



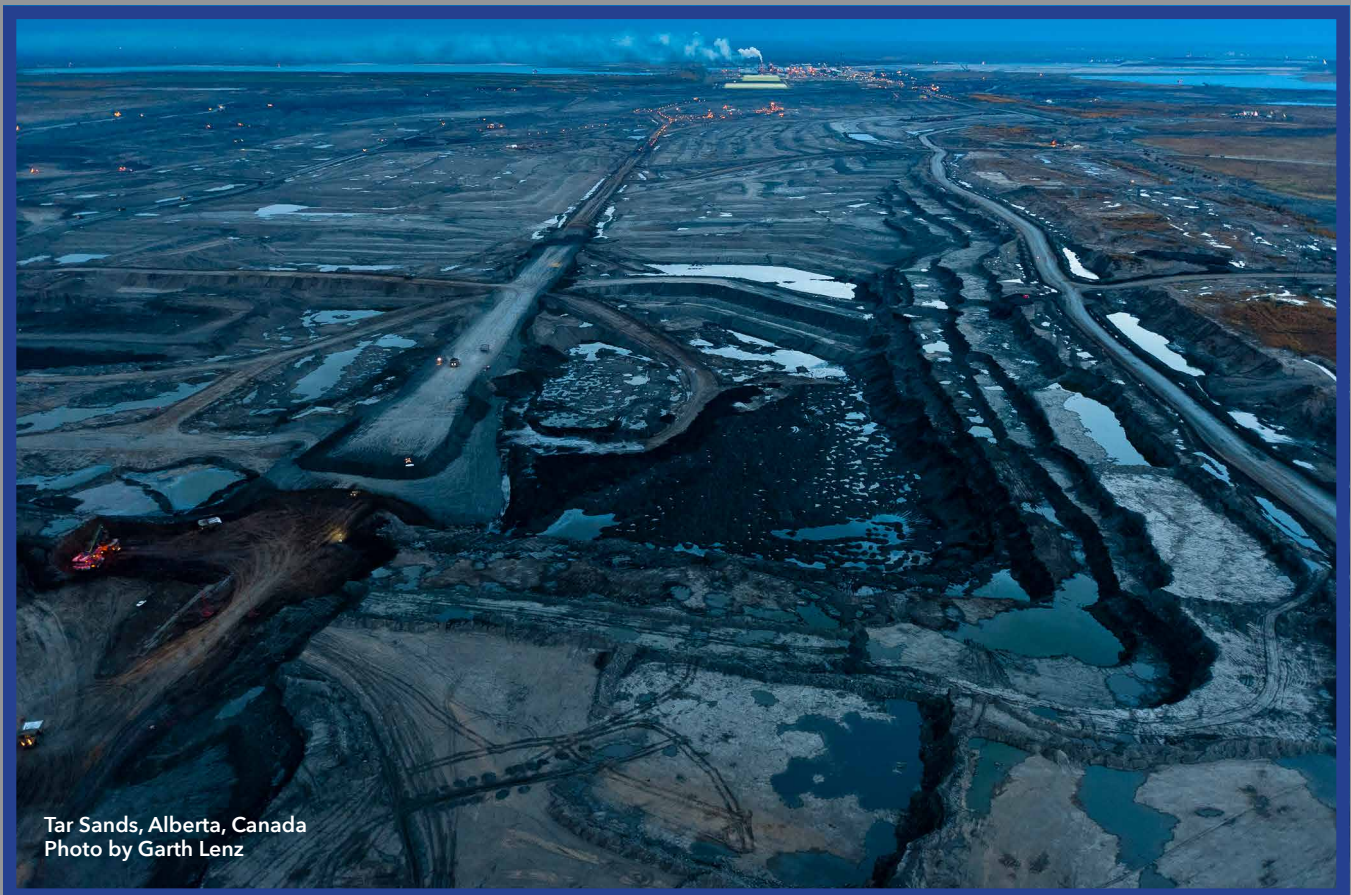
**CENTER
FOR SUSTAINABLE
ECONOMY**
Building the DNA of the New Economy

July 15, 2019

REPORT

CRUDE BAILOUT:

How Global Partners' and Zenith Energy's
Oil Terminals Subvert Democracy,
Endanger Human Life and Health,
and Pollute the Planet



Tar Sands, Alberta, Canada
Photo by Garth Lenz

*Research and information undertaken on behalf of
the Center for Sustainable Economy
by Material Research, L3C*

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About This Paper



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At the Center for Sustainable Economy, we work with partners to accelerate the transition to a sustainable and just society. We believe that an economy based on renewable energy, public transit, thriving native ecosystems, local business, and cultural diversity is one that delivers genuine progress for all.

The transition we seek is long overdue, and won't come from a handful of experts talking to a handful of decision makers. Instead, we believe that the systemic changes we seek must evolve naturally from an engaged and informed electorate, conscientious consumers, businesses that have community wellbeing as a core value, politicians who are willing to be bold, and strong social movements. [You can support our work here.](#)

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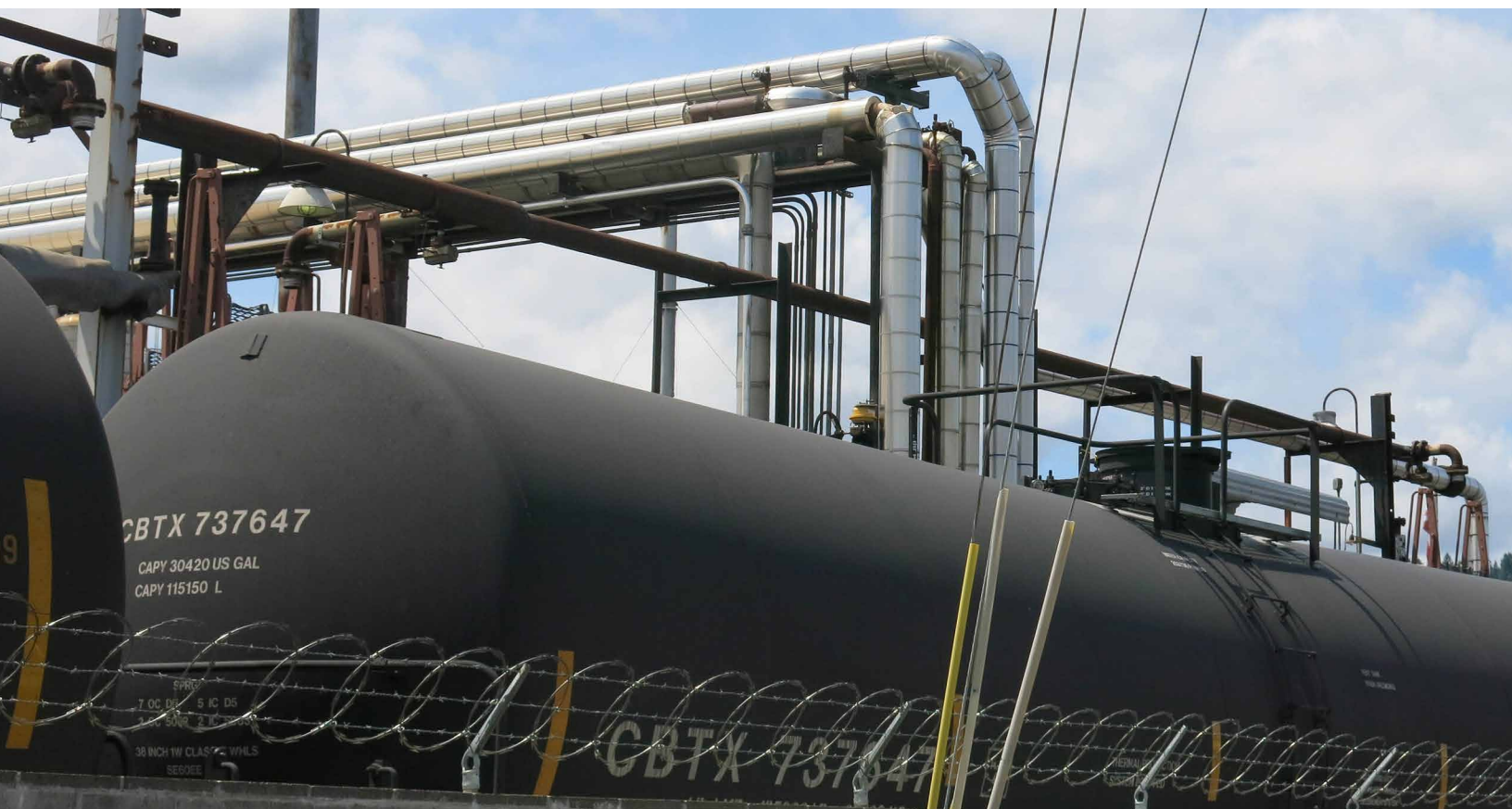
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A. Executive Summary

Two companies are expanding their capacities in Oregon to transfer crude oil from trains for shipment to domestic and foreign ports.

