President's Field Trip

By Sharon Marburger

If you have been paying attention, you have heard about the 2019 President's Field Trip. The original plan was to go to western Wyoming and dig fossil fish and visit the Blue Forest, then go on to Delta, Utah to hunt for trilobites and red beryl, and finally head for Plush, Oregon to find a variety of materials. Unfortunately, those plans have now changed. The directed field trip will now be only to western Wyoming. However, if you wish to continue on to the other sites, feel free to do so, but you will have to conduct your own research to plan your trip.

It is approximately 700 miles from Lincoln to Rock Springs; 715 miles from Lincoln to Green River; 740 miles from Lincoln to Farson; 760 miles from Lincoln to Fontenelle; and 785 miles from Lincoln to Kemmerer. Depending on your destination, travel time ranges from 9 hours to 13 hours, plus stops along the way.

Wooly would like to meet around the Farson area for the evening meal on June 15. There will be more information available at the May General Meeting and in the June Pick & Shovel.

At this time, thirteen people have expressed interest in going. You have a choice as to where you would like to stay. Wooly and Jackie plan to camp below the Fontenelle Dam. The Ashmores and the Marburgers plan to stay at Sitzman's Motel in Farson. There are several hotels in Rock Springs, Green River, and Kemmerer, should you choose to stay at one of those locations.

For those staying at Farson, there are two restaurants: Mitch's Cafe and Country Burgers. Being larger towns, Green River, Rock Springs, and Kemmerer have many restaurants.

Below is an article written for the *Jade State News*, Volume 2018, Issue 1; published by the Wyoming State Mineral & Gem Society, Inc.; which contains great information for our field trip. Many thanks to that club for providing this useful information.

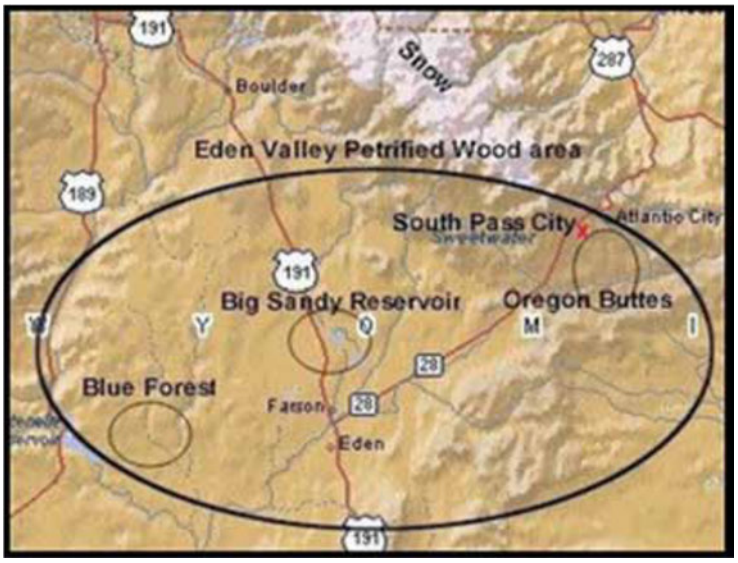
WYOMINGS'S BLUE FOREST PETRIFIED WOOD

The Formation of Eden Valley Petrified Wood

Wyoming is a state rich in fossil wood and has several petrified forests. The petrified wood that marks the existence of one of these ancient prehistoric forests is known to collectors as the Eden Valley Wood Collecting Area which is named after the town of Eden, Wyoming. Eden is located in the southwest part of Wyoming and is in an 80 mile long area where petrified wood can be found.

A. TYPES OF EDEN VALLEY WOOD

In the Eden Valley in southwestern Wyoming, petrified wood is found over a wide area around Farson. Most of the petrified wood resembles ordinary weathered wood and has an opaque cream colored coating of silica covering a silicified black to brown central core. On the Figure #1 map, three (3) common collecting areas are located: Oregon Buttes, Big Sandy Reservoir, and the Blue Forest:



1-Eden Valley Wood Collecting Areas

(1) The Big Sandy Reservoir collecting area is located 10 miles north of Farson in the Big Sandy State Park Recreation Area which includes Big Sandy Reservoir. The area one or more miles east of the recreation area is known for petrified cluster palm wood, cluster palm (formerly known as cane), and surface wood collecting areas. (T27N, R105-106W). Recommended map - U.S. Geological Survey, Farson 1:100,000 topographic quadrangle).

(2) On the eastern end of the deposit, fossil wood is found around Oregon Buttes just east of South Pass, Wyoming. Oregon Buttes was a major landmark on the Oregon Trail. Near Oregon Buttes, the Bridger Formation contains petrified wood. This wood, known as the Bridger-type, consists of partially silicified black wood. Where the wood is completely replaced by silica, it ranges in color from brown, tan to green. In addition to the wood, some clear chalcedony and vein moss agates are found in this region. ((T26-27N, R100-101W).

(3) The Blue Forest collecting areas are located near the west end of Eden Valley and about 30 miles west of Farson. The fossil wood found in this area is well known for the light blue chalcedony encased by fossilized algae that can be associated with many of the specimens. (sections 28, 29, 30, 31, 32 and 33, T24N, R110W).

Blue beds petrified wood (T23N, R109W). The Cheyenne Mineral and Gem Society (1965) described the south half of this township as a source of several types of petrified wood, which are found in the "blue beds" that cover much of the area. These "blue beds" appear to be within the Bridger Formation (Sutherland, 1990), and are located a short distance to the southeast of the Blue Forest agate area (recommended map - U.S. Geological Survey, Rock Springs 1:100,000 topographic quadrangle).

