Lessons Learned Early
(Some may have kept me alive)

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Agenda

- PILLAR MOUNTAIN, KODIAK ALASKA
- PILE DRIVING INSPECTOR
- IBM, FISHKILL, NEW YORK
- TEST PIT LOGGING – PRE OSHA
- HOW DEEP IS THAT POND MUCK???
Pillar Mountain, Kodiak, Alaska

- 1,200-ft Mountain (taller than a 100-story building)
- Top Tension Crack 1,100 ft (as tall as 100-story building)
- Talus debris at base of mountain
- Contractors used talus for borrow material, including the new container dock, triggering rock fall, and waking up an old landslide
Pillar Mountain Landslide

Road Between City Center and Airport

Top of Landslide 1,100 ft

1,200 ft

Pillar Mountain

Highest tension crack

Landslide

Lowest weathered fractures

Talus

Kodiak Container Dock

Anticlinal ridge

Sediment

Shear surface

Bedrock

Drill hole

0 100 200 300 meters
Around 1970, we were engaged to drill a boring and install a slope inclinometer at the 850-ft level
Dangerous......I asked top management for advice
“Send a single guy” was the only advice I received
The boring we drilled shows on USGS Open File Report 82-960
We monitored a sub audible noise indicator to give us time to run

LESSON LEARNED
Not all advice is Good Advice
Pillar Mountain *(the rest of the story)*

- Falling rock striking roadway caused concern for public safety
- After taking a few deep breaths, I wrote a letter to the client – Highway Department – recommending a road closure
- Highway engineer shared my concern *(whew)* but explained that folks *would use* fishing boats as ferries, 24/7/365 in all kinds of weather…. DANGEROUS
- Highway engineer suggested flagmen at each end of the falling rock area to stop traffic during active rock fall (to my great relief).

**LESSON LEARNED**

- Work together with your client to solve problems
Creosote-treated timber piles

Steam powered pile driving rig and hammer

I was given some really bad advice to tell the contractor that I “had done this before”

Counted blows per foot, then blows per inch (Up Close and Personal)
Pile Driving Inspection (continued)
Later that evening
Contractor drove me to the ER with blistered hands and burned face

Next day and thereafter
I lined up with the contractor’s crew to get my castor oil to smear over my face and hands

LESSONS LEARNED
Use good judgment and reject bad advice

Don’t try to hide inexperience – You’re not fooling anyone and you can learn a lot.
IBM – Fishkill, New York

- Comprehensive site investigation for expansion of an IBM manufacturing plant
- We were instructed to drill two borings in the middle of the adjacent field for future expansion
IBM – Fishkill, New York (continued)

- We drove to what seemed like a good spot and raised the drill rig mast and drill rod right into a 15,000 volt power line.
- The power line broke and started a grass fire. In no time, more suits appeared than you can find at Jos. A. Bank.
- Driller disconnected water line from the drill rod and used the drill rig as a pumper.
IBM – Fishkill, New York (continued)

- I “helped” by spraying water on the burning grass while stepping back & forth across the broken cable
- Driller said **“BE CAREFUL, IT’S HOT!!”**
- I’m thinking, “Of course it’s hot. It’s lying in burning grass.”
- Then, I realized he meant that it was hot because it was carrying 15,000 volts!!!
- My blood turned cold as I tip-toed backwards away from the cable

**LESSONS LEARNED**

- If you don’t know what you are doing, stay out of the way and watch
- Look up, down, and all around
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Test Pit Logging – Pre OSHA

- Large, unspoiled site for a planned nuclear power plant
- Drilled many borings and excavated many test pits
- During the day, we observed drilling and sampling
- After the work day, we drove separately to test pit locations and logged using “pre-OSHA” methods
Test Pit Logging

One-Man Test Pit Inspection (Before OSHA)
Fortunately soil was dense, glacial till. For non-geotechs, that is pretty stable soil

LESSON LEARNED

Logging test pits is one of the things you should not do without the buddy system. Even in an OSHA-legal test pit, you have to bend down to sample the bottom.
How Deep Is that Pond Muck?

- Objective was to measure thickness of muck across a pond for a roadway design
- Cold winter day
- No activity on the site except guard cabin
How Deep is that Pond Muck?

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LESSONS LEARNED

■ Buddy system
■ Safety harness
QUESTIONS…. Like How Am I Still Here?

Save Lives. Be an organ donor.
www.beadonor.org