NORTHLIGHT

POWERING CANADA'S NEXT FRONTIER

For generations,
the North has relied on
imported fuel.

While just below the surface
lies a natural energy resource.

NATURAL HYDROGEN EXPLORATION
AND INFRASTRUCTURE



The North runs on diesel.



Canada's North depends on one of the most complex fuel supply chains in the country. Every litre of diesel must be produced, transported, stored and delivered before it generates a single kilowatt of electricity.

That dependence creates a structural cost burden measured not only in dollars, but in logistics, working capital and infrastructure risk.

THE DIESEL JOURNEY TO THE NORTH

01 REFINERY



Diesel produced in southern refineries.

→

02 TRUCK



Hundreds to thousands of kilometres by winter road or highway.

→

03 SEALIFT



Short seasonal window. Weather delays are routine.

→

04 STORAGE



Bulk storage required. High capital and contamination risk.

→

05 COMMUNITY



Delivered to remote communities for power, heat and critical services.

~292
REMOTE CANADIAN COMMUNITIES DEPEND ON DIESEL ALMOST EXCLUSIVELY (~185,000 PEOPLE)

75+
REMOTE NORTHERN COMMUNITIES ACROSS THE TERRITORIES

682M L
OF DIESEL CONSUMED ANNUALLY
~$1.5B ESTIMATED ANNUAL SPEND

6–10×
THE CANADIAN AVERAGE FOR ENERGY
~$1.30/kWh IN SOME COMMUNITIES

$300–400M
PER YEAR IN GOVERNMENT SUBSIDIES JUST TO KEEP THIS RUNNING

NUNAVUT
40,000 RESIDENTS / 25 COMMUNITIES
100% DIESEL-DEPENDENT
~2/3 OF GENERATORS AT OR BEYOND MECHANICAL END-OF-LIFE

The same problem, *at a much bigger scale* — Arctic mining.

Arctic mines depend on imported diesel for power, heating and heavy equipment. The volumes, logistics and capital tied up are enormous.

NUNAVUT'S FIVE OPERATING MINES

>600 MILLION LITRES OF DIESEL CONSUMED ANNUALLY

MINE	OPERATOR	ANNUAL DIESEL CONSUMPTION (M L)	NOTES
Goose Mine (Boston)	B2Gold	80–85	163 km ice road 8-week winter haul window
Meliadine Mine	Agnico Eagle	~140	Fly-in diesel, dual fuel infrastructure
Meadowbank Mine	Agnico Eagle	~110	Fly-in diesel
Hope Bay Mine	Agnico Eagle	~70	Ongoing redevelopment
Mary River Mine	Baffinland	~200+	Includes ports and on-site operations
TOTAL (EST.)		~600+ MILLION LITRES / YEAR	



Diesel is a major cost driver.

Goose Mine illustrative breakdown (AISC)

80–85M L	~C$240M	~C$330M	163 KM	8-WEEK
diesel consumed annually at Goose Mine	annual fuel & logistics cost (Goose Mine)	pre-staged working capital in fuel	ice road to southern road network	haul window — every year

OPERATORS ARE ALREADY SPENDING TO SOLVE THIS

Agnico Eagle **Nukik MOU**	December 2025 agreement with NTI to explore a 138M L/year fuel supply solution for the Kivalliq region.
Agnico Eagle **Hope Bay Redevelopment**	May 2026 announced C$2.4B investment to extend mine life and modernize infrastructure.
B2Gold **Back River Energy Centre**	Wind, solar & battery project targeting ~50% reduction in diesel-generated power.

THE TENSION

Operators are investing in new diesel infrastructure and simultaneously seeking to reduce reliance on it. The market is actively looking for alternatives at scale.

ONE MINE. TWO COST STRUCTURES.

Diesel Powered Mine

Nunavut gold mine, commercial production since October 2025
≈300,000 ounces annually

Remote Arctic location, no road or grid access

Annual diesel consumption
80–85 million litres

Annual fuel and Arctic logistics cost
≈C$240 million

Pre-staged working capital tied up in fuel and consumables
≈C$330 million

Delivery: ocean sealift during a short ice-free season, storage in large above-ground tanks, then a 163km seasonal ice road — the 2025 winter campaign moved diesel via 4,000+ truck loads across an 8-week window



With Natural Hydrogen

(ILLUSTRATIVE SCENARIO ONLY)

Illustrative modeling of the same mine with natural hydrogen displacing a portion of diesel.

DIESEL REDUCTION	ANNUAL SAVING	AISC IMPROVEMENT*
50%	C$100–120M	~US$330–400 per ounce

HOW THIS NUMBER WAS DERIVED

- Calculated as a 50% reduction applied to the mine's disclosed C$240 million annual diesel and logistics cost.
- The saving reflects displaced fuel and logistics spend, not a separately modeled hydrogen sale price.

*AISC (All-in Sustaining Cost): the standard industry metric for a gold mine's cost per ounce produced, inclusive of operating. sustaining and capital costs.

HOW NORTHLIGHT DELIVERS IT

1. CO-LOCATED PRODUCTION

- Hydrogen is produced from the same geology the mine has already drilled into, at or immediately near the mine site.
- No long-haul transport step.

2. ON-SITE PURIFICATION

- Two-stage process: Temperature Swing Adsorption (TSA) for primary separation, then Pressure Swing Adsorption (PSA) for polishing.
- Reaches 99.97% purity for fuel cell power generation. Uses no water.

3. FENCE-LINE POWER GENERATION

- Purified hydrogen is routed directly into on-site fuel cell modules ("fence-line" generation).
- Converts the gas into continuous power to displace diesel generators.

