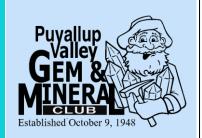
ROCK-A-TEER



Newsletter of the Puyallup Valley Gem & Mineral Club

Jillian Higgins

Issue 78

Volume 130

July

2024

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President's Perspective

Tony Johnson

I would like to say a huge thank you to all the volunteers who helped in the various areas at the Club Show held the first weekend in June. It was a huge success! We had a large turnout and the most vendors we have ever had. Setup and takedown went as smooth as it can and all the exceptional volunteers made it a fast process. Thank you all to all the volunteers again!

August is coming up and it is a very busy month for the club. Not to mention the State Fair is right around the corner so start thinking about volunteering for a time slot or two or more. A signup sheet will be being passed around at the next couple of meetings and emails will be sent out.

- August Mike and LaVon's annual Sale 1st weekend
- August Show in the Trees 2nd weekend
- August Overnight Field Trip at Greenwater 3rd weekend
- August Club Picnic 4th weekend (Saturday only)
- September WA State Fair Starts we will need volunteers

Field Trip Report

July 20th - Red Top

Meeting place - 10:00AM at Mineral Springs Recreational mile marker 156 on hwy 97

Hunting for - Agate, Jasper, Fossil Shells and Crystal Plates

<u>Tools you need</u> - Rock hammer, shovel, pry bar, hammer, chisel and a backpack/bucket for your treasures

<u>Access</u> - Moderate climb up a steep road cut.

<u>Additional items</u> - lunch/snacks and water, water, water. Dress in layers. Be prepared for ticks/mosquitoes

August 17th & 18th Overnight - Greenwater

This fieldtrip is with the Washington State Mineral Council - overnight camp out & pot luck Meeting place - 9:00AM at the Enumclaw Ranger Station for those not camping out Hunting for - Jasper, Agate, Petrified wood, common opal

<u>Tools you need</u> - Rock hammer, shovel, pry bar, hammer, chisel and a backpack/bucket for your treasures

Access - this area is fairly easy to access

Additional items - lunch/snacks and water, water, water. Dress in layers

Please remember that even though we love to meet new people, fieldtrips are a member benefit and part of your membership dues covers you for injury liability.

Though injuries are rare, and we do everything we can to avoid them, we are going out into nature, and uncontrollable environment.

All individuals attending field trips will have to sign a release of liability, and if you are bringing quests, we will try to entice them into join the club by having Membership applications available.

JULY 2024 CLUB HOUSE SCHEDULE

DATE	DAY	TIME	ACTIVITY	LOCATION	INSTRUCTOR
1	Monday	10:00AM-2:00PM	Members Open Access	Club House	Tasha Parker
2	Tuesday	4:00PM-8:00PM	Members Open Access	Club House	Wes Ames
3 Wedr	Wednesday	10:00AM-2:00PM	Members Open Access	Club House	Dennis Batchelor
3	wednesday	4:00PM-8:00PM	Members Open Access	Club House	Tony Johnson
4	Thursday		CLOSED INDEPENDENCE DA	Υ	
5	Friday				
6	Saturday	10:00AM-2:00PM	Members Open Access	Club House	Tony Johnson
7	Sunday				
8	Monday	10:00AM-2:00PM	Members Open Access	Club House	Tasha Parker
0	ivioriday	7:00PM-8:00PM	Opal Club Business Meet.	Club House	Tony Johnson
9	Tuesday	4:00PM-8:00PM	Members Open Access	Club House	Wes Ames
10	Wednesday	10:00AM-2:00PM	Members Open Access	Club House	Dennis Batchelor
10	vveuliesuay	4:00PM-8:00PM	Wire Wrapping	Club House	Tony Johnson
11	Thursday	4:00PM-8:00PM	Members Open Access	Club House	Tony Johnson
12	Friday	6:00PM	Club Board Meeting	Fruitland Grange	Nate White
12	Tiuay	7:30PM	Club Business Meeting	Fruitland Grange	Tony Johnson
13	Saturday	10:00AM-2:00PM	Precious Metal Clay	Club House	Sonora Hauser
14	Sunday				
15	Monday	10:00AM-2:00PM	Members Open Access	Club House	Tasha Parker
16	Tuesday	4:00PM-8:00PM	Members Open Access	Club House	Wes Ames
17	Wednesday	10:00AM-2:00PM	Members Open Access	Club House	Dennis Batchelor
17		4:00PM-8:00PM	Opal Cutting	Club House	Tony Johnson
18	Thursday	4:00PM-8:00PM	Members Open Access	Club House	Tony Johnson
19	Friday				
20	Saturday	See Fieldtrip Report	Red Top	Field Trip	Nate White
20		10:00AM-2:00PM	Members Open Access	Club House	Tony Johnson
21	Sunday				
22	Monday	10:00AM-2:00PM	Members Open Access	Club House	Tasha Parker
23	Tuesday	4:00PM-8:00PM	Members Open Access	Club House	Wes Ames
24	Wednesday	10:00AM-2:00PM	Members Open Access	Club House	Dennis Batchelor
24		4:00PM-8:00PM	Members Open Access	Club House	Tony Johnson
25	Thursday	4:00PM-8:00PM	Members Open Access	Club House	Tony Johnson
26	Friday	6:00PM	Club Program Night	Fruitland Grange	Tony Johnson
27	Saturday	10:00AM-2:00PM	Opal Carving	Club House	Craig Oda
28	Sunday				
29	Monday	10:00AM-2:00PM	Members Open Access	Club House	Tasha Parker
30	Tuesday	4:00PM-8:00PM	Members Open Access	Club House	Wes Ames
0.4	Wednesday	10:00AM-2:00PM	Members Open Access	Club House	Dennis Batchelor
31		4:00PM-8:00PM	Wire Weaving	Club House	Jillian Higgins
	For questions about a specific class or event, contact the instructor				
Dennis Batchelor (360) 870-8741 Wes Ames (253) 376-7871 Tony Johnson (253) 753-5938					
Tasha Parker (206) 291-8068					
*** Members Open Access is the time when members can use the saws and cabbing machines					

