Lockheed Martin Corporation
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etesa(M)185.9Dg28g
eph oe 528 2 0-49(92)]TJ ET Q q BT /F2126 Tf 1 0 0 1 725699513 Tm [Fe549(br)3(ue)-02.8(a46.8(r)176.8ye)-2951[20,c

Radiological Surveys—Ten one-minute static measurements were collected outside the impacted area to establish the background and investigation levels. The calculated investigation lever (mean background plus three standard deviations) was 4,785 counts per minute (cpm).

Adequate volume was available to collect 16 samples on September 12 and 13, 2016. Of those 16 samples, eight were shipped for offsite radiological analysis. One-minute static counts were obtained on each of the 16 samples. The values ranged from 2,908 to 4,695 cpm, and none exceeded the investigation level. The samples were analyzed by TestAmerica for isotopic uranium using methods 6020A, inductively coupled plasma-mass spectrometry (ICP-MS) and A-01-R, alpha spectrometry and for isotopic thorium using method A-01-R, alpha spectrometry. Sample results for the radionuclides of concern can be found in Table 1 and on Figure 1. Chain-of-custody forms and sediment sample log sheets corresponding with the sampling event are in Appendix A and B, respectively.

*Sampling Results*—All sample results were consistent with the results of previously analyzed samples, with the exception of sample E-SD-MH7-091216, which had a Th-232 result (1.44 picocuries per gram [pCi/g]) that exceeded the Block E background range. Previous sample result ranges were Th-232 – 0.354 – 1.07 pCi/g, U-234 – 0.028 – 7.53 pCi/g, U-235 – ND – 0.63 pCi/g, U-236 – ND and U-238 – ND – 1.37 pCi/g. Full laboratory sample reports are contained in Appendix C of this report.

*Investigation Derived Waste*—To reduce the investigation-derived waste (IDW) that was generated during this project, disposable spoons and nitrile gloves were used during sample collection, and the volume of sediment removed from the manholes and inlets was limited to that required to fill the sampling containers. At the end of each work day, the sampling spoons and nitrile gloves (the latter used as personal protective equipment [PPE]) were disposed of within facility trash receptacles; consequently, all IDW management responsibilities associated with the field work were fulfilled prior to demobilization.

If you have any questions regarding the work plan, please feel free to contact me at (301) 548-2209.

Sincerely,

Thomas D. Blackman
Project Lead, Environmental Remediation

cc: (via email without enclosure)
Gary Schold, MDE
Mark Mank, MDE
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Table 1

**Table 1**
**Sediment Sampling Results - Radiological**
**Block E Soil Remedial Investigation Addendum Report**
**Lockheed Martin Corporation**

# APPENDIX A- SAMPLING AND ANALYSIS FORMS

# APPENDIX B- CHAIN-OF-CUSTODY FORMS

# APPENDIX C- LABORATORY SAMPLE REPORTS