The next energy resource

Natural hydrogen isn't manufactured. It's discovered.



Naturally occurring hydrogen is generated within the Earth's crust through ongoing geological processes. It is not made in a plant or derived from fossil fuels. It exists, migrates and accumulates in nature—now emerging as a major new exploration frontier.

HOW IT FORMS

Hydrogen is produced deep in the Earth through two natural processes:

SERPENTINIZATION
Water reacts with iron-rich rocks, releasing hydrogen.

RADIOLYSIS
Natural radioactive decay splits water molecules, producing hydrogen.

THE SHALE PARALLEL

In 2008, U.S. crude oil production had fallen to roughly five million barrels per day. Geologists were not wrong about where the oil was. What they lacked was a way to get it out. Natural hydrogen is at the equivalent starting point today.

THE EMERGENCE OF A NEW RESOURCE CATEGORY

1987 — BOURAKÉBOUGOU DISCOVERY
Natural hydrogen encountered in Mali during a water well drilling program.

2012 — FIRST COMMERCIAL PRODUCTION
The Bourakébougou field re-opened and began producing electricity using naturally occurring hydrogen for a nearby village. Continuous production has been maintained since 2012 at ~97–98% pure hydrogen.

2014 — SCIENTIFIC VALIDATION
Peer-reviewed research establishes natural hydrogen as a legitimate geological exploration target rather than an isolated anomaly.

2024 — A GLOBAL RESOURCE
The U.S. Geological Survey estimates ~5.6 trillion metric tonnes of naturally occurring hydrogen in-place worldwide. Even 2% recovery would exceed all proven natural gas reserves on Earth.

2025 — EXPLORATION ACCELERATES
Governments, researchers and public companies begin advancing dedicated natural hydrogen exploration programs across North America, Europe and Australia.

2025–26 — CANADIAN EXPLORATION ACCELERATES
Momentum builds as new data, partnerships and field programs advance across Canada's geologic basins.

THE SCALE OF THE OPPORTUNITY

~5.6 TRILLION
METRIC TONNES IN-PLACE GLOBALLY
U.S. GEOLOGICAL SURVEY ESTIMATE (2024)

2%
RECOVERY POTENTIAL COULD EXCEED ALL PROVEN NATURAL GAS RESERVES ON EARTH

WHY IT MATTERS

The Earth has been generating hydrogen for millions of years.

Some evidence suggests naturally occurring hydrogen systems may continue to recharge over time, though the extent and mechanisms remain an active area of research.



BOURAKÉBOUGOU FIELD, MALI
THE WORLD'S ONLY NATURAL HYDROGEN FIELD IN COMMERCIAL PRODUCTION

PROOF POINTS

- INDEPENDENT SCIENTIFIC RESEARCH
- COMMERCIAL PRODUCTION SINCE 2012
- USGS RESOURCE ASSESSMENT
- GLOBAL EXPLORATION ACCELERATING

The Canadian Shield is now a *confirmed, measured* natural hydrogen system.

A peer-reviewed, decade-long measurement study provides the first direct evidence that natural hydrogen is continuously generated and discharged from Canadian Shield rock.

THE PNAS STUDY — MAY 2026

First peer-reviewed, multi-year **MEASUREMENT** (not model or inference) of natural hydrogen in the Canadian Shield.

Data source: Kidd Creek Mine, near Timmins, Ontario.

Boreholes averaged 0.008 tonnes (8 kg) of H_2 per year, sustained for over a decade (11 years).

Scaled across the borehole network:

140+ tonnes H_2 per year

enough for 4.7 million kWh/year, or 400+ households' worth of annual energy demand.

PRIORITY REGIONS IDENTIFIED IN THE STUDY



> "The common link is the rock... The co-location of mining resources and hydrogen production and use mitigates the need for long transportation routes to market, for hydrogen storage and major hydrogen infrastructure development."

OLIVER WARR
CO-AUTHOR, PNAS STUDY
UNIVERSITY OF OTTAWA

Mafic and ultramafic rocks are the highest priority for natural hydrogen.



RAGLAN, NUNAVUT

Ultramafic complex confirmed hydrogen occurrences.



THOMPSON NICKEL BELT, MANITOBA

Mafic–ultramafic rocks with confirmed natural hydrogen.



YELLOWKNIFE ULTRAMAFIC COMPLEX, NWT

Confirmed natural hydrogen in mafic and ultramafic rocks.



KIDD CREEK MINE, ONTARIO

Measured, continuous hydrogen discharge for 11+ years.

- Ancient, stable geology with extensive mafic and ultramafic belts
- Decades of mining data now revealing a hydrogen signal
- Natural pathways for generation, migration and discharge
- Co-location potential with existing mining infrastructure
- Four large-scale regions identified as priority targets in the study

The NorthLight Thesis — *five converging developments,* one opportunity.



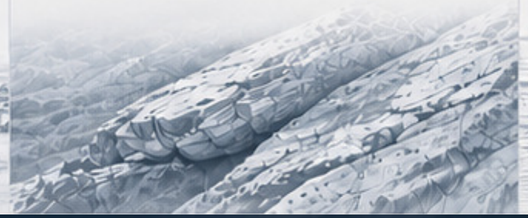
01 NORTHERN DEVELOPMENT

Infrastructure investment, population growth, and resource activity are increasing energy demand across Canada's North.



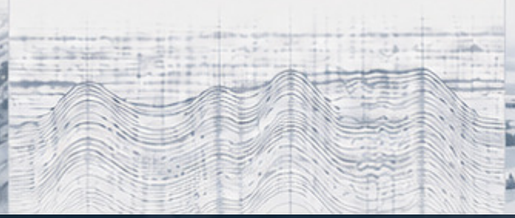
02 NATURAL HYDROGEN SCIENCE

Natural hydrogen is now an established geological reality, with peer-reviewed measurements and global validation.



