



VALIDERE

AI & IoT intelligence for oil & gas
quality, logistics & trading optimization.

The only solution that empowers O&G companies
to **know true product quality** and **optimize
logistics and trading**.



Powered by **AI & IoT** + deep **industry expertise**.

1

Unreliable product quality.

Product quality constantly changes, upstream and throughout the supply chain, and the industry often has limited visibility into true product quality in real-time

2

Unoptimized logistics & trading.

Smart operational, logistics, and trading decisions can't be made without reliable, real-time quality data

Preventable **quality gaps** lead to **large bottom line losses**

Harvard spinoff & team development

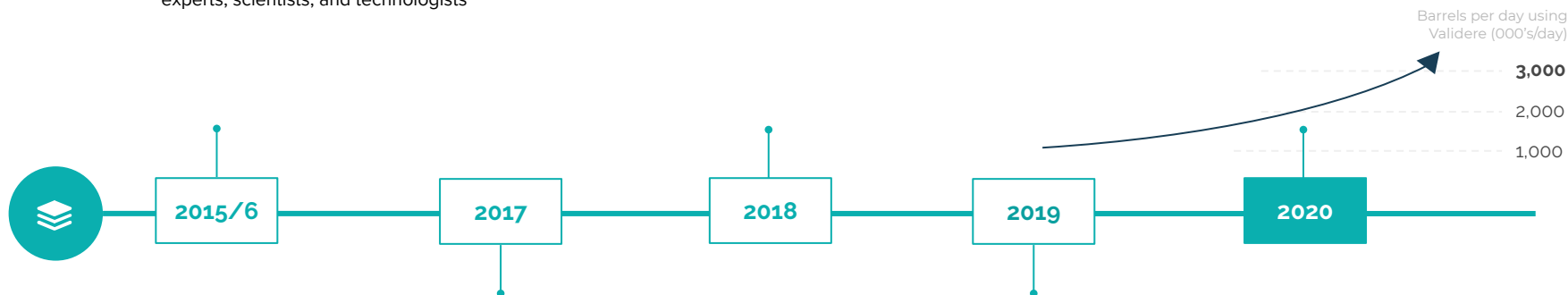
- ✓ DOT contract for classification of crude-by-rail
- ✓ Graduated CDL & Y Combinator accelerators.
- ✓ Seed round from Silicon Valley investors
- ✓ Built interdisciplinary team of industry experts, scientists, and technologists

Client success

- ✓ Fulfilled long-term deployment of Validere 360 with major Canadian O&G players
- ✓ Developed the industry's most advanced quality data set and proprietary AI engine
- ✓ Expanded to Houston

Client & team growth

- ✓ Optimizing 3M+ barrels / day
- ✓ Significant growth in value for 50+ leading North American clients across 360 and Edge
- ✓ Raised \$15M Series A from notable tech & energy investors: Greylock, Wing, Sallyport



Product development

- ✓ Built Validere 360 software
- ✓ Deployments in Canadian market

Accelerated impact

- ✓ Achieved 1 million barrels measured and optimized with Validere software
- ✓ Launched Validere Edge marketplace and began deployments with several North American O&G companies
- ✓ Rapid expansion within the US

MORE ABOUT US

OFFICES ACROSS NORTH AMERICA



Toronto

87 Scollard St, Toronto, ON M5R 1G4

Calgary

140 - 4th Ave SW, Suite 1030, Calgary, AB T2P 3H9

Houston

717 Texas Avenue, Suite 1200, Houston, Texas 77002.

IN GOOD HANDS WITH VALIDERE EXPERTS



Oil & Gas industry experts



Harvard data scientists and mathematicians



Trading and commodities experts

BACKED BY LEADING ENERGY AND TECH INVESTORS

WING

greylock
partners.

