Independent Technical Report 43-101

Magdalena-Tubutama Exploration Concessions
Northern Sonora State, Mexico
Latitude: North 30°30’
Longitude: West 110°45’

Report Prepared in Compliance with National Instrument 43-101 For:

Bacanora Minerals Ltd.
450, 407 - 2nd S.W.
Calgary, Alberta, T2P 2Y3

September 18, 2009

Report Prepared by: Doris Fox, M.Sc., P.Geo.

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1.0 Summary

Bacanora Minerals Ltd. (Bacanora), a Calgary based capital pool company, has agreed to acquire all the shares of Mineramex Limited, which indirectly owns the Magdalena and Tubutama Concessions, as a Qualifying Transaction as defined by the TSX Venture Exchange (the Exchange or TSX-V). MineTech International Limited (MineTech) was commissioned by Bacanora to conduct an independent review of the Magdalena and Tubutama Concessions to meet the TSX-V requirements for the purchase of these Concessions from Mineramex. The Concessions are held by two wholly-owned subsidiaries of Mineramex - Minerales Industriales Tubutama, S.A. de C.V. (MIT), which owns the Tubutama Concessions, and Minera Sonora Borax, S.A. de C.V. (MSB), which owns the Magdalena Concessions. In 2008, the Magdalena Concessions were acquired from Minera Santa Margarita S.A. de C.V. (MSM), a Mexico registered subsidiary of Rio Tinto Group.

The Concessions are located in north-western Mexico in the state of Sonora and are targets for borate exploration, which occurs as calcium borate minerals, colemanite and howlite. Exposure is excellent, with >80% bedrock exposure. The Concessions were visited over a six day period from June 22nd to June 28th, 2009. Grab samples were collected in order to confirm borate surface showings, and diamond drill core was re-sampled and assayed in order to verify reported grades.

Borates are mined and processed to produce boric acid [H_3BO_3], which is used in a wide variety of manufactured products, including: glass and ceramics manufacturing (70%), soaps and detergents (5%), fire retardants (4%), and agriculture (2%), with other uses such as metallurgy, nuclear applications and miscellaneous accounting for the remaining 19%.

The Magdalena and Tubutama Basins have been regionally explored for over 100 years, most recently through drill campaigns by MSM and MIT. In 1977, drilling in the Magdalena Basin resulted in the identification of 4 priority target areas: Bellota, Cajon, Pozo Nuevo and Escuadra, with borate mineralization intersections grading up to 15.3% B_2O_3 over 5.5 m, at 115 m depth. Trenching and drilling in the Tubutama Basin has identified wide zones of lower grade mineralization, averaging 7% B_2O_3 over 14 m . The mineralized zones were extensively sampled at surface through trenching. Surface sampling generally returned lower values, due to leaching of borates by slightly acidic surface rain water.

The Magdalena and Tubutama Basins are part of the upper plates of metamorphic core complexes and contain synkinematically deposited terrigenous sediments, volcanic rocks, lacustrine sediments and evaporates. Known borate deposits in North America, such as Death Valley, occur in these Tertiary lacustrine basins of the Basin and Range Province. One known colemanite deposit occurs adjacent to the Magdalena Concessions, referred to as the TDO (Tinaja Del Oso) Unimin deposit. Another high grade area occurs within the Unimin claims within the San Francisco 2 area of the Magdalena Concessions.The lacustrine sediments host precipitation from brines forming the borate deposits. The model for the Magdalena-Tubutama borates is the lacustrine Bigadic deposit, in Turkey. Bigadic is the largest known borate deposit in the world.

Previous quality control programs by MIT and MSM report that systematic variances between labs exist due to the sensitivity of the preparation process involved in assaying for boron. During the site visit, samples were collected from drill core to verify values recorded in company reports. The samples were collected from one drill hole per target area from the intersections returning the highest values. An envelope of samples above and below the mineralized interval was collected in addition to random samples from throughout the hole. A total of 48 drill core samples were re-assayed at the SGS lab in Lakefield, Ontario, Canada. The re-assays returned values similar to the reported values with some differences that cannot be atrributed to systematic lab variances. The differences may be due to a phenomenon similar to the nugget effect in gold assays, where the mineralization is concentrated in nodules and beds that are not uniformly distributed through or across the core.

The Magdalena-Tubutama Concessions are also viable exploration targets for gold, silver and gypsum. The Yeso gypsum mine is adjacent to the Magdalena concession and is currently mining gypsum. The El Chanate Gold deposit and Penasco Quemado silver deposit are located near the Tubutama Basin and are currently being developed.

Based on positive results of the recent borate exploration programs carried out by MIT and MSM, additional work on the Concessions is recommended to delineate an economic borate deposit. The Magdalena Concessions are considered high priority targets, while the Tubutama Concessions are of secondary interest. Recommended work includes: **Phase I:** $760,000 is recommended for drilling, to better define known mineralized lenses; and for 3-D modelling to assist in the drill program and allow for better conceptualization of the lenses for possible future definition drilling. **Phase II:** Approximately $1 million for follow up drilling, metallurgical and feasibility studies and an assessment of the gold, silver and gypsum potential on the Concessions. Metallurgical work recommended includes bench scale and pilot scale studies.

2.0 Introduction

In July 2009, Bacanora Minerals Ltd. (Bacanora or the Company) commissioned MineTech International Limited (MineTech) to prepare a Technical Report for the Borate Properties that it has agreed to acquire in the state of Sonora, north-western Mexico. The Properties were visited over a six-day period from June 22nd to June 28th, 2009. Bacanora is the Commissioning Entity for this Technical Report and has advised that the Technical Report will be used to set a fair market value for the property as of the Valuation Date (September 18, 2009). Bacanora is responsible for payment of all costs associated with preparation of this Technical Report.

Bacanora retained MineTech by letter of engagement in June 2009, to complete an independent National Instrument 43-101 report (NI 43-101) and valuation of the Magdalena and Tubutama Properties that Bacanora has agreed to acquire (hereafter the Properties or the Bacanora Properties) located in Sonora State, Mexico. The minerals of interest on the Properties are calcium borates such as colemanite and howlite. Mr. Paul Conroy of Calgary is the President and CEO of Bacanora.

2.1 Terms of Reference and Units

MineTech is to complete a report, complying with NI 43-101, on the Properties for Bacanora Minerals.

This Report is to encompass all permit areas listed in Table 4.1 of this Report. The Properties include all those properties under purchase agreement to Bacanora as of August 2009.

Currency is in Canadian Dollars unless otherwise noted.

The Metric System or SI System is the primary system of measure and length used in this Technical Report and is generally expressed in kilometres, metres and centimetres. Volume is expressed as cubic metres, and mass expressed as metric tonnes. However, some of the historical data uses the Imperial System and therefore when discussing historical results or historical data, the Imperial system is used. Conversions from the Metric System to the Imperial System are provided below.

1 acre = 4047 m^2
1 foot = 0.305 m
1 Hectare = 10000 m^2

Metals and minerals acronyms in this Technical Report conform to mineral industry accepted usage and the reader is directed to an online source at:

www.maden.hacettepe.edu.tr/dmmrt/index.html.

Abbreviations used in this Technical Report include:

ppb = parts per billion;
ppm = parts per million;
opt or oz/t = ounce per short ton;
ft = foot; feet
m = metre, metres
km = kilometres

Unless otherwise stated, all coordinates are presented in the UTM projection NAD 27 Zone 12.

2.2 The purpose for the Technical Report

This Technical Report has been prepared for use by Bacanora to make a first time disclosure of a preliminary assessment of the Properties which may be material to the Bacanora and/or which may constitute a material change in respect of the affairs of the Bacanora. This Technical Report has been prepared to bring the Bacanora into compliance with circumstances set out in subsection 4.2(1) of NI 43-101.

2.3. The sources of information and data

This Technical Report has been prepared using documents available on the SEDAR web site, public documents from the Mexican government, reports supplied by Bacanora and the technical papers listed in the References section of this Technical Report.

2.4. The extent of field involvement of the qualified person

A site visit was conducted by D. Fox of MineTech over a 6 day period between June 23rd and June 28th, 2009, with the purpose of confirming the outcropping of borates in the area, sampling diamond drill core for re-assay to confirm previously reported grades, a review of historical reports and exploration summaries on the Tubutuma and Magdalena Properties, and to assess these Properties for future exploration requirements.

2.5 Borates

Boron is the Group III A (5) element in the periodic table. Boron found in nature is always combined with oxygen and other elements to form boric acid, or inorganic salts called borates. Borates are a group of minerals containing Boron. Boron (B) is typically sold as B_2O_3 (boric acid or anhydrous boric acid), a colorless, hard, brittle solid resembling glass. There are over 200 minerals that contain boron, but there are only four borate minerals that are commercially viable and provide the world market of B_2O_3. Those minerals are: Borax or Tincal ($Na_2B_4O_7$*$5H_2O$); Kernite ($Na_2B_4O_7$*$4H_2O$); Ulexite ($NaCaB_5O_9$*$8H_2O$); and Colemanite ($Ca_2B_6O_{11}$*$5H_2O$) (Minerals yearbook 2006, 2008). Borosilicates are not commercially viable for boron.

Table 2.1 Boron Minerals Of Commercial Importance (USGS, 2007)

Mineral[1]	Chemical composition	B_2O_3, weight percentage
Boracite (stassfurite)	$Mg_3B_7O_{13}Cl$	62.2
Colemanite	$Ca_2B_6O_{11}\cdot 5H_2O$	50.8
Datolite	$CaBSiO_4OH$	24.9
Hydroboracite	$CaMgB_6O_{11}\cdot 6H_2O$	50.5
Kernite (rasortie)	$Na_2B_4O_7\cdot 4H_2O$	51.0
Priceite (pandermite)	$CaB_{10}O_{19}\cdot 7H_2O$	49.8
Probertite (kramerite)	$NaCaB_3O_9\cdot 5H_2O$	49.6
Sassolite (natural boric acid)	H_3BO_3	56.3
Szaibelyite (ascharite)	$MgBO_2OH$	41.4
Tincal (natural borax)	$Na_2B_4O_7\cdot 10H_2O$	36.5
Tincalconite (mohavite)	$Na_2B_4O_7\cdot 5H_2O$	47.8
Ulexite (boronatrocalcite)	$NaCaB_5O_9\cdot 8H_2O$	43.0

[1]Parentheses include common names.

Virtually all borate deposits in the world are Miocene in age (23 – 5 million years ago) and until recently only two major continental deposits in the world were recognized; one in the south-western United States and the other in Turkey (Smith, 2001). More recently, industrialization of developing countries and general awareness and increased knowledge of borates as commodities has led to the identification and localized mining of small deposits in South America, China, Russia and Iran (USGS, 2008). Turkey is the world's leading exporter of B_2O_3 and the US is the world's largest consumer (USGS, 2008). Due to the limited number of known commercial deposits, borates trade in a relatively closed market with few competitors.

Borates are used in a variety of markets but most of the currently mined boron compounds go to glass and ceramics manufacturers (70%), soaps and detergents (5%), fire retardants (4%), and agriculture (2%), with other uses, including metallurgy, nuclear applications and miscellaneous uses accounting for the remaining 19% (USGS, 2007). Boron considerably reduces the thermal expansion of glass, provides good resistance to vibration and thermal shock as well as improving the toughness, strength and durability of glass. It also reduces the viscosity of glass during manufacturing, thereby diminishing energy requirements. Borates are added to cleaning solutions because its mild alkalinity allows it to emulsify oil and greases and reduce the surface tension of water, reducing the adhesiveness of dirt. When added to cellulose fibreglass, the insulation becomes fire retardant, as well as rendering it unpalatable to vermin and insects. Borate also has an anti-composting property that inhibits bacterial growth and decomposition. The most important role of boron is its necessity for healthy plant growth. High levels of boron are toxic to plant life, however low range concentrations are essential to the movement of sugars in the plants and the uptake of oxygen by root tissue (Garret, 1998). More research is needed to fully understand the role of boron in plant growth, but researchers have already found that plants lacking in boron have thinner cell walls, making it a required component in fertilizer. There are many additional uses for boron compounds, and the presence of these compounds is ubiquitous in manufactured goods and in nature (Garret, 1998).

The principal exporters of natural borates are Turkey, Argentina and Chile. The largest individual importing countries are China, Brazil and Russia (USGS 2006). World trade in boric acid is in the order of 570,000 tonnes per year with the United States and Turkey being the largest suppliers and China the largest importer. The market shows steadily increasing demand, and although US Borax controls a large percentage of the global market (~45%), the market continues to open to additional suppliers. Markets accessible to a new borate producer in Mexico are likely to be Mexico itself and, potentially, neighbouring countries in Central America.

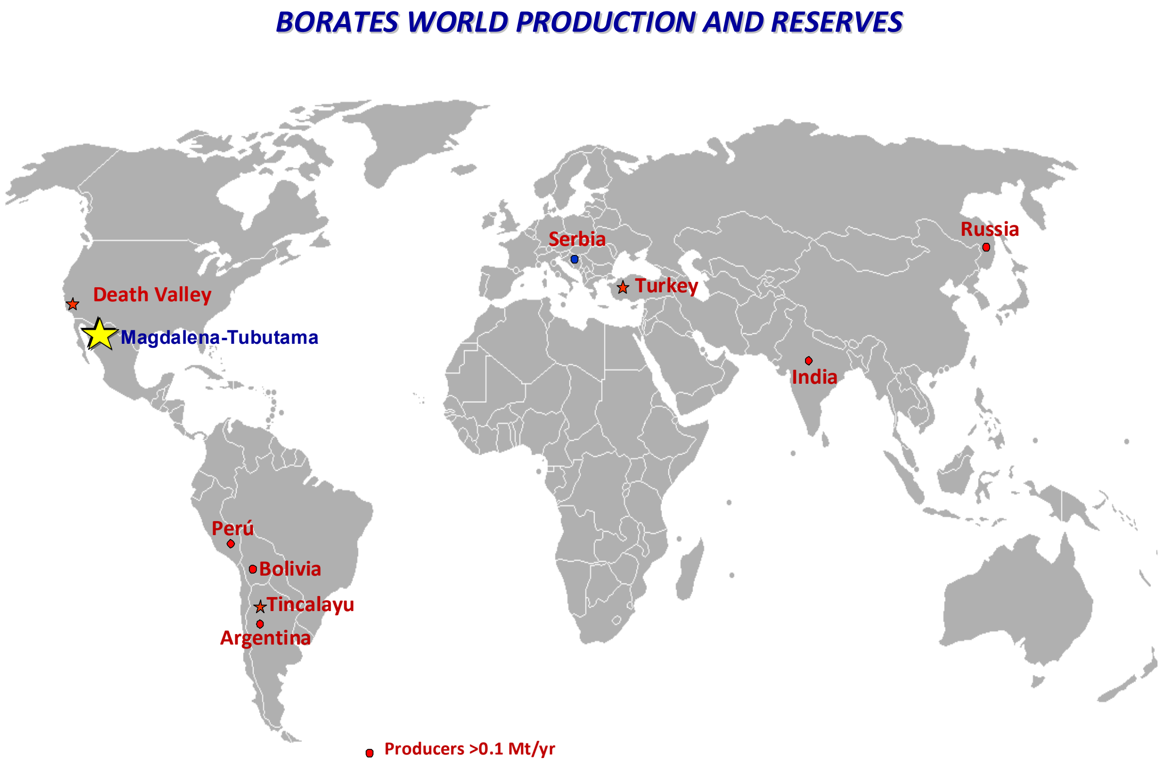

Figure 2.1 Global distributions of known economic borate deposits.

Table 2.2 - Yearend Prices for Boron Minerals and Compounds[1]
(Dollars per metric ton)

Product	Price, December 31, 2005	Price, December 31, 2006	Price, December 31, 2007
Borax, anhydrous, 25 kg bags[2]	1,645-1,762	1,646-1,763	1,678-1,798
Borax, decahydrate[2]	340-380	340-380	340-380
Borax, decahydrate, granular[2]	783-881	784-882	799-899
Borax, pentahydrate[2]	400-430	400-430	400-430
Borax, pentahydrate, granular[2]	587-685	587-685	599-699
Borax, technical, anhydrous, 99%, bulk, carload, works[3]	900-930	NA	NA
Borax, technical, granular, decahydrate, 99%, bags, carload, works[3]	378	NA	NA
Borax, technical, granular, decahydrate, 99.5%, bulk, carload, works[3]	340-380	NA	NA
Borax, technical, granular, pentahydrate, 99.5%, bags, carload, works[3]	426	NA	NA
Borax, technical, granular, pentahydrate, 99.5%, bulk, carload, works[3]	400-425	NA	NA

Boric acid, granular[2]	685-783	686-784	699-799
Boric acid, technical, granular, 99.9%, bags, carload, works[3]	836	NA	NA
Boric acid, U.S. Borax, Inc. & Chemical Corp., high-purity anhydrous, 99% B_2O_3, 100-pound-bags, carlots[3]	900-935	NA	NA
Colemanite, Turkish lump, 40%-42% B_2O_3[2]	270-290	270-290	270-290
Ulexite, Lima, 40% B_2O_3[2]	250-300	250-300	250-300

NA Not available.
1 - U.S. f.o.b. plant or port prices per metric ton of product. Other conditions of final preparation, transportation, quantities, and
qualities not stated are subject to negotiation and/or somewhat different price quotations. Values have been rounded to the nearest dollar.
2 - Sources: Industrial Minerals, no 459, December 2005, p. 70; no. 471, December 2006, p. 74; no. 483, December 2007, p. 76.
3 - Source: Chemical Market Reporter, pricelist June 18-24, 2007.

Table 2.3 Boron Minerals: World Production, By Country[1, 2]
(Thousand metric tons)

Country	2003	2004	2005	2006	2007[e]
Argentina	512	821	633	534 [r]	550
Bolivia, ulexite	110	68	63	48 [r, e]	50
Chile, ulexite	401	594	461	460	528 [3]
China[e, 4]	130	135	140	145	145
Iran, borax[5]	3	2	2 [r, e]	2 [r, e]	2
Kazakhstan[e]	30	30	30	30	30
Peru	9	10	10	10	10
Russia[e, 6]	1,000	500	400	400	400
Turkey[7]	1,399 [r]	1,588 [r]	1,953 [r]	1,948 [r]	2,128 [3]
United States[8]	1,150 [r]	1,210	1,150 [r]	W	W
Total	4,750 [r]	4,960 [r]	4,840 [r]	3,580 [r]	3,840

[e]Estimated. [r]Revised. W Withheld to avoid disclosing company proprietary data, not included in total.
[1]World totals, U.S. data, and estimated data are rounded to no more than three significant digits; may not add to totals shown.
[2]Table includes data available through May 20, 2008.
[3]Reported figure.
[4]Boron oxide (B_2O_3) equivalent.
[5]Data are for years beginning March 21 of that stated.
[6]Blended Russian datolite ore that reportedly grades 8.6% B_2O_3.
[7]Concentrates from ore.
[8]Minerals and compounds sold or used by producers, including both actual mine production and marketable products.

2.3 Author Qualifications

MineTech is an international consulting company based in Halifax, Nova Scotia, Canada. MineTech is a registered company with the Association of Professional Engineers of Nova Scotia (Company No. 19450).

The Qualified Person for this Technical Report is Doris Fox, MSc. P.Geo., Consulting Geologist with MineTech and a geologist in good standing with the Association of Professional Geoscientists of Ontario (# 1430). Ms. Fox has 7 years of experience in the mining industry including the generation and execution of early stage exploration programs, advanced exploration programs, diamond drill programs and literature review. Certificate of Author is presented in Appendix 1.

3.0 Reliance on Other Experts

The information, conclusions and recommendations contained herein are based largely on a review of previously published, as well as internal geological reports, digital and hard copy data, and information collected by MineTech.

For the purposes of this Technical Report, it is assumed that technical data supplied to MineTech by Bacanora is true and complete. MineTech has not conducted an in-depth legal review of license and title ownership. While title documents and option/purchase agreements were reviewed for this study it does not constitute, nor is it intended to represent, a legal, or any other opinion as to title.

All relevant information on the Properties presented in this Technical Report is based on data obtained from reports written by geologists and/or engineers, whose professional status may or may not be known in relation to the NI 43-101 definition of a Qualified Person. MineTech has made every attempt to accurately convey the content of those files, but cannot guarantee either the accuracy or validity of the work contained within those files. MineTech believes that many of these reports were written for internal purposes only, with the objective of presenting the results of the work performed without any promotional or misleading intent. In this sense, the information presented should be considered reliable, unless otherwise stated, and may be used without prejudice by Bacanora.

Much of the historical reports and some of the academic geological articles used in the preparation of this Technical Report were authored by Martin Vidal. Mr. Vidal currently works as an independent consultant based in Hermosillo, and consults for Bacanora. He has worked consistently on the Properties for the various companies that have held the licenses over the past 17 years. He holds a Masters Degree from Universidad de Sonora on the geology of the Magdalena region and is the principal author for most of the MSM, US Borax and Rio Tinto internal reports. His curriculum vitae are found as Appendix 2. He does not hold a professional certification recognized under the NI 43-101 definition of a Qualified Person, however his knowledge and contribution to this Technical Report must be acknowledged.

4.0 Property Description and Location

4.1 Location and Property Status

The Magdalena and Tubutama Properties consist of 13 individual Concessions, totalling 16,503 and 1,661 hectares respectively, in Sonora state, Mexico. Table 4.1 lists the individual Concessions discussed in this Technical Report. The Properties are located roughly 300 km north of the city of Hermosillo, and about 80 km south of the international border with Arizona, USA. The two basins are separated by a narrow, low range and the Properties are approximately 100 km apart.

The titles are presently in the name of two Mexican registered subsidiaries of Mineramex Limited: Minera Sonora Borax S.A. de C.V. and Minerales Industriales Tubutama S.A. de C.V.

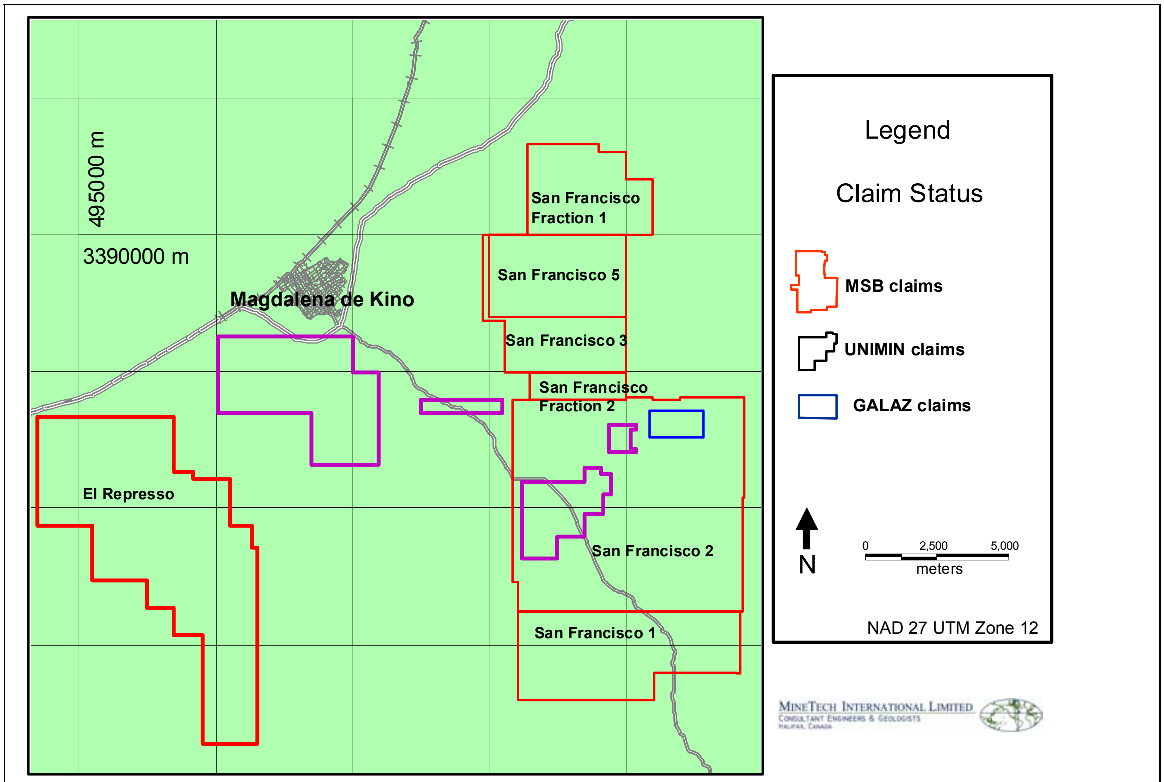

Figure 4.1 Magdalena Concessions

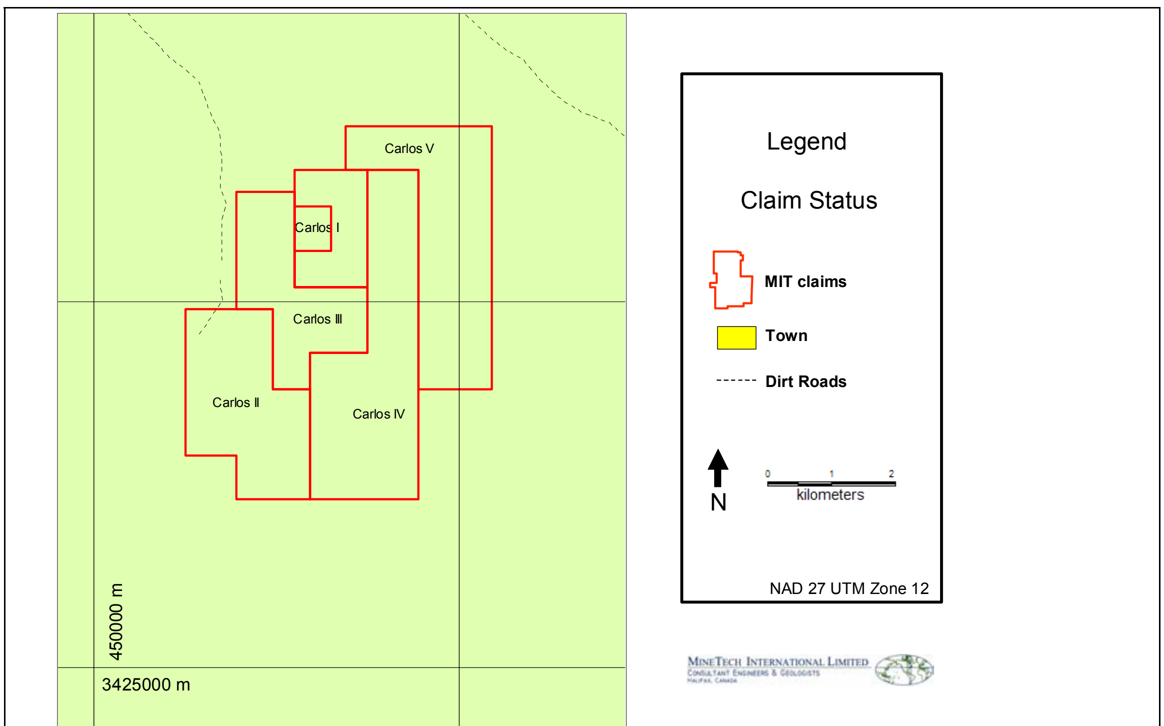

Figure 4.2 Tubutama Concessions

Table 4.1 Permit Areas Evaluated

Property	Lot Name	Title #	Start Date	End Date	Area Ha	Title Holder
Magdalena	SAN FRANCISCO No. 1	217709	10/13/2002	10/12/2052	2303	MSB
Magdalena	SAN FRANCISCO No. 2	217948	9/18/2002	9/17/2052	583	MSB
Magdalena	SAN FRANCISCO No. 3	217949	9/18/2002	9/17/2052	351	MSB
Magdalena	SAN FRANCISCO No. 5	220721	9/30/2003	9/29/2053	1500	MSB
Magdalena	SAN FRANCISCO Fraction 1	226247	12/2/2005	12/2/2055	2344	MSB
Magdalena	SAN FRANCISCO Fraction 2	226248	12/2/2005	12/2/2055	4980	MSB
Magdalena	EL REPRESSO	229363	4/11/2007	4/10/2057	4442	MSB
Tubutama	CARLOS	218228	10/17/2002	10/16/2052	130	MIT
Tubutama	CARLOS I	198049	9/30/1993	9/30/2043	30	MIT
Tubutama	CARLOS II	222951	9/28/2004	9/28/2054	345	MIT
Tubutama	CARLOS III	224161	4/19/2005	4/19/2055	261	MIT
Tubutama	CARLOS IV	226695	2/17/2006	2/17/2056	475	MIT
Tubutama	CARLOS V	229281	3/29/2007	3/28/2057	420	MIT
		TOTAL	**AREA**	**HA**	**18164**	

4.2 Terms of Agreement

Bacanora Minerals Ltd., a Canadian incorporated company, has a purchase agreement (the Purchase Agreement) with Tubutama Limited, a British incorporated company, to acquire Mineramex Limited, a British Virgin Island incorporated company, which owns 60% of Minerales Industriales Tubutama S.A. de C.V. (MIT), a Mexican registered company and 60% of Minera Sonora Borax SA de CV. (MSB), also a Mexican registered company. MSB acquired the Magdalena Concessions from Minera Santa Margarita S.A. de CV., a subsidiary of Rio Tinto, in an agreement that carries a 3% royalty in favour of Rio Tinto on sales of borate produced from the Magdalena lands. A 3% royalty payable to Tubutama PLC over all minerals on the Magdalena Concessions is also carried in the agreement.