03 HISTORICAL DATA ADVANTAGE

Decades of legacy oil and gas exploration data across the Mackenzie Delta have never been analyzed for hydrogen.



04 INFRASTRUCTURE RENEWAL OPPORTUNITY

Aging diesel assets across northern communities are reaching end of life—forcing a replacement decision now.



05 HYDROGEN-POWERED GENERATORS

Hydrogen-powered generator systems are now commercially available, making it possible to convert naturally occurring hydrogen directly into electricity at the mine site and in remote communities.



~2/3

of Nunavut's diesel generators are at or beyond mechanical end-of-life.

140+

tonnes of hydrogen/year measured discharging from a single Timmins-area mine's borehole network.

Hundreds of wells and thousands of km

of seismic data already collected across the Mackenzie Delta—none of it ever analyzed for hydrogen.

The people defining *the category.*

NorthLight brings together a multidisciplinary team of world-leading experts whose work has shaped natural hydrogen from discovery to commercial realization.



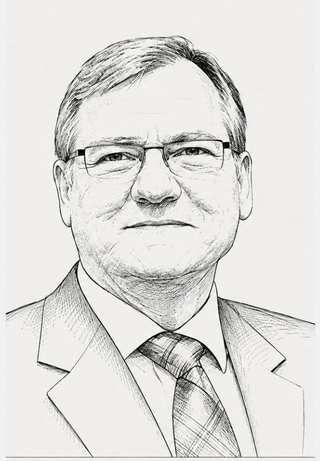
ADVISORY CHAIR

Barbara Sherwood Lollar, PHD, CC FRS

One of the world's foremost geochemists and author of the landmark May 2026 PNAS paper confirming sustained natural hydrogen production in the Canadian Shield.

- COMPANION OF THE ORDER OF CANADA
- FELLOW OF THE ROYAL SOCIETY (UK)
- NATIONAL ACADEMY OF SCIENCES (USA)
- NATIONAL ACADEMY OF ENGINEERING (USA)

Chaired the Royal Society's 2025 natural hydrogen policy briefing.



Denis Briere, P.Eng.

TECHNICAL ADVISOR

Confirmed the 98% hydrogen accumulation at Bourakébougou, Mali in 2012—the world's first operating natural hydrogen field.

Author of the world's only NI 51-101 compliant resource report for a natural hydrogen accumulation.

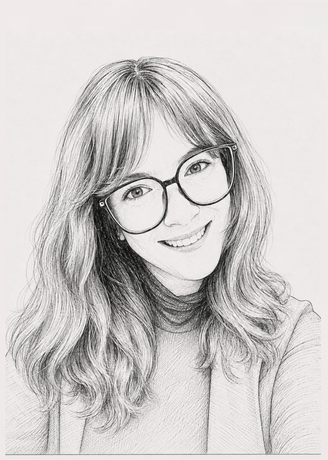
Special Advisor to **MAX Power Mining.**



Dr. Peter Kondos

MINING & METALLURGY

Former executive at **Barrick Gold, Inco** and **Noranda** with decades of experience in mining innovation and hydrometallurgical engineering.



Aaryn Hutchins P.Geo

EXPLORATION

Specialist in exploration program design, field operations and **Indigenous engagement** across northern resource projects.

TECHNOLOGY | GEOLOGY | EXPLORATION | DEVELOPMENT | INFRASTRUCTURE

Natural hydrogen, *with northern expertise.*



100%
INUIT-OWNED

Nunavut's first 100% Inuit-owned clean energy developer, wholly owned by Qikiqtaaluk Corporation.

Its goal: help all 13 Qikiqtani communities reduce diesel dependence through community-led clean energy.

NorthLight and Nunavut Nukkiksautiit Corporation (NNC) have signed a memorandum of understanding to evaluate natural hydrogen opportunities in Nunavut's Qikiqtani Region.

MOU SIGNED



WHAT NNC BRINGS

- Regional and community relationships
- Energy-system and microgrid expertise
- Knowledge of potential host sites and infrastructure



WHAT NORTHLIGHT BRINGS

- Natural hydrogen exploration and geoscience
- Subsurface assessment and technical advisors
- Capital markets and project-financing experience

INITIAL AREAS OF COLLABORATION



01 / EVALUATE

Joint feasibility work and exchange of geological and energy-demand information.



02 / COORDINATE

Potential site access, community engagement and technical reviews with NNC.



03 / EXPLORE APPLICATIONS

Assess mine-power and microgrid opportunities and pursue suitable funding programs.

The opportunity already exists.

Mines are already drilling into hydrogen-generating rock. We assess, capture, and sell it back.

