

The Fight to Stop Extreme Fuels: The Keystone XL Oil Pipeline and Beyond

Notes from a presentation at Park Slope United Methodist Church
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This talk has the following 4 sections:

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1. The Era of Extreme Fuels

Martha Cameron

Last August Gary and I were among the 1,253 people who were arrested at the White House as part of a two-week-long protest against the Keystone XL pipeline. We had originally planned to give a talk about that experience, but the more we got into the subject, the more we realized that focusing on the XL pipeline alone was not sufficient. The problem wasn't the pipeline. The problem is our whole energy system.

Oil has played a huge role in making the United States the wealthiest and most powerful nation on the planet. During the 19th century and much of the 20th century, the United States was the world's leading producer of oil. Especially after World War II, U.S. military power was unmatched, and plentiful supplies of oil fueled its phenomenal economic growth.

But things have changed. The planet is approaching "peak oil," the easily accessible light crude oil that once existed in abundance in Texas and the Middle East. We now import more than half of our oil, about 20% from the Middle East, Africa, and Venezuela. At the same time, global energy demand is increasing, especially from China, India, and other developing nations. As a result, high demand and high prices make extreme fuels – hard-to-access, hard-to-extract fuels like gas – very profitable. Tragically, extreme fuel extraction is devastating to people and to the natural environment.

Consider top removal (1) Appalachia is one of the most biologically diverse temperate forest areas on the planet. Unfortunately, it also has lots of coal. And the easiest way to get at that coal is by mountain-topping – literally, cutting down the trees and blowing the top off the mountain. When that's done, giant earth-moving machines 20 stories high scoop out the coal and dump the waste rock into the valley streams below. The coal is washed, leaving behind a toxic slurry of chemicals and heavy metals that is stored in huge waste ponds all over Appalachia.

In the last 20 years, almost 500 mountains have been leveled and hundreds of miles of headwaters have been damned up, causing flash floods, destroying towns, killing people. In 2000, a waste pond burst, sending 300 million gallons of toxic sludge cascading into the Big Sandy River in Kentucky. The EPA called it the "worst environmental disaster east of the Mississippi" – but nothing changed.

Then there's deep-water drilling for oil. We all remember the BP oil spill (2) in the Gulf of Mexico last year. In April 2010, the Deepwater Horizon blew, killing 11 workers. Over the next three months, it spewed 4.9 million barrels of oil into the Gulf of Mexico. The floor of the ocean is now coated with oil and toxic dispersants. Chunks of oil are still washing up on Louisiana's shores. Fishermen in the Gulf are still waiting to see what the

final toll is – it wasn't until four years after the *Exxon Valdez* oil spill that the herring fisheries in Prince William Sound collapsed. They have never recovered.

In November, the Obama administration put 15 new deep-water oil-drilling leases up for sale, 12 in the Gulf and 3 off the coast of Alaska. BP was invited to bid.

And fracking—the enemy at our gate. (3), sand, and a witch's brew of toxic chemicals are pumped into the ground under high pressure to fracture the shale and release the gas within. Like nuclear power, natural gas is touted as “clean energy,” but it's not. It's methane, a greenhouse gas that is 21 times more potent than CO₂. And fracking uses enormous amounts of water: the EPA estimates that 70 to 140 *billion* gallons of fresh water are used to frack the 35,000 wells that currently exist in the United States – about the amount of water used by a city the size of Chicago. Gas companies are going after shale deposits all over this country, including New York State and the Delaware River Basin. If Governor Cuomo permits fracking, we could see as many as 100,000 wells drilled upstate over the next 20 years. The draw-down on our water supply will be enormous. Add to that the very high probability of groundwater and soil contamination with methane, radon, and toxic chemicals and we have a disaster on our hands.

Nuclear power is often promoted as “clean energy” because it doesn't burn fossil fuels or generate greenhouse gases. It uses enriched uranium to create electricity. Actually, it uses enriched uranium to boil water. Kind of like using a sledgehammer to crack an egg. It also uses lots and lots and lots of water. And we have absolutely no idea what to do with the spent fuel rods, which will remain highly radioactive for hundreds and thousands of years. In the event of an accident – there will always be accidents – the surrounding area is left a wasteland. Think Chernobyl. Think Fukushima. Think Indian Point, just 26 miles away from New York City.

