

Validation & Qualification Sciences Experimental Complex

Mechanical Environments

Water Impact Facility

Unclassified-Unlimited Distribution

**SAND2015-TBD
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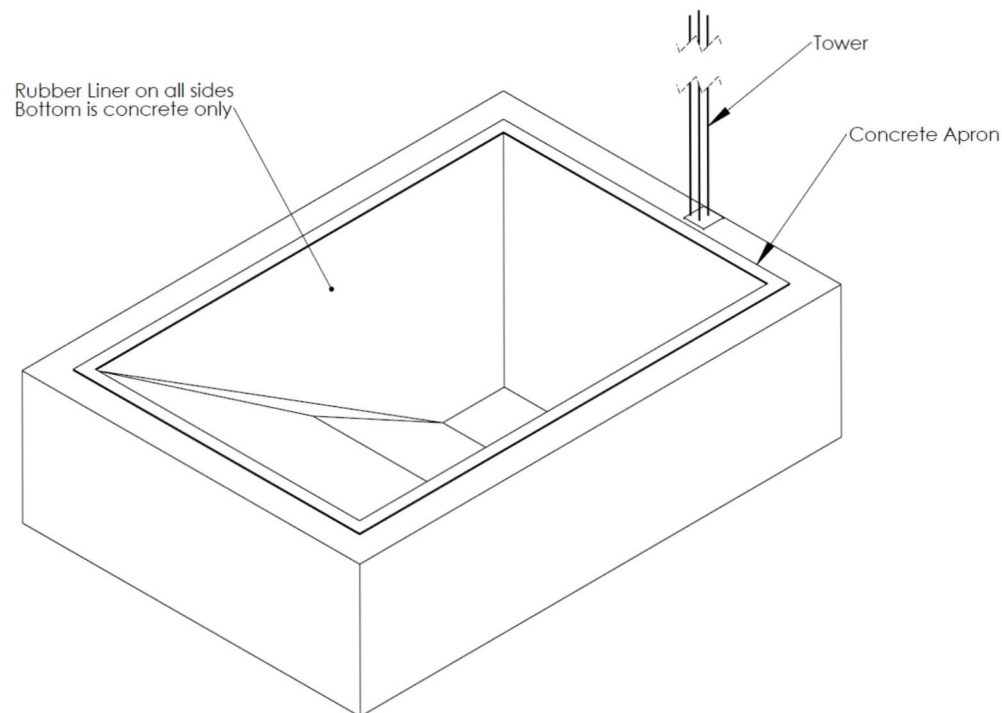
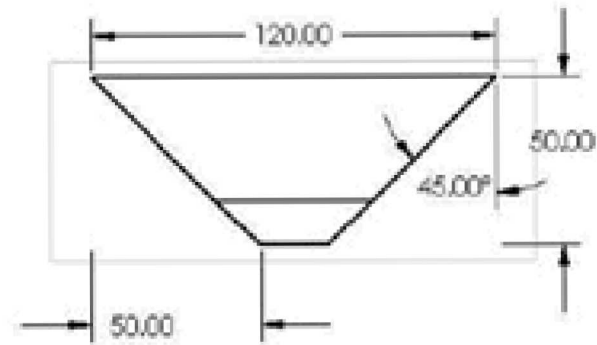
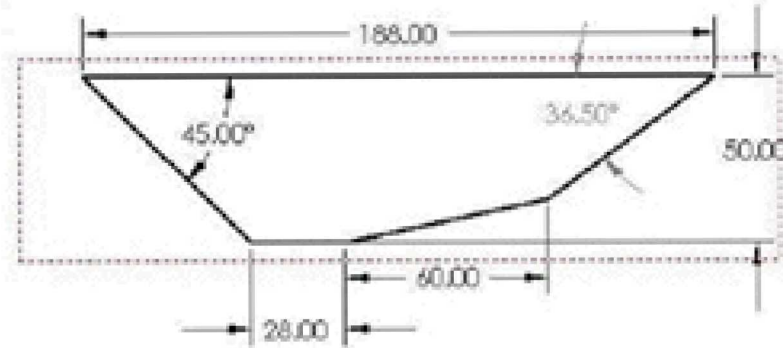
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Water Impact Facility

- Sandia National Laboratories' Water Impact Facility in Albuquerque, New Mexico, provides a controlled environment for high-velocity water impact testing and underwater testing.
 - Full-scale and scale-model items
 - Items containing radioactive materials
 - Items containing high explosives for water impacts
 - Up to 1 pound of C4 for underwater detonation
 - Secure operations at all levels of classification
- 300-foot Drop Tower:
 - Inclined overhead cable system rated for 3,000 lbs
 - A 280-ft long rocket sled track for gravity-assisted pull-down
- 'Lake':
 - 120-ft wide x 188-ft long x 50-ft deep pool
 - A 6-foot-diameter, 30-foot-long pipe at the bottom of the pool can extend depth to 80-ft
 - 20-ft x 28-ft x 3-ft thick reinforced concrete base.
- Qualified Diving Crew for underwater operations and diagnostics/photometrics
- Data Acquisition System capable up to 162 channels

Water Impact Facility – ‘Lake’ Geometry



Water Impact Facility – ‘Lake’



Water Impact Facility – ‘Lake’

**3-ft thick
Concrete Base**



**6-ft diameter x 30-ft deep extension
to 80-ft total depth
Tie-down rails**

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Water Impact & Drop Tower Complex