SALLYPORT
VENTURES

Y Combinator

MOMENT
VENTURES

real
VENTURES

Fuel Capital

IN THE NEWS

THE
WALL STREET
JOURNAL

BNN
Bloomberg

FP INNOVATION
NATION

betakit

Scientists, AI experts, industry veterans on a mission to innovate oil & gas



Dr. Ian Burgess
CTO

- Expert in analytical technologies
- Harvard PhD in Applied Physics
- 15 patents, 31 publications, R&D 100 Award



Nouman Ahmad
CEO

- 10+ years experience in operations, sales and advisory
- Previously, VP Operations APEXA Corp (exited to RGAX)
- 7 years M&A, financings experience at TD investment banking



Jon DeCoste
VP, Business Development

- 13 years of engineering & commercial roles in Oil & Gas (midstream and upstream)
- Built and led Petroleum Quality group at Pembina Pipeline Corp.



Mark Le Dain
VP, Strategy

- Significant experience advising energy and infrastructure companies with Barclays
- Successfully completed over \$18 bn of M&A and \$5 bn of capital markets transactions

Energy industry entrepreneurs, renowned scientists, and leading investors.



Doug Foshee

Owner,
Sallyport Investments

- Former CEO of El Paso Corporation, sold to Kinder Morgan for \$38b
- Coordinated the restructuring of El Paso, creating a 359% return for shareholders
- Founded Sallyport Investments in 2012 to provide capital and leadership to companies in the Energy Industry



Dr. George Whitesides

Professor, Harvard University
Founder: Genzyme

- Founder of Genzyme, GelTex, Theravance, Nanoterra, and others (combined market cap over \$20b)
- One of the top 5 most cited chemists in the world



Pierre Magnan

President, Parkland International
CEO of SOL

- Board Chairman of Validere
- President, Parkland International and CEO of SOL
- Previously Partner, Gowling Canada and Osler

The Importance of Product Quality and Validere Solutions

WHY DOES QUALITY MATTER

Quality underpins everything, including how much is paid/received for product and where it can be delivered

Quality is a key lever for margin enhancement and increased efficiencies across the entire supply chain

Buyers are increasingly targeting counterparties that make product quality measurement a focus

WHY NOW

- 1 Supply additions have come primarily from shale, with higher declines, causing infrastructure assets to be filled with new product qualities more frequently
- 2 New completion techniques, and enhanced recovery methods, have increased product quality variability and the associated risks
- 3 End product markets are shifting due to changing industrial demands and new environmental rules, creating changes in preferred crude qualities
- 4 Increased quality volatility has caused purchasers to push for the implementation of new quality rules to drive transparency and liquidity

The market is rewarding entities that **focus on quality**

We help our clients improve efficiencies and margins, enhancing the entire supply chain.

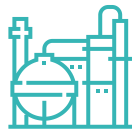


E & P BENEFITS

Know your true product quality to avoid shut-ins and resolve custody disputes

Get more value for your product by optimizing your quality, logistics & trading

Outsource your quality operations to Validere to lower costs and save time

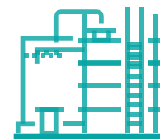


MIDSTREAM BENEFITS

Improve operational efficiency by optimizing your measurement program

Capture maximum quality arbitrage with available product streams

Make quality dependent decisions such as batching and product allocations more efficiently



REFINERY BENEFITS

Know true product quality data to avoid quality specific operational and financial risks

Improve your margins by optimizing your crude slate for the specific quality to achieve desired end market products

Optimize existing infrastructure with enhanced quality data (i.e. storage decisions based on line of sight to certain product qualities)

Our Safety Culture

Validere's connection to the field is a distinct advantage in implementing our technology solutions.

Employee and site safety is more than just a priority at Validere - it's ingrained in our culture.

Below are some of our policies, certifications, and practices that have helped us maintain **0 workplace incidents**.



