



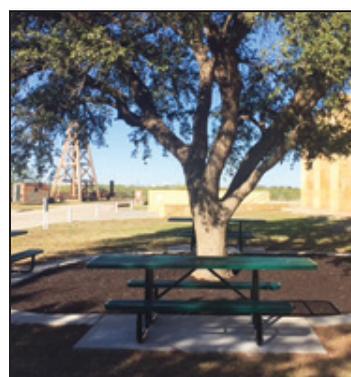
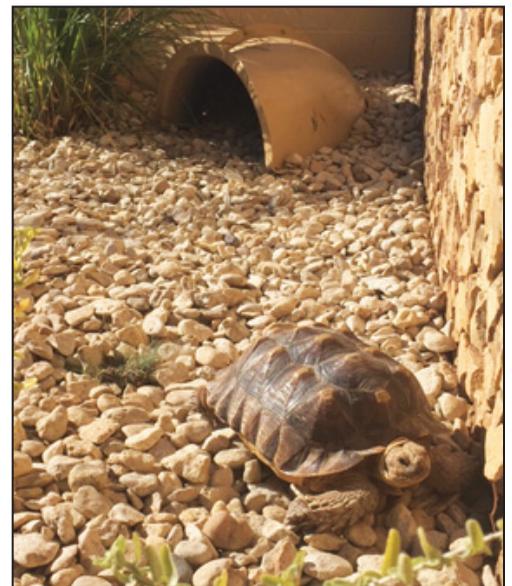
## Creating New Digs for Mikey

**Jace Hopper**, a junior at Midland Christian School, spent several months at the Petroleum Museum working on his Eagle Scout Service Project. As a result, one reptile has a special place to live and visitors can relax on benches under a tree.

Jace came to the Museum in April of this year wanting to find a way to help us and the community. He developed, researched, fundraised, and implemented his plan.

Our sulcata tortoise, Mikey, has a much-improved habitat with a beautiful West Texas landscape and animal mural on the outside wall of his enclosure painted by Karen Winkler. Mikey is part of our Animal Outreach Program focusing on wildlife education pertaining to habitats, ecosystems, adaptations, and food chains. He is also an attraction for visitors to observe as they visit the Museum. Jace also added new picnic tables on pads located under a tree outside the Education Hall and Mikey's enclosure. This area will welcome school groups, programs, and other visitors wanting to eat lunch, take a break on the grounds, or enjoy the beautiful art now displayed outside.

Thank you to **Jace, Troop 232 – First Baptist Church, Karen Winkler, West Engineering, Silver Spur Construction, and other family and friends** who contributed to this project. It looks amazing and we are so proud of it! So is Mikey.



Scout Jace Hopper spent months researching and constructing new digs for the sulcata tortoise, Mikey. He also added benches under a tree for visitors' enjoyment.



## 2016 Board of Trustees

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**Permian Basin  
Petroleum Museum,  
Library and  
Hall of Fame  
...exploration,  
innovations  
and legends...**

## Volunteer

## Harris Learns 'Change' Part of Life

**C**hange is the word to describe the life of Billy Harris, a longtime Museum volunteer and member of the Board of Trustees.

Growing up on a farm in central California, Harris knew he didn't want to continue the family tradition. A great-uncle who was an amateur geologist influenced Harris to study geology and the young man picked the Colorado School of Mines to major in geology.

"All my friends there were petroleum engineering majors," Harris said. "They made a lot of money working as roughnecks during the summers. I was doing odd jobs and not making much money. I decided to work as a roughneck to make better money that would help me get through school. It turned out I liked that work."

Harris changed his major to petroleum engineering after completing his junior year. The change "added to my college career," he said with a laugh, "but also to my professional career. My deeper knowledge of geology has enhanced my ability as a petroleum engineer."

He started working with ConocoPhillips in Midland in 1978, returned to the Rockies for a few years and then found his way back. His two sons grew up here and vowed they would not follow in Dad's footsteps. "Well, they are working in the petroleum industry here and raising their families here," he said.

