Appendix B. Data Quality Objectives and Quality Assurance/Quality Control Review

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This appendix addresses quality assurance and quality control (QA/QC) activities associated with PAH Transport Study (Project) and the relevant data quality objectives (DQOs). The QA/QC program included both field and laboratory procedures.

Amec Foster Wheeler Environment & Infrastructure, Inc.¹ (Amec Foster Wheeler) was responsible for monitoring activities. Eurofins Air Toxics (Air Toxics), located in Folsom, California was the analytical laboratory responsible for dry depositional air sample analyses. Physis Environmental Laboratories, located in Anaheim, California was the analytical laboratory responsible for wet depositional air sample analyses.

B.1 INSTRUMENT/EQUIPMENT TESTING, INSPECTION, AND MAINTENANCE

B.1.1 Monitoring Supplies

Sample containers were provided by the laboratories for dry and wet deposition analyses, respectively. Air Toxics supplied certified clean PUF/XAD cartridges and filter-quartz filters for dry deposition sampling. Because of the persistence of naphthalene, cartridges are considered clean if naphthalene is detected at less than five times the concentration of the lowest calibration standard. The sum of remaining PAH compounds must be detected at less than 200 ng total/cartridge. Batch IDs are recorded on field data sheets and chain-of-custody forms by the sampling team. Physis Environmental Laboratories supplied certified clean sample containers for wet weather deposition analyses.

Amec Foster Wheeler inspected consumables and monitoring supplies in accordance with the requirements and frequency established in the Quality Assurance Project Program (QAPP), and summarized in Table B-1. No supplies received fell outside of acceptance criteria.

¹ Amec Foster Wheeler Environment & Infrastructure, Inc. was formerly known as AMEC Environment & Infrastructure, Inc.

Table B-1. Inspection/Acceptance Testing Requirements for Consumables and Supplies

Program	Project- Related Supplies/ Consumables	Inspection/ Testing Specifications (Source)	Acceptance Criteria	Frequency (%)	Responsible Individual
Dry Deposition	Pre-Certified PUF/XAD-2® Cartridge	COC form of cartridge certification and visual inspection for tampering during shipment (Air Toxics)	Enclosed and untampered with in their shipping containers	100	Amec Foster Wheeler
Dry Deposition	Filter	Visual inspection for pinholes, tears, creases, or other flaws that may affect the collection efficiency of the filter (Air Toxics)	Enclosed and untampered with in their shipping containers; no visible damage to filter	100	Amec Foster Wheeler
Wet Deposition	Precleaned Sample Bottles	Closed bottle (Physis)	Lids screwed on bottles	100	Amec Foster Wheeler
Dry and Wet Deposition	Gloves	New box (McMaster Carr)	New box	As needed	Amec Foster Wheeler

B.1.2 Field Instrument/Equipment

A Tisch Environmental high volume air sampler was used for the collection of dry deposition samples. The HVAS was calibrated according to the manufacturer's specifications (provided in the Project QAPP) and EPA Method TO-13A at the following times:

- During the initial installation
- Before and after each sampling event
- After major repairs or maintenance

Calibration was conducted in the field using a calibrated orifice flow rate transfer standard. Calibration measurements were recorded on field data sheets or calibration logs, which are provided in Attachment B-1.

During equipment installation, Amec Foster Wheeler Technical Staff performed any necessary maintenance and troubleshooting on the Davis Instruments Vantage Vue which was used to record real-time meteorological data including wind speed, wind direction, temperature, barometric pressure and rainfall. Data were downloaded after each monitoring event, and field crews inspected the weather station to observe for any damage. During equipment installation, Amec Foster Wheeler Technical Staff performed any necessary maintenance and troubleshooting on the Davis Instruments Vantage Vue which was used to record real-time meteorological data including wind speed, wind direction, temperature, barometric pressure and rainfall. Data were downloaded after each monitoring event, and field crews inspected the

Appendix B: Data Quality Objectives and Quality Assurance Quality Control Review

weather station to observe for any damage. During three Wet Weather events, data could not be downloaded from the weather station at FD11. In these instances, data collected from the site FD12 were used. During several collections for each site for Dry Weather sampling events (Table B-2), data could not be downloaded from each of the weather stations. In these instances data was gathered from the San Diego International Airport-Lindbergh Field weather station and averaged over the sampling event timeframe.

Table B-2. Inspection/Acceptance Testing Requirements for Consumables and Supplies

Site	Event	Collection	Sample Start Time	Sample End Time
CNM1	2	3	09/11/2013 11:17	09/12/2013 11:17
CNM1	4	4	04/16/2014 09:57	04/17/2014 09:57
CNM1	5	4	05/20/2014 11:24	05/21/2014 11:24
CNM1	6	2	12/18/2016 16:50	12/19/2016 16:50
FD07	2	3	09/11/2013 10:18	09/12/2013 10:18
FD07	4	4	04/16/2014 09:15	04/17/2014 09:15
FD07	5	4	05/20/2014 10:39	05/21/2014 10:39
FD07	6	2	12/18/2016 14:55	12/19/2016 14:55
FD11	2	3	09/11/2013 09:45	09/12/2013 09:45
FD11	4	4	04/16/2014 08:50	04/17/2014 08:50
FD11	5	4	05/20/2014 10:18	05/21/2014 10:18
FD11	6	2	12/18/2016 13:30	12/19/2016 13:30
FD11	6	4	01/17/2017 09:37	01/18/2017 09:37
FD12	2	3	09/11/2013 09:10	09/12/2013 09:10
FD12	3	4	02/15/2014 08:19	02/16/2014 08:19
FD12	4	4	04/16/2014 08:26	04/17/2014 08:26
FD12	5	4	05/20/2014 09:48	05/21/2014 09:48
FD12	6	2	12/18/2016 12:05	12/19/2016 12:05

B.1.3 Wet Deposition Equipment Testing

Wet deposition monitoring was conducted using an N-CON ADS/NTN Atmospheric Deposition Sampler. Wet deposition equipment was tested prior to the start of each event to verify proper functionality. Field crews tested the sampler's precipitation sensor to verify proper function of the cover, and visual inspections were performed to confirm the compression seal on the underside of the cover was in good condition.

Measurement probes were cleared of debris as-needed, but no significant issues were observed.

B.1.4 Laboratory Instrumentation

Laboratory equipment were calibrated on the basis of manufacturer recommendations and accepted laboratory protocols. Laboratories maintained calibration practices as part of their method Standard Operating Procedures maintained by their Laboratory Directors and QA Officers. Calibration records can be provided by the laboratories upon request.

B.2 Data Quality Objectives

DQOs are quantitative and qualitative statements that define project objectives and specify the acceptable ranges of field sampling and laboratory performance. Results that did not meet measurement quality objectives were qualified and may be considered estimates. Measurement quality objectives for this project included the following:

- Accuracy
- Precision
- Completeness

Accuracy describes how close the measurement is to its true value. Accuracy is the measurement of a sample of known concentration and the comparison of the known value with the measured value. The accuracy of chemical measurements was checked by performing tests on a standard, which is defined as a known concentration of a certain solution, prior to and/or during sample analysis. The concentrations of the standards should also be within the mid-range of the equipment. Recovery measurements are determined by spiking a replicate sample in the laboratory with a known concentration of the analyte. Accuracy of the project data was determined by comparing results from matrix spike (MS) and matrix spike duplicates (MSDs), laboratory control standards (LCSs), field blanks, method blanks, and equipment blanks with the accuracy objectives specified within each section.

Precision describes how well repeated measurements agree. The evaluation of precision described here relates to repeated measurements/samples collected in the field (field duplicates) or the laboratory (laboratory replicates and MS/MSDs). Relative percent differences (RPDs) were calculated to determine the precision between duplicate samples. This calculation is shown in Equation B-1.

Equation B-1. Relative Percent Difference

$$RPD = \frac{abs[x_1 - x_2]}{0.5 * (x_1 + x_2)} * 100$$

where: abs is the absolute value x₁ is measurement 1 (e.g., MS) x₂ is measurement 2 (e.g., MSD)

Completeness is the fraction of planned data that must be collected to fulfill the statistical criteria of the project. There are no statistical criteria that require a certain percentage of data. However, it is expected that 75 percent (%) of measurements will be taken when anticipated. This percentage accounts for adverse weather conditions, safety concerns, and equipment issues. The project team determines completeness by comparing the number of measurements planned to be collected with the number of measurements actually collected that are also deemed valid. Completeness is measured as a percentage of the number of samples collected that meet the respective DQOs, compared with the anticipated total number of samples. This calculation is shown in Equation B-2.

Equation B-2. Completeness

$$Completeness = \frac{\text{Actual number of samples collected}}{\text{Project planned total samples to be collected}} * 100$$

Table B-3 shows the data quality objectives for dry and wet depositional samples.

Table B-3. Data Quality Objectives for PAH Samples

Monitoring Component	RL	Units	Accuracy (% Recovery and Blank Results)	Precision (% RPD)	Completeness
Dry Depositional Monitoring	0.1	μg	LCS: 60-120% FB and MB: <rl< td=""><td>FD, LD, and MSD^(a): < 25</td><td>75%</td></rl<>	FD, LD, and MSD ^(a) : < 25	75%
Wet Depositional Monitoring	5	ng/L	MS ^(a) : 50-150% FB and MB: <rl< td=""><td>FD, LD, and MSD^(a): < 25</td><td>90%</td></rl<>	FD, LD, and MSD ^(a) : < 25	90%

Notes:

μg = micrograms; % = percent; FB = field blank; FD = field duplicate; LCS = laboratory control sample; LD = laboratory duplicate; MB = method blank; ng/L = nanograms per liter; RL = reporting limit

B.3 Field Quality Assurance/Quality Control (QA/QC) Samples

This section addresses QA/QC activities associated with field sampling. Field QA/QC samples are used to evaluate potential contamination and sampling errors that may be introduced prior to submittal of the samples to the analytical laboratory. Field QA/QC procedures utilize field blanks and field duplicates to assess for any potential field contamination:

- **Field Blanks** Field blanks verify that field conditions and field sampling activities are non-contaminating. Field blanks are submitted blind to the laboratory.
- Field Duplicates Field duplicates typically evaluate sampling error introduced by field activities.

Table B-4 briefly summarizes the sample types, their frequencies, and their respective DQOs.

Table B-4. Field Quality Control Samples

	Data Qua	ality Objectives		
Program	Field Duplicate	Field Blank	Frequency of Analysis	
Dry Deposition	NA	<rl (0.1="" td="" μg)<=""><td>1 FB per event (6 total)</td></rl>	1 FB per event (6 total)	
Wet Deposition	RPD < 25%	<rl (5="" l)<="" ng="" td=""><td>10% of sample count</td></rl>	10% of sample count	

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For dry deposition air samples, one field blank was planned per event (6 total). Field blanks were treated exactly as the primary samples except that air is not drawn through the filter/sorbent cartridge assembly. Field blanks were submitted to the analytical laboratory for analysis in conjunction with primary samples. To meet acceptance criteria, results must be less than or equal to the reporting limit (see Table B-4). Field duplicates were not collected because of the difficulty of obtaining dry deposition air samples. To obtain a duplicate an additional sampler and set of cartridges would need to be installed, adding to the Project cost.

For wet deposition water samples, QA/QC samples were planned at a frequency of 10% of the project sample count. For field blanks, sample bottles were filled with reagent-grade, analyte-free deionized water in the field during a sampling event and submitted to the laboratory for analysis in conjunction with primary samples. During wet deposition monitoring, twice as much of the minimum sample volume is needed to run a duplicate; so duplicates are dependent on the volume collected.

During wet and dry monitoring components of the Project, field quality control samples were collected at frequencies summarized above. As planned, one field blank was collected per dry weather event for a total of 6 QA/QC samples. A total of three QA/QC samples were collected under the wet deposition component of the program (one field blank and two field duplicates), for a frequency of 12.5% percent of wet deposition samples. Analytical results from the field dry and wet deposition QA/QC samples are summarized below.

Results of the dry deposition field blanks were below the reporting limits (RLs) and DQOs, except for pyrene, fluoranthene and benzo(g,h,i)perylene during Dry Event 6. Pyrene was detected at 0.33 ug, fluoranthene was detected at 0.12 ug, and benzo(g,h,i)perylene was detected at 0.15 ug which are above the RL of 0.1 ug. These results were "B" flagged, which means the compound present in the laboratory blank was greater than the reporting limit.

For the field blank collected during the wet deposition component of the Project, no compounds were detected above the reporting limit (i.e., all results were non-detects).

To assess precision, the RPD from the primary sample and the associated field duplicates were calculated to determine if the DQO was achieved (RPD less than 25 percent). Table B-5 provides the RPDs between the primary sample and the associated field duplicates collected at sites FD11 and FD07 during Wet Event 3.

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Table B-5. Relative Percent Differences for Wet Deposition Field Duplicate Samples

Analyte	WW3-FD07 RPD	WW3-FD11 RPD
1-Methylnaphthalene	22%	23%
1-Methylphenanthrene	6%	ND
2,3,5-Trimethylnaphthalene	ND	ND
2,6-Dimethylnaphthalene	ND	3%
2-Methylnaphthalene	37%	11%
Acenaphthene	ND	ND
Acenaphthylene	48%	ND
Anthracene	ND	ND
Benz[a]anthracene	ND	ND
Benzo[a]pyrene	ND	ND
Benzo[b]fluoranthene	ND	90%
Benzo[e]pyrene	43%	76%
Benzo[g,h,i]perylene	60%	79%
Benzo[k]fluoranthene	ND	ND
Biphenyl	27%	13%
Chrysene	33%	67%
Dibenz[a,h]anthracene	ND	ND
Dibenzothiophene	ND	ND
Fluoranthene	19%	36%
Fluorene	42%	16%
Indeno[1,2,3-c,d]pyrene	ND	ND
Naphthalene	13%	2%
Perylene	ND	ND
Phenanthrene	15%	9%
Pyrene	3%	65%

Analyzed parameters met DQO for FD07 with the exception of 2-Methylnaphthalene, Acenaphthylene, Benzo[e]pyrene, Benzo[g,h,i]perylene, Biphenyl, Chrysene, and Fluorene. However, in each instance both results were reported less than the reporting limit and considered non-detects and estimated values.

Measured concentrations in the primary and duplicate samples for these PAHs are provided below:

2-Methylnaphthalene: 4.6 and 6.7 nanograms per liter (ng/L)

Acenaphthylene: 1.1 and 1.8 ng/L

Benzo[e]pyrene: 2.2 and 3.4 ng/L

Benzo[g,h,i]perylene: 2.7 and 5 ng/L

Biphenyl: 1.9 and 2.5 ng/L

Chrysene: 3.3 and 4.6 ng/L

• Fluorene: 2.1 and 3.2 ng/L

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For the duplicate collected at FD11, the calculated RPD exceed the DQO for benzo[b]fluoranthene, benzo[e]pyrene, benzo[g,h,i]perylene, chrysene, fluoranthene, and pyrene. For benzo[e]pyrene, benzo[g,h,i]perylene, and chrysene both results were reported less than the reporting limit and considered non-detects and estimated values.

Measured concentrations in the primary and duplicate samples for these PAHs are provided below:

Benzo[b]fluoranthene: 2.3 and 6.1 nanograms per liter (ng/L)

Benzo[e]pyrene: 2.2 and 4.9 ng/L

Benzo[g,h,i]perylene: 2 and 4.6 ng/L

Chrysene: 2.5 and 5.0 ng/L

Fluoranthene: 4.5 and 6.5 ng/L

Pyrene: 3.6 and 7.1 ng/L

B.4 Laboratory Quality Assurance/Quality Control (QA/QC)

This section addresses laboratory QA/QC activities. Laboratory QA/QC samples provide data to assess potential laboratory contamination, analytical precision, and accuracy. Analytical QA for this program included the following:

- Employment of analytical chemists trained in the procedures to be followed
- Adherence to documented procedures, EPA approved methods, and written SOPs
- Frequent and proper calibration and maintenance of analytical instruments
- Use of QC samples, internal standards, and surrogates
- Complete documentation of sample tracking and analysis
- Internal laboratory QC checks include the use of laboratory replicates, method blanks, MS/MSDs, and LCSs. A summary of each quality control type is provided below:

Internal laboratory QC checks include the use of laboratory replicates, method blanks, blank spikes, and MSs/MSDs, as follows:

- Laboratory Duplicate (LD) A sample is split by the laboratory into two portions and each portion is analyzed. Once analyzed, the results are evaluated by calculating the RPD between the two sets of results. This serves as a measure of the reproducibility, or precision, of the sample analysis. Typically, replicate results should fall within an accepted RPD range, depending upon the analysis.
- Laboratory Method Blanks (MB) A method blank is an analysis of a known clean sample matrix that has been subjected to the same complete analytical procedure as the field sample to determine whether potential contamination has been introduced during processing. The laboratory method blank is analyzed along with each batch of less than or equal to 20 samples through the entire extraction, concentration, and analysis process.

Blank analysis results are evaluated by checking against the RL for that analyte. Results obtained should be less than the RL for each analyte.

- Laboratory Control Sample (LCS) –The laboratory control sample procedure involves spiking known amounts of the analyte of interest into a known, clean, sample matrix to assess the possible matrix effects on spike recoveries. The recovery of the spike is a measure of the accuracy of the analysis. High or low recoveries of the analytes in the matrix spikes may be caused by interferences in the sample. Laboratory control samples assess these possible matrix effects since the LCS is known to be free from interferences. The spike recoveries are compared against accepted and known method dependent acceptance limits. Results outside these limits are subject to corrective action.
- MSs/MSDs MSs/MSDs involve adding a known amount of the chemical(s) of interest to one of the actual samples being analyzed. One sample is split into three separate portions. One portion is analyzed to determine the concentration of the analyte in question in an unspiked state. The other two portions are spiked with a known concentration of the analytes of interest. The recovery of the spike, after accounting for the concentration of the analyte in the original sample, is a measure of the accuracy of the analysis. An additional precision measure is made by calculating the RPD of the duplicate spike recoveries. Both the RPD values and spike recoveries are compared against accepted and known method dependent acceptance limits. Results outside these limits are subject to corrective action.

The required frequency and DQOs for laboratory QC samples are presented in Table B-6.

Table B-6. Laboratory Quality Control Sample Frequency

QA/QC Sample Type	Required for Dry Deposition (Method TO13- A)	Required for Wet Deposition (EPA 625)	Minimum Sampling Frequency and DQOs
Method Blank (MB)	4	*	With each sample batch of up to 20 samples (5% collected throughout the duration of the project). Less than RL.
MS/MSD	_	*	With each sample batch of up to 20 samples (5% collected throughout the duration of the project). 50-150% recovery (Wet deposition).
Laboratory Control Spike (LCS)	√	✓	With each sample batch of up to 20 samples (5% collected throughout the duration of the project). 60–120% recovery (Dry deposition).
Laboratory Duplicate (LD)	✓	✓	With each sample batch of up to 20 samples.

Notes:

RL = Reporting Limit

Quality Control Sample frequencies established in Table B-7 for dry depositional analyses and wet depositional were met. The following sections discuss the accuracy, precision and completeness of laboratory QC samples

B.4.1 Laboratory Quality Control Samples - Accuracy and Precision

Tables B-7 and B-8 summarize the accuracy and precision of laboratory QC samples.

Table B-7. Laboratory Quality Control Sample Results - Dry Deposition

	Accı	Accuracy		
Analyte	Method Blank (% achieved)	MS and LCS (% achieved)	MS/MSDs and LCS/LCSDs (% achieved)	
Naphthalene	92%	100%	100%	
2-Methylnaphthalene	100%	100%	100%	
2-Chloronaphthalene	100%	100%	100%	
Acenaphthylene	100%	100%	100%	
Acenaphthene	100%	100%	100%	
Anthracene	100%	100%	100%	
Fluorene	100%	100%	96%	
Phenanthrene	100%	100%	100%	
Pyrene	96%	100%	100%	
Fluoranthene	96%	100%	96%	
Benzo(a)anthracene	100%	100%	100%	
Chrysene	100%	100%	100%	
Benzo(a)pyrene	100%	100%	100%	
Perylene	100%	NA	NA	
Benzo(b)fluoranthene	100%	100%	100%	
Benzo(e)pyrene	100%	NA	NA	
Benzo(k)fluoranthene	100%	100%	100%	
Dibenz(a,h)anthracene	96%	100%	100%	
Indeno(1,2,3-c,d)pyrene	100%	100%	76%	
Benzo(g,h,i)perylene	92%	100%	100%	
Coronene	100%	NA	NA	

Notes: Notes: percentage represents how many samples met the data quality objective % = percent; LCS/LCSD = laboratory control sample/ laboratory control sample duplicate; MS/MSD =

matrix spike/matrix spike duplicate; NA = not applicable

Table B-8. Laboratory Quality Control Sample Results - Wet Deposition

	Accı	ıracy	Precision
Analyte	Method Blank (% achieved)	MS and LCS (% achieved)	MS/MSDs and LCS/LCSDs (% achieved)
Naphthalene	100%	100%	100%
1-Methylnaphthalene	100%	100%	100%
2-Methylnaphthalene	100%	100%	100%
Biphenyl	100%	100%	100%
2,6-Dimethylnaphthalene	100%	100%	100%
2,3,5-Trimethylnaphthalene	100%	100%	100%
Acenaphthylene	100%	100%	100%
Acenaphthene	100%	100%	100%
Anthracene	100%	100%	100%
Dibenzothiophene	100%	100%	100%
Fluorene	100%	100%	100%
Phenanthrene	100%	100%	100%
1-Methylphenanthrene	100%	100%	100%
Pyrene	100%	100%	100%
Fluoranthene	100%	100%	100%
Benzo(a)anthracene	100%	100%	100%
Chrysene	100%	100%	100%
Benzo(a)pyrene	100%	100%	100%
Perylene	100%	100%	83%
Benzo(b)fluoranthene	100%	100%	100%
Benzo(e)pyrene	100%	100%	100%
Benzo(k)fluoranthene	100%	100%	100%
Dibenz(a,h)anthracene	100%	100%	100%
Indeno(1,2,3-c,d)pyrene	100%	100%	100%
Benzo(g,h,i)perylene	100%	100%	100%

Notes: percentage represents how many samples met the data quality objective

% = percent; LCS/LCSD = laboratory control sample/ laboratory control sample duplicate; MS/MSD =

matrix spike/matrix spike duplicate; NA = not applicable);

B.4.2 Laboratory Quality Control Samples - Completeness

Project completeness goals of 75% for dry deposition and 90% for wet deposition field and laboratory measurements were assessed against the number of actual measurements collected. Results are as follows:

- Dry depositional analytical parameters were analyzed as required. Analytical completeness was 100%.
- Wet depositional analytical parameters were analyzed as required. Analytical completeness was 100%.

B.5 Laboratory Analyses and Reporting Summary

Dry weather samples were analyzed by EPA Modified TO-13A. Wet depositional samples were analyzed by EPA 625. Both analytical methods allow for a 7 day extraction holding time (date collected to the date processed) and 40 day analysis holding time (date processed to the date analyzed).

There were no holding time exceedances with Project samples. The samples were received and the preparation, preservation, or extraction were initiated within 7 days. The samples were then analyzed within the 40 days.

All dry depositional samples were received by Air Toxics in good condition and analyzed by EPA Modified TO-13A with the exceptions of the following:

- For five out of the 24 sampling days, a temperature blank was included with each shipment. Temperature was measured and was not within 4±2 °C. The analyses proceeded as the laboratory deemed them acceptable.
- During Dry Event 3, on sample date 2/16/2014, the cartridge for sample DD-FD11-1402160849-01 was broken while still encased in bubble wrap and foil. The sample preparation and analysis proceeded. Sample analysis was not impacted.
- During Dry Event 6, on sample date 12/19/2016, naphthalene was detected in the laboratory blank at low background level 0.1ug). The contribution of naphthalene due to laboratory background level was determined to be insignificant to the concentration reported in the field samples.
- Benzo(g,h,i)perylene, dibenz(a,h)anthracene, fluoranthene, naphthalene and pyrene were also detected above the reporting limit in the laboratory blank on sample date 01/08/2017 and 01/18/2017. The field blank collected on 01/18/2017 had reportable levels of the target compounds present. Due to the nature of PUF/XAD2 extraction it is not possible to re-extract the associated samples. These results were "B" flagged, which means the compound present in the laboratory blank was greater than the reporting limit.

All wet depositional samples were received by Physis in good condition and analyzed by EPA Method 625. Many samples which were "J" flagged, because the analytes were detected at concentrations below the reporting limit and above the method detection limit. Reported values are considered estimated values.

Laboratory reports and EDDs for the PAH Aerial Deposition Study are provided in Appendix C.

B.6 References

Amec Foster Wheeler. 2016. Polycyclic Aromatic Hydrocarbon (PAH) Transport Study Quality Assurance Project Plan. June. Prepared for the City of San Diego.

Attachment B-1. High Volume Air Sampler Calibration Records

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Field Data Sheets

PAH Dry Deposition Field Data Log Sheet Field Crew: KGBS, DK, EM, KS FD12 Site ID Deposition Event: Dry 1 Drv 2 Dry 3 Drv 4 Drv 5 Type: (Weekday (W/Th)) Weekend (Sat/Sun) Collection: 1 /4 (per DD event) End Date: 08/01/2013 Start Date: 07/31/2013 ATMOSPHERIC CONDITIONS (Overcast) Sky Partly Cloudy Fog Sunny Day 2 overcast **PUF SAMPLER** Sampler I.D. No.: FA00692 Certification Date/No.: PUF: P130423, 07/09/2013 XAD: X130313, 07/17/2013, Filter: F130523 Black White Sample Time **Elapsed Timer** 09:46 00 96 Start: Start: 07/31/2013 0946 08/01/13 Stop: Stop: 24 96 Diff. Duration: **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? DATE: 07/31/2013 TIME: 9:10 SUM Date Magn. 7/31/13 8/1/13 (-) (+)3.5 6.9 Time 09/15 10:00 70 3,4 60 3.1 2.9 6 Magn. Read. 40 42 $\triangle H$ 50 2.7 2.4 5.1 3,5 3.8 Yes/ No? 40 4 2.1 1.9 Min (-10%) Max (+10%) 30 1.6 1.5 3.1 38.4 47.0 30.9438 M= B= -0.4907 0.9982 R²= 42.7 **Magnehelic Set-point:** FIELD MEASUREMENTS **Barometric Pressure** Magn. Wind Notes Temp (°F) Date Time (calc flow rate, etc.) Speed (in. Hg) Reading O 30.07 07/31/2013 42 09:47 66 29.99 2 44 08/01/2013 0939 331 std. m³ TOTAL VOLUME: Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank **NOTES**

Steve (619) 655 4662 \$81/month

PAH Dry Deposition Field Data Log Sheet Field Crew: KG,BS, EM, DK Site ID FD11 Deposition Event: Try 1 Dry 2 Dry 3 Dry 4 Drv 5 Type: (Weekday (W/Th)) Weekend (Sat/Sun) Collection: 1 /4 (per DD event) Start Date: 07/31/2013 End Date: 08/01/2013 ATMOSPHERIC CONDITIONS Sky Partly Cloudy Overcast Fog Sunny **PUF SAMPLER** Sampler I.D. No.: FA 00580 Certification Date/No.: PUF: P130423, 07/09/2013 XAD: X130313, 07/17/2013, Filter: F130523 Black **Elapsed Timer** White Sample Time Start: Start: 1105 07/31/2013 74 15.5 98 Stop: 15.5 Stop: 12013 1105 Diff. Duration: **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? DATE: 07/31/2013 TIME: 10:30 Magn. Date SUM (+)(-) 7/31 8/1 70 3.2 3.1 6.3 Time 11:13 1045 Magn. Read. 60 2.9 2.8 5.7 42.2 42 50 2.5 2.4 4.9 $\triangle \mathsf{H}$ 3.8 3.6 2 2 4 Yes/ No? 40 30 1.5 1.4 2.9 Min (-10%) 40.5 Max (+10%) 49.5 33.3411 M≕ -0.8598 B= 0.9948 $R^2 =$ Magnehelic Set-point: 45.0 FIELD MEASUREMENTS Magn. Wind Barometric Pressure **Notes** Temp (°F) Date **Time** Reading Speed (in. Hg) (calc flow rate, etc.) 7/31/2013 11 05 30.09 67 WUN 69 8/1/2013 1100 30.00 328 std. m³ TOTAL VOLUME: NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

PAH Dry Deposition Field Data Log Sheet FD07 Site ID Field Crew: K6, BS Dry 2 Deposition Event: Try 1 Dry 3 Dry 4 Dry 5 Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: _____/4 (per DD event) Start Date: 07/31/2013 End Date: 08/01/2013 ATMOSPHERIC CONDITIONS Sky Partly Cloudy (Overcast Sunny Fog **PUF SAMPLER** Sampler I.D. No.: FA 60 691 Certification Date/No.: PUF: P130423, 07/09/2013 XAD: X130313, 07/17/2013, Filter: F130523 **Elapsed Timer** Black White Sample Time Start: 12:06 Start: 07/31/2013 00 24 Stop: 81 Stop: 12:06 Diff. Duration: 24 hr ers/ **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? DATE: 07/31/2013 TIME: 11:45 Magn. SUM Date (+)(-) 07/31/13/8/1/13 Time 70 3.5 3.5 7 11:30 60 3 3 6 Magn. Read. 40 50 2.6 3.8 2.5 5.1 $\triangle H$ 3.6 40 Yes/ No? 2.1 2.1 4.2 Yes 30 1.6 1.6 3,2 Min (-10%) 37.5 Max (+10%) 45.9 M= 32.0916 B= -0.8226 $R^2 =$ 0.9998 Magnehelic Set-point: 41.7 **FIELD MEASUREMENTS Barometric Pressure** Magn. Wind Notes **Date** Time Temp (°F) Reading Speed (in. Hg) (calc flow rate, etc.) U 30.049 7/31/2013 12:06 11 72 West div. 2013 12:00 29,910 332 std. m³ TOTAL VOLUME: **NOTES** Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

		PAH Dry	Deposition	on Field Data Log	Sheet		
Site ID	CNM1			Field Crew:_ <u>K</u>	6,BS,E	<u>M</u>	
Deposition			y 2 Dry	/ 3 Dry 4 Dry			
Type: Weel							
Start Date:			213	End Date:- <u>98/</u> 9	1/2013 O	8/02/20	013
ATMOSPHE	71		1777			, ,	
Sky (Sun		ly Cloudy	COMPLETE TO	Fog			
PUF SAMPLER							
Sampler I.D.	Sampler I.D. No.: FA 00579 [307-24 Inprograss						
Certification	Date/No.: I	PUF: <u>P13042</u>	3, 07/09/20	<u>¥13</u> XAD: <u>X130313,</u>	<u>07/17/2013</u>	<u>3,</u> Filter: <u>F1</u>	30523
Elapsed Tin	ner	Black	White	Sample Time			
65166	Start:	74	65.5	Start:	11 :ANS	11:04	08/01/13
	Stop:	98	685	Stop:		11040	8/02/2013
	Diff.	24 h	OUN	Duration:		•	·
Calibrations	3				The state of the s		
MUI	TI-POINT	CALIBRATIO	NC	Audit flow ch	sook withi	n .10 of or	st paint?
TIME: 9:10	1.3	DATE: 07/3	1/2013	Audit now cr	ieck within	ii ± iu oi se	er boint?
Magn.	(+)	(-)	SUM	Date	7/31/2013	8-2-13	
70	3.2	3.2	6.4	Time	13:15	1117	
60		2.8	5.6	Magn. Read.	40.5	Lf0	MANAGEMENT AND ASSESSMENT OF THE SECOND ASSESS
50	2.5	2.5	5	△H	3.6	3.4	
40		2	4.	Yes/ No?	Y	Ý	
30		1.5	3	Min (-10%)	39.9	Max (+10%)	48.8
M= B=	34,1618 -1.092						
R^2 =	0.9961						
Magneheli	c Set-poir	nt:	44.3				
FIELD MEA	SUREMEN	TS			- COSTANIAN AND AND AND AND AND AND AND AND AND A		Harris Market Market Control of the
		Magn.	Wind	Barometric Pressure		No	tes
Date	Time	Reading	Speed	(in. Hg)	Temp (°F)		rate, etc.)
8/11/3	11:00	44.3	8mph	29.87	68° F		
8213	11:00	42	2 mph	29.82	71		
					l distribution dependence		
	Anwer 200						
	***************************************		THE RESIDENCE AND ADDRESS OF THE PROPERTY OF T		494	· ·	
<u></u>					and the second s		The state of the s
TOTAL VOL	.UME:	326		std. m³			
NOTES	Sample ID Fo	rmat: DD-Site-Y\	MMDDHHMM-	Sample Type; Sample Type:	-01=Primary,	FB=Field Blank	
Humidily	i	2 B					
1111111	W	15 C 70	7) 00	ljusted down	L. 40	3	
U Y F				- /	10 17	<i>L</i> , "	

Btw.

•							
	romer or company	PAH Dry	Deposition	on Field Data Log S	Sheet		·
Site ID	FD12	· · · · · · · · · · · · · · · · · · ·		Field Crew:/_	6,BS		
Deposition E			ry 2 Dry	y 3 Dry 4 Dry	15	- -	
Type: Week		Annual Contraction of the last	- CATHANA CONTRACTOR		_/4 (per D[Devent),	
Start Date: <u>⊕</u>	"	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	2013	End Date: <u>08/</u> 0	<u>1/2013_ </u>	18/04/20	21/3
ATMOSPHEI	THE STATE OF THE S						
Sky Sunr PUF SAMPL		ly Cloudy	Overcast	Fog		Over	weas)
Sampler I.D.	No. FA	00692					
	Certification Date/No.: \$130724, X130313, F130523						
Elapsed Tim	er	Black	White	Sample Time			/
	Start:	25	22	Start:	2030	08/03	3/13
•	Stop:	49	22	Stop:	0803	08/0	14/13
	Diff.	24h	one	Duration:		,	17
Calibrations	<u> </u>		Enables de constitution de la co				
		CALIBRATION DATE: 07/3		Audit flow ch	neck within	n ±10 of se	t point?
Magn.	(+)	, , ,) (-)	SUM	Date	08/03	68/04	
70	3.5	3.4	6.9	Time	0745	0805	
60	3.1	2.9	6	Magn. Read.	40	39	
50	2.7	2.4	5.1	△H	1.75+1.75	3.5	, , , , , , , , , , , , , , , , , , , ,
40	2.1	1.9	4	Yes/ No?	. Y	Y	80000000000000000000000000000000000000
30	1.6	1.5	3.1	Min (-10%)	37.7	Max (+10%)	46.1
M= B=	30.9438 -0.4907		4.4				
B= R ² =	-0.4907 0.9982						
Magnehelic	Set-poin	ıt:	41.9	= 42			
FIELD MEAS	SUREMEN	TS	Experience of the control of the con		Section 1		
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Not (calc flow	
1		CAL	Ø	29.96	66		20 Meta
08/03/13	0803	42	0	29.95	65		
08/04/13	75754	last Zamen	2	19197	22		
T T					Sing year		
				ž.,			
		<u> </u>					SEVER MINISTER
TOTAL VOL	UME:	329	E-0112-019-01-01-01-01-01-01-01-01-01-01-01-01-01-	std. m ³			
NOTES	Sample ID Fo	rmat: DD-Site-Y\	YMMDDHHMM-	-Sample Type; Sample Type:	-01=Primary, I	FB=Field Blank	WHO I SHOW I SHO
				0803-01			

PAH Dry Deposition Field Data Log Sheet Site ID FD11 Field Crew: __ K6, B S Deposition Event: Ory Dry 2 Drv 3 Dry 4 Drv 5 Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 2/4 (per DD event) Start Date: 07/31/2013 08/03/2013 End Date: 08/01/2013 08/04/2013 ATMOSPHERIC CONDITIONS Sky Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.:_ FA 00 580 Certification Date/No.: P130724(1P) X130313(7-17-13), F131523 **Elapsed Timer** Black White Sample Time Start: 98 43 Start: Stop: 27 43 Stop: Diff. Duration: 24 hr Calibrations MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? TIME: 10:30 DATE: 07/31/2013 Magn. (+) **(-)** SUM **Date** 8/03/13 70 3.2 3.1 6.3 Time 725 7900 60 2.9 2.8 5.7 Magn. Read. 43 1/2 50 2.5 2.4 4.9 $\triangle \mathbf{H}$ 3.8 3.9 40 2 2 4 Yes/ No? 30 1.5 1.4 2.9 Min (-10%) 39.7 Max (+10%) 48.5 -M≖ 33.3411 B≃ -0.8598 $\mathbb{R}^2 \simeq$ 0.9948 44.1 = 44 Magnehelic Set-point: FIELD MEASUREMENTS Barometric Pressure Magn. Wind Date Time **Notes** Temp (°F) Reading Speed (in. Hg) (calc flow rate, etc.) 0835 <-b-08/03 41 29.99 107 685 <u>18103</u> 0 29,98 10 08 58 08/133 29.98 0855 29,99 327 TOTAL VOLUME: std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank DD-FD11-1308841858-01 COW BATTERY TRANSMITTERWEATHER STATION

PAH Dry Deposition Field Data Log Sheet FD07 Field Crew: K6, BS Site ID Deposition Event: Try 1 Dry 2 Dry 3 Dry 4 Drv 5 Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 2 /4 (per DD event) Start Date: 08/03/2013 End Date: 08/04/2013 ATMOSPHERIC CONDITIONS Sky (Sunny Partly Cloudy Overcast Fog **PUF SAMPLER** Sampler I.D. No.: FA 006 91 Certification Date/No.: P130724 X130313, F130523 Elapsed Timer Black White Sample Time Start: 75 0939 Start: I 01 Stop: 49 Stop: \mathcal{O} 0939 Diff. Duration: **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? TIME: 11:45 DATE: 07/31/2013 Magn. 108/13 ORTOU (+) **(-)** SUM Date 70 3.5 3.5 Time 0935 7 0945 3 39.5 60 3 6 Magn. Read. 42 50 2.6 2.5 5.1 Falgh. $\triangle H$ 3.91 40 2.1 2.1 Yes/ No? 4.2 30 1.6 1.6 3.2 Min (-10%) Max (+10%) 36.8 M= 32.0916 B≔ -0.8226 R²= 0.9998 40.9 = Magnehelic Set-point: **FIELD MEASUREMENTS** Barometric Pressure Magn. Wind **Notes Date** Time Temp (°F) Reading Speed (in. Hg) (calc flow rate, etc.) Maiordo 08/83 0929 10 29,95 109 08/13 Lauren. 29.95 69 299 1000

TOTAL VOLUME: 327 std. m³

NOTES

Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

DD-FD07-1308040939-0/

PAH Dry Deposition Field Data Log Sheet Field Crew: KGBS CNM1 Site ID Deposition Event: Orv D Dry 5 Dry 4 Dry 2 Dry 3 Type: Weekday (W/Th) (Weekend (Sat/Sun)) Collection: 2/4 (per DD event) End Date: 08/01/2013 08/04/2013 Start Date: 07/31/2013 08/03/2013 ATMOSPHERIC CONDITIONS Sky Sunny Partly Cloudy PUF SAMPLER Overcast Fog Sampler I.D. No.: FA-00579 Certification Date/No.: P130724 X430318, F 130525 White Sample Time Black **Elapsed Timer** 98 98 Start: Start: Stop: / () 4 Stop: 22 Duration: Diff. Nouv **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? DATE: 07/31/2013 TIME: 9:10 40/80 08/03 Date (-) SUM Magn. (+)1050 10 40 Time 6.4 3.2 3.2 70 40 Magn. Read. 5.6 2.8 2.8 60 3.5 3.6 5 $\triangle H$ 2.5 2.5 50 Yes/ No? 2 4 40 2 Min (-10%) 39.2 Max (+10%) 47.9 3 1.5 30 1.5 34.1618 M= B= -1.092 0.9961 $R^2=$ 43.5 = 44 Magnehelic Set-point: FIELD MEASUREMENTS **Barometric Pressure** Wind **Notes** Magn. Temp (°F) Date Time (calc flow rate, etc.) (in. Hg) Speed Reading 29,85 1022 Ø/103 MAYVAN 29,810 (08 MUD 08/03 08/07 1048 std. m³ TOTAL VOLUME: Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank NOTES DD-1308041048-01 CNM1-

PAH Dry Deposition Field Data Log Sheet FD12 (4964 Imperial Avenue) Site ID KGIDK Field Crew: Deposition Event: Dry 1 Dry 2 Dry 3 Drv 4 Drv 5 Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 3 /4 (per DD event) Start Date: 8-7-13 **End Date:** ATMOSPHERIC CONDITIONS

Sky (Start): Sunny Partly Cloudy Overcast Pog

Sky (End): Sunny Partly Cloudy (Overcas) Fog

PUF SAMPLER

Sampler I.D. No.: FA00692

Certification Date/No.: PUF: 130724 XAD: X 130426, Filter: F/30523

Elapsed Timer	Black	White	Sample Time	j
Start:	49	47	Start:	0830
Stop:	73	48	Stop:	0830
Diff.	24	<u> </u>	Duration:	24 hrs

Calibrations

MULTI-POINT CALIBRATION						
TIME: 9:10		DATE: 07/3	1/2013			
Magn.	(+)	(-)	SUM			
70	3.5	3.4	6.9			
60	3.1	2.9	6			
50	2.7	2.4	5.1			
40	2.1	1.9	4			
30	1.6	1.5	3.1			

M= 30.9438 B= -0.4907 0.9982 $R^2=$

Date 8/1/13 Time 0819 CAR 200 0848 Magn. Read. 39 38 MMA $\triangle H$ 3.6 3,4 Yes/ No? 765 NO Min (-10%) Max (+10%) 37.18

Audit flow check within ±10 of set point?