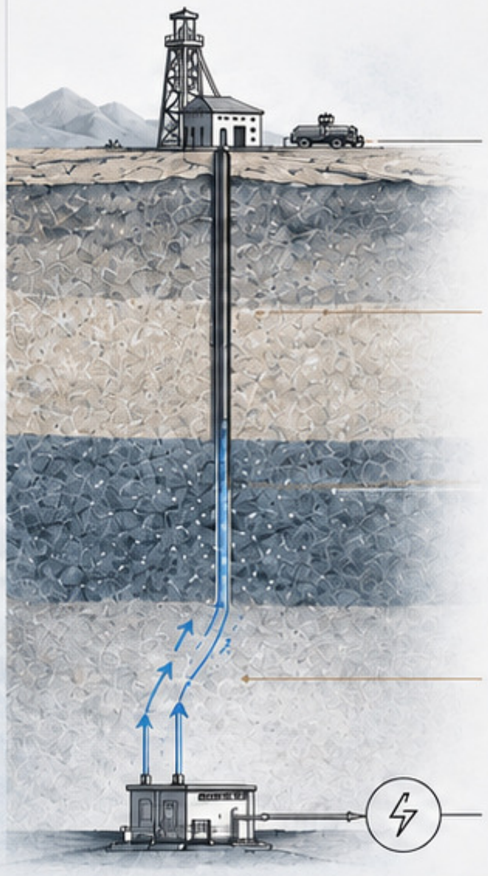
Mining companies in the Canadian Shield have already invested billions to reach the geology. In many cases, they are unknowingly venting natural hydrogen as a safety byproduct.

PRIORITY TARGETS

KIDD CREEK, ON
Recently changed ownership.
A corridor, not a single opportunity.

RAGLAN, QC
Management already
open to alternatives.

MINES HAVE REACHED THE GEOLOGY.
WE HELP UNLOCK THE ENERGY.



EXISTING MINE OPERATIONS
Power, infrastructure, roads, workforce and permits already in place.

EXISTING BOREHOLES
Drilling for minerals has already intersected hydrogen-generating geology.

HYDROGEN-BEARING ROCK
Natural hydrogen is produced deep in the Earth and can migrate along fractures.

HYDROGEN CAPTURE
We assess, capture and treat the gas.

POWER FOR MINE OPERATIONS
Reliable, local, low-carbon energy.

THE INFRASTRUCTURE EXISTS.

Deep drilling into hydrogen-generating rock	Hydrogen assessment, sampling and evaluation
Surface infrastructure, roads, power, operations	Capture, treatment and integration into energy system
Skilled workforce and operational know-how	H_2 expertise, project development and execution
Permits and regulatory frameworks	Environmental compliance and reporting
Continuous demand for reliable energy	Local hydrogen supply at competitive cost

THE ECONOMICS

Diesel at C$3.00/L + delivered to remote Nunavut mines.

Target **<C$1.00/kg** wellhead hydrogen.

Goose Mine alone can reduce diesel use by ~50%, delivering C$100–120M per year in operating cost savings.

ILLUSTRATIVE ONLY

THE FOUR-PHASE CONSULTING MODEL

1 ASSESSMENT
Desktop review, site visit, preliminary sampling and evaluation.
FEE: C$150K – C$300K

2 VERIFICATION
Detailed sampling, gas analysis, geological interpretation and resource modelling.
FEE: C$300K – C$750K

3 DEVELOPMENT
Joint venture or partnership structure to advance project to feasibility.
FEE: EQUITY / CARRY

4 PRODUCTION
Construction, commissioning and long-term hydrogen supply agreement.
REVENUE: ROYALTIES / OFFTAKE

Mines pay for early-stage assessment. Capital requirements scale only after de-risking and partnership.

LOWER CAPITAL INTENSITY
No greenfield infrastructure build.

EXISTING INFRASTRUCTURE
Leverage what's already in place.

NEAR-TERM REVENUE
Paid consulting in Phase 1.

LOCAL, RELIABLE ENERGY
Lower cost, lower emissions.

Mine-site hydrogen.

Exploration to energy supply.

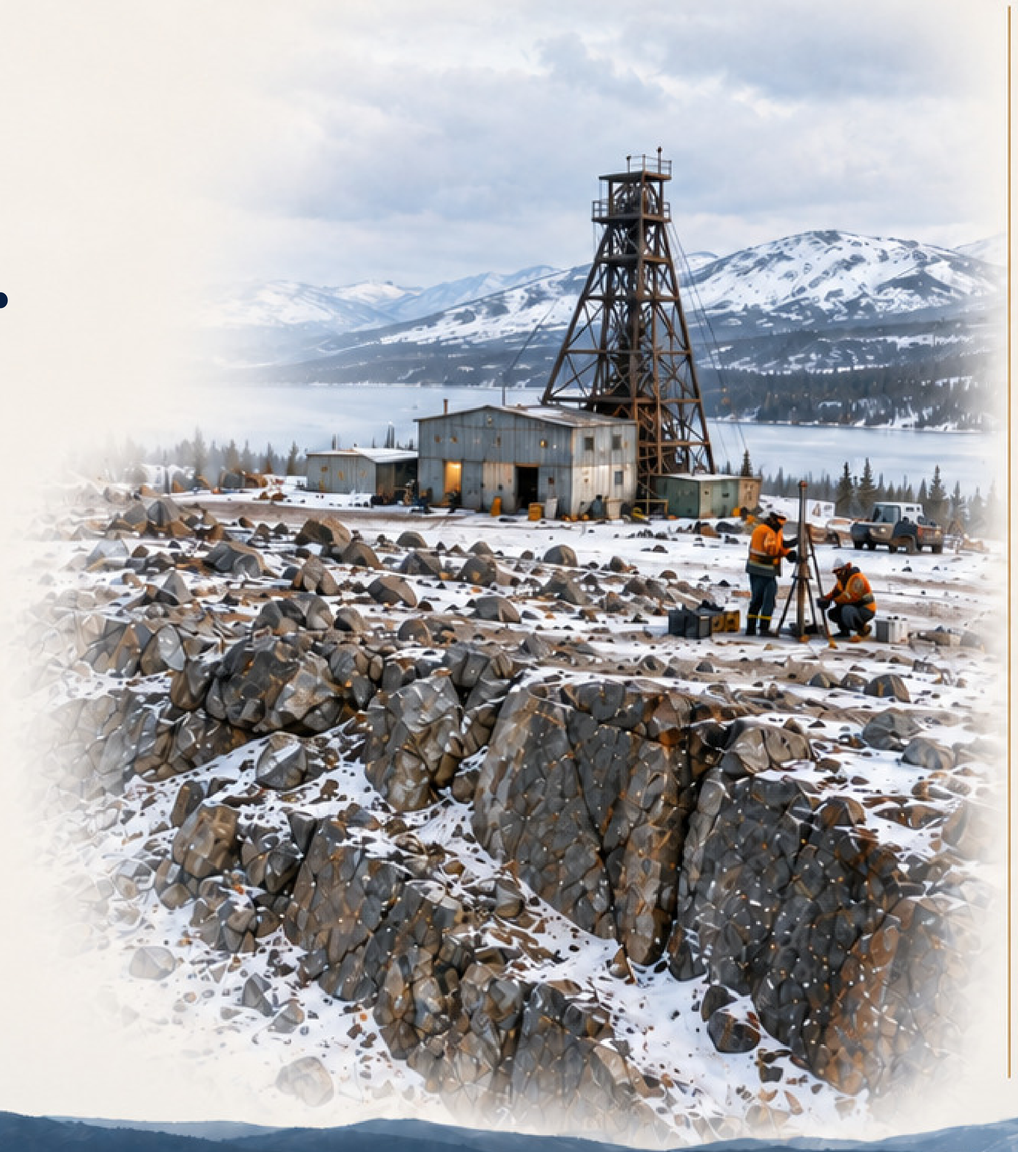
NorthLight's co-development model tests whether natural hydrogen at a mine could become an energy source for its operations.

