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EMISSIONS DATA FROM TWO SOW BARNS AND ONE SWINE FARROWING ROOM IN OKLAHOMA

Final Report for Site OK4B

of the

National Air Emissions Monitoring Study

Submitted to

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1. INTRODUCTION AND OBJECTIVES

1.1. Overview of NAEMS

The primary goals of the National Air Emissions Monitoring Study (NAEMS) were to: 1) quantify aerial pollutant emissions from dairy, pork, egg, and broiler production facilities, 2) provide reliable data for developing and validating emissions models for livestock and poultry production and for comparison with government regulatory thresholds, and 3) promote a national consensus on methods and procedures for measuring emissions from livestock operations. Emissions measurements were conducted at a total of 15 different barn monitoring sites and ten open source sites in the continental US.

The NAEMS was managed by Purdue University, in its role as Independent Research Contractor (IRC) to the Agricultural Air Research Council (AARC). Purdue selected equipment and methods in consultation with the U.S. EPA, and subcontracted with other universities to operate the monitoring sites. Texas Agrilife Research (TAR), part of the Texas A&M System, maintained and calibrated equipment, collected samples, and conducted all other on-site activities. Purdue provided rapid feedback (generally within 2-4 business days) to catch aberrations in the data, and later conducted final processing of the data. Both TAR and Purdue participated in reviews of the analyzed data.

The overall objective of this report is to present the quality-assured measurements of ammonia (NH_3), hydrogen sulfide (H_2S), particulate matter (PM) and volatile organic compounds (VOCs) from two sow barns and one farrowing room at the Oklahoma swine breeding and gestating facility. The specific objectives of the report are to:

1. Describe the farm, and the monitored buildings,
2. Describe the monitoring methods and quality assurance, and
3. Present tabulated daily averages of emissions.

2. CONFINED ANIMAL FEEDING OPERATION

2.1. Farm

This 2,800-hd gestation and farrowing farm (OK4B) was located in Oklahoma and consisted of three barns built in 1994 (**Figure 1**). The area was sparsely populated and suited for irrigated and dryland crop production.

There were farrow-to-finish swine farms 2 km north, 3 km east, and 4 km southwest of this farm, respectively. There was also a sow farm approximately 4 km southwest of the farm. These four farms were the closest identifiable livestock facilities.

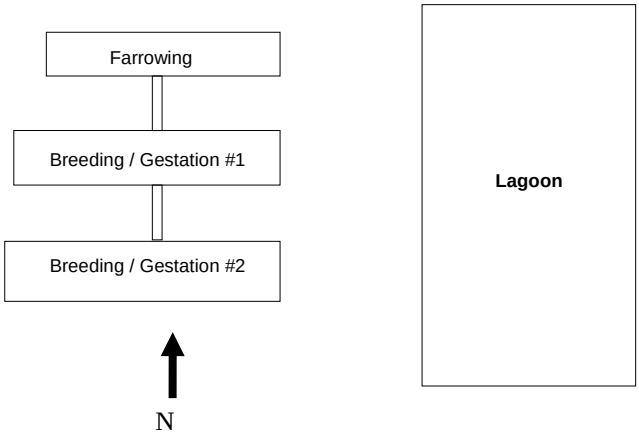

Figure 1. Farm layout showing the barns and lagoon.

2.2. Monitored Buildings

The two gestation barns and one farrowing barn were all orientated east-west with a roof slope of 4:12. Each gestation barn was 128 m long x 18 m wide, and the farrowing barn was 108 m long x 20 m wide. The farrowing barn contained sixteen rooms. The distance between the barns was 21 m. Well water was metered to the buildings and dispensed to the sows by trough and piglets by nipples.

All of the ventilation fans were manufactured by Multi Fan Systems Ltd. (Stourbridge, West Midlands, United Kingdom). The fan controllers were Airstream Ventilation Systems (Assumption, IL). The gestation barns were tunnel-ventilated with large fans located at the east end of the barns. Ventilation air entered through cooling cells in the west end wall, and through curtains in the sidewalls. There were 13 wall ventilation fans in each barn. There was one medium 90-cm variable-speed minimum-ventilation fan in each of the north and south side walls, at the lengthwise midpoint of the barns. These two fans were manually shut off during summer to maximize the tunnel effect, but ran continuously during the rest of the year. There was also one 120-cm second-stage fan located in each side wall near the east end wall. The remaining nine fans were all 120-cm diameters and located in the east end wall. All of the 120 cm fans were single-speed fans. **Figure 2** and Table 1 describe the fan stage assignments and naming convention used for the fans in the gestation barns.

The primary fan control system was based on six stages. While the stage 1 fans are variable-speed, the low speed setting was not used (confirmed with fan speed measurements). Also, the farm manually turned these fans off during the summer months. Fan 7 in both gestation barns is operated using a separate control system, and considered part of the emergency stage (Table 1).

Each of the sixteen rooms in the farrowing barn was cross-ventilated. Ventilation air entered the barn through the north sidewall through a common hallway. Air was cooled in hot weather by evaporative pads in the outer wall that admitted air into the common hallway. There were two small 90-cm variable speed fans in the south sidewall of each of the 16 farrowing rooms. The first and second stage fans were on the west and east sides, respectively, in each room. During the early part of 2008, the heat lamps in the farrowing rooms were replaced with heat pads.

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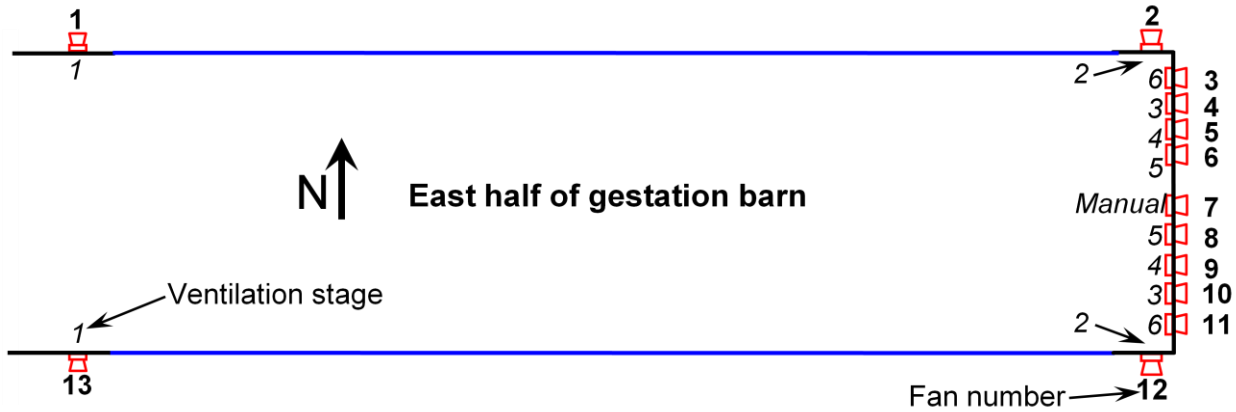

Figure 2. Fan number (outside barn) and fan stage (inside barn) of gestation barns 1 and 2.

Table 1. Fan numbers and ventilation stages for gestation barns 1 and 2.

Stage	Quantity	ID of fans
1	2	1, 13 low speed
1	2	1, 13 high speed
2	2+2=4	1, **2**, **12**, 13
3	4+2=6	1, 2, **4**, **10**, 12, 13
4	6+2=8	1, 2, 4, **5**, **9**, 10, 12, 13
5	8+2=10	1, 2, 4, 5, **6**, **8**, 9, 10, 12, 13
6	10+2=12	1, 2, **3**, 4, 5, 6, 8, 9, 10, **11**, 12, 13
Independent Emergency	12+1=13	1, 2, 3, 4, 5, 6, **7**, 8, 9, 10, 11, 12, 13

Notes: Fans 1 and 13 are manually turned off during summer. Stage 2 in the above table is effectively Stage 1 during this period. Stage 7 (fan 7) is an independently-controlled Emergency Stage.

The gestation barns had concrete slatted floors, and the farrowing barn had a woven wire floor. Manure on the floor was cleaned daily. Standard barn procedure was that manure from the barns was transferred once a week from the two gestation barns and every three weeks from the farrowing barn by pull-plug to a lagoon, which was located to the east of the barns. The lagoon and the barns were separated by a drainage swale. Wastewater from the two gestation barns combined into one pipe and entered into the lagoon through one inlet. Wastewater from the farrowing barn entered the lagoon through a separate inlet. The clay-lined lagoon, oriented north-south, was 119 m wide and 193 m long.

The following site operational procedures were observed or provided by the farm personnel:

- Gestation barn pits were emptied weekly on Wednesday or Thursday. Between five and ten pit plugs were pulled at a time in each barn, and thus the barns were completely emptied over a period of two days. There were approximately 26 plugs in each gestation barn;
- Farrowing room pits were emptied approximately every 21 days (batch length) following power washing of the room. There were four plugs in each farrowing room;

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- The manure pit plugs in the farrowing rooms and gestation barns were pulled and left unplugged for 15-20 minutes. Pits were allowed to empty, the plugs replaced, and recharge water was pumped into the pits. The manager stated approximately 0.3 m of recharge water was pumped into each pit;
- The recharge water pump was on a relay located in the main hallway of the facility. The recharge pump was turned on manually, and shut down via an automatic timer. The timer setting was determined by the number of pits needing refill; and
- There was a half-day turnaround between batches in the farrowing rooms. The piglets were removed from the barns and the sows returned to either Barn 1 or Barn 2 between 7:00 and 8:00. After cleaning, between 13:00 and 14:00, the 24 crates were filled with sows, and over the next 24 hours the sows farrowed an average of 12 piglets per sow.

The farm had a capacity of 1,200 breeding and gestation sows in each of two gestation units, and 384 farrowing sows in one farrowing unit.

Only 2 feed rations were fed at the site; a lactating sow ration in the farrowing barn, and a gestating sow ration in the gestation barns.

2.3. Significant Events and Modifications

Several storms passed over the site over the course of the monitoring period. In general, in the event of a power failure, a back-up generator at the site responded immediately.

The on-site farm management changed three times between July 2007 and July 2009.

The farrowing barn ventilation control system failed on 3/1/09 and full ventilation control was restored on 3/2/09. The ventilation failure resulted in 8 sows and 10 piglets lost in total for the farrowing barn, though there were no losses in the monitored farrowing room.

A water line break occurred in June 2008.

Otherwise, the animal genetics, manure management practices and general farm procedures were consistent from July 2007 to July 2009.

3. MONITORING AND SAMPLING METHODS

3.1. General Approach

Equipment installation and preliminary testing took place between 5/30/07 and 7/18/09. The site setup and equipment installation followed the approved Site Monitoring Plan (SMP) for the OK4B site. The NAEMS Quality Assurance Project Plan (QAPP) and instrument or method-specific Standard Operating Procedures (SOPs) also provided guidance.

The monitoring period began on 7/19/07 and concluded on 7/19/09. Target pollutants for this site were NH_3, H_2S, PM (PM_{10}, TSP, and $PM_{2.5}$), and VOCs. Appendix A lists the target pollutants, and all measured supporting variables and metadata monitored at the site. The monitoring schemes for the two gestation barns (B1 and B2) and farrowing barn are shown in **Figure 3**.

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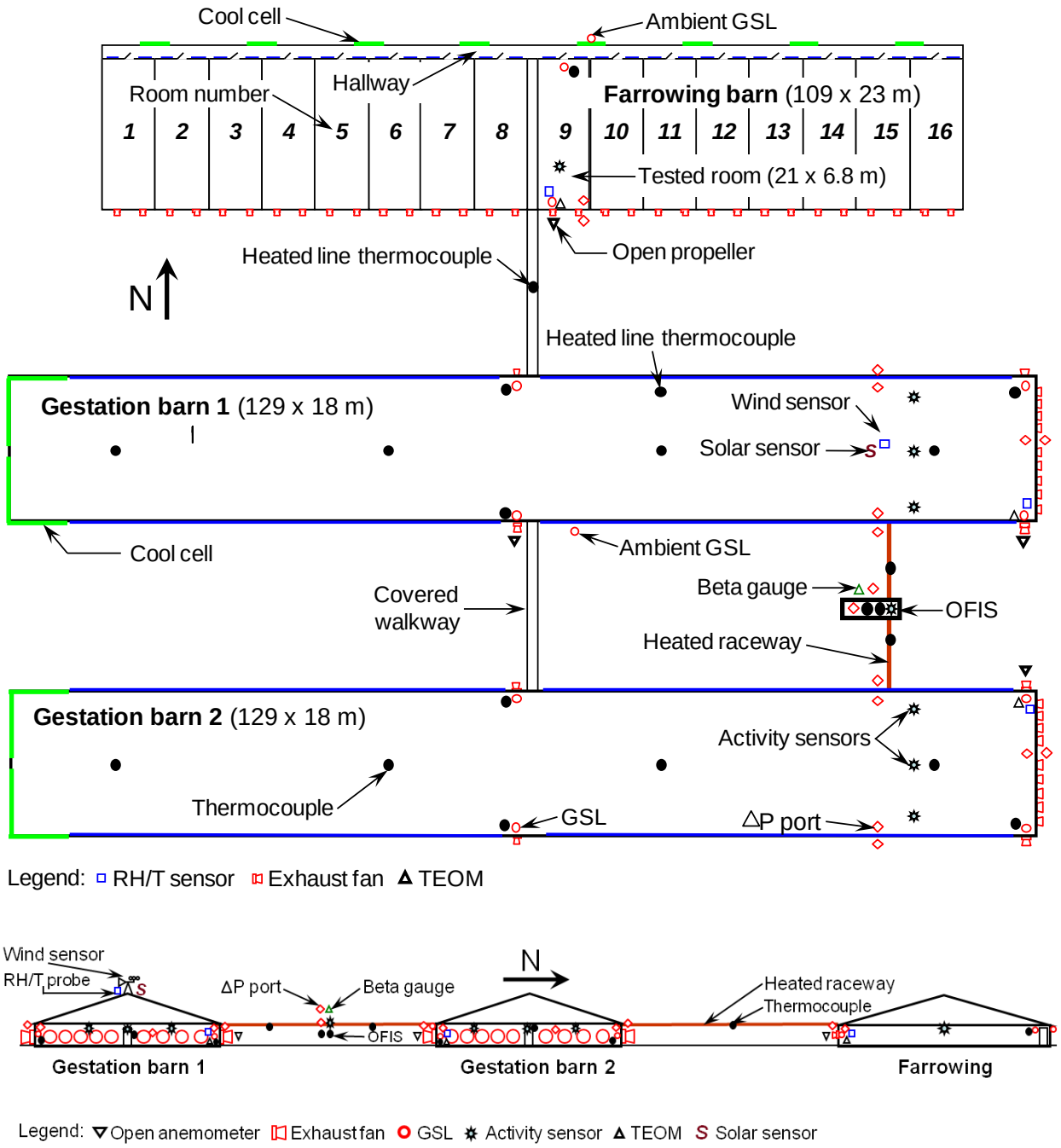

Figure 3. Overhead and endwall view of sensor and air sampling locations.

The farrowing room was power washed every three weeks, between cycles. In order to protect the instrumentation, it was necessary to temporarily remove it from the room, and replace it after the washing was completed. Farrowing room 9 (B3) is considered representative of the remaining rooms in the farrowing barn. Table 2 lists the major equipment.

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Table 2. Major instrumentation.

Analyzer/Instrument	Serial number
INNOVA 1412 Multi-gas analyzer	710-201
TEI 450i H_2S analyzer	0709220677
Environics 4040 dilutor	3921
TEOM 1 (Barn 1)	265140701
TEOM 2 (Barn 2)	265030701
TEOM 3 (Farrowing Room 9)	265230702
TEI FH 62C14 (Beta Gauge)	E-1285

3.2. Instrument Shelter

The on-farm instrument shelter (OFIS) was located between the two gestation barns (**Figure 3**). Sampling tubes and cables extended from this OFIS to B1, B2 and B3. Two heated raceways, each 10 m in length, were set up between the two gestation barns and the OFIS to avoid condensation inside the sampling tubing during cold weather. Another heated raceway 20 m long was set up inside the hallway between the farrowing barn and the gestation barn 1.

The OFIS was supplied with 120 VAC (50 A) + 120 VAC (50A) electric power by the farm. A copper ground rod was installed at the location of the OFIS, and connected to the OFIS ground. The HVAC system of the OFIS maintained inside temperatures within the operating range for the analyzers, and created a positive pressure with a filtered outside air intake to minimize entry of unfiltered outside air. The temperature and differential static pressure in the OFIS were monitored with a thermocouple near the HVAC system and a pressure sensor. One set of gas analyzers (Table 2) in the OFIS measured gas concentrations as the gas sampling system (GSS) sequenced through all the gas sampling locations (GSLs). Vacuum pumps and controllers for the PM monitors were located in the OFIS. A personal computer collected all site monitoring data using a data acquisition and control program AirDAC.

3.3. Data Acquisition and Control System

The data acquisition and control system consisted of a personal computer, custom software (AirDAC) written in a commercial programming language (LabVIEW, National Instruments, Austin, TX), distributed I/O hardware (National Instruments FieldPoint modules), and Universal Serial Bus (USB) devices by National Instrument (NI) and Measurement Computing (MC, Norton, MA). The NI FieldPoint (FP) modules and MC USB devices (Table 3) were selected and configured to acquire data for all the on-line measurement variables (Appendix A).

The 16-channel NI FP-DO-401 digital output module was used to control: 1) sequential switching of multiple gas sampling lines, 2) the raceway heating system, and 3) gas sampling system cooling fan. Serial communication (RS232) was used to acquire data from the multi-gas monitor and calibration variables (calibration time, gas concentration, etc.) from the gas diluter. Voltage or current analog signals from various analyzers and sensors were connected to FP-AI-112 modules. Type T thermocouples were connected to FP-TC-120 modules. Digital signals from relays were connected to the MC USB DIO96H device. Voltage pulses from proximity sensors used to measure fan rotational speed were detected by the MC USB 4303 Counter.

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Table 3. Data acquisition hardware configuration for OK4B.

Manufacturer & model	I/O type	# units	# channels/unit	Notes
NI FP-AI-112	Analog input	4	16	Single-ended, 16-bit. Only used 3 units.
NI FP-TC-120	Thermocouple	3	8	
NI FP-DO-401	Digital output	2	16	2 A at 10-30 VDC
MC USB 4303 counter	Count input	3	10	
MC USB DIO 96H	Digital input	1	96	

AirDAC averaged the signals (after conversion to engineering units) over 15-s and 60-s intervals and recorded the means into two separate computer files. All real-time data were displayed in tabular and graphic forms for on-site or remote (pcAnywhere, Symantec, Mountain View, CA) viewing (Ni et al., 2009; Ni and Heber, 2010). Measurement alarms, data collection notifications, data files, graphs and statistics of the daily data sets, and modified configuration and fieldnote files were automatically emailed to several recipients after midnight.

3.4. Monitoring and Recording Farm and Building Operations

3.4.1. Animal Husbandry and Building Systems

Infrared motion sensors (activity sensors) were situated to monitor movement of animals and workers in the barns, and researcher presence in the OFIS.

The producer provided monthly farm records of the number of piglets born and weaned, the gilts brought on site, culled sows and sow mortalities, and total water consumption. From the average number of piglets born and weaned between July 2007 and July 2009, the average piglet mortality rate was calculated and applied to all batches. The sow inventory in each gestation barns was calculated from the total number of sows on site, minus the farrowing barn sow capacity, divided in two.

Relays that controlled the heaters in B1 and B2, and the space heater and heat lamps/heat pads in B3 were monitored using auxiliary contacts in 5-VDC circuits in conjunction with the digital inputs of the data acquisition system. A relay to monitor the recharge pump operation between the barns and the lagoon was also installed on 5/16/18. The operation-time signal provided by the relay is not specific to a particular barn.

3.4.2. Environmental

Weather data was collected using a solar radiation shielded capacitance-type relative humidity and temperature probe (RH/T) (Model RHT-WM, Novus Automation, Porto Alegre, Brazil), a pyranometer (Model LI-200SL, LI-COR, Lincoln, NE) and a cup anemometer (Wind Sentry, RM Young, Traverse City, MI), which were mounted on B1, about 2 m from the east end of the barn.

For the building environment conditions, RH/T probes were located at the inlet to Fan 12 in B1, Fan 2 in Barn 2, and Fan 1 in B3, which were considered the primary representative exhaust fans (PREFs) for the respective barns. Four Type T thermocouples (TCs) measured temperatures

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along the length of each of the two gestation barns, and at the inlet to B3. A TC was added on 5/16/08 to provide a secondary temperature measurement at the exhaust of B3. Thermocouples were also placed inside each heated raceway, at the center and return registers of the AC system, and in the PM pump enclosure.

3.4.3. Building Airflow

Fan operation in the gestation barns was monitored using auxiliary contacts of fan stage relays in 5-VDC circuits, in conjunction with digital inputs to the data acquisition system, for stages 2 through 6 (Table 1).

Fan rotational speed was monitored using a magnetic Hall-effect sensors (speed sensor) installed on each fan. The speed sensors were mounted to detect the rotational speed in revolutions per minute (rpm) of either the fan shaft or the fan pulley. The digital signal from the speed sensor was converted into a frequency measurement with a counter module in the data acquisition system. Back-up speed sensors were added to both farrowing room fans on 7/16/08.

Static pressure was measured across the north, east and south walls of each barn with differential static pressure sensors (Model 260, Setra Systems, Boxborough, MA). Static pressure in the OFIS was measured with the same type of sensor, to ensure that positive pressure was maintained.

Impeller anemometers were placed downstream of Fan 12 in B1 and Fan 2 in B2, and upstream of Fan 1 in B3. Fan 13 in B1 was also equipped with an impeller anemometer downstream. The impeller anemometers provided a back-up indication of fan operation, and at least one of each fan model-type was monitored and considered representative for other operating fans of the same type.

In-situ airflow measurements were conducted with a 137-cm field-portable fan tester (Fan Assessment Numeration System or FANS, University of Kentucky, Lexington, KY), which was described by Gates et al. (2004), were collected for two easily accessible fans, however, the measurement unit did not fit inside the barn to access upstream measurements for the remaining fans, and the unit did not seal properly downstream of the remaining fans because of the fan shrouds. Therefore, the traverse method was adopted for all other *in-situ* fan airflow measurements.

A four-sided foam board shroud was placed against the inlet to each fan and secured to the fan housing frame with duct tape. Ports in each side of the shroud were used for traverses by a hot-wire anemometer (VelociCalc Plus, Model 8385A, TSI Incorporated, Shoreview MN). To apply this method, it was necessary to divide the air stream cross-section into multiple sections of equal area. The large and medium fans in the gestation barns were divided into 25 equal cross-sectional squares, and the small fans in B3 were divided into 16 equal cross-sectional squares. Air velocity was measured at the center of each section. The fan airflow capacity was determined by multiplying the mean traverse velocity by the cross-sectional area of the measured airflow (Henderson and Perry, 1976).

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In-field airflow measurements were collected during three periods at one or more differential pressures (Table 4). The field data was used to develop equations that would calculate airflow as a function of differential pressure and fan rotational speed, and to assess the uncertainty in airflow predictions.

Table 4. In-field fan airflow test activity (* indicates a measurement for a single dP; * indicates a measurement for three dP settings)**

Barn	Fan ID	Period 1 4/15/08 – 6/16/08	Period 2 9/24/08 – 11/13/08	Period 3 4/8/09 – 7/23/09
Gestation 1	1	***	***	
	2	***	*** ***	
	3	***		*
	4	***		*
	5	***	***	
	6	***		*
	7	***	***	
	8	***	***	
	9	***		*
	10	***		*
	11	***		*
	12	***		*
	13	***	***	
Gestation 2	1	***		
	2	***	***	
	3	***		*
	4	***		*
	5	***	***	
	6	***	***	
	7	***		*
	8	***	***	
	9	***		*
	10	***		*
	11	***		*
	12	***		*
	13	***		
Farrowing 9	1	***		
	2	***		

The airflow curves of the large (Model 4E125Q-S3C, Multifan, Stourbridge, West Midlands, United Kingdom), medium (Model 6E63Q System 1, Multifan, Stourbridge, West Midlands, United Kingdom) and small (Model BA8E92 S-4, Multifan, Stourbridge, West Midlands, United Kingdom) fans were obtained from the Bioenvironmental and Structural Systems (BESS) Lab at the University of Illinois at Urbana-Champaign (BESS, 1996a; 1996b; 1996c). Each performance record consisted of airflow (Q1) measured at several static pressures (P1), and at a

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relatively constant speed (N1 = 555, 755 and 1034 rpm for large, medium and small fans, respectively).

For each fan type, the BESS fan curve was adjusted to the mean speed (N2) of the fan tests. The mean speeds were 511, 781 and 1100 rpm for large, medium and small fan types, respectively. The new, speed-indexed baseline curves were derived using the first ($Q_2 = Q_1(N_2/N_1)$) and second ($\Delta P_2 = \Delta P_1(N_2/N_1)^{0.5}$) fan laws, where Q_2 is the speed-adjusted BESS fan curve at speed N_2. The speed-corrected airflow prediction model is $Q_4 = (a\Delta P_4 + b)\cdot(N_4/N_2)\cdot Q_2$, where ΔP_4 and N_4 are measured fan static pressure and speed. For a given test using the portable tester, the model is $Q_4 = (a\cdot\Delta P_3 + b)\cdot(N_3/N_2)\cdot Q_2$, where ΔP_3 and N_3 are the measured fan static pressure and speed during the fan test, and the fan degradation factor $k = a\cdot\Delta P_3 + b$. The values for the coefficients a and b were those which minimized the sum of square differences between Q_4 and Q_3 for all the valid fan tests within a speed regime. The resulting fan models are shown in Table 5.

Table 5. Fan airflow models.

Fan type	Reference speed (N_2)	Polynomial coef. of $Q_2=f(\Delta P_2)$ at speed N_2				Coefficients of k	
		a3	a2	a1	a0	b1	b0
Large	555	7.94-06	-2.74E-05	7.04E-02	9.61E+00	3.47E-03	9.81E-01
Medium	755	-2.14E-06	-4.02E-04	2.06E-02	4.70E+00	-2.28E-03	8.54E-01
Small	1100	-1.16E-07	-3.78E-05	7.46E-03	3.15E+00	3.80E-03	1.38E+00

Gestation barn fans were assigned to a sampling stream based on their proximity to the four sampling locations in each barn. Fan 7 was equidistant from two sampling streams in both gestation barns and assigned to GSL-C in B1 and GSL-B in B2 (Table 7). The airflow for each stream was calculated by summing the individual airflows for all fans in the stream. In B3, the individual airflows through the two fans were summed together in one stream.

3.4.4. Biomaterials Sampling Methods and Schedule

All analyses of biomaterials were performed by an independent laboratory (Midwest Laboratories, Omaha, NE).

Water characteristics were evaluated based on analyses of two samples of the water provided to the animals.

For six consecutive weeks, feed samples were collected from feed bins in the farrowing room (1 sample/wk) and one of the gestation barns (1 sample/wk). The feed samples were analyzed for total nitrogen and dry matter content by MidWest Labs.

In B3, six full depth profile and four surface layer samples were collected once per cycle (approximately 21 days) between 8/25/08 and 7/13/09. At the time of manure sampling, manure depth was measured and recorded. Due to the amount of time taken to refill the pits with recharge water, measurement of recharge water depth did not occur routinely (timer controlled pit recharge was not always completed while site engineer was able to be on-site).

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In the gestation barns, samples were collected during the scheduled site visit on a Monday or Tuesday, prior to routine emptying of the pits on Wednesday and Thursday, every three weeks between 8/25/08 and 7/13/09. At the time of manure sampling, manure depth was measured and recorded. Twelve full depth profile and 12 surface layer samples were taken from each gestation barn every sampling period.

The full depth profile samples were analyzed for total nitrogen and total solids, and the surface layer samples were analyzed for total solids, ammonia and pH by MidWest Labs.

3.5. Particulate Matter Monitoring

Real-time PM monitors (TEOM Model 1400a, Thermo Fisher Scientific, Waltham, MA) continuously sampled exhaust PM. A TEOM was placed upstream of Fan 12 in B1, Fan 2 in B2, and Fan 1 in B3. These fans were considered the primary representative exhaust fan (PREF) for the respective barns.

A beta attenuation PM monitor (Beta Gauge Model FH62C-14, Thermo Fisher Scientific, Franklin, MA) continuously measured inlet PM concentration. The Beta Gauge was located in the OFIS, with the inlet extending 1.8-m through and above the roof of the OFIS. The sampling location of this inlet PM monitor was very close to the ventilation inlet air that flowed through side baffles, and the possible contaminant sources (the closest exhaust fan and the lagoon), were more than 23 and 70 m away, respectively.

At any one time, the sampled PM size class was either PM_{10}, $PM_{2.5}$ or TSP at all three TEOMs and the Beta Gauge. The $PM_{2.5}$ size class was measured in September 2007, and January and July 2008 for 14 to 22 d each time (Table 6). The TSP inlet heads were placed on the TEOMs for ten, 7-20 d periods. The PM_{10} concentration was measured at all other times.

3.6. Continuous Gas Sampling and Monitoring

Air samples for continuous gas measurements were collected from multiple gas sampling probes with a custom-designed GSS. Each probe was connected to the GSS with Teflon tubing. Tubular raceways between the OFIS and the monitored buildings protected the sampling lines and data signal cables. The sampling lines were wrapped with insulation and heated inside the raceways and at other locations vulnerable to cold air to prevent condensation inside the tubes.

Exhaust gas concentrations were sampled at the inlet of the four sidewall fans for each of the gestation barns (the first- and second-stage fans for these barns), and one first-stage fan in B3. Sampling probes were located about 0.5 m directly in front of the fan at the same height as the fan hub. One inlet gas concentration was sampled at the south side of the gestation barn 1, about midpoint along the length of the barn. Another inlet gas concentration was sampled 3 m away from the air inlet of the north sidewall of the farrowing barn. The gas concentration was also sampled at the air inlet inside the north sidewall of the farrowing barn in the common hallway. Thus, there were a total of 12 gas-sampling locations at the site (Table 7). The lagoon could have caused the inlet concentrations to be higher at times (i.e. when the wind blew from easterly directions), but the objective of quantifying the net emission rate was still met by measuring the

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inlet and exhaust concentrations. It was not necessary to differentiate the contribution of lagoon emission and barn exhaust fans to the inlet air.

Table 6. Sampling schedule for PM10, TSP and PM2.5.

Time and Day (m/d/y)		Test Duration (d)		
Start	Stop	PM_{10}	TSP	$PM_{2.5}$
7/20/07	8/8/07		19.5	
8/8/07	9/6/07	28.9		
9/6/07	9/11/07	5.2†		
9/6/07	9/11/07			5.0‡
9/11/07	9/28/07			16.8
9/28/07	10/22/07			24.1†
9/28/07	10/22/07	24.1‡		
10/22/07	11/6/07	15.0		
11/6/07	11/13/07		6.9	
11/13/07	1/15/08	62.9		
1/15/08	1/31/08			16.0
1/31/08	2/7/08		6.7	
2/7/08	4/7/08	59.9		
4/7/08	4/14/08		7.0	
4/14/08	6/25/08	71.9		
6/25/08	7/16/08		20.7	
7/16/08	7/24/08	8.0		
7/24/08	8/7/08			14.0
8/7/08	9/12/08	35.8		
9/12/08	9/24/08		11.8	
9/24/08	12/3/08	70.0		
12/3/08	12/12/08		9.0	
12/12/08	2/5/09	54.9		
2/5/09	2/18/09		13.0	
2/18/09	4/8/09	49.0		
4/8/09	4/15/09		6.8	
4/15/09	6/10/09	55.8		
6/10/09	6/18/09		8.0	
6/18/09	7/24/09	35.5		
	Total	576.7	109.3	75.9

†Only B3; ‡All except B3

One set of gas analyzers in the OFIS was used to sequence through all the GSLs. Hydrogen sulfide was measured with a fluorescence H_2S analyzer (Model 450i, Thermo Fisher Scientific, Waltham, MA). Concentrations of NH_3 and CO_2 were measured with a photoacoustic infrared multi-gas monitor (INNOVA Model 1412, LumaSense Technologies, Ballerup, Denmark).

Each exhaust location was sampled individually for 10 min. The two inlet locations were monitored at least twice daily, originally with a 20-min sampling period. In August 2007, the inlet sampling period was increased to 60 min. The B1 and B2 inlet gas sampling time was

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decreased to 30 min in March 2009 with confirmation by a statistical analysis that 30 min was sufficient for this inlet location.

Table 7. Analyte sampling locations.

Analyte	Barn/Room	Sampling Location*	Qty
NH_3 H_2S	B1, B2	GSL-A: 0.5-m directly in front of the inlet of Fan 1 (north wall, center of barn)	2
	B1, B2	GSL-B: 0.5-m directly in front of the inlet of Fan 13 (south wall, center of barn)	2
	B1, B2	GSL-C: 0.5-m directly in front of the inlet of Fan 12 (southeast corner)	2
	B1, B2	GSL-D: 0.5-m directly in front of the inlet of Fan 2 (northeast corner)	2
	B3	**B3 Inlet**: 3 m north of the north air inlet of B3	1
	B3	B3 Hallway: north air inlet to B3	1
	B3	GSL-E: 0.5-m directly in front of the inlet of Fan 1	1
	B1,B2,B3	**B1 and B2 Inlet**: South wall of gestation barn 1, near midpoint of barn	1
$PM_{2.5}$ PM_{10} TSP)	B1	TEOM located upstream of Fan 12 (southeast corner)	1
	B2	TEOM located upstream of Fan 2 (northeast corner)	1
	B3	TEOM located upstream of Fan 1	1
	B1,B2,B3	**Inlet**: 1.8 m above the roof of the OFIS	1
VOC	B1	Upstream of Fan 12 (southeast corner)	1
	B2	Upstream of Fan 2 (northeast corner)	1
	B3	Upstream of Fan 1	1

*Gas sampling probes were located at fan hub height, suspended from the ceiling.

3.7. VOC Sampling

Grab samples of VOC were collected at the PREFs (Table 7), using methodology based on methods TO-15 and TO-16. Sampling was conducted with 6-L stainless-steel canisters (TO-Can, Restek Corp, Bellefonte, PA), equipped with ¼″ bellows valves (Swagelok SS4H) and 207-kPa vacuum gauges. Sampling trains contained flow controllers (Veriflo Model 423XL, Parker-Hannifin Corp., Richmond, CA) with 2- to 4-sccm critical orifices and 7-µm in-line stainless steel filters. Flow controllers were pre-set to a constant flow rate of 3.4 mL/min. Canister sampling was conducted for 24 h, and canister pressures were recorded at the beginning and end of the sampling periods for the calculation of total sample volumes. Sampling was conducted five times between 4/8/09 and 7/15/09, with duplicate samples collected at each location. All canisters were cleaned and passed QC before sample collection.

Canister samples were analyzed at Purdue University's Trace Contaminant Laboratory. The canisters were pressurized to +207 kPa with ultrapure N2, and transferred to TDS tubes (Carbotrap 300, Supelco, Bellefonte, PA). The pressurized canisters initially yielded sample flows of 50 mL min^{-1} during sample transfer to tubes. Canister heating was introduced when a canister pressure decreased to 13.8 kPa to ensure maximal transfer of nonvolatile components.

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Samples were analyzed on a thermodesorption-gas chromatograph-mass spectrometer (TDS-GC-MS), consisting of a gas chromatograph (Model 6890, Agilent Technologies, Palo Alto, CA) coupled with a Model 5795 mass spectrometer detector (Agilent Model 5795) and equipped with a thermal desorption system (Model TDS-G, Gerstel, Baltimore, MD) and a cooled injection system (Gerstel CIS). The GC-MS passed a leak check prior to analyzing each set of samples. Compounds were separated on a 60 m x 0.25 mm x 1µm column. The detector utilized the full scan mode covering masses from 27-270 Daltons in 8 scans/s. The MS quad hold temperature was 150ºC, and the MS source hold temperature was 230ºC. The analytical results were analyzed by ChemStation, and all integrations were manually checked. This method used an external standard compound for instrument monitoring and QA to avoid losses of low-molecular-weight analytes that would occur when purging solvent used with internal standard(s). All TDS tubes were cleaned with a tube conditioning system (Gerstel TC-2 TDS) for 3.5 h at 350ºC prior to each use.

Response curves were generated at both the beginning and the end of the VOC analysis period. The response curves of all chemical standards reach good linearity as 55% of the response curves had $R^2 > 99\%$ and over 98% had $R^2 > 95\%$. Toluene was used as an external standard that was analyzed during each batch of samples to assure quality. The relative bias and standard deviation of 97 toluene checks were -4.3% and 18.8%, respectively. The uncertainty of the mean of duplicate field samples was calculated as 27%, based on the toluene checks.

3.8. Documentation of Quality Assurance

3.8.1. Oversight, Maintenance, and Calibration

Texas AgriLife Research personnel visited the site at least weekly. A total of 117 person and 124 person visits were made during years 1 and 2 of the monitoring period. Remote checks of the system were conducted each work day by the site personnel.

The Science Advisor audited the site on 8/16/07. The Environmental Protection Agency (EPA) conducted site audits on 9/17/08 and 6/26/09.

Various site maintenance and calibration activities were conducted by site personnel (Appendix B). Specific quality assurance tests of the GSS, gas analyzers and other sensors are discussed below.

3.8.2. Gas Sampling System

Two types of GSS leak tests were conducted. The first test examined GSS integrity, by briefly creating a “dead head” against the pump by closing all solenoid valves, while measuring exhaust airflow with a portable rotameter, and recording the leakage flow with the GSS mass flow meter. The second test consisted of monitoring GSS flow and pressure after manually setting AirDAC to sample from a particular GSL and plugging the GSL’s gas sampling probe. Preliminary tests indicated that GSS flow under dead-head conditions that were 10% or less (<0.4 L/min) of the normal GSS flow rate of 4.0 L/min was indicative of leak-free operation under normal GSS manifold vacuums of -4,000 to -10,000 Pa. Leak tests of the GSS were conducted at least quarterly. Systematic checking of individual sampling lines was conducted on 2/6/08 8/7/08 and

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5/19/09. Data was only invalidated when leaks occurred away from the sampling location. If gas sampling probe filter maintenance eliminated a leak, no data was invalidated since leakage air would be the same as sampled air.

3.8.3. Gas Analyzers

Gas measurements were evaluated using multipoint calibrations and zero and span checks (Appendix C). The gas concentration data output by the analyzers was adjusted to correct for bias introduced by the gas sampling and measurement system.

3.8.3.1. Correction of Ammonia Concentrations

A multipoint calibration (MPC) was conducted through the challenge line five times using purified air (Cat. # AIO.OCE-T, CEM zero-grade, Praxair, Indianapolis, IN) and three span concentrations ranging from 6.0 to 40 ppm NH_3. Each MPC was conducted with replication (Table 8). The NH_3 was delivered using a 6-port gas dilutor (Model 4040, Environics, Tolland, CT). The R^2 values of each MPC exceeded 0.998, indicating linearity of instrument response to standard gas between 0 and 40 ppm.

Table 8. Multipoint calibration record and results for the NH_3 measurements.

Date	# points	Span concentration, ppm		R^2
		Minimum	Maximum	
9/6/07	4	14.0	40.0	0.9995
9/10/07	4	14.0	40.0	0.9993
7/29/08	4	14.0	40.0	0.9995
2/18/09	4	14.0	40.0	0.9994
5/18/09	4	6.0	17.5	0.9979

Precision checks were conducted periodically using zero and span gases (Z/S checks), delivered via the dilutor through the challenge line, and responses were recorded to monitor changes in system performance over time. Span checks prior to 5/28/09 were conducted with 40 ppm of NH_3; for the remainder of the study span checks were conducted with 17.5 ppm of NH_3 (Appendix C).

The average response of the analyzer to the zero and span gas applications was assessed, and the results were combined based on changes to the instrument or GSS to create linear correction model (Table 9). The model was used to correct instrument readout data. The measurement accuracy was assessed based on model-corrected zero and span checks (Table 9).

Table 9. Concentration correction and measurement accuracy for ammonia.

Start/end dates	# of checks		Linear model	Accuracy, % of span			
				Bias		Precision	
	Zero	Span		z	s	z	s
7/15/07-7/24/09	102	101	y = 1.024(x - 0.036)	0.0	0.0	0.3	1.4

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3.8.3.2. Correction of Hydrogen Sulfide Concentrations

A MPC was conducted through the challenge line nine times using purified air (Cat. # AIO.OCE-T, Praxair CEM zero air) and three or four span concentrations (Cat. # NI-HSR1E-AS, Praxair EPA Protocol Standard). Each MPC was conducted with replication (Table 10). The H_2S was delivered using a 6-port dilutor (Model 040, Environics, Tolland, CT). The R^2 values of each MPC exceeded 0.999, indicating excellent linearity of instrument response to standard gas between 0 and 3240 ppb.

Table 10. Multipoint calibration record and results for the H_2S measurements.

Date	# points	Span Concentration, ppb		R^2
		Minimum	Maximum	
8/20/07	4	600	1800	0.9999
9/4/07	4	600	1800	0.9999
11/13/07	4	1080	3240	0.9999
2/7/08	4	1080	3240	0.9999
4/21/08	4	1080	3240	0.9997
6/25/08	4	1080	3240	0.9999
9/4/08	4	1080	3240	0.9999
4/24/09	5	540	3240	0.9997
7/10/09	4	400	1200	0.9999

Precision checks were conducted periodically (Table 11) using zero gas and span gases (Z/S checks), delivered via the dilutor through the challenge line, and responses were recorded to monitor changes in system performance over time. Span checks were typically conducted with 1150, 1800, or 3240 ppb of H_2S (Appendix C).

The average response of the analyzer to the zero and span gas applications was assessed, and the results were combined based on changes to the instrument or GSS to create linear correction models (Table 11). The models were used to correct instrument readout data. The measurement accuracy was assessed based on model-corrected zero and span checks (Table 11).

Table 11. Concentration correction and measurement accuracy for H_2S.

Start/end dates	# of checks		Linear model	Measurement accuracy relative to span, %			
				Bias		Precision	
	Zero	Span		z	s	z	s
7/20/07-8/2/07	2	2	y = 0.930(x – 2.750)	0.0	0.0	0.0	0.2
8/2/07-11/13/07	19	19	y = 0.949(x - 0.700)	0.0	0.0	0.0	3.5
11/13/07-2/7/08	11	11	y = 0.943(x – 2.465)	0.0	0.0	0.0	2.6
2/7/08-4/21/08	13	7	y = 1.011(x – 1.307)	0.0	0.0	0.0	2.1
4/21/08-6/25/08	6	6	y = 1.040(x – 1.519)	0.0	0.0	0.0	2.0
6/25/08-9/4/08	9	9	y = 1.019(x – 3.365)	0.0	0.0	0.0	1.0
9/4/08-4/23/09	33	17	y = 1.032(x – 1.819)	0.0	0.0	0.0	1.7
4/23/09-7/10/09	10	10	y = 0.998(x – 3.578)	0.0	0.0	0.0	1.3
7/10/09-7/24/09	2	2	y = 0.990(x +0.919)	0.0	0.1	0.0	0.2

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3.8.3.3. *Noise Tests*

Analyzer noise tests were conducted to assess the minimum detection limit (MDL) of the gas measurements on 7/22/09. The analyzers measured CEM zero air (Praxair Cat. # AIO.OCE-T CEM) continuously for 60 min. The MDL was calculated as the t-statistic times the standard deviation of the data collected during the equilibrated period (Table 12).

Table 12. Summary data for gas analyzer noise tests.

Concentration	Statistical variable				Duration, min	T_{dew}, °C
	Min	Max	SD	MDL		
NH_3, ppm	-0.02	0.24	0.06	0.14	59	-50.3
H_2S, ppb	0.2	3.8	0.9	2.3	26	-49.4

3.8.4. Particulate Matter Monitors

The quality of the exhaust PM data was assessed through periodic mass verifications and flow and leak checks of the TEOMs (Table 13, Table 14, and Table 15). The B1, B2, and B3 TEOMs met or exceeded the mass verification criteria (Ko actual within ±2.5% of Ko audit).

Table 13. Quality assurance tests of Barn 1 TEOM.

Date	Time since last test, d	Mass error, %	TEOM flows, L/min		Leak test flows, L/min	
			Main	Total	Main	Auxiliary
7/10/07	0	-0.06				
8/29/07	50	-0.05	2.89	16.68	0.05	0.12
10/10/07	42	-0.04	3.05	16.58	0.05	0.14
12/10/07	61	0.02	2.97	16.42	0.05	0.15
2/7/08	59	0.13	3.30	16.75	0.01	0.14
2/18/08	11		3.01	16.88		
4/15/08	57	-0.46	2.93	16.49	0.03	0.27
4/21/08	6		2.97	16.45		
6/2/08	42	-0.41	2.94	16.34	0.04	0.28
6/11/08	9		2.92	16.54		
8/7/08	57	-0.09	2.93	16.41	0.07	0.32
8/19/08	12		3.03	16.79		
10/9/08	51	-0.93	2.99	16.61	0.05	0.30
1/2/09	85		3.02	16.71		
2/11/09	40		3.00	16.17	0.03	0.41
4/9/09	8	-1.33	2.99	16.46	0.03	0.40
6/18/09	70	2.20	2.96	16.33	0.02	0.36
7/21/09	33	2.00	3.14	16.46	0.01	0.35

The criteria for total and main flows were 16.67±1.0 and 3.0±0.2 L/min, respectively, and were met on all dates except 2/7/08 in B1.

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Leakage criteria were total flow ≤ 0.62 L/min and main flow ≤ 0.15 L/min, respectively. All leak and flow tests of all TEOMs were acceptable on all dates.

Mass verifications and flow calibrations of the ambient PM monitor were conducted periodically (Table 16). The mass verification criteria of <5% and total flow check criteria of <4% were met on all dates.

Table 14. Quality assurance tests of Barn 2 TEOM.

Date	Time since last test, d	Mass error, %	TEOM flows, L/min		Leak test flows, L/min	
			Main	Total	Main	Auxiliary
7/10/07	0	0.64				
8/29/07	50	0.50	3.16	16.76	0.01	0.03
10/10/07	42	0.17	3.08	16.59	0.03	0.08
12/10/07	61	-0.08	2.96	16.94	0.03	0.06
2/7/08	59	-0.55	3.20	16.75	0.02	0.09
2/18/08	11		3.09	17.60		
4/15/08	57	-0.11	2.98	16.62	0.02	0.16
4/21/08	6		3.01	16.63		
6/2/08	42	-1.32	2.96	16.95	0.02	0.19
6/11/08	9		2.99	16.49		
8/7/08	57	0.17	3.02	17.51	0.02	-0.31
10/9/08	63	-1.66	2.98	16.98	0.01	-0.26
2/11/09	125		3.01	16.63	0.02	-0.18
4/9/09	57	-1.03	2.96	16.72	0.02	-0.22
6/18/09	70	1.86	2.97	16.71	0.02	0.27
7/21/09	33	1.79	3.07	16.30	0.00	-0.25

The TEOM measurements were also evaluated based on collocated measurements of the three TEOMs in June 2008 and July 2009. In July 2008, the TEOM units were collocated immediately east of the OFIS. All three PM types were evaluated in July 2009, with each PM type sampled for 24 h. The three TEOM units were collocated within the OFIS and 2-m stainless steel sample extension tubes were used to penetrate through the ceiling of the OFIS, extending the sample inlets to a height of approximately 1.5 m above the roof line. The relative percent difference between the hourly averages for each TEOM to the average measurement of the three TEOMs was calculated and presented in Table 17. Hourly averages less than 3 μg m^{-3} of PM_{10} and $PM_{2.5}$, and less than 20 μg m^{-3} of TSP were less than the minimum valid concentration and thus excluded from the analysis. The differences in average PM_{10}, TSP and $PM_{2.5}$ concentrations over the collocation periods were 1.3 to 7.3%, 0.9 to 8.6% and 3.8 to 28.5%. The nominal differences between TEOMs would result in considerably smaller percent differences under exhaust conditions compared to ambient conditions.

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Table 15. Quality assurance tests of B3 TEOM.

Date	Time since last test, d	Mass error, %	TEOM flows, L/min		Leak test flows, L/min	
			Main	Total	Main	Auxiliary
7/10/07	0	0.05				
8/29/07	50	-0.08	3.10	16.86		
10/17/07	49	-0.55	3.05	16.47	0.07	0.30
12/10/07	54	-1.14	3.05	16.10	0.02	0.12
2/7/08	59	-0.21	2.94	16.68	0.02	0.13
2/18/08	11		3.10	16.86		
4/15/08	57	-0.55	2.99	16.66	0.03	0.00
4/21/08	6		2.97	16.51		
6/2/08	42	-0.75	2.81	16.43	0.01	-0.04
6/11/08	9		3.09	16.51		
8/19/08	69	0.08	2.93	16.51	0.02	-0.07
8/22/08	3		2.97	16.41		
10/9/08	48	-1.14	2.98	16.45	0.03	-0.06
12/16/08	68		2.94	16.50	0.21	0.04
1/5/09	20		2.95	16.68	-0.13	-0.08
2/11/09	37		3.01	16.29	0.03	0.00
4/9/09	57	-1.19	2.92	15.92	0.04	-0.01
6/18/09	70	1.46	2.97	16.42	0.04	0.00
7/21/09	33	1.97	3.09	16.33	0.01	-0.05

Table 16. Ambient PM monitoring quality assurance parameters.

Date	Time since last test, d	Mass verification, %	Total flow check, %
7/3/07	0	0.60	
7/12/07	9		1.76
10/10/07	90		1.73
2/7/08	120	0.10	3.05
8/14/08	189	0.42	0.56
11/4/08	82	0.50	
11/17/08	13		1.03
4/15/09	149		0.31
4/30/09	15	1.30	
5/28/09	28	0.04	
6/4/09	7	1.20	
7/15/09	41		1.19
7/20/09	5		0.28
7/24/09	4	0.10	

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Table 17. TEOM collocation test results.

PM type	Average concentration, µg/m^3			Difference, %		
	Barn 1	Barn 2	Far 9	Barn 1	Barn 2	Far 9
PM_{10}	35	40	37	-6.0	7.3	-1.3
TSP	30	35	33	-8.6	8.3	0.9
$PM_{2.5}$	8	13	11	-23.5	28.5	3.8

3.9. Data Analysis

3.9.1. Software

All emission data processing was conducted using custom software (CAPECAB, Fibre Recovery Systems, Inc., Calgary, AB). Data was carefully inspected and validated. If a datum was invalid for a known reason, the datum was marked (flagged) invalid and all calculations dependent on that datum were also invalid unless a substitution datum was identified. All periods of invalid data that were longer than one day are listed in Appendix D.

If the QA/QC checks described above indicated a measurement bias, the data was corrected prior to calculating emissions. The CAPECAB program provided a robust method to inspect data, invalidate if necessary, and implement various corrections over specified time periods.

3.9.2. Data Substitution, Validation, Correction and Uncertainty

3.9.2.1. Pressure

The static pressure sensor measurements were adjusted based on both multipoint calibrations performed on 8/17/07 (except for the B3 sensor) and 3/7/08, and time-weighted average zero offsets during the interim periods (Table 18). The B3 sensor was replaced on 4/9/09.

Table 18. Static pressure sensor zero offsets.

Sensor Location	Start/end dates	# of zero checks	Offset
B1 N Wall	7/20/07-3/7/08	1	0.050
	3/7/08-7/24/09	8	-0.172
B1 E Wall	7/20/07-3/7/08	1	-0.600
	3/7/08-7/24/09	7	-0.763
B1 S Wall	7/20/07-3/7/08	1	-0.013
	3/7/08-7/24/09	7	-0.468
B2 N Wall	7/20/07-3/7/08	1	0.124
	3/7/08-7/24/09	7	-0.178
B2 E Wall	7/20/07-3/7/08	1	-0.108
	3/7/08-7/24/09	8	-0.309
B2 S Wall	7/20/07-3/7/08	1	-0.101
	3/7/08-7/24/09	7	-0.426
B3 S Wall	7/20/07-4/9/09	4	-0.927
	4/9/09-7/24/09	2	-2.700

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The average static pressures for each building were determined using data from all properly-operating sensors among the north, east, and south ΔP sensors.

3.9.2.2. Environmental Sensors

The average exhaust temperature for each gestation barn was the mean of the RH/T probe temperature measurement and the thermocouple measurements at Fans 1, 13, 2 (Barn 1) and 12 (Barn 2). In B3, the average exhaust temperature was the mean of the RH/T probe temperature measurement and exhaust TC measurement (after installation on 5/16/08). The B3 RH/T probe measurements were invalid from 7/19/07 to 8/20/07. The B3 inlet TC measurement was a substitute measurement for the exhaust conditions during this time to facilitate B3 emission calculations. Between 8/20/07 and 8/29/07, the B3 RH/T signal connections were reversed, but the data was valid after signal conditioning corrections.

The solar sensor signal was collocated with a reference solar sensor between 11/6/07 and 12/12/08. The collocated reference sensor confirmed the linear output by the solar sensor. Ground noise influenced the offset of the sensor, thus the solar sensor signal was corrected using variable offsets required to correct for non-zero readings during nighttime hours.

3.9.2.3. Fan Operation

With the exception of the farrowing room fans and the emergency stage in the gestation barns, there were always at least two functional sensors per fan stage or a corresponding stage relay signal for every speed sensor signal. After 7/16/08, duplicate sensors were also installed on the farrowing room fans. On the occasions when speed sensors failed (Appendix D), airflow calculations were facilitated by substitutions of operation data from other signals of the same stage.

Low-level noise was filtered out by setting operational status to “off” (0%) if the average speed was less than 100 rpm.

3.9.2.4. Gas Concentrations

Table 19 describes the time specified in the data processing software for gas concentration measurements to stabilize based on gas and sampling location, and the maximum interval for interpolating between two valid concentration measurements for a sampling location.

Table 19. Gas concentration data validation and interpolation requirements.

Gas	Exhaust and B3 Hallway Sampling Locations		B1/B2 Ambient Sampling Location*		B3 Ambient Sampling Location	
	EP, min	MII, min	EP, min	MII, min	EP, min	MII, min
NH_3	7	300	45/15	3000	45	3000
H_2S	5	300	30/15	3000	30	3000

* Prior to 3/9/09, a longer stabilizing time was required. EP = Equilibration period; MII = maximum interpolation interval.

Gas and water vapor concentrations, and sample relative humidity, temperature, pressure, flow rate, and flow direction were invalidated during all gas analyzer MPCs and Z/S checks.

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Gas concentration data were invalidated between 8/8/07 and 8/14/07 because a digital output module failure resulted in invalid gas sampling system-related data. Gas concentration data was also invalidated between 4/29/08 and 5/5/08 because of high analyte concentrations detected during Z/S checks, and subsequent repair of the gas sampling system pump.

Standard gas concentrations were calculated on dry and moist bases with Eqns. 3-1 and 3-2, respectively.

$$C'' = \frac{C'}{(1-W)} \tag{3-1}$$

and

$$C' = \frac{P' \cdot c \cdot M}{R \cdot (273 + T')} \tag{3-2}$$

where:

C''	Dry standard mass concentration, dry basis (mg $d^{-1}sm^3$ or µg $d^{-1}sm^3$)
C'	Standard mass concentration, moist-air basis (mg sm^{-3} or µg sm^{-3})
P'	Standard pressure (1 atm)
T'	Standard temperature (20°C)
c	Volumetric concentration of gas (ppm or ppb)
M	Molecular weight of gas (g mol^{-1})
R	Universal Gas Constant (0.08206 L atm mol^{-1} $°K^{-1}$)
W	Humidity ratio

3.9.2.5. PM Concentrations

Prior to 2/18/08, the TEOM flow rates were erroneously internally adjusted to 16.7 L min^{-1} based on standard conditions (20ºC and 1 atm). The PM data was acceptable, however, because the TEOM flow rate factors were periodically verified prior to this date and the flow factor adjusted to compensate for the flow setting, maintaining the flow within the the required 15.7 to 17.7 L min^{-1} range. The TEOM settings were changed on 2/19/08 to adjust the flow to 16.7 L min^{-1} based on actual rather than standard air density.

The TEOMs were configured to output the PM concentration data at 25ºC and atmospheric pressure until 2/18/08, at which time they were reconfigured to output the PM data at standard conditions (20ºC, 1 atm). All PM concentration data prior to 2/18/08 was corrected to standard conditions.

Dry standard PM concentrations were obtained by dividing raw concentrations by one minus the air humidity ratio.

A flow error due to a faulty ambient temperature sensor resulted in the invalidation of 3 d of B1 PM data. A faulty control cable, board and battery resulted in the invalidation of 51 d of B2 PM

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data total. A faulty cable and a tapered element repair resulted in the invalidation of 76 d, and a leak in the main line negated 4 d of B3 TEOM data.

3.9.3. Emission Calculations

3.9.3.1. Particulate Matter

PM emissions were calculated with Eqn. 3-3.

$$E = \left(Q_O \cdot P_O \cdot \left(\frac{273+20}{273+T_O} \right) \right) \cdot \; c'_O - c'_i \tag{3-3}$$

Where:

E	Net PM emission rate (µg s^{-1})
Q_0	Exhaust airflow rate at To (m^3 s^{-1})
P_0	Pressure of exhaust air (atm)
C_0'	PM concentration of exhaust air (µg m^{-3})
C_i'	Ambient PM concentration (µg m^{-3})
T_0	Temperature of exhaust air (°C)

3.9.3.2. Gases

Stream-specific gas emissions were determined as follows:

$$E = Q_O \cdot \frac{P_O \cdot M}{R \cdot (273+T_O)} \cdot (c_O - c_i) \tag{3-4}$$

Where:

E	Stream or barn emission rate (mg s^{-1} or µg s^{-1})
Q_O	Stream or barn outlet moist airflow rate at To (m^3 s^{-1})
P_O	Exhaust air pressure (atm)
M	Gas molecular weight (g mol^{-1})
R	Universal Gas Constant (0.08206 L atm/mol^{-1} °K^{-1})
T_O	Exhaust air temperature (°C)
c_o	Exhaust air concentration (ppm or ppb)
c_i	Ambient or ventilation air inlet concentration (ppm or ppb)

Building emissions were the summation of the stream emissions. If the interpolated stream concentration was invalid for one stream in a barn, the average of the other two stream concentrations was substituted in the emission calculation. Building emission was divided by variables (barn inventory, feed consumption) or constants (floor area) to normalize emissions to site-specific characteristics.

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3.9.3.3. Volatile Organic Compounds

The total VOC concentration was multiplied by building airflow for the 24-h canister sampling period to yield an average emission rate. If two samples were successfully collected for a building at one sampling event, the average concentration was used in the calculation.

4. RESULTS

4.1. Farm Production Information

The farm production information, including inventory, animal mass and density are presented in (Table E2). The average sow mass in both the gestation and farrowing barns was estimated at 200 kg. The piglet mass was assumed to increase linearly from 2 kg at birth to 8 kg at weaning.

The monitoring period extended across 33 farrowing room batches

4.2. Characteristics of Biomaterials

The summarized results of lab analyses of the various biomaterials are available in Appendix F. The solids content was higher in the loadout samples compared to the surface samples for the gestation barns, but the difference was negligible for B3. The total nitrogen in the loadout samples and the NH_3 content and pH of the surface samples was generally higher in the gestation barns compared to B3.

The measured nitrate/nitrite nitrogen content of the two water samples ranged from 1.8 to 2.0 mg/L, and the total nitrogen was 13.2 mg/L in the second sample. The total sulfur content of the first sample was 72.8 mg/L, and phosphorus was not detected.

The total nitrogen content of the gestation diet was between 1.89 and 2.28% wet basis. The nitrogen content of the sow diet in the farrowing rooms was a percentage point higher, between 3.04 and 3.34% wet basis.

4.3. Environmental Conditions

4.3.1. Ambient Conditions

According to historical climatic information daytime average high temperatures ranges from 12°C in the winter to 29°C in the summer. Average overnight lows range from 4°C in winter to 23°C in summer. Typical prevailing winds for the region are from the south and southwest except for the spring when the winds are from the north.

Table E1shows the daily average outdoor temperature, relative humidity, wind speed, wind direction, solar radiation and barometric pressure. The ADM temperature was 15ºC, comparable to the annual average for the area. The DM wind speed ranged from 1.9 to 11.2 m s^{-1} (6.8 to 40.3 km h^{-1}), and the ADM was 5.0 m/s (17.9 km h^{-1}), higher than the monthly averages for the area (Table 20).

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Table 20. Monthly averages for weather in the area*.

	Temperature*,°C			Wind Speed**	Wind Direction**
Month	**High**	**Low**	**Mean**	**km/h**	
January	12	4	8	13	SW
February	13	4	8	14	SW
March	16	7	11	16	SW
April	20	11	16	16	N
May	24	16	20	15	N
June	28	20	24	14	N
July	29	23	26	13	SSW
August	29	22	26	12	SSW
September	27	21	24	13	SSW
October	23	15	19	13	S
November	18	10	14	13	S
December	14	6	10	13	S
Annual Average	21	13	17		

* http://www.weather.com/weather/wxclimatology/monthly/USTX0029

4.3.2. Barn Conditions

The environmental conditions in B1, B2 and B3 are shown in Table E3. The average exhaust temperatures in B1, B2 and B3 were maintained below 30ºC, despite ambient temperatures rising above this point, likely aided by the cool cells (Figure 4).

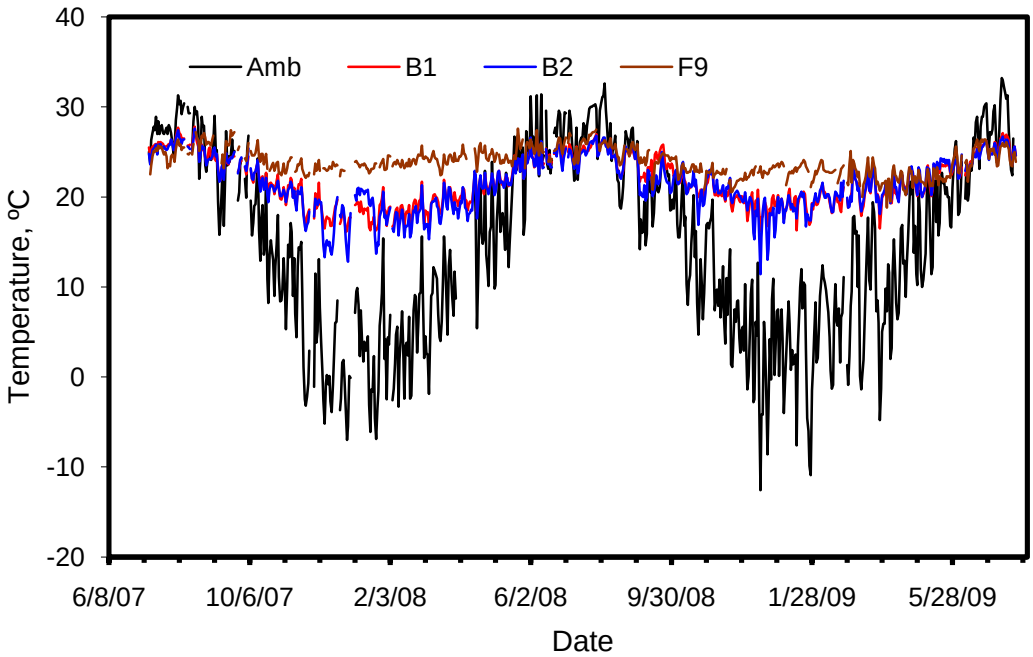

Figure 4. Ambient and average exhaust temperatures.

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4.3.3. Ventilation Rate

The median static pressure differential was -15±5 Pa in the gestation barns, and -30±5 Pa in the farrowing room. The fraction of time that the pressure was positive ranged from 1.6 to 4.8%. Most of the positive pressures were likely wind-induced.

Figure 5 demonstrates an increasing airflow rate with temperature. The dry standard ventilation rates of B1 and B2 ranged from approximately 7 $m^3 s^{-1}$ in winter to 65 $m^3 s^{-1}$ during the summer. The dry standard ventilation rate of B3 ranged from approximately 0.6 $m^3 s^{-1}$ in winter to 6 $m^3 s^{-1}$ during the summer.

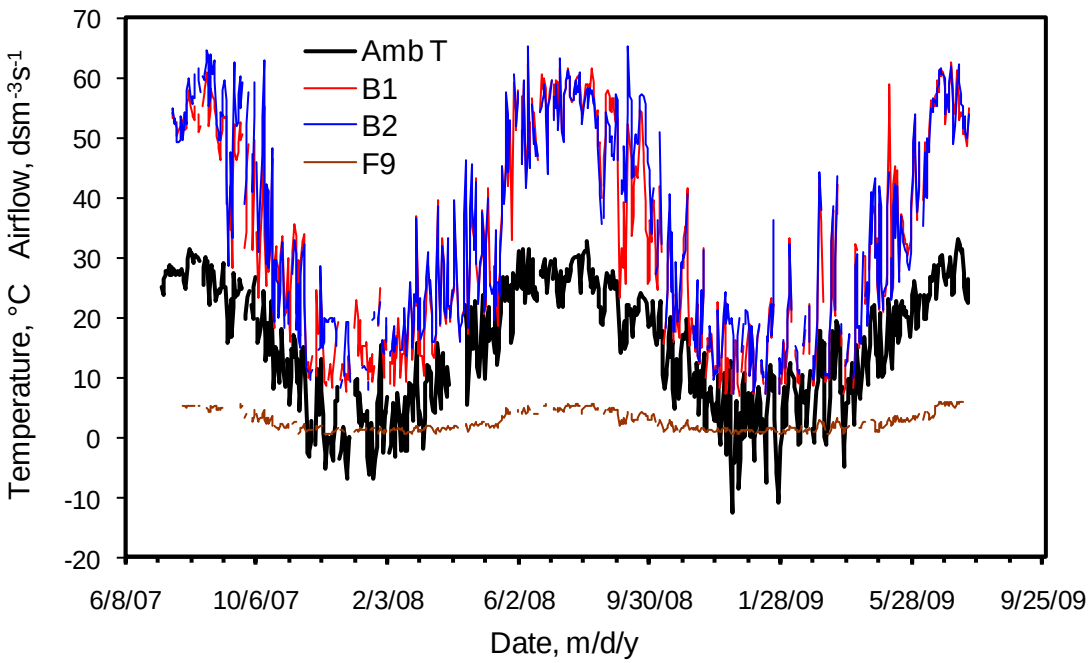

Figure 5. Daily mean ambient temperature (T) and dry standard airflow rates.

4.4. Particulate Matter Concentration and Emission

4.4.1. PM_{10}

The DM inlet PM_{10} concentration ranged from 5 to 133 µg dsm^{-3}, whereas the DM B1, B2 and B3 PM_{10} exhaust concentrations ranged from 44 to 440, 53 to 582 and from 23 to 977 µg dsm^{-3}, respectively (Table E4).

The ADM (±SD) inlet, B1, B2 and B3 PM_{10} concentrations were 29±18, 224±82, 273±100 and 305±184 µg dsm^{-3}, respectively (Table E4).

The overall mean (±SD) PM_{10} emission rates were 345±123 g d^{-1} (295±105 mg $d^{-1}hd^{-1}$) for B1, 494±152 g d^{-1} (421±129 mg $d^{-1}hd^{-1}$) for B2 and 40±25 g d^{-1} (1690±1050 mg $d^{-1}hd^{-1}$) for B3 (Figure 6). The ADM PM_{10} emissions increased with piglet age with each batch in the farrowing room.

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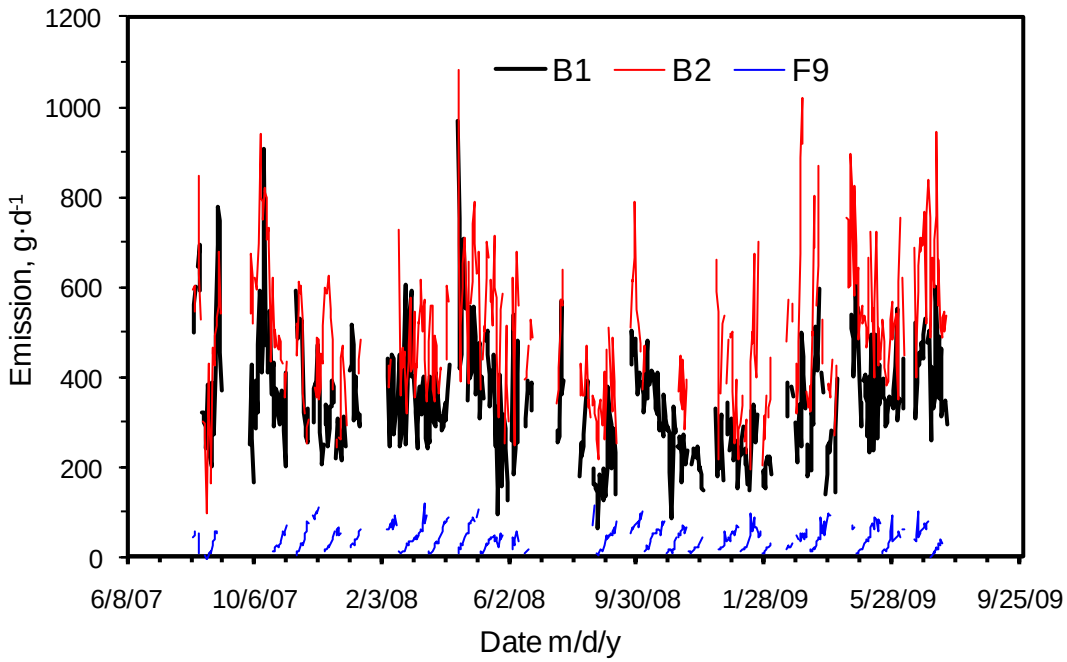

Figure 6. Daily mean PM_{10} emission rates.

4.4.2. $PM_{2.5}$

Daily mean concentrations of $PM_{2.5}$ ranged from 3 to 17 µg dsm^{-3} in the inlet air (n=47 d), 7 to 79 µg dsm^{-3} in B1 and B2 exhaust air (n= 46 d) and from -12 to 114 µg dsm^{-3} in B3 exhaust air (n= 32 d) (Table E4).

The ADM (±SD) inlet, B1, B2 and B3 exhaust concentrations were 9±3, 22±8, 32±18 and 38±26 µg dsm^{-3}, respectively (Table E4).

The overall mean (±SD) $PM_{2.5}$ emission rates were 28±20 g d^{-1} (24±17 mg $d^{-1}hd^{-1}$) from B1, 49±38 g d^{-1} (42±33 mg $d^{-1}hd^{-1}$) from B2, and 5±5 g d^{-1} (217±187 mg $d^{-1}hd^{-1}$) from B3 (Figure 7).

4.4.3. TSP

Data from the ten TSP measurement periods are shown in Table E4. Daily mean TSP concentrations ranged from 7 to 91 µg dsm^{-3} in the inlet air (n=106 d), 58 to 1010 µg dsm^{-3} in B1 exhaust air (n=106 d), 82 to 932 µg dsm^{-3} in B2 exhaust air (n=99 d) and from 73 to 2210 µg dsm^{-3} in B3 exhaust air (n=80 d).

The ADM (±SD) inlet, and B1, B2 and B3 exhaust concentrations were 27±16, 381±294 366±249 and 769±634 µg dsm^{-3}, respectively Table E4.

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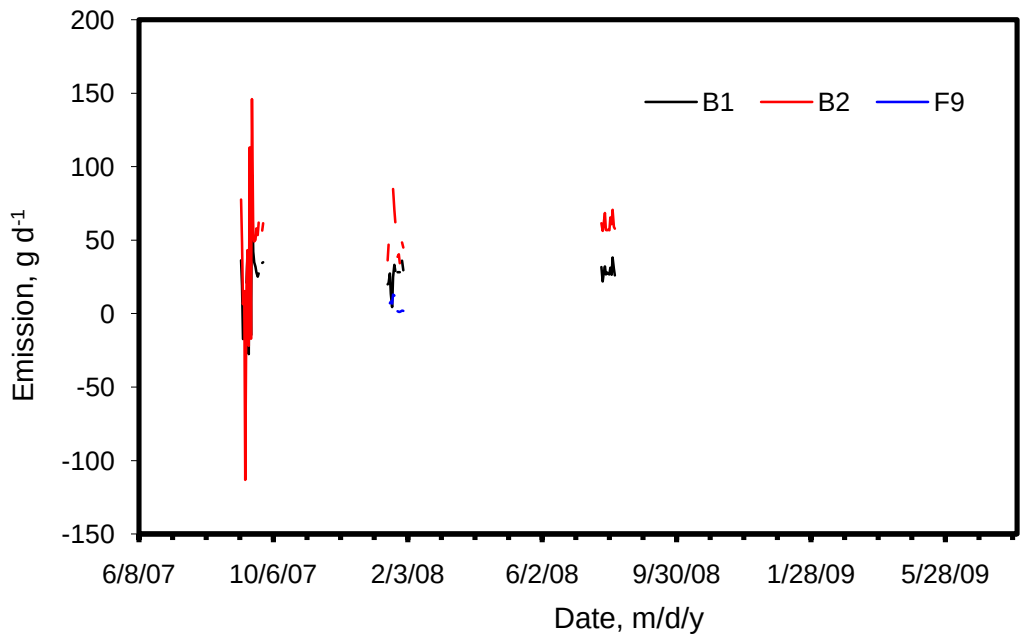

Figure 7. Daily mean $PM_{2.5}$ emission rates.

The ADM TSP emissions ranged from 216 to 1550 g d^{-1} in the B1 and B2 and 19 to 296 g d^{-1} in B3 (Figure 8). Emission rates are shown in Figure 8. The overall mean TSP emission rates were 630±277 g d^{-1} (539±236 mg $d^{-1}hd^{-1}$) for B1 (n= 88 d), 787±302 g d^{-1} (674±256 mg $d^{-1}hd^{-1}$) for B2 (n= 81 d) and 117±72 g d^{-1} (4860±3010 mg $d^{-1}hd^{-1}$) for B3 (n= 65 d).

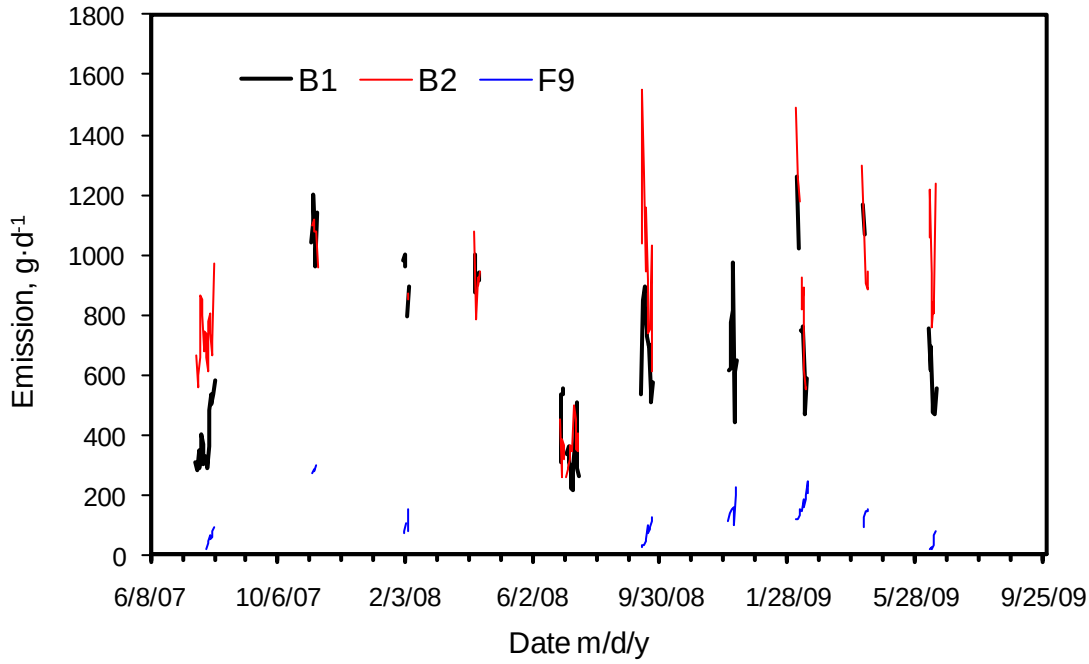

Figure 8. Daily mean TSP emission rates.

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4.5. VOC Concentrations and Emissions

The 20 most prevalent VOCs detected in the canister samples accounted for 88.8% of the total quantified mass (Table 21). The most prevalent compound was pentane, which accounted for 29.6% of the total mass.

Table 21. Average concentration of 20 most prevalent VOCs.

Compound	Conc., ng/m3	% of total	Cum %
Acetaldehyde	5.76E+04	10.91%	10.91
2-Butanone	4.28E+04	8.71%	19.62
Acetic acid	3.85E+04	7.84%	27.46
iso-Propanol	3.21E+04	6.55%	34.01
4-Methyl-phenol	2.87E+04	5.84%	39.85
Propanoic acid	2.44E+04	4.97%	44.82
Pentane	2.34E+04	4.77%	49.59
Pentanal	1.83E+04	3.73%	53.33
Phenol	1.76E+04	3.58%	56.90
Butanal	1.73E+04	3.52%	60.42
2,3-Butanedione	1.66E+04	3.39%	63.81
Dimethyl sulfide	1.60E+04	3.27%	67.08
Hexanal	1.50E+04	3.05%	70.13
Nonanal	1.24E+04	2.52%	72.65
Heptanal	1.23E+04	2.51%	75.17
Octanal	1.23E+04	2.50%	77.67
1-Butanol	1.00E+04	2.05%	79.71
2-Pentanone	7.58E+03	1.54%	81.26
Ethyl acetate	6.70E+03	1.36%	82.62
Butanoic acid	6.53E+03	1.33%	83.95

Concentrations of total VOC in exhaust air ranged from 3.9 to 14.4 mg m^{-3} in H10 and from 4.3 to 18.4 mg m^{-3} in H12 (Table 22). The mean (±SD) total VOC concentrations were 0.54±0.31, 0.88±0.35 and 0.59±0.21 mg m^{-3} in B1, B2 and B3, respectively.

Table 22. Emission of total VOC for each sampling day.

Date	# Canisters			Concentration, mg m^{-3}			Airflow, m^3 s^{-1}			Emission, kg d^{-1}		
	B1	B2	B3	B1	B2	B3	B1	B2	B3	B1	B2	B3
04/08/09	2	2	2	0.48	1.03	0.45	39.2	35.4	N/A	1.63	3.14	N/A
05/18/09	2	2	2	0.16	0.77	0.30	44.6	44.6	3.35	0.62	2.98	0.09
06/09/09	2	2	2	0.45	0.37	0.45	55.2	52.9	5.14	2.15	1.71	0.20
06/25/09	0	2	2	N/A	0.53	0.59	N/A	69.6	6.61	N/A	3.17	0.34
07/16/09	2	0	1	0.32	N/A	0.42	58.5	N/A	6.74	1.60	N/A	0.25
Mean	1.6	1.6	1.8	0.35	0.68	0.44	49.4	50.6	5.46	1.50	2.75	0.22

Total VOC emissions (ng s^{-1}) during each sampling period were determined by multiplying the mean building airflow rate (m^3 s^{-1}) by the total mass (ng m^{-3}) and converting to kg d^{-1}. The VOC

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emission rate from B1 and B2 ranged from 2.31 to 3.33 kg d^{-1}, and from 2.78 to 4.48 kg d^{-1}, respectively. The VOC emission rate from B3 ranged from 0.09 to 0.50 kg d^{-1}. The mean VOC emission rates from B1, B2 and B3 were 2.23±0.99 kg d^{-1}, 3.63±0.87 kg d^{-1}, and 0.29±0.18 kg d^{-1}, respectively (Table 22).

4.6. Hydrogen Sulfide Concentration and Emissions

Daily mean inlet and exhaust H_2S concentrations for the entire test are provided in Table E7. The average daily mean (±SD) H_2S concentrations were approximately 8±6 (n=715) ppb in the inlet air, 292±174 (n=675) 287±173 (n=676) and 423±452 (n=654) ppb in the exhausts of B1, B2 and B3, respectively.

Daily mean H_2S emissions from B1, B2 and B3 are tabulated in Table E8 and plotted in Figure 9 for the entire test period.

The ADM (±SD) H_2S emission rates from B1, B2 and B3 were 864±227 (n=621), 885±206 (n=591) and 91±75 (n=584) g d^{-1}, respectively.

The ADM (±SD) sow-specific H_2S emission rates from B1, B2 and B3 were 738±193, 756±175 and 3780±3130 mg $d^{-1}hd^{-1}$, respectively.

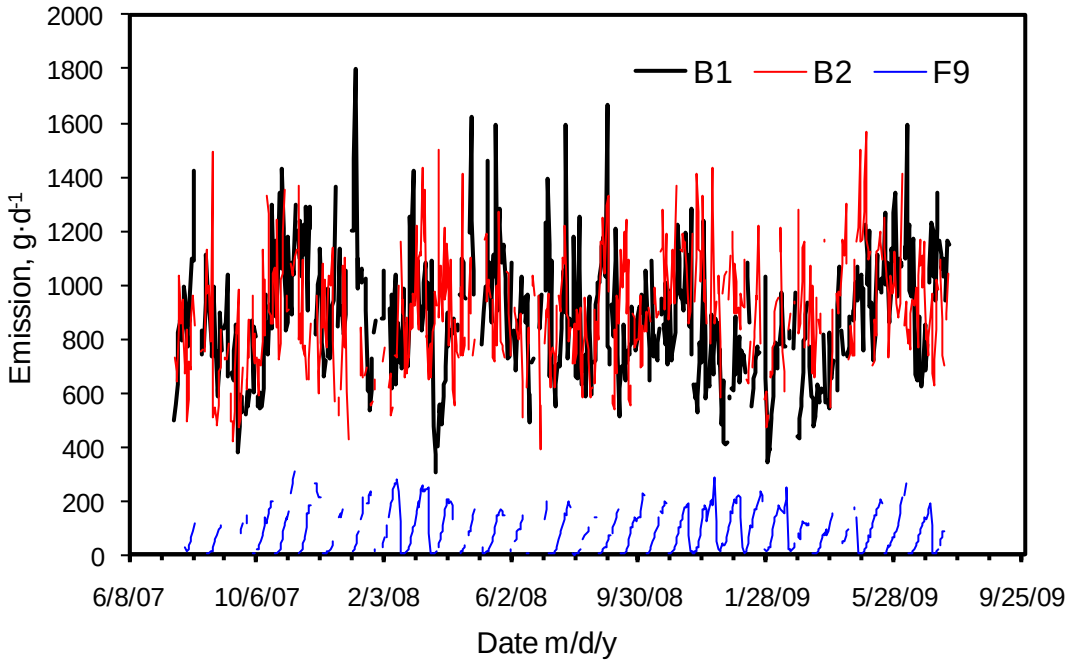

Figure 9. Daily mean H2S emission rates.

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4.7. Ammonia Concentration and Emissions

Daily mean inlet and exhaust NH_3 concentrations for the entire test are provided in Table E5. The ADM (±SD) NH_3 concentrations were approximately 0.3±0.2 (n=705) ppm in the inlet air, and 6.9±3.4 (n=667), 7.2±3.9 (n=666) and 4.3±2.2 (n=640) ppm in the exhausts of B1, B2 and B3, respectively.

Daily mean NH_3 emissions from B1, B2 and B3 are tabulated in Table E6 and plotted in Figure 10 for the entire test period. The NH_3 emission rates exhibited an increasing trend corresponding to piglet age in the farrowing room, and higher emission rates occurred during the summer months.

The ADM (±SD) NH_3 emission rates from B1, B2 and B3 were 10.8±2.2 (n=612), 11.3±1.5 (n=581) kg d^{-1} and 458±144 (n=571) g d^{-1}, respectively.

The ADM (±SD) sow-specific NH_3 emission rates from B1, B2 and B3 were 9.25±1.85 (n=612), 9.61±1.28 (n=581) and 19.1±6.0 (n=565) g d^{-1} hd^{-1}, respectively.

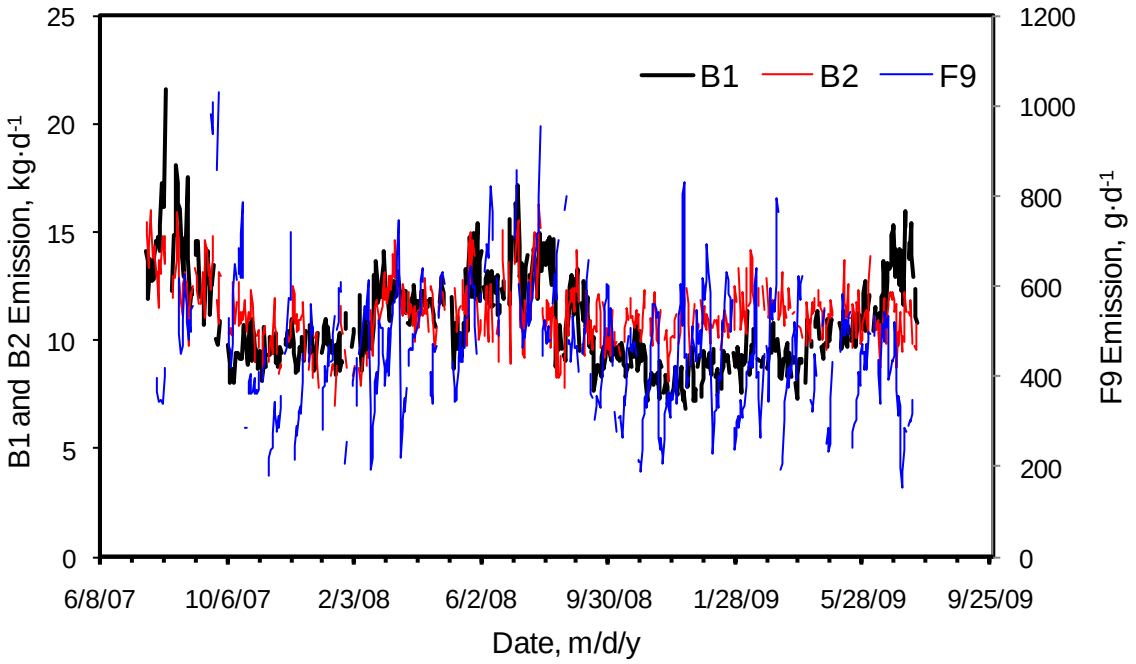

Figure 10. Daily mean NH_3 emission rates.

4.8. Emission Data Completeness

Daily completeness data is given in Table E12, and summarized in Table 23. The number of complete data days (>75% valid required for reporting a daily mean) were calculated for emission measurements conducted from 7/19/07 to 7/19/09. The NH_3 and H_2S emission rate

completeness values represent more than 75% of the monitoring period. The quantity of $PM_{2.5}$ and TSP emissions data for B3 was reduced by TEOM failures.

Table 23. Emissions data completeness.

Location	Days with >75% valid emission data				
	NH_3	H_2S	PM_{10}	$PM_{2.5}$	TSP
B1	612	621	495	43	88
B2	581	591	435	42	81
B3	571	584	431	11	65

4.9. Reconciliation with Data Quality Objectives

The data quality objectives prior to the study were to measure gas and PM emissions from mechanically-ventilated buildings with total relative uncertainties of 27% and 32%, respectively.

4.9.1. Airflow

The overall average airflows for B1, B2 and B3 were 32.0 ± 17.0 $dsm^3 s^{-1}$ (n=645), 33.9 ± 16.8 $dsm^3 s^{-1}$ (n=618), and 2.48 ± 1.54 $dsm^3 s^{-1}$ (n=588), respectively. An average of one small and four large fans operated in barns 1 and 2 at which condition the airflow measurement uncertainty was 11.9%, based on the fan models.

An average of one of two fans operated in the farrowing room. The airflow uncertainty in the farrowing room with one fan operating was 28%, based on the fan models.

4.9.2. Gas Emissions

The bias and precision of NH_3 concentration measurements were derived from the NH_3 zero/span checks as compared with the NH_3 correction models (Table 9). The bias and precision of NH_3 measurements were 0.0% and 1.7%, respectively.

The bias and precision of H_2S concentration measurements were derived from the H_2S zero and span checks as compared with the H_2S correction models (Table 11). The bias and precision of H_2S measurements were 0.0% and 2.0%, respectively.

Based on these measurement errors calculated for concentrations and airflows, the uncertainties of NH_3 and H_2S emissions from the gestation barns were 12.7 and 12.9%, respectively. The uncertainties of NH_3 and H_2S emissions from the farrowing room were 28.4% and 28.4%, respectively.

4.9.3. PM Emissions

The precision of PM_{10}, TSP and $PM_{2.5}$ concentration measurements were 5.0, 5.8, and 17.7% based on collocation tests of the three TEOMs in ambient air (Table 17). The relative biases of the TEOMs were -0.1, 0.7, and -0.2% for B1, B2 and B3. (Table 13, Table 14, and Table 15). The uncertainties of PM_{10}, TSP and $PM_{2.5}$ emissions from B1 were 15.9, 16.9, and 37.5%, respectively. The uncertainties of PM_{10}, TSP and $PM_{2.5}$ emissions from B2 were 15.9, 16.9, and 37.5%, respectively. The uncertainties of PM_{10}, TSP and $PM_{2.5}$ emissions from B3 were 29.9, 30.4 and 45.2%, respectively.

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5. SUMMARY

The emissions of NH_3, H_2S, PM_{10}, TSP, $PM_{2.5}$ and VOCs from two 1200-sow gestation barns (B1 and B2) and a room (B3) in a 16-room farrowing barn at a breeding and gestation facility in Oklahoma were measured during a two-year monitoring study. Manure was flushed weekly and the manure pits recharged in the gestation barns, and between batches in the farrowing rooms. The buildings were tunnel-ventilated with single-speed fans.

The overall average emission rates from B1 were 10.8 kg d^{-1} of NH_3, 864 g d^{-1} of H_2S, 345 g d^{-1} of PM_{10}, 28 g d^{-1} of $PM_{2.5}$, 630 g d^{-1} of TSP, and 2.23 kg d^{-1} of total VOC. The overall average emission rates from B2 were 11.3 kg d^{-1} of NH_3, 885 g d^{-1} of H_2S, 494 g d^{-1} of PM_{10}, 49 g d^{-1} of $PM_{2.5}$, 787 g d^{-1} of TSP, and 3.63 kg d^{-1} of total VOC. The overall average emission rates from B3 were 548 g d^{-1} of NH_3, 97 g d^{-1} of H_2S, 40 g d^{-1} of PM_{10}, 5 g d^{-1} of $PM_{2.5}$, 117 g d^{-1} of TSP, and 0.29 kg d^{-1} of total VOC.

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7. DEFINITIONS AND ACRONYMS

AirDAC	Air Data Acquisition and Control – computer program
ADM	Average daily mean
B1	Gestation Barn 1
B2	Gestation Barn 2
BESS	Bioenvironmental and Structural Systems lab at University of Illinois
CAI	California Analytical Instruments
CAPECAB	Calculations of Air Pollutant Emissions from Confined Animal Buildings
CO_2	Carbon dioxide
CH_4	Methane
DM	Daily mean
ΔP	Differential pressure
B3	Farrowing Room 9
FANS	Fan Airflow Numeration System
GC-MS	Gas chromatograph mass spectrometer
GSL	Gas sampling location(s)
GSS	Gas sampling system
H_2S	Hydrogen sulfide
MDL	Minimum detection limit
MPC	Multipoint calibration
MS	Mass spectrometer
n	Number or count
NAEMS	National Air Emissions Monitoring Study
NH_3	Ammonia
NMHC	Non-methane hydrocarbons
QA	Quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality control
OFIS	On farm instrument shelter
PM	Particulate matter
PREF	Primary representative exhaust fan
RH/T	Relative humidity/temperature
RH	Relative humidity
SD	Standard deviation
T_{dew}	Dew point temperature
TAR	Texas Agrilife Research
TDS	Thermal desorption system
TEOM	Tapered element oscillating microbalance
TSP	Total suspended particulate
VOC	Volatile organic compounds
Z/S	Zero/span

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APPENDIX A. MEASUREMENT VARIABLES.

Table A1. Site measurement variables, instruments and sensors, and digital controls.

Data Col#	Data file heading	Instrument, sensor, controller	Sensor location	Monitoring/control location	Range / target	DAC hardware
1	Date & time	---				---
2	Smpl loc#	---				---
3	Cal gas #	Environics	Rack	12 gas smpl locations	0-7 gas #	---
4	Cal gas, ppm	Environics	Rack	12 gas smpl locations	From 0	---
5	NH3, ppm	Innova 1412	Rack	12 gas smpl locations	From 0.2	---
6	CO2, ppm	Innova 1412	Rack	12 gas smpl locations	From 3.4	---
7	Reserved	Innova 1412				---
8	Reserved	Innova 1412				---
9	Reserved	Innova 1412				---
10	WV. Tdew	Innova 1412	Rack	12 gas smpl locations	Not available	---
11	H2S, ppb	H2S analyzer	Rack	12 gas smpl locations	0-2000	FP-AI-112-1
12	SO2, ppb	H2S analyzer	Rack	12 gas smpl locations	0-2000	FP-AI-112-1
13	Smpl P, Pa	Setra 209 P	GSS	12 gas smpl locations	0-14.7 psiv	FP-AI-112-1
14	Smpl Q, L/m	Mass flow	GSS	12 gas smpl locations	0-10	FP-AI-112-1
15	Smpl RH, %	Humitter 50Y	GSS	12 gas smpl locations	0-100	FP-AI-112-1
16	Smpl T, C	Humitter 50Y	GSS	12 gas smpl locations	-40 to 60	FP-AI-112-1
17	Smpl dir, %t	Flow direction	GSS	12 gas smpl locations	-0.065 - 0.065 V	FP-AI-112-1
18	GSS T, C	AD 592D T	GSS	GSS	0-70 deg C	FP-AI-112-1
19	B1 PM, ug/m3	TEOM #1	B1	B1 Fan 12	-1000-9000	FP-AI-112-1
20	B1 Filter, %	TEOM #1	B1	B1 Fan 12	0-140%	FP-AI-112-1
21	B1 Atm P, Pa	TEOM #1	B1	B1 Fan 12	0.8-1.3 atm	FP-AI-112-1
22	B2 PM, ug/m3	TEOM #2	B2	B2 Fan 2	-1000-9000	FP-AI-112-1
23	B2 Filter, %	TEOM #2	B2	B2 Fan 2	0-140%	FP-AI-112-1
24	B3 PM, ug/m3	TEOM #3	B3	B3 Fan 1	-1000-9000	FP-AI-112-1
25	B3 Filter, %	TEOM #3	B3	B3 Fan 1	0-140%	FP-AI-112-1
26	Amb PM, ug/m3	Beta Gage	Amb	1.8 m above OFIS	-1000-9000	FP-AI-112-1
27	Reserved					
28	B1N dP, Pa	Setra 260 P #1	OFIS	B1 N wall	-100 to 100	FP-AI-112-2
29	B1E dP, Pa	Setra 260 P #2	OFIS	B1 E wall	-100 to 100	FP-AI-112-2
30	B1S dP, Pa	Setra 260 P #3	OFIS	B1 S wall	-100 to 100	FP-AI-112-2
31	B2N dP, Pa	Setra 260 P #4	OFIS	B2 N wall	-100 to 100	FP-AI-112-2

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Data Col#	Data file heading	Instrument, sensor, controller	Sensor location	Monitoring/control location	Range / target	DAC hardware
32	B2E dP, Pa	Setra 260 P #5	OFIS	B2 E wall	-100 to 100	FP-AI-112-2
33	B2S dP, Pa	Setra 260 P #6	OFIS	B2 S wall	-100 to 100	FP-AI-112-2
34	B3S dP, Pa	Setra 260 P #7	Barn	B3 S wall	-100 to 100	FP-AI-112-2
35	OFIS dP, Pa	Setra 260 P #8	OFIS	OFIS wall	-100 to 100	FP-AI-112-2
36	Wind D, deg	05103-5 Wind Monitor	Roof	Roof top tower	0-360	FP-AI-112-2
37	Wind V, m/s	05103-5 Wind Monitor	Roof	Roof top tower	0-50	FP-AI-112-2
38	Solar, W/m2	Solar sensor	Roof	Roof top tower	0-1500	FP-AI-112-2
39	Amb RH, %	NOVUS RHT-WM #1	Roof	Roof top tower	0-100	FP-AI-112-2
40	Amb T, C	NOVUS RHT-WM #1	Roof	Roof top tower	-30 - 50	FP-AI-112-2
41	B1F12 RH, %	NOVUS RHT-WM #2	B1 F12	B1 Fan 12	0-1	FP-AI-112-2
42	B1F12 T, C	NOVUS RHT-WM #2	B1 F12	B1 Fan 12	0 - 50	FP-AI-112-2
43	B2F2 RH, %	NOVUS RHT-WM #3	B2 F2	B2 Fan 2	0-100	FP-AI-112-3
44	B2F2 T, C	NOVUS RHT-WM #3	B2 F2	B2 Fan 2	0 - 50	FP-AI-112-3
45	B3F1 RH, %	NOVUS RHT-WM #4	Far 9 F1	B3 Fan 1	0-100	FP-AI-112-3
46	B3F1 T, C	NOVUS RHT-WM #4	Far 9 F1	B3 Fan 1	0 - 50	FP-AI-112-3
47	B1N Act , V	Activity #1	B1 N	B1 N side	0 to 2	FP-AI-112-3
48	B1Mid Act , V	Activity #2	B1 Mid	B1 Middle	0 to 2	FP-AI-112-3
49	B1S Act , V	Activity #3	B1 S	B1 S side	0 to 2	FP-AI-112-3
50	B2N Act , V	Activity #4	B2 N	B2 N side	0 to 2	FP-AI-112-3
51	B2Mid Act , V	Activity #5	B2 Mid	B2 Middle	0 to 2	FP-AI-112-3
52	B2S Act , V	Activity #6	B2 S	B2 S side	0 to 2	FP-AI-112-3
53	B3 Act , V	Activity #7	B3	B3 Middle	0 to 2	FP-AI-112-3
54	OFIS Act , V	Activity #8	OFIS	OFIS	0 to 2	FP-AI-112-3
55	B1 F12 V, m/s	RMY Anemometer	B1 F12	B1 F12	-17 to 17	FP-AI-112-3
56	B1 F13 V, m/s	RMY Anemometer	B1 F13	B1 F13	-17 to 17	FP-AI-112-3
57	B2 F2 V, m/s	RMY Anemometer	B2 F2	B2 F2	-17 to 17	FP-AI-112-3
58	B3 F1 V, m/s	RMY Anemometer	B3 F1	B3 F1	-17 to 17	FP-AI-112-3
59	B1W T, C	TC T type	B1 W	B1 W end	-270 to 390	FP-TC-120-1
60	B1MidW T, C	TC T type	B1 WC	B1 W of middle of barn	-270 to 390	FP-TC-120-1
61	B1MidE T, C	TC T type	B1 EC	B1 E of middle of barn	-270 to 390	FP-TC-120-1
62	B1E T, C	TC T type	B1 E	B1 E end	-270 to 390	FP-TC-120-1
63	B1F1 T, C	TC T type	B1 F1	B1 Fan 1	-270 to 390	FP-TC-120-1
64	B1F13 T, C	TC T type	B1 F13	B1 Fan 13	-270 to 390	FP-TC-120-1
65	B1F2 T, C	TC T type	B1 F2	B1 Fan 2	-270 to 390	FP-TC-120-1

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Data Col#	Data file heading	Instrument, sensor, controller	Sensor location	Monitoring/control location	Range / target	DAC hardware
66	B2W T, C	TC T type	B2 W	B2 W end	-270 to 390	FP-TC-120-1
67	B2MidW T, C	TC T type	B2 WC	B2 W of middle of barn	-270 to 390	FP-TC-120-2
68	B2MidE T, C	TC T type	B2 EC	B2 E of middle of barn	-270 to 390	FP-TC-120-2
69	B2E T, C	TC T type	B2 E	B2 E end	-270 to 390	FP-TC-120-2
70	B2F1 T, C	TC T type	B2 F1	B2 Fan 1	-270 to 390	FP-TC-120-2
71	B2F13 T, C	TC T type	B2 F13	B2 Fan 13	-270 to 390	FP-TC-120-2
72	B2F12 T, C	TC T type	B2 F12	B2 Fan 12	-270 to 390	FP-TC-120-2
73	B3Inlet T, C	TC T type	R9 Inlet	Farrrowing Room 9 Inlet	-270 to 390	FP-TC-120-2
74	Hall HT T, C	TC T type	Hall HT	Raceway B1 to Farrowing	-270 to 390	FP-TC-120-2
75	B1 HT T, C	TC T type	B1 HT	Raceway within B1	-270 to 390	FP-TC-120-3
76	RwyB1 T T, C	TC T type	Rwy B1 HT	Raceway OFIS to B1	-270 to 390	FP-TC-120-3
77	B3 F1 T, C	TC T type	B3 Inlet	B3 F1	-270 to 390	FP-TC-120-3
78	RwyB2 T, C	TC T type	Rwy B2 T	Raceway OFIS to B2	-270 to 390	FP-TC-120-3
79	OFIS HT T, C	TC T type	OFIS	OFIS Raceway	-270 to 390	FP-TC-120-3
80	AC Ctr Reg T, C	TC T type	AC Ctr Reg	AC Center Register	-270 to 390	FP-TC-120-3
81	AC Rtn Reg T, C	TC T type	AC Rtn Reg	AC Return Register	-270 to 390	FP-TC-120-3
82	TEOM Pumps T, C	TC T type	Cmpt	TEOM pump compt	-270 to 390	FP-TC-120-3
83	B1F1, rpm	Fan speed sensor	B1F1	Fan shaft or support	0 to 5000	USB-4303-1
84	B1F2, rpm	Fan speed sensor	B1F2	Fan shaft or support	0 to 5000	USB-4303-1
85	B1F3, rpm	Fan speed sensor	B1F3	Fan shaft or support	0 to 5000	USB-4303-1
86	B1F4, rpm	Fan speed sensor	B1F4	Fan shaft or support	0 to 5000	USB-4303-1
87	B1F5, rpm	Fan speed sensor	B1F5	Fan shaft or support	0 to 5000	USB-4303-1
88	B1F6, rpm	Fan speed sensor	B1F6	Fan shaft or support	0 to 5000	USB-4303-1
89	B1F7, rpm	Fan speed sensor	B1F7	Fan shaft or support	0 to 5000	USB-4303-1
90	B1F8, rpm	Fan speed sensor	B1F8	Fan shaft or support	0 to 5000	USB-4303-1
91	B1F9, rpm	Fan speed sensor	B1F9	Fan shaft or support	0 to 5000	USB-4303-1
92	B1F10, rpm	Fan speed sensor	B1F10	Fan shaft or support	0 to 5000	USB-4303-1
93	B1F11, rpm	Fan speed sensor	B1F11	Fan shaft or support	0 to 5000	USB-4303-2
94	B1F12, rpm	Fan speed sensor	B1F12	Fan shaft or support	0 to 5000	USB-4303-2
95	B1F13, rpm	Fan speed sensor	B1F13	Fan shaft or support	0 to 5000	USB-4303-2
96	B2F1, rpm	Fan speed sensor	B2F1	Fan shaft or support	0 to 5000	USB-4303-2
97	B2F2, rpm	Fan speed sensor	B2F2	Fan shaft or support	0 to 5000	USB-4303-2
98	B2F3, rpm	Fan speed sensor	B2F3	Fan shaft or support	0 to 5000	USB-4303-2
99	B2F4, rpm	Fan speed sensor	B2F4	Fan shaft or support	0 to 5000	USB-4303-2

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Data Col#	Data file heading	Instrument, sensor, controller	Sensor location	Monitoring/control location	Range / target	DAC hardware
100	B2F5, rpm	Fan speed sensor	B2F5	Fan shaft or support	0 to 5000	USB-4303-2
101	B2F6, rpm	Fan speed sensor	B2F6	Fan shaft or support	0 to 5000	USB-4303-2
102	B2F7, rpm	Fan speed sensor	B2F7	Fan shaft or support	0 to 5000	USB-4303-2
103	B2F8, rpm	Fan speed sensor	B2F8	Fan shaft or support	0 to 5000	USB-4303-3
104	B2F9, rpm	Fan speed sensor	B2F9	Fan shaft or support	0 to 5000	USB-4303-3
105	B2F10, rpm	Fan speed sensor	B2F10	Fan shaft or support	0 to 5000	USB-4303-3
106	B2F11, rpm	Fan speed sensor	B2F11	Fan shaft or support	0 to 5000	USB-4303-3
107	B2F12, rpm	Fan speed sensor	B2F12	Fan shaft or support	0 to 5000	USB-4303-3
108	B2F13, rpm	Fan speed sensor	B2F13	Fan shaft or support	0 to 5000	USB-4303-3
109	FarF1_1, rpm	Fan speed sensor	FarF1	Fan shaft or support	0 to 5000	USB-4303-3
110	FarF2_1, rpm	Fan speed sensor	FarF2	Fan shaft or support	0 to 5000	USB-4303-3
111	FarF1_2, rpm	Fan speed sensor	FarF1	Fan shaft or support	0 to 5000	USB-4303-3
112	FarF2_2, rpm	Fan speed sensor	FarF2	Fan shaft or support	0 to 5000	USB-4303-3
113	B1Fstg2, R1 %t	Barn controller	B1Fstg1	Barn control cabinet	0-100%t	DIO 96H/50
114	B1Fstg3, R2 %t	Barn controller	B1Fstg2	Barn control cabinet	0-100%t	DIO 96H/50
115	B1Fstg4, R3 %t	Barn controller	B1Fstg3	Barn control cabinet	0-100%t	DIO 96H/50
116	B1Fstg5, R4 %t	Barn controller	B1Fstg4	Barn control cabinet	0-100%t	DIO 96H/50
117	B1Fstg6, R5 %t	Barn controller	B1Fstg5	Barn control cabinet	0-100%t	DIO 96H/50
118	B1 Heater, R6 %t	Barn controller	B1Fstg6	Barn control cabinet	0-100%t	DIO 96H/50
119	B2Fstg2, R1 %t	Barn controller	B2Fstg1	Barn control cabinet	0-100%t	DIO 96H/50
120	B2Fstg3, R2 %t	Barn controller	B2Fstg2	Barn control cabinet	0-100%t	DIO 96H/50
121	B2Fstg4, R3 %t	Barn controller	B2Fstg3	Barn control cabinet	0-100%t	DIO 96H/50
122	B2Fstg5, R4 %t	Barn controller	B2Fstg4	Barn control cabinet	0-100%t	DIO 96H/50
123	B2Fstg6, R5 %t	Barn controller	B2Fstg5	Barn control cabinet	0-100%t	DIO 96H/50
124	B2 Heater, R6 %t	Barn controller	B2Fstg6	Barn control cabinet	0-100%t	DIO 96H/50
125	B3 R1, %t	Barn controller	Non-functioning	Barn control cabinet	0-100%t	DIO 96H/50
126	B3 R2, %t	Barn controller	Non-functioning	Barn control cabinet	0-100%t	DIO 96H/50
127	B3 R3, %t	Barn controller	B3 Space Heater	Barn control cabinet	0-100%t	DIO 96H/50
128	B3 R4, %t	Barn controller	B3 Heat Lamps	Barn control cabinet	0-100%t	DIO 96H/50
129	Rec Pump, %t	Barn controller	Rec Pump	Barn control cabinet	0-100%t	DIO 96H/50
		Solenoid #1	GSS	Amb (middle of B1 S side)	On/off control	FP-DO-401-1
		Solenoid #2	GSS	B2 Fan 1	On/off control	FP-DO-401-1
		Solenoid #3	GSS	B1 Fan 1	On/off control	FP-DO-401-1
		Solenoid #4	GSS	B2 Fan 2	On/off control	FP-DO-401-1

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Data Col#	Data file heading	Instrument, sensor, controller	Sensor location	Monitoring/control location	Range / target	DAC hardware
		Solenoid #5	GSS	B1 Fan 2	DO control	FP-DO-401-1
		Solenoid #6	GSS	B2 Fan 12	DO control	FP-DO-401-1
		Solenoid #7	GSS	B1 Fan 12	DO control	FP-DO-401-1
		Solenoid #8	GSS	B2 Fan 13	DO control	FP-DO-401-1
		Solenoid #9	GSS	B1 Fan 13	DO control	FP-DO-401-1
		Solenoid #10	GSS	B3 Inlet to room	DO control	FP-DO-401-1
		Solenoid #11	GSS	B3 N wall	DO control	FP-DO-401-1
		Solenoid #12	GSS	B3 Fan 1	DO control	FP-DO-401-1
		Cooling Fan	GSS	GSS fan	DO control	FP-DO-401-1
		Solid State Relay	Hall HT	Raceway B1 to Farrowing	DO control	FP-DO-401-1
		Solid State Relay	B1 HT	Raceway within B1	DO control	FP-DO-401-1
		Solid State Relay	Rwy B1 HT	Raceway OFIS to B1	DO control	FP-DO-401-1
		Solid State Relay	Rwy B2 HT	Raceway OFIS to B2	DO control	FP-DO-401-2
		Solid State Relay	OFIS HT	OFIS Raceway	On/off control	FP-DO-401-2

APPENDIX B. RECORD OF MAINTENANCE AND CALIBRATION.

Maintenance and Calibration Tasks	
Category	**Times Completed**
Environment Sensing and Other	
Clean RH/T probe	7
Calibration check of RH/T probe	13
Calibration check of thermocouples	11
Performance check of weather station	3
Direction verification of wind indicator	3
Clean solar sensor	23
Check solar sensor with collocated sensor	56
Clean motion sensors	24
Air Flow Measurement System	
Fan test events	3
Zero check of pressure sensors (ΔP)	15
Multipoint calibration of pressures sensors (ΔP)	4
Drift & accuracy check of anemometer(s)	7
Particulate Matter Measurement System	
Clean TOEM screens	21
Check/clean TEOM inlet head(s)	22
Replace TEOM filters	44
Verify TEOM mass transducer calibration	14
Leak test of TEOM	17
Verify TEOM flow rate & MFC accuracy	22
Change TEOM in-line filters	3
Check/clean Beta Gauge inlet head	27
Check Beta Gauge airflow	6
Validate Beta Gauge mass w/foil set	4
Calibrate Beta Gauge mass & airflow	2
Gas Measurement System	
Clean/replace GSS membrane filters	25
Leak check of GSS	13
Calibration check of all lines	5
Replace GSS filters	1
Calibrate GSS pressure and flow sensors	9
Flow calibration/check MFC flow of Environics Dilutor	2
Precision check of Multigas Analyzer	104
Multipoint calibration of Multigas Analyzer	11
Precision check of TEC 450I	104
Multipoint calibration of TEC 450I	12

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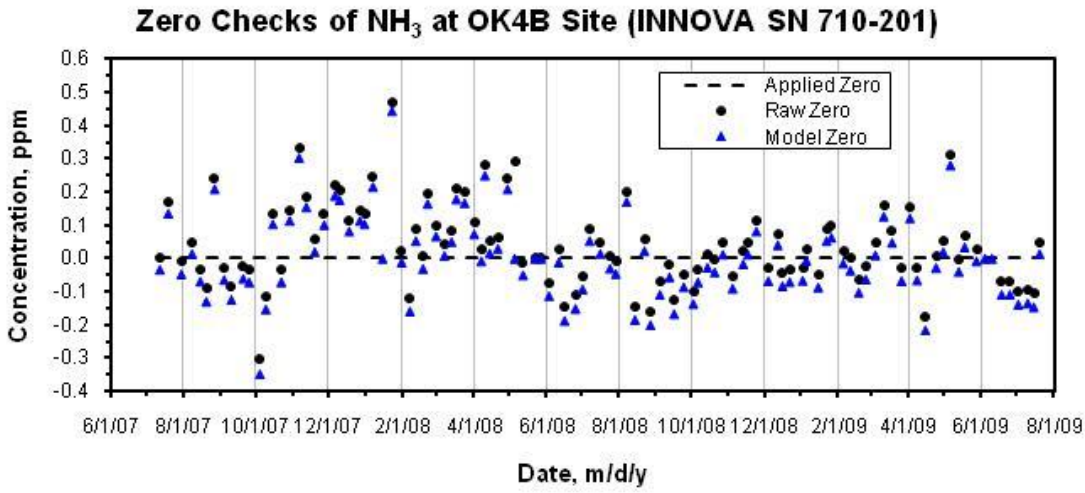
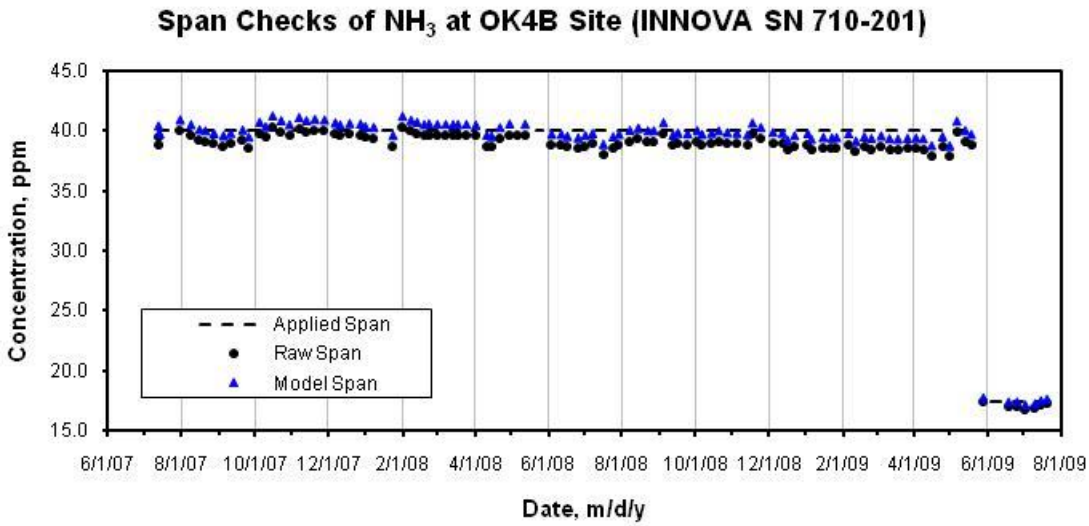
APPENDIX C. GAS ANALYZER CALIBRATIONS.

AMMONIA





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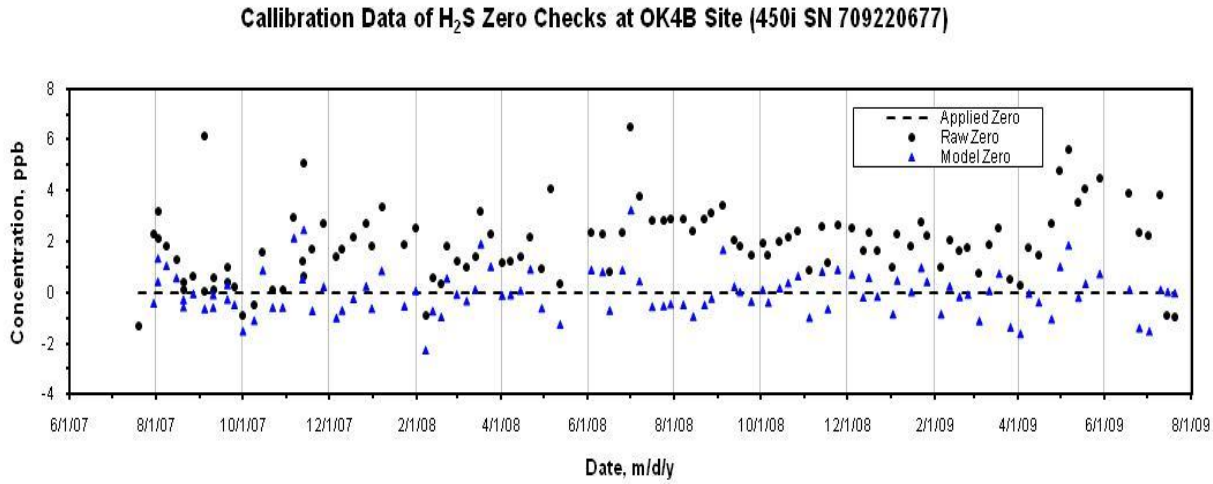
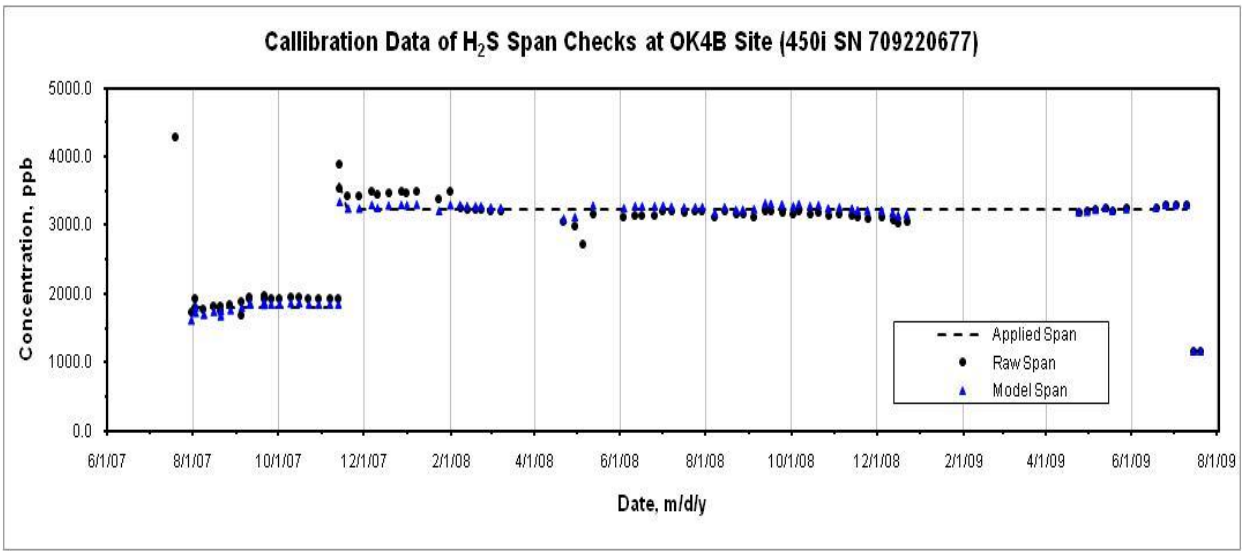
HYDROGEN SULFIDE





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APPENDIX D. MAJOR DATA INVALIDATIONS.

Variable	Start time	End time	Min	Comment
Cal gas #	5/28/09 11:19	6/18/09 8:44	30086	Off-FN indicate Environics offline for recalibration
Cal gas conc	5/28/09 11:19	6/18/09 8:44	30086	Off-FN indicate Environics offline for recalibration
AirDAC NH3	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
AirDAC NH3	5/2/09 12:41	5/6/09 9:04	5544	Failure-FN indicate failure of filter carousel drive wheel
AirDAC CO2	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
AirDAC CO2	5/2/09 12:41	5/6/09 9:04	5544	Failure-FN indicate failure of filter carousel drive wheel
WV	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
WV	5/2/09 12:41	5/6/09 9:04	5544	Failure-FN indicate failure of filter carousel drive wheel
AirDAC H2S	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
AirDAC SO2	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
Smpl P	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
Smpl Q	12/31/07 22:22	2/18/08 4:21	69480	Off
Smpl Q	12/31/07 22:22	2/18/08 4:21	69479	Off
Smpl Q	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
Smpl RH	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
Smpl RH	6/21/08 7:41	8/14/08 13:02	78082	Failure-sensor signals do not agree with other measurements
Smpl RH	8/27/08 11:46	10/14/08 13:55	69250	Off-sensor removed from GSS
Smpl RH	8/14/08 9:05	8/27/08 12:48	18944	Off-FN indicate sensor removed from GSS
Smpl RH	8/27/08 11:46	10/14/08 13:55	69250	Off-sensor removed from GSS
Smpl T	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
Smpl T	6/21/08 7:41	8/14/08 13:02	78082	Failure-sensor signals do not agree with other measurements
Smpl T	8/27/08 11:46	10/14/08 13:55	69250	Off-sensor removed from GSS
Smpl T	8/14/08 9:05	8/27/08 12:48	18944	Off-FN indicate sensor removed from GSS
Smpl T	8/27/08 11:46	10/14/08 13:55	69250	Off-sensor removed from GSS
Smpl dir	1/27/08 6:13	1/31/08 12:35	6142	Low Flow
B1 PM	8/16/08 1:23	8/19/08 9:32	4810	Systematic Error-FN indicate problem with temperature sensor
B1 PM	7/20/09 6:22	7/24/09 0:14	5393	Off-TEOM offline for collocation tests and site shutdown
B1 PM	4/15/09 13:26	4/17/09 11:36	2771	DAQ-FN indicate problem with analog output
B1PM_download	10/17/07 12:03	12/1/07 20:19	65297	DAQ-Download data not available

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Variable	Start time	End time	Min	Comment
B1PM_download	5/22/08 9:33	6/5/08 7:20	20028	DAQ-Downloaded data not available
B1PM_download	4/2/08 9:22	4/3/08 11:34	1573	DAQ-Download data not available
B1 Filter	8/16/08 1:23	8/19/08 9:32	4810	Systematic Error-FN indicate problem with temperature sensor
B1 Filter	7/20/09 6:22	7/24/09 0:14	5393	Off-TEOM offline for collocation tests and site shutdown
B1 Filter	4/15/09 13:26	4/17/09 11:36	2771	DAQ-FN indicate problem with analog output
B2 PM	3/30/08 18:48	4/3/08 15:35	5567	Systematic Error-FN indicate a problem with the control cable
B2 PM	3/30/08 18:48	4/3/08 15:35	5568	Systematic Error-FN indicate a problem with the control cable
B2 PM	11/20/08 12:31	12/12/08 7:03	31353	Failure-FN indicate CPU board failure
B2 PM	10/15/08 21:01	11/4/08 9:47	28127	Failure-FN indicate control unit had faulty RAM chip
B2 PM	10/11/08 14:36	10/14/08 10:44	4089	Off-FN indicate sensor removed for repairs
B2 PM	11/18/08 15:51	11/20/08 13:29	2739	Failure-FN indicate CPU board needed replacement
B2 PM	7/20/09 6:22	7/24/09 0:14	5393	Off-TEOM offline for collocation tests and site shutdown
B2 Filter	3/30/08 18:48	4/3/08 15:35	5567	Systematic Error-FN indicate a problem with the control cable
B2 Filter	3/30/08 18:48	4/3/08 15:35	5568	Systematic Error-FN indicate a problem with the control cable
B2 Filter	11/20/08 12:31	12/12/08 7:03	31353	Failure-FN indicate CPU board failure
B2 Filter	10/15/08 21:01	11/4/08 9:47	28127	Failure-FN indicate control unit had faulty RAM chip
B2 Filter	10/11/08 14:36	10/14/08 10:44	4089	Off-FN indicate sensor removed for repairs
B2 Filter	11/18/08 15:51	11/20/08 13:29	2739	Failure-FN indicate CPU board needed replacement
B2 Filter	7/20/09 6:22	7/24/09 0:14	5393	Off-TEOM offline for collocation tests and site shutdown
B3 PM	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate B3 sensors and instrument removed for room cleaning
B3 PM	6/25/08 14:22	7/2/08 13:18	10017	Failure-FN indicate cable problem and tapered element problem
B3 PM	7/2/08 11:15	8/19/08 11:43	69149	Off-FN indicate sensor offline while being repaired by manufacturer
B3 PM	12/12/08 16:34	12/16/08 10:34	5401	Low Flow-FN indicate leak in main line
B3 PM	7/20/09 6:22	7/24/09 0:14	5393	Off-TEOM offline for collocation tests and site shutdown
B3 Filter	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate B3 sensors and instrument removed for room cleaning
B3 Filter	6/17/08 17:59	9/24/08 15:56	142438	Off-FN indicate sensor offline while DAQ channel used for another measurement
B3 Filter	6/16/08 11:09	6/17/08 19:33	1945	Off-FN indicate sensor offline while DAQ channel used for another measurement
B3 Filter	12/12/08 16:34	12/16/08 10:34	5401	Low Flow-FN indicate leak in main line

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Variable	Start time	End time	Min	Comment
B3 Filter	7/20/09 6:22	7/24/09 0:14	5393	Off-TEOM offline for collocation tests and site shutdown
Amb PM	6/11/08 8:55	6/16/08 11:38	7364	DAQ
Sol Radn 2	4/3/08 16:27	4/14/08 17:53	15927	Missing Data
Sol Radn 2	4/3/08 16:23	4/14/08 17:42	15920	Off
Sol Radn 2	4/3/08 16:10	4/14/08 17:28	15919	Missing Data
Sol Radn 2	4/16/08 13:13	4/21/08 10:13	7021	Off
Sol Radn 2	4/16/08 13:13	4/21/08 10:13	7021	Missing Data
Sol Radn 2	4/16/08 13:46	4/21/08 10:29	7004	Missing Data-Sensor not installed
Sol Radn 2	12/12/08 11:51	1/1/09 0:24	28114	Off-FN indicate second solar sensor removed - ghost signal of sensor 1
Sol Radn 2	12/12/08 11:51	1/1/09 0:24	28114	Off-FN indicate second solar sensor removed - ghost signal of sensor 1
B1N dP	4/18/09 15:57	4/19/09 18:00	1564	Systematic Error-sensor shows periodic instability
B2E dP	3/26/09 20:43	3/28/09 9:50	2228	Systematic Error-sensor likely temporarily plugged
B3S dP	4/10/08 6:41	4/14/08 13:36	6176	Systematic Error-Error detected in multiple farrowing room signals-not sure of cause
B3S dP	8/17/08 9:11	8/19/08 12:10	3060	Failure-FN indicate sensor lost calibration
B3S dP	8/16/08 1:06	8/16/08 18:59	1074	Systematic Error-sensor varying more than normal-sensor soon fails
B3S dP	4/2/09 6:09	4/9/09 7:18	10150	Failure-FN indicate sensor analog output failure
B3S dP	7/22/09 10:58	7/24/09 0:12	2235	Off-FN indicate sensor removed for site shutdown
OFIS dP	8/19/08 12:02	8/27/08 9:32	11371	Off-FN indicate sensor offline while being used as replacement in B3
OFIS dP	4/9/09 9:26	7/10/09 15:32	132847	Off-FN indicate sensor offline and used as replacement elsewhere
Solar	4/3/08 16:34	4/14/08 17:32	15899	Systematic Error-Solar sensor signal was unstable when second sensor was removed
Solar	4/16/08 14:42	4/21/08 10:22	6941	Systematic Error-Signal error results when second solar sensor not connected
Solar	12/12/08 12:01	12/16/08 12:55	5815	Systematic Error-signal unstable after second sensor disconnected-fixed using jumper wire
Amb RH	3/31/08 3:32	4/14/08 17:15	20983	Failure-FN indicate sensor failure
Amb RH	3/31/08 3:32	4/14/08 17:15	20984	Failure-FN indicate sensor failure
Amb RH	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
Amb T	3/31/08 3:32	4/14/08 17:15	20983	Failure-FN indicate sensor failure
Amb T	3/31/08 3:32	4/14/08 17:15	20984	Failure-FN indicate sensor failure
Amb T	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
B1F12 RH	7/21/08 12:55	7/24/08 9:19	4105	Failure-FN indicate sensor chip failure
B1F12 RH	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
B1F12 T	7/21/08 12:55	7/24/08 9:19	4105	Failure-FN indicate sensor chip failure
B1F12 T	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
B2F2 RH	1/20/08 9:42	1/23/08 12:38	4496	Systematic Error-Rh and T signals from this signal are flatlining periodically
B2F2 RH	7/3/08 10:54	7/7/08 6:44	5511	Failure-FN indicate sensor chip failed
B2F2 RH	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown

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Variable	Start time	End time	Min	Comment
B2F2 RH	4/18/09 16:33	4/20/09 13:29	2697	Failure-FN indicate sensor chip failure
B2F2 T	1/20/08 9:42	1/23/08 12:38	4496	Systematic Error-Rh and T signals from this signal are flatlining periodically
B2F2 T	7/3/08 10:54	7/7/08 6:44	5511	Failure-FN indicate sensor chip failed
B2F2 T	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
B2F2 T	4/18/09 16:33	4/20/09 13:29	2697	Failure-FN indicate sensor chip failure
B3F1 RH	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate B3 sensors and instrument removed for room cleaning
B3F1 RH	4/9/08 8:31	4/14/08 14:06	7536	Systematic Error
B3F1 RH	10/27/08 14:47	11/4/08 13:21	11435	Systematic Error-dewpoint comparison suggests problem with sensor following reinstallation
B3F1 RH	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
B3F1 RH	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
B3F1 T	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate B3 sensors and instrument removed for room cleaning
B3F1 T	4/9/08 8:31	4/14/08 14:06	7536	Systematic Error
B3F1 T	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
B3F1 T	7/20/09 7:01	7/24/09 0:14	5354	Off-FN indicate sensors offline for site shutdown
B1N Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B1Mid Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B1S Act	6/26/09 10:38	7/21/09 7:01	35784	Systematic Error-signal is outside of the normal range and not showing normal variation
B1S Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B2N Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B2Mid Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B2S Act	6/21/08 14:05	6/26/08 11:19	7035	Systematic Error-FN indicate problem with sensor - sensor replaced on 6/26
B2S Act	4/4/08 13:12	4/6/08 13:14	2883	Systematic Error-signal is not showing typical pattern - likely a problem with sensor
B2S Act	7/17/08 15:42	7/24/08 12:38	9897	DAQ-FN indicate power connection problem
B2S Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B3 Act	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate B3 sensors and instrument removed for room cleaning
B3 Act	4/9/08 8:31	4/14/08 14:06	7536	Systematic Error
B3 Act	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
B3 Act	7/21/09 7:51	7/24/09 0:03	3853	Off-FN indicate in-barn activity sensors disconnected for site shutdown
B1 F12	2/22/08 11:29	2/29/08 15:11	10302	Off
B1 F12	9/24/08 11:47	10/2/08 8:44	11338	Off-FN indicate sensor removed for repairs
B1 F12	9/24/08 11:47	10/2/08 8:44	11338	Off-FN indicate sensor removed for repairs
B1 F12	11/17/08 11:47	11/20/08 14:34	4488	Failure-FN indicate anemometer sent back to manufacturer for repair
B1 F12	7/21/09 9:34	7/24/09 0:03	3750	Off-FN indicate sensor removed for site shutdown
B1 F13	5/28/09 7:31	6/4/09 10:46	10276	Off-FN indicate sensor offline and replaced with different sensor unit
B1 F13	7/21/09 9:54	7/24/09 0:03	3730	Off-FN indicate sensor removed for site shutdown
B2 F2	11/24/08	12/3/08 11:28	12819	Failure-FN indicate anemometer removed for repair

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Variable	Start time	End time	Min	Comment
	13:50			
B2 F2	11/19/08 21:02	11/24/08 13:57	6776	Systematic Error-Anemometer starting to show degraded status and is eventually removed for repair
B2 F2	7/21/09 9:38	7/24/09 0:03	3746	Off-FN indicate sensor removed for site shutdown
B3 F1	2/22/08 13:12	2/29/08 11:08	9956	Off-FN indicate anemometer removed for testing
B3 F1	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate sensors and instruments removed for room cleaning
B3 F1	7/21/09 9:38	7/24/09 0:03	3746	Off-FN indicate sensor removed for site shutdown
B1W T	9/9/08 17:52	9/12/08 10:03	3852	Systematic Error-frequent step changes in signal were resolved by repairing the sensor tip
B1W T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1MidW T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1MidE T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1E T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1F1 T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1F13 T	1/17/08 14:46	1/18/08 15:35	1489	DAQ This is a test of CC6 8
B1F13 T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1F2 T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2W T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2MidW T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2MidE T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2E T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2F1 T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2F13 T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B2F12 T	9/17/08 6:01	9/21/08 23:16	6796	Systematic Error-TC temporarily shwoing poor signal
B2F12 T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B3Inlet T	7/22/09 10:11	7/24/09 0:02	2272	Sampling Elsewhere-FN indicate TCs secured up against ceiling for site shutdown
B1 HT	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
RwyB1_1 T	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
Rwy B2 T	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
OFIS HT T	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
AC Ctr Reg T	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
AC Rtn Reg T	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
TEOM Pumps T	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
B2F6	6/19/08 6:35	6/25/08 15:31	9177	Failure-FN indicate sensor failed and was replaced on 6/25
B2F6	8/6/08 15:28	8/8/08 12:13	2686	DAQ-FN indicate wiring repaired
B2F6	7/3/09 9:01	7/8/09 22:14	7994	DAQ-FN indicate signal likely affected by loose wire
FarF1	4/9/08 8:31	4/14/08 14:06	7536	Systematic Error-Error detected in multiple farrowing room signals-not sure of cause
FarF1	6/11/09 13:50	6/25/09 12:15	20066	Failure-FN indicate sensor failure
FarF1	7/16/09 13:15	7/24/09 0:10	10736	Systematic Error-error in signals - unsure of exact cause

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Variable	Start time	End time	Min	Comment
FarF1	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
FarF1	6/10/09 10:13	6/11/09 14:29	1697	Systematic Error-FN indicate magnet missing
FarF2	4/9/08 8:31	4/14/08 14:06	7536	Systematic Error-Error detected in multiple farrowing room signals-not sure of cause
FarF2	6/20/08 18:04	6/25/08 14:16	6973	Failure-FN indicate sensor failure-sensor replaced on 6/25
FarF2	6/29/08 5:25	7/1/08 12:13	3289	Failure-FN indicate sensor failure
FarF2	7/1/08 12:11	7/2/08 9:33	1283	Systematic Error-FN indicate magnet missing-fan turned off at 9:25 on 7/2 for magnet replacement
FarF2	7/16/09 13:15	7/24/09 0:10	10736	Systematic Error-error in signals - unsure of exact cause
FarF2	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
FarF1_2	7/16/09 13:15	7/24/09 0:10	10736	Systematic Error-error in signals - unsure of exact cause
FarF1_2	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
FarF1_2	6/10/09 10:13	6/11/09 14:29	1697	Systematic Error-FN indicate magnet missing
FarF2_2	7/16/09 13:15	7/24/09 0:10	10736	Systematic Error-error in signals - unsure of exact cause
FarF2_2	4/16/09 9:43	4/20/09 13:07	5965	DAQ-FN indicate signals offline because of short in RPM sensor
B1Fstg2	5/5/08 12:01	7/1/08 1:10	81430	Sampling Elsewhere
B1Fstg2	5/5/08 11:01	10/16/08 10:46	236146	Systematic Error-flagged SEW in error for part of period-fan stage does not reflect fan operation
B1Fstg2	5/5/08 12:01	7/1/08 1:10	81430	Sampling Elsewhere
B1Fstg2	5/5/08 11:01	10/16/08 10:46	236146	Systematic Error-flagged SEW in error for part of period-fan stage does not reflect fan operation
B1Fstg2	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B1Fstg3	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B1Fstg4	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B1Fstg5	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B1Fstg6	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B1Heater	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B2Fstg2	5/5/08 12:01	7/1/08 1:10	81430	Sampling Elsewhere
B2Fstg2	5/5/08 11:01	10/16/08 10:46	236146	Systematic Error-flagged SEW in error for part of period-fan stage does not reflect fan operation
B2Fstg2	5/5/08 12:01	7/1/08 1:10	81430	Sampling Elsewhere
B2Fstg2	5/5/08 11:01	10/16/08 10:46	236146	Systematic Error-flagged SEW in error for part of period-fan stage does not reflect fan operation
B2Fstg2	10/22/08 2:16	10/25/08 10:13	4798	Systematic Error-fan stage signal does not reflect fan operation
B2Fstg2	10/26/08 20:09	10/29/08 9:48	3700	Systematic Error-fan stage signal does not reflect fan operation
B2Fstg2	10/17/08 1:46	10/18/08 5:25	1660	Systematic Error-stage signal does not reflect fan operation
B2Fstg2	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up

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Variable	Start time	End time	Min	Comment
B2Fstg3	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B2Fstg4	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B2Fstg5	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B2Fstg6	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B2Heater	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B3 R1	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B3 R2	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B3 R3	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B3 R4	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
RecPumpRelay	6/26/09 14:20	6/29/09 8:33	3974	DAQ-USB and DIO96H problem encountered and signals were mixed up
B3TC	1/23/08 11:45	1/24/08 12:52	1507	Off-FN indicate B3 sensors and instrument removed for room cleaning
B3TC	2/20/09 22:12	2/24/09 13:08	5217	DAQ-TC module offline as a result of storm
B3TC	7/22/09 7:13	7/24/09 0:03	2451	Sampling Elsewhere-FN indicate TC secured against ceiling for site shutdown

APPENDIX E. DAILY MEANS.

Table E1. Daily means (SD) of weather parameters

Table E1. Daily means (SD) of weather parameters at Site OK4B for July, 2007

Day	Temp, ºC	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12	25.0 (4.6)	70.0 (14.9)	5.00 (2.15)	123 (59)		90.8 (0.2)
13	23.7 (3.8)	67.0 (15.2)	2.77 (1.35)	87 (91)		91.1 (0.1)
14	26.3 (6.5)	56.9 (21.5)	2.68 (1.36)	199 (62)	325 (361)	90.8 (0.1)
15	27.1 (5.8)	55.0 (20.0)	3.07 (1.60)	175 (47)		90.7 (0.1)
16	27.8 (4.8)	50.0 (15.6)	6.27 (2.19)	162 (34)		90.6 (0.1)
17	27.4 (5.8)	53.1 (17.5)	5.39 (2.62)	163 (21)		90.6 (0.1)
18	28.9 (5.8)	46.2 (16.4)	5.06 (1.67)	187 (20)		90.5 (0.2)
19	27.0 (4.1)	50.9 (10.2)	5.80 (1.69)	184 (32)		90.4 (0.1)
20	28.4 (4.3)	53.4 (13.7)	3.69 (1.44)	182 (43)	287 (367)	90.7 (0.1)
21	27.0 (4.1)	58.1 (14.9)	5.32 (2.19)	155 (19)	321 (368)	90.9 (0.1)
22	27.6 (4.7)	58.3 (17.2)	4.34 (1.44)	164 (19)	273 (353)	91.0 (0.1)
23	28.0 (5.5)	52.9 (15.7)	3.23 (1.89)	176 (51)	286 (362)	90.8 (0.2)
24	27.1 (4.7)	60.2 (17.9)	3.51 (2.08)	137 (46)	315 (365)	90.7 (0.1)
25	27.0 (4.6)	55.7 (17.7)	5.72 (2.45)	158 (21)	295 (349)	90.5 (0.1)
26	27.3 (5.1)	49.5 (14.8)	5.50 (2.02)	167 (25)	320 (360)	90.5 (0.1)
27	27.7 (5.9)	51.5 (16.9)	3.40 (1.49)	153 (61)	307 (366)	90.6 (0.1)
28	27.0 (4.8)	56.8 (15.9)	3.07 (1.69)	143 (43)	317 (368)	90.5 (0.1)
29	28.0 (4.9)	51.5 (15.9)	3.35 (1.64)	171 (37)	288 (368)	90.5 (0.1)
30	27.6 (4.9)	55.2 (19.1)	3.90 (2.12)	181 (67)	290 (360)	90.5 (0.1)
31	27.1 (4.1)	62.1 (15.8)	6.03 (3.59)	146 (35)	263 (337)	90.5 (0.1)
Mean	27.1	55.7	4.36	162	299	90.7
n	20	20	20	20	13	20
SD	1.1	5.7	1.18	25	19	0.2
Min	23.7	46.2	2.68	87	263	90.4
Max	28.9	70.0	6.27	199	325	91.1

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Table E1. Daily means (SD) of weather parameters at Site OK4B for August, 2007

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	26.1 (4.2)	67.7 (15.4)	4.39 (2.30)	145 (38)	192 (285)	90.5 (0.1)
2	24.7 (2.7)	74.2 (10.7)	2.67 (1.64)	84 (96)	182 (289)	90.9 (0.1)
3	25.2 (4.1)	66.6 (16.8)	3.94 (2.60)	166 (65)	275 (347)	90.9 (0.1)
4	28.5 (5.5)	56.0 (18.2)	6.24 (2.34)	184 (18)	309 (361)	90.5 (0.2)
5	29.9 (4.8)	52.8 (12.7)	5.13 (1.37)	184 (32)	280 (339)	90.3 (0.2)
6	31.3 (5.4)	48.8 (17.0)	5.34 (1.77)	180 (22)	304 (361)	90.1 (0.2)
7	30.3 (5.2)	46.9 (14.3)	4.30 (2.01)	206 (44)	311 (364)	90.1 (0.1)
8	30.7 (5.6)	47.4 (17.2)	2.81 (0.93)	277 (93)	317 (360)	90.1 (0.1)
9	29.2 (5.9)	48.5 (16.0)	3.39 (1.55)	45 (104)	256 (335)	90.5 (0.1)
10	29.9 (6.1)	43.0 (16.4)	4.27 (2.34)	172 (27)	308 (355)	90.6 (0.2)
11	30.4 (6.4)	40.1 (14.0)	4.94 (1.74)	172 (26)	310 (360)	90.6 (0.1)
12						
13						
14	30.0 (6.0)	35.4 (12.5)	5.00 (2.06)	200 (20)	311 (355)	90.7 (0.2)
15	29.3 (6.2)	34.2 (9.2)	4.90 (2.02)	196 (24)	304 (357)	90.5 (0.1)
16	29.3 (6.0)	41.1 (12.2)	2.72 (1.10)	222 (72)	307 (337)	90.7 (0.1)
17						
18	25.3 (3.6)	67.6 (16.4)	5.24 (2.92)	152 (34)	272 (339)	90.6 (0.2)
19	28.4 (4.9)	61.8 (18.0)	3.27 (1.54)	149 (61)	294 (345)	90.2 (0.2)
20	30.0 (5.5)	59.0 (19.6)	5.90 (3.81)	148 (31)	287 (342)	90.0 (0.1)
21	29.2 (4.6)	56.4 (17.6)	7.17 (1.88)	159 (26)	292 (343)	90.4 (0.1)
22	29.5 (3.6)	47.6 (14.2)	8.40 (2.81)	176 (19)		90.2 (0.2)
23	27.8 (5.4)	54.7 (17.4)	6.81 (2.47)	200 (52)	251 (324)	90.0 (0.1)
24	22.0 (1.1)	83.2 (4.1)	3.79 (1.86)	40 (92)	111 (161)	90.4 (0.1)
25	24.3 (3.8)	76.8 (14.1)	4.96 (2.13)	103 (85)	160 (223)	90.7 (0.1)
26	28.9 (6.1)	51.7 (23.3)	5.67 (2.09)	185 (18)	287 (347)	90.4 (0.1)
27	27.8 (5.3)	49.3 (16.2)	6.11 (2.43)	185 (23)	294 (347)	90.5 (0.1)
28	27.9 (4.5)	50.5 (14.5)	5.31 (2.01)	178 (31)	223 (305)	90.5 (0.1)
29	23.5 (2.0)	71.9 (8.3)	3.73 (1.69)	9 (122)	147 (200)	91.2 (0.2)
30	22.8 (3.0)	73.6 (12.6)	3.07 (0.95)	74 (40)	132 (204)	91.4 (0.2)
31	24.0 (4.6)	62.3 (18.1)	3.97 (2.38)	122 (32)	261 (326)	91.1 (0.1)
Mean	27.7	56.1	4.77	163	258	90.5
n	28	28	28	28	27	28
SD	2.6	12.7	1.39	59	61	0.3
Min	22.0	34.2	2.67	9	111	90.0
Max	31.3	83.2	8.40	277	317	91.4

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Table E1. Daily means (SD) of weather parameters at Site OK4B for September, 2007

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	24.2 (5.4)	55.9 (16.2)	4.29 (1.91)	154 (25)	276 (337)	91.0 (0.1)
2	24.9 (6.4)	47.9 (16.1)	4.10 (2.01)	166 (39)	283 (340)	91.0 (0.1)
3	24.1 (5.9)	48.4 (17.9)	4.22 (1.98)	169 (26)	283 (341)	90.9 (0.2)
4	25.0 (5.2)	56.9 (18.9)	5.00 (2.36)	168 (27)	257 (325)	90.4 (0.3)
5	25.9 (5.3)	57.9 (16.6)	6.74 (2.71)	155 (24)	267 (327)	90.0 (0.2)
6	29.0 (5.8)	43.8 (16.2)	3.43 (1.51)	200 (52)	239 (324)	89.9 (0.1)
7	25.0 (3.2)	57.7 (16.7)	5.95 (2.59)	58 (108)	159 (199)	90.6 (0.2)
8	25.2 (4.0)	67.5 (15.7)	3.03 (1.76)	70 (74)	222 (306)	90.6 (0.1)
9	19.4 (2.7)	71.6 (7.8)	4.60 (2.11)	56 (116)	100 (135)	91.1 (0.2)
10	15.8 (2.5)	80.5 (4.1)	4.75 (2.19)	29 (135)		91.2 (0.2)
11	17.3 (8.0)	52.3 (26.7)	2.90 (1.10)	218 (91)		91.2 (0.2)
12	20.4 (6.2)	52.0 (14.1)	5.15 (2.51)	155 (18)	237 (311)	90.7 (0.2)
13	23.2 (6.6)	57.9 (16.7)	3.20 (1.70)	185 (59)	228 (320)	90.4 (0.1)
14	16.8 (3.3)	52.1 (12.9)	6.28 (1.41)	50 (66)	123 (157)	91.2 (0.2)
15	21.9 (6.4)	53.9 (9.7)	6.79 (1.53)	161 (25)	211 (301)	91.0 (0.4)
16	27.3 (5.4)	45.3 (16.3)	6.64 (1.72)	195 (21)	248 (310)	90.5 (0.2)
17	23.5 (4.3)	62.5 (12.5)	6.37 (3.19)	177 (35)	202 (307)	90.2 (0.2)
18	24.5 (5.2)	53.9 (27.2)	3.87 (1.33)	228 (97)	253 (319)	90.4 (0.1)
19	23.9 (5.0)	67.0 (18.2)	5.81 (3.01)	131 (44)	197 (283)	90.7 (0.1)
20	24.7 (4.4)	65.6 (16.9)	5.71 (1.93)	171 (15)	233 (308)	90.6 (0.2)
21	26.4 (5.0)	53.7 (20.6)	5.78 (1.93)	209 (102)	243 (312)	90.2 (0.1)
22	24.7 (5.0)	61.3 (15.0)	6.33 (2.36)	97 (51)	204 (283)	90.6 (0.1)
23	25.1 (3.6)	56.7 (10.6)	7.47 (2.46)	157 (17)	214 (287)	90.3 (0.2)
24						
25						
26	19.6 (6.8)	48.5 (14.8)	3.29 (1.52)	222 (82)	217 (290)	90.7 (0.2)
27	20.5 (6.7)	55.3 (14.8)	4.28 (1.59)	33 (127)	215 (293)	90.8 (0.1)
28	23.5 (4.6)	64.6 (18.3)	6.66 (2.63)	160 (15)	191 (280)	90.7 (0.3)
29	24.3 (3.7)	59.0 (12.6)	8.18 (2.39)	166 (20)	204 (278)	90.4 (0.2)
30						
Mean	23.2	57.4	5.22	156	220	90.6
n	27	27	27	27	25	27
SD	3.2	8.2	1.43	59	44	0.4
Min	15.8	43.8	2.90	29	100	89.9
Max	29.0	80.5	8.18	228	283	91.2

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Table E1. Daily means (SD) of weather parameters at Site OK4B for October, 2007

Day	Temp, ºC	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1						
2	22.0 (4.3)	44.1 (22.4)	5.98 (1.54)	318 (124)	220 (299)	90.4 (0.2)
3	19.9 (6.9)	37.8 (11.5)	4.44 (2.07)	176 (62)	225 (295)	90.4 (0.3)
4	25.2 (6.1)	51.3 (28.7)	4.86 (1.84)	186 (25)	219 (294)	89.8 (0.1)
5	26.8 (4.6)	48.7 (11.4)	7.71 (2.72)	166 (21)	197 (276)	90.0 (0.1)
6						
7	19.6 (3.4)	56.5 (11.6)	4.87 (1.38)	332 (118)	153 (231)	90.3 (0.2)
8	15.7 (6.3)	51.8 (22.1)	2.93 (0.90)	328 (113)	219 (289)	91.1 (0.2)
9	17.1 (7.5)	42.3 (18.3)	3.45 (1.21)	196 (58)	211 (283)	91.3 (0.2)
10	19.0 (6.6)	46.1 (8.1)	4.70 (2.20)	144 (39)	162 (232)	90.8 (0.3)
11	19.2 (4.0)	59.8 (8.4)	5.89 (2.31)	123 (26)	182 (249)	90.4 (0.1)
12	22.0 (5.3)	62.5 (13.2)	6.29 (2.69)	163 (17)	167 (254)	89.9 (0.3)
13	24.3 (4.1)	56.2 (15.1)	6.34 (2.69)	179 (34)	168 (255)	89.4 (0.2)
14	16.3 (3.6)	64.8 (14.8)	5.63 (1.41)	318 (52)	132 (231)	89.9 (0.3)
15	12.9 (3.9)	51.5 (14.9)	4.57 (1.87)	307 (92)	201 (275)	90.3 (0.1)
16	17.6 (7.7)	48.4 (19.1)	6.59 (3.17)	163 (41)	195 (269)	89.7 (0.4)
17	19.1 (4.4)	48.6 (24.1)	6.61 (2.34)	221 (46)	190 (273)	88.7 (0.3)
18	13.6 (4.4)	40.5 (16.4)	6.00 (3.07)	289 (30)	174 (259)	89.5 (0.4)
19	14.4 (8.7)	32.8 (15.3)	4.14 (1.17)	226 (38)	199 (270)	90.2 (0.2)
20	22.6 (8.2)	22.9 (11.1)	6.71 (2.81)	212 (17)	198 (271)	89.2 (0.4)
21	10.9 (4.0)	54.3 (12.5)	7.17 (1.89)	326 (53)	66 (121)	90.2 (0.7)
22	8.2 (3.8)	42.4 (13.7)	6.28 (2.01)	310 (22)	190 (264)	91.5 (0.1)
23	13.6 (7.0)	36.1 (6.8)	5.64 (1.73)	308 (26)	187 (254)	91.3 (0.1)
24	15.2 (4.9)	44.1 (10.2)	3.43 (1.26)	354 (131)	185 (253)	91.6 (0.2)
25	14.1 (5.6)	41.1 (13.3)	2.99 (1.18)	126 (48)		90.8 (0.3)
26	13.0 (7.2)	38.8 (12.0)	3.08 (1.22)	163 (63)	184 (252)	90.7 (0.3)
27	9.0 (4.1)	48.8 (11.9)	4.18 (1.26)	13 (140)	174 (240)	92.0 (0.2)
28	12.3 (6.9)	48.7 (15.3)	3.90 (2.04)	161 (40)	150 (217)	91.9 (0.2)
29	14.7 (8.1)	45.2 (17.5)	3.81 (1.44)	193 (31)	171 (240)	91.4 (0.3)
30	18.0 (7.0)	29.5 (14.5)	5.64 (2.67)	193 (20)	180 (249)	90.5 (0.3)
31	11.1 (2.9)	35.6 (10.2)	7.33 (3.42)	341 (132)	157 (228)	91.2 (0.5)
Mean	16.8	45.9	5.21	223	181	90.5
n	29	29	29	29	28	29
SD	4.7	9.5	1.38	84	32	0.8
Min	8.2	22.9	2.93	13	66	88.7
Max	26.8	64.8	7.71	354	225	92.0

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Table E1. Daily means (SD) of weather parameters at Site OK4B for November, 2007

Day	Temp, ºC	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	8.4 (6.1)	35.8 (9.3)	4.31 (2.07)	193 (49)	168 (238)	91.1 (0.4)
2	8.5 (4.7)	41.1 (11.3)	6.40 (3.97)	345 (140)	166 (238)	91.0 (0.4)
3	9.7 (7.3)	44.3 (9.8)	3.91 (2.16)	229 (50)	163 (235)	91.3 (0.3)
4	13.2 (9.9)	36.3 (19.8)	2.73 (1.00)	245 (48)	168 (242)	90.6 (0.3)
5	9.7 (3.9)	35.9 (8.6)	7.07 (3.62)	335 (145)	158 (231)	91.0 (0.5)
6	5.3 (5.2)	44.2 (12.9)	4.15 (1.79)	160 (86)	134 (215)	91.6 (0.2)
7	10.0 (8.0)	36.2 (11.5)	3.60 (1.31)	190 (25)	159 (233)	90.9 (0.3)
8	14.7 (8.9)	29.4 (12.8)	2.90 (1.58)	332 (112)	160 (228)	90.4 (0.1)
9	13.3 (8.1)	35.2 (13.7)	3.48 (1.37)	174 (83)	158 (224)	90.6 (0.1)
10	17.1 (6.0)	58.8 (23.7)	4.58 (2.30)	191 (24)	123 (195)	90.1 (0.3)
11	16.1 (8.4)	39.6 (20.6)	2.90 (0.98)	218 (44)	150 (223)	89.8 (0.1)
12	9.0 (3.9)	52.3 (12.2)	5.03 (2.29)	311 (88)	78 (125)	90.8 (0.4)
13	13.2 (9.8)	42.5 (17.6)	4.43 (2.90)	214 (52)	137 (214)	90.2 (0.5)
14	7.0 (4.1)	34.9 (11.0)	7.06 (3.24)	326 (65)	151 (215)	91.2 (0.6)
15	4.4 (7.4)	33.5 (12.6)	4.71 (2.29)	222 (43)	151 (219)	91.4 (0.6)
16	12.3 (8.9)	28.9 (11.5)	3.30 (1.54)	248 (94)	135 (211)	90.0 (0.1)
17	14.4 (7.5)	29.7 (7.6)	2.58 (1.19)	350 (118)	130 (210)	90.2 (0.1)
18	14.2 (7.8)	35.1 (14.5)	2.36 (0.79)	235 (94)	127 (199)	90.4 (0.1)
19	15.0 (8.2)	34.0 (16.5)	3.63 (1.44)	206 (16)	118 (199)	90.2 (0.2)
20	9.5 (5.6)	42.2 (15.5)	6.18 (2.98)	309 (126)	136 (209)	89.9 (0.3)
21	1.1 (2.4)	57.1 (6.7)	7.08 (2.99)	338 (74)	85 (152)	91.1 (0.4)
22	-2.5 (4.9)	60.7 (14.1)	2.39 (0.76)	195 (81)	124 (191)	91.7 (0.1)
23	-3.2 (1.4)	79.3 (10.6)	5.74 (2.85)	153 (16)	39 (70)	91.1 (0.3)
24	-2.2 (2.8)	76.8 (11.5)	3.42 (1.23)	265 (95)	138 (217)	90.9 (0.1)
25	-0.7 (6.1)	66.1 (15.2)	2.93 (1.00)	222 (43)	133 (211)	90.3 (0.2)
26	2.9 (3.6)	64.5 (10.7)	3.59 (1.29)	355 (147)	98 (171)	91.0 (0.4)
27						
28						
29						
30	-1.1 (0.7)	62.6 (3.2)	5.39 (1.89)	38 (132)	54 (91)	90.9 (0.3)
Mean	8.1	45.8	4.29	248	131	90.7
n	27	27	27	27	27	27
SD	6.2	14.4	1.46	75	34	0.5
Min	-3.2	28.9	2.36	38	39	89.8
Max	17.1	79.3	7.08	355	168	91.7

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Table E1. Daily means (SD) of weather parameters at Site OK4B for December, 2007

Day	Temp, ºC	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	11.5 (8.4)	61.9 (22.3)	8.41 (3.31)	185 (34)	61 (123)	89.4 (0.4)
2	3.8 (5.4)	54.0 (16.2)	4.70 (2.71)	316 (113)	134 (197)	91.0 (0.8)
3	5.1 (7.0)	49.8 (17.2)	4.90 (2.11)	212 (16)	132 (196)	91.4 (0.4)
4	13.1 (7.4)	33.2 (11.6)	3.86 (1.11)	269 (39)	127 (196)	90.5 (0.3)
5	7.7 (3.5)	55.2 (7.2)	5.03 (1.55)	31 (124)	106 (184)	90.5 (0.2)
6	3.9 (3.8)	65.9 (8.4)	4.78 (1.58)	112 (68)		89.9 (0.2)
7	0.6 (0.5)	86.4 (3.6)	4.98 (1.25)		23 (32)	90.0 (0.1)
8	-2.6 (1.8)	90.1 (1.0)			25 (37)	90.7 (0.2)
9	-5.2 (1.5)	82.6 (3.0)			74 (114)	91.2 (0.1)
10	-0.7 (2.5)	88.3 (4.4)			36 (64)	90.6 (0.3)
11	0.2 (1.4)	86.6 (4.1)	4.21 (1.67)		33 (53)	90.7 (0.4)
12	-0.8 (2.2)	79.0 (5.4)	2.59 (1.06)		73 (126)	90.9 (0.3)
13	0.1 (3.9)	72.6 (14.1)	3.90 (1.04)	8 (130)	128 (188)	90.9 (0.1)
14	-2.7 (1.0)	87.9 (1.3)		30 (129)	13 (17)	90.5 (0.2)
15	-3.9 (2.7)	74.0 (10.4)		301 (25)	125 (193)	90.8 (0.2)
16	-0.9 (7.3)	61.1 (13.9)	2.44 (0.94)	246 (86)	132 (194)	90.9 (0.0)
17	2.0 (6.5)	62.2 (15.0)	3.44 (1.81)	203 (28)	132 (193)	90.2 (0.3)
18	6.0 (4.9)	51.1 (15.7)	3.29 (1.39)	301 (103)	128 (190)	90.5 (0.3)
19	6.1 (6.6)	55.2 (17.3)	3.23 (1.26)	213 (88)	135 (197)	90.0 (0.3)
20	8.5 (5.3)	49.3 (15.0)	4.18 (1.21)	191 (56)		89.8 (0.3)
21						
22	-3.7 (2.7)	70.7 (13.9)	7.44 (3.28)	302 (50)	103 (171)	90.6 (0.4)
23	-2.4 (6.2)	65.1 (11.4)	2.18 (0.80)	276 (73)	96 (151)	90.8 (0.2)
24	1.6 (5.2)	60.2 (15.9)	4.96 (2.38)	227 (40)	130 (192)	90.7 (0.4)
25	1.9 (1.8)	68.1 (10.4)	5.96 (1.94)	282 (70)	97 (159)	89.9 (0.3)
26	-0.2 (3.0)	68.3 (12.7)	3.88 (1.80)	344 (106)	132 (193)	90.3 (0.2)
27	-3.6 (0.7)	86.7 (2.6)	4.27 (1.75)	74 (93)	18 (25)	89.9 (0.1)
28	-7.0 (3.1)	77.4 (7.2)	2.96 (1.19)	268 (48)	118 (178)	90.4 (0.2)
29	-5.5 (6.0)	65.8 (13.9)	2.49 (1.39)	261 (41)	118 (184)	90.2 (0.1)
30	0.1 (7.3)	58.0 (13.7)	4.23 (1.46)	237 (35)	134 (196)	89.9 (0.2)
31	-0.1 (3.0)	55.0 (14.1)	4.96 (1.97)	298 (27)	92 (149)	90.9 (0.6)
Mean	1.1	67.4	4.29	271	95	90.5
n	30	30	25	24	28	30
SD	4.9	14.1	1.44	95	42	0.5
Min	-7.0	33.2	2.18	8	13	89.4
Max	13.1	90.1	8.41	344	135	91.4

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Table E1. Daily means (SD) of weather parameters at Site OK4B for January, 2008

Day	Temp, ºC	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1						
2	-2.8 (6.1)	55.6 (14.5)	4.47 (1.94)	215 (49)	129 (192)	92.4 (0.4)
3						
4	7.1 (5.9)	50.7 (14.2)	3.75 (0.92)	240 (37)	88 (133)	90.0 (0.1)
5	9.5 (7.7)	54.3 (18.8)	6.92 (3.03)	227 (11)	64 (103)	89.4 (0.2)
6	9.9 (4.9)	55.2 (12.4)	4.41 (2.27)	294 (108)	78 (116)	89.4 (0.1)
7	8.0 (4.2)	61.6 (15.2)	6.56 (1.75)	295 (119)	104 (182)	89.5 (0.1)
8	2.3 (3.4)	61.9 (18.0)	4.92 (2.01)	286 (65)	138 (202)	90.5 (0.3)
9	7.4 (6.2)	46.3 (17.2)	6.88 (2.51)	208 (44)	132 (203)	89.5 (0.4)
10	3.9 (3.2)	58.1 (16.9)	5.23 (2.43)	282 (57)	140 (202)	90.0 (0.2)
11	1.7 (3.7)	62.5 (9.6)	2.51 (1.07)			89.9 (0.1)
12	3.9 (4.9)	52.9 (16.7)	4.34 (1.14)	312 (18)	141 (204)	90.5 (0.2)
13	2.9 (6.1)	55.8 (19.7)	2.28 (0.86)	319 (122)	141 (205)	91.0 (0.2)
14	3.0 (6.5)	50.9 (18.2)	3.40 (1.21)	278 (28)	138 (204)	91.3 (0.1)
15	4.5 (6.8)	44.0 (17.5)	6.12 (2.41)	204 (23)	113 (183)	89.9 (0.6)
16	-3.1 (4.0)	73.6 (8.3)	8.17 (3.36)	322 (32)	51 (77)	90.2 (0.5)
17	-6.1 (6.3)	49.9 (19.7)	3.70 (1.85)	239 (46)	149 (213)	90.5 (0.2)
18	-1.4 (2.9)	57.0 (10.2)	4.03 (2.04)	341 (136)	138 (209)	90.8 (0.3)
19	-1.6 (4.1)	63.0 (19.2)	3.70 (2.47)	204 (47)	147 (213)	91.1 (0.3)
20	2.3 (6.6)	47.3 (19.2)	5.84 (2.27)	178 (18)	149 (214)	90.3 (0.3)
21	-4.6 (3.1)	67.4 (10.2)	4.81 (1.08)	331 (106)	80 (125)	90.5 (0.3)
22	-6.9 (5.1)	59.6 (13.3)	2.49 (0.96)	268 (62)	154 (218)	91.2 (0.3)
23	-3.5 (5.0)	55.9 (11.4)	4.96 (3.16)	327 (136)	149 (216)	90.8 (0.2)
24	-1.6 (5.5)	47.7 (15.5)	6.26 (3.23)	191 (57)		91.0 (0.2)
25	5.7 (7.5)	44.1 (22.4)	5.87 (2.02)	245 (52)	158 (224)	90.5 (0.1)
26	7.4 (6.7)	31.7 (12.4)	3.53 (1.10)	263 (72)	161 (227)	90.9 (0.1)
27	9.3 (10.3)	34.9 (15.0)	6.08 (3.41)	214 (22)	142 (203)	90.2 (0.5)
28	15.4 (4.6)	37.1 (12.9)	9.55 (5.00)	219 (16)	145 (206)	88.9 (0.3)
29	2.0 (4.8)	43.2 (16.4)	6.84 (3.08)	251 (73)	164 (234)	89.6 (0.7)
30	4.2 (5.9)	34.9 (11.6)	6.04 (3.01)	276 (111)	140 (221)	89.3 (0.2)
31	-2.5 (5.1)	46.2 (16.1)	6.09 (2.71)	313 (85)	162 (232)	90.4 (0.3)
Mean	2.6	51.8	5.16	262	129	90.3
n	29	29	29	28	27	29
SD	5.3	9.9	1.69	47	31	0.7
Min	-6.9	31.7	2.28	178	51	88.9
Max	15.4	73.6	9.55	341	164	92.4

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Table E1. Daily means (SD) of weather parameters at Site OK4B for February, 2008

Day	Temp, ºC	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	4.4 (9.9)	36.1 (16.4)	5.29 (2.66)	221 (86)	120 (173)	89.6 (0.4)
2	3.6 (4.6)	44.4 (11.9)	4.95 (1.25)	19 (115)	160 (228)	90.2 (0.2)
3	6.9 (7.4)	45.1 (20.6)	4.02 (1.76)	201 (73)	114 (176)	89.4 (0.4)
4						
5	-2.6 (2.0)	83.9 (3.3)	6.36 (1.33)	335 (130)	43 (67)	90.1 (0.3)
6	-1.3 (6.9)	63.4 (11.8)	3.91 (1.22)	231 (81)	161 (238)	90.0 (0.3)
7	1.5 (4.0)	51.9 (18.8)	5.19 (2.45)	269 (67)	183 (250)	90.1 (0.4)
8	4.7 (4.2)	45.5 (15.0)	4.52 (2.32)	312 (101)	169 (244)	89.9 (0.3)
9	5.6 (7.8)	41.8 (19.4)	2.55 (1.08)	231 (87)	186 (254)	90.7 (0.2)
10	-3.3 (3.2)	75.7 (17.4)	3.64 (2.02)	29 (107)	37 (47)	91.2 (0.2)
11	2.0 (8.2)	64.6 (17.9)	3.43 (2.40)	298 (118)	173 (252)	90.2 (0.3)
12	4.4 (4.5)	55.9 (19.6)	4.57 (1.41)	303 (32)	152 (222)	91.0 (0.5)
13	7.3 (9.4)	45.2 (22.0)	5.46 (2.53)	207 (37)	188 (256)	90.7 (0.7)
14	4.0 (4.2)	56.4 (13.7)	6.56 (2.17)	326 (128)	86 (119)	90.8 (0.8)
15	-2.4 (3.7)	64.0 (11.8)	2.74 (1.15)	18 (147)	113 (150)	92.1 (0.1)
16	3.5 (3.6)	74.4 (10.3)	2.30 (1.23)	1 (108)	61 (97)	90.7 (0.7)
17	3.8 (2.5)	60.9 (11.5)	7.10 (2.18)	319 (59)	145 (232)	90.8 (0.5)
18	2.4 (6.8)	48.5 (19.5)	4.43 (2.28)	281 (76)	199 (270)	91.5 (0.1)
19	6.7 (7.4)	46.7 (14.5)	2.01 (0.85)	214 (72)	173 (231)	91.4 (0.3)
20	-2.4 (2.4)	66.8 (9.9)	6.03 (2.55)	45 (108)	67 (91)	91.4 (0.2)
21	-2.1 (2.9)	63.8 (6.8)	2.27 (1.28)	85 (77)	139 (212)	91.0 (0.2)
22	3.7 (7.4)	59.6 (20.3)	3.14 (1.25)	185 (71)	204 (274)	90.9 (0.1)
23	7.4 (4.9)	63.9 (16.9)	6.17 (2.04)	171 (89)	176 (271)	90.7 (0.4)
24	9.1 (8.9)	54.5 (25.0)	4.40 (2.03)	211 (49)	184 (270)	91.3 (0.4)
25	8.9 (3.7)	53.1 (9.0)	7.07 (3.05)	292 (62)	132 (175)	90.9 (0.6)
26	2.7 (4.6)	50.5 (21.3)	4.48 (2.10)	321 (91)	220 (289)	92.3 (0.2)
27	6.1 (7.0)	40.5 (13.2)	3.15 (0.96)	279 (89)	208 (285)	91.7 (0.3)
28	9.2 (7.3)	43.6 (15.8)	4.64 (2.86)	307 (111)	206 (285)	90.9 (0.2)
29	9.4 (6.2)	49.6 (16.1)	3.83 (1.45)	255 (106)	217 (286)	92.0 (0.2)
Mean	3.7	55.4	4.44	285	151	90.8
n	28	28	28	28	28	28
SD	3.8	11.5	1.44	105	52	0.7
Min	-3.3	36.1	2.01	1	37	89.4
Max	9.4	83.9	7.10	335	220	92.3

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Table E1. Daily means (SD) of weather parameters at Site OK4B for March, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	15.6 (7.6)	34.0 (16.7)	7.49 (2.44)	210 (11)	226 (296)	91.1 (0.6)
2	9.2 (5.3)	65.3 (13.6)	8.49 (3.82)	288 (91)	125 (207)	90.4 (0.5)
3	2.1 (3.3)	54.6 (16.5)	7.11 (2.90)	333 (79)	167 (242)	91.6 (0.2)
4	4.5 (9.3)	46.8 (20.0)	4.67 (2.38)	189 (56)	229 (301)	90.6 (0.4)
5	2.6 (2.5)	56.4 (12.9)	6.94 (2.80)	353 (162)	185 (257)	91.3 (0.4)
6	2.5 (3.9)	40.6 (11.6)	2.64 (1.34)	349 (145)	191 (256)	91.7 (0.1)
7	-1.9 (2.9)	60.5 (12.6)	4.65 (1.63)	347 (134)	156 (228)	91.8 (0.1)
8	3.1 (8.5)	46.8 (14.2)	2.50 (1.00)	192 (52)	174 (238)	91.1 (0.2)
9	9.0 (5.0)	37.4 (11.2)	3.74 (1.92)	4 (145)	242 (310)	91.7 (0.3)
10	9.3 (7.2)	38.6 (14.5)	2.88 (0.88)	207 (86)	235 (315)	92.2 (0.2)
11	12.2 (7.8)	37.4 (15.9)	4.51 (1.29)	221 (24)	247 (314)	91.6 (0.3)
12	11.8 (7.4)	33.1 (14.9)	4.92 (1.78)	31 (100)	196 (250)	90.8 (0.2)
13	11.3 (5.2)	39.4 (15.7)	4.69 (1.74)	18 (135)	225 (302)	90.5 (0.2)
14	10.9 (5.4)	43.0 (15.0)	4.39 (2.36)	310 (119)	194 (272)	90.1 (0.2)
15	6.9 (4.2)	57.5 (15.3)	5.30 (2.18)	38 (127)	237 (320)	91.0 (0.2)
16	4.4 (1.7)	73.8 (3.0)	7.97 (1.43)	80 (15)	41 (53)	91.0 (0.2)
17	4.0 (0.9)	86.2 (2.8)	5.67 (2.17)	349 (130)	47 (66)	90.9 (0.2)
18	6.2 (4.6)	59.0 (22.7)	6.07 (3.71)	329 (121)	216 (273)	91.2 (0.2)
19	10.9 (9.0)	36.0 (22.9)	3.42 (1.16)	249 (53)	266 (331)	91.5 (0.1)
20	15.6 (8.7)	23.0 (12.4)	7.21 (3.70)	212 (29)	267 (332)	90.9 (0.3)
21	12.8 (4.8)	31.9 (11.3)	4.01 (1.71)	345 (125)	266 (330)	91.6 (0.2)
22	8.3 (3.5)	46.6 (9.9)	5.94 (2.47)	35 (102)	156 (242)	92.2 (0.2)
23	4.7 (4.3)	54.1 (15.2)	3.66 (1.36)	350 (102)	247 (324)	92.6 (0.3)
24	12.3 (8.5)	43.1 (24.6)	6.04 (1.55)	201 (24)	274 (339)	91.3 (0.5)
25	14.1 (6.6)	32.4 (12.6)	6.21 (1.77)	18 (116)	278 (341)	91.0 (0.2)
26	11.4 (7.5)	49.6 (13.6)	3.36 (1.42)	28 (127)	224 (292)	90.8 (0.3)
27	8.7 (3.4)	62.1 (13.1)	6.25 (2.19)	347 (138)	197 (270)	90.6 (0.3)
28	6.8 (4.6)	57.1 (22.0)	5.63 (2.08)	43 (114)	200 (260)	91.6 (0.1)
29	11.7 (8.9)	58.2 (22.2)	5.61 (2.60)	162 (41)	263 (338)	90.9 (0.4)
30	8.7 (2.5)	78.3 (7.2)	5.87 (2.12)	322 (125)	138 (183)	90.8 (0.2)
31			5.45 (2.32)	354 (145)	258 (334)	90.8 (0.3)
Mean	8.3	49.4	5.27	341	205	91.2
n	30	30	31	31	31	31
SD	4.3	14.6	1.54	128	59	0.6
Min	-1.9	23.0	2.50	4	41	90.1
Max	15.6	86.2	8.49	354	278	92.6

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Table E1. Daily means (SD) of weather parameters at Site OK4B for April, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1			5.53 (2.07)	37 (120)	287 (351)	92.1 (0.2)
2			7.00 (2.06)	139 (22)	230 (303)	91.4 (0.4)
3			6.81 (2.78)	331 (124)		90.8 (0.3)
4			2.98 (1.19)	331 (113)		91.4 (0.2)
5			6.69 (2.92)	195 (24)		90.3 (0.4)
6			5.37 (2.67)	12 (133)		90.8 (0.4)
7			9.10 (3.23)	65 (29)		90.8 (0.2)
8			5.13 (1.86)	20 (137)		91.2 (0.1)
9			5.26 (1.82)	89 (33)		90.7 (0.4)
10			7.59 (3.84)	271 (76)		89.7 (0.5)
11			6.66 (2.31)	304 (55)		91.3 (0.3)
12			7.23 (2.47)	308 (73)		92.0 (0.1)
13			5.31 (1.76)	315 (107)		92.4 (0.1)
14			5.89 (3.64)	189 (43)		91.6 (0.4)
15	22.0 (8.2)	23.2 (12.7)	9.62 (3.19)	181 (29)	319 (375)	90.5 (0.5)
16	18.0 (2.8)	41.7 (10.2)	7.85 (2.48)	30 (119)		90.3 (0.2)
17	5.4 (2.6)	80.6 (7.8)	9.17 (3.59)	334 (80)		91.0 (0.4)
18	11.3 (9.3)	44.6 (31.0)	4.17 (1.66)	273 (62)		91.2 (0.2)
19	18.1 (8.0)	24.3 (12.3)	3.40 (1.51)	127 (56)		90.8 (0.2)
20	21.9 (7.0)	14.0 (7.8)	5.22 (2.43)	196 (27)		90.1 (0.2)
21	16.0 (5.2)	32.3 (14.6)	5.32 (2.46)	359 (141)		90.7 (0.2)
22	14.8 (6.6)	54.6 (22.0)	6.19 (1.48)	32 (136)	276 (352)	91.4 (0.2)
23	15.5 (3.8)	79.9 (11.6)	6.23 (4.87)	101 (62)	137 (262)	91.0 (0.3)
24	22.9 (7.1)	42.4 (37.1)	5.22 (2.61)	207 (48)	324 (380)	90.2 (0.2)
25	13.6 (4.5)	39.6 (22.1)	5.75 (2.25)	332 (109)	323 (376)	91.2 (0.3)
26	11.9 (6.5)	43.0 (19.6)	7.36 (4.67)	29 (124)	263 (307)	91.5 (0.3)
27	10.1 (5.6)	38.1 (23.5)	4.67 (2.09)	306 (84)	329 (376)	92.2 (0.3)
28	16.1 (8.5)	21.1 (14.4)	4.22 (1.68)	199 (84)	307 (357)	91.5 (0.2)
29	16.7 (9.7)	43.0 (28.7)	4.11 (2.04)	70 (98)	305 (360)	90.8 (0.3)
30	23.9 (8.8)	12.0 (9.2)	7.39 (3.18)	212 (12)	321 (375)	89.6 (0.3)
Mean	16.1	39.7	6.08	348	285	91.0
n	16	16	30	30	12	30
SD	4.9	19.2	1.62	115	53	0.7
Min	5.4	12.0	2.98	12	137	89.6
Max	23.9	80.6	9.62	359	329	92.4

