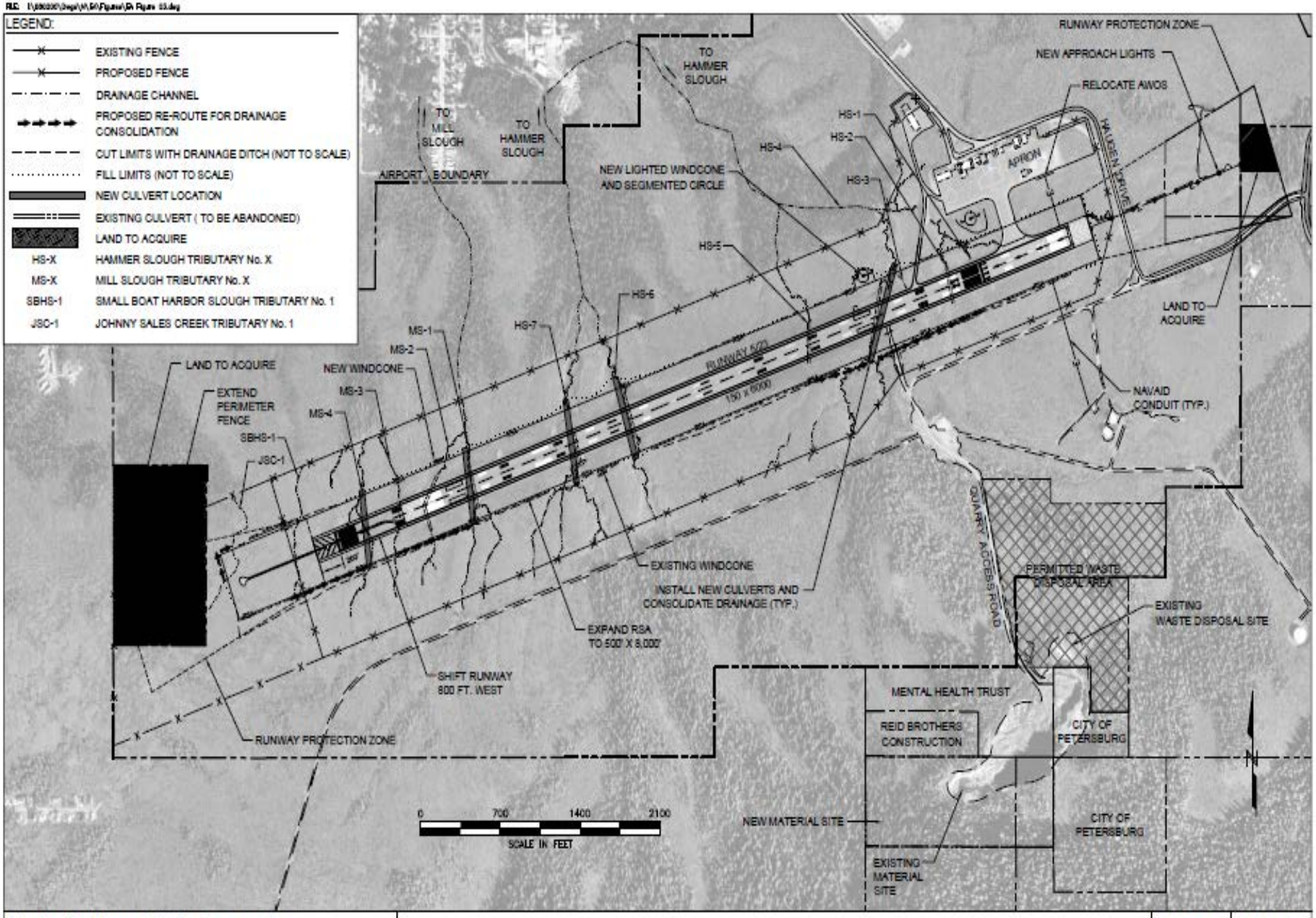
Petersburg, Alaska Runway Safety Area

A Case study in Passive Treatment

Pop.2624

Pop. 2825

Partners in Protecting the environment.
Protecting Resources.
Protecting Jobs.



