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Entitled
GEOCHEMICAL AND RADIOLOGICAL BASELINE STUDIES AND ENVIRONMENTAL IMPACT OF
THE AREA SURROUNDING BARAKAH NUCLEAR POWER PLANT, UAE.

by
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Abstract
Geochemical, mineralogical and natural radiation analysis techniques were used for establishment of geochemical and radiological baseline around Barakah Nuclear Power Plant, UAE. The natural radioactivity concentrations of $^{238}$U ($^{226}$Ra), $^{232}$Th and $^{40}$K were measured for soil, shore and bottom sediment samples, using gamma spectrometry using HPGe detector. In addition, Alpha spectrometry was used to measure $^{234}$U/$^{238}$U ratio for some selected samples. Furthermore, inductively coupled plasma emission spectroscopy was used to measure the concentrations of heavy metals and REE.

Keywords: radiological baseline, Barakah Nuclear Power Plant, heavy metal, gamma spectrometry.