Laboratory Procedure Manual

Analyte: **Complete Blood Count**

Matrix: **Whole Blood**

Method: **Complete Blood Count with 5-Part Differential**

Method No.:

Revised:

as performed by:

Contact:

September 2010

Important Information for Users

CDC periodically refines these laboratory methods. It is the responsibility of the user to contact the person listed on the title page of each write-up before using the analytical method to find out whether any changes have been made and what revisions, if any, have been incorporated.

Public Release Data Set Information

This document details the Lab Protocol for testing the items listed in the following table:

Lab Number	Analyte	SAS Label
CBC_F	LBXWBCSI	White blood cell count (1000 cells/uL)
	LBXLYPCT	Lymphocyte (%)
	LBXMOPCT	Monocyte (%)
	LBXNEPCT	Segmented neutrophils (%)
	LBXEOPCT	Eosinophils (%)
	LBXBAPCT	Basophils (%)
	LBDLYMNO	Lymphocyte number (1000 cells/uL)
	LBDMONO	Monocyte number (1000 cells/uL)
	LBDNENO	Segmented neutrophils number (1000 cells/uL)
	LBDEONO	Eosinophils number (1000 cells/uL)
	LBDBANO	Basophils number (1000 cells/uL)
	LBXRBCSI	Red cell count (million cells/uL)
	LBXHGB	Hemoglobin (g/dL)
	LBXHCT	Hematocrit (%)
	LBXMCVSI	Mean cell volume (fL)
	LBXMCHSI	Mean cell hemoglobin (pg)
	LBXMC	MCHC (g/dL)
	LBXRDW	Red cell distribution width (%)
	LBXPLTSI	Platelet count ((1000 cells/uL))
	LBXMPSI	Mean platelet volume (fL)

COMPLETE BLOOD COUNT (CBC)

Perform a complete blood count (CBC) in duplicate on all survey participants age 1 and older. Perform the CBC on the Coulter® HMX. Run a CBC on the participant's EDTA blood tubes.

I. Purpose and Principle of Test

CBC Analysis

The Coulter® method accurately counts and sizes cells by detecting and measuring changes in electrical resistance when a particle (such as a cell) in a conductive liquid passes through a small aperture.

Each cell suspended in a conductive liquid (diluent) acts as an insulator. As each cell goes through the aperture, it momentarily increases the resistance of the electrical path between the submerged electrodes on either side of the aperture. This causes a measurable electronic pulse. For counting, the vacuum used to pull the diluted suspension of cells through the aperture must be at a regulated volume.

The number of pulses correlates to the number of particles. The height of the electrical pulse is proportional to the cell volume.

Differential Analysis

As the sample, prepared for differential analysis, streams through the flow cell these three measurements occur simultaneously on each individual white cell to classify it:

- Low-frequency current measures volume.
- High-frequency current senses cellular internal content through measuring changes in conductivity.
- Light from the laser bouncing off the individual WBC cells characterizes cellular surface, shape, and reflectivity.

The Coulter HMX Hematology Analyzer is a quantitative, automated hematology analyzers and leukocyte differential cell counters for In Vitro Diagnostic use in clinical laboratories. The purpose of the HMX Hematology Analyzer is to separate the normal participant, with all normal system-generated parameters, from the participant who needs additional studies. These studies include further measurements of cell size and cell distribution, biochemical investigation, or any other test that helps diagnose the abnormality.

The HMX measures these parameters in whole blood:

Cell	Parameter	Measured	Pulse size Wavelength Calculation	Reported Units
WBC	White Blood Cell Count This is the number of leukocytes measured directly, multiplied by the calibration constant, and expressed as n x 10^3 cells/µL	WBC bath	≥35 fL	n x 10^3 cells/µL

RBC	Red Blood Cell Count This is the number of erythrocytes measured directly, multiplied by the calibration constant, and expressed as n x 10^6 cells/µL	RBC bath	36 to 360 fL	n x 10^6 cells/µL
Hgb	Hemoglobin Concentration Weight (mass) of hemoglobin determined from the degree of absorbance found through photocurrent transmittance is: Hgb(g/dL) = Constant x log10(Reference %T/Sample%T)	WBC bath	525 nm	g/dL
Hct	Hematocrit This is the relative volume of packed erythrocytes to whole blood, computed as: Hct (%) = RBC × CV/10	Computed	RBC x MCV/10	% Percent

MCV	Mean Cell Volume This is the average volume of individual erythrocytes derived from the RBC histogram. The system: ▪ Multiplies the number of RBCs in each channel by the size of the RBCs in that channel. ▪ Adds the products of each channel between 36 fL and 360 fL. ▪ Divides that sum by the total number of RBCs between 36 fL and 360 fL. ▪ Multiplies by a calibration constant and expresses MCV in femtoliters.	Derived from RBC histogram	# x size of RBC/ Total RBC	fL
MCH	Mean Cell Hemoglobin This is the weight of hemoglobin in the average erythrocyte count, computed as: Hgb/RBC x 10	Computer	Hgb/RBC x 10	pg
MCHC	Mean Cell Hemoglobin Concentration This is the average weight of hemoglobin in a measured dilution, computed as: Hgb/Hct x 100	Computed	Hgb/Hct x 100	g/dL

RDW	Red Cell Distribution Width RDW represents the size distribution spread of the erythrocyte population derived from the RBC histogram. It is the coefficient of variation (CV), expressed in percent, of the RBC size distribution.	Derived from RBC histogram	CV expressed in % of the RBC size distribution	% Percent
Plt	Platelet Count This is the number of thrombocytes derived from the Plt histogram and multiplied by a calibration constant. This number is expressed as: n x 10^3 cells/µL	RBC bath	2 to 20 fL	n x 10^3 cells/µL
MPV	Mean Platelet Volume MPV is the average volume of individual platelets derived from the Plt histogram. It represents the mean volume of the Plt population under the fitted Plt curve multiplied by a calibration constant, and expressed in femtoliters.	Derived from Plt histogram	Mean volume of Plt population under the fitted curve x constant	fL
NE%	Neutrophil Percent The percentages of leukocytes from each category are derived from the scatterplot.	Derived from scatterplot	# cells inside NE area/# cells inside total cell area x 100	% Percent
NE #	Neutrophil Number The absolute numbers of leukocytes in each category are computed from the WBC count and the differential percentage parameters.	Absolute number	NE%/100 x WBC Count	10^3 cells/µL

LY%	Lymphocyte Percent The percentages of leukocytes from each category are derived from the scatterplot.	Derived from scatterplot	# cells inside LY area/# cells inside total cell area x 100	% Percent
LY#	Lymphocyte Number The absolute numbers of leukocytes in each category are computed from the WBC count and the differential percentage parameters.	Absolute number	Ly%/100 x WBC Count	10^3 cells/µL
MO%	Monocyte Percent The percentages of leukocytes from each category are derived from the scatterplot.	Derived from scatterplot	# cells inside MO area/# cells inside total cell area x 100	% Percent
MO#	Monocyte Number The absolute numbers of leukocytes in each category are computed from the WBC count and the differential percentage parameters.	Absolute number	MO%/100 x WBC Count	10^3 cells/µL
EO%	Eosinophil Percent The percentages of leukocytes from each category are derived from the scatterplot.	Derived from scatterplot	# cells inside EO area/# cells inside total cell area x 100	% Percent
EO#	Eosinophil Number The absolute numbers of leukocytes in each category are computed from the WBC count and the differential percentage parameters.	Absolute number	EO%/100 x WBC Count	10^3 cells/µL
BA%	Basophil Percent The percentages of leukocytes from each category are derived from the scatterplot.	Derived from scatterplot	# cells inside BA area/# cells inside total cell area x 100	% Percent

BA#	Basophil Number The absolute numbers of leukocytes in each category are computed from the WBC count and the differential percentage parameters	Absolute number	BA%/100 x WBC Count	10^3 cells/µL

***PDW -- Platelet Distribution Width and Pct -- Platelet Crit are NOT for diagnostic use and do not print. Coulter uses the value for PDW as an internal check on the reported platelet parameters, Pct and MPV.**

Methodology: The methods used to derive CBC parameters are based on the Coulter® method of counting and sizing, in combination with an automatic diluting and mixing device for sample processing, and a single beam photometer for hemoglobinometry. The WBC differential uses VCS technology. Analysis and classification of WBCs use three simultaneous measurements of individual cell volume (V), high frequency conductivity (C), and laser light scatter (S). The scattergram plots the cells based upon the measurements of these three parameters.

A. Status Line

The status line at the bottom of your screen indicates the current operating status of the HMX Hematology Analyzer.

II. Special Safety Precautions

All specimens may be potentially positive for infectious agents including HIV and the hepatitis B and C viruses. Observe universal precautions. It is mandatory to wear gloves and lab coat when handling all human blood products and Coulter® controls. Wear safety glasses whenever operating the instrument in SECONDARY mode. Dispose of all biological samples in a biohazard container and wipe down all work surfaces with 10% bleach solution at the end of each session.

The mobile examination center (MEC) *Working Safely with Hazardous Chemicals* manual contains all Coulter material safety data sheets (MSDS).

III. Computerization: Integrated Survey and Information System (ISIS)

The HMX Data Management System (DMS) transmits individual SP results to the MEC automated ISIS system. Review all SP results at the Coulter DMS monitor. The hematology module in the laboratory application automatically receives the results or transmits them manually to the hematology module. The laboratory application evaluates the data for completeness and accuracy. The final decision to accept or reject a result is the responsibility of the medical technologist.

All data are backed up and stored at Westat's home office.

IV. Specimen Collection and Preparation

A. Specimen collection

1. The phlebotomist collects a 3 or 4-mL K_3 EDTA tube on all SP's age 1+ following established venipuncture protocol and procedures. (A 1-2% dilution effect occurs in this liquid EDTA tube.)

2. Sample volume is 185 µL of whole blood in the closed-vial mode. The minimum sample volume per tube in the closed-vial mode is 1-mL with the proper proportion of blood to anticoagulant.

B. Specimen preparation

1. The blood specimen-processing technologist initially processes the tube by taking off whole blood for various tests. The blood specimen-processing technologist places the specimen on a rocker until the hematology technologist can perform the CBC. Run the CBC as soon as possible; there is no requirement to wait any length of time between drawing the blood and running the CBC.

V. Procedure for Microscopic Examination

Not Applicable - Do not prepare differential microscopic slides.

VI. Reagents and Supplies

The HMX DMS stores and maintains the lot numbers and expiration dates.

A. Reagents, controls and calibrators

1. Isoton III® (diluent) – PN 8546733 (20 L) – an isotonic electrolyte

-Dilutes the whole-blood samples. Stabilizes cell membranes for accurate counting and sizing. Conducts aperture current. Carries and focuses the sample stream in the flow cell to enable the WBC differential measurements. Rinses the system between samples. Expires on expiration date printed on container

2. COULTER CLENZ® – PN 8546931 (10L) – a cleaning agent that cleans and rinses the internal surfaces of the Diluter components. Daily use prevents protein buildup and eliminates routine aperture bleaching. Expires 90 days after being opened and installed on the instrument.

3. LYSE S® III – PN 8546983 (1L diff lytic reagent is a lytic reagent used for the CBC mode.

-Rapidly lyses erythrocytes (RBCs), freeing hemoglobin (Hgb), and reducing the size of cellular debris to a level that does not interfere with the leukocyte (WBC) count. Causes a substantial conversion of the Hgb to a stable pigment, the absorbance of which is directly proportional to the Hgb concentration over the clinical range.

-**Note**: If you use LYSE S III diff lytic reagent you must use ISOTON III diluent. Expires 60 days after being opened and installed on the instrument.

4. HMX Pak®-PN 8547166 – The HMX Pak contains the PAK LYSE (Erythrolyse™ II erythrocyte lytic reagent) and the PAK PRESERVE (StabiLyse™ leukocyte preservative) used for the differential measurement.

   -The PAK LYSE (also called the diff lytic reagent), while maintaining leukocytes (WBCs) in near-native state.
   -The PAK PRESERVE preserves the leukocytes (WBCs) in near-native state. It allows the leukocytes to be differentiated into their subpopulations through the volume, conductivity, and light-scatter measurements.
   -Expires 60 days after being opened and installed on the instrument.

5. Latron® Controls – PN 7547116 (5 x 16-mL)

   -LATRON control monitors the performance of the volume, conductivity, and light scatter measurements. Expires 30 days after being opened.

6. Latron® Primer – PN 7546915 (5 x 16-mL)

   -LATRON™ primer prepares the tubing and instrument components for the LATRON control.
   -Expires 30 days after being opened.

7. 5C® Cell Controls Tri Pack contains Normal, Abnormal I, Abnormal II – PN 7547001 (9 x 3.3-mL)

   -COULTER 5C® cell control monitors the CBC and differential parameters. Expires 13 days or 13 events after being opened.

8. Calibration S-CAL® – PN 7546808 (2 x 6-mL)

-Use at the start of each stand. The S-CAL® calibrator kit calibrates Primary mode CBC parameters and is an acceptable alternative to the whole-blood reference method of calibration. -Expires 1 hour after being opened.

9. 5C® Cell Control Normal – PN 7546923 (9 x 3.3-mL)

-Use when calibrating with S-CAL for reproducibility study.

10. Lin-C – PN 6605374

-LIN-C® linearity control verifies the reportable range of the instrument's CBC parameters.

B. Supplies

1. 3-mL K_2 EDTA Becton Dickinson Hemogard Vacutainer® tube (367856)
2. 4-mL K_2 EDTA Becton Dickinson Hemogard Vacutainer® tube (367861)
3. Tube rocker
4. Bleach, 5.25% Sodium Hypochlorite
5. Bottled distilled water
6. Three 30-mL plastic containers with lid
7. Two 1-liter containers with lid
8. Plastic squirt bottle
9. Cotton gauze pads
10. Three-hole paper punch

11. Notebook

12. Flashlight

13. 10-mL syringe with plastic tubing

14. Precision screwdriver set

15. Distilled water bottle

16. Disposable lab jacket – 48 inches long

17. Diskettes

C. Notes

1. If reagents become frozen in transit, mix thoroughly by inversion and let bubbles settle before use.

2. Do not place reagents on or near electric cords or lines to avoid electrical interference.

VII. Calibration

S-CAL (PN 7546808 - 2 x 6-mL – The S-CAL calibrator kit determines the adjustment factors for the calibration of the Coulter(trademark) HMX. Calibration is a procedure to standardize the instrument by determining its deviation from calibration references and to apply any necessary correction factors. Perform calibration in the close-vial mode, at ambient room temperature range (16-32°C, 60-90°F), using S-CAL as an alternative to whole blood. S-Cal is a trademanrk of Beckman Coulter.

A. Perform calibration:

-At the start of each stand, before you begin analyzing samples.
-After you replace any component dealing with dilution preparation, such as the BSV primary measurement, such as an aperture.

-If your Beckman Coulter Representative suggests you calibrate

B. Verify the calibration of your instrument:

-If controls show unusual trends or are outside limits; and
-When room temperature varies more than 10°F (5.5°C) from the room temperature during the last calibration.

Principle – The HMX uses the S-CAL kit that requires a calibrator to convert electronic measurements of each sample into accurate results expressed in clinical terms. S-CAL calibrates the **WBC, RBC, Hgb, Plt,** and **MPV** parameters. It is a stabilized human-blood preparation. S-CAL® is an acceptable alternative to whole blood calibration.

The calibration procedure uses replicate measurements of S-CAL calibrator. The S-CAL divides the average result into the calibrator Assigned Value to give the Adjustment Factor. Then, it obtains and adjusts an instrument reading according to the Adjustment Factor.

Hct, MCH, MCHC, RDW, and the DIFF parameters do not require calibration.

1. Reagents – S-CAL consists of treated, stabilized, human erythrocytes and platelet sized components in an isotonic bacteriostatic medium. Fixed erythrocytes simulate leukocytes.

   Materials required – Before calibrating, assemble the following materials: S-CAL kit containing two 6-mL vials of S-CAL calibrator.

2. Storage, handling, and stability – Sealed vials are stable through the expiration date when stored at 2-8°C (35-46°F). Open vials are stable for 1 hour.

   Potential biohazard – Each human donor used in preparation of this material was tested by an FDA-approved method for the presence of the antibodies to Human Immunodeficiency Virus (HIV-1 and HIV-2) and Hepatitis C (HCV), as well as for hepatitis B surface antigen, and found to be negative (were not repeatedly

reactive). Handle these reagents at Biosafety Level 2 because no test method can offer complete assurance that these and other infectious agents are absent.

This product contains <0.1% Sodium Azide. Sodium Azide preservative may form explosive compounds in metal drain lines. Discard this product in biohazardous waste containers.

3. Indications of instability or deterioration – Inability to obtain expected values in the absence of known instrument problems or gross hemolysis (darkly-colored supernatant) is indicative of product deterioration. However, a slight pink color to the supernatant is normal and should not be confused with deterioration of the product.

C. Pre-calibration, reproducibility, and carryover check

Perform a calibration after the instrument has been "cleaned" for at least 30 minutes. From the Access Screen, press [F3] **Clean.**

1. Pre-calibration procedure

Bleach the aspiration system using the Clean Needle procedure.

a) Prepare a fresh bleach solution. Put 1-mL bleach and 1-mL distilled water into 5-mL lavender top Vacutainer® tube.

b) Stop the system before it performs the Clean Needle procedure. If status message is not *Select Function* or *Compressor Off*, go to **SAMPLE ANALYSIS, RUN SAMPLE**, [F3], Run. Press [F9] Stop.

c) Select **SPECIAL FUNCTIONS, DIAGNOSTICS, OPERATOR OPTIONS, FLUIDIC TESTS, and CLEAN NEEDLE**. Press [Enter] and follow the screen instructions. Wait for green light before placing tube into the carousel.

To rinse the system, perform daily Start Up. Select **DILUTOR FUNCTIONS; START UP** [Enter].

Run 5C® cell controls.

