

## CM-136-15-1 Sulfate Study RFP Question and Answers – 12/30/2015

1. Will CRC supply the denatured fuel ethanol that is needed to conduct laboratory experiments? **Supply of the denatured fuel ethanol can be arranged.**
2. Experiments are called for to determine the solubility of sulfate salts in gasoline. Does this mean ethanol-free gasoline (E0)? **Yes.** Will CRC supply this gasoline? **As with the ethanol, gasoline can be supplied.**
3. Rather than using finished gasolines, it may be preferable to use refinery-produced hydrocarbon blendstocks for oxygenate blending (BOB). Furthermore, because aromatics level is of interest, it is desirable to use at least two BOBs – perhaps one with about 10% aromatics, and a second at about 30% aromatics. If BOBs are to be used, will CRC supply these materials? **Yes, BOBs can be made available. (From a practical standpoint, most gasoline is blended with ethanol today. So whether referred to as a BOB, Blendgrade, or “gasoline”, all will be similar in nature.)**
4. Gasoline detergent level is specified as a variable to investigate. However, many different detergent additives are used in commerce. Will CRC supply the additive they desire to be used? **Agreement will need to be reached within the work group, but both polyether amine (PEA) and polyisobutyl amine (PIBA) type detergents can be provided.**
5. The Statement of Work suggests that the solutions used in the experimental work “be filtered using an appropriate ASTM test procedure.” We are not aware of any ASTM procedure for filtering gasoline. A procedure such as ASTM D5452 (Standard Test Method for Particulate Contamination in Aviation Fuels by Laboratory Filtration) could be imagined, although this may raise safety concerns if applied to gasoline. Can CRC recommend a more appropriate filtration method? **A procedure for modified D5452 can be provided as this is routinely used by at least one of the refiners in CRC to measure particulate in gasoline.**
6. The Statement of Work calls for weekly teleconferences with the CRC Project Team. This seems unnecessarily rigid. Would it be acceptable to schedule a teleconference at the conclusion of the Phase I literature search, and then at the conclusion of each sets of lab experiments? **Teleconferences/updates should be provided as needed. It should be understood that CRC can increase the frequency to weekly, if determined necessary.**
7. Can CRC provide clear gasoline(s) for this project? **Yes**
8. Is CRC able to provide a detergent additive package for use in this project? **Yes**