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Table E1. Daily means (SD) of weather parameters at Site OK4B for May, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	17.6 (5.7)	29.4 (15.3)	7.76 (3.49)	272 (65)	270 (352)	89.7 (0.3)
2	9.8 (6.1)	41.0 (20.2)	7.69 (3.99)	286 (44)	273 (328)	90.7 (0.5)
3	10.2 (6.0)	29.8 (15.0)	4.44 (1.96)	9 (117)	341 (385)	91.7 (0.2)
4	17.3 (8.9)	30.2 (10.7)	5.48 (2.43)	163 (43)	328 (382)	91.3 (0.2)
5	19.9 (6.3)	55.7 (16.9)	6.99 (2.95)	141 (53)	293 (367)	91.2 (0.2)
6	21.9 (5.8)	63.7 (21.2)	7.19 (2.04)	169 (44)	315 (379)	90.6 (0.4)
7	16.1 (2.1)	79.3 (11.2)	5.61 (2.81)	27 (132)	77 (122)	90.4 (0.2)
8	17.4 (7.2)	66.3 (27.2)	5.50 (3.73)	229 (87)	296 (377)	90.4 (0.4)
9	18.2 (6.0)	53.4 (21.8)	5.95 (2.69)	181 (95)	322 (359)	90.8 (0.2)
10	16.8 (4.3)	44.8 (15.7)	8.32 (3.02)	303 (77)	326 (373)	90.8 (0.6)
11	14.1 (7.1)	39.8 (20.7)	5.22 (3.09)	203 (74)	345 (385)	91.5 (0.4)
12	22.7 (8.8)	27.6 (18.1)	7.90 (2.54)	184 (23)	336 (375)	90.1 (0.4)
13	16.5 (3.4)	51.7 (10.5)	6.69 (1.96)	338 (134)	313 (379)	90.8 (0.4)
14	12.2 (2.9)	74.8 (13.2)	3.09 (1.63)	60 (110)	135 (214)	91.4 (0.1)
15	14.7 (3.9)	65.0 (21.1)	4.57 (2.38)	338 (117)	247 (328)	91.6 (0.2)
16	17.6 (6.6)	42.2 (22.2)	3.80 (1.60)	304 (63)	300 (360)	91.8 (0.2)
17	20.6 (5.9)	37.9 (18.2)	6.20 (2.65)	331 (127)	338 (387)	91.3 (0.1)
18	22.9 (8.1)	31.5 (16.6)	2.77 (1.27)	260 (88)	335 (379)	91.0 (0.3)
19	26.7 (7.1)	27.7 (13.7)	4.28 (2.23)	357 (119)	337 (387)	90.5 (0.1)
20	22.9 (4.4)	42.2 (14.8)	5.87 (1.28)	66 (70)	334 (372)	91.1 (0.2)
21	23.0 (4.9)	47.5 (11.7)	8.98 (3.64)	143 (26)	315 (362)	89.9 (0.5)
22	26.8 (4.4)	37.6 (20.9)	9.64 (3.15)	165 (38)	300 (361)	89.2 (0.2)
23	25.5 (5.6)	47.4 (27.2)	7.08 (3.37)	158 (68)	302 (365)	89.9 (0.2)
24	22.8 (7.0)	28.9 (15.1)	4.86 (2.41)	193 (36)	358 (391)	90.8 (0.1)
25	24.6 (5.3)	44.8 (11.9)	7.49 (4.02)	176 (26)	209 (314)	90.7 (0.2)
26	25.5 (5.9)	50.2 (20.9)	5.66 (2.90)	164 (37)	335 (368)	90.5 (0.2)
27	15.8 (2.4)	77.6 (10.8)	7.04 (2.75)	356 (160)	197 (268)	91.3 (0.4)
28	17.5 (6.0)	74.4 (17.4)	6.06 (1.90)	94 (111)	219 (285)	91.8 (0.2)
29	27.3 (5.1)	49.4 (20.2)	8.45 (3.13)	173 (19)	310 (363)	91.0 (0.3)
30	26.3 (5.7)	40.1 (19.2)	6.52 (2.13)	62 (102)	355 (386)	90.9 (0.1)
31	24.6 (5.5)	56.8 (12.9)	6.73 (1.99)	47 (115)	320 (366)	91.1 (0.1)
Mean	19.9	48.0	6.25	173	293	90.8
n	31	31	31	31	31	31
SD	4.9	15.3	1.64	101	64	0.6
Min	9.8	27.6	2.77	9	77	89.2
Max	27.3	79.3	9.64	357	358	91.8

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Table E1. Daily means (SD) of weather parameters at Site OK4B for June, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	25.4 (4.6)	63.2 (17.3)	7.05 (1.75)	72 (31)	292 (354)	91.2 (0.1)
2	31.2 (9.2)	39.6 (36.1)	6.30 (2.79)	199 (60)	321 (378)	90.4 (0.4)
3	26.4 (4.2)	44.1 (15.8)	4.90 (1.81)	339 (113)	296 (361)	
4	26.7 (8.9)	40.5 (33.6)	5.00 (3.06)	226 (88)	352 (400)	
5	25.2 (4.2)	34.3 (17.9)	9.60 (4.53)	235 (47)	323 (359)	89.4 (0.3)
6	24.7 (7.6)	32.4 (21.8)	5.49 (2.57)	193 (46)	362 (388)	90.5 (0.2)
7	31.3 (5.1)	38.7 (14.4)	9.27 (2.91)	182 (24)	335 (378)	90.3 (0.2)
8	24.9 (3.9)	45.0 (7.3)	7.53 (2.95)	355 (137)	340 (376)	90.6 (0.3)
9	22.3 (5.4)	38.2 (18.0)	4.48 (2.56)	74 (112)	348 (395)	91.2 (0.1)
10	26.8 (7.6)	48.1 (20.7)	8.37 (4.59)	171 (26)	326 (377)	90.7 (0.4)
11	31.4 (6.8)	26.0 (16.3)	10.70 (3.72)	212 (83)	356 (390)	90.0 (0.2)
12	24.1 (6.6)	30.5 (12.3)	5.77 (3.46)	16 (142)	357 (389)	90.8 (0.1)
13	24.6 (4.9)	29.6 (8.8)	5.29 (2.55)	44 (123)	361 (389)	91.4 (0.2)
14						
15	29.6 (6.3)	36.7 (17.8)	4.82 (2.42)	196 (86)	357 (383)	90.8 (0.1)
16	23.7 (2.9)	57.7 (7.6)	7.60 (3.28)	65 (27)	225 (290)	91.3 (0.2)
17	23.1 (3.6)	61.3 (12.6)	6.07 (1.81)	136 (46)	159 (225)	91.6 (0.2)
18	25.2 (7.5)	54.9 (22.2)	6.38 (3.64)	151 (39)	315 (372)	91.2 (0.3)
19	22.6 (3.3)	59.0 (11.7)	7.37 (4.34)	142 (76)	212 (317)	91.3 (0.1)
20	24.1 (7.2)	56.6 (24.6)	3.80 (2.71)	7 (117)		91.7 (0.1)
21						
22	27.1 (6.7)	46.2 (21.2)	4.29 (2.12)	181 (54)	315 (380)	91.5 (0.3)
23	27.7 (6.5)	40.5 (18.7)	6.93 (2.15)	203 (58)	319 (386)	91.2 (0.1)
24	26.7 (5.3)	49.9 (17.1)	4.54 (2.35)	164 (44)	281 (371)	91.4 (0.1)
25	28.4 (5.8)	46.6 (17.7)	5.70 (2.21)	175 (39)	322 (372)	91.3 (0.1)
26	29.6 (5.4)	43.3 (16.3)	6.29 (1.91)	167 (22)	287 (361)	90.9 (0.3)
27	29.2 (5.3)	42.1 (13.9)	4.33 (1.90)	71 (80)	319 (360)	90.7 (0.1)
28	25.0 (2.7)	57.1 (19.1)	6.56 (3.22)	33 (78)	283 (358)	91.6 (0.3)
29	24.0 (5.3)	43.7 (16.0)	2.84 (1.30)	36 (125)	330 (362)	92.1 (0.2)
30	27.6 (5.4)	39.0 (16.4)	4.04 (1.66)	192 (23)	308 (370)	91.8 (0.2)
Mean	26.4	44.5	6.12	149	311	91.0
n	28	28	28	28	27	26
SD	2.6	9.9	1.83	87	47	0.6
Min	22.3	26.0	2.84	7	159	89.4
Max	31.4	63.2	10.70	355	362	92.1

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Table E1. Daily means (SD) of weather parameters at Site OK4B for July, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	29.4 (5.0)	34.1 (12.2)	5.83 (1.72)	196 (25)	336 (378)	91.2 (0.2)
2	29.3 (6.3)	41.7 (18.6)	6.65 (3.00)	199 (41)	344 (377)	91.0 (0.1)
3						
4	26.5 (5.9)	55.0 (21.0)	4.49 (2.00)	151 (34)	318 (374)	91.4 (0.2)
5	29.6 (5.6)	41.9 (17.5)	5.65 (1.87)	181 (22)	340 (375)	91.0 (0.2)
6	28.7 (4.8)	42.9 (14.3)	6.31 (2.62)	179 (23)	315 (361)	90.9 (0.1)
7	26.6 (4.7)	55.6 (18.3)	5.79 (1.84)	199 (38)	262 (340)	91.0 (0.1)
8	24.4 (3.0)	67.5 (14.8)	3.66 (1.69)	212 (48)	170 (234)	91.3 (0.1)
9	21.8 (0.5)	86.1 (2.6)	2.74 (1.22)	180 (44)	65 (75)	91.6 (0.1)
10	24.4 (3.8)	74.3 (17.6)	6.21 (2.02)	166 (36)	266 (349)	91.3 (0.2)
11	27.7 (4.5)	59.3 (16.3)	6.49 (2.80)	194 (19)	248 (319)	90.9 (0.1)
12	21.9 (2.3)	56.8 (7.2)	7.42 (3.89)	13 (126)	114 (129)	91.5 (0.4)
13	23.7 (4.7)	56.2 (19.8)	3.15 (1.62)	71 (110)	334 (368)	91.7 (0.2)
14	26.1 (4.6)	65.4 (18.2)	4.88 (1.65)	162 (21)	299 (358)	91.3 (0.2)
15	26.6 (4.5)	59.4 (16.8)	4.87 (1.93)	168 (25)	328 (373)	91.4 (0.1)
16	26.2 (3.8)	64.7 (14.5)	4.99 (1.79)	147 (26)	237 (321)	91.5 (0.1)
17	28.2 (4.8)	52.7 (17.6)	5.20 (1.78)	176 (16)	300 (364)	91.3 (0.2)
18	27.8 (3.8)	55.9 (14.3)	3.62 (1.52)	177 (86)	230 (326)	91.2 (0.1)
19	26.1 (4.4)	61.3 (20.3)	4.32 (2.39)	197 (21)	249 (327)	91.3 (0.1)
20	27.9 (6.1)	45.6 (18.7)	4.24 (1.87)	202 (22)	329 (369)	91.5 (0.1)
21	28.9 (5.7)	39.7 (15.3)	4.82 (2.26)	183 (29)	326 (371)	91.2 (0.1)
22	29.8 (5.7)	40.0 (14.1)	3.71 (1.82)	172 (29)	330 (371)	91.2 (0.1)
23	30.0 (5.8)	37.1 (13.5)	5.09 (2.00)	183 (31)	321 (367)	91.2 (0.1)
24	30.0 (5.6)	40.0 (13.5)	5.66 (1.88)	184 (27)	325 (365)	91.2 (0.1)
25	30.1 (5.5)	43.7 (14.4)	3.73 (2.03)	203 (60)	289 (367)	91.5 (0.1)
26	30.2 (5.1)	44.1 (15.5)	4.00 (1.76)	204 (26)	319 (364)	91.4 (0.2)
27	30.3 (5.1)	45.8 (14.5)	4.53 (1.95)	183 (38)	287 (360)	91.0 (0.2)
28	29.8 (4.9)	52.5 (15.5)	4.70 (2.49)	169 (58)	254 (334)	90.6 (0.2)
29	24.2 (3.0)	74.5 (12.8)	3.90 (1.56)	336 (137)	200 (276)	90.9 (0.1)
30	26.5 (5.8)	57.8 (23.6)	2.66 (1.09)	3 (127)	325 (364)	91.1 (0.1)
31	29.6 (7.5)	37.5 (22.5)	3.35 (1.60)	191 (53)	327 (369)	91.0 (0.1)
Mean	27.4	53.0	4.76	181	280	91.2
n	30	30	30	30	30	30
SD	2.5	12.5	1.18	58	67	0.2
Min	21.8	34.1	2.66	3	65	90.6
Max	30.3	86.1	7.42	336	344	91.7

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Table E1. Daily means (SD) of weather parameters at Site OK4B for August, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	30.4 (7.2)	34.9 (17.3)	3.77 (1.40)	186 (40)	326 (367)	91.2 (0.1)
2	31.1 (6.0)	35.8 (15.7)	4.71 (1.64)	193 (29)	327 (368)	91.1 (0.1)
3	31.2 (5.5)	33.8 (11.8)	6.00 (2.34)	190 (24)	321 (364)	91.0 (0.1)
4	32.6 (5.7)	24.3 (9.2)	5.67 (2.21)	195 (25)	320 (362)	91.1 (0.1)
5	29.6 (5.4)	39.4 (12.6)	3.51 (2.26)	359 (114)	251 (347)	91.5 (0.1)
6	28.1 (5.0)	51.1 (17.6)	5.39 (2.37)	125 (65)	277 (344)	91.6 (0.1)
7	25.7 (3.7)	64.4 (13.8)	5.74 (2.89)	59 (84)	188 (254)	91.6 (0.1)
8	25.2 (3.2)	72.1 (14.5)	5.88 (1.71)	115 (26)	181 (266)	91.4 (0.2)
9	28.2 (5.4)	56.1 (19.8)	4.77 (1.98)	226 (82)	231 (327)	90.8 (0.2)
10	24.0 (2.2)	76.6 (10.6)	5.34 (1.67)	44 (87)	118 (195)	91.2 (0.1)
11	25.1 (3.7)	66.5 (17.5)	2.98 (1.32)	19 (136)	243 (323)	91.1 (0.1)
12	25.6 (5.5)	63.3 (23.5)	4.07 (1.97)	124 (68)	256 (342)	91.1 (0.1)
13	26.8 (4.8)	48.7 (11.6)	3.85 (1.86)	205 (79)	284 (345)	91.2 (0.1)
14	24.7 (5.3)	51.0 (14.0)	4.99 (3.08)	105 (84)	283 (351)	91.2 (0.1)
15	21.9 (3.7)	68.1 (15.1)	5.38 (2.31)	51 (110)	192 (265)	91.6 (0.1)
16	21.6 (2.6)	72.7 (13.6)	3.87 (1.85)	91 (40)	142 (255)	91.9 (0.1)
17	19.0 (0.8)	85.2 (4.1)	3.13 (1.89)	111 (38)	56 (84)	91.6 (0.1)
18	18.7 (2.0)	85.7 (8.6)	3.54 (1.73)	53 (99)	96 (192)	91.4 (0.1)
19	19.8 (2.4)	81.2 (10.4)	3.79 (1.44)	68 (86)	135 (199)	91.5 (0.1)
20	21.2 (3.0)	75.4 (13.1)	2.71 (1.12)	122 (26)	180 (262)	91.3 (0.1)
21	24.6 (5.4)	68.8 (18.9)	4.28 (1.82)	160 (25)	290 (348)	90.9 (0.2)
22	27.3 (5.4)	59.6 (19.3)	4.58 (7.21)	157 (23)	293 (346)	90.9 (0.2)
23	26.7 (4.7)	62.1 (16.3)	2.59 (1.18)	188 (56)	283 (338)	91.6 (0.1)
24	26.4 (4.7)	60.6 (17.1)	3.38 (1.66)	153 (49)	285 (344)	91.6 (0.1)
25	24.6 (3.5)	69.7 (17.0)	5.80 (3.09)	118 (27)	258 (333)	91.3 (0.2)
26	26.1 (5.6)	59.0 (19.7)	5.65 (1.75)	162 (22)	268 (333)	90.8 (0.2)
27	27.5 (5.6)	52.0 (17.2)	4.00 (1.52)	195 (23)	249 (308)	90.8 (0.1)
28	27.7 (5.6)	52.7 (17.3)	3.64 (1.89)	216 (90)	256 (310)	90.9 (0.1)
29	25.0 (5.0)	59.8 (10.1)	4.60 (1.41)	62 (84)	261 (324)	91.5 (0.1)
30	24.6 (4.5)	59.3 (15.9)	4.34 (1.62)	172 (41)	267 (330)	91.5 (0.1)
31	25.0 (3.9)	63.6 (16.0)	6.17 (2.54)	169 (18)	217 (295)	91.2 (0.2)
Mean	25.7	59.8	4.45	136	237	91.3
n	31	31	31	31	31	31
SD	3.4	14.9	1.03	69	69	0.3
Min	18.7	24.3	2.59	19	56	90.8
Max	32.6	85.7	6.17	359	327	91.9

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Table E1. Daily means (SD) of weather parameters at Site OK4B for September, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	26.2 (4.4)	56.6 (16.2)	7.09 (2.18)	160 (15)	259 (323)	90.9 (0.1)
2	20.0 (1.9)	65.1 (10.0)	6.99 (3.14)	21 (136)	111 (145)	91.5 (0.3)
3	14.2 (1.5)	74.6 (13.0)	4.29 (1.80)	1 (158)	112 (145)	91.7 (0.2)
4	17.5 (5.2)	65.3 (18.0)	2.50 (0.98)	16 (137)	269 (335)	91.3 (0.1)
5	16.0 (2.5)	77.5 (7.2)	4.67 (2.13)	57 (56)	91 (156)	91.3 (0.2)
6	16.2 (3.4)	80.4 (11.6)	4.32 (2.17)	69 (78)	127 (172)	91.4 (0.1)
7	19.5 (4.5)	73.9 (14.2)	3.58 (1.21)	110 (50)	153 (231)	91.5 (0.2)
8	14.6 (2.8)	82.7 (6.1)	4.81 (2.51)	351 (138)	103 (180)	91.6 (0.3)
9	15.9 (4.4)	80.2 (13.5)	3.99 (1.81)	124 (74)	147 (221)	91.6 (0.3)
10	22.2 (5.0)	70.9 (17.6)	6.18 (2.15)	171 (19)	233 (301)	91.0 (0.2)
11	22.1 (2.5)	79.0 (11.0)	3.71 (1.52)	165 (55)	90 (123)	91.1 (0.1)
12	20.5 (2.6)	85.5 (10.2)	3.21 (1.09)	40 (106)	118 (180)	90.9 (0.1)
13	21.4 (4.6)	62.9 (28.0)	3.34 (1.38)	333 (109)	250 (323)	90.9 (0.1)
14	16.7 (3.0)	51.9 (17.1)	4.84 (1.95)	341 (132)	256 (316)	91.9 (0.3)
15	18.2 (5.4)	51.1 (13.5)	2.66 (1.21)	158 (83)	242 (301)	92.3 (0.1)
16	20.7 (6.5)	56.0 (19.3)	3.33 (1.54)	164 (30)	253 (314)	92.0 (0.2)
17	21.7 (6.3)	51.8 (22.6)	4.47 (1.94)	167 (27)	254 (317)	91.8 (0.1)
18	20.7 (4.9)	48.2 (18.4)	5.29 (2.02)	151 (16)	227 (303)	91.7 (0.1)
19	20.5 (5.3)	55.2 (20.3)	4.39 (1.25)	162 (23)	186 (255)	91.6 (0.1)
20	21.1 (6.4)	53.8 (20.3)	4.15 (2.09)	159 (31)	246 (312)	91.6 (0.1)
21	23.0 (5.5)	52.6 (17.5)	6.26 (2.40)	163 (17)	235 (302)	91.5 (0.1)
22	24.2 (4.9)	47.3 (16.7)	7.28 (1.90)	168 (18)	238 (302)	91.4 (0.1)
23	24.0 (5.6)	48.7 (15.7)	4.34 (1.72)	194 (26)	216 (285)	91.6 (0.1)
24	23.3 (5.0)	53.0 (14.5)	4.38 (2.72)	166 (28)	176 (246)	92.0 (0.1)
25	23.2 (5.2)	50.1 (15.3)	4.85 (1.70)	171 (21)	232 (297)	91.9 (0.2)
26	23.1 (6.5)	45.2 (18.7)	4.07 (1.36)	191 (25)	238 (304)	91.6 (0.1)
27	22.3 (6.9)	42.3 (15.0)	2.88 (1.26)	252 (104)	234 (299)	91.6 (0.1)
28	22.5 (6.4)	40.7 (16.2)	3.00 (1.02)	197 (46)	231 (298)	91.8 (0.1)
29	18.5 (4.0)	41.8 (16.5)	4.89 (2.33)	347 (145)	227 (292)	92.1 (0.2)
30	18.6 (7.1)	39.2 (10.0)	2.96 (1.56)	150 (92)	225 (291)	92.0 (0.2)
Mean	20.3	59.5	4.42	146	199	91.6
n	30	30	30	30	30	30
SD	3.0	13.9	1.27	91	58	0.4
Min	14.2	39.2	2.50	1	90	90.9
Max	26.2	85.5	7.28	351	269	92.3

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Table E1. Daily means (SD) of weather parameters at Site OK4B for October, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	19.7 (7.0)	41.3 (17.6)	3.07 (0.90)	324 (116)	226 (295)	91.8 (0.1)
2	18.7 (6.4)	47.3 (15.6)	5.42 (2.17)	127 (36)	212 (284)	91.3 (0.3)
3	21.1 (5.6)	47.0 (15.0)	3.84 (1.41)	148 (52)	210 (284)	90.9 (0.1)
4	22.8 (6.2)	40.6 (12.5)	6.42 (3.19)	173 (23)	200 (275)	90.7 (0.2)
5	17.0 (1.6)	80.2 (11.7)	7.28 (1.98)	159 (17)	23 (33)	90.7 (0.1)
6	15.5 (2.1)	81.2 (11.0)	4.23 (2.44)	309 (93)	110 (171)	91.0 (0.4)
7	15.5 (6.1)	58.1 (24.7)	3.08 (0.98)	305 (89)	222 (288)	91.9 (0.2)
8	17.6 (7.2)	59.0 (20.0)	3.35 (1.20)	90 (93)	220 (287)	91.3 (0.1)
9	20.2 (5.4)	49.9 (18.0)	7.26 (3.65)	150 (19)	212 (279)	90.9 (0.2)
10	22.9 (6.5)	42.8 (18.3)	7.77 (2.06)	173 (24)	214 (283)	90.5 (0.1)
11	16.8 (2.8)	81.5 (7.9)	6.61 (2.95)	138 (65)	28 (40)	91.0 (0.2)
12	17.8 (0.6)	92.1 (1.0)	10.40 (3.33)	145 (22)	11 (20)	90.9 (0.1)
13	10.3 (2.3)	79.1 (8.0)	6.37 (1.84)	338 (102)	60 (91)	92.0 (0.3)
14	8.0 (1.1)	86.9 (6.0)	4.67 (1.61)	346 (156)	15 (23)	92.0 (0.2)
15	10.5 (3.2)	78.7 (12.3)	3.42 (1.78)	346 (135)	186 (263)	92.2 (0.2)
16	11.3 (4.9)	74.1 (15.6)	3.35 (1.63)	203 (44)	200 (267)	92.2 (0.2)
17	14.9 (5.3)	58.6 (20.8)	3.22 (1.72)	322 (117)	200 (267)	92.2 (0.1)
18	16.8 (7.0)	61.3 (18.9)	4.34 (1.71)	193 (31)	195 (263)	91.9 (0.3)
19	20.2 (6.4)	46.0 (22.7)	3.97 (1.78)	252 (79)	197 (264)	91.4 (0.1)
20	13.3 (1.5)	77.3 (9.1)	4.89 (1.62)	359 (161)	85 (154)	92.1 (0.2)
21	16.2 (4.3)	77.8 (15.0)	4.95 (2.61)	150 (60)	135 (224)	91.3 (0.4)
22	8.2 (1.7)	59.9 (16.9)	8.22 (2.73)	306 (44)	115 (176)	91.8 (0.2)
23	4.7 (1.3)	60.1 (13.3)	7.02 (2.12)	285 (14)	54 (82)	91.5 (0.1)
24	7.6 (7.1)	56.8 (22.7)	2.63 (1.15)	292 (107)	169 (231)	91.4 (0.1)
25	13.1 (8.2)	49.7 (23.3)	4.35 (1.99)	223 (23)	186 (254)	91.3 (0.2)
26	10.0 (3.3)	51.5 (11.7)	6.18 (3.06)	345 (154)	164 (222)	92.4 (0.7)
27	6.4 (6.4)	54.0 (21.9)	3.09 (1.22)	177 (87)	179 (249)	93.1 (0.3)
28	9.3 (6.7)	55.9 (18.5)	2.08 (0.84)	68 (79)	173 (243)	92.5 (0.2)
29	13.6 (8.2)	51.7 (22.9)	2.77 (0.82)	192 (70)	175 (246)	91.9 (0.2)
30	16.9 (8.0)	49.3 (25.1)	2.24 (0.91)	246 (99)	171 (242)	91.7 (0.2)
31	17.1 (6.4)	38.4 (15.3)	2.97 (1.21)	20 (121)	169 (238)	92.4 (0.1)
Mean	14.6	60.9	4.82	232	152	91.6
n	31	31	31	31	31	31
SD	4.9	15.2	2.01	92	68	0.6
Min	4.7	38.4	2.08	20	11	90.5
Max	22.9	92.1	10.40	359	226	93.1

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Table E1. Daily means (SD) of weather parameters at Site OK4B for November, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	16.5 (6.6)	48.0 (13.1)	3.42 (2.09)	184 (65)	160 (228)	92.1 (0.2)
2	17.2 (7.4)	49.3 (25.7)	3.64 (1.61)	179 (21)	162 (231)	91.3 (0.2)
3	17.7 (4.1)	56.6 (13.7)	5.37 (1.53)	172 (28)	130 (190)	91.0 (0.1)
4	19.7 (5.4)	58.4 (24.0)	6.64 (2.19)	179 (20)	152 (223)	90.5 (0.3)
5	14.4 (4.8)	49.2 (22.9)	6.67 (2.75)	241 (60)	106 (172)	90.2 (0.3)
6	7.4 (5.9)	42.9 (23.3)	3.86 (1.19)	292 (90)	156 (233)	91.3 (0.3)
7	8.9 (6.8)	33.8 (18.9)	4.75 (1.90)	271 (34)	160 (233)	91.5 (0.1)
8	9.7 (6.1)	49.1 (15.7)	3.49 (1.00)	315 (104)	151 (225)	91.5 (0.1)
9	7.9 (6.0)	58.1 (17.9)	6.30 (2.03)	114 (30)	150 (222)	91.0 (0.3)
10	10.8 (4.0)	63.9 (18.5)	6.06 (2.36)	162 (71)	96 (176)	90.4 (0.2)
11	6.6 (3.9)	69.7 (13.1)	4.03 (1.74)	311 (107)	145 (214)	91.0 (0.2)
12	8.5 (6.6)	64.3 (21.8)	2.79 (1.06)	238 (40)	133 (204)	91.1 (0.1)
13	12.3 (6.8)	51.9 (22.1)	4.94 (1.81)	225 (52)	116 (187)	90.4 (0.3)
14	6.6 (2.7)	55.1 (17.8)	6.11 (2.69)	321 (76)	82 (131)	91.6 (0.7)
15	3.7 (4.6)	42.8 (14.5)	4.07 (1.54)	277 (44)	150 (219)	92.5 (0.2)
16	11.0 (8.9)	35.7 (17.6)	2.72 (1.19)	243 (49)	147 (214)	91.9 (0.1)
17	6.9 (3.8)	58.1 (13.9)	4.30 (1.90)	37 (120)		92.4 (0.3)
18	11.0 (8.5)	52.4 (24.4)	4.48 (1.47)	187 (24)	144 (210)	92.3 (0.4)
19	14.2 (7.3)	37.7 (14.7)	4.80 (1.08)	324 (126)	146 (212)	91.6 (0.2)
20	1.4 (2.5)	65.6 (8.2)	7.74 (3.32)	358 (166)	56 (86)	93.0 (0.3)
21	1.1 (5.1)	56.0 (13.0)	5.75 (2.27)	159 (33)	137 (204)	92.3 (0.5)
22	4.8 (7.9)	52.5 (19.1)	2.14 (0.96)	122 (93)	139 (208)	91.8 (0.1)
23	7.5 (7.1)	47.2 (21.2)	4.46 (2.84)	294 (92)	128 (198)	91.4 (0.4)
24	6.1 (5.8)	51.1 (16.1)	3.98 (1.05)	258 (42)	138 (204)	92.3 (0.2)
25	8.4 (7.4)	37.5 (16.3)	3.11 (1.61)	284 (98)	141 (212)	91.5 (0.2)
26	8.5 (6.4)	32.5 (12.9)	3.25 (0.98)	330 (113)	134 (200)	91.5 (0.1)
27	4.3 (2.3)	57.1 (13.5)	5.15 (2.98)	342 (144)	69 (133)	91.6 (0.1)
28	2.7 (1.0)	86.2 (2.7)	2.63 (0.89)	64 (77)	24 (41)	91.2 (0.2)
29	5.2 (3.2)	62.1 (19.0)	6.22 (2.30)	295 (24)	105 (174)	90.8 (0.1)
30	5.6 (2.2)	45.2 (10.9)	7.14 (2.08)	310 (43)	99 (169)	90.9 (0.2)
Mean	8.9	52.3	4.67	265	126	91.5
n	30	30	30	30	29	30
SD	4.8	11.4	1.45	83	33	0.7
Min	1.1	32.5	2.14	37	24	90.2
Max	19.7	86.2	7.74	358	162	93.0

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Table E1. Daily means (SD) of weather parameters at Site OK4B for December, 2008

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	2.9 (4.3)	57.2 (16.6)	3.83 (1.91)	277 (59)	127 (190)	91.5 (0.2)
2	10.3 (9.2)	47.1 (25.0)	3.63 (1.25)	220 (30)	110 (182)	90.5 (0.3)
3	2.3 (4.6)	50.6 (11.0)	7.34 (3.75)	340 (109)	96 (167)	91.6 (0.8)
4	-1.4 (0.9)	47.7 (7.5)	4.01 (2.27)	95 (40)	34 (56)	92.6 (0.2)
5	0.1 (4.6)	49.4 (16.6)	4.85 (2.80)	198 (43)	126 (191)	91.9 (0.6)
6	5.2 (6.7)	48.1 (14.2)	2.62 (1.01)	271 (91)	97 (157)	91.7 (0.2)
7	9.2 (6.7)	37.5 (13.7)	3.98 (1.80)	194 (25)	115 (177)	91.0 (0.4)
8	10.8 (6.0)	43.0 (16.1)	5.43 (2.73)	265 (102)	109 (178)	89.8 (0.2)
9	-2.8 (3.2)	78.7 (7.8)	7.17 (2.84)	336 (91)	68 (122)	91.5 (0.7)
10	-2.5 (7.5)	67.5 (13.6)	2.67 (1.13)	257 (49)	124 (188)	92.0 (0.2)
11	6.1 (6.5)	60.5 (18.9)	3.26 (1.07)	295 (43)	123 (188)	91.8 (0.1)
12	4.6 (4.1)	65.3 (13.9)	5.51 (3.05)	170 (96)		91.5 (0.7)
13	12.7 (4.5)	41.4 (11.0)	7.69 (2.71)	208 (15)		89.5 (0.3)
14	-2.8 (9.6)	50.4 (9.9)	7.58 (1.95)	321 (103)		90.5 (1.0)
15	-12.6 (1.4)	51.5 (2.6)	4.61 (1.08)	43 (132)		92.4 (0.2)
16	-4.2 (7.8)	53.5 (19.6)	5.87 (1.75)	130 (79)		91.1 (0.4)
17	-4.2 (3.3)	80.3 (10.4)	2.22 (1.19)	68 (56)	66 (120)	91.3 (0.1)
18	6.1 (8.7)	58.7 (26.0)	5.73 (4.34)	172 (66)	86 (145)	90.8 (0.4)
19	4.0 (4.2)	47.5 (12.4)	4.62 (2.76)	183 (85)	114 (171)	91.1 (0.3)
20	-1.6 (4.8)	40.5 (11.4)	5.33 (2.09)	341 (145)	122 (187)	91.4 (0.4)
21	-8.6 (3.2)	54.3 (14.2)	2.61 (1.27)	57 (104)	98 (158)	92.6 (0.2)
22	-3.5 (3.8)	42.0 (10.3)	8.27 (2.46)	171 (21)	33 (52)	91.2 (0.8)
23	4.2 (7.6)	47.5 (13.7)	7.02 (3.26)	226 (71)	100 (172)	89.9 (0.3)
24	-0.3 (7.2)	49.3 (27.9)	3.76 (1.58)	211 (58)	121 (188)	91.3 (0.2)
25	8.6 (4.7)	44.1 (7.6)	5.03 (1.89)	189 (20)	79 (129)	90.7 (0.4)
26	10.9 (5.1)	45.8 (16.4)	5.91 (3.23)	214 (43)	84 (137)	90.0 (0.2)
27	0.2 (2.9)	42.5 (13.2)	5.76 (1.79)	292 (67)	102 (172)	90.9 (0.3)
28	3.1 (8.5)	40.4 (19.1)	3.10 (0.82)	232 (25)	125 (189)	91.6 (0.2)
29	7.3 (7.5)	39.3 (14.4)	4.19 (2.14)	222 (85)	126 (189)	91.8 (0.2)
30	7.5 (8.2)	40.4 (15.9)	5.43 (3.00)	314 (126)	121 (187)	91.4 (0.5)
31	0.1 (5.5)	50.4 (14.9)	4.67 (2.15)	201 (75)	127 (191)	92.0 (0.7)
Mean	2.3	50.7	4.96	231	101	91.2
n	31	31	31	31	26	31
SD	5.9	10.5	1.62	80	27	0.8
Min	-12.6	37.5	2.22	43	33	89.5
Max	12.7	80.3	8.27	341	127	92.6

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Table E1. Daily means (SD) of weather parameters at Site OK4B for January, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	5.4 (6.8)	40.9 (16.1)	4.09 (1.97)	68 (104)	120 (180)	90.6 (0.2)
2	7.5 (9.3)	42.1 (18.5)	2.38 (1.09)	200 (51)	129 (188)	90.3 (0.3)
3	4.3 (6.4)	45.9 (12.5)	6.22 (3.06)	290 (96)	132 (191)	90.2 (0.7)
4	-4.0 (2.1)	41.2 (10.8)	4.91 (1.78)	15 (149)	86 (126)	92.1 (0.2)
5	-0.3 (6.1)	35.2 (12.2)	4.62 (2.65)	190 (29)	132 (191)	90.8 (0.9)
6	2.1 (4.9)	37.3 (11.0)	5.18 (1.60)	306 (59)	131 (194)	90.2 (0.3)
7	5.4 (10.0)	37.2 (16.6)	3.69 (1.29)	271 (33)	132 (190)	90.3 (0.2)
8	8.4 (7.8)	41.3 (14.9)	3.98 (1.18)	220 (54)	137 (193)	90.9 (0.2)
9	5.9 (5.8)	53.7 (14.5)	7.34 (4.09)	308 (98)	131 (187)	90.8 (0.7)
10	0.8 (6.1)	47.7 (19.5)	3.49 (1.72)	289 (67)	142 (199)	92.2 (0.1)
11	3.0 (7.0)	40.3 (14.5)	3.27 (1.02)	233 (90)	138 (198)	92.0 (0.3)
12	1.4 (3.7)	47.3 (9.5)	6.29 (3.28)	300 (44)	79 (114)	91.9 (0.5)
13	2.0 (8.5)	44.1 (21.8)	4.24 (2.11)	231 (23)	130 (193)	91.8 (0.4)
14	2.5 (5.4)	50.7 (12.8)	5.93 (2.51)	12 (127)	128 (183)	92.0 (0.3)
15	-7.6 (1.9)	60.3 (7.4)	3.92 (1.12)	95 (31)	87 (124)	92.9 (0.1)
16	3.4 (10.0)	48.7 (19.4)	2.96 (1.24)	238 (48)	145 (202)	92.2 (0.3)
17	7.0 (5.5)	34.3 (11.9)	5.30 (1.72)	304 (69)	147 (205)	91.9 (0.2)
18	10.0 (7.0)	25.7 (13.2)	6.20 (1.87)	295 (11)	144 (204)	92.0 (0.3)
19	12.0 (5.0)	22.5 (8.2)	6.20 (2.38)	319 (72)	145 (206)	91.7 (0.2)
20	7.6 (5.6)	33.3 (12.0)	4.07 (1.12)	282 (41)	150 (210)	92.0 (0.3)
21	10.5 (8.2)	20.2 (9.9)	3.42 (1.19)	260 (51)	159 (219)	91.4 (0.2)
22	10.2 (8.8)	21.3 (9.3)	3.45 (1.67)	266 (68)	150 (218)	90.9 (0.1)
23	3.1 (5.0)	40.6 (11.3)	8.37 (3.70)	355 (136)	119 (179)	91.7 (0.6)
24	-4.6 (3.2)	56.6 (13.7)	5.50 (1.77)	88 (84)	145 (210)	92.2 (0.5)
25	-6.0 (3.2)	49.0 (9.0)	6.66 (1.67)	74 (18)	136 (189)	91.4 (0.2)
26	-9.9 (0.9)	75.1 (9.1)	6.19 (1.06)	51 (71)	41 (57)	91.7 (0.1)
27	-10.9 (1.6)	76.7 (4.9)	3.80 (1.88)	332 (114)	108 (151)	91.8 (0.2)
28	-1.5 (9.8)	50.4 (25.0)	2.93 (1.37)	280 (110)	161 (226)	91.4 (0.1)
29	0.8 (5.3)	45.3 (16.3)	3.14 (1.02)	288 (61)	109 (166)	92.0 (0.2)
30	4.8 (9.3)	36.9 (18.3)	3.72 (1.31)	288 (49)	164 (227)	92.1 (0.1)
31	8.3 (8.4)	26.9 (13.9)	4.88 (2.65)	226 (25)	169 (233)	91.1 (0.5)
Mean	2.6	42.9	4.72	290	130	91.5
n	31	31	31	31	31	31
SD	5.9	13.1	1.44	99	27	0.7
Min	-10.9	20.2	2.38	12	41	90.2
Max	12.0	76.7	8.37	355	169	92.9

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Table E1. Daily means (SD) of weather parameters at Site OK4B for February, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	1.6 (3.6)	37.2 (14.8)	6.42 (2.76)	348 (155)	134 (203)	91.5 (0.5)
2	2.1 (8.1)	33.4 (13.5)	3.04 (1.28)	295 (107)	166 (233)	91.9 (0.2)
3	5.7 (7.6)	35.5 (9.7)	3.28 (1.56)	279 (91)	166 (231)	92.1 (0.2)
4	9.0 (9.0)	35.8 (20.0)	3.92 (1.73)	222 (16)	173 (238)	92.2 (0.2)
5	10.7 (9.0)	25.2 (13.4)	3.08 (1.23)	231 (33)	179 (245)	91.5 (0.2)
6	12.4 (9.9)	20.5 (11.4)	5.75 (3.91)	224 (21)	164 (237)	90.8 (0.2)
7	11.1 (6.4)	24.9 (6.4)	5.43 (2.12)	33 (111)	147 (216)	91.4 (0.2)
8	10.5 (2.8)	66.7 (16.0)	7.82 (1.66)	106 (41)	46 (74)	91.1 (0.5)
9	9.6 (4.6)	53.4 (25.9)	9.20 (4.35)	216 (26)	185 (251)	89.9 (0.2)
10	8.5 (6.0)	44.5 (20.0)	4.28 (2.43)	229 (46)	178 (248)	90.0 (0.2)
11	7.2 (4.3)	47.1 (16.5)	4.85 (2.77)	269 (73)	189 (254)	90.9 (0.4)
12	4.4 (4.9)	52.8 (16.5)	5.42 (2.04)	49 (111)	138 (206)	91.2 (0.2)
13	0.7 (2.9)	69.7 (16.0)	6.53 (2.64)	345 (135)	190 (257)	91.2 (0.4)
14	-1.3 (3.5)	65.7 (15.0)	4.34 (1.56)	89 (54)	159 (242)	91.5 (0.2)
15	-0.9 (5.5)	58.9 (16.8)	3.08 (1.21)	57 (120)	192 (263)	92.0 (0.2)
16	6.6 (6.4)	51.8 (12.1)	6.53 (2.56)	184 (24)	190 (260)	91.4 (0.4)
17	10.3 (7.8)	43.0 (31.9)	7.73 (4.35)	232 (24)	195 (264)	90.2 (0.3)
18	6.1 (5.2)	39.3 (13.3)	4.61 (1.06)	335 (135)	176 (258)	91.0 (0.4)
19	5.7 (6.6)	47.2 (22.4)	3.24 (1.60)	272 (82)	182 (255)	91.9 (0.1)
20	7.6 (8.9)	34.1 (21.3)	4.29 (4.17)	245 (70)	202 (274)	91.1 (0.4)
21	1.6 (5.1)	36.2 (16.4)	4.35 (2.81)	299 (75)	206 (274)	92.2 (0.2)
22	6.6 (9.0)	30.8 (14.0)	3.29 (1.50)	191 (77)	186 (258)	91.9 (0.2)
23	7.1 (5.3)	31.6 (10.0)	2.80 (1.10)	64 (108)	144 (197)	91.5 (0.2)
24	11.1 (7.3)	34.2 (10.3)	3.12 (1.47)	62 (105)	209 (275)	91.0 (0.1)
25						
26						
27	1.3 (5.1)	50.9 (15.2)	4.53 (3.06)	34 (106)	219 (285)	91.3 (0.3)
28	-0.9 (4.0)	49.7 (18.7)	4.65 (2.20)	334 (121)	224 (290)	92.6 (0.2)
Mean	5.9	43.1	4.83	290	175	91.4
n	26	26	26	26	26	26
SD	4.1	12.9	1.67	104	34	0.7
Min	-1.3	20.5	2.80	33	46	89.9
Max	12.4	69.7	9.20	348	224	92.6

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Table E1. Daily means (SD) of weather parameters at Site OK4B for March, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	2.3 (7.9)	36.4 (17.0)	4.22 (1.86)	198 (71)	205 (266)	92.5 (0.4)
2	7.9 (6.7)	29.3 (9.0)	3.63 (1.71)	124 (37)	185 (260)	91.5 (0.2)
3	9.5 (6.4)	35.3 (10.4)	3.16 (1.02)	130 (48)	139 (196)	91.1 (0.1)
4	17.7 (9.2)	26.9 (14.4)	6.06 (3.75)	223 (32)	200 (277)	90.7 (0.2)
5	17.9 (7.4)	18.7 (13.7)	6.83 (3.27)	232 (34)	203 (272)	90.6 (0.1)
6	15.9 (7.4)	22.9 (6.6)	5.06 (2.29)	161 (72)	183 (260)	90.9 (0.3)
7	16.2 (5.8)	37.0 (17.2)	6.50 (3.23)	267 (98)	171 (267)	90.4 (0.2)
8	10.0 (8.5)	39.9 (31.5)	4.15 (1.69)	208 (49)	241 (311)	90.9 (0.2)
9	15.7 (5.0)	33.2 (8.8)	7.90 (3.84)	215 (30)	139 (206)	90.5 (0.2)
10	0.1 (3.0)	60.6 (21.3)	5.17 (3.06)	6 (159)	172 (245)	91.1 (0.5)
11	-1.4 (4.0)	37.9 (12.6)	4.86 (2.25)	68 (79)	235 (292)	92.4 (0.2)
12	0.1 (4.7)	57.6 (12.4)	5.44 (1.40)	108 (22)	202 (257)	92.0 (0.2)
13	1.9 (1.7)	78.6 (8.0)	3.02 (2.38)	70 (97)	73 (101)	91.9 (0.1)
14	6.8 (4.7)	62.4 (18.2)	2.79 (1.40)	170 (29)	224 (307)	91.2 (0.3)
15	10.5 (8.2)	51.0 (30.6)	1.94 (1.20)	172 (42)	256 (321)	90.8 (0.1)
16	14.8 (8.8)	25.6 (15.2)	2.06 (1.25)	209 (66)	260 (324)	91.4 (0.1)
17	17.7 (9.3)	26.9 (17.5)	2.17 (1.13)	201 (90)	260 (325)	91.3 (0.2)
18	10.7 (4.6)	45.1 (11.3)	6.72 (3.13)	349 (144)	230 (309)	91.6 (0.3)
19	9.7 (6.0)	47.4 (14.0)	4.94 (1.55)	56 (120)	228 (293)	92.1 (0.2)
20	14.3 (6.4)	65.5 (18.2)	5.08 (1.74)	154 (30)	181 (266)	91.4 (0.3)
21	19.4 (6.1)	47.6 (16.1)	4.81 (2.66)	181 (42)	252 (321)	91.2 (0.1)
22	18.3 (3.6)	57.9 (11.7)	8.81 (2.70)	170 (21)	111 (137)	90.6 (0.4)
23	16.5 (4.8)	37.4 (27.6)	8.90 (2.88)	222 (58)	271 (334)	89.7 (0.2)
24	7.3 (5.4)	41.1 (23.0)	5.45 (3.43)	314 (100)	246 (309)	90.8 (0.2)
25	8.5 (6.0)	29.0 (10.9)	4.05 (2.70)	319 (113)	217 (303)	90.6 (0.3)
26	6.0 (4.8)	65.9 (11.9)	7.36 (4.36)	58 (53)	154 (253)	90.2 (0.2)
27	-4.8 (1.6)	88.6 (1.4)	10.40 (2.28)	341 (111)	125 (171)	90.9 (0.2)
28	-1.3 (4.9)	71.3 (8.1)	7.23 (2.81)	295 (18)	291 (360)	90.8 (0.1)
29	5.0 (5.2)	63.3 (9.8)	3.96 (1.79)	184 (45)	251 (333)	90.2 (0.5)
30	5.9 (2.5)	59.2 (5.5)	5.63 (3.29)	289 (70)	247 (315)	90.0 (0.5)
31	5.9 (5.9)	43.2 (18.9)	5.01 (2.15)	282 (87)	290 (351)	90.7 (0.3)
Mean	9.2	46.5	5.27	199	208	91.0
n	31	31	31	31	31	31
SD	6.7	17.2	2.05	87	53	0.7
Min	-4.8	18.7	1.94	6	73	89.7
Max	19.4	88.6	10.40	349	291	92.5

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Table E1. Daily means (SD) of weather parameters at Site OK4B for April, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	9.8 (6.9)	50.2 (19.6)	3.75 (2.19)	307 (101)	195 (272)	89.6 (0.3)
2	7.3 (4.1)	53.5 (18.6)	5.41 (3.27)	334 (106)		90.5 (0.2)
3	12.5 (8.5)	43.6 (19.6)	8.08 (3.38)	154 (26)	291 (352)	89.8 (0.4)
4	11.6 (5.3)	37.3 (11.9)	11.20 (3.72)	259 (53)	282 (347)	89.8 (0.6)
5	2.0 (3.3)	48.9 (12.6)	10.00 (3.04)	324 (73)	294 (351)	92.0 (0.4)
6	3.2 (5.4)	44.9 (20.9)	5.52 (2.41)	319 (97)	301 (359)	92.5 (0.2)
7	11.6 (11.6)	31.9 (23.7)	3.31 (1.58)	264 (99)	309 (368)	91.4 (0.5)
8	15.3 (7.6)	28.7 (13.3)	6.17 (2.89)	91 (101)	274 (341)	90.5 (0.5)
9	11.5 (4.5)	41.6 (14.9)	7.99 (4.18)	293 (74)	248 (313)	89.8 (0.5)
10	8.2 (5.0)	53.4 (16.7)	4.44 (1.87)	32 (130)	299 (354)	91.5 (0.2)
11	6.4 (2.7)	74.0 (12.3)	5.06 (2.97)	107 (30)	80 (156)	91.4 (0.2)
12	7.1 (1.2)	88.8 (2.3)	4.97 (1.60)	33 (137)	40 (65)	90.7 (0.2)
13	10.8 (5.0)	68.6 (17.6)	4.12 (1.55)	323 (98)	256 (342)	91.1 (0.1)
14	16.5 (6.8)	49.5 (20.1)	5.83 (2.54)	174 (29)	302 (355)	90.8 (0.2)
15	16.9 (3.3)	48.6 (6.9)	8.39 (3.20)	148 (17)	202 (279)	90.7 (0.1)
16	12.6 (0.9)	81.0 (8.6)	9.42 (1.83)	126 (23)	57 (101)	91.0 (0.1)
17	12.9 (3.3)	68.4 (22.5)	5.85 (2.93)	128 (46)	204 (322)	91.1 (0.1)
18	8.9 (3.2)	75.8 (11.2)	3.85 (1.75)	303 (80)	163 (258)	91.1 (0.2)
19	12.4 (4.3)	57.6 (21.1)	6.59 (2.97)	315 (75)	309 (369)	91.9 (0.1)
20	15.3 (6.7)	46.8 (20.5)	3.47 (1.67)	277 (89)	301 (363)	91.7 (0.1)
21	19.0 (7.1)	44.0 (20.3)	2.80 (1.16)	309 (107)	322 (371)	91.4 (0.2)
22	21.7 (6.3)	40.6 (16.2)	2.40 (1.68)	99 (101)	322 (370)	90.9 (0.2)
23	20.3 (7.2)	52.6 (19.2)	2.28 (1.11)	132 (95)	302 (359)	90.6 (0.2)
24	22.0 (7.1)	35.9 (17.5)	4.40 (1.90)	195 (24)	308 (369)	90.3 (0.1)
25	13.8 (4.2)	55.6 (14.2)	6.05 (1.65)	22 (131)	270 (345)	90.7 (0.3)
26	16.8 (7.6)	57.5 (31.6)	4.56 (2.85)	264 (95)	280 (342)	90.3 (0.2)
27	11.4 (3.1)	65.2 (10.6)	7.06 (1.95)	15 (151)	226 (293)	91.5 (0.4)
28	10.2 (3.6)	84.3 (3.7)	6.47 (1.53)	109 (35)	87 (134)	91.8 (0.2)
29	20.7 (5.1)	71.1 (18.0)	5.57 (1.79)	160 (34)	253 (349)	90.9 (0.3)
30	18.3 (2.8)	71.4 (12.2)	5.94 (2.10)	52 (113)	270 (322)	91.0 (0.2)
Mean	12.9	55.7	5.70	351	243	90.9
n	30	30	30	30	29	30
SD	5.1	15.6	2.17	106	81	0.7
Min	2.0	28.7	2.28	15	40	89.6
Max	22.0	88.8	11.20	334	322	92.5

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Table E1. Daily means (SD) of weather parameters at Site OK4B for May, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	11.9 (1.3)	80.1 (10.2)	7.69 (1.96)	30 (53)	71 (93)	91.5 (0.2)
2	10.0 (0.9)	79.0 (4.6)	4.84 (1.28)	62 (30)	61 (82)	91.3 (0.3)
3	10.8 (2.8)	78.1 (11.9)	3.31 (0.99)	49 (99)	145 (188)	91.3 (0.1)
4	12.1 (3.6)	80.3 (11.5)	4.75 (2.46)	158 (33)	209 (336)	91.2 (0.2)
5	13.7 (2.9)	84.6 (7.1)	3.49 (1.05)	117 (35)	130 (202)	90.9 (0.2)
6	20.4 (6.4)	63.3 (28.4)	3.83 (1.78)	154 (87)	324 (377)	90.9 (0.1)
7	23.0 (6.6)	59.0 (23.6)	4.91 (1.95)	98 (93)	336 (379)	90.5 (0.2)
8	20.2 (3.8)	51.1 (22.0)	9.03 (3.09)	18 (119)	329 (378)	90.8 (0.4)
9	15.1 (3.7)	44.2 (12.7)	4.55 (1.10)	55 (87)	237 (312)	91.7 (0.1)
10	11.4 (1.3)	77.3 (4.0)	5.20 (2.26)	71 (34)	57 (61)	91.8 (0.1)
11	12.2 (2.3)	78.2 (9.6)	4.72 (2.00)	114 (43)	132 (198)	91.7 (0.3)
12	21.7 (7.6)	63.4 (24.5)	6.98 (1.55)	175 (20)	280 (369)	90.4 (0.5)
13	21.8 (4.8)	39.9 (16.3)	7.56 (3.04)	355 (131)	314 (363)	90.5 (0.5)
14	17.2 (3.5)	45.1 (19.3)	5.59 (2.29)	104 (97)	286 (329)	91.4 (0.4)
15	22.8 (4.7)	54.9 (26.2)	6.86 (3.19)	348 (113)	319 (367)	90.9 (0.3)
16	15.7 (3.4)	49.3 (12.0)	6.15 (2.32)	55 (44)	305 (365)	92.2 (0.2)
17	17.1 (6.6)	52.1 (15.9)	4.84 (1.92)	169 (20)	335 (373)	92.0 (0.3)
18	21.6 (8.0)	44.2 (16.7)	5.09 (1.89)	182 (23)	343 (379)	91.7 (0.2)
19	22.7 (6.3)	40.4 (14.4)	6.82 (2.62)	173 (22)	343 (380)	91.5 (0.2)
20	21.5 (5.5)	40.2 (14.8)	6.57 (1.85)	171 (22)	307 (357)	91.3 (0.2)
21	21.7 (5.5)	48.5 (18.3)	4.77 (1.42)	164 (21)	321 (377)	91.3 (0.1)
22	20.3 (4.4)	54.3 (15.2)	3.36 (1.90)	133 (70)	248 (299)	91.5 (0.1)
23	21.1 (5.0)	58.8 (18.3)	3.44 (2.65)	146 (32)	300 (368)	91.4 (0.1)
24	20.0 (4.5)	66.4 (14.4)	3.75 (2.89)	158 (63)	267 (334)	91.2 (0.2)
25	20.0 (5.5)	67.5 (20.3)	3.95 (3.15)	148 (72)	295 (373)	90.7 (0.2)
26	16.8 (2.7)	71.7 (12.0)	6.01 (2.38)	313 (73)	290 (351)	91.0 (0.2)
27	16.6 (5.1)	55.3 (22.2)	3.92 (1.60)	326 (117)	346 (389)	91.3 (0.1)
28	21.0 (6.1)	42.9 (19.8)	2.45 (1.74)	339 (127)	354 (386)	91.4 (0.1)
29	23.6 (7.2)	39.1 (20.3)	2.76 (1.01)	224 (70)	353 (384)	91.6 (0.1)
30	25.3 (7.6)	34.3 (18.0)	4.01 (1.72)	202 (33)	343 (392)	91.3 (0.2)
31	26.2 (6.1)	31.5 (11.5)	3.61 (1.63)	201 (37)	332 (389)	90.9 (0.2)
Mean	18.6	57.3	4.99	123	268	91.3
n	31	31	31	31	31	31
SD	4.5	15.4	1.57	93	91	0.4
Min	10.0	31.5	2.45	18	57	90.4
Max	26.2	84.6	9.03	355	354	92.2

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Table E1. Daily means (SD) of weather parameters at Site OK4B for June, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	23.6 (4.9)	44.3 (13.8)	4.02 (2.56)	188 (66)	263 (345)	90.8 (0.1)
2	18.0 (2.7)	75.6 (10.8)	4.30 (2.09)	321 (119)	172 (223)	91.3 (0.3)
3	18.3 (3.7)	63.2 (18.3)	4.92 (1.97)	28 (139)	292 (357)	91.9 (0.1)
4	20.9 (6.3)	53.8 (16.1)	3.42 (1.66)	168 (51)	327 (375)	91.5 (0.2)
5	23.9 (6.6)	53.3 (19.5)	4.88 (2.69)	176 (38)	279 (356)	91.0 (0.3)
6						
7						
8	19.8 (6.5)	51.6 (18.9)	4.51 (1.59)	39 (124)	316 (357)	91.0 (0.1)
9	23.8 (5.6)	49.7 (25.9)	4.16 (3.04)	205 (82)	211 (268)	90.7 (0.1)
10	19.6 (3.2)	68.2 (17.9)	4.83 (2.44)	281 (104)	135 (209)	90.7 (0.2)
11	20.3 (4.7)	67.3 (16.6)	4.00 (1.49)	23 (121)	262 (324)	90.9 (0.1)
12	23.6 (4.2)	57.8 (18.1)	4.33 (2.17)	49 (84)	324 (380)	91.0 (0.1)
13	22.9 (4.4)	66.0 (14.8)	6.98 (2.09)	74 (54)	210 (275)	91.3 (0.2)
14	23.7 (5.2)	65.6 (22.7)	5.50 (2.02)	139 (58)	218 (291)	91.0 (0.2)
15	26.6 (5.6)	57.4 (19.8)	5.62 (2.30)	190 (31)	332 (371)	90.7 (0.2)
16	26.0 (5.5)	58.7 (18.8)	5.16 (1.59)	40 (126)	347 (377)	90.8 (0.2)
17	28.3 (6.4)	42.6 (27.6)	5.52 (2.26)	178 (51)	234 (317)	90.8 (0.1)
18	28.9 (6.2)	46.4 (20.5)	5.78 (2.39)	182 (27)	292 (348)	90.6 (0.2)
19	26.4 (3.2)	45.7 (11.7)	3.66 (1.48)	193 (59)	252 (287)	90.7 (0.2)
20	23.1 (2.2)	79.9 (9.4)	3.45 (2.63)	155 (65)	164 (228)	90.7 (0.2)
21	27.8 (5.3)	53.8 (22.3)	4.57 (2.00)	202 (25)	346 (377)	90.6 (0.1)
22	28.9 (6.2)	50.1 (20.2)	4.04 (1.53)	182 (34)	335 (378)	90.8 (0.1)
23	28.9 (5.3)	48.2 (18.2)	3.36 (1.76)	174 (22)	336 (380)	91.1 (0.1)
24	30.0 (5.4)	44.9 (16.3)	3.33 (1.12)	189 (34)	327 (371)	91.3 (0.1)
25	30.3 (5.6)	41.3 (14.5)	4.12 (2.07)	177 (34)	340 (373)	91.2 (0.1)
26	30.4 (5.2)	38.1 (11.9)	5.29 (2.38)	172 (23)	327 (365)	91.0 (0.2)
27	26.8 (3.0)	46.7 (8.4)	5.82 (2.84)	350 (133)	276 (344)	91.2 (0.2)
28	25.5 (5.5)	46.7 (22.4)	3.31 (1.77)	80 (101)	316 (370)	91.6 (0.2)
29	27.2 (6.0)	45.7 (17.4)	3.36 (2.62)	187 (54)	318 (369)	91.1 (0.2)
30	26.9 (5.8)	54.9 (21.1)	2.86 (2.00)	64 (99)	331 (374)	91.1 (0.1)
Mean	25.0	54.2	4.47	158	282	91.0
n	28	28	28	28	28	28
SD	3.6	10.4	0.97	82	60	0.3
Min	18.0	38.1	2.86	23	135	90.6
Max	30.4	79.9	6.98	350	347	91.9

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Table E1. Daily means (SD) of weather parameters at Site OK4B for July, 2009

Day	Temp, °C	RH, %	Wind spd, m/s	Wind dir, °	Solar, W/m^2	Atm P, kPa
1	27.5 (6.5)	43.9 (19.1)	3.37 (1.17)	174 (74)	344 (374)	91.2 (0.1)
2	29.5 (6.3)	35.8 (15.1)	4.53 (1.20)	200 (29)	343 (373)	91.3 (0.1)
3	30.2 (5.0)	38.7 (9.5)	4.75 (2.18)	199 (25)	279 (355)	91.2 (0.2)
4	26.8 (3.1)	61.1 (14.5)	5.41 (2.49)	16 (132)	283 (326)	91.3 (0.2)
5	23.8 (3.3)	62.1 (12.9)	3.98 (1.39)	45 (79)	273 (344)	91.6 (0.1)
6	24.2 (3.9)	60.1 (13.5)	4.38 (2.08)	128 (49)	269 (346)	91.4 (0.2)
7	27.0 (6.8)	56.5 (23.0)	2.99 (1.43)	177 (59)	319 (375)	90.9 (0.2)
8	30.8 (6.3)	43.8 (21.4)	3.21 (2.08)	131 (77)	341 (376)	90.7 (0.1)
9	33.2 (8.1)	30.8 (21.3)	3.48 (1.40)	218 (71)	348 (384)	90.8 (0.1)
10	33.0 (6.1)	30.1 (12.6)	6.14 (3.07)	231 (72)	286 (374)	91.2 (0.1)
11	32.2 (6.7)	30.9 (17.1)	3.87 (2.11)	211 (65)	339 (374)	91.6 (0.1)
12	31.5 (7.0)	31.1 (13.9)	4.66 (1.87)	219 (21)	341 (375)	91.5 (0.2)
13	30.9 (6.7)	42.2 (21.7)	3.20 (1.70)	197 (86)	334 (371)	91.2 (0.2)
14	31.3 (6.3)	34.9 (13.3)	6.16 (3.06)	192 (41)	320 (382)	90.9 (0.1)
15	27.3 (5.7)	56.7 (17.3)	5.35 (3.15)	76 (89)	276 (358)	91.4 (0.2)
16	25.2 (5.3)	64.3 (17.3)	3.51 (2.88)	159 (80)	255 (338)	91.5 (0.1)
17	23.0 (3.7)	67.8 (15.2)	5.31 (3.26)	93 (66)	222 (292)	91.9 (0.1)
18	22.4 (4.2)	67.6 (15.8)	3.12 (2.11)	74 (93)	167 (259)	92.0 (0.1)
19	26.5 (5.3)	52.7 (18.9)	4.35 (2.51)	172 (63)	321 (369)	91.6 (0.3)
20			3.23 (2.10)	136 (96)	321 (369)	
21			5.38 (1.92)	20 (126)	283 (338)	91.5 (0.1)
22			4.60 (1.56)	148 (33)	314 (357)	91.6 (0.1)
23			3.98 (1.94)	192 (45)	340 (367)	91.5 (0.2)
24						
25						
26						
27						
28						
29						
30						
31						
Mean	28.2	48.0	4.30	162	301	91.4
n	19	19	23	23	23	22
SD	3.4	13.4	0.96	64	44	0.3
Min	22.4	30.1	2.99	16	167	90.7
Max	33.2	67.8	6.16	231	348	92.0

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Table E2. Animal characteristics

Table E2. Daily means of animal characteristics at Site OK4B for July, 2007

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,140	200	1,140	200				
2	1,140	200	1,140	200				
3	1,140	200	1,140	200				
4	1,140	200	1,140	200				
5	1,140	200	1,140	200				
6	1,140	200	1,140	200				
7	1,140	200	1,140	200				
8	1,140	200	1,140	200				
9	1,140	200	1,140	200				
10	1,140	200	1,140	200	24	239	200	2.34
11	1,140	200	1,140	200	24	286	200	2.71
12	1,140	200	1,140	200	24	283	200	3.05
13	1,140	200	1,140	200	24	281	200	3.30
14	1,140	200	1,140	200	24	279	200	3.55
15	1,140	200	1,140	200	24	276	200	3.80
16	1,140	200	1,140	200	24	274	200	4.07
17	1,140	200	1,140	200	24	272	200	4.40
18	1,140	200	1,140	200	24	269	200	4.74
19	1,140	200	1,140	200	24	267	200	5.05
20	1,140	200	1,140	200	24	264	200	5.30
21	1,140	200	1,140	200	24	262	200	5.55
22	1,140	200	1,140	200	24	260	200	5.80
23	1,140	200	1,140	200	24	257	200	6.07
24	1,140	200	1,140	200	24	255	200	6.40
25	1,140	200	1,140	200	24	252	200	6.74
26	1,140	200	1,140	200	24	250	200	7.05
27	1,140	200	1,140	200	24	248	200	7.30
28	1,140	200	1,140	200	24	245	200	7.55
29	1,150	200	1,150	200	24	243	200	7.80
30	1,150	200	1,150	200	18	100	175	4.40
31	1,150	200	1,150	200	24	239	200	2.34
Mean	1,140	200	1,140	200	24	255	199	4.97
n	31	31	31	31	22	22	22	22
SD	3	0	3	0	1	37	5	1.68
Min	1,140	200	1,140	200	18	100	175	2.34
Max	1,150	200	1,150	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for August, 2007

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,150	200	1,150	200	24	286	200	2.71
2	1,150	200	1,150	200	24	283	200	3.05
3	1,150	200	1,150	200	24	281	200	3.30
4	1,150	200	1,150	200	24	279	200	3.55
5	1,150	200	1,150	200	24	276	200	3.80
6	1,150	200	1,150	200	24	274	200	4.07
7	1,150	200	1,150	200	24	272	200	4.40
8	1,150	200	1,150	200	24	269	200	4.74
9	1,150	200	1,150	200	24	267	200	5.05
10	1,150	200	1,150	200	24	264	200	5.30
11	1,150	200	1,150	200	24	262	200	5.55
12	1,150	200	1,150	200	24	260	200	5.80
13	1,150	200	1,150	200	24	257	200	6.07
14	1,150	200	1,150	200	24	255	200	6.40
15	1,150	200	1,150	200	24	252	200	6.74
16	1,150	200	1,150	200	24	250	200	7.05
17	1,150	200	1,150	200	24	248	200	7.30
18	1,150	200	1,150	200	24	245	200	7.55
19	1,150	200	1,150	200	24	243	200	7.80
20	1,150	200	1,150	200	18	100	175	4.40
21	1,150	200	1,150	200	24	239	200	2.34
22	1,150	200	1,150	200	24	286	200	2.71
23	1,150	200	1,150	200	24	283	200	3.05
24	1,150	200	1,150	200	24	281	200	3.30
25	1,150	200	1,150	200	24	279	200	3.55
26	1,150	200	1,150	200	24	276	200	3.80
27	1,150	200	1,150	200	24	274	200	4.07
28	1,150	200	1,150	200	24	272	200	4.40
29	1,150	200	1,150	200	24	269	200	4.74
30	1,150	200	1,150	200	24	267	200	5.05
31	1,150	200	1,150	200	24	264	200	5.30
Mean	1,150	200	1,150	200	24	262	199	4.74
n	31	31	31	31	31	31	31	31
SD	1	0	1	0	1	32	4	1.50
Min	1,150	200	1,150	200	18	100	175	2.34
Max	1,150	200	1,150	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for September, 2007

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,150	200	1,150	200	24	262	200	5.55
2	1,150	200	1,150	200	24	260	200	5.80
3	1,150	200	1,150	200	24	257	200	6.07
4	1,150	200	1,150	200	24	255	200	6.40
5	1,150	200	1,150	200	24	252	200	6.74
6	1,150	200	1,150	200	24	250	200	7.05
7	1,150	200	1,150	200	24	248	200	7.30
8	1,150	200	1,150	200	24	245	200	7.55
9	1,150	200	1,150	200	24	243	200	7.80
10	1,150	200	1,150	200	18	100	175	4.40
11	1,150	200	1,150	200	24	239	200	2.34
12	1,150	200	1,150	200	24	286	200	2.71
13	1,150	200	1,150	200	24	283	200	3.05
14	1,150	200	1,150	200	24	281	200	3.30
15	1,150	200	1,150	200	24	279	200	3.55
16	1,150	200	1,150	200	24	276	200	3.80
17	1,150	200	1,150	200	24	274	200	4.07
18	1,150	200	1,150	200	24	272	200	4.40
19	1,150	200	1,150	200	24	269	200	4.74
20	1,150	200	1,150	200	24	267	200	5.05
21	1,150	200	1,150	200	24	264	200	5.30
22	1,150	200	1,150	200	24	262	200	5.55
23	1,150	200	1,150	200	24	260	200	5.80
24	1,150	200	1,150	200	24	257	200	6.07
25	1,150	200	1,150	200	24	255	200	6.40
26	1,150	200	1,150	200	24	252	200	6.74
27	1,150	200	1,150	200	24	250	200	7.05
28	1,150	200	1,150	200	24	248	200	7.30
29	1,150	200	1,150	200	24	245	200	7.55
30	1,150	200	1,150	200	24	243	200	7.80
Mean	1,150	200	1,150	200	24	254	199	5.57
n	30	30	30	30	30	30	30	30
SD	0	0	0	0	1	31	4	1.59
Min	1,150	200	1,150	200	18	100	175	2.34
Max	1,150	200	1,150	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for October, 2007

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,150	200	1,150	200	18	100	175	4.40
2	1,150	200	1,150	200	24	239	200	2.34
3	1,150	200	1,150	200	24	286	200	2.71
4	1,150	200	1,150	200	24	283	200	3.05
5	1,150	200	1,150	200	24	281	200	3.30
6	1,150	200	1,150	200	24	279	200	3.55
7	1,150	200	1,150	200	24	276	200	3.80
8	1,150	200	1,150	200	24	274	200	4.07
9	1,150	200	1,150	200	24	272	200	4.40
10	1,150	200	1,150	200	24	269	200	4.74
11	1,150	200	1,150	200	24	267	200	5.05
12	1,150	200	1,150	200	24	264	200	5.30
13	1,150	200	1,150	200	24	262	200	5.55
14	1,150	200	1,150	200	24	260	200	5.80
15	1,150	200	1,150	200	24	257	200	6.07
16	1,150	200	1,150	200	24	255	200	6.40
17	1,150	200	1,150	200	24	252	200	6.74
18	1,150	200	1,150	200	24	250	200	7.05
19	1,150	200	1,150	200	24	248	200	7.30
20	1,150	200	1,150	200	24	245	200	7.55
21	1,150	200	1,150	200	24	243	200	7.80
22	1,150	200	1,150	200	18	100	175	4.40
23	1,150	200	1,150	200	24	239	200	2.34
24	1,150	200	1,150	200	24	286	200	2.71
25	1,150	200	1,150	200	24	284	200	3.05
26	1,150	200	1,150	200	24	281	200	3.30
27	1,150	200	1,150	200	24	279	200	3.55
28	1,150	200	1,150	200	24	277	200	3.80
29	1,150	200	1,150	200	24	275	200	4.07
30	1,150	200	1,150	200	24	272	200	4.40
31	1,150	200	1,150	200	24	270	200	4.74
Mean	1,150	200	1,150	200	24	256	198	4.62
n	31	31	31	31	31	31	31	31
SD	2	0	2	0	1	43	6	1.56
Min	1,150	200	1,150	200	18	100	175	2.34
Max	1,150	200	1,150	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for November, 2007

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,160	200	1,160	200	24	268	200	5.05
2	1,160	200	1,160	200	24	265	200	5.30
3	1,160	200	1,160	200	24	263	200	5.55
4	1,160	200	1,160	200	24	261	200	5.80
5	1,160	200	1,160	200	24	259	200	6.07
6	1,160	200	1,160	200	24	256	200	6.40
7	1,160	200	1,160	200	24	254	200	6.74
8	1,160	200	1,160	200	24	252	200	7.04
9	1,160	200	1,160	200	24	250	200	7.24
10	1,160	200	1,160	200	24	247	200	7.44
11	1,160	200	1,160	200	24	245	200	7.64
12	1,160	200	1,160	200	24	243	200	7.84
13	1,160	200	1,160	200	18	100	175	4.40
14	1,160	200	1,160	200	24	239	200	2.34
15	1,160	200	1,160	200	24	286	200	2.71
16	1,160	200	1,160	200	24	284	200	3.05
17	1,160	200	1,160	200	24	282	200	3.30
18	1,160	200	1,160	200	24	280	200	3.55
19	1,160	200	1,160	200	24	278	200	3.80
20	1,160	200	1,160	200	24	276	200	4.07
21	1,160	200	1,160	200	24	274	200	4.40
22	1,160	200	1,160	200	24	272	200	4.74
23	1,160	200	1,160	200	24	270	200	5.05
24	1,160	200	1,160	200	24	267	200	5.30
25	1,160	200	1,160	200	24	265	200	5.55
26	1,160	200	1,160	200	24	263	200	5.80
27	1,160	200	1,160	200	24	261	200	6.07
28	1,160	200	1,160	200	24	259	200	6.40
29	1,160	200	1,160	200	24	257	200	6.74
30	1,160	200	1,160	200	24	255	200	7.02
Mean	1,160	200	1,160	200	24	258	199	5.41
n	30	30	30	30	30	30	30	30
SD	2	0	2	0	1	32	4	1.50
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,160	200	1,160	200	24	286	200	7.84

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Table E2. Daily means of animal characteristics at Site OK4B for December, 2007

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,160	200	1,160	200	24	253	200	7.17
2	1,160	200	1,160	200	24	251	200	7.32
3	1,160	200	1,160	200	24	249	200	7.46
4	1,160	200	1,160	200	24	247	200	7.60
5	1,160	200	1,160	200	24	245	200	7.74
6	1,160	200	1,160	200	24	243	200	7.89
7	1,160	200	1,160	200	18	100	175	4.40
8	1,160	200	1,160	200	24	239	200	2.34
9	1,160	200	1,160	200	24	286	200	2.71
10	1,160	200	1,160	200	24	283	200	3.05
11	1,160	200	1,160	200	24	281	200	3.30
12	1,160	200	1,160	200	24	278	200	3.55
13	1,160	200	1,160	200	24	276	200	3.80
14	1,160	200	1,160	200	24	273	200	4.07
15	1,160	200	1,160	200	24	271	200	4.40
16	1,160	200	1,160	200	24	268	200	4.74
17	1,160	200	1,160	200	24	266	200	5.05
18	1,160	200	1,160	200	24	263	200	5.30
19	1,160	200	1,160	200	24	261	200	5.55
20	1,160	200	1,160	200	24	258	200	5.80
21	1,160	200	1,160	200	24	256	200	6.07
22	1,160	200	1,160	200	24	253	200	6.40
23	1,160	200	1,160	200	24	251	200	6.74
24	1,160	200	1,160	200	24	248	200	7.07
25	1,160	200	1,160	200	24	246	200	7.40
26	1,160	200	1,160	200	24	243	200	7.74
27	1,160	200	1,160	200	18	100	175	4.39
28	1,160	200	1,160	200	24	239	200	2.34
29	1,160	200	1,160	200	24	286	200	2.71
30	1,160	200	1,160	200	24	285	200	3.05
31	1,160	200	1,160	200	24	283	200	3.30
Mean	1,160	200	1,160	200	24	251	198	5.18
n	31	31	31	31	31	31	31	31
SD	1	0	1	0	1	42	6	1.85
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,160	200	1,160	200	24	286	200	7.89

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Table E2. Daily means of animal characteristics at Site OK4B for January, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,160	200	1,160	200	24	281	200	3.55
2	1,160	200	1,160	200	24	279	200	3.80
3	1,160	200	1,160	200	24	278	200	4.07
4	1,160	200	1,160	200	24	276	200	4.40
5	1,160	200	1,160	200	24	274	200	4.74
6	1,160	200	1,160	200	24	272	200	5.05
7	1,160	200	1,160	200	24	271	200	5.30
8	1,160	200	1,160	200	24	269	200	5.55
9	1,160	200	1,160	200	24	267	200	5.80
10	1,160	200	1,160	200	24	265	200	6.07
11	1,160	200	1,160	200	24	264	200	6.40
12	1,160	200	1,160	200	24	262	200	6.74
13	1,160	200	1,160	200	24	260	200	7.01
14	1,160	200	1,160	200	24	258	200	7.11
15	1,160	200	1,160	200	24	256	200	7.20
16	1,160	200	1,160	200	24	255	200	7.29
17	1,160	200	1,160	200	24	253	200	7.38
18	1,170	200	1,170	200	24	251	200	7.47
19	1,170	200	1,170	200	24	249	200	7.56
20	1,170	200	1,170	200	24	248	200	7.66
21	1,170	200	1,170	200	24	246	200	7.75
22	1,170	200	1,170	200	24	244	200	7.84
23	1,170	200	1,170	200	24	242	200	7.93
24	1,170	200	1,170	200	18	100	175	4.41
25	1,170	200	1,170	200	24	239	200	2.34
26	1,170	200	1,170	200	24	286	200	2.71
27	1,170	200	1,170	200	24	284	200	3.05
28	1,170	200	1,170	200	24	282	200	3.30
29	1,170	200	1,170	200	24	280	200	3.55
30	1,170	200	1,170	200	24	278	200	3.80
31	1,170	200	1,170	200	24	276	200	4.07
Mean	1,160	200	1,160	200	24	260	199	5.51
n	31	31	31	31	31	31	31	31
SD	3	0	3	0	1	32	4	1.76
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,170	200	1,170	200	24	286	200	7.93

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Table E2. Daily means of animal characteristics at Site OK4B for February, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,170	200	1,170	200	24	274	200	4.40
2	1,170	200	1,170	200	24	272	200	4.74
3	1,170	200	1,170	200	24	270	200	5.05
4	1,170	200	1,170	200	24	268	200	5.30
5	1,170	200	1,170	200	24	266	200	5.55
6	1,170	200	1,170	200	24	264	200	5.80
7	1,170	200	1,170	200	24	262	200	6.07
8	1,170	200	1,170	200	24	260	200	6.40
9	1,170	200	1,170	200	24	258	200	6.74
10	1,170	200	1,170	200	24	256	200	7.02
11	1,170	200	1,170	200	24	254	200	7.15
12	1,170	200	1,170	200	24	252	200	7.28
13	1,170	200	1,170	200	24	250	200	7.40
14	1,170	200	1,170	200	24	249	200	7.53
15	1,170	200	1,170	200	24	247	200	7.65
16	1,170	200	1,170	200	24	245	200	7.78
17	1,170	200	1,170	200	24	243	200	7.90
18	1,180	200	1,180	200	18	100	175	4.40
19	1,180	200	1,180	200	24	239	200	2.34
20	1,180	200	1,180	200	24	286	200	2.71
21	1,180	200	1,180	200	24	285	200	3.05
22	1,180	200	1,180	200	24	283	200	3.30
23	1,180	200	1,180	200	24	281	200	3.55
24	1,180	200	1,180	200	24	279	200	3.80
25	1,180	200	1,180	200	24	278	200	4.07
26	1,180	200	1,180	200	24	276	200	4.40
27	1,180	200	1,180	200	24	274	200	4.74
28	1,180	200	1,180	200	24	272	200	5.05
29	1,180	200	1,180	200	24	271	200	5.30
Mean	1,170	200	1,170	200	24	259	199	5.40
n	29	29	29	29	29	29	29	29
SD	3	0	3	0	1	33	5	1.62
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,180	200	1,180	200	24	286	200	7.90

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Table E2. Daily means of animal characteristics at Site OK4B for March, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,180	200	1,180	200	24	269	200	5.55
2	1,180	200	1,180	200	24	267	200	5.80
3	1,180	200	1,180	200	24	265	200	6.07
4	1,180	200	1,180	200	24	264	200	6.40
5	1,180	200	1,180	200	24	262	200	6.74
6	1,180	200	1,180	200	24	260	200	7.01
7	1,180	200	1,180	200	24	258	200	7.11
8	1,180	200	1,180	200	24	256	200	7.20
9	1,180	200	1,180	200	24	255	200	7.29
10	1,180	200	1,180	200	24	253	200	7.38
11	1,180	200	1,180	200	24	251	200	7.47
12	1,180	200	1,180	200	24	249	200	7.56
13	1,180	200	1,180	200	24	248	200	7.66
14	1,180	200	1,180	200	24	246	200	7.75
15	1,180	200	1,180	200	24	244	200	7.84
16	1,180	200	1,180	200	24	242	200	7.93
17	1,180	200	1,180	200	18	100	175	4.41
18	1,180	200	1,180	200	24	239	200	2.34
19	1,180	200	1,180	200	24	286	200	2.71
20	1,180	200	1,180	200	24	284	200	3.05
21	1,180	200	1,180	200	24	282	200	3.30
22	1,180	200	1,180	200	24	280	200	3.55
23	1,180	200	1,180	200	24	278	200	3.80
24	1,190	200	1,190	200	24	276	200	4.07
25	1,190	200	1,190	200	24	274	200	4.40
26	1,190	200	1,190	200	24	272	200	4.74
27	1,190	200	1,190	200	24	270	200	5.05
28	1,190	200	1,190	200	24	267	200	5.30
29	1,190	200	1,190	200	24	265	200	5.55
30	1,190	200	1,190	200	24	263	200	5.80
31	1,190	200	1,190	200	24	261	200	6.07
Mean	1,180	200	1,180	200	24	258	199	5.71
n	31	31	31	31	31	31	31	31
SD	2	0	2	0	1	31	4	1.67
Min	1,180	200	1,180	200	18	100	175	2.34
Max	1,190	200	1,190	200	24	286	200	7.93

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Table E2. Daily means of animal characteristics at Site OK4B for April, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,190	200	1,190	200	24	259	200	6.40
2	1,190	200	1,190	200	24	257	200	6.74
3	1,190	200	1,190	200	24	255	200	7.02
4	1,190	200	1,190	200	24	253	200	7.17
5	1,190	200	1,190	200	24	251	200	7.32
6	1,190	200	1,190	200	24	249	200	7.46
7	1,190	200	1,190	200	24	247	200	7.60
8	1,190	200	1,190	200	24	245	200	7.74
9	1,190	200	1,190	200	24	243	200	7.89
10	1,190	200	1,190	200	18	100	175	4.40
11	1,190	200	1,190	200	24	239	200	2.34
12	1,190	200	1,190	200	24	286	200	2.71
13	1,190	200	1,190	200	24	284	200	3.05
14	1,190	200	1,190	200	24	282	200	3.30
15	1,190	200	1,190	200	24	280	200	3.55
16	1,190	200	1,190	200	24	278	200	3.80
17	1,190	200	1,190	200	24	276	200	4.07
18	1,190	200	1,190	200	24	274	200	4.40
19	1,190	200	1,190	200	24	272	200	4.74
20	1,190	200	1,190	200	24	270	200	5.05
21	1,190	200	1,190	200	24	268	200	5.30
22	1,190	200	1,190	200	24	266	200	5.55
23	1,190	200	1,190	200	24	264	200	5.80
24	1,190	200	1,190	200	24	262	200	6.07
25	1,190	200	1,190	200	24	260	200	6.40
26	1,190	200	1,190	200	24	258	200	6.74
27	1,190	200	1,190	200	24	256	200	7.02
28	1,190	200	1,190	200	24	254	200	7.15
29	1,190	200	1,190	200	24	252	200	7.28
30	1,190	200	1,190	200	24	250	200	7.40
Mean	1,190	200	1,190	200	24	257	199	5.72
n	30	30	30	30	30	30	30	30
SD	0	0	0	0	1	32	4	1.67
Min	1,190	200	1,190	200	18	100	175	2.34
Max	1,190	200	1,190	200	24	286	200	7.89

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Table E2. Daily means of animal characteristics at Site OK4B for May, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,190	200	1,190	200	24	249	200	7.53
2	1,190	200	1,190	200	24	247	200	7.65
3	1,190	200	1,190	200	24	245	200	7.78
4	1,190	200	1,190	200	24	243	200	7.90
5	1,190	200	1,190	200	18	100	175	4.40
6	1,190	200	1,190	200	24	239	200	2.34
7	1,190	200	1,190	200	24	286	200	2.71
8	1,190	200	1,190	200	24	284	200	3.05
9	1,190	200	1,190	200	24	281	200	3.30
10	1,190	200	1,190	200	24	279	200	3.55
11	1,190	200	1,190	200	24	277	200	3.80
12	1,190	200	1,190	200	24	275	200	4.07
13	1,190	200	1,190	200	24	272	200	4.40
14	1,190	200	1,190	200	24	270	200	4.74
15	1,190	200	1,190	200	24	268	200	5.05
16	1,190	200	1,190	200	24	265	200	5.30
17	1,190	200	1,190	200	24	263	200	5.55
18	1,190	200	1,190	200	24	261	200	5.80
19	1,190	200	1,190	200	24	259	200	6.07
20	1,190	200	1,190	200	24	256	200	6.40
21	1,190	200	1,190	200	24	254	200	6.74
22	1,190	200	1,190	200	24	252	200	7.04
23	1,190	200	1,190	200	24	250	200	7.24
24	1,190	200	1,190	200	24	247	200	7.44
25	1,200	200	1,200	200	24	245	200	7.64
26	1,200	200	1,200	200	24	243	200	7.84
27	1,200	200	1,200	200	18	100	175	4.40
28	1,200	200	1,200	200	24	239	200	2.34
29	1,200	200	1,200	200	24	286	200	2.71
30	1,200	200	1,200	200	24	283	200	3.05
31	1,200	200	1,200	200	24	281	200	3.30
Mean	1,190	200	1,190	200	24	252	198	5.20
n	31	31	31	31	31	31	31	31
SD	3	0	3	0	1	43	6	1.88
Min	1,190	200	1,190	200	18	100	175	2.34
Max	1,200	200	1,200	200	24	286	200	7.90

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Table E2. Daily means of animal characteristics at Site OK4B for June, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,200	200	1,200	200	24	278	200	3.55
2	1,200	200	1,200	200	24	276	200	3.80
3	1,190	200	1,190	200	24	273	200	4.07
4	1,190	200	1,190	200	24	271	200	4.40
5	1,190	200	1,190	200	24	268	200	4.74
6	1,190	200	1,190	200	24	266	200	5.05
7	1,190	200	1,190	200	24	263	200	5.30
8	1,190	200	1,190	200	24	261	200	5.55
9	1,190	200	1,190	200	24	258	200	5.80
10	1,190	200	1,190	200	24	256	200	6.07
11	1,190	200	1,190	200	24	253	200	6.40
12	1,190	200	1,190	200	24	251	200	6.74
13	1,180	200	1,180	200	24	248	200	7.07
14	1,180	200	1,180	200	24	246	200	7.40
15	1,180	200	1,180	200	24	243	200	7.74
16	1,180	200	1,180	200	18	100	175	4.39
17	1,180	200	1,180	200	24	239	200	2.34
18	1,180	200	1,180	200	24	286	200	2.71
19	1,180	200	1,180	200	24	283	200	3.05
20	1,180	200	1,180	200	24	281	200	3.30
21	1,180	200	1,180	200	24	279	200	3.55
22	1,170	200	1,170	200	24	276	200	3.80
23	1,170	200	1,170	200	24	274	200	4.07
24	1,170	200	1,170	200	24	272	200	4.40
25	1,170	200	1,170	200	24	269	200	4.74
26	1,170	200	1,170	200	24	267	200	5.05
27	1,170	200	1,170	200	24	264	200	5.30
28	1,170	200	1,170	200	24	262	200	5.55
29	1,170	200	1,170	200	24	260	200	5.80
30	1,170	200	1,170	200	24	257	200	6.07
Mean	1,180	200	1,180	200	24	259	199	4.93
n	30	30	30	30	30	30	30	30
SD	9	0	9	0	1	32	4	1.36
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,200	200	1,200	200	24	286	200	7.74

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Table E2. Daily means of animal characteristics at Site OK4B for July, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,170	200	1,170	200	24	255	200	6.40
2	1,170	200	1,170	200	24	252	200	6.74
3	1,170	200	1,170	200	24	250	200	7.05
4	1,170	200	1,170	200	24	248	200	7.30
5	1,170	200	1,170	200	24	245	200	7.55
6	1,170	200	1,170	200	24	243	200	7.80
7	1,170	200	1,170	200	18	100	175	4.40
8	1,170	200	1,170	200	24	239	200	2.34
9	1,170	200	1,170	200	24	286	200	2.71
10	1,170	200	1,170	200	24	284	200	3.05
11	1,170	200	1,170	200	24	281	200	3.30
12	1,170	200	1,170	200	24	279	200	3.55
13	1,170	200	1,170	200	24	277	200	3.80
14	1,170	200	1,170	200	24	275	200	4.07
15	1,170	200	1,170	200	24	272	200	4.40
16	1,170	200	1,170	200	24	270	200	4.74
17	1,170	200	1,170	200	24	268	200	5.05
18	1,170	200	1,170	200	24	265	200	5.30
19	1,170	200	1,170	200	24	263	200	5.55
20	1,170	200	1,170	200	24	261	200	5.80
21	1,170	200	1,170	200	24	259	200	6.07
22	1,170	200	1,170	200	24	256	200	6.40
23	1,170	200	1,170	200	24	254	200	6.74
24	1,170	200	1,170	200	24	252	200	7.04
25	1,170	200	1,170	200	24	250	200	7.24
26	1,170	200	1,170	200	24	247	200	7.44
27	1,170	200	1,170	200	24	245	200	7.64
28	1,170	200	1,170	200	24	243	200	7.84
29	1,170	200	1,170	200	18	100	175	4.40
30	1,170	200	1,170	200	24	239	200	2.34
31	1,170	200	1,170	200	24	286	200	2.71
Mean	1,170	200	1,170	200	24	250	198	5.38
n	31	31	31	31	31	31	31	31
SD	1	0	1	0	1	42	6	1.78
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,170	200	1,170	200	24	286	200	7.84

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Table E2. Daily means of animal characteristics at Site OK4B for August, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,170	200	1,170	200	24	284	200	3.05
2	1,170	200	1,170	200	24	282	200	3.30
3	1,170	200	1,170	200	24	280	200	3.55
4	1,170	200	1,170	200	24	278	200	3.80
5	1,170	200	1,170	200	24	276	200	4.07
6	1,170	200	1,170	200	24	274	200	4.40
7	1,170	200	1,170	200	24	272	200	4.74
8	1,170	200	1,170	200	24	270	200	5.05
9	1,170	200	1,170	200	24	267	200	5.30
10	1,170	200	1,170	200	24	265	200	5.55
11	1,170	200	1,170	200	24	263	200	5.80
12	1,170	200	1,170	200	24	261	200	6.07
13	1,170	200	1,170	200	24	259	200	6.40
14	1,170	200	1,170	200	24	257	200	6.74
15	1,170	200	1,170	200	24	255	200	7.02
16	1,170	200	1,170	200	24	253	200	7.17
17	1,180	200	1,180	200	24	251	200	7.32
18	1,180	200	1,180	200	24	249	200	7.46
19	1,180	200	1,180	200	24	247	200	7.60
20	1,180	200	1,180	200	24	245	200	7.74
21	1,180	200	1,180	200	24	243	200	7.89
22	1,180	200	1,180	200	18	100	175	4.40
23	1,180	200	1,180	200	24	239	200	2.34
24	1,180	200	1,180	200	24	286	200	2.71
25	1,180	200	1,180	200	24	283	200	3.05
26	1,180	200	1,180	200	24	281	200	3.30
27	1,180	200	1,180	200	24	279	200	3.55
28	1,180	200	1,180	200	24	276	200	3.80
29	1,180	200	1,180	200	24	274	200	4.07
30	1,180	200	1,180	200	24	272	200	4.40
31	1,180	200	1,180	200	24	269	200	4.74
Mean	1,170	200	1,170	200	24	261	199	5.04
n	31	31	31	31	31	31	31	31
SD	2	0	2	0	1	32	4	1.66
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,180	200	1,180	200	24	286	200	7.89

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Table E2. Daily means of animal characteristics at Site OK4B for September, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,180	200	1,180	200	24	267	200	5.05
2	1,180	200	1,180	200	24	264	200	5.30
3	1,180	200	1,180	200	24	262	200	5.55
4	1,180	200	1,180	200	24	260	200	5.80
5	1,180	200	1,180	200	24	257	200	6.07
6	1,180	200	1,180	200	24	255	200	6.40
7	1,180	200	1,180	200	24	252	200	6.74
8	1,180	200	1,180	200	24	250	200	7.05
9	1,180	200	1,180	200	24	248	200	7.30
10	1,180	200	1,180	200	24	245	200	7.55
11	1,180	200	1,180	200	24	243	200	7.80
12	1,180	200	1,180	200	18	100	175	4.40
13	1,180	200	1,180	200	24	239	200	2.34
14	1,180	200	1,180	200	24	286	200	2.71
15	1,180	200	1,180	200	24	284	200	3.05
16	1,180	200	1,180	200	24	282	200	3.30
17	1,180	200	1,180	200	24	280	200	3.55
18	1,180	200	1,180	200	24	278	200	3.80
19	1,180	200	1,180	200	24	276	200	4.07
20	1,180	200	1,180	200	24	274	200	4.40
21	1,180	200	1,180	200	24	272	200	4.74
22	1,180	200	1,180	200	24	270	200	5.05
23	1,180	200	1,180	200	24	267	200	5.30
24	1,180	200	1,180	200	24	265	200	5.55
25	1,170	200	1,170	200	24	263	200	5.80
26	1,170	200	1,170	200	24	261	200	6.07
27	1,170	200	1,170	200	24	259	200	6.40
28	1,170	200	1,170	200	24	257	200	6.74
29	1,170	200	1,170	200	24	255	200	7.02
30	1,170	200	1,170	200	24	253	200	7.17
Mean	1,180	200	1,180	200	24	257	199	5.40
n	30	30	30	30	30	30	30	30
SD	1	0	1	0	1	32	4	1.49
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,180	200	1,180	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for October, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,170	200	1,170	200	24	251	200	7.32
2	1,170	200	1,170	200	24	249	200	7.46
3	1,170	200	1,170	200	24	247	200	7.60
4	1,170	200	1,170	200	24	245	200	7.74
5	1,170	200	1,170	200	24	243	200	7.89
6	1,170	200	1,170	200	18	100	175	4.40
7	1,170	200	1,170	200	24	239	200	2.34
8	1,170	200	1,170	200	24	286	200	2.71
9	1,170	200	1,170	200	24	283	200	3.05
10	1,170	200	1,170	200	24	281	200	3.30
11	1,170	200	1,170	200	24	279	200	3.55
12	1,170	200	1,170	200	24	276	200	3.80
13	1,170	200	1,170	200	24	274	200	4.07
14	1,170	200	1,170	200	24	272	200	4.40
15	1,170	200	1,170	200	24	269	200	4.74
16	1,170	200	1,170	200	24	267	200	5.05
17	1,170	200	1,170	200	24	264	200	5.30
18	1,160	200	1,160	200	24	262	200	5.55
19	1,160	200	1,160	200	24	260	200	5.80
20	1,160	200	1,160	200	24	257	200	6.07
21	1,160	200	1,160	200	24	255	200	6.40
22	1,160	200	1,160	200	24	252	200	6.74
23	1,160	200	1,160	200	24	250	200	7.05
24	1,160	200	1,160	200	24	248	200	7.30
25	1,160	200	1,160	200	24	245	200	7.55
26	1,160	200	1,160	200	24	243	200	7.80
27	1,160	200	1,160	200	18	100	175	4.40
28	1,160	200	1,160	200	24	239	200	2.34
29	1,160	200	1,160	200	24	286	200	2.71
30	1,160	200	1,160	200	24	283	200	3.05
31	1,160	200	1,160	200	24	281	200	3.30
Mean	1,170	200	1,170	200	24	251	198	5.19
n	31	31	31	31	31	31	31	31
SD	5	0	5	0	1	42	6	1.86
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,170	200	1,170	200	24	286	200	7.89

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Table E2. Daily means of animal characteristics at Site OK4B for November, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,160	200	1,160	200	24	279	200	3.55
2	1,160	200	1,160	200	24	276	200	3.80
3	1,160	200	1,160	200	24	274	200	4.07
4	1,160	200	1,160	200	24	272	200	4.40
5	1,160	200	1,160	200	24	269	200	4.74
6	1,160	200	1,160	200	24	267	200	5.05
7	1,160	200	1,160	200	24	264	200	5.30
8	1,160	200	1,160	200	24	262	200	5.55
9	1,160	200	1,160	200	24	260	200	5.80
10	1,160	200	1,160	200	24	257	200	6.07
11	1,160	200	1,160	200	24	255	200	6.40
12	1,160	200	1,160	200	24	252	200	6.74
13	1,160	200	1,160	200	24	250	200	7.05
14	1,160	200	1,160	200	24	248	200	7.30
15	1,160	200	1,160	200	24	245	200	7.55
16	1,160	200	1,160	200	24	243	200	7.80
17	1,160	200	1,160	200	18	100	175	4.40
18	1,160	200	1,160	200	24	239	200	2.34
19	1,160	200	1,160	200	24	286	200	2.71
20	1,160	200	1,160	200	24	284	200	3.05
21	1,160	200	1,160	200	24	282	200	3.30
22	1,160	200	1,160	200	24	280	200	3.55
23	1,160	200	1,160	200	24	278	200	3.80
24	1,160	200	1,160	200	24	276	200	4.07
25	1,160	200	1,160	200	24	274	200	4.40
26	1,160	200	1,160	200	24	272	200	4.74
27	1,160	200	1,160	200	24	270	200	5.05
28	1,160	200	1,160	200	24	268	200	5.30
29	1,160	200	1,160	200	24	266	200	5.55
30	1,160	200	1,160	200	24	264	200	5.80
Mean	1,160	200	1,160	200	24	260	199	4.97
n	30	30	30	30	30	30	30	30
SD	1	0	1	0	1	32	4	1.43
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,160	200	1,160	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for December, 2008

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,160	200	1,160	200	24	262	200	6.07
2	1,160	200	1,160	200	24	260	200	6.40
3	1,160	200	1,160	200	24	258	200	6.74
4	1,160	200	1,160	200	24	256	200	7.02
5	1,160	200	1,160	200	24	254	200	7.15
6	1,160	200	1,160	200	24	252	200	7.28
7	1,160	200	1,160	200	24	250	200	7.40
8	1,160	200	1,160	200	24	249	200	7.53
9	1,160	200	1,160	200	24	247	200	7.65
10	1,160	200	1,160	200	24	245	200	7.78
11	1,160	200	1,160	200	24	243	200	7.90
12	1,160	200	1,160	200	18	100	175	4.40
13	1,160	200	1,160	200	24	239	200	2.34
14	1,160	200	1,160	200	24	286	200	2.71
15	1,160	200	1,160	200	24	284	200	3.05
16	1,160	200	1,160	200	24	282	200	3.30
17	1,160	200	1,160	200	24	280	200	3.55
18	1,160	200	1,160	200	24	278	200	3.80
19	1,160	200	1,160	200	24	276	200	4.07
20	1,160	200	1,160	200	24	274	200	4.40
21	1,160	200	1,160	200	24	272	200	4.74
22	1,160	200	1,160	200	24	270	200	5.05
23	1,160	200	1,160	200	24	267	200	5.30
24	1,160	200	1,160	200	24	265	200	5.55
25	1,160	200	1,160	200	24	263	200	5.80
26	1,160	200	1,160	200	24	261	200	6.07
27	1,160	200	1,160	200	24	259	200	6.40
28	1,160	200	1,160	200	24	257	200	6.74
29	1,160	200	1,160	200	24	255	200	7.02
30	1,160	200	1,160	200	24	253	200	7.17
31	1,160	200	1,160	200	24	251	200	7.32
Mean	1,160	200	1,160	200	24	256	199	5.73
n	31	31	31	31	31	31	31	31
SD	1	0	1	0	1	31	4	1.65
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,160	200	1,160	200	24	286	200	7.90

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Table E2. Daily means of animal characteristics at Site OK4B for January, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,160	200	1,160	200	24	249	200	7.46
2	1,160	200	1,160	200	24	247	200	7.60
3	1,160	200	1,160	200	24	245	200	7.74
4	1,160	200	1,160	200	24	243	200	7.89
5	1,160	200	1,160	200	18	100	175	4.40
6	1,170	200	1,170	200	24	239	200	2.34
7	1,170	200	1,170	200	24	286	200	2.71
8	1,170	200	1,170	200	24	283	200	3.05
9	1,170	200	1,170	200	24	281	200	3.30
10	1,170	200	1,170	200	24	279	200	3.55
11	1,170	200	1,170	200	24	276	200	3.80
12	1,170	200	1,170	200	24	274	200	4.07
13	1,170	200	1,170	200	24	272	200	4.40
14	1,170	200	1,170	200	24	269	200	4.74
15	1,170	200	1,170	200	24	267	200	5.05
16	1,170	200	1,170	200	24	264	200	5.30
17	1,170	200	1,170	200	24	262	200	5.55
18	1,170	200	1,170	200	24	260	200	5.80
19	1,170	200	1,170	200	24	257	200	6.07
20	1,170	200	1,170	200	24	255	200	6.40
21	1,170	200	1,170	200	24	252	200	6.74
22	1,170	200	1,170	200	24	250	200	7.05
23	1,170	200	1,170	200	24	248	200	7.30
24	1,170	200	1,170	200	24	245	200	7.55
25	1,170	200	1,170	200	24	243	200	7.80
26	1,170	200	1,170	200	18	100	175	4.40
27	1,170	200	1,170	200	24	239	200	2.34
28	1,170	200	1,170	200	24	286	200	2.71
29	1,170	200	1,170	200	24	284	200	3.05
30	1,170	200	1,170	200	24	282	200	3.30
31	1,170	200	1,170	200	24	280	200	3.55
Mean	1,170	200	1,170	200	24	252	198	5.07
n	31	31	31	31	31	31	31	31
SD	2	0	2	0	1	43	6	1.84
Min	1,160	200	1,160	200	18	100	175	2.34
Max	1,170	200	1,170	200	24	286	200	7.89

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Table E2. Daily means of animal characteristics at Site OK4B for February, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,170	200	1,170	200	24	277	200	3.80
2	1,170	200	1,170	200	24	275	200	4.07
3	1,170	200	1,170	200	24	273	200	4.40
4	1,170	200	1,170	200	24	271	200	4.74
5	1,170	200	1,170	200	24	269	200	5.05
6	1,170	200	1,170	200	24	267	200	5.30
7	1,170	200	1,170	200	24	264	200	5.55
8	1,170	200	1,170	200	24	262	200	5.80
9	1,170	200	1,170	200	24	260	200	6.07
10	1,170	200	1,170	200	24	258	200	6.40
11	1,170	200	1,170	200	24	256	200	6.74
12	1,170	200	1,170	200	24	254	200	7.03
13	1,170	200	1,170	200	24	251	200	7.20
14	1,170	200	1,170	200	24	249	200	7.37
15	1,170	200	1,170	200	24	247	200	7.53
16	1,170	200	1,170	200	24	245	200	7.70
17	1,180	200	1,180	200	24	243	200	7.87
18	1,180	200	1,180	200	18	100	175	4.40
19	1,180	200	1,180	200	24	239	200	2.34
20	1,180	200	1,180	200	24	286	200	2.71
21	1,180	200	1,180	200	24	283	200	3.05
22	1,180	200	1,180	200	24	281	200	3.30
23	1,180	200	1,180	200	24	279	200	3.55
24	1,180	200	1,180	200	24	276	200	3.80
25	1,180	200	1,180	200	24	274	200	4.07
26	1,180	200	1,180	200	24	272	200	4.40
27	1,180	200	1,180	200	24	269	200	4.74
28	1,180	200	1,180	200	24	267	200	5.05
Mean	1,170	200	1,170	200	24	259	199	5.14
n	28	28	28	28	28	28	28	28
SD	3	0	3	0	1	33	5	1.58
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,180	200	1,180	200	24	286	200	7.87

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Table E2. Daily means of animal characteristics at Site OK4B for March, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,180	200	1,180	200	24	264	200	5.30
2	1,180	200	1,180	200	24	262	200	5.55
3	1,180	200	1,180	200	24	260	200	5.80
4	1,180	200	1,180	200	24	257	200	6.07
5	1,180	200	1,180	200	24	255	200	6.40
6	1,180	200	1,180	200	24	252	200	6.74
7	1,180	200	1,180	200	24	250	200	7.05
8	1,180	200	1,180	200	24	248	200	7.30
9	1,180	200	1,180	200	24	245	200	7.55
10	1,180	200	1,180	200	24	243	200	7.80
11	1,180	200	1,180	200	18	100	175	4.40
12	1,180	200	1,180	200	24	239	200	2.34
13	1,180	200	1,180	200	24	286	200	2.71
14	1,180	200	1,180	200	24	284	200	3.05
15	1,180	200	1,180	200	24	281	200	3.30
16	1,180	200	1,180	200	24	279	200	3.55
17	1,180	200	1,180	200	24	277	200	3.80
18	1,180	200	1,180	200	24	275	200	4.07
19	1,180	200	1,180	200	24	272	200	4.40
20	1,180	200	1,180	200	24	270	200	4.74
21	1,180	200	1,180	200	24	268	200	5.05
22	1,180	200	1,180	200	24	265	200	5.30
23	1,180	200	1,180	200	24	263	200	5.55
24	1,180	200	1,180	200	24	261	200	5.80
25	1,180	200	1,180	200	24	259	200	6.07
26	1,180	200	1,180	200	24	256	200	6.40
27	1,180	200	1,180	200	24	254	200	6.74
28	1,190	200	1,190	200	24	252	200	7.04
29	1,190	200	1,190	200	24	250	200	7.24
30	1,190	200	1,190	200	24	247	200	7.44
31	1,190	200	1,190	200	24	245	200	7.64
Mean	1,180	200	1,180	200	24	255	199	5.56
n	31	31	31	31	31	31	31	31
SD	2	0	2	0	1	31	4	1.56
Min	1,180	200	1,180	200	18	100	175	2.34
Max	1,190	200	1,190	200	24	286	200	7.80

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Table E2. Daily means of animal characteristics at Site OK4B for April, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,190	200	1,190	200	24	243	200	7.84
2	1,190	200	1,190	200	18	100	175	4.40
3	1,190	200	1,190	200	24	239	200	2.34
4	1,190	200	1,190	200	24	286	200	2.71
5	1,180	200	1,180	200	24	284	200	3.05
6	1,180	200	1,180	200	24	281	200	3.30
7	1,180	200	1,180	200	24	279	200	3.55
8	1,180	200	1,180	200	24	277	200	3.80
9	1,180	200	1,180	200	24	275	200	4.07
10	1,180	200	1,180	200	24	272	200	4.40
11	1,180	200	1,180	200	24	270	200	4.74
12	1,180	200	1,180	200	24	268	200	5.05
13	1,180	200	1,180	200	24	265	200	5.30
14	1,180	200	1,180	200	24	263	200	5.55
15	1,180	200	1,180	200	24	261	200	5.80
16	1,180	200	1,180	200	24	259	200	6.07
17	1,180	200	1,180	200	24	256	200	6.40
18	1,180	200	1,180	200	24	254	200	6.74
19	1,180	200	1,180	200	24	252	200	7.04
20	1,180	200	1,180	200	24	250	200	7.24
21	1,180	200	1,180	200	24	247	200	7.44
22	1,180	200	1,180	200	24	245	200	7.64
23	1,180	200	1,180	200	24	243	200	7.84
24	1,180	200	1,180	200	18	100	175	4.40
25	1,180	200	1,180	200	24	239	200	2.34
26	1,180	200	1,180	200	24	286	200	2.71
27	1,180	200	1,180	200	24	284	200	3.05
28	1,180	200	1,180	200	24	282	200	3.30
29	1,180	200	1,180	200	24	280	200	3.55
30	1,180	200	1,180	200	24	278	200	3.80
Mean	1,180	200	1,180	200	24	254	198	4.85
n	30	30	30	30	30	30	30	30
SD	2	0	2	0	2	44	6	1.75
Min	1,180	200	1,180	200	18	100	175	2.34
Max	1,190	200	1,190	200	24	286	200	7.84

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Table E2. Daily means of animal characteristics at Site OK4B for May, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,180	200	1,180	200	24	276	200	4.07
2	1,180	200	1,180	200	24	274	200	4.40
3	1,180	200	1,180	200	24	272	200	4.74
4	1,180	200	1,180	200	24	270	200	5.05
5	1,180	200	1,180	200	24	267	200	5.30
6	1,180	200	1,180	200	24	265	200	5.55
7	1,180	200	1,180	200	24	263	200	5.80
8	1,180	200	1,180	200	24	261	200	6.07
9	1,180	200	1,180	200	24	259	200	6.40
10	1,180	200	1,180	200	24	257	200	6.74
11	1,180	200	1,180	200	24	255	200	7.02
12	1,180	200	1,180	200	24	253	200	7.17
13	1,180	200	1,180	200	24	251	200	7.32
14	1,180	200	1,180	200	24	249	200	7.46
15	1,180	200	1,180	200	24	247	200	7.60
16	1,180	200	1,180	200	24	245	200	7.74
17	1,180	200	1,180	200	24	243	200	7.89
18	1,180	200	1,180	200	18	100	175	4.40
19	1,180	200	1,180	200	24	239	200	2.34
20	1,180	200	1,180	200	24	286	200	2.71
21	1,180	200	1,180	200	24	284	200	3.05
22	1,180	200	1,180	200	24	282	200	3.30
23	1,180	200	1,180	200	24	280	200	3.55
24	1,180	200	1,180	200	24	277	200	3.80
25	1,180	200	1,180	200	24	275	200	4.07
26	1,170	200	1,170	200	24	273	200	4.40
27	1,170	200	1,170	200	24	271	200	4.74
28	1,170	200	1,170	200	24	269	200	5.05
29	1,170	200	1,170	200	24	267	200	5.30
30	1,170	200	1,170	200	24	264	200	5.55
31	1,170	200	1,170	200	24	262	200	5.80
Mean	1,180	200	1,180	200	24	259	199	5.30
n	31	31	31	31	31	31	31	31
SD	1	0	1	0	1	32	4	1.54
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,180	200	1,180	200	24	286	200	7.89

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Table E2. Daily means of animal characteristics at Site OK4B for June, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,170	200	1,170	200	24	260	200	6.07
2	1,170	200	1,170	200	24	258	200	6.40
3	1,170	200	1,170	200	24	256	200	6.74
4	1,170	200	1,170	200	24	254	200	7.03
5	1,180	200	1,180	200	24	251	200	7.20
6	1,180	200	1,180	200	24	249	200	7.37
7	1,180	200	1,180	200	24	247	200	7.53
8	1,180	200	1,180	200	24	245	200	7.70
9	1,180	200	1,180	200	24	243	200	7.87
10	1,180	200	1,180	200	18	100	175	4.40
11	1,180	200	1,180	200	24	239	200	2.34
12	1,180	200	1,180	200	24	286	200	2.71
13	1,180	200	1,180	200	24	284	200	3.05
14	1,180	200	1,180	200	24	282	200	3.30
15	1,180	200	1,180	200	24	280	200	3.55
16	1,180	200	1,180	200	24	277	200	3.80
17	1,180	200	1,180	200	24	275	200	4.07
18	1,180	200	1,180	200	24	273	200	4.40
19	1,180	200	1,180	200	24	271	200	4.74
20	1,180	200	1,180	200	24	269	200	5.05
21	1,180	200	1,180	200	24	267	200	5.30
22	1,180	200	1,180	200	24	264	200	5.55
23	1,180	200	1,180	200	24	262	200	5.80
24	1,180	200	1,180	200	24	260	200	6.07
25	1,180	200	1,180	200	24	258	200	6.40
26	1,180	200	1,180	200	24	256	200	6.74
27	1,180	200	1,180	200	24	254	200	7.03
28	1,180	200	1,180	200	24	251	200	7.20
29	1,180	200	1,180	200	24	249	200	7.37
30	1,180	200	1,180	200	24	247	200	7.53
Mean	1,180	200	1,180	200	24	256	199	5.68
n	30	30	30	30	30	30	30	30
SD	2	0	2	0	1	32	4	1.65
Min	1,170	200	1,170	200	18	100	175	2.34
Max	1,180	200	1,180	200	24	286	200	7.87

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Table E2. Daily means of animal characteristics at Site OK4B for July, 2009

Day	Barn 1		Barn 2		Farrowing room 9			
	Inv., hd	Mass, kg	Inv., hd	Mass, kg	Sow inv.	Piglet inv.	Sow mass, kg	Piglet mass, kg
1	1,180	200	1,180	200	24	245	200	7.70
2	1,180	200	1,180	200	24	243	200	7.87
3	1,180	200	1,180	200	18	100	175	4.40
4	1,180	200	1,180	200	24	239	200	2.34
5	1,180	200	1,180	200	24	285	200	2.71
6	1,180	200	1,180	200	24	282	200	3.05
7	1,180	200	1,180	200	24	279	200	3.30
8	1,180	200	1,180	200	24	276	200	3.55
9	1,180	200	1,180	200	24	273	200	3.80
10	1,180	200	1,180	200	24	270	200	4.07
11	1,180	200	1,180	200	24	267	200	4.40
12	1,180	200	1,180	200	24	264	200	4.74
13	1,180	200	1,180	200	24	261	200	5.05
14	1,180	200	1,180	200	24	258	200	5.30
15	1,180	200	1,180	200	24	255	200	5.55
16	1,180	200	1,180	200	24	252	200	5.80
17	1,190	200	1,190	200	24	249	200	6.07
18	1,190	200	1,190	200	24	246	200	6.40
19	1,190	200	1,190	200	24	243	200	6.74
20	1,190	200	1,190	200				
21	1,190	200	1,190	200				
22	1,190	200	1,190	200				
23	1,190	200	1,190	200				
24								
25								
26								
27								
28								
29								
30								
31								
Mean	1,180	200	1,180	200	24	252	199	4.89
n	23	23	23	23	19	19	19	19
SD	2	0	2	0	1	38	6	1.57
Min	1,180	200	1,180	200	18	100	175	2.34
Max	1,190	200	1,190	200	24	285	200	7.87

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Table E3. Environmental parameters.

Table E3. Daily means (SD) of environmental parameters at Site OK4B for July, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12	25.5 (1.9)	70.9 (3.4)	-22.0 (6.8)		24.8 (2.1)	73.7 (3.3)	-21.0 (5.7)				-47.1 (9.1)	
13	24.4 (1.0)	69.2 (2.1)	-15.7 (1.9)		23.6 (1.2)	72.4 (2.2)	-14.8 (3.6)		22.5 (1.3)		-39.7 (11.3)	
14	25.1 (1.8)	64.7 (5.4)	-19.4 (9.6)		24.4 (2.3)	68.5 (5.5)	-17.3 (7.2)		23.5 (2.2)		-42.5 (12.3)	
15	25.6 (1.7)	64.5 (6.3)	-22.1 (8.2)		25.2 (2.2)	67.7 (6.5)	-19.4 (6.9)		24.5 (1.8)		-46.7 (10.2)	
16	25.6 (1.5)	63.3 (4.8)	-21.0 (6.5)		25.4 (2.1)	68.0 (4.2)	-22.5 (5.2)		25.1 (1.2)		-53.1 (4.9)	
17	25.8 (2.0)	63.0 (3.7)	-22.1 (7.2)		25.5 (2.4)	69.1 (4.4)	-20.7 (7.4)		25.0 (2.1)		-49.6 (10.3)	
18	25.9 (1.8)	60.3 (5.3)	-22.0 (6.7)		25.8 (2.3)	66.3 (4.9)	-21.4 (7.7)		25.4 (1.6)		-52.5 (4.9)	
19	25.2 (1.5)	63.8 (2.5)	-20.1 (7.9)		24.7 (1.8)	68.8 (2.9)	-19.4 (5.3)		25.1 (1.2)		-51.3 (3.9)	
20	26.1 (1.6)	67.2 (4.3)	-24.8 (6.3)		25.8 (1.7)	70.1 (4.0)	-22.6 (5.3)		25.7 (1.0)		-51.0 (2.3)	
21	26.0 (1.5)	67.6 (3.5)	-24.7 (6.1)	53.1 (5.1)	25.7 (1.8)	71.2 (3.2)	-23.0 (4.8)	53.9 (5.7)	25.4 (1.4)		-52.3 (3.4)	
22	26.1 (1.5)	68.2 (3.8)	-25.5 (6.0)	54.3 (5.4)	25.9 (1.9)	71.7 (3.7)	-23.1 (4.8)	55.0 (6.1)	25.6 (1.5)		-51.3 (3.2)	
23	26.0 (1.6)	64.9 (3.7)	-23.6 (6.9)	52.7 (6.7)	25.5 (1.9)	69.4 (3.8)	-20.8 (6.5)	52.1 (8.3)	25.5 (1.6)		-50.1 (3.1)	
24	25.9 (1.5)	68.7 (3.9)	-23.1 (6.2)	52.5 (7.0)	25.4 (1.8)	72.4 (3.8)	-22.1 (4.5)	53.2 (6.1)	25.0 (1.3)		-48.9 (3.4)	
25	25.6 (1.4)	66.3 (4.5)	-23.8 (6.4)	52.5 (5.2)	25.6 (1.8)	70.3 (4.1)	-21.6 (5.8)	51.6 (6.8)	24.7 (1.1)		-52.0 (5.0)	
26	25.6 (1.6)	61.9 (3.4)	-21.1 (7.3)	50.3 (6.4)	25.3 (2.1)	67.6 (4.0)	-19.4 (7.1)	49.3 (8.6)	25.0 (2.8)		-48.4 (6.4)	
27	25.6 (1.7)	63.5 (3.4)	-21.4 (7.2)	51.1 (8.2)	25.2 (2.0)	67.6 (4.4)	-18.6 (6.8)	49.1 (9.3)	24.5 (3.5)		-37.0 (10.5)	
28	25.7 (1.6)	66.6 (3.3)	-22.6 (6.5)	51.8 (6.7)	25.3 (1.9)	70.3 (3.8)	-19.4 (5.3)	49.5 (7.3)	23.2 (1.3)		-46.1 (8.7)	
29	25.9 (1.5)	64.6 (3.8)	-23.5 (6.2)	52.6 (5.6)	25.7 (2.0)	66.9 (4.0)	-21.7 (4.9)	53.7 (5.8)	23.6 (1.1)		-49.2 (5.6)	
30	25.9 (1.2)	66.1 (5.7)	-23.7 (5.7)	52.1 (5.4)	25.8 (1.6)	68.5 (5.3)	-20.8 (2.9)	51.7 (3.6)	23.4 (1.4)		-47.1 (9.7)	
31	26.3 (1.4)	69.5 (3.7)	-24.8 (4.4)	52.6 (4.5)	26.4 (1.5)	71.8 (3.2)	-21.8 (4.2)	49.5 (5.4)	24.5 (0.9)		-51.0 (5.6)	
Mean	25.7	65.7	-22.3	52.3	25.3	69.6	-20.6	51.7	24.6		-48.3	
n	20.0	20.0	20.0	11.0	20.0	20.0	20.0	11.0	19.0	0.0	20.0	0.0
SD	0.4	2.7	2.2	1.0	0.6	2.0	2.0	2.0	0.9		4.2	
Min	24.4	60.3	-25.5	50.3	23.6	66.3	-23.1	49.1	22.5		-53.1	
Max	26.3	70.9	-15.7	54.3	26.4	73.7	-14.8	55.0	25.7		-37.0	

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for August, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	26.0 (1.5)	71.6 (3.8)	-25.4 (3.9)	53.9 (4.0)	26.0 (1.5)	72.6 (2.1)	-21.1 (2.7)	52.6 (3.1)	24.7 (1.0)		-50.5 (4.0)	
2	25.7 (1.1)	73.5 (2.0)	-23.1 (5.2)	51.2 (4.6)	25.2 (1.2)	74.5 (1.5)	-21.3 (2.9)	54.2 (2.9)	24.4 (0.8)		-48.5 (3.7)	
3	25.5 (1.4)	70.0 (2.8)	-22.7 (6.8)	51.5 (6.7)	25.2 (1.7)	72.3 (3.1)	-21.0 (4.1)	52.1 (4.2)	23.9 (1.5)		-45.8 (11.2)	
4	26.6 (1.8)	67.3 (4.7)	-23.1 (5.2)	55.5 (6.5)	26.4 (1.9)	70.1 (3.1)	-24.0 (6.9)	57.8 (7.3)	25.3 (1.4)		-53.4 (4.4)	
5	27.3 (1.8)	68.1 (3.4)	-26.7 (5.6)	56.7 (4.4)	27.0 (2.0)	70.7 (2.2)	-25.2 (4.1)	59.5 (2.8)	26.1 (1.3)		-52.2 (2.5)	
6	27.7 (1.6)	65.5 (6.2)	-28.1 (2.9)	57.9 (3.4)	27.4 (1.7)	69.7 (4.4)	-26.0 (3.7)	59.9 (3.6)	26.4 (1.1)		-52.2 (3.9)	
7	27.1 (1.5)	63.9 (5.7)	-23.5 (4.8)	55.3 (6.3)	26.5 (1.6)	67.9 (4.0)	-22.7 (4.5)	56.8 (6.7)	25.7 (1.2)		-50.8 (3.7)	
8	26.9 (1.5)	65.2 (5.9)	-23.7 (1.0)	54.0 (0.9)	26.4 (1.5)	66.6 (5.0)	-22.4 (1.0)	55.7 (1.0)	25.8 (0.9)		-49.9 (2.8)	
9	26.5 (2.0)	62.7 (5.4)	-22.6 (6.1)	53.6 (6.8)	25.9 (2.2)	65.0 (4.0)	-23.0 (4.0)	56.9 (5.7)	25.2 (1.7)		-49.0 (5.7)	
10	26.5 (2.1)	59.5 (4.5)	-22.4 (6.6)	52.9 (6.5)	26.4 (2.2)	62.4 (2.7)	-24.1 (6.0)	56.7 (6.3)	25.5 (1.5)		-51.8 (3.2)	
11	26.5 (2.2)	57.9 (4.5)	-23.9 (6.8)	55.4 (8.5)	26.4 (2.2)	61.1 (4.0)	-26.4 (4.5)	60.7 (5.5)	25.5 (1.4)		-52.3 (3.3)	
12												
13												
14	25.7 (2.0)	54.8 (5.1)	-20.6 (7.2)	53.9 (8.8)	25.6 (1.6)	59.6 (7.0)	-26.0 (4.8)	61.5 (5.6)	24.8 (1.4)		-51.5 (4.0)	
15	25.6 (2.1)	52.8 (3.4)	-20.0 (9.5)	50.9 (11.5)	25.5 (2.0)	55.5 (7.0)	-25.3 (5.7)	59.5 (6.0)	24.7 (1.4)		-51.3 (4.7)	
16	25.8 (1.9)	58.0 (3.9)	-22.5 (8.7)	52.0 (8.7)	25.3 (1.7)	60.9 (5.6)	-25.3 (6.0)	57.6 (6.2)	24.9 (1.6)		-48.8 (5.8)	
17												
18	25.5 (1.2)	69.6 (3.9)	-25.7 (5.8)	55.1 (4.7)	25.1 (1.6)	74.1 (2.3)	-27.5 (3.5)	60.1 (3.3)	24.7 (0.8)		-51.8 (5.5)	
19	26.8 (1.9)	69.8 (5.0)	-28.3 (3.0)	57.6 (2.7)	26.4 (1.8)	74.1 (4.1)	-27.4 (3.2)	59.6 (3.1)	25.9 (1.4)		-51.2 (3.4)	
20	27.8 (1.9)	68.7 (6.8)	-30.1 (2.3)	57.9 (3.4)	27.6 (2.3)	74.5 (5.9)	-29.0 (3.3)	60.7 (2.3)			-52.3 (8.3)	
21	26.8 (1.6)	67.4 (6.6)	-30.2 (2.4)	60.3 (1.5)	26.9 (1.7)	74.1 (4.4)	-30.4 (2.2)	62.6 (1.7)	27.2 (1.2)	74.7 (4.6)	-56.2 (2.7)	4.96 (0.09)
22	26.1 (1.4)	63.1 (6.1)	-26.5 (3.7)	60.8 (3.3)	26.6 (1.6)	68.0 (9.7)	-34.1 (4.7)	64.7 (3.8)	26.6 (0.9)	70.6 (5.0)	-57.3 (4.7)	4.95 (0.18)
23	25.6 (1.9)	65.3 (4.7)	-22.2 (4.9)	58.2 (7.5)	26.2 (2.2)	68.4 (6.0)	-26.8 (5.6)	63.6 (7.7)	26.3 (1.4)	71.5 (4.7)	-50.3 (11.1)	4.72 (0.78)
24	24.1 (0.6)	73.5 (1.7)	-21.4 (4.2)	51.9 (3.8)	23.9 (0.7)	76.6 (1.4)	-22.2 (4.2)	55.4 (6.2)	25.1 (0.7)	78.1 (2.0)	-40.8 (9.6)	4.36 (1.08)
25	25.1 (1.5)	73.6 (2.2)	-24.2 (6.8)	54.6 (7.5)	24.7 (1.7)	78.7 (2.0)	-24.5 (5.6)	56.5 (6.8)	26.0 (1.4)	78.0 (2.9)	-44.8 (12.5)	4.43 (0.92)
26	25.8 (1.9)	63.7 (8.3)	-24.4 (3.5)	58.2 (5.7)	25.7 (1.9)	69.5 (6.0)	-28.7 (3.7)	63.9 (4.0)	26.8 (1.4)	68.9 (6.2)	-53.2 (5.4)	5.13 (0.16)
27	25.2 (1.7)	61.9 (4.9)	-23.7 (5.7)	56.8 (6.8)	25.4 (1.6)	66.6 (4.0)	-26.5 (5.6)	60.5 (6.8)	26.6 (1.3)	65.1 (3.8)	-52.7 (6.5)	5.08 (0.37)
28	25.2 (1.5)	64.4 (4.0)	-24.1 (5.9)	56.3 (5.8)	25.5 (1.3)	67.4 (3.2)	-28.4 (2.7)	63.0 (3.2)	27.1 (1.0)	65.8 (2.8)	-52.9 (4.5)	5.19 (0.17)
29	24.3 (0.9)	71.7 (1.2)	-25.0 (3.8)	54.8 (3.1)	24.4 (0.9)	71.8 (2.3)	-26.0 (4.1)	59.6 (4.8)	26.6 (1.1)	71.2 (3.6)	-49.0 (3.3)	5.38 (0.14)
30	23.8 (0.8)	69.8 (2.9)	-21.4 (5.5)	52.8 (5.6)	23.5 (1.0)	71.3 (4.1)	-21.4 (5.7)	53.9 (7.7)	25.8 (1.1)	71.4 (5.4)	-44.3 (5.5)	5.34 (0.41)
31	24.2 (1.3)	61.9 (5.8)	-20.7 (8.8)	50.2 (11.9)	24.0 (1.8)	67.2 (4.7)	-21.8 (8.0)	52.4 (10.6)	26.1 (1.5)	66.4 (5.6)	-44.1 (10.6)	4.71 (0.99)
Mean	25.9	65.5	-24.2	55.0	25.8	69.0	-25.3	58.5	25.7	71.1	-50.3	4.93
n	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	27.0	11.0	28.0	11.0
SD	1.0	5.5	2.7	2.8	1.0	5.4	3.1	3.5	0.8	4.3	3.6	0.33
Min	23.8	52.8	-30.2	50.2	23.5	55.5	-34.1	52.1	23.9	65.1	-57.3	4.36
Max	27.8	73.6	-20.0	60.8	27.6	78.7	-21.0	64.7	27.2	78.1	-40.8	5.38

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for September, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	25.3 (2.9)	51.4 (7.9)	-18.5 (8.3)	48.8 (12.3)	24.2 (2.0)	62.8 (5.3)	-25.2 (7.5)	50.9 (13.2)	26.1 (1.5)	63.4 (5.5)	-44.0 (12.4)	4.68 (0.99)
2	25.5 (3.0)	46.0 (7.7)	-17.7 (8.5)	48.4 (13.5)	24.2 (1.9)	58.1 (3.9)	-24.3 (7.8)	49.6 (14.2)	25.9 (1.7)	58.7 (4.5)	-42.5 (11.6)	4.76 (1.01)
3	24.4 (2.4)	50.0 (8.2)	-17.2 (8.3)	46.3 (12.5)	24.2 (1.9)	57.1 (4.2)	-23.9 (7.8)	49.6 (15.2)	25.7 (1.6)	56.6 (4.4)	-40.9 (12.4)	4.68 (1.12)
4	24.2 (1.3)	62.2 (3.1)	-19.5 (6.6)	49.5 (8.2)	24.5 (1.7)	65.9 (3.4)	-24.1 (7.2)	54.4 (10.1)	26.4 (1.5)	64.7 (3.8)	-45.1 (9.9)	4.99 (0.80)
5	24.9 (1.7)	63.9 (3.6)	-22.1 (6.5)	51.3 (7.6)	25.2 (2.0)	67.4 (2.4)	-24.0 (6.4)	53.6 (7.7)	26.8 (1.4)	68.1 (2.5)	-48.3 (11.0)	4.96 (0.70)
6	25.0 (1.6)	60.9 (6.3)	-23.2 (6.5)	53.8 (7.9)	25.5 (1.5)	61.8 (4.7)	-25.1 (4.8)	57.9 (6.1)			-47.4 (2.9)	
7	24.0 (0.6)	66.4 (5.8)	-22.1 (4.0)	53.4 (5.6)	24.5 (0.9)	65.0 (6.0)	-24.6 (3.4)	59.7 (5.5)			-43.2 (6.7)	
8	24.8 (1.1)	70.4 (3.4)	-22.8 (6.5)	53.6 (7.7)	24.8 (1.2)	71.8 (1.8)	-23.5 (5.4)	56.4 (7.1)			-44.1 (5.5)	
9	23.1 (0.4)	62.8 (6.7)	-13.0 (5.3)	38.9 (8.5)	22.9 (0.7)	63.0 (5.4)	-21.1 (7.0)	43.6 (11.8)			-29.8 (12.3)	
10	22.2 (0.9)	60.2 (4.4)	-8.2 (3.9)		21.7 (0.8)	63.8 (5.9)	-11.0 (5.4)	28.5 (8.7)				
11	21.8 (1.6)	48.2 (6.3)	-8.2 (5.3)		21.8 (1.9)	48.2 (8.8)	-13.1 (8.9)	34.3 (17.5)				
12	23.0 (1.1)	52.8 (4.4)	-13.8 (8.1)	34.6 (13.6)	23.3 (1.9)	52.6 (5.3)	-19.0 (10.3)	42.6 (19.2)	23.7 (1.2)	53.9 (4.9)	-35.0 (14.7)	
13	23.7 (1.4)	60.4 (4.5)	-17.3 (10.5)	41.9 (14.7)	23.6 (2.0)	62.3 (3.7)	-20.7 (8.3)	47.5 (16.0)	24.7 (1.7)	63.1 (3.4)	-41.9 (12.8)	
14	22.6 (0.5)	47.0 (5.2)	-9.4 (4.3)	28.4 (7.9)	21.9 (0.7)	47.0 (6.3)	-13.8 (6.2)	33.4 (13.1)	23.2 (0.3)	48.5 (5.7)	-38.1 (19.1)	
15	23.9 (1.5)	57.3 (11.4)	-18.5 (10.0)	41.6 (16.4)	23.9 (2.0)	58.9 (12.6)	-24.2 (9.1)	46.7 (18.8)	24.9 (1.7)	59.0 (10.8)	-49.8 (10.6)	
16	24.2 (1.5)	59.6 (4.9)	-19.3 (7.2)	52.2 (8.7)	24.9 (1.4)	60.9 (4.1)	-26.2 (5.5)	62.7 (4.4)	26.2 (1.1)	59.8 (5.0)	-47.2 (9.2)	
17	23.8 (1.5)	64.0 (2.3)	-18.6 (7.4)	47.5 (7.9)	24.1 (1.9)	66.2 (5.0)	-27.3 (9.0)	57.5 (8.3)	25.8 (1.4)	64.3 (4.2)	-45.2 (11.5)	
18	23.6 (0.9)	59.5 (10.7)	-16.8 (5.9)	46.3 (8.8)	23.7 (1.4)	60.4 (13.5)	-19.6 (5.7)	52.0 (8.0)	25.7 (1.3)	58.4 (12.9)	-38.1 (8.8)	
19	24.3 (1.4)	66.3 (4.0)	-20.6 (8.5)	47.5 (11.1)	24.1 (1.9)	69.7 (3.7)	-23.2 (7.2)	52.5 (9.0)	25.9 (1.5)	67.6 (4.0)	-53.9 (19.4)	
20	24.4 (1.2)	68.0 (3.3)	-22.7 (7.0)	49.4 (7.7)	24.4 (1.7)	71.4 (2.4)	-26.6 (6.9)	57.2 (8.6)	27.4 (2.2)	65.2 (5.3)	-42.4 (9.6)	
21	24.4 (1.2)	64.3 (5.8)	-22.0 (6.6)	52.7 (7.7)	24.3 (1.4)	65.0 (5.9)	-25.1 (3.6)	60.3 (4.2)	26.8 (1.1)	61.7 (5.8)	-43.7 (4.3)	5.56 (0.16)
22	24.6 (1.4)	65.5 (3.5)	-21.9 (8.3)	49.6 (10.0)	24.6 (2.0)	68.6 (2.0)	-24.7 (6.4)	54.9 (9.8)	27.0 (1.4)	63.5 (2.9)	-50.3 (13.3)	4.82 (1.04)
23	24.5 (1.2)	63.9 (2.3)	-23.1 (6.9)	50.6 (7.0)	25.0 (1.4)	65.6 (3.5)	-28.3 (4.1)	59.3 (3.2)	27.2 (1.0)	60.8 (3.2)	-48.8 (8.8)	5.10 (0.54)
24												
25												
26	22.8 (1.1)	49.6 (7.0)	-9.8 (6.6)	31.7 (13.5)	22.6 (1.7)	49.9 (9.1)	-15.5 (9.1)	39.0 (19.1)	25.2 (1.4)	49.4 (6.5)	-39.4 (15.9)	3.30 (1.64)
27	23.1 (0.8)	55.4 (6.8)	-12.9 (6.8)	34.4 (13.8)	23.3 (1.5)	54.6 (6.4)	-17.6 (9.1)	43.1 (20.1)	25.6 (1.4)	54.0 (5.2)	-43.5 (12.3)	4.00 (1.58)
28	23.9 (1.1)	64.6 (2.8)	-19.7 (8.6)	44.6 (10.4)	24.1 (1.7)	67.9 (3.4)	-24.5 (9.3)	52.3 (11.2)			-50.7 (14.3)	
29	24.0 (1.0)	63.7 (2.1)	-20.9 (6.4)	48.9 (8.4)	24.4 (1.1)	66.4 (2.6)	-28.4 (8.1)	57.6 (7.8)			-48.0 (11.6)	
30												
Mean	23.9	59.4	-17.8	45.8	23.9	61.9	-22.4	50.3	25.8	60.0	-44.0	4.68
n	27.0	27.0	27.0	25.0	27.0	27.0	27.0	27.0	19.0	19.0	25.0	10.0
SD	0.9	6.8	4.7	7.0	1.0	6.7	4.6	8.7	1.1	5.5	5.3	0.60
Min	21.8	46.0	-23.2	28.4	21.7	47.0	-28.4	28.5	23.2	48.5	-53.9	3.30
Max	25.5	70.4	-8.2	53.8	25.5	71.8	-11.0	62.7	27.4	68.1	-29.8	5.56

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for October, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1												
2	23.3 (0.9)	50.2 (14.3)	-13.6 (7.1)	41.2 (11.9)	23.4 (1.3)	50.2 (15.7)	-16.4 (6.1)	47.2 (12.1)	24.3 (1.1)	52.7 (14.5)	-25.3 (9.5)	3.39 (1.21)
3	22.5 (1.1)	44.0 (5.1)	-10.3 (5.9)	31.4 (12.4)	22.9 (1.7)	44.5 (6.3)	-17.0 (10.4)	41.0 (19.5)	24.0 (1.2)	48.1 (6.3)	-25.9 (12.8)	2.48 (1.36)
4	23.5 (0.8)	57.2 (9.2)	-15.4 (5.9)	43.2 (9.2)	23.7 (1.3)	59.3 (11.3)	-21.0 (5.5)	53.5 (9.2)	24.7 (1.0)	61.5 (12.3)	-30.9 (8.2)	3.53 (0.85)
5	24.5 (1.7)	60.9 (3.4)	-22.0 (7.7)	49.6 (9.0)	25.4 (1.7)	62.7 (5.6)	-28.7 (5.1)	59.4 (5.2)	26.0 (1.1)	62.9 (6.7)	-45.5 (12.0)	4.53 (0.90)
6												
7	23.0 (0.6)	53.0 (6.5)	-10.1 (4.8)	34.1 (9.7)	23.2 (1.4)	51.6 (6.0)	-20.3 (7.9)	46.0 (16.3)	25.1 (1.0)	51.8 (6.6)	-36.2 (9.2)	3.76 (1.38)
8	22.0 (1.1)	45.2 (5.6)	-6.3 (3.9)	23.1 (8.6)	22.0 (1.6)	44.2 (7.9)	-12.5 (8.9)	30.8 (17.4)	24.6 (1.1)	43.9 (9.2)	-27.9 (15.5)	2.62 (1.72)
9	21.6 (1.5)	45.4 (5.8)	-6.5 (4.5)	23.1 (9.1)	21.9 (2.0)	43.6 (6.6)	-12.1 (9.2)	32.3 (17.5)	24.6 (1.4)	42.3 (7.0)	-27.4 (15.0)	2.74 (1.67)
10	22.6 (1.4)	47.1 (5.1)	-12.9 (8.1)	33.3 (15.7)	22.7 (2.0)	47.8 (6.4)	-19.3 (11.0)	40.8 (20.7)	24.6 (1.2)	48.5 (5.6)	-31.1 (13.4)	3.09 (1.66)
11	22.8 (1.1)	54.0 (3.6)	-15.4 (8.0)	39.6 (14.2)	22.8 (1.8)	55.6 (3.6)	-25.7 (7.8)	46.9 (16.5)	24.9 (1.4)	55.2 (4.4)	-44.9 (11.5)	3.32 (1.29)
12	23.5 (1.3)	59.9 (3.9)	-18.9 (9.8)	45.9 (16.0)	23.5 (2.0)	62.7 (2.6)	-28.3 (5.1)	53.7 (17.7)	25.7 (1.5)	61.4 (4.2)	-48.9 (11.3)	3.94 (1.42)
13	23.7 (1.3)	59.7 (4.8)	-22.4 (5.9)	55.2 (6.3)	24.1 (1.4)	61.3 (3.7)	-24.8 (5.1)	63.0 (6.2)	26.3 (0.9)	61.1 (4.6)	-46.6 (10.8)	4.58 (1.02)
14	22.2 (0.9)	52.3 (5.8)	-12.2 (4.6)	33.9 (11.9)	21.9 (1.5)	54.2 (7.5)	-26.8 (8.5)	39.0 (14.9)	24.4 (0.9)	53.3 (6.5)	-29.6 (12.1)	2.99 (1.22)
15	21.6 (1.0)	44.4 (9.2)	-11.0 (5.7)	25.3 (12.2)	20.6 (1.8)	47.7 (8.7)	-25.7 (9.8)	28.9 (11.2)	23.9 (0.8)	45.1 (5.6)	-24.0 (14.2)	2.08 (0.93)
16	22.1 (1.3)	46.2 (8.3)	-15.6 (6.4)	36.6 (17.8)	21.7 (2.1)	50.1 (7.3)	-22.2 (7.4)	42.3 (20.8)	24.8 (1.6)	46.0 (7.2)	-34.5 (15.0)	3.11 (1.56)
17	22.3 (0.9)	45.1 (12.2)	-12.9 (5.0)	41.3 (13.8)	22.1 (0.9)	49.3 (11.3)	-11.8 (5.7)	40.9 (13.8)	24.8 (1.4)	46.8 (12.7)	-39.2 (14.5)	3.38 (1.33)
18	21.0 (1.3)	39.1 (11.1)	-14.0 (6.6)	27.7 (12.0)	20.8 (1.4)	40.7 (9.9)	-16.5 (8.1)	28.3 (11.7)	23.6 (0.9)	40.7 (8.0)	-27.1 (16.2)	2.24 (0.93)
19	21.0 (1.9)	38.2 (11.0)	-12.2 (6.6)	31.1 (16.0)	20.9 (1.9)	39.3 (9.9)	-12.9 (8.1)	32.3 (18.9)	24.1 (1.9)	35.7 (7.6)	-28.8 (14.0)	3.01 (1.70)
20	22.7 (1.8)	34.4 (5.9)	-17.0 (7.0)	46.7 (20.3)	22.1 (1.9)	38.9 (5.7)	-19.3 (6.2)	48.1 (20.4)	24.8 (1.5)	38.0 (7.5)	-33.4 (13.0)	3.60 (1.58)
21	21.0 (1.0)	45.6 (6.4)	-20.8 (8.0)	23.0 (9.3)	20.2 (1.3)	47.9 (7.3)	-24.0 (9.5)	22.5 (9.4)	23.1 (0.8)	46.0 (6.2)	-11.4 (11.0)	1.97 (1.23)
22	20.3 (1.2)	44.5 (10.7)	-17.4 (7.8)	18.1 (7.4)	19.4 (1.5)	44.9 (8.6)	-23.8 (10.6)	19.2 (7.3)			-7.4 (8.9)	
23	21.5 (2.3)	40.3 (8.6)	-18.7 (9.3)	28.9 (14.0)	20.9 (2.5)	41.5 (6.5)	-21.5 (10.5)	29.5 (15.4)	22.9 (1.0)	39.5 (4.0)	-13.5 (9.0)	1.80 (1.05)
24	21.6 (1.7)	42.2 (7.4)	-19.7 (7.0)	31.8 (14.1)	21.3 (2.1)	44.2 (6.0)	-20.5 (11.1)	29.5 (12.6)	23.2 (0.9)	44.4 (5.7)	-16.2 (9.9)	1.57 (0.86)
25	21.4 (2.0)	39.2 (8.6)	-17.9 (6.0)	29.7 (15.3)	21.3 (1.5)	42.8 (6.9)	-12.0 (6.0)	26.1 (13.8)	23.5 (0.6)	42.5 (6.8)	-17.9 (10.5)	1.57 (0.94)
26	21.3 (2.3)	39.9 (9.7)	-16.9 (6.3)	28.3 (16.1)	21.1 (1.8)	44.6 (8.7)	-12.4 (7.0)	25.5 (15.3)	23.8 (1.4)	41.0 (7.4)	-19.8 (11.7)	1.71 (1.01)
27	20.3 (1.3)	44.0 (8.7)	-17.4 (7.6)	20.8 (8.3)	20.6 (1.3)	46.2 (8.8)	-17.1 (10.1)	19.8 (9.2)	22.9 (0.4)	43.2 (4.4)	-14.4 (10.4)	1.37 (0.74)
28	21.0 (1.8)	45.2 (9.8)	-15.5 (7.2)	26.2 (14.9)	20.8 (1.6)	47.3 (9.1)	-13.8 (7.9)	24.1 (13.5)	23.3 (1.1)	42.8 (5.5)	-24.0 (11.5)	1.91 (0.86)
29	21.8 (2.3)	43.2 (10.8)	-15.1 (7.1)	30.1 (16.7)	21.1 (1.8)	47.6 (8.2)	-13.9 (7.0)	29.0 (15.7)	23.8 (1.8)	41.9 (6.2)	-26.8 (10.0)	2.20 (0.82)
30	22.5 (1.9)	36.5 (9.7)	-13.8 (5.4)	33.6 (15.8)	21.8 (1.3)	40.7 (8.7)	-13.4 (6.4)	32.5 (15.7)	23.9 (1.6)	37.3 (7.3)	-30.5 (9.0)	2.33 (0.59)
31	20.8 (1.0)	38.0 (7.4)	-23.0 (8.7)	23.3 (7.0)	21.1 (0.9)	40.4 (8.0)	-12.8 (8.0)	19.0 (5.9)	22.6 (0.4)	39.6 (4.0)	-13.4 (8.8)	1.71 (0.62)
Mean	22.0	46.0	-15.3	33.0	21.9	48.0	-18.8	36.2	24.2	46.9	-27.7	2.73
n	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.0	28.0	29.0	28.0
SD	1.0	7.1	4.2	9.1	1.3	6.8	5.4	12.0	0.9	7.7	10.7	0.89
Min	20.3	34.4	-23.0	18.1	19.4	38.9	-28.7	19.0	22.6	35.7	-48.9	1.37
Max	24.5	60.9	-6.3	55.2	25.4	62.7	-11.8	63.0	26.3	62.9	-7.4	4.58

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for November, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	19.8 (1.5)	40.8 (10.0)	-17.9 (9.1)	20.3 (9.5)	20.1 (1.2)	43.7 (11.4)	-9.4 (6.3)	18.3 (10.8)	22.7 (0.7)	39.5 (4.2)	-23.6 (12.5)	1.69 (0.67)
2	19.7 (1.5)	41.5 (9.3)	-19.7 (8.1)	20.9 (9.7)	20.1 (1.3)	44.1 (8.9)	-9.4 (6.9)		22.4 (0.4)	41.3 (3.8)	-17.4 (7.7)	1.66 (0.64)
3	20.1 (1.9)	43.3 (9.2)	-16.0 (9.1)	23.4 (13.8)	20.3 (1.8)	45.3 (8.7)	-11.2 (8.7)	21.7 (14.0)	22.9 (0.9)	42.6 (3.4)	-23.8 (12.0)	1.88 (0.75)
4	21.1 (3.0)	38.6 (13.5)	-19.8 (8.3)	30.0 (18.7)	20.8 (1.9)	43.1 (11.1)	-12.2 (7.9)	24.4 (14.7)	23.7 (1.8)	38.2 (8.0)	-22.7 (9.7)	2.09 (0.87)
5	20.2 (1.5)	39.0 (4.7)	-21.7 (8.7)	22.3 (9.6)	20.3 (1.6)	41.9 (3.4)	-14.3 (8.0)	18.8 (8.9)	22.6 (0.4)	41.1 (2.3)	-16.5 (7.9)	1.69 (0.62)
6	19.1 (1.4)	44.0 (10.1)	-18.9 (11.1)	16.0 (8.6)	19.4 (1.8)	44.8 (9.6)	-12.2 (8.7)		22.6 (0.5)	43.6 (3.6)	-20.6 (9.1)	
7	20.0 (2.5)	39.5 (11.0)	-17.8 (8.1)	24.2 (15.1)	20.2 (1.9)	42.7 (9.6)	-11.1 (7.2)		23.2 (1.2)	40.7 (6.0)	-23.0 (9.8)	
8	21.3 (2.8)	36.8 (10.4)	-18.9 (7.4)	30.4 (18.3)	20.8 (2.2)	39.0 (9.0)	-13.6 (7.5)	27.2 (16.6)	23.9 (2.0)	37.3 (7.1)	-24.4 (9.7)	2.13 (0.81)
9	21.1 (2.7)	37.7 (9.9)	-20.9 (8.3)	30.9 (16.9)	21.0 (2.4)	40.1 (8.5)	-15.1 (7.2)	27.5 (16.9)	24.0 (1.9)	38.7 (6.7)	-26.2 (10.4)	2.25 (0.92)
10	22.1 (2.1)	49.2 (9.3)	-21.8 (6.6)	35.7 (15.9)	21.7 (1.6)	51.9 (7.5)	-17.5 (8.4)	32.8 (15.5)	24.4 (2.2)	50.4 (10.2)	-33.0 (9.9)	2.69 (0.96)
11	21.9 (2.8)	40.1 (12.9)	-21.9 (6.3)	33.6 (16.8)	21.4 (2.3)	42.4 (11.1)	-17.4 (6.7)	30.6 (16.7)	24.4 (2.4)	40.4 (9.4)	-28.3 (9.2)	2.65 (1.11)
12	20.0 (1.3)	46.3 (7.0)	-21.0 (7.5)	20.5 (7.1)	19.9 (1.4)	48.6 (7.1)	-17.1 (8.8)	17.8 (7.3)			-17.6 (7.1)	
13	21.0 (2.6)	43.4 (10.7)	-14.8 (8.2)	29.7 (19.2)	20.7 (2.1)	45.7 (8.9)	-10.6 (7.6)	25.6 (17.1)			-18.6 (9.7)	
14	19.5 (1.1)	40.5 (7.4)	-22.5 (9.7)	18.6 (7.2)	19.5 (1.5)	41.8 (6.8)	-20.0 (11.1)	16.7 (6.6)	22.8 (0.4)	40.8 (3.9)	-2.7 (4.6)	0.68 (0.50)
15	18.9 (1.7)	40.2 (10.7)	-15.1 (9.0)	16.9 (8.8)	18.5 (2.2)	41.4 (9.6)	-13.0 (10.1)	14.9 (8.0)	22.9 (0.7)	42.9 (5.1)	-10.2 (7.7)	0.82 (0.60)
16	20.8 (2.5)	37.0 (12.1)	-16.5 (8.2)	29.0 (16.5)	20.7 (2.8)	36.3 (11.5)	-12.8 (8.5)	26.9 (18.1)	23.6 (0.6)	37.3 (8.3)	-15.4 (11.0)	1.41 (0.97)
17	21.4 (2.6)	35.0 (9.6)	-19.4 (7.8)	32.3 (17.8)	20.4 (3.1)	36.6 (7.8)	-19.0 (6.2)	30.9 (15.2)	23.5 (0.9)	39.3 (7.3)	-15.8 (12.0)	1.44 (0.99)
18	21.4 (2.9)	36.6 (11.7)	-21.5 (8.3)	32.7 (18.5)	20.3 (3.3)	38.7 (9.9)	-19.3 (6.3)	30.3 (14.6)	23.8 (1.1)	41.4 (9.3)	-18.0 (11.1)	1.59 (1.01)
19	22.0 (3.4)	35.7 (13.0)	-22.4 (6.0)	34.0 (19.9)	21.1 (3.7)	37.9 (12.1)	-18.1 (7.3)	32.4 (18.7)	24.3 (2.1)	37.1 (10.0)	-23.6 (13.6)	2.10 (1.37)
20	20.1 (1.8)	41.0 (8.7)	-18.8 (6.8)	23.7 (13.2)	20.2 (1.7)	42.8 (7.6)	-13.2 (7.8)	22.0 (13.7)	23.1 (0.8)	40.3 (6.0)	-18.0 (14.3)	1.50 (0.83)
21	18.2 (0.9)	49.9 (6.1)	-16.3 (8.5)	11.8 (4.6)	18.0 (1.2)	50.5 (6.5)	-14.3 (9.3)	11.7 (5.2)	22.7 (0.4)	42.3 (2.1)	-4.8 (6.8)	1.05 (0.71)
22	17.3 (1.4)	50.6 (10.9)	-13.7 (8.9)	12.6 (5.5)	16.8 (2.2)	48.9 (8.7)	-10.0 (8.9)	11.0 (5.6)	22.3 (0.4)	44.0 (2.1)	-14.6 (7.7)	1.24 (0.68)
23	16.7 (0.8)	58.6 (6.0)	-12.5 (4.9)	9.9 (3.8)	16.2 (1.8)	54.5 (6.6)	-6.7 (3.1)		22.1 (0.3)	49.7 (3.0)	-21.2 (9.6)	1.28 (0.67)
24	17.8 (1.0)	58.0 (7.1)	-10.5 (7.7)	10.3 (4.8)	16.9 (1.8)	55.0 (6.4)	-8.8 (7.3)	9.5 (4.5)	22.4 (0.6)	49.0 (2.5)	-13.8 (8.6)	1.17 (0.70)
25	18.3 (1.1)	55.4 (11.1)	-12.1 (10.0)	11.6 (6.1)	17.2 (2.0)	53.0 (8.7)	-9.3 (8.2)	10.7 (5.1)	22.3 (0.5)	47.0 (3.7)	-16.4 (7.8)	1.34 (0.68)
26	18.6 (1.1)	53.1 (7.2)	-15.4 (10.2)	13.5 (7.0)	18.4 (1.5)	53.5 (6.3)	-9.4 (7.2)	11.2 (5.7)	22.7 (0.3)	49.8 (1.9)	-14.7 (9.0)	1.25 (0.68)
27												
28												
29												
30	17.6 (0.3)	52.6 (6.1)	-11.3 (7.4)	10.2 (5.3)	17.8 (0.9)	53.7 (8.7)	-7.0 (5.8)	9.1 (4.2)	22.5 (0.3)	49.2 (2.4)	-15.7 (8.0)	1.30 (0.68)
Mean	19.8	43.9	-17.7	22.4	19.6	45.1	-13.0	20.9	23.1	42.6	-18.5	1.61
n	27.0	27.0	27.0	27.0	27.0	27.0	27.0	23.0	25.0	25.0	27.0	23.0
SD	1.5	6.9	3.6	8.4	1.5	5.6	3.8	7.9	0.7	4.2	6.5	0.51
Min	16.7	35.0	-22.5	9.9	16.2	36.3	-20.0	9.1	22.1	37.1	-33.0	0.68
Max	22.1	58.6	-10.5	35.7	21.7	55.0	-6.7	32.8	24.4	50.4	-2.7	2.69

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for December, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	20.4 (2.5)	51.1 (11.4)	-35.2 (16.7)	24.7 (11.0)	19.8 (2.3)	53.1 (11.6)	-11.5 (9.5)		23.7 (1.1)	52.1 (7.4)	-39.2 (18.2)	1.92 (0.57)
2	18.7 (1.1)	48.3 (9.2)	-22.1 (12.6)	17.4 (8.3)	19.4 (1.1)	50.2 (9.2)	-14.2 (11.5)	14.6 (7.2)	22.9 (0.6)	45.6 (3.0)	-19.4 (9.1)	1.64 (0.60)
3	19.0 (1.7)	47.7 (10.9)	-20.1 (14.3)	17.9 (9.3)	19.1 (1.7)	48.5 (10.1)	-10.1 (8.0)	14.9 (8.5)	23.1 (0.7)	44.5 (4.3)	-27.1 (12.7)	1.77 (0.56)
4	21.6 (3.7)	38.6 (11.3)	-33.8 (16.9)	24.7 (9.6)	19.7 (3.2)	39.8 (9.3)	-17.6 (6.4)	28.5 (14.2)	24.1 (1.9)	40.6 (5.8)	-34.4 (18.6)	2.00 (0.49)
5	19.2 (1.2)	48.4 (4.3)	-26.2 (12.1)	19.6 (7.6)	19.4 (1.3)	48.5 (5.0)	-17.8 (8.4)	17.8 (6.7)	22.9 (0.5)	49.9 (3.3)	-22.9 (5.4)	1.80 (0.40)
6	19.1 (1.3)	51.3 (7.4)	-22.7 (13.2)	17.7 (9.1)	19.4 (1.4)	52.0 (7.8)	-10.3 (6.2)	14.9 (6.9)			-25.3 (8.2)	
7	18.0 (0.3)	61.8 (4.9)	-11.9 (7.7)	10.8 (5.6)	16.9 (1.7)	61.3 (6.5)	-14.7 (8.4)	15.9 (6.0)			-19.1 (14.5)	
8	17.2 (0.9)	61.9 (6.0)	-10.3 (6.0)	9.1 (4.0)	14.6 (1.2)	62.8 (4.1)	-21.8 (0.9)	19.8 (0.3)	23.2 (0.3)	50.2 (3.2)	-8.1 (5.1)	0.64 (0.46)
9	16.5 (0.8)	59.7 (6.4)	-8.9 (4.5)	8.5 (2.9)	13.3 (1.6)	59.6 (3.9)	-22.5 (0.8)	19.5 (0.3)	23.2 (0.3)	48.1 (2.7)	-7.1 (5.1)	0.66 (0.47)
10	17.5 (1.1)	62.6 (5.6)	-10.7 (7.1)	9.2 (4.4)	14.8 (1.6)	62.2 (3.8)	-21.7 (1.2)	19.4 (0.3)	23.0 (0.3)	53.5 (3.1)	-10.5 (5.0)	0.64 (0.46)
11	17.8 (0.7)	60.8 (5.2)	-12.7 (8.1)		15.2 (1.0)	64.1 (5.1)	-22.7 (1.2)	19.1 (0.4)	22.9 (0.4)	52.6 (3.2)	-6.4 (5.1)	0.64 (0.47)
12	17.6 (1.1)	57.6 (6.2)	-9.7 (7.1)	9.6 (4.8)	14.6 (1.7)	61.7 (5.4)	-21.2 (1.4)	19.5 (0.3)	23.0 (0.4)	52.8 (2.3)	-8.3 (4.9)	0.66 (0.43)
13	17.6 (1.3)	54.2 (7.6)	-14.0 (10.4)	12.1 (6.8)	15.0 (2.5)	56.8 (5.7)	-20.6 (2.0)	19.8 (0.5)	23.4 (0.6)	51.2 (1.7)	-7.7 (5.4)	0.64 (0.46)
14	16.8 (0.9)	60.4 (6.2)	-8.4 (4.8)	8.3 (3.5)	14.0 (1.5)	63.1 (4.2)	-21.0 (1.3)	19.8 (0.5)	23.3 (0.7)	52.3 (2.2)	-8.5 (5.7)	0.68 (0.49)
15	16.8 (1.1)	56.7 (7.8)	-11.7 (5.7)	10.1 (3.4)	13.6 (2.2)	57.4 (4.0)	-22.4 (2.6)	19.3 (0.7)	23.1 (0.6)	46.4 (2.5)	-4.9 (6.8)	0.74 (0.54)
16	17.4 (1.6)	52.8 (10.1)	-15.3 (10.4)	13.3 (6.0)	14.7 (3.7)	54.1 (7.4)	-20.4 (1.9)	19.8 (0.4)	23.9 (0.5)	44.8 (3.3)	-12.9 (7.6)	1.03 (0.66)
17	18.0 (1.6)	52.1 (8.0)	-14.5 (10.9)	13.4 (7.7)	16.0 (2.5)	53.9 (6.8)	-19.9 (2.4)	19.5 (0.6)	23.6 (0.2)	47.6 (2.5)	-14.7 (8.5)	1.06 (0.66)
18	18.9 (1.7)	46.5 (10.3)	-20.6 (15.2)	16.6 (9.1)	18.4 (2.4)	49.6 (8.3)	-16.1 (7.4)	17.5 (5.8)	23.4 (0.4)	44.6 (2.4)	-16.2 (8.2)	1.30 (0.66)
19	19.2 (2.5)	46.9 (10.7)	-23.1 (16.0)	17.5 (9.5)	19.4 (1.8)	49.9 (10.5)	-9.1 (6.5)	15.2 (9.8)	23.6 (0.5)	45.8 (3.5)	-18.8 (10.7)	1.34 (0.69)
20	19.7 (1.9)	45.2 (7.3)	-24.6 (14.9)	19.2 (9.7)	20.0 (1.3)	47.5 (7.6)	-8.8 (5.1)		23.5 (0.5)	44.7 (3.1)	-24.2 (11.6)	1.58 (0.60)
21												
22	17.0 (0.9)	53.4 (6.7)	-12.3 (6.6)	9.5 (3.7)	18.0 (0.9)	56.8 (6.8)	-9.9 (8.4)	8.2 (2.8)	22.3 (0.5)	44.9 (3.8)	-6.4 (11.0)	1.21 (0.67)
23	17.3 (1.5)	53.6 (7.5)	-12.6 (6.9)	11.9 (4.6)	17.7 (1.2)	59.0 (8.4)	-6.8 (4.5)	9.6 (3.6)	23.0 (0.3)	45.8 (2.4)	-15.3 (8.0)	1.23 (0.67)
24	18.1 (1.4)	49.5 (7.9)	-12.2 (9.1)	12.4 (7.0)	19.1 (2.0)	55.6 (10.5)	-4.4 (3.9)		23.0 (0.4)	46.1 (3.3)	-18.0 (8.3)	1.38 (0.69)
25	18.2 (0.8)	52.3 (5.6)	-13.7 (7.6)	11.0 (5.4)	18.8 (1.0)	60.0 (7.5)	-9.1 (5.6)	10.1 (3.8)	22.9 (0.3)	48.3 (1.6)	-10.6 (8.3)	1.06 (0.67)
26	17.6 (1.2)	52.5 (7.3)	-12.7 (7.0)	10.9 (4.9)	17.7 (1.6)	58.5 (8.4)	-13.5 (6.9)	13.2 (5.3)	22.9 (0.3)	49.4 (2.8)	-12.2 (9.2)	1.02 (0.66)
27	16.1 (0.8)	59.1 (6.1)	-8.5 (4.9)	7.6 (2.6)	15.3 (1.0)	61.2 (5.9)	-23.4 (1.5)	19.4 (0.4)			-16.5 (9.6)	
28	16.2 (0.8)	57.2 (6.6)	-10.9 (4.8)	10.6 (3.4)	13.6 (2.2)	58.8 (4.5)	-22.2 (1.4)	19.4 (0.3)			-14.2 (8.0)	
29	17.0 (1.3)	56.4 (9.5)	-9.0 (5.3)	9.6 (3.4)	12.8 (2.7)	58.5 (6.7)	-22.1 (1.3)	19.4 (0.4)			-14.5 (8.0)	
30	17.7 (1.8)	52.7 (8.2)	-14.8 (8.8)	13.5 (5.7)	15.7 (3.8)	53.8 (6.6)	-15.6 (7.1)	15.9 (5.3)			-18.2 (8.3)	
31	17.7 (1.0)	51.3 (5.6)	-11.2 (7.4)	10.5 (5.0)	18.2 (1.4)	55.5 (7.0)	-8.9 (5.8)	9.4 (4.1)			-14.4 (21.7)	
Mean	18.0	53.4	-15.8	13.4	16.8	55.8	-16.0	17.0	23.2	47.9	-15.9	1.16
n	30.0	30.0	30.0	29.0	30.0	30.0	30.0	27.0	23.0	23.0	30.0	23.0
SD	1.2	5.6	7.1	4.6	2.3	5.6	5.8	4.3	0.4	3.4	8.1	0.45
Min	16.1	38.6	-35.2	7.6	12.8	39.8	-23.4	8.2	22.3	40.6	-39.2	0.64
Max	21.6	62.6	-8.4	24.7	20.0	64.1	-4.4	28.5	24.1	53.5	-4.9	2.00

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for January, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1												
2	17.3 (1.3)	50.9 (10.0)	-12.3 (5.7)	11.8 (4.3)	17.8 (1.6)	55.4 (8.2)	-7.7 (6.5)	9.3 (4.4)	23.0 (0.8)	48.1 (3.2)	-10.0 (5.6)	0.65 (0.46)
3												
4	19.1 (2.0)	47.4 (8.2)	-21.5 (14.1)	18.1 (8.6)	20.2 (1.1)	53.6 (8.8)	-3.9 (4.1)	14.3 (9.2)	23.9 (0.5)	51.8 (5.0)	-11.6 (8.2)	0.83 (0.60)
5	19.2 (1.6)	49.0 (9.8)	-28.5 (15.1)	22.8 (9.8)	19.6 (1.2)	52.3 (10.8)	-0.3 (7.4)		24.0 (0.2)	50.5 (5.0)	-12.6 (9.0)	1.10 (0.69)
6	19.5 (1.7)	49.0 (6.1)	-30.4 (10.7)	23.0 (6.4)	20.9 (0.8)	50.9 (7.1)	-3.3 (6.7)		23.8 (0.4)	48.6 (3.3)	-17.9 (12.4)	1.19 (0.71)
7	19.3 (1.7)	51.8 (7.5)	-24.8 (12.8)	20.0 (8.6)	21.0 (0.7)	55.6 (5.0)	-2.1 (5.2)		23.6 (0.4)	48.6 (3.7)	-16.7 (9.9)	1.27 (0.67)
8	18.3 (0.9)	52.4 (9.1)	-15.9 (9.8)	13.5 (7.0)	20.2 (0.9)	58.7 (7.7)	-6.1 (4.3)	10.7 (4.2)	23.3 (0.3)	46.9 (2.6)	-12.6 (8.9)	1.06 (0.66)
9	19.5 (1.9)	44.5 (10.1)	-23.9 (14.3)	19.7 (9.6)	20.9 (0.9)	51.9 (13.8)	-2.0 (5.2)		23.5 (0.5)	43.9 (4.9)	-23.1 (14.2)	1.43 (0.68)
10	18.6 (0.8)	50.4 (7.8)	-17.7 (10.2)	15.7 (7.7)	20.8 (1.0)	55.3 (8.0)	-4.5 (3.9)	11.1 (4.6)	23.6 (0.3)	48.2 (2.2)	-13.3 (9.1)	1.17 (0.68)
11	18.1 (0.9)	50.3 (7.4)	-12.6 (8.9)	11.8 (6.6)	20.6 (1.2)	56.3 (7.1)	-3.6 (5.3)		23.5 (0.2)	48.3 (2.0)	-16.0 (8.7)	1.15 (0.66)
12	18.7 (1.4)	47.1 (9.7)	-19.3 (13.0)	15.4 (8.1)	20.3 (1.2)	53.2 (10.0)	-5.5 (4.1)	11.5 (5.7)	23.7 (0.3)	46.7 (2.9)	-15.2 (8.3)	1.23 (0.66)
13	18.6 (1.8)	47.0 (10.9)	-19.0 (16.1)	15.2 (9.2)	20.7 (1.0)	55.6 (11.6)	-3.1 (3.3)	11.8 (6.2)	23.5 (0.3)	47.2 (3.3)	-18.3 (9.2)	1.28 (0.67)
14	18.5 (1.6)	45.7 (10.8)	-17.1 (14.6)	15.3 (9.5)	20.6 (1.3)	55.7 (11.7)	-2.4 (2.6)	11.4 (5.9)	23.1 (0.4)	44.8 (2.9)	-19.4 (9.7)	1.39 (0.66)
15	18.8 (1.7)	44.1 (10.9)	-18.1 (14.1)	16.0 (9.7)	20.8 (0.8)	54.1 (14.0)	-1.6 (4.0)		23.1 (0.5)	43.2 (3.9)	-24.2 (12.0)	1.51 (0.63)
16	16.6 (1.3)	55.5 (5.9)	-14.5 (8.6)	9.7 (4.0)	19.2 (1.3)	60.9 (6.9)	-9.4 (4.5)	7.9 (2.5)	22.6 (0.3)	48.5 (3.1)	-3.4 (8.0)	
17	16.3 (1.5)	52.4 (12.0)	-11.1 (5.4)	11.5 (4.0)	19.0 (1.4)	64.1 (9.4)	-2.7 (3.2)	9.2 (3.5)	22.8 (0.4)	43.4 (3.3)	-16.8 (8.1)	
18	17.2 (1.2)	50.2 (6.9)	-15.3 (7.7)	13.3 (5.2)	19.7 (1.0)		-2.6 (2.4)		23.1 (0.3)	47.3 (2.1)	-16.0 (8.5)	1.20 (0.67)
19	17.0 (1.4)	50.6 (9.6)	-10.7 (7.3)	10.8 (5.1)	19.9 (1.5)	60.0 (9.9)	-2.3 (3.4)		23.1 (0.4)	48.4 (3.2)	-17.4 (8.3)	1.25 (0.67)
20	17.8 (1.8)	46.7 (10.5)	-17.5 (11.8)	14.0 (7.3)	18.6 (1.0)		-8.7 (5.8)		23.2 (0.3)	45.8 (3.9)	-24.7 (10.5)	1.46 (0.62)
21	16.5 (0.8)	53.2 (7.4)	-10.2 (5.4)	9.3 (3.4)	15.7 (1.8)		-19.8 (2.7)	19.5 (0.5)	23.7 (0.7)	49.2 (4.7)	-17.7 (11.0)	1.29 (0.67)
22	16.3 (1.3)	53.2 (10.6)	-12.4 (5.4)	11.5 (3.8)	13.7 (3.5)		-20.8 (3.2)	20.0 (0.9)	23.7 (0.5)	48.0 (5.1)	-19.4 (10.2)	1.44 (0.68)
23	16.6 (1.3)	51.7 (9.2)	-14.9 (7.5)	12.0 (4.4)	14.9 (3.3)		-21.5 (2.2)	20.9 (2.4)			-14.1 (8.1)	
24	17.0 (1.3)	46.2 (7.9)	-15.2 (7.3)		14.6 (2.9)	49.1 (4.1)	-20.6 (3.5)				-15.4 (6.8)	
25	19.1 (2.3)	42.5 (12.7)	-15.9 (14.1)	20.0 (11.2)	17.8 (3.0)	46.7 (12.6)	-19.2 (12.6)	18.9 (7.6)	23.3 (1.2)	44.6 (6.4)	-10.3 (6.8)	0.74 (0.58)
26	19.3 (1.9)	39.1 (11.1)	-16.1 (8.5)	18.7 (10.9)	18.3 (3.4)	42.3 (12.0)	-27.4 (15.5)	20.0 (7.5)	23.7 (1.0)	43.2 (5.1)	-10.8 (8.4)	0.83 (0.58)
27	19.8 (2.4)	40.5 (13.7)	-13.2 (8.8)	25.0 (17.3)	18.6 (3.9)	44.1 (14.0)	-34.0 (21.1)	22.7 (9.3)	23.9 (0.8)	43.7 (7.2)	-20.0 (13.9)	1.25 (0.74)
28	21.1 (1.5)	39.4 (9.3)	-15.2 (13.7)		20.6 (1.5)	41.9 (10.2)	-15.4 (22.4)		24.2 (0.7)	44.7 (8.4)	-18.2 (9.3)	1.60 (0.82)
29	18.4 (1.3)	45.2 (8.9)	-15.1 (7.8)	14.1 (6.4)	17.7 (1.9)	50.3 (10.0)	-10.4 (9.2)	14.2 (0.9)	23.0 (0.5)	46.8 (4.2)	-6.3 (7.2)	0.75 (0.55)
30	18.5 (1.9)	40.5 (8.8)	-15.8 (9.6)	15.9 (9.7)	18.0 (2.2)	45.6 (8.7)	-12.4 (4.7)	16.4 (4.8)	23.0 (0.5)	43.4 (5.0)	-14.1 (10.4)	1.06 (0.68)
31	16.8 (1.8)	46.1 (10.0)	-11.7 (6.4)	9.8 (4.0)	16.9 (1.7)	54.8 (10.3)	-16.7 (4.1)	14.0 (0.8)	23.1 (1.5)	44.0 (2.3)	-4.4 (6.9)	0.71 (0.51)
Mean	18.2	47.7	-16.8	15.3	18.9	52.9	-10.0	14.7	23.4	46.6	-15.2	1.15
n	29.0	29.0	29.0	27.0	29.0	24.0	29.0	18.0	27.0	27.0	29.0	25.0
SD	1.2	4.4	4.9	4.3	2.1	5.6	8.8	4.5	0.4	2.4	5.2	0.26
Min	16.3	39.1	-30.4	9.3	13.7	41.9	-34.0	7.9	22.6	43.2	-24.7	0.65
Max	21.1	55.5	-10.2	25.0	21.0	64.1	-0.3	22.7	24.2	51.8	-3.4	1.60

