



EDOM MINING & DEVELOPMENT LTD.

Head Office: Timna, Doar na Elliot- Ellat 88000
Phone: 74171-9, Telex: Latin 7781 Fax: 059-74174
Post Office Box 7050, Hakiryas, Tel-Aviv 61070
Tel: 03-263806 - 258126/7 Fax: 03 - 263652

דדום מחצבים ופיתוח בע"מ

משרד ראשי: תמונע רא"נע אילת-אילת 88000
טלפון: 74171-9, טלקס לטיני 7781 פקס 059-74174
רד קלמן מנן 18 חקריה, ת.ד. 7050, חלאביב 61070
טל. 03 - 263806 - 258126/7 פקס. 03 - 263652

14.1.90

Letter from Moshe Joseph, Manager for Maintenance of Garages
and Equipment.

For the past 5 years we have been using the additive N.R.G. During the first year, we used the product only on some of the equipment, in order to be able to check it out by comparison.

The tests were in the field and not in the laboratory. After we came to the conclusion that adding N.R.G improved the condition and prolonged the life of the engines, we decided to use the additive in all the heavy equipment as well as the light vehicles in the company.

Our company has 25 heavy-duty machines which includes:

Trucks weighing 50-100 tons; tractors; drills; lifters; generators; etc. In addition, we have 25 light vehicles for transport on the roads and in the field.

Recently, we reactivated the power station at Timna for the Electric Company. Since the generators are very old (33 years), there were problems of maximizing their efficiency. As an experiment, we added N.R.G to one of the engines with the hope that it might help to improve it's condition. We obtained good results. The efficiency went up by 20% and the engine works without problems.

Yours Faithfully,

Moshe Joseph,
Equipment Maintenance Manager
Edom Mining and Tunneling/Timna.



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אדום מחצבים ופיתוח בע"מ

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 טל': 03-6963806, 03-6958126/7, פקס: 03-6963652

January 28, 1997

Fax.: 02-6424422

To: NRG - Israel

Attn: Mr. I. Oved

Re: NRG Contribution to our Equipment

Further to our meeting dated Jan. 27, I refer to my July 21st 1996 report and my letter dated Nov. 7, 1996 to Igal Raz.

1. Edom mining owns and operates 70 units of heavy mining and construction equipment.
2. All units are operating in highly abressive dusty conditions including rugged tunneling jobs.
3. All our units are NRG treated. That includes 4 low RPM 1000 kva units on power station, located in Timna Copper site.
4. We add NRG to our Diesel engines, Mechanical Transmissions, and planetary rear axles.
5. The engines we use are:
 - Cummins VTA - 525 - 635 H.P.
 - Cummins K-19, KTA 38 - 550 - 1050 H.P.
 - Caterpillar (various) 110-350 H.P.
 - Deutz (tunneling) 150 H.P.
 - Deutz (generators) 1500 H.P. each.
 - Detroit Diesel - 50- 350 H.P.



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EDOM מחצבים ופיתוח בע"מ

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- 2 -

6. Saved oil quantities, maintenance repairs and materials as a result of using N.R.G.

| Oil Type | Quan. per year in ltr. | Instead of ltr | Price per l | Saving in % | Saving in US \$ |
|--|------------------------|----------------|-------------|-------------|-----------------|
| <u>Engine Oil</u> Castrol RX-15w 40 | 85000 | 136,000 | 1.48 \$ | 40% | 75480 \$ |
| <u>Final Drive Oil</u> Pazrax 85W 140 | 7500 | 9,750 | 1.8 \$ | 30% | 4050 \$ |
| <u>Power Generator Oil</u> DX - 30 | 20000 | 26,000 | 1.18 \$ | 30% | 7080 \$ |

yearly saving in oil 80610 \$
9000 \$

Saving in oil filters and labour time
 Estimated engine life extension between
 overhauls by using NRG - 25%.

