Introducing Sir Bakis with Mr. Paul Angus $AAN Aton Resources

By Peter "@Newton" Bell, 18 September 2017

This is the first in a series of articles with Mr. Paul Angus, Regional Exploration Project Manager for Aton Resources (TSXV:AAN). Aton has a great opportunity for regional exploration at their Abu Marawat Concession and recent efforts have borne fruit as detailed in the news release from September 13th, 2017 here: https://ceo.ca/@nasdaq/aton-announces-new-regional-exploration-results-from

As in the news release, "mineralization identified at Sir Bakis displays strong affinities with reduced intrusion related gold (RIRG) systems… Similar styles of mineralization have also been identified at the nearby Bohlog, Massaghat and Zeno prospects, and the Company believes that it has identified a significant belt of potential RIRG mineralization within the Concession." This new work supports Mr. Mark Campbell, President & CEO's claim that "we have multiple districts at our Abu Marawat Concession area, each with unique geological characteristics".

Paul Angus: Hello, Peter. This is a nice picture here for you with some clouds, which you don't see very often in the Egyptian desert. This photo is looking to the north from the south of the Sir Bakis mine area. In the center, you might be able to see a linear structure that's running down the middle of the picture as we're looking at it and that is the main Sir Bakis mine.

Peter Bell: Thanks, Paul. Is this the old mine here that I've circled?

Paul Angus: Yes, you've got it there Peter. That's the Main Vein area. That's the quartz vein that runs through the mine area that was mined by the British in the early 1900s.

Peter Bell: Thanks, Paul. You've lined that geological feature up with the center of the photograph here so clearly. It is clear that area is different from the others in some way.

Paul Angus: Yes, you can see some disturbed ground where they've mined around the edges. However, the Sir Bakis mine is an underground mine.

Peter Bell: Is that a car to the left?

Paul Angus: That's probably our vehicle down at the bottom. There's a tramway that runs to the old processing plant just above that.

Peter Bell: And is the processing plant about there?

Paul Angus: No. There are a few paths directly above the car there, then you'll find the processing plant a bit further along to the left.

Peter Bell: Anything hidden behind the hillside in the photograph?

Paul Angus: Yes, you can see the tramway which runs from one of the shaft entrances at the main vein to the processing plant. There are a couple of small adits, as well.

Peter Bell: What is the orientation of this shaft? It may be hard to see it on this angle.

Paul Angus: It's hard to see from here.

Peter Bell: Does it run in an inclination or a decline at all, or is it flat?

Paul Angus: There are two vertical shafts along the main structure and then there are two horizontal adits, which run from above the tramway into the mine itself.

Peter Bell: Okay. That sounds pretty straightforward but I'm not going to draw any of that. I will wait for mine diagrams that we can discuss.

Paul Angus: Yes, of course. It is a bit difficult to discuss it here without all that.

Peter Bell: Do you have any old data on what was recovered from there?

Paul Angus: We're currently in the process of trying to find that data. There's a team working in the UK and a team working in Cairo trying to find information on what was mined. They have recently discovered that Sir Bakis was mined by the Eridia (Egypt) Exploration Company Limited from 1904 to 1906 and has also been known as Eridia and Gidami. We have some information from local Bedouin that suggest it is possibly 50 meters deep, but we haven't been down the shafts themselves. We've been into the small adits, but not into the shafts yet.

Peter Bell: This feature we were talking about earlier in the center of the photograph – that is the surface expression of something that is coming from below. It could be going down 50 meters.

Paul Angus: Yes, or even deeper. This is a quartz vein which is a meter to meter and a half wide in places. It is steeply dipping to the left of the photo, to the west. They've mined that down to possibly 50 meters as far as we know.

Peter Bell: OK, thank you. Steeply dipping to the west from surface.

Paul Angus: And it is striking roughly north-south.

Peter Bell: How long is this strike?

Paul Angus: We can track the Main Vein for about 1,600 meters. At this section, we're looking at approximately 300-400 meters.

Peter Bell: Wonderful. What else do we see here?

Paul Angus: In the background, we have some large granitic intrusions, which are potentially related to the mineralization of these areas.

Peter Bell: Are these intrusions typically kilometers wide?

Paul Angus: Yes. You can see a big one in the background and it is several kilometers wide. It is a younger intrusion that came through and essentially introduced hydrothermal fluids, which then form quartz veins and our shear structures that we find at Sir Bakis and several other regions we're looking at.

Peter Bell: Is this intrusion you mentioned off to the right in this photo?

Paul Angus: Yes, that's the one. And then it runs all the way across. There's another one on the left as well.

Peter Bell: The coloration seems to be different there. The rock to the right side from the picture looks to be different than on the left side there.

Paul Angus: Part of that is probably due to the light and the relative distance. They are pink granites, which are younger than the rocks in the foreground that are mainly granodiorites.

