

DVESScapades

escapades: interesting, stimulating, exciting activities and adventures



Delaware Valley Earth Science Society Newsletter



Program: September 8 our day to share, what you did this summer, trips, finds etc. Come and share with us.

President's Message- September 2010 by Grant Elliott

Ah, the double Dog Days of summer have relented somewhat. This harbinger to cooler times harkens thoughts of back to school, football, comfortable field trips, and earnest sod busting searches for minerals, fossils, and other wonders of the Earth.

Our September program will be Show and Tell, where we members are the star speakers as to their adventures and the goodies acquired during the Dog Days. Remember, you have the stage.

Don't forget our annual banquet on October 24th at the Mandarin Buffet in Cherry Hill, where Henry Kennedy will speak on cats-eye and other wondrous gems.

Mark your calendars.

BANQUET: Event to take place on October 24th at the Mandarin Buffet in Cherry Hill. **All you can eat.** Program after dinner: Henry Kennedy will present info on cats-eye and other wondrous gems. The Buffett includes Chinese, Japanese, Sushi, Italian dishes plus a Mongolian cook surface (hibachi). with cook to order items done your way before your eyes. Desserts and beverages included for **\$14.00 adult, children between 3 and 10, \$7.00.** (Voted S J best in '06, '07, '08, '09, & 2010.) Peter and I have been here many times and take our grandsons to eat their full. I think you will enjoy the change of venue. The Mandarin is located across from the old Ellisburg Circle Shopping Center at 1631 N Kings Highway, Cherry Hill, 856-857-1151.

OTHER BUSINESS: The coffee/tea + creamer/sugar and refreshments are being devoured the at the general meetings. It was suggested that a refreshment monetary contribution cup be present at the refreshment table.

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NEXT YEAR'S OFFICERS : We will have to start thinking about individuals and positions.

Jr Rockhouser Meeting:

An interesting program is planned by Mil LeCompte, our Jr Rockhouser Coordinator. He can be reached at (856)783-0960 Or RocksAndBadges@yahoo.com



Info on our Club's programs for the rest of the year. Gary, program chair.

October I have booked Mr. Fred Schwartz who will give us a much needed presentation entitled "Basic Chemistry for Rockhounds". Fred is a retired chemistry teacher, 7 years at Lenape High School and 10 years at Rutgers U., and a mineral collector. We will have a chance to learn about how atoms bond to make our lovely collectables. Don't miss this one!

Nov. Dr Phillip Betancourt will present on his trip to ??? (sorry I forgot, Ed) and he will host the Nov. exec. also.

Dec. Holiday party, Gift exchange and elections. Club will again supply food though we also ask members to bring a dish to share. Sign up at ...

This year I will also bring a video program to watch while we partake and make available specimens to purchase for your holiday gift giving needs. Yes, it is OK to buy yourself a gift.

I will let you know about Phil's program or maybe I already sent it to you?

That takes care of 2010, look for more in the upcoming year,

SEA GLASS

There was an interesting article, "A Shore Thing," in last Sunday's (8/1) Parade about sea glass. If you missed it, you can go to parade.com and search for sea glass. There are some lovely pictures there.

Sea glass, or beach glass, is glass found on beaches, that has been tumbled by waves, water, and sand. Basically, it's trash that Mother Nature has turned into treasures. According to Odyssey Sea Glass, two factors must be present for it to be true sea glass - the glass must be tumbled to the point where all edges are smooth and the end result must have a frosted or etched surface. It's commonly believed that it takes decades of wave action to smooth edges of glass. Sea glass is highly collectible and found all

over the world, although it is much more plentiful in certain areas, such as Hawaii, Chesapeake Bay, and Northern California. Green, white and brown are common, coming mostly from beer and soda bottles; true yellow, orange, and red are scarce. Due to our use of plastics, anti-littering laws, and the popularity of collecting the glass, it's harder to find than in the past. Some people use a rock tumbler to make their own but, like most things, the man-made version is not as highly valued. The North American Sea Glass Association (NASGA) (imagine, an association for everything) was formed to help educate people about the difference between genuine sea glass and fake sea glass. Uses of sea glass are varied. Some common uses are in lamps, vases, mosaics, and, you guessed it - jewelry.