In 2004 Harris was asked to help with the opening of the Museum's new Transportation Wing, bringing another change in his life. That led to working with Family Science Nights and then involvement with updating a cable tool rig in the Oil Patch. His job with Wagner & Brown allowed Harris the freedom to volunteer with the Museum.

Two years later, the engineer joined the Board of Trustees and then was elected secretary of the body.

"I love the industry and I love what I do," Harris said. "And I've always been interested in education. I find the Petroleum Museum is a great merger of those two things I love. I like having some input into the direction of the Museum and helping out whenever I can."

Harris's volunteer career includes coaching baseball and soccer, judging science fairs, working with Midland Habitat for Humanity and Boy Scouts, and serving with Society of Petroleum Engineers, Society of Petroleum Evaluation Engineers, Society of Independent Professional Earth Scientists and American Association of Petroleum Geologists.

Another change popped up during the Museum's recently completed renovation. Harris was asked to assist the developers with some of the technical content going into the new exhibits, including the geologic scenery and Permian Reef.

"My hopes for the Museum is that it continues to be a brilliant diamond in the Midland crown," he said. "I want to see it continue to shine and to educate and give the people of the area a sense of where they have been and the possibilities awaiting them as they go forward."

He is attracted not just to the story the exhibits tell about the area's geology, but also the positive notes of the industry. "This industry brings together diverse disciplines, cultures and, most importantly, different ways of thinking about things and doing things."



*"My hopes for the Museum is that it continues to be a brilliant diamond in the Midland crown."*

– Billy Harris

## Board

## Year Brings Changes

The Petroleum Museum will welcome three new members to its Board of Trustees in January 2017. **Sally Kvasnicka** with Fasken Oil and Ranch, **Max Wright** with Kelly & Hart, and **Nick Fowler** with Orrex Plastics. We appreciate their generous gift of time and leadership and look forward to working with each of them.

January will bring the retirement of five board members as well. We bid a fond farewell to **Jim Byerlotzer**, with 15 years of service to the Museum; **Joe Castillo**, seven years of service; **Myra Dria**, six years of service; **Joe Wright**, six years of service; and **Dale Redman**, three years of service. With a combined 37 years of service, these board members helped lead the Museum through the planning, fundraising, construction and grand opening of the petroleum exhibits renovation. We are incredibly grateful for their dedication to the Petroleum Museum and thankful for their leadership and legacy they leave.

## SAVE THE DATE

2017 Petroleum  
Hall of Fame  
Tuesday, May 9, 2017

Honorees are Joseph B. McShane, Jr., Curtis Mewbourne and J. Cleo Thompson. Sponsorship information will be mailed after the first of the year. For more information, please contact Luanne Thornton at 432-683-4403 or lthornton@petroleummuseum.org.

## Collections

### Car Models Donated to Gallery

Early this fall, **Jan van de Pool** (The Chaparral Files) from The Netherlands generously donated 32 models of Chaparral race cars to the Museum.

Mr. van de Pool built his collection over many years and believed the Petroleum Museum was the right place for them to be showcased. The models will make a fascinating addition to the Museum's Chaparral Gallery. Visit the Museum, enjoy a walk down memory lane and re-visit the era of meticulously built model cars.

If you are interested in helping the Museum preserve the historic Chaparral Racecars, you can donate to the Chaparral Maintenance Fund or join the Chaparral Pit Crew Fan Club. Visit the Museum's website at [www.pbpetro.org](http://www.pbpetro.org) or contact Luanne Thornton directly at 432-683-4403 or [lthornton@petroleummuseum.org](mailto:lthornton@petroleummuseum.org).



Meticulously constructed Chaparral models exhibited in Gallery.

## Mineral Gallery

### Aquamarine Means Seawater



**Aquamarine  
With Quartz and Albite**

Aquamarine, March's birthstone, is the green-blue to blue variety of the mineral beryl. The aquamarine's name is derived from the Latin word for seawater. It was believed to calm the waves and keep sailors safe at sea.