Peter Bell: Granodiorite, yes. That's a metamorphic rock that was altered by the granite intrusion, right?

Paul Angus: It has been altered by the granite intrusion, but it is also an igneous rock itself, with slightly different chemistry. It's actually from another suite of older intrusive rocks. There are also meta-volcanic rocks in the area that have been contact metamorphosed by the younger pink granite intrusion.

Peter Bell: Okay. That sounds like a lot of volcanic activity. Is there a lot of that volcanic rock in this area?

Paul Angus: Yes, certainly. We are mainly focusing on the intrusives here, but there are also extrusive volcanic rocks in this area. It is fairly typical of our region as we believe that we're in an island arc setting.

Peter Bell: The distinction between intrusive and extrusive is great, thanks Paul. To put it more simply, does a lot of the volcanic material come to surface here or was it trapped at depth?

Paul Angus: The older intrusive granodiorites are batholithic rocks which would have formed the deep magmatic sources of the volcanic activity, and are intruded deeper into the volcano-sedimentary package. If we go a bit further to the west, then we start to get more volcanic and sedimentary rocks that were deposited at surface. The view we're looking at now was mainly at depth.

Peter Bell: That would seem to make sense with the genetic model we talked about for this gold-bearing vein, which is the Main Vein.

Paul Angus: Yes, we're looking at an intrusive-related gold system in this area, but the mineralization is not only restricted to the Main Vein.

Peter Bell: I can imagine that there are a wide variety of intrusive-related gold deposits.

Paul Angus: Yes, there are. It's pretty complex. It's still quite a new type of gold system model – it’s only been recognized since around 1999.

Peter Bell: The scale of this Main Vein is quite impressive at 1.6 kilometers, I believe. Can we see it in this picture?

Paul Angus: Yes, it does continue a little bit into the distance there. It has been offset by faulting to the left of this image. There are also several structures that run through a bit further to the left outside of this shot.

Peter Bell: OK, Like that?

Paul Angus: Yes that is it. We think this vein is a faulted offset of the Main Vein to the west of the vein swarm. Mind you, it doesn't go into the big granite in the background. There is also the vein swarm to the east of this section of the Main Vein. These are different from the first vein we have talked about. There are several structures and it's difficult to see them all from here. It is easiest to pick out the main structure down the middle of this photograph.

Peter Bell: And quite clearly, too. Great job lining it up there. How much work have you guys done around there?

Paul Angus: There were samples taken back in 2014 by the company returning gold grades of 4.79 g/t from underground and 2.38 g/t from surface. That wasn't followed up at the time because of a lack of time and resources, and the company's focus back then was really on Hamama. Recently, we started to go back and undertook a surface sampling program. We

took chip channel samples across as many areas as we could and received assays up to 32.9 g/t Au from the northern extension of the Main Vein working.

Even more recently, we started to trench in an area just over the ridge into the vein swarm area.

Peter Bell: Good to see you sampling specifically at the swarms now.

Paul Angus: Yes, we have a vein swarm area that's a bit more of a lower-lying area. It is just north-west of the main mine and we have a lot of shears and veins in that area. It was probably mined from ancient times dating back as far as around 3,000 years ago.

Peter Bell: How continuous would that mining activity have been?

Paul Angus: I think it would have been off and on throughout history. The oldest New Kingdom mining activity would have been alluvial wadi workings, but there is a big Ptolemaic era settlement at Sir Bakis, and also archaeological evidence for later early Arab period houses. We find many workings across the whole license area. And the more we look at satellite images and head out into the field, the more we find. The more we find, the more work we have to do to go and look at them in more detail. It's exciting. It's really good for the company, but it presents its own challenges because we keep on finding more and more.

Peter Bell: 3,000 years ago?

Paul Angus: Yes, that's the date I have. I'm not an archeologist, but we think that some of this area was mined in the New Kingdom era.

Peter Bell: All the way up to the early 20th Century.

Paul Angus: 1906 – we have a date for Sir Bakis being mined by the British. We're not exactly sure what happened at the mine – we're still looking into that.

Peter Bell: We talked about these tramways. Are those tracing back to the 1906 date or prior?

