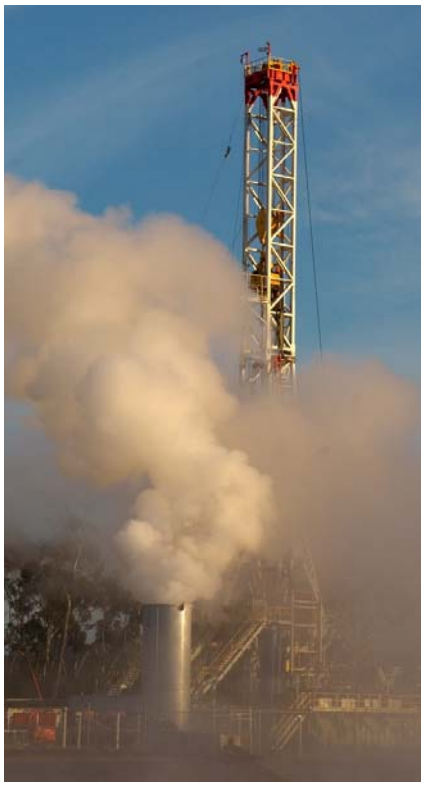
PANAX GEOTHERMAL

5 October 2010 **ASX ANNOUNCEMENT**

Panax Optimistic about Salamander-1 Well Potential

Panax Geothermal Ltd ("Panax") is pleased to advise that the final well test report as completed by SKM (New Zealand) has now been received. This report presents the results of five production/discharge tests and one injection test. The results of these tests are not different from those already reported previously by Panax*). However, it now appears likely that the test results reflect the status of the well itself, rather than the quality of the intersected target reservoir rocks. By adopting appropriate well completion techniques/methods, we are optimistic that the Salamander-1 well can still be developed into a production well.

The pioneering 4,025m deep Salamander-1 well met its primary objectives by intersecting more than 1,100m of target reservoir rocks, the Pretty Hill Sandstone. Over the interval 2,900m-3,570m, it intersected 675m of reservoir sandstones with an average porosity of 13.2%, followed by 411m of reservoir sandstones over the interval 3,570-4,000m, with average porosity of 10.2%. Interpretation of the petrophysical logs (wireline logging data) of the target open hole section indicates that the total thickness of the intersected permeable zones (transmissivity = capacity to flow, also known as Darcy meters or Dm or as kh) has a "most likely" value of 6.7 Dm and this would meet the requirements for a Demonstration Plant, which could meet all the power requirements for Penola. The interpreted petrophysical logs have also indicated that the transmissivity could be as high as 13.5 Dm, some 30% higher than that originally targeted for Salamander-1. The bottom hole geothermal temperature was measured at 171.4°C, exceeding the projected target temperature by more than 10°C.



Well test results show that the transmissivity of the well significantly decreased with each successive production/discharge test, with the final test showing a transmissivity of less than one tenth of its starting value. Also, results clearly indicate that the acid treatment, which was carried out after the fourth discharge test, decreased the remaining transmissivity by approximately 50%.

Salamander-1 is a pioneering HSA well, with a 1,100m lined, open hole section. From the outset we were aware that precautions had to be taken with drilling the long open hole section of the well. According to regulations, Salamander-1 had to be drilled with overweight drilling

*) see ASX announcement 21 June & 5 July, 2010 and June, 2010 Quarterly Report.

fluid or mud to counter "blow-out risk". After careful consideration and advice, we elected to drill the open hole section with a water based heavy brine to counteract potential problems. Salamander-1 well logs show that the open hole section suffered considerable "well break out" in the shale horizons (i.e. diameter of the well bore increases because of formation collapse), adding clays to the water based drilling fluid. Also, acid treatment was used in the final clean-up of the drilling operation, which could have deteriorated the well bore even before the start of the well testing programme.

COMPLETION OF PETROLEUM WELLS

In successful petroleum wells, target reservoir zones are cased off, with the casing cemented to the well bore rocks. Production tests can only be carried out after the casing has been perforated in the target reservoir zone, normally over a height of tens to (rarely) hundreds of metres. To perforate the steel casing and the cement, an explosive 'perforating gun' is used to shoot through these barriers, penetrating deep into the reservoir rocks. This is known as a standard "well completion"' in the petroleum industry. These methods are too expensive for application over an interval of more than 1,000m as in the Salamander-1 well and other, more innovative well completion techniques have to be used to demonstrate the potential of this well.

The issues we have encountered in the Salamander-1 well are not dissimilar to the problems experienced by the coal bed methane ("CBM") industry in the 1980s and 1990s. Many of the original pioneers in this field used standard petroleum drilling methods, but did not succeed in producing economic flows. After spending 100s of millions of dollars, many of these pioneering companies gave up. History shows that these "well completion problems" were resolved by adopting new well completion techniques. Panax has now engaged experienced reservoir engineers, who were instrumental in resolving the CBM well completion problems encountered in Queensland and who played a major role in making the CBM industry for what is today, a multi-billion industry.

In summary, indications are that the adopted drilling techniques, including the acid clean-up and the successive discharge tests which were followed by acid treatment, have led to a deterioration of the well bore, preventing the testing of the actual potential of the intersected reservoir rocks. The focus will now be on a detailed examination of the Salamander-1 drilling records, including drill mud logs and the reservoir tests, as a basis for developing an optimised well completion program.

Discussions are continuing with a number of parties who have expressed interest in partnering with Panax on the Penola Project.

Bertus de Graaf
Managing Director

For further information:

Dr Bertus de Graaf **bdegraaf@panaxgeothermal.com.au** **61 7 3512 7000**	**Mr Kerry Parker** **kparker@panaxgeothermal.com.au** **61 417 731 014**