

Hazardous Waste Section  
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Your Name: Mark Wilkins  
EPA ID: NCD091249417  
Facility Name: Former John Deere/Textron  
Document Group: Permit (P)  
Document Type: Correspondence (C)  
Description: 2016 cost estimate for post-closure care completion of Corrective Action  
Date of Doc: 2/16/2016  
Author of Doc: Textron

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February 16, 2016

Mark Wilkins  
Division of Waste Management – Hazardous Waste Section  
North Carolina Department of Environment and Natural Resources  
1646 Mail Service Center  
Raleigh, NC 27699-1646



**Subject: 2016 Post-Closure Care Cost Estimate**  
**Former Homelite/Former John Deere Consumer Products**  
**Textron Inc. as Operator, Schwarz Properties, LLC as Owner**  
**Gastonia, North Carolina**  
**Facility NCD 091 249 417**

Dear Mr. Wilkins:

In accordance with Permit Condition I.H. of the Resource Conservation and Recovery Act (RCRA) Permit for the above-referenced facility, AECOM North Carolina, Inc. (AECOM) on behalf of Textron Inc. has prepared the enclosed post-closure cost estimate for the calendar year 2016. The estimates are summarized for each of the three hazardous waste management units (HWMUs) in Tables 1 through 3, with supporting information in Tables 4 through 7. In addition, a cost estimate for completing corrective actions at solid waste management unit (SWMU) #13 is included as Table 8. The total post-closure cost estimate for the facility for 2016 (sum of Tables 1, 2, 3 and 8) is \$3,424,492.00.

Please note that the cost estimate for SWMU #13 was updated in November 2009 based upon an empirical demonstration that the remaining treatment time was 14 years. The updated cost estimate and empirical demonstration were provided to the Hazardous Waste Section in a November 5, 2009 letter from AECOM.

Please call Chris Mason at (919) 461-1459 should you have any questions or require further information.

Yours sincerely,

Christopher Mason  
Project Manager

Erin Stewart, PG  
Project Manager

Attachments

cc: Greg Simpson – Textron, Inc.  
Jon Wakeman – AECOM



**Gregory L. Simpson**  
Director - Site Remediation  
Textron Inc.

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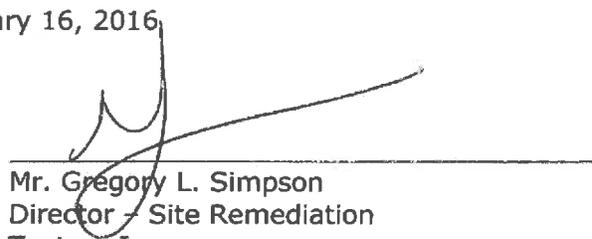
February 16, 2016

### **CERTIFICATION**

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 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 fine and imprisonment for knowing violations.

Date: February 16, 2016

Signature:



Mr. Gregory L. Simpson  
Director - Site Remediation  
Textron Inc.

Attachment: 2016 Post-Closure Care Cost Estimate  
Former Homelite/ Former John Deere Consumer Products  
Gastonia North Carolina  
NCD 091 249 417

**Table 1**  
**2016 Post-Closure Care Cost Estimate**  
**HWMU #1: MEK Waste Tank Area**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

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1.	<b>Groundwater Monitoring (see Tables 4 and 5 for detail)<sup>1</sup></b>	
	Annual well sampling, management and reporting per year	\$2,010.64
	Annual analytical <sup>2</sup>	\$536.17
	Appendix IX analytical and reporting, apportioned over 5 years	\$245.11
	<b>Monitoring Subtotal</b>	<b>\$2,791.91</b>
2.	<b>Corrective Action System (see Table 6 for detail)</b>	
	Operation and maintenance of pump and treat systems at HWMU #1 per year	\$28,927.47
3.	<b>Inspection and Maintenance of HWMU #1 and Annual Report (see Table 7 for detail)</b>	\$2,533.33
	<b>Total Annual Costs (Items 1-3)</b>	<b>\$34,252.71</b>
4.	<b>One-Time Costs</b>	
	Installation completed under total facility assessment program (1988-1989, expanded in 1995)	Incurred
	Installation of point of compliance wells (1995)	Incurred
	Construction of upgrades to groundwater treatment system (2011)	Incurred
	Removal of pumps and treatment systems at end of project (HWMU #1)	\$5,200.00
	Abandonment of wells and capping subgrade piping at end of project	\$8,400.00
	<b>Total One-Time Costs</b>	<b>\$13,600.00</b>
<b>TOTAL COSTS FOR 30 YEARS</b>		
	<b>Total Annual Costs (30 Years) + Total One-Time Costs</b>	<b>\$1,041,181.45</b>

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**Notes**

<sup>1</sup> Includes annual sampling event and reporting (June) and water level measurements (December).