The best gem quality aquamarines have a high clarity and are blue to slightly greenish blue. Like many beryls, aquamarine often forms in large crystals making it suitable for large cut stones and carvings. Aquamarine mines in the United States include Colorado, Wyoming, Idaho and California. Brazil, Colombia, Zambia, Madagascar, Tanzania and Kenya also produce aquamarines.

The largest gemstone quality aquamarine ever mined was found in Brazil in 1910. It weighed over 240 pounds and was 19 inches long and 17 inches in diameter.

This aquamarine is in a matrix of quartz and albite. Quartz is the second most abundant mineral on earth. Feldspars, which include albite, are the most common mineral and are important rock-forming minerals. First found in Sweden in 1815, albite takes much longer to crystallize than other feldspars, enabling it to form in large crystals.

This and many other minerals are featured in the Museum's Mineral Gallery.

Aquamarine was thought to calm the waves and keep sailors safe at sea.

## Energy Law

### Museum on Students' Itinerary



Texas Tech Energy Law students visited the Museum on October 14 as part of an oil and gas law field trip planned by the school and supported by several local companies and individuals. We were honored to be included on their busy itinerary and enjoyed helping them discover the industry through our new petroleum exhibits and the Oil Patch.

Energy Law students study petroleum industry.

**Robots invade Museum...from competitions to exhibits**

**Challenge Almost Here**

The Petroleum Museum and Midland High School are hosting a First Tech Challenge – Panhandle Plains South League Event involving 16 teams from seven schools competing in robotics.

The robotics competition will be held at the Museum on Saturday, December 10, from 9 a.m. to 1 p.m.

Students are participating from Midland High School, Midland Lee High School, Greenwood High School, Midland Classical Academy, UTPB STEM Academy, Post High School and Andrews High School.

Spectators are welcome and admission is free. To learn more about the competition’s parameters, visit [www.firstinspires.org/robotics/ftc](http://www.firstinspires.org/robotics/ftc).

The event is sponsored by NorthStar Operating Company.



**Youngsters enjoy the creativity the Zoo brings in the tours.**

**Playing with Robot Zoo**

Engage in biomechanics with Robot Zoo, a traveling exhibit on display at the Petroleum Museum through mid-May 2017. Interactive animal robots combine mechanical engineering with wildlife characteristics and adaptations. For information about scheduling group tours that include a focus on the Robot Zoo, contact Olivia Thompson at 432-683-4403 or [othompson@petroleummuseum.org](mailto:othompson@petroleummuseum.org).



**Hundreds of youngsters enjoyed finding treats among the drilling rigs at the Museum on Halloween, certainly to rank as the most unique location.**



**Family Science Night: Space Wars**

**Thursday, January 26, 2017  
6:30 to 8 p.m.**

3...2...1...BLAST OFF to the Petroleum Museum for “Space Wars” Family Science Night on Thursday, January 26. Channel your inner astronomer as you experiment with moon craters, journey through outer space, and create your own rockets. Admission is FREE. Family Science Nights are brought to you by our generous sponsors at CHEVRON. Museum Members will enjoy the added bonus of EARLY ADMISSION to explore out-of-this-world science from 6 to 6:30 p.m.



**Outreach: Have Programs, Will Travel Anywhere**

Let our educational programming come to your school! We offer science and history based interactive programs that are great opportunities to supplement school curriculum. These programs, aligned with state standards (TEKS), are for all ages. Choose from six topics: Animals, Dinosaurs, Fossils, Geology, Native Americans.

Our newest outreach program, Astronomy, uses a portable planetarium that allows students to travel into outer space or to the center of the earth. Our Education Department is also working diligently to expand our outreach program offerings to include robotics and energy in the coming year. Don’t miss this chance to pet a prairie dog, feel a buffalo hide, become a geologist-in-training, sit among the stars, or go back in time with creatures of land and sea.



