

DESERT GOLD DIGGERS GAZETTE

The official publication of Desert Gold Diggers Inc., Tucson, AZ

The Desert Gold Diggers is a non-profit prospecting club based in Tucson, Arizona, devoted to all aspects of small scale mining including panning, sluicing, dry washing, and metal detecting. In addition to promoting small scale prospecting, the club exchanges ideas and information on the various aspects of prospecting & mining. Visit our webpage at <https://desertgolddiggers.com> for more club information.



Desert Gold Doggers has 19 claims in southeastern Arizona. The claims are located in several gold producing areas including the Greaterville, Arivaca, Oro Blanco (Ruby), Las Guijas, Old Hat (Oracle) and Banner (Pinal County) mining districts. The club is constantly evaluating and pursuing additional claims.

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From the Desk of Ralph Montaña

President, Desert Gold Diggers Inc.

Greeting to all you Desert Gold Diggers! I hope everyone has been staying active and is in good health.

Looking at the horizon it appears that the weather is finally starting to cool off after many months of the summer heat. The cooler weather is a great opportunity to get outdoors, enjoy the beautiful Arizona scenery, and look for that shiny yellow stuff.

Our fall outing will be on October 4-6 in the Greaterville area and detailed outing information is contained below. We have a lot of fun activities planned and I hope to see a lot of happy faces out there. As always, I am looking forward to a great time.

I wish everyone well. Be safe out there and enjoy yourself.



Ralph Montaña, Desert Gold Diggers President

October Overnight Outing Information

The Desert Gold Diggers fall overnight outing is October 4-6 (Friday-Sunday) at the campsite located on E. Fish Canyon Road. A map is provided on the following page and there is plenty of room for tents, trailers, and RVs. Please check the local weather forecast prior to the event and plan accordingly for weather conditions.

Events at the outing will include:

- Crockpot cook-off and an outdoor movie (Friday evening, October 4).
- Metal detector hunt (Saturday morning, October 5) at 8:00 AM. The detector hunt will consist of 50 buried targets for prizes of gold nuggets, \$2 bills, and dollar coins.
- Hamburgers, hot dogs, and sides for lunch; cost is \$6 a plate (Saturday, October 5).
- Nugget and gift cards raffle after lunch (Saturday, October 5).

Coffee and breakfast snacks will be provided Saturday morning; coffee only on Sunday morning. The club store will be open for business, so don't miss the chance to pick up a DGD shirt, hat, window decal, or a number of other available items.

Directions fo Campsite: (1) From Tucson proceed on I-10 east and take Exit 281; (2) Drive south approximately 20.5 miles on Highway 83; (3) Turn right (west) onto E. Gardner Canyon Road; (4) Drive approximately 0.8 mile then turn right onto the E. Fish Canyon Road; (5) Proceed on E. Fish Canyon Road (Forest Service Rd #163) approximately 2.6 miles to the campsite; (6) Campsite coordinates are 31.745224, -110.717546. DGD signs will be posted to show the way!

This outing is a great opportunity to meet and get to know the other members of our club. Hope to see you there!

Meeting & Event Summary (October - December 2024)

Membership Meetings

1st Tuesday of every month at 6:00 PM.

Ellie Towne Community Center
1660 West Ruthrauff Road
Tucson, AZ 85705-1253

The monthly meetings are an opportunity for club members to socialize, listen to guest speakers, and participate in nugget raffles at the end of the meeting.

Guests are welcome to attend!

Business Meetings

3rd Tuesday of every month at 6:30 PM.

IHOP
4187 N. Oracle Road
Tucson, AZ. 85705-2721

(Southwest corner of Oracle and
Limberlost Road)

Club members are welcome to attend
the monthly business meetings.

Events Schedule

October:

01: Membership Meeting; 6:00 PM

4-6: (Friday-Sunday) Overnight
Outing: HOPE Claims; 8:00 AM.

15: Business Meeting; 6:30 PM

November:

