



# Wausau Prospectors

Volume 5, Issue 10

July 2012

## NEXT MEETING –September 1st - at Cedar Creek Mall in Wausau – 11AM

The mall is located next to I-39 just north of Gander Mountain. Take I-39 exit 185 – Business 51 North to county road XX/ Imperial Avenue. Turn right and then go straight ahead. The community Room is located at the main entrance of the mall. BBQ will be provided. Please bring a dish-to-pass.

### Presidents Letter

We sure have had our share of hot weather this year. I have been in the river a couple of times sluicing and the cool water feels good on the body.

The Snyder Park Outing is August 3<sup>rd</sup>, 4<sup>th</sup>, & 5<sup>th</sup>. I plan to sluice most the day on Friday. Saturday is the Cookout in the afternoon and there will be plenty of prospectors swapping stories. You got to love it.

The Discovery Channel will be airing a 3<sup>rd</sup> season of Gold Rush Alaska October 26<sup>th</sup>, 2012. It will be interesting to see how many ounces of gold they find this year. Todd is hoping for 1000 Ounces. I hope he gets it but maybe 200 ounces would be more realistic.

Rick and Peggy Gremler where at the Alabama Gold Camp near Lineville Alabama in May and had a good time. The camp is located in the heart of Alabama's gold country. I looked it up on the Internet and it has great potential for an Outing next year. I love grits....

Product review (my personal reviews)

1. **Gold N Sand Hand Dredge** - While it has a lot of suction, it plugs up very quickly in the nozzle entry point. It is very useful if you have the rocks in a bedrock crack cleaned out and then you suction out the fine material, but for basic dredging it is a no go for me.
2. **Keene Sluice Stand** – This is one of those products I just had to try out and I love it. If the water is a little high in the stream to set your sluice up, you just put this stand in the water and adjust the legs to the height and angle that you need and place your sluice on it. It is designed for the A51 & A52 Sluice box and other sluice boxes will fit it too.

Kurt

### CLUB OFFICERS

**President:** Kurt Bublitz  
(715) 340-2831  
[Lizzy101@charter.net](mailto:Lizzy101@charter.net)

**Vice Pres.:** Dennis Laubenstein  
(715) 752-3404  
[dennis.laubenstein@yahoo.com](mailto:dennis.laubenstein@yahoo.com)

**Secretary:** Carl Mauritz  
(715) 253-2228  
[gold@huntforgems.com](mailto:gold@huntforgems.com)

**Treasurer:** Barb Bublitz  
(715) 340-9720  
[Lizzy101@charter.net](mailto:Lizzy101@charter.net)

**Outings** Robert Hoffman  
(715) 551-0426  
**Coordinator:** [Death2wabbits@yahoo.com](mailto:Death2wabbits@yahoo.com)

**Community Outreach Officer:** Ken House

**Club Historian:** Peggy Gremler  
[rgremler@charter.net](mailto:rgremler@charter.net)

**Club Librarian:** Janice Laubenstein  
[janicelaubenstein@yahoo.com](mailto:janicelaubenstein@yahoo.com)

**Web Master:** Rick Gremler  
[rgremler@charter.net](mailto:rgremler@charter.net)  
<http://wausauprospectors.com>

## 2012 WAUSAU PROSPECTORS MEETINGS

August 4th & 5th - **Outing**, Snyder Park & Campground.  
September 1st - **Meeting**.  
September 15th & 16th - **Outing**, Sugar Creek  
Campground, Crawfordsville Indiana.



### SECRETARY'S REPORT

There was no meeting this month. I hope you are all out finding that yellow GOLD. Next Month we have the outing at Snyder Park Campground August 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> 2012. I hope you are all having a great summer with your family.

### RAFFLE WINNERS

There are no raffles this month. But come to Snyder Park Campground August 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> 2012 and have a great time with the club members and cookout with raffles.