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PRESIDENT'S FIELD TRIP - continued

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B. LAKE GOSIUTE AS THE SOURCE OF EDEN VALLEY PETRIFIED WOOD

Modern-day travelers on Interstate 80, traveling west of Rawlins, cross the Continental Divide twice. Southwest of Rawlins, the divide splits to encircle a low lying basin called the Great Divide Basin. This area is also called the Red Desert Basin for the red soil derived from Eocene formations that cover the surface of the Great Divide Basin today. The Great Divide Basin, along with the neighboring Green River Basin to the west, were covered by Lake Gosiute during the Eocene Epoch.

Over 50 million years ago, during the Eocene Epoch, volcanoes in what would one day be the western United States were erupting and depositing ash in western Wyoming. At this same time, the Rocky Mountains began to form as the earth buckled and uplifted. Heavy rains which drained off of this new mountain range created Lake Gosiute.

Over a four million year period, Lake Gosiute expanded and contracted in response to changes in the region's climate. When Lake Gosiute reached its maximum surface area of 15,500 square miles (39,000 km2), it would have been slightly larger than the state of Connecticut today. At is smallest, the lake is estimated to have encompassed 4,000 square miles and could be compared as slightly smaller than the Island of Hawaii. Lake Gosiute was estimated at its maximum to be 60 feet deep.

Lake Gosiute began to form in the Great Divide/Green River Basins for the first time in the early Eocene Epoch. During this time, the climate was warm and moist. Under these conditions, hardwood trees, pine, fir, magnolia and other types of trees flourished in widespread heavily forested swampland cut by numerous braided streams. These streams fed into the Great Divide/Red Desert Basin, which filled to form ancient Lake Gosiute. Subsequent climate and tectonic activities during the lake's life span of 4 million years, saw repeated patterns of rising and falling water levels.

Lake Gosiute During Early Eocene

Lake Gosiute expanded and contracted in response to periods of increased precipitation followed by dry periods. The fluctuation in the lake level alternately allowed expansion of the forests around the lake, or drowned the timber as the lake rose. Lake Gosiute's ancient shoreline would also have been littered with driftwood, which became the source for Eden Valley Wood.

During the Eocene, sediment from the surrounding high areas was eroded by streams into Lake Gosiute.

These sediments were then covered over by ash deposits from volcanic eruptions. As Lake Gosiute became full of eroded sediment and volcanic ash, the driftwood and the drowned timber along its shoreline was also covered up. As the level of water in Lake Gosiute decreased, the original area to the west –the Green River Basin-remained as a fresh water lake as it became separated by a ridge from the original Lake Gosiute.

As the climate changed with the periods of drought and reduced precipitation, Lake Gosiute continued to shrink in size and migrated to the southeast into a deeper basin-the Washakie Basin-where it became a dying lake with a high mineral salt content. These original deposits of saline materials and deep primal ooze of organic matter, over millions of years, produced today's highly valued mineral trona, while the latter created coal-bed methane gas, coal, and the world's largest known oil-shale deposit. Energy demands have also made the original Gosiute Lake area the epicenter of today's natural gas boom in Wyoming.

With geological time, the original Lake Gosiute sediments and ash deposits subsided and compacted to form layers of rock. The types of rocks formed in Lake Gosiute were sandstones, mudstones, siltstones, oil shales, coal beds, saline evaporite beds (trona), limestones, dolostones, and tuff (volcanic ash). Incorporated within these rock layers were the original driftwood and trees that formed along Lake Gosiute's shorelines.

Eden Valley Petrified Wood formed when the original trees and branches were rapidly buried under sediment and were initially preserved due to a lack of oxygen. Petrifaction occurs when water that contains inorganic minerals, such as calcium carbonate or silica, passes slowly through the organic wood. As the original wood's lignin and cellulose decay away, its original cellular structure is duplicated and replaced by these inorganic minerals. Elements such as manganese, iron and copper in the water and sediment during the petrification process give petrified wood a variety of color ranges. Pure quartz crystals are colorless, but when contaminants are added to the process the crystals take on a yellow, red or other tint.

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PRESIDENT'S FIELD TRIP - continued

(Continued from page 5)

BLUE FOREST PETRIFIED WOOD

A. THE UNIQUE FORMATION OF BLUE FOREST PETRIFIED WOOD

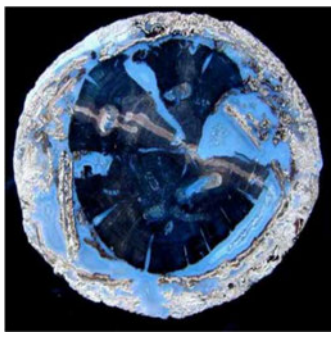
Of the three Eden Valley petrified wood types, the Blue Forest petrified wood is the most unique because of its color and its algae coating. Some parts of Lake Gosiute were shallow and supported thick layers of algae. It was this algae that helped to create the Blue Forest Petrified Wood. The driftwood and trees in these shallow water areas of Lake Gosuite became coated with this algae. As this algae and water (which had a high concentration of calcium) began to evaporate and dry, the calcium mixed with the algae to form a hard but porous coating on the wood. As the algae dried it shrank away from the wood, leaving a space that was later filled with minerals. It is thought that the element Tin, if present in the groundwater, caused specimens of Blue Forest petrified wood to exhibit blue crystalline quartz or microcrystalline chalcedony.

