

ON THE LAZY BENCH

Penn Brad Oil Museum strives to preserve the history of the Bradford Oil Field and the unique culture that developed along with it. The Museum also honors the people and their families whose lives contributed to making Bradford the "Highgrade Oil Metropolis of the World."

A Quarterly Newsletter

Vol. 7 – No. 3 – Summer 2021



Derrick Day and Anniversary Celebration!

By Angela Nuzzo, Editor



The celebration that's been 50 years in the making is almost here and the hard-working volunteers on the Bradford Oil Field 150/50 Committee are making sure it's a grand one!

On September 18, the museum's annual Derrick Day event will run from 9am to 4pm. But to kick start the day at 8am, Uncle Sam the stilt walker will be with the Cline family to greet guests at the Cline Oil Well #1 behind McDonald's.

Tom Miller will make welcoming remarks at the museum at 10am and the Allegheny Harmonizers will sing the Star Spangled Banner. At 11am, Mayor McDonald will dedicate the new mural. Miller will return at 1pm for a bit dressing demonstration.

Visitors to Derrick Day can enjoy music, re-enactors, antique oil equipment exhibits, face painting, Mister Legs the stilt walker, and an antique firetruck.

If you get hungry while wandering the booths and displays, it might be from the amazing smells filling the air. Treat yourself to lunch from Phatt Grady's Food Truck or Brick Oven Pizza. Wash it down with Rock City Press' fresh apple cider. And top it off with Camper's Kettle Corn or a scoop of Hershey's ice cream.

The museum will have commemorative merchandise available, including letter openers, coins, glass steins, t-shirts, ball caps, and Zippo lighters.

At 3pm, there will be an Oil Well Shot demonstration on Colgrove Hill, behind Bradford Area High School.

Starting at 4pm, the Bradford Club will hold an Open House, where you can browse historic photos of Bradford's oil field history.

For a lead-up to the big day, the planning committee has put together an amazing free lecture series to be held at the Bradford Public Library. From September 14-17, the series "150 Years of Entrepreneurs, Enterprise & Legacy" will be presented at 6:30pm (6pm on the 17th). Lecture topics include: Bradford Before and During the Oil Boom, S.R. Dresser, Lewis Emery Jr, Kendall Refinery, John C. Looker, and Stories from the Oil Patch with Audience Discussion. The lectures will be recorded for future use by the museum.

In correlation with the 150th Oil Field Anniversary, Bradford Creative and Performing Arts Center is presenting a concert by Adam Swanson, four time world champion old-time piano player.

The concert will be held at the Bromley Family Theater at UPB on September 17 at 7:30pm. Tickets are \$15.

On September 19, the museum will dedicate the new rig and derrick in Willard Cline's name at a reception with Congressman GT Thompson. Family, friends, and donors to the Rig Replacement Fund will be welcomed at 2pm. The winner of the American Oilman Tribute Edition Rifle will also be chosen.

If you would like to volunteer to help out at one of the venues, please contact the museum.

Reminder to Members to pay their 2021 dues.

PENN BRAD OIL MUSEUM

901 South Avenue - Bradford, PA 16701
Email: pennbrad.oilmuseum@yahoo.com

Web: penn-bradoilmuseum.org

Phone: 814-362-1955

Open: Wednesday to Friday

9 AM to 4 PM

Saturday

9 AM to 2 PM

Admission Cost:

