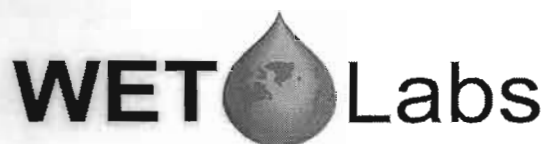PO Box 518
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WET Labs

C-Star Calibration

Date	February 15, 2010	S/N#	CST-1032DR	Pathlength	25 cm

Analog meter

V_d	0.060 V
V_{air}	4.778 V
V_{ref}	4.690 V

Temperature of calibration water	23.4 °C
Ambient temperature during calibration	22.3 °C

Relationship of transmittance (Tr) to beam attenuation coefficient (c), and pathlength (x, in meters): $Tr = e^{-cx}$

To determine beam transmittance: $Tr = (V_{sig} - V_{dark}) / (V_{ref} - V_{dark})$

To determine beam attenuation coefficient: $c = -1/x * \ln(Tr)$

V_d Meter output with the beam blocked. This is the offset.
V_{air} Meter output in air with a clear beam path.
V_{ref} Meter output with clean water in the path.
Temperature of calibration water: temperature of clean water used to obtain V_{ref}.
Ambient temperature: meter temperature in air during the calibration.
V_{sig} Measured signal output of meter.