<sup>2</sup> Analytical costs apportioned among HWMUs according to the divisions given in Table 4, with equal shares of extraction, effectiveness, interior plume well samples and QA/QC samples to each HWMU. Field work, reporting and Appendix IX costs split evenly between HWMUs.

**Table 2**  
**2016 Revised Post-Closure Care Cost Estimate**  
**HWMU #2: G-3, G-4 and G-5 Tank Area**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

1.	Groundwater Monitoring (see Tables 4 and 5 for detail) <sup>1</sup>	
	Annual well sampling, management and reporting per year	\$5,808.51
	Annual analytical <sup>2</sup>	\$1,548.94
	Appendix IX analytical and reporting, apportioned over 5 years	\$708.09
	<b>Monitoring Subtotal</b>	<b>\$8,065.53</b>
2.	Corrective Action System (see Table 6 for detail)	
	Operation and maintenance of pump and treat system at HWMU #2 per year	\$28,927.47
3.	Inspection and Maintenance of HWMU #2 and Annual Report (see Table 7 for detail)	\$2,533.33
	<b>Total Annual Costs (Items 1-3)</b>	<b>\$39,526.33</b>
4.	One-Time Costs	
	Installation completed under total facility assessment program (1988-1989, expanded in 1995)	Incurred
	Installation of point of compliance wells (1995)	Incurred
	Construction of upgrades to groundwater treatment system (2011)	Incurred
	Removal of pumps and treatment systems at end of project (HWMU #2)	\$5,200.00
	Abandonment of wells and capping subgrade piping at end of project	\$8,400.00
	<b>Total One-Time Costs</b>	<b>\$13,600.00</b>
<b>TOTAL COSTS FOR 30 YEARS</b>		
	<b>Total Annual Costs (30 Years) + Total One-Time Costs</b>	<b>\$1,199,389.96</b>

**Notes**

<sup>1</sup> Includes annual sampling event and reporting (June) and water level measurements (December).

<sup>2</sup> Analytical costs apportioned among HWMUs according to the divisions given in Table 4, with equal shares of extraction, effectiveness, interior plume well samples and QA/QC samples to each HWMU. Field work, reporting and Appendix IX costs split evenly between HWMUs.

**Table 3**  
**2016 Post-Closure Care Cost Estimate**  
**HWMU #3: Magnesium Burn Pit and Drum Storage Area**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

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1.	Groundwater Monitoring (see Tables 4 and 5 for detail) <sup>1</sup>	
	Annual well sampling, management and reporting per year	\$2,680.85
	Annual analytical <sup>2</sup>	\$714.89
	Appendix IX analytical and reporting, apportioned over 5 years	\$326.81
		<b>Monitoring Subtotal</b>
		<b>\$3,722.55</b>
2.	Corrective Action System (see Table 6 for detail)	
	Operation and maintenance of pump and treat system at HWMU #3 per year	\$28,927.47
3.	Inspection and Maintenance of HWMU #3 and Annual Report (see Table 7 for detail)	\$2,533.33
		<b>Total Annual Costs (Items 1-3)</b>
		<b>\$35,183.35</b>
4.	One-Time Costs	
	Installation completed under total facility assessment program (1988-1989, expanded in 1995)	Incurred
	Installation of point of compliance wells (1995)	Incurred
	Construction of upgrades to groundwater treatment system (2011)	Incurred
	Removal of pumps and treatment systems at end of project (HWMU #3)	\$5,200.00
	Abandonment of wells and capping subgrade piping at end of project	\$8,400.00
		<b>Total One-Time Costs</b>
		<b>\$13,600.00</b>
<b>TOTAL COSTS FOR 30 YEARS</b>		
		<b>Total Annual Costs (30 Years) + Total One-Time Costs</b>
		<b>\$1,069,100.60</b>

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**Notes**

<sup>1</sup> Includes annual sampling event and reporting (June) and water level measurements (December).