As mineral laden water moved downward through the layers above, the water also seeped through the algae coated wood which had been buried by sediments and volcanic ash. As the wood decayed, the wood was replaced, cell by cell by silica and calcite leaving petrified replicas of the original piece of wood. As the minerals coated the inside surface of the algae cast, perfect impressions of the outer surface of the wood were duplicated and preserved features not found in fossil wood anywhere else in the world. Some specimens of Blue Forest petrified wood have been found that preserve worm holes, insect borings, woodpecker holes, rare lichen fossils and small clam shells.

B. THE LOCATION OF BLUE FOREST PETRIFIED WOOD

Historically there is some confusion about the location of the Blue Forest Petrified Forest collecting site.

From the previous information presented, the wood along the shoreline was covered with algae and mixed with the sediments that filled Lake Gosiute. Over geologic time, this wood became petrified within layers of sedimentary rock. As this entire region of approximately 100 miles by 100 miles was subject to erosion, only a few locations become known to rockhounds where the Blue Forest Petrified Wood could be collected within reach of the surface.



3-BLUE FOREST –EDEN VALLEY PETRIFIED WOOD (NOTE WORM BURROWS)

The following 4 travel descriptions allow rockhounds to start at a location and arrive at a single historical collecting site that is on public land and easily accessible by car. Please note the Computer Rockhounding Video that follows that offers visual clues to keep you from getting lost! If all else fails, consult the GPS readings that also follow! Certainly there are other locations where the petrified wood can be collected but are guarded secrets shared by only a few rockhounds.

#1 Farson Route: Drive State Highway 28 southwest for about 22.5 miles; turn right onto County Road 8 traveling northwest for about 11.25 miles to the ridge east of the Green River; then turn right/north from County Road 8 onto gravel road; then traveling on the gravel road for one mile north, one mile east, and one mile north will put you into the Blue Forest Petrified Wood digging area.

#2 Rock Springs Route: Drive U.S. Highway 191 north 40 miles to Farson; turn left onto Highway 28 traveling southwest for about 22.5 miles; turn right onto County Road 8 traveling northwest for about 11.25 miles to the ridge east of the Green River; then turn right/north from County Road 8 onto a gravel road; then traveling on the gravel road one mile north, one mile east, and one mile north will put you into the Blue Forest Petrified digging area.

#3 Green River Route: Drive west 2.25 miles; turn right onto WY State Highway 372 traveling northwest for about 43.4 miles; turn right from Highway 372 at Fontenelle (only a gas station & few buildings) and travel north 1 mile; then turn right/east to cross the Green River bridge (passing by the Dripping Springs Campground); travel County Road 8 for 4.5 miles then turn north toward the Blue Forest collecting area.

#4 LaBarge Route: Drive south on State Highway 189 about 24 miles to junction with Wyoming Highway 372; turn left onto 372 and travel east for about 5.6 miles to Fontenelle (just a gas station and a few outbuildings); turn left at Fontenelle and travel north 1 mile; then turn right/east to cross the Green River bridge (passing by the Dripping Springs Campground); travel County Road 8 east for 5 miles then turn left/north on a gravel road for about 5 miles toward the Blue Forest Petrified Wood collecting area.

Start looking for all the holes and dirt mounds. Many times there will be campers parked there.

For the petrified wood collector, get the Farson map if you intend on visiting. Maps at local BLM offices: Rock Springs, Pinedale, Kemmerer, Rawlins are closest offices but most all Wyoming BLM offices will stock this map) All areas have some petrified wood. Note the BLM map symbols: private (white), Bureau of Reclamation lands (orange), and yellow being public BLM lands. Blue sections are public State Lands. Please stay off private property without permission. Ranchers with public grazing permits expect you to respect their livestock and certainly look out for Energy Company vehicles traveling these backroads!

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PRESIDENT'S FIELD TRIP - continued

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Blue Forest GPS Coordinates:
(42°1' 9.46"N, 109°53'34.10"W) 42°1'13"N, 109°54'40"W
or [Elevation 7,200 feet+] (42.019294N, -109.892805W)
42.02028 North, 109.91111 West

- Computer Rockhounding: Video Directions to Locate Blue Forest Collecting Area https://www.youtube.com/watch?v=jwE5AINP5CkBlue ForestPhotos: petrifiedpalace.com.

C. COLLECTING BLUE FOREST PETRIFIED WOOD

1. Required Tools & Preparation: shovel, tiny camp shovel-trenching tool, whisk broom, wire brush, canvas to sit on, small pry bar, larger pry bar, trowel, specimen collecting box (a 10 quart pail is about 25 pounds of wood when filled, that's the daily limit as to Federal Law), newspaper to wrap specimens in, lunch and water, there is no store except the Fontenelle or Farson store, gas up in Rock Springs, Green River, Farson, or Big Piney. Camping is at the Dripping Springs Campground on the Green River, or dry camp at the forest. Realize the area is in a large natural gas development boom and it will provide sounds and some traffic 24/7.
2. Where is the Petrified Wood?: When you are in the right place you will see hundreds of holes and dirt mounds. Not much wood is found on top any longer, you need to dig to find it!! You can walk around looking on top and you can find chips of wood and agate but that's about it. To find the good stuff you have to dig and it's pretty hard work because most Blue Forest Petrified Wood lies about 2 to 6 feet down. And it's not just dirt but a thick layer of shale and you need a pick to get through it. Then when finally you get to it, it's encased in a hard white algae. Plan on 4-6 hours on site! [The source of this material appears to be the Laney Shale Member in the upper part of the Green River Formation, and the overlying Bridger Formation both of Eocene age. Laney Shale sediments consist of tuff (fused volcanic ash), marlstone (mixture of clay with calcium carbonate) and brown to grey shale.]
3. Where And How To Dig? That's the million dollar question! Some times you pick a spot and get lucky but the law of averages is against you. Several methods are used by rockhounds to find the Blue Forest:

   Method A: Some rockhounds use long metal probes with handles to push the probe into the ground until they hit something hard and then dig down to it.

