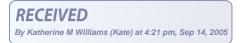
NTRD Program Disclaimers

1. Disclaimer of Endorsement:

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Texas Commission on Environmental Quality New Technology Research & Development (NTRD) Program Monthly Project Status Report

Contract Number: <u>528-5-70807-M030</u>			
Grantee:Extengine Transport Systems, LLC_			
Date Submitted: 9/12/05			
Report for the Monthly period:			
Starting Date8 <u>/1/05</u>	Ending Date	8/31/05	
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Section I. Accomplishments (Please provide a bulleted list of project accomplishments as well as a description of their importance to the project.)

Task 1: Develop EPA FTP Transient Test Protocol to establish emissions/fuel economy effects:

Task completed in prior reporting period.

Task 2: Validation Testing

Work completed:

- Reinstalled test engine (1991 DD60)
- Accumulated 40 hours with Extendine LoNOx biodiesel
- Conducted 2 Hot start tests emissions showed incomplete conditioning
- Accumulated 60 hours with Extendine LoNOx biodiesel
- · Conducted 3 hot start tests
- Conducted 1 coldstart test
- Conducted 3 hot start tests with Extengine LoNOx biodiesel with 20% biodiesel
- Conducted 3 hot start tests with Extendine LoNOx fuel without biodiesel components

After 100 hours, Extengine LoNOx 2% Biodiesel reduced NOx nearly 9% and PM nearly 7%. HC and CO increased 17-18% but emissions remained far below emission standards. Fuel consumption increased 2.5%. Extengine LoNOx 20% Biodiesel maintained essentially constant NOx emissions, reduced PM and HC 26%, and increased CO 6% and fuel consumption 5%.

The greatest surprise in this test was that fuel consumption and HC and CO emissions did not show expected reductions. This may have been due to either incomplete conditioning or differences between D2 fuel and the ULSD fuel used for blending the Extengine LoNOx fuels.

Section II: Problems/Solutions

Problem(s) Identified	None at this time
Problem(s) Identified (Please report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project)	None at this time
Proposed Solution(s)	Not applicable.
(Please report any possible solution(s) to the problem(s) that were considered/encountered)	
Action(s) Conducted and Results (Please describe the action(s) taken to resolve the problem(s) and its effect)	Not applicable

Section III. **Goals and Issues for Succeeding Period**: (*Please provide a brief description of the goal(s) you hope to realize in the coming period and identify any notable challenges that can be foreseen*)

Submit project report and close-out project. The report will include a description of the test engine, test laboratory and procedures, the test data, and discuss the test results with regard to the fuels and engine.

Submit final invoice – laboratory fees for tests have exceeded the authorized grant funds due some additional tests included at Extengine's request. The invoice to TCEQ will NOT exceed the remaining authorized funds.

FSR and RFR forms are attached for reference and originals have been mailed.

Richard	R. Ca	? Can	September 12, 2005	
		Date:		
Authorized Project Representative's Signature				

NOTE: Please attach any additional information that you feel should be a part of your report or that may be required to meet the deliverable requirements for tasks completed during this reporting period.