

ROCKHOUNDS HERALD

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

March 2018



Words from...

The President

Well, show time is upon us, again! We will be having the 11th annual show at the farm center on the 17th & 18th. Show Chair, Jeff DeRoche gave us the last of the updates at the February meeting. As usual, it sounds like he has everything squared away. Several of us are planning a trip to the Hogg mine near LaGrange, GA at the end of the month. They are having an open dig on the 31st. You can check them out at <http://hoggmine.com>. I am looking forward to the dig and to getting a look at the gem shop that has opened there.

We have invited several other regional clubs to join us for our April meeting. I think they will be interested in the talk about new laws prohibiting collection from the land under and around any waterway in Alabama. President of the North Alabama Chapter of the Gold Prospectors Association of America, Dan Harriger, will be discussing these laws. We are going to take advantage of Dan's knowledge and educate ourselves about this very important topic. Hope to see everyone at our show on Saturday and Sunday and at the April meeting.

Don't forget - **no March meeting.**

Pat

Know your stone?

*The birthstone for **March** is **Aquamarine**, a blue-green variety of Beryl. Pictured in the banner above are various forms of natural and faceted versions of this mineral.*

Source: http://www.minerals.net/gemstone/aquamarine_gemstone.aspx

Announcement

It's show time!!! Join us at the Houston County Farm Center, March 17 – 18.

Upcoming Shows

March 16 – 18	MAGMA	Arden, NC
March 17 – 18	Dothan Gem and Mineral Club	Dothan, AL
March 23 – 25	Catawba Valley Gem & Mineral Club	Hickory, NC
March 24 – 25	Blue Grass Gem & Mineral Club	Lexington, KY
April 6 – 8	Tar Heel Gem & Mineral Club	Raleigh, NC
April 6 – 8	Central Florida Mineral and Gem Society	Orlando, FL
April 28 – 29	Memphis Archaeological and Geological Society	Memphis, TN
April 29	Huntsville Gem & Mineral Society	Huntsville, AL

Source: <http://www.amfed.org/sfms/club-shows-456.html> and <http://www.the-vug.com/educate-and-inform/mineral-shows/>

Meeting Minutes – February 2018 – by Secretary

CALL TO ORDER AND OPEN: The meeting was called to order at 2:06 PM on February 25 by President Pat LeDuc. There were 16 members and 1 guest, Wendy, who is now a member. Wendy saw our display over at Landmark Park and said to herself “This is just the club I have been searching for!” Way to go Wendy, welcome!

INTRODUCTORY REMARKS: Birthday wishes and happiness were wished for the children of February.

CORRESPONDENCE: We had the AFMS Newsletter available to review. We were notified of a Coin Shoot and Panning being held 3/10/18 at the Alabama Gold Camp in Lineville. An email will be going out from Pat with details on this.

Pat received a wonderful Thank You card from Ken Johnson, who was in attendance today, and I am certain that all of us in this Rockhounds Family are thinking of him in this time of sadness and loss.

OF SPECIAL NOTICE: There is a field trip and dig taking place on 3/31/2018 at the Hogg Mine. Garry Shirah, Field Trip Chair, will be sending out an email with details on this. We have a speaker booked for our April meeting who will bring us up to date on the changes in the laws regarding collecting fossils/specimens from waterways in Alabama. We will be inviting the Panama City club and perhaps other Florida and Alabama clubs. This promises to be informative and of interest to anyone who does collecting along waterways. We urge all of you to attend.

MINUTES & TREASURER REPORT: Minutes from the January meeting approved and seconded. And as the day follows the night, Diane Rodenhizer provided the treasury report; also acknowledged and approved. The club is financially strong and prepared for the upcoming expenses for the 2018 show in March.

SHOW BUSINESS: All is in readiness....Jeff DeRoche, Show Chair, has lawn signs that can be checked out. Brand banners have been made and are ready to be hoisted. 100 Grab Bags have been assembled along with printed inserts about the contents. Abby Pollan will be checking to see if she has some tumbled stones that can be given to the smaller kids since the grab bags may contain some specimens with sharp edges. TV and radio interviews have been scheduled. Site security is arranged as well. DJ “Deacon” John is ready to rock the silent auction. The front of the house will be run by The Two Talented Talkers, Pat and Bruce. Please make time to visit and help with the logistics of the show.