2. Reproducibility check

a) Select **SAMPLE ANALYSIS, RUN SAMPLES**. Press [Enter]. Select [F5] to access options. Change [F5] Print: to none and [F6] Host to Off.

b) Use an unopened, normal-level, 5C®-cell control for reproducibility studies. Label the control vial with date and initial. Use of expired controls for this procedure is acceptable.

c) Select **SPECIAL FUNCTIONS, CALIBRATION, REPRODUCIBILITY** [Enter].

d) Is *Sample Mode?* displayed? If YES, go to step 3. If NO, press [F9] Stop.

e) Press [F6]. Press space bar to turn the DIFF ON. Press [Enter]. Press [F2] *START PRIMARY*.

f) Does the following message appear? "MODE REQUIRES EXISTING RUNS TO BE DELETED. ARE YOU SURE?: NO." If the message appears, press the space bar to answer "YES." Press [Enter]. This deletes the old data.

If there are runs present in the table and the message do not appear, press [F8] Delete. Press the space bar to answer "YES." Press [Enter]. This deletes the old data.

(1) Follow the directions listed in Section X for preparation and mixing the 5C®-cell control.

(2) Cycle the sample 11 times. Do not use the bar code reader. Mix gently before each cycle. Insert the tube into the carousel when the green light appears. The first sample is automatically marked DEL and its results are not included in the calculations.

(3) Check the results. Verify the average %CV does not exceed these limits:

-WBC 2.5%
-RBC 2.0%
-Hgb 1.5%
-MCV 2.0%
-Plt 5.0%
-MPV 3.0%

Check the low to high difference (bottom line, right hand side) for the diff parameters with these limits:

-LY% ≤4.8
-MO% ≤3.2
-NE% ≤4.8
-EO% ≤1.6
-BA% ≤1.6

If the results are outside the limits, call the Beckman Coulter® representative.

(4) Press [F4] to print the screen for the logbook. Press [F3] Run [F9] STOP. Press [Esc]. Proceed with a Carryover Check.

g) Notes

(1) Be sure the PR↓ is on the status line before starting the reproducibility study.

(2) Be sure to delete any data on the reproducibility screen before starting a new study.

(3) On the reproducibility screen, use the %CV line for CBC parameters only and the Diff line for the DIFF parameters only.

3. Carryover checks (Draw two 4-mL EDTA tubes of normal blood.)

a) Select **SPECIAL FUNCTIONS, CALIBRATION, and CARRYOVER.** Press [F2] *START PRIMARY*. Does the following message appear? "MODE REQUIRES EXISTING RUNS TO BE DELETED. ARE YOU SURE? NO." If the message appears, press the space bar to answer "Yes." Press [Enter]. This deletes the old data.

(1) Use a routine 4-mL Vacutainer® EDTA for the carryover check clean vials. Fill three separate vials with diluent, then cap.

(2) Follow the screen directions. Cycle two vials of normal blood and three vials of diluent. Do not use the bar code reader. Insert the tube into the carousel when the green light appears.

(3) Check the lower right corner of the screen for CARRYOVER ACCEPTABLE. If the result is not acceptable and the H flags appear next to the carryover value results, repeat the procedure. If results are still OUT, call the Beckman Coulter® representative.

(4) Press [F4] to <u>print the carryover screen for the logbook</u>. Press [F9] to return to the main menu.

b) Notes

(1) Choose a sample with a WBC count of 10,000 ± 1,000 if possible. All other parameters should be within normal ranges.

(2) Ignore count period (CP) voteouts on diluent runs.

(3) Percent carryover is calculated by the formula.

(4) $\frac{\text{1st diluent sample - 3rd diluent sample}}{\text{2nd sample}} \times 100 = \%$ carryover

D. CBC calibration with S-CAL calibrator

Discard the Calibrator Disks from the S-Cal Calibrator Kit. Locate the hard copy Table of Expected Results that contains 5 gray boxes labeled 1 through 5. Locate box 2 where it lists ISOTON III, Isoton 3E or LH Series Diluent / Lyse S III diff Lytic Reagent---------- HMX system. Locate the corresponding gray #2 box in the table.

Take the S-CAL calibrator from the refrigerator. Remove one vial of S-Cal from the kit. Return the unopened second vial to the refrigerator. Let the vial warm to ambient temperature for 15 minutes. Meanwhile, continue with the following steps:

1. Select **Special Functions → Calibration → CBC Calibration**. Press [F2] **Start Primary**. Delete any data in the table by pressing [F8]. Press the spacebar to answer "YES." Press [Enter].

2. Prepare the CBC calibration screen.

   a) Enter the S-CAL calibrator assigned values from the Table of Expected Results on the package insert on the REF: VALUES line. The Hct is not calibrated although the value is listed on the package insert.

   b) Enter the expiration date and the lot number.

3. Prepare and cycle the calibrator:

   a) Mix by hand as follows: Roll the tube slowly between the palms of the hands eight times in an upright position. Invert the tube and slowly roll

it again eight times. Gently invert the tube eight times. Repeat these actions again.

b) Determine that all cells are uniformly distributed by inspecting the vial contents. If the cells are not totally distributed, repeat the mixing procedure.

c) Cycle the first cap-pierceable calibrator 11 times. Do not use the bar code reader. Invert the vial and mix the S-CAL calibrator before each cycle. Insert the tube into the carousel when the green light appears. The first sample is automatically marked DEL and its results are not included in the calculations.

d) After the cycles are complete, press [F4] **Print** to print the screen for the logbook. Press [F3] **Run**, [F9] **STOP**. Press [Esc]**.**

4. Assess the run:

a) Check for trending. If trending is present, stop and contact a Coulter® representative.

b) Check the %CV values against these precision %CV limits. If any parameter exceeds the limit, STOP and contact a Coulter® representative.

Parameter	Precision (CV %)
WBC	≤2.5
RBC	≤2.0
Hgb	≤1.5
MCV	≤2.0
Plt	≤5.0
MPV	≤3.0

c) Determine which calibration factors (if any) should be changed by checking the FAC%DIFF and DELTA DIFF values against these ranges. Note: Disregard minus signs. The values are absolute numbers.

Parameter	Calibrate if FAC %DIFF is:	Calibrate if DELTA DIFF is:
WBC	>1.25 and ≤5.00	>0.10 and ≤0.40
RBC	>0.70 and ≤2.00	>0.03 and ≤0.09
Hgb	>0.78 and ≤3.00	>0.10 and ≤0.40
MCV	>1.18 and ≤2.50	>1.00 and ≤2.00
Plt	>2.70 and ≤9.00	>6.00 and ≤20.00
MPV	>5.00 and ≤20.00	>0.50 and ≤2.00

d) If both the FAC%DIFF and DELTA DIFF values of a parameter fall below their lower limits, that parameter does not need to be calibrated. Note: If all parameter values fall below the lower limits of both ranges, you are finished. Resume normal operation. Press [F4] to print the screen for the logbook.

e) If either the FAC%DIFF or DELTA DIFF value of a parameter exceeds its upper limit, STOP. There could be an instrument problem. Call your Beckman Coulter Representative.

f) If either the FAC%DIFF or DELTA DIFF value of a parameter falls between its lower or upper limits that parameter should be calibrated. Continue with step 5 (below).

5. To verify calibration:

a) Determine which calibration factors to change. Check the FAC % DIFF and DELTA DIFF values against these ranges.

Parameter	Calibrate if FAC %DIFF is:	Calibrate if DELTA DIFF is:
WBC	>1.25 but ≤5.00	>0.10 but ≤0.40
RBC	>0.70 but ≤2.00	>0.03 but ≤0.09
Hgb	>0.78 but ≤3.00	>0.10 but ≤0.40
MCV	>1.18 but ≤2.50	>1.00 but ≤2.00
Plt	>2.70 but ≤9.00	>6.0 but ≤20.0
MPV	>5.00 but ≤20.00	>0.50 but ≤2.00

b) Is *Select Function* displayed? If NO, press [F3] **Run** [F9] **Stop** [Esc]. If YES, Press [F5] **Options**. Choose **SELECT PARAMETERS**. Use the spacebar to select YES for parameters that need adjusting, NO for others. Press [Esc].

c) Select **TRANSMIT FACTORS**. The following message appears: "WARNING – DATA WILL BE CLEARED AFTER TRANSMISSION. DO YOU WANT TO PRINT DATA? Y/N" If you did not print the calibration screen presses [Y]. Select [N] if the values have already been printed.

d) Press [F4] Print to print this final calibration screen for the log book. It reflects the new calibration factors for parameters you adjusted.

e) Verify calibration by cycling the 5C Cell Controls in the primary mode. If any of the control level's results are outside the expected range, run a second sample of the control. If the second sample is also outside of the expected range, call your Beckman Coulter representative.

6. Calibration terms and formulas

a) MEAN

-The average of the 10 S-CAL calibrator runs

b) NEW CAL FAC

-The calibration factor needed to obtain the S-CAL Calibrator Reference value. The instrument calculates and displays it whether or not it needs to be changed.

$$\frac{\text{Reference Value x Old Cal Factor}}{\text{S-CAL mean value (n=10)}} = \text{NEW CAL FAC}$$

c) OLD CAL FAC-The current calibration factor

d) %CV

-Indicates the reproducibility of the S-CAL calibrator run.
-Check to ensure that the data being used are valid when making decisions to recalibrate or not.

e) FAC % DIFF

-The difference between the OLD CAL FAC and the NEW CAL FAC expressed as a percentage.

$$\frac{\text{NEW CAL FAC - OLD CAL FAC}}{\text{OLD CAL FAC}} \times 100 = \text{FAC \%DIFF}$$

f) DELTA DIFF

-The absolute difference between the reference value and the S-CAL calibrator MEAN.

g) REF VALUES

-The assigned value for each parameter.

VIII. Assay Procedure

A. Run Start Up at the beginning of the first session each operational day.

1. Leave the instrument on and operate the HMX with all panels closed. Check to make sure the date and time displayed are correct. To set date and time select **Special Functions, Set Up, System Set Up, Set Date/Time**. Move the cursor and enter the correct date or time and press [Enter] or the arrow keys. Press [F10] to save and exit.

2. Are Start Up results already displayed as the result of a Clean cycle?

   a) If No, go to step 2.

   b) If Yes, go to step 3.

   Note: The Clean cycle consists of 30 minutes in Shut Down followed by an automatic Start Up.

3. To begin Start Up, select **Diluter Functions**, and **Start Up**. Press [Enter]. Follow the instructions on the screen.

4. After Start Up is complete, evaluate the display. Expired reagents and failed checks appear in red. Press [F2] to view detailed results. Make sure the Background and other Start Up results are within limits. Results automatically print. Results outside limits turn red. File in the logbook.

5. Review and verify sample analysis set up.

a) Select **Sample Analysis, Run Samples** [Enter]. Press [F5] for options. Press the corresponding function key to enter specific options.

Use the corresponding [F] key to change the setting. For example, press [F6] to turn the Diff ON. Press [Esc] to exit.

B. Run controls

Run Coulter LATRON primer and latex control, and all three levels, normal (blue), abnormal I (yellow), and abnormal II (pink), of Coulter 5C cell control daily at the beginning of the first session. Run all three levels (normal, abnormal I, and abnormal II) of Coulter 5C® cell control at the beginning of the second session.

C. Run Sample Persons

1. Review the placement of the bar code on the sample tube. Place the end of the label flush with the stopper. The bars on the label must be parallel to the stopper. If the label is skewed more than 5°, the scanner may not read it. Do not cover the bottom of the tube with the bar code label. The tube may jam in the carousel.

2. Run all samples in duplicate.

3. Run samples in the Primary mode.

In Primary mode, the system checks each sample aspiration using dual sensors, called blood detectors, which monitor the blood before and after it passes through the Blood Sampling Valve (BSV). These blood detectors optically sense air bubbles, diluent, and blood. As an indication of a good aspiration, the system looks for blood in both detectors. If the detectors optically identify bubbles in the sample, the instrument pierces the tube a second time. If the second aspiration contains bubbles, the instrument reports a partial aspiration. Bubbles or air may be present for various reasons, such as short sample aspirations or blockages in the aspiration pathway. Single dots (•••••) and *PART. ASP* is reported instead of numeric results when a partial aspiration occurs. Samples that generate multiple partial aspiration messages should be evaluated for specimen quality according to laboratory's protocol. Samples with very low hemoglobin results may give partial aspirations when run in the Primary mode

because the blood detectors do not recognize the sample as being blood. To obtain results, cycle the sample in the Secondary mode.

Check to make sure the printer is working properly. Operate the Analyzer with the doors and panels closed. Monitor reagent levels.

a) Do **SELECT FUNCTION** or **S/A 1° MODE ON** appear at the lower right corner of the DMS monitor?

If not, then access the Run Samples screen. At the Access screen, press [F1] **RUN SAMPLES** or at the Main Menu, select **Sample Analysis → Run Samples**.

b) Press [F3] **Run**.

c) The instrument automatically prepares itself to run in the Primary mode, DIFF ON. Press [F6] **DIFF ON/OFF** to change the DIFF setting. Note, if **SAMPLE MODE** is not displayed, press [F9] **STOP** first.

d) Does the top of the **F3-Run** window display **PRIMARY: SAMPLE ANALYSIS**? If yes, press [Esc]. If no, press [F2] **START PRIMARY**.

e) Identify the sample by holding the bar code label on the tube in front of the reader. Green light will beep; place the tube in the carousel. If the red light appears, wait and try reading the bar code label again. Cycle the sample within 10 seconds of reading the bar code. After 10 seconds, the system deletes the identification. If necessary, enter 1 to 16 alphanumeric characters then press [Enter].

4. Alternatively, cycle samples in the Secondary mode.

Blood detectors are inactive in the Secondary mode. This mode does not check sample and aspiration integrity. Run samples in the Secondary mode only if the Primary mode is unavailable.

a) Access the Run Samples screen. At the Access screen press [F1] **RUN SAMPLES** or at the Main Menu, select **Sample Analysis → Run Samples**.

b) Press [F3] **Run**.

c) The instrument automatically prepares itself to run in the Primary mode, DIFF ON. Press [F6] **DIFF ON/OFF** to change the DIFF setting. Note, if **SAMPLE MODE** or **S/A 1°MODE ON** is not displayed, press [F9] **STOP** first.

d) Press [F3] **SECONDARY**.

e) Identify the sample by holding the bar code label on the tube in front of the reader. Green light will beep. If the red light appears, wait and try reading the bar code label again. . Cycle the sample within 10 seconds of reading the bar code. After 10 seconds, the system deletes the identification. If necessary, enter 1 to 16 alphanumeric characters then press [Enter].

f) Cycle the sample in the Secondary mode:

(1) Mix the sample gently.

(2) Open the tube and immerse the aspirator tip in the sample.

(3) Press and release the sample bar.

(4) Remove the tube when the instrument beeps.

5. Review data and transmit

a) Review the data using the criteria described in Section X.

b) Set host computer to ⇑. Data from the Coulter DMS is automatically transmitted to the ISIS system.

c) Use the Data Base Query to sort, retrieve, transmit, and archive data to diskette. Transmit data from the Coulter DMS to ISIS as necessary. Archive all data at the end of each stand.

To access the Data Base Query screen, at the Access screen, press [F4] **DATA BASE QUERY** or at the Main Menu, select **Sample Analysis → Data Base Query**.

Use the Sort feature to define the criteria for the data. Sort by date, time, or ID. If you do not choose any sort criteria, the samples in the database are sorted chronologically by date and time.

To transit data from the DMS to ISIS, select **Sample Analysis → Data Base Query**, [Enter.] When you access this option, you see what was selected by the last Sort criteria. To review other samples, change the sort criteria. If the last sorting process resulted in no entries displayed here, then when you access this option, the sort window appears.

To access the Sort Criteria wndow, press [F6] **Sort**. Enter sort criteria by TIME, DATE, ID #1, or ID#2. Select [F8] to execute the sorting process, [F7] **Tag** to tag or untag a highlighted individual sample or [F8] to **Tag All** to tag or untag all samples for batch processing, and [F5] **Batch** to display the Batch Process window.

At the Batch Process window, use the up and down arrows to move through the choices. Use the spacebar to toggle to between Yes and No. Set Print: to No and Host to Yes. Select [F8] **Execute**.

D. Daily Shut Down

1. Shut down the instrument for at least 30 minutes but less than 48 hours each day it is in use.

2. To begin shut down make sure the status line displays *Select Function*. Select **Diluter Functions → Shut Down**. Press [Enter]. Allow the cleaning agent to remain in the instrument for a minimum of 30 minutes.

3. Perform Start Up before running samples or controls. Results must be within tolerance.

E. Clean Cycle

1. The Clean Cycle consists of a Shut Down cycle followed 30 minutes later by a Start Up cycle.

   a) To initiate the Clean Cycle: Go to the Access screen [F1] from the Main Menu. Press [F3] **CLEAN**. Press [Enter] to begin. After the Shut Down portion of the cycle finishes, a window displays. Your options are: (1) Do nothing and allow the Clean Cycle to complete. (2) Press [F4] to abort the Clean Cycle. Cleaning agent remains in the system until you perform Start Up. (3) Press [F5] to begin the Start Up cycle immediately.

F. Prolonged Shut Down

1. If the instrument is going to be idle for 48-72 hours, perform the following procedure:

a) Go to the Access screen and press [F3] CLEAN.

b) Once the cycle is complete, turn OFF the instrument using the On/Off switch on the back of the main unit.

c) When it is time to use the instrument:

(1) Turn power ON

(2) Prime the HMX PAK

(3) Perform Start Up.

d) Perform and verify QC checks according to laboratory protocol.

e) Operate as usual.

2. If the instrument is going to be shut down for more than 72 hours, perform the following steps:

a) Place all reagent pickup tubes into distilled water.

b) Repeatedly perform Shut Down and Start Up procedures throughout the day.

c) Let distilled water remain in the reagent lines.

d) Turn off the power.

e) Place reagent caps on all open containers.

f) When it is time to use the instrument, turn on the power and place the reagent pickup tubes into the reagent containers, prime all reagents,

perform a shut down and then perform a Start Up. Results must be within tolerance.

g) Perform daily QC and operate as usual.

G. Autopurge Cycle

1. After 23 hours in Shut Down, with the power ON and the pneumatics OFF, the system automatically:

a) Turns ON the pneumatics.

b) Purges the flow cell and sample lines with diluent.

c) Turns OFF the pneumatics.

d) Repeats this cycle every 24 hours until a Start Up is performed.

