

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

August 2017

Streak: White

Peridot

Mohs: 7.0

Words from...

The President

Club officers and a few club members met at our regular time and place on the 23rd of July to tackle and update the club bylaws. I appreciate all the hard work that the group put in on the updated material. All of the changes will be put forward for a vote when our meetings resume in September.

While the group was hard at work, Joan Blackwell and I played hooky to attend William Holland. I learned about opals and Joan learned to fuse glass. As usual, I had a blast. My class was fantastic. Joan and I will both be bringing our finished products for Show & Tell in September. Speaking of September, JoAn Lambert has lined up a speaker for our first post-summer meeting. More details to follow.

In the meantime, club officers and interested club members will be meeting at our normal time and place on August 27. We will try to wrap up all the administrative items that were on the agenda for the summer break and fill in more of the calendar for the coming year.

Pat

Announcement

Educational Display about Geology and Rocks – This summer a group of clubmembers has spent time working up an exhibit for Landmark Park. Items will be installed in four huge, built-in cases in the gift shop and will be in place for several months. Set up will begin on August 12 and may take as long as one week to complete. Go see it!

Upcoming Shows

SEP 1 – 4	Henderson County Gem & Mineral Society	Hendersonville, NC
SEP 1 – 4	Kennebec Rocks and Minerals Club	Augusta, ME
SEP 2 – 4	Grant County Rolling Stones Gem and Mineral Society	Silver City, NM
SEP 8 – 10	Forsyth Gem and Mineral Club	Winston-Salem, NC
SEP 8 – 10	Northern Berkshire Mineral Club,	North Adams, MA
SEP 9 – 10	Clallam County Gem and Mineral Association	Port Angeles, WA
SEP 9 – 10	Marcus Whitman Gem and Mineral Society	Walla Walla, WA
SEP 9 – 17	Northwest Arkansas Gem and Mineral Society	Siloam Springs, AR
SEP 15 – 17	Mozarkite Society of Lincoln	Lincoln, MO
SEP 15 – 17	Tulip City Gem & Mineral Club	Holland, MI
SEP 15 – 17	MAGMA	Arden, NC
SEP 16 – 17	Mid-Hudson Valley Gem & Mineral Society	Poughkeepsie, NY
SEP 16 – 17	Livingston Gem and Mineral Society	Howell, MI
SEP 16 – 17	Southern Washington Mineralogical Society	Castle Rock, WA
SEP 16 – 17	Feather River Lapidary & Mineral Society	Chico, CA

Jewelry Bench Tips by Brad Smith

TESTING FOR SILVER

Often you need to identify some of those unknown "silvery" pieces in the bottom of the toolbox or some piece of old jewelry. Is it silver or something else?

Of course, if you need to know exactly what you have, it's best to send your metals off for refining. But inexpensive silver testing solutions can be used to help distinguish higher silver content alloys from alloys that have the same appearance but with little to no silver content, like German Silver or Nickel.

I purchased a half-ounce bottle of JSP Silver Testing Solution #GT41. It's not a rigorous analytic test, but it lets you know if you're on the right track. And it's inexpensive. Mine was only \$3.

With a fresh solution you have an instant reaction after applying it to the metal being tested. The procedure is simple - as you apply a small drop, look for a color change. Note that the acid will leave a slight mark, so choose a spot that is out of the way or will be easy to polish.

If you suspect the object is silver plated, you should file a little notch somewhere inconspicuous to expose what metal is below the surface. Otherwise, all you test will be the surface plating.

Here's the reaction I got when testing various materials:

Fine silver	Red/Orange
Sterling silver	Brick Red
80% silver/20% copper	Dark red changing to gray
Brass	Yellow changing to blue
Nickel	Gray-green
Copper	Yellow changing to blue
Steel	Black
Stainless Steel	No color change

Caution - If you do any of this testing, know that you are handling a reasonably strong acid. The GT41 label says it includes nitric acid and potassium dichromate.

- Wear safety glasses.
- Do not get any testing solution on your skin.
- Use a solution of baking soda and water to neutralize acid.
- Wash and clean up well when you're done.

