

Global Mercury Partnership Online Session
“Managing Mercury along the oil and gas value
chains: sharing of experience and best practices”
July 18, 2023

Challenges in the Latin American Region for the management of mercury in the oil and gas sector

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BCRC - Argentina



The Basel Regional Center for South America for Training and Technology Transfer (CRBAS) has been located at the National Institute of Industrial Technology (INTI) Buenos Aires, Argentina, since 1999.

Being a technological benchmark for the South American region, its objective is the formation and strengthening of control and production structures in the South American region (Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Paraguay, Peru, Venezuela and Uruguay).



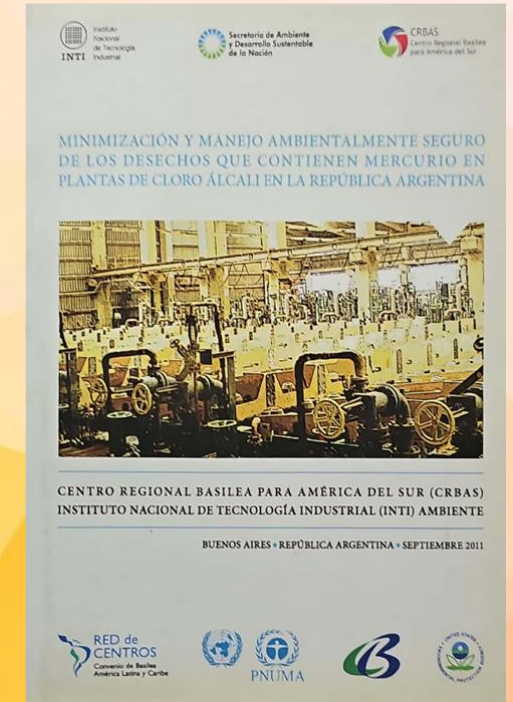
Secretaría de Industria y Desarrollo Productivo

Projects Hg BCRC Argentina

- **2011 Minimization and environmentally safe management of wastes that contain mercury in chlor-alkali plants in the Argentine Republic**
- **2015 Development of Plans for Mercury Risk Management in Latin American and Caribbean Countries**

Objective: To strengthen Argentina's capacity to identify sources, quantify emissions, and determine priority actions to address mercury issues within the framework of the Minamata Convention, and with a view to its implementation.

National Inventory of Mercury Releases in Argentina: Level for Oil and gas sector using the National Energy Balance



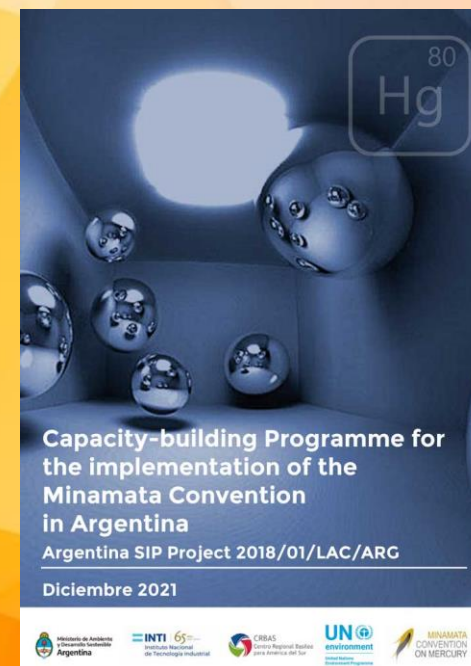
Projects Hg BCRC Argentina

- 2016 Identification Feasible Potential Strategies for Environmentally Sound Management of Used Lamps in Chile. Publication May 2021

Objective: To assist the Ministry of the Environment of Chile in the development of strategies to improve the management of used lamps.

