



# INFINITE SUSTAINABILITY PROGRAM

TOTAL MACHINE SUSTAINABILITY



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# ABOUT US

In 2014, co-founders Rand Taylor and son Alec Taylor founded Fuel Ox™ based on the core principals of bringing to market the most sustainable, best performing products at fair prices, with the best customer service in the industry. From the quintessentially American beginnings of starting Fuel Ox® in their garage, Rand and Alec reached out to local construction and trucking companies, farmers, municipalities, and independent owner operators who have become loyal customers.

Now in its own headquarters, warehouse and packaging facility in New Jersey, USA, Fuel Ox® has grown to become an established and well respected company with distribution on multiple continents – all based on the company's core principals of super sustainable products delivered with great service.

## A NOTE FROM THE CEO

Dear Equipment Owner,

In addition to our successful Fuel Ox® fuel additive line of products, we are honored to present a revolutionary product line called Infinity Lube™. The birth of the Infinity Lube product line is the conclusion of a 25 year case study of a technology that presents sustainabilities never witnessed in the history of Tribological Sciences (the study of friction, wear, and lubrication). Our Super Grease (SG), Liquid Friction Eliminator (LFE) and Penetrating Lubricant Spray (PLS) are all infused with this technology and are able to treat any application you can imagine. Conventional lubricants break down as the friction between the metal surfaces causes heat to rise. With Infinity Lube™ products, as heat rises our patented formula becomes activated and begins to infiltrate the metal removing the interfaces, smoothing the surface, and making the metal harder. So in a situation where our competitions' products are deteriorating Infinity Lube™ is actually growing stronger. The end result is the highest sustainability levels ever achieved in the industry. This is due to our proprietary HDI-2500 formula which is infused in all three Infinity Lube™ products. These compliment our equally sustainable Fuel Ox® fuel additives with patented Combustion Catalyst.

Infinity Lube™ is applicable to countless uses ranging from wet bath lubes to all greasing, spray, and oil applications. Typical applications are gearboxes, hydraulic systems, greasing applications, bearings, chassis fittings, coupling threading, nuts, bolts, automatic dispensing systems, bucket pins, combustion engines of all sorts, chains, rock crushers, machining and tooling, drawing and stamping, and thousands more. The end results are sustainability levels far in excess of any being currently achieved with other premium lubricants.

The Fuel Ox® Sustainability Program is the combination of Fuel Ox® with Combustion Catalyst in your fuel and Infinity Lubes™ as lubricants in all your machinery. Used in tandem, you will see that this powerful combination is far and away superior to your current grease, lubricant, or fuel additive and will result in longer lasting equipment, less fuel usage and a far less impact on the environment than you ever thought imaginable. We look forward to serving you and saving your organization an incredible amount of money in maintenance costs, parts replacement, energy usage and downtime reduction while lessening the footprint we leave on our planet.

Rand Taylor, CEO and Co-Founder.  
Fuel Ox® Inc.



# SUSTAINABILITY AND OUR COMMITMENT TO IT

Industry has struggled forever to find a way to significantly reduce the cost of maintaining its capital equipment. Friction and inefficient combustion are the greatest destroyers of machinery and efficiency respectively. It is our goal to provide the industrial world with the most effective lubricants and fuel additives possible that would not only extend the life of equipment but also reduce emissions, fuel consumption and maintenance and replacement parts costs. The Fuel Ox® Infinity Lube™ and Fuel Ox® fuel additive line of products have accomplished this and by doing so offer value far beyond that of our competition.

Fuel Ox® Infinity Lube™ products with our proprietary HDI-2500 and Fuel Ox® fuel additives with our proprietary Combustion Catalyst promote:

- **More efficient equipment and better fuel economy** — Reduces energy needed to operate machinery, fuel consumption, emissions, and required maintenance and replacement parts. Less friction equates to lower operating temperatures and less wear which means less energy needed to operate machinery. This results in lower operating costs. Also a more complete, cleaner combustion of the fuel results in an increase of fuel efficiency, horsepower, and a reduction of emissions.
- **Less emissions** — Both Fuel Ox® and Infinity Lubes™ Liquid Friction Eliminator will reduce soot by as much as 50%-90% which will result in less regenerations, longer lasting diesel particulate filters (DPFs) and cleaner exhaust gas recirculation valves (EGRs). CO<sub>2</sub> has also been proven to be reduced by as much as 20% or more and NO<sub>x</sub> by as much as 10% or more.
- **Longer oil life/Cleaner used oil** — Oil will last up to 3 to 5 times longer using Infinity Lube™ Liquid Friction Eliminator — reducing the frequency of disposing used oil and lowering operating expenses. Furthermore, the lack of metals and other harmful chemicals in all Infinity Lube™ products results in a cleaner discharge oil at the time of replacement.
- **Extend equipment life** — not just extend equipment lifespan and operational uptime, but also decrease maintenance and replacement costs.
- **Environmentally responsible products second to none** — The Fuel Ox® Infinity Lube™ family of lubricants is biobased and toxin free therefore safe for the environment and “Green.” Fuel Ox® fuel additives significantly reduce greenhouse gases and noxious fumes expelled into the environment while using less fossil fuels to operate equipment.

# THE ULTIMATE SUSTAINABILITY PROGRAM

**SUSTAINABILITY** is the key word in responsible business practices in today's heavy equipment world. Using the Fuel Ox® fuel additive and Infinity Lube™ lubricants together will ensure that you are doing the most you can do when it comes to acting responsibly to both the planet and your shareholders. This sustainability program consists of using Fuel Ox® additives directly in your fuel as well the Infinity Lube™ Liquid Friction Eliminator directly in your oil reservoir, the Super Grease on bearings, chassis, or any other metal surface where friction occurs, and the Penetrating Lubricant on any metal surface where you can't reach with a grease gun.

Fuel Ox® treatments contain a patented Combustion Catalyst that lowers the combustion point of fuel—causing an earlier, more sustained combustion cycle. This results in a more thorough combustion which leads to an increase of power and fuel efficiency as well as a decrease of emissions and DPF regenerations. Customers commonly report a decrease in DEF usage as well.

