



ConocoPhillips
Alaska's Oil & Gas Company

Alaska Operations

2016 Snapshot



ConocoPhillips in Alaska

ConocoPhillips is Alaska's largest oil producer and one of the largest owners of state and federal exploration leases, with nearly 930,000 net undeveloped acres. ConocoPhillips has been a leader in oil and gas exploration and development in Alaska for more than 50 years. Significant oil development and exploration opportunities still exist in Alaska, particularly onshore on Alaska's North Slope.

Where We Operate

Kenai Liquefied Natural Gas Plant	since 1969	100% owner*
Kuparuk River Unit	since 1981	55.3% owner
The Colville River Unit (Alpine)	since 2000	78% owner
Alaska headquarters in Anchorage		

*began marketing the plant for sale in January 2017

Non-Operated Alaska Assets

Prudhoe Bay Unit	since 1977	36.1% owner
Trans Alaska Pipeline System	since 1977	29.1% owner

More ConocoPhillips Assets in Alaska

Polar Tankers
Shared Services Aviation

2016 Alaska Production

179,000 barrels of oil equivalent per day (boepd), net, from operated and non-operated assets

In the Community

Total statewide community investment for 2016 was nearly \$3.2 million to 243 non-profit groups

- 22% Health and Safety
- 26% Social Services
- 20% Education
- 22% Civic and Arts
- 10% Natural Resources

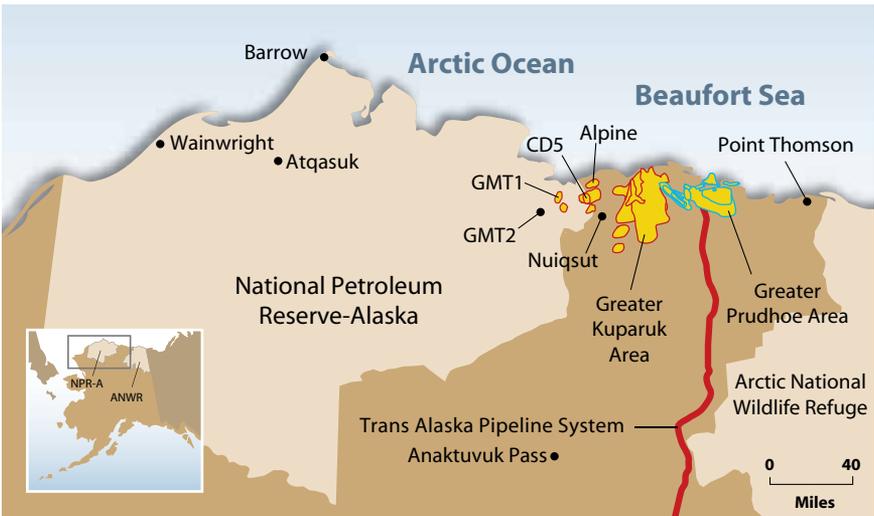
On average, more than 3,500 employee volunteer hours per year

Nearly \$128 million in community investment in Alaska since 2000

Investment & Economy

Invested \$883 million in capital projects in 2016, down slightly from 2015 due to completion of CD5 and Drill Site 2S

Approximately 1,100 employees, plus about 1,800 contract workers



■ ConocoPhillips Acreage □ ConocoPhillips Operated ■ TAPS □ BP Operated



Kuparuk River Unit

North Slope, Alaska

Field Facts

Operator	ConocoPhillips	
Ownership	ConocoPhillips	55.3%
	BP Exploration	39.2%
	Chevron	4.9%
	ExxonMobil	0.6%
Average Daily Production	50,000 bopd (net, 2016)	
	103,000 bopd (gross, 2016)	
Peak Production	320,000 boepd (gross, 1992)	
Start-up	December 1981	
Unit Area	256,976 acres (gross)	
	139,041 acres (net)	
Original Oil in Place (gross)	6 billion barrels	

Basic Facts

The Kuparuk River Field (“Kuparuk”) is about 40 miles west of Prudhoe Bay and was discovered in 1969. Production began in 1981 and increased to a record rate of 320,000 barrels per day in 1992. Kuparuk reached a milestone in July 2005 when cumulative production reached 2 billion barrels. Drill pads were reduced from 65-acre pads (the original Prudhoe Bay design) to about 11-acre drill sites at Kuparuk.

Kuparuk River Unit has produced over

2 billion barrels

More than 1,175 wells have been drilled in the Kuparuk River Unit and more development wells are planned. Kuparuk has three Central Processing Facilities (CPFs), a Seawater Treatment Plant (STP), plus 48 drill sites. Kuparuk satellite fields – Tarn, Tabasco, West Sak and Meltwater – share production facilities with Kuparuk. Drill Site 2S, the first new drill site at Kuparuk in more than 12 years, had first production on October 9, 2015. Funding has also been approved for viscous oil development 1H NEWS, with first oil from the project expected in late 2017.

