ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

September 10, 2015

Mr. Erich Weissbart, P.G.
U. S. Environmental Protection Agency, Region III
Land and Chemicals Division (3LC20)
1650 Arch Street
Philadelphia, PA 19103-2029

Mr. James L. Cutler, Jr.
Virginia Department of Environmental Quality
629 East Main Street
Richmond, VA 23219

Subject: **With Certification, Revision of Section 6 - Solid Waste Management Unit 49 Monitored Natural Attenuation Sampling Baseline Report, Draft Document, July 2015**
EPA ID# VA1210020730

Dear Mr. Weissbart and Mr. Cutler:

Enclosed is the certification for the subject section. The revisions to this section were coordinated with Mr. Cutler via email on August 28, 2015 in which Mr. Cutler provided RFAAP with track change edits to resolve his comments. The attached section was prepared by accepting Mr. Cutler's track change edits. As this was the only page of the report that needed revision, this replacement page is provided in lieu of producing another report.

Please coordinate with and provide any questions or comments to myself at 540 639 7785 or Mr. Jim McKenna, Army Staff at 540 731 5782.

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

15-0900-139

c: Aziz Farahmand
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Coordination: J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Matt Alberts
Rob Davie, Army Staff
Env. File

Concerning the following:

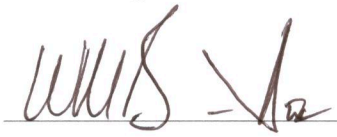
Radford Army Ammunition Plant
Revision of Section 6.0 - Solid Waste Management Unit 49
Monitored Natural Attenuation Sampling Baseline Report
Draft Document, July 2015

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: 

PRINTED NAME: Alicia M. Masson

TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: 

PRINTED NAME: William M. Barnett

TITLE: General Manager
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6.0 SUMMARY AND CONCLUSIONS

Fifteen groundwater monitoring wells were sampled in the SWMU 49 study area in January 2015 to provide a baseline analysis of the COCs, CT and TCE, and their daughter product concentrations. Sample results were evaluated to determine whether MNA is continuing to occur at the site. This report presents and summarizes the results of the baseline sampling event.

Consistent with the TCL VOC results from the most recent sampling event in May 2013, the highest concentrations of CT and TCE were observed in wells 48MW2 and 48MW3, where the center of the plumes is located. The source areas of the CT and TCE plumes are small and have not changed in size or shape since May 2013. As discussed in CB&I (2014a) and illustrated on **Figure 6-1**, the source area of the CT plume is oval in shape, approximately 250 ft in length (north to south) and 680 ft wide (east to west). The center of the plume (highest detected concentrations) is located approximately 205 ft southeast of SWMU 49. The upgradient edge of the plume is located approximately 250 ft to the northwest from the center of the plume. It is likely that the detections of CT in the downgradient wells 13MW3, 13MW$ and 49MW04 depicted in Figure 6-1, are related to the SWMU49 plume.

As discussed in CB&I (2014a) and illustrated on **Figure 6-2**, the source area of the TCE plume is triangular in shape, is approximately 560 ft in length (north to south) and 580 ft wide (east to west). The center of the plume (highest detected concentrations) is located approximately 210 ft southeast of SWMU 49. The upgradient edge of the plume is located approximately 300 ft to the northwest from the center of the plume and extends into SWMU 48. It is possible the detection of TCE in well 13MW5, depicted in Figure 6-2, is related to the SWMU 49 plume.

Since May 2013, CT and TCE concentrations have remained similar across the SWMU 49 study area. The only RG exceedances of CT and TCE observed in January 2015 were in wells 48MW2 and 48MW3; CT also slightly exceeded the RG in well 49MW02.

It is recommended that future sampling rounds be conducted to continue to monitor the concentrations of CT, TCE, and their daughter products in groundwater at the SWMU 49 study area. An evaluation of the effectiveness of remedy will be performed after the second year of sampling. The significance of the detection of CT and TCE in SWMU 13 wells will be evaluated in the second year report.