

# **SOCIAL VIGILANCE PROGRAMME OF TRANSNATIONAL MINING COMPANIES**

REPORT N° 2

## **INVESTIGATION REPORT ABOUT THE OPERATIONS OF THE MINING COMPANY “ALUMBRERA LTD”. IN ARGENTINA, AND THE TRANSNATIONAL COMPANIES THAT INTEGRATE IT.**

### **Technical card of the company in Argentina**

#### **ALUMBRERA LTD. MINING COMPANY**

Country of origin: Swiss, Canada, Canada

Present in the country: Catamarca

Capital composition: Transnacional company.

Investment level: us 1200 millions invested in the Bajo project of “La Alumbreira”

Jobs created: 1165 during 2005, direct jobs.

Employment conditions: 12 hour working days in exploitation conditions.

### **La Alumbreira’s Bajo**

The mining deposit “Bajo” of “La Alumbreira” is located in the province of Catamarca, in Belen’s department, at 150 km northeast of Andalgalá city. The property rights of the Mine are held by the state company “Yacimientos Mineros Aguas de Dionisio” (YMAD), integrated by the province of Catamarca (up to 60%), The National University of Tucuman, and the National State. For the Mine exploitation a Transitory Union of Companies (UTE) has been created between YMAD and the mining firm “Alumbreira Limited”.

“Alumbreira Ltd.” is, at the same time, conformed by three private companies: the Swiss company, Xstrata (50%), the Canadian companies Goldcorp Inc. (37.5%) and Northern Orion Resources Inc. (12,5%). The Mine produces gold and copper concentrates and dore metal to open sky. The production costs are four times inferior to other regions according to international standards.

Alumbreira is the largest gold exploiting mine in Argentina. Through grinding, milling and flotation processes it annually produces 700.000 tons of concentrates that contain 190.000 tons of copper and 600.000 ounces of gold. The concentrates of gold and copper- with the water add- is pumped through a 316 km long mineral duct to the province of Tucuman, where there is a filtering plant. From there, it is transported by trains owned by the Mine Alumbreira to the port installations of the company in General San Martín’s Port, in Santa Fe’s province, where the merchandise is loaded and shipped to refining plants outside the country.

Alumbreira’s Bajo’s exports of the 2002-2005 period represented incomes of U\$S 2.580 millions and, only in 2005 they reached almost U\$S 900 millions. The countries receiving these exports in the last year were: China, India, Japan y Chorea (40% of the

total), Germany (25%), Bulgaria (11%), Spain and Finland (6% each one), Brazil and Canada (5% each one) and Poland (2%) Alumbreira's invoicing during 2004 reached \$ 3.450 millions

The company's actions are being questioned by neighbours, social organizations, and environmental impact studies carried independently and without any relation with the company.

Alumbreira Ltd. has damaged this society by repeatedly violating environmental and labour laws, as well as human rights. Here we have classified the different violations in relation to ONU's Norms in specific cases.

### ***Environmental Protection***

- Reiterated leaks in the mineral Duct, mineral mud spilled, "Cruz del Norte", Tucumán.
- A company truck travelling from Buenos Aires to Catamarca, going through Cordoba and Rioja, spilled a load of 21 thousand kilos of harmonic nitrate, a corrosive fertilizer used to make explosives. The substance, belonging to the company Trilog, was designated to the Mine\_Bajo La Alumbreira, in Catamarca, and was being transported in a truck of the firm "Sofia", that was making its weekly route with a second unit which did not have any problem.
- Social, governmental and judicial spaces of the Argentinean Northeast are warning that this pollution is going to affect three provinces: Catamarca, Tucumán and Santiago del Estero.
- Clouds of dust affect the city given to the wind that carries the elements that are dynamited as a part of the process of mineral extraction of the Mine. Specialists warn that the removal of the Rock Mountains accelerates sulphate production that mixed with air and water, produce acid rains and rains, with the pollution that that implies.
- Numerous pathologies presented by residents of the region are now being associated with the pollution produced by Bajo La Alumbreira
- The tail dam has leaks that are contaminating the underground water sources of the area. The company admitted these leaks and installed a system of retro pump to make the mineral solution go back to its source. But, once the company ceases to operate and leaves the area the pumping will stop, though the leaks will go on.
- Alumbreira Mine is the largest individual electric consumer of Argentina; the company even states so in its own web site
- The extraction process consists in dynamiting the walls of the mountain, transform the rocks into dust and dilute them in acid solutions that purify the minerals. This viscose solution is then purified again in a large scale flotation process. All the wastes are thrown in a 30 hectares long and 150 meters tall rubbish dump, called "tail dam". The rough material is sent through a 310 kilometres long mineral duct- an underground tube-that goes from Catamarca to Tucuman. It transports a mud with acids and minerals. It gets until Cruz del Norte, Tucumán, where the train "Alumbreira" (the company owns four locomotives and 182 wagons) transports concentrates to Santa Fe's port. From there, it is sent outside the country to be refined. The company also owns a 220

kilometres long electric Duct and high tension electric lines going through Catamarca and Tucumán

