

CASE STUDY: XTEND ELEMENTS & HARD WATER

LOCATION: HOTAZEL, NORTHERN CAPE DURATION: 1 YEAR (NOV 2020 - NOV 2021) GEYSER: KWIKOT 150 L GRADE B

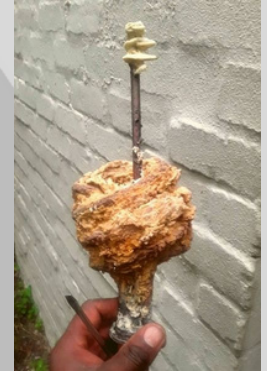
PROBLEM STATEMENT

High RUNNING and REPLACEMENT costs of elements in geysers

Standard elements normally last 2-3 months and then need replacing which is both time consuming and costly. Not to mention the hassle of having to drain the geyser 3-4 times a year and then the water wasted each time. In addition, the efficiency of the element during its short lifespan is also compromised by the limescale build up that eventually causes the element to burn out.

As limescale builds up on normal elements it prevents the heat from dissipating into the water, thus making the element work harder and harder, costing more and more money to achieve the same result. The element does not know the heat is not getting into the water so continues to heat up until it burns out after 2-3 months.

STANDARD ELEMENT



SOLUTION

Replace standard spiral element with XTEND Element

2 MONTHS POST INSTALLATION



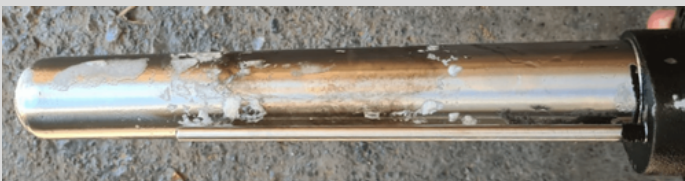
- ✓ Limescale around the middle of the element where the heating core is located, away from the baseplate, reducing heat losses.
- ✓ Heat transfer still perfect where there is no scale build-up.
- ✓ Performance is not reduced.
- ✓ The ceramic heating core is protected by the stainless-steel tube.

12 MONTHS BEFORE CLEANING



- ✓ There was significantly less limescale buildup in the bottom of geyser than usual.
- ✓ Scaling reduced as operating temperature of our element is 270°C not 500°C.
- ✓ XTEND element still near 100% efficiency despite scale.

12 MONTHS AFTER CLEANING WITH CALC CLEAN



- ✓ XTEND element looks as good as new after cleaning.
- ✓ Re-installed and continuing to save energy.
- ✓ Servicing an XTEND element once a year is more cost effective than replacing a standard element 3 or 4 times a year.

CONCLUSION

XTEND has avoided at least 4 replacements and saved over 25% electricity. Even in the hardest of water, a simple service will return XTEND to full efficiency. XTEND is an excellent hard water solution.

CLIENT FEEDBACK

“ We were changing elements all the time and wanted a solution to reduce replacement costs. We installed XTEND elements and checked the condition after 2 months. There was some limescale build up but not significant so we re-inserted the element as it was working well. After 12 months we removed the element again and there was more limescale than at 2 months. We decided to clean the element, with CaC Clean, and it turned out as good as new, so we re-inserted the element which is still working 14 months later. Most elements do not last longer than 3 months here. We also noticed that there seemed to be less limescale produces than with standard elements. We are very happy with the result and the performance of the XTEND element. ”

Harry - South 32 Mines