

Geotech work, S4

Milind Diwan

Last year's geotech prop

- Main participants: Ken Lande, Derek Elsworth, Herb Wang, Onstott, Sookie bang
- The plan was
 - 15 cores on the 4850 ft level.
 - mapping work
 - analysis of cores
 - analysis of cavern stability from two firms
 - money for 1 drift into the chosen site.
 - money for a review panel
 - associated basic scientific work enabled by the coring.

Rejection reasons

- Science case was too premature (before P5 panel made its recommendations)
- There is no established panel (now there are 2 panels)
- There is no collaboration (now there is)
- Needs more justification for depth (now we have depth document)
- Proposal is badly written ! (we are not Shakespeares)

New complications

- There is an RFP from LBL to do some geotech studies at 4850 ft. There is no drilling at or near the Davis cavity or in the Yates structure of interest in the plan.
- There is talk of NSF attaching coring work for the neutrino detector to the existing LBL scope.
- CDR needs to be prepared by end of 2009.
- S4 award is for 3 years.
- There are new people in the collaboration.

Drilling Program

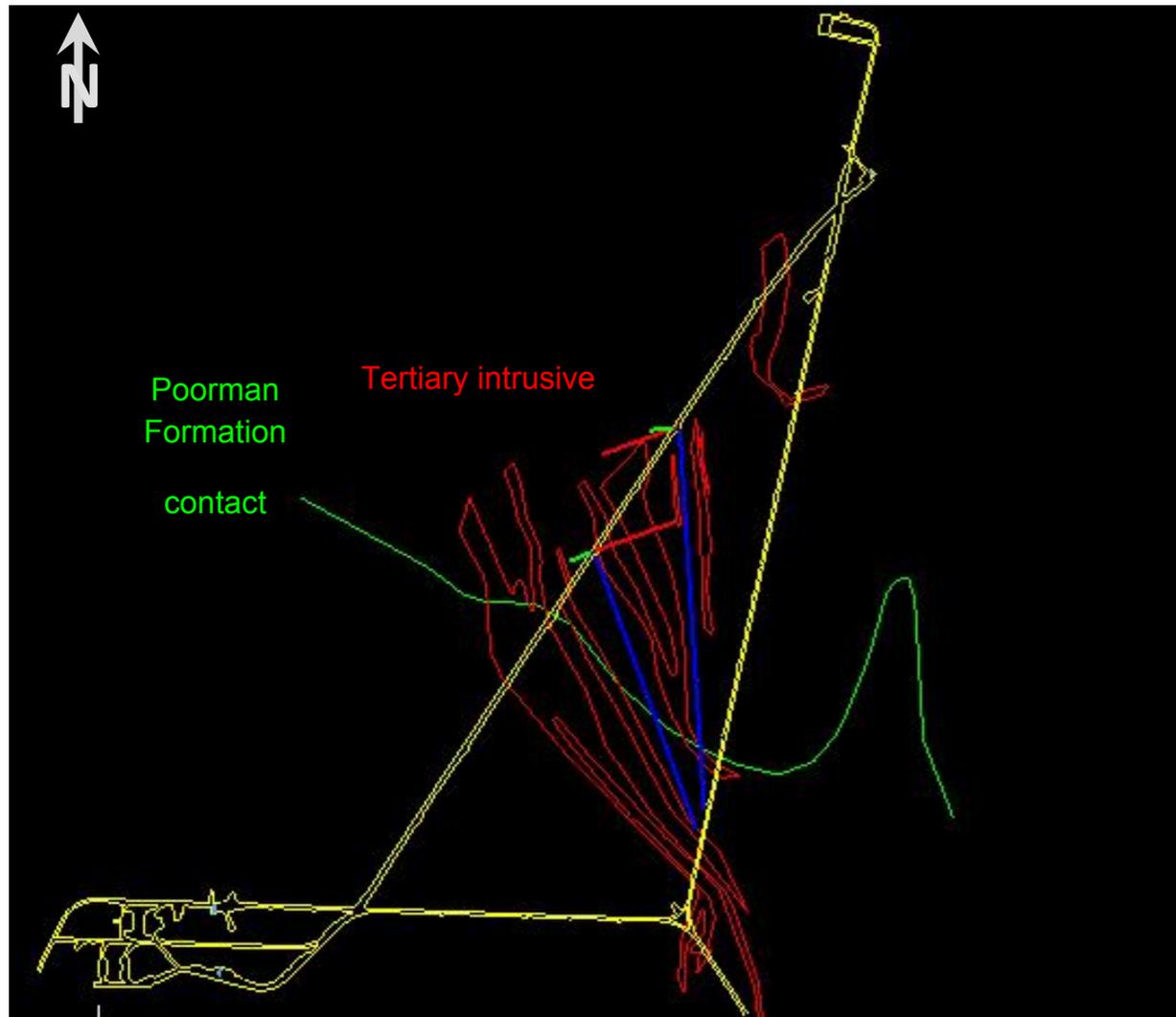


Fig.29 Location and orientation of directional drill holes in DUSEL area with reference to geology.

