TSX-V: CVW

CVW CLEANTECH

Creating Value from Waste™

A New Environmentally Sustainable Technology for Alberta and Canada

INVESTOR PRESENTATION | DECEMBER 2023

Disclaimer

The information provided in this presentation is provided as of December 1, 2023 for informational purposes only, is not complete, and may not contain certain material information about CVW CleanTech Inc. (“CVW CleanTech" or the "Company"), including important disclosures and risk factors associated with the information disclosed in this presentation and an investment in CVW CleanTech. This presentation does not take into account the particular investment objectives or financial circumstances of any specific person who may receive it and does not constitute an offer to sell or a solicitation of an offer to buy any security in any jurisdiction. The contents of this presentation have not been approved or disapproved by any securities commission or regulatory authority in any jurisdiction, and CVW CleanTech expressly disclaims any duty on CVW CleanTech to make disclosure or any filings with any securities commission or regulatory authority, except as required by applicable securities laws. See Slide 3, “Forward-looking Information" for additional advisories.

Forward-looking Information

Certain statements included in this presentation of CVW CleanTech constitute forward-looking statements and information within the meaning of applicable Canadian securities laws (collectively, "forward-looking information") that reflect the current expectations of management about the future results, performance, achievements, prospects or opportunities for CVW CleanTech, including statements relating to importance of oil and gas as a source of energy and the period during which it will be such; the readiness for commercial deployment of the CVW Cleantech's technologies; expectations regarding the results to be obtained from the utilization of the Company's technologies; the Company's assessment of global conditions and the markets; various market and commercial opportunities for the Company and its technologies; the ability of the Company to continue to develop and commercialize its technologies; and the advantages of the Company's technology. This forward-looking information generally can be identified by use of forward-looking words such as "may", "will", "expect", "estimate", "anticipate", "believe", "project", "should" or "continue" or the negative thereof or similar variations.

Forward-looking information in this presentation is for the purpose of assisting shareholders and others in understanding certain key elements of CVW CleanTech's financial results and business plan, as well as the Company's objectives, strategic priorities and business outlook, and in obtaining a better understanding of our anticipated operating environment. Readers are cautioned that such forward-looking information may not be appropriate for other purposes.

Forward-looking information, by its very nature, is subject to inherent risks and uncertainties and is based on many assumptions, both general and specific, which give rise to the possibility that actual results or events could differ materially from our expectations expressed in or implied by such forward-looking information and that our business outlook, objectives, plans and strategic priorities may not be achieved. Macro-economic conditions, including public health concerns (including the impact of the COVID-19 pandemic) and other geopolitical risks (including the war in Ukraine), the condition of the global economy and, specifically, the condition of the crude oil and natural gas industry, and the ongoing volatility in world markets may adversely impact oil sands producers' program plans, including proceeding with an investment decision in further project activities or any final investment decision with respect to commercialization, which could materially adversely impact the Company. In addition to other factors and assumptions which may be identified in this presentation, assumptions have been made regarding, among other things: the expected environmental and economic benefits to be achieved from CVW™ technologies; that the Company will continue to be able to protect its intellectual property; that counterparties will continue to satisfy their contractual obligations to the Company; assumptions as to commodity prices and exchange rates and the impacts on the Company; assumptions as to various market and commercial opportunities for the Company and its technologies; and the ability of the Company to continue to develop and commercialize its technologies; the condition of the global economy, including trade, public health (including the impact of COVID-19) and other geopolitical risks (including the war in Ukraine), including the fact that any estimates of project next steps, as well as the detailed engineering and construction period may be affected by the COVID-19 pandemic and other geopolitical risks; the stability of the economic and political environment in which the Company operates; the success of the ongoing project activities; the ability of the Company to retain qualified staff; the ability of the Company to obtain financing on acceptable terms, including available grant and financing opportunities from government programs and finalizing funding agreements for such government programs; the details of government funding programs and that such programs will be implemented (and not change) as expected; the translation of the results from the Company's research, pilot programs; the belief that the Company's technology will provide important environmental and economic benefits that will assist with the recovery of a resilient and sustainable energy industry in Alberta and Canada; the impact of increasing competition; and the regulatory framework regarding royalties, taxes and environmental matters in the jurisdictions in which the Company operates

The forward-looking information contained in this presentation is based on the results of CVW CleanTech's research, pilot programs, project activities and related studies and commercialization efforts described in this presentation. The Company has not commercially demonstrated its technologies and there can be no assurance that such research, pilot programs, project activities and related studies will prove to be accurate nor that such commercialization efforts will be successful, as actual results and future events could differ materially from those expected or estimated in such forward-looking information. As a result, we cannot guarantee that any forward-looking information will materialize and we caution you against relying on any of this forward-looking information. Accordingly, readers should not place undue reliance on forward-looking information.

The information contained in this presentation does not purport to be all-inclusive or to contain all information that shareholders may require. Shareholders and prospective investors are encouraged to conduct their own analysis and reviews of the Company and of the information contained in this presentation. Without limitation, prospective investors should consider the advice of their financial, legal, accounting, tax and other advisors and such other factors they consider appropriate in investigating and analyzing the Company.

Certain other information contained in this presentation has been prepared by third-party sources, which information has not been independently audited or verified by CVW CleanTech, but which CVW CleanTech believes to be reasonable. No representation or warranty, express or implied, is made by the Company as to the accuracy or completeness of the information contained in this document, and nothing contained in this presentation is, or shall be relied upon as, a promise or representation by the Company.

The forward-looking information contained in this presentation describes our expectations as of December 1, 2023 and, accordingly, is subject to change after such date. Except as may be required by Canadian securities laws, we do not undertake any obligation to update or revise any forward-looking information contained in this presentation, whether as a result of new information, future events or otherwise. The forward-looking statements contained in this presentation are expressly qualified by this cautionary statement.

Additional information on these and other factors are disclosed elsewhere in this presentation and in other reports, including the Company's financial statements, management's discussion and analysis and news releases, filed with the securities regulatory authorities in Canada from time to time and available on SEDAR (sedar.com).

The CVW CleanTech Story

TSX-V:CVW

The oil and gas industry will be an important source of energy for decades to come as the world transitions to green energy

Canadian Oil sands have committed to Net-Zero emissions by 2050 and have reduced CO_2e emissions by 38% since 2016

CVW CleanTech reprocesses froth treatment tailings from oil sands mining operations to recover additional hydrocarbons and critical minerals while reducing fugitive methane emissions

A generic plant site could produce between $136-341M in annual commodity revenue and $105-113M in annual operator cost savings per site, with the potential for rollout to six sites

CVW CleanTech's technology has attractive underlying economics while helping our partners achieves ESG goals

CVW CleanTech has considered multiple approaches to project development including a phased approach with an initial capital cost of $390M

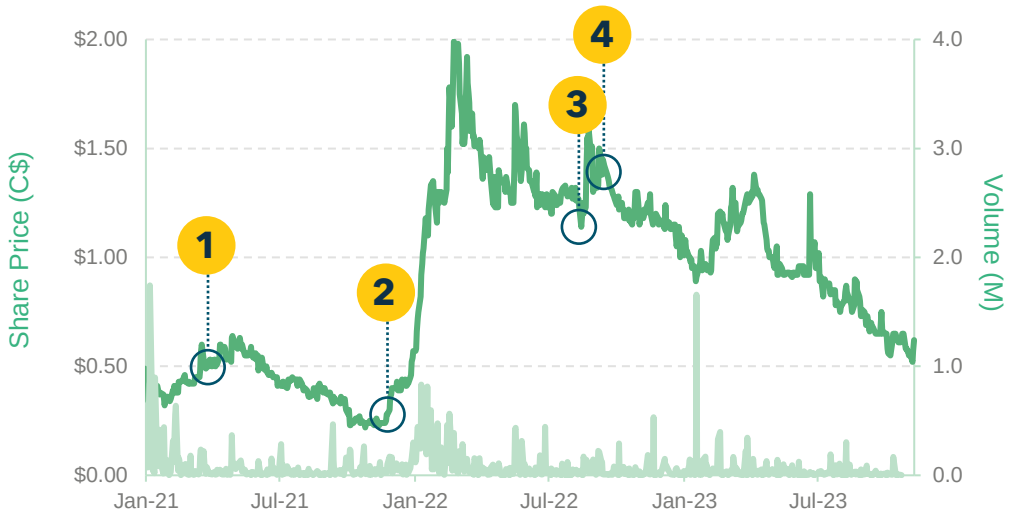
Strong financial & regulatory support from federal and provincial governments with over $80M in grants to date