The Purchase Agreement between Bacanora, Tubutama and Mineramex would also see a 3% royalty that is to be reserved or granted upon closing to Mineramex or as Mineramex may otherwise direct in respect of all minerals that are produced from the Magdalena Properties and a 3% royalty that is to be reserved or granted upon closing to Mineramex or as Mineramex may otherwise direct in respect of all minerals that are produced from the Tubutama Properties.

The Purchase Agreement, dated July 20, 2009, contemplates the acquisition by Bacanora of all of the outstanding shares of Mineramex for a total purchase price of $5,250,000 CND. consisting of:

(a) A cash payment to Mineramex in the amount of Cdn.$250,000;

(b) An aggregate of 21,739,130 Bacanora Shares issued at a price of CND$0.23 per share, to be issued to Tubutama or as Tubutama shall otherwise direct.

The reader is referred to the letter of intent (Appendix 3) for further details.

4.3 Mining Rights in Mexico

The Properties are legally registered with the Direction General de Minas and a very detailed Mining Act exists to govern the mining and exploration activities of the country. The Mexican Mining Act is very supportive of exploration and mining activity. The Act dictates that: "*The exploration, exploitation and beneficiation of the minerals or substances referred to in this Law are public utilities and will have preference over any other use or utilization of the land, subject to the conditions established herein, and only by a Federal Law may taxes be assessed on these activities.*"

The law also makes it very easy to claim mineral properties. In general, to claim a property it must be free from existing claims and the claim must be made by a Mexican registered company or Mexican citizen. The claim is staked by erecting a monument with known coordinates and submitting to the Ministry the location of the monument and the length and width of the desired claim in reference to the monument. As in most cases, the claim is cartographically represented on surface by a rectangle with undefined depth.

The original mining act divided concessions into three types of claims: *Exploration, Exploitation* and *Beneficiation* (Mexican Mining Act 1992). The Act was amended in 2005 to group both exploration and exploitation concessions into one type of claim (Mining Act Amended 1996).

1) *Exploration / Exploitation: works performed on land aimed at identifying mineral deposits and quantifying and evaluating the economically utilizable reserves they contain and aimed at preparing and developing the area comprise by the mineral deposit, as well as work aimed at detaching and extracting the mineral products existing therein; and*
2) *Beneficiation: The preparation, treatment, first hand smelting and refining of mineral products in any of their phases for the purpose of recovering or obtaining minerals or substances, as well as enhancing the concentration and purity of their contents.*

Under the Amended Act (Mining Act Amended 1996), exploration / exploitation "concessions will have duration of fifty years from the date of their record in the Public Mining Registry". It also states that "The transfer of ownership of mining concessions or rights derived therefrom will be effective legally before third parties and before the Ministry as of their record in the Public Mining Registry." (Mining Act Amended 1996). Each of the Concessions discussed in this Technical Report has been converted to the amended exploration / exploitation concession type and therefore carries a 50-year term under the April, 2005, amendments to the Mexican Mining Act. The Concessions are in good standing until 2043 at the earliest.

To keep claims active and legal the claim holder must pay taxes on the property and submit to the ministry by May of each year, a report outlining work done in the previous calendar year. A certain dollar amount of work is required for each hectare squared (Has) of property under the claim. The exact requirement for work done changes from year to year and the ministry posts the annual regulations in the National Post Newspaper. The submittal of the work completed forms to the ministry is a testament to activity on the property and the claim is considered active in their registry. In addition, there is a sliding scale tax that must be paid each year for the duration of the 50 year term. The tax increases over time to discourage lax claim holders from keeping property that they are not successfully exploring.

The Amended Act is also very direct in requiring that national Environmental and Health and Safety regulations be followed. Failure to follow the regulations will lead to the termination of rights to explore or exploit. Examples of such terms in the law include the following articles:

"ARTICLE 34. Owners of exploitation concessions or those who perform these works under contract shall name as the person responsible for complying with safety standards in the mines an engineer legally authorized to exercise.

The person in charge shall engage basically in verifying compliance with said standards, ensure that the necessary measures are taken to prevent accidents and immediately notify the owner of the exploitation concession or the person who executes these works of any measures that have not been adopted."

"ARTICLE 39. In exploration, exploitation and beneficiation activities of minerals or substances, mining concessionaires shall use care to protect the environment and the ecology pursuant to applicable laws and standards."

Prior to exploitation of the concessions, an independent environmental impact study must be completed to determine the environmental accountability of the region. In addition, since the region is desert, water permits must be obtained for the necessary volume of water required for exploration and exploitation activities. Alternatively, water may be purchased from local reservoirs or excess from farmers.

MineTech is also unaware of any historical environmental liabilities to which the Properties are subject, other than the normal licensing and permitting requirements that must be made prior to undertaking certain operations.

The summary of the Amended Act is presented here only to indicate that the country has a systematic and mining / exploration - friendly atmosphere. The complete Mining Act should be reviewed by any company or person intent on conducting exploration activities in the country.

5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

Sonora State has well developed infrastructure despite being a sparsely populated desert region. An extensive network of roads, including a four-lane highway (hwy 54) that crosses the state from south to north, joins Sonora with the rest of Mexico and with the United States.The region is well known for cattle grazing, and ranches and fenced zones dot the area. The ranchers have created a network of secondary dirt roads to access the remote areas, and these roads can be used to access the Properties as well [Figure 5.1].

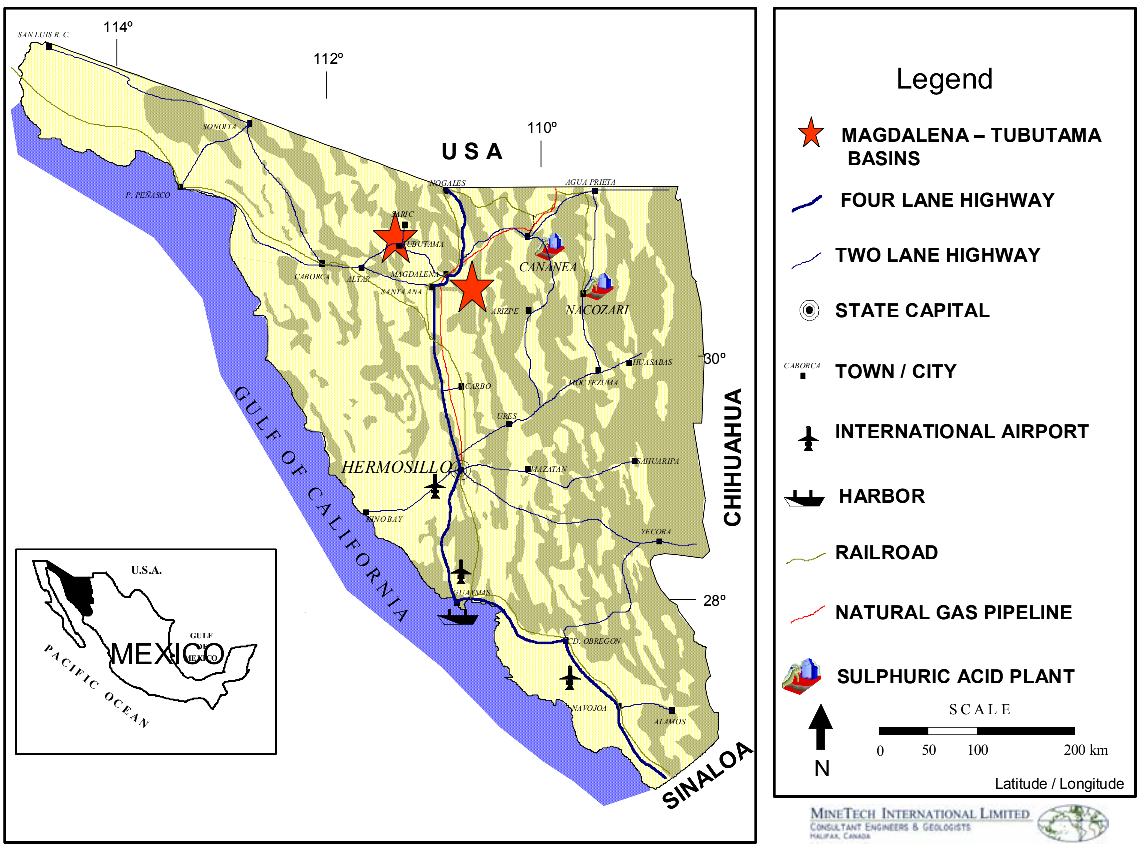

Figure 5.1 Map of the Sonora region with infrastructure and Basins shown

5.2 Climate and Physiography

The Properties are located in Sonora, Northern Mexico near the International Border with Arizona, U.S.A. The region is referred to as the Sonoran Desert (or Gila Desert after the Gila River) an arid desert with rolling hills varying in elevation up to 100 m [Figure 5.2]. The climate at the project site ranges from semi-arid to arid. Exploration work can be conducted year round in the desert.

The average ambient temperature is 21° C, with minimum and maximum temperatures of -5º C and 50º C, respectively. Extreme high temperatures, upwards of 49^{o}C occur in summer in desert areas while winters, although short, are cool compared with most of Mexico. The region's bi-seasonal rainfall pattern results in more plant species than in any other North American desert. The average annual rainfall for the area is 330 millimetres (mm) with a maximum of 880 mm. The wet season or desert "monsoon" season occurs between the months of July and September and heavy rainfall can hamper exploration at times. The Sonoran Desert hosts plants from the agave family, palm family, cactus family, legume family, and many others. The Saguaro Cactus, a protected species, is present in the concession area.

The Magdalena Basin lies between the Sierra La Vantana (west and southwest) and the Sierrra La Madera (south and east) mountain ranges. These mountains vary in elevation, from ~1,360 m to ~ 2,045 m. The elevation in the Basins varies from between 730 m to 1,000 m (Dobbs, 1987). The Tubutama Basin physiography is similar to the Magdalena Basin with rolling hills varying 50 -100 m dissected by dry valleys (arroyos).

Table 5.1 Average Annual Temperatures and Precipitation

	Unit	Yr.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg temp. over 57 years	°C	17	8	9	12	16	19	24	27	25	23	18	12	8
Avg high temp. over 57 years	°C	26	17	19	22	26	30	35	34	33	32	28	22	18
Avg low temp. over 57 years	°C	7	-1	0	2	6	9	14	18	17	14	8	2	-1
Avg precipitation over 57 years	mm	398.8	22.9	22.9	17.8	7.6	2.5	13	94	106.7	45.7	17.8	20.3	30.5
Avg snowfall over 57 years	mm	68.58	22.9	15.2	12.7	-	-	-	-	-	-	-	2.54	15.2
Avg snow cover over 57 years	mm	-	-	-	-	-	-	-	-	-	-	-	-	-

(from: www.weatherreportes.com – altar station Sonora Mexico)

Figure 5.2 Photo of typical access and topography near the Concessions

5.3 Local Resources and Infrastructure

The main Ferro Carril Pacifico Railway passes through the town of Magdalena de Kino and connects to the main Port of Guaymas and to the capital city of Hermosillo (Figure 5.1).

Two high voltage power lines traverse the northern part of the Basin and a natural gas pipeline, constructed in 1986, runs parallel to the electric lines (Figure 5.1).

Water is supplied to ranchers for irrigation and farming from the El Yeso River, which transects the region. A small block dam impounds water in the Magdalena Basin and creates a small lake. No other source of surface water is available. All water for exploration and mining activities must be pumped through wells from the underground water table. Ranch owners report sufficient water for drilling programs. Availability of water for advanced exploration or mining has not been assessed.

Other mining activity in the area, including silver and gypsum mining, has resulted in an influx of workers to the region, and has led to the developmentof a skilled labour pool.

6.0 History

Borax and borates have been used for thousands of years as a flux and bonding agent for silver and goldsmithing. They also have a long history of use in glaze for ceramics. Evidence of such uses can be traced back to more than 4,000 years ago to Babylon (Garrett, 1998 and Önal and Burat, 2008). Chinese ceramics dating 300 AD have been found to have used boron (Önal and Burat, 2008) and written evidence of their use in Arabic centers near Mecca can be dated to ~762 AD (Onal and Burat, 2008). Later, around 1300 or 1400 AD there is evidence of first trade with Europe (Garrett, 1998). Following the introduction to Europe, Venetians held the first borax monopoly for over 200 years starting around the 1600's (Garrett, 1998). Their monopoly lasted until the Dutch became strong traders in borax and ousted the venetians from the market in the 1800's (Garrett, 1998). In the 1800's new sources of borax and borates were being found, including the 1864 discovery of Borax Lake, California; the first major borate producing mine in the US. The exploration for borates continued through the 1800s and 1900's with small deposits being found in Mexico and South America. Borate mining in Turkey began in 1861 and Turkey is currently the largest global supplier (Önal and Burat, 2008).

Table 6.1 Summary of Historical Exploration Activities Magdalena-Tubutama Basins

YEAR	**Event**
1969	First notices about borates in Mexico by US Borax.
1972	Howlite found in Magdalena.
1976	Establishment of Materias Primas Magdalena (MPM) as JV between US Borax and Vitro
1977	MPM started drilling in the Magdalena Basin and Discovery of the Tinaja Del Oso Colemanite deposit
1978	The Mexican government (CMR) declared the western portion of the Tubutama Basin as National Reserve in order evaluate its borate potential
1979-1985	Drilling continued at different portions of the Magdalena Basin
1980	Construction of the Magdalena Shaft at the TDO for metallurgical samples
1980	Installation of a Pilot Plant in Hermosillo by Vitro
1980	The CMR drilled more than 12,000 m in 64 holes ad obtained an estimated of 16 MT of ore with 8% B2O3 at Tubutama
1982-1986	Different tests and processes where conducted for the beneficiation of colemanite from TDO, Magdalena
1987-1990	Intense drilling, reserve calculation studies, construction of a second shaft (Kino Shaft) in the TDO area
1990	Completion of geologic, geotechnical studies in the TDO area
1991	Creation of Minera Santa Margarita by Rio Tinto in order to explore for industrial minerals in Mexico
1992	Dissolution of the USB-Vitro JV. Vitro paid 6M USD back to US Borax to maintain the TDOCD
1996-2006	Rio Tinto (MSM) drilled 32 holes in other parts of the Magdalena Basin for borates
2002	Rio Tinto staked the San Francisco claims in the Magdalena Basin in order to evaluate the remaining borate potential
2003	First drilling campaign in Magdalena by MSM at Cajon and Bellota targets. Mapping and sampling
2004	More drilling at Pozo Nuevo and Tigre targets. First gravity survey. Ground magnetic survey in the central portion of the basin
2005	MIT was incorporated in Mexico in June, 2005 and the Carlos claims (Tubutama) were acquired
2005	Drilling at Pozo Nuevo and Escuadra targets in Magdalena. Complete gravity survey (610 stations)
2006	Reduction of MSM land from 23k Ha to 12.6 Ha at Magdalena. Acquisition of El Represso concession
2007	Drilling of 8 core holes in the Carlos claims complemented with mapping and trenching at Tubutama
2008	Contract between MSM and MSB

6.1 Magdalena Basin

Since the discovery of Borax in Southwestern US, explorers have been searching the surrounding area for borates, including northwestern Mexico. In 1964, US Borax, a subsidiary of Rio Tinto Group (a dual-listed company, composed of Rio Tinto plc in the UK and Rio Tinto Ltd. in Australia) and the operator of the US's largest borate mines, began exploration in Mexico and successfully discovered borate mineralization near the town of Magdalena de Kino in Sonora State. Following the initial discovery, US Borax, through Mexican subsidiaries and Joint Ventures, explored the surrounding area, known as the Magdalena Basin. Exploration efforts continued until 2006, and were successful at identifying several borate targets in the Magdalena Basin, including the TDO deposit (also known as the Unimin deposit) for which they completed several pilot plant metallurgy studies.

All of the exploration to date on the Magdalena Basin has been done by US Borax, its subsidiary or through Joint Venture agreement, thereby allowing the geological knowledge to be passed along without loss and the geological model to evolve from program to program. The joint venture was dissolved in 1992 with the all of the Concessions reverting back to US Borax with the exception of the TDO / Unimin deposit, which was purchased by Vitro for $6 Million USD. MSM, a Mexican registered subsidiary of US Borax, carried on the exploration campaigns begun by the Joint Venture partners, and in 2002 staked the San Francisco properties that comprise Mineramex's Magdalena Concessions. The most recent exploration activities on the Magdalena Concessions can be divided into two parts: 1) re-interpretation of the basin geology, most importantly the basin stratigraphy; and 2) diamond drilling of high priority targets.

6.1.1 Mapping

US Borax conducted detailed mapping of the region in the 1960's and 1970's and described Pleistocene sediments extending into the Magdalena Basin. Through the 1970's and 1980's mapping was done with the aid of aerial photographs at a scale of 1:20,000 and a contract for topographic maps was tendered to Fotogrametria y Servicios Professional S.A de C.V. at 1:5,000 scale and 1:20,000 scale. The original JV mapping identified two cycles of lacustrine deposits containing borate.

MSM observed inconsistencies in the geological map and remapped the Magdalena Basin at a scale of 1:10,000 in the 1990's [Figure 6.1]. The most important discovery as a result of this mapping program was the identification of three borate-bearing stratigraphic horizons. Late in the mapping campaign El Represso Concession was acquired.

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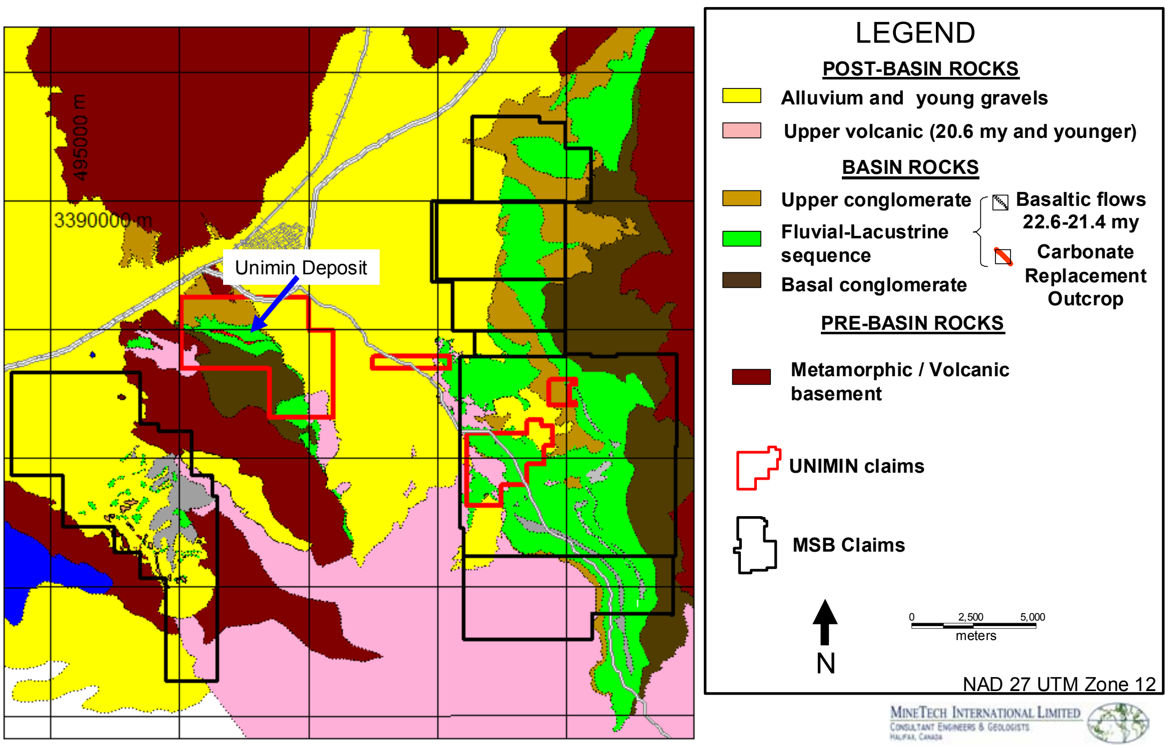


Figure 6.1 Geology Map of Magdalena Basin

6.1.2 Sampling

Each phase of exploration began with the collection of surface samples to evaluate the boron content and assist in the identification of distinct units.

In addition to standard grab sampling, MSM conducted major oxide geochemical analysis to determine rock classification in terms of alkali versus silica content (T.A.S. diagram) and thereby the type of volcanism developed in the region (Kuno diagram) (Vidal, 2007). The type of volcanism is important in Borate distribution as borates require very alkaline environments to form.

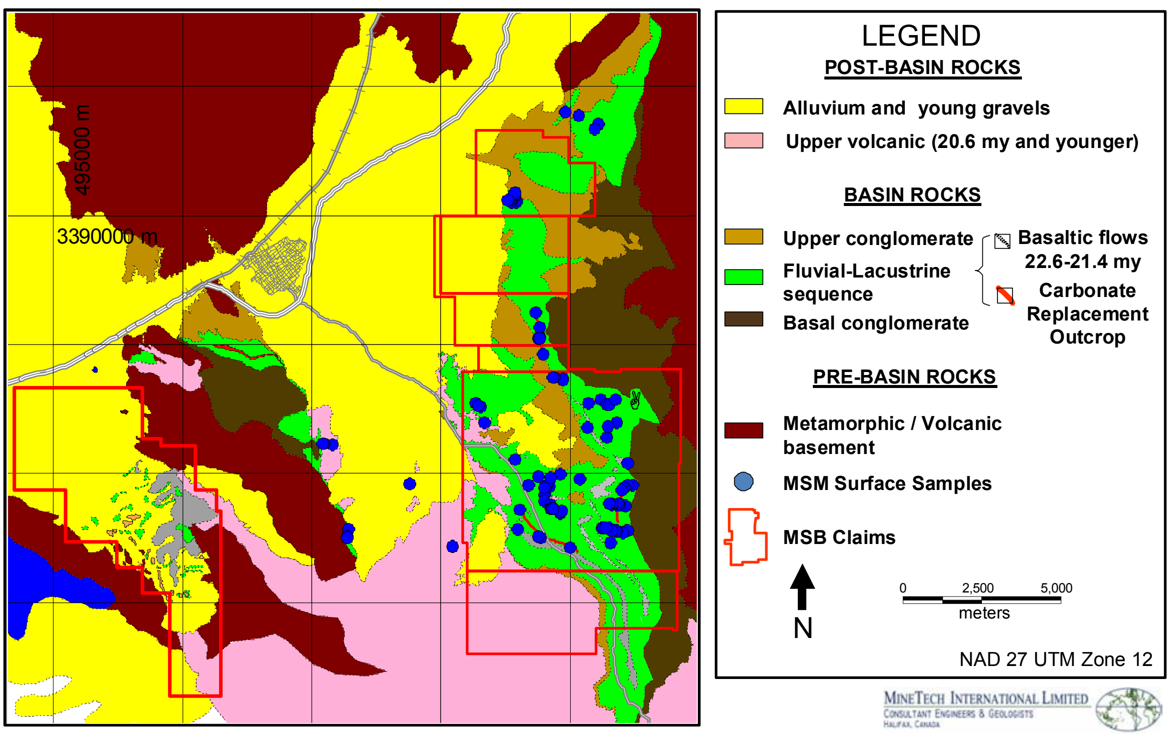


Figure 6.2 Geology map showing surface sample locations.

