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Katie Daugherty
Oregon Department of Environmental Quality
Northwest Region 28
700 NE Multnomah St, Suite 600
Portland, OR 97232

DATE
15 July 2025

SUBJECT
Quarter 2, 2025, Progress Report
(April through June 2025)
Arkema Inc. Portland Plant

REFERENCE
0773710.103

Dear Katie Daugherty:

Environmental Resources Management, Inc. (ERM) is submitting this Quarterly Progress Report (QPR) on behalf of Legacy Site Services LLC (LSS), agent for Arkema Inc. (Arkema), to summarize Quarter 2, 2025, activities at the Arkema facility located at 6400 NW Front Avenue in Portland, Oregon.

Paragraph 8(G) of the Order on Consent Requiring Source Control Measures and Feasibility Study between the Oregon Department of Environmental Quality (ODEQ) and LSS, dated 31 October 2008, requires submittal of QPRs. The following progress report summarizes activities for Quarter 2, 2025 (April through June).

Weekly progress summaries for implementation of the stormwater and groundwater source control measures (SCM) have been developed over the duration of the project. The reports for Quarter 2, 2025, are included as Attachment 1 to this QPR for reference, and activities documented in the reports are not duplicated in this letter.

**Actions Taken Quarter 2, 2025 (April through June)**

- 2 April 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding Interim Remedial Action Measure (IRAM) #1.
- 15 April 2025: ERM, on behalf of LSS, submitted the March 2025 monthly Discharge Monitoring Report (DMR) and the Quarter 1 quarterly DMR for the performance monitoring of the stormwater SCM, including supplemental Copper Biotic Ligand Model (BLM) data.
- 15 April 2025: ERM, on behalf of LSS, submitted the February 2025 monthly DMR for National Pollutant Discharge Elimination System (NPDES) permit compliance monitoring of the groundwater extraction and treatment (GWET) system.
- 16 April 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding IRAM #1.

- 23 April 2025: ERM, on behalf of LSS, submitted the February 2025 Monthly Progress Report (MPR) to the ODEQ.
- 25 April 2025: The ODEQ submitted a request to LSS for corrections to the February and March 2025 stormwater SCM Copper BLM data submissions.
- 28 April 2025: ERM, on behalf of LSS, submitted the Quarter 1, 2025, Quarterly Progress Report, to the ODEQ.
- 29 April 2024: ERM, on behalf of LSS, submitted the 2024 GWET System Effectiveness Evaluation (SEE) Report to the ODEQ.
- 30 April 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding IRAM #1.
- 1 May 2025: ERM, on behalf of LSS, submitted revised February and March 2025 stormwater SCM Copper BLM submittals.
- 9 May 2025: ERM, on behalf of LSS, began the Quarter 2, 2025, groundwater monitoring event. The event was completed on 15 May 2025.
- 14 May 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding IRAM #1.
- 19 May 2025: ERM, on behalf of LSS, submitted the March 2025 monthly DMR for NPDES permit compliance monitoring of the GWET system.
- 19 May 2025: ERM, on behalf of LSS, submitted the April 2025 monthly DMR for the performance monitoring of the stormwater SCM, including supplemental Copper BLM data.
- 28 May 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding IRAM #1.
- 29 May 2025: ERM, on behalf of LSS, submitted the Arkema Portland IRAMs and Data Gaps Investigation Timeline to the ODEQ.
- 29 May 2025: ERM, on behalf of LSS, conducted a site walk for potential contractors on IRAM #1.
- 30 May 2025: ERM, on behalf of LSS, shut down the well field for plate separator cleaning. The well field was restarted on 30 May 2025.
- 4 June 2025: ERM, on behalf of LSS, submitted the Quarter 1, 2025, Groundwater Monitoring Report to the ODEQ.
- 6 June 2025: ERM, on behalf of LSS, submitted the Contaminated Materials Management Plan for the upcoming IRAM #1 to ODEQ.
- 9 June 2025: Integral, on behalf of LSS, performed the 2025 supplemental pre-design investigation. The investigation was completed on 30 June 2025.
- 11 June 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding IRAM #1.

- 13 June 2025: ERM, on behalf of LSS, submitted the April 2025 monthly DMR for NPDES permit compliance monitoring of the GWET system.
- 13 June 2025: ERM, on behalf of LSS, submitted the May 2025 monthly DMR for the performance monitoring of the stormwater SCM, including supplemental Copper BLM data.
- 16 June 2025: ERM, on behalf of LSS, submitted the Pre-Final Design Report for IRAM #1 to ODEQ.
- 20 June 2025: ERM, on behalf of LSS, submitted the March 2025 MPR to the ODEQ.
- 25 June 2025: Representatives from ERM and LSS had a biweekly progress call with the ODEQ regarding IRAM #1.
- 27 June 2025: ERM, on behalf of LSS, shut down the well field for plate separator cleaning. The well field was restarted after 3 hours.

**Actions Scheduled for Quarter 3, 2025 (July through September)**

- The QPR for Quarter 2, 2025, will be prepared and submitted.
- LSS will continue to monitor discharges from the stormwater SCM and submit monthly monitoring reports as well as Copper BLM data to the ODEQ.
- LSS will continue to monitor discharges from the groundwater SCM and submit monthly DMRs to the ODEQ.
- LSS will continue optimization of the GWET system as part of the implementation of the groundwater SCM and in accordance with the GWET System Corrective Action Plan and associated updates.
- LSS will conduct routine maintenance on the stormwater SCM.
- LSS will submit monthly status reports consistent with the Performance Monitoring Plan and per the ODEQ letter DEQ Review "Draft GWET System Effectiveness Evaluation Report" (SEE) received on 31 May 2019.
- LSS will conduct groundwater monitoring for Quarter 3, 2025.
- LSS will submit the Quarter 2, 2025, Groundwater Monitoring Report.
- LSS will submit a request for well abandonment in preparation for the IRAM #1 In-Situ Stabilization (ISS) implementation.
- LSS will submit the Performance Monitoring Plan for IRAM #1.
- LSS will submit the ISS Final Design Report.
- LSS will submit the Phase 1 Data Gaps Investigation Work Plan.

**Summary of Validated Data**

- Weekly compliance and quarterly characterization sampling of the GWET system data were received and validated. These data were presented in the respective monthly DMRs.

- Quarter 1, 2025, groundwater monitoring data were reviewed and validated during Quarter 2, 2025. These data are included in Attachment 2 and are presented in the Quarterly Groundwater Monitoring Report for Quarter 1, 2025.
- Quarter 2, 2025, groundwater monitoring event data were collected. These data will be reviewed, validated, and presented in the Quarterly Groundwater Monitoring Report for Quarter 2, 2025.

**Problems Experienced During Quarter**

Specific problems experienced during the GWET system optimization and operation are documented in the attached weekly progress reports. No other problems were experienced during Quarter 2, 2025.

**Closing**

If you have questions or comments pertaining to this progress report, please contact us at (503) 488-5282.