*** Members Open Access is the time when members can use the saws and cabbing machines

This schedule is subject to change. Please check the club website for updated information.

MEET THE MEMBERS

Name: Shirley Rheault

<u>Favorite Quote:</u> "The best you can do, is the best you can do." Capt. Kangaroo "I always wanted to be somebody; I can see now I should have been more specific." Lily Thomlin

What are your skills/past experience with the rock Club or rock hounding? I'm very tenacious when it comes to rock hunting. It's like a crème de la crème Easter Egg hunt, and its hard to stop (Each one is so beautiful!). I'm learning tons of skills from my husband and PVG&MC.

What is your favorite rock, mineral or gem? Montana Agates, Patterned Jaspers

What is your favorite thing to do with rocks, minerals or gems? To slice, find the beauty, then bring it out and enhance the beauty that lies within.

What are your three favorite books/podcasts?

- The Bible
- Human medical/anatomy
- Gardening

What is your favorite memory surrounding rockhounding/rocks in general? The first time Jerry & I hunted agates at Oceanside, OR. We didn't know the area (yet) and hunted the beach at both tides each day. Each evening, we had them laid out on trays in front of the picture windows of the ocean (separated his & hers, of course) to admire them while we sipped on mimosas. For our 1st attempt we still wound up with 27# of agates!!

<u>In your opinion, what is the best thing about the Puyallup Valley Gem & Mineral Club?</u> Community! The club has developed & united a sense of community within its members.

<u>In your opinion, where/how does the club need to improve?</u> The club has improved so much. Love that classes and clubhouse use is consistent and full of activities.

What are three (3) things people might not know about you?

Started deck handing on a salmon charter boat at 11yrs old out of Ilwaco, WA. By 18yrs old I had enough sea time, I got my charter license and ran charters (in the Pacific Ocean) for 5 years (summers) until I graduated from college as a dental hygienist. (1976)

- Retired from dental hygiene (79) to go back fishing as alternate Capt. With my then husband on a 105' King crab boat in the Bering Sea for 7yrs (until we had children)
- Because I was the youngest female Coast Gard licensed captain at 18yrs old, I was included in a National Geographic article about the Columbia River with two photographs December 1974.

What is your greatest accomplishment? The accomplishment that affected the most people was I developed and implemented a firearms training course for 1st time women shooters in 2000 thru 2008. In 2003 we attended a Gun Rights Policy Conference in Virginia and I spoke about our success and the NRA picked up the concept and created The Women on Target that developed all sorts of national programs for Women, a magazine, and gave grants for women firearm instructions. In our 9 years of our local program, we trained over 850 students. I could have done none of this without the help and support of my devoted husband, Jerry!

Clubhouse report

Tony Johnson

This week the clubhouse will be closed Thursday, July 4th in observance of Independence Day.

