

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
DTRT13-G-UTC28
2. Center Identifying Number
CAIT-UTC-NC58
3. Project Title
MEMs Field Deployment
4. Principal Investigator & Contact Information
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6. Customer Principal
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7. Project Description
The objective of the study is to develop a working prototype for the real-time, in-situ quantification of metals concentrations in marine sediments. Initially, the field version will be a battery powered, hand held probe that can be pushed into the sediment in relatively shallow areas to determine the accuracy, resolution, detection limits, and repeatability of measurements and will include ground truthing with sediment samples that will be collected and analyzed using standard laboratory methods for comparison.
8. Implementation of Research Outcomes (or why not implemented)
It is expected that the developed product could be used by the client or other dredge material managers to assess the sediment quality within their managed waterways. It is anticipated that the technology could be presented to various dredge material management organizations such as the NYNJ Port Authority, the USACE, USEPA Region 2, as well as state agencies and various engineering firms.

9. Impacts/Benefits of Implementation (actual, not anticipated)
To Be Determined

10. Dates and Budget

Start date: 7/1/2018

End date: 9/30/2019

UTC (CAIT) Dollars: \$258,025

Cost Sharing: \$0

Total Dollars: \$258,025

11. Keywords

Sediment quality, MEMs sensors, In-situ sediment quality measurement

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/mems-field-deployment/>