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for February, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	18.2 (2.4)	42.9 (12.1)	-10.8 (7.5)	16.1 (10.3)	17.7 (2.6)	44.5 (12.8)	-8.2 (6.3)		24.6 (0.6)	43.1 (7.3)	-17.2 (13.5)	1.08 (0.71)
2	18.8 (1.3)	43.4 (9.1)	-15.7 (9.7)	14.5 (8.3)	18.2 (1.9)	46.4 (8.5)	-12.9 (3.6)	15.9 (4.0)	24.6 (0.3)	45.3 (3.5)	-15.1 (11.0)	1.04 (0.67)
3	18.9 (1.5)	43.9 (10.8)	-18.3 (10.2)	18.5 (9.6)	18.8 (1.2)	44.8 (11.9)	-9.3 (4.6)	19.8 (6.4)	24.5 (0.3)	44.8 (4.6)	-22.9 (12.5)	1.36 (0.67)
4												
5	16.7 (1.1)	58.3 (5.2)	-10.8 (5.4)	8.9 (3.1)	16.5 (0.8)	63.8 (6.5)	-17.8 (3.3)	13.5 (1.2)	23.4 (0.5)	52.4 (1.9)	-6.8 (7.8)	0.81 (0.57)
6	16.9 (1.6)	56.0 (8.6)	-13.6 (6.2)	12.5 (3.8)	16.1 (2.2)	59.4 (8.5)	-13.4 (3.2)	14.2 (1.7)	23.8 (0.5)	47.6 (4.1)	-18.3 (8.6)	1.30 (0.66)
7	18.1 (1.2)	48.6 (9.7)	-13.9 (8.0)	12.2 (6.1)	17.5 (2.0)	53.2 (8.6)	-13.9 (5.3)	14.5 (1.4)	23.9 (0.3)	47.2 (3.3)	-16.9 (11.2)	1.27 (0.69)
8	18.6 (1.4)	44.7 (10.1)	-15.9 (10.2)	14.8 (7.7)	18.3 (2.0)	49.3 (9.0)	-14.5 (5.1)	15.5 (3.3)	23.6 (0.4)	45.4 (3.7)	-19.3 (9.7)	1.36 (0.67)
9	18.8 (2.2)	43.2 (12.9)	-15.7 (9.6)	18.1 (11.4)	18.2 (2.3)	45.8 (12.6)	-12.0 (4.8)	18.7 (7.0)	24.1 (1.2)	44.2 (4.4)	-27.2 (13.7)	1.52 (0.64)
10	16.6 (1.1)	55.7 (8.9)	-8.8 (5.1)	8.6 (3.0)	15.7 (0.9)	61.9 (10.2)	-13.9 (1.4)	14.2 (0.5)	23.7 (0.2)	49.9 (4.1)	-18.2 (8.3)	1.22 (0.68)
11	18.0 (2.3)	52.1 (11.0)	-17.5 (9.3)	16.8 (9.0)	16.9 (3.1)	56.5 (10.7)	-13.5 (4.2)	16.6 (4.9)	23.6 (0.5)	48.1 (3.0)	-24.3 (13.8)	1.39 (0.68)
12	19.0 (1.3)	50.8 (9.7)	-14.3 (7.7)	13.3 (5.9)	17.7 (2.1)	53.6 (9.9)	-15.9 (3.7)	15.5 (3.3)	23.3 (0.3)	47.9 (3.2)	-18.5 (9.0)	1.33 (0.67)
13	19.1 (2.1)	43.4 (12.3)	-14.9 (10.6)	19.8 (12.3)	18.6 (2.5)	47.6 (13.7)	-11.8 (5.5)		24.1 (1.1)	44.6 (4.8)	-35.0 (20.7)	1.63 (0.59)
14	18.6 (0.9)	49.6 (7.4)	-16.3 (8.2)	14.1 (5.9)	17.9 (1.7)	54.0 (8.2)	-15.9 (4.6)	14.6 (1.7)	23.7 (0.5)	48.3 (3.5)	-16.7 (10.3)	1.31 (0.66)
15	16.8 (1.4)	53.9 (8.5)	-9.8 (5.1)	9.8 (3.6)	15.5 (1.4)	60.4 (7.5)	-15.3 (2.1)	14.6 (0.8)	23.2 (0.2)	49.0 (2.8)	-17.5 (9.3)	1.22 (0.67)
16	18.0 (0.8)	58.6 (7.8)	-15.8 (9.4)	13.8 (6.0)	16.8 (1.6)	63.1 (5.9)	-14.2 (2.7)	14.7 (1.7)	23.4 (0.2)	52.3 (4.1)	-20.0 (7.8)	1.45 (0.62)
17	18.4 (0.9)	54.2 (6.8)	-18.4 (10.4)	13.8 (6.1)	16.7 (1.6)	57.3 (5.2)	-23.6 (7.3)	15.8 (3.4)	23.8 (0.4)	51.1 (2.7)	-9.6 (8.4)	1.10 (0.69)
18	18.2 (2.0)	49.1 (10.6)	-13.1 (8.7)	13.9 (7.4)	16.9 (2.1)	53.0 (11.8)	-20.6 (7.3)	19.2 (4.8)	23.4 (0.8)	47.5 (4.9)	-11.3 (7.8)	0.89 (0.62)
19	19.1 (1.9)	47.7 (10.9)	-17.0 (9.5)	18.4 (10.0)	18.1 (2.7)	48.3 (8.0)	-19.4 (6.3)	21.5 (6.2)	24.2 (0.8)	45.3 (4.1)	-10.7 (7.6)	0.69 (0.60)
20	16.6 (1.0)	55.4 (7.1)	-10.1 (6.3)	9.2 (4.3)	15.5 (0.7)	62.5 (8.4)	-14.6 (2.6)	13.7 (1.3)	23.4 (0.3)	50.3 (2.7)	-8.7 (6.8)	0.57 (0.57)
21	16.7 (1.5)	54.2 (8.2)	-11.2 (7.3)	10.6 (5.0)	16.0 (1.5)	59.8 (7.9)	-14.4 (1.5)	14.4 (0.8)	23.6 (0.4)	50.3 (2.5)	-8.7 (6.0)	0.60 (0.52)
22	18.5 (2.5)	48.9 (11.6)	-17.2 (11.0)	17.2 (10.2)	17.7 (2.9)	53.2 (11.8)	-16.8 (5.7)	18.9 (7.2)	24.1 (0.8)	49.8 (4.2)	-12.8 (8.4)	0.79 (0.60)
23	19.3 (1.6)	52.2 (8.5)	-20.5 (9.2)	19.6 (9.9)	18.5 (2.2)	54.7 (7.7)	-15.8 (5.0)	19.5 (8.8)	24.2 (0.5)	53.2 (4.8)	-15.0 (8.8)	0.81 (0.60)
24	19.7 (2.0)	47.7 (12.6)	-16.2 (9.6)	23.3 (12.8)	18.3 (3.1)	51.3 (13.5)	-14.2 (5.3)	25.9 (13.6)	24.0 (0.9)	49.0 (6.7)	-18.3 (12.7)	1.00 (0.65)
25	19.6 (1.2)	49.2 (4.7)	-21.6 (8.0)	20.1 (6.9)	19.0 (1.9)	51.8 (4.2)	-18.6 (11.3)	18.5 (4.9)	23.6 (0.4)	51.4 (3.6)	-5.7 (6.6)	0.69 (0.46)
26	18.2 (1.1)	49.0 (11.7)	-14.0 (9.1)	12.8 (6.3)	17.1 (2.3)	52.6 (11.7)	-16.0 (5.2)	14.8 (4.4)	24.3 (0.7)	47.9 (4.9)	-8.6 (7.4)	0.78 (0.57)
27	18.9 (2.1)	43.4 (10.8)	-16.4 (9.4)	18.3 (10.4)	18.2 (3.0)	46.0 (10.3)	-17.5 (5.7)	19.5 (8.2)	24.7 (0.5)	44.9 (5.3)	-18.8 (12.4)	1.17 (0.71)
28	19.6 (2.2)	43.1 (11.7)	-17.0 (8.0)	23.7 (15.2)	18.4 (3.0)	47.8 (11.2)	-16.2 (5.5)	23.9 (14.2)	24.6 (0.6)	44.0 (7.0)	-24.9 (17.6)	1.41 (0.76)
29	19.7 (1.8)	45.9 (10.3)	-16.3 (8.4)	21.9 (10.9)	18.7 (3.0)	48.6 (10.5)	-16.6 (5.9)	22.5 (11.2)	24.6 (0.9)	45.7 (4.5)	-28.2 (18.0)	1.47 (0.69)
Mean	18.3	49.5	-15.0	15.5	17.5	53.3	-15.2	17.3	23.9	47.9	-17.0	1.12
n	28.0	28.0	28.0	28.0	28.0	28.0	28.0	26.0	28.0	28.0	28.0	28.0
SD	1.0	4.9	3.1	4.2	1.0	5.9	3.1	3.4	0.5	2.8	6.9	0.30
Min	16.6	42.9	-21.6	8.6	15.5	44.5	-23.6	13.5	23.2	43.1	-35.0	0.57
Max	19.7	58.6	-8.8	23.7	19.0	63.8	-8.2	25.9	24.7	53.2	-5.7	1.63

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for March, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	21.7 (3.0)	37.3 (13.0)	-17.2 (7.4)	36.9 (20.8)	21.3 (3.3)	38.9 (12.7)	-15.9 (7.4)	36.5 (21.0)	25.7 (1.9)	39.3 (8.6)	-40.3 (20.6)	1.90 (0.62)
2	19.1 (2.8)	51.3 (6.0)	-26.0 (11.1)	25.0 (6.2)	19.2 (2.0)	54.2 (6.7)	-23.1 (9.5)	21.3 (7.0)	24.3 (0.5)	50.5 (4.8)	-18.5 (17.1)	1.56 (0.59)
3	17.0 (1.7)	48.8 (6.9)	-12.7 (9.4)	13.8 (6.0)	16.4 (1.5)	54.5 (9.3)	-26.1 (6.6)	17.8 (4.1)	24.2 (0.3)	47.4 (2.8)	-7.9 (7.7)	0.92 (0.63)
4	18.5 (2.6)	45.7 (12.9)	-16.3 (9.6)	17.8 (10.0)	17.0 (3.6)	47.4 (11.4)	-22.2 (6.3)	23.2 (8.2)	24.5 (0.6)	44.5 (5.2)	-26.0 (16.6)	1.38 (0.69)
5	18.1 (1.0)	49.7 (9.1)	-17.5 (10.6)	13.7 (6.6)	16.7 (1.9)	54.2 (8.5)	-22.2 (7.1)	16.1 (3.7)	24.4 (0.3)	48.5 (3.2)	-11.9 (8.1)	1.02 (0.66)
6	18.3 (1.5)	44.6 (9.1)	-14.9 (8.9)	13.6 (6.7)	17.0 (2.4)	46.6 (9.5)	-23.2 (10.2)	17.4 (4.6)	24.3 (0.3)	45.4 (3.2)	-18.2 (9.4)	1.23 (0.68)
7	16.8 (1.3)	51.4 (8.8)	-11.0 (6.4)	10.1 (3.9)	15.3 (1.3)	55.5 (7.7)	-23.4 (6.3)	18.1 (3.4)	23.9 (0.3)	48.2 (2.8)	-14.1 (8.5)	1.11 (0.68)
8	17.3 (2.9)	46.7 (12.0)	-19.3 (12.5)	16.9 (8.9)	16.6 (3.9)	46.6 (9.6)	-30.5 (9.2)	22.6 (3.5)	23.9 (0.5)	45.9 (3.3)	-23.7 (11.4)	1.48 (0.64)
9	19.3 (1.8)	41.0 (9.8)	-18.5 (8.7)	21.3 (10.5)	19.2 (3.4)	41.4 (8.4)	-37.7 (9.6)	24.9 (4.0)	24.2 (0.9)	43.2 (4.2)	-28.6 (13.6)	1.70 (0.53)
10	19.6 (2.1)	40.3 (11.7)	-17.1 (10.5)	22.5 (12.8)	19.5 (3.9)	41.0 (9.7)	-29.6 (13.5)	26.7 (6.0)	24.8 (1.4)	42.5 (6.3)	-38.9 (23.1)	1.79 (0.56)
11	20.2 (2.6)	39.1 (12.1)	-16.6 (8.6)	28.5 (17.5)	19.5 (3.5)	41.4 (10.3)	-23.1 (10.1)	30.8 (9.5)	25.1 (1.6)	41.0 (6.8)	-36.9 (18.9)	1.99 (0.53)
12	20.3 (2.3)	37.7 (11.7)	-18.8 (8.9)	27.6 (15.6)	19.6 (3.1)	39.5 (10.3)	-23.9 (9.5)	28.8 (8.5)	24.4 (1.1)	39.8 (5.9)	-33.7 (16.2)	1.96 (0.47)
13	20.0 (1.6)	40.9 (10.4)	-18.8 (8.7)	25.0 (11.4)	19.9 (2.7)	42.9 (10.5)	-20.6 (9.6)	23.9 (6.9)	24.2 (1.2)	41.8 (6.3)	-37.3 (19.3)	1.90 (0.44)
14	19.9 (1.8)	43.1 (8.1)	-17.7 (8.8)	23.0 (10.4)	19.0 (3.0)	44.5 (8.3)	-24.6 (8.3)	26.2 (9.1)	24.2 (1.1)	44.0 (5.3)	-33.0 (20.0)	1.81 (0.61)
15	19.4 (1.7)	47.3 (10.2)	-23.2 (10.5)	20.1 (9.1)	18.7 (2.8)	50.0 (10.2)	-27.9 (10.5)	20.9 (7.4)	23.6 (0.6)	48.5 (3.1)	-22.4 (10.4)	1.61 (0.57)
16	18.1 (0.4)	59.2 (3.2)	-15.8 (7.7)	14.0 (5.0)	17.1 (0.3)	61.2 (3.1)	-19.9 (7.5)	15.9 (3.9)	23.2 (0.2)	54.0 (2.3)	-22.7 (7.7)	1.56 (0.59)
17	18.2 (0.5)	63.1 (3.3)	-16.1 (8.7)	13.3 (5.4)	17.0 (0.7)	66.9 (3.3)	-18.7 (6.3)	15.8 (4.1)	22.4 (0.8)	58.1 (6.1)	-8.8 (8.5)	0.92 (0.64)
18	18.7 (1.3)	49.8 (11.5)	-22.3 (14.2)	17.4 (8.7)	18.0 (2.4)	53.6 (10.9)	-22.1 (8.8)	17.2 (4.6)	22.5 (0.4)	49.6 (4.9)	-5.2 (5.2)	0.64 (0.47)
19	19.9 (2.4)	39.0 (14.8)	-16.5 (10.2)	26.0 (16.5)	19.5 (3.6)	42.7 (15.8)	-17.4 (7.4)	25.1 (12.1)	23.5 (1.3)	40.6 (10.6)	-19.7 (16.1)	1.27 (0.82)
20	21.9 (3.5)	31.2 (13.8)	-19.1 (9.1)	39.7 (25.2)	21.6 (4.1)	34.5 (13.6)	-18.3 (8.7)	38.6 (23.3)	24.7 (2.2)	35.5 (11.6)	-30.5 (21.9)	1.61 (0.89)
21	20.7 (1.5)	35.3 (9.7)	-22.3 (7.4)	29.0 (12.6)	20.5 (2.1)	38.4 (9.7)	-26.7 (10.4)	30.2 (14.0)	23.9 (0.7)	40.5 (8.1)	-21.7 (16.2)	1.34 (0.77)
22	19.5 (1.3)	44.0 (7.4)	-23.5 (9.0)	20.7 (7.4)	18.9 (1.9)	47.5 (7.7)	-26.9 (12.3)	20.4 (6.5)	23.6 (0.3)	50.0 (4.7)	-12.0 (7.7)	0.87 (0.62)
23	19.0 (1.6)	45.3 (10.8)	-22.5 (12.6)	18.7 (8.8)	18.6 (2.5)	49.7 (11.2)	-18.7 (10.4)	18.8 (6.0)	23.6 (0.4)	50.4 (5.7)	-13.4 (9.6)	0.95 (0.66)
24	20.8 (2.6)	40.3 (15.3)	-20.3 (11.6)	31.2 (18.6)	21.1 (2.4)	42.5 (14.3)	-17.6 (10.8)	32.0 (19.6)	24.5 (1.4)	43.5 (11.2)	-29.5 (20.8)	1.58 (0.85)
25	21.1 (2.5)	36.6 (9.1)	-22.3 (8.2)	33.3 (16.2)	20.9 (3.0)	39.6 (8.6)	-21.6 (7.8)	31.9 (15.2)	24.7 (1.2)	41.1 (6.2)	-32.2 (20.2)	1.73 (0.73)
26	20.5 (2.2)	44.6 (8.7)	-20.7 (8.7)	29.0 (15.9)	19.9 (3.3)	48.3 (9.7)	-22.8 (9.4)	29.0 (14.7)	24.6 (1.2)	47.0 (4.5)	-30.0 (19.6)	1.64 (0.75)
27	19.6 (1.4)	49.3 (4.2)	-23.6 (10.0)	21.4 (7.8)	18.9 (2.1)	54.6 (5.0)	-28.1 (11.7)	21.6 (6.9)	24.0 (0.4)	51.4 (2.3)	-20.0 (11.2)	1.46 (0.64)
28	19.2 (1.3)	47.4 (10.7)	-21.9 (10.3)	18.8 (7.7)	18.1 (2.4)	52.6 (12.1)	-25.5 (10.6)	20.0 (6.4)	23.9 (0.4)	49.7 (4.5)	-19.4 (11.0)	1.37 (0.68)
29	20.5 (2.4)	48.1 (10.8)	-21.3 (11.2)	29.4 (16.5)	19.4 (4.0)	50.6 (12.4)	-25.3 (10.2)	33.3 (18.1)	24.9 (1.5)	49.2 (7.1)	-39.4 (21.9)	1.77 (0.67)
30	19.6 (0.8)	56.3 (3.6)	-27.3 (9.4)	21.5 (5.5)	18.6 (1.2)	60.7 (4.5)	-32.6 (10.5)	22.0 (4.9)	24.0 (0.2)	57.4 (1.5)	-19.1 (9.4)	1.54 (0.60)
31	19.6 (1.3)	52.0 (9.2)	-23.4 (9.2)	21.3 (8.6)	18.7 (2.4)	58.6 (9.1)	-28.0 (10.2)	21.8 (7.0)	24.1 (0.5)	54.6 (3.8)	-22.9 (11.5)	1.54 (0.61)
Mean	19.4	45.4	-19.5	22.6	18.8	48.4	-24.0	24.2	24.1	46.5	-23.8	1.46
n	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
SD	1.2	7.0	3.7	7.1	1.5	7.7	4.7	6.2	0.7	5.4	9.8	0.35
Min	16.8	31.2	-27.3	10.1	15.3	34.5	-37.7	15.8	22.4	35.5	-40.3	0.64
Max	21.9	63.1	-11.0	39.7	21.6	66.9	-15.9	38.6	25.7	58.1	-5.2	1.99

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for April, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	19.0 (1.6)	45.5 (11.5)	-21.8 (11.9)	19.1 (9.4)	17.6 (2.9)	50.9 (12.0)	-25.4 (11.2)	20.0 (7.4)	24.0 (0.5)	49.6 (3.8)	-20.0 (11.4)	1.40 (0.69)
2	19.7 (1.9)	49.5 (8.3)	-22.5 (10.2)	24.7 (13.6)	18.6 (2.9)	52.3 (8.4)	-21.9 (8.0)	24.0 (12.9)	24.5 (1.0)	51.7 (3.7)	-38.3 (21.7)	1.70 (0.57)
3	20.1 (1.6)	52.7 (7.9)	-21.9 (8.5)	23.0 (8.3)	19.5 (2.2)	58.0 (6.8)	-26.7 (10.8)	23.5 (9.6)	24.5 (0.8)	55.0 (4.3)	-26.8 (14.1)	1.73 (0.61)
4	20.1 (1.8)	44.8 (14.8)	-19.8 (9.5)	24.5 (12.2)	19.3 (3.2)	49.5 (15.9)	-27.0 (10.8)	25.4 (11.6)	24.7 (1.1)	49.1 (9.6)	-34.3 (20.9)	1.72 (0.59)
5	21.0 (2.2)	35.5 (11.4)	-19.3 (11.1)	36.0 (18.2)	21.1 (3.6)	37.4 (13.5)	-22.4 (9.4)	39.7 (22.5)	25.8 (1.9)	40.2 (9.9)	-43.0 (18.2)	2.05 (0.51)
6	20.8 (1.5)	33.5 (7.8)	-24.6 (9.1)	30.2 (12.4)	20.3 (2.3)	35.2 (6.9)	-29.6 (10.9)	30.0 (12.9)	24.8 (1.0)	41.1 (6.0)	-30.8 (17.2)	1.86 (0.53)
7	19.7 (1.7)	44.2 (6.4)	-22.1 (9.0)	20.9 (7.5)	18.8 (2.5)	47.6 (6.8)	-22.1 (7.7)	21.8 (10.0)	24.7 (0.9)	49.6 (4.0)	-31.3 (17.5)	1.71 (0.59)
8	19.6 (1.6)	50.8 (8.3)	-23.3 (8.9)	20.8 (8.2)	18.6 (2.3)	55.0 (8.6)	-26.6 (9.6)	20.3 (6.8)	24.2 (0.4)	55.1 (4.1)	-20.9 (10.6)	1.60 (0.59)
9	18.5 (0.6)	62.0 (3.0)	-18.7 (8.0)	16.3 (5.4)	17.3 (0.7)	66.9 (3.1)	-18.3 (6.7)	15.9 (3.7)			-20.1 (8.0)	
10	19.1 (1.1)	56.3 (7.0)	-15.4 (16.2)		18.1 (1.4)	63.3 (5.5)	-24.3 (8.4)	18.2 (4.5)				
11	19.5 (1.3)	47.9 (6.6)	-15.9 (13.6)		18.2 (2.2)	52.8 (8.5)	-27.6 (11.1)	19.3 (5.0)				
12	19.4 (1.5)	45.0 (10.5)	-21.8 (10.1)	20.1 (8.0)	18.6 (2.6)	48.2 (10.8)	-30.0 (10.8)	19.9 (5.2)				
13	19.5 (1.6)	43.5 (12.1)	-21.5 (10.7)	21.4 (9.5)	18.5 (2.7)	47.7 (12.9)	-28.1 (11.4)	20.9 (7.1)				
14	20.9 (2.4)	40.3 (10.4)	-19.7 (10.7)	32.3 (17.7)	20.9 (4.8)	41.1 (14.1)	-23.7 (8.7)	37.2 (21.7)				
15	22.6 (2.1)	37.8 (5.3)	-21.0 (8.8)	42.4 (17.5)	22.9 (3.2)	38.1 (6.3)	-31.3 (7.2)	46.1 (19.8)	25.4 (2.1)	34.6 (6.4)	-48.0 (20.7)	2.05 (0.66)
16	22.4 (1.1)	43.1 (5.6)	-20.7 (8.1)	38.6 (9.2)	22.4 (1.4)	45.0 (5.9)	-22.6 (11.1)	40.0 (10.4)	24.6 (0.9)	41.7 (5.2)	-45.8 (10.5)	2.18 (0.22)
17	18.4 (0.8)	58.3 (4.4)	-25.4 (11.5)	17.4 (5.9)	17.6 (1.3)	64.3 (6.1)	-27.0 (9.5)	18.2 (4.8)	22.8 (0.5)	50.5 (1.8)	-2.5 (7.8)	0.84 (0.62)
18	20.2 (2.6)	42.2 (15.4)	-16.5 (10.7)	29.0 (17.4)	19.3 (3.4)	47.6 (17.6)	-19.3 (8.9)	30.4 (16.5)	24.3 (1.3)	36.8 (10.7)	-30.7 (19.4)	1.72 (0.78)
19	21.4 (2.5)	37.3 (7.4)	-22.2 (7.9)	36.3 (15.1)	21.4 (3.1)	38.2 (8.7)	-21.9 (8.8)	38.1 (17.5)	25.6 (2.5)	31.4 (8.2)	-43.3 (21.2)	2.07 (0.81)
20	22.3 (2.0)	31.8 (5.9)	-20.6 (9.2)	41.2 (12.9)	22.4 (2.7)	31.8 (5.8)	-24.3 (9.4)	45.6 (16.2)	26.0 (2.3)	27.4 (6.2)	-51.9 (13.6)	2.33 (0.45)
21	21.3 (1.8)	39.6 (6.8)	-23.9 (7.9)	35.1 (12.9)	21.2 (2.8)	39.0 (7.7)	-26.9 (8.6)	38.3 (15.5)	25.0 (1.7)	34.4 (5.6)	-39.4 (18.3)	2.12 (0.49)
22	21.1 (1.8)	49.3 (8.4)	-23.6 (8.0)	33.3 (13.2)	20.9 (2.6)	51.9 (9.4)	-26.6 (9.7)	34.4 (14.7)	24.9 (1.7)	43.8 (6.5)	-39.7 (18.1)	2.03 (0.46)
23	20.3 (2.1)	65.3 (5.6)	-16.1 (13.0)		21.0 (1.7)	64.8 (4.0)	-31.2 (6.4)	31.4 (11.0)	25.0 (1.3)	58.6 (4.9)	-47.2 (15.4)	2.04 (0.16)
24	22.5 (1.9)	52.1 (18.3)	-12.1 (10.2)	43.2 (9.3)	22.7 (1.9)	52.4 (15.9)	-22.9 (13.0)	42.5 (12.1)	25.7 (1.4)	50.5 (12.5)	-42.1 (14.7)	2.42 (0.42)
25	21.4 (1.1)	40.3 (12.6)	-15.5 (5.8)	29.1 (12.0)	21.0 (1.1)	41.0 (10.7)	-16.5 (7.3)	28.9 (11.4)	24.3 (0.7)	37.8 (10.2)	-24.0 (9.4)	2.22 (0.54)
26	20.7 (1.4)	44.4 (10.5)	-16.4 (7.1)	25.5 (13.4)	20.8 (1.5)	44.2 (9.3)	-12.9 (8.0)		24.1 (0.9)	39.5 (7.7)	-20.6 (13.2)	2.07 (0.66)
27	20.4 (1.1)	42.7 (13.1)	-13.3 (7.3)	22.3 (10.6)	20.3 (1.0)	42.4 (10.9)	-11.4 (6.6)	22.2 (10.1)	24.0 (0.6)	37.6 (8.1)	-21.9 (10.5)	1.83 (0.64)
28	21.2 (1.7)	38.8 (8.1)	-12.3 (5.6)	28.2 (12.9)	21.0 (2.0)	39.1 (6.7)	-11.7 (6.7)	29.2 (12.8)	24.7 (1.2)	34.7 (6.6)	-26.3 (8.0)	2.18 (0.62)
29	21.7 (1.8)	46.7 (10.7)	-14.4 (5.9)	30.1 (14.4)	21.7 (2.1)	46.7 (8.7)	-15.4 (6.2)	30.5 (12.9)	24.8 (1.2)	42.7 (6.8)	-29.8 (7.0)	2.31 (0.53)
30	22.4 (1.6)	36.4 (4.1)	-13.0 (5.4)	38.0 (13.2)	22.6 (1.7)	38.4 (5.7)	-11.3 (6.0)	37.7 (14.1)	25.3 (1.0)	36.6 (7.3)	-30.2 (6.1)	2.53 (0.44)
Mean	20.6	45.3	-19.2	28.8	20.1	47.7	-22.9	29.3	24.7	42.9	-32.4	1.95
n	30.0	30.0	30.0	27.0	30.0	30.0	30.0	29.0	24.0	24.0	25.0	24.0
SD	1.2	8.0	3.9	7.9	1.7	9.2	5.8	8.9	0.7	8.2	11.4	0.36
Min	18.4	31.8	-25.4	16.3	17.3	31.8	-31.3	15.9	22.8	27.4	-51.9	0.84
Max	22.6	65.3	-12.1	43.2	22.9	66.9	-11.3	46.1	26.0	58.6	-2.5	2.53

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for May, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	21.9 (1.2)	37.6 (7.4)	-12.4 (6.3)	33.8 (12.2)	21.8 (1.3)	40.5 (8.3)	-14.2 (9.6)	32.5 (11.5)	24.8 (1.0)	37.3 (7.4)	-25.3 (19.3)	2.42 (0.54)
2	20.6 (1.0)	42.7 (11.0)	-13.2 (8.0)	20.7 (11.7)	20.2 (1.4)	44.3 (8.5)	-16.6 (9.4)	21.0 (10.3)	23.9 (0.8)	38.6 (6.4)	-10.5 (18.1)	
3	20.9 (1.1)	39.4 (11.1)	-12.7 (6.5)	21.9 (10.9)	20.5 (1.9)	39.1 (10.7)	-17.2 (8.9)	23.6 (10.6)	24.2 (0.7)	36.2 (6.2)	-20.3 (10.7)	1.84 (0.68)
4	21.6 (1.4)	43.5 (5.9)	-13.8 (5.7)	32.4 (14.6)	21.5 (2.0)	45.4 (5.1)	-14.8 (6.1)	33.3 (14.6)	24.9 (1.1)	42.3 (5.0)	-28.8 (7.9)	2.32 (0.61)
5	22.7 (1.3)	57.0 (6.0)	-20.3 (8.9)	37.7 (15.1)	22.8 (1.7)	59.7 (6.7)	-20.0 (10.6)	40.0 (15.7)			-34.2 (12.1)	
6	22.9 (0.9)	65.3 (2.3)	-17.2 (8.1)	41.7 (15.0)	22.9 (1.2)	69.7 (3.7)	-18.7 (9.1)	39.8 (16.9)	24.7 (1.4)	68.1 (3.4)	-43.6 (10.7)	2.22 (0.25)
7	22.0 (0.7)	61.9 (3.2)	-11.2 (5.5)	25.2 (6.0)	21.6 (0.6)	66.1 (3.9)	-7.8 (9.2)		23.7 (0.3)	65.4 (4.3)	-29.5 (10.8)	1.72 (0.58)
8	21.5 (1.2)	58.4 (4.3)	-7.3 (6.8)	27.7 (12.1)	21.7 (1.0)	62.7 (6.1)	-9.2 (6.6)	25.6 (12.8)	23.7 (1.1)	60.1 (6.1)	-29.4 (21.8)	1.59 (0.87)
9	21.3 (1.5)	54.8 (2.4)	-7.9 (7.8)		21.7 (1.0)	59.4 (2.9)	-10.3 (4.8)	24.0 (6.9)	24.1 (1.1)	53.6 (6.5)	-39.6 (22.5)	1.84 (0.82)
10	21.4 (0.7)	47.2 (6.8)	-11.1 (4.6)	28.7 (8.0)	21.0 (0.7)	52.4 (7.0)	-9.4 (4.6)	25.3 (6.9)	23.8 (0.8)	45.5 (9.2)	-22.8 (14.1)	2.07 (0.81)
11	22.0 (0.8)	42.6 (5.0)	-9.4 (5.8)	20.1 (6.1)	21.3 (0.9)	47.4 (4.8)	-9.7 (6.6)	19.7 (5.8)	24.3 (1.2)	40.3 (7.6)	-34.2 (20.1)	1.70 (0.82)
12	22.3 (1.1)	45.8 (6.9)	-12.9 (7.8)	32.4 (14.9)	22.5 (1.4)	49.5 (7.1)	-14.4 (8.0)	34.5 (18.0)	24.7 (0.8)	43.7 (3.9)	-32.9 (10.0)	2.21 (0.83)
13	22.1 (0.7)	50.5 (2.9)	-12.7 (5.4)	24.6 (6.7)	22.0 (0.5)	55.2 (3.2)	-8.5 (5.0)	21.9 (7.4)	24.3 (0.7)	46.8 (3.6)	-23.4 (9.8)	2.40 (0.88)
14	21.2 (1.0)	53.6 (3.2)	-7.3 (4.8)	18.7 (5.2)	21.3 (1.0)	57.8 (3.4)	-6.2 (4.4)		23.8 (0.3)	54.9 (3.1)	-30.1 (14.2)	1.65 (0.73)
15	21.5 (1.0)	52.6 (5.9)	-9.8 (6.1)	24.6 (9.9)	21.5 (0.8)	55.2 (5.0)	-6.7 (4.6)	26.0 (11.7)	24.0 (0.6)	52.6 (7.6)	-24.6 (11.0)	2.19 (0.92)
16	21.5 (1.0)	47.6 (3.6)	-8.8 (6.6)	27.6 (10.0)	21.3 (1.2)	52.3 (2.8)	-5.9 (3.1)	23.7 (7.5)	24.0 (0.8)	44.8 (7.1)	-25.1 (10.1)	2.42 (1.12)
17	22.4 (1.0)	48.3 (3.2)	-13.4 (9.1)	32.7 (12.8)	22.1 (0.9)	52.4 (4.0)	-8.7 (5.3)	30.3 (10.8)	23.4 (0.7)	48.1 (5.3)	-26.6 (9.9)	2.69 (0.83)
18	23.2 (1.8)	45.1 (4.6)	-14.4 (11.4)	37.1 (16.8)	22.8 (1.7)	49.8 (4.3)	-13.0 (9.9)	35.8 (17.3)	24.1 (1.2)	45.5 (4.6)	-34.7 (9.1)	2.84 (1.05)
19	24.6 (2.5)	47.0 (7.1)	-20.1 (10.7)	45.2 (15.0)	24.4 (2.6)	51.3 (6.5)	-17.6 (10.2)	45.2 (16.6)	24.5 (1.1)	50.1 (7.9)	-37.5 (11.2)	3.54 (1.01)
20	23.1 (0.8)	53.7 (4.0)	-14.9 (6.4)	39.2 (11.4)	22.6 (1.1)	59.5 (3.5)	-12.9 (7.4)	38.9 (13.4)	24.2 (0.9)	51.8 (5.5)	-34.5 (7.6)	3.25 (0.71)
21	23.4 (1.2)	56.5 (6.0)	-22.4 (9.3)	45.9 (14.0)	23.5 (1.5)	61.8 (6.2)	-22.9 (11.5)	44.6 (14.9)	25.3 (1.6)	53.0 (5.6)	-56.4 (14.4)	3.87 (1.09)
22	23.9 (1.2)	54.8 (9.5)	-23.5 (8.1)	55.9 (10.3)	24.3 (1.7)	58.0 (11.6)	-27.1 (9.5)	57.7 (9.6)	27.6 (2.4)	44.1 (12.7)	-59.7 (7.8)	4.77 (0.43)
23	24.1 (1.5)	58.2 (12.6)	-22.6 (8.8)	53.5 (10.5)	24.2 (1.9)	60.7 (13.8)	-23.4 (9.2)	53.9 (11.3)	26.2 (1.3)	54.9 (13.7)	-56.3 (9.0)	4.55 (1.00)
24	22.9 (0.8)	43.5 (3.8)	-14.2 (8.3)	41.9 (17.4)	22.8 (1.2)	45.6 (3.2)	-12.9 (8.4)	44.4 (15.5)	25.3 (1.6)	38.7 (6.4)	-49.9 (9.9)	3.81 (1.44)
25	23.9 (1.8)		-20.4 (8.5)	50.0 (12.1)	24.2 (2.1)	58.5 (8.4)	-22.3 (10.5)	51.5 (14.4)	25.7 (1.5)		-63.1 (10.1)	4.03 (1.27)
26	24.3 (1.7)	60.1 (3.4)	-22.2 (7.2)	52.2 (8.6)	24.7 (2.4)	62.2 (3.8)	-22.0 (8.1)	53.0 (11.6)	26.4 (1.9)	56.9 (6.6)	-59.4 (14.6)	4.35 (1.25)
27	22.0 (0.5)	59.1 (5.9)	-13.2 (6.0)	32.9 (11.1)	22.0 (0.6)	62.6 (5.6)	-7.0 (4.7)				-49.6 (26.1)	
28	22.8 (0.8)	61.8 (3.6)	-14.8 (9.4)	34.9 (18.2)	22.5 (1.1)	64.3 (4.3)	-11.4 (10.2)		23.2 (1.2)	63.4 (2.7)	-49.4 (26.0)	2.59 (1.44)
29	24.6 (1.6)	63.7 (5.2)	-27.4 (4.1)	59.3 (3.3)	25.0 (2.1)	65.7 (6.0)	-31.1 (7.9)	60.5 (6.4)	25.7 (1.9)	64.6 (7.1)		
30	23.9 (1.3)	56.8 (5.5)	-21.9 (7.2)	54.1 (8.9)	23.7 (1.5)	58.6 (6.3)	-20.4 (5.9)	54.2 (9.7)	26.1 (1.6)	50.9 (7.7)		
31	24.4 (1.8)	64.3 (5.3)	-21.4 (6.7)	51.4 (11.4)	24.2 (1.9)	66.4 (6.0)	-18.5 (6.4)	51.8 (11.6)	26.0 (2.0)	61.4 (4.0)		
Mean	22.6	52.5	-15.3	36.8	22.5	55.9	-14.9	37.5	24.7	50.5	-36.8	2.76
n	31.0	30.0	31.0	30.0	31.0	31.0	31.0	27.0	29.0	28.0	28.0	25.0
SD	1.2	7.7	5.4	11.7	1.3	7.8	6.5	12.5	1.0	8.9	13.6	0.96
Min	20.6	37.6	-27.4	18.7	20.2	39.1	-31.1	19.7	23.2	36.2	-63.1	1.59
Max	24.6	65.3	-7.3	59.3	25.0	69.7	-5.9	60.5	27.6	68.1	-10.5	4.77

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for June, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	24.8 (1.4)	69.3 (3.3)	-24.0 (3.0)	58.0 (6.2)	24.6 (1.5)	71.6 (2.9)	-21.3 (4.1)	56.0 (7.3)	25.4 (0.9)	70.4 (2.8)	-57.6 (9.8)	4.57 (1.07)
2	26.3 (2.9)	53.6 (16.6)	-22.4 (4.9)	57.8 (9.8)	26.6 (3.4)	55.1 (17.7)	-20.6 (5.0)	57.5 (11.9)	26.4 (2.0)	57.7 (14.9)	-51.6 (12.5)	4.24 (1.22)
3	24.6 (1.7)	59.5 (10.1)	-23.4 (6.8)		24.4 (1.8)	62.0 (10.1)	-21.4 (6.4)		25.8 (1.4)	57.5 (12.1)	-46.2 (9.4)	
4	24.2 (2.1)	51.3 (11.6)	-18.0 (8.6)		24.2 (2.5)	54.1 (11.5)	-15.0 (7.5)		25.4 (1.5)	50.5 (11.9)	-54.1 (10.7)	
5	23.3 (1.1)	50.6 (9.8)	-15.4 (8.6)	57.0 (9.7)	23.4 (1.1)	52.2 (11.2)	-14.3 (7.6)	51.1 (9.2)	24.8 (1.1)	49.0 (8.0)	-35.6 (15.9)	4.28 (0.96)
6	23.5 (1.3)	48.1 (4.6)	-17.4 (10.7)	46.3 (16.3)	23.4 (1.7)	49.4 (4.6)	-17.7 (11.1)	45.5 (17.3)	25.1 (1.4)	44.3 (6.8)	-40.1 (15.4)	3.91 (1.53)
7	26.5 (2.2)	62.2 (7.1)	-25.4 (4.6)	59.1 (5.0)	27.1 (2.9)	63.2 (8.5)	-30.7 (8.4)	59.5 (5.2)	27.4 (1.3)	62.8 (8.1)	-58.1 (4.5)	4.96 (0.18)
8	24.1 (1.1)	60.1 (5.8)	-25.5 (5.1)	56.9 (6.9)	24.0 (1.1)	61.8 (5.8)	-21.7 (7.7)	57.2 (8.9)	25.6 (1.2)	56.9 (6.9)	-39.1 (16.2)	5.05 (0.81)
9	23.1 (1.0)	48.5 (3.8)	-17.6 (7.7)	43.9 (12.9)	22.5 (1.0)	51.3 (3.6)	-14.1 (6.4)	41.5 (10.2)	24.6 (1.3)	45.6 (6.6)	-35.0 (11.6)	3.78 (1.37)
10	24.8 (2.4)	60.7 (3.8)	-22.5 (10.6)	49.3 (14.4)	25.1 (2.9)	62.9 (4.7)	-22.5 (10.8)	47.7 (15.3)	25.8 (2.1)	62.0 (4.2)	-51.1 (16.6)	4.09 (1.04)
11	25.8 (2.2)	50.9 (13.0)	-25.0 (5.5)	62.1 (7.1)	26.2 (2.7)	52.3 (14.2)	-24.7 (9.1)	65.1 (7.9)	26.0 (1.0)	53.5 (8.6)	-42.7 (17.7)	5.27 (0.61)
12	23.4 (1.2)	47.9 (4.6)	-19.9 (8.1)	47.0 (13.2)	23.2 (1.2)	49.5 (4.7)	-14.5 (7.7)	44.9 (13.0)	24.9 (1.7)	42.6 (5.5)	-33.1 (15.1)	4.41 (1.44)
13	23.7 (1.3)	46.1 (4.4)	-21.5 (6.3)	52.5 (9.2)	23.3 (1.2)	49.0 (4.3)	-16.1 (5.4)	47.2 (8.7)	25.0 (1.5)	42.2 (4.5)	-35.2 (9.9)	4.73 (1.16)
14												
15	25.4 (1.8)	57.6 (5.1)	-24.3 (5.7)	56.7 (7.4)	25.3 (2.0)	56.8 (8.6)	-20.4 (3.1)	55.7 (6.0)	26.3 (1.4)	56.8 (5.2)	-46.1 (5.8)	5.29 (0.47)
16	24.2 (1.1)	64.0 (4.7)	-21.1 (4.9)	51.1 (6.6)	23.9 (1.2)	66.6 (5.5)	-17.2 (3.7)	49.0 (6.5)			-41.0 (12.4)	
17	23.7 (0.8)	65.2 (4.6)	-23.1 (5.4)	54.4 (7.3)	23.6 (1.1)	68.1 (4.1)	-21.0 (5.9)	51.6 (9.0)	23.9 (1.4)	66.4 (4.6)	-38.9 (8.4)	4.04 (1.12)
18	24.7 (2.3)	61.5 (3.2)	-21.3 (9.5)	49.7 (14.3)	24.5 (2.4)	65.0 (3.8)	-19.0 (9.5)	46.9 (15.1)	24.5 (1.9)	65.0 (2.9)	-38.1 (15.7)	3.78 (1.40)
19	23.6 (1.1)	62.1 (3.3)	-18.9 (5.8)	49.1 (8.0)	23.3 (1.2)	65.7 (4.0)	-18.6 (5.7)	49.2 (8.3)	23.9 (1.1)	62.8 (4.9)	-34.4 (10.1)	3.79 (1.12)
20	23.9 (1.8)	61.9 (1.6)	-18.3 (9.8)	46.1 (16.3)	23.3 (2.2)	65.9 (2.3)	-15.4 (8.9)	46.8 (14.4)	24.2 (1.9)	63.2 (4.6)	-31.8 (16.0)	3.76 (1.78)
21												
22	24.8 (2.2)	61.4 (4.4)	-21.7 (8.1)	54.4 (11.5)	24.9 (2.6)	61.8 (6.1)	-18.8 (7.7)	54.3 (12.8)	25.1 (1.6)	59.3 (4.9)	-41.6 (11.1)	
23	24.9 (2.5)	57.8 (3.2)	-24.1 (6.4)	60.6 (4.8)	25.3 (2.6)	59.4 (3.4)	-17.0 (8.3)	55.3 (5.6)	25.2 (1.6)	55.8 (3.4)	-40.8 (15.5)	
24	24.6 (1.6)	63.6 (2.5)	-25.1 (5.8)	58.6 (5.9)	24.5 (1.7)	68.7 (2.7)	-20.2 (8.4)	55.6 (8.3)	25.3 (1.5)	61.2 (2.9)	-42.8 (10.5)	
25	25.5 (2.0)	63.0 (3.3)	-25.6 (6.7)	58.0 (6.1)	25.5 (2.2)	67.0 (2.7)	-23.1 (7.2)	57.1 (8.7)	26.0 (1.7)	62.1 (3.5)	-45.2 (10.0)	
26	25.8 (2.1)	63.2 (4.7)	-27.9 (3.3)	59.8 (3.0)	25.8 (2.2)	67.3 (4.9)	-26.3 (5.7)	59.0 (7.1)	26.6 (1.3)	61.1 (3.4)	-50.6 (4.2)	5.25 (0.18)
27	25.8 (2.1)	62.0 (4.1)	-25.4 (5.0)	58.2 (5.8)	25.3 (2.1)	65.6 (4.8)	-21.8 (4.6)	55.7 (6.5)	26.5 (1.4)	58.7 (4.0)	-46.7 (3.7)	5.36 (0.25)
28	24.4 (1.0)	66.5 (5.3)	-24.4 (4.6)	55.3 (5.8)	24.0 (1.0)	70.3 (5.4)	-18.4 (3.7)	53.6 (5.7)	25.5 (0.8)	63.1 (7.9)	-43.3 (5.8)	5.44 (0.39)
29	23.4 (1.2)	55.5 (1.8)	-17.6 (8.2)	47.3 (11.6)	22.9 (1.1)	58.8 (2.3)	-13.8 (5.5)	43.8 (8.6)	24.8 (1.3)	51.4 (4.5)	-36.7 (10.2)	
30	24.8 (1.6)	57.2 (4.0)	-21.7 (6.9)	54.6 (8.5)	24.3 (1.8)	61.1 (4.8)	-20.8 (6.7)	55.1 (9.3)	25.7 (1.3)	55.8 (5.2)	-44.0 (8.9)	
Mean	24.6	58.3	-22.1	54.0	24.4	60.8	-19.5	52.4	25.4	56.9	-42.9	4.53
n	28.0	28.0	28.0	26.0	28.0	28.0	28.0	26.0	27.0	27.0	28.0	19.0
SD	0.9	6.2	3.1	5.1	1.1	6.8	3.9	5.6	0.8	7.3	7.1	0.60
Min	23.1	46.1	-27.9	43.9	22.5	49.0	-30.7	41.5	23.9	42.2	-58.1	3.76
Max	26.5	69.3	-15.4	62.1	27.1	71.6	-13.8	65.1	27.4	70.4	-31.8	5.44

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for July, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	25.1 (1.8)	57.6 (4.0)	-22.8 (6.9)	57.8 (7.9)	24.8 (1.8)	61.6 (3.9)	-20.2 (6.0)	56.5 (6.8)	26.2 (0.9)	54.5 (5.8)	-47.9 (5.0)	
2	25.6 (2.2)	60.6 (4.9)	-24.0 (3.0)	59.7 (5.3)	25.4 (2.2)	64.1 (5.1)	-20.7 (6.5)	59.7 (7.5)	26.6 (1.6)	60.4 (5.9)	-47.1 (7.2)	
3												
4	25.0 (2.0)	64.8 (3.2)	-23.5 (8.7)	53.5 (11.0)	24.4 (2.4)		-21.7 (8.8)	52.9 (13.0)	26.0 (1.8)	67.7 (2.8)	-44.0 (8.7)	4.50 (1.05)
5	25.9 (2.0)	61.5 (4.8)	-27.0 (3.5)	59.0 (3.2)	25.3 (2.5)		-24.4 (5.5)	56.8 (6.9)	27.1 (1.0)	62.3 (3.4)	-44.9 (9.5)	4.77 (0.81)
6	25.5 (1.7)	62.0 (3.7)	-25.8 (6.8)	57.2 (6.7)	25.1 (2.2)		-24.6 (7.1)	55.0 (8.0)	26.8 (0.8)	62.4 (3.5)	-45.0 (9.6)	4.64 (0.84)
7	24.9 (1.8)	67.1 (4.6)	-25.2 (2.7)	59.7 (3.8)	24.6 (2.1)		-24.7 (6.4)	58.8 (7.0)			-41.8 (10.5)	
8	24.0 (1.1)	71.9 (2.7)	-25.4 (3.6)	59.2 (3.2)	23.7 (0.9)	72.8 (2.3)	-18.0 (4.7)	52.8 (5.5)	24.2 (0.9)	73.2 (3.6)	-38.2 (7.6)	4.79 (1.04)
9	23.5 (0.7)	76.4 (1.4)	-23.4 (0.8)	55.3 (0.7)	23.1 (0.6)	78.1 (1.7)	-18.5 (3.0)	51.2 (3.5)	23.6 (0.3)	79.5 (1.5)	-31.4 (5.0)	4.14 (0.98)
10	24.4 (1.4)	74.3 (3.0)	-24.1 (4.6)	57.5 (7.1)	23.9 (1.5)	77.2 (3.1)	-25.8 (6.1)	56.8 (11.6)	24.3 (1.2)	78.6 (4.0)	-41.3 (11.4)	4.51 (1.03)
11	25.6 (1.9)	70.8 (3.3)	-24.8 (3.1)	61.5 (4.4)	25.0 (1.9)	73.3 (4.0)	-25.4 (3.8)	63.1 (6.0)	25.5 (1.3)	74.1 (2.1)	-46.6 (8.9)	4.98 (0.70)
12	23.3 (0.8)	60.2 (7.9)	-21.2 (6.8)	51.4 (8.4)	22.6 (0.6)	59.9 (9.7)	-16.5 (7.1)	50.8 (10.2)	23.7 (0.9)	58.6 (8.9)	-27.2 (15.9)	4.42 (1.02)
13	23.5 (1.2)	61.8 (5.7)	-20.1 (8.1)	50.4 (10.8)	22.9 (1.4)	61.5 (6.3)	-17.9 (8.0)	49.2 (11.6)	24.1 (1.5)	60.7 (7.3)	-36.2 (11.1)	4.36 (1.27)
14	25.2 (1.9)	70.7 (2.9)	-25.7 (6.1)	57.0 (7.0)	24.7 (2.0)	73.2 (2.9)	-24.1 (6.0)	57.3 (8.3)	25.5 (1.7)	73.0 (2.9)	-43.1 (10.8)	4.67 (0.96)
15	25.2 (1.8)	68.8 (3.5)	-26.9 (4.3)	58.4 (4.3)	24.9 (2.1)	71.2 (3.6)	-24.3 (5.0)	58.2 (6.2)	26.1 (1.5)	68.3 (3.6)	-46.7 (7.4)	5.10 (0.67)
16	25.3 (1.8)	71.4 (2.9)	-28.3 (3.1)	59.5 (2.9)	25.0 (1.8)	74.1 (3.4)	-25.5 (4.7)	59.3 (5.9)	26.2 (1.5)	70.4 (4.6)	-44.4 (7.0)	5.26 (0.59)
17	25.7 (1.9)	67.3 (4.4)	-27.9 (2.6)	60.2 (2.7)	25.2 (2.1)	70.6 (5.1)	-26.7 (4.2)	61.4 (5.2)	26.5 (1.3)	67.0 (3.3)	-48.3 (5.1)	5.37 (0.19)
18	25.5 (1.6)	69.8 (3.5)	-29.1 (1.6)	61.5 (1.5)	25.1 (1.6)	73.2 (4.0)	-24.8 (3.4)	59.9 (5.6)	26.4 (1.1)	69.0 (2.6)	-47.4 (2.9)	5.45 (0.13)
19	24.9 (1.4)	69.4 (5.6)	-25.7 (3.1)	59.8 (3.8)	24.6 (1.6)	73.3 (6.8)	-23.4 (4.5)	60.1 (6.7)	25.9 (1.0)	69.4 (4.8)	-46.7 (5.8)	5.33 (0.31)
20	25.1 (2.0)	61.4 (4.3)	-23.3 (5.9)	56.9 (7.3)	24.9 (2.2)	62.7 (5.2)	-21.0 (6.6)	56.9 (9.4)	25.9 (1.4)	61.0 (3.5)	-44.2 (9.3)	4.98 (0.84)
21	25.1 (1.9)		-23.9 (6.3)	55.9 (7.3)	25.5 (2.4)	60.3 (3.9)	-22.4 (6.8)	56.4 (9.2)	26.4 (1.5)	57.5 (4.0)	-46.2 (7.2)	5.20 (0.58)
22	25.4 (2.3)		-26.2 (6.0)	56.7 (6.0)	26.0 (2.6)	61.9 (4.4)	-22.9 (6.7)	56.3 (8.8)	26.9 (1.5)	58.6 (3.9)	-48.0 (3.4)	5.39 (0.12)
23	25.5 (2.3)		-25.9 (6.5)	57.1 (6.3)	26.1 (2.7)	59.6 (4.2)	-23.3 (7.0)	57.5 (8.3)	26.8 (1.5)	57.5 (2.9)	-47.9 (5.0)	5.33 (0.28)
24	25.9 (2.5)		-27.1 (4.1)	59.6 (3.9)	26.2 (2.5)	61.9 (4.6)	-24.2 (5.1)	59.7 (7.0)	27.1 (1.6)	59.5 (3.6)	-47.9 (5.4)	5.24 (0.56)
25	26.2 (2.2)	61.1 (5.1)	-27.5 (2.6)	59.7 (3.2)	25.9 (2.3)	64.5 (4.4)	-21.6 (3.4)	57.2 (4.6)	27.2 (1.6)	62.7 (4.2)	-46.5 (3.0)	5.47 (0.12)
26	26.4 (2.1)	61.9 (5.6)	-28.0 (2.3)	60.1 (2.6)	26.3 (2.3)	65.0 (5.3)	-22.9 (2.9)	58.7 (3.6)	27.2 (1.5)	64.1 (4.0)	-46.9 (4.4)	5.46 (0.19)
27	26.7 (2.1)	62.7 (5.6)	-27.8 (2.3)	60.0 (3.1)	26.6 (2.1)	65.6 (4.9)	-22.5 (3.2)	57.6 (3.9)	27.3 (1.4)	65.5 (3.6)	-48.3 (2.8)	5.41 (0.15)
28	27.0 (2.1)	66.0 (5.4)	-29.3 (1.7)	60.5 (1.8)	26.8 (2.2)	69.1 (4.4)	-26.0 (3.5)	61.0 (4.7)	27.5 (1.6)	69.4 (4.4)	-47.4 (6.6)	5.40 (0.26)
29	24.6 (1.3)	73.7 (2.7)	-29.1 (4.3)	59.2 (3.0)	24.5 (1.2)	75.8 (2.0)	-22.3 (3.4)	56.0 (3.8)			-28.1 (10.0)	
30	25.0 (2.2)	64.9 (7.7)	-24.1 (7.2)	54.9 (7.5)	24.7 (2.2)	67.7 (7.3)	-20.8 (6.6)	54.2 (9.1)	25.8 (0.9)	65.8 (6.2)	-32.0 (16.2)	3.97 (1.80)
31	25.6 (2.7)	52.6 (7.8)	-22.5 (8.1)	53.8 (8.9)	25.5 (3.0)	55.1 (8.8)	-19.2 (6.4)	52.4 (8.3)	25.1 (2.2)	57.6 (7.9)	-38.8 (11.7)	4.59 (1.14)
Mean	25.2	65.8	-25.5	57.8	25.0	67.4	-22.5	56.8	26.0	65.3	-43.0	4.95
n	30.0	26.0	30.0	30.0	30.0	26.0	30.0	30.0	28.0	28.0	30.0	26.0
SD	0.9	5.6	2.3	2.8	1.0	6.3	2.6	3.3	1.1	6.5	6.1	0.44
Min	23.3	52.6	-29.3	50.4	22.6	55.1	-26.7	49.2	23.6	54.5	-48.3	3.97
Max	27.0	76.4	-20.1	61.5	26.8	78.1	-16.5	63.1	27.5	79.5	-27.2	5.47

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for August, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	26.0 (2.9)	52.2 (6.2)	-23.6 (7.6)	55.7 (7.9)	25.9 (3.0)	54.2 (6.2)	-21.1 (6.3)	55.2 (7.8)	25.8 (2.2)	55.7 (5.2)	-40.6 (10.3)	4.92 (0.98)
2	26.3 (2.5)	56.2 (6.7)	-26.5 (4.0)	59.0 (4.3)	26.3 (2.7)	58.8 (6.6)	-22.2 (3.9)	57.1 (4.5)	26.0 (1.5)	59.4 (3.8)	-45.7 (6.2)	5.32 (0.47)
3	26.3 (2.3)	55.3 (5.1)	-25.1 (4.9)	58.8 (5.8)	26.6 (2.6)	57.5 (5.5)	-22.9 (5.2)	57.7 (5.6)	26.0 (1.5)	58.6 (4.7)	-48.1 (5.1)	5.37 (0.32)
4	26.3 (2.4)	48.9 (5.1)	-24.1 (5.8)	58.9 (7.4)	26.6 (2.6)	51.2 (5.4)	-21.3 (4.3)	58.4 (5.5)	26.3 (1.7)	51.8 (5.8)	-45.6 (7.5)	5.28 (0.61)
5	25.7 (2.1)	58.2 (6.5)	-26.1 (5.9)	57.1 (6.5)	25.6 (2.0)	60.9 (6.1)	-21.1 (4.0)	54.9 (6.2)	26.1 (1.5)	58.9 (7.9)	-44.8 (6.7)	5.37 (0.55)
6	25.6 (2.1)	63.8 (6.0)	-27.1 (3.0)	58.9 (3.2)	25.7 (2.1)	66.9 (6.1)	-25.3 (4.2)	58.3 (5.7)	25.9 (1.3)	65.6 (3.7)	-47.6 (4.5)	5.28 (0.37)
7	24.9 (1.5)	70.2 (2.8)	-26.4 (3.3)	57.7 (4.1)	24.7 (1.3)	72.4 (2.5)	-21.7 (2.7)	57.6 (5.3)	25.5 (1.0)	70.9 (2.4)	-43.7 (7.9)	5.10 (0.78)
8	25.3 (1.7)	73.4 (4.5)	-28.5 (1.7)	61.5 (2.3)	25.1 (1.5)	75.4 (3.7)	-25.3 (4.0)	57.2 (5.6)	25.8 (0.9)	74.6 (3.2)	-45.9 (6.6)	5.18 (0.49)
9	26.5 (3.0)	66.7 (8.9)	-27.5 (2.5)	61.1 (3.1)	25.6 (2.0)	69.4 (6.6)	-21.5 (2.0)	57.9 (4.3)	26.5 (1.3)	68.5 (3.2)	-46.8 (2.6)	5.48 (0.12)
10	24.4 (0.9)	75.0 (2.3)	-27.8 (3.0)	59.4 (2.4)	24.3 (0.9)	75.9 (1.8)	-21.0 (2.8)	55.7 (4.9)	25.5 (0.6)	74.0 (3.1)	-45.4 (4.2)	5.49 (0.24)
11	24.6 (1.4)	70.3 (4.6)	-26.5 (3.1)	57.3 (3.1)	24.5 (1.4)	72.3 (3.9)	-22.4 (3.8)	56.7 (5.5)	25.4 (1.0)	71.0 (4.2)	-42.0 (6.8)	5.17 (0.71)
12	24.5 (1.8)	67.1 (6.9)	-22.0 (7.6)	53.7 (8.0)	24.5 (1.9)	69.6 (7.3)	-19.5 (5.5)	51.7 (6.6)	25.4 (1.4)	69.0 (6.9)	-39.7 (9.6)	4.70 (0.95)
13	24.6 (1.7)	62.1 (2.7)	-23.4 (8.1)	54.7 (7.9)	24.7 (1.8)	64.2 (3.4)	-19.9 (5.7)	53.7 (7.1)	25.9 (1.4)	61.8 (4.2)	-42.9 (8.8)	4.99 (0.85)
14	23.9 (1.5)	60.0 (4.5)	-19.1 (8.0)	48.5 (9.4)	23.8 (1.9)	60.2 (3.1)	-17.9 (6.9)	48.4 (9.1)	25.2 (1.4)	58.4 (3.2)	-41.4 (9.4)	4.61 (1.06)
15	23.0 (0.8)	66.3 (2.3)	-17.1 (6.0)	49.4 (7.7)	22.7 (1.2)	67.1 (2.7)	-13.8 (6.1)	42.3 (5.9)	24.5 (1.0)	64.5 (4.6)		
16	22.9 (0.7)	68.2 (2.6)	-17.0 (4.3)	47.1 (6.3)	22.9 (0.7)	68.6 (1.6)	-12.9 (3.5)	40.5 (5.2)	24.4 (0.9)	67.1 (6.3)		
17	22.3 (0.6)	69.6 (1.8)	-12.4 (3.0)	39.9 (4.8)	22.3 (0.5)	70.4 (1.6)	-11.3 (5.6)	35.5 (6.6)	23.5 (0.4)	71.7 (1.5)		
18	22.3 (0.6)	69.5 (2.5)	-10.5 (4.6)		22.0 (0.6)	72.2 (1.2)	-9.0 (4.6)		23.6 (0.5)	71.4 (2.4)		
19	22.5 (0.7)	69.5 (1.7)	-14.1 (6.4)	42.0 (9.9)	22.6 (0.8)	71.4 (1.5)	-10.6 (4.1)	36.5 (5.9)	24.0 (0.8)	69.8 (3.0)		
20	22.9 (0.9)	69.0 (1.6)	-18.1 (8.8)	46.7 (11.4)	23.1 (1.2)	69.8 (1.1)	-12.5 (5.3)	39.7 (8.3)	24.7 (1.1)	67.2 (4.3)	-39.1 (8.4)	3.94 (1.23)
21	24.3 (1.9)	70.4 (2.6)	-22.1 (9.9)	50.6 (12.7)	24.6 (2.0)	71.6 (2.5)	-19.4 (9.0)	49.2 (13.0)	25.7 (1.6)	71.0 (2.4)	-44.1 (10.1)	4.42 (1.20)
22	25.4 (2.0)	68.3 (4.7)	-27.9 (3.4)	57.4 (2.8)	25.6 (2.2)	70.5 (4.1)	-22.7 (6.0)	54.4 (8.3)			-44.3 (11.4)	
23	25.1 (1.6)	70.0 (3.1)	-27.5 (3.3)	58.0 (2.9)	25.1 (1.6)	71.7 (2.9)	-19.6 (5.2)	52.6 (7.5)	25.3 (1.4)	71.8 (2.8)	-44.3 (10.3)	4.66 (0.96)
24	25.1 (1.7)	68.0 (4.9)	-26.8 (5.5)	56.8 (5.4)	25.2 (1.8)	70.1 (3.5)	-20.1 (5.9)	52.0 (7.8)	25.2 (1.3)	70.0 (3.1)	-46.0 (10.1)	4.76 (0.90)
25	24.6 (1.2)	70.8 (4.0)	-24.9 (4.9)	54.7 (6.1)	24.7 (1.3)	73.1 (2.4)	-21.3 (5.2)	49.3 (7.2)	24.5 (1.0)	73.7 (4.5)	-42.3 (12.0)	4.30 (1.02)
26	24.8 (1.9)	66.4 (3.6)	-24.5 (7.5)	54.2 (9.2)	25.2 (1.9)	67.9 (2.5)	-21.1 (8.1)	50.4 (12.1)	25.0 (1.8)	69.3 (3.5)	-46.3 (10.5)	4.29 (1.17)
27	25.2 (1.8)	64.2 (3.7)	-24.0 (5.5)	56.6 (6.6)	25.7 (1.6)	66.1 (3.7)	-15.4 (8.2)	46.9 (13.7)	25.9 (1.5)	64.2 (3.5)	-45.9 (9.2)	4.79 (0.94)
28	25.4 (1.8)	64.6 (5.0)	-25.0 (6.0)	56.6 (6.0)	25.7 (1.5)	66.0 (3.2)	-14.7 (7.5)	47.2 (11.2)	26.1 (1.5)	64.1 (4.5)	-46.6 (7.8)	4.93 (0.81)
29	24.8 (1.9)	64.3 (3.9)	-23.9 (6.2)	55.0 (7.9)	25.1 (1.7)	65.4 (4.9)	-16.6 (8.1)	46.3 (11.8)	25.4 (1.6)	64.3 (3.7)	-42.7 (11.5)	4.52 (1.04)
30	24.2 (1.3)	64.2 (3.8)	-22.3 (7.9)	52.6 (8.9)	24.2 (1.6)	66.7 (3.2)	-20.2 (6.4)	52.3 (8.5)	25.2 (1.3)	63.4 (2.4)	-45.0 (9.7)	4.53 (1.10)
31	24.5 (1.2)	68.1 (2.6)	-22.6 (6.5)	53.1 (7.2)	24.4 (1.6)	71.0 (2.6)	-26.4 (6.2)	57.2 (4.9)	25.5 (1.1)	67.1 (2.8)	-48.2 (10.4)	4.66 (0.87)
Mean	24.6	65.5	-23.0	54.4	24.7	67.4	-19.0	51.1	25.3	66.3	-44.4	4.88
n	31.0	31.0	31.0	30.0	31.0	31.0	31.0	30.0	30.0	30.0	26.0	25.0
SD	1.2	6.0	4.7	5.3	1.2	5.9	4.4	6.6	0.7	5.7	2.4	0.41
Min	22.3	48.9	-28.5	39.9	22.0	51.2	-26.4	35.5	23.5	51.8	-48.2	3.94
Max	26.5	75.0	-10.5	61.5	26.6	75.9	-9.0	58.4	26.5	74.6	-39.1	5.49

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for September, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	24.9 (1.4)	65.1 (3.3)	-23.5 (5.6)	53.4 (7.2)	25.0 (1.9)	68.3 (2.8)	-26.2 (4.4)	56.1 (3.7)	25.9 (1.2)	64.4 (2.0)	-50.0 (10.0)	4.68 (0.83)
2	22.7 (0.8)	58.7 (5.6)	-16.8 (4.9)	45.0 (7.0)	22.7 (0.8)	60.3 (5.9)	-15.0 (5.2)	46.1 (5.6)	24.2 (0.7)	57.4 (5.8)	-28.0 (11.7)	3.77 (1.00)
3	21.7 (0.6)	53.1 (5.2)	-7.5 (4.3)	23.2 (6.6)	20.2 (0.9)	58.6 (5.7)	-7.9 (6.2)		23.7 (0.2)	56.4 (4.7)	-17.7 (8.3)	1.83 (0.75)
4	22.2 (0.9)	54.0 (2.4)	-10.3 (6.9)	31.5 (13.9)	20.5 (1.7)	58.8 (2.1)	-14.3 (8.7)	43.0 (15.3)	24.4 (1.0)	52.8 (5.7)	-28.9 (16.0)	2.93 (1.68)
5	22.2 (0.6)	57.1 (4.7)	-9.8 (6.6)	28.7 (12.4)	20.1 (1.3)	63.5 (4.2)	-11.4 (6.3)	40.6 (11.4)	23.8 (0.4)	59.3 (3.6)	-24.6 (7.7)	2.30 (0.81)
6	22.2 (0.6)	59.2 (2.7)	-9.7 (4.9)	28.2 (10.1)	20.0 (1.2)	65.8 (2.5)	-12.9 (6.5)	41.6 (11.5)	23.9 (0.5)	60.7 (2.7)	-26.9 (9.2)	2.40 (0.99)
7	22.7 (0.9)	62.9 (3.3)	-14.9 (7.8)	39.1 (14.2)	21.3 (1.8)	68.3 (2.3)	-18.0 (7.5)	48.7 (11.5)	24.4 (0.9)	62.4 (2.9)	-34.9 (12.5)	3.32 (1.43)
8	21.7 (0.8)	58.3 (3.2)	-7.7 (4.9)	25.6 (9.9)	19.6 (1.3)	65.2 (2.9)	-10.4 (6.4)	39.1 (8.7)	23.5 (0.4)	60.6 (2.5)	-19.1 (11.9)	2.16 (0.87)
9	22.0 (0.8)	60.0 (2.7)	-10.0 (7.3)	28.4 (13.6)	20.0 (1.7)	66.5 (3.6)	-13.1 (9.6)	41.2 (15.0)	24.0 (0.8)	60.1 (3.5)	-26.1 (15.3)	2.59 (1.46)
10	23.3 (1.5)	66.2 (3.0)	-20.3 (10.7)	47.8 (13.6)	23.0 (2.6)	71.0 (3.8)	-22.3 (6.7)	53.9 (9.7)	25.1 (1.5)	65.4 (2.9)	-42.4 (11.8)	4.07 (1.27)
11	23.3 (1.0)	72.7 (2.5)	-21.4 (6.2)	52.4 (6.9)	22.8 (1.5)	77.2 (2.5)	-26.0 (3.8)	65.1 (1.7)	25.2 (1.0)	70.6 (3.7)	-38.9 (9.5)	4.36 (1.09)
12	22.9 (1.3)	72.1 (3.9)	-18.6 (6.4)	49.3 (9.0)	21.9 (1.5)	76.5 (4.0)	-22.9 (5.3)	56.8 (3.9)			-32.1 (11.4)	
13	24.1 (2.7)	53.5 (16.5)	-17.1 (9.5)	46.1 (13.3)	21.9 (2.5)	59.0 (17.7)	-22.4 (4.9)	56.4 (6.1)	22.2 (1.6)	65.3 (14.1)	-31.7 (6.9)	4.00 (1.30)
14	22.3 (0.9)	42.9 (8.2)	-13.1 (8.1)	33.7 (14.9)	20.1 (1.4)	48.1 (8.0)	-13.6 (7.5)	43.3 (11.6)	20.8 (1.1)	49.8 (9.5)	-18.8 (11.2)	2.88 (1.42)
15	23.1 (1.8)	44.0 (6.0)	-13.6 (10.8)	36.8 (19.6)	20.5 (1.7)	54.2 (3.7)	-14.0 (9.2)	43.7 (14.6)	22.2 (1.7)	51.2 (6.0)	-23.7 (14.8)	2.53 (1.57)
16	24.7 (3.0)	46.0 (8.9)	-17.3 (11.1)	41.9 (19.6)	21.1 (2.5)	60.5 (3.5)	-17.2 (8.5)	47.0 (13.4)	23.7 (1.4)	57.3 (3.9)	-26.8 (16.0)	2.83 (1.64)
17	25.0 (3.4)	43.2 (11.0)	-18.9 (10.2)	45.4 (16.7)	22.4 (3.0)	55.4 (6.6)	-19.0 (7.6)	50.7 (11.7)	23.9 (1.3)	55.9 (5.7)	-28.9 (14.7)	2.90 (1.44)
18	24.2 (2.5)	41.4 (9.2)	-18.4 (10.3)	44.2 (17.3)	21.5 (2.4)	53.3 (5.5)	-19.2 (7.8)	49.1 (12.0)	23.7 (1.3)	52.0 (7.3)	-28.3 (14.8)	2.75 (1.43)
19	24.1 (2.5)	45.6 (9.2)	-17.6 (10.1)	43.1 (17.3)	21.4 (2.5)	57.7 (6.3)	-18.3 (7.1)	49.1 (12.1)	23.7 (1.1)	54.3 (5.5)	-29.2 (12.6)	2.88 (1.39)
20	25.0 (3.1)	44.4 (9.0)	-18.6 (11.0)	43.9 (19.1)	21.8 (3.2)	57.7 (5.1)	-17.9 (8.7)	49.0 (13.9)	24.2 (1.2)	54.0 (3.9)	-31.4 (16.2)	3.26 (1.68)
21	25.5 (3.2)	46.3 (8.5)	-21.4 (10.4)	49.6 (15.0)	23.3 (3.6)	57.2 (8.2)	-22.8 (6.8)	53.7 (9.1)	24.5 (1.2)	56.6 (3.6)	-41.7 (13.9)	3.85 (1.32)
22	25.7 (3.0)	45.1 (9.0)	-24.6 (7.5)	54.5 (9.9)	25.0 (3.6)	53.6 (8.6)	-28.3 (4.9)	57.0 (4.2)	24.7 (1.3)	55.0 (5.4)	-43.7 (11.9)	4.06 (1.09)
23	25.8 (3.5)	45.3 (8.3)	-21.2 (7.9)	54.2 (12.4)	23.8 (2.9)	58.7 (4.1)	-23.6 (4.2)	57.3 (6.1)	24.9 (1.3)	56.8 (3.6)	-40.2 (10.4)	4.10 (1.23)
24	24.4 (2.5)	53.6 (5.7)	-18.8 (9.5)	47.3 (12.3)	22.8 (2.5)	62.4 (2.9)	-23.4 (6.1)	56.8 (7.7)	24.7 (1.2)	58.9 (3.6)	-40.9 (12.4)	3.97 (1.18)
25	23.1 (1.1)	55.8 (3.2)	-17.2 (8.3)	45.8 (11.2)	22.2 (2.0)	61.3 (3.5)	-24.5 (5.6)	56.9 (7.5)	24.6 (1.2)	56.3 (4.3)	-39.3 (11.6)	3.92 (1.21)
26	23.1 (1.2)	51.2 (3.9)	-12.1 (7.4)	39.4 (12.3)	21.7 (2.1)	57.4 (5.0)	-21.1 (7.1)	55.7 (9.5)	24.6 (1.3)	52.5 (4.8)	-36.9 (11.5)	3.79 (1.29)
27	23.7 (1.0)	48.7 (4.3)	-9.5 (8.4)	34.7 (13.6)	21.5 (2.3)	53.4 (4.4)	-19.8 (10.0)	49.0 (10.9)	24.6 (1.2)	49.7 (5.0)	-31.7 (14.2)	3.59 (1.65)
28	23.6 (0.9)	46.9 (3.8)	-7.4 (6.6)	33.1 (10.5)	21.6 (2.1)	52.2 (4.1)	-19.4 (10.3)	48.3 (10.5)	24.4 (1.3)	48.6 (5.0)	-32.9 (13.8)	3.56 (1.52)
29	23.2 (0.6)	43.4 (5.5)	-5.3 (5.1)	25.6 (8.9)	20.4 (1.6)	47.1 (8.0)	-14.7 (8.4)	45.8 (11.2)	24.0 (1.1)	43.4 (8.5)	-25.3 (12.0)	2.99 (1.59)
30	23.7 (0.7)	45.0 (5.7)	-5.7 (5.3)	26.3 (11.0)	20.6 (2.0)	47.3 (7.3)	-15.2 (11.8)	44.6 (18.0)	24.4 (1.1)	45.7 (5.4)	-26.4 (17.0)	2.88 (1.83)
Mean	23.5	52.7	-14.9	39.9	21.7	59.9	-18.5	49.8	24.1	56.3	-31.6	3.28
n	30.0	30.0	30.0	30.0	30.0	30.0	30.0	29.0	29.0	29.0	30.0	29.0
SD	1.2	8.8	5.5	9.5	1.4	7.5	5.1	6.4	1.0	6.0	7.8	0.72
Min	21.7	41.4	-24.6	23.2	19.6	47.1	-28.3	39.1	20.8	43.4	-50.0	1.83
Max	25.8	72.7	-5.3	54.5	25.0	77.2	-7.9	65.1	25.9	70.6	-17.7	4.68

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for October, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	23.5 (1.5)	43.4 (4.7)	-10.2 (10.3)	36.3 (17.0)	21.2 (1.9)	48.4 (5.8)	-11.1 (9.9)	42.3 (13.6)	24.2 (1.2)	45.8 (5.7)	-26.6 (13.7)	3.03 (1.70)
2	22.3 (0.8)	47.1 (3.8)	-12.3 (7.6)	32.6 (13.8)	22.3 (1.2)	50.2 (5.5)	-12.5 (8.7)	33.8 (14.7)	24.3 (1.1)	47.8 (5.2)	-31.3 (16.5)	3.06 (1.69)
3	22.6 (1.1)	49.2 (2.6)	-13.1 (7.4)	37.6 (13.0)	22.5 (1.1)	52.5 (3.7)	-11.8 (7.6)	38.8 (11.7)	24.2 (1.4)	49.8 (4.5)	-33.7 (12.1)	3.64 (1.39)
4	22.8 (1.1)	50.3 (3.6)	-15.3 (7.7)	39.6 (12.1)	23.0 (1.4)	53.6 (4.4)	-18.3 (12.2)	41.6 (14.1)	24.5 (1.5)	49.5 (4.1)	-39.1 (12.8)	4.01 (1.37)
5	21.8 (0.6)	60.8 (5.2)	-10.6 (5.4)	30.8 (9.2)	21.5 (0.5)	64.6 (5.2)	-13.8 (7.0)		23.1 (0.4)	64.4 (5.5)	-31.7 (4.7)	2.72 (0.33)
6	21.6 (0.7)	58.8 (4.7)	-8.3 (5.6)	27.1 (9.4)	21.4 (0.7)	62.2 (5.8)	-6.7 (5.7)	27.2 (11.5)	21.9 (0.7)	65.1 (6.3)	-16.6 (12.6)	
7	21.5 (1.1)	48.5 (6.2)	-5.7 (4.4)	24.7 (11.2)	21.7 (1.3)	49.7 (5.6)	-6.4 (6.9)	28.7 (15.4)	22.2 (1.1)	49.3 (10.0)	-16.0 (12.8)	1.96 (1.49)
8	21.8 (1.2)	52.1 (3.4)	-9.9 (7.5)	31.3 (15.6)	22.3 (2.1)	53.8 (3.8)	-10.7 (10.4)	36.3 (20.5)	22.6 (1.4)	54.9 (6.1)	-19.1 (14.1)	2.07 (1.44)
9	22.5 (0.8)	49.8 (4.4)	-16.2 (9.3)	35.6 (13.6)	23.5 (2.2)	50.4 (5.0)	-17.2 (12.4)		23.4 (1.1)	52.3 (7.2)	-30.8 (18.1)	2.54 (1.45)
10	22.6 (1.0)	49.8 (5.8)	-15.2 (6.8)	42.0 (12.8)	23.9 (3.6)	48.7 (11.0)	-20.3 (7.9)	51.0 (15.9)	23.7 (1.1)	51.2 (4.0)	-33.9 (13.8)	2.91 (1.29)
11	21.9 (0.5)	62.6 (6.3)	-12.8 (6.5)	30.9 (9.3)	21.6 (0.6)	66.0 (6.3)	-13.8 (8.7)	32.3 (11.1)	23.1 (0.4)	65.1 (5.8)	-30.6 (13.0)	2.20 (0.74)
12	21.7 (0.5)	72.9 (2.5)	-12.7 (11.5)		21.3 (0.5)	75.4 (2.2)	-15.2 (10.9)		23.2 (0.2)	73.2 (1.8)	-43.8 (17.5)	2.39 (0.25)
13	20.9 (1.0)	55.0 (5.5)	-6.0 (2.3)	16.3 (3.6)	20.3 (0.8)	57.0 (6.2)	-3.8 (2.7)		22.7 (0.6)	57.8 (4.1)	-10.9 (13.9)	1.23 (0.91)
14	20.6 (1.2)	54.3 (5.0)	-4.3 (1.2)	15.7 (0.3)	20.5 (1.4)	53.1 (5.1)	-2.8 (1.0)		22.7 (0.3)	58.2 (1.7)	-10.8 (9.0)	1.02 (0.82)
15	20.9 (0.9)	51.7 (3.8)	-4.7 (3.1)	18.5 (5.5)	21.5 (1.4)	52.9 (3.8)	-4.2 (3.7)	18.3 (5.3)	22.8 (0.4)	57.0 (2.9)	-19.5 (14.5)	1.37 (0.88)
16	21.0 (0.8)	50.3 (4.8)	-12.8 (11.7)	24.1 (9.9)	21.3 (0.8)	53.7 (5.0)	-12.5 (10.9)	24.8 (12.2)	22.8 (0.6)	54.6 (3.2)	-24.7 (17.5)	1.55 (0.92)
17	21.2 (1.0)	50.4 (8.1)	-12.2 (6.0)	28.5 (12.8)	21.1 (1.7)	52.2 (8.0)	-13.8 (6.0)	32.4 (15.0)	23.3 (0.8)	50.7 (7.0)	-26.5 (15.0)	2.03 (1.03)
18	21.3 (1.1)	54.0 (4.9)	-14.0 (6.9)	34.3 (16.3)	21.6 (2.4)	57.1 (5.0)	-16.8 (7.1)	38.9 (18.6)	23.6 (1.1)	53.5 (5.0)	-37.7 (20.1)	2.60 (1.57)
19	22.1 (1.3)	47.7 (7.2)	-13.9 (9.5)	37.7 (16.1)	22.9 (2.1)	49.8 (7.9)	-14.4 (8.4)	40.5 (16.3)	23.6 (1.2)	50.2 (7.1)	-36.9 (10.0)	2.89 (1.28)
20	21.2 (0.7)	55.1 (4.3)	-12.9 (9.8)	24.9 (9.0)	21.2 (0.6)	58.2 (5.1)	-11.9 (8.3)	24.4 (4.0)	22.8 (0.4)	57.9 (3.2)	-38.8 (15.8)	2.02 (0.53)
21	21.4 (0.8)	61.2 (4.0)	-14.3 (5.0)	33.1 (12.4)	21.9 (1.0)	63.3 (3.2)	-13.9 (6.1)	34.1 (15.3)	23.4 (0.9)	61.0 (4.4)	-41.4 (13.5)	2.69 (1.15)
22	20.5 (0.6)	50.6 (7.5)	-14.1 (8.1)	15.8 (6.1)	19.7 (1.7)	53.2 (7.2)	-22.1 (7.0)	17.5 (4.9)	22.8 (0.3)	51.2 (4.4)	-11.6 (12.5)	1.23 (0.76)
23	20.0 (0.7)	53.6 (3.8)	-6.3 (6.8)		16.9 (1.1)	55.5 (5.1)	-21.3 (3.1)	19.5 (0.7)	22.9 (0.3)	51.0 (2.1)	-7.2 (6.8)	1.02 (0.52)
24	20.1 (1.2)	48.6 (12.9)	-8.6 (5.6)	17.5 (10.1)	18.6 (2.5)	50.6 (10.4)	-16.2 (5.9)	22.1 (5.0)	22.7 (0.4)	49.8 (6.4)	-19.9 (13.6)	1.39 (0.74)
25	20.8 (1.0)	47.0 (10.0)	-7.8 (5.2)	24.0 (12.4)	20.3 (2.7)	47.4 (10.0)	-12.4 (6.3)	29.1 (14.5)	23.7 (1.3)	45.1 (9.4)	-20.9 (11.7)	1.88 (1.00)
26	20.8 (1.0)	45.6 (6.4)	-11.4 (6.2)	18.8 (7.6)	20.8 (1.7)	48.6 (5.6)	-14.9 (7.0)	19.3 (5.7)	22.8 (0.2)	47.8 (3.6)	-14.3 (9.1)	1.34 (0.73)
27	20.0 (1.2)	46.6 (12.6)	-9.8 (9.3)	16.5 (9.7)	19.0 (2.3)	48.1 (10.2)	-17.2 (6.8)	21.7 (6.7)			-19.5 (19.0)	
28	20.4 (1.1)	48.4 (10.7)	-8.2 (5.2)	18.8 (10.7)	19.2 (2.5)	48.7 (9.2)	-18.0 (6.4)	23.9 (6.6)	20.8 (1.5)		-15.2 (10.7)	1.04 (0.55)
29	21.0 (1.3)	47.7 (10.0)	-9.9 (5.5)	24.1 (12.6)	20.4 (2.8)	49.1 (9.8)	-15.0 (5.4)	29.4 (13.2)	21.5 (2.0)		-22.9 (14.6)	1.57 (0.95)
30	21.4 (1.3)	48.4 (8.5)	-11.5 (5.4)	28.1 (13.0)	22.1 (2.2)	49.0 (9.4)	-10.3 (6.0)	28.2 (13.1)	22.9 (1.3)		-25.9 (17.5)	1.52 (0.84)
31	21.6 (1.1)	42.9 (7.2)	-11.0 (5.1)	28.1 (11.6)	22.2 (1.9)	43.7 (7.3)	-11.8 (6.0)	30.7 (14.8)	22.8 (1.4)		-24.2 (13.2)	1.72 (1.05)
Mean	21.4	51.8	-10.8	27.4	21.2	53.8	-13.3	30.3	23.0	54.4	-25.2	2.09
n	31.0	31.0	31.0	29.0	31.0	31.0	31.0	26.0	30.0	26.0	31.0	29.0
SD	0.8	6.2	3.2	7.8	1.5	6.6	4.8	8.4	0.8	6.7	9.9	0.79
Min	20.0	42.9	-16.2	15.7	16.9	43.7	-22.1	17.5	20.8	45.1	-43.8	1.02
Max	23.5	72.9	-4.3	42.0	23.9	75.4	-2.8	51.0	24.5	73.2	-7.2	4.01

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for November, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	22.4 (2.6)	44.0 (8.3)	-15.5 (9.5)	33.4 (19.3)	22.9 (2.7)	46.6 (7.7)	-12.7 (7.3)	30.0 (15.9)	22.7 (1.3)		-29.6 (15.6)	1.90 (0.91)
2	22.8 (2.9)	41.8 (14.0)	-15.1 (8.6)	35.2 (19.8)	23.0 (3.1)	44.8 (13.7)	-13.6 (7.0)	31.2 (16.2)	22.7 (1.2)		-31.8 (13.8)	2.00 (0.91)
3	22.6 (1.6)	47.9 (7.0)	-12.4 (6.9)	34.3 (13.9)	22.5 (1.8)	51.5 (6.6)	-14.6 (6.2)	33.7 (13.2)	23.0 (1.4)		-41.9 (8.5)	2.34 (0.49)
4	23.3 (2.1)	50.2 (11.3)	-15.5 (7.5)	41.7 (17.7)	23.4 (2.5)	52.0 (12.1)	-14.9 (7.9)	40.5 (16.8)	23.8 (2.1)		-38.6 (11.6)	2.81 (0.97)
5	21.3 (1.0)	43.3 (12.8)	-6.7 (6.1)	26.6 (13.5)	21.4 (0.9)	45.9 (11.6)	-6.6 (7.2)		22.1 (0.7)	45.7 (12.1)	-24.5 (13.8)	2.18 (0.77)
6	20.2 (0.9)	43.0 (12.8)	-6.5 (5.4)	15.4 (7.8)	20.5 (1.1)	44.6 (12.1)	-9.4 (8.0)	17.3 (9.3)	22.5 (0.3)	41.6 (7.4)	-16.4 (12.6)	1.33 (0.70)
7	20.2 (1.1)	38.5 (13.6)	-6.7 (5.9)	19.1 (12.0)	21.0 (1.1)	42.3 (12.9)	-2.8 (4.5)		22.6 (0.6)	40.9 (8.9)	-24.8 (18.9)	1.44 (0.74)
8	20.5 (1.1)	43.5 (9.7)	-7.7 (5.2)	19.9 (11.8)	21.9 (1.6)	48.8 (11.4)	-4.4 (6.2)		22.9 (0.5)	45.4 (5.5)	-28.9 (21.3)	1.45 (0.73)
9	20.1 (1.0)	47.4 (10.0)	-10.4 (6.4)	17.2 (9.7)	20.4 (1.2)	49.3 (8.8)	-12.4 (8.5)	16.1 (9.0)	22.7 (0.5)	49.5 (4.3)	-30.4 (19.2)	1.37 (0.64)
10	20.7 (0.9)	50.4 (8.8)	-10.0 (7.1)	18.5 (8.2)	20.4 (1.0)	52.2 (9.0)	-12.4 (8.8)	18.7 (7.8)	22.7 (0.7)	51.4 (6.9)	-36.6 (23.6)	1.59 (0.70)
11	20.4 (1.0)	51.5 (7.7)	-8.3 (6.2)	14.4 (6.7)	20.4 (0.9)	53.6 (6.4)	-13.2 (10.3)	14.9 (7.8)	22.5 (0.3)	52.0 (2.8)	-18.5 (12.4)	1.26 (0.68)
12	20.1 (1.1)	50.9 (10.5)	-7.5 (5.7)	17.6 (11.0)	20.8 (1.0)	51.7 (9.3)	-7.7 (7.7)	17.7 (11.5)	22.5 (0.6)	49.9 (5.9)	-29.8 (20.9)	1.51 (0.77)
13	20.6 (1.1)	46.8 (10.4)	-9.3 (6.1)	22.2 (13.4)	21.3 (1.3)	48.6 (10.9)	-10.0 (8.5)	26.2 (16.4)	23.1 (1.1)	46.2 (7.6)	-33.6 (18.8)	1.76 (0.74)
14	20.1 (0.8)	48.9 (8.1)	-11.3 (7.4)	13.7 (6.0)	20.4 (0.7)	50.3 (7.8)	-14.4 (9.6)	13.7 (5.7)	22.6 (0.2)	49.6 (3.3)	-13.9 (11.3)	1.15 (0.61)
15	19.5 (1.3)	45.4 (12.0)	-6.7 (5.8)	12.3 (6.4)	19.7 (1.2)	46.0 (9.6)	-9.5 (8.9)	12.5 (6.6)	22.5 (0.4)	45.7 (4.7)	-13.5 (8.8)	1.04 (0.56)
16	20.5 (1.9)	38.7 (13.8)	-8.0 (5.6)	23.5 (15.9)	21.1 (1.7)	40.6 (12.6)	-7.9 (6.8)	24.6 (16.3)	23.1 (1.1)	40.7 (8.0)	-28.6 (19.2)	1.56 (0.81)
17	20.1 (0.8)	47.4 (8.5)	-8.6 (5.8)	14.8 (6.8)	20.9 (1.0)	50.3 (7.8)	-11.8 (8.8)	17.3 (9.2)			-18.7 (20.2)	
18	20.6 (2.1)	44.4 (13.6)	-9.6 (6.8)	24.4 (18.5)	21.4 (1.8)	47.0 (12.4)	-10.6 (8.0)	24.0 (16.0)	21.5 (1.1)	43.0 (6.9)	-23.6 (16.0)	1.28 (0.81)
19	21.9 (2.5)	38.1 (11.7)	-13.9 (9.1)	31.5 (20.6)	22.1 (2.4)	40.8 (10.5)	-13.7 (8.6)	31.2 (19.8)	21.9 (1.5)	40.4 (7.4)	-23.6 (17.9)	1.44 (0.78)
20	19.1 (1.2)	49.7 (7.1)	-8.7 (4.9)		19.7 (1.0)	55.1 (7.8)	-8.5 (6.1)		20.5 (0.4)	45.3 (2.4)	-9.1 (6.2)	0.85 (0.57)
21	18.4 (1.8)	46.8 (8.4)	-8.2 (5.2)	10.0 (5.4)	19.3 (1.6)	50.9 (8.3)	-8.9 (7.6)		20.6 (0.4)	46.1 (2.4)	-16.4 (8.6)	0.82 (0.58)
22	19.2 (2.1)	45.4 (11.7)	-5.7 (4.4)	13.3 (7.9)	19.9 (1.9)	48.3 (11.2)	-8.8 (8.6)	14.5 (10.1)	21.0 (0.9)	44.2 (4.0)	-17.3 (11.2)	1.02 (0.60)
23	20.0 (1.3)	43.2 (12.6)	-8.0 (5.5)	16.5 (11.0)	20.3 (1.2)	47.2 (12.7)	-7.6 (6.2)	15.4 (10.2)	21.1 (0.9)	44.5 (6.4)	-18.0 (12.1)	1.16 (0.56)
24	20.0 (1.0)	44.5 (10.4)	-7.4 (6.2)	14.4 (8.8)	20.5 (1.1)	47.1 (9.9)	-8.2 (8.5)	14.8 (9.6)	21.4 (0.8)	46.1 (5.7)	-18.2 (12.8)	1.08 (0.68)
25	20.2 (1.2)	41.5 (10.7)	-6.5 (5.3)	17.1 (11.1)	20.7 (1.4)	43.2 (10.7)	-7.6 (7.3)	18.7 (11.7)	21.8 (1.1)	41.7 (8.1)	-24.2 (19.8)	1.17 (0.73)
26	20.0 (1.1)	39.3 (10.8)	-7.3 (5.0)	17.1 (11.1)	20.5 (1.4)	40.9 (9.8)	-7.7 (5.6)	15.4 (8.9)	21.8 (0.9)	39.2 (6.3)	-24.1 (17.8)	1.23 (0.69)
27	19.6 (0.6)	48.7 (6.8)	-7.8 (6.1)	11.3 (5.8)	20.1 (0.9)	51.2 (7.0)	-7.0 (5.1)	10.7 (3.6)	21.9 (0.4)	46.9 (2.7)	-13.7 (7.5)	0.94 (0.45)
28	19.4 (0.4)	58.2 (6.3)	-6.5 (5.5)	10.2 (5.4)	20.1 (0.4)	59.2 (5.9)	-4.1 (3.3)	9.5 (3.4)	22.0 (0.2)	53.4 (1.4)	-16.4 (8.6)	0.96 (0.52)
29	20.1 (0.9)	50.4 (9.0)	-7.3 (5.7)	11.3 (6.0)	19.7 (0.9)	52.3 (6.2)	-10.5 (6.6)	11.2 (4.5)	22.0 (0.4)	48.0 (3.9)	-12.0 (9.3)	1.02 (0.59)
30	20.0 (0.9)	46.3 (7.3)	-8.9 (6.6)	11.9 (5.9)	19.4 (0.9)	46.9 (7.9)	-13.3 (7.3)	10.7 (4.0)	21.8 (0.4)	45.3 (2.8)	-8.5 (6.7)	0.96 (0.41)
Mean	20.5	45.9	-9.1	19.6	20.9	48.3	-9.8	19.6	22.2	45.7	-22.8	1.40
n	30.0	30.0	30.0	29.0	30.0	30.0	30.0	25.0	29.0	25.0	30.0	29.0
SD	1.1	4.4	2.8	8.3	1.1	4.3	3.2	8.1	0.8	3.7	8.6	0.47
Min	18.4	38.1	-15.5	10.0	19.3	40.6	-14.9	9.5	20.5	39.2	-41.9	0.82
Max	23.3	58.2	-5.7	41.7	23.4	59.2	-2.8	40.5	23.8	53.4	-8.5	2.81

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for December, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	19.3 (1.1)	48.4 (10.9)	-7.3 (5.5)	11.6 (6.1)	19.6 (1.5)	49.7 (8.8)	-7.9 (5.4)	10.9 (5.3)	21.9 (0.7)	47.2 (3.6)	-15.8 (10.2)	1.08 (0.50)
2	20.2 (2.1)	42.6 (13.9)	-8.8 (5.5)	22.5 (15.1)	20.5 (2.1)	46.4 (12.2)	-7.2 (6.1)	21.2 (14.3)	22.7 (1.1)	43.1 (8.2)	-34.1 (21.6)	1.56 (0.71)
3	19.1 (1.5)	45.7 (8.0)	-11.4 (7.2)	11.0 (5.4)	19.3 (1.2)	51.5 (9.0)	-11.3 (8.1)	11.9 (5.6)	21.9 (0.6)	46.5 (3.4)	-10.6 (9.5)	0.98 (0.56)
4	17.3 (1.5)	48.2 (8.7)	-5.3 (3.2)	8.4 (3.6)	18.5 (1.5)	53.9 (8.5)	-3.6 (1.7)		22.2 (0.2)	49.9 (2.1)	-14.4 (10.7)	0.84 (0.68)
5	18.3 (1.8)	45.8 (9.1)	-4.8 (4.5)	9.8 (5.1)	19.3 (1.3)	51.8 (9.1)	-5.4 (6.0)		22.2 (0.2)	48.4 (3.7)	-17.1 (12.1)	0.99 (0.73)
6	19.4 (1.6)	45.1 (10.4)	-6.0 (5.1)	13.1 (6.9)	20.0 (1.7)	47.5 (9.3)	-7.4 (6.5)	13.4 (7.6)	22.5 (0.5)	46.3 (3.8)	-23.3 (16.6)	1.29 (0.80)
7	19.9 (1.3)	40.0 (9.9)	-7.1 (5.1)	18.3 (11.4)	19.8 (1.6)	43.0 (9.6)	-10.2 (7.7)	20.3 (10.9)	22.8 (0.7)	42.8 (5.1)	-34.1 (21.9)	1.50 (0.78)
8	20.5 (1.4)	40.9 (10.0)	-10.2 (5.8)	22.5 (14.4)	19.3 (2.2)	45.4 (7.0)	-15.1 (7.8)	24.4 (10.2)	23.0 (0.9)	42.9 (5.3)	-32.9 (24.2)	1.59 (0.83)
9	17.6 (1.1)	53.2 (6.2)	-8.1 (3.9)	7.1 (1.1)	16.0 (1.8)	59.4 (6.0)	-24.4 (2.3)	18.9 (1.0)	22.4 (0.6)	52.3 (3.8)	-9.6 (14.0)	0.81 (0.68)
10	18.5 (1.4)	51.6 (8.0)	-5.1 (5.3)	9.7 (5.1)	15.3 (3.5)	55.3 (6.9)	-21.4 (3.5)	20.3 (1.2)	23.1 (0.5)	51.4 (2.8)	-25.4 (18.8)	1.19 (0.78)
11	19.6 (1.6)	48.5 (9.4)	-6.0 (4.9)	13.1 (7.0)	18.5 (2.5)	50.3 (7.5)	-21.2 (3.2)	22.3 (5.0)	23.4 (0.6)	49.9 (3.1)	-38.1 (23.2)	1.50 (0.73)
12	19.4 (0.9)	50.3 (8.4)	-10.1 (6.8)	11.6 (5.9)	17.9 (1.7)	53.2 (6.1)	-21.7 (2.9)	18.9 (1.6)			-23.8 (17.0)	
13	20.8 (1.0)	41.5 (8.9)	-7.7 (6.3)		19.8 (1.8)	44.5 (7.9)	-13.0 (9.7)		22.7 (0.5)	48.9 (7.2)	-30.3 (21.1)	1.17 (0.76)
14	18.3 (1.6)	45.1 (4.5)	-9.5 (5.6)	11.3 (6.4)	15.6 (3.2)	51.1 (6.3)	-21.9 (3.9)	18.9 (0.9)	22.8 (0.7)	43.8 (4.7)	-11.6 (12.3)	0.67 (0.57)
15	16.2 (0.7)	52.5 (7.0)	-4.3 (1.5)	7.1 (0.1)	11.4 (1.7)	56.4 (6.1)	-22.7 (1.6)	19.9 (0.4)	23.4 (0.5)	45.2 (4.2)	-12.1 (11.9)	0.59 (0.59)
16	17.7 (1.9)	47.3 (8.1)	-6.0 (4.1)	9.5 (5.1)	15.5 (3.7)	49.7 (6.8)	-16.1 (9.1)	17.0 (4.5)	22.6 (0.9)	49.0 (5.1)	-16.1 (10.4)	0.68 (0.47)
17	17.8 (1.7)	54.1 (6.8)	-4.4 (3.0)	7.8 (2.9)	18.4 (1.3)	55.8 (7.0)	-2.8 (2.0)	7.3 (1.4)	22.1 (0.7)	55.6 (2.7)	-14.6 (10.8)	0.72 (0.47)
18	19.0 (1.8)	50.1 (12.8)	-5.9 (6.7)	16.2 (10.3)	19.6 (1.6)	51.2 (10.2)	-3.7 (8.3)		22.9 (0.5)	49.4 (7.6)	-29.8 (23.8)	1.17 (0.76)
19	19.4 (0.8)	44.8 (9.3)	-8.8 (7.4)	12.6 (6.3)	19.9 (1.0)	50.5 (9.4)	-7.8 (8.7)	11.0 (5.8)	22.7 (0.3)	46.9 (3.4)	-24.0 (17.9)	0.97 (0.70)
20	18.9 (1.5)	44.2 (7.9)	-6.4 (4.8)	9.0 (4.3)	16.9 (2.6)	47.9 (6.7)	-16.9 (8.9)	16.9 (4.7)	22.7 (0.3)	46.9 (3.4)	-14.2 (13.5)	0.72 (0.61)
21	17.3 (0.9)	48.4 (9.0)	-3.8 (1.1)	7.2 (0.0)	13.0 (2.6)	52.9 (7.3)	-22.0 (1.3)	19.8 (0.3)	22.5 (0.4)	53.0 (2.5)	-14.8 (13.5)	0.69 (0.63)
22	16.7 (0.7)	44.1 (6.7)	-7.2 (3.6)	7.0 (0.1)	14.2 (2.3)	51.6 (4.6)	-23.1 (4.0)		22.6 (0.3)	51.6 (2.6)	-26.5 (15.9)	0.91 (0.68)
23	18.7 (1.8)	42.7 (10.5)	-4.3 (6.8)		18.2 (2.4)	50.2 (8.7)	-6.6 (8.4)		23.1 (0.5)	47.7 (4.6)	-25.7 (19.2)	1.13 (0.78)
24	18.3 (1.8)	44.3 (12.7)	-7.0 (5.2)	10.8 (5.8)	18.0 (2.0)	47.5 (11.4)	-12.3 (9.9)	14.1 (6.3)	23.1 (0.4)	49.8 (6.1)	-18.3 (14.5)	0.89 (0.63)
25	19.8 (1.2)	44.2 (7.1)	-8.6 (6.1)	15.2 (7.4)	18.0 (2.0)	47.5 (5.8)	-18.0 (7.0)	18.9 (1.1)	23.2 (0.2)	48.2 (3.0)	-30.6 (18.9)	1.27 (0.76)
26	20.2 (0.8)	44.7 (10.2)	-6.5 (7.1)		18.8 (1.9)	47.0 (9.4)	-12.4 (9.8)		23.5 (0.5)	47.5 (5.7)	-38.8 (25.7)	1.40 (0.73)
27	19.0 (1.3)	44.4 (8.6)	-7.1 (5.0)	9.4 (4.7)	15.5 (1.4)	48.1 (6.1)	-23.4 (2.5)	18.8 (0.7)	23.3 (0.4)	49.6 (2.9)	-11.5 (11.8)	0.76 (0.60)
28	19.0 (1.9)	43.3 (12.5)	-5.9 (5.3)	12.6 (7.4)	16.3 (3.4)	43.5 (10.4)	-22.6 (5.3)	21.1 (4.2)	23.4 (0.4)	47.6 (7.2)	-22.2 (17.9)	1.08 (0.77)
29	19.6 (1.2)	41.7 (11.0)	-7.1 (5.1)	16.4 (11.2)	18.7 (2.6)	43.0 (8.3)	-14.5 (7.6)	20.8 (8.8)	23.6 (0.6)	46.2 (6.0)	-33.6 (26.6)	1.27 (0.76)
30	20.2 (1.9)	39.9 (11.4)	-9.1 (6.4)	18.9 (14.9)	20.0 (1.9)	43.0 (9.3)	-8.1 (7.3)	17.5 (14.9)	23.7 (0.7)	45.4 (7.8)	-32.1 (27.1)	1.26 (0.79)
31	18.5 (1.4)	46.1 (11.5)	-8.0 (5.8)	10.3 (5.4)	18.2 (1.8)	49.7 (8.6)	-9.5 (7.1)	10.3 (5.0)	23.3 (0.3)	52.2 (3.9)	-21.8 (16.4)	0.99 (0.73)
Mean	18.9	45.9	-7.0	12.1	17.7	49.6	-14.0	17.3	22.8	48.2	-22.8	1.06
n	31.0	31.0	31.0	28.0	31.0	31.0	31.0	24.0	30.0	30.0	31.0	30.0
SD	1.1	3.8	1.9	4.3	2.2	4.1	6.9	4.3	0.5	3.1	8.7	0.29
Min	16.2	39.9	-11.4	7.0	11.4	43.0	-24.4	7.3	21.9	42.8	-38.8	0.59
Max	20.8	54.1	-3.8	22.5	20.5	59.4	-2.8	24.4	23.7	55.6	-9.6	1.59

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for January, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	19.3 (1.3)	42.5 (12.3)	-7.1 (5.1)	15.3 (10.4)	19.3 (1.7)	43.9 (10.7)	-7.5 (7.1)	12.5 (8.8)	23.6 (0.3)	47.4 (6.1)	-25.2 (18.5)	1.16 (0.77)
2	19.8 (1.8)	41.6 (13.1)	-8.3 (5.5)	18.6 (14.8)	19.8 (2.1)	44.1 (10.9)	-8.1 (6.7)	18.5 (15.1)	23.9 (0.8)	47.1 (7.3)	-37.4 (28.6)	1.32 (0.76)
3	19.3 (1.7)	42.8 (9.8)	-9.1 (6.6)	14.3 (10.6)	19.2 (1.8)	46.4 (8.7)	-10.0 (8.1)	14.2 (10.1)	23.8 (0.4)	49.3 (4.6)	-18.9 (18.4)	1.05 (0.74)
4	17.5 (1.5)	45.0 (9.0)	-5.1 (1.3)	7.1 (0.1)	17.1 (1.5)	48.2 (9.4)	-5.3 (2.8)	7.5 (1.8)	23.4 (0.3)	52.0 (2.6)	-12.2 (12.9)	0.77 (0.66)
5	18.3 (1.5)	43.6 (10.4)	-5.6 (4.8)	9.6 (5.1)	18.6 (1.6)	46.4 (8.9)	-7.6 (6.4)	9.7 (4.7)			-14.4 (13.0)	
6	18.7 (1.6)	42.7 (9.8)	-7.7 (5.6)	11.0 (5.8)	18.5 (1.6)	43.5 (7.8)	-11.7 (9.3)	10.9 (5.3)	21.3 (0.4)	44.2 (7.2)	-7.5 (11.9)	0.63 (0.64)
7	19.1 (2.1)	41.0 (12.7)	-5.7 (4.7)	16.6 (12.0)	19.3 (2.2)	42.7 (11.1)	-6.1 (5.9)	16.9 (12.3)	21.9 (0.9)	42.8 (6.6)	-13.7 (14.0)	0.76 (0.71)
8	20.5 (1.6)	43.1 (12.0)	-5.0 (4.7)	18.6 (12.3)	20.2 (1.4)	45.1 (9.5)	-8.3 (7.0)	18.8 (12.1)	22.6 (0.7)	42.5 (6.4)	-25.9 (23.5)	1.07 (0.79)
9	20.9 (1.8)	52.7 (11.8)	-10.0 (9.8)		19.8 (1.0)	51.5 (7.0)	-10.0 (8.6)		22.8 (0.4)	47.4 (6.0)	-11.0 (12.2)	0.81 (0.64)
10	18.6 (1.8)	46.5 (12.5)	-7.0 (5.2)	10.7 (5.8)	18.8 (1.5)	48.9 (9.8)	-9.1 (8.3)	10.9 (5.9)	22.6 (0.8)	46.7 (3.8)	-13.5 (13.8)	0.79 (0.67)
11	18.9 (1.8)	44.2 (12.2)	-6.6 (5.0)	12.4 (6.6)	19.2 (1.7)	45.4 (11.8)	-11.2 (12.0)	13.0 (8.1)	22.9 (0.4)	46.0 (5.5)	-18.7 (15.1)	0.94 (0.69)
12	18.6 (1.4)	49.6 (8.6)	-7.6 (5.8)	9.0 (4.3)	18.4 (1.3)	49.1 (8.4)	-11.3 (9.7)	9.9 (4.7)	22.6 (0.4)	48.2 (3.1)	-9.2 (10.6)	0.74 (0.53)
13	19.9 (2.6)	52.9 (13.4)	-1.9 (3.5)		18.8 (2.1)	58.6 (16.2)	-5.2 (7.7)	11.0 (6.8)	23.1 (0.5)	47.5 (7.0)	-19.5 (16.5)	1.00 (0.73)
14	20.1 (2.5)	50.1 (10.6)	-7.2 (7.4)		18.5 (2.1)	51.6 (7.1)	-8.9 (8.8)		23.3 (0.3)	48.8 (3.2)	-19.3 (15.2)	0.94 (0.70)
15	16.3 (1.3)	53.3 (7.0)	-4.3 (1.5)	7.3 (1.3)	17.6 (1.4)	52.6 (6.2)	-3.5 (1.4)	7.2 (0.5)	22.8 (0.3)	52.9 (3.4)	-15.6 (12.3)	0.79 (0.65)
16	19.1 (1.9)	46.3 (13.0)	-5.5 (4.9)	14.7 (9.9)	19.7 (1.8)	48.1 (10.6)	-7.5 (9.9)	16.8 (10.9)	23.2 (0.8)	44.2 (5.0)	-34.5 (20.8)	1.46 (0.74)
17	19.8 (1.3)	40.6 (9.6)	-8.7 (6.9)	15.5 (9.0)	20.0 (1.1)	43.1 (8.5)	-12.9 (11.7)	15.9 (8.9)	23.3 (0.5)	41.4 (3.5)	-27.2 (17.2)	1.35 (0.75)
18	20.2 (1.4)	36.3 (13.6)	-7.8 (6.1)	21.6 (14.6)	20.2 (1.5)	38.1 (11.7)	-12.9 (9.4)	20.3 (13.0)	23.4 (0.6)	36.7 (6.3)	-36.7 (22.8)	1.56 (0.72)
19	20.5 (1.2)	33.4 (10.6)	-11.8 (6.0)	23.3 (13.6)	20.6 (1.3)	36.8 (7.6)	-14.8 (8.3)	22.2 (13.0)	23.7 (0.5)	36.4 (6.1)	-37.0 (24.2)	1.56 (0.74)
20	20.1 (1.1)	40.2 (11.3)	-6.9 (5.8)	16.5 (9.7)	20.0 (1.2)	41.3 (9.2)	-11.6 (10.6)	17.0 (10.3)	23.8 (0.5)	42.6 (5.3)	-29.0 (21.9)	1.28 (0.77)
21	20.6 (1.7)	33.4 (13.0)	-8.2 (5.8)	22.1 (15.7)	20.4 (1.7)	36.6 (9.9)	-10.0 (7.0)	20.8 (15.6)	24.1 (1.0)	37.9 (8.4)	-40.6 (30.4)	1.43 (0.73)
22	20.3 (1.8)	33.9 (12.0)	-8.9 (6.2)	22.0 (15.7)	18.8 (2.6)	32.9 (10.1)	-28.9 (21.5)	36.3 (24.9)	23.9 (0.9)	38.3 (8.0)	-42.3 (31.3)	1.43 (0.74)
23	18.9 (1.7)	42.8 (5.1)	-10.7 (6.4)		16.7 (3.0)	46.7 (9.4)	-23.1 (24.1)		23.4 (0.4)	47.8 (3.9)	-21.3 (18.6)	1.04 (0.74)
24	18.0 (1.6)	49.9 (9.2)	-5.2 (2.8)	7.4 (1.8)	18.1 (1.5)	50.7 (8.9)	-6.0 (5.1)	8.3 (3.4)	23.1 (0.3)	51.7 (2.8)	-19.0 (14.5)	0.90 (0.70)
25	17.5 (1.4)	48.9 (6.0)	-5.0 (1.5)		17.6 (1.4)	51.9 (8.8)	-3.9 (3.7)		22.8 (0.3)	52.8 (2.3)	-18.8 (13.4)	0.90 (0.70)
26	16.9 (1.2)	56.4 (6.8)	-4.8 (1.4)		17.4 (0.9)	58.5 (8.7)	-2.2 (1.7)				-10.8 (11.7)	
27	17.2 (0.8)	56.4 (6.3)	-4.3 (1.5)	7.1 (0.0)	17.4 (0.8)	56.5 (6.6)	-3.7 (1.4)	7.1 (0.3)	21.1 (0.3)	46.2 (4.1)	-9.4 (12.7)	0.65 (0.65)
28	19.3 (1.9)	46.1 (13.2)	-4.8 (4.6)	9.9 (5.0)	19.2 (1.6)	47.5 (12.6)	-8.9 (11.9)	13.3 (8.6)	21.7 (0.9)	46.5 (3.6)	-11.1 (12.3)	0.65 (0.64)
29	18.6 (1.9)	47.0 (11.2)	-4.8 (3.2)	9.0 (3.2)	19.0 (1.6)	49.0 (10.6)	-6.6 (6.5)	10.6 (5.6)	21.6 (0.5)	49.7 (5.5)	-9.9 (11.7)	0.65 (0.65)
30	19.4 (2.3)	41.3 (13.2)	-3.7 (3.0)	13.7 (9.3)	19.7 (2.1)	42.8 (11.4)	-7.1 (7.9)	16.3 (10.7)	22.2 (1.1)	44.6 (7.8)	-18.9 (17.6)	0.98 (0.79)
31	20.0 (1.8)	35.6 (13.9)	-3.6 (3.7)	15.9 (12.1)	20.4 (1.5)	38.4 (12.5)	-4.0 (5.8)		22.9 (0.6)	42.1 (9.8)	-28.4 (26.7)	1.13 (0.78)
Mean	19.1	44.5	-6.5	14.0	19.0	46.4	-9.3	14.6	22.9	45.6	-21.2	1.03
n	31.0	31.0	31.0	25.0	31.0	31.0	31.0	25.0	29.0	29.0	31.0	29.0
SD	1.2	6.2	2.2	5.0	1.0	6.1	5.4	6.2	0.8	4.5	10.1	0.29
Min	16.3	33.4	-11.8	7.1	16.7	32.9	-28.9	7.1	21.1	36.4	-42.3	0.63
Max	20.9	56.4	-1.9	23.3	20.6	58.6	-2.2	36.3	24.1	52.9	-7.5	1.56

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for February, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	19.1 (1.3)	41.5 (9.9)	-7.5 (3.4)	9.0 (3.1)	19.7 (1.2)	45.6 (10.1)	-7.5 (5.8)	11.6 (6.2)	22.5 (0.6)	45.6 (2.8)	-10.2 (11.9)	0.68 (0.62)
2	19.2 (2.3)	40.3 (12.9)	-4.9 (3.6)	11.0 (6.2)	19.4 (2.0)	42.9 (10.9)	-8.9 (10.1)	13.8 (9.0)	22.9 (0.7)	44.5 (6.9)	-16.9 (15.1)	0.90 (0.73)
3	19.7 (1.8)	40.2 (12.5)	-5.0 (3.2)	14.2 (9.6)	20.0 (1.5)	44.0 (8.9)	-9.1 (10.0)	14.8 (9.4)	23.3 (0.6)	43.2 (5.3)	-26.2 (20.2)	1.18 (0.76)
4	20.3 (1.9)	38.5 (16.5)	-5.4 (4.1)	19.6 (14.6)	20.7 (1.5)	41.6 (13.2)	-6.2 (6.6)	21.4 (17.0)	23.7 (1.0)	41.6 (8.7)	-34.6 (28.9)	1.38 (0.84)
5	20.9 (1.9)	34.4 (14.5)	-6.6 (5.0)	22.0 (15.9)	21.0 (1.8)	38.2 (12.0)	-8.6 (7.3)	23.9 (16.6)	24.1 (1.3)	39.1 (9.0)	-40.6 (33.1)	1.33 (0.75)
6	21.5 (2.8)	31.0 (14.6)	-9.4 (7.9)	33.3 (28.3)	21.6 (2.7)	34.2 (14.0)	-8.7 (7.8)	32.1 (28.4)	24.0 (1.6)	35.8 (10.8)	-26.0 (14.1)	1.77 (1.09)
7	20.7 (1.1)	35.9 (9.3)	-9.1 (6.2)	21.4 (13.1)	20.4 (1.5)	37.7 (8.5)	-12.3 (7.7)	22.7 (12.2)	23.0 (0.6)	39.6 (4.5)	-29.1 (20.2)	1.51 (0.83)
8	20.5 (0.6)	53.7 (6.9)	-12.4 (5.6)	19.3 (4.5)	19.9 (0.9)	55.6 (7.2)	-19.4 (7.7)	21.2 (3.9)	22.9 (0.3)	55.0 (6.6)	-34.9 (16.1)	1.63 (0.68)
9	20.2 (0.6)	46.7 (13.8)	-3.1 (9.4)		19.9 (0.8)	50.1 (12.0)	-4.0 (11.7)		22.8 (0.3)	49.0 (8.1)	-22.0 (13.3)	1.54 (0.85)
10	20.1 (0.9)	43.4 (11.6)	-5.0 (6.5)	14.5 (10.1)	20.3 (1.1)	45.1 (11.6)	-8.4 (10.3)	15.3 (9.4)	22.8 (0.5)	44.9 (7.2)	-25.3 (18.5)	1.42 (0.83)
11	20.3 (1.0)	43.7 (11.2)	-8.3 (5.5)	13.7 (7.3)	20.3 (1.3)	47.1 (10.2)	-15.3 (9.5)	15.2 (8.0)	22.8 (0.6)	47.0 (5.0)	-16.2 (17.6)	1.20 (0.82)
12	19.4 (0.9)	46.9 (8.9)	-7.7 (5.7)	12.0 (6.7)	19.9 (0.8)	49.5 (8.4)	-9.8 (9.1)	14.2 (7.5)	22.7 (0.3)	49.2 (2.8)	-18.1 (13.7)	1.13 (0.79)
13	18.9 (1.7)	49.9 (9.6)	-7.4 (6.1)	9.3 (4.7)	19.0 (1.0)	54.5 (7.4)	-10.3 (10.1)	11.3 (5.3)	22.7 (0.3)	51.9 (2.7)	-8.4 (11.1)	0.90 (0.74)
14	18.2 (2.1)	50.3 (9.2)	-6.8 (5.1)	9.0 (4.4)	18.3 (1.5)	51.6 (8.4)	-8.0 (7.9)	10.5 (5.3)	22.7 (0.3)	51.6 (2.5)	-13.5 (10.6)	0.94 (0.74)
15	18.4 (2.1)	48.0 (10.3)	-7.7 (6.0)	10.5 (5.7)	18.3 (2.2)	49.3 (9.4)	-9.6 (9.7)	11.4 (6.6)	22.8 (0.5)	50.0 (2.5)	-12.9 (10.9)	0.96 (0.77)
16	19.2 (1.9)	46.8 (8.3)	-5.9 (6.2)		19.5 (1.7)	49.9 (8.0)	-9.3 (6.0)		22.9 (0.4)	50.0 (2.5)	-28.6 (20.2)	1.46 (0.81)
17	20.4 (1.3)	39.2 (17.0)	-2.3 (6.7)		20.6 (1.1)	44.5 (16.5)	-1.8 (8.7)		23.0 (0.7)	43.7 (10.3)	-16.4 (11.1)	1.75 (1.05)
18	20.1 (1.1)	40.9 (8.9)	-8.2 (5.9)	14.0 (6.9)	20.4 (1.2)	43.0 (8.6)	-12.5 (10.0)	15.6 (9.1)			-9.4 (10.5)	
19	19.4 (1.8)	43.9 (12.6)	-6.6 (5.2)	13.9 (7.4)	20.1 (1.5)	45.5 (10.7)	-9.4 (8.6)	15.2 (8.8)	21.5 (0.8)	48.3 (7.4)	-9.2 (7.8)	0.82 (0.52)
20	19.5 (1.8)	39.0 (13.7)	-7.8 (6.8)	17.9 (12.0)	20.1 (1.8)	41.5 (12.5)	-8.5 (8.3)	20.2 (12.8)	22.0 (1.0)	41.7 (10.5)	-17.0 (18.0)	1.10 (0.73)
21	18.6 (2.0)	40.9 (12.1)			19.6 (2.3)	50.0 (9.9)			22.5 (0.9)	43.0 (3.5)	-5.4 (8.4)	0.68 (0.68)
22	18.3 (3.8)	39.8 (14.5)			21.6 (1.9)	43.4 (14.7)			23.1 (1.1)	39.2 (7.3)	-20.2 (19.0)	1.08 (0.86)
23	20.2 (0.9)	39.9 (9.9)	-8.7 (5.5)	13.8 (6.9)	20.0 (1.1)	41.6 (9.3)	-12.4 (10.5)	15.9 (7.7)	23.3 (0.6)	41.6 (4.4)	-20.3 (16.3)	1.09 (0.80)
24	21.1 (1.5)	39.7 (10.6)	-10.0 (6.0)	22.3 (15.7)	21.8 (1.6)	42.4 (9.8)	-8.9 (6.5)	21.8 (15.9)	23.5 (0.9)	41.1 (5.9)	-27.0 (19.0)	1.57 (0.98)
25												
26												
27	19.7 (1.4)	43.3 (11.1)	-8.7 (5.9)	11.5 (6.3)	19.9 (1.4)	46.7 (9.5)	-10.1 (9.5)	13.5 (7.1)	21.6 (0.4)	46.0 (3.9)	-16.9 (14.1)	1.07 (0.76)
28	18.8 (1.9)	44.9 (10.5)	-7.0 (5.3)	8.5 (3.8)	18.8 (1.1)	47.7 (8.6)	-8.0 (5.6)	9.6 (3.1)	21.3 (0.4)	47.7 (3.7)	-8.1 (8.7)	0.85 (0.60)
Mean	19.7	42.4	-7.2	15.3	20.0	45.5	-9.5	16.7	22.8	45.2	-19.7	1.20
n	26.0	26.0	24.0	21.0	26.0	26.0	24.0	21.0	25.0	25.0	26.0	25.0
SD	0.9	5.0	2.2	5.9	0.9	5.0	3.4	5.4	0.7	4.6	9.1	0.32
Min	18.2	31.0	-12.4	8.5	18.3	34.2	-19.4	9.6	21.3	35.8	-40.6	0.68
Max	21.5	53.7	-2.3	33.3	21.8	55.6	-1.8	32.1	24.1	55.0	-5.4	1.77

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for March, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	19.2 (2.1)	41.2 (12.0)	-8.7 (6.6)	12.2 (6.5)	18.9 (1.9)	41.9 (10.3)	-12.7 (11.4)	13.8 (7.9)	23.6 (3.8)	52.8 (13.5)	-15.8 (18.7)	0.84 (0.87)
2	20.1 (1.5)	37.2 (11.0)	-8.9 (5.0)	17.6 (11.5)	20.1 (1.7)	40.1 (9.1)	-11.7 (7.4)	19.5 (11.5)	25.1 (4.2)	53.3 (21.5)	-32.9 (29.0)	1.46 (1.17)
3	20.5 (1.0)	39.4 (9.8)	-9.5 (6.0)	18.8 (11.1)	19.5 (2.0)	40.7 (7.4)	-15.9 (6.5)	22.8 (7.8)	21.6 (0.9)	41.9 (5.3)	-37.3 (21.2)	1.79 (0.81)
4	23.2 (3.6)	32.8 (13.4)	-12.8 (8.2)	42.5 (27.7)	23.1 (3.6)	34.8 (12.4)	-12.5 (8.2)	43.0 (29.3)	24.1 (3.0)	35.7 (9.3)	-48.2 (25.8)	2.80 (1.47)
5	22.8 (2.7)	26.7 (13.6)	-12.5 (7.0)	42.5 (24.9)	22.7 (2.8)	28.8 (12.6)	-10.1 (7.4)	44.3 (26.3)	23.7 (2.5)	30.0 (10.0)	-50.3 (19.3)	2.92 (1.24)
6	22.0 (2.1)	33.2 (9.2)	-14.6 (6.6)	35.6 (19.5)	22.0 (2.4)	34.1 (8.2)	-16.0 (8.7)	38.0 (19.9)	23.2 (1.9)	35.4 (5.4)	-50.7 (23.0)	2.56 (1.19)
7	21.7 (1.3)	35.3 (6.3)	-7.6 (6.6)	34.7 (15.7)	21.7 (1.6)	38.1 (5.8)	-5.6 (6.7)		22.9 (1.2)	40.1 (4.8)	-47.4 (20.2)	2.55 (0.82)
8	20.9 (1.3)	37.7 (16.9)	-9.9 (6.7)	22.7 (15.2)	20.7 (1.9)	39.4 (15.7)	-13.0 (8.5)	23.7 (15.1)	22.2 (1.2)	38.7 (10.5)	-33.5 (19.4)	1.90 (0.88)
9	21.5 (1.2)	37.6 (4.0)	-5.2 (5.7)		21.2 (1.3)	40.2 (4.1)	-8.4 (10.2)		22.8 (1.6)	41.7 (3.3)	-42.6 (19.6)	2.48 (0.76)
10	19.2 (1.1)	47.9 (10.4)	-8.8 (6.3)	10.4 (5.4)	19.5 (0.8)	49.4 (9.6)	-7.6 (6.8)	10.9 (5.6)	21.2 (0.3)	48.6 (2.8)	-11.8 (10.5)	1.22 (0.84)
11	17.9 (1.8)	43.4 (9.2)	-7.5 (5.2)	9.3 (4.9)	18.4 (1.2)	45.3 (9.1)	-8.2 (7.6)	10.4 (5.5)			-17.4 (15.3)	
12	18.5 (1.7)	49.6 (8.9)	-7.9 (5.9)	10.4 (5.6)	19.0 (1.5)	50.0 (7.5)	-8.7 (6.0)	10.5 (4.3)	20.0 (1.5)	49.8 (3.8)	-10.6 (4.2)	0.63 (0.34)
13	19.0 (0.8)	55.7 (6.8)	-6.9 (5.7)	9.5 (4.8)	19.6 (0.5)	57.4 (7.1)	-5.8 (5.8)	9.9 (4.8)	21.4 (0.7)	51.5 (3.3)	-7.5 (5.6)	0.55 (0.55)
14	20.3 (1.2)	47.6 (10.3)	-10.9 (7.1)	15.6 (8.2)	20.6 (1.3)	48.4 (9.6)	-15.7 (11.4)	17.0 (9.1)	21.8 (0.7)	49.4 (5.1)	-13.8 (11.7)	0.71 (0.67)
15	20.8 (1.5)	42.6 (15.7)	-10.7 (5.8)	23.5 (15.4)	20.9 (2.0)	43.1 (13.3)	-10.6 (7.9)	21.3 (13.6)	22.3 (1.0)	43.4 (10.1)	-20.8 (15.1)	1.32 (1.00)
16	22.1 (2.7)	33.3 (15.0)	-14.5 (9.1)	32.7 (22.0)	22.0 (2.8)	35.0 (12.8)	-13.3 (8.4)	32.5 (22.5)	23.5 (1.9)	35.6 (11.6)	-25.9 (15.1)	1.86 (1.11)
17	23.4 (3.7)	32.1 (14.4)	-17.0 (9.9)	37.9 (22.6)	23.3 (3.7)	34.5 (14.0)	-17.1 (9.3)	38.5 (23.7)	24.4 (2.7)	33.8 (10.4)	-34.3 (18.2)	2.57 (1.64)
18	20.8 (1.0)	42.9 (6.9)	-14.5 (7.0)	23.2 (11.3)	20.7 (1.3)	44.3 (7.6)	-14.7 (8.7)		22.3 (0.5)	43.9 (4.0)	-25.6 (18.3)	1.63 (0.91)
19	20.4 (1.2)	44.7 (10.0)	-11.0 (5.6)	20.4 (10.4)	20.6 (1.4)	45.7 (8.1)	-13.2 (7.3)	21.4 (10.2)	22.2 (0.8)	45.6 (4.5)	-31.8 (22.1)	1.51 (0.79)
20	21.7 (1.6)	53.1 (7.5)	-12.4 (5.4)	29.0 (14.3)	21.5 (2.0)	53.3 (6.6)	-15.7 (7.6)	30.1 (14.0)	22.9 (1.3)	54.5 (4.1)	-39.9 (18.8)	2.10 (0.85)
21	23.6 (2.7)	44.2 (9.9)	-17.4 (8.2)	42.2 (19.2)	23.5 (3.0)	46.3 (9.2)	-21.1 (8.3)	43.7 (20.4)	24.4 (2.5)	48.1 (7.8)	-52.4 (14.1)	3.10 (1.23)
22	22.6 (1.3)	50.3 (5.1)	-14.0 (8.2)	37.4 (12.0)	22.6 (1.2)	53.0 (5.2)	-19.4 (9.3)		23.5 (1.3)	55.2 (4.6)	-59.6 (16.2)	2.73 (0.84)
23	21.8 (1.3)	37.2 (16.1)	-5.4 (7.0)		21.9 (1.3)	40.6 (15.3)	-5.0 (8.7)		23.2 (1.4)	42.1 (16.4)	-48.7 (22.9)	2.56 (0.74)
24	20.2 (0.8)	43.0 (12.7)	-8.9 (6.7)	15.1 (7.0)	19.4 (1.7)	42.2 (10.7)	-17.2 (8.4)	18.8 (5.4)	21.4 (0.4)	43.2 (7.9)	-25.7 (16.2)	1.63 (0.83)
25	20.3 (0.9)	39.7 (12.1)	-8.7 (6.7)	17.7 (10.8)	20.2 (1.3)	40.8 (9.8)	-9.6 (7.7)	17.1 (9.1)	21.7 (1.0)	41.3 (6.7)	-41.0 (26.0)	1.64 (0.73)
26	20.0 (0.9)	52.4 (6.8)	-11.1 (6.4)		19.7 (1.4)	53.3 (6.2)	-11.8 (9.0)		21.3 (0.5)	52.4 (3.1)	-32.6 (19.1)	1.62 (0.74)
27	16.5 (1.3)	59.6 (5.5)	-14.5 (6.8)	7.4 (2.6)	18.1 (0.9)	61.1 (6.3)	-14.5 (4.3)		20.7 (0.4)	56.6 (3.0)	-2.7 (5.7)	0.74 (0.45)
28	18.4 (2.1)	60.4 (9.4)	-7.7 (4.0)	8.2 (2.6)	19.2 (0.8)	51.9 (4.6)	-10.8 (5.8)		21.1 (0.7)	56.5 (2.8)	-12.2 (14.6)	0.93 (0.77)
29	19.9 (1.5)	55.4 (8.2)	-9.8 (6.3)	12.8 (5.1)	20.2 (1.3)	51.8 (6.5)	-11.6 (10.1)	11.8 (4.5)	21.5 (0.5)	55.5 (2.4)	-38.4 (22.5)	1.49 (0.72)
30	20.2 (0.9)	54.2 (8.0)	-11.4 (7.0)	13.0 (5.4)	20.4 (0.9)	50.6 (6.3)	-13.6 (9.1)	12.9 (5.8)	21.5 (0.6)	53.1 (2.4)	-31.5 (29.0)	1.49 (0.77)
31	20.4 (1.5)	47.2 (12.8)	-5.3 (4.9)	12.7 (5.7)	20.8 (1.5)	44.3 (11.0)	-10.4 (8.3)	13.8 (7.2)	21.6 (0.7)	47.1 (5.2)	-26.5 (19.8)	1.57 (0.81)
Mean	20.6	43.8	-10.5	22.0	20.7	44.5	-12.3	22.9	22.4	45.9	-31.3	1.76
n	31.0	31.0	31.0	28.0	31.0	31.0	31.0	23.0	30.0	30.0	31.0	30.0
SD	1.6	8.5	3.2	11.5	1.4	7.4	3.9	11.5	1.2	7.4	14.8	0.72
Min	16.5	26.7	-17.4	7.4	18.1	28.8	-21.1	9.9	20.0	30.0	-59.6	0.55
Max	23.6	60.4	-5.2	42.5	23.5	61.1	-5.0	44.3	25.1	56.6	-2.7	3.10

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for April, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	20.8 (1.3)	47.8 (13.7)	-7.7 (5.4)	16.9 (8.4)	21.4 (1.2)	46.5 (10.8)	-8.0 (6.6)	17.1 (8.1)	21.8 (1.0)	49.2 (6.5)	-40.3 (22.2)	1.88 (0.71)
2	20.3 (1.1)	48.4 (9.8)	-10.1 (6.0)		20.7 (1.1)	46.7 (9.9)	-18.0 (9.7)	16.7 (7.1)	18.8 (3.8)			
3	21.2 (1.8)	45.1 (13.9)	-12.5 (6.6)		21.8 (1.9)	42.9 (11.1)	-15.7 (8.9)		22.0 (1.6)	44.3 (7.5)		
4	20.5 (1.1)	39.2 (6.9)	-6.1 (11.7)		20.6 (1.2)	39.6 (5.5)	-10.7 (12.8)		22.0 (0.8)	41.4 (4.4)		
5	19.3 (1.5)	49.8 (9.9)	-10.5 (5.6)	8.3 (3.9)	19.3 (1.1)	48.2 (7.3)	-18.2 (9.0)	9.8 (4.6)	19.5 (0.3)	44.5 (3.9)		
6	19.3 (1.7)	46.7 (13.0)	-12.6 (8.1)	15.3 (5.6)	19.9 (1.1)	45.7 (10.1)	-12.7 (10.0)	12.7 (6.0)	21.3 (1.1)	49.2 (6.6)		
7	20.4 (3.7)	36.5 (15.5)	-16.0 (7.7)	32.1 (17.4)	21.7 (2.6)	36.1 (15.1)	-10.7 (8.0)	28.6 (20.0)	22.9 (1.8)	38.3 (12.3)		
8	22.5 (2.5)	35.1 (13.2)	-14.6 (9.1)	31.2 (19.7)	22.5 (2.5)	36.2 (11.0)	-17.2 (8.1)	30.6 (16.7)	23.5 (1.3)	38.1 (7.8)		
9	20.4 (0.9)	40.4 (7.6)	-9.2 (9.3)		21.0 (0.8)	42.6 (6.4)	-11.7 (7.7)	18.3 (7.0)	22.4 (0.7)	42.5 (4.4)		
10	20.5 (1.1)	46.1 (10.4)	-11.1 (6.4)	18.6 (9.0)	21.1 (1.4)	46.3 (9.6)	-13.3 (8.3)	18.5 (9.1)	22.3 (0.4)	45.6 (5.5)	-24.3 (18.9)	1.45 (0.86)
11	19.9 (0.8)	56.3 (5.6)	-13.1 (8.6)	15.0 (6.2)	19.9 (1.0)	55.7 (5.6)	-14.7 (9.6)	15.9 (6.9)	21.8 (0.3)	51.2 (3.4)	-30.7 (12.6)	1.54 (0.70)
12	19.9 (0.6)	61.9 (3.1)	-12.3 (6.5)		19.4 (0.9)	63.8 (3.3)	-12.5 (5.8)	15.5 (4.4)	21.6 (0.2)	56.1 (1.6)	-28.7 (10.5)	1.71 (0.64)
13	20.8 (1.0)	54.2 (8.4)	-10.3 (6.0)		21.0 (1.4)	56.8 (7.6)	-10.0 (6.4)	18.8 (8.1)	22.1 (0.9)	52.4 (3.2)	-37.8 (17.6)	2.02 (0.72)
14	21.9 (1.7)	47.8 (9.7)	-12.3 (5.5)	30.4 (13.9)	22.8 (2.0)	49.5 (11.6)	-13.5 (7.7)	31.0 (17.8)	22.9 (2.0)	48.4 (6.0)	-45.5 (12.5)	2.72 (1.03)
15	22.4 (1.2)	45.5 (4.8)	-15.2 (5.7)	30.3 (10.6)	22.4 (1.2)	47.1 (4.2)	-19.9 (7.0)		22.7 (1.4)	49.1 (2.8)	-53.9 (12.0)	2.68 (0.49)
16	21.4 (0.8)	58.9 (4.2)	-15.5 (8.0)	22.1 (3.6)	21.1 (0.7)	59.9 (5.1)	-19.9 (8.6)	23.7 (4.2)	20.8 (0.6)		-54.6 (10.3)	
17	21.2 (1.0)	55.3 (11.4)	-10.2 (13.4)	24.6 (8.5)	21.0 (1.3)	55.7 (9.2)	-16.7 (11.0)	25.9 (7.6)	20.7 (1.2)		-42.5 (13.2)	
18	20.4 (1.0)	55.7 (6.1)	-12.6 (7.1)		20.4 (1.2)		-17.9 (9.2)	18.6 (7.2)	20.2 (0.5)		-26.4 (16.0)	
19	21.0 (0.9)	49.3 (10.7)	-12.4 (7.3)		20.3 (1.1)		-19.0 (11.0)	24.6 (9.4)	20.5 (0.9)		-27.3 (19.1)	
20	21.4 (1.3)	47.8 (8.3)	-10.1 (5.4)	27.8 (12.1)	21.5 (2.2)		-12.4 (6.9)	31.9 (14.8)	22.2 (2.1)		-33.0 (15.6)	
21	22.7 (2.1)	44.4 (10.4)	-14.7 (7.7)	37.4 (17.0)	23.1 (3.0)	42.9 (11.3)	-18.0 (7.2)	41.0 (19.0)	23.3 (2.1)	47.7 (7.4)	-35.0 (12.5)	3.06 (1.21)
22	23.2 (1.4)	47.1 (5.2)	-13.3 (7.0)	36.3 (13.2)	22.6 (0.8)	52.4 (4.5)	-8.4 (6.0)	32.1 (8.0)	22.8 (1.8)	56.8 (4.3)	-36.1 (9.1)	2.92 (0.41)
23	22.7 (2.2)	52.6 (6.1)	-18.8 (7.0)	38.7 (13.6)	23.4 (1.4)	54.0 (5.1)	-9.8 (8.0)	40.8 (15.1)	22.9 (1.8)	62.5 (3.9)	-29.7 (7.3)	2.81 (0.58)
24	22.8 (1.6)	45.5 (6.4)	-14.5 (6.3)	37.0 (10.7)	22.7 (2.4)	45.5 (7.4)	-23.0 (9.4)	43.1 (15.4)	21.0 (2.2)		-23.8 (15.3)	2.64 (1.27)
25	21.3 (1.0)	46.1 (6.6)	-18.3 (8.3)	30.1 (9.0)	21.5 (1.4)	47.5 (7.1)	-22.7 (10.9)	29.8 (9.5)	22.2 (0.6)	52.7 (5.1)	-10.9 (10.4)	1.07 (0.83)
26	21.6 (1.6)	49.2 (12.3)	-15.9 (7.8)	33.4 (13.5)	22.1 (1.9)	49.4 (13.8)	-18.0 (10.7)	32.4 (13.8)	22.3 (0.5)	57.7 (8.0)	-14.6 (9.9)	1.40 (0.82)
27	20.6 (1.0)	50.7 (5.4)	-21.9 (7.5)	25.3 (6.9)	20.9 (1.2)	52.4 (5.4)	-28.2 (7.5)	26.2 (7.4)	21.6 (0.6)	53.9 (3.8)	-7.3 (9.7)	0.92 (0.80)
28	20.1 (1.0)	60.8 (2.6)	-20.6 (6.1)	21.3 (5.4)	20.2 (0.8)	63.4 (4.0)	-25.5 (9.3)	21.7 (4.6)	21.7 (0.3)	62.8 (3.0)	-13.7 (9.1)	0.84 (0.75)
29	23.2 (1.7)	63.5 (3.3)	-16.3 (5.7)	38.8 (9.6)	23.3 (1.9)	66.6 (3.1)	-24.2 (9.2)	41.9 (11.8)	23.0 (1.3)	74.4 (3.1)	-32.1 (12.1)	2.29 (0.71)
30	22.5 (1.4)	60.2 (4.5)	-17.9 (5.7)	38.1 (8.9)	22.9 (1.5)	62.0 (4.9)	-22.6 (9.8)	38.6 (9.7)	22.3 (0.5)	71.7 (1.9)	-25.5 (5.8)	2.43 (0.39)
Mean	21.2	49.6	-13.5	27.7	21.4	50.2	-16.4	26.1	21.9	51.8	-30.6	2.02
n	30.0	30.0	30.0	22.0	30.0	27.0	30.0	27.0	30.0	23.0	22.0	17.0
SD	1.1	7.1	3.6	8.7	1.2	8.1	5.2	9.4	1.1	9.3	12.2	0.71
Min	19.3	35.1	-21.9	8.3	19.3	36.1	-28.2	9.8	18.8	38.1	-54.6	0.84
Max	23.2	63.5	-6.1	38.8	23.4	66.6	-8.0	43.1	23.5	74.4	-7.3	3.06

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for May, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	20.6 (0.8)	59.4 (5.9)	-24.1 (4.9)		20.6 (0.6)	62.7 (6.1)	-29.8 (7.5)	25.9 (4.5)	21.7 (0.3)	62.9 (7.4)	-24.3 (11.2)	1.68 (0.70)
2	20.0 (1.0)	58.7 (2.6)	-21.6 (6.3)	20.8 (2.6)	20.0 (0.6)	60.5 (2.5)	-22.2 (6.0)	21.3 (2.8)	21.7 (0.3)	58.4 (1.7)	-25.8 (11.9)	1.46 (0.74)
3	20.3 (1.2)	56.8 (6.9)	-21.6 (5.9)	23.5 (6.3)	20.5 (1.5)	58.9 (6.7)	-28.2 (10.7)	24.0 (5.0)	21.6 (0.3)	58.9 (2.1)	-23.4 (10.1)	1.64 (0.76)
4	20.6 (1.3)	59.3 (5.6)	-19.8 (7.4)	23.6 (7.4)	20.7 (1.4)	62.7 (5.7)	-20.8 (6.6)	24.8 (8.0)	21.4 (0.5)	62.1 (2.5)	-30.7 (11.2)	1.98 (0.76)
5	21.3 (0.9)	63.0 (3.0)	-18.4 (5.8)	27.1 (8.8)	21.5 (1.1)	65.3 (2.9)	-22.7 (9.5)	25.6 (6.1)	21.2 (0.5)	69.0 (3.5)	-34.4 (4.5)	2.36 (0.33)
6	23.0 (1.6)	58.0 (6.5)	-15.8 (4.3)	38.1 (12.0)	23.3 (1.7)	60.5 (8.1)	-19.7 (7.7)	38.7 (14.1)	22.4 (1.6)	70.0 (4.8)	-35.0 (7.4)	2.69 (0.24)
7	23.5 (1.8)	60.3 (6.4)	-25.6 (7.0)	54.4 (19.0)	23.2 (1.9)	66.1 (9.2)	-22.6 (7.4)	44.4 (11.7)	23.1 (1.6)	72.9 (4.4)	-41.9 (11.1)	3.36 (0.78)
8	22.0 (1.5)	53.1 (12.9)	-33.0 (8.8)	59.0 (9.1)	23.1 (1.3)	54.2 (13.6)	-13.2 (8.7)		22.3 (1.1)	64.8 (11.9)	-31.4 (9.9)	3.08 (0.38)
9	20.7 (1.9)	42.0 (5.7)	-29.7 (16.3)	35.3 (8.9)	21.8 (1.2)	44.2 (5.6)	-23.2 (8.8)	29.8 (10.3)	21.2 (0.7)	49.7 (3.7)	-31.2 (7.6)	2.56 (0.31)
10	20.1 (0.8)	57.8 (2.7)	-25.0 (6.4)	23.1 (3.7)	20.2 (0.5)	60.8 (3.2)	-27.1 (8.8)	22.9 (4.5)	21.5 (0.4)	61.3 (2.1)	-52.2 (8.9)	2.06 (0.14)
11	20.7 (1.1)	58.0 (5.4)	-25.6 (6.2)	25.0 (4.8)	21.0 (1.0)	60.7 (4.7)	-29.4 (8.6)	26.5 (6.1)	21.2 (0.4)	63.3 (3.5)	-39.0 (8.2)	2.34 (0.37)
12	23.5 (2.1)	60.4 (7.4)	-22.6 (7.5)	42.2 (15.3)	23.7 (2.1)	65.8 (7.5)	-23.3 (7.5)	38.5 (12.5)	23.2 (2.2)	72.2 (5.0)	-49.9 (17.4)	3.16 (0.79)
13	23.4 (1.6)	46.4 (9.4)	-19.7 (6.1)	45.4 (10.1)	23.5 (1.4)	49.1 (10.7)	-13.4 (8.0)	42.2 (9.3)	22.9 (1.5)	58.4 (11.5)	-36.7 (12.5)	3.41 (0.72)
14	22.4 (1.7)	42.9 (9.5)	-24.4 (8.4)	35.4 (9.8)	22.8 (1.6)	46.1 (8.8)	-25.1 (10.7)	33.2 (11.3)	22.0 (0.9)	54.6 (13.0)	-37.9 (8.6)	2.67 (0.25)
15	23.8 (1.3)	56.6 (11.0)	-18.1 (6.8)	44.5 (9.0)	23.9 (1.1)	60.0 (11.9)	-15.4 (10.4)	42.0 (7.7)	23.3 (1.3)	70.2 (9.3)	-41.2 (10.4)	3.48 (0.80)
16	22.6 (0.9)	43.6 (6.2)	-29.6 (13.7)	27.6 (9.5)	23.2 (1.0)	47.2 (6.8)	-33.9 (18.6)	25.9 (11.7)	21.3 (0.6)	55.6 (3.0)	-31.1 (6.2)	2.72 (0.29)
17	22.7 (1.3)	48.3 (5.4)	-24.8 (12.6)	28.8 (12.4)	23.1 (1.5)	52.0 (5.8)	-25.4 (13.8)	28.2 (13.6)	22.3 (1.1)	59.5 (5.2)	-35.9 (10.0)	2.47 (0.64)
18	23.5 (1.7)	49.9 (3.9)	-26.2 (13.0)	36.6 (14.6)	24.3 (2.2)	54.0 (5.0)	-26.5 (12.7)	37.0 (16.8)	22.0 (3.3)	59.3 (9.4)	-38.2 (21.0)	3.16 (1.44)
19	23.6 (1.6)	48.3 (5.4)	-20.8 (9.9)	37.4 (10.7)	24.2 (1.8)	52.2 (5.9)	-24.4 (12.5)	35.2 (11.8)	22.0 (1.7)	62.4 (5.2)	-38.5 (11.5)	2.63 (0.52)
20	23.4 (1.5)	46.1 (4.1)	-21.3 (10.3)	35.8 (11.3)	23.9 (1.5)	48.7 (4.7)	-23.5 (13.8)	33.6 (11.2)	21.7 (1.1)	60.8 (3.8)	-35.1 (10.7)	2.53 (0.34)
21	23.5 (1.2)	51.1 (4.1)	-19.7 (10.3)	34.4 (9.5)	24.2 (1.5)	55.0 (3.7)	-23.4 (15.1)	32.7 (11.0)	22.0 (1.5)	65.5 (3.9)	-36.3 (8.5)	2.74 (0.43)
22	23.4 (1.1)	52.3 (4.3)	-21.1 (10.1)	33.0 (9.5)	23.7 (1.2)	56.2 (4.2)	-24.3 (15.2)	31.4 (11.0)	21.7 (1.1)	67.4 (2.7)	-34.8 (8.3)	2.72 (0.36)
23	23.7 (1.3)	56.0 (3.1)	-22.3 (10.0)	32.4 (9.5)	24.1 (1.4)	60.3 (3.5)	-27.1 (15.2)	31.2 (11.6)	22.3 (1.7)	70.6 (3.6)	-38.5 (7.5)	2.94 (0.49)
24	23.5 (1.3)	59.3 (2.5)	-21.5 (10.9)	32.1 (9.4)	23.7 (1.3)	64.0 (3.2)	-25.3 (14.6)	30.6 (10.7)	22.2 (1.5)	73.7 (3.5)	-35.5 (8.9)	2.79 (0.34)
25	23.7 (1.4)	59.4 (2.7)	-24.2 (10.9)	30.2 (9.5)	24.1 (1.6)	65.6 (2.5)	-28.6 (15.8)	29.3 (12.3)	22.3 (1.8)	74.2 (3.1)	-38.6 (13.8)	3.17 (0.71)
26	22.6 (0.8)	57.0 (5.2)	-33.0 (17.8)	31.6 (13.2)	22.8 (0.7)	62.2 (5.7)	-34.9 (21.1)	27.9 (13.5)	22.1 (1.2)	68.3 (8.6)	-42.5 (22.4)	2.73 (0.45)
27	22.4 (1.1)	49.5 (8.6)	-40.5 (17.8)	32.9 (16.1)	22.7 (1.2)	49.9 (9.5)	-44.1 (21.4)	30.8 (17.2)	22.9 (1.6)	52.6 (10.4)	-52.2 (14.7)	2.88 (1.06)
28	22.8 (1.3)	49.0 (5.6)	-32.1 (19.6)	37.5 (15.1)	23.0 (1.0)	50.4 (5.3)	-34.1 (21.0)	39.4 (17.8)	23.7 (1.7)	53.1 (6.9)	-48.5 (15.0)	2.92 (0.90)
29	23.4 (1.0)	48.6 (4.6)	-32.8 (17.2)	42.7 (16.3)	23.3 (1.3)	52.0 (3.8)	-32.9 (17.9)	44.1 (17.7)	24.3 (1.9)	54.9 (4.7)	-54.5 (14.8)	3.28 (1.02)
30	23.7 (1.1)	47.1 (4.0)	-31.2 (13.3)	48.2 (16.2)	23.8 (1.4)	50.9 (3.7)	-29.6 (14.9)	49.2 (18.1)	24.7 (1.7)	53.3 (5.4)	-63.4 (14.9)	3.44 (0.99)
31	24.0 (1.0)	46.2 (3.3)	-25.2 (8.6)	53.4 (9.8)	24.1 (1.3)	51.0 (4.5)	-23.0 (10.1)	54.0 (12.2)	25.6 (2.2)	51.9 (6.3)	-45.9 (11.0)	2.90 (0.47)
Mean	22.5	53.0	-24.9	35.7	22.8	56.4	-25.7	33.3	22.4	62.3	-38.9	2.71
n	31.0	31.0	31.0	30.0	31.0	31.0	31.0	30.0	31.0	31.0	31.0	31.0
SD	1.3	6.0	5.4	9.5	1.3	6.4	6.3	8.0	1.1	7.1	8.9	0.52
Min	20.0	42.0	-40.5	20.8	20.0	44.2	-44.1	21.3	21.2	49.7	-63.4	1.46
Max	24.0	63.0	-15.8	59.0	24.3	66.1	-13.2	54.0	25.6	74.2	-23.4	3.48

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for June, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	23.5 (1.1)	52.7 (4.0)	-18.0 (7.4)	46.7 (7.9)	23.7 (1.3)	56.4 (6.7)	-18.9 (8.4)	47.9 (10.1)	24.4 (1.6)	59.5 (5.6)	-50.2 (15.3)	3.45 (0.71)
2	22.5 (0.7)	61.8 (3.8)	-10.4 (5.7)	36.4 (10.3)	22.0 (0.7)	67.4 (4.3)	-10.4 (5.5)	37.6 (7.7)	22.7 (1.1)	70.9 (3.8)	-37.4 (10.5)	3.12 (0.57)
3	22.1 (0.6)	56.9 (3.9)	-18.0 (10.6)	37.1 (10.7)	22.2 (0.7)	61.8 (4.7)	-10.0 (5.5)	37.6 (11.1)	22.6 (1.1)	64.8 (6.1)	-37.7 (14.1)	3.40 (1.03)
4	22.5 (1.2)	57.4 (3.6)	-27.4 (11.9)	41.1 (14.8)	23.2 (1.9)	56.6 (5.8)	-27.9 (14.8)	42.0 (18.9)	23.5 (2.2)	63.2 (3.7)	-33.1 (14.2)	3.83 (1.23)
5	23.3 (1.5)	61.3 (2.5)	-24.1 (10.5)	47.8 (14.3)	24.7 (2.3)	57.4 (4.9)	-24.0 (12.8)	49.3 (18.1)	24.6 (2.6)	66.4 (4.7)	-42.6 (10.5)	4.01 (1.15)
6												
7												
8	22.4 (1.0)	52.8 (3.1)	-27.9 (13.6)	39.6 (14.0)	22.9 (0.8)	56.6 (4.5)	-15.2 (9.1)	35.2 (13.3)	23.8 (2.2)	56.5 (5.4)	-35.5 (20.0)	2.85 (0.63)
9	23.1 (1.3)	55.3 (10.0)	-20.5 (8.0)	49.3 (10.1)	23.5 (1.3)	60.3 (11.0)	-15.1 (6.8)	47.7 (13.4)	24.1 (1.3)	63.8 (10.3)	-42.7 (12.9)	4.23 (1.12)
10	22.5 (1.0)	60.3 (7.9)	-16.8 (8.6)	41.6 (10.0)	22.3 (1.1)	65.1 (9.2)	-16.1 (10.1)	40.2 (10.7)	21.7 (2.0)	68.4 (11.5)	-32.1 (17.4)	
11	23.1 (1.1)	60.7 (2.6)	-26.3 (9.1)	40.3 (13.5)	23.1 (1.2)	65.9 (2.8)	-27.8 (13.7)	40.0 (14.3)	22.6 (1.9)	69.5 (5.5)	-32.4 (11.2)	
12	23.9 (1.1)	61.0 (3.9)	-21.9 (7.6)	49.2 (9.6)	23.6 (1.4)	67.2 (3.6)	-18.9 (7.1)	50.0 (9.6)	23.5 (1.7)	68.6 (8.0)	-37.1 (10.6)	4.40 (1.06)
13	24.0 (1.2)	64.7 (4.6)	-18.7 (10.5)	47.7 (10.8)	23.5 (1.5)	71.8 (3.8)	-19.3 (7.3)	47.6 (11.0)	23.4 (1.5)	74.0 (3.9)	-34.2 (12.6)	3.99 (1.07)
14	24.0 (1.1)	65.5 (4.9)	-24.1 (8.8)	51.3 (11.6)	23.7 (1.3)	71.8 (4.4)	-21.9 (8.5)	49.0 (12.1)	23.9 (1.9)	74.3 (7.2)	-36.8 (9.0)	3.01 (0.47)
15	24.9 (1.6)	66.4 (4.2)	-26.1 (6.2)	56.1 (6.7)	24.8 (1.7)	72.7 (3.3)	-23.7 (7.3)	55.0 (8.9)	25.4 (1.9)	74.0 (4.0)	-35.9 (5.5)	3.12 (0.64)
16	24.9 (1.5)	66.7 (2.8)	-25.9 (6.0)	54.9 (7.7)	24.6 (1.5)	72.4 (2.0)	-22.8 (6.6)	54.3 (10.6)	25.5 (2.1)	72.5 (4.0)	-32.0 (8.9)	3.50 (0.94)
17	24.5 (0.9)	57.6 (9.9)	-25.2 (4.9)	56.4 (6.5)	24.4 (1.2)	63.7 (8.9)	-24.0 (5.4)	56.5 (7.7)	25.9 (1.4)	62.2 (10.1)	-34.4 (6.5)	3.19 (0.68)
18	25.5 (1.7)	62.6 (4.3)	-27.0 (7.1)	55.1 (6.7)	25.3 (1.9)	70.1 (3.7)	-26.7 (8.1)	55.9 (9.1)	26.4 (1.7)	68.5 (3.8)	-43.5 (12.6)	4.05 (1.25)
19	24.6 (0.7)	59.0 (4.7)	-27.8 (4.2)	57.0 (3.6)	24.5 (0.8)	64.3 (4.9)	-24.5 (4.7)	56.2 (4.5)	25.5 (0.9)	63.9 (5.1)	-48.4 (3.2)	5.33 (0.12)
20	24.5 (0.7)	74.8 (2.4)	-29.1 (3.0)	57.6 (2.8)	24.2 (0.8)	80.2 (3.1)	-25.9 (6.1)	55.3 (6.2)	25.1 (1.0)	80.9 (3.4)	-48.6 (3.0)	5.31 (0.10)
21	25.1 (1.5)	67.6 (7.0)	-28.1 (2.5)	59.7 (3.3)	24.9 (1.4)	74.0 (6.3)	-24.8 (4.5)	58.4 (5.1)	26.2 (1.3)	72.4 (7.1)	-49.2 (3.3)	5.29 (0.14)
22	25.7 (1.8)	65.1 (5.1)	-27.2 (4.8)	57.6 (5.5)	25.5 (2.0)	71.9 (4.8)	-27.5 (4.9)	58.8 (5.0)	26.4 (1.8)	71.8 (5.2)	-43.8 (5.7)	5.50 (0.23)
23	25.6 (1.4)	64.6 (3.5)	-29.3 (1.5)	60.6 (1.9)	25.6 (1.8)	70.6 (3.2)	-28.8 (2.7)	61.3 (2.9)	26.1 (1.4)	72.3 (3.7)	-37.5 (2.3)	5.77 (0.13)
24	26.0 (1.7)	64.5 (3.5)	-27.5 (2.8)	60.2 (2.6)	25.9 (1.7)	70.3 (2.5)	-28.3 (2.7)	61.5 (2.6)	26.4 (1.6)	72.1 (3.3)	-37.2 (3.0)	5.78 (0.15)
25	26.3 (1.6)	61.6 (2.4)	-28.0 (2.2)	61.2 (2.3)	26.1 (1.8)	67.2 (3.0)	-28.5 (3.3)	60.5 (2.7)	26.4 (1.8)	69.7 (3.8)	-38.0 (3.5)	5.65 (0.46)
26	26.2 (1.6)	59.2 (2.6)	-27.8 (3.1)	60.8 (2.4)	26.2 (1.9)	65.7 (3.4)	-29.7 (4.1)	60.5 (3.7)	26.2 (1.7)	68.0 (3.3)	-39.9 (3.1)	5.66 (0.17)
27	25.4 (1.2)	61.7 (3.6)	-25.9 (4.0)	58.3 (4.1)	25.0 (0.9)	65.5 (4.7)	-25.6 (3.7)	59.8 (3.1)	25.1 (0.8)	70.5 (4.4)	-31.3 (5.2)	6.04 (0.18)
28	24.4 (1.4)	55.7 (7.1)	-20.7 (7.9)	52.1 (11.4)	24.1 (1.7)	60.9 (8.0)	-22.2 (7.1)	54.0 (9.4)	24.2 (1.2)	64.8 (7.9)	-36.6 (10.5)	5.35 (1.03)
29	25.1 (1.8)	59.1 (7.3)	-23.0 (7.3)	56.4 (7.3)	24.7 (1.9)	65.0 (8.7)	-24.2 (6.6)	57.1 (6.0)	25.3 (1.7)	66.3 (9.0)	-36.2 (4.2)	5.80 (0.17)
30	25.3 (1.8)	64.8 (6.5)	-24.0 (6.3)		24.8 (1.8)	71.3 (7.2)	-23.4 (6.5)	55.8 (8.3)	25.3 (1.7)	73.3 (6.2)	-34.5 (6.8)	5.59 (0.69)
Mean	24.3	61.5	-24.2	51.6	24.3	66.6	-22.7	51.6	24.7	68.7	-38.5	4.51
n	28.0	28.0	28.0	27.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	26.0
SD	1.2	4.8	4.5	7.8	1.1	5.9	5.3	7.9	1.4	5.1	5.4	1.07
Min	22.1	52.7	-29.3	36.4	22.0	56.4	-29.7	35.2	21.7	56.5	-50.2	2.85
Max	26.3	74.8	-10.4	61.2	26.2	80.2	-10.0	61.5	26.4	80.9	-31.3	6.04

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Table E3. Daily means (SD) of environmental parameters at Site OK4B for July, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$	T, °C	RH, %	ΔP, Pa	Q, $dsm^3 s^{-1}$
1	25.0 (1.6)	57.6 (3.9)	-23.5 (7.7)	55.9 (9.8)	24.7 (1.8)	63.5 (4.0)	-23.3 (8.0)	54.3 (9.5)	25.1 (1.6)	66.4 (3.8)	-32.5 (9.6)	5.38 (0.89)
2	25.2 (1.5)	56.2 (4.2)	-24.3 (5.7)	58.5 (6.3)	25.2 (1.7)	61.3 (4.3)	-25.8 (6.0)	59.4 (5.4)	25.4 (1.5)	64.6 (4.4)	-36.7 (4.2)	5.80 (0.17)
3	26.1 (1.6)	60.1 (4.7)	-24.9 (4.1)	60.7 (5.8)	26.0 (1.5)	66.4 (6.1)	-27.5 (4.3)	62.0 (4.5)	24.7 (1.7)	70.9 (6.8)	-34.4 (7.6)	5.58 (0.69)
4	26.0 (1.0)	69.9 (4.2)	-27.9 (1.1)	62.6 (1.5)	25.6 (1.0)	74.6 (4.7)	-27.2 (3.0)	61.8 (2.4)	24.7 (1.0)	82.8 (4.5)	-32.5 (5.0)	5.99 (0.19)
5	24.7 (0.9)	63.4 (3.1)	-23.1 (5.0)	57.9 (7.6)	24.4 (1.1)	68.2 (3.8)	-21.8 (3.7)	55.5 (6.2)	23.4 (0.7)	75.7 (3.9)	-28.4 (9.6)	5.29 (1.04)
6	24.6 (1.4)	64.2 (2.8)	-22.5 (6.2)	55.9 (8.7)	24.4 (1.5)	71.1 (6.1)	-20.3 (6.3)	49.0 (7.4)	23.5 (1.2)	75.9 (2.8)	-28.7 (10.4)	5.15 (1.04)
7	25.3 (2.0)	66.0 (3.6)	-21.8 (9.0)	53.9 (12.8)	25.0 (2.0)	72.4 (4.0)	-21.4 (9.2)	52.0 (12.0)	24.6 (2.0)	77.2 (3.8)	-28.7 (11.2)	5.00 (1.10)
8	26.5 (1.7)	61.9 (7.0)	-27.5 (2.2)	61.3 (2.4)	26.3 (1.7)	67.0 (6.8)	-26.2 (3.7)	57.7 (3.9)	25.6 (1.8)	73.2 (7.7)	-36.1 (3.6)	5.73 (0.13)
9	26.7 (2.0)	53.7 (6.4)	-25.2 (4.2)	59.5 (5.2)	26.4 (2.0)	58.9 (5.3)	-26.1 (4.7)	58.6 (4.6)	25.7 (1.9)	65.5 (6.3)	-36.9 (3.2)	5.75 (0.12)
10	27.1 (1.8)	55.8 (6.0)	-22.6 (6.2)	56.9 (9.5)	26.7 (2.0)	62.3 (4.9)	-24.9 (3.1)	62.1 (5.2)	26.0 (1.8)	68.7 (5.4)	-33.8 (6.1)	5.64 (0.63)
11	26.6 (1.6)	54.2 (6.7)	-20.2 (7.2)	53.0 (10.2)	26.1 (1.6)	61.5 (6.1)	-25.7 (5.3)	59.4 (6.3)	25.6 (1.8)	66.4 (6.9)	-36.6 (4.2)	5.89 (0.17)
12	26.5 (1.5)	53.2 (4.2)	-19.3 (6.2)	54.1 (10.3)	26.0 (1.6)	60.3 (4.9)	-22.9 (4.3)	57.4 (5.2)	25.6 (1.8)	65.0 (5.0)	-36.7 (3.7)	5.85 (0.19)
13	26.9 (1.6)	60.6 (6.0)	-21.0 (6.0)	53.7 (8.4)	26.4 (1.7)	67.1 (5.1)	-26.0 (5.2)	55.7 (5.4)	26.1 (1.9)	71.7 (6.2)	-36.2 (3.2)	5.81 (0.17)
14	26.7 (1.7)	57.2 (5.1)	-18.6 (6.2)	54.2 (11.4)	26.3 (1.8)	64.5 (5.4)	-27.7 (4.4)	55.1 (5.1)	25.7 (1.8)	69.5 (4.9)	-34.3 (4.3)	5.88 (0.18)
15	26.3 (1.7)	65.3 (3.2)	-19.9 (6.5)	50.6 (7.9)	25.7 (2.1)	70.6 (3.5)	-24.2 (3.4)	51.6 (3.4)	25.3 (1.8)	74.5 (3.5)	-34.3 (3.3)	5.90 (0.18)
16	25.3 (1.8)	67.7 (2.4)	-19.4 (7.3)	50.9 (11.2)	24.7 (2.0)	74.0 (2.9)	-21.4 (5.6)	53.5 (6.8)	24.1 (1.9)		-31.8 (4.6)	
17	24.2 (1.4)	67.5 (4.0)	-19.0 (6.1)	50.7 (9.5)	23.9 (1.6)	72.7 (4.0)	-20.2 (7.2)	50.9 (8.3)	23.5 (1.1)	76.3 (4.3)	-28.4 (10.4)	
18	23.8 (1.2)	65.9 (2.3)	-18.2 (8.6)	48.7 (13.2)	23.5 (1.4)	71.0 (3.1)	-19.3 (7.9)	50.0 (11.3)	23.4 (1.2)	75.1 (3.1)	-33.8 (17.5)	
19	24.8 (1.6)	65.2 (2.8)	-23.3 (8.6)	54.9 (11.3)	25.1 (1.8)	69.5 (1.8)	-24.2 (9.0)	53.8 (10.0)	24.7 (1.4)	73.1 (2.1)	-31.6 (13.0)	
20	25.6 (1.4)		-26.9 (3.1)		25.6 (1.5)		-25.1 (5.3)		25.0 (1.3)		-36.5 (2.6)	
21	24.6 (0.7)		-27.4 (2.9)	61.3 (3.4)	24.6 (0.9)		-24.5 (3.0)	58.0 (3.1)	23.9 (0.5)		-32.6 (4.1)	
22			-24.7 (5.4)				-25.3 (5.9)					
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	25.7	61.4	-22.8	55.8	25.4	67.2	-24.1	55.9	24.8	71.8	-33.4	5.64
n	21.0	19.0	22.0	20.0	21.0	19.0	22.0	20.0	21.0	18.0	21.0	15.0
SD	0.9	5.2	3.0	3.9	0.9	4.8	2.4	3.9	0.9	4.9	2.9	0.29
Min	23.8	53.2	-27.9	48.7	23.5	58.9	-27.7	49.0	23.4	64.6	-36.9	5.00
Max	27.1	69.9	-18.2	62.6	26.7	74.6	-19.3	62.1	26.1	82.8	-28.4	5.99

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Table E4. PM concentrations.

Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for August, 2007.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1									29 (13)	92 (67)	164 (88)	116 (124)
2									29 (9)	110 (35)	194 (55)	124 (51)
3									22 (21)	135 (67)	204 (76)	175 (53)
4									24 (7)	139 (53)	179 (80)	142 (37)
5									27 (11)	133 (67)	158 (76)	153 (47)
6									26 (13)	135 (54)	166 (80)	193 (76)
7									35 (19)	166 (105)	240 (129)	235 (89)
8												
9	44 (17)	160 (97)	171 (100)									
10	28 (13)	157 (68)	157 (88)									
11	29 (7)	165 (100)	139 (101)									
12												
13												
14	41 (24)	189 (113)	203 (209)									
15	39 (16)	217 (127)	169 (145)	54 (153)								
16	47 (22)	182 (132)	155 (137)									
17												
18	15 (6)	85 (54)	74 (51)									
19	16 (11)	81 (52)	76 (55)									
20	34 (8)	114 (183)	117 (240)									
21	30 (11)	86 (35)	78 (44)	31 (35)								
22	54 (72)	99 (63)	73 (87)	44 (94)								
23	32 (57)	111 (60)	101 (65)	39 (52)								
24	25 (8)	91 (42)	92 (42)	46 (26)								
25	22 (10)	74 (55)	74 (57)	52 (32)								
26	35 (64)	79 (62)	67 (68)	51 (74)								
27	16 (8)	100 (74)	109 (91)	70 (76)								
28	17 (7)	88 (54)	100 (78)	87 (70)								
29	29 (18)	89 (53)	113 (83)	114 (47)								
30	24 (9)	121 (74)	135 (91)	142 (50)								
31	29 (10)	175 (134)	155 (105)	168 (62)								
Mean	30	123	118	75					27	130	187	163
n	20	20	20	12	0	0	0	0	7	7	7	7
SD	11	43	39	42					4	22	27	39
Min	15	74	67	31					22	92	158	116
Max	54	217	203	168					35	166	240	235

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for July, 2007.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12									31 (17)	101 (47)	188 (104)	172 (83)
13									25 (15)	112 (52)	217 (95)	206 (112)
14									19 (11)	143 (116)	271 (462)	196 (130)
15									22 (8)	119 (105)	203 (119)	204 (114)
16									19 (8)	110 (53)	166 (86)	232 (126)
17									21 (8)	120 (75)	186 (115)	272 (145)
18									26 (11)	133 (58)	209 (162)	251 (123)
19									25 (9)	134 (81)	195 (65)	
20									27 (7)	94 (34)	175 (60)	325 (110)
21									17 (6)	87 (35)	165 (61)	336 (100)
22									21 (12)	83 (32)	141 (53)	337 (99)
23									32 (17)	113 (60)	176 (84)	375 (127)
24									34 (10)	102 (74)	181 (73)	401 (136)
25									24 (12)	100 (41)	227 (117)	440 (162)
26									20 (7)	117 (61)	232 (127)	
27									32 (26)	122 (78)	231 (120)	
28									26 (9)	97 (57)	198 (145)	
29									29 (26)	102 (53)	195 (100)	
30									28 (10)	104 (59)	194 (97)	
31									32 (22)	104 (64)	185 (108)	73 (87)
Mean									25	110	197	273
n	0	0	0	0	0	0	0	0	20	20	20	14
SD									5	15	28	98
Min									17	83	141	73
Max									34	143	271	440

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for September, 2007.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	35 (21)	230 (180)	186 (169)	176 (73)								
2	30 (14)	249 (185)	197 (193)									
3	38 (36)	260 (233)	234 (227)									
4	32 (9)	147 (122)	155 (141)									
5	24 (13)	118 (98)	153 (117)									
6												
7					10 (6)	18 (74)	26 (131)					
8					8 (5)	13 (65)	18 (66)					
9					7 (4)	7 (131)	9 (93)					
10					7 (5)	8 (146)	11 (85)					
11					5 (4)	18 (241)	14 (280)					
12					7 (4)	29 (145)	29 (166)					
13					7 (4)	22 (108)	24 (105)					
14					5 (4)	10 (224)	9 (123)					
15					12 (6)	45 (125)	52 (131)					
16					11 (4)	9 (93)	9 (127)					
17					9 (5)	32 (64)	37 (44)					
18					7 (5)	18 (5)	19 (5)					
19					8 (4)	17 (7)	19 (6)					
20					7 (4)	16 (3)	19 (4)					
21					7 (4)	13 (4)	18 (4)					
22					11 (5)	18 (5)	23 (5)					
23					17 (5)	23 (6)	29 (7)					
24												
25												
26					7 (5)	25 (17)	30 (14)					
27					10 (4)	27 (16)	32 (13)					
28												
29	29 (10)	90 (43)	132 (69)									
30												
Mean	31	182	176		9	19	22					
n	6	6	6	1	19	19	19	0	0	0	0	0
SD	5	67	34		3	9	11					
Min	24	90	132		5	7	9					
Max	38	260	234		17	45	52					

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for October, 2007.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1												
2	32 (25)	123 (101)	184 (118)					-12 (127)				
3	38 (16)	262 (225)	313 (232)					18 (102)				
4	19 (8)	97 (89)	161 (112)					14 (77)				
5	29 (17)	74 (53)	131 (94)					11 (43)				
6												
7	32 (13)	144 (82)	202 (80)					9 (27)				
8	29 (23)	272 (191)	330 (219)					14 (33)				
9	37 (25)	262 (228)	345 (282)					21 (104)				
10	31 (12)	260 (211)	308 (233)					26 (64)				
11	32 (13)	247 (172)	288 (169)					29 (42)				
12	25 (8)	198 (156)	233 (154)					32 (31)				
13	27 (8)	116 (51)	171 (108)					28 (34)				
14	16 (7)	226 (128)	258 (142)					32 (34)				
15	22 (16)	407 (655)	364 (257)					41 (42)				
16	38 (27)	279 (217)	336 (226)					44 (90)				
17	29 (34)	192 (155)	253 (151)					31 (94)				
18	47 (38)	288 (194)	358 (119)					47 (55)				
19	41 (27)	281 (250)	364 (201)					45 (88)				
20	48 (61)	241 (291)	261 (171)					41 (120)				
21	26 (16)	311 (248)	283 (144)					87 (59)				
22	22 (10)	282 (273)	295 (125)									
23	26 (16)	260 (255)	305 (147)	116 (71)								
24	31 (20)	240 (215)	289 (159)	133 (56)								
25	41 (23)	201 (199)	279 (170)	155 (77)								
26	36 (10)	253 (259)	318 (216)	200 (71)								
27	37 (14)	266 (268)	335 (157)	241 (73)								
28	39 (17)	243 (332)	325 (239)	191 (83)								
29	43 (39)	219 (307)	296 (208)	188 (118)								
30	52 (42)	223 (323)	296 (271)	203 (151)								
31	96 (88)	306 (307)	359 (290)	325 (140)								
Mean	35	234	284	195				29				
n	29	29	29	9	0	0	0	19	0	0	0	0
SD	14	70	62	59				20				
Min	16	74	131	116				-12				
Max	96	407	364	325				87				

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for November, 2007.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	47 (32)	269 (241)	381 (404)	385 (163)								
2	81 (61)	293 (260)	387 (299)	465 (186)								
3	52 (25)	260 (269)	344 (296)	366 (189)								
4	42 (22)	216 (382)	302 (403)	378 (277)								
5	74 (42)	315 (298)	360 (271)	514 (228)								
6												
7									50 (25)	719 (395)	786 (313)	1690 (786)
8									68 (27)	691 (445)	654 (329)	1540 (633)
9									68 (36)	709 (473)	683 (379)	1560 (811)
10									37 (8)	471 (340)	519 (350)	1280 (591)
11									41 (24)	502 (381)	552 (347)	1410 (779)
12									51 (23)	732 (332)	689 (330)	
13												
14	81 ###	440 (156)	438 (171)	155 (74)								
15	52 (39)	402 (124)	426 (168)	200 (97)								
16	55 (25)	363 (219)	388 (210)	186 (100)								
17	39 (26)	303 (204)	329 (210)	173 (101)								
18	49 (42)	300 (182)	317 (193)	265 (104)								
19	45 (35)	308 (190)	334 (187)	248 (117)								
20	54 (30)	358 (167)	390 (217)	289 (117)								
21	36 (15)	363 (160)	389 (180)	287 (112)								
22	38 (34)	336 (210)	385 (284)	344 (156)								
23	25 (17)	321 (183)	401 (288)	459 (191)								
24	20 (7)	337 (184)	322 (195)	536 (249)								
25	14 (7)	305 (231)	334 (235)	636 (295)								
26	18 (13)	305 (172)	338 (254)	642 (285)								
27												
28												
29												
30	25 (10)	349 (113)	337 (136)	781 (314)								
Mean	45	323	363	385					53	637	647	1500
n	19	19	19	19	0	0	0	0	6	6	6	5
SD	19	50	37	172					12	108	89	142
Min	14	216	302	155					37	471	519	1280
Max	81	440	438	781					68	732	786	1690

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for December, 2007.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	22 (27)	238 (144)	236 (127)	535 (256)								
2	21 (14)	290 (116)	346 (175)	645 (284)								
3	22 (17)	296 (155)	352 (223)	657 (315)								
4	25 (13)	276 (151)	271 (171)	571 (347)								
5	25 (17)	296 (177)	336 (162)	711 (383)								
6	20 (8)	286 (135)	330 (219)									
7	15 (9)	302 (145)	322 (176)									
8	9 (5)	288 (182)	272 (131)									
9	7 (4)	286 (179)	261 (113)									
10	14 (6)	325 (147)	320 (122)									
11	5 (4)	377 (106)	362 (109)	201 (58)								
12	9 (5)	355 (126)	362 (131)	252 (68)								
13	11 (8)	351 (129)	352 (131)	304 (64)								
14	8 (6)	336 (141)	372 (127)	404 (103)								
15	16 (9)	331 (182)	388 (165)	327 (98)								
16	14 (10)	301 (155)	333 (142)	316 (125)								
17	11 (8)	305 (144)	324 (157)	340 (148)								
18	11 (7)	297 (168)	334 (147)	349 (149)								
19	12 (7)	284 (144)	364 (269)	391 (155)								
20	10 (7)	235 (137)	308 (230)	398 (145)								
21												
22	37 (48)	296 (189)	397 (319)	503 (277)								
23	12 (5)	302 (171)	361 (389)	539 (276)								
24	10 (7)	297 (174)	370 (351)	523 (292)								
25	7 (5)	297 (199)	362 (471)	506 (258)								
26	10 (8)	271 (195)	293 (426)	559 (280)								
27	6 (5)	307 (166)	269 (128)									
28	10 (6)	289 (92)	290 (63)									
29	11 (7)	304 (140)	276 (88)									
30	6 (5)	277 (103)	284 (100)									
31	8 (4)	274 (106)	359 (156)									
Mean	13	299	327	452								
n	30	30	30	20	0	0	0	0	0	0	0	0
SD	7	30	41	139								
Min	5	235	236	201								
Max	37	377	397	711								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for January, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1												
2	10 (5)	239 (110)	358 (130)	261 (112)								
3												
4	18 (10)	293 (132)	408 (241)	302 (107)								
5	15 (11)	268 (156)	337 (218)	297 (131)								
6	12 (7)	276 (136)	376 (247)	288 (88)								
7	7 (7)	293 (89)	438 (172)	259 (94)								
8	5 (4)	276 (95)	440 (157)	274 (89)								
9	13 (9)	285 (122)	474 (243)	304 (128)								
10	8 (6)	290 (104)	515 (224)	373 (176)								
11	12 (6)	330 (125)	569 (351)	399 (149)								
12	8 (5)	267 (119)	439 (306)	434 (136)								
13	12 (9)	272 (152)	527 (360)	510 (195)								
14	17 (9)	286 (140)	582 (357)	502 (197)								
15												
16					6 (4)	22 (98)	64 (27)	52 (103)				
17					5 (5)	27 (92)	65 (28)	50 (146)				
18					5 (4)	27 (63)	79 (37)	55 (115)				
19					5 (4)	20 (67)	77 (38)	64 (106)				
20					5 (4)	24 (90)	65 (40)	53 (99)				
21					12 (5)	36 (82)	62 (21)	114 (156)				
22					9 (5)	36 (74)	50 (18)	104 (151)				
23					8 (6)	31 (79)	43 (25)					
24					5 (3)							
25					6 (5)	29 (13)	32 (13)	34 (23)				
26					3 (3)	26 (14)	29 (20)	24 (14)				
27					4 (5)	24 (16)	27 (15)	26 (33)				
28					13 (20)	32 (22)	39 (27)	30 (21)				
29					5 (7)	34 (18)	48 (24)	39 (17)				
30					4 (4)	29 (14)	36 (15)	29 (15)				
31												
Mean	11	281	455	350	6	28	51	52				
n	12	12	12	12	15	14	14	13	0	0	0	0
SD	4	21	77	88	3	5	17	27				
Min	5	239	337	259	3	20	27	24				
Max	18	330	582	510	13	36	79	114				

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for February, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1									20 (12)	875 (449)	820 (312)	840 (331)
2									15 (8)	911 (463)	801 (385)	827 (327)
3									18 (11)	784 (501)	675 (307)	880 (401)
4												
5									25 (23)	1010 (431)	765 (364)	1150 (621)
6									11 (6)	815 (464)	704 (380)	1330 (586)
7												
8	13 (6)	367 (127)		488 (157)								
9	13 (6)	320 (171)	286 (91)	466 (177)								
10	11 (6)	327 (135)	318 (122)	576 (223)								
11	19 (10)	312 (114)	326 (122)	615 (236)								
12	9 (6)	343 (139)		590 (248)								
13	20 (10)	324 (136)	330 (129)	625 (258)								
14	20 (6)	364 (143)	402 (216)	569 (353)								
15	20 (8)	342 (144)		685 (286)								
16	12 (6)	291 (166)		714 (290)								
17	9 (5)	291 (151)	322 (145)	707 (416)								
18	12 (6)	331 (140)										
19	19 (7)	337 (132)	410 (157)	189 (102)								
20	13 (5)	306 (111)	313 (142)	194 (91)								
21	23 (7)	325 (116)	321 (137)	194 (91)								
22	26 (11)	323 (140)	316 (120)	203 (94)								
23	21 (8)	297 (138)	291 (158)	191 (118)								
24	15 (12)	273 (165)	243 (115)	148 (74)								
25	47 (61)	381 (169)	315 (148)	232 (91)								
26	20 (12)	301 (229)	280 (196)	354 (104)								
27	27 (13)	312 (174)	263 (134)	340 (138)								
28	45 (53)	308 (175)	288 (133)	270 (144)								
29	21 (7)	314 (148)	306 (134)	285 (129)								
Mean	20	322	313	411					18	878	753	1010
n	22	22	17	21	0	0	0	0	5	5	5	5
SD	10	26	41	197					5	78	56	200
Min	9	273	243	148					11	784	675	827
Max	47	381	410	714					25	1010	820	1330

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for March, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	25 (16)	255 (132)	264 (141)	249 (144)								
2	94 ###	377 (117)	303 (97)	328 (113)								
3	14 (8)	373 (171)	295 (95)	437 (166)								
4	18 (9)	305 (119)	310 (147)	405 (176)								
5	19 (8)	301 (145)	273 (140)	450 (169)								
6	19 (11)	303 (149)	297 (126)	427 (169)								
7	21 (10)	298 (141)	299 (130)	412 (171)								
8	18 (6)	265 (177)	294 (173)	358 (124)								
9	24 (11)	257 (175)	272 (171)	357 (156)								
10	30 (11)	257 (186)	283 (178)	380 (230)								
11	29 (31)	223 (188)	283 (156)	380 (212)								
12	34 (16)	244 (183)	257 (178)	370 (305)								
13	27 (8)	256 (192)	301 (137)	482 (227)								
14	33 (18)	259 (121)	299 (131)	793 (882)								
15	23 (7)	240 (110)	271 (97)	557 (316)								
16	23 (5)	237 (97)	262 (107)	659 (311)								
17	12 (7)	215 (100)	274 (102)									
18	15 (6)	214 (82)	281 (120)	183 (119)								
19	19 (11)	193 (147)	272 (136)	142 (141)								
20	38 (22)	214 (148)	270 (174)	121 (145)								
21	30 (19)	230 (160)	275 (154)	157 (129)								
22	28 (10)	250 (153)	249 (146)	203 (119)								
23	21 (12)	224 (127)	243 (122)	256 (119)								
24	21 (7)	192 (183)	274 (191)	270 (138)								
25	36 (15)	230 (167)	254 (176)	281 (120)								
26	52 (10)	228 (150)	247 (130)	275 (120)								
27	44 (20)	254 (158)	249 (140)	287 (99)								
28	25 (9)	233 (179)	240 (146)	353 (134)								
29	31 (6)	201 (197)	225 (170)	369 (186)								
30	21 (12)	196 (145)	227 (125)	375 (134)								
31	14 (9)	189 (129)		416 (171)								
Mean	28	249	271	358								
n	31	31	30	30	0	0	0	0	0	0	0	0
SD	15	46	23	143								
Min	12	189	225	121								
Max	94	377	310	793								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for April, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	21 (11)	234 (161)		532 (216)								
2	34 (9)	213 (101)		558 (234)								
3	30 (15)	222 (69)		541 (220)								
4	24 (17)	206 (174)	243 (97)	570 (216)								
5	31 (12)	191 (130)	257 (143)	507 (236)								
6	34 (20)	227 (162)	270 (145)	600 (279)								
7												
8									38 (16)	661 (347)	676 (296)	2070 (1530)
9									13 (10)	587 (277)	562 (303)	1820 (942)
10									8 (6)	604 (326)	503 (207)	
11									10 (5)	656 (432)	568 (274)	262 (219)
12									19 (11)	611 (365)	550 (249)	246 (267)
13									16 (9)	601 (368)	569 (272)	239 (217)
14												
15	87 ###	396 (374)	397 (309)	158 (83)								
16	69 (21)	314 (152)	281 (128)	179 (55)								
17	79 ###	350 (159)	318 (131)	275 (51)								
18	24 (18)	260 (148)	255 (121)	241 (117)								
19	50 (37)	277 (210)	255 (169)	216 (139)								
20	36 (12)	251 (227)	233 (193)	196 (194)								
21	46 (18)	318 (203)	285 (125)	292 (145)								
22	41 (14)	265 (165)	255 (151)	342 (154)								
23	59 ###	206 (206)	248 (133)	333 (156)								
24	31 (11)	129 (226)	157 (208)	277 (224)								
25	26 (25)	292 (213)	349 (263)	423 (212)								
26	86 ###	351 (304)	397 (268)	510 (275)								
27	17 (10)	269 (259)	376 (269)	520 (297)								
28	27 (11)	304 (399)	349 (372)	481 (480)								
29	39 (15)	273 (208)	372 (215)	493 (264)								
30	49 (17)	253 (129)	344 (212)	415 (292)								
Mean	43	264	297	394					17	620	571	928
n	22	22	19	22	0	0	0	0	6	6	6	5
SD	20	59	64	142					10	28	52	835
Min	17	129	157	158					8	587	503	239
Max	87	396	397	600					38	661	676	2070

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for May, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	101 (110)	305 (143)	374 (189)	458 (204)								
2	123 (233)	345 (143)	507 (214)	653 (249)								
3	30 (12)	288 (138)	394 (209)	620 (356)								
4	38 (8)	246 (163)	318 (226)	560 (318)								
5	36 (12)	224 (150)	279 (194)									
6	22 (11)	147 (112)	176 (140)	60 (63)								
7	19 (14)	208 (109)	237 (128)	83 (86)								
8	42 (115)	238 (180)	300 (234)	115 (122)								
9	14 (8)	243 (185)	279 (220)	120 (166)								
10	49 (67)	258 (206)	280 (210)	151 (159)								
11	15 (7)	345 (300)	412 (327)	208 (212)								
12	42 (33)	321 (284)	373 (296)	202 (220)								
13	32 (11)	272 (214)	397 (164)	185 (131)								
14	27 (17)	303 (263)	383 (153)	302 (159)								
15	27 (34)	224 (226)	328 (153)	256 (172)								
16	22 (13)	240 (201)	361 (181)	262 (151)								
17	40 (31)	217 (160)	275 (164)	230 (94)								
18	50 (40)	230 (185)	277 (213)	239 (142)								
19	32 (13)	185 (151)	262 (233)	199 (120)								
20	67 (129)	146 (84)	252 (133)	187 (95)								
21	45 (11)	157 (115)	230 (187)	188 (169)								
22	70 (37)	108 (79)	169 (272)	157 (108)								
23	76 (47)	106 (65)	159 (149)	140 (118)								
24	32 (31)	205 (193)	259 (255)	227 (208)								
25	81 (177)	188 (439)	202 (204)	193 (177)								
26	62 (33)	104 (75)	194 (136)	196 (133)								
27	21 (11)	147 (77)	234 (140)									
28	12 (7)	177 (149)	225 (215)	84 (51)								
29	36 (21)	93 (172)	86 (85)	64 (15)								
30	29 (9)	89 (87)	151 (152)	89 (34)								
31	45 (36)	101 (96)	159 (147)	84 (38)								
Mean	43	208	275	225								
n	31	31	31	29	0	0	0	0	0	0	0	0
SD	25	75	93	155								
Min	12	89	86	60								
Max	123	345	507	653								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for June, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	32 (16)	58 (41)	97 (81)	59 (17)								
2	37 (25)											
3	56 (28)											
4	45 (32)											
5	133 (147)	185 (65)	216 (79)	171 (66)								
6	22 (16)	238 (204)	249 (210)	184 (115)								
7	81 (50)	121 (58)	130 (53)	141 (52)								
8	86 (126)	123 (72)	163 (104)	169 (89)								
9	29 (12)	185 (143)	242 (146)	234 (153)								
10	45 (55)	134 (109)	183 (128)	159 (95)								
11		136 (112)	171 (155)	185 (111)								
12		191 (164)	247 (185)	219 (195)								
13		160 (125)	238 (170)	170 (198)								
14												
15		100 (86)	164 (115)	143 (128)								
16		106 (71)	152 (115)									
17	30 (11)	97 (76)	127 (104)	53 (73)								
18	42 (81)	133 (109)	175 (186)	75 (71)								
19	23 (18)	106 (75)	114 (81)	62 (86)								
20	19 (6)	150 (135)	164 (128)	81 (96)								
21												
22	23 (12)	110 (100)	140 (117)	86 (97)								
23	27 (34)	101 (73)	132 (120)	92 (87)								
24	26 (13)	94 (66)	133 (94)	97 (89)								
25												
26									50 (29)	144 (52)	188 (89)	
27										151 (66)	166 (64)	
28									52 (34)	116 (36)	173 (208)	
29									44 (12)	200 (142)	115 (30)	
30									29 (11)	152 (80)	112 (35)	
Mean	44	133	170	132					44	153	151	
n	17	19	19	18	0	0	0	0	4	5	5	0
SD	29	42	46	56					9	27	31	
Min	19	58	97	53					29	116	112	
Max	133	238	249	234					52	200	188	

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for July, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1									31 (12)	152 (69)	107 (39)	
2									50 (81)		101 (49)	
3												
4									39 (20)	125 (95)	96 (35)	
5									23 (7)	91 (42)	82 (29)	
6									22 (7)	100 (55)	84 (40)	
7									24 (12)	85 (50)	90 (33)	
8									12 (8)	68 (35)	95 (34)	
9									12 (6)	58 (28)	94 (30)	
10									14 (5)	60 (37)	86 (28)	
11									13 (6)	67 (32)	105 (32)	
12									59 (125)	154 (85)	142 (53)	
13									22 (7)	155 (120)	108 (47)	
14									18 (6)	80 (64)	91 (30)	
15									17 (7)	71 (41)	100 (39)	
16												
17	48 (68)	101 (25)	112 (36)									
18	38 (14)	86 (23)	109 (27)									
19	26 (12)	78 (20)	108 (33)									
20	36 (32)	103 (54)	145 (74)									
21	22 (9)	141 (248)	145 (68)									
22	28 (9)	106 (51)	150 (62)									
23	39 (15)	123 (63)	173 (70)									
24												
25					10 (5)	16 (4)	23 (3)					
26					12 (5)	17 (3)	24 (3)					
27					12 (5)	17 (4)	24 (4)					
28					9 (5)	15 (5)	22 (4)					
29					9 (6)	15 (5)	22 (3)					
30					10 (6)	16 (7)	22 (5)					
31					14 (11)	20 (5)	26 (4)					
Mean	34	105	135		11	17	23		25	97	99	
n	7	7	7	0	7	7	7	0	14	13	14	0
SD	8	20	23		2	1	2		14	35	14	
Min	22	78	108		9	15	22		12	58	82	
Max	48	141	173		14	20	26		59	155	142	

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for August, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1					14 (9)	20 (6)	26 (6)					
2					12 (5)	18 (4)	25 (5)					
3					13 (4)	18 (4)	25 (4)					
4					9 (5)	16 (4)	23 (4)					
5					14 (7)	21 (7)	27 (7)					
6					12 (5)	17 (5)	23 (4)					
7												
8	22 (9)	55 (15)	96 (27)									
9	25 (11)	73 (26)	112 (36)									
10	19 (11)	62 (18)	95 (28)									
11	19 (13)	69 (20)	94 (34)									
12	19 (10)	81 (36)	102 (40)									
13	12 (5)	89 (49)	120 (65)									
14	26 (18)	129 (93)	147 (81)									
15	15 (6)	117 (81)	130 (67)									
16	22 (9)		125 (51)									
17	23 (12)		122 (49)									
18	20 (12)		119 (51)									
19	36 (7)		145 (60)									
20	30 (19)	86 (44)	144 (69)	219 (98)								
21	33 (16)	79 (52)	130 (79)	339 (493)								
22	24 (12)	58 (24)	96 (45)									
23	27 (9)	58 (30)	98 (54)	49 (24)								
24	26 (9)	58 (36)	91 (64)	47 (25)								
25	44 (40)	57 (31)	97 (47)	48 (25)								
26	31 (14)	72 (48)	121 (79)	55 (25)								
27	28 (8)	68 (37)	130 (88)	63 (21)								
28	36 (19)	69 (43)	129 (91)	82 (48)								
29	43 (14)	75 (57)	137 (118)	82 (44)								
30	19 (9)	68 (59)	116 (72)	86 (39)								
31	28 (12)	60 (28)	82 (40)	89 (43)								
Mean	26	74	116	105	12	18	25					
n	24	20	24	11	6	6	6	0	0	0	0	0
SD	8	19	19	87	2	2	2					
Min	12	55	82	47	9	16	23					
Max	44	129	147	339	14	21	27					

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for September, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	35 (8)	70 (36)	112 (58)	154 (195)								
2	43 (29)	97 (52)	161 (96)	165 (67)								
3	12 (6)	205 (92)	202 (105)	271 (115)								
4	19 (11)	185 (148)	178 (115)	265 (171)								
5	27 (11)	177 (91)	151 (60)	274 (110)								
6	16 (7)	156 (98)	134 (56)	266 (129)								
7	25 (11)	104 (79)	111 (52)	206 (110)								
8	18 (11)	157 (60)	169 (45)	325 (144)								
9	13 (10)	169 (122)	145 (84)	356 (194)								
10	18 (8)	92 (85)	100 (57)	183 (133)								
11	11 (7)	44 (29)	53 (20)	216 (176)								
12												
13									23 (18)	165 (75)	236 (110)	90 (39)
14									19 (7)	377 (220)	440 (160)	143 (52)
15									32 (13)	486 (440)	457 (301)	206 (88)
16									28 (15)	407 (395)	300 (192)	257 (123)
17									24 (12)	292 (278)	329 (256)	266 (128)
18									26 (9)	306 (301)	274 (201)	438 (161)
19									29 (11)	286 (254)	230 (170)	348 (183)
20									28 (11)	326 (337)	241 (208)	385 (241)
21									36 (10)	204 (185)	215 (138)	340 (237)
22									39 (12)	161 (136)	246 (146)	366 (241)
23									41 (59)	186 (154)	176 (158)	416 (263)
24												
25	41 (24)	171 (105)	151 (66)	214 (108)								
26	33 (16)	208 (122)	171 (79)	259 (134)								
27	47 (24)	292 (230)	217 (127)	300 (201)								
28	34 (15)	279 (202)	214 (119)	292 (166)								
29	68 (45)	363 (203)	277 (98)	382 (202)								
30	64 (26)	384 (283)	282 (214)	463 (311)								
Mean	31	185	166	270					30	291	286	296
n	17	17	17	17	0	0	0	0	11	11	11	11
SD	17	94	58	78					6	101	86	108
Min	11	44	53	154					19	161	176	90
Max	68	384	282	463					41	486	457	438

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for October, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	75 (29)	315 (264)	276 (164)	441 (288)								
2	56 (22)	269 (223)	309 (234)	416 (376)								
3	47 (25)	205 (172)	235 (167)	390 (289)								
4	56 (29)	207 (186)	218 (183)	358 (352)								
5	23 (14)	165 (106)	158 (97)	456 (251)								
6	14 (9)	178 (113)	191 (106)									
7	19 (20)	235 (252)	268 (199)	86 (34)								
8	21 (10)	223 (231)	242 (220)	104 (43)								
9	27 (18)	197 (174)	228 (204)	133 (52)								
10	27 (10)	187 (127)	186 (125)	148 (58)								
11	21 (8)	164 (75)		130 (83)								
12	14 (8)	95 (40)		86 (35)								
13	10 (6)	285 (114)		311 (144)								
14	7 (5)	307 (133)		419 (149)								
15	11 (7)	286 (132)	350 (148)	411 (151)								
16	10 (6)	242 (166)		428 (193)								
17	17 (11)	204 (161)		352 (206)								
18	14 (6)	168 (143)		334 (243)								
19	17 (11)	152 (152)		300 (300)								
20	24 (11)	232 (130)		362 (163)								
21	26 (23)	153 (158)		313 (147)								
22	15 (11)	238 (129)		543 (203)								
23	12 (6)	278 (213)		530 (255)								
24	16 (11)	260 (318)		650 (263)								
25	18 (10)	212 (277)		536 (295)								
26	20 (5)	254 (220)		660 (251)								
27	41 (41)	281 (193)										
28	29 (13)	267 (138)		129 (94)								
29	39 (18)	223 (138)		119 (91)								
30	36 (20)	202 (132)		157 (221)								
31	52 (82)	206 (140)		169 (89)								
Mean	26	222	242	327								
n	31	31	11	29	0	0	0	0	0	0	0	0
SD	16	51	54	169								
Min	7	95	158	86								
Max	75	315	350	660								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for November, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	71 (116)	199 (156)		190 (152)								
2	117 (154)	187 (145)		156 (254)								
3	92 (109)	192 (141)		157 (94)								
4	43 (41)	144 (141)		126 (92)								
5	35 (25)	188 (168)	297 (203)	239 (100)								
6	31 (23)	260 (154)	385 (207)	382 (137)								
7		244 (226)	420 (293)	438 (180)								
8	32 (22)	228 (191)	421 (386)	395 (152)								
9	23 (12)	224 (166)	323 (214)	474 (216)								
10	21 (9)	205 (173)	293 (246)	378 (183)								
11	11 (7)	203 (147)	300 (205)	505 (198)								
12	22 (15)	187 (200)	305 (245)	517 (223)								
13	24 (15)	199 (141)	291 (186)	486 (253)								
14	22 (16)	241 (75)	324 (91)	657 (261)								
15	16 (10)	229 (113)	289 (128)	591 (243)								
16	18 (9)	180 (131)	255 (141)	501 (210)								
17	20 (11)	211 (98)	310 (121)									
18	16 (7)			124 (66)								
19	26 (17)	223 (165)		116 (59)								
20	17 (8)	298 (148)		138 (50)								
21	21 (12)	273 (158)		150 (70)								
22	26 (10)	267 (172)		144 (66)								
23	25 (10)	244 (193)		182 (97)								
24	21 (13)	250 (180)		228 (71)								
25	34 (21)	243 (250)		256 (105)								
26	32 (15)	243 (231)		254 (110)								
27	24 (14)	273 (183)		279 (117)								
28	9 (7)	226 (185)		281 (128)								
29	8 (7)	215 (194)		396 (200)								
30	17 (13)	203 (216)		419 (199)								
Mean	30	223	324	316								
n	29	29	13	29	0	0	0	0	0	0	0	0
SD	24	33	50	157								
Min	8	144	255	116								
Max	117	298	421	657								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for December, 2008.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	12 (9)	204 (239)		480 (252)								
2	13 (7)	176 (261)		379 (257)								
3												
4									11 (7)	810 (331)		1540 (612)
5									20 (11)	761 (299)		1530 (636)
6									23 (12)	778 (470)		1360 (592)
7									22 (9)	660 (442)		1170 (641)
8									21 (15)	680 (476)		1150 (678)
9									74 (86)	799 (520)		1480 (992)
10									14 (8)	751 (513)		1830 (831)
11									11 (8)	683 (619)		1690 (1110)
12												
13	15 (9)	298 (155)	344 (164)									
14	21 (10)	313 (134)	424 (152)									
15	16 (5)	294 (107)	355 (121)									
16	22 (9)	300 (229)	377 (145)									
17	16 (8)	305 (149)	360 (210)	246 (65)								
18	31 (20)	267 (199)	316 (206)	215 (60)								
19	15 (11)	314 (188)	399 (273)	264 (80)								
20	14 (10)	323 (240)	396 (245)	341 (125)								
21	14 (8)	285 (200)	326 (163)	420 (128)								
22	56 (70)	281 (160)	368 (192)	643 (586)								
23	30 (19)	293 (143)	381 (157)	379 (143)								
24	15 (8)	308 (136)	360 (154)	445 (204)								
25	14 (6)	282 (133)	306 (153)	378 (162)								
26	20 (21)	267 (125)	314 (137)	389 (143)								
27	13 (11)	295 (172)	321 (152)	536 (181)								
28	9 (7)	271 (148)	281 (142)	555 (206)								
29	16 (11)	276 (171)	313 (172)	531 (223)								
30	27 (17)	277 (189)	335 (210)	520 (234)								
31	20 (10)	274 (198)	321 (215)	658 (260)								
Mean	20	281	347	434					25	740		1470
n	21	21	19	17	0	0	0	0	8	8	0	8
SD	10	34	36	126					19	54		222
Min	9	176	281	215					11	660		1150
Max	56	323	424	658					74	810		1830

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for January, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	20 (8)	254 (220)	304 (254)	535 (326)								
2	24 (10)	275 (345)	331 (216)	623 (324)								
3	31 (44)	276 (248)	338 (123)	801 (309)								
4	9 (10)	248 (182)	332 (120)	977 (373)								
5	20 (11)	283 (177)	348 (160)									
6	24 (12)	274 (104)	347 (161)	259 (95)								
7	22 (9)	248 (107)	320 (200)	270 (106)								
8	34 (22)	299 (154)	324 (205)	218 (108)								
9	94 (121)	364 (223)	370 (217)	317 (101)								
10	18 (13)	239 (129)	316 (249)	281 (98)								
11	20 (14)	255 (133)	331 (252)	292 (133)								
12	71 (137)	264 (175)	343 (232)	360 (169)								
13	27 (11)	352 (189)	292 (320)	424 (190)								
14	23 (17)	313 (247)	339 (284)	457 (177)								
15	12 (6)	249 (129)	364 (254)	693 (466)								
16	27 (13)	254 (89)	384 (148)	724 (627)								
17	20 (11)	278 (117)	408 (144)	496 (194)								
18	19 (14)	253 (143)	350 (184)	433 (206)								
19	52 (43)	277 (148)	426 (183)	682 (719)								
20	23 (19)	275 (145)	373 (207)	596 (273)								
21	24 (13)	243 (180)	317 (234)	548 (266)								
22	28 (11)	257 (174)	323 (232)	500 (306)								
23	32 (16)	319 (120)	328 (130)	489 (205)								
24	13 (5)	258 (135)	378 (184)	617 (218)								
25	18 (6)	262 (109)	355 (184)	740 (246)								
26	31 (17)	276 (120)	357 (171)									
27	16 (9)	267 (141)	348 (174)	162 (47)								
28	19 (8)	260 (157)	346 (187)	168 (61)								
29	17 (13)	240 (221)	336 (235)	196 (94)								
30	25 (17)	253 (209)	359 (269)	223 (74)								
31	33 (27)	256 (242)	344 (334)	247 (88)								
Mean	27	272	346	460								
n	31	31	31	29	0	0	0	0	0	0	0	0
SD	17	30	28	211								
Min	9	239	292	162								
Max	94	364	426	977								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for February, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	13 (6)	287 (229)	355 (275)	315 (90)								
2	23 (12)	267 (257)	341 (270)	294 (138)								
3	28 (10)	255 (278)	349 (313)	269 (118)								
4	30 (12)	210 (338)	328 (367)	288 (178)								
5												
6									57 (54)	755 (521)	788 (435)	1020 (568)
7									26 (10)	766 (521)	766 (427)	975 (504)
8									20 (8)	677 (419)	669 (379)	964 (445)
9									22 (31)	625 (370)	694 (329)	1180 (559)
10									13 (7)	669 (459)	744 (356)	1230 (632)
11									16 (12)	722 (383)	734 (405)	1400 (724)
12									12 (7)	755 (310)	723 (301)	1830 (711)
13									15 (13)	781 (336)	653 (263)	1940 (796)
14									8 (7)	679 (384)	630 (279)	2120 (823)
15									15 (7)	720 (451)	622 (354)	2210 (920)
16									28 (28)	640 (392)	636 (335)	1870 (1010)
17									86 (167)	605 (490)	703 (391)	1490 (972)
18												
19	25 (17)	355 (136)	417 (174)	286 (144)								
20	27 (18)	299 (180)	402 (181)	357 (161)								
21	20 (23)	282 (167)	493 (218)	347 (89)								
22	24 (8)	258 (154)	444 (272)	278 (126)								
23	33 (12)	369 (189)	433 (215)	361 (139)								
24	39 (21)	312 (247)	457 (292)	306 (202)								
25												
26												
27	23 (17)	331 (214)	426 (251)	530 (238)								
28	19 (10)	303 (225)	416 (263)	623 (258)								
Mean	25	294	405	354					26	699	697	1520
n	12	12	12	12	0	0	0	0	12	12	12	12
SD	7	43	49	105					22	56	53	438
Min	13	210	328	269					8	605	622	964
Max	39	369	493	623					86	781	788	2210

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for March, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	21 (12)	313 (219)	401 (252)	847 (612)								
2	27 (15)	307 (306)	368 (299)									
3	40 (18)	307 (294)	400 (292)	404 (270)								
4	80 (103)	270 (284)	432 (298)	293 (227)								
5	38 (14)	257 (167)	407 (224)	271 (182)								
6	63 (25)	277 (189)	424 (249)	341 (235)								
7	60 (79)	233 (114)	363 (206)	248 (126)								
8	17 (10)	255 (186)	390 (221)	370 (211)								
9	69 (126)	282 (192)	378 (207)	316 (197)								
10	30 (21)	287 (182)	413 (208)	558 (284)								
11	18 (12)	245 (152)	409 (199)									
12	18 (10)	260 (181)	434 (173)	261 (114)								
13	9 (6)	247 (172)	388 (167)	242 (130)								
14	14 (8)	266 (154)	385 (171)	240 (82)								
15	10 (7)	238 (179)	347 (172)	171 (83)								
16	26 (16)	263 (262)	374 (237)	195 (122)								
17	35 (21)	270 (268)	327 (223)	161 (119)								
18	49 (15)	343 (216)	408 (209)	252 (110)								
19	28 (9)	310 (141)	373 (185)	298 (125)								
20	33 (9)	255 (152)	331 (189)	272 (144)								
21	22 (9)	251 (208)	288 (167)	205 (141)								
22	29 (11)	249 (217)	270 (138)	204 (99)								
23	61 (59)	255 (184)	321 (160)	470 (619)								
24	83 (72)	421 (197)	415 (196)	482 (224)								
25	52 (23)	364 (250)	383 (241)	500 (248)								
26	29 (12)	340 (196)	355 (191)	578 (217)								
27	111 (99)	317 (226)	361 (242)	825 (313)								
28	16 (12)	288 (238)	384 (210)	903 (357)								
29	14 (6)	272 (248)	414 (242)	776 (320)								
30	20 (10)	265 (291)	376 (230)	707 (276)								
31	12 (6)	274 (410)	374 (339)	665 (348)								
Mean	37	283	377	416								
n	31	31	31	29	0	0	0	0	0	0	0	0
SD	25	41	39	221								
Min	9	233	270	161								
Max	111	421	434	903								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for April, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	17 (9)	266 (264)	370 (331)	606 (408)								
2	11 (10)	251 (223)	334 (156)									
3	19 (12)	234 (123)	328 (182)	120 (89)								
4	74 (54)	293 (137)	373 (164)	141 (55)								
5	64 (61)	253 (110)	388 (177)	167 (65)								
6	18 (9)	267 (142)	401 (175)	342 (74)								
7	22 (11)	217 (149)	315 (238)	254 (141)								
8												
9									91 (146)	893 (424)	932 (388)	830 (431)
10									19 (10)	834 (384)	794 (340)	830 (381)
11									25 (16)	853 (381)	835 (393)	943 (301)
12									11 (9)	719 (277)	657 (355)	943 (331)
13									7 (6)	683 (379)	601 (329)	857 (371)
14									11 (6)	538 (466)	522 (423)	705 (409)
15												
16	20 (10)		395 (162)	356 (141)								
17	18 (7)		364 (150)	351 (224)								
18	9 (6)	313 (137)	420 (203)	437 (145)								
19	17 (32)	284 (130)	333 (158)	351 (142)								
20	16 (10)	292 (182)	395 (197)	340 (174)								
21	16 (10)	234 (202)	297 (199)	321 (245)								
22	31 (17)	226 (203)	316 (214)	279 (197)								
23	30 (12)	185 (146)	316 (291)	305 (264)								
24	28 (8)	219 (154)	278 (162)									
25	33 (12)	294 (136)	328 (143)	146 (63)								
26	27 (14)	235 (132)	296 (164)	125 (78)								
27	25 (15)	292 (131)	328 (138)	136 (60)								
28	10 (7)	236 (99)	282 (136)	154 (90)								
29	21 (11)	122 (79)	190 (113)	102 (36)								
30	22 (14)	140 (75)	205 (89)	95 (30)								
Mean	25	243	330	256					27	753	724	851
n	22	20	22	20	0	0	0	0	6	6	6	6
SD	15	49	58	132					29	122	142	81
Min	9	122	190	95					7	538	522	705
Max	74	313	420	606					91	893	932	943

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for May, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	19 (7)	203 (73)	253 (89)	131 (52)								
2	13 (6)	234 (128)	302 (117)	232 (83)								
3	12 (8)	218 (102)	282 (156)	226 (88)								
4	10 (5)	202 (109)	275 (160)	232 (110)								
5	19 (7)	184 (115)	249 (143)	211 (99)								
6	20 (11)	146 (141)	203 (118)	162 (76)								
7	25 (9)	140 (115)	216 (136)	173 (72)								
8	28 (9)	81 (118)	234 (110)	193 (93)								
9	23 (18)	190 (117)	327 (136)	309 (140)								
10	11 (5)	211 (124)	281 (107)	433 (177)								
11	16 (8)	188 (112)	266 (89)	380 (194)								
12	19 (16)	114 (217)	164 (145)	258 (269)								
13	47 (32)	171 (103)	204 (143)	333 (180)								
14	36 (14)	216 (118)	311 (153)	395 (170)								
15	37 (16)	114 (55)	171 (138)	224 (85)								
16	29 (13)	230 (128)	308 (215)	387 (144)								
17	17 (14)	197 (144)	278 (245)	376 (191)								
18	19 (21)	184 (142)	232 (228)									
19	23 (8)	175 (137)	231 (188)	60 (39)								
20	29 (13)	188 (126)	245 (168)	89 (30)								
21	30 (12)	175 (117)	241 (158)	92 (25)								
22	37 (16)	185 (152)	229 (144)	98 (33)								
23	27 (11)	156 (115)	210 (123)	79 (32)								
24	18 (25)	155 (119)	199 (125)	89 (40)								
25	16 (9)	158 (107)	203 (131)	92 (42)								
26	8 (5)	171 (221)	226 (137)	125 (60)								
27	15 (13)	187 (146)	265 (173)	171 (89)								
28	27 (12)	174 (169)	247 (211)	273 (349)								
29	23 (11)	160 (170)	223 (208)	355 (515)								
30	20 (12)	139 (161)	174 (178)	143 (119)								
31	21 (11)	113 (122)	154 (173)	171 (167)								
Mean	22	173	239	216								
n	31	31	31	30	0	0	0	0	0	0	0	0
SD	9	35	44	109								
Min	8	81	154	60								
Max	47	234	327	433								

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for June, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	30 (16)	145 (155)	174 (156)	179 (139)								
2	14 (7)	205 (194)	161 (109)	166 (97)								
3	23 (10)	143 (140)	164 (158)	190 (115)								
4	32 (14)	170 (145)	241 (174)	222 (124)								
5	27 (15)	140 (120)	239 (121)	170 (103)								
6												
7												
8	24 (18)	199 (151)	302 (219)	276 (147)								
9	31 (15)	122 (85)	163 (127)	207 (141)								
10												
11									14 (9)	309 (291)	380 (221)	102 (72)
12									25 (9)	183 (93)	319 (109)	76 (27)
13									19 (14)	194 (142)	264 (161)	86 (40)
14									23 (16)	162 (149)	228 (166)	98 (34)
15									19 (10)	122 (65)	211 (114)	131 (41)
16									24 (12)	131 (76)	213 (116)	242 (78)
17									29 (18)	144 (71)	281 (172)	311 (122)
18												
19	32 (22)	140 (70)	177 (83)	111 (36)								
20	7 (6)	71 (27)	93 (37)	79 (29)								
21	13 (12)	89 (31)	107 (49)	117 (48)								
22	20 (11)	109 (51)	140 (65)	233 (284)								
23	27 (13)	109 (43)	151 (62)	115 (43)								
24	29 (21)	117 (76)	163 (155)	130 (61)								
25	30 (13)	114 (46)	161 (57)	147 (47)								
26	34 (16)	126 (52)	172 (83)	154 (46)								
27	40 (14)	129 (49)	175 (63)	156 (47)								
28	48 (53)	178 (118)	222 (97)	199 (78)								
29	32 (30)	142 (86)	182 (123)	175 (68)								
30	30 (16)	102 (50)	146 (76)	162 (79)								
Mean	27	134	175	168					22	178	271	149
n	19	19	19	19	0	0	0	0	7	7	7	7
SD	9	34	47	47					5	59	58	84
Min	7	71	93	79					14	122	211	76
Max	48	205	302	276					29	309	380	311

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Table E4. Daily means (SD) of particulate matter concentrations at Site OK4B for July, 2009.

Day	PM10 concentration, mg/dsm^3				PM2.5 concentration, mg/dsm^3				TSP concentration, mg/dsm^3			
	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9	Inlet	Barn 1	Barn 2	Farrowing rm 9
	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
1	35 (24)	146 (102)	211 (119)	205 (139)								
2	23 (14)	122 (74)	193 (104)	180 (96)								
3	35 (29)	135 (74)	180 (104)									
4	24 (7)	82 (43)	115 (49)	23 (28)								
5	17 (8)	106 (57)	159 (61)	25 (30)								
6	34 (24)	119 (75)	201 (110)	42 (29)								
7	20 (13)	104 (72)	174 (125)	46 (42)								
8	27 (12)	94 (59)	170 (105)	43 (42)								
9	21 (7)	139 (134)	175 (100)	57 (44)								
10	24 (13)	135 (126)	199 (162)	54 (62)								
11	19 (7)	122 (94)	134 (144)	52 (66)								
12	22 (17)	137 (111)	161 (146)	77 (58)								
13	30 (8)	111 (79)	140 (123)	77 (53)								
14	34 (12)	147 (114)	145 (144)	106 (69)								
15	36 (36)	110 (85)	141 (100)	88 (44)								
16	17 (13)	104 (56)	136 (63)	90 (42)								
17	21 (8)	102 (44)	150 (53)	108 (43)								
18	20 (8)	117 (73)	148 (72)	130 (63)								
19	13 (6)	84 (48)	135 (62)	111 (50)								
20	30 (29)											
21	29 (12)											
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	25	117	161	84								
n	21	19	19	18	0	0	0	0	0	0	0	0
SD	7	19	26	49								
Min	13	82	115	23								
Max	36	147	211	205								

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Table E5. NH_3 Concentrations

Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for August, 2007. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.9 (0.4)	0.7 (0.3)	3.9 (0.8)	2.8 (0.6)	3.8 (1.0)	2.7 (0.7)	0.9 (0.2)	0.6 (0.1)		2.0 (0.2)	
2	1.2 (0.3)	0.9 (0.3)	4.4 (1.4)	3.2 (1.0)	3.6 (1.1)	2.5 (0.8)	1.0 (0.2)	0.7 (0.1)		2.0 (0.3)	
3	0.6 (0.1)	0.4 (0.1)	3.9 (0.9)	2.8 (0.7)	3.7 (1.0)	2.7 (0.7)	0.7 (0.1)	0.5 (0.1)		1.9 (0.1)	
4	0.5 (0.0)	0.3 (0.0)	3.6 (0.6)	2.6 (0.4)	3.1 (0.7)	2.3 (0.5)	0.7 (0.1)	0.5 (0.1)		1.8 (0.1)	
5	0.5 (0.0)	0.4 (0.0)	4.0 (1.0)	2.9 (0.7)	3.3 (0.7)	2.3 (0.5)	0.7 (0.1)	0.5 (0.1)		1.8 (0.2)	
6	0.5 (0.1)	0.3 (0.1)	3.9 (1.0)	2.8 (0.7)	3.4 (0.7)	2.4 (0.5)	0.7 (0.1)	0.5 (0.1)		1.8 (0.1)	
7	0.4 (0.1)	0.3 (0.1)	3.9 (0.8)	2.8 (0.6)	3.4 (0.8)	2.4 (0.5)	0.7 (0.1)	0.5 (0.1)		1.9 (0.2)	
8	0.4 (0.1)	0.3 (0.1)	4.6 (1.3)	3.3 (1.0)	3.4 (0.8)	2.4 (0.6)	0.6 (0.1)	0.5 (0.1)		1.9 (0.1)	
9											
10											
11											
12											
13											
14											
15	0.1 (0.0)	0.1 (0.0)	2.8 (0.3)	2.0 (0.2)	2.4 (0.5)	1.7 (0.4)	0.1 (0.0)	0.1 (0.0)	3.5 (0.3)	2.2 (0.1)	
16	0.3 (0.1)	0.2 (0.1)	3.5 (0.9)	2.5 (0.7)	3.1 (0.7)	2.2 (0.5)	0.2 (0.0)	0.2 (0.0)	3.6 (0.6)	2.2 (0.3)	
17	0.2 (0.0)						0.4 (0.0)				
18	0.4 (0.3)	0.3 (0.2)	4.8 (1.7)	3.4 (1.2)	3.9 (1.0)	2.8 (0.7)	0.5 (0.1)	0.3 (0.1)	4.3 (0.5)	2.2 (0.2)	
19	0.5 (0.2)	0.3 (0.1)	5.6 (1.9)	4.1 (1.4)	4.2 (0.8)	3.0 (0.6)	0.6 (0.1)	0.4 (0.1)	5.1 (0.4)	2.4 (0.3)	
20	0.5 (0.2)	0.3 (0.1)	5.2 (0.9)	3.8 (0.7)	4.7 (0.8)	3.4 (0.6)	0.5 (0.1)	0.4 (0.1)	4.9 (1.2)	2.6 (0.5)	
21	0.5 (0.4)	0.3 (0.3)	4.8 (0.9)	3.4 (0.6)	4.3 (0.8)	3.1 (0.6)	0.4 (0.1)	0.3 (0.1)	4.1 (0.2)	2.4 (0.2)	1.7 (0.1)
22	0.2 (0.1)	0.1 (0.1)	4.6 (0.9)	3.1 (0.5)	3.6 (0.8)	2.5 (0.6)	0.3 (0.1)	0.2 (0.0)	3.8 (0.3)	1.9 (0.3)	1.4 (0.2)
23	0.2 (0.1)	0.2 (0.1)	4.1 (0.8)	3.0 (0.6)	3.3 (0.7)	2.4 (0.5)	0.3 (0.1)	0.2 (0.1)	3.6 (0.3)	1.9 (0.3)	1.4 (0.2)
24	0.7 (0.3)	0.5 (0.2)	5.1 (1.8)	3.7 (1.3)	3.9 (1.0)	2.8 (0.7)	0.4 (0.1)	0.3 (0.1)	3.6 (0.3)	2.2 (0.3)	1.6 (0.2)
25	0.7 (0.3)	0.5 (0.2)	4.6 (1.3)	3.3 (0.9)	4.3 (1.1)	3.1 (0.8)	0.5 (0.1)	0.4 (0.1)	4.4 (0.5)	2.4 (0.3)	1.8 (0.2)
26	0.2 (0.1)	0.1 (0.1)	4.3 (0.8)	3.1 (0.6)	3.5 (0.7)	2.5 (0.5)	0.3 (0.1)	0.2 (0.0)	4.2 (0.4)	2.2 (0.2)	1.6 (0.2)
27	0.2 (0.1)	0.1 (0.0)	4.3 (0.9)	3.1 (0.6)	3.7 (0.7)	2.7 (0.5)	0.2 (0.1)	0.2 (0.0)	2.3 (1.5)	2.2 (0.3)	1.6 (0.2)
28	0.2 (0.0)	0.1 (0.0)	4.4 (1.1)	3.2 (0.8)	3.3 (0.7)	2.4 (0.5)	0.3 (0.1)	0.2 (0.0)	0.8 (0.1)	2.0 (0.2)	1.4 (0.1)
29	0.3 (0.1)	0.2 (0.0)	5.5 (1.8)	4.0 (1.4)	3.7 (1.2)	2.6 (0.9)	0.4 (0.0)	0.3 (0.0)	0.9 (0.2)	1.9 (0.3)	
30	0.7 (0.2)	0.5 (0.2)	5.0 (1.4)	3.6 (1.0)	3.7 (1.0)	2.6 (0.7)	0.5 (0.2)	0.4 (0.1)	0.9 (0.2)	2.0 (0.3)	1.4 (0.2)
31	0.5 (0.2)	0.4 (0.1)	4.5 (1.4)	3.3 (1.0)	3.9 (1.0)	2.8 (0.7)	0.5 (0.2)	0.4 (0.1)	1.1 (0.3)	2.3 (0.3)	1.7 (0.2)
Mean	0.5	0.3	4.4	3.2	3.6	2.6	0.5	0.4	3.2	2.1	1.5
n	25	24	24	24	24	24	25	24	16	24	10
SD	0.3	0.2	0.6	0.5	0.5	0.3	0.2	0.2	1.4	0.2	0.1
Min	0.1	0.1	2.8	2.0	2.4	1.7	0.1	0.1	0.8	1.8	1.4
Max	1.2	0.9	5.6	4.1	4.7	3.4	1.0	0.7	5.1	2.6	1.8

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for July, 2007. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20	0.6 (0.2)	0.4 (0.1)	3.4 (1.0)	2.3 (0.7)	3.6 (0.9)	2.5 (0.6)	0.7 (0.1)	0.5 (0.1)		2.1 (0.2)	
21	0.5 (0.1)	0.4 (0.1)	3.7 (1.2)	2.6 (0.8)	4.0 (1.1)	2.9 (0.8)	0.8 (0.1)	0.5 (0.1)		2.1 (0.3)	
22	0.5 (0.1)	0.4 (0.1)	3.6 (1.1)	2.6 (0.8)	3.9 (1.0)	2.8 (0.7)	0.7 (0.1)	0.5 (0.1)		2.0 (0.2)	
23	0.8 (0.4)	0.6 (0.3)	3.5 (0.8)	2.5 (0.6)	4.1 (0.9)	3.0 (0.6)	0.8 (0.2)	0.5 (0.1)		2.4 (0.3)	
24	0.7 (0.2)	0.5 (0.1)	3.8 (1.0)	2.7 (0.7)	4.1 (0.9)	3.0 (0.6)	0.9 (0.2)	0.7 (0.1)		2.6 (0.2)	
25	0.5 (0.1)	0.3 (0.0)	3.8 (0.9)	2.7 (0.6)	4.6 (1.1)	3.3 (0.8)	0.7 (0.1)	0.5 (0.1)		2.3 (0.2)	
26	0.4 (0.0)	0.3 (0.0)	3.6 (1.0)	2.6 (0.7)	4.6 (1.0)	3.3 (0.7)	0.6 (0.1)	0.4 (0.1)		1.9 (0.4)	
27	0.8 (0.3)	0.5 (0.2)	3.9 (1.0)	2.8 (0.7)	4.6 (0.9)	3.3 (0.6)	0.7 (0.1)	0.5 (0.1)		2.1 (0.5)	
28	0.7 (0.2)	0.5 (0.1)	3.7 (0.9)	2.6 (0.7)	4.2 (1.1)	3.0 (0.8)	0.7 (0.1)	0.5 (0.1)		1.4 (0.2)	
29	0.4 (0.1)	0.3 (0.0)	3.5 (0.8)	2.5 (0.6)	3.6 (0.8)	2.6 (0.6)	0.6 (0.2)	0.4 (0.1)		1.2 (0.1)	
30	0.4 (0.1)	0.3 (0.0)	3.8 (0.7)	2.7 (0.5)	3.7 (0.8)	2.7 (0.6)	0.6 (0.1)	0.5 (0.1)		1.5 (0.3)	
31	0.7 (0.2)	0.5 (0.2)	4.0 (0.9)	2.9 (0.6)	4.0 (0.9)	2.9 (0.7)	0.9 (0.1)	0.6 (0.1)		2.1 (0.4)	
Mean	0.6	0.4	3.7	2.6	4.1	2.9	0.7	0.5		2.0	
n	12	12	12	12	12	12	12	12	0	12	0
SD	0.1	0.1	0.2	0.1	0.3	0.3	0.1	0.1		0.4	
Min	0.4	0.3	3.4	2.3	3.6	2.5	0.6	0.4		1.2	
Max	0.8	0.6	4.0	2.9	4.6	3.3	0.9	0.7		2.6	

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for September, 2007. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.2 (0.0)	0.2 (0.0)	4.0 (1.0)	2.9 (0.8)	4.2 (1.2)	3.0 (0.9)	0.3 (0.0)	0.2 (0.0)	0.8 (0.1)	2.0 (0.2)	1.5 (0.2)
2	0.2 (0.0)	0.2 (0.0)	4.5 (1.6)	3.3 (1.2)	4.3 (1.4)	3.1 (1.0)	0.2 (0.0)	0.2 (0.0)	0.8 (0.1)	2.1 (0.2)	1.5 (0.2)
3	0.1 (0.0)	0.1 (0.0)	4.7 (1.8)	3.3 (1.3)	4.7 (2.1)	3.3 (1.5)	0.2 (0.1)	0.1 (0.0)	0.7 (0.1)	2.2 (0.4)	1.6 (0.3)
4	0.2 (0.0)	0.1 (0.0)					0.3 (0.0)	0.2 (0.0)			
5	0.2 (0.0)	0.2 (0.0)					0.3 (0.1)	0.2 (0.0)			
6	0.2 (0.0)	0.1 (0.0)	4.3 (1.0)	3.1 (0.7)	3.7 (1.0)	2.7 (0.7)	0.3 (0.1)	0.2 (0.1)	0.7 (0.1)	3.4 (0.8)	
7	0.6 (0.4)	0.4 (0.3)	5.0 (0.7)	3.6 (0.5)	4.1 (0.9)	2.9 (0.7)	0.3 (0.2)	0.2 (0.1)	0.8 (0.1)	4.5 (0.6)	
8	0.8 (0.4)	0.6 (0.3)	5.4 (1.8)	3.9 (1.3)	4.4 (0.9)	3.2 (0.7)	0.4 (0.1)	0.3 (0.1)	1.0 (0.1)	5.0 (0.8)	
9	0.6 (0.3)	0.4 (0.2)	5.8 (1.3)	4.1 (0.9)	5.4 (2.0)	3.9 (1.4)	0.3 (0.2)	0.2 (0.1)	0.8 (0.2)	5.9 (0.8)	
10	0.7 (0.4)	0.5 (0.3)					0.3 (0.1)	0.2 (0.1)			
11	0.2 (0.1)	0.1 (0.1)	7.6 (3.0)	5.5 (2.1)	7.6 (4.4)	5.5 (3.1)	0.2 (0.0)	0.1 (0.0)	1.7 (1.2)		
12	0.1 (0.0)	0.1 (0.0)	6.7 (3.0)	4.9 (2.2)	6.4 (3.2)	4.6 (2.3)	0.2 (0.0)	0.2 (0.0)	1.1 (0.8)	2.7 (1.4)	1.9 (1.0)
13	0.2 (0.1)	0.2 (0.1)	5.4 (1.9)	3.9 (1.4)	5.3 (2.2)	3.8 (1.5)	0.2 (0.1)	0.2 (0.0)	0.8 (0.1)	2.4 (0.9)	1.7 (0.7)
14	0.5 (0.3)	0.3 (0.2)	6.8 (1.7)	4.9 (1.2)	6.6 (2.1)	4.7 (1.5)	0.1 (0.0)	0.1 (0.0)	0.8 (0.5)	3.1 (0.9)	2.2 (0.7)
15	0.2 (0.1)	0.1 (0.1)	5.9 (1.9)	4.2 (1.4)	6.2 (2.2)	4.5 (1.5)	0.2 (0.0)	0.2 (0.0)	0.9 (0.5)	2.5 (0.9)	1.8 (0.6)
16	0.1 (0.1)	0.1 (0.0)	4.2 (0.9)	3.0 (0.6)	3.8 (0.8)	2.7 (0.6)	0.2 (0.1)	0.1 (0.0)	0.6 (0.1)	1.7 (0.2)	1.2 (0.1)
17	0.2 (0.0)	0.1 (0.0)	4.9 (1.0)	3.5 (0.7)	4.3 (1.1)	3.1 (0.8)	0.3 (0.1)	0.2 (0.1)	0.7 (0.2)	2.3 (0.5)	1.7 (0.4)
18	0.2 (0.1)	0.1 (0.1)	5.0 (1.0)	3.6 (0.7)	4.3 (1.2)	3.1 (0.9)	0.3 (0.2)	0.2 (0.1)	0.7 (0.2)	2.9 (0.3)	2.1 (0.2)
19	0.6 (0.4)	0.4 (0.3)	4.8 (1.5)	3.5 (1.1)	4.7 (1.0)	3.4 (0.7)	0.4 (0.2)	0.3 (0.1)	0.9 (0.2)	3.2 (0.3)	2.3 (0.2)
20	0.3 (0.0)	0.2 (0.0)	4.1 (0.9)	2.9 (0.7)	4.3 (1.3)	2.8 (0.9)	0.3 (0.0)	0.2 (0.0)	0.8 (0.1)	3.2 (0.2)	2.4 (0.1)
21	0.2 (0.2)	0.2 (0.1)	4.2 (0.8)	3.1 (0.6)	3.7 (1.0)	2.7 (0.7)	0.2 (0.1)	0.1 (0.1)	0.7 (0.1)	3.0 (0.3)	2.2 (0.2)
22	0.3 (0.1)	0.2 (0.1)	4.6 (1.3)	3.3 (0.9)	4.6 (1.3)	3.3 (1.0)	0.3 (0.0)	0.2 (0.0)	0.8 (0.2)	3.4 (0.4)	2.5 (0.3)
23	0.2 (0.0)	0.1 (0.0)	4.5 (1.1)	3.2 (0.8)	4.3 (1.0)	3.1 (0.7)	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	3.5 (0.3)	2.5 (0.2)
24	0.1 (0.0)						0.3 (0.0)				
25	0.2 (0.2)						0.2 (0.2)				
26	0.1 (0.1)	0.1 (0.0)	6.4 (3.4)	4.6 (2.4)	6.6 (3.3)	4.7 (2.4)	0.2 (0.1)	0.1 (0.1)	1.1 (0.8)	5.1 (1.9)	3.7 (1.3)
27	0.5 (0.4)	0.4 (0.3)	6.0 (2.6)	4.3 (1.8)	5.9 (2.8)	4.3 (2.0)	0.2 (0.1)	0.2 (0.1)	0.8 (0.3)	5.1 (1.7)	3.6 (1.2)
28	0.2 (0.1)	0.1 (0.0)	4.2 (1.0)	3.0 (0.7)	4.4 (1.2)	3.1 (0.9)	0.2 (0.1)	0.2 (0.0)	0.7 (0.1)	3.8 (0.5)	
29	0.2 (0.0)	0.1 (0.0)	3.7 (0.6)	2.7 (0.4)	3.9 (0.8)	2.8 (0.6)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	3.8 (0.3)	
30											
Mean	0.3	0.2	5.1	3.7	4.9	3.5	0.3	0.2	0.8	3.3	2.1
n	29	27	24	24	24	24	29	27	24	23	17
SD	0.2	0.1	1.0	0.7	1.1	0.8	0.1	0.0	0.2	1.1	0.7
Min	0.1	0.1	3.7	2.7	3.7	2.7	0.1	0.1	0.6	1.7	1.2
Max	0.8	0.6	7.6	5.5	7.6	5.5	0.4	0.3	1.7	5.9	3.7

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for October, 2007. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1											
2											
3											
4											
5	0.1 (0.0)	0.1 (0.0)	3.9 (1.0)	2.8 (0.7)	3.2 (0.6)	2.3 (0.4)	0.2 (0.0)	0.1 (0.0)	0.7 (0.1)	2.1 (0.2)	1.5 (0.1)
6	0.2 (0.0)						0.2 (0.0)				
7	0.2 (0.1)	0.1 (0.1)	5.1 (1.2)	3.6 (0.8)	4.4 (1.6)	3.2 (1.2)	0.1 (0.1)	0.1 (0.0)	0.6 (0.1)	2.6 (0.5)	1.9 (0.4)
8	0.2 (0.2)	0.2 (0.2)	7.1 (2.4)	5.1 (1.7)	7.5 (3.8)	5.4 (2.7)	0.1 (0.0)	0.1 (0.0)	1.1 (0.7)	3.6 (1.2)	2.6 (0.8)
9	0.1 (0.1)	0.1 (0.0)	6.6 (2.3)	4.7 (1.7)	7.8 (4.0)	5.6 (2.9)	0.1 (0.0)	0.1 (0.0)	1.5 (1.1)	3.3 (1.0)	2.3 (0.7)
10	0.2 (0.2)	0.2 (0.1)	5.0 (2.3)	3.7 (1.6)	5.8 (4.1)	4.3 (3.0)	0.2 (0.1)	0.2 (0.1)	0.9 (0.7)	2.7 (0.7)	2.0 (0.5)
11	0.5 (0.4)	0.3 (0.3)	4.0 (1.7)	2.9 (1.2)	3.8 (1.1)	2.7 (0.8)	0.3 (0.1)	0.2 (0.1)	0.7 (0.2)	2.6 (0.3)	1.9 (0.2)
12	0.2 (0.0)	0.1 (0.0)	3.2 (1.9)	2.3 (1.4)	3.9 (2.2)	2.8 (1.6)	0.2 (0.0)	0.2 (0.0)	0.6 (0.2)	2.8 (0.8)	2.0 (0.6)
13	0.1 (0.0)	0.1 (0.0)	2.0 (0.4)	1.4 (0.3)	2.3 (0.5)	1.7 (0.4)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.5 (0.3)	1.8 (0.2)
14	0.1 (0.0)	0.1 (0.0)	4.3 (1.6)	3.1 (1.2)	4.7 (1.5)	3.4 (1.1)	0.1 (0.0)	0.1 (0.0)	0.5 (0.2)	3.7 (0.7)	2.6 (0.5)
15	0.1 (0.1)	0.1 (0.1)	6.2 (3.0)	4.4 (2.1)	7.6 (2.2)	5.5 (1.6)	0.1 (0.0)	0.1 (0.0)	1.2 (0.5)		
16	0.2 (0.2)	0.1 (0.1)	5.2 (3.6)	3.7 (2.6)	5.9 (3.5)	4.2 (2.5)	0.2 (0.1)	0.2 (0.1)	0.9 (0.6)	3.8 (1.0)	2.7 (0.7)
17	0.0 (0.1)	0.0 (0.0)	3.4 (1.4)	2.5 (1.0)	4.2 (1.5)	3.0 (1.1)	0.1 (0.1)	0.1 (0.1)	0.5 (0.2)	3.5 (0.7)	2.5 (0.5)
18	0.1 (0.1)	0.1 (0.1)	5.5 (2.0)	3.9 (1.4)	6.8 (2.7)	4.9 (1.9)	0.0 (0.0)	0.0 (0.0)	1.1 (0.7)	4.7 (1.0)	3.4 (0.7)
19	0.2 (0.2)	0.1 (0.1)	6.2 (3.8)	4.4 (2.7)	7.4 (4.8)	5.3 (3.4)	0.1 (0.0)	0.1 (0.0)	1.8 (1.7)	4.5 (1.3)	3.2 (0.9)
20	0.0 (0.0)	0.0 (0.0)	3.3 (1.9)	2.3 (1.3)	4.2 (2.6)	3.0 (1.8)	0.0 (0.0)	0.0 (0.0)	0.5 (0.4)	3.7 (0.6)	2.7 (0.4)
21	0.0 (0.0)	0.0 (0.0)	7.8 (2.2)	5.6 (1.6)	8.1 (2.0)	5.8 (1.4)	0.1 (0.0)	0.1 (0.0)	0.9 (0.4)	6.0 (1.8)	4.3 (1.3)
22	0.1 (0.1)	0.1 (0.1)	9.3 (3.1)	6.6 (2.2)	9.6 (2.5)	6.9 (1.8)	0.1 (0.0)	0.1 (0.0)	1.3 (0.5)		
23	0.2 (0.1)	0.1 (0.1)	6.8 (3.8)	4.8 (2.7)	7.9 (4.1)	5.6 (2.9)	0.1 (0.0)	0.1 (0.0)	1.0 (0.6)	3.6 (1.6)	2.5 (1.1)
24	0.2 (0.1)	0.1 (0.1)	5.4 (2.1)	3.9 (1.5)	6.3 (2.3)	4.5 (1.7)	0.1 (0.0)	0.1 (0.0)	1.2 (0.7)	3.7 (1.4)	2.7 (1.0)
25	0.3 (0.1)	0.2 (0.0)	5.5 (2.4)	3.9 (1.7)	7.4 (3.0)	5.3 (2.1)	0.2 (0.1)	0.1 (0.0)	1.7 (1.2)		
26	0.2 (0.1)	0.1 (0.1)	6.4 (3.1)	4.6 (2.2)	8.8 (3.9)	6.3 (2.8)	0.1 (0.0)	0.1 (0.0)	1.8 (1.4)	4.7 (2.1)	3.3 (1.5)
27	0.1 (0.0)	0.1 (0.0)	8.2 (1.8)	5.8 (1.3)	9.8 (3.0)	7.0 (2.1)	0.1 (0.0)	0.1 (0.0)	1.4 (0.7)	5.1 (1.1)	3.6 (0.8)
28	0.3 (0.1)	0.2 (0.1)	7.7 (3.1)	5.5 (2.2)	8.8 (3.6)	6.3 (2.5)	0.2 (0.1)	0.1 (0.0)	1.6 (1.2)	4.2 (1.6)	3.0 (1.1)
29	0.1 (0.1)	0.1 (0.1)	6.4 (3.3)	4.6 (2.4)	8.3 (3.9)	5.9 (2.8)	0.1 (0.0)	0.1 (0.0)	0.7 (0.4)	3.1 (1.1)	2.2 (0.8)
30	0.1 (0.0)	0.0 (0.0)	5.6 (2.6)	4.0 (1.9)	6.7 (2.9)	4.8 (2.0)	0.1 (0.0)	0.0 (0.0)	0.5 (0.1)	2.8 (0.9)	2.0 (0.6)
31	0.0 (0.0)	0.0 (0.0)	7.3 (1.9)	5.2 (1.4)	8.0 (1.7)	5.7 (1.2)	0.1 (0.0)	0.0 (0.0)	0.6 (0.2)	4.0 (0.7)	2.9 (0.5)
Mean	0.2	0.1	5.7	4.1	6.5	4.7	0.1	0.1	1.0	3.6	2.6
n	27	26	26	26	26	26	27	26	26	23	23
SD	0.1	0.1	1.7	1.2	2.0	1.5	0.1	0.0	0.4	0.9	0.7
Min	0.0	0.0	2.0	1.4	2.3	1.7	0.0	0.0	0.5	2.1	1.5
Max	0.5	0.3	9.3	6.6	9.8	7.0	0.3	0.2	1.8	6.0	4.3

US EPA ARCHIVE DOCUMENT

Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for November, 2007. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.2 (0.2)	0.2 (0.1)	8.5 (3.9)	6.0 (2.8)	9.1 (2.8)	6.5 (2.0)	0.1 (0.0)	0.1 (0.0)	1.2 (0.7)	3.8 (1.0)	2.7 (0.7)
2	0.1 (0.0)	0.1 (0.0)	7.9 (2.6)	5.6 (1.9)	9.6 (2.9)	6.8 (2.0)	0.1 (0.1)	0.1 (0.0)	0.9 (0.6)	3.9 (0.8)	2.8 (0.6)
3	0.2 (0.1)	0.1 (0.0)	7.7 (3.8)	5.5 (2.7)	9.3 (3.7)	6.6 (2.7)	0.1 (0.0)	0.1 (0.0)	0.8 (0.3)	3.5 (1.0)	2.5 (0.7)
4	0.2 (0.1)	0.1 (0.1)	6.5 (3.8)	4.6 (2.7)	8.9 (4.3)	6.3 (3.1)	0.1 (0.1)	0.1 (0.0)	1.0 (0.7)	3.3 (1.1)	2.4 (0.8)
5	0.1 (0.1)	0.0 (0.0)	7.4 (2.7)	5.3 (1.9)	8.8 (2.3)	6.3 (1.6)	0.1 (0.0)	0.0 (0.0)	0.9 (0.6)	4.2 (0.8)	3.0 (0.6)
6	0.1 (0.0)	0.1 (0.0)	9.3 (3.2)	6.9 (2.1)	9.8 (3.2)	7.3 (2.1)	0.1 (0.0)	0.1 (0.0)	1.3 (0.8)	4.4 (0.7)	3.2 (0.5)
7	0.1 (0.0)	0.1 (0.0)	7.5 (3.5)	5.4 (2.5)	8.5 (3.4)	6.1 (2.5)	0.1 (0.0)	0.1 (0.0)	0.7 (0.4)	3.7 (0.9)	2.6 (0.6)
8	0.2 (0.1)	0.2 (0.1)	6.1 (3.8)	4.3 (2.7)	6.8 (3.5)	4.9 (2.5)	0.1 (0.0)	0.1 (0.0)	1.0 (0.9)	3.4 (1.1)	2.4 (0.8)
9	0.2 (0.1)	0.1 (0.1)	5.6 (3.0)	4.0 (2.2)	7.4 (3.5)	5.3 (2.5)	0.2 (0.1)	0.1 (0.1)	0.8 (0.5)	3.5 (1.1)	2.5 (0.8)
10	0.1 (0.1)	0.1 (0.0)	5.2 (2.6)	3.7 (1.8)	6.0 (2.7)	4.3 (1.9)	0.2 (0.1)	0.1 (0.1)	0.6 (0.2)	3.0 (1.0)	2.2 (0.7)
11	0.1 (0.1)	0.1 (0.1)	5.0 (2.9)	3.6 (2.1)	6.6 (3.0)	4.7 (2.1)	0.1 (0.0)	0.1 (0.0)	0.5 (0.2)	3.3 (1.1)	2.3 (0.8)
12	0.2 (0.1)	0.1 (0.1)	8.1 (2.3)	5.8 (1.6)	9.2 (2.2)	6.6 (1.6)	0.1 (0.0)	0.0 (0.0)			
13	0.2 (0.1)	0.1 (0.1)					0.1 (0.0)	0.1 (0.0)			
14	0.1 (0.1)	0.1 (0.0)	8.2 (2.1)	5.9 (1.5)	8.9 (1.6)	6.3 (1.1)	0.1 (0.0)	0.0 (0.0)	1.2 (0.4)	4.3 (0.5)	3.1 (0.4)
15	0.2 (0.1)	0.1 (0.1)	8.9 (1.7)	6.4 (1.2)	9.8 (1.9)	7.0 (1.3)	0.1 (0.0)	0.1 (0.0)	2.4 (0.4)	4.6 (0.7)	3.3 (0.5)
16	0.2 (0.1)	0.1 (0.0)	7.3 (4.2)	5.2 (3.0)	8.1 (4.4)	5.8 (3.2)	0.1 (0.0)	0.1 (0.0)	1.7 (1.0)	3.9 (1.7)	2.8 (1.2)
17	0.3 (0.2)	0.2 (0.1)	6.1 (3.3)	4.4 (2.4)	5.9 (2.4)	4.2 (1.7)	0.1 (0.0)	0.1 (0.0)	1.2 (0.7)	3.7 (1.5)	2.7 (1.1)
18	0.3 (0.1)	0.2 (0.1)	6.0 (3.2)	4.3 (2.3)	6.3 (2.4)	4.5 (1.7)	0.1 (0.0)	0.0 (0.0)	1.8 (1.5)	3.9 (1.8)	2.8 (1.3)
19	0.1 (0.1)	0.1 (0.0)	5.7 (3.3)	4.1 (2.3)	6.6 (3.1)	4.7 (2.2)	0.1 (0.0)	0.1 (0.0)	1.3 (1.1)	3.7 (1.5)	2.6 (1.1)
20	0.1 (0.1)	0.1 (0.0)	7.9 (2.7)	5.6 (1.9)	9.2 (3.5)	6.6 (2.5)	0.1 (0.0)	0.0 (0.0)	1.1 (0.7)	3.9 (1.1)	2.8 (0.8)
21	0.0 (0.0)	0.0 (0.0)	10.8 (1.5)	7.7 (1.1)	12.5 (1.4)	8.9 (1.0)	0.1 (0.0)	0.1 (0.0)	1.3 (0.4)	4.5 (0.5)	3.2 (0.4)
22	0.1 (0.0)	0.1 (0.0)	10.9 (1.1)	7.7 (0.8)	11.5 (1.3)	8.2 (0.9)	0.1 (0.1)	0.1 (0.0)	1.9 (0.5)	3.8 (0.5)	2.7 (0.4)
23	0.1 (0.1)	0.1 (0.1)	11.7 (1.4)	8.4 (1.0)	11.7 (1.8)	8.3 (1.3)	0.1 (0.0)	0.1 (0.0)	1.6 (0.6)	4.1 (0.3)	2.9 (0.2)
24	0.3 (0.1)	0.2 (0.1)	13.2 (2.8)	9.5 (2.0)	11.2 (1.3)	8.0 (0.9)	0.1 (0.0)	0.1 (0.0)	1.4 (0.3)	4.2 (0.6)	3.0 (0.4)
25	0.3 (0.1)	0.2 (0.0)	13.6 (3.0)	9.7 (2.1)	11.4 (1.2)	8.1 (0.9)	0.2 (0.0)	0.1 (0.0)	1.8 (0.7)	4.2 (0.6)	3.0 (0.4)
26	0.1 (0.0)	0.1 (0.0)	10.6 (1.4)	7.6 (1.0)	10.5 (0.7)	7.5 (0.5)	0.1 (0.0)	0.1 (0.0)	1.5 (0.6)	4.9 (0.6)	3.5 (0.4)
27	0.6 (0.1)						0.3 (0.1)				
28	0.3 (0.2)						0.1 (0.1)				
29	0.5 (0.2)						0.1 (0.0)				
30	0.1 (0.0)	0.1 (0.0)	12.7 (1.2)	9.1 (0.9)	13.0 (1.2)	9.3 (0.8)	0.1 (0.0)	0.1 (0.0)	1.6 (0.5)	5.7 (0.4)	4.1 (0.3)
Mean	0.2	0.1	8.4	6.0	9.1	6.5	0.1	0.1	1.3	4.0	2.8
n	30	27	26	26	26	26	30	27	25	25	25
SD	0.1	0.1	2.5	1.8	2.0	1.4	0.1	0.0	0.4	0.6	0.4
Min	0.0	0.0	5.0	3.6	5.9	4.2	0.1	0.0	0.5	3.0	2.2
Max	0.6	0.2	13.6	9.7	13.0	9.3	0.3	0.1	2.4	5.7	4.1

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for December, 2007. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.1 (0.1)	0.1 (0.1)	7.3 (3.4)	5.2 (2.5)	8.4 (3.7)	6.0 (2.7)	0.2 (0.1)	0.1 (0.0)	0.9 (0.5)	4.2 (1.0)	3.0 (0.7)
2	0.2 (0.2)	0.1 (0.1)	10.3 (2.5)	7.4 (1.8)	11.6 (2.3)	8.3 (1.7)	0.1 (0.0)	0.1 (0.0)	1.1 (0.6)	5.3 (1.0)	3.8 (0.7)
3	0.2 (0.1)	0.2 (0.1)	10.0 (3.4)	7.1 (2.4)	11.4 (3.7)	8.1 (2.6)	0.1 (0.0)	0.1 (0.0)	0.8 (0.3)	5.5 (1.0)	4.0 (0.7)
4	0.1 (0.1)	0.1 (0.1)	7.4 (3.0)	5.3 (2.2)	6.6 (2.7)	4.7 (1.9)	0.1 (0.0)	0.1 (0.0)	0.7 (0.3)	4.9 (1.2)	3.5 (0.8)
5	0.3 (0.1)	0.2 (0.1)	9.6 (1.6)	6.8 (1.1)	10.0 (1.7)	7.2 (1.2)	0.1 (0.0)	0.1 (0.0)	0.7 (0.2)	6.6 (1.3)	4.8 (1.0)
6	0.1 (0.0)	0.1 (0.0)	10.9 (2.9)	7.8 (2.1)	11.7 (2.2)	8.3 (1.6)	0.2 (0.0)	0.1 (0.0)	1.1 (0.5)	8.4 (0.5)	
7	0.2 (0.1)	0.2 (0.1)	13.6 (1.3)	9.7 (0.9)	12.5 (2.3)	8.9 (1.7)	0.2 (0.0)	0.1 (0.0)	2.4 (1.2)	5.9 (2.5)	
8	0.1 (0.0)	0.0 (0.0)	12.9 (1.6)	9.2 (1.1)	9.6 (1.2)	6.8 (0.9)	0.2 (0.0)	0.1 (0.0)	3.8 (0.7)	5.5 (0.5)	4.0 (0.4)
9	0.0 (0.0)	0.0 (0.0)	12.3 (0.9)	8.8 (0.7)	8.8 (0.9)	6.2 (0.6)	0.1 (0.0)	0.1 (0.0)	2.9 (1.1)	6.1 (0.6)	4.4 (0.4)
10	0.1 (0.0)	0.1 (0.0)	11.9 (1.2)	8.5 (0.9)	9.2 (1.1)	6.5 (0.8)	0.2 (0.0)	0.1 (0.0)	5.3 (0.4)	7.0 (2.2)	5.0 (1.5)
11	0.1 (0.0)	0.1 (0.0)	12.0 (1.2)	8.6 (0.9)	8.5 (0.9)	6.1 (0.6)	0.2 (0.0)	0.1 (0.0)	2.9 (1.0)	7.0 (0.7)	5.0 (0.5)
12	0.2 (0.0)	0.1 (0.0)	11.9 (1.3)	8.5 (0.9)	8.4 (1.1)	6.0 (0.8)	0.2 (0.1)	0.2 (0.0)	3.7 (0.8)	7.8 (0.7)	5.6 (0.5)
13	0.2 (0.0)	0.1 (0.0)	11.4 (1.9)	8.2 (1.3)	8.7 (1.2)	6.2 (0.9)	0.1 (0.0)	0.1 (0.0)	3.7 (0.9)	8.3 (0.6)	5.9 (0.4)
14	0.2 (0.1)	0.1 (0.1)	13.7 (0.9)	9.8 (0.7)	8.8 (0.9)	6.3 (0.6)	0.2 (0.0)	0.1 (0.0)	4.2 (1.2)	8.2 (0.7)	5.9 (0.5)
15	0.3 (0.2)	0.2 (0.1)	13.1 (1.1)	9.3 (0.8)	9.2 (1.1)	6.5 (0.8)	0.1 (0.0)	0.1 (0.0)	2.0 (0.5)	7.1 (1.0)	5.1 (0.7)
16	0.4 (0.0)	0.3 (0.0)	12.2 (1.3)	8.7 (0.9)	9.3 (0.9)	6.6 (0.6)	0.2 (0.1)	0.1 (0.0)	2.5 (0.7)	6.4 (0.7)	4.6 (0.5)
17	0.3 (0.1)	0.2 (0.0)	11.6 (3.1)	8.3 (2.2)	10.1 (1.2)	7.2 (0.8)	0.1 (0.0)	0.1 (0.0)	2.5 (1.0)	7.2 (0.8)	5.1 (0.6)
18	0.3 (0.1)	0.2 (0.1)	10.2 (2.8)	7.3 (2.0)	10.1 (2.5)	7.2 (1.8)	0.2 (0.1)	0.2 (0.1)	1.8 (0.7)		
19	0.1 (0.0)	0.1 (0.0)	10.8 (2.6)	7.7 (1.8)	10.6 (3.0)	7.6 (2.2)	0.1 (0.0)	0.1 (0.0)	1.7 (0.8)	5.4 (1.2)	3.9 (0.9)
20	0.2 (0.1)	0.1 (0.1)					0.1 (0.1)	0.1 (0.0)			
21	0.5 (0.3)						0.2 (0.0)				
22	0.2 (0.1)	0.1 (0.1)	13.3 (1.4)	9.5 (1.0)	14.3 (0.8)	10.2 (0.6)	0.1 (0.0)	0.1 (0.0)	1.2 (0.3)	6.0 (0.8)	4.3 (0.6)
23	0.2 (0.1)	0.2 (0.1)	13.3 (1.3)	9.5 (0.9)	15.1 (2.2)	10.8 (1.6)	0.2 (0.0)	0.1 (0.0)	1.9 (0.5)	6.6 (0.9)	4.7 (0.7)
24	0.3 (0.2)	0.2 (0.1)	12.2 (1.5)	8.7 (1.1)	13.6 (0.9)	9.7 (0.7)	0.2 (0.0)	0.1 (0.0)	1.9 (0.8)	6.9 (1.1)	4.9 (0.8)
25	0.2 (0.1)	0.1 (0.1)	12.3 (1.2)	8.8 (0.8)	12.7 (1.6)	9.1 (1.1)	0.2 (0.0)	0.1 (0.0)	2.2 (0.9)	7.7 (0.7)	5.5 (0.5)
26	0.2 (0.0)	0.1 (0.0)	11.3 (1.2)	8.1 (0.8)	11.3 (1.7)	8.1 (1.2)	0.1 (0.0)	0.1 (0.0)	2.5 (0.7)	8.5 (1.4)	6.1 (1.0)
27	0.2 (0.1)	0.1 (0.1)	12.4 (1.8)	8.8 (1.3)	8.7 (0.7)	6.2 (0.5)	0.1 (0.0)	0.1 (0.0)			
28	0.3 (0.1)	0.2 (0.0)	11.9 (1.7)	8.5 (1.2)	8.6 (0.9)	6.2 (0.7)	0.1 (0.0)	0.1 (0.0)	3.0 (1.2)	7.9 (1.3)	
29	0.3 (0.1)	0.2 (0.0)	13.9 (2.1)	9.9 (1.5)	8.8 (1.1)	6.3 (0.8)	0.1 (0.0)	0.1 (0.0)	3.0 (1.4)	8.3 (1.2)	
30	0.2 (0.1)	0.2 (0.1)	12.7 (1.4)	9.1 (1.0)	9.5 (1.3)	6.8 (1.0)	0.1 (0.0)	0.1 (0.0)	2.2 (1.1)	8.4 (2.1)	
31	0.3 (0.2)	0.2 (0.1)	12.3 (3.4)		11.8 (2.5)		0.1 (0.0)	0.1 (0.0)		5.8 (4.5)	
Mean	0.2	0.1	11.7	8.3	10.3	7.3	0.1	0.1	2.3	6.8	4.7
n	31	30	29	28	29	28	31	30	27	27	21
SD	0.1	0.1	1.6	1.2	2.0	1.4	0.0	0.0	1.1	1.2	0.8
Min	0.0	0.0	7.3	5.2	6.6	4.7	0.1	0.1	0.7	4.2	3.0
Max	0.5	0.3	13.9	9.9	15.1	10.8	0.2	0.2	5.3	8.5	6.1

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for January, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.3 (0.2)						0.1 (0.0)				
2	0.2 (0.1)	0.1 (0.1)	12.0 (1.5)	8.6 (1.1)	12.3 (1.5)	8.8 (1.1)	0.1 (0.0)	0.1 (0.0)	3.9 (0.9)	5.1 (0.5)	3.7 (0.4)
3	0.2 (0.1)						0.1 (0.0)				
4	0.3 (0.1)	0.2 (0.1)	9.5 (2.8)	6.8 (2.0)	11.0 (3.2)	7.9 (2.3)	0.1 (0.0)	0.1 (0.0)	3.3 (1.2)	6.0 (1.1)	4.3 (0.8)
5	0.2 (0.1)	0.1 (0.1)	8.3 (3.6)	5.9 (2.5)	9.1 (4.7)	6.5 (3.4)	0.2 (0.1)	0.2 (0.1)	2.1 (1.2)	6.4 (1.7)	4.5 (1.2)
6	0.2 (0.0)	0.1 (0.0)	8.0 (2.1)	5.7 (1.5)	10.2 (3.7)	7.3 (2.7)	0.2 (0.1)	0.1 (0.0)	2.1 (1.1)	5.7 (1.1)	4.1 (0.8)
7	0.1 (0.0)	0.1 (0.0)	9.8 (1.9)	7.0 (1.3)	12.4 (3.3)	8.9 (2.3)	0.2 (0.0)	0.1 (0.0)		5.7 (0.6)	4.1 (0.4)
8	0.2 (0.1)	0.1 (0.1)	11.3 (1.5)	8.0 (1.1)	13.3 (1.9)	9.5 (1.4)	0.2 (0.0)	0.1 (0.0)	2.0 (0.5)	6.2 (1.0)	4.4 (0.7)
9	0.1 (0.1)	0.1 (0.0)	9.8 (2.9)	7.0 (2.0)	12.3 (5.6)	8.8 (4.1)	0.2 (0.0)	0.1 (0.0)	1.9 (1.0)	5.6 (0.9)	4.0 (0.6)
10	0.1 (0.0)	0.1 (0.0)	10.3 (1.9)	7.3 (1.4)	12.7 (1.6)	9.1 (1.1)	0.1 (0.1)	0.1 (0.0)	1.7 (0.4)	6.0 (0.8)	4.3 (0.6)
11	0.1 (0.0)	0.1 (0.0)					0.1 (0.0)	0.1 (0.0)			
12	0.2 (0.0)	0.1 (0.0)	11.0 (2.0)	7.8 (1.4)	12.2 (1.9)	8.8 (1.4)	0.1 (0.0)	0.1 (0.0)	1.5 (0.4)	5.9 (0.5)	4.2 (0.4)
13	0.3 (0.1)	0.2 (0.1)	10.4 (2.6)	7.4 (1.9)	12.7 (2.3)	9.1 (1.6)	0.1 (0.0)	0.1 (0.0)	1.8 (0.7)	5.6 (0.6)	4.0 (0.4)
14	0.4 (0.2)	0.3 (0.1)	10.2 (2.0)	7.3 (1.4)	12.7 (2.1)	9.1 (1.5)	0.1 (0.0)	0.1 (0.0)	1.6 (0.6)	5.9 (0.5)	4.2 (0.4)
15	0.2 (0.1)	0.1 (0.1)	10.5 (2.3)	7.5 (1.6)	13.1 (4.6)	9.4 (3.3)	0.1 (0.0)	0.1 (0.0)	1.8 (0.9)	5.9 (0.7)	4.2 (0.6)
16	0.2 (0.1)	0.1 (0.1)	11.3 (1.0)	8.1 (0.7)	14.6 (1.0)	10.4 (0.7)	0.1 (0.0)	0.1 (0.0)	1.5 (0.4)	6.7 (1.0)	4.8 (0.7)
17	0.1 (0.1)	0.1 (0.1)	12.8 (1.6)	9.1 (1.2)	16.1 (1.9)	11.5 (1.3)	0.1 (0.0)	0.1 (0.0)	1.8 (0.8)	6.2 (0.9)	4.5 (0.6)
18	0.2 (0.0)	0.1 (0.0)	11.4 (1.6)	8.2 (1.2)	15.5 (1.9)		0.1 (0.0)	0.1 (0.0)	2.4 (0.8)	7.0 (0.7)	5.0 (0.5)
19	0.3 (0.1)	0.2 (0.0)	12.5 (1.5)	8.9 (1.1)	15.4 (2.6)	11.1 (1.9)	0.1 (0.0)	0.1 (0.0)	2.2 (0.5)	6.9 (0.4)	4.9 (0.3)
20	0.2 (0.1)	0.1 (0.1)	11.7 (1.6)	8.4 (1.2)	11.5 (4.1)		0.2 (0.0)	0.1 (0.0)	2.0 (1.2)	6.8 (0.5)	4.8 (0.4)
21	0.1 (0.0)	0.1 (0.0)	12.0 (1.3)	8.5 (0.9)	9.1 (1.3)		0.1 (0.0)	0.1 (0.0)	1.7 (0.4)	7.5 (0.6)	5.4 (0.5)
22	0.2 (0.0)	0.1 (0.0)	12.0 (1.8)	8.5 (1.3)	8.5 (1.1)		0.1 (0.0)	0.1 (0.0)	1.7 (0.8)	7.0 (0.6)	5.0 (0.5)
23	0.1 (0.0)	0.1 (0.0)	11.1 (1.2)	7.9 (0.8)	7.7 (1.3)		0.1 (0.0)	0.1 (0.0)		7.0 (0.4)	
24	0.2 (0.1)	0.1 (0.1)					0.1 (0.0)	0.1 (0.0)			
25	0.1 (0.0)	0.1 (0.0)	10.8 (3.0)	7.7 (2.1)	9.2 (1.8)	6.5 (1.3)	0.1 (0.0)	0.1 (0.0)	2.6 (0.9)	4.7 (0.7)	3.3 (0.5)
26	0.2 (0.1)	0.1 (0.0)	9.9 (3.3)	7.0 (2.3)	8.4 (2.4)	6.0 (1.7)	0.1 (0.0)	0.1 (0.0)	1.9 (0.6)	5.3 (0.8)	3.8 (0.6)
27											
28											
29											
30											
31											
Mean	0.2	0.1	10.7	7.7	11.8	8.8	0.1	0.1	2.1	6.1	4.4
n	26	24	22	22	22	17	26	24	20	22	21
SD	0.1	0.0	1.2	0.9	2.4	1.5	0.0	0.0	0.6	0.7	0.5
Min	0.1	0.1	8.0	5.7	7.7	6.0	0.1	0.1	1.5	4.7	3.3
Max	0.4	0.3	12.8	9.1	16.1	11.5	0.2	0.2	3.9	7.5	5.4

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for February, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.2 (0.1)	0.2 (0.1)	10.4 (3.8)	7.4 (2.7)	8.4 (2.7)	6.0 (1.9)	0.1 (0.1)	0.1 (0.0)	2.7 (1.7)	6.5 (1.5)	4.7 (1.1)
2	0.1 (0.1)	0.1 (0.0)	10.8 (1.9)	7.7 (1.4)	9.1 (1.5)	6.5 (1.1)	0.1 (0.0)	0.1 (0.0)	2.3 (0.8)	6.4 (1.1)	4.6 (0.8)
3	0.3 (0.2)	0.2 (0.1)	9.2 (2.7)	6.6 (1.9)	7.8 (2.0)	5.6 (1.5)	0.2 (0.1)	0.1 (0.0)	1.5 (1.0)	5.4 (1.0)	3.9 (0.7)
4	0.2 (0.2)						0.1 (0.0)				
5	0.1 (0.1)	0.1 (0.1)	12.1 (1.4)	8.6 (1.0)	11.0 (1.4)	7.9 (1.0)	0.1 (0.0)	0.1 (0.0)	1.6 (0.5)	7.0 (0.9)	5.0 (0.6)
6	0.3 (0.1)	0.2 (0.1)	14.0 (3.4)	10.0 (2.5)			0.2 (0.1)	0.1 (0.0)	1.7 (0.5)	5.7 (0.8)	4.1 (0.5)
7	0.2 (0.1)	0.1 (0.0)					0.0 (0.0)	0.0 (0.0)			
8	0.2 (0.1)	0.1 (0.1)	12.6 (1.9)	9.0 (1.4)	9.9 (1.6)	7.0 (1.2)	0.1 (0.0)	0.1 (0.0)	1.3 (0.8)	5.5 (0.4)	3.9 (0.3)
9	0.2 (0.1)	0.1 (0.1)	9.7 (3.1)	7.0 (2.2)	7.6 (1.8)	5.4 (1.3)	0.1 (0.0)	0.0 (0.0)	1.3 (0.9)	5.3 (0.7)	3.8 (0.5)
10	0.1 (0.0)	0.1 (0.0)	12.6 (1.2)	9.0 (0.8)	9.5 (1.5)	6.8 (1.1)	0.0 (0.0)	0.0 (0.0)	2.2 (0.8)	6.5 (0.9)	4.6 (0.7)
11	0.1 (0.0)	0.1 (0.0)	10.5 (2.6)	7.5 (1.8)	9.3 (1.7)	6.7 (1.2)	0.1 (0.0)	0.1 (0.0)	1.8 (1.0)	6.3 (0.9)	4.5 (0.7)
12	0.4 (0.1)	0.3 (0.1)	11.8 (2.0)	8.5 (1.4)	9.4 (1.3)	6.7 (0.9)	0.1 (0.0)	0.1 (0.0)	1.5 (0.5)	7.0 (0.7)	5.0 (0.5)
13	0.2 (0.2)	0.2 (0.2)	9.5 (3.9)	6.7 (2.8)	8.0 (2.7)	5.7 (1.9)	0.1 (0.0)	0.0 (0.0)	1.1 (0.7)	5.8 (1.1)	4.1 (0.8)
14	0.0 (0.0)	0.0 (0.0)	10.6 (1.4)	7.6 (1.0)	10.5 (1.8)	7.5 (1.3)	0.1 (0.0)	0.0 (0.0)	1.6 (0.5)	6.7 (0.8)	4.8 (0.6)
15	0.1 (0.0)	0.0 (0.0)	12.4 (1.8)	8.8 (1.3)	11.4 (1.4)	8.1 (1.0)	0.1 (0.0)	0.0 (0.0)	2.3 (0.7)	7.8 (1.3)	5.6 (0.9)
16	0.2 (0.1)	0.1 (0.1)	11.7 (1.4)	8.4 (1.0)	10.9 (1.2)	7.8 (0.8)	0.1 (0.0)	0.1 (0.0)	1.5 (0.5)	7.0 (0.6)	5.0 (0.4)
17	0.2 (0.1)	0.1 (0.1)	12.0 (0.9)	8.6 (0.7)	10.5 (0.8)	7.5 (0.6)	0.1 (0.0)	0.1 (0.0)	1.3 (0.3)	7.7 (0.7)	5.5 (0.5)
18	0.4 (0.1)	0.3 (0.1)	11.2 (1.9)	8.0 (1.3)	8.9 (1.6)	6.3 (1.2)	0.0 (0.0)	0.0 (0.0)	2.0 (0.5)	4.8 (2.6)	3.8 (1.9)
19	0.1 (0.1)	0.1 (0.1)	10.2 (2.7)	7.3 (2.0)	8.7 (0.9)	6.2 (0.6)	0.1 (0.0)	0.0 (0.0)	2.7 (0.7)	4.7 (0.8)	3.4 (0.6)
20	0.1 (0.0)	0.1 (0.0)	13.3 (2.1)	9.5 (1.5)	12.1 (1.6)	8.6 (1.2)	0.1 (0.0)	0.1 (0.0)	4.7 (1.2)	6.3 (0.6)	4.5 (0.4)
21	0.1 (0.1)	0.1 (0.0)	13.4 (2.0)	9.6 (1.4)	12.4 (1.7)	8.8 (1.2)	0.1 (0.0)	0.0 (0.0)	5.1 (0.5)	7.9 (0.5)	5.6 (0.3)
22	0.4 (0.3)	0.3 (0.2)	12.6 (2.8)	9.0 (2.0)	10.8 (1.9)	7.7 (1.4)	0.1 (0.0)	0.1 (0.0)	4.4 (1.0)	8.4 (0.6)	6.0 (0.4)
23	0.2 (0.1)	0.1 (0.1)	11.6 (2.2)	8.3 (1.6)	10.6 (2.7)	7.6 (1.9)	0.2 (0.0)	0.1 (0.0)	4.9 (1.5)	8.4 (1.1)	6.0 (0.8)
24	0.2 (0.1)	0.2 (0.1)	10.6 (4.9)	7.6 (3.5)	8.7 (3.2)	6.2 (2.3)	0.2 (0.0)	0.1 (0.0)	3.1 (1.8)	7.5 (1.6)	5.4 (1.2)
25	0.2 (0.1)	0.1 (0.1)	10.7 (2.0)	7.7 (1.4)	10.5 (1.4)	7.5 (1.0)	0.1 (0.0)	0.1 (0.0)	2.9 (1.5)	8.5 (1.4)	6.1 (1.0)
26	0.3 (0.2)	0.2 (0.1)	14.0 (2.7)	10.0 (1.9)	12.8 (1.5)	9.1 (1.1)	0.1 (0.0)	0.1 (0.0)	2.6 (0.6)	9.1 (0.7)	6.5 (0.5)
27	0.5 (0.2)	0.3 (0.1)	11.5 (3.6)	8.2 (2.6)	10.4 (2.8)	7.4 (2.0)	0.1 (0.1)	0.1 (0.0)	2.1 (1.4)	8.0 (1.8)	5.8 (1.3)
28	0.3 (0.1)	0.2 (0.1)	9.9 (3.8)	7.1 (2.7)	9.1 (3.0)	6.5 (2.1)	0.1 (0.1)	0.1 (0.0)	2.5 (1.8)	6.9 (2.2)	4.9 (1.6)
29	0.5 (0.3)	0.4 (0.2)	10.4 (3.8)	7.6 (2.7)	9.6 (3.2)	7.0 (2.2)	0.1 (0.0)	0.1 (0.0)	1.8 (1.1)	6.1 (1.8)	4.4 (1.3)
Mean	0.2	0.2	11.5	8.2	9.9	7.1	0.1	0.1	2.4	6.8	4.9
n	29	28	27	27	26	26	29	28	27	27	27
SD	0.1	0.1	1.3	0.9	1.4	1.0	0.0	0.0	1.1	1.2	0.8
Min	0.0	0.0	9.2	6.6	7.6	5.4	0.0	0.0	1.1	4.7	3.4
Max	0.5	0.4	14.0	10.0	12.8	9.1	0.2	0.1	5.1	9.1	6.5

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for March, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.0 (0.0)	0.0 (0.0)	6.9 (3.7)	4.9 (2.7)	7.0 (4.2)	5.0 (3.0)	0.1 (0.0)	0.1 (0.0)	1.0 (0.9)	4.4 (2.0)	3.1 (1.4)
2	0.1 (0.0)	0.0 (0.0)	9.0 (1.4)	6.4 (1.0)	10.4 (2.5)	7.4 (1.7)	0.1 (0.0)	0.1 (0.0)	0.8 (0.2)	4.8 (0.9)	3.5 (0.7)
3	0.1 (0.1)	0.1 (0.1)	13.3 (1.2)	9.5 (0.8)	11.8 (2.8)	8.4 (2.0)	0.1 (0.0)	0.1 (0.0)	1.9 (0.9)	6.8 (0.6)	4.8 (0.4)
4	0.2 (0.1)	0.1 (0.1)	12.1 (4.1)	8.6 (2.9)	9.2 (2.1)	6.6 (1.5)	0.1 (0.0)	0.1 (0.0)	2.1 (1.4)	5.8 (1.7)	4.1 (1.2)
5	0.1 (0.1)	0.1 (0.0)	13.6 (1.5)	9.7 (1.0)	12.8 (1.1)	9.1 (0.8)	0.1 (0.0)	0.1 (0.0)	2.2 (0.6)	6.7 (0.5)	4.8 (0.4)
6	0.2 (0.2)	0.1 (0.2)	13.5 (2.7)	9.6 (1.9)	12.9 (1.4)	9.2 (1.0)	0.1 (0.0)	0.1 (0.0)	2.5 (1.0)	6.9 (0.8)	4.9 (0.6)
7	0.6 (0.2)	0.4 (0.2)	15.0 (2.0)	10.7 (1.4)	12.7 (1.7)	9.1 (1.2)	0.1 (0.0)	0.1 (0.0)	1.8 (0.3)		
8	0.3 (0.1)	0.2 (0.1)	12.4 (4.0)	8.8 (2.8)	9.9 (2.0)	7.1 (1.4)	0.1 (0.0)	0.1 (0.0)	2.1 (1.4)	5.9 (1.4)	4.2 (1.0)
9	0.2 (0.1)	0.2 (0.1)	10.1 (3.7)	7.2 (2.6)	8.8 (2.2)	6.3 (1.5)	0.1 (0.0)	0.1 (0.0)	1.1 (0.7)	5.0 (1.0)	3.6 (0.7)
10	0.1 (0.0)	0.1 (0.0)	9.9 (4.5)	7.0 (3.2)	8.4 (1.7)	6.0 (1.2)	0.1 (0.0)	0.1 (0.0)	1.3 (0.8)	5.3 (1.1)	3.8 (0.8)
11	0.1 (0.1)	0.1 (0.1)	8.6 (4.3)	6.1 (3.1)	7.7 (2.7)	5.5 (1.9)	0.1 (0.1)	0.1 (0.0)	0.9 (0.5)	4.8 (1.1)	3.5 (0.8)
12	0.2 (0.1)	0.1 (0.1)	9.2 (4.5)	6.5 (3.2)	8.0 (2.6)	5.7 (1.9)	0.1 (0.0)	0.1 (0.0)	0.8 (0.4)	4.9 (1.0)	3.5 (0.7)
13	0.4 (0.1)	0.3 (0.0)	9.8 (3.8)	7.0 (2.7)	10.7 (3.9)	7.6 (2.8)	0.3 (0.1)	0.2 (0.1)		5.3 (0.9)	3.8 (0.7)
14	0.2 (0.1)	0.1 (0.0)	9.4 (3.4)	6.7 (2.5)	9.0 (2.8)	6.4 (2.0)	0.1 (0.0)	0.1 (0.0)	1.2 (0.6)	5.6 (1.0)	4.0 (0.7)
15	0.3 (0.1)	0.2 (0.1)	11.5 (3.2)	8.2 (2.3)	11.1 (2.1)	7.9 (1.5)	0.2 (0.0)	0.1 (0.0)	1.5 (0.6)	6.8 (0.9)	4.9 (0.6)
16	0.4 (0.1)	0.3 (0.0)	15.7 (1.2)	11.2 (0.8)	13.9 (1.0)	9.9 (0.7)	0.2 (0.0)	0.2 (0.0)	1.8 (0.6)	8.0 (0.4)	5.7 (0.3)
17	0.3 (0.1)	0.2 (0.1)	15.1 (1.0)	10.8 (0.7)	13.2 (1.6)	9.4 (1.2)	0.2 (0.0)	0.1 (0.0)	2.1 (0.4)	5.5 (1.6)	4.3 (0.9)
18	0.4 (0.2)	0.3 (0.1)	12.1 (3.7)	8.6 (2.7)	12.1 (2.0)	8.6 (1.4)	0.2 (0.1)	0.1 (0.0)	2.2 (0.7)	5.8 (0.7)	4.1 (0.5)
19	0.4 (0.3)	0.3 (0.2)	9.7 (5.2)	6.9 (3.7)	9.5 (4.1)	6.7 (2.9)	0.2 (0.0)	0.1 (0.0)	1.8 (1.0)	4.8 (1.9)	3.5 (1.4)
20	0.1 (0.1)	0.1 (0.0)	7.4 (5.1)	5.2 (3.6)	7.3 (4.9)	5.2 (3.5)	0.1 (0.1)	0.1 (0.1)	1.8 (1.8)	4.3 (2.3)	3.0 (1.7)
21	0.2 (0.1)	0.1 (0.1)	7.7 (3.6)	5.5 (2.6)	7.3 (3.1)	5.2 (2.2)	0.1 (0.0)	0.0 (0.0)	1.9 (1.2)	5.1 (1.9)	3.6 (1.4)
22	0.1 (0.0)	0.1 (0.0)	10.1 (2.2)	7.2 (1.6)	10.2 (2.1)	7.3 (1.5)	0.1 (0.0)	0.1 (0.0)	3.6 (1.4)	6.4 (0.9)	4.6 (0.6)
23	0.2 (0.0)	0.1 (0.0)	10.9 (3.3)	7.8 (2.4)	10.9 (1.8)	7.8 (1.3)	0.2 (0.0)	0.1 (0.0)	3.6 (1.5)	6.8 (0.9)	4.9 (0.6)
24	0.1 (0.1)	0.1 (0.0)					0.1 (0.0)	0.1 (0.0)			
25	0.2 (0.0)	0.1 (0.0)	6.2 (3.7)	4.4 (2.6)	7.3 (3.7)	5.2 (2.6)	0.1 (0.1)	0.1 (0.0)	1.3 (0.9)	4.7 (1.7)	3.3 (1.3)
26	0.4 (0.3)	0.3 (0.2)	7.8 (4.4)	5.6 (3.1)	7.5 (3.5)	5.4 (2.5)	0.2 (0.1)	0.2 (0.1)	1.2 (0.8)	5.5 (1.9)	3.9 (1.4)
27	0.4 (0.2)	0.3 (0.1)	9.0 (2.4)	6.5 (1.7)	9.4 (2.0)	6.7 (1.4)	0.2 (0.0)	0.1 (0.0)	1.4 (0.5)	5.5 (1.1)	4.0 (0.8)
28	0.3 (0.1)	0.2 (0.1)	11.2 (3.2)	8.0 (2.3)	10.5 (2.0)	7.5 (1.5)	0.2 (0.1)	0.1 (0.1)	1.7 (0.7)	5.8 (0.8)	4.2 (0.6)
29	0.2 (0.1)	0.2 (0.1)	8.8 (5.9)	6.3 (4.2)	6.8 (3.5)	4.9 (2.5)	0.2 (0.1)	0.2 (0.1)	1.5 (1.0)	4.9 (1.7)	3.5 (1.2)
30	0.2 (0.0)	0.1 (0.0)	9.4 (1.9)	6.7 (1.4)	8.2 (1.7)	5.8 (1.2)	0.2 (0.0)	0.1 (0.0)	1.2 (0.5)	5.4 (0.7)	3.9 (0.5)
31	0.2 (0.1)		10.5 (2.9)	7.5 (2.1)	9.0 (2.2)	6.4 (1.6)	0.2 (0.0)		1.5 (0.6)	5.4 (0.8)	3.9 (0.6)
Mean	0.2	0.2	10.5	7.5	9.8	7.0	0.1	0.1	1.7	5.6	4.0
n	31	30	30	30	30	30	31	30	29	29	29
SD	0.1	0.1	2.4	1.7	2.0	1.5	0.1	0.0	0.7	0.9	0.6
Min	0.0	0.0	6.2	4.4	6.8	4.9	0.1	0.0	0.8	4.3	3.0
Max	0.6	0.4	15.7	11.2	13.9	9.9	0.3	0.2	3.6	8.0	5.7

US EPA ARCHIVE DOCUMENT

Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for April, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.5 (0.2)		11.4 (4.1)	8.3 (2.9)	10.1 (2.8)	7.2 (2.0)	0.2 (0.1)		1.7 (0.9)	5.7 (0.8)	4.1 (0.6)
2	0.3 (0.1)		9.2 (3.9)	6.6 (2.8)	8.4 (2.7)	6.0 (2.0)	0.2 (0.0)		1.6 (0.9)	5.1 (0.9)	3.7 (0.7)
3	0.3 (0.1)		8.8 (2.7)	6.4 (1.9)	8.7 (2.5)	6.3 (1.8)	0.2 (0.1)		1.3 (0.3)	5.2 (0.9)	3.8 (0.6)
4	0.2 (0.1)		8.8 (3.9)	6.3 (2.8)	7.9 (3.2)	5.6 (2.3)	0.2 (0.0)		1.3 (0.7)	5.5 (1.1)	4.0 (0.8)
5	0.0 (0.1)		6.0 (3.3)	4.3 (2.4)	6.1 (3.6)	4.4 (2.6)	0.1 (0.1)		0.7 (0.5)	4.6 (1.5)	3.3 (1.1)
6	0.1 (0.0)		7.1 (2.6)	5.1 (1.9)	7.3 (2.5)	5.2 (1.8)	0.1 (0.0)		0.9 (0.5)	5.6 (1.0)	4.0 (0.7)
7	0.2 (0.0)		9.4 (3.4)	6.7 (2.4)	9.0 (2.9)	6.4 (2.0)	0.1 (0.0)		1.2 (0.5)	6.4 (1.3)	4.6 (0.9)
8	0.4 (0.2)		10.7 (3.3)	7.6 (2.3)	9.9 (2.9)	7.1 (2.1)	0.2 (0.0)		1.4 (0.6)	6.6 (1.8)	4.7 (1.3)
9	0.7 (0.2)		12.3 (0.8)	8.8 (0.6)	12.3 (0.6)	8.8 (0.5)	0.3 (0.0)		1.8 (0.3)	6.1 (0.3)	
10	0.6 (0.2)		10.3 (2.1)	7.4 (1.6)	11.7 (0.8)	8.4 (0.6)	0.2 (0.1)		1.8 (0.4)	5.4 (1.0)	
11	0.3 (0.2)		9.7 (2.0)	6.9 (1.5)	10.4 (1.6)	7.4 (1.2)	0.2 (0.0)		1.8 (0.3)	6.2 (0.6)	
12	0.1 (0.0)		10.1 (3.1)	7.2 (2.2)	10.5 (1.9)	7.5 (1.4)	0.2 (0.0)		1.6 (0.7)	6.0 (1.0)	
13	0.1 (0.0)		9.9 (3.8)	7.1 (2.7)	9.8 (3.0)	7.0 (2.1)	0.2 (0.0)		2.0 (0.9)	5.8 (1.4)	
14	0.0 (0.0)						0.2 (0.0)				
15	0.0 (0.0)	0.0 (0.0)	4.7 (2.7)	3.3 (1.9)	4.3 (2.5)	3.1 (1.8)	0.1 (0.0)	0.1 (0.0)	0.8 (0.7)	3.2 (1.3)	2.3 (0.9)
16	0.1 (0.0)	0.1 (0.0)	4.5 (1.6)	3.2 (1.1)	5.1 (2.0)	3.6 (1.4)	0.1 (0.0)	0.1 (0.0)	0.6 (0.1)	3.1 (0.5)	2.2 (0.4)
17	0.2 (0.1)	0.1 (0.1)	11.0 (2.6)	7.9 (1.9)	11.5 (2.3)	8.2 (1.7)	0.2 (0.0)	0.1 (0.0)	1.7 (0.6)	6.7 (1.1)	4.8 (0.8)
18	0.3 (0.2)	0.2 (0.1)	7.9 (4.6)	5.6 (3.3)	7.9 (3.9)	5.7 (2.8)	0.1 (0.0)	0.1 (0.0)	1.3 (1.0)	5.4 (2.3)	3.9 (1.7)
19	0.6 (0.2)	0.4 (0.1)	6.1 (3.3)	4.4 (2.3)	5.9 (3.4)	4.2 (2.4)	0.2 (0.1)	0.2 (0.0)	0.9 (0.7)	4.3 (1.7)	3.1 (1.2)
20	0.1 (0.2)	0.1 (0.1)	4.3 (1.7)	3.1 (1.2)	4.1 (1.9)	2.9 (1.4)	0.1 (0.1)	0.1 (0.1)	0.5 (0.2)	3.5 (0.9)	2.5 (0.7)
21	0.2 (0.0)	0.1 (0.0)	6.2 (3.0)	4.4 (2.1)	5.5 (2.8)	3.9 (2.0)	0.1 (0.0)	0.1 (0.0)			
22	0.3 (0.1)	0.2 (0.1)	6.4 (2.9)	4.6 (2.1)	6.3 (3.0)	4.5 (2.2)	0.2 (0.1)	0.2 (0.1)	0.8 (0.3)	4.7 (1.2)	3.4 (0.9)
23	0.6 (0.1)	0.4 (0.1)	5.6 (2.5)	4.0 (1.8)	6.1 (1.8)	4.4 (1.3)	0.4 (0.1)	0.3 (0.0)	0.8 (0.1)	4.6 (0.5)	3.3 (0.4)
24	0.2 (0.2)	0.1 (0.1)	4.3 (1.7)	3.1 (1.3)	4.3 (1.8)	3.1 (1.3)	0.1 (0.1)	0.1 (0.1)	0.7 (0.2)	4.0 (0.6)	2.9 (0.4)
25	0.2 (0.1)	0.1 (0.1)	7.7 (3.0)	5.5 (2.2)	7.9 (3.0)	5.6 (2.2)	0.2 (0.1)	0.1 (0.1)	0.7 (0.2)	5.0 (1.4)	3.6 (1.0)
26	0.2 (0.1)	0.1 (0.1)	9.2 (3.6)	6.6 (2.6)	9.4 (3.6)	6.7 (2.6)	0.2 (0.1)	0.2 (0.1)	0.8 (0.4)	5.3 (1.7)	3.8 (1.2)
27	0.2 (0.1)	0.2 (0.1)	10.2 (4.3)	7.3 (3.1)	10.2 (4.1)	7.3 (2.9)	0.1 (0.0)	0.1 (0.0)	1.0 (0.6)	6.1 (1.7)	4.4 (1.2)
28	0.4 (0.3)	0.3 (0.2)	7.9 (4.3)	5.6 (3.1)	7.6 (3.7)	5.4 (2.7)	0.2 (0.1)	0.1 (0.1)	0.8 (0.4)	5.0 (1.4)	3.6 (1.0)
29											
30											
Mean	0.3	0.2	8.1	5.8	8.1	5.8	0.2	0.1	1.2	5.2	3.6
n	28	14	27	27	27	27	28	14	26	26	21
SD	0.2	0.1	2.3	1.7	2.4	1.7	0.1	0.1	0.5	1.0	0.7
Min	0.0	0.0	4.3	3.1	4.1	2.9	0.1	0.1	0.5	3.1	2.2
Max	0.7	0.4	12.3	8.8	12.3	8.8	0.4	0.3	2.0	6.7	4.8

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for May, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1											
2											
3											
4											
5											
6	0.3 (0.2)	0.2 (0.1)	4.2 (1.7)	3.0 (1.2)	4.3 (1.6)	3.1 (1.2)	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	3.5 (0.6)	2.5 (0.5)
7	0.6 (0.3)	0.4 (0.2)	4.8 (1.1)	3.5 (0.8)	5.6 (1.2)	4.0 (0.9)	0.3 (0.1)	0.2 (0.1)	1.1 (0.7)	3.9 (0.6)	2.8 (0.4)
8	0.2 (0.1)	0.1 (0.1)	5.2 (1.9)	3.8 (1.4)	6.3 (2.0)	4.5 (1.4)	0.2 (0.1)	0.2 (0.1)	1.7 (1.2)	4.2 (1.5)	3.0 (1.0)
9	0.1 (0.0)	0.1 (0.0)	4.8 (1.2)	3.4 (0.8)	5.5 (1.7)	4.0 (1.2)	0.1 (0.0)	0.1 (0.0)	1.3 (1.1)	3.7 (1.4)	2.7 (1.0)
10	0.0 (0.0)	0.0 (0.0)	4.9 (1.8)	3.5 (1.3)	4.9 (1.1)	3.5 (0.8)	0.1 (0.0)	0.1 (0.0)	0.6 (0.5)	3.4 (1.1)	2.4 (0.8)
11	0.1 (0.0)	0.0 (0.0)	6.2 (1.6)	4.4 (1.2)	6.9 (1.8)	4.9 (1.3)	0.0 (0.0)	0.0 (0.0)	1.4 (1.0)	4.5 (1.5)	3.2 (1.1)
12	0.0 (0.0)	0.0 (0.0)	4.4 (1.6)	3.1 (1.1)	4.8 (2.1)	3.4 (1.5)	0.1 (0.0)	0.0 (0.0)	1.0 (0.8)	3.6 (1.0)	2.6 (0.7)
13	0.0 (0.0)	0.0 (0.0)	5.1 (1.1)	3.7 (0.8)	6.6 (1.4)	4.7 (1.0)	0.1 (0.0)	0.1 (0.0)	0.7 (0.4)	3.7 (0.8)	2.6 (0.5)
14	0.3 (0.1)	0.2 (0.1)	6.5 (1.3)	4.7 (1.0)	7.9 (1.3)	5.6 (1.0)	0.2 (0.1)	0.1 (0.0)	1.6 (0.8)	4.6 (0.7)	3.3 (0.5)
15	0.1 (0.0)	0.1 (0.0)	5.3 (1.6)	3.8 (1.1)	6.5 (1.6)	4.7 (1.1)	0.1 (0.1)	0.1 (0.1)	1.1 (0.8)	3.7 (1.2)	2.7 (0.8)
16	0.0 (0.0)	0.0 (0.0)	4.9 (1.5)	3.5 (1.1)	6.1 (1.9)	4.4 (1.4)	0.1 (0.0)	0.1 (0.0)	0.9 (0.8)	3.6 (1.3)	2.6 (0.9)
17	0.1 (0.0)	0.0 (0.0)	4.4 (1.1)	3.2 (0.8)	5.2 (1.4)	3.7 (1.0)	0.1 (0.0)	0.1 (0.0)	0.6 (0.3)	3.1 (0.9)	2.2 (0.6)
18	0.1 (0.0)	0.0 (0.0)	4.1 (1.2)	2.9 (0.9)	4.4 (1.7)	3.1 (1.2)	0.0 (0.0)	0.0 (0.0)	0.6 (0.4)	3.3 (0.8)	2.4 (0.6)
19	0.1 (0.1)	0.1 (0.1)	4.0 (1.2)	2.9 (0.9)	3.8 (1.5)	2.7 (1.1)	0.1 (0.0)	0.1 (0.0)	0.6 (0.1)	2.6 (0.6)	1.9 (0.4)
20	0.7 (0.2)	0.5 (0.2)	4.1 (0.7)	2.9 (0.5)	3.7 (0.9)	2.7 (0.7)	0.2 (0.1)	0.1 (0.1)	0.5 (0.1)	2.8 (0.3)	2.0 (0.2)
21	0.2 (0.2)	0.2 (0.1)	4.0 (1.0)	2.8 (0.7)	3.8 (0.9)	2.7 (0.7)	0.3 (0.1)	0.2 (0.1)	0.6 (0.1)	2.7 (0.8)	1.9 (0.5)
22	0.2 (0.2)	0.2 (0.1)	3.3 (0.8)	2.4 (0.5)	3.0 (0.8)	2.2 (0.6)	0.1 (0.1)	0.1 (0.1)	0.5 (0.1)	2.3 (0.5)	1.6 (0.3)
23	0.2 (0.1)	0.2 (0.1)	3.5 (0.8)	2.5 (0.6)	3.1 (0.6)	2.2 (0.4)	0.2 (0.2)	0.2 (0.1)	0.6 (0.2)	2.9 (0.9)	2.1 (0.7)
24	0.1 (0.1)	0.1 (0.1)	4.2 (2.0)	3.0 (1.4)	4.1 (2.4)	2.9 (1.7)	0.1 (0.0)	0.1 (0.0)	0.4 (0.1)	3.3 (1.3)	2.4 (1.0)
25	0.1 (0.0)	0.1 (0.0)	3.6 (0.7)		3.2 (0.8)	2.3 (0.6)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.7 (0.6)	
26	0.1 (0.0)	0.1 (0.0)	3.2 (0.5)	2.3 (0.3)	3.0 (0.8)	2.2 (0.6)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.6 (0.6)	1.9 (0.5)
27	0.2 (0.1)	0.2 (0.0)	5.0 (1.5)	3.6 (1.1)	4.9 (1.2)	3.5 (0.9)	0.2 (0.1)	0.1 (0.1)	1.5 (1.3)		
28	0.2 (0.0)	0.1 (0.0)	5.7 (2.4)	4.1 (1.7)	5.1 (2.5)	3.6 (1.8)	0.2 (0.0)	0.1 (0.0)	1.2 (0.7)	3.9 (1.7)	2.8 (1.2)
29	0.1 (0.0)	0.1 (0.0)	3.0 (0.8)	2.2 (0.6)	2.3 (0.5)	1.7 (0.4)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.3 (0.2)	1.7 (0.2)
30	0.4 (0.3)	0.3 (0.2)	3.1 (1.0)	2.3 (0.7)	2.6 (0.8)	1.9 (0.6)	0.2 (0.1)	0.2 (0.0)	0.5 (0.1)	3.0 (0.5)	2.1 (0.4)
31	0.8 (0.3)	0.6 (0.2)	3.2 (0.4)	2.3 (0.3)	3.0 (0.5)	2.2 (0.4)	0.3 (0.1)	0.2 (0.1)	0.6 (0.1)	3.4 (0.4)	2.5 (0.3)
Mean	0.2	0.2	4.4	3.2	4.6	3.3	0.2	0.1	0.8	3.3	2.4
n	26	26	26	25	26	26	26	26	26	25	24
SD	0.2	0.1	0.9	0.7	1.5	1.0	0.1	0.1	0.4	0.6	0.4
Min	0.0	0.0	3.0	2.2	2.3	1.7	0.0	0.0	0.4	2.3	1.6
Max	0.8	0.6	6.5	4.7	7.9	5.6	0.3	0.2	1.7	4.6	3.3

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for June, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.9 (0.2)	0.7 (0.1)	3.5 (0.7)	2.5 (0.5)	3.0 (0.6)	2.2 (0.5)	0.5 (0.1)	0.3 (0.1)	0.8 (0.1)	2.7 (0.3)	1.9 (0.2)
2	0.3 (0.4)	0.3 (0.3)	3.0 (1.1)	2.2 (0.9)	2.6 (1.1)	1.9 (0.9)	0.3 (0.2)	0.2 (0.2)	0.6 (0.3)	2.5 (0.6)	1.8 (0.5)
3	0.9 (0.4)		2.8 (0.5)		2.3 (0.4)		0.1 (0.1)		0.6 (0.2)		
4	0.2 (0.3)		3.2 (1.5)		3.3 (1.5)		0.1 (0.1)		0.4 (0.1)	3.1 (0.9)	
5	0.0 (0.0)	0.0 (0.0)	2.4 (0.8)	1.8 (0.6)	2.2 (0.7)	1.6 (0.5)	0.1 (0.0)	0.1 (0.0)	0.4 (0.1)	2.5 (0.3)	1.8 (0.2)
6	0.0 (0.0)	0.0 (0.0)	3.6 (1.7)	2.6 (1.2)	3.2 (1.5)	2.3 (1.1)	0.1 (0.0)	0.0 (0.0)	0.6 (0.6)	3.1 (1.2)	2.2 (0.9)
7	0.1 (0.0)	0.1 (0.0)	2.7 (0.4)	1.9 (0.3)	2.4 (0.4)	1.8 (0.3)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.4 (0.2)	1.7 (0.1)
8	0.1 (0.1)	0.1 (0.0)	3.0 (0.5)	2.1 (0.4)	2.5 (0.6)	1.8 (0.4)	0.1 (0.1)	0.1 (0.0)	0.4 (0.1)	2.4 (0.2)	1.7 (0.2)
9	0.1 (0.0)	0.0 (0.0)	3.7 (1.4)	2.6 (1.0)	3.0 (1.0)	2.2 (0.7)	0.1 (0.0)	0.1 (0.0)	0.4 (0.2)	3.2 (0.7)	2.3 (0.5)
10	0.2 (0.0)	0.1 (0.0)	3.1 (0.8)	2.2 (0.6)	2.9 (0.6)	2.1 (0.4)	0.1 (0.1)	0.1 (0.0)	0.6 (0.1)	2.9 (0.5)	2.1 (0.4)
11	0.2 (0.1)	0.1 (0.1)	2.6 (0.8)	1.9 (0.6)	2.4 (0.7)	1.7 (0.5)	0.1 (0.0)	0.1 (0.0)	0.4 (0.1)	2.7 (0.2)	1.9 (0.1)
12	0.1 (0.1)	0.1 (0.0)	3.4 (1.2)	2.4 (0.9)	3.0 (1.3)	2.2 (0.9)	0.0 (0.0)	0.0 (0.0)	0.4 (0.1)	3.0 (0.6)	2.1 (0.4)
13	0.2 (0.1)	0.2 (0.1)	3.1 (0.8)	2.2 (0.6)	2.6 (0.8)	1.9 (0.6)	0.2 (0.2)	0.1 (0.1)	0.5 (0.1)	2.7 (0.3)	1.9 (0.2)
14	0.1 (0.1)						0.4 (0.0)				
15	0.2 (0.2)	0.1 (0.1)	2.9 (0.6)	2.1 (0.4)	2.6 (0.6)	1.9 (0.4)	0.3 (0.1)	0.2 (0.1)	0.5 (0.1)	3.2 (0.6)	2.3 (0.4)
16	0.7 (0.1)	0.5 (0.1)	3.4 (0.5)	2.4 (0.4)	2.8 (0.7)	2.0 (0.5)	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	2.8 (0.7)	
17	0.3 (0.1)	0.2 (0.1)	3.1 (0.9)	2.2 (0.7)	2.6 (0.7)	1.9 (0.5)	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	2.8 (0.5)	2.0 (0.4)
18	0.4 (0.2)	0.3 (0.2)	3.2 (1.0)	2.3 (0.7)	3.3 (0.9)	2.3 (0.7)	0.3 (0.1)	0.2 (0.0)	0.8 (0.4)	2.9 (1.0)	2.1 (0.7)
19	0.7 (0.2)	0.5 (0.1)	3.1 (0.7)	2.3 (0.5)	2.7 (0.5)	1.9 (0.4)	0.3 (0.1)	0.2 (0.1)	0.5 (0.1)	2.5 (0.4)	1.8 (0.3)
20	0.4 (0.1)	0.3 (0.1)	3.6 (1.0)	2.6 (0.7)	3.4 (0.7)	2.5 (0.5)	0.3 (0.1)	0.2 (0.0)			
21	0.5 (0.0)						0.8 (0.2)				
22	0.2 (0.1)	0.1 (0.1)	2.9 (0.9)	2.1 (0.6)	3.2 (0.8)	2.3 (0.6)	0.3 (0.2)	0.2 (0.2)	0.6 (0.1)	2.4 (0.6)	1.7 (0.4)
23	0.2 (0.2)	0.2 (0.2)	2.5 (0.4)	1.8 (0.3)	2.9 (0.5)	2.1 (0.4)	0.1 (0.0)	0.1 (0.0)	0.5 (0.1)	2.2 (0.2)	1.6 (0.1)
24	0.6 (0.3)	0.5 (0.2)	3.1 (0.8)	2.3 (0.6)	3.2 (0.7)	2.3 (0.5)	0.4 (0.3)	0.3 (0.2)	0.6 (0.1)	2.3 (0.4)	1.7 (0.3)
25	0.5 (0.2)	0.3 (0.1)					0.3 (0.2)	0.2 (0.1)			
26	0.7 (0.1)	0.5 (0.1)					0.2 (0.0)	0.2 (0.0)			
27	1.1 (0.3)	0.8 (0.2)					0.2 (0.0)	0.1 (0.0)			
28	0.3 (0.1)	0.2 (0.1)	3.7 (1.0)	2.7 (0.7)	3.3 (1.1)	2.4 (0.8)	0.2 (0.1)	0.2 (0.0)	0.6 (0.1)	2.1 (0.2)	1.5 (0.2)
29	0.9 (0.3)	0.7 (0.2)	3.8 (0.7)	2.7 (0.5)	3.3 (0.9)	2.4 (0.6)	0.1 (0.0)	0.1 (0.0)	0.6 (0.2)	2.7 (0.5)	1.9 (0.3)
30	0.2 (0.2)	0.1 (0.1)	3.3 (0.7)	2.4 (0.5)	2.6 (0.8)	1.9 (0.6)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.3 (0.4)	1.6 (0.3)
Mean	0.4	0.3	3.2	2.3	2.9	2.1	0.2	0.2	0.6	2.7	1.9
n	30	26	25	23	25	23	30	26	24	23	21
SD	0.3	0.2	0.4	0.3	0.4	0.2	0.2	0.1	0.1	0.3	0.2
Min	0.0	0.0	2.4	1.8	2.2	1.6	0.0	0.0	0.4	2.1	1.5
Max	1.1	0.8	3.8	2.7	3.4	2.5	0.8	0.3	0.8	3.2	2.3

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for July, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.1 (0.0)	0.1 (0.0)					0.2 (0.0)	0.1 (0.0)			
2	0.4 (0.2)	0.3 (0.1)	3.2 (1.0)	2.3 (0.7)	2.5 (0.7)	1.8 (0.5)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.6 (0.3)	1.9 (0.2)
3	0.8 (0.2)						0.3 (0.2)				
4	0.7 (0.5)	0.5 (0.4)	3.7 (1.2)	2.6 (0.8)	3.5 (1.2)		0.5 (0.3)	0.4 (0.2)	0.8 (0.2)	3.1 (0.6)	2.2 (0.4)
5	0.2 (0.0)	0.1 (0.0)	3.3 (0.7)	2.4 (0.5)	3.0 (0.7)		0.2 (0.1)	0.2 (0.1)	0.6 (0.1)	3.0 (0.3)	2.2 (0.2)
6	0.2 (0.1)	0.1 (0.0)	3.2 (0.7)	2.3 (0.5)	3.1 (0.7)		0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	3.2 (0.4)	2.3 (0.3)
7	0.2 (0.0)	0.1 (0.0)	3.5 (1.1)	2.5 (0.8)	3.1 (1.0)		0.3 (0.0)	0.2 (0.0)	0.6 (0.1)	2.7 (0.6)	
8	0.3 (0.1)	0.2 (0.0)	3.1 (0.7)	2.2 (0.5)	3.0 (0.8)	2.2 (0.6)	0.3 (0.0)	0.2 (0.0)	0.7 (0.2)	2.5 (0.5)	1.8 (0.4)
9	0.5 (0.2)	0.3 (0.1)	3.2 (1.0)	2.3 (0.7)	2.8 (0.7)	2.0 (0.5)	0.4 (0.0)	0.3 (0.0)	0.7 (0.1)	2.6 (0.2)	1.8 (0.1)
10	0.3 (0.0)	0.2 (0.0)	3.1 (1.3)	2.2 (0.9)	2.7 (1.0)	1.9 (0.7)	0.4 (0.0)	0.3 (0.0)	0.8 (0.1)	2.3 (0.4)	1.7 (0.3)
11	0.3 (0.0)	0.2 (0.0)	2.6 (0.8)	1.9 (0.6)	2.2 (0.5)	1.6 (0.4)	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	1.9 (0.2)	1.4 (0.1)
12	0.1 (0.1)	0.1 (0.0)	2.8 (0.5)	2.0 (0.3)	2.4 (0.6)	1.8 (0.4)	0.1 (0.1)	0.1 (0.0)	0.4 (0.1)	1.9 (0.2)	1.4 (0.2)
13	0.4 (0.2)	0.3 (0.1)	3.1 (0.8)	2.2 (0.6)	2.6 (0.9)	1.9 (0.6)	0.3 (0.1)	0.2 (0.0)	0.6 (0.1)	2.2 (0.5)	1.6 (0.4)
14	0.3 (0.0)	0.2 (0.0)	3.1 (1.0)	2.3 (0.7)	2.6 (0.8)	1.9 (0.6)	0.4 (0.0)	0.3 (0.0)	0.7 (0.1)	2.1 (0.4)	1.5 (0.3)
15	0.2 (0.0)	0.2 (0.0)	3.0 (0.9)	2.2 (0.7)	2.4 (0.6)	1.7 (0.5)	0.3 (0.1)	0.2 (0.0)	0.7 (0.1)	2.0 (0.2)	1.4 (0.2)
16	0.4 (0.2)	0.3 (0.1)	2.9 (0.9)		2.3 (0.7)	1.7 (0.5)	0.2 (0.0)	0.2 (0.0)		2.1 (0.5)	1.5 (0.3)
17	0.2 (0.0)	0.1 (0.0)	2.7 (0.8)	2.0 (0.6)	2.4 (0.7)	1.8 (0.5)	0.3 (0.0)	0.2 (0.0)	0.6 (0.1)	1.8 (0.2)	1.3 (0.1)
18	0.5 (0.1)	0.4 (0.1)	2.6 (0.5)	1.9 (0.4)	2.5 (0.4)	1.8 (0.3)	0.5 (0.1)	0.3 (0.1)	0.7 (0.1)	2.0 (0.2)	1.5 (0.1)
19	0.2 (0.1)	0.1 (0.1)	2.8 (0.7)	2.0 (0.5)	2.6 (0.7)	1.9 (0.5)	0.4 (0.0)	0.3 (0.0)	0.6 (0.1)	2.1 (0.3)	1.5 (0.2)
20	0.2 (0.0)	0.1 (0.0)	2.9 (0.7)	2.1 (0.5)	2.8 (0.7)	2.0 (0.5)	0.2 (0.1)	0.2 (0.0)	0.5 (0.1)	2.2 (0.4)	1.6 (0.3)
21	0.1 (0.0)	0.1 (0.0)	3.0 (0.6)		2.8 (0.6)	2.0 (0.5)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.0 (0.2)	1.4 (0.1)
22	0.2 (0.0)	0.1 (0.0)	3.2 (0.7)		3.0 (0.9)	2.2 (0.6)	0.2 (0.0)	0.2 (0.0)	0.7 (0.1)	2.1 (0.3)	1.5 (0.2)
23	0.1 (0.1)	0.1 (0.0)	3.0 (0.7)		2.7 (0.8)	2.0 (0.6)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.2 (0.2)	1.6 (0.2)
24	0.3 (0.1)	0.2 (0.1)	3.0 (0.5)		2.4 (0.4)	1.7 (0.3)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.3 (0.2)	1.7 (0.2)
25	0.6 (0.5)	0.4 (0.3)	3.0 (0.6)	2.2 (0.4)	2.7 (0.7)	2.0 (0.5)	0.4 (0.1)	0.3 (0.1)	0.7 (0.2)	2.5 (0.4)	1.8 (0.3)
26	0.3 (0.3)	0.2 (0.2)	2.8 (0.4)	2.0 (0.3)	2.9 (0.5)	2.1 (0.4)	0.3 (0.1)	0.2 (0.0)	0.6 (0.1)	2.4 (0.2)	1.7 (0.1)
27	0.2 (0.1)	0.2 (0.0)	3.3 (0.9)	2.4 (0.6)	3.3 (0.8)	2.4 (0.6)	0.3 (0.1)	0.2 (0.0)	0.8 (0.1)	2.7 (0.2)	1.9 (0.2)
28	0.9 (0.6)	0.7 (0.5)	3.4 (0.8)	2.4 (0.6)	3.4 (0.9)	2.4 (0.6)	0.4 (0.0)	0.3 (0.0)	0.9 (0.1)	3.3 (0.5)	2.4 (0.4)
29	1.0 (0.5)	0.7 (0.4)	3.0 (0.6)				0.4 (0.0)	0.3 (0.0)			
30	0.5 (0.2)	0.4 (0.1)	3.5 (0.6)	2.5 (0.4)	2.9 (0.9)	2.1 (0.6)	0.3 (0.1)	0.2 (0.1)	1.3 (1.0)	2.2 (0.6)	1.6 (0.5)
31	0.2 (0.1)	0.1 (0.0)	3.5 (0.8)	2.5 (0.6)	2.6 (0.9)	1.8 (0.7)	0.2 (0.0)	0.2 (0.0)	0.6 (0.1)	2.1 (0.5)	1.5 (0.3)
Mean	0.3	0.2	3.1	2.2	2.8	1.9	0.3	0.2	0.7	2.4	1.7
n	31	30	29	23	28	24	31	30	27	28	27
SD	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.4	0.3
Min	0.1	0.1	2.6	1.9	2.2	1.6	0.1	0.1	0.4	1.8	1.3
Max	1.0	0.7	3.7	2.6	3.5	2.4	0.5	0.4	1.3	3.3	2.4

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for August, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.1 (0.0)	0.1 (0.0)	3.1 (0.7)	2.3 (0.5)	2.3 (0.6)	1.7 (0.4)	0.2 (0.0)	0.1 (0.0)	0.6 (0.0)	2.0 (0.5)	1.4 (0.3)
2	0.2 (0.0)	0.1 (0.0)	2.9 (0.7)	2.1 (0.5)	2.4 (0.4)	1.7 (0.3)	0.2 (0.1)	0.1 (0.0)	0.6 (0.1)	1.6 (0.1)	1.1 (0.1)
3	0.1 (0.0)	0.1 (0.0)	3.1 (1.0)	2.2 (0.7)	2.5 (0.5)	1.8 (0.3)	0.1 (0.0)	0.1 (0.0)	0.6 (0.1)	1.5 (0.2)	1.1 (0.1)
4	0.1 (0.0)	0.1 (0.0)	3.0 (1.0)	2.2 (0.7)	2.3 (0.6)	1.7 (0.4)	0.1 (0.0)	0.1 (0.0)	0.5 (0.1)	1.7 (0.3)	1.2 (0.2)
5	0.3 (0.1)	0.2 (0.0)	3.3 (0.9)	2.4 (0.6)	2.6 (0.6)	1.9 (0.4)	0.3 (0.0)	0.2 (0.0)	0.6 (0.1)	1.7 (0.2)	1.2 (0.2)
6	0.3 (0.1)	0.2 (0.0)	3.1 (1.0)	2.2 (0.7)	2.7 (0.7)	1.9 (0.5)	0.3 (0.1)	0.2 (0.1)	0.6 (0.1)	1.8 (0.2)	1.3 (0.1)
7	0.8 (0.2)	0.6 (0.1)	3.1 (0.8)	2.3 (0.6)	2.6 (0.7)	1.9 (0.5)	0.5 (0.1)	0.4 (0.1)			
8	1.0 (0.1)	0.7 (0.1)	2.9 (1.2)	2.1 (0.8)	3.6 (1.8)	2.6 (1.3)	0.7 (0.2)	0.5 (0.1)			
9	0.3 (0.1)	0.2 (0.1)	2.9 (0.6)	2.1 (0.5)	2.4 (0.6)	1.7 (0.4)	0.3 (0.0)	0.2 (0.0)	0.6 (0.0)	1.9 (0.2)	1.4 (0.1)
10	0.6 (0.3)	0.5 (0.2)	3.1 (0.7)	2.2 (0.5)	2.8 (0.9)	2.0 (0.6)	0.3 (0.0)	0.2 (0.0)	0.6 (0.1)	2.2 (0.3)	1.6 (0.2)
11	0.8 (0.3)	0.6 (0.2)	3.0 (0.5)	2.2 (0.4)	2.7 (0.8)	1.9 (0.6)	0.4 (0.2)	0.3 (0.1)	0.6 (0.1)	2.4 (0.2)	1.7 (0.1)
12	1.1 (0.5)	0.8 (0.3)	2.8 (0.9)	2.0 (0.6)	2.8 (0.8)	2.0 (0.6)	0.6 (0.1)	0.4 (0.1)	0.7 (0.2)	2.6 (0.2)	1.9 (0.2)
13	0.2 (0.0)	0.1 (0.0)	2.3 (0.6)	1.7 (0.4)	2.5 (0.9)	1.8 (0.6)	0.2 (0.1)	0.1 (0.0)	0.5 (0.1)	2.4 (0.2)	1.7 (0.1)
14	0.6 (0.2)	0.4 (0.2)	3.2 (1.2)	2.3 (0.8)	2.9 (1.0)	2.1 (0.7)	0.3 (0.1)	0.2 (0.1)		2.8 (0.3)	2.0 (0.2)
15	0.7 (0.2)	0.5 (0.2)	3.0 (0.8)	2.2 (0.5)	3.0 (0.6)	2.2 (0.4)	0.4 (0.1)	0.3 (0.1)	0.6 (0.1)	2.8 (0.3)	2.0 (0.2)
16	0.7 (0.2)	0.5 (0.1)	3.3 (0.8)	2.3 (0.6)	3.1 (0.7)	2.2 (0.5)	0.4 (0.1)	0.3 (0.0)	0.7 (0.1)	2.9 (0.2)	2.1 (0.2)
17	0.3 (0.1)	0.2 (0.1)	3.2 (0.6)	2.3 (0.4)	3.5 (0.7)	2.5 (0.5)	0.4 (0.1)	0.3 (0.0)	0.7 (0.2)	3.2 (0.3)	2.3 (0.2)
18	0.6 (0.1)	0.4 (0.1)	3.5 (0.7)	2.5 (0.5)	3.5 (0.9)	2.5 (0.6)	0.3 (0.1)	0.2 (0.1)	0.9 (0.4)	3.4 (0.3)	2.5 (0.2)
19	0.9 (0.1)	0.7 (0.1)	3.4 (0.9)	2.4 (0.6)	3.3 (0.7)	2.4 (0.5)	0.3 (0.1)	0.2 (0.0)	0.6 (0.1)	3.5 (0.2)	2.5 (0.1)
20	0.8 (0.3)	0.6 (0.2)	3.1 (0.8)	2.2 (0.6)	3.4 (0.8)	2.5 (0.6)	0.4 (0.1)	0.3 (0.1)	0.7 (0.1)	3.6 (0.3)	2.6 (0.2)
21	0.4 (0.2)	0.3 (0.1)	2.8 (0.9)	2.0 (0.6)	3.1 (0.9)	2.3 (0.6)	0.4 (0.1)	0.3 (0.1)	0.7 (0.2)	3.4 (0.4)	2.4 (0.3)
22	0.2 (0.0)	0.2 (0.0)	2.5 (0.5)	1.8 (0.4)	2.7 (0.6)	1.9 (0.4)	0.3 (0.0)	0.2 (0.0)	0.6 (0.1)	2.1 (0.8)	
23	0.9 (0.6)	0.6 (0.4)	2.8 (0.6)	2.0 (0.4)	2.9 (0.7)	2.1 (0.5)	0.3 (0.0)	0.2 (0.0)	0.6 (0.1)	1.9 (0.4)	1.4 (0.3)
24	0.4 (0.3)	0.3 (0.2)	2.7 (0.6)	2.0 (0.4)	2.9 (0.8)	2.1 (0.6)	0.5 (0.1)	0.3 (0.1)	0.7 (0.2)	2.1 (0.2)	1.5 (0.1)
25	0.3 (0.1)	0.2 (0.0)	3.1 (0.7)	2.2 (0.5)	3.1 (0.9)	2.3 (0.6)	0.5 (0.2)	0.3 (0.1)	0.8 (0.1)	2.2 (0.4)	1.6 (0.3)
26	0.2 (0.0)	0.2 (0.0)	3.1 (1.0)	2.2 (0.7)	3.1 (1.1)	2.3 (0.8)	0.2 (0.0)	0.2 (0.0)	0.6 (0.1)	2.0 (0.5)	1.4 (0.3)
27	0.2 (0.0)	0.1 (0.0)	2.8 (0.4)	2.0 (0.3)	3.1 (0.9)	2.2 (0.6)	0.2 (0.0)	0.2 (0.0)		1.8 (0.1)	1.3 (0.1)
28	0.2 (0.0)	0.1 (0.0)	2.9 (0.4)	2.1 (0.3)	3.2 (0.7)	2.3 (0.5)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.0 (0.1)	1.4 (0.1)
29	0.5 (0.2)	0.4 (0.1)	3.0 (0.8)	2.1 (0.6)	3.4 (1.0)	2.4 (0.7)	0.2 (0.1)	0.1 (0.0)	0.6 (0.2)	1.9 (0.2)	1.4 (0.1)
30	0.2 (0.1)	0.2 (0.0)	2.9 (0.7)	2.1 (0.5)	3.0 (0.9)	2.1 (0.7)	0.2 (0.0)	0.2 (0.0)	0.6 (0.2)	2.0 (0.4)	1.4 (0.3)
31	0.2 (0.0)	0.1 (0.0)	2.9 (0.4)	2.1 (0.3)	2.7 (0.5)	2.0 (0.4)	0.2 (0.0)	0.2 (0.0)	0.5 (0.1)	1.8 (0.2)	1.3 (0.1)
Mean	0.5	0.3	3.0	2.2	2.9	2.1	0.3	0.2	0.6	2.3	1.7
n	31	31	31	31	31	31	31	31	27	29	28
SD	0.3	0.2	0.2	0.2	0.4	0.3	0.1	0.1	0.1	0.6	0.4
Min	0.1	0.1	2.3	1.7	2.3	1.7	0.1	0.1	0.5	1.5	1.1
Max	1.1	0.8	3.5	2.5	3.6	2.6	0.7	0.5	0.9	3.6	2.6

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for September, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.2 (0.0)	0.1 (0.0)	3.1 (0.9)	2.2 (0.6)	3.0 (0.9)	2.2 (0.6)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	1.8 (0.2)	1.3 (0.2)
2	0.2 (0.0)	0.1 (0.0)	3.0 (0.9)	2.1 (0.6)	3.0 (0.7)	2.2 (0.5)	0.1 (0.0)	0.0 (0.0)	0.4 (0.1)	1.9 (0.3)	1.4 (0.2)
3	0.1 (0.0)	0.1 (0.0)	5.1 (1.0)	3.6 (0.7)	4.1 (1.1)	3.0 (0.8)	0.1 (0.0)	0.0 (0.0)	0.8 (0.3)	3.8 (0.6)	2.7 (0.4)
4	0.6 (0.3)	0.4 (0.2)					0.2 (0.1)	0.1 (0.1)			
5	0.5 (0.3)	0.3 (0.2)	5.2 (1.2)	3.7 (0.9)	3.2 (0.4)	2.3 (0.3)	0.2 (0.1)	0.1 (0.1)	0.8 (0.4)	3.7 (0.8)	2.6 (0.5)
6	0.5 (0.1)	0.3 (0.1)	5.2 (1.7)	3.7 (1.2)	3.3 (0.9)	2.4 (0.6)	0.2 (0.1)	0.1 (0.1)	0.8 (0.4)	3.5 (1.0)	2.5 (0.7)
7	0.7 (0.3)	0.5 (0.2)	4.4 (1.5)	3.2 (1.1)	2.9 (0.7)	2.1 (0.5)	0.3 (0.1)	0.2 (0.0)	0.6 (0.1)	3.0 (0.8)	2.2 (0.6)
8	0.4 (0.3)	0.3 (0.2)	6.0 (1.7)	4.3 (1.2)	3.8 (0.7)	2.7 (0.5)	0.1 (0.1)	0.1 (0.0)	1.0 (0.4)	4.1 (1.2)	3.0 (0.9)
9	0.3 (0.1)	0.2 (0.1)	5.4 (2.4)	3.9 (1.7)	3.7 (1.4)	2.7 (1.0)	0.2 (0.0)	0.1 (0.0)	0.9 (0.4)	4.2 (1.4)	3.0 (1.0)
10	0.2 (0.0)	0.1 (0.0)	3.3 (1.4)	2.4 (1.0)	2.9 (0.8)	2.1 (0.6)	0.2 (0.0)	0.1 (0.0)	0.5 (0.1)	2.8 (0.5)	2.0 (0.4)
11	0.3 (0.1)	0.2 (0.0)	2.8 (0.9)	2.0 (0.7)	2.0 (0.6)	1.4 (0.4)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.7 (0.3)	1.9 (0.2)
12	0.5 (0.1)	0.3 (0.1)	2.9 (0.7)	2.1 (0.5)	2.4 (0.4)	1.7 (0.3)	0.3 (0.1)	0.2 (0.1)		2.3 (0.5)	
13	0.2 (0.2)	0.2 (0.1)	2.8 (0.8)	2.0 (0.6)	2.2 (0.6)	1.6 (0.4)	0.2 (0.1)	0.1 (0.1)	0.4 (0.2)	1.9 (0.3)	1.3 (0.2)
14	0.1 (0.0)	0.0 (0.0)	4.0 (1.3)	2.9 (0.9)	3.2 (0.8)	2.3 (0.6)	0.0 (0.0)	0.0 (0.0)	0.4 (0.2)	2.3 (0.7)	1.7 (0.5)
15	0.4 (0.3)	0.3 (0.2)	4.3 (2.5)	3.0 (1.8)	3.5 (1.4)	2.5 (1.0)	0.1 (0.0)	0.1 (0.0)	0.9 (0.6)	3.1 (1.5)	2.2 (1.1)
16	0.2 (0.2)	0.1 (0.1)	3.5 (1.8)	2.5 (1.3)	3.0 (0.8)	2.1 (0.6)	0.2 (0.1)	0.1 (0.0)	0.9 (0.6)		
17	0.1 (0.1)	0.1 (0.0)	2.6 (1.4)	1.9 (1.0)	2.7 (0.9)	1.9 (0.6)	0.2 (0.1)	0.1 (0.0)	0.6 (0.4)	2.1 (0.8)	1.5 (0.6)
18	0.1 (0.0)	0.1 (0.0)	2.9 (1.6)	2.1 (1.2)	2.7 (0.9)	2.0 (0.7)	0.1 (0.0)	0.1 (0.0)	0.7 (0.5)	2.2 (0.8)	1.5 (0.6)
19	0.1 (0.1)	0.1 (0.0)	2.9 (1.4)	2.1 (1.0)	2.6 (1.0)	1.9 (0.7)	0.2 (0.1)	0.1 (0.1)	0.6 (0.4)	2.3 (0.7)	1.6 (0.5)
20	0.1 (0.1)	0.1 (0.0)	3.3 (1.9)	2.4 (1.4)	3.1 (1.0)	2.2 (0.7)	0.2 (0.1)	0.1 (0.1)	0.8 (0.5)	2.3 (0.9)	1.7 (0.7)
21	0.1 (0.0)	0.1 (0.0)	2.5 (1.1)	1.8 (0.8)	2.7 (0.9)	1.9 (0.6)	0.1 (0.0)	0.0 (0.0)	0.4 (0.1)	1.7 (0.5)	1.2 (0.4)
22	0.1 (0.0)	0.1 (0.0)	2.1 (0.8)	1.5 (0.6)	2.3 (0.8)	1.6 (0.6)	0.0 (0.0)	0.0 (0.0)	0.3 (0.1)	1.4 (0.3)	1.0 (0.2)
23	0.1 (0.0)	0.1 (0.0)	2.0 (0.8)	1.5 (0.5)	1.9 (0.6)	1.4 (0.4)	0.1 (0.0)	0.1 (0.0)	0.3 (0.1)	1.5 (0.2)	1.1 (0.2)
24	0.1 (0.0)	0.1 (0.0)	2.7 (1.0)	2.0 (0.7)	2.1 (0.8)	1.5 (0.6)	0.2 (0.0)	0.1 (0.0)	0.5 (0.2)	1.9 (0.4)	1.3 (0.3)
25	0.1 (0.0)	0.1 (0.0)	2.6 (0.9)	1.9 (0.7)	2.5 (0.7)	1.8 (0.5)	0.1 (0.0)	0.1 (0.0)	0.4 (0.1)	1.9 (0.2)	1.4 (0.2)
26	0.0 (0.0)	0.0 (0.0)	2.8 (0.9)	2.0 (0.6)	2.3 (0.7)	1.6 (0.5)	0.0 (0.0)	0.0 (0.0)	0.4 (0.1)	2.2 (0.5)	1.6 (0.3)
27	0.1 (0.1)	0.1 (0.0)	4.0 (1.7)	2.8 (1.2)	2.5 (0.8)	1.8 (0.6)	0.1 (0.0)	0.1 (0.0)	0.6 (0.4)	2.9 (1.0)	2.1 (0.7)
28	0.1 (0.0)	0.1 (0.0)	4.0 (1.1)	2.8 (0.8)	2.5 (0.6)	1.8 (0.4)	0.1 (0.0)	0.1 (0.0)	0.6 (0.4)	3.1 (1.1)	2.2 (0.8)
29	0.0 (0.0)	0.0 (0.0)	4.9 (1.0)	3.5 (0.7)	2.8 (0.8)	2.0 (0.6)	0.0 (0.0)	0.0 (0.0)	0.5 (0.4)	3.7 (1.1)	2.7 (0.8)
30	0.4 (0.4)	0.3 (0.3)	6.3 (3.0)	4.5 (2.2)	3.5 (1.5)	2.5 (1.1)	0.0 (0.0)	0.0 (0.0)	1.2 (1.1)	4.2 (1.7)	3.0 (1.2)
Mean	0.2	0.2	3.7	2.6	2.8	2.0	0.1	0.1	0.6	2.7	1.9
n	30	30	29	29	29	29	30	30	28	28	27
SD	0.2	0.1	1.2	0.8	0.5	0.4	0.1	0.1	0.2	0.8	0.6
Min	0.0	0.0	2.0	1.5	1.9	1.4	0.0	0.0	0.3	1.4	1.0
Max	0.7	0.5	6.3	4.5	4.1	3.0	0.3	0.2	1.2	4.2	3.0

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for October, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.4 (0.2)	0.3 (0.1)	4.9 (2.6)	3.5 (1.9)	3.4 (1.0)	2.4 (0.7)	0.0 (0.0)	0.0 (0.0)	0.8 (0.7)	3.3 (1.3)	2.3 (0.9)
2	0.3 (0.3)	0.2 (0.2)	4.5 (2.2)	3.2 (1.6)	4.9 (2.1)	3.5 (1.5)	0.2 (0.1)	0.1 (0.1)	1.1 (0.8)	3.7 (1.6)	2.7 (1.1)
3	0.4 (0.3)	0.3 (0.2)	3.3 (0.8)	2.3 (0.6)	3.5 (1.1)	2.5 (0.8)	0.1 (0.1)	0.1 (0.1)	0.6 (0.2)	2.7 (0.7)	2.0 (0.5)
4	0.2 (0.2)	0.1 (0.1)	3.2 (1.2)	2.3 (0.8)	3.6 (1.4)	2.5 (1.0)	0.1 (0.1)	0.1 (0.0)	0.4 (0.1)	2.3 (0.7)	1.6 (0.5)
5	0.2 (0.1)	0.1 (0.0)	3.7 (0.7)	2.7 (0.5)	4.2 (1.1)	3.0 (0.8)	0.2 (0.1)	0.1 (0.1)	0.5 (0.1)	2.8 (0.5)	2.0 (0.4)
6	0.1 (0.0)	0.1 (0.0)	4.2 (0.9)	3.0 (0.6)	4.7 (1.3)	3.4 (1.0)	0.2 (0.1)	0.1 (0.1)	0.8 (0.5)	3.5 (1.0)	2.8 (0.6)
7	0.1 (0.0)	0.0 (0.0)	5.2 (1.5)	3.7 (1.1)	5.3 (2.0)	3.8 (1.4)	0.2 (0.1)	0.1 (0.0)	1.3 (0.8)	3.7 (1.5)	2.7 (1.1)
8	0.4 (0.2)	0.3 (0.2)	4.8 (1.9)	3.4 (1.4)	4.8 (2.2)	3.5 (1.6)	0.2 (0.0)	0.1 (0.0)	1.3 (0.9)	3.0 (1.2)	2.2 (0.8)
9	0.2 (0.1)	0.2 (0.1)	4.1 (1.8)	3.0 (1.3)	4.4 (2.4)	3.1 (1.7)	0.1 (0.1)	0.1 (0.1)	1.3 (0.8)		
10	0.1 (0.0)	0.1 (0.0)	3.0 (1.0)	2.1 (0.7)	2.7 (1.2)	1.9 (0.9)	0.0 (0.0)	0.0 (0.0)	0.5 (0.3)	1.9 (0.5)	1.4 (0.3)
11	0.2 (0.1)	0.1 (0.0)	4.0 (1.4)	2.9 (1.0)	4.1 (1.7)	2.9 (1.2)	0.2 (0.1)	0.1 (0.0)	0.9 (0.6)	2.7 (0.9)	1.9 (0.6)
12	0.2 (0.0)	0.2 (0.0)	3.4 (0.7)	2.5 (0.5)	3.6 (0.8)	2.6 (0.6)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	2.3 (0.4)	1.6 (0.3)
13	0.1 (0.0)	0.1 (0.0)	7.2 (1.8)	5.2 (1.3)	6.5 (1.2)	4.7 (0.8)	0.1 (0.0)	0.1 (0.0)	1.4 (0.6)	3.6 (0.6)	2.6 (0.4)
14	0.1 (0.0)	0.1 (0.0)	7.0 (1.4)	5.0 (1.0)	7.1 (1.1)	5.1 (0.8)	0.1 (0.0)	0.0 (0.0)	3.0 (1.9)	4.4 (0.3)	3.2 (0.2)
15	0.1 (0.0)	0.1 (0.0)	5.9 (1.1)	4.2 (0.8)	6.3 (1.0)	4.5 (0.7)	0.0 (0.0)	0.0 (0.0)	1.7 (0.8)	4.3 (0.5)	3.1 (0.3)
16	0.2 (0.0)	0.1 (0.0)	5.5 (1.6)	3.9 (1.1)	6.7 (2.2)	4.8 (1.6)	0.1 (0.0)	0.1 (0.0)	1.7 (0.9)	3.9 (0.9)	2.8 (0.6)
17	0.2 (0.0)	0.1 (0.0)	5.2 (2.2)	3.7 (1.6)	5.9 (2.9)	4.3 (2.1)	0.1 (0.0)	0.1 (0.0)	1.2 (1.0)	3.5 (1.0)	2.5 (0.7)
18	0.1 (0.1)	0.1 (0.0)	4.8 (2.7)	3.4 (1.9)	5.5 (3.3)	4.0 (2.4)	0.0 (0.0)	0.0 (0.0)	1.0 (0.8)	3.5 (1.3)	2.5 (0.9)
19	0.1 (0.0)	0.1 (0.0)	3.6 (1.3)	2.6 (0.9)	4.6 (2.6)	3.3 (1.9)	0.0 (0.0)	0.0 (0.0)	0.5 (0.3)	3.0 (0.8)	2.2 (0.6)
20	0.1 (0.0)	0.1 (0.0)					0.1 (0.0)	0.1 (0.0)			
21	0.2 (0.0)	0.1 (0.0)	4.7 (1.6)	3.4 (1.2)	6.2 (2.9)	4.5 (2.0)	0.2 (0.0)	0.1 (0.0)	0.8 (0.4)	3.5 (0.9)	2.5 (0.6)
22	0.1 (0.1)	0.1 (0.0)	8.9 (0.9)	6.4 (0.6)	10.0 (1.2)	7.2 (0.8)	0.0 (0.0)	0.0 (0.0)	2.1 (0.7)	6.1 (0.7)	4.4 (0.5)
23	0.2 (0.0)	0.1 (0.0)	11.4 (1.1)	8.1 (0.8)	9.2 (1.0)	6.6 (0.7)	0.0 (0.0)	0.0 (0.0)	2.8 (0.6)	7.2 (0.3)	5.2 (0.2)
24	0.2 (0.0)	0.1 (0.0)	9.0 (3.3)	6.4 (2.3)	8.0 (2.1)	5.7 (1.5)	0.0 (0.0)	0.0 (0.0)	2.6 (1.6)	6.0 (1.3)	4.3 (1.0)
25	0.2 (0.1)	0.2 (0.1)	7.6 (3.6)	5.4 (2.6)	6.9 (2.9)	4.9 (2.1)	0.0 (0.0)	0.0 (0.0)	2.0 (1.5)	5.1 (2.0)	3.6 (1.5)
26	0.1 (0.1)	0.1 (0.0)	9.3 (1.5)	6.7 (1.1)	9.4 (1.3)	6.7 (0.9)	0.0 (0.0)	0.0 (0.0)	2.2 (0.9)	5.6 (0.8)	4.0 (0.5)
27	0.3 (0.1)	0.2 (0.1)	9.3 (3.4)	6.6 (2.4)	8.3 (2.0)	5.9 (1.4)	0.1 (0.0)	0.0 (0.0)	2.6 (1.1)	4.0 (2.4)	
28	0.2 (0.1)	0.1 (0.1)	8.4 (3.4)	6.0 (2.4)	7.8 (2.2)	5.6 (1.6)	0.1 (0.0)	0.1 (0.0)	2.4 (0.6)	3.5 (0.5)	
29	0.3 (0.2)	0.2 (0.2)	7.4 (3.2)	5.3 (2.3)	6.7 (3.0)	4.8 (2.1)	0.1 (0.0)	0.1 (0.0)	1.5 (0.9)	2.8 (1.1)	
30	0.1 (0.0)	0.1 (0.0)	6.8 (2.9)	4.8 (2.1)	6.8 (3.4)	4.9 (2.4)	0.1 (0.1)	0.1 (0.1)	1.6 (0.9)	2.7 (0.8)	
31	0.3 (0.2)	0.2 (0.1)	5.9 (2.3)	4.2 (1.6)	6.1 (2.7)	4.4 (1.9)	0.0 (0.0)	0.0 (0.0)	1.2 (0.8)	2.4 (1.1)	
Mean	0.2	0.1	5.9	4.2	5.9	4.2	0.1	0.1	1.4	3.7	2.7
n	31	31	30	30	30	30	31	31	30	29	24
SD	0.1	0.1	2.2	1.6	1.9	1.4	0.1	0.0	0.7	1.2	0.9
Min	0.1	0.0	3.0	2.1	2.7	1.9	0.0	0.0	0.4	1.9	1.4
Max	0.4	0.3	11.4	8.1	10.0	7.2	0.2	0.1	3.0	7.2	5.2

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for November, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.3 (0.2)	0.2 (0.1)	5.7 (2.8)	4.1 (2.0)	6.7 (3.1)	4.8 (2.2)	0.1 (0.1)	0.1 (0.0)	1.2 (1.0)	2.6 (0.9)	
2	0.1 (0.1)	0.1 (0.0)	5.2 (2.9)	3.7 (2.1)	6.7 (3.6)	4.8 (2.6)	0.1 (0.1)	0.1 (0.1)	1.4 (1.1)	2.8 (0.9)	
3	0.1 (0.0)	0.1 (0.0)	4.7 (1.9)	3.4 (1.3)	5.7 (2.5)	4.1 (1.8)	0.1 (0.0)	0.0 (0.0)	0.5 (0.3)	2.4 (0.6)	
4	0.1 (0.0)	0.1 (0.0)	3.8 (2.2)	2.8 (1.6)	4.9 (2.7)	3.5 (1.9)	0.1 (0.0)	0.1 (0.0)	0.5 (0.3)	2.3 (0.6)	
5	0.1 (0.1)	0.1 (0.0)	4.9 (2.0)	3.5 (1.5)	6.2 (2.7)	4.4 (1.9)	0.0 (0.1)	0.0 (0.0)	0.6 (0.5)	3.0 (1.0)	2.1 (0.7)
6	0.2 (0.0)	0.1 (0.0)	8.0 (2.6)	5.7 (1.9)	10.8 (4.0)	7.7 (2.9)	0.0 (0.0)	0.0 (0.0)	1.8 (1.0)	4.3 (0.9)	3.1 (0.7)
7	0.3 (0.2)	0.2 (0.1)	7.2 (2.6)	5.2 (1.8)	10.6 (4.9)	7.6 (3.5)	0.0 (0.0)	0.0 (0.0)	1.9 (0.9)	4.8 (0.9)	3.4 (0.6)
8	0.3 (0.2)	0.2 (0.1)	7.5 (2.8)	5.3 (2.0)	12.7 (8.3)	9.2 (6.0)	0.0 (0.0)	0.0 (0.0)	1.9 (1.3)	4.5 (1.2)	3.2 (0.9)
9	0.2 (0.1)	0.1 (0.0)	8.0 (2.5)	5.7 (1.8)	9.8 (3.4)	7.0 (2.4)	0.1 (0.0)	0.1 (0.0)	2.3 (1.5)	5.0 (0.7)	3.6 (0.5)
10	0.1 (0.1)	0.1 (0.0)	7.3 (1.9)	5.2 (1.4)	8.6 (2.3)	6.2 (1.6)	0.0 (0.0)	0.0 (0.0)	1.9 (1.3)	5.0 (0.8)	3.6 (0.6)
11	0.3 (0.1)	0.2 (0.1)	9.5 (1.9)	6.8 (1.4)	11.0 (2.1)	7.8 (1.5)	0.0 (0.0)	0.0 (0.0)	2.6 (1.0)	6.6 (1.0)	4.7 (0.7)
12	0.4 (0.2)	0.3 (0.1)	8.5 (3.5)	6.1 (2.5)	11.1 (3.7)	7.9 (2.7)	0.0 (0.0)	0.0 (0.0)	2.9 (1.2)	6.6 (1.6)	4.7 (1.1)
13	0.2 (0.1)	0.2 (0.0)	7.1 (3.1)	5.1 (2.2)	9.0 (5.0)	6.5 (3.6)	0.0 (0.0)	0.0 (0.0)	1.6 (1.3)	5.8 (1.4)	4.2 (1.0)
14	0.1 (0.1)	0.1 (0.0)	9.3 (0.8)	6.6 (0.6)	11.5 (1.1)	8.2 (0.8)	0.0 (0.0)	0.0 (0.0)	2.0 (0.9)	7.8 (0.8)	5.6 (0.6)
15	0.4 (0.1)	0.2 (0.1)	10.2 (2.0)	7.3 (1.4)	12.5 (2.3)	8.9 (1.6)	0.0 (0.0)	0.0 (0.0)	2.7 (0.8)	8.4 (1.1)	6.0 (0.8)
16	0.3 (0.1)	0.2 (0.1)	7.1 (3.1)	5.1 (2.2)	8.6 (4.2)	6.1 (3.0)	0.0 (0.0)	0.0 (0.0)	2.0 (1.5)	6.7 (2.3)	4.8 (1.6)
17	0.2 (0.0)	0.1 (0.0)	8.4 (2.3)	6.0 (1.7)	10.9 (3.2)	7.8 (2.3)	0.1 (0.0)	0.1 (0.0)	2.2 (0.9)	4.7 (3.0)	
18	0.1 (0.0)	0.1 (0.0)	7.3 (3.3)	5.2 (2.4)	9.8 (4.8)	7.0 (3.4)	0.1 (0.0)	0.1 (0.0)	2.0 (1.2)	3.4 (0.9)	2.5 (0.6)
19	0.1 (0.0)	0.1 (0.0)	6.2 (3.3)	4.4 (2.3)	8.3 (4.7)	5.9 (3.4)	0.0 (0.0)	0.0 (0.0)	1.5 (0.9)	3.5 (1.1)	2.5 (0.8)
20	0.1 (0.0)	0.0 (0.0)	10.4 (1.6)	7.4 (1.1)	13.6 (1.8)	9.7 (1.3)	0.1 (0.0)	0.0 (0.0)	1.9 (0.5)	4.4 (0.6)	3.1 (0.4)
21	0.1 (0.0)	0.1 (0.0)	9.3 (1.1)	6.6 (0.8)	13.2 (1.3)	9.4 (0.9)	0.0 (0.0)	0.0 (0.0)	3.3 (0.4)	4.2 (0.4)	3.0 (0.3)
22	0.2 (0.1)	0.2 (0.0)	8.4 (2.4)	6.0 (1.7)	11.4 (3.2)	8.2 (2.3)	0.1 (0.0)	0.1 (0.0)	2.9 (0.6)	4.4 (0.5)	3.2 (0.4)
23	0.2 (0.1)	0.2 (0.1)	8.2 (3.1)	5.8 (2.2)	10.8 (4.0)	7.7 (2.8)	0.1 (0.0)	0.1 (0.0)	2.7 (0.8)	4.9 (0.8)	3.5 (0.6)
24	0.1 (0.0)	0.1 (0.0)	9.1 (2.2)	6.5 (1.6)	11.5 (3.5)	8.2 (2.5)	0.0 (0.0)	0.0 (0.0)	2.7 (0.6)	5.3 (0.8)	3.8 (0.6)
25	0.2 (0.1)	0.1 (0.0)	7.9 (2.8)	5.6 (2.0)	10.4 (4.0)	7.4 (2.9)	0.0 (0.0)	0.0 (0.0)	2.9 (0.7)	5.2 (1.1)	3.7 (0.8)
26	0.2 (0.0)	0.1 (0.0)	7.3 (2.3)	5.2 (1.7)	9.3 (3.0)	6.6 (2.2)	0.1 (0.0)	0.0 (0.0)	2.5 (0.6)	5.3 (1.2)	3.8 (0.9)
27	0.2 (0.0)	0.1 (0.0)	9.2 (1.6)	6.5 (1.2)	13.1 (1.6)	9.3 (1.2)	0.1 (0.0)	0.1 (0.0)	2.9 (0.5)	5.8 (0.7)	4.1 (0.5)
28	0.2 (0.0)	0.1 (0.0)	9.6 (1.8)	6.9 (1.3)	14.1 (1.8)	10.1 (1.3)	0.1 (0.0)	0.1 (0.0)	3.8 (0.4)	5.4 (0.6)	3.8 (0.4)
29	0.2 (0.0)	0.1 (0.0)	9.4 (1.4)	6.7 (1.0)	13.4 (2.0)	9.6 (1.4)	0.1 (0.0)	0.1 (0.0)	2.6 (0.5)	5.9 (0.5)	4.2 (0.4)
30	0.2 (0.0)	0.1 (0.0)	9.4 (1.3)	6.7 (0.9)	13.3 (1.3)	9.5 (0.9)	0.1 (0.0)	0.0 (0.0)	2.3 (0.4)	6.0 (0.3)	4.3 (0.2)
Mean	0.2	0.1	7.8	5.6	10.3	7.4	0.1	0.0	2.1	4.9	3.8
n	30	30	30	30	30	30	30	30	30	30	25
SD	0.1	0.1	1.7	1.2	2.5	1.8	0.0	0.0	0.8	1.5	0.9
Min	0.1	0.0	3.8	2.8	4.9	3.5	0.0	0.0	0.5	2.3	2.1
Max	0.4	0.3	10.4	7.4	14.1	10.1	0.1	0.1	3.8	8.4	6.0

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for December, 2008. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.3 (0.1)	0.2 (0.1)	9.8 (2.1)	7.0 (1.5)	13.2 (2.0)	9.4 (1.4)	0.1 (0.0)	0.1 (0.0)	3.0 (0.5)	5.9 (0.9)	4.2 (0.6)
2	0.2 (0.1)	0.2 (0.1)	7.3 (3.6)	5.2 (2.6)	10.2 (4.3)	7.3 (3.1)	0.1 (0.0)	0.1 (0.0)	2.5 (1.0)	4.9 (1.3)	3.5 (0.9)
3	0.1 (0.0)	0.1 (0.0)	10.5 (2.2)	7.5 (1.6)	14.2 (2.6)	10.1 (1.9)	0.0 (0.0)	0.0 (0.0)	3.2 (1.0)	6.6 (1.1)	4.7 (0.8)
4	0.2 (0.1)	0.1 (0.1)	10.3 (1.7)	7.3 (1.2)	14.2 (1.4)	10.1 (1.0)	0.1 (0.0)	0.1 (0.0)	5.5 (0.9)	6.7 (0.8)	4.8 (0.6)
5	0.2 (0.2)	0.2 (0.1)	10.1 (1.2)	7.2 (0.9)	13.5 (1.9)	9.7 (1.3)	0.0 (0.0)	0.0 (0.0)	5.2 (1.2)	8.1 (1.1)	5.8 (0.8)
6	0.4 (0.2)	0.3 (0.1)	9.5 (1.8)	6.8 (1.3)	11.8 (2.7)	8.4 (2.0)	0.1 (0.0)	0.1 (0.0)	4.0 (1.2)	7.3 (1.6)	5.2 (1.2)
7	0.2 (0.1)	0.1 (0.0)	7.3 (2.2)	5.2 (1.6)	9.1 (3.6)	6.5 (2.6)	0.1 (0.0)	0.1 (0.0)	3.8 (1.8)	6.5 (1.2)	4.6 (0.9)
8	0.1 (0.0)	0.1 (0.0)	7.4 (2.8)	5.3 (2.0)	7.7 (2.4)	5.5 (1.7)	0.2 (0.0)	0.1 (0.0)	3.4 (1.1)	6.6 (1.3)	4.7 (0.9)
9	0.2 (0.1)	0.1 (0.0)	11.4 (1.4)	8.1 (1.0)	10.6 (1.5)	7.5 (1.1)	0.0 (0.0)	0.0 (0.0)	3.4 (0.7)	10.2 (1.7)	7.3 (1.2)
10	0.4 (0.2)	0.3 (0.1)	10.0 (1.3)	7.1 (1.0)	8.9 (0.7)	6.3 (0.5)	0.0 (0.0)	0.0 (0.0)	4.3 (1.0)	11.2 (1.6)	8.1 (1.1)
11	0.2 (0.1)	0.1 (0.0)	8.9 (2.2)	6.3 (1.6)	8.5 (1.4)	6.1 (1.0)	0.1 (0.0)	0.0 (0.0)	3.2 (0.8)	9.4 (1.8)	6.7 (1.3)
12	0.1 (0.0)	0.1 (0.0)	9.4 (1.7)	6.7 (1.2)	9.8 (1.5)	7.0 (1.1)	0.0 (0.0)	0.0 (0.0)		7.3 (2.7)	
13	0.1 (0.1)	0.1 (0.0)	6.9 (2.5)	4.9 (1.8)	7.6 (2.2)	5.5 (1.6)	0.1 (0.0)	0.1 (0.0)	3.9 (1.5)	6.8 (1.3)	4.9 (0.9)
14	0.0 (0.0)	0.0 (0.0)	10.7 (2.1)	7.6 (1.5)	10.4 (2.0)	7.4 (1.5)	0.0 (0.0)	0.0 (0.0)	4.2 (0.7)	9.0 (1.0)	6.4 (0.7)
15	0.0 (0.0)	0.0 (0.0)	11.7 (1.1)	8.3 (0.8)	9.4 (0.9)	6.7 (0.7)	0.0 (0.0)	0.0 (0.0)	7.6 (1.7)	10.8 (1.6)	7.7 (1.2)
16	0.1 (0.0)	0.1 (0.0)	12.3 (1.3)	8.7 (1.0)	10.8 (1.5)	7.7 (1.0)	0.0 (0.0)	0.0 (0.0)	7.4 (1.6)		
17	0.2 (0.1)	0.1 (0.1)	12.9 (0.9)	9.2 (0.7)	13.4 (1.1)	9.6 (0.8)	0.1 (0.0)	0.1 (0.0)	6.5 (0.5)	9.7 (0.7)	7.0 (0.5)
18	0.2 (0.1)	0.2 (0.1)	9.3 (3.6)	6.6 (2.6)	10.2 (3.4)	7.3 (2.4)	0.1 (0.1)	0.1 (0.0)	3.9 (2.1)	8.0 (2.0)	5.7 (1.4)
19	0.2 (0.1)	0.1 (0.0)	9.9 (2.0)	7.0 (1.4)	13.6 (1.9)	9.7 (1.4)	0.1 (0.0)	0.1 (0.0)	4.4 (1.1)	8.4 (1.3)	6.0 (0.9)
20	0.2 (0.1)	0.1 (0.1)	10.3 (1.2)	7.4 (0.8)	11.0 (1.7)	7.8 (1.2)	0.0 (0.0)	0.0 (0.0)	3.9 (1.1)	10.5 (0.9)	7.5 (0.6)
21	0.0 (0.0)	0.0 (0.0)	10.5 (1.4)	7.5 (1.0)	9.6 (1.2)	6.8 (0.8)	0.0 (0.0)	0.0 (0.0)	6.1 (0.5)	10.9 (0.8)	7.8 (0.6)
22	0.1 (0.0)	0.1 (0.0)	9.8 (1.0)	7.0 (0.7)	11.1 (1.6)	7.9 (1.1)	0.0 (0.0)	0.0 (0.0)	5.9 (1.6)		
23	0.1 (0.1)	0.1 (0.0)	9.1 (2.5)	6.5 (1.8)	11.6 (3.0)	8.2 (2.2)	0.0 (0.0)	0.0 (0.0)	3.8 (1.9)	8.3 (0.9)	5.9 (0.7)
24	0.2 (0.1)	0.1 (0.1)	10.5 (1.5)	7.5 (1.1)	11.8 (2.1)	8.4 (1.5)	0.0 (0.0)	0.0 (0.0)	5.3 (2.5)	8.9 (1.9)	6.4 (1.4)
25	0.1 (0.0)	0.1 (0.0)	9.2 (1.6)	6.5 (1.2)	8.9 (1.2)	6.3 (0.8)	0.0 (0.0)	0.0 (0.0)	3.2 (1.7)	6.4 (1.1)	4.5 (0.8)
26	0.1 (0.1)	0.1 (0.0)	7.8 (2.8)	5.5 (2.0)	7.8 (2.8)	5.6 (2.0)	0.0 (0.1)	0.0 (0.0)	2.3 (1.5)	6.2 (1.2)	4.4 (0.9)
27	0.1 (0.1)	0.1 (0.0)	10.3 (1.4)	7.3 (1.0)	10.2 (1.2)	7.3 (0.9)	0.0 (0.0)	0.0 (0.0)	3.1 (1.2)	9.5 (1.2)	6.8 (0.8)
28	0.3 (0.1)	0.2 (0.0)	9.4 (2.6)	6.7 (1.9)	8.8 (1.2)	6.3 (0.9)	0.0 (0.0)	0.0 (0.0)	3.5 (1.8)	8.7 (2.2)	6.2 (1.6)
29	0.6 (0.1)	0.5 (0.1)	8.9 (3.2)	6.4 (2.3)	9.4 (2.7)	6.7 (1.9)	0.0 (0.0)	0.0 (0.0)	3.2 (1.4)	8.5 (1.7)	6.1 (1.2)
30	0.1 (0.1)	0.1 (0.1)	8.6 (2.9)	6.2 (2.1)	11.3 (4.1)	8.1 (2.9)	0.0 (0.0)	0.0 (0.0)	2.9 (1.7)	8.6 (2.6)	6.1 (1.9)
31	0.1 (0.1)	0.1 (0.1)	11.2 (2.1)	8.0 (1.5)	14.2 (1.8)	10.1 (1.3)	0.0 (0.0)	0.0 (0.0)	4.2 (0.7)	9.8 (1.7)	7.0 (1.2)
Mean	0.2	0.1	9.7	6.9	10.7	7.7	0.0	0.0	4.2	8.3	5.9
n	31	31	31	31	31	31	31	31	30	29	28
SD	0.1	0.1	1.4	1.0	2.0	1.4	0.0	0.0	1.4	1.7	1.2
Min	0.0	0.0	6.9	4.9	7.6	5.5	0.0	0.0	2.3	4.9	3.5
Max	0.6	0.5	12.9	9.2	14.2	10.1	0.2	0.1	7.6	11.2	8.1

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for January, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.1 (0.1)	0.1 (0.1)	9.4 (2.9)	6.7 (2.0)	12.4 (3.4)	8.9 (2.5)	0.0 (0.0)	0.0 (0.0)	3.8 (1.9)	9.4 (2.2)	6.7 (1.6)
2	0.3 (0.2)	0.2 (0.1)	8.9 (3.5)	6.3 (2.5)	11.7 (4.3)	8.3 (3.1)	0.1 (0.0)	0.1 (0.0)	3.5 (2.2)	9.6 (2.9)	6.9 (2.1)
3	0.2 (0.2)	0.1 (0.1)	10.3 (2.5)	7.3 (1.8)	12.3 (3.0)	8.8 (2.1)	0.1 (0.0)	0.1 (0.0)	2.7 (1.2)	10.3 (1.8)	7.4 (1.3)
4	0.1 (0.1)	0.0 (0.0)	12.1 (1.1)	8.6 (0.8)	14.0 (1.6)	10.0 (1.2)	0.0 (0.0)	0.0 (0.0)	4.5 (1.5)	12.4 (0.6)	8.9 (0.4)
5	0.3 (0.2)	0.2 (0.1)	11.2 (2.0)	8.0 (1.4)	13.7 (1.1)	9.8 (0.8)	0.0 (0.0)	0.0 (0.0)	7.2 (2.0)	9.7 (3.8)	
6	0.2 (0.1)	0.2 (0.1)	11.3 (2.1)	8.1 (1.5)	13.3 (1.6)	9.5 (1.2)	0.0 (0.0)	0.0 (0.0)	3.0 (1.4)	7.3 (3.2)	5.2 (2.3)
7	0.3 (0.1)	0.2 (0.1)	9.5 (3.6)	6.8 (2.6)	11.5 (4.1)	8.2 (3.0)	0.0 (0.0)	0.0 (0.0)	3.0 (0.8)	5.3 (1.5)	3.8 (1.1)
8	0.4 (0.2)	0.3 (0.1)	9.8 (4.0)	7.0 (2.9)	11.2 (4.7)	8.0 (3.3)	0.1 (0.0)	0.1 (0.0)	2.7 (1.4)	5.1 (1.1)	3.6 (0.8)
9	0.2 (0.1)	0.1 (0.1)	12.2 (5.6)	8.8 (4.1)	13.2 (3.6)	9.5 (2.6)	0.1 (0.0)	0.0 (0.0)	2.5 (1.4)	6.8 (1.3)	4.9 (0.9)
10	0.4 (0.2)	0.3 (0.2)	10.8 (2.2)	7.7 (1.6)	13.9 (2.0)	9.9 (1.5)	0.0 (0.0)	0.0 (0.0)	2.8 (0.8)	7.0 (1.1)	5.0 (0.8)
11	0.3 (0.2)	0.2 (0.1)	10.5 (2.2)	7.5 (1.6)	13.2 (2.6)	9.4 (1.8)	0.1 (0.0)	0.0 (0.0)	2.8 (1.0)	6.8 (1.8)	4.8 (1.3)
12	0.4 (0.2)	0.3 (0.1)	11.3 (1.2)	8.1 (0.8)	13.6 (1.8)	9.7 (1.3)	0.0 (0.0)	0.0 (0.0)	2.2 (0.8)	7.3 (0.5)	5.3 (0.4)
13	0.3 (0.2)	0.2 (0.1)	12.2 (3.4)	8.8 (2.5)	13.9 (2.2)	9.9 (1.6)	0.0 (0.0)	0.0 (0.0)	2.8 (1.2)	7.0 (1.3)	5.0 (1.0)
14	0.2 (0.1)	0.2 (0.1)	11.7 (4.4)	8.4 (3.2)	12.0 (2.1)	8.6 (1.5)	0.0 (0.0)	0.0 (0.0)	2.9 (1.1)	7.2 (1.3)	5.2 (0.9)
15	0.1 (0.0)	0.1 (0.0)	11.0 (1.1)	7.8 (0.8)	11.7 (3.6)	8.4 (2.5)	0.0 (0.0)	0.0 (0.0)	4.8 (0.5)	8.1 (0.9)	5.8 (0.6)
16	0.2 (0.1)	0.1 (0.1)	9.7 (3.1)	6.9 (2.2)	11.6 (3.5)	8.3 (2.5)	0.1 (0.0)	0.1 (0.0)	2.2 (1.4)	6.0 (0.9)	4.3 (0.7)
17	0.3 (0.1)	0.2 (0.1)	9.1 (2.2)	6.5 (1.6)	11.6 (3.4)	8.3 (2.4)	0.0 (0.0)	0.0 (0.0)	1.6 (0.6)	6.2 (0.9)	4.5 (0.7)
18	0.2 (0.1)	0.1 (0.1)	7.9 (3.0)	5.7 (2.1)	9.4 (3.5)	6.7 (2.5)	0.0 (0.0)	0.0 (0.0)	1.1 (0.9)	5.9 (1.0)	4.2 (0.7)
19	0.1 (0.1)	0.1 (0.0)	7.3 (2.7)	5.2 (2.0)	9.4 (3.4)	6.7 (2.4)	0.0 (0.0)	0.0 (0.0)	1.2 (0.8)	6.1 (1.3)	4.4 (0.9)
20	0.2 (0.1)	0.2 (0.1)	9.7 (2.9)	6.9 (2.1)	11.4 (3.8)	8.2 (2.7)	0.0 (0.0)	0.0 (0.0)	2.4 (1.2)	8.5 (1.6)	6.1 (1.1)
21	0.3 (0.1)	0.2 (0.1)	8.5 (3.4)	6.0 (2.4)	9.4 (3.5)	6.7 (2.5)	0.0 (0.0)	0.0 (0.0)	1.7 (1.3)	7.6 (2.2)	5.4 (1.6)
22	0.3 (0.1)	0.2 (0.1)	7.7 (3.4)	5.5 (2.4)	7.3 (4.6)	5.2 (3.3)	0.0 (0.0)	0.0 (0.0)	2.0 (1.8)	7.2 (1.9)	5.2 (1.4)
23	0.2 (0.2)	0.1 (0.1)	10.9 (0.9)	7.8 (0.6)	10.6 (4.2)	7.6 (3.0)	0.0 (0.0)	0.0 (0.0)	3.2 (0.9)	9.2 (1.5)	6.6 (1.1)
24	0.1 (0.0)	0.0 (0.0)	12.6 (1.3)	9.0 (0.9)	14.4 (1.4)	10.3 (1.0)	0.0 (0.0)	0.0 (0.0)	4.7 (1.1)	9.1 (1.3)	6.5 (0.9)
25	0.0 (0.0)	0.0 (0.0)	12.8 (1.0)	9.1 (0.7)	16.2 (2.5)	11.5 (1.8)	0.0 (0.0)	0.0 (0.0)	6.0 (1.2)	10.3 (1.8)	7.4 (1.3)
26	0.1 (0.0)	0.0 (0.0)	13.1 (0.4)	9.3 (0.3)	17.7 (1.0)	12.6 (0.8)	0.0 (0.0)	0.0 (0.0)	4.8 (2.2)	8.7 (5.0)	
27	0.2 (0.2)	0.1 (0.1)	14.1 (1.1)	10.0 (0.8)	16.3 (0.7)	11.6 (0.5)	0.0 (0.0)	0.0 (0.0)	3.6 (0.8)	7.1 (2.5)	5.1 (1.8)
28	0.4 (0.2)	0.3 (0.1)	12.1 (2.2)	8.7 (1.5)	15.0 (2.2)	10.7 (1.6)	0.0 (0.0)	0.0 (0.0)	3.8 (0.6)	5.9 (1.0)	4.2 (0.7)
29	0.4 (0.2)	0.3 (0.1)	12.4 (1.4)	8.9 (1.0)	15.2 (2.3)	10.9 (1.7)	0.0 (0.0)	0.0 (0.0)	3.6 (0.6)	6.8 (0.6)	4.8 (0.4)
30	0.5 (0.2)	0.3 (0.1)	10.5 (3.1)	7.5 (2.2)	12.6 (3.8)	9.0 (2.8)	0.0 (0.0)	0.0 (0.0)	2.5 (1.1)	5.7 (1.6)	4.1 (1.1)
31	0.1 (0.1)	0.1 (0.1)	9.8 (3.7)	7.0 (2.7)	11.1 (4.8)	7.9 (3.4)	0.0 (0.0)	0.0 (0.0)	2.1 (1.2)	5.1 (1.4)	3.7 (1.0)
Mean	0.2	0.2	10.7	7.6	12.6	9.0	0.0	0.0	3.2	7.6	5.3
n	31	31	31	31	31	31	31	31	31	31	29
SD	0.1	0.1	1.7	1.2	2.2	1.6	0.0	0.0	1.3	1.7	1.2
Min	0.0	0.0	7.3	5.2	7.3	5.2	0.0	0.0	1.1	5.1	3.6
Max	0.5	0.3	14.1	10.0	17.7	12.6	0.1	0.1	7.2	12.4	8.9