H. Beginning and end of stand operations

1. Beginning of stand:

a) Obtain one urine collection container or a 50-mL conical tube, one 3 or 4-mL EDTA tubes (1 clean aspiration system,), enough supplies to draw two 4-mL EDTA blood tubes, and a few plastic transfer pipettes.

b) Using all new containers of reagents, carefully unwrap and place all reagent pickup tubes in their appropriate container. Handle reagent tubes by the collar only to avoid contamination. Turn the power ON. Prime reagents through all the lines by selecting **Diluter Functions, Prime Reagents,** and choose **All**.

c) Perform the Start Up procedure. This should take approximately 5-6 minutes. Results should be within tolerance.

d) Contact the local Coulter® representative to perform an instrument verification procedure on setup day or as soon as possible.

e) Calibrate, perform, and verify QC checks according to procedure.

f) Review and verify system set up. Select **Special Functions →Set Up →System Set Up:**

(1) Select **Shift** [Enter]

(a) Move the cursor and set up the starting times for each shift and press [Enter] or the arrow keys. The system automatically calculates the end of the shift to prevent overlap.

(b) Set shift 1 "Time" at 0800.
Set shift 2 "Time" at 1230.
Set shift 3 "Time" at 2230.

(c) Press [F10] to save and return to the previous screen.

(2) Select **Reagents** [Enter]- Update reagent logs

(a) To record new reagent information: Key in the new reagent information: lot number, date reagent opened (pressing [Enter] automatically gives today's date), and the expiration date. Do not forget to enter revised expiration dates where appropriate. Press [Enter] after each item. Press [F10] to save the data and leave the reagent screen.

(3) Select **Institution** [Enter]

(4) Select **Communication Def**. Enter the SUPERVISOR PASSWORD, "super." Select**, Host Computer Definition**

(a) Use [Enter] or arrow keys to move to the appropriate field.

(b) Type in the following information where necessary and use the spacebar to choose between the responses. Press [F10] to save and [Esc] to return to previous screen.

STKS 2A Host Mode	Yes	Retics transmission	No
Timeout (secs)	8	Overall Retics	No
Baud rate	9600	Graphics	No
Parity	none	DF5	No
Stop bits	1	DF6	No
Handshake	Yes		
Block size		Enable Spooler	Yes
		Replace NULL by SP	No

Graphic transmission	No
DF1	No
DF2	No
VCS histograms	No
RBC histogram	No
PLT histogram	No

(5) Select **IQAP ID#**

Type in the IQAP number.

Enter 32979 1 H1 for instrument AJ47275

32979 1 H2 for instrument AK04023

32979 1 H3 for instrument AK04024

Press [F10] to save and escape.

(6) Select **Set Date/Time**

Move the cursor and enter the correct date or time and press [Enter] or use the arrow keys. Press [F10] to save and exit.

(7) Select **Supervisor Password**

Do NOT change the password under any circumstances.

(8) Select **Optimize Hard Disk**

Enter the password “super.” Respond to the question, “Do you want to automatically optimize the Hard Disk during Powerup?” Verify that YES is displayed. Press [F10] to save and escape.

g) Review sample analysis set up. Select **Special Functions, Set Up,** and **Sample Analysis Set Up.** Type in the password "super."

(1) Select **Action limits** [Enter], **XB limits** [Enter].
Enter target and limit percent values.
XB Limits

	Target	Limit %
MCV	88.5	3
MCH	29.5	3
MCHC	33.5	3

Press [F10] to save and exit.

(2) Select **Action limits** [Enter], **Definitive flag limits** [Enter].
Disable definitive flag limits. Set low limit for all parameter values to zero except for PCT. Set lower limit for PCT to 0.000. Set high limit to 99.9 for all parameters except RBC, PLT, and PCT. Set RBC upper limit to 9.9, PLT to 999 (with no decimal) and PCT to 0.990. Press [F10] and [Enter] to save and escape.

(3) Select **Action limits** [Enter], **High/low Flag limits** [Enter].
Disable High/Low flag limits. Set low limit for all parameter values to zero except for PCT. Set lower limit for PCT to 0.000. Set high limit to 99.9 for all parameters except RBC, PLT, and PCT. Set RBC upper limit to 9.9, PLT to 999 (with no decimal) and PCT to 0.990. Press [F10] and [Enter] to save and exit.

(4) Select **Action limits** [Enter], **Laboratory Normal Ranges** [Enter]
Disable High/Low flag limits. Set low limit for all parameter values to zero except for PCT. Set lower limit for PCT to 0.000.

Set high limit to 99.9 for all parameters except RBC, PLT, and PCT. Set RBC upper limit to 9.9, PLT to 999 (with no decimal) and PCT to 0.990. Press [F10] and [Enter] to save and exit.

(5) **Location list** N/A Do not access

(6) **Physician list** N/A Do not access

(7) **Display formats** [Enter] **Screen Labels** N/A Do not access

(8) Select **Display formats** [Enter] **Parameter Selection**
Use the spacebar to select No for each of these parameters.

Press [F10] to save and escape

(9) Select **Display formats** [Enter], **Reporting Units**
Use the spacebar to select US 1. Press [F10] to save and escape.

(10) Select **Delete database** [Enter]
Delete database at the end of each stand after archiving the data to a diskette. The question, "You have asked to delete the ENTIRE database. Are you sure you want to delete?" Use the spacebar to toggle to toggle between Yes and No then press [Enter].

(11) Select **Delete host spooler** [Enter]
Use this feature to clear the buffer of results waiting to be transmitted to the host computer. "Do you want to delete the host spooler?" Press the spacebar to answer Yes or No to the displayed question. Press [Enter].

(12) **Clear printer spooler queue**

Use this feature to stop a print job and clear the DMS printer spooler of all data not yet sent to the printer. Move the cursor to the appropriate option. Press the spacebar to toggle between Yes and No. Press [F10].

Auto Print: No
Manual: **No**
Batch: **No**

(13) Select **Print options** [Enter]

Auto Print Format

Use the spacebar to select **[GRAPHIC FORMAT].** Press [F10] to save and escape.

Spooler Priority [Enter]

Leave [AUTO PRINT] as the default.

Graphic Options [Enter]

Verify the settings.

2. End of stand

a) Obtain three urine collection cups and three 4-mL EDTA blood tubes.

b) Review, print, and clear error file.

(1) Select **Special Functions, Error File** [Enter]. Review data and print [F4]. Document any relevant information on the print out and file in the logbook. Delete file [F8] -- "Do you want to delete error file; NO" message will appear. Use the space bar to change No to Yes [Enter]. Return to main menu [F9].

c) Download IQAP files to diskette following procedure described on the screen.

d) Download or archive all stand result data to disk.

The DMS Archive feature lets you copy result data from the DMS onto a diskette and retrieve it on another computer in a spreadsheet format. Use a spreadsheet program that is compatible with the WKS format. Archive data at the end of each stand.

To Archive data, select **Sample Analysis→Data Base Query**. Perform a sort that includes all samples run during the stand. Use [F7] or [F8] to tag the samples you want to archive. Press [F5] **Batch** to display the Batch Process window. Move the cursor to the Archive field then press [F2] **Choice List**. Use the spacebar to highlight your choice then press [Enter]. If you select New, all tagged samples that have not yet been archived will be processed. If you select All, all tagged samples will be processed, even if they have already been archived. If you select No, Archive is inactive. Move the cursor to the Filename: field and enter a file name of your choice. Type **A:**\ then up to eight characters. An extension is not required. Example: **A:\stand210** could be the file name for sample results archived at the end of stand 210. Insert a formatted diskette into the DMS diskette drive. Press [F8] **Execute**. **Note:** If a power failure occurs during the archiving process, the samples from this archiving session are incorrectly marked as archived but the data file is empty. Reselect the samples from the session and select **All** to ensure all of the samples in process are correctly archived. Wait until the *Batch is Inactive* message appears, and then remove the diskette from the diskette drive. **Note:** If the space on the diskette is insufficient for archiving all of the tagged samples, the DMS displays the error *DISK FULL - ARCHIVING DISCONTINUED*. Remove the full diskette from the DMS diskette drive and insert an empty formatted diskette. Ensure the Archive option selected is **New** then press [F8] **Execute**. Any samples tagged but not archived yet are copied onto the new diskette.

e) Perform daily Shut Down. Let cleaning agent remain in the instrument for at least 30 minutes.

f) Perform Start-up.

g) Disable the reagent sensors. Select **SPECIAL FUNCTIONS, DIAGNOSTIC, OPERATOR OPTIONS, FLUIDIC TESTS,** and **DISABLE REAGENT SENSORS.** Toggle through each reagent line using the space bar to change "ON" to "OFF."

h) Bleach the reagent lines.

(1) Remove all reagent pick-up tubes from the reagent containers. Dispose of all open containers. Wash and save the reagent collars.

(2) Prepare a 25% solution of bleach (250-mL) and distilled water (750-mL) in one liter bottle. Place all reagent pickup tubes into the 25% bleach/distilled water solution. Select **Diluter Functions, Prime Reagents,** Select **ALL**. Press [Enter]. Repeat this procedure two more times.

i) Place all reagent pickup tubes into containers of distilled water.

j) Bleach the apertures and flow cell.

(1) Mix 15-mL bleach and 15-mL distilled water in a plastic container.

(2) Put 30-mL of distilled water in a second plastic container.

(3) Open the front panel.

(4) Select **Diluter Functions,** and **Disinfect**. Press [Enter].

(5) The instrument defaults to 15 minutes; change the number to 03 or stop the procedure after 3 minutes. Press [Enter].

(6) Immerse the bleach probe in the bleach solution when the screen displays, "PRESS ANY KEY WHEN READY TO ASPIRATE BLEACH." Press any key. Aspirate all the bleach solution.

(7) Immerse the bleach probe in the distilled water when the screen displays, "PRESS ANY KEY WHEN READY TO ASPIRATE WATER." Press any key. Aspirate all the distilled water. Stop the cycle after 3 minutes by pressing [F4].

(8) Wait until the screen displays *Select Function* before touching any keys. When *Select Function* is displayed, continue with the following procedure.

k) Disinfect the needle. Bleach the aspiration system using the Clean Needle procedure**.**

(1) Prepare a fresh bleach solution. Put 1-mL bleach and 1-mL distilled water into 4-mL lavender top Vacutainer® tube.

(2) Stop the system before beginning the Clean Needle procedure. If status message is not *Select Function* or *Compressor Off*, go to **Sample Analysis, Run Sample**, [F3], **and Run**. Press [F9] **Stop**.

(3) Select **Special Functions, Diagnostics, Operator options, Fluidic Tests,** and **Clean Needle**. Press [Enter] and follow the screen instructions. Wait for green light before placing tube into the carousel.

l) Perform reproducibility in Primary and Secondary mode using this 1% bleach solution. Prepare a 1% bleach solution and fill one 4-mL EDTA blood tube with this solution. Turn the diff off. Is *Sample Mode?* displayed? If Yes, go to step 3. If No, press [F9] Stop. Press [F6]. Press space bar to turn the DIFF OFF. Press [Enter]. Press [F2] *START PRIMARY.* Select **Special Functions, Calibration, and Reproducibility**. Select Primary and aspirate three samples of 1% bleach. Enter [F3]; sample mode. Enter [F9] Stop. Select Secondary mode and aspirate three samples of 1% bleach solution.

m) Rinse the reagent lines**.** Make sure all reagent lines are immersed in containers of distilled water. Select **Diluter Functions, Prime Reagents,** select **ALL**. Press [Enter]. Repeat this procedure two more times.

n) Perform a Start Up. Make sure containers are full.

o) Perform reproducibility in Primary and Secondary mode by using distilled water. Fill one 4-mL EDTA blood tube with this distilled water. Turn the diff off. Is *Sample Mode?* displayed? If Yes, go to step 3. If No, press [F9] Stop. Press [F6]. Press space bar to turn the DIFF OFF. Press [Enter]. Press [F2] *START PRIMARY.* Select **Special Functions, Calibration,** and **Reproducibility**. Select Primary and aspirate three samples of distilled water. Enter [F3], sample mode. Enter [F9] Stop. Select Secondary mode and aspirate three samples of distilled water. Press [Enter].

p) Select **Diluter Functions, Start Up**. Press [Enter]. Perform one additional Start-Up procedure with the lines in the distilled water containers.

q) Cycle the instrument dry.

(1) Remove all reagent pickup tubes from the distilled water containers.

(2) Continue to cycle the instrument dry by priming air through all the lines by selecting **Diluter Functions**, **Prime Reagents** and choose **ALL**. Repeat these actions at least three times.

(3) Open front cover. Using hemostats, seal tubing with check valve coming out of the bottom of the sheath tank. Loosen the four large screws that hold the panel containing the sheath tank. Gently pull panel away from instrument. Trace two red wires from top of sheath tank to plastic electrical connection. Disconnect the junction. Insert paper clip into junction so that a circuit is formed on the instrument side of the connector. Do this by bending paper clip into a U and placing one end of paper clip into each of the open sockets on the instrument side of the junction. This will allow the instrument to Drain, Vent, and Shut Down without reagent. Select **Special Functions, Diagnostics, Operator options**, and **Drain and Vent**. Press [Enter.]

(4) Select **Diluter Functions,** and **Shut Down**. Press [Enter].

(5) After cycles are complete, remove paper clip, reconnect junction, put panel back into instrument and tighten screws, then remove hemostats.

r) Enable the reagent sensors. Select **Special Functions, Diagnostics, Fluidic Tests,** and **Disable Reagent Sensors**. Toggle through each reagent line using the space bar to change "No" to "Yes."

s) To protect the reagent pickup tubes from contamination, wrap them securely in paper towels. Allow air to continue to dry the tubes.

t) Turn off the power.

u) Rinse exterior of BSV with distilled water to remove built up Isoton and blue Clenz agent. Blot the BSV dry with lint free tissue. Do not use gauze.

v) Wash exterior of instrument with distilled water.

w) Empty waste and rinse container.

x) Blow air through the flow cell at the end of each stand. This is referred to as the Triple Transducer Module (TTM). Address questions to the service representative at 1-800-526-7694. Remove the 6-inch sample line to the flow cell at the mixing chamber. Connect a 10-mL syringe with tubing to the 6-inch line and force air into the line to remove ALL remaining liquid from the flow cell and the 6-inch sample line. Reconnect the sample line.

IX. Coulter® Reportable Range of Results

Parameter	Linearity	Limits: The greater of
WBC x 10^3 cells/μL	0 to 99.9	0.2 or 3.0%
RBC x 10^6 cells/μL	0 to 7.00	0.05 or 2.0%
Hgb g/dL	0 to 25.0	0.2 or 3.0%
MCV fL	50.0 to 150.0	2.0 or 3.0%
Plt x 10^3 cells/μL	0 to 999	10.0 or 7.0%
MPV fL	5.0 to 20.0	5.0%

X. Quality Control

A. Latron (trademark) primer and latex controls (PN 7546914 - 5 x 16-mL) The Latron control is for use in monitoring the volume, conductivity, and light scatter (VCS) parameters on the HMX. Use the Latron control immediately following the Latron® primer. Run this control at the beginning of each day. Date and initial the vials when opened.

1. Principle – The Latron control is a ready-to-use suspension of latex particles. These particles pass through the flow cell and produce characteristic electrical signals. It measures these signals as volume, conductivity, and light scatter. The Latron Primer is supplied as a ready-to-use solution which prepares the sample line by eliminating interfering particles.

2. Reagents – The Latron Control consists of latex particles suspended in a buffered bacteriostatic and fungistatic medium containing a surfactant. The Latron primer consists of a buffered bacteriostatic and fungistatic medium containing a surfactant.

3. Storage, handling, and stability – Sealed vials are stable until their expiration date when stored and used at 2-30°C (35-86°F). Once open, date, and initial vials. Opened vials are stable for 30 days when stored at recommended temperatures. Keep vials tightly capped when not in use. Do not freeze.

4. Indications of instability or deterioration – Inability to recover expected results might indicate product instability or deterioration due to improper storage, handling, or contamination. Discard vial if debris is visible and put new vial into use.

5. Instructions for use – Before running control, verify that a Startup has been performed.

a) Run Latron® primer in the secondary mode. Access the Latex Control Run screen at the Access screen press [F2] **RUN CONTROLS** or at the Main Menu, select **Controls → Control Run**. If the **LATEX FILE** does not appear, press [F2] File. Select the **LATEX FILE**. Press [Enter]. Press [F3] Run [F4] Primer. Cycle the primer by immersing the aspirator tip completely in the primer. Press and release the sample bar. The aspirate probe for open vials will begin to aspirate the primer. Remove vial when the audible "beep" occurs. Evaluate primer results. Results should be less than 500. Press [Esc] to remove the primer run.

b) Run the latex control. Mix a room-temperature control vial gently by inverting five (5) to eight (8) times. Be careful to avoid foaming. When *Select Function* appears on the status line, press [F3] **Run**, [F3] **Control (SECONDARY)**. Cycle the control by immersing the aspirator tip completely in the vial. Press and release the sample bar. The aspirate probe for open vials will begin to aspirate the control. Remove vial when the audible "beep" occurs.

c) Examine the Mean Channel and Coefficient of Variation for volume, conductivity, and light scatter for the Diff Mode only. Compare the results to the Assigned Mean Values and Expected Coefficient of Variation. Check for **H** (high) or **L** (low) beside the results. If there are no H's or L's, results are within range. Press [F4] to <u>print results for the logbook</u>. If H or L displays, do the following:

(1) Assigned value or range is incorrect – Be sure the assigned values match the ones on the LATRON control package insert. If in error, correct them by selecting **Special Functions → Set Up → Control Set Up.**

(2) Bubbles in the flow cell or improper vial handling – Rerun the primer and control.

(3) Contaminated control, improperly mixed, or past open vial expiration date – Wipe the aspirator tip. Try a new vial of Latron control. Mix gently according to directions.