   Method B: Some rockhounds use witching rods which are 2 brass wire pieces –each 1/8 inch thick and 2 feet long and then bent about 3 inches from one end for a handle. Just like you have heard about the water witching rods, these rods are used to find the petrified wood under many feet of dirt. Some persons say it works 4 out of 5 times?!

   Method C: About anywhere you dig that hasn't been dug yet is likely to be a good place to dig.

   On average, about every third hole will produce very well and take the rest of the day to complete the whole specimen, or the pieces of the specimen as it commonly occurs.

   Strange thing about the blue forest wood is that there aren't many small branches or twigs, most are larger branches or logs. The original lighter weight wood limbs may have just floated away while the heavier logs sank and stayed put near the original Lake Gosiute shoreline.

   The Blue Forest digs have been producing fossil wood for many generations and the locality still continues to give up its treasures. Many rockhounds believe there is still tremendous collecting potential in the Eden Valley of Wyoming and the Blue Forest digs -- and if a collector spends enough time and energy exploring these deposits his efforts will surely pay off with great finds!!
4. IT IS THE LAW: I would like to remind visitors to the Blue Forest that the BLM did not had a reciprocal policing agreement with the Bureau of Reclamation (whose land it is located on), until a few years ago and thus the BLM Ranger didn't show up much...if at all. Now, expect to see a BLM Field Official enforcing the 25 pounds plus 1 piece per day collecting rule and enforcing filling in your holes. You can also expect a large fine for commercial digging if caught selling commercially.

   Please read the Code of Federal Regulations Part 43, Sub part 3622. You are allowed to dig 25 pounds plus one piece per day. Not to exceed 250 pounds per year. Hand digging only. Not for commercial use. The largest risk to losing digging ability at the Blue Forest is from the BLM's monitoring the poor practices of not filling in the holes, and public littering.

- Computer Rockhounding: Collecting Blue Forest Petrified Wood https://www.youtube.com/watch?v=08aChIwiHVM + Google: "Blue Forest Petrified Wood Videos"

D. LAPIDARY PREPARATION OF BLUE FOREST AGATE

Most Blue forest Petrified Wood that is found by digging has an algae coating on them. This should be expected since it was the original algae coating that allowed the formation of the Blue Forest Petrified Wood. The algae surface can be polished but the prettiest pieces of Blue Forest Petrified wood pieces are algae free or require lapidary work to remove the algae coating.

1. Some rockhounds try to gently knock the outside algae layer off with a hammer and chisel, trying hard not to break the wood.
2. Other rockhounds try to grind the outside layer of algae off to show the Blue Agate.

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3. Muratic acid is used to chemically remove the algae matrix which works really well on pieces that don't have too much algae on them. Another big tip: Do not leave your wood in the acid too long or it turns the blue agate a light gray color. It's still nice looking, just not blue any more.

I would recommend viewing the following computer video presentations for more complete and additional Lapidary Hints to make your Blue Forest Petrified Wood into beautiful specimens.

- COMPUTER VIDEO LAPIDARY HINTS for Cleaning Blue Forest Petrified Wood
  - http://www.earthquestminerals.com/Blue%20Forest%20Prep/blue_forest_prep.html
  - https://www.youtube.com/watch?v=TKH6S_OBqsM+ Goggle: "Cleaning Blue Forest Petrified Wood"
- ADAPTED REFERENCES UTILIZED:
  - Blue Forest Wood Photo: http://rayerminerals.homestead.com/files/hout-blue_forest.jpg
  - https://thegemshop.com/pages/eden-valley-petrified-wood-location
  - Figure 2-Lake Gosiute During Early Eocene : https://geology.utah.gov/map-pub/survey-notes/exploring-utahs-other-great-lake/
  - Eden Valley Petrified Wood Location Map: http://cdn.shopify.com/s/files/1/0159/6368/files/map_ev_large.jpg?527
  - WSMGS Jade State News-May 2015.
  - Figure 3- Blue Forest-Eden Valley Petrified Wood http://rayerminerals.homestead.com/files/hout-blue_forest.jpg
  - Figure #4: Blue Forest Travel Map from Wyoming Department of Transportation Roadmap
  - https://pubs.usgs.gov/bul/1372e/report.pdf
  - https://www.hmdb.org/marker.asp?marker=90093
  - https://en.wikipedia.org/wiki/Green_River_Formation
  - http://www.ebay.com/gds/Blue-Forest-Petrified-Wood-How-and-Where-to-Find-it-/10000000000756733/g.html
  - Figure 5- Blue Forest Petrified Limb Cast http://www.mineraltown.com/Reports/28/holz5-gross.jpg)
  - http://www.ebay.com/gds/WHERE-IS-THEBLUE-FOREST-WOOD-AREA-LOCATED-/10000000003019228/g.html
  - http://www.earthquestminerals.com/Blue%20Forest%20Prep/blue_forest_prep.html
  - http://www.ebay.com/gds/BLUE-FOREST-WYOMING-in-modern-times-/10000000001900601/g.html
  - https://www.geocaching.com/geocache/GC17XNK_lake-gosiute
  - https://en.wikipedia.org/wiki/Red_Desert_(Wyoming)

More information may be found in the following back issues of Lapidary Journal:

1950 April Page 16

1953 August Page 246

1968 May Page 330

1972 October Page 1078

1974 May Page 336

This is the end of the *Jade State News* article. Thanks again for that club sharing the foregoing information.

