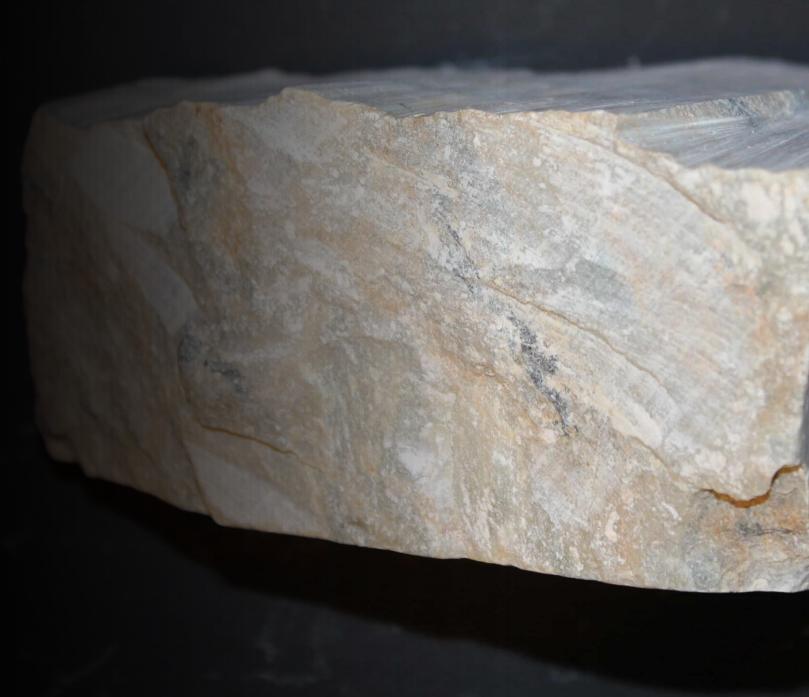
Travertine Marble Technical Specifications



Property Regime	Private property
Location	Tepexi de Rodriguez Puebla
Surface	14.7 Hectares (36.3 Acres)
Legal status of the property	Permits in process
Classification of marble	Beige Travertine Marble
Compressive Strength	1,341 KG/CM2 (19,073 PSI)
Standards	ASTM-C-503-1988 Y ASTM C-568-1979
Usable Volume p/laminated	3,218,979 m3 (3,520,318 YD3)
Non minable usable volume	2,159,431 m3 (2,361,582 YD3)
Electric Energy	At the access to the property

## Characteristics





### Travertine Marble

- Travertine marble is one of the most used stones in construccion and decoration, although they they can also be used as front wall and wall cladding.
- Its applications are multiple; in floors, walls, bathroom sinks, balusters, stairs, window edges, pool edges, kitchens, tiles, etc.
- Thanks to the great variety of colors, it combines well with itself and other stones.





# Applications of the CoCa3

• In Addition to decorative and construction applications, its smaller granulometry is also used in other sectors such as agri-food and industrial.

• Among the applications that benefit from the finest fractions of calcium carbonate and that use it in its micronized format are:



## 1st Product Bitumingose mixtures

• It has been shown that depending on its particle size and its specific surface, the amount of bituminous binder to be used varies.

• This affects not only the cohesion of the mixture but also its waterproofing conditions.



## 2nd Product Animal Feed

• In the case of birds, an improvement in the quality of the eggs and the hardness of its shell is achieved and in that of cattle a contribution of calcium intheir diet improves the quality of milk and enhanced rumial work.



## 3rd Product Leather tanning

• Tanning is the transformation of any leather into leather so that it is given physical, chemical and biologogical properties.

• To carry out this process it is necessary to use acidic medium that must be subsequently neutralized, for which both carbonate calcium and dolomite are used.

## 4th Product Printing inks

• The fine grain size of the PCC helps to improve the optical and theological properties of the different printing inks. In addition, they can also provide improvements to the surface finish of the same.



#### 5th Product Human food

• In addition to being able to be used as a naturalsource of calcium (food supplement) it is also an effective neutralizer of acids in the production of wine in cold areas or in acidic crops.

 Its properties mean that it does not provide an unpleasant taste to the calcium-enriched formulations in which it is added (calcium drinks)



#### 6th Product Automotive

- They are used as theology modifiers in a wide variety of seals before and especially in PVC plastisol formulations that are applied in the automotive industry.
- Its use significantly simplifies the design of new formulations thanks to its easy dispersion, high yield value and low viscosity.