- **Global Partners**, LP, a major transporter of crude-by-rail, recently won approval from the Port of Columbia County, OR, to store and transfer a wide range of crude oil products at its Port Westward terminal in the town of Clatskanie, OR.
- **Zenith Energy Management**, Oregon's newest and largest facilitator of crude oil exports, in the Port of Portland, is working strategically to expand its terminal and operations, in spite of the high-risk location for transport and storage of hazardous materials.

Financial backers of Global Partners and Zenith Energy are heavily invested in Canadian tar sands and Bakken shale oil developments. These investments are driving a current surge in rail-based shipments of oil through the Columbia River basin, and there are big plans underway to significantly expand these operations at the companies' terminals in Portland and Port Westward.

This corporate background paper, researched by Material Research L3C on behalf of the Center for Sustainable Economy (CSE), reveals:

- the wider context in which these terminals operate;
- the tar sands ventures that Global Partners, Zenith Energy and their investors are deeply committed to exploiting for private gain at an incalculable cost to the public;
- their desperation to find outlets; and,
- the manner in which crude oil from these operations could be delivered to Global Partners' transloading terminals in North Dakota and onward to the Portland area.

This paper also illustrates how these companies and their financiers nurture political connections and relationships that can help smooth the passage of legislation and permits that facilitate the flow of crude-by-rail through Portland and out to the world. The collective political power of the financiers behind these two terminals is substantial, and until now, largely underreported.

A primary financier of both the Zenith and Global Partners operations sites is Richard A. Kayne, an American billionaire private equity investor, who is closely aligned with the Koch brothers' financial and political networks and a major Republican Party campaign donor. Kayne financed Global Partners' acquisition of strategic sites in North Dakota and Oregon. Another financier, Timothy Geithner, who worked as



Former U.S. Treasury Secretary
and Federal Reserve Chair
Tim Geithner, now president
and managing director of
Warburg Pincus.

President of the New York Federal Reserve Bank from 2003-09, and as U.S. Treasury Secretary under former President Barack Obama from 2009-13, is widely credited with playing a major role in the Wall Street bailout following the subprime mortgage crisis of 2008. Geithner is now director of Warburg Pincus investment company, which created Zenith Energy to facilitate the flow of crude to and from Portland. Warburg Pincus is deeply invested in the Bakken and tar sands region and, together with Global Partners, is a leading donor to Democratic candidates at all political levels.

In December 2014, the head of Warburg Pincus' energy group, David Kreiger, noted they had investments in five plays in the Canadian oil patch, and predicted that investors would find that in "the services side or the midstream side, you can find growth potential at good rates of return all over."¹ Those investments' values have plummeted. On August 1, 2014, shares in Warburg Pincus creation MEG Energy sold for \$35.75. On July 12, 2019, MEG was selling for \$4.11 per share. Grassroots campaigns in opposition to the Keystone XL Pipeline to the Gulf Coast and other new or expanded pipelines to the Pacific and Atlantic coasts have thwarted tar sands market access.

Warburg Pincus' creation of Zenith Energy and Zenith's subsequent purchase of the Portland terminal in late 2017, can be seen as a "bailout plan" for its investments in tar sands. Shipments from the Portland terminal since have reached refineries in China and Korea. Most have been delivered to refineries on the U.S. West Coast, usually in California (Long Beach, Los Angeles, Martinez, and San Francisco). There also was one shipment to Anacortes, Washington.

Global Partners and Zenith Energy are linked by more than a river and rail line. Kayne and Warburg Pincus share directorships and investments in corporations that extract crude oil from the Bakken Formation of North Dakota and tar sands crude from Canada's Athabasca Tar Sands region. These investments further overlap at transloading stations owned by Global Partners in North Dakota, where Global Partners receives truck and pipeline deliveries of Bakken and tar sands crude, and forwards them by unit train -- trains transporting a single commodity, in this case, crude oil -- to outlets in Oregon and beyond. The Portland and Port Westward (Port of Columbia County) terminals in Oregon, should they proceed as planned by their corporate backers, are key to recouping and compounding the return on their investments.

This paper explores the backgrounds of these investors. It explores what Port Westward, Portland, and communities along the way, are already experiencing in the terminal expansion efforts: governance managed by the biggest campaign donors at peril of a clean environment, human health and safety and democratic governance.

B. Key Findings

Global Partners and Zenith Energy expedite the extraction and consumption of vast amounts of fossil fuels around the world. Their public identities -- and interconnected relationships in financial, political, and energy development circles -- are complex. Their global track record is opaque. This paper attempts to make more transparent the broader context of these companies' efforts to expand the flow of crude oil through the Ports of Portland and Columbia County (home to Port Westward).

1. Crude Players

- Billionaire fossil fuel investors like Richard Kayne and the Koch brothers, and financial institutions like Barclay's Bank, are directly or closely related to Global Partners, Zenith Energy, and

crude shipments from Canadian tar sands and the Bakken to these terminals.

- Values of shareholdings in tar sands companies have diminished significantly in recent years, due in part to depressed oil prices but also to limited outlets to export markets.
- Absent the massive Keystone XL pipeline, Bakken and tar sands investors are creating alternative pathways to bring their products to market. Global Partners operates key junctions -- the Basin Transload stations in North Dakota -- for crude to be transferred from pipelines and trucks to unit trains destined for Portland, OR, and other outlets.
- In a sign of these investors' desperation to get crude to market, oil trucks from Canada are streaming over the North Dakota border near the northernmost Beulah, ND, Basin Transload station; this influx corresponds with increasing shipments of oil trains to the Portland area.

2. Political Influencers

Principals attempting to expand the flow of Bakken and tar sands crude through Portland and Port Westward also have invested, through campaign donations, in politicians. Hundreds of thousands of dollars are flowing from the terminal backers to officials at the federal, state, and local levels. (Oregon is one of five states in the U.S. that has no limit on political campaign contributions.)

The oil terminal companies and their backers cover both sides of the partisan divide:

- Global Partners, based in Massachusetts, leans Democratic; and yet, Koch Brother-allied Richard Kayne, a key Republican campaign donor, keyed the company's acquisition of transloading and terminal infrastructure from North Dakota to Oregon.
- Zenith Energy is the creation of the investment firm Warburg Pincus whose president, Timothy Geithner, presided over the U.S. Treasury under President Obama at a time when the Obama Administration famously supported an "all of the above" energy strategy, including expansion of fossil fuel consumption, despite his acceptance of the climate science.

3. Questions of Safety

These two companies, Zenith Energy and Global Partners, and their determination to recoup their investments are a threat to public safety and the environment.

- Zenith Energy's oil tanks are located on the Columbia River in a flood plain, between two earthquake fault lines. Global Partners' terminal also lies in a floodplain. The dikes protecting the area from flooding are aging. Earlier this year, this area felt a swarm of small earthquakes.
- Zenith Energy and Global Partners, combined, have been fined more than \$1.1 million for federal violations in seven states. More fines are under consideration.
- Emergency responders are underprepared in training and equipment to handle accidents involving tar sands crude with its heavy concentration of hydrogen sulfide, a respiratory toxicant. Hydrogen sulfide is highly flammable and when it burns, releases toxic gases.² Some aboveground storage tanks (ASTs) on the two terminal sites in Portland and Port Westward are 40 to over 70 years old.
- Some ASTs at the Global Partner's terminal were originally used for bunker fuel, and not designed to contain the more flammable and toxic Bakken and tar sands crude.

- Oil tanks that share structural vulnerabilities with the Zenith or Global Partners terminals have collapsed and polluted surrounding rivers and drinking waters.
- There is a lack of comprehensive, coordinated, publicly protective federal and state regulatory oversight.

By fully considering the history of this industry and its players, regulators and policymakers can best serve the public and prevent future disasters.

C. Crude Players

Two little-known companies are expanding their capacities in Oregon to transfer crude oil from trains for shipping to domestic and foreign ports. Global Partners, LP, recently won approval to store and transfer a wide range of crude oil products from the Port of Columbia County at its Port Westward terminal, near Clatskanie, Oregon. Upstream, in Portland, Zenith Energy is also trying to expand its recently acquired Arc Logistics terminal, despite its location in one of the riskiest places on earth to store hazardous materials.³

Inside Climate News explained why Oregon's outlets are vital to the industry's investments. "Canada's tar sands hold one of the world's largest deposits of oil, but as the industry has expanded production over the past decade, it's been unable to complete new pipelines fast enough to ship it out."⁴

Global Partners and Zenith Energy are obscure corporations to most people. But their efforts - and the financial and political weight behind them - are as forceful as their track records are troubling.

