

Pioneer in Gems & Jewellery Certification Service

IIGJ Lab is a project by GJEPC - Gem & Jewellery Export Promotion Council, which is sponsored by Ministry of Commerce & Industry, Govt. of India.

IIGJ Lab Highlights

✓ Unbiased, independent reports of gemstones, diamonds, pearls and jewellery by experienced gemmologists to ensure every report meets international standards.

✓ Equipped with advanced instruments like FTIR, UV-Vis-NIR, Raman Spectroscopy, EDXRF, LA-ICP-MS, and Synth Detect to name a few.

✓ Reports are globally recognized, ensuring trust and credibility for traders, retailers, and consumers.

✓ On-site jewellery certification for convenience of manufacturers and retailers.

✓ Quick Turnaround Time.



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Delhi

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Collection Centre

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Pick & Drop Services Across India

www.iigjrlc.org



Pearl Identification



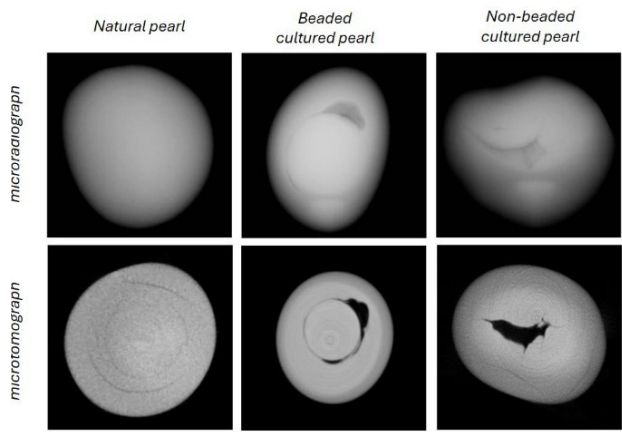
Pearls vary widely in formation, structure, and treatments, making scientific testing essential for accurate identification. IIGJ Lab conducts comprehensive pearl analysis using advanced equipment, including Laser Raman, UV-Vis-NIR and EDXRF spectrometers, microradiography, and X-ray computed microtomography (μ CT). Each pearl is evaluated to provide following information:

-  Natural or Cultured: Determination based on internal growth structure.
-  Beaded or Non-Beaded: Presence or absence of a nucleus within cultured pearls.
-  Saltwater or Freshwater: Differentiation through elemental signatures.
-  Colour Treatment Detection: Verification of whether colour is natural or enhanced through artificial processes.

This approach led by advanced instruments, ensures high accuracy, and detailed documentation for every pearl submitted.

Natural or Cultured Pearls

At IIGJ Lab, pearls are differentiated as natural or cultured (beaded or non-beaded) based on detailed evaluation of their internal growth features using advanced, non-destructive X-ray imaging techniques, such as microradiography and x-ray computed microtomography.



Loose (Single)



Packet lots



Beads and String



Saltwater or Freshwater Pearls

IIGJ Lab reports the environment of pearl formation, such as saltwater (e.g., seas/oceans) or freshwater (e.g., rivers, lakes) by using advanced tools like the EDXRF spectrometer.