Above article reprinted from the Tampa Bay Mineral & Science Club, Inc. Newsletter the CORAL GEODE for August, 2010

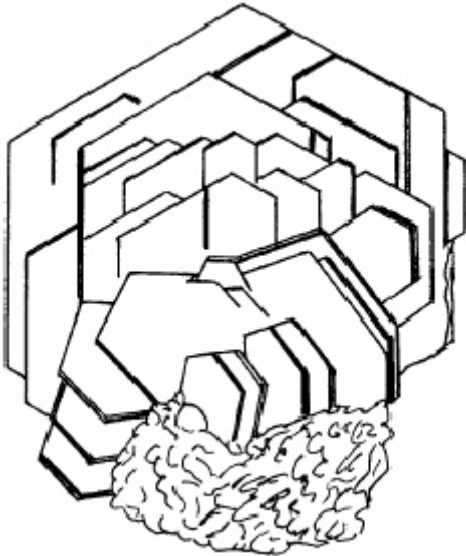
MINI MINERS MONTHLY

A Monthly Publication for Young Mineral Collectors

This is a publication from which I use frequently articles. Further info on it is available at:

WWW.DIAMONDANPUBLICATIONS.NET

Mineral of the Month Muscovite



Crystal System: Monoclinic

Chemical Formula: $KAl_2(AlSiO_3)O_{10}(OH)_2$ (Hydrous Potassium Aluminum Silicate; “hydrous” means it has water in it. The water is in the OH molecules.)

Hardness: 2.8 to 3.0 **Color:** Colorless, yellow, silvery-white, green, red. **Streak:** White **Luster:** Vitreous (glassy)

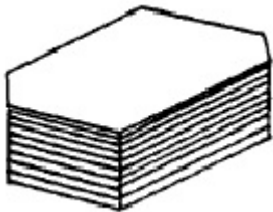
Specific Gravity: 2 to 2.5

Fracture: Rough to splintery **Cleavage:** Perfect basal cleavage. Muscovite, like all the mica minerals, breaks easily into thin sheets.

Find a piece of mica and try it for yourself. Use your fingernail to easily peel off layers of muscovite.

Other: Mica is a very common mineral and is found mostly in igneous rocks. It is also found in metamorphic rocks. It can also be found in some sedimentary rocks. Muscovite is one variety of a group of minerals that are called “mica.” All mica minerals peel into very thin sheets. Other mica minerals include biotite, phlogopite and lepidolite.

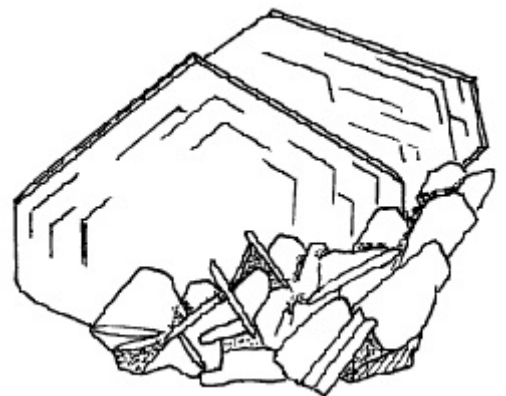
Thin sheets of muscovite are translucent; this means that light can pass through them but they aren't clear enough to see through like a piece of glass. These thin sheets of muscovite are elastic. This means that they can be bent and will spring back to their original shape. Be careful, though. If you bend a sheet of muscovite too far, it will crack and break. Pieces of muscovite over 20 feet long and 20 feet high have been discovered in Ontario, Canada and in the U.S.A. in New Hampshire and South Dakota.



The red variety of muscovite contains the element manganese and is called alurgite. The green variety of muscovite contains the element chromium and is called fuchsite.

Uses: Muscovite is crushed into very small pieces to make insulation. It is also crushed into a powder and mixed with other materials to make every-day items like paper, paint, plastics and rubber. Crushed muscovite is mixed with make-up (like lip gloss and eye shadow) to create a sparkly look. It is also mixed with clay to make porcelain items like cups and plates. Crushed muscovite is used as artificial snow in movies and stage plays.

Name: Many years ago, sheets of muscovite were used in Russia as windows in wood stoves. The name muscovite comes from the Russian town of Muscovy where mica was used for windows.



DID NATIVE AMERICANS COLLECT MINERALS?

Native Americans - and native peoples all over the world - used the materials around them for many different purposes. Archaeologists have found ancient tools made of bone, rocks and minerals. According to the United States Geological Survey, Native Americans were collecting and using minerals long before Columbus “discovered” America.

