REVOLUTIONARY MILEAGE EXTENDER FUEL SAVER

Fuelenergizer

Manufacturer

South Africa

Prop: Aprobase CC 2010/034952/23)

Fuelenergizer SA Support

Save The Rhino – Stop Poaching

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Based in Pretoria & East Rand - **Fuelenergizer** South Africa is the Manufacturer and sole Distributor of the revolutionary fuel saving product **Fuelenergizer**.

During 2006 the Hancke family investigated the possibility to develop a combustion enhancer to save fuel and combat the ever increasing fuel prices over and above reducing harmful emission exhaust gasses.

After extensive research and laboratory tests Helgard Hancke developed a petrochemical combustion enhancer as a revolutionary mileage extender fuel saver for local petrol and diesel.

Practical tests followed until October 2008 and a sample of **Fuelenergizer** mixed with local fuel was tested by the SABS and the final conclusion of the test conducted by the SABS stipulates – "The sample complies with the requirements of specification SANS 342 in respect of tests carried out" which confirms that **Fuelenergizer** complies with all the specifications stipulated in SANS 342:2006 edition 4.

Independent tests were done on instructions of Komatsu South Africa by Business Enterprises at University of Pretoria (Pty) Ltd in their Tribology Laboratory. Completed test result confirms that **Fuelenergizer** is within the SANS 342 diesel specifications, HFFR wear scar is less whilst CR ratings are unchanged.

CO_2 emission tests was done by a reputable institution with **Fuelenergizer** show results that reduces the harmful CO exhaust emissions gasses of a vehicle with up to 8.56%.

A strategic marketing plan was implemented from October 2010 with several independent **Fuelenergizer** franchises in the RSA.

Fuelenergizer South Africa entered into an agreement with a business enterprise in Germany re exporting of their product to Germany and Helgard Hancke agreed to the erection of a Manufacturing plant in Hamburg in the near future during his visit to Germany.

International/Europe patent pending with EU Head Office in Hamburg.

Extract from article published in an International Publication

GREENHOUSE GAS EMISSIONS

Local fuel additive to reduce carbon emissions of vehicles

Although an absolute necessity in the world of combustion engines it is also a known fact that automotive fuel is one of the culprits releasing harmful gasses in the atmosphere. A local entrepreneur, Helgard Hancke (CEO **Fuelenergizer** South Africa) developed a fuel-additive called **Fuelenergizer** and proofed with reliable CO2 emission tests that **Fuelenergizer** reduces the CO exhaust emissions gasses of a vehicle with up to 8.56%.

He developed **Fuelenergizer** as a 100% locally manufactured stable vaporization additive rather than a fuel additive per se which not only saves fuel but cuts pollution drastically and is therefore an Ozone friendly product that contributes towards the strive to lesson harmful Greenhouse Gas Emissions and improve Carbon Credit claims.

Fuelenergizer is totally soluble in petrol and diesel and several tests done by reputable recognized institutions (SABS) confirmed that it contains no harmful or solid substances that can cause detrimental side-effects when added to fuel.

It is common knowledge in the Industry, that only a certain percentage of the fuel mixture is completely utilized (burned) during combustion. "Incomplete combustion" results in the formation of soot and carbon and the unburned fuel escapes through the exhaust whilst some parts of the unburned fuel escape past the rings and is then trapped in the oil sump. The ideal Hancke says is that the fuel mixture must be broken up for complete combustion and the smaller & finer the fuel droplets the better the combustion. **Fuelenergizer** does that chore and ensures even spread of the heat to all fuel particles, ensuring a more complete even combustion."

Diesel and petrol powered equipment is designed to operate on fuel that complies with certain standards worldwide. In South Africa the fuel specifications are known as SANS (South African National Standards)

342:2006 locally drawn up by the SABS, in Europe it is EN 590 and in the USA ASTM D975. Theses specifications are broadly similar the world over.

Hancke pointed out that when considering introducing **Fuelenergizer** into a fuel quality management program, it is vital for the operator to note that a **Fuelenergizer**/fuel sample tested by the SABS complies with SANS 342:2006 edition 4 specifications. This fuel specification compliance guarantees the operator the absolute safety of introducing **Fuelenergizer** into their fuel program. He added that due to the SANS 342:2006 edition 4 compliance it is impossible for **Fuelenergizer** to negatively affect any OEM warranty.

Fuelenergizer is very cost effective and the recommended dosage is only 3-4ml **Fuelenergizer** for every liter of diesel and 1,5-2ml for every liter of petrol used and fuel savings between 8 & 15% can be achieved over and above the reduction of carbon emissions. Hancke recently on his return from Germany announced that **Fuelenergizer** is now being exported to Germany and he is awaiting the EN590 test report from the German Authorities. A **Fuelenergizer** manufacturing plant will be erected in Germany in the near future in conjunction with prominent German entrepreneurs.

PRODUCT INFORMATION

- **FUELENERGIZER**
  - 100% locally manufactured product; enhance combustion; breaks the surface tension of fuel.
  - Improve fuel consumption; reduce engine wear & tear.
  - Contains no harmful or solid substances that can cause detrimental side effects.
  - Totally soluble in all types of fuels both petrol and diesel.
  - Harmful exhaust emission gasses are reduced with **Fuelenergizer**.
  - Ozone friendly – Green Footprint – Carbon Credits.

- **APPLICATIONS**
  - All petrol & diesel engines.
    - Diesel – Add 3 - 4 ml **Fuelenergizer** with every 1 liter diesel.
    - Petrol – Add 1.5 - 2ml **Fuelenergizer** with every 1 liter petrol.
  - Highly flammable.
  - Vapors accumulation could explode if in contact with spark or flame.
  - Harmful if in contact with skin or inhaled.

- **COMBUSTION**
  - The South African Petroleum Industry (SAPIA) allows a content of up to 9.5% blend of Ethanol in all fuels. SAPIA also confirms that Ethanol is infinitely soluble in water and in the presence of water; Ethanol will be attracted from the fuel phase into the water phase which result in a complete phase separation.
  - Ordinary fuel does not vaporize readily because of Ethanol and Surface Tension (ST) and complete atomization is essential to good combustion but is DENIED that due to the Ethanol ST content.
  - Fuel needs injectors to produce a very fine spray into the air stream of each port. Unfortunately the sprayed fuel cools and tends to recombine into larger persistent droplets because of Surface Tension and may fall out of the air steam onto the walls of the cylinder. Good efficiency and Surface Tension are diametrically opposed causing particle size to remain high when Surface Tension is prevalent.
  - The real object should always be to REDUCE particle size and increase the number of fuel particles to enhance combustion.
  - Only a slight amount of heat amplifies the Surface Tension of the fuel molecules because the heat is spread across the outside of the large clumps of fuel. This draws the clumps and globs tighter together and a large amount of sufficient heat may not reach the inner most molecules within many of the clumps. The inside of all clumps must be broken up for complete combustion.
  - **Fuelenergizer** does that chore and ensures even spread of the heat to all fuel particles ensuring a more complete even combustion.
  - During normal conditions fuel burns to form carbon dioxide and water and the ethanol in fuel then attracts the water phase which in turn interferes with the combustion process thus resulting incomplete combustion. It is common knowledge that only a certain percentage of the fuel mixture is completely burned during combustion and unburned fuel escapes through the exhaust whilst some parts of the soot and unburned fuel escape past the rings into the oil sump.
  - **Fuelenergizer** is a stable vaporization additive rather than a fuel additive per se and not only improves mileage but cuts pollution dramatically and gives longer engine life. (Ozone friendly)
  - In order to become a true fuel and be fully combusted, fuel must undergo a phase change and **Fuelenergizer** provides that change with its rapid inherent molecular vibration that prevents fuel from escaping the combustion process and going through unburned

FUELENERGIZER (FE) CHARACTERISTICS & PROPERTIES

- **FE** ensures that the excess fuel that was previously wasted past the rings and blown out the tailpipe (50 %+) now is being utilized. The decrease in consumption with **FE** comes from this (former excess) fuel that now also gets burned.
- **FE** is very helpful during second stage combustion while the piston is going down the power stroke, promoting reverse adiabatic cooling. It is common for combustion to stall during this second stage of combustion and thus leave a lot of the fuel fragments incompletely burned.
- With **FE** added to the fuel, the combustion stays lit and less fuel is converted into water and carbon dioxide thus resulting into a more efficient longer burn. **FE** therefore does not speed up the combustion but keeps it from dying on the vine.
- Keeping combustion "alive" and more "efficient" is not the same as making it proceed faster. The base fuel and its complex chemistry still dominate the combustion process, not the **FE** added to the fuel.
- **FE** added to the base fuel will ensure an improved burn of the fuel mixture thus lessening the unburnt fuel that reaches the piston, ring lands and grooves because **FE** actually enables the fuel in the chamber to combust more completely and leaves less unburnt fuel.
- With the specified amount of **FE** added the fuel retains the same basic heat value during combustion, but the fuel just burns more completely which in turn reduce pollution and improves mileage.
- **FE** blends with the base fuel when added and does not evaporate out of it.
- **FE** improves combustion, reduces harmful exhaust emissions which helps to lengthen engine life.
- **FE** added to the base fuel is too little to change the characteristics of the fuel and only affects the vaporization characteristics of the fuel to ensure a more complete burn.
- **FE** does not change the base fuel octane rating of the fuel mixture nor does it affect or change the compression ratio, timing or computer sensing.
- **FE** is a highly flammable liquid, avoid sparks or flame.