Our Infinity Lube™ Liquid Friction Eliminator is a 100% plant based product that is also the active ingredient in the Super Grease and Penetrating Lubricant spray. For the first time in history, the emphasis is taken off of film strength and any coatings and instead, as heat rises, reacts to the metal to remove contact points which by doing so smooths and hardens the metal. It also creates an anionic reaction where the metal surfaces repel other metals. All of this combines to result in less friction, heat, and wear. The Infinity Lube™ line is free of chlorine and other heavy metals found in other so called friction reducers. This treatment and resulting performance is unlike any other lubricant in the world today. While conventional lubricants only provide a 3-8% increase in sustainability, Infinity Lube™ provides up to 20 to 40 times longer than this level of protection.

These sustainability benefits not only help your bottom line but also help reduce your environmental footprint. The Fuel Ox® Infinity Lube™ family of lubricants is biobased and almost completely toxin-free therefore safe for the environment and "Green." Both Fuel Ox® fuel additives and Infinity Lube products significantly reduce greenhouse gases and noxious fumes expelled into the environment while using fewer fossil fuels to operate the equipment.

## BENEFITS METRIC - INFINITY LUBE™

- Up to 20 to 40 times longer lasting lubrication
- Go as much as three times longer between oil changes
- Allows overlying film strength to last up to 10 times longer or more than the competition
- Flattens & smooths metals on a micron level

## BENEFITS METRIC - FUEL OX®

- Increase in fuel efficiency of 7-10%
- Reduction in DEF usage by over 20%
- Reduction in DPF regenerations by 60%
- Reduction in DPF cleanings & replacements of 60% or more
- Reduction in soot buildup on EGRs by 60% or more & reduction of EGR component failure and replacements
- Increase in injector life & increase in filter life
- 1:10,000 treatment ratio is easier to work with and transport and store and reduces human error in application
- Reduction in fuel rail sensor replacements
- Much cleaner DOCs
- Much less fuel degradation issues

## SOCIALLY CONSCIOUS METRICS

- Overall decrease of emissions
  - Soot by as much as 70%
  - CO2 by as much as 20%
  - NO by as much as 12%
  - NOx by as much as 8%
  - H2S by as much 12.5%
- Using less fossil fuels to operate equipment





# **INDUSTRIES TAKING ADVANTAGE OF OUR SUSTAINABILITY PROGRAM ARE:**

**MINING, HEAVY EQUIPMENT & CONSTRUCTION**

**BUSING & TRANSPORTATION**

**BULK FUEL TREATMENT & TERMINALS**

**MACHINE SHOPS & MANUFACTURING PLANTS**

**TRUCKING & TRANSPORT**

**COMMERCIAL MARINE & WORKBOATS**

**GOVERNMENTAL/MUNICIPALITIES**

**FARMING & AGRICULTURE**

**PERSONAL VEHICLES**

# PART I OF THE SUSTAINABILITY PROGRAM:

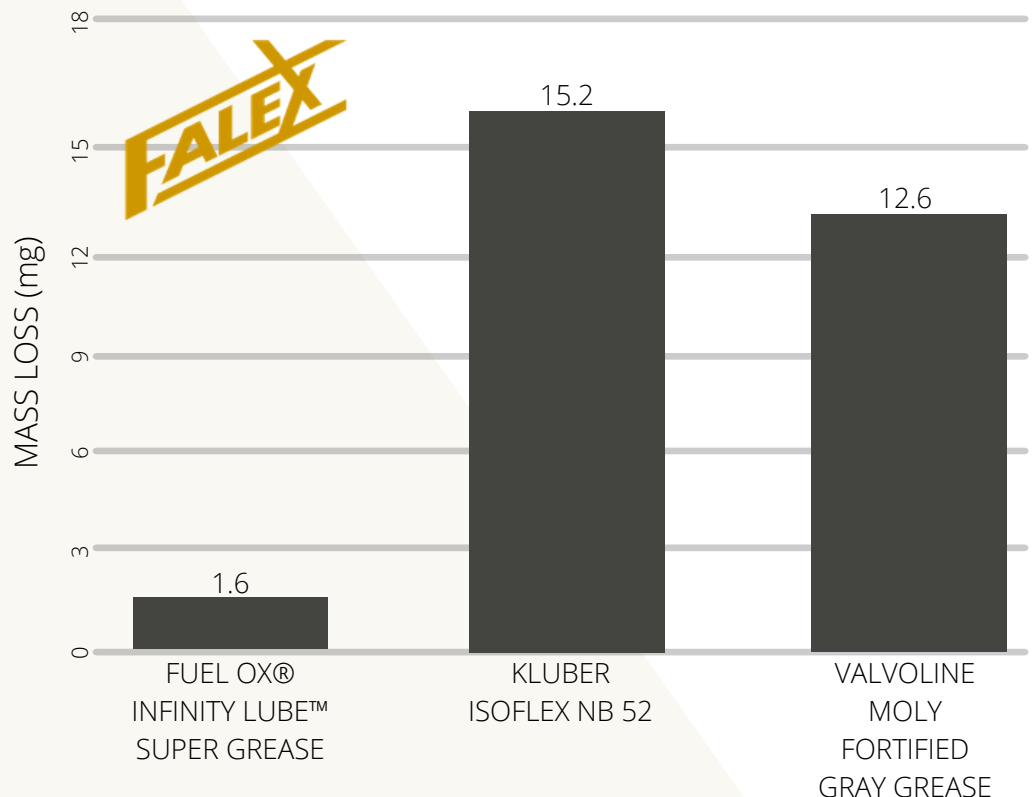
## INTRODUCING FUEL OX® INFINITY LUBE™ FAMILY OF LUBRICANTS WITH HDI-2500 FOR NEAR ENDLESS SUSTAINABILITY

Infinity Lube™ is a revolutionary lubricating phenomenon. It accomplishes a seemingly WEARLESS, CORROSIONLESS, and nearly FRICTIONLESS environment by the following:

**CARBONITRIDING-** Infinity Lubes™ are the first lubricants ever to use the natural friction and the heat it produces to induce carbonitriding, better known as case hardening, within the machinery itself. Eliminating the need to remove the components and send them out for expensive carbonizing treatment and ensuring longer lasting machinery.

