



DUNDEE SUSTAINABLE TECHNOLOGIES

TECHNOLOGY INTRODUCTION, DEVELOPMENT &
BUSINESS MODEL

CLEVRPROCESS™

GLASSLOCKPROCESS™

FEBRUARY 2023

DST Overview

Dundee Sustainable Technologies (DST) is engaged in the development and commercialization of environment-friendly technologies for the treatment of materials in the mining industry.

Invested \$45 million developing its processes

Technologies successfully demonstrated and ready for commercialization

54 patents in 18 countries



Industry Challenges

Environmental

- **Cyanide**
 - Jurisdictions have banned or restricted cyanide
- **Arsenic**
 - Industry is turning to deposits with greater concentration of arsenic
 - Few facilities currently treat high arsenic material
 - Industry requires a permanent arsenic disposal process

Metallurgical

- Gold recovery from refractory ores
- Base metals, tellurium or organic carbon in gold ores



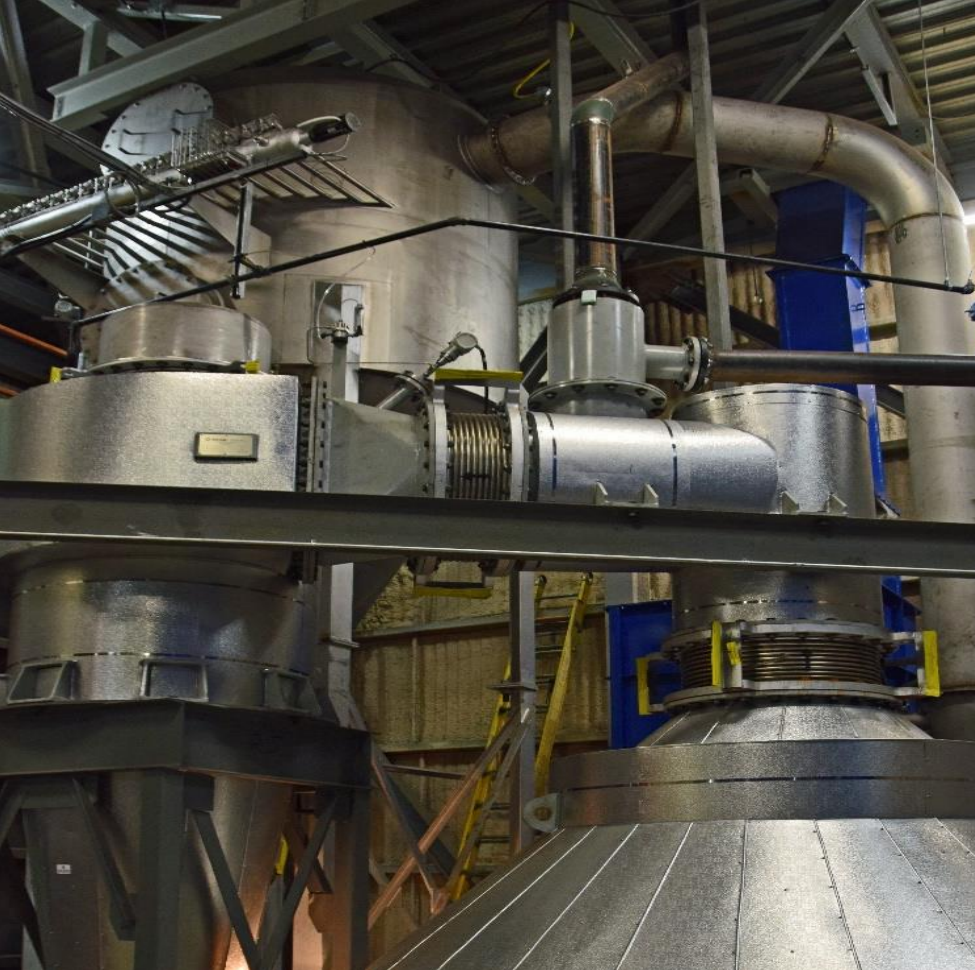
DST Solutions

CLEVRPROCESS™

- Cyanide-free gold extraction
- No liquid effluents
- Refractory ores

GLASSLOCKPROCESS™

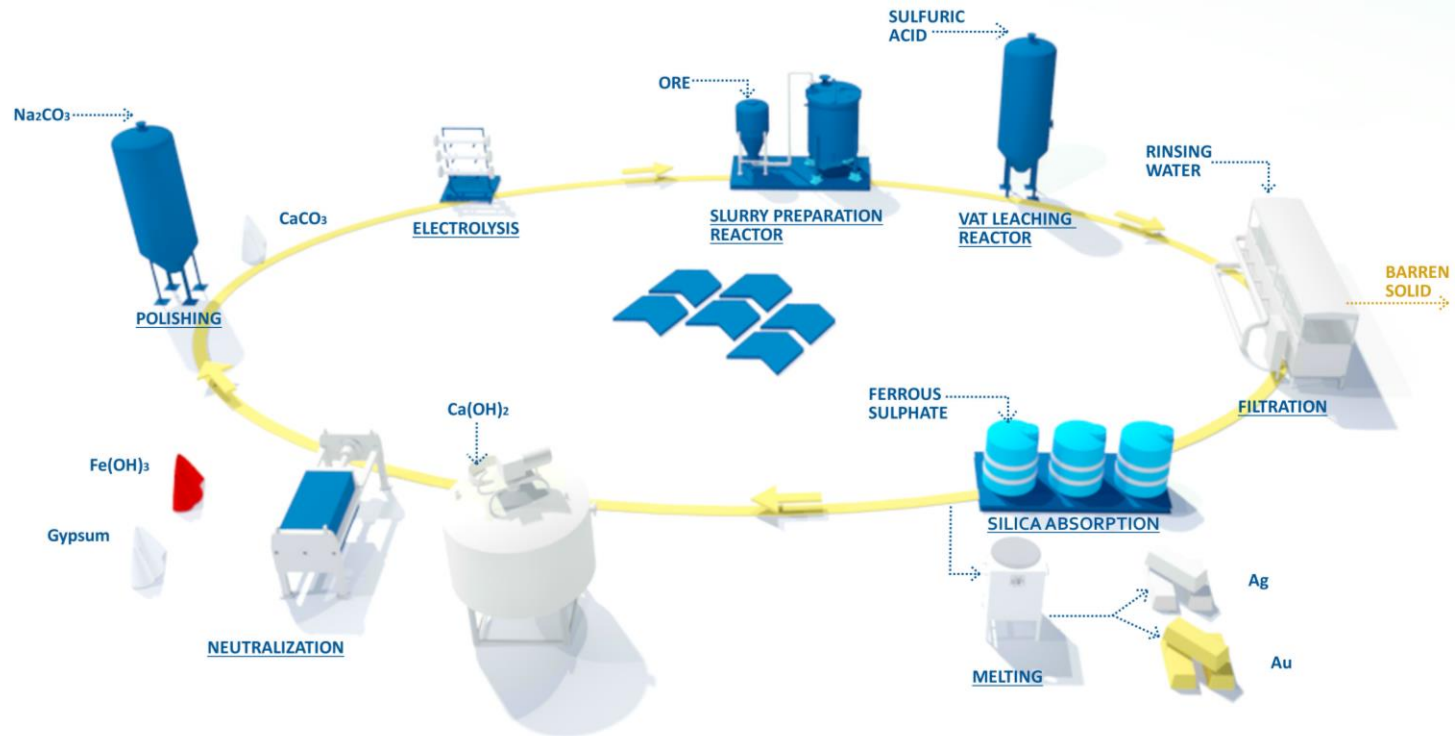
- Arsenic stabilisation