FUELENERGIZER/ORIGINAL ENGINE MANUFACTURER (OEM) WARRANTIES

- Diesel and petrol powered equipment is designed to operate on fuel that complies with certain standards worldwide. In South Africa the fuel specifications are known as **SANS (South African National Standards) 342:2006 locally drawn up by the SABS**, in Europe it is EN 590 and in the USA ASTM D975. Theses specifications are broadly similar the world over.
- OEM's therefore as a rule do not approve or recommend particular brands of fuel or fuel related products. Rather, what all OEM's recommend, is that whatever fuel or fuel related products their clients or equipment operators use, the operator should ensure that it complies with the recommended fuel specifications.
- Operators can refer to any OEM "Fluids and Fuel Specification" booklet for confirmation.
- Compliance to fuel specifications is the operator's only guarantee of quality and safety when using fuel or fuel related products. Compliance with fuel specifications, rather than brand name approval, also guarantees the OEM that their equipment will continue to operate efficiently, as it was designed to.

- When considering introducing **Fuelenergizer** into a fuel quality management program, it is therefore vital for the operator to note that **Fuelenergizer** is probably the only product of its kind, which has been tested by the SABS (see attached certification) and found to comply with all the specifications for SANS 342 (South Africa) when blended with local fuel. In effect therefore, **Fuelenergizer**, although not listed by brand name, is technically **"approved"** by OEM's, thanks to the fact that **Fuelenergizer** complies with the OEM approved fuel specifications (SANS 342).
- This fuel specification compliance guarantees the operator the absolute safety of introducing **Fuelenergizer** into their fuel quality management system / program. Furthermore due to the SANS 342 compliance it is impossible for **Fuelenergizer** **to negatively affect any warranty**

APPLICATION

- **Diesel**…..…. 3 - 4 ml **Fuelenergizer** with every 1 liter diesel.
  - Begin with 3.5 ml / liter.
- **Petrol**…… 1.5 – 2 ml **Fuelenergizer** with every 1 liter petrol.
  - Begin with 1.6 ml / liter.
- Because of the difference between vehicle manufacturers it is important that tests are done with different dosage applications on different makes of vehicles to obtain maximum results.
- For maximum results and extended mileage the correct dosage per application is very important.
- To obtain maximum fuel consumption with the correct dosage it is important to test **Fuelenergizer** on more than one tank.
- Tests done showed increased saving in fuel consumption on each tank treated with **Fuelenergizer** and optimum results are obtained after 2end & 3rd application.

PACKAGING

- For the everyday motorist and/or smaller/medium applications

1 litre bottles – with spout for easy application

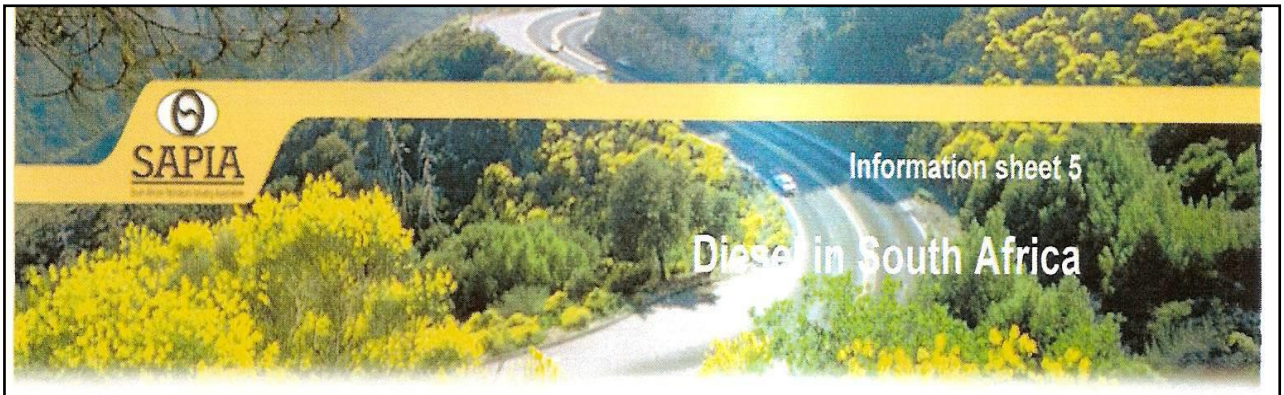
5 litre container

- Transport, Mining & Agricultural industry (Mass storage tanks).

25 litre container

210 litre container

1 000 litre container



The SANS 342:2006 specification allows for two grades of diesel (standard grade and low sulphur grade) suitable for use in compression-ignition engines, including high-speed engines:

Standard grade diesel (500 ppm sulphur): Diesel sulphur levels were reduced in 2006 from 3 000 parts per million (ppm) to 500 ppm. As a result of the reduction in sulphur levels, extended oil-drain service levels were possible in respect of most diesel vehicles. Further reductions in sulphur levels, however, will not have a significant impact on service intervals.

Low sulphur grade diesel (50ppm sulphur): A niche diesel grade is marketed in limited areas at a level of 50 ppm sulphur, as increasingly required by growing new passenger car technologies. This is sourced predominantly from the synthetic fuel manufactured in Secunda, while limited quantities are sourced from the other refineries and from imports.

Diesel and its compatibility with your vehicle

Government regulations state that only new vehicles that are compatible with local fuels should be sold by vehicle suppliers. While vehicles will therefore be protected, it is nevertheless advisable to confirm with the vehicle supplier that the fuels available in South Africa are compatible with the vehicle, prior to purchase. It is possible for suppliers to modify European vehicles to ensure that they are compatible with regard to South African conditions and fuel specifications.

Enquiries: Fortunate Valoyi
Tel: (012) 428 7094
Date: 2008-12-29
Report No: **2112/N4145/PT**

Fuelenergizer cc
Attention: Mr. Helgard Hancke
P O Box 2155
VALHALLA
0137

TESTING TO SANS 342

1. SAMPLE DESCRIPTION

1 x 5L Automotive diesel fuel with **Fuelenergizer**
The sample was received in a condition suitable for testing

2. SAMPLE SUBMITTED

Sample received date: 2008/10/21
Test starting date: 2008/10/26
Test completion date 2008/10/27

3. TEST REQUESTED

Automotive diesel fuel SANS 342:2006 Edition 4

4. CONCLUSION

The sample complies with the requirements of specification SANS342 in respect of tests carried out.

TESTING TO SANS 342

5. Results

Property	Results	Requirements of specification SANS 342
Flash point (IP 34), C	55.0	55 min
** Cetane number (ASTM D613)	52.3	45 min
** Lubricity, corrected wear scar diameter (wsd 1.4) at 60 C	341	460 max
Sulphur content (XRF), % /m	0.04	0.05 max
Copper strip corrosion 3h at 100 C (IP 154) classification	1	1 max
Cold filter plugging point (IP 308) C	-6	Winter, – 4 max Summer, 3 max
Carbon residue on 10% / distillation residue (IP 14) % /m	0.08	0.2 max
Ash content (IP4), % /m	0.01	0.01 max
Water content (ASTMD) 4377, % /m	0.01	0.05 max
Viscosity at 40 C (IP71), mm²⁄₅	2.968	2.2 to 5.3
Density at 20) C (IP 365) kg/l	0.8368	0.8000 min
Distillation(ASTM D85) temperature, C for 90%(/) recovery	351.3	362 max
Total contamination, mg/kg	16.26	24 max

** Subcontracted to another laboratory

6. CONCLUSION

The sample complies with the requirements of specifications SANS 342 in respect of tests carried out.

F. Valoyi
Test Officer: Petroleum

C. van Wyk
Test Officer: Petroleum

The Acceptance of an item for test and the issue of a test report are subjected to the **SABS's CONDITIONS OF TEST***, from which the following have been extracted:

- If published or reproduced by the client, a test report shall be reproduced in full, i.e. the reproduction shall contain the printed as well as the typed parts of the report, nothing accepted. In special circumstances an abridged form of the report or certain parts of the report may be published or reproduced, provided that the abridged form or partial version of the report is approved in writing by the President and CEO of the SABS before publication or issue.
- A test report relates only to an item submitted for the actual test. It furnishes or implies no guarantee whatsoever in respect of a similar item that has not been tested.
- The performance of a test and the issue of a test report do not imply approval by the SABS of the quality and/or performance of the item that has been tested. This does not authorize the use of a certification mark. NOTE – An unlawful statement implying that an item has been approved by the SABS constitutes a punishable offence in terms of section 21(1) of the Standards Act.
- While every endeavor will be made to ensure that a test is representative and accurately performed, and that a report is accurate in the quoted results and conclusions drawn from the test, the SABS or its officers shall in no way be liable for any errors made in carrying out the test or for any erroneous statement, whether in fact or in opinion, contained in a report issued pursuant to a test.
- Obtainable upon request from the President and CEO, SABS, Private Bag X191, Pretoria, 0001.