Sincerely,

Chase McLaughlin
Partner

Avery Soplata
Project Manager

Attachments

cc: Todd Slater, LSS
Laura Hanna, USEPA
Matt Stock, Joyce Ziker Parkinson
Lance Peterson, CDM
Karen Traeger, LSS
David Livermore, Integral

# ATTACHMENT 1 QUARTER 2, 2025, WEEKLY PROGRESS REPORTS

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 4 April 2025 to 10 April 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 55.8 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-06, EW-07, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 484,940 gallons or 80 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 4 April 2025: Operator performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Changed out fouled pump at extraction well EW-03.
- Saturday, 5 April 2025: Operator performed general O&M and cycled the filter press twice. Observed floc overflowing the weirs at the plate separator (PS-1). Increased the underflow timer for pump P-PS-1 to 295/300 sec from 260/300 sec. Tank T-7 sludge level high, wasted to a dewatering box. Set up stormwater bottles for upcoming storm.
- Sunday, 6 April 2025: Operator performed general O&M and cycled the filter press.
- Monday, 7 April 2025: Operators performed general O&M and cycled the filter press twice. Collected LGAC check samples and sent to ALS.
- Tuesday, 8 April 2025: Operators performed general O&M and cycled the filter press. Operators observed the site forklift had a hydraulic fluid leak on the left tilt cylinder and was tagged out-of-service. Mobilized to the beach and collected river samples with RC boat. Turned off extraction wells EW-08 and EW-14 to reduce flow rate due to solids handling issue at GWET plant. Operator performed monthly fire extinguisher and eyewash inspections.
- Wednesday, 9 April 2025: Operators performed general O&M and cycled the filter press. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Instructed junior staff how to waste tank T-7 to the dewatering boxes. Restarted extraction wells EW-08 and EW-14. United Rentals onsite to pick up water buffalo, compressor, and long reach forklift. C and E Rentals onsite to drop off a water buffalo and rental forklift and pick up the site forklift for maintenance. Subcontractor (Get On Deck Inc) onsite for site walk to replace the riverbank stairs.

- Thursday, 10 April 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance and stormwater samples and sent to Eurofins. C and E Rentals onsite to drop off a long reach forklift. Changed out malfunctioning transducer at PA-26d and recalibrated. Univar onsite to batch caustic mini-bulk.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **55 gpm,** with recovery / extraction wells EW-01, EW-03, EW-04, EW-05, EW-06, EW-08, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Fouling and to be changed out.
- EW-02: Flowmeter not communicating with PLC, more troubleshooting required.
- EW-03: Pump changed out 4/4.
- EW-06: Started 4/6.
- EW-07: Stopped 4/9 due to low water table.
- EW-09: Off since 3/18. Pump to be redeployed without packer.
- EW-12: Off since 1/29. Pump/motor to be redeployed.

**Transducer Status**

- PA-26d: Changed out malfunctioning transducer and recalibrated.

**Sampling**

- LGAC check samples were collected 7 April 2025 and sent to ALS.
- Weekly compliance samples collected 10 April 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.
- River samples were collected 8 April 2025 sent to Eurofins 9 April 2025.
- Stormwater samples were collected 10 April 2025 and sent to Eurofins.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 11 April 2025 to 17 April 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 44.1 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-06, EW-07, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 366,210 gallons or 61 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 11 April 2025: Operator performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Staff conducted monthly water level event. Injected Trench 6 monitoring well (MWA-88) with 1,000 gallons of hydrant water.
- Saturday, 12 April 2025: Operator performed general O&M and cycled the filter press. Repaired EA-640 batching polymer pump tubing.
- Sunday, 13 April 2025: Operator performed general O&M and cycled the filter press. Turned off Trench 2 (EW-03 and EW-04) due to high sludge level in tank T-7.
- Monday, 14 April 2025: Operators performed general O&M and cycled the filter press twice. Observed plate separator (PS-1) had floc flowing over weirs. Increased the underflow timer for pump P-PS-1 to 295/300 sec from 260/300 sec. Tank T-7 sludge level high. Tidewater Environmental Services picked up two iron sludge boxes (2 and 4) for transportation to the Roosevelt Landfill Disposal facility. NorthStar onsite to fill coagulant (M-1883) mini-bulk. Changed out fouled pump at extraction well EW-01.
- Tuesday, 15 April 2025: Operators performed general O&M and cycled the filter press twice. Observed plate separator (PS-1) had floc flowing over weirs. Precipitate reactor (PR-1) was overloaded with solids from tank T-7. Operator transferred PS-1 solids to dewatering box #7. Contacted PM and was advised to shutdown Trenches 1 and 3 (EW-01, EW-05, and EW-06) due to the solids handling issue. Transferred sludge from T-7 to outside cone bottom tank T-7c.
- Wednesday, 16 April 2025: Operators performed general O&M and cycled the filter press twice. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Observed PS-1 looked good and decreased the underflow timer for pump P-PS-1 to 280/300 sec from 295/300 sec. Transferred sludge from

tank T-7 to dewatering box #7. Observed the ultrasonic cleaner to clean pumps had malfunction and operator placed out of service.

- Thursday, 17 April 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance and stormwater samples and sent to Eurofins. Contractor completed horizontal drilling in front of the Admin building for the fiber optic line with no issues. Decreased the underflow timer for pump P-PS-1 to 200/300 sec from 295/300 sec.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **30 gpm,** with recovery / extraction wells EW-08, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Pump changed out 4/11. Off to reduce flow rate due to solids handling issue.
- EW-02: Off, Flowmeter not communicating with PLC, more troubleshooting required.
- EW-03: Off to reduce flow rate due to solids handling issue. 4/12.
- EW-04: Off to reduce flow rate due to solids handling issue. 4/12.
- EW-05: Off to reduce flow rate due to solids handling issue. 4/15.
- EW-06: Off to reduce flow rate due to solids handling issue. 4/15.
- EW-07: Stopped 4/9 due to low water table.
- EW-09: Off since 3/18, Pump to be redeployed without packer.
- EW-12: Off since 1/29. Pump/motor to be redeployed.

**Transducer Status**

- PA-23d: Transducer failed and to be replaced.

**Sampling**

- LGAC check samples were not collected this week.
- Weekly compliance samples collected 17 April 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 25 April 2025 to 1 May 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 54.1 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-06, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 487,990 gallons or 81 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 25 April 2025: Operator performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Troubleshoot filter press startup issue, found loose wires in local control panel LCP-5 and a tripped GFCI powering the pneumatic valve. Added hydrant water to Trench 4 and 6 monitoring wells (MWA-86 and MWA-88). Wasted tank T-7 to dewatering box #7.
- Saturday, 26 April 2025: Operator performed general O&M and cycled the filter press.
- Sunday, 27 April 2025: Operator performed general O&M and cycled the filter press.
- Monday, 28 April 2025: Operators performed general O&M, general housekeeping, and cycled the filter press twice. C+E Rentals onsite to replace the malfunctioning telehandler. Mobilized equipment for Hydropuls event to Trench 4.
- Tuesday, 29 April 2025: Operators performed general O&M and cycled the filter press twice. Hydropuls event at Trench 4. Pulled pump at extraction well EW-08 and used EW-07 to pump water to a flat bottom tank instead of totes.
- Wednesday, 30 April 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Wasted tank T-7 to dewatering box #7. Operators are on a standdown for using mobile construction equipment (MCE) due to a utility near miss from previous day.
- Thursday, 1 May 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance and stormwater samples and sent to Eurofins.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **50 gpm,** with recovery / extraction wells EW-01, EW-03, EW-05, EW-06, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-02: Off, flowmeter not communicating with PLC, more troubleshooting required.
- EW-04: Off, fouled pump to be replaced.
- EW-07: Off, pump pulled for Hydropuls event.
- EW-08: Off, pump pulled for Hydropuls event.
- EW-09: Off since 3/18. Pump to be redeployed without packer.
- EW-12: Off since 1/29. Pump/motor to be redeployed.

**Transducer Status**

- None

**Sampling**

- LGAC check samples were not collected this week.
- Weekly compliance samples collected 1 May 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 2 May 2025 to 8 May 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 47.9 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-06, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 469,550 gallons or 78 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 2 May 2025: Operator performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Wasted tank T-7 to dewatering box #7. Redeployed pump at extraction well EW-08. Increased phosphoric acid pump stroke length from 60 percent to 80 percent.
- Saturday, 3 May 2025: Operator performed general O&M and cycled the filter press. Observed floc flowing over plate separator (PS-1) weirs, cleaned affected plates.
- Sunday, 4 May 2025: Operator performed general O&M and cycled the filter press. Observed floc flowing over PS-1 weirs, cleaned affected plates.
- Monday, 5 May 2025: Operators performed general O&M and cycled the filter press. Observed floc flowing over PS-1 weirs, cleaned affected plates. Collected LGAC check samples and sent to ALS. Increased PS-1 underflow pump P-PS-1 timer to 280 sec from 260 sec. Tidewater Environmental Services picked up two iron sludge boxes (1 and 2) for transportation to the Roosevelt Landfill Disposal facility. Switched from tank T-5 transfer pump P-10 to P-9. Mobilized to Motion and Flow to pick up hoses for tank T-5 bag filter effluent and changed one hose from the bag filters to LGAC influent.
- Tuesday, 6 May 2025: Operators performed general O&M and cycled the filter press. Changed out pump at extraction well EW-05. Calibrated YSI meter for pH, ORP, and conductivity.
- Wednesday, 7 May 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Lowered PS-1 underflow pump P-PS-1 timer to 270 sec from 280 sec and polymer pump CFP-7 from 295 spm to 265 spm.

