

The background is a gradient of teal and blue, overlaid with various technical diagrams. On the left, there are several circular gauges and scales. One large scale is prominent, with numerical markings from 140 to 260 in increments of 10. Other smaller gauges and dashed lines are scattered across the scene, suggesting a complex engineering or scientific context. The overall aesthetic is clean and professional, typical of a technical presentation or report.

# WELL SITE THIEF HATCH METHANE DETECTORS

# COMPANY INTRODUCTIONS

- VAREBERG ENGINEERING / BLUE ROCK SOLUTIONS
- CONTINENTAL RESOURCES
- C2RENEW / C2SENSOR
- APPAREO



# PROJECT BACKGROUND

- Fugitive Emissions (Methane Leaks) on Well Production Sites
- Monitoring for Leaks
  - Federal Regulation 40 CFR Part 60, Subpart 0000a, - Standard for Performance of Crude Oil and Natural Gas
  - Currently allows for
    - Manual handheld methane detectors
    - FLIR cameras

# FOCUS PRODUCT

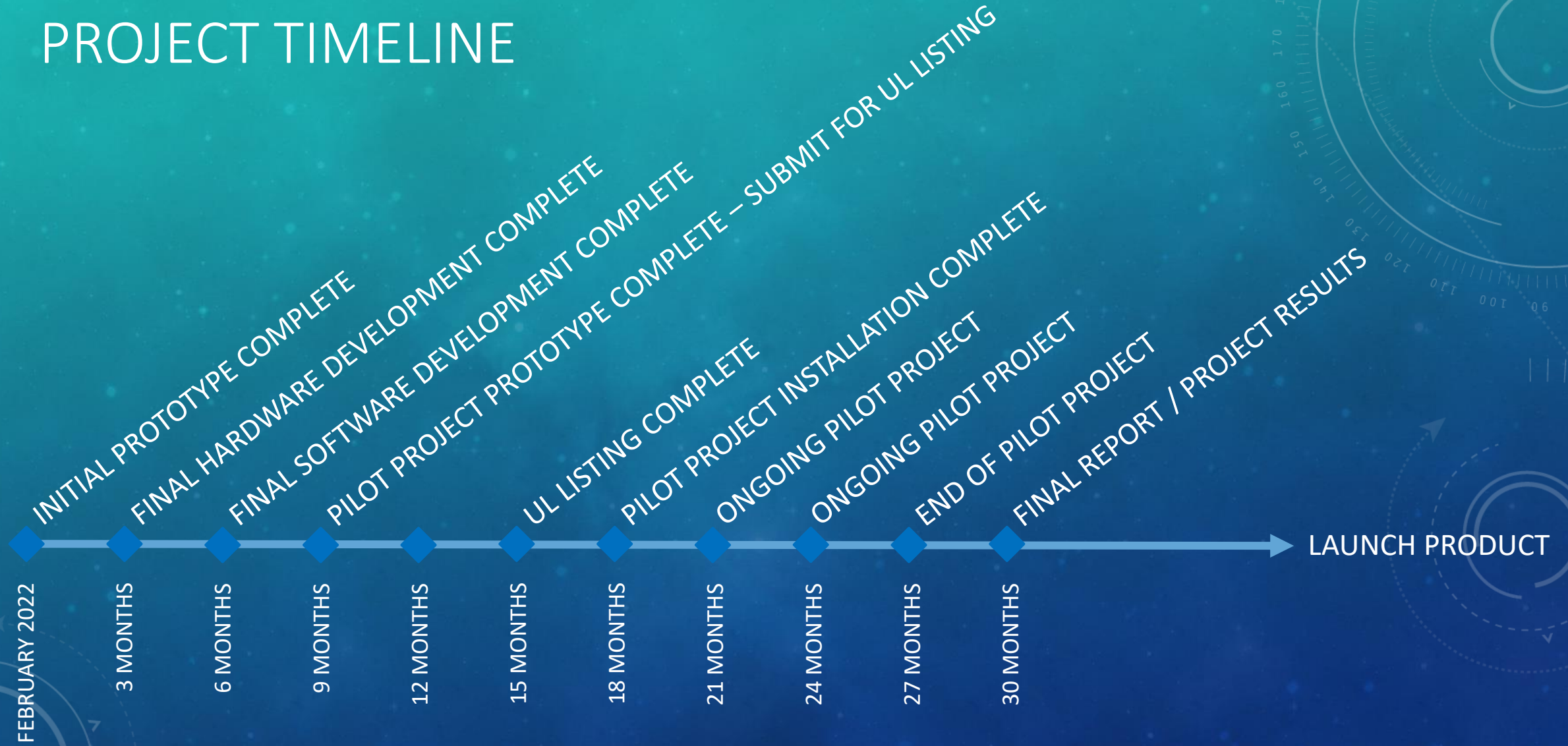
- Individual Sensors for Each “Point” of Fugitive Emission
- 100’s of Points on Typical Well Site
- Concentrate on Largest Contributor of Fugitive Emissions
  - Storage Tank Thief Hatches
    - Open Hatches
    - Unlatched Hatches
    - Faulty Seals / Pressure Valves
  - Thief Hatches Contribute to Approximately 80% of all Leaks

# TECHNICAL DETAILS

- Utilize Current Technology
- Communication Protocol – Cellular / IoT
- Wireless, Battery Operated
- Overall Housing / Packaging – Attached Directly to Thief Hatch Cover



# PROJECT TIMELINE



# OVERALL BUDGET

• Engineering / Fabrication / Software Development	\$335,400
• Pilot Project / Travel	\$69,600
• Reporting / Documentation	\$27,000
• UL Listing / Legal	\$150,000
Total Cost	\$582,000
Grant Request	\$266,000

# GOAL

- REDUCE FUGITIVE EMISSIONS FROM EACH WELL SITE BY UP TO 80%