

GOLD MINING OPERATION IN CENTER BRAZIL – AMAZON JUNGLE ZONE

The mining activities at the country area are very similar, as well as, the geology. Leaving Cuiabá to the Pantanal Area, South Zone, during about 200 KM, we can see hundreds of gold mining activities. The targeted gold ore are the LATERITE. The laterite are the cover layer of a metamorphic rock called grafite schists. We know that the metamorphic rock are the source of the laterite, an iron/aluminum oxide rich in magnetite, hematite, and iron oxides, as well as silicates. The laterite are a rich gold ore with coarse gold contents and micron gold contents. At the yearly eight, a gold rush became because the centrifuge invention. So, until today that's the existing technology at the entire area. Many foreigners companies tried to change the local technology with no success. We participate that gold rush, selling gold processing equipment to them. We knew at that time that, the centrifuge was good for coarse and fine gold but not for the entire gold material. To catch the finest gold material, the majority gold, we have to improve the centrifuge for that but, the fever and selling demand was too big that, a new centrifuge wasn't necessary at that time. Today yes, a centrifuge must be reinvented and built for that fine material. Our customer, knew we have better technology for that material, as well as, not only concentration equipment with centrifuge but, a new amazing dry impact mill that could concentrate the tailings, using only 10% of the Electric Power, required for the local installed ball mills. Another thing was the ROTARY SMELTER FURNACE, that could smelt the tailings and recovery the gold, using a copper collector, as the caching metal. Frontier/Four Star supply then with an small impact mill and built the concentration system. An old existing rotary smelter was adapted for the gold recovery testing. The success happen because, we was recovering 300% more gold than the entire gold mining operation, just processing the tailings. Today we was invicted to supply another furnace, as well as, recovering the existing old equipment . A new layout was proposed, including the missing equipment required to produce a minimum 1 kg/gold per day. We was producing 3 kg/day but, we must prepared to process poor material, as well. When we have order to improve the existing processing plant, using the new centrifuge technology, for sure we can produce 3 kg gold/day. Today FOUR STAR/FRONTIER MINING DO BRASIL will operate that plant, participating for free with 25% of the company, with obligation to supply the that processing technology. The investment will be paid by the other 75% participation partnership. The new FLOW CHART ARE SHOW HERE, as well as, the gold production experience the **Frontier** Staff. The **Frontier** with Staff, like Cleberson and Donizete, are going to be prepared to produce in Frontier's Puma & Eagle, since the investment is completed.





Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Producing Gold Bar

Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy Rua Alceu Moreschi, 460 - Quississana - São José dos Pinhais - Paraná - CEP: 83085-400 - Tel. (41) 3282-0928.





Poconé - MT - Producing Gold Bar



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Gold Bar Produced





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Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Gold Bar on the Slags





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Gold Bar on the Slags



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Gold Bar





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Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Recovering Gold





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Rotary Smelter Furnace



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Front of Smelter





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Smelting for Gold



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Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Smelter on fire



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Poconé - MT - Refractory failure on smelter side





Frontier's/Four Star Operators already seen the green/blue smokes meaning precious metals volatization- time to discharge the smelter





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Volatization of the gold seen in the smoke



Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy Inside the smelter furnace we can see the gold volatization - the material steak to the shell are copper gold colector.





Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy After colecting the copper/gold bar we must refine - these are the refining smelter furnace for that. We use the Miller Chlorination method for that.



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Refining the gold





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Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy Overview of the Project Site



Tailings Material Recovery Plant

Mineração Tuiuiu - Brazil – **Frontier/Four Star** Producing gold by pyrometalurgy





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Tailings Recovery Plant - Side View



Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy New Plant to be assembled here





Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy A new tailings concentration plant will be assembled here



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Tailings

Dam





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Fuel Tanks - Our fuel are GLP - Gas



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Frontier's Technology - Dry Concentrating Plant





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Concentration Plant



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Dry Concentration Plant





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Our Concentration/Smelter Plant - General View



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Frontier's/Four Star Concentration Plant





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Waisting Pounder Dust showing on the White pipe overthere



Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy Field Control Panel





Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Existing Gold Mining Operation - seeing ball mills and gold centrifuges

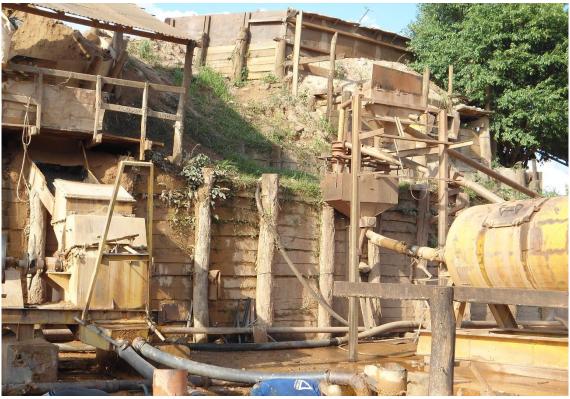


Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy Existing Gold Mining Operation - Hammer Mill and Centrifuges





Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy We take the gold tailings from here every day



Mineração Tuiuiu - Brazil - **Frontier/Four Star** Producing gold by pyrometalurgy These tailings feed our pyrometalurgy processing plant





Mineração Tuiuiu - Brazil - Frontier/Four Star Producing gold by pyrometalurgy Existing Gold Plant - To be improved to produce more and better wastes and tailings material to be processed a tour NEW PIROMETALURGY PROCESSING SYSTEM



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MINERAÇÃO TUIUIU - MINING HEAD OFFICE



COUNTRY TAILINGS





COUNTRY RICH GOLD TAILINGS



COUNTRY TAILINGS





STRATIFIED GOLD TAILINGS



GOLD TAILINGS VIEW OVER THERE





COUNTRY GOLD TAILINGS



COUNTRY GOLD TAILINS AND THE PROCESSING PLANT OVERVIEW





COUNTRY TAILINGS DAM TODAY



ANOTHER EXISTING GOLD PLANT IN OPERATION - PRODUCING TAILINGS





GOLD PLANT IN OPERATION



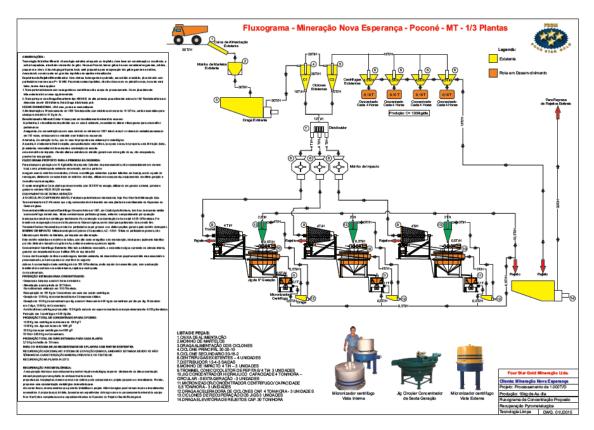
COUNTRY GEOLOGY - GRAFITE SCHISTS UNDERLINING LATERITE MATERIAL

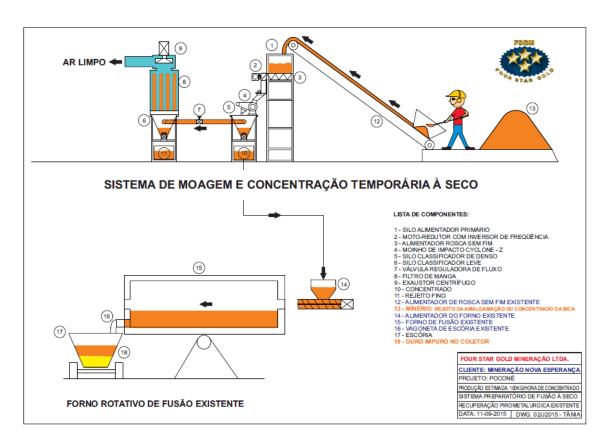




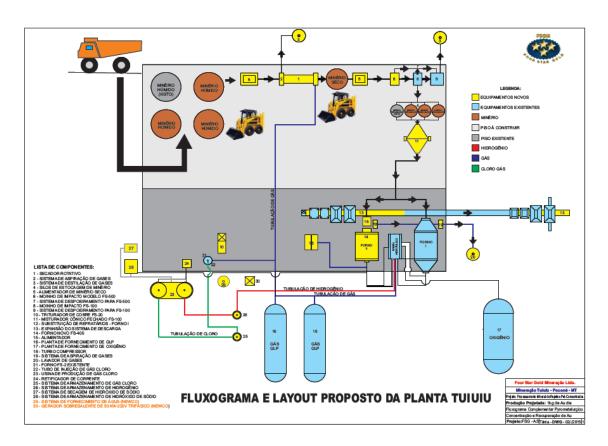
COUNTRY GEOLOGY











FRONTIER'S PUMA & EAGLE GOLD PROJECT:

We don't have coarse gold in Puma & Eagle, we will not have a similar plant, as these existing gold mining processing plant. We have the Graphite Schist a sulfide material. For that sulfide material, as well as, the shists we will apply the same smelting technology, as was projected before. Today we know that, there are the right technology to process our rich gold material, too. A similar processing system are going to be built direct at the minesite, according the environment licensing we grant.

Frontier Mining do Brazil /Four Star Gold - December, 14 - 2015. Aristofanes Souza - CEO