## Rent Early!



From casual settings...

Consider the Petroleum Museum for your company's holiday get-together. We offer a variety of spaces from which to choose.

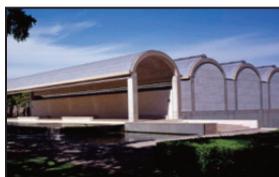
The galleries provide a perfect balance of sophistication and adventure. The auditorium offers many amenities to enhance your experience. The indoor café area and adjoining outdoor terrace offer excellent semi-private space options for intimate events in a setting that meshes glamour with rustic oil patch charm.

Don't wait! Contact Carey Behrends to reserve the Museum for your special event at 432-683-4403, [cbehrends@petroleummuseum.org](mailto:cbehrends@petroleummuseum.org).



...to formal events, we can do it.

## Spring Wanderers to Head East



From the culturally stimulating sites of the Metroplex to the extraordinary boomtown days in east Texas, *West Texas Wanderers* will experience the diversity that Texas offers March 30 through April 1. Get your name on the list to "wander" to Fort Worth, Dallas, Kilgore and Tyler.

One afternoon will be spent touring sites in Fort Worth's Cultural District, choosing from the Kimble Art Museum, Amon Carter Museum of American Art, Science & History Museum and the Modern Art Museum. An evening is planned at the Fort Worth Botanic Garden.

Our next stop will be the Perot Museum of Nature and Science near downtown Dallas followed by The George W. Bush Presidential Library and Museum, which reveals the life and career of our nation's 43rd president and 46th governor of Texas. A short drive to Kilgore will take our Wanderers to the East Texas Oil Museum. Visitors can enjoy Boomtown, USA – a full scale town full of stores, people, animals, and machinery depicting the lively activity of a town booming in the oil industry.

Next, we will visit the world-famous Tyler Rose Garden Center which preserves and displays the story of Tyler's rose-growing trade. Wanderers will also stop at the Vintage Grill & Car Museum in Weatherford to experience farm-to-table southern style cuisine, plus an eclectic collection of vintage automobiles. For more information, call **Carey Behrends** at 432-683-4403 or email [cbehrends@petroleummuseum.org](mailto:cbehrends@petroleummuseum.org).

## ASK Dr. Petro

### How Did Industry Begin in West Texas?



**A:** Much of the Permian Basin was home to the Comanche Indians until they were forced out by the U.S. Army in the mid-1870's. Because of the rich grasslands, most of the area was inviting to both ranchers and farmers. Surface water, however, was almost non-existent. Ranchers and farmers drilled water wells to sustain themselves and their livestock, often finding evidence of oil or gas.

A newly installed museum exhibit describes the "birth of an industry" on this vast terrain. Here museum visitors are reminded that the true discovery well of the Permian Basin "came in" in February of 1920, forever changing the course of West Texas. It was the moment in history when a shallow discovery well struck oil at a depth of 450 feet in Mitchell County.

Truth be told, the W.H. Abrams No.1 only produced a negligible 10 barrels of oil per day at first. Five months later and 2,000 feet deeper, however, the well was blasted with nitroglycerin. The first commercial well of the Permian, oil, gas, and water exploded through the derrick daily. The W.H. Abrams No. 1 in the Westbrook Field led to one of the most prolific black gold rushes in U.S. history in the Permian Basin.



# Looking Back: YOU Made This a Great Year!

Thank **YOU** for making this year the best so far! 2016 has been one of reflection on what we accomplished over the past 40 years, and it has been a year of new beginnings with the grand re-opening of the new petroleum exhibits.

The Museum offered a variety of programs in 2016. Kindergarteners through high school students explored the world of robotics. Teachers from around the Permian Basin attended informative and educational workshops. Local colleges and universities used the Museum as an educational resource for a variety of classes. Area adults were engaged by world-class speakers. **YOU** helped many generations see the tremendous value in what the Museum has to offer!