### ITEMS FOR SALE

Anyone wanting to list items for sale in the monthly news-letter should contact Carl at (715)253-2228 or at [gold@huntforgems.com](mailto:gold@huntforgems.com)

### GPAA Renewal Reminder

#### HEY WAUSAU PROSPECTORS!! !

You don't have to be a member of the Gold Prospectors Association of America to be a member of the Wausau Prospector, A GPAA Chapter: but if you're not a member of the GPAA, you are missing out on a lot of really good stories and information by not getting the "Gold Prospectors" magazine and the "Pick & Shovel Gazette" paper, plus the Mining Guide. Check out the GPAA website at: <http://www.goldprospectors.org>  
For the Wausau Prospectors members who join or renew the GPAA, please let them know you are a member of the Wausau Prospectors GPAA Chapter. We earn Chapter credits from the GPAA that can be used like cash when ordering catalog items from the GPAA that we use for our club such as raffles. Joining the GPAA includes many benefits. Find out at <http://www.goldprospectors.org/membership/gpaa> or call the GPAA toll free: 800-551-9707



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CoolClips.com



**Wausau Prospectors**

Carl Mauritz, Secretary

PO Box 233

Tigerton, WI 54486-0233

ADDRESS SERVICE REQUESTED

**Other Club News**

**Greenbush Wisconsin**

Chapter of the GPAA – holds meetings on the 2<sup>nd</sup> Saturday of each month at 3pm in the Greenbush Town Hall, N6644 Sugarbush Rd, Greenbush, WI. For more information contact Ron Smith at (920)207-4092 or visit [www.wisgpaa.org](http://www.wisgpaa.org).

**Mid-State Metal Detecting Club**

Mid-State Metal Detecting Club meets every 3<sup>rd</sup> Wednesday of each month at 7pm in the Stevens Point area. Contact Steve Miller for more information (75)572-1845.

**Tomah Wisconsin**

Chapter of the GPAA – holds meetings on the 3<sup>rd</sup> Saturday of each month at the La Grange Town Hall, 22731 Flint Ave. 1.8 miles west of Tomah on Hwy-21. For more information contact Mike Fait at (715)384-9265 or e-mail at [mgfait@charter.net](mailto:mgfait@charter.net)

**.Wisconsin Northwoods Adventures**

Chapter of the GPAA – holds meetings on the 2<sup>nd</sup> Saturday of every month. For more information contact Tom Frank at (715)579-7111 or visit <http://www.wisconsinpaa.com>.

**HELPFUL WEBSITES**

**Wausau Prospectors** <http://wausauprospectors.com>

Carl Mauritz [www.huntforgems.com](http://www.huntforgems.com)

Carl Mauritz Forum [www.huntforgems.com/goldminers](http://www.huntforgems.com/goldminers)

Deerfield Detectors [www.deerfelddetectors.com](http://www.deerfelddetectors.com)

Chippewa Falls Metal Detector [www.threeseasonstreasurehunters.com](http://www.threeseasonstreasurehunters.com)

GPAA [www.goldprospectors.org](http://www.goldprospectors.org)

Green Bush Chapter [www.greenbushgpaa.com](http://www.greenbushgpaa.com)

Rick Gremler's Wausau Site <http://www.ricksbucketlist.com>

Heart of WI Gem & Mineral <http://fromtherockroom.com/club>

Please send me your stories or prospecting tips for consideration in future newsletters, I want to make this informative and interesting for all readers and I need your help. Thank you [gold@huntforgems.com](mailto:gold@huntforgems.com) or Carl Mauritz, PO Box 233, Tigerton, WI 54486

## The Wausau Prospectors Outing to Snyder Park Campground August 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> 2012

This Outing will take place at the Snyder Park Campground, located about 7 west of Neillsville Wisconsin off of HWY 10. Watch for the park sign. This is a large park with a lake and the park has a lot to offer. There are restrooms, shelters, fishing, swimming, ATV Trails, camping, etc. All personnel are responsible for getting and paying for their own camp site. Come up on Friday or earlier and do some prospecting on Wedges Creek. The activities for this Outing will take place on Saturday August 4<sup>th</sup>. 2 nice pamphlets to get from the Clark County Forestry and Parks Department would be the [Clark County Snyder Park Campground](#) and [Clark & Jackson County ATV Trails](#) (this one has a nice map of the area).

