



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ANN ARBOR, MICHIGAN 48105

SEP 20 1993

OFFICE OF
AIR AND RADIATION

Dennis Alvarado
MCF
5220 1/2 Cleon Ave.
North Hollywood, CA 91601

Dear Mr. Alvarado:

We received your application for evaluation of the Solavite inline fuel device on September 20, 1993. We will review your request and expect to respond shortly.

Sincerely yours,

Edward Anthony Barth

Edward Anthony Barth
Device Evaluation Coordinator
Technology Evaluation and Testing Support Branch



AUTOMOTIVE TESTING AND DEVELOPMENT SERVICES, INC.

Date : September 13, 1993

To : Hector O. Ochoa M.
MCF Enterprises Inc.
5220 1/2 Cleon Ave.
North Hollywood, CA 91601

From : Larry D. Smith Jr.
Lab Manager - ATDS

Re : Gravimetric fuel economy determination with and with out the
"Solavite" fuel conditioning device installed.

TEST DESCRIPTION

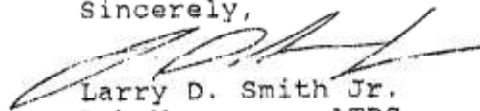
A Ford Taurus was drained of fuel then filled with 15 gallons of commercial grade fuel. The vehicle was then driven for 250 miles. After mileage the tank was drained and the remaining fuel weighed. The "Solavite" device was then installed and the procedure was repeated. The vehicle was driven an additional 250 miles with the "Solavite" device installed.

TEST RESULTS

250 MILES WITH OUT SOLAVITE 19620.6 gms @79F REMAINED FROM 15 GALLONS	6.991 Gallons
1ST 250 MILES WITH SOLAVITE 18951.2 gms @83F REMAINED FROM 15 GALLONS	6.753 Gallons
2ND 250 MILES WITH SOLAVITE 22228.6 gms @83.5F REMAINED FROM 15 GALLONS	7.921 Gallons
Average fuel remaining during 500 miles with "Solavite"	7.337 Gallons
Difference between 250 miles driven with out Solavite" and 500 miles driven with "Solavite"	4.7%
Difference between 250 miles driven with out Solavite" and last 250 miles driven with "Solavite"	11.7%

It was a pleasure to do business with you. If I can be of any further assistance please let me know.

Sincerely,


Larry D. Smith Jr.
Lab Manager - ATDS

15442 Chemical Lane, Huntington Beach, CA 92649
Tel (714) 801-4821 Fax (714) 898-0403

400 South Etiwanda Avenue, Ontario, CA 91761
Tel (909) 467-3629 Fax (909) 988-0319



Gravimetric fuel economy

A Ford Taurus was drained of fuel then filled with 15 gallons of commercial grade fuel. The vehicle was then driven for 250 miles. After mileage the tank was drained and the remaining fuel weighed. The "Solavite" device was then installed and the procedure was repeated. The vehicle was driven an additional 250 miles with the "Solavite" device installed. The results are as follows:

GRAVIMETRIC FUEL ECONOMY DETERMINATION

250 MILES WITH OUT SOLAVITE

19620.6 gms @79F REMAINED FROM 15 GALLONS 6.991 Gallons

1ST 250 MILES WITH SOLAVITE

18951.2 gms @83F REMAINED FROM 15 GALLONS 6.753 Gallons

2ND 250 MILES WITH SOLAVITE

22228.6 gms @83.5F REMAINED FROM 15 GALLONS 7.921 Gallons

Average fuel remaining during 500 miles with "Solavite" 7.337 Gallons

Difference between 250 miles driven with out Solavite" and 500 miles driven with "Solavite" 4.7%

Difference between 250 miles driven with out Solavite" and last 250 miles driven with "Solavi 11.7%



AUTOMOTIVE TESTING AND DEVELOPMENT SERVICES, INC.

PROJECT 430-1
FORD TAURUS

08-31-1993

TEST#	HC(gms/mi)	CO(gms/mi)	<u>NOx(gms/mi)</u>	CO2(gms/mi)	FE(mpg)
BASELINE					
CVS2 CS					
#N1C793	0.122	1.704	0.178	403.574	21.733
#N1C812	0.093	1.261	0.190	402.464	21.835
CVS2 BASELINE AVERAGE	0.108	1.483	0.184	403.019	21.784
HFET					
#N1C794	0.010	0.093	0.088	231.932	38.075
#N1C813	0.011	0.139	0.075	234.265	37.684
HFET AVERAGE	0.011	0.116	0.082	233.099	37.880
250 MILE W/SOLAVITE					
#N1C832	0.106	1.466	0.153	396.706	22.130
#N1C844	0.122	1.164	0.225	397.059	22.134
CVS2 250 MILE AVERAGE	0.106	1.466	0.153	396.706	22.130
%DIFF FROM BASELINE	-1.4%	-1.1%	-16.8%	-1.6%	1.6%
HFET 250mi/W/SOLAVITE					
#N1C833	0.008	0.119	0.099	230.920	38.236
#N1C845	0.012	0.135	0.060	233.084	37.875
HFET AVERAGE	0.010	0.127	0.080	232.002	38.056
HFET DIFF.	-4.8%	9.5%	-2.5%	-0.5%	0.5%



AUTOMOTIVE TESTING AND DEVELOPMENT SERVICES, INC.

NEW BASELINE

CVS2 BASELINE (ORIGINAL) AVERAGE	0.108	1.483	0.184	403.019	21.784
250MI W/O SOLAVITE #N1C869	0.112	1.472	0.213	413.970	21.212
500MI W/SOLAVITE #N1C887	0.113	1.693	0.202	399.079	21.979
DIFF%	0.9%	15.0%	-5.2%	-3.6%	3.6%

GRAVIMETRIC FUEL ECONOMY DETERMINATION

250 MILES WITH OUT SOLAVITE

19620.6 gms @79F REMAINED FROM 15 GALLONS

1ST 250 MILES WITH SOLAVITE

18951.2 gms @83F REMAINED FROM 15 GALLONS

2ND 250 MILES WITH SOLAVITE

22228.6 gms @83.5F REMAINED FROM 15 GALLONS



AUTOMOTIVE TESTING AND DEVELOPMENT SERVICES, INC.

PROJECT 430-2
TOYOTA CAMRY

08-31-1993

TEST#	HC(gms/mi)	CO(gms/mi)	<u>NOx(gms/mi)</u>	CO2(gms/mi)	FE(mpg)
BASELINE					
CVS2 CS					
#N1C789	0.118	1.968	0.159	358.569	24.411
#N1C808	0.124	1.723	0.210	354.810	24.884
CVS2 BASELINE					
AVERAGE	0.121	1.846	0.185	356.690	24.648
HFET					
#N1C790	0.012	0.212	0.074	223.162	39.536
#N1C809	0.012	0.227	0.081	220.818	39.951
HFET					
AVERAGE	0.012	0.220	0.078	221.990	39.744
250 MILE					
W/SOLAVITE					
N1C836	0.142	1.808	0.213	352.803	24.818
N1C842	0.124	1.791	0.218	355.650	24.627
CVS2 250 MILE					
AVERAGE	0.133	1.800	0.216	354.227	24.723
%DIFF FROM					
BASELINE	9.9%	-2.5%	16.8%	-0.7%	0.3%
HFET					
250mi/W/SOLAVITE					
#N1C837	0.015	0.261	0.069	221.796	39.764
#N1C843	0.013	0.271	0.081	219.960	40.093
HFET					
AVERAGE	0.014	0.266	0.075	220.878	39.929
HFET DIFF	16.7%	21.2%	-3.2%	-0.5%	0.5%