Company is currently focused on building a partnership with Canadian oil sands operators and determining the economic framework for deployment

Corporate Profile

Strong alignment between Shareholders, Board of Directors and Management

SHARE PRICE PERFORMANCE



KEY EVENTS

1 Signing of Project Coordination Agreement for the 2021 Engineering Phase of the CVW™ Horizon Project

2 Board renewal and private placement

3 Appointment of new CEO and private placement

4 Close of private placement and appointment of Pierre Lassonde as special advisor

CAPITAL STRUCTURE & SHAREHOLDER BREAKDOWN

December 1, 2023

Shares Outstanding	124.9M
Equity Awards	9.8M
Warrants	11.8M
Fully Diluted Shares Outstanding	146.5M
Share Price	$0.62
Cash Balance (As of Sept. 30, 2023)	$6.2M
Market Capitalization (Basic)	**$77.4M**

DIRECTORS & MANAGEMENT SHARE EXPOSURE

	SHARES (M)	OPTIONS, AWARDS & WARRANTS (M)	TOTAL SHARE EQUIVALENT (M)	OWNERSHIP (FULLY DILUTED)
Moss Kadey	13.3	1.2	14.5	9.9%
Darren Morcombe	7.4	2.0	9.4	6.4%
Akshay Dubey	0.2	5.2	5.4	3.7%
John Brussa	1.5	0.7	2.2	1.5%
Other Directors & Management	2.1	3.1	5.2	3.5%
Total	**24.5**	**12.2**	**36.7**	**25.0%**

Board of Directors

Darren Morcombe
CHAIRMAN

- Founder of Springtide Capital Pty. Ltd., a private investment company specializing in micro-cap listed companies, venture capital and resource-oriented companies
- Founder and a major shareholder of Foran Mining Corporation
- Founder, Chairman and a major shareholder of the largest gold refinery, distribution and finance company in the world
- Over 20 years of international experience in a variety of roles in in the natural resource sector including with Normandy Mining and Newmont Mining Corporation

Moss Kadey
DIRECTOR

- Founder and CEO of Mossco Capital Inc., a Toronto based strategic investor specializing in consumer goods, real estate and technology companies
- Chairman and Founder of Luxury Brand Partners, a Miami based creator and owner of branded consumer products in the beauty and hair care industries
- On the boards of numerous privately held corporations and is currently the Chairman of the Supervisory Board of Hanvest Holdings, the parent company of Brita GmbH in Germany

Jennifer Kaufield
DIRECTOR

- Independent businesswoman with over 30 years of experience in private and public corporations both domestic and internationally
- Previously a director of TransGlobe Energy Corporation
- Previously Chief Financial Officer of Titanium Corporation Inc. (CVW CleanTech Inc.)

John Brussa
DIRECTOR

- Managing Partner and Chairman of Burnet, Duckworth & Palmer LLP
- Chair of the Board of Directors of Crew Energy
- Director of several public and private energy producers operating in Canada, and a public financial services corporation
- Extensive experience in corporations across varying businesses, including those operating in mineral and oil sands mining respectively
- Recently served as the Jarislowsky Fellow at the Haskayne School of Business

Bruce Griffin
DIRECTOR

- Owner of Farview Solutions Limited, providing consulting and advisory services to the mineral sands, titanium pigment and industrial minerals industries
- Currently serves as the Executive Chairman of Sheffield Resources Limited, an Australian mineral-sands development company
- Previously held senior management positions in several mining and minerals companies, including as SVP Strategic Development of Lomon Billions Group, CEO of TZ Minerals and as Vice President Titanium for BHP Billiton

Pierre Lassonde
SPECIAL ADVISOR

- Legendary Canadian businessman, investor and philanthropist
- Member of the Order of Canada currently serving as Chair Emeritus of Franco-Nevada Corporation and Chairman and CEO of Firelight Investments Ltd.
- Previously the President of Newmont Mining Corporation from 2002 to 2006 and prior to that from 1982 to 2002 was a co-founder and co-CEO of the original Franco-Nevada

Management Team

Akshay Dubey
CEO AND DIRECTOR

- Over 12 years of experience originating and structuring investments in the natural resource space including within the oil and gas, mining and metals, agriculture and timberland industries
- Previously led BaseCore Metals LP from its inception in 2017 till its sale in July 2022 for $525m
- Previously a Principal within the Natural Resources team at Ontario Teachers' Pension Plan Board, where he gained extensive experience in both the energy and mining industries
- Holds a Bachelors of Business Administration (Hons.) from the Schulich School of Business at York University

Joshua Grant
CFO & CORPORATE SECRETARY

- Has over 14 years of experience in finance and accounting for public and private companies in several industries including natural resources, manufacturing and distribution.
- Expertise includes holding executive and leadership responsibilities at public and private companies, leading growth phase companies to profitability, and working with banking and other strategic partners.
- Qualified chartered professional accountant who obtained his Bachelor of Commerce (Hons.) from McMaster University and a member of CPA Ontario and CPA Canada.

Kevin Moran
EVP AND CHIEF TECHNOLOGY OFFICER

- Extensive oil sands industry experience, during which time he focused on solving technical issues related to bitumen production through the application of colloidal and hydraulic principles; specific emphases included flotation, tight emulsions and the physical characterization of bitumen.
- Previously at Syncrude Canada Ltd., where he managed research and technology development programs in oil sands bitumen extraction and froth treatment process technologies
- Graduated from the University of Alberta with a doctorate in Chemical Engineering and holds a Masters degree in Chemical Engineering from the University of Toronto and undergraduate degrees in Engineering and Science from the University of Western Ontario

