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QL40-OBI2G-UV Data Sheet

QL40-OBI2G-UV Optical Televiewer with UV Imaging

The **QL40-OBI2G-UV** probe is an advanced optical televiewer designed to capture both visible light and high-sensitivity UV images of subsurface lithologies and soils within a borehole. It emits 365 nm UV LED light through a sapphire window to induce fluorescence in non-aqueous phase liquids (NAPLs), such as petroleum hydrocarbons.

Key Features:

- Dual Imaging Capability: Simultaneously captures visible and UV-induced fluorescence images at 30 fps for detailed subsurface analysis.
- High-Resolution Imaging: Utilizes a CMOS camera to provide 24-bit RGB true color with 1800 azimuth resolution, delivering precise pixel-by-pixel image capture.
- Advanced Data Collection: When used with the OIP interface, FI6000 instrument, and a laptop, the system collects data on electrical conductivity (EC), penetration rate, fluorescence area (%), and optical power content (%).

Applications:

- Environmental Studies: Detect and map NAPL migration in subsurface materials, enabling horizontal and vertical tracking of petroleum hydrocarbons.
- Hydrogeological and Geological Assessments: Ideal for assessing risks and hazards posed by contaminants.
- Petroleum Research: Proven effective in distinguishing fluorescence variations among different fuels, such as diesel, gas, and crude oil.
- This versatile tool enhances borehole analysis by combining high-resolution optical imaging with UV fluorescence capabilities, making it an invaluable instrument for environmental, geological, and hydrogeological studies.

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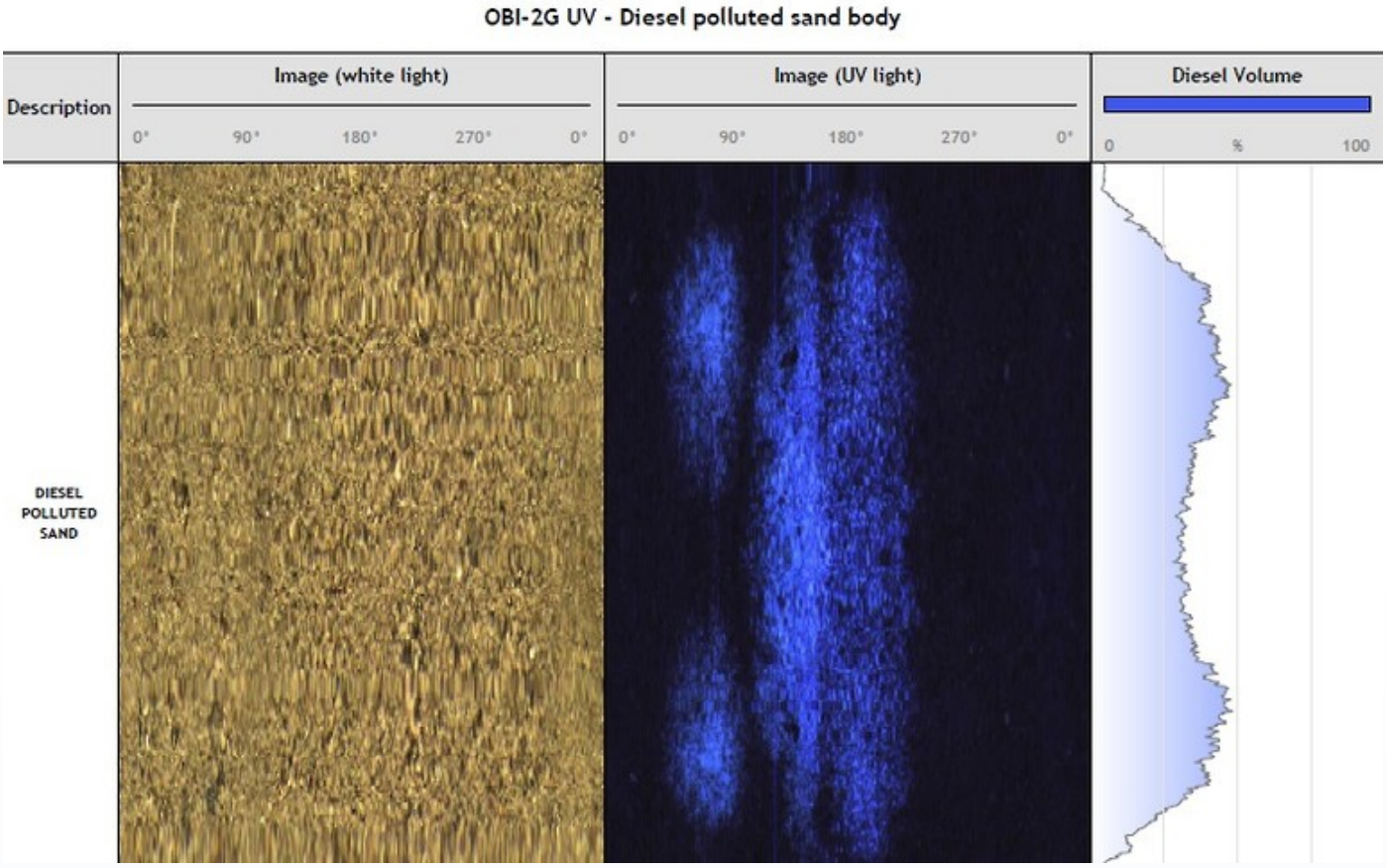

The QL40-OBI2G-UV probe was utilized in a pollution study to analyze diesel fuel concentrations within a silica-rich sand body. Image supplied by Mt Sopris.