**06: (Wednesday) since Tuesday,
November 5 is election day**

09: (Saturday) Outing: PILGRIMS
PRIDE Claims; 8:00 AM; Arivaca
Road, Mile Post 7

19: Business Meeting; 6:30 PM

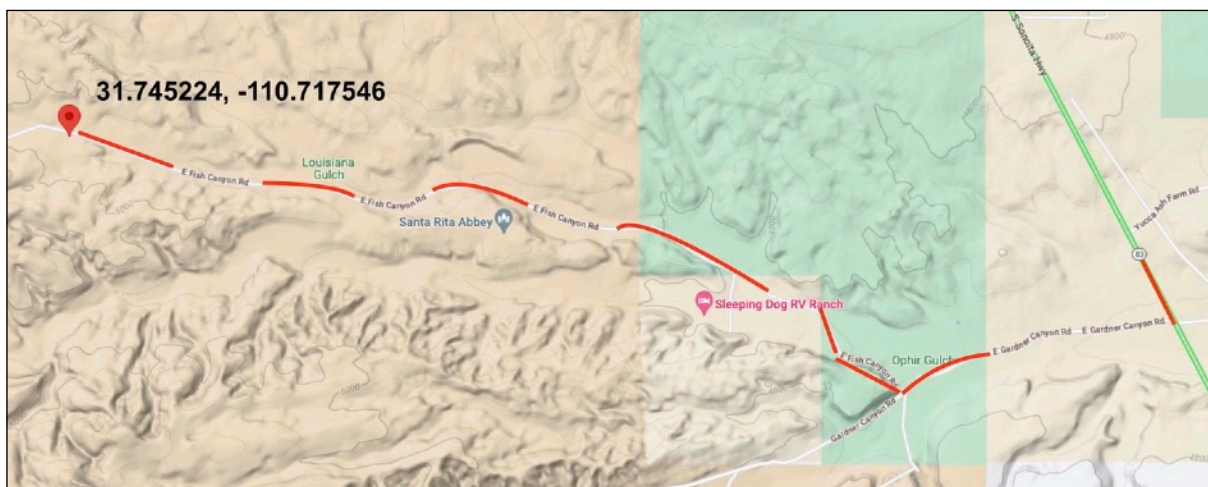
December:

03: Membership Meeting
(Christmas party); 6:00 PM

08: (Sunday) Outing: SNOOZIN
Claims; 8:00 AM; Arivaca Road,
Mile Post 7

17: Business Meeting; 6:30 PM

October Outing: Gardner Canyon Camp Location



Meet Grady Dees - DGD Board Member

My name is Grady Dees and I was born and raised in rural central Florida. Both of my parents were avid fishermen and I inherited their fishing bug. I graduated from high school in 1970 and joined the US Navy in 1971. I served six years as an Avionics Technician with flight crew experience as a SAR crewman in SH-3G Sea King helicopters and Flight Crew Plane Captain/Flight Engineer on C-131 (Convair 340) transport aircraft operating in the Caribbean.

After the Navy, I joined Piper Aircraft Corporation where I was involved in avionics flight test support for the development of the Cheyenne III, IIIA and 400LS turboprop aircraft. I later served as Field Service Manager for the Far East supporting Piper's Airline Training Aircraft programs, traveling extensively to Japan, Korea and China. I rode along on numerous deliveries from Florida to the Far East and supported numerous sales demonstration trips during my 14 years at Piper Aircraft.

Upon Piper's declaration of bankruptcy, I joined Universal Avionics in 1991 to organize and develop the Customer Support Department. I successfully formed a team that consistently won top ratings in independent industry surveys for outstanding customer service to universal customers. In 2001, I was awarded the Airline Avionics Institute's Volare Award for Customer Service. Shortly thereafter, I was promoted to Director of Engineering Services at Universal where I oversaw Flight Test Certification and Technical Publications for several years, helping to steer development of Universal Avionic products including TAWS, Synthetic Vision and Flight Displays. After the acquisition of Universal by Elbit Corp, I retired in 2021 after 28 years with Universal.

My passion for fishing, camping and hunting led to interest in gold prospecting and I joined GPAA. At a GPAT meeting, I met Ray Darragh who suggested I join an even better club—the Desert Gold Diggers. I have prospected on numerous claims held by Desert Gold Diggers and GPAA and have acquired a mini high-banker, Keene dry washer, and a spiral gold wheel. During the past year and a half, I have mined and processed over 12 grams of placer gold.

I regularly attend and really enjoy the monthly members meetings and recently became a board member to have a voice in the direction of the club.



Grady Dees (Blue Shirt), 1-Year Board Member

—Grady Dees

Outing Director's Report: August 11 (Wishful Claims)

Our August 11th, 2024 outing started when we met at the Arivaca Mercantile Store at 7:00 AM. We had 22 members in attendance and the day was cool.

We started by having a metal detector hunt on the Coronado National Forest. Ralph hid 24 nickel targets with three worth gold nuggets, three worth \$2 bills, and 18 for \$1 coins. Six targets were not found which included one a \$2 bill and five for \$1 coins.



There was water on the claims so prospecting was done with recirculating systems, metal detecting and panning the gravels were dug from sides of the stream beds on Wishful 1. Ralph found a nice piece of gold on Wishful 4.

Gold was found by almost everyone. The weather warmed up as the day went by and we headed back to town by 2:00 PM.

The next outing will be September 7 (SAT) at the BRUISER Claims, meeting at 7:00 AM at the Circle K in Oracle.

Keep finding the yellow stuff.

—Dan Walker

Outing Director's Report: September 7 (Bruiser Claims)

Our September 7th, 2024 outing started when we met at the Circle K in Oracle at 7:00 AM. We had 22 members in attendance and the day was cool.



We started by having a metal detector hunt at the off-road vehicle loading area. Ralph hid 24 nickel targets with three worth gold nuggets, three worth \$2 bills, and 18 for \$1 coins. All targets were found.