The World Continues To Need Hydrocarbons

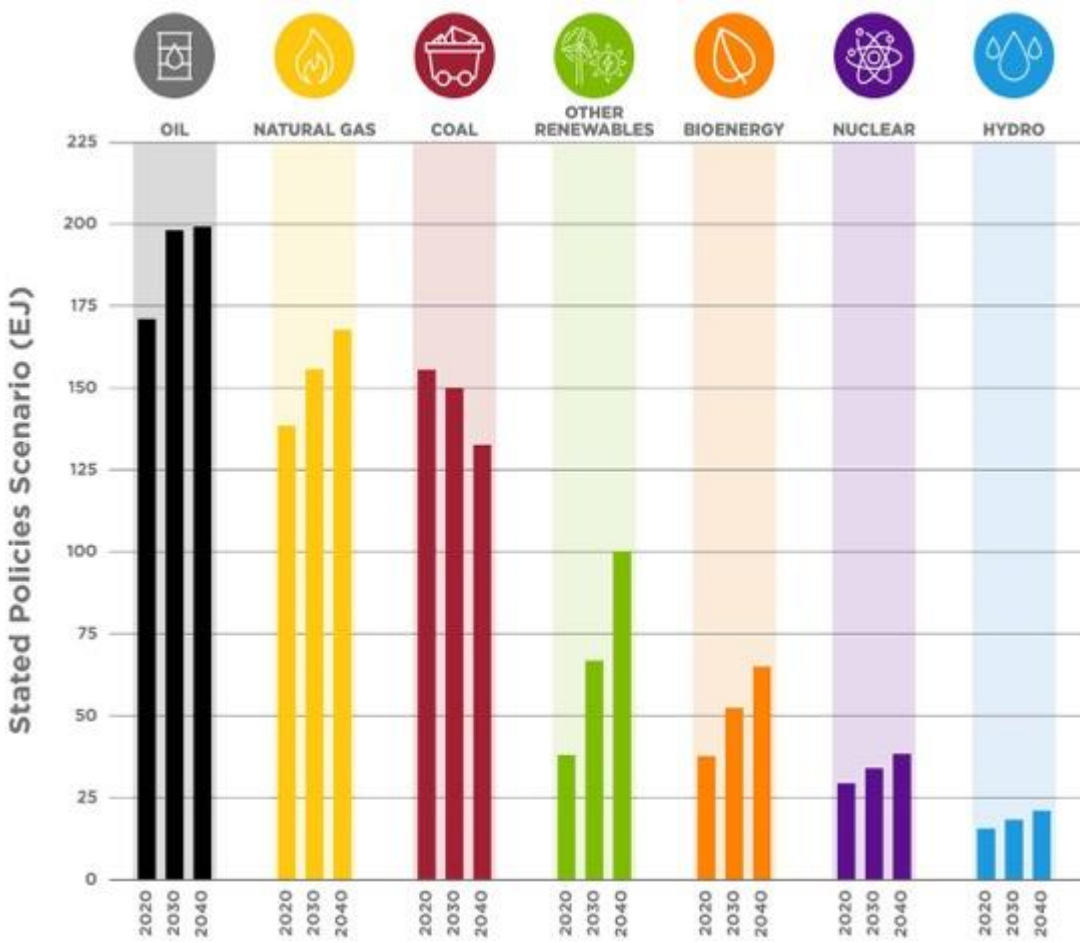
Regardless of the source of energy, demand is growing with the global population expected to increase by about two billion over the next two decades and with improving standards of living.

EXPECT
52%

Growth in global electricity generation
as 772 million people worldwide still live without access to electricity

The pathway to net zero targets will require time, innovation and investment

CVW CleanTech is committed to the transition to a sustainable world and utilizing emission abatement technologies like the patented CVW™ technology is key to this global transition



Source: International Energy Agency and The Canadian Association of Petroleum Producers.

IEA's flagship *Net Zero by 2050* report lays out a roadmap for the global energy sector to achieve carbon neutrality.

- Focus for oil and gas producers switches to output and emissions reductions from the operation of existing assets
- Path to reducing emissions from fossil fuel supply by over 75% by 2030 requires a global and concerted effort to deploy all available abatement measures and technologies

The Opportunity:
Creating Value from Oil Sands Tailings

THE WORLD'S 4TH LARGEST OIL RESERVES

Contain over 170B barrels of oil, producing over 3M barrels/day and 64% of Canada's Production

MINING FOOTPRINT OF LESS THAN 1%

Oil sands cover an area greater than 142,000 km² with a mining footprint of 1,030 km² (0.07%)

SIGNIFICANT GDP CONTRIBUTORS

The oil sands industry represents 3% of Canada's GDP and 17% of Alberta's GDP

MAJOR JOB CREATOR

Oil sands create over 200,000 jobs (direct and indirect) with $12 billion of capital investment forecast for 2022

SIGNIFICANT GLOBAL EMITTER

Annual oil sands emissions account for 11% of Canadian emissions and 0.15% of global emissions

INDUSTRY HAS STRONG ESG GOALS

Oil Sands Pathways to Net Zero

CVW CleanTech will help increase commodity recoveries and reduce the environmental impact!

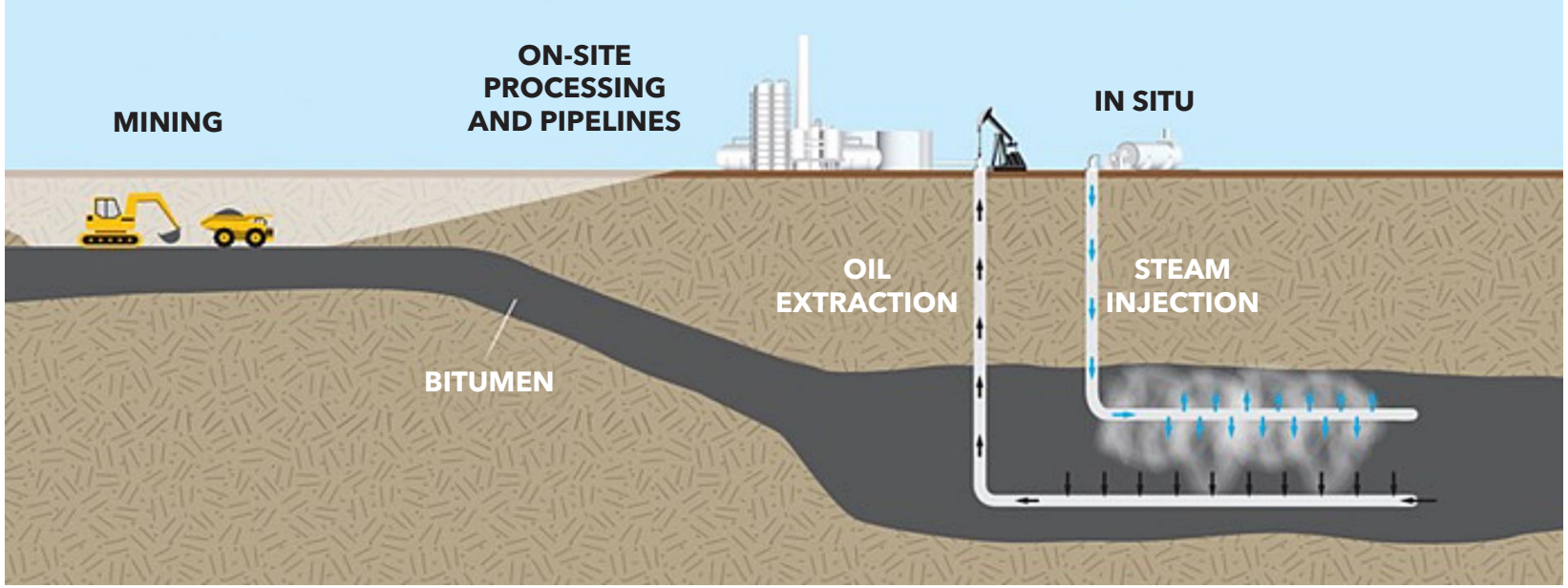
CVW™ Technology can help oil sands operators meet their Net-Zero goals while recovering millions of dollars of commodities lost to tailings each year and reducing GHG emissions by up to 3 million tonnes per year

Sources:
1. Industry statistics per Canadian Association of Petroleum Producers (CAPP) Frequently Used Statistics;
2. CVW™ Technology oil recovery and values per Company estimates

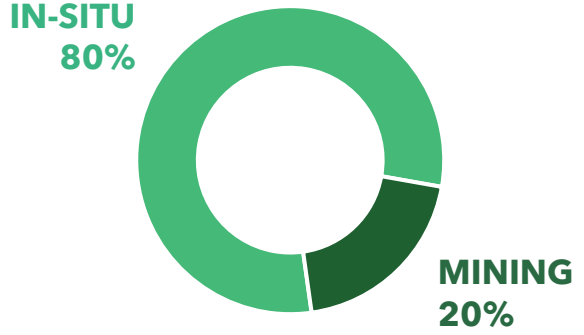
Oil Sands: Mining vs In-Situ

Oil sands is a mixture of bitumen, sand, clay and water. Because it does not flow like conventional crude oil which is a liquid, it must be extracted before it can be processed

