

## **Exhibit 1**

### **C. SPECIFICATIONS**

#### **PART A (BULK) STATE OF OKLAHOMA**

##### **SPECIFICATIONS FOR A GASOLINE AND DIESEL FUEL MAINTENANCE AND MANAGEMENT PROGRAM (FOR BULK TANK TREATMENT)**

- C.1. SCOPE. The State of Oklahoma has created a contract for a statewide Gasoline and Diesel Fuel Maintenance Program. The contractor must be on site (at the point of fuel delivery) each time a state agency receives a fuel delivery. The state of Oklahoma has several hundred bulk fuel tanks located throughout the state.**
- C.2. SERVICE. The contractor must perform the following services:**
- A. Bottom sample each storage tank using ASTM-recognized sampling equipment (i.e. Bacon Bomb Bottom Sampler) to determine presence of water, microbial growth and heavy stratified fuel.
  - B. Test each storage tank with FAA-approved microbial growth detection culture (i.e., Aviation Lab's Bug Check Kit).
  - C. Pump water and microbial growth from tank bottom. (This is not a contract for waste disposal. The State of Oklahoma will deal with disposal.)
  - D. Install liquid fuel system dryer additive directly into the bulk storage tank to "sop up" any trace water that remains after pumping. The fuel system dryer additive must be able to absorb its weight in water. This fuel system dryer is to be provided to the State on an "as needed" or "as requested" basis, it is not to be used continually. This product and service are part of the overall water removal process and are to be performed at no additional cost to the State.
  - E. Eliminate and kill all microbial growth in storage tanks by installing a fuel biocide. Biocide is to be installed and mixed at each fuel storage location.
  - F. Follow-up testing, as requested, to validate microbial growth elimination.
  - G. Sample tanks at every fueling location every six months (or more often as requested) to check for reappearance of water and microbial growth.
  - H. Tank bottoms to be pumped and treated with fuel system dryer as often as necessary to maintain a water-free environment for fuel storage.
  - I. On-Site testing at each fueling location every six months using ASTM D287 API Gravity Equipment. Vendor must also perform a field oxidation storage stability test every six months.
  - J. On-Site testing at each fueling location every twelve months using ASTM D97 Cloud and Pour Point Testing Equipment to assure the winter performance of diesel fuel.
  - K. Be on site at each fueling location each time a state agency receives a load of bulk fuel (regardless of quantity) to install additives in gasoline and diesel storage tanks. Vendor is responsible for meeting the transport truck's load of fuel at each fueling location. If this is occasionally not possible, then the vendor should arrive within 24 hours before or after the fuel is delivered to install and mix the additives with the fuel.
  - L. Conduct a Fuel Trends Maintenance or Fleet Maintenance Seminar twice per years to keep personnel up to date on the rapidly changing world of Fuel Management and Fleet Maintenance.
  - M. File a report with the agency fleet manager or foreman each time an initial or follow-up test is performed.
  - N. Keep the State updated on the latest additives and treatment ratios for Alternative Fuels such as BioDiesel, CNG, ethanol, etc.
- C.3. THE DIESEL FUEL ADDITIVE. The diesel fuel additive must contain:**
- A. Oxidation inhibitors to slow the natural degradation of diesel fuel caused by exposure to atmospheric oxygen.
  - B. Metal deactivators to help eliminate the oxidation process.
  - C. Detergents to clean up any varnish or gum in the fuel system.
  - D. Deposit modifiers to remove carbon deposits from valve and piston crowns.
  - E. Corrosion inhibitors to stop the effects of acids and oxidation materials on fuel system components. Additive must work in the liquid phase and vapor phase of the fuel.