ConocoPhillips and its co-venturers at Kuparuk have invested billions of dollars to develop the field and implement programs to optimize oil recovery since its startup. Kuparuk production is currently enhanced through the use of peripheral and infill drilling, water injection, alternating water and gas injection (IWAG) as well as miscible water alternating gas injection (MWAG). The Kuparuk processing facilities handle over 700 million cubic feet of gas daily and 700,000 barrels of water per day.

Coiled tubing drilling (CTD) technology was successfully initiated at Kuparuk in 2009 to drill complex, multi-lateral wells to tap into previously inaccessible oil. CTD rig technology has delivered impressive performance and is allowing ConocoPhillips to economically deliver millions of barrels of oil reserves. Sidetracks from existing well bores utilizing CTD are now a primary means for development drilling at Kuparuk. New-build CTD rig CDR3 was delivered and began drilling late in 2016. Additionally, a new rotary drilling rig, Doyon 142, began drilling in 1Q 2016.





Alpine – Colville River Unit

Western North Slope, Alaska

Field Facts

Operator	ConocoPhillips	
Ownership	ConocoPhillips	78%
	Anadarko Petroleum	22%
Average Daily Production	37,100 bopd (net, 2016) 58,700 bopd (gross, 2016)	
Peak Production	139,000 boepd (gross, 2007)	
Start-up	November 2000	
Unit Area	117,227 acres (gross) 91,425 acres (net)	
Stats	5 drill sites, approximately 185 wells	
Total WNS Production	More than 520 million barrels (to date)	

Basic Facts

The Colville River Unit (commonly referred to as Alpine) is located in the Colville River Delta on Alaska's Western North Slope, 34 miles west of Kuparuk and eight miles north of the Inupiat village of Nuiqsut. Field construction and development took three years, 6 million man-hours and cost more than \$1.3 billion. Alpine has no permanent road connecting it to other North Slope infrastructure. In the winter, an ice road is built connecting Kuparuk to Alpine to move in supplies for the rest of the operating year. In any given winter season more than 1,500 truckloads of essential supplies and equipment are moved to Alpine over the ice road. More than eight years of environmental studies guided conceptual development of the field, allowing engineers and environmental experts to locate drill sites and facilities in areas where they have had minimal impact on wildlife, waterfowl and the subsistence lifestyle practiced by Nuiqsut residents.

More than **8 years**
of studies guided conceptual development of the field

Alpine Production

Alpine was the first North Slope field developed exclusively with horizontal well technology to access greater than 50 square miles of subsurface from a single drilling pad. It also employs enhanced oil recovery (EOR) through waterflooding and miscible gas injection. The original Alpine facility was planned as a 97-acre surface development that included stand-alone processing facilities (CD1), a second drilling pad (CD2), and an airstrip/3-mile gravel road connecting the two pads. That original development accessed about 40,000 acres of subsurface area from the original two drill sites. With additional drill sites and satellite field development, including CD5, the total surface development now encompasses about 220 acres.

The first two Alpine satellites – Fiord (CD3) and Nanuq (CD4) – came on line in 2006. CD3 is three miles north of the main Alpine facility and CD4 is four miles south of the main Alpine facility. These two satellites represent approximately \$500 million in investment. In July 2008 another oil pool, Qannik, began producing. The Qannik development is an extension of the CD2 drill site two miles west of the main Alpine processing facility. More than 520 million barrels of oil have been produced from the Colville River Unit.

After processing, the sales-quality crude oil from Alpine moves to market through an elevated 34-mile, 14-inch pipeline connecting the unit to the Trans Alaska Pipeline System via the Kuparuk pipeline system.

CD5 & NPRA

In December 2011, the U.S. Army Corps of Engineers granted a permit allowing construction of a gravel road, bridge and pipeline over the Nigliq channel of the Colville River for development of CD5, five miles west of Alpine within the boundaries of the National Petroleum Reserve Alaska (NPRA). Construction began in the winter of 2013/14. First production was in October 2015. CD5 represents the first commercial oil development on Alaska Native lands within the boundaries of NPRA. Peak gross production is anticipated at about 20,000 barrels of oil per day. The project also added approximately 700 new direct jobs during construction and hundreds more support jobs.