- Thursday, 8 May 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Collected Bio Sludge samples and sent to Eurofins for analysis for a new profile. Redeployed 0.5-HP pump at extraction well EW-02 and started at 32-Hz.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **45 gpm,** with recovery / extraction wells EW-01, EW-03, EW-05, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-02: Redeployed 0.5-HP pump and started at 32-Hz, flowmeter not communicating with PLC.
- EW-04: Off, fouled pump to be replaced.
- EW-06: Off, low water table
- EW-07: Off, pump to be redeployed following Hydropuls event.
- EW-08: Pump redeployed 5/2.
- EW-09: Off since 3/18. Pump to be redeployed following Hydropuls event.
- EW-12: Off since 1/29. Pump/Motor to be redeployed following Hydropuls event.

**Transducer Status**

- None

**Sampling**

- LGAC check samples were collected on 5 May 2025 and sent to ALS.
- Weekly compliance samples collected on 8 May 2025 and sent to Eurofins.
- Bio Sludge samples collected on 8 May 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 9 May 2025 to 15 May 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 42.6 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-02, EW-03, EW-05, EW-06, EW-08, EW-09, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 419,280 gallons or 69 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 9 May 2025: Operator performed general O&M and cycled the filter press. Staff performed water level event. Mobilized to wellfield to prepare trenches 4 and 5 for Hydropuls event. Adjusted Precipitate Reactor (PR-1) pH probe deadband to 7.60 - 7.80, ordered new pH probe.
- Saturday, 10 May 2025: Operator performed general O&M and cycled the filter press. Decreased underflow pump timer P-PS-1 to 240/300 from 260/300.
- Sunday, 11 May 2025: Operator performed general O&M and cycled the filter press. Started ISCO stormwater autosampler ahead of upcoming storm. Turned off extraction wells EW-08, EW-10, and EW-11 for upcoming Hydropuls event.
- Monday, 12 May 2025: Operators performed general O&M and cycled the filter press. Staff began groundwater sampling event. Collected GWET-INF TSS sample before Hydropuls event at Trenches 4 and 5. Started extraction well EW-08. Collected additional samples from PDI roll-off boxes.
- Tuesday, 13 May 2025: Operators performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Staff continued groundwater sampling event. Collected quarterly process check samples. Started extraction wells EW-10 and EW-11.
- Wednesday, 14 May 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Staff continued groundwater sampling event. Operator observed smoke coming from the pump washing station and placed out of service, the sinks heater melted its plastic cage. Redeployed extraction well EW-09 and replaced the damaged cable.
- Thursday, 15 May 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Staff completed

groundwater sampling event. Comcast onsite at Admin building to land the fiber optic cable, will schedule testing. Redeployed clean pump at extraction well EW-01.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **50 gpm,** with recovery / extraction wells EW-01, EW-03, EW-05, EW-8, EW-09, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Redeployed clean pump and started 5/15.
- EW-02: Off since 5/15, Flowmeter not communicating with PLC.
- EW-04: Off, fouled pump to be replaced.
- EW-06: Off since 5/6, low water table.
- EW-07: Off since 4/29, pump to be redeployed following Hydropuls event.
- EW-08: Completed Hydropuls event and restarted pump 5/12.
- EW-09: Completed Hydropuls event and redeployed with new cable leads 5/14.
- EW-10: Completed Hydropuls event and restarted pump 5/13.
- EW-12: Off since 1/29. Pump/motor to be redeployed following Hydropuls event.

**Transducer Status**

- MWA-58d: Transducer to be checked.

**Sampling**

- Quarterly process check samples collected on 13 May 2025 and sent to Eurofins.
- Weekly compliance samples collected on 14 May 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.
- Started ISCO stormwater autosampler ahead of possible upcoming storm 5/11.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 16 May 2025 to 22 May 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 41.8 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-05, EW-06, EW-08, EW-09, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 428,830 gallons or 71 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 16 May 2025: Operator performed general O&M, housekeeping, and cycled the filter press.
- Saturday, 17 May 2025: Operator performed general O&M and cycled the filter press. Reduced PS-1 EA-640 polymer dosage from 1.15 ppm to 1.08 ppm (190 percent to 180 percent on OIT). Operator cleaned downhole pumps.
- Sunday, 18 May 2025: Operator performed general O&M and cycled the filter press.
- Monday, 19 May 2025: Operators performed general O&M and cycled the filter press. Mobilized to wellfield to check transducer calibrations at MWA-47, PA-07, PA-13, and MWA-19. Recalibrated transducers at PA-13i and MWA-19.
- Tuesday, 20 May 2025: Operators performed general O&M and cycled the filter press. Comcast onsite at Admin building and fiber line signal tested successfully. Operators mobilized to extraction well EW-13 to clean the plumbing and redeploy a clean pump. Pulled pump at EW-09 for Hydropuls event. Checked transducer calibration at PA-28.
- Wednesday, 21 May 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the quarterly NPDES compliance samples. Completed Hydropuls event at Trenches 5 and 6. Redeployed clean pumps at extraction wells EW-10 and EW-11.
- Thursday, 22 May 2025: Operators performed general O&M and cycled the filter press. Collected quarterly compliance samples and sent to Eurofins. C and E Rental picked up their long reach forklift rental. Increased acetic acid pump from 8 percent to 9 percent.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **43 gpm,** with recovery / extraction wells EW-01, EW-03, EW-05, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-02: Off since 5/15, flowmeter not communicating with PLC.
- EW-04: Off, fouled pump to be replaced.
- EW-06: Off since 5/6, low water table.
- EW-07: Off since 4/29, pump to be redeployed.
- EW-09: Completed Hydropuls event 5/21. Pump to be redeployed.
- EW-10: Completed Hydropuls event and redeployed clean pump 5/21.
- EW-11: Completed Hydropuls event and redeployed clean pump 5/21.
- EW-12: Off since 1/29. Pump/motor to be redeployed following Hydropuls event.
- EW-13: Cleaning vault plumbing and redeployed clean pump 5/20.

**Transducer Status**

- MWA-58d: Transducer ok.
- PA-13i: Recalibrated transducer.
- MWA-19: Recalibrated transducer.