1. Zenith Energy and Warburg Pincus

Zenith Energy U.S., L.P.⁵, describes itself as "a company that stores crude oil, fuel oil, asphalt refined products, petrochemicals and vegetable oils" at 24 terminals, including the one in Portland.⁶ Beyond that, analysts have found the company to be fairly inscrutable. As an investor told Reuters last year, "The company has a lot of leverage and it's a complex story with a lot of moving pieces, which makes it difficult to do due diligence."⁷

Zenith is a creation of Warburg Pincus, circa 2014. Warburg Pincus is a major investor in tar sands and Bakken crude oil fields. Warburg Pincus' president, former U.S. Treasury Secretary Tim Geithner and



Zenith Energy terminal, Portland Oregon

former New York Federal Reserve Bank president, is well connected to Wall Street investors whom he bailed out in the 2008 recession, a stock market crash triggered by poorly regulated subprime mortgage investments. Tim Geithner appears to be applying his bailout expertise this time around to Global Partners' investments, especially those in the Bakken and tar sands region, by ensuring their product reaches export markets.

Geithner joined Warburg Pincus in 2014, the year that Warburg Pincus formed Zenith Energy U.S., L.P.⁸ That year, it raised \$4 billion for energy investments, much of which it then sunk in tar sands investments. Zenith Energy was one of the biggest beneficiaries of Warburg Pincus' round of energy financing: it received a \$600 million line-of-equity commitment.

It is important to note here that Geithner, as U.S. Treasury Secretary, gave Goldman Sachs Corporation a \$10 billion bailout. John Rowan came to Warburg Pincus in 2011 from Goldman Sachs where he focused on energy investments. Rowan, a member of the Warburg Pincus Energy team, is a director of Zenith Energy, and sits on the boards of oil shale companies and midstream companies backed by Warburg Pincus.

In 2017, Zenith U.S. reported that it had received a \$625 million line of equity from Warburg Pincus and Kelso and obtained debt financing for its December 2017 acquisition of Arc Logistics Partners. Arc owned 21 terminals in the U.S. for various liquid products. Seven of these -- including the Portland terminal -- handled crude oil.⁹

When Zenith purchased Arc Logistics, Barclay Bank was its financial advisor. Carlos Ruiz, the Chief Financial Officer of Zenith Energy, previously served as a managing director with Barclays Capital's Natural Resources Group. In 2012, *The Washington Post* reporters Jia Lynn Yang and Danielle Douglass noted that, when Geithner was the head of the Federal Reserve Bank of New York, he had failed to sound an alarm about Barclays' manipulation of Libor benchmark interest rates. Geithner "did not communicate in key meetings with top regulators that British bank Barclays had admitted to Fed staffers that it was rigging Libor, according to people familiar with the matter. Instead, regulators at the Commodity Futures Trading Commission and the Justice Department worked largely without the Fed's help to build a case against Barclays," they reported.¹⁰

In 2018, Warburg Pincus orchestrated (with Barclay's help) Zenith's takeover of Arc Logistics, in Portland, OR. Trains began delivering crude. Zenith's terminal transferred at least four shipments overseas: three shipments to Rizhao, China, and one to Yeosu, South Korea. Sinoenergy -- a private company based in Shanghai, China -- imported at least one of these shipments for use in a refinery (Jinshi Asphalt) in which it holds a 40% stake.¹¹ Sinoenergy is heavily investing in oil sands companies.¹²

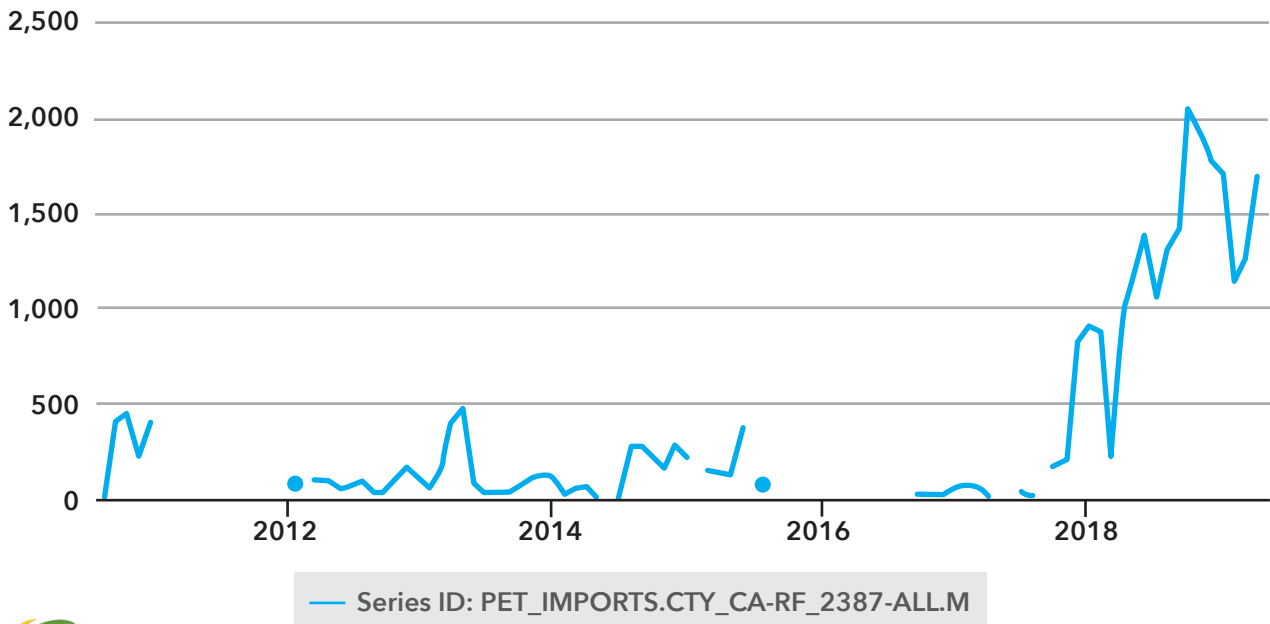
Warburg Pincus' Energy Group is one of two investment groups from which investors are pushing tar sands towards the Portland area terminals. The other is Kayne Advisors, headed up by Richard A. Kayne, which keyed Global Partners' acquisition of the Port Westward terminal.

2. The Global Partners Connection

In 2013, Global Partners acquired control over Basin Transload, which owns and operates facilities in Columbus and Beulah, North Dakota. (The Beulah station is sometimes called the Zap station; these two towns are close to each other.) The transloading stations receive crude from trucks and pipelines

Imports of all grades of crude oil from Canada to UNKNOWN PROCESSOR-ND / UNKNOWN PROCESSOR-ND (2387), Monthly

thousand barrels



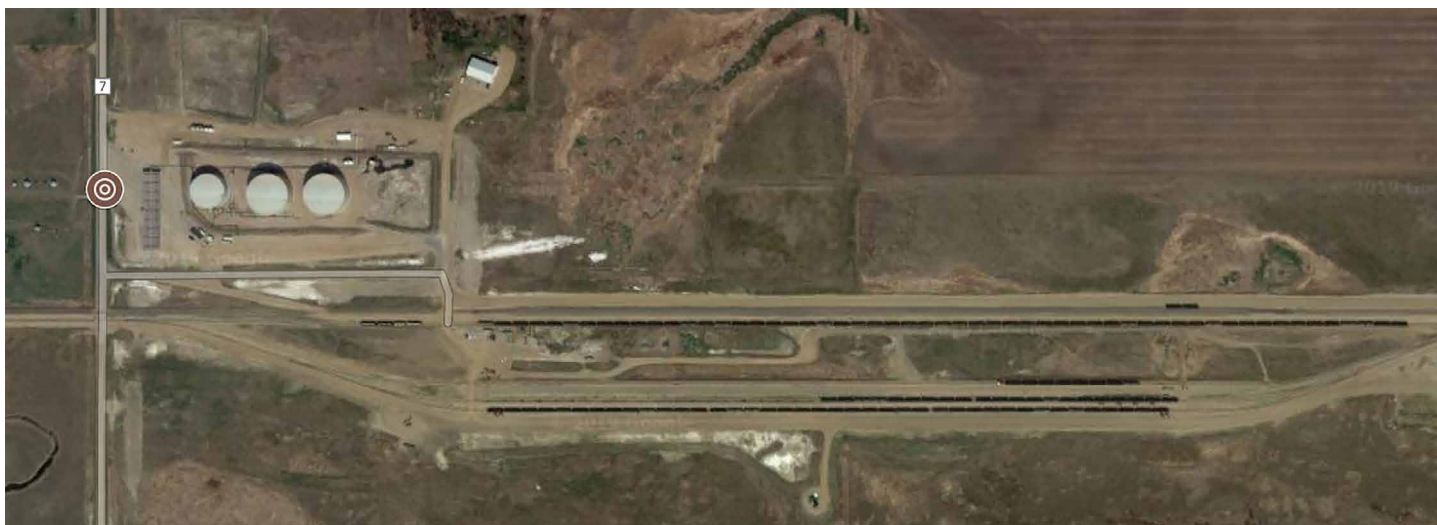
Source: U.S. Energy Information Administration

and transfer the cargo to railcars on the Canadian Pacific (via Columbus) and BNSF (via Buelah/Zap) lines.