WEAR CHECK® AFRICA
A member of the Set Point group

Diesel Analysis Report

Sample No: BS10665 42 **Sample Conformity** YES

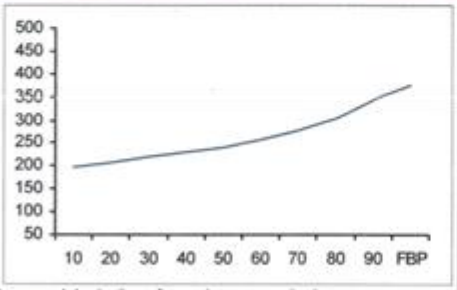
Company Name:	Fuel Energizer	Description	
Contact:	Helgard Hancke	Site	
Work Phone:	083 651 0909	Type of Fuel Container	Customer Supplied Container
Fax Number:	086 696 6930	Sample Volume	900 ml
Email Address:	fuelenergizer@absamail.co.za	Sampling Date	
Chassis number:		Date sample received	2009/05/12
Vechicle Registration no:		Test Date (Sample)	2009/05/13

TESTS DONE	RESULTS	UNITS	SANS 342 (2006) SPECIFICATIONS		
Density @ 20°C	0.8226	Kg/L	0.800min	PASS	Density is within the SANS specifications
Viscosity @ 40°C	2.3	cSt	2.2 - 5.3	PASS	Viscosity is within specification
Flashpoint	63	°C	55 min.	PASS	Flashpoint is within specifications.
Water Content (Soluble Water)	0.00	%	0.05 max.	PASS	Water content is within specification
90°C Recovery Temperature	344	°C	362 max.	PASS	The 90% Rec. Temp. is within specification
Total Contamination	4.4	mg/kg	24 max.	PASS	Total Contamination is within spec.
Sulphur Content	50.0	ppm	500 max.	PASS	Sulphur Content is within specification
% Residue	1.9	%			
Calculated Cetane Index	50.0				

VISUAL INSPECTIONS		ADDITIONAL TESTS	
Free Water (Visual)	None Observed	Bacteria	Not Required
		Total Acid Number	
Colour of Fuel	Pale Straw Yellow		
Appearance	Clear		

DISTILLATION AND GRAPH

IBP	174	°C
10	197	°C
20	209	°C
30	220	°C
40	231	°C
50	243	°C
60	259	°C
70	279	°C
80	306	°C
90	344	°C
FBP	376	°C
% Re	97.6	

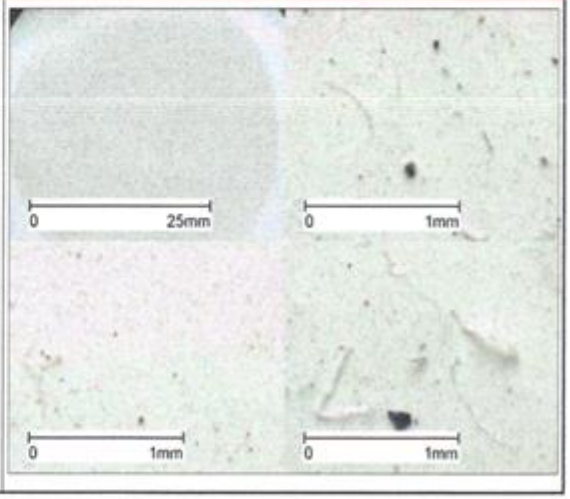


Normal distillation - no dehydration of sample was required

Analyst Comments:

The sample supplied conforms with SANS specification (SANS 342:2006) with respect to the tests performed.

IMAGE OF DEBRIS



For all correspondence, please contact WearCheck Africa
Tel: (031) 700-5460 / (011) 392-6322, Fax: (031) 700-5471 / (011) 392-6350 or Email: support@wearcheck.co.za

BUSINESS ENTERPRISES AT UNIVERSITY OF PRETORIA (PTY) LTD

A company wholly owned by the UNIVERSITY OF PRETORIA.

Test Summary & Notes:

Test done in Tribology Laboratory.

Customer: Komatsu Southern Africa (Pty) Ltd.

Samples:

No.1 MX – Diesel treated with **Fuelenergizer**.
No. 2 Clean – Clean diesel.

Particulate Contamination:

Lower than the level of 10mg/l that is the current norm in Europe. (The current SANS 342 standard requires a maximum contamination level of 24mg/l).

HFRR Lubricity Test:

Diesel sample treated with **Fuelenergizer** - HFRR Wear Scar (µm) = Lower (274 µm) and well within acceptable limit of 460 µm as stated in the current SANS 342 specifications.

CR Rating - Diesel sample treated with **Fuelenergizer** = (5) unchanged.

Conclusion:

Fuelenergizer does not change or affect diesel properties at all and does not increase wear scar diameter or CR Rating but lowers the HFRR µm.

Complete test result therefore within SANS 342 diesel specifications

BUSINESS ENTERPRISES
UNIVERSITY OF PRETORIA

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PO Box 14679 HATFIELD 0028
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e-mail: be@up.ac.za

2nd October 2010

Mr. William James
Komatsu Southern-Africa (Pty) Ltd
P O Box 196
Isando 1600

Dear Mr. James

HFRR DIESEL LUBRICITY TEST ON DIESEL SAMPLES:
No.1 MX; No.2 Clean

Enclosed please find the test results obtained for the above diesel samples submitted to us for testing.

The samples were filtered using the ASTM D6217 method (filtration through a 0.8 micron filter) to determine the level of particulate contamination in diesel prior to testing for lubricity. This is a standard procedure to ensure that presence of particulate matter does not affect the lubricity test. In addition, quantitave information with respect to the particulate content of the diesel sample is obtained. It should be noted that ASTM D6217 EN 12662 and IP440 are essentially equivalent test methods for the determination of particulate content. In this case, particulate contamination does not seem to be the source of the problem, since the extent of particulate contamination as **0 and 8 mg/liter** respectively, was lower than the level of 10mg/l that is the current norm in Europe. (The current SANS 342-standard requires a maximum contamination level of 24mg/l).

With regard to the **ISO 12156-1 HFRR Lubricity Test**, the samples showed corrected wear scar diameters of **274 and 367 µm**, respectively, which is in both cases **within** the maximum **acceptable limit** of 460 µm as stated in the current SANS 342 diesel specifications.

We also photographed the wear scar on the top specimens used for this test and evaluated this according to the additional visual Complementary Rating method (CR). The samples both showed clear signs of wear within the perimeter of the wear scar diameter, leading to a CR value of 5, (heavily worn area) for the samples. (This is on a scale of 1-6, where 1 = excellent and 6 is totally unacceptable).

SAMPLE	HFRR Wear scar (µm) (WS 1,4) ISO 12156-1	CR Rating	Particulate contamination (mg/l) ASTM D6217
Reference	**460**	**3**	**24 (max)**
Sample No.1 MX	274 µ m	5 (Heavily worn area)	0 Diesel show no visual signs of contamination or additional phase
Sample No.2 Clean	367 µ m	5 (Heavily worn area)	8 Diesel show no visual signs of contamination or additional phase

I trust that you will find these results informative
Yours sincerely

Extract from HFRR DIESEL REPORT Sample:

No. 1 Diesel & Fuelenergizer Mixture

TRIBOLOGY LABORATORY
Tel: 012-420-2475 Fax: 012-420-5048
E-Mail: philip.devaal@up.ac.za
Cell: 083-306-2824

P O BOX 14679 HATFIELD 0028
TEL: +27 (12) 420 4245
FAX: +27 (12) 362 5270
e-mail: be@up.ac.za
website: www.be.up.co.za

HFRR DIESEL TEST REPORT

PRODUCT: Sample: No.1 MX
CLIENT: Komatsu
Project No: HFRR/2010/G-638
DATE: 2010/10/02

HFRR TEST IDENTIFICATION

Test Name: G638S101
Test Type: ISO 12156-1 (60degC)
Time Test Started 2010/09/27 11:04:0
Unique Test ID D742-201009271104
Comments CR Rating: 5 (Heavily worn area)

HFRR LUBRICITY TEST RESULTS:

Temperature Average: 59.9°C
Film Average: 87%
Friction Average: 0.148

WEAR SCAR INFORMATION

Wear Scar X: 250 µm
Wear Scar Y: 240 µm
Wear Scar Avg: 245 µm (Maximum allowable wear scar: 460 µm.)
Wear Scar 1.4*: 274 µm (Maximum allowable wear scar: 460 µm.)
*Corrected to a standardized water vapour pressure of 1,4 kPa (WS1,4)

The result indicates that the product falls inside the limits of acceptability according to SANS 342

Extract from HFRR DIESEL REPORT Sample:
No 2 Diesel without Fuelenergizer

TRIBOLOGY LABORATORY
Tel: 012-420-2475 Fax: 012-420-5048
E-Mail: philip.devaal@up.ac.za
Cell: 083-306-2824

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FAX: +27 (12) 362 5270
e-mail: be@up.ac.za
website: www.be.up.co.za

HFRR DIESEL TEST REPORT

PRODUCT:	Sample: No.2 Clean
CLIENT:	Komatsu
Project No:	HFRR/2010/G-638
DATE:	2010/10/02

HFRR TEST IDENTIFICATION

Test Name:	G638S201
Test Type:	ISO 12156-1 (60degC)
Time Test Started	2010/09/27 12:50:00
Unique Test ID	D742-201009271250
Comments	CR Rating: 5 (Heavily worn area)

HFRR LUBRICITY TEST RESULTS:

Temperature Average:	59.9°C
Film Average:	68%
Friction Average:	0.166

WEAR SCAR INFORMATION

Wear Scar X: 350 µm
Wear Scar Y: 330 µm
Wear Scar Avg: 340 µm (Maximum allowable wear scar: 460 µm.)
Wear Scar 1.4*: 367 µm (Maximum allowable wear scar: 460 µm.)
*Corrected to a standardized water vapour pressure of 1,4 kPa (WS1,4)

The result indicates that the product falls inside the limits of acceptability according to SANS 342

SPEED SPOT
Technologies

403, Broodryk Street, Pretoria North – Tel: (012) 546 9309 / 546 3008

TO WHOM IT MAY CONCERN

This serves to confirm that we were approached by Mr. Hancke from **Fuelenergizer** South Africa to conduct several tests with regards to CO vehicle emission gasses in our workshop.