**Sampling**

- Quarterly compliance samples collected on 22 May 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 23 May 2025 to 29 May 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 38.3 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-05, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 399,860 gallons or 66 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 23 May 2025: Operator performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Observed filter press plate slider switch leaking fluid, operator tightened loose bolt connection.
- Saturday, 24 May 2025: Operator performed general O&M and cycled the filter press.
- Sunday, 25 May 2025: Operator performed general O&M and cycled the filter press. Observed filter press plate slider switch still leaking fluid again.
- Monday, 26 May 2025: Operators performed general O&M and cycled the filter press. Performed maintenance on the filter press plate slider switch. Prepared Fe sludge boxes 2 and 7 for load out. Lowered P-PS-1 timer to 220/300 sec from 240/300 sec.
- Tuesday, 27 May 2025: Operators performed general O&M and cycled the filter press. Lowered phosphoric acid pump stroke length to 60 percent from 80 percent. Tidewater Environmental Services picked up two iron sludge boxes (2 and 7) for transportation to the Roosevelt Landfill Disposal facility. Observed excessive water in air regulators throughout the plant and found the air drier in the compressor room was off, turned the drier back on. Air drier is at 69°F and target setpoint is 46°F. Central Welding onsite to pick up nitrogen cannisters used for the Hydropuls event.
- Wednesday, 28 May 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Reviewed the HASP and updated the contact list and chemical inventory list.
- Thursday, 29 May 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Lowered acetic acid from 9 percent to 8 percent. Continued to observed excessive water in air

regulators throughout the plant. Repositioned drain hose in compressor room from air receiver tanks to main air line. The client T. Slater onsite with contractors for ISS bid walk.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **38 gpm,** with recovery / extraction wells EW-01, EW-03, EW-05, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-02: Off since 5/15, flowmeter not communicating with PLC.
- EW-04: Off, fouled pump to be replaced.
- EW-06: Off since 5/6, low water table.
- EW-07: Off since 4/29, pump to be redeployed.
- EW-09: Off, pump to be redeployed, new transducer ordered.
- EW-12: Off since 1/29. Pump/motor to be redeployed.

**Transducer Status**

- None

**Sampling**

- Weekly compliance samples collected on 29 May 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 30 May 2025 to 5 June 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously except for a planned 2.5-hour shutdown to clean the plate separator on Friday, 30 May. The uptime for the reporting period was 99 percent. The average system influent flow rate for the week was 32.9 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-05, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 271,420 gallons or 45 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 30 May 2025: Operator performed general O&M and cycled the filter press. Backwashed carbon vessel CT-1. Shutdown the wellfield for 2.5 hours to clean the plate separator (PS-1). Wasted tank T-7 to dewatering box #6. Reduced polymer pump CFP-7 from 265 spm to 260 spm.
- Saturday, 31 May 2025: Operator performed general O&M and cycled the filter press. Lowered underflow pump P-PS-1 timer to 200 sec from 220 sec.
- Sunday, 1 June 2025: Operator performed general O&M. Reduced polymer pump CFP-7 from 260 spm to 255 spm.
- Monday, 2 June 2025: Operators performed general O&M and cycled the filter press. Collected LGAC check samples. Alumichem representative onsite for jar testing sediment laden stormwater samples to prepare for ISS work in the fall.
- Tuesday, 3 June 2025: Operators performed general O&M and cycled the filter press. ALS courier onsite to pick up LGAC check samples. Mobilized to wellfield to transport totes from the Hydropuls event to plant using the telehandler forklift. Redeployed a clean pump at extraction well EW-03. Performed general housekeeping on the site truck.
- Wednesday, 4 June 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Repaired the polymer tubing at PS-1 underflow to tank T-7. Processed development water from totes and flat bottom tanks in the wellfield through GWET-INF. Monthly inspection of fire extinguishers, eyewash station, and ladders conducted. Adjusted tank T-9 and T-10 fill controls from manual to automatic.
- Thursday, 5 June 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Collected

additional sample for bio sludge waste characterization and sent to Eurofins. Observed bio side floor partially flooded due to a check valve stuck open at tank T-10. Operator closed a ball valve downstream to stop tank T-10 water from flowing back into sump. Adjusted Precipitate Reactor pH deadband from 7.70 - 7.80 to 7.50 - 7.60, bio side pH was approaching 8.0. Repaired the rubber o-ring on bag filter cannister #1.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **35 gpm,** with recovery / extraction wells EW-01, EW-03, EW-05, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Fouled pump to be changed out on 6/6.
- EW-02: Off since 5/15, Flowmeter not communicating with PLC.
- EW-03: Changed out fouled pump 5/3.
- EW-04: Off, fouled pump to be replaced.
- EW-06: Off since 5/6, low water table.
- EW-07: Off since 4/29, pump to be redeployed.
- EW-09: Off, pump to be redeployed, new transducer ordered.
- EW-12: Off since 1/29. Pump/motor to be redeployed with new transducer.

**Transducer Status**

- None

**Sampling**

- LGAC check samples collected 3 June 2025 and sent to ALS 4 June 2025.
- Weekly compliance samples collected on 5 June 2025 and sent to Eurofins.
- Bio Sludge sample for waste characterization re-collected on 5 June 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 6 June 2025 to 12 June 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 29.8 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 241,780 gallons or 40 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 6 June 2025: Operator performed general O&M. Staff conducted June water level event. Pumped out water in tank T-7a into dewatering box #6. Changed out 1/2hp pump at extraction well EW-01. Cleaned out the check valve for floor sump to tank T-10 on the bio-side next to tank T-3. No more water draining back to the floor sump.
- Saturday, 7 June 2025: Operator performed general O&M and cycled the filter press.
- Sunday, 8 June 2025: Operator performed general O&M and cycled the filter press.
- Monday, 9 June 2025: Operators performed general O&M and cycled the filter press. Telluric onsite for vegetation removal. Tidewater Environmental Services picked up two iron sludge boxes (1 and 4) for transportation to the Roosevelt Landfill Disposal facility. Changed out 1-hp pump at extraction well EW-04.
- Tuesday, 10 June 2025: Operators performed general O&M and cycled the filter press. Telluric onsite for vegetation removal. Lowered underflow pump P-PS-1 timer to 180 from 200 sec. Mobilized to EW-12 to install and recalibrate a new transducer. Lowered the urea stroke rate from 5.5 to 5.0 on the OIT computer.
- Wednesday, 11 June 2025: Operators performed general O&M. Telluric onsite for vegetation removal. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Repaired the rubber O-ring on bag filter cannister #1. Observed pump P-5 check valve stuck open, placed pump P-6 in operation and P-5 out of service.
- Thursday, 12 June 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Telluric onsite to complete vegetation removal. Univar onsite to batch caustic mini-bulk. Dropped down pumps at extraction wells EW-07, EW-09, and EW-12.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **30 gpm,** with recovery / extraction wells EW-01, EW-03, EW-04, EW-05, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Changed out fouled pump 6/6.
- EW-02: Off since 5/15, flowmeter not communicating with PLC.
- EW-04: Changed out fouled pump 6/9.
- EW-06: Off since 5/6, low water table.
- EW-07: Off since 4/29, pump to be redeployed.
- EW-09: Off, pump to be redeployed, new transducer ordered.
- EW-12: Off since 1/29. Installed new transducer 6/10. Pump/motor to be redeployed.

**Transducer Status**

- EW-12: Installed new transducer 6/10.

**Sampling**

- LGAC check samples were not collected this week.
- Weekly compliance samples collected on 12 June 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 13 June 2025 to 19 June 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 27.2 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-06, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 240,380 gallons or 40 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 13 June 2025: Operator performed general O&M. Backwashed carbon vessel CT-1. Lowered urea pump stroke rate from 5 percent to 4 percent. Lowered underflow pump P-PS-1 timer to 180/320 sec. Completed emptying outside flat bottom tank into dewatering box 6.
- Saturday, 14 June 2025: Operator performed general O&M and cycled the filter press.
- Sunday, 15 June 2025: Operator performed general O&M and cycled the filter press. Lowered underflow pump pressure from 30 psi to 20 psi. Operator performed housekeeping in GWET plant and created a pile debris on pre-treatment side bay door to be organized. Lowered acetic acid from 7.4 spm to 6.4 spm.
- Monday, 16 June 2025: Operators performed general O&M and cycled the filter press. Telluric onsite for Admin building trash removal. Started extraction well EW06. Operators sorted debris on GWET pre-treatment side. Transported trash to Waste Management transfer station.
- Tuesday, 17 June 2025: Operators performed general O&M and cycled the filter press. Tidewater Environmental Services picked up two PDI waste roll-off boxes (359-20 and 301-20) for transportation to the Roosevelt Landfill Disposal facility and one empty roll-off box (320-20) returned to Tidewater. Tidewater operator brought back roll-off box 359-20 due to overweight truck. Decontaminated the rental water buffalo. Cleaned up polymer spill from batching and pump into a tote.
- Wednesday, 18 June 2025: Operators performed general O&M. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Troubleshoot and ordered a new check valve for pump P-5, it is stuck partially open. SavATree site walk for vegetation removal next week. Repaired front gate, realigned sensor and reset the power to place it back in operation.

