

## Gas Chromatography Technical Information

SRE has developed its own Gas Chromatograph application and field testing equipment, as well as proprietary methodology for performing specific on-site analyses, which are both more efficient – and more accurate - than those offered by other testing service companies.

This advantage allows us to be more effective and provide better value to our clients while on site. Faster turnaround of the accumulated data and the ability to analyze more samples in a shorter period of time creates two main benefits for the client:

1. More accurate results due to less chance of degradation of gas samples caused by excessive elapsed time between collection and analysis.
2. Faster analysis allows a greater number of samples to be taken and analyzed over a shorter period of time. SRE requires less than five minutes to run and fully analyze a single gas sample.

### Gas Chromatograph Calibration

SRE's chromatographs are calibrated on a regular basis using certified and up-to-date calibration standards. These calibration mixtures are of the highest accuracy that is available in the industry. These gases are often referred to as 'protocol' or 'primary' standards.

### Components Analyzed

The follow is a list of the components that are analyzed in each process stream.

H <sub>2</sub>	SO <sub>2</sub>	Toluene
Ar	CS <sub>2</sub>	Ethyl Benzene
O <sub>2</sub>	C <sub>3</sub>	p-Xylene
N <sub>2</sub>	NH <sub>3</sub> (**only in SWS AG**)	m-Xylene
C <sub>1</sub>	iC <sub>4</sub>	o-Xylene
CO	nC <sub>4</sub>	Methyl Mercaptan
CO <sub>2</sub>	iC <sub>5</sub>	Ethyl Mercaptan
C <sub>2</sub> H <sub>4</sub>	nC <sub>5</sub>	i-Propyl Mercaptan
C <sub>2</sub> H <sub>6</sub>	C <sub>6</sub> +	n-Propyl Mercaptan
H <sub>2</sub> S	Methanol	i-Butyl Mercaptan
COS	Benzene	n-Butyl Mercaptan

The lower detectable limit for all components except for H<sub>2</sub> is 1 ppm. The lower detectable limit for H<sub>2</sub> is 10 ppm.

Special analyses of compounds not listed above are available on request. NH<sub>3</sub> will only be analyzed in Sour Water Stripper Acid Gas streams, unless specially requested by the client.