IODP Curators Meeting
Feb. 26-27, 2009

USIO Curation Report

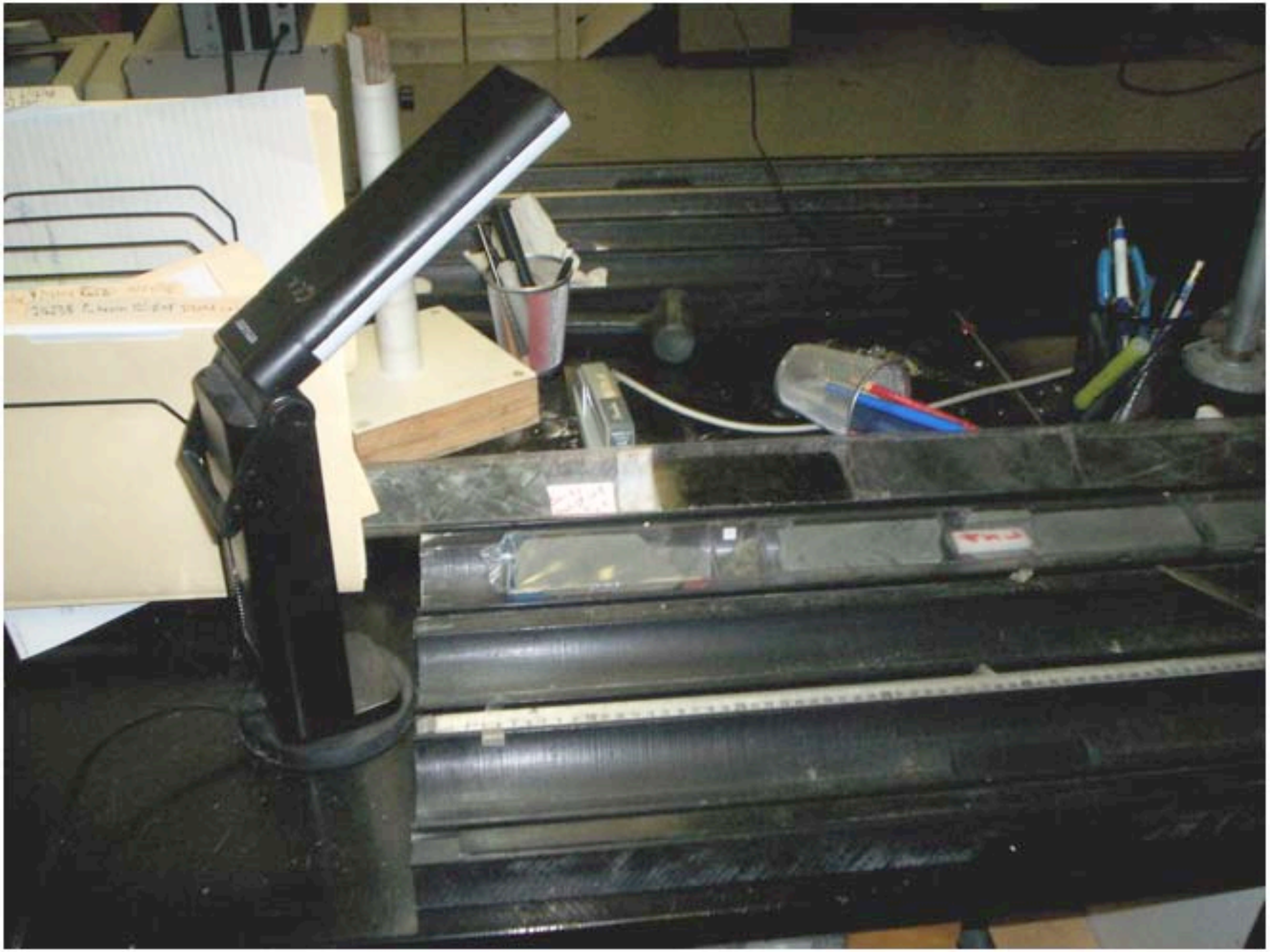
GCR Lab Entrance - Core Bit Display Inherited from WCR