PROSPECTIVE MINE PARTNERS

Glencore, B2Gold, Agnico Eagle, Vale, Hudbay, Baffinland and Rio Tinto

Sites selected for hydrogen potential and on-site energy demand.

Commercial framework for discussion.



THE TWO-PHASE COMMERCIAL MODEL

PHASE I

Hydrogen resource assessment

The mine funds a defined technical program.

NorthLight and its technical partners review geology and borehole data, then test for hydrogen content, quality and sustained flow.

COMMERCIAL STRUCTURE

Exploration rights and NorthLight's role in a future development are defined at the outset.

PHASE II

Development & energy supply

If testing supports a viable project, the parties agree how to fund, build and operate it.

NorthLight participates through long-term energy supply to the mine or an agreed share of project returns.

01 / REVIEW
Geology and existing borehole data

02 / PLAN
Define access, testing scope and the program budget

03 / TEST
Hydrogen content, gas quality and sustained flow

04 / EVALUATE
Technical results and commercial viability

Decades of exploration data, *searching for the wrong molecule.*

From the 1970s to the 1990s, hundreds of wells and thousands of kilometres of seismic data were collected across the Mackenzie Delta — all in search of oil and gas.

None of it was ever analyzed for hydrogen.

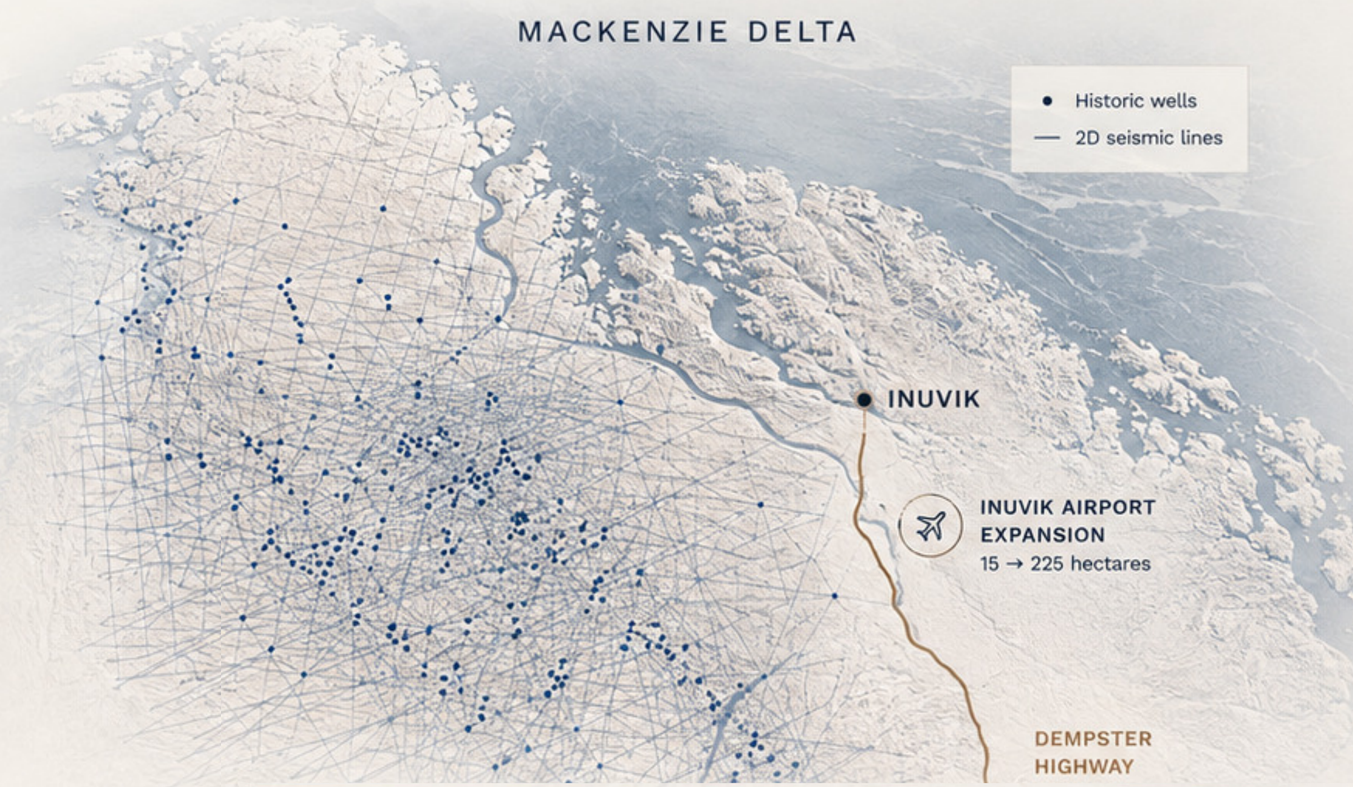
The value may not only be in the resource. It may also be in the decades of geological information already available to help find it.