1. TEST VEHICLE

Nissan 2.4i 1 ton LDV – (Fuel injection)

2. TEST EQUIPMENT

SUN MGA 1200 Gas Analyzer

3. TESTS CARRIED OUT

Exhaust emission readings at:

I. Idle speed @ 650 rpm.
II. Constant engine rpm @ 2500 rpm.
III. Constant engine rpm with Dyna load @ 2500 rpm.

Test results

CO EMMISSION TEST

PETROL ONLY

CO readings	Lowest	Highest	Variation	Average
Idle @ 650 rpm	11.46	12.65	1.19	12.06
2500 rpm	12.44	12.68	0.24	12.56
2500 rpm Dyna load	12.05	12.45	0.40	12.25
				12.29

PETROL WITH FUELENERGIZER

CO readings	Lowest	Highest	Variation	Average	% Less CO
Idle @ 650 rpm	10.45	10.70	0.25	10.58	12.28
2500 rpm	11.98	12.10	0.12	12.04	4.14
2500 rpm Dyna load	11.10	11.13	0.03	11.12	9.27
					8.56

Conclusion

1. Variation of lowest / highest readings is less with **Fuelenergizer** when constantly running.
2. Average CO exhaust emission gasses is 8.56% with **Fuelenergizer**.

Confirmation of the above tests carried out can be obtained from writer hereof.

Regards
Henry Dearlove - Owner
082 903 0867
Note: Original hereof signed
Specialists in Exhaust Systems – Gas analysis – Tune ups (Dynamometer) – Roll Cage Development

Short Term Defective Product Liability Insurance

momentum

Company Name	APROBASE CC T/A FUELENERGIZER SOUTH AFRICA
Attention	Mr Helgard P Hancke
Fax Number	086 591 4651
E-mail Address	fuelenergizer@absamail.co.za
From	JENILLE GOUWS On behalf of MOMENTUM SHORT TERM WEB
Brokerage	MFP RETAIL DIVISION
Momentum Telephone	08 6000 6784
Brokerage Telephone	086 000 6784
Date	18/01/2013

Confidentiality Notice: This message is only for the use of the individual or entity to which it is addressed and contains information that is privileged and confidential. If the reader of this message is not the intended addressee, or the employee or agent responsible for the delivery of the message to the intended addressee, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the address below at our cost.

Dear Mr Hancke,

We confirm the following public liability cover with Momentum as per the schedule of cover listed below. It is subject to the terms and conditions of our contract with APROBASE CC T/A FUELENERGIZER SOUTH AFRICA.

Name	Policy number	Inception date
APROBASE CC T/A FUELENERGIZER SOUTH AFRICA	MT955771	29/08/2012

Cover	Sum Insured	Basic Excess	Premium
COMPREHENSIVE	R500,000.00	R2,500.00	INCLUDED
Additional Cover Options			
LIABILITY - DEFECTIVE PRODUCTS	R5,000,000.00	R2,500.00	INCLUDED
EXTENDED RETROACTIVE DATE			
LIABILITY - DEFECTIVE WORKMANSHIP			
INTERNAL LIABILITIES			
MOMENTUM ASSIST MEDICAL & LEGAL			
MOMENTUM ASSIST TRAUMA SUPPORT & HIV CARE			
EXTERNAL LIABILITIES			
VELDFIRES LIABILITY			
LIABILITY - CUSTODY AND CONTROL			
Included Benefits			
LEGAL DEFENCE COSTS R 10,000.00			INCLUDED
WRONGFUL ARREST AND DEFAMATION R 50,000.00			INCLUDED

Should you have any queries please contact a Client Care advisor on 08 6000 6784.

Kind regards

Vickey Swanevelder
Head of Operations

Short-term Insurance
[illegible] South Africa
[illegible]
advice | insurance | investments | health

momentum

Attention	MR H HANCKE
Fax Number	
E-Mail Address	fuelenergizer@fuelenergizer.co.za
Advisor Name	JACQUES MULLER
Telephone	086 000 6784
Fax Number	08 6000 3784
Momentum Telephone	08 6000 6784
Reference Number	MT955771
Date	14/02/2014

To whom it may concern

The attached document confirms the cover and claims history for APROBASE CC T/A FUELENERGIZER SOUTH AFRICA.

Please note that no claims were submitted for the period that APROBASE CC T/A FUELENERGIZER SOUTH AFRICA was insured with Momentum.

Please contact us on **08 6000 6784** should you need any additional information.

Kind regards

Jonathan Lewarne
Head of Operations

Risk Cover and Claims Summary: Policy MT955771

Risks Covered

Risk	Description	Period Covered	Claims
COMMERCIAL PUBLIC LIABILITY	NO DESCRIPTION	29/08/2012 - CURRENT	NONE

VOLVO

(Southern Africa) (Pty) Ltd.

Memorandum

Date: **2013-08-22**

No of pages including this one:Page 1 of 1

To		**From**	
Company	Fuelenergizer	**Company**	Volvo (Southern Africa) Pty Limited
Name	Helgard P Hancke	**Name**	Clifford Steele
Department		**Department**	Truck
Telephone	083 651 0909	**Telephone**	+27 (0) 11 8425036
Telefax	086 591 4651	**Telefax**	+27 (0) 8667991316
		Cell	+27 (0) 828271052

RE: FUELENERGIZER

Volvo have taken cognizance of the typical properties and characteristics of the fuelenergizer combustion enhancer and it's compliance to the SANS 342:2006 specification as confirmed by the SABS for all diesel fuels.
Based on Volvo Warranty policy it thus remains the prerogative of the end user to use it at it's sole discretion. However the usage of Fuelenergizer in any of our vehicles will not negate our warranty. In the event of a proven mechanical failure due to the malfunctioning of the product all relevant damages will be covered by the warranty of Fuelenergizer (Aprobase cc 2010-034952-23).

The Volvo warranty covers defects in workmanship and material as manufactured and sold by Volvo. Therefore, adding or attaching products sold in the marketplace does not affect our warranty. However, any vehicle performance problem or failure caused by products not manufactured or sold by Volvo is not considered warrantable by Volvo, but by the warranty of the supplier.

Regards

Clifford Steele
Sales Engineer

Volvo (Southern Africa) (Pty) Ltd.
Private Bag X 1059
Germiston 1400

Telephone
+ 27 11 820 0900

Facsimile
+ 27 11 820 0990

Directors
C. Capelle (Belgian)
R. Ericsson (Swedish)

Registration No.
99/24405/07

Registered Office
2 Elgin Road
Sunninghill
2152

Renault Trucks SA
(A division of Volvo Trucks SA)

Date: **2013-09-27**

No of pages including this one: Page 1 of 1

To		**From**	
Company	Fuelenergizer	**Company**	Volvo (Southern Africa) Pty Limited
Name	Helgard P Hancke	**Name**	Clifford Steele
Department		**Department**	Truck
Telephone	083 651 0909	**Telephone**	+27 (0) 11 8425036
Telefax	086 591 4651	**Telefax**	
		Cell	+27 (0) 828271052

RE: FUELENERGIZER

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Based on Renault Warranty policy it thus remains the prerogative of the end user to use it at it's sole discretion. However the usage of Fuelenergizer in any of our vehicles will not negate our warranty.
In the event of a proven mechanical failure due to the malfunctioning of the product all relevant damages will be covered by the warranty of Fuelenergizer (Aprobase cc 2010-034952-23).
The Renault warranty covers defects in workmanship and material as manufactured and sold by Renault. Therefore, adding or attaching products sold in the marketplace does not affect our warranty. However, any vehicle performance problem or failure caused by products not manufactured or sold by Renault is not considered warrantable by Renault, but by the warranty of the supplier.

