COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
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September 4, 2014

Mr. Eric Nelson
CCP Composites US
820 E. 14th Avenue
North Kansas City, MO 64116

RE: RCRA Groundwater Monitoring Evaluation and Split Sample Results
Long Term Stewardship Inspection
CCP Composites, Chatham, VA
EPA ID No. VAD055046049

VIA ELECTRONIC MAIL

Dear Mr. Nelson,

The Department of Environmental Quality (DEQ or Department) conducted a groundwater monitoring evaluation with split sampling for the groundwater monitoring well network at the CCP Composites (CCP) facility located in Chatham, Virginia on June 10, 2014. In addition, the Department performed a Long Term Stewardship inspection to evaluate the effectiveness of the facility's institutional controls (ICs) and engineering controls (ECs) that were established throughout the facility's environmental cleanup history.

The groundwater inspection and split sampling occurred during the first semi-annual groundwater monitoring period of 2014. The purpose of this event was to evaluate 1) the effectiveness of the monitoring network and representativeness of the data collected by the facility, 2) adherence to requirements and procedures included in the facility's Site-Wide Corrective Action Permit (Permit) and Sampling and Analysis Plan (SAP), and 3) condition of monitoring wells at the facility.

During the inspection and split sampling event the facility's consultant and Corrective Action Project Manager from DEQ Central Office were present. The following activities were completed during the inspection:

- Inspected the condition of each monitoring well including concrete pad and protective outer casing.

- Observed groundwater purging and sampling methods used by field personnel including management and handling of purge water.
- Collected groundwater split samples from monitoring wells PZ-8R, PZ-11, PZ-13, PZ-14, and recovery well SW-2.
- Validated laboratory analytical results for split samples and compared results to the facility's groundwater results.

During the inspection, the Department found the monitoring wells including concrete pads and protective casings to be in good condition. The sampling equipment used at each monitoring well functioned properly and provided representative groundwater samples. Monitoring wells were sampled in the following order; PZ-8R, PZ-14, PZ-13, PZ-11, and SW-2. The static water level was measured at each monitoring well location and then each monitoring well was purged and sampled using a submersible pump using low-flow sampling methods. A groundwater sample was collected from each well location and quality control (QC) samples were collected in the field by the facility. In addition, the field technician collected a groundwater split sample from each well on behalf of the Department using containers provided by the Department and its contracted laboratory. Finally, groundwater generated during well purging and sampling activities was transferred to the onsite groundwater pump and treat system for treatment prior to final discharge.

The facility submitted their groundwater samples to Lancaster Laboratories in Lancaster, Pennsylvania for analysis of volatile organic compounds (VOCs) by EPA SW846 Method 8260B. The Department submitted its split samples to Air, Water, & Soil Laboratories, Inc. in Richmond, VA for analysis of VOCs by Method 8260B. Both laboratories are currently certified under the Virginia Environmental Laboratory Accreditation Program (VELAP) for these methods. The Department compared its analytical results to the facility's analytical results to complete the inspection/evaluation. Based on the observations made onsite during the inspection and results of the data comparison, the Department provides the following.

1. The condition of the monitoring wells is adequate. Minor corrosion and rusting of the manhole covers of the monitoring wells was observed, which appears to be normal weathering. Wells are secured with caps and no evidence of degradation to the well casing was observed. Concrete well pads are intact and no erosion, subsidence, or standing water was observed.

2. Static water levels were measured at each monitoring well location listed above prior to sampling and during sampling. In addition, static water levels were measured at additional wells across the site prior to sampling to characterize current groundwater conditions. These activities were completed in a manner consistent with procedures listed in the facility's Corrective Measure Implementation (CMI) Plan and SAP.

3. The facility's purging and sampling methods are adequate and are accurately represented in the facility's SAP. Proper health and safety methods were used and generated wastes (purge water) were managed appropriately and in accordance with the facility's Permit and Hazardous Waste Management Regulations.

