

Ground Water Forum Field Trip – Fractured Bedrock Hydrogeology in a Piedmont Setting: Water Supply and Contaminant Migration

Participants will travel to the Los Arcos Outcrop and discuss fractured rock hydrogeology principles in general and how they apply in the Piedmont of North Georgia.



Participants will then travel to the Saprolite Outcrop to discuss weathering of metamorphic rock and the relic structures visible and its role in water supply and contaminant transport. The two pictures show the expanse of the outcrop and the details of the weathered rock.



Participants will then travel to the Cedars Road Stop to view outcrop in stream bed that exhibits basic rock/fracture relationships necessary for water supply well development.

Participants will then travel to the Airport Well Stop to observe outcrop showing alternating beds critical to water supply conceptual model and adjacent 600 GPM water supply well.

The final stop on the field trip is the Maltbe Street Well, a municipal well for the City of Lawrenceville. USGS will conduct downhole geophysical well logs in this well to show the inner structures and fractures that produce the groundwater supply. Also, State permitting process has required that the City perform further evaluations, like a recent aquifer test, to demonstrate the protectiveness of the well relative to two small but nearby sites; one with a metals issue and one with a solvent issue. This final stop will allow for a wrap up of the concepts of piedmont hydrogeology, the details of the USGS' work and research which has identified 2 million gpd of groundwater supply for the City of Lawrenceville and raise the awareness of the complicated interplay of water supply and hazardous waste sites in fractured bedrock settings.

Below is a detailed agenda for the day.

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| 10:00 AM – 6:30 PM | Ground Water Forum Field Trip – Fractured Bedrock Hydrogeology in a Piedmont Setting: Water Supply and Contaminant Migration |
| 10:00 – 10:15 | BREAK – Gather Field Trip Gear and Meet at the Bus |
| 10:15 – 11:15 | Depart hotel and travel to Lawrenceville, GA |
| 11:15 – 11:45 | First Stop: Meet field trip leaders and outline the trip |
| 11:45 – 12:30 | Boxed Lunch at the first stop and view rock outcrop |

- 12:30 – 5:30 Visit outcrops at Cedars Road and the Airport Well.
Visit Matbe Street Well where USGS will conduct downhole
geophysical logging. Break at a Gwinnet County Water
Resources Office.
- 5:30 – 6:30 Return to the Intercontinental Buckhead Atlanta hotel