**TRIBO ELECTRIC EFFECT-** takes place when two metals touch. The normal cycle of heating/cooling, heating/cooling, heating/cooling that takes place within the machinery acts as a forging process for the unique oils that make up Infinity Lubes™, carbonitriding the metals and making them super hard and impervious to environmental degradation and fretting. Conventional petroleum lubricants act as insulators, stopping the Tribo Electric Effect.

This mass loss results to the right are from the famous Falex Corporation. This test compared the mass loss of metal over a 22 hour run of Infinity Lube™ Super Grease and two other name brand greases. It proves that Fuel Ox® Infinity Lube™ Super Grease reduces wear as much as 780% or more than any other in the industry.



# INTRODUCING FUEL OX® INFINITY LUBE™ FAMILY OF LUBRICANTS WITH HDI-2500 FOR NEAR ENDLESS SUSTAINABILITY

INFINITY LUBE™ family of products provide unparalleled sustainability of treated parts and components resulting in savings unmatched by competition.

## INFINITY LUBE SUSTAINABILITY

- Fuel Ox® Infinity Lube™ Liquid Friction Eliminator (LFE) - designed as an additive for all oils (except automatic transmission fluids) and hydraulic fluids
- Fuel Ox® Infinity Lube™ SG (Super Grease)
- Fuel Ox® Infinity Lube™ Penetrating Lubricant (PLS)





## FUEL OX® INFINITY LUBE™ SUPER GREASE



Premium Super Grease Infinity Lube Technology fortified with HDI-2500 conditions, hardens, and lubricates metals as friction and temperature increase. Built to last in the most extreme rugged environments where other greases fail, including automotive, heavy equipment, marine, & industrial applications. Extremely stable and water resistant, drastically reduces friction wear and operating temperature of treated surfaces.

- Prevents metal to metal seizure by creating the strongest and longest lasting micro-layer of lubricant film protection.
- Use on your most critical and valuable equipment
- Minimizes downtime from equipment breakdowns
- Can be used for automatic dispensing systems
- For bucket pins, chassis fittings, springs, water pumps, bearings, and any general lubrication
- Excellent in wet environments
- Outstanding barrier performance against abrasive particles, such as dirt, sand, salt, and mud

## FUEL OX® INFINITY LUBE™ PENETRATING LUBRICANT



A Premium Penetrating Lubricant, Cleaner, and Degreaser, fortified with our patented HDI-2500 metal conditioning formula. Contains no petroleum, made with plant based essential oils, is biobased and toxin free. Spray Infinity Lube™ Penetrating Lubricant for a seemingly WEARLESS, nearly FRICTIONLESS, and CORROSIONLESS surface. Get up to 10X more sustainability than the competition

- Loosens and releases rusted, stuck, or frozen metal parts
- Drastically reduces friction wear and operating temperature increasing sustainability
- Conditions, smooths, and strengthens metal on a micron level
- Outstanding barrier performance against abrasive particles, such as dirt, sand, salt, and mud
- Minimizes downtime from equipment breakdowns
- Non-harmful to any seals or protective coatings
- Anti-corrosive (impedes corrosion from rust, oxidation, dirt, etc.)
- Cleans & degreases
- Extends life of metal, reducing the need for replacement parts
- Safe for the environment and non-harmful to aquatic life

## FUEL OX® INFINITY LUBE™ LIQUID FRICTION ELIMINATOR

Premium Liquid Lubricant that cuts friction, wear, and operational temperature. When added to your oil reservoir, Liquid Friction Eliminator will extend the interval between oil changes by three to five times. Under a microscope metal will look like peaks of carbon build up and valleys of pitted, oxidized and corroded metal. Fuel Ox® Infinity Lube™ Liquid Friction Eliminator cleans the existing carbon from the friction points then increases the vulnerability of the metals to allow the initial friction to smooth and embed its unique components directly into the metal surfaces. Fuel Ox® Infinity Lube™'s primary ingredient is a forging fluid that creates case hardening on the peaks of the sub straight precisely on the direct contact of the friction points. They become harder, they become microscopically smoother, and Infinity Lube™ creates a charge between the metals that cause them to repel each other, similar to two magnets with the same polarity. Just like these two magnets floating above each other, drag is reduced and thus friction, wear, and operating temperatures are reduced. Infinity Lube™'s lubricity and sustainability will last up to 10X longer or more. Pour Infinity Lube™ Liquid Friction Eliminator directly into your oil reservoir at the ratio of 2oz per quart of oil and use on all other applications where friction and temperature need to be reduced. Besides being used in crank cases and gear boxes Liquid Friction Eliminator is perfect as a machining oil for machine shops and any industrial or home need.



- Strengthens and smooths metals on a micron level
  - Compatible with both conventional and synthetic oils
  - Minimizes downtime from equipment breakdowns
  - Outstanding barrier performance against abrasive particles, such as dirt, sand, salt, and mud
  - Increases longevity of lubricated equipment
  - Increases life of bearings and any other metal surface
  - Lowers amperage needed to operate equipment
  - Go three times longer between oil changes
  - Reduces friction wear and operating temperature of treated surfaces
  - Reduces engine noise for a smoother quieter ride
- \*Not for automatic transmission fluids

# THE FUEL OX® INFINITY LUBE™ VS. CONVENTIONAL LUBRICANTS

Fuel Ox® Infinity Lube™ is a revolutionary new form of lubricant that not only supplies superior lubrication but goes far beyond other conventional lubricants. Infinity Lube™'s proprietary formula conditions the metal itself. Unlike our competition, no coatings, fillers or other toxic paraffins are needed. Most other lubricants have as their objectives water displacement and film lubrication which is oftentimes accomplished by utilizing environmentally unsafe chemistries. They attempt to reduce metal degradation, but the constant attacks by oxidation and acids on the metal surfaces means that more applications of the lubricant is required. What Fuel Ox® Infinity Lube™ does differently is that it conditions the metals first from within, which will then stop the metallurgical oxidation condensation catalysis.

## TREATING THE METAL MAKES ALL THE DIFFERENCE

**Carbonitriding** is the simultaneous diffusion of carbon and nitrogen into the surface of ferrous metals through a process of heat treatment which is lower than that of carburization. It is a process normally performed in ovens. Infinity Lubes creates a reaction similar to this process employing TRIBO friction to generate the needed heat and diffusion of its bio-based formula directly into the opposing contacting interfaces which generates a metallic reaction of phase transformation and hardening of each of the contacting interfaces. Essentially using something conventional lubrication theory is trying to eliminate, friction, to its advantage. This process transforms both into wearless and corrosion less steels beyond their normal ferrous based metal crystalline structures.

