

Marcelo Bravo Veas

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Resume

Chemical Engineer with Masters studies in Mineral Processing and nonmetallic specialist. I have been involved in plant engineering projects of KCl, K₂SO₄, Li₂CO₃ at various stages from conceptual engineering, basic details, commissioning, start-up, operation and evaluation.

Experience

Chief Advisor Process Engineering, Lithium Americas Corp. Jun/2011 to present

Currently I am dedicated to the Li₂CO₃ process from Cauchari salar brines through gPROMS simulation tools, evaporation pilot process and Li₂CO₃ pilot process.

I contributed with the basic engineering process, defining alternative process for reducing evaporation areas, SX process adjustments and carbonation.

Chief Process Engineering, Minera Exar

Oct/2010 to May/2011

I designed the system pilot solar evaporation ponds in the Cauchari Salar. I performed bench and pilot studies to define the Li₂CO₃ process for basic engineering and I reviewed the development of LiOH.H₂O process from the Li₂CO₃ product in pilot plant. I helped with Exar engineers in the correct definition of the processing and testing required.

Chief Process Engineering, SQM S.A.

Dec/2007 to Sept/2010

I worked in project management leading a team of 5 metallurgists and chemists engineers. We developed conceptual engineering, basic, details, commissioning and start-up and projects assessment to expand KCl, K₂SO₄ and solar evaporation ponds plants located in the Atacama Salar (Chile).

Our work allowed the increase of capacity from 750 thousand to 1 million tons per year of KCl, 95% recovery of the liquids used in the process and reduce the consumption of fresh brine wells, the conventional flotation system was redesigned and installed the first pneumatic cells. The K₂SO₄ plant was modified and improved the ability of the plant to operate together the flotation processes KCl and K₂SO₄.

We developed the engineering process, using the simulation tool MetSim 16.08

Research Engineer, SQM S.A.

May/2006 to Dic/2007

I worked on the study and development of new processes to improve the recovery of KCl (Carnalita Process) and increased production of concentrated Li brines for producing Li₂CO₃.

I worked in the review and adjustment of mathematical models in gPROMS process simulation. I helped in the adjustment of thermodynamic equilibrium prediction of salt and brine with real operating processes of solar evaporation ponds in the Atacama Salar.

Process Engineer, SQM S.A.

August/1999 to April/2006

I worked as a process engineer and system control in the solar evaporation ponds of brine concentration systems for KCl, K₂SO₄ and lithium. I was senior process engineer. I worked in the strategy area making production prediction models for salar exploitation phases of 10, 20 and 30 years. I participated in the expansion of the productive capacity of SQM Li₂CO₃ plant from 18,000 to 40,000 tons per year.

Additional I worked as a supervisor of operations on brine exploitation, ponds system control, crop sales with heavy machinery and process engineer.

Studies

Universidad de Antofagasta, Chile

2005 to 2006

Master in Mineral Processing

Universidad Adolfo Ibáñez, Chile

2002 to 2003

Diploma in Management

Universidad Católica del Norte, Chile

1992 to 1998

Graduated with distinction as Bachelor of Science in Engineering, Chemical Engineer Titled.

knowledge

I have expertise in project development and engineering development and synthesis of process engineering, development and pilot testing bench. Development of process simulation models on different platforms

I specialize in processing engineering Non-metallic, such as KCl, K₂SO₄, Li₂CO₃, MgCl₂, some nitrates and similar processes.