Please remember to schedule yourselves if you are planning on attending the clubhouse so your spot is guaranteed. If you need help, please email PVGAMC@gmail.com and the scheduling process will be emailed right back to you. As the summer gets going, the clubhouse is getting full fast.

If you have any requests for the clubhouse, classes, equipment, etc. please feel free to contact us at PVGAMC@gmail.com and we will pass it along to the clubhouse committee for consideration and further action.

Associations Director Report - July 2024

Hello fellow rockhounds and pebblepups.

Hopefully you are enjoying the sun breaks in between the rain showers.

There isn't a whole lot to report on this month. The Washington State Mineral Council has secured the lease on Walker Valley for another ten years. They are working on a new logo with the intent on using it on merchandise to sell. The council is taking it's normal summer break so there won't be another meeting until September.

As for state and federal legislation not a whole lot is going on.

Respectfully submitted by Mark Baumann Associations Director

Field Trip Recap

Nate White

Not Submitted.

Grape Agate

Tiny spheres of purple quartz with a botryoidal habit. Article by: <u>Hobart M. King</u>, PhD, RPG



Large Cluster of Grape Agate: A large cluster of grape agate that is representative for the material. Photo copyright iStockphoto / jonnysek.

Small Cluster of Grape Agate: A tiny cluster of grape agate with superb color and a fun shape. Photo copyright iStockphoto / halock.

Grape agate is a marketing name for purple aggregates of tiny **quartz** crystals with a spherical (botryoidal) **habit**. The name reflects their purple color and how they occur in clusters that resemble bunches of grapes. This material is found in the Mamuju area, near the western coast of Sulawesi, an island of **Indonesia**.



Grape agate entered the mineral market in 2016. Its popularity quickly spread through mineral shows, **rock shops**, websites, and online marketplaces. Specimens with a fun appearance and an interesting name like grape agate market themselves.

The "grapes" of these specimens are tiny. They range between about two and eight millimeters across. Although purple is the best color to match the "grape" name, some specimens have grapes that are white, gray, green, or blue.

Grape Agate: A tiny cluster of grape agate with superb color and a fun shape. Note that the surface is not smooth. Under a magnifier it would be

drusy. Photo copyright iStockphoto / halock.

Not So Grape: A cluster of botryoidal quartz of various colors. Not everything with the grape "habit" is purple in

color. Much is green, gray, yellow or blue. Photo copyright iStockphoto / jonnysek.

The name "grape agate" has stuck as a marketing term. However, the name is a misnomer. Misnomers are names that are scientifically incorrect. There are no arguments with "grape" because of its purple color. But, the use of "agate" as a species/variety name draws objections. Here is an analysis...

Grape Agate: This name is inappropriate because <u>agate</u> should have parallel internal banding. The name agate also implies quartz with a microcrystalline texture; however, most of the grapes have a drusy surface - making them megascopically crystalline.

Grape Chalcedony: Like agate, the name chalcedony





implies quartz with a microcrystalline texture.

Grape Quartz: The name quartz fits better than both agate and chalcedony. But, the appropriate name for purple quartz is <u>amethyst</u>.

Botryoidal Amethyst: The name "amethyst" better honors mineralogical and gemological definitions, and the adjective "botryoidal" communicates a rounded shape.

So, this author concludes that the name "botryoidal amethyst" is a name that is scientifically correct, but is not as much fun as "grape agate".

COMMUNITY SUPPORTERS



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MINERAL OF THE MONTH



What is this, other than beautifully blue and bubbly? This is Gibbsite. I will admit I picked this mineral because of the name Gibbs, who is a favorite one of my TV characters. But, what is it? Gibbsite is an aluminum hydroxide mineral that forms in a very similar way to mica. The difference is that in the octahedron (eight sided bonding) fromed between the aluminum and the hydrogen/oxygen groupings, in Gibbsite, every third gouping is missing it's central aluminum molecule, which stops it from forming into even sheets, like mica. Because of this weird missing bond, it doesn't have a very defined cleavage plain, which also makes it very soft. It tends to form is week groupings in cluster like spase or bubbles. Gibbsite can be green, blue, white, yellow, clear or even red and is located in Norway, Jamaica, China, Brazil and Arkansas.

FROM THE BENCH

This is going to be a 5-part series. If you wanted to print and tape them together, I bet they would look really good on the wall of your shop!

