



MAY 08 2018



JERRY AYCOCK
PLANTATION PIPE LINE
1000 WINDWARD CONCOURSE
SUITE 450
ALPHARETTA GA 30005

Re: Reviews of Misc. Reports, Response to Comments Document, Free Product Recovery Plan, Product Recovery Skimmer Results and Request for Well Permit.
Plantation Pipe Line Lewis Drive Release, 112 Lewis Dr., Belton, SC
Anderson County
Site #18693
Petroleum Pipe Line Release Reported December 8, 2014
Nov. & Dec. 2017 Monthly Status Update received Dec. 27, 2017 and Jan. 22, 2018
Jan. & Feb. 2018 Monthly Status Update received Mar. 1, and Mar. 28, 2018
Fourth Quarter 2017 Monitoring Report received February 28, 2018
Meetings with Plantation Pipe Line and CH2M held Jan. 22, 2018 & Mar.7, 2018
Response to Comments (Quality Assurance Project Plan: Rev. 4) received February 12, 2018
Free Product Recovery Plan: Revision 4 received February 7, 2018
Product Recovery Skimmer Results received March 23, 2018
Request for Well Permit to Install Additional Monitoring Wells received March 27, 2018

Dear Mr. Aycock,

The South Carolina Department of Health and Environmental Control (Department) has reviewed the referenced documents. Comments and requests organized by document are as follows:

Monthly & Quarterly Reports

- 1) The January 2018 Monthly Status Update notes insufficient water in the following groundwater monitoring wells:

- MW-7: 8 out of a total of 10 sampling events
- MW-13: 4 out of a total of 6 sampling events
- MW-17: 9 out of a total of 10 sampling events
- MW-19: 7 out of a total of 10 sampling events
- MW-22: 11 out of a total of 13 sampling events
- MW-28: 8 out of a total of 15 sampling events
- MW-30: 7 out of a total of 12 sampling events
- MW-44: 3 out of a total of 4 sampling events
- MW-45: 12 out of a total of 21 sampling events

As discussed in the March 7, 2018 meeting, these wells were selected to monitor the effectiveness of the corrective action, as described within the corrective action plan addendum (CAPA). In that these wells

are not providing consistent data, an alternative approach to monitor the effectiveness of the CAPA must be provided or replacement wells installed. **A plan to address this issue should be provided within 30 days of this correspondence.**

- 2) In the future, the Department requests copies of field data sheets be provided with laboratory data.

Response to Comments (Quality Assurance Project Plan (QAPP))

The following will need to be addressed in a revision within 30 days of this correspondence. Any changes should be provided in a different colored font.

- 3) Section A8.3.1 (Groundwater Sampling SOP)

The Department understands that sampling collection details are recorded in logbooks and field sampling sheets, as stated in the response to comments. However, the QAPP should state that the time of purging and sampling will be documented on the field log regardless of the length of time between purging and sampling rather than only "if excess time (greater than 10 hours) is required for slow recharging wells to recharge, it will be documented in the field log". Additionally, it would be beneficial to provide an example field data sheet within the QAPP.

Free Product Recovery Plan: Revision 4 / Product Recovery Skimmer Results

- 4) The above-referenced Free Product Recovery Plan: Revision 4 proposes using passive skimmers and absorbent socks in monitoring wells, recovery wells and recovery sumps. Further, this document proposes abandonment of all one inch piezometers. During the March 7, 2018 meeting, PPL stated that changes to the free product recovery plan included within the approved CAPA had already taken place (in the form of a study), as outlined in the Free Product Recovery Plan: Revision 4. PPL shared that skimmers and absorbent socks were installed in numerous monitoring wells, recovery wells, recovery sumps, and recovery trench points. The results of this study were provided in the above-referenced March 23, 2018 Product Recovery Skimmer Results document which states that PPL plans to continue product recovery events using the new methods that allow the volume of product to be measured by well rather than total recovery, as previously identified. Further, frequency of product recovery events would be expanded from weekly to monthly.

To clarify, during the January 22, 2018 meeting, the Department discussed the possibility of peristaltic skimmers, not passive skimmers and absorbent socks. Recovery of product from monitoring wells was not discussed. The Department agrees to PPL's proposal to use skimmers within recovery wells, recovery sumps, and recovery trenches with monthly collection. The Department does not concur with removal of product from monitoring wells, as the purpose of monitoring wells is to monitor the effectiveness of the corrective action system. All skimmers or absorbent socks must be removed from monitoring wells. Further, if the skimmers or absorbent socks are routinely full or saturated during monthly measurement and product recovery, the frequency of recovery may need to be adjusted or a different recovery method evaluated. In the future, no changes to the CAPA or studies should be conducted prior to approval from the Department.