The Tar Sands

Tar sands oil is another form of extreme energy. It is derived from bitumen that is mined from the tar sands located under the boreal forest of northern Alberta, Canada. Tonight we are showing *White Water, Black Gold*, a Canadian movie about tar sands oil extraction and its impact on Canada's environment, especially its water. A trailer of the movie can be seen at <http://vimeo.com/17123122>

As you watch the movie, it's useful to keep some facts about Canada in mind:

- Canada is the second largest country in the world, after Russia.
- It has the second largest reserves of oil in the world, after Saudi Arabia.
- It has the third largest reserves of freshwater in the world, after Brazil and Russia.
- It has one-third of the world's boreal forest – the northern coniferous forest that is three times the size of the earth's rain forest.
- It has a very small population – only 34 million people, one-tenth the population of the United States. Most Canadians – 85% – live in urban areas within 200 miles of the U.S.-Canada border. But 80% of First Nations people live in the northland, and still depend on the land for their livelihood.

The Alberta tar sands cover 54,000 square miles and contain an estimated 1.7 *trillion* barrels of oil. At present, tar sands production consumes 600 million cubic feet of natural gas per day. Every barrel of oil produced consumes 4 barrels of fresh water. So far only 3% of the tar sands has been mined; nevertheless, Canada's greenhouse gas emissions have skyrocketed in recent years, to 27 million tons. If production quadruples by 2020, as is expected given current market demand, emissions will increase to 158 million U.S. tons, further accelerating global climate change.

But tar sands oil is worthless without a pipeline to get to market.

The Keystone XL Pipeline

There are already dozens of pipelines carrying oil and gas from Canada into the United States (4). The Keystone is simply the biggest. If President Obama ultimately gives the go-ahead to the final phase of the pipeline, the Keystone XL, (5)it will also be the longest. It will carry 1.3 mbd (million barrels per day) of tar sands oil, a highly corrosive, highly volatile mix of bitumen and natural gas, from northern Alberta to the Gulf of Mexico in Texas – a distance of 1,700 miles.

All pipelines leak – a weld doesn't hold, the metal corrodes, the pipes get old. Or they are sabotaged. With a pipeline the size and length of the Keystone XL, the chances of a leak increase exponentially. A spill involving tar sands oil – diluted bitumen, or “dilbit” – presents almost insurmountable cleanup problems.

In July 2010, close to 19,000 barrels of tar sands oil spilled into Michigan's Kalamazoo River from an Enbridge pipeline, killing everything in its path and even threatening to flow into the Great Lakes. A year later, only 10% of the oil has been cleaned up. This summer, an Exxon pipeline burst, spilling 40,000 gallons into Montana's Yellowstone River, threatening water birds, turtles, and fish, including the rare freshwater pallid sturgeon. Nine days ago, tar sands crude leaked from a Suncor refinery into the South Platte River, a major source of drinking and agricultural water for Colorado, including Denver. Like so many of these leaks, it was discovered not by a government watchdog but by a fisherman. After he reported the leak, it took 12 hours to shut down the pipeline and a full day for the EPA to arrive on the scene.

TransCanada estimates “no more than” 11 major spills from the Keystone XL pipeline over its 50-year lifetime. TransCanada also estimated that its phase 1 Keystone pipeline would spill once every 7 years; in fact, it spilled 12 times in its first year of operation.

Many people were jubilant when Obama postponed his decision on the Keystone XL. “We won!” they said. But the truth is, we haven't won anything. Big Oil is profiting hugely (6) from tar sands production and stands to profit even more as demand grows. The Koch brothers alone, those infamous funders of climate change denial, control 25% of tar sands oil imported into the U.S. Their Flint Hills subsidiary is one of Canada's largest crude oil purchasers, shippers and exporters. Without an enormous and sustained grassroots fight, the KXL will go through after the election, regardless of who wins. It is simply naïve to believe otherwise.

If there is no KXL, Canada will find a way to get its oil to market, most probably by running a pipeline to the coast of British Columbia and shipping it from there to Asia. Running a pipeline through the United States enables the U.S. to determine who gets the oil. At present, none of this oil is for U.S. consumption. It is all destined for a foreign trade zone in Port Arthur, Texas (guess what? no taxes!), where it will be refined and exported to Europe and Latin America. Of the six companies contracted to refine and sell the oil, one is American: Valero, the biggest. The others are Dutch, French, Canadian – and Saudi Arabian. So much for “national security.” Undoubtedly, some of this “ethical oil” will be used to undercut Venezuela's oil and influence in Latin America.