GCR now has 6 sampling stations, two on each side of 3 sample desks

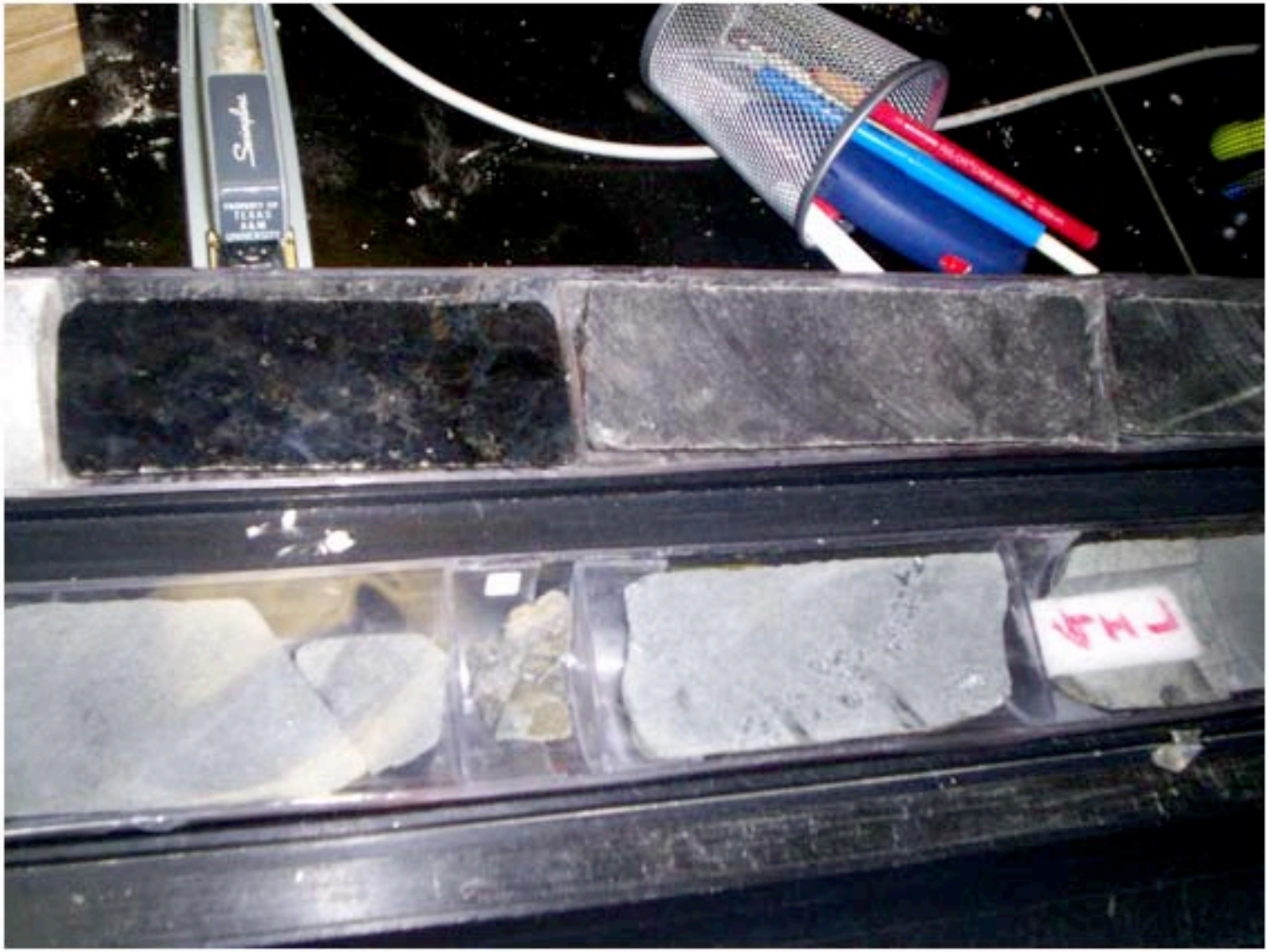
GCR Front Sampling Stations (3 of them): LCD monitor and keyboard/mouse above core trays; Sharpe Automatic Sample Bagging Machine on left.

GCR Back Sampling Stations (3 of them): LCD monitor and keyboard/mouse above core trays; traditional label printer on right.

