

MEMORANDUM FOR Commander, U.S. Army Engineer District, Huntsville, ATTN:  
CEHNC-OE-CX (Deborah Walker), 4820 University Square, Huntsville, AL 35807

SUBJECT: Laboratory Assessment of STL Denver of Arvada, CO for Various Military Munitions  
SI Phase FUDS Projects

1. This correspondence addresses the ongoing laboratory assessment of STL Denver of Arvada, CO for the addition of explosives by Method 8330 by the USACE HTRW Center of Expertise for compliance with the DOD QSM. The original technical assistance request to evaluate STL Denver of Arvada, CO for compliance with the DOD QSM was received in July 2005; the additional parameters request was received in May 2006.
2. The laboratory was assessed for the parameter(s) listed below:

<u>METHOD</u> <sup>(1)</sup>	<u>PARAMETER</u>	<u>MATRIX</u> <sup>(4)</sup>
3535/8321A	Explosives	Water <sup>(2)</sup>
8330/8321A	Explosives	Soil <sup>(2)</sup>
8330	Explosives	Water <sup>(2)</sup>
8330	Explosives	Soil <sup>(2)</sup>
6860 modified	Perchlorate	Water
8321A modified	Perchlorate	Water
3010A/6010C	Metals <sup>(3)</sup>	Water <sup>(2)</sup>
3050B/6010C	Metals <sup>(3)</sup>	Soil <sup>(2)</sup>
3010A/6020	Metals <sup>(3)</sup>	Water <sup>(2)</sup>
3050B/6020	Metals <sup>(3)</sup>	Soil <sup>(2)</sup>
7470A	Mercury	Water <sup>(2)</sup>
7471A	Mercury	Soil <sup>(2)</sup>

- Remarks: 1) Analytical methods include sample preparation and measurement methods.
- 2) The laboratory has successfully analyzed a Proficiency Testing (PT) sample for this method/matrix.
  - 3) Metals (TAL except mercury): Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc.
  - 4) Water and soil matrices; "soil" includes sediments and other solids.

CENWO-HX-S

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3. An SOP review of the EPA 8330 method of STL Denver of Arvada, CO was performed by Dr. Richard Meyer. The laboratory has been provided a copy of the report, and has satisfactorily responded to the deficiencies noted in the report.

4. Based upon the successful analysis of NELAC Proficiency Testing (PT) samples, the evaluation of the laboratory's supporting documentation, the an on-site inspection of the laboratory, and the additional SOP review, the laboratory has been determined to be compliant with the DOD Quality Systems Manual for Environmental Laboratories (Draft Version 3) for the methods/matrices shown in paragraph 2. However, it should be noted that a number of variances to the DOD QSM were discussed and approved for STL Denver of Arvada, CO for your project. The approved variances to the DOD QSM are summarized below:

a. One half the reporting limit (rather than two times the MDL) may be used as the acceptance limit for instrument blank contamination for ICP Methods 6010 and 6020. (Variance for QSM Table B-6 and B-7.)

b. Plus or minus one half the reporting limit (rather than plus or minus two times the MDL) may be used as the acceptance range for the ICS-A solution for Methods 6010 and 6020. (Variance for QSM Table B-6 and B-7.)

5. It is your responsibility to provide final correspondence to the laboratory regarding their DOD QSM Compliance, and to determine ongoing compliance on an annual basis, in accordance with your project needs for analytical capacity, and associated business processes prescribed in the HQ policy letter. This laboratory assessment is not considered valid beyond two years from the date of this letter. You are also urged to forward a copy of this correspondence to appropriate Project Management staff for their files. A record of this assessment will be posted on our website so that other USACE Districts can be informed of the laboratory's status.

6. Any questions or comments can be directed to Dr. Richard Meyer at 402-697-2565

Marcia C. Davies, Ph.D.  
Director, USACE Hazardous,  
Toxic and Radioactive Waste  
Center of Expertise

MEYER/cak/2570  
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