(4) "**:::::**" System detects a clog in the flow cell – Press [F3]. Press [F7] to PURGE the flow cell. Press [F4]. Cycle the Latron® primer again. Press [Esc] [F3] [F3]. Cycle the Latron® latex control again. If the control is still "out" of range, repeat the actions 2 or 3 more times. If the problem remains, either performs a ShutDown or turns the DIFF OFF and run CBCs only. If problem continues, call a Coulter representative for assistance.

(5) Assigned value or range is incorrect – Be sure the assigned values and ranges match the ones on the Latron package insert. If in error, correct them by selecting **SPECIAL FUNCTIONS, SET-UP, AND CONTROL SET UP**.

6. Setting up a Latex control file

Set up a file each time a new lot number is received. Assigned channel, expected range, and %CV are automatically entered; change them to assigned values on assay sheet, if necessary.

Choose **SPECIAL FUNCTIONS → SET UP → CONTROL SET-UP → LATEX FILE**. Select a NOT SET-UP or an inactive file. Manually enter the name of the file (Latron), Lot #, expiration date, and operator initials. The system automatically enters the assigned values, expected ranges, and expected %CVs. Check to make sure that the HOST: is set to ON. This means that the control run results are transmitted to the host computer at the time of the run. Use the spacebar to toggle between ON and OFF. Check all entries to make sure they are correct. Press [F10] to save and escape.

B. 5C Cell Controls Tri Pack contains Normal (blue), Abnormal I (yellow), Abnormal II (pink) (PN 7547001 - 9 x 3.3-mL.) The 5C-cell control is a hematology reference control used to monitor the performance of instruments with complete CBC and VCS differential technology. Run all three levels of control at the beginning of each session. Date and initial the open vials.

1. Principle – The 5C cell control is a reference product prepared from stabilized human blood. 5C Cell Controls confirms and monitors instrument accuracy and precision performance by providing measurements for counting, sizing, hemoglobin determination and white blood cell differentiation using CVS technology.

2. Reagents – 5C-cell control consists of treated, stabilized human erythrocytes in an isotonic bacteriostatic medium. 5C-cell control also contains a stabilized, platelet-sized component, and fixed erythrocytes to simulate leukocytes.

3. Storage, handling, and stability – Store 5C-cell control at 2-8°C. When stored at 2-8°C, sealed vials are stable at least until the expiration date shown on the Table of Expected Results. **NOTE:** The MCV and/or RDW parameters may show trending through the shelf life of the product. This is inherent to the product and is not an indicator of product stability. Date and initial open vials. Opened vials are stable for 13 days or 13 events when stored at 2-8°C.

   Potential biohazard – Each human donor used in preparation of this material was tested by an FDA-approved method for the presence of the antibodies to Human Immunodeficiency Virus (HIV-1 and HIV-2) and Hepatitis C (HCV) as well as for hepatitis B surface antigen and found to be negative (were not repeatedly reactive). Handle these reagents at Biosafety Level 2 because no test method can offer complete assurance that these and other infectious agents are absent.

   This product contains <0.1% Sodium Azide. Sodium Azide preservative may form explosive compounds in metal drain lines. Discard this product in biohazardous waste containers.

4. Indications of instability or deterioration – Inability to obtain expected values without known instrument problems or gross hemolysis (darkly colored supernatant) indicate product deterioration. However, a slight pink color to the supernatant is normal. Do not confuse this pink color with deterioration of the product.

5. Prepare the instrument – Insert the Control Disk when a new lot of 5C Cell Controls is put into use. Follow the instructions on the Workstation/computer screen.

6. Instructions for use – Remove 5C cell control tubes from refrigerator and warm to ambient temperature for 10-15 minutes. After warming, mix by hand as follows:

   Do not use a rotator, rocker, or mechanical mixer. Roll the tube slowly between the palms of the hands eight full rotations in an upright position. Invert the tube and slowly roll it again eight times. Gently invert the tube eight times. Repeat these actions again.

   a) Run the 5C-cell control in the Primary Mode. Does *SELECT FUNCTION* appear at the lower right corner of the DMS screen? If no, Access the Run Samples screen: at the Access screen, press [F1] **RUN SAMPLES** or at the Main Menu, select **Sample Analysis → Run Samples.** If yes, access the Run Samples screen: at the Access screen, press [F1] **RUN SAMPLES** or at the Main Menu, select **Sample Analysis→ Run Samples**. Press [F3] **Run**. The instrument automatically prepares itself for Primary mode, DIFF ON. Make sure the DIFF is ON. If it is OFF, press [F6] DIFF ON/OFF. Note: If SAMPLE MODE? is not displayed, press [F9] **STOP** first. Does the top of the F3-Run window display **PRIMARY: SAMPLE ANALYSIS**? If yes, press [Esc]. If no, press [F2] **START PRIMARY**.

b) Complete the entire procedure and return the controls to the refrigerator within 30 minutes.

c) Identify the sample by holding the bar code label in front of the reader. Place the control in the carousel. Repeat for other levels of controls.

d) Check the results of each control. Coulter has established control limits for each parameter for each of the three levels of 5C Cell Controls. The limits are set at +/- two standard deviations. NCHS does not want QC results that are out of range to be included in the NCHS analytical database. Delete any individual 5C Cell Control run that includes any results that are flagged out of range. Print the results before deleting and document on the printout what action was taken to correct it. Send all documentation to the home office at the end of each stand.

Select **CONTROLS → REVIEW, OR REPORT** and [F2] to select a file for review. Choose one control file and [Enter]. Check for **H** (high) or **L** (low) beside the results. If there are no H's or L's, results are within range. To print results for the logbook for the last control run, press [F4] Print. Use [F2] to select another file and repeat actions. If **H** or **L** displays, consider the following reasons and perform and document the following actions:

(1) Improper mixing – Follow instructions and rerun control.

(2) Control files set-up incorrectly – Make sure the assigned values and ranges match those on the control package insert. If in error, correct them by selecting, **SPECIAL FUNCTIONS, SET UP, CONTROL SET UP**.

(3) Chance (statistical outliner) – Rerun the control. If it is still out, continue with the following actions.

(4) Change in the control – Try another vial or level of control.

(5) Instrument change – Watch for normal sample flow. Call Coulter® representative to help troubleshoot abnormal operation.

7. Setting up a CBC/Diff control file

Set up a file whenever receiving a new lot number of control. Enter control package insert information for control with differential. Enter information using the bar code wand. Enter information manually if necessary.

Select **Special Functions → Set Up →Control set up → CBC/DIFF file**. Select a file to set up. Insert the 5C cell control diskette into the diskette drive of the computer. Press [F5] **Upload Assay Values**. Press the function key for the desired level of control: [F1] for Normal, [F2] for Abnormal I, [F3] for Abnormal II. Manually enter Shift and Operator ID. Check that HOST: is set according to ↑. ON means that control run results are transmitted to your host computer at the time of the run. Spacebar toggles between ON and OFF. Check all entries to make sure they are correct then press [F10] to save and escape. Repeat these steps for the other levels of control. Once you are finished, remove the 5C cell control diskette from the diskette drive of the computer.

a) Manual entry

If the 5C cell control diskette fails to upload, you can enter all data manually. Refer to the package insert for lot specific information and assigned values. The system automatically enters the level and expected ranges based on the first two digits of the lot number. Press [Enter] after each entry. Press [↓] at the end of each row of assigned values unless you are also entering your own expected ranges.

C. Control statistics and graphs

1. Use to review and print:

Control results, cumulative statistics and histograms for LATEX Files;
Control results, cumulative statistics and graphs for CBC/DIFF files; or
Check cumulative results for trends or shifts as necessary for troubleshooting.

Print, review, and delete cumulative statistics and graphs for all CBC/DIFF and LATEX files at the end of each stand after transferring information to the IQAP disk and file in the logbook.

2. Latex control review and report

a) Use this report to review and print control results and cumulative statistics and histograms for LATEX files. Check cumulative results to look for trends, shifts, or, if necessary, troubleshooting.

b) Screen-specific function keys:

[F2] File — Displays all available files. Use [↓] and [↑] to select the correct file. Press [Enter].

[F3] Transmit — Transmits the data of the entire control file to a host computer.

[F4] Print — Prints the entire file in a line list format.

[F5] Histo — Displays the volume, conductivity, and scatter (CVS) histograms screen Use [F4] to print the screen and [F6] Additional Histo to switch between Diff and RETIC histograms..

[F6] Rem/Res

Removes a highlighted run from the calculations. A DEL appears in place of the run number. The statistics recalculate. Pressing [F6] again restores the run and original statistics.

[F8] Delete File

Deletes the current control file. Displays a message "*You have asked to delete ENTIRE control file. Are you sure you want to delete?"* Press the spacebar to select Yes or No then press [Enter] to confirm the choice.

[F9] Menu Exits to the main menu.

[←] [→] Press [←] or [→] to go back and forth between the Diff Latex Control Review screen and the Retic Latex Control Review Screen.

3. CBC/DIFF control review and report

a) Use this report to review and print control results and cumulative statistics for CBC files. Can also be used to transmit the data of the entire control file to a host computer. Select **CONTROLS → REVIEW OR REPORT**, and [Enter]. Press [F2] to select one of the following files, Normal, Abnormal I, Abnormal II, and Latex [Enter]. Press [F4] to print. Review and file in logbook. Continue to select each file in turn, print, and file.

Screen-specific function keys:

[F2] File Displays all available files. Use [↓] and [↑] to select the correct file. Press [Enter].

[F3] Transmit Transmits the data of the entire control file to a host computer.

[F4] Print Prints the entire file in a line list format.

[F6] Rem/Res

Removes a highlighted run from the calculations. A DEL appears in place of the run number. The statistics recalculate. Pressing [F6] again restores the run and original statistics.

[F8] Delete File

Deletes the current control file. Displays a message "*You have asked to delete ENTIRE control file. Are you sure you want to delete?*" Press the spacebar to select Yes or No then press [Enter] to confirm the choice.

[F9] Menu Exits to the main menu.

[F12] Graphics	Displays scatterplots, histograms, and numeric results
[←] [→] More	Press [←] or [→] to see additional parameters not displayed on the screen.

D. Record 5C Cell and Latron Lot Numbers in ISIS

The ISIS maintains the capability to download all 5C Cell and Latron Control data. The data are used to monitor quality control results. Upload or enter data for each lot number each time a new lot number is put into use. The ISIS uses the same 5C Cell control disk as the HmX. Manually enter the Latron data using information contained in the package insert.

Access the Coulter QC Lot Info module.

The Lab Hood or data entry window displays.

The data entry window contains **Import 5C** and **New Latron** buttons. The window also contains **Save**, **OK**, and **Cancel** buttons. After the data are entered, there are possible actions: save, save and exit, or exit without saving the data. Make sure the separate floppy drive is connected to a USB port on the sink hard dive. Insert the HmX 5C Cell control disk into the floppy drive attached to this computer.

Select the **Import 5C** button or type [Alt] [I/i] to begin the process of entering 5C Cell lot information.

The Select File window displays.

Identify the location of the disk containing the 5C Cell control data.

Highlight the CONTROL.008 file, select the Open button and left click.

Once the Open button is selected, the data are uploaded and the Lab Hood window reappears. The data fields display the uploaded data for the three levels of 5C controls; Abnormal I, Normal, and Abnormal II. Stretch the window to view all parameters and values.

Review the data in the window. Compare the data in the window to the data on the package insert. Verify the lot number and expiration date. Validate the Expected and Range values for each parameter. Confirm this information for each QC Type. Enter the Latron data by hand entering the data from the package insert. To access the Latron data entry fields, select the "New Latron" button. The lower portion of the window contains 9 text boxes, three each for Volume (V), Conductivity (C), and Scatter (S.).

Enter the lot number and expiration date. The Lot# and Expiration text boxes are located in the top portion of the window. Use the scroll bar to view the row. Type in the Lot number using the keyboard numbers and use the calendar to enter the expiration date. Use the keyboard number keys to enter the lot number then select [Tab] to move to the expiration date field. The calendar displays. Select the correct expiration date and, when finished, select the "OK" button to insert the date into the field.

Use the keyboard number keys to enter the Latron data. The window is identical to the layout of the data on the package insert. Use the keyboard number keys to enter each value for Mean, Expected Range, and CV. When finished, select the Save button to save the data to the database. It is possible to enter Latron data for a new lot without entering 5C Cell control data. Select the "New Latron" button to access the module. The window only contains text boxes for the Latron control. Enter the data and save the information to the database.

E. Interlaboratory Quality Assurance Program (IQAP)

All instruments participate in Coulter's IQAP program. The IQAP program includes saving results of 5C Cell controls, transferring them to a disk, and sending them to Coulter who compares the results to other laboratories. Coulter issues a report that contains a statistical analysis to evaluate performance. Perform this procedure at the end of each stand, or when a lot expires.

Follow procedure for CBC/DIFF and Latex control review and report. After downloading and printing results, delete control files [F8].

1. Procedure to download IQAP files to diskette.

   a) Slide the diskette into the drive with the arrow side up and pointed toward the drive in the Coulter® Data Management System. Gently push the diskette until it clicks into place.

   b) Turn the computer OFF. Wait 15 seconds, and then turn the computer back ON. A screen will appear showing the Coulter® Corporation logo. To exit this screen, follow the instructions on the bottom left portion of the screen, and press [Esc].

   c) The screen will indicate the process the system is performing. Read the instructions on the screen. When the process is complete, the DMS displays the list of possible files on the screen for review and selection. If some of the values are incorrect, edit or delete the fields on this screen. Any alteration to this screen will affect only data on the IQAP diskette, not in the HMX computer.

   d) FILE_NAME indicates the files by file number for downloading to the diskette.

      -LOT_# indicates the type of control. Prefixes 86, 87, and 88 refer to 5C Cell Controls.
      -SHIFT refers to the shift designation selected for running the controls. Edit this field if necessary. Use arrow keys to position.
      -START and END indicate beginning and end dates for each file. These fields are not editable.
      -REPORT indicates whether IQAP will issue a report on the lot number.
      N_REC indicates the number of records found in the file.

   e) Press [Esc] to leave this screen. If the IQAP# and Serial# are present and valid, the following screen message will appear, "Updating the IQAP

Disk." After writing the control files to the diskette, a screen message will give instructions to follow. Follow these instructions and the computer will reboot to the routine program. To remove the diskette, press the eject button on the lower right of the diskette drive opening. Do not remove the diskette until the drive indicator light is off.

f) Label the diskette with the supplied IQAP ID label. Place the diskette in the preaddressed mailer provided and mail. Do not place the label over the drive spindle or high-density hole.

F. Proficiency testing

Evaluation and participation in the College of American Pathologist (CAP) proficiency-testing program is part of the comprehensive quality control program. These survey materials are shipped three times per year and consist of 5 3-mL whole blood specimens. Follow all CAP instruction in preparing the materials before performing the test. Run specimens in a manner identical to routine specimens. Fill out the CAP result form, make a copy for the logbook, and send results to CAP.

G. Linearity for WBC, RBC, Hgb and Plt parameters

Lin-C™ (PN 7547065 - 5 x 3.3-mL) – The Lin-C™ linearity controls verifies the reportable range of Coulter® hematology systems that use both Isoton® III diluent and Lyse S® III diff lytic reagent.

OR

CAP Hematology Calibration Verification/Linearity Survey (LN9) - These materials are shipped twice per year and consist of 18 3-mL liquid specimens. Follow all CAP instruction in preparing and running the materials before performing the test. Fill out the CAP result form, make a copy for the logbook, and send results to CAP.

Run either the Lin-C(trademark)or CAP LN9 survey material:

- At installation
- At least yearly
- Whenever experiencing an altitude change of 1 mile or more between stands

1. Principle - Lin-Clinearity controls are human blood components from which repeated measurements verify the reportable range of Coulter hematology systems. Controls contain one each of Ultra Low Range, Low Range, Mid Range, High Range, and Ultra High Range. Lin-C verifies ranges for the following parameters: WBC, RBC, Hgb, and Plt.

   To ensure the accuracy of linearity control ranges, Coulter system calibrates with S-CAL calibrator.

2. Reagents – Lin-C controls consist of treated, stabilized, human erythrocytes in an isotonic bacteriostatic medium. Linearity controls also contain a stabilized platelet-sized component, and fixed erythrocytes to simulate leukocytes.

3. Storage, handling, and stability – Ship Lin-C controls in thermally insulated containers designed to keep kits cool. Store Lin-C linearity controls between 2-8°C (35-46°F). Store vials in an upright position to achieve maximum product yield. Storage of the control product in a cap down position might require additional mixing or complete resuspension of cellular components.

   Potential biohazard – Each human donor used in preparation of this material was tested by an FDA approved method for the presence of the antibodies to Human Immunodeficiency Virus (HIV) and Hepatitis C (HCV) as well as for hepatitis B surface antigen and found to be negative (were not repeatedly reactive.) Handle these reagents at Biosafety Level 2 because no test method can offer complete assurance that these and other infectious agents are absent.

4. Indications of instability or deterioration – Inability to obtain expected values without known instrument problems or gross hemolysis (dark colored supernatant) indicates product deterioration. A slight pink color to the supernatant is normal. Do not confuse this pink color with deterioration of the product.