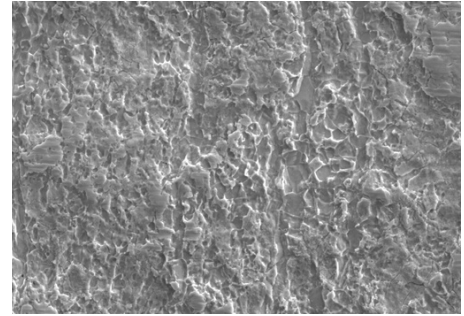
The Infinity Lubes reaction depends on the Extreme Pressure's (EP's) to determine the micron depths of this case hardening. The reaction goes far beyond conventional lubricants that employ bonding or sacrificial oxide layers, film strengths or any Liquid Oil Additives (LOA's) capabilities to keep the interfaces from making contact. In short it is the contacts themselves that presents sustainable properties far beyond past or modern Tribological sciences. Although classified as a lubricant, the Infinity Lubes technology is within mechanical and material sciences and is sourced within surface treatment and science. Infinity Lubes is a true Metal Conditioner that stops and sustains friction and wear including all of the wear factors of Tribo-corrosion and fretting.

# TREATING THE METAL MAKES ALL THE DIFFERENCE

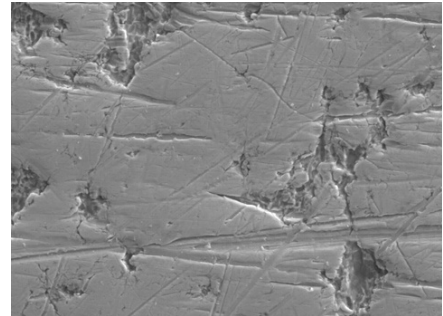
What makes Fuel Ox® Infinity Lube™ different is its ability to successfully treat metal itself. The concept of treating metal is not new but it is very limited due to the reactions that occur. Most lubricants are made up of Chlorinated ions. Although they reduce friction the draw backs are numerous, including the creation of oxidation damage to metal. Fuel Ox® Infinity Lube™'s proprietary biobased formula creates a barrier that causes the surface of metal to change. Fuel Ox® Infinity Lube™ cleans the existing carbon from the friction points then increases the vulnerability of the metal to allow the initial friction to smooth and embed its unique components directly into the metal surfaces. Fuel Ox® Infinity Lube™ primary ingredient is a forging fluid that creates case hardening on the peaks of the sub straights - precisely on the direct contacts of the friction points. They become harder, microscopically smoother, and an anionic charge is created between the metal that cause them to repel each other. Similar to two magnets with the same polarity, these two magnets float above each other reducing drag, friction, operating temperatures, and wear.

This process of conditioning the metal begins to occur at a temperature of 98°F, leaving a new, stronger, harder surface which allows the overlying film strength to last up to 10 times longer or more. These pictures on the right were taken with an Electron Microscope showing the before and after effects that Infinity Lube™ has on metal surfaces.

**BEFORE INFINITY LUBE™**



**AFTER INFINITY LUBE™**



**BEFORE INFINITY LUBE™**



**AFTER INFINITY LUBE™**



# WHAT CAN YOU EXPECT TO SEE IN YOUR EQUIPMENT WHEN USING FUEL OX® INFINITY LUBE™?

- Infinity Lube™ increases the life of all treated metal surfaces and subsequently all parts and machinery.
- Infinity Lube™ reduces operating temperatures through true friction reduction.
- Infinity Lube™ when used as an additive, it will combine and enhance the performance of any conventional, synthetic, or hydraulic oil.
- Infinity Lube™ will lower the operating cost of all your equipment that is treated with it.
- Infinity Lube™ reduces equipment downtime thus reducing overall operating cost.
- Infinity Lube™ will extend your intervals between treatments dramatically.
- Infinity Lube™ will sustain its performance many, many times longer than the competition.
- Infinity Lube™ is unlimited in its potential uses.





# TESTIMONIALS & CASE STUDIES

McGinnis Inc., a division of McNational Inc. a 100+ year old company providing transportation, maintenance and repair in the Marine Industry. March 2020 - Mr. Gary Gills, Safety Director, writes:



***Lubrication is essential to our operation due to massive tons moving through our facility. Every grease and lube we tried died out quickly or became saturated. Wear and corrosion quickly became enemy #1. Prior to 2005, all our applications were falling prey to downtime and costly equipment replacements. There was no grease or lube we have not tried but the friction forces driven by weights of 2500 tons coupled with environmental issues proved great losses to our operations. ...we tried the [Fuel Ox® Infinity Lube™ SG] blended grease in our Trolley Carriage that submerges out and under the Ohio River within the 140- 10 inch Timken railway carts. These bearings proved impossible to present any measurable sustainability due to water, mud, sand and weights from the barges loaded on the trolley. Once loaded, there cable pulled up a 18% incline on 5 sets of railroad tracks within 35 rail carts all according to the size of the barges. At times, they're as big as a football field. The dangers are at a maximum level staying far away from the entire unit. Five steel cables pulling extreme weight. In order to make the pulls, greasing these bearings was at least twice a day. We were losing these bearings at times as much as 5 per month. The losses prior to 2005 was of the costs of replacements, tremendous downtime in production, labor and risk to safety. We began using the [Infinity Lube™ SG] within all the bearings and within days, we began to see tremendous results. The bearings were not extracting water during greasing. They were not heating up during pulls. We stopped losing bearings. As time went on, the bearings were using less grease and the water was hardly coming out. Failures on the bearings decreased. The greasing intervals went from 2 times a day to once or twice a month. We had finally found true sustainability for the Trolley carriage. From 300 ton to 2400 ton loads the bearings were holding. Its very difficult to understand the superiority of [Fuel Ox®'s Infinity Lube™ SG] until you take time and visit our operation.***



***They have further reported total savings in bearings alone at \$9,645,000 since then. This does not take into account the the elimination of the cost of labor for replacements, decreased downtime for the Trolley and facility plus reductions in greasing intervals. This gives them a ROI of 100x.***