4. Analytical data generated by the facility's laboratory were consistent with historical results although a slight increase in ethylbenzene and total xylenes was observed at PZ-8R and PZ-14 including acetone at PZ-8R. A review of the facility's quality control sample results including matrix spikes, recoveries, and control samples indicate that the data is acceptable

and meets data quality objectives. It was noted that reporting limits were raised for sample SW-1R due to sample foaming. However, method detection limits (MDLs) remained low enough for comparison to groundwater protection standards. It was also noted that recoveries for carbon disulfide exceeded acceptance criteria for the sample batch indicating a positive bias to results. However, carbon disulfide was not detected above MDLs, therefore results are adequate.

5. A comparison of the facility's analytical data to the Department's (attached table) indicates that 99.5% of the data are comparable based on relative percent differences (RPD) and comparable MDLs. One of the 240 data points is non-comparable because the calculated RPD is not within the acceptable range of 0-30%. This data point includes ethylbenzene for PZ-13. Ethylbenzene concentrations in PZ-13 are very low and accuracy of the data is likely affected by the increased sensitivity associated with concentrations close to the constituent's quantitation limit. In addition, the non-comparable concentrations are consistent with historical results. Therefore no further action is required.

The long term stewardship inspection occurred on June 10, 2014 concurrent with the split sampling event. The facility is required to maintain IC's and EC's as part of their final remedy in accordance with the Corrective Action program and include:

- Land use restrictions that restrict the use of groundwater from beneath the property, the use of the property for residential purposes within sample areas 1, 3, 5, and 12, and limitations on soil excavation;
- Inspection and maintenance of the concrete cap cover system at sample area 1;
- Require vapor intrusion mitigation measures for any new structures built for occupation within the foot print of sample areas 3 and 5, unless it is demonstrated to the Department that it is not necessary to protect human health;
- Operation and maintenance of a groundwater pump and treat system and an in situ chemical oxidation (ISCO) system; and
- Long term groundwater monitoring.

The Department met with the facility to determine if the ICs and ECs are being implemented effectively and to review how they are being enforced onsite (e.g. policies, procedures, covenant, etc.). In addition, a site walk through was completed by the Department to evaluate whether the ECs are functioning as intended. Based on the observations and discussions, the Department provides the following.

1. A "dig" permitting process is utilized at the facility to control excavation activities onsite. The CMI Plan is kept onsite noting which areas are limited to certain depths for excavation.
2. The concrete cap was not routinely inspected as part of the facility wide monthly inspection process in the past. The facility was made aware that in order to maintain the effectiveness of this control the facility must perform periodic inspection and maintenance to ensure the integrity of the cap. As a result, the facility will add the concrete cap to their monthly inspection and record observations on their monthly inspection checklist. The Department recommended that repairs be made to the cap to patch minor potholes observed during the site walk through.
3. The facility continues to maintain a "Declaration of Restrictive Covenants", which is attached to the facility's land deed at the Clerk's Office of the Circuit Court of Pittsylvania

County. This covenant details certain land use restrictions for the protection of current and future users.

4. The facility met its remedial goal for soil in 2013. Therefore the ISCO system has been shutdown. However, the system remains onsite in the event its use becomes necessary in the future.
5. The facility continues to monitor groundwater in accordance with the approved SAP and CMI Plan and will continue to monitor groundwater until remedial goals for groundwater are attained.
6. The groundwater water pump and treat system is operating and functioning properly.

In conclusion, the Department acknowledges that the facility's groundwater monitoring program is being implemented adequately. Sampling procedures and management of purge water generated during sampling activities are accurately represented in the facility's SAP and CMI Plan. Analytical data generated by the program is representative and meets data quality objectives. In addition, ICs and ECs required for the protection of human health as part of the facility's final remedy are being implemented adequately. Please provide the Department correspondence confirming that the necessary repairs have been made to the concrete cap within fifteen (15) days of completing the repairs. Please feel free to contact me if you have any questions or concerns at (804) 698-4219 or brett.fisher@deq.virginia.gov.