On the Way Home

Some of us will spend three nights in the Eden Valley area, then head for home. On the way home, we plan to make several stops at other collecting areas. Planned are an exploratory stop near Bitter Creek, Wyoming to see a new location for petrified wood; stops near Wamsutter, Wyoming for turritella agate and stromatolites (petrified algae); Saratoga, Wyoming for agate and petrified wood; and possibly a stop in Sybille Canyon along Highway 34 for labradorite/spectrolite.

Other members will be adding other stops on their journey. Attend the May General Meeting and the May Rock Party at Wooly's house to find out all the plans.

5-BLUE FOREST PETRIFIED LIMB CAST

Wyoming Field Trip Preparation

By Brett Jurgens

Eden Valley petrified wood and, more specifically, Blue Forest petrified wood, holds a special place in my heart. I first became aware of Blue Forest wood close to 25 years ago when I attended an auction with Ed Ridge. I was somewhere around a freshman in high school, and had not attended many auctions before. There was a decent sized crowd, and I was having a hard time seeing the specimen being auctioned, but I bid anyway. After winning the bid (a thrill of its own), I was enamored when handed a thick slab of a 5" round with beautiful blue agate interlacing the wood. I'm not sure how we fit everything into his car, but Ed and I made it home safely and I had found a new passion.

I am by no means an expert on the Blue Forest. The first time I went there to collect was in June of 2016. Kim Nielsen drew a map for me on a napkin at the show. My friend, Jon Vopata, and I set out, not knowing what to expect. We learned a great deal on that trip. The trip was so relaxing we vowed to return. Schedules conflicted the next year, but in early July 2018 we returned again, better prepared and with more knowledge.

As we prepare for our club field trip to the Blue Forest, I want to share a little advice on what to take with you.

- Water: The first time we went, we were planning to outfit on water and fuel at the gas station in Fontenelle. Little did we realize that station had been closed for years, and remains closed.

  The Blue Forest is at a higher elevation, windy, and dry. Digging can be hard work. We usually camp on site for 3-4 days before heading to Kemmerer for a hot meal and soft bed for a night. When heading to the Forest, we try to have **daily rations of two gallons of drinking water for each person**. (Don't forget to bring snacks to keep your blood sugar level.)

- Paleo Pick: The first year, we weren't sure what to take. I had purchased an Estwing Paleo Pick, but had also brought a larger pick. The Paleo Pick was so popular between us that for our next trip, I purchased one for Jon so he wouldn't borrow mine. The smaller Paleo Pick worked better in the holes and was light enough to not wear us out as quick. I also noticed most of the veteran rock hounds in the Blue Forest carried one of these as well.

- Shovels: Specimens can be found on the surface, but there is better luck with digging. We have come to favor a long-handled round nose shovel for the general digging. Shorter handle, or d-handle shovels aren't long enough to throw the dirt out of the hole. We also use a straight shooter or tile spade with a d-handle for digging around the wood and casts. Also, a small round nose shovel with a less than two foot d-handle has been extremely handy for the tight spots. We also take a variety of hand scoops and garden trowels. On the last day of our second trip, a fellow rock hound from California showed up with a folding entrenchment tool for his shovel. I gifted him my shovel and told him his back would thank me. We have since found each other online and he has thanked me twice for that shovel.

- Rock hammer: Take your trusty rock hammer. It is useful for cracking open the algae casts and for general use.

- Pry bar for prying (of course): Save those fingers. Three- to four-foot is ideal, but a shorter one has also come in handy.

- Bug repellant, sunscreen: Depending on how much rain they have had in the area, there may or may not be mosquitoes.

This is by no means a complete list. I am completely leaving off camping supplies and food, amongst other things. These are the things that we found greatly useful. The Blue Forest is a beautiful place and the specimens can be amazing.

On a side note, I spoke with Kim Nielsen last Sunday. He is planning to meet the club in Wyoming to show us a few other locations close to the Blue Forest. We haven't figured out the exact day, but are leaning towards Monday June 17th. Two of the spots are known for petrified palm wood and petrified cane. If you are planning on going on the trip, please make sure to join the Facebook page "LGMC Blue Forest Fieldtrip 2019". We will have the latest updates there.

Happy digging!

EDITOR'S NOTE:

An unexpected benefit for this field trip is the Sublette County Rock Hounds annual show on June 14-16 at Big Piney, Wyoming. Sublette County Fairgrounds, Event Center, 10937 Hwy 189; Fri. 9-5, Sat. 9-6, Sun. 9-4; Adults $2, free admission for children under 18. Vendors with rough rock, slabs, cabochons, beads, jewelry-making supplies, fossils, and jewelry, demonstrations and displays, field trips, and activities for children.

Of course, you may attend any or all days, but the group plans to visit the show on Sunday, June 16.

Big Piney, Wyoming is approximately 65 miles northwest of Farson, and approximately 47 miles north of Fontanelle.

President's Field Trip - Brett's Story

By Brett Jurgens

There is a saying - how does it go? "The best laid plans…". My friend, Jon Vopata, and I had counted down the year to our next trip to Wyoming. We had sent e-mails back and forth, made packing lists of what to take, and drew diagrams of where to load things in my vehicle so they would be accessible when needed. After all that planning, I felt my vehicle's transmission struggle to shift four days before the planned departure. I took it in for a diagnosis, wanting to depart with a clear mind that my car would not break down on us in the middle of nowhere. Standing at the counter, after the diagnostic, I was assured that it was only the torque converter and not to worry. Actually, quoting them, "Don't worry; the part isn't six million dollars, only thirty-one fifty." After verifying where the decimal point was in that figure, I politely declined. I typically drive a car until it's dead, and at that point, I considered it exactly that.

