

CHIP & LICK

Official Publication of the Miami Valley Mineral and Gem Club



VOLUME 54, NUMBER 6

Remember Father's Day June 15th!

June, 2008



MEETINGS: Second Sunday of the month except July and August.

PLACE: Small Business Development Center, 300 E. Auburn Ave., Springfield, OH 45505. Phone: 322-7821

TIME: 2:00 P.M.

Guests are always welcome!

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Purpose and Memberships

The objectives of the Miami Valley Mineral and Gem Club are:

To promote interest and increased knowledge in the fields of mineralogy, geology, and the lapidary arts.

To further the art of mounting and setting stones.

To encourage the collecting, identifying and displaying of specimens in these fields.

The annual dues are \$10.00 for an individual membership, \$15 for a couple, or \$17 for a family membership.

This club is a member of the Midwest Federation of Mineralogical and Geological Societies (MWF), which is a member of The American Federation of Mineralogical Societies (AFMS).



Newsletter “Mineral of the Month” – Sphalerite



Sphalerite (which is also known as Blende), is an important ore of zinc and can make a rather attractive cabinet specimen as well. It can have excellent luster and associates with many beautifully colored minerals making it one of the best enhancers of many fine mineral specimens.

Sphalerite is one of the very few minerals that has a total of six directions of cleavage. If all of them were to be perfectly cleaved on a single crystal it would form a rhombic dodecahedron. Identifying all six directions in a single cleaved crystal is quite difficult due to the multiple twinning and the many directions. Only the fact that there is abundant cleavage at different directions can easily be seen in most cleaved specimens.

Sphalerite can be difficult to identify because of its variable luster, color, abundant but obscured cleavage and crystal habits. So difficult was sphalerite for miners to distinguish from more valuable minerals such as galena, acanthite and tetrahedrite, that they named it sphalerite which is Greek for *treacherous rock* and blende is German for *blind* or *deceiving*.

The luster of sphalerite is truly its best attribute. It typically has a nice adamantine luster that really sparkles owing to its unusually high index of refraction and a fire greater than diamond's. Specimens of sphalerite are usually adorned with hundreds of small sparkling faces. Groups of faces can be symmetrically oriented into several different directions so that as a particularly gifted specimen is turned with respect to a viewer they are treated to several episodes of multiple and bright flashes. Transparent sphalerite has been cut for gemstones but its cleavage and softness limit its use as a gemstone to collectors only.

The twinning of sphalerite is also special. It can form a spinel twin which is a specialty of the mineral spinel. The spinel twin is where a tetrahedral crystal is twisted in the middle so that three points of the tetrahedron are in alignment with the other three points. These crystals are not usually completely developed in sphalerite but the indentations that the twinning causes are usually seen on some crystals in almost every specimen. A twin type for some reason called a "chicken twin" or "hen" forms a sort-of football shaped twin.

Sphalerite is a polymorph with two minerals, wurtzite and matraite. The three are called polymorphs (meaning *many shapes*) because although they have the same chemistry, (Zn, Fe)S or zinc iron sulfide, they have different structures and therefore different shapes. Sphalerite is by far the more common mineral of the three.

Sphalerite's structure is analogous to the diamond structure. If every other carbon in the diamond structure is replaced by a sulfur atom and the remaining carbons are replaced with either a zinc or an iron atom then basically the mineral is sphalerite.

Sphalerite is by no doubt the most important ore of zinc, an industrially and at times strategically important metal. Other zinc ores include hemimorphite, smithsonite, willemite, franklinite and zincite. Although its importance as an ore of zinc is undisputed, it is a very attractive and a very interesting mineral for collectors as well.

