September 29, 2015

Office of Water Quality Water-Quality Information Note 2015.12

Subject: Menlo Park Tritium Laboratory FY16-17 analytical pricing memo and website

In order to help offset the costs of recent major laboratory upgrades and additional support staff to meet the increased demand for USGS tritium analyses, the Menlo Park Tritium Lab (MPTL) is increasing the cost of tritium analyses for FY2016. New prices will be applied to all samples arriving on and after October 1, 2015.

Please see the attached memo for a detailed list of the available analyses and prices.

The price list, electronic submission forms, and sample collection instructions are also now available on the Menlo Park Tritium Lab website at:
http://water.usgs.gov/nrp/menlo-park-tritium-laboratory/

Please contact Megan Young by email (mbyoung@usgs.gov), or phone (650-329-4544) if you have questions or comments regarding available analyses, billing, or website access/information.

WaQI Notes are archived on the Office of Water Quality web site,
http://water.usgs.gov/usgs/owq/WaQI/index.html

Signed,
The Office of Water Quality September 29, 2015

Distribution: All WMA Employees

Menlo Park Tritium Lab FY2016-2017 Price Memo

In order to help offset the costs of recent major laboratory upgrades, account for increases in the price of laboratory equipment and consumables, and support the staff required to maintain our newly increased sample capacity, the Menlo Park Tritium Lab (MPTL) is increasing the cost of tritium analyses for FY2016. These prices will be valid for FY2016 and FY2017, after which we will re-evaluate analytical costs. We anticipate adding a new option for an even lower minimum detection limit in early 2016.

Available Analyses and New Pricing

New (and Old) lab codes	Description	Required Water Volume/ bottle size	1 sigma detection limit picoCuries per Liter (TU in parenthesis)	Current price	FY16-FY17 price
LSC11 (452)	LSC only	125 mL	13 (4.1)	$125	**$136**
LSC05 (460)	Elec enrich. of 100mL and LSC	250-500mL	2.2 (0.69)	$177	**$193**
LSC04 (624)	Elec enrich. of 200mL and LSC	0.5 to 1 Liter	1.3 (.41)	$241	**$263**
LSC14 (1565)	Elec enrich. of 500mL and LSC	1 Liter	0.5 (0.16)	$320	**$350**

Elec. enrich: Electrolytic enrichment (water volume is reduced from initial volume to 9mL by electrolysis in a chilled water bath); LSC: Liquid Scintillation Counting. TU: Tritium Units

Recent Upgrades to the Menlo Park Tritium Lab: Starting July 2013, the MPTL invested over $250K in major laboratory upgrades to meet increased USGS demand for tritium analyses and to begin developing a new tritium method with ultra-low detection limits (~0.05 picoCuries per liter) to keep pace with declining natural tritium concentrations. In addition, the National Research Program contributed $44K in FY2014 to support MPTL upgrades. These investments enabled:

- Two new Quantulus Ultra-Low Level Liquid Scintillation Counters (LSCs) be purchased to increase sample throughput capacity, achieve lower detection limits, and allow for additional repair time on our much older instruments without slowing sample throughput,
- Two new chilled-water tanks and four corresponding new electrolytic enrichment banks to be built, which has doubled our capacity for processing low-detection samples, and will allow for even lower detection samples.

We have also increased our staffing levels in order to process more samples. With the combined laboratory upgrades and enhanced staffing, we can now complete just over 100 lowest detection level samples per month, in addition to another 40 to 100 mid to high detection level samples. This increase more than doubles our previous sample throughput capacity. A draft tritium method and QA/QC document has been prepared, and publication is anticipated before the end of 2015.