Many thanks,

Brad
www.BradSmithJewelry.com

Landscape Agate: These Silica Rocks Resemble Beautiful Natural Scenes

Agate is a crystalized form of silica, made up primarily of chalcedony, a type of quartz that is composed of very fine intergrowths of the minerals quartz and moganite. Agates form primarily in cavities of volcanic rock by the deposition of silica from groundwater that seeps through the rocks. Gradually layers of silicate material build up eventually filling the cavity completely. The layers often have subtle differences in mineral content and impurities giving the agate a banded appearance. This banding gives many agates interesting colors and patterns that make it a popular gemstone. Sometimes these patterns resemble familiar natural scenes such as mountains, skies, rivers and trees. These agates are called “Landscape agates”.



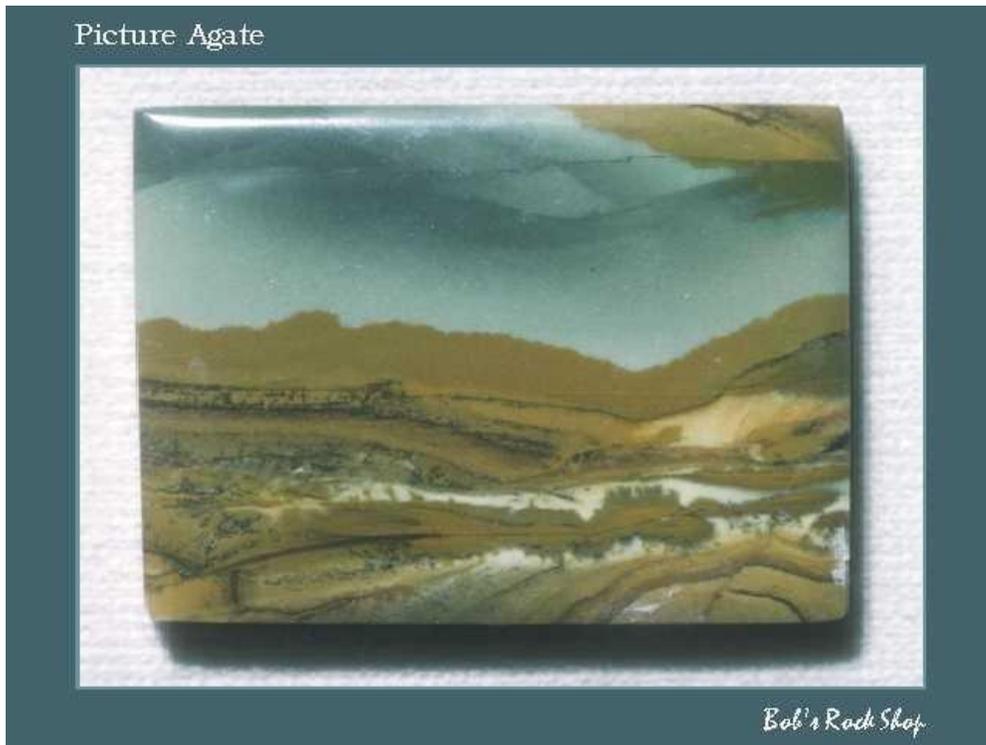
A landscape agate that resembles an ocean with low clouds on the horizon. [Photo credit](#)



A sunset behind trees. [Photo credit](#)



This agate appears to be a watercolor painting of a country side. Is that a house on the right?
[Photo credit](#)



Another view of the country side. [Photo credit](#)



An agate resembling carboniferous swamp plants reflected in the murky water. [Photo credit](#)





Photo credit

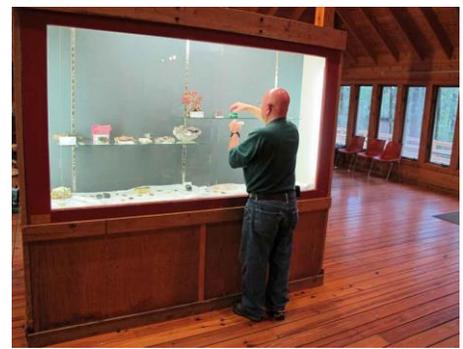


Photo credit

Sources: Geology.com / Rocksandminerals4u.com
Written by Kaushik and posted on Friday, September 25, 2015 at
<http://www.amusingplanet.com/2015/09/landscape-agate-these-silica-rocks.html>

Landmark Park – August 2017

Photos by Pat & Bruce



A select group of clubmembers recently met at Landmark Park in Dothan to set up a 4-cabinet informational exhibit of rocks and minerals in the gift shop.