Regards

Clifford Steele
Sales Engineer

RENAULT TRUCKS SOUTH AFRICA
A Division of Volvo Southern Africa (Pty) Ltd

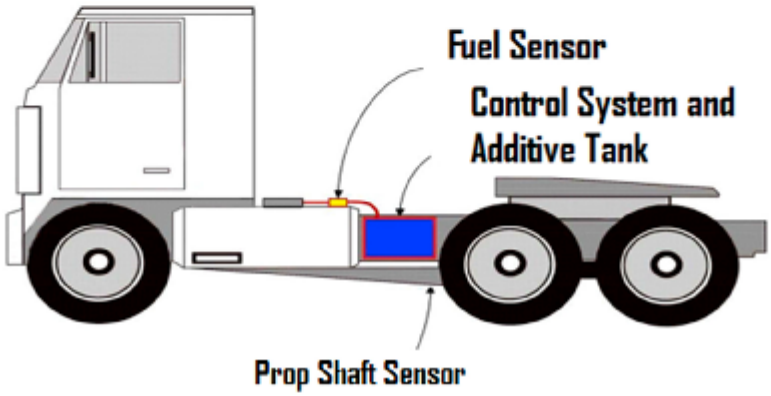
Cnr Jet Park & Saligna Avenue – Hugues Business Park - Witfield – South Africa
PO Box 26005 – OOS-Rand 1462 – South Africa
Telephone: +27 (0)11/842 5000 Fax: +27 (0)11/842 9240
www.renault-trucks.com

Automated Fuelenergizer Dosing System

Developed By Trynexsys (Pty)Ltd

The dosing system is designed to automatically and accurately administer Fuelenergizer when fuel is added to the fuel tank. (Eliminating human factor/intervention)
The system consists of:

- A tank containing Fuelenergizer ranging from 2 litres to 20 litres.
- Independent fuel tank level detector.
- A control box (onboard computer) that controls the addition of Fuelenergizer to the fuel tank whenever fuel is added to the fuel tank.
- A movement and distance sensor



Data Communications Medium

- The data from each vehicle is relayed via GPRS to a database positioned in a convenient central control room.
- This module connects directly to the central server, and provides access to the following functions:
  - Distance traveled and fuel used
  - Running duration and fuel used
  - Fuel additive level monitoring
  - Fuel level monitoring. A useful benefit of this feature is that the system can be configured to raise an alarm when it detects a sudden drop in fuel level (indicating possible theft of fuel).
  - The real time monitoring values may also be stored in the database, and reported upon at a later stage as and when required.
- The end-user application is web enabled, deployed securely over the internet.
- All fuel related events can also be reported by a simple notification messages delivered via SMS or Email.

For more information visit www.trinexsys.co.za

Saving Results with Fuelenergizer

- **Diesel**

	Price as on (Inland) 01/02/2014	FE price per liter	Dosage
	Diesel		
Price per liter	R 13.10	R 120 per liter	3.5 ml per liter
Fuelenergizer per liter	R 0.42		
Diesel + FE per liter	R 13.52		

Saving on diesel per liter

% Saving	Diesel	Minus FE cost	Total saving
3%	R 0.41	- R 0.42	- R 0.01
8%	R 1.08	- R 0.42	R 0.66
10%	R 1.35	- R 0.42	R 0.93
13%	R 1.76	- R 0.42	R 1.34

Bulk diesel – 10% Saving

10 000 liters = R 9 635	25 000 liters = R 24 087
50 000 liters = R 48 175	100 000 liters = R 96 350
500 000 liters = R 497 500	1 000 000 liters = R 1 026 500

3% saving = Net -R0.01 Break-even point.
10% saving = Net saving R 0.93 per liter
13% saving = Net saving R 1.34 per liter
Average vehicle fuel tank = 80 liter @ 10% saving = R 74.56 per tank.

- **Petrol**

	Price as on (Inland) 01/02/2014	FE price per liter	Dosage
	Petrol		
Price per liter	R 13.50	R 120 per liter	1.6 ml per liter
Fuelenergizer per liter	R 0.19		
Diesel + FE per liter	R 13.69		

Saving on petrol per liter

% Saving	Diesel	Minus FE cost	Total saving
1.4%	R 0.19	- R 0.19	R 0.00
8%	R 1.10	- R 0.19	R 0.90
10%	R 1.37	- R 0.19	R 1.18
13%	R 1.78	- R 0.19	R 1.59

1.4% saving = Net -R0.00 Break-even point.
10% saving = Net saving R 1.18 per liter
13% saving = Net saving R 1.59 per liter
Average vehicle fuel tank = 60 liter @ 10% saving = R 70.80 per tank.

MOTORVIA TEST RESULTS (SUMMARY)
(Namibia Trips)

Baseline		Motorvia liters	Motorvia kilometers	Motorvia consumption
MOTORV639261ND	Weswood	434	1038	2.39
MOTORV639261ND	Tshootsa	530	1081	2.04
MOTORV639261ND	Tshootsa	410	873	2.13
MOTORV639261ND	Weswood	500	1081	2.16
		1874	**4073**	**2.18**

FUELENERGIZER SAVINGS

MOTORV639261ND Weswood Predose system full tanks

TRIP 1

		Motorvia liters	Motorvia kilometers	Motorvia consumption
MOTORV639261ND	Tshootsa	495	1070	2.16
MOTORV639261ND	Tshootsa	534	1412	2.64
MOTORV639261ND	Weswood	408	1283	2.40
	(Return load)	**1437**	**3765**	**2.40**
			Saving against baseline	**10.15%**

TRIP 2

		Motorvia liters	Motorvia kilometers	Motorvia consumption
MOTORV639261ND	Tshootsa	494	1086	2.20
MOTORV639261ND	Tshootsa	940	2515	2.68
MOTORV639261ND	Weswood	441	1052	2.39
	(Return load)	**1875**	**4653**	**2.42**
			Saving against baseline	**10.97%**

CHANTETE MINING SERVICES - FUEL MANAGEMENT TEST REPORT

Client: Chantete Mining Services
Test: **Fuelenergizer** fuel management treatment on Bell BD40 Trucks
Test Date: 29 October 2012 – 3 November 2012.

1. Test Vehicles:
   a. Bell BD40 trucks – Numbers 33; 42; 30
2. Testing done by Ben Hancke from **Fuelenergizer** South Africa assisted by Koos Loots from Chantete Mining Services
3. Consumption measured in liters/hour.
4. Test Vehicle Information:
   a. Vehicles: Bell B40D – Heavy duty tipper dump trucks.
   b. Truck 30
      i. Shift 1 – 11
      ii. Treated with 3.5ml/lit **Fuelenergizer**.
   c. Truck 33
      i. Shift 1-7 without **Fuelenergizer** to establish baseline consumption
      ii. Shift 8 -11 treated with 3.5ml/lit **Fuelenergizer**.
   d. Truck 42
      i. Shift 1-6 without **Fuelenergizer** to establish baseline consumption
      ii. Shift 7-11 treated with 3.5ml/lit **Fuelenergizer**.
5. Conditions:
   a. Shift 1-7 & 11 Normal dry & hot weather.
   b. Shift 8-10 rain and severe mud conditions.
6. Conclusion / Result
   a. Truck 33 & 42 Average consumption base line — 27.0 liters per hour
   b. Truck 30 with constant 3.5ml per liter **Fuelenergizer** — 24.04 liters per hour
   c. Saving — 2.91 liters per hour
      i. Saving of 12.11%
7. Comment:
   a. Information received on approximate diesel consumption of 1 900 000 liters per month.
   b. Result is 12.11%
   c. Gross saving of 230,090 liters per month
   d. Diesel price $1.32 per liter = ZAR 11.44 per liter
      i. Exchange rate $ 1.00 = ZAR 8.6609
   e. Break-even point with **Fuelenergizer** = 2.96%
   f. All savings above 2.96% will result in a Nett saving.
   g. 12.1% Saving of R2,710,521 (Diesel price R11.44 per liter)
      i. Less **Fuelenergizer** R 665,000 (R100.00 per liter)
      ii. Net Saving R2 045 521 per month

Hi Lourens
Diesel verbruik van VL 81 (Volvo)

							Liters	Kilometers per liter
23 March 2012	RFT YARD	ABENTEGO	195 093	895	88 501		360	**2.49**
24 March 2012	RFT YARD	ABENTEGO	195 936	843	0	1 801	382	**2.21**
27 March 2012	RFT YARD	ABENTEGO	196 778	842	0	878	352	**2.39**
28 March 2012	RFT YARD	ABENTEGO	197 619	841	0	880	340	**2.47**

Gemiddeld **2.39**

							Liters	Kilometers per liter
28 May 2012	RFT YARD	ABENTEGO	217577	108 398	849	841	335	**2.53**
29 May 2012	RFT YARD	ABENTEGO	218 426	109 242	849	844	325	**2.61**
30 May 2012	RFT YARD	ABENTEGO	218 760	109 576	334	334	130	**2.57**
31 May 2012	RFT YARD	ABENTEGO	218 916	109 732	156	156	89	**1.75**
1 June 2012	RFT YARD	ABENTEGO	219 762	110 564	846	846	313	**2.70**