Sincerely,

Brett Fisher

Brett Fisher, P.G.
RCRA CA Project Manager
Office of Remediation Programs

Enclosure: Groundwater Results Comparison Table

Cc: Andrea Barbieri – EPA Region III (3LC50)
Aziz Farahmand – DEQ BRRO
Jutta Schneider, Angela Alonso, file – DEQ CO
Conan Fitzgerald, P.E. - URS

Groundwater Results Comparison Table

Virginia Department of Environmental Quality

2014 O&M Inspection and Groundwater Split Sampling

CCP Composites VAD055046049

	PZ-8R			PZ-11			PZ-13			PZ-14			SW-2		
Constituent	Facility	DEQ	RPD	Facility	DEQ	RPD	Facility	DEQ	RPD	Facility	DEQ	RPD	Facility	DEQ	RPD
Acetone	**120**	**140**	-15.38	<3	**10.6**		<3	<7		<15	<7		<3	<7	
Benzene	**1.2**	**1.18**	1.68	**2.8**	**2.97**	-5.89	<0.1	<0.3		**9.7**	**11.1**	-13.46	<0.1	<0.3	
Bromodichloromethane	<0.1	<0.3		<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
Bromoform	<0.1	<0.5		<0.1	<0.5		<0.1	<0.5		<0.5	<0.5		<0.1	<0.5	
Bromomethane	<0.1	<0.3		<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
2-Butanone	**7.5**	**8.76**	-15.50	<1	<0.6		<1	<0.6		<5	<0.6		<1	<0.6	
n-Butylbenzene	<0.1	<0.3		<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
sec-Butylbenzene	<0.1	<0.4		<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
Carbon Disulfide	<0.4	<0.6		<0.4	<0.6		<0.4	<0.6		<2	<0.6		<0.4	<0.6	
Carbon Tetrachloride	<0.1	<0.4		<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
Chlorobenzene	<0.1	**0.42**		<0.1	<0.4		<0.1	<0.4		**0.8**	**0.68**	16.22	<0.1	<0.4	
Chloroethane	<0.1	<0.4		<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
Chloroform	**1.4**	**1.24**	12.12	<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
Chloromethane	<0.2	<0.5		<0.2	<0.5		<0.2	<0.5		<1	<0.5		<0.2	<0.5	
1,2-Dibromo-3-chloropropane	<0.2	<0.8		<0.2	<0.8		<0.2	<0.8		<1	<0.8		<0.2	<0.8	
Dibromochloromethane	<0.1	<0.7		<0.1	<0.7		<0.1	<0.7		<0.5	<0.7		<0.1	<0.7	
1,2-Dibromoethane	<0.1	<0.3		<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
1,2-Dichlorobenzene	<0.1	<0.2		<0.1	<0.2		<0.1	<0.2		<0.5	<0.2		<0.1	<0.2	
1,3-Dichlorobenzene	<0.1	<0.2		<0.1	<0.2		<0.1	<0.2		<0.5	<0.2		<0.1	<0.2	
1,4-Dichlorobenzene	**0.3**	<0.4		<0.1	<0.4		<0.1	<0.4		**0.5**	**0.58**	-14.81	<0.1	<0.4	
Dichlorodifluoromethane	<0.1	<1		<0.1	<1		<0.1	<1		<0.5	<1		<0.1	<1	
1,1-Dichloroethane	**0.5**	**0.55**	-9.52	<0.1	<0.4		**0.2**	<0.4		**0.9**	**0.95**	-5.41	<0.1	<0.4	
