OndaVia, Inc.

Definitive results. Decisive actions.

Lab-grade water analysis for industrial IoT

Vision

Ubiquitous analysis

Fast, easy, and everywhere

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Why?

A “blank sample”…

…actually contained $11K per day of wasted material

An input expected to contain 25-ppb selenium...

…actually contained 100-ppb, causing treatment failures

A 25% concentration material as purchased…

…actually contained 7%, costing $MM

Lower costs through increased yield, reduced chemical use, improved environmental impact, and safer operations

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and then:

Flint

(Yes, we can measure lead….)

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Capital-efficient with razor/blade business model

Incorporated in 2009

- 6.5 FTE employees
- 11 issued patents, 6 patents pending

Funding to date

- $3MM SBIR grants
- $1.2MM private investment

Sales

- 23 systems currently deployed
- Primarily oil & gas sector

"razor"

"blade"

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Competitions' Workflow

- Collect sample (1-L bottle)
- Ship to lab (at 4°C)
- Wait for lab to test sample
- Wait for results
- Receive (paper) test report

Three-week process for >>$50

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- Collect sample (<10-mL)
- Test (on-site, <5 minutes)
- Analytics

On-site, 5-minute test for $50

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Technology

Surface-Enhanced Raman Spectroscopy (SERS) for trace level chemical analysis with…

- Internal standards
- Nanoparticle structure
- Surface modifications
- Intelligent software

$15-50/test

$30,000

Eleven Patents issued

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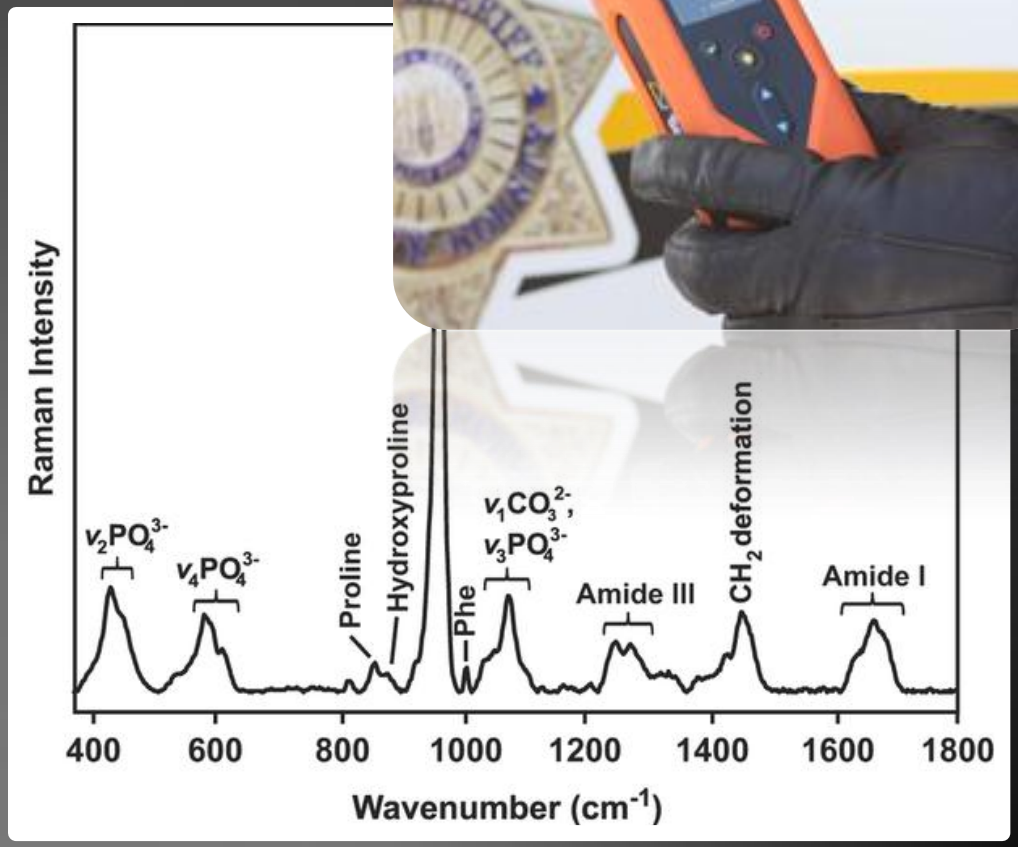
Raman spectroscopy

- Molecular fingerprints / structure
- Works with water
- Completely optical
- Portable
- Commercially available



With direct and indirect methods, we can measure nearly any material in water

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Broad applicability

OndaVia's technology replaces lab testing for nearly *any* compound in *any* liquid.

