COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Matthew J. Strickler
Secretary of Natural Resources

Street address: 1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

David K. Paylor
Director
(804) 698-4000
1-800-592-5482

July 8, 2019

Mr. James Egner, P.E.
Environmental Manager
David Marshall, QA Manager / EHS Coordinator
Continental Automotive Systems, Inc.
jim.egner@continental-corporation.com

RE: Long Term Stewardship
Continental Automotive Systems, Inc., Culpeper, VA
EPA ID No. VAD030341077

VIA ELECTRONIC MAIL

Dear Mr. Egner,

The Department of Environmental Quality, Office of Remediation Programs (Department) has prepared the attached report following the Long Term Stewardship inspection performed on June 25, 2019 at the Continental Automotive Systems facility located in the Culpeper, Virginia. The inspection found no outstanding items with compliance of engineering and institutional controls. You may contact Ryan Kelly at Ryan.Kelly@deq.virginia.gov or myself at Kari.lackey@deq.virginia.gov to discuss any questions regarding the remedy or the inspection.

Respectfully,

K. Allyson Lackey

K. Allyson Lackey
Hazardous Waste Permit Writer and Inspector

cc: Chris Evans, Ryan Kelly; DEQ-CO
Cassie McGoldrick, John Hopkins, EPA Region III (3LC50)
Christina Archambeault, Richard Doucette; DEQ-NRO

Enclosures: Long-Term Stewardship Assessment Report

Long-Term Stewardship Assessment Report

Continental Automotive Systems
EPA ID: VAD030341077
Prepared by: K. Allyson Lackey
LTS Visit Date: June 25, 2019

Introduction:

Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be observed. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the Resource Conservation & Recovery Act (RCRA) Corrective Action facilities. The assessment is conducted in two fold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

Site Background:

The Continental Automotive Systems, Inc. facility occupies 89 acres of property in Culpeper, Virginia. In the 1970's, the site was built by Westinghouse to manufacture wastewater treatment plant equipment and was sold in 1976 to Alfred Teves, a manufacturer of automotive brake and suspension components. From 1978 to 1982, the Koni Company operated a shock absorber manufacturing operation in the main building concurrently with Teves. In 1998, Continental of Germany purchased the Facility, under the name Continental Teves, still producing automotive brake components. Continental Automotive Systems, Inc., is the current operating name as of 2010 and manufactures brake components; primarily Antilock Braking System (ABS) junction blocks.

The original operations at the Facility included chrome plating, painting, degreasing, machining, and grinding. The waste from the treatment of chrome plating wastewaters were placed into the hazardous waste units three (3) surface impoundments; a pretreatment lagoon and two (2) sludge-drying beds. In 2000, the Permit was modified to include Site-Wide Corrective Action requirements. A Post-Closure Permit was issued to the Facility in 1996 for the three (3) hazardous waste units (HWU) with a post-closure care period of 30 years extended for all three (3) HWUs to September 30, 2026.

A description of historical operations conducted at the Property, contaminants present in soil and groundwater, and Virginia Department of Environmental Quality's (VDEQ) final remedy for the Property is presented in the January 2014, Statement of Basis in the Administrative Record for the Facility.

The site remediation targets Tetrachloroethylene (PCE), Trichloroethylene (TCE), Cis 1, 2-Dichloroethylene (DCE), Vinyl Chloride, and Chromium in groundwater. The groundwater monitoring well system that includes thirty-three (33) monitoring wells.

Current Site Status:

Institutional controls restricting the land use and use of groundwater at the Facility are in place and groundwater monitoring will continue until cleanup standards for these constituents have been met. The site remediation involving the in-situ chemical oxidation (ISCO) injections, started in 2011 and the facility continues to monitor ISCO treatment. VDEQ issued the final remedy decision for the Continental Automotive Systems facility through a modification of the Facility's Hazardous Waste Management Permit in August 26, 2014.

Long-term Stewardship Site Visit:

On June 25, 2019, DEQ conducted a long-term stewardship site visit to discuss and assess the status of the implemented remedies at the site.