- Measurement controls made to the Mine showed excesses up to 20 thousand times the values of arsenic allowed by the law, 5 thousand times the values of cadmium, twenty times that of copper, ten thousand that of mercury, sixty times that of lead, and a thousand times that of selenium. The study of environmental impact even showed 2, 30 milligrams of strontium per litre, a radioactive element.

### ***National Sovereignty and Human Rights***

- The company's establishment has created division among the residents, breaking the relationships among neighbours and even family members.
- The Mine arrived to the province representing an employment opportunity for the region, which suffers from unemployment as one of its main problems. Consequently, in the beginning it appeared to be a positive event, though later the many environmental reports along the company's evident misbehaviour gave place to protests and a reframing of the situation by some of the neighbours. Other residents, however, do not question the company, for their economic needs are stronger than their will.
- The company has violated protected zones in Tafi del Valle, Tucumán, for they have laid a high tension line on lands belonging to the "Inca's path".

### **Labourer's Rights**

- 12 hours in a role heavy work in precarious conditions.
- Miner's camping sites where the workers lived isolated from their families, work seven days in a role for twelve hours and then have seven days off.
- Violent episodes among workers, since the social environment is limited and the fatigue is continued.

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## **Social and judicial actions against the company**

### ***Judicial***

- The company is being investigated by Rosario's federal justice (Santa Fe's province) for presumed traffic of documents and illegal exportation of metals (smuggling of gold, uranium and thorium). In November 2005, Rosario's federal prosecutor ordered directors of the mining company, Carlos Silvani, former head of the Federal Administration of Public Income (AFIP), and Gustavo Parino, former Customs administrator, to declare for the traffic of documents, given that all of them contributed to the exportation of undeclared metals and avoided the corresponding taxes. In San Lorenzo's port, where the material from the Mine is shipped, it was discovered that AFIP has authorized La Alumbra to pay only a minimum temporary gravamen for copper exportation, without any control on the amounts exported. That control, of course, would have implied different

fees. It was also discovered that Parino had liberated the company of custom controls, for which it was not even checked that what was leaving the country were metal containers. Tests proved that, besides the bronze declared, gold was being sent as well.

- Tucumán's prosecutor Antonio Estofan sued the company for pollution. Santiago del Estero's federal judge, Felipe Terán, investigates an accusation of presence of gold and lead in the north, and a degree of pollution that would reach the tourist area of Termas de Río Hondo. Residents of Villa Vil, in Catamarca, denounced the company for a toxic spill of the mineral Duct. Social organizations of Tafí del Valle, in Tucumán, warn about air pollution and radiations produced by the electric Duct, and invasion of indigenous cemeteries. Only a few accusations are filed against the Mine Alumbraera, supported by a great diversity of sectors and provinces. The president's company, the Australian Julián Patricio Rooney, is accused of polluting and could end up in prison. The cause in which he is imputed was originated in a complaint filed in 1999 for the pouring of chemicals in a channel in the province of Catamarca, where the company takes extracted material to be dried. Now, new evidence presented by Tucumán's federal prosecutor, Antonio Gomez, is sustaining Rooney's process, but to get that evidence was not easy. The province's government denied him the environment impact report that was mandatory for the company, and where there is record, among other infringements, of arsenic values surpassing twenty thousand times the legal limits of the national law. **“It is from the same information given by the company that the illicit here investigated, and those responsible for it, has been corroborated”**, Gomez affirms. Measurement controls made to the Mine showed excesses up to 20 thousand times the values of arsenic allowed by the law, 5 thousand times the values of cadmium, twenty times that of copper, ten thousand that of mercury, sixty times that of lead, and a thousand times that of selenium. The study of environmental impact even showed 2, 30 milligrams of strontium per litre, a radioactive element.