As further discussed during the March 7, 2018 meeting, the Department understands that PPL would like to continue with the plan to abandon all the one inch piezometers at the site. As these piezometers have value as a resource to monitor the free phase petroleum levels in key areas and are beneficial as a measure of comparison due to their existence near the initiation of site assessment, the Department does not concur with the removal of all piezometers. The Department requires that TW-55, TW-59, TW-60, TW-64, TW-66, TW-67, TW-73, TW-96 remain intact as they are incorporated within the approved CAPA for monitoring. The Department also requests that TW-28, TW-41, TW-42, TW-45, TW-46, TW-59, and TW-94 remain intact for routine free product gauging and groundwater elevation measurement due to their location and / or importance regarding free product measurement data.

Receptor Survey & Request to Routinely Sample Lewis/ Chandler AG Well

- 5) Due to settlement agreement terms between PPL and Scott Lewis, the site property owner, PPL does not consider the Chandler-AG well to be a potential receptor and does not intend to update the receptor survey, as requested by the Department. In regard to the Department's request to sample the Chandler-AG well routinely on a quarterly basis, PPL provided documentation asserting the source of the contamination in the Chandler-AG is not gasoline, and differs from the contamination found in groundwater collected from groundwater monitoring well MW-40. Therefore, PPL has stated it will not add the Chandler-AG well to routine sampling. The Department will recognize the Chandler-AG well as a potential receptor and may find it necessary to sample this well in the future.

Shallow Bedrock Zone Biosparging Pilot Study Plan

- 6) During the January 22, 2018 meeting, PPL stated that they planned on delaying the Shallow Bedrock Zone Biosparging Pilot Study Plan approved in the December 14, 2017 correspondence (Coleman to Aycock) until April 2018. The Future Activities Section within the February 2018 Monthly Status Update lists the implementation of the bedrock sparging pilot study. The Department requests that PPL propose dates for initiation of the study and submittal of the comprehensive pilot study report.

Request to Install Additional Monitoring Wells

- 1) The Department approves the installation of groundwater monitoring wells MW-51-MW-54 contingent upon the following:
 - a) Groundwater samples are not collected for a minimum of 7 days after new wells are installed and developed in order to allow the aquifer to equilibrate so that a sample representative of the aquifer is collected as required by the South Carolina Well Standards (R.61-71).
 - b) All wells are surveyed to the USGS Benchmark and the point used documented.

Attached please find the required monitoring well approval for the installation of MW-51-MW-54.

Documents should continue to be provided in paper format and pdf via a disk with Site ID # 18693 and Plantation Pipe Line Lewis Drive Release noted in a prominent location. Should you have any questions, I can be reached at (803) 898-0628 or colemajb@dhec.sc.gov. Faxes can be sent to (803) 898-0673.

Sincerely,



Bobbi Coleman, Hydrogeologist
Assessment & Unregulated Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Enc: MWA # 11508

CC: Chris McCluskey, Upstate EA Region Anderson Office (w. / enc.)
William Waldron, CH2M Hill, 3120 Highwoods Blvd., Suite 214, Raleigh, NC 27604 (w. / enc.)
Gary Poliakoff, Poliakoff & Associates, PO Box 1571, Spartanburg, SC 29304 (w. / enc.)
Scott Lewis, 15 Edgewood Dr., Williamston, SC 29697 (w. / enc.)
Eric Lewis, 421 Reedy Fork Rd., Greenville, SC 29605 (w. / enc.)
Technical File (w. / enc.)



Monitoring Well Approval Form

Approval is hereby granted to: CH2M
(On behalf of): Plantation Pipeline
Facility: Plantation Pipeline Lewis Drive Release, 112 Lewis Dr., Belton SC
Site ID Number: 18693
County: Anderson

This approval is for the installation of four shallow monitoring wells, designated as MW-51-MW-54, as requested in a March 27, 2018 correspondence. These wells must be installed following the South Carolina Well Standards, R.61-71 and all applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.
5. If any of the information provided to the Department changes, notification to Bobbi Coleman (tel: (803) 898-0628 or e-mail: colemaj@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells, sumps, and trenches shall be abandoned within 30 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. Department approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated May 27, 2016. A copy of this approval should be on the site during well installation.

Date of Issuance: April 11, 2018

Approval #: MW-11508

Bobbi Coleman, Hydrogeologist
Assessment & Unregulated Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management