Chemicals	Applications
Amines	Corrosion Control
Triazine & dithiazine	H_2S Scavenging
Selenium, Arsenic	FGD, Mining
Quaternary amines	Corrosion Control / Biocides
Perchlorate	Remediation
Sulfate, nitrate	Ag, oil & gas
Lead	Drinking water
In development: chloramine, hex chrome, mercury, zinc, boron, TCE, phosphate, THMs / HAAs	

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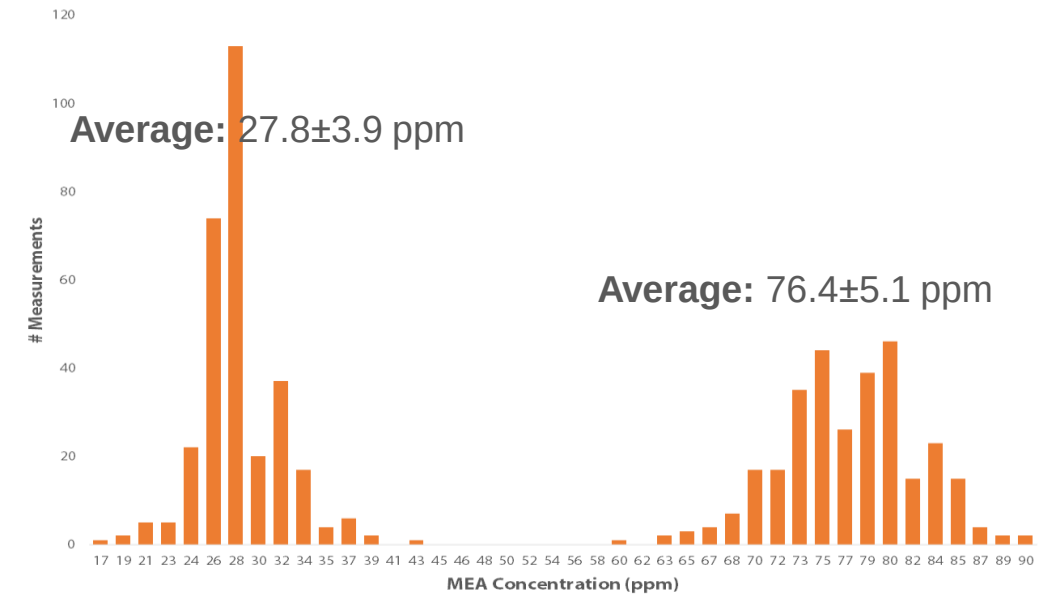
From %-level…

What's in the barrel?
What's the purity?

Uh oh, what's that?

