



ADI Limited provides a fully integrated industrial plant design with over 50 years experience in the management of large and diverse projects. We can assist our customers with the initial assessment of investment alternatives, conceptual and definitive design of process facilities, or the development of process technologies for bankable feasibility studies.

ADI Limited has a versatile team of process design professionals, having specialized skills in process chemistry, technology development, plant design, chemical product marketing, and environmental compliance. The comprehensive nature of our services has enabled our team to undertake the following complex chemical processing projects:

Wastewater Treatment Projects

- Recovery of base metals from acid mine drainage for reuse
- Nickel/vanadium removal from FGD and power plant effluent
- Selenium and thorium removal from smelter wastewater effluent
- Nickel, mercury, arsenic, cyanide, and nitrate removal from mine wastewater
- Iron oxide/red water treatment of iron ore concentrator/pellet plant wastewater
- Treatment of fish plant effluent and fish net washing wastewater
- Reduction of BOD and COD from smelter, refinery and mine wastewater
- Removal of emulsified heavy oil/lubricants from power plant/refinery wastewater
- Nitrification and denitrification of industrial wastewater
- Treatment of food processor effluent and hydrogen sulfide handling

Industrial Waste Treatment Projects

- Treatment of asbestos tailings for the production of magnesium oxide
- Scrubbers for sulfur oxides, ammonia, hydrogen sulfide, and carbon dioxide
- Processing of flyash for the production of battery grade vanadyl sulfate
- Chemical fixation and solidification of heavy metals sludge
- Recovery of metals for reuse from sputter targets and electronic scrap
- Chemical recycle of plastic and electronic waste
- Flue gas desulfurization systems and treatment of by-products
- Treatment of smelter and boiler residues/ash for metal recovery
- Treatment of food and beverage waste/biogas treatment

OUR MISSION:

Success through
satisfied customers

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Industrial Process Design Experience, Continued

Hydrometallurgical Projects

- Extraction and refining of indium for the production of 4N grade indium and oxides
- Sulfate leaching and solvent extraction for treatment of nickel laterites
- Reagent regeneration and refining of antimony oxide for flame retardant markets
- Ferric chloride processing of base metals for high purity metal production
- Refining of nickel ores and residues for production of nickel and cobalt carbonates
- Treatment of tungsten concentrates for production of ammonium paratungstate
- Chloride leaching and solvent extraction for zinc, copper and lead metal production
- Leaching, purification and electro-refining for indium sponge production
- Aqua-regia leaching and purification of molybdenum concentrates
- Extraction and purification of magnesium and potassium from brines
- Cyanide leaching and recovery of gold from low grade ores

Metallurgical Projects

- Gravity separation, magnetic separation and flotation of tungsten concentrates
- Recovery of potassium and magnesium from brines/solution mining
- Optimization and design of sulfide flotation circuits for bulk sulfides
- Gravity separation and upgrading of titanium ores
- Gold recovery by coal gold agglomeration, gravity separation and flotation
- Ultra-fine grinding and kiln operations for the production of industrial minerals
- Autogenous grinding for sulfide and oxide ores
- Concentrate dewatering and drying circuits for base metals and iron ore
- Crushing, grinding and flotation circuits for sulfide and oxide ores

Speciality Chemical/Food and Beverage Projects

- Potassium sulfate fertilizer grade from potassium chloride feedstocks
- Production of high purity inorganic silicates, phosphate chemicals
- Speciality organic extraction from natural biological feedstocks
- Speciality chemicals (vanadium, manganese, lithium) for electronics
- High purity metals (cobalt, indium, tungsten, bismuth) used in electronics
- Fermentation and product refining systems for beverages and ethanol



ADI LIMITED

ADI provides architecture, consulting engineering, project management and environmental management services throughout Atlantic Canada and New England. Founded in 1945, we have grown to over 200 professionals and technicians at nine offices across the region. We deliver innovative and cost-effective solutions to meet our customer's needs using our registered ISO 9001 quality management system.

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