Industry Professionals, the local community and visitors from all over the world came to learn about the petroleum industry and left with a new appreciation for what the Museum

strives to achieve. **YOU** allowed us to continue the legacy of all the Permian Basin represents.

As 2016 comes to a close, we hope you will consider a donation to the Permian Basin Petroleum Museum. Your donation will be used for meeting the Museum's most pressing needs. If you choose to donate privately, check for matching funds through your employer.

We are your advocate for the industry to all who experience, discover and realize how important the petroleum industry is to each of us. Send your tax-deductible contribution to 1500 Interstate 20, Midland, TX 79701 or donate online at [www.pbpetro.org](http://www.pbpetro.org). Contact **Luanne Thornton** for questions at 432-683-4403 or [lthornton@petroleummuseum.org](mailto:lthornton@petroleummuseum.org).

Best wishes to you and your family this holiday season.

## 41st Birthday Sponsors

Thank you for making our 41st Birthday a real bash. Don Bishop won the Tom Lovell print and the Permian Basin tribute rifle went to Jim Woodcock. Congratulations Don and Jim! Special thanks to Norman Johnson for his fun Birthday Bash artwork and to Flowerland for floral arrangements.



## Memorials

Memorial contributions to the Petroleum Museum are deposited in the permanent endowment fund to provide ongoing tribute to the individuals recognized in bold. Donors are listed below the honoree. Contributors from August 10 through November 29, 2016, were:

### IN MEMORY OF...

#### **Bill Blanks**

Mr. & Mrs. Joe P. Liberty  
Sue Marshall

#### **Violet Blanks**

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#### **Rudolph "Rudy" Kuzmich**

Nancy & Barry Beal

#### **Kenneth V. Terrell**

Sarah Flautt

### UNDERWRITERS:

Concho – Music by Ransom Rhodes  
Winnie Kidd – Decorations  
Nancy & Joe Liberty – Libations

### LEGENDS:

Concho  
Ferrell Davis  
Vicki & Clint Hurt/Claire & Jim Woodcock  
NorthStar Operating Company

### INNOVATORS:

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CrownQuest Operating, LLC  
Frost  
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### EXPLORERS:

Basic Energy Services  
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Karen & Roy Williamson

### CONTRIBUTORS:

180 Petroleum, Inc.  
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Don Bishop  
Mary T. & Jack E. Blake, Jr.  
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Jenny & Brian Stubbs  
Luanne & Randy Thornton  
Anne & Jont Tyson  
Dr. & Mrs. Jim Welsh  
Celia Wilson  
Jane Wolf

# Notable Dates

## DECEMBER

### December 20:

Brown Bag Lunch & Lecture Series  
Speaker: John Wojtkun, Jr.  
"A Cowboy Christmas"  
11:30 a.m. to 12:30 p.m.  
Free admission; drinks & dessert provided.

**Sponsor: Hahl Proctor Charitable Trust**

### December 24-25:

**Museum Closed!**  
**MERRY CHRISTMAS!**

## JANUARY 2017

### January 1:

**Museum Closed!**  
**HAPPY NEW YEAR!**

### January 17:

Brown Bag Lunch & Lecture Series  
Dr. James Burks, Interim Director  
Texas Tech University Health Sciences Center  
Permian Basin Endocrinology & Diabetic Center  
11:30 a.m. to 12:30 p.m.

Free admission; drinks and dessert provided.

**Sponsor: Hahl Proctor Charitable Trust**

### January 26:

Family Science Night: "Space Wars"  
6:30 to 8:00 p.m.  
6:00 p.m.: Early Admission for MEMBERS ONLY  
Hands-on Science Experiments & Activities  
Free Admission

**Sponsor: Chevron**

## FEBRUARY

### February 7:

Building Bots  
Robotics & Engineering FunLab  
5:30 to 7:30 p.m.  
Grades K-6  
Pre-registration required. For more information or to register online, visit [pbpetro.org](http://pbpetro.org).