The members worked all over the claims. The gravels were dry on the claims so prospecting was done by dry washing, with recirculating systems and metal detecting. I showed a new member a nice place to get some samples.

Gold was found by almost everyone. The weather was nice and cool with a nice breeze all day. We headed back to town by 12:00 PM.

The next outing will be an overnight outing October 4-6 at the Hope Claims meeting at the regular camping area on the road to Kentucky Camp.

Keep finding the yellow stuff.

—Dan Walker

Membership Meeting Minutes: August 6, 2024

- Ralph Montañño convened the meeting at 6 PM; opened with the Pledge of Allegiance; introduced new members and guests; asked who was celebrating birthdays and anniversaries in August; asked if anyone knew of anyone that needed to be included in the MASH report.
- Dan announced the next outing is Sunday, August 11, at the Wishful claims; water is flowing; meet at the General Store at 7 AM.
- If anyone wants to buy/sell equipment, contact the Gazette editor so he can post the information.
- David Salars made a presentation <https://www.youtube.com/watch?v=1OSzRh1Da74> (Staking and Holding your own mining claims)

Raffle winners:

- Hat: Chuck Caudill
- Shirt: Bob Hamilton
- Badge: Scott Gibson
- Yellow ticket: Dave Doyle; Bob Hamilton, David Fuller, Bill Vasko, Ralph Montañño
- Red ticket: Ted Vasiliw.

★ 1/4 Ounce Nugget: Dave Riley

★ Spiral Wheel: Scott Gibson

- Ralph adjourned the meeting at 7:22 PM.



Dave Riley: Gold Nugget Winner



Scott Gibson: Gold Wheel Winner

Membership Meeting Minutes: September 3, 2024

- Ralph Montañño convened the meeting at 6:01 PM; opened with the Pledge of Allegiance; introduced new members/guests; asked who was celebrating birthdays and anniversaries; shared MASH information; asked if anyone needed to be added to the September report.
- Dan announced next outing is at Bruiser claims, September 7, at 7 AM; meet at Circle K; will have metal detect hunt and then head to claims.
- Future meeting spot for Wishful claims changed from the Arivaca General Store to the Buenos Aires Wildlife Refuge just east of town.

Membership Meeting Minutes: September 3, 2024

- The NOV 5 membership meeting is on election day, so the members meeting will be changed to Wednesday, November 6.
 - The overnight outing is October 4-6 in Gardner Canyon; there will be porta potties available; crockpot cookout and outdoor movie on Friday night; metal detector hunt Saturday morning; lunch on Saturday at noon followed by raffles.
 - Showed a video about Spanish mining history in South America.
 - Ralph will make a presentation on reading maps at the October 1 membership meeting.
- Raffle winners:**
- Hat: Bill Vasko
 - Shirt: Oleta Spencer
 - Badge: David Fuller
 - Yellow ticket: Bob Burgette; Bink Herholz; Ted Vasiliw; Shawn Mosely; Grady Dees
 - Red ticket: Jim Harrison
- Ralph adjourned the meeting at 7:06 PM.
-

Business Meeting Minutes: August 20, 2024

- Chairman Dan Walker called the meeting to order at 6:30 PM.
 - Meeting agenda read and approved.
 - Darrell read previous business meeting minutes, Joe motioned to approve and Harold seconded.
 - Gazette: Ray will provide a draft of the Gazette at the next meeting; Grady Dees' bio will be in the next issue.
 - Website Liaison: No issues to report.
 - Membership: Six new members with a new total of 316 members.
 - Kim provided the Treasurer report: Income \$1,334.98; expenses \$1058.54; net income \$276.44.
 - Claim fees of \$3,800 were paid.
 - Goldmaster: 14 nuggets given away this month (6.62 g); have 50.72 grams remaining valued at \$4,162.45 and need more small nuggets.
 - Outing Director: The last outing was at the Wishful claims; 22 members attended; detector hunt then group headed to the claim as water was flowing.
 - Claims Committee: Need a new person to lead this group.
 - Historian: No report.
 - Public Relations: No report.
- OLD BUSINESS**
- Gregory School has not gotten back with Ralph—he will try to contact them again.
 - The fall outing is October 4-6; Ralph will contact the porta potty company and will bring equipment out Friday; price of lunch will remain at \$6; need to fill propane tanks; Becky will get food and pick up gift cards; discussed giving away less gift cards and more gold.
 - Need to decide on new 1/4 ounce nugget rather than gold specimen for raffle; Joe will pursue getting a solid 1/4 ounce nugget.
- New BUSINESS**
- Ralph, Ray, and Anibal Morales will try to set up a meeting with Valerie to discuss updating the DGD website.