- F. De-emulsifiers to prevent diesel fuel from holding soluble water.
- G. Dispersants to help keep insoluble materials in fuel from agglomerating and plugging filters.
- H. Pour point depressants to lower the temperature at which fuel gelling occurs.
- I. A wax dispersant to further reduce filter plugging.
- J. Combustion modifiers to help fuel burn more completely.
- K. Less than 1% alcohol by weight, including methanol, isopropyl, or any other alcohol derivative.
- L. Treat Ratio must be 1-1000 or greater.
- M. Lubricity additives to protect diesel pumps and injectors from the drying effect of low sulfur diesel fuels.
- N. Must be compatible with BioDiesel fuel blends.
- O. Must be specifically formulated to work in High Pressure Common Rail fuel systems.
- P. Must prevent breakdown of fuel carbon and soot-black byproducts in fuel.
- Q. Must prevent black-fuel filter plugging due to HPCR.
- R. Must prevent the formulation of internal diesel injector deposits.
- S. NOTE: Additive must not contain any ash-producing heavy metals: i.e., Barium, etc.  
**Note:** Vendor must provide photos or documentation to verify diesel additive performance in HPCR fuel systems.

**C.4. THE GASOLINE ADDITIVE. The gasoline additive must contain:**

- A. Oxidation inhibitors to help stabilize gasoline and prevent the formation of varnishes, resins, and other oxymaterials that gum up fuel systems.
- B. Detergents to clean existing deposits from valves and piston crowns.
- C. Deposit modifiers to remove carbon deposits from valves and piston crowns.
- D. Heat Stable lubricants to help reduce the adverse effects of dry, unleaded gasoline.
- E. Less than 1% (one percent) alcohol by weight, including methanol, isopropyl, or any other alcohol derivative.
- F. Treat ratio must be 1-400 or greater.
- G. Must suppress intake valve deposits. (Vendor must document test results to show gasoline additive is effective in keeping intake valve deposits under control. Documentation must show CRC rating.)

**C.5. THE BIOCIDES. The biocide must:**

- A. Be able to work in gasoline and diesel fuel.
- B. Kill Microbial growth within 12 hours.
- C. Be effective in water. (Must be able to kill microbial growth living in water at tank bottom.)
- D. Be effective in diesel fuel and gasoline. (Must be able to kill microbial growth living in gasoline and diesel fuel.)
- E. Be transferable. The biocide must work in the fuel phase of a tank and emulsify into the fuel. This allows individual vehicles to receive a "DOSE" of biocide when they receive fuel from a treated tank.
- F. Be registered with the EPA. EPA Registration Number: \_\_\_\_\_

NOTE: The biocide is not to be used on a continual basis, but only as necessary to control microbial growth.

### C.6. PERFORMANCE CONFIRMATION.

The successful Supplier must be able to supply diesel additives, gasoline additives, and biocides at several hundred locations across Oklahoma every time the state receives fuel. The contractor must be on site within 48 hours prior to or after delivery to physically pour the additive in the tank and complete the fuel testing as listed in Section B.2. If vendor is on site after delivery, the tank must be stirred. Please confirm your company personnel are able to do the following:

Action	Yes	No
Treat diesel fuel in all locations	_____	_____
Treat gasoline in all locations	_____	_____
Administer biocide in all locations	_____	_____
Bottom sample tanks in all locations	_____	_____
Test for microbial growth in all locations	_____	_____
Pump water from tank bottoms in all locations	_____	_____
Provide free fuel system dryer (per B.2.D.) in all locations	_____	_____
Test fuel upon request in all locations	_____	_____

Note: Supplier must be able to supply the three additives listed in C.3, C.4, and C.5.

### PART B (INDIVIDUAL VEHICLES: GASOLINE)

SPECIFICATIONS FOR: DEPOSIT REMOVAL ADDITIVE; DEPOSIT CONTROL ADDITIVE FOR GASOLINE VEHICLES; AND AN ANTI-ICING ADDITIVE FOR DIESEL OR GASOLINE VEHICLES (FOR INDIVIDUAL VEHICLE TANK TREATMENT)

**C.7.Scope. The State of Oklahoma has created a contract for fuel additives that will be installed in individual over-the-road equipment (automobiles, vans, etc.). The State has several thousand gasoline and diesel vehicles that are serviced and fueled at various stations through the state.**

