PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data

SITE NAME: KCBX ST-NE
AQS Site Code: N/A
DATE: 11-Mar-14
TIME: 14:00

CLIENT: Koch
SAMPLER ID: ST-NE-Metals
Model Number: 2025i
Serial Number: 20547

TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[1] (Sampler - Calibration) (°C)
4.8	5.8	-1.0
4.8	5.8	-1.0
4.8	5.8	-1.0

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Pressure (P_a) (mm Hg)	Calibration Sensor Pressure (P_a) (mm Hg)	Pressure Difference[2] (Sampler - Calibration) (mm Hg)
736.0	737.0	-1.0
736.0	737.0	-1.0
736.0	737.0	-1.0

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Compartment Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[3] (Sampler - Calibration) (°C)
6.7	5.9	0.8
6.7	5.9	0.8
6.7	5.9	0.8

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data

External Leak Check[4]: 21.0 mmHg

4. Acceptance Criteria < 25 mm Hg

Clock/Timer Verification[5]:
Partisol : 14:13:00
Reference Time: 14:13:00

5. Acceptance Criteria: within 60 sec. of Reference Time

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

SINGLE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q_a) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)
16.67	17.22	-3.2%	0.0%

THREE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)

A three point flow check is required quarterly and a single point operating flow rate check is required monthly
The 2025i Partisol operates using actual flow rates, and converts to standard conditions in the onboard data file

6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

URS

PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data

SITE NAME: KCBX ST-NE
AQS Site Code: N/A
DATE: 11-Mar-14
TIME: 13:40

CLIENT: Koch
SAMPLER ID: ST-NE-Carbon
Model Number: 2025i
Serial Number: 20544

TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[1] (Sampler - Calibration) (°C)
5.7	6.4	-0.7
5.7	6.4	-0.7
5.7	6.4	-0.7

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Pressure (P_a) (mm Hg)	Calibration Sensor Pressure (P_a) (mm Hg)	Pressure Difference[2] (Sampler - Calibration) (mm Hg)
737.0	737.0	0.0
737.0	737.0	0.0
737.0	737.0	0.0

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Compartment Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[3] (Sampler - Calibration) (°C)
7.3	6.9	0.4
7.3	6.9	0.4
7.3	6.9	0.4

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data

External Leak Check[4]: 19.0 mmHg

4. Acceptance Criteria < 25 mm Hg

Clock/Timer Verification[5]:
Partisol : 13:49:00
Reference Time: 13:52:00

5. Acceptance Criteria: within 60 sec. of Reference Time

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

SINGLE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q_a) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)
16.67	16.65	0.1%	0.0%

THREE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)

A three point flow check is required quarterly and a single point operating flow rate check is required monthly
The 2025i Partisol operates using actual flow rates, and converts to standard conditions in the onboard data file

6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

Note: Changed time from 13:49 to 13:52

URS

PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data

SITE NAME: KCBX NT-NE
AQS Site Code: N/A
DATE: 11-Mar-14
TIME: 9:50

CLIENT: Koch
SAMPLER ID: NT-NE-Metals
Model Number: 2025i
Serial Number: 20546

TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[1] (Sampler - Calibration) (°C)
9.1	9.3	-0.2
9.1	9.3	-0.2
9.1	9.3	-0.2

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Pressure (P_a) (mm Hg)	Calibration Sensor Pressure (P_a) (mm Hg)	Pressure Difference[2] (Sampler - Calibration) (mm Hg)
737.0	738.0	-1.0
737.0	738.0	-1.0
737.0	738.0	-1.0

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Compartment Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[3] (Sampler - Calibration) (°C)
11.1	10.6	0.5
11.1	10.6	0.5
11.2	10.6	0.6

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data

External Leak Check[4]: 25.0 mmHg

4. Acceptance Criteria < 25 mm Hg

Clock/Timer Verification[5]:
Partisol : 9:55:00
Reference Time: 9:57:00

5. Acceptance Criteria: within 60 sec. of Reference Time

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

SINGLE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q_a) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)
16.68	16.89	-1.2%	0.0%

THREE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)

A three point flow check is required quarterly and a single point operating flow rate check is required monthly
The 2025i Partisol operates using actual flow rates, and converts to standard conditions in the onboard data file

6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

Note: Changed time from 09:55 to 09:57.

URS

PARTISOL PARTICULATE MATTER (PM) SAMPLER
Calibration Data

SITE NAME: KCBX NT-NE
AQS Site Code: N/A
DATE: 11-Mar-14
TIME: 9:15

CLIENT: Koch
SAMPLER ID: NT-NE-Carbon
Model Number: 2025i
Serial Number: 20545

TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[1] (Sampler - Calibration) (°C)
9.4	9.5	-0.1
9.4	9.5	-0.1
9.4	9.5	-0.1

1. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Sensor Pressure (P_a) (mm Hg)	Calibration Sensor Pressure (P_a) (mm Hg)	Pressure Difference[2] (Sampler - Calibration) (mm Hg)
738.0	738.0	0.0
738.0	738.0	0.0
738.0	738.0	0.0

2. Acceptance Criteria: ± 10.0 mm Hg

COMPARTMENT TEMPERATURE Calibration Data

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

Sampler Compartment Temperature (T_a) (°C)	Calibration Sensor Temperature (T_a) (°C)	Temperature Difference[3] (Sampler - Calibration) (°C)
11.4	10.6	0.8
11.4	10.6	0.8
11.4	10.6	0.8

3. Acceptance Criteria: ± 2.0 °C

LEAK CHECK, TIME, AND FLOWRATE Calibration Data

External Leak Check[4]: 14.0 mmHg

4. Acceptance Criteria < 25 mm Hg

Clock/Timer Verification[5]:
Partisol : 9:30:00
Reference Time: 9:30:00

5. Acceptance Criteria: within 60 sec. of Reference Time

Calibration Device: BGI
Model Number: deltaCal
Serial Number: 579
Certification Expiration: 09/10/13

SINGLE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Q_a) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)
16.65	16.54	0.7%	0.0%

THREE POINT CHECK

Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference[6] (Sampler vs. Calibration)	Percent Difference[7] (Calibration vs. Design)

A three point flow check is required quarterly and a single point operating flow rate check is required monthly
The 2025i Partisol operates using actual flow rates, and converts to standard conditions in the onboard data file

6. Acceptance Criteria: ± 4.0%
7. Acceptance Criteria: ± 5.0%

Calibration Tech: G. Mazik

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