US EPA ARCHIVE DOCUMENT

Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for February, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.1 (0.1)	0.1 (0.1)	11.8 (2.3)	8.4 (1.7)	15.7 (2.5)	11.2 (1.8)	0.0 (0.0)	0.0 (0.0)	2.7 (0.8)	6.8 (0.5)	4.9 (0.4)
2	0.2 (0.1)	0.2 (0.1)	10.9 (2.6)	7.8 (1.8)	13.1 (2.6)	9.3 (1.9)	0.0 (0.0)	0.0 (0.0)	2.9 (1.4)	6.1 (1.3)	4.3 (0.9)
3	0.3 (0.1)	0.2 (0.1)	8.6 (2.3)	6.1 (1.6)	11.8 (4.2)	8.4 (3.0)	0.0 (0.0)	0.0 (0.0)	2.2 (0.9)	5.2 (1.2)	3.7 (0.9)
4	0.2 (0.1)	0.1 (0.1)	9.2 (3.8)	6.6 (2.7)	10.8 (5.3)	7.7 (3.8)	0.0 (0.0)	0.0 (0.0)	1.9 (1.3)	4.2 (1.3)	3.0 (1.0)
5	0.2 (0.1)	0.1 (0.1)	8.5 (3.6)	6.1 (2.6)	10.7 (4.8)	7.7 (3.5)	0.0 (0.0)	0.0 (0.0)			
6	0.1 (0.1)	0.1 (0.1)	6.9 (4.0)	4.9 (2.8)	9.1 (5.9)	6.5 (4.2)	0.0 (0.0)	0.0 (0.0)	1.6 (1.4)	3.9 (1.7)	2.8 (1.2)
7	0.5 (0.2)	0.3 (0.1)	8.5 (3.4)	6.0 (2.5)	9.1 (4.0)	6.5 (2.8)	0.0 (0.0)	0.0 (0.0)	1.6 (0.9)	4.5 (1.3)	3.2 (0.9)
8	0.5 (0.2)	0.4 (0.1)	9.7 (1.5)	6.9 (1.1)	10.2 (1.7)	7.3 (1.2)	0.2 (0.1)	0.1 (0.1)	1.6 (0.8)	4.3 (0.3)	3.1 (0.2)
9	0.1 (0.1)	0.1 (0.1)	9.1 (3.5)	6.5 (2.5)	9.9 (3.8)	7.1 (2.7)	0.1 (0.1)	0.1 (0.1)	2.1 (1.1)	4.6 (0.8)	3.3 (0.6)
10	0.1 (0.1)	0.1 (0.1)	9.4 (3.3)	6.7 (2.3)	12.4 (4.6)	8.8 (3.3)	0.0 (0.0)	0.0 (0.0)	2.4 (1.5)	5.4 (1.4)	3.9 (1.0)
11	0.2 (0.0)	0.2 (0.0)	10.0 (2.6)	7.1 (1.9)	13.8 (4.8)	9.8 (3.5)	0.0 (0.0)	0.0 (0.0)	1.9 (1.0)	6.2 (1.3)	4.4 (0.9)
12	0.4 (0.2)	0.3 (0.2)	11.9 (1.8)	8.5 (1.3)	16.3 (2.3)	11.6 (1.7)	0.1 (0.0)	0.1 (0.0)	3.3 (1.2)	6.7 (1.2)	4.8 (0.8)
13	0.1 (0.1)	0.1 (0.0)	13.5 (1.9)	9.7 (1.4)	16.8 (2.1)	12.0 (1.5)	0.1 (0.0)	0.1 (0.0)	3.6 (1.2)	8.1 (0.8)	5.8 (0.6)
14	0.1 (0.0)	0.1 (0.0)	12.9 (1.0)	9.2 (0.7)	15.5 (1.6)	11.0 (1.2)	0.1 (0.0)	0.0 (0.0)	4.6 (0.9)	7.3 (0.7)	5.2 (0.5)
15	0.1 (0.1)	0.1 (0.0)	13.4 (1.5)	9.6 (1.1)	14.2 (1.5)	10.1 (1.1)	0.1 (0.0)	0.1 (0.0)	4.5 (1.1)	8.2 (1.3)	5.9 (0.9)
16	0.1 (0.0)	0.1 (0.0)	10.4 (2.7)	7.5 (1.9)	13.0 (3.6)	9.3 (2.6)	0.1 (0.0)	0.0 (0.0)	3.3 (1.9)	7.1 (1.3)	5.1 (0.9)
17	0.1 (0.0)	0.1 (0.0)	8.3 (4.6)	5.9 (3.3)	11.0 (6.6)	7.8 (4.7)	0.0 (0.0)	0.0 (0.0)	1.9 (1.6)	6.9 (2.2)	4.9 (1.6)
18	0.2 (0.1)	0.2 (0.0)					0.0 (0.0)	0.0 (0.0)			
19	0.4 (0.2)	0.3 (0.1)	10.5 (2.9)	7.5 (2.1)	12.9 (3.9)	9.2 (2.8)	0.0 (0.0)	0.0 (0.0)	4.6 (1.2)	8.5 (1.4)	6.1 (1.0)
20	0.3 (0.3)	0.2 (0.2)	9.6 (3.7)	6.8 (2.7)	11.5 (5.4)	8.2 (3.9)	0.0 (0.0)	0.0 (0.0)	3.6 (2.1)	6.2 (2.1)	4.4 (1.5)
21	0.2 (0.1)	0.1 (0.0)	11.4 (2.4)	8.1 (1.8)	16.0 (3.5)	11.4 (2.5)	0.0 (0.0)	0.0 (0.0)	3.5 (1.2)	6.3 (0.8)	4.5 (0.6)
22	0.2 (0.1)	0.1 (0.1)	8.2 (2.6)	5.8 (1.9)	14.2 (6.7)	10.2 (4.8)	0.0 (0.0)	0.0 (0.0)	3.9 (2.3)	5.5 (2.1)	3.9 (1.5)
23	0.1 (0.0)	0.1 (0.0)	10.0 (2.2)	7.2 (1.6)	12.8 (2.6)	9.1 (1.9)	0.1 (0.0)	0.1 (0.0)	3.2 (1.9)	6.1 (1.7)	4.4 (1.2)
24	0.3 (0.1)	0.2 (0.0)	8.8 (3.9)	6.3 (2.7)	11.3 (5.4)	8.1 (3.9)	0.1 (0.0)	0.1 (0.0)	2.4 (1.6)	5.6 (1.8)	4.0 (1.3)
25	0.5 (0.1)						0.1 (0.0)				
26	0.2 (0.1)						0.0 (0.0)				
27	0.1 (0.0)	0.0 (0.0)	10.4 (1.6)	7.4 (1.2)	15.0 (2.5)	10.7 (1.8)	0.0 (0.0)	0.0 (0.0)	3.1 (1.6)	7.6 (1.6)	5.4 (1.1)
28	0.2 (0.1)	0.1 (0.1)	11.7 (1.1)	8.3 (0.8)	15.5 (1.8)	11.1 (1.3)	0.0 (0.0)	0.0 (0.0)	3.4 (0.9)	8.3 (1.0)	5.9 (0.7)
Mean	0.2	0.2	10.1	7.2	12.9	9.2	0.0	0.0	2.9	6.2	4.5
n	28	26	25	25	25	25	28	26	24	24	24
SD	0.1	0.1	1.7	1.2	2.3	1.6	0.0	0.0	0.9	1.3	1.0
Min	0.1	0.0	6.9	4.9	9.1	6.5	0.0	0.0	1.6	3.9	2.8
Max	0.5	0.4	13.5	9.7	16.8	12.0	0.2	0.1	4.6	8.5	6.1

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for March, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.2 (0.2)	0.1 (0.1)	11.2 (1.5)	8.0 (1.1)	12.9 (3.1)	9.2 (2.2)	0.0 (0.0)	0.0 (0.0)	7.7 (7.4)	8.1 (2.3)	5.8 (1.7)
2	0.4 (0.2)	0.3 (0.2)	9.9 (3.6)	7.1 (2.6)	10.7 (4.1)	7.7 (2.9)	0.1 (0.0)	0.1 (0.0)	9.3 (9.7)	10.9 (6.8)	7.9 (4.9)
3	0.2 (0.1)	0.1 (0.1)	8.8 (2.8)	6.3 (2.0)	8.6 (2.2)	6.1 (1.6)	0.1 (0.0)	0.1 (0.0)	2.0 (1.6)	5.6 (1.6)	4.0 (1.1)
4	0.1 (0.1)	0.1 (0.1)	6.4 (5.0)	4.6 (3.6)	7.0 (5.3)	5.1 (3.8)	0.0 (0.0)	0.0 (0.0)	1.1 (1.0)	3.6 (1.4)	2.6 (1.0)
5	0.0 (0.1)	0.0 (0.1)	5.5 (3.8)	4.0 (2.7)	5.7 (3.9)	4.0 (2.8)	0.0 (0.1)	0.0 (0.0)	0.4 (0.3)	3.5 (1.2)	2.5 (0.9)
6	0.0 (0.0)	0.0 (0.0)	6.1 (4.2)	4.4 (3.0)	6.4 (4.3)	4.6 (3.0)	-0.1 (0.0)	0.0 (0.0)	0.9 (0.9)	4.1 (1.4)	2.9 (1.0)
7	0.0 (0.0)	0.0 (0.0)	4.6 (2.7)	3.3 (1.9)	5.1 (3.1)	3.7 (2.2)	0.0 (0.0)	0.0 (0.0)	0.5 (0.6)	3.8 (1.4)	2.7 (1.0)
8	0.1 (0.1)	0.1 (0.1)	8.6 (3.9)	6.1 (2.8)	10.2 (5.0)	7.3 (3.6)	0.0 (0.0)	0.0 (0.0)	1.4 (1.3)	5.7 (1.5)	4.1 (1.1)
9	0.1 (0.0)	0.1 (0.0)	5.6 (2.7)	4.0 (1.9)	6.2 (3.3)	4.4 (2.4)	0.0 (0.0)	0.0 (0.0)	0.7 (0.4)	5.3 (1.2)	3.8 (0.9)
10	0.2 (0.0)	0.2 (0.0)	13.3 (1.2)	9.5 (0.8)	15.4 (2.0)	11.0 (1.5)	0.0 (0.0)	0.0 (0.0)	2.6 (1.0)	10.2 (1.5)	7.3 (1.0)
11	0.3 (0.0)	0.2 (0.0)	12.7 (1.8)	9.0 (1.3)	13.5 (1.7)	9.6 (1.2)	0.1 (0.0)	0.0 (0.0)	5.3 (2.5)		
12	0.4 (0.1)	0.3 (0.1)	11.0 (1.7)	7.9 (1.2)	14.9 (1.2)	10.6 (0.8)	0.1 (0.0)	0.1 (0.0)	6.3 (0.6)	5.0 (0.9)	3.5 (0.7)
13	0.3 (0.0)	0.2 (0.0)	12.0 (1.8)	8.6 (1.3)	18.2 (1.8)	13.0 (1.3)	0.1 (0.0)	0.1 (0.0)	5.4 (0.7)	6.1 (0.5)	4.4 (0.3)
14	0.3 (0.1)	0.2 (0.1)	9.5 (2.7)	6.8 (2.0)	13.3 (4.6)	9.5 (3.3)	0.1 (0.0)	0.1 (0.0)	5.0 (1.3)	5.3 (1.1)	3.8 (0.8)
15	0.3 (0.1)	0.2 (0.0)	7.9 (3.8)	5.6 (2.7)	10.4 (4.9)	7.4 (3.5)	0.1 (0.0)	0.1 (0.0)	3.1 (2.3)	4.8 (1.6)	3.4 (1.1)
16	0.2 (0.1)	0.2 (0.1)	6.8 (4.4)	4.9 (3.2)	8.9 (5.5)	6.3 (4.0)	0.1 (0.1)	0.0 (0.0)	2.3 (2.2)	4.3 (2.2)	3.0 (1.6)
17	0.4 (0.2)	0.3 (0.1)	5.8 (3.9)	4.1 (2.8)	7.3 (5.3)	5.2 (3.8)	0.0 (0.0)	0.0 (0.0)	1.3 (1.4)	3.3 (1.6)	2.3 (1.2)
18	0.4 (0.2)	0.3 (0.1)	7.7 (2.7)	5.5 (1.9)	9.0 (2.9)	6.5 (2.1)	0.0 (0.0)	0.0 (0.0)	1.5 (0.9)	4.3 (1.4)	3.0 (1.0)
19	0.5 (0.2)	0.4 (0.1)	7.8 (2.8)	5.6 (2.0)	10.3 (3.8)	7.4 (2.7)	0.1 (0.1)	0.1 (0.0)	1.7 (1.1)	5.2 (1.5)	3.7 (1.1)
20	0.4 (0.1)	0.3 (0.1)	6.3 (3.1)	4.5 (2.2)	8.2 (3.9)	5.9 (2.8)	0.2 (0.0)	0.2 (0.0)	1.3 (0.9)	3.5 (1.2)	2.5 (0.8)
21	0.2 (0.1)	0.2 (0.0)	4.1 (2.6)	2.9 (1.9)	5.0 (2.9)	3.6 (2.1)	0.1 (0.1)	0.1 (0.0)	0.4 (0.1)	2.6 (1.0)	1.9 (0.7)
22	0.2 (0.0)	0.2 (0.0)	3.5 (1.3)	2.5 (1.0)	5.3 (2.5)	3.8 (1.8)	0.1 (0.0)	0.1 (0.0)	0.5 (0.1)	2.7 (0.7)	1.9 (0.5)
23	0.1 (0.1)	0.1 (0.1)	4.3 (2.1)	3.0 (1.5)	5.1 (2.5)	3.7 (1.8)	0.0 (0.0)	0.0 (0.0)	0.5 (0.3)	2.9 (0.8)	2.1 (0.6)
24	0.2 (0.0)	0.1 (0.0)	9.7 (2.8)	6.9 (2.0)	9.8 (2.0)	7.0 (1.5)	0.0 (0.0)	0.0 (0.0)	1.9 (1.3)	5.2 (1.3)	3.7 (1.0)
25	0.2 (0.1)	0.2 (0.1)	9.2 (3.3)	6.5 (2.3)	11.2 (3.7)	8.0 (2.6)	0.0 (0.0)	0.0 (0.0)	1.6 (1.2)	5.3 (1.3)	3.8 (0.9)
26	0.4 (0.1)	0.3 (0.1)	9.8 (2.5)	7.0 (1.8)	13.2 (3.5)	9.5 (2.5)	0.1 (0.1)	0.1 (0.0)	1.6 (1.0)	5.4 (0.6)	3.9 (0.4)
27	0.2 (0.1)	0.2 (0.1)	12.4 (2.3)	8.9 (1.7)	16.6 (2.0)	11.8 (1.5)	0.0 (0.0)	0.0 (0.0)	2.9 (0.4)	8.6 (1.0)	6.1 (0.7)
28	0.5 (0.1)	0.3 (0.1)	12.5 (1.9)	8.9 (1.4)	15.4 (1.3)	11.0 (0.9)	0.0 (0.0)	0.0 (0.0)	3.6 (0.8)	8.1 (1.1)	5.8 (0.8)
29	0.4 (0.1)	0.3 (0.1)	10.5 (2.5)	7.5 (1.8)	13.4 (4.0)	9.6 (2.9)	0.1 (0.0)	0.1 (0.0)	2.9 (2.2)	7.2 (1.2)	5.1 (0.8)
30	0.3 (0.0)	0.2 (0.0)	11.4 (2.0)	8.2 (1.4)	13.6 (2.9)	9.7 (2.1)	0.1 (0.0)	0.1 (0.0)	2.3 (1.5)	6.4 (1.2)	4.6 (0.8)
31	0.3 (0.0)	0.2 (0.0)	11.3 (2.4)	8.1 (1.7)	13.1 (4.1)	9.4 (2.9)	0.0 (0.0)	0.0 (0.0)	1.9 (0.8)	6.7 (1.5)	4.8 (1.1)
Mean	0.3	0.2	8.6	6.1	10.4	7.5	0.1	0.0	2.6	5.5	3.9
n	31	31	31	31	31	31	31	31	31	30	30
SD	0.1	0.1	2.8	2.0	3.7	2.7	0.1	0.0	2.2	2.1	1.5
Min	0.0	0.0	3.5	2.5	5.0	3.6	-0.1	0.0	0.4	2.6	1.9
Max	0.5	0.4	13.3	9.5	18.2	13.0	0.2	0.2	9.3	10.9	7.9

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for April, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.3 (0.1)	0.2 (0.1)	9.9 (3.5)	7.1 (2.5)	10.8 (3.9)	7.7 (2.8)	0.1 (0.0)	0.1 (0.0)	2.2 (2.2)	5.7 (1.6)	4.1 (1.1)
2	0.3 (0.0)	0.2 (0.0)	10.6 (1.9)	7.5 (1.4)	11.1 (2.8)	7.9 (2.0)	0.1 (0.0)	0.1 (0.0)			
3	0.2 (0.1)	0.1 (0.0)	8.3 (4.3)	6.0 (3.1)	8.8 (4.5)	6.3 (3.3)	0.1 (0.0)	0.1 (0.0)	2.3 (1.7)	2.9 (1.0)	2.1 (0.7)
4	0.2 (0.0)	0.1 (0.0)	7.6 (3.1)	5.5 (2.2)	7.8 (2.8)	5.6 (2.0)	0.0 (0.0)	0.0 (0.0)	1.5 (1.1)	3.5 (0.7)	2.5 (0.5)
5	0.2 (0.0)	0.1 (0.0)	13.2 (1.7)	9.4 (1.2)	14.2 (1.3)	10.1 (0.9)	0.1 (0.0)	0.0 (0.0)	1.5 (0.6)	4.7 (0.8)	3.4 (0.6)
6	0.3 (0.0)	0.2 (0.0)	12.3 (2.9)	8.8 (2.1)	14.0 (2.6)	10.0 (1.9)	0.0 (0.0)	0.0 (0.0)	3.4 (0.9)	5.9 (1.0)	4.2 (0.7)
7	0.3 (0.1)	0.2 (0.1)	6.6 (3.1)	4.7 (2.2)	9.1 (6.0)	6.5 (4.3)	0.0 (0.1)	0.0 (0.0)	2.4 (2.2)	3.9 (1.9)	2.8 (1.3)
8	0.4 (0.1)	0.3 (0.1)	8.2 (4.6)	5.8 (3.3)	7.8 (4.8)	5.6 (3.5)	0.1 (0.0)	0.0 (0.0)	1.7 (1.7)	3.5 (1.4)	2.5 (1.0)
9	0.4 (0.2)	0.3 (0.2)	7.8 (3.0)	5.5 (2.1)	9.0 (3.1)	6.4 (2.2)	0.0 (0.0)	0.0 (0.0)	1.2 (0.9)	4.1 (0.9)	2.9 (0.6)
10	0.5 (0.3)	0.3 (0.2)	9.7 (3.3)	6.9 (2.4)	11.2 (4.1)	8.0 (3.0)	0.1 (0.1)	0.0 (0.1)	1.4 (0.9)	4.5 (1.4)	3.3 (1.0)
11	0.5 (0.1)	0.4 (0.1)	10.9 (1.8)	7.8 (1.3)	12.5 (2.9)	8.9 (2.0)	0.2 (0.0)	0.1 (0.0)	1.5 (0.7)	3.9 (0.7)	2.8 (0.5)
12	0.4 (0.1)	0.3 (0.1)	11.1 (0.8)	7.9 (0.6)	11.5 (0.9)	8.3 (0.6)	0.1 (0.0)	0.1 (0.0)	1.2 (0.3)	3.2 (0.3)	2.3 (0.2)
13	0.3 (0.0)	0.2 (0.0)	9.0 (3.2)	6.4 (2.3)	10.6 (3.4)	7.6 (2.4)	0.1 (0.1)	0.1 (0.0)	1.0 (0.5)	3.3 (0.7)	2.4 (0.5)
14	0.2 (0.1)	0.2 (0.1)	6.5 (3.2)	4.6 (2.3)	8.2 (4.9)	5.8 (3.5)	0.1 (0.1)	0.1 (0.0)	0.7 (0.3)	2.9 (0.5)	2.1 (0.3)
15	0.2 (0.0)	0.2 (0.0)	5.9 (2.2)	4.4 (1.6)	6.3 (2.2)	4.7 (1.5)	0.1 (0.0)	0.1 (0.0)	0.5 (0.1)	2.5 (0.3)	1.8 (0.2)
16	0.4 (0.1)	0.3 (0.1)	8.2 (1.0)	5.8 (0.7)	8.3 (0.7)	5.9 (0.5)	0.2 (0.0)	0.2 (0.0)	0.8 (0.1)	3.7 (0.4)	
17	0.5 (0.0)	0.4 (0.0)	7.5 (2.2)	5.4 (1.6)	7.9 (1.5)	5.6 (1.1)	0.1 (0.1)	0.1 (0.1)	0.8 (0.2)	3.9 (0.6)	
18	0.3 (0.0)	0.2 (0.0)	9.0 (1.4)	6.5 (1.0)	10.8 (2.2)		0.1 (0.0)	0.1 (0.0)	1.3 (0.5)	4.7 (0.9)	
19	0.2 (0.1)	0.2 (0.0)	7.6 (2.7)	5.4 (1.9)	8.4 (3.2)		0.1 (0.0)	0.1 (0.0)	0.8 (0.5)	4.0 (1.4)	
20	0.4 (0.1)	0.3 (0.1)	6.6 (3.3)	4.7 (2.3)	7.0 (3.6)		0.1 (0.0)	0.1 (0.0)	1.1 (1.0)	3.6 (1.4)	
21	0.5 (0.3)	0.4 (0.2)	5.2 (2.7)	3.7 (2.0)	5.5 (3.3)	3.9 (2.4)	0.2 (0.1)	0.1 (0.1)	0.8 (0.5)	3.2 (1.3)	2.3 (0.9)
22	0.6 (0.3)	0.4 (0.2)	5.1 (2.4)	3.6 (1.7)	6.3 (2.0)	4.5 (1.4)	0.2 (0.1)	0.1 (0.1)	0.6 (0.2)	3.2 (0.7)	2.3 (0.5)
23	0.4 (0.0)	0.3 (0.0)					0.0 (0.0)	0.0 (0.0)			
24	0.2 (0.0)	0.2 (0.0)	4.5 (2.3)	3.2 (1.7)	4.0 (1.7)	2.9 (1.2)	0.0 (0.0)	0.0 (0.0)	0.7 (0.3)		
25	0.3 (0.1)	0.2 (0.1)	5.4 (2.0)	3.9 (1.5)	6.2 (2.7)	4.4 (2.0)	0.1 (0.0)	0.1 (0.0)	1.6 (0.8)	4.1 (0.6)	2.9 (0.4)
26	0.3 (0.1)	0.2 (0.0)	5.9 (2.6)	4.2 (1.9)	6.2 (3.7)	4.4 (2.7)	0.1 (0.0)	0.0 (0.0)	1.9 (1.2)	4.1 (1.6)	2.9 (1.2)
27	0.3 (0.1)	0.2 (0.1)	6.5 (1.7)	4.7 (1.2)	7.3 (2.2)	5.2 (1.6)	0.1 (0.0)	0.0 (0.0)	2.0 (0.9)	4.4 (1.2)	3.1 (0.8)
28	0.5 (0.2)	0.4 (0.1)	7.9 (1.6)	5.7 (1.2)	8.8 (2.5)	6.3 (1.8)	0.2 (0.0)	0.1 (0.0)	3.7 (1.5)	5.3 (0.8)	3.8 (0.6)
29	0.4 (0.0)	0.3 (0.0)	4.4 (1.1)	3.2 (0.8)	4.6 (1.3)	3.3 (0.9)	0.3 (0.1)	0.2 (0.0)	1.0 (0.3)	3.0 (0.8)	2.1 (0.6)
30	0.4 (0.0)	0.3 (0.0)	4.7 (1.4)	3.4 (1.0)	4.7 (1.5)	3.4 (1.1)	0.2 (0.1)	0.1 (0.1)	0.7 (0.1)	3.1 (0.8)	2.2 (0.6)
Mean	0.3	0.2	7.8	5.6	8.6	6.1	0.1	0.1	1.4	3.9	2.8
n	30	30	29	29	29	26	30	30	28	27	22
SD	0.1	0.1	2.3	1.6	2.6	1.9	0.1	0.0	0.8	0.8	0.6
Min	0.2	0.1	4.4	3.2	4.0	2.9	0.0	0.0	0.5	2.5	1.8
Max	0.6	0.4	13.2	9.4	14.2	10.1	0.3	0.2	3.7	5.9	4.2

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for May, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.3 (0.0)	0.2 (0.0)	7.3 (1.3)	5.2 (1.0)	7.0 (1.4)	5.0 (1.0)	0.1 (0.0)	0.0 (0.0)	1.2 (0.4)	4.3 (0.5)	3.1 (0.4)
2											
3											
4											
5											
6											
7	0.7 (0.1)	0.5 (0.1)	3.9 (2.2)	2.8 (1.6)	4.2 (1.8)	3.0 (1.3)	0.3 (0.1)	0.2 (0.1)	0.9 (0.2)	2.6 (0.5)	1.8 (0.3)
8	0.4 (0.1)	0.3 (0.1)	2.7 (0.6)	2.0 (0.4)	3.9 (1.2)	2.8 (0.9)	0.1 (0.1)	0.1 (0.1)	0.7 (0.2)	2.6 (0.2)	1.9 (0.1)
9	0.6 (0.2)	0.4 (0.2)	5.1 (2.3)	3.6 (1.6)	6.3 (2.2)	4.5 (1.6)	0.2 (0.1)	0.1 (0.1)	0.8 (0.2)	3.5 (0.6)	2.5 (0.4)
10	0.7 (0.1)	0.5 (0.1)	8.3 (1.9)	5.9 (1.4)	8.5 (1.4)	6.1 (1.0)	0.3 (0.0)	0.2 (0.0)	1.1 (0.1)	4.8 (0.4)	3.5 (0.3)
11	0.5 (0.0)	0.4 (0.0)	7.2 (1.9)	5.2 (1.4)	8.8 (1.7)	6.3 (1.2)	0.2 (0.0)	0.2 (0.0)	1.2 (0.3)	3.9 (0.8)	2.8 (0.6)
12	0.4 (0.1)	0.3 (0.1)	4.9 (2.8)	3.5 (2.0)	5.4 (2.5)	3.9 (1.8)	0.2 (0.1)	0.1 (0.0)	1.1 (0.2)	2.8 (0.7)	2.0 (0.5)
13	0.3 (0.0)	0.2 (0.0)	3.7 (1.2)	2.7 (0.8)	4.1 (1.5)	3.0 (1.1)	0.1 (0.0)	0.1 (0.0)	0.7 (0.2)	2.6 (0.3)	1.9 (0.2)
14	0.4 (0.1)	0.3 (0.1)	4.6 (1.6)	3.3 (1.2)	5.7 (1.9)	4.1 (1.3)	0.2 (0.0)	0.1 (0.0)	0.9 (0.1)	3.4 (0.5)	2.4 (0.3)
15	0.4 (0.1)	0.3 (0.1)	3.8 (0.9)	2.7 (0.6)	4.6 (1.7)	3.3 (1.2)	0.2 (0.1)	0.1 (0.0)	0.9 (0.2)	2.6 (0.5)	1.8 (0.3)
16	0.6 (0.1)	0.4 (0.1)	5.8 (1.9)	4.1 (1.4)	7.4 (3.2)	5.3 (2.3)	0.2 (0.1)	0.1 (0.0)	0.8 (0.1)	3.4 (0.7)	2.5 (0.5)
17	0.4 (0.1)	0.3 (0.1)	5.8 (2.9)	4.1 (2.1)	7.0 (3.9)	5.0 (2.8)	0.2 (0.1)	0.1 (0.0)	1.0 (0.4)	4.0 (1.3)	2.9 (0.9)
18	0.6 (0.1)	0.4 (0.1)			5.4 (4.6)	3.9 (3.3)	0.2 (0.0)	0.2 (0.0)			
19	0.4 (0.2)	0.3 (0.2)	4.1 (2.6)	3.0 (1.9)	4.9 (3.5)	3.5 (2.5)	0.2 (0.0)	0.1 (0.0)		1.8 (0.6)	1.3 (0.4)
20	0.3 (0.0)	0.2 (0.0)	4.4 (2.1)	3.1 (1.5)	5.2 (3.1)	3.7 (2.2)	0.1 (0.0)	0.1 (0.0)	0.7 (0.2)	1.9 (0.6)	1.4 (0.4)
21	0.3 (0.0)	0.2 (0.0)	4.1 (1.6)	3.0 (1.1)	5.1 (2.6)	3.7 (1.9)	0.2 (0.0)	0.1 (0.0)	0.8 (0.1)	1.9 (0.3)	1.4 (0.2)
22	0.6 (0.2)	0.4 (0.2)	4.4 (1.5)	3.2 (1.1)	5.2 (2.4)	3.7 (1.7)	0.3 (0.2)	0.2 (0.1)	0.9 (0.1)	2.1 (0.5)	1.5 (0.3)
23	0.5 (0.1)	0.4 (0.0)	4.8 (1.2)	3.5 (0.9)	5.6 (2.2)	4.0 (1.6)	0.3 (0.1)	0.2 (0.1)	0.9 (0.1)	2.3 (0.2)	1.6 (0.2)
24	0.5 (0.0)	0.3 (0.0)	5.2 (1.9)	3.8 (1.4)	5.7 (2.7)	4.1 (2.0)	0.3 (0.0)	0.2 (0.0)	0.9 (0.1)	2.4 (0.3)	1.7 (0.2)
25	0.4 (0.1)	0.3 (0.1)	5.4 (1.6)	3.9 (1.1)	6.1 (2.5)	4.4 (1.8)	0.2 (0.0)	0.2 (0.0)	1.0 (0.1)	2.4 (0.4)	1.7 (0.3)
26	0.4 (0.0)	0.3 (0.0)	5.3 (1.6)	3.8 (1.1)	6.0 (2.5)	4.3 (1.8)	0.1 (0.0)	0.1 (0.0)	0.8 (0.2)	2.4 (0.4)	1.7 (0.3)
27	0.3 (0.1)	0.2 (0.0)	6.0 (2.8)	4.3 (2.0)	6.3 (3.3)	4.5 (2.4)	0.1 (0.0)	0.1 (0.0)	0.7 (0.2)	3.0 (1.1)	2.1 (0.8)
28	0.5 (0.2)	0.3 (0.1)	5.0 (2.1)	3.6 (1.5)	5.2 (2.9)	3.7 (2.1)	0.1 (0.0)	0.1 (0.0)	0.7 (0.2)	2.9 (0.8)	2.1 (0.6)
29	0.4 (0.2)	0.3 (0.1)	4.5 (2.2)	3.2 (1.6)	4.4 (2.3)	3.1 (1.7)	0.1 (0.0)	0.1 (0.0)	0.7 (0.1)	2.5 (0.5)	1.8 (0.4)
30	0.2 (0.0)	0.2 (0.0)	4.0 (1.9)	2.9 (1.3)	3.9 (2.1)	2.8 (1.5)	0.1 (0.1)	0.1 (0.0)	0.6 (0.1)	2.4 (0.5)	1.7 (0.4)
31	0.3 (0.0)	0.2 (0.0)	3.4 (1.2)	2.4 (0.8)	3.2 (1.4)	2.3 (1.0)	0.1 (0.0)	0.1 (0.0)	0.6 (0.1)	2.4 (0.3)	1.7 (0.2)
Mean	0.4	0.3	5.0	3.5	5.6	4.0	0.2	0.1	0.9	2.8	2.0
n	26	26	25	25	26	26	26	26	24	25	25
SD	0.1	0.1	1.3	0.9	1.3	1.0	0.1	0.0	0.2	0.8	0.5
Min	0.2	0.2	2.7	2.0	3.2	2.3	0.1	0.0	0.6	1.8	1.3
Max	0.7	0.5	8.3	5.9	8.8	6.3	0.3	0.2	1.2	4.8	3.5

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for June, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.4 (0.0)	0.3 (0.0)	3.6 (0.7)	2.6 (0.5)	3.9 (1.4)	2.8 (1.0)	0.2 (0.0)	0.1 (0.0)	0.7 (0.1)	2.4 (0.3)	1.7 (0.2)
2	0.4 (0.0)	0.3 (0.0)	5.0 (1.2)	3.6 (0.8)	4.6 (1.1)	3.3 (0.8)	0.2 (0.0)	0.2 (0.0)	0.8 (0.1)	2.4 (0.3)	1.7 (0.3)
3	0.5 (0.0)	0.3 (0.0)	5.3 (1.5)	3.8 (1.1)	5.4 (2.4)	3.9 (1.7)	0.2 (0.0)	0.1 (0.0)	0.8 (0.1)	2.6 (0.5)	1.8 (0.3)
4	0.4 (0.0)	0.3 (0.0)	5.0 (2.1)	3.7 (1.6)	5.4 (2.5)	3.9 (1.9)	0.3 (0.0)	0.2 (0.0)	0.8 (0.1)	2.5 (0.5)	1.8 (0.3)
5	0.4 (0.0)	0.3 (0.0)	3.9 (1.3)	2.8 (0.9)	4.6 (1.6)	3.3 (1.1)	0.3 (0.0)	0.2 (0.0)	0.8 (0.1)	2.3 (0.3)	1.7 (0.2)
6	0.2 (0.1)						0.1 (0.0)				
7	0.2 (0.1)						0.0 (0.0)				
8	0.6 (0.2)	0.4 (0.2)	4.9 (2.3)	3.5 (1.7)	5.8 (3.0)	4.1 (2.2)	0.2 (0.1)	0.1 (0.1)	1.1 (0.8)	3.0 (0.6)	2.2 (0.4)
9	0.5 (0.2)	0.3 (0.2)	3.5 (1.3)	2.5 (1.0)	3.9 (2.2)	2.8 (1.6)	0.2 (0.1)	0.2 (0.1)	1.0 (0.8)	2.3 (0.5)	1.7 (0.4)
10	0.4 (0.1)	0.3 (0.0)	3.4 (0.7)	2.5 (0.5)	3.4 (0.9)	2.4 (0.6)	0.2 (0.0)	0.1 (0.0)	0.8 (0.2)	2.2 (0.4)	1.6 (0.3)
11	0.5 (0.1)	0.3 (0.1)	4.3 (1.5)	3.1 (1.1)	4.1 (2.0)	2.9 (1.4)	0.2 (0.1)	0.1 (0.0)	0.8 (0.1)	2.0 (0.3)	1.4 (0.2)
12	0.8 (0.2)	0.5 (0.1)	3.3 (0.7)	2.4 (0.5)	3.1 (0.9)	2.3 (0.6)	0.2 (0.1)	0.1 (0.0)	0.7 (0.1)	1.8 (0.2)	1.3 (0.2)
13	0.7 (0.2)	0.5 (0.1)	3.6 (0.7)	2.6 (0.5)	3.2 (0.7)	2.3 (0.5)	0.3 (0.1)	0.2 (0.1)	0.8 (0.1)	1.9 (0.2)	1.4 (0.1)
14	0.6 (0.4)	0.5 (0.3)	3.1 (1.2)	2.3 (0.9)	2.8 (1.2)	2.0 (0.8)	0.3 (0.1)	0.2 (0.1)	0.8 (0.2)	2.1 (0.2)	1.5 (0.2)
15	0.4 (0.1)	0.3 (0.0)	2.6 (0.5)	1.9 (0.4)	2.6 (0.5)	1.8 (0.4)	0.1 (0.1)	0.1 (0.0)	0.7 (0.1)	2.3 (0.3)	1.7 (0.2)
16	0.8 (0.3)	0.6 (0.2)	3.5 (0.6)	2.5 (0.5)	3.0 (0.8)	2.1 (0.6)	0.3 (0.2)	0.2 (0.1)	0.8 (0.1)	2.7 (0.6)	2.0 (0.5)
17	0.4 (0.2)	0.3 (0.1)	3.0 (0.7)	2.1 (0.5)	2.4 (0.6)	1.7 (0.4)	0.2 (0.1)	0.2 (0.1)	0.7 (0.1)	2.9 (0.2)	2.1 (0.1)
18	0.4 (0.0)	0.3 (0.0)	3.2 (0.8)	2.3 (0.6)	2.9 (1.0)	2.1 (0.7)	0.2 (0.0)	0.2 (0.0)	0.7 (0.1)		
19	0.3 (0.0)	0.2 (0.0)	2.8 (0.7)	2.0 (0.5)	2.4 (0.6)	1.7 (0.5)	0.2 (0.0)	0.1 (0.0)	0.6 (0.1)	1.8 (0.2)	1.3 (0.1)
20	0.6 (0.1)	0.5 (0.1)	3.0 (0.8)	2.1 (0.6)	2.7 (0.8)	1.9 (0.6)	0.4 (0.1)	0.3 (0.1)	0.8 (0.2)	1.9 (0.3)	1.4 (0.2)
21	0.3 (0.1)	0.2 (0.1)	2.8 (0.7)	2.0 (0.5)	2.4 (0.8)	1.7 (0.6)	0.3 (0.1)	0.2 (0.1)	0.7 (0.1)	1.8 (0.2)	1.3 (0.1)
22	0.4 (0.0)	0.3 (0.0)	3.1 (1.0)	2.2 (0.7)	2.6 (0.8)	1.9 (0.6)	0.2 (0.1)	0.1 (0.0)	0.7 (0.1)	1.8 (0.4)	1.3 (0.3)
23	0.4 (0.1)	0.3 (0.0)	2.9 (0.9)	2.1 (0.6)	2.6 (0.9)	1.9 (0.6)	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	1.4 (0.2)	1.0 (0.1)
24	0.3 (0.0)	0.2 (0.0)	2.8 (0.7)	2.0 (0.5)	2.6 (0.7)	1.9 (0.5)	0.2 (0.0)	0.2 (0.0)	0.7 (0.1)	1.4 (0.2)	1.0 (0.1)
25	0.3 (0.0)	0.2 (0.0)	3.0 (0.8)	2.2 (0.6)	2.6 (0.6)	1.9 (0.5)	0.2 (0.0)	0.2 (0.0)	0.7 (0.1)	1.5 (0.2)	1.1 (0.1)
26	0.3 (0.0)	0.2 (0.0)	3.0 (0.7)	2.2 (0.5)	2.6 (0.6)	1.9 (0.5)	0.2 (0.0)	0.1 (0.0)	0.7 (0.1)	1.4 (0.2)	1.0 (0.1)
27	0.3 (0.0)	0.2 (0.0)	3.2 (0.7)	2.3 (0.5)	2.6 (0.8)	1.9 (0.6)	0.2 (0.0)	0.1 (0.0)	0.7 (0.1)	1.4 (0.3)	1.0 (0.2)
28	0.5 (0.1)	0.3 (0.0)	3.4 (1.0)	2.4 (0.7)	2.9 (0.8)	2.1 (0.6)	0.2 (0.0)	0.2 (0.0)	0.7 (0.2)	1.8 (0.4)	1.3 (0.3)
29	0.5 (0.0)	0.3 (0.0)	3.2 (0.7)	2.3 (0.5)	2.7 (0.7)	1.9 (0.5)	0.2 (0.0)	0.1 (0.0)	0.7 (0.1)	1.4 (0.2)	1.0 (0.1)
30	1.0 (0.3)	0.7 (0.2)	3.3 (1.0)	2.4 (0.7)	2.7 (1.0)	2.0 (0.7)	0.3 (0.1)	0.2 (0.1)	0.7 (0.2)	1.4 (0.3)	1.0 (0.2)
Mean	0.5	0.3	3.5	2.5	3.3	2.4	0.2	0.2	0.8	2.0	1.4
n	30	28	28	28	28	28	30	28	28	27	27
SD	0.2	0.1	0.7	0.5	1.0	0.7	0.1	0.0	0.1	0.5	0.3
Min	0.2	0.2	2.6	1.9	2.4	1.7	0.0	0.1	0.6	1.4	1.0
Max	1.0	0.7	5.3	3.8	5.8	4.1	0.4	0.3	1.1	3.0	2.2

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Table E5. Daily means (SD) of NH3 concentrations at Site OK4B for July, 2009. Minimum detection limit is 0.2 ppm.

Day	Ambient (b/w Barn 1 and 2)		Barn 1		Barn 2		Ambient (by Far 9)		Inlet (by Far 9)	Farrowing rm 9	
	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	mg/dsm^3	ppm	ppm	mg/dsm^3
1	0.3 (0.2)	0.2 (0.1)	3.1 (1.1)	2.3 (0.8)	2.6 (0.9)	1.9 (0.7)	0.3 (0.1)	0.2 (0.1)	0.6 (0.1)	1.2 (0.2)	0.9 (0.1)
2	0.3 (0.0)	0.2 (0.0)	2.6 (0.6)	1.9 (0.4)	2.2 (0.6)	1.6 (0.4)	0.1 (0.0)	0.1 (0.0)	0.6 (0.1)	1.1 (0.2)	0.8 (0.2)
3	0.3 (0.0)	0.2 (0.0)	2.7 (0.6)	2.0 (0.4)	2.4 (0.6)	1.7 (0.4)	0.2 (0.0)	0.2 (0.0)	0.7 (0.1)	1.2 (0.3)	0.9 (0.2)
4	0.5 (0.1)	0.4 (0.1)	3.0 (0.7)	2.1 (0.5)	2.4 (0.6)	1.7 (0.4)	0.3 (0.1)	0.2 (0.0)	0.8 (0.1)	0.8 (0.1)	0.6 (0.1)
5	0.7 (0.1)	0.5 (0.1)	3.0 (1.0)	2.1 (0.7)	2.5 (0.7)	1.8 (0.5)	0.3 (0.2)	0.2 (0.1)	0.7 (0.1)	0.8 (0.2)	0.6 (0.2)
6	0.6 (0.2)	0.5 (0.2)	3.1 (0.8)	2.3 (0.6)	2.9 (0.9)	2.1 (0.6)	0.5 (0.2)	0.4 (0.1)	0.8 (0.1)	1.1 (0.1)	0.8 (0.1)
7	0.9 (0.5)	0.6 (0.3)	3.3 (0.9)	2.4 (0.6)	3.1 (1.1)	2.2 (0.8)	0.4 (0.3)	0.3 (0.2)	1.0 (0.3)	1.2 (0.4)	0.9 (0.3)
8	0.4 (0.2)	0.3 (0.1)	3.3 (0.5)	2.4 (0.4)	2.8 (0.8)	2.0 (0.6)	0.3 (0.2)	0.2 (0.1)	0.9 (0.2)	1.1 (0.3)	0.8 (0.2)
9	0.2 (0.0)	0.1 (0.0)	3.1 (0.6)	2.2 (0.5)	2.4 (0.7)	1.7 (0.5)	0.1 (0.1)	0.1 (0.1)	0.7 (0.0)	0.9 (0.1)	0.6 (0.1)
10	0.3 (0.0)	0.2 (0.0)					0.2 (0.0)	0.1 (0.0)			
11	0.2 (0.1)	0.2 (0.0)	3.3 (0.7)	2.4 (0.5)	2.4 (0.7)	1.8 (0.5)	0.1 (0.1)	0.1 (0.1)	0.7 (0.1)	0.9 (0.1)	0.7 (0.1)
12	0.2 (0.1)	0.2 (0.0)	3.1 (0.5)	2.2 (0.3)	2.5 (0.6)	1.8 (0.4)	0.1 (0.0)	0.1 (0.0)	0.6 (0.0)	1.0 (0.1)	0.7 (0.1)
13	0.3 (0.1)	0.2 (0.0)	3.6 (0.9)	2.6 (0.6)	2.8 (0.8)	2.0 (0.6)	0.2 (0.1)	0.1 (0.0)	0.8 (0.1)	1.0 (0.2)	0.7 (0.1)
14	0.3 (0.0)	0.2 (0.0)	3.2 (0.8)	2.3 (0.6)	2.4 (0.5)	1.7 (0.3)	0.2 (0.1)	0.1 (0.0)	0.7 (0.1)	1.0 (0.1)	0.8 (0.1)
15	0.7 (0.2)	0.5 (0.1)	3.6 (0.9)	2.6 (0.6)	2.9 (0.7)	2.1 (0.5)	0.4 (0.1)	0.3 (0.1)	0.9 (0.2)	1.3 (0.3)	0.9 (0.2)
16	0.9 (0.1)	0.7 (0.1)	3.4 (1.0)	2.4 (0.7)	2.8 (0.9)	2.0 (0.6)	0.5 (0.1)	0.3 (0.1)			
17	0.8 (0.2)	0.6 (0.1)	3.6 (0.8)	2.6 (0.6)	3.0 (0.7)	2.2 (0.5)	0.4 (0.1)	0.3 (0.1)	0.9 (0.2)	1.6 (0.2)	1.1 (0.1)
18	0.6 (0.1)	0.5 (0.1)	3.4 (1.2)	2.4 (0.9)	3.0 (1.1)	2.1 (0.8)	0.3 (0.0)	0.2 (0.0)	0.8 (0.2)	1.8 (0.5)	1.3 (0.4)
19	0.4 (0.1)	0.3 (0.1)	2.6 (0.8)	1.8 (0.6)	2.7 (0.7)	1.9 (0.5)	0.2 (0.0)	0.2 (0.0)	0.6 (0.1)	1.5 (0.4)	1.1 (0.3)
20	0.5 (0.1)		2.5 (0.5)		2.9 (0.9)		0.3 (0.0)				
21	0.4 (0.0)		2.2 (0.9)		2.4 (0.9)		0.2 (0.1)		0.6 (0.1)		
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
Mean	0.5	0.3	3.1	2.3	2.7	1.9	0.3	0.2	0.7	1.2	0.8
n	21	19	20	18	20	18	21	19	18	17	17
SD	0.2	0.2	0.4	0.2	0.3	0.2	0.1	0.1	0.1	0.3	0.2
Min	0.2	0.1	2.2	1.8	2.2	1.6	0.1	0.1	0.6	0.8	0.6
Max	0.9	0.7	3.6	2.6	3.1	2.2	0.5	0.4	1.0	1.8	1.3

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Table E6. NH_3 Emissions

Table E6. Daily means (SD) of NH3 emissions at Site OK4B for July, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21	14.1 (4.51)	6.06 (1.94)	12.3 (3.95)	30.8 (9.87)	15.5 (3.98)	6.68 (1.72)	13.6 (3.49)	33.9 (8.72)	224 (44.7)	1.57 (0.31)	9.32 (1.86)	17.9 (3.59)
22	13.7 (4.15)	5.90 (1.79)	12.0 (3.63)	30.0 (9.08)	14.9 (3.95)	6.43 (1.70)	13.1 (3.45)	32.7 (8.63)	207 (25.7)	1.45 (0.18)	8.63 (1.07)	16.4 (2.02)
23	11.9 (3.23)	5.14 (1.39)	10.4 (2.83)	26.1 (7.06)	13.3 (3.22)	5.71 (1.39)	11.6 (2.82)	29.0 (7.04)	272 (34.1)	1.90 (0.24)	11.3 (1.42)	21.4 (2.64)
24	13.4 (3.34)	5.75 (1.44)	11.7 (2.92)	29.2 (7.30)	14.4 (3.56)	6.18 (1.53)	12.6 (3.12)	31.4 (7.79)	283 (22.3)	1.98 (0.16)	11.8 (0.93)	22.0 (1.73)
25	13.8 (3.37)	5.94 (1.45)	12.1 (2.95)	30.2 (7.36)	16.0 (4.40)	6.89 (1.89)	14.0 (3.84)	35.0 (9.61)	274 (33.9)	1.92 (0.24)	11.4 (1.41)	21.1 (2.60)
26	12.9 (3.90)	5.57 (1.68)	11.3 (3.41)	28.2 (8.52)	15.6 (4.24)	6.71 (1.83)	13.6 (3.71)	34.0 (9.27)	231 (69.8)	1.62 (0.49)	9.62 (2.91)	17.6 (5.33)
27	12.7 (3.29)	5.45 (1.42)	11.1 (2.88)	27.6 (7.19)	13.8 (3.29)	5.94 (1.42)	12.0 (2.87)	30.1 (7.18)	263 (105)	1.84 (0.74)	10.9 (4.39)	19.9 (7.99)
28	12.8 (2.68)	5.51 (1.15)	11.2 (2.34)	28.0 (5.86)	13.8 (3.04)	5.93 (1.31)	12.0 (2.66)	30.1 (6.64)	117 (38.0)	0.82 (0.27)	4.86 (1.58)	8.78 (2.87)
29	13.8 (2.36)	5.94 (1.02)	12.0 (2.06)	30.1 (5.15)	14.4 (3.26)	6.22 (1.40)	12.6 (2.85)	31.5 (7.11)	104 (22.3)	0.73 (0.16)	4.32 (0.93)	7.75 (1.65)
30	14.5 (1.55)	6.27 (0.67)	12.7 (1.35)	31.8 (3.38)	13.8 (2.86)	5.93 (1.23)	12.0 (2.50)	30.1 (6.24)	218 (117)	1.53 (0.82)	9.84 (5.24)	22.9 (14.0)
31	14.6 (3.55)	6.29 (1.53)	12.7 (3.10)	31.8 (7.76)	13.0 (3.54)	5.60 (1.52)	11.3 (3.09)	28.4 (7.73)	415 (99.7)	2.90 (0.70)	17.3 (4.15)	38.4 (8.44)
Mean	13.50	5.80	11.80	29.40	14.40	6.20	12.60	31.50	237.00	1.66	9.94	19.50
n	11	11	11	11	11	11	11	11	11	11	11	11
SD	0.79	0.34	0.69	1.71	0.95	0.41	0.84	2.09	80.10	0.56	3.33	7.70
Min	11.90	5.14	10.40	26.10	13.00	5.60	11.30	28.40	104.00	0.73	4.32	7.75
Max	14.60	6.29	12.70	31.80	16.00	6.89	14.00	35.00	415.00	2.90	17.30	38.40

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for August, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	14.4 (3.84)	6.21 (1.65)	12.6 (3.35)	31.5 (8.38)	13.2 (5.52)	5.67 (2.38)	11.5 (4.82)	28.7 (12.1)	380 (35.0)	2.66 (0.25)	15.8 (1.46)	34.1 (3.19)
2	14.8 (6.02)	6.37 (2.59)	12.9 (5.25)	32.3 (13.10)	11.5 (4.82)	4.94 (2.07)	10.0 (4.20)	25.0 (10.5)	358 (71.0)	2.51 (0.50)	14.9 (2.96)	31.6 (6.20)
3	14.1 (3.39)	6.07 (1.46)	12.3 (2.95)	30.7 (7.39)	13.7 (3.97)	5.91 (1.71)	12.0 (3.47)	30.0 (8.67)	356 (70.6)	2.49 (0.49)	14.8 (2.94)	31.1 (6.13)
4	15.3 (3.12)	6.61 (1.34)	13.4 (2.72)	33.5 (6.81)	13.1 (3.36)	5.66 (1.45)	11.5 (2.93)	28.6 (7.32)	358 (32.0)	2.51 (0.22)	14.9 (1.34)	30.9 (2.81)
5	17.3 (4.61)	7.47 (1.98)	15.1 (4.02)	37.8 (10.10)	13.6 (3.31)	5.87 (1.42)	11.9 (2.88)	29.7 (7.21)	357 (50.2)	2.50 (0.35)	14.9 (2.09)	30.5 (4.23)
6	17.0 (4.56)	7.32 (1.96)	14.8 (3.98)	37.1 (9.94)	14.8 (3.88)	6.36 (1.67)	12.9 (3.38)	32.2 (8.45)	347 (35.3)	2.43 (0.25)	14.4 (1.47)	29.3 (2.96)
7	16.2 (1.96)	6.96 (0.85)	14.1 (1.71)	35.2 (4.28)	13.5 (2.78)	5.83 (1.20)	11.8 (2.43)	29.5 (6.07)	411 (46.5)	2.88 (0.33)	17.1 (1.94)	34.3 (3.90)
8	21.6 (6.27)	9.29 (2.70)	18.8 (5.47)	47.0 (13.70)	14.8 (2.99)	6.37 (1.29)	12.9 (2.61)	32.3 (6.53)	431 (55.8)	3.02 (0.39)	18.0 (2.33)	35.5 (4.49)
9												
10												
11												
12												
13												
14												
15	12.3 (3.13)	5.28 (1.35)	10.7 (2.73)	26.7 (6.82)	12.0 (3.16)	5.18 (1.36)	10.5 (2.76)	26.2 (6.89)	683 (49.1)	4.78 (0.34)	28.5 (2.05)	52.5 (3.71)
16	14.9 (5.11)	6.44 (2.20)	13.0 (4.45)	32.6 (11.10)	13.0 (2.79)	5.59 (1.20)	11.3 (2.43)	28.3 (6.08)	645 (105)	4.51 (0.74)	26.9 (4.39)	49.2 (8.06)
17												
18	14.9 (5.51)	6.41 (2.37)	13.0 (4.80)	32.4 (12.00)	12.9 (4.08)	5.57 (1.76)	11.3 (3.56)	28.2 (8.89)	577 (67.3)	4.04 (0.47)	24.0 (2.80)	43.3 (5.06)
19	18.1 (5.94)	7.80 (2.56)	15.8 (5.18)	39.5 (12.90)	13.7 (3.38)	5.90 (1.46)	11.9 (2.94)	29.8 (7.36)	627 (77.0)	4.39 (0.54)	26.1 (3.21)	46.8 (5.76)
20	17.3 (3.39)	7.44 (1.46)	15.1 (2.95)	37.6 (7.38)	15.9 (3.42)	6.83 (1.47)	13.8 (2.98)	34.5 (7.44)				
21	16.3 (3.70)	7.02 (1.59)	14.2 (3.22)	35.5 (8.06)	14.6 (3.88)	6.31 (1.67)	12.8 (3.38)	31.9 (8.46)	639 (61.0)	4.47 (0.43)	26.6 (2.54)	59.5 (5.52)
22	16.1 (2.29)	6.92 (0.99)	14.0 (1.99)	35.0 (4.99)	13.0 (3.07)	5.60 (1.32)	11.3 (2.67)	28.3 (6.68)	507 (80.1)	3.55 (0.56)	21.1 (3.34)	45.4 (7.19)
23	14.0 (2.97)	6.04 (1.28)	12.2 (2.59)	30.5 (6.47)	11.8 (3.24)	5.08 (1.40)	10.3 (2.82)	25.7 (7.06)	462 (90.8)	3.24 (0.64)	19.3 (3.78)	40.8 (8.03)
24	13.9 (5.72)	5.99 (2.46)	12.1 (4.98)	30.3 (12.40)	11.1 (3.38)	4.77 (1.46)	9.64 (2.94)	24.1 (7.36)	489 (135)	3.43 (0.95)	20.4 (5.63)	42.7 (11.7)
25	12.9 (3.01)	5.57 (1.30)	11.3 (2.62)	28.1 (6.56)	12.6 (2.69)	5.42 (1.16)	11.0 (2.35)	27.4 (5.87)	548 (142)	3.84 (1.00)	22.8 (5.92)	47.3 (12.2)
26	14.7 (2.04)	6.31 (0.88)	12.8 (1.77)	31.9 (4.44)	13.0 (2.80)	5.59 (1.20)	11.3 (2.43)	28.3 (6.08)	642 (87.6)	4.50 (0.61)	26.8 (3.65)	54.9 (7.45)
27	14.8 (3.70)	6.39 (1.59)	12.9 (3.22)	32.3 (8.05)	13.2 (3.17)	5.67 (1.36)	11.5 (2.76)	28.7 (6.89)	613 (109)	4.29 (0.76)	25.5 (4.54)	51.8 (9.28)
28	14.6 (2.96)	6.30 (1.28)	12.7 (2.58)	31.8 (6.45)	12.2 (2.70)	5.25 (1.16)	10.6 (2.35)	26.6 (5.88)	568 (61.5)	3.98 (0.43)	23.7 (2.56)	47.4 (5.07)
29	17.5 (6.02)	7.55 (2.59)	15.3 (5.24)	38.2 (13.10)	12.2 (4.79)	5.24 (2.06)	10.6 (4.17)	26.5 (10.4)				
30	13.8 (4.18)	5.93 (1.80)	12.0 (3.64)	30.0 (9.10)	9.72 (2.83)	4.19 (1.22)	8.46 (2.47)	21.2 (6.17)	480 (69.8)	3.36 (0.49)	20.0 (2.91)	39.0 (5.64)
31	12.2 (4.19)	5.24 (1.80)	10.6 (3.64)	26.5 (9.11)	11.0 (3.40)	4.72 (1.46)	9.54 (2.96)	23.9 (7.40)	526 (140)	3.69 (0.98)	21.9 (5.84)	42.4 (11.2)
Mean	15.40	6.62	13.40	33.50	12.90	5.56	11.30	28.10	500.00	3.50	20.80	41.80
n	24	24	24	24	24	24	24	24	22	22	22	22
SD	2.04	0.88	1.78	4.45	1.35	0.58	1.18	2.95	111.00	0.78	4.62	8.64
Min	12.20	5.24	10.60	26.50	9.72	4.19	8.46	21.20	347.00	2.43	14.40	29.30
Max	21.60	9.29	18.80	47.00	15.90	6.83	13.80	34.50	683.00	4.78	28.50	59.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for September, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	11.5 (3.92)	4.94 (1.69)	9.98 (3.41)	24.9 (8.53)	12.2 (3.68)	5.24 (1.59)	10.6 (3.20)	26.5 (8.01)	499 (115)	3.49 (0.80)	20.8 (4.77)	39.8 (9.11)
2	12.4 (3.92)	5.32 (1.69)	10.8 (3.41)	26.9 (8.54)	12.0 (2.76)	5.15 (1.19)	10.4 (2.40)	26.0 (6.00)	547 (121)	3.83 (0.85)	22.8 (5.06)	43.4 (9.57)
3	12.1 (2.98)	5.23 (1.28)	10.6 (2.60)	26.4 (6.49)	12.5 (3.58)	5.38 (1.54)	10.9 (3.11)	27.2 (7.79)	555 (107)	3.88 (0.75)	23.1 (4.44)	43.6 (8.33)
4												
5												
6	13.7 (2.59)	5.89 (1.12)	11.9 (2.25)	29.8 (5.64)	12.8 (3.83)	5.52 (1.65)	11.2 (3.33)	27.9 (8.33)				
7	14.6 (2.95)	6.30 (1.27)	12.7 (2.57)	31.8 (6.43)	13.0 (3.42)	5.61 (1.47)	11.3 (2.98)	28.3 (7.44)				
8	14.6 (5.05)	6.29 (2.17)	12.7 (4.39)	31.8 (11.00)	12.3 (3.36)	5.32 (1.45)	10.7 (2.93)	26.9 (7.32)				
9	12.0 (3.36)	5.18 (1.45)	10.5 (2.92)	26.2 (7.31)	11.7 (3.35)	5.05 (1.44)	10.2 (2.91)	25.5 (7.29)				
10												
11					11.7 (3.06)	5.04 (1.32)	10.2 (2.66)	25.5 (6.66)				
12	12.4 (3.64)	5.32 (1.57)	10.8 (3.17)	26.9 (7.92)	13.1 (4.25)	5.66 (1.83)	11.4 (3.70)	28.6 (9.26)				
13	12.2 (3.47)	5.27 (1.49)	10.7 (3.02)	26.6 (7.55)	13.2 (4.33)	5.69 (1.86)	11.5 (3.77)	28.7 (9.42)				
14	10.7 (3.15)	4.62 (1.36)	9.33 (2.75)	23.3 (6.87)	11.0 (2.54)	4.72 (1.09)	9.54 (2.21)	23.8 (5.52)				
15	12.9 (3.61)	5.57 (1.55)	11.3 (3.14)	28.2 (7.85)	14.6 (3.95)	6.27 (1.70)	12.7 (3.44)	31.7 (8.60)				
16	13.4 (3.85)	5.79 (1.66)	11.7 (3.35)	29.3 (8.37)	14.2 (3.51)	6.10 (1.51)	12.3 (3.06)	30.8 (7.65)				
17	14.1 (4.52)	6.06 (1.95)	12.3 (3.94)	30.6 (9.85)	14.3 (4.80)	6.15 (2.07)	12.4 (4.18)	31.1 (10.4)				
18	13.8 (4.64)	5.96 (2.00)	12.1 (4.04)	30.1 (10.10)	13.0 (4.24)	5.61 (1.83)	11.3 (3.69)	28.3 (9.23)				
19	12.5 (4.73)	5.40 (2.04)	10.9 (4.12)	27.3 (10.30)	13.5 (4.57)	5.80 (1.97)	11.7 (3.98)	29.3 (9.95)				
20	11.2 (2.93)	4.84 (1.26)	9.79 (2.55)	24.5 (6.38)	12.3 (3.68)	5.28 (1.59)	10.7 (3.21)	26.7 (8.02)				
21	13.1 (3.23)	5.64 (1.39)	11.4 (2.82)	28.5 (7.04)	12.9 (3.81)	5.53 (1.64)	11.2 (3.32)	28.0 (8.30)	983 (89.4)	6.88 (0.63)	41.0 (3.73)	79.3 (7.22)
22	12.6 (2.79)	5.42 (1.20)	11.0 (2.43)	27.4 (6.08)	13.7 (3.57)	5.91 (1.54)	12.0 (3.11)	29.9 (7.77)	936 (217)	6.56 (1.52)	39.0 (9.03)	74.8 (17.30)
23	13.5 (3.90)	5.79 (1.68)	11.7 (3.39)	29.3 (8.49)	14.8 (3.63)	6.38 (1.56)	12.9 (3.16)	32.2 (7.90)	1010 (117)	7.08 (0.82)	42.1 (4.86)	80.1 (9.24)
24												
25												
26	10.1 (2.88)	4.36 (1.24)	8.82 (2.51)	22.0 (6.28)	11.9 (3.11)	5.12 (1.34)	10.4 (2.71)	25.9 (6.78)	859 (268)	6.02 (1.88)	35.8 (11.20)	66.1 (20.60)
27	9.81 (3.03)	4.23 (1.31)	8.55 (2.64)	21.4 (6.61)	10.8 (2.87)	4.66 (1.24)	9.43 (2.50)	23.6 (6.25)	1030 (164)	7.18 (1.15)	42.7 (6.81)	78.2 (12.40)
28	10.8 (3.08)	4.67 (1.33)	9.45 (2.68)	23.6 (6.71)	13.2 (3.91)	5.67 (1.68)	11.5 (3.41)	28.7 (8.51)				
29	10.9 (2.53)	4.68 (1.09)	9.47 (2.21)	23.7 (5.51)	13.0 (3.14)	5.61 (1.35)	11.3 (2.73)	28.3 (6.84)				
30												
Mean	12.40	5.34	10.80	27.00	12.80	5.52	11.20	27.90	802.00	5.62	33.40	63.20
n	23	23	23	23	24	24	24	24	8	8	8	8
SD	1.34	0.58	1.16	2.91	1.02	0.44	0.89	2.23	214.00	1.50	8.91	16.70
Min	9.81	4.23	8.55	21.40	10.80	4.66	9.43	23.60	499.00	3.49	20.80	39.80
Max	14.60	6.30	12.70	31.80	14.80	6.38	12.90	32.20	1030.00	7.18	42.70	80.10

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for October, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1												
2												
3												
4												
5	11.6 (3.59)	5.01 (1.55)	10.1 (3.13)	25.3 (7.81)	11.4 (2.51)	4.91 (1.08)	9.92 (2.19)	24.8 (5.47)	544 (119)	3.81 (0.84)	22.7 (4.97)	47.4 (10.4)
6												
7	9.79 (2.55)	4.21 (1.10)	8.51 (2.21)	21.3 (5.54)	10.4 (2.46)	4.47 (1.06)	9.03 (2.14)	22.6 (5.36)	531 (113)	3.72 (0.79)	22.1 (4.69)	45.4 (9.65)
8	8.93 (1.97)	3.85 (0.85)	7.77 (1.71)	19.4 (4.28)	10.3 (2.29)	4.43 (0.99)	8.95 (1.99)	22.4 (4.99)	468 (211)	3.28 (1.47)	19.5 (8.77)	39.5 (17.8)
9	8.01 (2.06)	3.45 (0.89)	6.97 (1.79)	17.4 (4.49)	10.6 (2.93)	4.58 (1.26)	9.24 (2.55)	23.1 (6.38)	454 (229)	3.18 (1.60)	18.9 (9.54)	37.8 (19.1)
10	8.26 (1.76)	3.56 (0.76)	7.18 (1.53)	18.0 (3.83)	10.3 (3.00)	4.44 (1.29)	8.97 (2.61)	22.4 (6.52)	421 (175)	2.95 (1.23)	17.6 (7.29)	34.7 (14.4)
11	8.64 (1.82)	3.72 (0.79)	7.51 (1.58)	18.8 (3.96)	10.2 (2.22)	4.41 (0.96)	8.90 (1.93)	22.3 (4.82)	471 (152)	3.30 (1.07)	19.6 (6.34)	38.3 (12.3)
12	8.37 (2.22)	3.60 (0.96)	7.27 (1.93)	18.2 (4.83)	12.7 (3.03)	5.48 (1.30)	11.1 (2.63)	27.6 (6.57)	584 (121)	4.09 (0.85)	24.3 (5.05)	47.1 (9.71)
13	8.07 (1.39)	3.48 (0.60)	7.01 (1.21)	17.5 (3.02)	10.8 (1.28)	4.66 (0.55)	9.40 (1.12)	23.5 (2.79)	651 (130)	4.56 (0.91)	27.1 (5.42)	52.0 (10.4)
14	9.45 (2.61)	4.07 (1.13)	8.21 (2.27)	20.5 (5.67)	11.8 (2.46)	5.10 (1.06)	10.30 (2.14)	25.7 (5.35)	616 (164)	4.31 (1.15)	25.7 (6.84)	48.8 (13.0)
15												
16	9.38 (3.51)	4.04 (1.51)	8.15 (3.05)	20.4 (7.62)	12.7 (3.61)	5.47 (1.55)	11.0 (3.13)	27.6 (7.83)	626 (246)	4.38 (1.72)	26.1 (10.3)	48.6 (19.1)
17	9.12 (2.26)	3.93 (0.97)	7.92 (1.96)	19.8 (4.90)	10.7 (3.04)	4.60 (1.31)	9.27 (2.64)	23.2 (6.61)	685 (181)	4.80 (1.27)	28.6 (7.53)	52.7 (13.9)
18	9.27 (2.17)	3.99 (0.93)	8.05 (1.88)	20.1 (4.70)	11.3 (3.75)	4.86 (1.62)	9.80 (3.26)	24.5 (8.14)	617 (234)	4.32 (1.64)	25.7 (9.76)	47.0 (17.9)
19	9.34 (3.29)	4.02 (1.42)	8.11 (2.86)	20.3 (7.15)	10.8 (4.06)	4.64 (1.75)	9.36 (3.52)	23.4 (8.81)	717 (300)	5.02 (2.10)	29.9 (12.5)	54.2 (22.7)
20	9.10 (2.31)	3.92 (0.99)	7.90 (2.00)	19.7 (5.00)	11.3 (2.43)	4.86 (1.05)	9.78 (2.11)	24.5 (5.28)	786 (274)	5.50 (1.92)	32.7 (11.4)	59.0 (20.5)
21	10.7 (3.10)	4.60 (1.33)	9.27 (2.69)	23.2 (6.72)	10.9 (3.21)	4.71 (1.38)	9.48 (2.79)	23.7 (6.97)	620 (315)	4.34 (2.21)	25.8 (13.1)	46.3 (23.5)
22	9.32 (3.31)	4.01 (1.42)	8.08 (2.87)	20.2 (7.17)	9.98 (3.42)	4.30 (1.47)	8.65 (2.96)	21.6 (7.41)				
23	9.80 (3.18)	4.22 (1.37)	8.50 (2.76)	21.2 (6.90)	11.7 (3.96)	5.05 (1.70)	10.2 (3.43)	25.4 (8.58)	286 (100)	2.01 (0.70)	11.9 (4.17)	26.7 (9.32)
24	9.91 (2.10)	4.27 (0.90)	8.59 (1.82)	21.5 (4.55)	10.4 (2.53)	4.47 (1.09)	9.00 (2.20)	22.5 (5.49)	286 (114)	2.01 (0.80)	11.9 (4.75)	25.7 (10.2)
25	8.81 (2.25)	3.79 (0.97)	7.63 (1.95)	19.1 (4.87)	10.5 (3.75)	4.51 (1.61)	9.08 (3.25)	22.7 (8.12)				
26	9.25 (2.76)	3.98 (1.19)	8.02 (2.39)	20.0 (5.98)	11.3 (3.98)	4.88 (1.72)	9.83 (3.45)	24.6 (8.63)	363 (181)	2.54 (1.27)	15.1 (7.55)	31.7 (15.8)
27	10.8 (3.81)	4.64 (1.64)	9.33 (3.30)	23.3 (8.25)	10.9 (3.82)	4.68 (1.65)	9.41 (3.31)	23.5 (8.29)	388 (204)	2.72 (1.43)	16.2 (8.48)	33.5 (17.6)
28	10.8 (3.53)	4.64 (1.52)	9.34 (3.06)	23.4 (7.64)	11.0 (3.63)	4.73 (1.56)	9.51 (3.14)	23.8 (7.86)	407 (165)	2.85 (1.15)	16.9 (6.86)	34.7 (14.1)
29	9.01 (3.17)	3.88 (1.36)	7.81 (2.74)	19.5 (6.86)	12.3 (4.40)	5.32 (1.90)	10.7 (3.81)	26.7 (9.53)	360 (120)	2.52 (0.84)	15.0 (4.99)	30.4 (10.2)
30	11.0 (2.22)	4.72 (0.96)	9.49 (1.93)	23.7 (4.82)	11.7 (3.19)	5.04 (1.37)	10.1 (2.76)	25.3 (6.91)	367 (73.8)	2.57 (0.52)	15.3 (3.08)	30.6 (6.20)
31	10.3 (2.53)	4.44 (1.09)	8.94 (2.19)	22.3 (5.48)	9.68 (3.10)	4.17 (1.34)	8.38 (2.68)	21.0 (6.71)	397 (147)	2.78 (1.03)	16.6 (6.11)	32.7 (12.1)
Mean	9.48	4.08	8.23	20.60	11.00	4.75	9.57	23.90	506.00	3.55	21.10	41.10
n	25	25	25	25	25	25	25	25	23	23	23	23
SD	0.93	0.40	0.81	2.01	0.79	0.34	0.69	1.71	139.00	0.97	5.77	9.35
Min	8.01	3.45	6.97	17.40	9.68	4.17	8.38	21.00	286.00	2.01	11.90	25.70
Max	11.60	5.01	10.10	25.30	12.70	5.48	11.10	27.60	786.00	5.50	32.70	59.00

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for November, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.01 (2.92)	3.88 (1.26)	7.80 (2.52)	19.5 (6.31)	8.97 (3.56)	3.86 (1.53)	7.77 (3.08)	19.4 (7.70)	361 (142)	2.53 (1.00)	15.1 (5.94)	29.4 (11.6)
2	9.59 (3.51)	4.13 (1.51)	8.30 (3.04)	20.8 (7.59)					369 (142)	2.58 (1.00)	15.4 (5.93)	29.7 (11.5)
3	9.15 (2.90)	3.94 (1.25)	7.91 (2.51)	19.8 (6.27)	10.2 (3.69)	4.41 (1.59)	8.87 (3.19)	22.2 (7.98)	361 (129)	2.53 (0.91)	15.0 (5.38)	28.8 (10.3)
4	8.71 (3.04)	3.75 (1.31)	7.54 (2.63)	18.8 (6.57)	10.5 (3.83)	4.51 (1.65)	9.06 (3.31)	22.7 (8.28)	372 (124)	2.60 (0.87)	15.5 (5.19)	29.4 (9.86)
5	9.47 (2.66)	4.08 (1.14)	8.19 (2.30)	20.5 (5.74)	9.69 (3.42)	4.17 (1.47)	8.38 (2.96)	21.0 (7.39)	411 (152)	2.88 (1.06)	17.1 (6.33)	32.2 (11.9)
6	9.10 (3.10)	3.92 (1.33)	7.87 (2.68)	19.7 (6.70)								
7	9.27 (2.43)	3.99 (1.05)	8.01 (2.10)	20.0 (5.25)								
8	8.08 (2.85)	3.48 (1.23)	6.98 (2.47)	17.5 (6.17)	8.25 (2.51)	3.55 (1.08)	7.13 (2.17)	17.8 (5.43)	386 (118)	2.70 (0.83)	16.1 (4.93)	29.3 (9.03)
9	8.89 (2.60)	3.83 (1.12)	7.68 (2.24)	19.2 (5.61)	10.2 (3.93)	4.40 (1.69)	8.83 (3.40)	22.1 (8.50)	416 (124)	2.91 (0.87)	17.3 (5.16)	31.5 (9.37)
10	10.6 (2.40)	4.58 (1.03)	9.20 (2.08)	23.0 (5.19)	10.7 (3.17)	4.59 (1.36)	9.22 (2.74)	23.0 (6.84)	426 (51.1)	2.98 (0.36)	17.7 (2.13)	32.1 (3.87)
11	8.81 (2.05)	3.80 (0.88)	7.61 (1.77)	19.0 (4.42)	10.3 (3.11)	4.45 (1.34)	8.92 (2.68)	22.3 (6.71)	461 (86.9)	3.23 (0.61)	19.2 (3.62)	34.5 (6.51)
12												
13												
14	9.31 (2.58)	4.01 (1.11)	8.04 (2.23)	20.1 (5.58)	9.01 (2.46)	3.88 (1.06)	7.78 (2.13)	19.4 (5.32)	178 (132)	1.25 (0.93)	7.43 (5.52)	16.6 (12.4)
15	9.37 (2.48)	4.04 (1.07)	8.09 (2.14)	20.2 (5.35)	9.24 (3.45)	3.98 (1.48)	7.98 (2.97)	19.9 (7.43)	221 (150)	1.54 (1.05)	9.19 (6.25)	19.8 (13.4)
16	10.2 (3.59)	4.38 (1.55)	8.78 (3.10)	21.9 (7.75)	10.2 (3.74)	4.38 (1.61)	8.78 (3.23)	22.0 (8.07)	239 (133)	1.68 (0.93)	9.98 (5.56)	21.1 (11.8)
17	9.55 (2.90)	4.11 (1.25)	8.24 (2.51)	20.6 (6.27)	9.40 (2.22)	4.05 (0.96)	8.11 (1.92)	20.3 (4.79)	242 (121)	1.69 (0.85)	10.1 (5.06)	21.1 (10.6)
18	9.40 (3.04)	4.05 (1.31)	8.11 (2.62)	20.3 (6.55)	10.3 (2.30)	4.45 (0.99)	8.92 (1.99)	22.3 (4.97)	273 (125)	1.91 (0.88)	11.4 (5.23)	23.5 (10.8)
19	8.76 (2.20)	3.77 (0.95)	7.55 (1.90)	18.9 (4.74)	11.0 (3.11)	4.73 (1.34)	9.48 (2.68)	23.7 (6.70)	310 (151)	2.17 (1.06)	12.9 (6.29)	26.5 (12.9)
20	10.3 (3.29)	4.43 (1.42)	8.88 (2.84)	22.2 (7.10)	10.7 (4.07)	4.61 (1.75)	9.23 (3.51)	23.1 (8.78)	321 (163)	2.25 (1.14)	13.4 (6.78)	27.1 (13.7)
21	8.92 (2.61)	3.84 (1.13)	7.69 (2.25)	19.2 (5.63)	10.2 (3.95)	4.41 (1.70)	8.84 (3.41)	22.1 (8.52)	285 (192)	1.99 (1.34)	11.9 (7.99)	23.7 (16.0)
22	9.03 (2.21)	3.89 (0.95)	7.79 (1.91)	19.5 (4.77)	9.36 (2.72)	4.03 (1.17)	8.07 (2.35)	20.2 (5.87)	278 (156)	1.95 (1.09)	11.6 (6.51)	22.9 (12.8)
23	8.74 (2.10)	3.77 (0.90)	7.54 (1.81)	18.8 (4.52)					312 (166)	2.18 (1.17)	13.0 (6.94)	25.3 (13.5)
24	9.02 (2.98)	3.88 (1.28)	7.77 (2.57)	19.4 (6.42)	8.48 (2.49)	3.65 (1.07)	7.30 (2.15)	18.3 (5.37)	286 (170)	2.00 (1.19)	11.9 (7.08)	23.0 (13.7)
25	9.72 (3.09)	4.19 (1.33)	8.37 (2.66)	20.9 (6.66)	8.91 (2.13)	3.84 (0.92)	7.68 (1.83)	19.2 (4.58)	331 (171)	2.32 (1.20)	13.8 (7.14)	26.3 (13.6)
26	9.46 (2.60)	4.08 (1.12)	8.15 (2.24)	20.4 (5.60)	8.71 (2.69)	3.75 (1.16)	7.50 (2.31)	18.8 (5.79)	358 (192)	2.51 (1.34)	14.9 (7.98)	28.3 (15.1)
27												
28												
29												
30	10.1 (3.01)	4.33 (1.30)	8.65 (2.59)	21.6 (6.49)	9.08 (2.88)	3.91 (1.24)	7.81 (2.48)	19.5 (6.19)	448 (235)	3.14 (1.65)	18.7 (9.80)	34.0 (17.8)
Mean	9.30	4.01	8.03	20.10	9.69	4.17	8.36	20.90	332.00	2.33	13.80	26.80
n	25	25	25	25	21	21	21	21	23	23	23	23
SD	0.56	0.24	0.48	1.20	0.79	0.34	0.69	1.71	73.60	0.52	3.07	4.64
Min	8.08	3.48	6.98	17.50	8.25	3.55	7.13	17.80	178.00	1.25	7.43	16.60
Max	10.60	4.58	9.20	23.00	11.00	4.73	9.48	23.70	461.00	3.23	19.20	34.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for December, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.79 (2.15)	4.22 (0.93)	8.42 (1.85)	21.1 (4.64)					461 (130)	3.23 (0.91)	19.2 (5.43)	34.9 (9.86)
2	10.4 (2.96)	4.47 (1.28)	8.93 (2.55)	22.3 (6.37)	10.4 (3.38)	4.48 (1.45)	8.95 (2.91)	22.4 (7.27)	507 (188)	3.55 (1.32)	21.1 (7.85)	38.2 (14.2)
3	9.79 (2.81)	4.21 (1.21)	8.42 (2.42)	21.1 (6.05)	9.90 (3.49)	4.26 (1.50)	8.52 (3.00)	21.3 (7.51)	576 (183)	4.03 (1.28)	24.0 (7.61)	43.3 (13.7)
4	9.65 (2.72)	4.15 (1.17)	8.30 (2.34)	20.8 (5.86)	10.2 (1.57)	4.38 (0.68)	8.76 (1.35)	21.9 (3.38)	571 (134)	4.00 (0.94)	23.8 (5.59)	42.8 (10.0)
5	11.0 (3.20)	4.75 (1.38)	9.50 (2.76)	23.7 (6.89)	10.8 (3.17)	4.63 (1.36)	9.26 (2.73)	23.2 (6.81)	720 (206)	5.04 (1.44)	30.0 (8.58)	53.8 (15.3)
6	10.4 (3.29)	4.48 (1.42)	8.95 (2.83)	22.4 (7.08)	11.1 (4.89)	4.79 (2.11)	9.57 (4.21)	23.9 (10.5)				
7	9.86 (3.56)	4.25 (1.53)	8.49 (3.06)	21.2 (7.65)	12.5 (4.18)	5.38 (1.80)	10.7 (3.59)	26.9 (8.99)				
8	9.46 (2.59)	4.07 (1.12)	8.14 (2.23)	20.4 (5.58)	12.1 (1.56)	5.20 (0.67)	10.4 (1.35)	26.0 (3.36)	214 (156)	1.50 (1.09)	8.91 (6.49)	19.9 (14.4)
9	8.85 (1.63)	3.81 (0.70)	7.62 (1.40)	19.0 (3.50)	10.8 (0.99)	4.64 (0.43)	9.27 (0.85)	23.2 (2.12)	244 (177)	1.71 (1.24)	10.2 (7.38)	21.9 (15.9)
10	8.58 (2.49)	3.69 (1.07)	7.39 (2.15)	18.5 (5.36)	11.1 (1.28)	4.79 (0.55)	9.57 (1.11)	23.9 (2.77)	249 (221)	1.74 (1.55)	10.4 (9.21)	22.0 (19.5)
11					10.4 (1.06)	4.49 (0.46)	8.97 (0.91)	22.4 (2.27)	268 (199)	1.88 (1.39)	11.2 (8.29)	23.4 (17.4)
12	8.61 (3.01)	3.71 (1.30)	7.42 (2.59)	18.5 (6.48)	10.5 (1.32)	4.51 (0.57)	9.02 (1.13)	22.6 (2.83)	308 (206)	2.16 (1.44)	12.8 (8.60)	26.6 (17.8)
13	9.74 (2.11)	4.19 (0.91)	8.38 (1.81)	21.0 (4.53)	10.9 (1.70)	4.69 (0.73)	9.38 (1.47)	23.5 (3.67)	320 (233)	2.24 (1.63)	13.3 (9.72)	27.3 (19.9)
14	9.60 (2.07)	4.13 (0.89)	8.27 (1.78)	20.7 (4.45)	10.9 (1.24)	4.70 (0.53)	9.40 (1.06)	23.5 (2.66)	335 (246)	2.35 (1.72)	14.0 (10.3)	28.3 (20.8)
15	9.50 (1.82)	4.09 (0.78)	8.18 (1.57)	20.5 (3.92)	11.0 (1.30)	4.73 (0.56)	9.46 (1.12)	23.7 (2.79)	318 (233)	2.23 (1.63)	13.2 (9.71)	26.5 (19.4)
16	10.2 (2.43)	4.41 (1.05)	8.82 (2.10)	22.0 (5.24)	11.2 (1.01)	4.84 (0.43)	9.68 (0.87)	24.2 (2.17)	389 (246)	2.72 (1.72)	16.2 (10.3)	32.0 (20.3)
17	9.85 (2.85)	4.24 (1.23)	8.48 (2.45)	21.2 (6.13)	11.8 (1.30)	5.10 (0.56)	10.2 (1.12)	25.5 (2.80)	450 (273)	3.15 (1.91)	18.7 (11.4)	36.6 (22.2)
18	8.43 (3.31)	3.63 (1.43)	7.26 (2.86)	18.1 (7.14)	9.81 (2.90)	4.23 (1.25)	8.45 (2.50)	21.1 (6.25)				
19	10.4 (2.37)	4.46 (1.02)	8.93 (2.04)	22.3 (5.10)	9.12 (3.17)	3.93 (1.37)	7.86 (2.73)	19.6 (6.83)	413 (210)	2.89 (1.47)	17.2 (8.75)	33.1 (16.8)
20												
21												
22	9.42 (2.11)	4.06 (0.91)	8.12 (1.82)	20.3 (4.55)	8.67 (1.88)	3.73 (0.81)	7.47 (1.62)	18.7 (4.04)	434 (243)	3.04 (1.70)	18.1 (10.1)	33.7 (18.9)
23	10.7 (2.26)	4.61 (0.97)	9.22 (1.94)	23.0 (4.86)	9.74 (2.90)	4.20 (1.25)	8.39 (2.50)	21.0 (6.25)	483 (268)	3.38 (1.88)	20.1 (11.2)	37.2 (20.6)
24	10.6 (2.65)	4.58 (1.14)	9.16 (2.29)	22.9 (5.72)					561 (283)	3.93 (1.98)	23.4 (11.8)	42.8 (21.6)
25	10.2 (2.07)	4.37 (0.89)	8.75 (1.78)	21.9 (4.45)	8.22 (2.52)	3.54 (1.09)	7.08 (2.17)	17.7 (5.43)	493 (315)	3.45 (2.21)	20.5 (13.1)	37.2 (23.8)
26	9.25 (1.74)	3.98 (0.75)	7.97 (1.50)	19.9 (3.75)	9.38 (2.46)	4.04 (1.06)	8.08 (2.12)	20.2 (5.30)	509 (333)	3.57 (2.33)	21.2 (13.9)	38.1 (24.9)
27												
28	8.78 (1.87)	3.78 (0.81)	7.56 (1.61)	18.9 (4.03)	10.1 (1.17)	4.35 (0.51)	8.71 (1.01)	21.8 (2.53)				
29	9.10 (2.30)	3.92 (0.99)	7.85 (1.98)	19.6 (4.95)	10.4 (1.20)	4.49 (0.52)	8.99 (1.03)	22.5 (2.58)				
30	10.3 (2.63)	4.44 (1.13)	8.88 (2.26)	22.2 (5.66)	9.19 (2.01)	3.96 (0.87)	7.92 (1.73)	19.8 (4.34)				
31												
Mean	9.71	4.18	8.36	20.90	10.40	4.48	8.97	22.40	420.00	2.94	17.50	33.30
n	26	26	26	26	25	25	25	25	21	21	21	21
SD	0.69	0.30	0.59	1.48	1.00	0.43	0.86	2.15	129.00	0.91	5.40	8.40
Min	8.43	3.63	7.26	18.10	8.22	3.54	7.08	17.70	214.00	1.50	8.91	19.90
Max	11.00	4.75	9.50	23.70	12.50	5.38	10.70	26.90	720.00	5.04	30.00	53.80

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for January, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1												
2	9.48 (1.98)	4.08 (0.85)	8.17 (1.71)	20.4 (4.27)	8.66 (2.96)	3.73 (1.27)	7.47 (2.55)	18.7 (6.37)	199 (144)	1.40 (1.01)	8.30 (5.98)	17.0 (12.3)
3												
4	9.42 (3.05)	4.05 (1.32)	8.11 (2.63)	20.3 (6.58)	8.40 (4.46)	3.62 (1.92)	7.24 (3.84)	18.1 (9.60)	283 (195)	1.98 (1.37)	11.8 (8.14)	23.5 (16.2)
5	9.92 (2.05)	4.27 (0.89)	8.54 (1.77)	21.3 (4.42)					373 (211)	2.61 (1.48)	15.5 (8.80)	30.6 (17.3)
6	10.6 (2.35)	4.58 (1.01)	9.15 (2.02)	22.9 (5.05)					379 (214)	2.65 (1.50)	15.8 (8.92)	30.7 (17.3)
7	9.59 (2.62)	4.13 (1.13)	8.25 (2.25)	20.6 (5.64)					404 (227)	2.83 (1.59)	16.8 (9.45)	32.4 (18.2)
8	9.83 (3.46)	4.23 (1.49)	8.46 (2.97)	21.1 (7.44)	8.23 (4.13)	3.54 (1.78)	7.08 (3.55)	17.7 (8.88)	386 (238)	2.71 (1.67)	16.1 (9.91)	30.7 (18.9)
9	10.6 (3.04)	4.55 (1.31)	9.08 (2.61)	22.7 (6.53)					466 (218)	3.27 (1.53)	19.4 (9.09)	36.7 (17.2)
10	9.56 (3.28)	4.12 (1.41)	8.22 (2.82)	20.5 (7.04)	7.99 (4.71)	3.44 (2.03)	6.87 (4.05)	17.2 (10.1)	422 (247)	2.96 (1.73)	17.6 (10.3)	32.9 (19.3)
11												
12	9.93 (3.27)	4.28 (1.41)	8.53 (2.81)	21.3 (7.04)	8.39 (4.27)	3.61 (1.84)	7.21 (3.67)	18.0 (9.18)	433 (232)	3.03 (1.62)	18.0 (9.66)	33.0 (17.7)
13	9.44 (2.70)	4.07 (1.16)	8.12 (2.32)	20.3 (5.80)	8.92 (5.16)	3.84 (2.22)	7.67 (4.43)	19.2 (11.1)	435 (231)	3.05 (1.61)	18.1 (9.61)	32.9 (17.4)
14	9.38 (2.64)	4.04 (1.14)	8.06 (2.27)	20.2 (5.68)	8.66 (4.99)	3.73 (2.15)	7.44 (4.29)	18.6 (10.7)	492 (237)	3.45 (1.66)	20.5 (9.88)	37.1 (17.9)
15									534 (223)	3.74 (1.56)	22.3 (9.30)	40.2 (16.8)
16	8.36 (2.23)	3.60 (0.96)	7.17 (1.92)	17.9 (4.79)	6.94 (2.71)	2.99 (1.17)	5.96 (2.33)	14.9 (5.81)				
17	9.77 (2.22)	4.21 (0.96)	8.39 (1.91)	21.0 (4.77)	8.85 (4.28)	3.81 (1.84)	7.60 (3.67)	19.0 (9.18)				
18	9.82 (2.42)	4.23 (1.04)	8.43 (2.08)	21.1 (5.20)					504 (282)	3.53 (1.98)	21.0 (11.8)	37.8 (21.1)
19	9.78 (2.37)	4.21 (1.02)	8.39 (2.03)	21.0 (5.08)					520 (280)	3.64 (1.96)	21.7 (11.7)	38.9 (20.9)
20	10.3 (3.03)	4.42 (1.30)	8.81 (2.60)	22.0 (6.49)					598 (260)	4.19 (1.82)	24.9 (10.8)	44.6 (19.4)
21	8.57 (1.46)	3.69 (0.63)	7.35 (1.25)	18.4 (3.13)	11.6 (1.72)	4.98 (0.74)	9.92 (1.48)	24.8 (3.69)	587 (314)	4.11 (2.20)	24.5 (13.1)	43.8 (23.4)
22	9.05 (2.18)	3.90 (0.94)	7.76 (1.87)	19.4 (4.67)	10.8 (1.64)	4.67 (0.71)	9.30 (1.41)	23.3 (3.52)	610 (287)	4.27 (2.01)	25.4 (12.0)	45.5 (21.4)
23	8.43 (1.22)	3.63 (0.53)	7.23 (1.05)	18.1 (2.62)	9.83 (1.09)	4.23 (0.47)	8.43 (0.93)	21.1 (2.33)				
24												
25	11.3 (3.08)	4.86 (1.33)	9.67 (2.64)	24.2 (6.59)	9.54 (2.88)	4.11 (1.24)	8.17 (2.47)	20.4 (6.18)	206 (159)	1.44 (1.11)	8.59 (6.62)	19.1 (14.6)
26	10.5 (2.97)	4.51 (1.28)	8.97 (2.54)	22.4 (6.36)	8.72 (1.77)	3.76 (0.76)	7.47 (1.52)	18.7 (3.80)	253 (164)	1.77 (1.15)	10.5 (6.82)	22.7 (14.7)
27												
28												
29												
30												
31												
Mean	9.69	4.17	8.33	20.80	8.97	3.86	7.70	19.30	426.00	2.98	17.70	33.20
n	21	21	21	21	14	14	14	14	19	19	19	19
SD	0.71	0.31	0.61	1.53	1.13	0.49	0.96	2.41	121.00	0.85	5.06	7.98
Min	8.36	3.60	7.17	17.90	6.94	2.99	5.96	14.90	199.00	1.40	8.30	17.00
Max	11.30	4.86	9.67	24.20	11.60	4.98	9.92	24.80	610.00	4.27	25.40	45.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for February, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.73 (2.58)	4.19 (1.11)	8.32 (2.21)	20.8 (5.53)					380 (232)	2.66 (1.63)	15.8 (9.68)	31.6 (19.3)
2	10.3 (3.20)	4.42 (1.38)	8.78 (2.74)	21.9 (6.84)	8.34 (1.67)	3.59 (0.72)	7.13 (1.43)	17.8 (3.57)	387 (236)	2.71 (1.65)	16.1 (9.84)	31.7 (19.4)
3	10.5 (2.78)	4.51 (1.20)	8.94 (2.37)	22.4 (5.93)	8.79 (1.53)	3.79 (0.66)	7.52 (1.31)	18.8 (3.28)	417 (200)	2.92 (1.40)	17.4 (8.32)	33.8 (16.2)
4												
5	8.54 (1.98)	3.68 (0.85)	7.30 (1.69)	18.2 (4.23)	8.89 (1.38)	3.83 (0.60)	7.59 (1.18)	19.0 (2.95)	336 (232)	2.35 (1.62)	14.0 (9.65)	26.7 (18.5)
6									443 (232)	3.10 (1.62)	18.4 (9.67)	34.9 (18.3)
7												
8	12.4 (4.80)	5.33 (2.07)	10.6 (4.10)	26.4 (10.20)	9.23 (2.78)	3.97 (1.20)	7.87 (2.37)	19.7 (5.94)	449 (219)	3.14 (1.54)	18.7 (9.14)	34.7 (16.9)
9	10.3 (2.96)	4.46 (1.28)	8.83 (2.53)	22.1 (6.32)	7.98 (1.71)	3.44 (0.74)	6.81 (1.46)	17.0 (3.65)	472 (192)	3.31 (1.34)	19.7 (8.00)	36.1 (14.7)
10	8.62 (1.71)	3.71 (0.74)	7.36 (1.46)	18.4 (3.65)	7.85 (0.93)	3.38 (0.40)	6.69 (0.79)	16.7 (1.99)	476 (263)	3.34 (1.84)	19.8 (11.0)	36.1 (20.0)
11	10.1 (2.79)	4.36 (1.20)	8.63 (2.38)	21.6 (5.94)	9.16 (3.04)	3.94 (1.31)	7.81 (2.59)	19.5 (6.47)	511 (241)	3.58 (1.69)	21.3 (10.1)	38.6 (18.2)
12	9.45 (2.35)	4.07 (1.01)	8.05 (2.01)	20.1 (5.02)					557 (280)	3.90 (1.96)	23.2 (11.7)	41.9 (21.1)
13	11.2 (3.02)	4.82 (1.30)	9.54 (2.58)	23.8 (6.44)					548 (198)	3.84 (1.38)	22.9 (8.24)	41.2 (14.9)
14	9.75 (3.24)	4.20 (1.39)	8.31 (2.76)	20.8 (6.89)	8.79 (2.41)	3.78 (1.04)	7.49 (2.05)	18.7 (5.13)	526 (264)	3.68 (1.85)	21.9 (11.0)	39.4 (19.8)
15	9.31 (2.20)	4.01 (0.95)	7.93 (1.88)	19.8 (4.69)	9.42 (1.32)	4.06 (0.57)	8.02 (1.12)	20.1 (2.81)	564 (314)	3.95 (2.20)	23.5 (13.1)	42.2 (23.5)
16	10.6 (3.36)	4.59 (1.44)	9.07 (2.86)	22.7 (7.14)	9.17 (1.64)	3.95 (0.71)	7.81 (1.39)	19.5 (3.48)	616 (263)	4.32 (1.84)	25.7 (11.0)	46.0 (19.6)
17	10.7 (3.22)	4.59 (1.39)	9.07 (2.74)	22.7 (6.85)	9.59 (2.22)	4.13 (0.96)	8.16 (1.89)	20.4 (4.72)	519 (326)	3.63 (2.28)	21.6 (13.6)	38.6 (24.3)
18	10.2 (3.09)	4.41 (1.33)	8.71 (2.63)	21.8 (6.57)					329 (343)	2.30 (2.40)		
19	10.9 (2.97)	4.70 (1.28)	9.29 (2.52)	23.2 (6.31)	11.4 (3.12)	4.90 (1.34)	9.67 (2.66)	24.2 (6.64)	194 (169)	1.36 (1.19)	8.07 (7.06)	18.0 (15.6)
20	9.64 (2.83)	4.15 (1.22)	8.20 (2.41)	20.5 (6.02)	9.30 (1.24)	4.01 (0.53)	7.91 (1.05)	19.8 (2.63)	218 (221)	1.53 (1.55)	9.10 (9.20)	19.6 (19.8)
21	10.6 (3.13)	4.57 (1.35)	9.02 (2.66)	22.5 (6.66)	10.2 (1.61)	4.38 (0.70)	8.65 (1.37)	21.6 (3.43)	292 (252)	2.04 (1.76)	12.1 (10.5)	25.7 (22.2)
22	13.0 (4.08)	5.60 (1.76)	11.0 (3.47)	27.6 (8.67)	11.4 (3.32)	4.91 (1.43)	9.68 (2.82)	24.2 (7.05)	323 (254)	2.26 (1.78)	13.5 (10.6)	28.2 (22.2)
23	12.7 (4.22)	5.48 (1.82)	10.8 (3.58)	27.0 (8.96)	11.5 (3.92)	4.97 (1.69)	9.80 (3.33)	24.5 (8.32)	390 (260)	2.73 (1.82)	16.2 (10.8)	33.6 (22.4)
24	13.7 (3.24)	5.90 (1.39)	11.6 (2.75)	29.1 (6.88)	11.9 (3.03)	5.13 (1.30)	10.1 (2.57)	25.3 (6.42)	412 (240)	2.89 (1.68)	17.2 (9.98)	35.1 (20.4)
25	12.6 (3.07)	5.42 (1.32)	10.7 (2.61)	26.7 (6.52)	11.7 (3.81)	5.05 (1.64)	9.95 (3.24)	24.9 (8.10)	363 (244)	2.54 (1.71)	15.1 (10.2)	30.6 (20.6)
26	11.7 (2.88)	5.05 (1.24)	9.95 (2.45)	24.9 (6.12)	11.1 (3.32)	4.77 (1.43)	9.41 (2.81)	23.5 (7.04)	427 (308)	2.99 (2.15)	17.8 (12.8)	35.5 (25.5)
27	12.1 (3.49)	5.21 (1.50)	10.3 (2.96)	25.7 (7.40)	10.8 (2.41)	4.67 (1.04)	9.21 (2.05)	23.0 (5.12)	523 (294)	3.66 (2.06)	21.8 (12.2)	42.9 (24.1)
28	12.0 (3.73)	5.17 (1.61)	10.2 (3.17)	25.5 (7.91)	11.2 (2.78)	4.81 (1.20)	9.48 (2.36)	23.7 (5.89)	509 (251)	3.56 (1.76)	21.2 (10.5)	41.2 (20.3)
29	12.7 (4.59)	5.48 (1.98)	10.8 (3.90)	27.0 (9.74)	11.6 (2.98)	4.97 (1.28)	9.80 (2.52)	24.5 (6.31)	508 (237)	3.55 (1.66)	21.2 (9.89)	40.7 (19.1)
Mean	10.90	4.69	9.28	23.20	9.97	4.29	8.48	21.20	433.00	3.03	18.20	34.80
n	26	26	26	26	22	22	22	22	27	27	26	26
SD	1.37	0.59	1.16	2.89	1.30	0.56	1.09	2.72	104.00	0.73	4.34	6.83
Min	8.54	3.68	7.30	18.20	7.85	3.38	6.69	16.70	194.00	1.36	8.07	18.00
Max	13.70	5.90	11.60	29.10	11.90	5.13	10.10	25.30	616.00	4.32	25.70	46.00

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for March, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	13.6 (3.37)	5.86 (1.45)	11.5 (2.85)	28.8 (7.14)	12.2 (3.17)	5.23 (1.37)	10.3 (2.69)	25.8 (6.72)	450 (190)	3.15 (1.33)	18.8 (7.93)	35.8 (15.2)
2	14.1 (3.21)	6.09 (1.38)	12.0 (2.72)	30.0 (6.80)	13.2 (3.58)	5.68 (1.54)	11.2 (3.04)	28.0 (7.60)	419 (145)	2.93 (1.01)	17.4 (6.04)	33.0 (11.4)
3	12.3 (4.58)	5.30 (1.97)	10.4 (3.88)	26.1 (9.71)	11.9 (1.85)	5.12 (0.80)	10.1 (1.57)	25.2 (3.92)	377 (257)	2.64 (1.80)	15.7 (10.7)	29.4 (20.0)
4	12.4 (3.10)	5.36 (1.33)	10.5 (2.62)	26.4 (6.56)	12.4 (2.95)	5.32 (1.27)	10.5 (2.50)	26.2 (6.24)	436 (219)	3.05 (1.53)	18.2 (9.11)	33.6 (16.9)
5	11.9 (3.28)	5.14 (1.41)	10.1 (2.78)	25.3 (6.94)	11.7 (3.55)	5.04 (1.53)	9.91 (3.01)	24.8 (7.52)	411 (265)	2.88 (1.85)	17.1 (11.0)	31.3 (20.2)
6	12.0 (3.02)	5.17 (1.30)	10.2 (2.56)	25.4 (6.40)	12.2 (2.77)	5.25 (1.19)	10.3 (2.34)	25.8 (5.86)	507 (275)	3.55 (1.93)	21.1 (11.5)	38.3 (20.8)
7	10.9 (2.38)	4.70 (1.03)	9.24 (2.02)	23.1 (5.05)	13.0 (2.71)	5.59 (1.17)	11.0 (2.30)	27.5 (5.75)	399 (271)	2.79 (1.90)	16.6 (11.3)	30.1 (20.4)
8	12.1 (2.85)	5.21 (1.23)	10.2 (2.42)	25.6 (6.04)	13.0 (2.24)	5.58 (0.97)	11.0 (1.90)	27.4 (4.74)	493 (220)	3.45 (1.54)	20.6 (9.17)	37.1 (16.6)
9	12.4 (3.60)	5.32 (1.55)	10.5 (3.04)	26.1 (7.61)	12.3 (2.08)	5.30 (0.90)	10.4 (1.76)	26.1 (4.41)	501 (159)	3.50 (1.11)	20.9 (6.61)	37.6 (11.9)
10	11.7 (2.98)	5.03 (1.28)	9.89 (2.52)	24.7 (6.31)	13.2 (2.15)	5.69 (0.93)	11.2 (1.82)	28.0 (4.55)	540 (164)	3.78 (1.15)	22.5 (6.82)	40.5 (12.3)
11	12.0 (3.51)	5.15 (1.51)	10.1 (2.97)	25.3 (7.43)	14.0 (2.29)	6.05 (0.99)	11.9 (1.94)	29.7 (4.84)	559 (138)	3.92 (0.97)	23.3 (5.77)	41.9 (10.4)
12	12.7 (3.74)	5.45 (1.61)	10.7 (3.17)	26.8 (7.91)	12.9 (2.78)	5.57 (1.20)	10.9 (2.36)	27.4 (5.89)	567 (128)	3.97 (0.90)	23.6 (5.35)	42.4 (9.6)
13	11.7 (4.24)	5.03 (1.83)	9.88 (3.59)	24.7 (8.97)	13.5 (4.05)	5.79 (1.74)	11.4 (3.42)	28.5 (8.56)	568 (134)	3.98 (0.94)	23.7 (5.57)	42.4 (10.0)
14	12.0 (3.56)	5.15 (1.53)	10.1 (3.01)	25.3 (7.52)	13.6 (3.43)	5.86 (1.48)	11.5 (2.90)	28.8 (7.24)	589 (185)	4.13 (1.29)	24.6 (7.69)	43.9 (13.8)
15	12.6 (3.60)	5.41 (1.55)	10.6 (3.04)	26.6 (7.60)	12.6 (2.85)	5.43 (1.23)	10.7 (2.41)	26.6 (6.02)	655 (237)	4.59 (1.66)	27.3 (9.86)	48.8 (17.6)
16	13.2 (4.04)	5.67 (1.74)	11.1 (3.42)	27.8 (8.54)	12.3 (3.74)	5.31 (1.61)	10.4 (3.16)	26.1 (7.91)	747 (285)	5.23 (2.00)	31.1 (11.9)	55.5 (21.2)
17	12.5 (4.39)	5.38 (1.89)	10.5 (3.71)	26.4 (9.28)	12.1 (4.62)	5.19 (1.99)	10.2 (3.90)	25.5 (9.75)	341 (297)	2.39 (2.08)		
18	11.8 (3.02)	5.10 (1.30)	10.0 (2.55)	25.0 (6.37)	11.7 (2.95)	5.03 (1.27)	9.86 (2.49)	24.6 (6.23)	221 (164)	1.55 (1.15)	9.20 (6.82)	20.6 (15.3)
19	11.9 (2.96)	5.13 (1.27)	10.1 (2.50)	25.2 (6.25)	11.1 (2.32)	4.78 (1.00)	9.37 (1.96)	23.4 (4.89)	285 (151)	2.00 (1.05)	11.9 (6.28)	25.6 (13.5)
20	12.2 (3.32)	5.24 (1.43)	10.3 (2.80)	25.7 (7.00)	12.6 (2.96)	5.43 (1.27)	10.6 (2.50)	26.6 (6.25)	302 (141)	2.11 (0.99)	12.6 (5.90)	26.6 (12.5)
21	12.3 (2.74)	5.30 (1.18)	10.4 (2.32)	26.0 (5.79)	12.1 (3.26)	5.20 (1.40)	10.2 (2.75)	25.5 (6.88)	353 (189)	2.47 (1.32)	14.7 (7.88)	30.8 (16.5)
22	12.3 (3.58)	5.31 (1.54)	10.4 (3.02)	26.0 (7.55)	11.3 (3.11)	4.87 (1.34)	9.54 (2.63)	23.9 (6.56)	321 (217)	2.25 (1.52)	13.4 (9.05)	27.7 (18.7)
23	11.3 (3.95)	4.86 (1.70)	9.53 (3.33)	23.8 (8.34)	11.2 (2.67)	4.83 (1.15)	9.47 (2.26)	23.7 (5.64)	374 (247)	2.62 (1.73)	15.6 (10.3)	31.9 (21.1)
24												
25	10.8 (2.95)	4.66 (1.27)	9.13 (2.49)	22.8 (6.21)	12.2 (3.22)	5.27 (1.39)	10.3 (2.71)	25.8 (6.79)	425 (171)	2.97 (1.20)	17.7 (7.13)	35.3 (14.3)
26	10.7 (3.59)	4.60 (1.55)	9.02 (3.03)	22.5 (7.57)	11.0 (2.91)	4.73 (1.25)	9.26 (2.45)	23.1 (6.13)	457 (198)	3.20 (1.39)	19.0 (8.25)	37.5 (16.3)
27	10.7 (2.88)	4.59 (1.24)	8.99 (2.43)	22.5 (6.06)	11.4 (3.09)	4.90 (1.33)	9.59 (2.60)	24.0 (6.51)	464 (205)	3.25 (1.43)	19.3 (8.53)	37.6 (16.6)
28	11.9 (4.10)	5.11 (1.76)	10.0 (3.45)	25.0 (8.63)	11.7 (3.33)	5.04 (1.44)	9.86 (2.81)	24.6 (7.03)	459 (223)	3.21 (1.56)	19.1 (9.31)	36.9 (18.0)
29	11.8 (3.47)	5.08 (1.49)	9.95 (2.92)	24.9 (7.31)	11.2 (2.57)	4.83 (1.11)	9.45 (2.16)	23.6 (5.41)	460 (182)	3.22 (1.27)	19.2 (7.58)	36.6 (14.5)
30	12.3 (3.22)	5.29 (1.39)	10.3 (2.71)	25.9 (6.79)	10.7 (2.05)	4.62 (0.88)	9.04 (1.73)	22.6 (4.31)	492 (192)	3.45 (1.34)	20.5 (8.00)	38.9 (15.2)
31	12.6 (3.56)	5.42 (1.53)	10.6 (3.00)	26.5 (7.51)	11.6 (3.15)	4.99 (1.35)	9.77 (2.65)	24.4 (6.63)	487 (192)	3.41 (1.35)	20.3 (8.01)	38.1 (15.1)
Mean	12.10	5.20	10.20	25.50	12.20	5.25	10.30	25.80	455.00	3.19	19.10	36.10
n	30	30	30	30	30	30	30	30	30	30	29	29
SD	0.76	0.33	0.65	1.62	0.83	0.36	0.71	1.79	110.00	0.77	4.58	7.04
Min	10.70	4.59	8.99	22.50	10.70	4.62	9.04	22.60	221.00	1.55	9.20	20.60
Max	14.10	6.09	12.00	30.00	14.00	6.05	11.90	29.70	747.00	5.23	31.10	55.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for April, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	11.6 (4.00)	5.01 (1.72)	9.81 (3.37)	24.5 (8.42)	10.8 (3.77)	4.66 (1.62)	9.11 (3.18)	22.8 (7.94)	460 (235)	3.22 (1.65)	19.1 (9.79)	35.6 (18.2)
2	11.5 (3.28)	4.96 (1.41)	9.71 (2.76)	24.3 (6.90)	11.2 (2.99)	4.80 (1.29)	9.39 (2.52)	23.5 (6.29)	501 (173)	3.51 (1.21)	20.9 (7.19)	38.4 (13.2)
3	11.7 (3.26)	5.02 (1.41)	9.83 (2.75)	24.6 (6.87)	11.4 (3.20)	4.90 (1.38)	9.59 (2.70)	24.0 (6.74)	524 (174)	3.67 (1.22)	21.8 (7.26)	39.7 (13.2)
4	11.2 (3.61)	4.82 (1.55)	9.43 (3.04)	23.6 (7.59)	10.6 (2.33)	4.57 (1.01)	8.95 (1.97)	22.4 (4.92)	542 (188)	3.80 (1.32)	22.6 (7.84)	41.0 (14.2)
5	11.4 (2.96)	4.90 (1.27)	9.58 (2.49)	23.9 (6.23)	11.8 (2.58)	5.07 (1.11)	9.91 (2.17)	24.8 (5.43)	538 (153)	3.77 (1.07)	22.4 (6.38)	40.6 (11.5)
6	12.3 (2.53)	5.31 (1.09)	10.4 (2.13)	26.0 (5.34)	12.3 (2.40)	5.31 (1.03)	10.4 (2.02)	26.0 (5.04)	615 (165)	4.30 (1.15)	25.6 (6.86)	46.2 (12.4)
7	11.6 (3.40)	4.99 (1.46)	9.75 (2.86)	24.4 (7.16)	11.3 (3.05)	4.86 (1.31)	9.51 (2.57)	23.8 (6.43)	613 (235)	4.29 (1.65)	25.5 (9.79)	45.9 (17.6)
8	12.3 (3.48)	5.29 (1.50)	10.3 (2.93)	25.8 (7.33)	11.4 (3.16)	4.92 (1.36)	9.62 (2.66)	24.0 (6.65)	610 (275)	4.27 (1.93)	25.4 (11.5)	45.5 (20.6)
9	11.8 (3.91)	5.07 (1.68)	9.91 (3.29)	24.8 (8.24)	11.2 (2.99)	4.83 (1.29)	9.45 (2.52)	23.6 (6.31)				
10					12.9 (3.69)	5.56 (1.59)	10.90 (3.11)	27.2 (7.78)				
11					11.2 (2.58)	4.84 (1.11)	9.46 (2.18)	23.6 (5.44)				
12	11.8 (3.48)	5.07 (1.50)	9.91 (2.93)	24.8 (7.32)	11.8 (3.39)	5.09 (1.46)	9.96 (2.86)	24.9 (7.14)				
13	11.5 (3.40)	4.95 (1.46)	9.69 (2.86)	24.2 (7.16)	10.4 (1.72)	4.49 (0.74)	8.78 (1.45)	21.9 (3.62)				
14												
15	11.9 (3.11)	5.13 (1.34)	10.0 (2.62)	25.1 (6.56)	12.3 (2.97)	5.28 (1.28)	10.3 (2.50)	25.8 (6.25)	356 (127)	2.49 (0.89)	14.8 (5.30)	30.7 (11.0)
16	11.9 (2.72)	5.11 (1.17)	9.99 (2.29)	25.0 (5.73)	12.5 (2.56)	5.40 (1.10)	10.6 (2.15)	26.4 (5.38)	404 (45.0)	2.83 (0.32)	16.8 (1.87)	34.4 (3.77)
17	11.7 (3.82)	5.04 (1.64)	9.85 (3.21)	24.6 (8.03)	11.9 (3.89)	5.13 (1.68)	10.0 (3.28)	25.1 (8.19)	337 (254)	2.36 (1.78)	14.0 (10.6)	28.4 (21.4)
18	11.2 (3.56)	4.83 (1.53)	9.45 (2.99)	23.6 (7.49)	11.2 (3.09)	4.82 (1.33)	9.43 (2.61)	23.6 (6.51)	472 (207)	3.30 (1.45)	19.7 (8.63)	39.3 (17.3)
19	10.9 (3.13)	4.67 (1.35)	9.14 (2.63)	22.8 (6.58)	9.5 (3.49)	4.09 (1.50)	7.99 (2.94)	20.0 (7.35)	455 (166)	3.18 (1.17)	18.9 (6.93)	37.3 (13.7)
20	10.6 (2.65)	4.58 (1.14)	8.95 (2.23)	22.4 (5.58)	10.6 (2.35)	4.58 (1.01)	8.96 (1.98)	22.4 (4.95)	468 (84.4)	3.28 (0.59)	19.5 (3.52)	38.0 (6.88)
21												
22	11.8 (2.84)	5.09 (1.22)	9.96 (2.39)	24.9 (5.99)	11.1 (3.07)	4.78 (1.32)	9.34 (2.58)	23.4 (6.46)	529 (128)	3.71 (0.90)	22.1 (5.33)	42.2 (10.2)
23					11.6 (3.85)	4.98 (1.66)	9.74 (3.24)	24.4 (8.10)	542 (45.8)	3.80 (0.32)	22.6 (1.91)	42.8 (3.69)
24	11.7 (2.88)	5.04 (1.24)	9.85 (2.42)	24.6 (6.05)	12.0 (3.38)	5.16 (1.46)	10.1 (2.85)	25.2 (7.12)	574 (56.9)	4.02 (0.40)	23.9 (2.37)	44.9 (4.40)
25	12.9 (3.23)	5.54 (1.39)	10.8 (2.72)	27.1 (6.80)	13.0 (3.60)	5.59 (1.55)	10.9 (3.03)	27.3 (7.57)	624 (110)	4.37 (0.77)	26.0 (4.60)	48.2 (8.57)
26	12.6 (3.86)	5.45 (1.66)	10.6 (3.25)	26.6 (8.12)					631 (160)	4.42 (1.12)	26.3 (6.65)	48.2 (12.2)
27	12.2 (3.99)	5.23 (1.72)	10.2 (3.36)	25.6 (8.39)	12.2 (5.18)	5.27 (2.23)	10.3 (4.36)	25.8 (10.90)	625 (211)	4.38 (1.48)	26.0 (8.79)	47.3 (16.0)
28	11.6 (3.80)	5.00 (1.64)	9.78 (3.20)	24.4 (8.01)	11.4 (4.05)	4.91 (1.74)	9.60 (3.41)	24.0 (8.51)	606 (147)	4.24 (1.03)	25.2 (6.13)	45.8 (11.1)
29												
30												
Mean	11.70	5.05	9.87	24.70	11.50	4.96	9.69	24.20	525.00	3.68	21.90	41.00
n	23	23	23	23	25	25	25	25	21	21	21	21
SD	0.50	0.22	0.42	1.06	0.79	0.34	0.66	1.65	86.80	0.61	3.62	5.48
Min	10.60	4.58	8.95	22.40	9.49	4.09	7.99	20.00	337.00	2.36	14.00	28.40
Max	12.90	5.54	10.80	27.10	13.00	5.59	10.90	27.30	631.00	4.42	26.30	48.20

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for May, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1												
2												
3												
4												
5												
6	12.0 (3.38)	5.15 (1.46)	10.0 (2.84)	25.1 (7.11)	11.9 (3.50)	5.12 (1.51)	9.99 (2.94)	25.0 (7.35)	434 (56.1)	3.04 (0.39)	18.1 (2.34)	40.5 (5.63)
7	8.72 (2.42)	3.76 (1.04)	7.33 (2.03)	18.3 (5.09)					375 (132)	2.63 (0.93)	15.6 (5.51)	33.7 (11.9)
8	10.8 (2.63)	4.65 (1.13)	9.08 (2.21)	22.7 (5.53)	12.4 (3.35)	5.36 (1.44)	10.4 (2.82)	26.1 (7.04)	345 (190)	2.42 (1.33)	14.4 (7.90)	30.5 (16.8)
9					11.0 (2.39)	4.74 (1.03)	9.24 (2.01)	23.1 (5.02)	349 (163)	2.44 (1.14)	14.5 (6.78)	30.4 (14.2)
10	11.1 (2.12)	4.80 (0.91)	9.35 (1.78)	23.4 (4.45)	10.4 (2.70)	4.49 (1.16)	8.76 (2.27)	21.9 (5.67)	376 (150)	2.64 (1.05)	15.7 (6.24)	32.5 (12.9)
11	9.60 (1.94)	4.13 (0.84)	8.06 (1.63)	20.1 (4.08)	11.2 (2.44)	4.84 (1.05)	9.44 (2.05)	23.6 (5.12)	414 (199)	2.90 (1.39)	17.3 (8.29)	35.4 (17.0)
12	10.3 (2.87)	4.45 (1.24)	8.67 (2.41)	21.7 (6.02)	11.4 (3.14)	4.92 (1.35)	9.59 (2.64)	24.0 (6.59)	440 (146)	3.08 (1.02)	18.3 (6.06)	37.2 (12.3)
13	9.98 (2.73)	4.30 (1.17)	8.37 (2.29)	20.9 (5.72)	11.6 (3.61)	4.99 (1.56)	9.73 (3.03)	24.3 (7.58)	499 (151)	3.50 (1.06)	20.8 (6.28)	41.6 (12.6)
14	9.22 (2.05)	3.97 (0.88)	7.74 (1.72)	19.3 (4.29)					433 (189)	3.03 (1.32)	18.0 (7.86)	35.6 (15.5)
15	9.60 (2.48)	4.13 (1.07)	8.05 (2.08)	20.1 (5.20)	12.8 (3.39)	5.49 (1.46)	10.7 (2.84)	26.7 (7.11)	434 (153)	3.04 (1.07)	18.1 (6.38)	35.3 (12.5)
16	9.88 (2.36)	4.26 (1.02)	8.29 (1.98)	20.7 (4.95)	11.4 (2.46)	4.90 (1.06)	9.55 (2.07)	23.9 (5.16)	465 (180)	3.26 (1.26)	19.4 (7.51)	37.5 (14.5)
17	10.8 (3.39)	4.66 (1.46)	9.07 (2.84)	22.7 (7.10)	12.1 (3.46)	5.23 (1.49)	10.2 (2.90)	25.4 (7.25)	463 (97.7)	3.24 (0.68)	19.3 (4.07)	37.0 (7.80)
18	10.4 (2.77)	4.48 (1.19)	8.71 (2.32)	21.8 (5.80)	11.2 (3.00)	4.82 (1.29)	9.39 (2.51)	23.5 (6.28)	531 (134)	3.72 (0.94)	22.1 (5.58)	42.0 (10.6)
19	13.3 (2.87)	5.72 (1.24)	11.1 (2.41)	27.8 (6.01)	12.5 (3.26)	5.39 (1.40)	10.5 (2.73)	26.2 (6.83)	532 (121)	3.72 (0.85)	22.2 (5.03)	41.7 (9.46)
20	10.4 (3.00)	4.46 (1.29)	8.67 (2.51)	21.7 (6.28)	9.72 (2.82)	4.19 (1.21)	8.14 (2.36)	20.4 (5.90)	531 (125)	3.72 (0.87)	22.1 (5.20)	41.2 (9.65)
21	12.8 (3.13)	5.52 (1.35)	10.7 (2.62)	26.9 (6.56)	12.4 (3.23)	5.32 (1.39)	10.3 (2.71)	25.9 (6.77)	538 (71.2)	3.77 (0.50)	22.4 (2.97)	41.3 (5.43)
22	14.4 (3.94)	6.19 (1.70)	12.0 (3.30)	30.1 (8.25)	14.4 (4.06)	6.22 (1.75)	12.1 (3.40)	30.2 (8.51)	625 (88.5)	4.37 (0.62)	26.0 (3.69)	47.5 (6.68)
23	14.8 (5.09)	6.37 (2.19)	12.4 (4.27)	30.9 (10.7)	15.0 (4.35)	6.45 (1.87)	12.5 (3.64)	31.4 (9.10)	650 (96.6)	4.55 (0.68)	27.1 (4.03)	49.2 (7.35)
24	12.0 (3.38)	5.18 (1.46)	10.1 (2.83)	25.2 (7.07)	12.6 (3.55)	5.45 (1.53)	10.6 (2.97)	26.5 (7.43)	642 (96.5)	4.50 (0.68)	26.8 (4.02)	48.4 (7.28)
25	15.0 (4.16)	6.44 (1.79)	12.5 (3.48)	31.3 (8.69)	14.6 (4.35)	6.29 (1.87)	12.2 (3.64)	30.5 (9.09)	595 (110)	4.17 (0.77)	24.8 (4.56)	44.6 (8.19)
26	13.3 (2.48)	5.74 (1.07)	11.1 (2.08)	27.9 (5.19)	13.9 (3.22)	5.97 (1.39)	11.6 (2.69)	29.0 (6.73)	601 (122)	4.21 (0.86)	25.1 (5.09)	44.8 (9.12)
27	11.9 (4.72)	5.14 (2.03)	9.98 (3.95)	25.0 (9.88)					515 (208)	3.61 (1.46)		
28	12.7 (3.03)	5.47 (1.30)	10.6 (2.53)	26.6 (6.33)					454 (180)	3.18 (1.26)	18.9 (7.52)	42.3 (17.2)
29	15.4 (4.36)	6.61 (1.88)	12.8 (3.64)	32.1 (9.11)	12.0 (3.09)	5.17 (1.33)	10.0 (2.58)	25.1 (6.45)				
30	13.5 (5.34)	5.83 (2.30)	11.3 (4.46)	28.3 (11.20)	10.5 (3.44)	4.54 (1.48)	8.81 (2.87)	22.0 (7.19)				
31	11.8 (3.42)	5.08 (1.47)	9.85 (2.85)	24.6 (7.13)	10.0 (2.81)	4.32 (1.21)	8.38 (2.35)	21.0 (5.87)				
Mean	11.70	5.06	9.84	24.60	12.10	5.19	10.10	25.30	489.00	3.42	20.30	39.60
n	25	25	25	25	22	22	22	22	23	23	22	22
SD	1.89	0.81	1.57	3.92	1.40	0.61	1.17	2.93	89.90	0.63	3.82	5.37
Min	8.72	3.76	7.33	18.30	9.72	4.19	8.14	20.40	345.00	2.42	14.40	30.40
Max	15.40	6.61	12.80	32.10	15.00	6.45	12.50	31.40	650.00	4.55	27.10	49.20

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for June, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	13.7 (3.51)	5.91 (1.51)	11.5 (2.93)	28.7 (7.33)	10.5 (2.77)	4.54 (1.19)	8.81 (2.31)	22.0 (5.79)	583 (92.1)	4.08 (0.65)	24.3 (3.84)	50.3 (7.87)
2	14.1 (3.85)	6.06 (1.66)	11.8 (3.22)	29.4 (8.04)	10.9 (3.04)	4.70 (1.31)	9.12 (2.54)	22.8 (6.36)	565 (99.5)	3.96 (0.70)	23.5 (4.15)	48.3 (8.43)
3												
4												
5	12.5 (4.11)	5.39 (1.77)	10.5 (3.45)	26.2 (8.62)	10.2 (3.08)	4.38 (1.33)	8.53 (2.59)	21.3 (6.47)	633 (127)	4.43 (0.89)	26.4 (5.29)	52.2 (10.6)
6	11.9 (4.05)	5.13 (1.74)	10.0 (3.40)	25.0 (8.49)	10.7 (3.60)	4.59 (1.55)	8.95 (3.02)	22.4 (7.56)	639 (163)	4.47 (1.14)	26.6 (6.80)	52.0 (13.3)
7	12.8 (2.58)	5.51 (1.11)	10.7 (2.17)	26.9 (5.42)	12.5 (3.12)	5.38 (1.34)	10.50 (2.62)	26.2 (6.55)	685 (53.7)	4.79 (0.38)	28.5 (2.24)	55.3 (4.36)
8	13.2 (2.10)	5.66 (0.91)	11.1 (1.77)	27.6 (4.42)	11.2 (1.98)	4.82 (0.85)	9.41 (1.67)	23.5 (4.17)	696 (133)	4.88 (0.93)	29.0 (5.56)	55.7 (10.6)
9	12.0 (3.09)	5.17 (1.33)	10.1 (2.60)	25.3 (6.50)	10.0 (2.61)	4.29 (1.12)	8.38 (2.19)	21.0 (5.49)	667 (182)	4.67 (1.28)	27.8 (7.60)	52.9 (14.5)
10	11.6 (3.39)	5.00 (1.46)	9.78 (2.85)	24.4 (7.13)	11.3 (3.32)	4.88 (1.43)	9.54 (2.80)	23.9 (6.99)	690 (117)	4.83 (0.82)	28.8 (4.85)	54.3 (9.09)
11	13.2 (4.68)	5.70 (2.02)	11.2 (3.94)	27.9 (9.86)	12.6 (3.53)	5.45 (1.52)	10.7 (2.98)	26.7 (7.44)	824 (99.1)	5.77 (0.69)	34.3 (4.13)	64.2 (7.68)
12	11.5 (2.97)	4.95 (1.28)	9.70 (2.51)	24.2 (6.27)	10.3 (2.46)	4.43 (1.06)	8.67 (2.07)	21.7 (5.19)	767 (201)	5.37 (1.41)	32.0 (8.39)	59.1 (15.4)
13	11.6 (2.74)	4.99 (1.18)	9.79 (2.31)	24.5 (5.78)	9.89 (3.01)	4.26 (1.29)	8.35 (2.54)	20.9 (6.34)	706 (131)	4.94 (0.92)	29.4 (5.47)	53.8 (9.97)
14												
15	12.9 (3.54)	5.54 (1.53)	10.9 (3.00)	27.2 (7.49)	12.2 (3.64)	5.25 (1.57)	10.30 (3.08)	25.8 (7.70)	942 (193)	6.60 (1.35)	39.3 (8.05)	70.5 (14.3)
16	12.2 (2.93)	5.24 (1.26)	10.3 (2.48)	25.7 (6.21)								
17	13.0 (2.91)	5.59 (1.25)	11.0 (2.46)	27.5 (6.16)	10.3 (2.50)	4.44 (1.08)	8.73 (2.12)	21.8 (5.30)	622 (174)	4.36 (1.22)	25.9 (7.24)	57.8 (15.3)
18	11.2 (3.36)	4.84 (1.45)	9.53 (2.85)	23.8 (7.11)	10.9 (3.68)	4.71 (1.58)	9.28 (3.12)	23.2 (7.79)	540 (108)	3.78 (0.76)	22.5 (4.51)	48.4 (9.76)
19	11.3 (3.75)	4.85 (1.62)	9.56 (3.19)	23.9 (7.97)	8.98 (2.86)	3.87 (1.23)	7.63 (2.43)	19.1 (6.08)	493 (94.9)	3.45 (0.66)	20.6 (3.95)	43.6 (8.35)
20	11.6 (3.16)	4.99 (1.36)	9.85 (2.69)	24.6 (6.72)								
21												
22	12.4 (3.45)	5.34 (1.49)	10.6 (2.94)	26.4 (7.34)	15.1 (4.81)	6.51 (2.07)	12.9 (4.09)	32.2 (10.20)				
23	11.9 (2.91)	5.13 (1.25)	10.1 (2.48)	25.4 (6.19)	13.7 (3.56)	5.88 (1.53)	11.6 (3.03)	29.1 (7.58)				
24	12.6 (3.07)	5.42 (1.32)	10.7 (2.61)	26.8 (6.53)	12.6 (3.78)	5.41 (1.63)	10.7 (3.22)	26.8 (8.05)				
25												
26												
27												
28	15.6 (4.77)	6.70 (2.05)	13.3 (4.08)	33.3 (10.20)	13.6 (5.12)	5.84 (2.21)	11.6 (4.38)	29.0 (11.00)	645 (69.0)	4.52 (0.48)	26.9 (2.88)	51.6 (5.54)
29	11.6 (2.54)	4.98 (1.10)	9.91 (2.18)	24.8 (5.45)	8.91 (2.37)	3.84 (1.02)	7.63 (2.03)	19.1 (5.07)				
30	14.8 (4.25)	6.36 (1.83)	12.7 (3.64)	31.7 (9.10)	12.2 (3.98)	5.25 (1.72)	10.4 (3.42)	26.1 (8.54)				
Mean	12.60	5.41	10.60	26.60	11.40	4.89	9.61	24.00	669.00	4.68	27.90	54.40
n	23	23	23	23	21	21	21	21	16	16	16	16
SD	1.11	0.48	0.95	2.38	1.56	0.67	1.35	3.37	107.00	0.75	4.44	6.23
Min	11.20	4.84	9.53	23.80	8.91	3.84	7.63	19.10	493.00	3.45	20.60	43.60
Max	15.60	6.70	13.30	33.30	15.10	6.51	12.90	32.20	942.00	6.60	39.30	70.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for July, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1												
2	15.7 (4.30)	6.78 (1.85)	13.5 (3.69)	33.7 (9.22)	12.3 (3.36)	5.31 (1.45)	10.6 (2.88)	26.4 (7.20)				
3												
4	13.7 (3.51)	5.88 (1.51)	11.7 (3.01)	29.3 (7.53)	13.5 (4.84)	5.81 (2.09)	11.6 (4.15)	28.9 (10.4)	710 (116)	4.97 (0.81)	29.6 (4.83)	53.7 (8.74)
5	16.3 (3.49)	7.03 (1.50)	14.0 (2.99)	35.0 (7.48)	14.6 (3.88)	6.28 (1.67)	12.5 (3.33)	31.2 (8.31)	822 (123)	5.76 (0.87)	34.3 (5.15)	61.8 (9.23)
6	15.1 (3.79)	6.49 (1.63)	12.9 (3.25)	32.3 (8.12)	14.8 (3.98)	6.37 (1.71)	12.7 (3.41)	31.7 (8.53)	861 (144)	6.03 (1.01)	35.9 (6.01)	64.3 (10.8)
7	17.2 (5.82)	7.41 (2.51)	14.8 (4.99)	36.9 (12.50)	15.6 (5.07)	6.73 (2.18)	13.4 (4.34)	33.5 (10.9)				
8	14.4 (3.33)	6.19 (1.43)	12.3 (2.85)	30.8 (7.13)	13.9 (4.82)	5.97 (2.08)	11.9 (4.13)	29.7 (10.3)	607 (115)	4.25 (0.81)	25.3 (4.80)	56.5 (10.3)
9	12.9 (4.64)	5.57 (2.00)	11.1 (3.98)	27.7 (9.95)	10.6 (2.86)	4.55 (1.23)	9.05 (2.45)	22.6 (6.13)	559 (122)	3.91 (0.86)	23.3 (5.09)	50.1 (10.8)
10	13.6 (5.19)	5.87 (2.24)	11.7 (4.45)	29.2 (11.10)	11.6 (4.12)	5.01 (1.77)	9.96 (3.53)	24.9 (8.82)	525 (90.6)	3.67 (0.63)	21.9 (3.77)	46.3 (7.99)
11	12.7 (4.45)	5.47 (1.92)	10.9 (3.81)	27.2 (9.53)	11.2 (2.90)	4.81 (1.25)	9.56 (2.48)	23.9 (6.20)	494 (71.5)	3.46 (0.50)	20.6 (2.98)	43.1 (6.22)
12	11.0 (1.83)	4.72 (0.79)	9.39 (1.57)	23.5 (3.92)	9.40 (1.73)	4.05 (0.75)	8.05 (1.48)	20.1 (3.71)	465 (65.5)	3.26 (0.46)	19.4 (2.73)	40.2 (5.70)
13	10.6 (2.05)	4.55 (0.88)	9.05 (1.76)	22.6 (4.39)	9.19 (2.18)	3.96 (0.94)	7.87 (1.86)	19.7 (4.66)	506 (86.6)	3.54 (0.61)	21.1 (3.61)	43.2 (7.33)
14	13.4 (4.29)	5.78 (1.85)	11.5 (3.68)	28.7 (9.19)	11.9 (3.85)	5.12 (1.66)	10.2 (3.30)	25.4 (8.24)	486 (55.6)	3.41 (0.39)	20.3 (2.32)	41.1 (4.67)
15	13.9 (4.57)	6.00 (1.97)	11.9 (3.91)	29.8 (9.78)	11.5 (3.59)	4.97 (1.55)	9.88 (3.07)	24.7 (7.68)	520 (56.2)	3.64 (0.39)	21.7 (2.34)	43.4 (4.66)
16									612 (159)	4.28 (1.11)	25.5 (6.63)	50.3 (13.2)
17	13.0 (3.83)	5.59 (1.65)	11.1 (3.28)	27.8 (8.20)	12.8 (4.18)	5.51 (1.80)	11.0 (3.58)	27.4 (8.95)	514 (64.5)	3.60 (0.45)	21.4 (2.69)	41.8 (5.27)
18	11.2 (2.31)	4.82 (0.99)	9.57 (1.97)	23.9 (4.93)	10.9 (2.52)	4.69 (1.08)	9.31 (2.15)	23.3 (5.39)	525 (47.0)	3.67 (0.33)	21.9 (1.96)	42.3 (3.76)
19	13.1 (3.25)	5.66 (1.40)	11.2 (2.78)	28.1 (6.94)	12.8 (3.19)	5.50 (1.38)	10.9 (2.73)	27.3 (6.83)	564 (97.7)	3.95 (0.68)	23.5 (4.07)	45.0 (7.87)
20	13.1 (3.74)	5.64 (1.61)	11.2 (3.20)	28.0 (8.00)	13.6 (3.93)	5.86 (1.69)	11.6 (3.36)	29.1 (8.40)	577 (69.2)	4.04 (0.49)	24.1 (2.89)	45.7 (5.50)
21	14.0 (3.67)	6.02 (1.58)	12.0 (3.13)	29.9 (7.84)	13.8 (4.05)	5.93 (1.74)	11.8 (3.46)	29.4 (8.65)	585 (83.2)	4.10 (0.58)	24.4 (3.47)	45.9 (6.50)
22	14.2 (2.91)	6.10 (1.25)	12.1 (2.49)	30.3 (6.23)	15.0 (4.66)	6.47 (2.01)	12.9 (3.98)	32.1 (9.95)	633 (97.1)	4.43 (0.68)	26.4 (4.05)	49.1 (7.55)
23	13.4 (3.33)	5.77 (1.43)	11.5 (2.84)	28.7 (7.11)	14.1 (4.64)	6.08 (2.00)	12.1 (3.96)	30.2 (9.91)	665 (70.5)	4.66 (0.49)	27.7 (2.94)	51.1 (5.44)
24	13.6 (3.55)	5.85 (1.53)	11.6 (3.03)	29.0 (7.58)	12.7 (3.50)	5.47 (1.51)	10.9 (2.99)	27.2 (7.47)	688 (104)	4.82 (0.73)	28.7 (4.34)	52.3 (7.89)
25	12.2 (3.96)	5.26 (1.71)	10.4 (3.39)	26.1 (8.47)	12.0 (4.45)	5.16 (1.92)	10.2 (3.81)	25.6 (9.52)	716 (110)	5.02 (0.77)	29.8 (4.59)	54.2 (8.29)
26	11.9 (2.15)	5.13 (0.93)	10.2 (1.84)	25.5 (4.60)	13.8 (3.89)	5.94 (1.68)	11.8 (3.33)	29.5 (8.31)	719 (70.7)	5.04 (0.50)	30.0 (2.94)	54.2 (5.28)
27	15.0 (4.44)	6.45 (1.91)	12.8 (3.80)	32.0 (9.49)	16.3 (4.14)	7.01 (1.78)	13.9 (3.53)	34.8 (8.83)	802 (73.4)	5.61 (0.51)	33.4 (3.06)	60.1 (5.51)
28	13.2 (5.75)	5.66 (2.48)	11.2 (4.92)	28.1 (12.30)	15.2 (6.07)	6.53 (2.61)	13.0 (5.19)	32.4 (13.0)	955 (152)	6.69 (1.06)	39.8 (6.33)	71.2 (11.3)
29												
30	13.2 (2.55)	5.68 (1.10)	11.3 (2.18)	28.2 (5.44)	11.5 (3.79)	4.95 (1.63)	9.83 (3.23)	24.6 (8.09)	445 (193)	3.12 (1.35)	18.5 (8.02)	41.2 (17.4)
31	14.5 (3.21)	6.23 (1.38)	12.3 (2.74)	30.90 (6.85)	11.2 (4.49)	4.82 (1.94)	9.55 (3.84)	23.9 (9.60)	502 (79.3)	3.52 (0.56)	20.9 (3.31)	45.0 (7.08)
Mean	13.60	5.84	11.60	29.00	12.80	5.51	11.00	27.40	618.00	4.32	25.70	49.70
n	27	27	27	27	27	27	27	27	26	26	26	26
SD	1.49	0.64	1.28	3.21	1.81	0.78	1.55	3.88	130.00	0.91	5.43	7.86
Min	10.60	4.55	9.05	22.60	9.19	3.96	7.87	19.70	445.00	3.12	18.50	40.20
Max	17.20	7.41	14.80	36.90	16.30	7.01	13.90	34.80	955.00	6.69	39.80	71.20

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for August, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	13.5 (2.76)	5.83 (1.19)	11.6 (2.35)	28.9 (5.89)	10.5 (2.67)	4.51 (1.15)	8.95 (2.28)	22.4 (5.70)	524 (92.4)	3.67 (0.65)	21.8 (3.85)	46.3 (8.20)
2	13.9 (3.10)	5.99 (1.33)	11.9 (2.65)	29.7 (6.62)	10.8 (2.05)	4.65 (0.88)	9.22 (1.75)	23.1 (4.38)	472 (63.5)	3.31 (0.45)	19.7 (2.64)	41.2 (5.54)
3	14.6 (4.77)	6.30 (2.05)	12.5 (4.07)	31.2 (10.20)	11.9 (2.44)	5.11 (1.05)	10.1 (2.08)	25.3 (5.20)	488 (55.0)	3.41 (0.39)	20.3 (2.29)	42.1 (4.75)
4	14.5 (4.82)	6.22 (2.07)	12.3 (4.11)	30.8 (10.30)	11.7 (2.62)	5.05 (1.13)	10.0 (2.24)	25.0 (5.59)	515 (108.0)	3.61 (0.76)	21.5 (4.51)	44.0 (9.32)
5	14.8 (3.79)	6.35 (1.63)	12.6 (3.23)	31.5 (8.08)	10.9 (2.50)	4.70 (1.08)	9.32 (2.13)	23.3 (5.33)	477 (96.9)	3.34 (0.68)	19.9 (4.04)	40.3 (8.28)
6	13.5 (3.97)	5.82 (1.71)	11.5 (3.39)	28.8 (8.47)	11.5 (2.93)	4.96 (1.26)	9.83 (2.50)	24.6 (6.25)	480 (68.9)	3.36 (0.48)	20.0 (2.87)	40.0 (5.81)
7	12.4 (3.32)	5.33 (1.43)	10.6 (2.83)	26.4 (7.08)	9.64 (2.91)	4.15 (1.25)	8.22 (2.48)	20.5 (6.20)				
8					11.6 (5.63)	4.99 (2.43)	9.87 (4.80)	24.7 (12.0)				
9	14.7 (3.73)	6.33 (1.60)	12.5 (3.18)	31.3 (7.94)	11.2 (3.14)	4.80 (1.35)	9.51 (2.68)	23.8 (6.70)	560 (67.2)	3.92 (0.47)	23.3 (2.80)	45.0 (5.48)
10	13.5 (4.38)	5.83 (1.89)	11.5 (3.73)	28.8 (9.33)	11.0 (4.12)	4.76 (1.77)	9.41 (3.51)	23.5 (8.78)	623 (89.1)	4.37 (0.62)	26.0 (3.71)	49.7 (7.00)
11	11.8 (3.13)	5.10 (1.35)	10.1 (2.66)	25.2 (6.66)	10.3 (4.50)	4.44 (1.94)	8.78 (3.83)	22.0 (9.58)	626 (97.8)	4.38 (0.69)	26.1 (4.07)	49.5 (7.73)
12	8.80 (3.17)	3.79 (1.37)	7.49 (2.70)	18.7 (6.75)	8.27 (2.87)	3.56 (1.24)	7.05 (2.44)	17.6 (6.11)	569 (116)	3.99 (0.82)	23.7 (4.85)	44.6 (9.10)
13	10.6 (2.87)	4.56 (1.24)	9.01 (2.44)	22.5 (6.11)	10.9 (3.54)	4.68 (1.52)	9.26 (3.01)	23.2 (7.53)	674 (121)	4.72 (0.85)	28.1 (5.05)	52.1 (9.27)
14	9.54 (3.87)	4.11 (1.67)	8.12 (3.29)	20.3 (8.24)	8.69 (3.05)	3.74 (1.31)	7.40 (2.60)	18.5 (6.49)	704 (191)	4.93 (1.34)	29.3 (7.96)	53.9 (14.6)
15	10.0 (3.21)	4.33 (1.38)	8.55 (2.73)	21.4 (6.83)	8.25 (2.29)	3.55 (0.99)	7.02 (1.95)	17.6 (4.87)				
16	10.7 (3.30)	4.59 (1.42)	9.07 (2.81)	22.7 (7.03)	8.41 (2.26)	3.62 (0.97)	7.16 (1.92)	17.9 (4.80)				
17	9.63 (2.79)	4.15 (1.20)	8.19 (2.37)	20.5 (5.94)	9.28 (2.83)	4.00 (1.22)	7.89 (2.41)	19.7 (6.02)				
18												
19	9.35 (3.79)	4.03 (1.63)	7.95 (3.23)	19.9 (8.07)	7.79 (2.04)	3.35 (0.88)	6.62 (1.74)	16.6 (4.35)				
20	9.04 (3.48)	3.89 (1.50)	7.69 (2.96)	19.2 (7.40)	8.92 (3.05)	3.84 (1.31)	7.59 (2.60)	19.0 (6.49)	771 (201)	5.40 (1.41)	32.1 (8.37)	57.6 (15.0)
21	10.5 (3.90)	4.54 (1.68)	8.97 (3.32)	22.4 (8.30)	12.3 (4.15)	5.31 (1.79)	10.5 (3.53)	26.2 (8.83)	800 (167)	5.60 (1.17)	33.3 (6.96)	59.6 (12.4)
22	11.4 (2.49)	4.89 (1.07)	9.65 (2.11)	24.1 (5.29)	11.9 (3.41)	5.12 (1.47)	10.1 (2.90)	25.3 (7.24)				
23	10.6 (4.20)	4.57 (1.81)	9.01 (3.57)	22.5 (8.93)	10.2 (4.07)	4.40 (1.75)	8.68 (3.46)	21.7 (8.65)	474 (172)	3.32 (1.20)	19.8 (7.16)	43.9 (15.2)
24	11.5 (2.50)	4.95 (1.08)	9.77 (2.12)	24.4 (5.31)	11.6 (3.69)	5.01 (1.59)	9.88 (3.13)	24.7 (7.83)	484 (80.0)	3.39 (0.56)	20.2 (3.33)	43.4 (7.09)
25	12.5 (2.22)	5.39 (0.96)	10.6 (1.88)	26.6 (4.71)	11.9 (2.97)	5.11 (1.28)	10.1 (2.52)	25.2 (6.30)	467 (85.2)	3.27 (0.60)	19.5 (3.55)	41.2 (7.49)
26	13.0 (3.03)	5.60 (1.30)	11.0 (2.57)	27.6 (6.43)	12.3 (4.09)	5.31 (1.76)	10.5 (3.48)	26.2 (8.69)	431 (56.6)	3.02 (0.40)	18.0 (2.36)	37.7 (4.89)
27	12.9 (2.23)	5.55 (0.96)	10.9 (1.89)	27.3 (4.74)	11.8 (3.77)	5.08 (1.62)	10.0 (3.20)	25.0 (8.00)	475 (91.0)	3.33 (0.64)	19.8 (3.79)	41.0 (7.78)
28	12.8 (2.02)	5.51 (0.87)	10.9 (1.71)	27.1 (4.29)	12.4 (3.43)	5.33 (1.48)	10.5 (2.91)	26.3 (7.27)	536 (106)	3.75 (0.74)	22.3 (4.43)	45.8 (9.02)
29	11.2 (2.31)	4.81 (0.99)	9.48 (1.96)	23.7 (4.89)	11.3 (2.95)	4.87 (1.27)	9.60 (2.51)	24.0 (6.27)	481 (122)	3.37 (0.85)	20.0 (5.07)	40.6 (10.2)
30	11.5 (2.49)	4.97 (1.07)	9.79 (2.11)	24.5 (5.28)	12.4 (3.83)	5.35 (1.65)	10.5 (3.25)	26.4 (8.13)	463 (82.2)	3.24 (0.58)	19.3 (3.42)	38.6 (6.79)
31	12.2 (2.18)	5.26 (0.94)	10.4 (1.85)	25.9 (4.63)	12.2 (3.02)	5.26 (1.30)	10.4 (2.56)	25.9 (6.40)	463 (106)	3.24 (0.75)	19.3 (4.43)	38.1 (8.73)
Mean	11.90	5.12	10.10	25.30	10.70	4.62	9.13	22.80	546.00	3.82	22.80	45.00
n	29	29	29	29	30	30	30	30	23	23	23	23
SD	1.78	0.77	1.53	3.81	1.41	0.61	1.19	2.98	102.00	0.72	4.26	5.94
Min	8.80	3.79	7.49	18.70	7.79	3.35	6.62	16.60	431.00	3.02	18.00	37.70
Max	14.80	6.35	12.60	31.50	12.40	5.35	10.50	26.40	800.00	5.60	33.30	59.60

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for September, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	13.3 (3.72)	5.73 (1.60)	11.3 (3.15)	28.2 (7.88)	14.2 (4.53)	6.12 (1.95)	12.1 (3.84)	30.1 (9.61)	469 (88.4)	3.29 (0.62)	19.5 (3.69)	38.2 (7.18)
2	11.4 (5.14)	4.91 (2.22)	9.67 (4.36)	24.2 (10.90)	11.8 (3.76)	5.07 (1.62)	9.98 (3.19)	24.9 (7.96)	417 (85.5)	2.92 (0.60)	17.4 (3.56)	33.6 (6.90)
3	9.55 (3.24)	4.11 (1.40)	8.10 (2.75)	20.3 (6.88)					411 (173)	2.88 (1.21)	17.1 (7.21)	32.8 (13.8)
4												
5	11.7 (3.23)	5.05 (1.39)	9.96 (2.74)	24.9 (6.85)	9.56 (2.59)	4.12 (1.12)	8.11 (2.20)	20.3 (5.50)	466 (131)	3.26 (0.92)	19.4 (5.46)	36.6 (10.3)
6	10.9 (3.20)	4.71 (1.38)	9.29 (2.71)	23.2 (6.79)	9.83 (2.37)	4.23 (1.02)	8.35 (2.01)	20.9 (5.03)	450 (142)	3.15 (1.00)	18.8 (5.94)	35.0 (11.1)
7	12.7 (4.43)	5.49 (1.91)	10.80 (3.76)	27.0 (9.40)	9.30 (2.57)	4.01 (1.11)	7.90 (2.18)	19.7 (5.46)	507 (112)	3.55 (0.79)	21.1 (4.69)	39.0 (8.63)
8	11.7 (3.19)	5.03 (1.37)	9.92 (2.71)	24.8 (6.77)	10.7 (3.38)	4.61 (1.46)	9.09 (2.87)	22.7 (7.17)	495 (194)	3.47 (1.36)	20.6 (8.08)	37.7 (14.7)
9	10.6 (3.30)	4.56 (1.42)	9.00 (2.80)	22.5 (7.01)	10.4 (2.57)	4.46 (1.11)	8.79 (2.18)	22.0 (5.45)	542 (211)	3.80 (1.48)	22.6 (8.80)	41.0 (16.0)
10	12.0 (4.61)	5.15 (1.99)	10.2 (3.92)	25.4 (9.79)	12.3 (4.15)	5.31 (1.79)	10.5 (3.52)	26.2 (8.80)	617 (142)	4.32 (1.00)	25.7 (5.94)	46.3 (10.7)
11	11.3 (3.95)	4.87 (1.70)	9.61 (3.35)	24.0 (8.38)	10.0 (3.07)	4.33 (1.32)	8.53 (2.61)	21.3 (6.53)	659 (169)	4.61 (1.18)	27.5 (7.03)	49.2 (12.6)
12	9.69 (3.03)	4.17 (1.30)	8.23 (2.57)	20.6 (6.43)	9.79 (2.12)	4.22 (0.91)	8.32 (1.80)	20.8 (4.51)				
13	10.3 (3.42)	4.43 (1.47)	8.74 (2.90)	21.9 (7.26)	10.1 (2.71)	4.34 (1.17)	8.56 (2.30)	21.4 (5.76)	406 (103)	2.84 (0.72)	16.9 (4.30)	37.8 (9.11)
14	10.4 (2.84)	4.48 (1.22)	8.83 (2.41)	22.1 (6.03)	10.9 (2.44)	4.69 (1.05)	9.25 (2.07)	23.1 (5.19)	362 (119)	2.54 (0.83)	15.1 (4.94)	32.5 (10.6)
15	9.41 (3.15)	4.05 (1.35)	7.99 (2.67)	20.0 (6.68)	9.55 (3.64)	4.11 (1.57)	8.11 (3.09)	20.3 (7.72)	353 (178)	2.47 (1.24)	14.7 (7.40)	31.2 (15.7)
16	10.2 (3.17)	4.39 (1.37)	8.67 (2.70)	21.7 (6.74)	10.4 (4.09)	4.46 (1.76)	8.80 (3.48)	22.0 (8.70)				
17	7.70 (1.94)	3.32 (0.84)	6.55 (1.65)	16.4 (4.12)	10.7 (3.35)	4.63 (1.44)	9.13 (2.84)	22.8 (7.11)	304 (111)	2.13 (0.78)	12.7 (4.64)	26.3 (9.61)
18	8.19 (2.26)	3.53 (0.97)	6.96 (1.92)	17.4 (4.80)	10.7 (3.35)	4.60 (1.44)	9.08 (2.84)	22.7 (7.11)	303 (131)	2.12 (0.92)	12.6 (5.46)	25.9 (11.2)
19	8.27 (1.99)	3.56 (0.86)	7.03 (1.69)	17.6 (4.23)	10.4 (2.72)	4.47 (1.17)	8.82 (2.31)	22.1 (5.78)	334 (123)	2.34 (0.86)	13.9 (5.11)	28.2 (10.3)
20	8.66 (2.17)	3.73 (0.94)	7.36 (1.85)	18.4 (4.62)	11.8 (2.71)	5.09 (1.17)	10.1 (2.31)	25.1 (5.77)	359 (137)	2.51 (0.96)	15.0 (5.73)	29.9 (11.5)
21	8.90 (1.95)	3.83 (0.84)	7.57 (1.65)	18.9 (4.14)	12.1 (2.50)	5.20 (1.08)	10.3 (2.13)	25.7 (5.32)	346 (70.6)	2.42 (0.49)	14.4 (2.94)	28.4 (5.79)
22	8.76 (1.97)	3.77 (0.85)	7.46 (1.68)	18.6 (4.19)	11.3 (3.63)	4.85 (1.57)	9.58 (3.09)	23.9 (7.73)	329 (82.4)	2.31 (0.58)	13.7 (3.43)	26.7 (6.67)
23	8.29 (1.81)	3.57 (0.78)	7.05 (1.54)	17.6 (3.86)	9.61 (2.30)	4.14 (0.99)	8.18 (1.96)	20.5 (4.90)	365 (97.5)	2.56 (0.68)	15.2 (4.06)	29.3 (7.81)
24	9.26 (2.66)	3.99 (1.14)	7.88 (2.26)	19.7 (5.65)					406 (112)	2.84 (0.79)	16.9 (4.67)	32.3 (8.92)
25	9.72 (3.11)	4.18 (1.34)	8.27 (2.64)	20.7 (6.61)	11.8 (3.55)	5.08 (1.53)	10.0 (3.02)	25.1 (7.56)	438 (116)	3.07 (0.81)	18.3 (4.83)	34.6 (9.13)
26	8.71 (2.35)	3.75 (1.01)	7.41 (2.00)	18.5 (4.99)	11.1 (3.00)	4.80 (1.29)	9.49 (2.56)	23.7 (6.39)	496 (128)	3.47 (0.90)	20.7 (5.34)	38.8 (9.99)
27	9.22 (2.32)	3.97 (1.00)	7.85 (1.98)	19.6 (4.95)	9.21 (2.12)	3.96 (0.92)	7.84 (1.81)	19.6 (4.52)	558 (196)	3.91 (1.37)	23.3 (8.17)	43.2 (15.1)
28	9.76 (2.61)	4.20 (1.13)	8.31 (2.23)	20.8 (5.56)	9.82 (2.71)	4.23 (1.17)	8.36 (2.30)	20.9 (5.76)	576 (171)	4.03 (1.19)	24.0 (7.11)	44.1 (13.1)
29	9.87 (2.42)	4.25 (1.04)	8.41 (2.06)	21.0 (5.15)	10.6 (3.30)	4.55 (1.42)	8.99 (2.81)	22.5 (7.04)	604 (219)	4.23 (1.54)	25.2 (9.14)	45.8 (16.6)
30	10.2 (3.33)	4.39 (1.44)	8.68 (2.84)	21.7 (7.10)	9.54 (3.40)	4.11 (1.46)	8.12 (2.89)	20.3 (7.23)	601 (298)	4.21 (2.09)	25.0 (12.4)	45.4 (22.5)
Mean	10.00	4.32	8.52	21.30	10.60	4.58	9.05	22.60	451.00	3.16	18.80	35.90
n	29	29	29	29	27	27	27	27	27	27	27	27
SD	1.39	0.60	1.17	2.94	1.12	0.48	0.95	2.37	102.00	0.72	4.26	6.63
Min	7.70	3.32	6.55	16.40	9.21	3.96	7.84	19.60	303.00	2.12	12.60	25.90
Max	13.30	5.73	11.30	28.20	14.20	6.12	12.10	30.10	659.00	4.61	27.50	49.20

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for October, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	10.1 (2.85)	4.35 (1.23)	8.60 (2.43)	21.5 (6.07)	9.85 (3.11)	4.24 (1.34)	8.39 (2.65)	21.0 (6.63)	490 (191)	3.43 (1.34)	20.4 (7.98)	36.9 (14.4)
2	9.41 (2.79)	4.05 (1.20)	8.02 (2.38)	20.1 (5.95)	11.2 (4.44)	4.83 (1.91)	9.57 (3.78)	23.9 (9.46)	552 (246)	3.87 (1.72)	23.0 (10.3)	41.5 (18.5)
3	9.06 (2.90)	3.90 (1.25)	7.73 (2.47)	19.3 (6.19)	9.26 (3.09)	3.99 (1.33)	7.90 (2.63)	19.7 (6.58)	548 (151)	3.84 (1.06)	22.8 (6.31)	41.0 (11.3)
4	9.99 (2.99)	4.30 (1.29)	8.52 (2.55)	21.3 (6.38)	11.4 (3.78)	4.92 (1.63)	9.74 (3.23)	24.4 (8.06)	496 (96.5)	3.47 (0.68)	20.7 (4.02)	37.0 (7.19)
5	9.36 (2.89)	4.03 (1.24)	7.99 (2.47)	20.0 (6.16)					426 (44.3)	2.99 (0.31)	17.8 (1.85)	31.8 (3.29)
6	9.33 (2.36)	4.02 (1.02)	7.96 (2.01)	19.9 (5.04)	10.2 (3.28)	4.40 (1.41)	8.73 (2.80)	21.8 (7.00)				
7	9.51 (2.51)	4.10 (1.08)	8.13 (2.14)	20.3 (5.35)	9.75 (2.37)	4.20 (1.02)	8.33 (2.03)	20.8 (5.07)	323 (205)	2.26 (1.44)	13.4 (8.55)	30.1 (19.6)
8	9.65 (2.82)	4.15 (1.22)	8.24 (2.41)	20.6 (6.03)	9.97 (3.06)	4.29 (1.32)	8.52 (2.61)	21.3 (6.53)	280 (146)	1.96 (1.02)	11.7 (6.07)	25.1 (13.1)
9	9.13 (2.90)	3.93 (1.25)	7.81 (2.48)	19.5 (6.19)								
10	9.83 (2.53)	4.23 (1.09)	8.41 (2.17)	21.0 (5.42)	9.75 (2.26)	4.20 (0.97)	8.34 (1.93)	20.8 (4.82)	307 (110)	2.15 (0.77)	12.8 (4.57)	26.8 (9.55)
11	9.07 (2.23)	3.91 (0.96)	7.76 (1.91)	19.4 (4.77)	9.27 (2.97)	3.99 (1.28)	7.93 (2.54)	19.8 (6.35)	314 (116)	2.20 (0.81)	13.1 (4.83)	27.1 (10.0)
12									305 (50.4)	2.13 (0.35)	12.7 (2.10)	26.0 (4.35)
13	9.86 (2.49)	4.25 (1.07)	8.44 (2.13)	21.1 (5.34)					263 (195)	1.84 (1.36)	10.9 (8.12)	22.2 (16.5)
14	9.32 (1.88)	4.01 (0.81)	7.98 (1.61)	20.0 (4.02)					269 (223)	1.88 (1.56)	11.2 (9.30)	22.4 (18.6)
15	8.85 (2.02)	3.81 (0.87)	7.58 (1.73)	19.0 (4.32)	9.89 (2.17)	4.26 (0.93)	8.48 (1.86)	21.2 (4.64)	357 (230)	2.50 (1.61)	14.9 (9.58)	29.4 (18.9)
16	8.76 (2.25)	3.77 (0.97)	7.51 (1.93)	18.8 (4.83)	10.6 (2.75)	4.55 (1.18)	9.07 (2.36)	22.7 (5.90)	336 (194)	2.36 (1.36)	14.0 (8.10)	27.4 (15.8)
17	8.33 (2.68)	3.59 (1.16)	7.15 (2.30)	17.9 (5.75)	10.9 (2.71)	4.70 (1.17)	9.36 (2.33)	23.4 (5.82)	382 (165)	2.68 (1.16)	15.9 (6.88)	30.8 (13.3)
18	8.82 (2.97)	3.80 (1.28)	7.57 (2.55)	18.9 (6.36)	11.5 (3.34)	4.97 (1.44)	9.91 (2.87)	24.8 (7.16)	456 (200)	3.19 (1.40)	19.0 (8.32)	36.4 (16.0)
19	8.67 (2.07)	3.73 (0.89)	7.45 (1.78)	18.6 (4.44)	10.9 (3.26)	4.70 (1.40)	9.36 (2.80)	23.4 (6.99)	490 (155)	3.43 (1.09)	20.4 (6.48)	38.9 (12.3)
20												
21	9.59 (2.43)	4.13 (1.05)	8.25 (2.09)	20.6 (5.22)	12.0 (3.63)	5.18 (1.56)	10.3 (3.12)	25.8 (7.79)	510 (143)	3.57 (1.00)	21.3 (5.96)	39.7 (11.1)
22	8.80 (3.81)	3.79 (1.64)	7.57 (3.28)	18.9 (8.19)	11.0 (3.81)	4.75 (1.64)	9.49 (3.28)	23.7 (8.19)	459 (272)	3.21 (1.90)	19.1 (11.3)	35.3 (20.9)
23					11.1 (1.49)	4.79 (0.64)	9.57 (1.29)	23.9 (3.21)	455 (228)	3.19 (1.60)	19.0 (9.49)	34.7 (17.3)
24	9.19 (3.44)	3.96 (1.48)	7.91 (2.96)	19.8 (7.39)	10.9 (2.20)	4.71 (0.95)	9.40 (1.89)	23.5 (4.73)	471 (220)	3.30 (1.54)	19.6 (9.18)	35.7 (16.7)
25	9.56 (3.34)	4.12 (1.44)	8.23 (2.88)	20.6 (7.20)	10.6 (2.01)	4.58 (0.87)	9.16 (1.73)	22.9 (4.33)	478 (200)	3.35 (1.40)	19.9 (8.35)	36.0 (15.1)
26	10.8 (3.93)	4.66 (1.69)	9.33 (3.38)	23.3 (8.45)	11.4 (3.45)	4.89 (1.49)	9.78 (2.98)	24.5 (7.44)	448 (233)	3.14 (1.63)	18.7 (9.69)	33.5 (17.4)
27	8.58 (3.51)	3.70 (1.51)	7.40 (3.02)	18.5 (7.56)	10.8 (2.70)	4.65 (1.16)	9.30 (2.33)	23.2 (5.82)				
28	8.69 (3.05)	3.74 (1.31)	7.49 (2.63)	18.7 (6.58)	11.2 (1.67)	4.81 (0.72)	9.64 (1.44)	24.1 (3.61)	214 (102)	1.50 (0.72)	8.92 (4.25)	20.0 (9.45)
29	9.05 (3.03)	3.90 (1.31)	7.80 (2.61)	19.5 (6.54)	10.5 (2.46)	4.51 (1.06)	9.03 (2.12)	22.6 (5.30)	210 (109)	1.47 (0.77)	8.76 (4.55)	18.9 (9.83)
30	10.4 (3.12)	4.47 (1.34)	8.96 (2.69)	22.4 (6.72)	10.4 (3.47)	4.47 (1.50)	8.96 (3.00)	22.4 (7.49)	213 (87.1)	1.49 (0.61)	8.86 (3.63)	18.8 (7.68)
31	9.03 (2.70)	3.89 (1.16)	7.80 (2.33)	19.5 (5.82)	9.88 (3.01)	4.25 (1.30)	8.53 (2.60)	21.3 (6.51)	190 (93.6)	1.33 (0.66)	7.90 (3.90)	16.6 (8.17)
Mean	9.31	4.01	7.99	20.00	10.60	4.55	9.07	22.70	379.00	2.66	15.80	30.40
n	28	28	28	28	25	25	25	25	27	27	27	27
SD	0.57	0.24	0.48	1.21	0.72	0.31	0.63	1.57	111.00	0.78	4.62	7.22
Min	8.33	3.59	7.15	17.90	9.26	3.99	7.90	19.70	190.00	1.33	7.90	16.60
Max	10.80	4.66	9.33	23.30	12.00	5.18	10.30	25.80	552.00	3.87	23.00	41.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for November, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.27 (2.69)	3.99 (1.16)	8.01 (2.33)	20.0 (5.82)	10.6 (3.47)	4.57 (1.50)	9.17 (3.00)	22.9 (7.50)	239 (73.0)	1.67 (0.51)	9.96 (3.04)	20.6 (6.29)
2	9.20 (2.51)	3.96 (1.08)	7.94 (2.17)	19.9 (5.42)	10.9 (3.57)	4.71 (1.54)	9.45 (3.09)	23.6 (7.71)	305 (134)	2.14 (0.94)	12.7 (5.60)	26.1 (11.5)
3	9.78 (2.55)	4.21 (1.10)	8.44 (2.21)	21.1 (5.51)	12.3 (3.09)	5.31 (1.33)	10.6 (2.67)	26.6 (6.68)	320 (55.9)	2.24 (0.39)	13.3 (2.33)	27.0 (4.77)
4	9.26 (2.31)	3.99 (1.00)	8.00 (2.00)	20.0 (4.99)	11.5 (2.61)	4.94 (1.12)	9.90 (2.26)	24.8 (5.64)	354 (71.9)	2.48 (0.50)	14.7 (2.99)	29.5 (6.02)
5	8.16 (3.26)	3.52 (1.40)	7.05 (2.81)	17.6 (7.03)					361 (105)	2.53 (0.73)	15.1 (4.36)	29.8 (8.59)
6	7.21 (2.84)	3.11 (1.22)	6.23 (2.45)	15.6 (6.13)	9.77 (4.04)	4.21 (1.74)	8.43 (3.49)	21.1 (8.72)	329 (146)	2.30 (1.02)	13.7 (6.07)	26.8 (11.8)
7	7.59 (2.94)	3.27 (1.27)	6.55 (2.54)	16.4 (6.35)					395 (166)	2.77 (1.16)	16.5 (6.92)	31.9 (13.4)
8	7.81 (3.40)	3.36 (1.47)	6.74 (2.94)	16.9 (7.34)					368 (164)	2.57 (1.15)	15.3 (6.83)	29.4 (13.1)
9	7.92 (3.06)	3.41 (1.32)	6.83 (2.64)	17.1 (6.61)	10.2 (4.33)	4.41 (1.86)	8.85 (3.74)	22.1 (9.34)	400 (166)	2.80 (1.16)	16.7 (6.91)	31.7 (13.1)
10	8.54 (3.25)	3.68 (1.40)	7.37 (2.81)	18.4 (7.02)	11.0 (4.53)	4.72 (1.95)	9.47 (3.91)	23.7 (9.78)	469 (190)	3.29 (1.33)	19.6 (7.92)	36.9 (14.9)
11	8.21 (3.35)	3.53 (1.44)	7.08 (2.89)	17.7 (7.23)	9.74 (3.97)	4.19 (1.71)	8.41 (3.43)	21.0 (8.58)	499 (262)	3.50 (1.84)	20.8 (10.9)	38.8 (20.4)
12	7.96 (3.21)	3.43 (1.38)	6.87 (2.77)	17.2 (6.92)	10.9 (4.29)	4.70 (1.85)	9.42 (3.70)	23.5 (9.25)	564 (251)	3.95 (1.76)	23.5 (10.4)	43.3 (19.3)
13	7.84 (3.06)	3.38 (1.32)	6.76 (2.64)	16.9 (6.60)					544 (205)	3.81 (1.43)	22.7 (8.52)	41.5 (15.6)
14	8.27 (3.22)	3.56 (1.38)	7.13 (2.77)	17.8 (6.94)	10.4 (3.74)	4.49 (1.61)	8.99 (3.23)	22.5 (8.07)	551 (284)	3.86 (1.99)	23.0 (11.8)	41.7 (21.5)
15	8.04 (3.17)	3.46 (1.37)	6.94 (2.74)	17.3 (6.85)	10.0 (3.27)	4.33 (1.41)	8.67 (2.82)	21.7 (7.06)	530 (267)	3.71 (1.87)	22.1 (11.1)	39.8 (20.0)
16	8.47 (2.98)	3.65 (1.28)	7.31 (2.57)	18.3 (6.42)	9.85 (3.44)	4.24 (1.48)	8.50 (2.97)	21.2 (7.43)	546 (239)	3.82 (1.68)	22.7 (9.97)	40.7 (17.9)
17	6.85 (2.37)	2.95 (1.02)	5.91 (2.05)	14.8 (5.12)	10.6 (3.61)	4.56 (1.55)	9.13 (3.11)	22.8 (7.78)	266 (271)	1.86 (1.90)		
18	9.01 (3.08)	3.88 (1.33)	7.78 (2.66)	19.4 (6.65)	11.3 (3.14)	4.87 (1.35)	9.75 (2.70)	24.4 (6.76)	236 (130)	1.65 (0.91)	9.85 (5.40)	21.9 (12.0)
19	8.77 (3.28)	3.78 (1.41)	7.56 (2.83)	18.9 (7.06)	11.4 (4.29)	4.91 (1.85)	9.84 (3.70)	24.6 (9.25)	264 (98.1)	1.85 (0.69)	11.0 (4.09)	23.7 (8.79)
20									227 (156)	1.59 (1.09)	9.44 (6.48)	20.0 (13.7)
21	7.56 (2.58)	3.26 (1.11)	6.52 (2.23)	16.3 (5.57)					207 (149)	1.45 (1.05)	8.62 (6.22)	18.1 (13.0)
22	7.54 (2.36)	3.25 (1.01)	6.50 (2.03)	16.3 (5.08)	10.0 (3.04)	4.30 (1.31)	8.62 (2.62)	21.6 (6.55)				
23	8.00 (3.21)	3.45 (1.38)	6.90 (2.77)	17.3 (6.93)	9.99 (3.55)	4.30 (1.53)	8.61 (3.07)	21.5 (7.66)	317 (134)	2.22 (0.94)	13.2 (5.59)	27.0 (11.4)
24	8.43 (3.42)	3.63 (1.47)	7.27 (2.95)	18.2 (7.38)	10.5 (4.12)	4.52 (1.78)	9.06 (3.56)	22.6 (8.89)	336 (206)	2.35 (1.44)	14.0 (8.59)	28.3 (17.4)
25	7.87 (2.93)	3.39 (1.26)	6.79 (2.53)	17.0 (6.32)	10.4 (3.72)	4.50 (1.60)	9.00 (3.20)	22.5 (8.01)	338 (190)	2.37 (1.33)	14.1 (7.91)	28.1 (15.8)
26	7.18 (2.52)	3.09 (1.08)	6.19 (2.17)	15.5 (5.42)	8.12 (2.27)	3.50 (0.98)	7.00 (1.96)	17.5 (4.89)	367 (188)	2.57 (1.32)	15.3 (7.85)	30.2 (15.5)
27	7.34 (3.65)	3.16 (1.57)	6.33 (3.15)	15.8 (7.87)	9.19 (2.74)	3.96 (1.18)	7.92 (2.36)	19.8 (5.90)	329 (154)	2.31 (1.08)	13.7 (6.44)	26.7 (12.5)
28	7.23 (3.48)	3.11 (1.50)	6.23 (3.00)	15.6 (7.51)	9.53 (2.93)	4.11 (1.26)	8.22 (2.52)	20.6 (6.31)	309 (168)	2.16 (1.18)	12.9 (7.00)	24.8 (13.5)
29	7.45 (3.35)	3.21 (1.44)	6.42 (2.89)	16.0 (7.23)	10.1 (2.58)	4.36 (1.11)	8.73 (2.22)	21.8 (5.56)	360 (209)	2.52 (1.46)	15.0 (8.70)	28.7 (16.6)
30	7.79 (3.72)	3.35 (1.60)	6.72 (3.20)	16.8 (8.01)	10.2 (2.56)	4.38 (1.10)	8.78 (2.21)	21.9 (5.52)	350 (147)	2.45 (1.03)	14.6 (6.14)	27.6 (11.6)
Mean	8.09	3.48	6.98	17.40	10.40	4.46	8.94	22.40	368.00	2.58	15.50	30.00
n	29	29	29	29	24	24	24	24	29	29	28	28
SD	0.71	0.31	0.62	1.54	0.84	0.36	0.72	1.81	103.00	0.72	4.30	6.87
Min	6.85	2.95	5.91	14.80	8.12	3.50	7.00	17.50	207.00	1.45	8.62	18.10
Max	9.78	4.21	8.44	21.10	12.30	5.31	10.60	26.60	564.00	3.95	23.50	43.30

