



BRIEF BACKGROUNDS

FOUNTAIN RANGE

CLONCURRY DISTRICT

Fountain Range is a prominent landmark 22km south of the old Mary Kathleen town site. It is a high but narrow, elongate ridge of white quartz trending northeasterly, extending in an almost straight line for 10km and rising about 200m above the surrounding country. The jagged razor-backed spine with many vertical cliff faces is about 70m wide at its crest, and flares out at its base into a talus or scree slope about 500m wide. The razorback is a series of bare rock faces, while the talus slope and surrounding country are clothed in sparse spinifex and eucalypt vegetation typical of northwest Queensland.

The ridge is broken in two places by ravines cut by creeks; it fades out gradually in the southwest, but terminates more abruptly in the northeast, where it has been dissected by Jimmy Creek.

Fountain Range results from quartz in-filling along a major fault structure, in this case a 'strike-slip' fault, that is, one along which horizontal movement has been dominant. Normally a fault is seen in the field as a juxtaposition of two differing rock types, often in subdued country, but here there is a more unusual phenomenon of a fault expressed by an in-filling of quartz which has remained more resistant to erosion than the surrounding rocks. The quartz has been deposited from silica-bearing solutions that have permeated along the fault zone. Silicification of faults and fissures has occurred repeatedly throughout the geological history of the region; Fountain Range is the most conspicuous example.

In detail, the Fountain Range quartz ridge is lineated or banded, probably as a result of various influxes of silica during movement on the fault line. A second lower quartz-filled fault lies parallel to the main ridge about 250 m to the northwest. Surrounding the fault zone there is a varied assemblage of metamorphic rocks of early Proterozoic (Precambrian) age, which have undergone a most complex history.

The two streams cutting across the ridge are unusual, considering the height and resistance to weathering of the quartz ridge. They may have simply eroded along cross-fractures, but could also have been superimposed across the ridge when the landscape was at a higher level and the ridge was not so prominent. They would then have been captured and forced to cut down through the cross- fractures.

The highlight of the range is Fountain Springs, a quiet serene pool in one of the two ravines cutting the spine. This gorge is a relaxing oasis in a dry land, and is quite well known as a picnic spot for the surrounding district. The ravine has vertical quartz walls and is rarely more than 2m wide; in places it narrows to 1m. During rain, water spills down a 12m high waterfall to the pool below. The main spine can be climbed about 200m south of the springs, providing a good view, especially of the Mount Philp iron deposit to the southeast.

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