Magnehelic Set-point: ____41.7 っせつ

FIELD MEASUREMENTS

Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)
8-7-13	0830	42	Ó	30.04	65	
8-8-13	0850	42		24.97	67°	
		N. N.				
				And Constitution of Every Land Constitution of the Constitution of		
		- 1	>			30 M 40 William 1997
			N ₁	The state of the s		
			4			

TOTAL	VOLUME:	321	7	std.	m
H 400 D // 15 BMG	8 00 pm 0 th tem o			olu.	111

NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank 3,35

PAH Dry Deposition Field Data Log Sheet Field Crew: KG, OK Site ID FD11 (945 25th St.) **Deposition Event:** Dry 3 Ory 1 Dry 2 Dry 4 Dry 5 Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 3 /4 (per DD event) Start Date: _8/7//3 End Date: ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog Sky (End): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: FA00580 Certification Date/No.: PUF: 1 3 0 7 2 4 XAD: ×1 3 0 4 2 6 , Filter: [3 0 5 2 3 **Elapsed Timer** White Black Sample Time 0918 Start: 122 63 Start: Stop: Stop: 146 Diff. 24 Duration: **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? TIME: 10:30 DATE: 07/31/2013 Date 8/7/13 8/8/13 Magn. SUM (+) **(-)** 0935 70 3.2 3.1 6.3 Time 091 60 2.9 Magn. Read. 40 2.8 5.7 3.6 50 2.5 2.4 4.9 $\triangle H$ 3 •6 40 2 2 Yes/ No? 165 YES 4 2.9 Min (-10%) 30 1.5 1.4 Max (+10%) 48.4 37.60 33.3411 M= В≕ -0.8598 $R^2 =$ 0.9948 Magnehelic Set-point: 44 **FIELD MEASUREMENTS**

Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)
8/7/13	0918	44.5	3	30.06	68	
8/8/13	0921	46	4	29.99	(8	
			(
						·

TOTAL VOLUME: 331 std. m³

NOTES

Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

K

PAH Dry Deposition Field Data Log Sheet

Site ID	FD07 (944	Cesar E. Cha	avez Pkwy)	Fie	Field Crew: KG, DK				
Deposition Event: Dry Dry 2 Dry 3					Dry 4 Dry 5				
Type: (Weekday (W/Th)) Weekend (Sat/Sun)					Collection: 3 /4 (per DD event)				
Start Date:	8/7/201	13	_	En	d Date: <u>⊗∫</u>	8/2013			
ATMOSPHE	RIC COND	ITIONS	,						
Sky (Start): St		Cloudy Over	cast Fog	Sky	y (End) Sunn	Partly Clo	udy Overca	ast Fog	
PUF SAMPL									
Sampler I.D.					.		100		
Certification I				Charles Control		_, Filter: [13052	<u> </u>	
Elapsed Tim		Black	White	S	ample Time	h. /hw/' - 5		Market Market Color of the Colo	
	Start:	49	25		Start:	100			
	Stop:	73	24		Stop:	100			
	Diff.	24		201600	Duration:	246	irs /mir	2	
Calibrations									
MUL TIME: 11:45	TI-POINT	CALIBRATION DATE: 07/3		/	Audit flow cl	neck withi	n ±10 of s	et point?	
Magn.	(+)	(-)	SUM	Da	te	8/7/13	08/8/13	08	
70	3.5	3.5	. 7	Tir	ne	0955	@ 100,15	12:18	
60	3	3	6	Ma	ıgn. Read.	98	46	40	
50		2.5	5.1			3.7	4.6	4	
40	2.1	2.1	4.2	Ye	s/ No?	4	NO	Yes	
30 M=	1.6 32.0916	1.6	3.2		Min (-10%) 3	6.72	Max (+10%)	44.8	
B=	-0.8226						1753	.	
R ² =	0.9998						3/3		
Magnehelio	Set-poir	nt: 40.8 = 4	41				6.6	-	
FIELD MEAS	SUREMEN	TS							
Date	Time	Magn. Reading	Wind Speed	ł .	tric Pressure in. Hg)	Temp (°F)	1	otes v rate, etc.)	
8/7/13	1000	41	4	30,	<i>64</i>	69			
8/6/13	0958	43	5	29.	96	70			
					` <u> </u>				
:					······································				
		.:							
								Manada and Malada da an anning proper group of the Committee	
TOTAL VOL	ume: か	30.7		std. m³				ACCIONE ACCIONA NO PORTO CONTINUO DE CONTINUO PORTO PORTO PORTO CONTINUO PORTO PORTO PORTO PORTO PORTO PORTO P	
NOTES						. Od. 12.	mn milion	1.	
INCIES	Sample ID Fo	rmat: DD-Site-Y`	MIMHHUUNINIY	oampie Ty	pe; Sample Type	: -01=Primary,	rb=rield Blan	К	

	PAH Dry Deposition Field Data Log Sheet							
Site ID	CNM1 (Ca	abrillo)		Field Crew: KG, DK				
Deposition E			y 2 Dry					
Type: Week	day (W/Th	Name	d (Sat/Sun)	Collection: 3 /4 (per DD event)				
Start Date: _	8/7/	1/3		End Date: O8/8/13				
ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: FA00579 Certification Date/No.: PUF: P130724 XAD: X130426 Filter: F30523								
Elapsed Tim	ieŕ	Black	White	Sample Time				
	Start:	123	16	Start: 1106				
	Stop:	147	17	Stop: //08				
	Diff.	24	<u> </u>	Duration: 24 hrs 2 min				
Calibrations	<u>, i </u>			d Communication of the Communi				
MUL TIME: 9:10		CALIBRATION DATE: 07/3		Audit flow check within ±10 of set point?				
Magn.		(-)	SUM	Date 8/7/13 08/8/13				
70		3.2	6.4	Time 1059 11:18				
60	2.8	2.8	5.6	Magn. Read. 40 4//				
50	2.5	2.5	5	△H 3.7 3.65				
40	2	2	4	Yes/ No?				
30	1.5	1.5	3	Min (-10%) 39 (e Max (+10%) 48 (4				
M= B= R ² = Magnehelic	34.1618 -1.092 0.9961 C Set-poin		- 44	41.85 1.8 3.65				
FIELD MEAS	SUREMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)				
8/7/13	1107	44	8	29.93 68				
8/7/13	1101	46.5	7-	29.85 67				
	California de la companya della companya della companya de la companya della comp							
The state of the s		and the first of the control of the						
TOTAL VOL	UME: 3	32		std. m ³				
NOTES	Sample ID Fo	rmat: DD-Site-Y\	YMMDDHHMM-	-Sample Type; Sample Type: -01=Primary, FB=Field Blank				
	·							

		PAH Dry	Depositi	on Field Data Log	Sheet			
Site ID	FD11 (948	5 25th St.)		Field Crew:	Field Crew: FM /DK			
Deposition	Event: <	Dry 1 Dr	ry 2 Dr		· · · · · · · · · · · · · · · · · · ·			
		n) Weeken	d (Sat/Sun)	<i>1</i>				
Start Date:		and the second second second	The second secon	End Date:	11/13		Piloto da de la companya del companya del companya de la companya	
ATMOSPHE				,	-	A CONTRACTOR OF THE PARTY OF TH	·	
	-	Cloudy Over	cast Fog	Sky (End): Sunn	y Partly Clo	oudy Q verca	st) Fog	
PUF SAMP						The same of the sa		
Sampler I.D	. No.: <u>FA00</u>	<u>580</u>	17 10	V12/14/2/1				
Certification	Date/No.: I	PUF: 17501	× ×	(AD: X130424	<u>,</u> Filter:			
Elapsed Tir	ner	Black	White	Sample Time				
	Start:	146	98		0840			
** *** *******************************	Stop:	170	98	1	0840	A A harmony Moor Hardenburg Harbert	w	
245	Diff.	24	90	Duration:	24 h	<u> </u>		
Calibration	S	7 1 1 1 1 1 1 1 1 1 1				A STATE OF THE STA		
MU TIME: 10:30		CALIBRATI DATE: 07/3		Audit flow c	heck withi	n ±10 of se	et point?	
Magn	, (+)	(*)	SUM	Date	08/10/13	8/11/13		
7(3.2	3.1	6.3	Time	0830	0845		
60	-	2.8	5.7	Magn. Read.	42	40.5		
50	2.5	2.4	4.9	ΔH	3,7	7.7		
40		2	4	Yes/ No?	YES	YES		
30		1.4	2.9	Min (-10%) <i>4</i> ().5	Max (+10%)	49.5	
M= B=	33.3411 -0.8598				1.8		· ·	
R ² =	0.9948				1, 7			
Magneheli	c Set-poir	nt: 45		2				
FIELD MEA	SUREMEN	TS				, 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10		
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	1	tes rate, etc.)	
8/10/13	0840	45	2	30.03	63°			
8/11/13	0840	46	3	29,98	64			
						Act and the second second second second		
	1							
				and Allichandrian community and account of			0.007.0°	
				- Company of the Comp				
				A STATE OF THE STA			Manager Control	
TOTAL VOI	-UME:	332		std. m³				
NOTES	Sample ID Fo	rmat: DD-Site-Y	/MMDDHHMM-	Sample Type; Sample Type:	:-01=Primary,	FB=Field Blank		
	40.00	chli i	20811	nothin at				
	20 -	ru11-1	20011	0840-01				

PAH Dry Deposition Field Data Log Sheet FD12 (4964 Imperial Avenue) Field Crew: Site ID Deposition Event: Try 1 Drv 2 Drv 3 Dry 4 Dry 5 Collection: 4 (per DD event) Type: Weekday (W/Th) Weekend (Sat/Sun) B/1,1/13 Start Date: 8/10/13 End Date: ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcas) Fog Sky (End): Sunny Partly Cloudy Overcast Fog **PUF SAMPLER** Sampler I.D. No.: FA00692 Certification Date/No.: PUF: PI30720 XAD: X130426 _, Filter: _ White Sample Time **Elapsed Timer Black** Start: 0746 Start: 91 98 Stop: Stop: 00 24 Diff. 09 Duration: **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? DATE: 07/31/2013 TIME: 9:10 8/10/13 8/11/13 SUM Date Magn. (-) (+) 0736 Time. 6.9 0759 70 3.5 3.4 Magn. Read. 2.9 39.5 410 60 3.1 6 50 2.7 2.4 5.1 $\triangle H$ 3.6 USS Yes/ No? 40 1.9 4 YES 2.1 Max (+10%) 47.ス 3.1 Min (-10%) 30 1.6 1.5 38.7 30.9438 B≕ -0.4907 0.9982 $\mathbb{R}^2 =$ Magnehelic Set-point: 43 **FIELD MEASUREMENTS Barometric Pressure** Wind Magn. **Notes** Date Time Temp (°F) (calc flow rate, etc.) Reading (in. Hg) Speed 30.01 7;44 02 08/10 7:44 29.96 6 2 std. m³ TOTAL VOLUME:

NOTES Sample ID Format: DD-Site-YYMMDDH-

Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

DD- PD12-1308110744-01

Field Blank Taken

and ran through

West man to the second		PAH Dry	Deposition	on Field Data Log	Sheet			
Site ID	FD07 (944	Cesar E. Cha	avez Pkwy)	Field Crew:	EM,	DK		
Deposition Event: Dry Dry 2 Dry 3 Dry 4 Dry 5								
Type: Weekday (W/Th) Weekend (Sat/Syh) Collection: 4 (per DD event)								
Start Date: 08 10 13 End Date: 08 12/13								
ATMOSPHE	RIC COND	ITIONS		Salte W. SSA Anna I. Sa				
Sky (Start): St	unny Partly	Cloudy Over	cast Fog	Sky (End): Sunny	y Partly Clo	udy Overcast Fog		
PUF SAMPL	ER							
Sampler I.D.			a fo					
Certification [Date/No.: F	PUF: <u>P1307</u>	- <u>ZU</u> X	AD: X130420	<u>_,</u> Filter:	on the control of the		
Elapsed Tim	and the second second second	Black	White	Sample Time		And the state of t		
-	Start:	73	56	- PBery Start:	09:30	4 / 0930		
	Stop:	97	8.5	Stop:		1/4		
	Diff.			Duration:	3,00	Ϋ́		
Calibrations		3000 (d)		I		12 () () () () () () () () () (
	TI-POINT	CALIBRATION DATE: 07/3		Audit flow cl	neck withi	n ±10 of set point?		
Magn.	(+)	(4)	SUM	Date	08/10	08/12		
70	3.5	3.5	7	Time	25 00	0942		
60	3	3	6	Magn. Read.	40	38		
50	2.6	2.5	5.1	△H	3.8	3.7		
40	2.1	2.1	4.2	Yes/ No?	YES	YUS		
30	1.6	1.6	3.2	Min (-10%) 32	8. (Max (+10%) 40.2		
M= B= R ² =	32.0916 -0.8226 0.9998					1.3 1.8		
Magnehelic		nt: 42				3.8 7.7		
FIELD MEAS	UREMEN	TS				SCO ALLE COMMENTS AND A SCORE		
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)		
08/10	0934	45	2	30.00	64,			
08/12	0936	45	<i>\</i>	29-93	68	:		
	, 4					No. 1975.		
·		2010	***************************************	Water and the state of the stat		3011		
***************************************		CONTRACTOR	, , , , , , , , , , , , , , , , , , , 					
	***************************************	dialon special ego con con			nd additional design of the fact that the control of the control o			
		ant established a second of the second of		3				
TOTAL VOL	UME:			std. m ³				
NOTES Sample Was UV	started plugg	imat: DD-Site-YY	STUP	Sample Type; Sample Type: as stopped at atfire station started at	:-01=Primary, -9:40. 501.	FB=Field Blank POWER COVE		

8/12/2013 @ 0980 DD-FD04-1308120930-01

		PAH Dry	Depositi	on Field Data Log	Sheet		
Site ID	CNM1 (Ca	abrillo)		Field Crew:	EM,	DX-	
Deposition I	Event:	Dry 1 Dr	y 2	_	ry 5		
Type: Week	- · ·	·. 1	d (Sat/Sun)	Collection: $\frac{4}{2}$	_ /4 (per DI	O event)	
Start Date:	08/10	/13	The same of the sa	End Date:	3/11/13	rimen (irration), in Richman and assume an arrangement	
ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: FA00579							st Fog
Certification	Date/No.: I	PUF: <u>P130</u>	77CQ	XAD: X130424	Filter:	Manager and American Street	
Elapsed Tim		Black	White	Sample Time	T		72
•	Start:	(47	45/46	Start		(0	
	Stop:	171	45	Stop		160	· · · · · · · · · · · · · · · · · · ·
	Diff.	24	00	Duration	241	VL2	
Calibrations)	and the second s	Anna de la Anna de la Principal				
MUL TIME: 9:10	TI-POINT	CALIBRATION DATE: 07/3		Audit flow c	heck withi	n ±10 of se	et point?
Magn.	(+)	(-)	SUM	Date	08/10	8/11/13	
70	 	3.2	6.4	Time	1035	1055	
60	2.8	2.8	5.6	Magn. Read.	41	40	
50	2.5	2.5	5	ΔH	3.0	3,60	
40		2	4	Yes/ No?	YES	res	
30		1.5	3	Min (-10%)	9.6	Max (+10%)	48.4
M= B= R ² =	34.1618 -1.092 0.9961				1.8		
Magnehelid	c Set-poir	nt: 44		y 1100 (Ph. 1204 113 to 1/2 to	····		
FIELD MEAS	SUREMEN	TS					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		otes / rate, etc.)
08/10/13	1046	45	0	29.89	(06	£ .	
OSNU13	1046	45	3	29.84	67		
							
- Committee of the Comm							
· · · · · · · · · · · · · · · · · · ·							
A STREET, STRE							
		-) -)		_ 3			
TOTAL VOL	the first of the state of the s	al Court - Court Ave 1995 with a Gold Court		std. m ³		And and the second	Maria and the state of the stat
NOTES	Sample ID Fo	rmat: DD-Site-V		Sample Type: Sample Type	-01-Primary	ER-Field Blank	,

DD-CNM1-1308111046-01

PAH Dry Deposition Field Data Log Sheet Prield Crew: KG BS, EM
Dry 4 Dry 5 FD12 (4964 Imperial Avenue) Site ID Deposition Event: - Dry Dry 2 Drv 3 Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: __/__/4, (per DD event) End Date: 09/05/2013 09/04/2013 Start Date: ATMOSPHERIC CONDITIONS Sky (Start) Sunny Partly Cloudy Overcast Fog Sky (End): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: FA00692 Certification Date/No.: PUF: P130801 XAD: X130406 Filter: F130523 **Elapsed Timer** Black White Sample Time 98 Start: 5115 Start: Stop: Stop: Diff. Duration: Calibrations MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? TIME: 9:10 DATE: 07/31/2013 Magn. 9/4 (+) (-) SUM Date 70 3.5 3.4 £.9° Time 0810 0841 60 3.1 2.9 Magn. Read. 6. 37 50 27 24 51 $\triangle \mathsf{H}$ 3.4 40 21 Yes/ No? 1,8 1 30 Min (-10%) 4 36 16 3.7 Max (+10%) 30.9438 warm up 0750 B= -0.4907 0.9982 $R^2 =$ Magnehelic Set-point: 42 FIELD MEASUREMENTS Barometric Pressure Magn. Wind Notes Date Time Temp (°F) Reading Speed (in. Hq) (calc flow rate, etc.) 29.810 0833 0833 TOTAL VOLUME: 324 std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank Fore cast 77.1 °F Aug Temp 81.3211 Aug pressure 29.8761

PAH Dry Deposition Field Data Log Sheet									
Site ID FD11 (945 25th St.) Field Crew: K6, BC FM								-	
Deposition Event: Dry 2 Dry 3				3 Dry 4	Dry	y 5			
Type: Weekday (W/Th) Weekend (Sat/Sun)				Collection	n: <u> </u>	_/4 (per DI	D event)		
Start Date:	09/04/	2013	-	End Date	: <u> </u>	05/05	12013	-	
ATMOSPHE	The state of the s	· -							12
Sky (Start): 8		Cloudy Over	cast Fog	Sky (End):	Şunn	y Partly Clo	udy Overca	ast Fog	
PUF SAMEL		500							
Sampler I.D.		and the con-	001	11155	(m - 1	•		·	
Certification		A Commence of the Commence of		ad: <u>X13704</u>	⁶ 2(4	<u>2,</u> Filter: <u> </u>	7305	<u>23</u>	
Elapsed Tim		Black	White	Sample	Time		1		-
	Start:	171	3/		Start:	9/4/	20/3 8	9:32]
	Stop:	195	3/		Stop:	<u> </u>	5/2013	5932	
	Diff.	24	hr	Dura	ation:	24	hr		
Calibrations	Management of the control of the con								ā
TIME: 10:30	TI-POINT	CALIBRATION DATE: 07/3		Audit fl	ow ch	neck within	n ±10 of s	et point?	
Magn.	(+)	(-)	SUM	Date		9/4	V51	915	1
70		3.1	6.3	Time		0926	08-19	0940	1
60		2.8	5.7	Magn, Re	ad.	45	44	4D.5	PY
50	2.5	2.4	4.9	ΔH		3.6	3/1	3,7	'
40		2	. 4	Yes/ No?	- Anna Agrica		M	Y] .
30 M=	1.5 33.3411	1.4	2.9	Min (-10	%) 40	539	Max (+10%)	45	148
B= R ² =	-0.8598 0.9948		,			B 5		B S	
Magnehelio			44						
		<u> 185 </u>	/						_
FIELD MEAS	SUREMEN'	TS			One of the latest state of				· -
Date	Time	Magn. Reading	Wind Speed	Barometric Pre (in. Hg)	ssure	Temp (°F)		otes v rate, etc.)	
9/4	19930	44	2-	29.88		87_			
9/5	0916	43	2	29.80		87		A Company of the Comp	
				Constitution of the Consti					
		T. W. W. C. WOODEN		The state of the s					1
		TALL PARTY CO.							
TOTAL VOL	UME: 2	24		etd. m ³				. 	i
	Sample ID Fol	mat: DD-Site-YY	'MMHUUMM-S	Sample Type; Sampl	le Type:	-01=Primary, I	-B=Field Blani	k	

No. of the last of				on Fleid Data Log	Sheet		
Site ID	FD07 (94	4 Cesar E. Ch		oi	46,BS	. GU	
Deposition	Event:	DIVE CO	ry 2) Dry		ry 5		
Type: Weel	kday (W/TI	h) Weeken	d (Sat/Sun)	Collection: 1	/4 (per D	D event)	
Start Date: <a>C	1 1	2013		End Date:		2013	
ATMOSPHE					7		
Sky (Start):	Junny Partly	y Cloudy Over	rcast Fog	Sky (End): Sun	/ iv Partly Clo	oudv Overca	est Foa
PUF SAMPL				<u> </u>		· · · · · •	
Sampler I.D.					,	,	
Certification	Maria Charles Charles Charles			(AD: <u>X13042</u>	2, Filter: T	71305	23
Elapsed Tin		Black	White	Sample Time)		
	Start:	98	08	Start:		2013	1017
	Stop:	122	08	Stop:		7t7_	1017
	Diff.	24	W	Duration:	2	Yhr	- Control of the Cont
Calibrations							Service of the servic
		CALIBRATIO	ON FEE	A 134 . Cl			
TIME: 11:45		DATE: 07/3	1/2013	Audit flow c	heck withi	n ±10 of se	et point?
Magn.		(-)	SUM	Date	9/4	9/5	
70		3.5	7	Time	1015	10-25	
60		3	6	Magn. Read.	38	36	
50		2.5	5.1	ΔH	3,5	3.4	
40		2.1	4.2	Yes/ No?	Y	Y	
30 M=	1.6 32.0916	1.6	3.2	Min (-10%)	\$\$ 36	Max (+10%)	442 45
B=	-0.8226			e p	38		AS
R^2 =	0.9998	at a					
Magnehelio	: Set-poir	it: 42 2	Constitution of the Consti				
FIELD MEAS	UREMEN	TS					
Date	Time	Magn.	Wind	Barometric Pressure		No	otes
	Hano	Reading	Speed	(in. Hg)	Temp (°F)	1	rate, etc.)
9/4/13	1017	40.5	800 B	29.85	83		
89/05	10004	41.5	4	29.83	83		COMMITTAL CONTRACTOR OF THE CO
/					Case of the Case o		
		<u> </u>				****	
l	1	1	1				

NOTES

TOTAL VOLUME: 322.5

Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

std. m³

PAH Dry Deposition Field Data Log Sheet										
Site ID	CNM1 (Ca	ıbrillo)		Field Crew: <u>k</u>	6 85.6	in.				
Deposition I	Event:	Dry Dr	y2) Dry	3 Dry 4 Dry	/ 5					
Type: Week	day (W/Th	Weekend	d (Sat/Sun)	Collection: 1	Collection:/4 (per DD event)					
Start Date: _	9/4/	2013		End Date:	End Date: 69 05 2013					
ATMOSPHE	RIC COND	ITIONS								
Sky (Start): ජ	unny/Partly	Cloudy Over	cast Fog	Sky (End): Sunny Partly Cloudy Overcast Fog						
PUF SAMPL						·	J			
Sampler I.D.			. *	. ,						
A CONTRACTOR OF THE PARTY OF TH	A STATE OF THE PERSON NAMED IN COLUMN 2		Cold for the cold and the cold	XAD: X13642	<u> </u>	F1305	<u> </u>			
Elapsed Tim		Black	White	Sample Time		2000				
	Start:	171	64	Start:	09/04/	2013	1117			
	Stop:)95	U'Y	Stop:	915/20	113	(1)			
	Diff.	aM	hV	Duration:	21	thr				
Calibrations										
MUL TIME: 9:10	TI-POINT	CALIBRATION DATE: 07/3		Audit flow ch	neck within	n ±10 of se	et point?			
Magn.	(+)	(-)	SUM	Date	09/04	9/5				
70	3.2	3.2	6.4	Time	1114	11:25				
60	2.8	2.8	5.6	Magn. Read.	4/	40.5				
50	2.5	2.5	5	△H	3.5	3.6				
40	2	2	4	Yes/ No?	4	Y				
30	1.5	1.5	3	Min (-10%)	Kt 38	Max (+10%)	248-A AB			
M= B=	34.1618 -1.092				P\$		3			
R ² =	0.9961	25	\ • {							
Magnehelic	Set-poin	it: 44	17							
FIELD MEAS	SUREMEN	TS								
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		tes rate, etc.)			
9/4	414	44	15	29.74	82	and the state of t				
9/5	1110	45	18	29.73	73					
W. W										
TOTAL VOL	UME:	3210		std. m³						
NOTES		rmat: DD-Site-YY	'MMDDHHMM-8 ンク・・	Sample Type; Sample Type:	-01=Primary,	FB=Field Blank	(
	AVA TO	mp .	70,1294	.86455						
	AVA	DUSLIN		941165						
		P1(77/11	1 01	, 00 H > 2						

	PAH Dry Deposition Field Data Log Sheet									
Site ID	FD12 (496	4 Imperial A	venue)	Field Crew:	KGO DI	<				
Deposition E				Dry 4 Dry 5						
Type: Week				Collection: 2 /4 (per DD event)						
Start Date: _	9-7-1	3		End Date:	7-8-13	, ,				
ATMOSPHE	RIC COND	ITIONS	er (* * r pře podul) do Alexandria Pro		y to the same and the same a	u in musicific i grande de debits de la companione	and the ball the large plane of the second			
Sky (Start):(Si	unny)Partly	Cloudy Over	cast Fog	Sky (End): Sunny	Partly Clo	udy Overca	st Fog			
PUF SAMPL	ER									
Sampler I.D.										
Certification [Date/No.: F	The second secon	TARREST CONT. CARROLL MANAGEMENT CONT.	XAD: X 13042	<u>6</u> , Filte	er: <u>F 13</u>	0523			
Elapsed Tim		Black	White	Sample Time		·				
	Start:	122	72	Start:		5				
	Stop:	146	72	Stop:	080	25	CHANGE TO THE RESERVE THE PARTY OF THE PARTY			
	Diff.	24		Duration:						
Calibrations			the first of the section of the sect	the state of the s						
	TI-POINT	CALIBRATIO		Audit flow ch	neck within	n_±10 of s	et point?			
TIME: 9:10	(.)	DATE: 07/3	The same of the sa	Dete	01 7	9.8				
Magn.	(+) 3.5	(-) 3.4	SUM 6.9	Date Time	0900	0808				
70 60	3.1	2.9	6	Magn. Read.	41	40				
50	2.7	2.9	5.1	Magn. nead.	3.7	3.4				
40	2.1	1.9	4	Yes/ No?	ラ・1					
30		1.5	3.1		37	Max (+10%)	46			
M=	30.9438	6.1	ا , ن 	Willi (-1078)	<u> </u>	Wax (+10/6)	40			
B=	-0.4907									
R ² =	0.9982	11-)							
Magnehelio	Set-poir	nt: <u>72</u>			•					
FIELD MEAS	SUREMEN	TS								
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	1	otes v rate, etc.)			
9-7-13	0805	42		29.81	79		Landa Karanda di Andi 1881 - 1981 - 1981			
9.8-13	0305	42		29.82	72	,,,,	MITTER 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10			
							()			
			S				Time a section of the control of the			
TOTAL VOL	.UME:	327		std. m³						

NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank Forecast Average =24.86 °C

	PAH Dry Deposition Field Data Log Sheet								
Site ID	FD11 (945	25th St.)		Field Crew: KG, DK					
Deposition E	vent:	Dry Dr	y 2 Dry	y 3 Dry 4 Dry 5					
			d (Sat/Sun)	Collection: 2 /4 (per DD event)					
Start Date: _	9-7-	13		End Date: <u>9-8-13</u>					
ATMOSPHEI	STEED SAN		, , , , , , , , , , , , , , , , , , , ,						
Sky (Start) Si		Cloudy Over	cast Fog	Sky (End): Sunny Partly Cloudy Overcast Fog					
PUF SAMPL									
Sampler I.D.	No.: <u>FA00</u>	580 D120	Onl	20020121					
the section of the property of the section of the s		برحورا فالبوائد أوافر فالرجوا ويباك وكالسلطان كسال أسبلان	and the state of t	(AD: X130426, Filter: F) 30523					
Elapsed Tim		Black	White	Sample Time					
	Start:	195	41	Start: 0849					
	Stop:	219	41	Stop: 6849					
	Diff.	24		Duration:					
Calibrations		4. The second							
MUL TIME: 10:30	845. S	CALIBRATION DATE: 07/3	100000000000000000000000000000000000000	Audit flow check within ±10 of set point?					
Magn.	(+)	(-)	SUM	Date 9.7.3 9.8.13					
70	3.2	3.1	6.3	Time 0843 0853					
60	2.9	2.8	5.7	Magn. Read. 42 42					
50	2.5	2.4	4.9	ΔH 3.6 3.6					
40	2	2	4	Yes/ No?					
30	1.5	1.4	2.9	Min (-10%) 39 Max (+10%) 48					
M= B≔	33.3411 -0.8598								
R^2 =	0.9948		. 1.1						
Magnehelio	Set-poin	t:	44						
FIELD MEAS	SUREMEN	TS							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)					
9-7-13	0949	44	Ô	29.84 81					
9-8.13	0849	44	0	79.83 74					

				- CEA And A Company and A Comp					
M100									
TOTAL VOL	TOTAL VOLUME: 326 std. m ³								
NOTES	NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank								

	PAH Dry Deposition Field Data Log Sheet									
Site ID	FD07 (944	Cesar E. Cha	avez Pkwy)	Field Crew:\	KG, DK		of the second			
Deposition I				y 3 Dry 4 Dry	•					
Type: Week		The state of the s								
Start Date:	9.7.13	3	_	End Date: \underline{q}	.8-1	3				
ATMOSPHE	The state of the s					The state of the s	- C.			
Sky (Start):(S	-	Cloudy Over	cast Fog	Sky (Engl): Sunn	ÿ Partly Clo	udy Overca	st Fog			
PUF SAMPL				Woods attended to the second						
Sampler I.D.			- 62			- 10 · -				
Marine San	1-1-1-1			(AD: X130426	_, Filter:_	- 1305	<u>23</u>			
Elapsed Tim		Black	White	Sample Time						
Start: 122 25 Start: 6929										
	Stop:	146	25	Stop:	0929	7	WANTE OF THE OWNER.			
	Diff.	24	armatuska Afrika (na jedina sa mana	Duration:						
Calibrations		100-00-00-00-00-00-00-00-00-00-00-00-00-	W			The second se				
		CALIBRATION DATE: 07/3		Audit flow ch	neck withi	n ±10 of se	et point?			
Magn.	(+)	(-)	SUM	Date	9.7	9.8				
70	3.5	3.5	7	Time	0923	0932	•			
60	3	3	6	Magn. Read.	38	38				
50	2.6	2.5	5.1	△H	3.7	3.7				
40	2.1	2.1	4.2	Yes/ No?	レ	1	· · · · · · · · · · · · · · · · · · ·			
30	1.6	1.6	3.2	Min (-10%) "3	6.4	Max (+10%)	45			
M= B=	32.0916 -0.8226									
R ² =	0.9998				·					
Magnehelic	Set-poir	nt: 4/								
FIELD MEAS	MOEMEN	TO				A STATE OF THE STA				
FIELD MEAS	UREWEN									
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		rate, etc.)			
9.7.13	0929	41	0	29.81	82		, , , , , , , , , , , , , , , , , , , ,			
0.8.13	6929	41	2	29.8	76	e and a second control of the second control				
, , , , , , , , , , , , , , , , , , ,										
						A COMMITTEE OF THE SECOND				
TOTAL VOL	UME:3	23.9		std. m³						
NOTES	Sample ID Fo	rmat: DD-Site-YY	MMDDHHMM-	· ·Sample Type; Sample Type:	-01=Primary,	FB=Field Blank				

Westerness to the second	PAH Dry Deposition Field Data Log Sheet									
Site ID	CNM1 (Ca	abrillo)	**************************************	Field Crew:_ k	(Ca)	Control of the State of the Sta				
Deposition E	Event: 🕽	Dry Dr Dr	y2 Dr							
		The state of the s		Collection: 2	/4 (per Di	O event)				
Start Date: _	9.7.13)		End Date:	9.8.1	3				
ATMOSPHE	The country of the co									
		Cloudy Over	cast Fog	Sky (End) (Sunny	Partly Clo	udy Overcast Fog				
PUF SAMPL					•					
Sampler I.D.			0 _ 1	~ 10 ~ 421						
Maria Control of the		COMPANY A A SECTION		XAD: X 130426	Filter:	<u> 1305 25</u>				
Elapsed Tim		Black	White	Sample Time	وأجود والمراب					
	Start:	195	81	Start:	103	The second secon				
	Stop:	219	81	Stop:	103					
	Diff.			Duration:						
Calibrations										
MULTI-POINT CALIBRATION TIME: 9:10 DATE: 07/31/2013 Audit flow check within ±10 of set point?										
Magn.	(+)	(-)	SUM	Date	9.7.13	9.7.13				
70	3.2	3.2	6.4	Time	1024	1635				
60	2.8	2.8	5.6	Magn. Read.	40	41				
50	2.5	2.5	5	ΔH	3.5	3.6				
40	2	2	4	Yes/ No?	~					
30	1.5	1.5	3	Min (-10%)	38	Max (+10%) 48				
M= B=	34,1618 -1.092									
B≅ R²=	0.9961	. 1 .								
Magnehelio	: Set-poin	ıt: <i>43</i>	? }							
FIELD MEAS	SUREMEN	TS								
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)				
9.7.13	1031	43	6	29.72	76					
9.8.13	1031	43	15	29.70	71	WHITE COMMENTS AND ADMINISTRATION OF THE PROPERTY OF THE PROPE				
		TO THE RESERVE OF THE PARTY OF				s5-c6-2/				
TOTAL VOL	uме: <u>3</u>	23		std. m³						
NOTES	Sample ID Fo	rmat: DD-Site-YY	MMDDHHMM-	Sample Type; Sample Type:	-01=Primary, I	FB=Field Blank				

