

Colloidal Borescope

AquaVISION Colloidal Borescope

AquaVISION provides services and instrumentation which can measure groundwater velocity, direction and particle size all in real time. We accomplish these difficult tasks by using our proprietary hardware and software known as the “AquaVISION Colloidal Borescope System.”

AquaVISION’s Colloidal Borescope System was developed by a team of research scientists to accurately determine groundwater velocity, direction and particle size in real time. Current down hole technologies only allow for a few groundwater flow measurements per day. The AquaVISION Colloidal Borescope System yields Thousands of Data Points Per Minute for hours of statistically assured data.

BENEFITS

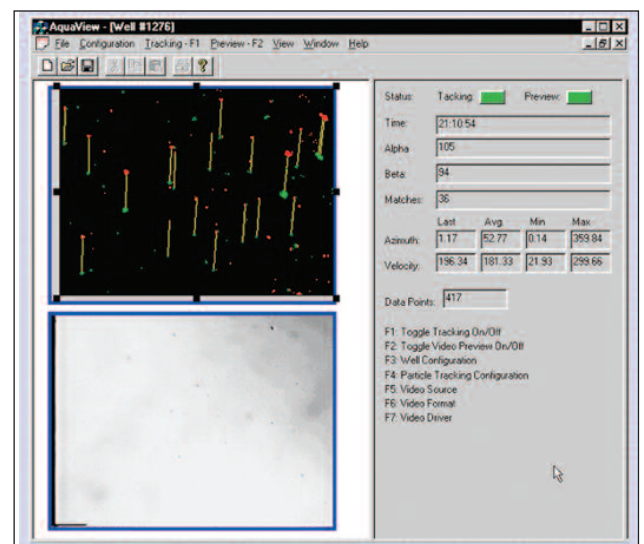
AquaVISION’s Colloidal Borescope System provides a direct means of accurately determining groundwater flow direction and velocity. The Borescope measurement technique uses existing monitoring wells for assessment and thus avoids the cost of additional wells and piezometers.

APPLICATIONS

- Assessing groundwater capture zones
- Planning locations for monitoring and extraction wells
- Accurately calibrating groundwater models
- Tidal influences
- Industrial hydrology
- Gathering evidence for groundwater contamination litigations
- Can observe flow at the pore scale which measure velocities ranging from 0 to 25 mm/sec,
- Evaluate “Cross-hole” hydraulic connections

COMPONENTS

- Colloidal view video microscope with magneto resistive digital compass for viewing of groundwater speed and direction.
- Camera control unit for colloidal borescope incorporating camera and lighting power supplies and digital compass serial data converter enabling operation with common USB port.
- AC and DC power cords for convenient versatile power source operation.
- 100-1000' (200' standard) composite video underwater camera cable incorporating Kevlar® longitudinal strain relief and polyurethane outer jacket.
- Standard unit (200') includes hand reel, carrying case and PC video card.
- 20' splash proof extension cable for connecting camera control unit to reel on systems 300' and longer.
- AquaLITE software with 1 year free upgrades and tech support (training required).
- Detailed operation manual with full instruction on how to operate the instrument.



[Click here for animated screen shot](#)

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SPECIFICATIONS

Applications:	2" (5.8cm) or larger well diameter
Maximum Operating Depth:	1000'
Maximum Water Pressure:	3000' water column
AC Power Requirements*:	120 VAC 47 to 63 Hz. 7 Watts. Service requirement < 1 amp.
DC Power Requirements*:	10 to 16 VDC @ < amp
Probe Size:	21.25" L x 1.75" OD
Probe Weight:	5. lbs.
Probe Housing Material:	300 series stainless steel
Window Materials:	Sapphire
Camera Control Unit Size:	3.98" W x 7.89" L x 3.16" H
Camera Control Unit Weight:	2 lbs.
Cable Size:	.32" OD (customer specified length from 100' to 1000')
Cable Jacket Material:	Urethane (composite cable material ROHS compliant)
Electrical Component Material:	Non-ROHS compliant, dispose of properly
Operating Temperature Range:	-10° to 45° C (14° to 113° F)
Camera Field of View:	2.7mm x 2mm
Depth of Focus:	.2mm

* Not including laptop or PC

