



DIVERSIFIED

WELL LOGGING, LLC

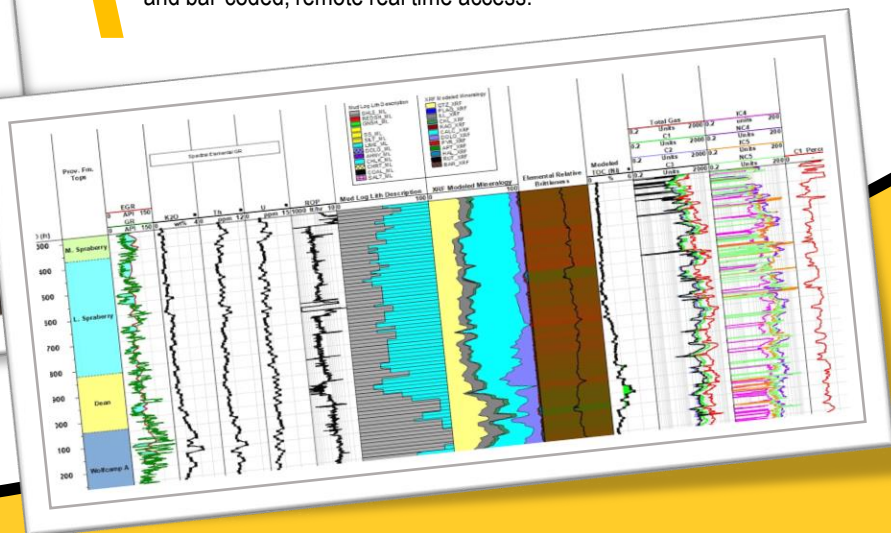
Surface Measurement While Drilling™

There is **enormous value** in the elemental analysis of drilled cuttings. When the highest resolution is required to augment or fill in geological gaps but where cost restrictions limit choice, DWL uses its **Automated Remote Mudlogger** to collect cuttings at rates of up to one sample per minute. The ARM's **high resolution** is the perfect solution to **cost-effectively analyze** and correlate every well on a pad or field with high certainty.

For **realtime analysis** and the benefit of **increased geological certainty**, Diversified offers **Hybrid Mud Logging**. Replacing standard descriptions and percentage lithology with accurate XRF data and modelled mineralogy or lithology, Operators are **assured quantitative scientific data** that can be used in geological models for completion programs and overall field development. Realtime application of this data is used by DWL for its **Chemosteering** service; valuable in its own right and when used alongside GR for correlation, sample depth verification, or when GR loses definition or fails completely.

With the **Automated Remote Mudlogger**, **Hybrid Mud Logging**, and **Chemosteering**, Diversified Well Logging now offer a step-change in well evaluation – Surface Measurement While Drilling – that gives **increased geologic certainty** with data that can be **economically run on every well**.

The ARM: fully automated; small footprint; simple installation; collects samples at up to one per minute; stores up to 300 samples; samples lagged and bar-coded; remote real time access.



Surface Measurement While Drilling (SMWD)



OUR SMWD SERVICE FAMILY

Hybrid Mud Logging

- Integrated elemental and gas analysis
- Modelled mineralogy, lithology
- Fifty samples per day analyzed
- Two daily reports

Automated Remote Mud Logging

- Hi-definition sample collection
- Remote sample observation
- Auto-packaged for geochem

Advanced Gas Service

- Gas quality control and analysis
- Mass spectrometry
- Isotube collection

Chemosteering

- Pre-drill chemostratigraphic studies
- Elemental GR for depth tracking and sample QA/QC
- Remote & Wellsite Chemosteering
- Post well analysis including modeling mineralogy, TOC, rock mechanical properties, sedimentology, provenance and depositional environment
- Post well chemostratigraphic correlation and integration into geological models