

# CLEAN RESOURCES

## ADVANCED HYDROCARBONS

### CLEANER HYDROCARBON PRODUCTION – DIGITAL OILFIELD

## FUNDING DETAILS

## Multivariate Optimization and Automation of Oilfield Disposal & Transportation Logistics

North American oil & gas producers spend over \$40 billion annually on waste disposal consisting of small value, high frequency transactions made up of millions of loads. Too often decisions are made based on convenience with massive inefficiencies, environmental impacts, and cost overruns.

Galatea's Waste Coordinator platform allows producers to efficiently analyze the optimal location for waste disposal. The platform provides first-of-its-kind market transparency and optimized decision-making, incorporating disposal costs, oil credits, transportation costs, wait times, road closures, etc.



### RECIPIENT:

**Galatea  
Technologies**



### PARTNERS:

**Danzig Resources**



### TOTAL BUDGET:

**\$500,000**



### AI FUNDING:

**\$200,000**



### PROJECT DATES:

**Mar 2020 – Dec  
2020**



### PROJECT TRL:

**Start: 6  
End: 9**

## APPLICATION

The project will be the first-of-its-kind solution connecting waste supply with disposal and recycling demand in a sophisticated, real-time transparent platform. With centralized data collection, real-time optimization and data-driven scheduling optimization, the project will automate oilfield waste disposal, brokering transactions that generate meaningful cost and GHG emissions savings. The opportunity can be expanded in the future to other industries as well.

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#### PROJECT GOALS

- Develop a sophisticated algorithm that combines and quantifies environmental impacts into the waste disposal decision-making process
- Proving successful field validation with Danzig Resources
- Quantifying and reporting GHG impacts and water/waste diversion statistics
- Developing a sophisticated optimization tool that automates conventional decision-making

#### BENEFITS TO ALBERTA

- Reductions in GHG emissions through optimized vehicle traffic
- Increased beneficial water re-use and recycling
- Reduction in overall operating expenses and increased resource value, leading to higher taxes paid and greater capital availability for resource development
- Increased transparency in the waste disposal and trucking businesses
- Building capacity in the digital economy
- Potential export to other jurisdictions and industries



**1 New  
Products/Services**



**2 Project Jobs**



**5 Future Jobs**



**0.1 kT/yr Project  
GHGs Reduced**



**10 kT/yr Future  
GHGs Reduced**

**CURRENT  
STATUS**

**March 2020**

Project kickoff underway