OLD BUSINESS: No Old Business was discussed for this meeting.

NEW BUSINESS: Elliott Whitton says that his teaching presentation at Landmark Park went well. This was part of Landmark Park’s educational series. Elliott told us of an interesting upcoming geological class and tour at Camp McDowell in Nauvoo, AL. This is a week-long event taught by Dr. Jim Lacefield, who is an expert on Alabama geology, and is titled “From the Mountains to the Sea”. The cost is about \$300. Please speak to Elliott who can fill you in on the details. There is also an event in Columbia, AL, on 3/19/2018 that is organized by the local historical society. Again, Elliott has the details on this. Please note that volunteers will be needed to help take down the displays at Landmark Park. This will be done after the show, so please speak with Arnie Lambert about this.

FIELD TRIP REPORT: Aside from the Hogg Mine trip, there are upcoming digs at the Mason Mine and the Cherokee Mine, both in Franklin, NC. There are also digs at the emerald mines located in Hiddenite, NC. Info is still coming in on these, so we will be posting updates. These are best done as 3-day digs due to the travel distance.

PROGRAM & SHOW AND TELL: Arnie had some nice pieces from his collection for the Show, Tell and Sell.

The door prize for this month went to Jane Whitton.

-- Respectfully submitted by B. Fizzell

Learning Series: Tools for the Rockhound

This mineral identification chart was created by Art Crossman as a college course project at Mansfield University in 1997. The chart is based upon mineral properties and has four pages. The left column sorts the minerals into those that break with cleavage and those that break by fracturing. Next minerals are sorted by hardness with the hardest being found at the top of each cleavage/fracture group. Information about additional mineral properties such as streak, color, luster, diaphaneity, specific gravity and more is also given on the chart. Minerals listed on the chart include: goethite, sphalerite, biotite, graphite, pyrite, hematite, magnetite, pyrrhotite, chalcopyrite, bornite, epidote, orthoclase, plagioclase, nepheline, augite, hornblende, apatite, serpentine, dolomite, fluorite, barite, calcite, phlogopite, chlorite, muscovite, kaolinite, halite, gypsum, talc, corundum, tourmaline, garnet, quartz, olivine, limonite, and bauxite - but you can add as many others as you want or delete any that are present.

Source: <https://geology.com/minerals/mineral-identification.shtml>

NONMETALLIC MINERALS HARDNESS (9 - 1)

	STREAK	COLOR	HARDNESS	FRACTURE CLEAVAGE	LUSTER	DIAPHANEITY	OTHER PROPERTIES	SPECIFIC GRAVITY	MINERAL NAME
FRACTURE	colorless	brown, pink, blue & others	9	fracture, sometimes with parting	vitreous to adamantine	transparent, translucent	sometimes has hexagonal crystals	4.02	CORUNDUM
	colorless	black, green brown, pink yellow	7 - 7.5	fracture	vitreous	transparent, to opaque	sometimes striations	3.02 - 3.2	TOURMALINE
	colorless	usually red, green, black or any color	6.5 - 7.5	fracture	vitreous to resinous	transparent, to opaque	sometimes isometric crystals	3.5 - 4.3	GARNET
	colorless	any color	7	conchoidal fracture	vitreous to greasy	transparent to translucent	sometimes has hexagonal crystals	2.65	QUARTZ
	colorless	olive, green, brown	6.5 - 7	conchoidal fracture	vitreous	transparent to translucent	frequently as granular masses	3.27 - 4.27	OLIVINE
	reddish	red - brown, silver, or black	5 - 6.5	fracture	dull	opaque	sometimes oolitic or magnetic	5.26	HEMATITE
	yellowish-brown	yellow, brown, or black	4 - 5.5	fracture	dull	translucent, opaque	earthy color and appearance	2.7 - 4.3	LIMONITE
	white	white, gray yellow, red brown	1 - 3	fracture	dull earthy	translucent, opaque	pisolitic	2.00 - 2.55	BAUXITE

