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27 August 2009

The real Mexican connection to andesine!

Why is there absolutely no reference to any Mongolian mine anywhere in China?

Before we get into the main purpose of this edition of our newsletter, we want to talk just a bit about this supposed Mongolian feldspar mine that is claimed as being the source for millions of dollars of crystal feldspar used to create the diffusion treated andesine. Just about everyone except Art Garabedian has admitted that the red Chinese andesine is artificially diffusion treated with copper. But there is still a question about the source of this material being used for the treatment. Not that it really matters since the artificial treatment of feldspar sold without proper disclosure is enough to sink this whole thing, but the source of the material seems to be a continual sticking point for those desperate for the smallest victory.

The interesting part about the internet is that if something exists, you can find it somewhere on the internet. The information may not be totally accurate, but there will be reference to it somewhere. So we went "Googling" to find any reference to any Mongolian feldspar mine as reported by Lab Manual Harmonization Committee members the GIA and GAAJ (GIA Gems and Gemology Winter 2008).

Here is what we found: **Nothing!**

We searched the **Mongolian National Mining Association's** website for [feldspar](#), [labradorite](#), and

[andesine](#).....nothing.

We searched the **China Mining Association's** www.Chinamining.org: Nothing.

We searched a report on the **Mineral Deposits of Mongolia**: [Nothing](#)

We searched **Made-In-China.com** and found nothing but potassium [feldspar powder](#).

It seems that the only folks who have heard of this huge Mongolian feldspar mine that produces millions of dollars of andesine crystals is the GIA and GAAJ, and of course Andegem.com, Jewelry Television and Direct Shopping Network.

And speaking of the last three on the list.....has anyone noticed that of all of the feldspar studies coming out on Oregon, Mexican and Mongolian feldspar....not once has any of the studies listed the actual source of the Mongolian material. Dr. Rossman did not. Dr. Milisenda did not. The GIA has not. Not one soul issuing reports on studies of the Mongolian feldspar has listed exactly where they got the study specimens.

Why? We think we know. We have reliable reports that Andegem.com is the source of the Mongolian yellow andesine used for these studies. And of course, Andegem.com is at the heart of this whole fiasco. If this information is incorrect we invite Dr. Rossman, Dr. Milisenda, et al.....to contact the ISG office and supply us with sources of this Mongolian material that we can contact. We want to buy some of it and will pay a pretty penny to anyone who can supply true Mongolian material.

As it stands right now, the ISG called one of the principles of the Mexican Casa Grande mine and within 48 hours we had a half kilo of rough and faceted Mexican feldspar on our desk to test. One



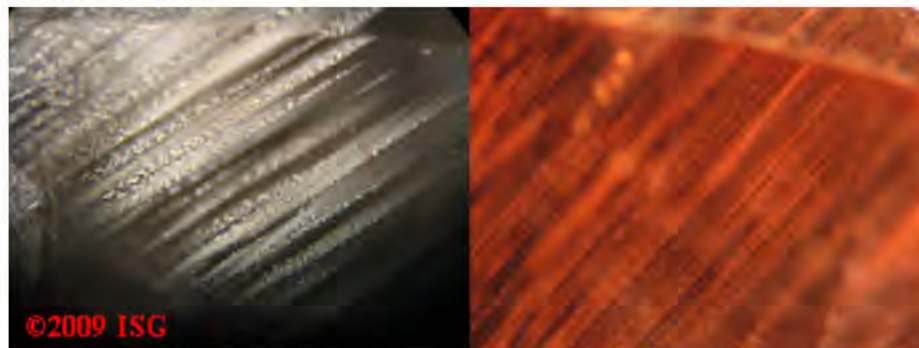
call to Plush Oregon got us invitations to come dig out all we could carry for free. But we cannot find one soul on this earth who knows about any Mongolian andesine crystal mine other than the above listed organizations directly connected to this andesine fiasco.

We just wanted to make that point before we go forward.

The source of this material is sort of a moot point since the treatment itself is the key element. But when we were provided with this supposed Tibetan andesine, we were able to compare to known feldspars and see the results.

First, by Raman testing, the represented Tibetan material tests the same as the Mexican material. That does not prove a prima facie case that this material is from Mexico, but it is a fact that the Raman scans of the feldspars from various locations all vary slightly. But only those from Mexico and China offer identical Raman scans.

By inclusion comparison we have already made the case of identical internal characteristics in the Mexican and Chinese feldspars in a previous edition of this newsletter. Since the ISG has in our office literally hundreds of specimens from virtually all known world sources of feldspar, it's pretty easy for us to do magnification comparisons using our Meiji Techno microscope and Canon cameras. Only the Mexican and Chinese feldspars are exactly matched. Below left is a 30x image of Casa Grande Mexican feldspar, below right is from a supposed Chinese red andesine, one of many matching internal characteristics.