PHYSICAL CHARACTERISTICS:

- Color is typically black but can be brown, yellow, reddish, green, and less commonly white or colorless.
- Luster is adamantine or resinous or submetallic to earthy in massive forms.
- Transparency crystals are transparent to translucent.
- Crystal System is isometric; bar 4 3m
- Crystal Habits can be complicated with the rhombic dodecahedron, tetrahedron and combinations of these having cubic and tristetrahedron faces giving the crystals multiple faces of often indistinct forms. To add more confusion to the indistinct crystals, twinning is common and sometimes pervasive. Massive forms are common and can be granular, earthy, botryoidal, concretionary and fibrous. An aggregate of botryoidal crusts with layers of wurtzite and galena is called "Schalenblende" is sometimes cut and polished as an ornamental stone.
- Cleavage is perfect in six directions forming dodecahedrons.
- Fracture is conchoidal, but rarely seen because of frequent cleavage.
- Hardness is 3.5-4
- Specific Gravity is approximately 4.0 (heavier than average, but light when compared to most metallic minerals)
- Streak is yellow to light brown (unusually light colored for a normally dark mineral).
- Other Characteristics: Striations on tetrahedral faces, triboluminescent (meaning it may glow if crushed), an index of refraction of 2.37 - 2.42, a dispersion (fire) of 0.156 and finally sphalerite is pyroelectric (meaning that it forms a slight electrical charge when heated or cooled).
- Associated Minerals almost always include galena, pyrite, fluorite, chalcopyrite, quartz, calcite, magnetite, pyrrhotite and many others.
- Notable Occurrences include Tri state area near Joplin, Missouri; Rosiclare, Illinois; Elmwood, Tennessee, USA; Broken Hill, Australia; Italy; Spain; Burma; Peru; Morocco; Germany and England.
- Best Field Indicators are crystal habits, streak, cleavage, high luster, softness and twinning.

Fathers Day

Father's Day
Over the years
As we grow old,
We remember our father
So brave and bold.

He would give advice
And understand;
He was always there
To lend a hand.

So he gave us fathers

To teach us to pray,
And guide our lives,
And show us the way.

In the garden,
Leaning on the plow,
He would listen to me;
I see him now.

God made fathers
Strong and firm,
For he knew our lives
Would have great concerns.

So on his day
Let's take the time
To say "Thanks, dad.
I'm glad you're mine."

By - Mary Frances Bogle / fathersdaycelebration.com

April RECAP.....

See the "minutes" section of this newsletter for details.



Funny!

Rushing to work, I was driving too fast and as a result was pulled over by the highway patrol. The state trooper noticed that my shirt had the name of a local high school on it. "I teach math there," I explained.

The trooper smiled, and said, "Okay, here's a problem. A teacher is speeding down the highway at 16 m.p.h. over the limit. At \$12 for every mile, plus \$40 court costs, plus the rise in her insurance, what's her total cost?"

I replied, "Taking that total, subtracting the low salary I receive, multiplying by the number of kids who hate math, then adding to that the fact that none of us would be anywhere without teachers, I'd say zero." He handed me back my license.

"Math was never my favorite subject," he admitted. "Please slow down."

From www.rd.com

Back in the days

when Paul Revere's silver shop was not heated, his apprentices and helpers, like most people of that period, donned their winter underwear at the first fall chill and neither removed nor washed it until it was too hot to stand it. Over this time the daily dust of silver accumulated in the fibers of the material. In the spring, the now heavy underwear was burned, for many reasons, and the silver was reclaimed - this is how we got the term "Long John Silver"! A

Bicentennial Vignette, By Ted Marikos.

Source: Golden Spike News – Sept. 2003 / Rock Chips 11-2007

To clean pyrite and try to make it look nice and brassy, first wash it carefully in water. Put it in a plastic bowl, dish, etc., and pour vinegar over the specimens, making sure all pyrite is covered. Turn the specimens over several times. When they look clean and shiny, rinse with water, then put on paper to dry. This method is safe for children to use.

Strata Gem – October 2003/ Rock Chips 11-2007

MIAMI VALLEY MINERAL AND GEM CLUB, INC.

2008 OFFICERS

President	Tim Fosberg	849-4471
Vice President	Andreas Ruben	390-2081
Corresponding Secretary	Katrin Ruben	390-2081
Recording Secretary	Phil Lind	408-3744
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Trustee (2006)	Becky Dobbs	372-9022
Trustee (2007)	Hugh Fulton	322-1021
Trustee (2008)	Hugh Fulton	322-1021
Trustee (2009)	Udean Babyak	

2008 COMMITTEES

Anti-Litter	All Members
Canceled Stamps	Kay Faux
Chaplain	Udean Babyak
Field Trips/ Safety	Phil Lind
Field Trips/ Safety	Tom Bolka
Field Trips/ Safety	Tim Fosberg
MWF Liaison	Hugh Fulton
Photographer	Andreas Ruben
Program	Andreas Ruben
Refreshment	Joyce Perry
Scholarship	Joyce Perry
Show Chairman	
Spring Banquet	Udean Babyak
Sunshine	Joyce Perry
Swap	Hugh Fulton
Webmaster	Katrin Ruben
Christmas Party	Katrin Ruben

Events to Celebrate!!!!

