NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

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(TITLE OF PROJECT)

Extraction and Analysis of Available sulphur in Soils

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ABSTRACT

The efficiency of various extractants used for the extraction of available sulphur in Zimbabwean soils is assessed on the basis of the forms of available sulphur extracted. Furthermore the speed of filtration, turbidity of the extracts and ease of analyses of the extracts by the available instrumental methods within Agricura Laboratory is compared. The extracted sulphur is quantified by ion chromatography. (IC) and Inductively coupled plasma spectroscopy (ICP), the merits and limitations of both instrumental methods is discussed. The amount of available sulphur in the soil is related to other soil factors mainly pH and amount of clay. The effect of varying the extracting conditions i.e extracting time, soil to extractant ratio and pH of extracting solution is evaluated. The possible cause of sulphur deficiency in Zimbabwe is investigated, and possible solutions are suggested.