2. The Geopolitics of Oil

Martha Cameron

One of the arguments for extreme oil and gas that we hear a lot is “national security.” Unlike the other three main suppliers of foreign oil to the United States – Saudi Arabia, Nigeria, and Venezuela – Canada is a “liberal democracy.” In other words, just like us. Pro-pipeline forces characterize oil from the tar sands as “ethical oil.” Of course, this is all hogwash. How does the poisoning of First Nations people in northern Alberta differ from the destruction of the Ogoni people in Nigeria? What’s ethical about ecocide?

Energy is about power. It *is* power. It fuels our industry, our economy, and our military. We’ve all heard the phrase, “An army travels on its stomach.” Well, the U.S. Army travels in Humvees. We’re using 16 gallons of oil per soldier per day in our current wars – up from 4 gallons per soldier per day for the 1991 Gulf War and 1 gallon per soldier per day in World War II. Without oil, we can’t maintain the military. And without the military, we can’t ensure our oil supply. It’s that simple.

The United States is still the most powerful country in the world, but in recent years, its economic hegemony has been challenged by developing nations, most notably by energy-hungry China. And Russia, which is energy- and resource-rich and still has a significant military force, is also emerging from the ashes of the Soviet Union.

Geopolitical Hot Spots

In his 2008 book *Rising Powers, Shrinking Planet*, Michael Klare, a professor at Hampshire College and a leading authority on energy and geopolitics, describes a number of energy hot spots around the globe: the Middle East, Central Asia, the Gulf of Guinea off the west coast of Africa, and the East China Sea.

Much of our oil comes from the Persian Gulf, which we controlled handily until the mid-1970s, but which is increasingly unstable. In 1981, under the Carter Doctrine, the U.S. declared that any challenge to the flow of oil from the Middle East is a threat to our national interest. In other words, possible grounds for war. We have repeatedly gone to war in the Middle East, either directly or by proxy, and most of those wars have something to do with oil. We maintain a huge military presence there – the place is studded with military bases and we make sure that our ally Israel is armed to the teeth, ready to strike out against any threat to our interests.

But as Klare delineates in detail, China, India, and Japan have all been cultivating closer ties with Saudi Arabia, Kuwait, Iraq, and, most especially, with oil-and-gas-rich Iran. China has supplied Iran with anti-shiping missiles that can be deployed against oil tankers in the **Strait of Hormuz** in the event of attack by either Israel or the U.S. In 2007, Iran and Russia signed an energy cooperation agreement that would enable Iran to market its gas to Europe via Russian pipelines in the event of a blockade by the U.S. And Russia has stepped up its arms exports to the Persian Gulf.

Central Asia is another hot-spot. Russia and the United States both began increasing their military capacity in the area after extensive oil and gas reserves were discovered in the Caspian Sea off the shores of Kazakhstan, Uzbekistan, Turkmenistan, and Azerbaijan, all former republics of the Soviet Union. The U.S. keeps bases in Kyrgyzstan and Uzbekistan, ostensibly to defend against terrorism exported from Afghanistan, but in fact to impede Russian influence in the region. Needless to say, Russia is not happy with this potential threat in its own backyard. China has also been cultivating Kazakhstan, with the goal of developing pipelines, and it too has been contributing to the arms buildup.

Six years ago, China and Japan almost went to war over the Chunxiao natural gas field located in the **East China Sea**, in the waters between the two countries. This dispute remains unresolved, and both countries have increased their military presence in the area.

In his book, Klare identified two loose energy and geopolitical alliances. One revolves around China and Russia, and includes Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. The other centers on the U.S. and Japan and includes Taiwan and South Korea, as well as, more loosely, Australia, Vietnam, India, and Indonesia. In 2009, Klare called these groupings “proto-blocs” because, at the time, the allegiances of the various players were quite fluid, with both collaboration and competition between and among all the countries. Today, however, these proto-blocs are hardening.