June Birthdays

Tom Bolka

June Anniversaries

Dave and Joyce Perry



MIAMI VALLEY MINERAL & GEM CLUB MINUTES

MAY 11, 2008

The meeting was called to order by the president, Tim Fosberg. There were six members present and no visitors. This was partly due to it being Mothers Day.

Udean Babyak provided us with an article to stimulate our thinking of Mothers Day

Treasurer's report was read and accepted.

Library – no news.

Liaison, Hugh Fulton gave a brief account of the various newsletters, brochures and other documents received from other clubs. All were placed at the front of the room for further examination.

Our editor was not present, however, copies of “Chip & Lick” were delivered to Phil Lind so that they would be available at meeting.

Old Business: It was brought to our attention that the MWF had received the CD on Franklin Materials that was put together by the Rubens with Clyde Spencer as the narrator and they were very pleased.

It was brought to everyone's attention that the Spring Banquet had been moved to the Cracker Barrel and everyone had a great time. We thanked Udean for her efforts in making the arrangements.

New Business: none

Meeting was adjourned for refreshments. We were unable to view our copy of the afternoons program about Franklin Materials since the Rubens' were in Albuquerque, New Mexico on vacation and for some reason we could not get the program to run on our system.

Submitted by Secretary

Philip Lind.

JUNE PROGRAM SCHEDULE

Program: – Information was not available.



REGIONAL UPCOMING SHOWS & EVENTS:

. June 6 –8, Wauseon, Ohio: 47th annual “More than a rock show”. State Line Gem and Mineral society; Fulton County fairgrounds, Junior Fair building, 8514 SR 108. Fri. 12-7, Sat. 10-7, Sun. 11-4. Free Admission. www.angelfire.com/mac/rock-club/.

June 27 – 29 Bloomington Ind., Lawrence County Rock Club, 43rd Annual Show & Swap. Monroe County 4-H Fairgrounds, Airport Rd. Fri. 10-6:30, Sat. 9-6:30 and Sun. 10-4. www.lawrencecountyrockclub.org.

FEDERATION NEWS

Everyone should be receiving a copy of the MWF newsletter by email. If not, it is always available at the monthly meetings.

SCHEDULED FIELD TRIPS

See the field trip committee, several trips are always being planned. Some may in conjunction with other clubs.

FIELD TRIP REPORTS

Auglaize Quarry

Well here we go again. It is 4:00 O'clock in the morning and Tom arrived at Phil's house to find him still eating breakfast. With a little push Phil was moving and we were headed out to pick up Clyde and make the 150-mile drive to Auglaize Quarry in northern Ohio near Defiance. This time the skies are clear and it appears that we are going to have a beautiful day. After taking a few short cuts to reduce the mileage we arrived at the quarry. Unfortunately, there were no McDonalds on the short cuts. You need to keep that in mind if you ever ride with this group. A half dozen cars were already at the quarry and within short time two dozen more showed up. We received our briefing and were soon taken to the quarry floor and turned loose to hunt until 11:30 am.

Within a short time Clyde and Tom were finding nice samples of purple fluorite, calcite, and Sphalerite. Phil on the other hand seemed to just wander around aimlessly picking up odds and ends. He seems to enjoy just being outdoors on such a beautiful day. At 11:00 O'clock we started to round up all the rockhounds ensuring we were out of the quarry by 11:30 am.

Thanks again to the Dr. Carlson for setting up another fine day of collecting and to the quarry owners and the workers that were willing to spend time giving us instruction and directions on where we could hunt.

Phil, Tom & Clyde also went to the Maumee quarry near Toledo 2 weeks prior. This was in conjunction with the Dayton Club. Once again we all had a great time and found some interesting specimens.

A sign-up sheet will be available at the monthly meeting refreshments, displays, and programs. Please sign up. I know each of you has a specialty that would interest the entire club.