STRATEGIC LOCATION
Inuvik sits at the intersection of transportation, defense and community infrastructure.

DEFENSE INVESTMENT
Inuvik Airport expansion from 15 to 225 hectares to support future operations.

TRANSPORTATION ACCESS
Connected to the Dempster Highway — Canada's only all-season route to the Arctic.

COMMUNITY INFRASTRUCTURE
Energy development can build on existing services and deliver long-term local value.



FEDERAL INVESTMENT CONTEXT

$230M
RUNWAY EXTENSION
Strengthening Inuvik Airport for defense and commercial use.

$100M
CIB INVESTMENT
Inuvialuit Settlement Region gas wells and infrastructure.

60MW
TALTSON HYDRO EXPANSION
Powering 11 communities across the North.

STAGE	TRADITIONAL EXPLORATION	NORTHLIGHT APPROACH
DATA	New seismic surveys and well programs	Leverage decades of wells and thousands of km of seismic data
TARGETING	Regional to prospect scale	Play-scale targeting using existing information
EXPLORATION	High-risk drilling to find shows	De-risked targeting, test higher probability zones
CAPITAL EFFICIENCY	High burn, long lead times	Lower burn, shorter cycle times
PATH TO VALUE	Many years, high geological risk	Faster to insight, lower geological risk

PROOF THIS APPROACH WORKS

In January 2026, MAX Power announced the Lawson discovery in British Columbia — Canada's first confirmed subsurface natural hydrogen system.

- 168,000 – 286,000 ppm hydrogen in core samples
- 475 km Genesis Trend
- Validated by Dr. Yaoguo Li
- Backed by Eric Sprott



LOWER CAPITAL INTENSITY
No greenfield infrastructure build.

EXISTING INFRASTRUCTURE
Leverage what's already in place.

NEAR-TERM REVENUE
Paid consulting in Phase 1.

LOCAL, RELIABLE ENERGY
Lower cost, lower emissions.

Manitoba.

A hydrogen thesis beneath the prairie.

Advancing land access and natural hydrogen exploration in southwestern Manitoba.



TARGET GEOGRAPHY

01 **SOUTHWESTERN AREA 1**

Townships 1–5
Ranges 25–29 W1

02 **SOUTHWESTERN AREA 2**

Townships 11–12
Ranges 28–29 W1

Regional geological evidence supports focused exploration.

Commercial flow remains to be tested.



01 / ACCUMULATION

Reservoirs & traps

Williston Basin sedimentary rocks could provide reservoirs and sealing layers. Exploration must establish whether hydrogen can accumulate and be retained.

02 / MOVEMENT

Faults & migration

Deep structures may link basement rocks to the sedimentary cover. Exploration must test whether these pathways carry hydrogen into traps or allow it to escape.

03 / GENERATION

Precambrian basement

Ancient rock beneath the basin is a potential source of natural hydrogen. Water-rock reactions and other processes may generate hydrogen at depth.

LAND ACCESS IN PROGRESS

Initial quarter-section response pending; smaller applications being refined.

Application status: September 18 update. Target areas are not secured tenure.

THE NEXT TECHNICAL STEP

Test whether generation, migration and trapping form a viable system.

A structural cost advantage, *not a subsidy story.*

Natural hydrogen is cheaper than delivered Arctic diesel because the "production plant" is geological, not industrial. NorthLight Power's capital concentrates on extraction and delivery — not on manufacturing hydrogen.

DELIVERED ARCTIC DIESEL (MARKET REALITY)

$2.50–$3.50+

per litre, delivered

Once marine sealift logistics, ice road haulage, emergency air freight, and storage infrastructure are included.

→

NORTHLIGHT POWER (DELIVERED / MICROGRID)

$0.75

per litre diesel-equivalent

MANAGEMENT TARGET*

→

LOWER DELIVERED ENERGY COST

≈70%

lower than delivered diesel

Compared to the low end of delivered Arctic diesel ($2.50/L).



STRUCTURAL COST ADVANTAGE

The production plant is geological.

Natural hydrogen is generated by geology rather than manufactured in industrial facilities.

Capital is concentrated on extraction, processing and delivery instead of electrolysers and dedicated hydrogen production assets, creating a fundamentally lower-cost production model.

COMMERCIAL MODEL

Revenue is contracted before capital is deployed.

NorthLight secures long-term take-or-pay agreements with off-grid industrial customers, priced at a 20–30% discount to delivered diesel, before major capital deployment.

Pricing below delivered diesel creates immediate customer savings while supporting predictable contracted cash flow.

HELIUM CO-OCCURRENCE

Additional value from the same geology.

Natural hydrogen systems can also contain commercially valuable helium.