The Obama Doctrine

The emerging Obama doctrine suggests a significant shift in our foreign policy: away from the ideologically driven war on terror in the Middle East and toward economic – and military – containment of China and Russia. In the Asia-Pacific region, there is growing contention in the **South China Sea**, which contains huge oil and natural gas deposits, as well as mineral resources. “It also serves as the main route for ships traveling to and from Europe, Africa and the Middle East to China, Japan, South Korea and Taiwan,” Klare notes in a recent *Nation* article (7). “The Chinese say the South China Sea is part of their national maritime territory and that the oil and gas belong to them; but Washington is insisting it will fight to preserve ‘freedom of navigation’ there, at whatever cost.” China, which imports 80% of its oil by ship, clearly sees Washington’s actions as a direct threat to its sovereignty and economic survival.

And no wonder: in recent months the U.S. has been actively tightening its ties with nations in the Asia-Pacific rim. “In the last year the Pentagon has . . . negotiated wider access to military facilities in Vietnam, Singapore, and the Philippines,” notes the British *Guardian*. (8) The U.S. just signed a new military agreement with Australia. Add to that the fast-tracked free-trade agreement with South Korea, rapprochement with Myanmar, a military buildup at the hundreds of U.S. bases throughout the Pacific Rim – Guam, Okinawa, Hawaii, etc. – and one can understand China’s concern.

The U.S. has also recently signed missile defense system agreements with Turkey, Romania, and Poland and is increasing its warships in the Black and Mediterranean seas. All this supposedly to guard against an attack from Iran. But these maneuvers are clearly aimed at China’s potential ally, energy-rich Russia.

If this saber-rattling continues, we may be looking at a new cold war, largely built around the need for energy. As the possibility of year-round shipping and exploitation of the vast oil and gas reserves in the **Arctic Circle** opens up, boundary disputes between the five Arctic nations – Norway, Denmark, Canada, Russia, and the United States -- are increasing in that area as well.

So. We’re pouring money into building infrastructure for extreme energy sources that will vastly accelerate climate change and likely run out within 20 years or less – about the same time we start running out of fresh water. And the U.S. is starting down a familiar path – with predictable responses from other countries – in order to secure energy and other resources (and prevent others from gaining an economic upper hand).

Today climate change has all but disappeared from the public discourse. Instead we are hearing the demand for jobs, jobs, jobs, full speed ahead and damn the torpedoes! So let’s take a look at how the demand for jobs articulates with the need to protect our planet.

3. Jobs and the Environment

Gary Goff

I've been a labor activist for over 40 years. I take the question of jobs very seriously. Here I want to talk about jobs from three perspectives: claims of jobs creation put out by the energy industry, the effect of climate change on jobs, and green jobs versus traditional jobs.

The Energy Industries' Claims

The last 10 years or so, if a businessman or politician wanted something, he couched it in terms of the War on Terror. If he felt he could get away with it, he might even say, "If I don't get what I want, the terrorists have already won!" These days we're more likely to hear that some congressional bill or business venture is going to create jobs. The Keystone XL pipeline is a case in point.

Spokespeople for the petroleum industry have made such a wide range of claims that it's hard to take them seriously. If the KXL is built:

- "Hundreds of thousands of new American jobs" will be created.
- No, wait, it's 21,000 . . . but it could grow "to 465,000."
- Seriously, it's a million jobs.
- No really, we're going to create 20,000 jobs.

I'm not making these numbers up – the petroleum industry is. Maybe to stop this spectacle of "industry experts" winging it in public, TransCanada finally funded an official study of potential KXL jobs. The Perryman Group concluded that between 65,000 and 75,000 jobs would be created. But a close reading of the report reveals that many of these jobs would be "indirectly" created by the project – retail jobs near the pipeline and the like. And no methodology was given for how these projections were arrived at. In the report's fine print we find the following telling caveat, "Readers are cautioned to not place undue reliance on the forward looking information."

The only study of the pipeline's potential for jobs creation that wasn't tied to the industry was done by Cornell's Global Labor Institute. It concluded that jobs created would be "no more than 2,500–4,650 temporary jobs."

In fact, the pipeline might result in a net loss of jobs in some regions. For instance, some crude oil from the tar sands is already being piped to refineries in Minnesota, where it is sold. If the XL pipeline is built, this crude might be rerouted to Texas because it would be more profitable to sell it overseas. If that happened, those jobs in Minnesota would be lost.