After a few panicked phone calls and brainstorming sessions on who had a vehicle with enough storage and clearance that we could possibly borrow, I started looking online for a rental. Turns out, a truck can be rented from one of the Eppley Airport rental companies for a reasonable amount. Crisis averted, and with the rental truck picked up, we loaded it and started to make our way west.

Our tradition is to stop at the Petrified Wood Gallery in Ogallala to see their wonderful examples of Blue Forest and Eden Valley petrified wood. We pulled up to the Gallery just as the brothers were locking the door. Turns out, their volunteers hadn't shown up that day so they had been there all day and had decided to close a little early. That changed when they saw us pull up; the doors were quickly opened and lights turned on. I've mentioned it before, but if you haven't been to see the Petrified Wood Gallery, I highly recommend it.

We pulled into Rock Springs for the night with plans to get an early start to the Blue Forest in morning. That quickly changed when a quick Google search of events in the area showed a Geology Expo at the local community college. We made the event a quick stop; there were 8-10 vendors with a couple tables each and a wide variety of items for sale. Even though we were headed to the Blue Forest, I couldn't resist and bought a few small samples.

I won't report on the club activities during the week as I believe Corey is going to write about those. For accommodations, we set up a tent in the Blue Forest. Allan Gossman joined us and set up his tent as well. I enjoyed getting to know Allan better over the next few days. His jokes, stories, and company were a welcome addition. Other than the few rain storms that chased us out of the club trips, the weather was great. Mid-June is our favorite time to camp out there. The days don't get overly hot but the nights and mornings are cool enough that a nice sleeping bag and sweater or jacket are comfortable.

After a few days of collecting at the Blue Forest, we decided to try something else out, and departed for the Crawford, Nebraska area to try our luck at finding Nebraska Blue Agate. After having camped out for multiple nights, we opted to stay at the Hilltop Hotel in Crawford. As Jon and I began to relax in a soft bed, both of our phones went, off alerting us to a tornado warning. Stepping out the front door, we were met by other occupants of the hotel who had been roused by the same alert. The hotel does not have a basement, so we were told the safest place was the bathtub. I jokingly said the safest place was under the truck, as it was so weighed down with our findings. Luckily, we didn't encounter any tornados. I did lay some shipping blankets over parts of the truck, with a very clear mental image of the rental form that stated that any hail damage counted as damage.

Armed with a map from Jim Marburger, and some coordinates from Jayne Beer, we headed out in the morning in search for Nebraska Blue. As a child in the club, I had several pieces and remember being told that you could no longer find it. The large, darker, figured specimens may be hard to find, but the chalcedony is literally covering the ground. Two different locations yielded slightly different colors and quality. Having been warned about the local ground turning to sticky gumbo when wet, we headed out when threatened by approaching thunderstorms.

We spent the night in Chadron, and visited the Mari Sandoz Heritage Center located on Chadron State's campus. The Center showcases the history of both Mari Sandoz and the local area. Jon was unfamiliar with this, but still enjoyed the exhibits. As a fan of Mari Sandoz, it was a place I had been wanting to visit for awhile.

Starting to wind down our trip, we headed to Scottsbluff to be hosted by Kim and Kathy Nielsen. We enjoyed a tour of Kim's shops and settled down to a delicious home-cooked meal (thanks again Kathy!). After our filling meal, Kim showed us his beautifully displayed personal collection. While the overall collection was amazing, what really stood out was how much of his collection he has personally collected.

Photo by Jayne Beer

In the morning, we were once again treated to wonderful food and conversation. Heading home, we made another quick stop at the Petrified Wood Gallery to show the brothers a few of our finds. Overall, a very rewarding trip. On the way back home, we were already planning for a trip next year.

President's Field Trip - Corey's Tale

By Corey Beer

Our trip started on Friday, the 14th of June. We spent the morning packing our van, trying to leave as much space for foot room inside the car as we could, since we knew there was a long drive ahead of us. We got on the road around 2 p.m. and headed to Big Piney so we could be there for the show the next day. By the time we finally pulled into the parking lot at the show, it was nearly 4 a.m. and we were all tired, so we just ended up sleeping in our van for a few hours until we got into the show at 8 a.m.

The show opened and we all went inside to spend about two hours looking around and buying a few things, talking to vendors, basically all the fun things to do at a gem and mineral show. Around 20 minutes until 10 a.m., the leaders of the group that were going out to collect that day, announced they were leaving in half an hour, so we kept looking, waiting for the next announcement before they left. We looked at our watches and saw it was only a few minutes until 10 but, to our surprise, the group wasn't standing by the door. Brian went out to check if they were standing outside while we finished shopping. He came back in and waved, saying they were leaving, so we finished paying really quick and jumped into the car. Lucky we caught them just as we did; if we had been a minute later, we would have missed the group.

There were approximately ten cars in the group, and maybe 25 people all together, so a pretty decent sized group for the day. As we got closer to the location, the roads got rougher and rougher (which would turn out to be a repeating trope as the trip went on). When we got to the location, we pulled up, found a parking spot, and eagerly got out of the car to go collect. This location was loaded with stromatolite, large and small pieces alike, along with some pretty agatized coral. By the time the group had packed up and we were getting ready to go back to the show, we had spent about four hours at this spot and collected many specimens and much cutting material, and had a great time doing it. After this, we headed back to the show and stayed there until they closed, then stopped by the rock shop there in Big Piney, which was very nice. We took the hour drive back to Farson to check into our motel room, unload the van, eat dinner, and then go to sleep for the day.