POLICIES

Protective equipment must be worn at all times in the field and in the lab

Laboratory policies are outlined in detail and the team is required to review the hazards and precautions

Emergency procedures are discussed with all employees to ensure efficiency when responding to unexpected events



CERTIFICATIONS

H2S alive training is required of all personnel visiting sites

Standard first aid is required for site visits

Transportation of dangerous goods must be completed by personnel visiting sites



PRACTICES

Safety orientation walk-throughs are done with all new employees

Share learnings from site visits and best practices with team members to be better prepared for future visits

A culture of transparency is emphasized where employees are encouraged to speak up about risks (i.e. if an employee feels too tired to drive)

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Products



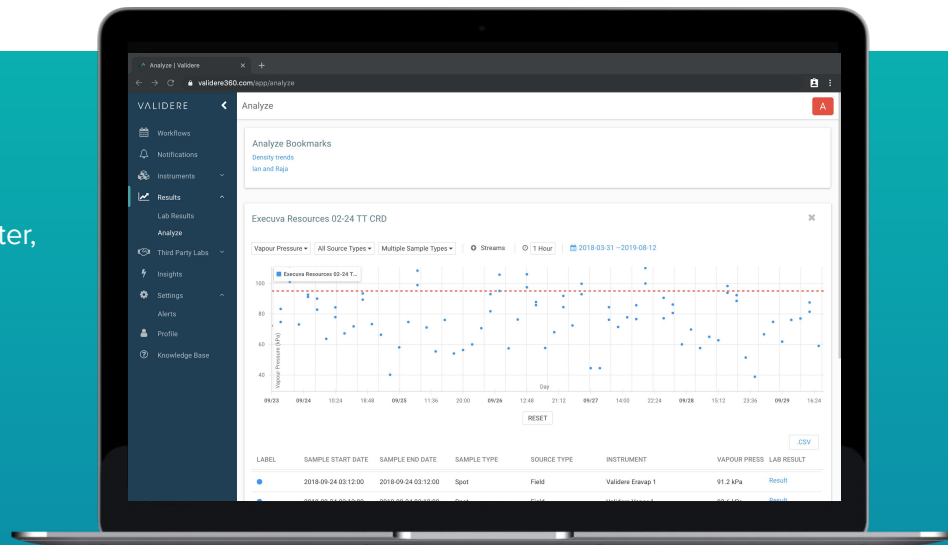
Validere 360

Enhance operations from the field to HQ with data you can trust.

Validere's IoT platform consolidates, automates, and validates all quality data onto a single platform. Real-time, reliable insights empower your teams to proactively pinpoint issues and make better, faster decisions.

FEATURES

- ▶ intuitive sampling, testing workflow management & compliance tools
- ▶ alerting on off-spec results and when on-lines drift
- ▶ multi-source trending & predictive property analysis



ADVANTAGES



Cutting edge AI innovation & foremost quality expert support on your side for optimal sampling & testing methods, calibration, and resource allocation.



The most comprehensive validation of client and third party quality data leveraging real-time internal data, external market data, and proprietary statistical and physical modelling.



Third Party Labs

Manage third party lab data with ease

Desktop Lab Devices

View data across all your devices, in real-time



In-Line Analyzers

Never doubt your in-lines again

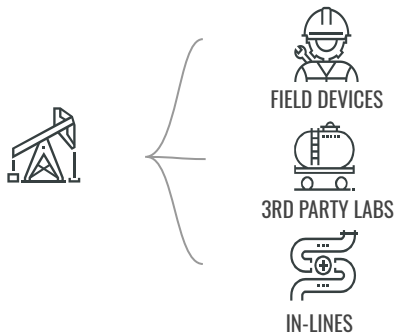
Validere Devices & Virtual Analyzers

Eliminate data integrity gaps with Validere's BS&W and vapor devices & software-generated virtual analyzers

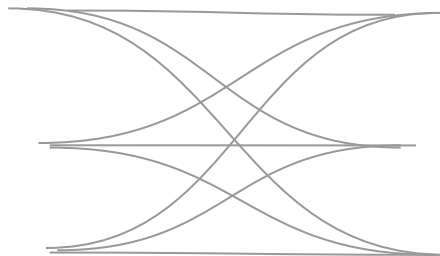


VALIDERE 360
Trust your data
The IoT platform that automates & consolidates all your quality data.