Business Meeting Minutes: August 20, 2024 *(continued)*

- The person across from the Arivaca General Store has complained about vehicles blocking the access to his property; we will be changing the meeting place from the Arivaca General Store to the Buenos Aires Wildlife Refuge (south side of road, just before you enter Arivaca) on the days we are going to the Wishful claims; map will be sent to members.
 - Need a picture of the used generator to see if anyone is interested in it.
 - Bob motioned to end meeting and meeting adjourned at 7:17 PM.
-

Business Meeting Minutes: September 17, 2024

- Chairman Dan Walker called the meeting to order at 6:33 PM.
- Meeting agenda read and approved.
- Previous business meeting minutes read and approved.
- Gazette: Need comments from Ralph, the September business meeting minutes, and current gold price for the August/September issue of the Gazette.
- Website Liaison: No issues to report.
- Membership: Two new members with a new total of 318 members.
- Kim provided the Treasurer report: Income \$3,317.58; expenses \$9,009.84; net income ~~-\$6583.26~~; total assets \$33,768.30.
- Goldmaster: 12 small nuggets given out at members meeting and outing weighing 4.92g at a cost of \$406.90; donation from Joe and Becky Marihugh of 22 small nuggets weighing 7.81g at a cost of \$643.93; total gold is now 53 small nuggets weighing 45.8g at a total cost of \$4299.48; sales at members meeting for big nuggets was \$128 and \$515 for small nuggets.
- Outing Director: On 9/7/24, 22 members met at the Circle K in Oracle; had metal detect hunt with all targets found, followed by prospecting on and around claims; the ground was dry enough to drywash; weather was breezy and cool; gold was found by all.
- Claims Director: No report; still need a person to lead this group.
- Historian: No report.
- Public Relations: No report.
- MASH Report: No new information.

OLD BUSINESS

- Gregory School booked for 10/15/24 at 8:30 AM; 18 students in 2 groups.
- Porta potties will be delivered at campsite on Thursday, October 3.
- Overnight outing plans finalized; Board decided to give more gold nuggets and less gift cards.

New BUSINESS

- Ellie Towne will have a Halloween trick or treat gathering; Ralph will get info; do we want to participate?
- New claims: Look into claiming areas below Bruiser 2 and above Wishful 1.
- **November member meeting moved to WEDNESDAY 11/6/24 due to elections.**
- Ray spoke to Valerie; she suggested we upgrade our web host program to Sightground; also suggested we update our public Facebook page and create an Instagram page.
- Bob Melzer motioned to adjourn the meeting; David Fuller seconded; meeting adjourned at 7:21 PM.

MASH Report

1. William Donis recently recovered from back surgery.
2. Chuck Caudill is recovering from a recent illness.

If you have an illness, injury of death in the family please contact Amber Clark at amclark4691@gmail.com

Club Store

Don't miss the opportunity to shop at the Desert Gold Diggers Club Store at the monthly membership meetings. There are many unique items available at our store which include, but are not limited to:

- Columbia long-sleeve shirts with the Desert Gold Diggers logo
- DGD Polo shirts and T-shirts
- Hats and Visors
- Patches and DGD License Plates
- DGD window transfer decals
- Bucket holder replacement handles
- Numerous other prospecting items

The Club Store carries DVDs that contain the color "topo" maps, GPS coordinates, directions to the claims, and other useful information. You can print out what you need, when you need it. Laminated topo that have color maps on one side and the GPS coordinates and directions on the other side are also available.

Please support the Desert Gold Diggers with purchases from our club

Market Place



FOR SALE: Membership to the **Lost Dutchman's Mining Association**. Price is negotiable—if interested, please contact Dan Walker at digger.dan@juno.net or call (520) 544-2184.



FOR SALE: 5-PC Stackable Stainless Steel Mesh Sifting Pans.

- Mesh sizes: 1/2", 1/4", 1/8", 1/12" and 1/20".
- \$25 (New and never used).
- If interested, please call (480) 652-0648.



If you're searching for something specific you'd like to buy or sell, or have lost/found something while on our claims, please contact DGDGazette51@gmail.com and your information will be included in this section of the Gazette.

Welcome NEW Club Members!

John Allen Griffith (Tucson, AZ)
Danny and Theresa Horner (Phoenix, AZ)
Wade and Katie Kellogg (Elgin, AZ)
Jim Larsen (Marana, AZ)
Michael Mullenix San Manuel, AZ)
Michael Pajak (Benson, AZ)
Bob and Terri Ross (Green Valley, AZ)
James Wilkerson (Marana, AZ)



An Interesting Fact about Gold

The 2024 Paris Olympic gold medal was designed by Fresh jeweler Chaumet and carries both historical and monetary value. Each gold medal weighs 529 grams and is primarily composed of silver and coated **with only six grams of gold**. If the medal were made entirely of pure gold, it would be valued at approximately \$41,162. The last time pure gold medals were awarded was in 1912 when gold cost 20.67 per ounce.



Gold Price Hits a New Record

For the first time in history, the value of a single gold bar surpassed \$1 million, as gold's spot price climbed over **\$2,635 per troy ounce** on Friday, September 20, 2024. This new all-time high not only sets a fresh benchmark but also signals a significant breakout above previous resistance levels, which had kept gold trading within a narrower range for months. The breach of these resistance levels indicates a strong bullish momentum and opens the door for further potential gains.