Ott-Light daytime lightbulb to help viewing cores close up in GCR



For Display Core Exhibitions, certain types of hard rock and limestones could benefit from polishing surface



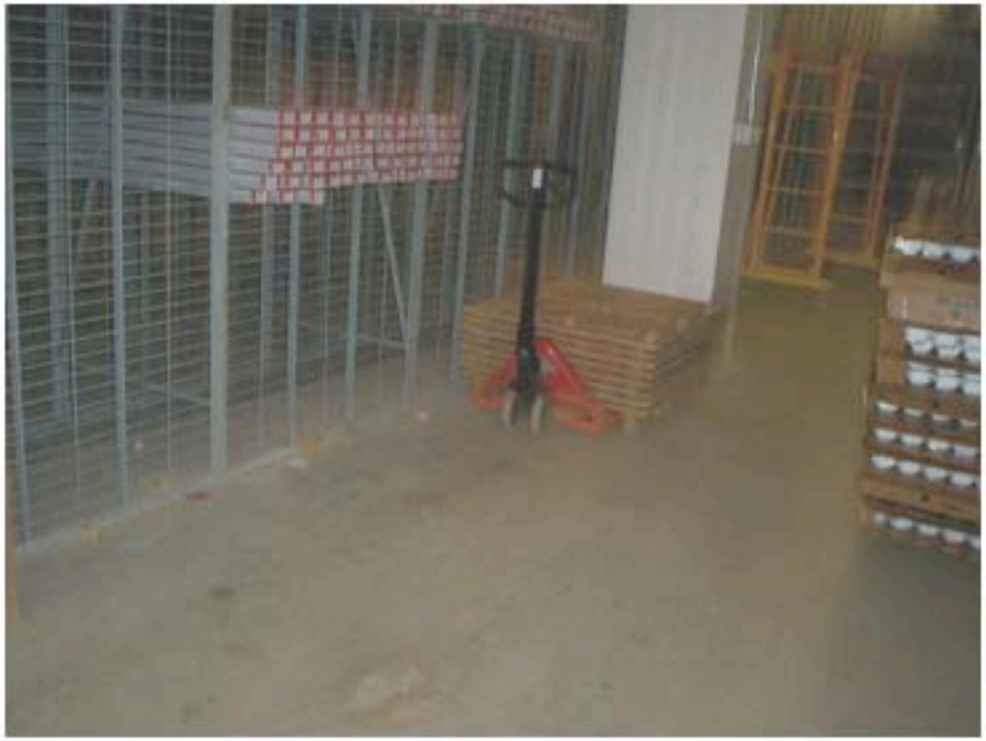
GCR Reefer 1, now mostly filled with DSDP Core, Legs 16-96

GCR Reefer 2: ODP working halves (in black) all re-arranged and shifted in order

GCR Reefer 2, last row:
All working halves re-arranged, not all archive halves re-arranged