There has been a steep increase in the transport of oil by truck across the U.S.-Canadian border. These trucks are entering the country very near Global Partners' northernmost facility in Columbus, ND. U.S. Energy Information Agency data reveals a surge of imports of crude from Canada to an "unknown processor" in North Dakota after Global Partners acquired the transloading sites, and the Port Westward terminal (in 2013), and Zenith acquired the Arc Logistics Terminal in Portland (in late 2017).¹³

Some of the crude being delivered to Zenith's terminal in Portland may have been transferred to unit trains at Global Partners' transloading facilities in Columbus and Beulah, North Dakota. The Stampede Crude-by-Rail / Basin Transload facility in Columbus, ND, is capable of receiving 50,000 barrels per day (bpd) by truck. In 2017, *Pipeline News* reported that nearly 100,000 per month of crude from Canada was coming into North Dakota by truck, mostly through the border town of Portal, which is near Columbus, ND. The Beulah/Zap, ND, transloading site is also able to receive 50,000 barrels per day by truck. By August 2018, tar sands exports by truck reached a record 230,000 barrels per month. Bloomberg described this trend as a sign of "just how desperate Canadian oil producers are to get their crude to market."¹⁴

The director of the North Dakota Pipeline Authority, Justin Kringstad, described the origins of the oil trucks in an email to *Pipeline News* in July 2018. He explained that most of the traffic is coming through Portal "is a heavier barrel approximately 20API gravity," and "is a sour barrel approximately



Unit trains line up near Global Partners' Basin Transload facility in Columbus, ND, near the international border entry point where trucks have been bringing 100,000 barrels per month of crude oil from the Alberta tar sands. Financiers behind Global Partners' purchase of the transloading facilities and terminal in Oregon, and Zenith's purchase of the Arc Logistics terminal in Portland, are heavily invested in these "desperate Canadian oil producers" that are stymied by world-wide resistance to mining, transport, and burning of the dirtiest crude oil on the planet. *Photo: Google Earth Image*

3 per cent sulfur." He added: "While I cannot confirm with absolute certainty, I would speculate that most (of) the heavier, sour, barrels are being blended with light sweet ND barrels and most are being marketed by rail and lesser amounts by pipeline"¹⁵ (emphasis added).

Kringstad's description of the logistics closely matches the idea that trucks in 2018 were delivering tar sand crude to unit trains at the Basin Transload facility in Columbus. Columbus is just 19 miles from Portal. The next closest transloading station is run by Enbridge in Berthold, N.D., which is 75 miles from Portal.

His description of the type of crude shipped also lines up with U.S. Energy Information Administration (EIA) data. According to EIA, the Zenith terminal in Oregon imported 1.1 million barrels of crude from Canada in 2018,¹⁶ of which 299,000 barrels were heavy sour crude oil.¹⁷

3. Kayne: Global's Vital Partner

Billionaire Richard Kayne and his myriad investment firms are key players in these related supply chain infrastructure acquisitions and expansions. Kayne is closely connected to the Koch brothers and President Donald Trump (see Appendix - Donations).

In 2013, investment funds closely affiliated with Kayne - including FS Energy and Power Fund, Kayne Anderson Capital Income Partners - bought \$80 million in debt from Global Partners. This financed Global Partners' acquisition of Basin Transload in North Dakota and the terminal in Clatskanie, Oregon. The Clatskanie



Billionaire Richard Kayne, closely connected to the Koch brothers, helped pay for President Trump's legal expenses.

Another common denominator between Kayne, Warburg Pincus and tar sands investments: David Habachy. Habachy was a managing director and member of Kayne Anderson Energy Funds until 2017 when he joined Warburg Pincus. He and David Kreiger opened a new Warburg Pincus energy investment office in Houston in 2018. Habachy serves as a director on the boards of several tar sands developers in which Warburg Pincus has invested.

The Koch brothers, political allies of Kayne, also are important players in this industry-wide play to use Portland and Columbia County, OR as outlets for tar sands investors. Two directors of Zenith Energy (Kurt Chapman and Steve Mawer) are former executives of Koch Industries.¹⁸ Flint Hills Resources, a Koch company, owns a terminal in Hardisty, Alberta, which is a key hub for the heavy oil industry. As *Inside Climate News* notes, the Koch family has “long and deep investments in Canada's heavy oil industry, which have been central to the company's initial growth and subsequent diversification since 1959.”¹⁹

Another board member of Zenith is David Kinder, who is a nephew of Kinder Morgan co-founder and Chairman Richard Kinder. Kinder Morgan has all but given up on its efforts to expand its pipeline connection from the tar sands over the Canadian Rockies to the port of Vancouver, British Columbia.²⁰

These and other connections between actors in the crude supply chain to Portland and Columbia County can be explored on a [relationship map](#) that Material Research, L3C, developed for this project.

D. Questions of Safety

1. "What is Past is Prologue"

Those words, “what is past is prologue,” are written in stone outside the National Archives in Washington, D.C. Without close attention paid to the history of human and environmental disasters, and equipment failures that characterize the petrochemical industry, Oregon regulators are facilitating a future where these costly, hazardous, and potentially deadly mistakes and accidents will likely be repeated as a result of accepting Bakken and/or tar sands crude by rail.

Accidents and disasters are regularly occurring along pipeline and rail line routes, at aboveground storage tanks, and shipping and transportation facilities. Impacts associated with crude oil extraction, transportation, and processing include the release of noxious air pollutants, explosions that endanger and destroy human life, out-of-control fires that burn for days and weeks, petrochemical contamination of oceans, rivers and drinking water supplies, and wildlife and fishery kills. Like similarly-situated facilities around the world, the terminals in Portland and Port Westward/Clatskanie will endanger residents and communities



and natural resources in their vicinity and far beyond.

2. \$1.1 Million in Federal Fines

Combined, Zenith Energy and Global Partners have been fined over \$1.1 million dollars for violating federal laws in at least seven states. Since 2005, federal agencies have fined Global Partners at least \$877,500 for violating environmental and railroad safety laws in Massachusetts, Maine, North Dakota, and Oregon. In its short existence, since 2014, Zenith Energy has been fined at least \$245,000 by federal agencies for violating environmental and pipeline safety laws in Pennsylvania and South Carolina. (See Appendix for details.)



Zenith protestors take to the Willamette River in Portland, OR.

More fines may be on the way for Zenith and Global. In December 2018, EPA sent a notice of violation to Zenith Energy Terminal Holdings after inspectors found tanks leaking at its Cleveland, Ohio, terminal. "By failing to operate and maintain the facility's air pollution control system in accordance with good air pollution control practices, Zenith violated and continues to violate 40 C.F.R. § 60.1 (d)" (that is, performance standards), EPA wrote in its notice.

Even with these patterns of improper and negligent performance, oil terminal operators claim they have the public's trust. "Our customers trust us with the safe and efficient storage of their critical products," a Zenith spokesperson told Oregon Public Broadcasting earlier this year. "Zenith provides services to some of the largest companies in the world and has passed their vigorous inspection and vetting requirements."

The terminal companies' track records belie such assertions. For example: In 2014, Global Partners was criticized for its response, or lack thereof, to a 100-gallon oil spill at its Albany, New York, terminal. "They're not telling us if it was a DOT 111 or what type of train it was. They never called the Albany Fire Department. They never activated the 911 system. And I can tell ya being a former firefighter that was stationed at that house, that responded to the port, we would go down there for the littlest thing," Albany County Executive Dan McCoy was quoted as saying, adding, "Something went wrong. To me, it's another cover-up at Global Partners. They're not trying to be a good partner. They should have called the sheriff's department, they should have called the County Executive's office. We should have [gone] down there, made sure there was nothing wrong..."²¹ In 2015, after a fitting on a containment device failed, another crude oil spill at the Albany terminal sent two people to the hospital.²²

These spills occurred in a period when Global Partners "quadrupled the amount of explosive Bakken

crude oil it handled at its facility, turning Albany into a crude oil hub and dramatically increasing the amount of this dangerous cargo transported by train and barge down the Hudson River,” noted Scenic Hudson, a New York conservation group. Global’s plans to keep expanding faced pressure from the local community, especially residents of the adjacent Ezra Prentice Homes low income housing community. “This close proximity to the Port places residents at increased risk of being exposed to volatile organic compounds found in crude oil,” noted the New York State Bar Association.²³

New York Governor Andrew Cuomo, and the EPA, also raised objections. By May 2018, Global Partners scaled back its operations, including plans to handle heavy tar sands crude.²⁴ By then, Global Partners had turned its attention to its next best hope for transport and export: Port Westward.