The next morning, the few members of our group that were staying at our motel got together and decided to go back to the show in Big Piney together because they hadn't been there yet. Once we finished there, we would all drive out to the Blue Forest to collect. We ended up being at the show a little longer than expected, but once the other members of our group were done looking around, we took a drive out to the Blue Forest to meet up with Brett Jurgens and his friend, Jon, at their campsite. We stayed out as long as we could, picking up the small, wind polished agate and wood pieces off the ground, and filled up quite a few plastic bags of them. We also got lucky and found some slightly larger specimens in the tailings from the holes others had dug. It was a great first little teaser to what we would find in the coming days. As it got closer to night, we decided to head back to Farson in order to eat dinner at the

Photo by Jayne Beer

local campground, which Brett cooked up for us there.

So as it was now Monday morning, Kim Nielsen was finally arriving in the area and was going to lead us out to a few places which he knew. We all gathered at the mercantile and stood outside around our cars discussing what we would be finding and where we would be going. Kim explained to us that the first place we were going to was a location where you could find petrified wood that was well off the beaten path, although I'm not sure that expression works here because, as many others were, that was quite a beat up path. It was about 50 miles to get to that first location from the mercantile. The first 40 miles or so were on nice paved roads, but once we turned off onto the dirt country roads, it was quite the rough drive, especially in our minivan. We drove up to the top of one of the bluffs that had a really amazing view of the mountains off in the distance and I guess it was because we were so high up, but the clouds felt like they were unnaturally low in the sky; it

Photo by Jayne Beer

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President's Field Trip - Corey's Tale—continued

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was really cool to see. We grabbed our gear and climbed down the side of the bluff and started off by surface collecting to see where stuff was washing out from. We found some small pieces on the surface, but mostly just fragments of rounds of logs, nothing complete. Someone found an area higher up, closer to the cars, that had some material coming out of the cliff so we all climbed up to that area and started digging a hole, but ultimately found nothing to write home about. The clouds started getting darker, so we wanted to get out of there before we got stuck.

Later that day, after getting back out of that place, we regrouped at the mercantile to get some of their ice-cream, and then drive to the second location which was in the opposite direction from the first, over by the Big Sandy Reservoir. At this location, people have found fossilized cane and other petrified woods which sounded like it would be fun to find ourselves. This was another rough drive back to the site, but not nearly as bad as one previous. There was petrified wood all over the place, scattered on the surface, and some quite large chunks at that had a glassy sound when you hit anything against them. We found a couple of small pieces which we think are petrified cane, but aren't 100% sure. This time, we weren't so lucky as to have gotten out of there before it started raining. It started to come down pretty heavy, so we jumped back into the van and got out of there as quickly as we could, because that sandy dirt of the area gets very sticky when it's wet. We drove back to Farson for the last time that night.

The next day, we got up early, around 8:00, and headed out to the Blue Forest again for a full day of hunting at that spot. We went back to the same place we had been before with Brett, Jon, and the others, and started to surface collect. While collecting, we found a spot that seemed to have better material on the surface, with some nice blue agate, so we decided to dig to try to find something bigger. We dug for about 45 minutes or so, not finding much, but then we hit something. After digging through all the dirt, rock, and shale, there was a bigger rounded rock about four feet down in the shale. At this point, we were pretty sure we hit something good, so we kept digging the overburden off the top of it and pulled the first chunk out. Lo and behold, it was a piece of petrified wood encased in fossil algae. This got us pretty excited and made it feel like our digging was worth the effort. As we kept digging, we pulled out piece after piece, some larger, some smaller. All in all, after a long day's worth of work with some rain in between and lots of surface collecting, the one continuous log ended up being about 5 feet long, and two other logs found in the hole were about 2 feet long apiece, so we were pretty stoked about our finds that day.

That night, Jim, Sharon, their family, and ours drove to Rock Springs and slept at a Super 8 for the night. The next morning, we all went out collecting at some new locations. This was about two hours from Farson, so the material was quite different in appearance. Here, we found pieces of turritella, algae, and even some petrified wood in its algae cast, although this algae was much more mineralized than at the Blue Forest, so there is no getting it off the wood. We drove some more, all around the top of one of the bluffs in the area, where we found little pieces of stromatolite that were a nice brown color, some with streaks of blue agate running through. The worst part about this day was the wind. There was a constant 40-mile-per-hour breeze all day, gusting up to at least 50 mph at times. It was hard to hear much of anything other than the sound of the wind, unless you were talking right there next to each other.

Photo by Jayne Beer

We drove back to Rock Springs that night and stopped at the Santa Fe Southwestern Grill for dinner, which was very good. They even had free refills on their special lemonades, which made it extra special, and I highly recommend going there. We, again, slept at the Super 8 that night, planning to head out the next day to Riverton, Wyoming, where some of our family lives. Jim and Sharon were kind enough to let us unload some of our rocks into their van, as we were almost packed to the brim inside, and would have had a hard time fitting in anything else, so thank you to them.

The drive to Riverton was beautiful as we had to drive up through the mountain pass, where there was still some snow. But the best view of all was once we crossed the top and started going down. There were huge canyons off the

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Photo by Corey Beer

COREY'S TALE—CONTINUED

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side of the road, all cutting through what was probably a thousand feet of red rock that really was quite stunning. It was about a five-hour drive to Riverton, where we met our family at the local Walmart to get groceries for our dinner. That night, we had hamburgers and homemade dill gravy, and it was all delicious.

