

## CRC Project No. E-145 Questions

1. Is there a preference in the ASTM D6730 method being performed by FID only or FID/MS?  
We would like to have an MS detector available to confirm ambiguous peak IDs when needed and avoid potential misidentifications (esp. aromatics vs paraffins) that could lead to profound changes in the resulting PMI.
2. Will ASTM D6730 need to be performed under the standard method conditions or those outlined in Appendixes X1?  
Those outlined in Appendix X1 of ASTM 26370. The third temperature ramp recommended in Appendix X1 is important.
3. Depending on the conditions used to perform the analysis are component identifications by ASTM D6730 limited to those referenced in Table A1.1 or Table X1.2?  
Table X1.2 should be considered the baseline, although additional components can be added if identified during the analysis. Components should be identified as specifically as possible, but should at least be assigned a carbon number and compound class. Regarding the PMI and PME calculations for such newly added compounds, the CRC can provide guidance. Note that all sample analyses must use the same peak table; if components are added midway through the project, the previous chromatograms should be reprocessed with the new peak table.
4. Does the PMI need to be calculated in accordance with ASTM D6730 Appendixes X1 or does an alternate methodology need to be used?  
Note information related to the PME calculator at this CRC site: [CRC Repository for Projects and Literature Related to DHA Methodologies and PMI Calculations - Coordinating Research Council \(crcao.org\)](#). This tool will also calculate PMI. The CRC can provide assistance with this tool, if requested.
5. Can the methodology for calculating the PME be included or referenced in the Scope of Work?  
See #4 above.
6. Can more details of the GCMS testing be provided in the Scope of Work, including a point of contact at Marathon for the conditions or to arrange testing?  
The conditions are also specified in ASTM D6730 Appendix X1. In addition to Marathon, other labs are configured to perform this analysis.