## MARCH

### March 7:

Building Bots  
Robotics & Engineering FunLab  
5:30 to 7:30 p.m.  
Grades K-6  
Pre-registration required. For more information or to register online, visit [pbpetro.org](http://pbpetro.org).

### March 21

Brown Bag Lunch & Lecture Series  
Jennifer Larson, Manager  
Midland Energy Library  
11:30 a.m. to 12:30 p.m.

Free admission; drinks & dessert provided.

**Sponsor: Hahl Proctor Charitable Trust**

### March 30 – April 1:

West Texas Wanderers  
Trip to Northeast Texas  
Fort Worth, Dallas, Kilgore & Tyler  
Contact Carey Behrends at 432-683-4403 or  
[cbehrends@petroleummuseum.org](mailto:cbehrends@petroleummuseum.org) for reservations.  
For more information, go to [pbpetro.org](http://pbpetro.org).

*For more information about any of these programs or events,  
contact the Petroleum Museum at 432-683-4403 or [www.pbpetro.org](http://www.pbpetro.org).*

## APPLAUSE, APPLAUSE

We want to give a round of applause to the following friends, companies and businesses. Their in-kind contributions of time, assistance or services are appreciated:

### Family Science Night:

Bricks 4 Kidz, Dr. Forrest Flocker, Dr. Zhengwen Zeng, UTPB STEM Academy, Girl Scouts

### Halloween:

Bricks 4 Kidz, Dr. Brian Flowers (MC Engineering Club), Dr. Pat Nandakumar (MC Chemistry Club), Fiddlesticks Farms, CUDD Pressure Control

### Building Bots:

Bricks 4 Kidz

### General:

Love Swimming Bear, Savahl Family, Sarah Heath

### Facilities:

Rig Power, Clint Edmonson & crew, 4D Excavating, Ben Davis

## Experiment: Snow Slime

### MATERIALS:

- Two Bowls
- 2 Cups of White School Glue
- Water
- Glitter
- $\frac{3}{4}$  Teaspoons of Borax

### PROCEDURE:

1. In one bowl, mix together the two cups of school glue, glitter, and 1  $\frac{1}{2}$  cups of very warm water.
2. In the second bowl, mix together the borax and 1  $\frac{1}{3}$  cups of very warm water.
3. Mix the ingredients in both bowls very well and then mix the ingredients of both bowls into one.
4. Mix the ingredients with your hands for a few minutes and the snow slime will start to form!
5. To make the slime cold, store it in a Zi-

ploc bag in the refrigerator before and after play!

### HOW DOES IT WORK?

You just made a polymer. Polymers are unique because they have qualities of both a solid and a liquid. It takes the shape of its containers like a liquid does, but you can pick it up and hold it like a solid. The glue has an ingredient called polyvinyl acetate, which is a liquid polymer. The borax links the polyvinyl acetate molecules to each other, creating one large, flexible polymer. This kind of slime will get stiffer and more like putty the more you play with it.



# PETROLEUM MUSEUM

Permian Basin Petroleum Museum, Library and Hall of Fame  
1500 Interstate 20 West • Midland, Texas 79701

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Newsletter Underwritten by:



**Our Mission:** We will share the petroleum and energy story and its impact on our lives .

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**Museum Bit & Bytes is published quarterly by the Petroleum Museum. For more information call 432-683-4403 or visit the website at [pbpetro.org](http://pbpetro.org).**

12/16

Meet George...our Elf on the Shelf who gets into mischief and saves you money this holiday season. Catch all of George's antics on the Museum's Facebook page or come find him in the Museum Store for special discounts. We are open from 10 a.m. to 5 p.m. Monday through Saturday and 2 to 5 p.m. on Sunday. You can shop online at [pbpetro.org/shop](http://pbpetro.org/shop) anytime. Make a difference this Christmas and support the Museum by shopping in the Museum Store.