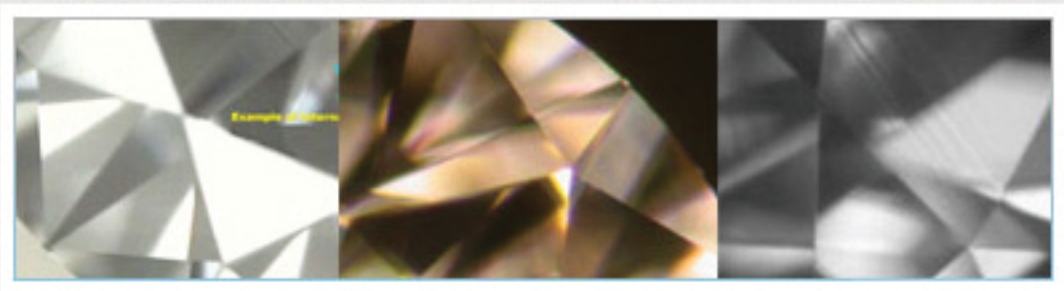


GRAINING**

Graining is divided in to two parts namely Internal graining (IG) and surface graining (SG). Internal inclusion of irregular crystal growth may appear milky like faint lines or streaks, or may be colored or reflective. The inclusions or graining that appears on the surface of the diamond is known as surface graining.

The comment on a lab report indicating "Internal Graining Not Shown" should not be reason for alarm because it refers to clarity characteristic which is usually not readily visible without the use of extremely high magnification. Internal Graining should not be considered an "absolute characteristic" because the visibility depends on the lighting conditions and the specific angle by which the diamond is being evaluated. It might be visible to an experience diamond grader who is examining the diamond under laboratory conditions, but may never be detected by other people. Essentially internal graining refers to part of the grain structure of the diamond which was visible as a kind of transparent line to the grader. The degree of the visibility of the grain lines will have an effect upon the clarity grade of the diamond and if no other clarity characteristics are present then the graining may be the basis for the clarity grade of the diamond. For instance, a diamond that contained small diamond crystals which by themselves would warrant a clarity grade of VS-1 might be graded as a VS-2 if internal graining were present. However another diamond that did not contain the diamond crystals might be graded as VVS-2 if the grade is based upon internal graining and the comment "clarity grade based upon internal graining" would appear under the "comments" section of the lab report while nothing is indicated under the "keys to symbols" by the plotting diagram. This series of photographs shows the very subtle effect of internal graining as seen within a diamond we purchased for inventory at various degrees of magnification. Notice how the internal graining is not readily visible in the first picture which was taken using a magnification level of about 20x. The internal graining is barely visible in the next two photographs which were taken of the table facet at about 40x magnification, the grain line appears as a kind of translucent line as indicated by the light blue arrows. We increased the magnification substantially for the remaining pictures which show the internal grain line as seen through our Gem Scope using normal and diffused light sources.



CODE	DESCRIPTION
IG – Internal Graining	Diamond has internal graining
SG- Surface Graining	Diamond has surface graining