Based on the major oxide geochemistry, MSM determined that the there are two types of volcanism in the basin: 1) alkaline volcanics, contemporaneous with development of the Basin, characterized as K-rich and low-silica and including the post-basin Fresnos Basalt; and 2) tholeitic, bi-modal volcanics related to the younger Basin and Range extensional event.

A summary of the results shown in Figures 6.3 and 6.4 are as follows: The pre-basin volcanics show plagioclase replacement by K-feldspar (K-metasomatism). The

T.A.S. diagram shows that the pre-basin volcanics are tachy-andesite type volcanics; however this type of classification is inaccurate in metasomatized rocks. The Bellota Basalt has a higher than normal silica content and therefore falls in the tefri-phonolite type rock. The sample analysed was altered and therefore the analysis may be inaccurate. Two samples of the Fresnos Basalt were analysed and classified as trachy-basalt. Two samples from the El Tigre andesite were analysed but the results were inconclusive. One sample from the La Lamina Ignimbrite was analysed and falls within the Dacite field.

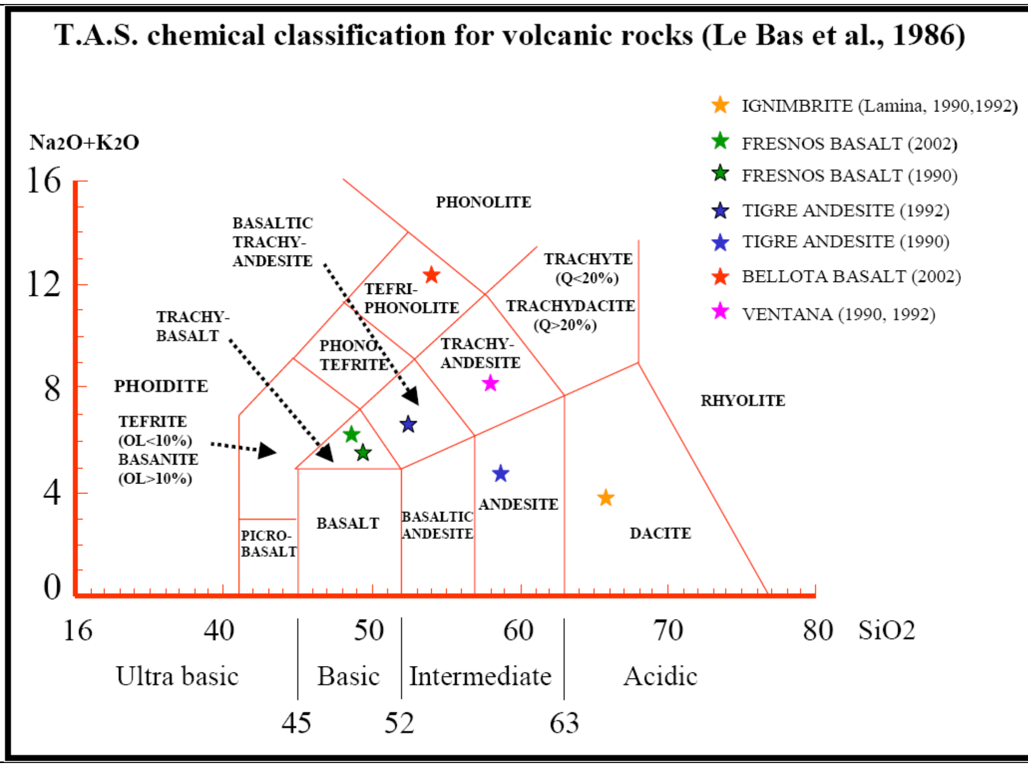


Figure 6.3 T.A.S Diagram for determining Alkaline versus Silica content from Vidal, 2007

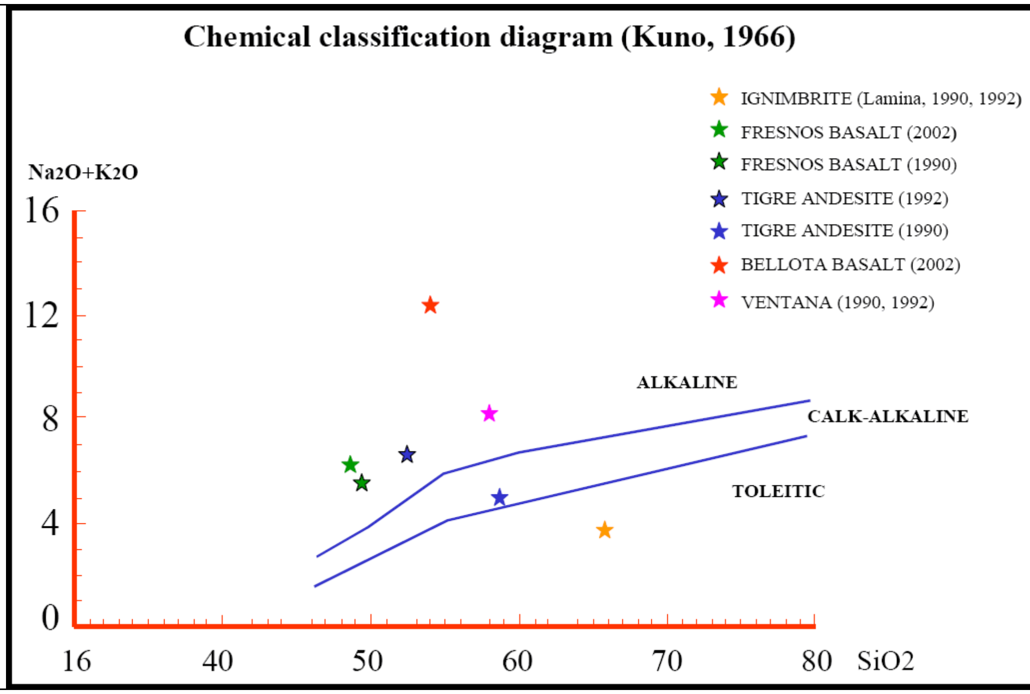


Figure 6.4 Kuno Diagram for determining volcanic classification from Vidal 2007

6.1.2 Magdalena Drilling

A total of 311 NQ drill holes (54,550 m) have been drilled in the Magdalena Basin by the various operators. The first drill holes were drilled under the direction of Materias Primas Magdalena (MPM), a Joint Venture company between US Borax and Vitro. MPM drilled a series of holes into the Magdalena Basin between 1972 and 1992 aimed at testing various potential regions and in 1977 identified a deposit now referred to as TDO or Unimin (see section 15, Adjacent Properties).

MPM completed a total of 280 NQ drill holes (44,538 m) in the Magdalena Basin, 175 of them on the TDO. MSM followed-up the interpretations of MPM and began an intensive basin-wide exploration program consisting of 32 holes over five drill campaigns. The MSM drill programmes identified six priority follow-up targets: The Bellota Yeso; Cajon; El Tigre; Pozo Nuevo; Escuadra; and Syncline. As of 2007, mapping, surface sampling and first pass drilling had been conducted on 5 of the targets. One target, the Syncline Target, remains untested. The following results are summarized from Vidal (2007).

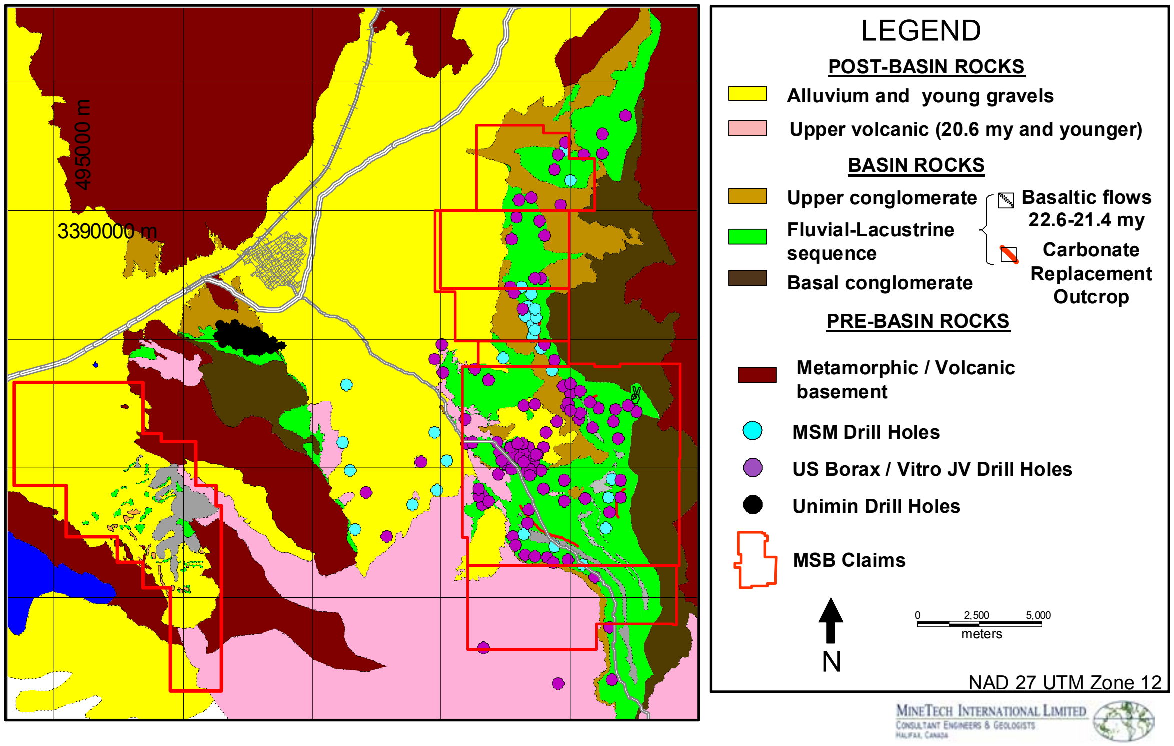


Figure 6.5 Map showing previous drilling and target areas in Magdalena Basin.

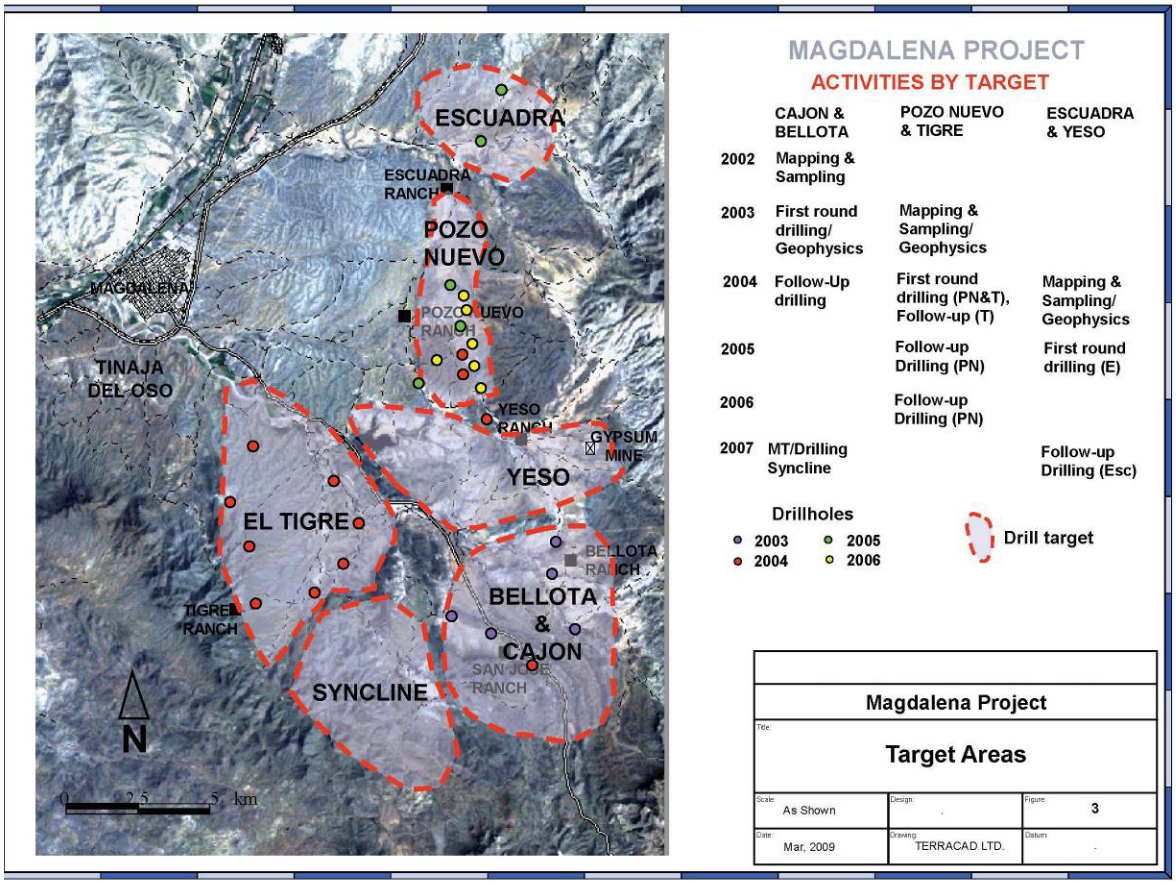


Figure 6.6 Magdalena target areas identified by MSM

Bellota: Drill holes tested the sediments exposed in a broad northwesterly plunging anticline. All drill holes intersected low grade disseminated colemanite and howlite mineralized zones (from 1% up to 10 % B_2O_3) and a 100 m halite halo zone was identified surrounding the mineralization. The Bellota-Yeso target area also hosts the Yeso Mine (a producing gypsum mine).

Cajon: The sediments below the Cajon Basalt showed visible colemanite and howlite mineralization cut by abundant gypsum veinlets. The drill holes in this area intersected concentrated mineralization up to a 7 m grading 12.1% B_2O_3 (MAG-2A), including 2.43 m grading 21.3% B_2O_3 at 180 m depth and 4.9 m of 15% B_2O_3. [Figure 6.7]

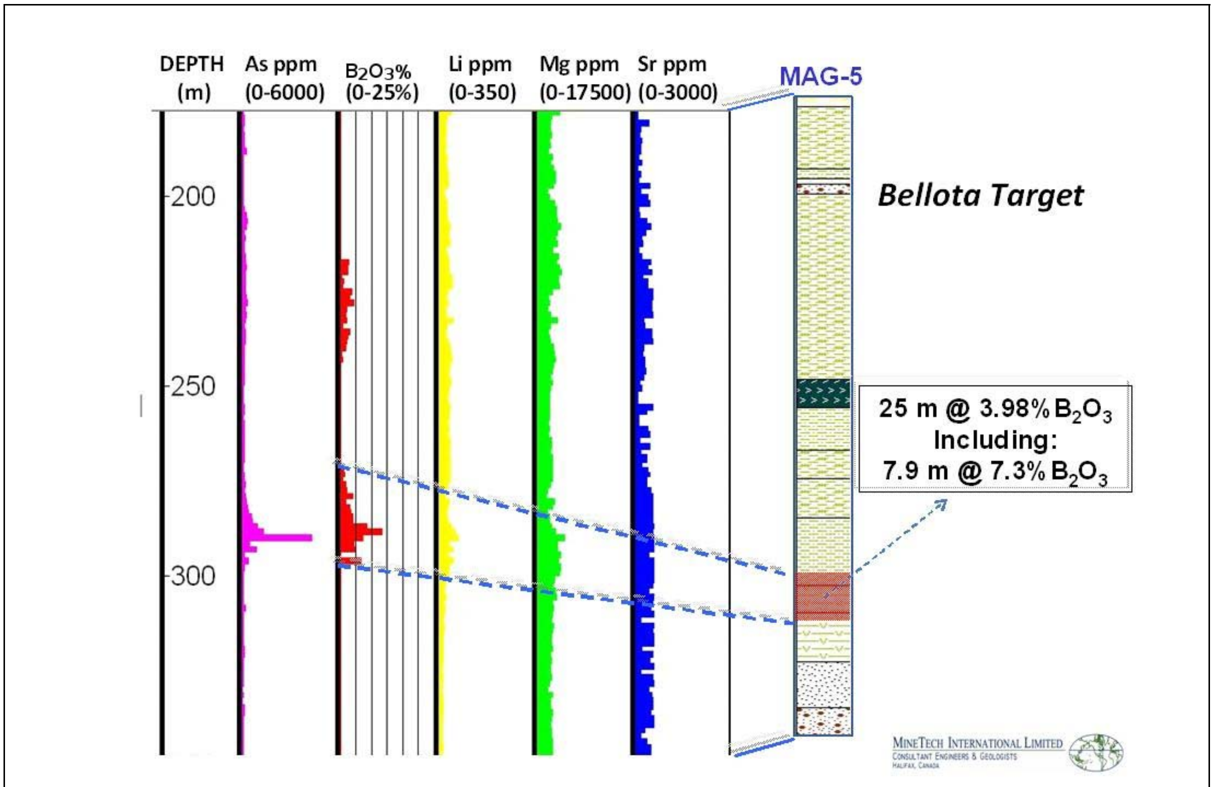


Figure 6.7 Schematic drill log Bellota

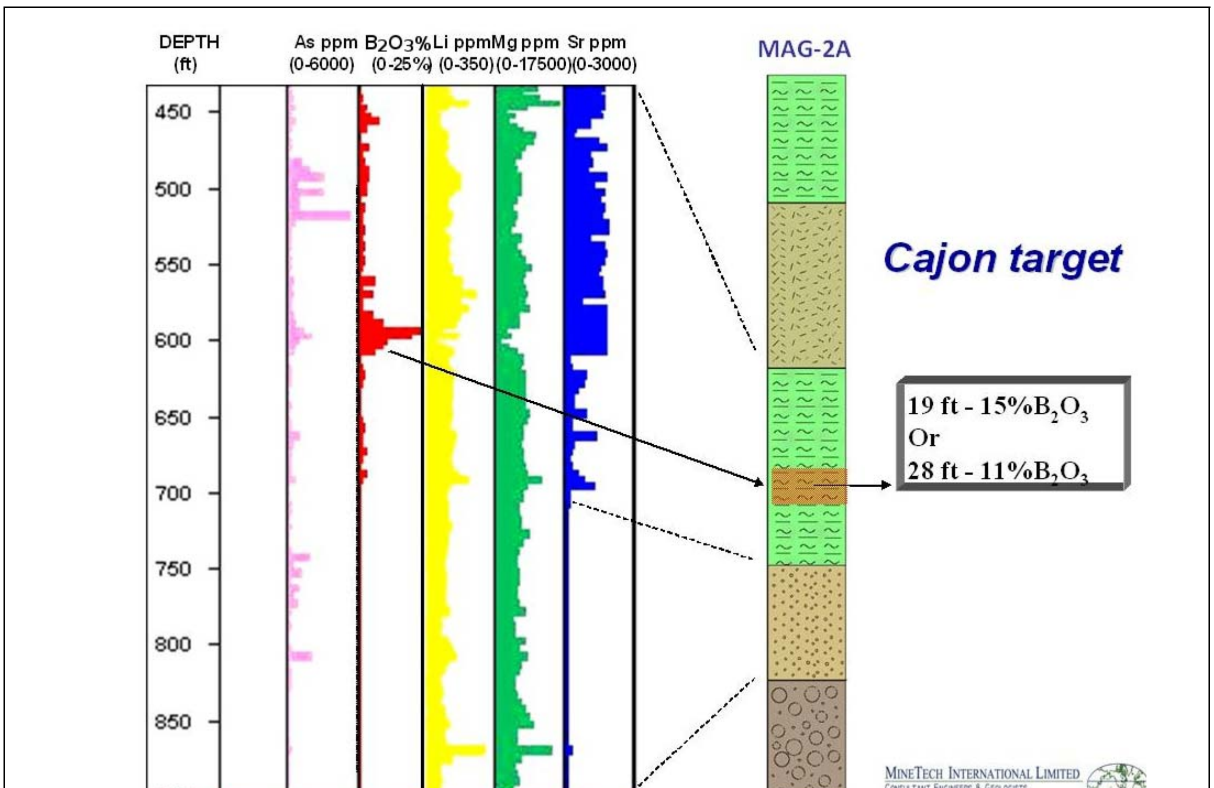


Figure 6.8 Schematic drill log Cajon

Pozo Nuevo: This target was tested with MAG-6, which intersected a 41.5 m mineralized zone, containing colemanite, minor howlite and abundant gypsum with an average 6.5% B_2O_3, including a 5.5 m with 15.3% B_2O_3 at a relatively shallow depth of 115 m. MAG-6 intersected the entire Pozo Nuevo sequence from upper transition to lower conglomerate, including the lacustrine section and lower transition zone. Pathfinder elements were moderately anomalous in this region.

Hole MAG-24 intersected 16 m of 6.2% B_2O_3 as colemanite and nodular howlite in a 2.6 m zone. MAG-26 intersected a 9.14 m section of 7% B_2O_3 with recrystallized colemanite forming small 5 mm crystals. Colemanite is also found as cement. MAG-27 intersected a zone of disseminated colemanite and millimetre scale crystals in a 7.92 m zone of 5.3% B_2O_3. [Figure 6.8]

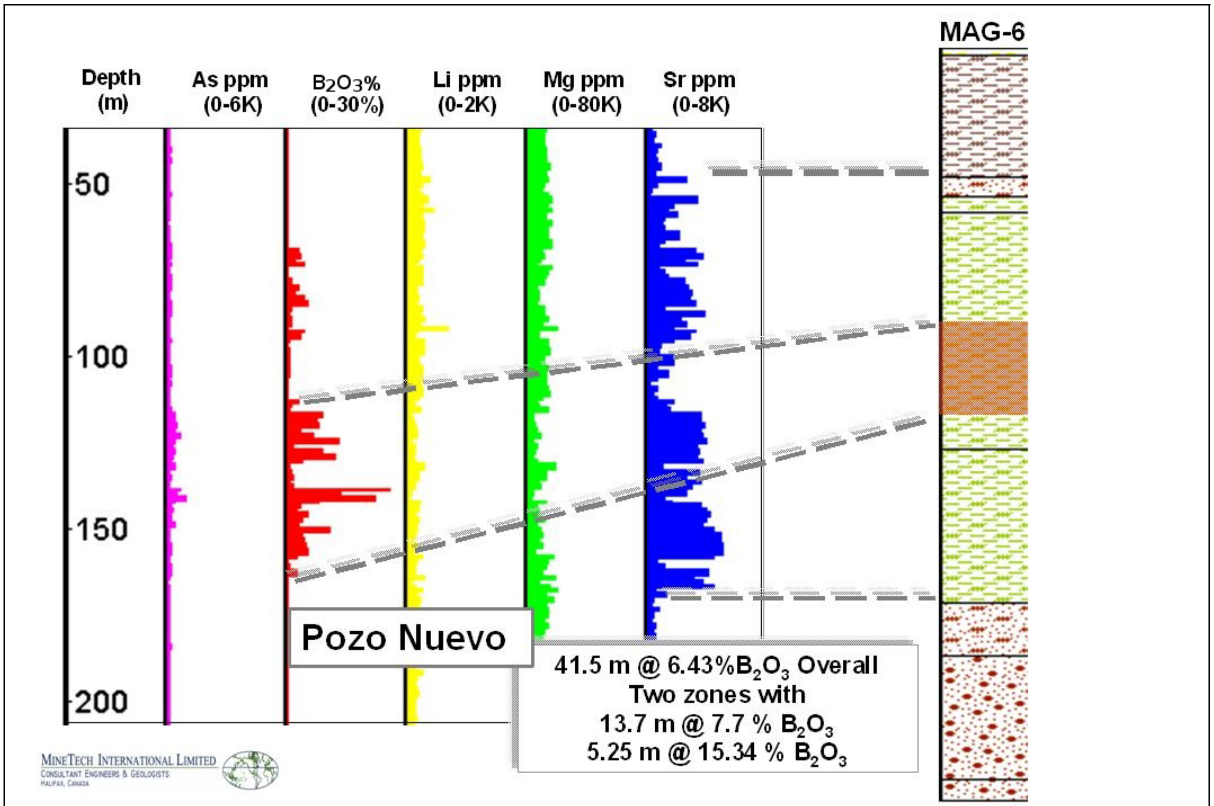


Figure 6.9 Schematic of drill logs Pozo Nuevo

El Tigre: In this target a 50 m zone of dark grey, carbonaceous claystone with abundant calcite as alteration of borates was intersected. Remnant borate mineralization is inferred based on samples returning 2.7% B_2O_3. Based on the positive results further drilling to the east was conducted to determine the continuity of the mineralized zone. 265 m of fluvial-lacustrine sediments beneath the Los Fresnos basalt flow was intersected containing colemanite, scarce howlite and abundant gypsum mineralization. One 33 m zone intersected 7.6% B_2O_3 including a high grade 7.6 m zone of 13.5% B_2O_3 at a depth of 421 m.