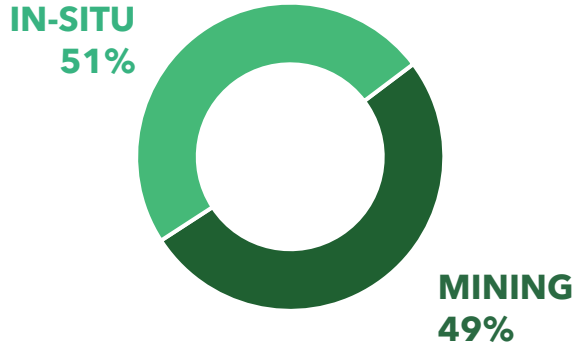
Extraction methods include mining for near surface deposits and steam assisted gravity drainage (SAGD) or in-situ for deeper deposits



RESERVES



PRODUCTION

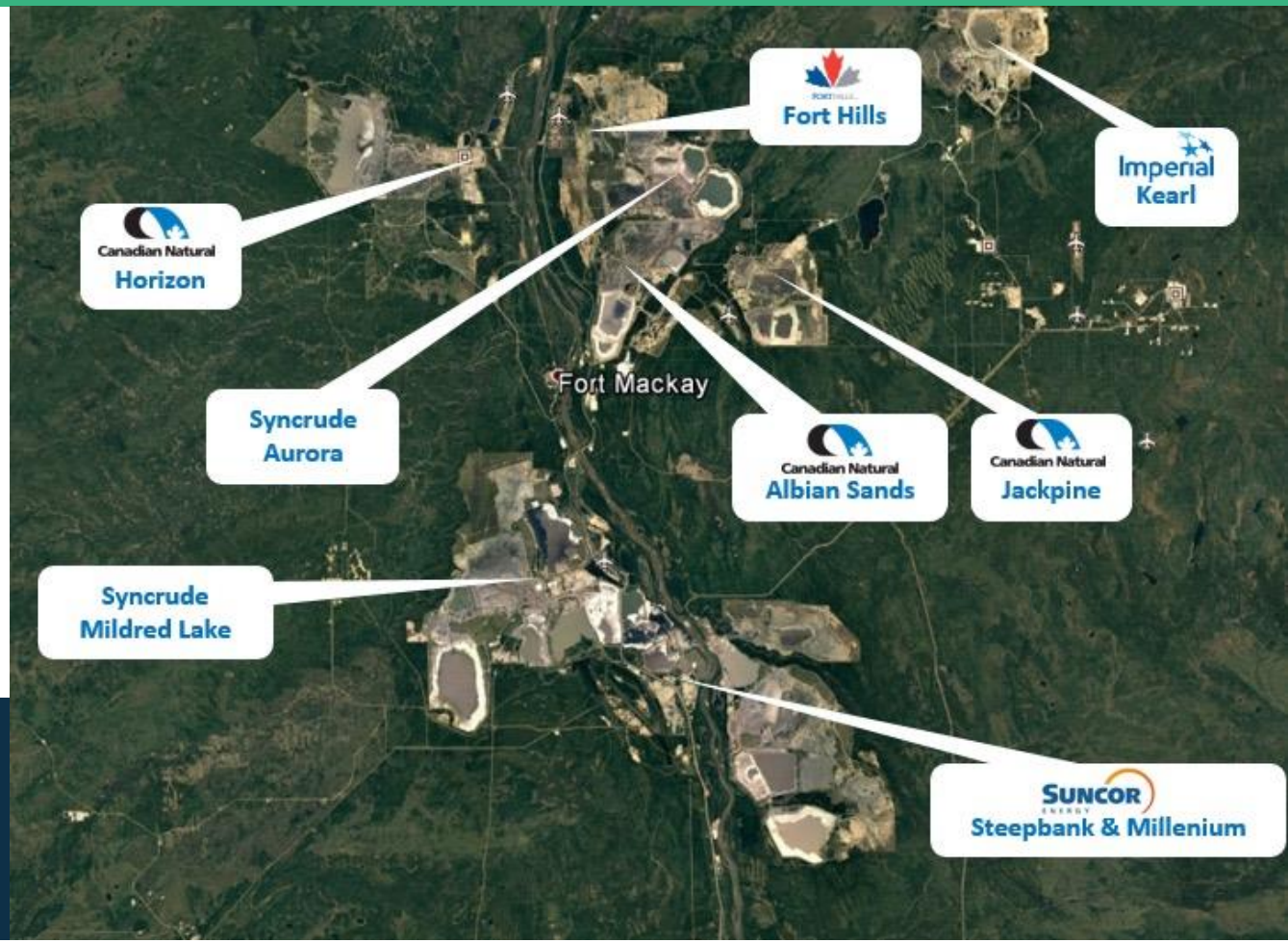


Mining Operations

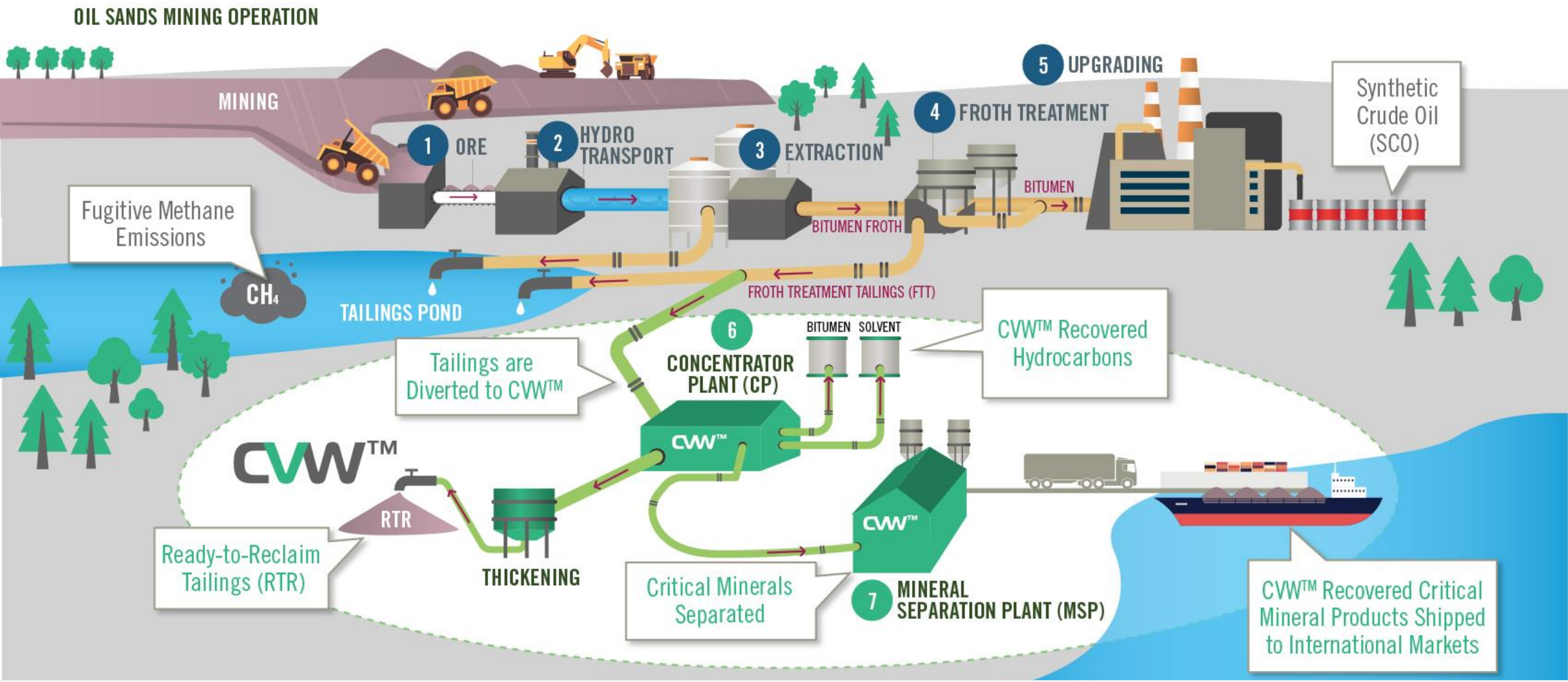
- Once the bitumen has been extracted, it is processed and upgraded into higher-value synthetic crude oil, diesel fuel and other products