Petersburg Airport Runway Safety Area Improvements
Petersburg, Alaska
DOT&PF Project No. 68207

Proposed Action Plan

REVISED DEC. 2007

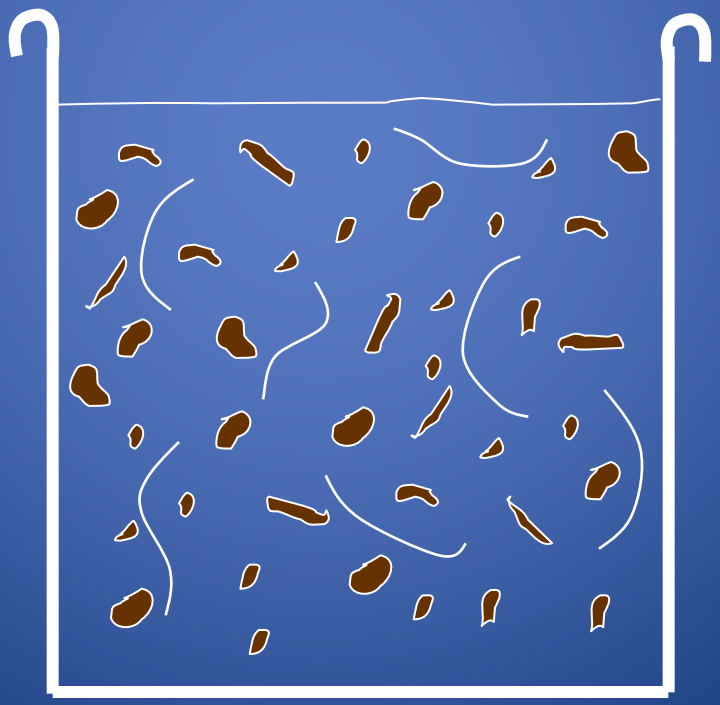
FIGURE 3

CAT

HITACHI
740
CAT

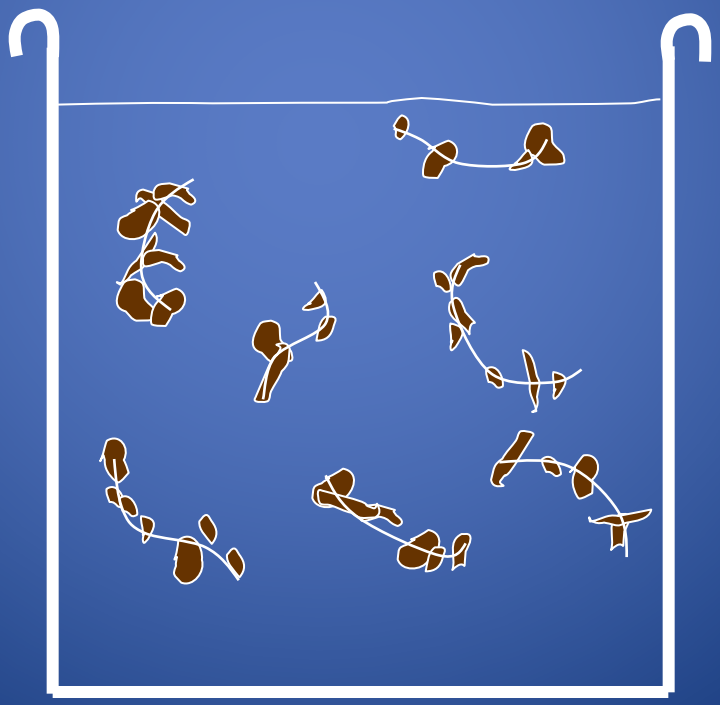
