

July 2025
Monthly Progress Update
Former Circle K 1461, Seattle, WA

Purpose.

To provide monthly progress updates under Contract: C2400059 to the State of Washington, Department of Ecology on work progress, upcoming activities, schedule updates, and deliverable status.

This Monthly Progress Update Report for the period covering 01 July 2025 through 31 July 2025 for the Former Circle K 1461 Site in Seattle, WA.

Summary of operations, monitoring, and maintenance activities performed during the reporting period.

- ERRG continued operation, monitoring, and maintenance of the system under Phase 1 conditions.
- ERRG performed monitoring and sampling as follows:
 - Task 3, Subtask 3B – monthly vapor monitoring of vapor treatment system for VOCs using PID on July 2, 2025, July 11, 2025, July 18, 2025, and July 25, 2025.
 - Task 3, Subtask 3B – monthly vapor monitoring of active extraction wells for VOCs using PID on July 2, 2025.
 - Task 3, Subtask 3B – quarterly vapor monitoring of SSD wells for VOCs and additional gases using PID and 4-gas meter on July 2, 2025.
 - Task 3, Subtask 3C – weekly water treatment sampling performed at midpoint of liquid GAC vessel trains for BTEX on July 2, 2025, July 11, 2025, July 18, 2025, and July 25, 2025.
- Upon arrival to site on July 18, 2025, system was offline since Wednesday July 16, 2025 around 2PM (shut off time calculated from pump hour difference between last site visit).
- Alarm condition on HMI indicated low vacuum (since system was not in operation), after resetting the alarm, the system returned to operation and no issues were observed.
- No alerts were received for alarm condition, which indicate system most likely shutdown due to power fluctuations resulting from hot temperatures during the week.
- ERRG coordinated with PRM to correct telemetry issues and restore alert notifications.
- After restarting the system, vapor concentrations at the influent, midpoint, and effluent were measured as follows: 226.2ppm, 118.8ppm, 24.4-30.8ppm with the control efficiency at approximately 86-89%.
- A weekly midpoint sample for BTEX was collected on July 18, 2025 prior to shutting the system after verifying that the vapor GAC effluent did not meet the 97% control efficiency or <10 ppm.
- Previous week measurements on July 11, 2025 for influent and effluent were 404 ppm and 2.6 ppm, respectively (99% removal efficiency).
- ERRG shutdown system until carbon change out was completed on July 24, 2025.
- Virgin coconut carbon was installed in the two 2,000-lb Vapor GAC vessels on July 24, 2025 and the spent carbon was packaged and transported offsite for reactivation and reuse by carbon vendor (Pacific Coast Carbon).
- ERRG restarted the system on July 24, 2025.
- On July 25, 2025, KCIW approved reduction in sampling frequency for self-monitoring reporting requirements, monthly sampling was reduced to quarterly and weekly sampling was reduced to monthly.

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Summary of system performance:

- System flows range from 82.6 to 98.7 cfm.
- Approximately 9,412 gallons of treated water was discharged.
- System vapor concentrations presented in table below.

Analyte	Inlet Concentration	Effluent Concentration	Control Efficiency ¹
PID calibrated to isobutylene (x 3.4 hexane conversion factor) – Vapor GAC July 2, 2025	303.8 ppm x 3.4 = 1,032.92 ppm	1.1 ppm x 3.4 = 3.74 ppm	98.77%
PID calibrated to isobutylene (x 3.4 hexane conversion factor) – Vapor GAC July 11, 2025	404 ppm x 3.4 = 1,373.6 ppm	2.6 ppm x 3.4 = 8.84 ppm	99.36%
PID calibrated to isobutylene (x 3.4 hexane conversion factor) – Vapor GAC July 18, 2025	226.2 ppm x 3.4 = 769.08 ppm	30.8 ppm x 3.4 = 104.72 ppm	86.38%
PID calibrated to isobutylene (x 3.4 hexane conversion factor) – Vapor GAC July 25, 2025	128.6 ppm x 3.4 = 437.24 ppm	0.3 ppm x 3.4 = 1.02 ppm	99.77%

Notes:

1. The control efficiency of the MPE system abatement device shall meet the following requirements, as applicable:
- ≥97% if inlet TPH ≥ 200 ppmv, measured as hexane or its equivalent; or,
 - ≥90% if inlet TPH < 200 ppmv, measured as hexane or its equivalent; or
 - ≤10 ppmv at the outlet of the control device, measured as hexane or its equivalent.

N/A = not applicable

PID = photoionization device

ppm = parts per million

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Summary of operations, monitoring, and maintenance activities to be performed in the next month.

- ERRG to continue operation of system and perform monitoring and sampling as follows:
 - Task 1 – perform monthly and as-needed O&M activities for Phase 1 operation with Vapor GAC treatment.
 - Task 3, Subtask 3B – monthly vapor monitoring for VOCs with PID at vapor treatment system (Vapor GAC) influent, midpoint and effluent and active extraction wells.
 - Task 3, Subtask 3B – quarterly vapor monitoring for VOCs and additional gases with PID and 4-gas meter at vapor pins.
 - Task 3, Subtask 3B – quarterly vapor sampling for VOCs with summa canisters at vapor treatment system (Vapor GAC) influent and effluent.
 - Task 3, Subtask 3B – as-needed vapor sampling for VOCs with summa canisters at vapor pins and SSD locations.
 - Task 3, Subtask 3C – monthly water treatment sampling performed at midpoint of liquid GAC vessel trains for BTEX.
 - Task 3, Subtask 3C – quarterly water treatment sampling performed at influent, midpoint, and effluent of liquid GAC vessel trains for BTEX, GRO, FOG, and select CVOCs.
 - Task 3, Subtask 3D – quarterly groundwater monitoring and sampling for BTEX, GRO, and select CVOCs.
- ERRG to submit the following deliverables:
 - EIM uploads pending validated data for samples collected through May 2025.
 - August 2025 Monthly progress update
 - Second Quarter 2025 Remedial Evaluation Report

Comparison of work completed to scheduled activities.

- Operation, monitoring, and maintenance activities completed as required when system was active.
- System was offline from July 16, 2025 to June 18, 2025 due to power surge disrupting system operation.
- System was restarted on July 18, 2025 and required shutdown after failing to meet control efficiency requirements.
- System was offline from July 18, 2025 to July 24, 2025 awaiting carbon vendor changeout.

Potential problems identified and suggested resolutions.

- Limited extraction to approximately 4 extraction wells in order to maintain adequate vacuum and to minimize influent concentrations to vapor GAC vessels to extend life of carbon.
- Consider shifting into Phase 2 extraction and chemical injections due to limited active wells.

Deliverables submitted during the reporting period.

- KCIW June 2025 Self-Monitoring Report on July 15, 2025.
- June Monthly Progress Update on July 16, 2025.

EIM field and laboratory analytical results submitted during the reporting period.

- No EIM data uploaded in July 2025.
- Laboratory results submitted:
 - June 2025 water treatment system analytical results