Table 1: Attendees for the LTS inspection

Name	Organization	Email Address	Phone No.
K. Allyson Lackey, DEQ Permit Writer	VADEQ – Central Office	kari.lackey@deq.virginia.gov	804-698-4421
Christina Archambeault, DEQ HW Inspector	VADEQ – Northern Regional Office	christina.archambeault@deq.virginia.gov	703-583-3863
James Egner, PE, Environmental Manager	Continental Automotive Systems, Inc.	jim.egner@continental-corporation.com	540-727-1323
Gavin Kitchens CHMM, PG, Senior Geologist	APEX Companies, LLC	gkitchens@apexcos.com	703-396-6730 ext. 4314
Tyler Warren, Scientist 3	APEX Companies, LLC	tyler.warren@apexcos.com	703-396-6730, ext. 4318

Remediation Systems

We observed the active remediation systems during the site walkover and did not observe any deficiencies. They systems appeared to be properly maintained in accordance with the approved Operation and Maintenance Manual.

Constituents of Concern (COC) concentrations in environmental media have decreased at the site, and these trends can be attributed to corrective measures implementation (CMI) activities performed since 2005 in addition to natural degradation.

Engineering Controls (ECs)

The Facility conducts inspections and maintenance of the final cover and security including the fencing and signage for the former pretreatment lagoon (SWMU 6.)

Institutional Controls (ICs):

The Facility filed an environmental covenant through a "Notice of Use Limitation" with the County of Culpeper, on August 11, 2015 to implement the following ICs:

- Notify prospective buyers of the Property of the environmental conditions at the Property and of VDEQ's selected corrective measures as part of the remedy for the Property under RCRA Corrective Action
- Prohibit residential land use within the boundary of the former pretreatment lagoon (SWMU 6) and former sludge drying beds (SWMU 5);
- Prohibit use of groundwater at the Property for any purpose other than monitoring activities as required by VDEQ or EPA;
- Require that a vapor intrusion control system, the design of which will be approved in advance by the Department, be installed in each new structure constructed above or within 100-feet of the contaminated groundwater plume, unless it is demonstrated to the Department that vapor intrusion does not pose an unacceptable risk to human health and

the Department provides prior written approval that no vapor intrusion control system is needed;
- Prohibit installation of new wells on Property without EPA or VDEQ prior approval; and
- Restrict activities that would interfere with or adversely impact the integrity of the remedy.

Financial Assurance:

Financial Assurance is up to date for corrective action activities at the Facility.

Reporting Requirements/Compliance:

Annual Report:

The Compliance with and effectiveness of the proposed remedies at the facility in reducing contaminant concentrations and restoring the groundwater to MCLs shall be evaluated and included in the annual report as well as the groundwater results, as required by the approved Groundwater Monitoring Plan. On February 2019, the Department received the most recent annual report. **The Department did not identify any noncompliance issues with reporting requirements.**

Three (3) Year Remedy Status Evaluation Report:

The compliance with and effectiveness of the institutional controls and engineering controls implemented at the facility shall be evaluated every three years and whenever else requested in writing by EPA. The evaluation includes, but not limited to, a review of groundwater and land uses within one mile of the facility property boundary and zoning maps or planning documents that may affect future land use in the impacted area. The current owner of the Property shall submit to EPA and VDEQ a report documenting the findings of the evaluation and shall be signed by a qualified and certified professional engineer who has inspected and investigated compliance with this Environmental Covenant. On February 2019, the Department received the most recent annual report which includes the required information for the three year remedy status evaluation. **The Department did not identify any noncompliance issues with reporting requirements.**

Mapping:

The EPA Facility website figure has been updated with a Geospatial PDF showing the use restriction boundaries. The map was field-verified and no issues were noted.

Follow-up Activities:

No follow up activities related to the LTS are required.

Conclusion:

The ECs and ICs selected are implemented and remain intact and undamaged. No EC/IC deficiencies have been identified.

Long-Term Stewardship Visit Checklist

Continental Automotive Systems
EPA ID: VAD030341077
LTS Visit Date: June 25, 2019

DEQ Personnel:
K. Allyson Lackey, Permit Writer/HW Inspector, CO
Christina Archambeault, Hazardous Waste Inspector, NRO

Facility Representatives:
James Egner, PE, Environmental Manager, Continental Automotive Systems
Gavin Kitchens CHMM, PG, Senior Geologist, APEX
Tyler Warren, Scientist 3, APEX

Selected Remedies:

Groundwater contamination impact limited to on-site media and has not observed or indicated migration off-site. Therefore, groundwater associated with the Facility does not discharge to any surface water bodies. Groundwater monitoring of the constituents, activity and use limitations of the Property are set forth in the Final Remedy.

The site remediation targets Tetrachloroethylene (PCE), Trichloroethylene (TCE), Cis 1, 2-Dichloroethylene (DCE), Vinyl Chloride, and Chromium in groundwater. The groundwater monitoring well system includes thirty-three (33) monitoring wells.