Some minerals were collected because they are useful. Others were collected because they are attractive. Here is a list of some of the minerals and rocks that ancient Native Americans collected and used. This list is based on actual archaeological discoveries.

Coal, a sedimentary rock, was gathered for fuel, both for warmth and for cooking. Different kinds of igneous rocks were used for many different purposes. For example, obsidian (also known as volcanic glass) was used to make projectile points like arrowheads and spearheads. Granite was used to grind seeds and other foods. Other rocks were used to make stone axes. Ancient pottery has been discovered that was made of clay which was sometimes mixed with asbestos! The asbestos fibers helped hold the clay together. Like peoples all over the world, ancient Native Americans discovered that salt (halite) was useful to preserve meat and fish.

There is evidence that ancient peoples also mined a variety of minerals to make jewelry and other decorative items. Many of these decorative items were used in religious ceremonies. The minerals they mined included silver, opal, copper, turquoise and jet (“jet” is a very hard variety of coal which can be carved and polished. You are right, coal is not a mineral, it is a sedimentary rock!)

Long before native peoples learned to extract metals (like iron and copper) from ores (like hematite and malachite) they used the natural properties of rocks and minerals as they were found in the earth. It is also interesting to learn that people, even ancient cultures, appreciated and valued the beauty of minerals. They not only wore pieces of minerals as they were found, but quickly learned to carve, polish and set pretty pieces of mineral in jewelry and other objects. The native tribes of New York State collected quartz crystals and used them for decoration and for trade (today we call these crystals “Herkimer Diamonds.”)

People have enjoyed both the usefulness of minerals as well as their beauty all the way back to our earliest ancestors. Don’t you wonder if any ancient people had a mineral collection?

Have you started your collection yet?? Check out our web site and the newsletter from June 2009 for info on cataloging, labeling and identifying your treasures. See pages 5 & 6.

The above article and the one on the following page is also DD Publications.

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WHAT IS A “MINERAL”?

Not every solid material that comes from the earth is a mineral. There is a difference between a mineral and a rock, for instance. Do you know the definition of a mineral?

A mineral, by definition, is . . .

1. **Inorganic**, which means that it is not made by a living organism.
2. **A Solid**. There is one unusual exception. Native mercury is a mineral and is the only metal that is a liquid at normal temperatures.
3. Has a **regular crystal structure**. The crystal structures are described as *crystal systems*.
4. **Made by nature** which means minerals are *not* made, directly or indirectly, from human activity.
5. Has a **predictable chemical formula**.

Which of the following are minerals?

Pyrite (“Fool’s Gold”)

Snow

Galena

Ice Cubes

Graphite

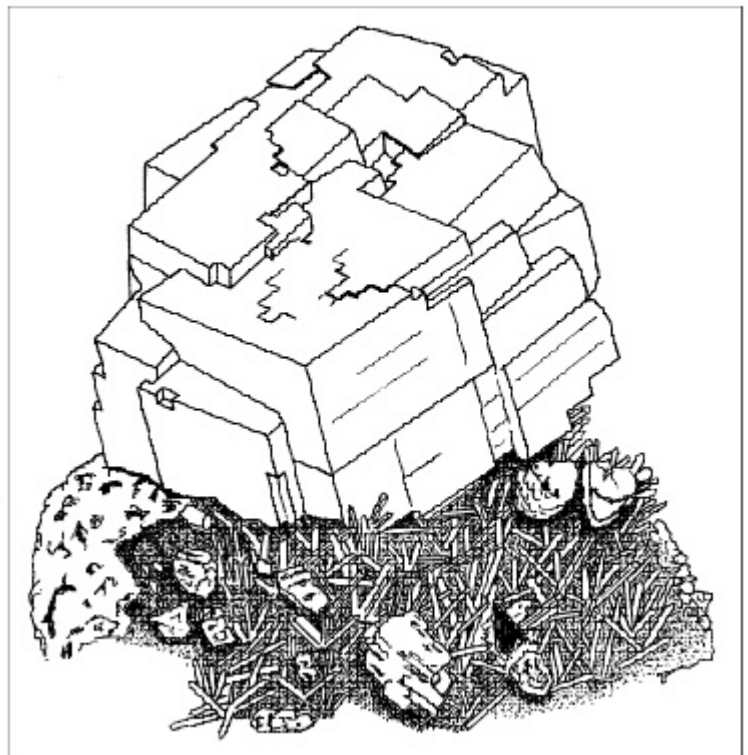
Ruby

Cubic Zirconia

Diamond

Fluorite

For each of these, make a checklist of the 5 points of a mineral’s definition. If it meets all 5 points, it is a mineral ... by definition. See the next page for the answers.