Flocculation

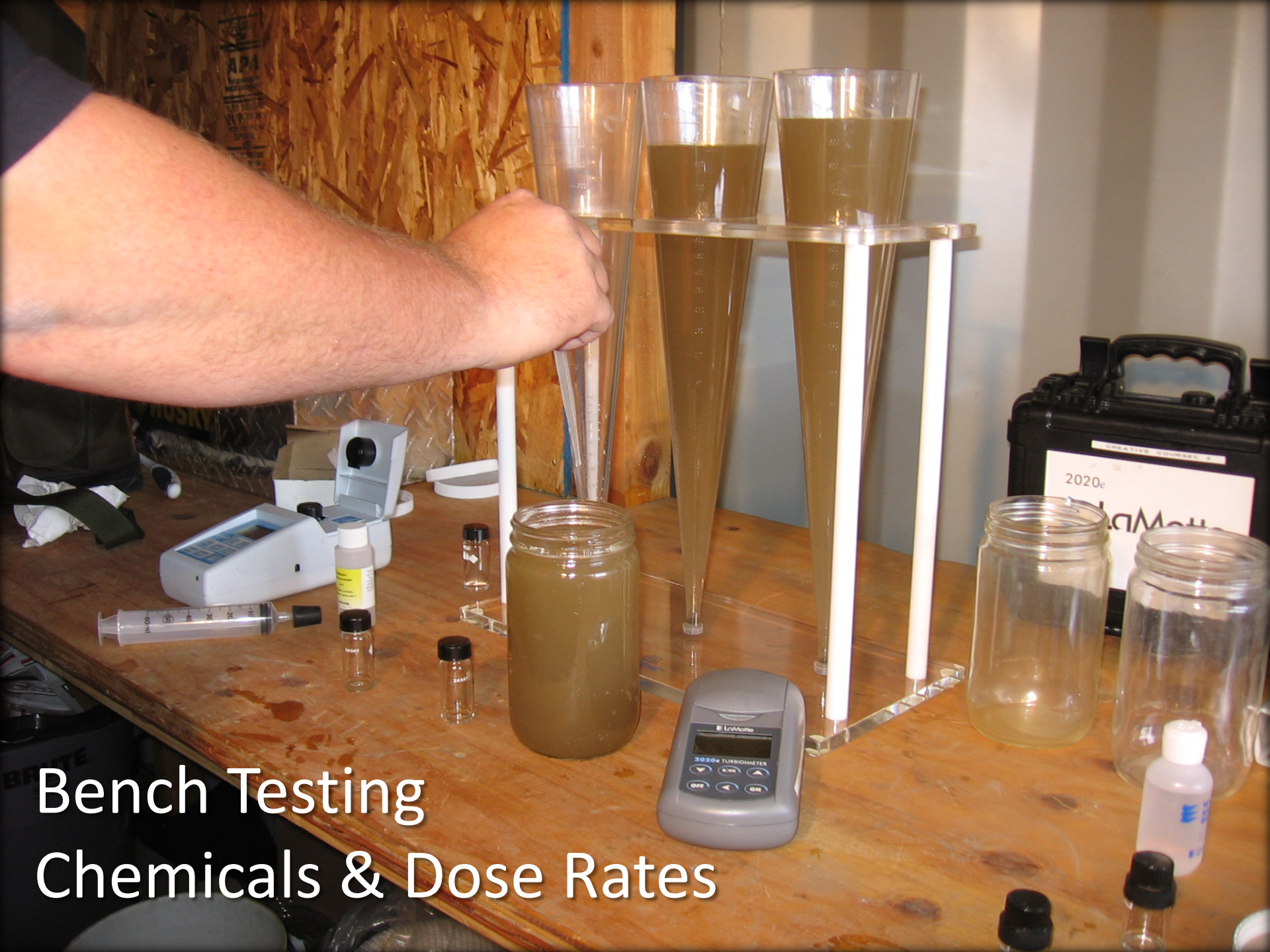
- Chemicals flocculate suspended sediment by binding to several soil particles forming a larger aggregate or floc



Flocculation

- The large flocs then settle out of suspension or are filtered.