Ave. Overhaul cost - 25,000 \$ x 10 units per years
 x 25% =

62500 \$

Average savings in spares per engines* overhaul 15%
 Ave. spares cost 15,000 \$ x 10 units x 15% =

22500 \$

Total savings

180610 \$

less N.R.G. purchase price -

25026 \$

* Total

155584 \$

*This is a yearly routine saving. It doesn't include cases like those described in our memo dated Jan. 1, 1997 clauses 3 A + B and 4 enclosed. In both cases, the result of using N.R.G. saved Edom mining 80000 \$ each.

Unfortunately, cases like those described are a part of normal construction, mining and tunneling works and call for consideration when budgeting projects.

Best regards

Adi Zucker
 General Manager
 Edom mining, Timna Copper Mines

Adi Zucker

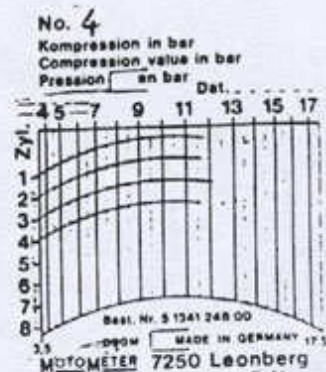
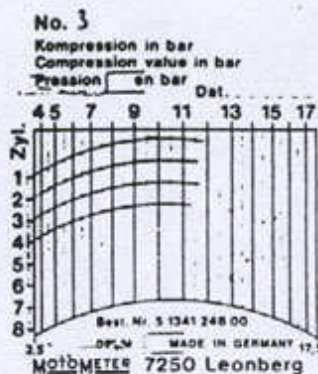
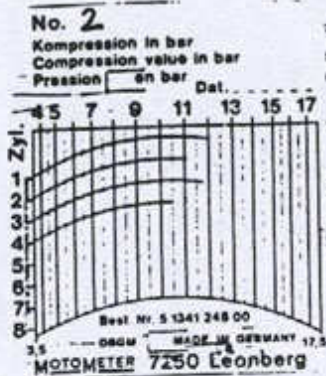
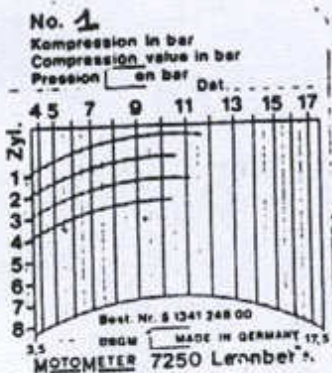


- Les mesures des compressions moteur avant/après montage de l'amortisseur système après
parcours avec NRG.
Ces résultats prouvent une amélioration des performances du moteur (couple, puissance, consommation).

English Translation:

This Compression test in the engine is an evidence for increasing torque and horsepower and reducing the fuel consumption while using NRG product, in less than 200 km.

| CYLINDRE N° | Before NRG | | | After NRG | | | RESULTAT |
|-------------|------------|---------|---------|-----------|---------|---------|----------|
| | AVANT NRG | | MOYENNE | APRES NRG | | MOYENNE | |
| | MESURES | MESURES | | MESURES | MESURES | | |
| 1 | 11.7 | 12 | 11.85 | 11.9 | 11.8 | 11.85 | + 0 |
| 2 | 10.55 | 11.1 | 10.82 | 11.6 | 11.7 | 11.65 | + 0.83 |
| 3 | 11.2 | 11.8 | 11.5 | 11.7 | 12.1 | 11.9 | + 0.4 |
| 4 | 10.4 | 10.5 | 10.45 | 11.4 | 11.6 | 11.5 | + 1.05 |



- Les sensations ressenties au volant sont seulement qualitative mais néanmoins incontestable

- Bruit plus sourd, plus rond du moteur
- Meilleur couple lors des accélérations
- Meilleure reprise, moteur plus souple
- Montée en régime plus rapide, plus aisée à vide
- Cognement de la boîte de transfert au point mort supprimé.
- Moins de point dur à la synchronisation lors du passage des vitesses.
- Lors des démarrages la puissance est immédiatement disponible sur le moteur encore froid (2 à 3 km était nécessaire sans NRG).

