



## NUGGETS

- China is now the world's largest market for gold jewelry, with sales of 750 metric tonnes in 2015.
- China is also the #1 gold mining nation and the #1 importer of gold bullion.
- Gold's high value makes e-scraping a fast-growing segment of the recycling industry. 200 laptops will yield about 5 troy ounces of gold!

## INSIDE THIS ISSUE:

GPOC Club & Community	2, 3
GPOC Board & Contact Info	2
Let's Go Gold Panning!	4
What's in that black sand?	5
Gold & Silver Symposium	6
Burro Days	6
The Rock Doc	7
Condition that new pan!	8, 7

# The Prospector's Quill

VOLUME XLII, ISSUE VI

JUNE 2017

## Fun with the Short Line's Push Cars

by  
Steven Wade Veatch and  
Peter Doolittle

The narrow-gauge Colorado Springs and Cripple Creek District Railroad, or Short Line, was built along what is now the Gold Camp Road. By 1901, the train ran all the way from Colorado Springs to Cripple Creek. This was the shortest route from the goldfields to Colorado Springs. Train cars, filled with gold ore, rumbled along the rails behind powerful steam locomotives to mills on the west side of Colorado Springs. The route also operated two daily passenger trains that provided service each way.

Figure 1 is an antique postcard that shows what is known as a "gravity car" that was popular with tourists,

photographers, and other interested people from the Pikes Peak region who took a trip on these gravity cars that rolled down the grade at fast speeds from a point known as the "Summit" eastward to Colorado Springs.

These gravity cars could reach speeds of 40 MPH! What a thrill that must have been in these early days. This car appears to a lever operated handbrake. The location depicted in the postcard is Point Sublime on the Short Line. The lake in the distance is at the Broadmoor Casino, now the Broadmoor Hotel. The white post in this picture is most likely a warning for a crew operating a flanger, or snow plow, that there is a bridge or tunnel ahead. There is probably some structure or obstruction out of

view to the left in the postcard. Note the guard rails between the two outer rails going to the left. Those are usually present on a bridge or trestle, possibly a tunnel, to keep derailed equipment from falling off into the abyss or causing damage to the structure being protected.

This so-called gravity car was known as a push or hand car and was used by section men or "gandy dancers" who were responsible for inspecting and maintaining a section of the railroad track. The gandy dancers used the push cars to get to and from the section they were working on that day. Push cars were a more primitive version of the pump handle handcar depicted in old movies. Someone, standing on the deck of these cars, would push them along on flat or level

track by using a pole they pushed against the ground. In the case of mountain railroads, such as the Cripple Creek railroads, the push cars would be lashed onto the back of a train going upgrade and then allowed to coast down from the top of the pass or grade, carrying a gandy dancer along his section of track.



110—Broadmoor, from Point Sublime.  
Colorado Springs & Cripple Creek Short Line.

Figure 1. This photo shows two tourists riding down a grade of the Colorado Springs and Cripple Creek Railroad on a gravity car. This photo is on a postcard. From the S. W. Veatch collection.



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The Gold Prospectors of Colorado (GPOC) was founded around 1974 as a non-profit organization for recreational gold prospectors in the Colorado area.

Our membership at any given time has grown to over 600 members and continues to grow across the Front Range, the nation, and even the world!

# GPOC Outings & Events Planner

In response to feedback from our members, we are adding a rolling three-month planning calendar to each issue of the Quill. Now you can see and plan for events months in advance—and make requests to the Planning Committee for outings and events in YOUR club! Also check the next page and the GPOC web site at [www.gpoc.club](http://www.gpoc.club) for more info on events including location and start times.


