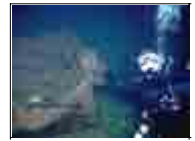


Diving at the Bonne Terre Mine

Alan Garrett

I and a couple of my old dive buddies Ernest and Terry got together on the phone and internet a couple of months ago and decided to go on a dive trip together. Both of them are very capable divers, but neither of them are trained or even much interested in overhead diving, so the few dive-able caves in this part of the country were not an option. So we set up a trip to the town of Bonne Terre, Missouri to dive an old underground lead mine there.



The mine operated continuously under the town from before the Civil War until 1961. The mine continued to expand ever larger over the century under the power of animals, steam, electricity, and human sweat until the more modern mining methods used elsewhere made it unprofitable to continue its' operation. When mining operations were halted, there remained an enormous multi-level labyrinth of huge chambers and tunnels, filled with artifacts and obsolete machines from a bygone age of mining.

The fact most interesting to us divers today is that since the mine reached downward some 350' into the earth, pumps had to run continuously to keep the constant inflow of groundwater from flooding the mine. As you have probably already surmised, when the mine was shut down, so were the pumps, and today all those miles of passageways are now submerged in water whose clarity rivals the world's clearest springs and caves.

The mine is currently owned by a recreational diving concern that has developed the site into a commercial dive destination. They have installed a diving dock and air fill station some 165' below ground level at the water's surface. This is reached by humping your gear down a century-old mule trail along its' steep, downward winding path. The company that operates the mine has placed a stockpile of single Al 80's and a few Al 100's down on the dock, so if you are a single-tank air diver there is no need to bother bringing a tank down with you. But for those who insist on using their own doubles filled with their favorite Nitrox mix, well, I'm just glad I ate my Wheaties that morning.

I have both extremely positive and severely negative things to report from this dive, and some more subjective opinions that fall somewhere in between. I always try to focus on the enjoyable aspects of any dive trip because I am very aware that seldom is there anything easy or convenient to be found in diving. When it comes to my diving I see myself as an adventurer, not a tourist, and as such many of the frivolous amenities that some divers demand have little bearing upon whether or not I enjoy myself on a trip. Enduring some headaches and aching muscles just goes with the territory and is unavoidable. It is the price I am willing to pay to be able to see and experience what so comparatively few people can. But there are some things that I feel compelled to warn my other diver friends about, and that will come later.

First I want to dwell on the positive aspects of the trip. The dive itself in my opinion was awesome, at least considering what I was able to see and photograph. I saw expansive underwater panoramic views that looked like something from another world. To be swimming through a seemingly endless water-filled void among a forest of monolithic stone columns 50' thick and 250' tall gives the diver the sensation of dreamlike flight that is difficult to describe even to another diver and trying to explain it to a non-diver is simply a waste of time. I saw many old ore cars and the rails they once ran on, along with old pieces of steam powered equipment and hand tools. The oxygen content and temperature of the water is so low that even the wooden steps of old stairs are perfectly preserved. Many natural mineral deposits can also be seen along the walls, and the calcium carbonate, iron pyrite, manganese, iron, and cobalt each add their own colors to the formations. I took advantage of the numerous opportunities to photograph the things I saw, but the overall expanse of the place made it impossible to capture the true visual impact of the place. The downside to doing digital photography here is that the lighting is too dim to activate my camera's LCD monitor, so most of my shots were "aimed" by a small laser mounted to the base of the housing. Without this little home made feature, most of my shots would have been pure guesswork. Also, the low light levels make capturing images beyond the range of the camera's strobes practically impossible. I don't imagine that video would fare any better without the use of powerful lights, and the staff might or might not allow their use. I'll talk more about that issue later.

A diver should also be aware of the cold water temperatures, and make proper preparations for it. The water temperature is a chilling 58 degrees F year round, and a couple of my dives there have lasted nearly an hour. I made all my dives in a two-piece wetsuit of 6mm torso thickness, and after 45 minutes of dive time I was ready to get out of the water. But for those who feel they need a drysuit to dive in 68 degree spring water, they definitely should not forget to pack them if they want to dive here!