- Allows access to complex ores
- Permanent disposal solution



CLEVRPROCESS™

**DST's Industrial Plant
Thetford Mines, QC**

CLEVR Process - Closed Loop Circuit



ISO 14034:2016
Environmental Management —
Environmental Technology Verification (ETV)

Canada 

CLEVR Process – Technology License & Acceptance



CLEVRPROCESSTM

“ DST Announces Licensing Agreement with Newmont Corporation “

*MONTREAL, QUEBEC, December 17, 2020 – Dundee Sustainable Technologies Inc. (“**DST**” or the “**Corporation**”) (CSE: DST) is pleased to announce that it has entered into a Technology Transfer Licensing Agreement (the “Agreement”) with Newmont Corporation (NYSE: NEM, TSX: NGT) (“**Newmont**”) for the utilization of DST’s cyanide free gold extraction, known as the CLEVR ProcessTM (“CLEVR” or the “Technology”). “*

CLEVR Process – Commercial Drivers

- Increased **Gold Recovery**
- Chemistry, **Cyanide-free** gold extraction
- Efficiency, **2-hour** Reaction time

PROCESS COSTS

- 150 tpd up to **15,000 tpd** ROM Plant Designs
- Competitive OPEX ~**US\$10-15** per tonne
- Competitive CAPEX, **Reduced Plant Footprint**

CLEVR **PROCESS**[™]



