We receive data in excel lists that we desire to import directly into a searchable Access database. The three tests are Triax, Brazillian, and Sonic. All tests share certain categories, but all tests also have their own unique categories.

Categories shared by all tests:

* Sample\_ID – mix of text and number (i.e., PFD1-2A)
* Formation – text (i.e., kkel)
* Holeid - mix of text and number (i.e., RLS\_2Q)
* Top\_Depth(m) - decimal number
* Bottom\_Depth(m) - decimal number
* Mine\_Area – text (ie, DMLZ)
* Diameter(in) - decimal number
* Length(in) - decimal number
* Density(g/cm3) - decimal number
* Pre\_Test\_Photo\* - hyperlink

The category “Pre\_Test\_Photo” is also shared by all three tests, and has the following other considerations attached to it:

* Images are delivered in a separate folder of .jpegs
* pics are named according to: "PTFI\_Grasberg\_"project no."\_"sample no."\_Pre, i.e.
  + PTFI\_Grasberg\_404957\_PFD1-2A\_Pre
  + PTFI\_Grasberg\_404957\_PFD1-2B\_Pre \*note, 2A and 2B are two separate views of the same sample
* All three tests share the same sample, both A and B views

Unique Categories for Each Test:

Note: All values are decimal numbers

|  |  |  |
| --- | --- | --- |
| **Sonic\_DB** | **Braz\_DB** | **Triax\_DB** |
| Confining\_Pressure(MPA) | Maximum\_Load(lbf) | Confining\_Pressure(MPA) |
| Static\_E(MPa) | Tensile\_Strength(MPa) | Peak\_Axial\_Stress(MPA) |
| Dynamic\_E(MPa) | Density\_of\_Sister\_Samples(g/cm3) | Peak\_Axial\_Strain(MPA) |
| Static\_Poisson |  | Residual\_Comp\_Strength(MPA) |
| Dynamic\_Poisson |  | E(MPA) |
| Ratio\_DE\_SE |  | Poisson |
| Ratio\_DP\_SP |  | Graph\_Selection\*\* |

\*\*Special need for Triax\_DB:

* Graph\_Selection

Each Triax test comes with 6 additional excel graphs, called:

* + Stress-time
  + Strain-time
  + Trx
  + E
  + Nu
  + Vol
* These graphs are delivered as separate tabs on the same Triax excel sheet. The excel sheets for Triax are named according to “PTFI\_Grasberg\_’job number’\_’sample number’\_material type”, i.e. “PTFI\_Grasberg\_404957\_PFD1-6A\_Steel”. Each excel file will have 6 graphs on 6 separate tabs named according to the list above.

Desires/Things that may not be possible:

* We desire all data to be imported from each of the excel sheets into the appropriate categories
* Hyperlinked photos automatically import to their correct sample name, with a label corresponding to their sample name (ie, *PTFI\_Grasberg\_404957\_PFD1-2A\_Pre* and *PTFI\_Grasberg\_404957\_PFD1-2B\_Pre* will automatically populate into Access once the image is placed in the correct folder, and will populate into all three tests’ “Pre\_Test\_Photo” category for sample\_ID PFD1-2A.
* There will be a drop-down list in the Triax\_DB category “Graph\_Selection” where the user can select which of the six graphs s/he wishes to view for a specific sample. These graphs will be stored external to the database, similar to the photos. When the user makes a graph selection, the graph automatically gets pulled from its location and displayed in Access.