The History of Metal Detectors

Metal Detectors have a very unique history that began in the late nineteenth century. The first known metal detector was built in 1874 by a Frenchman named Gustave Pierre Trouvé. He was a prolific inventor, an expert in the field of electricity, and developed a detector to help find bullets and metal objects inside the bodies of wounded people.



Gustave Pierre Trouvé

The Trouvé prototype evolved into the metal detector we know today.

On July 2, 1881, President James A. Garfield was shot twice. Although the wounds were not fatal, one of the projectiles got lodged in his back. Scottish physicist Alexander Graham Bell was working on improving the Trouvé prototype and developed a metal detector to locate the bullet lodged in President Garfield's body. Although Bell's device worked correctly, it did not locate the bullet. Bell detected a slight sound with his detector, but the bullet may have been too deep to be identified. It is believed that the metal detector didn't locate the bullet due to

the interference caused by the metal frame in Garfield's bed. Sadly, the President died 80 days later and so did the idea of a metal detector. After this unsuccessful test, no one thought a bullet detector was a functional device, forgetting about it for almost 50 years.

In 1925, the first hand-held metal detector was patented by inventor Gerhard Fischer. In 1931, Fischer's detector was available for commercial sale—this first professional metal detector was called the Metalloscope.

In 1941, a Polish Army engineer named Lieutenant Józef Kosacki created the first portable metal detector. Despite the large, heavy backpack required to house the electronics, it was widely used by Allied soldiers during World War II to detect land mines. He gave the design to the English to start mass production and it was used during World War II to detect anti-personnel mines.

Throughout the history of metal detecting, numerous companies have played a crucial role in the development and popularization of the technology. Their contributions helped shape the industry, providing innovative products and solutions for hobbyists, professionals, and various industries. Some of the most notable companies in the metal detecting world include the following:

Fisher Research Labs: Founded in 1931 by Gerhard Fisher, Fisher Research Labs has a long and storied history. The company is committed to

The History of Metal Detectors *(continued)*

innovation and excellence, producing a wide range of detectors for various applications. Fisher's detectors have been used in numerous high-profile archaeological discoveries and Fisher Research Labs developed advanced detection technologies, such as pulse induction and ground penetrating radar.

White's Electronics: Founded in 1950 by Kenneth White, White's Electronics was a key player in the metal detecting industry. With a long history of producing high-quality detectors for various applications, White's Electronics has been at the forefront of many technological advancements and introduced the first completely automatic ground balancing detector to greatly improve detection capabilities in mineralized soil. White's Electronics was also involved in developing VLF and PI detectors, and devices for specific applications such as underwater and gold prospecting. White's Metal Detectors was acquired by Garret Metal Detectors in October of 2020.

Garrett Metal Detectors: Founded in 1964 by Charles and Eleanor Garrett, Garret Metal Detectors is one of the most recognizable names in metal detecting and has a reputation for producing reliable, high-performance detectors that cater to both hobbyists and professionals. Garrett Metal Detectors has been responsible for several innovations, including the first computerized metal detector with digital signal processing and advanced ground balancing systems.

Tesoro Electronics: Founded in 1980 by Jack Gifford, Tesoro Electronics was a prominent player in the industry for over four decades. The company produced high-quality metal detectors that were both reliable and affordable. Tesoro's detectors were popular among hobbyists and the company was at the forefront of several innovations; however, due to supply chain and cost struggles, Tesoro closed in 2019.

Minelab: Founded in 1985, Minelab is an Australian company that has quickly become a leader in the metal detecting industry. Minelab is known for its cutting-edge technology and innovative product designs. The company's flagship technology, Multi-IQ, allows its detectors to operate at multiple frequencies simultaneously, greatly enhancing detection capabilities and target identification. Minelab has also been a pioneer developing detectors specifically designed to detect gold.

The preceding inventors and companies, among others, have played a significant role in shaping the metal detecting industry over the last 150 years. Through their innovations and dedication to quality, they pushed the boundaries of metal detecting technology, making it more accessible and effective for users around the world.

Article information obtained from:
https://www.backthenhistory.com/articles/the-history-of-metal-detectors#google_vignette;
<https://gearupgrades.com/metal-detecting/resources/the-history-of-metal-detecting/>

Uncomfortable Bucket Handles: A DIY Solution

There is nothing more annoying than a broken handle on a 5-gallon bucket—especially if you are trying to carry a full bucket of wet pay-dirt!

“The handles on new buckets are small and can be uncomfortable—especially if you have large hands like I do” says Keith Oliver. “If the handle is cracked or broken, it can feel like grabbing a knife blade when the bucket is full of dirt.” You can either purchase an ergonomic bucket handle replacement grip, or make your own handle grip.