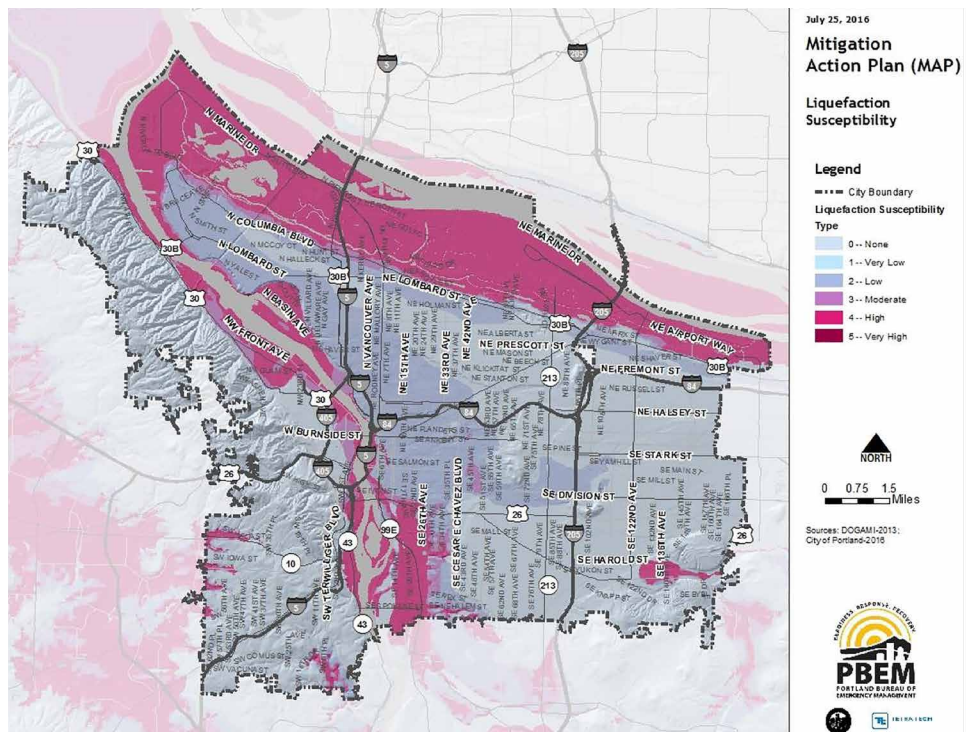
In Oregon in 2018, regulators were surprised to learn that Zenith was bringing in tar sands crude by rail. Oregon Public Broadcasting reporter Tony Schick obtained emails from regulators, including one from Scott Smith, the Oregon Department of Environmental Quality’s regulator for Zenith’s terminal, which read: “I was alarmed to see that the tar sands they are working with now require full-face, air supplied respirators or SCBA’s [self-contained breathing apparatus].”²⁵

3. Earthquakes, liquefaction, and other disasters

Even if the Oregon terminal operators use modern equipment, follow the best available industry and government standards to protect workers, and residents, elected officials, and regulators are fully-informed of their actions, the terminal locations present unavoidable risks and hazards.

The terminals’ locations in the center of one of the world’s most vital river and estuarine systems, and most seismically-active zones, adds to the potential for accidents and catastrophe. In May 2019, the Clatskanie area, including Global Partners’ terminal in Port Westward, experienced a swarm of small earthquakes.²⁶

Zenith Energy’s terminal is on a floodplain between two faults that parallel the Columbia River. It is less than five miles from the epicenter of a 5.0-magnitude earthquake that occurred in 1953.²⁷ It is in the heart of an area state geologists expect will experience that most violent shaking from anticipated, more severe earthquakes in the future.



Soil liquefaction susceptibility map of Portland. Credit PBEM

“In Portland, we are also really, really concerned about liquefaction,” Portland State University Geology Professor Scott Burns told KGW-8 in 2018. “The areas at highest risk are those along the

Willamette and Columbia rivers, including the Northwest industrial area where much of our city's fuel is stored," he said. "Some of those tanks will end up in the river, we'll have an environmental problem, number one, and number two, if any of them catch on fire they're going to float down to Sauvie Island."

Oil terminals situated in similarly active Pacific-rim seismic zones have had catastrophic failures. In a quake in 2011 that hit Tokyo Bay and Sendair, Japan, Cosmo Oil's Chiba refinery JX Nippon Oil and Energy's large oil and gas storage tanks, an asphalt tank, oil shipping facilities and infrastructure at these petrochemical complexes collapsed, fire broke out and explosions were induced following the strong aftershocks of the 8.9 magnitude earthquake. Six people were killed or severely injured. It took 10 days to contain the Chiba fire.²⁸



Aboveground storage tank explosion, Delaware, 2001.

Human errors have caused aboveground storage tank (AST) disasters in the U.S. and around the world. Relevant examples for the Portland and Columbia County, Oregon, communities include:

- Ashland, Pennsylvania, 1988: A large, reassembled oil-storage tank ruptured and split, released a tidal wave of 3.5 million gallons of diesel, with 20% containment, and 80% of the diesel making its way through storm drains into the Monongahela and Ohio Rivers. The age of the tank in Ashland is of the same 1940s World War II vintage of some portion of the AST's in the Portland, Oregon, complex owned by Zenith Energy.²⁹ In the Ashland incident, more than 1 million people were affected by contaminated drinking water in three states, water supplies were shut down, and wildlife and fish were poi-



Caribbean Petroleum Corporation storage tank explosion and fire in Puerto Rico.³⁴

soned and suffocated. Human error was the cause: the weak points created during welding and repurposing were not detected, and substandard steel was used. Cold temperatures were also a factor.³⁰

- Motiva Enterprises Tank Explosion, Delaware refinery, 2001: One of six, large ASTs exploded, releasing more than 1.2 million gallons of spent sulphuric acid and petroleum products. A million gallons (83%) breached the containment area, sending poisonous liquid and fumes into the Red Lion Creek, the Delaware River and watersheds. One contractor was killed.³¹ The Chemical Safety Board said, “This tank had holes in its roof and shell due to corrosion.”³²
- Bayamon, Puerto Rico, 2009: a 5-million gallon AST exploded while gasoline was being off-loaded from a tanker. The U.S. Chemical Safety Board in reviewing the explosion found that U.S. regulations do not consider ASTs for petroleum to be high-hazard facilities. It blamed the facility’s inadequate safety on “insufficient regulatory requirements for a hazard assessment, an unreliable level control and monitoring system, inadequate independent or redundant level alarms, and a poor safety management system.”³³

4. Aging Tanks and Other Regulatory Gaps

Global Partners plans to use tanks purchased or leased from Portland General Electric (PGE) that are at least 45-50 years old, dating to the 1970s. Some AST tanks at the Zenith facility are more than 70 years old. Few regulations protect the public from these companies’ decisions to use these aging, questionable ASTs.

The regulation of ASTs suffers from gaps created by a patchwork of modest rules put in place by different federal, state and local agencies. For example, the U.S. EPA minimally requires ASTs to submit an Oil Spill Prevention, Control and Countermeasure Plan for approval. The EPA doesn’t approve the plan until the tanks are built and pass a site inspection.³⁵ Nationally, the design integrity and safety inspections of the ASTs are left to often voluntary, industry-promulgated standards such as those developed by the American Petroleum Institute trade association.³⁶

In Oregon, the State Fire Marshal is charged with ensuring that ASTs conform with the fire code. Applicants submit plans to the Fire Marshal. When the tank is installed, it is inspected for conformity with the 2014 *Oregon Fire Code*, which is based on the National Fire Protection Association’s Flammable and Combustible Liquids Code.³⁷ Meanwhile, the Oregon DEQ is responsible for underground and above ground storage tanks. The railroads are regulated by the Department of Transportation. The result is a patchwork of rules and requirements with obvious gaps in safety at all levels.

5. Upstream and downstream safety concerns

“History has repeatedly shown just how deadly and dangerous oil train crashes can be. Simply put, transporting oil by rail—or by any method—is a disaster waiting to happen.”

– Lena Moffitt, Sierra Club³⁸

In addition to these site-specific concerns, the Port Westward and Portland oil terminals pose broad and potentially costly and dangerous impacts for an unknown number of people, communities, and

businesses for those located along the path of crude oil, especially where the unit trains run.