## **HEAVY EQUIPMENT, RAIL WHEEL CARTS, HYDRAULICS, CRANES, CHAINS, EXTREMELY HEAVY LOADS, WATER, MUD**

### **SOLUTION:**

#### **FUEL OX® INFINITY LUBE™ SUPER GREASE & LIQUID FRICTION ELIMINATOR**

*Our applications push conventional lubricants to their limits and beyond. The extreme weights, metal to metal contact, friction, and harsh conditions far exceed the capabilities of any line of conventional lubricants. I began working with Fuel Ox® Infinity Lubes™ in 2005 due to our T-rail tracks peeling and destructing during barge pulls from the Ohio River. Fuel Ox® Infinity Lube™ solved a very severe problem and its sustainability far exceeds any other lubricant product we have ever used. The pressure and friction of 1400 tons of rolling steel on steel rails presented problems that only Infinity Lube™ could resolve. Because of these amazing results we treated our crane engines, crane boom hoist assemblies, drive chains and steel chains in our blast and paint area. We then moved on to our hydraulic units to solve a heating and failure problem where Infinity Lube™ achieved great results. We also added the Infinity Lube™ Super Grease to our (10" Timken) bearings on our wheel carts used to support and move the barges and immediately stopped frequent bearing failures. A Linkbelt crane started losing power and smoking, we found engine coolant blowing out of the dipstick tube. We drained several gallons of coolant out of the oil pan, added Infinity Lube™ Liquid Friction Eliminator and started the engine back up. The engine ran like nothing ever happened with just a slight trace of smoke. We finished this job which took another 30 days only to shut down almost on a daily basis to drain engine coolant from the oil pan and changed the oil once during this period., I have trusted this product 100% after this incident.. Since 2005 we have experienced countless seemingly impossible results with this product. The performance is of course very important but its sustainability since 2005 has proven to us that the savings due to (lack of) down time, replacement of failed parts and aftermarket lubricants is unimaginable.*

**-Raymond L Lore Jr. Construction Superintendent  
McGinnis Inc.  
South Point, Ohio - July 24, 2019**

## **WIND TURBINES, HEAVY MACHINERY**

### **SOLUTION:**

#### **FUEL OX™ INFINITY LUBE™ LIQUID FRICTION ELIMINATOR & SUPER GREASE**

*I have been using Fuel Ox Infinity Lube™ Super Grease, Liquid Friction Eliminator, and Penetrating Lubricant spray lubes for almost 10 years now within the wind turbine industry. The results are totally unequaled and the sustainability's light years ahead of all other greases and lubes. Before I was introduced to Infinity Lube™,, we were using Shaffer greases, Exxon Mobil, Kluber Isolflex NBU 15, Red and Tacky and countless other greases in the attempt to find some real levels of sustainability to the lube programs for our turbines we service. Now we've begun treating the Hawaiian and Alaskan turbines with excellent results. Keeping these turbines properly greased and lubed determines their very lives. All grease we tried before, not only would not present measurable sustainability, but would even cause drag of the energy outputs. The Infinity Lube™ system actually increases the outputs of the turbines.*

**-Jeff Fellhauer, Power Grid Partners**

## **OILFIELD APPLICATION, PUMPS, ASSORTED HEAVY MACHINERY**

### **SOLUTION:**

#### **FUEL OX® INFINITY LUBE™ LIQUID FRICTION ELIMINATOR & SUPER GREASE**

*My name is Jeff Bearden with CUDD Pressure Control located in Broussard Louisiana. We survive on the proper lubricants and greasing intervals on our wells all across the country. No one is more skeptical than I am even though I was impressed with what I saw when I first tried Fuel Ox® Infinity Lube™ Super Grease and Liquid Friction Eliminator. I placed an order and moved forward with testing. We have many moving parts on our high-pressure double pumper fluid pumps. I have tried every grease and oil known to the industry, but what I witnessed with this metal conditioner was nothing short of a paradigm shift in lubrication. Our wear and greasing intervals were reduced so drastically that I've commissioned our main office to start full implementations throughout all applications of this PM program.*

**-Jeff Bearden, CUDD Energy Services Pump &  
Field Supervisor**

# Oliver's, LLC Precision Machining and Fabricating Standish, MI

## APPLICATIONS: Lathe, Drill, Carbide Inserts, Taps

SOLUTION: FUEL OX® INFINITY LUBE™ LIQUID FRICTION ELIMINATOR



*Oliver's, LLC Precision Machining and Fabricating is a precision machine shop specializing in all types of detail machine work and short run production. For the last few months we have been using Fuel Ox® Infinity Lube™ Liquid Friction Eliminator with amazing results. Below are a few of the ways we have found to use the Fuel Ox® Infinity Lube™ Liquid Friction Eliminator product to save money and improve the quality of the parts we are machining:*

**Carbide Inserts:** *One of the applications that is truly amazing to me is when we apply Infinity Lube™ to our carbide inserts. We simply use a brush as the applicator and we are seeing an insert life increase of 2 to 3 times over instances when we do not use Fuel Ox® Infinity Lube™. This is on both milling and lathe applications. In addition, the parts have a better finish and are more consistent in holding tolerance.*

**Tapping Fluid:** *We use a common tapping fluid. We found that when we add Fuel Ox® Infinity Lube™ Liquid Friction Eliminator at a rate of 2 ounces per quart Fuel Ox® Infinity Lube™ increased the life of the tap substantially. I actually took a tap that was squeaking and squealing and starting to wear out. I applied the Infinity Lube™ and continued to tap an additional 500 holes with great success. This was a standard 34 X 10 high speed steel tap used on 4140 tool steel.*

**Lathe Hydraulics:** *We had a hydraulic system on a Mazak lathe making noise and pulsating. We added Fuel Ox® Infinity Lube™ Liquid Friction Eliminator at a rate of 1 ounce per quart to the hydraulic tank and it substantially reduced the noise level and stopped the pulsating.*

**Drilling Aluminum:** *Using Fuel Ox® Infinity Lube™ Liquid Friction Eliminator applied directly to the drill with a brush, we were able to stop all of the galling and build up on the drill, plus we achieved a much better quality finish of the aluminum.*