By: Art Crossman

Mineralogy / Petrology (1997)

NONMETALLIC MINERALS

HARDNESS (4 - 1)

	STREAK	COLOR	HARDNESS	FRACTURE CLEAVAGE	LUSTER	DIAPHANEITY	OTHER PROPERTIES	SPECIFIC GRAVITY	MINERAL NAME
CLEAVAGE	white	any color clear, yellow purple, blue	4	perfect four directions	vitreous	transparent, translucent	sometimes fluorescent	3.18	FLUORITE
	white	white, gray red, brown clear, etc.	3 - 3.5	perfect 3 directions small faces	vitreous- pearly	transparent, translucent	very heavy for a nonmetallic mineral	4.3 - 4.6	BARITE
	white	white, gray green, yellow clear, etc.	3	perfect 3 directions, "rhombic"	vitreous- pearly	transparent, translucent	breaks rhombic HCl reaction double refraction	2.71	CALCITE
	colorless	dark green dark brown or black	2.5 - 3	perfect cleavage in one direction	nonmetallic	translucent	thin flakes, tough, flexible	2.8 - 3.2	BIOTITE
	colorless to white	yellow to brown in thin sheets	2.5 - 3	perfect in one direction	vitreous to pearly	transparent	frequently a copper - like luster	2.68	PHLOGOPITE
	gray to green	greenish, gray, black	2 - 2.5	perfect in one direction indistinct	vitreous dull pearly	transparent, translucent	foliated or scaly appearance	2.6 - 3.3	CHLORITE
	colorless	clear, white yellowish, silvery, etc.	2 - 2.5	perfect cleavage in one direction	vitreous to pearly	transparent	splits into thin sheets	2.7 - 3.0	MUSCOVITE
	white	white, gray, yellowish	2 - 2.5	one direction but usually indistinct	dull, earthy	translucent	plastic when wet crumbly when dry	2.6	KAOLINITE
	white	white, gray blue, red clear	2 - 2.5	perfect 3 directions at 90 degrees	vitreous to pearly	transparent, translucent	water soluble, tastes salty	2.16	HALITE
	white	white, gray brown, red clear & others	1.5 - 2	perfect in one direction 2 indistinct	vitreous to pearly	transparent, translucent	sometimes as fibrous masses	2.3 - 2.4	GYPSUM
white	green, gray white, silver & other colors	1	one direction but usually indistinct	pearly to greasy	translucent, opaque	feels greasy, tiny flakes upon rubbing	2.7 - 2.8	TALC	

<http://geology.com/>

NONMETALLIC MINERALS
HARDNESS (7 - 4)

	STREAK	COLOR	HARDNESS	FRACTURE CLEAVAGE	LUSTER	DIAPHANEITY	OTHER PROPERTIES	SPECIFIC GRAVITY	MINERAL NAME
CLEAVAGE	white or colorless	green to black	6 - 7	one direction indistinct	vitreous - dull	transparent, translucent	typically pistachio green	3.35 -3.4	EPIDOTE
	white or colorless	white, gray, pink, clear, green, yellow	6 - 6.5	two directions at 90 degrees	vitreous	transparent, translucent	few if any striations	2.5 - 2.6	ORTHOCLASE
	white or colorless	white, gray clear, blue green	6	two directions at 90 degrees	vitreous	transparent, translucent	striations on cleavage faces	2.6 -2.8	PLAGIOCLASE
	white or colorless	colorless, gray, white	5.5 - 6	one direction indistinct	greasy - vitreous	transparent, translucent	softer than quartz, cleavage	2.6 - 2.65	NEPHELINE
	greenish	green, gray brown, black	5 - 5.5	two directions intersects at 90 degrees	vitreous to dull	translucent	brittle	3.2 - 3.6	AUGITE
	colorless	brown, dark green, black	5 - 6	two directions intersects at 56 & 124 degrees	vitreous	translucent	appears fibrous or silky	3.0 - 3.4	HORNBLLENDE
	yellow or brown	yellow, brown, or black	5 - 5.5	one direction indistinct	dull to admantine	translucent	appears fibrous or silky	3.3 - 4.3	GOETHITE
	white	green, brown yellow, pink violet, etc.	5	poor cleavage in one direction	vitreous	transparent, translucent	brittle, fractured masses	3.1 - 3.2	APATITE
	white to gray	greenish, yellowish, black	3 - 5	one direction indistinct	greasy to waxy	transparent, translucent	varigated, sometimes fibrous	2.3	SERPENTINE
	white, yellow, or brown	white, red yellow, brown green, black	3.5 - 4	perfect cleavage in 6 directions	resinous to adamantine	translucent	brittle, looks like resin	3.9 - 4.1	SPHALERITE
	white	pink, white gray, and others	3.5 - 4	3 direction, rhombic indistinct	vitreous pearly	transparent, translucent	HCl fizz only with powder	2.85	DOLOMITE