Adults - \$5.00

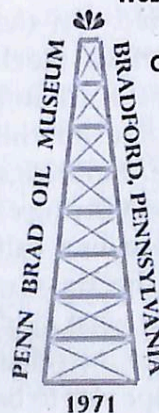
Seniors - \$4.50

Children (under 12) -

FREE

Active Military / Family -

FREE



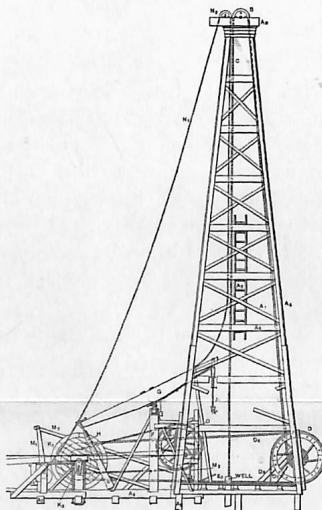
"Standard" Derrick Heights

by Jeff Spencer

The Bradford Era, (Aug. 17, 1971, p. 22-A, special supplement honoring Bradford Oil Centennial Week) with the headline, "Opinions differ on height of standard drilling rig in Bradford oil field" included a statement about standard derrick heights. "One of the most discussed questions in the days prior to the current observance of the Bradford Oil Centennial related to specifications of the standard rig, especially its height. Some people took the position the height was 74, with the base 20 by 20; others held out for 74 feet high [sic], and some claimed the base was 24 by 24. Still others spoke of 84 feet as the height."

What was the "standard rig's" height in the early days of oil drilling? Perhaps it was best summed up by Gerald Reek of 129 E. Main St., who wrote 'Round the Square.' "Having spent more than half a century in the oil and drilling business, I have come to the conclusion that there was no standard for the 'Standard Rig.' It was an expression used more to denote a rig that had four legs. They have been from 65 to 84 feet, measured from the framing sills to the water table. On the water table rests the crown block with a large sheave for the drilling cable and a smaller one for the sand line or bailer line. Some rigs that had to carry a long string of pipe had another sheave for a calf line. The length of the rig was determined mostly by what kind of work that the rig was intended for and how much pipe was to be

used. The contractors generally had the rigs built to suit their requirements in the early days. There was no real standard - only what was needed for the work."



Standard drilling rig (Bowman, Isaiah, 1911, Plate 1)

Brantley (1971, p. 350) stated that by 1880 "wooden cable tool derricks up to 72 feet were in use." An 1884 Oil Well Supply Company catalog contained illustrations for such a 72-foot derrick and "this remained the standard, most used, wooden derrick until standard cable tools were finally retired from service" (Brantley, 1971, p. 345). Brantley added that the derrick "was also built in 66 and 82 ft heights, and occasionally, a 96 ft. derrick would be erected for an expected deep hole or for carrying and running pipe." The Parkersburg Rig and Reel Company sold a 66-foot bolted

derrick circa 1910 (Brantley, 1971, p. 342). By the 1920s, steel derricks reached heights of up to 136 feet.

Drake well area: Brantley (1971) places the Drake well, drilled in 1859, at a height of 36 feet, "sufficient to handle the 32-foot drill rod sections of the day" (p. 340). The earliest photo of Drake Well engine house with enclosed wood derrick was 32 feet 11 inches tall and 12 feet square at its base; its wooden replica today stands 32 feet 11 inches tall. Based on a photograph (circa 1860) of derricks on the nearby Atkinson Farm, Brantley estimates their heights at about 50 feet.

When replica wooden derricks have been constructed in Oil Creek State Park, Barkeyville exit I-80, and at Titusville Community Gateways with funds subsidized by the Oil Region Alliance, one standard pattern has been used: 32 feet tall; base 14 feet square; narrows to 4-foot square platform at top.

Bradford area: In addition to the introductory material about Bradford, Bowman (1911, p. 36) stated: "At Bradford, Pa., where few of the oil wells are more than 2,000 feet deep, the derricks are 72 feet in height; at Kittanning, where wells between 2,000 and 3,000 feet deep are common, the derricks are 82 feet high." Postcards of oil derricks with people nearby can be used for rough estimates of derrick heights. Assuming a man with an average height of 5' 6", the derrick height

would be approximately 68 feet in a postcard of a Bradford, PA area derrick in this author's collection.



In nearby Cattaraugus County, NY, the Job Moses well was completed in 1865 as the first commercial oil well in the state of New York. The drilling derrick for this well was constructed of white pine and was 62 feet in height. The derrick stood for many years until destroyed by an 1882 tornado (Herrick, 1949, p. 37).

Ohio: In southeast Ohio, the Macksburg oil field, Washington County, was discovered in 1860. Very shallow early wells were drilled with spring pole. Later wells were drilled with derricks of 72-, 80-, and 88-foot heights (Report of Geological Survey of Ohio, 1888, p. 480).