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for December, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	7.71 (3.21)	3.32 (1.38)	6.64 (2.77)	16.6 (6.93)	10.1 (2.54)	4.35 (1.09)	8.71 (2.19)	21.8 (5.47)	380 (158)	2.66 (1.10)	15.8 (6.57)	29.70 (12.3)
2	8.73 (2.87)	3.76 (1.24)	7.53 (2.48)	18.8 (6.19)	10.9 (2.33)	4.70 (1.00)	9.40 (2.01)	23.5 (5.01)	423 (161)	2.96 (1.13)	17.6 (6.72)	32.70 (12.5)
3	8.04 (2.90)	3.46 (1.25)	6.93 (2.50)	17.3 (6.25)	11.2 (5.03)	4.82 (2.17)	9.65 (4.34)	24.1 (10.8)	388 (225)	2.72 (1.58)	16.2 (9.38)	29.70 (17.2)
4	7.45 (2.27)	3.21 (0.98)	6.42 (1.96)	16.0 (4.90)					341 (278)	2.39 (1.95)	14.2 (11.6)	25.80 (21.1)
5	7.90 (2.06)	3.40 (0.89)	6.81 (1.78)	17.0 (4.45)					487 (362)	3.41 (2.54)	20.3 (15.1)	36.80 (27.4)
6	8.01 (2.39)	3.45 (1.03)	6.90 (2.06)	17.2 (5.15)	9.84 (3.77)	4.24 (1.62)	8.48 (3.24)	21.2 (8.11)	533 (322)	3.74 (2.25)	22.2 (13.4)	40.20 (24.2)
7	7.91 (2.66)	3.41 (1.15)	6.82 (2.30)	17.0 (5.74)	10.4 (2.82)	4.49 (1.22)	8.98 (2.43)	22.4 (6.08)	560 (295)	3.92 (2.06)	23.4 (12.3)	42.10 (22.2)
8	8.79 (3.43)	3.78 (1.48)	7.57 (2.96)	18.9 (7.40)	11.5 (2.10)	4.93 (0.91)	9.87 (1.81)	24.7 (4.53)	604 (309)	4.23 (2.16)	25.2 (12.9)	45.30 (23.1)
9	7.83 (1.27)	3.37 (0.55)	6.75 (1.09)	16.9 (2.73)	12.2 (1.43)	5.26 (0.62)	10.5 (1.23)	26.3 (3.09)	513 (445)	3.59 (3.11)	21.4 (18.5)	38.30 (33.2)
10	7.37 (2.58)	3.17 (1.11)	6.35 (2.22)	15.9 (5.56)	10.9 (1.06)	4.71 (0.45)	9.42 (0.91)	23.5 (2.27)	807 (517)	5.65 (3.62)	33.6 (21.5)	60.20 (38.6)
11	7.69 (2.61)	3.31 (1.12)	6.62 (2.25)	16.6 (5.62)	11.7 (1.76)	5.02 (0.76)	10.00 (1.51)	25.1 (3.78)	836 (422)	5.85 (2.96)	34.8 (17.6)	62.20 (31.4)
12												
13									454 (281)	3.18 (1.96)	18.9 (11.7)	42.10 (26.0)
14	8.63 (2.15)	3.72 (0.93)	7.43 (1.85)	18.6 (4.62)	12.4 (1.94)	5.36 (0.84)	10.7 (1.67)	26.8 (4.18)	375 (324)	2.63 (2.27)	15.6 (13.5)	33.70 (29.1)
15	7.87 (0.85)	3.39 (0.37)	6.78 (0.73)	16.9 (1.83)	11.7 (1.27)	5.04 (0.55)	10.1 (1.10)	25.2 (2.74)	397 (404)	2.78 (2.83)	16.5 (16.8)	35.00 (35.7)
16	9.31 (2.43)	4.01 (1.05)	8.01 (2.09)	20.0 (5.23)	10.8 (1.82)	4.65 (0.78)	9.30 (1.56)	23.2 (3.91)				
17	9.30 (1.73)	4.00 (0.74)	8.00 (1.49)	20.0 (3.72)	8.80 (1.15)	3.79 (0.50)	7.57 (0.99)	18.9 (2.48)	425 (274)	2.98 (1.92)	17.7 (11.4)	36.70 (23.6)
18	9.71 (2.48)	4.18 (1.07)	8.35 (2.13)	20.9 (5.33)					514 (317)	3.60 (2.22)	21.4 (13.2)	43.90 (27.1)
19	8.52 (3.37)	3.67 (1.45)	7.33 (2.90)	18.3 (7.25)	10.5 (3.09)	4.54 (1.33)	9.07 (2.66)	22.7 (6.64)	489 (351)	3.43 (2.46)	20.4 (14.6)	41.30 (29.6)
20	7.23 (1.99)	3.12 (0.86)	6.22 (1.71)	15.6 (4.28)	11.6 (2.29)	4.99 (0.99)	9.96 (1.97)	24.9 (4.93)	467 (401)	3.27 (2.81)	19.4 (16.7)	38.80 (33.3)
21	7.75 (1.42)	3.34 (0.61)	6.67 (1.22)	16.7 (3.05)	11.7 (1.23)	5.03 (0.53)	10.0 (1.06)	25.1 (2.65)	466 (424)	3.27 (2.97)	19.4 (17.7)	38.30 (34.9)
22	7.17 (0.87)	3.09 (0.37)	6.17 (0.75)	15.4 (1.86)					435 (367)	3.05 (2.57)	18.1 (15.3)	35.30 (29.8)
23									551 (364)	3.86 (2.55)	23.0 (15.2)	44.30 (29.3)
24	8.75 (2.03)	3.77 (0.88)	7.52 (1.75)	18.8 (4.37)	10.6 (2.12)	4.55 (0.91)	9.08 (1.82)	22.7 (4.56)	473 (305)	3.31 (2.13)	19.7 (12.7)	37.70 (24.3)
25	9.34 (3.23)	4.02 (1.39)	8.03 (2.78)	20.1 (6.95)	10.8 (1.50)	4.65 (0.65)	9.29 (1.29)	23.2 (3.22)	474 (277)	3.32 (1.94)	19.7 (11.5)	37.40 (21.9)
26									503 (259)	3.53 (1.82)	21.0 (10.8)	39.40 (20.3)
27	7.38 (2.79)	3.18 (1.20)	6.34 (2.40)	15.9 (5.99)	11.9 (1.34)	5.15 (0.58)	10.3 (1.15)	25.7 (2.87)	445 (351)	3.11 (2.46)	18.5 (14.6)	34.40 (27.2)
28	7.91 (2.55)	3.41 (1.10)	6.80 (2.20)	17.0 (5.49)	11.1 (1.59)	4.78 (0.68)	9.54 (1.36)	23.8 (3.41)	523 (359)	3.67 (2.52)	21.8 (15.0)	40.10 (27.5)
29	8.23 (2.58)	3.55 (1.11)	7.08 (2.22)	17.7 (5.55)	10.8 (2.65)	4.64 (1.14)	9.26 (2.28)	23.2 (5.69)	621 (355)	4.35 (2.48)	25.9 (14.8)	47.10 (26.9)
30	9.51 (3.70)	4.09 (1.59)	8.17 (3.18)	20.4 (7.95)	11.6 (3.68)	5.00 (1.59)	9.97 (3.16)	24.9 (7.91)	594 (371)	4.16 (2.60)	24.7 (15.5)	44.90 (28.0)
31	8.82 (3.07)	3.80 (1.32)	7.58 (2.64)	19.0 (6.60)	10.8 (3.22)	4.67 (1.39)	9.32 (2.76)	23.3 (6.91)	572 (419)	4.01 (2.93)	23.8 (17.5)	43.10 (31.6)
Mean	8.25	3.55	7.10	17.80	11.00	4.75	9.50	23.80	505.00	3.54	21.00	39.90
n	27	27	27	27	23	23	23	23	29	29	29	29
SD	0.73	0.32	0.63	1.57	0.80	0.34	0.69	1.71	111.00	0.78	4.62	7.61
Min	7.17	3.09	6.17	15.40	8.80	3.79	7.57	18.90	341.00	2.39	14.20	25.80
Max	9.71	4.18	8.35	20.90	12.40	5.36	10.70	26.80	836.00	5.85	34.80	62.20

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for January, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.07 (3.54)	3.91 (1.53)	7.79 (3.04)	19.5 (7.61)	10.5 (3.20)	4.52 (1.38)	9.02 (2.75)	22.5 (6.88)	615 (402)	4.31 (2.81)	25.6 (16.7)	46.2 (30.2)
2	8.80 (2.77)	3.79 (1.19)	7.56 (2.38)	18.9 (5.94)	11.2 (3.66)	4.82 (1.58)	9.62 (3.15)	24.0 (7.86)	697 (417)	4.88 (2.92)	29.0 (17.4)	52.2 (31.2)
3	9.46 (3.47)	4.08 (1.49)	8.13 (2.98)	20.3 (7.45)	10.9 (3.22)	4.71 (1.39)	9.39 (2.77)	23.5 (6.92)	634 (433)	4.44 (3.03)	26.4 (18.0)	47.4 (32.3)
4	8.86 (0.92)	3.82 (0.40)	7.61 (0.79)	19.0 (1.97)	9.80 (1.37)	4.22 (0.59)	8.41 (1.18)	21.0 (2.94)	592 (508)	4.14 (3.55)	24.7 (21.2)	44.1 (37.8)
5	8.42 (2.46)	3.62 (1.06)	7.23 (2.11)	18.1 (5.28)	10.8 (2.65)	4.64 (1.14)	9.25 (2.28)	23.1 (5.69)	420 (445)	2.94 (3.11)		
6	9.01 (2.65)	3.88 (1.14)	7.74 (2.28)	19.3 (5.69)	10.6 (2.35)	4.57 (1.01)	9.10 (2.02)	22.8 (5.05)	285 (341)	2.00 (2.39)	11.9 (14.2)	26.9 (32.8)
7	8.99 (2.88)	3.87 (1.24)	7.72 (2.47)	19.3 (6.17)	10.6 (3.30)	4.59 (1.42)	9.14 (2.83)	22.8 (7.07)	229 (222)	1.60 (1.56)	9.54 (9.26)	20.6 (20.0)
8	9.59 (3.33)	4.13 (1.43)	8.22 (2.86)	20.6 (7.14)	10.9 (4.22)	4.71 (1.82)	9.38 (3.62)	23.4 (9.06)	299 (213)	2.09 (1.49)	12.5 (8.88)	26.4 (18.8)
9									321 (225)	2.25 (1.58)	13.4 (9.37)	28.1 (19.6)
10	8.28 (2.60)	3.56 (1.12)	7.10 (2.23)	17.7 (5.57)	10.8 (3.10)	4.65 (1.33)	9.26 (2.66)	23.2 (6.64)	328 (277)	2.30 (1.94)	13.7 (11.5)	28.3 (23.9)
11	8.66 (2.53)	3.73 (1.09)	7.43 (2.17)	18.6 (5.42)	10.9 (3.18)	4.70 (1.37)	9.36 (2.72)	23.4 (6.81)	363 (246)	2.54 (1.72)	15.1 (10.2)	31.0 (21.0)
12	7.60 (2.41)	3.27 (1.04)	6.51 (2.07)	16.3 (5.17)	10.1 (2.99)	4.36 (1.29)	8.68 (2.57)	21.7 (6.42)	332 (245)	2.33 (1.71)	13.8 (10.2)	28.1 (20.7)
13					11.1 (3.82)	4.79 (1.64)	9.53 (3.27)	23.8 (8.18)	400 (270)	2.80 (1.89)	16.7 (11.2)	33.4 (22.5)
14									398 (280)	2.78 (1.96)	16.6 (11.7)	32.7 (23.0)
15	7.62 (0.86)	3.28 (0.37)	6.53 (0.74)	16.3 (1.84)					358 (320)	2.51 (2.24)	14.9 (13.3)	29.1 (26.1)
16	8.49 (3.01)	3.65 (1.30)	7.27 (2.58)	18.2 (6.45)	10.2 (3.10)	4.38 (1.33)	8.72 (2.65)	21.8 (6.63)	522 (268)	3.65 (1.88)	21.7 (11.2)	42.0 (21.7)
17	8.80 (3.23)	3.79 (1.39)	7.54 (2.77)	18.9 (6.93)	10.9 (3.46)	4.68 (1.49)	9.31 (2.97)	23.3 (7.41)	504 (282)	3.53 (1.97)	21.0 (11.7)	40.3 (22.5)
18	9.48 (3.20)	4.08 (1.38)	8.12 (2.75)	20.3 (6.86)	10.4 (3.45)	4.46 (1.49)	8.88 (2.96)	22.2 (7.39)	552 (254)	3.86 (1.78)	23.0 (10.6)	43.7 (20.2)
19	9.04 (3.17)	3.89 (1.36)	7.75 (2.71)	19.4 (6.78)	11.4 (4.31)	4.90 (1.85)	9.74 (3.69)	24.3 (9.22)	561 (269)	3.93 (1.88)	23.4 (11.2)	44.1 (21.1)
20	9.17 (3.73)	3.95 (1.61)	7.85 (3.20)	19.6 (7.99)	10.9 (3.85)	4.68 (1.66)	9.31 (3.30)	23.3 (8.24)	635 (381)	4.45 (2.67)	26.4 (15.9)	49.3 (29.6)
21	9.31 (3.29)	4.01 (1.42)	7.97 (2.81)	19.9 (7.03)	10.1 (3.45)	4.34 (1.49)	8.63 (2.96)	21.6 (7.39)	617 (332)	4.32 (2.32)	25.7 (13.8)	47.5 (25.6)
22	8.54 (2.90)	3.68 (1.25)	7.31 (2.48)	18.3 (6.21)	10.8 (3.53)	4.64 (1.52)	9.23 (3.02)	23.1 (7.55)	583 (305)	4.08 (2.13)	24.3 (12.7)	44.4 (23.2)
23									575 (411)	4.03 (2.88)	24.0 (17.1)	43.5 (31.1)
24	8.36 (1.19)	3.60 (0.51)	7.16 (1.02)	17.9 (2.54)	10.2 (2.42)	4.39 (1.04)	8.72 (2.07)	21.8 (5.18)	502 (401)	3.51 (2.80)	20.9 (16.7)	37.7 (30.1)
25									571 (468)	4.00 (3.28)	23.8 (19.5)	42.7 (34.9)
26												
27	9.40 (0.92)	4.05 (0.39)	8.04 (0.78)	20.1 (1.96)	10.5 (0.53)	4.52 (0.23)	8.98 (0.45)	22.4 (1.13)	285 (317)	2.00 (2.22)	11.9 (13.2)	26.8 (30.2)
28	8.79 (1.70)	3.79 (0.73)	7.52 (1.45)	18.8 (3.63)	12.5 (3.26)	5.37 (1.40)	10.70 (2.78)	26.7 (6.96)	236 (240)	1.65 (1.68)	9.84 (10.0)	21.2 (21.5)
29	9.07 (1.60)	3.90 (0.69)	7.75 (1.37)	19.4 (3.41)	11.9 (4.08)	5.14 (1.76)	10.20 (3.49)	25.5 (8.71)	268 (270)	1.88 (1.89)	11.2 (11.3)	23.7 (23.8)
30	8.97 (2.24)	3.86 (0.96)	7.66 (1.91)	19.2 (4.78)	11.8 (4.39)	5.07 (1.89)	10.10 (3.75)	25.2 (9.39)	302 (239)	2.11 (1.68)	12.6 (9.97)	26.3 (20.9)
31	9.65 (2.57)	4.16 (1.11)	8.25 (2.20)	20.6 (5.49)					314 (208)	2.20 (1.45)	13.1 (8.65)	27.1 (17.9)
Mean	8.86	3.81	7.59	19.00	10.80	4.66	9.27	23.20	443.00	3.10	18.50	35.70
n	25	25	25	25	24	24	24	24	30	30	29	29
SD	0.52	0.23	0.45	1.12	0.61	0.26	0.51	1.28	141.00	0.99	5.98	9.36
Min	7.60	3.27	6.51	16.30	9.80	4.22	8.41	21.00	229.00	1.60	9.54	20.60
Max	9.65	4.16	8.25	20.60	12.50	5.37	10.70	26.70	697.00	4.88	29.00	52.20

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for February, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	8.69 (2.14)	3.74 (0.92)	7.43 (1.83)	18.6 (4.57)	13.3 (6.19)	5.74 (2.67)	11.4 (5.29)	28.5 (13.20)	285 (265)	2.00 (1.85)	11.9 (11.0)	24.3 (22.6)
2	8.75 (2.78)	3.77 (1.20)	7.48 (2.38)	18.7 (5.94)	11.3 (3.47)	4.88 (1.49)	9.68 (2.96)	24.2 (7.40)	313 (250)	2.19 (1.75)	13.0 (10.4)	26.4 (21.1)
3	7.59 (1.98)	3.27 (0.85)	6.48 (1.69)	16.2 (4.22)	10.5 (3.57)	4.50 (1.54)	8.93 (3.05)	22.3 (7.62)	347 (212)	2.43 (1.49)	14.5 (8.85)	28.9 (17.7)
4	9.32 (2.54)	4.01 (1.09)	7.95 (2.17)	19.9 (5.42)	11.1 (3.88)	4.76 (1.67)	9.44 (3.31)	23.6 (8.28)	311 (185)	2.18 (1.29)	12.9 (7.69)	25.5 (15.2)
5	9.23 (2.93)	3.98 (1.26)	7.88 (2.50)	19.7 (6.25)	12.2 (4.60)	5.26 (1.98)	10.4 (3.93)	26.1 (9.81)	325 (216)	2.28 (1.51)	13.5 (8.99)	26.4 (17.5)
6	8.90 (3.16)	3.83 (1.36)	7.60 (2.70)	19.0 (6.75)	11.0 (4.35)	4.75 (1.87)	9.42 (3.71)	23.5 (9.28)	337 (189)	2.36 (1.32)	14.1 (7.86)	27.1 (15.2)
7	9.01 (3.67)	3.88 (1.58)	7.69 (3.13)	19.2 (7.84)	10.3 (3.86)	4.44 (1.66)	8.80 (3.30)	22.0 (8.24)	383 (205)	2.68 (1.44)	16.0 (8.56)	30.5 (16.4)
8	11.40 (3.16)	4.90 (1.36)	9.71 (2.70)	24.3 (6.75)	13.3 (2.65)	5.71 (1.14)	11.3 (2.26)	28.3 (5.64)	410 (171)	2.87 (1.20)	17.1 (7.13)	32.4 (13.5)
9									416 (237)	2.92 (1.66)	17.4 (9.87)	32.6 (18.5)
10	8.81 (4.43)	3.79 (1.91)	7.51 (3.78)	18.8 (9.45)	11.6 (4.97)	4.98 (2.14)	9.86 (4.24)	24.7 (10.60)	432 (248)	3.03 (1.73)	18.0 (10.3)	33.5 (19.2)
11					11.3 (4.43)	4.88 (1.91)	9.65 (3.78)	24.1 (9.44)	425 (287)	2.97 (2.01)	17.7 (11.9)	32.5 (22.0)
12	9.74 (3.45)	4.19 (1.49)	8.30 (2.94)	20.7 (7.35)	14.2 (4.72)	6.10 (2.03)	12.1 (4.02)	30.2 (10.0)	449 (317)	3.14 (2.22)	18.7 (13.2)	34.1 (24.1)
13	9.79 (3.31)	4.22 (1.43)	8.34 (2.82)	20.8 (7.05)	13.8 (4.03)	5.94 (1.74)	11.8 (3.43)	29.4 (8.59)	452 (378)	3.17 (2.65)	18.8 (15.8)	34.2 (28.6)
14	9.45 (2.63)	4.07 (1.13)	8.05 (2.24)	20.1 (5.61)	12.2 (2.90)	5.25 (1.25)	10.4 (2.47)	25.9 (6.17)	421 (333)	2.95 (2.33)	17.5 (13.9)	31.7 (25.1)
15	10.50 (3.07)	4.54 (1.32)	8.98 (2.61)	22.5 (6.52)	11.7 (2.63)	5.03 (1.13)	9.95 (2.24)	24.9 (5.59)	475 (380)	3.33 (2.66)	19.8 (15.8)	35.7 (28.5)
16									602 (326)	4.22 (2.29)	25.1 (13.6)	45.0 (24.4)
17									644 (348)	4.51 (2.43)	26.8 (14.5)	48.0 (25.9)
18									398 (411)	2.79 (2.88)		
19	9.15 (3.19)	3.94 (1.37)	7.78 (2.71)	19.4 (6.78)	11.6 (3.97)	5.00 (1.71)	9.87 (3.37)	24.7 (8.43)	411 (214)	2.88 (1.50)	17.1 (8.90)	38.3 (19.7)
20	9.09 (3.24)	3.92 (1.39)	7.73 (2.75)	19.3 (6.88)	12.4 (4.85)	5.32 (2.09)	10.5 (4.13)	26.3 (10.3)	353 (177)	2.47 (1.24)	14.7 (7.37)	31.7 (15.9)
21									264 (269)	1.85 (1.88)	11.0 (11.2)	23.3 (23.8)
22									300 (243)	2.10 (1.70)	12.5 (10.1)	26.2 (21.3)
23	8.75 (3.36)	3.77 (1.45)	7.43 (2.85)	18.6 (7.13)	12.5 (4.48)	5.37 (1.93)	10.6 (3.81)	26.5 (9.51)	368 (270)	2.58 (1.89)	15.3 (11.3)	31.8 (23.3)
24	9.27 (3.62)	3.99 (1.56)	7.88 (3.08)	19.7 (7.69)	11.4 (5.40)	4.91 (2.32)	9.68 (4.58)	24.2 (11.5)	448 (249)	3.14 (1.74)	18.7 (10.4)	38.3 (21.3)
25												
26												
27	8.75 (2.88)	3.77 (1.24)	7.43 (2.44)	18.6 (6.10)	12.9 (2.95)	5.54 (1.27)	10.9 (2.50)	27.3 (6.25)	468 (327)	3.28 (2.29)	19.5 (13.6)	38.5 (27.0)
28	8.66 (2.20)	3.73 (0.95)	7.35 (1.86)	18.4 (4.66)	11.5 (2.03)	4.94 (0.87)	9.73 (1.72)	24.3 (4.30)	427 (284)	2.99 (1.99)	17.8 (11.8)	34.8 (23.1)
Mean	9.20	3.96	7.84	19.60	12.00	5.17	10.20	25.50	403.00	2.82	16.80	32.50
n	19	19	19	19	20	20	20	20	26	26	25	25
SD	0.77	0.33	0.66	1.65	1.03	0.45	0.88	2.20	86.50	0.61	3.67	5.94
Min	7.59	3.27	6.48	16.20	10.30	4.44	8.80	22.00	264.00	1.85	11.00	23.30
Max	11.40	4.90	9.71	24.30	14.20	6.10	12.10	30.20	644.00	4.51	26.80	48.00

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for March, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.60 (2.51)	4.14 (1.08)	8.14 (2.13)	20.4 (5.32)	11.0 (2.07)	4.72 (0.89)	9.30 (1.76)	23.2 (4.39)	347 (349)	2.43 (2.44)	14.4 (14.5)	28.0 (28.2)
2	9.59 (3.41)	4.13 (1.47)	8.13 (2.89)	20.3 (7.23)	11.3 (3.43)	4.87 (1.48)	9.59 (2.91)	24.0 (7.27)	597 (703)	4.18 (4.92)	24.9 (29.3)	47.7 (56.3)
3	9.46 (3.42)	4.07 (1.47)	8.02 (2.90)	20.1 (7.25)	11.4 (2.62)	4.90 (1.13)	9.65 (2.22)	24.1 (5.55)	559 (254)	3.91 (1.78)	23.3 (10.6)	44.3 (20.1)
4	10.6 (4.24)	4.57 (1.83)	8.99 (3.59)	22.5 (8.98)	11.9 (4.75)	5.12 (2.04)	10.10 (4.02)	25.2 (10.1)	526 (225)	3.68 (1.58)	21.9 (9.39)	41.3 (17.7)
5	10.8 (2.97)	4.63 (1.28)	9.11 (2.52)	22.8 (6.30)	11.4 (3.41)	4.93 (1.47)	9.70 (2.89)	24.3 (7.21)	556 (129)	3.90 (0.90)	23.2 (5.37)	43.3 (10.0)
6	9.85 (3.43)	4.24 (1.48)	8.35 (2.91)	20.9 (7.26)	11.8 (3.92)	5.08 (1.69)	10.0 (3.32)	25.0 (8.30)	570 (174)	3.99 (1.22)	23.8 (7.24)	43.8 (13.4)
7	9.49 (2.52)	4.09 (1.08)	8.04 (2.13)	20.1 (5.33)					547 (151)	3.83 (1.06)	22.8 (6.28)	41.7 (11.4)
8	9.98 (3.12)	4.30 (1.34)	8.45 (2.64)	21.1 (6.60)	11.6 (3.91)	4.99 (1.68)	9.81 (3.31)	24.5 (8.27)	605 (261)	4.24 (1.83)	25.2 (10.9)	45.8 (19.7)
9									797 (253)	5.58 (1.77)	33.2 (10.6)	59.9 (19.0)
10	10.1 (3.80)	4.34 (1.64)	8.53 (3.22)	21.3 (8.04)	12.2 (5.12)	5.24 (2.20)	10.3 (4.33)	25.7 (10.8)	768 (543)	5.38 (3.80)	32.0 (22.6)	57.3 (40.5)
11	9.16 (2.89)	3.94 (1.25)	7.75 (2.45)	19.4 (6.12)	10.9 (3.21)	4.68 (1.38)	9.20 (2.71)	23.0 (6.78)				
12	8.32 (2.82)	3.58 (1.22)	7.04 (2.39)	17.6 (5.97)	11.2 (2.11)	4.82 (0.91)	9.47 (1.79)	23.7 (4.46)	192 (110)	1.34 (0.77)	7.99 (4.59)	18.0 (10.4)
13	8.23 (3.65)	3.54 (1.57)	6.96 (3.09)	17.4 (7.73)	13.2 (4.81)	5.67 (2.07)	11.1 (4.07)	27.8 (10.2)	206 (208)	1.44 (1.45)	8.58 (8.65)	18.5 (18.6)
14	9.01 (3.59)	3.88 (1.55)	7.62 (3.04)	19.1 (7.59)	12.3 (4.26)	5.28 (1.83)	10.4 (3.60)	25.9 (9.00)	220 (209)	1.54 (1.46)	9.18 (8.70)	19.4 (18.4)
15	9.15 (3.14)	3.94 (1.35)	7.74 (2.65)	19.3 (6.63)	10.7 (2.40)	4.62 (1.03)	9.07 (2.03)	22.7 (5.08)	306 (208)	2.15 (1.46)	12.8 (8.68)	26.7 (18.2)
16	9.03 (3.46)	3.89 (1.49)	7.64 (2.93)	19.1 (7.33)	11.6 (2.74)	4.99 (1.18)	9.80 (2.32)	24.5 (5.79)	346 (114)	2.42 (0.80)	14.4 (4.77)	29.8 (9.86)
17	9.51 (3.00)	4.10 (1.29)	8.04 (2.54)	20.1 (6.35)	11.0 (3.73)	4.72 (1.61)	9.27 (3.16)	23.2 (7.89)	373 (163)	2.61 (1.14)	15.6 (6.77)	31.9 (13.9)
18	9.87 (3.51)	4.25 (1.51)	8.34 (2.97)	20.9 (7.42)					373 (194)	2.61 (1.36)	15.5 (8.10)	31.5 (16.4)
19	8.28 (3.37)	3.57 (1.45)	7.00 (2.85)	17.5 (7.12)	11.4 (4.29)	4.89 (1.85)	9.60 (3.62)	24.0 (9.06)	421 (219)	2.95 (1.53)	17.6 (9.13)	35.1 (18.3)
20	9.41 (3.24)	4.05 (1.40)	7.95 (2.74)	19.9 (6.86)	12.4 (3.97)	5.33 (1.71)	10.5 (3.36)	26.2 (8.39)	378 (146)	2.64 (1.02)	15.7 (6.07)	31.1 (12.0)
21	9.06 (2.05)	3.90 (0.88)	7.65 (1.73)	19.1 (4.32)	11.5 (2.27)	4.95 (0.98)	9.71 (1.92)	24.3 (4.80)	423 (66)	2.96 (0.46)	17.6 (2.76)	34.4 (5.44)
22	8.32 (1.98)	3.58 (0.85)	7.03 (1.67)	17.6 (4.17)					408 (86)	2.86 (0.60)	17.0 (3.58)	32.9 (6.94)
23									437 (100)	3.06 (0.70)	18.2 (4.16)	34.9 (7.94)
24	8.94 (3.94)	3.85 (1.70)	7.55 (3.33)	18.9 (8.33)	11.2 (3.28)	4.82 (1.41)	9.45 (2.77)	23.6 (6.93)	488 (247)	3.42 (1.73)	20.3 (10.3)	38.6 (19.6)
25	9.21 (3.88)	3.97 (1.67)	7.78 (3.28)	19.4 (8.20)	11.3 (4.86)	4.88 (2.09)	9.56 (4.11)	23.9 (10.3)	507 (225)	3.55 (1.57)	21.1 (9.37)	39.8 (17.6)
26									521 (232)	3.65 (1.62)	21.7 (9.65)	40.4 (18.0)
27	8.02 (2.30)	3.45 (0.99)	6.77 (1.94)	16.9 (4.85)					394 (244)	2.76 (1.71)	16.4 (10.2)	30.2 (18.7)
28	7.26 (1.70)	3.13 (0.73)	6.12 (1.43)	15.3 (3.58)					452 (371)	3.17 (2.60)	18.8 (15.5)	34.4 (28.2)
29	8.40 (2.20)	3.62 (0.95)	7.09 (1.86)	17.7 (4.64)	10.7 (2.61)	4.60 (1.13)	9.00 (2.21)	22.5 (5.51)	626 (299)	4.39 (2.09)	26.1 (12.4)	47.4 (22.6)
30	9.15 (3.13)	3.94 (1.35)	7.72 (2.64)	19.3 (6.61)	10.6 (3.31)	4.57 (1.43)	8.95 (2.79)	22.4 (6.98)	571 (305)	4.00 (2.14)	23.8 (12.7)	43.0 (23.0)
31	8.91 (3.13)	3.84 (1.35)	7.52 (2.64)	18.8 (6.61)	10.6 (2.80)	4.55 (1.21)	8.91 (2.37)	22.3 (5.91)	607 (325)	4.25 (2.27)	25.3 (13.5)	45.5 (24.3)
Mean	9.17	3.95	7.75	19.40	11.40	4.92	9.67	24.20	471.00	3.30	19.60	37.20
n	28	28	28	28	23	23	23	23	30	30	30	30
SD	0.77	0.33	0.66	1.65	0.62	0.27	0.53	1.33	145.00	1.02	6.05	9.95
Min	7.26	3.13	6.12	15.30	10.60	4.55	8.91	22.30	192.00	1.34	7.99	18.00
Max	10.80	4.63	9.11	22.80	13.20	5.67	11.10	27.80	797.00	5.58	33.20	59.90

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for April, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	9.14 (2.27)	3.94 (0.98)	7.71 (1.91)	19.3 (4.78)	10.1 (2.40)	4.33 (1.03)	8.48 (2.02)	21.2 (5.05)	624 (264.0)	4.37 (1.85)	26.00 (11.00)	46.50 (19.70)
2												
3												
4												
5	8.07 (2.67)	3.48 (1.15)	6.81 (2.25)	17.0 (5.64)	9.72 (3.47)	4.19 (1.49)	8.20 (2.93)	20.5 (7.32)				
6	11.0 (3.33)	4.74 (1.43)	9.30 (2.81)	23.2 (7.03)	11.8 (3.70)	5.10 (1.59)	10.0 (3.12)	25.0 (7.80)				
7	10.2 (1.93)	4.39 (0.83)	8.61 (1.63)	21.5 (4.07)	10.9 (3.34)	4.70 (1.44)	9.22 (2.82)	23.0 (7.05)				
8	10.9 (4.25)	4.69 (1.83)	9.19 (3.59)	23.0 (8.97)	10.6 (4.28)	4.57 (1.84)	8.95 (3.62)	22.4 (9.04)				
9					9.88 (3.66)	4.26 (1.58)	8.35 (3.09)	20.9 (7.74)				
10	9.93 (4.02)	4.28 (1.73)	8.39 (3.39)	21.0 (8.48)	10.7 (4.40)	4.62 (1.89)	9.05 (3.72)	22.6 (9.29)	347 (197)	2.43 (1.38)	14.5 (8.19)	28.9 (16.4)
11	9.67 (4.23)	4.16 (1.82)	8.17 (3.58)	20.4 (8.94)	11.8 (4.46)	5.10 (1.92)	10.0 (3.76)	25.0 (9.41)	336 (154)	2.35 (1.08)	14.0 (6.40)	27.6 (12.7)
12					11.2 (3.51)	4.81 (1.51)	9.43 (2.96)	23.6 (7.41)	324 (124)	2.27 (0.87)	13.5 (5.15)	26.3 (10.0)
13					11.4 (3.80)	4.89 (1.64)	9.59 (3.21)	24.0 (8.03)	373 (127)	2.61 (0.89)	15.5 (5.28)	30.1 (10.2)
14	10.6 (3.39)	4.57 (1.46)	8.97 (2.86)	22.4 (7.16)	12.0 (2.97)	5.16 (1.28)	10.1 (2.51)	25.3 (6.28)	452 (114)	3.17 (0.80)	18.8 (4.74)	36.1 (9.05)
15	10.9 (2.61)	4.67 (1.12)	9.17 (2.21)	22.9 (5.51)					403 (55.8)	2.82 (0.39)	16.8 (2.33)	31.9 (4.45)
16	11.4 (2.00)	4.92 (0.86)	9.66 (1.69)	24.1 (4.23)	12.3 (2.69)	5.30 (1.16)	10.4 (2.27)	26.0 (5.68)				
17	10.1 (2.80)	4.34 (1.21)	8.53 (2.37)	21.3 (5.93)	11.6 (2.92)	5.01 (1.26)	9.83 (2.47)	24.6 (6.17)				
18					11.8 (4.02)	5.09 (1.73)	10.0 (3.40)	25.0 (8.51)				
19					11.5 (4.04)	4.97 (1.74)	9.77 (3.42)	24.4 (8.54)				
20	9.68 (3.40)	4.17 (1.46)	8.20 (2.88)	20.5 (7.19)	11.3 (3.39)	4.89 (1.46)	9.60 (2.87)	24.0 (7.18)				
21	9.11 (2.73)	3.92 (1.17)	7.71 (2.31)	19.3 (5.77)	9.98 (3.73)	4.30 (1.61)	8.45 (3.16)	21.1 (7.90)	516 (149)	3.61 (1.04)	21.5 (6.19)	38.8 (11.2)
22	9.76 (2.06)	4.20 (0.89)	8.27 (1.74)	20.7 (4.35)	11.5 (2.18)	4.95 (0.94)	9.74 (1.84)	24.3 (4.61)	549 (126)	3.85 (0.88)	22.9 (5.23)	41.2 (9.42)
23												
24	9.74 (3.14)	4.20 (1.35)	8.25 (2.66)	20.6 (6.65)	9.60 (1.90)	4.14 (0.82)	8.14 (1.61)	20.3 (4.03)				
25	9.66 (2.71)	4.16 (1.17)	8.18 (2.30)	20.5 (5.75)	10.6 (3.59)	4.58 (1.54)	9.01 (3.04)	22.5 (7.60)	253 (190)	1.77 (1.33)	10.5 (7.92)	23.6 (17.7)
26	11.0 (2.24)	4.74 (0.97)	9.33 (1.90)	23.3 (4.75)	10.9 (3.37)	4.71 (1.45)	9.27 (2.86)	23.2 (7.14)	287 (123)	2.01 (0.86)	12.0 (5.13)	25.8 (11.0)
27	9.93 (2.20)	4.28 (0.95)	8.42 (1.86)	21.0 (4.66)	11.2 (2.27)	4.82 (0.98)	9.49 (1.93)	23.7 (4.82)	233 (196)	1.63 (1.37)	9.70 (8.17)	20.5 (17.3)
28	10.1 (2.39)	4.34 (1.03)	8.55 (2.03)	21.4 (5.07)	11.0 (2.84)	4.72 (1.23)	9.29 (2.41)	23.2 (6.03)	250 (216)	1.75 (1.51)	10.4 (8.99)	21.8 (18.8)
29	11.0 (2.44)	4.72 (1.05)	9.30 (2.07)	23.2 (5.18)	11.9 (3.29)	5.11 (1.42)	10.1 (2.79)	25.1 (6.98)	355 (112)	2.49 (0.79)	14.8 (4.68)	30.6 (9.73)
30	10.9 (2.29)	4.71 (0.99)	9.28 (1.94)	23.2 (4.86)	11.3 (2.72)	4.87 (1.17)	9.59 (2.31)	24.0 (5.76)	430 (79.6)	3.01 (0.56)	17.9 (3.32)	36.7 (6.82)
Mean	10.10	4.36	8.57	21.40	11.10	4.77	9.36	23.40	382.00	2.68	15.90	31.10
n	21	21	21	21	25	25	25	25	15	15	15	15
SD	0.79	0.34	0.67	1.68	0.74	0.32	0.63	1.58	111.00	0.78	4.63	7.21
Min	8.07	3.48	6.81	17.00	9.60	4.14	8.14	20.30	233.00	1.63	9.70	20.50
Max	11.40	4.92	9.66	24.10	12.30	5.30	10.40	26.00	624.00	4.37	26.00	46.50

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for May, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1					11.10 (2.08)	4.79 (0.89)	9.43 (1.76)	23.60 (4.40)	435 (185.0)	3.04 (1.30)	18.10 (7.71)	36.70 (15.60)
2												
3												
4												
5												
6												
7	10.8 (3.63)	4.66 (1.57)	9.19 (3.09)	23.0 (7.71)	10.5 (3.18)	4.50 (1.37)	8.88 (2.70)	22.2 (6.75)	454 (93.7)	3.18 (0.66)	18.9 (3.90)	35.9 (7.37)
8	10.4 (1.72)	4.46 (0.74)	8.79 (1.46)	22.0 (3.65)					471 (50.6)	3.30 (0.35)	19.6 (2.11)	36.9 (3.95)
9	9.64 (2.57)	4.15 (1.10)	8.19 (2.18)	20.5 (5.45)	10.6 (2.68)	4.56 (1.15)	8.99 (2.27)	22.5 (5.68)	511 (61.3)	3.58 (0.43)	21.3 (2.55)	39.5 (4.77)
10	11.4 (2.94)	4.93 (1.27)	9.71 (2.50)	24.3 (6.24)	11.1 (2.47)	4.79 (1.07)	9.44 (2.10)	23.6 (5.25)	583 (54.7)	4.09 (0.38)	24.3 (2.28)	44.7 (4.18)
11	10.7 (2.42)	4.60 (1.04)	9.07 (2.05)	22.7 (5.13)	13.7 (3.85)	5.90 (1.66)	11.6 (3.27)	29.1 (8.18)	517 (79.7)	3.62 (0.56)	21.5 (3.32)	39.2 (6.07)
12	10.9 (2.63)	4.68 (1.13)	9.23 (2.24)	23.1 (5.59)	11.8 (5.18)	5.10 (2.23)	10.1 (4.40)	25.1 (11.00)	492 (79.5)	3.44 (0.56)	20.5 (3.31)	37.2 (6.02)
13	9.91 (2.22)	4.27 (0.96)	8.42 (1.89)	21.1 (4.71)	11.3 (2.90)	4.85 (1.25)	9.56 (2.47)	23.9 (6.16)	523 (106.0)	3.66 (0.74)	21.8 (4.42)	39.4 (7.99)
14	9.69 (2.40)	4.17 (1.04)	8.23 (2.04)	20.6 (5.11)	11.0 (2.54)	4.73 (1.09)	9.33 (2.15)	23.3 (5.39)	526 (46.3)	3.69 (0.32)	21.9 (1.93)	39.5 (3.49)
15	10.7 (2.21)	4.60 (0.95)	9.08 (1.88)	22.7 (4.69)	12.6 (3.51)	5.42 (1.51)	10.7 (2.98)	26.7 (7.45)	498 (93.5)	3.49 (0.66)	20.7 (3.89)	37.3 (7.00)
16	10.3 (2.10)	4.43 (0.90)	8.74 (1.78)	21.9 (4.46)	11.0 (2.53)	4.73 (1.09)	9.33 (2.15)	23.3 (5.38)	536 (58.4)	3.75 (0.41)	22.3 (2.44)	40.0 (4.36)
17	10.3 (2.48)	4.42 (1.07)	8.73 (2.10)	21.8 (5.26)	11.0 (2.44)	4.75 (1.05)	9.37 (2.07)	23.4 (5.18)	543 (146.0)	3.80 (1.02)	22.6 (6.07)	40.5 (10.9)
18												
19									244 (62.0)	1.71 (0.43)	10.2 (2.58)	22.8 (6.13)
20	11.2 (3.60)	4.84 (1.55)	9.56 (3.06)	23.9 (7.66)	11.7 (3.73)	5.04 (1.60)	9.95 (3.17)	24.9 (7.92)	280 (72.7)	1.96 (0.51)	11.7 (3.03)	25.1 (6.57)
21	9.79 (2.25)	4.22 (0.97)	8.33 (1.91)	20.8 (4.78)	11.2 (3.37)	4.83 (1.45)	9.54 (2.87)	23.9 (7.17)	294 (41.6)	2.06 (0.29)	12.3 (1.73)	26.0 (3.66)
22	9.69 (2.61)	4.17 (1.12)	8.25 (2.22)	20.6 (5.55)	10.1 (3.22)	4.37 (1.39)	8.63 (2.74)	21.6 (6.85)	303 (58.3)	2.12 (0.41)	12.6 (2.43)	26.5 (5.11)
23	10.7 (2.77)	4.60 (1.19)	9.08 (2.35)	22.7 (5.88)	11.8 (4.14)	5.09 (1.78)	10.1 (3.52)	25.2 (8.81)	351 (56.2)	2.46 (0.39)	14.6 (2.34)	30.3 (4.81)
24	11.3 (2.76)	4.86 (1.19)	9.60 (2.35)	24.0 (5.88)	11.4 (3.61)	4.91 (1.55)	9.69 (3.07)	24.2 (7.67)	360 (52.2)	2.52 (0.37)	15.0 (2.17)	30.7 (4.48)
25	11.2 (2.71)	4.81 (1.17)	9.50 (2.31)	23.7 (5.78)	12.3 (4.25)	5.31 (1.83)	10.5 (3.62)	26.2 (9.04)	411 (74.4)	2.88 (0.52)	17.1 (3.10)	34.7 (6.27)
26	11.0 (3.62)	4.74 (1.56)	9.36 (3.08)	23.4 (7.71)	10.2 (3.45)	4.41 (1.49)	8.71 (2.94)	21.8 (7.35)	380 (48.8)	2.66 (0.34)	15.8 (2.03)	31.6 (4.08)
27	10.9 (2.32)	4.68 (1.00)	9.25 (1.98)	23.1 (4.94)	9.9 (2.54)	4.25 (1.09)	8.39 (2.16)	21.0 (5.40)	454 (91.1)	3.18 (0.64)	18.9 (3.80)	37.3 (7.55)
28	10.5 (3.68)	4.52 (1.59)	8.94 (3.14)	22.3 (7.84)	10.0 (2.87)	4.31 (1.23)	8.52 (2.44)	21.3 (6.10)	472 (90.6)	3.30 (0.63)	19.7 (3.77)	38.3 (7.38)
29	11.0 (2.79)	4.74 (1.20)	9.37 (2.37)	23.4 (5.93)	10.8 (2.69)	4.66 (1.16)	9.21 (2.29)	23.0 (5.73)	452 (96.5)	3.16 (0.68)	18.8 (4.02)	36.3 (7.77)
30	12.2 (3.35)	5.27 (1.44)	10.40 (2.85)	26.0 (7.12)	11.1 (2.79)	4.79 (1.20)	9.48 (2.37)	23.7 (5.93)	455 (79.0)	3.19 (0.55)	19.0 (3.29)	36.3 (6.26)
31	12.7 (4.11)	5.45 (1.77)	10.80 (3.50)	27.0 (8.75)	11.2 (3.18)	4.82 (1.37)	9.53 (2.71)	23.8 (6.77)	414 (89.2)	2.90 (0.63)	17.3 (3.72)	32.8 (7.06)
Mean	10.70	4.62	9.12	22.80	11.20	4.82	9.52	23.80	438.00	3.07	18.30	35.00
n	23	23	23	23	23	23	23	23	25	25	25	25
SD	0.75	0.32	0.64	1.61	0.86	0.37	0.73	1.82	89.00	0.62	3.71	5.37
Min	9.64	4.15	8.19	20.50	9.86	4.25	8.39	21.00	244.00	1.71	10.20	22.80
Max	12.70	5.45	10.80	27.00	13.70	5.90	11.60	29.10	583.00	4.09	24.30	44.70

US EPA ARCHIVE DOCUMENT

Table E6. Daily means (SD) of NH3 emissions at Site OK4B for June, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	10.4 (2.28)	4.49 (0.98)	8.89 (1.94)	22.2 (4.85)	11.4 (3.08)	4.92 (1.33)	9.73 (2.62)	24.3 (6.55)	476 (73.9)	3.33 (0.52)	19.8 (3.08)	37.3 (5.77)
2	11.8 (2.65)	5.06 (1.14)	10.0 (2.26)	25.0 (5.65)	10.9 (2.61)	4.70 (1.12)	9.29 (2.22)	23.2 (5.55)	414 (69.2)	2.90 (0.49)	17.3 (2.88)	32.1 (5.39)
3	11.4 (2.03)	4.93 (0.87)	9.75 (1.72)	24.4 (4.31)	10.3 (3.45)	4.44 (1.49)	8.77 (2.94)	21.9 (7.35)	483 (110)	3.39 (0.77)	20.1 (4.58)	37.1 (8.39)
4	12.0 (3.05)	5.16 (1.31)	10.2 (2.60)	25.5 (6.49)	12.6 (3.97)	5.43 (1.71)	10.7 (3.38)	26.8 (8.46)	502 (95.9)	3.51 (0.67)	20.9 (3.99)	38.1 (7.28)
5	12.1 (2.94)	5.22 (1.27)	10.3 (2.50)	25.8 (6.25)	13.9 (3.96)	5.99 (1.71)	11.8 (3.37)	29.6 (8.43)	493 (119.0)	3.45 (0.83)	20.5 (4.94)	37.3 (8.95)
6												
7												
8	10.4 (2.72)	4.49 (1.17)	8.86 (2.31)	22.2 (5.78)	10.4 (3.04)	4.46 (1.31)	8.81 (2.58)	22.0 (6.45)	492 (106)	3.44 (0.74)	20.5 (4.43)	36.8 (7.96)
9	11.5 (3.11)	4.96 (1.34)	9.79 (2.65)	24.5 (6.62)	11.1 (3.87)	4.77 (1.67)	9.42 (3.29)	23.6 (8.23)	538 (157)	3.77 (1.10)	22.4 (6.54)	40.1 (11.7)
10	10.5 (3.47)	4.51 (1.49)	8.91 (2.95)	22.3 (7.38)	10.5 (2.98)	4.52 (1.28)	8.93 (2.53)	22.3 (6.33)				
11	10.9 (2.88)	4.70 (1.24)	9.28 (2.45)	23.2 (6.13)	10.7 (3.37)	4.61 (1.45)	9.10 (2.86)	22.7 (7.16)				
12	10.6 (2.45)	4.56 (1.05)	9.00 (2.08)	22.5 (5.20)	10.9 (4.20)	4.69 (1.81)	9.26 (3.57)	23.2 (8.92)	438 (119)	3.07 (0.83)	18.3 (4.96)	39.3 (10.5)
13	11.3 (2.86)	4.87 (1.23)	9.61 (2.43)	24.0 (6.08)	10.3 (2.41)	4.44 (1.04)	8.76 (2.05)	21.9 (5.12)	406 (118)	2.84 (0.83)	16.9 (4.91)	35.8 (10.3)
14	10.5 (2.37)	4.51 (1.02)	8.90 (2.01)	22.2 (5.03)	8.73 (2.00)	3.76 (0.86)	7.42 (1.70)	18.5 (4.25)	338 (48.4)	2.36 (0.34)	14.1 (2.02)	29.5 (4.22)
15	10.7 (2.87)	4.61 (1.23)	9.09 (2.44)	22.7 (6.09)	10.8 (3.09)	4.67 (1.33)	9.20 (2.62)	23.0 (6.56)	426 (106)	2.98 (0.74)	17.7 (4.41)	36.7 (9.10)
16	12.0 (2.32)	5.16 (1.00)	10.2 (1.97)	25.5 (4.93)	10.2 (3.43)	4.41 (1.48)	8.70 (2.91)	21.7 (7.27)	513 (143)	3.59 (1.00)	21.4 (5.95)	43.8 (12.2)
17	12.2 (2.27)	5.27 (0.98)	10.4 (1.93)	26.0 (4.83)	10.4 (2.85)	4.47 (1.23)	8.82 (2.42)	22.0 (6.06)	517 (107)	3.62 (0.75)	21.5 (4.46)	43.7 (9.16)
18	13.7 (3.76)	5.89 (1.62)	11.6 (3.19)	29.0 (7.98)	12.0 (5.49)	5.16 (2.36)	10.20 (4.66)	25.4 (11.70)	477 (140)	3.34 (0.98)	19.9 (5.83)	39.7 (11.6)
19	11.9 (3.31)	5.13 (1.43)	10.1 (2.81)	25.3 (7.03)	10.7 (3.12)	4.59 (1.34)	9.05 (2.65)	22.6 (6.62)	543 (67.4)	3.80 (0.47)	22.6 (2.81)	44.6 (5.48)
20	11.0 (2.51)	4.74 (1.08)	9.33 (2.13)	23.3 (5.33)	9.86 (2.54)	4.25 (1.10)	8.36 (2.16)	20.9 (5.40)	508 (81.8)	3.56 (0.57)	21.2 (3.41)	41.2 (6.70)
21	12.7 (3.50)	5.49 (1.51)	10.8 (2.97)	27.0 (7.43)	10.8 (3.97)	4.64 (1.71)	9.14 (3.37)	22.9 (8.42)	522 (64.7)	3.66 (0.45)	21.8 (2.70)	42.0 (5.16)
22	13.6 (5.17)	5.88 (2.23)	11.6 (4.39)	28.9 (11.00)	11.6 (3.88)	4.99 (1.67)	9.82 (3.29)	24.6 (8.23)	537 (122)	3.76 (0.85)	22.4 (5.08)	42.8 (9.76)
23	13.3 (4.31)	5.75 (1.86)	11.3 (3.66)	28.3 (9.15)	11.8 (4.56)	5.08 (1.97)	10.0 (3.87)	25.0 (9.68)	394 (68.0)	2.76 (0.48)	16.4 (2.83)	31.2 (5.40)
24	13.5 (4.02)	5.79 (1.73)	11.4 (3.41)	28.5 (8.52)	12.2 (3.62)	5.26 (1.56)	10.4 (3.07)	25.9 (7.66)	414 (60.8)	2.90 (0.43)	17.2 (2.53)	32.4 (4.72)
25	14.9 (4.31)	6.42 (1.86)	12.6 (3.65)	31.6 (9.13)	11.9 (3.43)	5.12 (1.48)	10.1 (2.90)	25.2 (7.26)	436 (73.0)	3.05 (0.51)	18.2 (3.04)	33.8 (5.65)
26	15.1 (4.52)	6.50 (1.95)	12.8 (3.83)	32.0 (9.59)	12.2 (3.53)	5.27 (1.52)	10.4 (2.99)	25.9 (7.48)	431 (53.0)	3.02 (0.37)	18.0 (2.21)	33.1 (4.01)
27	15.3 (3.81)	6.57 (1.64)	12.9 (3.23)	32.3 (8.08)	11.9 (4.08)	5.11 (1.76)	10.1 (3.46)	25.1 (8.65)	449 (91.9)	3.14 (0.64)	18.7 (3.83)	34.1 (6.98)
28	12.9 (3.67)	5.57 (1.58)	10.9 (3.11)	27.4 (7.77)	11.3 (3.56)	4.86 (1.54)	9.56 (3.02)	23.9 (7.55)	522 (122)	3.66 (0.86)	21.7 (5.10)	39.5 (9.23)
29	14.2 (3.05)	6.12 (1.31)	12.0 (2.58)	30.1 (6.46)	11.7 (3.72)	5.06 (1.60)	9.95 (3.15)	24.9 (7.87)	449 (62.8)	3.14 (0.44)	18.7 (2.62)	33.8 (4.73)
30					8.77 (4.25)	3.78 (1.83)	7.42 (3.60)	18.6 (9.00)	374 (94.2)	2.62 (0.66)	15.6 (3.93)	28.1 (7.07)
Mean	12.20	5.27	10.40	26.00	11.10	4.77	9.40	23.50	465.00	3.26	19.40	37.10
n	27	27	27	27	28	28	28	28	26	26	26	26
SD	1.48	0.64	1.25	3.11	1.08	0.46	0.92	2.29	54.20	0.38	2.26	4.46
Min	10.40	4.49	8.86	22.20	8.73	3.76	7.42	18.50	338.00	2.36	14.10	28.10
Max	15.30	6.57	12.90	32.30	13.90	5.99	11.80	29.60	543.00	3.80	22.60	44.60

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Table E6. Daily means (SD) of NH3 emissions at Site OK4B for July, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	kg/d	g/d-m^2	g/d-hd	g/d-AU	kg/d	g/d-m^2	g/d-hd	g/d-AU	g/d	g/d-m^2	g/d-hd	g/d-AU
1	14.0 (5.05)	6.03 (2.17)	11.9 (4.28)	29.6 (10.70)	10.4 (3.90)	4.48 (1.68)	8.81 (3.30)	22.0 (8.25)	313 (67.8)	2.19 (0.48)	13.1 (2.83)	23.4 (5.06)
2	12.6 (3.18)	5.44 (1.37)	10.7 (2.69)	26.8 (6.72)	9.71 (2.75)	4.18 (1.18)	8.22 (2.33)	20.6 (5.82)	357 (87.9)	2.50 (0.62)	14.9 (3.66)	26.6 (6.56)
3	14.2 (3.41)	6.11 (1.47)	12.0 (2.88)	30.0 (7.20)	11.3 (3.50)	4.88 (1.51)	9.58 (2.96)	24.0 (7.40)	337 (107)	2.36 (0.75)	13.5 (3.82)	29.4 (10.8)
4	14.1 (3.29)	6.08 (1.42)	12.0 (2.79)	29.9 (6.96)	11.0 (3.26)	4.73 (1.41)	9.29 (2.76)	23.2 (6.90)	199 (46.1)	1.40 (0.32)	8.30 (1.92)	18.6 (4.36)
5	12.3 (3.42)	5.28 (1.47)	10.4 (2.89)	25.9 (7.23)	9.43 (3.23)	4.06 (1.39)	7.98 (2.73)	19.9 (6.83)	151 (34.9)	1.06 (0.24)	6.31 (1.45)	13.6 (3.10)
6	12.7 (3.63)	5.45 (1.57)	10.7 (3.07)	26.8 (7.68)	10.2 (3.57)	4.38 (1.54)	8.61 (3.02)	21.5 (7.55)	189 (74.8)	1.32 (0.52)	7.86 (3.12)	16.6 (6.57)
7	11.6 (3.61)	5.02 (1.56)	9.85 (3.05)	24.6 (7.64)	9.97 (3.99)	4.30 (1.72)	8.43 (3.37)	21.1 (8.43)	235 (74.6)	1.65 (0.52)	9.80 (3.11)	20.5 (6.48)
8	16.0 (3.17)	6.88 (1.37)	13.5 (2.68)	33.7 (6.71)	12.2 (4.10)	5.25 (1.76)	10.3 (3.46)	25.8 (8.66)	287 (135)	2.01 (0.95)	12.0 (5.63)	24.8 (11.6)
9	15.2 (3.08)	6.57 (1.32)	12.9 (2.60)	32.2 (6.50)	11.3 (3.52)	4.88 (1.52)	9.57 (2.98)	23.9 (7.45)	278 (53.1)	1.95 (0.37)	11.6 (2.21)	23.8 (4.55)
10												
11	14.5 (3.69)	6.26 (1.59)	12.3 (3.12)	30.7 (7.79)	11.3 (3.30)	4.85 (1.42)	9.52 (2.78)	23.8 (6.96)	291 (53.9)	2.04 (0.38)	12.1 (2.24)	24.3 (4.49)
12	13.8 (3.07)	5.94 (1.32)	11.6 (2.59)	29.1 (6.48)	11.1 (3.02)	4.78 (1.30)	9.37 (2.55)	23.4 (6.37)	304 (40.3)	2.13 (0.28)	12.7 (1.68)	25.1 (3.37)
13	15.4 (3.67)	6.61 (1.58)	13.0 (3.10)	32.4 (7.75)	11.9 (3.32)	5.13 (1.43)	10.1 (2.80)	25.1 (7.01)	300 (61.5)	2.10 (0.43)	12.5 (2.56)	24.5 (5.03)
14	13.9 (4.08)	5.97 (1.76)	11.7 (3.44)	29.3 (8.61)	9.98 (2.55)	4.30 (1.10)	8.42 (2.15)	21.1 (5.38)	318 (60.1)	2.23 (0.42)	13.2 (2.50)	25.8 (4.90)
15	12.9 (3.38)	5.56 (1.45)	10.9 (2.85)	27.2 (7.13)	9.87 (2.40)	4.25 (1.03)	8.33 (2.02)	20.8 (5.06)	350 (78.7)	2.45 (0.55)	14.6 (3.28)	28.2 (6.31)
16												
17	12.4 (4.16)	5.32 (1.79)	10.4 (3.51)	26.1 (8.77)	9.78 (3.26)	4.21 (1.40)	8.25 (2.75)	20.6 (6.88)				
18	11.1 (3.42)	4.78 (1.47)	9.36 (2.89)	23.4 (7.22)	9.60 (2.44)	4.14 (1.05)	8.10 (2.06)	20.2 (5.14)				
19	10.8 (3.96)	4.65 (1.70)	9.11 (3.34)	22.8 (8.34)	10.8 (3.67)	4.66 (1.58)	9.12 (3.10)	22.8 (7.75)				
20												
21	10.4 (5.59)	4.48 (2.41)	8.77 (4.72)	21.9 (11.80)	9.71 (4.40)	4.18 (1.89)	8.18 (3.71)	20.5 (9.27)				
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	13.20	5.69	11.20	27.90	10.50	4.54	8.90	22.20	279.00	1.96	11.60	23.20
n	18	18	18	18	18	18	18	18	14	14	14	14
SD	1.57	0.68	1.33	3.33	0.83	0.36	0.70	1.75	60.40	0.42	2.49	4.27
Min	10.40	4.48	8.77	21.90	9.43	4.06	7.98	19.90	151.00	1.06	6.31	13.60
Max	16.00	6.88	13.50	33.70	12.20	5.25	10.30	25.80	357.00	2.50	14.90	29.40

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Table E7. H2S concentrations

Table E7. Daily means (SD) of H2S concentrations at Site OK4B for July, 2007. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20	6 (4)	8 (6)	88 (25)	121 (30)	74 (9)	105 (12)	10 (4)	14 (6)		228 (16)	
21	2 (1)	3 (1)	68 (13)	98 (18)	79 (14)	113 (20)	8 (2)	12 (3)		242 (25)	
22	3 (1)	5 (2)	76 (10)	109 (15)	82 (12)	118 (17)	10 (4)	14 (6)		294 (28)	
23	10 (7)	14 (10)	97 (18)	140 (26)	92 (22)	132 (32)	6 (4)	9 (5)		334 (32)	
24	6 (3)	9 (4)	121 (24)	175 (34)	97 (18)	141 (26)	8 (4)	11 (6)		366 (42)	
25	3 (2)	4 (3)	118 (15)	170 (21)	126 (52)	182 (75)	7 (3)	10 (4)		382 (24)	
26	3 (2)	4 (2)	119 (21)	172 (31)	108 (15)	156 (21)	9 (4)	12 (6)		313 (75)	
27	8 (6)	12 (8)	125 (27)	180 (39)	109 (11)	157 (17)	6 (4)	9 (6)		202 (165)	
28	9 (3)	13 (5)	113 (15)	163 (21)	121 (22)	174 (31)	9 (5)	12 (7)		26 (10)	
29	4 (2)	6 (3)	123 (17)	177 (24)	94 (14)	136 (20)	10 (6)	15 (9)		22 (4)	
30	4 (2)	6 (3)	137 (22)	197 (32)	77 (11)	111 (16)	5 (4)	8 (5)		70 (70)	
31	13 (14)	19 (21)	125 (18)	180 (25)	84 (22)	122 (31)	9 (6)	13 (9)		51 (61)	
Mean	6	9	109	157	95	137	8	12		211	
n	12	12	12	12	12	12	12	12	0	12	0
SD	3	5	21	31	17	24	2	2		130	
Min	2	3	68	98	74	105	5	8		22	
Max	13	19	137	197	126	182	10	15		382	

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for August, 2007. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	10 (9)	15 (13)	110 (13)	159 (19)	93 (26)	134 (38)	7 (3)	10 (4)		22 (4)	
2	17 (10)	25 (15)	115 (21)	169 (31)	67 (16)	95 (24)	4 (3)	6 (5)		24 (8)	
3	3 (2)	4 (3)	115 (19)	166 (28)	68 (13)	99 (19)	4 (2)	5 (3)		39 (11)	
4	0 (0)	1 (1)	103 (22)	148 (31)	75 (14)	108 (20)	2 (1)	3 (1)		59 (20)	
5	1 (1)	1 (1)	109 (25)	158 (35)	75 (15)	108 (22)	4 (1)	6 (1)		82 (13)	
6	2 (1)	2 (1)	120 (22)	174 (32)	88 (13)	127 (18)	4 (1)	5 (2)		96 (22)	
7	2 (1)	3 (2)	126 (17)	182 (25)	105 (28)	151 (40)	5 (3)	7 (5)		134 (20)	
8	3 (2)	5 (3)	153 (34)	220 (50)	84 (18)	121 (26)	2 (1)	3 (1)		171 (27)	
9											
10											
11											
12											
13											
14											
15	2 (1)	3 (1)	108 (28)	155 (39)	70 (11)	101 (15)	4 (1)	5 (2)	549 (44)	317 (17)	
16	4 (2)	5 (3)	90 (18)	130 (26)	80 (14)	115 (20)	2 (2)	2 (2)	581 (101)	294 (39)	
17	3 (1)						6 (2)				
18	5 (5)	7 (7)	113 (12)	163 (17)	103 (16)	149 (23)	5 (1)	7 (2)	741 (102)	304 (11)	
19	6 (4)	9 (6)	131 (22)	189 (32)	111 (19)	160 (28)	5 (2)	7 (3)	697 (58)	309 (24)	
20	5 (3)	7 (4)	155 (36)	224 (52)	148 (33)	214 (47)	6 (1)	9 (1)	251 (305)	172 (148)	
21	5 (6)	7 (8)	131 (19)	189 (28)	129 (19)	186 (28)	4 (1)	6 (2)	42 (11)	11 (2)	16 (3)
22	2 (0)	2 (1)	126 (17)	180 (23)	128 (36)	184 (57)	3 (0)	4 (1)	58 (36)	11 (3)	16 (4)
23	1 (1)	1 (2)	120 (12)	173 (17)	103 (19)	149 (27)	2 (1)	3 (2)	60 (9)	16 (4)	23 (6)
24	9 (5)	13 (7)	129 (26)	186 (37)	123 (23)	177 (33)	1 (2)	2 (3)	62 (15)	19 (3)	28 (5)
25	12 (7)	17 (10)	118 (20)	171 (28)	212 (196)	306 (283)	6 (4)	8 (6)	102 (17)	32 (5)	46 (7)
26	0 (1)	0 (1)	133 (15)	192 (21)	63 (10)	90 (14)	2 (1)	3 (1)	203 (63)	46 (16)	66 (23)
27	1 (0)	1 (0)	133 (47)	191 (67)	69 (11)	100 (16)	3 (1)	4 (2)	119 (124)	73 (19)	105 (28)
28	0 (0)	0 (0)	104 (28)	150 (41)	67 (14)	96 (21)	3 (1)	4 (2)	4 (3)	86 (18)	124 (26)
29	3 (1)	4 (2)	113 (47)	168 (69)	66 (11)	93 (16)	0 (1)	0 (1)	3 (2)	105 (16)	
30	10 (4)	14 (5)	100 (25)	144 (36)	78 (19)	113 (28)	4 (3)	5 (5)	3 (3)	110 (11)	158 (16)
31	7 (4)	10 (6)	104 (20)	150 (29)	89 (14)	128 (21)	5 (4)	8 (5)	11 (16)	155 (62)	224 (89)
Mean	4	7	119	172	96	138	4	5	218	112	81
n	25	24	24	24	24	24	25	24	16	24	10
SD	4	6	15	22	34	49	2	2	257	99	67
Min	0	0	90	130	63	90	0	0	3	11	16
Max	17	25	155	224	212	306	7	10	741	317	224

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for September, 2007. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	3 (2)	4 (2)	122 (26)	175 (37)	111 (30)	159 (43)	6 (2)	9 (3)	8 (3)	166 (48)	239 (69)
2	3 (1)	5 (2)	152 (44)	218 (63)	120 (38)	173 (54)	5 (1)	7 (2)	9 (5)	172 (15)	247 (21)
3	2 (1)	2 (1)	135 (39)	194 (57)	139 (48)	200 (68)	5 (1)	7 (1)	7 (3)	190 (28)	273 (40)
4	1 (0)	1 (1)					3 (1)	4 (1)			
5	2 (1)	3 (1)					2 (1)	3 (1)			
6	2 (1)	2 (2)	126 (26)	182 (37)	101 (20)	145 (29)	2 (1)	4 (1)	4 (2)	169 (107)	
7	9 (7)	13 (10)	139 (22)	200 (31)	105 (20)	151 (29)	0 (1)	1 (1)	1 (1)	334 (102)	
8	11 (7)	15 (9)	172 (75)	248 (108)	111 (17)	160 (24)	1 (2)	1 (3)	3 (4)	515 (279)	
9	9 (4)	12 (6)	146 (34)	211 (49)	164 (79)	236 (113)	1 (2)	2 (3)	2 (3)	530 (242)	
10	10 (7)	15 (11)					0 (0)	0 (1)			
11	4 (2)	6 (3)	267 (183)	383 (264)	187 (111)	269 (159)	2 (2)	3 (3)	19 (22)		
12	1 (1)	2 (1)	184 (79)	266 (114)	120 (69)	173 (100)	3 (1)	4 (1)	7 (6)	14 (8)	20 (12)
13	3 (2)	5 (3)	148 (52)	213 (75)	95 (44)	137 (64)	4 (3)	6 (5)	6 (4)	14 (7)	20 (10)
14	13 (9)	18 (13)	212 (57)	304 (82)	129 (42)	185 (60)	0 (0)	0 (1)	6 (9)	32 (19)	45 (27)
15	2 (3)	3 (5)	185 (102)	266 (146)	111 (39)	160 (55)	1 (1)	2 (1)	25 (40)	32 (35)	46 (49)
16	0 (0)	0 (1)	125 (21)	180 (30)	90 (21)	129 (31)	2 (1)	3 (1)	3 (1)	24 (5)	35 (6)
17	1 (1)	1 (1)	136 (67)	200 (98)	119 (35)	169 (52)	2 (1)	3 (1)	2 (1)	48 (21)	70 (31)
18	1 (2)	1 (2)	83 (21)	119 (29)	127 (28)	182 (41)	0 (1)	1 (2)	1 (2)	79 (20)	113 (29)
19	6 (5)	9 (7)	70 (12)	100 (18)	150 (97)	216 (140)	1 (1)	1 (1)	3 (2)	85 (22)	123 (32)
20	1 (1)	1 (1)	79 (10)	111 (14)	75 (21)	98 (25)	2 (1)	3 (1)	4 (1)	115 (43)	173 (67)
21	1 (2)	2 (2)	93 (13)	134 (19)	67 (17)	97 (25)	0 (1)	0 (1)	2 (2)	113 (15)	163 (21)
22	3 (1)	4 (2)	92 (25)	133 (36)	85 (21)	122 (30)	2 (2)	3 (3)	5 (5)	165 (38)	238 (54)
23	1 (1)	1 (1)	94 (22)	135 (31)	93 (20)	134 (29)	3 (1)	5 (2)	5 (1)	181 (42)	261 (60)
24	0 (0)						1 (1)				
25	4 (3)						0 (1)				
26	2 (2)	3 (3)	157 (69)	224 (99)	178 (98)	254 (140)	3 (4)	4 (5)	43 (65)	342 (140)	490 (200)
27	8 (3)	11 (4)	168 (62)	241 (89)	161 (96)	231 (137)	0 (1)	1 (2)	23 (42)	349 (164)	502 (234)
28	1 (1)	1 (1)	102 (16)	145 (24)	129 (76)	183 (111)	3 (2)	4 (3)	19 (27)	317 (69)	
29	1 (0)	1 (1)	99 (11)	143 (16)	101 (20)	146 (29)	1 (1)	2 (1)	3 (1)	343 (65)	
30	0 (0)						1 (1)				
Mean	3	5	137	197	120	171	2	3	9	188	180
n	30	27	24	24	24	24	30	27	24	23	17
SD	4	5	46	66	31	44	2	2	10	151	144
Min	0	0	70	100	67	97	0	0	1	14	20
Max	13	18	267	383	187	269	6	9	43	530	502

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for October, 2007. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	0 (1)						2 (1)				
2	2 (2)	3 (2)	173 (51)	248 (74)	181 (98)	259 (140)	1 (2)	2 (3)	2 (2)	4 (2)	5 (3)
3	2 (2)	3 (3)	180 (81)	258 (116)	201 (107)	287 (153)	2 (1)	4 (2)	9 (10)	26 (29)	37 (42)
4	1 (2)	1 (2)	151 (39)	217 (56)	107 (19)	154 (27)	3 (1)	4 (2)	3 (3)	8 (3)	11 (4)
5	1 (1)	1 (1)	133 (52)	192 (75)	111 (19)	160 (28)	1 (0)	1 (1)	2 (2)	13 (9)	18 (13)
6	1 (0)						1 (0)				
7	4 (3)	5 (5)	146 (37)	210 (53)	145 (48)	207 (69)	0 (1)	0 (1)	2 (1)	38 (13)	55 (19)
8	7 (5)	11 (7)	211 (62)	302 (89)	215 (118)	308 (169)	0 (0)	0 (1)	35 (47)	76 (26)	109 (37)
9	1 (1)	1 (1)	224 (64)	321 (92)	247 (121)	354 (173)	3 (3)	5 (4)	58 (64)	118 (54)	170 (78)
10	5 (5)	7 (7)	155 (74)	230 (106)	186 (131)	277 (191)	6 (3)	9 (4)	31 (53)	144 (69)	212 (101)
11	23 (24)	32 (35)	129 (64)	186 (92)	137 (55)	197 (78)	4 (2)	6 (3)	7 (4)	178 (47)	255 (67)
12	2 (0)	2 (1)	107 (50)	154 (72)	157 (81)	225 (116)	3 (1)	4 (2)	49 (94)	176 (61)	254 (87)
13	1 (1)	1 (1)	92 (12)	132 (17)	77 (11)	111 (16)	2 (2)	3 (2)	5 (3)	191 (32)	275 (47)
14	3 (0)	4 (1)	215 (68)	309 (98)	204 (80)	293 (114)	0 (1)	0 (1)	39 (73)	405 (137)	581 (196)
15	3 (1)	4 (2)	243 (133)	348 (190)	414 (167)	593 (239)	0 (1)	0 (1)	139 (112)	444 (86)	636 (123)
16	2 (1)	2 (1)	195 (102)	280 (146)	311 (187)	445 (267)	3 (1)	4 (2)	48 (108)	352 (91)	504 (130)
17	1 (2)	2 (2)	138 (53)	198 (76)	209 (43)	299 (61)	1 (1)	2 (1)	10 (16)	390 (104)	558 (149)
18	8 (5)	11 (7)	274 (126)	392 (179)	263 (96)	376 (138)	0 (1)	1 (1)	121 (93)	608 (146)	869 (210)
19	8 (10)	11 (14)	288 (171)	411 (244)	273 (163)	390 (233)	3 (2)	4 (2)	144 (198)	543 (192)	775 (275)
20	1 (1)	1 (1)	165 (115)	235 (164)	145 (61)	207 (86)	2 (1)	2 (2)	65 (127)	480 (155)	686 (221)
21	2 (1)	3 (2)	449 (143)	642 (204)	321 (71)	458 (101)	0 (0)	0 (1)	105 (122)	889 (243)	1270 (349)
22	9 (8)	13 (11)	443 (111)	632 (159)	419 (84)	598 (120)	0 (1)	0 (1)	58 (78)		
23	9 (6)	12 (8)	357 (180)	509 (257)	340 (176)	485 (251)	0 (0)	0 (1)	4 (5)	9 (7)	12 (10)
24	8 (5)	11 (7)	299 (91)	427 (130)	286 (100)	409 (143)	0 (1)	0 (1)	3 (3)	9 (5)	13 (7)
25	7 (2)	10 (4)	280 (143)	399 (204)	295 (122)	421 (174)	2 (1)	3 (2)	8 (6)		
26	8 (3)	11 (4)	360 (202)	515 (289)	439 (192)	627 (275)	5 (3)	7 (5)	19 (16)	31 (10)	44 (15)
27	5 (2)	7 (2)	483 (167)	690 (239)	316 (90)	452 (128)	1 (1)	1 (2)	23 (23)	58 (15)	83 (21)
28	10 (4)	14 (6)	374 (125)	535 (179)	309 (132)	441 (189)	5 (2)	8 (3)	35 (35)	93 (40)	133 (57)
29	7 (4)	10 (5)	365 (190)	522 (273)	331 (156)	473 (224)	3 (1)	5 (2)	34 (53)	178 (102)	254 (145)
30	4 (2)	5 (2)	351 (175)	501 (250)	297 (116)	425 (165)	2 (2)	3 (2)	11 (9)	192 (58)	275 (83)
31	5 (2)	7 (3)	419 (108)	599 (155)	477 (121)	681 (173)	0 (0)	1 (1)	18 (28)	407 (134)	582 (191)
Mean	5	7	255	365	256	366	2	3	38	224	321
n	31	29	29	29	29	29	31	29	29	27	27
SD	5	6	112	160	103	147	2	3	41	224	320
Min	0	1	92	132	77	111	0	0	2	4	5
Max	23	32	483	690	477	681	6	9	144	889	1270

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for November, 2007. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	12 (9)	17 (12)	399 (112)	570 (160)	592 (154)	846 (220)	4 (3)	6 (5)	161 (209)	516 (137)	737 (196)
2	6 (2)	8 (2)	379 (100)	542 (144)	483 (193)	690 (276)	3 (4)	4 (5)	105 (127)	560 (135)	801 (193)
3	9 (5)	12 (7)	332 (118)	474 (168)	449 (273)	642 (390)	3 (3)	5 (5)	97 (103)	627 (207)	896 (296)
4	10 (5)	14 (6)	308 (143)	440 (204)	365 (191)	521 (274)	3 (2)	5 (3)	125 (137)	561 (207)	802 (297)
5	9 (4)	13 (6)	426 (96)	608 (137)	403 (93)	575 (133)	0 (0)	1 (1)	124 (216)	749 (175)	1070 (250)
6	9 (2)	13 (2)	475 (76)	662 (98)	489 (130)	718 (181)	3 (2)	4 (3)	307 (308)	936 (149)	1340 (213)
7	8 (2)	11 (3)	401 (192)	576 (274)	394 (142)	565 (201)	6 (2)	9 (3)	40 (86)	888 (287)	1270 (411)
8	20 (12)	29 (17)	328 (174)	469 (249)	404 (182)	577 (260)	14 (21)	21 (30)	189 (263)	932 (336)	1330 (481)
9	15 (11)	21 (16)	350 (176)	500 (252)	360 (190)	513 (271)	10 (9)	14 (12)	83 (150)	1010 (287)	1450 (411)
10	3 (2)	4 (2)	246 (113)	352 (162)	271 (127)	388 (182)	7 (3)	10 (5)	9 (5)	882 (235)	1260 (337)
11	11 (7)	16 (10)	277 (132)	397 (188)	348 (160)	497 (230)	5 (3)	7 (4)	26 (36)	1020 (329)	1460 (471)
12	18 (6)	25 (9)	463 (143)	661 (205)	499 (120)	713 (172)	3 (2)	4 (4)			
13	12 (7)	18 (10)					5 (2)	7 (3)			
14	8 (6)	11 (9)	516 (84)	736 (119)	677 (239)	965 (341)	0 (0)	-1 (1)	6 (4)	24 (10)	34 (14)
15	9 (8)	13 (11)	524 (123)	747 (176)	454 (124)	648 (176)	2 (2)	3 (3)	34 (16)	53 (12)	76 (18)
16	11 (5)	15 (7)	459 (263)	656 (376)	378 (223)	540 (318)	4 (3)	6 (5)	35 (28)	67 (31)	95 (45)
17	19 (9)	27 (13)	357 (215)	510 (306)	266 (144)	379 (205)	1 (2)	2 (3)	20 (13)	90 (36)	129 (51)
18	18 (7)	26 (10)	415 (282)	593 (403)	335 (136)	479 (194)	1 (2)	1 (3)	48 (56)	130 (51)	186 (74)
19	3 (4)	5 (6)	351 (191)	501 (273)	219 (105)	313 (150)	4 (2)	6 (3)	53 (77)	196 (80)	280 (114)
20	6 (4)	8 (5)	487 (190)	696 (271)	322 (130)	459 (185)	1 (2)	1 (3)	79 (62)	335 (103)	478 (147)
21	2 (2)	3 (3)	680 (76)	971 (109)	463 (68)	660 (99)	0 (1)	0 (1)	119 (80)	508 (47)	726 (67)
22	5 (4)	7 (6)	765 (216)	1090 (309)	387 (61)	552 (86)	1 (2)	1 (2)	216 (115)	633 (102)	904 (146)
23	4 (5)	5 (8)	609 (121)	869 (173)	397 (52)	566 (75)	3 (2)	4 (3)	245 (143)	935 (143)	1340 (205)
24	14 (8)	21 (11)	774 (213)	1110 (304)	400 (42)	571 (60)	2 (2)	2 (3)	322 (165)	1070 (177)	1530 (253)
25	18 (5)	25 (8)	961 (180)	1370 (257)	458 (70)	653 (99)	3 (2)	4 (3)	337 (259)	1110 (170)	1590 (244)
26	8 (4)	12 (6)	704 (123)	1010 (176)	487 (57)	696 (81)	0 (0)	-1 (1)	216 (167)	1240 (212)	1770 (303)
27	39 (10)						2 (1)				
28	9 (5)						0 (1)				
29	5 (2)						0 (0)				
30	2 (2)	2 (3)	525 (64)	750 (91)	647 (48)	924 (70)	0 (1)	0 (1)	653 (375)	1630 (165)	2340 (236)
Mean	11	14	481	687	421	602	3	5	146	669	956
n	30	27	26	26	26	26	30	27	25	25	25
SD	7	8	171	244	106	152	3	5	143	418	598
Min	2	2	246	352	219	313	0	-1	6	24	34
Max	39	29	961	1370	677	965	14	21	653	1630	2340

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for December, 2007. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	1 (1)	1 (1)	286 (147)	409 (210)	476 (241)	681 (345)	2 (1)	3 (1)	174 (272)	1190 (337)	1700 (481)
2	12 (9)	17 (13)	546 (228)	779 (325)	511 (96)	730 (138)	0 (1)	0 (1)	150 (239)	1180 (160)	1680 (229)
3	10 (7)	14 (10)	506 (179)	723 (256)	340 (111)	485 (159)	2 (1)	3 (2)	50 (86)	1010 (221)	1440 (317)
4	7 (5)	10 (7)	383 (157)	546 (224)	223 (95)	318 (135)	1 (2)	2 (3)	81 (123)	896 (256)	1280 (366)
5	11 (3)	16 (4)	506 (83)	722 (119)	342 (48)	488 (69)	-1 (0)	-1 (1)	6 (7)	935 (429)	1340 (615)
6	1 (1)	1 (2)	480 (126)	685 (180)	402 (92)	575 (132)	0 (0)	-1 (0)	7 (5)	321 (176)	
7	8 (6)	11 (9)	565 (90)	807 (128)	498 (283)	712 (405)	0 (0)	0 (0)	28 (31)	211 (236)	
8	0 (1)	0 (2)	492 (60)	703 (87)	326 (44)	465 (63)	0 (0)	-1 (0)	15 (3)	13 (3)	19 (4)
9	1 (1)	1 (1)	466 (52)	665 (75)	393 (230)	560 (327)	-1 (0)	-1 (1)	20 (7)	30 (12)	43 (17)
10	2 (2)	4 (3)	511 (92)	720 (131)	393 (183)	514 (187)	1 (1)	2 (2)	67 (28)	43 (15)	61 (21)
11	6 (3)	9 (5)	490 (75)	700 (108)	321 (61)	459 (88)	0 (1)	0 (2)	39 (8)	66 (17)	94 (24)
12	4 (3)	6 (4)	497 (45)	709 (66)	337 (70)	480 (100)	3 (3)	5 (4)	81 (27)	95 (24)	136 (34)
13	6 (4)	8 (5)	566 (85)	808 (122)	407 (56)	580 (80)	0 (0)	-1 (1)	97 (28)	171 (62)	244 (89)
14	6 (7)	8 (11)	520 (38)	743 (54)	390 (39)	557 (55)	-1 (0)	-1 (0)	109 (43)	193 (27)	277 (38)
15	12 (8)	18 (12)	552 (87)	788 (124)	420 (89)	599 (128)	-1 (0)	-1 (1)	39 (16)	226 (51)	323 (73)
16	15 (3)	21 (5)	529 (103)	754 (147)	462 (140)	659 (201)	3 (3)	4 (4)	121 (80)	247 (45)	354 (64)
17	11 (6)	15 (8)	533 (85)	761 (121)	338 (86)	483 (123)	3 (2)	4 (3)	151 (75)	383 (50)	548 (72)
18	9 (8)	12 (11)	548 (83)	783 (119)	289 (61)	412 (88)	3 (4)	4 (6)	126 (63)		
19	4 (4)	6 (5)	831 (392)	1190 (560)	315 (93)	450 (133)	2 (3)	2 (4)	199 (161)	725 (124)	1040 (177)
20	6 (5)	6 (8)					2 (3)	5 (5)			
21	16 (9)						4 (2)				
22	6 (4)	9 (6)	601 (141)	857 (201)	411 (110)	586 (157)	0 (1)	0 (1)	116 (84)	933 (140)	1330 (201)
23	14 (6)	20 (8)	688 (243)	982 (347)	392 (78)	559 (112)	1 (1)	1 (1)	286 (146)	928 (122)	1330 (174)
24	12 (9)	17 (13)	501 (55)	715 (79)	411 (64)	587 (91)	3 (2)	4 (3)	200 (170)	903 (158)	1290 (226)
25	8 (7)	12 (9)	546 (103)	779 (148)	428 (98)	611 (141)	2 (2)	2 (2)	296 (184)	1060 (126)	1520 (180)
26	9 (5)	12 (7)	551 (91)	786 (131)	463 (110)	662 (157)	0 (0)	0 (1)	278 (209)	1330 (253)	1900 (363)
27	4 (5)	6 (7)	559 (128)	797 (183)	434 (102)	620 (146)	0 (0)	0 (0)		1640 (174)	
28	22 (5)	31 (7)	542 (64)	773 (91)	336 (45)	479 (65)	1 (1)	2 (1)	579 (481)	1350 (206)	
29	20 (6)	29 (9)	719 (232)	1030 (332)	446 (257)	635 (366)	2 (2)	3 (2)	650 (457)	1530 (372)	
30	13 (8)	18 (11)	636 (56)	908 (80)	281 (59)	401 (84)	4 (1)	5 (2)	268 (279)	1170 (357)	
31	9 (5)	12 (7)	653 (192)		301 (102)		0 (1)	0 (2)		247 (206)	
Mean	9	12	545	772	382	548	1	1	157	679	855
n	31	30	29	28	29	28	31	30	27	28	21
SD	5	8	98	139	69	98	1	2	156	510	646
Min	0	0	286	409	223	318	-1	-1	6	13	19
Max	22	31	831	1190	511	730	4	5	650	1640	1900

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for January, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	12 (3)						0 (0)				
2	8 (7)	12 (10)	772 (203)	1100 (290)	360 (45)	514 (64)	1 (0)	1 (1)	54 (18)	77 (22)	110 (32)
3	8 (3)						2 (0)				
4	18 (8)	25 (11)	583 (174)	833 (248)	436 (140)	624 (200)	2 (1)	3 (1)	40 (19)	89 (34)	128 (49)
5	7 (6)	10 (9)	450 (197)	641 (282)	356 (159)	507 (228)	2 (1)	3 (2)	39 (27)	84 (27)	119 (39)
6	6 (3)	9 (5)	496 (121)	709 (173)	427 (147)	612 (211)	1 (1)	2 (1)	64 (39)	119 (38)	170 (54)
7	8 (5)	11 (7)	638 (140)	912 (201)	535 (137)	768 (197)	2 (2)	3 (3)		180 (34)	257 (49)
8	9 (7)	13 (10)	885 (345)	1260 (494)	714 (300)	1020 (430)	2 (3)	3 (4)	112 (68)	307 (47)	439 (68)
9	5 (3)	7 (4)	475 (160)	678 (229)	517 (212)	742 (306)	3 (2)	5 (3)	110 (92)	406 (86)	581 (123)
10	6 (3)	8 (4)	586 (76)	837 (108)	519 (68)	745 (98)	1 (2)	2 (3)	185 (140)	605 (62)	866 (88)
11	6 (2)	9 (4)					1 (1)	1 (1)			
12	12 (5)	18 (7)	557 (80)	794 (115)	476 (67)	681 (96)	-1 (0)	-1 (0)	223 (111)	872 (122)	1250 (175)
13	19 (8)	27 (12)	586 (141)	836 (201)	545 (109)	781 (158)	1 (1)	1 (1)	220 (157)	809 (95)	1160 (136)
14	30 (21)	43 (30)	552 (109)	787 (156)	488 (76)	699 (109)	0 (1)	1 (1)	223 (175)	917 (96)	1310 (138)
15	10 (5)	14 (7)	577 (97)	822 (139)	586 (195)	842 (282)	2 (1)	3 (1)	280 (189)	1150 (213)	1650 (314)
16	12 (4)	18 (5)	691 (158)	985 (227)	674 (127)	965 (182)	0 (1)	0 (2)	194 (155)	1400 (265)	2000 (380)
17	9 (5)	12 (7)	599 (127)	854 (183)	588 (121)	842 (174)	3 (2)	4 (2)	290 (209)	1090 (201)	1560 (288)
18	6 (2)	8 (3)	386 (47)	551 (68)	381 (103)		0 (0)	0 (1)	329 (248)	1280 (190)	1830 (272)
19	6 (3)	9 (4)	473 (271)	674 (386)	312 (73)	452 (108)	2 (1)	3 (2)	481 (362)	1230 (272)	1760 (390)
20	3 (2)	5 (3)	335 (68)	477 (97)	241 (90)		5 (1)	7 (2)	315 (337)	1250 (265)	1780 (378)
21	1 (1)	2 (1)	375 (50)	534 (71)	212 (32)		0 (2)	0 (2)	259 (150)	1500 (225)	2150 (322)
22	7 (2)	10 (3)	409 (78)	583 (111)	215 (27)		0 (1)	0 (1)	294 (186)	1280 (269)	1840 (385)
23	6 (3)	8 (5)	468 (139)	667 (198)	212 (50)		0 (1)	0 (1)		1470 (139)	
24	3 (2)	4 (2)					0 (1)	0 (1)			
25	4 (2)	6 (3)	387 (114)	552 (163)	323 (74)	460 (106)	1 (1)	1 (1)	90 (46)	190 (51)	271 (74)
26	7 (4)	10 (5)	393 (137)	561 (195)	311 (112)	444 (160)	3 (3)	4 (4)	47 (26)	102 (28)	146 (40)
27											
28											
29											
30											
31											
Mean	9	12	531	757	428	688	1	2	192	745	1020
n	26	24	22	22	22	17	26	24	20	22	21
SD	6	9	134	191	145	171	1	2	118	521	728
Min	1	2	335	477	212	444	-1	-1	39	77	110
Max	30	43	885	1260	714	1020	5	7	481	1500	2150

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for February, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	6 (4)	8 (5)	480 (169)	684 (241)	412 (152)	588 (217)	1 (1)	1 (1)	104 (104)	186 (60)	266 (86)
2	7 (4)	10 (6)	472 (90)	674 (129)	385 (75)	550 (107)	1 (3)	2 (4)	109 (67)	318 (97)	455 (139)
3	9 (7)	13 (10)	425 (92)	606 (132)	342 (86)	489 (123)	1 (1)	1 (1)	114 (112)	374 (72)	535 (103)
4	0 (1)						-1 (1)				
5	3 (4)	5 (5)	564 (62)	805 (89)	444 (50)	634 (71)	-1 (0)	-2 (0)	97 (42)	661 (147)	947 (210)
6	14 (5)	20 (6)	735 (200)	1050 (287)			3 (2)	5 (3)	183 (132)	692 (119)	991 (171)
7	16 (5)	23 (8)					0 (1)	0 (1)			
8	14 (8)	20 (12)	505 (77)	721 (109)	376 (68)	536 (98)	0 (1)	1 (1)	131 (79)	813 (91)	1160 (130)
9	6 (4)	8 (5)	420 (119)	598 (170)	333 (123)	475 (176)	3 (1)	5 (2)	238 (258)	997 (172)	1430 (246)
10	10 (4)	14 (6)	487 (100)	695 (143)	340 (98)	485 (140)	2 (1)	2 (1)	351 (189)	1290 (214)	1850 (307)
11	6 (1)	8 (1)	456 (79)	650 (113)	304 (73)	434 (104)	0 (1)	1 (1)	300 (304)	1290 (294)	1850 (421)
12	20 (7)	29 (10)	488 (94)	698 (134)	330 (64)	470 (92)	1 (1)	2 (2)	350 (220)	1500 (229)	2170 (332)
13	13 (14)	18 (19)	392 (162)	560 (231)	299 (113)	426 (162)	4 (2)	6 (2)	257 (330)	1330 (250)	1900 (358)
14	2 (1)	2 (2)	575 (178)	822 (255)	495 (75)	707 (107)	1 (2)	1 (3)	292 (182)	1640 (182)	2350 (261)
15	5 (4)	7 (6)	423 (59)	603 (85)	492 (43)	701 (61)	0 (0)	0 (0)	568 (360)	1790 (346)	2560 (496)
16	5 (1)	7 (2)	440 (75)	628 (107)	481 (58)	688 (83)	2 (1)	2 (2)	301 (199)	1580 (183)	2270 (261)
17	6 (4)	9 (6)	445 (38)	635 (53)	525 (56)	750 (81)	1 (1)	1 (1)	287 (142)	1720 (237)	2470 (340)
18	19 (7)	27 (10)	404 (103)	577 (147)	439 (82)	626 (117)	3 (2)	4 (3)	148 (179)	854 (790)	1180 (1250)
19	10 (8)	14 (11)	355 (115)	506 (164)	459 (65)	655 (93)	1 (1)	2 (1)	61 (41)	74 (12)	105 (17)
20	8 (5)	12 (7)	504 (80)	718 (114)	618 (144)	882 (206)	2 (2)	3 (3)	21 (6)	55 (15)	79 (22)
21	6 (2)	8 (3)	603 (251)	860 (359)	582 (275)	831 (392)	2 (2)	3 (3)	30 (18)	48 (14)	68 (20)
22	12 (9)	17 (13)	395 (139)	564 (198)	370 (141)	527 (202)	4 (1)	5 (2)	48 (19)	58 (13)	82 (18)
23	5 (3)	7 (5)	326 (114)	466 (162)	306 (77)	438 (111)	6 (3)	9 (4)	42 (14)	62 (12)	88 (18)
24	6 (4)	9 (6)	298 (139)	425 (199)	300 (118)	429 (168)	3 (1)	5 (1)	56 (32)	85 (18)	121 (26)
25	4 (1)	6 (1)	301 (105)	430 (149)	305 (42)	435 (59)	3 (1)	4 (2)	64 (39)	129 (27)	185 (38)
26	8 (8)	11 (11)	420 (97)	599 (138)	431 (76)	615 (108)	2 (1)	2 (2)	50 (24)	165 (20)	237 (29)
27	19 (7)	28 (10)	408 (118)	582 (168)	364 (122)	520 (174)	6 (4)	8 (6)	74 (54)	212 (53)	304 (77)
28	15 (5)	21 (7)	467 (227)	667 (324)	379 (113)	540 (161)	4 (3)	5 (4)	66 (66)	256 (71)	366 (102)
29	18 (15)	26 (22)	419 (178)	613 (247)	344 (126)	503 (173)	2 (1)	3 (1)	86 (68)	364 (62)	524 (89)
Mean	9	14	452	646	402	574	2	3	164	687	983
n	29	28	27	27	26	26	29	28	27	27	27
SD	6	8	92	131	87	125	2	2	131	604	866
Min	0	2	298	425	299	426	-1	-2	21	48	68
Max	20	29	735	1050	618	882	6	9	568	1790	2560

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for March, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	2 (1)	3 (1)	317 (217)	453 (311)	247 (151)	352 (216)	3 (1)	4 (1)	51 (64)	395 (134)	566 (192)
2	3 (0)	4 (0)	431 (154)	617 (219)	403 (178)	576 (254)	2 (1)	3 (1)	14 (21)	577 (159)	827 (227)
3	5 (3)	7 (4)	513 (35)	733 (50)	454 (85)	647 (122)	2 (1)	2 (1)	209 (176)	939 (90)	1340 (129)
4	8 (2)	11 (3)	479 (151)	683 (215)	451 (230)	643 (329)	5 (1)	8 (2)	219 (214)	975 (294)	1400 (422)
5	5 (1)	7 (1)	561 (88)	801 (125)	547 (90)	780 (128)	2 (1)	3 (1)	210 (159)	1310 (190)	1880 (272)
6	11 (11)	15 (15)	600 (94)	855 (134)	449 (68)	640 (97)	2 (1)	2 (1)	299 (207)	1320 (214)	1880 (307)
7	17 (13)	24 (18)	577 (89)	824 (126)	511 (93)	728 (134)	4 (2)	6 (2)	232 (125)		
8	10 (5)	14 (7)	448 (135)	638 (193)	405 (194)	578 (277)	3 (1)	4 (2)	244 (226)	1310 (327)	1870 (468)
9	7 (5)	11 (8)	374 (135)	534 (193)	380 (212)	542 (302)	1 (1)	2 (1)	189 (251)	1180 (213)	1690 (306)
10	6 (2)	8 (3)	361 (159)	514 (227)	484 (214)	690 (306)	4 (1)	5 (1)	160 (182)	1200 (285)	1720 (408)
11	5 (3)	8 (4)	333 (171)	475 (244)	389 (232)	556 (331)	3 (1)	4 (2)	87 (110)	989 (243)	1410 (348)
12	8 (4)	12 (6)	380 (189)	542 (270)	353 (173)	504 (248)	2 (1)	2 (1)	63 (104)	1000 (192)	1430 (275)
13	11 (2)	15 (3)	411 (156)	585 (224)	475 (341)	676 (491)	2 (1)	3 (1)		1040 (114)	1480 (165)
14	7 (3)	10 (4)	399 (163)	570 (232)	260 (92)	372 (131)	2 (1)	2 (1)	203 (209)	1140 (273)	1630 (391)
15	14 (9)	20 (12)	480 (180)	685 (258)	381 (153)	544 (219)	7 (5)	10 (7)	231 (167)	1220 (166)	1750 (238)
16	31 (3)	43 (4)	562 (112)	803 (159)	398 (42)	569 (61)	11 (4)	16 (6)	156 (180)	1320 (135)	1890 (193)
17	10 (9)	14 (13)	558 (136)	799 (194)	433 (77)	620 (111)	2 (1)	3 (1)	145 (181)	601 (506)	754 (779)
18	14 (7)	20 (10)	360 (134)	514 (192)	412 (81)	589 (116)	2 (1)	3 (1)	24 (16)	57 (19)	81 (28)
19	17 (12)	24 (17)	297 (170)	424 (243)	311 (164)	444 (234)	5 (4)	7 (6)	17 (11)	33 (16)	47 (23)
20	5 (3)	7 (4)	314 (238)	447 (340)	260 (177)	371 (253)	6 (3)	9 (5)	16 (16)	30 (17)	42 (24)
21	5 (3)	7 (4)	142 (53)	203 (76)	274 (121)	392 (173)	1 (0)	1 (1)	19 (16)	45 (27)	65 (39)
22	3 (1)	4 (1)	156 (37)	223 (53)	430 (93)	614 (133)	1 (0)	1 (0)	37 (6)	69 (19)	99 (27)
23	4 (1)	5 (1)	150 (53)	214 (76)	447 (111)	638 (158)	2 (1)	3 (2)	54 (26)	100 (22)	143 (32)
24	2 (1)	3 (1)			306 (139)	438 (199)	4 (1)	5 (2)			
25	5 (1)	7 (2)	117 (64)	167 (91)	431 (242)	616 (345)	3 (1)	4 (2)	36 (36)	143 (46)	204 (66)
26	13 (10)	19 (14)	209 (147)	298 (210)	324 (196)	462 (280)	6 (3)	8 (5)	46 (44)	209 (51)	299 (74)
27	10 (5)	14 (7)	237 (114)	338 (163)	391 (124)	558 (177)	3 (2)	4 (3)	89 (89)	323 (46)	462 (66)
28	10 (5)	14 (7)	260 (98)	371 (140)	453 (176)	646 (251)	4 (3)	6 (4)	114 (102)	459 (56)	658 (80)
29	6 (4)	8 (6)	181 (132)	258 (188)	273 (199)	390 (284)	6 (1)	9 (2)	105 (137)	418 (129)	599 (186)
30	6 (1)	9 (2)	223 (49)	320 (71)	343 (102)	490 (146)	3 (2)	4 (2)	104 (136)	563 (87)	807 (125)
31	5 (3)		264 (88)	377 (126)	443 (188)	633 (268)	1 (0)		127 (150)	763 (123)	1090 (176)
Mean	9	12	356	509	391	558	3	5	121	680	970
n	31	30	30	30	31	31	31	30	29	29	29
SD	6	8	142	202	77	110	2	3	83	467	669
Min	2	3	117	167	247	352	1	1	14	30	42
Max	31	43	600	855	547	780	11	16	299	1320	1890

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for April, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	20 (10)		335 (126)	488 (175)	504 (209)	721 (296)	4 (2)		189 (197)	966 (214)	1390 (306)
2	11 (6)		284 (132)	406 (188)	360 (146)	514 (208)	7 (1)		260 (317)	908 (214)	1300 (306)
3	11 (4)		329 (124)	478 (175)	422 (221)	614 (315)	3 (3)		203 (260)	1000 (229)	1440 (333)
4	9 (5)		310 (153)	443 (219)	381 (214)	544 (307)	4 (3)		198 (214)	1010 (230)	1450 (331)
5	2 (1)		236 (180)	337 (257)	205 (136)	292 (194)	6 (2)		74 (138)	799 (300)	1140 (431)
6	6 (4)		250 (118)	357 (169)	304 (152)	434 (217)	2 (1)		49 (108)	890 (195)	1270 (279)
7	7 (3)		347 (149)	495 (213)	259 (90)	370 (128)	1 (0)		166 (209)	897 (166)	1280 (238)
8	16 (10)		393 (157)	562 (225)	301 (138)	430 (197)	2 (1)		114 (150)	779 (944)	1120 (1360)
9	27 (6)		435 (47)	622 (67)	320 (31)	458 (44)	6 (1)		33 (16)	106 (30)	
10	11 (7)		358 (87)	514 (125)	393 (112)	565 (160)	5 (2)		20 (14)	98 (69)	
11	15 (5)		379 (87)	541 (124)	381 (107)	544 (153)	4 (3)		12 (4)	35 (10)	
12	7 (2)		372 (123)	532 (175)	360 (84)	513 (120)	2 (1)		8 (7)	24 (9)	
13	6 (2)		360 (163)	514 (232)	349 (111)	498 (159)	2 (1)		11 (7)	24 (9)	
14	9 (6)						5 (2)				
15	2 (1)	2 (2)	183 (107)	262 (153)	178 (111)	254 (158)	2 (0)	3 (1)	7 (8)	30 (23)	43 (33)
16	3 (1)	5 (1)	171 (60)	245 (86)	169 (69)	242 (99)	1 (0)	2 (1)	3 (2)	33 (7)	47 (10)
17	6 (6)	9 (9)	509 (124)	728 (176)	552 (339)	790 (486)	1 (1)	2 (1)	21 (18)	81 (16)	116 (23)
18	16 (11)	23 (16)	393 (263)	561 (376)	279 (150)	398 (214)	2 (1)	3 (1)	16 (18)	81 (25)	115 (36)
19	21 (8)	30 (11)	272 (160)	389 (228)	264 (248)	377 (354)	5 (2)	7 (3)	14 (12)	101 (33)	144 (47)
20	7 (6)	10 (9)	198 (62)	282 (89)	168 (65)	240 (92)	4 (2)	5 (2)	6 (3)	114 (26)	162 (37)
21	9 (3)	13 (5)	289 (131)	412 (187)	222 (125)	317 (179)	2 (1)	3 (1)			
22	21 (19)	31 (28)	288 (142)	413 (204)	236 (132)	338 (188)	2 (2)	4 (2)	11 (12)	276 (47)	394 (67)
23	27 (7)	38 (10)	245 (114)	351 (163)	274 (143)	394 (206)	8 (4)	11 (6)	24 (32)	320 (61)	459 (87)
24	7 (5)	10 (8)	222 (76)	318 (108)	170 (51)	244 (73)	2 (1)	3 (1)	5 (5)	278 (33)	399 (48)
25	12 (8)	17 (12)	504 (203)	720 (291)	281 (182)	402 (261)	4 (3)	5 (4)	22 (27)	400 (97)	572 (140)
26	8 (4)	12 (6)	450 (200)	643 (286)	268 (103)	382 (148)	5 (4)	7 (5)	29 (55)	534 (166)	763 (238)
27	9 (4)	13 (5)	452 (235)	646 (337)	306 (131)	438 (188)	1 (1)	2 (1)	52 (73)	662 (138)	946 (198)
28	15 (6)	21 (8)	336 (250)	480 (356)	252 (130)	360 (186)	3 (2)	5 (3)	65 (105)	661 (165)	944 (235)
29											
30											
Mean	11	17	330	472	302	432	3	4	62	427	738
n	28	14	27	27	27	27	28	14	26	26	21
SD	7	10	91	130	95	137	2	3	74	368	511
Min	2	2	171	245	168	240	1	2	3	24	43
Max	27	38	509	728	552	790	8	11	260	1010	1450

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for May, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1											
2											
3											
4											
5											
6	7 (7)	10 (10)	132 (54)	190 (78)	143 (61)	206 (87)	6 (2)	8 (3)	5 (3)	100 (130)	143 (186)
7	17 (9)	24 (13)	231 (68)	332 (98)	267 (82)	384 (118)	2 (2)	3 (3)	6 (3)	14 (7)	20 (10)
8	6 (2)	8 (3)	249 (115)	357 (165)	298 (111)	428 (159)	5 (3)	7 (4)	9 (8)	18 (12)	25 (17)
9	4 (1)	5 (1)	201 (51)	288 (74)	308 (190)	442 (273)	2 (1)	3 (2)	44 (76)	66 (110)	95 (157)
10	2 (1)	3 (1)	327 (281)	467 (402)	236 (81)	339 (116)	1 (1)	2 (2)	6 (8)	37 (12)	53 (17)
11	2 (1)	3 (2)	324 (101)	464 (145)	341 (70)	488 (101)	2 (2)	3 (3)	29 (32)	68 (14)	97 (19)
12	0 (1)	1 (1)	238 (89)	341 (127)	228 (147)	327 (210)	2 (1)	3 (2)	12 (15)	80 (14)	115 (21)
13	3 (2)	4 (3)	259 (52)	371 (75)	283 (71)	405 (102)	0 (0)	0 (0)	12 (16)	110 (23)	158 (32)
14	16 (10)	22 (14)	314 (65)	450 (94)	415 (137)	596 (196)	3 (2)	4 (3)	65 (56)	175 (17)	250 (24)
15	1 (1)	2 (1)	267 (76)	383 (109)	246 (65)	353 (93)	5 (4)	6 (6)	36 (42)	197 (55)	282 (79)
16	1 (0)	1 (0)	286 (111)	409 (159)	200 (85)	286 (122)	0 (0)	0 (0)	51 (80)	248 (73)	355 (105)
17	5 (3)	7 (4)	233 (80)	334 (114)	178 (52)	255 (74)	1 (0)	1 (0)	11 (28)	256 (84)	367 (120)
18	4 (1)	6 (2)	235 (90)	336 (129)	178 (71)	255 (101)	1 (1)	1 (1)	25 (39)	317 (92)	454 (131)
19	7 (5)	11 (7)	241 (65)	346 (92)	166 (79)	238 (113)	1 (1)	1 (1)	4 (3)	294 (86)	422 (122)
20	34 (15)	49 (22)	183 (28)	262 (41)	154 (36)	221 (51)	5 (4)	8 (6)	6 (5)	369 (47)	529 (67)
21	8 (11)	11 (16)	163 (61)	234 (88)	164 (64)	235 (92)	10 (5)	15 (7)	8 (3)	352 (129)	504 (184)
22	4 (3)	5 (4)	143 (26)	205 (37)	130 (42)	187 (60)	3 (1)	4 (2)	6 (4)	275 (68)	394 (98)
23	5 (4)	7 (5)	146 (34)	210 (49)	83 (21)	119 (30)	4 (1)	5 (1)	7 (9)	357 (138)	512 (199)
24	5 (6)	7 (9)	201 (79)	288 (113)	144 (107)	206 (153)	3 (2)	4 (2)	13 (19)	405 (204)	579 (292)
25	1 (1)	1 (1)	151 (32)		85 (26)	123 (38)	4 (1)	6 (1)	5 (3)	318 (111)	
26	3 (2)	5 (2)	153 (19)	220 (27)	81 (24)	117 (35)	3 (1)	4 (1)	9 (6)	315 (98)	452 (141)
27	6 (3)	8 (4)	237 (66)	341 (94)	199 (77)	285 (110)	1 (1)	1 (1)	222 (494)		
28	11 (8)	15 (11)	246 (162)	354 (233)	208 (120)	299 (172)	3 (2)	5 (3)	8 (4)	14 (6)	19 (8)
29	1 (0)	1 (1)	69 (20)	99 (29)	92 (14)	133 (21)	3 (2)	5 (3)	3 (1)	10 (3)	14 (4)
30	11 (9)	15 (13)	92 (22)	133 (31)	119 (41)	172 (58)	2 (2)	3 (2)	3 (2)	12 (3)	17 (4)
31	16 (6)	23 (9)	107 (22)	154 (32)	125 (38)	179 (55)	3 (1)	4 (2)	2 (2)	15 (3)	21 (4)
Mean	7	10	209	303	195	280	3	4	23	177	245
n	26	26	26	25	26	26	26	26	26	25	24
SD	7	10	69	100	84	121	2	3	43	137	196
Min	0	1	69	99	81	117	0	0	2	10	14
Max	34	49	327	467	415	596	10	15	222	405	579

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for June, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	27 (9)	39 (12)	109 (35)	157 (50)	112 (21)	161 (31)	9 (6)	13 (8)	5 (3)	24 (6)	34 (9)
2	9 (12)	16 (18)	116 (29)	173 (44)	89 (37)	129 (59)	4 (1)	6 (2)	5 (4)	43 (15)	62 (22)
3	21 (8)		100 (15)		78 (18)		1 (1)		6 (5)		
4	3 (4)		119 (54)		120 (50)		4 (2)		2 (1)	84 (20)	
5	1 (1)	1 (1)	94 (12)	134 (17)	102 (23)	147 (33)	1 (1)	2 (2)	1 (1)	93 (34)	133 (48)
6	1 (1)	2 (1)	131 (51)	188 (73)	153 (90)	219 (130)	0 (0)	1 (0)	14 (28)	115 (36)	165 (51)
7	0 (0)	1 (1)	81 (8)	117 (12)	80 (13)	116 (19)	1 (0)	1 (0)	2 (1)	97 (17)	140 (25)
8	3 (1)	4 (2)	114 (18)	164 (25)	101 (31)	146 (44)	1 (1)	1 (1)	0 (1)	138 (30)	198 (43)
9	3 (0)	4 (1)	148 (39)	211 (56)	136 (54)	196 (77)	4 (3)	6 (5)	3 (3)	208 (43)	297 (62)
10	3 (1)	4 (1)	124 (47)	179 (68)	117 (38)	168 (54)	5 (4)	8 (6)	3 (2)	196 (50)	282 (72)
11	1 (1)	1 (1)	110 (18)	158 (26)	80 (21)	114 (30)	1 (1)	1 (1)	1 (1)	181 (25)	260 (37)
12	6 (2)	8 (2)	150 (48)	216 (69)	101 (49)	145 (70)	0 (0)	0 (1)	3 (5)	263 (76)	376 (109)
13	9 (3)	12 (5)	141 (24)	202 (35)	79 (27)	113 (39)	3 (3)	4 (5)	2 (2)	267 (72)	383 (102)
14	3 (3)						7 (0)				
15	4 (3)	6 (5)	112 (13)	161 (19)	53 (8)	76 (12)	7 (3)	10 (4)	2 (2)	314 (111)	451 (159)
16	20 (5)	29 (7)	123 (26)	178 (37)	59 (16)	85 (23)	3 (1)	4 (2)	3 (4)	182 (205)	
17	3 (3)	5 (4)	112 (52)	162 (75)	68 (13)	98 (19)	2 (1)	3 (1)	5 (3)	13 (10)	19 (15)
18	13 (11)	18 (16)	98 (57)	142 (82)	114 (30)	164 (43)	3 (1)	5 (2)	6 (4)	8 (4)	12 (5)
19	18 (4)	26 (5)	67 (13)	97 (19)	102 (21)	147 (31)	8 (4)	12 (6)	5 (4)	11 (3)	16 (5)
20	8 (2)	11 (3)	87 (25)	125 (36)	115 (35)	166 (51)	2 (1)	2 (1)			
21	6 (3)						9 (2)				
22	4 (3)	5 (4)	83 (21)	119 (30)	102 (23)	147 (34)	6 (2)	8 (3)	7 (2)	20 (5)	29 (7)
23	5 (4)	7 (6)	78 (14)	113 (20)	106 (14)	153 (20)	4 (0)	5 (1)	6 (2)	31 (7)	45 (11)
24	12 (6)	16 (9)	86 (13)	123 (19)	112 (23)	162 (33)	4 (2)	6 (2)	9 (5)	45 (16)	64 (22)
25	10 (5)	15 (7)					5 (1)	7 (2)			
26	4 (1)	6 (1)					6 (1)	9 (2)			
27	13 (10)	19 (14)					2 (1)	3 (1)			
28	9 (1)	12 (2)	130 (20)	187 (30)	144 (74)	207 (106)	5 (2)	7 (2)	3 (1)	106 (18)	152 (26)
29	27 (6)	39 (9)	153 (25)	219 (35)	76 (18)	109 (26)	4 (1)	6 (1)	6 (3)	155 (33)	222 (47)
30	6 (4)	9 (6)	129 (15)	186 (21)	59 (13)	84 (19)	5 (1)	7 (1)	7 (2)	129 (20)	185 (28)
Mean	8	12	112	161	98	141	4	5	4	118	168
n	30	26	25	23	25	23	30	26	24	23	21
SD	7	11	23	35	26	38	3	3	3	88	131
Min	0	1	67	97	53	76	0	0	0	8	12
Max	27	39	153	219	153	219	9	13	14	314	451

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for July, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	2 (1)	3 (2)					5 (1)	7 (2)			
2	1 (1)	1 (1)	125 (25)	179 (35)	69 (14)	100 (20)	1 (1)	2 (1)	1 (1)	170 (30)	245 (44)
3	9 (8)						0 (1)				
4	10 (11)	14 (16)	131 (35)	188 (51)	91 (32)		2 (1)	3 (1)	5 (3)	245 (37)	352 (53)
5	0 (1)	1 (1)	131 (17)	189 (24)	87 (20)		3 (0)	4 (1)	3 (1)	286 (50)	412 (72)
6	1 (0)	1 (1)	137 (18)	197 (25)	88 (17)		3 (1)	5 (1)	3 (2)	357 (76)	514 (109)
7	0 (0)	0 (1)	137 (49)	197 (70)	89 (26)		3 (1)	4 (1)	3 (2)	399 (446)	
8	0 (1)	0 (1)	104 (27)	151 (39)	98 (34)	141 (49)	3 (1)	5 (1)	2 (1)	7 (2)	10 (3)
9	2 (1)	3 (2)	77 (14)	112 (20)	68 (17)	97 (25)	1 (0)	2 (1)	4 (2)	13 (4)	18 (5)
10	0 (1)	0 (1)	116 (87)	167 (125)	73 (27)	105 (39)	2 (1)	3 (1)	6 (6)	13 (5)	18 (8)
11	0 (1)	0 (1)	65 (18)	94 (26)	63 (11)	91 (16)	2 (1)	3 (1)	3 (1)	11 (3)	16 (4)
12	1 (1)	2 (1)	79 (16)	113 (23)	89 (26)	128 (37)	1 (2)	2 (3)	0 (2)	15 (4)	21 (6)
13	6 (3)	9 (5)	71 (20)	101 (29)	81 (28)	116 (40)	1 (1)	2 (1)	3 (4)	27 (11)	39 (16)
14	1 (1)	2 (1)	64 (18)	92 (25)	74 (17)	106 (25)	4 (2)	6 (3)	2 (1)	35 (16)	50 (24)
15	2 (1)	3 (1)	72 (15)	103 (22)	87 (20)	126 (28)	4 (2)	5 (2)	6 (7)	47 (8)	67 (11)
16	2 (1)	3 (1)	67 (23)		91 (36)	131 (53)	3 (1)	5 (2)		86 (33)	124 (47)
17	1 (1)	1 (1)	76 (20)	110 (29)	88 (20)	126 (29)	5 (1)	7 (2)	4 (2)	92 (11)	132 (16)
18	9 (3)	14 (5)	78 (11)	113 (16)	93 (15)	134 (21)	4 (4)	5 (5)	4 (4)	116 (30)	167 (43)
19	1 (1)	1 (2)	89 (13)	128 (19)	102 (18)	146 (26)	1 (0)	2 (1)	2 (2)	127 (11)	183 (17)
20	1 (1)	2 (2)	101 (15)	145 (22)	113 (19)	162 (27)	3 (3)	5 (4)	1 (1)	183 (37)	263 (52)
21	1 (1)	2 (1)	116 (27)		113 (24)	162 (34)	3 (1)	4 (1)	5 (4)	173 (15)	249 (21)
22	3 (1)	4 (1)	118 (20)		112 (26)	161 (38)	4 (1)	6 (2)	8 (3)	198 (22)	285 (32)
23	1 (1)	2 (2)	106 (22)		117 (31)	168 (44)	3 (1)	4 (2)	4 (2)	230 (25)	331 (36)
24	1 (1)	2 (1)	192 (267)		98 (17)	141 (25)	4 (2)	5 (3)	4 (2)	227 (17)	326 (25)
25	7 (8)	10 (11)	99 (11)	142 (16)	102 (24)	147 (35)	4 (1)	6 (2)	4 (2)	251 (21)	361 (31)
26	3 (4)	4 (6)	93 (7)	133 (11)	100 (55)	144 (79)	4 (1)	6 (1)	4 (3)	294 (26)	423 (37)
27	2 (1)	2 (2)	109 (20)	157 (28)	71 (14)	102 (20)	4 (1)	6 (2)	6 (2)	285 (29)	411 (42)
28	9 (7)	13 (10)	104 (18)	150 (26)	77 (19)	111 (28)	4 (1)	6 (2)	8 (10)	264 (88)	381 (126)
29	9 (5)	13 (8)	91 (16)		79 (47)		0 (1)	0 (1)			
30	9 (3)	14 (5)	119 (17)	172 (24)	87 (27)	125 (39)	1 (1)	1 (1)	2 (2)	9 (9)	13 (13)
31	6 (3)	8 (4)	148 (46)	212 (66)	93 (50)	133 (72)	11 (5)	16 (7)	4 (2)	11 (4)	16 (6)
Mean	3	4	104	145	89	129	3	5	4	149	201
n	31	30	29	23	29	24	31	30	27	28	27
SD	3	5	29	36	14	22	2	3	2	119	159
Min	0	0	64	92	63	91	0	0	0	7	10
Max	10	14	192	212	117	168	11	16	8	399	514

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for August, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	1 (0)	1 (0)	97 (25)	139 (35)	82 (19)	118 (28)	3 (2)	5 (3)	3 (1)	11 (4)	16 (6)
2	0 (0)	1 (1)	79 (26)	113 (37)	81 (12)	116 (18)	2 (1)	3 (1)	2 (2)	8 (3)	11 (4)
3	1 (1)	1 (1)	81 (15)	116 (21)	98 (12)	141 (17)	3 (1)	4 (2)	3 (2)	9 (4)	13 (6)
4	1 (1)	1 (1)	96 (26)	138 (37)	87 (16)	125 (23)	2 (1)	3 (1)	3 (2)	13 (6)	18 (9)
5	5 (3)	7 (4)	133 (47)	191 (68)	104 (27)	150 (39)	0 (0)	0 (1)	3 (4)	13 (7)	19 (10)
6	4 (1)	6 (2)	110 (83)	159 (120)	108 (38)	156 (55)	4 (2)	5 (4)	4 (3)	28 (13)	40 (18)
7	17 (4)	24 (6)	65 (24)	94 (34)	93 (23)	134 (34)	6 (1)	9 (1)			
8	19 (2)	28 (4)	55 (15)	79 (21)	89 (23)	128 (33)	6 (1)	9 (1)			
9	2 (3)	3 (4)	67 (14)	97 (21)	76 (13)	110 (18)	2 (2)	2 (2)	1 (3)	87 (17)	125 (25)
10	8 (4)	11 (5)	73 (11)	105 (15)	91 (25)	132 (36)	0 (1)	1 (1)	0 (1)	104 (20)	150 (29)
11	11 (5)	16 (8)	86 (18)	124 (25)	107 (45)	154 (65)	0 (1)	0 (1)	0 (1)	110 (13)	158 (18)
12	17 (7)	24 (11)	83 (14)	120 (20)	101 (24)	145 (34)	4 (1)	6 (2)	4 (3)	139 (11)	201 (15)
13	0 (1)	0 (1)	93 (14)	134 (21)	75 (18)	108 (26)	0 (1)	1 (1)	3 (3)	145 (24)	208 (34)
14	11 (5)	15 (7)	147 (80)	211 (115)	98 (47)	141 (68)	3 (1)	4 (1)		188 (38)	271 (54)
15	11 (7)	16 (9)	116 (27)	166 (38)	87 (14)	125 (20)	1 (0)	2 (1)	2 (2)	196 (36)	281 (51)
16	14 (7)	20 (10)	102 (20)	146 (28)	96 (15)	138 (22)	2 (1)	2 (1)	4 (4)	249 (43)	358 (61)
17	3 (3)	5 (5)	101 (14)	146 (21)	104 (16)	150 (23)	2 (1)	3 (2)	9 (9)	308 (29)	443 (42)
18	9 (2)	13 (3)	117 (22)	168 (31)	130 (29)	187 (42)	1 (1)	1 (1)	17 (25)	355 (50)	510 (72)
19	20 (7)	29 (9)	123 (26)	176 (38)	171 (43)	246 (62)	2 (2)	3 (3)	5 (6)	341 (72)	491 (104)
20	15 (6)	22 (8)	119 (18)	171 (25)	123 (30)	177 (43)	3 (2)	5 (3)	14 (21)	300 (51)	432 (73)
21	5 (4)	8 (6)	128 (36)	184 (51)	103 (29)	149 (41)	4 (1)	6 (2)	20 (35)	265 (73)	382 (104)
22	4 (1)	5 (2)	113 (14)	164 (21)	98 (24)	141 (34)	3 (0)	4 (1)	9 (5)	230 (271)	
23	12 (8)	17 (11)	119 (21)	171 (30)	99 (23)	143 (33)	4 (1)	5 (2)	7 (5)	14 (10)	20 (14)
24	5 (4)	8 (6)	120 (27)	173 (39)	118 (26)	170 (38)	7 (1)	10 (1)	8 (6)	10 (4)	15 (6)
25	4 (1)	6 (2)	127 (22)	184 (31)	148 (35)	213 (51)	5 (2)	7 (2)	11 (5)	14 (5)	21 (7)
26	2 (1)	3 (1)	133 (32)	191 (46)	151 (45)	218 (64)	4 (2)	6 (3)	4 (3)	11 (4)	16 (6)
27	2 (1)	2 (1)	131 (20)	188 (29)	154 (41)	222 (59)	3 (1)	4 (1)	4 (1)	17 (5)	25 (7)
28	2 (2)	3 (3)	141 (12)	203 (17)	162 (44)	234 (63)	3 (3)	4 (4)	5 (5)	35 (12)	51 (17)
29	15 (7)	21 (9)	137 (32)	198 (46)	158 (53)	227 (76)	0 (0)	0 (1)	3 (5)	46 (14)	67 (20)
30	2 (1)	2 (2)	138 (31)	198 (45)	145 (49)	209 (71)	4 (2)	6 (2)	4 (6)	59 (24)	85 (35)
31	2 (0)	3 (1)	193 (130)	278 (187)	137 (24)	197 (35)	3 (1)	4 (1)	2 (2)	70 (22)	101 (32)
Mean	7	10	110	159	112	161	3	4	5	116	162
n	31	31	31	31	31	31	31	31	28	29	28
SD	6	9	29	41	28	40	2	3	5	114	164
Min	0	0	55	79	75	108	0	0	0	8	11
Max	20	29	193	278	171	246	7	10	20	355	510

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for September, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	1 (1)	1 (1)	88 (33)	127 (48)	146 (41)	210 (58)	3 (1)	5 (1)	3 (2)	99 (15)	142 (22)
2	3 (1)	4 (1)	90 (33)	129 (48)	136 (59)	196 (85)	0 (1)	1 (2)	4 (9)	162 (52)	233 (74)
3	4 (1)	6 (1)	176 (36)	253 (52)	141 (39)	203 (57)	0 (0)	0 (0)	54 (51)	299 (61)	428 (88)
4	11 (5)	16 (7)					0 (0)	0 (0)			
5	8 (5)	12 (8)	218 (69)	312 (99)	89 (16)	128 (23)	0 (0)	1 (0)	24 (26)	272 (54)	391 (77)
6	12 (4)	17 (6)	200 (77)	288 (110)	88 (19)	127 (27)	2 (2)	3 (2)	51 (70)	350 (95)	503 (136)
7	15 (10)	22 (14)	162 (48)	233 (70)	76 (18)	109 (26)	4 (1)	5 (2)	25 (44)	323 (107)	465 (153)
8	8 (5)	12 (8)	296 (126)	424 (180)	141 (48)	202 (68)	1 (1)	2 (2)	56 (58)	475 (131)	681 (188)
9	5 (3)	7 (4)	334 (217)	479 (312)	126 (46)	180 (67)	4 (2)	6 (2)	68 (107)	534 (205)	767 (294)
10	2 (1)	3 (1)	143 (63)	206 (91)	112 (23)	161 (33)	3 (1)	5 (1)	4 (2)	323 (74)	464 (105)
11	1 (1)	2 (1)	93 (30)	134 (43)	83 (14)	120 (20)	3 (1)	4 (2)	5 (2)	312 (52)	449 (75)
12	4 (2)	6 (3)	84 (12)	120 (18)	100 (14)	143 (20)	0 (0)	0 (0)		147 (181)	
13	2 (1)	3 (2)	99 (23)	142 (33)	111 (23)	159 (33)	0 (0)	1 (0)	7 (18)	7 (5)	9 (7)
14	2 (0)	3 (0)	163 (48)	234 (69)	181 (43)	259 (62)	0 (0)	0 (1)	1 (1)	8 (4)	11 (5)
15	9 (7)	13 (10)	180 (93)	257 (133)	183 (70)	262 (100)	2 (2)	3 (2)	8 (4)	13 (4)	19 (6)
16	3 (4)	5 (5)	160 (77)	229 (111)	173 (68)	248 (98)	6 (3)	9 (4)	8 (6)	15 (6)	21 (9)
17	1 (1)	2 (1)	118 (68)	169 (97)	136 (39)	195 (56)	7 (3)	10 (4)	6 (6)	17 (8)	24 (11)
18	2 (1)	3 (2)	132 (57)	190 (82)	152 (47)	217 (68)	4 (2)	5 (3)	9 (6)	27 (9)	39 (13)
19	2 (1)	4 (1)	130 (46)	186 (66)	116 (40)	166 (58)	6 (2)	8 (3)	20 (20)	72 (16)	103 (23)
20	2 (1)	3 (1)	151 (86)	217 (123)	143 (80)	205 (115)	7 (3)	10 (4)	26 (24)	116 (46)	166 (66)
21	1 (0)	1 (0)	109 (44)	157 (64)	59 (19)	85 (27)	2 (1)	3 (2)	6 (12)	144 (75)	206 (108)
22	1 (1)	2 (1)	100 (27)	144 (39)	51 (15)	73 (21)	2 (0)	3 (0)	3 (1)	156 (27)	224 (38)
23	0 (1)	0 (1)	104 (44)	150 (63)	57 (22)	82 (32)	2 (2)	3 (3)	2 (1)	201 (39)	288 (55)
24	1 (0)	2 (0)	124 (36)	177 (53)	53 (25)	77 (35)	9 (3)	13 (5)	6 (4)	225 (56)	326 (80)
25	2 (1)	3 (1)	123 (42)	177 (61)	83 (30)	120 (43)	5 (2)	7 (2)	4 (2)	254 (39)	364 (56)
26	0 (0)	0 (1)	142 (54)	204 (78)	103 (66)	148 (95)	3 (1)	4 (2)	7 (10)	306 (71)	439 (102)
27	6 (3)	9 (5)	213 (106)	305 (152)	93 (31)	133 (45)	3 (2)	4 (3)	69 (125)	364 (150)	522 (214)
28	5 (2)	7 (3)	182 (92)	261 (132)	92 (24)	132 (34)	6 (3)	8 (5)	66 (81)	332 (130)	476 (186)
29	3 (2)	5 (3)	203 (53)	291 (76)	107 (21)	153 (31)	1 (2)	1 (2)	20 (54)	405 (137)	579 (197)
30	11 (8)	16 (12)	260 (124)	373 (178)	152 (82)	218 (117)	2 (1)	2 (2)	143 (207)	509 (245)	729 (351)
Mean	4	6	158	226	113	162	3	4	25	223	324
n	30	30	29	29	29	29	30	30	28	29	28
SD	4	6	61	88	37	53	2	3	32	155	226
Min	0	0	84	120	51	73	0	0	1	7	9
Max	15	22	334	479	183	262	9	13	143	534	767

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for October, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	12 (7)	18 (9)	226 (126)	324 (180)	162 (52)	231 (74)	1 (1)	2 (1)	97 (130)	460 (207)	658 (296)
2	7 (7)	11 (10)	206 (92)	295 (132)	163 (69)	233 (99)	2 (0)	3 (1)	144 (172)	527 (238)	754 (342)
3	6 (5)	9 (8)	182 (53)	261 (76)	137 (65)	196 (93)	2 (1)	3 (1)	18 (19)	500 (148)	716 (212)
4	3 (3)	5 (4)	167 (65)	240 (93)	142 (77)	203 (110)	3 (1)	4 (1)	30 (71)	501 (170)	718 (243)
5	6 (2)	8 (3)	175 (32)	252 (46)	167 (41)	240 (59)	4 (0)	5 (1)	4 (1)	655 (102)	940 (147)
6	2 (1)	2 (2)	210 (64)	301 (92)	164 (65)	236 (94)	2 (2)	2 (2)	7 (6)	459 (444)	464 (577)
7	4 (1)	5 (1)	337 (173)	483 (249)	249 (94)	356 (135)	2 (1)	3 (2)	7 (5)	14 (6)	20 (9)
8	12 (7)	17 (10)	229 (93)	328 (133)	206 (116)	295 (167)	3 (2)	5 (3)	9 (10)	18 (9)	26 (13)
9	5 (3)	7 (4)	191 (104)	274 (149)	171 (92)	246 (132)	8 (4)	12 (6)	9 (7)	18 (8)	26 (12)
10	4 (2)	5 (2)	126 (40)	181 (58)	123 (55)	177 (79)	2 (1)	3 (1)	5 (4)	22 (4)	32 (5)
11	3 (1)	4 (1)	147 (53)	212 (75)	191 (84)	274 (120)	4 (1)	6 (1)	16 (17)	74 (36)	106 (52)
12	1 (0)	2 (0)	125 (19)	179 (27)	172 (27)	248 (38)	3 (1)	5 (1)	9 (10)	102 (17)	147 (24)
13	3 (1)	4 (1)	391 (178)	561 (256)	432 (100)	619 (144)	1 (1)	1 (1)	151 (104)	306 (55)	438 (78)
14	4 (2)	6 (3)	320 (41)	455 (59)	381 (69)	546 (103)	0 (0)	1 (0)	133 (65)	385 (60)	550 (89)
15	3 (1)	4 (1)	310 (48)	444 (69)	280 (34)	401 (48)	0 (0)	0 (0)	142 (92)	408 (85)	584 (122)
16	6 (1)	8 (2)	262 (77)	375 (110)	298 (94)	427 (135)	4 (3)	6 (4)	206 (144)	435 (112)	623 (160)
17	9 (2)	13 (3)	235 (96)	336 (137)	232 (113)	333 (162)	2 (2)	2 (2)	122 (147)	423 (142)	605 (204)
18	5 (5)	7 (7)	217 (110)	312 (158)	205 (121)	294 (173)	2 (0)	3 (1)	143 (191)	447 (218)	641 (313)
19	9 (7)	13 (10)	193 (71)	276 (102)	191 (89)	273 (127)	5 (3)	7 (4)	48 (86)	441 (137)	631 (196)
20	7 (3)	10 (4)					2 (2)	3 (3)			
21	5 (1)	7 (1)	227 (73)	326 (105)	281 (115)	403 (165)	5 (4)	7 (5)	58 (70)	532 (169)	763 (242)
22	10 (4)	14 (6)	488 (38)	698 (54)	528 (62)	755 (89)	1 (2)	2 (3)	343 (171)	1020 (127)	1460 (182)
23	12 (3)	18 (4)	571 (135)	817 (193)	522 (136)	745 (195)	2 (1)	3 (1)	572 (179)	1360 (60)	1940 (86)
24	11 (2)	16 (3)	423 (160)	604 (229)	356 (102)	509 (145)	2 (1)	3 (1)	548 (431)	1210 (392)	1730 (562)
25	12 (7)	17 (10)	313 (165)	447 (236)	290 (137)	415 (196)	3 (0)	4 (1)	391 (368)	1060 (445)	1510 (638)
26	6 (3)	9 (4)	444 (208)	635 (297)	493 (130)	705 (186)	1 (0)	1 (1)	407 (287)	1210 (264)	1730 (378)
27	8 (2)	12 (2)	380 (131)	544 (187)	407 (109)	583 (155)	1 (0)	1 (1)	342 (418)	584 (816)	
28	4 (5)	6 (7)	363 (133)	519 (191)	337 (101)	481 (144)	1 (1)	1 (1)	26 (25)	25 (10)	
29	18 (12)	26 (17)	357 (182)	511 (260)	289 (156)	413 (223)	7 (2)	10 (3)	25 (31)	56 (61)	
30	5 (1)	6 (2)	302 (127)	432 (182)	328 (216)	469 (310)	5 (4)	7 (6)	23 (18)	27 (8)	
31	14 (6)	19 (9)	237 (87)	339 (124)	279 (131)	399 (187)	1 (0)	1 (0)	12 (10)	23 (10)	
Mean	7	10	279	399	273	390	3	4	135	443	713
n	31	31	30	30	30	30	31	31	30	30	25
SD	4	6	109	156	115	164	2	3	165	386	552
Min	1	2	125	179	123	177	0	0	4	14	20
Max	18	26	571	817	528	755	8	12	572	1360	1940

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for November, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	13 (9)	18 (12)	233 (124)	333 (178)	333 (177)	476 (254)	5 (4)	7 (5)	26 (24)	48 (23)	
2	5 (2)	7 (2)	219 (119)	314 (171)	293 (176)	420 (253)	4 (3)	6 (4)	38 (39)	78 (29)	
3	3 (1)	4 (2)	200 (72)	286 (103)	256 (120)	367 (172)	4 (1)	6 (1)	20 (33)	95 (21)	
4	2 (1)	2 (2)	188 (88)	270 (126)	288 (154)	413 (222)	4 (1)	6 (1)	9 (16)	134 (33)	
5	7 (8)	11 (12)	330 (173)	472 (246)	400 (212)	572 (304)	1 (1)	2 (1)	43 (69)	279 (119)	399 (170)
6	18 (4)	25 (6)	660 (198)	943 (283)	638 (248)	912 (356)	0 (1)	0 (1)	202 (138)	529 (136)	756 (195)
7	25 (12)	36 (17)	556 (234)	793 (334)	580 (289)	829 (414)	2 (1)	3 (2)	267 (163)	638 (148)	911 (213)
8	17 (17)	25 (24)	475 (178)	678 (255)	566 (351)	812 (507)	2 (2)	3 (3)	272 (237)	663 (228)	949 (327)
9	8 (5)	12 (7)	494 (195)	707 (279)	518 (203)	740 (290)	2 (2)	3 (2)	407 (300)	779 (178)	1110 (255)
10	7 (3)	10 (4)	416 (142)	594 (203)	451 (137)	645 (196)	1 (0)	2 (1)	270 (212)	705 (139)	1010 (200)
11	14 (7)	20 (10)	530 (148)	758 (212)	678 (155)	970 (222)	0 (1)	1 (1)	431 (206)	989 (163)	1420 (234)
12	21 (11)	30 (15)	503 (198)	720 (283)	605 (312)	866 (448)	2 (1)	3 (1)	562 (304)	1050 (267)	1500 (382)
13	15 (6)	22 (9)	477 (184)	684 (262)	465 (220)	667 (314)	1 (0)	2 (0)	252 (309)	930 (334)	1330 (477)
14	10 (5)	14 (7)	658 (109)	940 (155)	610 (76)	872 (108)	0 (0)	1 (1)	405 (177)	1240 (178)	1780 (255)
15	24 (8)	34 (12)	612 (102)	873 (147)	660 (89)	942 (127)	3 (1)	4 (1)	553 (184)	1460 (189)	2090 (272)
16	19 (10)	26 (14)	493 (264)	703 (377)	428 (234)	611 (336)	4 (1)	6 (1)	353 (343)	1180 (467)	1690 (668)
17	6 (1)	9 (2)	477 (138)	682 (197)	425 (111)	608 (159)	1 (1)	2 (1)	232 (271)	679 (640)	
18	2 (2)	3 (3)	527 (410)	753 (588)	367 (148)	525 (212)	4 (1)	5 (1)	67 (59)	70 (19)	99 (26)
19	5 (1)	7 (1)	280 (151)	400 (216)	486 (395)	695 (565)	1 (1)	2 (2)	32 (23)	59 (31)	84 (44)
20	1 (1)	2 (1)	408 (69)	583 (99)	583 (73)	833 (104)	1 (0)	1 (0)	28 (9)	51 (10)	73 (14)
21	2 (1)	3 (1)	384 (60)	548 (86)	540 (72)	772 (103)	2 (1)	3 (1)	74 (21)	70 (20)	100 (29)
22	9 (8)	12 (11)	331 (75)	472 (108)	520 (142)	743 (203)	2 (1)	2 (1)	71 (24)	93 (38)	132 (54)
23	12 (6)	17 (9)	322 (125)	459 (179)	560 (162)	801 (232)	3 (1)	4 (1)	100 (41)	110 (24)	157 (35)
24	6 (3)	9 (4)	283 (57)	405 (82)	745 (223)	1070 (320)	2 (1)	3 (1)	110 (31)	182 (51)	261 (73)
25	7 (1)	9 (1)	289 (81)	413 (116)	629 (230)	898 (329)	1 (1)	2 (1)	159 (40)	218 (47)	311 (68)
26	12 (5)	17 (7)	351 (89)	500 (127)	625 (214)	891 (305)	2 (1)	3 (1)	181 (59)	321 (47)	459 (67)
27	8 (6)	12 (8)	481 (69)	686 (99)	742 (61)	1060 (87)	1 (1)	2 (1)	348 (89)	602 (91)	861 (130)
28	3 (1)	4 (2)	453 (71)	647 (102)	697 (100)	998 (143)	1 (0)	1 (0)	682 (66)	768 (117)	1100 (167)
29	9 (2)	12 (2)	483 (68)	690 (97)	775 (196)	1110 (280)	1 (0)	1 (0)	501 (135)	1090 (142)	1560 (203)
30	10 (3)	14 (4)	578 (149)	825 (213)	795 (280)	1140 (401)	1 (0)	1 (0)	486 (157)	1420 (240)	2020 (342)
Mean	10	14	423	604	542	775	2	3	239	551	886
n	30	30	30	30	30	30	30	30	30	30	25
SD	7	9	131	188	146	209	1	2	191	450	645
Min	1	2	188	270	256	367	0	0	9	48	73
Max	25	36	660	943	795	1140	5	7	682	1460	2090

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for December, 2008. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	19 (4)	27 (5)	721 (274)	1030 (393)	630 (130)	901 (185)	1 (1)	2 (2)	639 (156)	1300 (363)	1860 (519)
2	10 (5)	14 (7)	351 (173)	501 (248)	468 (185)	669 (265)	2 (1)	3 (2)	568 (239)	1030 (267)	1470 (382)
3	7 (2)	10 (3)	384 (52)	547 (74)	573 (98)	818 (140)	1 (0)	1 (0)	673 (251)	1420 (207)	2030 (297)
4	7 (3)	10 (4)	485 (156)	692 (225)	656 (127)	937 (183)	2 (0)	3 (1)	1340 (294)	1200 (247)	1720 (353)
5	11 (10)	15 (14)	409 (41)	584 (59)	571 (138)	814 (195)	2 (0)	3 (1)	1130 (366)	1320 (252)	1890 (359)
6	16 (9)	23 (13)	431 (111)	615 (159)	547 (285)	781 (408)	4 (4)	6 (5)	724 (298)	1280 (318)	1840 (456)
7	7 (2)	10 (3)	405 (178)	578 (253)	381 (162)	544 (233)	11 (5)	15 (7)	719 (362)	1120 (313)	1600 (449)
8	4 (3)	6 (4)	368 (130)	527 (186)	475 (340)	679 (485)	7 (4)	9 (6)	600 (238)	1100 (219)	1570 (314)
9	5 (4)	7 (6)	497 (67)	708 (96)	564 (173)	805 (248)	0 (0)	1 (1)	663 (267)	1780 (344)	2550 (495)
10	21 (13)	30 (18)	498 (44)	710 (63)	385 (86)	548 (123)	3 (1)	4 (1)	811 (256)	2000 (391)	2870 (561)
11	8 (5)	11 (7)	485 (79)	692 (113)	321 (48)	458 (68)	1 (0)	2 (0)	536 (151)	1610 (347)	2310 (498)
12	3 (1)	4 (1)	537 (121)	768 (174)	404 (183)	572 (258)	3 (2)	4 (2)		869 (689)	
13	2 (1)	3 (1)	415 (154)	593 (220)	289 (77)	413 (110)	4 (1)	6 (1)	403 (191)	335 (90)	480 (129)
14	3 (1)	4 (1)	528 (72)	754 (102)	409 (61)	584 (87)	2 (2)	3 (2)	169 (45)	269 (37)	385 (52)
15	1 (0)	2 (1)	532 (45)	758 (64)	412 (106)	587 (151)	0 (1)	0 (1)	198 (73)	251 (120)	358 (171)
16	4 (2)	5 (2)	517 (133)	737 (189)	359 (54)	512 (77)	2 (1)	2 (2)	140 (32)		
17	6 (4)	9 (5)	357 (105)	510 (150)	386 (77)	551 (110)	2 (1)	2 (2)	218 (68)	244 (57)	350 (81)
18	6 (3)	8 (4)	233 (77)	332 (111)	320 (106)	457 (152)	4 (1)	6 (1)	241 (196)	319 (129)	456 (186)
19	9 (3)	13 (4)	376 (101)	536 (144)	570 (188)	814 (269)	2 (1)	3 (2)	119 (56)	318 (87)	455 (125)
20	6 (5)	9 (8)	277 (42)	395 (61)	442 (88)	630 (126)	0 (1)	0 (2)	75 (38)	410 (58)	587 (83)
21	2 (2)	2 (2)	257 (32)	367 (46)	427 (184)	609 (262)	1 (3)	2 (4)	224 (51)	581 (104)	832 (148)
22	3 (1)	4 (1)	268 (39)	381 (55)	407 (100)	579 (142)	4 (2)	6 (3)	379 (105)		
23	4 (3)	6 (5)	271 (76)	387 (108)	416 (138)	594 (196)	4 (2)	5 (3)	266 (89)	731 (152)	1050 (217)
24	7 (5)	10 (6)	342 (37)	488 (54)	493 (88)	703 (126)	3 (2)	5 (2)	350 (190)	955 (183)	1370 (262)
25	4 (1)	5 (1)	284 (43)	405 (62)	427 (175)	609 (249)	3 (1)	5 (2)	272 (196)	819 (144)	1170 (206)
26	3 (1)	4 (2)	278 (94)	397 (135)	330 (125)	472 (178)	3 (1)	4 (2)	403 (214)	986 (272)	1410 (389)
27	8 (4)	12 (5)	407 (46)	580 (66)	498 (73)	710 (104)	0 (1)	1 (2)	428 (186)	1650 (267)	2370 (383)
28	15 (3)	21 (4)	357 (88)	510 (126)	416 (65)	593 (93)	3 (1)	5 (1)	585 (461)	1470 (474)	2100 (680)
29	34 (7)	48 (9)	330 (119)	471 (170)	394 (142)	562 (202)	5 (4)	7 (5)	540 (359)	1490 (505)	2130 (724)
30	8 (4)	11 (5)	355 (95)	506 (136)	532 (197)	760 (281)	2 (2)	2 (3)	568 (444)	1450 (467)	2070 (670)
31	7 (4)	10 (5)	423 (64)	603 (92)	674 (92)	962 (132)	3 (1)	5 (2)	593 (219)	1650 (411)	2360 (589)
Mean	8	11	399	570	457	653	3	4	486	1030	1490
n	31	31	31	31	31	31	31	31	30	29	28
SD	7	10	106	151	100	143	2	3	285	514	748
Min	1	2	233	332	289	413	0	0	75	244	350
Max	34	48	721	1030	674	962	11	15	1340	2000	2870

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for January, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	9 (8)	13 (11)	381 (115)	543 (165)	559 (192)	798 (274)	5 (2)	7 (3)	518 (413)	1610 (399)	2310 (572)
2	21 (10)	30 (14)	379 (156)	542 (222)	538 (253)	769 (361)	5 (1)	8 (1)	513 (481)	1490 (435)	2140 (625)
3	12 (8)	17 (11)	444 (130)	634 (186)	563 (165)	803 (236)	3 (2)	4 (3)	598 (311)	1790 (341)	2570 (489)
4	4 (3)	6 (4)	448 (96)	639 (136)	720 (136)	1030 (195)	1 (1)	1 (1)	837 (344)	2210 (109)	3160 (156)
5	9 (4)	13 (5)	548 (256)	781 (366)	681 (108)	972 (154)	3 (1)	4 (2)	689 (437)	1430 (892)	
6	13 (5)	18 (7)	454 (61)	648 (87)	603 (100)	860 (143)	1 (1)	1 (2)	73 (74)	287 (304)	410 (435)
7	19 (7)	26 (10)	435 (204)	620 (291)	539 (239)	769 (341)	5 (2)	8 (3)	30 (8)	55 (26)	79 (37)
8	23 (12)	33 (17)	377 (168)	538 (240)	594 (331)	848 (474)	5 (2)	7 (3)	38 (24)	56 (18)	80 (25)
9	8 (4)	12 (6)	536 (180)	770 (261)	558 (200)	798 (286)	3 (2)	4 (3)	32 (19)	93 (22)	134 (32)
10	26 (18)	37 (25)	744 (165)	1060 (236)	402 (95)	574 (137)	1 (1)	1 (1)	95 (54)	199 (55)	285 (78)
11	20 (14)	28 (19)	667 (193)	952 (275)	357 (66)	509 (95)	4 (3)	6 (5)	161 (91)	346 (81)	495 (116)
12	24 (13)	34 (18)	665 (245)	950 (351)	441 (88)	630 (127)	2 (2)	3 (3)	239 (149)	689 (120)	986 (171)
13	15 (8)	21 (11)	495 (170)	708 (245)	442 (60)	632 (86)	3 (1)	4 (1)	439 (311)	938 (275)	1340 (394)
14	13 (4)	18 (6)	404 (161)	579 (233)	442 (87)	632 (124)	1 (1)	2 (1)	423 (224)	970 (305)	1390 (437)
15	11 (1)	15 (2)	583 (167)	830 (239)	460 (43)	656 (62)	5 (1)	7 (2)	641 (274)	1070 (193)	1540 (276)
16	10 (4)	13 (6)	412 (173)	588 (246)	394 (142)	562 (202)	7 (3)	10 (5)	304 (258)	795 (228)	1140 (326)
17	14 (7)	20 (10)	413 (165)	589 (235)	409 (119)	583 (170)	2 (2)	2 (2)	131 (94)	975 (195)	1390 (279)
18	11 (4)	16 (6)	318 (134)	453 (192)	373 (131)	532 (187)	1 (1)	1 (1)	189 (168)	903 (199)	1290 (284)
19	6 (2)	8 (3)	309 (132)	440 (188)	407 (173)	581 (248)	1 (0)	1 (0)	108 (102)	922 (251)	1320 (359)
20	13 (7)	19 (10)	456 (202)	651 (289)	488 (150)	697 (215)	0 (0)	0 (0)	363 (236)	1190 (285)	1710 (409)
21	15 (5)	21 (7)	354 (150)	505 (214)	481 (161)	686 (229)	1 (1)	2 (2)	279 (265)	1230 (351)	1750 (503)
22	17 (6)	24 (9)	354 (159)	505 (227)	294 (206)	419 (293)	4 (2)	5 (3)	432 (372)	1380 (432)	1970 (619)
23	13 (12)	18 (17)	527 (59)	752 (84)	389 (148)	554 (212)	0 (1)	1 (2)	582 (179)	1880 (336)	2690 (481)
24	8 (5)	12 (7)	701 (151)	1000 (217)	631 (197)	901 (282)	5 (4)	7 (6)	954 (398)	2000 (296)	2870 (423)
25	13 (6)	18 (8)	728 (189)	1040 (269)	821 (494)	1170 (706)	3 (3)	4 (5)	1060 (850)	1730 (773)	2480 (1110)
26	7 (3)	9 (4)	719 (101)	1020 (144)	478 (92)	682 (132)	2 (2)	3 (2)	276 (211)	543 (295)	
27	8 (8)	11 (11)	843 (345)	1200 (494)	402 (92)	573 (132)	1 (1)	1 (1)	135 (80)	205 (109)	293 (156)
28	18 (7)	26 (10)	420 (96)	599 (137)	320 (76)	457 (109)	2 (1)	2 (2)	68 (17)	105 (31)	149 (44)
29	13 (4)	19 (5)	333 (50)	475 (72)	283 (32)	404 (46)	3 (3)	5 (4)	81 (30)	145 (43)	207 (61)
30	11 (4)	15 (6)	206 (61)	294 (88)	262 (79)	374 (114)	1 (1)	2 (2)	80 (57)	151 (38)	216 (55)
31	3 (2)	5 (3)	209 (97)	298 (139)	284 (118)	406 (169)	8 (3)	11 (4)	120 (85)	220 (67)	314 (96)
Mean	13	19	479	684	471	673	3	4	338	891	1270
n	31	31	31	31	31	31	31	31	31	31	29
SD	6	8	158	225	132	189	2	3	281	651	948
Min	3	5	206	294	262	374	0	0	30	55	79
Max	26	37	843	1200	821	1170	8	11	1060	2210	3160

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for February, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	4 (3)	6 (4)	257 (49)	366 (70)	391 (71)	559 (102)	1 (2)	2 (3)	155 (61)	308 (21)	441 (30)
2	7 (3)	10 (5)	306 (53)	436 (75)	365 (86)	521 (124)	1 (1)	1 (2)	232 (114)	407 (88)	582 (126)
3	20 (7)	28 (10)	346 (196)	494 (280)	402 (189)	573 (269)	4 (2)	5 (3)	239 (144)	549 (120)	785 (172)
4	9 (6)	13 (8)	298 (132)	425 (188)	371 (171)	530 (245)	5 (1)	8 (2)	313 (294)	652 (212)	932 (304)
5	11 (2)	15 (2)	310 (123)	443 (175)	355 (157)	507 (224)	2 (1)	3 (1)			
6	12 (7)	17 (9)	320 (183)	456 (262)	384 (240)	549 (343)	2 (1)	2 (1)	453 (434)	868 (449)	1240 (644)
7	33 (10)	48 (14)	385 (167)	549 (239)	421 (153)	601 (218)	8 (7)	12 (10)	342 (305)	880 (294)	1260 (420)
8	32 (18)	46 (26)	328 (89)	469 (127)	403 (78)	577 (111)	7 (4)	10 (6)	261 (242)	880 (151)	1260 (217)
9	4 (3)	6 (4)	351 (110)	502 (157)	450 (159)	644 (228)	3 (1)	4 (1)	395 (333)	1030 (299)	1480 (429)
10	7 (4)	10 (6)	480 (226)	685 (323)	633 (236)	902 (339)	1 (0)	1 (1)	479 (497)	1010 (254)	1440 (366)
11	8 (2)	11 (3)	503 (129)	718 (185)	680 (241)	972 (344)	0 (1)	0 (1)	241 (275)	1210 (307)	1760 (433)
12	25 (16)	35 (23)	642 (227)	917 (324)	449 (104)	641 (148)	3 (3)	4 (4)	593 (290)	1160 (225)	1660 (322)
13	4 (4)	5 (5)	540 (46)	771 (67)	425 (60)	607 (86)	2 (2)	3 (3)	577 (313)	1440 (206)	2070 (295)
14	6 (5)	9 (7)	623 (146)	889 (209)	418 (97)	596 (140)	3 (3)	5 (4)	696 (302)	1350 (177)	1930 (252)
15	4 (2)	5 (3)	523 (68)	746 (97)	360 (93)	514 (133)	4 (2)	5 (3)	861 (353)	1540 (395)	2200 (566)
16	3 (1)	4 (1)	446 (137)	636 (195)	382 (179)	546 (256)	2 (1)	3 (1)	585 (545)	1210 (300)	1730 (430)
17	4 (3)	6 (4)	354 (181)	505 (258)	311 (151)	444 (217)	4 (0)	5 (1)	347 (381)	1250 (401)	1780 (576)
18	11 (3)	15 (4)					2 (1)	2 (1)			
19	15 (10)	21 (14)	579 (298)	825 (424)	455 (154)	650 (220)	3 (2)	4 (3)	171 (111)	211 (34)	302 (49)
20	14 (15)	21 (22)	452 (176)	645 (251)	409 (164)	583 (234)	2 (1)	3 (2)	32 (33)	138 (51)	197 (73)
21	10 (4)	15 (6)	559 (88)	796 (126)	534 (90)	762 (130)	1 (1)	1 (1)	80 (35)	155 (35)	222 (51)
22	10 (7)	15 (10)	434 (199)	619 (284)	586 (448)	841 (646)	4 (1)	6 (2)	90 (61)	172 (38)	245 (55)
23	6 (2)	9 (2)	456 (114)	651 (163)	473 (126)	675 (180)	3 (2)	4 (3)	60 (39)	216 (51)	309 (74)
24	14 (3)	20 (4)	500 (520)	717 (746)	487 (238)	699 (340)	4 (3)	6 (5)	100 (85)	272 (101)	390 (145)
25	16 (3)						1 (2)				
26	7 (3)						-1 (0)				
27	1 (1)	2 (1)	261 (53)	372 (75)	666 (163)	952 (234)	0 (1)	0 (1)	265 (108)	620 (138)	886 (197)
28	7 (3)	10 (5)	289 (46)	412 (65)	542 (93)	774 (133)	0 (1)	0 (1)	271 (126)	592 (80)	847 (114)
Mean	11	15	422	602	454	649	3	4	327	755	1080
n	28	26	25	25	25	25	28	26	24	24	24
SD	8	12	114	162	98	140	2	3	212	446	639
Min	1	2	257	366	311	444	-1	0	32	138	197
Max	33	48	642	917	680	972	8	12	861	1540	2200

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for March, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	7 (7)	10 (10)	299 (51)	426 (73)	457 (74)	652 (106)	2 (1)	3 (2)	693 (733)	739 (305)	1060 (446)
2	21 (16)	29 (23)	299 (111)	427 (159)	404 (148)	576 (212)	7 (3)	10 (4)	498 (569)	878 (509)	1270 (747)
3	12 (7)	17 (10)	279 (101)	398 (145)	384 (113)	548 (161)	8 (1)	11 (2)	159 (188)	556 (143)	793 (205)
4	7 (5)	10 (7)	217 (178)	314 (255)	323 (226)	465 (325)	2 (1)	3 (1)	89 (117)	440 (176)	631 (254)
5	3 (2)	4 (3)	215 (141)	307 (201)	313 (278)	446 (398)	2 (1)	2 (1)	19 (24)	377 (131)	537 (188)
6	2 (2)	3 (3)	246 (170)	351 (242)	206 (144)	293 (206)	1 (1)	1 (1)	64 (94)	419 (153)	597 (218)
7	3 (1)	4 (2)	223 (162)	318 (231)	177 (108)	252 (154)	1 (1)	1 (1)	45 (86)	402 (128)	574 (184)
8	5 (3)	7 (4)	421 (212)	602 (303)	325 (161)	465 (231)	2 (1)	2 (1)	96 (90)	549 (217)	783 (311)
9	1 (1)	2 (2)	261 (125)	372 (178)	188 (113)	268 (162)	1 (1)	2 (1)	49 (80)	367 (81)	524 (115)
10	2 (1)	3 (2)	522 (61)	745 (87)	489 (54)	698 (77)	0 (0)	0 (1)	172 (81)	768 (383)	1100 (548)
11	9 (2)	13 (3)	521 (93)	741 (133)	616 (191)	879 (274)	2 (2)	4 (3)	94 (60)		
12	10 (3)	15 (4)	440 (93)	628 (134)	446 (47)	638 (66)	4 (1)	5 (2)	50 (33)	18 (13)	26 (18)
13	2 (1)	3 (2)	456 (120)	651 (172)	676 (227)	967 (326)	1 (1)	1 (2)	16 (3)	14 (4)	20 (5)
14	4 (1)	5 (2)	269 (92)	384 (131)	373 (124)	533 (178)	2 (0)	3 (1)	21 (14)	15 (4)	21 (6)
15	4 (5)	5 (6)	240 (134)	342 (192)	300 (127)	429 (182)	3 (1)	4 (2)	27 (35)	31 (29)	44 (41)
16	7 (3)	10 (5)	197 (125)	281 (178)	295 (168)	422 (240)	5 (3)	7 (4)	16 (14)	22 (11)	31 (16)
17	13 (6)	18 (9)	187 (124)	267 (177)	299 (187)	427 (267)	3 (1)	4 (2)	23 (41)	27 (13)	39 (18)
18	5 (3)	7 (4)	246 (101)	353 (144)	394 (93)	565 (133)	0 (0)	1 (1)	15 (15)	62 (22)	89 (32)
19	14 (8)	21 (11)	271 (114)	387 (163)	359 (135)	513 (194)	4 (3)	5 (4)	55 (42)	114 (26)	162 (37)
20	6 (5)	8 (7)	194 (102)	278 (146)	262 (149)	376 (213)	5 (2)	7 (3)	40 (49)	119 (30)	170 (43)
21	3 (3)	4 (4)	125 (69)	180 (98)	187 (114)	268 (163)	2 (2)	3 (2)	4 (2)	134 (57)	192 (81)
22	1 (0)	2 (0)	117 (39)	167 (56)	231 (106)	331 (151)	2 (1)	2 (1)	12 (18)	199 (104)	286 (149)
23	1 (0)	1 (1)	200 (84)	286 (120)	241 (129)	345 (185)	1 (1)	1 (1)	20 (34)	238 (85)	341 (121)
24	4 (3)	5 (4)	405 (138)	579 (197)	512 (137)	730 (195)	0 (0)	0 (0)	144 (134)	412 (108)	588 (154)
25	7 (5)	10 (7)	287 (108)	410 (154)	550 (197)	785 (282)	0 (1)	1 (1)	153 (157)	377 (102)	538 (146)
26	12 (8)	17 (11)	295 (73)	422 (104)	329 (98)	471 (141)	1 (2)	2 (2)	155 (159)	458 (51)	655 (73)
27	3 (2)	4 (3)	430 (69)	613 (99)	314 (67)	449 (96)	0 (0)	0 (1)	379 (136)	791 (106)	1130 (152)
28	14 (5)	20 (7)	467 (88)	667 (126)	278 (28)	397 (41)	1 (1)	1 (1)	495 (160)	755 (168)	1080 (240)
29	9 (9)	13 (13)	484 (277)	692 (397)	335 (114)	479 (163)	3 (1)	5 (2)	322 (373)	698 (177)	999 (254)
30	7 (2)	11 (2)	415 (78)	593 (111)	380 (76)	543 (109)	1 (2)	2 (2)	285 (169)	686 (102)	982 (146)
31	6 (3)	8 (4)	417 (79)	596 (113)	447 (109)	638 (156)	1 (1)	1 (1)	298 (183)	790 (122)	1130 (176)
Mean	7	9	311	444	358	511	2	3	145	382	546
n	31	31	31	31	31	31	31	31	31	30	30
SD	5	7	115	164	121	173	2	3	171	283	405
Min	1	1	117	167	177	252	0	0	4	14	20
Max	21	29	522	745	676	967	8	11	693	878	1270

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for April, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	10 (4)	15 (6)	383 (158)	548 (226)	475 (173)	679 (248)	2 (1)	2 (2)	195 (185)	681 (157)	974 (226)
2	4 (1)	6 (1)	392 (84)	560 (120)	494 (108)	706 (155)	0 (0)	0 (0)			
3	2 (0)	2 (1)	289 (148)	413 (212)	386 (188)	551 (269)	3 (1)	4 (2)	35 (45)	41 (24)	58 (34)
4	2 (1)	2 (1)	330 (173)	476 (247)	394 (207)	568 (294)	2 (2)	2 (2)	149 (310)	123 (190)	169 (267)
5	4 (1)	5 (2)	585 (139)	835 (198)	835 (455)	1190 (649)	0 (0)	-1 (0)	9 (5)	34 (8)	49 (11)
6	5 (1)	7 (2)	500 (100)	714 (144)	505 (104)	722 (149)	0 (1)	0 (1)	21 (12)	37 (8)	53 (12)
7	8 (4)	11 (6)	336 (208)	479 (297)	372 (220)	532 (315)	1 (2)	2 (2)	26 (27)	35 (13)	50 (19)
8	19 (6)	27 (8)	318 (204)	456 (291)	360 (209)	515 (299)	5 (3)	8 (4)	37 (37)	78 (30)	112 (43)
9	11 (10)	15 (14)	368 (177)	521 (250)	440 (139)	628 (199)	1 (2)	2 (3)	125 (174)	182 (88)	260 (127)
10	10 (10)	15 (14)	406 (169)	581 (241)	525 (162)	751 (233)	1 (2)	1 (2)	61 (61)	237 (68)	339 (98)
11	16 (3)	22 (5)	405 (62)	580 (88)	607 (91)	869 (131)	3 (1)	5 (1)	84 (91)	247 (34)	353 (49)
12	10 (6)	15 (8)	432 (63)	620 (90)	599 (59)	857 (84)	0 (1)	0 (1)	80 (63)	245 (45)	351 (64)
13	4 (2)	5 (3)	347 (148)	496 (212)	635 (249)	909 (356)	2 (2)	2 (4)	59 (77)	293 (68)	420 (98)
14	7 (4)	10 (6)	240 (171)	344 (246)	360 (222)	515 (318)	3 (1)	4 (1)	32 (51)	286 (71)	409 (101)
15	9 (2)	13 (3)	188 (70)	274 (101)	229 (109)	341 (153)	5 (2)	7 (2)	6 (4)	292 (45)	422 (63)
16	7 (5)	10 (7)	254 (49)	364 (70)	227 (16)	326 (23)	7 (2)	10 (3)	13 (8)	406 (49)	
17	12 (4)	17 (6)	307 (131)	442 (188)	245 (61)	351 (87)	3 (1)	4 (2)	46 (61)	454 (69)	
18	5 (2)	7 (2)	448 (117)	641 (168)	369 (79)		1 (1)	1 (1)	134 (117)	530 (115)	
19	4 (3)	6 (4)	352 (157)	504 (226)	274 (104)		0 (0)	0 (1)	78 (85)	500 (133)	
20	8 (2)	11 (3)	317 (212)	454 (303)	231 (135)		2 (1)	2 (2)	68 (89)	478 (191)	
21	13 (9)	19 (13)	234 (145)	336 (207)	192 (118)	275 (168)	4 (5)	6 (7)	57 (83)	497 (186)	711 (265)
22	18 (13)	25 (19)	245 (179)	350 (257)	288 (91)	413 (131)	5 (4)	7 (5)	14 (24)	497 (85)	712 (121)
23	6 (1)	8 (1)					2 (1)	3 (2)			
24	3 (1)	4 (1)	223 (119)	319 (170)	236 (113)	337 (162)	4 (1)	5 (1)	54 (86)	363 (338)	
25	15 (10)	21 (14)	256 (119)	366 (171)	356 (136)	509 (195)	2 (1)	2 (2)	16 (9)	28 (12)	40 (18)
26	3 (2)	4 (3)	257 (142)	368 (204)	334 (206)	479 (296)	1 (0)	2 (1)	16 (18)	25 (16)	35 (23)
27	9 (7)	13 (10)	317 (138)	453 (197)	472 (127)	676 (182)	0 (0)	1 (1)	11 (7)	36 (27)	51 (39)
28	17 (14)	24 (19)	396 (165)	568 (236)	469 (146)	672 (209)	4 (2)	6 (3)	33 (17)	39 (21)	56 (31)
29	4 (1)	5 (2)	139 (46)	199 (67)	214 (68)	308 (97)	4 (2)	5 (3)	5 (2)	16 (3)	23 (5)
30	4 (1)	6 (2)	186 (54)	268 (77)	273 (88)	392 (126)	1 (2)	2 (3)	4 (4)	44 (8)	63 (12)
Mean	8	12	326	467	393	580	2	3	52	240	260
n	30	30	29	29	29	26	30	30	28	28	22
SD	5	7	98	139	150	217	2	3	48	198	261
Min	2	2	139	199	192	275	0	-1	4	16	23
Max	19	27	585	835	835	1190	7	10	195	681	974

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for May, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	5 (1)	7 (1)	372 (109)	534 (156)	449 (101)	644 (145)	0 (0)	0 (1)	23 (20)	97 (30)	140 (43)
2	16 (9)	22 (12)	454 (56)	650 (81)	578 (105)	828 (150)	1 (1)	2 (1)	66 (41)	148 (33)	212 (47)
3	9 (2)	13 (3)	400 (132)	573 (189)	424 (98)	607 (141)	1 (2)	2 (2)	61 (47)	203 (43)	290 (61)
4	4 (1)	6 (2)	355 (115)	508 (164)	397 (105)	570 (151)	7 (3)	10 (4)	40 (42)	223 (57)	319 (82)
5	10 (6)	14 (8)	350 (98)	502 (140)	373 (100)	535 (144)	8 (2)	11 (3)	13 (14)	249 (56)	357 (81)
6	12 (6)	18 (9)	218 (122)	312 (176)	273 (166)	392 (239)	9 (6)	13 (9)	4 (4)	209 (24)	301 (35)
7	10 (8)	14 (12)	153 (87)	220 (125)	205 (124)	295 (178)	4 (3)	6 (4)	6 (4)	224 (37)	321 (53)
8	10 (5)	14 (6)	117 (31)	168 (45)	119 (45)	170 (64)	3 (2)	4 (3)	1 (1)	268 (33)	385 (47)
9	18 (9)	26 (13)	196 (61)	280 (87)	209 (88)	299 (126)	2 (2)	3 (2)	3 (3)	378 (75)	541 (107)
10	13 (5)	18 (7)	279 (53)	400 (76)	256 (54)	367 (78)	3 (1)	5 (2)	10 (5)	527 (32)	755 (46)
11	3 (1)	4 (1)	274 (75)	393 (108)	267 (94)	382 (134)	3 (1)	5 (2)	24 (31)	504 (79)	723 (113)
12	2 (2)	3 (2)	191 (108)	275 (155)	160 (72)	230 (104)	4 (1)	6 (1)	4 (2)	390 (61)	561 (87)
13	3 (1)	4 (1)	200 (59)	289 (84)	204 (82)	294 (118)	3 (2)	4 (3)	1 (2)	403 (59)	580 (83)
14	3 (1)	4 (1)	241 (97)	345 (139)	280 (129)	400 (184)	3 (1)	4 (2)	5 (2)	532 (81)	762 (115)
15	4 (4)	6 (6)	162 (41)	233 (59)	201 (63)	288 (90)	3 (2)	4 (3)	15 (35)	472 (45)	678 (64)
16	16 (7)	23 (10)	293 (112)	419 (160)	390 (193)	558 (278)	2 (2)	3 (3)	2 (2)	615 (86)	880 (123)
17	5 (5)	7 (7)	284 (173)	406 (248)	357 (240)	512 (345)	6 (2)	9 (3)	81 (128)	667 (209)	956 (298)
18	2 (1)	3 (2)			260 (205)	373 (294)	3 (2)	4 (3)			
19	4 (2)	5 (2)	201 (104)	287 (149)	333 (277)	477 (398)	1 (0)	2 (0)		17 (8)	24 (12)
20	2 (1)	3 (1)	239 (92)	343 (133)	259 (178)	371 (255)	3 (1)	4 (1)	3 (1)	18 (7)	26 (10)
21	3 (1)	5 (1)	204 (73)	292 (104)	238 (137)	341 (197)	3 (1)	4 (1)	4 (3)	21 (8)	29 (11)
22	18 (16)	25 (22)	235 (84)	336 (121)	264 (134)	379 (193)	7 (5)	10 (7)	7 (6)	34 (9)	49 (12)
23	9 (5)	12 (8)	234 (84)	336 (120)	244 (144)	350 (207)	10 (3)	14 (4)	10 (7)	108 (143)	155 (205)
24	4 (1)	6 (2)	189 (70)	272 (101)	188 (109)	270 (157)	6 (7)	9 (10)	6 (3)	74 (17)	106 (24)
25	3 (1)	4 (1)	203 (57)	291 (82)	239 (117)	344 (168)	4 (2)	6 (3)	6 (3)	90 (16)	130 (23)
26	2 (1)	2 (2)	225 (71)	323 (102)	320 (177)	460 (254)	0 (0)	0 (1)	1 (2)	125 (22)	179 (31)
27	4 (2)	6 (3)	293 (115)	419 (165)	326 (184)	468 (264)	0 (0)	0 (1)	7 (12)	179 (55)	256 (78)
28	15 (8)	21 (11)	258 (111)	369 (159)	263 (165)	377 (237)	0 (0)	1 (0)	1 (1)	183 (49)	263 (71)
29	7 (9)	10 (13)	249 (124)	357 (178)	215 (134)	308 (192)	3 (2)	4 (3)	5 (5)	175 (33)	251 (48)
30	3 (1)	4 (1)	207 (94)	297 (135)	186 (111)	267 (159)	2 (1)	3 (2)	13 (21)	193 (32)	276 (46)
31	2 (1)	3 (1)	169 (52)	242 (74)	129 (48)	185 (69)	2 (1)	2 (2)	3 (2)	247 (21)	355 (30)
Mean	7	10	248	356	278	398	3	5	15	252	362
n	31	31	30	30	31	31	31	31	29	30	30
SD	5	7	76	108	98	141	3	4	21	182	261
Min	2	2	117	168	119	170	0	0	1	17	24
Max	18	26	454	650	578	828	10	14	81	667	956

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for June, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	8 (2)	12 (3)	165 (23)	236 (33)	146 (37)	209 (53)	3 (2)	5 (3)	4 (3)	257 (34)	368 (48)
2	4 (1)	6 (1)	221 (55)	318 (78)	181 (30)	260 (44)	0 (1)	0 (1)	1 (3)	305 (32)	439 (46)
3	7 (2)	9 (3)	246 (65)	354 (94)	225 (82)	323 (117)	1 (2)	2 (3)	1 (2)	375 (75)	539 (107)
4	10 (2)	15 (3)	212 (97)	309 (143)	236 (133)	344 (196)	5 (3)	7 (5)	7 (4)	427 (119)	616 (176)
5	4 (1)	6 (1)	163 (59)	235 (84)	230 (89)	331 (128)	10 (3)	14 (4)	7 (4)	457 (92)	658 (131)
6	1 (1)						2 (1)				
7	0 (2)						1 (0)				
8	13 (9)	18 (12)	251 (132)	360 (189)	229 (137)	328 (197)	1 (1)	1 (1)	26 (40)	634 (116)	909 (165)
9	5 (6)	6 (9)	153 (42)	220 (61)	127 (56)	183 (81)	3 (1)	4 (1)	12 (28)	512 (82)	736 (119)
10	3 (2)	4 (2)	220 (85)	316 (123)	124 (48)	178 (69)	1 (1)	1 (2)	35 (71)	279 (304)	292 (387)
11	9 (6)	13 (9)	217 (74)	311 (106)	147 (92)	211 (132)	2 (2)	3 (2)	2 (4)	7 (3)	10 (4)
12	20 (4)	29 (6)	172 (39)	247 (55)	102 (25)	147 (36)	1 (1)	1 (2)	1 (2)	4 (2)	6 (2)
13	19 (9)	27 (13)	150 (25)	216 (36)	115 (27)	165 (39)	3 (2)	4 (3)	3 (2)	8 (3)	11 (5)
14	14 (11)	19 (16)	133 (46)	191 (66)	124 (58)	179 (84)	3 (1)	5 (2)	3 (3)	12 (5)	17 (7)
15	1 (1)	1 (1)	119 (37)	171 (54)	99 (17)	143 (24)	5 (1)	6 (2)	5 (4)	19 (5)	27 (7)
16	11 (8)	16 (11)	136 (70)	196 (101)	119 (27)	172 (38)	2 (2)	3 (2)	2 (2)	25 (9)	36 (13)
17	6 (4)	9 (6)	74 (18)	106 (27)	102 (23)	146 (33)	7 (3)	10 (4)	6 (4)	64 (18)	92 (25)
18	6 (3)	8 (4)	72 (25)	104 (36)	126 (33)	182 (48)	3 (1)	4 (2)	3 (1)		
19	2 (1)	3 (1)	67 (16)	96 (23)	102 (26)	147 (37)	6 (3)	9 (4)	5 (4)	72 (10)	103 (14)
20	11 (8)	16 (11)	87 (43)	125 (62)	99 (19)	142 (28)	6 (2)	8 (2)	4 (2)	75 (12)	109 (18)
21	1 (1)	1 (1)	83 (30)	120 (43)	96 (24)	139 (35)	3 (2)	4 (2)	4 (5)	106 (20)	152 (29)
22	2 (1)	2 (1)	66 (20)	94 (28)	117 (33)	169 (48)	6 (3)	9 (5)	7 (5)	115 (7)	166 (10)
23	2 (1)	2 (1)	65 (18)	94 (25)	99 (27)	142 (38)	7 (3)	10 (5)	8 (4)	132 (22)	190 (32)
24	1 (1)	1 (1)	61 (12)	88 (17)	103 (26)	149 (37)	4 (2)	6 (3)	7 (5)	159 (15)	229 (22)
25	1 (0)	1 (0)	65 (10)	94 (15)	99 (14)	142 (20)	7 (3)	9 (5)	7 (4)	175 (15)	252 (22)
26	2 (1)	3 (1)	66 (18)	94 (26)	124 (49)	179 (70)	7 (3)	10 (4)	7 (3)	181 (10)	261 (14)
27	3 (2)	4 (2)	80 (13)	116 (19)	106 (41)	153 (59)	0 (1)	0 (1)	2 (3)	179 (15)	258 (21)
28	11 (3)	16 (4)	85 (15)	122 (21)	92 (20)	133 (29)	4 (3)	6 (5)	6 (3)	204 (44)	293 (63)
29	10 (5)	14 (7)	84 (19)	121 (27)	89 (28)	128 (40)	4 (1)	5 (2)	4 (3)	181 (5)	260 (7)
30	18 (8)	26 (12)	89 (20)	128 (29)	88 (24)	126 (35)	2 (2)	2 (2)	4 (3)	228 (35)	329 (50)
Mean	7	10	129	185	130	187	4	5	7	192	273
n	30	28	28	28	28	28	30	28	28	27	27
SD	6	8	62	89	45	65	2	4	7	166	237
Min	0	1	61	88	88	126	0	0	1	4	6
Max	20	29	251	360	236	344	10	14	35	634	909

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Table E7. Daily means (SD) of H2S concentrations at Site OK4B for July, 2009. Minimum detection limit is 5 ppb.