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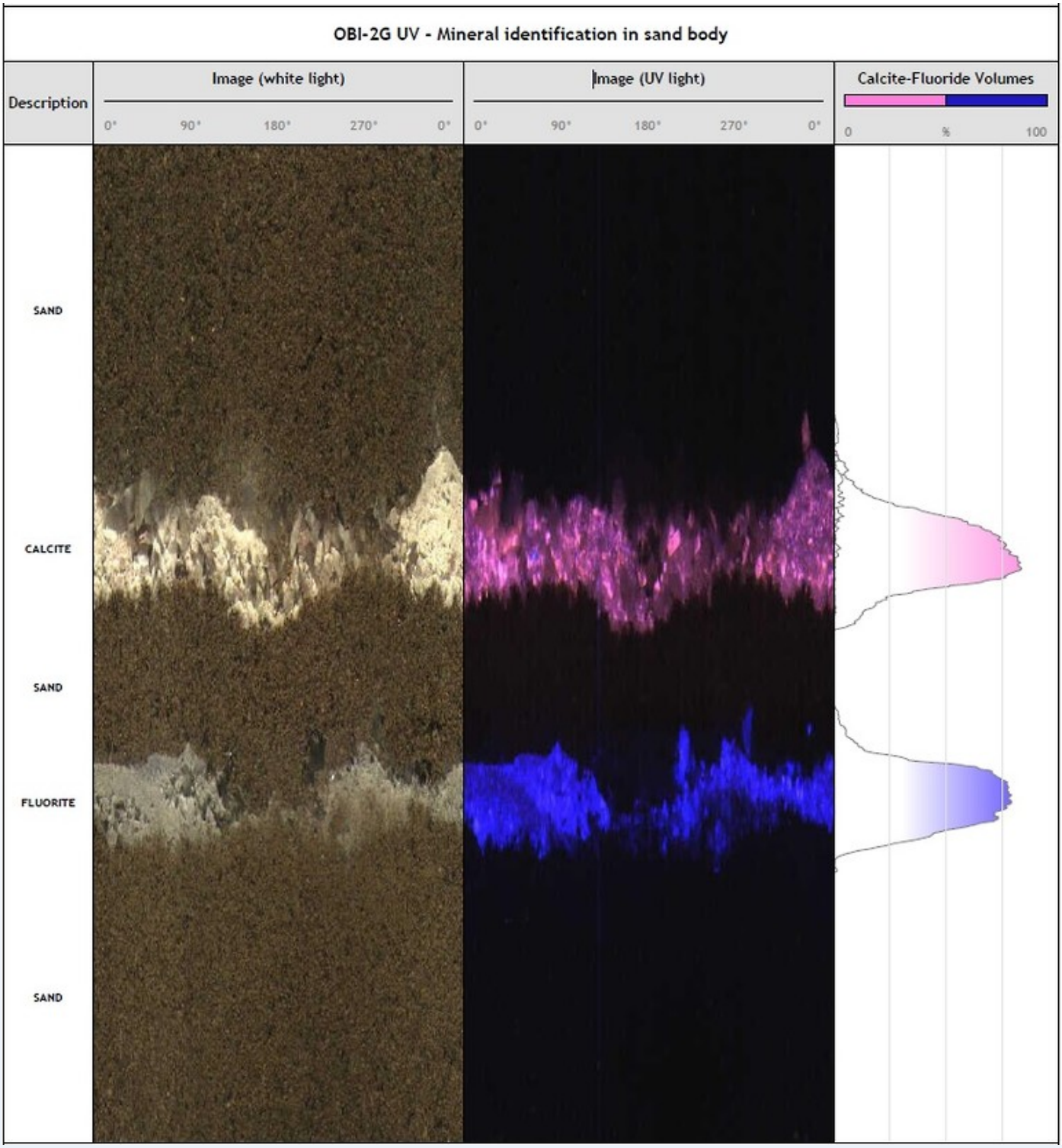

The QL40-OBI2G-UV probe was deployed in a study to analyze the concentrations of calcite and fluorite minerals within a silica-rich sand body Image supplied by Mt Sopris.

Operating Conditions

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W - Water ?
M - Mud
D- Dry ?

S - Steel ?
P - PVC Borehole ?
UC- Uncased ?

*Centralization is not required, it can only operate in clear water or dry conditions

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	1.47 m x x	5 kg

Technical Specifications

UV Wavelength:	365nm-UVA
Image Sensor:	CMOS 1/3 inches Digital Sensor
Resolution:	24 Bit RGB true colour and 1800 pixel azimuthul resolution
Precision:	3 axis accelerometer and magnetometer
Optimal Operating Temperature:	70°C

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