get input from the Department of Transportation, ND Game and Fish, and ND Parks and Recreation. The average time it takes to issue a permit is 18 days.

600 E Boulevard Ave - Dept 405, Bismarck, North Dakota 58505-0840 Phone (701)328-8020 Fax (701)328-8022

Department of Mineral Resources

Lynn D. Helms – Director

North Dakota Industrial Commission
www.dmr.nd.gov

I respectfully offer the following suggestions for how the BLM could speed up its permitting process to make it more efficient:

The number one change the federal government could make to speed up oil and gas well permitting would be to focus workforce resources on areas where the federal government controls both the surface and mineral estate of land areas greater than 320 acres. This can be accomplished by requiring in law that in the following cases a permit to drill must be processed within 60 days of receiving a complete application or the permit issued by the state agency must be accepted:
1) federal mineral ownership is less than 25% of the total mineral ownership in the spacing or drilling unit established by the state oil and gas agency, and;
2) the surface estate is not owned or managed by a federal agency

A second critical change the federal government could make to speed up oil and gas well permitting would be to implement a one stop electronic permitting process that will allow all agencies and the applicant to efficiently review and track the permit.

Finally, the federal government should identify the BLM as the lead oil and gas permitting agency and place the other agencies in an advisory role. The advisory agencies would provide information to guide the BLM permitting process, ensuring compliance with their regulations. This would eliminate the multiple permitting processes that must currently be completed simultaneously to get final approval to drill.

Sincerely,
Lynn D. Helms
Lynn D. Helms
Director

600 E Boulevard Ave - Dept 405, Bismarck, North Dakota 58505-0840 Phone (701)328-8020 Fax (701)328-8022

Bridger Pipeline LLC

350 BIG HORN, CASPER, WY 82601

P.O. BOX 2360
CASPER, WY 82602
307-237-9301
307-237-3146 FAX

Chairman Darrel Issa
Committee on Oversight and Government Reform
2157 Rayburn House Office Building
Washington, D.C. 20515

Subject: America's Energy Future, Part II: A Blueprint for Domestic Energy Production

Dear Chairman Issa:

I appreciated the opportunity to testify in front of the Committee on July 14th, and likewise, appreciate the question posed by Representative Berg. The question asked:

"Given President Obama's and Senate Democrats' unwillingness to move forward on the Keystone XL pipeline and their apparent hostility towards this industry, how does this affect your business decisions and your ability to invest in new job creating projects? Do you feel that this is a potential threat to the future of your company?"

Response:

Let me start with some background. When kids ask their parents what they do for a living, some parents are able to take them to an industrial plant and show them automated robotic arms; other parents can pull up their laptop and show them a website; while others can take them to the House floor. When my kids ask me the same question, I get to show them the following:

This is a picture of a pipeline taken from a nearby road. The pipeline right-of-way is just below the skyline. To my kids, the fence line is more exciting than this pipeline. The point here is that pipelines are boring. Our industry, literally and figuratively, works quietly underground, and is the safest mode of transportation in the world. As a result, it was greatly surprising to see the Federal Government block Keystone XL.

BRIDGER

In my testimony, I mentioned using the 3 C's (Clarity, Common Sense, Consistency) in evaluating government actions. In summary, these are the fundamental principles of fairness, and in my view, the denial violated all three of these simple standards.

Our pipelines operate exclusively in the Rocky Mountains. We, as a business, do our best to avoid any person or organization that doesn't live up to these basic standards. However, in the Rockies, much of the land is owned by the Federal government and, in many cases, it is impossible to avoid Federal lands. We like to assume that the Federal agency will review our project on an objective and scientific basis, but the KXL project highlights the fact that there are other influences that may negatively impact our project, even if those influences are irrelevant to our project. These influences are neither objective nor scientific and are certainly out of our control and most likely out of the control of the local Federal office with whom we deal. Historically, we have worked well with the local Federal offices because they have, for the most part, provided clarity into their application process, made common sense decisions and have been consistent

in applying their methodology. This has been lost in recent years and these other influences certainly do pose a risk to the longevity of our business.

This does nothing but create uncertainty for our projects. Because of the very substantial amounts of capital required to construct a pipeline on our part, and the substantial contractual burdens on our customers which are involved in supporting a new pipeline, our customers need time- specific guarantees. If we cannot provide them with those guarantees, we will not receive their support and our ability to invest in new projects will ultimately fail. The introduction of these non-objective influences into Federal agency's decision making process has created an atmosphere of uncertainty which ultimately jeopardizes our company's ability to invest and create jobs.

If you have any further questions, please let me know.

Most Sincerely,

BRIDGER

H.A. Tad True
Bridger Belle Fourche Pipelines