

March 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 March 2025 through 31 March 2025 for the Former Circle K 1461 Site in Seattle, WA.

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

- Glacier handed off system operation of system to ERRG on March 4, 2025.
- Glacier continued to complete remaining contractual items as needed.
- ERRG performed monitoring and sampling as follows:
 - Task 3, Subtask 3B – vapor sampling with summa canisters at vapor treatment system (Falco 300) influent and effluent for TO-15 on March 24, 2025
 - Task 3, Subtask 3B –vapor monitoring of vapor treatment system and extraction wells for VOCs using PID on March 7, 2025.
 - Task 3, Subtask 3C - water treatment sampling performed at influent, midpoint, and effluent of liquid GAC vessel trains for GRO, VOCs, and FOG on March 21, 2025.
 - Task 3, Subtask 3D – Phase 1 month 2 groundwater sampling performed at 13 wells for GRO and BTEX, as well as select chlorinated VOCs on March 28, 2025.

Summary of system performance:

- System flows range from 82.9 to 102 cfm.
- Approximately 18,371 gallons of treated water was discharged.
- Catalytic oxidizer internal temperature remained above 650 °F.
- System vapor concentrations presented in table below.

Analyte	Inlet Concentration	Effluent Concentration	Control Efficiency ¹	Influent Emission ^{2,3}	Influent Rates to Operate without Controls ²	Effluent Emissions ³	SQER ³	Di Minimis ³
PID calibrated to isobutylene (x 3.4 hexane conversion factor)	212 ppm x 3.4 = 720.8 ppm	1.1 ppm x 3.4 = 3.74 ppm	98.39%	N/A	N/A	N/A	N/A	N/A
TPH (GRO)	300,000 µg/m ³	1,000 µg/m ³	99.67%	2.70 lb/24-hr	2.74 lb/24-hr	3.28 lb/year	N/A	N/A
n-hexane	18,500 µg/m ³	308 µg/m ³	98.34%	0.166 lb/24-hr	N/A	0.0028 lb/24-hr	52 lb/24-hr	2.6 lb/24-hr
Benzene	6,900 µg/m ³	9.97 µg/m ³	99.85%	0.062 lb/24-hr	0.018 lb/24-hr	0.033 lb/year	21 lb/year	1.0 lb/year

Notes:

1. The control efficiency of the MPE system abatement device shall meet the following requirements, as applicable:
 - a. ≥97% if inlet TPH ≥ 200 ppmv, measured as hexane or its equivalent; or,
 - b. ≥90% if inlet TPH < 200 ppmv, measured as hexane or its equivalent; or
 - c. ≤10 ppmv at the outlet of the control device, measured as hexane or its equivalent.
 2. The owner or operator may operate the soil vapor extraction system without any controls when inlet sampling data from two or more consecutive months shows all of the following:
 - a. Pre-control TPH emission rate is equal to or less than 2.74 lbs/day
 - b. Pre-control Benzene emission rate is equal to or less than 0.018 lbs/day.
 3. Estimated emissions based on system flow 100 cubic feet per minute.
 4. SQER and Di Minimis values provided in their respective averaging period
- N/A = not applicable
 MPE = multiphase extraction
 PID = photoionization device
 ppm = parts per million
 SQER = small quantity emission rate
 TPH = total petroleum hydrocarbons

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$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

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 weekly and as-needed O&M activities for Phase 1 operation with catalytic oxidizer treatment.
 - Task 3, Subtask 3B – vapor sampling with summa canisters at vapor treatment system (Falco 300) influent and effluent for TO-15
 - Task 3, Subtask 3B– vapor monitoring with summa canisters at vapor treatment system (Falco 300) influent and effluent and extraction wells
 - Task 3, Subtask 3D – groundwater monitoring and sampling for GRO, BTEX, and select chlorinated VOCs.
- Glacier to perform final punch list of contractual items.
- Glacier to remove and ship catalytic oxidizer April 15, 2025.
- ERRG to switch operations using vapor GAC vessels for treating system vapor.
- ERRG to submit the following deliverables:
 - EIM uploads pending validated data for samples collected through March 2025.
 - April 2025 Monthly progress update
 - Monthly remedial progress evaluation report for Phase 1 covering activities through January 2025.
 - KCIW April 2025 Self-Monitoring Report.

Comparison of work completed to scheduled activities.

- Operation, monitoring, and maintenance activities completed as required.

Potential problems identified and suggested resolutions.

- Ecology to submit notice to PSCAA about chlorinated VOCs detected in system vapor samples.

Deliverables submitted during the reporting period.

- KCIW February 2025 Self-Monitoring Report on March 15, 2025.
- January Monthly Progress Update on March 21, 2025.
- February Monthly Progress Update on March 26, 2025.

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

- No EIM data uploaded in March 2025.
- Laboratory results submitted:
 - February 2025 groundwater sampling analytical results.
 - March 2025 water treatment system analytical results
 - March 2025 vapor treatment system analytical results