- Waste is processed before being disposed of in tailings ponds covering around 120 km^2 of land and containing over 1.4 trillion liters of waste

Alberta Directive 85 has the intent of halting the growth of tailings followed by reduction and increased reclamation



CVW CleanTech Process Overview



How CVW CleanTech Can Add Value to Oil Sands

Recover valuable commodities

- Recover additional bitumen and solvent that would otherwise be lost to tailings
- Recover critical minerals such as zircon and titanium which are currently not recovered

Reduces Fugitive Emissions

- Recovery of solvent leads to reduction in tailings pond emissions of methane/GHGs, VOCs, SOAs
- Reduces site wide emissions by 5-10%

Reduces Operating and Environmental Costs

- Carbon tax savings
- Pyrite and NORMS mitigation
- Cost savings on tailings rehandling

Enhanced Tailings Management

- Reduces tailings in ponds
- Progressive remediation
- Improves final deposition characteristics
- Recover fit for reuse water

GHG Avoided Emissions Benefit Quantified & Monetized

- Independent third party verification of project GHG and other environmental benefits

ERA (2019) Stantec

SDTC (2021) DELPHI GROUP

- Monetized based on Federal carbon tax rate, ramping up from $65/tonne in 2023 to $170/tonne CO_2e by 2030

CVW CleanTech Process CO_2e Abatement

+ **Tailings Pond Methanogenic Abatement (90% methane)**
+ **Functional equivalent bitumen production**
+ **Functional equivalent solvent production**
+ **Heat integration**
+ **Functional equivalent minerals production**
- **CVW™ Facility process emissions**

Net Benefit: ~380,000+ tpa CO_2e

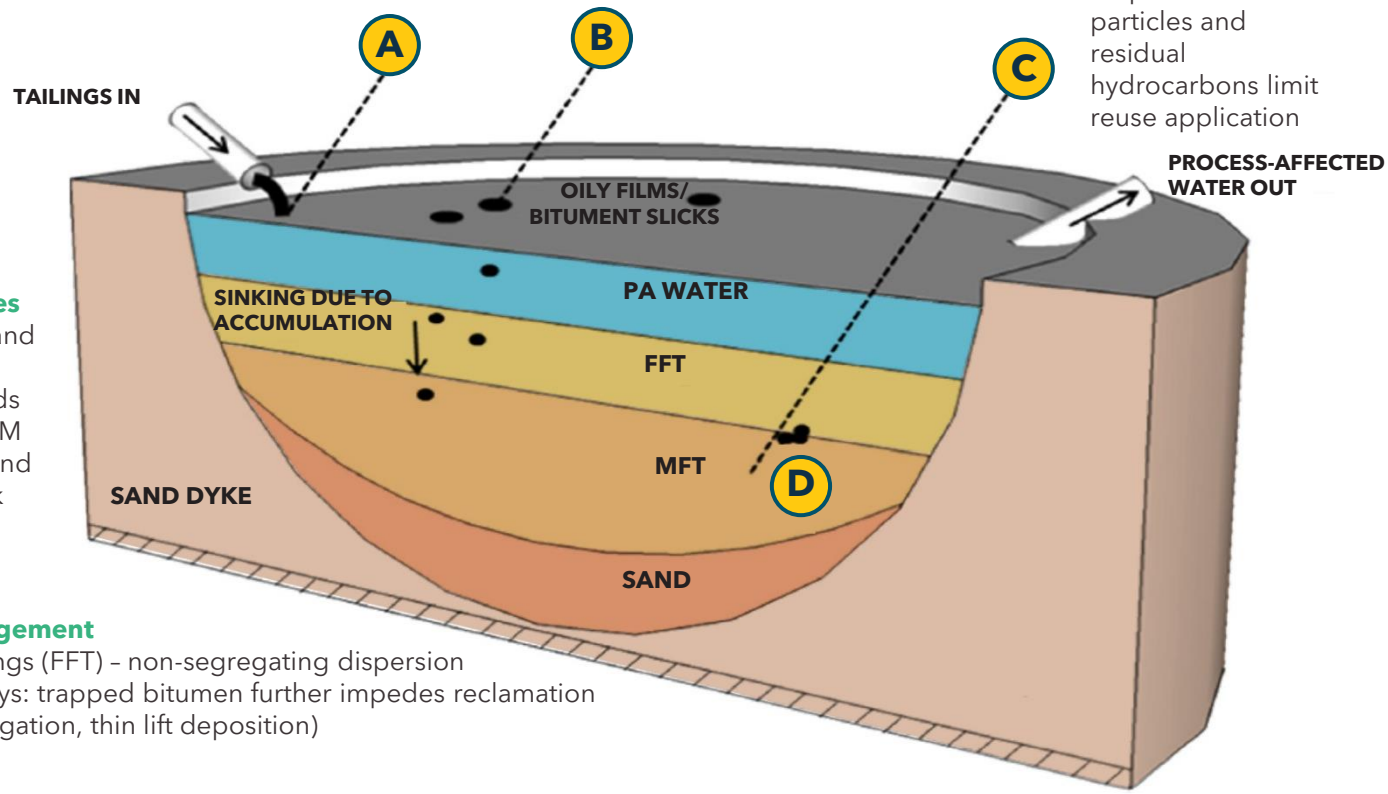
A Rapid volatization of VOCs as hot tailings solvents are discharged into the atmosphere.

B VOCs volatized from oily films at pond surface (slicks), secondary organic aerosols precursors

C Anaerobic fermentation of solvents into **methane** (methanogenesis)

D Compound cycling results in fixed carbon (bitumen / solvent) trapped in tailings

Water Quality
Dispersed fine particles and residual hydrocarbons limit reuse application



Emerging Issues
Concentration and deposition of radioactive solids (Canadian NORM management) and pyrite (acid rock drainage)

Tailings Management
Fluid Fine Tailings (FFT) – non-segregating dispersion of fines and clays: trapped bitumen further impedes reclamation efforts (centrifugation, thin lift deposition)

Adapted from: Small et al. (2015). "Emissions from oil sands tailings ponds: review of tailings pond parameters and emissions estimates", *JPSE*, **127**, 490.

CVW™ Value Proposition:

Annual Metrics for a Generic Site[1]

COMMODITY RECOVERIES

- ✓ **Bitumen:** ~1.9 MMbbl
- ✓ **Solvent**: ~328 Mbbl
- ✓ **Zircon Concentrate**: 73 kT
- ✓ **Chloride Ilmenite:** 170 kT (TiO_2 concentrate)

ENVIRONMENTAL BENEFITS

- ✓ **CO_2e Emissions Abatement:** ~380+ kT
- ✓ **Heat Integration:** ~1.9m GJ
- ✓ **Water-Use Reduction:** ~2.8 million m^3
- ✓ **Land Use Reductions:** 19 Ha of land use

OPERATIONAL BENEFITS

- ✓ **Eliminates use of tailings ponds for froth treatment tailings**
- ✓ **Tailings Rehandling Reductions:** ~1.5 Mt
- ✓ **Pyrite Mitigation and NORMs Removal**

Potential to Reduce Canada's Emissions by 0.5%

Significant economic, environmental and operational benefits exist for a typical project incorporating CVW™ technologies

[1] CVW CleanTech has tested tailings from most oil sands operations and has developed estimates for a generic site based on aggregate results as discussed in the "Process and Technology Overview" published on July 31, 2023.