### **Saturday Activities:**

Good places to pan and sluice are to the north where Wedges Creek flows into the lake. The further north you go up the creek, the shallower it gets. There is an ATV Trail that follows the Creek north for about 3 ½ miles. A good place to access the river and still be on county land is where Chili Road crosses the creek about 3 ½ miles to the north of the lake. If you access the creek at Chili Road you must stay on the south side of the road to be on county land. You can also pan and sluice on the south side of the dam where Wedges Creek flows out of the lake. Always think safety when entering the water from the bank.

At 2 p.m. on Saturday, there will be a short meeting, a cookout, and raffles at picnic shelter # 2. Please bring a dish to pass. The club will be providing the hamburgers, hotdogs, condiments, buns, paper plates, plastic ware, and napkins. **Bring your own beverages.**

### **For more information, maps and brochures contact:**

Clark County Forestry and Parks Department  
517 Court Street  
Neillsville, WI 54456

Phone: 715-743-5140 or 1-888-252-7594

Website:

<http://www.co.clark.wi.us/ClarkCounty/Departments/forestryparks/ParksCamp/Snyder.asp>

Here is some interesting reading on Gold in Wisconsin. Some information is now outdated.

**ASHLAND COUNTY:** Old newspaper articles report a significant show of gold values at the Northern Belle Mine, W 1/2 SW Sec. 22 T.45N R.4W west of Penokee Gap. Cox (2002) compiled additional references indicating silver was also found. Exploration for gold has also occurred in sections 15, 22, 23 and 34 in T.45N R.4W (U.S.G.S., 1976). Cox (2002) describes attempts to placer mine in Brunschweiler Creek in sec. 22. during the 1880's. Gold, copper and silver were worked briefly in an operation called the Chicago Mine in 1879-1881 in the north 1/2 of sec. 22 (Cox, 2002). Other operations of this same era and extent were in NE sec. 16, T44N R3W; NW sec. 6 T44N R5W, SE sec. 12 T45N R3W (Cox, 2002).

**BAYFIELD COUNTY:** Exploration for gold was carried out in the SW Sec. 2 and the NW Sec. 11 (Davis Hill) in T.44N R.6W north of Namekagon Lake (U.S.G.S.,1976). At Davis Hill, the gold was found in a conglomerate that also showed some silver and copper values (Wisc. Geol. Nat. Hist. Surv. files).

**CLARK COUNTY:** A trace of gold was detected by assay of a quartz vein cutting a talc and chlorite bearing schist "from Clark County." Associated minerals were pyrite, magnetite and arsenopyrite (Irving, 1874b).

**DANE COUNTY:** Placer gold can reportedly be panned along Black Earth Creek near Cross Plains (Maslowski, 1985).

**DOUGLAS COUNTY:** Flakes of native gold were reported in fine-grained diabase found on the "Federal Copper Mining Property" in the south-west corner of Douglas County. The rock supposedly assayed at \$9.00 per ton in 1902 (Thomas, 1902).

- Placer gold can reportedly be panned along the Poplar and Middle Rivers (Maslowski, 1985).

**DUNN COUNTY:** A shaft, possibly for the exploitation of alluvial gold, is found near Knapp in Sec. 16 T.28N R.14W (Olcott, 1970).

**EAU CLAIRE COUNTY:** Recovery of gold from sediment collecting in crevices in bedrock at Big Falls (SW Sec. 13 T.27N R.8W) was rumored in the 1930's (Wis. Geol. Nat. Hist. Surv. files, 1985).

**FOREST COUNTY:** Gold is a minor component of the Crandon massive sulfide deposit in sec. 25 T.35N R.12E. It is here associated with sphalerite, chalcopyrite and galena (Wis. Geol. Nat. Hist. Surv. files, 1985).

**IRON COUNTY:** Exploration for gold took place at a few sites in the county in the 1800's, with little or no production. Sites mentioned are the Eagle prospect in T45N R.2E and the Maxim prospect in sec. 10 T.45N R.1W. (Cox, 2002).