<http://geology.com/>

METALLIC TO SUBMETALLIC MINERALS

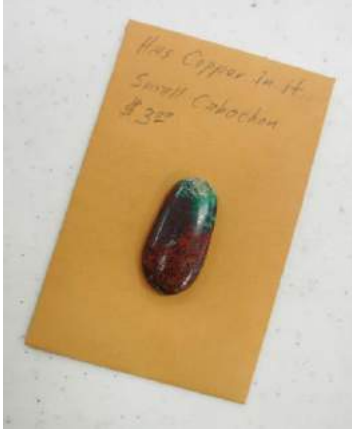
FRACTURE CLEAVAGE	STREAK	COLOR	HARDNESS	FRACTURE CLEAVAGE	LUSTER	DIAPHANEITY	OTHER PROPERTIES	SPECIFIC GRAVITY	MINERAL NAME
CLEAVAGE	yellow or brown	yellow, brown, black	5 - 5.5	one direction indistinct	submetallic	translucent	silky, fibrous appearance	3.3 -4.3	GOETHITE
	white, yellow, or brown	white, red yellow, brown, green, black	3.5 - 4	perfect cleavage in 6 directions	submetallic	translucent	brittle, looks like resin	3.9 - 4.1	SPHALERITE
	colorless	dark green, dark brown, or black	2.5 - 3	perfect cleavage in one direction	submetallic	translucent	thin flakes, tough, flexible	2.8 - 3.2	BIOTITE
	black	black, silver, or gray	1 - 2	cleavage sometimes indistinct	metallic or submetallic	opaque	marks paper, soils fingers, slippery	2.23	GRAPHITE
FRACTURE	black	brassy yellow	6 - 6.5	conchoidal fracture	metallic	opaque	sometimes in crystal shapes	5.02	PYRITE
	reddish	red -brown, black, silver	5 - 6.5	fracture	metallic or submetallic	opaque	sometimes oolitic or magnetic	5.56	HEMATITE
	black	black or silver	6	fracture	metallic or submetallic	opaque	strongly magnetic	5.18	MAGNETITE
	black	brownish	4	fracture	metallic	opaque	weakly magnetic	4.58 - 4.65	PYRRHOTITE
	greenish black	brassy yellow	3.5 - 4	fracture	metallic	opaque	brittle	4.1 - 4.3	CHALCOPYRITE
	black	brassy with iridescent colors	3	indistinct cleavage	metallic	opaque	iridescent peacock colors	5.0 -5.1	BORNITE

By: Art Crossman
Mineralogy / Petrology (1997)

<http://geology.com/>

Club Meeting – February 2018

Photos by Pat & Bruce



Club Meeting – February 2018

Photos by Pat & Bruce





Making A Rock In A Cup

There are three types of rocks-igneous, metamorphic, and sedimentary. Each rock is formed through different processes and made up of varying materials.

Igneous rocks are formed through the cooling of melted materials while metamorphic rocks are formed when heat and pressure change other rocks.

Sedimentary rocks are composed of pieces of rocks and minerals and even remains of animals and plants. All of these pieces are compressed and held together by other minerals. Some examples of sedimentary rocks include limestone, sandstone, and coquina.

Problem: How can one create a sedimentary rock? What takes place during the rock cycle?