*-Mitchell Oliver - Owner*



## Mining Company

### 988H CAT Loader

SOLUTION: FUEL OX® INFINITY LUBE™ SUPER GREASE



*I just want to tell you how amazed I am with the Infinity Lube™ Super Grease. We applied Infinity Lube™ Super Grease to the bucket pins of a 988H CAT loader. This is an application where we have historically had to grease the pins every 10-12 hours of operation. Regardless of the grease we applied. If we did not grease the pins in that time frame, they will start squealing and we would have to shut down the equipment. On the day we started our test, at 10 am, the ambient temperature was about 52 degrees F. Using a heat gun, the pivot point, pin area, was 88 degrees F. We greased the pins on the bucket with Infinity Lube™ Super Grease and purged all of the old grease. At the end of that shift, the pins were doing great. We did not grease them again. The next morning at 10 am, the ambient temperature was 56. The pivot point was only 42 degrees. This was truly unexpected. Obviously, the heat reduction occurred due to tremendous friction reduction after applying the Infinity Lube™ grease. Due to the fact that we had never witnessed this level of performance before, to validate the performance, we decided to not grease the pins but, check them again later. Ultimately, we ran the machine 6 shifts, using the machine in situations where water was covering the pins, before we re-greased the pins. At that point, the pins still were quiet and there was no sign of any squealing. That's not all the next incredible part of this is the volume of grease required to obtain this phenomenal performance. With our typical greases, our service engineer had to usually put 7-10 pumps of grease in the pins, before it would begin to come out. With Infinity Lube™ Super Grease, even after running the machine for 6 shifts, instead of the normal time of 1 shift, it only took 2 pumps of grease to fill the pins. In conclusion, with applying the Super Grease our 988 Cat Loader ran 6x longer and used approx. 80% less grease. We obtain significant cost savings in labor, less downtime/higher productivity and lower grease consumption. HDI-2500 is the real deal and we are grateful we were introduced to this amazing technology.*



# INDUSTRIAL APPLICATION, AUTO TRANSMISSION PLANT, HYDRAULIC PUMP, GEAR BOX

## SOLUTION: FUEL OX® INFINITY LUBE™ LIQUID FRICTION ELIMINATOR & SUPER GREASE

My team and I have serviced the Chrysler Transmission plant in Kokomo Indiana for many years supplying them industrial solutions. At the beginning of 2014, they were having severe overheating problems with a hydraulic pump system on the main line. They were spending around \$5000 each month rebuilding and replacing parts and personnel for the rebuilds. Simply by adding the Infinity Lube™ Liquid Friction Eliminator at the original 2 ounces per quart and half that ratio at each subsequent fluid change, provided excellent results plus the fluid change times are tripled. To date, claiming that Infinity Lube™ Liquid Friction Eliminator as a possible solution may very well be the industry's greatest understatement. For us, it presented itself as the solution within 24 hours. The Thermal Imaging testing we did showed the undeniable facts. It's been 48 months since that date and the savings from that solution are approximately \$360,000 due to the unit not having to be rebuilt again or replaced. No form of finished hydraulic fluid ever tried in the unit could present any answers. It continues to sustain to this day. We also treated a \$1200 gear box that was more than ready for replacement due to overheating and vibration. This gearbox runs 7 days per week 24 hours per day. We treated it with 4 ounces of the Infinity Lube™ Liquid Friction Eliminator with the exact same results within a short time. It was running at 185 degrees and dropped to 100 degrees. To this date, that gearbox and the hydraulic unit has presented sustained performances unlike anything any other lubrications had ever presented. I am a strong advocate of supplying only the highest proven solutions to our customers. As an aftermarket supplier, presenting real reliability to our customers must come first regardless of how disruptive that solution may appear. After witnessing this phenomenon, not sharing these facts to all of our customers would be a true injustice to them.

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## SOLUTION: FUEL OX® INFINITY LUBE™ LIQUID FRICTION ELIMINATOR & SUPER GREASE

I am Stephen Snow. I work for Arch Coal, Sufco mine in Utah. I have 38 years mining experience in maintenance. The demonstration of Infinity Lube™ Liquid Friction Eliminator that I attended was very impressive and mind blowing. I decided to investigate this on my own to validate the Infinity Lube™ Liquid Friction Eliminator. During my evaluations of the Infinity Lube™, I decided to become involved with this amazing lubricant technology. As I began field trials, I quickly realized that the Infinity Lube decreased emissions in our diesel equipment and extended the life of our bearings. I wanted additional validation, so I discovered a mine willing to test the Infinity Lube™ products. The concentrate was put in a utility vehicle with a Mercedes engine. Initially, the average CO was in the low 200 parts per million. After only one week after applying Infinity Lube™ Liquid Friction Eliminator into the Mercedes Engine, CO dropped to the low 140s. The second week the CO went to 170. The next 4 weeks the CO stayed in the low 140s. At that point, the oil was changed. Amazing, the CO remained in the 150 range. After no applying additional Infinity Lube™ Liquid Friction Eliminator, three weeks later, the CO count is increased to the original 200 parts per million. This was real life field data confirmation that Infinity Lube™ Liquid Friction Eliminator worked to lower emissions over 30%. This is phenomenal and a paradigm shift in CO emission reduction technologies. The next field evaluations were utilizing the Infinity Lube™ Super Grease. This was applied into #1 belt snub roller pillow block bearings. Historically, these bearings were being changed every 4-6 months and required grease during every shift. Infinity Lube™ Super Grease was applied into a new and a 1-year old bearing. Amazing, these bearings lasted 1 full year and even more impressive was that they only had to be greased once every third day. Once again, identified cost savings based upon increased bearing life, less down time, more productivity, less grease and less labor requirements. The roller was eventually changed out for a larger roller, ending the test. In conclusion Infinity Lube™ reduced carbon emissions in the Mercedes Benz Diesel engine and provided substantial cost savings in terms of Labor, parts, productivity/less downtime. There is no technology that I am aware of that outperforms the Infinity Lube™ products in all lubricating applications.