### *Socials*

- Andalgalá's neighbours have been demanding Justice and governmental intervention to avoid pollution of the area, for they assure that the Mine is gravely affecting the water courses, which would include not only the department of Santa María, to the north, but also that of Belén to the west.
- The self assembled neighbours demand a plebiscite similar to Esquel's to decide what to do with the deposit of Agua Rica owned by Northern Orion Resources Inc., a Canadian company owner of a 12,5% of La Alumbraera Ltd..





Infrastructure of Alumbra Ltd. in Argentina.



Satellite image of the open sky mine and the tail dam.  
 Distance= 12.83 km, Google Earth 2007.



Open sky mine  
[www.alumbrera.com.ar](http://www.alumbrera.com.ar)



Tail dam  
[www.alumbrera.com.ar](http://www.alumbrera.com.ar)

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## Transnational companies integrating La Alumbrera Ltd.

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### **Xstrata (Suiza), 50%**

Xstrata is one of the 10 larger copper producers in the World, and it holds 50% of La Alumbrera Ltd. **It operates in 17 countries (Argentina, Australia, Brazil, Canada, Chile, Colombia, Dominican Republic, Germany, Jamaica, New Caledonia, Normandy, Papua New Guinea, Peru, South Africa, Tanzania, EEUU and United Kingdom)** in which 24.000 people are employed. It is a diversified mining group, that exploits mainly copper, but also aluminium, nyquil and zinc alloys.

The division Xstrata Copper, under which Alumbrera Ltd.'s mine is integrated, has its headquarters in Australia, and an additional centre in Santiago de Chile. To this unit of business the mining activities and the mineral working of copper in Tintaya's mine, south of Peru, is also integrated.

Since July of 2006, Xstrata owns 24,5% of the firm Falconbridge, which owns a 100% of the capital of the Canadian company Noranda, which its developing exploration activities in the Argentinean-Chilean mining Project Pachón.



Xstrata was created by the financial Swiss company Glencore, one of the world's largest. Glencore was founded by Marc Rich, a Swiss-Israeli multimillionaire, who has been pointed and charged for several corruption cases. He was charged by the Federal Court of New York for taxes evasion of US\$48 millions, and also holds 51 charges for fisco's fraud against him.

Bill Clinton gave him a special pardon with the public support of Bush's father, a former president and CIA director.

In 2003 Xstrata annual report indicated that there were 806 environmental and security incidents in its seven mines and refining settlements. Five workers died in the mines, 82 got occupational diseases, there were 27 wounded and 56 workers became deaf. In MT. Isa's copper mine, where the Koutha native Australians live, there were 117 incidents. Maloma coal's mine, in Swazi, South África: Xstrata has a long history of environmental, occupational and health security. On July the 12 of 2001, a metan gas explosion killed six workers and left 12 injured. Authority inspections of the country determined that work conditions were extremely poor, and that the lack of protective security equipment risks workers' lives. Ferrovanadio's plant of Swazi, next to the coal's mine, started to operate in May of 2003. Based on a study of the American Journal of Medicine made on 2000, the worker's union denounced that in 1999 Xstrata had exposed workers to 50 times the maximum permissible limits of pentoxid vanadium, sulphur dioxide and nitric acid.

In Chile, Xstrata is planning to construct three hydroelectric centrals to reduce electric costs for extraction in its mining deposits of the south. Neighbours and ONGs are opposing the company for the environmental damages that these projects bring with them, including the risk of seismic movements that may provoke pressure on the dams that are located on the magma surface of the earth.

## **Goldcorp Inc. (Canada), 37.5%**

The second firm participating of Alumbreira's actions is Goldcorp Inc., from Canada, holding 37.5% of the shares.

This company is the third largest gold producer of the World, with mining operations in **America and Australia**. In August of 2006 this company announced a fusion with the mine Glamis Gold Ltd., in an operation worth US\$ 21.300 millions, of which Goldcorp Inc. will own 60% and Glamis the remaining 40%. Its projects around the American continent will involve 11.000 workers in Canada, United States, México, Brazil, Chile and Argentina. Except for the Chilean mine (La Coipa), in which gold and silver is produced, in the rest of the mines gold is extracted. Even more, Goldcorp owns a gold mine in Australia (Peak).

Goldcorp has several accusations against it in the Latin-American countries where it operates; here we will show the specific cases of Honduras, México and Guatemala.