Day	Inlet (b/w barn 1 and 2)		Barn 1		Barn 2		Ambient (by far 9)		Inlet (by far 9)	Farrowing room 9	
	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	mg/dsm^3	ppb	ppb	mg/dsm^3
1	5 (4)	7 (5)	107 (26)	154 (37)	89 (25)	128 (35)	7 (2)	10 (3)	5 (3)	269 (53)	386 (77)
2	1 (1)	2 (1)	106 (16)	152 (22)	82 (13)	118 (18)	3 (1)	5 (1)	6 (2)	263 (31)	378 (45)
3	1 (0)	2 (1)	110 (31)	158 (44)	89 (31)	128 (45)	4 (1)	6 (1)	13 (15)	175 (208)	129 (167)
4	8 (5)	11 (8)	113 (21)	164 (30)	66 (12)	95 (17)	1 (1)	1 (2)	1 (1)	1 (1)	2 (2)
5	15 (4)	21 (6)	119 (26)	171 (38)	76 (20)	110 (29)	1 (2)	1 (3)	1 (1)	3 (2)	4 (3)
6	9 (6)	13 (9)	145 (54)	208 (77)	94 (25)	135 (36)	9 (4)	13 (6)	8 (3)	11 (3)	16 (4)
7	11 (10)	15 (14)	116 (30)	168 (44)	100 (29)	144 (42)	7 (5)	9 (7)	5 (3)	10 (3)	14 (4)
8	2 (3)	3 (4)	123 (20)	177 (29)	96 (19)	139 (27)	2 (2)	4 (3)	7 (5)	17 (10)	25 (14)
9	1 (1)	1 (1)	145 (28)	209 (40)	95 (23)	136 (33)	3 (2)	4 (3)	3 (3)	27 (6)	39 (9)
10	1 (1)	2 (1)					5 (2)	7 (2)			
11	2 (0)	3 (1)	133 (36)	192 (52)	110 (25)	159 (36)	6 (2)	8 (2)	5 (2)	53 (7)	76 (10)
12	3 (1)	4 (2)	127 (17)	183 (24)	109 (32)	157 (46)	4 (1)	6 (1)	6 (4)	76 (19)	110 (28)
13	4 (2)	5 (2)	127 (23)	182 (33)	90 (19)	130 (27)	4 (1)	5 (1)	6 (3)	91 (15)	131 (21)
14	7 (3)	10 (4)	134 (20)	193 (29)	80 (13)	115 (18)	4 (1)	6 (1)	8 (3)	118 (11)	170 (16)
15	14 (3)	19 (4)	141 (35)	203 (50)	86 (17)	124 (24)	5 (2)	8 (3)	5 (3)	122 (9)	176 (15)
16	20 (5)	28 (8)	130 (27)	188 (39)	106 (23)	152 (33)	3 (1)	5 (1)		137 (9)	
17	21 (6)	30 (9)	141 (25)	202 (36)	119 (20)	172 (29)	7 (1)	9 (2)	11 (6)	167 (25)	241 (36)
18	13 (4)	19 (6)	150 (42)	216 (60)	123 (36)	176 (52)	6 (2)	8 (3)	13 (20)	191 (61)	275 (88)
19	5 (2)	7 (2)	128 (42)	184 (60)	126 (30)	181 (43)	4 (1)	6 (1)	8 (2)	174 (46)	251 (65)
20	4 (2)		84 (20)		121 (28)		4 (0)				
21	9 (3)		79 (27)		113 (26)		3 (1)		4 (2)		
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
Mean	7	11	123	183	99	139	4	6	7	106	143
n	21	19	20	18	20	18	21	19	18	18	17
SD	6	9	19	19	16	23	2	3	3	85	123
Min	1	1	79	152	66	95	1	1	1	1	2
Max	21	30	150	216	126	181	9	13	13	269	386

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Table E8. H_2S emissions

Table E8. Daily means (SD) of H2S emissions at Site OK4B for July, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21	496 (82)	213 (35)	434 (72)	1.08 (0.18)	724 (124)	312 (53)	633 (108)	1.58 (0.27)	79 (10)	549 (67)	3270 (396)	6 (1)
22	545 (72)	235 (31)	477 (63)	1.19 (0.16)	671 (82)	289 (35)	587 (71)	1.47 (0.18)	96 (11)	673 (76)	4000 (451)	8 (1)
23	618 (93)	266 (40)	541 (81)	1.35 (0.20)	633 (95)	273 (41)	554 (83)	1.39 (0.21)	112 (11)	781 (77)	4650 (456)	9 (1)
24	801 (116)	345 (50)	700 (102)	1.75 (0.25)	816 (170)	351 (73)	714 (149)	1.78 (0.37)	123 (15)	860 (103)	5120 (612)	10 (1)
25	836 (102)	360 (44)	731 (89)	1.83 (0.22)	1000 (195)	432 (84)	877 (171)	2.19 (0.43)	126 (9)	881 (65)	5240 (389)	10 (1)
26	834 (144)	359 (62)	729 (126)	1.82 (0.32)	875 (108)	377 (47)	765 (94)	1.91 (0.24)	105 (27)	732 (188)	4360 (1120)	8 (2)
27	867 (144)	373 (62)	758 (126)	1.89 (0.32)	820 (87)	353 (37)	717 (76)	1.79 (0.19)	73 (61)	512 (428)	3040 (2550)	6 (5)
28	756 (66)	326 (28)	661 (57)	1.65 (0.14)	900 (126)	388 (54)	786 (110)	1.97 (0.27)	6 (3)	43 (21)	254 (123)	0 (0)
29	879 (109)	378 (47)	767 (95)	1.92 (0.24)	805 (97)	347 (42)	703 (84)	1.76 (0.21)	4 (1)	29 (8)	171 (49)	0 (0)
30	941 (165)	405 (71)	821 (144)	2.05 (0.36)	664 (81)	286 (35)	579 (70)	1.45 (0.18)	27 (24)	189 (170)	849 (610)	2 (1)
31	874 (239)	376 (103)	763 (209)	1.91 (0.52)	629 (232)	271 (100)	549 (202)	1.37 (0.51)	28 (43)	195 (300)	1160 (1780)	3 (4)
Mean	768	331	671	1.68	776	334	679	1.70	71	495	2920	6
n	11	11	11	11	11	11	11	11	11	11	11	11
SD	141	61	123	0.31	117	50	102	0.26	44	311	1870	3
Min	496	213	434	1.08	629	271	549	1.37	4	29	171	0
Max	941	405	821	2.05	1000	432	877	2.19	126	881	5240	10

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for August, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	819 (135)	353 (58)	715 (118)	1.79 (0.29)	780 (340)	336 (146)	680 (297)	1.70 (0.74)	10 (3)	69 (24)	409 (141)	1 (0)
2	748 (199)	322 (86)	652 (173)	1.63 (0.43)	476 (114)	205 (49)	416 (100)	1.04 (0.25)	14 (5)	97 (37)	576 (217)	1 (0)
3	840 (149)	362 (64)	733 (130)	1.83 (0.33)	573 (99)	247 (43)	500 (87)	1.25 (0.22)	22 (8)	156 (59)	930 (353)	2 (1)
4	861 (148)	371 (64)	751 (129)	1.88 (0.32)	708 (160)	305 (69)	617 (140)	1.54 (0.35)	37 (13)	259 (93)	1540 (553)	3 (1)
5	950 (220)	409 (95)	828 (192)	2.07 (0.48)	678 (140)	292 (60)	591 (122)	1.48 (0.30)	52 (8)	360 (55)	2140 (328)	4 (1)
6	1080 (218)	467 (94)	945 (190)	2.36 (0.48)	858 (132)	370 (57)	749 (115)	1.87 (0.29)	61 (16)	426 (110)	2530 (654)	5 (1)
7	1070 (94)	462 (40)	935 (82)	2.34 (0.20)	940 (204)	405 (88)	820 (178)	2.05 (0.45)	86 (13)	603 (90)	3590 (536)	7 (1)
8	1390 (382)	597 (164)	1210 (333)	3.02 (0.83)	830 (142)	358 (61)	724 (124)	1.81 (0.31)	112 (18)	784 (127)	4670 (753)	9 (1)
9												
10												
11												
12												
13												
14												
15	811 (231)	349 (100)	707 (202)	1.77 (0.50)	735 (124)	317 (53)	641 (108)	1.60 (0.27)	210 (13)	1470 (88)	8730 (521)	16 (1)
16	732 (91)	315 (39)	638 (79)	1.60 (0.20)	751 (71)	323 (30)	654 (62)	1.64 (0.15)	195 (30)	1370 (212)	8130 (1260)	15 (2)
17												
18	745 (99)	321 (43)	649 (86)	1.62 (0.22)	729 (135)	314 (58)	635 (117)	1.59 (0.29)	200 (10)	1400 (71)	8340 (423)	15 (1)
19	897 (152)	387 (66)	782 (133)	1.95 (0.33)	777 (153)	334 (66)	677 (134)	1.69 (0.33)	203 (13)	1420 (92)	8460 (548)	15 (1)
20	1080 (193)	465 (83)	941 (168)	2.35 (0.42)	1090 (249)	471 (107)	953 (217)	2.38 (0.54)				
21	964 (151)	415 (65)	840 (131)	2.10 (0.33)	961 (183)	414 (79)	837 (160)	2.09 (0.40)	5 (1)	33 (7)	196 (42)	0 (0)
22	956 (107)	412 (46)	832 (93)	2.08 (0.23)	997 (352)	429 (152)	868 (307)	2.17 (0.77)	5 (2)	36 (14)	216 (83)	0 (0)
23	868 (109)	374 (47)	756 (95)	1.89 (0.24)	782 (167)	337 (72)	681 (146)	1.70 (0.36)	8 (2)	56 (14)	335 (85)	1 (0)
24	757 (168)	326 (72)	660 (146)	1.65 (0.37)	785 (189)	338 (81)	684 (164)	1.71 (0.41)	10 (2)	69 (11)	408 (67)	1 (0)
25	721 (107)	310 (46)	628 (93)	1.57 (0.23)	1470 (1550)	632 (668)	1280 (1350)	3.19 (3.38)	15 (3)	104 (23)	619 (137)	1 (0)
26	971 (141)	418 (61)	846 (123)	2.11 (0.31)	495 (81)	213 (35)	431 (70)	1.08 (0.18)	29 (10)	201 (73)	1200 (434)	2 (1)
27	931 (304)	401 (131)	810 (265)	2.03 (0.66)	527 (119)	227 (51)	459 (104)	1.15 (0.26)	45 (13)	316 (92)	1880 (544)	4 (1)
28	714 (183)	308 (79)	622 (159)	1.55 (0.40)	528 (130)	228 (56)	460 (113)	1.15 (0.28)	55 (11)	384 (80)	2290 (475)	5 (1)
29	734 (296)	316 (127)	639 (257)	1.60 (0.64)	464 (93)	200 (40)	404 (81)	1.01 (0.20)				
30	566 (146)	244 (63)	493 (128)	1.23 (0.32)	458 (109)	197 (47)	399 (95)	1.00 (0.24)	71 (9)	495 (64)	2940 (380)	6 (1)
31	585 (150)	252 (65)	509 (131)	1.27 (0.33)	528 (119)	228 (51)	460 (104)	1.15 (0.26)	86 (33)	603 (231)	3590 (1370)	7 (3)
Mean	866	373	755	1.89	747	322	651	1.63	70	487	2900	6
n	24	24	24	24	24	24	24	24	22	22	22	22
SD	176	76	153	0.38	232	100	202	0.51	69	482	2870	5
Min	566	244	493	1.23	458	197	399	1.00	5	33	196	0
Max	1390	597	1210	3.02	1470	632	1280	3.19	210	1470	8730	16

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for September, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	690 (137)	297 (59)	600 (119)	1.50 (0.30)	650 (135)	280 (58)	566 (117)	1.41 (0.29)	90 (18)	627 (125)	3730 (744)	7 (1)
2	858 (271)	370 (117)	747 (236)	1.87 (0.59)	663 (94)	286 (40)	577 (82)	1.44 (0.20)	97 (18)	681 (125)	4050 (746)	8 (1)
3	719 (116)	310 (50)	626 (101)	1.56 (0.25)	791 (201)	341 (86)	689 (175)	1.72 (0.44)	104 (17)	731 (121)	4350 (720)	8 (1)
4												
5												
6	820 (134)	353 (58)	714 (117)	1.79 (0.29)	707 (150)	304 (65)	615 (130)	1.54 (0.33)				
7	840 (174)	362 (75)	731 (152)	1.83 (0.38)	710 (137)	306 (59)	618 (120)	1.54 (0.30)				
8	1000 (395)	432 (170)	873 (344)	2.18 (0.86)	699 (111)	301 (48)	609 (97)	1.52 (0.24)				
9	631 (118)	272 (51)	549 (103)	1.37 (0.26)	748 (242)	322 (104)	651 (211)	1.63 (0.53)				
10												
11					597 (186)	257 (80)	520 (162)	1.30 (0.40)				
12	670 (125)	288 (54)	583 (109)	1.46 (0.27)	491 (146)	212 (63)	428 (128)	1.07 (0.32)				
13	667 (128)	287 (55)	580 (111)	1.45 (0.28)	488 (149)	210 (64)	425 (130)	1.06 (0.33)				
14	643 (130)	277 (56)	560 (114)	1.40 (0.28)	417 (103)	179 (45)	363 (90)	0.91 (0.23)				
15	751 (213)	324 (92)	654 (185)	1.64 (0.46)	527 (129)	227 (56)	459 (113)	1.15 (0.28)				
16	815 (188)	351 (81)	709 (164)	1.77 (0.41)	685 (182)	295 (78)	596 (158)	1.49 (0.40)				
17	849 (488)	366 (210)	739 (425)	1.85 (1.06)	845 (360)	364 (155)	736 (314)	1.84 (0.78)				
18	469 (156)	202 (67)	408 (136)	1.02 (0.34)	811 (228)	349 (98)	707 (199)	1.77 (0.50)				
19	372 (86)	160 (37)	324 (75)	0.81 (0.19)	971 (805)	418 (347)	845 (701)	2.11 (1.75)				
20	468 (96)	202 (41)	408 (84)	1.02 (0.21)	466 (100)	201 (43)	406 (87)	1.02 (0.22)				
21	587 (100)	253 (43)	511 (87)	1.28 (0.22)	499 (133)	215 (57)	435 (116)	1.09 (0.29)	78 (11)	548 (76)	3260 (454)	6 (1)
22	524 (93)	226 (40)	456 (81)	1.14 (0.20)	552 (141)	238 (61)	480 (123)	1.20 (0.31)	92 (20)	647 (142)	3850 (843)	7 (2)
23	577 (141)	249 (61)	503 (123)	1.26 (0.31)	682 (149)	294 (64)	594 (130)	1.48 (0.32)	112 (29)	787 (205)	4680 (1220)	9 (2)
24												
25												
26	508 (112)	219 (48)	442 (98)	1.11 (0.25)	637 (163)	274 (70)	554 (142)	1.39 (0.35)	117 (37)	817 (260)	4860 (1550)	9 (3)
27	597 (223)	257 (96)	520 (195)	1.30 (0.49)	600 (127)	258 (55)	522 (111)	1.31 (0.28)	145 (29)	1020 (203)	6060 (1210)	11 (2)
28	541 (111)	233 (48)	471 (97)	1.18 (0.24)	862 (612)	371 (264)	750 (533)	1.88 (1.33)				
29	595 (113)	256 (49)	519 (98)	1.30 (0.25)	721 (169)	311 (73)	628 (147)	1.57 (0.37)				
30												
Mean	661	284	575	1.44	659	284	574	1.43	105	732	4360	8
n	23	23	23	23	24	24	24	24	8	8	8	8
SD	150	65	131	0.33	137	59	119	0.30	19	136	808	1
Min	372	160	324	0.81	417	179	363	0.91	78	548	3260	6
Max	1000	432	873	2.18	971	418	845	2.11	145	1020	6060	11

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for October, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1												
2	852 (396)	367 (170)	742 (345)	1.86 (0.86)	941 (279)	405 (120)	819 (243)	2.05 (0.61)	1 (1)	6 (4)	37 (23)	0 (0)
3	587 (127)	253 (55)	511 (110)	1.28 (0.28)	759 (176)	327 (76)	660 (154)	1.65 (0.38)	5 (6)	33 (39)	198 (235)	0 (1)
4	826 (342)	356 (147)	719 (297)	1.80 (0.74)	692 (171)	298 (74)	603 (148)	1.51 (0.37)	2 (1)	15 (9)	90 (54)	0 (0)
5	795 (310)	342 (134)	692 (270)	1.73 (0.68)	799 (177)	344 (76)	695 (154)	1.74 (0.39)	6 (5)	44 (32)	262 (190)	1 (0)
6												
7	571 (141)	246 (61)	497 (123)	1.24 (0.31)	712 (183)	307 (79)	619 (159)	1.55 (0.40)	16 (6)	114 (41)	679 (242)	1 (0)
8	534 (116)	230 (50)	464 (101)	1.16 (0.25)	577 (138)	248 (59)	502 (120)	1.25 (0.30)	21 (11)	149 (76)	884 (451)	2 (1)
9	586 (272)	253 (117)	510 (236)	1.27 (0.59)	707 (231)	305 (100)	615 (201)	1.54 (0.50)	33 (18)	233 (127)	1390 (759)	3 (2)
10	530 (108)	228 (47)	461 (94)	1.15 (0.24)	683 (140)	294 (60)	593 (121)	1.48 (0.30)	45 (19)	316 (131)	1880 (778)	4 (2)
11	531 (127)	229 (55)	462 (110)	1.15 (0.28)	772 (236)	333 (102)	671 (206)	1.68 (0.51)	65 (14)	457 (99)	2720 (587)	5 (1)
12	596 (114)	257 (49)	518 (99)	1.30 (0.25)	1100 (344)	472 (148)	953 (299)	2.38 (0.75)	75 (11)	526 (73)	3130 (436)	6 (1)
13	727 (79)	313 (34)	632 (69)	1.58 (0.17)	790 (65)	340 (28)	686 (57)	1.72 (0.14)	104 (17)	731 (122)	4350 (723)	8 (1)
14	936 (317)	403 (137)	813 (276)	2.03 (0.69)	988 (235)	425 (101)	858 (204)	2.15 (0.51)	135 (39)	948 (270)	5640 (1610)	11 (3)
15									109 (45)	760 (312)	4520 (1860)	9 (4)
16	834 (356)	359 (153)	724 (309)	1.81 (0.77)	1290 (450)	557 (194)	1120 (391)	2.81 (0.98)	121 (45)	846 (316)	5030 (1880)	9 (3)
17	719 (156)	310 (67)	625 (135)	1.56 (0.34)	1220 (411)	526 (177)	1060 (357)	2.65 (0.89)	149 (31)	1050 (215)	6220 (1280)	12 (2)
18	896 (230)	386 (99)	778 (199)	1.94 (0.50)	871 (248)	375 (107)	756 (215)	1.89 (0.54)	162 (69)	1130 (483)	6750 (2880)	12 (5)
19	884 (290)	381 (125)	767 (252)	1.92 (0.63)	856 (286)	369 (123)	743 (248)	1.86 (0.62)	169 (64)	1180 (445)	7030 (2650)	13 (5)
20	809 (236)	348 (102)	702 (205)	1.75 (0.51)	831 (183)	358 (79)	721 (159)	1.80 (0.40)	188 (54)	1310 (377)	7810 (2240)	14 (4)
21	1260 (465)	543 (200)	1090 (403)	2.74 (1.01)	830 (257)	358 (111)	720 (223)	1.80 (0.56)	188 (93)	1320 (650)	7830 (3870)	14 (7)
22	891 (289)	384 (125)	773 (251)	1.93 (0.63)	859 (257)	370 (111)	745 (223)	1.86 (0.56)				
23	983 (265)	423 (114)	852 (230)	2.13 (0.57)	1020 (255)	439 (110)	884 (221)	2.21 (0.55)	1 (1)	9 (5)	53 (32)	0 (0)
24	1120 (306)	484 (132)	974 (265)	2.43 (0.66)	969 (440)	417 (190)	840 (382)	2.10 (0.96)	2 (1)	12 (8)	70 (46)	0 (0)
25	845 (236)	364 (102)	732 (205)	1.83 (0.51)	815 (256)	351 (110)	706 (222)	1.77 (0.56)				
26	968 (358)	417 (154)	839 (311)	2.10 (0.78)	1190 (830)	512 (358)	1030 (720)	2.58 (1.80)	4 (2)	31 (15)	187 (89)	0 (0)
27	1290 (672)	554 (290)	1110 (583)	2.79 (1.46)	693 (229)	299 (98)	601 (198)	1.50 (0.50)	9 (5)	64 (35)	381 (209)	1 (0)
28	1070 (406)	460 (175)	925 (352)	2.31 (0.88)	751 (222)	323 (96)	650 (193)	1.63 (0.48)	19 (9)	133 (63)	789 (374)	2 (1)
29	1020 (389)	441 (167)	886 (337)	2.21 (0.84)	975 (372)	420 (160)	845 (323)	2.11 (0.81)	42 (21)	293 (144)	1740 (860)	4 (2)
30	1370 (365)	589 (157)	1190 (316)	2.96 (0.79)	996 (235)	429 (101)	862 (203)	2.16 (0.51)	51 (11)	360 (77)	2140 (460)	4 (1)
31	1160 (426)	501 (183)	1010 (369)	2.52 (0.92)	1140 (345)	491 (148)	988 (298)	2.47 (0.75)	81 (36)	566 (254)	3370 (1510)	7 (3)
Mean	864	372	750	1.87	887	382	770	1.92	67	468	2780	5
n	28	28	28	28	28	28	28	28	27	27	27	27
SD	235	101	203	0.51	178	77	154	0.39	63	442	2630	5
Min	530	228	461	1.15	577	248	502	1.25	1	6	37	0
Max	1370	589	1190	2.96	1290	557	1120	2.81	188	1320	7830	14

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for November, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	1030 (668)	445 (288)	894 (578)	2.24 (1.45)	1300 (860)	558 (370)	1120 (744)	2.81 (1.86)	100 (40)	699 (277)	4160 (1650)	8 (3)
2	910 (328)	392 (141)	787 (284)	1.97 (0.71)					109 (44)	766 (306)	4560 (1820)	9 (4)
3	794 (221)	342 (95)	687 (191)	1.72 (0.48)	915 (458)	394 (197)	792 (396)	1.98 (0.99)	131 (50)	919 (350)	5470 (2080)	11 (4)
4	824 (222)	355 (96)	713 (192)	1.78 (0.48)	861 (261)	371 (113)	745 (226)	1.86 (0.57)	126 (46)	881 (322)	5240 (1920)	10 (4)
5	1120 (501)	484 (216)	973 (433)	2.43 (1.08)	869 (266)	374 (115)	752 (230)	1.88 (0.58)	149 (57)	1040 (398)	6190 (2370)	12 (4)
6	935 (425)	403 (183)	809 (368)	2.02 (0.92)								
7	929 (333)	400 (144)	803 (288)	2.01 (0.72)								
8	849 (269)	365 (116)	734 (233)	1.83 (0.58)	1030 (306)	443 (132)	889 (265)	2.22 (0.66)	213 (69)	1490 (482)	8880 (2870)	16 (5)
9	1020 (272)	441 (117)	886 (235)	2.21 (0.59)	979 (359)	422 (155)	846 (310)	2.12 (0.78)	252 (67)	1760 (470)	10500 (2790)	19 (5)
10	986 (176)	425 (76)	852 (152)	2.13 (0.38)	995 (215)	429 (92)	860 (185)	2.15 (0.46)	268 (32)	1870 (226)	11200 (1350)	20 (2)
11	1040 (410)	449 (176)	901 (354)	2.25 (0.89)	1050 (249)	450 (107)	904 (215)	2.26 (0.54)	294 (50)	2060 (351)	12300 (2090)	22 (4)
12	1080 (291)	465 (125)	932 (251)	2.33 (0.63)								
13												
14	1200 (351)	517 (151)	1040 (303)	2.59 (0.76)	1370 (596)	591 (257)	1190 (514)	2.96 (1.29)	2 (2)	14 (12)	84 (73)	0 (0)
15	1100 (276)	472 (119)	945 (238)	2.36 (0.60)	794 (247)	342 (106)	686 (213)	1.71 (0.53)	5 (4)	36 (27)	214 (163)	0 (0)
16	1240 (422)	535 (182)	1070 (364)	2.68 (0.91)	894 (332)	385 (143)	772 (286)	1.93 (0.72)	8 (6)	58 (40)	345 (240)	1 (1)
17	1030 (298)	443 (128)	888 (257)	2.22 (0.64)	782 (220)	337 (95)	675 (190)	1.69 (0.47)	13 (7)	89 (51)	531 (302)	1 (1)
18	1160 (408)	501 (176)	1000 (352)	2.51 (0.88)	1090 (462)	471 (199)	944 (399)	2.36 (1.00)	20 (9)	139 (65)	826 (385)	2 (1)
19	1080 (256)	463 (110)	928 (220)	2.32 (0.55)	721 (149)	310 (64)	622 (129)	1.55 (0.32)	35 (18)	243 (124)	1440 (740)	3 (2)
20	1220 (341)	526 (147)	1050 (294)	2.63 (0.74)	734 (261)	316 (112)	633 (225)	1.58 (0.56)	57 (30)	396 (212)	2360 (1260)	5 (3)
21	1130 (323)	485 (139)	970 (279)	2.43 (0.70)	773 (274)	333 (118)	666 (236)	1.67 (0.59)	65 (44)	458 (311)	2720 (1850)	5 (4)
22	1290 (575)	555 (248)	1110 (496)	2.78 (1.24)	650 (152)	280 (66)	561 (131)	1.40 (0.33)	97 (55)	676 (385)	4020 (2290)	8 (5)
23	905 (238)	390 (103)	780 (205)	1.95 (0.51)					149 (83)	1040 (581)	6200 (3460)	12 (7)
24	1020 (371)	438 (160)	877 (320)	2.19 (0.80)	646 (166)	278 (72)	557 (143)	1.39 (0.36)	152 (91)	1060 (634)	6310 (3770)	12 (7)
25	1290 (424)	556 (183)	1110 (365)	2.78 (0.91)	723 (119)	311 (51)	623 (102)	1.56 (0.26)	180 (93)	1260 (650)	7500 (3870)	14 (7)
26	1210 (345)	521 (149)	1040 (297)	2.60 (0.74)	857 (254)	369 (110)	739 (219)	1.85 (0.55)	185 (101)	1300 (710)	7720 (4230)	15 (8)
27												
28												
29												
30	863 (214)	372 (92)	743 (184)	1.86 (0.46)	950 (286)	409 (123)	818 (246)	2.04 (0.62)	263 (141)	1840 (985)	11000 (5860)	20 (11)
Mean	1050	452	905	2.26	904	389	780	1.95	125	874	5200	10
n	26	26	26	26	21	21	21	21	23	23	23	23
SD	142	61	122	0.31	187	81	162	0.41	90	629	3740	7
Min	794	342	687	1.72	646	278	557	1.39	2	14	84	0
Max	1290	556	1110	2.78	1370	591	1190	2.96	294	2060	12300	22

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for December, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	816 (141)	352 (61)	703 (121)	1.76 (0.30)					264 (78)	1850 (544)	11000 (3240)	20 (6)
2	976 (181)	420 (78)	840 (156)	2.10 (0.39)	958 (391)	412 (168)	824 (336)	2.06 (0.84)	234 (85)	1640 (594)	9750 (3530)	18 (6)
3	998 (304)	430 (131)	859 (261)	2.15 (0.65)	600 (211)	258 (91)	516 (181)	1.29 (0.45)	213 (73)	1490 (508)	8890 (3020)	16 (5)
4	1040 (240)	447 (104)	893 (207)	2.23 (0.52)	681 (99)	293 (43)	586 (85)	1.47 (0.21)	210 (56)	1470 (393)	8770 (2340)	16 (4)
5	1130 (351)	488 (151)	976 (302)	2.44 (0.76)	768 (194)	331 (83)	661 (167)	1.65 (0.42)	214 (119)	1500 (830)	8920 (4940)	16 (9)
6	927 (312)	399 (135)	798 (269)	1.99 (0.67)	793 (326)	341 (141)	683 (281)	1.71 (0.70)				
7	782 (296)	337 (127)	674 (255)	1.68 (0.64)	1080 (838)	465 (361)	929 (722)	2.32 (1.80)				
8	717 (206)	309 (89)	617 (177)	1.54 (0.44)	840 (123)	362 (53)	723 (106)	1.81 (0.26)	1 (1)	7 (6)	45 (34)	0 (0)
9	657 (119)	283 (51)	566 (103)	1.42 (0.26)	1020 (652)	438 (281)	875 (561)	2.19 (1.40)	3 (2)	18 (15)	104 (91)	0 (0)
10	745 (280)	321 (121)	641 (241)	1.60 (0.60)	924 (404)	398 (174)	795 (348)	1.99 (0.87)	3 (3)	21 (19)	127 (116)	0 (0)
11					765 (137)	330 (59)	659 (118)	1.65 (0.30)	5 (4)	36 (29)	217 (175)	0 (0)
12	737 (227)	317 (98)	635 (195)	1.59 (0.49)	854 (216)	368 (93)	735 (186)	1.84 (0.46)	7 (5)	52 (38)	311 (225)	1 (0)
13	984 (319)	424 (137)	847 (274)	2.12 (0.69)	1030 (162)	442 (70)	883 (139)	2.21 (0.35)	14 (12)	94 (81)	562 (482)	1 (1)
14	726 (164)	312 (71)	625 (141)	1.56 (0.35)	1000 (119)	432 (51)	863 (103)	2.16 (0.26)	16 (12)	113 (84)	675 (501)	1 (1)
15	792 (198)	341 (85)	682 (171)	1.71 (0.43)	1020 (256)	441 (110)	882 (221)	2.21 (0.55)	21 (16)	145 (109)	860 (648)	2 (1)
16	918 (335)	395 (144)	791 (289)	1.98 (0.72)	1140 (381)	491 (164)	982 (328)	2.46 (0.82)	31 (20)	215 (140)	1280 (833)	3 (2)
17	943 (365)	406 (157)	812 (315)	2.03 (0.79)	799 (227)	344 (98)	688 (196)	1.72 (0.49)	50 (32)	350 (226)	2080 (1350)	4 (3)
18	937 (275)	403 (118)	807 (237)	2.02 (0.59)	569 (154)	245 (66)	490 (133)	1.23 (0.33)				
19	1360 (592)	586 (255)	1170 (510)	2.93 (1.27)	565 (167)	243 (72)	486 (144)	1.22 (0.36)	116 (60)	814 (423)	4840 (2520)	9 (5)
20												
21												
22	842 (231)	363 (100)	726 (199)	1.81 (0.50)	579 (153)	249 (66)	499 (132)	1.25 (0.33)	134 (72)	942 (505)	5600 (3010)	11 (6)
23	1130 (536)	488 (231)	977 (462)	2.44 (1.15)	517 (143)	223 (62)	445 (124)	1.11 (0.31)	138 (75)	968 (525)	5760 (3130)	11 (6)
24	892 (292)	384 (126)	768 (252)	1.92 (0.63)					149 (74)	1040 (521)	6200 (3100)	11 (6)
25	907 (265)	391 (114)	782 (228)	1.95 (0.57)	613 (199)	264 (86)	528 (172)	1.32 (0.43)	138 (89)	964 (620)	5740 (3690)	10 (7)
26	920 (226)	396 (97)	792 (195)	1.98 (0.49)	803 (270)	346 (116)	692 (233)	1.73 (0.58)	163 (107)	1140 (751)	6780 (4470)	12 (8)
27					1090 (281)	470 (121)	940 (243)	2.35 (0.61)				
28	812 (146)	350 (63)	700 (126)	1.75 (0.32)	765 (114)	329 (49)	659 (98)	1.65 (0.25)				
29	888 (244)	383 (105)	766 (210)	1.91 (0.53)	1100 (718)	472 (309)	945 (619)	2.36 (1.55)				
30	1050 (305)	450 (131)	902 (263)	2.25 (0.66)	601 (251)	259 (108)	518 (216)	1.29 (0.54)				
31												
Mean	909	391	783	1.96	826	356	711	1.78	101	708	4210	8
n	26	26	26	26	26	26	26	26	21	21	21	21
SD	152	66	131	0.33	191	82	165	0.41	89	626	3720	7
Min	657	283	566	1.42	517	223	445	1.11	1	7	45	0
Max	1360	586	1170	2.93	1140	491	982	2.46	264	1850	11000	20

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for January, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1												
2	1230 (383)	528 (165)	1060 (330)	2.64 (0.83)	556 (158)	240 (68)	479 (136)	1.20 (0.34)	6 (5)	43 (34)	254 (199)	1 (0)
3												
4	1200 (347)	518 (149)	1040 (299)	2.59 (0.75)	716 (343)	309 (148)	617 (295)	1.54 (0.74)	8 (6)	58 (45)	346 (265)	1 (1)
5	1200 (422)	515 (182)	1030 (363)	2.58 (0.91)					10 (6)	71 (42)	420 (248)	1 (0)
6	1470 (425)	632 (183)	1260 (366)	3.16 (0.92)					16 (10)	114 (71)	678 (422)	1 (1)
7	1330 (641)	572 (276)	1140 (552)	2.86 (1.38)					26 (15)	182 (107)	1080 (638)	2 (1)
8	1720 (1140)	741 (489)	1480 (978)	3.70 (2.44)	1110 (734)	480 (316)	959 (631)	2.40 (1.58)	40 (26)	279 (180)	1660 (1070)	3 (2)
9	987 (251)	425 (108)	849 (216)	2.12 (0.54)					68 (32)	473 (224)	2810 (1330)	5 (3)
10	1100 (358)	472 (154)	942 (308)	2.36 (0.77)	687 (356)	296 (153)	591 (306)	1.48 (0.77)	88 (52)	613 (362)	3650 (2150)	7 (4)
11												
12	1030 (257)	444 (111)	885 (221)	2.21 (0.55)	661 (300)	285 (129)	568 (258)	1.42 (0.65)	129 (69)	903 (485)	5370 (2890)	10 (5)
13	1060 (304)	458 (131)	913 (261)	2.28 (0.65)	838 (490)	361 (211)	720 (421)	1.80 (1.05)	126 (65)	882 (456)	5250 (2710)	10 (5)
14	1010 (297)	436 (128)	869 (256)	2.17 (0.64)	659 (368)	284 (159)	566 (317)	1.42 (0.79)	155 (74)	1090 (517)	6460 (3070)	12 (6)
15									211 (92)	1480 (644)	8780 (3830)	16 (7)
16	1020 (358)	441 (154)	878 (307)	2.20 (0.77)	665 (247)	286 (106)	571 (212)	1.43 (0.53)				
17	901 (309)	388 (133)	773 (265)	1.93 (0.66)	691 (367)	298 (158)	593 (315)	1.48 (0.79)				
18	669 (152)	288 (65)	574 (130)	1.44 (0.33)					186 (107)	1300 (747)	7760 (4440)	14 (8)
19	610 (175)	263 (76)	524 (150)	1.31 (0.38)					189 (110)	1320 (769)	7870 (4580)	14 (8)
20	602 (154)	259 (66)	517 (132)	1.29 (0.33)					221 (99)	1550 (696)	9220 (4140)	17 (7)
21	534 (92)	230 (40)	458 (79)	1.15 (0.20)	556 (69)	239 (30)	477 (59)	1.19 (0.15)	237 (128)	1660 (899)	9870 (5350)	18 (10)
22	611 (150)	263 (65)	524 (129)	1.31 (0.32)	555 (74)	239 (32)	476 (64)	1.19 (0.16)	218 (104)	1530 (730)	9090 (4340)	16 (8)
23	731 (241)	315 (104)	626 (207)	1.57 (0.52)	560 (90)	241 (39)	480 (77)	1.20 (0.19)				
24												
25	819 (228)	353 (98)	702 (195)	1.75 (0.49)	650 (150)	280 (65)	557 (128)	1.39 (0.32)	17 (14)	120 (99)	715 (592)	2 (1)
26	864 (284)	372 (122)	740 (244)	1.85 (0.61)	612 (72)	264 (31)	525 (61)	1.31 (0.15)	10 (7)	70 (51)	417 (306)	1 (1)
27												
28												
29												
30												
31												
Mean	985	424	847	2.12	680	293	584	1.46	103	723	4300	8
n	21	21	21	21	14	14	14	14	19	19	19	19
SD	301	130	260	0.65	142	61	123	0.31	85	595	3540	6
Min	534	230	458	1.15	555	239	476	1.19	6	43	254	1
Max	1720	741	1480	3.70	1110	480	959	2.40	237	1660	9870	18

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for February, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	871 (261)	375 (112)	745 (223)	1.86 (0.56)					23 (15)	161 (102)	957 (607)	2 (1)
2	875 (320)	377 (138)	748 (274)	1.87 (0.68)	713 (110)	307 (47)	610 (94)	1.52 (0.24)	39 (26)	273 (181)	1620 (1080)	3 (2)
3	1050 (537)	452 (231)	897 (459)	2.24 (1.15)	769 (116)	331 (50)	658 (100)	1.64 (0.25)	60 (29)	417 (202)	2480 (1200)	5 (2)
4												
5	778 (163)	335 (70)	664 (139)	1.66 (0.35)	739 (102)	318 (44)	631 (87)	1.58 (0.22)	64 (45)	448 (312)	2670 (1860)	5 (4)
6									109 (58)	764 (402)	4550 (2390)	9 (5)
7												
8	944 (327)	407 (141)	806 (279)	2.01 (0.70)	671 (191)	289 (82)	573 (163)	1.43 (0.41)	137 (69)	957 (480)	5690 (2850)	11 (5)
9	907 (384)	391 (165)	774 (328)	1.94 (0.82)	672 (301)	289 (130)	573 (257)	1.43 (0.64)	180 (74)	1260 (520)	7490 (3100)	14 (6)
10	614 (168)	264 (72)	523 (143)	1.31 (0.36)	514 (158)	221 (68)	439 (134)	1.10 (0.34)	191 (109)	1340 (762)	7970 (4530)	15 (8)
11	960 (542)	413 (233)	819 (462)	2.05 (1.16)	545 (144)	235 (62)	465 (123)	1.16 (0.31)	207 (100)	1450 (699)	8640 (4160)	16 (8)
12	742 (192)	320 (83)	633 (163)	1.58 (0.41)					243 (124)	1700 (871)	10100 (5190)	18 (9)
13	908 (185)	391 (80)	774 (158)	1.93 (0.40)					255 (92)	1790 (641)	10600 (3820)	19 (7)
14	1040 (408)	447 (176)	885 (347)	2.21 (0.87)	740 (211)	319 (91)	630 (180)	1.58 (0.45)	261 (133)	1830 (928)	10900 (5520)	20 (10)
15	628 (159)	271 (68)	535 (135)	1.34 (0.34)	738 (102)	318 (44)	629 (87)	1.57 (0.22)	260 (147)	1820 (1030)	10800 (6110)	19 (11)
16	857 (470)	369 (202)	730 (400)	1.83 (1.00)	728 (183)	314 (79)	620 (156)	1.55 (0.39)	279 (120)	1960 (840)	11600 (5000)	21 (9)
17	794 (351)	342 (151)	676 (299)	1.69 (0.75)	997 (401)	430 (173)	849 (341)	2.12 (0.85)	232 (146)	1630 (1020)	9680 (6070)	17 (11)
18	732 (253)	315 (109)	623 (215)	1.56 (0.54)					119 (165)	830 (1150)		
19	755 (265)	325 (114)	642 (225)	1.61 (0.56)	1160 (336)	501 (145)	990 (286)	2.47 (0.71)	6 (6)	44 (39)	259 (232)	1 (1)
20	688 (235)	296 (101)	585 (200)	1.46 (0.50)	891 (144)	384 (62)	758 (123)	1.89 (0.31)	4 (4)	26 (28)	154 (169)	0 (0)
21	982 (566)	423 (244)	835 (481)	2.09 (1.20)	946 (419)	408 (180)	805 (356)	2.01 (0.89)	3 (3)	24 (23)	141 (135)	0 (0)
22	784 (310)	338 (134)	666 (264)	1.67 (0.66)	760 (205)	327 (88)	646 (174)	1.62 (0.44)	4 (4)	30 (25)	176 (150)	0 (0)
23	710 (336)	306 (145)	603 (285)	1.51 (0.71)	654 (217)	282 (94)	555 (185)	1.39 (0.46)	5 (4)	37 (26)	220 (152)	0 (0)
24	855 (482)	368 (207)	726 (409)	1.81 (1.02)	877 (473)	378 (204)	745 (401)	1.86 (1.00)	9 (6)	66 (40)	391 (239)	1 (0)
25	751 (193)	323 (83)	638 (164)	1.59 (0.41)	672 (234)	290 (101)	571 (199)	1.43 (0.50)	11 (8)	77 (54)	458 (319)	1 (1)
26	699 (183)	301 (79)	594 (155)	1.48 (0.39)	737 (197)	317 (85)	625 (168)	1.56 (0.42)	16 (12)	109 (81)	651 (480)	1 (1)
27	885 (297)	381 (128)	751 (252)	1.88 (0.63)	732 (222)	315 (96)	621 (189)	1.55 (0.47)	27 (16)	191 (111)	1140 (660)	2 (1)
28	1250 (911)	538 (392)	1060 (773)	2.65 (1.93)	930 (315)	401 (136)	789 (267)	1.97 (0.67)	40 (20)	280 (143)	1670 (850)	3 (2)
29	1020 (426)	439 (183)	865 (361)	2.16 (0.90)	834 (240)	359 (104)	707 (204)	1.77 (0.51)	64 (30)	450 (207)	2680 (1230)	5 (2)
Mean	849	366	723	1.81	774	333	659	1.65	106	739	4380	8
n	26	26	26	26	22	22	22	22	27	27	26	26
SD	144	62	123	0.31	145	62	123	0.31	99	693	4200	8
Min	614	264	523	1.31	514	221	439	1.10	3	24	141	0
Max	1250	538	1060	2.65	1160	501	990	2.47	279	1960	11600	21

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for March, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	1210 (425)	519 (183)	1020 (361)	2.56 (0.90)	839 (169)	362 (73)	712 (143)	1.78 (0.36)	85 (29)	593 (204)	3530 (1220)	7 (2)
2	1420 (657)	611 (283)	1200 (557)	3.01 (1.39)	964 (223)	415 (96)	817 (189)	2.04 (0.47)	99 (35)	695 (243)	4140 (1450)	8 (3)
3	923 (363)	397 (156)	782 (308)	1.96 (0.77)	921 (160)	397 (69)	781 (136)	1.95 (0.34)	107 (74)	748 (517)	4450 (3070)	8 (6)
4	999 (265)	430 (114)	847 (225)	2.12 (0.56)	1220 (671)	525 (289)	1030 (569)	2.58 (1.42)	149 (76)	1050 (534)	6220 (3180)	12 (6)
5	1000 (314)	431 (135)	847 (266)	2.12 (0.67)	982 (368)	423 (159)	832 (312)	2.08 (0.78)	162 (105)	1140 (737)	6760 (4390)	12 (8)
6	1090 (295)	471 (127)	926 (250)	2.31 (0.63)	831 (182)	358 (79)	704 (154)	1.76 (0.39)	194 (106)	1360 (743)	8080 (4420)	15 (8)
7	850 (182)	366 (79)	720 (155)	1.80 (0.39)	1100 (403)	474 (173)	932 (341)	2.33 (0.85)	176 (123)	1230 (859)	7330 (5110)	13 (9)
8	863 (133)	372 (57)	731 (113)	1.83 (0.28)	1120 (529)	481 (228)	946 (448)	2.36 (1.12)	223 (100)	1560 (702)	9310 (4170)	17 (8)
9	922 (269)	397 (116)	781 (227)	1.95 (0.57)	1110 (577)	478 (249)	941 (489)	2.35 (1.22)	241 (77)	1690 (536)	10000 (3190)	18 (6)
10	832 (181)	358 (78)	705 (153)	1.76 (0.38)	1430 (568)	618 (245)	1210 (481)	3.04 (1.20)	252 (80)	1770 (561)	10500 (3340)	19 (6)
11	907 (224)	391 (96)	767 (189)	1.92 (0.47)	1320 (560)	569 (241)	1120 (474)	2.79 (1.19)	231 (57)	1620 (401)	9620 (2390)	17 (4)
12	1010 (256)	434 (110)	853 (217)	2.13 (0.54)	1160 (472)	501 (203)	983 (399)	2.46 (1.00)	235 (50)	1640 (352)	9770 (2090)	18 (4)
13	967 (310)	416 (134)	818 (262)	2.04 (0.66)	1180 (1010)	508 (435)	998 (854)	2.50 (2.13)	240 (52)	1680 (361)	9980 (2150)	18 (4)
14	990 (258)	426 (111)	837 (218)	2.09 (0.55)	804 (253)	346 (109)	680 (214)	1.70 (0.54)	243 (81)	1700 (566)	10100 (3370)	18 (6)
15	1010 (358)	435 (154)	855 (303)	2.14 (0.76)	814 (352)	350 (151)	688 (297)	1.72 (0.74)	238 (85)	1670 (597)	9920 (3550)	18 (6)
16	912 (335)	393 (144)	771 (283)	1.93 (0.71)	650 (187)	280 (80)	550 (158)	1.37 (0.39)	250 (97)	1750 (680)	10400 (4040)	19 (7)
17	916 (486)	394 (209)	774 (411)	1.93 (1.03)	768 (253)	331 (109)	649 (214)	1.62 (0.54)	80 (114)	560 (801)		
18	694 (173)	299 (75)	587 (146)	1.47 (0.37)	785 (243)	338 (105)	663 (205)	1.66 (0.51)	4 (4)	30 (25)	179 (149)	0 (0)
19	708 (130)	305 (56)	598 (110)	1.49 (0.27)	659 (129)	284 (56)	557 (109)	1.39 (0.27)	3 (3)	22 (18)	129 (109)	0 (0)
20	1090 (634)	471 (273)	923 (535)	2.31 (1.34)	823 (163)	355 (70)	695 (137)	1.74 (0.34)	3 (2)	24 (12)	142 (71)	0 (0)
21	474 (111)	204 (48)	401 (94)	1.00 (0.24)	858 (217)	370 (94)	725 (184)	1.81 (0.46)	6 (4)	43 (28)	253 (165)	1 (0)
22	370 (129)	160 (56)	313 (109)	0.78 (0.27)	977 (272)	421 (117)	825 (229)	2.06 (0.57)	7 (5)	49 (36)	289 (211)	1 (0)
23	307 (91)	132 (39)	259 (76)	0.65 (0.19)	921 (226)	396 (97)	777 (191)	1.94 (0.48)	11 (8)	79 (57)	468 (341)	1 (1)
24												
25	397 (98)	171 (42)	335 (83)	0.84 (0.21)	1500 (858)	648 (370)	1270 (724)	3.17 (1.81)	27 (11)	190 (78)	1130 (463)	2 (1)
26	555 (385)	239 (166)	468 (324)	1.17 (0.81)	878 (229)	378 (99)	741 (193)	1.85 (0.48)	38 (17)	268 (117)	1590 (696)	3 (1)
27	528 (236)	227 (102)	445 (199)	1.11 (0.50)	1070 (482)	461 (208)	903 (407)	2.26 (1.02)	56 (24)	392 (169)	2330 (1010)	5 (2)
28	552 (241)	238 (104)	465 (203)	1.16 (0.51)	1020 (489)	441 (210)	863 (412)	2.16 (1.03)	76 (38)	530 (264)	3150 (1570)	6 (3)
29	482 (133)	208 (57)	406 (112)	1.02 (0.28)	860 (253)	370 (109)	725 (213)	1.81 (0.53)	82 (30)	575 (210)	3420 (1250)	7 (2)
30	583 (148)	251 (64)	492 (125)	1.23 (0.31)	982 (279)	423 (120)	827 (235)	2.07 (0.59)	105 (42)	732 (290)	4350 (1730)	8 (3)
31	629 (199)	271 (86)	530 (168)	1.33 (0.42)	1210 (544)	521 (234)	1020 (458)	2.55 (1.15)	142 (57)	995 (399)	5920 (2380)	11 (4)
Mean	806	347	682	1.71	992	427	839	2.10	126	879	5290	10
n	30	30	30	30	30	30	30	30	30	30	29	29
SD	265	114	225	0.56	208	90	176	0.44	90	632	3810	7
Min	307	132	259	0.65	650	280	550	1.37	3	22	129	0
Max	1420	611	1200	3.01	1500	648	1270	3.17	252	1770	10500	19

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for April, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	662 (248)	285 (107)	558 (209)	1.39 (0.52)	1110 (542)	479 (233)	937 (457)	2.34 (1.14)	157 (82)	1100 (576)	6540 (3430)	12 (6)
2	700 (206)	301 (89)	590 (173)	1.47 (0.43)	992 (295)	427 (127)	836 (249)	2.09 (0.62)	183 (66)	1280 (464)	7630 (2760)	14 (5)
3	893 (288)	384 (124)	752 (243)	1.88 (0.61)	1150 (617)	497 (266)	972 (519)	2.43 (1.30)	205 (72)	1440 (506)	8560 (3010)	16 (5)
4	772 (232)	333 (100)	650 (195)	1.63 (0.49)	1040 (484)	446 (208)	872 (408)	2.18 (1.02)	204 (71)	1430 (500)	8500 (2970)	15 (5)
5	829 (230)	357 (99)	699 (193)	1.75 (0.48)	777 (145)	335 (63)	655 (122)	1.64 (0.31)	187 (59)	1310 (415)	7770 (2470)	14 (4)
6	833 (179)	359 (77)	701 (151)	1.75 (0.38)	1090 (472)	472 (203)	922 (398)	2.31 (0.99)	195 (53)	1370 (374)	8130 (2230)	15 (4)
7	823 (258)	354 (111)	693 (217)	1.73 (0.54)	647 (182)	279 (78)	545 (153)	1.36 (0.38)	176 (67)	1230 (466)	7340 (2770)	13 (5)
8	873 (297)	376 (128)	736 (250)	1.84 (0.63)	608 (158)	262 (68)	512 (133)	1.28 (0.33)	131 (187)	917 (1310)	5460 (7780)	10 (14)
9	825 (259)	355 (112)	695 (218)	1.74 (0.55)	551 (96)	237 (42)	464 (81)	1.16 (0.20)				
10					869 (356)	374 (154)	732 (300)	1.83 (0.75)				
11					772 (135)	332 (58)	650 (114)	1.63 (0.29)				
12	854 (242)	368 (104)	719 (203)	1.80 (0.51)	753 (144)	324 (62)	634 (121)	1.59 (0.30)				
13	831 (206)	358 (89)	700 (173)	1.75 (0.43)	728 (77)	314 (33)	613 (65)	1.53 (0.16)				
14												
15	965 (221)	416 (95)	813 (186)	2.03 (0.47)	986 (223)	424 (96)	830 (188)	2.08 (0.47)	6 (5)	44 (37)	264 (221)	1 (0)
16	952 (191)	410 (82)	802 (160)	2.00 (0.40)	740 (137)	319 (59)	623 (116)	1.56 (0.29)	8 (2)	59 (11)	350 (63)	1 (0)
17	1100 (363)	475 (156)	928 (305)	2.32 (0.76)	1410 (1370)	609 (589)	1190 (1150)	2.98 (2.88)	8 (6)	57 (42)	336 (251)	1 (1)
18	1080 (393)	463 (169)	906 (331)	2.26 (0.83)	735 (183)	316 (79)	619 (154)	1.55 (0.39)	15 (6)	106 (45)	628 (265)	1 (1)
19	959 (281)	413 (121)	807 (236)	2.02 (0.59)	773 (572)	333 (246)	651 (482)	1.63 (1.20)	23 (9)	160 (64)	951 (379)	2 (1)
20	951 (205)	410 (89)	801 (173)	2.00 (0.43)	803 (195)	346 (84)	676 (164)	1.69 (0.41)	31 (6)	216 (43)	1290 (255)	3 (0)
21												
22	985 (249)	424 (107)	829 (210)	2.07 (0.53)	758 (305)	326 (131)	638 (257)	1.60 (0.64)	67 (13)	467 (94)	2780 (556)	5 (1)
23					934 (312)	402 (135)	786 (263)	1.97 (0.66)	82 (12)	572 (86)	3400 (509)	6 (1)
24	1190 (224)	511 (96)	1000 (188)	2.50 (0.47)	1100 (365)	475 (157)	929 (308)	2.32 (0.77)	82 (12)	573 (81)	3410 (484)	6 (1)
25	1620 (571)	696 (246)	1360 (481)	3.40 (1.20)	894 (468)	385 (202)	753 (394)	1.88 (0.99)	103 (18)	724 (122)	4310 (728)	8 (1)
26	1240 (498)	532 (215)	1040 (419)	2.60 (1.05)					130 (32)	910 (224)	5410 (1330)	10 (2)
27	1050 (520)	452 (224)	884 (438)	2.21 (1.09)	738 (330)	318 (142)	621 (278)	1.55 (0.69)	141 (44)	990 (310)	5890 (1840)	11 (3)
28	962 (609)	414 (262)	810 (512)	2.02 (1.28)	797 (302)	343 (130)	671 (254)	1.68 (0.64)	167 (37)	1170 (257)	6960 (1530)	13 (3)
29												
30												
Mean	954	411	803	2.01	871	375	733	1.83	110	768	4570	8
n	23	23	23	23	25	25	25	25	21	21	21	21
SD	198	85	167	0.42	196	84	165	0.41	71	497	2960	5
Min	662	285	558	1.39	551	237	464	1.16	6	44	264	1
Max	1620	696	1360	3.40	1410	609	1190	2.98	205	1440	8560	16

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for May, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1												
2												
3												
4												
5												
6	781 (134)	336 (58)	656 (113)	1.64 (0.28)	870 (157)	374 (68)	731 (132)	1.83 (0.33)	23 (30)	158 (212)	938 (1260)	2 (3)
7	896 (231)	386 (99)	753 (194)	1.88 (0.48)					3 (2)	19 (14)	111 (83)	0 (0)
8	993 (193)	428 (83)	834 (162)	2.09 (0.41)	1170 (248)	505 (107)	985 (209)	2.46 (0.52)	2 (2)	16 (15)	93 (91)	0 (0)
9					1190 (558)	511 (240)	997 (469)	2.49 (1.17)	9 (17)	65 (116)	387 (688)	1 (1)
10	1460 (763)	630 (329)	1230 (641)	3.07 (1.60)	934 (188)	402 (81)	784 (158)	1.96 (0.40)	9 (4)	61 (31)	365 (187)	1 (0)
11	982 (195)	423 (84)	825 (164)	2.06 (0.41)	1020 (171)	438 (74)	854 (144)	2.13 (0.36)	14 (7)	96 (47)	571 (282)	1 (1)
12	1080 (251)	467 (108)	910 (210)	2.27 (0.53)	998 (178)	430 (77)	837 (150)	2.09 (0.37)	21 (8)	145 (53)	861 (313)	2 (1)
13	994 (213)	428 (92)	834 (179)	2.09 (0.45)	949 (242)	409 (104)	797 (203)	1.99 (0.51)	32 (11)	221 (75)	1320 (449)	3 (1)
14	858 (176)	369 (76)	720 (148)	1.80 (0.37)					35 (15)	243 (107)	1450 (634)	3 (1)
15	953 (179)	410 (77)	799 (150)	2.00 (0.38)	947 (263)	408 (113)	794 (221)	1.99 (0.55)	48 (17)	336 (122)	2000 (726)	4 (1)
16	1110 (207)	477 (89)	928 (173)	2.32 (0.43)	730 (164)	314 (70)	612 (137)	1.53 (0.34)	66 (26)	465 (181)	2770 (1080)	5 (2)
17	1030 (221)	445 (95)	866 (185)	2.17 (0.46)	716 (134)	308 (58)	600 (112)	1.50 (0.28)	79 (19)	551 (130)	3280 (771)	6 (1)
18	1110 (192)	476 (83)	926 (161)	2.32 (0.40)	825 (155)	355 (67)	692 (130)	1.73 (0.33)	102 (26)	714 (180)	4250 (1070)	8 (2)
19	1590 (649)	685 (279)	1330 (544)	3.33 (1.36)	1000 (185)	431 (80)	839 (155)	2.10 (0.39)	121 (24)	846 (170)	5030 (1010)	9 (2)
20	901 (304)	388 (131)	755 (255)	1.89 (0.64)	777 (156)	334 (67)	651 (131)	1.63 (0.33)	146 (34)	1020 (235)	6100 (1400)	11 (3)
21	1030 (207)	445 (89)	865 (173)	2.16 (0.43)	1080 (232)	464 (100)	903 (194)	2.26 (0.49)	148 (16)	1040 (109)	6170 (648)	11 (1)
22	1280 (320)	552 (138)	1070 (268)	2.68 (0.67)	1270 (486)	549 (209)	1070 (407)	2.67 (1.02)	152 (21)	1070 (145)	6350 (864)	12 (2)
23	1220 (388)	527 (167)	1030 (325)	2.56 (0.81)	786 (138)	338 (59)	658 (115)	1.64 (0.29)	166 (30)	1160 (211)	6920 (1250)	13 (2)
24	1080 (249)	467 (107)	907 (208)	2.27 (0.52)	774 (247)	333 (106)	648 (207)	1.62 (0.52)	156 (28)	1090 (196)	6510 (1170)	12 (2)
25	1150 (258)	493 (111)	959 (216)	2.40 (0.54)	756 (171)	326 (74)	633 (143)	1.58 (0.36)	143 (22)	1000 (151)	5960 (898)	11 (2)
26	1130 (270)	489 (116)	949 (226)	2.37 (0.56)	729 (151)	314 (65)	610 (126)	1.52 (0.32)	149 (22)	1040 (154)	6210 (915)	11 (2)
27	1020 (287)	441 (123)	857 (240)	2.14 (0.60)								
28	967 (405)	416 (174)	808 (338)	2.02 (0.85)					3 (2)	18 (13)	107 (75)	0 (0)
29	723 (237)	311 (102)	604 (198)	1.51 (0.50)	1050 (245)	453 (106)	878 (205)	2.20 (0.51)				
30	728 (223)	313 (96)	608 (186)	1.52 (0.47)	1040 (263)	447 (113)	868 (220)	2.17 (0.55)				
31	732 (222)	315 (96)	611 (186)	1.53 (0.47)	891 (197)	384 (85)	745 (164)	1.86 (0.41)				
Mean	1030	445	865	2.16	932	401	781	1.95	74	518	3080	6
n	25	25	25	25	22	22	22	22	22	22	22	22
SD	206	89	173	0.43	158	68	133	0.33	61	429	2550	5
Min	723	311	604	1.51	716	308	600	1.50	2	16	93	0
Max	1590	685	1330	3.33	1270	549	1070	2.67	166	1160	6920	13

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for June, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	769 (394)	331 (170)	643 (329)	1.61 (0.82)	788 (179)	339 (77)	659 (150)	1.65 (0.38)	9 (3)	60 (24)	356 (141)	1 (0)
2	1080 (488)	466 (210)	906 (408)	2.26 (1.02)	739 (158)	318 (68)	618 (133)	1.55 (0.33)	19 (8)	136 (55)	809 (325)	2 (1)
3												
4												
5	827 (178)	356 (77)	693 (150)	1.73 (0.37)	912 (174)	393 (75)	765 (146)	1.91 (0.36)	46 (16)	322 (112)	1910 (668)	4 (1)
6	711 (136)	306 (59)	597 (114)	1.49 (0.29)	898 (198)	387 (85)	754 (166)	1.88 (0.41)	50 (14)	349 (98)	2080 (580)	4 (1)
7	679 (85)	292 (37)	570 (72)	1.43 (0.18)	856 (154)	369 (66)	720 (129)	1.80 (0.32)	59 (9)	416 (66)	2470 (391)	5 (1)
8	865 (113)	372 (49)	727 (95)	1.82 (0.24)	830 (133)	358 (57)	698 (112)	1.75 (0.28)	84 (16)	589 (111)	3500 (662)	7 (1)
9	855 (158)	368 (68)	720 (133)	1.80 (0.33)	795 (137)	342 (59)	669 (115)	1.67 (0.29)	90 (27)	631 (188)	3750 (1120)	7 (2)
10	861 (522)	371 (225)	725 (439)	1.81 (1.10)	891 (322)	384 (139)	751 (272)	1.88 (0.68)	92 (15)	645 (104)	3840 (617)	7 (1)
11	1030 (182)	442 (78)	865 (153)	2.16 (0.38)	879 (202)	379 (87)	741 (171)	1.85 (0.43)	117 (17)	821 (116)	4880 (691)	9 (1)
12	893 (184)	385 (79)	754 (155)	1.88 (0.39)	639 (154)	275 (67)	539 (130)	1.35 (0.33)	132 (26)	924 (184)	5500 (1090)	10 (2)
13	904 (138)	389 (60)	763 (117)	1.91 (0.29)	505 (118)	218 (51)	427 (100)	1.07 (0.25)	148 (32)	1040 (222)	6160 (1320)	11 (2)
14												
15	955 (209)	411 (90)	808 (177)	2.02 (0.44)	527 (109)	227 (47)	446 (92)	1.12 (0.23)	202 (74)	1420 (520)	8430 (3090)	15 (6)
16	858 (268)	369 (115)	726 (226)	1.82 (0.57)								
17	964 (202)	415 (87)	817 (171)	2.04 (0.43)	616 (92)	265 (40)	522 (78)	1.30 (0.20)	5 (3)	32 (23)	192 (135)	0 (0)
18	808 (639)	348 (275)	685 (542)	1.71 (1.35)	843 (208)	363 (90)	715 (177)	1.79 (0.44)	2 (1)	13 (8)	78 (49)	0 (0)
19	488 (180)	210 (78)	415 (153)	1.04 (0.38)	779 (228)	336 (98)	662 (194)	1.65 (0.48)	1 (1)	8 (7)	50 (42)	0 (0)
20	592 (195)	255 (84)	503 (166)	1.26 (0.42)								
21												
22	711 (149)	306 (64)	606 (127)	1.51 (0.32)	994 (238)	428 (102)	846 (202)	2.12 (0.51)				
23	723 (170)	311 (73)	616 (145)	1.54 (0.36)	1030 (218)	444 (94)	879 (186)	2.20 (0.47)				
24	724 (107)	312 (46)	617 (91)	1.54 (0.23)	958 (221)	413 (95)	817 (188)	2.04 (0.47)				
25												
26												
27												
28	959 (209)	413 (90)	820 (179)	2.05 (0.45)	956 (388)	412 (167)	818 (332)	2.04 (0.83)	68 (12)	478 (82)	2850 (489)	5 (1)
29	837 (115)	360 (50)	717 (99)	1.79 (0.25)	392 (80)	169 (34)	335 (68)	0.84 (0.17)				
30	965 (144)	415 (62)	827 (124)	2.07 (0.31)	554 (156)	239 (67)	475 (134)	1.19 (0.34)				
Mean	829	357	701	1.75	780	336	660	1.65	70	492	2930	6
n	23	23	23	23	21	21	21	21	16	16	16	16
SD	138	59	116	0.29	173	74	146	0.37	57	399	2370	4
Min	488	210	415	1.04	392	169	335	0.84	1	8	50	0
Max	1080	466	906	2.26	1030	444	879	2.20	202	1420	8430	15

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for July, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1												
2	1160 (203)	500 (88)	996 (174)	2.49 (0.44)	816 (134)	351 (58)	699 (115)	1.75 (0.29)				
3												
4	975 (131)	420 (57)	836 (112)	2.09 (0.28)	783 (185)	337 (80)	671 (159)	1.68 (0.40)	132 (21)	925 (144)	5500 (858)	10 (2)
5	1230 (120)	528 (52)	1050 (103)	2.63 (0.26)	911 (235)	393 (101)	781 (202)	1.95 (0.50)	167 (33)	1170 (230)	6950 (1370)	13 (2)
6	1220 (155)	524 (67)	1040 (133)	2.61 (0.33)	878 (167)	378 (72)	753 (143)	1.88 (0.36)	200 (41)	1400 (286)	8330 (1700)	15 (3)
7	1390 (499)	601 (215)	1200 (427)	2.99 (1.07)	963 (259)	415 (112)	825 (222)	2.06 (0.56)				
8	1150 (415)	497 (179)	988 (356)	2.47 (0.89)	911 (318)	392 (137)	781 (272)	1.95 (0.68)	2 (2)	17 (11)	101 (63)	0 (0)
9	660 (98)	284 (42)	565 (84)	1.41 (0.21)	615 (150)	265 (65)	527 (128)	1.32 (0.32)	6 (2)	39 (12)	232 (70)	1 (0)
10	1090 (704)	470 (303)	934 (603)	2.33 (1.51)	726 (207)	313 (89)	622 (177)	1.55 (0.44)	6 (2)	40 (17)	239 (98)	1 (0)
11	707 (164)	304 (71)	605 (140)	1.51 (0.35)	769 (139)	331 (60)	659 (119)	1.65 (0.30)	6 (2)	41 (15)	242 (87)	1 (0)
12	688 (119)	296 (51)	589 (102)	1.47 (0.26)	739 (127)	318 (55)	633 (109)	1.58 (0.27)	7 (2)	48 (13)	286 (78)	1 (0)
13	546 (74)	235 (32)	467 (64)	1.17 (0.16)	622 (95)	268 (41)	533 (82)	1.33 (0.20)	14 (6)	95 (39)	563 (230)	1 (0)
14	629 (112)	271 (48)	538 (96)	1.35 (0.24)	790 (211)	340 (91)	676 (181)	1.69 (0.45)	17 (7)	120 (52)	714 (306)	1 (1)
15	703 (155)	303 (67)	602 (133)	1.51 (0.33)	922 (268)	397 (115)	789 (229)	1.97 (0.57)	27 (7)	192 (48)	1140 (286)	2 (1)
16									54 (21)	374 (149)	2230 (888)	4 (2)
17	731 (157)	315 (67)	625 (134)	1.56 (0.34)	959 (274)	413 (118)	821 (234)	2.05 (0.59)	58 (7)	407 (50)	2420 (297)	5 (1)
18	699 (159)	301 (68)	598 (136)	1.50 (0.34)	897 (214)	386 (92)	768 (183)	1.92 (0.46)	76 (20)	532 (142)	3160 (846)	6 (2)
19	834 (138)	359 (60)	714 (118)	1.78 (0.30)	959 (136)	413 (59)	820 (117)	2.05 (0.29)	83 (8)	584 (59)	3470 (353)	7 (1)
20	868 (148)	374 (64)	743 (127)	1.86 (0.32)	1040 (248)	447 (107)	888 (212)	2.22 (0.53)	109 (19)	762 (134)	4530 (800)	9 (2)
21	1050 (482)	454 (207)	901 (412)	2.25 (1.03)	1100 (283)	473 (122)	940 (242)	2.35 (0.61)	110 (15)	770 (102)	4580 (605)	9 (1)
22	961 (186)	414 (80)	822 (159)	2.05 (0.40)	1080 (268)	465 (116)	924 (229)	2.31 (0.57)	130 (16)	911 (111)	5420 (661)	10 (1)
23	896 (189)	386 (82)	766 (162)	1.91 (0.41)	1220 (369)	525 (159)	1040 (316)	2.61 (0.79)	150 (15)	1050 (108)	6270 (642)	12 (1)
24	2210 (4140)	951 (1780)	1890 (3540)	4.72 (8.84)	1030 (244)	442 (105)	877 (208)	2.19 (0.52)	146 (19)	1020 (136)	6080 (807)	11 (1)
25	745 (135)	321 (58)	636 (116)	1.59 (0.29)	889 (241)	383 (104)	759 (206)	1.90 (0.51)	168 (15)	1180 (102)	7000 (607)	13 (1)
26	727 (62)	313 (27)	621 (53)	1.55 (0.13)	870 (254)	375 (109)	744 (217)	1.86 (0.54)	197 (19)	1380 (131)	8210 (781)	15 (1)
27	871 (218)	375 (94)	744 (186)	1.86 (0.47)	789 (151)	340 (65)	674 (129)	1.69 (0.32)	189 (19)	1330 (133)	7890 (791)	14 (1)
28	843 (228)	363 (98)	720 (195)	1.80 (0.49)	844 (289)	364 (124)	721 (247)	1.80 (0.62)	174 (57)	1220 (399)	7250 (2380)	13 (4)
29												
30	853 (104)	367 (45)	728 (89)	1.82 (0.22)	711 (160)	306 (69)	607 (137)	1.52 (0.34)	2 (2)	17 (15)	101 (91)	0 (0)
31	1180 (480)	509 (207)	1010 (410)	2.53 (1.03)	853 (572)	367 (246)	728 (489)	1.82 (1.22)	-1 (4)	-4 (28)	-26 (166)	0 (0)
Mean	949	409	812	2.03	877	378	750	1.88	86	600	3570	7
n	27	27	27	27	27	27	27	27	26	26	26	26
SD	327	141	280	0.70	140	60	119	0.30	71	500	2970	5
Min	546	235	467	1.17	615	265	527	1.32	-1	-4	-26	0
Max	2210	951	1890	4.72	1220	525	1040	2.61	200	1400	8330	15

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for August, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	774 (200)	333 (86)	661 (171)	1.65 (0.43)	707 (99)	304 (42)	603 (84)	1.51 (0.21)	5 (3)	32 (20)	190 (120)	0 (0)
2	657 (247)	283 (106)	561 (211)	1.40 (0.53)	741 (91)	319 (39)	632 (78)	1.58 (0.19)	4 (2)	27 (14)	160 (81)	0 (0)
3	651 (113)	280 (49)	556 (96)	1.39 (0.24)	908 (105)	391 (45)	775 (90)	1.94 (0.22)	4 (2)	27 (15)	163 (89)	0 (0)
4	827 (285)	356 (123)	706 (243)	1.76 (0.61)	875 (107)	377 (46)	747 (91)	1.87 (0.23)	7 (4)	50 (28)	296 (166)	1 (0)
5	1250 (492)	537 (212)	1060 (420)	2.66 (1.05)	833 (189)	359 (81)	711 (161)	1.78 (0.40)	8 (4)	59 (29)	350 (173)	1 (0)
6	1060 (833)	455 (359)	901 (711)	2.25 (1.78)	912 (338)	393 (145)	778 (288)	1.94 (0.72)	16 (8)	112 (54)	667 (320)	1 (1)
7	626 (230)	270 (99)	534 (196)	1.33 (0.49)	667 (164)	287 (71)	569 (140)	1.42 (0.35)				
8					580 (133)	250 (57)	495 (113)	1.24 (0.28)				
9	732 (190)	315 (82)	624 (162)	1.56 (0.41)	747 (125)	322 (54)	637 (107)	1.59 (0.27)	58 (13)	408 (88)	2420 (521)	5 (1)
10	684 (155)	295 (67)	583 (132)	1.46 (0.33)	810 (179)	349 (77)	691 (152)	1.73 (0.38)	71 (13)	497 (88)	2960 (525)	6 (1)
11	738 (212)	318 (91)	629 (181)	1.57 (0.45)	953 (434)	410 (187)	812 (370)	2.03 (0.93)	70 (10)	493 (73)	2930 (434)	6 (1)
12	585 (138)	252 (59)	498 (117)	1.25 (0.29)	801 (230)	345 (99)	683 (196)	1.71 (0.49)	79 (14)	550 (97)	3270 (574)	6 (1)
13	846 (154)	365 (67)	721 (131)	1.80 (0.33)	762 (142)	328 (61)	649 (121)	1.62 (0.30)	88 (16)	619 (114)	3680 (677)	7 (1)
14	954 (515)	411 (222)	813 (438)	2.03 (1.10)	725 (325)	312 (140)	617 (277)	1.54 (0.69)	103 (20)	720 (137)	4290 (814)	8 (1)
15	840 (296)	362 (128)	715 (252)	1.79 (0.63)	580 (125)	250 (54)	494 (106)	1.23 (0.27)				
16	649 (199)	279 (86)	552 (169)	1.38 (0.42)	612 (107)	263 (46)	520 (91)	1.30 (0.23)				
17	593 (132)	255 (57)	504 (113)	1.26 (0.28)	619 (137)	267 (59)	527 (117)	1.32 (0.29)				
18												
19	712 (273)	307 (117)	605 (232)	1.51 (0.58)	910 (375)	392 (161)	774 (319)	1.94 (0.80)				
20	718 (185)	309 (80)	610 (158)	1.53 (0.39)	634 (117)	273 (51)	539 (100)	1.35 (0.25)	140 (29)	980 (203)	5830 (1210)	10 (2)
21	927 (216)	399 (93)	788 (183)	1.97 (0.46)	801 (151)	345 (65)	681 (129)	1.70 (0.32)	134 (16)	939 (113)	5590 (673)	10 (1)
22	966 (137)	416 (59)	821 (117)	2.05 (0.29)	860 (137)	371 (59)	731 (116)	1.83 (0.29)				
23	1010 (236)	437 (101)	862 (200)	2.16 (0.50)	793 (140)	342 (60)	674 (119)	1.69 (0.30)	5 (4)	34 (29)	202 (171)	0 (0)
24	1010 (190)	435 (82)	859 (161)	2.15 (0.40)	933 (166)	402 (72)	793 (141)	1.98 (0.35)	2 (2)	12 (13)	73 (79)	0 (0)
25	1030 (179)	446 (77)	879 (152)	2.20 (0.38)	1050 (212)	453 (91)	894 (180)	2.23 (0.45)	5 (3)	35 (22)	206 (128)	0 (0)
26	1080 (194)	467 (83)	921 (165)	2.30 (0.41)	1160 (209)	498 (90)	982 (178)	2.46 (0.45)	4 (1)	25 (9)	151 (53)	0 (0)
27	1140 (149)	493 (64)	972 (127)	2.43 (0.32)	1150 (243)	496 (105)	978 (206)	2.44 (0.52)	9 (4)	63 (26)	373 (154)	1 (0)
28	1180 (164)	507 (71)	998 (139)	2.50 (0.35)	1250 (260)	537 (112)	1060 (220)	2.65 (0.55)	19 (7)	136 (48)	809 (286)	2 (1)
29	1030 (160)	443 (69)	872 (136)	2.18 (0.34)	1040 (178)	449 (77)	884 (151)	2.21 (0.38)	26 (10)	183 (68)	1090 (407)	2 (1)
30	1060 (146)	457 (63)	901 (124)	2.25 (0.31)	1230 (305)	530 (131)	1040 (259)	2.61 (0.65)	29 (11)	203 (78)	1210 (463)	2 (1)
31	1670 (1410)	721 (609)	1420 (1200)	3.55 (3.00)	1290 (366)	557 (157)	1100 (310)	2.74 (0.78)	41 (18)	284 (125)	1690 (742)	3 (1)
Mean	897	386	763	1.91	865	372	736	1.84	40	282	1680	3
n	29	29	29	29	30	30	30	30	23	23	23	23
SD	239	103	202	0.51	200	86	169	0.42	43	300	1790	3
Min	585	252	498	1.25	580	250	494	1.23	2	12	73	0
Max	1670	721	1420	3.55	1290	557	1100	2.74	140	980	5830	10

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for September, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	767 (246)	330 (106)	651 (209)	1.63 (0.52)	1330 (368)	572 (158)	1130 (312)	2.82 (0.78)	56 (14)	392 (101)	2330 (598)	5 (1)
2	765 (400)	330 (172)	649 (339)	1.62 (0.85)	971 (247)	418 (106)	824 (210)	2.06 (0.52)	73 (24)	512 (171)	3040 (1020)	6 (2)
3	701 (230)	302 (99)	595 (195)	1.49 (0.49)					68 (31)	474 (220)	2820 (1310)	5 (3)
4												
5	929 (254)	400 (110)	788 (216)	1.97 (0.54)	587 (82)	253 (35)	498 (70)	1.25 (0.17)	75 (22)	523 (156)	3110 (928)	6 (2)
6	806 (269)	347 (116)	684 (228)	1.71 (0.57)	559 (61)	241 (26)	475 (52)	1.19 (0.13)	98 (33)	683 (230)	4060 (1370)	8 (3)
7	918 (276)	395 (119)	779 (235)	1.95 (0.59)	534 (99)	230 (43)	454 (84)	1.13 (0.21)	116 (26)	816 (181)	4850 (1080)	9 (2)
8	1090 (314)	470 (135)	927 (266)	2.32 (0.67)	833 (343)	359 (148)	707 (291)	1.77 (0.73)	118 (46)	825 (321)	4910 (1910)	9 (3)
9	1210 (728)	522 (314)	1030 (618)	2.57 (1.55)	669 (112)	288 (48)	568 (95)	1.42 (0.24)	139 (55)	976 (382)	5810 (2270)	11 (4)
10	884 (261)	381 (112)	751 (222)	1.88 (0.55)	960 (240)	414 (103)	816 (203)	2.04 (0.51)	151 (28)	1060 (193)	6280 (1150)	11 (2)
11	743 (261)	320 (112)	631 (221)	1.58 (0.55)	925 (139)	398 (60)	785 (118)	1.96 (0.30)	163 (34)	1140 (235)	6810 (1400)	12 (2)
12	512 (90)	220 (39)	435 (77)	1.09 (0.19)	859 (111)	370 (48)	730 (94)	1.82 (0.24)				
13	617 (157)	266 (68)	524 (134)	1.31 (0.33)	1030 (180)	444 (78)	875 (153)	2.19 (0.38)	3 (2)	19 (11)	113 (64)	0 (0)
14	693 (135)	299 (58)	589 (115)	1.47 (0.29)	1130 (214)	488 (92)	964 (182)	2.41 (0.46)	2 (1)	16 (7)	98 (44)	0 (0)
15	700 (167)	302 (72)	595 (142)	1.49 (0.36)	989 (268)	426 (116)	841 (228)	2.10 (0.57)	3 (2)	20 (12)	121 (72)	0 (0)
16	850 (282)	366 (121)	722 (239)	1.81 (0.60)	1200 (416)	519 (179)	1020 (354)	2.56 (0.89)	2 (1)	14 (10)	86 (60)	0 (0)
17	644 (149)	277 (64)	548 (127)	1.37 (0.32)	1050 (189)	452 (81)	893 (160)	2.23 (0.40)	3 (2)	24 (17)	142 (101)	0 (0)
18	703 (127)	303 (55)	598 (108)	1.49 (0.27)	1240 (630)	535 (271)	1060 (535)	2.64 (1.34)	9 (6)	62 (42)	371 (247)	1 (1)
19	717 (135)	309 (58)	610 (115)	1.52 (0.29)	896 (262)	386 (113)	762 (223)	1.91 (0.56)	22 (10)	156 (68)	928 (406)	2 (1)
20	754 (137)	325 (59)	641 (117)	1.60 (0.29)	1090 (635)	471 (273)	931 (540)	2.33 (1.35)	37 (15)	259 (105)	1540 (628)	3 (1)
21	744 (117)	320 (50)	633 (100)	1.58 (0.25)	573 (112)	247 (48)	487 (96)	1.22 (0.24)	59 (16)	413 (110)	2460 (654)	5 (1)
22	770 (66)	332 (28)	655 (56)	1.64 (0.14)	554 (144)	239 (62)	472 (123)	1.18 (0.31)	76 (19)	533 (133)	3170 (794)	6 (2)
23	785 (109)	338 (47)	668 (93)	1.67 (0.23)	629 (179)	271 (77)	536 (153)	1.34 (0.38)	97 (22)	678 (157)	4030 (931)	8 (2)
24	922 (405)	397 (174)	785 (344)	1.96 (0.86)					101 (18)	708 (125)	4210 (745)	8 (1)
25	807 (217)	348 (93)	687 (185)	1.72 (0.46)	889 (442)	383 (190)	756 (376)	1.89 (0.94)	117 (28)	819 (194)	4870 (1150)	9 (2)
26	784 (171)	338 (74)	667 (146)	1.67 (0.37)	880 (207)	379 (89)	749 (176)	1.87 (0.44)	133 (29)	932 (201)	5540 (1190)	10 (2)
27	868 (195)	374 (84)	739 (166)	1.85 (0.42)	769 (158)	331 (68)	655 (134)	1.64 (0.34)	136 (46)	955 (320)	5680 (1910)	11 (4)
28	754 (229)	325 (99)	642 (195)	1.60 (0.49)	792 (188)	341 (81)	675 (160)	1.69 (0.40)	124 (34)	869 (239)	5170 (1420)	10 (3)
29	800 (173)	344 (74)	681 (147)	1.70 (0.37)	794 (186)	342 (80)	676 (159)	1.69 (0.40)	128 (43)	894 (303)	5320 (1800)	10 (3)
30	885 (245)	381 (106)	754 (209)	1.89 (0.52)	800 (300)	345 (129)	682 (256)	1.70 (0.64)	138 (70)	970 (487)	5770 (2900)	11 (5)
Mean	797	343	678	1.69	872	376	741	1.85	80	562	3340	6
n	29	29	29	29	27	27	27	27	28	28	28	28
SD	134	58	114	0.29	218	94	185	0.46	52	364	2170	4
Min	512	220	435	1.09	534	230	454	1.13	2	14	86	0
Max	1210	522	1030	2.57	1330	572	1130	2.82	163	1140	6810	12

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for October, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	917 (188)	395 (81)	781 (160)	1.95 (0.40)	960 (393)	413 (169)	818 (334)	2.04 (0.84)	136 (52)	952 (361)	5660 (2150)	10 (4)
2	893 (194)	385 (84)	762 (165)	1.90 (0.41)	691 (180)	297 (78)	589 (153)	1.47 (0.38)	157 (62)	1100 (434)	6550 (2580)	12 (5)
3	961 (238)	414 (103)	819 (203)	2.05 (0.51)	697 (205)	300 (88)	594 (174)	1.49 (0.44)	206 (52)	1440 (364)	8560 (2170)	15 (4)
4	947 (219)	408 (94)	807 (187)	2.02 (0.47)	850 (278)	366 (120)	725 (237)	1.81 (0.59)	224 (41)	1570 (289)	9340 (1720)	17 (3)
5	834 (300)	359 (129)	711 (256)	1.78 (0.64)					217 (17)	1520 (122)	9030 (723)	16 (1)
6	825 (186)	355 (80)	704 (159)	1.76 (0.40)	844 (417)	363 (180)	721 (356)	1.80 (0.89)				
7	1050 (348)	450 (150)	893 (297)	2.23 (0.74)	899 (190)	387 (82)	768 (162)	1.92 (0.41)	2 (2)	14 (13)	85 (77)	0 (0)
8	885 (182)	381 (78)	756 (155)	1.89 (0.39)	825 (177)	355 (76)	705 (151)	1.76 (0.38)	3 (2)	21 (13)	126 (76)	0 (0)
9	906 (263)	390 (113)	775 (225)	1.94 (0.56)					2 (1)	16 (10)	97 (60)	0 (0)
10	763 (174)	328 (75)	652 (148)	1.63 (0.37)	912 (192)	393 (83)	780 (164)	1.95 (0.41)	7 (4)	51 (26)	305 (154)	1 (0)
11	644 (180)	277 (78)	551 (154)	1.38 (0.39)	861 (272)	371 (117)	737 (233)	1.84 (0.58)	17 (8)	117 (58)	697 (343)	1 (1)
12									29 (6)	206 (39)	1220 (231)	3 (0)
13	1090 (708)	468 (305)	931 (606)	2.33 (1.51)					46 (34)	320 (239)	1900 (1420)	4 (3)
14	730 (101)	314 (44)	626 (87)	1.56 (0.22)					47 (40)	330 (282)	1960 (1680)	4 (3)
15	817 (143)	352 (61)	700 (122)	1.75 (0.31)	929 (179)	400 (77)	797 (153)	1.99 (0.38)	66 (42)	458 (296)	2730 (1760)	5 (3)
16	741 (128)	319 (55)	635 (110)	1.59 (0.27)	991 (271)	427 (117)	850 (233)	2.13 (0.58)	75 (44)	528 (311)	3140 (1850)	6 (4)
17	719 (189)	310 (81)	617 (162)	1.54 (0.41)	879 (228)	379 (98)	754 (195)	1.89 (0.49)	92 (40)	643 (283)	3820 (1680)	7 (3)
18	788 (180)	339 (78)	676 (155)	1.69 (0.39)	894 (182)	385 (78)	767 (156)	1.92 (0.39)	109 (47)	761 (330)	4530 (1960)	9 (4)
19	835 (176)	359 (76)	717 (151)	1.79 (0.38)	902 (201)	388 (86)	774 (172)	1.94 (0.43)	141 (43)	985 (301)	5860 (1790)	11 (3)
20												
21	886 (199)	382 (86)	762 (171)	1.90 (0.43)	1120 (277)	484 (119)	965 (238)	2.41 (0.59)	156 (37)	1100 (261)	6520 (1560)	12 (3)
22	947 (375)	408 (162)	814 (323)	2.04 (0.81)	1140 (374)	490 (161)	978 (322)	2.45 (0.80)	153 (91)	1070 (635)	6390 (3780)	12 (7)
23					1280 (379)	550 (163)	1100 (326)	2.74 (0.82)	172 (87)	1210 (611)	7180 (3640)	13 (7)
24	852 (289)	367 (124)	734 (248)	1.83 (0.62)	987 (211)	425 (91)	849 (181)	2.12 (0.45)	183 (86)	1280 (602)	7640 (3580)	14 (7)
25	781 (261)	336 (112)	672 (225)	1.68 (0.56)	904 (199)	389 (86)	778 (171)	1.95 (0.43)	199 (83)	1400 (583)	8310 (3470)	15 (6)
26	1010 (486)	435 (209)	870 (418)	2.17 (1.05)	1190 (543)	511 (234)	1020 (468)	2.56 (1.17)	192 (102)	1340 (711)	7980 (4230)	14 (8)
27	707 (277)	305 (119)	609 (238)	1.52 (0.60)	1080 (318)	463 (137)	927 (274)	2.32 (0.69)				
28	779 (283)	335 (122)	672 (244)	1.68 (0.61)	981 (166)	422 (72)	846 (143)	2.11 (0.36)	3 (3)	24 (23)	144 (139)	0 (0)
29	859 (381)	370 (164)	741 (329)	1.85 (0.82)	871 (251)	375 (108)	752 (217)	1.88 (0.54)	7 (9)	48 (64)	284 (380)	1 (1)
30	981 (366)	422 (158)	847 (316)	2.12 (0.79)	974 (372)	419 (160)	840 (321)	2.10 (0.80)	4 (3)	28 (19)	168 (110)	0 (0)
31	721 (201)	310 (87)	622 (174)	1.56 (0.43)	927 (279)	399 (120)	800 (241)	2.00 (0.60)	4 (2)	26 (13)	156 (78)	0 (0)
Mean	852	367	731	1.83	943	406	809	2.02	95	663	3940	7
n	28	28	28	28	25	25	25	25	28	28	28	28
SD	108	47	92	0.23	134	58	117	0.29	79	554	3300	6
Min	644	277	551	1.38	691	297	589	1.47	2	14	85	0
Max	1090	468	931	2.33	1280	550	1100	2.74	224	1570	9340	17

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for November, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	731 (191)	315 (82)	631 (165)	1.58 (0.41)	1130 (724)	485 (312)	973 (625)	2.43 (1.56)	8 (5)	59 (35)	353 (210)	1 (0)
2	779 (200)	335 (86)	673 (173)	1.68 (0.43)	928 (342)	399 (147)	801 (295)	2.00 (0.74)	19 (13)	135 (89)	802 (528)	2 (1)
3	824 (189)	355 (82)	712 (163)	1.78 (0.41)	1090 (228)	470 (98)	942 (197)	2.35 (0.49)	26 (5)	178 (36)	1060 (211)	2 (0)
4	929 (195)	400 (84)	802 (169)	2.01 (0.42)	1370 (540)	589 (233)	1180 (466)	2.95 (1.17)	43 (12)	301 (83)	1790 (494)	4 (1)
5	1050 (394)	454 (170)	910 (340)	2.28 (0.85)					66 (27)	464 (186)	2760 (1100)	5 (2)
6	1220 (509)	527 (219)	1060 (440)	2.64 (1.10)	1150 (448)	496 (193)	995 (386)	2.49 (0.97)	80 (38)	563 (264)	3350 (1570)	7 (3)
7	1100 (385)	476 (166)	953 (332)	2.38 (0.83)					103 (42)	724 (295)	4310 (1760)	8 (3)
8	968 (394)	417 (170)	835 (340)	2.09 (0.85)					103 (45)	723 (317)	4300 (1880)	8 (4)
9	945 (407)	407 (175)	816 (351)	2.04 (0.88)	1130 (596)	486 (257)	973 (515)	2.43 (1.29)	123 (48)	861 (339)	5120 (2020)	10 (4)
10	975 (405)	420 (174)	842 (350)	2.10 (0.87)	1120 (440)	483 (189)	968 (379)	2.42 (0.95)	132 (54)	926 (381)	5510 (2270)	10 (4)
11	901 (457)	388 (197)	778 (395)	1.94 (0.99)	1190 (489)	512 (211)	1030 (422)	2.56 (1.06)	148 (74)	1030 (518)	6160 (3080)	12 (6)
12	912 (378)	393 (163)	787 (326)	1.97 (0.82)	1140 (607)	492 (261)	985 (523)	2.46 (1.31)	176 (71)	1230 (497)	7330 (2960)	14 (5)
13	1030 (376)	446 (162)	893 (325)	2.23 (0.81)					168 (66)	1180 (464)	7010 (2760)	13 (5)
14	1190 (588)	511 (253)	1020 (507)	2.56 (1.27)	1070 (439)	461 (189)	924 (379)	2.31 (0.95)	175 (92)	1230 (641)	7310 (3810)	13 (7)
15	934 (320)	402 (138)	806 (276)	2.01 (0.69)	1070 (475)	460 (205)	922 (410)	2.30 (1.02)	184 (92)	1290 (642)	7650 (3820)	14 (7)
16	1110 (563)	477 (243)	955 (486)	2.39 (1.21)	905 (386)	390 (166)	781 (333)	1.95 (0.83)	189 (83)	1320 (579)	7870 (3440)	14 (6)
17	767 (259)	330 (112)	661 (223)	1.65 (0.56)	855 (262)	368 (113)	738 (226)	1.84 (0.56)	74 (105)	517 (733)		
18	1280 (1040)	553 (447)	1110 (894)	2.77 (2.24)	898 (198)	387 (85)	775 (171)	1.94 (0.43)	9 (5)	65 (37)	389 (218)	1 (0)
19	741 (241)	319 (104)	639 (208)	1.60 (0.52)	1190 (631)	513 (272)	1030 (544)	2.57 (1.36)	8 (4)	59 (28)	351 (168)	1 (0)
20									5 (4)	37 (27)	221 (158)	0 (0)
21	630 (214)	271 (92)	543 (184)	1.36 (0.46)					7 (5)	48 (38)	285 (227)	1 (0)
22	581 (187)	250 (81)	501 (162)	1.25 (0.40)	935 (217)	403 (94)	806 (187)	2.02 (0.47)	11 (9)	76 (65)	452 (387)	1 (1)
23	628 (314)	270 (135)	541 (271)	1.35 (0.68)	1100 (376)	473 (162)	947 (324)	2.37 (0.81)	14 (7)	101 (51)	601 (305)	1 (1)
24	529 (191)	228 (82)	457 (164)	1.14 (0.41)	1410 (450)	606 (194)	1210 (388)	3.03 (0.97)	23 (15)	163 (107)	971 (639)	2 (1)
25	586 (201)	252 (87)	505 (173)	1.26 (0.43)	1270 (392)	545 (169)	1090 (338)	2.73 (0.85)	29 (17)	203 (120)	1210 (714)	2 (1)
26	711 (289)	306 (125)	613 (249)	1.53 (0.62)	1130 (346)	487 (149)	975 (298)	2.44 (0.75)	47 (25)	331 (176)	1970 (1040)	4 (2)
27	785 (333)	338 (143)	677 (287)	1.69 (0.72)	1120 (233)	482 (100)	965 (201)	2.41 (0.50)	70 (36)	489 (253)	2910 (1500)	6 (3)
28	711 (274)	306 (118)	613 (237)	1.53 (0.59)	1010 (297)	433 (128)	867 (256)	2.17 (0.64)	91 (52)	637 (361)	3790 (2150)	7 (4)
29	782 (339)	337 (146)	674 (293)	1.68 (0.73)	1170 (296)	502 (127)	1000 (255)	2.51 (0.64)	135 (78)	946 (543)	5630 (3230)	11 (6)
30	1030 (580)	442 (250)	885 (500)	2.21 (1.25)	1330 (875)	575 (377)	1150 (755)	2.88 (1.89)	167 (74)	1170 (515)	6950 (3060)	13 (6)
Mean	875	377	755	1.89	1110	479	960	2.40	81	569	3390	6
n	29	29	29	29	24	24	24	24	30	30	29	29
SD	199	86	172	0.43	141	61	122	0.31	63	443	2680	5
Min	529	228	457	1.14	855	368	738	1.84	5	37	221	0
Max	1280	553	1110	2.77	1410	606	1210	3.03	189	1320	7870	14

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for December, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	1240 (779)	535 (336)	1070 (672)	2.68 (1.68)	938 (259)	404 (112)	809 (224)	2.02 (0.56)	166 (71)	1160 (497)	6910 (2960)	13 (6)
2	803 (224)	346 (97)	692 (193)	1.73 (0.48)	1020 (345)	440 (148)	881 (297)	2.20 (0.74)	181 (72)	1270 (503)	7540 (2990)	14 (6)
3	576 (214)	248 (92)	496 (185)	1.24 (0.46)	852 (415)	367 (179)	735 (358)	1.84 (0.90)	168 (97)	1180 (679)	7020 (4040)	13 (7)
4	659 (425)	284 (183)	568 (366)	1.42 (0.92)					124 (105)	866 (734)	5150 (4370)	9 (8)
5	625 (175)	269 (75)	539 (151)	1.35 (0.38)					159 (119)	1110 (837)	6620 (4980)	12 (9)
6	691 (219)	298 (95)	596 (189)	1.49 (0.47)	782 (374)	337 (161)	674 (322)	1.68 (0.81)	192 (117)	1340 (821)	7980 (4890)	14 (9)
7	801 (256)	345 (110)	690 (220)	1.72 (0.55)	798 (197)	344 (85)	688 (170)	1.72 (0.42)	193 (106)	1350 (740)	8050 (4400)	15 (8)
8	887 (305)	382 (131)	764 (262)	1.91 (0.66)	1430 (782)	617 (337)	1230 (674)	3.08 (1.68)	205 (105)	1430 (736)	8530 (4380)	15 (8)
9	667 (92)	287 (40)	574 (79)	1.44 (0.20)	1350 (405)	583 (175)	1170 (349)	2.92 (0.87)	182 (161)	1270 (1120)	7570 (6690)	14 (12)
10	731 (189)	315 (82)	629 (163)	1.57 (0.41)	918 (240)	395 (103)	791 (206)	1.98 (0.52)	284 (184)	1990 (1290)	11800 (7660)	21 (14)
11	877 (255)	378 (110)	755 (220)	1.89 (0.55)	858 (233)	370 (100)	739 (201)	1.85 (0.50)	287 (146)	2010 (1020)	12000 (6080)	21 (11)
12												
13									48 (34)	333 (235)	1980 (1400)	4 (3)
14	862 (277)	371 (119)	742 (238)	1.85 (0.60)	969 (185)	417 (80)	834 (159)	2.08 (0.40)	22 (19)	153 (131)	909 (781)	2 (2)
15	706 (47)	304 (20)	608 (41)	1.52 (0.10)	1030 (308)	444 (133)	888 (265)	2.22 (0.66)	18 (22)	127 (153)	759 (911)	2 (2)
16	764 (239)	329 (103)	657 (206)	1.64 (0.52)	792 (190)	341 (82)	682 (164)	1.70 (0.41)	11 (8)	75 (54)	448 (323)	1 (1)
17	538 (167)	232 (72)	463 (144)	1.16 (0.36)	585 (135)	252 (58)	504 (117)	1.26 (0.29)	21 (16)	150 (114)	890 (677)	2 (1)
18	480 (140)	207 (60)	413 (120)	1.03 (0.30)					40 (29)	282 (205)	1680 (1220)	3 (3)
19	645 (339)	278 (146)	555 (292)	1.39 (0.73)	970 (615)	418 (265)	835 (529)	2.09 (1.32)	37 (27)	257 (192)	1530 (1140)	3 (2)
20	418 (100)	180 (43)	360 (86)	0.90 (0.21)	1030 (330)	442 (142)	882 (284)	2.21 (0.71)	36 (31)	251 (215)	1490 (1280)	3 (3)
21	409 (67)	176 (29)	352 (58)	0.88 (0.14)	1050 (424)	453 (183)	905 (365)	2.26 (0.91)	50 (46)	349 (324)	2080 (1930)	4 (4)
22	414 (70)	178 (30)	356 (60)	0.89 (0.15)					65 (57)	453 (402)	2700 (2390)	5 (5)
23									95 (64)	668 (450)	3980 (2680)	8 (5)
24	588 (158)	253 (68)	505 (136)	1.26 (0.34)	945 (226)	407 (97)	812 (194)	2.03 (0.49)	102 (66)	714 (465)	4250 (2770)	8 (5)
25	577 (204)	248 (88)	496 (175)	1.24 (0.44)	1110 (419)	479 (181)	956 (361)	2.39 (0.90)	123 (73)	862 (510)	5130 (3030)	10 (6)
26									158 (85)	1100 (598)	6560 (3560)	12 (7)
27	612 (185)	263 (80)	526 (159)	1.31 (0.40)	1200 (173)	515 (75)	1030 (149)	2.57 (0.37)	153 (120)	1070 (840)	6380 (5000)	12 (9)
28	610 (124)	263 (53)	525 (107)	1.31 (0.27)	1140 (374)	490 (161)	977 (321)	2.44 (0.80)	173 (123)	1210 (858)	7190 (5110)	13 (9)
29	604 (147)	260 (64)	519 (127)	1.30 (0.32)	892 (240)	384 (103)	766 (206)	1.92 (0.52)	204 (125)	1430 (879)	8510 (5230)	16 (10)
30	878 (463)	378 (199)	755 (398)	1.89 (1.00)	1080 (406)	465 (175)	929 (349)	2.32 (0.87)	199 (126)	1390 (880)	8270 (5230)	15 (9)
31	668 (183)	288 (79)	574 (157)	1.44 (0.39)	1010 (353)	436 (152)	869 (303)	2.17 (0.76)	190 (142)	1330 (991)	7930 (5900)	14 (11)
Mean	679	292	584	1.46	989	426	851	2.13	129	907	5390	10
n	27	27	27	27	23	23	23	23	30	30	30	30
SD	176	76	151	0.38	182	78	157	0.39	78	547	3250	6
Min	409	176	352	0.88	585	252	504	1.26	11	75	448	1
Max	1240	535	1070	2.68	1430	617	1230	3.08	287	2010	12000	21

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for January, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	723 (245)	312 (105)	621 (210)	1.55 (0.53)	893 (282)	385 (122)	767 (243)	1.92 (0.61)	211 (140)	1480 (982)	8800 (5840)	16 (11)
2	728 (236)	313 (102)	625 (203)	1.56 (0.51)	913 (365)	393 (157)	784 (314)	1.96 (0.78)	220 (132)	1540 (926)	9160 (5510)	17 (10)
3	804 (314)	346 (135)	690 (270)	1.73 (0.67)	913 (334)	393 (144)	784 (287)	1.96 (0.72)	221 (151)	1550 (1060)	9220 (6310)	17 (11)
4	636 (84)	274 (36)	546 (72)	1.37 (0.18)	832 (208)	358 (90)	714 (179)	1.79 (0.45)	211 (182)	1480 (1270)	8800 (7580)	16 (14)
5	757 (516)	326 (222)	650 (443)	1.63 (1.11)	970 (292)	418 (126)	832 (251)	2.08 (0.63)	129 (158)	904 (1110)		
6	707 (218)	304 (94)	607 (187)	1.52 (0.47)	925 (249)	398 (107)	794 (214)	1.98 (0.54)	23 (41)	158 (287)	939 (1710)	2 (4)
7	743 (350)	320 (151)	637 (300)	1.59 (0.75)	912 (324)	393 (139)	783 (278)	1.96 (0.70)	5 (7)	37 (49)	222 (291)	0 (1)
8	673 (220)	290 (95)	577 (189)	1.44 (0.47)	1090 (610)	469 (263)	934 (523)	2.33 (1.31)	7 (6)	47 (44)	277 (260)	1 (1)
9									9 (6)	60 (45)	356 (269)	1 (1)
10	1080 (315)	464 (136)	925 (271)	2.31 (0.68)	645 (180)	278 (78)	553 (154)	1.38 (0.39)	19 (17)	133 (116)	794 (690)	2 (1)
11	1030 (255)	443 (110)	882 (218)	2.20 (0.55)	630 (178)	272 (77)	541 (153)	1.35 (0.38)	38 (28)	264 (192)	1570 (1140)	3 (2)
12	857 (662)	369 (285)	735 (567)	1.84 (1.42)	677 (283)	292 (122)	581 (243)	1.45 (0.61)	63 (47)	438 (329)	2600 (1960)	5 (4)
13					789 (328)	340 (141)	677 (281)	1.69 (0.70)	106 (72)	742 (504)	4420 (3000)	9 (6)
14									103 (75)	720 (528)	4280 (3140)	8 (6)
15	537 (97)	231 (42)	460 (83)	1.15 (0.21)	707 (102)	305 (44)	606 (87)	1.52 (0.22)	95 (87)	668 (608)	3970 (3620)	8 (7)
16	616 (253)	265 (109)	528 (217)	1.32 (0.54)	702 (177)	302 (76)	601 (152)	1.50 (0.38)	133 (69)	929 (486)	5530 (2890)	11 (6)
17	650 (223)	280 (96)	557 (191)	1.39 (0.48)	804 (218)	346 (94)	689 (186)	1.72 (0.47)	157 (89)	1100 (623)	6520 (3700)	13 (7)
18	674 (203)	290 (87)	578 (174)	1.44 (0.43)	825 (234)	355 (101)	707 (201)	1.77 (0.50)	166 (80)	1160 (561)	6920 (3340)	13 (6)
19	717 (251)	309 (108)	614 (215)	1.53 (0.54)	957 (334)	412 (144)	820 (286)	2.05 (0.72)	165 (82)	1150 (576)	6870 (3430)	13 (6)
20	771 (347)	332 (149)	660 (297)	1.65 (0.74)	944 (275)	406 (119)	808 (236)	2.02 (0.59)	176 (107)	1230 (749)	7330 (4460)	14 (8)
21	743 (247)	320 (106)	636 (211)	1.59 (0.53)	1220 (777)	525 (335)	1040 (666)	2.61 (1.66)	198 (107)	1390 (750)	8270 (4460)	15 (8)
22	749 (248)	323 (107)	642 (212)	1.60 (0.53)	778 (179)	335 (77)	666 (153)	1.66 (0.38)	219 (120)	1530 (839)	9120 (4990)	17 (9)
23									233 (166)	1630 (1160)	9710 (6920)	18 (13)
24	774 (152)	333 (66)	662 (130)	1.65 (0.33)	882 (420)	380 (181)	755 (359)	1.89 (0.90)	221 (176)	1550 (1230)	9210 (7320)	17 (13)
25									193 (189)	1350 (1320)	8050 (7870)	14 (14)
26												
27	1030 (433)	445 (187)	883 (371)	2.21 (0.93)	574 (109)	247 (47)	491 (93)	1.23 (0.23)	16 (21)	114 (144)	681 (855)	2 (2)
28	651 (157)	280 (67)	557 (134)	1.39 (0.34)	603 (285)	260 (123)	516 (243)	1.29 (0.61)	8 (9)	58 (62)	344 (371)	1 (1)
29	471 (108)	203 (47)	403 (93)	1.01 (0.23)	471 (148)	203 (64)	403 (126)	1.01 (0.32)	11 (12)	79 (86)	472 (512)	1 (1)
30	344 (67)	148 (29)	294 (58)	0.73 (0.14)	515 (161)	222 (70)	440 (138)	1.10 (0.35)	16 (13)	112 (88)	669 (524)	1 (1)
31	391 (101)	168 (43)	334 (86)	0.84 (0.22)					26 (18)	184 (125)	1090 (742)	2 (2)
Mean	714	308	612	1.53	807	347	692	1.73	113	793	4700	9
n	25	25	25	25	25	25	25	25	30	30	29	29
SD	171	74	147	0.37	175	76	151	0.38	84	589	3560	6
Min	344	148	294	0.73	471	203	403	1.01	5	37	222	0
Max	1080	464	925	2.31	1220	525	1040	2.61	233	1630	9710	18

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for February, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	386 (95)	166 (41)	330 (81)	0.83 (0.20)	678 (218)	292 (94)	579 (187)	1.45 (0.47)	26 (24)	179 (167)	1070 (996)	2 (2)
2	504 (128)	217 (55)	430 (109)	1.08 (0.27)	654 (151)	282 (65)	559 (129)	1.40 (0.32)	42 (34)	297 (237)	1760 (1410)	4 (3)
3	518 (102)	223 (44)	442 (87)	1.11 (0.22)	668 (172)	287 (74)	570 (147)	1.43 (0.37)	73 (45)	513 (316)	3050 (1880)	6 (4)
4	586 (147)	252 (64)	501 (126)	1.25 (0.32)	769 (200)	331 (86)	657 (171)	1.64 (0.43)	96 (59)	674 (415)	4010 (2470)	8 (5)
5	658 (173)	283 (74)	561 (148)	1.40 (0.37)	783 (213)	337 (92)	669 (182)	1.67 (0.45)	122 (88)	855 (618)	5090 (3670)	10 (7)
6	787 (241)	339 (104)	672 (206)	1.68 (0.52)	903 (299)	389 (129)	770 (255)	1.93 (0.64)	140 (85)	981 (597)	5840 (3550)	11 (7)
7	764 (312)	329 (134)	652 (266)	1.63 (0.67)	936 (381)	403 (164)	799 (325)	2.00 (0.81)	143 (79)	1000 (553)	5960 (3290)	11 (6)
8	690 (209)	297 (90)	589 (179)	1.47 (0.45)	949 (200)	409 (86)	809 (171)	2.02 (0.43)	176 (79)	1230 (553)	7330 (3290)	14 (6)
9									180 (101)	1260 (708)	7500 (4210)	14 (8)
10	780 (314)	336 (135)	665 (268)	1.66 (0.67)	1120 (368)	482 (159)	954 (314)	2.38 (0.79)	163 (94)	1140 (660)	6810 (3930)	13 (7)
11					1220 (755)	525 (325)	1040 (643)	2.60 (1.61)	170 (119)	1190 (832)	7070 (4950)	13 (9)
12	967 (426)	416 (184)	824 (363)	2.06 (0.91)	772 (297)	332 (128)	658 (253)	1.64 (0.63)	159 (113)	1110 (794)	6600 (4720)	12 (9)
13	796 (216)	343 (93)	678 (184)	1.69 (0.46)	749 (244)	323 (105)	638 (207)	1.59 (0.52)	163 (138)	1140 (963)	6790 (5730)	12 (10)
14	770 (288)	332 (124)	656 (246)	1.64 (0.61)	680 (180)	293 (78)	579 (153)	1.45 (0.38)	155 (123)	1090 (863)	6480 (5130)	12 (9)
15	771 (213)	332 (92)	656 (181)	1.64 (0.45)	605 (132)	260 (57)	515 (113)	1.29 (0.28)	177 (148)	1240 (1030)	7360 (6150)	13 (11)
16									206 (117)	1440 (822)	8580 (4890)	15 (9)
17									249 (167)	1740 (1170)	10400 (6950)	19 (12)
18									40 (60)	281 (418)		
19	803 (339)	346 (146)	683 (288)	1.71 (0.72)	836 (218)	360 (94)	711 (185)	1.78 (0.46)	21 (14)	147 (95)	877 (564)	2 (1)
20	829 (278)	357 (120)	705 (236)	1.76 (0.59)	896 (266)	386 (115)	762 (226)	1.90 (0.57)	16 (9)	110 (62)	655 (369)	1 (1)
21									13 (14)	90 (95)	536 (563)	1 (1)
22									20 (16)	141 (109)	840 (650)	2 (1)
23	765 (338)	329 (146)	649 (287)	1.62 (0.72)	927 (353)	399 (152)	787 (299)	1.97 (0.75)	27 (21)	190 (144)	1130 (859)	2 (2)
24	973 (1250)	419 (539)	826 (1060)	2.07 (2.66)	938 (462)	404 (199)	796 (392)	1.99 (0.98)	44 (25)	304 (175)	1810 (1040)	4 (2)
25												
26												
27	435 (163)	187 (70)	369 (139)	0.92 (0.35)	1280 (569)	552 (245)	1090 (483)	2.72 (1.21)	78 (55)	546 (386)	3250 (2300)	6 (5)
28	429 (136)	185 (59)	364 (115)	0.91 (0.29)	817 (158)	352 (68)	693 (134)	1.73 (0.34)	62 (44)	435 (306)	2590 (1820)	5 (4)
Mean	695	299	592	1.48	859	370	732	1.83	106	743	4530	9
n	19	19	19	19	20	20	20	20	26	26	25	25
SD	169	73	144	0.36	180	78	153	0.38	69	485	2890	5
Min	386	166	330	0.83	605	260	515	1.29	13	90	536	1
Max	973	419	826	2.07	1280	552	1090	2.72	249	1740	10400	19

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for March, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	507 (133)	219 (57)	430 (113)	1.08 (0.28)	854 (176)	368 (76)	724 (149)	1.81 (0.37)	57 (58)	400 (409)	2380 (2430)	5 (5)
2	545 (201)	235 (87)	462 (171)	1.15 (0.43)	887 (267)	382 (115)	752 (226)	1.88 (0.57)	94 (92)	656 (643)	3900 (3820)	7 (7)
3	578 (213)	249 (92)	490 (180)	1.23 (0.45)	1010 (223)	434 (96)	854 (189)	2.13 (0.47)	112 (51)	788 (354)	4690 (2110)	9 (4)
4	677 (238)	292 (103)	574 (202)	1.43 (0.51)	1140 (387)	491 (167)	966 (328)	2.41 (0.82)	125 (49)	877 (345)	5220 (2050)	10 (4)
5	793 (198)	341 (85)	672 (168)	1.68 (0.42)	1160 (509)	497 (219)	979 (432)	2.45 (1.08)	117 (26)	819 (183)	4880 (1090)	9 (2)
6	802 (253)	345 (109)	680 (215)	1.70 (0.54)	765 (222)	329 (96)	648 (188)	1.62 (0.47)	114 (35)	795 (243)	4730 (1450)	9 (3)
7	891 (214)	384 (92)	755 (182)	1.89 (0.45)					117 (31)	818 (216)	4870 (1290)	9 (2)
8	931 (376)	401 (162)	788 (319)	1.97 (0.80)	731 (279)	315 (120)	619 (236)	1.55 (0.59)	111 (54)	780 (379)	4640 (2250)	8 (4)
9									111 (43)	775 (304)	4610 (1810)	8 (3)
10	774 (418)	333 (180)	655 (354)	1.64 (0.89)	773 (266)	333 (115)	655 (225)	1.64 (0.56)	117 (110)	822 (773)	4890 (4600)	9 (8)
11	697 (292)	300 (126)	590 (247)	1.48 (0.62)	1070 (682)	460 (294)	904 (577)	2.26 (1.44)				
12	586 (271)	252 (117)	496 (229)	1.24 (0.57)	670 (127)	289 (55)	567 (107)	1.42 (0.27)	1 (1)	8 (9)	49 (53)	0 (0)
13	578 (358)	249 (154)	489 (303)	1.22 (0.76)	998 (724)	430 (312)	844 (613)	2.11 (1.53)	1 (1)	6 (7)	37 (41)	0 (0)
14	473 (173)	204 (75)	401 (146)	1.00 (0.37)	726 (207)	313 (89)	614 (175)	1.53 (0.44)	1 (1)	8 (8)	45 (48)	0 (0)
15	514 (202)	221 (87)	435 (171)	1.09 (0.43)	652 (95)	281 (41)	552 (81)	1.38 (0.20)	3 (4)	21 (26)	127 (152)	0 (0)
16	521 (197)	224 (85)	440 (167)	1.10 (0.42)	822 (151)	354 (65)	696 (127)	1.74 (0.32)	3 (2)	21 (14)	123 (82)	0 (0)
17	616 (203)	265 (88)	521 (172)	1.30 (0.43)	951 (264)	410 (114)	804 (223)	2.01 (0.56)	6 (3)	42 (21)	251 (127)	1 (0)
18	630 (210)	272 (91)	533 (178)	1.33 (0.45)					11 (6)	77 (44)	459 (262)	1 (1)
19	566 (221)	244 (95)	479 (187)	1.20 (0.47)	867 (482)	373 (207)	733 (407)	1.83 (1.02)	20 (11)	138 (76)	821 (451)	2 (1)
20	610 (218)	263 (94)	515 (184)	1.29 (0.46)	819 (240)	353 (103)	692 (203)	1.73 (0.51)	28 (11)	195 (74)	1160 (440)	2 (1)
21	618 (95)	266 (41)	522 (80)	1.31 (0.20)	889 (135)	383 (58)	751 (114)	1.88 (0.29)	43 (7)	302 (49)	1800 (291)	4 (1)
22	601 (110)	259 (47)	508 (93)	1.27 (0.23)					62 (24)	432 (168)	2570 (1000)	5 (2)
23									70 (18)	490 (127)	2910 (753)	6 (1)
24	812 (518)	350 (223)	686 (437)	1.71 (1.09)	1160 (359)	498 (155)	976 (303)	2.44 (0.76)	77 (39)	538 (272)	3200 (1620)	6 (3)
25	566 (220)	244 (95)	478 (186)	1.20 (0.46)	1170 (655)	505 (282)	991 (553)	2.48 (1.38)	71 (32)	496 (222)	2950 (1320)	6 (3)
26									90 (41)	630 (285)	3750 (1700)	7 (3)
27	569 (137)	245 (59)	480 (116)	1.20 (0.29)					73 (44)	511 (306)	3040 (1820)	6 (3)
28	539 (135)	232 (58)	455 (114)	1.14 (0.29)					83 (70)	582 (493)	3460 (2930)	6 (5)
29	823 (594)	355 (256)	695 (501)	1.74 (1.25)	548 (182)	236 (79)	462 (154)	1.16 (0.38)	121 (58)	845 (408)	5030 (2430)	9 (4)
30	655 (189)	282 (81)	553 (159)	1.38 (0.40)	596 (108)	257 (47)	502 (91)	1.26 (0.23)	123 (63)	863 (443)	5140 (2640)	9 (5)
31	657 (164)	283 (71)	554 (139)	1.38 (0.35)	752 (157)	324 (68)	634 (133)	1.59 (0.33)	148 (77)	1040 (541)	6170 (3220)	11 (6)
Mean	648	279	548	1.37	870	374	736	1.84	70	492	2930	5
n	28	28	28	28	23	23	23	23	30	30	30	30
SD	120	52	102	0.26	181	78	154	0.38	47	327	1950	4
Min	473	204	401	1.00	548	236	462	1.16	1	6	37	0
Max	931	401	788	1.97	1170	505	991	2.48	148	1040	6170	11

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for April, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	718 (187)	309 (81)	605 (158)	1.51 (0.40)	905 (186)	390 (80)	763 (156)	1.91 (0.39)	150 (57)	1050 (400)	6260 (2380)	11 (4)
2												
3												
4												
5	606 (183)	261 (79)	511 (154)	1.28 (0.39)	967 (387)	416 (167)	816 (326)	2.04 (0.82)				
6	924 (303)	398 (131)	780 (256)	1.95 (0.64)	891 (273)	384 (118)	752 (231)	1.88 (0.58)				
7	1070 (432)	460 (186)	903 (364)	2.26 (0.91)	976 (303)	421 (130)	824 (255)	2.06 (0.64)				
8	845 (383)	364 (165)	713 (324)	1.78 (0.81)	962 (285)	414 (123)	812 (241)	2.03 (0.60)				
9					972 (271)	419 (117)	821 (229)	2.05 (0.57)				
10	828 (400)	357 (172)	700 (338)	1.75 (0.85)	1080 (302)	464 (130)	911 (255)	2.28 (0.64)	37 (21)	262 (148)	1560 (883)	3 (2)
11	740 (334)	319 (144)	625 (282)	1.56 (0.71)	1170 (349)	504 (150)	988 (295)	2.47 (0.74)	45 (21)	316 (144)	1880 (854)	4 (2)
12					1110 (248)	477 (107)	937 (210)	2.34 (0.53)	51 (20)	355 (142)	2110 (845)	4 (2)
13					1300 (539)	559 (232)	1100 (455)	2.74 (1.14)	69 (25)	485 (173)	2890 (1030)	6 (2)
14	749 (315)	323 (136)	633 (267)	1.58 (0.67)	1080 (262)	466 (113)	914 (221)	2.29 (0.55)	88 (19)	619 (136)	3680 (807)	7 (2)
15	730 (158)	315 (68)	618 (133)	1.54 (0.33)					95 (13)	665 (91)	3960 (539)	8 (1)
16	768 (159)	331 (69)	649 (135)	1.62 (0.34)	725 (149)	312 (64)	613 (126)	1.53 (0.32)				
17	881 (305)	379 (131)	745 (258)	1.86 (0.64)	741 (172)	319 (74)	627 (145)	1.57 (0.36)				
18					851 (314)	366 (135)	720 (266)	1.80 (0.66)				
19					780 (262)	336 (113)	660 (222)	1.65 (0.55)				
20	902 (409)	389 (176)	764 (346)	1.91 (0.87)	739 (200)	318 (86)	625 (169)	1.56 (0.42)				
21	866 (280)	373 (120)	733 (237)	1.83 (0.59)	736 (202)	317 (87)	623 (171)	1.56 (0.43)	165 (43)	1160 (299)	6870 (1780)	12 (3)
22	1010 (461)	435 (198)	855 (390)	2.14 (0.98)	1090 (164)	471 (70)	926 (139)	2.32 (0.35)	176 (29)	1230 (202)	7340 (1200)	13 (2)
23												
24	1070 (361)	460 (155)	906 (306)	2.26 (0.76)	1160 (187)	501 (81)	986 (159)	2.47 (0.40)	135 (194)	948 (1360)		
25	942 (340)	406 (147)	798 (288)	2.00 (0.72)	1210 (296)	523 (128)	1030 (251)	2.57 (0.63)	3 (3)	22 (19)	129 (113)	0 (0)
26	1030 (265)	442 (114)	870 (224)	2.17 (0.56)	1210 (242)	519 (104)	1020 (205)	2.55 (0.51)	3 (2)	23 (14)	136 (85)	0 (0)
27	1010 (357)	435 (154)	857 (302)	2.14 (0.76)	1500 (524)	648 (225)	1280 (444)	3.19 (1.11)	3 (4)	24 (29)	142 (172)	0 (0)
28	1040 (405)	447 (175)	881 (344)	2.20 (0.86)	1160 (248)	499 (107)	983 (210)	2.46 (0.53)	3 (3)	22 (24)	129 (140)	0 (0)
29	752 (92)	324 (40)	638 (78)	1.59 (0.20)	1170 (165)	502 (71)	988 (140)	2.47 (0.35)	4 (1)	25 (9)	147 (53)	0 (0)
30	985 (140)	424 (61)	835 (119)	2.09 (0.30)	1270 (167)	548 (72)	1080 (141)	2.70 (0.35)	13 (4)	91 (26)	542 (157)	1 (0)
Mean	879	379	744	1.86	1030	444	872	2.18	65	456	2520	5
n	21	21	21	21	25	25	25	25	16	16	15	15
SD	131	57	112	0.28	200	86	170	0.42	61	426	2500	4
Min	606	261	511	1.28	725	312	613	1.53	3	22	129	0
Max	1070	460	906	2.26	1500	648	1280	3.19	176	1230	7340	13

US EPA ARCHIVE DOCUMENT

Table E8. Daily means (SD) of H2S emissions at Site OK4B for May, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1					1380 (178)	596 (77)	1170 (151)	2.93 (0.38)	20 (10)	139 (73)	826 (432)	2 (1)
2	1220 (216)	526 (93)	1040 (183)	2.59 (0.46)	1570 (525)	675 (226)	1330 (446)	3.32 (1.11)	27 (15)	189 (107)	1120 (636)	2 (1)
3	1110 (258)	479 (111)	943 (219)	2.36 (0.55)	1170 (194)	503 (84)	990 (164)	2.48 (0.41)	41 (20)	286 (143)	1700 (851)	3 (2)
4	1000 (229)	431 (99)	849 (195)	2.12 (0.49)	1130 (168)	488 (72)	962 (142)	2.41 (0.36)	50 (19)	350 (130)	2080 (773)	4 (2)
5	1200 (228)	515 (98)	1020 (193)	2.54 (0.48)	1090 (152)	470 (65)	926 (129)	2.32 (0.32)	69 (10)	483 (68)	2870 (406)	6 (1)
6	915 (192)	394 (83)	776 (163)	1.94 (0.41)	1120 (300)	483 (129)	952 (254)	2.38 (0.64)	66 (7)	465 (46)	2770 (276)	5 (1)
7	933 (346)	402 (149)	792 (294)	1.98 (0.74)	1120 (576)	483 (248)	951 (489)	2.38 (1.22)	89 (13)	625 (89)	3720 (527)	7 (1)
8	891 (170)	384 (73)	756 (144)	1.89 (0.36)					100 (10)	704 (69)	4190 (409)	8 (1)
9	715 (93)	308 (40)	608 (79)	1.52 (0.20)	697 (170)	300 (73)	592 (144)	1.48 (0.36)	117 (14)	819 (95)	4870 (566)	9 (1)
10	735 (130)	316 (56)	624 (110)	1.56 (0.28)	718 (172)	309 (74)	610 (146)	1.52 (0.37)	134 (10)	939 (72)	5590 (429)	10 (1)
11	808 (121)	348 (52)	686 (103)	1.71 (0.26)	873 (252)	376 (109)	741 (214)	1.85 (0.54)	143 (16)	1000 (113)	5950 (675)	11 (1)
12	929 (116)	400 (50)	789 (99)	1.97 (0.25)	814 (145)	350 (62)	691 (123)	1.73 (0.31)	146 (15)	1020 (105)	6090 (623)	11 (1)
13	1110 (145)	480 (63)	947 (123)	2.37 (0.31)	1120 (198)	482 (85)	951 (168)	2.38 (0.42)	166 (21)	1170 (144)	6930 (857)	13 (2)
14	1020 (172)	441 (74)	871 (146)	2.18 (0.37)	1130 (190)	486 (82)	960 (162)	2.40 (0.40)	173 (13)	1210 (92)	7200 (548)	13 (1)
15	984 (108)	424 (47)	836 (92)	2.09 (0.23)	1200 (228)	518 (98)	1020 (193)	2.55 (0.48)	200 (36)	1400 (255)	8340 (1520)	15 (3)
16	1020 (178)	439 (77)	866 (151)	2.17 (0.38)	1160 (288)	500 (124)	987 (245)	2.47 (0.61)	204 (12)	1430 (85)	8510 (507)	15 (1)
17	973 (152)	419 (65)	827 (129)	2.07 (0.32)	1090 (247)	470 (106)	927 (210)	2.32 (0.52)	190 (46)	1330 (321)	7900 (1910)	14 (3)
18												
19									5 (2)	32 (13)	191 (76)	0 (0)
20	1270 (358)	546 (154)	1080 (304)	2.70 (0.76)	1140 (251)	490 (108)	968 (214)	2.42 (0.53)	5 (2)	32 (16)	190 (97)	0 (0)
21	1000 (108)	432 (47)	852 (92)	2.13 (0.23)	1040 (138)	448 (59)	884 (117)	2.21 (0.29)	6 (3)	42 (20)	249 (122)	1 (0)
22	1040 (203)	450 (88)	888 (173)	2.22 (0.43)	1030 (259)	443 (112)	876 (220)	2.19 (0.55)	9 (3)	66 (20)	391 (118)	1 (0)
23	1080 (387)	463 (167)	915 (330)	2.29 (0.82)	968 (312)	417 (135)	823 (266)	2.06 (0.67)	35 (50)	244 (352)	1450 (2100)	3 (4)
24	858 (148)	369 (64)	730 (126)	1.82 (0.31)	727 (122)	313 (53)	618 (104)	1.55 (0.26)	23 (6)	164 (45)	973 (270)	2 (1)
25	882 (198)	380 (85)	750 (168)	1.88 (0.42)	930 (213)	400 (92)	791 (181)	1.98 (0.45)	33 (5)	232 (36)	1380 (211)	3 (0)
26	978 (283)	421 (122)	833 (241)	2.08 (0.60)	1030 (274)	443 (118)	876 (233)	2.19 (0.58)	42 (6)	291 (44)	1730 (262)	3 (1)
27	1130 (216)	485 (93)	959 (184)	2.40 (0.46)	982 (179)	423 (77)	836 (153)	2.09 (0.38)	58 (9)	406 (64)	2410 (378)	5 (1)
28	1090 (293)	469 (126)	928 (249)	2.32 (0.62)	969 (151)	417 (65)	825 (128)	2.06 (0.32)	62 (10)	433 (71)	2580 (421)	5 (1)
29	1270 (319)	546 (137)	1080 (272)	2.70 (0.68)	1010 (149)	435 (64)	860 (127)	2.15 (0.32)	67 (12)	466 (84)	2770 (499)	5 (1)
30	1340 (646)	576 (278)	1140 (550)	2.85 (1.37)	1120 (375)	483 (162)	955 (319)	2.39 (0.80)	78 (15)	549 (106)	3260 (630)	6 (1)
31	1320 (449)	568 (193)	1120 (382)	2.81 (0.96)	927 (139)	399 (60)	789 (119)	1.97 (0.30)	88 (14)	619 (95)	3680 (565)	7 (1)
Mean	1030	443	875	2.19	1050	450	888	2.22	82	571	3400	6
n	28	28	28	28	28	28	28	28	30	30	30	30
SD	162	70	138	0.35	184	79	156	0.39	61	428	2550	5
Min	715	308	608	1.52	697	300	592	1.48	5	32	190	0
Max	1340	576	1140	2.85	1570	675	1330	3.32	204	1430	8510	15

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for June, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	955 (162)	411 (70)	813 (138)	2.03 (0.34)	880 (135)	379 (58)	750 (115)	1.87 (0.29)	107 (18)	748 (126)	4450 (752)	8 (1)
2	1080 (244)	465 (105)	920 (208)	2.30 (0.52)	885 (155)	381 (67)	753 (132)	1.88 (0.33)	117 (15)	820 (103)	4880 (612)	9 (1)
3	1100 (162)	475 (70)	938 (138)	2.35 (0.34)	926 (196)	399 (85)	789 (167)	1.97 (0.42)	152 (34)	1070 (239)	6340 (1420)	12 (3)
4	1070 (204)	461 (88)	910 (174)	2.28 (0.43)	1060 (277)	455 (119)	899 (235)	2.25 (0.59)	185 (25)	1300 (177)	7710 (1050)	14 (2)
5	1080 (274)	467 (118)	923 (233)	2.31 (0.58)	1410 (496)	606 (214)	1200 (422)	2.99 (1.06)	213 (41)	1490 (287)	8880 (1710)	16 (3)
6												
7												
8	1140 (312)	490 (135)	967 (266)	2.42 (0.66)	848 (248)	365 (107)	721 (211)	1.80 (0.53)	220 (42)	1540 (292)	9150 (1740)	16 (3)
9	1100 (191)	472 (82)	933 (162)	2.33 (0.41)	934 (185)	402 (80)	795 (158)	1.99 (0.39)	263 (66)	1840 (463)	10900 (2760)	20 (5)
10	1590 (1020)	684 (438)	1350 (865)	3.37 (2.16)	847 (183)	365 (79)	720 (156)	1.80 (0.39)				
11	1130 (346)	488 (149)	963 (294)	2.41 (0.74)	779 (207)	336 (89)	662 (176)	1.66 (0.44)				
12	1220 (489)	525 (211)	1040 (416)	2.59 (1.04)	830 (313)	357 (135)	705 (266)	1.76 (0.67)	2 (1)	13 (9)	75 (54)	0 (0)
13	976 (151)	421 (65)	830 (128)	2.07 (0.32)	762 (122)	328 (53)	648 (104)	1.62 (0.26)	2 (2)	17 (12)	101 (69)	0 (0)
14	953 (165)	410 (71)	809 (140)	2.02 (0.35)	896 (323)	386 (139)	762 (275)	1.90 (0.69)	3 (2)	23 (13)	138 (76)	0 (0)
15	1090 (389)	470 (168)	927 (330)	2.32 (0.83)	942 (175)	406 (75)	800 (149)	2.00 (0.37)	6 (2)	39 (15)	229 (86)	0 (0)
16	1170 (815)	504 (351)	995 (692)	2.49 (1.73)	944 (160)	407 (69)	802 (136)	2.00 (0.34)	10 (4)	68 (25)	407 (151)	1 (0)
17	678 (142)	292 (61)	575 (121)	1.44 (0.30)	920 (204)	396 (88)	781 (173)	1.95 (0.43)	22 (5)	154 (35)	919 (211)	2 (0)
18	665 (217)	286 (94)	564 (184)	1.41 (0.46)	990 (239)	426 (103)	840 (203)	2.10 (0.51)	31 (9)	215 (66)	1280 (390)	3 (1)
19	645 (176)	278 (76)	548 (149)	1.37 (0.37)	954 (192)	411 (83)	809 (163)	2.02 (0.41)	44 (7)	305 (46)	1810 (275)	4 (1)
20	663 (164)	285 (71)	562 (139)	1.41 (0.35)	768 (104)	331 (45)	651 (89)	1.63 (0.22)	46 (7)	323 (52)	1920 (311)	4 (1)
21	885 (320)	381 (138)	751 (271)	1.88 (0.68)	1030 (269)	442 (116)	870 (228)	2.17 (0.57)	68 (13)	475 (94)	2830 (558)	5 (1)
22	648 (228)	279 (98)	549 (193)	1.37 (0.48)	1170 (268)	502 (115)	989 (227)	2.47 (0.57)	75 (6)	525 (43)	3120 (253)	6 (0)
23	665 (217)	286 (93)	564 (184)	1.41 (0.46)	1070 (261)	462 (112)	910 (221)	2.27 (0.55)	90 (15)	628 (108)	3740 (642)	7 (1)
24	625 (159)	269 (68)	530 (135)	1.33 (0.34)	1110 (307)	479 (132)	942 (260)	2.36 (0.65)	112 (11)	782 (77)	4650 (459)	9 (1)
25	702 (136)	302 (59)	595 (115)	1.49 (0.29)	991 (146)	427 (63)	840 (124)	2.10 (0.31)	119 (15)	832 (106)	4950 (633)	9 (1)
26	710 (242)	306 (104)	601 (205)	1.50 (0.51)	1160 (299)	500 (129)	983 (254)	2.46 (0.63)	123 (7)	862 (50)	5130 (299)	9 (1)
27	852 (177)	367 (76)	722 (150)	1.80 (0.38)	1000 (305)	432 (131)	850 (258)	2.13 (0.65)	135 (10)	946 (71)	5630 (422)	10 (1)
28	683 (145)	294 (62)	579 (123)	1.45 (0.31)	794 (173)	342 (74)	673 (146)	1.68 (0.37)	128 (15)	896 (105)	5330 (626)	10 (1)
29	777 (148)	335 (64)	659 (125)	1.65 (0.31)	837 (266)	361 (114)	709 (225)	1.77 (0.56)	128 (6)	897 (42)	5340 (252)	10 (0)
30					734 (185)	316 (80)	622 (157)	1.55 (0.39)	156 (16)	1090 (112)	6500 (669)	12 (1)
Mean	921	396	782	1.96	945	407	803	2.01	98	688	4090	8
n	27	27	27	27	28	28	28	28	26	26	26	26
SD	238	103	203	0.51	146	63	124	0.31	72	505	3000	5
Min	625	269	530	1.33	734	316	622	1.55	2	13	75	0
Max	1590	684	1350	3.37	1410	606	1200	2.99	263	1840	10900	20

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Table E8. Daily means (SD) of H2S emissions at Site OK4B for July, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU	g/d	mg/d-m^2	mg/d-hd	g/d-AU
1	1010 (279)	437 (120)	858 (236)	2.15 (0.59)	803 (153)	346 (66)	680 (129)	1.70 (0.32)	171 (22)	1190 (153)	7110 (910)	13 (2)
2	1060 (175)	456 (75)	897 (148)	2.24 (0.37)	879 (143)	378 (62)	744 (121)	1.86 (0.30)	188 (24)	1310 (169)	7810 (1000)	14 (2)
3	1230 (425)	528 (183)	1040 (360)	2.60 (0.90)	965 (403)	415 (174)	816 (341)	2.04 (0.85)	109 (122)	761 (857)	3890 (4540)	7 (9)
4	1200 (234)	515 (101)	1010 (198)	2.53 (0.49)	670 (125)	288 (54)	567 (106)	1.42 (0.27)	1 (1)	4 (5)	23 (30)	0 (0)
5	1030 (167)	442 (72)	869 (141)	2.17 (0.35)	625 (179)	269 (77)	528 (152)	1.32 (0.38)	1 (2)	8 (11)	45 (67)	0 (0)
6	1150 (281)	496 (121)	974 (237)	2.43 (0.59)	720 (198)	310 (85)	609 (167)	1.52 (0.42)	2 (3)	12 (19)	71 (113)	0 (0)
7	944 (152)	407 (65)	798 (128)	2.00 (0.32)	833 (191)	359 (82)	705 (161)	1.76 (0.40)	1 (3)	10 (21)	62 (125)	0 (0)
8	1210 (199)	523 (86)	1030 (168)	2.57 (0.42)	1020 (198)	439 (86)	862 (168)	2.16 (0.42)	11 (8)	75 (53)	445 (314)	1 (1)
9	1340 (303)	576 (131)	1130 (256)	2.83 (0.64)	984 (235)	424 (101)	832 (199)	2.08 (0.50)	17 (4)	121 (31)	720 (184)	1 (0)
10												
11	1160 (422)	501 (182)	982 (357)	2.46 (0.89)	1090 (240)	471 (103)	924 (203)	2.31 (0.51)	35 (6)	243 (40)	1450 (240)	3 (0)
12	1110 (243)	479 (105)	939 (205)	2.35 (0.51)	1040 (269)	448 (116)	878 (227)	2.20 (0.57)	52 (14)	367 (97)	2180 (574)	4 (1)
13	1060 (164)	455 (71)	893 (138)	2.23 (0.35)	867 (170)	373 (73)	732 (143)	1.83 (0.36)	63 (10)	444 (70)	2640 (417)	5 (1)
14	1100 (212)	475 (91)	930 (179)	2.33 (0.45)	734 (118)	316 (51)	620 (99)	1.55 (0.25)	84 (7)	586 (51)	3490 (302)	7 (1)
15	1030 (242)	442 (104)	867 (204)	2.17 (0.51)	698 (113)	301 (49)	589 (95)	1.47 (0.24)	86 (8)	605 (54)	3600 (324)	7 (1)
16												
17	942 (242)	406 (104)	794 (204)	1.99 (0.51)	870 (137)	375 (59)	734 (116)	1.84 (0.29)				
18	1160 (463)	498 (199)	976 (391)	2.44 (0.98)	889 (98)	383 (42)	750 (83)	1.88 (0.21)				
19	1150 (467)	496 (201)	971 (394)	2.43 (0.99)	1040 (240)	449 (103)	879 (202)	2.20 (0.51)				
20												
21	800 (357)	345 (154)	675 (301)	1.69 (0.75)	1060 (260)	455 (112)	890 (219)	2.22 (0.55)				
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	1090	471	924	2.31	877	378	741	1.85	59	410	2400	5
n	18	18	18	18	18	18	18	18	14	14	14	14
SD	122	53	103	0.26	142	61	120	0.30	60	422	2480	4
Min	800	345	675	1.69	625	269	528	1.32	1	4	23	0
Max	1340	576	1130	2.83	1090	471	924	2.31	188	1310	7810	14

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Table E9. PM Concentrations

Table E9. Daily means (SD) of PM10 emissions at Site OK4B for August, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9	496 (350)	214 (151)	432 (305)	1080 (764)	594 (420)	256 (181)	518 (366)	1300 (916)	42 (39)	292 (271)	1740 (1610)	3390 (3140)
10	560 (261)	241 (113)	488 (228)	1220 (570)	601 (392)	259 (169)	524 (342)	1310 (855)	48 (29)	339 (206)	2020 (1230)	3910 (2370)
11	602 (336)	259 (144)	525 (293)	1310 (731)	546 (414)	235 (178)	476 (361)	1190 (903)	56 (28)	394 (199)	2340 (1180)	4500 (2270)
12												
13												
14	646 (497)	278 (214)	563 (433)	1410 (1080)	848 (1120)	365 (482)	739 (976)	1850 (2440)	50 (48)	350 (338)	2080 (2010)	3890 (3740)
15	693 (426)	299 (184)	604 (372)	1510 (929)	627 (648)	270 (279)	547 (565)	1370 (1410)	6 (73)	43 (510)	258 (3030)	468 (5600)
16	593 (445)	255 (192)	517 (388)	1290 (969)	525 (535)	226 (230)	458 (466)	1140 (1170)				
17												
18	322 (240)	139 (103)	280 (209)	701 (523)	299 (256)	129 (110)	260 (223)	651 (558)				
19	318 (261)	137 (112)	277 (227)	692 (568)	302 (287)	130 (124)	264 (250)	659 (626)				
20	299 (351)	129 (151)	260 (306)	651 (765)	295 (421)	127 (181)	257 (367)	642 (917)				
21	287 (185)	124 (80)	250 (162)	626 (404)	265 (253)	114 (109)	231 (220)	577 (550)	1 (16)	4 (108)	22 (644)	45 (1440)
22	239 (411)	103 (177)	208 (358)	520 (895)	94 (677)	40 (292)	82 (590)	204 (1470)	-5 (46)	-32 (324)	-190 (1930)	-403 (4120)
23	383 (343)	165 (148)	333 (299)	834 (748)	428 (341)	184 (147)	373 (297)	933 (742)	2 (22)	14 (157)	81 (932)	173 (1980)
24	291 (191)	125 (82)	253 (166)	633 (416)	313 (194)	135 (83)	272 (169)	681 (422)	8 (12)	56 (82)	331 (490)	693 (1030)
25	224 (227)	97 (98)	195 (198)	488 (495)	235 (258)	101 (111)	204 (225)	511 (562)	11 (14)	77 (94)	460 (562)	955 (1160)
26	200 (469)	86 (202)	175 (409)	436 (1020)	163 (540)	70 (232)	142 (470)	355 (1170)	8 (44)	55 (308)	328 (1830)	671 (3750)
27	385 (310)	166 (133)	336 (270)	839 (674)	466 (461)	201 (199)	405 (402)	1010 (1000)	24 (35)	166 (243)	985 (1440)	2000 (2930)
28	324 (243)	139 (104)	282 (211)	705 (528)	449 (416)	193 (179)	391 (362)	977 (906)	32 (32)	225 (227)	1340 (1350)	2680 (2700)
29	272 (286)	117 (123)	237 (249)	593 (622)	424 (458)	182 (197)	369 (399)	922 (997)	40 (22)	276 (156)	1640 (927)	3250 (1830)
30	424 (318)	183 (137)	369 (277)	924 (691)	489 (409)	210 (176)	425 (356)	1060 (891)	55 (23)	382 (163)	2280 (969)	4440 (1890)
31	530 (463)	228 (199)	462 (403)	1150 (1010)	513 (418)	221 (180)	446 (364)	1120 (909)	55 (24)	383 (166)	2280 (989)	4410 (1910)
Mean	404	174	352	881	424	182	369	923	27	189	1120	2190
n	20	20	20	20	20	20	20	20	16	16	16	16
SD	149	64	130	325	176	76	153	383	22	152	904	1740
Min	200	86	175	436	94	40	82	204	-5	-32	-190	-403
Max	693	299	604	1510	848	365	739	1850	56	394	2340	4500

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for September, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	692 (505)	298 (218)	602 (440)	1510 (1100)	530 (562)	228 (242)	461 (489)	1150 (1220)	52 (23)	362 (162)	2160 (963)	4140 (1850)
2	776 (492)	334 (212)	675 (428)	1690 (1070)	557 (635)	240 (273)	485 (552)	1210 (1380)				
3	745 (705)	321 (304)	648 (614)	1620 (1530)	677 (825)	292 (355)	589 (718)	1470 (1800)				
4	455 (390)	196 (168)	396 (340)	990 (850)	539 (519)	232 (224)	469 (452)	1170 (1130)				
5	367 (368)	158 (158)	319 (320)	799 (800)	544 (472)	234 (203)	474 (411)	1180 (1030)				
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29	236 (168)	101 (72)	205 (146)	513 (365)	496 (309)	213 (133)	432 (269)	1080 (672)				
30												
Mean	545	235	474	1190	557	240	485	1210				
n	6	6	6	6	6	6	6	6	1	1	1	1
SD	204	88	178	444	57	25	49	124				
Min	236	101	205	513	496	213	432	1080				
Max	776	334	675	1690	677	292	589	1470				

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for October, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2	249 (173)	107 (74)	216 (151)	541 (376)	540 (304)	233 (131)	470 (264)	1180 (661)				
3	427 (268)	184 (115)	371 (233)	929 (583)	673 (466)	290 (201)	586 (405)	1460 (1010)				
4	264 (284)	114 (122)	230 (247)	575 (618)	618 (473)	266 (204)	538 (412)	1340 (1030)				
5	165 (215)	71 (93)	143 (187)	358 (468)	520 (430)	224 (185)	453 (374)	1130 (935)				
6												
7	285 (200)	123 (86)	248 (174)	621 (434)	620 (301)	267 (130)	540 (262)	1350 (654)				
8	389 (298)	167 (128)	338 (259)	845 (648)	593 (534)	255 (230)	516 (464)	1290 (1160)				
9	320 (362)	138 (156)	279 (314)	697 (786)	606 (769)	261 (331)	527 (669)	1320 (1670)				
10	473 (262)	204 (113)	411 (228)	1030 (569)	694 (586)	299 (253)	603 (510)	1510 (1270)				
11	590 (396)	254 (171)	512 (344)	1280 (861)	942 (605)	406 (260)	819 (526)	2050 (1310)				
12	489 (296)	211 (128)	425 (257)	1060 (643)	797 (496)	343 (214)	693 (431)	1730 (1080)				
13	410 (219)	177 (94)	357 (190)	892 (475)	790 (576)	340 (248)	686 (500)	1720 (1250)				
14	521 (275)	224 (118)	453 (239)	1130 (597)	749 (484)	322 (208)	650 (420)	1630 (1050)				
15	907 (2820)	391 (1210)	788 (2450)	1970 (6120)	821 (930)	353 (401)	713 (808)	1780 (2020)				
16	492 (401)	212 (173)	427 (348)	1070 (871)	809 (835)	348 (360)	702 (725)	1760 (1810)				
17	473 (539)	204 (232)	411 (468)	1030 (1170)	798 (538)	344 (232)	693 (468)	1730 (1170)				
18	468 (381)	202 (164)	407 (330)	1020 (826)	706 (353)	304 (152)	613 (306)	1530 (766)				
19	411 (616)	177 (265)	357 (534)	892 (1340)	731 (521)	315 (225)	634 (453)	1590 (1130)				
20	483 (1160)	208 (498)	419 (1000)	1050 (2510)	690 (622)	297 (268)	598 (540)	1500 (1350)				
21	547 (576)	235 (248)	474 (500)	1190 (1250)	488 (356)	210 (153)	423 (309)	1060 (771)				
22	358 (451)	154 (194)	310 (391)	776 (978)	433 (251)	186 (108)	375 (218)	938 (544)				
23	406 (480)	175 (207)	352 (417)	881 (1040)	618 (430)	266 (185)	536 (373)	1340 (931)	10 (8)	69 (56)	408 (334)	917 (753)
24	431 (561)	186 (241)	373 (486)	934 (1210)	595 (447)	256 (192)	516 (387)	1290 (968)	12 (7)	81 (51)	479 (301)	1030 (647)
25	288 (570)	124 (246)	250 (494)	624 (1240)	463 (475)	199 (205)	401 (412)	1000 (1030)	12 (10)	84 (67)	500 (396)	1060 (838)
26	372 (681)	160 (293)	322 (590)	806 (1480)	505 (519)	217 (224)	437 (450)	1090 (1120)	20 (11)	139 (74)	828 (439)	1730 (918)
27	362 (468)	156 (202)	314 (406)	785 (1010)	467 (281)	201 (121)	405 (244)	1010 (610)	23 (15)	164 (108)	975 (642)	2020 (1330)
28	318 (813)	137 (350)	275 (704)	689 (1760)	460 (483)	198 (208)	398 (418)	996 (1050)	22 (14)	156 (101)	927 (602)	1900 (1240)
29	294 (929)	127 (400)	254 (805)	636 (2010)	491 (579)	212 (249)	426 (501)	1060 (1250)	25 (21)	174 (147)	1040 (876)	2100 (1780)
30	292 (1110)	126 (476)	253 (958)	631 (2390)	477 (805)	205 (347)	413 (697)	1030 (1740)	28 (34)	196 (235)	1170 (1400)	2340 (2790)
31	371 (648)	160 (279)	321 (561)	803 (1400)	440 (543)	189 (234)	381 (470)	951 (1170)	34 (26)	236 (181)	1400 (1080)	2770 (2130)
Mean	409	176	355	887	625	269	543	1360	21	144	858	1760
n	29	29	29	29	29	29	29	29	9	9	9	9
SD	135	58	118	294	137	59	120	299	8	54	319	604
Min	165	71	143	358	433	186	375	938	10	69	408	917
Max	907	391	788	1970	942	406	819	2050	34	236	1400	2770

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for November, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	303 (375)	130 (161)	262 (324)	655 (810)	427 (574)	184 (247)	370 (497)	924 (1240)	50 (32)	352 (223)	2100 (1330)	4090 (2590)
2	293 (466)	126 (201)	253 (403)	633 (1010)					55 (34)	388 (240)	2310 (1430)	4460 (2760)
3	281 (448)	121 (193)	243 (388)	608 (969)	408 (459)	176 (198)	353 (397)	883 (993)	48 (32)	337 (223)	2000 (1330)	3840 (2550)
4	199 (1220)	86 (527)	172 (1060)	431 (2650)	352 (1070)	151 (462)	304 (928)	761 (2320)	56 (58)	392 (402)	2330 (2390)	4430 (4550)
5	407 (642)	175 (277)	352 (556)	879 (1390)	435 (522)	187 (225)	376 (451)	941 (1130)	67 (42)	468 (297)	2790 (1770)	5250 (3330)
6												
7												
8												
9												
10												
11												
12												
13												
14	593 (353)	255 (152)	512 (304)	1280 (761)	518 (346)	223 (149)	447 (299)	1120 (748)	4 (8)	30 (57)	178 (336)	396 (770)
15	483 (272)	208 (117)	417 (235)	1040 (587)	446 (298)	192 (128)	385 (257)	963 (642)	10 (9)	70 (61)	416 (364)	895 (784)
16	510 (325)	220 (140)	441 (281)	1100 (701)	550 (332)	237 (143)	475 (287)	1190 (717)	12 (12)	80 (82)	478 (487)	1010 (1030)
17	520 (353)	224 (152)	448 (304)	1120 (761)	610 (417)	263 (180)	526 (360)	1320 (900)	11 (10)	79 (71)	469 (424)	982 (888)
18	528 (317)	228 (137)	456 (274)	1140 (684)	583 (439)	251 (189)	503 (379)	1260 (947)	25 (15)	171 (103)	1020 (614)	2110 (1270)
19	522 (355)	225 (153)	450 (307)	1120 (767)	604 (431)	260 (185)	521 (372)	1300 (929)	27 (17)	191 (122)	1140 (724)	2330 (1490)
20	526 (362)	226 (156)	454 (312)	1130 (781)	527 (382)	227 (165)	455 (330)	1140 (824)	29 (22)	206 (153)	1230 (911)	2480 (1850)
21	343 (264)	148 (114)	296 (227)	740 (569)	364 (295)	157 (127)	314 (255)	786 (637)	24 (22)	171 (157)	1020 (932)	2030 (1860)
22	322 (250)	139 (108)	277 (216)	693 (539)	316 (331)	136 (142)	272 (285)	681 (713)	36 (30)	251 (208)	1490 (1240)	2950 (2440)
23	287 (246)	124 (106)	247 (212)	618 (531)					52 (39)	366 (274)	2180 (1630)	4240 (3170)
24	266 (226)	114 (97)	229 (194)	572 (486)	249 (211)	107 (91)	215 (182)	537 (455)	55 (45)	384 (316)	2280 (1880)	4410 (3620)
25	255 (259)	110 (111)	219 (223)	548 (557)	287 (271)	124 (117)	247 (234)	618 (584)	76 (56)	530 (395)	3150 (2350)	6030 (4490)
26	329 (288)	142 (124)	283 (248)	708 (620)	305 (334)	131 (144)	263 (287)	656 (718)	73 (57)	512 (399)	3050 (2380)	5780 (4510)
27												
28												
29												
30	300 (223)	129 (96)	259 (192)	646 (480)	253 (202)	109 (87)	218 (174)	544 (435)	89 (64)	623 (447)	3710 (2660)	6750 (4840)
Mean	382	165	330	825	425	183	367	918	42	295	1750	3390
n	19	19	19	19	17	17	17	17	19	19	19	19
SD	118	51	102	254	119	51	103	257	24	169	1000	1840
Min	199	86	172	431	249	107	215	537	4	30	178	396
Max	593	255	512	1280	610	263	526	1320	89	623	3710	6750

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for December, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	373 (254)	161 (109)	321 (219)	803 (546)					82 (46)	572 (324)	3400 (1930)	6170 (3500)
2	388 (231)	167 (100)	334 (199)	834 (497)	376 (251)	162 (108)	324 (216)	810 (540)	90 (54)	630 (380)	3750 (2260)	6780 (4090)
3	361 (214)	156 (92)	311 (184)	777 (461)	352 (255)	152 (110)	303 (220)	757 (549)	99 (58)	691 (408)	4110 (2430)	7410 (4380)
4	470 (275)	203 (118)	405 (236)	1010 (591)	488 (308)	210 (133)	420 (265)	1050 (663)	94 (61)	657 (429)	3910 (2550)	7030 (4590)
5	457 (411)	197 (177)	394 (354)	984 (885)	484 (317)	208 (137)	417 (273)	1040 (683)	110 (68)	769 (477)	4580 (2840)	8200 (5080)
6	367 (245)	158 (105)	316 (210)	790 (526)	348 (370)	150 (159)	300 (318)	750 (795)				
7	276 (235)	119 (101)	238 (202)	595 (505)	377 (239)	162 (103)	324 (206)	811 (515)				
8	229 (271)	99 (117)	197 (233)	493 (582)	451 (224)	194 (97)	389 (193)	971 (483)				
9	204 (165)	88 (71)	176 (142)	440 (356)	430 (190)	185 (82)	370 (164)	926 (409)				
10	248 (188)	107 (81)	214 (162)	534 (405)	514 (206)	221 (89)	442 (177)	1110 (443)				
11					590 (179)	254 (77)	508 (154)	1270 (386)	11 (9)	75 (62)	445 (369)	932 (772)
12	292 (196)	126 (84)	252 (168)	629 (421)	597 (224)	257 (97)	514 (193)	1290 (483)	14 (10)	97 (72)	576 (428)	1190 (888)
13	340 (214)	146 (92)	293 (185)	732 (462)	584 (218)	252 (94)	503 (187)	1260 (469)	16 (13)	113 (88)	673 (521)	1380 (1070)
14	244 (185)	105 (80)	210 (160)	526 (399)	625 (224)	269 (97)	538 (193)	1350 (483)	23 (19)	163 (131)	969 (779)	1970 (1580)
15	284 (234)	122 (101)	244 (202)	611 (504)	620 (268)	267 (115)	534 (231)	1330 (577)	20 (17)	140 (116)	834 (688)	1670 (1380)
16	332 (223)	143 (96)	286 (192)	715 (481)	551 (252)	237 (109)	475 (217)	1190 (543)	27 (22)	189 (153)	1130 (913)	2230 (1810)
17	334 (246)	144 (106)	288 (212)	720 (529)	530 (271)	228 (117)	456 (234)	1140 (584)	31 (25)	213 (176)	1270 (1040)	2480 (2040)
18	390 (288)	168 (124)	336 (248)	840 (621)	482 (279)	208 (120)	415 (240)	1040 (601)	39 (28)	274 (196)	1630 (1170)	3160 (2260)
19	380 (257)	164 (111)	327 (221)	818 (554)	370 (355)	159 (153)	318 (306)	796 (765)	44 (31)	311 (215)	1850 (1280)	3550 (2460)
20	344 (336)	148 (145)	297 (290)	742 (725)					54 (30)	376 (209)	2240 (1240)	4260 (2370)
21												
22	218 (246)	94 (106)	188 (212)	470 (529)	241 (269)	104 (116)	207 (232)	518 (579)	47 (37)	327 (258)	1940 (1530)	3630 (2860)
23	305 (247)	131 (107)	263 (213)	656 (533)	260 (372)	112 (160)	224 (321)	560 (802)	60 (51)	417 (354)	2480 (2100)	4590 (3890)
24	298 (272)	128 (117)	257 (234)	643 (586)					62 (50)	437 (347)	2600 (2070)	4760 (3780)
25	281 (264)	121 (114)	242 (227)	605 (568)	266 (470)	115 (202)	229 (405)	573 (1010)	48 (43)	335 (300)	2000 (1780)	3620 (3240)
26	244 (227)	105 (98)	210 (195)	525 (488)	259 (469)	112 (202)	223 (404)	558 (1010)	51 (47)	357 (326)	2120 (1940)	3820 (3490)
27	213 (185)	92 (80)	183 (160)	458 (400)	442 (216)	191 (93)	381 (186)	953 (465)				
28	268 (145)	115 (63)	231 (125)	577 (313)	471 (108)	203 (46)	406 (93)	1010 (232)				
29	248 (167)	107 (72)	214 (144)	535 (360)	447 (148)	193 (64)	385 (128)	963 (320)				
30	312 (161)	134 (69)	269 (138)	671 (346)	387 (213)	167 (92)	333 (184)	834 (459)				
31	245 (171)	105 (74)	211 (148)	528 (370)	289 (212)	125 (91)	249 (182)	623 (456)				
Mean	309	133	266	664	438	189	377	943	51	357	2130	3940
n	29	29	29	29	27	27	27	27	20	20	20	20
SD	69	30	60	149	115	50	99	248	30	207	1230	2150
Min	204	88	176	440	241	104	207	518	11	75	445	932
Max	470	203	405	1010	625	269	538	1350	110	769	4580	8200

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for January, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2	240 (153)	103 (66)	207 (132)	517 (330)	278 (157)	120 (68)	239 (136)	598 (339)	14 (12)	98 (87)	584 (515)	1200 (1060)
3												
4	415 (271)	179 (117)	358 (234)	894 (584)	413 (365)	178 (157)	356 (314)	889 (785)	19 (16)	134 (110)	798 (656)	1590 (1310)
5	425 (247)	183 (107)	366 (213)	915 (533)					23 (17)	162 (115)	961 (686)	1890 (1350)
6	517 (304)	223 (131)	445 (262)	1110 (655)					27 (18)	191 (124)	1140 (736)	2210 (1430)
7	473 (246)	204 (106)	407 (212)	1020 (529)					28 (19)	195 (134)	1160 (798)	2230 (1540)
8	304 (175)	131 (76)	262 (151)	654 (377)	356 (176)	153 (76)	306 (151)	766 (378)	25 (19)	176 (133)	1050 (793)	2000 (1510)
9	402 (213)	173 (92)	346 (183)	864 (458)					36 (24)	249 (169)	1480 (1000)	2800 (1900)
10	370 (228)	159 (98)	318 (196)	796 (491)	470 (307)	202 (132)	404 (264)	1010 (659)	37 (30)	261 (209)	1550 (1240)	2910 (2320)
11	308 (201)	132 (86)	264 (173)	661 (431)					40 (30)	280 (208)	1670 (1240)	3080 (2290)
12	320 (214)	138 (92)	275 (184)	688 (460)	405 (362)	175 (156)	348 (311)	871 (778)	47 (31)	327 (217)	1950 (1290)	3560 (2360)
13	291 (209)	125 (90)	250 (179)	625 (448)	439 (386)	189 (166)	377 (331)	943 (829)	58 (41)	403 (285)	2400 (1690)	4340 (3070)
14	317 (239)	136 (103)	272 (205)	681 (513)	483 (418)	208 (180)	415 (359)	1040 (897)	61 (41)	428 (285)	2550 (1690)	4600 (3060)
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	365	157	314	786	406	175	349	873	35	242	1440	2700
n	12	12	12	12	7	7	7	7	12	12	12	12
SD	79	34	68	170	65	28	56	140	14	99	588	1010
Min	240	103	207	517	278	120	239	598	14	98	584	1200
Max	517	223	445	1110	483	208	415	1040	61	428	2550	4600

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for February, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8	440 (259)	190 (111)	376 (221)	939 (552)					58 (37)	405 (258)	2410 (1530)	4470 (2840)
9	398 (232)	171 (100)	339 (198)	848 (495)	426 (180)	184 (77)	364 (153)	910 (384)	60 (36)	418 (249)	2490 (1480)	4570 (2720)
10	245 (183)	106 (79)	209 (156)	524 (390)	377 (146)	162 (63)	322 (125)	804 (312)	61 (45)	427 (314)	2540 (1870)	4620 (3390)
11	399 (214)	172 (92)	341 (182)	852 (455)	439 (202)	189 (87)	374 (173)	936 (431)	74 (50)	520 (352)	3090 (2090)	5610 (3790)
12	327 (177)	141 (76)	279 (151)	698 (378)					63 (47)	442 (331)	2630 (1970)	4750 (3570)
13	450 (210)	194 (91)	384 (179)	960 (448)					84 (48)	585 (335)	3480 (1990)	6270 (3590)
14	438 (298)	188 (129)	373 (254)	932 (636)	496 (343)	214 (148)	423 (293)	1060 (731)	62 (54)	435 (375)	2590 (2230)	4660 (4010)
15	272 (165)	117 (71)	232 (141)	580 (352)					74 (57)	518 (397)	3080 (2360)	5530 (4240)
16	314 (235)	135 (101)	267 (200)	668 (500)					91 (58)	640 (408)	3810 (2420)	6820 (4340)
17	329 (251)	142 (108)	280 (213)	701 (533)	443 (259)	191 (112)	377 (220)	942 (551)	68 (64)	478 (451)	2840 (2680)	5080 (4790)
18	349 (211)	150 (91)	297 (180)	743 (449)								
19	450 (239)	194 (103)	383 (203)	957 (509)	725 (345)	312 (148)	617 (293)	1540 (733)	10 (11)	69 (76)	410 (454)	919 (1020)
20	245 (186)	105 (80)	208 (158)	521 (395)	357 (165)	154 (71)	304 (140)	760 (351)	9 (11)	62 (76)	370 (451)	797 (972)
21	271 (168)	117 (72)	230 (143)	576 (357)	376 (176)	162 (76)	319 (150)	798 (374)	9 (10)	62 (70)	366 (417)	775 (884)
22	391 (270)	168 (116)	332 (230)	831 (574)	464 (261)	200 (112)	394 (222)	986 (555)	11 (10)	77 (71)	457 (422)	956 (884)
23	418 (276)	180 (119)	356 (234)	889 (586)	419 (261)	180 (112)	356 (222)	890 (554)	10 (10)	72 (71)	429 (424)	888 (878)
24	431 (300)	186 (129)	366 (255)	916 (638)	457 (285)	197 (123)	388 (242)	970 (605)	9 (7)	66 (51)	395 (301)	808 (617)
25	604 (397)	260 (171)	513 (337)	1280 (842)	426 (293)	184 (126)	362 (249)	905 (622)	12 (10)	81 (73)	482 (432)	974 (872)
26	249 (221)	107 (95)	211 (187)	528 (469)	317 (291)	137 (125)	269 (247)	673 (617)	23 (19)	158 (130)	942 (776)	1880 (1550)
27	381 (300)	164 (129)	323 (254)	809 (636)	374 (261)	161 (112)	318 (222)	794 (554)	29 (20)	201 (143)	1190 (850)	2350 (1670)
28	389 (302)	168 (130)	330 (256)	826 (641)	434 (311)	187 (134)	369 (264)	921 (659)	23 (22)	158 (152)	939 (905)	1820 (1760)
29	451 (250)	194 (108)	383 (212)	957 (531)	471 (254)	203 (109)	400 (215)	999 (538)	33 (23)	228 (161)	1350 (960)	2610 (1850)
Mean	375	161	319	797	438	188	372	930	42	291	1730	3200
n	22	22	22	22	16	16	16	16	21	21	21	21
SD	86	37	73	183	87	38	74	185	28	199	1180	2070
Min	245	105	208	521	317	137	269	673	9	62	366	775
Max	604	260	513	1280	725	312	617	1540	91	640	3810	6820

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for March, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	548 (241)	236 (104)	465 (205)	1160 (512)	575 (266)	248 (115)	488 (226)	1220 (564)	33 (21)	229 (148)	1360 (879)	2600 (1680)
2	593 (377)	255 (162)	503 (320)	1260 (800)	411 (326)	177 (140)	348 (277)	870 (691)	33 (21)	229 (149)	1360 (885)	2580 (1670)
3	402 (321)	173 (138)	341 (272)	853 (681)	421 (132)	181 (57)	357 (112)	892 (280)	34 (29)	240 (201)	1430 (1200)	2670 (2240)
4	398 (228)	171 (98)	337 (193)	843 (482)	544 (260)	234 (112)	461 (220)	1150 (550)	44 (30)	310 (209)	1840 (1240)	3410 (2300)
5	327 (229)	141 (99)	277 (194)	692 (485)	352 (221)	152 (95)	298 (187)	746 (468)	39 (32)	271 (224)	1610 (1330)	2950 (2430)
6	318 (226)	137 (97)	270 (191)	674 (478)	431 (258)	186 (111)	365 (219)	913 (547)	45 (33)	314 (231)	1870 (1370)	3380 (2490)
7	241 (166)	104 (72)	204 (141)	511 (352)	421 (170)	181 (73)	357 (144)	892 (361)	39 (32)	272 (223)	1620 (1330)	2930 (2400)
8	294 (178)	127 (77)	249 (151)	623 (378)	524 (306)	226 (132)	444 (259)	1110 (648)	45 (27)	314 (185)	1870 (1100)	3370 (1990)
9	379 (331)	163 (142)	321 (280)	802 (700)	518 (347)	223 (149)	438 (294)	1100 (735)	50 (29)	348 (205)	2070 (1220)	3730 (2200)
10	346 (287)	149 (124)	293 (243)	731 (608)	563 (431)	243 (186)	477 (365)	1190 (913)	54 (39)	375 (271)	2230 (1610)	4010 (2910)
11	314 (360)	135 (155)	265 (304)	663 (761)	615 (370)	265 (159)	520 (313)	1300 (783)	59 (37)	415 (262)	2470 (1560)	4440 (2800)
12	367 (358)	158 (154)	310 (303)	776 (757)	499 (368)	215 (158)	422 (311)	1050 (778)	55 (51)	382 (359)	2270 (2140)	4080 (3840)
13	401 (333)	173 (144)	339 (282)	847 (705)	539 (273)	232 (118)	456 (231)	1140 (578)	75 (41)	527 (288)	3130 (1710)	5620 (3070)
14	398 (222)	172 (96)	337 (188)	842 (470)	571 (277)	246 (119)	483 (234)	1210 (586)	116 (138)	810 (967)	4820 (5750)	8630 (10300)
15	349 (205)	151 (88)	295 (173)	739 (433)	437 (214)	188 (92)	369 (181)	924 (452)	74 (56)	521 (391)	3100 (2330)	5540 (4160)
16	262 (182)	113 (78)	221 (154)	553 (384)	346 (231)	149 (100)	292 (195)	731 (488)	89 (59)	625 (409)	3720 (2440)	6630 (4350)
17	238 (176)	102 (76)	201 (149)	502 (372)	358 (215)	154 (93)	303 (182)	756 (455)				
18	282 (163)	121 (70)	238 (137)	595 (343)	397 (223)	171 (96)	335 (189)	838 (472)	9 (10)	65 (73)	387 (433)	874 (990)
19	253 (194)	109 (84)	214 (164)	534 (411)	478 (294)	206 (126)	404 (248)	1010 (620)	8 (13)	53 (94)	317 (558)	684 (1200)
20	400 (299)	172 (129)	338 (253)	845 (632)	559 (379)	241 (163)	472 (320)	1180 (800)	5 (15)	32 (106)	189 (631)	401 (1340)
21	394 (255)	170 (110)	333 (215)	833 (537)	556 (329)	240 (142)	470 (278)	1170 (695)	11 (14)	79 (95)	468 (565)	981 (1180)
22	368 (277)	159 (119)	311 (234)	777 (585)	371 (268)	160 (115)	313 (226)	783 (566)	12 (13)	87 (90)	516 (535)	1070 (1110)
23	298 (232)	129 (100)	252 (196)	630 (489)	344 (195)	148 (84)	291 (164)	727 (411)	18 (16)	127 (111)	754 (661)	1540 (1350)
24	289 (309)	124 (133)	244 (261)	610 (653)	491 (346)	212 (149)	415 (292)	1040 (729)	27 (16)	191 (113)	1140 (674)	2300 (1360)
25	408 (346)	176 (149)	344 (292)	861 (730)	469 (388)	202 (167)	396 (327)	989 (818)	32 (18)	227 (124)	1350 (739)	2690 (1480)
26	308 (280)	133 (120)	260 (236)	649 (590)	406 (329)	175 (142)	343 (278)	857 (694)	27 (16)	189 (114)	1120 (676)	2210 (1340)
27	366 (307)	157 (132)	308 (259)	771 (647)	367 (272)	158 (117)	310 (230)	775 (574)	30 (18)	211 (124)	1250 (740)	2440 (1440)
28	301 (307)	129 (132)	253 (259)	634 (647)	361 (278)	156 (120)	305 (235)	761 (587)	39 (27)	275 (187)	1640 (1110)	3150 (2150)
29	301 (424)	130 (182)	254 (357)	635 (893)	421 (316)	181 (136)	355 (266)	887 (666)	48 (29)	334 (204)	1990 (1210)	3800 (2320)
30	313 (288)	135 (124)	264 (243)	660 (607)	417 (247)	180 (106)	352 (208)	879 (520)	48 (27)	333 (188)	1980 (1120)	3760 (2120)
31	282 (219)	121 (94)	237 (184)	593 (461)					54 (33)	380 (230)	2260 (1370)	4250 (2570)
Mean	346	149	293	732	459	198	388	970	42	292	1740	3220
n	31	31	31	31	30	30	30	30	30	30	30	30
SD	78	34	66	166	81	35	68	171	24	170	1010	1760
Min	238	102	201	502	344	148	291	727	5	32	189	401
Max	593	255	503	1260	615	265	520	1300	116	810	4820	8630

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for April, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	289 (272)	124 (117)	243 (229)	608 (574)					63 (44)	441 (310)	2620 (1850)	4870 (3420)
2	320 (193)	138 (83)	269 (162)	673 (406)					76 (42)	535 (297)	3180 (1770)	5850 (3250)
3	344 (149)	148 (64)	290 (126)	725 (314)					74 (40)	514 (281)	3060 (1670)	5570 (3040)
4	304 (284)	131 (122)	256 (239)	640 (597)	438 (226)	189 (98)	369 (191)	923 (477)	80 (41)	560 (286)	3330 (1700)	6050 (3090)
5	369 (299)	159 (129)	311 (252)	776 (629)	604 (343)	260 (148)	509 (289)	1270 (723)	82 (42)	572 (294)	3400 (1750)	6160 (3160)
6	425 (310)	183 (134)	358 (261)	894 (654)	566 (344)	244 (148)	476 (290)	1190 (725)	89 (49)	620 (340)	3690 (2020)	6650 (3650)
7												
8												
9												
10												
11												
12												
13												
14												
15	971 (1380)	418 (596)	818 (1170)	2050 (2910)	1080 (1070)	464 (459)	907 (897)	2270 (2240)	8 (26)	58 (185)	344 (1100)	714 (2280)
16	749 (384)	323 (165)	631 (324)	1580 (809)	696 (337)	300 (145)	586 (284)	1470 (709)	20 (9)	141 (64)	841 (378)	1720 (776)
17	417 (337)	179 (145)	351 (283)	877 (708)	388 (285)	167 (123)	327 (240)	818 (601)	15 (17)	103 (122)	615 (724)	1240 (1460)
18	447 (335)	192 (144)	376 (282)	941 (705)	512 (357)	221 (154)	431 (301)	1080 (752)	27 (17)	192 (117)	1140 (698)	2280 (1400)
19	572 (635)	247 (273)	482 (534)	1200 (1340)	599 (646)	258 (278)	504 (544)	1260 (1360)	26 (27)	180 (187)	1070 (1110)	2110 (2200)
20	625 (724)	269 (312)	527 (610)	1320 (1520)	653 (805)	281 (347)	550 (678)	1380 (1690)	30 (40)	211 (281)	1260 (1670)	2450 (3250)
21	706 (603)	304 (260)	595 (508)	1490 (1270)	709 (361)	306 (155)	597 (304)	1490 (759)	43 (24)	300 (170)	1790 (1010)	3440 (1960)
22	552 (502)	238 (216)	465 (423)	1160 (1060)	557 (439)	240 (189)	469 (370)	1170 (925)	51 (26)	358 (182)	2130 (1080)	4070 (2070)
23					555 (440)	239 (189)	467 (370)	1170 (925)	51 (27)	359 (190)	2140 (1130)	4050 (2140)
24	346 (840)	149 (362)	291 (707)	728 (1770)	383 (808)	165 (348)	322 (680)	806 (1700)	51 (51)	359 (357)	2140 (2120)	4010 (3980)
25	554 (470)	239 (203)	467 (396)	1170 (990)	654 (465)	282 (200)	550 (392)	1380 (980)	73 (39)	509 (272)	3030 (1620)	5620 (3000)
26	396 (825)	170 (355)	333 (695)	832 (1740)					75 (60)	525 (421)	3120 (2510)	5730 (4600)
27	410 (472)	177 (203)	345 (397)	863 (993)	563 (447)	242 (193)	474 (376)	1180 (941)	76 (53)	533 (370)	3170 (2200)	5760 (4000)
28	475 (1230)	205 (530)	400 (1040)	1000 (2590)	611 (1060)	263 (455)	515 (889)	1290 (2220)	81 (102)	565 (712)	3360 (4240)	6100 (7680)
29	453 (400)	195 (172)	381 (337)	954 (841)	742 (487)	319 (210)	624 (410)	1560 (1030)	87 (48)	606 (338)	3610 (2010)	6520 (3630)
30	557 (268)	240 (116)	469 (226)	1170 (564)	787 (418)	339 (180)	663 (352)	1660 (880)	76 (58)	534 (409)	3180 (2430)	5740 (4390)
Mean	490	211	412	1030	616	265	519	1300	57	399	2370	4400
n	21	21	21	21	18	18	18	18	22	22	22	22
SD	165	71	139	348	156	67	131	328	25	176	1050	1840
Min	289	124	243	608	383	165	322	806	8	58	344	714
Max	971	418	818	2050	1080	464	907	2270	89	620	3690	6650

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for May, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	491 (446)	212 (192)	414 (375)	1030 (939)	695 (499)	299 (215)	585 (420)	1460 (1050)	77 (43)	535 (299)	3190 (1780)	5730 (3200)
2	360 (369)	155 (159)	303 (311)	756 (777)	633 (445)	273 (192)	533 (375)	1330 (936)				
3	423 (252)	182 (109)	356 (212)	890 (530)	627 (336)	270 (145)	528 (283)	1320 (707)	88 (63)	617 (438)	3670 (2610)	6570 (4670)
4	446 (317)	192 (137)	375 (267)	938 (667)	632 (519)	272 (224)	531 (437)	1330 (1090)	103 (68)	721 (476)	4290 (2830)	7660 (5060)
5	477 (361)	205 (155)	401 (304)	1000 (759)	676 (483)	291 (208)	568 (406)	1420 (1020)				
6	306 (267)	132 (115)	257 (224)	642 (560)	373 (307)	160 (132)	313 (258)	783 (645)	7 (13)	49 (93)	291 (555)	661 (1240)
7	402 (252)	173 (108)	337 (211)	844 (529)					10 (15)	68 (104)	403 (621)	868 (1340)
8	350 (369)	151 (159)	294 (310)	736 (775)	438 (418)	189 (180)	368 (352)	921 (879)	9 (25)	61 (175)	361 (1040)	766 (2200)
9					514 (335)	221 (144)	432 (281)	1080 (703)	15 (33)	102 (233)	607 (1390)	1270 (2900)
10	480 (569)	207 (245)	403 (478)	1010 (1200)	498 (444)	215 (191)	418 (373)	1050 (931)	14 (37)	97 (255)	579 (1520)	1200 (3140)
11	484 (472)	209 (203)	407 (396)	1020 (991)	620 (482)	267 (208)	520 (405)	1300 (1010)	27 (43)	189 (301)	1120 (1790)	2300 (3660)
12	503 (594)	217 (256)	422 (498)	1060 (1250)	698 (671)	300 (289)	586 (563)	1460 (1410)	26 (49)	180 (342)	1070 (2030)	2170 (4120)
13	450 (483)	194 (208)	378 (406)	944 (1010)	665 (318)	287 (137)	558 (267)	1400 (667)	29 (30)	204 (213)	1210 (1270)	2420 (2530)
14	406 (395)	175 (170)	341 (331)	852 (828)					39 (32)	275 (221)	1640 (1320)	3230 (2600)
15	334 (451)	144 (194)	280 (379)	700 (947)	566 (305)	244 (131)	475 (256)	1190 (639)	38 (33)	268 (227)	1600 (1350)	3110 (2640)
16	414 (284)	178 (122)	347 (238)	869 (595)	616 (266)	265 (115)	516 (223)	1290 (558)	43 (27)	304 (190)	1810 (1130)	3500 (2180)
17	375 (317)	162 (136)	315 (266)	787 (664)	512 (343)	220 (148)	429 (288)	1070 (720)	42 (22)	293 (157)	1740 (935)	3340 (1790)
18	390 (317)	168 (136)	327 (265)	817 (664)	544 (634)	234 (273)	456 (532)	1140 (1330)	41 (29)	290 (204)	1730 (1220)	3280 (2310)
19	449 (450)	193 (194)	376 (377)	941 (943)	715 (929)	308 (400)	599 (778)	1500 (1950)	47 (29)	327 (205)	1940 (1220)	3660 (2310)
20	245 (444)	105 (191)	205 (372)	512 (929)	600 (667)	258 (287)	502 (558)	1260 (1400)	32 (43)	223 (302)	1330 (1800)	2480 (3340)
21	333 (283)	143 (122)	279 (237)	697 (593)	576 (575)	248 (248)	482 (481)	1210 (1200)	42 (54)	291 (376)	1730 (2230)	3190 (4120)
22	149 (338)	64 (145)	125 (283)	311 (707)	452 (1460)	195 (630)	379 (1220)	947 (3060)	33 (41)	233 (287)	1390 (1710)	2530 (3120)
23	92 (307)	40 (132)	77 (257)	193 (643)	310 (678)	133 (292)	259 (567)	648 (1420)	18 (52)	128 (367)	759 (2180)	1380 (3960)
24	403 (371)	174 (160)	338 (310)	844 (776)	533 (648)	230 (279)	446 (542)	1120 (1360)	52 (66)	365 (461)	2170 (2750)	3920 (4960)
25	308 (536)	133 (231)	258 (448)	645 (1120)	547 (792)	236 (341)	458 (663)	1150 (1660)	39 (63)	275 (441)	1640 (2630)	2950 (4720)
26	157 (332)	68 (143)	132 (278)	329 (694)	586 (666)	253 (287)	491 (557)	1230 (1390)	45 (48)	313 (336)	1860 (2000)	3330 (3580)
27	309 (184)	133 (79)	259 (154)	647 (384)								
28	315 (245)	136 (105)	263 (204)	658 (511)					11 (7)	79 (51)	471 (305)	1060 (700)
29	284 (835)	122 (360)	238 (698)	594 (1740)	249 (447)	107 (192)	208 (374)	520 (934)				
30	239 (315)	103 (136)	200 (264)	500 (659)	513 (615)	221 (265)	428 (514)	1070 (1280)				
31	163 (380)	70 (164)	136 (318)	340 (794)	384 (547)	165 (236)	321 (457)	802 (1140)				
Mean	351	151	295	737	547	236	459	1150	37	259	1540	2900
n	30	30	30	30	27	27	27	27	25	25	25	25
SD	109	47	92	230	117	50	98	246	24	165	981	1710
Min	92	40	77	193	249	107	208	520	7	49	291	661
Max	503	217	422	1060	715	308	599	1500	103	721	4290	7660

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for June, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	124 (219)	54 (94)	104 (183)	260 (457)	301 (410)	130 (176)	252 (342)	629 (856)	9 (9)	64 (66)	383 (395)	794 (819)
2												
3												
4												
5	256 (629)	110 (271)	214 (528)	536 (1320)	506 (517)	218 (223)	424 (434)	1060 (1080)	15 (39)	108 (272)	641 (1620)	1270 (3200)
6	538 (332)	232 (143)	451 (278)	1130 (696)	622 (416)	268 (179)	522 (349)	1310 (873)	44 (29)	306 (204)	1820 (1210)	3560 (2370)
7	182 (316)	78 (136)	153 (266)	381 (664)	246 (319)	106 (137)	207 (268)	517 (669)	26 (25)	182 (171)	1080 (1020)	2100 (1980)
8	241 (312)	104 (134)	202 (262)	506 (656)	434 (386)	187 (166)	365 (325)	912 (812)	39 (44)	272 (309)	1620 (1840)	3110 (3530)
9	478 (325)	206 (140)	403 (273)	1010 (683)	677 (382)	292 (164)	570 (321)	1430 (803)	58 (44)	403 (306)	2400 (1820)	4570 (3460)
10	254 (403)	109 (174)	214 (339)	535 (848)	559 (422)	241 (182)	471 (356)	1180 (889)	34 (33)	240 (229)	1430 (1360)	2700 (2580)
11												
12												
13												
14												
15												
16												
17	287 (335)	124 (144)	243 (284)	608 (710)	392 (399)	169 (172)	332 (338)	831 (846)	6 (31)	39 (214)	230 (1280)	533 (2800)
18	305 (422)	131 (182)	259 (358)	647 (895)	398 (523)	171 (225)	337 (444)	844 (1110)	9 (27)	63 (191)	374 (1140)	807 (2440)
19	367 (331)	158 (143)	311 (281)	779 (703)	410 (374)	176 (161)	348 (318)	870 (795)	10 (36)	72 (250)	427 (1490)	905 (3150)
20	391 (380)	169 (164)	332 (323)	831 (808)	470 (393)	202 (169)	399 (334)	998 (835)	17 (40)	115 (281)	686 (1670)	1440 (3500)
21												
22	363 (400)	156 (172)	309 (340)	772 (851)	481 (490)	207 (211)	410 (417)	1020 (1040)				
23	388 (370)	167 (159)	331 (316)	827 (789)	527 (569)	227 (245)	449 (485)	1120 (1210)				
24	325 (298)	140 (129)	277 (254)	693 (636)	488 (429)	210 (185)	416 (366)	1040 (915)				
25												
26												
27												
28												
29												
30												
Mean	321	138	272	679	465	200	393	983	24	169	1010	1980
n	14	14	14	14	14	14	14	14	11	11	11	11
SD	107	46	90	226	111	48	94	235	16	115	682	1270
Min	124	54	104	260	246	106	207	517	6	39	230	533
Max	538	232	451	1130	677	292	570	1430	58	403	2400	4570