**LAFAYETTE COUNTY:** A single grain of native gold was found in drill core taken from the "Nigger Jim" mine, south of Rewey at the NE SW Sec. 32 T.4N R.1E. The gold was associated with galena, barite and pyrite (Heyl et. al., 1959; Taylor, 1964).

**MARATHON COUNTY:** Gold was found as tiny grains 0.5 mm in maximum diameter in a pocket in a pegmatite dike along the east edge of the Wausau pluton. The gold apparently formed by the alteration of the gold telluride, calaverite (Falster, 1987).

- Gold is reported as occurring at several localities around Mosinee and Wausau in Sec. 8 T.26N R.7E, Sec. 32 T.27N R.7E, Sec. 13 T.27N R.8E and Sec. 24 T.28N R.7E (Dutton and Bradley, 1970).

- Gold in quartz veins occurs at the Reef property prospected by Niranda about 12 miles E. of Wausau. The explored reserves were estimated at between 120,000- 140,000 ounces. Some of the gold is as visible flakes and small crystals (Anonymous, 1991).

- Gold associated with pyrite, chalcopyrite, sphalerite and malachite is found in chlorite schist near Eason just southwest of the center of Sec. 26 T.29N R.9E. A 200-foot deep shaft was sunk at this locality, but production, if any, was minor (LaBerge and Myers, 1983).

**MARINETTE COUNTY:** An exploration shaft was sunk in the NE SW Sec. 16 T.36N R.21E, finding gold running 0.01 oz/ton with silver values in a "porphyroblastic argillite" east of Beecher. This deposit, which is apparently small and has never been mined, is referred to both as the "Micauno exploration shaft" and the "old Victor Smeister prospect" (Wis. Geol. Nat. Hist. Surv. file, 1985).

- At the "Archie gold prospect", west of Beecher, minor gold values were found in 1937 in east-west trending quartz veins cutting greenstone, gabbro and quartz diorite. The location of the prospect is given as SW SW Sec. 8 and NE Sec. 17 T.36N R.20E (Wis. Geol. Nat. Hist. Surv. files, 1985).

**ONEIDA COUNTY:** Gold is a minor component of the Pelican River massive sulfide body in Sec. 29 T.36N R.10E south of Rhinelander. Gold with silver and electrum occurs in the Lynn massive sulfide deposit (Kennedy et. al., 1991).

**PIERCE COUNTY:** Flour gold was worked in 1887-1890 by panning and sluicing placer deposits along Rock Elm Creek, Plum Creek and their tributaries south of the town of Rock Elm (T.26N R.15W). Over a dozen tiny diamonds were also recovered during the operations (Cannon and Mudrey, 1981). More recently, in 1985 exploration by the minerals division of the Superior Oil Company confirmed the existence of significant placer gold in the area but was unable to locate the bedrock source (W. S. Cordua field notes).

**POLK COUNTY:** Placer gold as small flakes was reported from a glacial drift deposit resting unconformably on Cambrian shales along the St. Croix Valley north of St. Croix Falls in the West 1/2 of sections 18, 19, and 30 T.34N R.18W (Thomas, 1902). Thomas also reported the finding of flakes and nuggets in sediment in crevices and joints in the basalt bedrock in the St. Croix Dalles in SW Sec. 30 T.34N R.18W. Residents would flock onto the outcrop in search of gold whenever the river level was low because of the closing of a logging dam upstream.

**RUSK COUNTY:** Gold occurs as flakes and masses in the massive sulfide ore body of the Flambeau deposit south of Ladysmith. It is found in the gossan as well as in quartz-rich pods and veins in the supergene zone where it is associated with sphalerite, chalcopyrite and galena (LaBerge, 1995, Rosemeyer, 1997).

**TAYLOR COUNTY:** Tiny gold xls occur in quartz-rich gossan in the Bend deposit, NW sec. 2 T.32N. R.2W., northeast of Gilman. (DeMatties and Rowell, 1991).