Keith uses what he considers “a cheap bucket handle fix for the frugal miner”—so you don’t have to suffer any longer if you follow these four, easy DIY (do-it-yourself) steps:

1. Obtain a length of either 1/2" or 3/4" schedule 40 PVC (based on whichever is more comfortable for your hand size).
2. Cut a section approximately 4" in length, or whatever length fits your hand the best.
3. Secure the PVC in a vise and make a lengthwise cut through the PVC.
4. Pry open the end of the PVC with a screwdriver and slide it over the wire handle.

With the PVC handle in place, you can carry a bucket of your favorite pay dirt in comfort and your hands will thank you!

Thank you to “Klondyke” Keith Oliver for submitting the pictures and his process for installing replacement handle grips on buckets.



Step 2: Cut a 4" Length of PVC



Step 3: Secure & Cut through PVC



Step 4: Pry Open PVC & Slide Over Wire Handle



The Finished Product

Eight Things You May Not Know About Gold

1. **Pure gold is stretchy:** Pure gold is so ductile (translation: stretchy), a single ounce of it can be drawn out into a thread 50 miles long without breaking (at which point it also would be too thin to see). If you did this to all of the existing gold in the world, it would wrap around the earth 11 million times.
2. **The Nobel Prize is made of gold:** The Nobel Prize medal is still made of gold, though it was downgraded in 1980 when it went from 23 karats (24 is pure) to an 18-karat core coated in 23-karat gold. The gold in the 2024 Paris Olympics gold medal is only worth about \$500.
3. **Gold can change color:** A naturally yellow element, gold changes color when it is mixed with other metals, which also gives it added strength. White gold contains nickel or palladium. Rose gold gets its hue from copper. There's even green gold, which has silver and sometimes zinc or cadmium. To determine how much gold is in any piece, divide the karat content by 24 and multiply by 100. The resulting percentage is the amount that is gold.
4. **Gold has to get really hot to remove impurities:** The term bullion, which refers to gold bars or coins ready to be traded, comes from the Latin word for boil. That's how to remove gold's impurities—at a mere 5,173 degrees Fahrenheit.
5. **The U.S. Treasury currently holds 147.3 million ounces of gold bullion:** About half of it is stored at Fort Knox, a stash that's worth more than \$130 billion. Security at Fort Knox is so tight, only one president has ever been inside the vaults: Franklin Delano Roosevelt, the same president who effectively took us off the gold standard in 1933. (The United States didn't fully abandon it until 1971.)
6. **Most of the world's gold is now mined in China:** The country overtook South Africa for total historical gold production in 2017. But the world's largest gold crystal—an extremely rare geometric formation that can appear on gold specimens—weighed 7.7 ounces and was found decades ago in Venezuela
7. **Some gold comes from sewage:** Among the more surprising—and unpleasant—sources of gold: treated sewage. In 2015, after analyzing sewer sludge from local treatment plants, researchers at Arizona State University concluded that the sewage produced each year in a city of a million people includes, on average, \$2.6 million worth of gold and silver.
8. **We've extracted about 80 percent of the world's gold:** We have already extracted about 80 percent of the world's 244,000 mineable tons of gold. Ocean waters and seabeds contain 20 million more tons, but this treasure remains largely untouched because of the prohibitive costs to tap it. But the biggest trove is in outer space. One asteroid alone (called 16 Psyche) has a few hundred quintillion dollars' worth.



Citation: This information was taken from the internet, excerpts of story in [RD.COM](https://www.rd.com/article/gold-facts/) by Emily Goodman, Updated November 4, 2022 <https://www.rd.com/article/gold-facts/>

Gold Nugget Purity Explained

Finding a nice gold nugget feels **AWESOME!** As you stare at it you might start to wonder if it's actually pure gold. The nugget may have quartz in it, or some discoloration, but that doesn't mean it's worth less than "spot price." Actually, it's quite the opposite. Gold nuggets are valued not just by gold content, but may be priced at a **premium** based on their size, look, and rarity.

Since no gold nuggets are 100% pure, natural gold is actually an alloy of gold, silver, and/or copper with gold being the majority metal. The alloys can vary so dramatically that gold nuggets from different regions actually look different. When gold is mixed with too much silver, it stops being gold and becomes something called **Electrum**, which is the official name for any naturally occurring alloy of gold and silver that's 20-80% gold and 20-80% silver. Only silver can alloy, or intermix, with gold naturally to produce specimens that are half silver and half gold. Copper, while almost always found in naturally occurring gold, is only present in small amounts. Even at 20% silver, the alloy becomes so unrecognizable from gold that often prospectors don't know what they're looking at and toss it away. However, electrum is incredibly rare and is mostly found in gold mining regions in Nevada.

100% pure gold actually doesn't exist. Gold bullion, the purest gold available on the market, is measured using **Millesimal Fineness**. That's a system that measures the purity by parts per

thousand, or the percentage of gold. In this system "999" means that your gold is 99.90% pure and other metal constitutes only 0.1%. "999.9" means your gold is 99.99% pure, which means only 0.01% is other metal. Both are considered 24K gold. Refining 100% pure gold isn't possible with our current laws of physics.