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for July, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17	278 (341)	120 (147)	237 (292)	594 (729)	340 (311)	146 (134)	291 (266)	727 (665)				
18	253 (95)	109 (41)	216 (81)	540 (204)	369 (145)	159 (62)	315 (124)	789 (309)				
19	266 (106)	114 (46)	227 (91)	568 (226)	421 (158)	181 (68)	360 (135)	899 (338)				
20	303 (244)	130 (105)	259 (209)	648 (521)	503 (345)	216 (148)	430 (295)	1070 (737)				
21	569 (1290)	245 (556)	486 (1110)	1220 (2760)	572 (310)	246 (133)	489 (265)	1220 (663)				
22	359 (210)	154 (90)	307 (179)	767 (449)	557 (233)	240 (100)	476 (199)	1190 (498)				
23	392 (254)	169 (109)	335 (217)	838 (542)	637 (288)	274 (124)	544 (247)	1360 (616)				
24												
25												
26												
27												
28												
29												
30												
31												
Mean	345	149	295	739	485	209	415	1040				
n	7	7	7	7	7	7	7	7	0	0	0	0
SD	103	44	88	219	103	45	88	221				
Min	253	109	216	540	340	146	291	727				
Max	569	245	486	1220	637	274	544	1360				

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for August, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8	177 (95)	76 (41)	151 (81)	378 (202)	360 (124)	155 (53)	307 (105)	766 (263)				
9	252 (131)	109 (56)	215 (112)	537 (279)	428 (148)	184 (64)	365 (126)	911 (316)				
10	223 (84)	96 (36)	190 (71)	475 (178)	363 (107)	156 (46)	310 (91)	774 (227)				
11	244 (109)	105 (47)	208 (93)	521 (232)	360 (167)	155 (72)	307 (143)	767 (356)				
12	272 (133)	117 (57)	232 (113)	580 (283)	359 (157)	155 (68)	306 (134)	765 (335)				
13	338 (196)	146 (85)	288 (167)	720 (418)	470 (234)	202 (101)	400 (200)	1000 (499)				
14	393 (264)	169 (114)	335 (225)	836 (562)	469 (255)	202 (110)	400 (217)	999 (543)				
15	348 (241)	150 (104)	296 (205)	740 (512)	329 (146)	142 (63)	280 (125)	700 (312)				
16					347 (147)	149 (63)	295 (125)	738 (313)				
17					307 (127)	132 (55)	261 (108)	652 (271)				
18												
19					334 (170)	144 (73)	284 (145)	710 (362)				
20	197 (143)	85 (61)	168 (121)	419 (303)	360 (225)	155 (97)	307 (191)	766 (478)	67 (44)	468 (308)	2780 (1830)	4990 (3280)
21	159 (152)	69 (66)	135 (129)	339 (324)	345 (196)	149 (85)	294 (167)	734 (418)	113 (180)	790 (1260)	4700 (7500)	8410 (13400)
22	161 (129)	69 (56)	137 (110)	343 (275)	318 (197)	137 (85)	271 (168)	676 (419)				
23	150 (150)	65 (64)	128 (127)	319 (318)	302 (221)	130 (95)	256 (188)	641 (470)	7 (10)	52 (68)	310 (406)	702 (909)
24	144 (164)	62 (71)	123 (139)	306 (348)	260 (249)	112 (107)	221 (212)	552 (529)	7 (9)	47 (65)	282 (388)	608 (837)
25	63 (237)	27 (102)	53 (202)	134 (504)	216 (219)	93 (94)	183 (186)	458 (465)	0 (19)	1 (135)	4 (804)	8 (1700)
26	163 (205)	70 (88)	138 (174)	346 (435)	328 (277)	141 (119)	278 (235)	695 (589)	8 (11)	57 (80)	337 (475)	707 (993)
27	184 (164)	79 (71)	156 (139)	390 (347)	349 (274)	150 (118)	296 (233)	741 (582)	14 (10)	97 (70)	577 (416)	1200 (862)
28	151 (226)	65 (97)	128 (192)	321 (480)	329 (336)	142 (145)	279 (285)	698 (714)	18 (21)	124 (147)	735 (873)	1510 (1790)
29	126 (236)	54 (102)	107 (200)	267 (501)	291 (345)	125 (149)	247 (293)	617 (732)	13 (15)	90 (104)	536 (618)	1090 (1260)
30	196 (186)	84 (80)	166 (158)	416 (395)	411 (256)	177 (110)	348 (217)	871 (543)	25 (16)	178 (111)	1060 (661)	2110 (1320)
31	135 (139)	58 (60)	114 (118)	286 (295)	261 (207)	113 (89)	222 (175)	554 (438)	23 (17)	158 (118)	942 (701)	1860 (1390)
Mean	204	88	173	434	343	148	292	730	27	187	1110	2110
n	20	20	20	20	23	23	23	23	11	11	11	11
SD	81	35	69	172	60	26	51	128	32	225	1340	2350
Min	63	27	53	134	216	93	183	458	0	1	4	8
Max	393	169	335	836	470	202	400	1000	113	790	4700	8410

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for September, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	143 (155)	62 (67)	121 (131)	303 (328)	366 (281)	158 (121)	311 (238)	777 (596)	48 (87)	337 (610)	2010 (3630)	3920 (7100)
2	197 (226)	85 (97)	167 (192)	417 (480)	461 (409)	199 (176)	391 (347)	978 (868)	38 (22)	266 (152)	1580 (901)	3060 (1740)
3	379 (220)	163 (95)	321 (187)	803 (467)					41 (26)	288 (181)	1720 (1070)	3290 (2060)
4	326 (251)	140 (108)	276 (213)	691 (533)	511 (315)	220 (136)	433 (268)	1080 (669)	47 (31)	325 (217)	1940 (1290)	3680 (2460)
5	322 (206)	138 (89)	273 (175)	682 (436)	406 (175)	175 (75)	344 (148)	861 (371)	48 (23)	333 (162)	1980 (965)	3730 (1820)
6	295 (190)	127 (82)	250 (161)	626 (403)	398 (172)	171 (74)	338 (146)	844 (365)	49 (29)	345 (203)	2050 (1210)	3830 (2260)
7	194 (175)	84 (75)	165 (149)	411 (372)	324 (171)	140 (74)	275 (145)	688 (363)	45 (25)	316 (175)	1880 (1040)	3480 (1920)
8	278 (137)	120 (59)	236 (116)	590 (291)	486 (167)	209 (72)	412 (142)	1030 (354)	55 (34)	387 (240)	2300 (1430)	4210 (2610)
9	286 (191)	123 (82)	243 (163)	607 (406)	387 (190)	167 (82)	329 (161)	822 (402)	66 (39)	459 (273)	2730 (1630)	4960 (2950)
10	231 (297)	100 (128)	196 (252)	491 (631)	360 (251)	155 (108)	306 (213)	764 (534)	51 (44)	354 (306)	2110 (1820)	3810 (3280)
11	137 (115)	59 (50)	116 (98)	291 (245)	249 (114)	107 (49)	212 (97)	529 (243)	79 (74)	551 (515)	3280 (3070)	5870 (5500)
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25	426 (304)	183 (131)	362 (259)	906 (647)	508 (261)	219 (112)	432 (222)	1080 (554)	51 (25)	360 (175)	2140 (1040)	4070 (1970)
26	502 (281)	216 (121)	427 (239)	1070 (597)	615 (305)	265 (131)	523 (260)	1310 (650)	67 (34)	468 (236)	2780 (1410)	5230 (2640)
27	449 (332)	193 (143)	382 (283)	956 (707)	611 (353)	263 (152)	520 (301)	1300 (752)	61 (44)	430 (309)	2560 (1840)	4750 (3420)
28	478 (364)	206 (157)	407 (310)	1020 (775)	664 (323)	286 (139)	566 (275)	1410 (688)	70 (52)	488 (366)	2900 (2180)	5340 (4000)
29	486 (424)	209 (183)	414 (361)	1030 (903)	787 (421)	339 (181)	671 (359)	1680 (897)	68 (46)	476 (319)	2830 (1900)	5160 (3460)
30	462 (391)	199 (169)	394 (333)	984 (833)	550 (488)	237 (210)	468 (416)	1170 (1040)	74 (71)	521 (497)	3100 (2960)	5620 (5370)
Mean	329	142	280	699	480	207	408	1020	56	394	2350	4350
n	17	17	17	17	16	16	16	16	17	17	17	17
SD	120	52	102	255	136	59	116	291	12	83	495	844
Min	137	59	116	291	249	107	212	529	38	266	1580	3060
Max	502	216	427	1070	787	339	671	1680	79	551	3280	5870

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for October, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	358 (446)	154 (192)	305 (380)	763 (950)	517 (452)	223 (194)	441 (385)	1100 (962)	77 (82)	537 (576)	3190 (3430)	5770 (6200)
2	410 (364)	177 (157)	349 (311)	874 (776)	517 (374)	223 (161)	440 (319)	1100 (797)	65 (105)	455 (739)	2710 (4400)	4880 (7920)
3	388 (464)	167 (200)	331 (396)	827 (990)	475 (461)	204 (199)	405 (393)	1010 (983)	94 (96)	659 (674)	3920 (4010)	7050 (7210)
4	385 (481)	166 (207)	329 (411)	821 (1030)	456 (502)	197 (216)	389 (428)	973 (1070)	81 (114)	567 (800)	3370 (4760)	6040 (8530)
5	387 (373)	167 (161)	331 (318)	826 (796)					101 (58)	707 (406)	4200 (2410)	7520 (4320)
6	358 (271)	154 (117)	305 (231)	764 (578)	370 (244)	159 (105)	316 (208)	790 (521)				
7	319 (628)	137 (270)	272 (536)	681 (1340)	471 (494)	203 (213)	402 (422)	1010 (1050)	9 (8)	64 (54)	380 (319)	848 (711)
8	365 (422)	157 (182)	312 (361)	780 (902)	409 (359)	176 (155)	350 (307)	874 (767)	12 (8)	81 (55)	479 (330)	1030 (710)
9	387 (416)	167 (179)	331 (356)	828 (890)					17 (11)	119 (78)	707 (462)	1500 (979)
10	478 (288)	206 (124)	409 (247)	1020 (617)	570 (305)	245 (131)	487 (261)	1220 (652)	26 (13)	182 (89)	1080 (532)	2270 (1110)
11	353 (190)	152 (82)	302 (163)	755 (407)					18 (12)	123 (81)	731 (479)	1520 (995)
12									15 (7)	104 (48)	619 (288)	1270 (591)
13	382 (165)	165 (71)	328 (142)	819 (354)					31 (30)	220 (207)	1310 (1230)	2650 (2500)
14	405 (173)	175 (74)	347 (148)	868 (370)					36 (34)	252 (237)	1500 (1410)	3000 (2830)
15	412 (183)	177 (79)	353 (157)	883 (392)	537 (201)	231 (87)	460 (172)	1150 (431)	46 (35)	324 (247)	1930 (1470)	3810 (2910)
16	403 (217)	174 (93)	346 (186)	865 (464)					52 (38)	363 (264)	2160 (1570)	4220 (3070)
17	345 (384)	149 (166)	296 (330)	741 (825)					50 (36)	352 (250)	2090 (1490)	4050 (2880)
18	327 (283)	141 (122)	280 (243)	701 (606)					53 (59)	371 (410)	2210 (2440)	4240 (4680)
19	315 (446)	136 (192)	271 (383)	677 (957)					59 (105)	410 (735)	2440 (4370)	4640 (8320)
20	410 (289)	177 (124)	353 (248)	882 (620)					59 (34)	409 (236)	2440 (1410)	4590 (2650)
21	281 (363)	121 (156)	242 (312)	605 (780)					61 (29)	430 (200)	2560 (1190)	4780 (2220)
22	298 (246)	128 (106)	256 (211)	640 (528)					57 (45)	399 (313)	2370 (1860)	4380 (3440)
23									47 (39)	327 (269)	1950 (1600)	3560 (2930)
24	294 (454)	126 (196)	253 (391)	632 (977)					77 (54)	538 (378)	3200 (2250)	5810 (4080)
25	266 (651)	114 (280)	229 (561)	572 (1400)					70 (45)	493 (312)	2930 (1850)	5290 (3350)
26	358 (458)	154 (197)	309 (395)	771 (986)					78 (58)	546 (404)	3250 (2400)	5820 (4310)
27	311 (316)	134 (136)	268 (273)	669 (681)								
28	308 (174)	133 (75)	266 (150)	665 (374)					9 (10)	60 (67)	357 (400)	803 (896)
29	278 (218)	120 (94)	239 (188)	599 (469)					7 (11)	48 (79)	283 (469)	610 (1010)
30	287 (243)	124 (105)	248 (210)	620 (525)					11 (44)	77 (310)	457 (1840)	970 (3900)
31	274 (357)	118 (154)	237 (308)	592 (771)					14 (20)	96 (137)	568 (812)	1190 (1700)
Mean	350	151	300	750	480	207	410	1030	46	321	1910	3590
n	29	29	29	29	9	9	9	9	29	29	29	29
SD	52	23	44	110	59	26	51	127	28	194	1160	2020
Min	266	114	229	572	370	159	316	790	7	48	283	610
Max	478	206	409	1020	570	245	487	1220	101	707	4200	7520

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for November, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	187 (553)	80 (238)	161 (478)	403 (1190)					15 (43)	103 (299)	615 (1780)	1270 (3680)
2	86 (550)	37 (237)	74 (474)	186 (1190)					6 (67)	41 (468)	243 (2780)	498 (5700)
3	238 (297)	103 (128)	206 (257)	514 (642)					14 (25)	99 (176)	588 (1050)	1190 (2120)
4	333 (357)	143 (154)	287 (308)	718 (770)					17 (19)	118 (134)	700 (800)	1400 (1600)
5	274 (437)	118 (188)	237 (377)	592 (943)					36 (19)	249 (133)	1480 (791)	2930 (1560)
6	284 (282)	122 (121)	245 (243)	612 (609)	457 (303)	197 (130)	395 (261)	987 (653)	40 (24)	283 (170)	1680 (1010)	3290 (1970)
7												
8	246 (312)	106 (134)	212 (269)	531 (672)					44 (26)	305 (181)	1810 (1080)	3480 (2070)
9	238 (241)	102 (104)	205 (208)	513 (520)	366 (298)	158 (128)	316 (257)	789 (642)	52 (34)	364 (234)	2170 (1390)	4120 (2650)
10	266 (330)	114 (142)	229 (285)	573 (712)	445 (406)	191 (175)	384 (350)	959 (876)	48 (33)	336 (228)	2000 (1360)	3770 (2560)
11	228 (227)	98 (98)	197 (196)	492 (490)	351 (337)	151 (145)	303 (291)	758 (727)	56 (40)	389 (277)	2320 (1650)	4320 (3080)
12	165 (337)	71 (145)	142 (291)	355 (727)	325 (371)	140 (160)	280 (320)	700 (801)	62 (40)	435 (279)	2590 (1660)	4780 (3060)
13	273 (221)	117 (95)	235 (191)	588 (477)	440 (273)	190 (118)	380 (236)	950 (590)	69 (51)	481 (354)	2860 (2110)	5240 (3850)
14	260 (167)	112 (72)	225 (144)	561 (359)	363 (209)	156 (90)	313 (180)	782 (451)	64 (47)	448 (326)	2670 (1940)	4840 (3520)
15	219 (161)	94 (70)	189 (139)	473 (348)	281 (185)	121 (80)	242 (160)	606 (399)	52 (37)	366 (261)	2170 (1560)	3920 (2810)
16	203 (178)	87 (77)	175 (154)	437 (384)	377 (247)	162 (106)	325 (213)	813 (532)	63 (41)	439 (288)	2610 (1710)	4680 (3070)
17	234 (167)	101 (72)	202 (144)	505 (360)	395 (253)	170 (109)	341 (219)	853 (547)				
18									10 (8)	67 (55)	397 (326)	893 (741)
19	325 (269)	140 (116)	280 (232)	700 (580)					9 (7)	64 (52)	382 (307)	823 (661)
20									9 (8)	62 (53)	370 (318)	784 (673)
21	204 (144)	88 (62)	176 (124)	441 (311)					9 (9)	64 (64)	378 (379)	793 (794)
22	227 (213)	98 (92)	196 (184)	489 (460)					9 (8)	66 (59)	392 (349)	811 (724)
23	242 (269)	104 (116)	209 (232)	523 (581)					14 (10)	97 (71)	577 (424)	1180 (869)
24	235 (242)	101 (104)	203 (209)	507 (521)					18 (13)	126 (88)	747 (525)	1510 (1060)
25	221 (502)	95 (216)	190 (433)	476 (1080)					21 (18)	145 (123)	863 (734)	1720 (1460)
26	220 (334)	95 (144)	189 (288)	473 (719)					21 (16)	148 (110)	880 (657)	1730 (1290)
27	244 (284)	105 (122)	211 (245)	527 (612)					21 (15)	146 (102)	868 (605)	1690 (1180)
28	193 (238)	83 (102)	167 (205)	417 (513)					23 (19)	162 (130)	963 (772)	1860 (1490)
29	199 (261)	86 (112)	171 (225)	428 (562)					35 (30)	245 (213)	1460 (1270)	2790 (2420)
30	183 (300)	79 (129)	158 (259)	394 (647)					34 (25)	237 (176)	1410 (1050)	2670 (1990)
Mean	231	99	199	497	380	164	328	820	31	217	1290	2460
n	27	27	27	27	10	10	10	10	28	28	28	28
SD	48	21	42	104	53	23	46	115	20	140	832	1490
Min	86	37	74	186	281	121	242	606	6	41	243	498
Max	333	143	287	718	457	197	395	987	69	481	2860	5240

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for December, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	153 (241)	66 (104)	132 (208)	329 (520)					44 (31)	307 (215)	1830 (1280)	3430 (2400)
2	146 (604)	63 (260)	126 (520)	315 (1300)					44 (37)	311 (259)	1850 (1540)	3430 (2850)
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14	329 (355)	142 (153)	284 (305)	709 (763)	660 (269)	284 (116)	568 (231)	1420 (579)				
15	179 (73)	77 (31)	154 (62)	386 (156)	587 (211)	253 (91)	505 (181)	1260 (453)				
16	232 (181)	100 (78)	199 (156)	499 (390)	544 (299)	234 (129)	468 (258)	1170 (644)				
17	197 (118)	85 (51)	169 (102)	423 (254)	215 (141)	93 (61)	185 (121)	463 (303)	14 (10)	100 (67)	594 (396)	1230 (819)
18	253 (224)	109 (97)	218 (193)	544 (483)					18 (14)	124 (96)	740 (569)	1520 (1160)
19	316 (258)	136 (111)	272 (222)	680 (554)	363 (329)	156 (142)	312 (283)	780 (707)	21 (18)	148 (123)	880 (734)	1780 (1490)
20	262 (323)	113 (139)	225 (278)	563 (694)	520 (291)	224 (125)	447 (251)	1120 (626)	20 (20)	142 (139)	844 (828)	1690 (1650)
21	169 (117)	73 (51)	146 (101)	364 (252)	536 (287)	231 (124)	461 (247)	1150 (618)	25 (25)	172 (174)	1020 (1030)	2020 (2040)
22									54 (89)	376 (623)	2240 (3710)	4360 (7230)
23									33 (27)	228 (192)	1360 (1140)	2620 (2200)
24	270 (191)	116 (82)	232 (164)	581 (411)	386 (203)	166 (88)	332 (175)	830 (437)	33 (26)	230 (184)	1370 (1100)	2620 (2090)
25	341 (260)	147 (112)	294 (223)	734 (558)	482 (269)	208 (116)	415 (231)	1040 (577)	39 (29)	273 (204)	1630 (1210)	3080 (2300)
26									43 (28)	299 (197)	1780 (1170)	3340 (2210)
27	235 (242)	101 (104)	202 (208)	505 (520)	497 (239)	214 (103)	427 (206)	1070 (515)	35 (33)	246 (229)	1460 (1360)	2720 (2530)
28	270 (206)	116 (89)	232 (177)	580 (443)	486 (252)	209 (108)	417 (216)	1040 (541)	49 (40)	343 (278)	2040 (1650)	3750 (3030)
29	305 (290)	132 (125)	262 (249)	656 (623)	500 (311)	215 (134)	429 (268)	1070 (669)	55 (43)	388 (298)	2310 (1780)	4200 (3230)
30	249 (306)	107 (132)	214 (263)	536 (657)	365 (395)	157 (170)	314 (339)	784 (849)	52 (42)	366 (292)	2180 (1740)	3950 (3150)
31	214 (188)	92 (81)	184 (161)	460 (404)	263 (235)	113 (101)	226 (202)	565 (504)	57 (52)	399 (365)	2380 (2170)	4300 (3920)
Mean	242	104	209	521	457	197	393	983	37	262	1560	2940
n	17	17	17	17	14	14	14	14	17	17	17	17
SD	59	25	50	126	119	51	103	257	14	95	566	992
Min	146	63	126	315	215	93	185	463	14	100	594	1230
Max	341	147	294	734	660	284	568	1420	57	399	2380	4360

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for January, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	248 (316)	107 (136)	213 (271)	532 (678)	252 (278)	108 (120)	216 (239)	541 (597)	47 (47)	331 (332)	1970 (1970)	3550 (3560)
2	260 (429)	112 (185)	223 (368)	558 (920)	395 (288)	170 (124)	339 (248)	848 (619)	66 (53)	459 (373)	2730 (2220)	4910 (3990)
3	244 (438)	105 (189)	210 (376)	524 (941)	337 (230)	145 (99)	289 (197)	723 (494)	71 (59)	494 (411)	2940 (2450)	5270 (4390)
4	152 (114)	66 (49)	131 (98)	327 (245)	214 (104)	92 (45)	184 (89)	459 (224)	66 (66)	464 (463)	2760 (2750)	4940 (4920)
5	221 (146)	95 (63)	190 (126)	474 (314)	283 (168)	122 (72)	243 (144)	606 (361)				
6	227 (127)	98 (55)	195 (109)	487 (273)	297 (187)	128 (81)	255 (161)	637 (402)	13 (15)	91 (105)	543 (624)	1220 (1400)
7	258 (159)	111 (69)	222 (137)	554 (341)	335 (237)	144 (102)	288 (203)	720 (508)	15 (16)	106 (113)	628 (674)	1350 (1450)
8	291 (193)	125 (83)	250 (165)	624 (414)	357 (284)	154 (122)	306 (244)	765 (609)	16 (19)	113 (131)	672 (778)	1420 (1650)
9									14 (14)	99 (98)	589 (583)	1240 (1220)
10	205 (173)	88 (74)	176 (148)	440 (370)	254 (296)	109 (127)	217 (254)	544 (634)	18 (17)	126 (122)	748 (724)	1550 (1500)
11	240 (161)	104 (69)	206 (138)	516 (345)	303 (259)	131 (112)	260 (222)	650 (555)	21 (19)	150 (133)	892 (791)	1830 (1620)
12	160 (238)	69 (102)	137 (204)	343 (509)	230 (292)	99 (126)	197 (251)	494 (626)	19 (23)	131 (157)	780 (936)	1580 (1900)
13									33 (29)	229 (202)	1360 (1200)	2720 (2400)
14									36 (32)	248 (225)	1480 (1340)	2920 (2650)
15	147 (75)	64 (32)	126 (64)	316 (161)	192 (110)	83 (47)	165 (94)	412 (236)	49 (62)	339 (430)	2020 (2560)	3940 (5000)
16	253 (141)	109 (61)	217 (121)	542 (301)	434 (283)	187 (122)	372 (242)	929 (606)	96 (117)	674 (819)	4010 (4870)	7770 (9440)
17	326 (214)	140 (92)	279 (184)	698 (459)	501 (298)	216 (128)	429 (255)	1070 (639)	57 (41)	397 (288)	2360 (1710)	4530 (3280)
18	333 (240)	143 (103)	285 (205)	713 (513)	474 (326)	204 (140)	406 (279)	1010 (698)	55 (38)	388 (268)	2310 (1600)	4390 (3040)
19	340 (264)	146 (114)	291 (226)	728 (565)	672 (462)	289 (199)	576 (396)	1440 (989)	89 (129)	624 (901)	3710 (5360)	7000 (10100)
20	293 (206)	126 (89)	251 (177)	628 (442)	451 (338)	194 (146)	386 (289)	966 (724)	65 (55)	456 (384)	2710 (2290)	5060 (4260)
21	255 (276)	110 (119)	218 (236)	546 (591)	399 (434)	172 (187)	342 (371)	855 (928)	63 (47)	439 (332)	2610 (1980)	4820 (3650)
22	315 (227)	136 (98)	269 (195)	674 (486)	699 (541)	301 (233)	599 (463)	1500 (1160)	52 (45)	364 (317)	2170 (1890)	3960 (3450)
23									44 (40)	305 (279)	1810 (1660)	3290 (3010)
24	156 (76)	67 (33)	134 (65)	335 (162)	252 (137)	108 (59)	216 (117)	539 (293)	48 (44)	337 (311)	2010 (1850)	3620 (3330)
25									58 (53)	404 (372)	2400 (2220)	4310 (3970)
26												
27	155 (84)	67 (36)	132 (72)	331 (179)	204 (110)	88 (48)	175 (95)	437 (236)	8 (9)	57 (64)	342 (379)	766 (855)
28	191 (167)	82 (72)	163 (143)	408 (358)	314 (235)	135 (101)	268 (201)	671 (503)	8 (10)	59 (67)	350 (401)	754 (864)
29	152 (194)	65 (84)	130 (166)	325 (416)	259 (226)	111 (97)	221 (193)	553 (484)	10 (12)	70 (87)	419 (517)	887 (1100)
30	205 (258)	88 (111)	175 (221)	439 (552)	357 (345)	154 (149)	305 (295)	763 (738)	15 (13)	102 (92)	606 (547)	1270 (1150)
31	224 (287)	97 (124)	191 (246)	479 (614)					18 (14)	125 (97)	746 (576)	1540 (1190)
Mean	234	101	201	502	353	152	302	756	40	282	1680	3190
n	25	25	25	25	24	24	24	24	29	29	29	29
SD	59	26	51	127	131	57	112	281	25	175	1040	1890
Min	147	64	126	316	192	83	165	412	8	57	342	754
Max	340	146	291	728	699	301	599	1500	96	674	4010	7770

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for February, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	208 (221)	90 (95)	178 (189)	444 (473)	310 (323)	134 (139)	265 (276)	663 (690)	18 (18)	126 (128)	747 (761)	1530 (1560)
2	206 (300)	89 (129)	176 (256)	440 (641)	330 (380)	142 (164)	282 (324)	705 (811)	20 (20)	139 (142)	829 (844)	1680 (1710)
3	222 (304)	96 (131)	190 (260)	474 (650)	348 (430)	150 (185)	297 (368)	743 (919)	23 (19)	161 (133)	957 (789)	1910 (1580)
4	184 (388)	79 (167)	157 (331)	393 (828)	443 (529)	191 (228)	378 (452)	945 (1130)	28 (28)	196 (195)	1170 (1160)	2300 (2290)
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19	388 (275)	167 (118)	330 (234)	824 (584)	480 (296)	207 (127)	408 (251)	1020 (629)	18 (13)	124 (90)	739 (536)	1660 (1210)
20	312 (229)	135 (99)	266 (194)	664 (486)	572 (376)	246 (162)	487 (320)	1220 (799)	26 (16)	181 (113)	1080 (669)	2320 (1440)
21									19 (21)	134 (145)	796 (862)	1690 (1830)
22									20 (19)	137 (131)	813 (779)	1700 (1630)
23	378 (252)	163 (108)	321 (214)	803 (535)	521 (372)	224 (160)	442 (316)	1110 (791)	29 (26)	206 (179)	1230 (1070)	2540 (2210)
24	356 (382)	153 (164)	303 (324)	757 (810)	561 (451)	242 (194)	477 (383)	1190 (957)	28 (26)	197 (182)	1170 (1080)	2400 (2230)
25												
26												
27	296 (259)	128 (112)	251 (220)	628 (550)	427 (328)	184 (141)	362 (278)	906 (696)	48 (44)	334 (306)	1990 (1820)	3930 (3600)
28	209 (200)	90 (86)	177 (170)	443 (424)	320 (278)	138 (120)	272 (236)	679 (589)	46 (40)	323 (283)	1920 (1690)	3750 (3290)
Mean	276	119	235	587	431	186	367	917	27	188	1120	2280
n	10	10	10	10	10	10	10	10	12	12	12	12
SD	75	32	64	159	96	41	81	202	10	69	410	770
Min	184	79	157	393	310	134	265	663	18	124	739	1530
Max	388	167	330	824	572	246	487	1220	48	334	1990	3930

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for March, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	268 (232)	116 (100)	227 (197)	569 (493)	383 (274)	165 (118)	325 (233)	811 (582)	37 (47)	258 (329)	1530 (1960)	2970 (3790)
2	318 (422)	137 (182)	269 (357)	673 (894)	478 (556)	206 (239)	405 (471)	1010 (1180)				
3	340 (496)	146 (214)	288 (420)	720 (1050)	674 (553)	290 (238)	571 (469)	1430 (1170)	53 (47)	370 (326)	2200 (1940)	4190 (3690)
4	245 (560)	106 (241)	208 (474)	520 (1190)	886 (832)	382 (358)	751 (705)	1880 (1760)	32 (48)	223 (339)	1320 (2020)	2500 (3810)
5	498 (270)	215 (116)	422 (229)	1060 (572)	1020 (450)	438 (194)	861 (382)	2150 (954)	49 (33)	343 (229)	2040 (1360)	3810 (2540)
6	446 (265)	192 (114)	378 (224)	945 (561)	917 (474)	395 (204)	777 (402)	1940 (1000)	50 (35)	350 (246)	2080 (1460)	3840 (2700)
7	404 (456)	174 (196)	342 (386)	856 (965)					37 (31)	261 (216)	1550 (1290)	2840 (2350)
8	327 (261)	141 (112)	277 (221)	693 (553)	625 (396)	269 (171)	530 (335)	1320 (839)	52 (37)	366 (262)	2180 (1560)	3960 (2830)
9									44 (56)	307 (389)	1830 (2310)	3300 (4180)
10	247 (287)	106 (124)	209 (243)	523 (608)	366 (310)	157 (134)	310 (263)	774 (656)	59 (58)	415 (404)	2470 (2400)	4430 (4310)
11	180 (155)	77 (67)	152 (131)	380 (328)	332 (173)	143 (75)	281 (147)	703 (367)				
12	201 (174)	87 (75)	170 (147)	425 (368)	379 (229)	163 (99)	321 (194)	803 (485)	13 (10)	94 (70)	560 (417)	1260 (950)
13	193 (202)	83 (87)	164 (171)	409 (427)	324 (220)	140 (95)	274 (187)	685 (466)	11 (14)	77 (97)	460 (578)	992 (1250)
14	318 (259)	137 (112)	269 (219)	672 (548)	498 (312)	214 (134)	421 (264)	1050 (659)	13 (14)	93 (95)	551 (564)	1170 (1200)
15	294 (274)	127 (118)	249 (232)	623 (580)	490 (296)	211 (127)	415 (250)	1040 (626)	14 (12)	99 (84)	588 (500)	1230 (1050)
16	400 (467)	172 (201)	338 (395)	846 (988)	804 (665)	346 (286)	680 (562)	1700 (1410)	18 (9)	128 (64)	762 (381)	1580 (788)
17	447 (569)	192 (245)	378 (481)	944 (1200)	688 (599)	296 (258)	581 (507)	1450 (1270)	17 (18)	120 (129)	716 (765)	1470 (1570)
18	512 (374)	220 (161)	433 (316)	1080 (791)					26 (20)	179 (140)	1060 (835)	2150 (1690)
19	436 (246)	188 (106)	368 (208)	921 (520)	558 (314)	240 (135)	472 (265)	1180 (663)	34 (24)	236 (171)	1400 (1020)	2800 (2030)
20	415 (233)	179 (100)	350 (196)	876 (491)	647 (358)	278 (154)	546 (303)	1370 (757)	39 (25)	271 (175)	1610 (1040)	3180 (2060)
21	595 (324)	256 (139)	503 (274)	1260 (684)	868 (443)	374 (191)	733 (375)	1830 (937)	42 (26)	296 (180)	1760 (1070)	3440 (2090)
22	597 (487)	257 (210)	505 (411)	1260 (1030)					40 (25)	280 (174)	1670 (1040)	3220 (2000)
23									88 (137)	617 (959)	3670 (5700)	7040 (10900)
24	411 (322)	177 (139)	347 (272)	869 (679)	525 (382)	226 (165)	443 (323)	1110 (807)	52 (45)	364 (314)	2160 (1870)	4110 (3560)
25	366 (356)	158 (153)	309 (301)	773 (752)	427 (384)	184 (165)	360 (324)	901 (811)	62 (46)	431 (322)	2560 (1920)	4830 (3610)
26									77 (49)	541 (340)	3220 (2020)	5990 (3760)
27	139 (252)	60 (109)	118 (213)	294 (533)					46 (35)	325 (242)	1930 (1440)	3560 (2650)
28	181 (147)	78 (63)	153 (124)	382 (310)					72 (69)	501 (481)	2980 (2860)	5440 (5230)
29	243 (265)	105 (114)	205 (223)	513 (558)	369 (222)	159 (95)	311 (187)	778 (467)	97 (63)	675 (442)	4020 (2630)	7300 (4770)
30	255 (381)	110 (164)	215 (322)	537 (804)	385 (307)	166 (132)	324 (259)	811 (647)	89 (62)	625 (436)	3720 (2600)	6720 (4690)
31	230 (523)	99 (225)	194 (441)	484 (1100)	352 (369)	152 (159)	297 (311)	743 (779)	91 (75)	640 (528)	3810 (3140)	6850 (5650)
Mean	340	146	287	718	565	243	478	1190	47	327	1950	3660
n	28	28	28	28	23	23	23	23	29	29	29	29
SD	123	53	104	260	208	89	176	440	25	172	1020	1820
Min	139	60	118	294	324	140	274	685	11	77	460	992
Max	597	257	505	1260	1020	438	861	2150	97	675	4020	7300

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for April, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	280 (321)	121 (138)	236 (271)	590 (677)	369 (397)	159 (171)	311 (335)	778 (837)	94 (79)	656 (551)	3900 (3280)	6980 (5870)
2					436 (224)	188 (96)	368 (189)	920 (472)				
3												
4												
5	141 (111)	61 (48)	119 (94)	297 (235)	270 (237)	116 (102)	228 (200)	569 (501)				
6	281 (165)	121 (71)	237 (139)	594 (348)	381 (200)	164 (86)	321 (169)	803 (423)				
7	394 (275)	170 (118)	333 (232)	832 (581)	425 (359)	183 (155)	359 (303)	897 (757)				
8												
9												
10												
11												
12												
13												
14												
15												
16					755 (401)	325 (173)	638 (339)	1600 (848)				
17					750 (455)	323 (196)	634 (385)	1590 (963)				
18					599 (304)	258 (131)	507 (257)	1270 (643)				
19					602 (287)	259 (124)	510 (243)	1270 (608)				
20	538 (399)	231 (172)	455 (337)	1140 (843)	896 (523)	386 (225)	758 (442)	1900 (1110)				
21	508 (384)	219 (165)	430 (325)	1080 (812)	811 (477)	349 (206)	687 (404)	1720 (1010)	70 (71)	490 (495)	2920 (2940)	5270 (5320)
22	486 (480)	209 (207)	411 (407)	1030 (1020)	707 (494)	304 (213)	598 (419)	1500 (1050)	61 (49)	428 (339)	2540 (2020)	4580 (3630)
23	401 (385)	173 (166)	339 (326)	849 (815)	582 (619)	251 (267)	493 (524)	1230 (1310)	63 (56)	440 (392)	2620 (2330)	4690 (4170)
24	513 (319)	221 (137)	435 (270)	1090 (675)	823 (432)	355 (186)	697 (366)	1740 (915)				
25	609 (282)	262 (121)	516 (239)	1290 (597)	693 (279)	299 (120)	587 (236)	1470 (591)	9 (9)	61 (62)	364 (369)	821 (839)
26	475 (241)	205 (104)	403 (204)	1010 (511)	605 (261)	260 (112)	512 (221)	1280 (552)	8 (6)	57 (43)	340 (257)	734 (553)
27	555 (276)	239 (119)	470 (234)	1180 (584)	641 (255)	276 (110)	543 (216)	1360 (540)	8 (8)	53 (58)	315 (344)	667 (728)
28	398 (180)	172 (78)	338 (153)	844 (382)	483 (229)	208 (99)	409 (194)	1020 (485)	9 (11)	65 (75)	388 (447)	813 (938)
29	287 (216)	124 (93)	244 (183)	609 (458)	536 (297)	231 (128)	455 (251)	1140 (629)	15 (7)	103 (52)	611 (311)	1270 (646)
30	342 (201)	147 (87)	290 (170)	724 (426)	557 (231)	240 (99)	472 (196)	1180 (489)	15 (7)	103 (50)	613 (300)	1260 (616)
Mean	414	178	350	876	596	257	504	1260	35	246	1460	2710
n	15	15	15	15	20	20	20	20	10	10	10	10
SD	125	54	106	264	164	71	139	348	31	219	1300	2270
Min	141	61	119	297	270	116	228	569	8	53	315	667
Max	609	262	516	1290	896	386	758	1900	94	656	3900	6980

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for May, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1					520 (256)	224 (110)	441 (217)	1100 (543)	16 (11)	114 (75)	681 (446)	1380 (900)
2	392 (230)	169 (99)	333 (195)	831 (489)	532 (252)	229 (109)	451 (214)	1130 (535)	29 (20)	203 (137)	1210 (818)	2410 (1630)
3	403 (200)	174 (86)	342 (170)	855 (424)	535 (289)	230 (125)	454 (246)	1140 (614)	30 (19)	210 (130)	1250 (772)	2460 (1520)
4	358 (191)	154 (82)	304 (162)	759 (406)	510 (252)	220 (108)	433 (214)	1080 (534)	36 (20)	248 (141)	1480 (836)	2880 (1630)
5	341 (235)	147 (101)	289 (199)	724 (498)	465 (292)	200 (126)	395 (248)	987 (619)	38 (18)	267 (123)	1590 (733)	3070 (1420)
6	265 (423)	114 (182)	225 (359)	561 (897)	493 (232)	212 (100)	419 (197)	1050 (492)	33 (18)	233 (127)	1390 (756)	2650 (1450)
7	402 (387)	173 (167)	342 (329)	854 (822)	663 (473)	286 (204)	563 (402)	1410 (1000)	43 (23)	301 (160)	1790 (952)	3400 (1800)
8	233 (582)	100 (251)	198 (494)	495 (1240)					43 (24)	302 (171)	1800 (1020)	3380 (1910)
9	495 (367)	213 (158)	420 (312)	1050 (779)	721 (265)	310 (114)	612 (225)	1530 (563)	63 (31)	441 (214)	2630 (1270)	4880 (2360)
10	394 (274)	170 (118)	334 (233)	836 (582)	523 (219)	225 (94)	444 (186)	1110 (466)	76 (32)	529 (225)	3150 (1340)	5780 (2460)
11	354 (236)	153 (101)	301 (200)	752 (500)	554 (210)	239 (90)	471 (178)	1180 (446)	72 (36)	507 (252)	3020 (1500)	5490 (2730)
12	237 (990)	102 (426)	202 (841)	504 (2100)	398 (452)	171 (195)	338 (384)	846 (960)	62 (82)	434 (573)	2580 (3410)	4680 (6180)
13	439 (352)	189 (152)	373 (299)	932 (747)	563 (482)	243 (207)	479 (409)	1200 (1020)	86 (60)	604 (419)	3600 (2490)	6500 (4510)
14	495 (264)	213 (114)	420 (225)	1050 (562)	721 (392)	310 (169)	612 (333)	1530 (834)	82 (36)	575 (249)	3420 (1480)	6170 (2670)
15	264 (170)	114 (73)	224 (145)	560 (362)	424 (472)	182 (203)	360 (401)	900 (1000)	55 (26)	387 (183)	2300 (1090)	4140 (1960)
16	426 (260)	184 (112)	362 (221)	906 (553)	508 (341)	219 (147)	432 (289)	1080 (724)	84 (32)	585 (225)	3480 (1340)	6240 (2400)
17	339 (211)	146 (91)	288 (180)	720 (449)	439 (431)	189 (186)	373 (366)	932 (915)	72 (36)	501 (249)	2980 (1480)	5320 (2650)
18	369 (252)	159 (108)	314 (214)	785 (535)	444 (516)	191 (222)	377 (439)	943 (1100)				
19	390 (252)	168 (109)	331 (214)	828 (536)	511 (401)	220 (173)	435 (341)	1090 (852)	8 (9)	53 (64)	317 (378)	715 (857)
20	396 (201)	171 (87)	337 (171)	843 (428)	527 (260)	227 (112)	448 (221)	1120 (554)	13 (7)	88 (48)	525 (285)	1130 (617)
21	356 (192)	153 (83)	303 (163)	756 (407)	478 (243)	206 (104)	407 (206)	1020 (516)	14 (7)	101 (49)	599 (290)	1270 (615)
22	345 (270)	149 (116)	294 (229)	735 (574)	419 (205)	181 (89)	357 (175)	892 (437)	14 (7)	98 (52)	586 (309)	1230 (648)
23	288 (217)	124 (94)	245 (185)	612 (462)	392 (199)	169 (86)	334 (169)	834 (423)	13 (8)	90 (57)	535 (337)	1110 (698)
24	299 (249)	129 (107)	255 (212)	637 (529)	382 (214)	165 (92)	325 (182)	814 (456)	17 (12)	118 (84)	704 (499)	1440 (1020)
25	316 (199)	136 (86)	269 (169)	671 (423)	389 (216)	167 (93)	331 (184)	827 (460)	21 (11)	144 (75)	856 (447)	1730 (906)
26	354 (429)	152 (185)	301 (365)	753 (913)	423 (209)	182 (90)	360 (178)	899 (445)	27 (14)	190 (98)	1130 (584)	2260 (1170)
27	350 (339)	151 (146)	298 (289)	745 (722)	487 (201)	210 (87)	415 (171)	1040 (428)	36 (18)	250 (125)	1490 (745)	2930 (1470)
28	341 (389)	147 (168)	290 (331)	725 (828)	527 (518)	227 (223)	449 (441)	1120 (1100)	57 (75)	400 (526)	2380 (3130)	4650 (6110)
29	343 (470)	148 (203)	292 (400)	731 (1000)	568 (741)	245 (319)	483 (631)	1210 (1580)	92 (127)	646 (888)	3850 (5280)	7430 (10200)
30	327 (435)	141 (187)	279 (371)	697 (926)	483 (620)	208 (267)	411 (528)	1030 (1320)	35 (40)	245 (283)	1460 (1680)	2790 (3220)
31	371 (505)	160 (218)	316 (430)	790 (1080)	518 (702)	223 (303)	441 (598)	1100 (1500)	36 (40)	254 (278)	1510 (1650)	2870 (3130)
Mean	356	153	303	757	504	217	428	1070	43	304	1810	3410
n	30	30	30	30	30	30	30	30	30	30	30	30
SD	63	27	53	133	85	37	72	180	25	176	1050	1860
Min	233	100	198	495	382	165	325	814	8	53	317	715
Max	495	213	420	1050	721	310	612	1530	92	646	3850	7430

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for June, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	422 (555)	182 (239)	360 (472)	900 (1180)	538 (607)	232 (262)	458 (517)	1150 (1290)	43 (46)	304 (319)	1810 (1900)	3400 (3570)
2	550 (732)	237 (315)	468 (623)	1170 (1560)	433 (298)	187 (128)	369 (254)	923 (634)	40 (27)	282 (187)	1680 (1110)	3130 (2070)
3	301 (358)	130 (154)	256 (305)	640 (762)	347 (489)	150 (210)	296 (416)	739 (1040)	46 (35)	324 (242)	1930 (1440)	3540 (2640)
4	353 (308)	152 (133)	300 (262)	751 (655)	612 (382)	264 (164)	521 (325)	1300 (813)	55 (29)	383 (204)	2280 (1220)	4150 (2220)
5	341 (288)	147 (124)	290 (245)	726 (612)	754 (281)	325 (121)	642 (239)	1600 (598)	45 (30)	312 (207)	1850 (1230)	3370 (2230)
6												
7												
8	440 (317)	189 (137)	374 (270)	936 (674)	620 (401)	267 (173)	527 (341)	1320 (853)	60 (37)	422 (259)	2510 (1540)	4510 (2770)
9	327 (287)	141 (123)	278 (244)	695 (609)	445 (448)	192 (193)	378 (381)	946 (952)	60 (43)	418 (298)	2490 (1770)	4450 (3170)
10												
11												
12												
13												
14												
15												
16												
17												
18												
19	522 (353)	225 (152)	443 (300)	1110 (749)	688 (380)	296 (164)	584 (323)	1460 (807)	37 (19)	256 (133)	1520 (791)	3000 (1560)
20	306 (118)	132 (51)	260 (100)	650 (250)	398 (145)	171 (63)	337 (123)	843 (309)	33 (14)	230 (96)	1370 (569)	2670 (1110)
21	387 (153)	167 (66)	328 (130)	821 (324)	463 (212)	199 (91)	393 (180)	982 (449)	48 (22)	336 (151)	2000 (899)	3860 (1730)
22	423 (214)	182 (92)	359 (181)	896 (453)	589 (285)	254 (123)	500 (242)	1250 (604)	99 (127)	691 (888)	4110 (5280)	7880 (10100)
23	426 (237)	183 (102)	361 (201)	902 (502)	647 (317)	278 (136)	548 (269)	1370 (671)	44 (22)	306 (153)	1820 (910)	3460 (1730)
24	454 (398)	196 (171)	385 (337)	963 (843)	709 (818)	305 (352)	601 (693)	1500 (1730)	51 (31)	354 (218)	2110 (1290)	3970 (2440)
25	442 (276)	190 (119)	375 (234)	936 (586)	680 (324)	293 (140)	577 (275)	1440 (687)	57 (22)	398 (157)	2370 (933)	4410 (1730)
26	477 (260)	206 (112)	405 (220)	1010 (551)	710 (385)	306 (166)	602 (327)	1500 (817)	59 (23)	412 (162)	2450 (961)	4520 (1770)
27	441 (252)	190 (108)	373 (213)	933 (533)	690 (335)	297 (144)	585 (283)	1460 (709)	61 (24)	424 (167)	2520 (991)	4600 (1810)
28	493 (332)	212 (143)	418 (281)	1040 (703)	768 (373)	331 (160)	650 (316)	1630 (789)	66 (33)	461 (234)	2750 (1390)	4980 (2530)
29	529 (394)	228 (170)	448 (334)	1120 (835)	737 (579)	317 (249)	624 (490)	1560 (1230)	72 (35)	505 (244)	3000 (1450)	5430 (2630)
30					518 (303)	223 (131)	438 (257)	1100 (642)	61 (29)	424 (203)	2520 (1210)	4550 (2170)
Mean	424	183	360	900	597	257	507	1270	54	381	2270	4200
n	18	18	18	18	19	19	19	19	19	19	19	19
SD	74	32	62	156	127	55	107	268	15	102	605	1120
Min	301	130	256	640	347	150	296	739	33	230	1370	2670
Max	550	237	468	1170	768	331	650	1630	99	691	4110	7880

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Table E9. Daily means (SD) of PM10 emissions at Site OK4B for July, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	475 (330)	205 (142)	402 (279)	1010 (699)	759 (384)	327 (165)	643 (325)	1610 (813)	73 (49)	511 (345)	3040 (2050)	5460 (3690)
2	474 (338)	204 (146)	401 (286)	1000 (716)	840 (462)	362 (199)	711 (391)	1780 (979)	79 (50)	553 (347)	3290 (2060)	5890 (3690)
3	501 (389)	216 (168)	424 (330)	1060 (824)	753 (543)	324 (234)	637 (460)	1590 (1150)				
4	257 (160)	111 (69)	218 (135)	544 (338)	487 (266)	210 (115)	412 (225)	1030 (563)	0 (15)	-2 (103)	-9 (611)	-9 (1370)
5	421 (234)	181 (101)	356 (198)	890 (494)	664 (264)	286 (114)	562 (223)	1400 (558)	3 (15)	23 (106)	136 (631)	293 (1360)
6	369 (289)	159 (125)	312 (245)	780 (612)	666 (417)	287 (179)	563 (352)	1410 (881)	3 (16)	24 (110)	142 (657)	300 (1390)
7	329 (232)	142 (100)	278 (196)	696 (491)	596 (437)	257 (188)	504 (370)	1260 (925)	10 (21)	68 (146)	407 (870)	855 (1820)
8	354 (308)	152 (133)	299 (260)	748 (651)	705 (512)	303 (221)	596 (433)	1490 (1080)	8 (20)	58 (143)	343 (849)	712 (1760)
9	602 (724)	259 (312)	509 (612)	1270 (1530)	760 (477)	327 (205)	642 (403)	1610 (1010)	18 (22)	126 (154)	747 (916)	1540 (1880)
10	496 (508)	214 (219)	419 (429)	1050 (1070)	945 (855)	407 (368)	798 (723)	2000 (1810)	14 (30)	100 (209)	593 (1250)	1210 (2540)
11	425 (352)	183 (151)	359 (297)	898 (743)	560 (668)	241 (288)	473 (564)	1180 (1410)	17 (35)	117 (241)	698 (1440)	1400 (2880)
12	487 (407)	210 (175)	411 (344)	1030 (860)	661 (659)	285 (284)	559 (556)	1400 (1390)	28 (31)	193 (214)	1150 (1270)	2280 (2530)
13	353 (335)	152 (144)	298 (283)	746 (708)	515 (569)	222 (245)	435 (481)	1090 (1200)	24 (28)	168 (198)	997 (1180)	1950 (2310)
14	462 (416)	199 (179)	390 (351)	976 (878)	511 (639)	220 (275)	431 (539)	1080 (1350)	36 (34)	255 (241)	1520 (1430)	2950 (2790)
15	311 (382)	134 (165)	262 (323)	656 (807)	487 (423)	210 (182)	411 (357)	1030 (892)	30 (23)	212 (159)	1260 (945)	2430 (1820)
16	340 (177)	146 (76)	287 (150)	717 (374)	532 (293)	229 (126)	449 (247)	1120 (617)				
17	329 (141)	142 (61)	277 (119)	693 (298)	544 (182)	234 (78)	459 (154)	1150 (384)				
18	348 (180)	150 (78)	294 (152)	735 (380)	501 (187)	216 (81)	423 (158)	1060 (394)				
19	294 (126)	127 (54)	248 (106)	621 (266)	534 (209)	230 (90)	450 (176)	1120 (441)				
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	401	173	339	848	633	272	535	1340	25	172	1020	1950
n	19	19	19	19	19	19	19	19	14	14	14	14
SD	87	38	74	185	129	56	110	274	24	164	978	1740
Min	257	111	218	544	487	210	411	1030	0	-2	-9	-9
Max	602	259	509	1270	945	407	798	2000	79	553	3290	5890

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Table E10. $PM_{2.5}$ Emissions

Table E10. Daily means (SD) of PM2.5 emissions at Site OK4B for September, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7	36 (337)	16 (145)	32 (294)	79 (734)	78 (682)	33 (294)	68 (594)	169 (1490)				
8	19 (296)	8 (128)	17 (258)	41 (645)	48 (332)	21 (143)	42 (289)	105 (723)				
9	-17 (414)	-7 (178)	-15 (360)	-38 (901)	6 (345)	3 (148)	6 (300)	14 (750)				
10					15 (202)	7 (87)	13 (176)	33 (440)				
11					-113 (1210)	-49 (522)	-98 (1050)	-245 (2640)				
12	21 (417)	9 (180)	18 (363)	46 (907)	19 (741)	8 (319)	16 (645)	40 (1610)				
13	39 (335)	17 (144)	34 (292)	85 (729)	43 (445)	19 (192)	38 (387)	94 (969)				
14	-28 (600)	-12 (258)	-24 (522)	-60 (1310)	-22 (274)	-9 (118)	-19 (239)	-48 (597)				
15	87 (300)	37 (129)	76 (262)	189 (654)	113 (457)	49 (197)	99 (398)	247 (994)				
16	-15 (413)	-6 (178)	-13 (360)	-32 (900)	-17 (671)	-7 (289)	-15 (585)	-37 (1460)				
17	94 (261)	41 (112)	82 (227)	205 (568)	146 (246)	63 (106)	127 (214)	317 (535)				
18	42 (17)	18 (7)	37 (15)	92 (37)	54 (22)	23 (9)	47 (19)	117 (47)				
19	35 (24)	15 (10)	30 (21)	76 (51)	49 (26)	21 (11)	43 (22)	107 (56)				
20	32 (18)	14 (8)	28 (16)	69 (40)	50 (24)	22 (10)	44 (20)	109 (51)				
21	28 (22)	12 (9)	24 (19)	61 (47)	58 (26)	25 (11)	51 (23)	126 (58)				
22	25 (23)	11 (10)	22 (20)	55 (51)	54 (27)	23 (12)	47 (24)	116 (60)				
23	27 (23)	12 (10)	24 (20)	60 (50)	62 (30)	27 (13)	54 (26)	135 (66)				
24												
25												
26	34 (28)	15 (12)	30 (24)	75 (61)	57 (35)	24 (15)	49 (30)	123 (76)				
27	35 (28)	15 (12)	30 (24)	76 (60)	62 (31)	27 (13)	54 (27)	134 (68)				
28												
29												
30												
Mean	29	13	25	63	40	17	35	87				
n	17	17	17	17	19	19	19	19	0	0	0	0
SD	30	13	26	66	53	23	46	115				
Min	-28	-12	-24	-60	-113	-49	-98	-245				
Max	94	41	82	205	146	63	127	317				

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Table E10. Daily means (SD) of PM2.5 emissions at Site OK4B for January, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16	20 (97)	9 (42)	17 (84)	43 (209)	36 (24)	16 (10)	31 (20)	78 (51)				
17	21 (107)	9 (46)	18 (92)	45 (230)	47 (26)	20 (11)	40 (23)	101 (56)				
18	27 (85)	12 (36)	24 (73)	59 (181)					7 (16)	50 (109)	297 (650)	533 (1170)
19	13 (79)	6 (34)	11 (68)	29 (170)					8 (14)	58 (100)	344 (594)	617 (1070)
20	5 (119)	2 (51)	4 (102)	10 (256)					7 (14)	48 (97)	283 (580)	507 (1040)
21	25 (78)	11 (34)	21 (67)	54 (168)	85 (35)	37 (15)	73 (30)	182 (76)	13 (22)	91 (153)	539 (908)	965 (1620)
22	33 (92)	14 (40)	29 (79)	71 (198)	71 (33)	30 (14)	61 (28)	152 (71)	12 (23)	86 (157)	513 (937)	917 (1670)
23	29 (89)	13 (38)	25 (76)	62 (190)	62 (38)	27 (16)	53 (32)	133 (81)				
24												
25	28 (17)	12 (7)	24 (15)	60 (37)	39 (14)	17 (6)	33 (12)	83 (30)	2 (2)	11 (13)	65 (78)	146 (177)
26	28 (18)	12 (8)	24 (16)	60 (39)	40 (25)	17 (11)	35 (21)	87 (52)	1 (1)	9 (9)	53 (55)	113 (117)
27	28 (29)	12 (13)	24 (25)	60 (62)	34 (20)	15 (9)	29 (18)	73 (44)	1 (5)	9 (34)	54 (199)	114 (422)
28									2 (3)	12 (23)	72 (137)	151 (286)
29	36 (26)	16 (11)	31 (22)	77 (56)	48 (24)	21 (10)	41 (20)	103 (51)	2 (2)	15 (13)	90 (76)	185 (158)
30	30 (27)	13 (12)	25 (23)	63 (57)	45 (22)	19 (10)	38 (19)	96 (48)	2 (2)	13 (14)	79 (80)	162 (165)
31												
Mean	25	11	21	53	51	22	44	109	5	37	217	401
n	13	13	13	13	10	10	10	10	11	11	11	11
SD	8	4	7	17	16	7	14	34	4	30	179	310
Min	5	2	4	10	34	15	29	73	1	9	53	113
Max	36	16	31	77	85	37	73	182	13	91	539	965

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Table E10. Daily means (SD) of PM2.5 emissions at Site OK4B for July, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25	32 (28)	14 (12)	27 (24)	68 (60)	62 (26)	27 (11)	53 (22)	131 (56)				
26	22 (27)	9 (12)	19 (23)	47 (58)	56 (26)	24 (11)	48 (22)	120 (55)				
27	27 (27)	12 (12)	23 (23)	58 (59)	61 (25)	26 (11)	52 (21)	130 (53)				
28	32 (31)	14 (13)	28 (26)	69 (66)	68 (30)	30 (13)	59 (26)	146 (64)				
29	27 (27)	12 (11)	23 (23)	57 (57)	57 (22)	25 (10)	49 (19)	122 (47)				
30	28 (35)	12 (15)	24 (30)	60 (74)	57 (28)	24 (12)	49 (24)	121 (59)				
31	27 (43)	12 (19)	23 (37)	58 (93)	57 (44)	25 (19)	49 (37)	122 (93)				
Mean	28	12	24	59	60	26	51	127				
n	7	7	7	7	7	7	7	7	0	0	0	0
SD	3	1	3	7	4	2	3	9				
Min	22	9	19	47	56	24	48	120				
Max	32	14	28	69	68	30	59	146				

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Table E10. Daily means (SD) of PM2.5 emissions at Site OK4B for August, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	27 (50)	12 (22)	23 (43)	57 (107)	57 (49)	25 (21)	49 (42)	121 (105)				
2	31 (32)	13 (14)	27 (28)	67 (69)	66 (33)	28 (14)	56 (28)	140 (71)				
3	27 (28)	11 (12)	23 (24)	57 (59)	61 (28)	26 (12)	52 (24)	130 (60)				
4	38 (27)	16 (12)	33 (23)	81 (59)	71 (27)	30 (12)	60 (23)	151 (59)				
5	31 (41)	13 (18)	26 (35)	65 (87)	59 (37)	26 (16)	51 (32)	126 (80)				
6	26 (32)	11 (14)	22 (28)	55 (69)	58 (31)	25 (13)	49 (26)	123 (65)				
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	30	13	25	64	62	27	53	132				
n	6	6	6	6	6	6	6	6	0	0	0	0
SD	4	2	4	9	5	2	4	10				
Min	26	11	22	55	57	25	49	121				
Max	38	16	33	81	71	30	60	151				

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Table E11. TSP emissions

Table E11. Daily means (SD) of TSP emissions at Site OK4B for August, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	287 (314)	124 (135)	251 (274)	627 (686)	612 (399)	263 (172)	534 (348)	1330 (870)	40 (55)	280 (383)	1670 (2280)	3580 (4890)
2	363 (150)	156 (65)	316 (131)	791 (327)	776 (242)	334 (104)	677 (211)	1690 (528)	44 (23)	310 (162)	1840 (963)	3900 (2040)
3	480 (197)	207 (85)	419 (172)	1050 (430)	806 (269)	347 (116)	703 (235)	1760 (587)	64 (20)	449 (141)	2670 (837)	5590 (1750)
4	531 (219)	229 (94)	464 (191)	1160 (477)	737 (319)	318 (138)	643 (279)	1610 (697)	54 (18)	378 (128)	2250 (764)	4670 (1590)
5	498 (273)	215 (118)	435 (238)	1090 (596)	664 (365)	286 (157)	579 (319)	1450 (797)	58 (23)	404 (158)	2400 (939)	4930 (1930)
6	532 (249)	229 (107)	464 (218)	1160 (544)	709 (392)	305 (169)	618 (342)	1550 (856)	77 (37)	536 (259)	3190 (1540)	6470 (3120)
7	578 (375)	249 (161)	504 (327)	1260 (817)	969 (527)	417 (227)	845 (460)	2110 (1150)	93 (40)	649 (282)	3860 (1680)	7740 (3370)
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	467	201	407	1020	753	324	657	1640	61	429	2560	5270
n	7	7	7	7	7	7	7	7	7	7	7	7
SD	96	42	84	210	107	46	93	233	17	120	711	1350
Min	287	124	251	627	612	263	534	1330	40	280	1670	3580
Max	578	249	504	1260	969	417	845	2110	93	649	3860	7740

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for July, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21	309 (130)	133 (56)	270 (114)	676 (284)	664 (227)	286 (98)	582 (198)	1450 (496)	74 (24)	517 (168)	3080 (998)	5910 (1920)
22	282 (118)	122 (51)	247 (104)	618 (259)	555 (206)	239 (89)	486 (180)	1210 (451)	74 (23)	519 (164)	3090 (977)	5880 (1860)
23	347 (206)	149 (89)	304 (180)	759 (450)	599 (243)	258 (105)	524 (213)	1310 (532)	81 (32)	569 (223)	3380 (1330)	6380 (2510)
24	290 (264)	125 (114)	253 (231)	634 (578)	660 (328)	284 (141)	577 (287)	1440 (717)	88 (33)	613 (232)	3650 (1380)	6800 (2580)
25	333 (182)	144 (78)	292 (159)	729 (398)	863 (404)	371 (174)	754 (354)	1890 (884)	97 (39)	678 (270)	4030 (1600)	7440 (2960)
26	400 (216)	172 (93)	350 (189)	874 (472)	851 (436)	366 (188)	744 (381)	1860 (953)				
27	364 (315)	157 (136)	318 (276)	794 (689)	795 (433)	343 (187)	695 (379)	1740 (946)				
28	300 (200)	129 (86)	262 (175)	655 (437)	680 (479)	293 (206)	594 (418)	1480 (1050)				
29	315 (216)	136 (93)	275 (189)	688 (473)	741 (381)	319 (164)	647 (333)	1620 (832)				
30	326 (217)	140 (94)	284 (190)	711 (474)	735 (407)	317 (175)	642 (355)	1610 (889)				
31	318 (265)	137 (114)	277 (231)	693 (578)	658 (508)	283 (219)	574 (443)	1440 (1110)	19 (39)	131 (274)	780 (1630)	1740 (3600)
Mean	326	140	285	712	709	305	620	1550	72	504	3000	5690
n	11	11	11	11	11	11	11	11	6	6	6	6
SD	33	14	29	71	94	40	82	204	25	176	1050	1850
Min	282	122	247	618	555	239	486	1210	19	131	780	1740
Max	400	172	350	874	863	371	754	1890	97	678	4030	7440

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for November, 2007

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7	1040 (543)	448 (234)	899 (470)	2250 (1170)								
8	1110 (677)	477 (291)	958 (585)	2390 (1460)	1100 (740)	476 (319)	955 (640)	2390 (1600)	267 (144)	1870 (1010)	11100 (6000)	20300 (10900)
9	1200 (724)	517 (312)	1040 (625)	2590 (1560)	1120 (707)	484 (305)	970 (611)	2430 (1530)	281 (168)	1970 (1180)	11700 (7000)	21300 (12700)
10	1030 (763)	445 (329)	892 (659)	2230 (1650)	1080 (835)	467 (360)	937 (722)	2340 (1800)	274 (130)	1920 (910)	11400 (5420)	20600 (9790)
11	957 (808)	412 (348)	827 (698)	2070 (1740)	1080 (945)	464 (407)	931 (816)	2330 (2040)	295 (181)	2070 (1270)	12300 (7530)	22100 (13500)
12	1140 (651)	491 (280)	984 (562)	2460 (1410)	959 (595)	413 (256)	829 (514)	2070 (1290)				
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Mean	1080	465	933	2330	1070	461	924	2310	279	1960	11600	21100
n	6	6	6	6	5	5	5	5	4	4	4	4
SD	79	34	69	171	57	25	50	124	10	73	432	687
Min	957	412	827	2070	959	413	829	2070	267	1870	11100	20300
Max	1200	517	1040	2590	1120	484	970	2430	295	2070	12300	22100

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for February, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	983 (513)	423 (221)	841 (439)	2100 (1100)					71 (52)	495 (363)	2950 (2160)	5890 (4310)
2	997 (614)	429 (264)	853 (525)	2130 (1310)					74 (59)	519 (411)	3090 (2450)	6080 (4820)
3	963 (537)	415 (231)	823 (459)	2060 (1150)					102 (74)	715 (519)	4260 (3090)	8280 (6010)
4												
5	795 (551)	342 (237)	679 (471)	1700 (1180)	867 (452)	373 (195)	741 (386)	1850 (965)	78 (76)	549 (530)	3270 (3160)	6240 (6030)
6	894 (620)	385 (267)	763 (530)	1910 (1320)	848 (484)	365 (208)	724 (413)	1810 (1030)	152 (109)	1060 (766)	6320 (4560)	12000 (8640)
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
Mean	926	399	792	1980	857	369	732	1830	95	668	3980	7700
n	5	5	5	5	2	2	2	2	5	5	5	5
SD	75	32	64	161	10	4	8	21	30	212	1260	2310
Min	795	342	679	1700	848	365	724	1810	71	495	2950	5890
Max	997	429	853	2130	867	373	741	1850	152	1060	6320	12000

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for April, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8	1000 (536)	431 (231)	843 (451)	2110 (1130)	1080 (522)	464 (225)	907 (440)	2270 (1100)	296 (268)	2070 (1880)	12300 (11200)	22100 (20000)
9	873 (551)	376 (237)	736 (464)	1840 (1160)	790 (621)	340 (267)	665 (523)	1660 (1310)				
10					786 (444)	338 (191)	662 (374)	1650 (936)				
11					923 (510)	398 (220)	777 (430)	1940 (1070)				
12	942 (647)	406 (278)	793 (545)	1980 (1360)	900 (452)	388 (195)	758 (381)	1900 (953)				
13	911 (553)	393 (238)	768 (466)	1920 (1170)	944 (492)	407 (212)	795 (414)	1990 (1040)				
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Mean	932	401	785	1960	903	389	761	1900				
n	4	4	4	4	6	6	6	6	1	1	1	1
SD	46	20	39	98	99	43	83	208				
Min	873	376	736	1840	786	338	662	1650				
Max	1000	431	843	2110	1080	464	907	2270				

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for June, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26	476 (270)	205 (116)	407 (230)	1020 (576)								
27												
28	310 (172)	133 (74)	265 (147)	663 (368)	452 (446)	195 (192)	387 (382)	967 (954)				
29	535 (355)	231 (153)	458 (304)	1150 (759)	257 (102)	111 (44)	220 (87)	551 (218)				
30	536 (295)	231 (127)	460 (253)	1150 (632)	381 (154)	164 (66)	327 (132)	816 (330)				
Mean	464	200	397	994	363	157	311	778				
n	4	4	4	4	3	3	3	3	0	0	0	0
SD	93	40	79	198	81	35	69	172				
Min	310	133	265	663	257	111	220	551				
Max	536	231	460	1150	452	195	387	967				

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for July, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1	555 (305)	239 (131)	476 (262)	1190 (654)	363 (200)	156 (86)	311 (171)	777 (428)				
2					320 (179)	138 (77)	274 (154)	686 (385)				
3												
4	335 (237)	144 (102)	287 (203)	718 (507)	256 (108)	110 (46)	220 (92)	549 (231)				
5	342 (198)	147 (85)	293 (170)	732 (425)	286 (132)	123 (57)	245 (113)	612 (282)				
6	361 (228)	155 (98)	309 (196)	773 (489)	287 (170)	124 (73)	246 (146)	615 (364)				
7	308 (261)	133 (112)	264 (224)	661 (559)	319 (158)	137 (68)	273 (136)	683 (339)				
8	279 (182)	120 (79)	239 (156)	597 (391)	366 (144)	158 (62)	314 (123)	784 (308)				
9	221 (128)	95 (55)	189 (110)	473 (274)	360 (112)	155 (48)	309 (96)	771 (239)				
10	216 (160)	93 (69)	185 (137)	463 (342)	343 (127)	148 (55)	294 (109)	735 (272)				
11	284 (163)	122 (70)	243 (140)	608 (349)	494 (158)	213 (68)	423 (135)	1060 (338)				
12	369 (530)	159 (228)	316 (454)	789 (1140)	453 (316)	195 (136)	388 (270)	970 (676)				
13	504 (382)	217 (165)	431 (327)	1080 (818)	353 (185)	152 (80)	302 (158)	756 (395)				
14	289 (316)	124 (136)	247 (270)	618 (676)	346 (129)	149 (56)	296 (110)	740 (276)				
15	260 (190)	112 (82)	223 (163)	557 (407)	401 (173)	173 (75)	343 (148)	858 (371)				
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	332	143	285	712	353	152	303	757				
n	13	13	13	13	14	14	14	14	0	0	0	0
SD	96	41	82	206	62	27	53	132				
Min	216	93	185	463	256	110	220	549				
Max	555	239	476	1190	494	213	423	1060				

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for September, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13	532 (262)	229 (113)	452 (223)	1130 (557)	1040 (565)	447 (243)	882 (480)	2200 (1200)	23 (16)	161 (112)	955 (664)	2110 (1460)
14	849 (438)	366 (189)	721 (373)	1800 (931)	1550 (693)	666 (298)	1310 (589)	3280 (1470)	28 (15)	198 (107)	1180 (637)	2540 (1370)
15	894 (616)	385 (265)	760 (523)	1900 (1310)	1280 (799)	553 (344)	1090 (679)	2730 (1700)	31 (20)	219 (142)	1300 (846)	2760 (1790)
16	827 (670)	356 (289)	703 (570)	1760 (1420)	944 (586)	407 (252)	803 (498)	2010 (1250)	42 (28)	296 (198)	1760 (1180)	3690 (2460)
17	744 (606)	320 (261)	632 (515)	1580 (1290)	1160 (773)	502 (333)	990 (657)	2480 (1640)	51 (36)	358 (251)	2130 (1490)	4410 (3090)
18	729 (578)	314 (249)	620 (492)	1550 (1230)	914 (588)	394 (253)	777 (500)	1940 (1250)	96 (64)	673 (445)	4000 (2640)	8200 (5420)
19	696 (561)	300 (242)	592 (477)	1480 (1190)	739 (530)	318 (228)	629 (451)	1570 (1130)	68 (53)	476 (371)	2830 (2210)	5740 (4470)
20	700 (595)	301 (256)	595 (506)	1490 (1260)	750 (578)	323 (249)	638 (492)	1590 (1230)	84 (76)	589 (529)	3510 (3150)	7000 (6280)
21	549 (477)	236 (206)	467 (406)	1170 (1010)	760 (508)	327 (219)	646 (432)	1620 (1080)	89 (76)	622 (533)	3700 (3170)	7300 (6240)
22	508 (600)	219 (259)	432 (511)	1080 (1280)	1030 (710)	442 (306)	873 (604)	2180 (1510)	108 (90)	757 (630)	4500 (3750)	8770 (7290)
23	573 (687)	247 (296)	487 (584)	1220 (1460)	608 (714)	262 (308)	517 (608)	1290 (1520)	125 (102)	873 (716)	5190 (4260)	10000 (8220)
24												
25												
26												
27												
28												
29												
30												
Mean	691	298	588	1470	979	422	833	2080	68	475	2820	5690
n	11	11	11	11	11	11	11	11	11	11	11	11
SD	129	55	109	273	262	113	223	556	33	233	1390	2630
Min	508	219	432	1080	608	262	517	1290	23	161	955	2110
Max	894	385	760	1900	1550	666	1310	3280	125	873	5190	10000

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for December, 2008

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4	616 (461)	265 (198)	531 (397)	1330 (992)					113 (113)	793 (792)	4720 (4710)	8580 (8560)
5	621 (350)	267 (151)	535 (301)	1340 (754)					136 (127)	955 (887)	5680 (5280)	10300 (9570)
6	775 (520)	334 (224)	667 (448)	1670 (1120)					151 (120)	1060 (842)	6300 (5010)	11400 (9060)
7	816 (610)	351 (263)	703 (525)	1760 (1310)					149 (122)	1040 (852)	6200 (5070)	11200 (9140)
8	972 (864)	419 (372)	837 (745)	2090 (1860)					158 (126)	1100 (886)	6570 (5270)	11800 (9480)
9	440 (321)	189 (138)	379 (276)	946 (691)					97 (116)	677 (814)	4030 (4850)	7230 (8700)
10	604 (531)	260 (229)	520 (457)	1300 (1140)					201 (173)	1410 (1210)	8370 (7190)	15000 (12900)
11	647 (664)	279 (286)	557 (572)	1390 (1430)					226 (195)	1580 (1360)	9430 (8120)	16800 (14500)
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean	686	296	591	1480					154	1080	6410	11500
n	8	8	8	8	0	0	0	0	8	8	8	8
SD	152	65	131	327					40	279	1660	2940
Min	440	189	379	946					97	677	4030	7230
Max	972	419	837	2090					226	1580	9430	16800

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for February, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6	1260 (1520)	543 (654)	1080 (1300)	2690 (3240)	1490 (1120)	642 (484)	1270 (960)	3180 (2400)	119 (85)	830 (594)	4940 (3540)	9540 (6830)
7	1020 (722)	441 (311)	873 (616)	2180 (1540)	1260 (698)	545 (301)	1080 (596)	2700 (1490)	115 (83)	803 (584)	4780 (3480)	9150 (6660)
8	1020 (722)	440 (311)	872 (616)	2180 (1540)	1180 (697)	509 (300)	1010 (595)	2520 (1490)	131 (84)	916 (590)	5450 (3510)	10300 (6660)
9									151 (112)	1050 (783)	6280 (4660)	11800 (8760)
10	748 (681)	322 (293)	638 (581)	1590 (1450)	925 (720)	398 (310)	789 (614)	1970 (1530)	147 (122)	1030 (852)	6120 (5070)	11400 (9430)
11	740 (555)	319 (239)	631 (473)	1580 (1180)	814 (609)	351 (262)	694 (519)	1730 (1300)	142 (132)	994 (925)	5910 (5500)	10900 (10100)
12	757 (514)	326 (221)	645 (438)	1610 (1100)	888 (637)	382 (274)	756 (543)	1890 (1360)	186 (160)	1300 (1120)	7750 (6670)	14100 (12200)
13	593 (431)	255 (186)	505 (367)	1260 (918)	619 (366)	267 (157)	527 (311)	1320 (778)	156 (157)	1090 (1100)	6510 (6530)	11800 (11800)
14	470 (238)	202 (103)	400 (203)	1000 (508)	552 (379)	238 (163)	470 (323)	1170 (808)	184 (181)	1290 (1270)	7680 (7530)	13900 (13600)
15	588 (366)	253 (158)	501 (312)	1250 (779)	554 (371)	238 (160)	471 (316)	1180 (791)	198 (200)	1390 (1400)	8260 (8320)	14900 (15000)
16									246 (205)	1720 (1430)	10200 (8520)	18400 (15300)
17									204 (202)	1430 (1410)	8500 (8410)	15200 (15000)
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
Mean	800	345	682	1710	921	397	785	1960	165	1150	6870	12600
n	9	9	9	9	9	9	9	9	12	12	12	12
SD	239	103	205	512	314	135	268	670	38	263	1570	2600
Min	470	202	400	1000	552	238	470	1170	115	803	4780	9150
Max	1260	543	1080	2690	1490	642	1270	3180	246	1720	10200	18400

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for April, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9					1300 (706)	559 (304)	1100 (596)	2740 (1490)				
10	1170 (644)	502 (277)	985 (544)	2460 (1360)	1110 (560)	478 (241)	938 (473)	2340 (1180)	91 (66)	638 (460)	3800 (2740)	7590 (5480)
11	1080 (648)	463 (279)	908 (547)	2270 (1370)	1110 (724)	478 (312)	937 (612)	2340 (1530)	123 (70)	860 (493)	5120 (2930)	10100 (5790)
12					905 (660)	390 (284)	765 (558)	1910 (1390)	142 (77)	993 (537)	5910 (3200)	11500 (6230)
13					882 (552)	380 (238)	746 (466)	1860 (1170)	144 (76)	1010 (534)	6020 (3180)	11600 (6150)
14	964 (767)	415 (330)	815 (649)	2040 (1620)	941 (598)	405 (258)	795 (506)	1990 (1260)	152 (89)	1070 (625)	6350 (3720)	12200 (7130)
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Mean	1070	460	903	2260	1040	448	880	2200	131	914	5440	10600
n	3	3	3	3	6	6	6	6	5	5	5	5
SD	83	36	69	174	147	63	124	309	22	154	916	1660
Min	964	415	815	2040	882	380	746	1860	91	638	3800	7590
Max	1170	502	985	2460	1300	559	1100	2740	152	1070	6350	12200

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Table E11. Daily means (SD) of TSP emissions at Site OK4B for June, 2009

Day	Barn 1				Barn 2				Farrowing room 9			
	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU	g/d	mg/d-m2	mg/d-hd	mg/d-AU
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11	754 (529)	325 (228)	641 (449)	1600 (1120)	1060 (424)	457 (183)	902 (361)	2260 (902)				
12	611 (271)	263 (117)	520 (231)	1300 (577)	1220 (450)	527 (194)	1040 (382)	2600 (956)	19 (11)	133 (80)	792 (475)	1700 (1020)
13	693 (393)	299 (169)	589 (334)	1470 (834)	935 (567)	403 (244)	794 (481)	1990 (1200)	23 (17)	159 (119)	948 (708)	2010 (1500)
14	500 (422)	215 (182)	425 (358)	1060 (896)	757 (491)	326 (211)	643 (417)	1610 (1040)	19 (10)	135 (70)	805 (419)	1690 (877)
15	472 (285)	203 (123)	401 (242)	1000 (605)	846 (424)	364 (183)	719 (360)	1800 (901)	30 (12)	209 (83)	1250 (494)	2580 (1030)
16	464 (284)	200 (123)	394 (242)	985 (604)	802 (416)	346 (179)	681 (353)	1700 (883)	63 (21)	444 (149)	2640 (889)	5410 (1820)
17	551 (329)	237 (142)	467 (279)	1170 (698)	1240 (935)	535 (403)	1060 (794)	2640 (1990)	75 (31)	528 (214)	3140 (1270)	6370 (2580)
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Mean	578	249	491	1230	981	423	834	2080	38	268	1600	3290
n	7	7	7	7	7	7	7	7	6	6	6	6
SD	104	45	89	222	184	79	156	391	23	158	939	1880
Min	464	200	394	985	757	326	643	1610	19	133	792	1690
Max	754	325	641	1600	1240	535	1060	2640	75	528	3140	6370

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Table E12. Completeness of airflow and emission data

Table E12. Data completeness at Site OK4B for August, 2007

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	99.8	99.7	100	99.8	99.7	100	99.8	99.7	100	0	0	0	0	0	0	99.8	99.7	100
2	100	99.7	100	91.3	90.9	91.3	91.3	90.9	91.3	0	0	0	0	0	0	91.3	89.9	91.3
3	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0	100	99.8	100
4	100	99.7	100	100	99.7	100	100	99.7	100	0	0	0	0	0	0	100	99.7	100
5	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
6	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0	100	99.9	100
7	99.4	100	100	99.4	100	100	99.4	100	100	0	0	0	0	0	0	99.4	100	100
8	100	100	99.9	75.1	75.1	85.6	75.1	75.1	85.6	37.8	37.8	37.8	0	0	0	50.8	50.8	49.1
9	98.2	98.2	98.2	0	0	0	0	0	0	98.2	98.2	98.2	0	0	0	0	0	0
10	99.9	99.8	99.9	0	0	0	0	0	0	99.9	99.8	99.9	0	0	0	0	0	0
11	100	100	100	0	0	0	0	0	0	100	100	100	0	0	0	0	0	0
12	74.9	74.9	74.9	0	0	0	0	0	0	74.9	74.9	74.9	0	0	0	0	0	0
13	63.5	63.5	63.5	0	0	0	0	0	0	63.5	59.7	63.5	0	0	0	0	0	0
14	100	99.6	100	30.6	30.6	35.5	31.7	31.6	36.5	100	86.5	92.9	0	0	0	0	0	0
15	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	91.7	0	0	0	0	0	0
16	82.8	82.6	93.3	79.3	78.4	87	79.3	78.4	87	82.8	82.6	49.9	0	0	0	0	0	0
17	68.4	67.1	68.4	66.6	66	64.5	66.7	66.1	64.7	68.4	67.1	0	0	0	0	0	0	0
18	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	0	0	0	0	0	0	0
19	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
20	98.5	95.3	100	98.5	95.3	45.6	98.5	95.3	45.6	94.7	92.9	36.1	0	0	0	0	0	0
21	100	97.4	100	100	97.4	100	100	97.4	100	100	97.4	100	0	0	0	0	0	0
22	81.6	82.4	82.7	81.6	82.4	76.5	81.6	82.4	76.6	81.6	82.4	82.7	0	0	0	0	0	0
23	99.8	91.5	100	99.8	91.5	100	99.8	91.5	100	99.8	91.5	91.8	0	0	0	0	0	0
24	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
25	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
26	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
27	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0
28	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0
29	100	100	100	90.3	90.3	74.7	90.3	90.3	74.7	90.3	88.8	88.3	0	0	0	0	0	0
30	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
31	99.7	100	100	99.7	100	100	99.7	100	100	99.7	100	100	0	0	0	0	0	0
Mean	95.7	95.2	96.2	77.8	77.3	76.1	77.8	77.3	76.2	70.7	69.7	58.3	0	0	0	23.9	23.9	23.9
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	9.9	9.9	9.6	36.9	36.7	37	36.9	36.6	36.9	40.5	40	43.7	0	0	0	41.4	41.3	41.4
Min	63.5	63.5	63.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	100

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Table E12. Data completeness at Site OK4B for July, 2007

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	47.2	47.4	47.4	47.2	47.4	47.4	47.2	47.4	47.4	0	0	0	0	0	0	47.2	47.4	47.4
21	100	99.5	100	100	99.5	100	100	99.5	100	0	0	0	0	0	0	97.8	97.3	97.8
22	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0	100	99.8	100
23	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0	100	99.8	100
24	99.8	99.8	100	99.8	99.8	100	99.8	99.8	100	0	0	0	0	0	0	99.8	99.8	100
25	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0	100	99.9	100
26	100	99	100	100	99	100	100	99	100	0	0	0	0	0	0	100	99	43.1
27	100	98.5	100	100	98.5	100	100	98.5	100	0	0	0	0	0	0	100	98.5	0
28	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0	100	99.8	0
29	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
30	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	0	0	0	0	0	0	98.9	98.9	35.6
31	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
Mean	37	36.9	37	37	36.9	37	37	36.9	37	0	0	0	0	0	0	36.9	36.8	23.3
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	47.4	47.2	47.4	47.4	47.2	47.4	47.4	47.2	47.4	0	0	0	0	0	0	47.3	47.1	39.4
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100

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Table E12. Data completeness at Site OK4B for September, 2007

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	100	100	100	100	100	100	100	100	100	100	100	96.8	0	0	0	0	0	0
2	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
3	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
4	100	100	100	32.9	32.2	38.5	32.9	32.2	38.5	91.6	91.6	0	0	0	0	0	0	0
5	100	99.2	100	47.8	47.9	49.2	51.3	48.1	49.4	100	90.8	0	0	0	0	0	0	0
6	99.7	99.7	99.7	79.2	81.9	38.5	79.5	82	38.5	42.1	42.1	0	37.7	37.7	0	0	0	0
7	100	100	100	100	100	0	100	100	0	0	0	0	100	100	0	0	0	0
8	100	100	100	100	100	0	100	100	0	0	0	0	100	100	0	0	0	0
9	100	100	100	100	100	0	100	100	0	0	0	0	100	100	0	0	0	0
10	61.5	92.3	48.7	37.4	68.3	0.3	37.4	68.4	0.3	0	0	0	61.5	92.3	0	0	0	0
11	37.4	99.2	0	37.4	99.2	0	37.4	99.2	0	0	0	0	37.4	99.2	0	0	0	0
12	97.5	97.1	0	97.5	97.1	0	97.5	97.1	0	0	0	0	97.5	97.1	0	0	0	0
13	99.7	99.4	0	99.7	99.3	0	99.7	99.3	0	0	0	0	99.7	99.4	0	0	0	0
14	87.6	93.9	0	87.6	93.9	0	87.6	93.9	0	0	0	0	87.6	93.9	0	0	0	0
15	96.9	97.5	0	96.9	97.5	0	96.9	97.5	0	0	0	0	96.9	97.5	0	0	0	0
16	100	100	0	100	100	0	100	100	0	0	0	0	100	100	0	0	0	0
17	98.3	97.7	0	91.8	91.2	0	91.8	91.2	0	0	0	0	91.8	91.2	0	0	0	0
18	100	100	0	100	100	0	100	100	0	0	0	0	100	100	0	0	0	0
19	100	97.8	0	100	97.8	0	100	97.8	0	0	0	0	100	97.8	0	0	0	0
20	100	99.6	41.6	77.8	77.5	37.9	77.8	77.5	37.9	0	0	0	77.8	77.5	0	0	0	0
21	99.9	100	100	99.9	99.9	100	99.9	99.9	100	0	0	0	99.9	100	0	0	0	0
22	100	98.6	94.4	100	98.6	94.4	100	98.6	94.4	0	0	0	100	98.6	0	0	0	0
23	100	98.3	100	100	98.3	100	100	98.3	100	0	0	0	100	98.3	0	0	0	0
24	60.6	60.6	60.6	60.1	59.4	57.3	60.1	59.4	57.3	0	0	0	60.6	60.6	0	0	0	0
25	60	59.9	60.1	42.3	42.8	47.8	42.4	42.9	48	0	0	0	60	59.9	0	0	0	0
26	99.7	99.8	100	99.7	99.8	100	99.7	99.8	100	0	0	0	99.7	99.8	0	0	0	0
27	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	0	0	0	99.7	99.7	0	0	0	0
28	100	95.5	100	93.1	88.5	40.6	93.1	88.5	40.6	49.2	44.4	0	43.8	43.8	0	0	0	0
29	99.6	93.3	100	99.6	93.3	0	99.6	93.3	0	99.6	93.3	0	0	0	0	0	0	0
30	46.9	49.2	49.1	35.8	36	0	44.8	46.4	0	46.9	49.2	0	0	0	0	0	0	0
Mean	91.5	94.3	61.8	83.9	86.7	36.8	84.3	87	36.8	24.3	23.7	3.2	65.1	68.1	0	0	0	0
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	17.7	12.9	44	24.2	20.9	41.7	23.4	20.1	41.7	39.6	38.6	17.4	40.7	41	0	0	0	0
Min	37.4	49.2	0	32.9	32.2	0	32.9	32.2	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	96.8	100	100	0	0	0	0

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Table E12. Data completeness at Site OK4B for October, 2007

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	57.6	57.5	57.6	0	0	0.1	52.4	52.9	45.6	57.6	57.5	0	0	0	0	0	0	0
2	99.4	99	100	0	0	2.2	99.4	99	100	99.4	99	0	0	0	0	0	0	0
3	99.7	100	100	0	0	11.3	99.7	99.9	100	99.7	100	0	0	0	0	0	0	0
4	99.9	100	100	29.7	29.7	34.5	99.9	100	100	99.9	100	0	0	0	0	0	0	0
5	99.7	94.2	100	99.7	94.2	100	99.7	94.2	100	99.7	94.2	0	0	0	0	0	0	0
6	24.8	24.8	24.8	21.6	24.2	21.3	21.7	24.3	21.3	24.8	24.8	0	0	0	0	0	0	0
7	99.7	100	100	99.7	100	99	99.7	100	99.1	99.7	100	0	0	0	0	0	0	0
8	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
9	98.9	99.3	99.3	77.4	77.3	99.3	77.5	77.4	99.3	98.9	99.3	0	0	0	0	0	0	0
10	99.7	99.7	99.7	81.5	82.4	92	81.6	82.5	92	88.7	88.7	0	0	0	0	0	0	0
11	99.5	99.9	99.9	99.5	99.9	99.9	99.5	99.9	99.9	99.5	99.9	0	0	0	0	0	0	0
12	100	98.5	100	100	98.5	100	100	98.5	100	100	98.5	0	0	0	0	0	0	0
13	100	91.5	100	100	91.5	100	100	91.5	100	100	91.5	0	0	0	0	0	0	0
14	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0	0
15	96.9	100	99.7	71	72.4	71.5	71.1	72.6	99.7	96.8	98.3	0	0	0	0	0	0	0
16	98.4	90.5	100	98.4	90.5	100	98.4	90.5	100	98.4	90.5	0	0	0	0	0	0	0
17	98.8	85.8	100	98.8	85.8	100	98.8	85.8	100	98.8	82.4	0	0	0	0	0	0	0
18	96.7	99.4	99.8	96.7	99.4	99.8	96.7	99.4	99.8	96.7	99.4	0	0	0	0	0	0	0
19	95.2	96.9	100	95.2	96.9	100	95.2	96.9	100	95.2	96.9	0	0	0	0	0	0	0
20	96.9	99.4	100	96.9	99.4	100	96.9	99.4	100	96.9	99.4	0	0	0	0	0	0	0
21	100	99	93.7	100	99	93.7	100	99	93.7	100	99	0	0	0	0	0	0	0
22	99.7	100	95.6	76.8	76.6	66.8	76.9	76.7	66.9	99.7	100	37.7	0	0	0	0	0	0
23	98.4	100	100	98.4	100	100	98.4	100	100	98.4	100	100	0	0	0	0	0	0
24	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
25	86.5	86.3	86.5	79.7	79.9	74.6	79.9	80.1	74.7	86.5	86.3	86.5	0	0	0	0	0	0
26	100	99.7	100	100	99.7	100	100	99.7	100	100	99.7	100	0	0	0	0	0	0
27	100	97.1	98.9	100	97.1	98.9	100	97.1	98.9	100	97.1	98.9	0	0	0	0	0	0
28	95.5	96.2	100	95.5	96.2	100	95.5	96.2	100	95.5	96.2	100	0	0	0	0	0	0
29	97.2	99.4	100	97.2	99.4	100	97.2	99.4	100	97.2	99.4	100	0	0	0	0	0	0
30	95.7	91.7	100	95.7	91.7	100	95.7	91.7	100	95.7	91.7	100	0	0	0	0	0	0
31	100	86.1	94.7	100	86.1	94.7	100	86.1	94.7	100	86.1	94.7	0	0	0	0	0	0
Mean	94.7	93.3	95.2	80.9	79.6	82.6	91.3	90	93.1	94.3	92.8	29.6	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	14.9	15	15	32.4	31.6	31.7	16.8	16.1	17.5	14.9	15	44.2	0	0	0	0	0	0
Min	24.8	24.8	24.8	0	0	0.1	21.7	24.3	21.3	24.8	24.8	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for November, 2007

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	99.9	89.5	100	99.9	89.5	100	99.9	89.5	100	99.9	89	100	0	0	0	0	0	0
2	100	71	99.5	100	71	99.5	100	71	99.5	100	71	99.5	0	0	0	0	0	0
3	98.8	93.8	100	98.8	93.8	100	98.8	93.8	100	98.8	93.8	100	0	0	0	0	0	0
4	100	99.4	100	100	99.4	100	100	99.4	100	100	99.4	100	0	0	0	0	0	0
5	99.7	91.7	99.5	99.7	91.7	99.5	99.7	91.7	99.5	99.7	91.7	99.5	0	0	0	0	0	0
6	99.8	48.8	49.8	91.7	46.2	35.3	91.7	46.2	35.3	47	46.2	47	0	0	0	40.9	0	0
7	98.5	42.2	42.3	98.5	42.2	42.3	98.5	42.2	42.3	0	0	0	0	0	0	98.5	42.2	42.3
8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	0	0	0	0	0	0	99.9	99.9	99.9
9	98.6	100	100	98.6	100	100	98.6	100	100	0	0	0	0	0	0	98.6	100	100
10	99.9	99.4	100	99.9	99.4	100	99.9	99.4	100	0	0	0	0	0	0	99.9	99.4	100
11	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0	100	99.9	100
12	99.5	96.6	99	70.6	70.6	26.7	76.3	73.5	26.7	0	0	0	0	0	0	99.5	96.6	29.2
13	97.8	95.3	99.6	63.2	63	19.4	63.3	63.1	19.5	41.9	41.9	31.9	0	0	0	50	47.6	0
14	100	97.5	95.7	100	97.5	95.7	100	97.5	95.7	100	97.5	95.7	0	0	0	0	0	0
15	98.2	98.8	100	98.2	98.8	100	98.2	98.8	100	98.2	98.8	100	0	0	0	0	0	0
16	94.6	99.9	100	94.6	99.9	100	94.6	99.9	100	94.6	99.9	100	0	0	0	0	0	0
17	100	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	0	0	0	0	0	0
18	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
19	98.8	97.4	98.8	76.6	75.1	78.6	76.7	75.3	78.8	98.8	97.4	98.8	0	0	0	0	0	0
20	99.7	85.2	99.7	99.7	85.2	99.7	99.7	85.2	99.7	99.7	85.2	99.7	0	0	0	0	0	0
21	99.9	92.2	92.7	99.9	92.2	92.7	99.9	92.2	92.7	99.9	92.2	92.7	0	0	0	0	0	0
22	100	98.5	100	100	98.5	100	100	98.5	100	100	98.5	100	0	0	0	0	0	0
23	100	53.8	100	100	53.8	100	100	53.8	100	100	53.8	100	0	0	0	0	0	0
24	95.6	100	99.9	95.6	100	99.9	95.6	100	99.9	95.6	100	99.9	0	0	0	0	0	0
25	95.1	99.7	100	95.1	99.7	100	95.1	99.7	100	95.1	99.7	100	0	0	0	0	0	0
26	100	99.4	100	100	99.4	100	100	99.4	100	100	99.4	100	0	0	0	0	0	0
27	65.8	63	66.3	41	38.8	45.2	41	38.8	45.3	59.4	56.3	59	0	0	0	0	0	0
28	60.5	60.4	53.2	54.7	57.7	50.7	57.4	57.7	50.7	60.5	60.4	53.2	0	0	0	0	0	0
29	28.5	22.6	28.5	25.3	20.4	21.8	25.4	20.6	21.9	28.5	22.6	28.5	0	0	0	0	0	0
30	99.8	85.8	100	99.8	85.8	100	99.8	85.8	100	99.8	85.8	100	0	0	0	0	0	0
Mean	94.3	86.1	90.8	90	82.3	83.6	90.3	82.4	83.6	70.6	66	70.2	0	0	0	22.9	19.5	15.7
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	15.2	20.7	19.9	19.2	22.6	27.9	18.8	22.5	27.9	40.3	38.6	40.7	0	0	0	39.9	37.3	34.3
Min	28.5	22.6	28.5	25.3	20.4	19.4	25.4	20.6	19.5	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	100

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Table E12. Data completeness at Site OK4B for December, 2007

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	100	72.8	100	100	72.8	100	100	72.8	100	100	72.8	100	0	0	0	0	0	0
2	99.9	94.9	100	99.9	94.9	100	99.9	94.9	100	99.9	94.9	100	0	0	0	0	0	0
3	98.6	96.9	99.9	98.6	96.9	99.9	98.6	96.9	99.9	98.6	96.9	99.9	0	0	0	0	0	0
4	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
5	100	98.1	100	100	98.1	100	100	98.1	100	100	98.1	100	0	0	0	0	0	0
6	100	88.2	99.9	82.7	88.2	41.2	82.8	88.2	41.3	100	88.2	54.3	0	0	0	0	0	0
7	99.9	94.4	100	99.9	94.4	48	99.9	94.4	48	99.9	94.4	0	0	0	0	0	0	0
8	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
9	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
10	99.9	99.9	99.9	94	94	84.4	94	94	84.4	94	91.8	39.8	0	0	0	0	0	0
11	34	100	97.8	34	100	97.8	34	100	97.8	34	100	97.8	0	0	0	0	0	0
12	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	100	0	0	0	0	0	0
13	100	100	99.7	100	100	99.7	100	100	99.7	100	100	99.7	0	0	0	0	0	0
14	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	100	0	0	0	0	0	0
15	99.7	100	97.5	99.7	100	97.5	99.7	100	97.5	99.7	100	97.5	0	0	0	0	0	0
16	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
17	99.3	99.6	99.6	99.3	99.6	99.6	99.3	99.6	99.6	99.3	99.6	99.6	0	0	0	0	0	0
18	99.2	99.2	99.2	78.5	78.5	69.4	78.6	78.6	69.5	99.2	99.2	99.2	0	0	0	0	0	0
19	100	95.7	100	100	95.7	100	100	95.7	100	100	95	100	0	0	0	0	0	0
20	75.6	71.5	75.6	69.4	65.7	66.3	69.6	65.8	66.3	75.6	71.5	75.6	0	0	0	0	0	0
21	64.2	48.2	61.9	61	46.5	55.8	61.2	46.8	55.9	64.2	48.1	61.9	0	0	0	0	0	0
22	97.2	89.4	79.6	97.2	89.4	79.6	97.2	89.4	79.6	97.2	80.3	79.6	0	0	0	0	0	0
23	100	99.8	100	100	99.8	100	100	99.8	100	100	98.7	100	0	0	0	0	0	0
24	99.3	73.3	100	99.3	73.3	100	99.3	73.3	100	99.3	72.8	100	0	0	0	0	0	0
25	99.3	92.9	98.9	99.3	92.9	98.9	99.3	92.9	98.9	99.3	91	98.9	0	0	0	0	0	0
26	99.9	99.9	98.7	99.9	99.9	98.7	99.9	99.9	98.7	99.9	99.3	98.7	0	0	0	0	0	0
27	96.5	97.9	100	74.5	70.9	37.8	74.7	75.1	40.5	90.9	91.3	29.2	0	0	0	0	0	0
28	100	100	100	100	100	14.4	100	100	14.4	100	100	0	0	0	0	0	0	0
29	97.8	100	100	97.8	100	14.5	97.8	100	14.5	97.8	100	0	0	0	0	0	0	0
30	99.9	99.7	99.2	99.9	99.7	7.7	99.9	99.7	7.7	99.9	99.7	0	0	0	0	0	0	0
31	94.9	95.1	93.3	68.6	68	46.5	68.8	68	46.5	94.9	95.1	30.1	0	0	0	0	0	0
Mean	95.3	93.8	96.8	92	90.9	79.3	92.1	91.1	79.4	95	92.9	69.7	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	13.5	11.6	8.4	15.3	13.6	29.8	15.3	13.4	29.6	13.4	11.7	40	0	0	0	0	0	0
Min	34	48.2	61.9	34	46.5	7.7	34	46.8	7.7	34	48.1	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for January, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	54.7	54.9	54.4	51.7	52.9	49.9	51.7	53	49.9	54.7	54.9	54.4	0	0	0	0	0	0
2	99.6	88.7	100	99.6	88.7	100	99.6	88.7	100	99.6	88.7	100	0	0	0	0	0	0
3	22.4	24.5	47.4	16.1	23.3	45.9	16.1	23.4	45.9	22.4	24.5	47.4	0	0	0	0	0	0
4	100	87.8	100	99.2	87.4	96	99.4	87.5	96.1	100	87.8	100	0	0	0	0	0	0
5	99	47.4	96.5	99	47.4	96.5	99	47.4	96.5	99	47.4	96.5	0	0	0	0	0	0
6	100	70.9	100	100	70.9	100	100	70.9	100	100	70.9	100	0	0	0	0	0	0
7	99.9	35.7	99.9	76.6	24.9	79.7	76.7	24.9	79.8	96.5	32.4	95.6	0	0	0	0	0	0
8	99.9	86.1	99.4	99.9	86.1	99.4	99.9	86.1	99.4	99.9	86.1	99.4	0	0	0	0	0	0
9	97.1	22.9	99.2	97.1	22.9	99.2	97.1	22.9	99.2	97.1	22.9	99.2	0	0	0	0	0	0
10	100	85.3	99.7	100	85.3	99.7	100	85.3	99.7	100	85.3	99.7	0	0	0	0	0	0
11	75.4	45.2	75.4	62.8	33.5	66	62.9	33.5	66.1	75.4	45.2	75.4	0	0	0	0	0	0
12	100	91.9	100	100	91.9	100	100	91.9	100	100	91.9	100	0	0	0	0	0	0
13	100	81.9	100	100	81.9	100	100	81.9	100	100	81.9	100	0	0	0	0	0	0
14	100	76.3	100	100	76.3	100	100	76.3	100	100	76.3	100	0	0	0	0	0	0
15	92.6	15.5	92.6	74.4	12.6	92.6	74.6	12.6	92.6	47.4	12	48.1	38.1	2.8	38.2	0	0	0
16	97.8	87.4	47.2	97.8	87.4	47.2	97.8	87.4	47.2	0	0	0	97.8	87.4	47.2	0	0	0
17	99.5	80.3	68.1	99.5	80.3	68.1	99.5	80.3	68.1	0	0	0	99.5	80.3	68.1	0	0	0
18	100	61.7	98.7	100	61.7	98.7	100	61.7	98.7	0	0	0	100	61.7	98.7	0	0	0
19	99.5	73.1	100	99.5	73.1	100	99.5	73.1	100	0	0	0	99.5	73.1	100	0	0	0
20	97.2	64.7	100	97.2	64.7	100	97.2	64.7	100	0	0	0	97.2	64.7	100	0	0	0
21	97.7	100	99.8	97.7	100	99.8	97.7	100	99.8	0	0	0	97.7	100	99.8	0	0	0
22	100	100	100	100	100	100	100	100	100	0	0	0	100	100	100	0	0	0
23	100	100	99.7	76.6	79.4	55.1	76.7	79.5	55.1	0	0	0	96.9	97.3	49	0	0	0
24	74.7	71	77.6	68.9	64.7	50.6	68.9	64.8	50.6	0	0	0	70.2	67.9	35.5	0	0	0
25	78.2	100	99.7	78.2	100	99.7	78.2	100	99.7	0	0	0	78.2	100	99.7	0	0	0
26	100	100	94.9	100	100	92.1	100	100	92.1	0	0	0	100	100	94.9	0	0	0
27	96	100	100	1.5	1.5	10.4	1.5	1.5	10.4	0	0	0	96	100	100	0	0	0
28	73.8	49.7	99.3	0	0	9.4	0	0	9.4	0	0	0	73.8	49.7	99.3	0	0	0
29	98.5	79	91.3	0	0	23.9	0	0	23.9	0	0	0	98.5	79	91.3	0	0	0
30	93.4	90.8	99.9	0	0	17.8	0	0	17.8	0	0	0	93.4	90.8	99.9	0	0	0
31	95.1	98.1	90.8	23.6	22.9	25.2	23.8	23.1	25.2	0	0	0	59.1	62.5	54.2	30.3	25.4	30.3
Mean	91.7	73.3	91.3	74.7	58.8	74.9	74.8	58.8	74.9	41.7	29.3	42.4	48.3	42.5	44.4	1	0.8	1
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	16.6	24.7	15.8	35.8	33.9	31.3	35.8	33.9	31.3	46.1	35.6	46	45.7	42.7	44.2	5.4	4.5	5.4
Min	22.4	15.5	47.2	0	0	9.4	0	0	9.4	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	91.9	100	100	100	100	30.3	25.4	30.3

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Table E12. Data completeness at Site OK4B for February, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	95.9	74.9	100	95.9	74.9	91	95.9	74.9	91.8	0	0	0	0	0	0	95.9	74.9	100
2	99.9	97.9	100	99.9	97.9	100	99.9	97.9	100	0	0	0	0	0	0	99.9	74.3	100
3	100	88.5	100	98.9	86.7	97.8	98.9	86.7	97.8	0	0	0	0	0	0	99.8	67.6	99.8
4	69.1	43.7	70.3	64.4	39.7	62.4	64.6	39.9	62.4	0	0	0	0	0	0	68.8	43.4	70
5	95.7	99.2	96.7	95.7	99.2	96.7	95.7	99.2	96.7	0	0	0	0	0	0	95.7	99.2	96.7
6	98.9	99.3	99.3	73	58.5	99.3	73.1	58.7	99.3	0	0	0	0	0	0	98.9	99.3	99.3
7	98.5	97.6	98	50.1	51.1	50.7	50.3	51.5	51	33.8	24	33.8	0	0	0	39.5	42.7	36.4
8	100	100	99.8	100	100	99.8	100	100	99.8	99.8	68	99.6	0	0	0	0	0	0
9	99.8	100	100	99.8	100	100	99.8	100	100	99.8	93.8	100	0	0	0	0	0	0
10	98.8	99.4	100	98.8	99.4	100	98.8	99.4	100	98.8	90.6	100	0	0	0	0	0	0
11	99.6	95	100	99.6	95	100	99.6	95	100	99.6	95	100	0	0	0	0	0	0
12	98.8	98.8	98.8	75.3	71.2	93.1	75.5	71.3	93.1	79.2	68.4	77.2	0	0	0	0	0	0
13	90.8	65.5	100	90.8	65.5	100	90.8	65.5	100	90.8	61.7	100	0	0	0	0	0	0
14	98.3	96.9	98.7	98.3	96.9	98.7	98.3	96.9	98.7	98.3	94.4	98.7	0	0	0	0	0	0
15	99.8	100	99.7	99.8	100	99.7	99.8	100	99.7	99.8	46.5	99.7	0	0	0	0	0	0
16	100	97.8	100	100	97.8	100	100	97.8	100	100	48.1	100	0	0	0	0	0	0
17	99.5	99.9	98.1	99.5	99.9	98.1	99.5	99.9	98.1	99.5	87.4	98.1	0	0	0	0	0	0
18	98.2	99.7	84.5	77.2	72.1	77.5	77.3	72.2	77.5	89.8	61.5	61.6	0	0	0	0	0	0
19	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
20	90.9	95.4	100	90.9	95.4	100	90.9	95.4	100	90.9	95.4	100	0	0	0	0	0	0
21	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
22	99.8	99.8	99.8	99.8	99.8	80.3	99.8	99.8	80.3	99.8	99.8	98.7	0	0	0	0	0	0
23	93.9	96.9	100	93.9	96.9	100	93.9	96.9	100	93.9	96.9	100	0	0	0	0	0	0
24	99	93.3	100	99	93.3	100	99	93.3	100	99	93.3	100	0	0	0	0	0	0
25	99.9	95.8	89.4	99.9	95.8	89.4	99.9	95.8	89.4	99.9	95.8	89.4	0	0	0	0	0	0
26	96.6	99	97.5	96.6	99	97.5	96.6	99	97.5	96.6	99	97.5	0	0	0	0	0	0
27	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	0	0	0	0	0	0
28	100	97.3	100	100	97.3	100	100	97.3	100	100	97.3	100	0	0	0	0	0	0
29	98.8	99.1	99.1	95.8	96.1	96.1	95.8	96.1	96.1	87.4	84.4	87.1	0	0	0	0	0	0
Mean	97.2	94.1	97.6	92.9	88.9	94.1	92.9	89	94.1	74.4	65.5	73.8	0	0	0	20.6	17.3	20.8
n	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
SD	5.9	12.2	6.1	12.3	16.6	11.8	12.3	16.5	11.7	39.9	38.3	40.2	0	0	0	38.1	32.4	38.5
Min	69.1	43.7	70.3	50.1	39.7	50.7	50.3	39.9	51	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	99.9	99.3	100

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Table E12. Data completeness at Site OK4B for March, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	94.2	92.2	100	94.2	92.2	100	94.2	92.2	100	94.2	92.2	100	0	0	0	0	0	0
2	89	95.6	88.3	89	95.6	88.3	89	95.6	88.3	89	95.6	88.3	0	0	0	0	0	0
3	80.6	100	97.6	80.6	100	97.6	80.6	100	97.6	80.6	100	97.6	0	0	0	0	0	0
4	100	99.8	100	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0
5	98.4	99.4	99.6	98.4	99.4	99.6	98.4	99.4	99.6	98.4	99.4	99.6	0	0	0	0	0	0
6	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
7	93.5	93.8	98.8	93.5	93.8	75.9	93.5	93.8	76	93.5	93.8	98.8	0	0	0	0	0	0
8	99	99.5	99.5	99	99.5	99.5	99	99.5	99.5	99	99.5	99.5	0	0	0	0	0	0
9	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
10	99.9	99.9	100	99.9	99.9	100	99.9	99.9	100	99.9	99.9	100	0	0	0	0	0	0
11	99.7	99.9	100	99.7	99.9	100	99.7	99.9	100	99.4	99.6	99.7	0	0	0	0	0	0
12	100	99.2	100	100	99.2	100	100	99.2	100	99.8	99	99.8	0	0	0	0	0	0
13	99	98.9	95.7	75.6	75.5	95.7	75.7	75.6	95.7	94.7	94.6	94.9	0	0	0	0	0	0
14	99.9	96.1	100	99.9	96.1	100	99.9	96.1	100	99.9	96.1	100	0	0	0	0	0	0
15	97.6	100	100	97.6	100	100	97.6	100	100	97.6	100	100	0	0	0	0	0	0
16	92.6	99	100	92.6	99	100	92.6	99	100	92.6	99	100	0	0	0	0	0	0
17	95.9	83.7	88.4	95.9	83.7	81	95.9	83.7	81	95.9	83.7	65.5	0	0	0	0	0	0
18	100	100	99.2	100	100	99.2	100	100	99.2	100	100	99.2	0	0	0	0	0	0
19	99.7	99.9	99.9	99.7	99.9	99.9	99.7	99.9	99.9	99.7	99.9	99.9	0	0	0	0	0	0
20	98.7	99.4	100	98.7	99.4	100	98.7	99.4	100	98.7	99.4	100	0	0	0	0	0	0
21	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
22	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
23	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	100	0	0	0	0	0	0
24	99.2	99.4	100	70.8	71	70.6	71	71.2	70.7	99.2	99.4	95.9	0	0	0	0	0	0
25	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	0	0	0	0	0	0
26	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
27	100	100	99.4	100	100	99.4	100	100	99.4	100	100	99.4	0	0	0	0	0	0
28	99.7	100	100	99.7	100	100	99.7	100	100	99.7	100	100	0	0	0	0	0	0
29	99.5	93.9	99.9	99.5	93.9	99.9	99.5	93.9	99.9	99.5	93.9	99.9	0	0	0	0	0	0
30	99.9	100	99.9	99.9	100	99.9	99.9	100	99.9	99.9	78.3	99.9	0	0	0	0	0	0
31	100	100	100	100	100	100	100	100	100	100	0	100	0	0	0	0	0	0
Mean	97.9	98.4	98.9	96.3	96.7	97	96.3	96.7	97	97.8	94.3	98	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	4.1	3.4	2.9	7.3	7.1	7.4	7.3	7	7.4	4.1	17.9	6.4	0	0	0	0	0	0
Min	80.6	83.7	88.3	70.8	71	70.6	71	71.2	70.7	80.6	0	65.5	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for April, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	99.4	99.9	99.6	98.9	99.3	80.7	98.9	99.3	80.8	92.2	0	99	0	0	0	0	0	0
2	99.6	89.7	99.7	99.6	89.7	99.7	99.6	89.7	99.7	99.6	0	99.7	0	0	0	0	0	0
3	99.9	100	99.7	96.6	96.7	96.5	96.6	96.7	96.5	88.9	32.7	92.8	0	0	0	0	0	0
4	100	99.8	100	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0
5	98.1	99.4	100	98.1	99.4	100	98.1	99.4	100	98.1	99.4	100	0	0	0	0	0	0
6	100	100	99.6	100	100	99.6	100	100	99.6	100	100	99.6	0	0	0	0	0	0
7	91.9	93	99.9	91.9	93	78.1	91.9	93	78.2	43.3	45.2	43.1	0	0	0	39.7	40.4	47.4
8	99.6	99	99.2	99.6	99	99.2	99.6	99	99.2	0	0	0	0	0	0	99.6	99	96
9	83.1	85.3	35.5	83.1	85.3	35.5	83.1	85.3	35.5	0	0	0	0	0	0	83.1	85.3	35.5
10	47.6	93.1	0	47.6	93.1	0	47.6	93.1	0	0	0	0	0	0	0	47.6	93.1	0
11	73.5	100	0	73.5	100	0	73.5	100	0	0	0	0	0	0	0	73.5	100	0
12	100	100	0	100	100	0	100	100	0	0	0	0	0	0	0	100	100	0
13	99.7	100	0	99.7	100	0	99.7	100	0	0	0	0	0	0	0	99.7	100	0
14	99.9	93	40.3	44.4	36.7	33.5	44.6	36.9	33.6	32.8	26.3	32.8	0	0	0	45.4	45.1	0
15	90.1	91.1	99.9	90.1	91.1	99.9	90.1	91.1	99.9	85.5	85.5	93.5	0	0	0	0	0	0
16	92.2	86.6	99.2	92.2	86.6	77.4	92.2	86.6	99.2	92.2	86.6	99.2	0	0	0	0	0	0
17	82.6	99.8	85.2	82.6	99.8	85.2	82.6	99.8	85.2	82.6	99.8	85.2	0	0	0	0	0	0
18	98.5	99.4	100	98.5	99.4	100	98.5	99.4	100	98.5	99.4	100	0	0	0	0	0	0
19	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
20	99.7	99.2	100	99.7	99.2	100	99.7	99.2	100	99.7	99.2	100	0	0	0	0	0	0
21	100	100	100	65.5	65.5	64.3	65.6	72.6	64.4	98.5	97.9	98	0	0	0	0	0	0
22	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	0	0	0	0	0	0
23	56.5	84.3	84.4	56.5	84.3	84.4	56.5	84.3	84.4	56.5	84.3	84.4	0	0	0	0	0	0
24	78.6	97.4	100	78.6	97.4	100	78.6	97.4	100	78.6	97.4	100	0	0	0	0	0	0
25	99.2	99.6	99.6	99.2	99.6	99.6	99.2	99.6	99.6	99.2	99.6	99.6	0	0	0	0	0	0
26	92.5	73.1	90.8	92.5	73.1	90.8	92.5	73.1	90.8	88.7	72.4	86.6	0	0	0	0	0	0
27	99.7	97	99.8	99.7	97	99.8	99.7	97	99.8	99.7	97	99.8	0	0	0	0	0	0
28	99.2	96	100	99.2	96	100	99.2	96	100	99.2	96	100	0	0	0	0	0	0
29	100	97.6	100	34.7	32.3	29.8	34.7	32.3	29.8	95.8	93.8	96.3	0	0	0	0	0	0
30	99.3	83.2	100	0	0	0	0	0	0	99.3	83.2	100	0	0	0	0	0	0
Mean	92.7	95.2	81.1	84	87.1	71.8	84.1	87.3	72.5	70.9	63.2	73.7	0	0	0	19.6	22.1	6
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	13	6.7	35.4	24.2	23.4	37.8	24.2	23.2	38.1	39	42.4	39.9	0	0	0	34.9	38.6	19.7
Min	47.6	73.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	96

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Table E12. Data completeness at Site OK4B for May, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	88.7	87.4	89.7	0	0	1.2	0	0	1.2	88.7	87.4	89.7	0	0	0	0	0	0
2	91.5	97.5	70.4	0	0	7.2	0	0	7.2	87.7	91.9	70	0	0	0	0	0	0
3	99.2	99.9	99.2	0	0	5.3	0	0	5.3	99.2	99.9	99.2	0	0	0	0	0	0
4	100	97.6	100	0	0	1.7	0	0	1.7	100	97.6	100	0	0	0	0	0	0
5	94.9	81.5	99.2	16	9.1	25.8	17.1	10.1	26.8	92	78.1	59.7	0	0	0	0	0	0
6	91.2	97.7	100	91.2	97.7	100	91.2	97.7	100	91.2	97.7	100	0	0	0	0	0	0
7	99.2	72.9	99.7	99.2	72.9	99.7	99.2	72.9	99.7	99.2	72.9	99.7	0	0	0	0	0	0
8	81.4	86.9	95.8	81.4	86.9	95.8	81.4	86.9	95.8	80.6	86.5	94.9	0	0	0	0	0	0
9	65.6	84.2	100	65.6	84.2	100	65.6	84.2	100	65.6	84.2	100	0	0	0	0	0	0
10	93.5	81.6	97.6	93.5	81.6	97.6	93.5	81.6	97.6	93.5	81.6	97.6	0	0	0	0	0	0
11	99.9	81.5	100	99.9	81.5	100	99.9	81.5	100	99.9	81.5	100	0	0	0	0	0	0
12	99.5	79.7	100	99.5	79.7	100	99.5	79.7	100	85.1	77.4	100	0	0	0	0	0	0
13	99.9	86.9	100	99.9	86.9	100	99.9	86.9	100	99.9	86.9	100	0	0	0	0	0	0
14	100	72.6	100	100	72.6	100	100	72.6	100	100	72.6	100	0	0	0	0	0	0
15	100	78.9	99.9	100	78.9	99.9	100	78.9	99.9	100	78.9	99.9	0	0	0	0	0	0
16	100	99.5	100	100	99.5	100	100	99.5	100	96	99.5	96.2	0	0	0	0	0	0
17	99.9	96.3	100	99.9	96.3	100	99.9	96.3	100	99.9	96.3	100	0	0	0	0	0	0
18	96.8	99.2	100	96.8	99.2	100	96.8	99.2	100	96.8	99.2	100	0	0	0	0	0	0
19	99.8	97.3	100	99.8	97.3	100	99.8	97.3	100	99.8	97.3	100	0	0	0	0	0	0
20	99.9	96.3	100	99.9	96.3	100	99.9	96.3	100	99.9	96.3	100	0	0	0	0	0	0
21	99.9	92	100	99.9	92	100	99.9	92	100	99.9	92	100	0	0	0	0	0	0
22	98.7	93.2	94.3	98.7	93.2	94.3	98.7	93.2	94.3	82.2	93.2	79.1	0	0	0	0	0	0
23	99.4	95.3	82.8	99.4	95.3	82.8	99.4	95.3	82.8	99.4	95.3	82.8	0	0	0	0	0	0
24	99.5	90.3	100	99.5	90.3	100	99.5	90.3	100	99.5	90.3	100	0	0	0	0	0	0
25	95.1	87.9	95.1	95.1	87.9	95.1	95.1	87.9	95.1	75.7	87.7	75.7	0	0	0	0	0	0
26	100	96.6	92.3	100	96.6	92.3	100	96.6	92.3	100	96.6	92.3	0	0	0	0	0	0
27	95	66	99.4	95	66	75.6	95	66	69.1	95	66	71.5	0	0	0	0	0	0
28	99.2	63.6	100	99.2	63.6	100	99.2	63.6	100	99.2	63.6	100	0	0	0	0	0	0
29	100	94.7	50	100	94.7	50	100	94.7	50	100	94.7	50	0	0	0	0	0	0
30	100	100	26.9	100	100	26.9	100	100	26.9	100	100	26.9	0	0	0	0	0	0
31	100	100	35.8	100	100	35.8	100	100	35.8	100	100	35.8	0	0	0	0	0	0
Mean	96.4	88.9	91.2	81.6	74.2	77	81.6	74.2	76.8	94.4	88.5	87.8	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	7	10.2	18.8	35.1	33.2	35.5	35.1	33.1	35.5	8.5	10.3	19.8	0	0	0	0	0	0
Min	65.6	63.6	26.9	0	0	1.2	0	0	1.2	65.6	63.6	26.9	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for June, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	100	100	82.9	100	100	82.9	100	100	82.9	100	100	82.9	0	0	0	0	0	0
2	100	100	100	78.2	78.2	78.2	78.2	78.2	78.2	36.5	36.5	36.5	0	0	0	0	0	0
3	100	99.9	100	25.6	21.2	18.7	25.8	21.2	18.8	0	0	0	0	0	0	0	0	0
4	96.9	96.6	96	69	69	67.7	69	69	67.7	63.9	64.9	63.7	0	0	0	0	0	0
5	92.6	83.6	99	92.6	83.6	99	92.6	83.6	99	92.6	83.6	99	0	0	0	0	0	0
6	92.6	97.8	100	92.6	97.8	100	92.6	97.8	100	92.6	97.8	100	0	0	0	0	0	0
7	100	99.1	100	100	99.1	100	100	99.1	100	100	99.1	100	0	0	0	0	0	0
8	95.9	89.4	97.6	95.9	89.4	97.6	95.9	89.4	97.6	95.9	89.4	97.6	0	0	0	0	0	0
9	99.2	97.1	100	99.2	97.1	100	99.2	97.1	100	99.2	97.1	100	0	0	0	0	0	0
10	99.9	76.7	99.9	99.9	76.7	99.9	99.9	76.7	99.9	99.9	76.7	99.9	0	0	0	0	0	0
11	96.8	86.6	93.4	96.8	86.6	93.4	96.8	86.6	93.4	37.1	36.5	37.1	0	0	0	0	0	0
12	99.2	88.8	99.6	99.2	88.8	99.6	99.2	88.8	99.6	0	0	0	0	0	0	0	0	0
13	100	97.2	100	100	97.2	100	100	97.2	100	0	0	0	0	0	0	0	0	0
14	64.2	63.6	64.7	59.7	59	52.1	59.8	59.2	52.2	0	0	0	0	0	0	0	0	0
15	99.7	100	100	99.7	100	100	99.7	100	100	0	0	0	0	0	0	0	0	0
16	99	93.2	99.7	99	65.6	72	99	65.8	72	50.7	44.9	34.2	0	0	0	0	0	0
17	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0
18	97.5	97.4	100	97.5	97.4	100	97.5	97.4	100	97.5	97.4	100	0	0	0	0	0	0
19	92.9	89.4	100	92.9	89.4	100	92.9	89.4	100	92.9	89.4	100	0	0	0	0	0	0
20	76	75.1	75.3	76	74.6	72.4	76	74.6	72.4	76	75.1	75.3	0	0	0	0	0	0
21	39.7	39.3	0	36.5	36.8	0	36.6	36.9	0	39.4	39	0	0	0	0	0	0	0
22	98.1	99.9	0	98.1	99.9	0	98.1	99.9	0	97.9	99.7	0	0	0	0	0	0	0
23	98.9	90.9	0	98.9	90.9	0	98.9	90.9	0	98.9	90.9	0	0	0	0	0	0	0
24	99.1	99	0	99.1	99	0	99.1	99	0	99.1	99	0	0	0	0	0	0	0
25	99.9	99.4	40.4	43.3	43.3	19.8	43.4	43.4	19.9	52.2	54.9	0	0	0	0	28.4	28.3	0
26	91.5	89.2	91.5	39.4	38.7	31.7	39.4	38.7	31.7	0	0	0	0	0	0	91	74.4	0
27	98.8	98.8	98.8	68.8	69.4	64.6	68.9	69.6	64.7	0	0	0	0	0	0	63.3	66.4	0
28	98.5	91.3	100	98.5	91.3	100	98.5	91.3	100	0	0	0	0	0	0	98.5	91.3	0
29	100	99.9	22.6	100	99.9	22.6	100	99.9	22.6	0	0	0	0	0	0	99.8	99.7	0
30	100	100	0	100	100	0	100	100	0	0	0	0	0	0	0	100	100	0
Mean	94.2	91.3	75.4	85.2	81.3	65.7	85.2	81.3	65.8	54.1	52.4	40.9	0	0	0	16	15.3	0
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	12.6	13	38.1	22.2	21.7	38.9	22.1	21.7	38.9	42.9	41.6	44.6	0	0	0	34.2	32.6	0
Min	39.7	39.3	0	25.6	21.2	0	25.8	21.2	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0

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Table E12. Data completeness at Site OK4B for July, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	100	99.9	0	71	65.5	0	71.2	65.6	0	0	0	0	0	0	0	82.6	99.9	0
2	89.1	78.3	53.3	84.9	78.3	51.8	84.9	78.3	51.8	0	0	0	0	0	0	70.1	78.3	0
3	70.1	51.8	70.1	66.9	51.8	62.7	67	51.8	62.8	0	0	0	0	0	0	69.9	51.8	0
4	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
5	100	99.2	100	100	99.2	100	100	99.2	100	0	0	0	0	0	0	100	99.2	0
6	100	97.5	100	100	97.5	100	100	97.5	100	0	0	0	0	0	0	100	97.5	0
7	100	100	100	100	100	70.8	100	100	70.8	0	0	0	0	0	0	100	100	0
8	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
9	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
10	100	99.3	100	100	99.3	100	100	99.3	100	0	0	0	0	0	0	100	99.3	0
11	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
12	99.9	89.8	94.9	99.9	89.8	94.9	99.9	89.8	94.9	0	0	0	0	0	0	96.1	89.4	0
13	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
14	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	0
15	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0	100	99.9	0
16	99.2	99.2	98.6	71.7	71.7	98.6	71.8	71.8	98.6	54	52.9	0	0	0	0	37.6	37.6	0
17	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	0	0	0	0	0	0	0
18	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
19	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
20	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
21	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0	0
22	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
23	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	0	0	0	0	0	0	0
24	99.4	99.6	99.6	99.4	99.6	99.6	99.4	99.6	99.6	37.9	38.3	0	36.5	36.7	0	0	0	0
25	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	100	99.9	0	0	0	0
26	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0
27	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0
28	100	97.1	100	100	97.1	100	100	97.1	100	0	0	0	100	97.1	0	0	0	0
29	91.9	88.8	97.6	64.9	61.4	60.6	65.2	70.7	60.6	0	0	0	91.9	88.8	0	0	0	0
30	100	100	99.7	100	100	99.7	100	100	99.7	0	0	0	100	100	0	0	0	0
31	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0
Mean	98.4	96.8	94	95.4	93.9	91.6	95.5	94.2	91.6	25.5	25.5	0	23.5	23.3	0	47	46.9	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	5.7	9.4	19.7	10.7	13	21.2	10.6	12.3	21.2	41.8	41.8	0	41.2	40.9	0	47.1	47.3	0
Min	70.1	51.8	0	64.9	51.8	0	65.2	51.8	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	0	100	100	0	100	100	0

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Table E12. Data completeness at Site OK4B for August, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	100	100	100	100	100	100	100	100	100	0	0	0	92.8	92.8	0	0	0	0
2	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0
3	100	99.7	100	100	99.7	100	100	99.7	100	0	0	0	100	99.7	0	0	0	0
4	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0
5	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	100	99.9	0	0	0	0
6	100	100	100	100	100	100	100	100	100	0	0	0	100	100	0	0	0	0
7	98	98.2	98.2	78.1	78.3	74.1	78.2	78.4	74.2	33.2	33.4	0	54.4	58.1	0	0	0	0
8	97.7	97.2	99.2	70.9	97.2	64.1	71	97.2	64.2	97.7	97.2	0	0	0	0	0	0	0
9	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
10	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
11	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	0
12	99.6	99	100	99.6	99	100	99.6	99	100	99.6	99	0	0	0	0	0	0	0
13	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	0	0	0	0	0	0	0
14	99.4	99.5	99.6	99.4	99.5	99.6	99.4	99.5	99.6	78.8	78.9	0	0	0	0	0	0	0
15	84.2	78.3	63.7	84.2	78.3	63.7	84.2	78.3	63.7	84.2	78.3	0	0	0	0	0	0	0
16	100	100	25.4	100	100	25.4	100	100	25.4	5.8	100	0	0	0	0	0	0	0
17	100	94	38.3	100	94	38.3	100	94	38.3	0	94	0	0	0	0	0	0	0
18	72.8	69.6	0	72.8	69.6	0	72.8	69.6	0	0	69.6	0	0	0	0	0	0	0
19	96.5	96.4	43.3	96.5	96.4	43.3	96.5	96.4	43.3	43.7	95	35.7	0	0	0	0	0	0
20	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
21	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
22	99.8	99.8	99.8	99.8	99.8	72.2	99.8	99.8	72.2	99.8	99.8	62.1	0	0	0	0	0	0
23	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
24	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
25	99.8	100	100	99.8	100	100	99.8	100	100	99.8	100	100	0	0	0	0	0	0
26	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0
27	100	99.7	98.5	100	99.7	76.5	100	99.7	76.7	100	99.7	98.5	0	0	0	0	0	0
28	100	96.7	100	100	96.7	100	100	96.7	100	100	96.7	100	0	0	0	0	0	0
29	100	99	100	100	99	100	100	99	100	100	99	100	0	0	0	0	0	0
30	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
31	100	98.4	100	100	98.4	100	100	98.4	100	100	98.4	100	0	0	0	0	0	0
Mean	98.3	97.6	89.2	96.8	96.9	85.7	96.8	96.9	85.7	65.9	75.4	38.6	20.9	21	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	5.5	6.5	25.6	8.1	7.3	25.9	8	7.3	25.9	44.4	39.2	47.1	39.4	39.5	0	0	0	0
Min	72.8	69.6	0	70.9	69.6	0	71	69.6	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0

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Table E12. Data completeness at Site OK4B for September, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	100	97	100	100	97	100	100	97	100	100	97	100	0	0	0	0	0	0
2	98.5	92.8	99.9	98.5	92.8	99.9	98.5	92.8	99.9	98.5	92.8	99.9	0	0	0	0	0	0
3	98	73.7	99.5	98	73.7	99.5	98	73.7	99.5	98	73.7	99.5	0	0	0	0	0	0
4	98.5	98.6	97.7	51.7	51.7	43.1	51.9	51.8	43.3	87	87.2	85.8	0	0	0	0	0	0
5	90.5	93.1	100	90.5	93.1	100	90.5	93.1	100	90.5	93.1	100	0	0	0	0	0	0
6	97.4	99.4	100	97.4	99.4	100	97.4	99.4	100	97.4	99.4	100	0	0	0	0	0	0
7	99.8	100	100	99.8	100	100	99.8	100	100	99.8	100	100	0	0	0	0	0	0
8	98.2	85.6	98.9	98.2	85.6	98.9	98.2	85.6	98.9	98.2	85.6	98.9	0	0	0	0	0	0
9	100	95.1	100	100	95.1	100	100	95.1	100	100	95.1	100	0	0	0	0	0	0
10	98.3	95.2	97.9	98.3	95.2	97.9	98.3	95.2	97.9	98.3	95.2	97.9	0	0	0	0	0	0
11	100	87.6	100	100	87.6	100	100	87.6	100	100	87.6	100	0	0	0	0	0	0
12	95.3	91.4	99.6	95.3	91.4	69.2	95.3	91.4	69.2	39.7	32	26.9	0	0	0	43.8	43.8	33.8
13	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
14	100	96	99.2	100	96	99.2	100	96	99.2	0	0	0	0	0	0	100	96	99.2
15	100	92.2	100	100	92.2	100	100	92.2	100	0	0	0	0	0	0	100	92.2	100
16	100	96.2	100	100	96.2	72.6	100	96.2	100	0	0	0	0	0	0	97.8	94	98.5
17	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
18	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
19	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
20	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
21	100	96.3	100	100	96.3	100	100	96.3	100	0	0	0	0	0	0	100	96.3	100
22	100	97.2	100	100	97.2	100	100	97.2	100	0	0	0	0	0	0	100	97.2	100
23	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0	100	100	100
24	96.5	96.5	96.5	96.5	74.6	96.5	96.5	74.7	96.5	46.5	46.5	46.5	0	0	0	39.1	39.5	38.7
25	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
26	98.1	99.9	99.9	98.1	99.9	99.9	98.1	99.9	99.9	98.1	99.9	99.9	0	0	0	0	0	0
27	87.7	100	100	87.7	100	100	87.7	100	100	87.7	100	100	0	0	0	0	0	0
28	81.4	100	100	81.4	100	100	81.4	100	100	81.4	100	100	0	0	0	0	0	0
29	83.2	99.4	100	83.2	99.4	100	83.2	99.4	100	83.2	99.4	100	0	0	0	0	0	0
30	88.4	93.2	100	88.4	93.2	100	88.4	93.2	100	88.4	93.2	100	0	0	0	0	0	0
Mean	97	95.9	99.6	95.4	93.6	95.9	95.4	93.6	96.8	56.4	55.9	58.5	0	0	0	39.4	38.6	39
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	5.1	5.6	0.8	9.6	10.3	12.2	9.6	10.3	11.4	45	45	47.2	0	0	0	47.1	46.2	47.1
Min	81.4	73.7	96.5	51.7	51.7	43.1	51.9	51.8	43.3	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	100	100	100

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Table E12. Data completeness at Site OK4B for October, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	86.3	79.3	100	86.3	79.3	100	86.3	79.3	100	86.3	79.3	100	0	0	0	0	0	0
2	99.2	91.3	99.2	99.2	91.3	99.2	99.2	91.3	99.2	99.2	87.4	99.2	0	0	0	0	0	0
3	98.3	90.8	100	98.3	90.8	100	98.3	90.8	100	98.3	90.8	100	0	0	0	0	0	0
4	99.7	88.5	100	99.7	88.5	100	99.7	88.5	100	99.7	88.5	100	0	0	0	0	0	0
5	95.3	69.8	100	95.3	69.8	100	95.3	69.8	100	95.3	69.8	100	0	0	0	0	0	0
6	96.4	97.4	96.7	96.4	78.2	71.9	96.4	78.3	71.9	96.4	97.4	64.2	0	0	0	0	0	0
7	98.5	90.1	99	98.5	90.1	99	98.5	90.1	99	98.5	90.1	99	0	0	0	0	0	0
8	100	93.2	99.9	100	93.2	99.9	100	93.2	99.9	100	93.2	99.9	0	0	0	0	0	0
9	99.8	68.8	99.9	76.6	57.2	64.2	99.8	68.8	78.1	95.8	66.5	95.5	0	0	0	0	0	0
10	99.5	84.8	100	99.5	84.8	100	99.5	84.8	100	99.5	78.8	100	0	0	0	0	0	0
11	96	85.8	99.9	96	85.8	99.9	96	85.8	99.9	96	0	99.9	0	0	0	0	0	0
12	66.4	39.6	99.9	66.4	39.6	99.9	66.4	39.6	99.9	66.4	0	99.9	0	0	0	0	0	0
13	94	57.7	92.4	94	57.7	92.4	94	57.7	92.4	94	0	92.4	0	0	0	0	0	0
14	97.8	71.9	100	91.9	69.2	96	91.9	69.2	96	87.6	39.7	82.4	0	0	0	0	0	0
15	99.2	88.4	100	99.2	88.4	100	99.2	88.4	100	99.2	76	100	0	0	0	0	0	0
16	99	97.3	100	99	97.3	100	99	97.3	100	99	0	100	0	0	0	0	0	0
17	98.6	98.9	100	98.6	98.9	100	98.6	98.9	100	98.6	0	100	0	0	0	0	0	0
18	99.1	98.5	100	99.1	98.5	100	99.1	98.5	100	99.1	0	100	0	0	0	0	0	0
19	97.5	96.4	100	97.5	96.4	100	97.5	96.4	100	97.5	0	100	0	0	0	0	0	0
20	99.5	96.6	99.7	69.2	67.8	64	62.4	59.7	64.1	99.5	0	95.6	0	0	0	0	0	0
21	97.4	94.3	99.5	97.4	94.3	99.5	97.4	94.3	99.5	97.4	0	99.5	0	0	0	0	0	0
22	92.6	100	95.8	92.6	100	95.8	92.6	100	95.8	92.6	0	95.8	0	0	0	0	0	0
23	72.4	100	94.7	72.4	100	94.7	72.4	100	94.7	72.4	0	94.7	0	0	0	0	0	0
24	99.4	100	100	99.4	100	100	99.4	100	100	99.4	0	100	0	0	0	0	0	0
25	94.2	92.9	99.9	94.2	92.9	99.9	94.2	92.9	99.9	94.2	0	99.9	0	0	0	0	0	0
26	95.3	96.5	100	95.3	96.5	100	95.3	96.5	100	95.3	0	100	0	0	0	0	0	0
27	97.6	99.3	98.2	97.6	99.3	66.3	97.6	99.3	66.3	93.4	0	53.3	0	0	0	0	0	0
28	99	100	100	99	100	100	99	100	100	99	0	100	0	0	0	0	0	0
29	98.9	98.7	100	98.9	98.7	100	98.9	98.7	100	98.9	0	100	0	0	0	0	0	0
30	98.3	96.5	100	98.3	96.5	100	98.3	96.5	100	98.3	0	100	0	0	0	0	0	0
31	99.7	99.3	100	99.7	99.3	100	99.7	99.3	100	97	0	97.4	0	0	0	0	0	0
Mean	95.6	89.1	99.2	93.7	87.1	94.9	94.2	87.2	95.4	95	30.9	95.8	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	7.5	13.9	1.8	9.3	15.1	11.1	9.5	14.9	10.1	7.5	40	10.4	0	0	0	0	0	0
Min	66.4	39.6	92.4	66.4	39.6	64	62.4	39.6	64.1	66.4	0	53.3	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	97.4	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for November, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	99.9	97.1	100	99.9	97.1	100	99.9	97.1	100	97.4	0	97.5	0	0	0	0	0	0
2	100	99.2	100	100	99.2	100	100	99.2	100	98.3	0	98.3	0	0	0	0	0	0
3	97.5	87.6	100	97.5	87.6	100	97.5	87.6	100	97.5	0	100	0	0	0	0	0	0
4	98.7	82.7	100	98.7	82.7	100	98.7	82.7	100	76.2	29.3	77.4	0	0	0	0	0	0
5	75.8	63.1	98.5	75.8	63.1	98.5	75.8	63.1	98.5	75.8	63.1	98.5	0	0	0	0	0	0
6	96.5	93.3	100	96.5	93.3	100	96.5	93.3	100	77.8	78.1	81.3	0	0	0	0	0	0
7	94.4	61.7	100	94.4	61.7	100	94.4	61.7	100	47.1	31.7	47.8	0	0	0	0	0	0
8	97.7	63	99.9	97.7	63	99.9	97.7	63	99.9	97.7	63	99.9	0	0	0	0	0	0
9	97.4	80.6	100	97.4	80.6	100	97.4	80.6	100	97.4	80.6	100	0	0	0	0	0	0
10	84.6	81.7	99.9	84.6	81.7	99.9	84.6	81.7	99.9	84.6	81.7	99.9	0	0	0	0	0	0
11	93.3	99.4	99.6	93.3	99.4	99.6	93.3	99.4	99.6	93.3	99.4	99.6	0	0	0	0	0	0
12	98.8	97.7	99.8	98.8	97.7	99.8	98.8	97.7	99.8	98.8	97.7	99.8	0	0	0	0	0	0
13	97.6	85.8	99.3	77.5	65.6	77.4	77.6	65.8	77.6	92.9	81.4	95.4	0	0	0	0	0	0
14	98.3	98.2	97.4	98.3	98.2	97.4	98.3	98.2	97.4	98.3	98.2	97.4	0	0	0	0	0	0
15	93	95.3	100	93	95.3	100	93	95.3	100	93	95.3	100	0	0	0	0	0	0
16	96.6	90.5	100	96.6	90.5	100	96.6	90.5	100	96.6	90.5	100	0	0	0	0	0	0
17	97.6	90.8	87.1	82.5	90.8	78.1	82.6	90.8	78.1	92.7	85.8	57.6	0	0	0	0	0	0
18	90.3	84.9	100	90.3	84.9	100	90.3	84.9	100	51.9	57.6	100	0	0	0	0	0	0
19	93.8	88.5	100	93.8	88.5	100	93.8	88.5	100	93.8	0	100	0	0	0	0	0	0
20	70.8	58.7	99	70.8	58.7	99	70.8	58.7	99	70.8	0	99	0	0	0	0	0	0
21	97.2	54	92.5	97.2	54	91.1	97.2	54	92.5	97.2	0	92.5	0	0	0	0	0	0
22	99.1	98.1	84.5	99.1	98.1	71.1	99.1	98.1	84.5	99.1	0	84.5	0	0	0	0	0	0
23	97.4	89.8	84.5	97.4	89.8	84.5	97.4	89.8	84.5	97.4	0	84.5	0	0	0	0	0	0
24	95.7	84.9	99.3	95.7	84.9	99.3	95.7	84.9	99.3	95.7	0	99.3	0	0	0	0	0	0
25	92.4	86.8	99.8	92.4	86.8	99.8	92.4	86.8	99.8	92.4	0	99.8	0	0	0	0	0	0
26	99.4	99.3	99.6	99.4	99.3	99.6	99.4	99.3	99.6	99.4	0	99.6	0	0	0	0	0	0
27	94.4	85.8	98.1	94.4	85.8	98.1	94.4	85.8	98.1	94.4	0	98.1	0	0	0	0	0	0
28	99.8	90.4	100	99.8	90.4	100	99.8	90.4	100	99.8	0	100	0	0	0	0	0	0
29	92.6	98.2	98.5	92.6	98.2	98.5	92.6	98.2	98.5	92.6	0	98.5	0	0	0	0	0	0
30	89.7	99	97.2	89.7	99	97.2	89.7	99	97.2	89.7	0	97.2	0	0	0	0	0	0
Mean	94.3	86.2	97.8	93.2	85.5	96.3	93.2	85.5	96.8	89.6	37.8	93.4	0	0	0	0	0	0
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	6.6	13	4.4	7.5	13.6	7.7	7.5	13.5	6.4	13.2	40.8	12.5	0	0	0	0	0	0
Min	70.8	54	84.5	70.8	54	71.1	70.8	54	77.6	47.1	0	47.8	0	0	0	0	0	0
Max	100	99.4	100	100	99.4	100	100	99.4	100	99.8	99.4	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for December, 2008

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	92.3	99.4	100	92.3	99.4	100	92.3	99.4	100	92.3	0	100	0	0	0	0	0	0
2	95.1	88.8	100	95.1	88.8	100	95.1	88.8	100	95.1	0	100	0	0	0	0	0	0
3	93.5	87.2	97.8	93.5	87.2	97.8	93.5	87.2	97.8	39.1	0	41.2	0	0	0	47.6	0	48.5
4	85.8	67.2	99.7	85.8	67.2	99.7	85.8	67.2	99.7	0	0	0	0	0	0	85.8	0	99.7
5	82.3	74.5	99	82.3	74.5	99	82.3	74.5	99	0	0	0	0	0	0	82.3	0	99
6	98.8	97.3	100	98.8	97.3	100	98.8	97.3	100	0	0	0	0	0	0	98.8	0	100
7	91.8	91	99.1	91.8	91	99.1	91.8	91	99.1	0	0	0	0	0	0	91.8	0	99.1
8	93.8	85.6	99.7	93.8	85.6	99.7	93.8	85.6	99.7	0	0	0	0	0	0	93.8	0	99.7
9	94.1	99	94.3	94.1	99	94.3	94.1	99	94.3	0	0	0	0	0	0	94.1	0	94.3
10	96.3	99.4	99.2	96.3	99.4	99.2	96.3	99.4	99.2	0	0	0	0	0	0	96.3	0	99.2
11	95.4	99.4	99.4	95.4	99.4	99.4	95.4	99.4	99.4	0	0	0	0	0	0	95.4	0	99.4
12	98.1	96.5	93.6	72.6	74.7	74.7	72.7	74.7	74.7	44.6	38.5	0	0	0	0	43.9	0	29.9
13	68.8	69.5	100	68.8	69.5	100	68.8	69.5	100	68.8	69.5	0	0	0	0	0	0	0
14	87.3	99.9	97.7	87.3	99.9	97.7	87.3	99.9	97.7	87.3	99.9	0	0	0	0	0	0	0
15	86	100	100	86	100	100	86	100	100	82.5	96	0	0	0	0	0	0	0
16	85.2	80.9	99.9	85.2	80.9	74.9	85.2	80.9	75.1	85.2	80.9	46.6	0	0	0	0	0	0
17	99.2	91.3	99.9	99.2	91.3	99.9	99.2	91.3	99.9	99.2	91.3	99.9	0	0	0	0	0	0
18	81	65.6	100	81	65.6	100	81	65.6	100	81	65.6	100	0	0	0	0	0	0
19	94.9	83.4	100	94.9	83.4	100	94.9	83.4	100	94.9	83.4	100	0	0	0	0	0	0
20	93.1	88.9	99.7	93.1	88.9	99.7	93.1	88.9	99.7	93.1	88.9	99.7	0	0	0	0	0	0
21	98.9	100	100	98.9	100	100	98.9	100	100	98.9	100	100	0	0	0	0	0	0
22	75.8	66	99.6	75.8	66	75.4	75.8	66	75.6	72.8	62.2	97	0	0	0	0	0	0
23	60.9	72.7	99.9	60.9	72.7	99.9	60.9	72.7	99.9	60.9	72.7	99.9	0	0	0	0	0	0
24	96.5	95.8	100	96.5	95.8	100	96.5	95.8	100	96.5	95.8	100	0	0	0	0	0	0
25	82.5	88.5	99.9	82.5	88.5	99.9	82.5	88.5	99.9	82.5	88.5	99.9	0	0	0	0	0	0
26	67.8	69.2	100	67.8	69.2	100	67.8	69.2	100	67.8	69.2	100	0	0	0	0	0	0
27	95.5	100	99.9	95.5	100	99.9	95.5	100	99.9	95.5	100	99.9	0	0	0	0	0	0
28	98.8	100	100	98.8	100	100	98.8	100	100	98.8	100	100	0	0	0	0	0	0
29	95.8	98.5	100	95.8	98.5	100	95.8	98.5	100	95.8	98.5	100	0	0	0	0	0	0
30	93.3	84.5	100	93.3	84.5	100	93.3	84.5	100	93.3	84.5	100	0	0	0	0	0	0
31	94.6	85.8	100	94.6	85.8	100	94.6	85.8	100	94.6	85.8	100	0	0	0	0	0	0
Mean	89.5	87.9	99.3	88.6	87.2	97.1	88.6	87.2	97.1	61.9	53.9	57.6	0	0	0	26.8	0	28
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	9.8	11.6	1.5	10.1	11.8	7.3	10	11.8	7.3	39.3	42	47.7	0	0	0	40.3	0	42.9
Min	60.9	65.6	93.6	60.9	65.6	74.7	60.9	65.6	74.7	0	0	0	0	0	0	0	0	0
Max	99.2	100	100	99.2	100	100	99.2	100	100	99.2	100	100	0	0	0	98.8	0	100

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Table E12. Data completeness at Site OK4B for January, 2009

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	91.5	86.6	100	91.5	86.6	100	91.5	86.6	100	91.5	86.6	100	0	0	0	0	0	0
2	99.2	96	99.6	99.2	96	99.6	99.2	96	99.6	99.2	92.2	96.1	0	0	0	0	0	0
3	90.1	86.9	99.6	90.1	86.9	99.6	90.1	86.9	99.6	90.1	86.9	99.6	0	0	0	0	0	0
4	91.7	92	100	91.7	92	100	91.7	92	100	91.7	92	100	0	0	0	0	0	0
5	82.2	76.9	91	82.2	76.9	76.1	82.2	76.9	76.1	82.2	76.9	62.2	0	0	0	0	0	0
6	98.3	100	98.5	98.3	100	98.5	98.3	100	98.5	98.3	100	98.5	0	0	0	0	0	0
7	97.9	97	99.9	97.9	97	99.9	97.9	97	99.9	97.9	97	99.9	0	0	0	0	0	0
8	79.5	92	100	79.5	92	100	79.5	92	100	79.5	92	100	0	0	0	0	0	0
9	62.3	73.2	98.5	62.3	73.2	98.5	62.3	73.2	98.5	62.3	73.2	98.5	0	0	0	0	0	0
10	98.1	97.8	99.5	98.1	97.8	99.5	98.1	97.8	99.5	98.1	97.8	99.5	0	0	0	0	0	0
11	98.1	98.4	100	98.1	98.4	100	98.1	98.4	100	98.1	98.4	100	0	0	0	0	0	0
12	96.3	99.2	98.6	96.3	99.2	98.6	96.3	99.2	98.6	96.3	99.2	98.6	0	0	0	0	0	0
13	52.5	77	99	52.5	77	99	52.5	77	99	52.5	72.3	99	0	0	0	0	0	0
14	59	70.8	100	59	70.8	100	59	70.8	100	59	70.8	100	0	0	0	0	0	0
15	92.3	79.7	99.4	92.3	63.1	85.6	92.3	79.7	85.6	88.5	76	95.8	0	0	0	0	0	0
16	94.7	77.8	100	94.7	77.8	100	94.7	77.8	100	94.7	77.8	100	0	0	0	0	0	0
17	95.1	90.6	99.9	95.1	90.6	99.9	95.1	90.6	99.9	95.1	90.6	99.9	0	0	0	0	0	0
18	86.7	94	99.9	86.7	94	99.9	86.7	94	99.9	86.7	94	99.9	0	0	0	0	0	0
19	97.6	94.2	99.8	97.6	94.2	99.8	97.6	94.2	99.8	97.6	94.2	99.8	0	0	0	0	0	0
20	92.2	94.1	100	92.2	94.1	100	92.2	94.1	100	92.2	94.1	100	0	0	0	0	0	0
21	94.7	99	100	94.7	99	100	94.7	99	100	94.7	99	100	0	0	0	0	0	0
22	98.8	97.2	99.9	98.8	97.2	99.9	98.8	97.2	99.9	95.2	93.5	96.3	0	0	0	0	0	0
23	70.9	44.7	99.5	70.9	44.7	99.5	70.9	44.7	99.5	70.9	44.7	99.5	0	0	0	0	0	0
24	91.1	77.7	100	91.1	77.7	100	91.1	77.7	100	91.1	77.7	100	0	0	0	0	0	0
25	46.5	35.7	100	46.5	35.7	100	46.5	35.7	100	46.5	35.7	100	0	0	0	0	0	0
26	72.6	14.9	76	72.6	14.9	73.8	72.6	14.9	73.8	72.6	14.9	60.8	0	0	0	0	0	0
27	97.4	95	100	97.4	95	100	97.4	95	100	97.4	95	100	0	0	0	0	0	0
28	96.7	79.5	100	96.7	79.5	100	96.7	79.5	100	96.7	79.5	100	0	0	0	0	0	0
29	94.9	95	100	94.9	95	100	94.9	95	100	94.9	95	100	0	0	0	0	0	0
30	85.9	89.4	100	85.9	89.4	100	85.9	89.4	100	85.9	89.4	100	0	0	0	0	0	0
31	75.3	61.2	99.8	75.3	61.2	99.8	75.3	61.2	99.8	75.3	61.2	99.8	0	0	0	0	0	0
Mean	86.5	82.7	98.7	86.5	82.2	97.7	86.5	82.7	97.7	86.2	82.2	96.9	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	14.4	19.7	4.4	14.4	20	6.5	14.4	19.7	6.5	14.3	19.6	9.4	0	0	0	0	0	0
Min	46.5	14.9	76	46.5	14.9	73.8	46.5	14.9	73.8	46.5	14.9	60.8	0	0	0	0	0	0
Max	99.2	100	100	99.2	100	100	99.2	100	100	99.2	100	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for February, 2009

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	94.2	81	99.2	94.2	81	99.2	94.2	81	99.2	94.2	81	99.2	0	0	0	0	0	0
2	98.1	92.2	100	98.1	92.2	100	98.1	92.2	100	98.1	92.2	100	0	0	0	0	0	0
3	96.5	96.5	99.9	96.5	96.5	99.9	96.5	96.5	99.9	96.5	96.5	99.9	0	0	0	0	0	0
4	84.4	85.9	100	84.4	85.9	100	84.4	85.9	100	84.4	85.9	100	0	0	0	0	0	0
5	92.1	90.1	99.9	92.1	90.1	75.4	92.1	90.1	75.6	36.3	33.7	42.4	0	0	0	49.7	49.6	52.3
6	87.5	82.2	100	87.5	82.2	100	87.5	82.2	100	0	0	0	0	0	0	87.5	82.2	100
7	85.8	88.4	100	85.8	88.4	100	85.8	88.4	100	0	0	0	0	0	0	85.8	88.4	100
8	83.3	85.8	100	83.3	85.8	100	83.3	85.8	100	0	0	0	0	0	0	83.3	85.8	100
9	54	39.4	100	54	39.4	100	54	39.4	100	0	0	0	0	0	0	54	39.4	100
10	76.7	76.1	99.1	76.7	76.1	99.1	76.7	76.1	99.1	0	0	0	0	0	0	76.7	76.1	99.1
11	92.5	99.4	99.5	73	79	96.3	73.1	79.2	96.3	0	0	0	0	0	0	80.9	84.9	83.8
12	88.2	83	100	88.2	83	100	88.2	83	100	0	0	0	0	0	0	88.2	83	100
13	85.6	79.8	97.5	85.6	79.8	97.5	85.6	79.8	97.5	0	0	0	0	0	0	85.6	79.8	97.5
14	94.5	86.9	100	94.5	86.9	100	94.5	86.9	100	0	0	0	0	0	0	94.5	86.9	100
15	98.5	96.3	100	98.5	96.3	100	98.5	96.3	100	0	0	0	0	0	0	98.5	96.3	100
16	63.3	63.5	100	63.3	63.5	100	63.3	63.5	100	0	0	0	0	0	0	63.3	63.5	100
17	49.6	49.2	98.3	49.6	49.2	98.3	49.6	49.2	98.3	0	0	0	0	0	0	49.6	49.2	98.3
18	91.5	89.4	98.6	51.2	54.3	80.1	51.3	54.4	80.1	48.2	38.8	32.5	0	0	0	34	42.2	29.9
19	96.9	97.2	99.9	96.9	97.2	99.9	96.9	97.2	99.9	96.9	97.2	99.9	0	0	0	0	0	0
20	89.5	82.8	97.6	89.5	82.8	97.6	89.5	82.8	97.6	87.8	82.4	92.3	0	0	0	0	0	0
21	61.8	63.7	99.2	61.8	63.7	99.2	61.8	63.7	99.2	60.3	62.6	97.4	0	0	0	0	0	0
22	65.3	68.1	100	65.3	68.1	100	65.3	68.1	100	65.3	68.1	100	0	0	0	0	0	0
23	99.6	100	100	99.6	100	100	99.6	100	100	99.6	100	100	0	0	0	0	0	0
24	99.2	97.8	99.3	99.2	97.8	99.3	99.2	97.8	99.3	99.2	97.8	99.3	0	0	0	0	0	0
25	35.3	9.9	37.4	32.6	7.4	34.7	32.6	7.4	34.7	35.3	8.6	37.4	0	0	0	0	0	0
26	32.8	27.4	35.8	30.3	25.6	24.9	30.4	25.7	25.1	32.8	27.4	35.8	0	0	0	0	0	0
27	89.9	78.5	100	89.9	78.5	100	89.9	78.5	100	89.9	78.5	100	0	0	0	0	0	0
28	96	99.6	99.4	96	99.6	99.4	96	99.6	99.4	96	99.6	99.4	0	0	0	0	0	0
Mean	81.5	78.2	95	79.2	76.1	92.9	79.2	76.1	92.9	43.6	41.1	47.7	0	0	0	36.9	36	45
n	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
SD	19	22.1	16.2	20	22.5	18.4	20	22.5	18.4	42.1	41.6	46.1	0	0	0	39.3	38.3	47.4
Min	32.8	9.9	35.8	30.3	7.4	24.9	30.4	7.4	25.1	0	0	0	0	0	0	0	0	0
Max	99.6	100	100	99.6	100	100	99.6	100	100	99.6	100	100	0	0	0	98.5	96.3	100

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Table E12. Data completeness at Site OK4B for March, 2009

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	97.8	98.5	100	97.8	98.5	100	97.8	98.5	100	97.4	98.1	99.6	0	0	0	0	0	0
2	97.6	98.5	99.7	97.6	98.5	99.7	97.6	98.5	99.7	97.6	98.5	66.5	0	0	0	0	0	0
3	98.8	100	100	98.8	100	100	98.8	100	100	98.8	100	100	0	0	0	0	0	0
4	93.3	92.7	97.6	93.3	92.7	97.6	93.3	92.7	97.6	89.1	88.8	93.5	0	0	0	0	0	0
5	95.3	83.1	100	95.3	83.1	100	95.3	83.1	100	95.3	83.1	100	0	0	0	0	0	0
6	98.5	93.6	100	98.5	93.6	100	98.5	93.6	100	98.5	93.6	100	0	0	0	0	0	0
7	80.1	61.9	100	80.1	61.9	100	80.1	61.9	100	80.1	61.9	100	0	0	0	0	0	0
8	96.9	98.1	100	96.9	98.1	100	96.9	98.1	100	96.9	98.1	100	0	0	0	0	0	0
9	63.7	41.7	99.2	63.7	41.7	99.2	63.7	41.7	99.2	62.4	41.7	94.2	0	0	0	0	0	0
10	90.3	81.6	99.2	90.3	81.6	99.2	90.3	81.6	99.2	90.3	81.6	99.2	0	0	0	0	0	0
11	86.4	85.2	99.4	86.4	85.2	68.3	86.4	85.2	68.5	86.4	83.4	61.8	0	0	0	0	0	0
12	85.8	93	100	85.8	93	100	85.8	93	100	85.8	93	100	0	0	0	0	0	0
13	96.1	86.3	100	96.1	86.3	100	96.1	86.3	100	96.1	86.3	100	0	0	0	0	0	0
14	99.6	100	100	99.6	100	100	99.6	100	100	99.6	100	100	0	0	0	0	0	0
15	100	99.4	100	100	99.4	100	100	99.4	100	100	99.4	100	0	0	0	0	0	0
16	99.9	98.7	100	99.9	98.7	100	99.9	98.7	100	99.9	98.7	100	0	0	0	0	0	0
17	99.2	99.9	100	99.2	99.9	100	99.2	99.9	100	99.2	99.9	100	0	0	0	0	0	0
18	93.8	70.5	99.2	93.8	70.5	99.2	93.8	70.5	99.2	89.8	67.1	99.2	0	0	0	0	0	0
19	99	97.8	100	99	97.8	100	99	97.8	100	99	97.8	100	0	0	0	0	0	0
20	98.3	98.5	100	98.3	98.5	100	98.3	98.5	100	98.3	98.5	100	0	0	0	0	0	0
21	100	95	100	100	95	100	100	95	100	100	95	100	0	0	0	0	0	0
22	89.7	56.5	100	89.7	56.5	100	89.7	56.5	100	89.7	56.5	100	0	0	0	0	0	0
23	64.5	34	99.9	64.5	34	99.9	64.5	34	99.9	64.5	34	99.9	0	0	0	0	0	0
24	87.8	97.6	99.8	87.8	97.6	99.8	87.8	97.6	99.8	87.8	97.6	99.8	0	0	0	0	0	0
25	93.2	90.6	99.5	93.2	90.6	99.5	93.2	90.6	99.5	93.2	90.6	99.5	0	0	0	0	0	0
26	67.4	69.8	99.4	50.2	69.8	99.4	50.3	69.8	99.4	67.4	69.8	96	0	0	0	0	0	0
27	79.3	0	84	79.3	0	84	79.3	0	84	79.3	0	84	0	0	0	0	0	0
28	98.3	58.8	100	98.3	58.8	100	98.3	58.8	100	98.3	58.8	100	0	0	0	0	0	0
29	97.9	79.8	100	97.9	79.8	100	97.9	79.8	100	97.9	79.8	100	0	0	0	0	0	0
30	97.5	99.9	94.7	97.5	99.9	94.7	97.5	99.9	94.7	97.5	99.9	94.7	0	0	0	0	0	0
31	77.2	97.1	99.2	77.2	97.1	99.2	77.2	97.1	99.2	77.2	97.1	99.2	0	0	0	0	0	0
Mean	91.1	82.5	99.1	90.5	82.5	98.1	90.5	82.5	98.1	90.7	82.2	96.4	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	10.6	23.3	2.9	12.1	23.3	6.2	12.1	23.3	6.1	10.7	23.3	9.1	0	0	0	0	0	0
Min	63.7	0	84	50.2	0	68.3	50.3	0	68.5	62.4	0	61.8	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0

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Table E12. Data completeness at Site OK4B for April, 2009

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	90.3	83.5	100	90.3	83.5	100	90.3	83.5	100	90.3	83.5	100	0	0	0	0	0	0
2	71.8	83.5	10.7	65.6	72.6	9	65.6	72.8	9	68.1	79.7	10.5	0	0	0	0	0	0
3	46.3	43.8	0	46.3	43.8	0	46.3	43.8	0	46.3	43.8	0	0	0	0	0	0	0
4	33.8	36.7	0	33.8	36.7	0	33.8	36.7	0	33.8	36.7	0	0	0	0	0	0	0
5	85.6	95.1	0	85.6	95.1	0	85.6	95.1	0	85.6	95.1	0	0	0	0	0	0	0
6	88.3	98.7	0	88.3	98.7	0	88.3	98.7	0	88.3	98.7	0	0	0	0	0	0	0
7	98.9	98.1	0	98.9	98.1	0	98.9	98.1	0	98.9	98.1	0	0	0	0	0	0	0
8	94.8	96.3	0	94.8	96.3	0	94.8	96.3	0	38.8	39.5	0	0	0	0	38.9	39.5	0
9	70.3	84.4	52.2	70.3	84.4	52.2	70.3	84.4	52.2	0	0	0	0	0	0	70.1	78.8	40.2
10	97.4	98.6	100	97.4	98.6	100	97.4	98.6	100	0	0	0	0	0	0	97.4	98.6	100
11	85.9	93.1	100	85.9	93.1	100	85.9	93.1	100	0	0	0	0	0	0	85.9	93.1	100
12	36.8	95.8	100	36.8	95.8	100	36.8	95.8	100	0	0	0	0	0	0	36.8	95.8	100
13	54.4	99.6	100	54.4	99.6	100	54.4	99.6	100	0	0	0	0	0	0	54.4	99.6	100
14	95.3	84.8	100	95.3	84.8	100	95.3	84.8	100	0	0	0	0	0	0	95.3	84.8	100
15	96.6	69.7	98.2	91.7	68.3	93.3	91.7	68.3	93.3	0	24.5	37.2	0	0	0	38.1	34.7	38.1
16	89	77.6	40.3	89	77.6	40.3	89	77.6	40.3	0	77.6	40.3	0	0	0	0	0	0
17	81.9	83.5	0	81.9	83.5	0	81.9	83.5	0	49.8	83.5	0	0	0	0	0	0	0
18	64.3	99.2	0	64.3	99.2	0	64.3	99.2	0	64.3	99.2	0	0	0	0	0	0	0
19	24.9	98.9	0	24.9	98.9	0	24.9	98.9	0	24.9	98.9	0	0	0	0	0	0	0
20	98.6	99.3	45.1	98.6	99.3	45.1	98.6	99.3	45.1	98.6	99.3	45.1	0	0	0	0	0	0
21	98.3	100	100	98.3	100	100	98.3	100	100	98.3	100	100	0	0	0	0	0	0
22	100	89	100	100	89	100	100	89	100	100	89	100	0	0	0	0	0	0
23	99.5	84.9	99.5	52.6	37.3	59.5	52.6	37.3	46.3	98.8	84.2	98.8	0	0	0	0	0	0
24	99.2	98.3	95.6	95.3	95.1	63.5	95.4	95.2	90.5	94.7	95.8	67.1	0	0	0	0	0	0
25	98.6	96.4	100	98.6	96.4	100	98.6	96.4	100	98.6	96.4	100	0	0	0	0	0	0
26	96.2	89.9	100	96.2	89.9	100	96.2	89.9	100	96.2	89.9	100	0	0	0	0	0	0
27	99.9	99.9	95.1	99.9	99.9	95.1	99.9	99.9	95.1	99.9	99.9	95.1	0	0	0	0	0	0
28	99.8	99.1	100	99.8	99.1	100	99.8	99.1	100	99.8	99.1	100	0	0	0	0	0	0
29	100	99.8	100	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0
30	99.5	99.7	99.6	99.5	99.7	99.6	99.5	99.7	99.6	94.6	96.3	96.2	0	0	0	0	0	0
Mean	83.2	89.2	61.2	81.1	87.1	58.6	81.2	87.1	59	59	66.9	39.7	0	0	0	17.2	20.8	19.3
n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SD	22.1	15.3	45.4	22.5	18.1	44.2	22.5	18.1	44.7	41.4	39.1	44.9	0	0	0	31.2	36.8	37.4
Min	24.9	36.7	0	24.9	36.7	0	24.9	36.7	0	0	0	0	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	97.4	99.6	100

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Table E12. Data completeness at Site OK4B for May, 2009

Day	Airflow, m^3/s			NH_3 Emission, kg/d			H2S Emission, g/d			PM10 Emission			PM2.5 Emission			TSP Emission		
	B1	B2	Far9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9	B1	B2	Far 9
1	59.3	99.6	99.6	59.3	99.6	99.6	59.3	99.6	99.6	59.3	99.6	92.6	0	0	0	0	0	0
2	99.9	100	100	27	27	44.9	99.9	100	100	99.9	100	100	0	0	0	0	0	0
3	97.8	98.5	98.5	0	0	11.3	97.8	98.5	98.5	97.8	98.5	98.5	0	0	0	0	0	0
4	99.9	95.8	100	0	0	6.5	99.9	95.8	100	99.9	95.8	100	0	0	0	0	0	0
5	100	100	100	0	0	0.1	100	100	100	99.7	99.7	99.7	0	0	0	0	0	0
6	87.8	91.7	99.9	48.2	42.9	37.1	87.8	91.7	99.9	87.4	88	99.2	0	0	0	0	0	0
7	100	100	100	100	99.5	100	100	99.5	100	99.7	99.7	99.7	0	0	0	0	0	0
8	99.9	71.3	99.7	99.9	71.3	99.7	99.9	71.3	99.7	99.9	71.3	99.7	0	0	0	0	0	0
9	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
10	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	0	0	0	0	0	0
11	100	99.2	100	100	99.2	100	100	99.2	100	100	99.2	100	0	0	0	0	0	0
12	98.5	93.1	100	98.5	93.1	100	98.5	93.1	100	98.1	93.1	100	0	0	0	0	0	0
13	96.7	76.7	96.9	96.7	76.7	96.9	96.7	76.7	96.9	91.9	76.7	92.8	0	0	0	0	0	0
14	100	99.8	100	100	99.8	100	100	99.8	100	100	99.8	100	0	0	0	0	0	0
15	100	85	100	100	85	100	100	85	100	100	85	100	0	0	0	0	0	0
16	99.2	81.5	100	99.2	81.5	100	99.2	81.5	100	99.2	81.5	100	0	0	0	0	0	0
17	99.7	99.7	100	99.7	99.7	100	99.7	99.7	100	99.7	99.7	100	0	0	0	0	0	0
18	99.4	99.4	98.1	36.3	64.4	63.3	36.3	64.6	63.4	99.4	99.4	67	0	0	0	0	0	0
19	99.3	85.8	99.4	73.8	63.4	75.3	74.1	63.5	75.4	96	81.7	95.6	0	0	0	0	0	0
20	99.6	92.6	100	99.6	92.6	100	99.6	92.6	100	99.6	92.6	100	0	0	0	0	0	0
21	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	0	0	0	0	0	0
22	100	99.9	100	100	99.9	100	100	99.9	100	100	99.9	100	0	0	0	0	0	0
23	100	99.7	100	100	99.7	100	100	99.7	100	100	99.7	100	0	0	0	0	0	0
24	97.4	99.9	100	97.4	99.9	100	97.4	99.9	100	97.4	99.9	100	0	0	0	0	0	0
25	98	96.8	99.2	98	96.8	99.2	98	96.8	99.2	98	96.8	99.2	0	0	0	0	0	0
26	99.2	99	100	99.2	99	100	99.2	99	100	99.2	99	100	0	0	0	0	0	0
27	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
28	100	99.9	100	100	99.9	100	100	99.9	100	83.8	83.8	83.8	0	0	0	0	0	0
29	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
30	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
31	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0
Mean	97.8	95.6	99.7	81.7	80.3	84.9	94.9	93.8	97.8	97	94.8	97.7	0	0	0	0	0	0
n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
SD	7.4	7.5	0.7	33.1	31.8	30.3	13.6	10.7	7.6	7.8	8	6.5	0	0	0	0	0	0
Min	59.3	71.3	96.9	0	0	0.1	36.3	63.5	63.4	59.3	71.3	67	0	0	0	0	0	0
Max	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	0	0	0

APPENDIX F. BIOMATERIALS CHARACTERISTICS.

Table F1. Feed characteristics (mean ± SD).

Barn	Date	n	Percent (wet weight basis)	
			Nitrogen	Solids
Gestation	12/6/07	5	2.00 ± 0.04	89.1 ± 0.24
Gestation	12/18/07	5	2.03 ± 0.04	86.1 ± 0.13
Gestation	12/27/07	5	1.89 ± 0.04	87.3 ± 0.07
Gestation	1/7/08	5	2.28 ± 0.11	87.4 ± 0.18
Gestation	1/15/08	5	2.27 ± 0.04	87.7 ± 0.09
Gestation	1/24/08	5	2.23 ± 0.06	88.3 ± 0.09
Farrowing	12/6/07	5	3.08 ± 0.09	87.8 ± 0.19
Farrowing	12/18/07	5	3.04 ± 0.03	86.5 ± 0.13
Farrowing	12/27/07	5	3.05 ± 0.07	86.4 ± 0.07
Farrowing	1/7/08	5	3.21 ± 0.09	86.5 ± 0.08
Farrowing	1/15/08	5	3.34 ± 0.13	87.3 ± 0.08
Farrowing	1/24/08	5	3.06 ± 0.08	87.5 ± 0.05

Table F2. Loadout manure characteristics (mean ± SD).

Barn	Date	n	Percent (wet weight basis)	
			Nitrogen	Solids
B1	8/22/08	12	0.38 ± 0.10	5.33 ± 4.42
B1	10/6/08	12	0.37 ± 0.06	8.63 ± 3.86
B1	10/30/08	12	0.35 ± 0.08	10.9 ± 5.48
B2	8/22/08	12	0.42 ± 0.17	8.26 ± 6.05
B2	9/15/08	12	0.43 ± 0.11	11.5 ± 7.67
B2	10/6/08	12	0.56 ± 0.13	17.5 ± 5.53
B2	10/30/08	12	0.56 ± 0.10	14.6 ± 7.23
B3	8/22/08	6	0.13 ± 0.03	1.05 ± 0.27
B3	9/15/08	6	0.11 ± 0.03	1.48 ± 0.63
B3	10/6/08	6	0.15 ± 0.04	1.96 ± 0.70
B3	10/30/08	6	0.19 ± 0.06	3.76 ± 2.04

Table F3. Water characteristics (mean ± SD).

Barn	Date	n	Concentration, mg/L			
			Nitrate/Nitrite	TKN	TKN + NO_3	Sulfur
1	12/8/08	1	1.80	-	-	72.8
1	2/6/08	2	2.00	12.8	13.2	-

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Table F4. Surface manure characteristics (mean ± SD).

Barn	Date	n	pH (SU)	Percent (wet weight basis)	
				Solids	Ammonia
B1	8/25/08	12	8.48 ± 0.09	2.18 ± 2.02	0.15 ± 0.02
B1	10/6/08	12	7.96 ± 0.16	2.27 ± 2.79	0.21 ± 0.03
B1	10/6/08	12	8.05 ± 0.15	1.18 ± 1.06	0.14 ± 0.05
B1	11/25/08	12	7.78 ± 0.20	2.39 ± 3.58	0.17 ± 0.03
B1	12/15/08	12	7.89 ± 0.16	2.41 ± 3.52	0.17 ± 0.02
B1	1/29/09	12	7.89 ± 0.10	1.38 ± 1.05	0.28 ± 0.15
B1	2/23/09	12	8.06 ± 0.10	0.87 ± 0.38	0.22 ± 0.02
B1	3/11/09	24	7.87 ± 0.20	5.27 ± 4.66	0.15 ± 0.06
B1	4/27/09	12	7.57 ± 0.20	4.49 ± 3.06	0.24 ± 0.01
B1	5/26/09	12	7.75 ± 0.15	5.19 ± 3.02	0.30 ± 0.08
B1	6/15/09	12	7.75 ± 0.12	1.85 ± 1.93	0.20 ± 0.02
B1	8/10/09	12	7.72 ± 0.16	4.43 ± 3.00	0.27 ± 0.06
B2	8/25/08	12	8.45 ± 0.19	2.49 ± 2.83	0.18 ± 0.06
B2	9/15/08	12	7.93 ± 0.13	2.03 ± 2.46	0.19 ± 0.05
B2	10/6/08	12	7.76 ± 0.12	4.35 ± 2.91	0.29 ± 0.03
B2	10/6/08	12	7.83 ± 0.13	1.63 ± 1.00	0.24 ± 0.05
B2	11/25/08	12	7.71 ± 0.20	5.42 ± 3.37	0.30 ± 0.02
B2	12/15/08	12	7.47 ± 0.15	6.70 ± 2.77	0.23 ± 0.04
B2	1/29/09	12	8.04 ± 0.11	3.55 ± 3.52	0.33 ± 0.05
B2	2/23/09	12	7.60 ± 0.14	5.31 ± 3.23	0.27 ± 0.04
B2	4/27/09	4	7.39 ± 0.28	1.50 ± 1.08	0.11 ± 0.01
B2	5/26/09	12	7.88 ± 0.08	9.10 ± 3.94	0.37 ± 0.04
B2	6/15/09	12	7.92 ± 0.07	5.54 ± 2.94	0.37 ± 0.04
B2	8/10/09	12	7.81 ± 0.07	6.07 ± 3.22	0.29 ± 0.04
B3	8/25/08	4	8.54 ± 0.06	0.86 ± 0.12	0.09 ± 0.01
B3	9/15/08	4	7.40 ± 0.05	0.76 ± 0.20	0.08 ± 0.00
B3	10/6/08	8	7.49 ± 0.17	1.30 ± 1.00	0.12 ± 0.05
B3	11/25/08	12	6.52 ± 0.58	3.98 ± 2.38	0.11 ± 0.02
B3	12/15/08	4	7.31 ± 0.10	0.94 ± 0.22	0.13 ± 0.01
B3	4/6/09	4	7.62 ± 0.37	6.69 ± 3.41	0.28 ± 0.07
B3	6/15/09	4	7.35 ± 0.07	1.18 ± 0.28	0.11 ± 0.01
B3	6/30/09	4	7.34 ± 0.07	1.01 ± 0.09	0.10 ± 0.00
B3	8/10/09	4	7.70 ± 0.14	1.04 ± 0.01	0.07 ± 0.00

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