Drinking water supplies are particularly vulnerable to leaks and spills from the bulk storage and transport of crude oil--a threat that is one of the more insidious and often invisible aspects of the expansion of the crude oil business. Communities downstream from Global Partners and Zenith terminals include people who depend upon drinking water drawn from surface waters downstream from the terminals.³⁹ In a May 2019 report to the region's water authorities, DEQ identified ASTs and railroads as potential sources of water pollutants that could contaminate drinking water.⁴⁰

Oil and gas developers have come to rely upon the country's aging rail network from last century to transport today's crude oil. Residents, community leaders, and advocates say these trains pose a risk to the millions who live along the tracks where crude oil trains travel.

The region is now familiar with these hazards after the derailment of 16 cars loaded with the highly-flammable Bakken crude in Mosier, Oregon, in 2016. The cars spilled 42,000 gallons of oil into the Columbia River watershed and burned for 14 hours.⁴¹ Train tracks and tanker cars weren't built to standards that safely accommodate loads of heavy, volatile crude oil, making the trains more likely to derail, burn, and explode. Local officials say this was no accident, but caused by inadequate track maintenance and infrastructure to transport the highly-volatile Bakken oil.⁴²

The Mosier accident echoed the infamous oil-train tragedy of 2013, when a runaway 74-car train, also loaded with Bakken crude oil, crashed and exploded in the heart of Lac-Mégantic, Quebec, killing 47 people.⁴³





Mosier, Oregon, oil train derailment and fire. Photo Gorgefriends.org.

Rather than tightening safety, regulators appear to be moving in the opposite direction. Jordan Barab, a high level OSHA official in the Obama administration, warned last year, “You might think that five years after the warning set by this epic rail disaster, the United States would be tightening protections for rail transport of petroleum products—but you’d be wrong. Not only is the federal government taking steps to increase the nation’s use of petroleum fuels, including many that are transported by rail, but at the same time it is rolling back essential rail safety regulations. In the process, it is ignoring the multiple factors that led to the Lac-Mégantic disaster.”⁴⁴

Inevitably, more oil trains will derail, and threaten resources necessary for life, health, and economic development. The rail lines delivering unit trains to the terminals run along stretches of the Columbia River that supplies thousands of residents with drinking water living near Global Partners’ Port Westward terminal. Also affected are ranchers and farmers upstream, orcharders, and other commercial and recreational users of the Columbia River Gorge region.

Outside of the Portland and Port Westward region, many other communities rely upon scarce surface waters that run along and cross the routes of the oil trains. In Montana, for example, should an oil train derailment occur, the 2,600 residents of Wolf Point, the largest town in the Fort Peck Indian Reservation and county seat of Roosevelt County, would be at risk.

“Actually [the oil trains] scare me,” Roosevelt County’s Disaster and Emergency Services coordinator Dan Sietsema told the *Wolf Point Herald* in 2014. “If one of them exploded within the city limits [of Wolf Point], the isolation area is one-half mile. I’m not sure how much destruction there would be from the explosion. Several blocks at least. It would be at least half the town that would be impacted and our business district is downtown and along the railroad tracks.”⁴⁵

Chemical and fossil fuel safety regulations do little to mitigate spills and explosions once they occur. By fully considering the history of this industry and its players, regulators and policymakers can best serve the public and prevent future disasters.

APPENDIX: FEDERAL ENVIRONMENTAL AND SAFETY VIOLATIONS

TIMELINE OF GLOBAL PARTNERS VIOLATIONS

January 21, 2005: Global Partners and EPA enter into a consent decree in which Global Partners agrees to pay \$500,000 because it “failed to comply with annual average standards for olefins and exhaust benzene in 1997, NOx and toxics in 1999, and NOx in 2000. Respondent’s noncompliance resulted in emissions of 78 tons of excess NOx and 5.3 tons of excess exhaust toxics.”⁴⁶ According to Global Partners, “As part of this settlement, [its subsidiary] Global Partners Companies LLC has paid a \$500,000 civil penalty and instituted a compliance program for three years to ensure compliance with Clean Air Act fuel quality specifications. The alleged violations stemmed from the importation of finished conventional gasoline, which was not a substantial part of our operations at the time of the alleged violations.”⁴⁷

2013: Global Partners buys a bankrupt ethanol facility, the Columbia Pacific Biorefinery, and quietly changes its operation to handle crude oil with almost no public notice or process. Corn trains became oil trains without any community input.⁴⁸

2013 to 2017: When Global Partners acquired the terminal at Port Westward, Oregon, in 2013, it also acquired transloading infrastructure in North Dakota owned by Basin Transload. These facilities, in Buelah and Columbus, North Dakota, transfer crude delivered by pipeline, and increasingly by truck, to unit trains. Between 2013 to 2018, the Federal Railroad Administration (FRA)

financed Basin Transload \$68,000 for at least five railroad safety violations.⁴⁹ Also during this time, the FRA fined Global Partners Companies, another subsidiary of Global Partners, \$22,500 for at least three railroad safety violations.⁵⁰



Oil train at Pt. Westward on Columbia River
© 2013 Gary Braasch Environmental Photography

2014: Global Partners is criticized for its response, or lack thereof, to an oil spill in Albany, NY. "They're not telling us if it was a DOT 111 or what type of train it was. They never called the Albany Fire Department. They never activated the 911 system. And I can tell ya being a former firefighter that was stationed at that house, that responded to the port, we would go down there for the littlest thing," Albany County Executive Dan McCoy was quoted as saying, adding "Something went wrong. To me, it's another coverup at Global Partners. They're not trying to be a good partner. They should have called the Sheriff's department, they should have called the County Executive's office. We should have went down there, made sure there was nothing wrong..."⁵¹

August 2, 2016: EPA issues a notice of violation of the Clean Air Act to Global Partners for violating "federal air pollution standards and under-reported the amount of ozone-producing compounds being emitted when it sought permission to handle more oil trains" at the Port of Albany in NY. Global Partners' 2018 10-K filing reports, "EPA issued a notice of violation "alleging that permits for the Partnership's petroleum product transloading facility in Albany, New York, issued by the New York State Department of Environmental Conservation between August 9, 2011 and November 7, 2012, violated the Clean Air Act and the federally enforceable New York State Implementation Plan by increasing throughput of crude oil at the Albany Terminal without complying with the New Source Review ("NSR") requirements of the SIP."

The change in the federal EPA administration led to a different outcome in January 2017. Global Partners' 2017 filing continues, "On January 17, 2017, the Partnership [Global Partners LP and its subsidiaries] responded to the EPA indicating that the EPA had failed to explain or provide support for its allegations and that the EPA needed to better explain its positions and the evidence on which it was relying. The EPA did not respond with such evidence, but instead has requested that the Partnership enter into a series of tolling agreements. The Partnership has signed a number of tolling agreements with respect to this matter, as requested by the EPA, and such agreements currently extend through June 29, 2019."⁵²

March 25, 2019: EPA files a consent decree against Global Partners requiring the company to pay \$190,000 in penalties after it was discovered the company had violated its emissions permit in South Portland, Maine, by releasing more than twice as many volatile organic compounds (VOCs) as permitted.⁵³ The VOCs were released from heated tanks in South Portland that store asphalt and residual #6 fuel oil.⁵⁴

TIMELINE OF ZENITH ENERGY VIOLATIONS

2014: Zenith Energy is created and begins to acquire terminals in the U.S. and overseas..

2015: EPA finds that a terminal owned by Zenith in Mechanicsburg "violated certain provisions of the regulations pertaining to the spill prevention, control and countermeasure and facility response plan" at its Mechanicsburg, Pennsylvania facility and fines the company \$136,600.

2017-2018: EPA says Zenith Energy failed to file discharge monitoring reports, which are required under the Clean Water Act, for its Selma, North Carolina, terminal.

December 28, 2018: EPA issues a finding of violation to Zenith Energy Terminal Holdings after its inspectors see tanks leaking at its Cleveland, Ohio, terminal.⁵⁵

APPENDIX: POLITICAL DONATIONS

Zoe Carpenter, in a June 28, 2019, article in *The Nation*, observed:

“In Oregon, these corporate interests have a cozy relationship with lawmakers. The state has some of the weakest campaign-finance laws in the country, imposing no limits on what corporations and individuals can contribute to candidates. (Only four other states are so permissive.) Between 2008 and 2016, corporations and industry groups accounted for almost half of all money raised by state legislators, dwarfing contributions from unions and individual donors; Oregon now ranks sixth for the total amount of corporate money given per lawmaker and first in per-capita corporate giving. According to an 18-month investigation by *The Oregonian’s* Rob Davis, industry has leveraged these donations to gut or block a number of environmental regulations. As a result, the state’s environmental protections are now far weaker than those of neighbors Washington and California.”⁵⁶

GLOBAL PARTNERS DONATIONS

Global Partners’ founding family and its employees are prodigious donors to political campaigns, from local to federal.

