COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE
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Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

May 2, 2019

Mr. Mike Jones
Charlottesville Oil Company, Inc.
PO Box 6340
Charlottesville, VA 22906
(Sent via email only)

Re: Petroleum Release – Toddsbury of Ivy, 4297 Ivy Road, Albemarle County
Facility FAC ID: 6-015515
Decision to Close Case, DEQ Tracking Number: PC# 2001-6134

Dear Mr. Jones:

Based on a review of the file associated with the above-reference investigation, **this case is considered to be closed,** and no further investigation or corrective action is required at this time. Should significant environmental, health or safety problems develop in the future, additional testing and/or corrective action may be required in accordance with applicable State and Federal regulations.

In accordance with 12 VAC 5-630-450 of the Virginia Department of Health Private Well Regulations, **the monitoring wells installed in conjunction with this investigation should be properly abandoned within 90 days to prevent future degradation of groundwater at the site. Please properly abandon the monitoring wells and provide a brief report of the abandonment procedures to this office by August 2, 2019.** Since the monitoring well was installed to meet regulatory requirements administered by DEQ, no permits or fees are required by the local health department. Well abandonment is a reimbursable activity if the proper preapproval protocol is followed. In order for the work to be eligible for reimbursement, an Activity Authorization Form (AAF) must be submitted to, and approved by, our office **prior** to closure activities abandonment.

Virginia Law prohibits the payment of corrective action and third party liability reimbursement claims which are filed more than two years after DEQ closes a case. **All claims for this release must be received by DEQ no later than May 2, 2021 in order to be eligible**

for reimbursement. Thank you for your continued patience and cooperation. If you have any questions or concerns or if we can be of further assistance, please contact David Fitt at (540) 574-7851 or david.fitt@deq.virginia.gov.

Sincerely,

T.A. Pitsenberger

Todd A. Pitsenberger
Petroleum Program Manager

cc: Petroleum Remediation File
Jeff Sitler (JAS) – via email

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY
VALLEY REGIONAL OFFICE

4411 Early Road Harrisonburg, VA 22801

SUBJECT: PC 01-6134 – RECOMMENDATION FOR CASE CLOSURE
FAC ID#: 6-015515
SITE NAME: Toddsbury of Ivy
LOCATION: 4297 Ivy Road, Ivy, Albemarle County
TO: UST File
FROM: David A. Fitt DAF
DATE: May 2, 2019

Case Initiation: 2/8/2001 – Compliance Inspector reported three inconclusive SIRs for the 3,000-gallon regular gasoline UST and two inconclusive SIRs for the 3,000-gallon plus gasoline UST. No previous PC investigations have been performed at this facility.

Work Requested/Performed: DEQ requested a site check, which included soil borings adjacent to the dispenser island and piping trench. The samples were collected approximately 18 inches below grade and analyzed for TPH-GRO. Based upon the results, DEQ requested submission of an SCR to include installation of three monitoring wells. The SCR was submitted in January 2002 with documentation of groundwater contamination, including impact to the onsite potable water supply well. A CFU was installed following Culligan's assessment of the well. The first SCR Addendum included installation of a fourth monitoring well and sampling of the creek in multiple locations. Based upon the widespread presence of MTBE concentrated around the tank basin (but no free product), DEQ requested one year of quarterly monitoring which concluded in mid-2003. A second year of monitoring was requested which included pumping on the most contaminated wells in an attempt to determine if free product was present on the groundwater. Following the third monitoring report of the second year, the consultant recommended that a Corrective Action Plan (CAP) be developed. DEQ requested CAP development in early 2004.

The CAP submitted in June 2004 proposed a low-flow pump-and-treat system pumping from two severely impacted monitoring wells. DEQ requested an amendment to the proposed CAP that was submitted in two parts, one in December 2004 and the other in March 2005. DEQ approved the CAP on March 10, 2005. Two of the three tanks at the facility were voluntarily removed from the ground (the third tank was oriented under a portion of the structure preventing its removal) by the RP in September 2005 which was documented in a Phase II Initial Abatement Measures Report dated October 4, 2005. A total of 578.69 tons of highly contaminated soil was removed for disposal at Reco Biotechnology in Richmond. Groundwater extraction piping was installed in the tank basin to enhance recovery. A fifth monitoring well was also installed at that time adjacent to the tank basin. New tanks were installed at the facility in January 2006 that prompted the removal of an additional 583.41 tons of contaminated soil down-gradient of the previous tank basin location. Documentation of CAP Implementation was submitted to DEQ in May 2006 following system start-up. The system consisted of a cargo trailer contained SVE system with an oil-water separator and aeration drums. Water was pumped from multiple extraction points (MW-2 and MW-5) and discharged to an infiltration trench installed in the vicinity of the former tank basin above the known contaminant plume. The CAP endpoints included CFU removal from the on-site potable well (or provisions for replacement if the well concentrations warrant) and the treatment endpoints of 1,000 µg/L for benzene and MTBE in groundwater beneath the site for two consecutive quarters.