En conclusion on peut dire que l'ensemble de la conduite de la voiture est plus agréable, que le moteur a réellement trouvé une seconde jeunesse.

English Translation:

The driving sensation is not only quality but also reliable.

- Less engine noise
- Improved torque while increasing rapid
- Better start with fast racing
- More RPM to the engine
- While changing gearbox - less noise
- Easier gearbox changing
- Better start even with a cold engine (without NRG required 2-3 km to get the same racing).

Conclusion: there is a better feeling with a younger engine.

COMPAGNIE DES LABORATOIRES INDUSTRIELS DU PERCHE

RUE DU PERCHE - B.P. 37 - 28480 THIRON-GARDOIS - TÉL : 37 49 42 12 - FAX : 37 49 40 61

F.V.A. : FR 133 8728 7877 - SOCIÉTÉ ANONYME, AU CAPITAL DE 8 000 000 F - R.C. CHARTRES 327 267 877 - SIRET 327 267 877 000 20 - A.P.E. 748 D



REF # : 4852

Ref. Num. : 145/94
Fax Num. : 19 972 251 33 10
Page Num. : 1
ATTN : Mr OVED
Company : NRG INTERNATIONAL
From:Mr FAUCHERE

25 th of July, 1994

Dear Mr OVED,

I well received your fax of 19 of July. I would like to have more informations about the antifriction product. It will permit us to be more competitive.

I have the "ECHAPPEMENT" revue on my desk. I have prepared for you an extract from the revue which I will give you in our next meeting.

From the end of June, we underwent a consumption test on an huge vehicle (38 tons). On the first thousands kilometers, the consumption did not reduce a lot. But, this week, the driver noticed that the consumption savings were 5 liters for 100 kms which is a really good result! The vehicle consumption before treatment was 44 liters for 100 kms and after the treatment, 39 liters for 100 kms (vehicle of 700.000 kms). It is a very interesting result that we had confirmed on more updated vehicles.

All these results will permit us to sell the product to large companies. There are in France 865 companies of 50 vehicles and more, which means 100.807 vehicles for 865 companies, and 6900 companies between 10 to 50 vehicles, which means 127.000 vehicles.

I think there is a more interesting business than cars business.

Miss TIARD is in contact with a multilevel sell business. We are still waiting for an answer. Idem for the catalogue of the modern man.

Finally, I think that we will be able to sell NRG during specialized exhibitions to reach a larger audience. I will try to find a good distributor.

I am interested in six big exhibitions.

I am going to be in vacation in August, but I think that all will be clear in September, and we will be able to begin the sales.

