## K. WEST VALLEYS

## K6g. The Ou Werf Valley - Hydrology

The Ou Werf Valley (Figure 1) is an endorheic valley: a closed drainage basin which retains water and allows no outflow to external bodies of water, such as rivers or oceans. Water from ravines around the valley run into it, to be absorbed by the red sand, which comprises the valley floor. In years of heavy rains, some of the water accumulates in the lowest part of the valley, to form a periodical vlei (Figures 2 to 4).



Figure 1. Satellite image of the Ou Werf Valley. The yellow box points to the location of a periodical vlei; the green box points to one of the locations where ravine water disappears into the ground.



Figure 2. Topographic map showing the location of the periodical vlei in the lowest part of the Ou Werf Valley.

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The periodical vlei can only be seen on images from 2006 and 2013 (Figures 3 and 4). It could have been formed in other years as well (satellite images from other years are of poor quality).



Figure 3. Satellite image of the periodical vlei in the lowest part of the Ou Werf Valley, 2005.



Figure 4. Satellite image of the periodical vlei in the lowest part of the Ou Werf Valley, 2013.SoDHaE Chapter K Jan 2020This document contains information which is the exclusive property of Yoav Eytam

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Water which runs in a ravine in the southwest of the valley (Figures 5 and 6) disappears in the sand on the valley's floor (Figure 7).



Figure 5. Satellite image of the south part of the Ou Werf Valley. Arrow points to a ravine.



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Figure 6. Satellite image of the south part of the Ou Werf Valley. Arrow points to a ravine.



Figure 7. Satellite image of the south part of the Ou Werf Valley. Arrows point on shallow gullies formed by the flood water from the ravine shown above, before it disappeared into the sand.

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There are two fountains and four boreholes in the Ou Werf Valley (Figure 8). Each of the fountains fills a pond (Figures 9 to 12).



Figure 8. Satellite image of the Ou Werf Valley. The yellow arrow points to the fountain in the western basin (Figures 9 and 10); the blue arrow points to the fountain in the eastern basin (Figures 11 and 12); the white arrows point on boreholes.





Figure 9. Satellite image of the south part of the western basin of the Ou Werf Valley. Arrow points to a fountain and a pond.



Figure 10. The pond in the western basin.



Figure 11. Satellite image of the south part of the Ou Werf Valley. The white arrow points on a fountain and a pond in the south end of the eastern basin. The yellow arrow points of the ruins of Ou Werf.



Figure 12. The pond in the eastern basin.

