

<http://www.mineralminers.com/html/lapminfo.htm#hist>

Lapis Lazuli comes from the Persian word *lazward*

Technical description

Lapis Lazuli Chemical composition: Lapis lazuli is a rock composed mainly of the following minerals:

Lazurite: $(\text{Na,CA})_8(\text{AlSiO}_4)_6(\text{SO}_4,\text{S,Cl})_2$

Hauynite: $(\text{Na,CA})_{4-8}(\text{AlSiO}_4)_6(\text{SO}_4)_{1-2}$

Sodalite: $\text{Na}_8(\text{AlSiO}_4)_6\text{Cl}_2$

Noselite: $\text{Na}_8(\text{AlSiO}_4)_6\text{SO}_4$

Calcite: CaCO_3

Pyrite: FeS_2

Habit: compact massive

Index of refraction: approximately 1.5

Pleochroism: none (isotropic)

Specific Gravity: generally 2.7 to 2.9, higher with increasing pyrite content

Hardness: 5.0 to 5.5

Color: deep blue, purplish-blue, greenish blue

Luster: dull

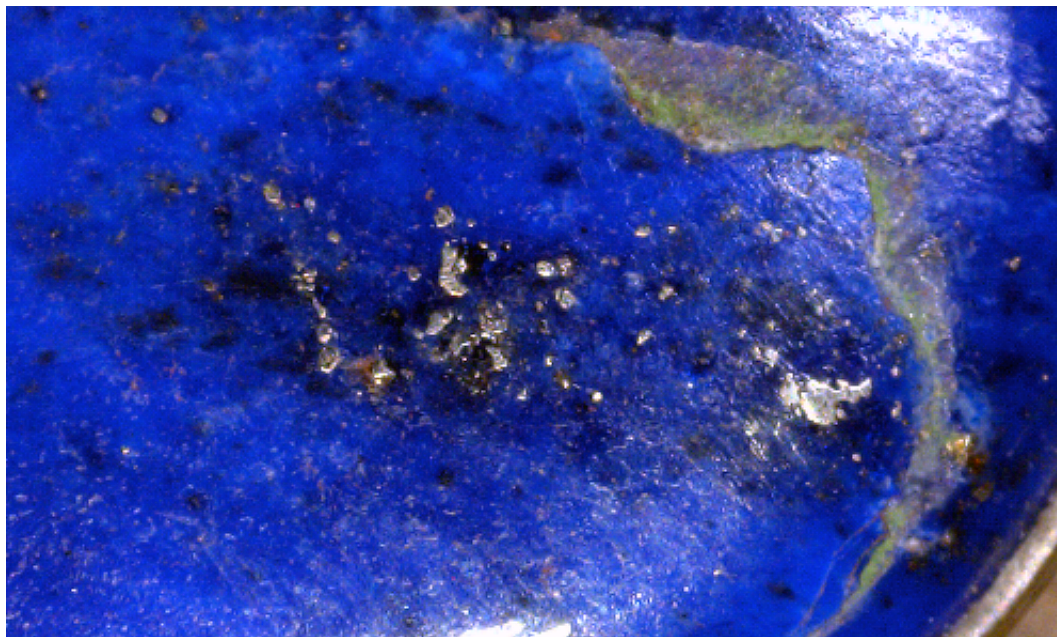
Transparency: translucent

Cleavage: none

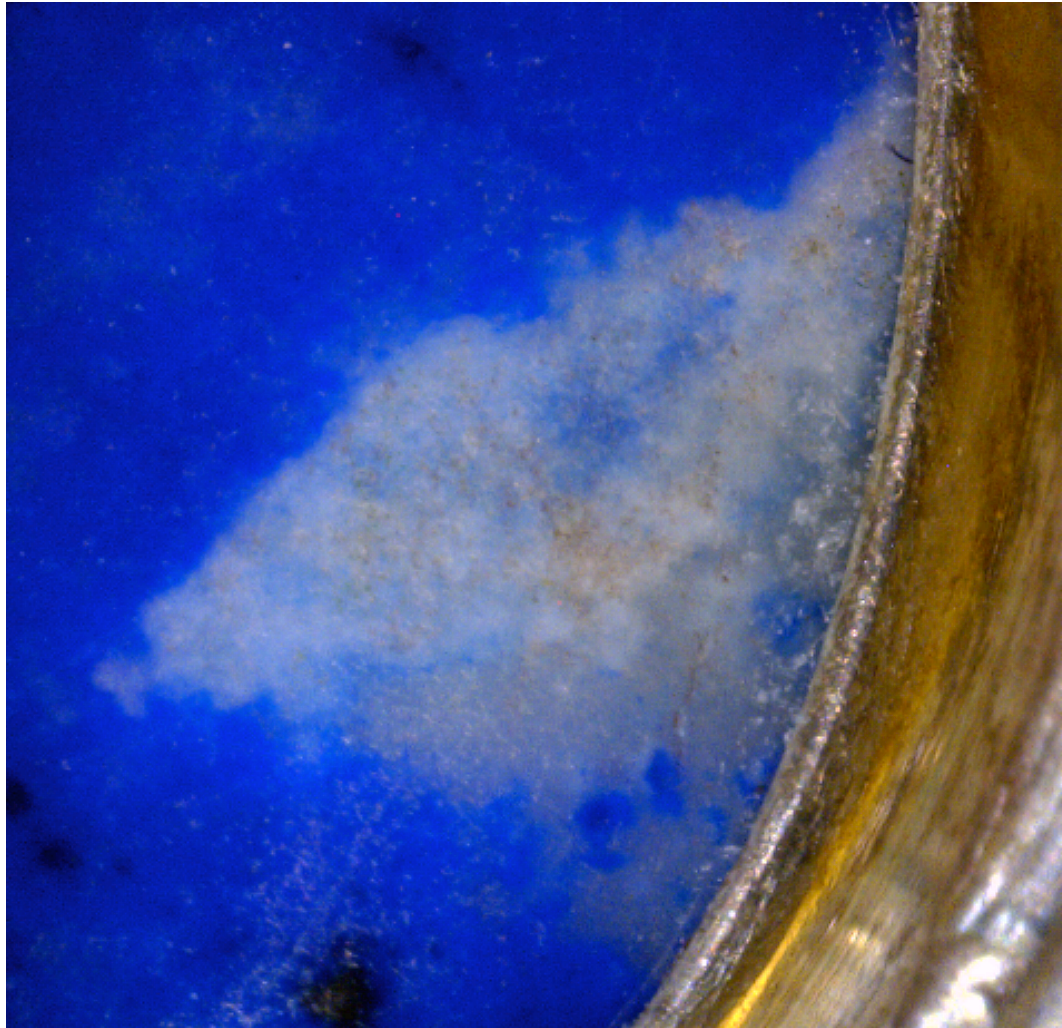
Fracture: uneven

Streak: light blue

JCH Provides a photomicrograph of Pyrite and other inclusions in Lapis



JCH Provides a photomicrograph of calcite and other inclusions in Lapis



<http://www.waterfountains.com/lapislazuli.htm>



Location of the traditional Lapis Mines in Afghanistan




Mining Lapis at Sar-e-Sang

<http://www.gemstore.20m.com/photo.html>

Grades of Lapis

	<p>Lapis Lazuli Best Grade Called Maden-e-Char</p> <p>Nearly clear of inclusions</p>	
	<p>Best Grade (Maden-e-Char) with Royal Blue Color</p> <p>Nearly clear of inclusions</p>	