# MAJOR ALLOY ENGINEERING COMPANY CURRENT USAGE TRIAL ORIGINAL TEST - 1998 HYDRAULIC PUMP

## SOLUTION: FUEL OX® INFINITY LUBE™ SUPER GREASE

Pump run for approximately 2 hours with no cooling fan. Temperature with contact pyrometer was 308F on top and 296F on the side. After treatment, pump surface was 195F on top and 185F on the side. A 37% reduction. Amps utilized also dropped an average of 37% saving a tremendous amount of energy.

**Update, 5-2010.** We have not experienced a hydraulic pump failure since treatment began in June of 1998. Same pump is still in service. Oil is changed every six month and retreated.

**Update, 4-2018.** Same hydraulic pump is still in operation. We still have two rebuilt backup pumps on the shelf that we have not had to use. Other than repairing an occasional leak we have had zero issues with this hydraulic system.



# PART II OF THE SUSTAINABILITY PROGRAM:

## FUEL OX® FAMILY OF FUEL TREATMENTS WITH COMBUSTION CATALYST FOR NEAR ENDLESS SUSTAINABILITY

### WHAT MAKES FUEL OX® UNIQUE?

#### OUR PATENTED COMBUSTION CATALYST

Fuel Ox® treatments contain a patented combustion catalyst that lowers the combustion point of fuel – causing an earlier, more sustained combustion. This results in an increase of power and fuel efficiency by as much as 7-10% as well as a decrease of emissions and DPF regenerations by as much as 60% or more. Customers commonly report a decrease in DEF usage as well.

#### SOLUBLE IN ANY PETROLEUM BASED FUEL AND MULTIFUNCTIONAL

Fuel Ox® is 100% soluble in all petroleum based fuels including gasoline, diesel, kerosene, and heavy fuel oil to name a few.

#### HIGHLY CONCENTRATED FORMULAS

Fuel Ox® treatments are extremely concentrated --- Our all season additives are 1:10,000 while some of our winter treatments which protect with strongest anti-gel in the market are at a 1:7500 treatment ratio.

#### SUPER MULTIFUNCTIONAL

Fuel Ox® additives remove water, protect against carbon build-up on all internal engine parts, disperse sludge, and prevents corrosion of fuel tanks and engine components. These additives also contain stabilizers to protect fuel from degrading and becoming unusable, for up to two years.



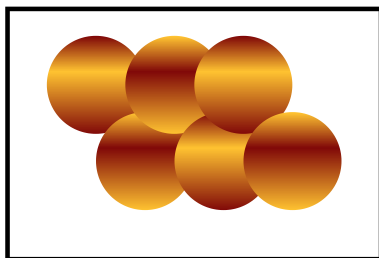
# FUEL OX® PATENTED COMBUSTION CATALYST'S EFFECT ON POLARIZATION & OXYGENATION OF DIESEL FUEL

The purpose of the Fuel Ox® fuel catalyst is to generate a more complete combustion of fuel by breaking up molecules of fuel clumps. The reason fuel contains these clumps of molecules is because they have an electrical charge which polarizes the fuel molecules into clumps (Figure 1).

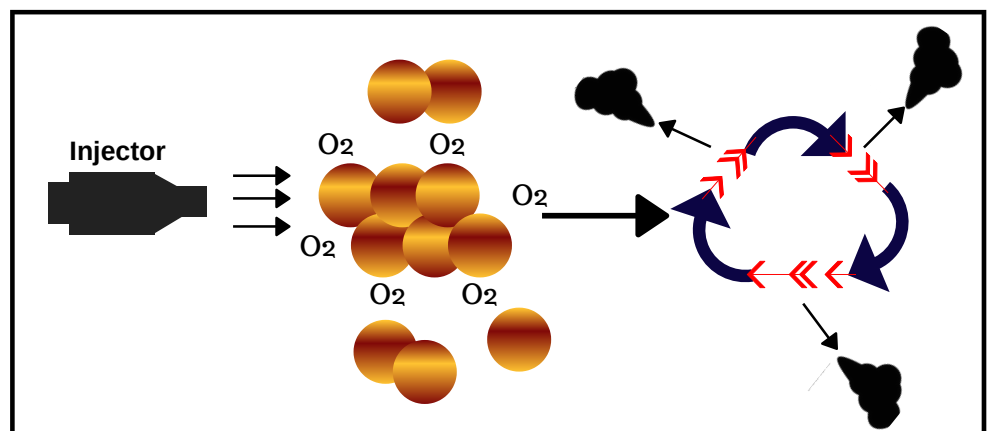
Because of this, air doesn't penetrate the molecules in the clump when they pass through the injectors. Black smoke or soot is the result that occurs when large amounts of fuel clumped molecules escape through the exhaust without being burned (Figure 2).

The Fuel Ox® catalyst eliminates the polarization that binds the fuel clumps, breaking them apart and making them ready for oxygenation and a complete combustion.

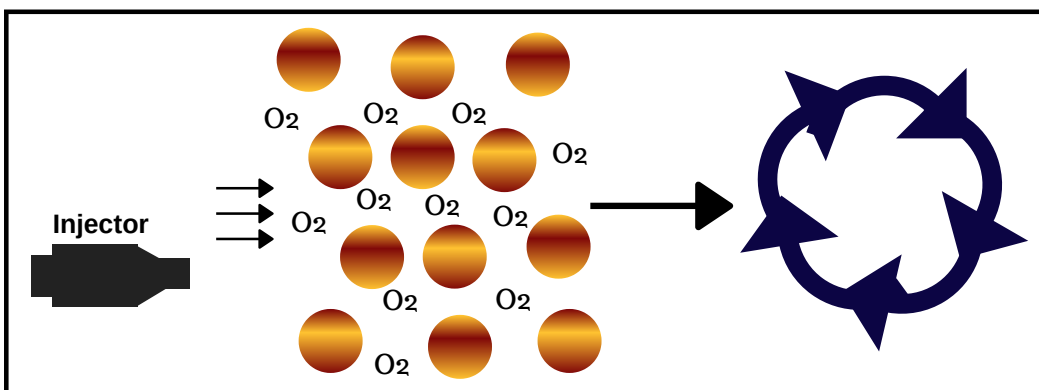
The Fuel Ox® catalyst exposes more fuel molecules to air which ensures the molecules can achieve a more complete combustion. The catalyst increases uniformity of the fuel molecules making it possible for the injectors in the engine to oxygenate fuel more efficiently (Figure 3).