…to mid-level…



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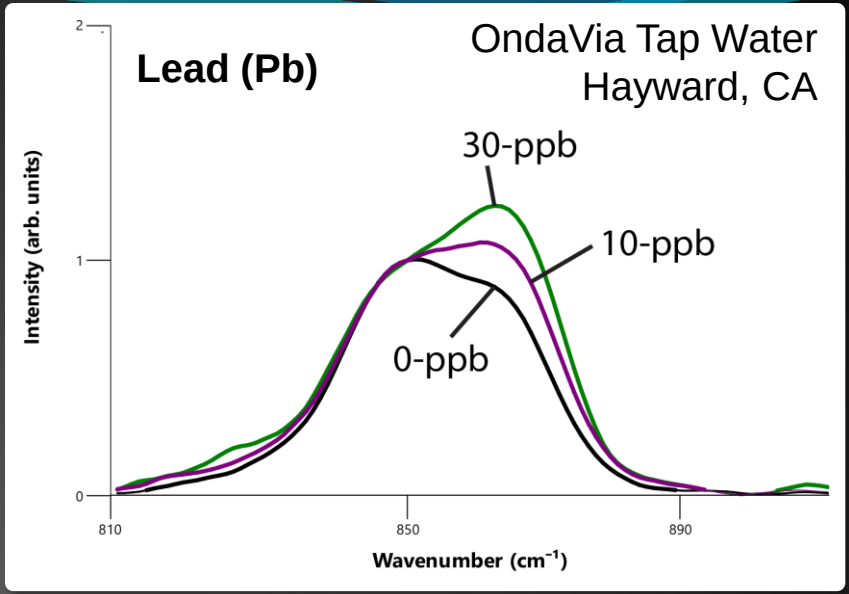
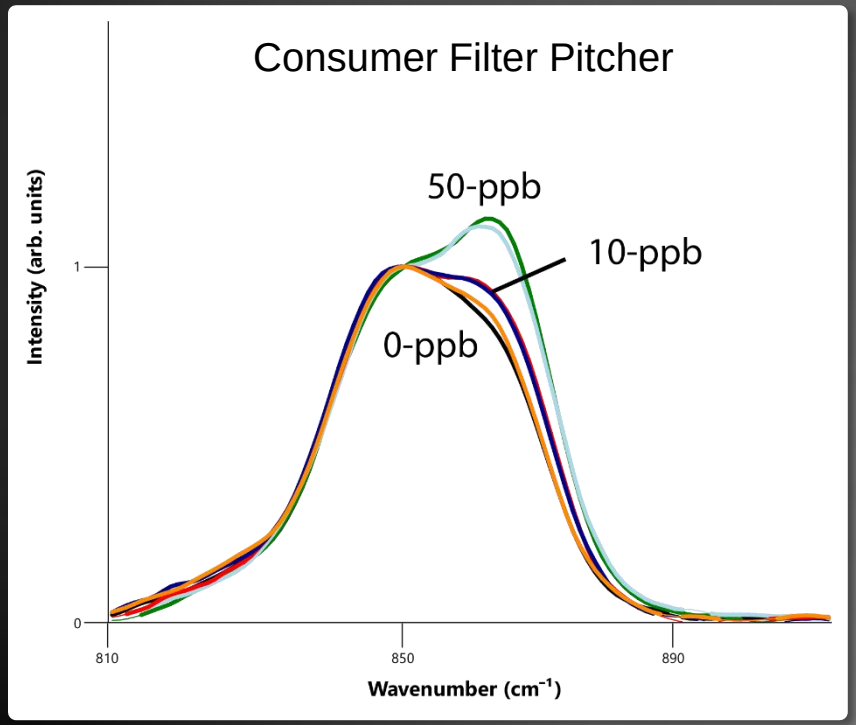
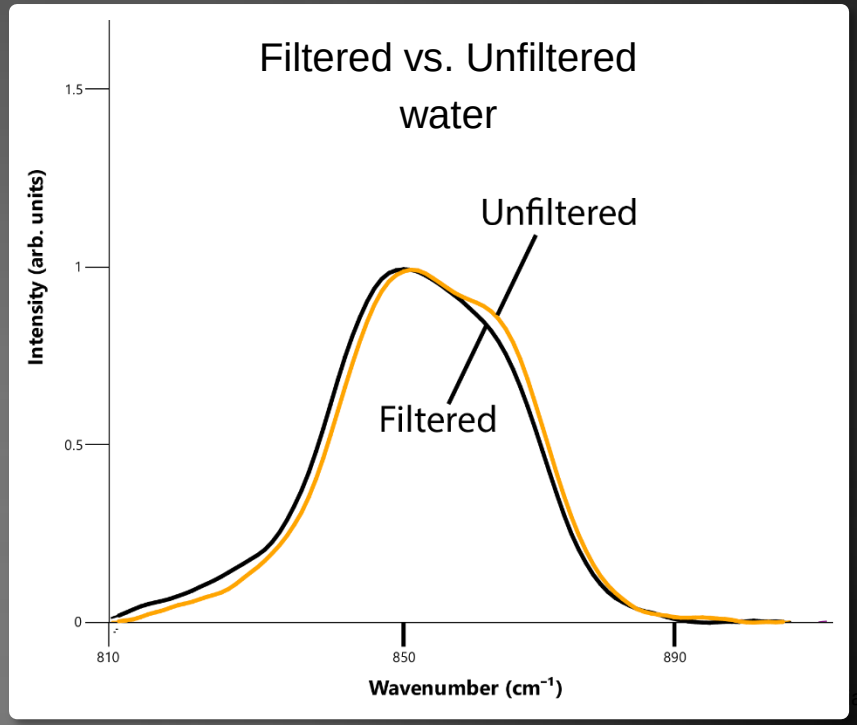
…to trace-level