In south-central Ohio, as part of Bremen's 150th celebration in 1984, an 85-foot steel derrick, originally constructed in 1929, was dismantled, moved to, and erected in the town's Howell Park.

Texas: Regarding the famous Lucas Gusher at Spindletop, Texas (January 1901), "No record of heights and other dimensions have been found, but photographs suggest about 64 ft high with a base about 20 ft square" (Brantley, 1971 p. 350). Blueprints of the 2001 replica derrick that gushes water for tourists at the Gladys City Boom Town Museum show a derrick height of 71 feet.

At the East Texas Oil Museum in Kilgore, TX, displays show an early cable tool wooden derrick with a height of 72 ft and a rotary tool derrick with a height of 122 ft. The East Texas oil boom began in 1930.

Louisiana: Ninety miles east of Spindletop, at Jennings (or Evangeline), commonly recognized as Louisiana's first oil field (Sept. 1901), the discovery well's derrick was 64 ft high (<http://www.dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=48>). The replica wooden oil derrick (~47 ft) at the Louisiana Oil & Gas Park, Jennings exit I-10, was destroyed in August 2020 by Hurricane Laura. Plans are to rebuild. In North Louisiana, a 1905 blowout well in the Caddo oil field, the Producers No. 2 well, was drilled with a 70-foot derrick (Hopper, 1911, p. 410).

Illinois: At the Illinois Oil Field Museum near Oblong, IL, a 52-foot replica derrick was built based on an original wooden derrick that drilled the Shire No. 1 well in 1906. A 104-foot steel derrick was relocated from the Salem oil field to the museum in 2001 (<https://aoghs.org/energy-education-resources/illinois-oilfield-museum/> and https://theonlyoblong.com/oil_field/).

Kansas: At the Butler County History Center and Kansas Oil Museum in El Dorado, there is a restored original 1940s oil derrick with a height of 100 feet.

California: At the West Kern Oil Museum in the San Joaquin Valley of California, there is a 106-foot replica derrick constructed in 2005. The replica is based on a 1917 derrick of the Jameson No. 17 well, which stood near the city of Taft until 2003 (http://www.sjvgeology.org/old_stuff/derricks.html).

Baku and Romania: Several members of the Petroleum History Institute (petroleumhistory.org) shared their knowledge of early drilling rigs in geographic areas that they are familiar with. Bill Brice, a visitor to Baku, Azerbaijan, stated that the restoration of the earliest 1846 wooden rig measured 10-11 meters (33-36 ft) and that as wells were drilled deeper in the area, derrick heights increased to 20-25 meters (66-83 ft). Another early area of oil exploration occurred in Romania. Oil historian Marius Furcuta (Petroblog: furcuta.blog.spot.com) places early Romanian drilling rigs from 20-30 meters (66-98 ft).

The American Petroleum Institute's Committee on Standard Rigs and Derricks was organized in 1927 with Humble Oil and Refining Company's Walter W. Fondren as its first chairman. The following

***story continued on pg 4

"Standard" Derrick Heights continued

year the committee "achieved a reduction in number of derrick heights and base sizes from 200 to 6 and introduced engineering and consistency into the dimensioning of important structural members"(p. 1202). The following is a 1939 chart showing a 1935 revision from six to seven derrick heights (Zaba and Doherty, 1939).

TABLE NO. 3—Recommended Standard Sizes for Wood Derrick
See Figure 1

Size No.	Height		Base Square		Water Table Opening	
	Nominal "A"	Tolerance	Nominal "B"	Tolerance	Nominal "D"	Tolerance
W 8.....	66' 0"	+6"-0"	20' 0"	+0"-1 1/2"	4' 4"	±2"
W 9.....	73' 0"	+6"-0"	20' 0"	+0"-1 1/2"	4' 4"	±2"
W 10.....	80' 0"	+6"-0"	22' 0"	+0"-1 1/2"	5' 6"	±2"
W 11.....	87' 0"	+6"-0"	24' 0"	+0"-1 1/2"	5' 6"	±2"
W 12.....	94' 0"	+6"-0"	24' 0"	+0"-1 1/2"	5' 6"	±2"
W 16.....	122' 0"	+6"-0"	24' 0"	+0"-1 1/2"	5' 6"	±2"
W 18.....	136' 0"	+6"-0"	26' 0"	+0"-1 1/2"	5' 6"	±2"
W 19A.....	136' 0"	+6"-0"	30' 0"	+0"-1 1/2"	5' 6"	±2"