Over the past two years the ISG has received reams of reports and information, and numerous study specimens from geologists, mineralogists, PhD's, miners, consumers, etc....regarding information on this topic that they wished to add to our research study. When we started testing this reported Tibetan feldspar a couple of specimens recently received in the ISG office came to mind. These were feldspar rocks from Sonora, Mexico. The reason they were obtained from the geologist in Arizona who gathers them was they showed a distinct ultraviolet reaction. Inert to long wave, and a very faint red to short wave ultraviolet.

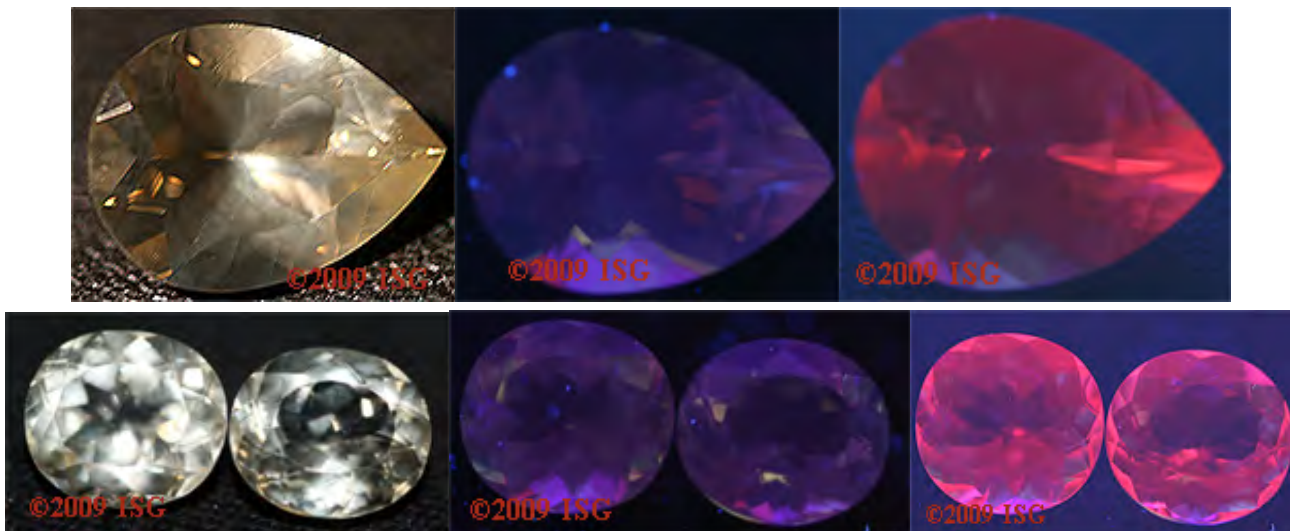
In comparing the notes from the [GIA Gems and Gemology Winter 2008](#) edition, we found that the GAAJ had reported the **Mongolian feldspar was inert to both LW and SW UV**, and the Tibetan material showed slight orange to LW and dull red to SW.

So we started testing to compare.

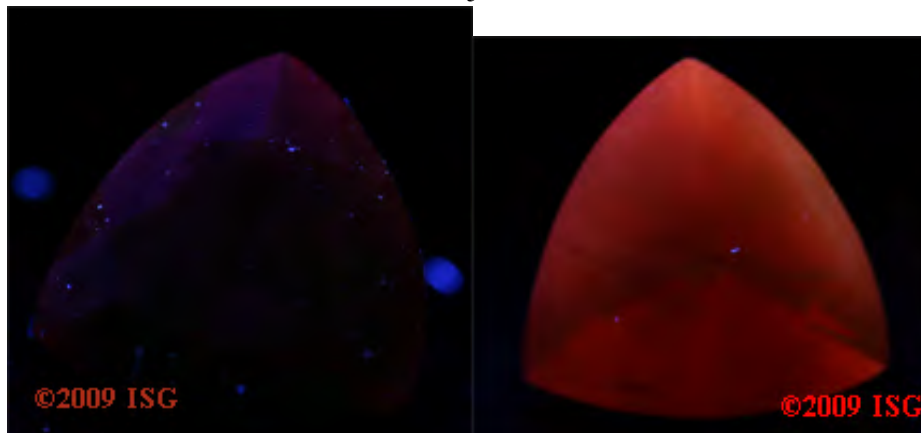
Testing the rocks from both Sonora and Casa Grande, we found the inert reaction to LW and a dull faint red to SW, as reported. We had to use a 20 second exposure to be able to capture this for photographs, but the reaction was indeed present. Below from Sonora Mexico in incandescent light, LW UV and SW UV.