PAH Dry Deposition Field Data Log Sheet									
Deposition F Type: Week Start Date:	day (W/Th) Weekend 13	y 2 Dry	Field Crew: K 3 Dry 4 Dr Collection: 3 End Date: 9	y 5 [°] _ /4 (per D[
ATMOSPHEI Sky (Start): Si PUF SAMPL	unny Partly		cast Fog	Sky (End): Sunn	y)Partly Clo	udy Overca	st Fog		
Sampler I.D. Certification I			315	XAD: <u>X130426</u>	<u>'</u> , Filte	er: <u>F130</u> :	523		
Elapsed Tim	er	Black	White	Sample Time					
•	Start:	146	91	Start:		<u>L</u>	22-22-1-22-1-24-1-2-1-2-1-1-1-1-1-1-1-1-		
Stop: 170 98 Stop: 0910									
Diff. Duration:									
Calibrations							1.0		
MULTI-POINT CALIBRATION TIME: 9:10 DATE: 07/31/2013 Audit flow check within ±10 of set point?									
Magn.	(+)	(-)	SUM	Date 9.11.(3 7.12					
70	3.5	3.4	6.9	Time	0901	0915			
60	3.1	2.9	6	Magn. Read.	40	41	744 - 104 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116 - 116		
50	2.7	2.4	5.1	ΔH	3.7	3.7	An a way and a second s		
40	2.1	1.9	4	Yes/ No?	7	4			
30	1.6	1.5	3,1	Min (-10%) รึ	37.7	Max (+10%)	46.6		
M= B= R ² = Magnehelic	30.9438 -0.4907 0.9982 Set-poir	16	4						
FIELD MEAS	SUREMEN	TS							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		otes v rate, etc.)		
9-11-13	0907	42.5	3	29.97	69				
9.12.13	0914	42.5		29.90	69		2002410-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-		
TOTAL VOLUME: 327 std. m³									
NOTES	Sample ID Fo	ormat: DD-Site-Y	YMMDDHHMM-	Sample Type; Sample Type	e: -01=Primary,	FB=Field Blan	k		

Average forecast temp 21.1°C

PAH Dry Deposition Field Data Log Sheet									
Site ID	FD11 (945	25th St.)			Field Crew: KG, DK				
Deposition E	Event:	XX D OF	y 2) Dry	<i>'</i> 3	Dry 4 Dry 5				
		K13			Collection: 3	_/4 (per D[event)		
Start Date: _	9-11-13	3			End Date:	7-12-13	3		
ATMOSPHE									
Sky (Start): S	-	Cloudy Over	cast) Fog		Sky (End): Sunny	y Partly Clo	udy Overca	st Fog	
PUF SAMPL		-00					,*		
Sampler I.D.			015		V 1201101	_	12450	~	
Property and the second second		Commence of the second		AD:	X130426	_, Filter: <u></u>	13052	<u>S</u>	
Elapsed Tim	ī	Black	White		Sample Time	1 2 2 1	Action territory		
	Start:	219	62		Start:				
	Stop:	243	62		Stop:		2		
	Diff.			,	Duration:	24			
Calibrations									
MULTI-POINT CALIBRATION TIME: 10:30 DATE: 07/31/2013					Audit flow check within ±10 of set point?				
Magn.		(=)	SUM		Date	9.11.13	9.12.13		
70	3.2	3.1	6.3			3941	0950		
60	2.9	2.8	5.7		Magn. Read.	41	40		
50	2.5	2.4	4.9		ΔH	3.6	3.4	· · · · · · · · · · · · · · · · · · ·	
40	2	2	4		Yes/ No?	7	4		
30 M=	1.5 33.3411	1.4	2.9		Min (-10%) 3	9.8	Max (+10%)	49.1	
B=	-0.8598								
R²=	0.9948		1111						
Magnehelio	Set-poin	it:	49.7						
FIELD MEAS	SUREMEN	TS							
Date	Time	Magn. Reading	Wind Speed	Baro	ometric Pressure (in. Hg)	Temp (°F)	ł	otes / rate, etc.)	
9.11.13	0945	45	0	7	29.98	69			
9.12.13	0942	44	3		9.91	71			
					State of the Control				
**************************************		·				140			
							(- x - x - x - x - x - x - x - x - x -		
					Manager at the state of the sta				
		200			0				
TOTAL VOL	UME:	328		std.	m³				
NOTES	Sample ID Fo	rmat: DD-Site-Y`	MMHDDMMY	Samp	le Type; Sample Type	: -01=Primary,	FB=Field Blan	Κ	
	Average forecast temp = 21.1°C								
Average	e-toreca	est temp	0 = 2/./	<u> </u>	٠,٠	 			

	PAH Dry Deposition Field Data Log Sheet									
L.		Cesar E. Cha				<u> </u>				
Deposition E				v						
Type: Week) Weekend	d (Sat/Sun)	Collection: 3	Collection: 3 /4 (per DD event)					
Start Date:			_	End Date:	12.13					
ATMOSPHEI					\					
Sky (Start): St		Cloudy Over	cast Fog	Sky (End): Sunn	Partly Clo	udy Overca	st Fog			
PUF SAMPL Sampler I.D.		601								
			315 v	AD: X130426	Eilton E	13052	3			
Paralle San Control of		and the second second				10 02				
Elapsed Tim	er Start:	Black	White	Sample Time	10.10					
	Start: Stop:	176	43	Start: Stop:	1018	· · · · · · · · · · · · · · · · · · ·				
	Diff.	7 10		•	17/10	·				
Oplikanting										
Calibrations MIII	MINISTRALIA DE LA COMPANIO DE LA CO	CALIBRATIO	71/1							
TIME: 11:45		DATE: 07/3	0.00	Audit flow cl	neck within	n ±10 of se	et point?			
Magn.	(+)	(-)	SUM	Date	9.11.13	9-12-13				
70	3.5	3.5	7	Time	1013	1022				
60	3	3	6	Magn. Read.	38	38				
50	2.6	2.5	5.1	ΔH	3.7	3.8				
40	2.1	2.1	4.2	Yes/ No?	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	<u> </u>				
30 M=	1.6 32.0916	1.6	3.2	Min (-10%) 3	6.9	Max (+10%)	45.6			
B=	-0.8226									
R ² =	0.9998									
Magnehelic	Set-poir	nt: 41.6	5							
FIELD MEAS	SUREMEN									
		Magn.	Wind	Barometric Pressure		Ne	otes			
Date	Time	Reading	Speed	(in. Hg)	Temp (°F)		rate, etc.)			
9.11.13	1019	42	4	29.95	7/		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
9.12.13	1014	42	4	29.83	72					
	[-									
		206	1	3						
TOTAL VOLUME: 326 std. m ³										
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank										

Average forecast temp = 21.1°C

	PAH Dry Deposition Field Data Log Sheet									
Site ID	CNM1 (Ca	abrillo)		Field Crew: KG, DK						
Deposition	Event: <	DIVE CO	y 2 Dr	y 3 Dry 4 Dry 5						
Type: Week				Collection: 3 /4 (per DD event)						
Start Date:	9.11.1	3	78-00-10-10-10-10-10-10-10-10-10-10-10-10-	End Date: 9 12 13						
ATMOSPHE	RIC CONE	PITIONS								
Sky (Start): S	unny (Partly	Cloudy	cast Fog	Sky (End):(Sunny)Partly Cloudy Overcast Fog						
PUF SAMPL	ER									
Sampler I.D.	No.: <u>FA00</u>	<u>579</u>								
Certification I		PUF: <u>P130</u>	815	XAD: <u>X130426</u> Filter: <u>F130523</u>						
Elapsed Tim		Black	White	Sample Time						
	Start:	220	00	Start: 1117						
	Stop:	244	60	Stop: ((/ 7						
	Diff.			Duration:						
Calibrations										
MUL TIME: 9:10	TI-POINT	CALIBRATION DATE: 07/3	40.0	Audit flow check within ±10 of set point?						
Magn.	(+)	(-)	SUM	Date 9.11.13 9.17.13						
70	3.2	3.2	6.4	Time 1/12 1/25						
60	2.8	2.8	5.6	Magn. Read. 4/ 39.5						
50	2.5	2.5	5	△H 3.7 3.3						
40	2	2	4	Yes/ No?						
30	1.5	1.5	3	Min (-10%) 39.2 Max (+10%) 48.4						
M= B=	34.1618 -1.092									
R ² =	0.9961									
Magnehelic	Set-poir	nt: <u>44</u>								
FIELD MEAS	UREMEN	TS								
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)						
9.11.13	1/17	44	11	29.85 70						
9.12.13	1101	44	18	29.76 67						
	•		*****							
	·····	Manager 12 10 10 10 10 10 10 10 10 10 10 10 10 10	WALK .							

	·									
TOTAL VOL	UME:	328		std. m ³						
NOTES	Sample ID Fo	rmat· DD-Site-VV	/MMDDHHMM.	-Sample Type; Sample Type: -01=Primary, FB=Field Blank						
	campio 15 i o			-Sample Type, Sample Type: -OT=Primary, PB=Fleid Blank						
Average	forera	ct training	-211	9						
	<u> </u>	3 / //wwy)	- al.							

PAH Dry Deposition Field Data Log Sheet Field Crew: EM, BS FD12 (4964 Imperial Avenue) Site ID Deposition Event: Dpv45-moreout) Collection: 4/2 (per DD event) Type: Weekday (W/Th) Weekend (Sat/S Start Date: 09/14-12013 **End Date:** ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog Sky (End): Sunny Partly Cloudy Overcast Fog **PUF SAMPLER** Sampler I.D. No.: FA00692 Certification Date/No.: PUF: 130815 XAD: X13 426 Filter: F-130523 **Elapsed Timer** White Black Sample Time 20 Start: 171 Start: 0813 195 Stop: 20 Stop: 0812 24 h Diff. Duration: **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? TIME: 9:10 DATE: 07/31/2013 Magn. (-) SUM Date (+) 70 3.5 3.4 Time 6.9 0830 60 3.1 2.9 6 Magn. Read. 39940 40 50 2.7 2.4 5.1 $\triangle H$ 5.6 40 2.1 4 1.9 Yes/ No? 30 1.6 1.5 3.1 Min (-10%) Max (+10%) M= 30.9438 B= -0.4907 0.9982 $R^2 =$ Magnehelic Set-point: FIELD MEASUREMENTS Magn. Wind Barometric Pressure Notes Date Time Temp (°F) Reading Speed (in. Hg) (calc flow rate, etc.) 2 0823 291.109 0821 29.7 0 325 TOTAL VOLUME:_ std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

	PAH Dry Deposition Field Data Log Sheet								
Site ID	FD11 (945	25th,St.)			Field Crew: EM, BS DWA				
Deposition E	Event: ∸€		Dry	y 9	IN THE DAY 5 REC 3 CALL				
Type: Week	• `,) Weeken	r (Sat/Sun))	Collection: 4 (per DD event)				
Start Date: _	9/14	/13			End Date: 09 (15/2013				
ATMOSPHE	RIC COND	ITIONS							
Sky (Start): S	unny Partly	Cloudy Over	east Fog		Sky (End): Sunny Partly Cloudy Overcast Fog				
PUF SAMPL									
Sampler I.D.	No.: <u>FA00</u>	580	and I married		_		_		
		PUF: 17100		AD:	X13042(2. Filter: 🗜	30813	23	
Elapsed Timer Black White					Sample Time				
	Start:	243	80.5		Start:	090	<u> </u>	A CONTRACTOR OF THE CONTRACTOR	
	Stop:	267	80,5		Stop:	070			
•	Diff.	241	V_		Duration:	24	lars		
Calibrations		And the state of t	4		The state of the s				
MULTI-POINT CALIBRATION					Audit flow of	and with:	w . 10 of oo	t naint0	
TIME: 10:30		DATE: 07/3	1/2013		Audit flow ch	ieck withi	n ± 10 of se	t point?	
Magn.	(+)	(-)	SUM		Date	91/14	9/15		
70	3.2	3.1	6.3		Time		0905		
60	2.9	2.8	5.7		Magn. Read.	40.5	42		
50	2.5	2.4	4.9		ΔH	316	316	The second secon	
40	2	2	4		Yes/ No?		4		
30 M=	1.5 33.3411	1.4	2.9]	Min (-10%) 3	1.5	Max (+10%)	48.5	
B=	-0.8598								
R ² =	0.9948		11						
Magnehelio	Set-poir	nt:							
FIELD MEAS	SUREMEN	TS							
		Magn.	Wind	Bar	ometric Pressure		No	i.e.o	
Date	Time	Reading	Speed	Dai	(in. Hg)	Temp (°F)	No (calc flow	rate, etc.)	
9/14	6902	44	1	 	19.72	47			
9/13	0852	45	-3	-	79.13	70			
TOTAL VOL	TOTAL VOLUME: 322 std. m ³								
NOTES	Sample ID Fo	rmat: DD-Site-Y	YMMDDHHMM	-Samr	ole Type; Sample Type	: -01≔Primarv.	FB=Field Blank		

4.17°C

29.69 Innis

PAH Dry Deposition Field Data Log Sheet

Site ID Deposition E		Cesar E. Cha		Field Crew: E		*St.	-
Type: Week				Collection:	B &	event)	DW Z
Start Date: _	09/14/2	2013	nanananananananananananananananananana	End Date: 09	15/20	13	cottec
ATMOSPHEI Sky (Start): So PUF SAMPL Sampler I.D.	unny Partly ER No.: <u>FA00</u> 6	Cloudy Overo	and the second s	Sky (End): Sunny			Ç
Certification I		and the second second second second		AD: X130426	_, Filter:_ <i>F</i>	1305	23
Elapsed Tim	er Start: Stop: Diff.	Black 170 194 241	White 55.5	Sample Time Start: Stop: Duration:	092 094 24	10 0 hr	
Calibrations							
MUL TIME: 11:45	4.0	CALIBRATIO DATE: 07/3		Audit flow ch	neck within	±10 of	set point?
Magn.	(+)	(-)	SUM	Date	9/14	9/15	m-
70 60	3.5	3.5 3	7 6	Time Magn. Read.	20	0945	
50	2.6	2.5	5.1	Magn. Head.	3 (3.8	
40	2.1	2.1	4.2	Yes/ No?) }	7'2	
30	1.6	1.6	3.2	Min (-10%) 3	7.6	Max (+10%	45.4
M= B= R ² = Magnehelic	32.0916 -0.8226 0.9998 Set-poin	t: 4)					
FIELD MEAS	SUREMEN	TS					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		lotes ow rate, etc.)
9/14	0940	41	2_	29.49	69		
9/15	0928	42	2	29.71	72	· · · · · · · · · · · · · · · · · · ·	
TOTAL VOL	UME:	326.6	-{	std. m³			
NOTES	Sample ID Fo	rmat: DD-Site-Y`	YMMDDHHMM	-Sample Type; Sample Type	: -01=Primary, F	B=Field Bla	unk
	,	two tomo	21.40	C Bur =	Z9.65 i	n	

PAH Dry Deposition Field Data Log Sheet									
Site ID	CNM1 (Ca	abrillo)	att	Field-Orew:	M,B<		- VIA		
Deposition	Event: ੋ	DIE COM	爱》他	DIV A DIV					
Type: Week) Weeken	d (Sat/Sun	Collection:		o event)	CO LLACT		
Start Date:	9/14/2	2013		End Date: <u>\@</u>	/15/2	013			
ATMOSPHE		The state of the s							
Sky (Start): S PUF SAMPL		Cloudy Over	cast Fog	Sky (End): Sunny	artly Clo	udy Overca	ast Fog		
Sampler I.D.	No.: <u>FA00</u>	<u>579</u>				. Leaven			
Certification	Date/No.: F	PUF: <u>19130</u>	1815	XAD: X130426	/ Filter:	F-130	<u>E12</u>		
Elapsed Tim	ner	Black	White	Sample Time					
	Start:	244	14	Start:	103	3			
	Stop:	268	14	Stop:	103				
	Diff.		'	Duration:					
Calibrations	· · · · · · · · · · · · · · · · · · ·					6			
Maria de la companya del companya de la companya de la companya del companya de la companya del la companya del la companya de		CALIBRATI DATE: 07/3		Audit flow ch	eck withi	n ±10 of s	et point?		
Magn.	(+)	(~)	SUM	Date	9/14	9/15			
70	3.2	3.2	6.4	Time	1031	1036			
60	2.8	2.8	5.6	Magn. Read.	40	41			
50	2.5	2.5	5	ΔH	34	3.7			
40	2	2	4	Yes/ No?	Y	<i>y</i>			
30		1.5	3	Min (-10%)		Max (+10%)			
M= B=	34.1618 -1.092								
R ² =	0.9961								
Magnehelid	Set-poir	nt: <u>43</u>							
FIELD MEAS	SUREMEN	TS				 			
Date	Time	Magn.	Wind	Barometric Pressure	Torres (OF)	No	otes		
Date	Tille	Reading	Speed	(in. Hg)	Temp (°F)	(calc flov	v rate, etc.)		
9/14	1031	alf	5	29.58	lalo				
9/15	1027	44	11	29.61	68				
		f	· · · · · · · · · · · · · · · · · · ·						
						****	· · · · · · · · · · · · · · · · · · ·		
TOTAL VOL	IIME: 3	327		std. m ³					
Water and the same of the same	***************************************								
NOTES	Sample ID Fo	rmat: DD-Site-Y	MMHDDMMY	-Sample Type; Sample Type:	-01=Primary, I	FB=Fleld Blan	k		
		N.a	k an		1	,	*		
		/\(\forall \)	101.	20°C	bar = 29	155 IN	}		

Site ID			PAH Dry	Depositio	n Field Data L	og Sheet			
Type: Weekday (W/Th) Weeked Salsun Collection:	Site ID	FDE	2		Field Cre	w: KG	, EM		•
Start Date: Party Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Certification Date/No.: PUF: PIS VI XAD: XIS I2J Filter: FI3 I2J Elapsed Timer Black White Sample Time Start: MA VIR 54 Start: OV.31 Stop: Q.31			(MAN) D	ry 2 ((i	ry 3) Dry 4	Dry 5	,	***************************************	
Start Star				id (Sat/Šun	Collection	n: <u> <i>🌃 (</i></u> /4	(per DD	event)	
Sky Sunny Partly Cloudy Overcast Fog									_
PUF SAMPLER Sampler I.D. No.: Certification Date/No.: PUF: PI3 2.11 XAD: X 3 12.17 Filter: F13 12.04									'
Sampler I.D. No.: Certification Date/No.: PUF: PI3 2.11 XAD: X 3 2.17 Filter: F13 2.04			tly Cloudy	Overcast	Fog				
Certification Date/No.: PUF: PI3 \ ZI XAD: \ \ ZI ZI XAD: \ \ ZI ZI T Tilter: \ \ FI3 \ ZI Y Tilter: \ \ FI3 \ ZI Y Tilter: \ \ Start: \ Start: \ Stop: \ Z \ 21 \ S \ Y Stop: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \									
Elapsed Timer Start: Stop: Start: Stop: Diff: Diff: Start: Stop: Diff: Start: Stop: Diff: Start: Stop: Diff: Diff: Start: Stop: Diff: Start: Stop: Diff: Diff: Diff: Start: Stop: Diff: Dif	•		PUF: P13 \	211	XAD: X) 3 1217	Filte	er: <i>F</i> /31	204	
Start: Stop: 291 54 Start: Stop: 10:31									ı
Stop: 291 54 Stop:					7				
Calibrations Magnehelic Set-point for Sampling: BEFORE SAMPLING TIME: DATE: Magn. (+) (-) SUM 70		Stop:			4				
Calibrations Magnehelic Set-point for Sampling: BEFORE SAMPLING TIME: DATE: Magn. (+) (-) SUM 70 60 60 60 60 60 60 60 60 60 60 60 60 60		Diff.				1			
Magnehelic Set-point for Sampling:	Calibrations	S							I
BEFORE SAMPLING TIME: DATE: DATE: Magn. (+) (-) SUM 70 60 60 60 40 30 20 40 30		_	for Samplir	na: 44					
TIME: DATE: Magn. (+) (-) SUM 70 60 50 40 30	workston and the second	Control of the Contro			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AFTER	SAMPLIN	G MELLE	"
TOTAL VOLUME: 332 Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type; -01=Primary, FB=Field Blank	TIME:		DATE:		TIME:				
60	Magn.	(+)	(-)	SUM	Magn.	(+)		SUM	
Sol					70)			
Audit flow check within +/- 10 of set point Audit flow check withi					·				
Coorelation Coefficient: Audit flow check within +/- 10 of set point: Date Time Magn. Reading Speed Direction Temp (°F) (calc flow rate, etc.) 1-11-14 1030 1030 Notes (calc flow rate, etc.) 1-11-14 1030 1-11-14 1030 1030 Temp (°F) Temp					1 I				Ì
Coorelation Coefficient: Audit flow check within +/- 10 of set point (V/N) Add 3 Add the flow check within +/- 10 of set point (V/N) Add 3 Add the flow check within +/- 10 of set point (V/N) Add the flow check wit in +/- 10 of set point (V/N) Add the flow check within +/- 10 o									ı
Audit flow check within +/- 10 of set point ()/ N			141		A				
Audit flow check within 4/- 10 of set point: (**) N) FIELD MEASUREMENTS Date Time Magn. Reading Speed Direction Temp (°F) Notes (calc flow rate, etc.)			100		Coorelatid ر	on Coeffici	ent:	A:	z 7 ^y
Date Time Magn. Reading Speed Direction Temp (°F) Notes (calc flow rate, etc.) 1-11-14 1036 44 3 224 45 1-12-14 1036 44 3 333 59 TOTAL VOLUME: 333 std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Pr/mary, FB=Field Blank	Audit flow check	k within +/- 10	of set point (Y)/N) 47 3 (Audit flow che	ck within +/- 10	of set point:	(N)	J- 1
Date Time Magn. Reading Speed Direction Temp (°F) Notes (calc flow rate, etc.) 1-11-14 1036 44 3 224 45 1-12-14 1036 44 3 333 55 TOTAL VOLUME: 333 std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Pr/mary, FB=Field Blank	FIELD MEAS	SUREMEN	ITS						
Reading Speed Direction Temp (°F) (calc flow rate, etc.) - - - - - - - - - -				Wind	Wind				
- - 4	Date	Time			Ī	Temp (°F)			
TOTAL VOLUME: 333 std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank	1-11-14	1030	40	7	2210	1,5			
TOTAL VOLUME: 333 std. m³ NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank	1-12-14	1012	44	7	22				
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank	,		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		777				
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank									
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank									
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank									
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank			0.2						
Thinais, I ber field blatik	TOTAL VOL	.UME:	332		std. m³				
	NOTES	Sample ID Fo	ormat: DD-Site-Y	/MMDDHHMM-	-Sample Type; Sample	Type: -01=Prir	mary, FB=Fie	eld Blank	
AVA = AVA	4						-,	1	
AV9 T > 13.87 4.00 Bar > 20.04		J 2	1 11	υ / Δ ΔΗ					

PAH Dry Deposition Field Data Log Sheet										
Site ID	i describe			Field Crev	N: EM,	KG				
Deposition	Event: (D (MAR)	ry 2 Dr							
Deposition Type: Weel	kday (W/T	h) Weeken	d (Sat/Sun	Collection	n: <u>/ (</u> /4	(per DD e	event)			
Start Date:	1/11/20	1184		End Date:			,			
ATMOSPHE	7									
\	2	tly Cloudy	Overcast	Fog						
PUF SAMPL										
Sampler I.D.				1/17 (America (PP + m	- s\11			
		The state of the s	4	XAD: <u>X13121</u>	• •	er: <u>F1314</u>	<u>'07</u>			
Elapsed Tin		Black	White	Sample Time						
	Start:	26%	18	Start:		3				
	Stop:	292	18	Stop:		3				
	Diff.	24		Duration:	24					
Calibrations	6	3	110							
Magnehelic			ig:)						
		SAMPLING			AFTER S	SAMPLING	à			
TIME:		DATE:		TIME:		DATE:				
Magn.	(+)	(-)	SUM	Magn.		(-)	SUM			
70			***	70						
60				60						
50				50						
40				40						
30				30						
Coorelation	Coefficie	nt:	<u> </u>	್ಲಹಿ ^{\/} Coorelatio	on Coeffici	ent:				
Audit flow check	within +/- 10	of set point: 🕜	VN) 42	Audit flow ched	ok within +/- 10	of set point	Y/N) 45			
FIELD MEAS	SUREMEN	ITS								
Date	Time	Magn. Reading	Wind Speed	Wind Direction	Temp (°F)		lotes ow rate, etc.)			
1-11-14	09:53	W43 43	Ŷ	205	65					
1-12.14	0953	42	-i	290	57					
		•								
TOTAL VOL	UME:	33/		std. m³						
NOTES	Sample ID Fo	ormat: DD-Site-YY	′ММДДННММ-	Sample Type; Sample	Type: -01=Pri	mary, FB=Fiel	d Blank			
Gars	in w	carner a	tara. W	ather station	deta	From				
		z was a		+ J/01/14	· MV · Y					
		-	-				•			

Aug. T-> 13.59 Aug Bar 30.05

		PAH Dry	Deposition	n Field i	Data L	og Sheet		
Site ID)12		Fie	Id Crev	N: KO	, EM	
Deposition)ry 2 Ø	ry 3) [Dry 4	Dry 5		
	kday (W/T	h) Weeker	nd (SatySur	Co	llectior	n: 🦺 /4	(per DD	event)
Start Date:	the second secon	2013		End	d Date:			
ATMOSPHE	The Committee of the Co							
- (tly Cloudy	Overcas	t Fog				
PUF SAMP								
Sampler I.D Certification		PUFP1312	11	XAD: X	13121	7 Filt	er: <i>F13</i>	1204
Elapsed Tir	1 1 2 2 m 1	Black	White		e Time		51. <u>1 1)</u>	(too
	Start:	219	80	Jampi 7	Start:		911	
	Stop:	243	80	1	Stop:		311	
	Diff.	24		- I	uration:		1 (4 "	
Calibrations					Jialion.			
	-	for Compli	4	1)			•	
Magnehelic		SAMPLING	ng:			AFTES /	SAMBLIN	
TIME: 0 90	los II		0.14	TIM	IE: 04	AFTER:	SAMPLIN DATE:/ *	
Magn.		(-)	SUM		Magn.	(+)	(-)	SUM
70]	70			
60				<u> </u>	60			
50				ļ <u> </u>	50			
40				l	40			
30				<u> </u>	30		4	,
Coorelation	Coefficie	nt:	\(\Delta 3.0	Coc	orelatio	n Coeffici	ent:	A 4.1
Audit flow check	c within +/- 10	of set point:	/N) 39	Audit	flow chec	k within +/- 10	of set point:	(V) N) 59.
FIELD MEAS	SUREMEN	ITS						
Date	Time	Magn. Reading	Wind Speed	Win Direct		Temp (°F)		Notes ow rate, etc.)
1-11-14	0904	42	1	2.70	25	63		
1-12-14	0914		t	195	,	45		
TOTAL VOL	UME:	3 <i>39</i>		std. m ³				
NOTES		7						
NOTES		rmat: DD-Site-Y\		-Sample Type	e; Sample	Type: -01=Prir	nary, FB=Fie	ld Blank
	Arg.	T7 13	. 59	Aug.	Bar	30	.05	

		PAH Dry	Depositio	n Field Data I	₋og Sheet		
Site ID	CNM	1		Field Cre	w: Ka,	EM	
Deposition	Event:	Dry 1 D	ry 2 Di	ry 3 Dry 4	Dry 5		
Type: Weel			nd (Sat/Sun) Collectio	n: <u> </u>	(per DD	event)
Start Date:				End Date	:		,
ATMOSPHE	(3)	DITIONS					
Sky Sun	" 1	tly Cloudy	Overcast	Fog			
PUF SAMPL							
Sampler I.D.	. No.:	·					
Certification	Date/No.:	PUF: <u> P131 </u>	219	XAD: <u>X1312</u>	-17 Filte	er: <u>F/3</u>	1204
Elapsed Tin	ner	Black	White	Sample Time	9		
	Start:	1956	58	Start	: 1136		
	Stop: 210	195	58	Stop	: 1136	7	
	Diff.			Duration			
Calibrations	3		21-				
Magnehelic			ng: 42				
	BEFORE S	SAMPLING		上述 基金级	AFTER S	SAMPLIN	GENERAL BET
TIME:		DATE:		TIME:		DATE:	
Magn.		(-)	SUM	Magn	. (+)	(-)	SUM
70				70			
60				60			
50				50			
40				40			
30				30)		
Coorelation			J 3.76	Coorelati	on Coeffici	ent:	ď
Audit flow check	within +/- 10	of set point:	JN) Ly		ck within +/- 10	of set point: ((Y/N) A 3. 4
FIELD MEAS	SUBEMEN	TS	1 6				38
	JOILENE		307				
Date	Time	Magn. Reading	Wind Speed	Wind Direction	Temp (°F)		Notes
1 - 1 1 11	1130		Speed	Direction		(cale fi	ow rate, etc.)
10 12 14		42	17	209	101		
17-17	136		- 4	312	127	## · · · · · · · · · · · · · · · · · ·	
TOTAL VOL	UME:	33/		std. m³			
NOTES	Sample ID Fo	rmat: DD-Site-Y\	/MMDDHHMM-	Sample Type; Sampl	e Type: -01=Pri	marv. FB=Fie	ld Blank
	٨			Avg. Bar ->	- : , , , , , , , , , , , , , , , , , ,	,, , D-, 10	IN DIGITA
	Hvg)	T-> 12	· 30 C	Bar ->	29.94		

	- <u> </u>	PAN Dry	Depositi	on F	ield Data Log	Sneet		
Site ID	F	012]_	Field Crew:	GEN	(
Deposition-	Event:	Dry 1 D	ry 2 (Di	ry (\$)	Dry 4 Dr	y 5		
Type: Wee	kday (W/Tl	n) Weeken	d (Sat/Sun)	Collection: Z	_/4 (per DI	D event)	
Start Date:	1/22/	7019			End Date:/			
ATMOSPHE	RIC CON	DITIONS				· · · · · · · · · · · · · · · · · · ·		
Sky (Start):(S	Sunny Partly	/ Cloudy Ove	cast Fog		Sky (End): Sunn	y Partly Clo	udv Overca	ns Fog
PUF SAMPI						,	,	
Sampler I.D.								
Certification	Date/No.:	PUF: <u>P140</u>	113	XAI	: X140109	Filter	F1312	204
Elapsed Tin		Black	White	=	Sample Time			
	Start:	244	01		Start:	08:50	3	
	Stop:	268	02	4	Stop:	08:5	3	
	Diff.	:			Duration:	24	hrs	
Calibrations			100	_				
MUL TIME:	TI-POINT	CALIBRATION DATE:	ON		Audit flow ch	neck withi	n ±10 of s	et point?
Magn.	(+)	(-)	SUM]	Date	1-22-14	1-23-14	
70					Time	0348	08:59	
60	-				Magn. Read.	36	36	
50					△H	3,4	3,4	
40]	Yes/ No?	7	1	
30 M=					Min (-10%) 3	△	Max (+10%)	44
IVI= B≃								•
R^2 =		4	17					
Magneheli	c Set-poir	nt:/						
FIELD MEA	SUREMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Baro	ometric Pressure (in. Hg)	Temp (°F)		tes rate, etc.)
1-22-14	0853	40	0.	ځ	80,08	61		
1-23-14	0853	40	Q	,	29.96	48		
	4.4	(1)			·			
	Avg	40		 				
TOTAL VOL	UME: 33	3		std.	m³ Average	T 56	4600	3ar 729.
NOTES	Sample ID Fo	rmat: DD-Site-YY	MMDDHHMM-	Sampl	e Type; Sample Type:	-01=Primarv. I	B=Field Blank	
		FOGE	T, von) l	ow visibil	ity ar	id (or	3-) 13.59
Cond	ensa tion	1 build	up on	° Sa	mpler hood	. How	ever, in	sill

of sampling compartment was dry + film pa paper was dry.