LAPS USED TO POLISH GEMS

Hardness 3 ½ & less, (Group Three Faceting for Amateurs)
To prepare surfaces, use <u>Ultralap silicon carbide laps</u>;
23 micron (600±), 8 micron (1000±), 3 micron (8000±).
Polish laps: Ultralaps, chrome oxide, iron oxide.
Wax lap: (85% beeswax, 15% carnuba wax).
Pitch lap: (50% rosin, 50% tar, variable).
Agent; alumina on wax & pitch. Speed 50-100 rpm.
Mineral examples; barite, calcite, cerussite, cinnabar.

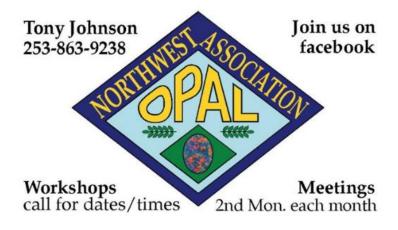
Next month's segment: Hardness 3 $\frac{1}{2}$ to 5, to be continued...

SUNSHINE REPORT

With everything going on, we have started meeting again, but our attendance at the meetings is still low as members are staying safe. As a group we need to bring to eachother's attention members who need healing thoughts or prayer sent their way.

If you know of anyone else who needs to be recognized in next months Sunshine Report , please email or call

Tony Johnson at <u>vnotopals@outlook.com</u> (253) 863-9238



Local Area Shows for 2024

DATE & TIME	CLUB	SHOW	LOCATION
July 2024 20th 10am—5pm 21st 10am—5pm	Darrington Rock & Gem Club	Rock and Gem Show and Sale Field trip Saturday	Mansford Grange 1265 Railroad Avenue Darrington, WA, (behind IGA)
July 2024 26th 9am—6pm 27th 9am—6pm 28th 9am—5pm	Washington Agate and Mineral Society	2024 Rock & Gem Rendezvous	Tenino City Park 300 Park Ave W Tenino WA
August 2024 2nd 10pm—5pm 3rd 10am—5pm 4th 10am—4pm	Far West Lapidary & Gem Society	58h Annual Gem and Mineral Show \$1 adults, 12 & under free w/Adult	The Mill Casino The Salmon Room 3201 Tremont St, HWY 101 North Bend, OR
August 2024 9th 10am - 5pm 10th 10am - 5pm 11th 10am - 5pm	Puyallup Valley Gem & Mineral club	2024 Jim Christian Memorial Show In The Trees	Tacoma Sportsmen's club 16409 Canyon Rd East Puyallup, WA
August 2024 16th 9am - 5pm 17th 9am - 5pm 18th 10am - 4pm	Willamette Agate & Mineral Society	End of Summer Rock and Gem show	Polk County Fairgrounds 520 S. Pacific Hwy Rickreall, OR
September 2024 7th 10am – 5pm 8th 10am – 4pm	Southern Washington Mineralogical Society	58th Annual show	Cowlitz Co. Fairgrounds Events Center 1900 7th Ave Longview, WA
September 2024 21st 9am—5pm 22nd 10am—4pm	Clallam County Gem And Mineral Association	Fall show	Vern Burton Community Center 308 East 4 th Street Port Angeles WA
September 2024 21st 10am—5pm 22nd 10am—4pm	Billings Gem and Mineral Club	Fall show	Eagle Seeker Community Center 1125 Broadwater Ave Billings, MT
September 2024 21st 10am—5pm 22nd 10am—4pm	Fraser Valley Rock and Gem Club	Annual show	New Venue Aldergrove Kinsmen Community Center 26770 29th Ave Aldergrove, BC
October 2024 4th 10am-6pm 5th 10am - 6pm 6th 10am—5pm	Portland Regional Rock and Gem Show	44rd Annual \$7, under 12 free with adult	Wingspan Event Center 801 NE 34th Ave Hillsboro, OR
October 2024 5th 10am - 5pm 6th 10am—5pm	Marysville Rock and Gem club	48th Rocktoberfest	Evergreen State Fairgrounds Display Bldg #500 14405 179th Ave SE Monroe, WA
October 2024 5th 10am - 6pm	Idaho Falls Gem & Mineral Society	13th Annual show	Bonneville Co. Fairgrounds 1542 East 73rd South Idaho Fall, ID
October 2024 19th 10am—5pm 20th 10am—4pm	Hell's Canyon Gem Club	Hell's Canyon Annual Show \$5 for weekend	Nez Perce County Fair Building 1229 Burrell Avenue Lewiston ID 83501
November 2024 23rd 10am - 5pm 24th 10am - 5pm	Kitsap Mineral and Gem Society	Fall Festival of Gems	The President's Hall 1250 NW Fairgrounds Road Bremerton, WA