	<p>Lapis Better Grade (Jindak)</p> <p>[note pyrite inclusions]</p>	
	<p>Lapis other grade (Maden-e-Aqwal)</p> <p>Second best after Maden-e-Char</p>	

	other grade (Maden-e-Awal) with Removable Calcite & Pyrite	
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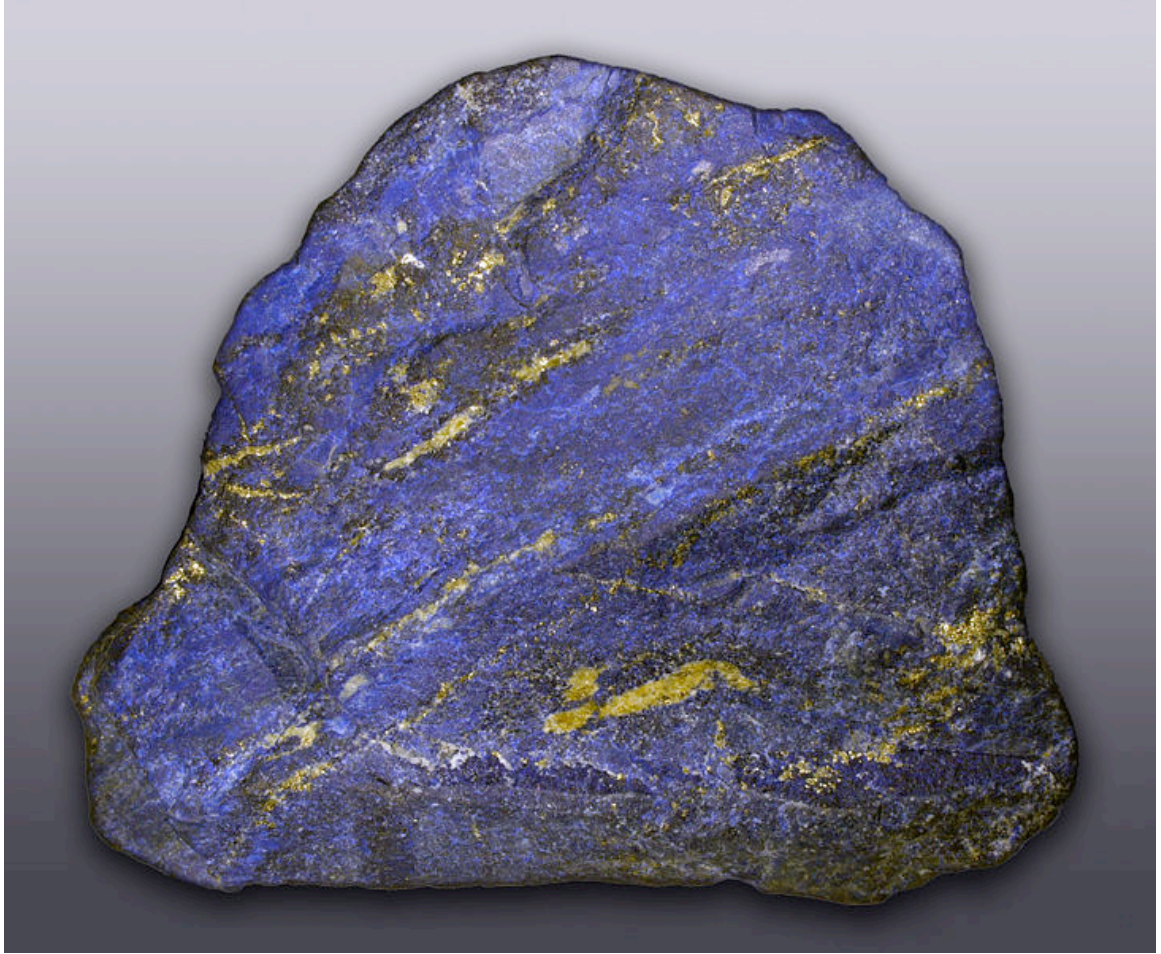
Random Examples

Huge block of poor quality

<http://www.celestinestonetile.com/products/Lapis%20Lazuli.jpg>



[commons.wikimedia.org/ wiki/Image:Lapis-lazuli...](https://commons.wikimedia.org/wiki/Image:Lapis-lazuli...)



Lapis with pyrite inclusions