		PAH Dry	v Deposit	ionField Data Log	Sheet	
Site ID	LED			Field Crew:		M
Depositio	n Event:	Dry 1 D	ry 2 (D		ry 5	-
Type: We	ekday (W/T	h) Weeker	nd (Sat/Sur	Collection: $\frac{2}{1}$	/4 (per D	D event)
Start Date		2014		End Date:	123/14	
ATMOSP	Sunny Part. PLEB No.:	ly Cloudy Ove		Sky (End) : Sunr XAD: <u>X 140 109</u>		
Name and Address of the Owner, where the Owner, which is the Owner, which		Black		The second secon		: <u>F131204</u>
Elapsed Ti	Start:	29.2	White 3.7	Sample Time Start:		7 .
	Stop:	316	37	Stop:		1
	Diff.	24	8	Duration:		1.00
Calibration	ıs					ייי כייי
MU TIME:	LTI-POINT	CALIBRATI DATE:	ON CONTROL OF THE PROPERTY OF	Audit flow c	heck withi	n ±10 of set point?
Magn		(-)	SUM	Date	1-22-14	
70				Time	0927	89:35
60 50				Magn. Read.	70	39
40				△H Yes/ No?	3.7	3.4
30		<u> </u>			38.3	Max (+10%) 47.3
M= B= R ² = Magneheli	c Set-poi	nt: <u>43</u>				4
FIELD MEA	SUR EMEN	ITS				
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)
1-22-14	09:31	44	O	30,02	67	
1-73-14	89: 28	144		21,14	5/ '	
					1	
TOTAL VOL	UME :	336		std. m³ 🤯 🧲	tapos in	Weather Data &
NOTES Loc	Samp le ID Fo	ormat: DD-Site-YY	MMDDHHMM-			
Leg	57 13h	no c	ondens,	Sample Type; Sample Type: Lattery transmi Then build up	on -	5101 T + Bor
		Samplin	g bood		do	ata from

		PAH Dry	Deposition	on Field Data Log Sheet
Site ID	FDO	7	٠	Field Crew: KG, EM
Deposition I	Event:	Dry 1 Di	y 2 <i>(</i> Dr	Field Crew: KG, EM Dry 4 Dry 5
Type: Week	kday (W/Th	n) Weeken	d (Sat/Sun)	Collection: 2 /4 (per DD event)
Start Date:				End Date: <u>// てぷ/ との1 //</u>
ATMOSPHE	Commercial			
Sky (Start):(S	The same of the sa	Cloudy Over	cast Fog	Sky (End): Sunny Partly Cloudy Overcast Fog
PUF SAMPL Sampler I.D.				
		PUF: PI31	219	XAD: X131217 Filter: F131204
Elapsed Tim		Black	White	Sample Time
•	Start:	292	66	Start: 10:00
	Stop:	316	68	Stop: /AA./A/A/A/A/A/A/A/A/A/A/A/A/A/A/A/A/A/
	Diff.	24	2	Duration: 24 MM
Calibrations	3			- 1 NOM.
MUL TIME:	TI-POINT	CALIBRATION DATE:	NC	Audit flow check within ±10 of set point?
Magn.	(+)	(-)	SUM	Date 1.22.14 1.22-14
70				Time 0956 10110
60				Magn. Read. 40
50				ΔH 3.6 3.4
40				Yes/ No?
30 M=			·	Min (-10%) 38,7 Max (+10%) 47-3
B=				
R ² = Magnehelio	Set-poir	nt:	3	· ·
FIELD MEAS	SUREMEN	TS		·
Date	Time	Magn.	Wind	Barometric Pressure Temp (°F) Notes
		Reading	Speed	(m. ng) (calc now rate, etc.)
1-22-14	1000	42	<u> </u>	29,98 60
1-23-14	100000	44	(79.96 59
	10:01	Aug. 43		
	7	i W		
TOTAL VOL	UME:	329		std. m ³
NOTES	Sample ID Fo	rmat: DD-Site-YY	ММРНООММ-	-Sample Type; Sample Type: -01=Primary, FB=Field Blank
Avg T: 5	6.4(F)	713.56(0	-) No (-Sample Type; Sample Type: -01=Primary, FB=Field Blank CondumSahon (MUS Knrl on er hood
Baro: 2	29. 9		Sample	er hood

PAH Dry Deposition Field Data Log Sheet											
Site ID Deposition I	Site ID										
Type: Week	day (W/Th) Weekend	d (Sat/Sun)	Collection: _6	<u>}</u> /4 (per DI	D event)					
Start Date: _	1/27/	2014		End Date: //							
ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Certification Date/No.: PUF: PYOUS XAD: X140109 Filter: F131204											
Certification	Date/No.: F	PUF: <u>P146</u>	<u>113</u>	XAD: X14010	filter:	F1312	-04				
Elapsed Tim	ner Start: Stop: Diff.	219 243 24	White	Sample Time Start: Stop: Duration:	105	1 55 04 min					
Calibrations											
MULTI-POINT CALIBRATION TIME: DATE: Audit flow check within ±10 of set point?											
Magn.	(+)	(-)	SUM	Date	1.22-14	1.23-14					
70 60				Time	1047	11:07					
50			· · · · · · · · · · · · · · · · · · ·	Magn. Read. △H	39	39 3,4					
40				Yes/ No?	3.6	237 V					
30				Min (-10%)		Max (+10%)					
M= B= R ² = Magnehelio											
FIELD MEAS	SUREMEN				1						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		otes v rate, etc.)				
1-22-14	1051 10:55 AVS	43	0	29.85 29.84	63 57			·			
TOTAL VOL	UME:3	333		std. m³							
NOTES				-Sample Type; Sample Type Y <i>t SUN [†] UN SAN</i>	:-01=Primary, nphJ B	FB=Field Blan Avy T Baro: Z	55.9 <i>(F)</i> 9.80	(13. Z8°C)			

		PAH Dry	Deposition	on F	ield Data Log s	Sheet		
Site ID	F	210			Field Crew:	EM, 35		
Deposition	Event:	Dry 1 Dr	y 2 (Dr	y 3/	Dry 4 Dry			
Type: Weel	kday(W/Th	,	d (Sat/Sun)	-	Collection: 3	/4 (per DI	D event)	
Start Date:	APA.	1/29/13	4		End Date:l	30/14		
ATMOSPHE	RIC COND	ITIONS	<u> </u>			- 191 de la compani		T)
Sky (Start):	- AND STREET	Cloudy Over	cast Fog		Sky (End): Sunny	/ Partly Clo	udy (verca	st Fog
PUF SAMPL								
Sampler I.D. Certification	. No.: Date/No.: F	PUF: P14011	3	ХАГ	X140109 D:	Filter:	F13120	4
Elapsed Tin	nor	Black	White		Sample Time			
Liapsed IIII	Start:	248	10-0	10	Start:	10.	02 00	· 11
	Stop:	292	26	-0	Stop:		6.3 · 00/	· / /
	Diff.	24	<u> </u>		Duration:		04.0	
<u> </u>		U-1	0		Duration.		24 h/s	
Calibrations				1			and the second second second	
TIME:	II-POINT	CALIBRATION DATE:	JN		Audit flow ch	neck within	n ±10 of s	et point?
Magn.	(+)	(-)	SUM		Date	1/29/14	1130 14	
70					Time	08:54	09:13	
60)				Magn. Read.	B 37	38	
50)				∆H	3.8	3.8	
40					Yes/ No?	Υ	Y	
30					Min (-10%) <i>3</i>	6	Max (+10%)	44
M≕					<u> </u>			
B= R ² =								
Magneheli	c Set-noir	40						
Magnenen	c set-poil	! L						
FIELD MEA	SUREMEN	TS						
Data	T:	Magn.	Wind	Bard	ometric Pressure	T (0E)	No	otes
Date	Time	Reading	Speed		(in. Hg)	Temp (°F)	(calc flov	v rate, etc.)
1/29/14	Q'57	40	-A	4	30.05	59		<u> </u>
1/20/14	09:08	40	1		29,94	59		
1-1-1						- 11 - [
			.)					
				<u> </u>				
				ļ				
			4					
TOTAL VOL	LUME:	181X 33	31	std.	m ³			
NOTES	Sample ID Fo	rmat: DD-Site-Y`	YMMDDHHMM	-Samp	le Type; Sample Type:	:-01=Primary,	FB=Field Blan	k
		Nam.	15	12	6°C -> 59.	4701		· · · · · · · · · · · · · · ·
I	A	my Tump		•	11			
	·	J	29, 9	61	inM5			

PAH Dry Deposition Field Data Log Sheet Field Crew: EM BS Site ID FDII **Deposition Event:** Dry 1 Dry 2 Dry 3 Drv 4 Drv 5 Collection: 3 /4 (per DD event) Type: Weekday (W/Th) Weekend (Sat/Sun) End Date: 1 30 7014 01/29/2014 Start Date: ATMOSPHERIC CONDITIONS Sky (Start) Sunny Partly Cloudy Overcast Fog Sky (End): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Certification Date/No.: PUF: P140 II 6 _ XAD:X1440109 Filter: F13 1204 Elapsed Timer Black White Sample Time 3160 Start: Start: 4 (0.5 340 Stop: Stop: 47.5 Diff. Duration: 24 **Calibrations** MULTI-POINT CALIBRATION Audit flow check within ±10 of set point? TIME: DATE: Magn. (+) (-) SUM Date 1/29/14 1/30/14 0946 70 Time 920 Magn. Read. 60 40 50 $\triangle H$ 3.6 3.8 40 Yes/ No? 30 Min (-10%) Max (+10%) installed B≔ $R^2 =$ Gars in ward Magnehelic Set-point: 43 FIELD MEASUREMENTS **Barometric Pressure** Wind Magn. **Notes** Date Time Temp (°F) Reading Speed (in. Hg) (calc flow rate, etc.) 175°-197° Direction 0938 30.08 102 29-97 11939 334 ann. std. m³ TOTAL VOLUME: NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank Temp & Bar data From FDOT used 14,93°C

		PAH Dry	Deposition	on Field Data Log	Sheet		
Site ID	FDC	17		Field Crew: B	SEM		
Deposition I			y 2 Dry		y 5		
Type: Week				Collection: 3	••	•	
Start Date: _	01/29	2014		End Date: 0\	30/201	4	
ATMOSPHE	1						7
Sky (Start): S		Cloudy Over	cast Fog	Sky (End): Sunn	y Partly Clo	udy Qvérca	ist Fog
PUF SAMPL							
Sampler I.D.		DHE DI 40	110	XAD: <u>X140119</u>	Filter	F131	1204
Elapsed Tim		Black	White	Sample Time		1 12)	
Elapsed IIII	Start:	310	82	Sample Time Start:	/ 6 -	9	
	Start: Stop:	340	84	Stop:		101 101 1))
	Diff.			Duration:	1-45-83	79741 10.1	
Calibrations				Baration.			
3 3 3 4 7 7 7 7 7 7		CALIBRATION DATE:	ON	Audit flow c	heck withi	n ±10 of s	et point?
Magn.	(+)	(-)	SUM	Date	1/29	1/30	
70				Time	1004	10:15	
60				Magn. Read.	40	41	
50				ΔH	3.6	3.8	
40				Yes/ No?	Ÿ	Ÿ	
30				Min (-10%)	40	Max (+10%)	48
M= B= R ² = Magneheli	ing ins	Hall nt: <u>44</u>					
FIELD MEAS	SUREMEN	ITS					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	1	otes w rate, etc.)
1/29	1004	44	1	30.03	101	210	direction w
1 30	10:11	43	5	29.94	61	7.33	0
1				<u>'</u>			
700 00 000 000 000							
TOTAL VOL	.UME:	MAD 3	3	std. m³			
NOTES	Sample ID Fo	ormat: DD-Site-Y`	YMMDDHHMM	-Sample Type; Sample Type	e: -01=Primary,	FB=Field Blar	nk
	Bar: 2	19.93317		Tem	p-58.	88 °F	
		43.5 A	5		•	-	

tart Date: _	day (W/Th	Weekend	y 2 <u>Dr</u>	•	y 5 `			
ype: Weekd tart Date:	day (W/Th	Weekend		ALL PARTY OF THE P	-			
tart Date: _	21/20		u (Gal/Gull)	1 TOURCHARY 2	// (nor DI) avant)		
TMOSPHER	101120	10 ALL	` '				,	
	7	17.2014		End Date:	01/30/2	014		
UF SAMPLE	inny Partly ER	ITIONS Cloudy Over	cast Fog	Sky (End): Sunn	y Partly Clo	udy Óve	ercast Fo	g
ampler I.D. I		DIE 014	0113	XAD: X140100) Eiltor	P12	1204	
lapsed Time		Black	White			. <u>1 () </u>		
•	er Start:	243	99	Sample Time Start:		:01		
	Stop:	267	91	Stop:	11:			
	Diff.		<u> </u>	Duration:				
alibrations						-		
MULT IME:	ri-point (CALIBRATION DATE:	ON The second se	Audit flow ch	neck withi	n ±10 o	f set poi	nt?
Magn.	(+)	(-)	SUM	Date	1/29	1/30/1	3	
70	· · · · · · · · · · · · · · · · · · ·			Time	1057	11:06		
⁷ -60			 	Magn. Read.	40	38		
50				△H	3.8	3.5		
40				Yes/ No?	7	<u> </u>		
30	\ 		,	Min (-10%)	38	Max (+10)%) 46	7
¹= lagnehelic IELD MEAS							· · · · · · · · · · · · · · · · · · ·	
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	(calc	Notes flow rate, e	
129	1051	42	7	29.91	55	274 -	-3040	wind
.10	1/61	43	3	29.9	56	A.		
1/30	1100	42		29.84	58	M	146	
			, , , , , , , , , , , , , , , , , , , ,					
OTAL VOLU	IME: 4	MM 332	Ļ	std. m³		I		
OIME VUI						······································		***************************************
	a	rmat: DD-Site-Y\	/MMDDHHMM	I-Sample Type; Sample Type	: -01=Primary,	FB=Field I	3lank	
	Sample ID Fo							
	Sample ID Fo		AVO T-	7 13.7 = 00 /5	5,85			
	Sample ID Fo		Avy T-	-) 13.25°C /5	5,85			

PAH Dry Deposition Field Data Log Sheet										
Site ID	F012			Field Crew:	46,61	۸				
Deposition I	Event:	Ory 1 Dr	y 2 (Qr	y 3) Dry 4 Dr	y 5					
Type: Week	day (W/Th) Weekend	d (Sat/Sun)	Collection:	_/4 (per DI	O event)				
Start Date: _	2-15	-14		End Date: 2	-16-12	+				
ATMOSPHE	RIC COND	ITIONS	. 20 / 3 /		\	The second second				
Sky (Start): (S		Cloudy Over	cast Fog	Sky (End): Sunn	y) Partly Clo	udy Overca	st Fog			
PUF SAMPL										
Sampler I.D.		Dula	110	Se ula ca						
Certification Date/No.: PUF: <u>P140113</u> XAD: <u>X140109</u> Filter: <u>F131204</u>										
Elapsed Tim	1	Black	White	Sample Time		_				
	Start:	292	30	Start:						
	Stop:	316	30	Stop:		·				
	Diff.		·	Duration:	241	175				
Calibrations										
\ MUL TIME:	TI-POINT	CALIBRATION DATE:	N	Audit flow cl	neck withi	n ±10 of s	et point?			
∖Magn.	(+)	(-)	SUM	Date	2:15	2-16	· · · · · · · · · · · · · · · · · · ·			
70				Time	0812	0829				
\60				Magn. Read.	38	38				
50				△H	3.8	7.7				
40	\ r			Yes/ No?	7	Y				
30				Min (-10%)		Max (+10%)				
M= B=	during	install								
$R^2=$. 0									
Magnehelio	Set-poir	nt: 41								
FIELD MEAS	SUREMEN	TS								
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		otes v rate, etc.)			
2.15.14	0819	41	1	29.99	62					
2.16.14	0823	41	Ø	30.02	22					
										
TOTAL VOL	UME:	339		std. m³						

		PAH Dry	Deposition	on F	ield Data Log	Sheet				
Site ID										
Deposition	Event:	Dry 1 Di	ry 2 (Dr	<u>y</u> 3)	Dry 4 Dr	y 5				
Type: Week			d (Sat/Sun))	Collection: 4	_/4 (per DI	D event)			
Start Date:	7-15	-14			End Date: 2	2-16-1	4			
	ATMOSPHERIC CONDITIONS									
Sky (Start): S	,	Cloudy Over	cast Fog		Sky (End) Sunh	y Partly Clo	udy Overca	ast Fog		
PUF SAMPLER										
Sampler I.D.		2114	110		11/21m2		بد ه چه شو	1		
Certification	Date/No.: F	PUF: <u>1140</u>	113	XAE	: X140109	Filter	: <u>7 131 21</u>	<u> </u>		
Elapsed Tim		Black	White	1	Sample Time					
	Start:	340	57		Start:					
	Stop:	364	-57		Stop:	840	Ì,			
	Diff.	24	P		Duration:	2'	1			
Calibrations										
MULTI-POINT CALIBRATION TIME: DATE: Audit flow check within ±10 of set point?					et point?					
Magn.	(+)	(-)	SUM		Date	2.15	2.16			
70	ļ		***		Time	0843	0858	· · · · · · · · · · · · · · · · · · ·		
60	\				Magn. Read.	40	39			
50					ΔH	3.5	3.5			
40					Yes/ No?	7				
30 M=					Min (-10%)		Max (+10%)			
B=	during) install								
R ² =	· ·	4.	2							
Magnehelio	Set-poir	nt:\	<u> </u>							
FIELD MEAS	NIDEMEN	TO		***				holos years		
FIELD WEAS	DUNEIVIEN			T			Y			
Date	Time	Magn. Reading	Wind Speed	Baro	ometric Pressure (in. Hg)	Temp (°F)		otes / rate, etc.)		
2.15	0841	Ч3	0	7	30,02	68				
2. U	0853	43	Ĭ	4	30.04	58		·····		
		2.7.1		I	3					
TOTAL VOL	UME:	331		std.	m³					
NOTES	Sample ID Fo	rmat: DD-Site-Y\	/MMDDHHMM-	Samp	le Type; Sample Type:	-01=Primary,	FB=Field Blanl	Κ		

		IAIIDIY	Deposition	on rield bata Log	JIICCL	M		
Site ID Deposition I	FD0*		y 2 (C r	Field Crew: y 3 Dry 4 Dry	KG, G	M		
Type: Week	kday (W/Th) Weekend	(Sat/Sun)	Collection: <u>\(\frac{1}{2} \)</u>	_/4 (per DE	D event)		
Start Date: _	2.15.	14		End Date: 2	.16.14			
ATMOSPHE	RIC CONE	ITIONS				makes 4 5 to 10 to		
Sky (Start):	_		cast Fod	Sky (End): Supply	, Partly Clos	udy Overcast Fog		
PUF SAMPL		Cloudy Cvci	oast 1 og	Oky (Lila). Odlini	y I aithy Olo	ddy Overcast rog		
Sampler I.D. No.:								
	Certification Date/No.: PUF: P146113 XAD: H0109 Filter: F131204							
Elapsed Tim	ner	Black	White	Sample Time				
	Start:	340	93	Start:	0	17		
	Stop:	364	93	Stop:	09	17		
	Diff.	24		Duration:	7	4413		
	·					7MIS		
Calibrations								
MUL TIME:	TI-POINT	CALIBRATION DATE:	ON STATE	Audit flow ch	neck within	n ±10 of set point?		
Magn.	(+)	(-)	SUM	Date	2.15.	2.16		
70				Time	0914	0922		
60				Magn. Read.	40	40		
50	\ \ \			∆H		3.5		
					3.6	4.)		
40		\		Yes/ No?	4			
30				Min (-10%)		Max (+10%)		
M= B=		dunigns	fall					
R ² =								
		. Ash	L					
Magnehelio	c Set-poir	nt:	<u>, </u>					
FIELD MEAS	SUREMEN	TS						
				I				
Date	Time	Magn.	Wind	Barometric Pressure	Temp (°F)	Notes		
		Reading	Speed	(in. Hg)		(calc flow rate, etc.)		
2.15.14	0917	44		29.98	73			
2.16 14	0922	44		29.99	61			
			· · · · · · · · · · · · · · · · · · ·					
<u> </u>								
	<u> </u>	L	· · · · · · · · · · · · · · · · · · ·					
TOTAL VOL	UME:	331		std. m ³				

	PAIT Dry Deposition Field Data Log Sneet								
Site ID	CNI	CHALL		Field Crew:	KGZ, G	M			
Deposition	Event:	Dry 1 Di	ƴ 2 (Di	Field Crew: y 3 Dry 4 Dr	y 5				
Type: Weel	kday (W/Th	n) Weeken	dy(Sat/Sun) Collection: 💾	_/4 (per D	D event)			
Start Date:		· · · · · · · · · · · · · · · · · · ·		End Date: 2	16.1	4			
ATMOSPHEBIC CONDITIONS									
Sky (Start) S	un'ny Partly	Cloudy Over	cast Fog	Sky (End); Sunn	y Partly Clo	oudy Overca	st Fog		
PUF SAMPLER									
Sampler I.D.									
				XAD: X140109	Filter	<u> </u>	204		
Elapsed Tim	ner	Black	White	Sample Time					
	Start:	268	06	Start:					
	Stop:	292	06	Stop:	1000)			
	Diff.	24		Duration:	241	hr_			
Calibrations									
MUL	TI-POINT	CALIBRATIO	NC						
TIME:		DATE:		Audit flow cl	neck withi	n ±10 of se	et point?		
Magn.	(+)	(-)	SUM	Date	2.15.14	2.16			
				Time	0954	1005			
96				Magn. Read.	40	39			
50				ΔH	3.7	3.6			
40				Yes/ No?	4	4			
30				Min (-10%)	·	Max (+10%)			
M= B=	al.	White the stand	08.						
R ² =		,							
Magnehelio	: Set-poir	ming insta							
	out pon								
FIELD MEAS	SUREMEN	TS							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure	Temp (°F)		tes		
01611	. (65		-	(in. Hg)		(calc flow	rate, etc.)		
2.15.14	1600	43	<u> </u>	29.89	11				
2.0.19	1000	-\3		29.9	59				
	i								
TOTAL VOL	UME: 3	32		std. m ³					

PAH Dry Deposition Field Data Log Sheet									
Site ID	Chin	۸		Field Crew:	KG, CS	· >			
Deposition I	Event:	Dry 1 D	ry 2 Dr	y 3 Dry 4 Dr	y 5				
Type: Week			d (Sat/Sun	Collection:	_/4 (per D	D event)			
Start Date: _	4-5-	1 \		End Date:	4-6				
ATMOSPHE	1 1		-		_				
Sky (Start): S		Cloudy Over	cast Fog	Sky (End)/Sunn	y artly Clo	oudy Overca	ıst Fog		
PUF SAMPL									
Sampler I.D. No.:									
Certification Date/No.: PUF: P140310 XAD: X146311 Filter: F140205									
Elapsed Tim		Black	White	Sample Time		ALCOHOL STATE OF THE STATE OF T			
	Start:	292	24	Start:		85			
	Stop:	*5 (b	24_	Stop:		155			
	Diff.	24		Duration:	2	4			
Calibrations									
MUL TIME:	TI-POINT	CALIBRATION DATE:	ON CONTRACTOR	Audit flow ch	neck withi	n ±10 of s	et point?		
Magn.	(+)	(-)	SUM	Date	4.6				
70			6,8	Time	1140				
60			5.9	Magn. Read.	42				
50	-		51	△H	3.5				
40			4.1	Yes/ No?	4				
30			3	Min (-10%) 2,9	9,6	Max (+10%)	48.4		
M= 31.269 B=	6				-				
$B=52$ $R^2 =998$	65 9:9		. ([•				
Magnehelic	Set-poir	nt:	H4						
			· · · · · · · · · · · · · · · · · · ·						
FIELD MEAS	UREMEN	TS							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		tes rate, etc.)		
4-5-19	137	44	2	29.87	63				
4-6-14	1139	44	14	29,99	61				
		17 060	- 0						
TOTAL VOLU	JME:	EN O 33	\mathscr{C}	std. m³					

	PAH Dry Deposition Field Data Log Sheet								
Site ID	Statio	n 12		Field Crew:	KG, C	5			
Deposition E		Dry 1 Dr	y 2 Dry	v 3 Dry 4 Dry	/ 5				
Type: Week	day (W/Th)	Weekend	(Sat/Sun	Collection: _/	./4 (per DD	event)			
Start Date: _	4-5-1	14		End Date:	1-6-19	<i>t</i>			
ATMOSPHE	SIC COND	ITIONS							
Sky (Start):	unny)Partly	Cloudy Over	cast Fog	Sky (End): Sunny	Partly Clou	udy Overcas	t Fog		
PUF SAMPL									
Sampler I.D.	No.:	DIJA	010	V 1/2011		+ 11/xa	20		
Certification Date/No.: PUF: P140310 XAD: X140311 Filter: F140205									
Elapsed Tim									
	Start:	316	70	Start:	091	9			
·	Stop:	340	70	Stop:	011	7	 		
	Diff.	24		Duration:	24	·			
Calibrations									
MUL' TIME:	TI-POINT (CALIBRATION DATE:	ON STATE OF THE ST	Audit flow ch	neck withir	n ±10 of set	point?		
Magn.	(+)	(-)	SUM	Date	4-6				
70			6.9	Time	0726				
60			6,3	Magn. Read.	38				
50			5.3	△H	3 45				
40			42	Yes/ No?	4				
30			3.2	Min (-10%)		Max (+10%)			
M= B=									
R2= 0.996	6	a) z							
Magnehelic	Set-poir	nt: <i>4</i>	1						
FIELD MEAS	SUREMEN	TS							
		Magn.	Wind	Barometric Pressure		Not	es		
Date	Time	Reading	Speed	(in. Hg)	Temp (°F)	(calc flow	rate, etc.)		
4-6-14	0920	41	3	29,99	67				
4-6-14	8916	41	0	30.05	66				
			<u> </u>	·					
	J	200		2					
TOTAL VOL	UME:	333		std. m ³					
NOTES	Sample ID Ec	rmat: DD-Site-V	VMMDDHHMM	-Sample Type: Sample Type	· -01=Primary	FB-Field Blank			

	PAH Dry Deposition Field Data Log Sheet									
Site ID	11				Field Crew:	<6 C	3			
Deposition I	Event:	Dry 1 Dr	y 2 Dry	3	Dry 4 Dry	y 5				
Type: Week	kday (W/Th) (Weeken	d (Sat/Sun)	V	Collection: /	_/4 (per Di	O event)			
Start Date: _	4-5-	14		•	End Date:	1-6-1	y			
ATMOSPHE	And the second	· ·	***			The same of the sa	Andrea de la companya			
Sky (Start): S	-	Cloudy Ver	cast Fog		Sky (End): Sunny	y Partly Clo	udy Overca	st Fog		
PUF SAMPL										
Sampler I.D. No.: Certification Date/No.: PUF: P1 403 10 XAD: X140311 Filter: F140205										
				XAL	D: X110311	Filter	:	1507		
Elapsed Timer Black White Sample Time										
	Start:	364	91		Start:					
	Stop:	328	8		Stop:	1002				
Programme and the second	Diff.	24	0		Duration:					
Marie Street, Square	Calibrations									
MULTI-POINT CALIBRATION TIME: DATE: Audit flow check within ±10 of set p					et point?					
Magn.	(+)	(-)	SUM		Date	4-64				
70			6.6		Time	1010				
60			5,7		Magn. Read.	42				
50			4.9		△H	3.2				
40			4		Yes/ No?	60				
M= 32182	I		3		Min (-10%) /	1015	Max (+10%)	49.5		
B= -,798 R ² = 9994 Magnehelio	6	nt:	45							
FIELD MEAS	SUREMEN	TS				•				
Date	Time	Magn. Reading	Wind Speed	Bard	ometric Pressure (in. Hg)	Temp (°F)		otes / rate, etc.)		
4-5-14	1609	45	<i>(</i> -		30.02	59				
4-6-14	5955	45	3		30.08	66				
								· · · · · · · · · · · · · · · · · · ·		
TOTAL VOL	.UME:	336		std.	m ³	L				
NOTES	Sample ID Fo	rmat: DD-Site-Y`	YMMDDHHMM-S	Samn	le Type; Sample Type:	: -01=Primary	FB=Field Blan	k		

		PAH Dry I	Deposition	Field Data Log S	heet					
Site ID										
Deposition E		ry 1 Dry	1							
Type: Weekd	lay (W/Tlo	Weekend	(Sat/Sun)	Collection:		event)				
Start Date: _	4-5-	14		End Date:	6-14					
ATMOSPHER				Common Co	Doubly Clay	du Overess	t Eog			
Sky (Start): Su	THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN	Cloudy Overd	ast Fog	Sky (End) Sunny	Partity Clou	dy Overcas	t rog			
PUF SAMPLE	- 1 D N									
Certification Date/No.: PUF: P(+03)0 XAD: XI403/1 Filter: F140205										
Elapsed Time	F	Black 365	Wille	Start:	100	12				
	Start: _ Stop:	389	14	Stop:	100	12				
	Diff.		- ' '	Duration:	25	1				
	L	24								
Calibrations MULTI-POINT CALIBRATION Audit flow check within ±10 of set point?										
TIME:		DATE:		Audit flow ch	eck withir	1 ±10 of Se	t point?			
Magn.	(+)	(-)	SUM	Date	4-6					
70			615	Time	1045					
60			5,7	Magn. Read.	41					
50			4.9	△H	33					
40			4	Yes/ No?			1100			
30			3	Min (-10%)	10,5	Max (+10%)	49.5			
M= 33.393 B= - 92.15	9									
$B = -,9215$ $R^2 = ,9990$. 1	· •							
Magnehelio	Set-poir	nt:	S							
FIELD MEAS	SUREMEN	TS								
Date	Time	Magn.	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		o tes / rate, etc.)			
	1016	Reading	Speed	0.6.00	1 0/2	, .				
4.5.14	1042	45		2000	100					
4-6-19	1020	 	1-6-1	50,03	100					
			·							
TOTAL VOL		336		std. m³						
NOTES	Sample ID F	ormat: DD-Site-Y	YMMDDHHMM-	Sample Type; Sample Typ	e: -01=Primary	, FB=Fìeld Blar	nk			

PAH Dry Deposition Field Data Log Sheet								
Site ID	12			Field Crew:	KG, 6	m		
Deposition	Event:	Dry 1 D	ry 2 Dr	y 3 Dry 4 Di	ry 5			
Type: Wee	kday (W/TI	n)) Weeken	d (Sat/Sun) Collection:	_/4 (per D	D event)		
Start Date:				End Date:	4-10-1	4	, Otrom	
ATMOSPHE				***************************************				
Sky (Start):		/ Cloudy Over	cast Fog	Sky (End): Sunn	y Partly Clo	oudy Overca	ast Fog	
PUF SAMPL				The state of the s			-	
Sampler I.D. No.:								
Certification Date/No.: PUF: P140310 XAD: X14031 Filter: F140205								
Elapsed Tin		Black	White	Sample Time				
	Start:	340	79	Start:		348		
	Stop:	364	79	Stop:		348		
	Diff.	254		Duration:	2			
Calibrations								
MUL TIME:	TI-POINT	CALIBRATION DATE:	ON FIFT	Audit flow cl	neck withi	n ±10 of s	et point?	
Magn.	(+)	(-)	SUM	Date	4-9	7-11		
70				Time	846	0855		
60				Magn. Read.	40	30		
50				ΔH	3.3	3.1		
40				Yes/ No?	7	4		
30				Min (-10%)		Max (+10%)		
M= B=								
R^2 =		. 1 .						
Magnehelid	c Set-poir	nt: 4/						

FIELD MEAS	SUREMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)		tes rate, etc.)	
4-9-14	0850	7/	7	79.99	69			
4-10-14	0854	41	1	79.73	69			
		1 (<u> </u>	<u> </u>			
·								
			The second second					
TOTAL VOL	UME:	328		std. m³				

PAH Dry Deposition Field Data Log Sheet									
Site ID		JM		Field Crew:	KG, 64	٨			
Deposition	Control of the Party of the Par	The same of the sa	ry 2 Dry	COMME	у 5				
Type: (Wee	PROPERTY AND ADDRESS OF THE PARTY OF THE PAR	AND DESCRIPTION OF THE PERSON	d (Sat/Sun)	Collection: 2	_/4 (per Di	D event)			
Start Date:	4-9.	14		End Date:	-10-14				
ATMOSPHE									
Sky (Start): S	Sunny Parti	Cloudy Ove	rcast Fog	Sky (End): Sunn	y Partly Clo	udy Overca	ast Fog		
PUF SAMPL				a secure as a secure of the se	- Andrews				
Sampler I.D.		Dia							
				XAD: X140311	Filter	: F1402	<u>.05</u>		
Elapsed Tin	Elapsed Timer Black White Sample Time								
	Start:	316	27	Start:					
	Stop:	340	27	Stop:	1013	,			
	Diff.	24		Duration:	24				
Calibrations									
TIME:		CALIBRATI DATE:	ON CARLON CONTROL OF THE PROPERTY OF THE PROPE	Audit flow ch	neck withi	n ±10 of s	et point?		
Magn.		(-)	SUM	Date	4-9.14	4-18-14	`		
70				Time	10 (0	1020			
60				Magn. Read.	42	40			
50				△H	3,4	3.4			
40 30				Yes/ No?	4	***			
M= 30	<u></u>			Min (-10%)		Max (+10%)	**************************************		
B ≕ ,									
R ² =	.	. ,1	0						
Magneheli	Set-poir	nt: 	3						
FIELD MEAS	SUREMEN	TS							
Date	Time	Magn. Reading	Wind I Speed	Barometric Pressure (in. Hg)	Temp (°F)		tes rate, etc.)		
4-9.14	1013	43	2	29.87	71	·			
Cfv.10. (4	1013	43	4	29.82	66				
TOTAL 1/6:		001							
TOTAL VOL	UME:	331	s	std. m ³					
NOTES	Sample ID Fo	rmat: DD-Site-YY	/MMDDHHMM-S	sample Type; Sample Type:	-01=Primary, i	FB=Field Blank			

		FAILDIY	Depositi	on Fleid Data Log				
Site ID				Field Crew:	KG C	nM		
Deposition I		Dry 1 Dr		No. of Concession, Name of Street, or other Persons, Name of Street, or ot	y 5			
Type: Week		. 1	d (Sat/Sun)	Collection: 2	_/4 (per DI	D event)		
Start Date: _				End Date:	1-10-1	4		
ATMOSPHE						- <u>1911-19-1911-19-19-19-19-19-19-19-19-19-</u>		
Sky (Start) S		Cloudy Over	cast Fog	Sky (End): Sunn	y Partly Clo	udy Overca	ast Fog	
	PUF SAMPLER							
Sampler I.D.								
Certification Date/No.: PUF: P140310 XAD: XAD: XI40311 Filter: F140205								
Elapsed Tim		Black	White	Sample Time				
	Start:	388	84	Start:	694			
	Stop:	412	卷十	Stop:	0911			
	Diff.	24		Duration:	24			
Calibrations								
MUL TIME:	TI-POINT	CALIBRATION DATE:	ON	Audit flow ch	neck withi	n ±10 of s	et point?	
Magn.	(+)	(-)	SUM	Date	4-9	4-10		
70				Time	0909	0919		
60				Magn. Read.	42	42		
50				ΔH	3.4	3.2	****	
40				Yes/ No?	4	4		
30				Min (-10%)		Max (+10%)		
M= B=				•				
R^2 =			. ,					
Magnehelio	Set-poir	nt:	14					
	•		*******					
FIELD MEAS	UREMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	I	otes v rate, etc.)	
4-9-14			3	30.01	70		***************************************	
4-10-14	070%	44	4	29.96	69			
					¥!			
							4.	
TOTAL VOL	UME:	330		std. m ³				

		I All Diy	Debositi	on Field Data Log Sheet				
Site ID	07			Field Crew: 46, GM				
Deposition I	- ALLENSANIES	Dry 1 D	=	y 3 (Dry 4) Dry 5				
Type: Week	The same of the sa		d (Sat/Sun)	Collection: 2 /4 (per DD event)				
	Start Date: 4-9-14 End Date: 4-10-14							
ATMOSPHE	ATMOSPHERIC CONDITIONS							
	Sky (Start) Sunny Partly Cloudy Overcast Fog Sky (End) Sunny Partly Cloudy Overcast Fog							
PUF SAMPL				**************************************				
Sampler I.D.								
	ورجي المستحدث المستحدث			XAD: <u>X1+03 11</u> Filter: <u>F1+0205</u>				
Elapsed Tim		Black	White	Sample Time				
	Start:	389	17	Start: 0929				
	Stop:	413	19	Stop: 0919				
	Diff.	24		Duration: 24				
Calibrations								
MUL: TIME:	TI-POINT	CALIBRATION DATE:	ON CONTRACTOR OF THE PROPERTY	Audit flow check within ±10 of set point?				
Magn.	(+)	(-)	SUM	Date 4-9 4-10				
70				Time 0927 0930				
60				Magn. Read. リン yo				
50				ΔH 3.4 3.7				
40				Yes/ No?				
30				Min (-10%) Max (+10%)				
M= B= R ² = Magnehelic	Set-poir	nt:44						
FIELD MEAS	UREMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)				
4.9.14	0129	44	2	29.97 69				
4-10.14	0990	YH	-5	29.92 68				
, ,								
TOTAL VOLU	IME:	37.9		std. m ³				

Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

		PAH Dry	Deposition	n Field Data Log S	Sheet			
Site ID								
Deposition E	Event: [Dry 1 Dry	y 2 Dry	3 Dry 4 Dry	5			
Type: Week	day (W/Th)) Weekend	d (Sat/Sun)	Collection: 3	/4 (per DD	event)		
Start Date: _	4-12-1	4		End Date:	4-13.1	4	···	
ATMOSPHE								
Sky (Start): St	-	Cloudy Over	cast)Fog	Sky (End): Sunny	Partly Clou	udy Overcas	∌ Fog	
PUF SAMPLER								
Sampler I.D.		DILLA	310	un VIVANZII	- 211	Fulan	a ~	
	to the same of the same of		The state of the s	XAD: <u>X140311</u>	Filter:	419020		
Elapsed Tim	F	Black	White	Sample Time				
	Start:	36 4	85	Start:	083			
	Stop:	388	85	Stop:	063	,0	· · · · · · · · · · · · · · · · · · ·	
	Diff.	24		Duration:	24			
Calibrations MULTI-POINT CALIBRATION								
TIME:	H-POINT (DATE:	JN	Audit flow ch	eck within	n ±10 of se	t point?	
Magn.	(+)	(-)	SUM	Date	4-12-14	4.13.4		
70				Time	08210	0825		
60				Magn. Read.	40	39	·	
' 50				ΔH	3.5	3.8		
40				Yes/ No?	<u> </u>	Ψ	***	
30 M=	. aram radio de c			Min (-10%)	· No Arrigina - Transition - St.	Max (+10%)		
B=							•	
R ² =		. 11	10					
Magnehelio	Set-poir	nt:	Zana					
FIELD MEAS	SUREMEN	TS						
	•	Magn.	Wind	Barometric Pressure	·	Not	oc.	
Date	Time	Reading	Speed	(in. Hg)	Temp (°F)	(calc flow		
4.12.14	0830	42		29.92	61			
4.12.14	1824	42	0	29.99	59			
		<u> </u>					···	
						·		
TOTAL VOL		26		3	L	<u> </u>	20 783 BANK TO S	
TOTAL VOL	.UME:	722	9	std. m³				

	PAH Dry	Depositio	n Field Data Log S	Sheet		
Site ID FD11			Field Crew: K	6.05		
Deposition Event: Dr	y 1 Dry	2 Dry				
Type: Weekday (W/Th)	Weekend	(Sat/Sun)	Collection: 3	/4 (per DE	D event)	
Start Date: <u>4-12</u>	-14	:	End Date:	1-13-1	14	s and the second
ATMOSPHERIC CONDITION	FIQNS	S. Miller of the Section				
Sky (Start): Sunny Partly C	Cloudy Overd	ast Fog	Sky (End): Sunny	Partly Clo	udy © vercas	Fog
PUF SAMPLER	***************************************					
Sampler I.D. No.:	~				, , , , , , , , , , , , , , , , , , ,	
Certification Date/No.: PL				Filter:	F1402	<u>05</u>
Elapsed Timer	Black	White	Sample Time			
	113	(7	Start:	08-	59	
Stop:	737	17	Stop:	0 35	9	
Diff.			Duration:			
Calibrations						
MULTI-POINT C	ALIBRATIC ATE:	N	Audit flow ch	eck withi	n ±10 of se	et point?
Magn. (+)	(-)	SUM	Date	4-12-19	4.19.14	
70			Time	0856	0902	
60			Magn. Read.	42	41	
50			△H	3.7	3.6	
40			Yes/ No?	Y	Y	
30			Min (-10%)		Max (+10%)	
M=						
B= R ² =						
Magnehelic Set-point	: 45					
FIELD MEASUREMENT	S					
	Magn.	Wind	Barometric Pressure		No	tes
Date Time	Reading	Speed	(in. Hg)	Temp (°F)	l .	rate, etc.)
4.12.14 0859	45	1	29.95	60		
V. 13.14 6856	44		2001	60		
				•		
			The appropriate the second district the second			
TOTAL VOLUME:	334		std. m³			
NOTES Sample ID Form	nat: DD-Site-YY	MMDDHHMM-	Sample Type; Sample Type	: -01=Primary,	FB=Field Blan	k

	PAH Dry Deposition Field Data Log Sheet						
Site ID	FD 07			Field-Grew:	K6,09	•	
Deposition E	Event: [Ory 1 Dry	y 2 Dry	3 (Dry 4) Dry	, 5		
Type: Week	day (W/Th) Weekend	d (Sat/Sun)	Collection: 2	/4 (per DE) event)	
Start Date: _	4-12.	14		End Date:	1.13.14	<u></u>	
ATMOSPHE		The state of the s					
Sky (Start): Sunny Partly Cloudy Overcast Fog			Sky (End): Sunny	Partly Clo	udy Overcast Fog		
PUF SAMPL		Name of the State				·	
Sampler I.D.		OLLA	2115	2000		THARA	
Certification I	Date/No.: F	2UF: <u>ドロマレ</u>	310	XAD: <u>X1403(1</u>	Filter:	F140502	
Elapsed Tim	F	Black	White	Sample Time			
	Start:	413	59	Start:		22	
	Stop:	437	59	Stop:		22	
	Diff.	0		Duration:	マ	1	
Calibrations							
		CALIBRATIO	N	Audit flow ch	eck within	n ±10 of set point?	
TIME:	T	DATE:					
Magn.	(+)	(-)	SUM	Date	4.12.14	4.13.14	
70 60				Time		0925	
50				Magn. Read. △H	42	72	
40				∠n Yes/ No?	3.6	3.6	
30				Yes/ No? Min (-10%)	4		
M=		· · · · · · · · · · · · · · · · · · ·		WIII (-1070)		Wax (+10/0)	
B=							
R ² =	0-1	. 45				•	
Magnehelio	Set-poin	it: <u> </u>			·		
FIELD MEAS	SUREMEN	TS					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)	
4.12.14	0922	45	S	29.9	43		
4.13.14	0919	45	7	29.97	60		
•		-					
<u> </u>							
						•	