Note: The "size" numbers are based upon the number of 7-foot panels. The prefix letter "W" denotes a wood derrick.

References:

- American Petroleum Institute, Division of Production, History of Petroleum Engineering, 1961, 1241 pp.
- Bowman, Isaiah, 1911, Well-drilling methods, United States Geological Survey, Water-supply Paper 257, Washington, 139 pp.
- Brantley, J.E., 1971, History of Oil Well Drilling, Gulf Publishing Co., Houston, 1525 pp.
- Herrick, John P., 1949, Empire Oil, Dodd, Mead and Company, New York, 474 pp.
- Hopper, Walter E., The Caddo Oil- and Gas-Field, Louisiana, AIME Transactions, p. 409-435.
- Report of Geological Survey of Ohio, 1888, Economic Geology, v. 6, 831 pp.
- Zaba, Joseph, and W.T. Doherty, 1939, Practical Petroleum Engineer's Hand-book, 2nd ed., Gulf Publishing Co., Houston, 492 pp., (p. 139).

Thanks to: Bill Brice, Marilyn Black, Ray Sorenson, Matt Silverman, Melissa Mann, Isabelle Champlin, Fran Bottone, Olivia Moore, Troy Gray, Ryan Smith, Angela Nuzzo, John Rogers Smith, Marius Furchuta, Butler County Kansas Historical Society, and Steve McDaniel.

Jeff Spencer is a petroleum geologist and oilfield historian from Bellville, TX. He is the Vice President of the Petroleum History Institute and is the author of more than 30 oil field history papers.



Fireside Pumper's Breakfast

The museum welcomes the public to the Fireside Pumper's breakfast meetings, held the 2nd Wednesday of the month at 7:30am at Togi's Banquet Room, 412-422 E. Main St., Bradford. The breakfast buffet is \$12, with a portion of that going toward museum improvements. Check the Bradford Era the Monday before each meeting for details or changes in the schedule.

September 8, 2021
Matt Rettger
ARG Fire Safety

October 13, 2021
Kylie McLaughlin
ALCO Locomotives

November 10, 2021
Fran Bottone
Penn Brad Oil Museum
Review: The Year in Pictures

Thank you, ANFVB!

We would like to thank the Allegheny National Forest Visitors Bureau for their amazing video promoting the museum and its anniversary. The collage of images represents the museum well, with great shots of the displays, equipment, and grounds. You can find the video on YouTube by searching Penn Brad Oil Museum. There is also a link to it on our Facebook page.

Memories of the Museum

by Susan G. Gould, Board Secretary

The Penn Brad Oil Museum was built in 1971 in time to celebrate the 100th anniversary of the discovery of oil in the Bradford field. At that time, we had only the standard drilling rig which was built by Arthur Seagren with help from Sid Huff, and the tool house museum.

By the time I came on board in 1995 to do research, the museum had acquired a large amount of donations of items from the Bradford Field and I was working on collecting names of people who had worked in the industry.

One afternoon just about closing time, a lady came in wearing a Jubilee store uniform and said she wanted to talk to Mr. Bryner about some research she was doing on Kendall. They had a discussion and Jim, being impressed with her knowledge and enthusiasm, asked her to come help with tours. And so Sherri Schulze came on board.

In those days, we had many oil field workers who were retired, our Fireside Pumpers, and they were happy to come out and talk to visitors about their memories of working in the oil fields. Jim Bryner had a long list of such men and he asked that each person work three days in the summer while the museum was open. At that time, we were open for 100 days each summer. Over the years, many of those men have passed away, and we miss them. They were great people, interesting to talk to and they taught us so much.