27 August 2010 from our Illustrious Leader

Double meteorite strike 'caused dinosaur extinction' By Howard Falcon-Lang
Science reporter, BBC News

The dinosaurs were wiped out 65 million years ago by at least two meteorite impacts, rather than a single strike, a new study suggests. Previously, scientists had identified a huge impact crater in the Gulf of Mexico as the event that spelled doom for the dinosaurs. Now evidence for a second impact in the Ukraine has been uncovered. This raises the possibility that the Earth may have been bombarded by a whole shower of meteorites.

The new findings are published in the journal *Geology* by a team lead by Professor David Jolley of Aberdeen University. When first proposed in 1980, the idea that a meteorite impact had killed the dinosaurs proved hugely controversial. Later, the discovery of the Chicxulub Crater in the Gulf of Mexico, US, was hailed as "the smoking gun" that confirmed the theory.

Double trouble The discovery of a second impact crater suggests that the dinosaurs were driven to extinction by a "double whammy" rather than a single strike. The Boltysh Crater in the Ukraine was first reported in 2002. However, until now it was uncertain exactly how the timing of this event related to the Chicxulub impact. In the current study, scientists examined the "pollen and spores" of fossil plants in the layers of mud that filled the crater. They found that immediately after the impact, ferns quickly

colonized the devastated landscape. Ferns have an amazing ability to bounce back after catastrophe. Layers full of fern spores - dubbed "fern spikes" - are considered to be a good "markers" of past impact events. However, there was an unexpected discovery in store for the scientists. They located a second "fern spike" in a layer one meter above the first, suggesting another later impact event.

Professor Simon Kelley of the Open University, who was co-author on the study, said "We interpret this second layer as the aftermath of the Chicxulub impact". This shows that the Boltysh and Chicxulub impacts did not happen at exactly the same time. They struck several thousand years apart, the length of time between the two "fern spikes".

Uncertain cause Professor Kelley continued: "It is quite possible that in the future we will find evidence for more impact events". Rather than being wiped out by a single hit, the researchers think that dinosaurs may have fallen victim to a meteorite shower raining down over thousands of years.

What might have caused this bombardment is highly uncertain. Professor Monica Grady, a meteorite expert at the Open University who was not involved in the current study, said "One possibility might be the collision of Near Earth Objects". Recently, NASA launched a program dubbed "Space guard". It aims to monitor such Near Earth Objects as an early warning system of possible future collisions.

The Dvess puzzle of the month by Ed Loveland, Puzzle maker to the DVESScapades for many great years, and well appreciated, is attached in a separate PDF file for the month.

SPACE AVAILABLE AND WAITING FOR YOUR ARTICLE !!!!

UPCOMING SHOWS if you want to travel a bit:

- Sept 4 – 5: 21st Annual Rockhoulder’s Gem & Mineral Show sponsored by the Kennebec Rock & Minerals Club. National Guard Armory, Augusta, ME.
- 18-19: Central Pennsylvania Rock & Mineral Show sponsored by the Central PA Rock & Mineral Club. Zembo Shrine, Harrisburg, PA.
- 18-19: 41st Annual Gem, Mineral & Jewelry Show and Sale sponsored by the Mid-Hudson Valley Gem & Mineral Society. Dutchess Co. Fairgrounds, Rhinebeck, NY
- 25-26: 46th Annual Atlantic Coast Gem, Mineral and Jewelry Show hosted by the Gem Cutters Guild of Baltimore. Howard County Fairgrounds, West Friendship, MD.
- Oct 1 – 3: Annual Desautels Micromount Symposium hosted by the Baltimore Mineral Society. MHA Conference Center, Elkridge, MD. Registration and information: cscrytals2@verizon.net
- 1 – 3: 33rd Annual Gem, Mineral & Faceters Show sponsored by the Gaston Gem, Mineral & Faceters Club. Gaston County Park, Dallas, NC
- 16-17: 12th Annual Mineral Show & Sale sponsored by the Fulton Co. Mineral Club. Johnstown Moose Lodge, Rt. 30A; Johnstown, NY.
- 23-24: Rhode Island Mineral Hunters Annual Show sponsored by Rhode Island Mineral Hunters. CCRI Knight Campus, Warwick, RI.
- 23-24: 41st Annual Rochester Gem, Mineral, Jewelry & Fossil Show sponsored by the Rochester Academy of Science Mineral Section and Rochester Lapidary Society. Monroe Co. Fair & Expo Center, Henrietta, NY
- 30, 2010 Fairless Hills, PA – The Rock and Mineral Club of Lower Bucks County, PA 21st Fluorescent Mineral Show, “ULTRAVIOLATION”, First United Methodist Church, 840 Trenton Road. Saturday 9:00 AM to 4:00 PM.
- Nov 6 - 7: Gemarama 2010 sponsored by the Tuscarora Lapidary Society. CFS, The School at Church Farm, Exton, PA.
- 20-21: 44th Annual Gem, Mineral, Jewelry, Bead & Fossil Show sponsored by the Gem & Mineral Society of the Palm Beaches. Americraft Expo Center East; West Palm Beach, FL