## JUNE 2017

### SPEAKER: RICHARD SWEENEY—NEW PRODUCT KIT

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 GPOC Board Meeting	2 NOMAD Race	3 C Springs Gem Show
4	5	6	7	8	9	10
11	12	13	14 GPOC Gen. Member Meeting	15	16 Gold Panning Championships	17 Gold Panning Championships
18 Dad's Day Gold Panning Championships	19	20	21	22	23	24 GPOC Claims C Springs Coin Show New Member Ori.
25 New Member Outing	26	27	28 GPOC Planning Comm.	29	30	

## JULY 2017

**SPEAKER: RAY GOLDEN, AUTHOR & RESEARCHER**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 	5	6 GPOC Board Meeting	7	8
9	10	11	12 GPOC Gen. Member Meeting	13	14	15 GPOC Campout, N Buena Vista
16 GPOC Campout, N BVista	17	18	19	20	21	22
23/30 Burro Days (30th)	24/31	25	26 GPOC Planning Comm.	27	28	29 GPOC Claims Comm. Burro Days

- **GPOC Board Meetings** are held the 1st Thursday of each month at **7 pm**, Gold Hill Police Station, 955 Moreno Avenue, Colorado Springs, CO, (access from W. Moreno Ave.). GPOC Members only.
- **GPOC Gen Membership meetings** are held the 2nd Wednesday of each month at **7 pm**, Elks Lodge, 3400 N. Nevada Ave, Colorado Springs, CO. The General Public is welcome!
- **GPOC Planning Committee Meeting.** **7 pm** at Denny's on Academy Blvd. & I25, CO Springs. GPOC Members Only.
- **GPOC Claims Committee** Meetings are held at WMMI at **10am**, the last Saturday of the month. GPOC Members Only.
- **GPOC New Member Orientations** are held on Saturdays indicated at 10am @ WMMI. March and June are also followed by a GPOC Power Class—where you can study the GPOC Rules, Ethics, and Regulations—and earn discounts on Power Permits.
- **GPOC New Member Outings** are held the Sunday after New member Orientations. Meet @ 9am in the Cabela's parking lot, off the Ridgeway Parkway exit off I-25, south side of Denver

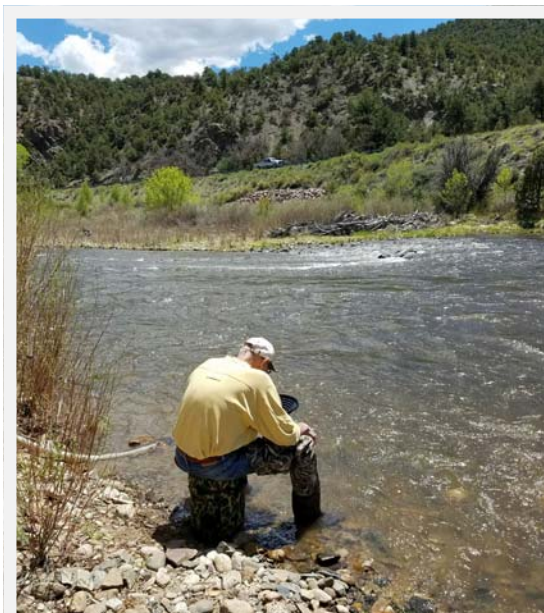
## AUGUST 2017

**SPEAKER: RICHARD SAVERS, WMMI DIRECTOR**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3 GPOC Board Meeting	4	5
6	7	8	9 GPOC Gen. Member Meeting	10	11	12
13	14	15	16	17	18	19
20	21	22	23 GPOC Planning Comm.	24	25	26 GPOC Claims
27	28	29	30	31		



## Let's Go Gold Panning—GPOC's Annual Mother's Day Weekend Outing



The 2017 GPOC Let's Go Gold Panning outing was held Mother's Day weekend at the Woody's claims. This annual even has been a GPOC tradition and the only time GPOC opens up our claims to non-members. The weekend outing gives members the chance to bring their friends and families and teach them the science and art of gold prospecting!

This year the weather was great—a warm May weekend on the Arkansas. Turnout was good and many found a little of that yellor gold!

