

From cars to Mars: What's good for F1 is good for life across the universe

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Rocks used to surface the race track at the Abu Dhabi Grand Prix originate from a Shropshire quarry that is being studied by geoscientists from the University of Aberdeen. Credit: University of Aberdeen

The rocks used to surface the track at this weekend's Abu Dhabi Grand Prix are helping scientists understand how life might occur on other planets.



The rocks originate from a Shropshire quarry that is being studied by academics from the University of Aberdeen's School of Geosciences.

Their analysis of the so-called 'deep biosphere' within the quarry has found that the same characteristics that make the <u>rock</u> suitable for surfacing Formula 1 circuits helped provide a habitat for microbes to flourish millions of years ago.

The rocks are particularly resilient, making them resistant to abrasion from F1 car tyres. The same properties make them brittle, allowing the development of deep fractures where microbes can live.

The findings are important in helping scientists understand whether it's possible for <u>microbial life</u> to exist in the sub-surface on Mars, and provides <u>evidence</u> that has been incorporated into an ongoing study that is assessing this possibility.

Professor John Parnell, who is co-authoring the study, commented: "The rocks that that have been used to surface the Abu Dhabi and Bahrain F1 Grand Prix circuits have been chosen because they have some particularly desirable characteristics.

"These characteristics are what created an underground habitat hundreds of millions of years ago, where we have found extensive evidence of microbes that colonised the deep biosphere.

"There is a good chance that the conditions that led to this may be replicated on other planets, particularly on Mars where we have previously found evidence of methane – an important food source for microbial life – in Martian rock.

"As well as its value to Formula 1, the quarry in Shropshire where we undertook this study is a valuable resource to help us understand how life



can flourish deep beneath the surface.

"Indeed, there is a very real possibility that what's good for F1 is also good for <u>life</u> across the universe!"

Provided by University of Aberdeen

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