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DVESS MEETING LOCATION : Centenary United Methodist Church, 151 South White Horse Pike, (route 30) in Berlin, 856-767-3881 or 856-767-7453

DIRECTIONS:

From Atco (west-bound), after the traffic light at Taunton Ave. (Rite Aid drugstore on the left), the church is about the 3rd building on the right; turn into the first driveway. If you miss it, pass by the church and turn Right onto Broad St. (at the Berlin Diner) then turn Right into the parking lot of the Baptist Church and go straight all the way - the parking lots of both churches connect.

From Rt. 73 in Marlton: head East (South) on Rt. 73. As you enter Berlin, you will pass Wal-Mart (on the left) and a shopping center (on the right) with Shop Rite and Staples. **Get into the Right "Exit Only" lane and follow the signs for Cross Keys Rd. At the intersection of Cross Keys Rd. and the White Horse Pike (Rt. 30) turn LEFT. At the next intersection (Broad St.) continue straight past the Berlin Diner and SPEEDY MART on your left; pass by 2 or 3 white storefronts on the left then see the big white church with red front doors on your left. Pass in front of the church and turn into the driveway on the far side. Education Building is behind the church.**

From Lindenwold or Clementon on the White Horse Pike (east-bound): As you enter Berlin business district, you will pass through the traffic light at Cross Keys Rd. (CVS Pharmacy on right corner). Follow highlighted directions above.

MEMBERSHIP INFORMATION

Regular members are entitled to participate in all DVESS activities. Sponsoring members are entitled to the same plus a specially chosen mineral specimen. Dues are renewable each year in January. Membership rates for the Society:

Regular Membership:

\$15.00 for the 1st family member + \$5.00 for each additional family member

\$10.00 for the 1st Senior (65+) member + \$5.00 for each additional family member

Sponsoring Memberships (each additional family member - \$5.00):

"Silver" \$50.00 for 1st family member - receive a Geode Specimen

"Gold" \$75.00 for 1st family member - receive a Native Gold Specimen

"Platinum" \$100 for 1st family member - receive a Premium Specimen

SOCIETY INFORMATION

The Delaware Valley Earth Science Society, Inc., (DVESS), a non-profit organization, was founded in 1956 and incorporated in the state of New Jersey in 1957.

The Society:

- * promotes interest , knowledge and the development of skills in the "earth sciences". These interests include mineralogy, paleontology, lapidary arts, archeology and local preservation.
- * supports the conservation of natural resources, advocates the availability of collecting sites and maintains close contact with those in the academic field.
- * is a member club of the Eastern Federation of Mineralogical and Lapidary Societies (<http://www.AmFed.org/EFMLS>)

MEETINGS

The Society meets the 2nd Wednesday of each month throughout the year at Centenary United Methodist Church, 151 South White Horse Pike, (route 30) in Berlin

Editor's Notes: Editor is not responsible for authenticity of information in any articles submitted for publication. Nor are the opinions expressed in the "DVESScapades" necessarily those of the officers of the Delaware Valley Earth Science Society, Inc., and/or the editor.

To submit an article for publication in the DVESScapades contact the Newsletter Editor.

decuzzic@comcast.net, or Delaware Valley Earth Science Society Inc., DVESS, P O Box 372

Maple Shade, New Jersey 08052 or DVESS Website: <http://www.dvess.org>

garyskyrock@comcast.net

Our newsletter goes out solely by email (a major cost savings and quick delivery solution).