Where present, helium provides additional upside from the same geological system without changing the primary development strategy.

65–75%
Target EBITDA Margin
MANAGEMENT TARGET*

2–3 Years
Target Capital Payback
MANAGEMENT TARGET*

~80%
Lower Capex Intensity vs. Green Hydrogen
MANAGEMENT TARGET*

* Management targets are not audited or independently verified results, and subject to change.

A category is emerging.

NorthLight is positioned where it is heading.

Three independent, third-party milestones in the last 18 months have validated the scale of the opportunity and sparked capital and government attention.

A CATEGORY COMING INTO FOCUS

2025

JANUARY 2025

USGS Assessment

USGS releases the first global assessment of natural hydrogen resource potential.

JANUARY 16, 2026

Lawson Discovery

MAX Power Mining announces Canada's first confirmed subsurface natural hydrogen system via drilling near Central Butte, Saskatchewan (approximately 140km south of Saskatoon).

2026

MAY 2026

PNAS Study

Barbara Sherwood Lollar and Oliver Warr publish the first peer-reviewed, multi-year measurement (not model or inference) of natural hydrogen idscharging from Canadian Shield rock, in PNAS.

NORTHLIGHT

NorthLight is advancing wellfield development in Canada's North, with a focus on delivering natural hydrogen to Arctic mining and defense infrastructures. The company connects resource potential to real-world energy solutions.

THE NORTH AMERICAN HYDROGEN LANDSCAPE

COMPANY	FUNDING / BACKING	STRONGEST VERIFIED RESULT	LOCATION / ASSETS	STAGE
MAXPOWER	~$513M market cap; backed by Eric Sprott, Bitexco	Sanada's first confirmed subsurface natural hydrogen system (Jan 2026)	Saskatchewan (Genesis Trend); Lawson Discovery	Exploration / Appraisal
QIMC QI MATERIALS CORP.	Publicly traded (CSE: QIMC)	24.3% hydrogen at Bennett Hill; 243m zone at West Advocate	Québec, Ontario, Nova Scotia, Minnesota	Active Drilling
KOLOMA	$403M raised — largest in the sector	Best-funded natural hydrogen company globally	Denver, Colorado	Exploration
kavenex	$28M raised	Technical partnership with Koloma; drilling 2027–2028	Calgary, Alberta	Early Exploration
HYTERRA	Backed by Fortescue (A$21.9M)	Targeting world's first hydrogen delivery to a customer, Dec 2026	Kansas & Nebraska (ASX-listed)	Production Testing

Manufactured hydrogen remains expensive and subsidy-dependent at $3–6+/kg.
Grid constraints, water scarcity and high capital intensity are limiting scalability.
Natural hydrogen offers a structural alternative — abundant, rentable and cost-competitive.

NORTHLIGHT'S POSITION

MINING CO-LOCATION

Targeting natural hydrogen where infrastructure already exists.

LEGACY DATA ADVANTAGE

Decades of wells and seismic across the Mackenzie Delta.

NORTHERN INFRASTRUCTURE

Built for northern communities and critical infrastructure.

INTEGRATED TEAM

Geoscience, policy, engineering and commercial expertise aligned.

Discovery doesn't require invention.

Hydrogen-to-power is not the technology risk.

Caterpillar already offers commercially available generator sets capable of operating on hydrogen. For NorthLight, that means discovery does not require inventing a new power-generation technology — the equipment needed to convert hydrogen into electricity already exists.



Cat G3516H Hydrogen Generator Set
1,419–2,027 kW
EPA Stationary Non-Emergency Certified

COMMERCIALLY AVAILABLE

Caterpillar's hydrogen-capable generator platform is already offered across multiple power ranges, from 400 kW to 4.5 MW.

100% HYDROGEN DEMONSTRATED

A Cat G3516 generator has operated on 100% hydrogen, demonstrating the underlying engine platform at MW scale.

FIELD-PROVEN IN INDUSTRY

A 1 MW Cat power module completed a three-week field demonstration on hydrogen-blended fuel on an active drilling rig — moving hydrogen operation beyond the lab.

REAL-WORLD VALIDATION

Below-Freezing Hydrogen Power
A Caterpillar hydrogen fuel-cell system, developed with Ballard, was validated in below-freezing conditions during a 2024 demonstration with Microsoft and NREL.

Remote Industrial Field Test
A 1 MW Cat power module operated on hydrogen-blended fuel during a three-week field demonstration on an active land drilling rig in 2023.



NorthLight has no current commercial relationship with Caterpillar. Caterpillar technology shown as an industry reference.

Exploration backed by hydrogen-specific expertise.



CHAPMAN HYDROGEN & PETROLEUM ENGINEERING LTD.

Calgary, Alberta

NorthLight has retained Chapman to help plan and execute its Canadian natural hydrogen exploration program — from target assessment and field testing through regulatory review, extraction modelling and economics.

1985
FOUNDED
Canadian consulting firm specializing in petroleum engineering, geology, geophysics and management across the full spectrum of the oil & gas industry.

INTERNATIONAL EXPERIENCE
Extensive project experience across many of the world's oil and gas basins.

EXPERIENCED PROFESSIONALS
Key professionals each bring 25–50 years of diversified oil & gas experience, domestically and internationally.

NI 51-101
Qualified Reserves Evaluators + Auditors
Chapman confirms that its responsible members are Qualified Reserves Evaluators and Qualified Reserves Auditors under NI 51-101 — the Canadian securities framework governing oil and gas disclosure.

12 YEARS
Natural Hydrogen Experience
Chapman states that it has been involved for the past 12 years with the natural hydrogen producing reservoir in Mali, West Africa.