CVW™: Development Approaches

CVW CleanTech has a variety of development approaches based on the operator's preference to optimize capital costs and operational benefits

	CVW™ EcoBase[1]	CVW™ EcoFlex[1]	CVW™ EcoMax[1]
Hydrocarbon Revenue	$136M	$136M	$136M
Minerals Revenue	–	Phase 1: - Phase 2: $205M	$205M
GHG Abatement	$73M	Phase 1: $73M Phase 2: $65M	$65M
Tailings Management Benefit	$33M	$33M	$33M
Heat Integration Benefit	$7M	$7M	$7M
Annual Operating Costs	$17M	Phase 1: $17M Phase 2: $48M	$48M
Initial Capital Cost (incl. 20% contingency	$390M	Phase 1: $390M Phase 2: $726M	$1,116M

CVW CleanTech is exploring options for an off-site Mineral Separation Plant that is expected to lower capital costs and allow for efficient expansion to process heavy mineral concentrate from multiple sites

Additional operational benefits of the Mineral Separation Plant include NORMs mitigation and enhanced pyrite management

[1] CVW CleanTech has tested tailings from most oil sands operations and has developed estimates for a generic site based on aggregate results as discussed in the "Process and Technology Overview" published on July 31, 2023.

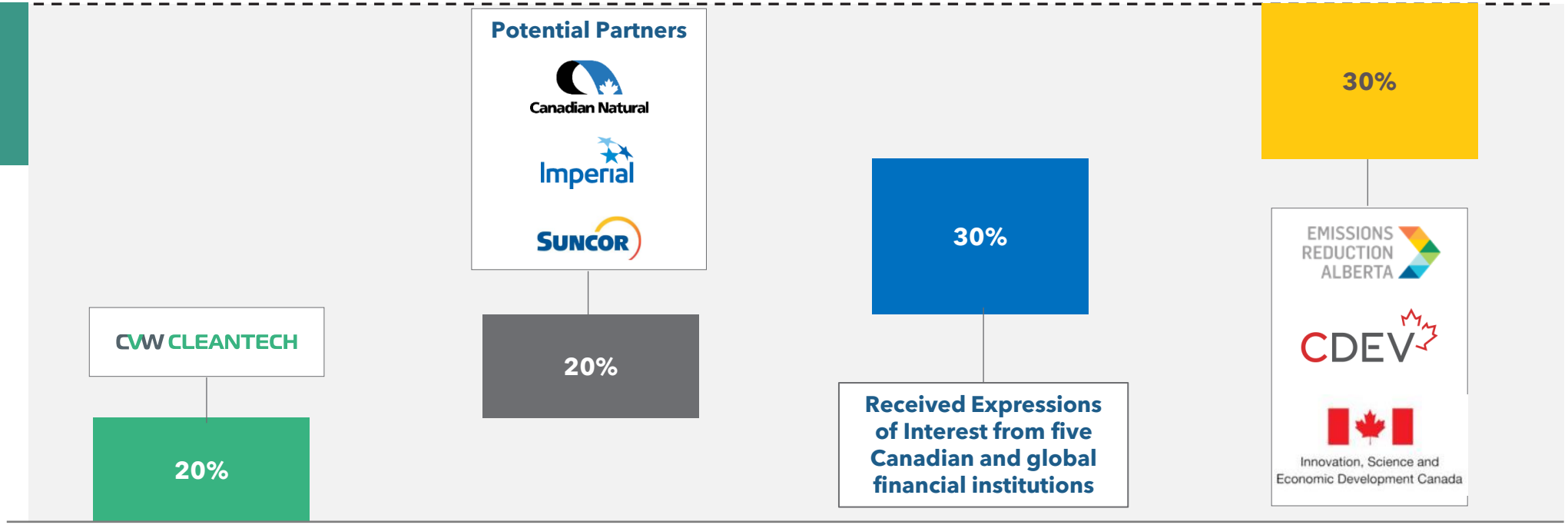
EcoBase Illustrative Financing

CVW CleanTech envisions a CVW™ EcoBase deployment under a joint venture structure with an Oil Sands operator

- Aim is to secure ~60% of the funding from project debt and government sources
- Minimizes the direct capital contribution from the Oil Sands Operator and CVW CleanTech

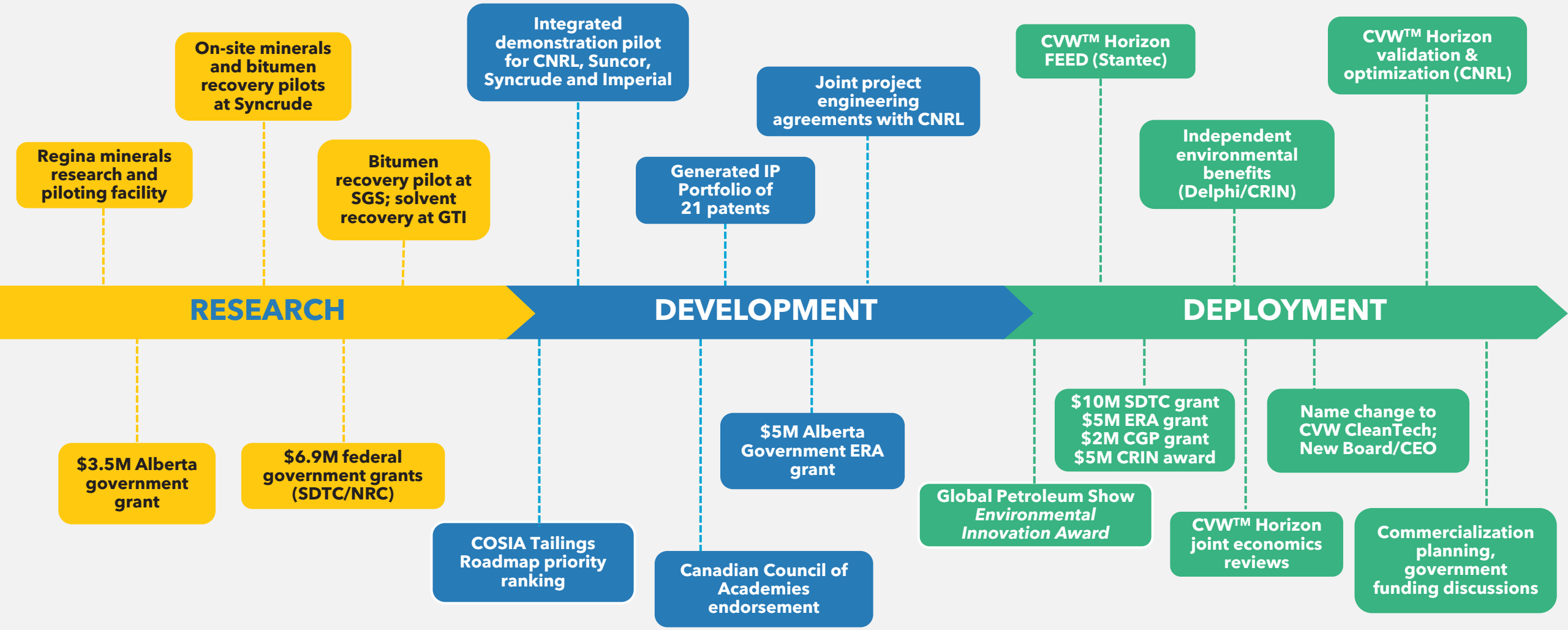
CVW™ EcoBase should be an excellent fit for the Strategic Innovation Fund, Canada Growth Fund, Emissions Reduction Alberta and other government programs including potential ITCs

TOTAL ECOBASE PROJECT COST[1]
$390M



[1] EcoBase project capital costs include $65M (20%) in contingencies.

CVW™ Technology: Over 15 Years of Development



Proven Technology with Industry Leading Pilots...