- Thursday, 19 June 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Tidewater Environmental Services picked up one PDI waste roll-off box (359-20) for transportation to the Roosevelt Landfill Disposal facility.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **25 gpm,** with recovery / extraction wells EW-01, EW-03, EW-04, EW-05, EW-06, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Fouling, operators to change out fouled pump.
- EW-02: Off since 5/15, flowmeter not communicating with PLC.
- EW-05: Fouling, operators to change out fouled pump.
- EW-06: Started 6/16.
- EW-07: Off since 4/29.
- EW-09: Off since 5/20.
- EW-12: Off since 1/29.

**Transducer Status**

- None.

**Sampling**

- LGAC check samples were not collected this week.
- Weekly compliance samples collected on 19 June 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 20 June 2025 to 26 June 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously. The uptime for the reporting period was 100 percent. The average system influent flow rate for the week was 24.9 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-03, EW-04, EW-05, EW-06, EW-08, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 240,330 gallons or 40 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 20 June 2025: Operator performed general O&M. Backwashed carbon vessel CT-1.
- Saturday, 21 June 2025: Operator performed general O&M.
- Sunday, 22 June 2025: Operator performed general O&M, housekeeping, and cycled the filter press. Lowered urea pump (CFP-13) stroke rate from 4 percent to 3.5 percent.
- Monday, 23 June 2025: Operators performed general O&M and cycled the filter press. Lowered phosphoric acid pump to 30 percent stroke rate + 30 percent stroke length from 50 percent stroke rate + 50% stroke length. Operator cleaned downhole pumps. Transported equipment from the wellfield and staged at the GWET plant. Dewatered extraction well EW-02 into a tote and transferred it to tank T-7 via the sump. Repositioned the misaligned concrete slab in front of the Admin building. Retia onsite for a meeting with Integral.
- Tuesday, 24 June 2025: Operators performed general O&M and cycled the filter press. Mobilized to extraction well EW-01 and changed out the fouled pump. Retia onsite for a meeting with ERM staff.
- Wednesday, 25 June 2025: Operators performed general O&M and cycled the filter press. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Operator investigated extraction well EW-02 signal issue, S. Lucas and Endress-Hauser also provided troubleshooting steps. Pulled pump and fouled plumbing at EW-05 to be cleaned at GWET plant.
- Thursday, 26 June 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Redeployed clean pump and plumbing at extraction well EW-05.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **25 gpm,** with recovery / extraction wells EW-01, EW-03, EW-04, EW-05, EW-8, EW-10, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-01: Change out fouled pump, 6/24.
- EW-02: Off since 5/15, flowmeter not communicating with PLC. Troubleshooting with Endress-Hauser and S. Lucas.
- EW-03: Fouling, operators to change out pump.
- EW-05: Changed out pump and cleaned plumbing, 6/26.
- EW-06: Off since 6/26, operators to change out fouled pump.
- EW-07: Off since 4/29.
- EW-09: Off since 5/20.
- EW-12: Off since 1/29.

**Transducer Status**

- None.

**Sampling**

- LGAC check samples were not collected this week.
- Weekly compliance samples collected on 26 June 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

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**Groundwater Extraction and Treatment (GWET) System Weekly Progress Report**
**Week from: 27 June 2025 to 3 July 2025**
**Former Arkema Facility, Portland, Oregon**

## Plant Operations

Groundwater extraction at select recovery / extraction wells, treatment, and discharge proceeded continuously except for a 3-hour shutdown to clean the plate separator. The uptime for the reporting period was 98 percent. The average system influent flow rate for the week was 26.2 gpm. Recovery / extraction wells RW-14, RW-22, RW-23, RW-25, EW-01, EW-02, EW-03, EW-04, EW-05, EW-06, EW-08, EW-09, EW-10, EW-11, EW-13, and EW-14 were in operation during the reporting period. The total influent volume for the week was 236,480 gallons or 39 percent of the target capture objective of 60 gpm at 100 percent uptime.

- Friday, 27 June 2025: Operator performed general O&M. Backwashed carbon vessel CT-1. Replaced check valve at pump P-5. Shutdown wellfield for 3 hours to clean the plate separator (PS-1) and recalibrated the pH probe.
- Saturday, 28 June 2025: Operator performed general O&M.
- Sunday, 29 June 2025: Operator performed general O&M and cycled the filter press.
- Monday, 30 June 2025: Operators performed general O&M and cycled the filter press. Operator started the auto-sampler for collection of the weekly NPDES compliance samples. Operator investigated extraction well EW-02 signal issue with instruction from S. Lucas. Started extraction well EW-09, EW-10 faulted. Replaced malfunctioning Filter Press pump with shelf spare, the diaphragms failed.
- Tuesday, 1 July 2025: Operators performed general O&M and cycled the filter press. Collected weekly compliance samples and sent to Eurofins. Recalibrated YSI for D.O, pH, conductivity, and ORP. Continue troubleshooting extraction well EW-02 with S. Lucas.
- Wednesday, 2 July 2025: Operators performed general O&M and cycled the filter press. Filter press faulted twice during the day. Continue troubleshooting extraction well EW-02 with S. Lucas. EW-04 flow meter faulted during troubleshooting but came back online after 3 hours, suspect faulty switch in the MCC room. Increased underflow pump P-PS-1 timer to 340 sec from 320 sec. Replaced the damaged water hose to the ice maker. Operators received tank T-4 high level and low level alarms at 20:00, suspect level sensor issue. On-call operator remotely cleared alarms and restarted pump P-PS-3 for tank T-4.

- Thursday, 3 July 2025: Operators performed general O&M and cycled the filter press. Repaired the filter press pump air manifold. Turned on the sump pump on the bio side due to tank T-4 overflowing. Cleaned off debris from the tank T-4 level sensor. Replaced the wet desiccant from the filter press air filter. Changed out pump at extraction well EW-03. Connected wiring for EW-12 but unable to start pump, no flow.

**Recovery / Extraction Well Status**

- The current influent flow rate is approximately **25 gpm,** with recovery / extraction wells EW-01, EW-02, EW-03, EW-04, EW-05, EW-8, EW-09, EW-11, EW-13, EW-14, RW-14, RW-22, RW-23, and RW-25 in operation.
- EW-02: Started 7/2, flowmeter not communicating with PLC. Troubleshooting with Endress-Hauser and S. Lucas.
- EW-03: Fouling, operators to change out pump.
- EW-06: Off since 6/26, operators to change out fouled pump.
- EW-07: Off since 4/29.
- EW-09: Started 6/30.
- EW-10: Off since 6/30, fouled pump to be changed out.
- EW-11: Fouling, operators to change out pump.
- EW-12: Off since 1/29.

**Transducer Status**

- None.

**Sampling**

- LGAC check samples were not collected this week.
- Weekly compliance samples collected on 1 July 2025 and sent to Eurofins.

**Stormwater**

- Weekly ISCO sampler and stormwater pond inspection conducted.