Gemiddeld **2.60**
Nota: 1.75 buite rekening gelaat
Besparing = 9%

Groete

Jaco du Plessis
Debrief Operator
Cell: +27 (0) 83 571 8999
Direct Tel: +27 (0) 11 278 2187
E-mail: debrief@graincarriers.co.za

BLOCON
Tel: 034-37 58069/60 Fax: 034-37 56625
PO Box 3178 Newcastle 2940
38c Albert Wessels Drive Industrial Sites
Blocon Trust IT 439/02 t/a Vat Reg: 476 019 8889 blocon@newcastle.co.za

1 August 2013

Fuelenergizer South Africa (Hoëveld Agency)
ERMELO

Attention: Johan Swart

FUELENERGIZER TEST

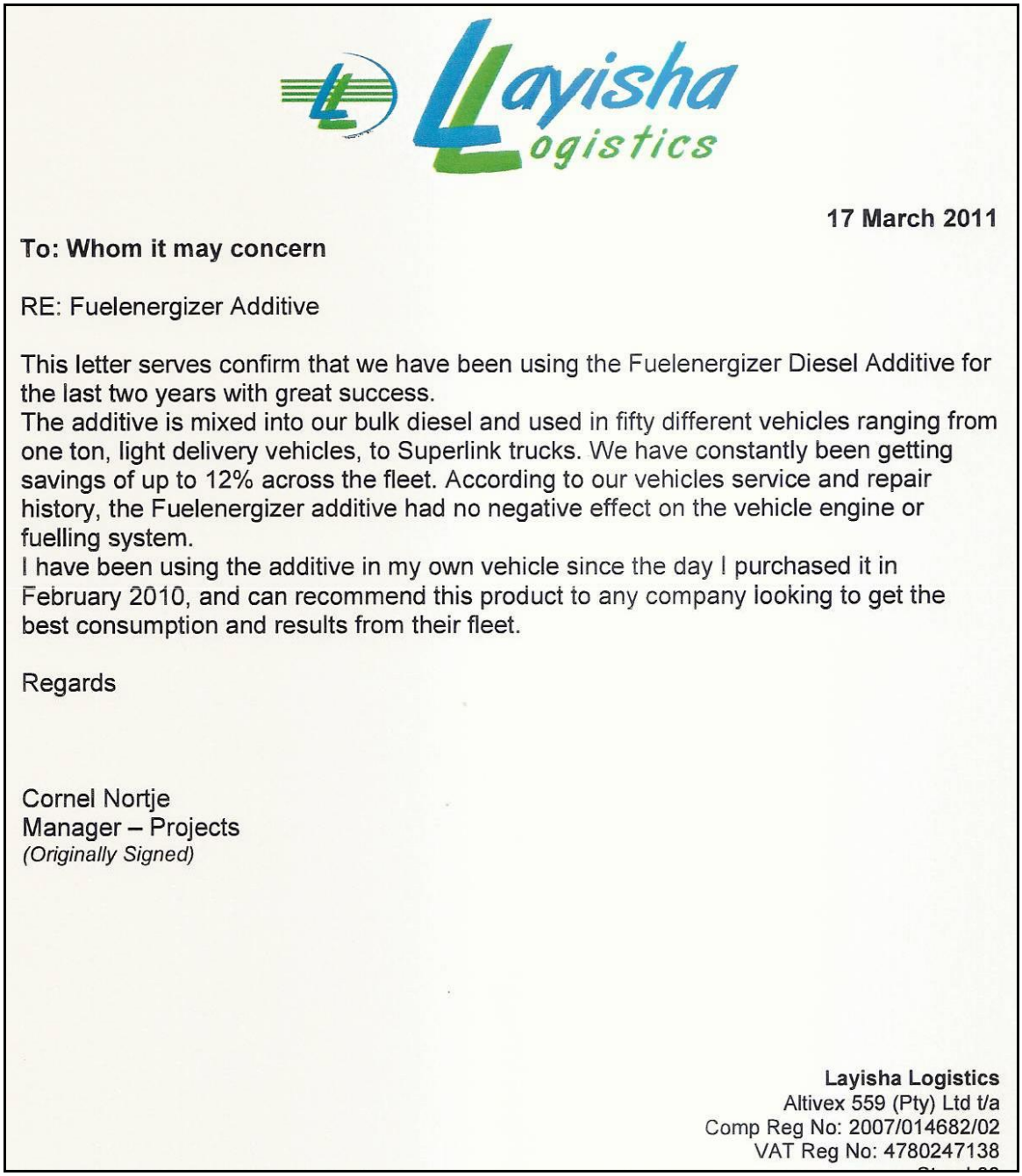
We've been using Fuelenergizer for seven months and achieved the following results:

- We used Fuelenergizer on our fleet of 30 vehicles (Trucks, LDV's, Tractors, Forklifts, etc) and achieved an average saving of 11% on fuel usage.
- Exhaust emission gasses (black smoke) is less with Fuelenergizer.
- An engine recently overhauled showed no sludge when dismantled in comparison when opened before.
- Exhaust gasses of diesel vehicles idling in an enclosed area tend to be very irritating on the technicians eyes. This is not the case with vehicles using Fuelenergizer thus proving that there is no unburnt fuel and harmful gasses in the exhaust gasses.

We are very satisfied with Fuelenergizer results and recommend the use thereof.

Regards

Hanver de Lange



Layisha Logistics

17 March 2011

To: Whom it may concern

RE: Fuelenergizer Additive

This letter serves confirm that we have been using the Fuelenergizer Diesel Additive for the last two years with great success.
The additive is mixed into our bulk diesel and used in fifty different vehicles ranging from one ton, light delivery vehicles, to Superlink trucks. We have constantly been getting savings of up to 12% across the fleet. According to our vehicles service and repair history, the Fuelenergizer additive had no negative effect on the vehicle engine or fuelling system.
I have been using the additive in my own vehicle since the day I purchased it in February 2010, and can recommend this product to any company looking to get the best consumption and results from their fleet.

Regards

Cornel Nortje
Manager – Projects
(Originally Signed)

Layisha Logistics
Altivex 559 (Pty) Ltd t/a
Comp Reg No: 2007/014682/02
VAT Reg No: 4780247138

To protect Mr. Nortje's privacy his telephone number can be obtained on request.

Imperial Logistics - International Eagle - Johannesburg / Durban

Normal down leg	Date	Liters of fuel	Fill up kilometers	Comments	Distance	Kilometers per liter
No additive	12/10/2009	315	338 804	Normal	656	2.08
	14/10/2009	316	340 096	Normal	633	2.00
	16/10/2009	308	341 352	Normal	643	2.09
	18/01/2010	425	351 914	Normal	895	2.11
	17/02/2010	325	355 604	Normal	650	2.00
	22/02/2010	282	356 851	Normal	592	2.10
					4 069	**2.06**
Fuelenergizer	01/03/2010	272	359 293	Normal	595	2.19
	03/03/2010	263	360 537	Normal	574	2.18
	05/03/2010	375	361 989	Normal	850	2.27
	10/03/2010	350	363 325	Normal	773	2.21
	17/03/2010	389	366 004	Normal	901	2.32
	19/03/2010	234	367 173	Normal	578	2.47
					4 271	**2.27**
					SAVING 9.19%	

Normal up leg	Date	Liters of fuel	Fill up kilometers	Comments	Distance	Kilometers per liter
No additive	12/10/2009	315	338 804	Normal	656	2.08
	14/10/2009	316	340 096	Normal	633	2.00
					4 069	**2.06**
Fuelenergizer	01/03/2010	272	359 293	Normal	595	2.19
	03/03/2010	263	360 537	Normal	574	2.18
	05/03/2010	375	361 989	Normal	850	2.27
					4 271	**2.27**
					SAVING 9.19%	

Abnormal conditions down leg	Date	Liters of fuel	Fill up kilometers	Comments	Distance	Kilometers per liter
No additive	20/01/2010	385	353 221	Rain	850	2.21
	22/01/2010	334	354 390	Rain	575	1.72
					1 425	**1.96**
Fuelenergizer	No trips with FE with abnormal weather conditions					

Abnormal conditions up leg	Date	Liters of fuel	Fill up kilometers	Comments	Distance	Kilometers per liter
No additive	13/10/2009	449	339 463	Wind/Rain	659	1.47
	15/10/2009	360	340 609	Traffic	513	1.43
	19/01/2010	393	352 371	Rain	457	1.16
	21/01/2010	395	353 815	Wind/Rain	594	1.50
	23/01/2010	370	354 954	Rain	564	1.52
	18/02/2010	420	356 259	Wind/Rain	655	1.56
					3 442	**1.44**
Fuelenergizer	02/03/2010	412	359 963	Rain	670	1.63
	04/03/2010	365	361 139	Traffic/Rain	602	1.65
	12/03/2010	392	363 950	Traffic/Rain	625	1.59
	18/03/2010	368	366 595	Wind	591	1.61
					2 488	**1.62**
					SAVING 11.02%	