TOTAL VOLUME:

std. m³

	PAH Dry Deposition Field Data Log Sheet							
Site ID	CNI	M		Field Crew: K 3> Dry 4 Dry	a, C9			
Deposition Eve	ent: [Dry 1 Dry	y 2 Dry	3> Dry 4 Dry	/ 5			
Type: Weekda			l (Sat/Sun)	Collection:	/4 (per DD	event)		
Start Date: 4	-12-1	4	المنظم منظم المنظم ا المنظم المنظم	End Date:	13.10	<u> </u>		
ATMOSPHERIC								
Sky (Start): Sunr		Cloudy Over	cast Fog	Sky (End): Sunny	Partly Clou	udy Overcast Fog		
PUF SAMPLEF								
Sampler I.D. No								
				XAD:	Filter:			
Elapsed Timer	i i	Black	White	Sample Time				
	art:	340	69	Start:				
	op:	364	69'	Stop:	1616			
Di	tt.			Duration:				
Calibrations								
MULTI- TIME:	POINT	CALIBRATION DATE:	NC	Audit flow ch	neck withir	n ±10 of set point?		
Magn.	(+)	(-)	SUM	Date	4-12-14	4-13-14		
70				Time	lou'	1619"		
60				Magn. Read.	40	46		
50				ΔH	3.6	3.6		
40				Yes/ No?	4			
30 M=				Min (-10%)		Max (+10%)		
B=						•		
R ² =		110						
Magnehelic S	et-poir	nt:43	<u> </u>					
FIELD MEASU	REMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)		
9-12-14 1	014	4	2	29.81	62			
	009	42	2	79.88	6			
					,			
						A Description		
			 :					
Land Control of the C		10-						
TOTAL VOLUM	ИЕ:	550		std. m³				

	PAH Dry Deposition Field Data Log Sheet							
Site ID	人人	M	·*···	Field Crew: /<				
Deposition	Event:	Dry 1 Dr	y 2 Dr	y 3 Dry 4 Dry 5				
Type: Weel	kday (W/Th)) Weekend	d (Sat/Sun)	Collection: 4 (per DD event)				
Start Date:	4.16-	1P		End Date: 4.1714				
ATMOSPHE	ATMOSPHERIC CONDITIONS							
Sky (Start): S	Sunny Partly	Cloudy Over	cast) Fog	Sky (End): Sunny Partly Cloudy Overcast Fog				
PUF SAMPL	ER.	Manage and day day water						
Sampler I.D.		~						
Certification	Certification Date/No.: PUF: Y140310 XAD: X14081 Filter: F140205							
Elapsed Tin		Black	White	Sample Time				
	Start:	364	74	Start: 0957				
	Stop:	388	74	Stop: 0957				
	Diff.	29		Duration: Z∜				
Calibrations	5							
MUL TIME:	TI-POINT	CALIBRATION DATE:		Audit flow check within ±10 of set point				
Magn.	(+)	(-)	SUM	Date Y.16N9 407				
70				Time 0959 1000				
60				Magn. Read.				
50)			ΔH 3-8 3,8				
. 40				Yes/ No?				
30)			Min (-10%) Max (+10%)				
M= B=								
R ² =		U/						
Magneheli	c Set-poir	nt:		· · · · · · · · · · · · · · · · · · ·				
FIELD MEA	SUBFMEN	TS	·					
			Wind	Davamatria Dua a a una				
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)				
4.16.14	0957	44	/	29.74 61				
4-17 K	0156	44	,	23.77 60				
	<u> </u>			·				
TOTAL VOL	UME:	327		std. m ³				
NOTES	Sample ID Fo	ormat: DD-Site-Y	YMMDDHHMV	l-Sample Type; Sample Type: -01=Primary, FB=Field Blank				

		PAH Dry	Depositio	n Field Data Log	Sheet		
Site ID	FDC	77		Field-Grew:	V6		
Deposition	Event:	Dry 1 Dr	y 2 Dry		7	1111	
Type: Wee	kday (W/TI	n) Weekend	d (Sat/Sun)	Collection:	_/4 (per D[D event)	
Start Date:	4.16	. 14	****	End Date:			
ATMOSPHE		demand the same					
		Cloudy Over	cast Fog	Sky (End): Sunny	y Partly Clo	udy Overcas	t Fog
PUF SAMPI							
Sampler I.D. No.:							
Certification	Certification Date/No.: PUF: PM0310 XAD: X/40311 Filter: F140205						
Elapsed Tir	ner	Black	White	Sample Time			
	Start:	437	62	Start:		5	
	Stop:			Stop:		·	
	Diff.			Duration:			
Calibrations							
MUL TIME:	TI-POINT	CALIBRATION DATE:	ON Transfer of the Control of the Co	Audit flow ch	neck within	n ±10 of set	point?
Magn.		(-)	SUM	Date	4.16	407	
70				Time	0913	0917	
60	 			Magn. Read.	43	43	
50				△H	3.8	3.7	
40	·			Yes/ No?	4	<u> </u>	
30 M=				Min (-10%)	·	Max (+10%)	
^{B=} R²≃ Magneheli	c Set-poir	nt:	45				
FIELD MEA	SUREMEN	TS					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Note (calc flow r	
4-16-14	0916	45	3	19.83	57		
4-15-14	0112	45	1	29,87	61		
	<u> </u>			· · · · · · · · · · · · · · · · · · ·			
				The state of the s			
*****	<u> </u>			······································		·	
TOTAL VOL	11845-	334		3			
TOTAL VOL	UNE:		S	std. m³			
NOTES	Sample ID Fo	ormat: DD-Site-YY	/MMDDHHMM-S	Sample Type; Sample Type:	-01=Primary, I	FB=Field Blank	

	PAH Dry Deposition Field Data Log Sheet							
Site ID)12		Fi <u>eld Cr</u> ew: <u>K</u> 6				
Deposition	The second second		ry 2 Dry					
Type: Weel			d (Sat/Sun)	Collection:/4 (per DD event)				
Start Date:				End Date:				
ATMOSPHE Sky (Start): S PUF SAMPL Sampler I.D.	Sunny Partly .ER No.:	Cloudy Over		Sky (End): Sunny Partly Cloudy Overcast Fog				
Certification	Certification Date/No.: PUF: P140310 XAD: X140311 Filter: F140205							
Elapsed Tin	ner	Black	White	Sample Time				
	Start:	388	9	Start: 0826				
	Stop:	400	9,1	Stop: 0 826				
	Diff.	24		Duration: 29				
Calibrations	3)						
MUL TIME:	TI-POINT	CALIBRATION DATE:	DN TO THE STATE OF	Audit flow check within ±10 of set point?				
Magn.		(-)	SUM	Date 4-16-14 (1-17-14)				
70				Time 0823 81%				
60				Magn. Read. 40				
50			7.5+	ΔH 3.7 3.7				
40			* ***	Yes/ No?				
30 M=				Min (-10%) Max (+10%)				
B= R ² = Magnehelic			2					
	JOICENIEIA							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)				
4-16-14	0827	42	D	29.85 58				
4.17.19	0820	42	1	29.89 59				
			•					
TOTAL VOL	UME:	335		std m ³				

Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank

		PAH Dry	Depositio	n Field Data Log	Sheet			
Site ID Deposition I	Event:	Dry 1 Dr	ry 2 Dry		K G y 5			
Type: Week	day (W/Th	D Weeken	d (Sat/Sun)	Collection:	_/4 (per DI	O event)		
Start Date: _		/		End Date:	1-77-	14		
ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Certification Date/No.: PUF: P140310 XAD:X146311 Filter: F14						_		
Elapsed Tim	ner	Black	White	Sample Time				
	Start:	437	2)	Start:				
	Stop:	461	21	Stop:	08	50		
	Diff.			Duration:	<u>Z</u> 4	2		
The second secon	Calibrations							
TIME:		CALIBRATION DATE:		Audit flow ch	neck withi		t point?	
Magn.		(-)	SUM		1.16.14	4.17.14		
70	ļ			Time	0850	0855		
60				Magn. Read.	42	42		
50				ΔH	3,8	2.8		
40	 			Yes/ No?	Y			
30				Min (-10%)		Max (+10%)		
M= B= R ² = Magnehelio	Set-poir	nt:4	5					
FIELD MEAS	SUREMEN	TS						
Date	Time	Magn. Reading	Wind I Speed	Barometric Pressure (in. Hg)	Temp (°F)	Not (calc flow)		
4.16.14	085	45	3	29. 88	58			
					<u> </u>			
		<u> </u>						
					<u></u>			
	<u> </u>	<u> </u>					······································	

TOTAL VOL	UME:	337	{	std. m³				
NOTES	Sample ID Fo	rmat: DD-Site-Y`	YMMDDHHMM-9	Sample Type; Sample Type:	: -01=Primary,	FB=Field Blank		

PAH Dry Deposition Field Data Log Sheet								
Site ID	LCN	IM		Field Crew:_		M		
Deposition			Ory 2 [⊃ry3 Drv4 [Dry 5			
	Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 1/4 (per DD event)							
	Start Date: 5.3.14 End Date: 5.4.14							
ATMOSPH	ERIC CON	DITIONS			,			
PUF SAMP	Sunny Part	ly Cloudy Ove	ercast Fog	Sky (End): Sun	ny Partly C	loudy Overcast Fog		
Sampler I.D								
Certification	Date/No.:	PUF: 140	414	_ XAD: _ 1404 (o Filte	r 140270		
Elapsed Tir	mer	Black	White	Sample Time	The second secon			
	Start:	388	86	Start		11		
	Stop:	412	86	Stop				
	Diff.	24		Duration		X		
Calibration								
MUL	_TI-POINT	CALIBRATI	ON					
TIME:		DATE:		Audit flow o	heck with	in ±10 of set point?		
Magn.		(-)	SUM	Date	5.3.14	5.4.14		
70 60				Time	1038	1045		
50	·			Magn. Read.	40	40		
40	 			ΔH	3.5	3.6		
30	 			Yes/ No?	7	Y		
M=				Min (-10%)		Max (+10%)		
B= R²=								
		11	つ					
Magnehelio	Set-poir	nt:	2					
FIELD MEAS	SUREMEN	TS						
Date	Time	Magn.	Wind	Barometric Pressure		Notes		
		Reading	Speed	(in. Hg)	Temp (°F)	(calc flow rate, etc.)		
5.3.14	1041	43	3	29.78	20			
3.4.14	1040	4.3	-4	29.80	65			
			· · · · · · · · · · · · · · · · · · ·					
		1						
OTAL VOLU	IME.	<u> </u>		3				
- · / %- V O L (J 1 V 1 L	· · · · · · · · · · · · · · · · · · ·		std. m³				

Site ID	PAH Dry Deposition Field Data Log Sheet							
	Deposition Events David B							
	Times Mark Library 5							
		_	nd (Sat/Su	un) Collection:/4 (per DD event)				
No. of the last of	Start Date: 5-3-14 End Date: 5-4-14 ATMOSPHERIC CONDITIONS							
Sky (Start) (PUF SAME Sampler I.E	Sunny Part PLER D. No.:	ly Cloudy Ove		Overcast Fog				
Certification	n Date/No.:	PUF: 140	414	_ XAD: 140 YU Filter: 140 320				
Elapsed Ti	mer	Black	White	Sample Time				
	Start:	461	7.5	Start: 0949				
	Stop:	485	75	Stop: 09 44				
	Diff.			Duration:				
Calibration								
TIME:		CALIBRATI DATE:	ON The second	Audit flow check within ±10 of set point?				
Magn		(-)	SUM	Date 5-3-145-4-14				
70	·			Time 0146 0955				
60	·			Magn. Read. 40 40				
50				ΔH 3.5 3.5				
40	 			Yes/No?				
M=				Min (-10%) Max (+10%)				
B= R²=								
Magnehelid	c Set-poir	nt: 44						
FIELD MEAS	SUREMEN	TS						
		Was been seen as	1077					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (cale flow rate etc.)				
5.3.14	0944	44		(calc flow rate, etc.)				
5.4.14	0949	44	1	29.87 79 79.93 67				
				61.13				
OTAL VOLU	JME:			std. m ³				

		PAH D	ry Deposi	tion Field Data Log	g Sheet		
Site ID Deposition	Event:			Field Crew:_	6,6	M	
		Th) Weeke	nd (Sat/Su			_	
Start Date			ria (Oal/Ou				
				End Date:	5-4-	14	
PUF SAME Sampler I F	Sunny Part	ly Cloudy Ove		Sky (End): Sun XAD: <u>14046</u>			
Elapsed Ti	mer	Black	White			r: <u>1463 °</u>	20
•	Start:	461	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Sample Time Start		06 0 00	
	Stop:	485	48	Stop		9928	· · · · · · · · · · · · · · · · · · ·
	Diff.			Duration		700	
Calibration							
MU TIME: Magn		CALIBRAT	1.0	Audit flow c		in ±10 of se	et point?
70		(-)	SUM	Date	5.3.14	5-4-14	
60				Time	0925	0935	
50				Magn. Read. △H	40	40	
40				Yes/ No?	3.4	3.6	
30				Min (-10%)	I Y	May (1109/)	
M= B=						Max (+10%)	
$R^2=$. 1	•			
Magneheli	c Set-poir	nt: <i>4</i>	4				
FIELD MEAS	SUREMEN	TS					
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Not (calc flow	
5-3-14	0928	79	4	29.92	8		
5.4.14	012-/	44	2	29.98	107		

				0.			
TOTAL VOL	UME:			std. m³			
NOTES	Sample ID For	mat: DD-Site-YY	ММРДННММ-	·Sample Type; Sample Type:	-01=Primary, F	B≕Field Blank	

PAH Dry Deposition Field Data Log Sheet										
Site ID	FD12	_			Field Crew:	KG, E	aH(
Deposition Event: Dry 1 Dry 2 Dry 3 Dry 4 Dry 5										
Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: // 4 (per DD event)										
Start Date: 5-3-14 End Date: 5-4-14										
	ATMOSPHERIC CONDITIONS									
Sky (Start) S		Cloudy Over	cast Fog		Sky (End):(Sunny	Partly Clou	udy Overca	st Fog		
PUF SAMPLER										
Sampler I.D.	IVO.:	142	-114		· Machi		11112	71		
Certification I			Company of the last section in	XAL	: 170416	Filter:	1705	<u>,w</u>		
Elapsed Tim	F	Black	White	1	Sample Time	0.0	~ 	·		
	Start:	413	16		Start:	09	<u>0</u> <u> </u>			
	Stop:	437	طا		Stop:	010	<u> </u>			
	Diff.	49			Duration:	レ	<u> </u>			
Calibrations		a. Ingila		1	A server of the		·			
TIME:		CALIBRATIO DATE:	JN		Audit flow ch	neck withi	n ±10 of s	et point?		
Magn.		(-)	SUM		Date	5-2-14	5.4.14			
70					Time	0904	0912			
60			·	-	Magn. Read.	39	38			
50					ΔH	3.5	3.5			
40			***************************************	-	Yes/ No?	<u> </u>	Y			
30 M=			Landa A. E	1	Min (-10%)	·	Max (+10%)			
B=										
R ² =			!							
Magneheli	Set-poin	nt:								
FIELD MEAS	SUBEMEN	TS	<u></u>							
			Minal	Tea.	ometric Pressure					
Date	Time	Magn. Reading	Wind Speed	Dar	in. Hg)	Temp (°F)	i e	otes v rate, etc.)		
5-3-14	0907	41	1		29.89	82				
5-4-14	0857	41	2_		29.94	66				
					1347-177-1417-1417-1417-1417-1417-1417-1					
				+				······································		
4,1,				+	11 15 17 10 10 10 10 10 10 10 10 10 10 10 10 10					
		<u> </u>	<u> </u>		3		<u> </u>			
TOTAL VOL	.UME:			std.	. m ̃					
NOTES	Sample ID Fo	rmat: DD-Site-Y	YMMDDHHMN	1-Samı	ple Type; Sample Type	: -01=Primary,	FB=Field Blar	ık		

Site ID CNM Field Crew: KG G M						
Deposition Event: Dry 1 Dry 2 Dry 3 Dry 4 Dry 5						
Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: Z /4 (per DD event)						
Start Date: 5-7-14 End Date: 5-8-14						
ATMOSPHERIC CONDITIONS						
Sky (Start) Sunny Partly Cloudy Overcast Fog Sky (Engl): Sunny Partly Cloudy Overcast Fo	g					
PUF SAMPLER						
Sampler I.D. No.:						
Certification Date/No.: PUF: XAD: Filter:						
Elapsed Timer Black White Sample Time	-					
Start: 4/2 9/ Start: 1/12						
Stop: <u>436</u> 9/ Stop: <u>1112</u>						
Diff. 24 Duration: 24						
Calibrations						
MULTI-POINT CALIBRATION TIME: DATE: Audit flow check within ±10 of set poi	nt?					
Magn. (+) (-) SUM Date 5-7-145-8-19						
70 Time 1110 1.115						
Magn. Read. 42 40						
50 AH 3.7 3.6						
40 Yes/ No? Y						
30 Min (-10%) Max (+10%)						
B=						
$R^2 = \frac{1}{2} \left(\frac{1}{2} \right)^2$						
Magnehelic Set-point:						
FIELD MEASUREMENTS						
	و د پېروند و					
Date Time Reading Speed (in. Hg) Temp (°F) Notes (calc flow rate, e	to i					
)					
5.8.14 1111 44 2 22.91 69	·					
TOTAL VOLUME: std. m ³						

		PAH Dry	Deposition	on Field Data Log Sheet				
Site ID	1=00=			Field Crew: KGG M	\			
Deposition	Event:	Ory 1 Di	ry 2 Dr	/ 3 Dry 4 Dry 5				
Type: Weel	kday (W/Th) Weeken	d (Sat/Sun)	Collection: 2/4 (per DD	event)			
Start Date:	5-7	-14		End Date: 5-8-14				
ATMOSPHE	RIC CONE	ITIONS						
Sky (Start). S		Cloudy Over	cast Fog	Sky (End): Sunny) Partly Clou	dy Overcast Fog			
PUF SAMPLER								
Sampler I.D. No.:								
Certification	Date/No.: F	PUF:		XAD: Filter:				
Elapsed Tin	ner	Black	White	Sample Time				
	Start:	485	83 83	Start: 102				
	Stop:	8001509	83	Stop: 102				
	Diff.	M	QQ	Duration: 2 9				
Calibrations								
MULTIME:	_TI-POINT	CALIBRATI DATE:	ON	Audit flow check within	±10 of set point?			
Magn.	(+)	(-)	SUM	Date 5-7-14 5	5.814			
70				Time 1020	1678			
60				Magn. Read. 42	42			
50				△H 3,7	3.5			
40				Yes/ No?	7			
30 M=)			Min (-10%)	Max (+10%)			
B=								
R^2 =		Ĭ f.	¢					
Magneheli	c Set-poir	nt: /	<u> </u>		•			
FIELD MEA	CHDEMEN							
I ILLD WEA	SUNEMEN							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Notes (calc flow rate, etc.)			
5-7-14	1021	45	9	29.95 65	- The Court of the American Court of the Cou			
5.8.14	1020	45	4	30.01 64				
	-							
***************************************	-							
TOTAL VOI	11885		<u> </u>	1 1				
TOTAL VOL	_UNE:			std. m³				
NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank								

PAH Dry Deposition Field Data Log Sheet							
Site ID	FDI			Field Crew: Ka (ann			
Deposition	Event:	Dry 1 Or	y 2 Dry	Dry 4 Dry 5			
Type: Weekday (W/Th) Weekend (Sat/Sun)				Collection: 2 /4 (per DD event)			
Start Date:	5-7-	14	TOTAL TOTAL	End Date: <u>5 - 8 - 14</u>			
ATMOSPHE		Market Bremand McComm					
Sky (Start): S	The state of the s	Cloudy Over	cast Fog	Sky (End): Sunny Partly Cloudy Overcast Fog			
PUF SAMPL							
Sampler I.D.	. No.:						
Certification		41.00		XAD: Filter:			
Elapsed Tin		Black	White	Sample Time			
	Start:	485	60	Start: 1000			
	Stop:	409	60	Stop: 1000			
	Diff.			Duration: 24			
Calibrations							
MUL TIME:	TI-POINT	CALIBRATION DATE:	NC	Audit flow check within ±10 of set point?			
Magn.		(-)	SUM	Date 5.7.14 5.8.14			
70				Time ~ 9.50			
60	 			Magn. Read. 43 41			
50				ΔH 8.7			
40				Yes/ No?			
30 M=)			Min (-10%) Max (+10%)			
B=							
R ² =		į	1				
Magneheli	c Set-poir	nt:/	5	The first and a half the state of the state			
FIELD MEA	SUBEMEN	TS					
		- 1 24 - 15 - 16 - 16 - 16 - 16 - 16 - 16 - 16	Wind	Parametria Dunas una			
Date	Time	Magn. Reading	Wind I	Barometric Pressure (°F) Notes (calc flow rate, etc.)			
5-7-14	10	45	1	30.01 64			
5.8.14	0958	Ý5	2	30.06 64			
. ,	<u> </u>						
	-						
TOTAL VOL	UME:	,	s	std. m ³			
NOTES	Sample ID Fo	ormat: DD-Site-Y	YMMDDHHMM-S	Sample Type; Sample Type: -01=Primary, FB=Field Blank			

	PAH Dry Deposition Field Data Log Sheet								
Site ID	FD12			Field Crew:	Len Gil	Ч			
Deposition Ev	Site ID FD 12 Field Crew: Com Deposition Event: Dry 1 Dry 2 Dry 3 Dry 4 Dry 5								
Type: Weekda	Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 2/4 (per DD event)								
Start Date:	Start Date: 5-7-14 End Date: 5-8-14								
ATMOSPHERIC CONDITIONS									
Sky (Start); Sun	ny Partly	Cloudy Over	cast Fog	Sky (End): Sunny	Partly Clou	udy) Overcast Fog			
PUF SAMPLE	R	THE STATE SAME IS MADE OF A PARTY OF A PARTY OF THE STATE							
Sampler I.D. N			. , ,						
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		·	XAD: 140416	Filter:	140320			
Elapsed Time	part	Black	White	Sample Time					
-	tart:	437	22	Start:	09	36			
	top:	461	22	Stop:	09:	36			
D	iff.	24	v	Duration:	2				
Calibrations									
MULTI-POINT CALIBRATION TIME: DATE: Audit flow check within ±10 of set point?									
Magn.	(+)	(-)	SUM	Date	5-7-14	5.914			
70				Time	0932	6940			
60				Magn. Read.	39	39			
50				△H	39 35	3.7			
40				Yes/ No?	F	Y			
30				Min (-10%)		Max (+10%)			
M=					*				
B= R²=									
Magnehelic s	Sat-nain	. . 4	(7)			-			
magnenenc :	ser-hom		Laconsoni						
FIELD MEASU	JREMEN	тs							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)			
5-7-14	0936	42	5	29,97	61				
5.8.14 7	928	42	1	30.02	63	·			
		-							
TOTAL VOLU	ME:			std. m³					
NOTES s	ample ID Fo	rmat: DD-Site-Y`	YMMDDHHMM-	Sample Type; Sample Type:	-01=Primary,	FB=Field Blank			

PAH Dry Deposition Field Data Log Sheet								
Site ID	FDI	/		Field Crew:		4		
Deposition				ry 3 Dry 4 🖒				
Type: Wee	kday (W/T	h) Weeker	nd (Sat/Sun	Collection:	/4 (per D	D event)		
	Start Date: End Date:							
Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Sky (End): Sunny Partly Cloudy Overcast Fog PUF SAMPLER								
Certification	Date/No.:	PUF:		XAD:	Filter	•		
Elapsed Tir	ner	Black	White	Sample Time				
•	Start:	461	27	Start		2 4		
	Stop:	485	77	Stop:	1 1 10	-		
	Diff.			Duration:		T		
Calibrations								
TIME:		CALIBRATI DATE:	ON	Audit flow c	heck withi	n ±10 of set point?		
Magn.		(-)	SUM		5-10-14			
70				Time	0822	083		
60				Magn. Read.	40	40		
50				△H	3.8	36		
40				Yes/ No?	7	Y		
30 M=				Min (-10%)		Max (+10%)		
B=								
^{R²} = Magnehelio								
FIELD MEAS	SUREMEN	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)		
5-10-14	0824	42	0	29.93	63	(0,0,1)		
5.11.14	0825	42.	Ø	24.88	66			
,								
TOTAL VOL	UME: 3	25		std m ³				

	PAH Dry Deposition Field Data Log Sheet								
Site ID	Tield Clevy. 10.								
Deposition	Event:	Dry 1 D	ry 2 Dry	3 Dry 4 Dr	y 5				
Type: Wee	kday (W/Th) Weeken	Collection: 3	<u>/</u> 4 (per DI	D event)				
Start Date:	5-10	. 14		End Date:	5.11.1	4			
ATMOSPHE									
Sky (Start): S	Sunny Partly	Cloudy Over	rcast Fog	Sky (End) Sunn	y ∽ Rartly Clo	udy Overcast Fog			
PUF SAMPI				We the second second		_			
Sampler I.D.									
Certification		PUF:	·	XAD:	Filter	6			
Elapsed Tin		Black	White	Sample Time					
	Start:	509	64	Start:		o			
	Stop:	533	64	Stop:		Ļ			
	Diff.			Duration:	24				
Calibrations									
TIME:	-II-POINT	CALIBRATI DATE:	0N 	Audit flow ch	neck withi	n ±10 of set point?			
Magn.		(-)	SUM	Date	5-10-14	5-11-14			
70				Time	0843	0834			
60	+			Magn. Read.	41	41			
50	<u> </u>	,		ΔH	3.6	3,6			
40				Yes/ No?	Y	4			
M=	/			Min (-10%)		Max (+10%)			
B= -2									
R ² =	<u> </u>	. 4-							
Magneheli	c Set-poir	it:\\$_				·			
FIELD MEA	SUREMEN	TS							
		Magn.	Wind	Barometric Pressure					
Date	Time	Reading	Speed	in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)			
5.10.14	0876	1.12	4	20 62	 ^ 4	(odio now rate, etc.)			
5.11.14	0844	11		29.91	62				
					64				
		0.1							
TOTAL VOL	.UME: 3	57		std. m³					
NOTES	Sample ID Fo	rmat: DD-Site-Y`	YMMDDHHMM-S	Sample Type; Sample Type	: -01=Primary,	FB=Field Blank			

I Water State of the State of t	PAH Dry Deposition Field Data Log Sheet							
Site ID	Tield Ofew 1							
Deposition Event: Dry 1 Dry 2 Dry 3 Dry 4 Dry 5								
Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 3 /4 (per DD event)								
Start Date: 5.10.14 End Date: 5-11.14								
Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Sky (End) Sunny Partly Cloudy Overcast Fog Puf Sampler I.D. No.:								
		PUF:	***************************************	XAD:	Filter:			
Elapsed Tim	ner	Black	White	Sample Time				
	Start:	436	96	Start:	095			
	Stop:	460	96	Stop:	095	()		
	Diff.	24	Ö	Duration:	2	1		
Calibrations	}							
TIME:	100	CALIBRATIO DATE:			neck within	n ±10 of set point?		
Magn.		(-)	SUM	Date	5-10-14	5.11.14		
70				Time	0950	0955		
60				Magn. Read.	40	40		
50				△H	3.6	3.7		
40				Yes/ No?	Y	Y		
30 M⇒				Min (-10%)		Max (+10%)		
B= R ² = Magnehelid	s Set-poin	nt:4_						
FIELD MEAS	SUREMEN'	TS						
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)		
5.10.14	0951	44	3	29.81	66			
5.11.14	0950	43	5	29.76	64			
					•			
				The state of the s				
<u> </u>								
	•	2 5						
TOTAL VOL	.UME: >	<u> </u>		std. m³				

	PAH Dry Deposition Field Data Log Sheet						
Site ID Deposition	1007]	Field Crew:	£G,	61h
•					Dry 4 Dr	•	
Type: Weekday (W/Th) Weekend (Sat/Sun) Collection:						_/4 (per D[D event)
Start Date:					End Date:5	5-11-	14
ATMOSPHERIC CONDITIONS							
Sky (Start): Sunny Partly Cloudy Overcast Fog Sky (End): Sunny Partly Cloudy Overcast Fog							udy Overcast Fog
PUF SAMPLER							•
Sampler I.D.	Sampler I.D. No.:						
	Certification Date/No.: PUF: XAD: Filter:						
Elapsed Tin	-1	Black	White	-	Sample Time	Za_1	
•	Start:	509	00		Start:	0-20	5
	Stop:	5 33	90		Stop:	070	5
	Diff.	24	10		Duration:	_ Z'	1
Calibrations				_			
TIME:		CALIBRATION DATE:	ИС		Audit flow c	heck withi	n ±10 of set point?
Magn.	(+)	(-)	SUM		Date	5-10-19	5:114
70					Time	0903	0911
60	 				Magn. Read.	41	41
50					△H	3.6	3.7
40				1	Yes/ No?	~	Y
30]	Min (-10%)		Max (+10%)
M= B=							
R ² =							
Magneheli	Set-poir	nt:	<u> </u>	***************************************			·
FIELD MEAS							
	JOREMEN			1			
Date	Time	Magn. Reading	Wind Speed	Baro	metric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)
5.10.14	0905	45]	1 2	29.92	63	
5.11.14	0903	45	2		29.86	45	
ļ							
				<u> </u>			·
		711			COMPANIE DE L'ANGELE DE L'		
TOTAL VOL	.UME:	34	- 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	std.	m ³		
NOTES	NOTES Sample ID Format: DD-Site-YYMMDDHHMM-Sample Type; Sample Type: -01=Primary, FB=Field Blank						

	PAH Dry Deposition Field Data Log Sheet							
Site ID	C	MN		Field Crew:		/)		
Deposition	Deposition Event: Dry 1 Dry 2 Dry 3 Dry 4 Dry 5							
Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 4 (per DD event)								
***************************************	Start Date: 5-21-14 End Date: 5-21-14							
ATMOSPHE	RIC CON	DITIONS				1		
Sky (Start): S	Sunny (Partly	Cloudy Dve	rcast Fog	Sky (End): Sunn	Partly Clo	oudy Overcast Fog		
PUF SAMPI Sampler I.D.						· ·		
Certification	Date/No.: 1	PUF: P140	414	XAD: X140 416	Tilian	T140270		
Elapsed Tin	ner	Black	White	The second lives and the second lives are the second lives and the second lives are the second lives and the second lives are the secon	to be produced to the second s	· <u>T 1 W3 2</u> U		
	Start:	461	01	Sample Time Start:	-			
	Stop:	485	01	Stop:	-			
	Diff.	24		Duration:				
Calibrations	3			J Duration.	24			
The second secon	Name of the last o	CALIBRATI	ON		***			
TIME:		DATE:		Audit flow cl	heck withi	n ±10 of set point?		
Magn.		(-)	SUM	Date	5-20-19	5-21.14		
70 60				Time	1121	1138		
50				Magn. Read.	4/	物		
40				ΔH	3.6	7.5		
30				Yes/ No?		Y		
M=				Min (-10%)		Max (+10%)		
B= _2			_					
R ² =		u	4					
Magneheli	Set-poir	nt:						
FIELD MEAS	SUREMEN	TS						
)							
Date	Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)		
5-20.14	(10)	44	NOTED TONIES	1 39.88	600			
5-21-14	(127)	44	9	29.84	1013			
i								
						and the state of t		
TOTAL VOL	UME:			std. m ³				

PAH Dry Deposition Field Data Log Sheet							
Site ID Deposition Event:	Dry 1 Dr	y 2 Dr	Field Crew: KG, G, M ry 3 Dry 4 Dry 5				
Type: Weekday (W/1	Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: // /4 (per DD event)						
Start Date: 5-20-14 End Date: 5-21-14							
ATMOSPHERIC CONDITIONS Sky (Start): Sunny Partly Cloudy Overcast Fog PUF SAMPLER Sampler I.D. No.: Certification Date/No.: PUF: PLYOYLY XAD: XIYOYI6 Filter: F1Y0326							
Elapsed Timer	Black	White	Sample Time				
Start: Stop: Diff.	533 557 24	74	Start: 1018 Stop: 1018 Duration:				
Calibrations							
MULTI-POINT TIME: Magn. (+) 70 60 50 40 30 M= B= R²= Magnehelic Set-poi	MULTI-POINT CALIBRATION TIME: DATE: Magn. (+) (-) SUM 70 Date 5.20 // 5.2 // 4 Time 10 // 10 // 10 // 5 Magn. Read. 40 Audit flow check within ±10 of set point? Magn. Read. 10 // 10 // 5 AH 3:7 3.7 Yes/ No? Y Y Min (-10%) Max (+10%)						
FIELD MEASUREMEN	VTS						
Date Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg) Temp (°F) Notes (calc flow rate, etc.)				
5-20-14 1018	45	6	30.04 64				
5-21-14 1018	45	<u> </u>	30.01 65				
TOTAL VOLUME:	July 111						

Character of the Control of Manual Control of the C	PAH Dry Deposition Field Data Log Sheet							
Site ID	ried diew. region							
Deposition-Event:		y 2 Dry			•			
Type: Weekday (W/Th) Weekend (Sat/Sun) Collection: 1/4 (per DD event)								
Start Date: 5-20-14 End Date: 5-21-14								
ATMOSPHERIC CONDITIONS								
Sky (Start): Sunpy Rarth	y Cloudy Over	cast Fog	Sky (End) Sunny	Partly Clo	udy Overcast Fog			
PUF SAMPLER Sampler I.D. No.:								
Certification Date/No.:	PUF: PIYO	414	XAD. XMO41L	• Filtor:	·F14220			
Elapsed Timer	Black	White	Sample Time	rinter.	1110000			
Start:	485	33	Sample Time Start:	09	<i>UQ</i>			
Stop:	509	30	Stop:	BAN	10			
Diff.	24		Duration:	~~				
Calibrations								
MULTI-POINT CALIBRATION								
TIME:	DATE:			IECK WILIII	it ±10 of set point?			
Magn. (+) 70	(-)	SUM		5-20-14	5.21.1			
60	3		Time	0945	8939			
50			Magn. Read. △H	39	37			
40			Yes/ No?		3.6			
30			Min (-10%)		Max (+10%)			
M= B=								
R^2 =	v	l						
Magnehelic Set-poi	nt:							
FIELD MEASUREMEN	ITS							
Date Time	Magn. Reading	Wind Speed	Barometric Pressure (in. Hg)	Temp (°F)	Notes (calc flow rate, etc.)			
5-20-14 0748	4/	7	30.00	67				
5.21.140148	9/	Ø .	29-98	66				
	1							
·								
TOTAL VOLUME:std. m ³								

PAH Dry Deposition Field Data Log Sheet								
Site ID	Site ID Field Crew: 6,6M							
Deposition Event: Dry 1 Dry 2 Dry 3 Dry 4 Dry 5								
Type: Week			d (Sat/Sun)	Collection:/4 (per DD event)				
Start Date: 5				End Date: 5-21-/				
ATMOSPHERIC CONDITIONS								
Sky (Start): S		Cloudy Over	cast Fog	Sky (End): Sunny Partly Cloudy Overcast Fog				
PUF SAMPL Sampler I.D.								
		PUE: PIMO	414 x	KAD: <u>X14041le</u> Filter: <u>F14032</u> 6				
Elapsed Tim		Black	White	Sample Time				
	Start:	534	00	Start: 1039				
7	Stop:	558		Stop: 1029				
	Diff.	24		Duration: 7 (/				
Calibrations	<u>.</u>			14				
MUL TIME:		CALIBRATIO DATE:)N	Audit flow check within ±10 of set point?				
Magn.	(÷)	(-)	SUM	Date 520./45.21.14				
70				Time /637 1050				
60				Magn. Read. 43 43				
50				△H 3.6 3.6				
40				Yes/ No?				
30 M=				Min (-10%) Max (+10%)				
B=		•						
$R^2=$		L	6					
Magnehelid	Set-poin	ıt:	Ö					
FIELD MEAS	SUBEMEN.	TS						
		Magn.	Wind E	Barometric Pressure Notes				
Date	Time	Reading	Speed	(in. Hg) Temp (°F) Notes (calc flow rate, etc.)				
5-20-14	1039	75	6	29.98 65				
5-21 14	1039	7	3	29.88 65				
TOTALLIC				2				
TOTAL VOL	UME:		S	td. m ³				
NOTES	Sample ID Fo	rmat: DD-Site-Y	/MMDDHHMM-S	ample Type; Sample Type: -01=Primary, FB=Field Blank				

Site ID C	vM 1			Field Cr	ew	LD	AM
Dry Deposition	Sampling Even	:	Pilot	Dry 1	i	Dry 2	Dry 3
ATMOSPHERIC	CONDITIONS						
Sky	Sunny (P	artly Cloudy	Overcast	Fog Raii	ning		
Last Rain	> 72 Hours	< 72 Hours	Rainfall	None	< 0.1"	> 0.1"	
PUF SAMPLER							
Sampler I.D. No	: FA 02	867					
Lab PUF Sample	No.: P1612		1/22	F16111	7		
	Certification Date		16.11/27	116, 11/	21/16		
Date/Time PUF	Cartridge Instal	led: 12/13	/16 14:28	3			
Elapsed Timer:				,			
Start:							
Stop: 209	1.85						
Diff.							
Sampling Time							
Start: \	1:30	12/13/16					
Stop: 12	14/16 1	7:30					
Diff. 24	hrs						

Audit flow check within +/- 10 of set point: (YES/NO)

TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
14:30	60	29.85	37		LD
Avg.					