Similar stories can be told about the job creation claims coming from every branch of the energy sector. But I'll just give you one more brief example.

A study subsidized by the natural gas industry maintained that fracking the Marcellus Shale could create more than a quarter million jobs. The environmental group Food & Water Watch found that only 1,012 jobs would be created. And others convincingly argue that opening upstate New York to fracking would actually produce a dramatic decline in employment – particularly in fields related to agriculture and tourism.

So when you hear energy industry flacks talk about job creation, don't take their claims at face value.

Climate Change Is Already Killing Jobs

Beyond this is the fact that climate change and other forms of environmental degradation are already destroying jobs.

It's well documented that climate change is leading to extreme weather. Hurricanes, tornadoes, floods, and droughts are increasing in number and becoming more severe. This extreme weather is costing lots of jobs. And too often people don't just lose their jobs – they lose their lives.

In 2011 there were over 1,550 confirmed tornadoes in the U.S. At least 552 people lost their lives. That's approximately equal to the number of tornadic deaths in the U.S. in the prior 10 years. Those tornadoes basically flattened Joplin, Missouri – including the businesses. Add to that 21 businesses around Raleigh, North Carolina, several in Springfield, Massachusetts, and dozens of other cities and towns.

In August of 2011, Hurricane Irene destroyed seven businesses in Cornwall, New York, a small town with fewer than 13,000 inhabitants.

That spring, flooding in the Midwest was so severe that the Coast Guard closed parts of the Mississippi to commercial traffic. The floods destroyed businesses and crops. The fertilizer that was washed into the river system ended up in the Gulf of Mexico, which, as a result, had a dead zone that year of 6,765 square miles. This impacts on Gulf state economies. Tourism and the fishing industry took big hits.

And of course, you've heard of the drought in Texas, where temperatures – on average – are 5.4 degrees F above normal.

In 2011 just 14 weather- and climate-related events in the United States have cost businesses over \$1 billion.

I haven't even mentioned the rest of the world: the massive floods in Thailand, Cambodia, Pakistan, Australia, Brazil, and throughout Central America (El Salvador had over 60 inches of rain in 10 days). Or the long-term drought in East Africa, where millions face starvation.

About now, the argument that we must choose between jobs and the environment starts to sound hollow. On the one hand, you have the energy companies regularly lying about the jobs they'll create. On the other, you can clearly see climate change and other types of environmental degradation destroying jobs. Not sometime in the future. Right now.

As we fight against climate change and other forms of environmental degradation, we need to foster a consciousness that the fight to save the planet is also a fight to save jobs. It is essential that we develop deep ties between environmentalism and the labor movement. On this, John Bellamy Foster has a perceptive piece called *The Limits of Environmentalism Without Class*. I recommend it.

Green Jobs

As numerous studies show, green technology creates more jobs per investment dollar than traditional technology. One interesting study by the Pew Charitable Trusts found that in the decade before the current recession, here in the United States green jobs grew nearly 2.5 times faster than traditional jobs. And remember, most of that was under Bush and Cheney – bitter foes of the green economy.

Despite what we constantly hear from politicians and energy industry spokespeople, technology that could use wind, water, and solar resources to supply the entire world's energy needs already exists. What's lacking is not technology but political will.

And if you hear politicians or pundits talking about natural gas as a “bridge fuel” – something that will help us transition to a green future – don’t buy it. It would be like a general saying he’s sympathetic to the antiwar movement’s goals, but first he needs to develop a “bridge weapon” that will allow him to end the war. It doesn’t make any sense.

4. Where Does the Environmental Movement Go from Here?

Gary Goff

Rather than present a detailed program – which will look dated as soon as the next environmental catastrophe makes headlines – I want to talk in more general terms. I’m going to make five general points.

The Limits of Localism

Sometimes “thinking globally and acting locally” isn’t enough. People in Texas and Louisiana are coping with the mess left by BP’s blown deep-water oil rig. Folks in upstate New York are furiously fighting against fracking. The good people of Appalachia are struggling to end mountaintopping. Around the country people are trying to shut down nuclear power plants. And folks in the heartland are trying to stop the Keystone XL pipeline. These are all righteous struggles, but even as we continue to wage these struggles fiercely, we need to go further. The environmental movement needs to formulate a new energy policy that we can push legislatively.