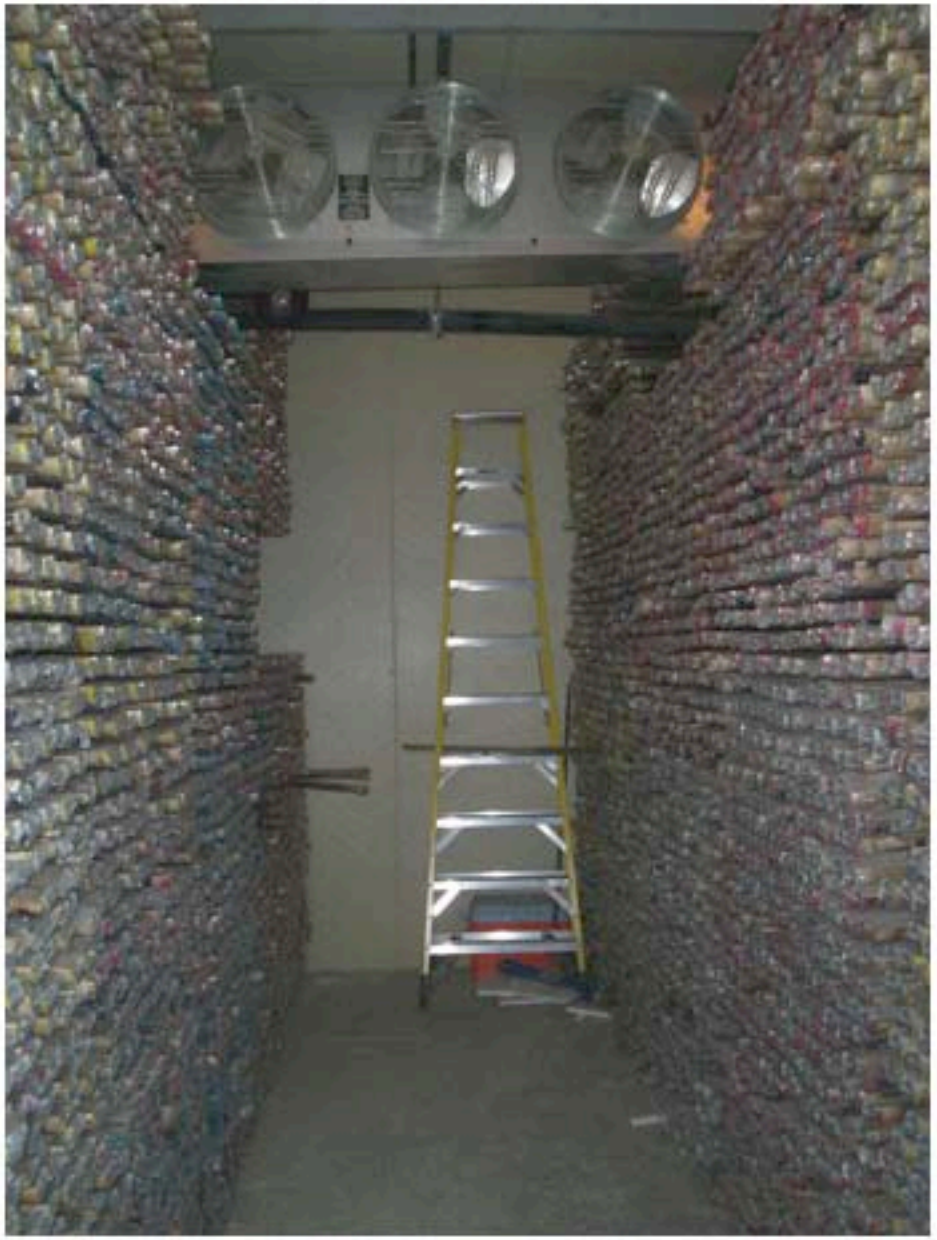
GCR Reefer 3, first row:
All working halves re-arranged, not all archive halves re-arranged

GCR Reefer 3, second row: All working halves re-arranged, not all archive halves re-arranged. 3 rows of racks in Reefer 3 are now empty and available for future core storage (left side)



GCR Reefer 4, 3 rows of racks will be empty for future storage when archive halves have been re-arranged

Old GCR -20°C freezer room now an extra reefer: contains cores form DSDP Legs 1-16 in new hi-density racks. Sections halves have been double shrink-wrapped and racked without d-tubes to increase storage capacity by ~25-30%



Extra core rack iron to build more hi-density core racks. These can be any width to fit ends of rows, or entire rows in 4th reefer.

Remaining DSDP cores from Legs 1-16 still to be racked in old freezer room

Besides GCR -86°C MBIO freezers, This -100°C freezer can contain entire 1.5 m long core sections.

GCR no longer has minus 20°C freezer room.

Extra whole rounds from -20°C freezer room, some of which still need to be sent to BCR

GCR smear slides and thin sections:
Many still need to be inventoried.
Should we have standard plan for replacing missing thin sections??

GCR inherited many new boxes of returned sample residues;
Many are inventoried, many are not

GCR Display Cores stored and labeled in special steel display boxes

GCR sampling supplies stuffed at rear of core rows during core-redistribution

GCR Extra Projects:
Carefully storing core boxes for re-use on board JR; saving old d-tubes for others to sue (e.g., oceanographers)

GCR Extra Projects:
Building back-splash boxes to fit around core saws. GCR inherited many saws and drill presses from ECR and WCR

GCR Shrink-wrap machine.

Will still be used for re-wrapping sampled core, and for new core coming from JR (JR does not yet have shrink-wrap facilities on board)