- 2019 Capacity Building Program for the Implementation of the Minamata Convention (SIP) Project 2018. Publication December 2021

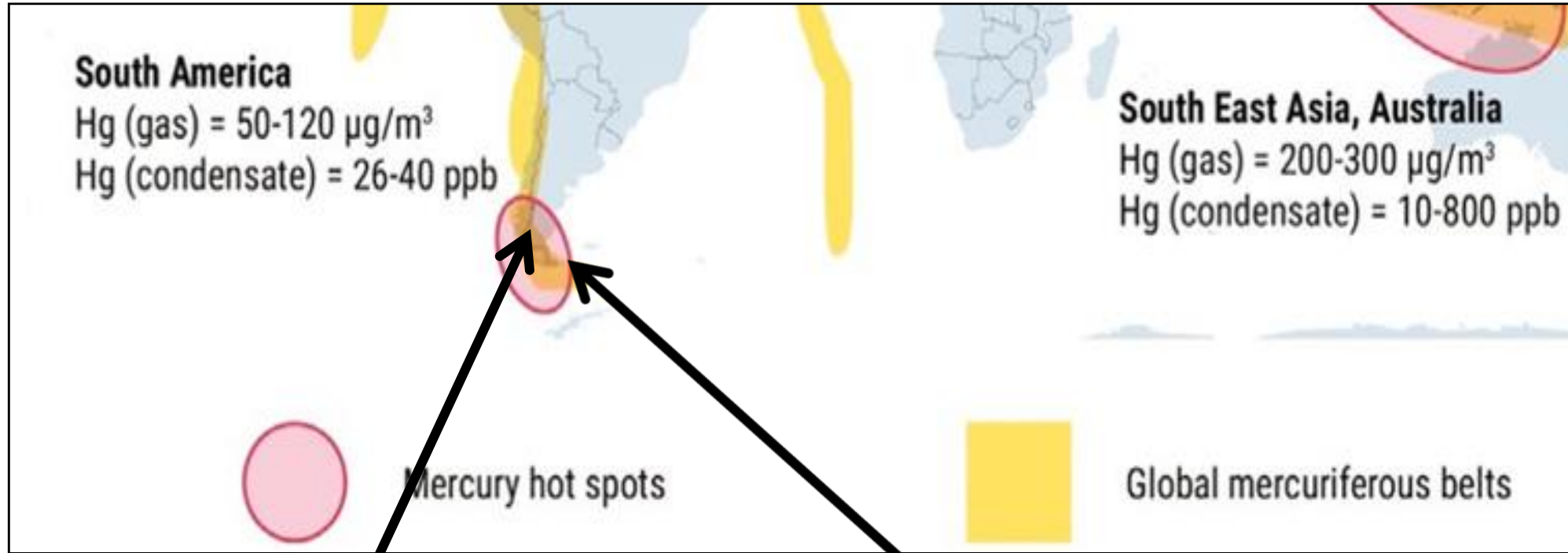
Objective: to strengthen the country's capacity to implement Article 4 of the Convention and develop information generation mechanisms to comply with the Minamata Convention



Workshops Hg BCRC Argentina

- Workshop Launch Development of Plans for Mercury Risk Management in Latin American and Caribbean Countries. April 13, 2016
- Project Closing Workshop Development of Plans for Mercury Risk Management in Latin American and Caribbean Countries. May 15, 2016
- Regional Consultation Meeting for Latin America and the Caribbean in preparation for the first Conference of the Parties to the Minamata Convention on Mercury. July 25 to 28, 2017
- Side Event: Special Session with UNIDO. Mercury Waste Management in GRULAC (Group of Latin American and Caribbean Countries). July 27, 2017
- Communication Workshop Development of Plans for Mercury Risk Management in Latin American and Caribbean Countries (UNEP-GEF Project). August 17 to 18, 2017
- Workshop Identification Feasible Potential Strategies for Environmentally Sound Management of Used Lamps in Chile. December 18, 2020

The Austral Basin is located in the extreme south of South America and covers part of the Argentine provinces of Santa Cruz and Tierra del Fuego, the Strait of Magellan



Santa Cruz Province
Ministry of Environment
Ministry of Health and Environment



Santa Cruz
Gobierno de la provincia

MINISTERIO DE
SALUD Y AMBIENTE

Secretaría de Estado
de **Ambiente**

Province of Tierra del Fuego, Antarctica and South Atlantic Islands
Environment Secretariat
Ministry of Production and Environment