5. Instructions for use -- Remove Lin-C controls from refrigerator and warm to ambient temperature for 10-15 minutes. After warming, mix by hand as follows:

   Do not use a rotator, rocker, or mechanical mixer. Roll the tube slowly between the palms of the hands eight full rotations in an upright position. Invert the tube and slowly roll it again eight times. Gently invert the tube eight times. Repeat these actions again. Controls expire 7 days after opening.

   a) Turn the blood detectors off to analyze the Ultra Low Range. Select **SPECIAL FUNCTIONS, DIAGNOSTICS, OPERATOR OPTIONS, BSV TESTS, and BLOOD DETECTOR ON/OFF.** Press [Enter]. Use space bar to select On or OFF. Press [Enter].

   b) Disable the differential before analyzing Lin-C linearity controls. Is SAMPLE MODE displayed? If no, press [F9] STOP. Make sure the DIFF is off. If it is on, press [F6].

   c) When analyzing Lin-C linearity controls, flags such as L, LL, H, HH, R, RR, *, *R, and *V will occur. Ignore these flags if a numerical result is obtained. When ---- (voteout), ... (incomplete computation) or ++++ (over range) flags occur, the sample should be repeated. Ignore Coulter histogram differential flags and results.

   d) Run the Lin-C controls in the Primary Mode of the instrument. Select **SPECIAL FUNCTIONS, CALIBRATION, and REPRO-DUCIBILITY.** Press [Enter]. Press [F2] START PRIMARY. Analyze controls six times and record the results for WBC, RBC, Hgb, and Plt

parameters for each sample on the worksheet. Repeat flagged samples with non-numeric results.

e) Coulter recommends that five sample results should be used to calculate the mean value. Use a minimum of three samples to calculate the mean when repetitive results with non-numeric values occur. Delete the first sample result. Plot mean recovered values on the Lin-C linearity control graphs.

f) Compare the mean value to the linearity control ranges listed on the Table of Expected Results on the package insert. Mean values should recover within the ranges. Use the ranges established by Coulter Corporation as a guideline.

g) Plot the instrument background count as a zero value to extend the reportable range. Coulter will prepare tabular summaries and graphic presentations of the data. Submit the top copy of the worksheet to IQAP at the following address:

Coulter Corporation
IQAP (M/C 31 B04)
PO BOX 169015
Miami, FL 33116-9015

XI. Interpretation of Results and Remedial Action

A. Sample Person hemoglobin and hematocrit review and remedial actions.

1. Review all results to make sure the hemoglobin and hematocrit are acceptable. The hematocrit should be approximately

2. Three times the hemoglobin.

B. Sample person parameter value review and remedial actions.

1. Access the Hematology module or reject a clotted blood tube.

Open the Hematology module.

The Hematology module does not need to be open before running SP samples on the HMX. Note the red icon in the lower right hand corner of the system tray.

This is the NHANES Coulter Monitor icon. It must be open and running at the start of each session. This icon stores all HMX runs in the ISIS database. Open the icon by double-clicking on the Coulter icon on the desktop. The Coulter icon looks like this:

Open the Hematology module.

Either open the module or reject the specimen and add a reason or comment for every CB record where blood was drawn in phlebotomy AND there are no CBC results.

Open the module {Process CBC Data} or record a reason why the CBC is not being run {Not Processed CBC Data}. Select or record a comment for every CBC that is not run.

A pop-up window will display. Confirm the selection.

A CBC Data Not Processed message text box displays that asks, "Would you like to mark sample id XXXXXX as Clotted/Not Enough Blood/Equipment Failure/Lab Error?" . If a Yes response is recorded, the comment is saved to the database. If a No response is recorded, no comment is saved to the database. If the record is marked with the selection in the database, then the heads-up display updates to complete (the CB circle fills in black).

2. Hematology module overview**.**

Coulter does not automatically transmit results to the Laboratory application. Use the Retrieve button to send the results from the DMS to the hematology module. Select after each run. Make sure the Coulter DMS host computer icon (HC) is displaying an up arrow (↑) in the DMS bottom tile bar.

After data are retrieved it displays in the top portion of the window, the SP Data section. This section includes the SP ID, the date and time the CBC was run, and columns for each individual parameter. The bottom portion of the window is the Results section. Results display after the Average Selected ID button is selected.

Review all Coulter data in the SP Data section after it has been retrieved.

The Hematology Results section overview.

The Result columns include: Sample ID, Item (CBC parameter), Result (Coulter data for a single run or the ISIS averaged result for multiple runs), Action (CDC established critical limits), Range (CDC established reference ranges for both genders and four age groups), Error (Coulter transmitted instrument errors), Overlimit (Coulter transmitted result that exceeds the instrument's linearity limit), and Precision (CDC established values for the difference between any two runs.) Checkmarks display in boxes for parameters that have errors, are overlimit, or for those that exceed precision limits. An "H" for "high" and "L" for "low" display for parameters that exceed action limits or reference ranges.

Average, evaluate, and save results for all parameters. The SP's results display in the bottom portion of the window after the Average Selected ID button is selected. Evaluate each parameter for error, overlimit, and precision checkmarks, and "H" or "L" action limit and reference range flags. After results are saved, they are erased from the screen.

A warning text box displays if the Close button is selected before the results have been saved.

If the Close button is selected before the results are saved to the database, a warning message text box displays that states, "WARNING *you have not saved the data in the 'Result' window" and asks, "Do you want to save the data before exiting?" If a Yes response is recorded, the CBC results are saved to the database and erased. If a No response is recorded, no results are saved to the database and the data in the Results section is erased. A Cancel response returns the screen to its previous state.

3. Running samples when only one run is possible.

Save results where only one run was possible.

Run samples in duplicate whenever possible. If the whole blood is insufficient, it is acceptable to average and save only one run. A warning message text box displays that states, "You have downloaded only one (1) run from the Coulter HMX for SPID *XXXXXX*" and asks, "Do you want to create an average based on a single run?" If a Yes response is recorded, the CBC results display in the bottom Results section of the window. A "No" response cancels the action and returns the window to its previous state. For results where only one run was possible, the Comment box at the bottom of the window defaults to "result based on single run."

4. Running samples in duplicate.

Run all samples in duplicate and average the data.

Whenever a sample is run in duplicate, both results display in the SP Data section. Results display in the lower section of the window. The difference between duplicate values for WBC, RBC, Hgb, MCV, Plt, NE#, LY#, MO#, EO# and BA# are calculated and evaluated to determine if the differences are within the following CDC established precision limits.

CDC established precision limits:

Test	Precision Limits
WBC	0.4×10^3
RBC	0.1×10^6
Hgb	0.4 g/dL
MCV	2.2 fL
Plt	23×10^3
NE#	0.4×10^3
LY#	0.2×10^3
MO#	0.2×10^3
EO#	0.2×10^3
BA#	0.2×10^3

If RBC parameters are out of range, evaluate the data for drift. If drift is evident, evaluate the possibility of an instrument malfunction. If any WBC differential absolute number is out of range, check the WBC scattergram for abnormal cell population(s).

Evaluate and save results when precision limits are <u>not</u> exceeded.

Evaluate results for all parameters. Evaluate each parameter for error, overlimit, and precision checkmarks, and "H" or "L" action limit and reference range flags. If there are no checkmarks in the Precision column (no precision limit was exceeded), save the results to the database.

Average, evaluate, and rerun specimens that exceed precision limits.

If at this point, precision limits are <u>exceeded</u> for any individual parameter, the technologist is prompted to run a control and evaluate the control to determine if all control values fall within the control's established range.

If any parameter exceeds its precision limit, the Hematology Control Run window displays. The Hematology Control Run window indicates that the "Samples for SP ID *XXXXXX* are outside the defined precision limits." It instructs the technologist to "Please run a successful control for Session ID *XXXXXX*, and then run another sample for SP ID *XXXXXX*." Run any one level of 5C Cell control and evaluate the results. Respond to the two questions, "Did you run a control run”? and "Were all control values within established range”? Save the responses to the check box questions.

As soon as the OK button is selected, the averages display in the Results section of the window.

Evaluate the results displayed in the Results section of the window.

Evaluate each parameter for error, overlimit, and precision checkmarks, and "H" or "L" action limit and reference range flags. Use the scroll bar to view all results. When there are checkmarks in any of the Precision columns, meaning that the precision limit was exceeded, rerun the blood sample a third time. If there is insufficient blood to run the CBC a third time, save the result to the database.

Run the specimen a third time when any precision limit is exceeded. Whenever a sample is run more than once, all results in the SP Data section are displayed. The initial averaged results for parameters that do not exceed precision limits are fixed and are not recalculated. Override the current averaged results for parameters that exceeded the precision limit with a new average.

Whenever a sample has previously been averaged, and a new average is calculated, a Warning message text box displays stating, "Averages for SP ID *XXXXXX* have already been calculated (but not saved) for session ID *XXXXXX*." The text box instructs, "Please click YES to override these results with a new average." .

Evaluate the new results.

The first three runs are recalculated to find the closest two results for parameters where the difference between any two results exceeded its precision limits. If all parameters now meet precision limits (there are no checkmarks in the Precision column), save the results to the database.

If necessary, run the specimen a fourth time and evaluate.

If precision limits are still not met for any parameter, run the blood tube a fourth time. Re-average, evaluate, and save the results. If after four runs precision limits are still not met for any parameter, a comment is automatically attached to the results. Do not run a specimen more than four times.

5. Attaching comments to the results.

Enter a comment for any run where results were repeated and confirmed, the equipment failed, or there was a laboratory error. Save the result after attaching a comment.

6. Using alternative data manipulation choices.

Retain data for multiple SPs in the SP Data section of the window.

In general, run one SP in duplicate through the Coulter, retrieve the data, average the result, and save the data to the database. The Hematology module will display data for multiple SPs in the SP Data section. Each individual SP's results or pairs of results are displayed in a different color. Average the results for one SP at a time.

Evaluate each parameter for error, overlimit, and precision checkmarks, and "H" or "L" action limit and reference range flags. If there are no checkmarks in the Precision column (no precision limit was exceeded), save the result to the database. If there are any Precision checkmarks, run a 5C Cell control, evaluate the control results, rerun the blood tube a third time, re-average, evaluate, and save the results.

Use alternative data manipulation choices as desired.

Release the mouse button to clear all downloads. All data in the SP Data section is erased but any averaged result remains in the Results section of the window. To clear the result section, close the Hematology module.

Use the data manipulation functions to erase or delete one SP's data in the SP Data section.

Use the "View Log for ID# *XXXXXX*" choice to view all Coulter data, averages, and precision limit values for any SP. Review the SP's log. The SP's log contains detailed information for each parameter and each run.

7. Re-averaging results.

Re-average a result that has or has not previously been saved to the database.

If a SP has not exited the MEC and the Report of Findings has not been printed, it is possible to retransmit and re-average the results for a SP and overwrite (save) the results in the database. A warning message text box displays when an attempt is made to save the data on a SP who has not exited the MEC or for whom a Report of Findings has not been printed. This text states, "Averages for SP ID *XXXXXX* have already been calculated (but not saved) for session *XXXXX*. Please click Yes to override these results with a new average."

If the SP has exited the MEC or the Report of Findings has been printed, it is impossible to overwrite (save) the results in the database.

A warning message text box displays when an attempt is made to save the data on a SP either who has exited the MEC or for whom a Report of Findings has been printed. This text states, "Results from the Coulter HMX for SPID *XXXXXX* already exist for an SP who has already checked out of the MEC. The

system will now clear the download for SP ID *XXXXXX*." The downloaded data, including the results, are automatically erased.

C. HMX parameter codes

1. Review the message

The Coulter HMX uses triplicate counting with strict voting criteria. It has proprietary flagging algorithms to confirm parameter results before reporting. The instrument may not detect a transient or partial aperture blockage by any of these processes. A partial aperture blockage may cause erroneous results, such as WBC count lower than what is present. Monitor the aperture-viewing screen when cycling specimens that are likely to contain fibrin or debris.

2. The HMX displays abnormal parameter results for all cell populations and values.

Review the result for the affected parameter. Rerun the specimen if any of the parameter flags occurs.

D. HMX suspect messages

1. Suspect messages flag an abnormal cell distribution or population. The system generates these messages according to an internal algorithm. Specific suspect messages indicate some abnormalities that exhibit characteristic cluster patterns. Suspect messages indicate the possibility of a particular abnormality. Not every atypical scatterplot has a corresponding suspect message.

2. Remedial action – Rerun the specimen.

E. Physician review

1. The MEC physician reviews and interprets all CBC results. Results outside action limits flash and transmit to the physician immediately. The physician determines if referral for the SP for treatment is necessary.

2. The medical technologist sends an observation to the physician whenever a critical or action limit is detected for any CBC parameter. This observation includes the date, time, responsible laboratory individual, person notified, and test results.

   Send an observation on any SP scheduled into the MEC session. Access the observation function.

   Select or highlight the correct SP. Verify that the SP ID, name, and age are correct. Use the scroll bar to view the complete list of SPs.

   The observation window displays. Enter the observation on a survey participant. Document the date, time, responsible laboratory individual, person notified, and test results, including the parameter.

XII. Limitations of Method: Specimen Rejection, Interfering Substances and Conditions

This method limits samples to human whole blood.

A. Specimen rejection

1. Reject clotted specimens and recollect.

B. Interfering Substances and Conditions

Because the Coulter directly measures RBC, WBC, Hgb, and Diff %, it is most important to concentrate on analytes and substances that interfere with these parameters. The Coulter calculates HCT, MCH, MCHC, and DIFF # parameters. The Coulter derives MCV, RDW, PLT, and MPV from RBC or platelet histograms. The following are possible interfering substances or conditions:

Abnormal BUN, glucose, or sodium levels could affect the MCV.

Abnormal WBCs could affect lymphocytes, monocytes, and granulocytes.

Abnormally small WBCs could affect white count, lymphocytes, monocytes, and granulocytes.

Clumped platelets could affect white count, lymphocytes, monocytes, granulocytes, RBC, MCV, RDW, platelet count, and MPV.

Cryofibrinogen and cryoglobulin crystals could affect white count, lymphocytes, monocytes, granulocytes, RBC, hemoglobin, platelet count, and MPV.

An elevated WBC count could affect RBC, hemoglobin, MCV, RDW, platelet count, and MPV parameters.

Fragile WBCs could affect white count, lymphocytes, monocytes, granulocytes, platelet count, and MPV.

Giant platelets could affect white count, lymphocytes, monocytes, granulocytes, RBC, MCV, RDW, platelet count, and MPV.

Hemolyzed specimens could affect RBC, hemoglobin, platelet count, and MPV.

Lipemic specimens could affect MCV.

Severely icteric plasma causes increased hemoglobin. Evaluate CBC result carefully and report all parameters except the hemoglobin result.

Nucleated RBCs could affect the white count, lymphocytes, monocytes, granulocytes, and hemoglobin values.

WBC - Certain unusual RBC abnormalities that resist lysing, nucleated RBCs, fragmented WBCs, agglutinated WBCs, any unlysed particles greater than 35 fL, very large or aggregated platelets as when anticoagulated with oxalate or heparin, specimens containing fibrin, cell fragments, or other debris such as pediatric and oncology specimens.

RBC - Very high WBC count, high concentration of very large platelets, agglutinated RBCs, RBCs smaller than 36 fL, specimens containing fibrin, cell fragments, or other debris such as pediatric and oncology specimens.

Hgb - Very high WBC count, severe lipemia, heparin, certain unusual RBC abnormalities that resist lysing, or anything that increases the turbidity of the sample such as elevated levels of triglycerides.

MCV - Very high WBC count, high concentration of very large platelets, agglutinated RBCs, RBC fragments that fall below the 36-fL threshold, or rigid RBCs.

RDW - Very high WBC count, high concentration of very large or clumped platelets as in blood anticoagulated with oxalate or heparin, RBCs below the 36-fL threshold, two distinct populations of RBCs, RBC agglutinates, or rigid RBCs.

Plt - Very small red blood cells near the upper threshold, cell fragments, clumped platelets as with oxalate or heparin, platelet fragments, or cellular debris near the lower platelet threshold.

MPV - Known factors that interfere with the Plt count and shape of the histogram or known effects of EDTA.

Hct - Known factors that interfere with the parameters used for computation: RBC and MCV.

MCH - Known factors that interfere with the parameters used for computation: Hgb and RBC.

MCHC - Known factors that interfere with the parameters used for computation: Hgb, RBC and MCV.

Diff Parameters - Known factors that affect the WBC count as listed above or high triglycerides that affect lysing.

XIII. Reference Ranges

1. Males

Age in years	5-Jan		18-Jun		19-65		66+	
	2.5	97.5	2.5	97.5	2.5	97.5	2.5	97.5
White blood cell count (SI)	4.3	14.6	3.6	11.5	3.9	11.8	3.8	12.1
Red cell count (SI)	3.98	5.3	4.14	5.78	4.18	5.86	3.57	5.67
Hemoglobin (g/dL)	10.7	14.2	11.9	16.9	13.1	17.5	11.4	17.1
Hematocrit (%)	32.1	41.7	35.3	49.9	38.7	51.4	33.9	50.9
Mean cell volume (fL)	68.2	88.8	75.6	94.6	79.8	99.1	81.4	102.7
Mean cell hemoglobin (pg)	22.3	30.6	25	32.3	26.3	34	26.3	35
MCHC (g/dL)	32.3	35.6	32.3	35.3	32.3	35.3	32.1	35.1
Red cell distribution width (%)	11.4	15.8	11.4	14	11.4	14.5	11.8	16.2
Platelet count (%) SI	212	546	179	439	152	386	124	384
Mean platelet volume (fL)	6.1	8.9	6.6	10	6.8	10.1	6.6	10.2
Lymphocyte percent (%)	22.8	68.4	17.5	54.3	16.1	47.9	12.3	46.4
Monocyte percent (%)	4.6	15.2	4.8	13.7	4.4	13.5	4.6	14
Segmented neutrophils percent (%)	17.6	67.1	30.3	72.8	37.8	74.6	39.5	78.1
Eosinophils percent (%)	0.7	11.3	0.7	11.5	0.7	8.5	0.6	8.8
Basophils percent (%)	0.1	2.5	0.1	1.6	0.1	1.6	0.1	1.6

2. Females

Age in years	5-Jan		18-Jun		19-65		66+	
	2.5	97.5	2.5	97.5	2.5	97.5	2.5	97.5
White blood cell count (SI)	4.3	14	3.9	12.2	4.1	12.9	4	11.6
Red cell count (SI)	3.96	5.28	3.84	5.24	3.64	5.2	3.51	5.34
Hemoglobin (g/dL)	11	14.2	11.2	15.1	10.6	15.6	10.9	15.9
Hematocrit (%)	32.5	41.9	33.5	44.6	32	45.9	32.8	47
Mean cell volume (fL)	70.2	89.1	74.7	94.9	74.6	98.2	80.3	100.6
Mean cell hemoglobin (pg)	23.3	30.8	24.5	32.6	24.3	33.8	26.4	34.5
MCHC (g/dL)	32.4	35.5	32.3	35.3	32.1	35.3	32.3	35.1
Red cell distribution width (%)	11.3	15.4	11.3	14.8	11.4	16.3	11.6	16.3
Platelet count (%) SI	215	547	190	446	168	441	155	428
Mean platelet volume (fL)	6.1	8.9	6.6	10	6.8	10.2	6.7	10.5
Lymphocyte percent (%)	21.6	68.8	17.2	54.7	14.1	47.6	13.7	46.9
Monocyte percent (%)	4.2	14.4	4.3	12.7	3.8	11.6	4.4	12.8
Segmented neutrophils percent (%)	19.4	69.5	31.9	74.3	39.8	78.1	40.9	78.1
Eosinophils percent (%)	0.6	9.9	0.6	9.9	0.6	7.3	0.6	7.5
Basophils percent (%)	0.1	2.5	0.1	1.6	0.1	1.7	0.1	1.7

3. Reference ranges for normal values were calculated from the NHANES data set (1999-2004) using 95% reference interval(s) determined nonparametrically, through ranking the observations and determining the lower (2.5th percentile) and the upper (97.5th percentile) reference limits. The nonparametric (ranking) method was used because most measured hematology parameters have a skewed, non-Gaussian distribution.