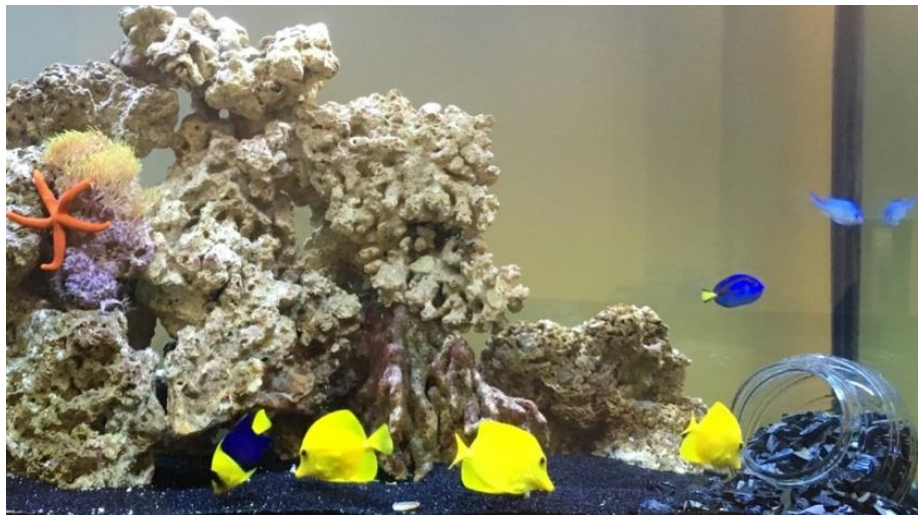
GLASSLOCK PROCESS™

**DST's Industrial Plant
Namibia, Africa**



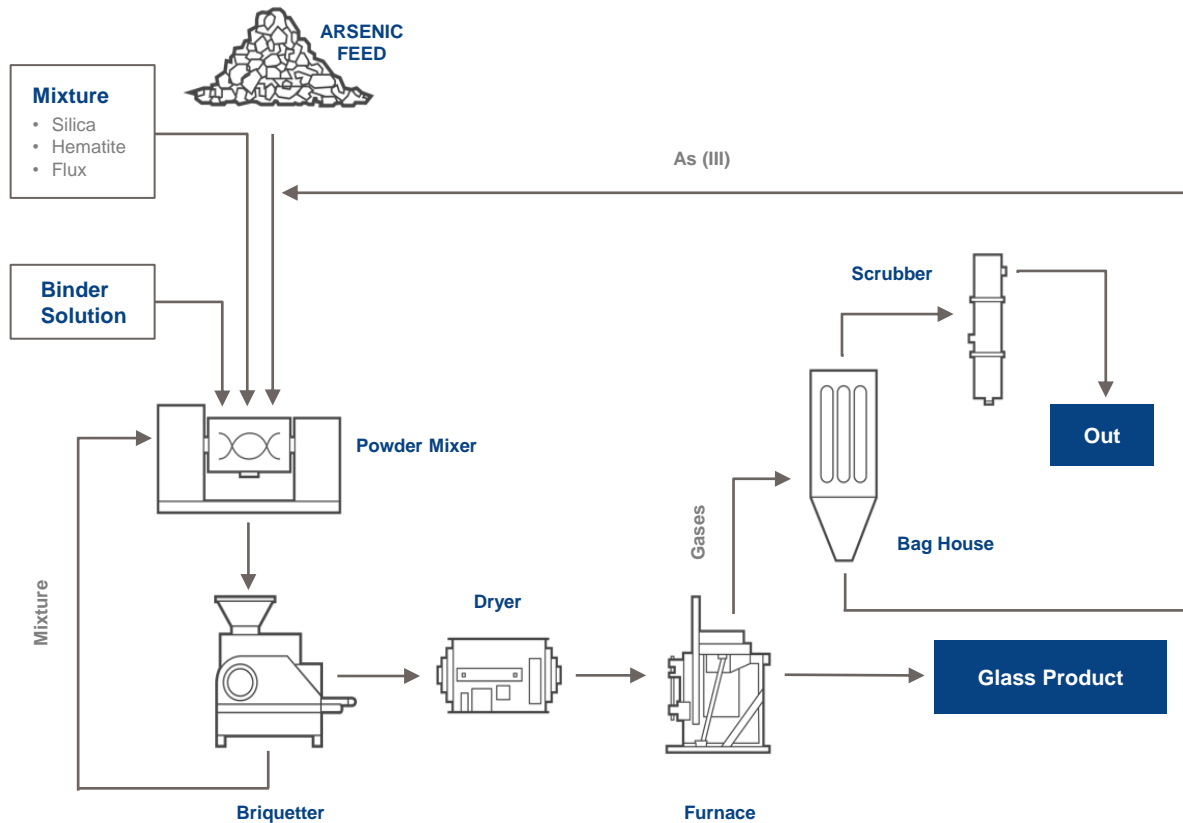
GlassLock Process™ - Arsenic Stabilization

- Stabilization by vitrification
- Intermediate compound that can sustain vitrification temperature
- Produces glass with up to 20% As
- Comply with EPA's TCLP and EN12457-1 guidelines
- Widely available reagents / equipment