One of the fun activities they had there was knife and axe throwing that they promptly showed Ja'zeil how to do, which makes sense because seven is the best age to teach kids how to throw sharp objects and get them to stick. We spent hours out there throwing knives as it was quite fun, I will admit. The next day, one of the members of the group there, Chris, took us out to collect some rocks in the area. We drove near Bison Basin, where there was supposedly Wyoming jade in the area. We stopped at one spot, picking up lots of shiny black rocks, not sure if they were jade, but we collected them anyway since we figured we could ask someone later. As we were finishing out the day of collecting, on our way back to where we were staying, we saw a large rock bed full of giant river rock, so we pulled off to the side of the road quickly and got out to look. We weren't there for long, but man, was it worth the stop. We didn't find much, only one large piece of petrified wood, maybe 5 pounds, and the biggest Montana agate I've ever found, at about 6 pounds, that had the prettiest blue color throughout with small dendritic inclusions.

We went back to the house for dinner, found another couple of small agates in the rock around the property, and then left for the night to drive to Cody, Wyoming for the show that weekend. At about midnight, and an hour away from Cody, we decided to drive to Yellowstone to look around for part of the day and then go back to Cody for the show for the second part of the day. The drive through Yellowstone ended up being a longer adventure than we planned, but it was a ton of fun. We saw herds of buffalo all throughout the area, even had some as close as five feet away from our van. Then we saw all the volcanic features including the dragon's cave, boiling mud pits, and Old Faithful erupting before we had to leave to get back to Cody for the show. When we drove into Yellowstone, it was night so we couldn't see around us, but leaving was a different story. We realized just how crazy high those roads were up on the sides of cliffs, which was quite the white knuckle experience driving down. We arrived at the show around 4 p.m., looked around for a while, bought a few things, and talked to some of the members of that club. Turns out, they were leaving for a rock collecting trip soon, so we signed up for that since it would only be a few hours, then we could start driving home.

Photo by Jayne Beer

There were two locations; at one, we found some small pieces of chalcedony scattered on the surface, nothing too crazy; and the second location was near Heart Mountain which is kind of famous in that area. One of the people on that trip found a very nice, large Heart Mountain agate, and we started to find some smaller ones too, once we got the eye for it. It got dark pretty quickly once we started finding some though, and we ended up having to leave, which was all for the best since we had to start driving to get home. We drove all through the night to get to Crawford, Nebraska the next morning.

Around 5 a.m., we ended up at one of the places we had been to previously where we found Nebraska blue agate all over the place. We ended up being there for about five hours in total, and picked up two 5-gallon buckets worth of the Nebraska blue, including some that had a beautiful coating of red on top of some of the botryoidal formations. We also found two Fairburn agates, which made us quite happy. While we were in Crawford, we decided to stop at the rock shop there, since we had never been there before. It was a pretty neat place. We bought some rocks and had a good time talking to one of the owners. After we finished up and paid the lady, we drove home the last eight hours, finishing off a very fun-filled and productive 10-day trip.

PRESIDENT'S FIELD TRIP - JIM'S SCOOP

By Jim Marburger

A Revisit to Southwest Wyoming: Rock Collecting

It has been 40 years since I had the opportunity to collect petrified wood in the Blue Forest area near Farson, Wyoming. The last time was me and my trusty Subaru station wagon. Many sights were familiar, but this trip was much better.

The Lincoln Gem and Mineral Club's Presidential Field trip had great attendance. Thank you, Wooly, for leading and doing the legwork to set up the trip. Many good friends were in the party. Some of us did the motel, while others were camping. The motel in Farson was a trip back in time; it had not changed in 40 years. It was clean but cramped, the rooms small with an exceptionally small bathroom. No air conditioning, but the high plains air did cool off late at night. Yes, the rooms had been updated some and the operator was very pleasant and accommodating. Oh yeah, there was a introduction to the little problem of Wyoming ground water…sulfur.

Sharon and I had visitors from California; daughter Olivia (Lea), granddaughter Cheryn, and grandson Jacob. It was an introduction to the world of rock collecting for them and a trip away from people, electronics, and the city. Overall, we all had a great time visiting and collecting rocks together. Thirteen-year-old Jacob was busy looking for things most of the time, but ran out of steam after three days. He lasted longer than I thought he would, by two days. They have learned that collecting at a rock show is far easier, but they will miss the openness of the wild west. It was fun to see their excitement, and pleased that they found enough to each fill a 5-gallon bucket.

We had picked up ten orange Home Depot buckets to hold our treasures. This worked out better than I thought. Everyone had their own bucket, filling it with treasures found. We used Ziploc bags for the smalls. Sharon and I were mostly collecting smalls to share with others who could not attend the trip. We found some great petrified wood, blue agate, turritella, and stromatolites. Material was plentiful and we left tons of it still sitting out there on the prairie.

We ended up bringing back a load of rock for the Beer family since their minivan was overloaded, with literally no place to sit. They still had another several days before going home, so we helped out. Boy, was it hard to not high-grade their material!

The weather could not have been any better. Blue sky, afternoon showers, and high plains coolness. We had a great time with everyone who attended the trip. The only bad thing for me was elevation. Most of the trip was around 7,000 to 8,000 feet and the air was thin for me. At one point I Googled "nearby hospitals to me" and found that it was about 65 miles, so I concentrated on deep breathing and doing things slowly. I survived, but have learned that I am now limited to flatland collecting.