**C.8. Services. The contractor must perform the following services at no additional charge:**

- C.8.1.** Provide up to eight (8) hours of on-site training at each maintenance facility in Oklahoma. Training will be done at the request of the foreman or administrator of each maintenance facility. (dates, times must be approved by Central Purchasing, Contracting Officer prior to vendor scheduling)
- C.8.2.** Conduct a fleet fuel trends seminar or fleet maintenance clinic at each maintenance facility two (2) times per year to update maintenance personnel on the rapidly changing world of fleet management and preventative maintenance. (Seminars to be done at the request of foreman or administrator of each maintenance facility dates, times must be approved by Central Purchasing, Contracting Officer prior to vendor scheduling)
- C.8.3.** Provide preventative maintenance literature and visual aids that will help State Personnel understand the maintenance services provided by the State Maintenance Facilities and how those services improve vehicle drivability, fuel economy, and performance.
- C.8.4.** Provide on-site gasoline and fuel analysis as requested to determine fuel quality and stability (especially in dual-fuel applications).
- C.8.5.** Deliver all additives to the various maintenance facilities and/or state agencies throughout Oklahoma. Delivery provided in any quantity and provided on-site at no charge.

**C.8.6.** Be available for statewide on-site support as requested by the foreman or administrator of each maintenance facility. List the name of your field service personnel, the city where the individual resides, and the Oklahoma counties the individual services:

Name	City Where Rep. Resides	Position Held	Division Headquarters	Counties Served

## PERFORMANCE VERIFICATION

### PART A (BULK) STATE OF OKLAHOMA

#### C.9. ADDITIVE PERFORMANCE VERIFICATION.

Vendor must provide documentation from a fuel analysis testing laboratory to validate performance claims. Please complete the information requested below:

##### DIESEL FUEL TEST

Test Method		#2 Diesel	#2 Diesel with Vendor's Additive
Cloud Point	ASTM D7683	___ F	___ F
Pour Point	ASTM D6749	___ F	___ F
Cold Filter Plug Point	ASTM D6371	___ F	___ F
Oxidation Stability	ASTM D2274	___ MG/L	___ MG/L
Accelerated Stability (RSSOT)	ASTM 7545	___	___
Copper Strip Corrosion	ASTM D130	___	___
Rust-Preventing * <i>*Attach before and after photos of the NACE rust test</i>	ASTM D665 (NACE)	_____	_____

##### BIODIESEL FUEL TEST

Test Method		BioDiesel (B10)	BioDiesel B10 with Vendor Additive
Cold Filter Plug Point (IP309)	ASTM D6371	___ °F	___ °F
Test Method		BioDiesel (B5)	BioDiesel B5 with Vendor Additive
Cold Filter Plug Point (IP309)	ASTM D6371	___ °F	___ °F

#### EPA 40CFR80.591 Compliance

Vendor must provide documentation to verify ultra-low sulfur diesel additives comply with 40CFR80.591. Documents for each diesel additive must be attached, including a copy of the product label stating compliance

## DIESEL FUEL ADDITIVE TEST

Percentage of Alcohol (C4 or less) in virgin diesel additive using GC-FTIR Test Method: \_\_\_\_\_

## DIESEL FUEL ADDITIVE LUBRICITY TEST

Fuel system lubricity is a major concern to us. The vendor must document the performance of their diesel additive to meet lubricity requirements.

<u>Test</u>	<u>Results Using Reference Fuel</u>	<u>Results Using Reference Fuel &amp; Vendor Additive</u>
ASTM D6079 High Frequency Reciprocating Rig (HFRR)	_____ microns	_____ microns

***Note: Photographs of before and after "wear scar" must be supplied with bid to verify results.***

## GASOLINE FUEL TEST

<u>Test Method</u>	<u>Gasoline</u>	<u>Gasoline w/ Vendor's Additive</u>
Copper Strip Corrosion	ASTM D-130 _____	_____
Oxidation Stability of Gasoline	ASTM D-525 _____ min or equivalent	_____ min

