

LAB INFORMATION CIRCULAR No. 019.

AUGUST TO DECEMBER 1996

(Delay due to renovations at G.T.L., Jaipur).

A wide range of gem materials have been certified in the past few months.

1. Apatite: Lemon yellow to yellowish brown coloured specimens ranging in size from 1 ct. to about 10 cts. These specimens have a number of parallel inclusions sometimes as canals and at others as fine fibres tending to give a cloudy appearance at times.
2. Fluorite: Reddish brown specimens similar in colour to tourmaline, garnet, spinel etc. The polish in most specimens was very low and the material appears to be relatively softer than the blue and green shades observed.

3. Nat. Emerald Beads: A number of larger size drilled beads ranging in size from about 10 cts. to about 90 cts. said to be of Columbian origin were examined. Most of them were transparent with a medium grass green colour. Almost all the specimens were fracture filled with a colourless filler material.

One large specimen of over 80 cts. exhibited an intense deep green with good transparency and surface lustre.

4. Syn. Emeralds: As has been reported consistently from G.T.L., the number of syn. emeralds being certified has increased. Both hydrothermal and flux synthetics have been observed in sizes ranging from 0.05 to 5 cts.
5. Black Onyx vs. Glass Beads: In the past three months a number of black, opaque glass beads have been certified. Apparently according to the traders these are being sold as black onyx beads. In most cases, the traders broke a bead and because suspicious on observing the high vitreous lustre on the surface break. If observed with a powerful light source, gas bubbles can be seen just below the surface of the glass bead.
6. Chrysoberyl: A bright lemon yellow transparent variety of chrysoberyl has been seen. Apparently these are being mined from a recent pit out of Andhra Pradesh. Very clean and transparent specimens of about 4-5 cts. have been certified at G.T.L.
7. Alexandrite: An interesting packet lot of said-to-be Alexandrites were certified last month. Out of 10 stones, only one was certified as Alexandrite. In most cases the colour change is observed only by transmitting light through the stone and not by reflecting light off the surface. The stones ranged in size from 1 ct to 4.50 cts; they were greenish blue in daylight and changed to a violet purple red in lamplight. In some stones the colour orientation was at an angle to the table facet and therefore did not exhibit a colour change.

8. Enhanced Yellow-Orange Sapphire: Of late, an orangish yellow coloured sapphire which is distinct in colour from the earlier irradiated yellow sapphires. These sapphires exhibit the typical inclusions of fine dotted diffused silk, whitish growth zoning, crystals with highly reflecting burst halos and almost burnt healed fingerprints. Sizes range from about 1 ct. to over 25 cts.

9. Colour Change Garnets: The garnets which were submitted at G.T.L. were said to be from two different sources - Tanzania and Sri Lanka. The stones showed an almost 100% colour change from a Deep Green to Purple Red in lamp light and from a purplish blue to violet.

The properties obtained are as follows:-

R.I: 1.77, S.G: 4.17 (Hydrostatic); fine three directional silk and zircon halo inclusions with an absorption spectrum characteristic for Pyrope-Spessartite.

10. Synthetic Amethyst / Citrine: A large number of syn.quartz was returned without certification since the specimens were clean and did not provide any conclusive proof.

Looking to the needs of the industry the following facilities have been introduced, details of which are available at G.T.L., Jaipur.

1. Single Stone Certification : Rs. 100/- (member)

Rs. 125/- (non-member)
per specimen.

2. Packet Lot Certification:

- 5 to 9 stones: Rs. 70/- (member)

Rs. 80/- (non-member)