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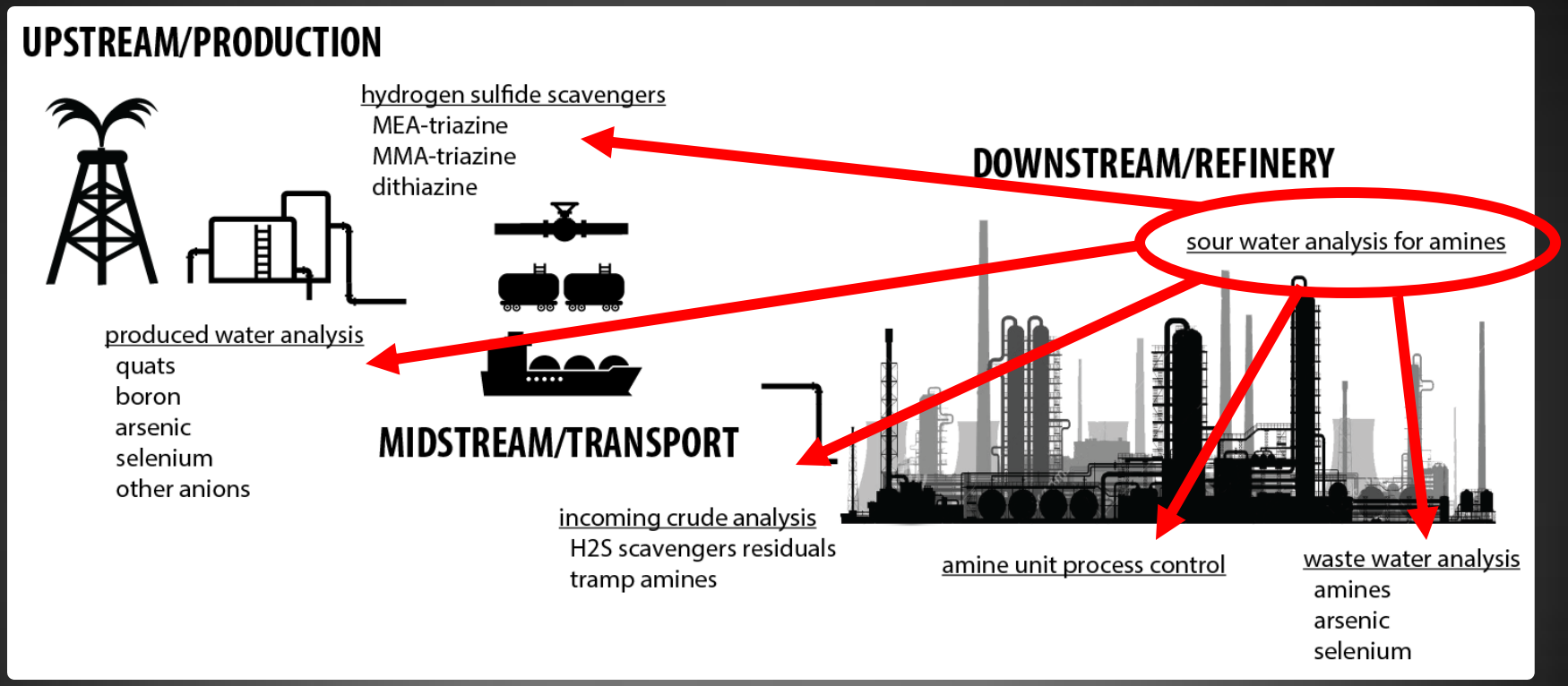
Development strategy



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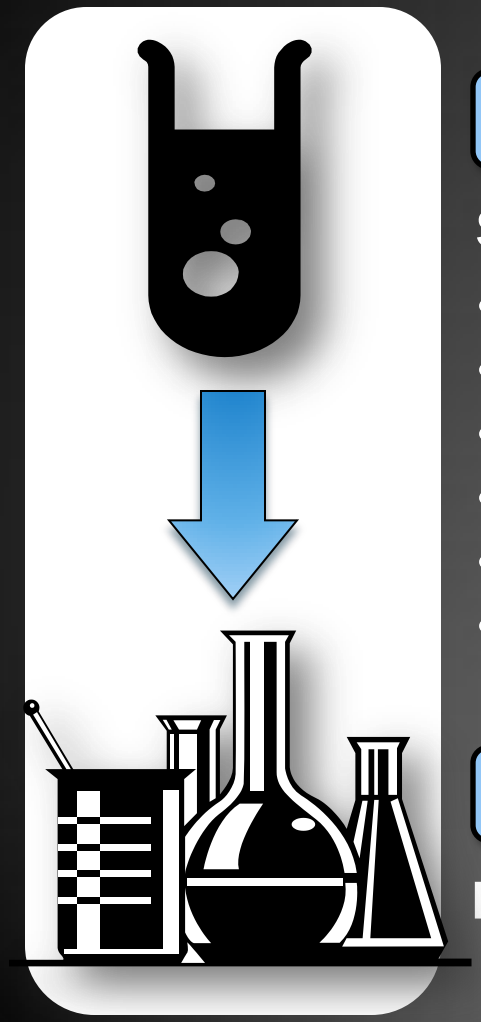
Development strategy



