WELLBORE SCREEN WITH TRACER FOR FLUID DETECTION

BACKGROUND OF THE INVENTION

Wellbore screens may be used to filter out sand and like particulate impurities from the produced fluid before the fluid is pumped to the surface. If some form of filter is not provided for fluid entering the well, sand and other impurities entrained in the fluid may materially reduce the effective life of the well pump and/or other apparatus to which the well is connected.

SUMMARY OF DISCLOSURE~~INVENTION~~

In accordance with a broad aspect of the disclosure~~invention~~, there is provided a wellbore screen including an apertured base pipe; an intermediate filtering layer including a plurality of metal fibers wrapped helically around the apertured base pipe and a fluid tracing filament wrapped helically about the apertured base pipe, the fluid tracing filament including a filament structure and a tracer carried by the filament structure, the tracer being entrainable in produced fluids in a wellbore environment; and an outer apertured shell over the intermediate layer.

In accordance with another broad aspect of the present disclosure~~invention~~, there is provided a method for producing a wellbore screen, the method including forming a filter tube by wrapping an intermediate layer, including a metal wool fiber strip and a fluid tracing filament, about an apertured base pipe in a helical arrangement under tension; positioning the filter tube within the long bore of an outer apertured sleeve; and securing the outer apertured sleeve and the filter tube together.

It is to be understood that other aspects of the present disclosure~~invention~~ will become readily apparent to those skilled in the art from the following detailed description, wherein various embodiments of the disclosure~~invention~~ are shown and described by way of illustration. As will be realized, the disclosure~~invention~~ is capable for other and different embodiments and its several details are capable of modification in various other aspects, all without departing from the spirit and scope of the present disclosure~~invention~~.