<sup>2</sup> Analytical costs apportioned among HWMUs according to the divisions given in Table 4, with equal shares of extraction, effectiveness, interior plume well samples and QA/QC samples to each HWMU. Field work, reporting and Appendix IX costs split evenly between HWMUs.

**Table 4**  
**2016 Post-Closure Care Cost Estimate**  
**Annual Corrective Action Groundwater Monitoring for the Three HWMUs**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

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<b>HWMU #1: Waste MEK Tank Area</b>	
Annual Monitoring	MW-2sr, MW-11s
Appendix IX Sampling <sup>1</sup> (every 5 years)	MW-2sr
<b>HWMU #2: G-3, G-4 and G-5 Tank Area</b>	
Annual Monitoring	MW-1sr, MW-1i, MW-13s, MW-13i, MW-17i, MW-22s, MW-23i, MW-24s, MW-24i, MW-29s, MW-31s, MW-32i, MW-34d, MW-35i, CW-3, Coleman Lee Well, George Harris Well, MW-8i <sup>3</sup> , MW-19s <sup>3</sup>
Appendix IX Sampling <sup>1</sup> (every 5 years)	MW-1sr
<b>HWMU #3: Magnesium Burn Pit and Drum Storage Area</b>	
Annual Monitoring	MW-8sr, MW-8i, MW-19s, MW-30s <sup>2</sup>
Appendix IX Sampling <sup>1</sup> (every 5 years)	MW-8sr
<b>Groundwater Extraction Well Monitoring</b>	
Annual Monitoring	CW-1, CW-2, EW-1, EW-3, EW-4, EW-5, MW-10i, MW-15i, MW-16i, MW-22d, David Dockery Well, French Well, EW-2, MW-18i, MW-4i <sup>3</sup> , Homelite Well <sup>3</sup>
<b>Corrective Action Effectiveness / Interior Plume Well Monitoring</b>	
Annual Monitoring	MW-4s, MW-6s, MW-7s, MW-16s, Outfall 001, MW-6i <sup>3</sup>

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**Notes**

- <sup>1</sup> Designated point of compliance wells also sampled for Appendix IX constituents once every 5 years.
- <sup>2</sup> MW-30s sampled annually for metals and inorganic parameters only.
- <sup>3</sup> Wells added to corrective action monitoring program in September 14, 2007 RCRA permit.
- <sup>4</sup> Groundwater monitoring plan is based on RCRA permit requirements and does not account for modifications recommended in the annual reports.

**Table 5**  
**2016 Post-Closure Care Cost Estimate**  
**Cost Associated with Annual Corrective Action Groundwater Monitoring for the Three HWMUs**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

1.	Sampling and Management (Cost Per Annual Event) <sup>1</sup>		
	Sampling Technicians <sup>2</sup>		\$4,000.00
	Mobilization, Demobilization, Equipment and Miscellaneous <sup>1</sup>		\$1,500.00
		<i>Subtotal</i>	\$5,500.00
2.	Analytical (Annual) <sup>1</sup>		
	47 Method 8260 (VOC) Analyses		\$2,350.00
	1 Metals 6000/7000 Methods (Ba, Pb, Fe, Mg, Mn, Na) Analysis		\$50.00
	8 QA/QC Samples (Duplicates, Trip and Equipment Blanks)		\$400.00
		<i>Subtotal</i>	\$2,800.00
3.	Reporting (Annual Effectiveness and Monitoring) <sup>1</sup>	<i>Subtotal</i>	\$5,000.00
		<b><i>Annual Subtotal (Items 1-3)</i></b>	<b>\$13,300.00</b>
4.	Analytical (every 5 years)		
	3 Appendix IX Samples (apportioned over 5 years)	<i>Subtotal</i>	\$1,080.00
5.	Reporting (Additional Costs for Appendix IX Monitoring Reports)	<i>Subtotal</i>	\$200.00
		<b><i>Annual Subtotal (Items 4-5)</i></b>	<b>\$1,280.00</b>
<b>ANNUAL TOTAL</b>			
		<b><i>Annual Corrective Action Groundwater Monitoring Subtotal</i></b>	<b>\$14,580.00</b>
		HWMU #1 assigned <sup>9</sup> / <sub>47</sub> of all costs:	\$2,791.91
		HWMU #2 assigned <sup>26</sup> / <sub>47</sub> of all costs:	\$8,065.53
		HWMU #3 assigned <sup>12</sup> / <sub>47</sub> of all costs:	\$3,722.55

**Notes**

- <sup>1</sup> Analytical costs apportioned among HWMUs according to the divisions given in Table 4, with equal shares of extraction, effectiveness, interior plume well samples and QA/QC samples to each HWMU. Field work, reporting and Appendix IX costs split evenly between HWMUs.
- <sup>2</sup> Field staff provided by AECOM and/or Pace Analytical.
- <sup>3</sup> Cost estimate is based on RCRA permit required groundwater monitoring plan and does not account for modifications recommended in the annual reports.