Landmark Park – August 2017

Photos by Pat & Bruce



How to Find Specific Gravity of Minerals

Density is the mass of an object divided by its volume. A rock and a piece of foam might be the same size, but they will weigh very different amounts. Density tells you how tightly packed the molecules are inside each substance. To calculate the density of each substance, you'll do a simple density calculation.

Problem: How can you find specific gravity?

Materials

Corn syrup
Distilled water
Sunflower oil
Baking soda
Wheat bran
Dry sand
Lime dust
Granite rock
Quartz rock

Tools

Kitchen scale
Spoon
125 mL
measuring cup
Clear plastic
tube
Notebook
Pencil



Procedure

1. Use your kitchen scale to weigh 125 mL of each substance. Record the weight in grams.
2. To get the density per mL, divide the number of grams by 125 mL, the volume of the substance.
3. Record your findings in your notebook. Which one is the most dense? Which one is the least?
4. Now, you'll create a density tube. Take your clear plastic tube and use the measuring cup to fill it with 125 mL of corn syrup.
5. Add 125 mL of water to the same tube.
6. Add 125 mL of sunflower oil.
7. Gently shake the tube and observe the different substances mixing and separating again. This happens because the liquids are different densities. Liquids that are less dense float on top of liquids that are denser.
8. Take a spoonful of the sand and put it in the tube. Watch what happens and record your observations in your notebook.
9. Do the same thing with baking soda, wheat bran, and limestone (chalk) dust. If you find that your container is getting too messy, remove your items and start again with new liquid.

10. Collect mineral samples from a rock and gem store. Choose common minerals like granite and quartz. Drop them in the tube as well. What happens?

Results

Substances with a density greater than 1 g/mL (specific gravity of 1000) sink in pure water at 4 °C, and substances with a specific gravity less than 1,000 float.

Why?

Have you ever dropped a rock on your toe? How about a foam ball? Which one would you prefer? Even if the rock and the foam ball were the same size, you'd likely much prefer to drop the ball. This is because different materials have different densities.

Density refers to how compact a substance is. Imagine that you have a pillowcase and you're stuffing it with feathers. You could easily stuff it with a few feathers and it would look puffed up. It would not be very heavy. That's like your foam ball: that pillow is not overly stuffed with matter. However, you could also shove and squeeze until you'd fit thousands of feathers into the pillow. The pillow would be quite dense: there would be a lot of compact material in it. It would be heavier.

Specific gravity is the term that's used to describe a density of a substance when it's compared to another substance, usually water at 4 °C. This gives you a single number that's useful because it allows you to compare the densities of many different types of material. The specific gravity of water is 1, and other substances can be measured against this.

You added a dense liquid in the tube with a specific gravity of around 1.3 (corn syrup), a liquid with a specific gravity of (water), and a liquid that's less dense, with a specific gravity of around 0.92 (sunflower oil). This tube lets you see specific gravity in action. A substance that has a specific gravity that's lower than 0.92 would float on top of the tube. A substance with a specific gravity that is greater than 0.92 but less than 1 would float between the oil and the water. A substance that is very dense, with a specific gravity that is higher than 1.3, would sink to the bottom of the corn syrup.

What happened when you placed items into the tube? Substances such as wheat bran have a very low specific gravity, and they float on the top of the oil. Limestone dust has a specific gravity that's just a little higher than water, so it should be suspended near the bottom of the water part of the tube. Dry sand is nearly as dense as corn syrup, so it should be suspended in the syrup.

What happened when you added the rocks? Rocks are quite dense. Quartz has a specific gravity of 2.65. Granite is about the same. They should sink to the bottom of the tube. Can you think of other objects that might be suspended within the tube? Can you determine their specific gravity if you know the specific gravity of the liquids in the tube?

Who What Where When Why How

August Birthdays

AUG 14 Arnie Lambert

Random Rock Facts

Fracture and cleavage go hand-in-hand when it comes to identifying minerals. Essentially, fracture is breakage or chipping that is not flat, whereas, cleavage refers to the way a mineral breaks along the flat planes of a crystal face.