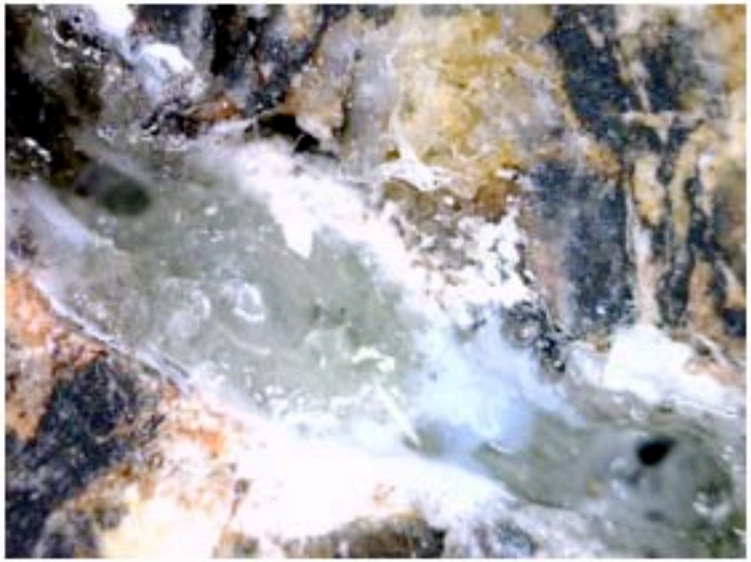
GCR-TAMU Core Analytical Lab Facility (left view)

GCR-TAMU Core Analytical Lab Facility (right view, where new Avaatech XRF scanner will be installed in ~ May 2009)

SAFOD Core Collection in GCR

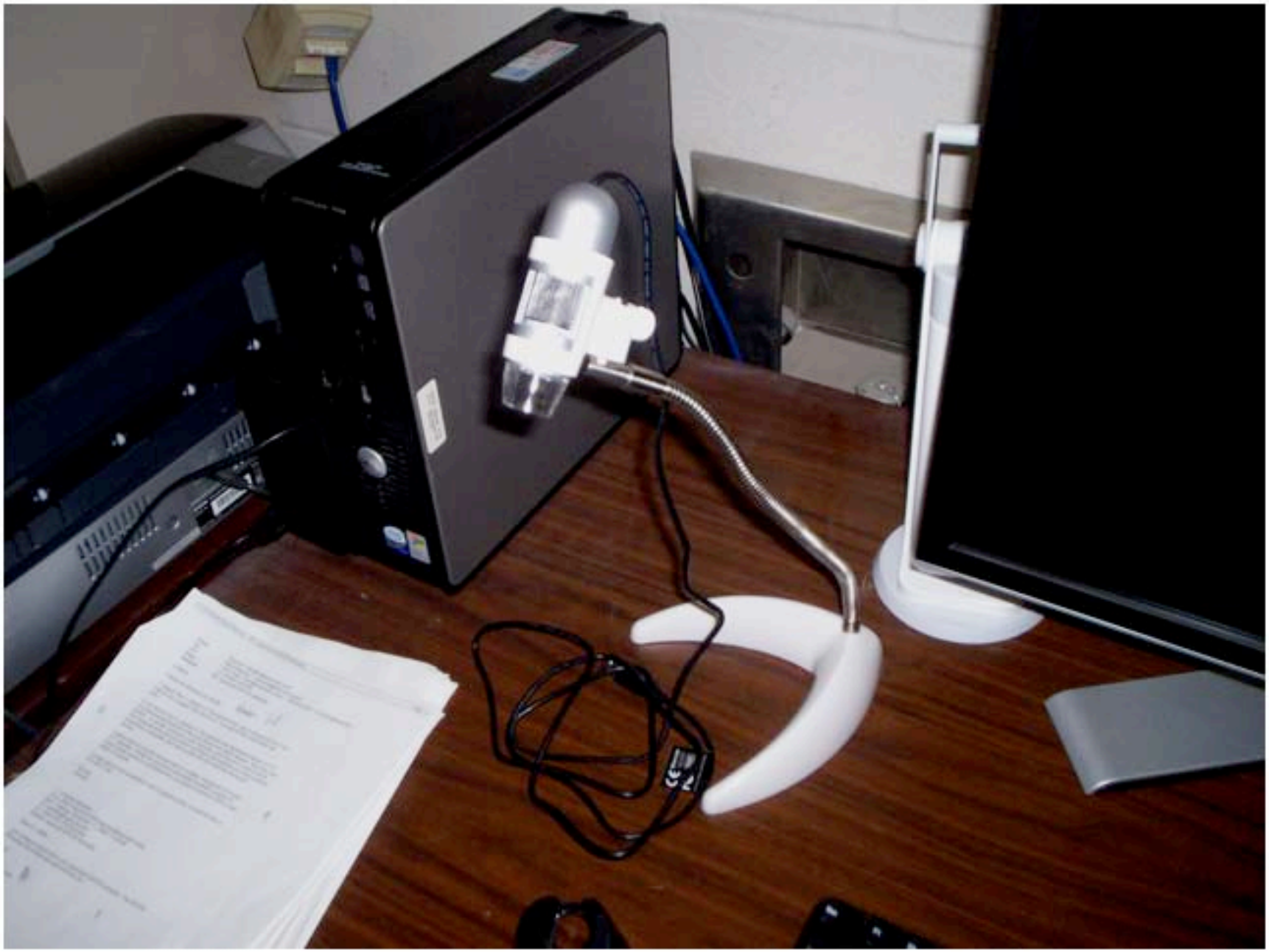
SAFOD Core Cuttings take far more space than SAFOD Core!