Fireside Pumpers Breakfast was



well attended in those days, with as many as 70 or more people showing up. I think the largest attendance was over 120, when someone came and did a talk about the big Gusher on Music Mountain.

When the tractor barn was built, we had a celebration and the first Yellow Dog award was given by Jim Bryner to Samuel Gregg, Isabelle Champlin's father.

The display cases in those days were covered with glass that was broken in some spots and we had a time of it keeping the mice out of them. One time a mouse got in one and tore up Senator Lewis Emery's speech, but thanks to a course on restoration and preservation that Mr. Bryner sent me to, we were able to piece it all back together. Another time a mouse made a nest in one of the cases using fur from Jim Bryner's dog, Trey. Today we are so grateful to have the beautiful display cases donated to us by Zippo Manufacturing Company.

Of course, we were devastated in 1998 when a tornado destroyed the rig and the tractor barn, but relieved that the tool house museum, with all its artifacts, was untouched. Thankfully, we received enough money from oil companies and other donors to rebuild.

I treasure the time I have spent at the museum, watching it grow and becoming the wonderful place that it is today.

Work on the Rig

photos by Fran Bottone

Mid-June saw the beginning of demolition of the old rig to make way for the new rig and derrick.



Kinley Corp of Allegany, NY, is the contractor for the rig work.

Piece by piece, the ol' girl was stripped down to the bare bones.



All of the important bits, laid to the side, ready to be used again.

By the third week in July, Kinley had started laying the foundation for the new rig and derrick. By the



end of July, we were good to go and were awaiting the construction phase.



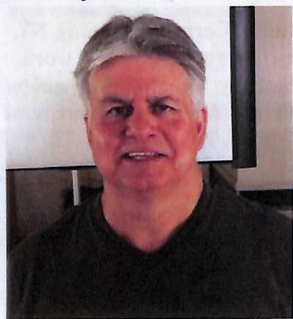
You might notice that the new rig will be in a different spot. This is to leave open space for a future exhibition hall between the new rig and the museum.

Fireside Pumpers Talks

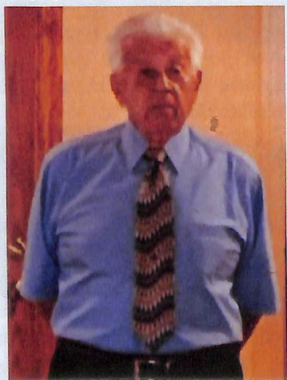
by Isabelle Champlin, Corresponding Secretary

The speakers at the 2021 Fireside Pumpers meetings have been educational and entertaining.

In May, we were presented the topic "The Impact of the Oil and Gas Industries on Bolivar and Surrounding Areas" by Kelly Lounsberry.



Kelly is a native of Bolivar, NY, and has been an elementary school teacher for 32 years. He has been on the board of the Pioneer Oil Museum for 21 years. Kelly's talk was illustrated with numerous photos, maps, and newspaper articles.



In June, Stan Pecora, Bradford native, lawyer for 57 years, long-

time Museum board member, and oil producer, spoke about "Captain Jones, Pioneer Oil Man." Jones was a Civil War vet who struck it so rich in the Tionesta and Bradford oil fields that by 1883 he was the biggest crude oil producer in the world, with 584 wells. He built pipe lines, founded the precursor of the Bradford Hospital and the Oil Exchange with Senator Emery. He moved to Mississippi, bought a railroad and 400,000 acres of woods, and built the canal and seaport of Gulfport.



In July, Maggie Fredrickson, the Village Historian of Franklinville, NY, and director of the Association of Public Historians of New York, discussed "The Life & Times of Birdsill Holly, Engineer and Inventor." Holly (1820-94) built huge water pumps, hydrants, urban water systems, and centralized steam heating installations. He invented many ideas so far advanced for his time that they were never accepted (skyscrapers for NYC and tourist centers for Niagara Falls). He co-invented the famous Silsby fire engine that we have on display at the museum.