AVERAGE SAVING

10.15%

IMPERIAL LOGISTICS – Tipper Resources

IMPERIAL TIPPER RESOURCES - FLEET OPERATING AT WITBANK

ITR Witbank **Nissan UD 460 fleet no. 80**

Date	Kilometers	Tank 1	Tank 2	FE 1	FE 2	**FE** dosage	Kilometers per liter	Average	Percentage	
14/06/2010	60 109	N/A	N/A	0	0		Fill up			
15/06/2010	60 271	96					1.69			
17/06/2010	60 671	202					1.98			
21/06/2010	60 924	124	0	1750	700	3.50	2.04	1.90		**Base**
23/06/2010	61 165	81	38	280	140	3.53	2.03			
24/06/2010	61 716	260	137	1040	550	4.01	1.96			
25/06/2010	62 344	167	97	590	340	3.52	2.38			
26/06/2010	62 684	0	160	0	0	0.00	2.13	2.12	11.57	With FE

ITR Witbank **Nissan UD 460 fleet no. 82**

Date	Kilometers	Tank 1	Tank 2	FE 1	FE 2	**FE** dosage	Kilometers per liter	Average	Percentage	
14/06/2010	60 181	N/A	N/A	0	0		Fill up			
15/06/2010	60 313	97					1.36			
17/06/2010	60 554	138					1.75			
18/06/2010	61 184	302					2.09			
19/06/2010	62 134	467					2.03			
21/06/2010	62 301	76	0	1750	700	3.50	2.20	1.88		**Base**
22/06/2010	62 704	120	70	420	250	3.53	2.12			
23/06/2010	63 020	100	47	350	160	3.47	2.15			
24/06/2010	63 650	199	102	690	350	3.46	2.09			
25/06/2010	63 943	85	45	300	160	3.54	2.25			
26/06/2010	64 199	0	123	0	0	0.00	2.08	2.14	13.52	With FE

AVERAGE SAVING
12.54%

Izusa Transport
Volvo Tipper

Volvo S51	V74	Tipper PMC Temp Reg: EBV 585 MP							
Slip No	**Trans Date**	**Town**	**Open**	**Close**	**Total Kilometers**	**Liter**	**Average Trip**	**Total Value**	**Name**
36736	30/08/2013	Lebombo	162 633	163 519	886	480	1.85	R 6 254.40	Lotty
36737	01/09/2013	Lebombo	163 519	164 406	887	465	1.91	R 6 058.95	Lotty
36738	02/09/2013	Lebombo	164 406	165 292	886	470	1.89	R 6 124.10	Lotty
36739	03/09/2013	Lebombo	165 292	166 178	886	475	1.87	R 6 189.25	Lotty
36740	05/09/2013	Lebombo	166 178	167 067	889	461	1.93	R 6 076.00	Lotty
36741	06/09/2013	Isuza	167 067	167 980	913	462	1.98		Lotty
36742	06/09/2013	Lebombo	167 980	168 002	22	460	0.05	R 6 062.80	Lotty
36743	08/09/2013	Lebombo	168 002	168 888	886	475	1.87	R 6 260.50	Lotty
36744	09/09/2013	Lebombo	168 888	169 777	889	475	1.87	R 6 266.45	Lotty
36745	10/09/2013	Lebombo	169 777	170 694	917	475	1.93	R 6 265.40	Lotty
36746	11/09/2013	Lebombo	170 694	171 581	887	480	1.85	R 6 326.40	Lotty
36747	12/09/2013	Lebombo	171 581	172 466	885	480	1.84	R 6 326.40	Lotty
36748	14/09/2013	Lebombo	172 466	173 357	891	470	1.90	R 6 194.60	Lotty
36749	16/09/2013	Lebombo	173 357	174 250	893	488	1.83	R 6 431.85	Lotty
36750	17/09/2013	Isuza	174 250	175 153	903	479	1.89		Mongie
36751	18/09/2013	Lebombo	175 153	176 051	898	490	1.83	R 6 458.20	Vusi
36752	20/09/2013	Lebombo	176 051	176 926	875	498	1.76	R 6 563.65	Vusi
36753	21/09/2013	Lebombo	176 926	177 803	877	504	1.74	R 6 642.70	Vusi
36754	24/09/2013	Isuza	177 803	178 692	889	490	1.81		Lotty
36755	25/09//2013	Isuza	178 692	179 585	893	467	1.91		Lotty
36756	26/09/2013	Isuza	179 585	180 479	894	467	1.91		Lotty
36757	28/09/2013	Isuza	180 479	181 412	933	476.1	1.96		Lotty
36758	30/09/2013	Isuza	181 412	182 307	895	466	1.92		Lotty
			182 307		182 307				

1.76 tot 24/09/2013 sonder **FE**
1.93 tot 30/09/2013 met **FE**
9.32% Besparing

Izusa Transport
Volvo Tipper

Volvo S56	V76	Tipper PMC Temp Reg: FXD 424 MP							
Slip No	**Trans Date**	**Town**	**Open**	**Close**	**Total Kilometers**	**Liter**	**Average Trip**	**Total Value**	**Name**
38533	31/08/2013	Lebombo	171 001.2	171 890	888.8	470	1.89	R 6 124.10	Thembinkosi
38534	02/09/2013	Isuza	171 890	172 791	901	454.6	1.98		Thembinkosi
38535	03/09/2013	Isuza	172 791	173 701	910	450	2.02		Thembinkosi
38536	04/09/2013	Isuza	173 701	174 611	910	471.5	1.93		Thembinkosi
38537	06/09/2013	Lebombo	174 611	175 508	897	479	1.87	R 6 322.95	Thembinkosi
38538	07/09/2013	Lebombo	175 508	176 396	888	458	1.94	R 6 035.45	Thembinkosi
38539	09/09/2013	Lebombo	176 396	177 286	890	448	1.99	R 5 904.65	Thembinkosi
38540	10/09/2013	Izusa	177 286	178 189	903	467	1.93		Thembinkosi
38541	11/09/2013	Lebombo	178 189	179 087	898	468	1.92	R 6 168.25	Thembinkosi
38542	12/09/2013	Izusa	179 087	179 988	901	468	1.93		Thembinkosi
38543	14/09/2013	Lebombo	179 988	180 895	907	475	1.91	R 6 260.50	Vusani
38544	15/09/2013	Izusa	180 895	181 809	914	479	1.91		Vusani
38545	16/09/2013	Izusa	181 809	182 720	911	489	1.86		Vusani
38546	18/09/2013	Lebombo	182 720	183 618	898	490	1.83	R 6 458.20	Vusani
38547	19/09/2013	Lebombo	183 618	184 507	889	477	1.86	R 6 286.85	Vusani
38548	20/09/2013	Izusa	184 507	185 418	911	480	1.90		Vusani
38549	22/09/2013	Izusa	185 418	186 330	912	484	1.88		Vusani
38550	22/09/2013	Izusa	186 330	187 243	913	490	1.86		Vusani
41901	25/09//2013	Isuza	187 243	188 145	902	448	2.01		Vusani
41902	26/09/2013	Isuza	188 145	189 046	901	434	2.08		Vusani
41903	28/09/2013	Isuza	189 046	189 944	898	444	2.02		Vusani
41904	29/09/2013	Isuza	189 944	190 846	902	351	2.57		Vusani
			190 846		190 846				

1.91 tot 22/09/2013 sonder **FE**
2.17 tot 29/09/2013 met **FE**
13.42% Besparing

Fidelity Security Services

Please find report on **Fuelenergizer**.

The test was done on a NISSAN NP200 – XWB769GP
The test started on the 04/08/2012 whereby the tank was filled to the brim and the additive was administered by Paul from **Fuelenergizer**.
The starting kilometers were 253 382km and the vehicle did 5 552km during the test phase.
There were 8 tank fill ups.
The average fuel consumption before the test was 10 kilometers per liter and after the test phase it was 12.31 kilometers per liter.

	Monthly liters of fuel	Total distance travelled	Fuel consumption kilometers per liter
August	336.70	3811	10.0
July	431.40	4511	10.5
June	428..70	4860	11.3
May	382.92	4687	12.2

The cost per kilometer before the test was .99c per kilometer and was reduced to .88c per kilometer with a saving of .11c per kilometer.

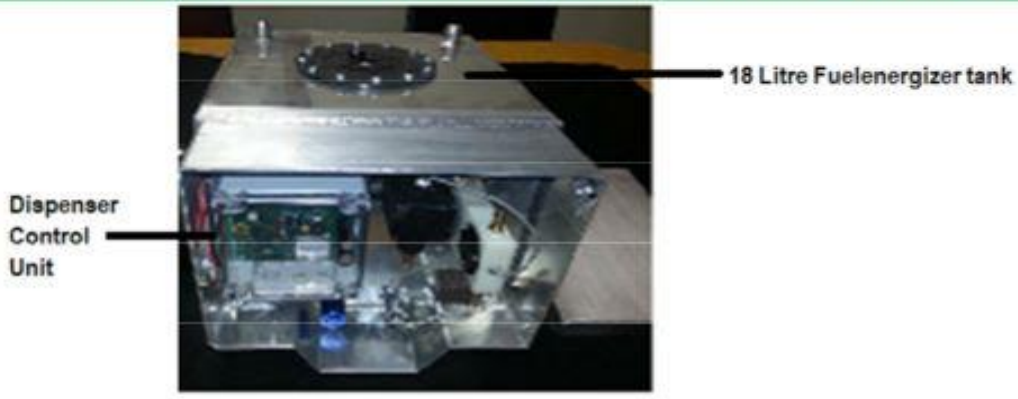
In summary **Fuelenergizer** will offer an **11.9% saving** on kilometers per liter. And **11.1% on rand and cent cost at current fuel price**.