# ATTACHMENT 2 QUARTER 1, 2025, GROUNDWATER MONITORING DATA

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,1-Dichloropropene | 1,2,3-Trichlorobenzene | 1,2,3-Trichloropropane | 1,2,4-Trichlorobenzene | 1,2,4-Trimethylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | NE | NE | 0.076 | NE |
| **Location ID** | **Sample Date** | **Sample Type** | **Aquifer Classification** | **Sample ID** | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.9* | *< 4.3* | *< 4.1* | *< 3.3* | *< 6.1* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.23* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.23* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.084* | *< 0.47* | **0.061** | *< 0.36* | *< 0.23* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | **0.090** | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.23* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.9* | *< 4.3* | *< 4.1* | *< 3.3* | *< 6.1* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.9* | *< 4.3* | *< 4.1* | *< 3.3* | *< 6.1* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 29* | *< 43* | *< 41* | *< 33* | *< 61* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 290* | *< 430* | *< 410* | *< 330* | *< 610* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.55 U* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.084* | *< 0.47* | *< 0.050* | *< 0.36* | *< 0.23* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.29* | *< 0.43* | *< 0.41* | *< 0.33* | *< 0.61* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 150* | *< 220* | *< 210* | *< 170* | *< 310* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| | | | | Analyte | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,2-Dibromo-3-chloropropane | 1,2-Dichlorobenzene | 1,2-Dichloroethane | 1,2-Dichloropropane | 1,3,5-Trimethylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | | | FSWP SHSC (shaded values indicate results above the value shown) | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | 14 | 3.7 | 1.5 | NE |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.7* | *< 4.6* | *< 4.2* | *< 1.8* | *< 5.5* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.48* | **0.077** | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.48* | *< 0.30 U* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.48* | **0.066** | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.48* | **0.046** | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.48* | *< 0.30 U* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.48* | **0.25** | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.48* | **0.26** | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.48* | *< 0.30 U* | *< 0.12* | *< 0.20 U* | *< 0.19* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.7* | *< 4.6* | *< 4.2* | *< 1.8* | *< 5.5* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.7* | *< 4.6* | *< 4.2* | *< 1.8* | *< 5.5* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 57* | *< 46* | *< 42* | *< 18* | *< 55* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 570* | *< 460* | *< 420* | *< 180* | *< 550* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | **0.50** | *< 0.18* | *< 0.55* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.48* | *< 0.038* | *< 0.12* | *< 0.060* | *< 0.19* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.48* | *< 0.038* | **0.48** | *< 0.060* | *< 0.19* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.57* | *< 0.46* | *< 0.42* | *< 0.18* | *< 0.55* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 290* | *< 230* | *< 210* | *< 90* | *< 280* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,3-Dichlorobenzene | 1,3-Dichloropropane | 1,4-Dichlorobenzene | 2,2-Dichloropropane | 2-Butanone (Methyl ethyl ketone) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | 10 | NE | 15 | NE | 14000 |
| **Location ID** | **Sample Date** | **Sample Type** | **Aquifer Classification** | **Sample ID** | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 4.8* | *< 3.5* | *< 4.6* | *< 3.2* | *< 47* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.050* | *< 0.20 U* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | **0.051** | *< 0.056* | **0.067** | *< 0.060* | *< 2.5* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.050* | *< 0.20 U* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.050* | *< 0.20 U* | *< 0.050* | *< 0.060* | *< 2.5* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 4.8* | *< 3.5* | *< 4.6* | *< 3.2* | *< 47* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 4.8* | *< 3.5* | *< 4.6* | *< 3.2* | *< 47* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 48* | *< 35* | *< 46* | *< 32* | *< 470* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 480* | *< 350* | *< 460* | *< 320* | *< 4,700* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.050* | *< 0.056* | *< 0.050* | *< 0.060* | *< 2.5* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.48* | *< 0.35* | *< 0.46* | *< 0.32* | *< 4.7* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 240* | *< 180* | *< 230* | *< 160* | *< 2,400* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 4-Chlorotoluene | 4-Isopropyltoluene | 4-Methyl-2-pentanone | Acetone | Benzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | NE | NE | 1500 | 1.4 |
| **Location ID** | **Sample Date** | **Sample Type** | **Aquifer Classification** | **Sample ID** | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 3.8* | *< 2.8* | *< 25* | *< 32* | *< 2.4* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | **0.076** |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | **0.038** |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | **0.11** |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | **0.10** |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 3.8* | *< 2.8* | *< 25* | *< 32* | *< 2.4* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 3.8* | *< 2.8* | *< 25* | *< 32* | *< 2.4* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 38* | *< 28* | *< 250* | *< 320* | **46** |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 380* | *< 280* | *< 2,500* | *< 3,200* | *< 240* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.25* | *< 2.7* | *< 3.1* | *< 0.030* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.38* | *< 0.28* | *< 2.5* | *< 3.2* | *< 0.24* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 190* | *< 140* | *< 1,300* | *< 1,600* | *< 120* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | Bromobenzene | Bromodichloromethane | Bromoform | Bromomethane | Carbon disulfide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | 1.7 | 14 | 150 | 0.92 |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 4.3* | *< 2.9* | *< 5.1* | *< 2.1* | *< 5.3* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.038* | *< 0.20 U* | *< 0.16* | *< 0.13 UJ* | *< 0.20* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13 UJ* | *< 0.20* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.038* | *< 0.20 U* | *< 0.16* | *< 0.13 UJ* | *< 0.20* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 4.3* | *< 2.9* | *< 5.1* | *< 2.1* | *< 5.3* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 4.3* | *< 2.9* | *< 5.1* | *< 2.1* | *< 5.3* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 43* | *< 29* | *< 51* | *< 21* | *< 53* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 430* | *< 290* | *< 510* | *< 210* | *< 530* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.038* | *< 0.060* | *< 0.16* | *< 0.13* | *< 0.20* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.43* | *< 0.29* | *< 0.51* | *< 0.21* | *< 0.53* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 220* | *< 150* | *< 260* | *< 110* | *< 270* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | Carbon tetrachloride | Chlorobenzene | Chlorobromomethane | Chloroethane | Chloroform |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | 0.16 | 64 | NE | NE | 28 |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 3.0* | *< 4.4* | *< 2.9* | *< 3.5* | **120** |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | **0.65** | *< 0.29* | *< 0.35* | **93** |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | **3.2** |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | **0.035** |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.20 U* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.20 U* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | **0.14** |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | **0.60** |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | **0.16** |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.20 U* | **1.0** | *< 0.050* | *< 0.24* | *< 0.20 U* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | *< 0.26* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.20 U* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | **6.3** |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 3.0* | *< 4.4* | *< 2.9* | *< 3.5* | **160** |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 3.0* | *< 4.4* | *< 2.9* | *< 3.5* | **230** |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | *< 0.26* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 30* | **11,000** | *< 29* | *< 35* | *< 26* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.30* | **1.7** | *< 0.29* | *< 0.35* | *< 0.26* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 300* | **43,000** | *< 290* | *< 350* | *< 260* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | **22** |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | *< 0.26* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | *< 0.26* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.025* | *< 0.060* | *< 0.050* | *< 0.24* | *< 0.030* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.30* | *< 0.44* | *< 0.29* | *< 0.35* | *< 0.26* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 150* | **6,700** | *< 150* | *< 180* | *< 130* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | Chloromethane | cis-1,2-Dichloroethene | cis-1,3-Dichloropropene | Dibromochloromethane | Dibromomethane |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | 590 | NE | 1.3 | NE |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.8* | *< 3.5* | *< 4.2* | *< 4.3* | *< 3.4* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | **0.94** | *< 0.42* | *< 0.43* | *< 0.34* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.14* | *< 0.20 U* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.14* | **0.090** | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.14* | **0.41 J+** | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.14* | **0.10** | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.14* | **0.16** | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.14* | **0.12** | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.14* | **0.12** | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.14* | **0.22 J+** | *< 0.090* | *< 0.055* | *< 0.062* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.8* | *< 3.5* | *< 4.2* | *< 4.3* | *< 3.4* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.8* | *< 3.5* | *< 4.2* | *< 4.3* | *< 3.4* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 28* | *< 35* | *< 42* | *< 43* | *< 34* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 280* | *< 350* | *< 420* | *< 430* | *< 340* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | *< 0.35* | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.14* | *< 0.055* | *< 0.090* | *< 0.055* | *< 0.062* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.28* | **0.55** | *< 0.42* | *< 0.43* | *< 0.34* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 140* | *< 180* | *< 210* | *< 220* | *< 170* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| | | | | Analyte | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | Dichlorodifluoromethane (Freon 12) | Ethylbenzene | Ethylene dibromide | Hexachlorobutadiene | Isopropylbenzene (Cumene) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | | | FSWP SHSC (shaded values indicate results above