ConocoPhillips is continuing to evaluate further exploration and development potential in NPRA area and is advancing development of Greater Mooses Tooth 1 (GMT1) and Greater Mooses Tooth 2 (GMT2) in the Greater Mooses Tooth Unit. Funding for GMT1 was approved in November 2015, and first oil is planned for late 2018. The development includes a new gravel pad, a 7.8-mile road, and pipelines connecting it to CD5 and the Alpine Processing Facility. GMT1 is estimated to cost \$900 million and has an estimated monthly peak rate of 30,000 barrels of oil per day (bopd) gross. Construction of GMT1 began in early 2017, and will continue through 2018. The project will generate about 700 jobs during construction over each of two winter seasons.

A second accumulation, GMT2, is in the permitting stage. GMT2 is estimated to cost over \$1 billion, with potential for 48 wells and an estimated peak production of 25,000-30,000 bopd gross. Depending on permitting, first oil is expected in late 2021. GMT2 is located about 8 miles west of GMT1. The facility will be similar in scope to GMT1 with production routed back to the Alpine Processing Facility. GMT2 will also generate about 700 jobs during construction over each of two winter seasons.



Greater Prudhoe Bay Area

North Slope, Alaska

Field Facts

Operator	BP Exploration (Alaska) Inc.	
Ownership	BP Exploration	26.4%
	ConocoPhillips	36.1%
	ExxonMobil	36.4%
	Chevron	1.1%
Average Daily Production	90,000 boepd (net, 2016) 281,000 boepd (gross, 2016)	
Peak Production	>1,500,000 boepd (gross, 1978-1988)	
Start-up	Summer 1977	
Unit Area	254,235 acres (gross) 91,796 (net)	
Original Oil in Place (gross)	25 billion barrels	

Basic Facts

The Greater Prudhoe Area is made up of the Prudhoe Bay Field, the Prudhoe Bay satellite fields and the Greater Point McIntyre Area fields. After more than 35 years of production, Prudhoe Bay remains the largest conventional oil field in the United States and is the 10th largest natural gas field in the United States.

When production started at the Prudhoe Bay field, the recovery factor for the 25 billion barrels of oil in place was expected to reach 40 percent. Today, using new technologies, we have increased that estimate to approximately 60 percent.

Prudhoe Bay

has produced over 13 billion barrels



The Prudhoe Bay Field has more than 800 active oil-producing wells. Drilling is expected to continue for many years. Prudhoe Bay also is the site of one of the largest waterflood and enhanced oil recovery projects in the world, as well as a large gas processing plant that processes more than 7 billion cubic feet per day (BCFD) of natural gas before reinjection into the reservoir.

Prudhoe Bay contains potential gross reserves of approximately 25 trillion cubic feet of natural gas. The State of Alaska is pursuing commercialization of the natural gas resource at Prudhoe Bay. ConocoPhillips supports the State's effort and has stated it will make its gas available to the project via a well head sales agreement.



Exploration

Basic Facts

ConocoPhillips is one of the largest holders of federal and state leases in Alaska, with significant interests in National Petroleum Reserve Alaska (NPRA), and other undeveloped acreage on the North Slope. In all, ConocoPhillips has drilled more than 58 exploration wells since 2000, including 28 in NPRA.

NPRA

The Greater Mooses Tooth (GMT) Unit was established in 2008.

An oil discovery, Lookout, was announced in the area now known as GMT in 2001. Construction of drill site GMT1 is underway.

The Bear Tooth Unit, also in NPRA, was established in 2009.

In 2014, the Rendezvous oil discovery in the Greater Mooses Tooth Unit was successfully appraised, resulting in ConocoPhillips starting the permitting process in August 2015 for the GMT2 development.

In 2016, ConocoPhillips drilled exploration wells Tinmiaq 2 and 6 in the Greater Mooses Tooth Unit in NPRA. These wells resulted in the January 2017 announcement of the Willow discovery, a significant prospect that could produce up to 100,000 bopd. The discovery is currently being appraised.

In December 2016 lease sales, ConocoPhillips and its bidding partner, Anadarko, won 594,972 gross acres of federal land on the western North Slope. ConocoPhillips independently won 142,280 gross acres in the state lease sale, also on the western North Slope.

ConocoPhillips has drilled more than

58 exploration

wells in Alaska since 2000





Shared Services Aviation

Anchorage, Fairbanks, Deadhorse,
Kuparuk and Alpine airports

Fleet Facts

Operator	ConocoPhillips	
Ownership	ConocoPhillips	50%
	BP	50%
Aircraft	3 Boeing 737-700s 1 Twin Otter 1 CASA 212	

Basic Facts

Shared Services Aviation, a co-venture between ConocoPhillips and BP, transports more than 19,000 employees and contract workers per month between Anchorage, Fairbanks and multiple locations on the North Slope. The service, operated by ConocoPhillips, provides 19 weekly Boeing 737 flights, 30-50 weekly CASA and Otter flights and is crewed by more than 25 pilots and 20 flight attendants.