Materials:

Wax paper
Magnifying glass
Water
Sugar
Gravel
Sand
Spoon
Paper cups

Procedure:

1. Pour a spoonful of sand into a paper cup. Pour another spoonful of gravel into the same cup.
2. Fill another cup with a teaspoon of water. Stir in 5 spoonfuls of sugar until it is dissolved.
3. Pour the sugar water mixture slowly into the cup of sand and gravel until it is moistened. Pour off any excess water.
4. Let the "rock" dry then carefully tear the paper cup off over a piece of wax paper.
5. Let the "rock" sit and harden for at least 2 days.
6. Use a magnifying glass to observe your "rock." Draw an illustration of what you see. What kind of rock did you make?

MINERAL NAME SCRAMBLE

Here is a list of mineral names. The problem is, the letters are all mixed up.
Can you unscramble the mineral names? Be prepared: there are some tough ones here!

yttmaehs _____

upsygu _____

bsoseats _____

ghpartei _____

eratbi _____

letoufri _____

iilvoen _____

tatipae _____

tpyire _____

rdalfeps _____

yubr _____

fuuslr _____

ztpoa _____

zciorn _____

tnwueilfe _____

sttbinei _____

nratge _____



MINERALS

First column: amethyst, asbestos, barite, olivine, pyrite, ruby, sulfur, topaz, zircon, wulfenite, stibnite, garnet
Second column: gypsum, graphite, fluorite, apatite, feldspar

Who What Where When Why How

March Birthdays

MAR 7 Jeff DeRoche
MAR 13 Ben Ferguson
MAR 19 George White
MAR 19 Lisa Wisham
MAR 19 Grady Dunn
MAR 23 JoAn Lambert

Random Rock Facts

The hardness of a gem affects its wearability, luster, and resistance to cutting and polishing. All other factors being equal, harder gems are more useable in jewelry, develop a brighter surface luster, and take more time and effort to cut and polish. They will retain their polish longer than softer gems, given equal wear and tear.

Reprinted with permission from Dr. Barbara Smigel
Source: www.bwsmigel.info/Lesson3/DEPhysical.Properties.html

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

Website: www.wiregrassrockhounds.com

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

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334-503-0308
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Webmaster – Pat LeDuc
334-806-5626

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

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

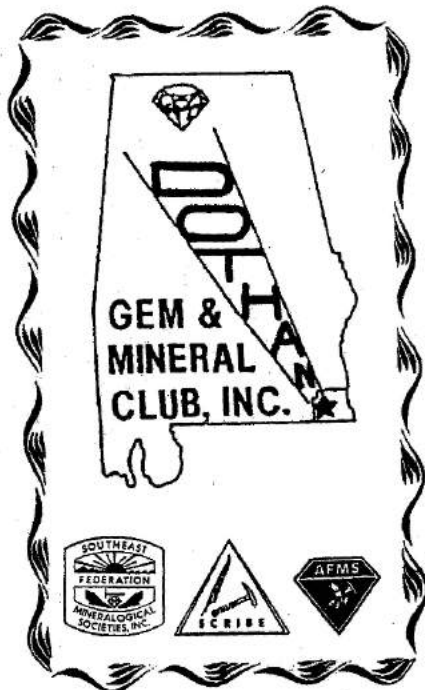
Refreshments

No meeting due to annual show.

ROCKHOUNDS HERALD

Editor – N. J. Blackwell
28 Lakeview Trail, Apt. C
Daleville, AL 36322

www.wiregrassrockhounds.com



Where you might hear...

Specific gravity, also known as relative density, differs widely among gemstones, and is one of their most important physical characteristics from the viewpoint of gem identification.

Specific gravity (SG) is the ratio of the weight of one unit volume of the gem to the weight of the same unit of water. For example, to say sapphire (corundum) has $SG = 4.0$, means precisely that a cubic inch of sapphire weighs four times as much as a cubic inch of water. In natural gems, SG values range from just over 1 (1.08 for amber) to just short of 7 (6.95 for cassiterite).

Reprinted with permission from Dr. Barbara Smigel
Source: www.bwsmigel.info/GEOL.115.ESSAYS/Gemology.Specific.Gravity.html

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