the value shown) | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | 7.3 | NE | 0.01 | NE |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 1.0 U* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.3* | *< 5.0* | *< 4.0* | *< 7.9* | *< 4.4* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 0.44* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | **0.16** | *< 1.0 U* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 1.0 U* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 0.44* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 1.0 U* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 1.0 U* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 1.0 U* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.3* | *< 5.0* | *< 4.0* | *< 7.9* | *< 4.4* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.3* | *< 5.0* | *< 4.0* | *< 7.9* | *< 4.4* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 0.44* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 53* | *< 50* | *< 40* | *< 79* | *< 44* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 1.0 U* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 530* | *< 500* | *< 400* | *< 790* | *< 1,000 U* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 0.44* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 0.44* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 1.0 U* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 1.0 U* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.13* | *< 0.082* | *< 0.067* | *< 0.16* | *< 0.27* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.50* | *< 0.40* | *< 0.79* | *< 0.44* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 270* | *< 250* | *< 200* | *< 400* | *< 220* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | m,p-Xylenes | Methyl tert-butyl ether | Methylene chloride | Naphthalene | n-Butylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | 1.8 | NE | 59 | 12 | NE |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.3* | *< 4.4* | **19 J** | *< 9.3* | *< 4.4* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4 UJ* | *< 0.93* | *< 0.44* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.50 U* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.50 U* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 1.0 U* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.50 U* | *< 0.070* | *< 1.2* | *< 0.52* | *< 0.35* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 1.0 U* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.3* | *< 4.4* | *< 14* | *< 9.3* | *< 10 U* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.3* | *< 4.4* | *< 14* | *< 9.3* | *< 10 U* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 0.44* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 53* | *< 44* | *< 140* | *< 93* | *< 100 U* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 1.0 U* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 530* | *< 440* | *< 1,400* | *< 930* | *< 440* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 1.0 U* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 0.44* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 0.44* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | *< 0.070* | *< 1.2* | *< 0.52* | *< 1.0 U* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.12* | **0.13 J+** | *< 1.2* | *< 0.52* | *< 0.35* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.53* | *< 0.44* | *< 1.4* | *< 0.93* | *< 0.44* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 270* | *< 220* | *< 720* | *< 470* | *< 500 U* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| | | | | Analyte | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | n-Propylbenzene | o-Chlorotoluene (2-chlorotoluene) | o-Xylene | sec-Butylbenzene | Styrene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | | | FSWP SHSC (shaded values indicate results above the value shown) | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | NE | 13 | NE | NE |
| **Location ID** | **Sample Date** | **Sample Type** | **Aquifer Classification** | **Sample ID** | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.0* | *< 5.1* | *< 3.9* | *< 4.9* | *< 5.3* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.30 U* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.30 U* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.0* | *< 5.1* | *< 3.9* | *< 4.9* | *< 5.3* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 5.0* | *< 5.1* | *< 3.9* | *< 4.9* | *< 5.3* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 50* | *< 51* | *< 39* | *< 49* | *< 53* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 500* | *< 510* | *< 390* | *< 490* | *< 530* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53 UJ* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.091* | *< 0.12* | *< 0.23* | *< 0.17* | *< 0.33* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.50* | *< 0.51* | *< 0.39* | *< 0.49* | *< 0.53* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 250* | *< 260* | *< 200* | *< 250* | *< 270* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| | | | | Analyte | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | tert-Butylbenzene | Tetrachloroethene | Toluene | trans-1,2-Dichloroethene | trans-1,3-Dichloropropene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Unit | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| | | | | FSWP SHSC (shaded values indicate results above the value shown) | NE | 11 | 0.4 | 1.6 | 47 | 710 | NE | 0.33 | 9.8 | 1000 | NE |
| Location ID | Sample Date | Sample Type | Aquifer Classification | Sample ID | | | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | < 0.064 | < 0.035 | < 0.26 | < 0.084 | < 0.050 | < 0.033 | < 0.092 |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | < 1.8 | < 3.9 | < 5.2 | < 2.4 | < 2.2 | < 2.8 | < 5.8 | **8.8** | < 3.9 | < 3.9 | < 4.1 |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | **9.2** | < 0.39 | < 0.39 | < 0.41 |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | < 0.064 | < 0.035 | < 0.26 | **0.50** | < 0.050 | < 0.033 | < 0.092 |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.16 J+** | < 0.035 | < 0.26 | **0.086** | **0.16** | < 0.033 | < 0.092 |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | < 0.11 | < 0.025 | < 0.056 | **0.074** | **0.24** | **0.23 J+** | < 0.26 | < 0.50 U | < 0.050 | < 0.20 U | < 0.092 |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.19** | < 0.035 | < 0.26 | **0.20** | **0.051** | < 0.033 | < 0.092 |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | < 0.064 | < 0.035 | < 0.26 | **0.30** | < 0.050 | < 0.033 | < 0.092 |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | < 0.11 | **0.22** | < 0.056 | < 0.070 | **0.19** | **0.71** | < 0.26 | **0.20** | < 0.050 | < 0.033 | < 0.092 |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.069** | < 0.035 | < 0.26 | < 0.084 | < 0.050 | < 0.033 | < 0.092 |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | < 0.11 | < 0.20 U | < 0.056 | **0.075** | < 0.064 | < 0.20 U | < 0.26 | < 0.50 U | < 0.050 | < 0.20 U | < 0.092 |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.21** | < 0.035 | < 0.26 | < 0.084 | < 0.050 | < 0.033 | < 0.092 |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.10 J+** | < 0.035 | < 0.26 | < 0.084 | **0.087** | < 0.033 | < 0.092 |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.19** | **0.059 J+** | < 0.26 | < 0.084 | **0.052** | < 0.033 | < 0.092 |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | **0.19 J+** | **0.12 J+** | < 0.26 | < 0.084 | < 0.050 | < 0.033 | < 0.092 |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | < 0.064 | < 0.035 | < 0.26 | < 0.084 | < 0.050 | < 0.033 | < 0.092 |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | < 0.11 | < 0.025 | < 0.056 | **0.073** | **0.079** | < 0.20 U | < 0.26 | < 0.50 U | **0.11** | < 0.20 U | < 0.092 |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | < 1.8 | < 3.9 | < 5.2 | < 2.4 | < 2.2 | < 2.8 | < 5.8 | < 4.1 | < 3.9 | < 3.9 | < 4.1 |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | < 1.8 | < 3.9 | < 5.2 | < 2.4 | < 2.2 | < 2.8 | < 5.8 | < 4.1 | < 3.9 | < 3.9 | < 4.1 |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | < 18 | < 39 | < 52 | < 24 | < 22 | < 28 | < 58 | < 41 | < 39 | < 39 | < 41 |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | **0.25** | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | < 180 | < 390 | < 520 | < 240 | < 220 | < 280 | < 580 | < 410 | < 390 | < 390 | < 410 |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | < 0.064 | < 0.035 | < 0.26 | < 0.084 | < 0.050 | < 0.033 | < 0.092 |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | < 0.11 | < 0.025 | < 0.056 | < 0.070 | < 0.064 | < 0.035 | < 0.26 | **0.11** | **0.16** | < 0.033 | < 0.092 |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | < 0.18 | < 0.39 | < 0.52 | < 0.24 | < 0.22 | < 0.28 | < 0.58 | < 0.41 | < 0.39 | < 0.39 | < 0.41 |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | < 90 | < 200 | < 260 | < 120 | < 110 | < 140 | < 290 | < 210 | < 200 | < 200 | < 210 |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-1**
**Volatile Organic Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| Analyte | | | | | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | Trichloroethene | Trichlorofluoromethane (Freon 11) | Vinyl chloride |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit | | | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| FSWP SHSC (shaded values indicate results above the value shown) | | | | | NE | 11 | 0.4 | 1.6 | 47 | 710 | 3 | NE | 0.24 |
| **Location ID** | **Sample Date** | **Sample Type** | **Aquifer Classification** | **Sample ID** | | | | | | | | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.6* | *< 3.6* | *< 2.2* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | **1.5** | *< 0.36* | *< 0.22* |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | **0.18** | *< 0.12* | *< 0.040* |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.16 J+** | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.074** | **0.24** | **0.23 J+** | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | *< 0.035* | **0.12** | *< 0.12* | *< 0.040* |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | *< 0.11* | **0.22** | *< 0.056* | *< 0.070* | **0.19** | **0.71** | **0.081** | *< 0.12* | *< 0.040* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.069** | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | *< 0.11* | *< 0.20 U* | *< 0.056* | **0.075** | *< 0.064* | *< 0.20 U* | *< 0.066* | *< 0.12* | **0.47 J** |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.21** | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.10 J+** | *< 0.035* | **0.081** | *< 0.12* | *< 0.040* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19** | **0.059 J+** | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | **0.19 J+** | **0.12 J+** | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | *< 0.11* | *< 0.025* | *< 0.056* | **0.073** | **0.079** | *< 0.20 U* | *< 0.066* | *< 0.12* | *< 0.040* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.6* | *< 3.6* | *< 2.2* |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | *< 1.8* | *< 3.9* | *< 5.2* | *< 2.4* | *< 2.2* | *< 2.8* | *< 2.6* | *< 3.6* | *< 2.2* |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | *< 18* | *< 39* | *< 52* | *< 24* | *< 22* | *< 28* | *< 26* | *< 36* | *< 22* |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | **0.25** | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | *< 180* | *< 390* | *< 520* | *< 240* | *< 220* | *< 280* | *< 260* | *< 360* | *< 220* |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | *< 0.11* | *< 0.025* | *< 0.056* | *< 0.070* | *< 0.064* | *< 0.035* | *< 0.066* | *< 0.12* | *< 0.040* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | *< 0.18* | *< 0.39* | *< 0.52* | *< 0.24* | *< 0.22* | *< 0.28* | *< 0.26* | *< 0.36* | *< 0.22* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | *< 90* | *< 200* | *< 260* | *< 120* | *< 110* | *< 140* | *< 130* | *< 180* | *< 110* |