Direct

SINGLE ANALYTE

- Amines
- Triazines
- Dithiazine
- Selenium
- Arsenic
- And many more…

Rep Network

MULTI ANALYTE

Second phase has started

- H_2S Scavenger Mix
  - MMA-triazine + MEA-triazine + dithiazine
- Amine Mix:
  - MEA + morpholine + CHA
  - MEA + MMA
  - MDEA + DEA

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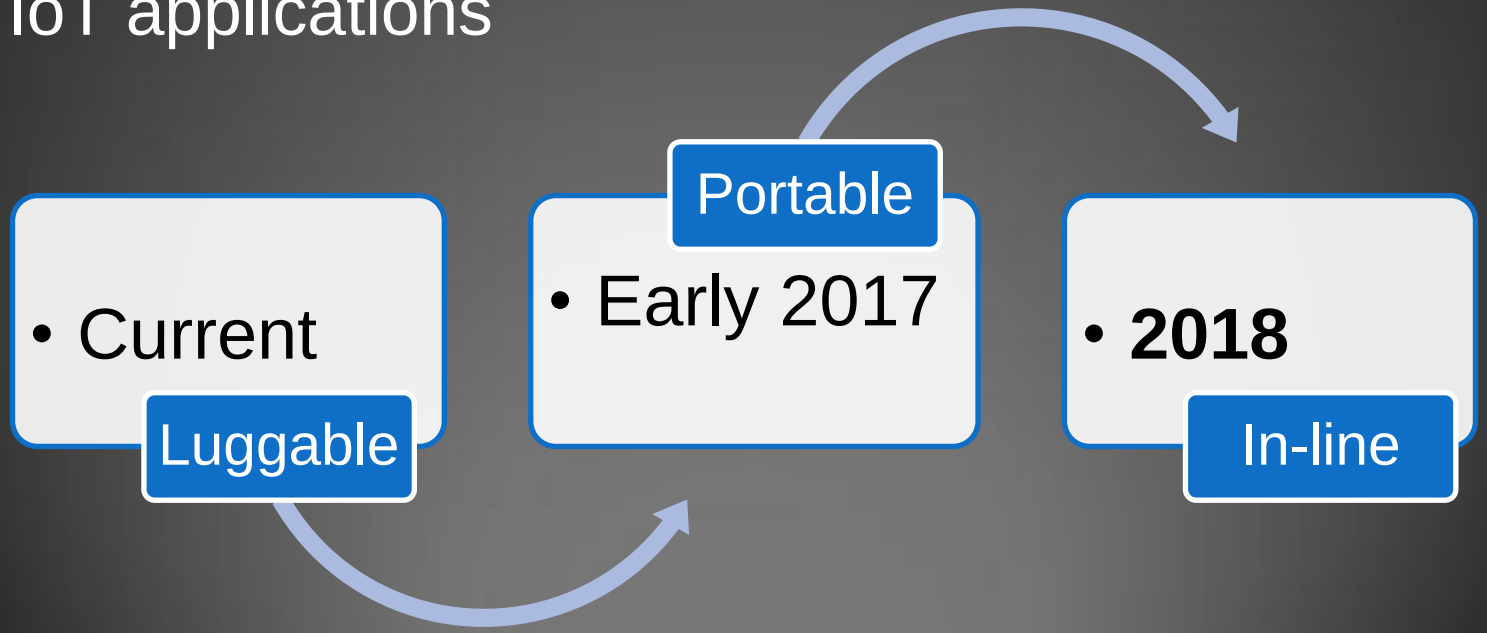
The future

1. Expand sales of current offerings
2. Develop partnerships to drive new test kits, method, markets
3. Build portable and continuous analysis systems for IoT applications



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On-site, laboratory-grade, DIY, rapid-response testing

- Seeking partners to move into new markets and new opportunities
- Rental systems available for evaluation and deployment
- **What do you want to measure today?**

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