This space left blank for your article, PLEASE !!!!

AFMS CODE OF ETHICS (American Federation of Mineralogical Societies)

- I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.
- I will keep informed on all laws, regulations of rules governing collecting on public lands and will observe them.
- I will to the best of my ability, ascertain the boundary lines of property on which I plan to collect.
- I will use no firearms or blasting material in collecting areas.
- I will cause no willful damage to property of any kind - fences, signs, buildings.
- I will leave all gates as found.
- I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.
- I will discard no burning material - matches, cigarettes, etc.
- I will fill all excavation holes which may be dangerous to livestock.
- I will not contaminate wells, creeks or other water supply.
- I will cause no willful damage to collecting material and will take home only what I can reasonably use.
- I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.
- I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
- I will cooperate with field trip leaders and those in designated authority in all collecting areas.
- I will report to my club or Federation officers, Bureau of Land management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
- I will appreciate and protect our heritage of natural resources.
- I will observe the "Golden Rule", will use "Good Outdoor Manners" and will at all times conduct myself in a manner which will add to the stature and Public "image" of rockhounds everywhere.

<i>DVESS Directory 2010</i>	President Grant Elliott 856-728-1731 gle@verizon.net
1 st Vice President Lou Detofsky "Doc Rock"	2 nd Vice President Jonathan Feigin
Jr. Rockhound Coordinator Mil LeCompte 856-783-0969 works-in-faith@comcast.net Rocksandbadges@yahoo.com	Recording Secretary Richard Murray bearich@snip.net
Website Coordinator Terry Wilson 609-714-1309 terry@dveess.org	Special Events Dir. Ann Lynne Benson 856-783-0969 SeleniteQueen@gmail.com
Treasurer, Program Chair Gary Weinstein 856-795-5077 - work 856-234-0708 - home garyskyrock@hotmail.com	DVESS News Editor, Member Chair Carol De Cuzzi 856-428-0621 - home DVESS@int-pro.com or decuzzic@comcast.net

Membership Form start w/ first family member (**designated as head of family**)

First Name: _____ Last Name: _____
Address: _____ City: _____
State: _____ ZIP+4 _____
Phone: _____ Email: _____
Cell Phone: _____ Profession, School or Major Work _____

Okay to let other members see your email and other orange-starred information(on website)?

Okay to share _____
Do NOT share _____

Newsletter Delivery **ONLY** via e-mail

Email _____

Type of membership **Regular Membership:**
\$15.00 for the 1st family member + \$5.00 for each additional family member
\$10.00 for the 1st Senior (65+) member + \$5.00 for each additional family member
Dues are collected on a calendar year Jan to Dec, no pro-rata rates

additional family members to be registered w/ above member

First Name: _____

Last Name (only if different from above) _____

First Name: _____

Last Name (only if different from above) _____

additional family members to be registered w/ above member

First Name: _____

Last Name (only if different from above) _____

First Name: _____

Last Name (only if different from above) _____

additional members on another paper if needed

Sponsoring Memberships (each additional family member - \$5.00):

"Silver" \$50.00 for 1st family member - receive a Geode Specimen

"Gold" \$75.00 for 1st family member - receive a Native Gold Specimen

"Platinum" \$100 for 1st family member - receive a Premium Specimen

Interests: Minerals ___ Fossils ___ Lapidary ___ Collecting ___ Museum Trips ___
Trotter ___ Sterling Hill ___ other, please list _____

How did you learn of DVESS? _____

Other clubs you belong to _____

Comments _____

What NON-DVESS interests or hobbies do you have? Would you be willing to share with our members? _____

Look for new application form new design coming soon.

03/20/10

D V E S S
W O R D D P U Z Z L E
27
L o v e l a n d
b y E d L o v e l a n d

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ACICULAR	PALEONTOLOGY
ADMANTINE	PETROLOGY
BOTRYOIDAL	PHOSPHORESCENCE
CUBIC	PIEZOELECTRIC
DICHRISM	PLACER
DUCTILE	REFRACTION
FOLIATED	SEDIMENTARY
GANGUE	SHALE
HACKLY	STREAK
HYDROTHERMAL	VIVIANITE
IGNEOUS	WOLLASTONITE
MAGMA	ZINCITE
MAGMATIC	ZIRCON
MAGNETIC	
MALLEABLE	
METAMORPHIC	