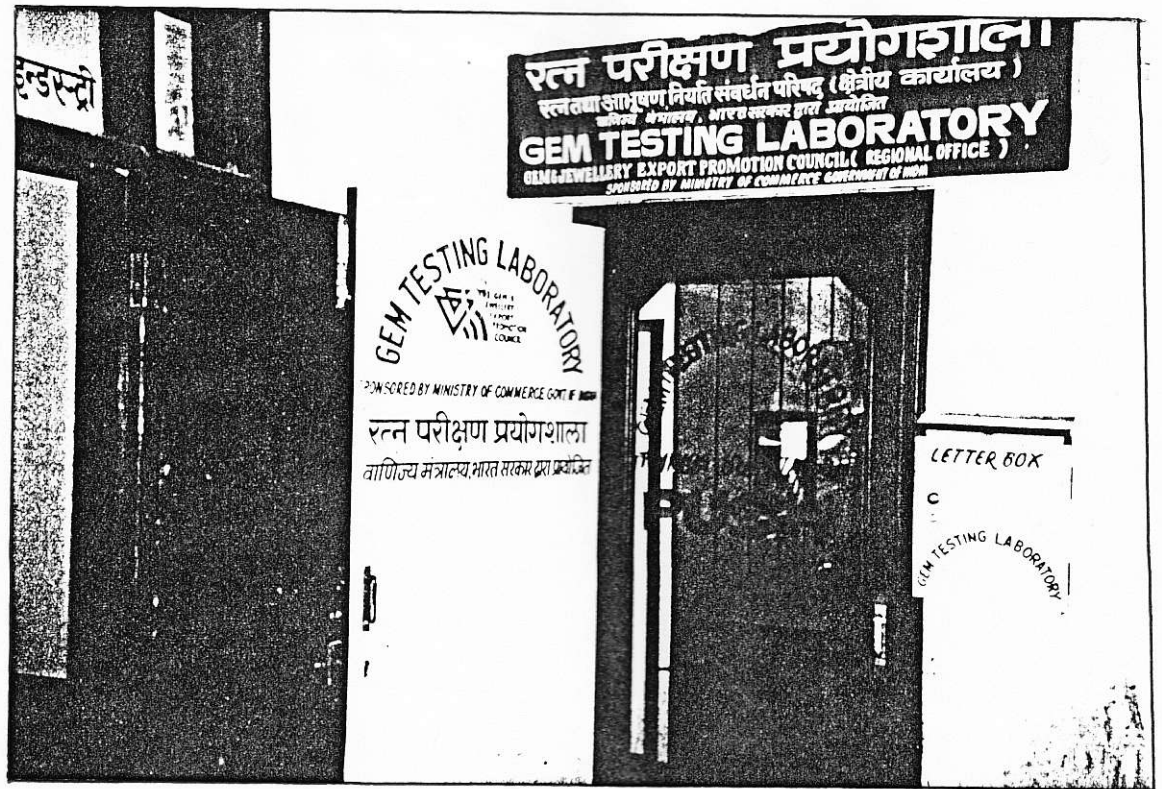
- More than 10 stones : Rs. 50/- (member)

Rs. 60/- (non-member)

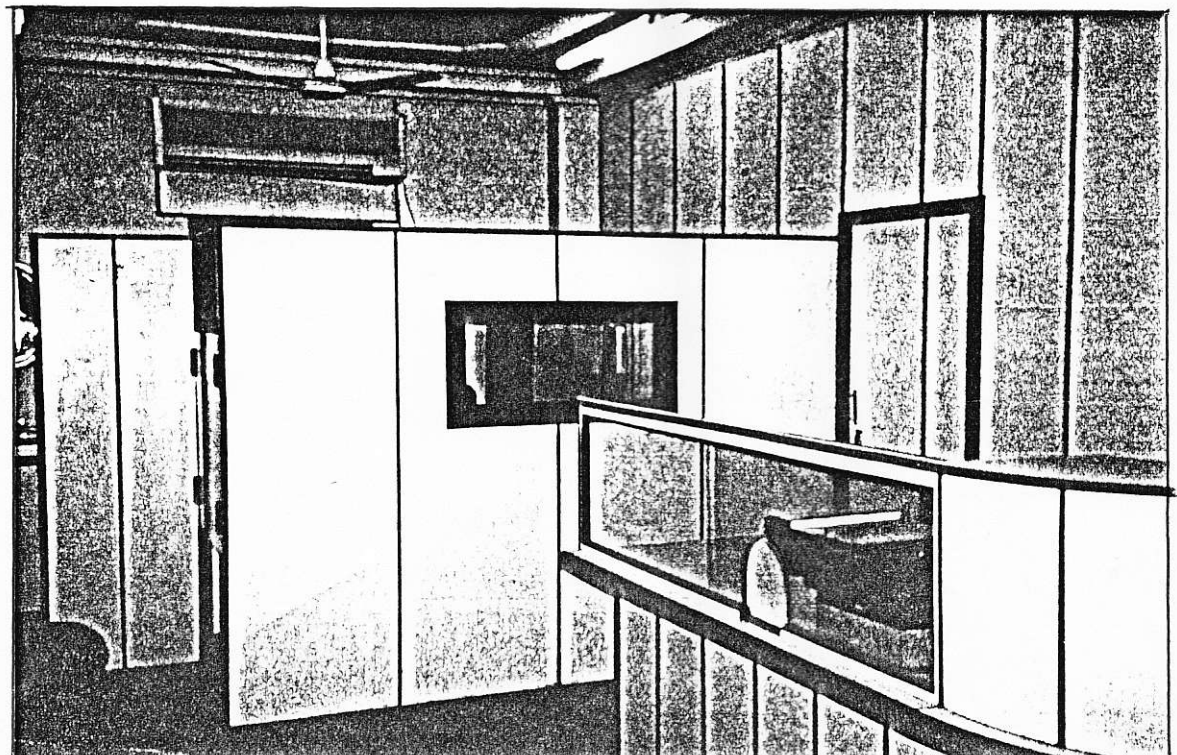
3. On-The-Spot Certification : Rs. 300/- (member)
(O.T.S)

Rs. 375/- (non-member)