Notes:
Bolded values indicate concentrations above the Method Detection Limit.
Shaded values indicate concentrations above the FSWP SHSC.
< = Compound not detected. Method Detection Limit shown.
µg/L = micrograms per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
NE = Not Established
SW8260C analyses performed by TestAmerica - Seattle, WA of Seattle.

Qualifiers - Organic:
j = The analyte was positively identified below the RDL; associated numerical value is the approximate concentration of the analyte in the sample.
J- = The concentration of the sample is considered to be biased low, as the associated QC results are outside the lower control limits.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.
UJ = Analyte was analyzed for, but not detected. The detection limit is a quantitative estimate.

**Attachment 2-2**
**Additional Compounds Results**
**Arkema Quarter 1, 2025, Groundwater Monitoring Report**
**Arkema Inc. Facility**
**Portland, Oregon**

| | | | | Analyte | Chloride | Perchlorate |
|---|---|---|---|---|---|---|
| | | | | Unit | mg/L | µg/L |
| | | | | FSWP SHSC (shaded values indicate results above the value shown) | 230 | 1800 |
| **Location ID** | **Sample Date** | **Sample Type** | **Aquifer Classification** | **Sample ID** | | |
| MWA-41 | 2-18-2025 | N | Shallow | MWA-41-021825 | **5.4** | *< 0.91* |
| MWA-63 | 2-21-2025 | N | Shallow | MWA-63-022125 | **5.8** | *< 1.8* |
| MWA-63 | 2-21-2025 | FD | Shallow | DUP-02-022125 | **-** | - |
| MWA-82 | 2-18-2025 | N | Shallow | MWA-82-021825 | **9.1** | **420** |
| PA-03 | 2-20-2025 | N | Shallow | PA-03-022025 | **3.9** | *< 18* |
| PA-04 | 2-21-2025 | N | Shallow | PA-04-022125 | **4.0** | *< 9.1* |
| PA-08 | 2-20-2025 | N | Shallow | PA-08-022025 | **460** | **28** |
| PA-09 | 2-20-2025 | N | Shallow | PA-09-022025 | **180** | *< 9.1* |
| PA-31 | 2-19-2025 | N | Shallow | PA-31-021925 | **3.4 J+** | *< 9.1* |
| MWA-81i | 2-18-2025 | N | Intermediate | MWA-81i-021825 | **12** | *< 0.91* |
| PA-10i | 2-21-2025 | N | Intermediate | PA-10i-022125 | **27** | *< 36* |
| PA-15i | 2-18-2025 | N | Intermediate | PA-15i-021825 | **44** | *< 18* |
| PA-16i | 2-21-2025 | N | Intermediate | PA-16i-022125 | **32** | *< 36* |
| PA-17iR | 2-21-2025 | N | Intermediate | PA-17iR-022125 | **58** | *< 91* |
| PA-32i | 2-20-2025 | N | Intermediate | PA-32i-022025 | **44** | *< 91* |
| PA-32i | 2-20-2025 | FD | Intermediate | DUP-01-022025 | **47** | *< 91* |
| PA-44i | 2-18-2025 | N | Intermediate | PA-44i-021825 | *< 1.5 U* | *< 0.91* |
| MWA-11i(d) | 2-21-2025 | N | Deep | MWA-11i(d)-022125 | **730** | *< 0.91* |
| MWA-31i(d) | 2-19-2025 | N | Deep | MWA-31i(d)-021925 | **6,000** | **3,700** |
| MWA-56d | 2-19-2025 | N | Deep | MWA-56d-021925 | **13,000** | **13,000** |
| MWA-58d | 2-19-2025 | N | Deep | MWA-58d-021925 | **18,000** | **53,000** |
| PA-18d | 2-21-2025 | N | Deep | PA-18d-022125 | **75** | *< 36* |
| PA-19d | 2-20-2025 | N | Deep | PA-19d-022025 | **280** | **89** |
| PA-20d | 2-20-2025 | N | Deep | PA-20d-022025 | **580** | **28** |
| PA-21d | 2-20-2025 | N | Deep | PA-21d-022025 | **350** | **1,100** |
| PA-22d | 2-20-2025 | N | Deep | PA-22d-022025 | **5,200** | **13,000** |
| PA-23d | 2-19-2025 | N | Deep | PA-23d-021925 | **33,000** | *< 91* |
| PA-24d | 2-19-2025 | N | Deep | PA-24d-021925 | **29,000** | *< 91* |
| PA-25d | 2-18-2025 | N | Deep | PA-25d-021825 | **32** | *< 0.91* |
| PA-26d | 2-21-2025 | N | Deep | PA-26d-022125 | **84** | *< 0.91* |
| PA-27d | 2-21-2025 | N | Deep | PA-27d-022125 | **600** | *< 36* |
| PA-30d | 2-20-2025 | N | Deep | PA-30d-022025 | **280** | *< 91* |

Notes:
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µg/L = micrograms per liter
mg/L = milligrams per liter
FD = Field Duplicate Sample
FSWP SHSC = Feasibility Study Work Plan Indirect Exposure Pathway Selected Hot Spot Criteria
N = Normal Environmental Sample
E300 analyses performed by TestAmerica - Seattle, WA of Seattle.
E314.0 analyses performed by TestAmerica - Sacramento, CA of West Sacramento.
J+ = The concentration of the sample is considered to be biased high, as the associated QC results exceed the upper control limits.
U = Analyte was analyzed for, but not detected above, the limit displayed.