Photos courtesy of GPOC member Scott Leidenberger



**The Quill wants your feedback! Send us your story ideas, photos, artwork, summary of your prospecting trips, stories, and stuff you want to see published in the Quill. Got a great campsite that you want to share with your fellow GPOC prospectors? Know a nugget of Club history? Found your first nugget? Email us!**

**[TheQuill@gpoc.com](mailto:TheQuill@gpoc.com)**



## Blast From the Past: What's Black Sand?

From the Quill Archives February 2007

by Lou Severini

I have often been asked, "what's that black sand at the bottom of my gold pan?" The answer is both simple and complex at the same time. Simple in that the 'black sand' is mostly composed of heavy mineral oxides; complex in that the composition of the 'heavies' depends on where you are panning. In fact, the composition of the black sands will vary with the particular district you are working in, and in many cases even where you are within a given district.

The mineralogy of the source(s) where the placer gold originated, the surrounding rock material, and the placer deposition mechanism determine just what minerals are available to become 'black sand' in the bottom of your sluice box or pan.

There are two specific characteristics that define the minerals that you may find in your black sands. First, the mineral must be resistant to weathering; typically these

Heavy Minerals Found in Black Sands (globally)  
(\* = in Colorado, \*\* = most prevalent)

Mineral	Density
Platinum *	14-20
Gold *	15 - 19
Silver *	10.1-11.1
Tantalite	7.95
Wolframite	7.4
Cassiterite	6.8-7.1
Columbite	5.4-6.4
Scheelite	5.9-6.1
Monazite	4.6 - 5.4
Hematite **	5.26
Magnetite**	5.2
Ilmenite	4.75
Zircon	4.6 - 4.7
Chromite	4.3-4.5
Garnet*	4.25
Rutile	4.23
Sapphire*	4.0
Diamond	3.5-3.53

minerals have relatively high hardness and very low chemical activity. And obviously, the mineral must be relatively heavy so it will tend to concentrate.  
9.4

Some of the materials found within these black sands may be worth more than the gold you are recovering. The potential value of some of these minerals is obvious- e.g., Platinum and Silver. But the value of others is a bit more obscure. A further discussion of black sand minerals and their potential value will be presented in a future article. In addition to the black sands, you may find valuable gem minerals in your pan or sluice. As you can see from the table above, several minerals considered gems are represented (Zircon, Garnet, Sapphire, and Diamond). In many cases these minerals may be found in large enough sizes to be cut into gemstones- early miners in areas of Montana complained bitterly about the "blue gravel" that 'clogged' their sluice boxes. During the California gold rush, several hundreds of diamonds were recovered by the miners- and some may still be recovered there today.

The moral of this article is, make sure to look closely at the material you have washed in your pan, sluice, dredge, or dry washer- you may have recovered more than those gold flakes you have been saving!