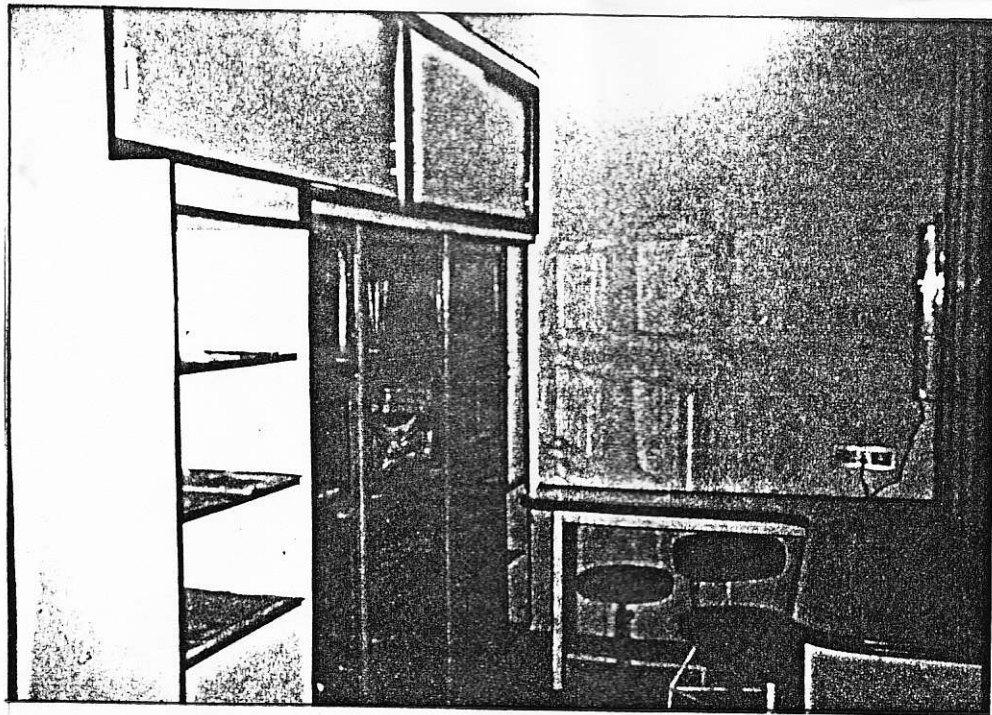
For Gem Testing Laboratory.



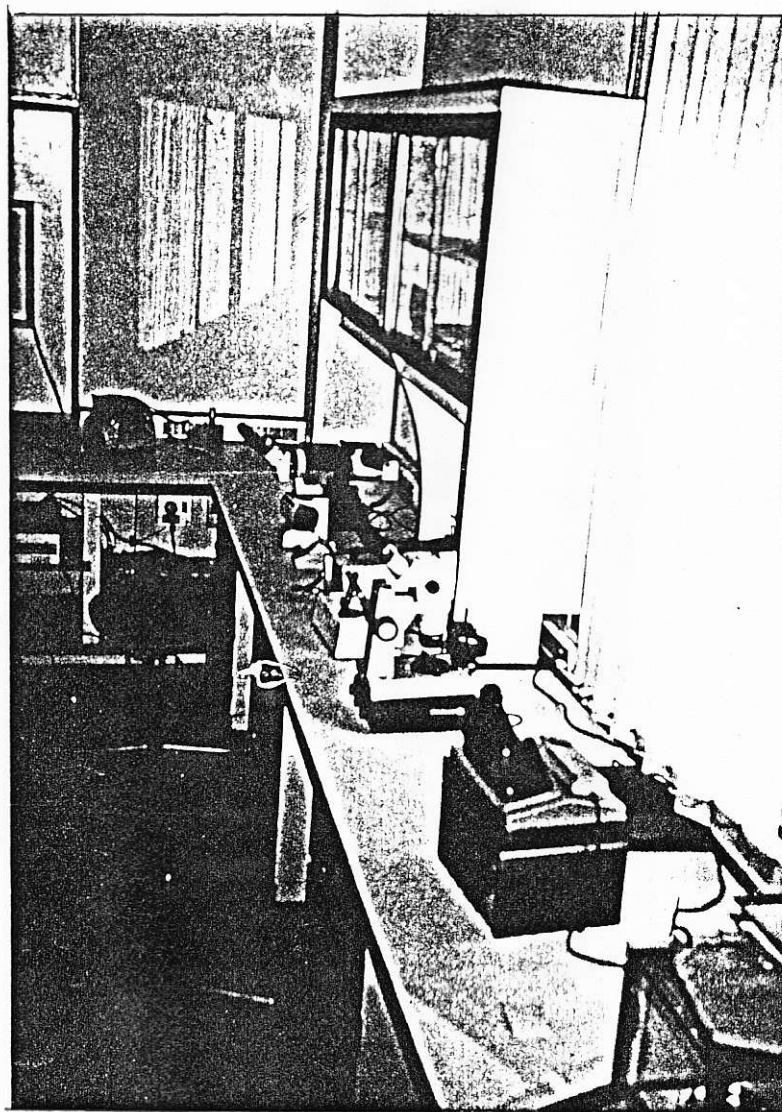
THE ENTRANCE



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