01 / TARGET
Strategic exploration planning, identification of hydrogen accumulation targets and comparative assessment of target areas.

02 / TEST
Field-work logistics, target testing, geological analysis and verification of field results.

03 / EVALUATE
Regulatory review, technical reporting and interpretation of exploration results.

04 / MODEL
Extraction and economic models developed from actual exploration results.

PETROLEUM ENGINEERING
- Reserve + economic evaluations
- Resource assessments
- Technical studies
- Project management
- Advisory and regulatory services

HYDROGEN EXPLORATION
- Project management
- Drilling design
- Well log interpretation
- Testing and analysis
- Reserve and/or resource reports

SUBSURFACE ANALYSIS
- Petrophysical analyses
- Geological mapping
- Geophysical analysis
- Well test design & interpretation
- Unconventional resource evaluation

DEVELOPMENT + ECONOMICS
- Extraction and economic modelling
- Project feasibility analysis
- Corporate planning
- Investor due diligence
- Resource / reserve reporting

Exploration capability where the work happens.

CRITICAL DISCOVERIES

Winnipeg, Manitoba

Critical Discoveries provides the field capabilities required to execute exploration programs in remote environments — from drilling and camps to access, aviation logistics and technical support. These capabilities are being applied to NorthLight's natural hydrogen exploration program.

LED BY AARYN HUTCHINS, B.Sc., P.Geo.

President & Co-Founder, Critical Discoveries | NorthLight Advisory Team



REMOTE OPERATIONS

Portable and flyable all-weather exploration camps, including setup and decommissioning in remote locations.

NI 43-101

Technical report writing, supported by tenure management, permitting research, geologic modelling and resource calculation.

01 / ACCESS

Road and site construction, including ice-road development for remote exploration programs.

02 / MOBILIZE

Fixed-wing and rotary aviation logistics supporting personnel, equipment and field operations.

03 / DRILL

Drill-program design and management across BQ, BTW, NQ, NQ2 and HQ coring systems.

04 / SUPPORT

Tenure management, permitting research, geologic modelling and technical reporting.

DRILLING PROGRAMS

- Program design + management
- Multiple coring systems
- Field execution

REMOTE FIELD OPERATIONS

- All-weather exploration camps
- Camp setup + decommissioning
- Remote-site support

ACCESS + AVIATION

- Road + site construction
- Ice-road construction
- Fixed-wing + rotary logistics

TECHNICAL SUPPORT

- Tenure + permitting
- Geologic modelling
- Resource calculation
- NI 43-101 reporting

The future of energy is already beneath *our feet.*

Natural hydrogen has been generating in Canadian Shield rock for millions of years. What changed is that it can now be measured, targeted, and extracted. NorthLight begins in the communities that need it the most.



NORTHLIGHT POWER

Measured discharging from Canadian Shield rock for over a decade — not modeled, not inferred.

Advised by the geologist who confirmed the world's first commercial natural hydrogen discovery.

Positioned in the two regions named highest-priority by the 2026 PNAS study.

A geologically long-term resource with potential to support sustained production.

WHY IT MATTERS

Confirmed.
Measured on Earth's oldest rock.

A new resource.
Hydrogen, naturally produced.

Unique to the North.
One of the world's best basins.

A legacy of data.
Decades of exploration to build on.

A cleaner future.
Domestic energy for generations.

Experience built for *execution.*

NorthLight's leadership combines decades of capital markets experience with financial discipline, corporate strategy and investor communications — the capabilities required to finance and advance a new energy platform.



CHAIRMAN & CEO

John McMahon

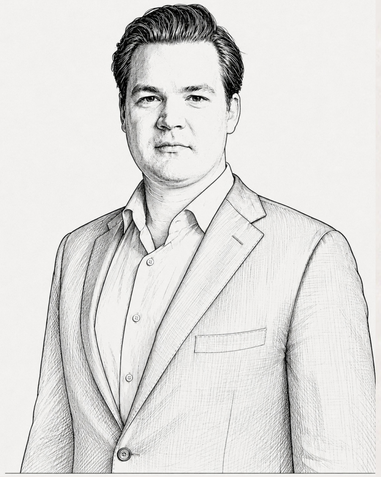
John McMahon is a senior capital markets executive with **more than two decades of experience** in investment banking, corporate finance and strategic advisory. He has held senior leadership roles including **Vice Chairman and Head of Investment Banking at Research Capital and Managing Director of Investment Banking at Industrial Alliance Securities.** As **CEO of Thought Launch Capital & Advisory,** John advises and invests in emerging companies across the natural resources, technology and infrastructure sectors, bringing extensive experience in capital formation, transaction strategy and public markets.



Andy Dayes CFA

DIRECTOR

Capital markets professional with 30+ years of experience across private credit, asset-based finance, securitization, and corporate advisory in Canada, the US and the UK. Former senior executive at Wells Fargo and Efficient Capital Corp. Founding partner in AGHC, a global reseller of industrial power generation equipment.



Cameron Day CFA, MFin

CFO

Finance executive with extensive experience across corporate finance, capital markets and strategic advisory. Managing Partner at Thought Launch Capital & Advisory and CFO of Gencan Capital Corp. Former investment banker with a focus on M&A, equity and debt financing.



Casey McMahon

VP, MARKETING & COMMUNICATIONS

Specializes in investor positioning, corporate narrative and strategic communications across natural resources, technology and infrastructure. Develops investment cases that translate complex businesses and markets into clear investor narratives.

CAPITAL MARKETS | FINANCE | STRATEGY | COMMUNICATIONS