## Infinity jet for gold dredge

Eduction systems no matter what they are called a power jet, infinity jet or what have you, rely upon the simple laws of physics. Bernoulli figured out a way of mathematically figuring the velocity of a jet of water produced with a given Head (water pressure expressed in column feet of water). This is expressed as:  $V^2 = 2gh$ , where V is velocity in feet per second, g is the gravitational acceleration constant of 32.174 feet/second per second and h is the head pressure expressed in feet. Given a pump with a 6.1 inch diameter impeller spinning at 3,600 rpm and a pump efficiency of 75% the max. head in feet it will produce is approx. 80 feet. A column of water 80 feet high will exert a pressure of 35 psi at the base. This pressure will exert a max. velocity jet of water at 72 feet/sec. and no more.

Losses in an eduction system are horrendous and present systems such as Keene's power jet are at best 50 to perhaps 60% efficient. The eduction system works by injecting a motive fluid under pressure at a shallow angle into a larger tube. The shallower the angle the more energy of the motive fluid is transferred along the centerline of the larger tube or in this case, the suction tube. From pictures of Keene's power jet it looks like this angle is about 10 degrees. Just from the angle of entry the energy loss alone is 17%. These losses are caused by the turbulence created from the motive fluid that does not impart energy along the long, centerline of the suction tube. Additional losses may occur in the power log from a rough surface or other factors that can cause unwanted turbulence. The effects of a jet of water being injected into a slower amount of water creates heat as well as turbulence. This heat causes the water to heat up. You would not notice it when in operation on a stream where you use the water just once, but if you kept using the same water as your motive fluid the temp. would rise measurably in a few minutes or an hour depending upon how much water was in the recirc. system.

The key to a more efficient eduction system is to eliminate or reduce as much turb. as possible and inject the motive fluid in as shallow an angle as possible. A number of years ago a gentleman invented what was called the "couple jet". It was more efficient than Keene's power jet or just about any eduction system on the market. Its drawbacks were that it was heavier and cost more. Its design featured a water injection of 360 degrees with a very shallow angle of entry. Much the way of one slightly smaller tube fitting within the larger tube. The motive fluid would flow between the outer surface of the smaller tube and the inner surface of the larger tube. The ol' timers reading this thread will know what the couple jet is. Keene's power jet has been around for many years and many imitations have arisen. For the money, weight and durability the power jet is tough to beat. Doug.

Gentlemen; If I may jump in here I may be able to help you size the oriface for your eduction unit. I'll need to know the engine hp, if any compressors or other equipmet attached, pump rating (psi and gpm), altitude that you wish to dredge at and if you are building a ring jet ( continuous opening around inner tube which it sounds as if you are) or single or multiple jets and also the size of the suction hose.

For starters the 3/16 gap around an 1 1/2 inch OD tube tells me the inside dia. of the larger tube is 1 7/8 inches. This gives a working area of approx. 1 sq. in. With a .9 coef. of contraction and line losses at 15% and a working pressure of 35 psi your pump had better put out 175 gpm @ 35 psi and be 75% efficient. Figure additional loss for altitude at 5% for every 1000 feet in altitude and you had better have a 6.5 to 8 hp engine. That's enough to power a 4" dredge and produce a suction hose velocity of between 16 and 20 feet per second. Doug.

Bill, most manufacturers of dredges design their jets to operate at extreme conditions, ie, 4,000 feet plus altitude and do not want to exceed the safety margins that the engine manufacturers require in order be able to buy OEM. This is built in to the dia. or working area of the jet and is considerably less than what the engine and pump combination can produce at sea level with no safety factor and min. losses. This is why you get only 10 to 11 feet per second in your suction hose. Now, if the previous example I gave was designed for a production run then I would design it to have around 14 feet per second vel. in the suction hose. My first dredge was a 3" with 175 gpm pump and a 6 hp Tecumseh. Yes, it could suck a golfball through a garden hose. I had to be careful not to get my fingers pinched at the nozzle. Doug.

**This is from the [Goldminers@yahoo.com](mailto:Goldminers@yahoo.com) group that I belong to.**