Subsequent drilling on the Tigre target by MSM had 2 objectives: 1) to determine possible continuation of TDO colemanite-type mineralization along the western portion of the target closest to the TDO deposit; and 2) to find Magdalena Formation sediments beneath the post-basin Los Fresnos basaltic flow along the eastern and central portion of the target to expand known mineralized zone. 3 holes were drilled to fulfill the objectives, however, no visible mineralization was intersected and the eastern portion of the target was released by MSM. [Figure 6.10]

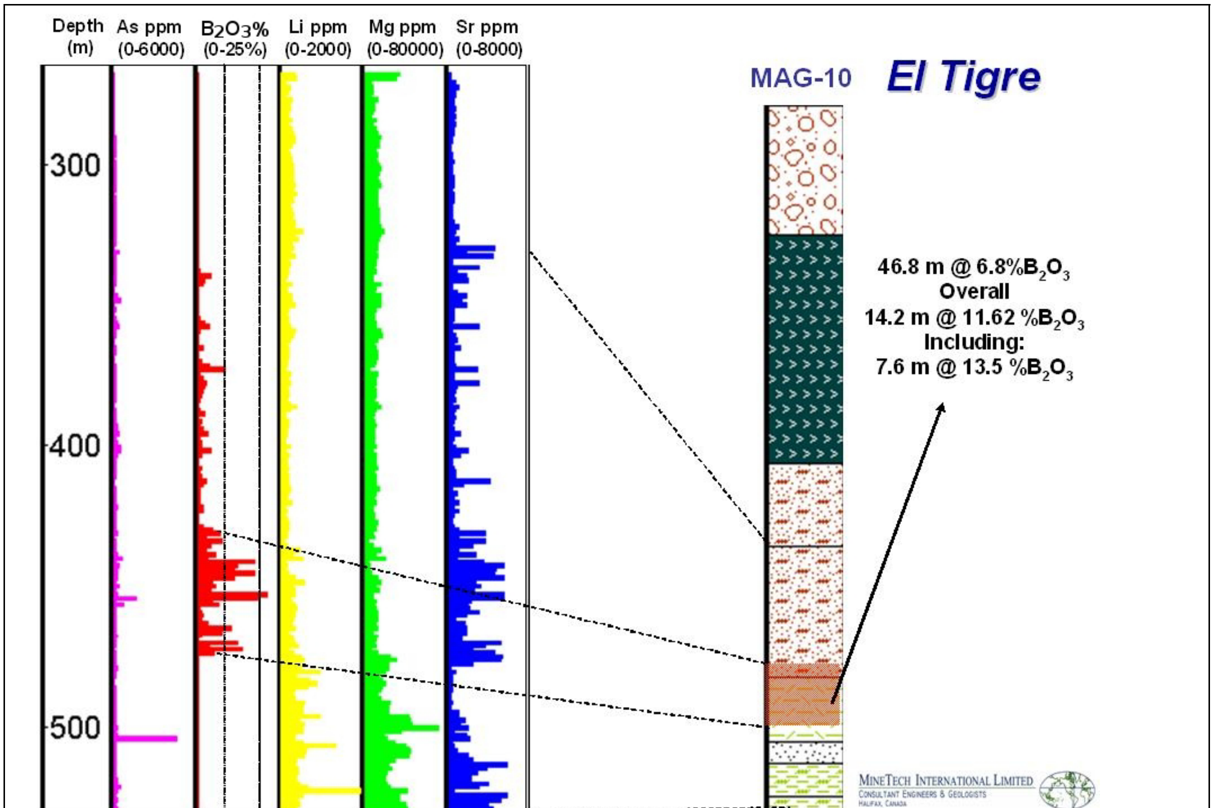


Figure 6.10 Schematic of drill logs El Tigre

Escuadra: This target is a NW-plunging syncline. Both limbs of the syncline were drill tested. Drilling in the southern limb intersected very low grade colemanite and howlite in a fine-grained sequence. Hole MAG-22 targeted the northern limb of the syncline intersected three mineralized zones: 1) an upper 7 m zone of howlite nodules with an average 6% B_2O_3; 2) a middle zone of 3.7 m grading 13% B_2O_3 disseminated colemanite cementing sediments; and 3) a lower 3.5 m zone of 17% B_2O_3 recrystallized colemanite. [Figure 6.11]

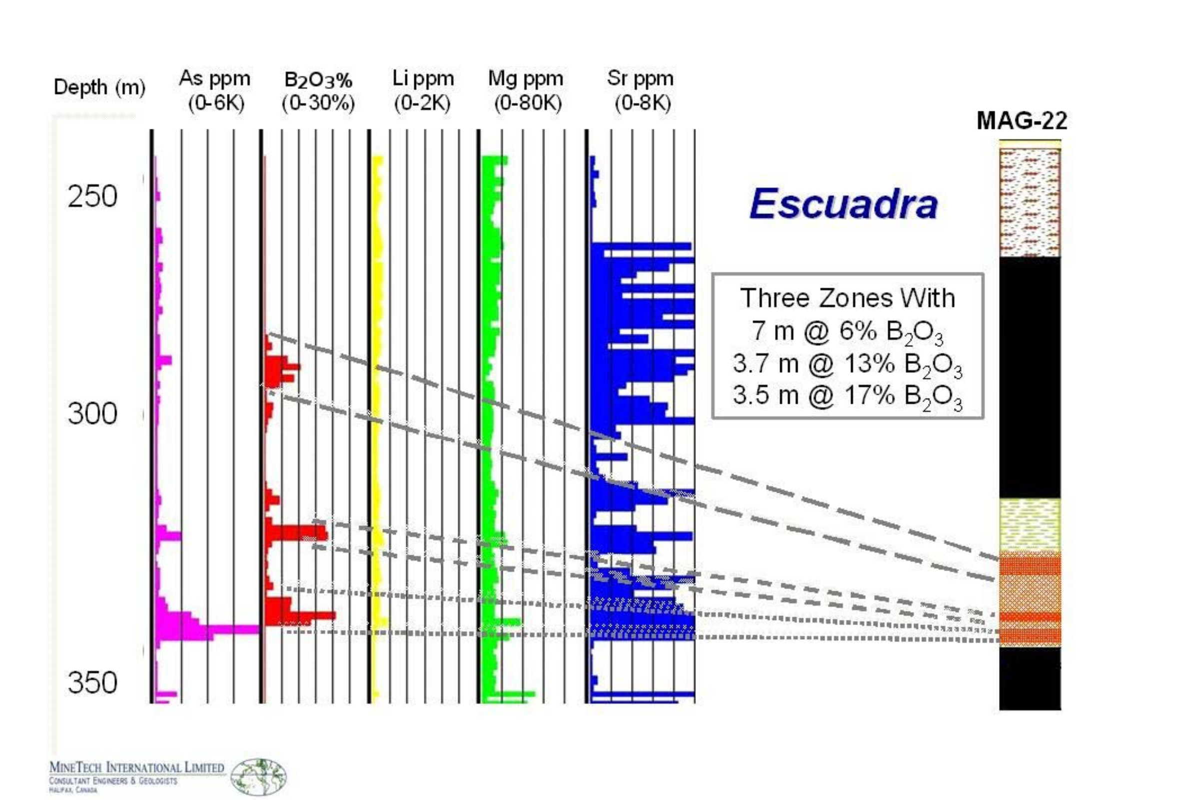


Figure 6.11 Schematic of drill logs Escuadra

Syncline: This target was not drill tested but much of the target area was released when MSM downsized their Magdalena claims in 2006.

6.1.3 Magdalena Geophysics

Ground Magnetic Survey

MSM, in an attempt to understand the distribution of structures and volcanic sequences buried beneath the quaternary overburden, conducted a ground magnetic survey over the central portion of the Magdalena Basin in 2002. Additionally, fill-in stations were added in 2005. Survey lines were spaced 200 m apart with 10 m stations. The survey extended far enough south and east to take readings from known sedimentary outcrops for comparison. The interpreted survey results show a northwest trending magnetic low across the southern portion of the Magdalena Basin. MSM interpreted this as the northwest continuation of the Magdalena Formation sediments. The upper volcanic sequences appear as magnetic highs.

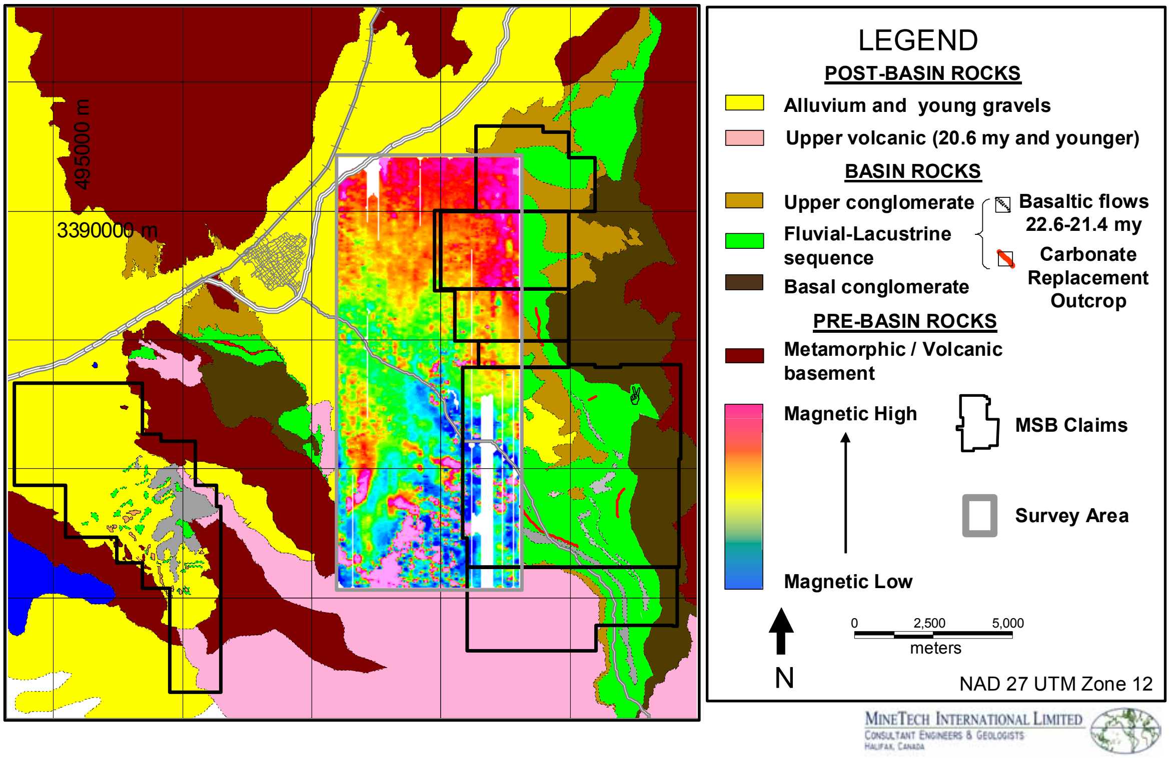


Figure 6.12 Map showing ground magnetic interpreted survey results.

Gravity Survey

MSM conducted a 351 station semi-regional gravity survey in 2002. Raw data was submitted to the Kennecott Utah Copper Corporation (Kennecott) geophysics department for filtering and terrain corrections. Using residual gravity field display, the Magdalena Basin appears as a closed basin with a northwest trending gravity low. An island of higher gravity field is observed in the central portion of the basin, interpreted as either a tilted block that moved along the underlying detachment fault or a vent from upper volcanic rocks. The survey shows the Unimin deposit along the western edge of the gravity low, a relationship observed in gravity deposits elsewhere in the world (Vidal, 2007). The gravity lows (deep blue) were interpreted to possibly represent thick sequences of young, non-compact gravels in the north-central portion of the Magdalena Basin, corresponding to the results of the ground magnetic survey. A north-westerly trend observed in the central portion of the survey area is interpreted as tilted blocks along a detachment fault.

A fill-in survey was conducted in 2005, adding 487 stations. No direct relationship was observed between gravity survey results and borate mineralization, indicating that borates are deposited at the basin margins, and not in the basin depocentres identified in the survey.

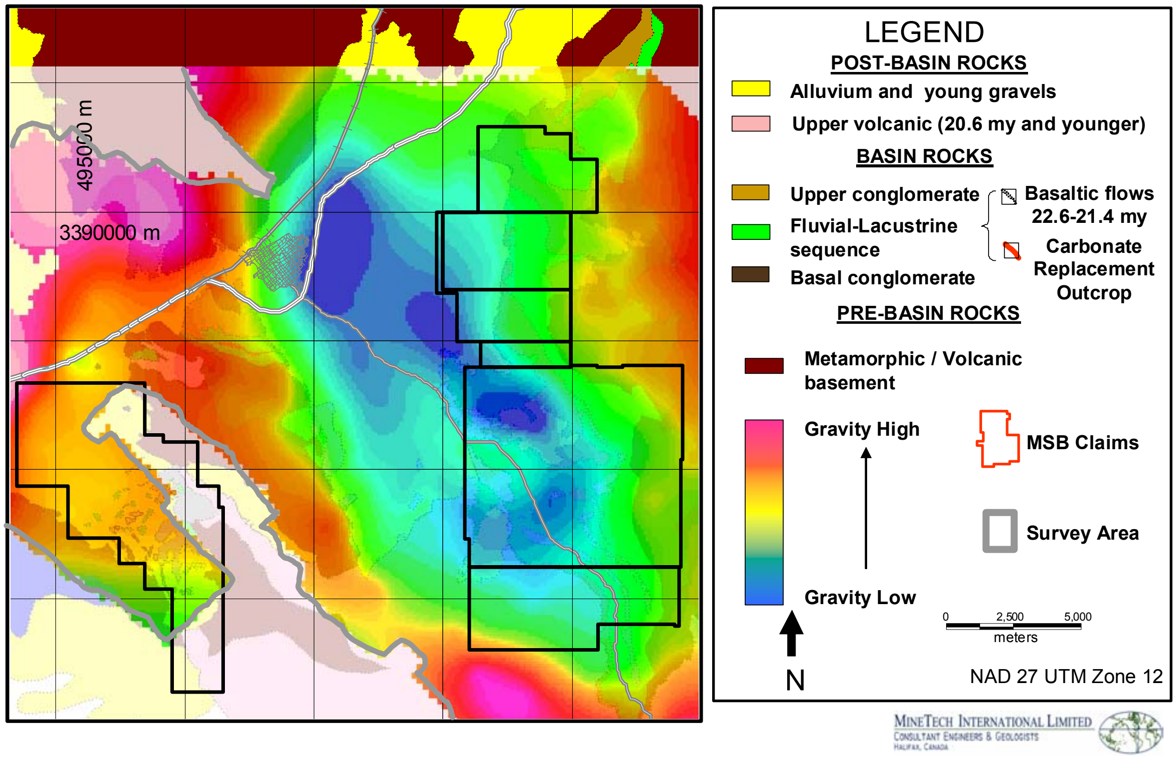


Figure 6.13 Map showing interpreted gravity survey results.

6.2 Tubutama Basin

The Council of Mineral Resources (CMR), a Mexican Federal council with a mandate to "Identify and quantify the Nation's potential mineral resources" and "Promote research to enhance the technical-industrial utilization of the Nation's mineral resources" (Mexican Mining Act 1992), declared the western portion of the Tubutama Basin a National Reserve in order to evaluate the potential of borates in the region. As a National Reserve, the area could not be staked by any person or company. The CMR conducted a series of exploration activities in the Tubutama Basin, including mapping, trenching, sampling and drilling. The region was released by the CMR in 1992 and subsequently staked by MIT in 2005, who have been conducting exploration activities since that time.

6.2.1 Tubutama Mapping

The CMR completed the first economic study of the Tubutama region while the area was under National Reserve. The region was mapped at a scale of 1:5,000 with aim to define lithological and structural geology. The work of CMR built on previous academic studies and regional 1:100,000 and 1:50,000 mapping programs from the 1960's.

The mapping programs identified three extensional fault blocks affecting the Tubutama Basin, referred to as Tubutama I, Tubutama II and Tubutama III. The blocks are separated by northwest striking, steeply southwest dipping faults with displacement of approximately 400m (Dexter 2007). These faults have helped to expose the borate beds in the Tubutama Basin. Borate beds are best exposed in Tubutama I, less in Tubutama II and rare in Tubutama III.

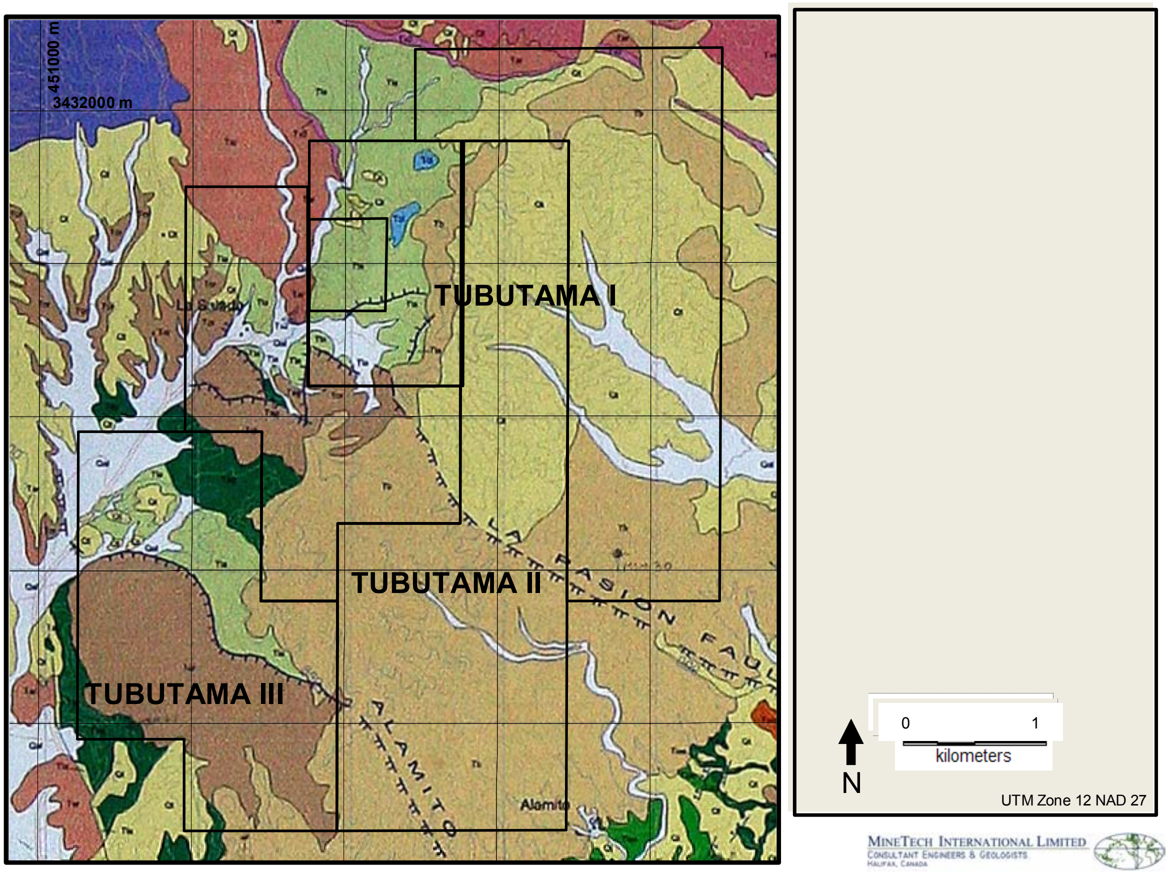


Figure 6.14 Geological Map of the Tubutama Concessions with property boundaries shown for reference. Tubutama fault blocks shown for reference.

6.2.2 Tubutama Sampling

Bedrock samples were systematically collected by CMR at 50 m intervals to determine stratigraphy and borate potential. Following the positive results of the surface sampling program, CMR dug a systematic series of trenches in the Tubutama Basin, focussing on the present day Carlos Concessions (see Table 4.1). The trenches were dug approximately perpendicular to stratigraphy and samples were collected in a sequence of 1-2 m bulk samples from along the trench walls. Assay results returned B_2O_3 values ranging from 1% to 23% (CMR, 1980). In some instances trenches exposed beds at oblique angles and samples collected from these intervals would not be representative of true mineralization. Although it is likely that CMR was aware of this, there are no detailed records available for the sampling program.

During the regional evaluation of the Magdalena-Tubutama Basins, MSM conducted a broad exploration program in the Tubutama Basin. None of the work done by MSM was conducted on the Carlos Concessions and MSM does not currently hold any concessions in the Tubutama Basin.

In 2005, MIT acquired the Carlos Concessions and began a program to re-evaluate and confirm some of the positive results reported by CMR. A surface sampling program and re-trenching program were initiated immediately. MIT did not re-trench the CMR trenches but rather, dug new trenches with a truck-mounted shovel parallel to some of the best CMR trenches to ensure fresh samples were collected. By using the machinery to dig the trenches MIT was able to collect fresher and deeper samples. The sampling and trenching program identified an elongated northeast trending zone of borate mineralization with a higher-grade zone (6% B_2O_3) within. The drill program was aimed at delineating the zone at depth [Figure 6].

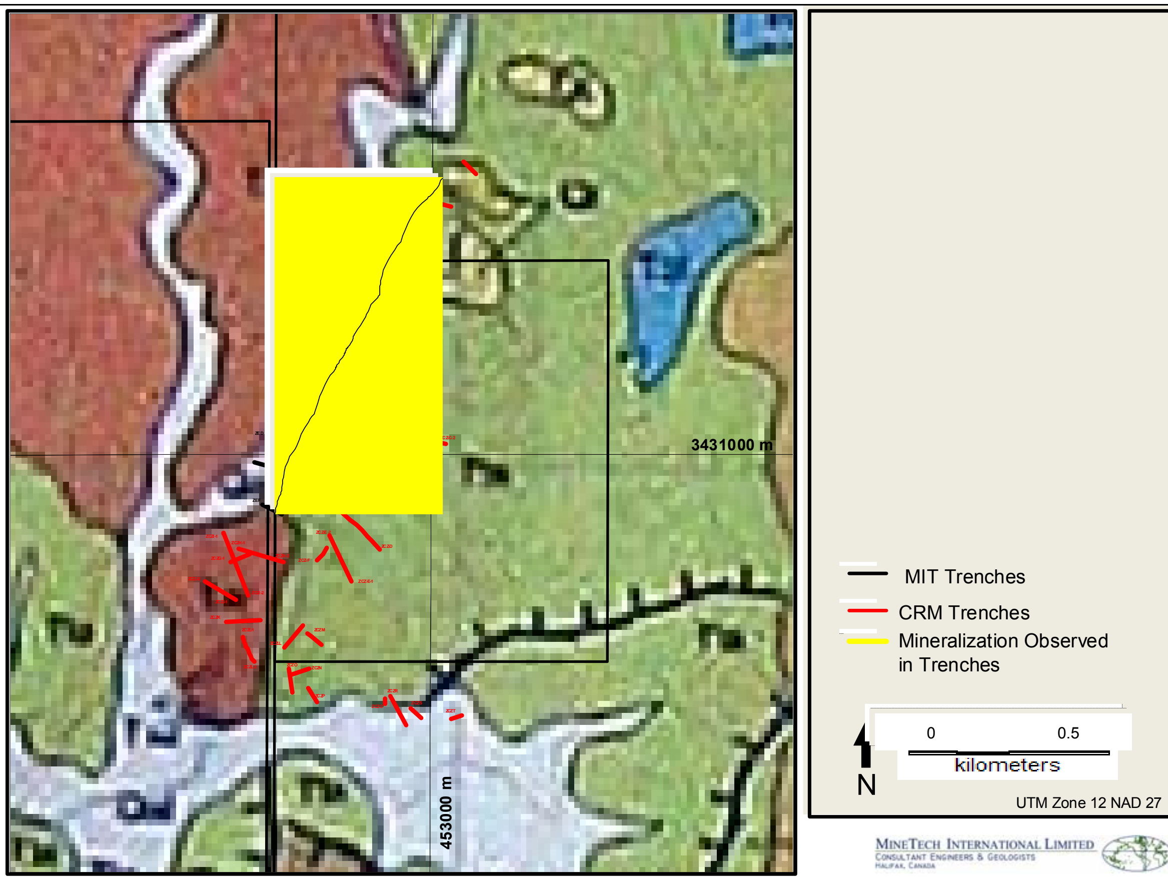


Figure 6.15 Geological map with trenches shown and mineralized zone marked in yellow.