NOTES/COMMENTS	audit on 12/13/16	audit on 12/14/16
	2.1 x 2 = 4.2@38	1.6 x2=3.2@ 30

'collection 1

Site ID F	07			Field Cr	ew [LD	AM
Dry Deposition	n Sampling E	vent	Pilot	Dry 1	***	Dry 2	Dry 3 Dry G
ATMOSPHERIC	CONDITION	S					
Sky	Sunny	Partly Cloudy	Overcast	Fog Rai	ning		
Last Rain	> 72 Hou	rs >< 72 Hours	Rainfall	None	< 0.1"	> 0.1"	
PUF SAMPLER							
Sampler I.D. N	o.: FA D	2868					
Lab PUF Samp	le No.: P16	1201, X161	122, F	16/117			
PUF Cartridge	Certification	Date: 126/16		6, 11/21	/16		
Date/Time PU	F Cartridge In		1 1	, ,			
Elapsed Timer	:						
Start:							
Stop: 2	13.33 h	ut-					
Diff.							
Sampling Time	2						
Start: \[5:40	12/13/16					
Stop: /2/	14/16 15	:40					
Diff. 24							
Audit flow che	eck within +/-	10 of set point: (\	(ES/NO)				

TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
15: 1/0	68	766.9 mm	3/		LD
Avg.					

NOTES/COMMENTS	andit on 12/13/16 andit on 12/14/16
	$2 \times 2 = 4038$ $2 \times 2 = 4036$
	1

					-		-	
Site ID FD	II .			Field Cr	ew [LD	AM	
Dry Deposition	Sampling Event	9	Pilot	Dry 1		Dry 2	Dry 3	On
ATMOSPHERIC	CONDITIONS							
Sky	Sunny (Pa	artly Cloudy	Overcast	Fog Rai	ning			
Last Rain	72 Hours	< 72 Hours	Rainfall	None	< 0.1"	> 0.1"		
PUF SAMPLER								
Sampler I.D. No.	: FA 02	8 69						
Lab PUF Sample			122 F11	1117				
PUF Cartridge Co			16,11/27/	16 11/21/	16			
Date/Time PUF	Cartridge Install	led: 12/13	/16 16:1	20 (50)				
Elapsed Timer:			7.0		· i			
Start:								
Stop: 199	3.2 hrs							
Diff.								
Sampling Time								
Start: [(20 1	2/13/16						
Stop: 12 /		:20						
Diff. 24								
Audit flow check		of set noint: (VES/NO)					

Audit flow check within +/- 10 of set point: (YES/NO)

TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	FLOW RATE (std. m3)	READ BY
16:20	65.9	756.4 nm	32		LD
Avg.					

NOTES/COMMENTS audit 12/13/16 2x2=4@32	audit	on	12/14/16	
		λ×ο	2 = 4 @	31

Site ID FD 12	Field Crew	LD, AM	
Dry Deposition Sampling Event Pil	ot Dry 1	Dry 2 Dry 3 Dry	6 collection 1
ATMOSPHERIC CONDITIONS			
Sky Sunny Partly Cloudy Over	cast Fog Raining		
Last Rain > 72 Hours < 72 Hours Ra	infall None < 0.1	1" > 0.1"	_
PUF SAMPLER			
Sampler I.D. No.: FAO2866			
Lab PUF Sample No.: P161201 X161	122, F161 117		-
PUF Cartridge Certification Date: 12/6/16	11/27/16, 11/21	/16	-
Date/Time PUF Cartridge Installed: 12/13/16	17:15		_
Elapsed Timer:			
Start:			
Stop:			-
Diff.			-
Sampling Time			
Start: 17:16 12/13/16			_
Stop: 12/14/16 17:16			_
Diff. 24 hrs.			

Audit flow check within +/- 10 of set point: (YES/NO)

TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC REÁDING	CALCULATED FLOW RATE (std. m3)	READ BY
17:20	65	761.7 mm	35		LD
Avg.					

NOTES/COMMENTS and it	audit on 12/14/16	
12/13/16 2.1 × 2 = 4.2 & 40	2×2=4@40	

Site ID FD 12				Field Crew	LDT A	M LM
Dry Deposition San	npling Event: F	Pilot Dry 1	Dry 2 Dry	3 Dry 4	Dry 5 Dry 6)
Collection: 1	② 3 4	Start Date Tin	ne:	End Date	/Time:	
ATMOSPHERIC COI	NDITIONS (Start	t)				
Sky	Sunny Partly	y Cloudy O	vercast Fog	Raining		
Last Rain	> 72 Hours (72 Hours	Rainfall	None < 0.1"	> 0.1"	
ATMOSPHERIC CO	NDITIONS (End)					
Sky	Sunny Partly	y Cloudy O	vercast Fog	Raining		
Last Rain	> 72 Hours (<	72 Hours	Rainfall	None < 0.1"	> 0.1"	
PUF SAMPLER						
Sampler I.D. No.:	FA Da	866				
Lab PUF Sample No	D.: P16120	1, X161	122 F	161117		
PUF Cartridge Certi	ification Date:	12/6/16,	11/27/16,11	1/21/16		
Date/Time PUF Car	tridge Installed:	12/18/16	•	,		
Elapsed Timer:		(
Start:						
Stop: 242.	20					
Diff.				•		
Sampling Time					is	
Start: 12/18/	16 12:0	5				
Stop: 12/19/						
Diff. 24 1	20					
Set Point (Mag)	45					
Audit flow check w	ithin +/- 10 of se	et point- STAF	RT: (YES/NO)			
Audit flow check w	ithin +/- 10 of se	et point-END:	(YES/NO)			-
	TIME	TEMP (°F)	BAROMETRIC PRESSURE	MAGNEHELIC READING	CALCULATED FLOW RATE	READ BY

TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
12/18 12:05	60	30.11	46		
12/A 17:00	70	30.14	39		LD
Avg.	65	30.125	42		LD

NOTES/COMMENTS	audit 12/18	audit 12/19
	DH=2(4)@40	△H=1.7 (3.4) @ 36

Site ID FD //				Field Crew	LDT, AM	, LM
Dry Deposition Sa	mpling Event: Pil	ot Dry 1	Dry 2 Dry	3 Dry 4 [Dry 5 Dry 6)
Collection: 1	2 3 4 St	art Date T	ime:	End Date	/Time:	
ATMOSPHERIC CO	NDITIONS (Start)					
Sky	Sunny Partly (Cloudy	Overcast Fog	Raining		
Last Rain	> 72 Hours < 7	2 Hours	Rainfall	None < 0.1"	(0.1)	
ATMOSPHERIC CO	NDITIONS (End)					
Sky	Sunny Partly	Cloudy	Overcast Fog	Raining		
Last Rain	> 72 Hours (< 7	2 Hours	Rainfall	None < 0.1"	> 0.1"	
PUF SAMPLER						
Sampler I.D. No.:	FA 92869	1				
Lab PUF Sample No	o.: P161201	X161	122, F161	117		
PUF Cartridge Cert	ification Date:	12/6/16	11/27/16	, 11/21/16	8	
Date/Time PUF Ca	rtridge Installed:	12/18/1	6			
Elapsed Timer:		7. 7				
Start:						
Stop: 220.	74					
Diff.						
Sampling Time						
Start: 12/18	/16 13:30	>				
Stop: 12/1 9 /	16 13:31	0				
Diff. 24 1	s					
Set Point (Mag)	35					
Audit flow check v	vithin +/- 10 of set	point- STA	ART: (YES/NO)			
Audit flow check v	ithin +/- 10 of set	point-END): (YES/NO)			
	TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
	12/2 12:20	60.2	29.87	32		
	12/18 13:30	69.8	29.89	29		LD
	10/17 13.00	υ (. p	~	5 (
	Avg.	65	29.88	30.5		LD

NOTES/COMMENTS audit 12/18	audit 12/19	
△H=1.95(3.9) @ 28	DH = 1.6 (32) @ 24	

Site ID FD 0	7			Field Crew	LPT AM	LM
Dry Deposition San Collection: 1	•		Dry 2 Dry me:	2.0	Dry 5 Dry 6 /Time:	<u> </u>
ATMOSPHERIC CO	NDITIONS (Start)				
Sky	Sunny Partly	Cloudy C	Overcast Fog	Raining	7	
Last Rain	> 72 Hours (<	72 Hours	Rainfall	None < 0.1"	(0.1")	
ATMOSPHERIC CO	NDITIONS (End)					
Sky (Sunny Partly	Cloudy C	Overcast Fog	Raining		
Last Rain	> 72 Hours	72 Hours	Rainfall	None < 0.1"	(0.1")	
PUF SAMPLER						
Sampler I.D. No.:	FA 0281	68				
Lab PUF Sample No	D.: P161201	. X161	122 F16	1117		
PUF Cartridge Cert			11/27/1	6.11/21	/16	
Date/Time PUF Ca	rtridge Installed:			'		
Elapsed Timer:					201	
Start:						
Stop: 237.	૧ ા					
Diff.						
Sampling Time						
Start: (2/14	16 14:55					
Stop: 12/19	/16 14:55					
	hs		-			
Set Point (Mag)	40			-		
Audit flow check w	ithin +/- 10 of se	t point- STA	RT: (YES/NO)			
Audit flow check w	ithin +/- 10 of se	t point-END	: (YES/NO)			
	TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
	12/18 14:55	62	30.30	36		
	12/19 14.45	72	34 29	34		10

(°F)	PRESSURE ("Hg)	READING	FLOW RATE (std. m3)	READ B
62	30.30	36		
73	30.29	34		LD
67.5	30,295	35		LD
	(°F)	(°F) PRESSURE ("Hg) 62 30.30 73 30.29	(°F) PRESSURE ("Hg) READING 62 30.30 36 73 30.29 34	(°F) PRESSURE ("Hg) READING FLOW RATE (std. m3) 62 30.30 36 73 30.29 34

NOTES/COMMENTS	audit 12/18	audit 12/19	
	AH=2(4)@32	AH = 1.9 (3.8) @ 32	

Site ID //M	1			Field Crew	LDT, A	M, LM
Dry Deposition Sar	mpling Event: P	ilot Dry 1	Dry 2 Dry	3 Dry 4 [Ory 5 Ory 6)
Collection: 1	2 3 4 5	Start Date Tin	ne:	End Date	/Time:	
ATMOSPHERIC CO	NDITIONS (Start	:)				
Sky	Sunny Partly	Cloudy O	vercast Fog	Raining		
Last Rain	> 72 Hours (<	72 Hours	Rainfall	None < 0.1"	(0.1")	
ATMOSPHERIC CO	NDITIONS (End)			AWARE		
Sky	Sunny Partly	Cloudy O	vercast Fog	Raining		
Last Rain	> 72 Hours (<	72 Hours	Rainfall	None < 0.1"	> 0.1"	
PUF SAMPLER					<i>J</i>	
Sampler I.D. No.:	FA 6280	07				
Lab PUF Sample No	D.: P16120	1, X161	122 , F1	161117		·
PUF Cartridge Cert		B 12/6/	16 , 11/27	/16/1/21/16		
Date/Time PUF Car	rtridge Installed:					
Elapsed Timer:						
Start:						
Stop: 232.	97					
Diff.						
Sampling Time						
Start: 12/18	/16 16:50	. 1. 5.				
Stop: (2/14/	16 16:50					
Diff. 24 1	Prs					
Set Point (Mag)	39.9					
Audit flow check w	rithin +/- 10 of se	et point- STAR	RT: (YES/NO)			
Audit flow check w	ithin +/- 10 of se	et point-END:	(YES/NO)			
	TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
	12/18 16:50	54	29.89	38		
	12/19 16:40	61	29.95	37		LD

NOTES/COMMENTS	audit 12/18	audit 12/19
	LH=1.85(3.7)€ 34	XH =1.3 (2.6)@ 30

29.92

37.5

57.5

Avg.

Site ID FD 1	2			Field Crew	KHIKG -	B5,55
Dry Deposition Sa	ampling Event: P	ilot Dry 1	Dry 2 Dry	3 Dry 4 [Dry 5 Dry 6	
Collection: 1	2 (3) 4 5	Start Date Tin	ne: <u>1/7/17</u> 09	32 End Date	/Time: 1/9/1	70932
ATMOSPHERIC CO	ONDITIONS (Start	1	- 1			
		•	vercast Fog	Raining		
Last Rain		72 Hours	Rainfall	None (35 0.1"	5(>0.1")	nded 1/5
ATMOSPHERIC CO					<u> </u>	Marca 1/3
Sky (Sunny Partly	Cloudy O	vercast Fog	Raining		
Last Rain	> 72 Hours	72 Hours	Rainfall	None CS0.1	0.1"	
PUF SAMPLER						<u> </u>
Sampler I.D. No.:	FA 02861	· e			·	
Lab PUF Sample N			2 F1611	7 274	2-39-1	0
PUF Cartridge Cer	tification Date:	12/10/14	11/27/1	6, H21/1	bes Pilter	Batch=
Date/Time PUF Ca	artridge Installed:	1/7/1-	7 0932			
Elapsed Timer:		1, 1,				
Start: 24	2.62					
-	16.UZ					
Diff えり	4					
Sampling Time						
Start: 1/7/	17 09;	32				
Stop: 1/8/	117 09:					
Diff. 24	M					
Set Point (Mag)_	47					
Audit flow check	within +/- 10 of se	et point- STAF	RT: (YES/NO)			
Audit flow check	within +/- 10 of se	t point-END:	(YES/NO)			_ .
	TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
1/7/17	0932	59	30.19	47		KH
1/8/17	0932			48		85
1/0//		70	30.16		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	55
1/8/17	0943	70	301,0		1	
	0943					

NOTES/COMMENTS weather data downloaded 1/8/17 W/ File name test.

3 photostaken, ss total volume = 33 um?

Site ID FD11			F	ield Crew	KG KH B	5,55						
Dry Deposition Sampling Event: Pilot Dry 1 Dry 2 Dry 3 Dry 4 Dry 5 Dry 6												
Collection: 1	2 (3) 4 S	tart Date Tim	ie: 1/7/17 1031	<u>_</u> End Date/	Time: <u> 8 17</u>	1040						
ATMOSPHERIC CONDITIONS (Start)												
Sky	Sunny Partly	Cloudy Ov	ercast Fog	Raining								
Last Rain	> 72 Hours 🗧	72 Hours	Rainfall I	None (<0.1") > 0.1"							
ATMOSPHERIC CONDITIONS (End)												
Sky	Sunny Partly	Cloudy Ov	vercast Fog	Raining		<u>.</u> _						
Last Rain	> 72 Hours (<	72 Hours	Rainfall I	None < 0.1"	> 0.1"							
PUF SAMPLER												
Sampler I.D. No.: FA 02869												
Lab PUF Sample No.: P (6/20), X10/122, P16/17 24 2742-39-10												
PUF Cartridge Certification Date: 12/0/10, 11/27/10, 11/21/10												
Date/Time PUF Cartridge Installed: 1/7/17 10:36												
Elapsed Timer:												
Start: 22	1.09											
Start: 221.09 Stop: 245.15												
	00		-									
Sampling Time					··········							
Start: (171)	7 10:31											
- 4												
Stop: 1/8/17 10:40 Diff. 24 h. 4 min												
Diff. 24 w 4 min Set Point (Mag) 37												
Audit flow check within +/- 10 of set point- START: (YES/NO) Audit flow check within +/- 10 of set point-END: (YES/NO)												
, to die , no ti on con ti	10.000				CALCULATED							
	TIME	TEMP	BAROMETRIC PRESSURE	MAGNEHELIC	FLOW RATE	READ BY						
		(°F)	("Hg)	READING	(std. m3)							
	11/11/1036	(04.3	29.98	37		24						
	1/8/17 1040	73.3	29.95	33		85						
	System of the property of the control of the contro	Magazina sense kangang	mum of the logarity and wedge their	neone i pud trea une pape care		gu ayetar garagar Gilliga dari						
	A			Entract Content	Company of the Section	College St. St. Contr.						
	Avg.	L	L		1	L						

NOTES/COMMENTS Weather Station downloaded 1/8/17. Operating-Normally, but one wind ball appears to be damaged photos taken -BS

Site ID FD07				ield Crew	LEKH F	35,55	
Dry Deposition Samp Collection: 1 2	-/\	lot Dry 1 tart Date Tim	Dry 2 Dry 3 ne: <u>1/7/17 112</u>	_	ry 5 _ O ry 6 Time: /8/17)	
ATMOSPHERIC COND	ITIONS (Start)			<u></u>		,	
Sky Su	nny Partly	Cloudy Ov	ercast Fog	Raining			
Last Rain > 7	72 Hours	2 Hours	Rainfall	Vone (L.1)	(>0.1") en	led 1/5	17 20:15
ATMOSPHERIC COND	OITIONS (End)					 	, ,
Sky Su	nny Partly	Cloudy Ov	vercast Fog	Raining			
Last Rain > 7	72 Hours <	72 Hours	Rainfall	None (0.1"	> 0.1")		
PUF SAMPLER							
Sampler I.D. No.: 🗗	70268			\J\			
Lab PUF Sample No.:	P16120	1. X (6)1	2 . F=1011	9 5 101	20) 7	742-39	10
PUF Cartridge Certific	ation Date:	12/10/110	11/27/	10, 12/	9/16	 	, -
Date/Time PUF Cartri	- idge Installed:	1715	7 11:20	''' 			
Elapsed Timer:	_	* * * * * * * * * * * * * * * * * * * *	<u>, 10 20 </u>				
Start: 4171	7	238.15					
Stop:		202.15	· · · · · · · · · · · · · · · · · · ·	·			
Diff.		24					
Sampling Time					·		
Start: 1/7/1	7 11:28						
Stop: \18/	17 11:28	<u> </u>		· · · · ·		·	
Diff. 24							
Set Point (Mag) <u> </u>	0.8	<u> </u>				"	
Audit flow check with	nin +/- 10 of se	t point- STAR	T: (YES/NO)				
Audit flow check with	nin +/- 10 of se	t point-END:	(YES/NO)		<u> </u>		
	TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	FLOW RATE (std. m3)	READ BY	
<u>U</u>	1/7/1/28	109	30.35	4		ZH-	
<u> </u>	8/17 1120	72	30.36	42	100 (00 4 - 100 0 1 6 4 20	B5	
	autoriori il iliandi di Alian Aliandi Aliandi di Aliandi Aliandi di Aliandi						
<u> </u>							
A.	vija (1966) (1966) (1966) vg.		Marin Marin Thinks are the all the	. 199 <u>9 (1997)</u> 1994 - Janes J. W.	Lactice we would be a fin	Lower Rock and	1
					, , ,	<u> </u>	1
NOTES/COMMENTS	neather	station state	one wear	down load	ded 1/2 lappe	117. ars to	ļ

Site ID CNMI				Field Crew	KO, MH B	5 8 5
Dry Deposition Sai	mnling Event: Di	ilot Dry 1	Dry 2 Dry		Dry 5 Dry 6	
Collection: 1	/ 1	-	ne: 1/17/17 124	-	/Time: 1/3/17	
ATMOSPHERIC CO	NDITIONS (Start					•
Sky	Sunny Partly	Cloudy O	vercast Fog	Raining		
Last Rain	> 72 Hours <	72 Hours/	Rainfall	None (CO.)	> 0.1"	nded 1
ATMOSPHERIC CO	NDITIONS (End)					
Sky , Ş	Sunny Partly	Cloudy O	vercast Fog	Raining	•	
Last Rain	> 72 Hours <	72 Hours	Rainfall	None < < 0.1"	0.1"	
PUF SAMPLER						
Sampler I.D. No.:	FA 02847					
Lab PUF Sample N	o.: PIV 120L	XIV112	2 11/12	0		
PUF Cartridge Cert	tification Date:	12/6/14	11/27/14	12/9/14	P	
Date/Time PUF Ca	rtridge installed:	11717		, , , , , , , , , , , , , , , , , , , ,		
Elapsed Timer:	•	, , , , , , , , , , , , , , , ,				·····
Start: 2	33.22					
Stop: 2	57.22	10				
Diff. 2	24					
Sampling Time						
Start: \	7 1244					
Stop: \ \ S	17 12:45		·			
Diff. 2	1					
Set Point (Mag)	43.(•		
Audit flow check v	within +/- 10 of se	t point- STAF	RT: (YES/NO)			
Audit flow check v	-	•				
	TIME	TEMP (°F)	BAROMETRIC PRESSURE ("Hg)	MAGNEHELIC READING	CALCULATED FLOW RATE (std. m3)	READ BY
	17/17 1247	69	2996	43		KH
	1/8/17 1244	73	29.96	45		SS
•						
					. In the the test of the second	Telena ujas urben
-	Ava					
	Avg.			1 .		.[

NOTES/COMMENTS Weather Station downloaded 1/8/17

Total vol. = 336m3

ATMOSPHERIC CONDITIONS (Start) Sky Sunny Partly Cloudy Last Rain 72 Hours <72 Hours ATMOSPHERIC CONDITIONS (End) Sky Sunny Partly Cloudy Last Rain >72 Hours <72 Hours PUF SAMPLER Sampler I.D. No.: FA 02866	Overcast Rainfall	Fog Ra	ļ	y 5 Ory 6 Time: 18	77 382
ATMOSPHERIC CONDITIONS (Start) Sky Sunn Partly Cloudy Last Rain 72 Hours < 72 Hours ATMOSPHERIC CONDITIONS (End) Sky Sunny Partly Cloudy Last Rain > 72 Hours < 72 Hours PUF SAMPLER Sampler I.D. No.: FA 0 2866 Lab PUF Sample No.: P 70 04 X 16 PUF Cartridge Certification Date: 19/1	Overcast Rainfall Overcast Rainfall	Fog Ra None Rog Ra None	ining < 0.1"	> 0.1"	15 082
Sky Sunn Partly Cloudy Last Rain 72 Hours < 72 Hours ATMOSPHERIC CONDITIONS (End) Sky Sunny Partly Cloudy Last Rain > 72 Hours < 72 Hours PUF SAMPLER Sampler I.D. No.: FA 0 28 66 Lab PUF Sample No.: P170 04 X16 PUF Cartridge Certification Date: 19/1	Overcast Rainfall	Fog Ra	< 0.1"		
Last Rain 72 Hours < 72 Hours ATMOSPHERIC CONDITIONS (End) Sky Sunny Partly Cloudy Last Rain > 72 Hours < 72 Hours PUF SAMPLER Sampler I.D. No.: FA 0 2866 Lab PUF Sample No.: P 70 04 X 16 PUF Cartridge Certification Date: 19/1	Overcast Rainfall	Fog Ra	< 0.1"		
ATMOSPHERIC CONDITIONS (End) Sky Sunny Partly Cloudy Last Rain > 72 Hours < 72 Hours PUF SAMPLER Sampler I.D. No.: FA 0 2866 Lab PUF Sample No.: P170104 X16 PUF Cartridge Certification Date: 19/1	Overcast Rainfall	Fog Ra	ining		
Sky Sunny Partly Cloudy Last Rain > 72 Hours < 72 Hours PUF SAMPLER Sampler I.D. No.: FA 0 28 66 Lab PUF Sample No.: P 70 04 X 16 PUF Cartridge Certification Date: 19/1	Rainfall	None		> 0.1"	
PUF Cartridge Certification Date: \(\ 72 \text{ Hours} \) < 72 Hours \(< 72 \text{ Hours} \)	Rainfall	None		> 0.1"	
PUF SAMPLER Sampler I.D. No.: FA 02866 Lab PUF Sample No.: P170104 X16 PUF Cartridge Certification Date: 19/1	, 1228 F		< 0.1"	> 0.1"	····
Sampler I.D. No.: FA 02866 Lab PUF Sample No.: P170104 X16 PUF Cartridge Certification Date: 19/1		1//222			
PUF Cartridge Certification Date: 19/1		1/1/222			
PUF Cartridge Certification Date: 19/1		1/1/222			
PUF Cartridge Certification Date: 1/9/1		161200			
	F . [//2//	6(1),1	/3/17		
		~ () / / /	1711	 	
Elapsed Timer:	<u>, , , , , , , , , , , , , , , , , , , </u>				
Start: 267.2					
Stop: 291. 7					
Diff. 24					
Sampling Time					
Start: 04:38 1/17					
Stop: 08:38 118					
Diff. 24					
Set Point (Mag) 45				,,	***
Audit flow check within +/- 10 of set point-	CTADT: (VEC/	NO)			
Audit flow check within +/- 10 of set point-	•	•			
	BAROM	· · · · · · · · · · · · · · · · · · ·		CALCULATED	
TIME TEM	DRESC	URF MAGI	NEHELIC	FLOW RATE	READ BY
(°F)) ("H	I REA	DING	(std. m3)	
4. Sp		-	_		
1 17 7 8:38 53	3 30.1	in. 4	5		LDLT
1/18/1 8:36 52	30	181n 4	0		KH
Aver	-,			!	
Avg.	<u> </u>	<u> </u>			

PAH Dry	/ Deposition	Field Data	Log Sheet
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Site ID FD 11 Field Crew LDLT AM CONTROL
Dry Deposition Sampling Event: Pilot Dry 1 Dry 2 Dry 3 Dry 4 Dry 5 Ory 6
Collection: 1 2 3 (A) Start Date Time: 1/17/17 9:07 End Date/Time: 1/18/17 09:37
ATMOSPHERIC CONDITIONS (Start)
Sky Sunny Partly Cloudy Overcast Fog Raining
Last Rain > 72 Hours Rainfall None < 0.1" > 0.1"
ATMOSPHERIC CONDITIONS (End)
Sky (Sunny) Partly Cloudy Overcast Fog Raining
Last Rain > 72 Hours Rainfall None < 0.1" > 0.1"
PUF SAMPLER
Sampler I.D. No.: FA 02 869
Lab PUF Sample No.: 8170 104, X161228, F161222
PUF Cartridge Certification Date: $\sqrt{9/17}$, $1-12-16$, $1-3-17$
Date/Time PUF Cartridge Installed: 79:37
Elapsed Timer:
Start: 245 49
Stop: 269.50
Diff,
Sampling Time
Start: 159:37
Stop: 09:37
Diff. 24 br
Set Point (Mag) 35
Audit flow check within +/- 10 of set point- START: (ES/NO)
Audit flow check within +/- 10 of set point-END: (NES/NO)
RAPOMETRIC
TIME TEMP PRESSURE PRESSURE ("Hg) MAGNEHELIC READING (std. m3)
1 17 9:38 58.8 29.9 in. 28 LDLT
1187 9:26 55.8 29.91n 29 KH
Avg.
C) B
NOTES/COMMENTS

Site ID FD 0	17		i	ield Crew	4XLT A	М
Dry Deposition Sa	ampling Event:	Pilot Dry 1	Dry 2 Dry 3	B Dry 4 D	ry 5 Ory 6	
Collection: 1	2 3 (4	Start Date Tim	ne:1-1707:50	End Date/	Time: 118	1710:31
ATMOSPHERIC CO	ONDITIONS (St	art)			<u> </u>	
Sky			vercast Fog	Raining		
Last Rain	72 Hours	< 72 Hours	Rainfall (Vone < 0,1"	> 0.1"	
ATMOSPHERIC CO	ONDITIONS (Er	ıd)				
Sky	Sunny Pa	rtly Cloudy O	vercast Fog	Raining	 	
Last Rain	> 72 Hours	< 72 Hours	Rainfall	None > 0.1"	> 0.1"	
PUF SAMPLER						
Sampler I.D. No.:	FA 02 81	8				
Lab PUF Sample N	10.: P170	104, X1	61228, F	161222		
PUF Cartridge Cer	rtification Date	: 1-9-17	1-12-1	6 1-31	7	
Date/Time PUF C	artridge Install	ed: 10:20	•	,		
Elapsed Timer:	_	,				
Start: 262	1.38					
Stop: 28						
Diff. 24	1.14					
Sampling Time						
Start: 10:	21					
Stop: (O	181					
Diff. 20	4 hrs 10	min		•		
Set Point (Mag)_	30 30	120				
Audit flow check	within +/- 10 o	f set point- STAF	RT: (YES)NO)			
Audit flow check	w <u>ithin +/- 10 o</u>	f set point-END:	(YES/NO)	100 L 1	,	
		TEMP	BAROMETRIC	MAGNEHELIC	CALCULATED	
	TIME	(°F)	PRESSURE ("Hg)	READING	FLOW RATE (std. m3)	READ BY
(hale	2 (01) 2	<i>f</i> 1		2.	(300.1113)	INT
	7 (0:23	6	36.31 in.	38		LDLI
11.21	10:30	(0)	<i>></i> ~,5 /1/1	7/		
	Avg.					
NOTES/COMMEN	utc					
THO LEST COMMISSES	113					

Site ID (N/	12			Field Crew	LDLT A	M KH
Dry Deposition San	npling Eve	nt: Pilot Dry	 1 Dry 2 Dry	/3 Dry4 (Dry 5 Dry 6	>
Collection: 1	2 3		Time: <u>1-17-17</u>			
ATMOSPHERIC COI	NDITIONS	(Start)		<u> </u>		
Sky (Sunny	Partly Cloudy	Overcast Fo	g Raining		
Last Rain	> 72 Hours	< 72 Hours	Rainfall	None < 0.1"	> 0.1"	
ATMOSPHERIC CO	NDITIONS	(End)				
Sky (Sunny	Partly Cloudy	Overcast Fo	g Raining		
Last Rain (> 72 Hours	< 72 Hours	Rainfall (None < 0.1"	> 0.1"	
PUF SAMPLER			<u> </u>			
Sampler I.D. No.:	FAODE	367				
Lab PUF Sample No	.: P170	104 X16	1228 FI	61222		
PUF Cartridge Certi	ification Da		7.1-12-16	, 1-3-17		
Date/Time PUF Car	tridge Inst	alled: 1/17	117 11:38	7		···
Elapsed Timer:		- 	 			
Start: 257	.42					
Stop: 781	42			•		
Diff. 24		-, ···, · · · · · · · · · · · · · · · ·				
Sampling Time						, , , , , , , , , , , , , , , , , ,
Start: [[:3	39					
Stop: 11:3	38	• •				
Diff. 2				***************************************		
Set Point (Mag)	44		_			
Audit flow check w	ithin +/- 10	of set point- S	TART: (VESTNO)			
Audit flow check w	ithin +/- 10	of set point-EN	ID: (YES/NO)			
		TELAD	BAROMETRIC		CALCULATED	
	TIME	TEMP (°F)	PRESSURE	MAGNEHELIC READING	FLOW RATE	READ BY
ا ا		1 17	("Hg)	READING ,	(std. m3)	
1/4/1	11:39	58	29.93 in	. 40-44		LDLT
1/18/17	11:25	59	29.991	38		KSH
	·	.		<u> </u>		
S						
						
	Avg.					

Calibration Records (from manufacture at delivery and individual event calibrations)

FA00581



TISCH ENVIROMENTAL, INC.
145 SOUTH MIAMI AVE.
VILLAGE OF CLEVES, OH 45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5040A

Date - M Operator =======	ar 15, 201: Jim Tiscl	3 Rootsmeter h Orifice I.I		438320 2440	Ta (K) - Pa (mm) -	293 - 753.11
PLATE OR VDC #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5 6	NA NA NA NA NA	NA NA NA NA NA	1.00 1.00 1.00 1.00 1.00	6.4240 3.8790 3.1170 2.6660 2.3670 2.2050	3.6 10.0 15.5 21.0 26.5 30.2	2.00 5.50 8.50 11.50 14.50 16.50

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0029 0.9944 0.9870 0.9797 0.9723 0.9674 Qstd slop intercept coefficie	(b) = ent (r) =	1.4197 2.3544 2.9269 3.4044 3.8228 4.0779 - 9.42521 -0.05625 0.99998		0.9951 0.9867 0.9794 0.9721 0.9647 -0.9599 Qa slope intercept coefficie	(b) =	0.8821 1.4628 1.8185 2.1152 2.3751 2.5336 5.90191 -0.03495 0.99998
y axis =	SQRT [H20 (F	a/760)(298/1	ːa)] '	y axis =	SQRT [H2O (T	'a/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa] Qa = Va/Time

For subsequent flow rate calculations:

Qstd = $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ Qa = $1/m\{[SQRT H2O(Ta/Pa)] - b\}$ Calculating Flow Rate Section 11.2.2.24 of TO13-A

Event 1, Collection 1 7/31/2013-8/1/2013

Parameter	FD07	FD11	FD12	CNM1	Units	Notes
Desired	8	8	8	8	std ft ³ /min	
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min	
Pa	762	762	762	762	mm Hg	Avg in SD and forecast
Та	292.4	292.4	292.4	292.4	К	forecast temp around 67°F NOAA 7/30/2013 19:00
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration
Tstd	298	298	298	298	K	avg in SD
Pstd	762	762	762	762	mm Hg	avg in SD
Aug2013 event	FD07	FD11	FD12	CNM1	Units	Notes
Magnehelic	Gage Set Poin	nt				
Set Point	42	45	43	44		
(-)10%	37.8	40.5	38.7	39.6		
(+)10%	46.2	49.5	47.3	48.4		

Actual Flow V	olume/					
SiteID	FD07	FD11	FD12	CNM1	Units	Notes
Average Magnehelic	43	44.5	43	43.5		
Temp (°C)	22.20	20.00	19.72	20.00	ů	From Weather Data (24-hour period)
Pressure (in.)	29.96	30.05	30.03	29.93	inches	From Weather Data (24-hour period)
Temp (K)	295	293	293	293	K	conversion
Pressure (mm)	761	763	763	760	mm	conversion
1/m	0.031	0.030	0.032	0.029	-	
Sqrt(magn)(Pa v/760)(298/Tav)	6.593	6.741	6.628	6.652	-	
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation
std m3/min	0.231	0.228	0.230	0.227	m³/min	
total sample volume	332.7	328	331	326	m³	

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

KEY

updated per day

update per event

Calculating Flow Rate Section 11.2.2.24 of TO13-A

Event 1, Collection 2 8/3/2013-8/4/203

Parameter	FD07	FD11	FD12	CNM1	Units	Notes
Desired	8	8	8	8	std ft ³ /min	
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min	
Pa	762	762	762	762	mm Hg	Avg in SD and forecast
Та	294.1	294.1	294.1	294.1	К	forecast temp around 70°F NOAA 7/30/2013 19:00
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration
Tstd	298	298	298	298	K	avg in SD
Pstd	762	762	762	762	mm Hg	avg in SD
Aug2013 event	FD07	FD11	FD12	CNM1	Units	Notes
Magnehelic	Gage Set Poin	nt				
Set Point	41	45	42	44		
(-)10%	36.9	40.5	37.8	39.6		
(+)10%	45.1	49.5	46.2	48.4		

Actual Flow V	/olume						
SiteID	FD07	FD11	FD12	CNM1	Units	Notes	
Average Magnehelic	42	44	42	44			
Temp (°C)	19.18	18.69	19.28	17.87	ů	From Weather Data (24-hour period)	
Pressure (in.)	29.94	29.96	29.94	29.83	inches	From Weather Data (24-hour period)	
Temp (K)	292	292	292	291	K	conversion	
Pressure (mm)	760	761	760	758	mm	conversion	
1/m	0.031	0.030	0.032	0.029	-		
Sqrt(magn)(Pa v/760)(298/Tav)	6.547	6.709	6.546	6.704	-		
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation	
std m3/min	0.230	0.227	0.227	0.228	m³/min		
total sample volume	331	327	327	329	m³		

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

KEY

updated per day

update per event

Calculating Flow Rate Section 11.2.2.24 of TO13-A

Event 1, Collection 3 8/7/2013-8/8/2013

Parameter	FD07	FD11	FD12	CNM1	Units	Notes
Desired	8	8	8	8	std ft ³ /min	
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min	
Pa	762	762	762	762	mm Hg	Avg in SD and forecast
Та	291	291	291	291	K	forecast temp around 65°F NOAA 8/6/2013 19:00
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration
Tstd	298	298	298	298	K	avg in SD
Pstd	762	762	762	762	mm Hg	avg in SD
Aug2013 event	FD07	FD11	FD12	CNM1	Units	Notes
	Gage Set Poir	nt				
Set Point	42	45	43	44		
(-)10%	37.8	40.5	38.7	39.6	·	
(+)10%	46.2	49.5	47.3	48.4	·	

Actual Flow V	'olume					
SiteID	FD07	FD11	FD12	CNM1	Units	Notes
Average Magnehelic	42	45	42	45		
Temp (°C)	19.70	19.10	20.07	18.14	°C	From Weather Data (24-hour period)
Pressure (in.)	29.99	29.99	29.98	29.85	inches	From Weather Data (24-hour period)
Temp (K)	293	292	293	291	K	conversion
Pressure (mm)	762	762	761	758	mm	conversion
1/m	0.031	0.030	0.032	0.029	-	
Sqrt(magn)(Pa v/760)(298/Tav)	6.546	6.783	6.541	6.779	-	
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation
std m3/min	0.230	0.229	0.227	0.230	m³/min	·
total sample volume	331	330	327	332	m ³	