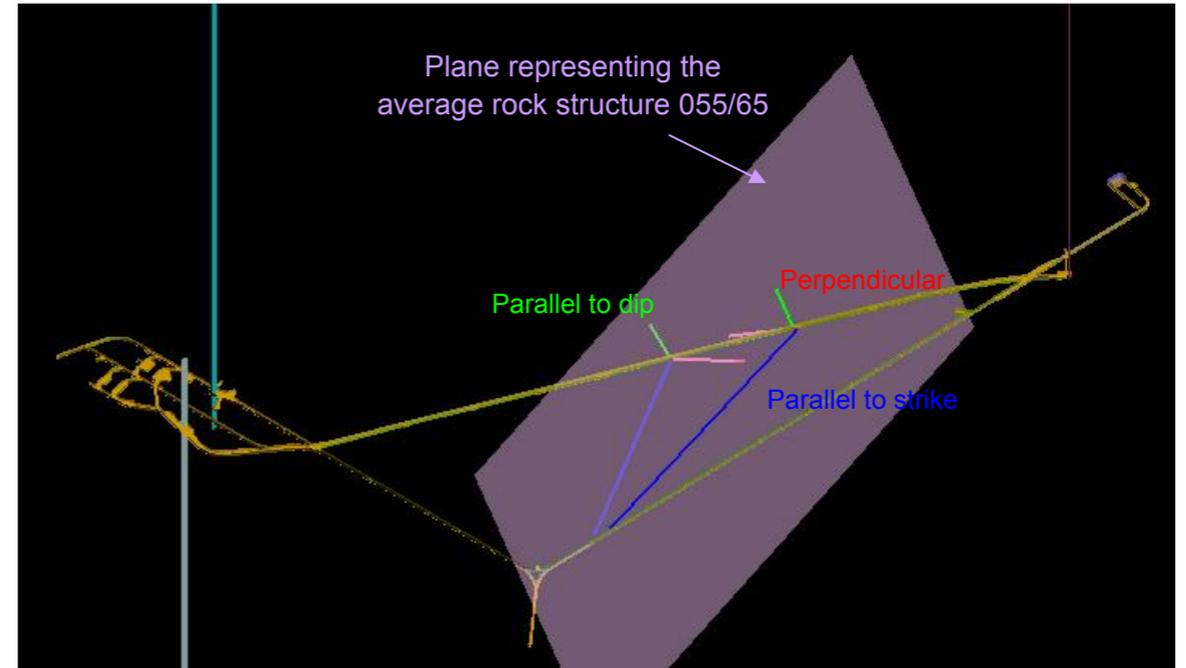


Fig.31 Orientation of drill holes with reference to the average attitudes of rock structure – 3D model.

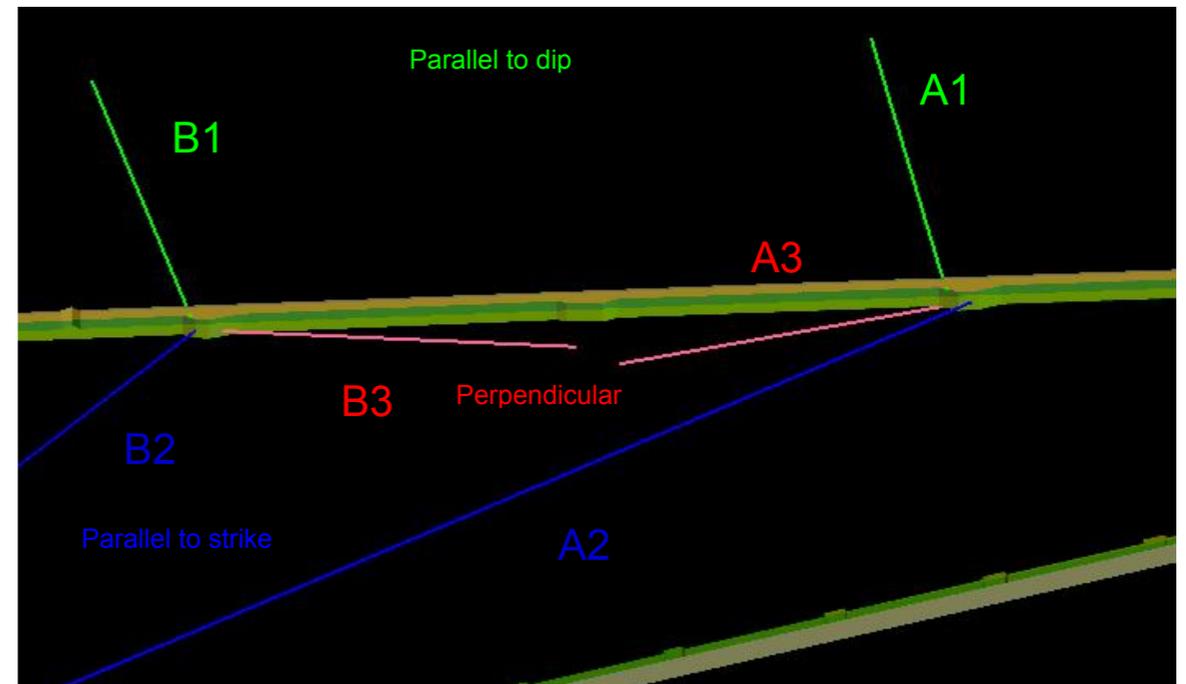


Fig.32 Location and orientation of drill holes – 3D model.

What is needed for CDR

- RFP for the full coring study. Prepared soon. To be submitted upon delivery of funds.
- Initial rock quality assessment
- Initial Excavation design (and examination of alternatives)
- S4 proposal needs to have work for both the CDR for CD1 and longer term for CD2.