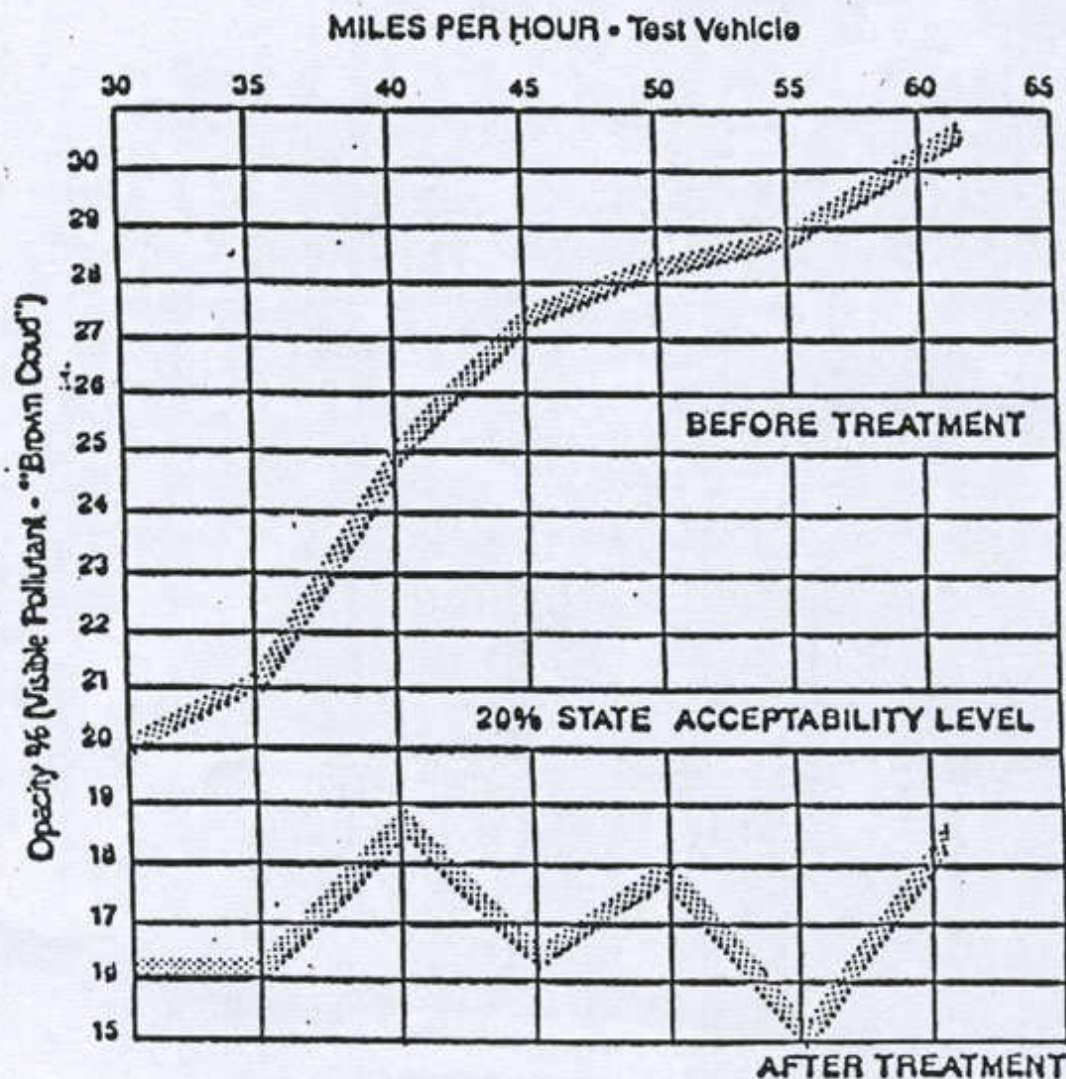
Sincerely yours
Claude FAUCHERE

COMPAGNIE DES LABORATOIRES INDUSTRIELS DU PERCHE

RUE DU PERCHE - B.P. 37 - 28400 THIRON-GARDAIS - TEL : 37 49 42 12 - FAX : 37 49 40 61

S.V.A. : FR 133 2726 7677 - SOCIÉTÉ ANONYME, AU CAPITAL DE 8 000 000 F - R.C. CHARTRES 337 267 877 - SIRET 337 267 877 000 20 - A.P.E. : 748 E

TEST RESULTS VISIBLE EMISSIONS



Product Tested At: Colorado Department of Health - West Denver
Emission Technical Center.

Date of Test: Pre-treatment Jan. 7, 1987.
Treated Jan. 7, 1987, after Initial Test.

Date of Test: After treatment Feb. 8, 1987

Test Vehicle: 1981 Oldsmobile 5.7 liter diesel

Test Vehicle Miles: Pre-treatment-88311
After treatment-89438

RESULTS: 34.6% REDUCTION IN OPACITY*

*Visible pollutant - Brown Cloud - 100% = opaque, 0% = clear
State Requirements: not higher than 20%

COLORADO STATE TEST - U.S.A.