Richard B. Slifka, chairman of Global Partners Petroleum, Waltham, MA ranked as the #245 biggest “hard money” donor in the 2014 federal election cycle. All of his \$189,400 in donations went to Democratic candidates.⁵⁷ In the 2016 election cycle, he spent \$320,705 on political donations, and fell to #513 in the country.⁵⁸ In 2018, he spent \$214,978, almost all on Democrats, but dropped to #678 on the “hard money” list of donors.⁵⁹ Almost all of the family’s donations have gone to Democratic candidates and causes, but in the most recent election cycle, the company donated a higher proportion to Republicans.

Recent federal elections reveal the prioritization Global Partners places on Oregon expansion.

U.S. Rep. Greg Walden (R-Ore.) was the biggest recipient of Global Partners LP employees’ contributions in the 2018 cycle: \$16,700.⁶⁰ He is the ranking member of the House Committee on Energy and Commerce and a longtime leading recipient of fossil fuel industry contributions.⁶¹ Walden also received \$10,000 from Koch Industries’ PAC in 2017-18. In 2018, Dylan Remley of Global Partners testified before this house committee of which Rep. Walden is a ranking member. He argued against subsidies for electric vehicle charging stations. The company’s 2018 annual report explains, “Changing consumer preferences or driving habits could lead to new forms of fueling destinations or potentially fewer customer visits to our sites and decreases in sales.”

Other Oregon candidates for U.S. House receiving Global Partners donations in 2018: Suzanne Bonamici (D, \$1,000) and Peter DeFazio (D, \$1,000). Overall, Global Partners LP employees donated at least \$110,048 to federal candidates in the 2018 cycle.⁶²

State and County Campaign Contributions

According to Oregon Secretary of State records, Global Partners and Global Companies contributed at least \$110,000 to Oregon state and Columbia County campaigns since 2013.

| Global Partners Contributions to State and Local Campaigns | Years | Totals |
|--|------------|------------------|
| Governor Kate Brown | 2016-18 | \$40,000 |
| Democratic Party of Oregon | 2016 | \$25,000 |
| Oregon State Sen. Betsy Johnson | 2017 | \$10,000 |
| Future PAC, House Builders | 2016, 2018 | \$10,000 |
| State Rep. Val Hoyle (now Oregon Labor Secretary) | 2014 | \$5,000 |
| State Rep. Caddy McKeown | 2016 | \$4,500 |
| State Sen. Arnie Roblan | 2016 | \$4,500 |
| Oregon South Coast Voices | 2018 | \$2,500 |
| Columbia County Commissioner Margaret Magruder (a) | 2017 | \$2,500 |
| Port of Columbia County Commissioner Chris Iverson | 2017 | \$2,500 |
| Senate Democratic Leadership Fund | 2016 | \$2,000 |
| Port of Columbia County Commissioner Mike Avent (b) | 2019 | \$1,500 |
| Port of Columbia County Commissioner Robert Keyser | 2017 | \$1,500 |
| State Treasurer Tobias Read | 2019 | \$1,000 |
| Total | | \$112,500 |

Data from Orestar, <https://secure.sos.state.or.us/orestar>.

- (a) Global Partners made this \$2,500 contribution on January 30, 2017, weeks after Magruder was sworn in as a county commissioner on January 2, 2017.⁶³ Global is the only company that contributed to Magruder after the election was over. Magruder then repaid her personal loans to her campaign (\$2,000), and other expenses.
- (b) Global Partners made this \$1,500 contribution on June 1, 2019, after Avent lost his reelection campaign on May 21, 2019.⁶⁴ Avent had loaned his campaign \$1,500 in March 2019.

Also, in 2015, Global Partners attorneys Amy Gould and Sean Geary made two contributions of \$7,500 each for mailing literature in support of incumbent Port of Columbia County Commissioners Keyser, Avent, and DeShazer.

In addition to campaign donations, Global Partners has been a prodigious lobbyist in Oregon. Sightline Institute named Global Partners the second-biggest fossil fuel lobbyist in Oregon (\$126,868) in 2014. It reported, "Oregon saw \$927,920 of lobbying expenditures from the fossil fuel industry in 2014, led by \$357,339 from the Western States Petroleum Association. The notable second-biggest contributor, at \$126,868, was Global Partners. The company's facilities at Port Westward, a biofuel plant turned oil depot, is arguably the Northwest's largest oil train destination. Global Partners operated the site in clear violation of its state air quality permits. And even when the company's misdeeds came to light, state regulators opted to allow operations to continue until they could issue new permits."⁶⁵

KAYNE DONATIONS

Richard Kayne, the billionaire investor and key financier of Global Partners' expansion in Oregon and North Dakota, attended a donor conference organized by the Koch brothers in 2014.⁶⁶ Richard and Suzanne Kayne donated \$203,400 to the RNC's legal defense fund in 2017. President Donald Trump draws from this fund to pay lawyers defending him against special counsel Robert Mueller's investigation.⁶⁷ Prior to Trump's victory, Kayne supported Jeb Bush's Right To Rise PAC with over \$100,000 in donations.⁶⁸

Kayne has donated to a few individual U.S. Senators through the years, but apparently none from Oregon. He mostly donates to PACs and the National Republican Senatorial and Congressional Committees. In 2012, Kayne sent \$1,000 to then-Congressman Rick Berg (R-ND), who was an ardent opponent of proposed EPA regulations on fracking in the Bakken oil fields.⁶⁹

Kayne is a National Council Member of the American Enterprise Institute (AEI).⁷⁰ AEI, which Greenpeace describes as a leading "climate denial front group," received over \$2.1 million from Koch foundations from 1997-2017.⁷¹

For its part, In its brief history, Zenith Energy has recorded only minor political donations. Its leadership's political influence is found in the highest level financial relationships it carries into potential deals, thanks to its director, Tim Geithner.



Richard and Suzanne Kayne donated \$203,400 to the RNC's legal defense fund in 2017. President Donald Trump draws from this fund to pay lawyers defending him against Special Counsel Robert Mueller's investigation.

ENDNOTES

- 1 https://beta.images.theglobeandmail.com/static/ebooks/ROB_Magazine_-_Nov_2014.pdf
- 2 <https://www.osha.gov/SLTC/hydrogensulfide/hazards.html> and <https://commons.healthymaterials.net/chemicals/2008691>
- 3 <https://www.newyorker.com/magazine/2015/07/20/the-really-big-one>
- 4 Canada's tar sands hold one of the world's largest deposits of oil, but as the industry has expanded production over the past decade, it's been unable to complete new pipelines fast enough to ship the product out.
- 5 Naming Notes on Zenith Energy: There are many companies, worldwide, bearing the name, Zenith Energy. In the U.S., there are several interrelated entities named Zenith Energy. Companies with the name Zenith Energy in other countries (Australia, Argentina, Azerbaijan, Canada, Italy, Norway, UK) do not appear to be related to Zenith Energy U.S.. A different set of Zenith Energy affiliates, generally with the name Zenith Energy, Ltd., are publicly traded on three different platforms (in Canada, Norway and UK; their CEO is based in Calgary but their work is mostly small-scale drilling of old fields in Azerbaijan). Another Zenith Energy Ltd. is based in Australia and is an independent power producer. These Zenith Energy, Ltd., entities do not appear to be related to Zenith Energy U.S.
- Zenith Energy companies based in the U.S. are related and own and operate crude oil and petroleum product terminals in Amsterdam, Ireland, and Columbia. Related entities are named Zenith Energy Management LLC, Zenith Energy L.P., and Zenith U.S. GP [General Partners], LLC. The U.S.-based Zenith Energy also has been in discussions to develop a terminal in Germany.
- 6 <https://www.zenithterminals.com/new-index#about-us-2>
- 7 <https://uk.reuters.com/article/us-zenith-energy-arc-logistics-buyout/zenith-energy-us-shelves-ma-loan-idUKKBN1EE29T>
- 8 Zenith was "formed by the management and certain owners of Zenith Energy, L.P." <https://www.kelso.com/news/kelso-fund-ix-announces-zenith-energy-uss-acquisition-arc-logistics>
- 9 <https://web.archive.org/web/20160308135310/http://arcxlp.com/operations/> and <https://www.zenithterminals.com/news/2017/12/21/zenith-energy-us-completes-acquisition-of-arc-logistics-partners> and <https://www.sec.gov/Archives/edgar/data/1583744/000119312517378630/d513741d8k.html>
- 10 https://www.washingtonpost.com/business/economy/ny-fed-silent-on-barclays-admission-of-rigging-libor/2012/07/24/gJQA2eWg7W_story.html?utm_term=.e47986440baa
- 11 <http://www.silaneproduct.com/?c=msg&id=943>
- 12 <https://www.theglobeandmail.com/business/article-chinese-backed-investor-group-extends-canadian-investments-to-alberta/>
- 13 https://www.eia.gov/opendata/qb.php?category=1292348&sdid=PET_IMPORTS.CTY_CA-RF_2387-ALL.M
- 14 <https://www.bloomberg.com/news/articles/2018-10-31/canadian-producers-turns-to-oil-trucks-as-supply-glut-grows>
- 15 <https://www.pipelinenews.ca/news/local-news/where-is-all-the-oil-being-trucked-into-north-dakota-coming-from-1.23377993>
- 16 https://www.eia.gov/opendata/qb.php?category=2656282&sdid=PET_IMPORTS.REG_CA-RF_4960-ALL.A
- 17 https://www.eia.gov/opendata/qb.php?category=2656282&sdid=PET_IMPORTS.REG_CA-RF_4960-HSO.A
- 18 <https://www.zenithterminals.com/new-index#board-of-directors>
- 19 <https://www.fhr.com/about-fhr/locations#10.5/51.1793/-113.8953/1> and <https://insideclimatenews.org/news/20120510/koch-industries-brothers-tar-sands-bitumen-heavy-oil-flint-pipelines-refinery-alberta-canada>