We need to apply ecological principles to the environmental movement. You may recall that ecology is about the interconnectedness of everything in nature. Every aspect of environmental struggle – sustainable agriculture, fracking, smog, whatever – will be strengthened if we understand how it is tied to every other aspect of environmental struggle.

War and the Environment

Energy is a dominant force driving today’s geopolitics. Wars are largely about securing resources. My second point is that environmentalists need to join the antiwar movement – need to be the environmental voice within the antiwar movement. And antiwar activists need to become serious environmentalists. Neither of these problems can be solved in isolation from the other.

Beyond Climate Change

Not too long ago the Stockholm Resilience Centre identified nine planetary boundaries (9). For each of these nine boundaries, once we cross over certain thresholds, there is no going back to the way things were. These scientists in Stockholm – backed up by others around the world – say we’ve already crossed three of these boundaries and are approaching or possibly approaching the other six. I don’t have space to go into them in detail. But I want to talk briefly about one of them to give you a taste.

Extinction may be the aspect of environmentalism that first entered popular consciousness. It’s also the most scoffed at. “Those tree huggers are all bleeding hearts who want to save their precious spotted owls or some other damned animal nobody’s ever heard of,” we hear. “Those ninnies care more about animals than they do about people. Don’t they know that extinction is natural?”

Well, every species of plant or animal is part of an ecosystem and has a role to play in it. Recycling waste. Pollinating plants. Filtering water. Whatever. Sometimes in the natural course of things, a species does go extinct. Nature adjusts and life goes on. This is called the background rate of extinction. Right now, we are living in what scientists call the Anthropocene, the Age of Humans. And humans – by their activity, by the

destruction of natural habitats, and so forth – are causing extinctions at over 10 times the normal background rate. This is so many so fast that nature doesn't have time to adjust. Scientists call this current period the "sixth extinction." The last one – 65 million years ago – was what did in the dinosaurs.

This is one of the three boundaries we have already crossed. This means that in terms of biodiversity we can never go back to the environment of the Holocene Period – the period that covers roughly the last 10,000 years of human development.

Economics and Ecosystems

We sometimes hear financial analysts talk about a "sluggish economy." Generally they mean the economy is growing by less than 3% a year. Even at this minimally acceptable rate, the economy will double in about 24 years. By the end of a century, it will be 16 times bigger than it was when it began.

I'm going to go out on a limb here and suggest that an economic system that requires perpetual exponential growth but operates in a world of finite resources is not sustainable. In fact, I'd go so far as to say it's a major factor contributing to the looming environmental catastrophe.

My wife and I have solar panels on the roof of our house. As proud as we are of that, it's the effort of a couple of individuals. The world's environmental problems cannot be solved by individual efforts. They require systemic change.

Urgency

Without driving ourselves crazy or making our families consider intervention, we have to understand that the situation is bad, it's getting worse, and we have a limited time in which to change things. The world needs to move to renewables very soon. This will ease us away from the brink of war and away from environmental catastrophe.

And we should understand that while the environment is seriously deteriorating, our fellow citizens are less and less aware of this. In 2007, a Harris poll found 71% of Americans believed burning fossil fuels caused climate change. By 2009, that figure had dropped to 51%. Last year it was down to 44%.

We have our work cut out for us.

Footnotes: (links)

1. <http://earthobservatory.nasa.gov/Features/MountaintopRemoval/>
2. <http://www.treehugger.com/corporate-responsibility/bp-gulf-oil-spill-cheat-sheet-a-timeline-of-unfortunate-events.html>
3. <http://unitedforaction.org/home/what-is-fracking/>
4. <http://www.capp.ca/getdoc.aspx?DocID=191097>
5. http://www.transcanada.com/keystone_pipeline_map.html
6. http://en.wikipedia.org/wiki/Athabasca_oil_sands
7. <http://www.thenation.com/article/164763/obamas-china-syndrome>

8. <http://www.guardian.co.uk/world/2011/nov/16/china-us-troops-australia>
9. <http://www.stockholmresilience.org/research/researchnews/tippingtowardstheunknown/thenineplanetaryboundaries.4.1fe8f33123572b59ab80007039.html>