Minerals Process Development Facility (SRC – Regina) – 2004-2008

Focused on full scale mineral dressing test facility processing tailings beach

Hydrocarbon Recovery R&D Program (Alberta Energy) – 2008-2012

- Institutional and industry R&D expertise engaged in open innovation development model
- SGS Lakefield – bitumen recovery micro-pilot
- Gas Technology Institute (GTI) – HMC cleaning, solvent recovery
- D-Y Peng (UofS) – tailings thermodynamics, solvent recovery

Bulk Sampling Pilot Plant at Syncrude Mildred Lake site – 2005-2006

1/20 scale minerals concentration & cleaning with live froth treatment tailings

Integrated Pilot Plant (CanmetENERGY) – 2010-2014

- SDTC Consortium with operator participation including Canadian Natural Resources, Syncrude, Suncor, Imperial Oil and Total
- Pilot included integrated testing of hydrocarbon recovery, mineral concentration & cleaning, tailings management, water treatment, recovered bitumen processability & critical minerals recovery
- Industry-relevant scale and up to 10x larger than typical oil sands industry pilot programs
- Bulk HMC production for full scale mineral separation testing in Brisbane, Australia

The Company has invested over $100M to develop CVW™ technology and conducted several successful pilots and test programs; IP is protected by 20 active patents and commercial knowledge

...Followed by Front End Engineering

Greenfield Project Engineering 2010

- Full scale generic greenfield installation engineered to AACE Class 4 level of project definition; Study reviewed by CoSyn (Syncrude engineering)
- Project recommended by Syncrude Research for business development

Brownfield Desktop Study 2016

Full scale integration with operator site with Class 4 cost estimate

CNRL Horizon Pre-FEED Study 2017

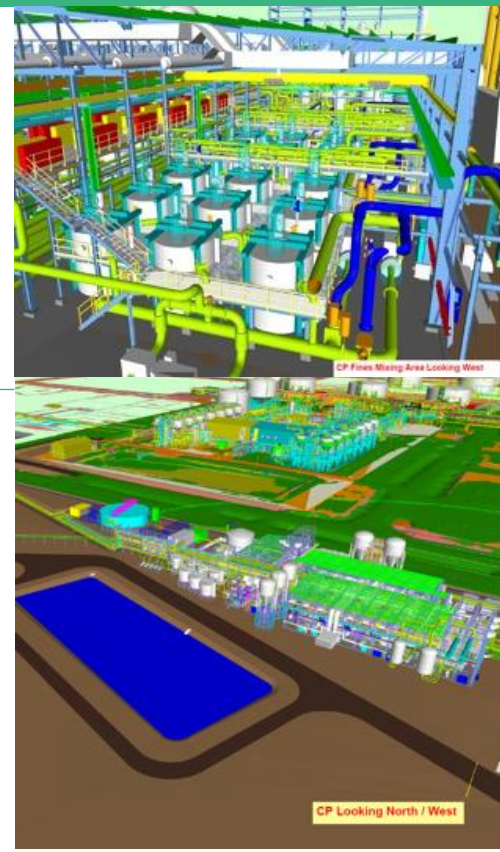
CNRL conducted feasibility study for CVW™ implementation at Horizon mine Identified key tie-in and utilities schedules; CVW™ process review

CVW™ Horizon FEED Study 2018-2019

- Front end engineering design with active participation by Canadian Natural Resources included technical, process, safety and project expertise
- Engaged third party support for tailings management and process validation

CVW™ Horizon Optimization FEED Study 2020-2021

- Front end engineering design to AACE Class 3 level of project definition
- Executed by Canadian Natural's Major Projects team who confirmed commercial technical readiness
- Third party design and validation of key operating and GHG emissions benefits



Engineering work resulted in Class III estimate in 2021 which is industry standard prior to final investment decision

CVW™ Technology is aligned with stakeholder priorities

- ✓ Canada 2030 Emissions Reduction Plan
- ✓ GHG/methane emissions reduction
- ✓ VOC and SOA reduction
- ✓ Water conservation
- ✓ Low carbon minerals

- ✓ Canada's Mineral and Metals Plan (Action Plan 2020 and 2021)
- ✓ New minerals industry
- ✓ New jobs; new exports
- ✓ Clean tech; infrastructure

- ✓ Net Zero Pathway Alliance
- ✓ Alberta Directive 85
- ✓ Lower carbon intensity
- ✓ Lower operating costs
- ✓ Increased recoveries
- ✓ Value-added by-products

Track Record of Government Support

Over $80M in grants awarded

$3.5M MAR 2008	Alberta Energy
$16.4M DEC 2009 & 2020	Sustainable Development Technology Canada / Technologies du développement durable Canada
$0.5M JUL 2012	National Research Council Canada / Conseil national de recherches Canada
$10.0M OCT 2017 & SEP 2020	Emissions Reduction Alberta
$40.0M MAR 2019	Environment and Climate Change Canada / Environnement et Changement climatique Canada
$5.0M JAN 2020	Natural Resources Canada / Ressources naturelles Canada
$5.0M FEB 2022	CRIN Clean Resource Innovation Network

CVW CleanTech's R&D has benefitted from government grants and expect a significant amount of support for commercialization

For Additional Information Please Contact:

CVWcleantech.com

TSX Venture Exchange symbol “CVW”

CVW CLEANTECH

Akshay Dubey
CHIEF EXECUTIVE OFFICER
AND DIRECTOR

Tel: 403-460-8135
Akshay.Dubey@CVWcleantech.com

Dr. Kevin Moran
EXECUTIVE VICE PRESIDENT AND
CHIEF TECHNOLOGY OFFICER

Tel: 403-460-8135
Kevin.Moran@CVWcleantech.com

Head Office: Suite 305, 505 – 8th Ave. SW, Calgary, Alberta, Canada T2P 1G2

Memberships

CVW CleanTech is an Associate Member of the Resource Diversification Council; a Member of the Alberta Chamber of Resources, the Canadian Chamber of Commerce, TZ Minerals International, and the Clean Resource Innovation Network (“CRIN”). The Company’s shares are listed on the TSX Venture Exchange (“TSXV”) under the symbol “CVW”.

RESOURCE DIVERSIFICATION COUNCIL
Adding Value to Alberta's Energy Resources

THE CANADIAN CHAMBER OF COMMERCE / LA CHAMBRE DE COMMERCE DU CANADA

ALBERTA CHAMBER OF RESOURCES

TZMI

CRIN
Clean Resource Innovation Network

Funding

CVW CleanTech wishes to gratefully acknowledge past funding from Emissions Reduction Alberta (“ERA”), Sustainable Development Technology Canada (“SDTC”), the Government of Alberta and the National Research Council Canada and the recent grant funding awards from CRIN, Environment and Climate Change Canada’s Low Carbon Economy Fund, Natural Resources Canada’s Clean Growth Program and continuing funding by ERA.