- 20 <https://www.sierraclub.org/sierra/canada-kinder-morgan-pipeline-oil-tar-sands-trudeau>
- 21 <https://www.wamc.org/post/albany-oil-spill-rattles-officials>
- 22 William J. Clarke, Regional Permit Administrator, Region 4, "RE: Global Companies, LLC, Albany Terminal. Notice of Intent to Rescind Negative Declaration. Notice of Incomplete Application." Letter to Tom Keefe, Global Companies, LLC, May 21, 2015.
- 23 <https://www.opb.org/news/article/tar-sands-crude-oil-trains-oregon-legislature/>
- 24 <https://www.scenichudson.org/news/release/decision-Global-Partners-partners-scale-back-albany-terminal-crude-oil-operations-good-news>
- 25 <https://www.opb.org/news/article/tar-sands-crude-oil-trains-oregon-legislature/>
- 26 https://www.thechronicleonline.com/news/earthquakes-clatskanie-area-small-tremor-illustrates-slow-slips/article_4a4b90a4-8182-11e9-8a84-0bce2660f95e.html
- 27 <https://earthquake.usgs.gov/earthquakes/eventpage/ushis1907/executive>
- 28 https://www.iitk.ac.in/nicee/wcee/article/WCEE2012_0238.pdf and <https://www.ogj.com/general-interest/article/17264428/after-89-quake-explosion-hits-pchem-complex-in-japan>
- 29 <https://www.nwf.org/Home/Educational-Resources/Reports/2010/07-28-2010-Assault-on-America>
- 30 <https://www.epa.gov/emergency-response/floeffe-pennsylvania-oil-spill>
- 31 <https://www.nwf.org/Home/Educational-Resources/Reports/2010/07-28-2010-Assault-on-America>
- 32 <https://www.csb.gov/motiva-enterprises-sulfuric-acid-tank-explosion/>
- 33 https://www.csb.gov/assets/1/20/capeco_final_report__10.21.2015.pdf?
- 34 https://en.wikipedia.org/wiki/2009_Cata%C3%B1o_oil_refinery_fire
- 35 <https://www.fedcenter.gov/assistance/facilitytour/tanks/aboveground/>
- 36 https://www.epa.gov/sites/production/files/2014-05/documents/bulk_storage_container_integrity-testing-factsheet.pdf
- 37 http://ecodes.biz/ecodes_support/free_resources/Oregon/14_Fire/14_PDFs/Chapter%2057%20-%20Flammable%20and%20Combustible%20Liquids.pdf
- 38 <https://time.com/4357295/oregon-fire-columbia-river-gorge/17> https://www.eia.gov/opendata/qb.php?category=2656282&sdid=PET_IMPORTS.REG_CA-RF_4960-HSO.A
- 39 <https://www.deq.state.or.us/wq/dwp/docs/swasummary/pws05246.pdf>
- 40 https://www.deq.state.or.us/wq/dwp/docs/uswareports/USWA_00689Rainier.pdf
- 41 <https://gorgefriends.org/protect-the-gorge/mosier-oil-train-derailment.html>
- 42 <https://time.com/4357295/oregon-fire-columbia-river-gorge/>
- 43 <https://www.bbc.com/news/world-us-canada-42548824>
- 44 <https://tcf.org/content/commentary/five-years-lac-megantic-u-s-freight-rail-going-backward-safety/?agreed=1>
- 45 <https://web.archive.org/web/20150305015609/http://www.wolfpointherald.com:80/index.php/wp-news/local-news/3417-wolf-point-could-be-at-higher-risk-from-oil-trains-than-thought>
- 46 <https://violationtracker.goodjobsfirst.org/violation-tracker/ma-Global-Partners-companies-llc> and <https://echo.epa.gov/enforcement-case-report?id=EF-2005-1022>
- 47 <https://GlobalPartnersp.gcs-web.com/static-files/adb5191f-2698-4dcd-8891-f9255dcb964c27> <https://earthquake.usgs.gov/earthquakes/eventpage/ushis1907/executive>
- 48 <https://www.columbiariverkeeper.org/our-work-fighting-fossil-fuels/oil>
- 49 https://violationtracker.goodjobsfirst.org/prog.php?major_industry=wholesalers&order=company&sort=asc

- 50 [https://violationtracker.goodjobsfirst.org/parent/Global Partners-partners-lp](https://violationtracker.goodjobsfirst.org/parent/Global%20Partners-partners-lp)
- 51 <https://www.wamc.org/post/albany-oil-spill-rattles-officials>
- 52 <https://globalp.gcs-web.com/static-files/f16506bd-b378-471e-9e27-953b994be1fc> and <https://www.timesunion.com/local/article/EPA-says-Port-of-Albany-oil-terminal-violates-air-9162106.php>
- 53 <https://www.journaltribune.com/articles/stateregional/epa-lawsuit-over-south-portland-oil-tanks-raises-neighborhood-fears/> and <https://echo.epa.gov/enforcement-case-report?id=01-2015-1017>
- 54 <https://www.epa.gov/newsreleases/proposed-settlement-resolves-clean-air-act-claims-between-epa-and-south-portland-maine>
- 55 <https://echo.epa.gov/detailed-facility-report?fid=110000347134>
- 56 <https://www.thenation.com/article/oregon-republican-walkout-climate-change/>
- 57 <https://www.opensecrets.org/overview/topindivs.php?cycle=2014&view=hi>
- 58 <https://www.opensecrets.org/overview/topindivs.php?cycle=2016&view=hi>
- 59 <https://www.opensecrets.org/overview/topindivs.php?view=hi>
- 60 <https://www.opensecrets.org/orgs/toprecips.php?id=D000034083&cycle=2018>
- 61 <https://www.sightline.org/2015/04/13/coal-oil-and-gas-spent-2-million-on-oregon-politics-in-2014/28>
https://www.iitk.ac.in/nicee/wcee/article/WCEE2012_0238.pdf and <https://www.ogj.com/general-interest/article/17264428/after-89-quake-explosion-hits-pchem-complex-in-japan>
- 62 <https://www.opensecrets.org/orgs/recips.php?id=D000034083&cycle=2018>
- 63 <https://www.wjbf.com/csra-news/new-members-of-columbia-county-commission-to-be-sworn-in-wednesday/>
- 64 <https://pamplinmedia.com/scs/83-news/429334-336937-two-newcomers-win-port-elections>
- 65 <https://www.sightline.org/2015/04/13/coal-oil-and-gas-spent-2-million-on-oregon-politics-in-2014/>
- 66 <https://www.motherjones.com/politics/2014/02/koch-brothers-palm-springs-donor-list/>
- 67 <https://www.newsweek.com/trump-legal-fund-paid-billionaire-robert-mercere-day-comey-fired-67638351> <https://www.wamc.org/post/albany-oil-spill-rattles-officials>
- 68 <https://www.campaignmoney.com/political/contributions/richard-kayne.asp?cycle=16>
- 69 <https://www.grandforksherald.com/news/nd-oil-industry-leaders-meet-grand-forks-vow-defend-fracking>
- 70 <https://www.desmogblog.com/american-enterprise-institute>
- 71 [https://www.greenpeace.org/usa/Global Partners-warming/climate-deniers/front-groups/american-enterprise-institute-aei/](https://www.greenpeace.org/usa/Global-Partners-warming/climate-deniers/front-groups/american-enterprise-institute-aei/)