XIV. Action Limits

Action limits are a guide to inform the physician that a CBC result(s) is/are abnormal. Since all specimens are run in duplicate, there is no reason to retest the sample.

WBC male and female (all ages)	< or = to 3 x 10^3 μL or > or = to 16.0 x 10^3 μL
Hgb male and female (<6 years)	<6.5 g/dL or >14.5 g/dL
Hgb female (>6 years)	<6.5 g/dL or >16.0 g/dL
Hgb male (>6 years)	<6.5 g/dL or >18.0 g/dL
PLT male and female (all ages)	<50 x 10^3 μL or >800 x 10^3 μL

Possible causes of abnormal parameters:

High RBC, Hgb, or HCT -- dehydration, polycythemia, shock, chronic hypoxia
Low RBC, Hgb or HCT -- anemia, thalassemia and other hemoglobinopathies
Low MCV -- microcytic anemia
High MCV -- macrocytic anemia, liver disease
Low WBC -- sepsis, marrow hypoplasia
High WBC -- acute stress, infection, malignancies
Low platelets -- risk of bleeding
High platelets -- risk of thrombosis

XV. Specimen Storage and Handling during Testing

A. Specimen storage

1. Store specimens capped and place on a rocker at room temperature until processed.

2. Run within 24 hours of drawing.

XVI. Alternative Method for Performing Test or Storing Specimens if Test System Fails

There is no alternative method for this test. Store EDTA tube at room temperature for no more than 24 hours. Restore the instrument to functionality and then run the specimen.

XVII. Test Results Reporting System: Protocol for Reporting Action Limits

Results outside the action limits are automatically brought to the physician's attention for a decision as to "course-to-follow."
All records, including QA/QC data will be maintained for 6 years. Use only numerical identifiers for SP results.

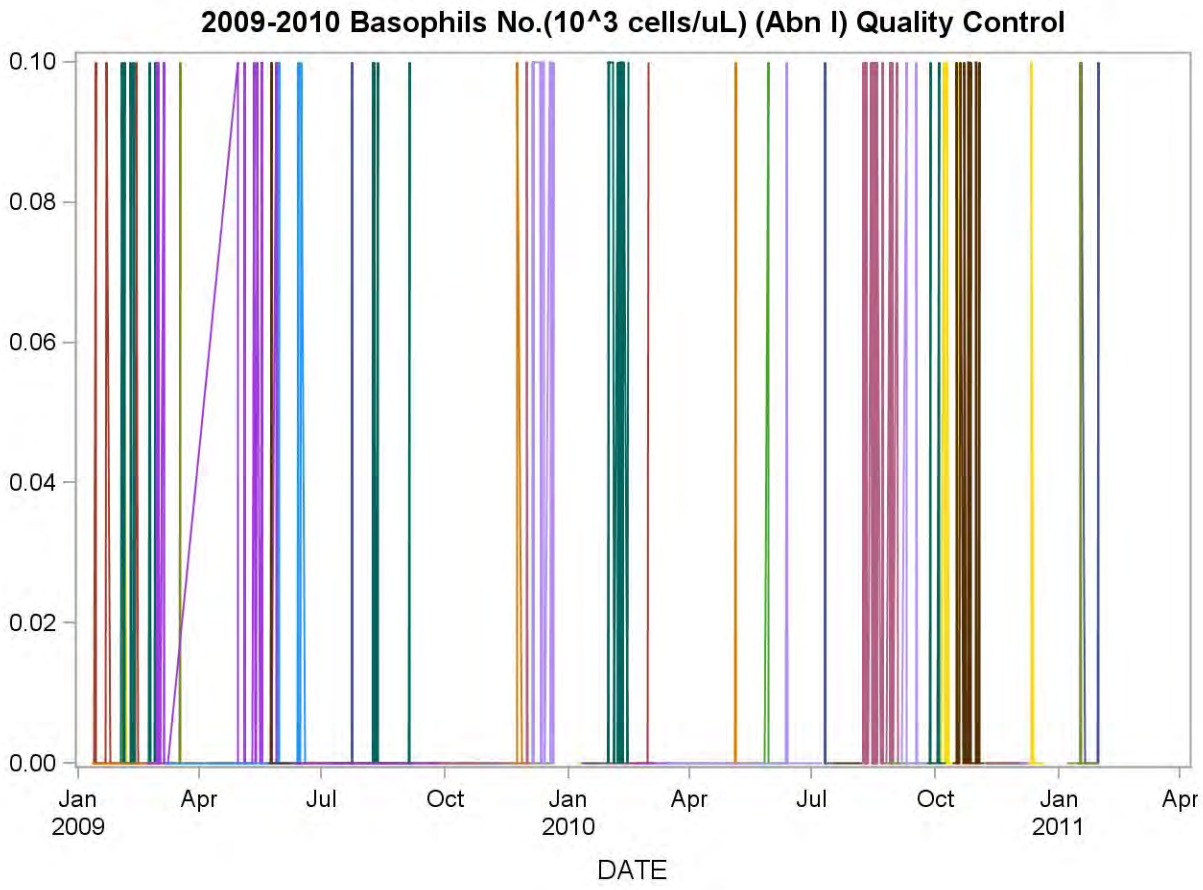
XVIII. Quality Control Summary Statistics and Graphs

Chapter 14 includes a separate detailed description of the comprehensive quality control plan. Monitor 5C® Cell control results for bias and maintain results for the entire study period. Compare all three instruments using the CAP proficiency results.

Summary Statistics for Basophils No.(10^3 cells/uL) (Abn I)

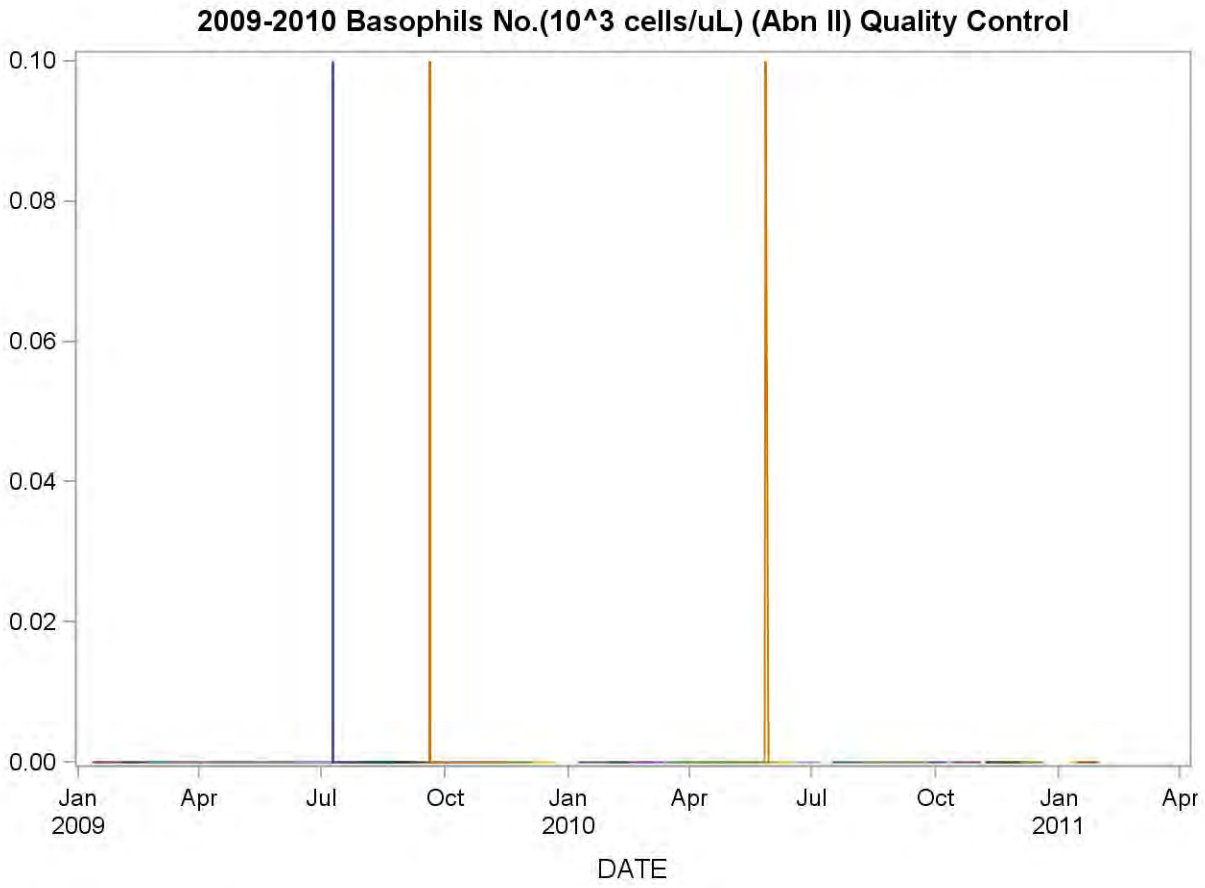
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	0.0019	0.0136	734.8
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	0.0000	0.0000	.
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	0.0058	0.0235	408.1
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	0.0091	0.0290	318.7
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	0.0107	0.0315	294.0
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	0.0119	0.0325	273.7
876300_09	20	06MAR09:16:04:00	15MAR09:13:31:00	0.0000	0.0000	.
878000_09	54	06MAR09:16:04:00	21JUN09:13:38:00	0.0056	0.0231	416.2
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	0.0056	0.0236	424.3
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	0.0000	0.0000	.
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	0.0000	0.0000	.
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	0.0013	0.0113	883.2
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	0.0000	0.0000	.
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	0.0000	0.0000	.
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	0.0026	0.0162	616.4
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	0.0000	0.0000	.
879100_09	40	31JUL09:11:08:00	23AUG09:13:37:00	0.0000	0.0000	.
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	0.0085	0.0282	331.4
870100_09	45	18SEP09:13:56:00	17OCT09:09:05:00	0.0000	0.0000	.
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	0.0047	0.0213	458.1
870700_09	85	08OCT09:16:31:00	19NOV09:09:12:00	0.0000	0.0000	.
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	0.0000	0.0000	.
870800_09	21	20OCT09:15:09:00	09NOV09:13:39:00	0.0000	0.0000	.
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	0.0077	0.0277	360.6
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	0.0031	0.0177	565.7
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	0.0677	0.0475	70.1
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	0.0000	0.0000	.
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	0.0000	0.0000	.
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	0.0020	0.0141	707.1
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	0.0654	0.0485	74.2
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	0.0000	0.0000	.
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	0.0000	0.0000	.
873900_10	15	14MAR10:08:39:00	22MAR10:13:30:00	0.0000	0.0000	.
875000_10	44	14MAR10:08:39:00	08JUL10:16:00:00	0.0023	0.0151	663.3
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	0.0000	0.0000	.
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	0.0000	0.0000	.
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	0.0023	0.0152	655.7
874700_10	42	14MAY10:09:05:00	13JUN10:08:38:00	0.0024	0.0154	648.1
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	0.0043	0.0209	479.6
875900_10	36	16JUL10:11:37:00	07AUG10:08:43:00	0.0000	0.0000	.
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	0.0189	0.0394	208.4
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	0.0000	0.0000	.
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	0.0069	0.0258	373.9
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	0.0087	0.0288	331.3
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	0.0079	0.0273	346.1
877400_10	71	13OCT10:15:06:00	06NOV10:13:35:00	0.0141	0.0350	248.7
877800_10	33	06NOV10:10:47:00	21NOV10:13:23:00	0.0000	0.0000	.
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	0.0000	0.0000	.
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	0.0000	0.0000	.
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	0.0000	0.0000	.
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	0.0000	0.0000	.
878600_10	25	08DEC10:14:29:00	20DEC10:13:34:00	0.0040	0.0200	500.0
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	0.0029	0.0171	583.1
870000_11	25	14JAN11:10:08:00	30JAN11:13:48:00	0.0080	0.0277	346.1

Summary Statistics for Basophils No.(10^3 cells/uL) (Abn I)



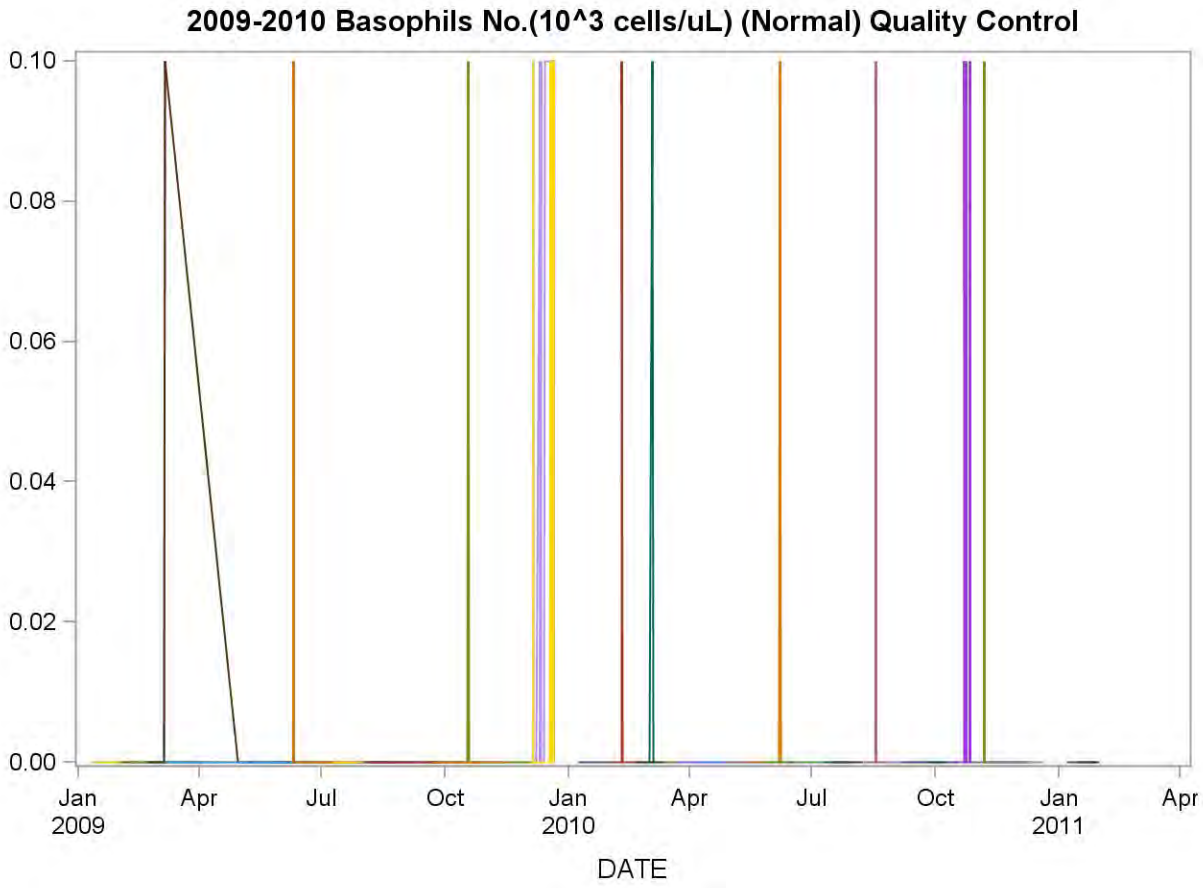
Summary Statistics for Basophils No.(10^3 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	0.0000	0.0000	.
866200_09	51	11JAN09:10:39:00	15FEB09:13:50:00	0.0000	0.0000	.
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	0.0000	0.0000	.
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	0.0000	0.0000	.
868300_09	126	20FEB09:09:57:00	14JUN09:14:54:00	0.0000	0.0000	.
867100_09	12	06MAR09:16:06:00	14MAR09:13:25:00	0.0000	0.0000	.
868600_09	46	06MAR09:16:06:00	21JUN09:13:41:00	0.0000	0.0000	.
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	0.0000	0.0000	.
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	0.0000	0.0000	.
867800_09	14	04MAY09:10:30:00	12MAY09:17:39:00	0.0000	0.0000	.
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	0.0000	0.0000	.
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	0.0000	0.0000	.
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	0.0000	0.0000	.
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	0.0023	0.0152	655.7
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	0.0000	0.0000	.
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	0.0000	0.0000	.
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	0.0023	0.0151	663.3
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	0.0022	0.0149	670.8
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	0.0000	0.0000	.
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	0.0000	0.0000	.
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	0.0000	0.0000	.
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	0.0000	0.0000	.
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	0.0000	0.0000	.
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	0.0000	0.0000	.
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	0.0000	0.0000	.
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	0.0000	0.0000	.
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	0.0000	0.0000	.
863900_10	46	19FEB10:14:07:00	13MAR10:13:31:00	0.0000	0.0000	.
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	0.0000	0.0000	.
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	0.0000	0.0000	.
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	0.0000	0.0000	.
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	0.0000	0.0000	.
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	0.0000	0.0000	.
864900_10	75	25APR10:02:52:00	05JUN10:13:56:00	0.0013	0.0115	866.0
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	0.0000	0.0000	.
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	0.0000	0.0000	.
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	0.0000	0.0000	.
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	0.0000	0.0000	.
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	0.0000	0.0000	.
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	0.0000	0.0000	.
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	0.0000	0.0000	.
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	0.0000	0.0000	.
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	0.0000	0.0000	.
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	0.0000	0.0000	.
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	0.0000	0.0000	.
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	0.0000	0.0000	.
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	0.0000	0.0000	.
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	0.0000	0.0000	.
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	0.0000	0.0000	.
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	0.0000	0.0000	.
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	0.0000	0.0000	.
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	0.0000	0.0000	.