(11/15/88 News Release)

SPECIALTY LUBRICANT REDUCES DIESEL SMOKE EMISSION

Exhaust emission tests sponsored by AIC Industrial Lubricants, Inc., Denver, CO (AIC) show that NRG 1540 P Engine Treatment reduced smoke opacity (particulate matter) of light duty diesel Vehicles more than 50 percent below pre-treatment level. Statistical analysis showed that the reduction in opacity following the lubricant treatment was highly significant ($p < 0.01$). There was no loss in horsepower or torque. The tests were conducted by an independent vehicle emissions test facility on a Clayton chassis dynamometer. One quart of NRG 1540 P was added to each engine crankcase for each four quarts of regular oil immediately after obtaining pre-treatment measurements. Vehicles were then driven an average of 4,500 miles and retested for post-treatment smoke opacity, horsepower, and torque. Driving patterns remained the same between emission tests and no engine adjustments were made.

The fact that the reduction in smoke opacity was achieved with no loss of horsepower or torque indicates that NRG 1540 P increased engine efficiency by reducing friction and fuel consumption. NRG's secret lies in its ability to bond a long lasting micro thin film in internal engine surfaces, producing less friction and greater power and fuel efficiency.

The results of a technical feasibility study by Colorado State University (Research Report on Air Quality and Light Duty Vehicles Along Colorado's Front Range, August, 1983) showed that it is possible to reduce smoke opacity 50 percent by adjusting engines to reduce horsepower. Our findings show that NRG 1540 P will equally reduce diesel smoke opacity without the disadvantage of losing horsepower. As such, it offers a simple and cost effective way of reducing air pollution by diesel vehicles.

A fleet of 200 trucks in Colorado has logged more than five million miles by treating its engines with this product at approximately 15,000 mile intervals. Spectrochemical analysis of crankcase oil from sample test trucks of the fleet showed more than a 25 percent decrease in engine wear following the treatment. A seven percent decrease in fuel consumption was also measured.

R.D. Thompson, Ph. - Research Division Manager

7621/03

RESEARCH

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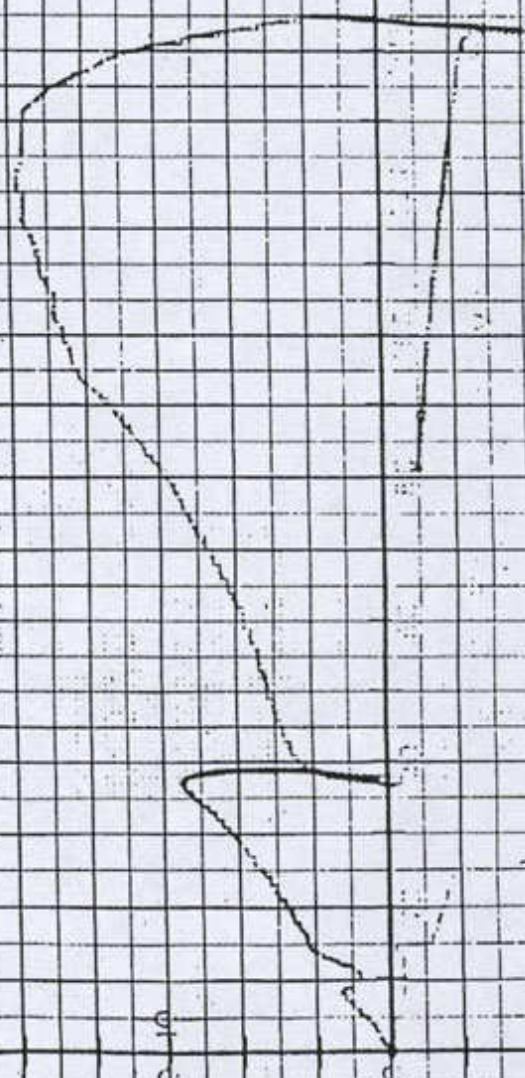
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MOORE ENGINEERING Co
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BOSCH

Leistungsprüfstand

58-51 = 7 $F=13.77$ Kunde Horst Friedrichs Wiener RH-XK74
 Amtl. Kennzeichen 37875
 Fahrzeug VW Hersteller 32B Typ 32B km-Stand 37875