## 2017 Territory Days





## Symposium Notice: Gold and Silver Deposits in Colorado

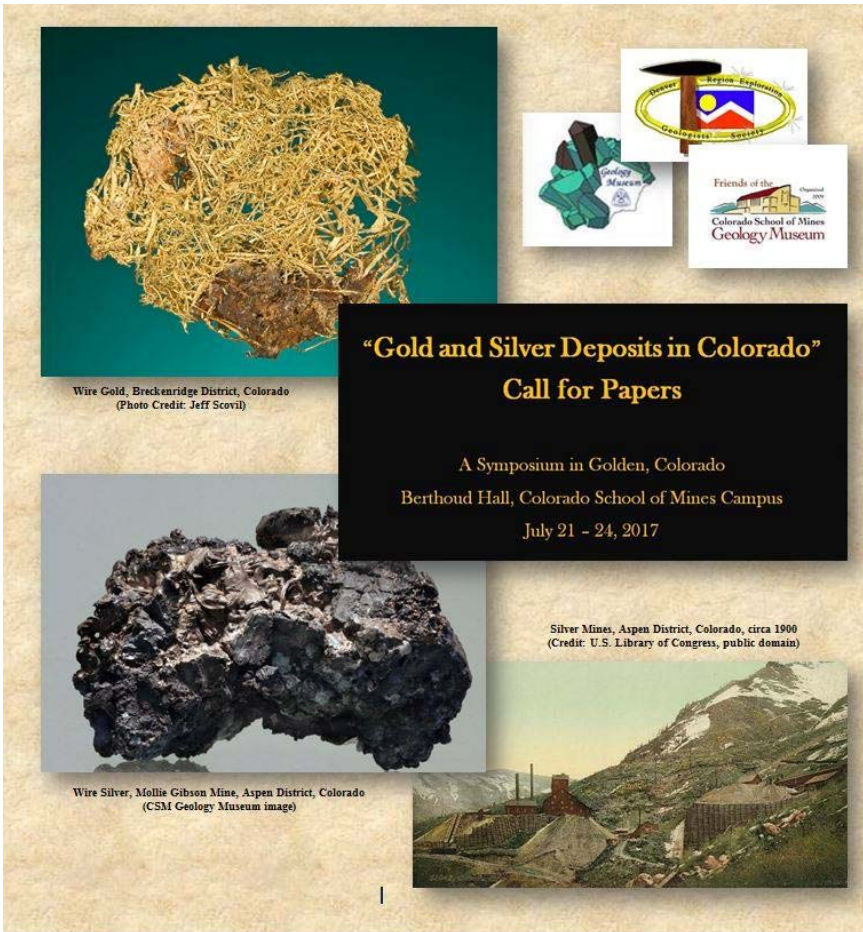
Coming in July, a symposium to be held at the Colorado School of Mines Museum.

Thurs.–Mon., July 20-24, Gold and Silver Deposits in Colorado, a symposium cosponsored by the Friends of the Colorado School of Mines Geology

Museum, the CSM Museum, DREGS (Denver Region Exploration Geologists Society), and Friends of Mineralogy, Colorado Chapter.

The event will

include a welcoming reception at the CSM Museum (Thursday evening), two days of talks (Sat.–Sun., July 22 - 23), a Saturday evening banquet with a speaker, and two days of



**“Gold and Silver Deposits in Colorado”  
Call for Papers**

A Symposium in Golden, Colorado  
Berthoud Hall, Colorado School of Mines Campus  
July 21 - 24, 2017

Wire Gold, Breckenridge District, Colorado  
(Photo Credit: Jeff Scovil)

Wire Silver, Mollie Gibson Mine, Aspen District, Colorado  
(CSM Geology Museum image)

Silver Mines, Aspen District, Colorado, circa 1900  
(Credit: U.S. Library of Congress, public domain)

field trips (Fri. July 21 and Mon. July 24) to historic Colorado gold and silver mining areas, focusing on the Front Range and

the northern half of the Colorado Mineral Belt. More information about the symposium is at: <https://www.facebook.com/LikeCSMGeoMuseum/posts/1822491981371516> . Reg-

istration cost will be \$100; students, \$50; banquet, \$40; each field trip, \$40. The registration form, including the list of field

trips, is now available on the Friends of Mineralogy-Colorado Chapter website, at <http://friendsofmineralogycolorado.org/gold-and-silver-depositsin-colorado-a-symposium/> .



GPOC will be demonstrating gold panning and offering supplies for purchase through the Prospectors Store at the Annual Burro Days this July in Fairplay! Join us!

Burro Days has been an annual event in Fairplay, Colorado since 1948. Burro Days celebrates the role of the burro in mining days of old.

Always held during the last weekend in July, the 69th Annual Burro Days will take place on Saturday, July 29 and Sunday, July 30, 2017.

Over 10,000 people participate in festivities such as: burro races, llama races, kiddies pack dog races, parades, contests, over 140 arts & crafts booths, over 30 food vendor booths, local musical entertainment, dance & BBQ, pancake breakfast, Cowboy Church services and more!