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

KEY

updated per day update per event

Calculating Flow Rate Section 11.2.2.24 of TO13-A

Event 1, Collection 4 8/10/2013-8/11/2013

Parameter	FD07	FD11	FD12	CNM1	Units	Notes
Desired	8	8	8	8	std ft³/min	
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min	
Pa	762	762	762	762	mm Hg	Avg in SD and forecast
Та	292.4	292.4	292.4	292.4	K	forecast temp around 67°F NOAA 7/30/2013 19:00
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration
Tstd	298	298	298	298	K	avg in SD
Pstd	762	762	762	762	mm Hg	avg in SD
Aug2013 event	FD07	FD11	FD12	CNM1	Units	Notes
	Gage Set Poir	nt				
Set Point	42	45	43	44		
(-)10%	37.8	40.5	38.7	39.6		
(+)10%	46.2	49.5	47.3	48.4	·	

Actual Flow V	olume/						
SiteID	FD07	FD11	FD12	CNM1	Units	Notes	
Average Magnehelic	45	45.5	42	45		Power was unplugged from sampler at station 7 immediately after sampler was started on Saturday, 8/10. Started at 930, 8/11.	
Temp (°C)	19.63	18.1026518	18.51075642	17.690717	°C	From Weather Data (24-hour period)	
Pressure (in.)	29.9046717	29.9806953	29.96261138	29.842604	inches	From Weather Data (24-hour period)	
Temp (K)	293	291	292	291	K	conversion	
Pressure (mm)	760	762	761	758	mm	conversion	
1/m	0.031	0.030	0.032	0.029	-		
Sqrt(magn)(Pa v/760)(298/Tav)	6.768	6.832	6.557	6.783	-		
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation	
std m3/min	0.237	0.231	0.228	0.231	m³/min	·	
total sample volume	340.6	332	328	332	m³		

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

KEY

updated per day update per event

KEY

Event 2, Collection 1 9/4/2013-9/5/2013

Parameter	FD07	FD11	FD12	CNM1	Units	Notes	updated per day
Desired	8	8	8	8	std ft ³ /min		update per event
Flow Rate	0.225	0.225	0.225	0.225	m³/min		
Pa	762	762	762	762	mm Hg	Avg in SD and forecast	
Та	292.4	292.4	292.4	292.4	К	forecast temp around 67°F NOAA 7/30/2013 19:00	
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration	
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration	
Tstd	298	298	298	298	K	avg in SD	
Pstd	762	762	762	762	mm Hg	avg in SD	
Sept2013 event	FD07	FD11	FD12	CNM1	Units	Notes	
Magnehelic	Gage Set Poi	nt					
Set Point	41	44	42	44			
(-)10%	36.9	39.0	36.0	38.0			
(+)10%	45.1	48.4	45.0	48.0			

Actual Flow \	Actual Flow Volume										
SiteID	FD07	FD11	FD12	CNM1	Units	Notes					
Average Magnehelic	41	43.5	43	44.5							
Temp (°C)	25.38	27.4	27.4	25.62468	°C	There were some weather data gaps at FD07 and FD11. The mean 24 hour Temperature for FD12 was applied at FD07 and FD11					
Pressure (in.)	29.80655	29.80655	29.80655	29.80655	inches	From Weather Data (24-hour period)					
Temp (K)	298	292	300	299	K	conversion					
Pressure (mm)	757	757	757	757	mm	conversion					
1/m	0.031	0.030	0.032	0.029	-						
Sqrt(magn)(Pa v/760)(298/Tav)	6.387	6.650	6.519	6.651	-						
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation					
std m3/min	0.225	0.225	0.227	0.227	m³/min	·					
total sample volume	323.5	324	326	326	m ³						

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

Section 11.2.2.24 of TO13-A KEY

Event 2, Col	Event 2, Collection 2 9/07/2013-9/8/2013									
Parameter	FD07	FD11	FD12	CNM1	Units	Notes	updated per day			
Desired	8	8	8	8	std ft ³ /min		update per event			
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min					
Pa	762	762	762	762	mm Hg	Avg in SD and forecast				
Та	297.86	297.86	297.86	297.86	K	Avg forecast temp around 24.86°C NOAA 9/7/2013 thru 9/8/2013				
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration	1			
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration				
Tstd	298	298	298	298	K	avg in SD				
Pstd	762	762	762	762	mm Hg	avg in SD				
							_			
Sept2013 event	FD07	FD11	FD12	CNM1	Units	Notes				

event	FD07	FD11	FD12	CNM1	Units	Notes
Magnehelic	Gage Set Poi					
Set Point	41	44	42	44		
(-)10%	36.9	39.0	36.0	38.0		
(+)10%	45.1	48.4	45.0	48.0		

Actual Flow \	/olume						
SiteID	FD07	FD11	FD12	CNM1	Units	Notes	
Average Magnehelic	41	44	42	43			
Temp (°C)	24.69	24.52	25.68	21.52	°C	From Weather Data (24-hour period)	
Pressure (in.)	29.81154	29.84029	29.82578	29.70658	inches	From Weather Data (24-hour period)	
Temp (K)	298	292	299	295	K	conversion	
Pressure (mm)	757	758	758	755	mm	conversion	
1/m	0.031	0.030	0.032	0.029	-		
Sqrt(magn)(Pa v/760)(298/Tav)	6.395	6.692	6.463	6.572	-		
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation	
std m3/min	0.225	0.227	0.225	0.224	m³/min]	
total sample volume	323.9	326	324	323	m³		

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

Event 2, Collection 3 9/11/2013-9/12/2013

Section 11.2.2.24 of TO13-A KEY

updated per day
update per event

Parameter	FD07	FD11	FD12	CNM1	Units	Notes	up
Desired	8	8	8	8	std ft ³ /min		up
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min		
Pa	762	762	762	762	mm Hg	Avg in SD and forecast	7
Та	294.1	294.1	294.1	294.1	К	Avg forecast temp around 21.1°C NOAA 9/11/2013 thru 9/12/2013	
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration	
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration	
Tstd	298	298	298	298	K	avg in SD	
Pstd	762	762	762	762	mm Hg	avg in SD	
Sept2013 event	FD07	FD11	FD12	CNM1	Units	Notes	
Magnehelic	Gage Set Poir	nt					
Set Point	41	44	42	44			
(-)10%	36.9	39.0	36.0	38.0			
(+)10%	45.1	48.4	45.0	48.0			

Actual Flow \	/olume						
SiteID	FD07	FD11	FD12	CNM1	Units	Notes	
Average Magnehelic	41	44.5	42	44			
Temp (°C)	20.41	19.81	20.25	19.2	°C	From Weather Data (24-hour period)	
Pressure (in.)	29.91139	29.94431	29.93039	29.802722	inches	From Weather Data (24-hour period)	
Temp (K)	293	292	293	292	K	conversion	
Pressure (mm)	760	761	760	757	mm	conversion	
1/m	0.031	0.030	0.032	0.029	-		
Sqrt(magn)(Pa v/760)(298/Tav)	6.452	6.742	6.534	6.685	-		
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation	
std m3/min	0.227	0.228	0.227	0.228	m³/min	'	
total sample volume	326.4	328	327	328	m³		

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

Section 11.2.2.24 of TO13-A KEY

		/2013-9/15/201			1		
Parameter	FD07	FD11	FD12	CNM1	Units	Notes	updated per day
Desired	8	8	8	8	std ft ³ /min		update per event
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min		
Pa	762	762	762	762	mm Hg	Avg in SD and forecast	
Та	295.6	295.6	295.6	295.6	К	Avg forecast temp around 72.3F NOAA 9/7/2013 thru 9/8/2013	
M2	32.0916	33.3411	30.9438	34.1618	-	from calibration	
B2	-0.8226	-0.8598	-0.4907	-1.092	-	from calibration	
Tstd	298	298	298	298	K	avg in SD	
Pstd	762	762	762	762	mm Hg	avg in SD	

Sept2013 event	FD07	FD11	FD12	CNM1	Units	Notes
Magnehelic	Gage Set Poi	nt				
Set Point	41	44	42	44		
(-)10%	36.9	39.0	36.0	38.0		
(+)10%	45.1	48.4	45.0	48.0		

Actual Flow V	olume/					
SiteID	FD07	FD11	FD12	CNM1	Units	Notes
Average Magnehelic	41.5	43	42	44		
Temp (°C)	21.4	21.17	21.83	19.2	°C	From Weather Data (24-hour period)
Pressure (in.)	29.65	29.69	29.67	29.55	inches	From Weather Data (24-hour period)
Temp (K)	294	292	295	292	K	conversion
Pressure (mm)	753	754	754	751	mm	conversion
1/m	0.031	0.030	0.032	0.029	-	
Sqrt(magn)(Pa v/760)(298/Tav)	6.452	6.599	6.488	6.657	-	
b	-0.823	-0.860	-0.491	-1.092	-	Total Flow Volume Equation
std m3/min	0.227	0.224	0.226	0.227	m³/min]
total sample volume	326.4	322	325	327	m³	

Equations		Notes
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)	
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
where:		
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

Event 3, Collection 1 1/11/2014-1/12/2014

Parameter	FD07	FD11	FD12	CNM1	Units
Desired	8	8	8	8	std ft³/min
Flow Rate	0.225	0.225	0.225	0.225	m³/min
Pa	762	762	762	762	mm Hg
Та	294	294	294	294	K
M2	32.395	30.7264	32.2249	31.4438	-
B2	-0.7261	-0.4073	-0.9635	-0.5998	-
Tstd	298	298	298	298	K
Pstd	762	762	762	762	mm Hg
Aug2013 event	FD07	FD11	FD12	CNM1	Units
Magnehelic	Gage Set Poir	nt			
Set Point	44	43	40	42	
(-)10%	39.6	38.7	36.0	37.8	
(+)10%	48.4	47.3	44.0	46.2	

Actual Flow Volume						
SiteID	FD07	FD11	FD12	CNM1	Units	
Average Magnehelic	42	45	42	45		
Temp (°C)	19.70	19.10	20.07	18.14	°C	
Pressure (in.)	29.99	29.99	29.98	29.85	inches	
Temp (K)	293	292	293	291	K	
Pressure (mm)	762	762	761	758	mm	
1/m	0.031	0.033	0.031	0.032	-	
Sqrt(magn)(Pa v/760)(298/Tav)	6.546	6.783	6.541	6.779	-	
b	-0.726	-0.407	-0.964	-0.600	-	
std m3/min	0.224	0.234	0.233	0.235	m³/min	
total sample volume	323	337	335	338	m³	

Equations	
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²
where:	
Pa	Expected atmospheric pressure (Pa), mm Hg
Та	Expected atmospheric temperature (Ta), K
M2	Slope of developed relationship
B2	Intercept of developed relationship
Tstd	Temperature standard, 273 + 25°C
Pstd	Pressure standard, 760 mm Hg

Section 11.2.2.24 of TO13-A	KEY
Notes	updated per day
	update per event
A : 0D 11	
Avg in SD and forecast forecast temp around 70°F	
NOAA 1/11/2014	
from calibration	
from calibration	
avg in SD	
avg in SD	
	1
Notes	
Notes	
From Weather Data (24-hour period)	
From Weather Data (24-hour period)	
conversion	
conversion	
Total Flow Volume Equation	
·	
Notes	

Event 3, Collection 2 1/22/2014-1/23/2014

Parameter	FD07	FD11	FD12	CNM1	Units
Desired	8	8	8	8	std ft ³ /min
Flow Rate	0.225	0.225	0.225	0.225	m³/min
Pa	762	762	762	762	mm Hg
Та	295	295	295	295	K
M2	32.395	30.7264	32.2249	31.4438	-
B2	-0.7261	-0.4073	-0.9635	-0.5998	-
Tstd	298	298	298	298	K
Pstd	762	762	762	762	mm Hg
Aug2013 event	FD07	FD11	FD12	CNM1	Units
Magnehelic	Gage Set Poin	nt			
Set Point	43	43	40	42	
(-)10%	38.7	38.7	36.0	37.8	
(+)10%	47.3	47.3	44.0	46.2	

Actual Flow V	Actual Flow Volume							
SiteID	FD07	FD11	FD12	CNM1	Units			
Average Magnehelic	43	44	40	43				
Temp (°C)	13.56	13.59	13.59	13.28	ပ္			
Pressure (in.)	29.90	29.92	29.92	29.80	inches			
Temp (K)	287	287	287	286	K			
Pressure (mm)	759	760	760	757	mm			
1/m	0.031	0.033	0.031	0.032	-			
Sqrt(magn)(Pa v/760)(298/Tav)	6.685	6.764	6.449	6.677	-			
b	-0.726	-0.407	-0.964	-0.600	-			
std m3/min	0.229	0.233	0.230	0.231	m³/min			
total sample volume	329	336	331	333	m ³			

Equations					
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)				
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²				
where:					
Pa	Expected atmospheric pressure (Pa), mm Hg				
Та	Expected atmospheric temperature (Ta), K				
M2	Slope of developed relationship				
B2	Intercept of developed relationship				
Tstd	Temperature standard, 273 + 25 ℃				
Pstd	Pressure standard, 760 mm Hg				

Section 11.2.2.24 of TO13-A	KEY
Nata	
Notes	updated per day
	update per event
Avg in SD and forecast	
forecast temp around 72°F	
NOAA 1/22/2014	
from calibration	
from calibration	
avg in SD	
avg in SD	
Notes	
	I
Notes	
Gaps in FD11 Weather Data Data fro	m FD12 was used
From Weather Data (24-hour period)	
From Weather Data (24-hour period)	
conversion	
conversion	
Total Flow Volume Equation	
Notes	
-	

Event 3, Collection 3 1/29/2014-1/30/2014

Parameter	FD07	FD11	FD12	CNM1	Units
Desired	8	8	8	8	std ft ³ /min
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min
Pa	762	762	762	762	mm Hg
Та	289	295	295	295	K
M2	32.395	30.7264	32.2249	31.4438	-
B2	-0.7261	-0.4073	-0.9635	-0.5998	-
Tstd	298	298	298	298	K
Pstd	762	762	762	762	mm Hg
Aug2013 event	FD07	FD11	FD12	CNM1	Units
Magnehelic (Gage Set Poin	nt			
Set Point	44	43	40	42	
(-)10%	39.6	38.7	36.0	37.8	
(+)10%	48.4	47.3	44.0	46.2	

Actual Flow V	Actual Flow Volume							
SiteID	FD07	FD11	FD12	CNM1	Units			
Average Magnehelic	43.5	43.5	40	42.5				
Temp (°C)	14.93	14.93	15.26	13.25	ô			
Pressure (in.)	29.93	29.93	29.96	29.83	inches			
Temp (K)	288	288	288	286	K			
Pressure (mm)	760	760	761	758	mm			
1/m	0.031	0.033	0.031	0.032	-			
Sqrt(magn)(Pa v/760)(298/Tav)	6.711	6.711	6.435	6.642	-			
b	-0.726	-0.407	-0.964	-0.600	-			
std m3/min	0.230	0.232	0.230	0.230	m³/min			
total sample volume	331	334	331	332	m ³			

Equations	Equations					
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)					
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²					
where:						
Pa	Expected atmospheric pressure (Pa), mm Hg					
Та	Expected atmospheric temperature (Ta), K					
M2	Slope of developed relationship					
B2	Intercept of developed relationship					
Tstd	Temperature standard, 273 + 25°C					
Pstd	Pressure standard, 760 mm Hg					

Section 11.2.2.24 of TO13-A	KEY
Notes	updated per day
	update per event
Avg in SD and forecast	
forecast temp around 71°F	
NOAA 1/29/2014	
from calibration	
from calibration	
avg in SD	
avg in SD	
	1
Notes	
Notes]
Gaps in FD11 Weather Data Data from	m FD07 was used
From Weather Data (24-hour period)	
From Weather Data (24-hour period)	
conversion	
conversion	
Total Flow Volume Equation	
·	
	•
Notes	
-	
	1

Event 3, Collection 4 2/15/2014-2/16/2014

Parameter	FD07	FD11	FD12	CNM1	Units	
Desired	8	8	8	8	std ft ³ /min	
Flow Rate	0.225	0.225	0.225	0.225	m ³ /min	
Pa	762	762	762	762	mm Hg	
Та	290	290	290	290	K	
M2	32.395	30.7264	32.2249	31.4438	-	
B2	-0.7261	-0.4073	-0.9635	-0.5998	-	
Tstd	298	298	298	298	K	
Pstd	762	762	762	762	mm Hg	
Dry 3 Collection 4	FD07	FD11	FD12	CNM1	Units	
Magnehelic Gage Set Point						
Set Point	44	43	41	43		
(-)10%	39.6	38.7	36.9	38.7		
(+)10%	48.4	47.3	45.1	47.3		

Actual Flow \	Actual Flow Volume							
SiteID	FD07	FD11	FD12	CNM1	Units			
Average Magnehelic	44	43	41	43				
Temp (°C)	17.18	17.18	17.18	15.87	°C			
Pressure (in.)	29.96	29.96	29.96	29.86	inches			
Temp (K)	290	290	290	289	K			
Pressure (mm)	761	761	761	758	mm			
1/m	0.031	0.033	0.031	0.032	-			
Sqrt(magn)(Pa v/760)(298/Tav)	6.726	6.649	6.493	6.653	-			
b	-0.726	-0.407	-0.964	-0.600	-			
std m3/min	0.230	0.230	0.231	0.231	m ³ /min			
total sample volume	331	331	333	332	m³			

Equations	
Actual Flow Volume	1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)
Set Point	[(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²
where:	
Pa	Expected atmospheric pressure (Pa), mm Hg
Та	Expected atmospheric temperature (Ta), K
M2	Slope of developed relationship
B2	Intercept of developed relationship
Tstd	Temperature standard, 273 + 25°C
Pstd	Pressure standard, 760 mm Hg

Section 11.2.2.24 of TO13-A	KEY
Notes	updated per day
	update per event
	ar association and a second
Avg in SD and forecast	1
forecast temp around 63°F	
NOAA 2/14/2014	294
from calibration	
from calibration	1
avg in SD avg in SD	1
avg III CD	
	1
Notes	
	1
Notes	l
Gaps in FD11 Weather Data and FD1	2 was lost Data from FD07 was used
From Weather Data (24-hour period)	
From Weather Data (24-hour period)	
conversion	
conversion	
	1
Total Flow Volume Equation	
Total Flow Volume Equation	
	ı
Notes	1
	1
	-
	1
	4



TISCH ENVIRONMENTAL, INC. 145 SOUTH MIAMI AVE VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5040A

		5 Rootsmeter n Orifice I.I	10.	138320 3179	Ta (K) - Pa (mm) -	293 - 751.84
=======	========		=======	=======	======== METER	ORFICE
PLATE	VOLUME	VOLUME	DIFF	DIFF	DIFF	DIFF
OR	START	STOP	VOLUME	TIME	Hg	H2O
VDC #	(m3)	(m3)	(m3)	(min)	(mm)	(in.)
1	NA	NA	1.00	6.6590	3.6	2.00
2	NA	NA	1.00	4.0700	10.0	5.50
3	NA	NA	1.00	3.2470	15.5	8.50
4	NA	NA	1.00	2.7720	21.0	11.50
5	NA	NA	1.00	2.4500	26.5	14.50
6	NA	NA	1.00	2.2930	30.2	16.50

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0012 0.9927 0.9854 0.9780 0.9706 0.9657 Qstd slow intercept	(b) =	1.4186 2.3524 2.9244 3.4016 3.8196 4.0745 - 9.76687 -0.04219 0.99994		0.9951 0.9867 0.9793 0.9720 0.9647 -0.9598 Qa slope intercept	= (b) $=$	0.8828 1.4640 1.8200 2.1170 2.3771 2.5358 6.11585 -0.02626 0.99994
y axis = SQRT[H2O(Pa/760)(298/Ta)]			 Га)]	y axis =	SQRT [H2O ([a/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa] Qa = Va/Time

For subsequent flow rate calculations:

Qstd = $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ Qa = $1/m\{[SQRT H2O(Ta/Pa)] - b\}$



TE-1000 PUF Calibration Worksheet

Site Information

Location: San Diego	Site ID: CNM1	Date: 13-Dec-16
Sampler: TE-1000	Serial No: FA02867	Tech: LDT, AM

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5
Temperature (deg F):	58.0	Temperature (deg K):	287.6
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	64.0	Average Temperature (deg K):	290.9

Calibration Orifice

Make: Tisch
Model: TE-5040A
Serial#: 3179
Qstd Slope: 9.76687
Qstd Intercept: -0.04219
Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #	delta H	Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.7	7.40	0.289	70.0	8.54	Slope:	34.4868
2	3.3	6.60	0.273	60.0	7.91	Intercept:	-1.4727
3	2.8	5.60	0.252	50.0	7.22	Corr. Coeff:	0.9978
4	2.4	4.80	0.233	40.0	6.46		
5	1.8	3.60	0.203	30.0	5.59	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Ps	etd)] [(M2 (Desired Flow Rate) +B	32] ²	
Pa	Expected atmospheric pressure (Pa), mm Hg			
Та	Expected atmospheric temperature (Ta), K			
M2	Slope of developed relationship			
B2	Intercept of developed relationship			
Tstd	Temperature standard, 273 + 25°C			
Pstd	Pressure standard, 760 mm Hg			
	Ŷ			
	Sampler Unit	Units		

	Sampler Unit	Units
Desired Flow Rate		Standard Cubic Feet per Minute (scfm)
	0.225	Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	
Pa	764.5	mm Hg	Average in San Diego for December
Та	287.6	K	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	34.4868	-	from calibration
B2	-1.4727	-	from calibration
Tstd	298	K	provided in method
Pstd	760	mm Hg	provided in method

=		
Magnehelic Gage	CNM1	
Set Point		<i>4</i> 1 2

		Pressure (in H₂0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	RPD	'
Audit-Before	2.1	4.20	0.219	38.0	6.29	0.21	12/13/2016 0:00
Audit-After	1.6	3.20	0.191	30.0	5.59		12/14/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

 $\begin{aligned} & Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] \\ & Flow (corrected) = Sqrt((magn)(Pa/Pstd)(Tstd/Ta)) \end{aligned}$

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b]

Calculations
m = sampler slope
b = sampler intercept
(magn) = magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

Set Point

Average Flow (magn):

Average Flow Over Sample (m3/min)

0.221746

Enter Total Time (hrs):

23.9

Total Flow Over Sample (m3)

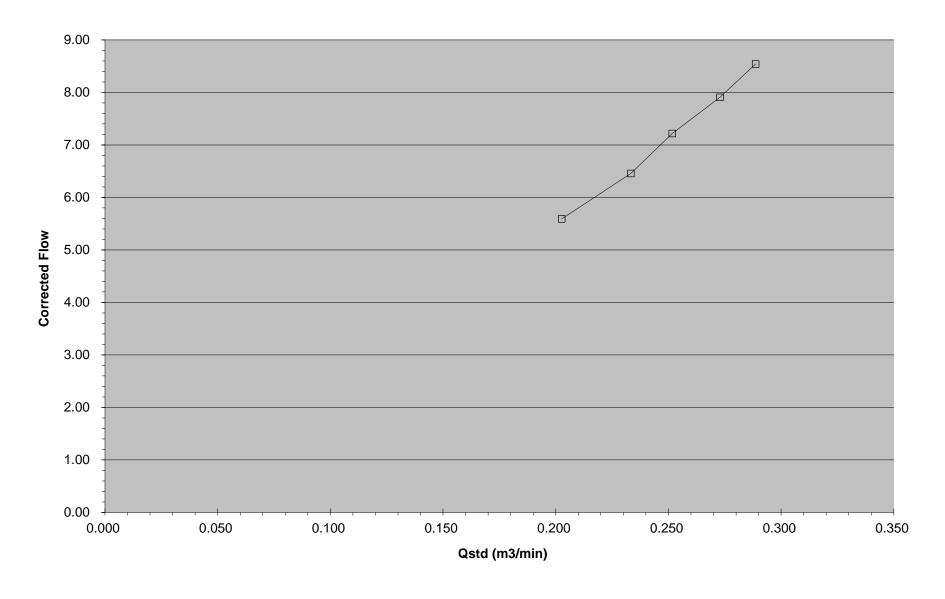
317.9839724

Total Flow Over Sample (liters)

317983.9724

NOTE: Ensure calibration orifice has been certified within 12 months of use

CALIBRATION - CNM1





TE-1000 PUF Calibration Worksheet

Site Information

Location: San Diego Site ID: FD07 Date: 13-Dec-16
Sampler: TE-1000 Serial No: FA02868 Tech: LDT, AM

Site Conditions

Barometric Pressure (in Hg): 30.10 **Corrected Pressure (mm Hg):** 764.5 Temperature (deg F): 60.0 Temperature (deg K): 288.7 Average Pressure (in Hg): 30.10 **Corrected Average Pressure (mm Hg):** 764.5 Average Temperature (deg K): **Average Temperature (deg F):** 290.9 64.0

Calibration Orifice

Make: Tisch
Model: TE-5040A

Serial#: 3179

Qstd Slope: 9.76687

Qstd Intercept: -0.04219

Calibration Due Date: 5-Aug-16

	Calibration Information							
	Plate or		Pressure	Qstd	Flow	Flow		
	Test #	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1		3.8	7.60	0.292	70.0	8.53	Slope:	35.2296
2		3.3	6.60	0.272	60.0	7.89	Intercept:	-1.7512
3		2.9	5.80	0.256	50.0	7.21	Corr. Coeff:	0.9995
4		2.4	4.80	0.233	40.0	6.44		
5		1.9	3.80	0.208	30.0	5.58	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Carcarating 1 1011 11a	
Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²
Desired Flow Rate	8 Standard Cubic Feet per Minute (scfm)
	0,225 Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	Definition	Source
Pa	764.5	mm Hg	Expected atmospheric pressure	Average in San Diego for December
Та	288.7	K	Expected atmospheric temperatu	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	35.2296	-	Slope of developed relationship	from calibration
B2	-1.7512	-	Intercept of developed relationsh	from calibration
Tstd	298	K	Temperature standard, 273 + 25	provided in method
Pstd	760	mm Hg	Pressure standard, 760 mm Hg	provided in method

Magnehelic Gage	FD07
Set Point	39.6

Single Point Audit

Cinalo Doint Audit		Pressure	Qstd	Flow	Flow	RPD of Flow corrected	Date/Time Recorded
Single Point Audit		(in H ₂ 0)	(m3/min)	(magn)	(corrected)	RPD of Flow Corrected	Date/Time Recorded
Audit-Before	2	4.00	0.213	38.0	6.28	0.21	12/13/2016 0:00
Audit-After	2	4.00	0.213	36.0	6.11		12/14/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b]

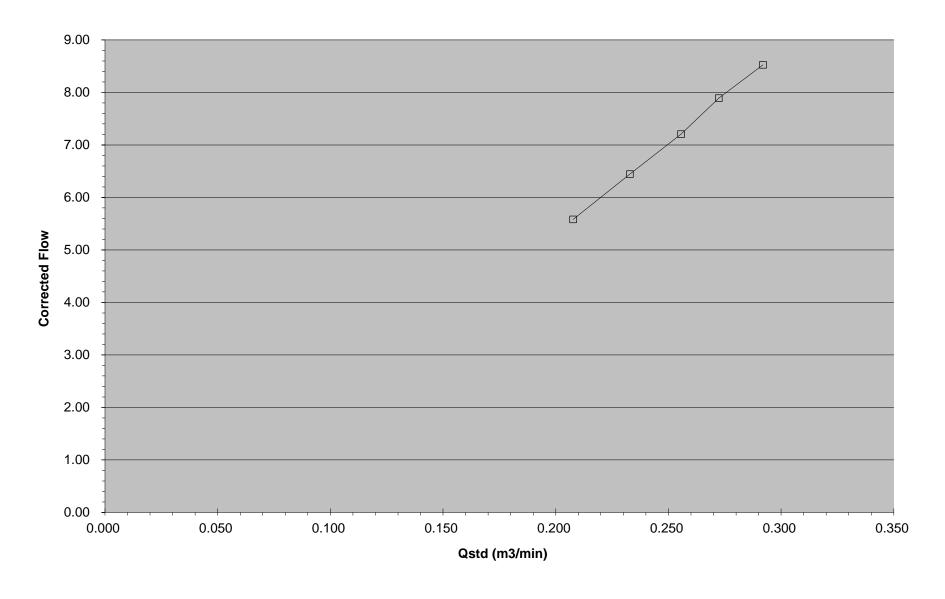
Calculations

m = sampler slope b = sampler intercept (magn) = magnehelic reading Tav = daily average temperature Pav = daily average pressure

SAMPLE \	/OLUME			
Set Point	39.6			
Average Flow (magn):	31.0			
Average Flow Over	Average Flow Over Sample (m3/min)			
0.210	138			
Enter Total Time (hrs):	24.0			
Total Flow Over Sample (m3)				
302.5988499				
Total Flow Over Sample (liters)				
302598	.8499			

NOTE: Ensure calibration orifice has been certified within 12 months of use

CALIBRATION - FD07





TE-1000 PUF Calibration Worksheet

Site Information

Location: San Diego	Site ID: FD11	Date: 13-Dec-16
Sampler: TE-1000	Serial No: FA02869	Tech: LDT, AM

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5
Temperature (deg F):	60.0	Temperature (deg K):	288.7
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	64.0	Average Temperature (deg K):	290.9

Calibration Orifice

Make: Tisch
Model: TE-5040A
Serial#: 3179
Qstd Slope: 9.76687
Qstd Intercept: -0.04219
Calibration Due Date: 5-Aug-16

Calibration Information

Plate or		Pressure	Qstd	Flow	Flow		
Test #	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1	3.9	7.80	0.296	70.0	8.53	Slope:	37.8051
2	3.5	7.00	0.280	60.0	7.89	Intercept:	-2.7033
3	3.1	6.20	0.264	50.0	7.21	Corr. Coeff:	0.9991
4	2.6	5.20	0.242	40.0	6.44		
5	2.1	4.20	0.218	30.0	5.58	# of Observations:	Ę
5					5.58	# of Observations:	

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Ps	etd)] [(M2 (Desired Flow Rate) +B	32] ²			
Pa	Expected atmospheric pressure (Pa), mm Hg					
Та	Expected atmospheric temperature (Ta), K					
M2	Slope of developed relationship					
B2	Intercept of developed relationship					
Tstd	Temperature standard, 273 + 25°C					
Pstd	Pressure standard, 760 mm Hg					
	Ŷ					
	Sampler Unit	Units				

	Sampler Unit	Units
Desired Flow Rate	8 S	Standard Cubic Feet per Minute (scfm)
	0.225 C	Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	
Pa	764.5		Average in San Diego for December
Та	288.7	K	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	37.8051	-	from calibration
B2	-2.7033	-	from calibration
Tstd	298		provided in method
Pstd	760	mm Hg	provided in method

Magnehelic Gage	FD11
Set Point	35

	,	Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	RPD	·
Audit-Before	2	4.00	0.213	32.0	5.76	0.28	12/13/2016 0:00
Audit-After	2	4.00	0.213	31.0	5.67		12/14/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Calculations
m = sampler slope
b = sampler intercept
(magn) = magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

Set Point 35.0

Average Flow (magn): 32.0

Average Flow Over Sample (m3/min)
0.223399

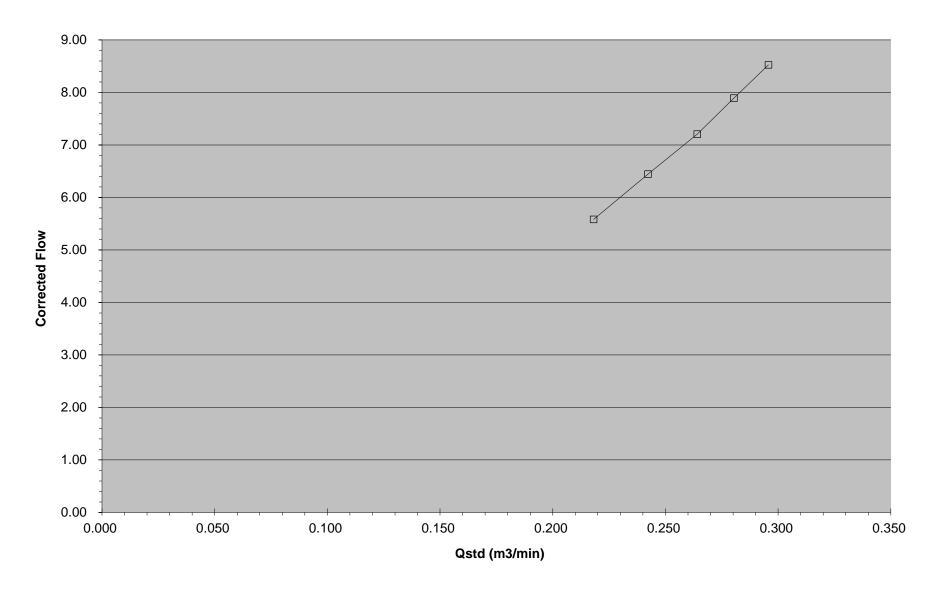
Enter Total Time (hrs): 24.0

Total Flow Over Sample (m3)
321.6948863

Total Flow Over Sample (liters)
321694.8863

NOTE: Ensure calibration orifice has been certified within 12 months of use

CALIBRATION - FD11





TE-1000 PUF Calibration Worksheet

Site Information

Location: San Diego	Site ID: FD12	Date: 13-Dec-16
Sampler: TE-1000	Serial No: FA02866	Tech: LDT, AM

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5
Temperature (deg F):	60.0	Temperature (deg K):	288.7
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	64.0	Average Temperature (deg K):	290.9

Calibration Orifice

Make: Tisch
Model: TE-5040A
Serial#: 3179

Qstd Slope: 9.76687
Qstd Intercept: -0.04219
Calibration Due Date: 5-Aug-16

Calibration Information

Plate or		Pressure	Qstd	Flow	Flow		
Test #	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1	3.7	7.40	0.288	70.0	8.53	Slope:	30.5236
2	3.2	6.40	0.268	60.0	7.89	Intercept:	-0.3012
3	2.7	5.40	0.247	50.0	7.21	Corr. Coeff:	0.9992
4	2.2	4.40	0.223	40.0	6.44		
5	1.6	3.20	0.191	30.0	5.58	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²							
Pa	Expected atmospheric pressure (Pa), mm Hg							
Та	Expected atmospheric temperature (Ta), K							
M2	Slope of developed relationship							
B2	Intercept of developed relationship							
Tstd	Temperature standard, 273 + 25°C							
Pstd	Pressure standard, 760 mm Hg							

	Sampler Unit	Units
Desired Flow Rate	8	Standard Cubic Feet per Minute (scfm)
	0.225	Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	
Pa	764.5	mm Hg	Average in San Diego for December
Та	288.7	K	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	30.5236	-	from calibration
B2	-0.3012	-	from calibration
Tstd	298	K	provided in method
Pstd	760	mm Hg	provided in method

_	
Magnehelic Gage	FD12
Set Point	44 77494561

•		Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	RPD	'
Audit-Before	2.1	4.20	0.218	40.0	6.44	0.19	12/13/2016 0:00
Audit-After	2	4.00	0.213	40.0	6.44	_	12/14/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

 $\begin{aligned} & Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] \\ & Flow (corrected) = Sqrt((magn)(Pa/Pstd)(Tstd/Ta)) \end{aligned}$

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Calculations
m = sampler slope
b = sampler intercept
(magn) = magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

Set Point

Average Flow (magn):

35.0

Average Flow Over Sample (m3/min)

0.206613

Enter Total Time (hrs):

24.0

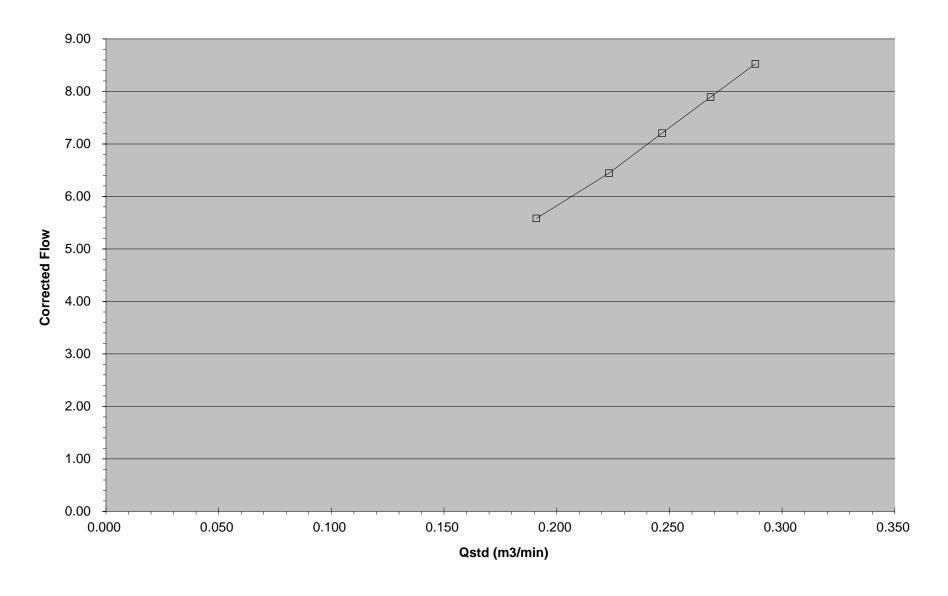
Total Flow Over Sample (m3)

297.5228771

Total Flow Over Sample (liters)