EMISSIONS REDUCTION ALBERTA

SUSTAINABLE DEVELOPMENT TECHNOLOGY CANADA
TECHNOLOGIES DU DEVELOPPEMENT DURABLE CANADA

NRC·CNRC Canada
NRC Industrial Research Assistance Program

CRIN
Clean Resource Innovation Network

Environment and Climate Change Canada / Environnement et Changement climatique Canada

Natural Resources Canada / Ressources naturelles Canada

APPENDIX

APPENDIX

Potential to Create a New Mineral Industry Leader

Mineral sand production from Alberta has the potential to create a new industry for the province

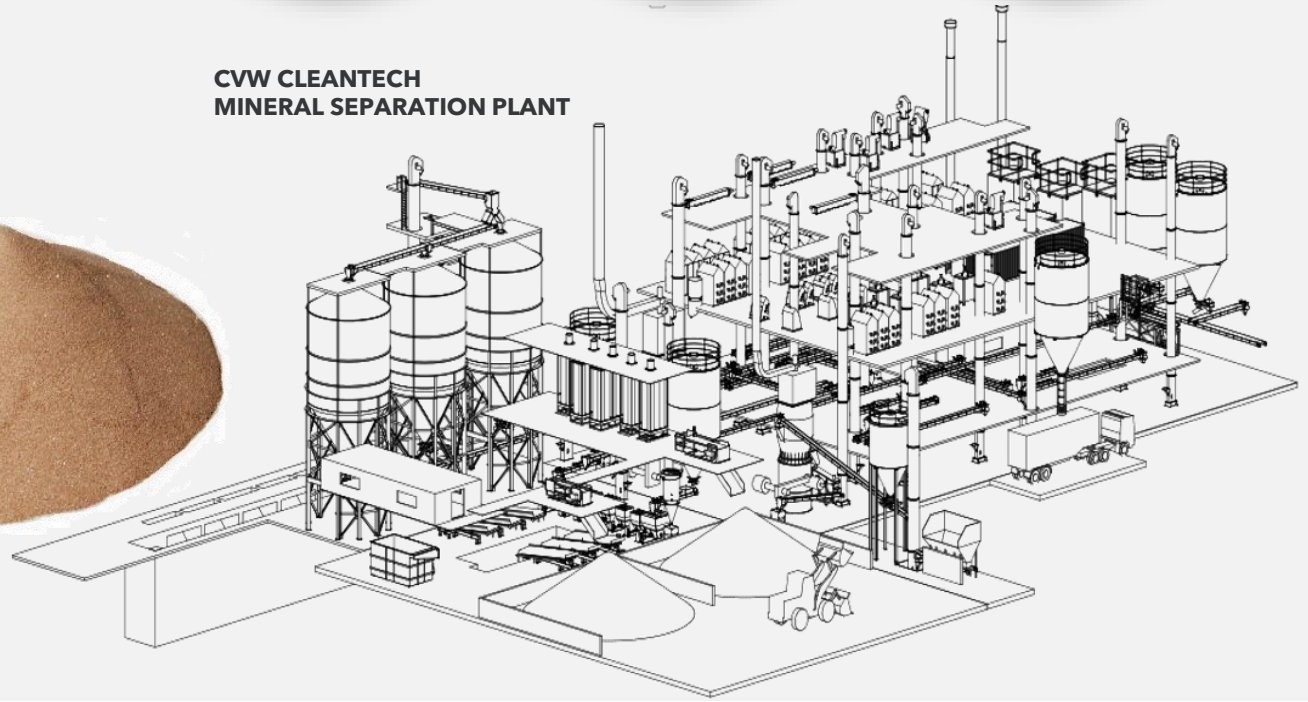
Mineral sand production from Alberta's oil sands would represent a sustainable resource, with a lifespan in excess of 50 years for export to growing world markets

CVW CleanTech has developed unique and environmentally friendly technologies to recover critical minerals, primarily titanium minerals and zircon sand through a mineral separation plant

Titanium and Zircon classified as "strategic and critical" minerals

Life-style enhancing in emerging economies

Strong correlation with global GDP growth

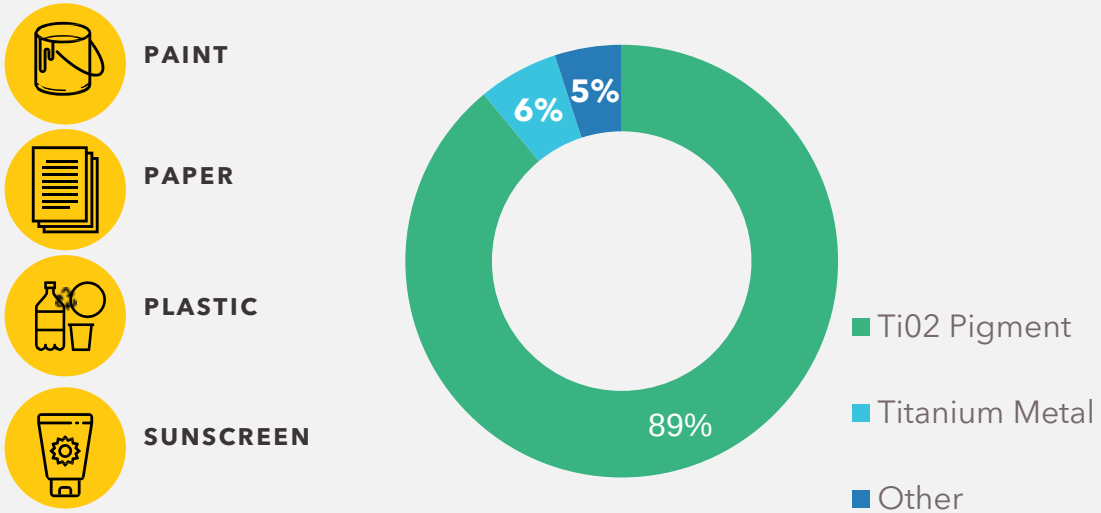


APPENDIX

Titanium and Zircon: Used in Everyday Life

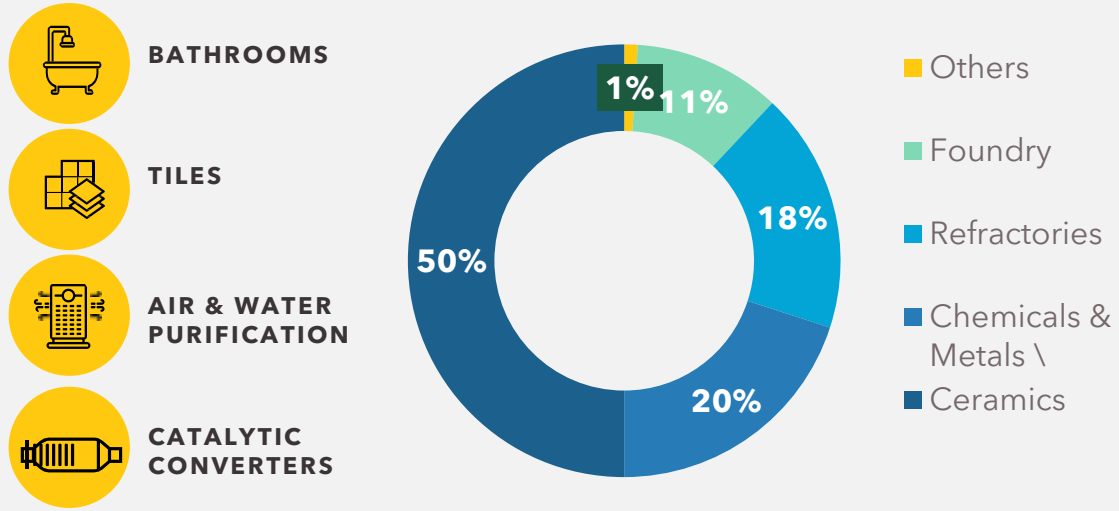
Titanium

- Titanium dioxide (TiO_2) is a bright white substance used primarily as a vivid colorant in a wide array of common products
- Occurs naturally in two main forms: rutile and anatase which is then processed to remove any impurities, creating an incredibly useful, multi-purpose, white pigment
- Ideal for inclusion in a variety of consumer and industrial products, TiO_2 is particularly well suited to applications that need to deliver high levels of opacity, brightness and ultraviolet (UV) protection



Zircon

- Zircon (zirconium silicate) has a unique set of physical properties which make it suitable for use in a variety of demanding applications.
- These properties include high refractive index, high hardness and high melting point as well as chemical stability
- The majority of zircon is used in its finely ground form in the ceramics industry for the production of ceramic bodies, glazes, enamels, frits and pigment applied to traditional ceramics
  - Various uses as a whiteness and opacity enhancer in traditional ceramics



Source: Titanium Dioxide Manufacturers Association and Zircon Industry Association.