DST aquarium containing arsenic glass

GlassLock™ Process – Circuit



GlassLock Process – Technology Acceptance



DST Received US\$ 2,000,000 Moratorium Payment for GlassLock

*“ MONTREAL, QUEBEC, **April 15th, 2020** – Dundee Sustainable Technologies Inc. (“DST” or the “Corporation”) (CSE: DST) is pleased to announce that it has entered into a commercial agreement (the “Agreement”) with a gold and copper producer (the “Client”) for the utilisation of its GlassLock Process™ (“GlassLock” or the “Technology”). As part of the Agreement, DST received a **US\$ 1,000,000 cash payment** in return for a one (1) year exclusivity period for the application of its GlassLock Process™ on copper smelting operations... “*

*“ MONTREAL, QUEBEC, **March 30, 2021** – Dundee Sustainable Technologies Inc. (“DST” or the “Corporation”) (CSE: DST) is pleased to announce that it has received, from a client (the “Client”), a **cash payment of US One Million Dollars (US\$1,000,000)** representing the second-year moratorium payment for the exclusive application of DST’s GlassLock Process™ (“GlassLock” or the “Technology”) on copper smelting operations...”*

GlassLock Process – Commercial Drivers

- Product **Stability**, Quality Arsenic Glass Product
- Process **Flexibility**, Adapts to Feed and Operation
- **Arsenic Removal**, Unlocks Operations & Opportunities

PROCESS COSTS

- 1,000 tpa up to **50,000 tpa** treatment Plant Designs
- Improved OPEX **<US\$1,000 per tonne of As**
- Advantageous CAPEX & **Alternative Treatment Flowsheet**

GLASSLOCK
PROCESS™

BUSINESS MODEL



Technology Provider

To Majors & Operators,
In Return for **Licensing
Revenue**



Owner Operator

Leverage Current Assets
Targeting Legacy Flue
Dusts, In Return for **Tolling
Fee Revenue**



Equity

Leverage Technology and
Acquire **Equity Positions** in
Arsenopyrite Gold Deposits



DUNDEE SUSTAINABLE TECHNOLOGIES

CLEVRPROCESS™

GLASSLOCK
PROCESS™

Head Office

860 - 2000 Peel Street
Montreal, QC, Canada, H3A 2W5

Plant

3700 rue du Lac Noir
Thetford Mines, QC, Canada, G6H 1S9

www.dundeetechnologies.com

Leadership Team



Jean-Philippe Mai

President & CEO

Mr. Mai has 15 years' experience as a geologist, senior project manager and executive in coal, base metals and gold projects in Canada, Australia and South America, and has been DST's Senior Geologist since January 2013. Mr. Mai is a Professional Geologist and a member, in good standing, of l'Ordre des Géologues du Québec and holds a Bachelor of Science in Geology from the University of Quebec in Montreal.



Arved Marin

CFO & Corporate Secretary

Mr. Marin is a Chartered Professional Accountant (CPA, CMA) with over 10 years' experience in the minerals industry. He has served as corporate controller of several public companies in the minerals industry with operations in Canada and Latin America and has served as interim CFO of Dia Bras Exploration during 2009. Previously, he worked for six years as a financial auditor, Assurance and Advisory Services at PricewaterhouseCoopers. He is a graduate of Concordia University.



Jean Tardif

Chief Operating Officer

Mr. Tardif has more than 15 years' experience in the field of extractive metallurgy and has held various positions as a plant engineer and plant manager. He also participated in the scale-up and implementation of a new metallurgical process on an industrial scale. Mr. Tardif holds a Bachelor of Materials Engineering and Metallurgy from Laval University.

Advisory Board



Peter Kondos

PhD.

Dr. Kondos is an accomplished professional and holds a PhD on Pressure Leaching in Hydrometallurgical Engineering from McGill University, Montreal, Quebec. Dr. Kondos' career has been devoted in transforming organizations through innovation and delivering highly effective technology solutions within Barrick Gold, Inco (Vale), and Noranda (Glencore). The ability to adjust to working environments and work in teams, while creating long term roadmaps foster value creation in a sustainable way. He is the co-founder of YaKum Innovative Mining Consultants.



Richard Howes

P. Eng.

Mr. Howes is a Professional Engineer in the Province of Ontario and holds a Honours Bachelor of Applied Science degree in Mining Engineering from Queen's University in Kingston, Ontario. He has over 40 years' experience in the mining industry in Canada, Europe, Asia and Africa in base and precious metals, and in various capacities including Engineering and Design, Operations and Maintenance supervision, Site and Plant management, Business Unit Management and Executive Global Management. Mr. Howes was Dundee Precious Metals' General Manager and Executive Director of Chelopech Mining EAD from 2009 to 2010, Executive Vice-President and Chief Operating Officer from 2010 to 2013 and President and Chief Executive Officer from 2013 to 2020. He currently sits on the Board of Directors of Hudbay Minerals and Torex Gold Resources.