Trying to cut a mini-core with a 60W engraving laser, as a test for sub-sampling very fractured SAFOD cores.

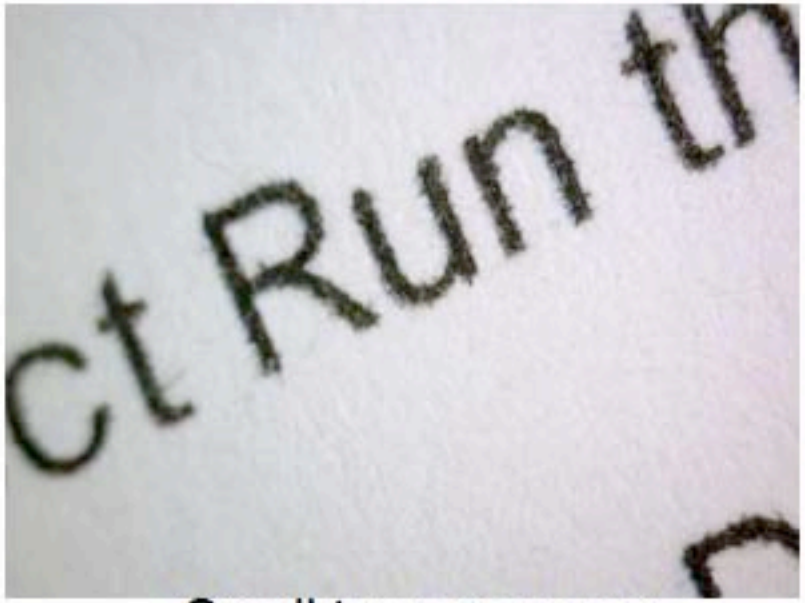


Laser melted rock to glass, which inhibited its penetration into rock

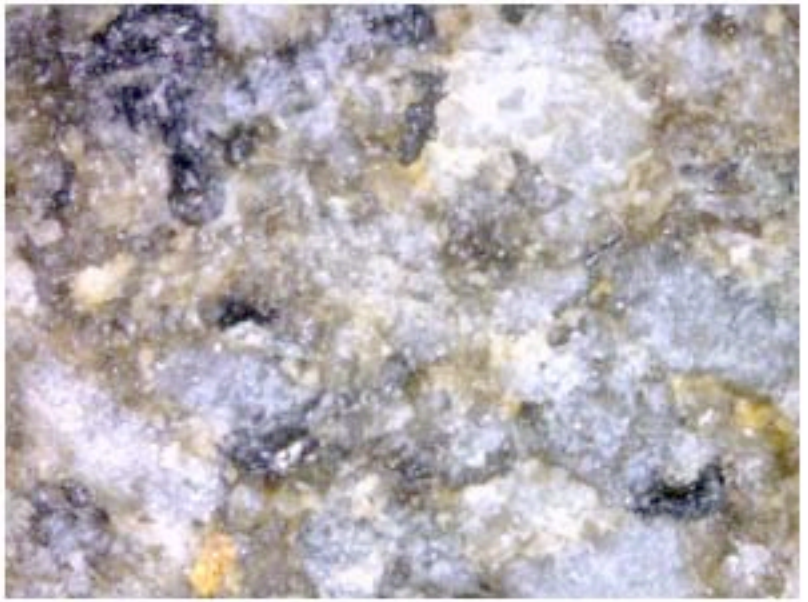
Dino-Lite USB reflecting hand-held microscope, 200X, ~$199 US.