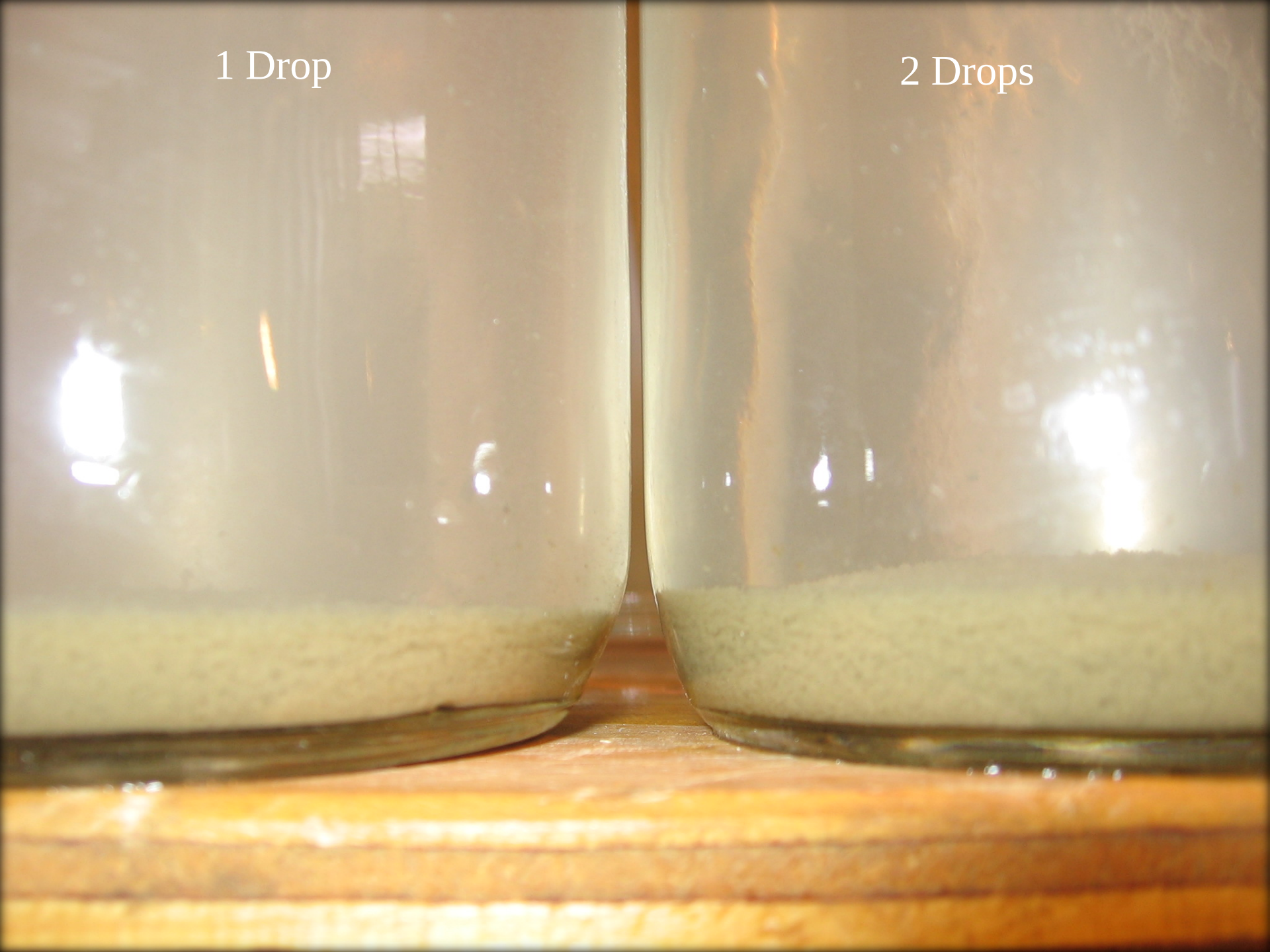

Bench Testing
Chemicals & Dose Rates

1 Drop
2 Drops
Control
1

1 Drop
2 Drops
Control
2

1 Drop
2 Drops
Control
3

1 Drop
2 Drops
Control
4


1 Drop
2 Drops

Dry application of PAM

PKS
Klewit

PAM on haul road surface

Haul Road Sediment Trap

✓Replaceable Pit Filter Liner

Waste Disposal Area

Waste Containment Berm

Sediment controls tight to the work area. Good, Bad, Both?

Muskeg Installation

Chainsaw Cubes

Sediment control measures must be constructed as one of the first steps in grading. These control measures must be functional before other land disturbing activities take place.