TODAY'S WORLD



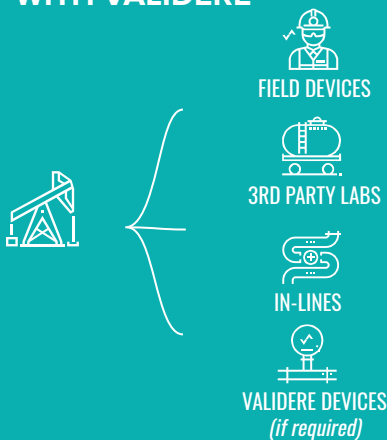
operational inefficiencies & lost value



CHALLENGES

- ✗ Low confidence data
- ✗ Lack of real-time data review
- ✗ Operational risks/costs
- ✗ Restricted information flow
- ✗ Unoptimized decision making
- ✗ Missed opportunities

WITH VALIDERE



VALIDERE 360 SOFTWARE
Consolidated, verified quality data.
Empower the entire organization
with real-time insights.



BENEFITS

- ✓ Trust your data & know true product quality
- ✓ Optimize operational and financial decisions with AI
- ✓ Capture significantly more value for the same barrel

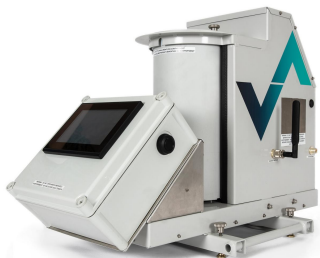


Validere Devices
Eliminate any data integrity gaps.

Proprietary hardware

We build hardware when lack of reliable equipment leaves big holes in datasets.

Centrifuge Tube Reader



- ▶ Digitizes key manual process
- ▶ Data stream to Validere 360
- ▶ Reduces human error
- ▶ Provides audit trail

Vapor Pressure Field Test Kit



- ▶ High quality blending at remote facilities
- ▶ Portable & fast (results in 2 min)
- ▶ Automates workflows with Validere 360
- ▶ Low cost

+

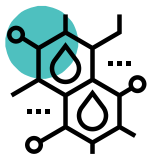
Vendor-neutral hardware

We advise on optimal vendor-neutral instrumentation to fit client needs.

eralytics^o

HORIBA

Rigaku



Validere Edge

Access to win-win buying & selling opportunities.

THE EDGE ADVANTAGE

The most profitable opportunities are often complex to evaluate due to unique product qualities.

Edge identifies win-win opportunities by plugging quality data gaps.

SELLERS

get better pricing by matching with buyers best suited to buy your product

BUYERS

receive the optimal qualities for your specific requirements



SECURE

All data is private until parties are matched.



WIN-WIN

Matches made only when both parties benefit.



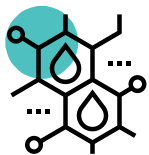
DATA DRIVEN

Edge predicts final qualities, logistics costs, and realized price.



FRICTIONLESS

Edge complements existing marketing efforts.



Validere Edge

How it works.

1 OPT IN

Opt in to receive
Edge opportunities



2 MATCH

Sellers get matched with
counterparties best suited to buy
their product. **Buyers** get notified of
the highest opportunity barrels.



3 TRANSACT

Transact with matched
counterparties to increase
margins and reduce risks.





Our Approach



The Validere Process

We form customer relationships only where we can add value.



ANALYZE



PROVE



SCALE

Comprehensive analysis of operations and opportunities

- discovery call/meeting to evaluate fit and specific opportunities
- demo of relevant Validere solutions
- review of facilities, operations, & historical data
- crystalize key challenges & large opportunities with leadership

Tailored solution and pilot for your specific situation

- preliminary insights
- proposed plan forward & timeline
- estimate of required resources
- pilot success criteria & implementation
- proposed product and customizations

Ramp up on Validere platform and required customizations

- implementation of agreed-upon plan
- ramp up on the appropriate Validere product and customizations
- monitor, refine, and scale value

CONTACTS

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Thank You