Marble mine business project Non-Minable reserves

CONCEPT	M3	UNIT PRICE	SUB TOTAL
Construction (cement, lime and granite)	1,000,000	\$ 850.00 MXN \$ 41.98 USD \$ 53.36 CAD	\$ 850,000,000.00 MXN \$ 41,975,308.64 USD \$ 53,358,443.19 CAD
Food grade	500,000	\$ 1,000.00 MXN \$ 49.39 USD \$ 62.78 CAD	<ul> <li>\$ 500,000,000.00 MXN</li> <li>\$ 24,691,358.02 USD</li> <li>\$ 31,387,319.52 CAD</li> </ul>
Medicinal grade	500,000	\$ 700.00 MXN \$ 34.57 USD \$ 43.95 CAD	<ul> <li>\$ 350,000,000.00 MXN</li> <li>\$ 17,283,950.62 USD</li> <li>\$ 21,971,123.67 CAD</li> </ul>
Industrial cosmetics	159,431	\$ 250.00 MXN \$ 12.35 USD \$ 15.70 CAD	<ul> <li>\$ 39,857,750.00 MXN</li> <li>\$ 1,968,283.95 USD</li> <li>\$ 2,502,055.87 CAD</li> </ul>
		TOTAL:	\$ 1,739,857,750.00 MXN \$ 85,918,901.23 USD \$ 109,218,942.20 CAD



## Business project marble mine proven minable reserves for domestic sale and export

		UNIT		PROVEN	
CONCEPT	M3	PRICE	SUB TOTAL	RESERVES	SUB TOTAL
		150.00 MXN	\$ 6,000.00 MXN		\$ 19,313,874,000.00 MXN
40 sheets of marble 100x100		7.41 USD	\$ 296.30 USD		\$ 953,771,555.60 USD
x2 cm thick	1.00	9.42 CAD	\$ 376.65 CAD	3,218,979 M3.	\$ 1,212,421,469.00 CAD

## Profit margin by concepts

Concept	Profit Margin
M3 mineables	<ul> <li>\$ 19,313,874,000.00 MXN</li> <li>\$ 953,771,555.60 USD</li> <li>\$ 1,212,421,469.00 CAD</li> </ul>
M3 No Mineables	<ul> <li>\$ 1,739,857,750.00 MXN</li> <li>\$ 85,918,901.23 USD</li> <li>\$ 109,218,942.20 CAD</li> </ul>
Total	<pre>\$ 21,053,731,750.00 MXN \$ 1,039,690,457.00 USD \$ 1,321,640,411.00 CAD</pre>

## Prices in the market





Piso De Marmol Travertino Clasico 40x60 \$ 480,00 M2 Brillado



#### Document of proven mineable reserves





CERTIFICACIÓN DE RESERVAS DE UN DEPÓSITO DE TRAVERTINO EN LAS FRACCIONES LAS PRESETAS-PITORREAL Y TITELE-MÚSICO. MUNICIPIO DE TIPERE DE ROBINIUEZ, ESTADO DE PUBLA

I. CONCLUSIONES

- 1/a Ambas fracciones, propiedad de ICEPPCEI, ubicadas en el predio "Tetele-Músico" cuentan con buena infraestructura y comunicación con los principales centros de comercialización y distribución a través de caminos pavimentados.
- 2/a El material de interés económico corresponde a un cuerpo de travertino, de color beige claro, con horizontes de incipiente color amarillo ocre, el espesor promedio explotable, de acuerdo a la información proporcionada por los barrenos realizados y perfiles topográficos, es de 44.00 m, integrado por estratos delgados a gruesos y ocasionalmente masivos, espesores que varían de 0.40m a 3.00 m, con presencia de fracturamiento.
- 3/a El depósito de rocas carbonatadas presenta características físicas que permiten su empleo como rocal dimensionable, agregados pétreos, artesanal y materia prima para diversas industrias, como papel, pigmentos, alimentos balanceados, etc.; en forma paralela puede ser empleado para la fabricación de cal y cemento Portland. Estos cuerpos reúnen características favorables para una explotación económica ya que tienen aceptación en el mercado nacional e internacional.
- 4/a De acuerdo con las observaciones de campo, la explotación como roca dimensionable tendrá que realizarse obteniendo blocks de diferentes tamaños, derivado del espesor de los estratos y del fracturamiento presente.
- 5/a Se cubicaron Recursos Indicados por un total de 5' 378, 410 m³ de travertino, distribuidos como sigue: 4'515,240 m³ en la fracción Tetele-Músico y 863,170 m³, en la fracción Las Presitas-Pitorreal, de los cuales 3'218,979 m³ se consideran minables, con un valor "In Situ" de \$579'416,220.00.
- 6/a Los grandes volúmenes de pedacería existentes y los que se generen durante la explotación, pueden utilizarse para producir agregados pétreos de calidad y representan otra alternativa de desarrollo, el cual puede llegar a ser de grandes dimensiones con una adecuada organización y proyección para abastecer a las regiones aledañas.

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