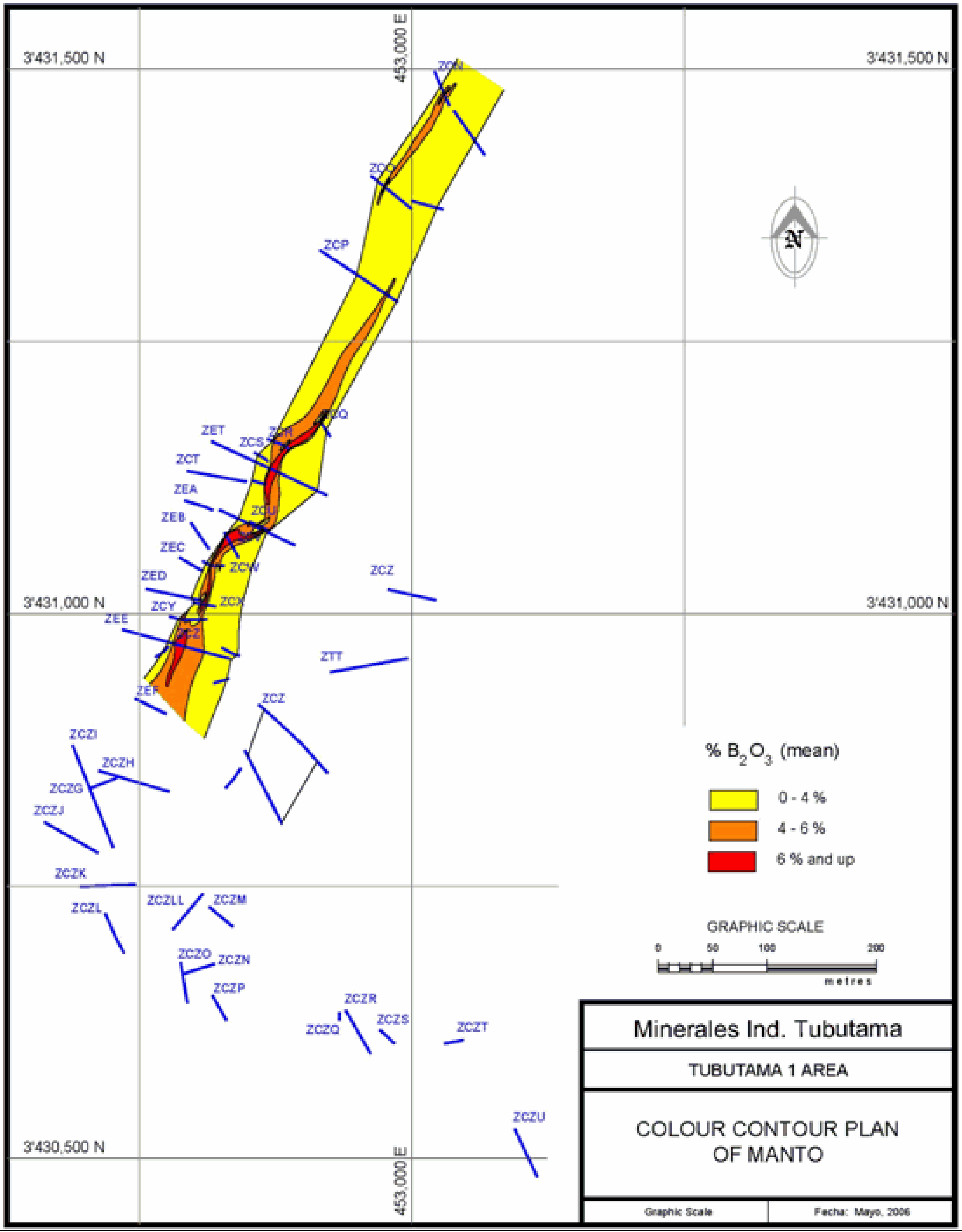


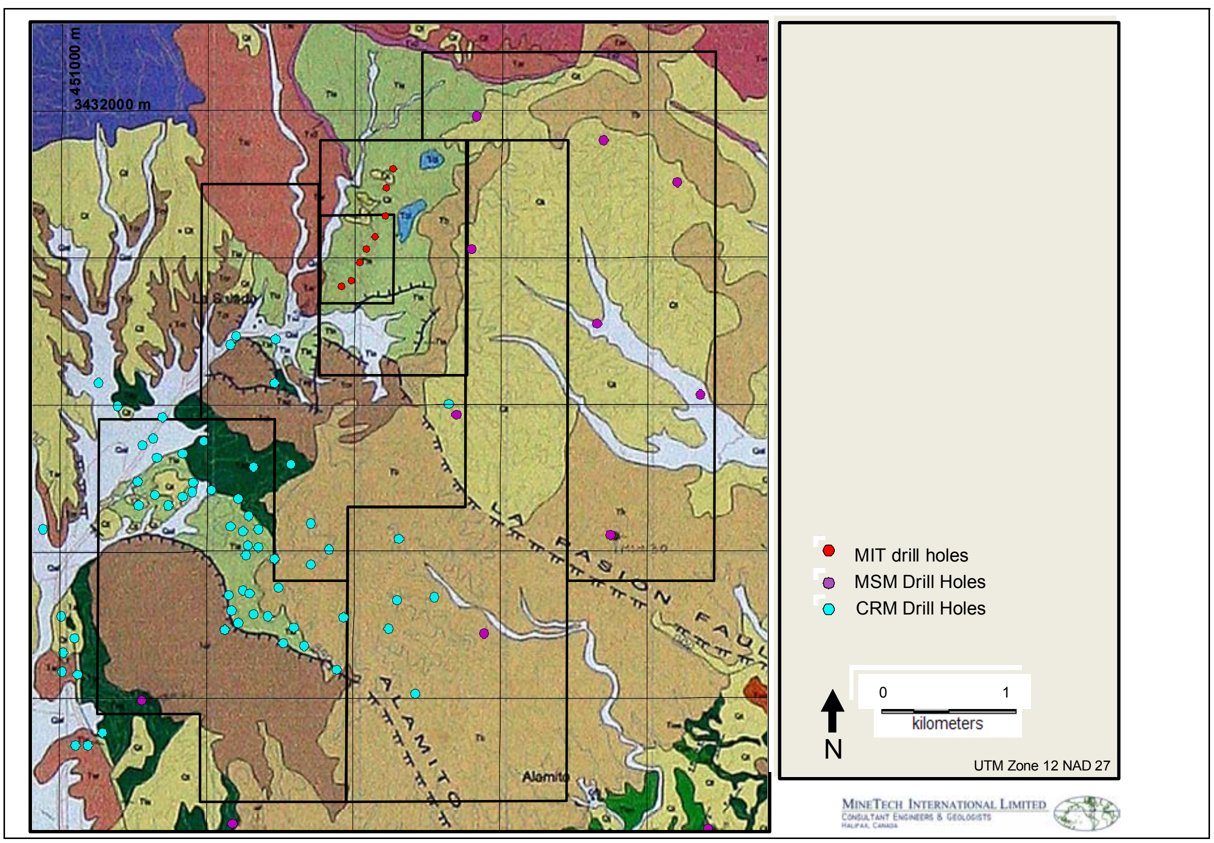
Figure 6.16 Trench Assay Data Compilation Map copied from Spooner and Jenkins, 2006.

6.2.3 Tubutama Drilling

Based on the positive results of the CMR trenching program, CMR drilled 64 holes in the restricted National Reserve portion of the Tubutama Basin. Based on a general economic study, CMR determined a minimum cut-off of 8% B_2O_3 (CMR, 1980) and conducted a series of volume calculations of potential B_2O_3 with a variety of unspecified assumptions using the trench and drill core B_2O_3 values. These calculations predate guidelines and definitions of the CIM[1], and JORC[2] and are not 43-101 compliant and therefore will not be discussed further in this Technical Report.

Following the release of the Tubutama Basin from National Reserve status, MSM drilled 32 holes between 1996 -1999. None of the holes were drilled on the Carlos Concessions.

MIT followed-up the re-trenching program with a series of 8 drill holes on the Carlos Concessions. The eight drill holes varied in depth from 190 m to 258 m for a total of 1,882 m. The mineralized borate zone was intersected in all holes with the best results from BD-07 with 7.2% B_2O_3 over 40 m (CSA, 2007). The average intersected thickness was 14 m at 7% B_2O_3.



[1] Canadian Institute of Mining, Metallurgy and Petroleum, a Canadian mining standards body
[2] The Joint Ore Reserves Committee, an Australian mining standards body

Figure 6.17 Map of Tubutama Concessions with historical drilling.

6.2.4 Tubutama Geophysics

No geophysical surveys were conducted on the Tubutama Carlos Concessions.

7.0 Geological Setting

7.1 Regional Geology

The Metamorphic Core Complex rocks observed in Sonora have been recognized from southern Canada to northwestern Mexico. The age of the complex ranges from Eocene in the north, to Miocene in the south (Miranda-Gasca et al., 1998). The Magdalena-Tubutama Basins are part of the upper plates of these metamorphic core complexes and contain synkinematically deposited terrigenous sediments, volcanic rocks, lacustrine sediments and evaporates. Known borate deposits in North America, including Sonora, occur in these Tertiary lacustrine basins of the Tubutama Basin and Range Province (Miranda-Gasca et al., 1998). Detrital gold and zeolites are sometimes also found associated with these basins.

The tectonic history of northwestern Mexico is important in the formation of the Magdalena and Tubutama Basins. The late Cretaceous – early Tertiary Laramide Orogeny developed a shallow subduction zone under the continental North American plate (Vidal, 2007). The steepening of the slab changed the tectonic regime from compressional to extensional. Two different structural events have been identified as associated with the extensional event: 1) dynamic, horizontal displacement in the Eocene; and 2) high-angle normal faulting known as the Basin and Range (Vidal, 2007).

7.2 Magdalena Basin

7.2.1 Basin Evolution

The Magdalena Basin is a Tertiary, Metamorphic Core Complex-related basin that lies in northern Sonora, in the southern extent of the Basin and Range province corresponding to the southernmost portion of the Great Basin. The Great Basin is the host to all known bedded rock-hosted borate occurrences and deposits in North America (Vidal, 2007).

The Magdalena Basin is a topographic depression floored and surrounded by metamorphic and volcanic rocks. Two types of basement rocks have been observed: 1) Metamorphic, composed of mylonites, gneisses and leucogranites from La Madera and Magdalena ranges; and 2) volcanic, composed of latite flow from La Ventana Range (Vidal, 1990 & 2003 & 2007). The metamorphic rocks associated with the Magdalena Basin have been identified as the upper plate of the Magdalena-Madera Metamorphic Core complex (Vidal, 1990 & 2003 & 2007). The lower and upper plates are separated by the low-angle Magdalena detachment Fault (Miranda-Gasca et al., 1998). The lower plate rocks consist of Tertiary granites. The upper plate rocks consist of fossiliferous Cretaceous mylonitic rocks of the Bisbee Group. These are overlain by the La Ventana Magdalena metamorphic core complex. The La Ventana is overlain the Cuesta and Magdalena Formations. The Cuesta

Formation is several hundred metres thick, consists of sedimentary breccias and is inter-bedded with basaltic flows (Miranda-Gasca et al., 1998). The Magdalena Formation consists of lacustrine sediments including: conglomerates, sandstones, green and black shales, and lacustrine limestones. The sediments are interbedded with rhyolitic tuffs deposited underwater. It is the Magdalena Formation that hosts the Borate deposits. The Cuesta and Magdalena Formations are unconformably overlain by the 300 m thick El Torreon volcanic unit, a sequence of rhyolites interbedded with alkaline basalts. A swarm of rhyolitic dikes is associated with this unit, intruding parts of the Sierra La Madera.

Movement of the upper plate formed anticlines and synclines and later normal faults that affected the overlying sedimentary sequences. The high angle normal faults created basins that were later unconformably filled with unconsolidated gravels and conglomerates.

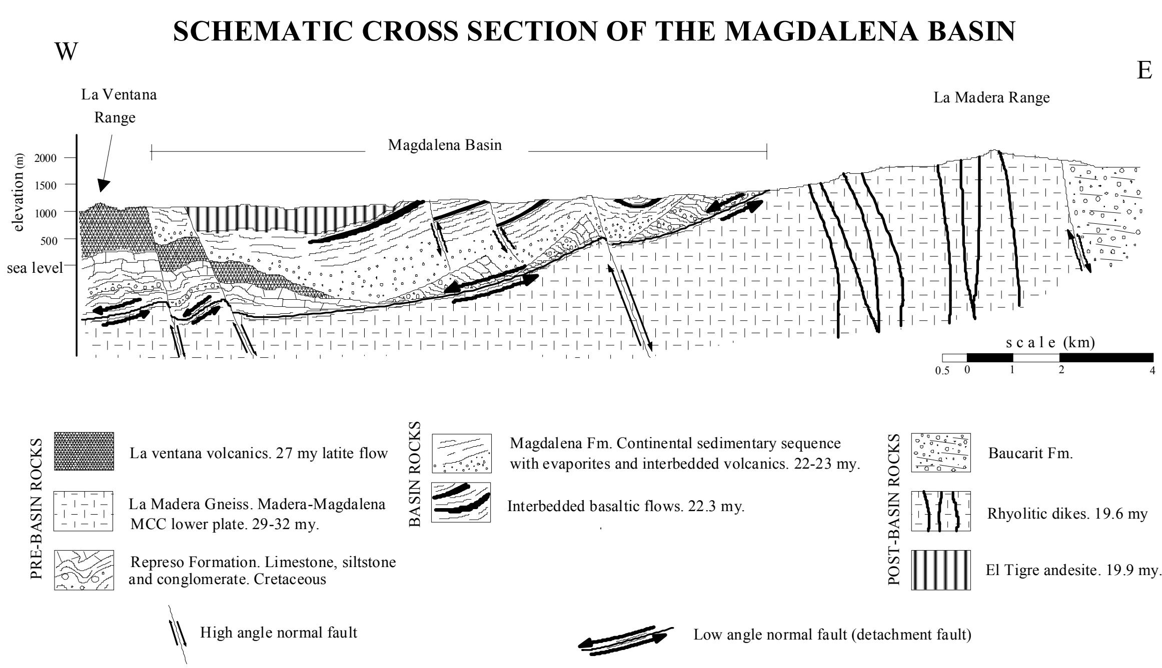


Figure 7.1 Cross section of the Magdalena Basin from Vidal, 2007.

7.2.2 Magdalena Formation

Three stacked sedimentary sequences in the Magdalena Formation containing fluvio-lacustrine sediments have been recognised in the Magdalena Basin: 1) The Bellota Sequence; 2) the Cajon Sequence; and 3) the TDO Sequence. The following is summarized from Vidal (2007):

The Bellota Sequence:

The lowermost sequence composed of a basal conglomerate, a lower transition, a fluvial-lacustrine member, an upper transition zone and an upper conglomerate. A basaltic flow is interbedded with the upper conglomerate. The fluvio-lacustrine member is composed of thin-bedded, brown and greenish mudstone and black shale with minor silty to sandstone horizons. It becomes tuffaceous in the upper portion and is highly calcareous. Abundant gypsum beds and veinlets are present. Thickness varies from 200 m to 600 m. Soft sediment deformation structures are observed in the unit. The unit also contains a carbonate replacement zone (replacing colemanite) similar to the surface expression of the TDO colemanite deposit. This bed ranges between 4 m and 8 m.

The Cajon Sequence:

This is the second sequence, composed of a lithic tuff closely associated with tuffites and tuffaceous sandstone, a fluvio-lacustrine member, ad an upper transition that rapidly changes into a tuffaceous matrix conglomerate. The fluvio-lacustrine unit is composed of thin-bedded, greenish, pink and light grey tuffaceous-calcareous mudstone. Thickness varies from 200 m to 600 m. An 8 m to 12 m thick zone of carbonate replacement is observed. Scare gypsum is observed. The sequence also includes an interbedded basaltic flow – the Cajon Basalt. The basalt is composed of greenish-grey basalt with characteristic diabase texture between 40 m and 80 m thick. It is highly oxidized, gas-rich in some places with calcite filling cavities and fractures.

The TDO Sequence:

The youngest sequence is referred to as TDO and is composed of a lower conglomerate, a lower transition zone, a fluvio-lacustrine member, an upper transition unit and an upper conglomerate. The TDO fluvial-lacustrine unit is composed of shale, carbonaceous shale and minor inter-bedded sandstone. The TDO sequence is host to the neighbouring TDO colemanite deposit. Mudstone breccias are common in this unit. In outcrop, the TDO colemanite deposit is composed of calcite, aragonite and vuggy clays. Several sedimentary breccia lenses are interbedded in the mid and lower portions.

In general, the fluvio-lacustrine sediments of the Magdalena Formation are highly distorted. Mudflows, turbidities, slumping breccias and pre-basin boulders cutting sedimentary bedding are observed. Anticlines and synclines, listric faults deliminating structural blocks are common. The borates are interpreted as the product of diagenetic processes within the fluvio-lacustrine sediments.

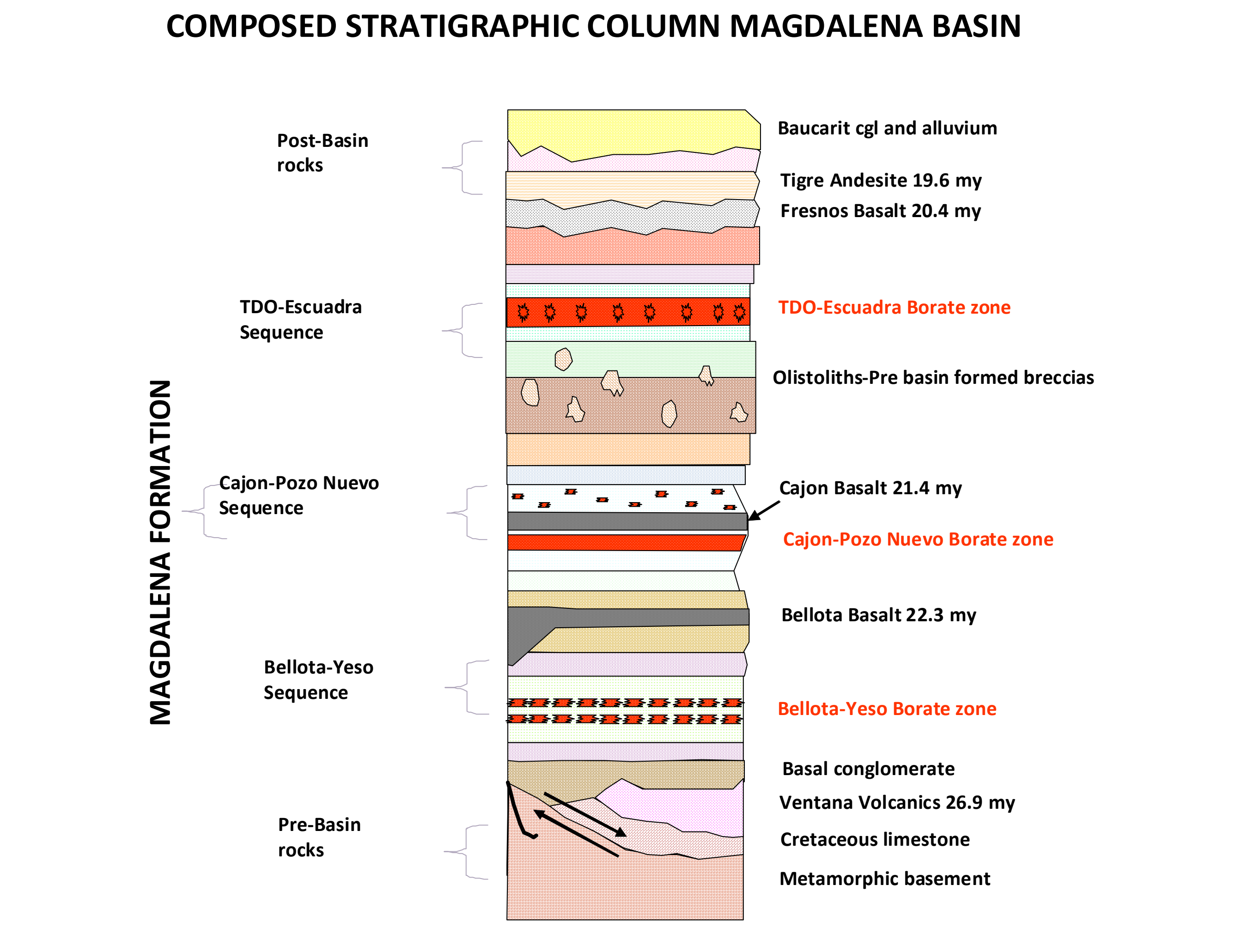


Figure 7.2 Stratigraphic sequence of the Magdalena Basin

7.3 Tubutama Basin

7.3.1 Basin Evolution

The Tubutama Basin consists of isolated small northwest-trending ranges separated by wide structural basins. The area is underlain by the upper plate of the Tubutama Metamorphic Core Complex (TMCC) (Miranda-Gasca et al., 1980). The lower plate consists of mylonitized granites and leucogranites. The Upper plate is juxtaposed with the Lower plate along the Tubutama Detachment Fault. The Tubutama Formation rests unconformably on rhyolitic volcanic rocks overlying the detachment fault.

The area has undergone three episodes of tectonic extension resulting in intense normal faulting (CSA, 2007). The displacement along these faults is up to 400 m, dividing the region into three blocks referred to as Tubutama I, Tubutama II, and Tubutama III (CSA, 2007). The Tubutama Formation sediments are host to the regional borate mineralization with variations in mineralization between blocks due to facies variations in the sediments.

The Red Conglomerate Formation, consisting of limestones, basalt, andesite, rhyolite and mylonite, unconformably overlies the Tubutama Formation sediments (Miranda-Gasca et al., 1980). The Baucarit Formation overlies the Red Conglomerate on an angular unconformity (Miranda-Gasca et al., 1980.)

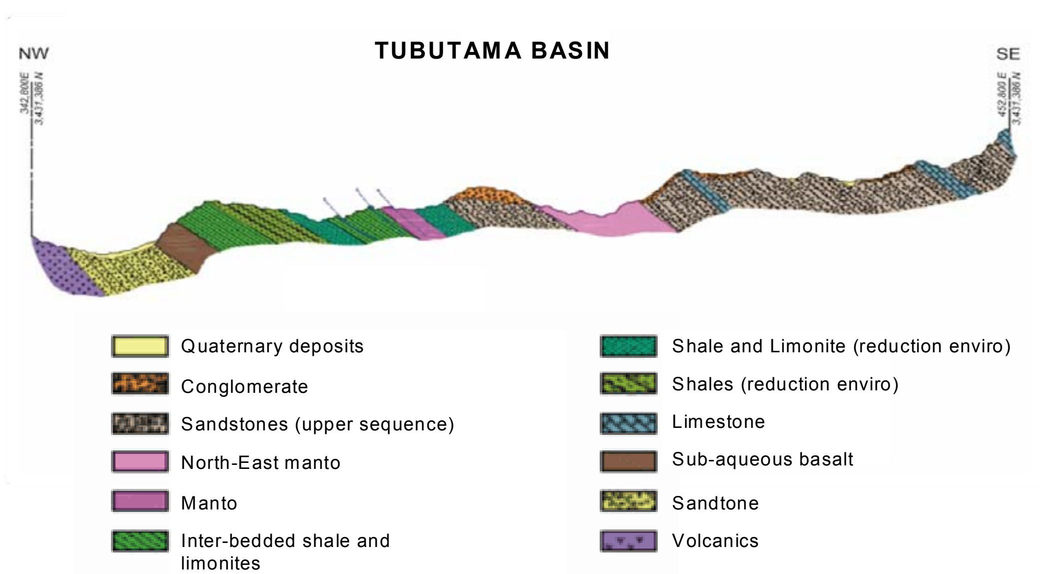


Figure 7.3 Cross-section of the Tubutama I (from Dexter, 2007).

7.3.2 Tubutama Formation

The Tubutama Formation consists of lacustrine sediments interbedded with basaltic flows. At the base of the sediments are reddish colored, thin bedded and fine grained sandstones (CSA, 2007). The unit is approximately 70 m thick. Overlying these sandstones is the sub-aqueous, high-K, 15 m thick andesitic basalt flow with locally developed pillow structures (CSA, 2007).

Overlying the basalt is approximately 350 m of interbedded shale and sandstone. Each bed is ~2-30 cm thick. A 100 m interbedded zone of gypsum, colemanite and clastic sediment is observed within this unit. The colemanite lenses are locally 1 m thick with frequent colemanite veinlets.

In the Tubutama I block, the colemanite layers are bound by beds of limestone and there is a strong association with gypsum. In the Tubutama II block the colemanite lenses show no gypsum.

The unit overlying the Tubutama Formation and marking the upper extent of the borate mineralization consists of 200 m thick coarse grained sandstone in 10 cm to 50 cm beds. Limestone beds with conglomerate lenses are also found.

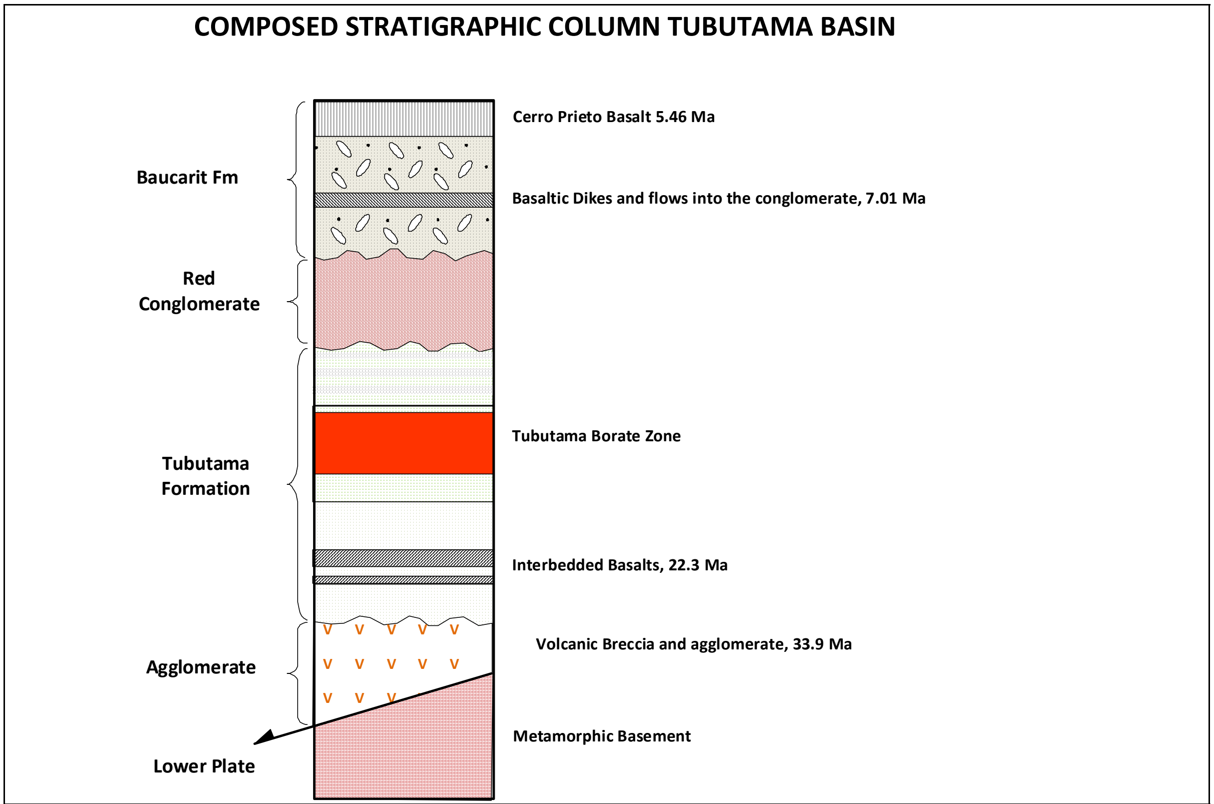


Figure 7.4 Generalized stratigraphic section of the Tubutama Basin rocks

8.0 Deposit Types

The Magdalena-Tubutama Basins are primarily exploration targets for borates. There is a lack of exploration for evaporates, especially gypsum within the Concessions, but ample evidence that gypsum is present in the region exists, including the mining of a gypsum deposit (Yeso Mine) within the bounds of the Magdalena Concessions. As well, no historic exploration for base or precious metals has been conducted on the Properties, yet there is potential for gold, silver and base metals in the area as indicated by metallic deposits located in surrounding rocks of similar, contemporaneous origin.

8.1 Borates

Leading research of borate deposits around the world by Barker and Lefond (1985) has identified five main deposit types:

1) Precipitation from brines in a permanent or semi-permanent shallow lake or deep lake, known as lacustrine deposits. For this type of deposit to be formed the region must be arid, as borates have a high solubility. In addition, there must be an interior drainage system to concentrate the boron and minimize the dilution of boron from excess water, ions or sediment. Examples of this type of deposits include: Death Valley California and Bigadic, Turkey. This type of deposit produces most of the world's borates and is the most studied.