For more information, see:

<http://www.burrodays.com/index.htm>



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Prospecting Colorado since 1974.



## Springtime in the Rockies!



### Metal Detecting for Beginners

Join us for a class in early June  
visit our Facebook Page for more details  
or email me - [cindy@therockdoc.net](mailto:cindy@therockdoc.net)

## The Rock Doc at Prospectors Village



719.539.2019

between Buena Vista and Salida

Join our email list at "[therockdoc.net](http://therockdoc.net)"

## Conditioning a New Gold Pan, *continued*

>>> Page 8



remaining steps apply to steel pans. Copper pans are ready to use at this point in the process.) Once the pan has been thoroughly cleaned, it is placed over a burner on the stove— either a gas or electric stove will work (a 'hot plate' or camp fire will also work). Watch the inside bottom of the gold pan as it heats up - Try to keep the heat even under the pan bottom. As the pan heats it will begin to turn colors; when the bottom gets to a bluish color, take the pan off the heat and let the pan cool down. Burning off the pan ensures no oil remains on the pan or in the metals surface pores, and puts an iron oxide coating (the blue color) on the pan's inside surface. The dark (bluish) color on the pan's bottom helps in viewing any gold particles in the pan during panning operations.

New plastic gold pans also have an oil or wax surface coating remaining from the manufacturing process that need to be removed. In the case of plastic pans, they can not be 'burned off' to remove the surface coating. To clean and condition these pans, use a detergent and steel wool pad to scrub them all over. Insure that the inside of the pan (sides and bottom) are well scuffed during this cleaning process.

Your new pan is now ready to take to the field ... Happy Panning!



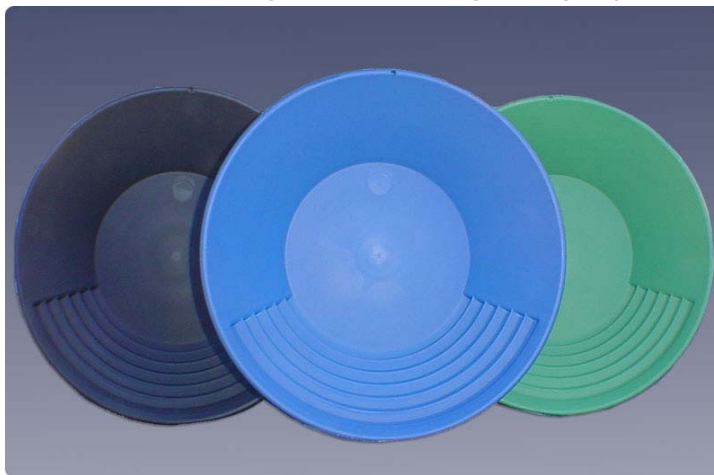




## Conditioning a New Gold Pan

*From the GPOC files*

New gold pans, whether metal or plastic, need to be conditioned prior to use. A new gold pan, as it comes from the manufacturer, has an oil or wax coating on it. Before using a new gold pan this coating must be removed or it will hinder the saving of finer gold during the panning process. Depending on the type of pan (metal or plastic) the correct procedure must be used to clean and condition it prior to use.



**Plastic gold pans, like these from Proline Mining, always need conditioning when new. Plastic pans are coated with release agents from the molding process.**

The procedures below start with cleaning the new pan. For cleaning, a strong detergent that does not contain any skin conditioners or lanolin must be used- Just a small amount of oil can cause relatively large flakes of gold to float away. To check that oil has been removed from the pan's surface, verify that water does not bead or puddle up on the surface.

New metal gold pans need to be 'fired' to remove the oil coating and condition them for use. This is a relatively simple procedure and is typically performed in the kitchen. First the pan needs to be scrubbed all over with detergent and a scrubbing pad- A steel wool kitchen pad works well. (Note that the

>>> Page 7