I believe Bonne Terre Mine to be a far more challenging diving environment than the publicized information from the

operators seems to indicate. It is my opinion that if a diver is relatively inexperienced or in poor cardiovascular health, that person should really think hard before attempting to dive here. Even so, there are still some elevated risks associated with diving here that no amount of training and experience can compensate for. Let me elaborate on a few of them.

The fact is that Bonne Terre Mine is by and large an overhead environment, yet it is being run by an open water recreational dive shop, by open water guides, using recreational open water rules, methods, and equipment. On one particular dive we spent about 30 minutes of my 47-minute dive time in true overhead, yet we were not permitted to carry our own lights, there was nothing anywhere resembling a guideline, and I was the only diver there who was equipped with any type of redundant air supply. The staff seems to have little working knowledge of "advanced" (anything beyond basic open water) diving methods and equipment. I was embarrassed when one of the staff saw my manifolded doubles and demanded to know "Is that a rebreather? If it is you can't use it! We banned them!" I was so taken aback that I lost the ability to compose a suitable smart-aleck retort, and instead patiently explained what they were. Of course, there wouldn't have been much I could have done if I HAD been using a rebreather!

Their website is badly in need of updating, does not reflect any of their current rules changes, and the E-mails we sent them with specific gear questions TWO MONTHS PRIOR to our trip date were never answered. Also, there is a strict NO REFUND policy in effect, so it is completely possible to make reservations, pay for the dives, drive goodness knows how far to the site, go down to the water, gear up, and two seconds before entering the water have a staff member grab you by the shoulder and tell you that you can't dive with the gear you brought, and you're still out the money for the dives unless you want to rent their equipment at prices that were apparently set by the same guy who prices the candy, drinks, and popcorn at movie theaters!

And now I'm going to scare the hell out of you. One of my buddies, Terry, who has had no overhead training whatsoever, was having some difficulty getting a minor gear problem sorted out and was late getting into the water. He said he felt "flustered" and aggravated by the rush he was under to get ready and get wet. As soon as we jumped in we had to make a short surface swim (maybe 50-75 yards at the most), which was no big deal in itself, but unlike the rest of us he never really had a chance to adapt to the shock of the cold water and catch his breath before we submerged and he was immediately under stress as soon as the dive began. About five minutes into the dive we reached a depth of about 70' and passed under the bottom edge of a rock wall into the overhead. After we had gone well into the tunnel, Terry suddenly begins to have bronchial spasms and feels that he is on the verge of an asthma attack. He begins to give the signal to surface, but no one can see him! The guide has the only light and she is using it to point out the way-cool sights all over the place. The safety diver behind us actually had a light but he never once turned it on. Apparently his instructions were simple and he had only to watch the little green cylume sticks and make sure they all stayed in front of him and didn't wander off on their own!

By this time Terry is growing quite agitated and begins giving the OOA signal while waving his arms frantically trying to get the guides' attention. No use. I could dimly see that he was doing a lot of moving around but I hadn't a clue what it was all about, and I just assumed he was goofing around. Apparently he was just on the verge of making an all-out mad dash for the guide, who had been simply out-swimming him up to that point, when the spasms began to abate and he managed to pull himself together somewhat. He realized that his FFM was firmly attached to his head and that he was in no real (immediate) danger of drowning, and within a few minutes he felt well enough to continue the dive. Good thing I guess, since he had no choice! None of us ever knew any of this had even happened until we hit the surface!

Terry told us that he was done and would not be making the second dive due to his level of stress and anxiety over what had happened and over the possibility of it happening again. Ernest and I were absolutely stunned by Terry's recount of what happened and the stark realization that neither of us had been aware of any of it! We understood his decision to sit the next dive out, and we all would have probably just packed up and went home had it not been for the forfeiture of our other \$65 and the wasted 6-hour trip.