2024 SHOW & TELL THEMES and PROGRAM NIGHT EVENTS

MEETING	DATE	SHOW & TELL THEME	PROGRAM NIGHT EVENT
January - 1st Meeting	January 12, 2024	Crystals or any field trip finds	
January 2nd Maating	January 26, 2024	Last Years Purchase or any field	Field Tripe
January - 2nd Meeting	January 26, 2024	trip finds	Field Trips
February - 1st Meeting	February 9, 2024	Red & Pink or any field trip finds	
	-	Hearts Made of Stone or any field	
February - 2nd Meeting	February 23, 2024	trip finds	Carl Carlson
March - 1st Meeting	March 8, 2024	Green or any field trip finds	
March - 2nd Meeting	March 22, 2024	Geodes any field trip finds	Jerry's Rock Shop
Maron 2nd Meeting	WIGHTEL, ZOZ-	Coodes any neid the mas	Cerry & Rock Chop
April - 1st Meeting	April 12, 2024	Obsidian or any field trip finds	
April - 2nd Meeting	April 26, 2024	No Show & Tell	Auction/Potluck
May - 1st Meeting	May 10, 2024	Thundereggs or any field trip finds	
May - 2nd Meeting	May 24, 2024	No Show & Tell	Fluorescent Minerals
June - 1st Meeting	June 14, 2024	Any Agates or any field trip finds	
Julie - 13t Meeting	Julie 14, 2024	Any Agates of any field the finds	Tailgate Party @ Grange
June - 2nd Meeting	June 28, 2024	No Show & Tell	Parking Lot
July - 1st Meeting	July 12, 2024	Metals or any field trip finds	
July - 2nd Meeting	July 26, 2024	No Show & Tell	Jerry's Rock Shop
August - 1st Meeting	August 9, 2024	Jaspers or any field trip finds	
7 tagaet Tet Weeting	7 (agust 6, 262)	dappers of any note any mide	Picnic & Tailgate Party at club
August - 2nd Meeting	August 24, 2024	No Show & Tell	house on Saturday
	September 13,		
September - 1st Meeting	2024	Gemstones or any field trip finds	
September - 2nd Meeting	September 27, 2024	No Show & Tell	Mini Demonstration Day
September - Zha weeting	2024	NO SHOW & Tell	Willi Demonstration Day
October - 1st Meeting	October 11, 2024	Opals or any field trip finds	
October - 2nd Meeting	October 25, 2024	No Show & Tell	Auction/Potluck
November - 1st Meeting	November 8, 2024	Serpentine/Jade or any field trip finds	
Trovernoer - Tac Meeting	November 22,	III III III III III III III III III II	
November - 2nd Meeting	2024	No Show & Tell	BINGO Night
	Dogombor 4.4		Holiday Panguat/Officer
December - 1st Meeting	December 14, 2024	No Show & Tell	Holiday Banquet/Officer Installation on Saturday
December - 2nd Meeting	No Meeting	No Show & Tell	

2024 Elected Officers				
Title	Name	Phone	Email	
President:	Tony Johnson	(253)753-5938	johnsontony068@gmail.com	
Vice President:	Dennis Batchelor	(360)870-8741	hobbyhorse51@gmail.com	
Secretary:	Patti Dailey-Shives	(253)678-0029	pattidailey28@gmail.com	
Treasurer:	Jillian Higgins	(253)355-3146	J.Y.Higgins@gmail.com	
Association Director:	Mark Baumann	(253-310-5891	rocksnreptiles4me@gmail.com	
1 Year Director:	Richard Yang	(208)596-8340	ryang0711@gmail.com	
2 Year Director:	Tasha Parker	(206)291-8068	surfange1830@gmail.com	
1 Year Trustee:	Nathan White	(206)349-7054	nate.white77@gmail.com	
2 Year Trustee:	Glenn Rodrick	(253)531-4062	gtrodi@comcast.net	