297522.8771

CALIBRATION - FD12





Site Information

Location: San Diego	Site ID: CNM1	Date: 18-Dec-16
Sampler: TE-1000	Serial No: FA02867	Tech: AM, LM

Site Conditions

Barometric Pressure (in Hg):	29.97	Corrected Pressure (mm Hg):	761.2
Temperature (deg F):	54.0	Temperature (deg K):	285.4
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	55.0	Average Temperature (deg K):	285.9

Calibration Orifice

Make: Tisch

Model: TE-5040A

Serial#: 3179

Qstd Slope: 9.76687

Qstd Intercept: -0.04219

Calibration Due Date: 5-Aug-16

Calibration Information

Plate or		Pressure	Qstd	Flow	Flow		
Test #	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1	3.9	7.80	0.297	70.0	8.56	Slope:	34.0050
2	3.3	6.60	0.273	60.0	7.92	Intercept:	-1.4729
3	2.9	5.80	0.257	50.0	7.23	Corr. Coeff:	0.9987
4	2.4	4.80	0.234	40.0	6.47		
5	1.9	3.80	0.208	30.0	5.60	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Ps	etd)] [(M2 (Desired Flow Rate) +B	32] ²	
Pa	Expected atmospheric pressure (Pa), mm Hg			
Та	Expected atmospheric temperature (Ta), K			
M2	Slope of developed relationship			
B2	Intercept of developed relationship			
Tstd	Temperature standard, 273 + 25°C			
Pstd	Pressure standard, 760 mm Hg			
	Ŷ			
	Sampler Unit	Units		

	Sampler Unit	Units
Desired Flow Rate	8 S	Standard Cubic Feet per Minute (scfm)
	0.225 C	Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	
Pa	761.2		Average in San Diego for December
Та	285.4	K	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	34.0050	-	from calibration
B2	-1.4729	-	from calibration
Tstd	298	K	provided in method
Pstd	760	mm Hg	provided in method

Magnehelic Gage	CNM1	
Set Point		39.9

	•	Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	RPD	'
Audit-Before	1.85	3.70	0.206	34.0	5.96	0.25	12/18/2016 0:00
Audit-After	1.3	2.60	0.173	30.0	5.60	0.30	12/19/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Calculations
m = sampler slope
b = sampler intercept
(magn) = magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

Set Point

Average Flow (magn):

Average Flow Over Sample (m3/min)

0.227716

Enter Total Time (hrs):

Total Flow Over Sample (m3)

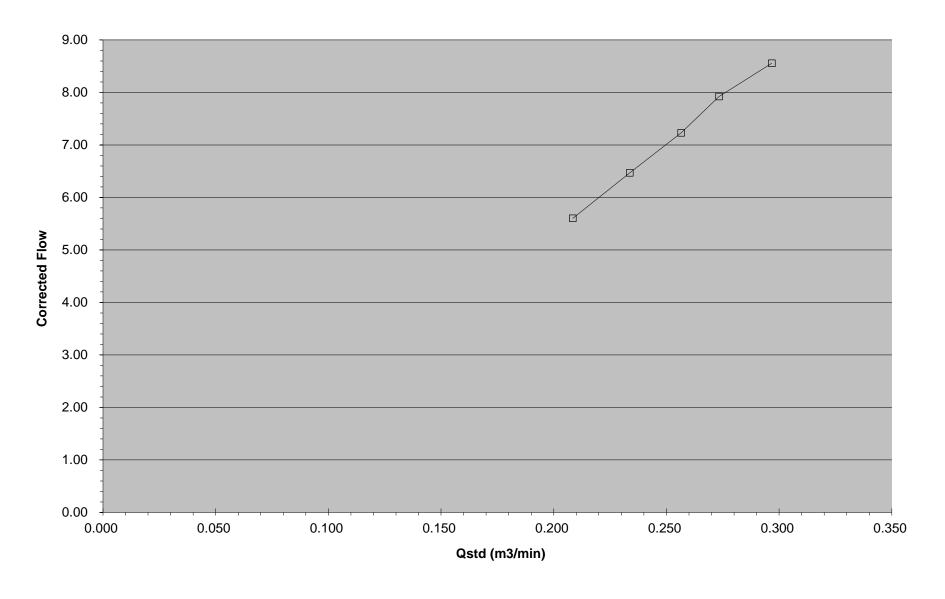
327.9105011

Total Flow Over Sample (liters)

327910.5011

NOTE: Ensure calibration orifice has been certified within 12 months of use ${\bf NOTE}$

CALIBRATION - CNM1





Site Information

Location: San Diego Site ID: FD07 Date: 18-Dec-16
Sampler: TE-1000 Serial No: FA02868 Tech: AM, LM

Site Conditions

Barometric Pressure (in Hg): 30.30 **Corrected Pressure (mm Hg):** 769.6 Temperature (deg F): 61.0 Temperature (deg K): 289.3 Average Pressure (in Hg): **Corrected Average Pressure (mm Hg):** 30.10 764.5 Average Temperature (deg K): **Average Temperature (deg F):** 53.8 285.2

Calibration Orifice

Make: TischQstd Slope: 9.76687Model: TE-5040AQstd Intercept: -0.04219Serial#: 3179Calibration Due Date: 5-Aug-16

	Calibration Information							
F	Plate or		Pressure	Qstd	Flow	Flow		
	Test #	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1		3.6	7.20	0.285	70.0	8.55	Slope:	37.8521
2		3.3	6.60	0.273	60.0	7.91	Intercept:	-2.3263
3		2.8	5.60	0.252	50.0	7.22	Corr. Coeff:	0.9981
4		2.4	4.80	0.233	40.0	6.46		
5		1.9	3.80	0.208	30.0	5.59	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²
Desired Flow Rate	8 Standard Cubic Feet per Minute (scfm)
Desired Flow Rate	ი 225 Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	Definition	Source
Pa	769.6	mm Hg	Expected atmospheric pressure	Average in San Diego for December
Та	289.3	K	Expected atmospheric temperatu	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	37.8521	-	Slope of developed relationship	from calibration
B2	-2.3263	-	Intercept of developed relationsh	from calibration
Tstd	298	K	Temperature standard, 273 + 25	provided in method
Pstd	760	mm Hg	Pressure standard, 760 mm Hg	provided in method

Magnehelic Gage	FD07
Set Point	40.0

Single Point Audit

Cinale Deint Audit		Pressure	Qstd	Flow	Flow	DDD of Flow corrected	Date/Time Recorded	
Single Point Audit		(in H ₂ 0)	(m3/min)	(magn)	(corrected)	RPD of Flow corrected		
Audit-Before	2	4.00	0.213	32.0	5.78	0.28	12/18/2016 0:00	
Audit-After	1.9	3.80	0.208	32.0	5.78	0.28	12/19/2016 0:00	

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b]

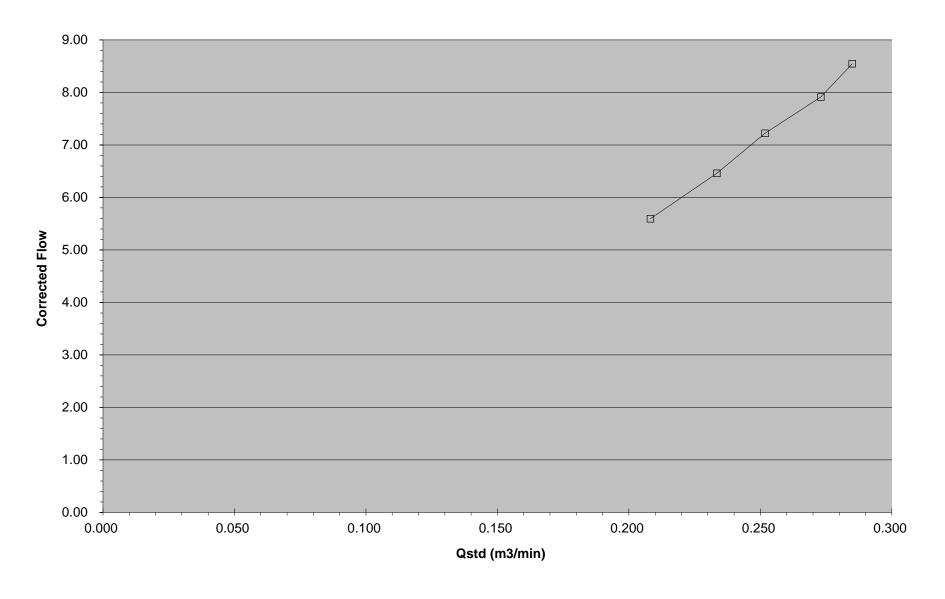
Calculations

m = sampler slope b = sampler intercept (magn) = magnehelic reading Tav = daily average temperature Pav = daily average pressure

SAMPLE \	OLUME
Set Point	40.0
Average Flow (magn):	35.0
Average Flow Over	Sample (m3/min)
0.221	688
Enter Total Time (hrs):	24.0
Total Flow Over	· Sample (m3)
319.230	3831
Total Flow Over	Sample (liters)
319230	.3831

NOTE: Ensure calibration orifice has been certified within 12 months of use

CALIBRATION - FD07





Site Information

Location: \$	San Diego Site ID: FD11	Date: 18-Dec-16	
Sampler:	ΓΕ-1000 Serial No : FA02869	Tech: AM, LM	

Site Conditions

Barometric Pressure (in Hg):	29.88	Corrected Pressure (mm Hg):	759.0
Temperature (deg F):	60.0	Temperature (deg K):	288.7
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	53.8	Average Temperature (deg K):	285.3

Calibration Orifice

Make: Tisch
Model: TE-5040A
Serial#: 3179
Qstd Slope: 9.76687
Qstd Intercept: -0.04219
Calibration Due Date: 5-Aug-16

Calibration Information

Test #			Qstd	Flow	Flow		
1621#	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1	4	8.00	0.298	70.0	8.49	Slope:	36.5142
2	3.5	7.00	0.279	60.0	7.86	Intercept:	-2.3865
3	3.1	6.20	0.263	50.0	7.18	Corr. Coeff:	0.9996
4	2.6	5.20	0.241	40.0	6.42		
5	2.1	4.20	0.217	30.0	5.56	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²	
Pa	Expected atmospheric pressure (Pa), mm Hg	
Та	Expected atmospheric temperature (Ta), K	
M2	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	

	Sampler Unit	Units
Desired Flow Rate	8 S	Standard Cubic Feet per Minute (scfm)
	0.225 C	Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	
Pa	759.0		Average in San Diego for December
Та	288.7	K	Avg. Forecast Temp 12/13-12/14 8AM-8AM
M2	36.5142	-	from calibration
B2	-2.3865	-	from calibration
Tstd	298		provided in method
Pstd	760	mm Hg	provided in method

Magnehelic Gage	FD11
Set Point	35

		Pressure (in H₂0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	RPD	•
Audit-Before	1.95	3.90	0.210	28.0	5.37	0.33	12/18/2016 0:00
Audit-After	1.6	3.20	0.190	24.0	4.97	0.38	12/19/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b] Calculations
m = sampler slope
b = sampler intercept
(magn) = magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

Set Point 35.0

Average Flow (magn): 30.5

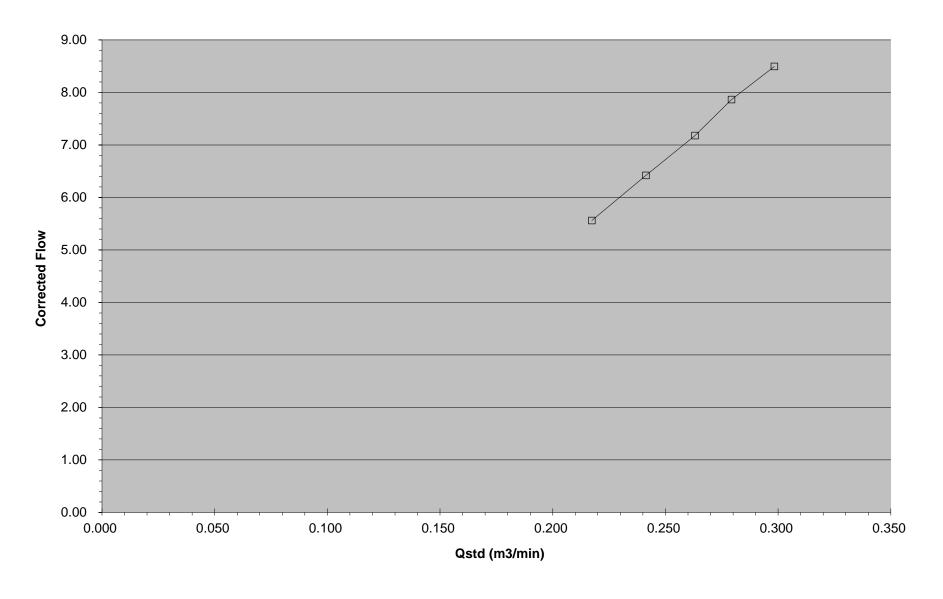
Average Flow Over Sample (m3/min)
0.220407

Enter Total Time (hrs): 24.0

Total Flow Over Sample (m3)
317.386082

Total Flow Over Sample (liters)
317386.082

CALIBRATION - FD11





Site Information

Location	: San Diego Site ID: FD12	Date: 18-Dec-16	
Sampler	: TE-1000 Serial No: FA02866	Tech: AM, LM	

Site Conditions

Barometric Pressure (in Hg):	30.14	Corrected Pressure (mm Hg):	765.6
Temperature (deg F):	58.0	Temperature (deg K):	287.6
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	53.8	Average Temperature (deg K):	285.2

Calibration Orifice

Make: Tisch **Qstd Slope: 9.76687** Model: TE-5040A Qstd Intercept: -0.04219 Serial#: 3179 Calibration Due Date: 5-Aug-16

Calibration Information

Plate or		Pressure	Qstd	Flow	Flow	Lincon Bonnoccion	
Test #	delta H	(in H ₂ 0)	(m3/min)	(magn)	(corrected)	Linear Regression	
1	3.6	7.20	0.285	70.0	8.55	Slope:	30.8081
2	3.2	6.40	0.269	60.0	7.91	Intercept:	-0.3161
3	2.7	5.40	0.247	50.0	7.22	Corr. Coeff:	0.9983
4	2.1	4.20	0.219	40.0	6.46		
5	1.6	3.20	0.191	30.0	5.60	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

	Expected atmospheric pressure (Pa), mm Hg Expected atmospheric temperature (Ta), K	
Ta Ma		
M2		
IVI∠	Slope of developed relationship	
B2	Intercept of developed relationship	
Tstd	Temperature standard, 273 + 25°C	
Pstd	Pressure standard, 760 mm Hg	
	Sampler Unit Units	

	Sampler Unit	Units
Desired Flow Rate	8	Standard Cubic Feet per Minute (scfm)
	0.225	Cubic Meter per Minute (m³/min)

Numbers From the 5-pt Calibration

Parameter	Sampler Unit	Units	
Pa	765.6	mm Hg	Average in San Diego for December
Та	287.6	K	Avg. Forecast Temp 12/18-12/19 8AM-8AM
M2	30.8081	-	from calibration
B2	-0.3161	-	from calibration
Tstd	298	K	provided in method
Pstd	760	mm Hg	provided in method

_	
Magnehelic Gage	FD12
Set Point	45 68285348

1		Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	RPD	'
Audit-Before	2	4.00	0.214	40.0	6.46	0.19	12/18/2016 0:00
Audit-After	1.7	3.40	0.197	36.0	6.13	0.23	12/19/2016 0:00

[•] Samplers are designed to operate at an actual flow rate of 8 scfm, with a maximum acceptable flow-rate fluctuation range of ±10 percent of this value

Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b]Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate

Flow (magn)= reading from magnehelic gauge

Flow (corrected)= corrected flow rate

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

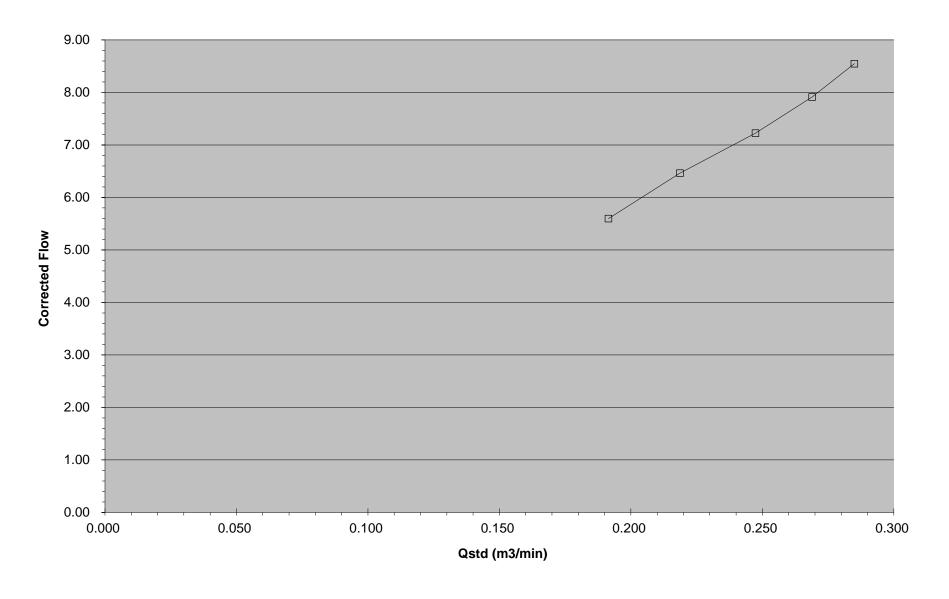
For subsequent calculation of sampler flow: Qstd = 1/m[Sqrt((H20)(Pa/760)(298/Ta))-b]

Calculations m = sampler slope b = sampler intercept (magn) = magnehelic reading Tav = daily average temperature Pav = daily average pressure

> Set Point Average Flow (magn): 42.0
> Average Flow Over Sample (m3/min) 0.226059 Enter Total Time (hrs): Total Flow Over Sample (m3) 325.5255333 **Total Flow Over Sample (liters)** 325525.5333

NOTE: Ensure calibration orifice has been certified within 12 months of use

CALIBRATION - FD12





TISCH ENVIRONMENTAL, INC. 145 SOUTH MIAMI AVE VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5040A

		5 Rootsmeter n Orifice I.I	10.	138320 3179	Ta (K) - Pa (mm) -	293 - 751.84
=======	========		=======	=======	======== METER	ORFICE
PLATE	VOLUME	VOLUME	DIFF	DIFF	DIFF	DIFF
OR	START	STOP	VOLUME	TIME	Hg	H2O
VDC #	(m3)	(m3)	(m3)	(min)	(mm)	(in.)
1	NA	NA	1.00	6.6590	3.6	2.00
2	NA	NA	1.00	4.0700	10.0	5.50
3	NA	NA	1.00	3.2470	15.5	8.50
4	NA	NA	1.00	2.7720	21.0	11.50
5	NA	NA	1.00	2.4500	26.5	14.50
6	NA	NA	1.00	2.2930	30.2	16.50

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0012 0.9927 0.9854 0.9780 0.9706 0.9657 Qstd slow intercept coefficie	(b) =	1.4186 2.3524 2.9244 3.4016 3.8196 4.0745 - 9.76687 -0.04219 0.99994		0.9951 0.9867 0.9793 0.9720 0.9647 -0.9598 Qa slope intercept	= (b) $=$	0.8828 1.4640 1.8200 2.1170 2.3771 2.5358 6.11585 -0.02626 0.99994
y axis =	SQRT [H2O (E	Pa/760)(298/5	 Га)]	y axis =	SQRT [H2O ([a/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa] Qa = Va/Time

For subsequent flow rate calculations:

Qstd = $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ Qa = $1/m\{[SQRT H2O(Ta/Pa)] - b\}$



Site Information

Location	on: San Diego Site ID:	: CNM1 Da	ate: 7-Jan-16
Sampl	er: TE-1000 Serial No	: FA02867 Te	ech: KG, KH

Site Conditions

Barometric Pressure (in Hg):	29.97	Corrected Pressure (mm Hg):	761.2
Temperature (deg F):	54.0	Temperature (deg K):	285.4
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	61.0	Average Temperature (deg K):	289.3

Calibration Orifice

Make: Tisch	Qstd Slope: 9.76687
Model: TE-5040A	Qstd Intercept: -0.04219
Serial#: 3179	Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #	delta H	Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.6	7.2	0.285	70.0	8.56	Slope:	32.2961
2	3.3	6.6	0.273	60.0	7.92	Intercept:	-0.8024
3	2.8	5.6	0.252	50.0	7.23	Corr. Coeff:	0.9958
4	2.2	4.4	0.224	40.0	6.47		
5	1.7	3.4	0.197	30.0	5.60	# of Observations:	5
Oalandadin ii Elani Bata				3	(=0.40.4		

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²			
Pa	Expected atmospheric pressure (Pa), mm Hg			
Та	Expected atmospheric temperature (Ta), K			
M2	Slope of developed relationship			
B2	ntercept of developed relationship			
Tstd	Temperature standard, 273 + 25°C			
Pstd	Pressure standard, 760 mm Hg			
	Sampler Units Units			
Desired Flow Rate	Flow Rate 8 Standard Cubic Feet per Minute (scfm)			
	0.225 Cubic Meter per Minute (m³/min)			

Numbers i formun	Numbers From the 5-pt Cambration					
Parameter	Sampler Unit	Units				
Pa	761.2	mm Hg	Average in San Diego for December			
Та	289.3	K	Avg. Forecast Temp 01/07-01/08 8AM-8AM			
M2	32.2961	-	from calibration			
B2	-0.8024	-	from calibration			
Tstd	298	K	provided in method			
Pstd	760	mm Hg	provided in method			

Magnehelic Gage	CNM1
Set Point	43.1



Site Information

Location: San Diego	Site ID: FD07	Date: 7-Jan-17
Sampler: TE-1000	Serial No: FA02868	Tech: KG, KS

Site Conditions

Barometric Pressure (in Hg):	30.30	Corrected Pressure (mm Hg):	769.6
Temperature (deg F):	61.0	Temperature (deg K):	289.3
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	61.0	Average Temperature (deg K):	289.3

Calibration Orifice

Make: Tisch

Model: TE-5040A

Serial#: 3179

Qstd Slope: 9.76687

Qstd Intercept: -0.04219

Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #		Pressure (in H₂0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.7	7.4	0.289	70.0	8.55	Slope:	35.7273
2	3.3	6.6	0.273	60.0	7.91	Intercept:	-1.7877
3	2.8	5.6	0.252	50.0	7.22	Corr. Coeff:	0.9988
4	2.3	4.6	0.229	40.0	6.46		
5	1.9	3.8	0.208	30.0	5.59	# of Observations:	5

Calculating Flow Rate

Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²
Pa	Expected atmospheric pressure (Pa), mm Hg
Та	Expected atmospheric temperature (Ta), K
M2	Slope of developed relationship
B2	Intercept of developed relationship
Tstd	Temperature standard, 273 + 25°C
Pstd	Pressure standard, 760 mm Hg
	O Control of the Cont

B Standard Cubic Feet per Minute (scfm)
0.225 Cubic Meter per Minute (m³/min)

Parameter	Sampler Unit	Units	Definition	Source
Pa	769.6	mm Hg	Expected atmospheric pressure	Average in San Diego for December
Та	289.3	K	Expected atmospheric temperatu	Avg. Forecast Temp 01/07-01/08 8AM-8AM
M2	35.7273	-	Slope of developed relationship	from calibration
B2	-1.7877		Intercept of developed relationsh	from calibration
Tstd	298		Temperature standard, 273 + 25	provided in method
Pstd	760	mm Hg	Pressure standard, 760 mm Hg	provided in method

Magnehelic Gage	FD07	
Set Point		40.8



Site Information

Location:	San Diego Site ID: FD11	Date: 7-Jan-17
Sampler:	TE-1000 Serial No: FA02869	Tech: KG, KS

Site Conditions

Barometric Pressure (in Hg):	29.88	Corrected Pressure (mm Hg):	759.0
Temperature (deg F):	60.0	Temperature (deg K):	288.7
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	61.0	Average Temperature (deg K):	289.3

Calibration Orifice

Make: Tisch	Qstd Slope: 9.76687
Model: TE-5040A	Qstd Intercept: -0.04219
Serial#: 3179	Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #	delta H	Pressure (in H₂0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.8	7.6	0.291	70.0	8.49	Slope:	37.1366
2	3.4	6.8	0.275	60.0	7.86	Intercept:	-2.3600
3	3	6	0.259	50.0	7.18	Corr. Coeff:	0.9990
4	2.5	5	0.237	40.0	6.42		
5	2	4	0.212	30.0	5.56	# of Observations:	5

Calculating Flow Rate Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²					
Pa	Expected atmospheric pressure (Pa), mm Hg					
Та	Expected atmospheric temperature (Ta), K					
M2	Slope of developed relationship					
B2	Intercept of developed relationship					
Tstd	Temperature standard, 273 + 25°C					
Pstd	Pressure standard, 760 mm Hg					
	Sampler Unit Units					
Desired Flow Rate	8 Standard Cubic Feet per Minute (scfm)					
	0.225 Cubic Meter per Minute (m³/min)					

Parameter	Sampler Unit	Units	
Pa	759.0	mm Hg	Average in San Diego for December
Та	289.3	K	Avg. Forecast Temp 01/07-01/08 8AM-8AM
M2	37.1366	-	from calibration
B2	-2.3600		from calibration
Tstd	298		provided in method
Pstd	760	mm Hg	provided in method

Magnehelic Gage	FD11	
Set Point		37



Site Information

Location: San Diego	Site ID: FD12	Date: 7-Jan-17
Sampler: TE-1000	Serial No: FA02866	Tech: KG, KS

Site Conditions

Barometric Pressure (in Hg):	30.14	Corrected Pressure (mm Hg):	765.6
Temperature (deg F):	56.0	Temperature (deg K):	286.5
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	61.0	Average Temperature (deg K):	289.3

Calibration Orifice

Make: Tisch	Qstd Slope: 9.76687
Model: TE-5040A	Qstd Intercept: -0.04219
Serial#: 3179	Calibration Due Date: 5-Aug-16

Calibration Information

Test #	delta H	(in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.5	7	0.282	70.0	8.56	Slope:	31.3035
2	3	6	0.261	60.0	7.93	Intercept:	-0.2936
3	2.6	5.2	0.243	50.0	7.24	Corr. Coeff:	0.9975
4	2.1	4.2	0.219	40.0	6.47		
5	1.5	3	0.186	30.0	5.61	# of Observations:	5

Calculating Flow Rate Section 11.2.2.24 of TO13-A

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²					
Pa Ta M2 B2 Tstd Pstd	Expected atmospheric pressure (Pa), mm Hg Expected atmospheric temperature (Ta), K Slope of developed relationship Intercept of developed relationship Temperature standard, 273 + 25°C Pressure standard, 760 mm Hg					
	ICommon Limit	Unite				
Desired Flow Rate	Sampler Unit	Units Standard Cubic Feet per Minute (scfm)	4			
200ca i low reac		Cubic Meter per Minute (m³/min)	1			

Parameter	Sampler Unit	Units	
Pa	765.6	mm Hg	Average in San Diego for December
Та	289.3	K	Avg. Forecast Temp 01/07-01/08 8AM-8AM
M2	31.3035	-	from calibration
B2	-0.2936	-	from calibration
Tstd	298	K	provided in method
Pstd	760	mm Hg	provided in method

Magnehelic Gage	FD12
Set Point	47.2776469



Site Information

Location: San Diego	Site ID: CNM1	Date: 17-Jan-17
Sampler: TE-1000	Serial No: FA02867	Tech: AM, LD

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5
Temperature (deg F):	54.0	Temperature (deg K):	285.4
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	54.4	Average Temperature (deg K):	285.6

Calibration Orifice

Make: Tisch	Qstd Slope: 9.76687
Model: TE-5040A	Qstd Intercept: -0.04219
Serial#: 3179	Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #	delta H	Pressure (in H₂0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	l
1	3.7	7.4	0.290	70.0	8.58	Slope:	32.0428
2	3.2	6.4	0.270	60.0	7.94	Intercept:	-0.7398
3	2.8	5.6	0.253	50.0	7.25	Corr. Coeff:	0.9986
4	2.2	4.4	0.224	40.0	6.48		
5	1.7	3.4	0.198	30.0	5.61	# of Observations:	5

Calculating Flow Rate

Equation	Set Point = [(E	xpected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²					
Pa	Expected atm	expected atmospheric pressure (Pa), mm Hg						
Та	Expected atm	Expected atmospheric temperature (Ta), K						
M2	Slope of deve	loped relations	ship					
B2	Intercept of de	eveloped relati	onship					
Tstd	Temperature :	standard, 273	+ 25°C					
Pstd	Pressure stan	dard, 760 mm	Hg					
	Sampler Unit		Units					
Desired Flow Rate			ic Feet per Minute (scfm)					
	0.225	Cubic Meter p	per Minute (m³/min)					
	•							
Numbers From the 5-	pt Calibration							
Parameter	Sampler Unit	Units						
Pa	764.5	mm Hg	Average in San Diego for Jan					
Та	285.4	K	Avg. Forecast Temp 1/17-1/18 8AM-8AM					
M2	32.0428	-	from calibration					
			(P) P					
B2	-0.7398	-	from calibration					
B2 Tstd	-0.7398 298		provided in method					

Magnehelic Gage	CNM1	
Set Point		44.0



Site Information

Location: San Diego	Site ID: FD07	Date: 17-Jan-17
Sampler: TE-1000	Serial No: FA02868	Tech: AM, LD

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5	
Temperature (deg F):	54.4	Temperature (deg K):	285.6	
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5	
Average Temperature (deg F):	54.4	Average Temperature (deg K):	285.6	

Calibration Orifice

Make: Tisch

Model: TE-5040A

Serial#: 3179

Qstd Slope: 9.76687

Qstd Intercept: -0.04219

Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #	delta H	Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.8	7.60	0.294	70.0	8.57	Slope:	36.3897
2	3.4	6.80	0.278	60.0	7.94	Intercept:	-2.1221
3	2.9	5.80	0.257	50.0	7.24	Corr. Coeff:	0.9988
4	2.4	4.80	0.234	40.0	6.48		
5	2	4.00	0.214	30.0	5.61	# of Observations:	5

Calculating Flow Rate

Equation	Set Point = [(I	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²							
Pa	Expected atm	Expected atmospheric pressure (Pa), mm Hg							
Та	•	Expected atmospheric temperature (Ta), K							
M2		Slope of developed relationship							
B2	Intercept of de	•	•						
Tstd	Temperature								
Pstd	Pressure stan								
Desired Flow R		Standard C							
Numbers From t	he 5-pt Calibration	Cubic Mete	er per Minute (m³/min)						
Numbers From t	ate 0.225	Cubic Mete		Source					
Numbers From t	he 5-pt Calibration Sampler Unit	Cubic Mete	er per Minute (m³/min)						
Numbers From t Parameter Pa	he 5-pt Calibration Sampler Unit	Cubic Mete Units mm Hg	Per per Minute (m°/min) Definition Expected atmospheric pressure (
Numbers From t Parameter Pa Ta	he 5-pt Calibration Sampler Unit 764.5	Cubic Mete Units mm Hg	Per per Minute (m°/min) Definition Expected atmospheric pressure (Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM					
Numbers From t Parameter Pa Ta M2	he 5-pt Calibration Sampler Unit 764.5 285.6	Cubic Mete Units mm Hg K	Definition Expected atmospheric pressure Expected atmospheric temperature	Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM from calibration					
Numbers From t Parameter Pa Ta M2 B2	he 5-pt Calibration Sampler Unit 764.5 285.6 36.3897	Cubic Mete Units mm Hg K -	Definition Expected atmospheric pressure Expected atmospheric temperature Slope of developed relationship	Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM from calibration from calibration					
Numbers From t Parameter Pa Ta M2 B2 Tstd Pstd	nte 0.225 he 5-pt Calibration Sampler Unit 764.5 285.6 36.3897 -2.1221 298	Cubic Mete Units mm Hg K -	Definition Expected atmospheric pressure (Expected atmospheric temperatu Slope of developed relationship Intercept of developed relationship	Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM from calibration from calibration provided in method					
Numbers From t Parameter Pa Ta M2 B2 Tstd	nte 0.225 he 5-pt Calibration Sampler Unit 764.5 285.6 36.3897 -2.1221 298	Units mm Hg K	Per per Minute (m³/min) Definition Expected atmospheric pressure (Expected atmospheric temperatu Slope of developed relationship Intercept of developed relationsh Temperature standard, 273 + 25	Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM from calibration from calibration provided in method					
Numbers From t Parameter Pa Ta M2 B2 Tstd	ate 0.225 he 5-pt Calibration Sampler Unit 764.5 285.6 36.3897 -2.1221 298 760	Units mm Hg K	Per per Minute (m³/min) Definition Expected atmospheric pressure (Expected atmospheric temperatu Slope of developed relationship Intercept of developed relationsh Temperature standard, 273 + 25	Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM from calibration from calibration provided in method					



Site Information

Location: San Diego	Site ID: FD11	Date: 17-Jan-17
Sampler: TE-1000	Serial No: FA02869	Tech: AM,LD

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5
Temperature (deg F):	54.4	Temperature (deg K):	285.6
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	54.4	Average Temperature (deg K):	285.6

Calibration Orifice

Make: Tisch	Qstd Slope: 9.76687
Model: TE-5040A	Qstd Intercept: -0.04219
Serial#: 3179	Calibration Due Date: 5-Aug-16

Calibration Information

Plate or Test #	delta H	Pressure (in H ₂ 0)	Qstd (m3/min)	Flow (magn)	Flow (corrected)	Linear Regression	
1	3.9	7.80	0.297	70.0	8.57	Slope:	37.9166
2	3.5	7.00	0.282	60.0	7.94	Intercept:	-2.7141
3	3	6.00	0.261	50.0	7.24	Corr. Coeff:	0.9995
4	2.6	5.20	0.244	40.0	6.48		
5	2.1	4.20	0.219	30.0	5.61	# of Observations:	5
Oalandadin ii Elani Bata	-			3	(=0.40.4		

Calculating Flow Rate

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²						
Pa	Expected atm	Expected atmospheric pressure (Pa), mm Hg					
Та	Expected atm	Expected atmospheric temperature (Ta), K					
M2	Slope of deve	Slope of developed relationship					
B2	Intercept of de	Intercept of developed relationship					
Tstd	Temperature :	Temperature standard, 273 + 25°C					
Pstd	Pressure stan	Pressure standard, 760 mm Hg					
	Sampler Unit		Units				
Desired Flow Rate			pic Feet per Minute (scfm)				
	0.225 Cubic Meter per Minute (m³/min)						
•							
Numbers From the 5-	pt Calibration						
Parameter	Sampler Unit	Units					
Pa	764.5	mm Hg	Average in San Diego for Jan				
Та	285.6	K	Avg. Forecast Temp 1/17-1/18 8AM-8AM				
M2	37.9166	-	from calibration				
B2	-2.7141	-	from calibration				
Tstd	298	K	provided in method				

Magnehelic Gage	FD11	
Set Point		36



Site Information

Location: San Diego	Site ID: FD12	Date: 17-Jan-17
Sampler: TE-1000	Serial No: FA02866	Tech: AM, LM

Site Conditions

Barometric Pressure (in Hg):	30.10	Corrected Pressure (mm Hg):	764.5
Temperature (deg F):	54.4	Temperature (deg K):	285.6
Average Pressure (in Hg):	30.10	Corrected Average Pressure (mm Hg):	764.5
Average Temperature (deg F):	54.4	Average Temperature (deg K):	285.6

Calibration Orifice

Make: Tisch	Qstd Slope: 9.76687
Model: TE-5040A	Qstd Intercept: -0.04219
Serial#: 3179	Calibration Due Date: 5-Aug-16

Calibration Information

1			(magn)	(corrected)	Linear Regressio	n
	3.6 7.	2 0.286	70.0	8.57	Slope:	31.3993
2	3.2 6.	4 0.270	60.0	7.94	Intercept:	-0.4920
3	2.7 5.	4 0.248	50.0	7.24	Corr. Coeff:	0.9978
4	2.2 4.	4 0.224	40.0	6.48		
5	1.6 3.	2 0.192	30.0	5.61	# of Observations:	5

Calculating Flow Rate

Equation	Set Point = [(Expected Pa)/(Expected Ta) (Tstd/Pstd)] [(M2 (Desired Flow Rate) +B2] ²						
Pa	Expected atm	Expected atmospheric pressure (Pa), mm Hg					
Та		Expected atmospheric temperature (Ta), K					
M2	Slope of deve	Slope of developed relationship					
B2	Intercept of de	eveloped relati	onship				
Tstd	Temperature s	Temperature standard, 273 + 25°C					
Pstd	Pressure stan	Pressure standard, 760 mm Hg					
	Sampler Unit		Units				
Desired Flow Rate	Rate 8 Standard Cubic Feet per Minute (scfm) 0.225 Cubic Meter per Minute (m³/min)						
Numbers From the 5-pt Calibration							
	pi Calibration						
Parameter	Sampler Unit	Units					
		Units mm Hg	Average in San Diego for Jan				
		mm Hg	Average in San Diego for Jan Avg. Forecast Temp 1/17-1/18 8AM-8AM				
Pa Ta	764.5	mm Hg K	0				
Pa Ta M2	764.5 285.6	mm Hg K -	Avg. Forecast Temp 1/17-1/18 8AM-8AM				
Parameter Pa Ta M2 B2 Tstd	764.5 285.6 31.3993	mm Hg K - -	Avg. Forecast Temp 1/17-1/18 8AM-8AM from calibration				

Magnehelic Gage	FD12
Set Point	45.3476807

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