The best known methods for defining the purity of gold is by **Karat and Fineness**. Often when people hear the term "karat" they think of gemstones. Carat (with a C) measures the **weight** of precious stones like diamonds, rubies, and emeralds. However, Karat (with a K) refers to gold. It is the amount of gold alloy, or **purity**, out of 24 parts. Thus, 22k gold is 92% pure gold with 8% being a combination of other alloys or impurities mixed into the gold, such as silver or copper.

Karat	Gold Content (Degree of purity)
24 Karat	99.95+%
22 Karat	91.6%
21 Karat	87.5%
20 Karat	83.3%
18 Karat	75.0%
15 Karat	62.5%
14 Karat	58.5%
10 Karat	41.7%

Karat and Gold Purity

Gold Nugget Purity Explained *(continued)*

The fineness of gold represents the weight of gold, in proportion to the total weight which includes any other base metals and impurities, in parts per 1000. For example, 22 karats of gold (22k) has a gold fineness of 916, which can also be expressed as 91.6% of gold with an alloy mixture of 5% silver, 2% copper, and 1.4% zinc.

Lode gold is gold that is found in veins encased in solid rock. Lode gold mining, also referred to as hard rock mining, consists of two main ways to extract gold from the earth: open pit mining (which accounts for over 75% of all hard rock mining) and underground mining which is the most costly of the two mining processes. Hard rock mining is utilized in large mining operations; however, it is these veins of gold encased in rock that are the source of placer gold.



Gold Veins (Lode Gold) Encased in Rock

Placer gold is gold that has eroded or broken off from the main lode vein and traveled down mountains and into

waterways with the heavy gold settling on the bottom of streams, lakes, rivers, or the sea floor. This eroded gold appears in the form of either gold nuggets or gold flakes. As placer gold travels, impurities and corrosive metals such as copper, quartz or silver are eroded away, making it more “pure” or concentrated than lode gold, but never 100% pure.



Gold Veins Eroding into Placer Gold

Overall, the percentage of gold in a placer deposit can range anywhere from 50% to 95% because placer gold often has silver, copper and other metals mixed in with the gold. Refining lode gold and placer gold to its purest levels takes scientifically controlled processes; however, 100% purity has never been reached because it is impossible at this time to remove all impurities. If you are interested in learning more about testing gold purity and determine the value of your gold, professional prospector Dan Hurd has produced a video that can be viewed at: <https://www.youtube.com/watch?v=oek3cSKhy8o>.

The preceding information was obtained from the internet including :
Monica, “How Pure Are Gold Nuggets?” Bering Sea Pay Dirt
January 23, 2023, <https://beringseapaydirt.com/how-pure-are-gold-nuggets/>

The Story Behind the World's Largest Nugget

The largest gold nugget ever found weighed as much as an adult man. When prospectors John Deason and Richard Oates discovered the massive chunk of gold in Australia, they went from being struggling working men to astonishingly wealthy overnight.

Their incredibly famous find took place on Feb. 5, 1869. Deason, an English tin miner who had lost his father at sea as a child, had set sail for Victoria in 1853, with hopes of making his fortune Down Under. Deason, who hailed from Cornwall and whose father had been a fisherman, was joined by his friend Oates, a fellow miner, a year later.

The men had been struggling financially before the discovery and had even been refused credit to buy a bag of flour just one week prior. During the 15 years they'd spent digging, they'd produced only small bits of gold. But one fortunate day in February, Deason was working the surface at Bulldog Gully in Victoria when his pick struck what felt like stone about an inch below the surface: "I scraped the ground with the pick and saw gold; then I cleared away further and right round the nugget."

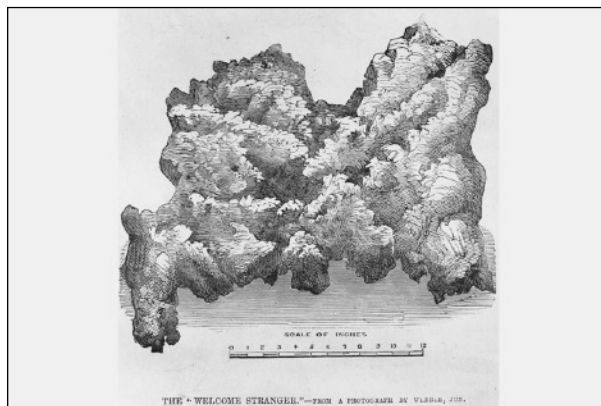
He tried to pry up the nugget but broke the handle of his pick, so he used a crowbar and raised it. Encased in quartz, the nugget measured around two feet long and nearly as wide and deep. Deason's son went off excitedly and summoned Oates, who was working a short distance away. They transported the nugget on a cart to Deason's hut.

Deason's wife, Catherine, was home when John returned and announced he had something to show her. Accustomed to his habit of bringing people back to their lodging for a meal, she said, "I hope it's not another unwelcome stranger." John responded "No, it's a welcome stranger."