Busy Bees!

photos by Fran Bottone

The museum grounds were a hive of activity in July.



Giardini Brothers Construction of Allegany, NY, built us a beautiful new ramp and walkway to the front entrance. The museum's Memorial Fund, along with a grant from the Blaisdell Foundation, paid for this project.



At the north end of the property, McCracken Energy (excavator) and John Allen (bulldozer) cleared brush and leveled ground as a start to a major plan that will use 5 acres of land purchased in '18.



Large sluice pipes, donated by Bradford Pipe, were another part of this project.



The Giardinis also used sona-tubes to shore up some old posts inside the tool house.

Board Of Directors

The Penn Brad Oil Museum Board of Directors is as follows:

Thomas Miller, President
Fred Fesenmyer, Vice President
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Joyce Cline, Treasurer
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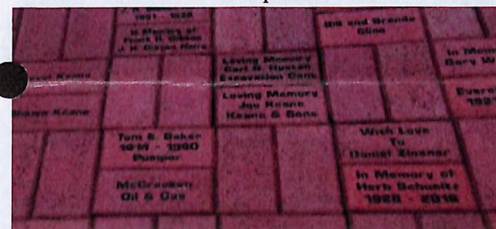
Photo by Fran Bottone

Donations to Rig Replacement Fund

In Memory Of:

Willard Cline.....Susan Cline-White
Daniel Palmer.....PA Independent Petro Producers

Given By:



Engraved personalized paving bricks can be purchased to surround the base of the new flag pole that will be erected in the near future. The bricks can be used as a way of honoring people who have been important to or involved in the oil industry, or as a memorial to a deceased person. Bricks can also be purchased personally to show your support for the work of the museum. Notification of the gift and the placement of the brick will be given. To purchase a brick, print out the order form available on our website or call the number below for details.

Remember or Honor a Loved One with a Gift to the Penn Brad Oil Museum

Memorials received after July 31 will appear in the next newsletter.

Memorials are available by calling our Treasurer, Joyce, at 814-368-6824, or by mailing the coupon below to: Penn Brad Oil Museum, P.O. Box 163, Bradford, PA 16701.

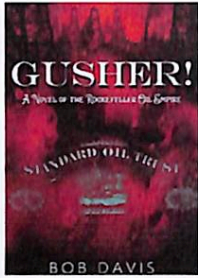
A notice from the Museum will be sent to the recipient.

Penn Brad Oil Museum is a 501(c)(3) entity and all donations are tax deductible.

If you want your gift to go to the Rig Replacement Fund, check the box on the coupon.

Clip and Mail Coupon

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Book Review

Gusher! A Novel of the Rockefeller Oil Empire by Bob Davis Discus Books, 2019

This novel traces the career of fictional Matthew Strong, an ambitious mathematical whiz kid from Oil City, PA, who eventually is employed by J. D. Rockefeller in his headquarters of the Standard Oil Company of Ohio.

The son of a drunken nitroglycerin shooter who accidentally blows himself up, Matthew is at first appreciative of Rockefeller's changes to the dangerous and vicious world of strike breakers, regulators and enforcers. How Rockefeller dominated the drilling, refining, and transporting of oil (all while rarely setting foot in an oil field or on a pipeline) is vividly told, as are descriptions of the Russian fields in Baku, and the discoveries of the Texas oil fields where Matthew ends up.

The author, Bob Davis, is a retired longtime employee of ExxonMobil, the largest successor to Standard Oil (and still one of the largest oil companies in the world), where he worked in public relations and was a speechwriter for the company's former CEO, Rex Tillerson. Davis used his knowledge of how senior management operates in order to create a credible portrait of Rockefeller and his cronies of the Gilded Age. As he explains in his afterword, "Gusher was written chiefly to entertain. But I also believe it gives the reader a memorable excursion into the world's biggest business, and an intimate, behind-the-scenes look at the powerful, iron-fisted men who created it." Gusher! is available in our museum's Kinley Library, and is also for sale in our gift shop.

Visit our Facebook page for more articles, photos, and updates. User name: Penn Brad Oil Museum.