2) Crusts or crystals in mud of playas within near-surface sedimentary layers. These deposits are formed by repeated evaporation of incoming boron-bearing water by evaporation of groundwater. Repeated solution-crystallization cycles result in bedded borate strata. These types of deposits are found in Peru, Turkey and USA.

3) Direct precipitation near springs or fumaroles as a result of precipitation upon cooling of born-baring water and gases. This type of deposit is found in Italy, India and South America.

4) Evaporation of marine water such as in Germany and Russia. This type of deposit is usually very small and is most likely related to mining byproducts of evaporates and gypsum as opposed to naturally occurring.

5) Crystallization at or near granitic contacts or veins. Residual fluids associated with siliceous intrusions contain boron that is mobilized into the country rock through fluids. Boron may also be leached. No known deposits.

All borate deposits require that certain geological and environmental conditions were present. A borate deposit must have a source of water that contains anomalous amounts of dissolved borate. As well, a borate deposit must have a mechanism that transported the water to the site of deposition and prevented it from escaping to the sea. Finally, a borate deposit requires a geological process that was capable of concentrating the brine solutions to the point of borate crystallization. As the evaporation of seawater progresses, the deposition of borates from ulexite, colemanite and/or howlite will occur. The specific mineralogy of the borates deposited will depend on the ratio of boron to calcium and sodium in the water, as well as on any other elements (contaminants) present at the times of borate mineral precipitation.

One of the most studied borate deposits occurs in Bigadic, Turkey. A summary description of this deposit is presented below as a reference for borate formation.

Borate mineralization in the area of the Concessions discussed herein is considered to be analogous to the Bigadic deposit.

Bigadic

The Bigadic deposit is one of the richest and largest colemanite-ulexite deposits in the world, discovered in 1950 (Helvaci, 1995) with average ore grades of 40% B_2O_3 ad 29% ulexite (Garrett, 1998). The rocks consist of a volcano-sedimentary sequence of basement volcanics, lower limestone, lower tuff, lower borate zone, upper borate zone, upper tuff, upper borate zone and olivine basalt. The deposit consists of two zones, separated by a tuff unit. The deposit formed under arid conditions in a saline lake fed by hydrothermal springs (believed to be associated with local volcanic activity) (Helvaci, 1995). The deposits are interbedded with tuffs, clays and limestones.

The basin is defined by extensive volcanics along the eastern and western margin and by the basement complex to the north. Late folding and faulting affect the basin rocks. Research has shown that the basement complex was subjected to block faulting, which formed depositional basins for the sediments to accumulate. The fault structures are also believed to have acted as conduits for the movement of B-rich hydrothermal solutions. Local thermal springs related to volcanism may be the source of boron. Several deposits exist in the area suggesting a similar genetic relationship between the deposits (Helvaci, 1995).

Geochemistry and mineralogical studies reveal the deposits occur in carbonate-rich facies, indicative of a depositional period of high evaporation, salinity and low alkaline lake levels. The cyclical nature of the evaporation process due to periodic influxes of surfacial water, would result in several borate horizons. Post-deposition diagenetic processes and circulation of fluids concentrated the precipitate into economic deposits.

One of the most important observations of the borate deposits in Turkey is that the borates are primary colemanite deposits. Evidence suggests the colemanite precipitated contemporaneously with the unconsolidated sedimentary material just below the sediment-water interface. Borates precipitate at high pH, and pH is a function of local volcanic activity (Helvaci, 1995). It was historically believed that all colemanite in borate deposits was a replacement of ulexite, as in the California deposits, however, no evidence of colemanite replacement was observed in the Bigadic deposits.

The evolution of the Bigadic Deposits and the Magdalena – Tubutama Deposits are very similar. The following is the evolutionary model for type 1 borate deposits:

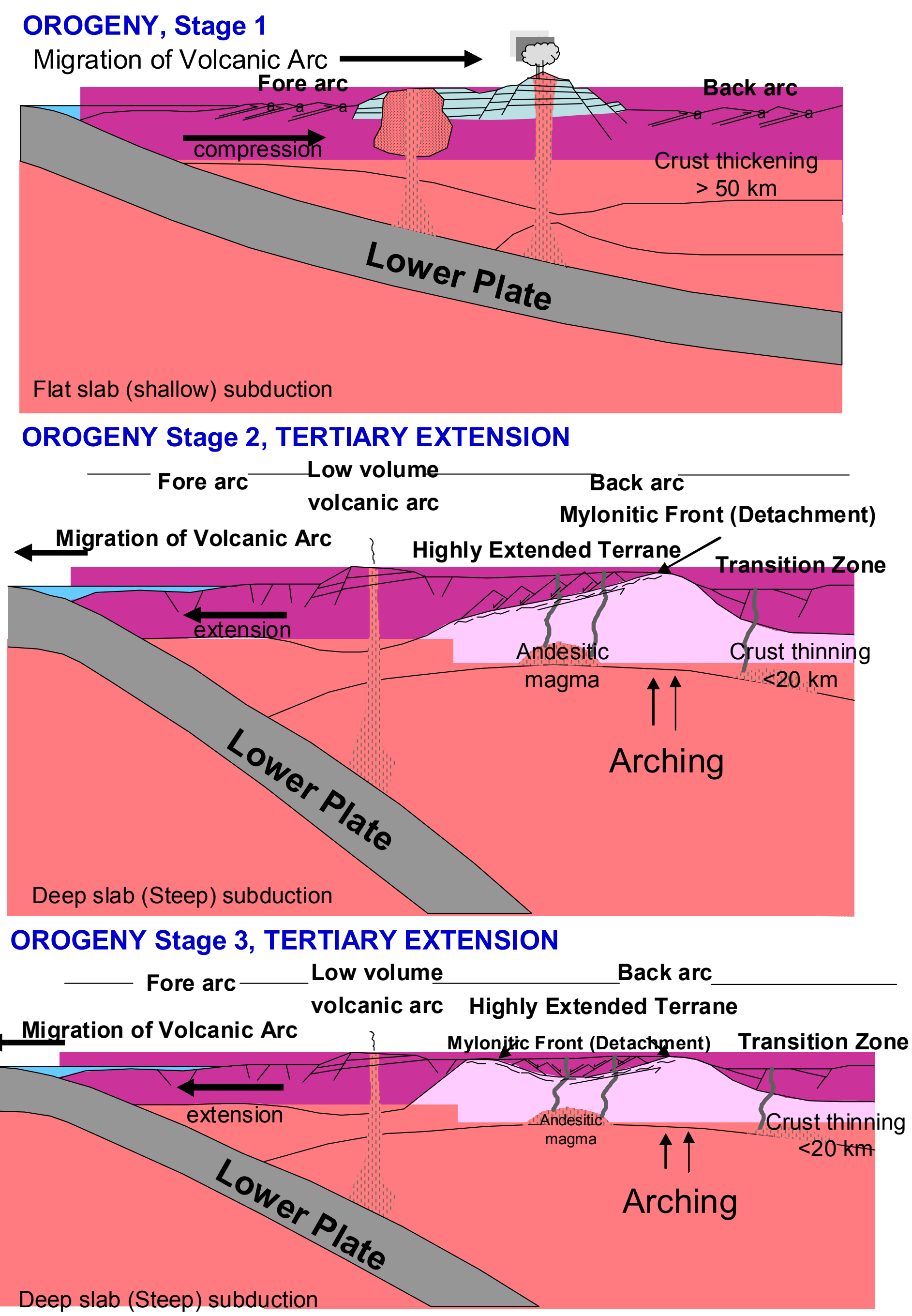


Figure 8.1 Tectonic evolution of the Sedimentary Basins for borate deposition

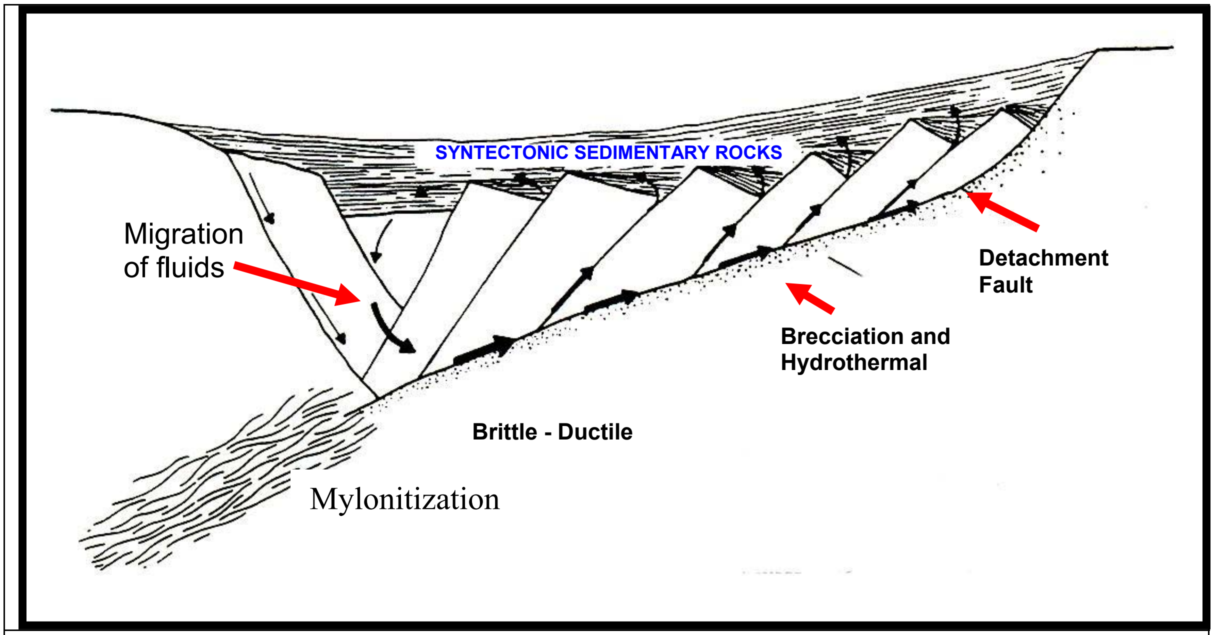


Figure 8.2 Schematic of fluid flow through highly extended terrane – Syntectonic sedimentary basin hosting borates.

8.2 Gypsum

The depositional model for gypsum is similar to that of borates. In fact, Miranda-Gasca et al. (1988) discuss the interbedding of gypsum with colemanite in the Magdalena-Tubutama basins.

8.3 Gold

Deposit models for gold include, but are not limited to, orogenic type structural gold, as found at the El Chanate deposit and fluvio-placer deposits related to the erosion and deposition of gold observed but underexplored across the Sonora Desert.

Orogenic gold deposits are typically developed in terranes that have experienced moderate- to high-T–low- to moderate- P metamorphism (Groves et al., 2003) with consequent generation of large volumes of granitic melts. These deposits form along convergent margins during terrane accretion, translation, or collision, which were related to plate subduction and/or lithospheric delamination. They form typically in the latter part of the deformational-metamorphic- magmatic history of the evolving orogen (Groves et al., 2000). Country rocks are most commonly regionally metamorphosed belts. Ores developed synkinematically, with the main penetrative deformation of the country rocks, and they therefore have a strong structural control involving faults or shear zones, folds, and/or zones of competency contrast (Groves et al., 2003). At the deposit scale, all orogenic-gold ore bodies show strong structural control.

Mineral reserves have been calculated for the El Chanate deposit, the details of which can be found in the El Chanate, 43-101 independent technical report, by Hester, M., 2007.

The conditions for orogenic gold and fluvio-placer gold similar to El Chanate exist in area of the Concessions.

8.4 Silver

The Penasco Quemado silver project is also located in the mining district. The deposit model for this silver deposit is a volcano-sedimentary breccia-hosted base and precious metal concentration related to hydrothermal fluids circulating along structures from a buried felsic prophry intrusion.

According to Lewis and McCrea (2006), the envisioned genetic deposit model for Penasco Quemado is “deep circulating meteoric fluids being drawn downwards along normal faults into a zone …….and oxidized and silver and copper ions dissolved into the solution. At this point, the heated and metal-enriched fluids are …… circulated back towards surface, channelled along steeply inclined zones of densely spaced fracturing ……the mineralization was deposited within the porous zones”.

Mineral reserves have been calculated for the Penasco Quemado deposit, the details of which can be found in the Penasco Quemado, 43-101 independent technical report, by Lewis and McCrea, 2006.

The conditions for silver deposits similar to the Penasco Quemado deposit exist in the concession areas.

9.0 Mineralization

The Magdalena and Tubutama Concessions have principally been explored for borates, which occur as colemanite ($Ca_2B_6O_{11}\cdot 5H_2O$) and howlite ($Ca_2B_5SiO_9(OH)_5$) in bed-parallel, discontinuous, lenticular millimetre- to metre-scale layers interbedded with and hosted in gently to moderately dipping carbonaceous fluvio-lacustrine sedimentary packages. The aim of the exploration programs is to identify low-grade-bulk tonnage borate deposits with a proposed cut-off grade of 10% B_2O_3.

The typical grain size of the howlite and colemanite is massive to millimetre granules with some replacement textures. Late colemanite rosettes exist with splintery centimetre long needles. Large nodular centimetre scale howlite replacement textures are observed. The sediments display typical sedimentary features such as soft-sediment slumps, bedding, ripples, and conglomeritic layers. Bedding is cut by late, millimetre to centimetre scale gypsum and colemanite veins oblique to the bedding.

The concentration of mineralization is primarily affected by the diagenetic processes responsible for the formation of enriched borate zones. Secondly, the grade of the mineralization is affected by leaching of the boron from the borates. Boron is stable in alkaline environments but is highly soluble in acidic conditions, such as at surface. Any post deposition acidic exposure will greatly reduce the boron and subsequent B_2O_3 grade.

There is a strong positive correlation between boron, lithium, strontium, arsenic and magnesium. These elements are frequently used as pathfinders during early stage boron exploration. Since their association shows a positive correlation, it is proper to assume that as the boron content increases, so too will the pathfinder elements. Therefore, the processing of borates for boron or boric acid must address the removal or at least reduction of these unwanted associated elements.

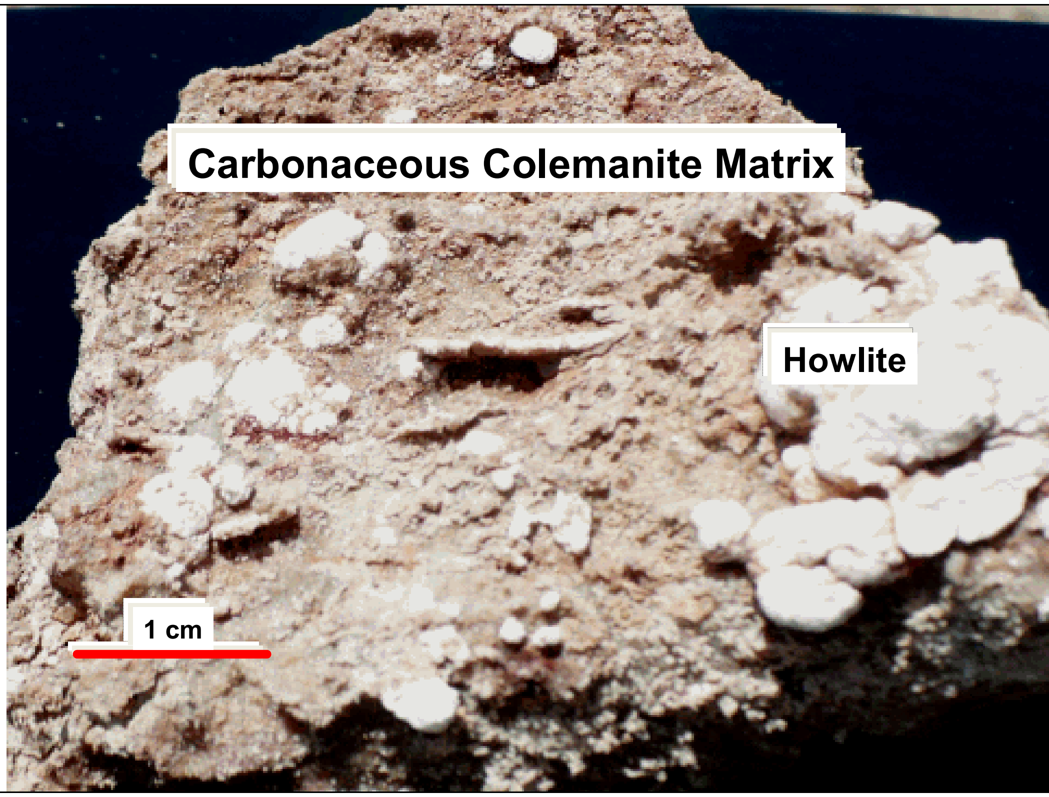


Figure 9.1 Photo of hand sample collected at surface from Tubutama.

The hand sample shows howlite in replacement texture nodules hosted in carbonaceous mudstone and colemanite. The howlite is believed to replace primary colemanite. The weathering that occurs at surface removes the colemanite and is responsible for the grainy matrix appearance.

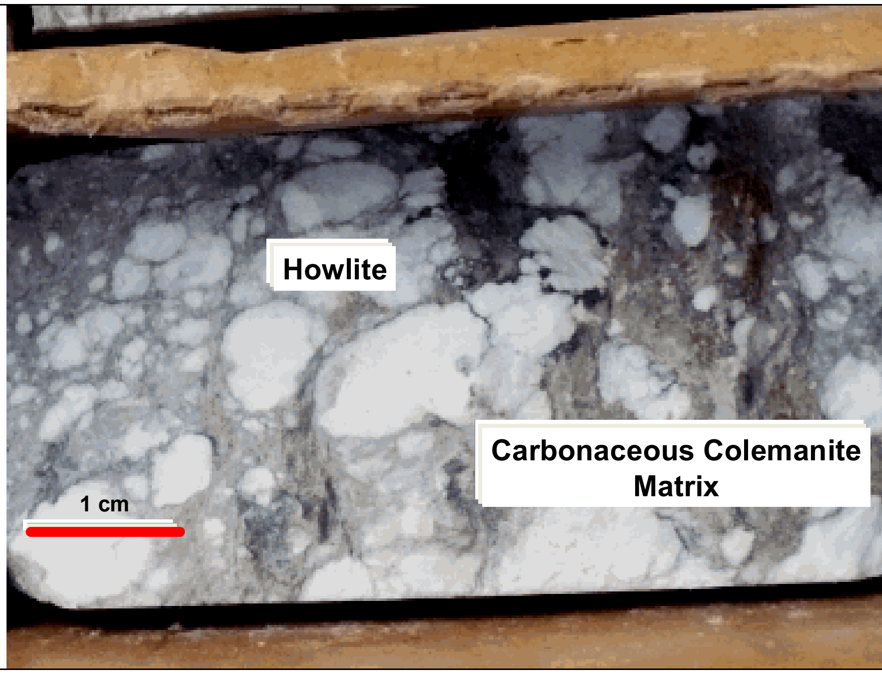


Figure 9.2 Photo shows a core sample from Magdalena.

The core sample shows nodular howlite within a carbonaceous colemanite matrix. Fine layering within the matrix can be observed. Colemanite is found as the pale grey granular matrix.

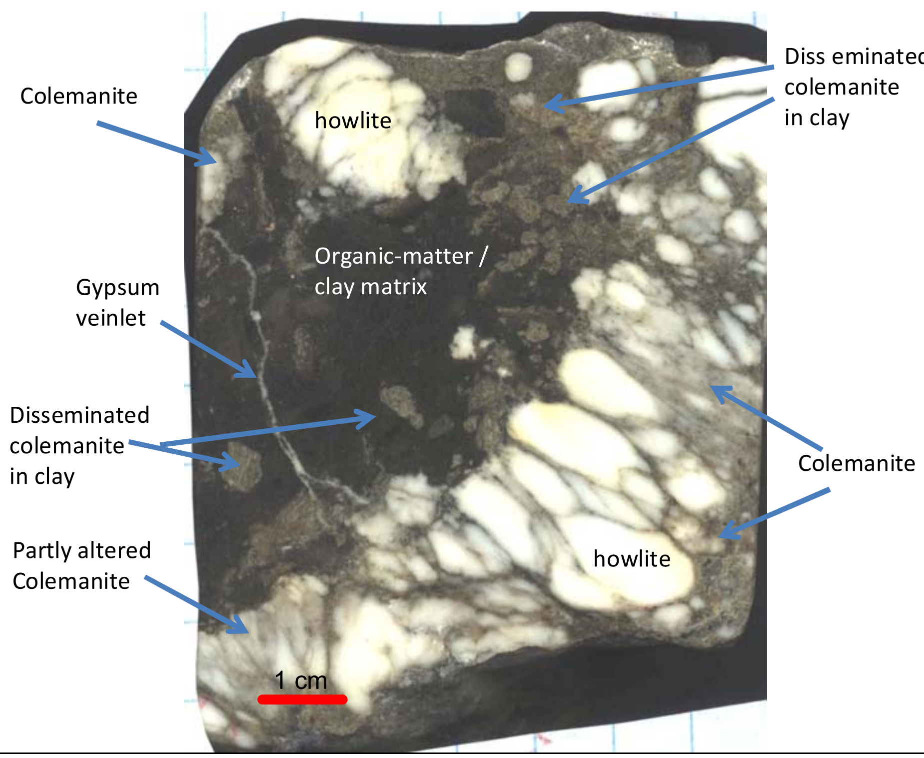


Figure 9.3 Photo of Polished section from Magdalena borate intersection.

The polished section shows the interrelationship of the key minerals that comprise borate-bearing sediments. The minerals occur as granular masses, anhedral and subhedral grains that are characterized by vitreous lustre, clear to white colour and are transparent to translucent. The borates are hosted in the clay matrix and the section clearly shows the colemanite in three forms, partially altered, disseminated in matrix and massive.

9.2 Magdalena

The Magdalena Concessions occupy the eastern edge of the Magdalena Basin with bedding striking north-south dipping moderately westward. The colemanite beds occur as sinuous bed-parallel lenses. Based on surface expressions of leached and altered colemanite outcrops identified in the sampling programs, the lenses extend up to 3 km along strike. Drilling has identified beds of up to 4 m grading >20% B_2O_3, which remain open at depth and along strike. The thinning of the lenses at their extent and cross-cutting lateral faults are the principal factors affecting the possible extent of the colemanite lens.

The interpreted aerial extent of the mineralized zones (>5%) on the Magdalena Concessions is approximately 16,000,000 m^2.

Table 9.1 Summary of Assays- Magdalena. Intersection >8% B_2O_3

Hole ID	Depth (m)	Thickness (m)	B_2O_3 (%)
MAG-02A Intersection 1	178.60	5.80	13.78
MAG-03 Intersection 1	235.30	1.70	9.24
MAG-04 Intersection 1	93.30	1.50	8.48
MAG-05 Intersection 1	286.20	3.10	10.79
MAG-06 Intersection 1	123.70	4.60	11.49
MAG-06 Intersection 2	138.30	4.40	17.60
MAG-06 Intersection 3	149.70	1.50	10.86
MAG-10 Intersection 1	440.60	7.10	14.00
MAG-10 Intersection 2	452.40	2.40	20.05
MAG-10 Intersection 3	464.10	1.50	10.40
MAG-10 Intersection 4	469.70	0.90	12.10
MAG-10 Intersection 5	472.10	1.10	13.70
MAG-17 Intersection 1	348.39	1.52	10.54
MAG-17 Intersection 2	366.67	1.52	8.36
MAG-17 Intersection 3	378.87	1.52	12.30
MAG-17 Intersection 4	394.11	3.05	9.80
MAG-17 Intersection 5	410.87	1.52	10.02
MAG-22 Intersection 1	323.09	3.05	17.67
MAG-22 Intersection 2	341.38	3.05	16.75
MAG-24 Intersection 1	122.83	1.52	13.57
MAG-25 Intersection 1	280.72	1.14	9.20
MAG-26 Intersection 1	45.42	1.52	9.21

9.3 Tubutama

The Tubutama borate zones have been interpreted to reach thicknesses of 9m containing 8% B_2O_3 and to extend up to 1 km within northeast-striking, southeast dipping sinuous sedimentary beds. The sediment package reaches thickness of up to 100 m (Caballero 1983) and can be traced along the eastern edge of the Tubutama Basin for over 4 km with various concentrations of borates within. Caballero (1983), identified two mineralized zones during the CMR drilling campaign, consistent with earlier interpretations that there were at least two evaporate sequences in the Magdalena-Tubutama Basins.

Locally intense folding and intense regional faults are the principal factors affecting mineralization and make correlation of mineral zones over long distances difficult.

The mineralogy of the borate deposits is variable, including, but not limited to, the boron bearing minerals of colemanite, howlite, mcallisterite, ulexite and wardsmithite (Cabellero, 1983). The predominant borate mineral is colemanite, which occurs as thin beds, lenses, veinlets and disseminated masses. The mineral occurs as granular masses, anhedral and subhedral grains with vitreous lustre, clear to white colour and are transparent to translucent. Howlite appears as veinlets and nodules that are bright creamy white in color.

Table 9.2 Summary of Assays- Tubutama. Intersections >5% B_2O_3

Hole ID	Depth (m)	Thickness (m)	B_2O_3(%)
BD-1 Intersection 1	35	10.6	6.4
BD-2 Intersection 1	38	1.5	8.7
BD-2 Intersection 2	41	1.5	6.1
BD-2 Intersection 3	44	3	6
BD-2 Intersection 4	53	1.5	5.1
BD-2 Intersection 5	68.6	4.3	6
BD-3 Intersection 1	93	1.5	6.8
BD-3 Intersection 2	128	1.5	5.5
BD-4 Intersection 1	84	1.5	5.1
BD-4 Intersection 2	128	1.5	5.8
BD-5 Intersection 1	105	1.5	6.4
BD-5 Intersection 2	108	1.5	6.4
BD-6 Intersection 1	112	1.5	6.7
BD-6 Intersection 2	134	1.5	5.8
BD-7 Intersection 1	42.6	1.5	5.1
BD-7 Intersection 2	97.5	1.5	6.1
BD-7 Intersection 3	100.5	4.6	5.8
BD-7 Intersection 4	110	3	7.4
BD-7 Intersection 5	114	1.5	5.1
BD-7 Intersection 6	122	6.1	6.3
BD-7 Intersection 7	129.5	3	6.3
BD-7 Intersection 8	138.6	1.5	5.5
BD-7 Intersection 9	144.8	1.5	5.8
BD-7 Intersection 10	152	3	6.1
BD-7 Intersection 11	96	1.5	6.4
BD-8 Intersection 1	99	4.6	7.1
BD-8 Intersection 2	114	1.5	5.1
BD-8 Intersection 3	125	1.5	5.1
BD-8 Intersection 4	132.6	1.5	5.8

10.0 Exploration Activities

Bacanora has not conducted any exploration on the Properties. No NI 43-101 compliant resources or reserves have yet been defined on the Properties.