**Figure 1.** Polarization of the fuel molecules causes them to clump together.



**Figure 2.** Without the use of the Fuel Ox® catalyst, air cannot reach the molecules inside the clumps. This causes a less complete combustion cycle which results in emissions.



**Figure 3.** When using the Fuel Ox® catalyst, the molecules are exposed to more oxygen, which allows for the fuel to burn more thoroughly and prompt a more complete combustion.

# PROOF THAT FUEL OX® WORKS

Companies that are interested in utilizing Fuel Ox® have been testing it for themselves prior to purchase since the inception of the company. Some have done so in laboratory settings, while others have chosen to run trials in the field. Some have been extremely comprehensive like McAllister's Towing. We allow any company the opportunity to do the same. We have conducted hundreds of tests which measure fuel efficiency, DPF regenerations, and DEF usage. Some significant test results are below.

## IAMGOLD CORPORATION

IAMGOLD is engaged in the exploration, development, and production of mineral resource properties throughout the world. The test was conducted on two water pumps at the Essakane Gold Mine in Burkina Faso.

## MCALLISTER TOWING & TRANSPORTATION

McAllister Towing & Transportation is one of the oldest and largest family-owned marine towing and transportation companies in the United States. The test conducted on the Alex McAllister tug took over a month and 17,000 gallons of fuel.

The Alex McAllister is a twin engine, 4000 horsepower Z-Drive Tractor Tug, ABS Classed, A1 Towing vessel.

## INTERTEK GROUP PLC

Intertek is an international product testing, inspection, assurance, and certification company. Intertek tested for the effect that Fuel Ox® had on fuel emissions and pollution on a diesel vehicle.

Intertek's findings concluded that the Fuel Ox® additives have significant positive effect on the emissions as detailed below.

### FINAL RESULTS

**Improvement: 9.75%**

### FINAL RESULTS

|                           |                        |
|---------------------------|------------------------|
| Engine without Fuel Ox™   | 45.57 gallons per hour |
| Engine with Fuel Ox™      | 42.85 gallons per hour |
| Difference                | 2.72 gallons per hour  |
| <b>Improvement: 5.97%</b> |                        |

### FINAL RESULTS

|     |                         |
|-----|-------------------------|
| CO2 | <b>Reduced by 20%</b>   |
| NO  | <b>Reduced by 12.3%</b> |
| NOX | <b>Reduced by 6.3%</b>  |
| H2S | <b>Reduced by 12.5%</b> |

## OTHER SIGNIFICANT TESTING RESULTS

### In Summation

The Fuel Ox® with Combustion Catalyst is truly one of a kind. No other fuel additive actually improves the combustion to the point that the fuel efficiency is consistently improved up to 5% or more while emissions are reduced as much as 50% or more. The ROI when considering fuel savings alone is up to 5-10x -- even before considering the maintenance benefits!

| Company Name                      | Industry/ Vehicle Tested | Test Results                                   |
|-----------------------------------|--------------------------|--|
| Cali Carting                      | Waste Management         | +10.4% MPG, +49.6% DEF Savings                 |
| Enel                              | Power Generation         | +8% MPG, -70% Soot/Coal Reduction              |
| Watkins & Shepard Trucking        | Trucking/Transport       | +6.7% MPG                                      |
| United Arab Shipping Company      | MV Al Hilal              | +5.7% MPG Heavy Fuel Oil                       |
| Martin Paving                     | Triaxle Dump Truck       | +9.13% MPG, +14% DEF Savings                   |
| Weistmans/Upstate Shredding       | Cat 988H Loader          | +12.15% MPG, -50% Regenerations                |
| Casilio Concrete                  | Concrete/Mixer           | +12.5% MPG, +20.2% DEF Savings                 |
| Metropolitan Trucking             | Trucking/Transport       | +21.4% DEF Savings                             |
| Student Transportation of America | School Bus Company       | +50% DEF Savings, +90% Rail Sensor Replacement |
| Coventry Transportation           | School Bus               | +13% MPG                                       |

# FUEL OX® FOR ANY OCCASION

Fuel Ox® is dedicated to providing fuel consumers the most technologically advanced fuel treatments on the market. See below for more information on our other powerful and concentrated fuel treatments that inhibit common fuel related issues while some also contain our patented combustion catalyst\*.

## FUEL OX® COLD CHARGE\*

A full service winter additive that protects fuel systems from gelling and freezing while maintaining condition of fuel system.

- 1 gallon treats 7,500 gallons of fuel
- Prevents fuel system icing & gelling
- Reduces pour point
- Reduces cold filter plugging point (CFPP) by 25°-45°
- Reduces regenerations/emissions
- Increases fuel economy
- Lubricates & cleans fuel system
- Increases horsepower
- Removes water



## FUEL OX® FREEZE GUARD

A military grade anti-gel additive that prevents fuel systems from gelling and freezing while maintaining the fuel system condition.

- 1 gallon treats 10,000 gallons of fuel
- Removes water from fuel
- Contains an anti-gel additive that reduces cold filter plugging point (CFPP) up to 45°
- Reduces pour point about 60°



## FUEL OX® ASPHALTENE\*

A multifunctional and performance enhancing additive that inhibits the formation of asphaltenes.

- 1 gallon treats 7,500 gallons of fuel
- Removes and prevents the formation of asphaltenes
- Improves fuel economy
- Reduces regenerations/emissions
- Removes water
- Lubricates & cleans fuel system
- Increases horsepower
- Prolongs life of all fuel related components
- Stabilizes fuel



## FUEL OX® HEAT BOMB

A winter emergency formula that restores the flow frozen or gelled fuel.

- Re-liquefies frozen or gelled fuel
- Unfreezes frozen fuel filters
- Removes water
- Protects against fuel-filter icing or freezing
- Increases lubricity in fuel pumps and injectors



## FUEL OX® OTR LINE\*

The Fuel Ox® OTR line is designed to improve vehicle performance and extend engine longevity. Each over-the-road treatment is extremely concentrated with powerful military grade protections and fuel enhancements. The Fuel Ox® Cold Charge OTR\* and the Fuel Ox® Freeze Guard OTR is intended for the winter months to prevent fuel gelling and lower CFPP while the Fuel Ox™ OTR\* is designed to be used all year round.



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