Muskeg Installation

Petersburg

Dewatering Source

Treatment System

Dispersal System

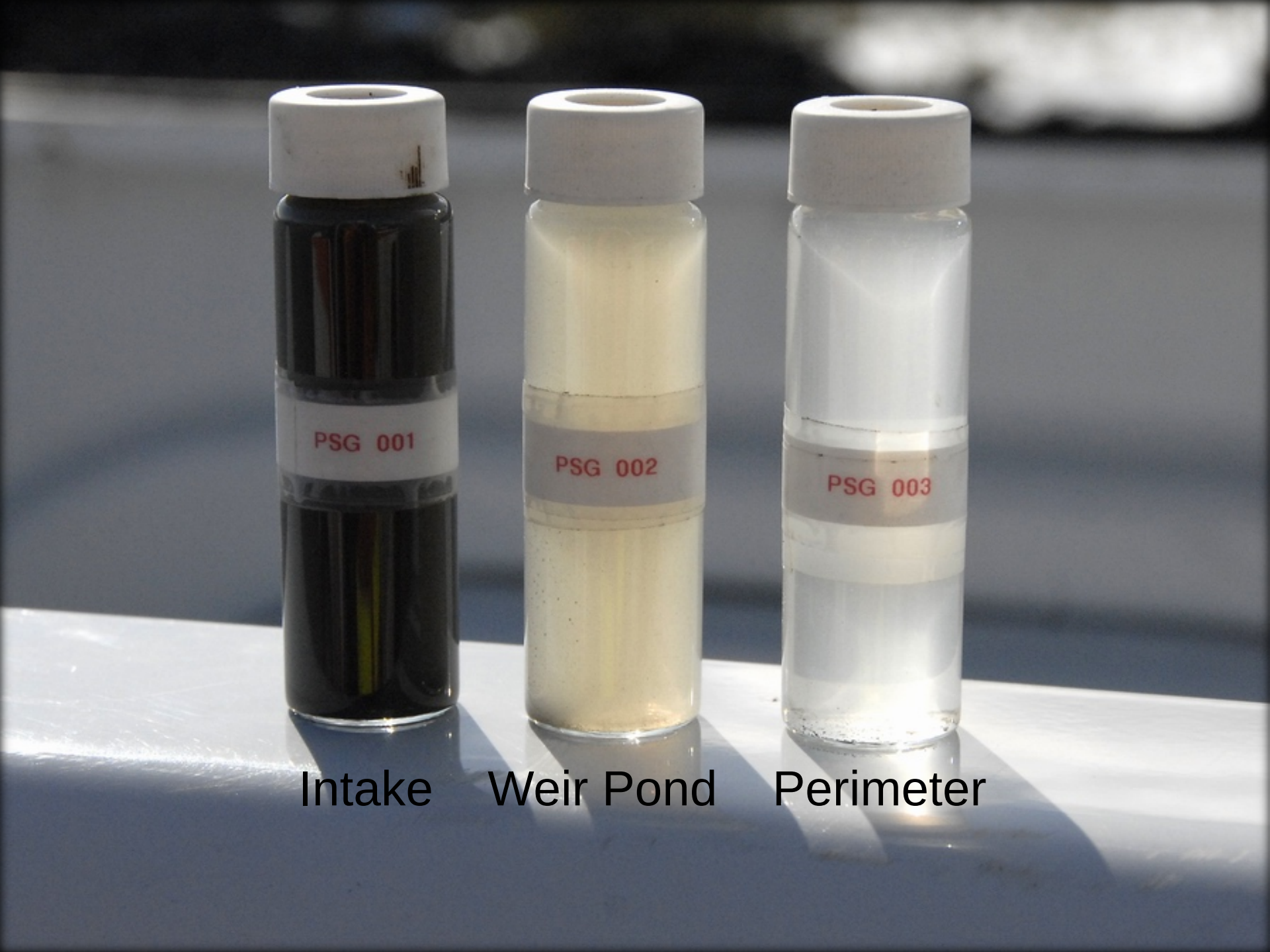
Discharge Pipe

Wire Backed Perimeter Silt Fence

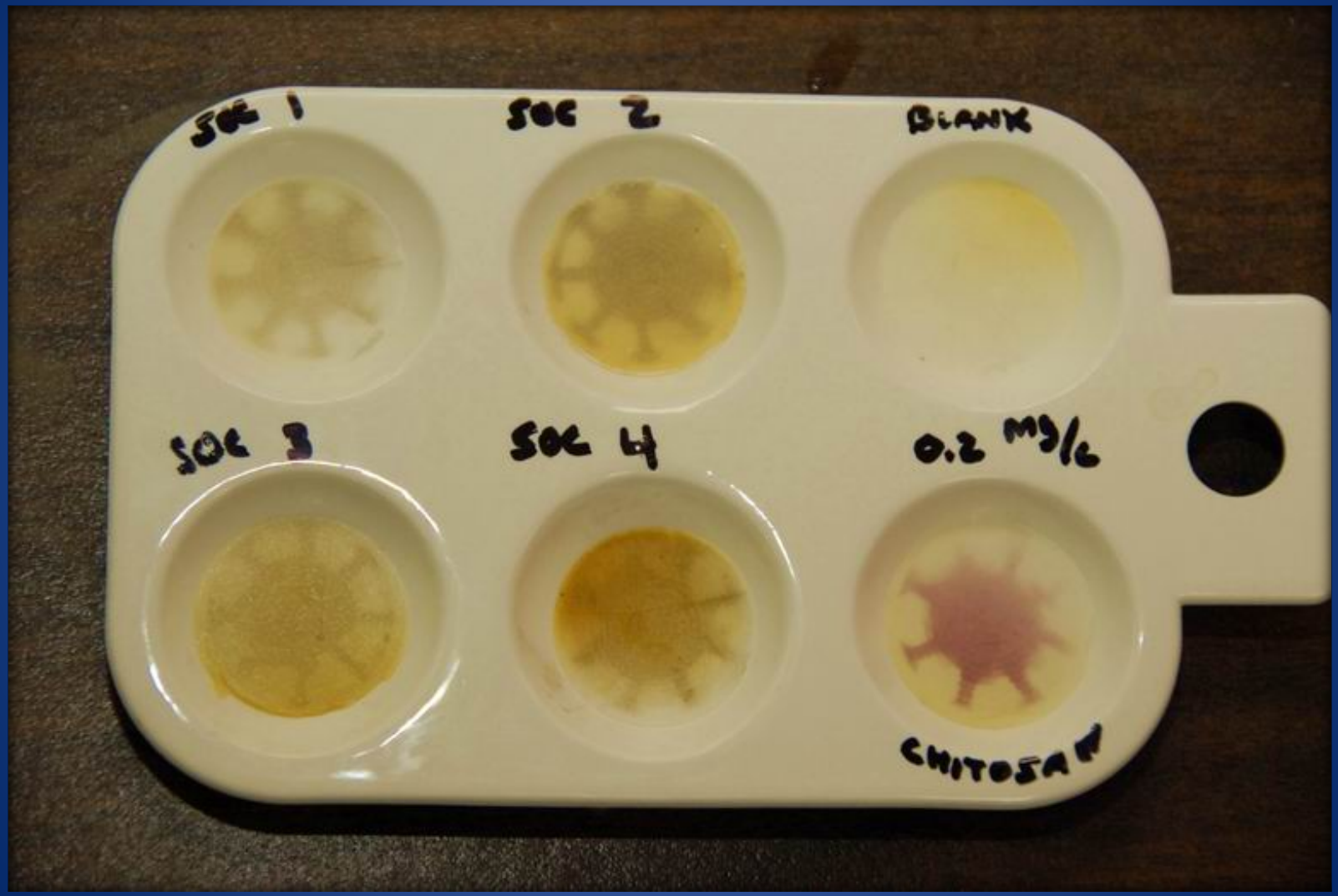
No Chitosan

With Chitosan

Sediment Trap


PSG 001
PSG 002
PSG 003
Intake
Weir Pond
Perimeter

Residual testing



Haz-Mat Storage

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