Ministerio de
Producción y Ambiente
Secretaría de Ambiente

somos gobierno de tierra del fuego

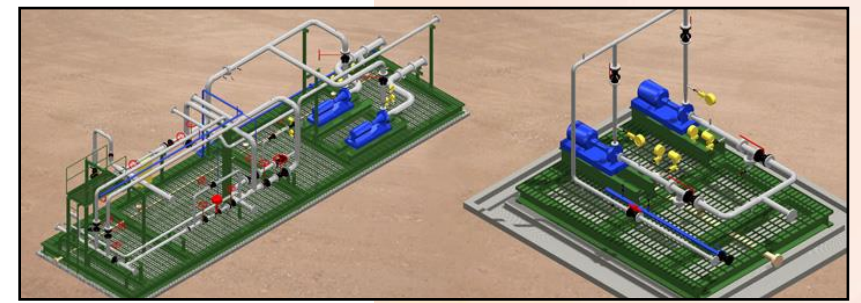
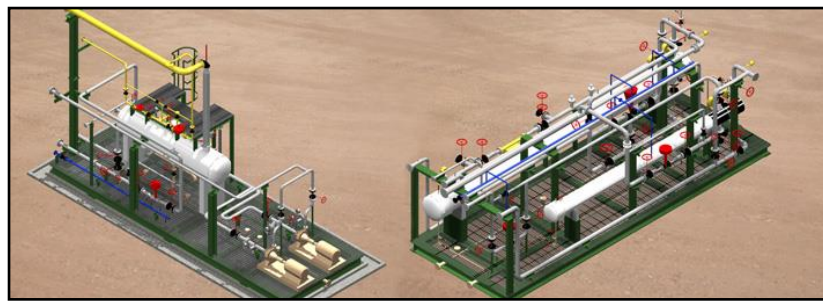


CRBAS
Centro Regional Basilea
para América del Sur

Provinces

- **Santa cruz**

- ✓ The exploitation of crude oil is in charge of the Compañía General de Combustibles - Oil field maría inés
- ✓ All crude produced is operated in an on shore upstream mercury removal plant (MRP) developed
- ✓ The plant was Developed by PETROBAS ARGENTINA and Union Oil Company of California (UNOCAL) (now a subsidiary of Chevron) and commissioned in 2006
- ✓ The oil was filtered through a diatomaceous earth precoated candle filter
- ✓ The removed waste material containing residual mercury matter was reinjected in diluted aqueous form to a deep disposal well near the MRP, through the deep injection method D3 Annex IV Basel Convention
- ✓ The bottoms of storage tanks that could contain wastes are heated so as not to generate sludge



Provinces

- **Tierra del fuego**
 - ✓ Crude oil is not processed in the province
 - ✓ It is exported to Chile, the United States of America and the Netherlands
 - ✓ Technologies are being presented to eliminate the mercury waste generated

Hg in a refinery in Buenos Aires

- ✓ The Campana Refinery in the Province of Buenos Aires was warned through crude assay updates and external alerts of the potential (2009)
- ✓ The Refinery initiated sampling of its crudes and various refinery streams based on the chemistry of the mercury distribution
- ✓ in the different cuts. For the analysis, a laboratory was used for the presence of mercury. On that occasion, samples of inputs and even of the crude oils were sent separately, to external laboratories in the United States of America, detecting high levels of mercury in the crude oil from the Escalante Field in Comodoro Rivadavia in the Province of Chubut
- ✓ Based on the first tests carried out, a plan at the Campana Refinery was in place acquiring the first equipment detection of Hg at low concentrations in the country in order to monitor hg levels during the process and in commercial products.



Challenges Oil and Gas sector and Hg

- ✓ Data on emissions and releases
- ✓ Decommissioning of infrastructure
- ✓ Detecting and monitoring; global harmonized studies with comparable analytical techniques
- ✓ Laboratories infrastructure and inter-laboratories exercises
- ✓ Lack of emissions factors of processing technologies
- ✓ Expertise in corrosion and embrittlement controls
- ✓ Concentration maps updated
- ✓ Mercury waste management: saturated waste water filters and adsorbent from MRUs; sludge from maintenance, cleaning operations

Thank you

Muchas Gracias

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