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Radiological and Environmental Science Laboratory
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DOE - Richland Operations Office
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SUBJECT: Mixed Analyte Performance Evaluation Program Participants Report MAPEP-99-S6

The Radiological and Environmental Sciences Laboratory (RESL) at DOE-ID has for some time provided technical and programmatic support to the Analytical Services Program (EM-5). It is important for RESL to maintain communications with the appropriate field organizations. You have been identified as a recipient (or potential recipient) of these Performance Evaluation reports.

Enclosed are the participating laboratory reports for the MAPEP-99-S6 performance evaluation water samples. The acceptance criteria are listed at the end of the report. For radiological and stable inorganic analytes, a result with a bias $\leq 20\%$ of the reference value for the specified analyte is acceptable (flag = "A"); $20\% < \text{bias} \leq 30\%$ is acceptable with warning (flag = "W"); a bias $> 30\%$ is not acceptable (flag = "N"). The statistical treatment of the semi-volatiles organic data was conducted following protocols developed by the EPA EMSL-CIN for the WP and WS laboratory proficiency testing programs. Reference values were calculated for each target analyte by using EPA EMSL-CIN Biweight computer algorithm to determine the biweight mean, biweight standard deviation and the lower and upper 95% prediction interval (PI) estimates and the lower and upper 95% confidence interval (CI) for each analyte. The reference value for the semi-volatile organic target analytes is determined as the biweight mean of all the data.

Any flags associated with the reported uncertainty are for information purposes only. They are not currently part of the acceptance criteria. The statistical summary report provides a quick overview of all laboratory data. These reports (absent copies of letters sent to laboratories) will also be available for review on the Internet at: <http://www.inel.gov/res/mapep/reports.html>.

It has been the policy of the DOE-HQ Analytical Support Group that all laboratories providing analytical services to the Department of Energy (or their Management and Operations Contractors) shall participate in the Mixed Analyte Performance Evaluation Program (MAPEP). The purpose of this program is to assure that these laboratories provide data of known quality and to assist these laboratories in improving the quality of their data.

Participation in MAPEP requires analysis of samples (one water, one soil per year) that contain stable inorganic, radiological and semi-volatile organic target analytes. MAPEP samples are distributed semi-annually. The document(s) published by the MAPEP will include the identification of the Subcontractor and their performance on the MAPEP PE samples. This published information will likely be accessible to the general public through the Freedom of

Information Act requests, or general distribution. If the Subcontractor performs inorganic, organic or radionuclide analyses for the U.S. Department of Energy under a separate contract or any other DOE contract, DOE-HQ directive dictates that the contractors shall participate in MAPEP.

If you wish to make the reports available to other staff members, please inform us and we will make arrangements to have copies sent directly to them. If you wish to receive additional copies, make comments on the report structure or have questions about the program, please contact Mr. Guy Marlette, MAPEP Coordinator at (208) 526-2532, FAX a message to (208) 526-2548 or contact him by e-mail at marletgm@inel.gov.

Enclosure