During the surface interval, the dive guide saw the "Nitrox" decals on my doubles and asked if I was actually using Nitrox in them. When I answered yes, she asked where I was going to get them filled for the next dive, since they only sold air. I told her that I still had 2000psi in them and had plenty of gas for another dive. She looked at me like I was a second-grader and said "We will all be using 3000 psi tanks and if you don't start off with that much too, you won't be getting very far!" I took a deep breath, rubbed my temples to staunch the throbbing stress headache that was developing, and began to patiently explain to our "Divemaster" the difference between tank pressure and tank volume. I explained that the 2000psi in my doubles would not only allow me to keep up alongside her with her 3000psi single Al 80, but that I would most likely return to the surface with about 1000psi still remaining in my tanks. She clearly thought I was crazy and gave the other staff divers (who also still didn't get it) that "Oh well, it's his money" look. I shrugged and gave up the fight, deciding that the proof in the pudding would be in the eating, and hers would taste like crow.

We left the mine and ate lunch up town, and upon our return the guide had apparently forgotten what Ernest looked like, placed her arm across the walkway to the dock, and refused to allow him to come onto it! She challenged him with "What are you doing coming onto my dock!" He responded with "I'm a diver! I just dove with you not an hour ago!" With that, recognition flashed across her face, but Ernest's well-deserved apology never followed. The "safety" divers were apparently embarrassed about her conduct and tried to compensate for it by being especially helpful and courteous, but the damage had been done. Ernie was so angry that he swore aloud that he would never, ever be back. Well, now it was unanimous!

We completed the last dive (which was beautiful, actually) without incident, and upon surfacing I gleefully showed the guide my SPG, which still showed nearly 1100 psi! She just shook her head and walked away, still not really knowing how I was able to "pull it off". It was a small victory, but I reveled in it! We broke down our gear, put our dry clothes on, and began the long uphill "gear-hump" out of the mine.

Our experiences at Bonne Terre were of such opposite extremes that I feel compelled to divide them into two parts: the DIVE SITE and the OPERATION. The DIVE SITE was and will likely always be absolutely wonderful. The OPERATION was, in my opinion, in need of a total overhaul. They operate in a universe all their own and seem to be completely disinterested and willfully unaware of the art and science of diving as it is applied elsewhere in the world. They seemed rude, arrogant, and almost eager to find something "wrong" with our gear, which is easy to do when you are ignorant about most of it. They have the only game in town and they know it, and they have the simple attitude that if divers don't like their way of doing things, they are always free to leave. The concepts of "customer" and "service" are apparently mutually exclusive in their way of thinking.

With that said, I happily make a single exception, and his name is Dana. He was our guide for a walking and boat tour we took earlier in the year and he seems to be in charge of the store as well (though apparently not to the extent of setting prices). This fellow is a gentleman in every sense of the word and has a true passion for the history of the mine and the men who worked, sweated, grew old, and often died within it. He is a wonderful person and never missed an opportunity to help in any way he could. Ironically, he was the only non-diver we encountered on the staff, which made the treatment we received from the DIVING staff sting even more.

The bottom line is simple. I will never recommend this operation to any diver I know. Beyond the lack of professionalism and courtesy in the operation there, there are some very real safety concerns with the way the dives are conducted. I had one of the guides tell me that our dives would be delayed a little while because the divers ahead of us were a couple who were certified in 2001, but hadn't been in the water since and would probably need some extra time putting their gear together and taking it back apart! They were proud of the fact that they would be logging their 4th and 5th "after-certification" dives in the mine!

Everything I have written here is my personal logbook narrative and is an expression of my personal opinions and events as I remember them. My opinion is that if you have never dived Bonne Terre Mine, it is a wonderful experience and it might be worth it to you to endure the problems associated with it. On the other hand, maybe not, because after re-reading my own account of this trip it is highly unlikely that I would place myself in such danger again, and my friends feel the same. Also, as long as divers are still willing to put up with this kind of conduct, there will be no real incentive for them to correct themselves. Oh well, at least I got some good pictures out of the deal.

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