2024 Committee Chairs				
Title	Name	Phone	Email	
Clubhouse Coordinator	Tony Johnson	(253)753-5938	johnsontony068@gmail.com	
Club Show Coordinator	Jillian Higgins	(253)355-3146	J.Y.Higgins@gmail.com	
Field Trips Coordinator	Nathan White	(206)349-7054	nate.white77@gmail.com	
Web Master	Jillian Higgins	(253)355-3146	J.Y.Higgins@gmail.com	
Editor/Communications	Jillian Higgins	(253)355-3146	J.Y.Higgins@gmail.com	
Membership	Jillian Higgins	(253)355-3146	J.Y.Higgins@gmail.com	
Sunshine	Tony Johnson	(253)753-5938	johnsontony068@gmail.com	
Newsletter	Jillian Higgins	(253)355-3146	J.Y.Higgins@gmail.com	
Mineral Council	Mark Baumann	(253-310-5891	rocksnreptiles4me@gmail.com	





The Puyallup Valley Gem & Mineral Club is a member of the American Lands Access Association and the Washington State Mineral Council. You can find more information about the ALAA at: amlands.org or the WA Mineral Council at:

HAPPY BIRTHDAY

July 2024

Ryan Armstrong – 1st Larry Clampitt - 1st Aaron Guay – 1st Aurora Lawrence - 2nd Michael Day - 3rd Hiromi Saito – 3rd Janis Langdahl - 3rd Carrie Charpentier -

Kevin Walker – 4th Chloe James – 5th Jessie James – 5th Mary New – 5th Daimy Mitchell – 6th Gary Burgess – 7th Lillith Higgins – 9th Jack Lancaster – 9th Robert Nicks – 9th Debbie Overman -

Richard Yang – 11th Max Irvin – 12th Lois Knoll - 12th Sandy Hoffman – 13th Paul Jentlie – 13th Timothy Jackson – 14th Patty Jordan – 14th Joshua Paine – 15th Riley Paine – 15th Fred Welcher – 15th Audrey Forcier - 17th Sarah Swanberg – 19th Cindy Craig Jenks –

21st

Candace Gardipee -

22nd

Angie Clausen – 25th Clifford Anderson -

25th

Morgayne Nicks – 27th Jeanine Crijns – 30th Sharnel Divona – 30th Paul Supplee – 30th David Larson – 31st

ELEMENTS OF MINERALS

T. Α R \mathbf{F} C IJ M Т Т Ε Α R Т U Ν Μ U Ι D R 0 F R Ε Η Т U Α U R Ε Т 0 R R Ε 0 G Α Μ Ι В Т Υ C 0 L Η Α F Ν Ι U Μ R Ε Μ \mathbf{E} Ν L Μ Τ Ρ Τ 0 Ρ Χ Μ U Ι 0 U L Ι Α Ι Ε N Τ Τ R Τ S Τ Ι D L Μ U Ι Ν 0 K R N Τ S U U Ν G Τ Ε Ν Q Μ С 0 Ι Μ Η Ι Ι В Ε R Υ \mathbf{L} L Ι U Μ U R U U Μ 0 Μ Τ F Μ R В Ι Ι U Α Ε Ν Ι 0 Μ G Ι Μ R L Ν U Ι Η R Υ Ν Ν R L D R Μ U G W S Ρ U Т Η R Ε G U C Τ Ν D Μ 0 Μ Ε Α 0 Ε Ε K Т Μ Ν Η L G U L S G R G Ν R Ι Ε Α 0 Ε U 0 Μ L Α Υ Ι Η Ι Т Ι Τ G L Ε D S Н R R Ε K \Box С Ε 0 U Ε Ν U R Υ 0 Ι Υ U Т Η Ν M R Χ Т L IJ Μ Ν Ι Ε М L Μ I IJ М Α U F G D 0 Ι Ν Ι Μ U Ι R Ε Μ

- 1. ALUMINIUM
- 10. HAFNIUM
- 19. RHODIUM

2. ARSENIC

- IRIDIUM 11.
- 20.

RUTHERFORDIUM

- 3. BERYLLIUM
- 12. LAWRENCIUM
- 21. SELENIUM

- 4. BROMINE
- 13. MAGNESIUM

- 5. CERIUM
- 14. NEODYMIUM
- 22. STRONTIUM 23. TELLURIUM

- 6. DUBNIUM
- 15. NITROGEN
- 24. TUNGSTEN

- 7. EUROPIUM
- 16. OXYGEN
- 25. YTTRIUM

- 8. FERMIUM
- 17. PLUTONIUM
- 26. YTTERBIUM

- 18. PROMETHIUM

- 9. GADOLINIUM
- 27. ZIRCONIUM







ROCK-A-TEER

Newsletter of Puyallup Valley Gem & Mineral Club P.O. Box 134 Puyallup, WA 98371