Motordaten

Motorleistung kW 57
 Nennrehzahl min⁻¹ 4500
 Barometerstand mbar 1013
 Ansaugtemperatur °C 20

nach Kfz-Schein
 bzw. Werksangaben

| | |
|----------------------|-------------|
| P _{norm} | <u>57</u> |
| n | <u>4500</u> |
| p nach DIN 70 020 | <u>1013</u> |
| t | <u>20</u> |

gemessen mit
 LPS 002

| | |
|------------------|------------|
| P _{gem} | <u>58</u> |
| entspr. km/h | <u>130</u> |
| 1st | <u>725</u> |
| 1st | <u>70</u> |

| | |
|-------------------|-----------|
| P _{norm} | <u>60</u> |
| KW | |

Achtung
 Atmosphärischer Druck (Barometerstand) und Ansaugtemperatur beeinflussen die Motorleistung.
 P_{gem} weicht deshalb im Regelfall von P_{norm} ab. Um auf die nach DIN 70 020 angegebene Motorleistung schließen zu können, kann eine Korrektur notwendig sein. Die Messgenauigkeit des Prüfstandes ist zu beachten.

Auswertung

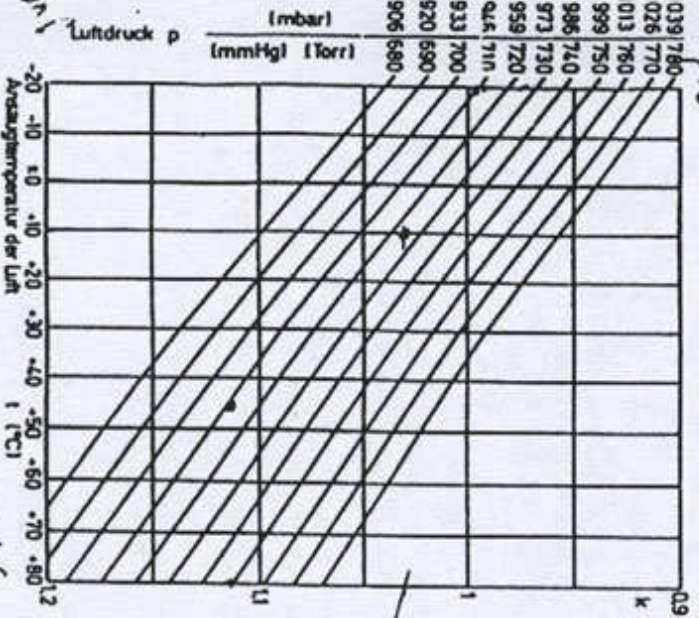
① Atmosphärischen Druck (Barometerstand) im Nomogramm eintragen.

② Ansaugtemperatur rot einzeichnen. Schnittpunkt bei der Strahlen rechtwinklig nach rechts zum Wert „k“ führen.

③ P_{gem} in kW rot einzeichnen. Mit lineal Schnitt-punkt „k“ und „P_{gem}“ verbinden und Linie bis „P_{norm}“ weiterführen.

④ P_{norm} in kW ablesen und in der mittleren Skala ⑤ rot einzeichnen.

⑤ Leistung nach DIN 70 020 (mit Toleranzband) ablesen.



$$P_{norm} = k \cdot P_{gem}$$

$$k = \frac{1013}{p} \cdot \sqrt{\frac{273 + t}{293}}$$

P_{norm} = theoretischer (errechneter) Leistungswert (kW)
 P_{gem} = gemessener Leistungswert (kW)
 k = Korrekturfaktor
 p = atmosph. Druck (mbar)
 t = Ansaugtemperatur (°C)

Beispiel:
 nach Kfz-Schein bzw. Werksangaben

| | |
|----------------------|-------------|
| P _{norm} | <u>82.5</u> |
| n | <u>5600</u> |
| p nach DIN 70 020 | <u>1013</u> |
| t | <u>20</u> |

gemessen mit LPS 002

| | |
|------------------|------------|
| P _{gem} | <u>55</u> |
| entspr. km/h | <u>170</u> |
| 1st | <u>946</u> |
| 1st | <u>44</u> |