The group placed the heavy haul in a fireplace, lit a fire, and let it burn for around ten hours. After it had cooled, they stayed up all night chipping quartz away to reveal gold. Several small pieces broke off, and the finders gave about 5 ounces to friends, according to Deason's estimate. An official valuation found the total weight of gold was around 145 pounds, or 2,115 troy ounces.



Richard Oates and John Deason, Victoria, Australia



Wood Engraving of the Welcome Stranger Nugget

The Story Behind the World's Largest Nugget *(continued)*

A local bank bought the gold for 9,563 pounds, which is almost \$4.5 million in today's money. With friends acting as bodyguards, the two partners chose London Chartered Bank in the town of Dunolly, ten miles away, to make their transaction rather than travel to Melbourne, as they feared being robbed en route.

A large, excited crowd assembled at London Bank to glimpse the golden nugget as a large police presence stood watch. The Welcome Stranger nugget, as it became known, was too ginormous to fit on the bank's scale and had to be broken apart on an anvil. Once weighed, it was six (6) pounds heavier—and of purer gold—than the previous record-holder, Welcome Nugget, found over a decade earlier in Victoria.

Before month's end, and before Welcome Stranger could be properly photographed, the nugget was melted down and the gold sent to England, leaving only drawings for posterity to fantasize from.

A century and a half has passed since the nugget's incredible appearance. In 2019, John Tully, president of the

Goldfields Historical and Arts Society in Dunolly, mentioned the astonishing discovery: "It's significant. It's the largest nugget ever found in the world," he said. "There's not too much of anything that can keep a record for 150 years."



A Replica of the Welcome Stranger Nugget

Notably, after the frenzy of the find had died down the newly rich former tin miners humbly returned to work as if little had happened! A local newspaper, the Dunolly & Bet Shire Express, who spoke with the finders that fortunate February, wrote: "We are glad that the monster has fallen to the lot of such steady and industrious men."

Information for this story obtained from: <https://www.theepochtimes.com/bright/gold-diggers-uneearthed-largest-gold-nugget-ever-found-150-years-ago-and-it-was-as-heavy-as-a-man-5702715>



"I've been out here a long time. Is it still \$35 an ounce?"

October 2024 Special Events

SUN	MON	TUE	WED	THU	FRI	SAT
		1 Members Meeting 6:00 PM	2	3	4 HOPE Claims 8:00 AM	5 HOPE Claims
6 HOPE Claims	7	8	9	10	11	12
13	14 COLUMBUS DAY	15 Business Meeting 6:30 PM	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31 Halloween		

November 2024 Special Events

SUN	MON	TUE	WED	THU	FRI	SAT
	The Member's Meeting scheduled on November 5 is Election Day; meeting moved to Wednesday, November 6				1	2 PILGRIMS PRIDE Claims 8:00 AM
3	4	5 ELECTION DAY	6 Members Meeting 6:00 PM	7	8	9
10	11 VETERANS DAY	12	13	14	15	16
17	18	19 Business Meeting 6:30 PM	20	21	22	23
24	25	26	27	28 THANKSGIVING DAY	29	30

Editor's Notes

The fall overnight outing is October 4-6 and like all of our past outings, will definitely be a fun event! Even if you don't have a tent, trailer, or motorhome, please join us at least one of those days to enjoy the outdoors, participate in the raffles, prospect, and enjoy the company of other club members.

Thank you to "Klondyke" Keith Oliver for submitting his Do-It-Yourself solution to replacing broken bucket handles. If you have anything you'd like to share with club members in the Gazette, please contact me at DGDGazette51@gmail.com.



Ray Darragh, DGD Gazette Editor

Please note that the members meeting scheduled for Tuesday, November 5 has been moved to Wednesday, November 6, since Tuesday is election day. This one-time change is indicated on Page 3 in the Meeting and Events Summary, and Page 19 in the November Special Events section.

Be safe, have fun, and we'll see you at the next members meeting.

"May you always find yellow in the bottom of your pan"



The Desert Gold Diggers Gazette is published as a service to the members of Desert Gold Diggers Inc. Opinions expressed in this newsletter are those of the management and its members and neither the Desert Gold Diggers, its Board, nor the editor of this publication assume any liability for damages resulting from the use of Gazette information and club maps. There are risks associated with prospecting and the Desert Gold Diggers membership application states:

"I acknowledge that prospecting and prospecting locations can be dangerous with numerous natural and artificial hazards. By signing up, as a member of the Desert Gold Diggers Inc., I, my spouse, my family, and/or my guests agree to release the Desert Gold Diggers Inc., their officers or assignees, and/or property owner(s) from any liability incurred during prospecting operations/outings. I further agree to have any guests accompanying me to one of the clubs claims on a private outing, to sign a club waiver prior to the outing."

The Desert Gold Diggers Board encourages submissions of articles from club members about prospecting or mining, as well as opinion pieces or the sale of items. All submissions will be reviewed and approved by the Board prior to inclusion in the Gazette.