Principal exploration techniques for borates include: geologic mapping; core drilling; mineralogical tests; stratigraphic analysis; gravity geophysics; magnetic geophysics; magnetotelluric (MT) geophysics; remote sensing; and geochemistry.

11.0 Drilling

Bacanora has not conducted any drilling activities on the Properties discussed in this Technical Report. All drilling is considered historical.

Drill core from the 8 MIT holes and 28 MSM holes are stored in a core shack in Magdalena de Kino. Core is stored in waxed corrugated cardboard boxes in 10 ft lengths. There are no climate control measures in place at the core shack, however Magdalena de Kino is a dry, arid, and desert town and therefore alteration due to humidity is not considered a problem.

12.0 Sampling Method and Approach

No information on the sampling procedure for hand samples collected by CMR, MIT or MSM is available.

MSM drill core samples were collected in continuous intervals averaging 1.5 m and given a sequential unique sample identification number. Core intervals were cut in half with one half being sent for assay, and the remaining half retained for future analysis. The core saw was water cooled and cleaned between each sample with fresh water and dry rag, in order to prevent cross-contamination of the sampled material. Blank samples of limestone or mudstone were cut at various intervals and submitted with the sample batch for quality control.

As part of an internal Quality Assurance / Quality Control protocol, MSM conducted a core sample quality control analysis by sending samples to two labs, the US Borax internal lab and the SGS SA (SGS Group or SGS) lab in British Columbia, and comparing their ability to accurately analyze the same standards and blanks. The first 22 MSM holes (3,762 samples) were analyzed exclusively at US Borax and the last 6 MSM hole (3,067) were analyzed exclusively by SGS. US Borax ran 32 samples of standard CMLG and 31 of standard INVGEL (CMLG and INVGEL are internal US Borax Standards). SGS ran 16 CMLG and 15 INVGEL. The INVGEL standard is a low boron standard and the CMLG standard is a medium boron standard. Each lab also ran repeats on samples as part of their internal QA/QC protocols. No samples were analysed at both labs, so there is no ability to compare samples other than standards.

Both standards were created by Rio Tinto in 2002 for internal quality control. The standards were created at CDN Resource Laboratories in British Columbia, Canada, and analyzed in five different laboratories to refine precision and allow for calculation of standard deviation. Rio Tinto and MSM permitted +/- 10% mean deviation, ±2 standard deviations in their internal reviews. MSM also requested repeats on samples to evaluate the ability of the lab to duplicate their results. The QA/QC included As, Li, and Sr as these reflecting the importance of these elements as pathfinders in early stage exploration.

No data is available for the CMR quality control protocols or sampling procedures for the Tubutama region. MIT recognized that there may be issues with the trenching data and therefore re-trenched parallel to the CMR trenches in an attempt to replicate the findings of CMR. The trench results from MIT were broadly similar to CMR but due to lack of data for CMR that is the extent of the comparison that can be made. As with all trench sampling there is a possibility that samples were inadvertently high-graded, however to overcome this type of human error samples were collected over approximately equal lengths of the trench with approximately the same weight per sample. As this was an early stage exploration program, no formal QA/QC protocols were initiated.

MIT recognized the need for QA/QC at the drilling stage of exploration. Spooner and Jenkins (2006) summarized the attempts by MIT to develop QA/QC protocols for the approximately 800 drill core samples from Tubutama. Their discussion is summarized as follows:

1) The bagged samples were taken to Sonora Sample Preparation, SA de CV, a preparation laboratory in Sonora operated by International Plasma Labs of Vancouver, BC (IPL). Prepared samples were forwarded directly to the analytical laboratories from the IPL preparation laboratory. Samples were sent for analysis to the University of Sonora Department of Chemical Engineering and Metallurgy.

2) A series of duplicate samples was sent to IPL's analytical facility in Richmond, British Colombia, Canada, in order to provide a check against the samples sent to Unison. A systematic difference between the two laboratories was identified, with the IPL analyses, in general, consistently returning a lower B_2O_3 value than the Unison.

3) MIT then requested analysis of a further series of duplicate samples by Alfred H. Knight International Ltd. (AHK) at St. Helens, United Kingdom.

4) The results of several tests at different laboratories indicated that temperatures and time of drying of samples can cause significant apparent variance in measured concentrations of contained boron and, by calculation, borates. Out of the more than 800 samples sent to Unison up to April, 2006, approximately 220 duplicate analyses for B_2O_3 were undertaken by IPL. The results from IPL were consistently

lower than the results from Unison. The results were reviewed by D. M. Jenkins, who concluded that systematic biases existed between the laboratories.

5) Finally, samples were re-analyzed by IPL using the same preparation and analytical method as used by AHK, i.e., sodium oxide/sodium carbonate fusion with ICP finish. The results were generally significantly closer (generally within 10-20%) to those obtained by AHK compared with the original IPL analyses, which were approximately 30-50% lower than the AHK analyses, indicating that analytical methods affect assay results.

No information regarding the use of standards is available.

13.0 Sample Analyses

MSM samples were originally analysed for total boron only using aqua regia and that value is converted to percent boric acid (B x 3.22). Late in the exploration programs, MSM began analysis for a full ICP[3] suite of elements (Ag, Al, As, B, Ba, Be, Bi Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Sn, Sr, Tl, Ti, U, V, Y, Zn; present in g/t) most important were As, Li, Mg and Sr as these have proven good pathfinders. As the percent B increased a more precise method of analysis of recoverable boron was required. Analysis of boron through titration was requested on samples returning total boron greater than 7%.

SGS provided the following summary to explain the analytical techniques:
"The rock or mineral samples are digested in an acidic solution and then filtered. Bromine water is added to the filtrate to oxidize iron to the ferric (Fe+3) state. Barium carbonate is added to react with boric acid in the solution to form soluble barium borate, which acts as a buffer to cause precipitation of the hydroxides of interfering species such as iron, aluminum, manganese and other heavy metals. Insoluble barium compounds of the acidic compounds, such as silica, are also formed. The solution is filtered and complexed with mannitol or sorbitol. It is then titrated with NaOH to the phenolphthalein endpoint to determine the boric oxide content".

MIT samples were analysed for boron and arsenic only.

[3] Inductively Coupled Plasma mass spectrometry, an assay technique

14.0 Data Verification

The permit area was visited June 22 to June 28, 2009 by Doris Fox to verify access, general topography, geography, geology and mineralogy. The Carlos Concessions in Tubutama and the San Francisco Concessions in Magdalena were visited. The core storage shed housing the MIT and recent MSM drill holes was also visited.

Surface grab samples and chip samples from the trenches were collected, in addition to re-sampling of select drill core intervals.

Re-sampling intervals were selected from two Tubutama drill holes: DH-1 and DH-7 and four Magdalena drill holes: MAG-2A, MAG-3, MAG-6, and MAG-22. The intervals returning the highest Boron values were re-sampled with the upper and lower enveloping samples re-sampled as well. Random samples from throughout the core were also re-sampled for a total of 48 drill core samples. The purpose of the re-sampling program was to verify historical assay data that reported economic intersections. The enveloping permits a low grade comparison as well.

The samples were collected represent the remaining half of the split core. This was done for two reasons: 1) to remove possible contamination influences of the rock saw; and 2) to submit a sample as equivalent as possible to the original sample and remove possible nodule concentration influences.

Samples were individually bagged and sent by courier to SGS Lakefield, Canada for preparation and assay by aqua regia. A full ICP profile of 32 elements was requested but most important was the analysis for B, As, Li and Sr. No standards were available for this exercise.

The assay results of the re-samples showed great similarity to historic values with 84% of the re-samples returning values within 5% B_2O_3 of the original values. Only six samples returned variance values greater than 5% B_2O_3. Although 5% B_2O_3 is substantial, 40% of the samples returned values of >1% B_2O_3 variance. Most of these samples contained > 10% B_2O_3. The samples with the greatest variance were from intervals with the highest B_2O_3 content. It should also be noted that the re-assays were not consistent in returning higher or lower values. Of the samples returning >5% variance, 50% of the samples returned higher values, while 50% returned lower values. This indicates it is not a systematic lab difference as discussed in the Tubutama quality control program.

The re-sampling program highlights two problems with boron assays: 1) the variability of boron within sections of core due to the nodular nature of howlite, similar to the nugget affect in gold exploration; and 2) that higher boron contents have greater variability most likely due to variances in preparation and analysis and not necessarily due to differences in actual boron content in the core.

Table 14.1 Drill core re-sample comparison.

Sample ID	$\%B_2O_3$ Calculated Original	$\%B_2O_3$ Calculated SGS Re-Assay	Difference $\%B_2O_3$
D-DH-1-10	3.22	3.542	-0.32
D-DH-1-19	4.83	6.118	-1.29
D-DH-1-20	5.15	6.762	-1.61
D-DH-1-21	8.69	10.304	-1.61
D-DH-1-22	7.08	8.694	-1.61
D-DH-1-23	6.44	8.05	-1.61
D-DH-1-24	7.4	6.44	0.96
D-DH-1-37	4.83	6.44	-1.61
D-DH-7-669	2.13	2.576	-0.45
D-DH-7-685	1.55	1.6422	-0.10
D-DH-7-686	5.15	5.152	0.00
D-DH-7-687	3.54	3.542	0.00
D-DH-7-737	11.27	10.304	0.97
D-DH-7-738	6.76	5.152	1.61
D-DH-7-739	5.80	6.118	-0.32
D-DH-7-759	2.64	3.864	-1.22
D-MAG-22-1018	0.5	1.127	-0.67
D-MAG-22-1019	6.0	7.728	-1.73
D-MAG-22-1020	9.7	1.0948	8.56
D-MAG-22-1021	4.5	3.059	1.44
D-MAG-22-1022	7.9	4.83	3.10
D-MAG-22-1045	17.0	7.728	9.23
D-MAG-22-1046	2.0	12.88	-10.91
D-MAG-22-1057	17.8	17.71	0.06
D-MAG-22-1058	11.5	8.694	2.83
D-MAG-22-1059	0.2	0.10304	0.09
D-MAG-2-229	23.1	16.422	6.72
D-MAG-2-230	18.9	13.524	5.40
D-MAG-2-231	9.9	20.286	-10.34
D-MAG-2-232	8.3	11.914	-3.64
D-MAG-2-233	5.3	3.864	1.43
D-MAG-2-234	0.3	2.0286	-1.78
D-MAG-2-243	1.4	2.9946	-1.64
D-MAG-3-421	5.4	6.118	-0.68
D-MAG-3-422	6.2	7.728	-1.50
D-MAG-3-423	3.3	3.864	-0.57
D-MAG-3-424	6.0	6.118	-0.13
D-MAG-3-425	4.7	4.83	-0.17
D-MAG-3-426	9.2	8.12406	1.11
D-MAG-3-456	1.9	1.5778	0.34
D-MAG-6_849	11.7	17.066	-5.38
D-MAG-6_850	1.1	2.415	-1.27
D-MAG-6-859	20.8	19.32	1.50
D-MAG-6-860	12.1	11.27	0.86
D-MAG-6-861	18.3	21.896	-3.61
D-MAG-6-862	7.2	12.88	-5.64
D-MAG-6-863	2.9	0.5796	2.30
D-MAG-6-873	2.0	1.449	0.60

15.0 Adjacent Properties

The Magdalena-Tubutama Basins are host to several industrial minerals deposits, including the Unimin borate deposit and the Yeso Gypsum Mine. There are several base and precious metal deposits including the Silvermex Resources Limited Peñasco Quemado silver property and the Capital Gold Corporation El Chanate gold property in the region as well, but they are not discussed individually in this Technical Report.

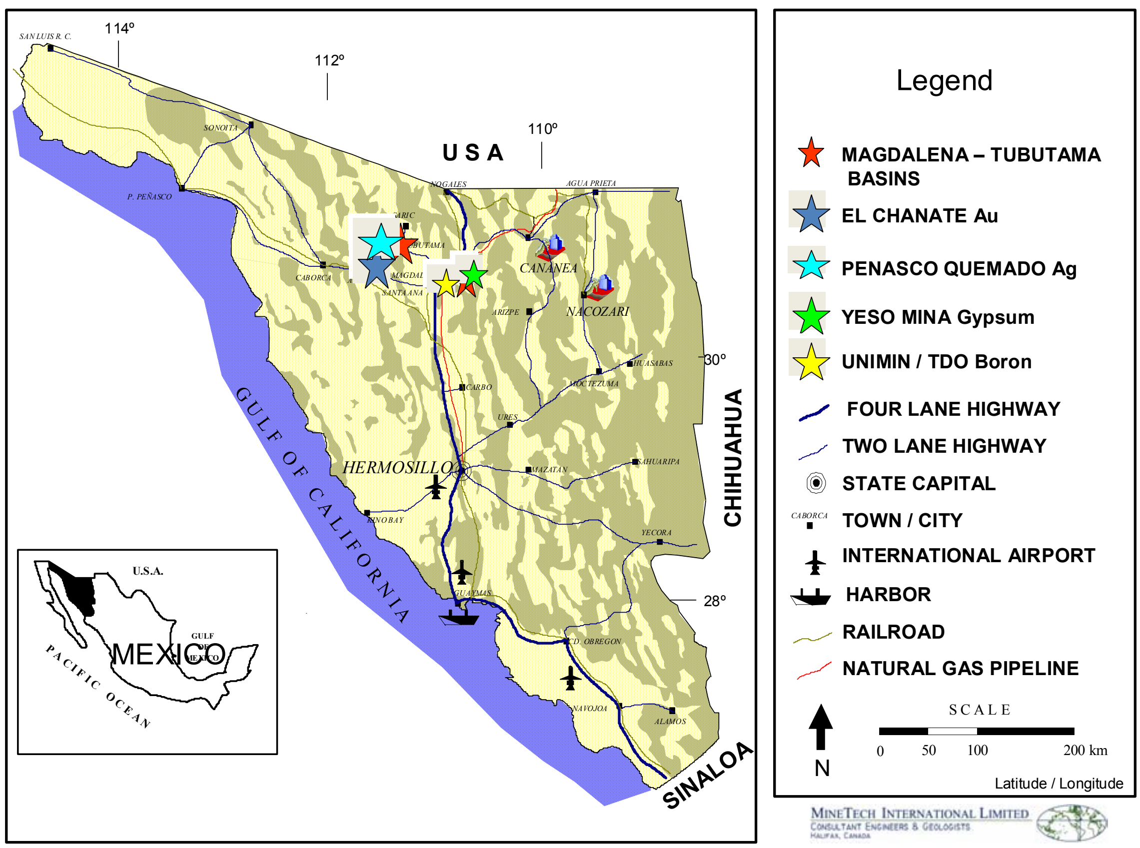


Figure 15.1 Location map of Adjacent significant deposits

15.1 TDO / Unimin:

The Magdalena Basin hosts one known economic borate deposit referred to as The Tinaja Del Oso (TDO) deposit or the Unimin deposit. It is located in the Unimin concession that was originally part of the US Borax – Vitro joint venture package. The deposit was discovered in 1977 and has had internal US Borax economic models calculated.

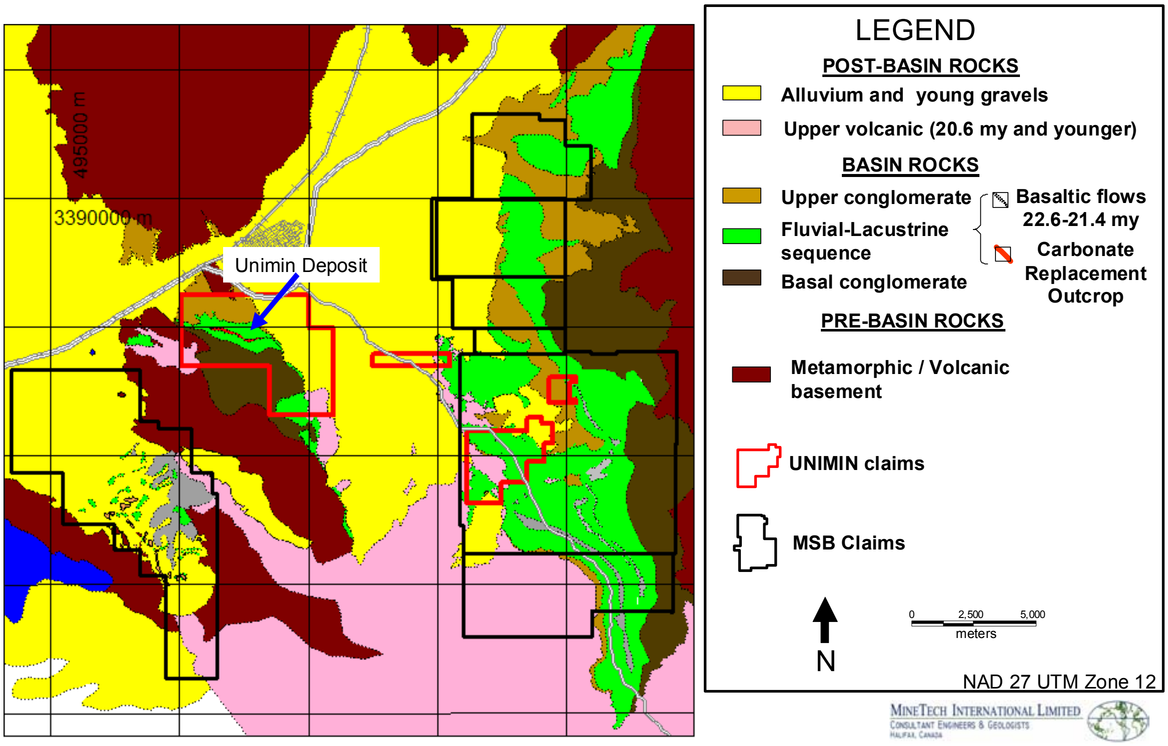


Figure 15.2 Map of Unimin concession and MSM Concessions for reference

The Tinaja del Oso colemanite deposit outcrops for approximately 3,000 m and is known in an area of 3,000 x 700 m and is 30 m to 47 m thick (Vidal, 2007B) . The lowest zone contains 2.3 m howlite and colemanite hosted in black shales. The unit is unconformably overlain by a sedimentary breccia of the Bisbee Group. The Brisbee Group is overlain by interbedded gypsum and marl containing colemanite rosettes representing the upper zone of the deposit. The thickest zone of the deposit is approximately 12 m and is comprised of sedimentary breccia containing shale and Brisbee Group fragments (Miranda-Gasca, 1998 and Vidal 2007B). The colemanite is found in the breccia as veinlets and disseminations.

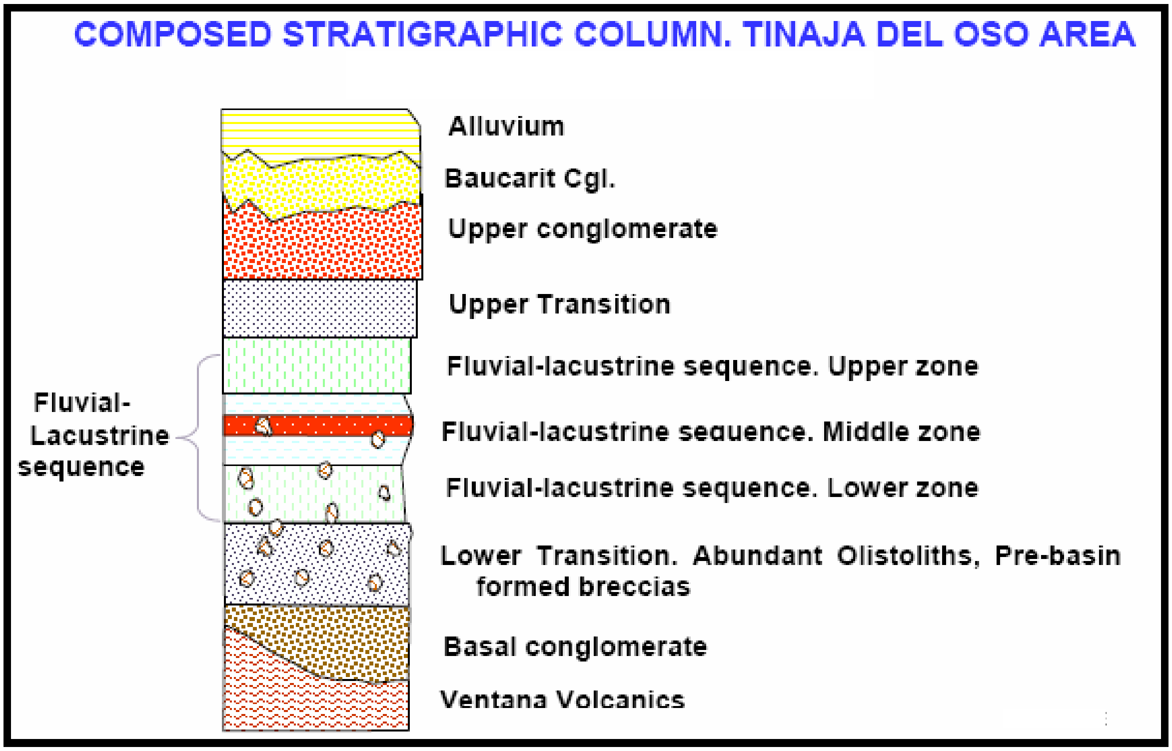


Figure 15.3 Stratigraphic column of the TDO deposit from Vidal 2007B.

The deposit was divided into 9 stratigraphic units by US Borax-Vitro joint venture during exploration. Table 15.1 is a summary of the lithology described in the 9 units. Based on field observations and core logging, two generations of colemanite were identified. The first alteration is colemanite replacement by howlite. The howlite development is predominant along fractures and bedding plains, primarily in the upper and lowermost zones. The second alteration is related to the groundwater circulation. The outcrop is almost completely replaced by vuggy calcite and strontianite. The change from unaltered colemanite to calcite is gradational over a 5 m to 10 m wide zone. Alteration changes in the depth coincide with the dip of the deposit (Vidal, 2007B). It is the second generation of colemanite that is of economic importance. The howlite is interpreted as leaching and late redeposition of colemanite. Howlite and calcite form a halo around the deposit (Vidal, 2007B).

Table 15.1 Stratigraphic units as described by Vidal 2007B.

UNIT	Thickness Ave. (m)	B_2O_3 (%)	Col:How	Colemanite Diss:Mass	Description
IX	2.53	9.53	70-30	50-50	Claystone with colemanite. It seems to be a lens at the top of the deposit.
VIII	8.7	6.45	94-6	94-6	Brown-gray claystone and siltstone. Scarce borate mineralization.
VII	7.15	6.68	1-99	100-0	Slumping breccia "mud flow". Contains howlite and minor colemanite. Abundant gypsum.
VI	11.73	14.65	80-20	70-30	Slumping breccia "mud flow". Contains disseminated and massive colemanite, less howlite and gypsum.
V	4.16	21.48	95-5	10-90	Black carbonaceous shale with marls. Contorted by colemanite intergrowing. Massive colemanite
IV	1.36	1.54	100-0	100-0	Dark gray turbiditic breccia with gypsum crystals.
III	3.52	1.94	55-45	98-2	Polimictic breccia with greenish-purple angular fragments from pre-basin rocks.
II	2.95	20.03	70-30	10-90	Greenish-gray claystone. Highly fractures and folded. Massive and disseminated colemanite. Contains howlite.
I	-	-	-	-	Mudstone, carbonaceous shale and marls. Contains colemanite "pseudomorphs". It floors the TDO colemanite mineralization.

Research by the joint venture on the TDO deposit included 2 shafts and a total of 128 drill holes. All holes were vertically drilled in gridded 50 m x 50 m pattern. There was sufficient drilling to determine a US Borax internal ore-reserve calculation (non-43-101 compliant) on the central and eastern portion of the deposit. Insufficient drill hole in the western portion of the deposit inhibited the development of an ore reserve across the entire deposit. The internal calculations used a cutoff grade of 10% B_2O_3 and estimated >3 Million tons of pure colemanite (3.03 Million tons of Boric Acid Equivalent). The assumptions surrounding this estimate are unknown. Internal metallurgy tests, processing plans, recovery tests and economic models were all conducted on this deposit (Capron 1984, 1985). When US Borax and Vitro dissolved the joint venture, Vitro purchased the TDO deposit concession and subsequently entered into a joint venture agreement with Unimin. They currently hold the title to the concession.