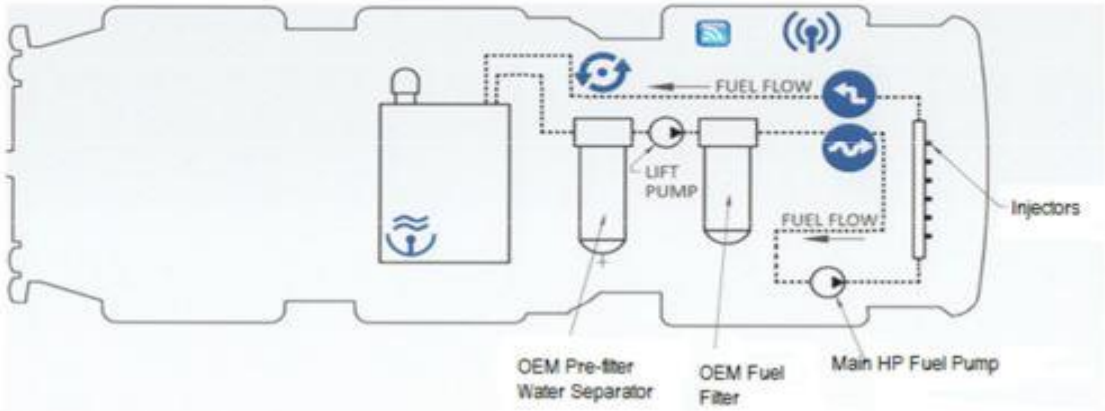
Attached are the specs as well as the test performed by **Fuelenergizer**.

Regards

Russell du Bois |Fleet Manager Assistant | Fidelity Security Services
Address: 101 All Black Road, Anderbolt, Boksburg North, 1459
Office: 011 892 0382 | Fax: | Cell: 076 036 0279
Email:Russelld@fidelitysecurity.co.za

AUTOMATED FUELENERGIZER DOSING & THEFT STOP SYSTEM





- **TANK VOLUME SENSOR:**
  - Accurately measures tank volume in real time
  - Measures' diesel volume when added

FUELENERGIZER DOSING UNIT:

- **APPLICATOR DISPENCER CONTROL UNIT:**
  - Accurately measure diesel added to fuel tank via tank volume sensor
  - Administer **Fuelenergizer** accurately to fuel tank(s)
  - Dosage per liter configurable
  - Programmable – one or two fuel tanks
  - 18 Liter **Fuelenergizer** tank
  - Tamper free

THEFT STOP DETECTING UNIT:

- **FLOW SENSOR FUEL LINE TO FUEL PUMP:**
  - Accurately measure the fuel volume delivered to the high pressure pump.
- **FLOW SENSOR FUEL RETURN LINE TO FUEL TANK:**
  - Accurately measures the fuel volume returned to the vehicles fuel tank.

- **MOTION SENSOR:**
  - Determines whether the vehicle is moving or stationary.

- **DATA COLLECTOR AND TRANSMITTER:**
  - Detects theft whether the vehicle is stationary, mobile or switched off.
  - Compares the net volume of fuel used to the volume reduction in the tank over pres-set intervals and notifies the user is a dispensary is detected.
  - Records fuel used between tanks fills.
  - Optionally record the position of the vehicle via GPS when events occur.
  - Automatically compensates for fuel viscosity changes with temperature and differing flow rates through the slow sensor.

- **ENGINE CONSUMPTION:**
  - Flow sensor in pipeline measures fuel flow from tank to main fuel pump and return line for accurate engine consumption results.

- **TANK CONSUMPTION:**
  - An increase in total volume indicates a refuel event and reduction indicates tank consumption.

- **REFILL:**
  - When a vehicle is refilled, the volume dispensed will be recorded as a refuel event.
  - If pump attendant stops refueling and continue again the total volume dispensed before the vehicle moved will be recorded.

- **THEFT CHECK:**
  - Engine and tank consumptions should be the same.
  - If tank consumption is higher than engine consumption a theft event is taking place.
  - Theft will be detected in any of the following conditions.
    - Vehicle stationary with engine off or running.
    - Vehicle in motion.

- **SYSTEM CHECK:**
  - All sensors automatically checked regularly for functionality.
  - Any deviation will be recorded as a malfunction event.
  - Should the unit be disconnected from the battery, a disconnect event will be recorded.

- **DATA AND ALERTS:**
  - All events are transmitted in real time to the base station.
  - Refill, dosing, theft or function deviations are sent to the client via SMS from the base station in real time.
  - Client can log into his folder in the database, which he may examine or download.

- **CROSS-BRODER OPERATION OPTIONS:**
  - The unit will store all event data beyond the limits of RSA MTN towers which will be downloaded once within reach of a tower.
  - Roaming facilities available at an additional cost.
  - MTN is in the process of rolling out a no-border service for many countries in Africa.
  - Once in place overage at RSA rates will be greatly extended.

- **SMS COSTS:**
  - The cost of SMS messaging over 3 years included in the installation price.
  - Thereafter, an annual fee to cover MTN costs (± R800 per year) will apply.

- **MANUFACTURER AND PRICE:**
  - Manufactured by WearStop Systems for Fuelenergizer SA.
  - Finance available – 36 month lease – Price on request.

FUELENERGIZER SAVINGS:

Diesel – Retail Pump Price 2016-01-05 (Pretoria)

	Diesel	**FE**	**Dosage**
Price / Liter	R 11.00	R110.00	3.5mℓ / Lit
Fuelenergizer / Liter	R 0.39		
Diesel + FE	R 11.39		

FUELENERGIZER SAVINGS:

Usage/Lit	**Diesel/Rc**	**FE/Rc**	**FE Liters**	**Diesel + FE**
1	R 11.00	R 0.39	0.0035	R 11.39

% Saving	**Gross Saving**	**Less FE**	**Nett Saving**	
3.00%	R 0.34	R 0.39	R -0.04	**Break even point**
8%	R 0.91	R 0.39	R 0.53	
10%	R 1.14	R 0.39	R 0.75	
13%	R 1.48	R 0.39	R 1.10	
Average fuel tank volume = 820 lit @ 10% saving =			**R60.28**	**Nett saving per tank**

BULK DIESEL:

Diesel Price **R 10.50** / Lit (Wholesale Price)
FE Price **R 97.00** / Lit

% Saving	Gross Saving	Less FE	Nett Saving	
3.00%	R 0.32	R 0.34	R -0.02	**Break even point**

	5% Nett	8% Nett	10% Nett
10,000	liter = R 2,024.75	R 5,276.60	R 7,444.50
25,000	liter = R 5,061.88	R 13,191.50	R 18,611.25
50,000	liter = R 10,123.75	R 26,383.00	R 37,222.50
100,000	liter = R 20,247.50	R 52,766.00	R 74,445.00
500,000	liter = R 101,237.50	R 263,830.00	R 372,225.00
1,000,000	liter = R 202,475.00	R 527,660.00	R 744,450.00

TEST RESLUTS / REFERENCES:	SAVING:
Motorvia……	10.97%
Chantete Mining Services…….	12.11%
Blocon – New Castle……	11%
Layisha Logistics……..	12%
DS. D J Bakker…….	10%
Imperial Logistics Tipper Resources……	12.54%
Motsumi Bush Courses…….	11.1%
Johan Marnewick (Mechanical Engineer)…….	13%
Izusa Transport……..	13.42%
Sterkfontein Boerdery……	12%

Contact details of above clients available on request.

Ek was aanvanklik baie skepties oor FE omdat daar al baie soortgelyke produkte op die mark was, na 'n jaar se gebruik van FE waar ek dit in verskillende omstandighede getoets het is ek baie tevrede met die besparing en gladde werk-verrigting van die engine.
Brandstof verbruik is van 'n algemene 9,8km/l op na 11,2km/l

Johan Marnewick
Meganiese Ingenieur

13%
Besparring

Fuelenergizer
South Africa
IMPROVE FUEL CONSUMPTION - REDUCE Co2 EMMISSIONS

Agentskap: _____
Tel: _____

Maatskappy/Klië	Motsumi Bush Courses	Tipe Besigheid	Outdoor Safari
Area	Noordwes	E-pos	motsumi@iafrica.com
Kontakpersoon	Bennet de Klerk	Tel:	

Hoe lang gebruik u al Fuelenergizer	3 maande			
Maandelikse brandstof verbruik (Liters)	1000			
Gemiddelde besparing met Fuelenergizer	11,1%			
Tipe voertuig/Voertuie in vloot	Toyota RAV4			
	Land Rover Defender PUMA			
	Nissan Juke			
Enige newe-effek/klagte oor Fuelenergizer	Ja,		Nee,	Geen
Indien ja verduidelik				
Ander opmerkings oor Fuelenergizer	Merkbare verbetering in krag.			
	Verbysteek en opdraandes baie beter as sonder produk			