

GROUNDWATER SUPPLY SERVICES

SERVICES

Groundwater Development Evaluation and Well Site Selection

- ◆ Review geologic literature and well records
- ◆ Interview well drilling contractors
- ◆ Review topographic maps and aerial photographs
- ◆ Perform fracture trace analyses

Field Activities

- ◆ Geophysical logging of Coastal Plain wells
- ◆ Field verification of mapped fracture traces
- ◆ Geophysical surveys to precisely locate bedrock aquifer wells
- ◆ Oversight of well drilling and construction activities, prepare geologic logs
- ◆ Well depth completion recommendations
- ◆ Monitor aquifer pumping tests
- ◆ Collect samples for water quality analysis

Well Design and Aquifer Test Analysis

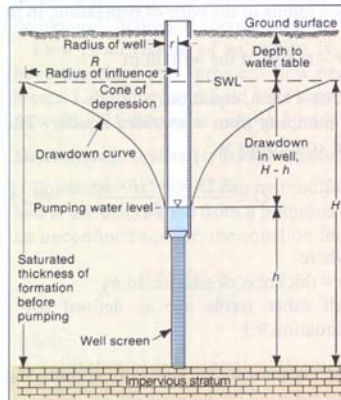
- ◆ Prepare plans, specifications, bid documents for drilling, construction, and testing
- ◆ Prepare aquifer test plans
- ◆ Aquifer test data analysis
- ◆ Operational pumping rate recommendations

Permitting, Impacts Analysis and Planning

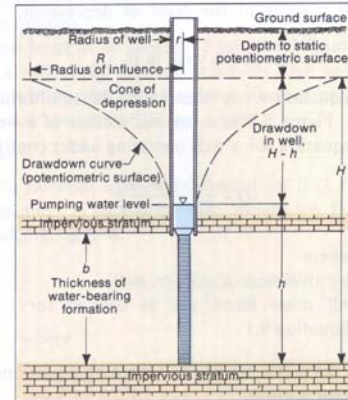
- ◆ Prepare Health Department well permit applications
- ◆ Prepare groundwater withdrawal permit applications
- ◆ Conduct hydrological studies required by municipal/county ordinances
- ◆ Assess municipal water supply needs
- ◆ Assess drainfield impacts on wells
- ◆ Assess contaminated wells and identify remediation options
- ◆ Well rehabilitation assessments
- ◆ Groundwater modeling to predict well drawdown and impacts to existing wells, mitigation plans
- ◆ Management planning to maintain and improve groundwater quality
- ◆ Expert witness testimony

Draper Aden Associates has over 33 years of experience locating, evaluating, and developing groundwater supplies in Virginia. Our hydro-geologic staff has a proven track record of successfully locating favorable yielding wells in bedrock and Coastal Plain aquifers. Our working relationship with developers and civil engineers responsible for water system design is excellent, as is our relationship with local and state permitting agencies.

Draper Aden Associates' clients include developers, other engineering firms, municipalities and universities. Typical projects include locating groundwater supplies for industries, industrial parks, municipalities, residential subdivisions, commercial facilities, and individual residences.



Well in an unconfined aquifer showing the meaning of the various terms used in the equilibrium equation



Well in a confined aquifer showing the meaning of various terms used in the equilibrium equation



SUPPORT SERVICES

- ◆ Ecological Services
- ◆ Environmental Services
- ◆ Geographic Information Systems
- ◆ Geological/Hydrogeological
- ◆ Geotechnical Engineering
- ◆ Site Planning and Engineering
- ◆ Solid Waste Management
- ◆ Structural Engineering
- ◆ Surveying
- ◆ Subsurface Utility Engineering
- ◆ Telecommunications Engineering
- ◆ Utilities/Civil Engineering



Draper Aden Associates

Engineering • Surveying • Environmental Services

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