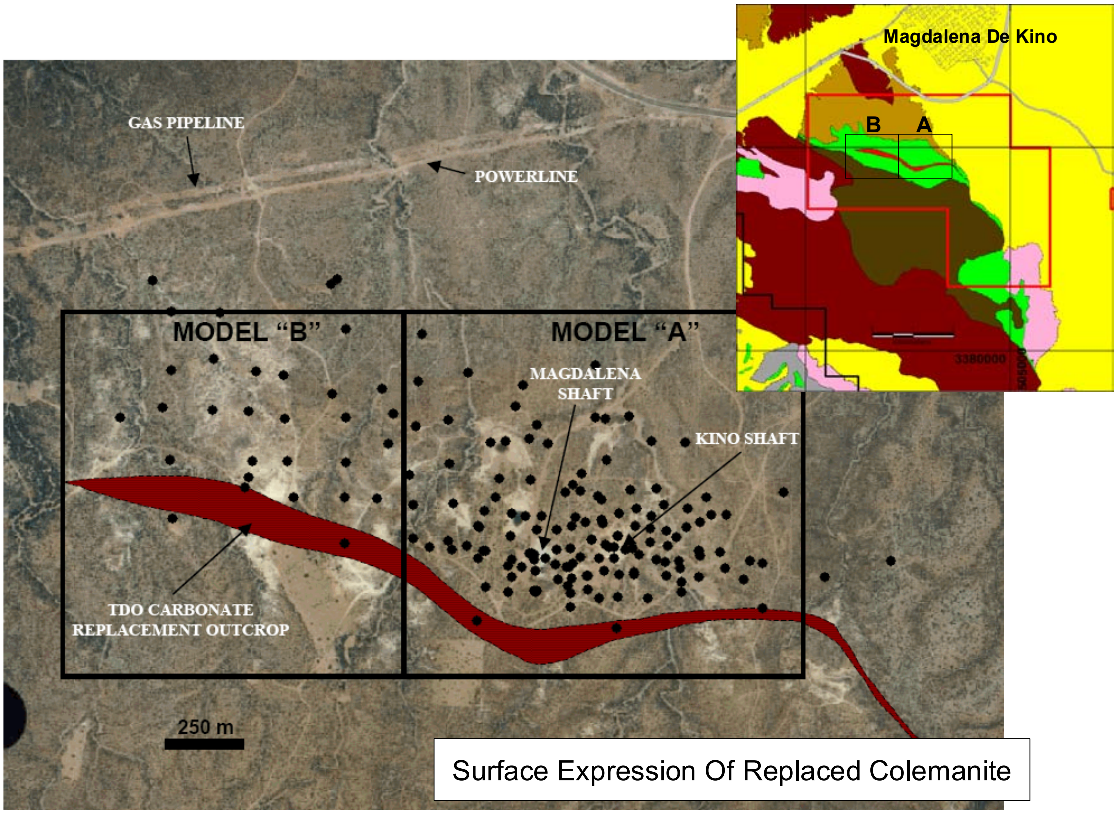


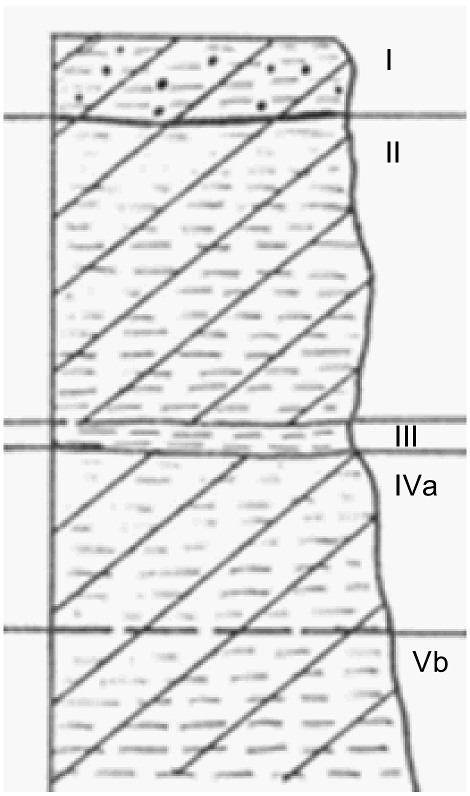
Figure 15.4 Map of TDO deposit drilling and outcrop exposure. Inset map with geology

15.2 Yeso Mine:

There is no published information on the Yeso mine. The following information was provided as personal communication from Vidal 2009 based on field visits between 1995 and 2008:

The Yeso Gypsum Mine is located in the eastern portion of the Magdalena basin. The deposit is a northwest-southeast trending syncline with the mine pit located in the middle of the syncline. Both margins (northeast and southwest) are composed of two small anticlines. The deposit is a gypsiferous lenticular body composed of four major units. The lowest unit is composed of 80-85% of gypsum (approx.) with black, carbonaceous shales with arsenic (realgar and orpiment) in the matrix. This unit contains less than 1% of disseminated borates. The second unit is a barren, 1 m thick black carbonaceous shale, conformably overlies the gypsum unit. The third unit is composed of 85-90% gypsum and 1-2% borates (no visible colemanite, the borate is howlite altered to calcite) in a light gray to black carbonaceous shaly matrix. It conformably overlies the lower two units. The uppermost level is composed of light gray shale with 50-60% gypsum and 2-3% of disseminated and nodular borates being altered to calcite. The nodules are 1-5 cm in diameter.

The current mine production is of 10,000 tons per month, which are being purchased by two cement plants located near by Hermosillo (5,000 tons each).



Upper Unit: 50-60% Gypsum in light grey shale.
2-3% disseminated Borates

85-90% Gypsum with light grey shale and
1-2% disseminated borates

Barren, black carbonaceous shales

80-85% Gypsum with black, carbonaceous shales
< 1% borates with trace realgar and orpiment

80-85% Gypsum with black, carbonaceous shales
< 1% borates with <1% realgar and orpiment

Figure 15.5 Stratigraphic column of the Yeso Gypsum Deposit

Figure 15.6 Photo of the Yeso Gypsum Mine Pit (June 2009)

15.3 Gold:

Although not contiguous with the Magdalena-Tubutama Basins, which are within the Magdalena-Tubutama Mining District, there is a gold mineralized area within the Magdalena-Tubutama Mining District approximately 100 km from the town of Magdalena de Kino. The following information is summarized from an independent technical report titled: El Chanate Project Sonora, Mexico by Hester, 2007.

The El Chanate gold property is located in northwest Sonora, approximately 280 km from Hermosillo. Historic mining in this area dates back to the beginning of the 20th century and concentrated on narrow quartz veins. The gold mineralization is found in the faulted, folded sediments of the Bisbee and Chanate Group. The mineralization occurs within fine grained quartz and thin veinlets.

Gold mineralization has a broad northwest trend and at depth is spatially associated with a south dipping west-northwest fault zone. This fault represents the principal controlling structure with mineralization oblique to the fault zone. The deposit represents an orogenic type gold deposit with structural control and no apparent preferential host rock type. Veinlets associated with the fault form swarms and dense swarms form economic concentrations generally within an altered envelope surrounding the principal structure.

The independent report describes a block model calculation of mineral proven and probable reserves. For full details refer to the independent report by Hester (2007).

15.4 Silver:

Although not contiguous with the Magdalena-Tubutama Basins, the Penasco Quemado silver project is located approximately 15 km west of the town of Tubutama within the Magdalena-Tubutama mining district of north western Sonora. An independent technical report titled “Updated NI 41-101 Technical Report and Resource Estimate for the Penasco Quemado Silver Property in the Magdalena-Tubutama Mining District Sonora, Mexico” by Lewis and McCrea, 2006 describes the property in detail and the following information is summarized from the report.

The project contains disseminated silver with minor gold, copper, iron and manganese oxide hosted within brecciated zones of a volcano-sedimentary sequence. Multiple phases of deformation and metamorphism have affected the sediments, which consist of detrital carbonates, shales, siltstones and conglomerate of the Bisbee Group and sandstones, shale conglomerates and coal belonging to the Cubullona Group. These are unconformably overlain by the volcanic sequence of andesite flows and tuffs and then by the rhyolitic volcanic sequence. The entire area was overlain by late alluvium conglomerates of the Baucarit Formation. These are the same lithological units found in the Magdalena-Tubutama Basins.

The disseminated silver is believed to have been deposited by oxidizing low-temperature hydrothermal fluids, undersaturated in silica and carbonates, possibly related to a felsic porphyry intrusion and circulating along fractures, faults and the shear zone. The deposit appears to be parallel to the shear zone.

The independent report describes a block model calculation of mineral proven and probable reserves. For full details refer to the independent report by Lewis and McCrea, 2006.

16.0 Mineral Processing and Metallurgical Testing

Some metallurgical work is reported to have been done in the late 1970s to mid-1980s, when Consejo de Recursos Minerales, a Federal Mexican Government agency was investigating the boron deposits in the area. The exploration program included sampling the deposit by large diameter core drilling. Metallurgical work was carried by several organizations, including Hanna Mining Company, the American Borax Company and in 1985, by the Colorado School of Mines Research Institute. Metallurgical recovery of the colemanite from the ore was estimated to be about 85%. Summary reports of this work are listed in the Reference section.

Dry or partially dry processing options for the boron minerals are available, as well as a variety of flotation techniques. The boron mineral colemanite undergoes decrepitation when heated, and this process, followed by screening and air tabling may be an option. Borax processing or wet tabling has been used at the American Borate Corp. plants in Nevada.

No in situ studies have been made to date in this area. The process is used in the United States to recover borates at depths of greater than 400 m (Fort Cady). The rock is hydro-fractured, a weak acid solution circulated through an injection well to several collection wells. Colemanite is dissolved and turned into boric acid, which is then pumped to a chemical plant on the surface.

Lefond and J.M Barker (1980) discuss treating low grade ores (5% - 10%) using flotation technology. A feasibility study based on bench scale and pilot plant metallurgical work is recommended to determine mining and processing options.

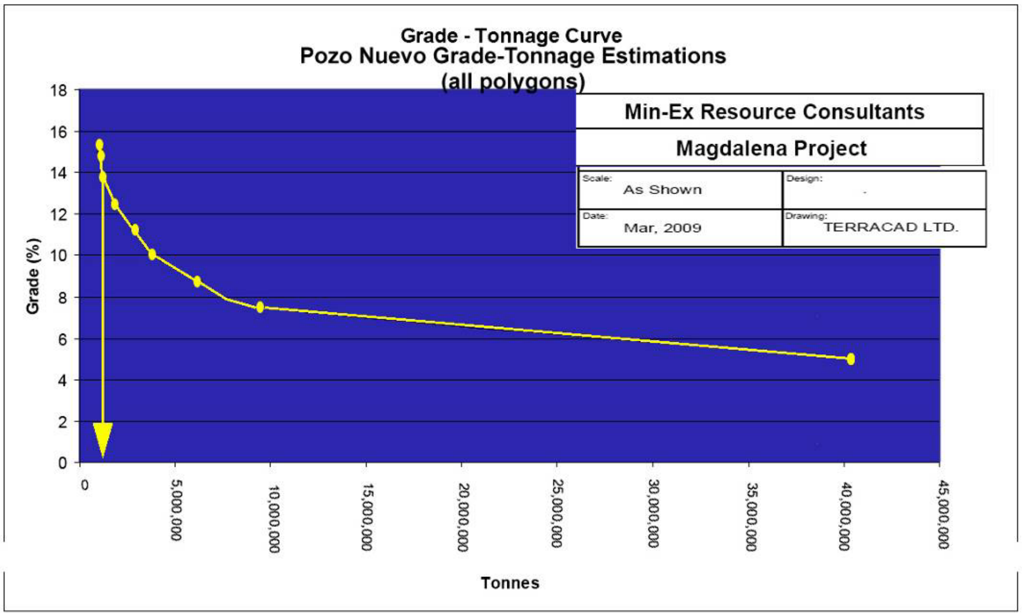
17.0 Mineral Resource and Reserve Estimates

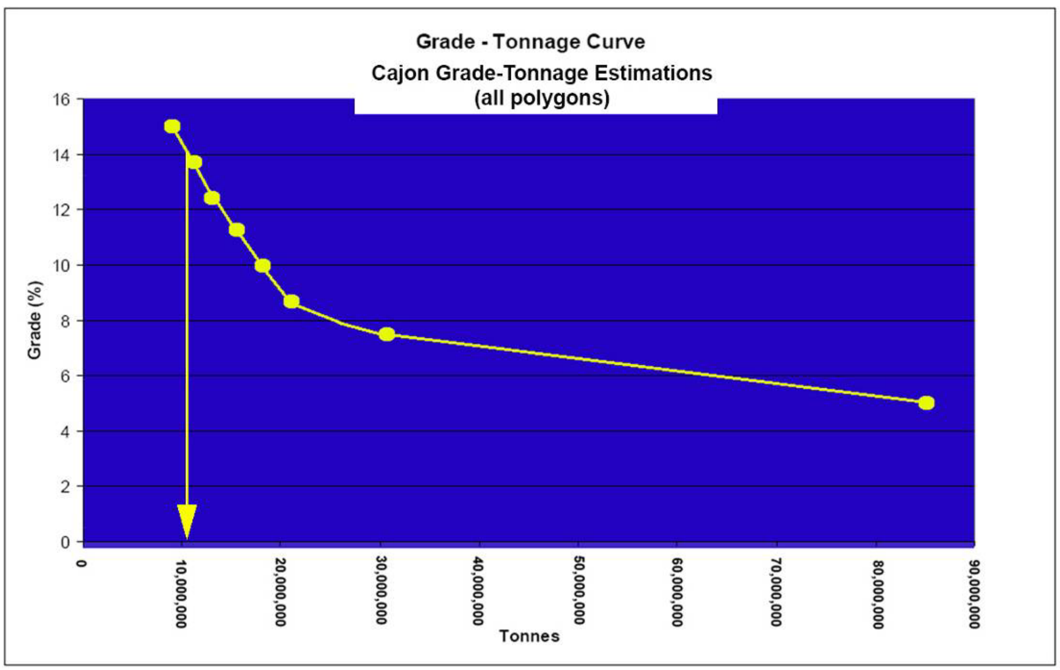
A mineral resource estimate meeting NI 43-101 criteria has not yet been completed for the Properties. Geological and chemical information from the drill hole sampling is available in digital form. A resource estimate could be completed for the Properties relatively easily after the next round of drilling.

Non NI 43-101 compliant resources were estimated in February 2009 by Mr. John Perry, P.Geo. of Min-Ex Resource Consultants (Min-Ex) of Vancouver. The resources were estimated using the available database supplied by Rio Tinto. The Mineral Resources estimated by Min-Ex are not NI 43-101 compliant mainly because the estimate was not included in a current technical report, which would include some market information upon which to base the cut-off grade. The data base supplied by Rio Tinto is considered to be reliable; there was a proper sample protocol and a significant volume of geochemical information is available. Inferred Mineral Resources seem appropriate and the method chosen by Mr. Perry is appropriate and reasonable.

The estimate was based on sample information supplied by Rio Tinto in reports dated March 2007, and June 2005. A grade-tonnage curve was generated by Mr. Perry for the Pozo Nuevo area and for the Cajon area. “Resources were estimated on a polygonal basis using cut-off values ranging from 5% to 15% B_2O_3 at increments of 1.25% B_2O_3. The cut-off values were applied such that higher-grade intervals were expanded into lower grade intervals until the cut-off value was reached. **At the grades for which resources are reported above, both Pozo Nuevo and Cajon are represented by a single mineralized zone within one polygon.** At Pozo Nuevo, resource estimates using cut-off grades of 11.25% B_2O_3 and less, include more than one drill hole and in some instances, more than one mineralized zone within a single drill hole. At Cajon, due to the large distances between drill holes, the resource polygon was restricted to approximately half the strike length it might otherwise have been assigned. From tabulations of resource estimates at various cut-off grades (see Appendix I), it is apparent that resource tonnages rise considerably below a 10% B_2O_3 cut-off grade[4].”

[4] Min Ex report, page 14


Grade - Tonnage Curve
Pozo Nuevo Grade-Tonnage Estimations
(all polygons)
Min-Ex Resource Consultants
Magdalena Project
Scale: As Shown
Design:
Date: Mar, 2009
Drawing: TERRACAD LTD.
Grade (%)
0
2
4
6
8
10
12
14
16
18
0
5,000,000
10,000,000
15,000,000
20,000,000
25,000,000
30,000,000
35,000,000
40,000,000
45,000,000
Tonnes


Grade - Tonnage Curve
Cajon Grade-Tonnage Estimations
(all polygons)
Grade (%)
0
2
4
6
8
10
12
14
16
0
10,000,000
20,000,000
30,000,000
40,000,000
50,000,000
60,000,000
70,000,000
80,000,000
90,000,000
Tonnes

18.0 Interpretation and Conclusions

Based on available data the Magdalena-Tubutama Basins are borate bearing zones with potential economic concentrations.

Overall, the re-sampling program substantiates the earlier results and conclusions that there are enriched boron zones within the sediments. The surface expression in Magdalena, although leached of borates, are believed to represent the exposed surface of moderately west-dipping discontinuous colemanite lenses that extend subsurface and have been traced in drill holes to depths of up to 400 m. In Tubutama, the low-grade surface expressions have been traced through trenching over 3 km, dipping moderately east and have been tested in drill core up to 300 m depth.

The surface expressions, geological setting and drill core intersections exhibit characteristics of a lacustrine-type borate deposit, similar to Bigadic, Turkey. The Magdalena borate zones also host the known TDO borate deposit and the San Francisco Concessions occupy the same geological sequences as found in the TDO deposit area. It is a reasonable assumption that the mineralization extends into the San Francisco Concessions.

Further exploration is required to upgrade the confidence in the resources to Indicated Resources from the Inferred Resource category. Geotechnical, hydrological and chemical information will be acquired during the exploration program. This information will be used in a Feasibility Study to define economic colemanite deposit(s). Market development work must continue as results from metallurgical work are made available. A market must be developed for the raw colemanite and for also for borate minerals and byproducts.

Magdalena: This basin represents a high priority target area for additional borate follow-up exploration. Several targets were identified during the MSM exploration campaign which should be the focus of the next phase of exploration. Most notably are the Cajon Target and the Pozo Nuevo Target. A detailed exploration program concentrated on these targets is recommended.

Tubutama: This Basin represents a lower priority target area due to the disseminated low-grade nature of the mineralization and the failure to intersect a mineralized zone with > 10% B_2O_3. The mineralization is present at surface over a wide area, suggesting that the mineralization has not concentrated into beds to the same extent as it has in Magdalena. The Basin does, however, represent a large very low-grade mineralized zone that should not be ignored.

The Tubutama Basin also represents a gold and silver exploration target and efforts should be made to evaluate this potential.

19.0 Recommendations

Further work in the Magdalena-Tubutama Basin is required to locate and define an economic borate deposit. The aim is to identify bulk tonnage borate deposits. There is no assurance that the recommended program of further work will result in the delineation of an economic deposit, however, based on available data and curent market trends, additional work is justified. Gypsum, gold, silver and base metal exploration should also proceed.

Two phases of exploration are recommended for the properties as a whole:

Phase I

The recommendation for Phase I is to continue exploration as a focused drill program on the Cajon and Pozo Nuevo Targets. Focusing the first phase of follow-up exploration on these targets will permit the advancement of the properties as a whole, since these targets represent the best mineralization to date. The remaining properties will see various stages of exploration activity in Phase II.

The drilling of these target areas must be sufficient to calculate a confident indicated resource on the borate mineralization in each target area. The program must also provide information to determine the depth of the leaching from surface either through drilling or trenching to support the indicated resource. A minimum of ten holes totaling 2,000 m are recommended on the Cajon and Pozo Nuevo Targets.

A 3-D compilation of all historical drilling on all the Magdalena and Tubutama Concessions is also recommended, beginning with the Cajon and Pozo Nuevo Targets and continuing with all remaining properties. The 3-D models will permit the evaluation of the targets for additional drilling and allow more detailed interpretation of potential targets, geotechnical properties and hydrological properties. From this study, possible mine configuration plans, including in situ leach scenarios, can be developed.

Phase I has an approximate 1.5 month field component for drilling and surface sampling / reconnaissance and approximately 1 month of office work compilation and modeling.

The results of Phase I must provide adequate positive results and data to progress to Phase II.

Phase II

The recommendation for Phase II is based on positive results of Phase I indicating that additional work on the Cajon and Pozo Nuevo Targets is warranted. The first recommendation for Phase II is an advanced-stage large diameter (NQ or HQ) drill program on both the Cajon and Pozo Nuevo Targets, with a minimum of two large diameter holes per target totalling 1,200 m. The aim of Phase II is to collect detailed data to progress from indicated resource to measured resource and to allow for the initiation of a pre-feasibility study for mining. Based on the results of Phase I and the calculation of an indicated resource, Phase II would see the necessary studies to evaluate geotechnical, hydrological, metallurgical and processing aspects of developing the deposits. These studies would include detailed core logging for geology, hydrology and geotechnical information, in addition to down-hole permeability tests and geophysical logging. Samples would be collected for assay as well as for leach and processing tests. In situ leach tests using a weak solution of sulphuric, hydrochloric or acetic acid would also be conducted, where the solution is pumped through from an injection well to a recovery well. The minerals of interest are precipitated and the fluid rejuvenated and returned. These types of tests will allow the geologists to collect the necessary data to evaluate possible mine scenarios for the deposits. Possible mine scenarios include: in situ leach mining, open pit mining and underground mining.

Phase II would also see additional exploration on the Escuadra and Syncline targets to determine if there is sufficient borate mineralization to warrant an advanced stage exploration program on those areas. Initial early stage drilling on El Represso is also recommended. A total of 2,000 m of exploration drilling is recommended for these areas. The location and distribution of drill holes will be based on compilation and interpretation of the 3-D models.

In addition to borate exploration, a review of surface data and existing drill hole data aimed at understanding gypsum mineralogy distribution is recommended. Gypsum represents a viable economic target in this geological setting. An exploration plan for gypsum should be completed based on modeling and compilation of existing data.

Also, in addition to borate exploration, a regional surface sampling program aimed at evaluating the Properties for base and precious metal potential is also recommended. A review of possible deposit models and exploration techniques specific to these models is recommended, with an exploration plan completed to reflect the compilation.

Total time estimated for Phase II is approximately 6 months; 2 for field work and reconnaissance and 4 for the laboratory studies and compilation. Phase II should also see all permits and pre-exploitation studies completed. An independent environmental impact study, water use permits and formal land access agreements should be obtained by the end of Phase II to allow for the progression to exploitation should the Phase II advanced exploration work on Cajon and Pozo Nuevo return favourable results.

The proposed budget in Canadian dollars (CND), with a moderate 10% contingency, is presented below in Table 19.1.

Table 19.1 Proposed Budget for follow-up work in CND.

Phase I

ITEM	Number of Units		Cost Per Unit				Subtotal
PERSONNEL							
Senior Geologist	1		$400	per day	60	days	$24,000
junior field geologists /field support	2		$200	per day	45	days	$18,000
Field Labour	2	person	$75	per day	45	days	$6,750
General support staff - house and office	2	person	$75	per day	45	days	$6,750
Misc. daily labour	2	person	$75	per day	45	days	$6,750
	Subtotal Personnel						**$62,250**
DRILLING							
approx 10-15 drill holes = 2,000 m	2,000	metres	$160	per metre			$320,000
	Subtotal drilling						**$320,000**
SAMPLING							
100 samples per drill hole = 1,500 samples	1,500	samples	$80	per sample	1	per interval	$120,000
	Subtotal sampling						**$120,000**
SUPPORT EQUIPMENT							
1 field truck (temp)	1		$30	per day	45	days	$1,350
Field House Magdalena	1		$700	per month	2	months	$1,400
Field house Tubutama	1		$200	per month	2	months	$400
	Subtotal Equipment						**$3,150**
INTERPRETATION							
3-D Modelling using available data	1		$500	per day	5	days	$2,500

Software license	1	licence	$5,000	per licence	1	time	$5,000
	Subtotal Interpretation						**$7,500**
OTHER							
Taxes and Title fees							$50,000
Travel							$10,000
miscellaneous expenses							$20,000
Contingency							$68,890
	Subtotal Other						
TOTAL Phase I							**$760,000**

Phase II

ITEM	**Number of Units**		**Cost Per Unit**				**Subtotal**
PERSONNEL							
Senior Geologist - compilation	1		$400	per day	180	days	$72,000
junior field geologists /field support	2		$200	per day	60	days	$24,000
Field Labour	2	person	$75	per day	60	days	$9,000
General support staff - house and office	2	person	$75	per day	60	days	$9,000
Misc. daily labour	2	person	$75	per day	60	days	$9,000
Consultant Metallurgical Engineer	1	P.Eng	$1,200	per day	30	days	$36,000
Consultant Mining Engineer	1	P.Eng	$1,200	per day	20	days	$24,000
	Subtotal Personnel						**$183,000**
DRILLING							
approx 4 large diameter holes = 1,200 m	1200	metres	$160	per metre			$192,000
Approx. 6-10 regional exploration holes	2000	metres	$160	per metre			$320,000
	Subtotal drilling						**$512,000**
SAMPLING							
50 samples per drill	300	samples	$80	per	1	per	$24,000

hole = 300 samples				sample		interval	
Bulk Metallurgy samples (5-8)	8		$1,500	per sample	2	regions	$12,000
Regional reconnaissance sampling and mapping for base and precious metals	400		$80	per sample	1		$32,000
In situ field tests	2		$30,000	per test			$60,000
Pilot plant Test	2		$25,000	per test			$50,000
	Subtotal sampling						**$178,000**
SUPPORT EQUIPMENT							
1 field truck (temp)	1		$30	per day	60	days	$1,800
Field House Magdalena	1		$700	per month	2	months	$1,400
Field house Tubutama	1		$200	per month	2	months	$400
	Subtotal Equipment						**$3,600**
INTERPRETATION							
3-D Modelling using available data	1		$500	per day	20	days	$10,000
	Subtotal Interpretation						**$10,000**
OTHER							
Independent Environmental Impact study	1	study	$50,000	per study			$50,000
Permits and permissions							$1,000
Travel							$10,000
miscellaneous expenses							$20,000
Contingency							$91,660
	Subtotal Other						
TOTAL Phase II							**$1,010,000**
TOTAL							**$1,770,000**

20.0 Statement of Authorship

This report titled: "Independent Technical Report 43-101 Magdalena-Tubutama Exploration Concessions" was prepared and signed by the following author:

"Doris Fox"

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Doris Fox, MSc., P.Geo.
Dated September 18, 2009

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APPENDIX I

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CERTIFICATE OF AUTHOR

I, Doris Fox, do hereby certify that:

1. I am consulting as a Senior Project Geologist with MineTech International Limited.

2. I hold the following academic qualifications:
   B.Sc. Geology (2000) Saint Mary's University
   MSc. Geology (2003) McGill University.

3. I am a member of the Association of Professional Geoscientists of Ontario (member # 1430).

4. I have been practicing my profession of geologist for the past 7 years.

5. I have had no prior involvement with the Property that forms the subject of this Technical Report.

6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

7. I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services.

8. I have read NI-43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

9. I am responsible for the preparation of the Technical Report titled "Independent Technical report - Magdalena-Tubutama Exploration Concessions" dated September 18, 2009.

10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public.

Dated: 18th Day of September, 2009.
SIGNED AND SEALED
"Doris Fox"

Doris Fox, M.Sc., P.Geo