Activity and Use Limitations

- Notify prospective buyers of the Property of the environmental conditions at the Property and of VDEQ's selected corrective measures as part of the remedy for the Property under RCRA Corrective Action
- Prohibit residential land use within the boundary of the former pretreatment lagoon (SWMU 6) and former sludge drying beds (SWMU 5);
- Prohibit use of groundwater at the Property for any purpose other than monitoring activities as required by VDEQ or EPA;
- Inspection and maintenance of the final cover and security fencing for the former pretreatment lagoon (SWMU 6);
- Require that a vapor intrusion control system, the design of which will be approved in advance by the Department, be installed in each new structure constructed above or within 100-feet of the contaminated groundwater plume, unless it is demonstrated to the Department that vapor intrusion does not pose an unacceptable risk to human health and the Department provides prior written approval that no vapor intrusion control system is needed;
- Prohibit installation of new wells on Property without EPA or VDEQ prior approval; and
- Restrict activities that would interfere with or adversely impact the integrity of the remedy.

Institutional Controls Review

Inspection Questions	Yes	No	Notes
Have the ICs specified in the CA remedy been fully implemented in accordance with any applicable schedule?	X		

Inspection Questions	Yes	No	Notes
Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	X		
Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?	X		
Are the ICs sufficiently meeting the risk goals and applicable standards specified in the CA remedy?	X		
Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	X		
Are the ICs suitable for the period/length of time which the controls are intended to be used as specified in the CA remedy?	X		
Are the ICs being maintained as required by the CA remedy in order to ensure that the controls remain effective?	X		See Comments section (1)
Are additional ICs necessary to achieve the intended goals of the CA remedy?		X	
Are modifications to the ICs needed?		X	

Engineering Controls

Inspection Questions	Yes	No	Notes
Have the ECs specified in the CA remedy been fully implemented and constructed in accordance with any applicable plans and schedule?	X		
Are the ECs fully intact? Any damage visible? Have any repairs been necessary?	X		The security fencing, signage, and vegetated cover was in compliance, but noted that the fence was in fair condition but was intact
Do the ECs provide control for the entire extent of contamination (lateral and vertical)?	X		
Are the ECs effective at reducing contaminant migration? Is data available to provide supporting evidence?	X		
Are the ECs eliminating or mitigating exposures to all potential receptors?	X		
Are the ECs sufficiently meeting the risk goals and applicable standards specified in the CA remedy?	X		
Are the ECs effective and reliable for the activities (current and future) and climatic conditions at the property to which the controls are applied?	X		

Inspection Questions	Yes	No	Notes
Are the ECs reliable during the period/length of time which the controls are used to achieve and maintain applicable standards specified in the CA remedy?	X		
Are the ECs being monitored and maintained as required by the O&M plan or agreement developed in accordance with the CA remedy in order to ensure that the controls remain effective?	X		See Comments section (2)
Are additional ECs necessary to achieve the intended goals of the CA remedy?		X	
Are modifications to the ECs needed?		X	

Additional Review

Other Questions	Yes	No	Notes
Are there plans to develop or sell the property?		X	See Comments section (3)
Are all parts of the Covenant being followed in order to ensure that the Covenant remains effective?	X		
Are modifications to the Covenant needed?		X	

Additional Comments And Notes:

(1) The air compressor for the Leading Edge Air Sparging System (LEASS) was undergoing routine maintenance during the visit as prescribed in the Operations and Maintenance Plan. This system was shut down in 2010 in accordance with VDEQ guidance and remains offline for the near future.

(2) The well caps are frequently damaged by vehicular (exterior) and floor scrubbing (interior) equipment. As part of the operations and maintenance plan, the wells are inspected and conditions are addressed as needed. During the visit, monitoring well, MW-19, was observed in poor condition (Appendix A, Image A-1.) The cap was replaced the day after the visit by the Facility (Appendix A, Image A-2.) The Facility plans to evaluate the conditions of all wells and provide a long-term plan to replace or repair all wells including the concrete apron with alternative options. The proposed repairs or replacement will be provided to VDEQ.

(3) Currently, the Facility is under construction within the main building, to remove and install manufacturing equipment. The construction does not impact the ICs/ECs implemented at property

Attachment A

Monitoring Well Cap MW-19

Image A-1: Monitoring Well, MW-19

The picture was taken on June 25, 2019, during site visit by Mr. Egner.

Image A-2: Monitoring Well, MW-19

This picture was taken on June 26, 2019, by Apex.