2009-2010 Basophils No.(10^3 cells/uL) (Abn II) Quality Control
0.10
0.08
0.06
0.04
0.02
0.00
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Basophils No.(10^3 cells/uL) (Normal)

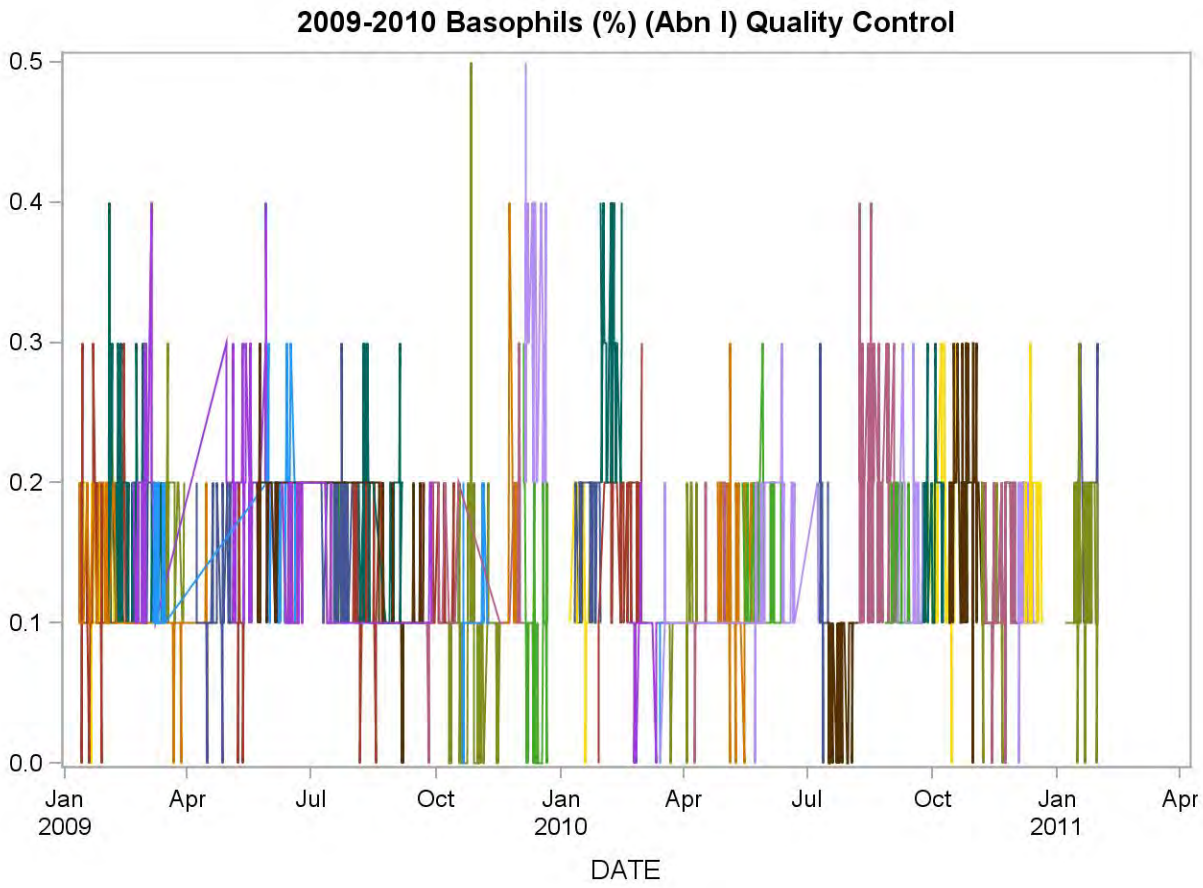
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	0.0000	0.0000	.
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	0.0000	0.0000	.
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	0.0000	0.0000	.
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	0.0000	0.0000	.
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	0.0040	0.0200	500.0
887900_09	114	20FEB09:09:55:00	12JUN09:13:46:00	0.0009	0.0094	1068
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	0.0000	0.0000	.
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	0.0000	0.0000	.
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	0.0000	0.0000	.
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	0.0000	0.0000	.
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	0.0000	0.0000	.
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	0.0000	0.0000	.
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	0.0000	0.0000	.
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	0.0017	0.0129	774.6
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	0.0019	0.0136	734.8
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	0.0000	0.0000	.
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	0.0000	0.0000	.
889700_09	46	03AUG09:08:39:00	06SEP09:08:54:00	0.0000	0.0000	.
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	0.0000	0.0000	.
881400_09	42	20SEP09:11:46:00	05DEC09:08:41:00	0.0000	0.0000	.
881000_09	62	08OCT09:16:29:00	15NOV09:09:02:00	0.0000	0.0000	.
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	0.0167	0.0408	244.9
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	0.0000	0.0000	.
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	0.0000	0.0000	.
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	0.0485	0.0508	104.7
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	0.0161	0.0374	231.8
882900_10	66	07JAN10:09:20:00	29JAN10:12:11:00	0.0000	0.0000	.
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	0.0014	0.0117	854.4
884000_10	35	19FEB10:11:33:00	14MAR10:07:26:00	0.0000	0.0000	.
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	0.0167	0.0408	244.9
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	0.0000	0.0000	.
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	0.0000	0.0000	.
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	0.0000	0.0000	.
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	0.0000	0.0000	.
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	0.0024	0.0154	648.1
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	0.0000	0.0000	.
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	0.0000	0.0000	.
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	0.0000	0.0000	.
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	0.0000	0.0000	.
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	0.0014	0.0120	830.7
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	0.0000	0.0000	.
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	0.0000	0.0000	.
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	0.0000	0.0000	.
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	0.0041	0.0199	489.8
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	0.0031	0.0177	565.7
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	0.0000	0.0000	.
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	0.0000	0.0000	.
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	0.0000	0.0000	.
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	0.0000	0.0000	.
889000_10	28	08DEC10:14:17:00	20DEC10:13:34:00	0.0000	0.0000	.
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	0.0000	0.0000	.
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	0.0000	0.0000	.


2009-2010 Basophils No.(10^3 cells/uL) (Normal) Quality Control
0.10
0.08
0.06
0.04
0.02
0.00
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Basophils (%) (Abn I)

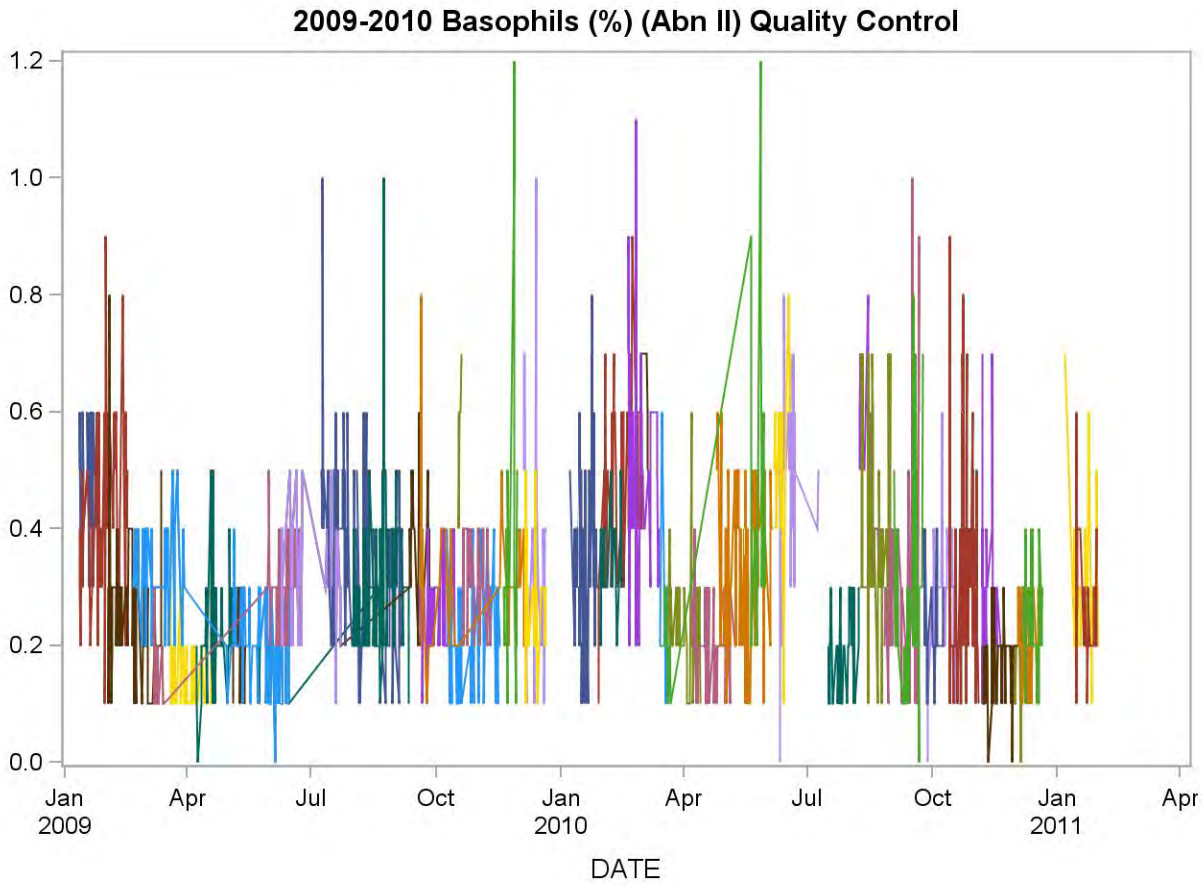
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	0.1352	0.0555	41.0
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	0.1103	0.0414	37.5
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	0.1231	0.0645	52.4
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	0.1667	0.0687	41.2
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	0.1714	0.0763	44.5
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	0.1891	0.0647	34.2
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	0.1286	0.0463	36.0
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	0.1600	0.0596	37.3
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	0.1667	0.0594	35.6
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	0.1078	0.0392	36.4
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	0.0923	0.0494	53.5
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	0.1333	0.0550	41.3
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	0.1275	0.0452	35.5
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	0.1271	0.0449	35.3
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	0.1605	0.0547	34.1
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	0.1500	0.0527	35.1
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	0.1341	0.0575	42.9
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	0.1787	0.0587	32.9
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	0.1130	0.0400	35.4
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	0.1302	0.0599	46.0
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	0.0839	0.0680	81.0
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	0.1333	0.0516	38.7
870800_09	21	20OCT09:15:09:00	09NOV09:13:39:00	0.1095	0.0436	39.8
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	0.1308	0.0855	65.4
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	0.0844	0.0808	95.7
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	0.3000	0.0856	28.5
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	0.1238	0.0539	43.5
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	0.1700	0.0464	27.3
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	0.1700	0.0544	32.0
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	0.2885	0.0766	26.5
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	0.0943	0.0338	35.9
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	0.1000	0.0000	0.0
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	0.1000	0.0365	36.5
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	0.1311	0.0596	45.5
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	0.1097	0.0473	43.1
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	0.1083	0.0347	32.1
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	0.1256	0.0621	49.4
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	0.1419	0.0545	38.4
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	0.1609	0.0656	40.8
875900_10	37	16JUL10:11:37:00	07AUG10:13:39:00	0.0676	0.0475	70.2
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	0.1986	0.0712	35.8
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	0.1179	0.0389	33.0
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	0.1414	0.0628	44.4
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	0.1652	0.0647	39.2
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	0.1579	0.0683	43.3
877400_10	71	13OCT10:15:06:00	06NOV10:13:35:00	0.1901	0.0636	33.4
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	0.1176	0.0521	44.2
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	0.1150	0.0483	42.0
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	0.1263	0.0518	41.0
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	0.1529	0.0514	33.6
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	0.1242	0.0502	40.4
878600_10	26	08DEC10:14:29:00	20DEC10:13:34:00	0.1692	0.0549	32.4
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	0.1265	0.0666	52.6
870000_11	25	14JAN11:10:08:00	30JAN11:13:48:00	0.1920	0.0493	25.7

Summary Statistics for Basophils (%) (Abn I)



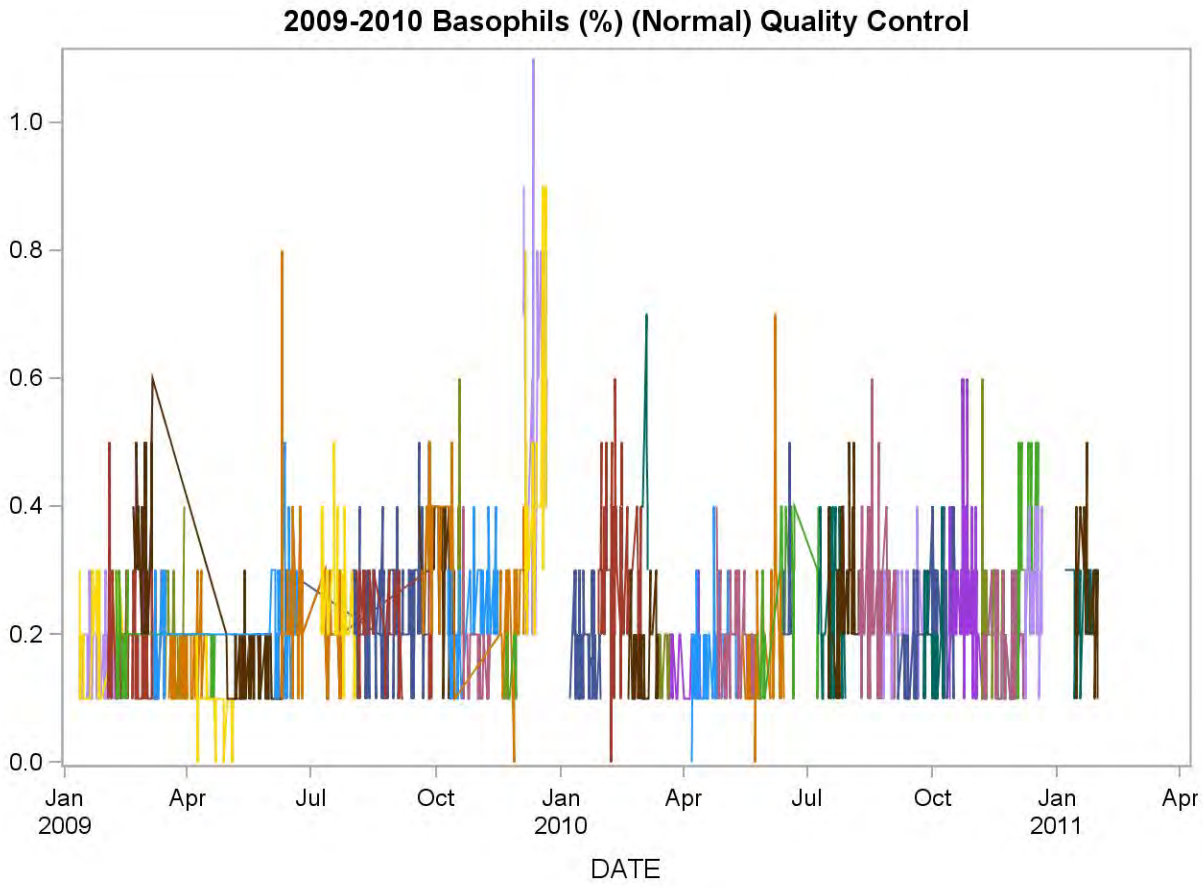
Summary Statistics for Basophils (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	0.4815	0.1075	22.3
866200_09	52	11JAN09:10:39:00	15FEB09:13:50:00	0.4423	0.1526	34.5
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	0.2441	0.1222	50.0
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	0.3350	0.0834	24.9
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	0.2422	0.1009	41.6
867100_09	13	06MAR09:16:06:00	14MAR09:13:25:00	0.1462	0.0660	45.2
868600_09	47	06MAR09:16:06:00	21JUN09:13:41:00	0.2638	0.1031	39.1
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	0.1574	0.0715	45.4
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	0.2125	0.0966	45.4
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	0.1875	0.0719	38.3
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	0.2456	0.1430	58.2
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	0.3465	0.1053	30.4
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	0.3467	0.0991	28.6
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	0.3953	0.1558	39.4
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	0.2850	0.0921	32.3
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	0.3087	0.1279	41.4
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	0.2886	0.1166	40.4
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	0.3067	0.1116	36.4
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	0.2262	0.0957	42.3
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	0.5667	0.1033	18.2
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	0.3216	0.0712	22.2
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	0.3938	0.2999	76.2
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	0.3576	0.1821	50.9
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	0.2867	0.0973	33.9
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	0.3585	0.1322	36.9
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	0.4769	0.1450	30.4
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	0.3440	0.0768	22.3
863900_10	45	19FEB10:14:07:00	13MAR10:13:31:00	0.5511	0.2222	40.3
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	0.6500	0.0837	12.9
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	0.2214	0.1311	59.2
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	0.3905	0.2809	71.9
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	0.2406	0.0979	40.7
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	0.1980	0.0685	34.6
864900_10	74	25APR10:02:52:00	05JUN10:13:56:00	0.3527	0.1367	38.8
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	0.4944	0.1798	36.4
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	0.4893	0.1618	33.1
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	0.1775	0.0733	41.3
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	0.4571	0.1434	31.4
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	0.3902	0.1729	44.3
867000_10	38	26AUG10:10:03:00	20SEP10:17:38:00	0.3158	0.2047	64.8
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	0.2938	0.1966	66.9
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	0.2304	0.0974	42.3
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	0.2636	0.1084	41.1
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	0.3154	0.1906	60.4
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	0.2688	0.1355	50.4
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	0.1661	0.0721	43.4
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	0.1675	0.0694	41.4
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	0.1625	0.0806	49.6
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	0.1926	0.0730	37.9
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	0.2407	0.0931	38.7
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	0.3000	0.1299	43.3
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	0.2636	0.1025	38.9