### **Honduras**

A study ordered by ecologist groups found dangerous amounts of lead and arsenic in the blood of people living near a known gold and silver mine subsidized by the gigantic Goldcorp. Traces of lead and arsenic in amounts superior to the ones recommended by international standards (70 ug/dl) were found in a sample of 10 habitants living near the mine San Martín, in San Ignacio, in Valle de Siria. The study was ignored by the company, and since it opened a exetense file has been started in Honduras, which has arise local and international protests

For a long time, communities of Valle de Siria complained about different health affections and scarce water caused by the San Martín's mine, from which Glamis has extracted 15 thousand kilograms of gold since 2001, for a value of 412 million dollars.

These recent studies, the ones that detected arsenic (that can gravely affect the gastrointestinal, cardiovascular and nervous systems), were ordered and run by ecologist groups, among them Comité Ambientalista of Valle de Siria, to the Italian activist Flaviano Bianchini, who has carried studies of this sort en several countries of Central America

Bianchini's tests have been criticised by official and industry representatives, supposedly for lacking scientific quality.

So far, the Minister of Environment of Honduras has plans to send the samples to specialists in Colombia to confirm the pollution claimed.

### **México**

In México, Zacatecas's state has obtained all exploitation permits for Peñasquito's mine, that with a 882 million dollars cost and reserves proved and probable of 9 thousand 98 millions ounces of gold, its about to become the largest mine in the country.

Goldcorp uses, for the exploitation of the open sky mine, a sodium cyanide solution based on water that is poured over enormous piles of minerals to separate the gold. This remaining solution is a mortal toxin and has to be stored carefully. This process is commonly used, but environmental experts claim that it consumes large amounts of fresh water and generates toxic sub products, including heavy metals such as lead, mercury, and arsenic, that can contaminate water for human consumption.

## **Guatemala**

Goldcorp owns a mine in Guatemala called Marlin, ran by Glamis, in Sipakapa's municipal and San Miguel Ixtahuacán. The local protests left two dead and many injured. But Goldcorp denies the accusations. "We already operate San Martin's and Marlin's mines according to North America's standards", told to Tierramérica Jeff Wilhoit, vice-president of investors relationships of the firm.

In Marlin's case, studies proved pollution in river Tzalá but those "have been refuted and unapproved" and "nearby communities voted in favour of the mine" Wilhoit assured.

As regards San Martin, the entrepreneur stated that the mine had not provoked a lack of water nor pollution. "The water pumped from our holes does not impact on any way on the liquids used outside the area of the project. It is not true (that there has been diseases due to mine's wastes), there is a national study that refutes that argument" he said. The firm also denies denounces made by representatives of communities near San Martin and Marlin that claim that they were never consulted about these mining projects.

## **Northern Orion Resources Inc. (Canada), 12.5%**

The third smallest firm that operates in Alumbreira is Northern Orion Resources Inc, with base in Canada. Through a subsidiary firm based in the Cayman Islands it runs 12,5% of Alumbreira. It is in charge of copper and gold mining, as well as the exploitation and development of precious metals. Its main actives are in **Argentina: Alumbreira Mine and Agua Rica, both in the province Catamarca**, but it also has **interests in Cuba, where it runs 50% of Mantua's project**. Of the totality of employers of the firm (96), 87 are in Argentina, and the rest in its main executive office in Canada. Northern estimates that Alumbreira's exploitation will yield an income of US\$ 45 millions per year, during the following 8 or 10 years.

### **Agua Rica, Catamarca**

In 1994 the exploration work in Agua Rica began, with its copper prospective and feasibility studies being carried out. From the international price recovery of this mineral in 2003, Northern gave more impulse to the investigations tasks and acquired its partner (BHP Billiton), 72% of Agua Rica, with which accessed the 100% of this copper, gold, molybdenum and silver mine located 34 km. from Alumbreira; it did so through Minera Agua Rica LLC, Argentina's office, a subsidiary of Northern Orion Argentina Holdings S.A., with offices in Cayman Islands. The funds to develop Agua Rica will be derived from the earnings made in the Alumbreira Ltd's mine operation, and Northern estimates that the useful life of this mine is at least 30 years, given it would hold 21.00 millions pound of copper, 1.700 millions pounds of molybdenum and silver, and 13,3 millions ounces of gold.

Neighbours demand a plebiscite to decide about Agua Rica's mine; the superintendent José Eduardo Perea arrived to his charge promising the neighbours the plebiscite, but then change his mind claiming that the town should decide, but that it was still not ready to do so. Even more, he said that the company should not be blamed for the damages, but rather the governments given they were the ones that allowed so many law and norm violations. Neighbours continue struggling to get the plebiscite, so that they can decide on their future.



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