## GASOLINE TEST

<u>Test Method</u>	<u>Gasoline w/ Vendor's Additive (after 10,000 miles)</u>
Intake Valve Deposits IVD or Modified IVD Test (CRC Rating)	_____ CRC Rating
Intake Valve Deposits IVD or Modified IVD Test	_____ Mg. Of Deposits (Mg. of Deposits)

## GASOLINE FUEL ADDITIVE TEST

Percent of Alcohol (C4 or less) in virgin gasoline additive using GC-FTIR Test Method \_\_\_\_\_%

## ANTI-ICING ADDITIVE TEST:

The purpose of this test is to verify how the anti-icing additive, will perform. Please show the effectiveness of the additive in “antifreezing” both in free and entrained water.

Before: Water Freeze Point: \_\_\_\_F  
After Treatment: Water Freeze Point: \_\_\_\_F  
(Treat Ratio used: \_\_\_\_\_)

NOTE: The actual fuel analysis testing laboratory report must be included with the bid. This report must show the test results of unleaded gasoline or diesel and the test results of the same unleaded gasoline or diesel treated with the vendor’s gasoline or diesel additive at the specified ratio. The IVD Test or Modified IVD Test does not have to show “before” and “after results, it only has to show the effect of unleaded gasoline treated by the vendor’s gasoline additive.

Also the report should show the test results of the GC-FTIR Test Method for percentage of alcohol in the virgin diesel additive and the percentage of alcohol in the virgin gasoline additive.

## PART B (INDIVIDUAL: GASOLINE)

### THE DEPOSIT CONTROL ADDITIVE:

- A.** This additive will be added to the fuel tank of each vehicle with each gasoline fill-up. Its function is to keep fuel systems clean. The deposit control additive must:
- 1.Be in a container that will allow it to be poured into a standard vehicle fuel tank without a funnel.
  - 2.Be packaged in a container that will treat approximately 10-20 gallons of gasoline.
  - 3.Be suitable for dual-fuel applications (CNG and gasoline).
  4. Contain oxidation inhibitors to help stabilize gasoline and prevent the formation of varnishes, resins, and others oxy-materials that gum up fuel systems (especially in dual-fuel vehicles.)
  5. Contain detergents to clean existing deposits from valves and piston crowns.
  6. Contain deposit modifiers to remove carbon deposits from valves and piston crowns.
  7. Contain heat stable lubricants to help reduce the adverse effects of dry, unleaded gasoline and the drying effects of CNG.
  8. Contain less than 1% alcohol by weight, including methanol, isopropyl, or any other alcohol derivative.
  9. Suppress intake valve deposits (vendor must document test results to show gasoline additive is effective in keeping intake valve deposits under control. Documentation must show CRC rating.)

**B. The Deposit Control Verification.** Documentation from a fuel analysis-testing laboratory to validate performance claims must be supplied with the bid. See completed information requested below:

#### 1.The Gasoline Test

<u>Test Method</u>	<u>Untreated Gasoline</u>	<u>Gasoline w/ Vendor’s Additive</u>
Copper Strip Corrosion	ASTM D-130 _____	_____
Oxidation Stability of Gasoline (Induction Method)	ASTM D-525 _____ min or equivalent	_____ min

#### 2. The Gasoline Test

<u>Test Method</u>	<u>Untreated Gasoline</u>	<u>Gasoline w/ Vendor’s Additive</u>
Intake Valve Deposits (CRC Rating)	IVD or Modified IVD Test	_____ CRC Rating
Intake Valve Deposits (Mg. of Deposits)	IVD or Modified IVD Test	_____ Mg. of Deposits

### 3. Percent of alcohol (C4 or less) in virgin gasoline additive using GC-FTIR

Test Method: \_\_\_\_%

Note: The vendor must attach the actual fuel analysis testing laboratory report to the bid proposal.

This report must show the test results of unleaded gasoline and the test results of the same unleaded gasoline treated with the vendor's gasoline additive at the specified ratio.

The IVD and the IVD Modified Tests do not have to show "before" and "after" results, they only have to show the effect of unleaded gasoline treated with the vendor's gasoline additive.