The terms used to describe the various types of mineral fractures include; *conchoidal*, resembling the smooth, curves surface of a semicircular shell; and, *hackly*, resembling the rough, jagged points of broken metal; along with *uneven*, *splintery*, *earthy (crumbly)*, *even (smooth)* and *subconchoidal*, which falls somewhere between *conchoidal* and *even* and is usually thought to mean 'smooth with irregular rounded corners'.

Source: <http://www.minerals.net/>

Meeting Information

Time: 2:00 PM
Date: Fourth Sunday of each month (except June, July and August)
Place: Fellowship Hall – Tabernacle United Methodist Church
4205 S. Brannon Stand Road
Dothan, AL

Officers

President – Pat LeDuc
334-806-5626

Vice President – Garry Shirah
334-671-4192

Secretary – Bruce Fizzell
334-577-4353

Treasurer – Diane Rodenhizer
334-447-3610

Bulletin Editor – Joan Blackwell
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Webmaster – Pat LeDuc
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Membership Chair – Diane Rodenhizer
334-447-3610

Show Chair – Jeff DeRoche
334-673-3554

Field Trips Chair – Garry Shirah
334-671-4192

Hospitality Chair – Vacant

Club Hostess – Vacant

Club Liaison – Garry Shirah
334-671-4192

Website: www.wiregrassrockhounds.com

Objectives

To stimulate interest in lapidary, earth science and, when necessary, other related fields.

To sponsor an educational program within the membership to increase the knowledge of its members in the properties, identifications and evaluations of rocks, minerals, fossils and other related subjects.

To cooperate and aid in the solution of its members' problems encountered in the Club's objectives.

To cooperate with other mineralogical and geological clubs and societies.

To arrange and conduct field trips to facilitate the collection of minerals.

To provide opportunity for exchange and exhibition of specimens and materials.

To conduct its affairs without profit and to refrain from using its assets for pecuniary benefit of any individual or group.

Classified Ads

Looking for an item to round out your rock collection?

Got a specimen, tool or handicraft for sale or trade?

Submit the pertinent details to me by the 10th of each month and your inclinations will be made known to the membership in the next bulletin.

N. J. Blackwell
28 Lakeview Trail, Apt. C
Daleville, AL 36322
Phone: 334-503-0308
Email: Tfavorite7@aol.com

Annual Dues

Single \$15
Family \$20

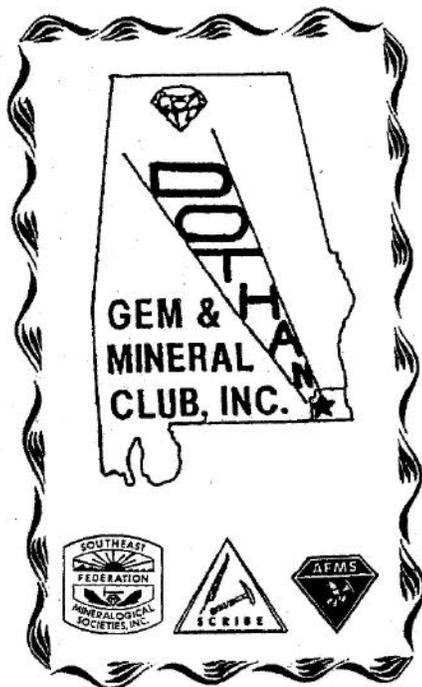
Refreshments

AUG 27 – Potluck Refreshments

ROCKHOUNDS HERALD

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Where you might hear...

The tetragonal crystal system—one of six crystal systems—has three axes that all meet at 90°. It differs from the isometric system in that the C axis is longer than the A and B axes, which are the same length. Tetragonal system minerals include apophyllite, idocrase, rutile, scapolite, wulfenite, and zircon – each of which form in one of these three basic shapes:

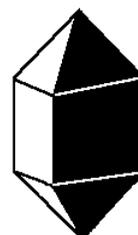
Tetragonal System



Tetragonal
Prism



Dipyrmaid



Pyramid
with Prism

Source: https://www.gemsociety.org/article/mineral-habits/#The_Isometric_System
What are Crystal Systems and Mineral Habits? by Donald Clark, CSM IMG
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