1,2-Dichloroethane	<0.1	<0.9		<0.1	<0.9		<0.1	<0.9		<0.5	<0.9		<0.1	<0.9	
1,1-Dichloroethene	<0.1	<0.3		<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
cis-1,2-Dichloroethene	**0.1**	<0.4		**0.1**	<0.4		<0.1	<0.4		**2.3**	**2.59**	-11.86	<0.1	<0.4	
trans-1,2-Dichloroethene	<0.1	<0.4		<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
1,2-Dichloropropane	<0.1	<0.6		<0.1	<0.6		<0.1	<0.6		<0.5	<0.6		<0.1	<0.6	
cis-1,3-Dichloropropene	<0.1	<0.2		<0.1	<0.2		<0.1	<0.2		<0.5	<0.2		<0.1	<0.2	
trans-1,3-Dichloropropene	<0.1	<0.5		<0.1	<0.5		<0.1	<0.5		<0.5	<0.5		<0.1	<0.5	
Ethylbenzene	**380**	**463**	-19.69	**22**	**18.2**	18.91	**0.2**	**0.3**	-40.00	**56**	**62.3**	-10.65	<0.1	<0.2	
2-Hexanone	<1	<0.4		<1	<0.4		<1	<0.4		<5	<0.4		<1	<0.4	
Isopropylbenzene	**7.9**	**7.11**	10.53	**11**	**10**	9.52	<0.1	<0.2		**2.5**	**2.91**	-15.16	<0.1	<0.2	
p-Isopropyltoluene	**0.1**	<0.2		<0.1	<0.2		<0.1	<0.2		<0.5	<0.2		<0.1	<0.2	
4-Methyl-2-Pentanone	**4.1**	**4.44**	-7.96	<1	<0.3		<1	<0.3		<1.5	<0.3		<1	<0.3	
Methylene Chloride	<0.2	<1		<0.2	<1		<0.2	<1		<1	<1		<0.2	<1	
n-Proplybenzene	<0.1	<0.2		**0.1**	<0.2		<0.1	<0.2		<0.5	**0.35**		<0.1	<0.2	
Styrene	<0.1	**1.08**		<0.1	<0.2		<0.1	<0.2		<0.5	<0.2		<0.1	<0.2	
1,1,2,2-Tetrachloroethane	<0.1	<0.4		<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
Tetrachloroethene	**0.5**	**0.41**	19.78	<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
Toluene	**11**	**10.3**	6.57	**0.2**	<0.4		**0.1**	<0.4		**1.2**	**1.33**	-10.28	<0.1	<0.4	
1,2,4-Trichlorobenzene	<0.1	<0.5		<0.1	<0.5		<0.1	<0.5		<0.5	<0.5		<0.1	<0.5	
1,1,1-Trichloroethane	**0.2**	<0.7		<0.1	<0.7		<0.1	<0.7		<0.5	<0.7		<0.1	<0.7	
1,1,2-Trichloroethane	<0.1	<0.5		<0.1	<0.5		<0.1	<0.5		<0.5	<0.5		<0.1	<0.5	
Trichloroethene	**0.5**	**0.41**	19.78	<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
Trichlorofluoromethane	<0.1	<0.4		<0.1	<0.4		<0.1	<0.4		<0.5	<0.4		<0.1	<0.4	
1,3,5-Trimethylbenzene	<0.1	<0.2		<0.1	<0.2		<0.1	<0.2		**0.5**	**0.47**	6.19	<0.1	<0.2	
Vinyl Chloride	<0.1	<0.3		<0.1	<0.3		<0.1	<0.3		<0.5	<0.3		<0.1	<0.3	
Xylenes	**420**	**458**	-8.66	**1**	**1.21**	-19.00	**1.4**	**1.58**	-12.08	**1900**	**1930**	-1.57	<0.1	<0.5	

Notes:

1. Units in ug/l
2. Shaded cells = Comparable data points, no %RPD calculated
3. NC = Non-comparable data points
4. Bold text = Detection above method detection limit
5. <(1) = Below method detection limit
6. RPD > 30% = Non-comparable