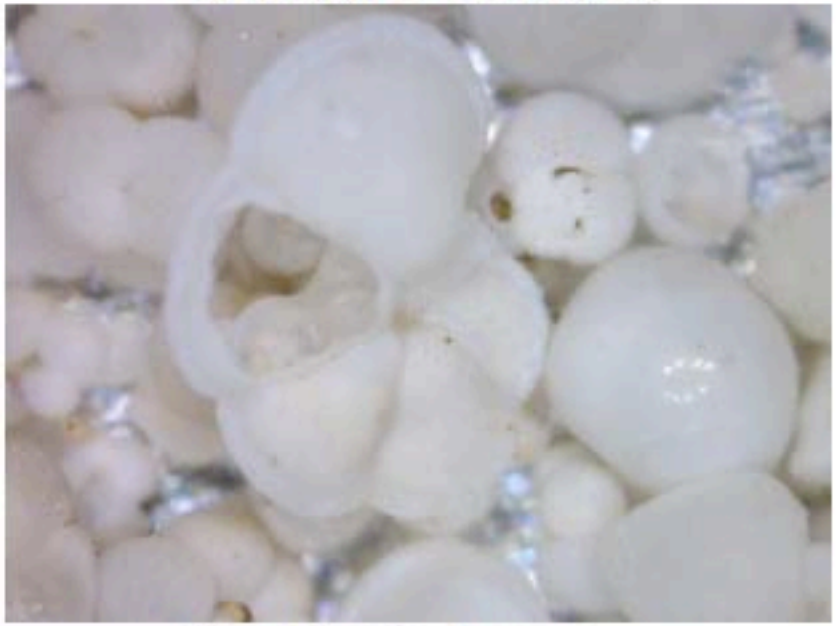
Dino-Lite USB reflecting hand-held microscope images