The system was in service from May 2006 until August 2013. In December 2007, the potable well was connected to the treatment system so it could pump and treat contaminated water in the potable well at a rate of 0.5 gallons per minute as deemed necessary. SVE operation was stopped in November 2008 based upon the asymptotic petroleum vapor concentrations measured in the vadose zone. MW-6, a deeper MW installed to a depth of 80 feet below grade, was added as a groundwater extraction point in June 2009. With extraction from MW-6, the air stripping capabilities of the treatment system were augmented. Pumping from MW-6 ceased in March 2012 based upon no detections of MBTEXN in the potable well for several quarters. By September 2012, the contamination was again observed in the potable well, thus pumping and treating from MW-6 was restarted.

In August 2013, potable wells at 4272 and 4282 Ivy Road yielded analytical data indicating petroleum contamination. Those properties are adjacent to the Ivy Exxon (FAC ID: 6-028008). The contamination initiated a case at the Exxon (PC: 13-6113). At that time, Albemarle County was contacted about a possible municipal waterline extension to address the three impacted potable wells. As part of that investigation, groundwater investigation was performed at the subject site before the December 2013 CAPI report was submitted. Three monitoring wells, two deep and one shallow, were installed at the subject site. Data collected at the two facilities was not conclusive regarding responsibility for the identified potable well impacts. In April 2016, the on-site potable well was statistically analyzed for CFU deactivation and qualified for CFU removal. In September 2016, DEQ decided not to pursue the waterline extension. In February 2017, the state contractor removed the CFU from the property. No additional investigation or remediation was performed or required at the site.

Nature/Extent of Contamination: Widespread residual-phase contamination was identified during the tank closure and tank installation activities. Between the excavation and disposal of more than 1,000 tons of contaminated soil and SVE activities, any remaining soil contamination is minor and is not considered to be significantly impacting groundwater any longer. Dissolved-phase contamination in the shallow aquifer was also significant in two particular locations - adjacent to the former tank basin and 40 feet east of the former tank basin. MW-2 yielded MTBE concentrations as high as 56,000 µg/L and benzene as high as 11,500 µg/L. The shallow groundwater contamination was nearly cleaned up as remedial activities ceased. After the treatment system was shut down in 2013, MW-2 yielded no MTBE or benzene concentrations above the detectable limits. Dissolved-phase contamination within the on-site potable well indicated a deeper aquifer impact, but only minor, with maximum MTBE concentrations less than 15 µg/L and benzene concentrations less than 4 µg/L. The potable well concentrations have not been detectable since 2014.

The discovery of dissolved-phase impact to potable wells east of the site across Route 250 prompted additional deep aquifer characterization at the site. The two deep monitoring wells were both impacted by dissolved-phase contamination, with the worst being down-gradient of the former tank basin where MTBE concentrations were detected at a maximum of 9,800 µg/L, and less significant BTEX contamination, maximum concentrations of 7,782 µg/L of which benzene was only 108 µg/L. Between data collected at the subject site and at the Ivy Exxon facility, deep aquifer contamination appears to be heading easterly and likely becoming combined beneath the Ivy Exxon. The deep aquifer is recharged via fractured bedrock beneath the site. Ivy Creek which runs through the southeast portion of the property did not yield detectable petroleum concentrations. A rudimentary groundwater sampling point, a hand dug hole near the edge of the creek, yielded MTBE concentrations less than 5 µg/L in the early stages of remedial efforts, but was BDL afterwards.

Receptors/Risk Assessment: The site and surrounding area utilize groundwater wells for potable water supplies. The on-site well was impacted for nearly 13 years, but has yielded no detectable petroleum concentrations since 2014 and is no longer considered at risk from this release. The impact to the potable wells at 4272 and 4282 Ivy Road may or may not have been impacted by the contamination from the subject site, however, considering the contamination from and proximity to the Ivy Exxon; those impacts are being addressed by PC 13-6113. Although several other potable wells were identified during this investigation, they are not considered at risk based upon estimated groundwater flow direction and remedial efforts. Ivy Creek is located approximately 200 feet south of the former tank basin; however, sampling indicates that the creek has not been impacted by this release of petroleum. The structure on the subject site is slab-on-grade; however, no vapor impact was ever observed and based upon the excavation and remedial activities future vapor risk associated with this release is minimal. No underground utilities were identified to be at risk from the contamination beneath the site. Based upon the investigation performed, this release is no longer considered to pose a significant risk to human health or the environment.

Recommendation: No further action and case closure.

CONCURRENCES							
SYMBOL	Petroleum	Petroleum					
SURNAME	Fitt	Gregory L. Clark					
DATE	5/2/2019	5-2-19	5/2/19				