Stationed at Ted Stevens Anchorage International Airport, the Boeing 737s have a capacity of 136 passengers each and can be utilized for medical evacuations. The 15-passenger Twin Otter and the 18-passenger CASA 212, based at the Alpine facility, are also utilized for cargo, medical evacuations, freight, pipeline patrol, emergency response, survey work and ice strip operations.

Shared Services Aviation transports more than

19,000

workers per month





Trans Alaska Pipeline System

Prudhoe Bay to Valdez, Alaska

System Facts

Operator	Alyeska Pipeline Service Company	
Ownership	BP Pipelines (Alaska), Inc.	48.4%
	ConocoPhillips Transportation Alaska, Inc.	29.1%
	ExxonMobil Pipeline Company	21.1%
	Unocal Pipeline Company	1.4%
Average Daily Throughput	508,446 bopd (gross, 2016), three percent higher than 2015	
Peak Throughput	2,100,000 bopd (gross, 1988)	
Length	800 miles	
Construction Cost	\$8 billion	
Start-up	June 20, 1977	
Total Throughput Since Start-up	~ 17 billion barrels	

Basic Facts

At a cost of \$8 billion, the Trans Alaska Pipeline System (TAPS) was the world's largest privately-funded construction project when it was built. The system includes the 800-mile-long pipeline and the Valdez Marine Terminal, where oil is loaded onto tankers for shipment to market. It also includes the Ship Escort/Response Vessel System (SERVS), which provides two state-of-the-art tugboats to travel with every tanker through the Valdez Narrows to the Hinchinbrook Entrance. The system is operated by Alyeska Pipeline Service Company on behalf of its four owners.

70,000

people were involved in building the pipeline

Construction of the pipeline project began in April 1974 and finished in June 1977. A total of 70,000 people were involved in building the line. The pipeline has become an engineering icon and has set a standard for design that endures to this day. Its distinctive zigzags allow the pipe to flex in the event of an earthquake. More than half the pipeline runs above ground because otherwise the hot oil would melt the permafrost is prevalent along the route. In permafrost areas, the pipeline is elevated on 78,000 vertical support members.

Operations

TAPS is run from Alyeska's Operations Control Center in Anchorage and is monitored 24/7. The pipeline is protected by three separate leak detection systems. The system includes 71 gate valves that allow operators to stop the pipeline flow in four minutes.

Throughput

TAPS was originally built with 11 pump stations and reached a peak throughput of about 2.1 million barrels per day on January 14, 1988. Since then, throughput has declined. It now takes over two weeks for oil to travel from Prudhoe Bay to Valdez. In winter, the oil can cool significantly as it travels along its route. The number of pump stations has been reduced to four, and Alyeska is looking at a variety of other engineering approaches to deal with the reduced flow of oil.



Polar Tankers

Ship Facts

Ship Class	Endeavour
Builder	Northrop Grumman Ship Systems
Fleet	5 ships
Length (overall)	895 feet
Beam	152 feet
Depth	86 feet
Weight	141,000 deadweight tons
Cargo Capacity	1 million barrels at full capacity
Top Speed	16 knots
Range	12,500 nautical miles
Engines	Two 15,000 BHP, slow-speed diesel

ConocoPhillips owns and operates Polar Tankers, one of the largest oil tanker fleets under U.S. flag. The fleet transports Alaska North Slope crude oil primarily to refineries in Puget Sound, San Francisco, Long Beach and Hawaii.

The Polar Tanker fleet consists of five Endeavour Class tankers – the Polar Endeavour, Polar Resolution, Polar Discovery, Polar Adventure and Polar Enterprise – designed specifically for the twice-monthly 2,500 to 5,000-mile round trip from Valdez, Alaska, to Washington, California and Hawaii.

The fleet transports more than
70 million barrels
of Alaska North Slope crude oil per year

The Endeavour Class introduced the first-ever crude oil tankers operating under U.S. flag that combine:

Double hulls with 10 feet of space between the hulls;

Independent engine rooms;

Redundant propulsion and twin-steering systems;

A separate bow thruster; and

Precise advanced navigation systems

Advanced technology and ConocoPhillips' innovative design have produced the Endeavour Class vessels that meet or exceed all current or planned environmental, structural and mechanical standards.

The Endeavour Class ships were the first to be built in the United States following the Oil Pollution Act of 1990, which mandated the phasing out of single-hulled tankers. The ships, built specifically for the transport of crude oil, were designed in partnership with some of the world's leading naval architecture and marine engineering firms to ensure they are best-of-class tankers.



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