Below two rows of faceted gemstones are from Casa Grande, Mexico in incandescent light, LW UV and SW UV. The purplish glow in the LW images (center above and below) is due to residual reflection from the UV bulb due to the exposure time for photography. It is not from UV reaction.

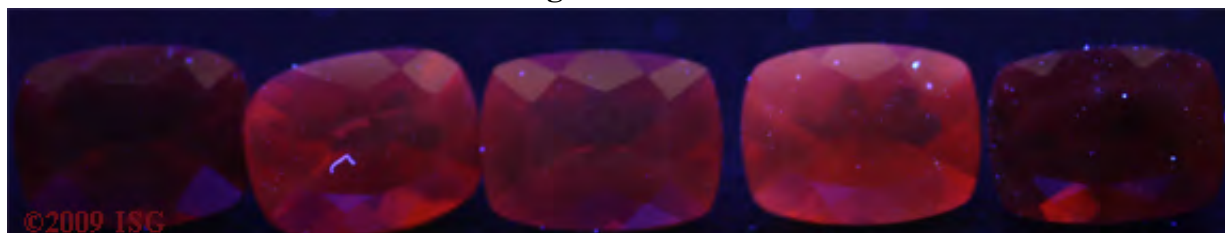


We got mixed reactions from the material we were provided by the Tibetan miners. We confirmed that some of the material represented as being from Tibet offered a light orange to LW and dull red to SW as stated by the GAAJ in the GIA report. Which of course means that unless the diffusion process itself instills some sort of UV reaction, that this material presented to us as being from Tibet could not have come from this claimed Mongolian mine. But we also found another reaction that was unlike anything reported for either Tibet or Mongolia. We found some of the supposed Tibetan andesine was inert to LW with a faint red to SW....just like the Mexican material.



Next, we pulled out our Beijing 2008 Olympic Andesine specimens from Direct Shopping Network and ran them through the same UV tests. The reactions were mixed. As you see below, the early DSN specimens we tested are on the ends of the image below and are inert to LW and have a faint red to SW. The specimens in the middle test as the supposed Tibet material. The outer two stones are inert to LW and faint red to SW, just like the known Mexican material. The center three Olympic stones test different than the outer two.

Long Wave Below



Short Wave Below



Below is one of the two outer stones individually tested to demonstrate the reaction. Compare this to the Mexican reaction above. And compare the variable reactions within these 5 Beijing 2008 Olympic Andesine from DSN above. Below is incandescent light, long wave UV and short wave UV. The much smaller size of the Olympic stone as compared to the Mexican stones allowed for total extinction of the light in the LW photo below.



As a result of this we have concluded the following:

- *No Mongolian or Chinese mining organization offers any indication of any crystalline andesine or labradorite feldspar mine existing in Mongolia .
- * We can find no source of Mongolian rough crystalline feldspar anywhere on the market.
- *None of the published tests of Mongolian feldspar has provided any verifiable source or origin for their study specimens.
- *None of the feldspars we tested were inert to both LW and SW, as reported for Mongolian feldspar by the GIA and GAAJ.
- *The DSN Beijing 2008 Olympic Andesines offered two separate reactions that fit either the Mexican UV reaction, or the reported Tibetan UV reaction. Therefore we believe that there may be different sources for this DSN material, neither of which fits the published GIA Mongolian reactions.
- *Dr. George Rossman of Caltech has publically stated his doubts of the existence of a Tibetan red andesine mine.
- *The three DSN Beijing 2008 Olympic Andesines tested most recently do not share the same gemological characteristics as the original two DSN specimens.
- *The first two DSN Beijing 2008 Olympic Andesines that were tested by the ISG do, in fact, have all of the attributes of the Mexican feldspar in gemological properties, internal characteristics, Raman scan, and ultraviolet light reactions as per our original report of 2008.

The ISG stands by our original statement that we have Chinese andesine, tested in the ISG office, that offers the same gemological test results as the Mexican feldspar. Whether or not it is actually from Mexico is a matter that will most likely be settled in court. But considering that DSN has sold this diffusion treated andesine without disclosure as required by the Federal Trade Commission, who really cares where it is originally from anyway?

We will not move from our position on our test results, and we will offer no settlement to DSN regarding their lawsuit.

DSN has demanded a trial by jury; the ISG is prepared to give them what they demand.

Robert James FGA, GG
President, International School of Gemology

With Apologies: During the course of photography of many images in this edition the office next to ours was under construction. This caused a constant down flow and swirling around of tiny ceiling material flakes on our specimens that glowed in UV. These did not impact the testing, but they sure were irritating to try to clean. We obviously did not and could not get them all.

Send us your thoughts, suggestions, and responses to:

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