Small type on paper



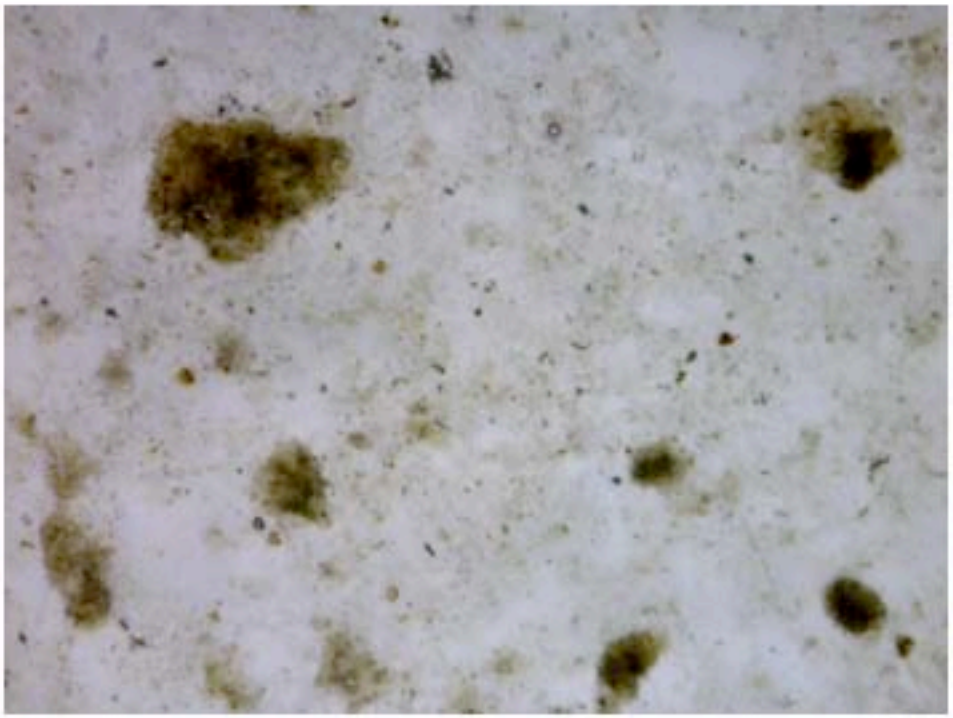
Surface of fine grained igneous rock



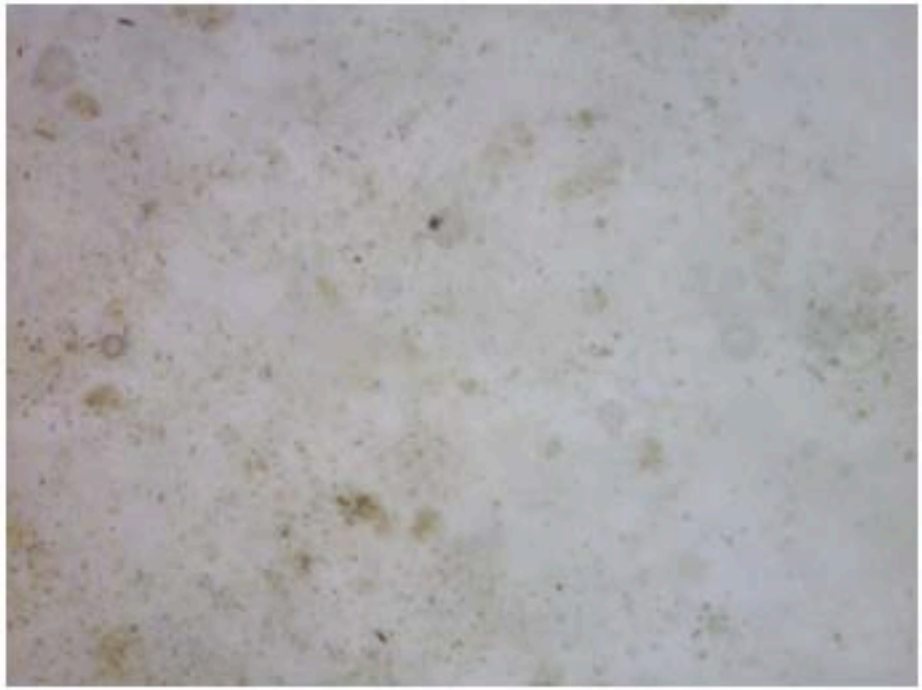
Planktonic forams

Human hair

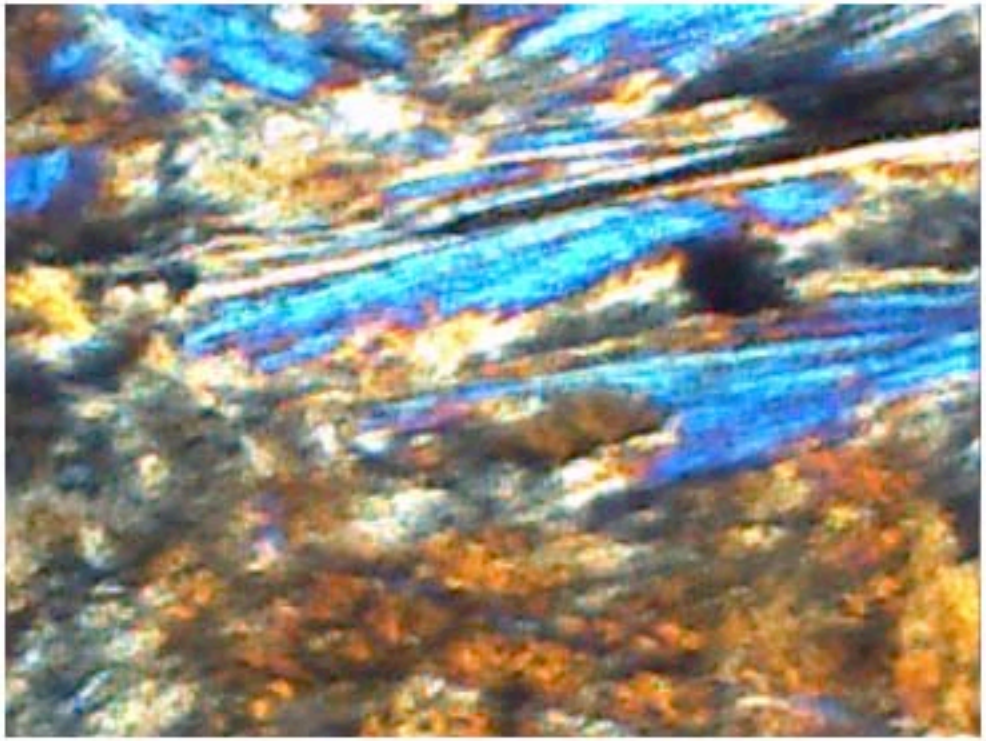
Dino-Lite USB reflecting hand-held microscope images



Smear slide images - reflected through slide with white paper behind. Not so good



My First New Digital Microscope (~$150): USB scopes with transmitted and reflected light, up to 400X, plug directly into PC; capture photos and vidoes.



My First New Digital Microscope images of thin section from Site 895 (Leg 147 Hess Deep) using cross-polarized filters, and plain transmitted light