Also, the report should show the test results of the GC-FTIR Test Method for percentage of alcohol in the virgin gasoline additive.

No bid will be considered without the previous section being completed in full and the supporting test results attached.

### THE RAPID DEPOSIT REMOVAL ADDITIVE.

- A.** This additive will be added to the fuel tank of each individual vehicle with each major preventative maintenance service. Its function is to rapidly cleanup fuel system deposits. The rapid deposit removal additive must:
1. Be from the polyetheramine family of additives.
  2. Contain a mega dose of polyetheramine chemistry to eliminate combustion chamber deposit interference (CCDI).
  3. Contain detergents to rapidly clean existing deposits from valves and piston crowns.
  4. Contain deposit modifiers to rapidly remove carbon deposits from valves and injectors.
  5. Contain less than 1% alcohol by weight, including methanol, isopropyl, or any other alcohol derivative.
  6. Provide storage stability of fuel in dual-fuel vehicles.
- B.** The Rapid Deposit Removal Additive Performance Verification and Documentation. -Vendor must provide documentation from a fuel analysis-testing laboratory. -Emissions data must include analysis equipment used and contain actual test results.

See requested information below:

#### 1. Deposit Removal Test

- Percent of alcohol (C4 or less) in virgin deposit removal additive using GC-FTIR Test Method: \_\_\_\_ %
- Percent of basic nitrogen in virgin deposit removal additive: \_\_\_\_%

#### 2. Emissions Test

- Analysis Used: \_\_\_\_\_
- Vehicle Make & Model: \_\_\_\_\_

	"Before" Results	"After" Results
Mileage	_____ miles	_____ miles
H C ppm (high cruise)	_____ppm	_____ ppm



H C ppm (idle)

\_\_\_ ppm

\_\_\_ ppm

**Note: Documentation must be included with your bid.**

#### THE ANTI-ICING ADDITIVE FOR INDIVIDUAL VEHICLES.

**A.** This additive will be added to the fuel tank(s) of gasoline or diesel vehicles on an “as needed” basis just prior to cold weather. Background: Climate conditions, engine design and driving habits often cause water and condensation to form in the fuel tanks of diesel vehicles. This water accumulation can lead to blocked fuel lines when ice forms in subfreezing conditions. The anti-icing additive must:

1. Be in liquid form.
2. Be able to absorb its weight in water.
3. Not contain any methanol or methyl alcohol.
4. Be in small container for a “one dose” application without a funnel.
5. Be able to absorb at least ten oz. of water in a single dose.

**B.** The anti-Icing Additive Verification. The purpose of this test is to verify how well the anti-icing additive performs. Please show the effectiveness of the additive in “anti-freezing” both free and entrained water.

-Before: Water freeze point: \_\_\_°F

-After Treatment: Water freeze point: \_\_\_°F

#### THE GASOLINE CRANKCASE CLEANER (for Individual Vehicles)

- A. Must be able to clean the ring-land area to reduce crankcase oil from getting into the combustion chamber via the PCV.
- B. Must prevent combustion gasses from getting into the crankcase via ring-land blow-by.
- C. Must work as a detergent and dispersant. Cannot be a harsh solvent.
- D. Must increase compression by removing deposits and “freeing up” stuck rings.
- E. Must work in gasoline, CNG, dual fuel, or E85-fueled engines.

##### C.5.A. Crankcase Cleaner Compression Verification

Complete the following section showing the effectiveness of combustion chamber compression improvement. Before and after compression test must be performed on the same engine.

Vehicle Make: \_\_\_\_\_ Model: \_\_\_\_\_ Mileage: \_\_\_\_\_ Year: \_\_\_\_\_

Before Compression (psi)

After Compression (psi)

Cylinder 1: \_\_\_\_\_

Cylinder 1: \_\_\_\_\_

Cylinder 2: \_\_\_\_\_

Cylinder 2: \_\_\_\_\_

Cylinder 3: \_\_\_\_\_

Cylinder 3: \_\_\_\_\_

Cylinder 4: \_\_\_\_\_

Cylinder 4: \_\_\_\_\_

Cylinder 5: \_\_\_\_\_

Cylinder 5: \_\_\_\_\_

Cylinder 6: \_\_\_\_\_

Cylinder 6: \_\_\_\_\_

#### GASOLINE CRANKCASE OIL ADDITIVE (for Individual Vehicles)

- A. Must increase oxidation stability in engine oil thus slowing the process of oil breakdown
- B. Must allow for extended oil drain intervals of at least 7,500 miles
- C. Must work in conventional, synthetic, or multi-viscosity oil.

