

1.0 EXECUTIVE SUMMARY

This Phase II Environmental Site Assessment (ESA) Report describes the field investigation that was conducted on the "Embreeville Complex" located in Newlin and West Bradford Townships, Chester County, Pennsylvania. The complex is to be transferred from Department of General Services to West Bradford Township. This Report has been prepared by Stell Environmental Enterprises, Inc. (SEE) of Elverson, Pennsylvania for the Department of General Services in a manner generally consistent with ASTM Standard E 1903.

The Phase II ESA was conducted to determine if past activities on the Site or on adjacent properties have caused environmental degradation of the Site. The scope of the field activities included surface and shallow subsurface soil sampling; sediment sampling from drainage features; ground water sampling; and laboratory analysis of soil, sediment, and ground water samples collected to evaluate potential recognized environmental conditions identified in the June, 2006 Phase I ESA Report.

No Phase II ESA can eliminate all uncertainty regarding the presence or absence of recognized environmental conditions. The following conclusions and recommendations are based on current understanding of site conditions, and readily available information.

VOC concentrations (de minimis) appear to be higher at the wastewater treatment discharge location than at the upstream location indicating that the discharge may have affected the sediments in the Brandywine Creek. It is recommended that monitoring of the wastewater discharge be conducted as required under the existing NPDES permit for the facility.

The ground water samples collected from the temporary monitoring wells down and side gradient of the former UST location near the Boiler House (Borings B and C) revealed eight SVOCs that were above the PA Act 2 MSCs. Elevated SVOCs in ground water are commonly associated with releases from heating oil USTs. It is reasonable to believe that releases from the former USTs are the source of elevated SVOCs in ground water at these locations. It is recommended that a monitoring well network be drilled and sampled to more fully evaluate the ground water quality and to confirm the findings from this investigation. The need for additional investigation for soil contamination will be dependent on the results of the additional ground water quality investigation.

A sample was taken to help evaluate if discharge from the oil/water separator drained into and affected the nearby tributary. It appears that the oil/water separator drain has not affected sediments of the eastern tributary of Brandywine Creek; however, it is recommended that the sludge be removed from the oil/water separator. The removed material should be handled and disposed of appropriately. The discharge location of the oil/water separator drain remains uncertain.

Laboratory analysis of the sludge sample collected from the Coal Silo Pit detected o-xylene, seven SVOCs, and seventeen TAL metals. It is recommended that the sludge be removed from the coal silo pit. The removed material should be handled and disposed of appropriately.

Laboratory analysis of the sludge sample from the maintenance building pit/floor drain exceeds 40CFR Part 261 Hazardous waste toxicity characteristics for lead (5mg/l). The results of this evaluation indicate that the sludge material is potentially hazardous waste. It is recommended

that the material in the pit/floor drain located in the garage portion of the Maintenance Building be sampled for hazardous characteristics using TCLP analytical methods to fully characterize the sludge. It is recommended that the sludge be removed from the pit/floor drain and handled and disposed of appropriately. The floor drain discharge should be relocated to an acceptable location, or plugged to eliminate the connection and discharge to the nearby stream.