**Table 6**  
**2016 Post-Closure Care Cost Estimate**  
**Annual Maintenance and Operational Costs in 2016 Dollars for the Three HWMUs**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

1.	Outfall 001 Compliance Monitoring		
	Analytical (quarterly analysis of chronic toxicity and methylene chloride)		\$1,260.00
	Technician <sup>1</sup>		\$1,492.40
		<i>Subtotal</i>	\$2,752.40
2.	Outfall 001 Compliance Reporting		
	Monthly		\$1,800.00
	Quarterly		\$400.00
		<i>Subtotal</i>	\$2,200.00
		<b>Outfall 001 Compliance Subtotal (Items 1-2)</b>	<b>\$4,952.40</b>
3.	Maintenance (Stripper, Pumps, Pipelines, Controls)		
	Technician <sup>1</sup>		\$39,500.00
	Supplies and Replacement Costs		\$10,000.00
	Mowing Access Lines to Groundwater Extraction Wells		\$4,000.00
		<i>Subtotal</i>	\$53,500.00
4.	Engineering Oversight	<i>Subtotal</i>	\$15,430.00
5.	Operations (Power and Telephone)	<i>Subtotal</i>	\$12,900.00
		<b>Operation and Maintenance Subtotal (Items 3-5)</b>	<b>\$81,830.00</b>
<b>ANNUAL TOTAL</b>		<b>Outfall 001 Compliance Subtotal + Operation and Maintenance Subtotal</b>	<b>\$86,782.40</b>
		HWMU #1 assigned one third of all costs:	\$28,927.47
		HWMU #2 assigned one third of all costs:	\$28,927.47
		HWMU #3 assigned one third of all costs:	\$28,927.47

**Notes**

<sup>1</sup> Field staff provided by AECOM and/or Pace Analytical.

**Table 7**  
**2016 Post-Closure Care Cost Estimate**  
**Inspection / Maintenance and Annual Reports for the Three HWMUs**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

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1. Inspection and Maintenance	
Annual Inspection	\$920.00
Annual Fence Maintenance	\$2,000.00
Annual Cost Estimate Reporting	\$2,680.00
Mowing Three HWMUs	\$2,000.00
<b>ANNUAL TOTAL</b>	<b>\$7,600.00</b>
	HWMU #1 assigned one third of all costs: \$2,533.33
	HWMU #2 assigned one third of all costs: \$2,533.33
	HWMU #3 assigned one third of all costs: \$2,533.33

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**Table 8**  
**2016 Post-Closure Care Cost Estimate**  
**SWMU #13: BDC-SVE Area**  
**Textron Inc. as Operator**  
**Schwarz Properties, LLC as Owner**  
**Facility NCD 091 249 417**

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1.	Soil Vapor Extraction System Monitoring		
	Quarterly exhaust sampling, management and reporting per year		\$8,500.00
	Semiannual analytical per year (eliminated in 2014)		\$0.00
	Quarterly analytical per year		\$760.00
		<b>Monitoring Subtotal</b>	<b>\$9,260.00</b>
2.	Corrective Action System		
	Operation and maintenance of BDC-SVE system per year		\$6,500.00
		<b>Total Annual Costs (Items 1-2)</b>	<b>\$15,760.00</b>
3.	One-Time Costs		
	Installation, expansion and upgrades completed (expanded and upgraded in 2005)	Incurred	
	Removal of treatment systems at end of project		\$2,000.00
	Abandonment of wells and capping subgrade piping at end of project		\$2,500.00
		<b>Total One-Time Costs</b>	<b>\$4,500.00</b>
<b>TOTAL COSTS FOR 7 ADDITIONAL YEARS<sup>1</sup></b>		<b>Total Annual Costs (7 Years) + Total One-Time Costs</b>	<b>\$114,820.00</b>

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**Notes**

<sup>1</sup> November 2009 engineering evaluation determined soil would be remediated to site-specific soil screening levels by 2023.