##### C.6.A. Crankcase Oil Additive Verification

Complete the following information and provide lab documentation:

Test

ASTM

Virgin SN Oil

Virgin SN Oil with  
Vendor's Oil Additive

**Scope:** The state of Oklahoma has thousands of diesel vehicles ranging from small mowing equipment to diesel pickups, to large earth-moving equipment. The state wants to maximize the efficiency and lower the carbon footprint of its diesel fleet. Therefore, the contractor must provide diesel injector, EGR, and combustion chamber cleaning chemistry to allow the state to keep the fuel & emissions systems of its diesel fleet deposit-free, resulting in peak performance and lower emissions.

**Training:** The contractor will provide on-site, in-person, hands-on training on the proper usage of the cleaning chemistry. This on-location training is to be provided up to twice per year (as requested by the administrator of a state agency).

**NOTE:** The contractor will make available for purchase to the state any other new technology, chemistry, services, equipment, attachments, and processes that become available in the marketplace during the term of this contract. Please provide a letter to document your willingness to comply with this requirement.

## FUEL ECONOMY AND EMISSIONS VERIFICATION

**A.** Provide a source of fuel economy savings. Fill in the blanks below and provide detailed documentation paperwork.

**Fleet #1 Name:** \_\_\_\_\_

Vehicle: \_\_\_\_\_

Miles or Hours: \_\_\_\_\_

Unit Number: \_\_\_\_\_

Fuel Consumption Before: \_\_\_\_\_

Fuel Consumption After: \_\_\_\_\_

**B.** Provide a source of emissions reduction. Fill in the blanks below and provide detailed documentation paperwork.

**Fleet #1 Name:** \_\_\_\_\_

Vehicle: \_\_\_\_\_

Miles or Hours: \_\_\_\_\_

Unit Number: \_\_\_\_\_

NO<sub>x</sub> Before: \_\_\_\_\_

NO<sub>x</sub> After: \_\_\_\_\_

Opacity Before: \_\_\_\_\_

Opacity After: \_\_\_\_\_

**C.1. Diesel Fuel Tank Additive (For Individual Vehicles)**

- Must work with the other additives to create a cleaning synergy.
- Must be compatible with ULSD and BioDiesel blends.
- Must lubricate fuel pump and injectors and provide cleaning to both.
- Must comply with federal low-sulfur content requirements for a diesel tank additive.

**C.2. Diesel Crankcase Cleaner and Blow-by Reducer (For Individual Vehicles)**

- Must be able to clean the ring-land area to reduce crank case oil from getting into the combustion chamber via the CCV.
- Must prevent combustion chamber gasses from getting into the crankcase via ring-land blow-by.
- Must work as a detergent and dispersant. Cannot be a harsh solvent.
- Must increase compression by removing deposits and “freeing up” sticky rings.

**C.3. Diesel Crankcase Oil Additive (For Individual Vehicles)**

- Must be able to hold soot in suspension, thus reducing friction.
- Must contain deposit control additives to keep rings from sticking due to carbon build-up.
- Must work in conventional, synthetic, and multi-viscosity oil.

**C.3.A. Oil Additive Verification**

Complete the following information and provide lab documentation:

<u>Test</u>	<u>ASTM</u>	<u>Virgin Diesel Oil</u>	<u>Virgin Oil with Vendor's Diesel Additive</u>
TFOUT (Oxidation)	ASTM D4742	_____ min.	_____ min.
TBN (Base Number)	ASTM D5984	_____ min.	_____ min.