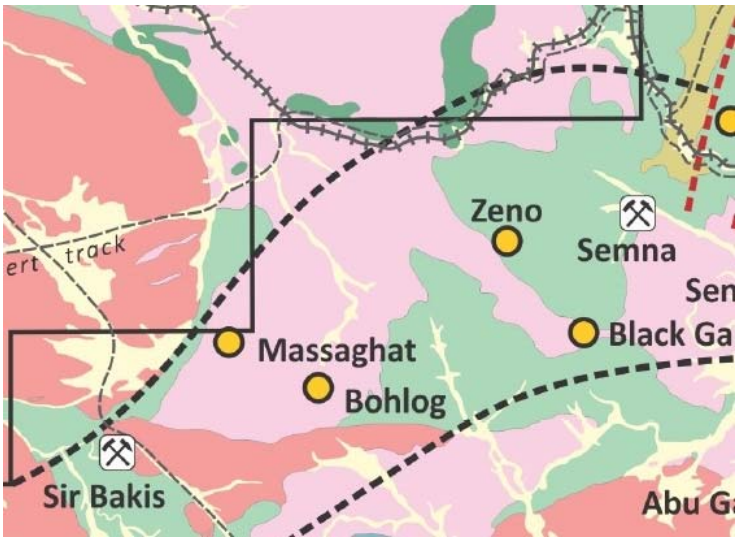
Paul Angus: Yes, these are the 1906 ones. There may have been a small rail line along the tramway, which would have been used to move the ore to

the processing plant. There are other much older paths in the area as well, which would have dated back many years. Actually, we often use these paths to guide us towards old workings; they can be picked out quite easily on satellite images.

Peter Bell: Wonderful. Any modern exploration done around this big old intrusion?

Paul Angus: No. At the moment, we're looking at these areas around the periphery of these bigger intrusions. The mineralization we're finding at the moment is more around the margins of these bigger intrusions, apart from the Abu Garida tungsten mine, which Javier mentioned in the previous interview with you, which points us towards our RIRG model. That is another one of these younger granite intrusions, but it is not shown on the picture we've looked at here.

Peter Bell: I gather that these intrusions generally have some sort of zonation in terms of metal type and distance from the intrusion, conditional on the host rocks and the right chemistry.



Paul Angus: Yes, that's fair. We will be looking more around these intrusions and all the other areas like Zeno, Massaghat, and Bohlog, which have also returned decent gold grades, to see how these metallogenic systems fit together. It is early days on some of these prospects, but we are learning more and more about them every day.

We will soon be looking at trace element analyses to try and find out where we are in the system at each of these targets as that can

ultimately prove very helpful in guiding us towards where we need to look for gold at a concession scale.

Peter Bell: Great. I'm sure it helps to keep it simple at this stage and just start with the gold at the old mine sites, like Sir Bakis.

Peter Bell: Again, how large are these intrusions that we are talking about around Sir Bakis here? Are they multiple kilometers across?

Paul Angus: Yes, they can be. If you refer to the concession map, then you can see different rock types and these intrusions can be quite substantial.

Peter Bell: And the intrusion is off in the background of this photo -- is it approximately 10 kilometers distance from Sir Bakis to the intrusion?

Paul Angus: No, it's closer, the southern margin of the late granite is roughly one kilometer north of the British processing plant.

Peter Bell: Is that distance typically a sweet-spot, or do you think there was some structural control that guided the fluids into this area when things were forming at depth?

Paul Angus: I think a lot of this intrusion is actually underneath us, in fact and we do find smaller granitic outcrops just north of the main mine area. But yes, we are seeing structural features that control the mineralization.

Peter Bell: Ah, that is interesting. I can imagine that would bring the source of the mineralizing fluids closer to this area, particularly when it was trapped at depth below surface. Interesting idea – what fun you have attacking this one!

Paul Angus: Yes, that's right Peter. The granite intrusion is like a ball underneath us. You can see the top of it in the background of the photo, then it curves underneath us. We believe it actually drops underneath where we are, which is critically important as it provides an immediate source for the fluids.

Peter Bell: I hope to watch this unfold for years to come, Paul. Thank you.

Check out another extended quote from the September 13th news release for more, “The Sir Bakis prospect is located approximately 12km NE of the Company’s Hamama West mineral deposit, and has been extensively worked in both ancient and modern times. Review of remote sensing imagery indicates the widespread occurrence of ancient workings, as well as the remains of ancient mining settlements, and there is archaeological evidence suggesting that mining dates back to the New Kingdom period, over 3,000 years ago. During the modern era a British company, Eridia (Egypt) Exploration Company, mined at Sir Bakis between 1904 and 1906. The remains of the old processing plant, various other mine buildings, a tailings pile, and 2 open adits, which access the underground stopes are evident at Sir Bakis (see Figure 2), dating back to the modern phase of exploitation.”

“It is also noted that there are strong similarities between the Sir Bakis prospect and other significant gold mines and projects within the Egyptian Arabian-Nubian Shield, where mineralization is associated with high grade quartz veins and large lower grade zones of stockwork and sheeted vein mineralization, largely hosted in granitoid host rocks, such as Sukari, Fawakhir-El Sid, Hammash and possibly Anbat. AAN believes that the Arabian-Nubian Shield of Egypt has potential to emerge as a significant RIRG belt, with excellent potential within the Company’s Abu Marawat Concession, associated with the post-orogenic or younger granitoid suite of late intrusives.”

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