2009-2010 Basophils (%) (Abn II) Quality Control
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Basophils (%) (Normal)

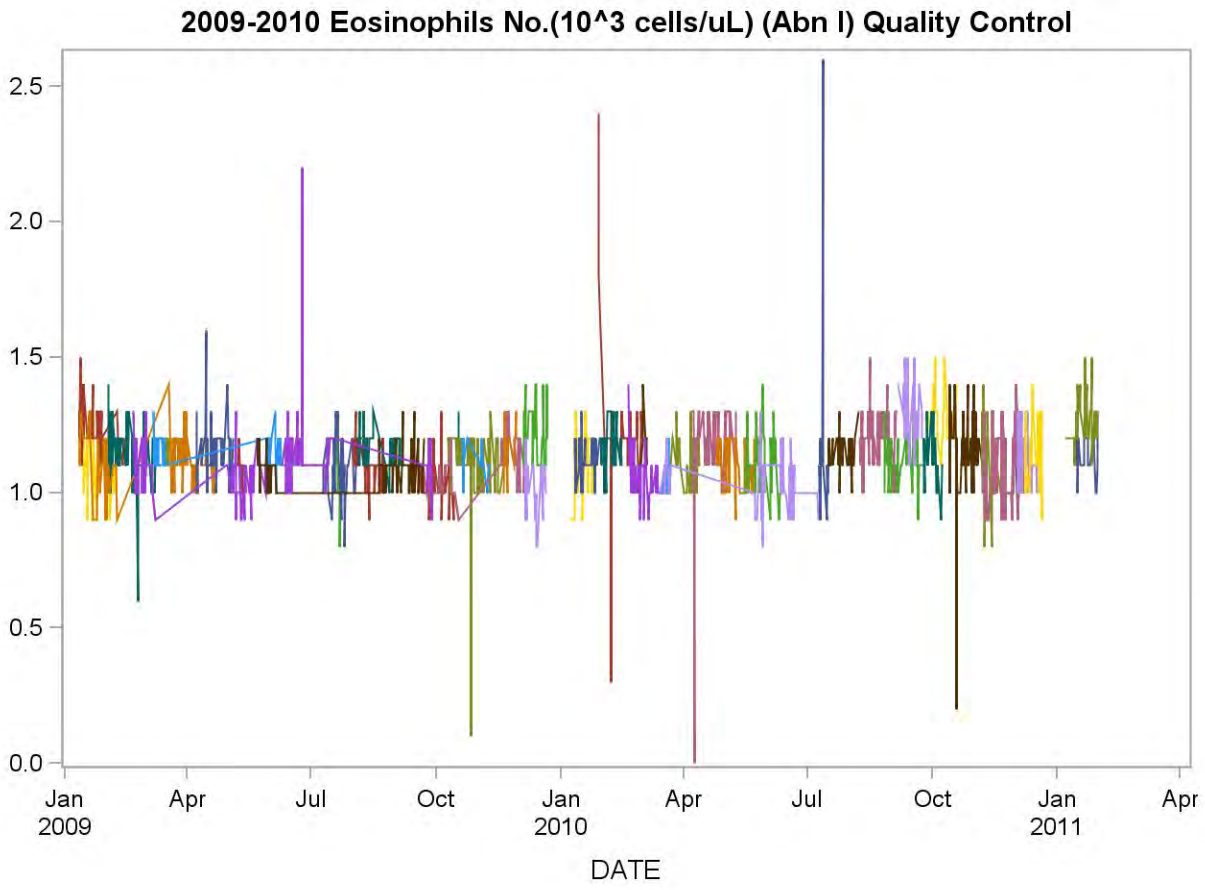
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	0.1766	0.0813	46.1
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	0.1905	0.0759	39.8
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	0.1859	0.0816	43.9
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	0.1684	0.0749	44.5
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	0.3680	0.1108	30.1
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	0.1983	0.1155	58.2
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	0.1889	0.0676	35.8
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	0.2096	0.0799	38.1
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	0.2125	0.0719	33.8
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	0.1500	0.0583	38.9
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	0.0955	0.0371	38.8
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	0.1059	0.0243	22.9
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	0.1990	0.0859	43.1
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	0.2100	0.1053	50.1
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	0.2148	0.1071	49.9
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	0.2419	0.0852	35.2
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	0.2154	0.0779	36.2
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	0.2106	0.0561	26.6
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	0.3171	0.1093	34.5
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	0.2727	0.1128	41.4
881000_09	63	08OCT09:16:29:00	15NOV09:09:02:00	0.2333	0.0783	33.6
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	0.3167	0.1602	50.6
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	0.1568	0.0647	41.3
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	0.1429	0.0514	35.9
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	0.5182	0.2430	46.9
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	0.4419	0.1893	42.8
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	0.1706	0.0670	39.3
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	0.2945	0.1039	35.3
884000_10	36	19FEB10:11:11:00	14MAR10:07:26:00	0.1583	0.0649	41.0
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	0.4500	0.1378	30.6
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	0.1692	0.0480	28.4
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	0.1548	0.0568	36.7
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	0.1653	0.0723	43.7
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	0.1857	0.0707	38.1
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	0.1833	0.1124	61.3
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	0.2528	0.1055	41.7
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	0.2625	0.1061	40.4
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	0.2341	0.0911	38.9
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	0.2625	0.1005	38.3
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	0.2493	0.1038	41.6
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	0.2049	0.0740	36.1
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	0.2115	0.0896	42.4
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	0.1833	0.0761	41.5
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	0.2432	0.1124	46.2
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	0.2156	0.0954	44.2
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	0.1791	0.0675	37.7
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	0.1855	0.0649	35.0
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	0.2000	0.0577	28.9
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	0.3310	0.1072	32.4
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	0.2414	0.0867	35.9
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	0.2556	0.0607	23.7
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	0.2625	0.1013	38.6


2009-2010 Basophils (%) (Normal) Quality Control
1.0
0.8
0.6
0.4
0.2
0.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Eosinophils No.(10^3 cells/uL) (Abn I)

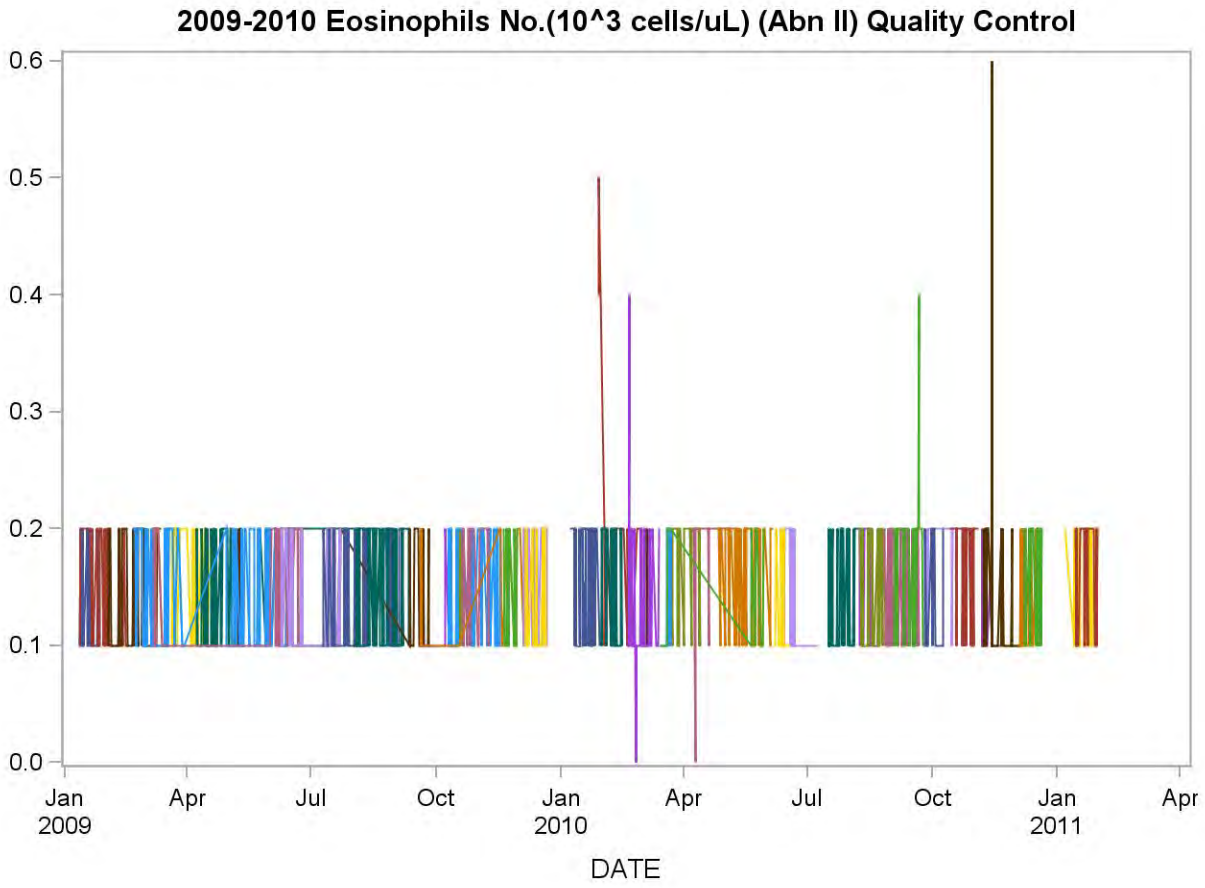
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	1.0926	0.1163	10.6
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	1.1103	0.1001	9.0
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	1.2365	0.0886	7.2
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	1.1212	0.1295	11.6
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	1.1071	0.0979	8.8
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	1.0653	0.0865	8.1
876300_09	20	06MAR09:16:04:00	15MAR09:13:31:00	1.1500	0.0607	5.3
878000_09	54	06MAR09:16:04:00	21JUN09:13:38:00	1.1444	0.0604	5.3
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	1.1333	0.0485	4.3
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	1.1431	0.1044	9.1
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	1.0923	0.0494	4.5
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	1.0846	0.0740	6.8
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	1.1625	0.1849	15.9
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	1.1500	0.1750	15.2
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	1.0737	0.1107	10.3
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	1.0900	0.1370	12.6
879100_09	40	31JUL09:11:08:00	23AUG09:13:37:00	1.1050	0.0783	7.1
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	1.1660	0.0668	5.7
870100_09	45	18SEP09:13:56:00	17OCT09:09:05:00	1.0333	0.0879	8.5
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	1.0953	0.0925	8.4
870700_09	85	08OCT09:16:31:00	19NOV09:09:12:00	1.1118	0.1331	12.0
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	1.1667	0.0816	7.0
870800_09	21	20OCT09:15:09:00	09NOV09:13:39:00	1.1095	0.0625	5.6
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	1.1615	0.0961	8.3
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	1.2219	0.1039	8.5
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	1.0129	0.0991	9.8
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	1.1000	0.1342	12.2
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	1.1225	0.0768	6.8
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	1.1920	0.2440	20.5
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	1.1615	0.0852	7.3
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	1.0600	0.0976	9.2
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	1.2000	0.1000	8.3
873900_10	15	14MAR10:08:39:00	22MAR10:13:30:00	1.0667	0.0724	6.8
875000_10	44	14MAR10:08:39:00	08JUL10:16:00:00	1.0295	0.1047	10.2
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	1.0968	0.0875	8.0
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	1.1833	0.1961	16.6
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	1.0977	0.0886	8.1
874700_10	42	14MAY10:09:05:00	13JUN10:08:38:00	1.1143	0.1095	9.8
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	1.1261	0.3306	29.4
875900_10	37	16JUL10:11:37:00	07AUG10:08:43:00	1.1351	0.0716	6.3
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	1.1973	0.0891	7.4
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	1.1179	0.0885	7.9
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	1.2828	0.1197	9.3
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	1.1261	0.1054	9.4
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	1.2789	0.0905	7.1
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	1.1493	0.1529	13.3
877800_10	33	06NOV10:10:47:00	21NOV10:13:23:00	1.0909	0.1208	11.1
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	1.0900	0.1374	12.6
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	1.0930	0.1294	11.8
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	1.1000	0.1118	10.2
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	1.1273	0.1008	8.9
878600_10	26	08DEC10:14:29:00	20DEC10:13:34:00	1.1538	0.1208	10.5
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	1.2794	0.0978	7.6
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	1.1346	0.0977	8.6

Summary Statistics for Eosinophils No.(10^3 cells/uL) (Abn I)



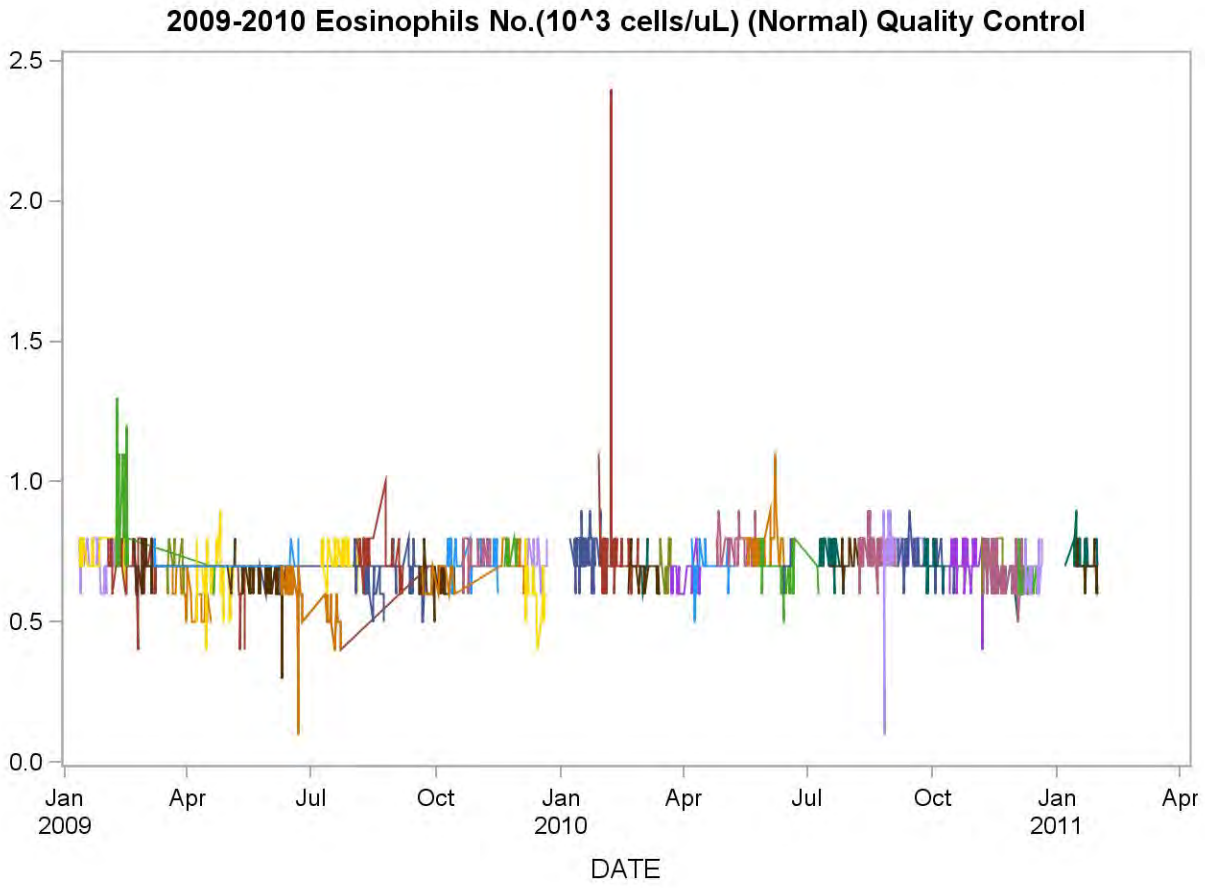
Summary Statistics for Eosinophils No.(10^3 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	0.1259	0.0447	35.5
866200_09	51	11JAN09:10:39:00	15FEB09:13:50:00	0.1451	0.0503	34.6
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	0.1424	0.0498	35.0
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	0.1400	0.0496	35.4
868300_09	127	20FEB09:09:57:00	14JUN09:14:54:00	0.1496	0.0502	33.6
867100_09	12	06MAR09:16:06:00	14MAR09:13:25:00	0.1583	0.0515	32.5
868600_09	46	06MAR09:16:06:00	21JUN09:13:41:00	0.1565	0.0501	32.0
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	0.1681	0.0471	28.0
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	0.1425	0.0501	35.1
867800_09	14	04MAY09:10:30:00	12MAY09:17:39:00	0.1214	0.0426	35.1
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	0.1513	0.0503	33.3
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	0.1338	0.0476	35.6
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	0.1378	0.0490	35.6
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	0.1256	0.0441	35.2
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	0.1250	0.0439	35.1
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	0.1500	0.0506	33.7
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	0.1045	0.0211	20.2
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	0.1333	0.0477	35.8
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	0.1569	0.0499	31.8
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	0.1667	0.0516	31.0
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	0.1676	0.0475	28.3
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	0.1375	0.0500	36.4
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	0.1667	0.0479	28.7
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	0.1333	0.0479	36.0
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	0.1538	0.0502	32.7
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	0.1942	0.0873	44.9
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	0.1640	0.0490	29.9
863900_10	46	19FEB10:14:07:00	13MAR10:13:31:00	0.1348	0.0737	54.7
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	0.1167	0.0408	35.0
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	0.1286	0.0469	36.5
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	0.1429	0.0507	35.5
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	0.1781	0.0420	23.6
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	0.1920	0.0340	17.7
864900_10	75	25APR10:02:52:00	05JUN10:13:56:00	0.1707	0.0458	26.9
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	0.1167	0.0383	32.9
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	0.1333	0.0480	36.0
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	0.1450	0.0504	34.7
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	0.1571	0.0507	32.3
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	0.1463	0.0505	34.5
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	0.1450	0.0504	34.7
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	0.1688	0.0644	38.2
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	0.1304	0.0470	36.1
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	0.1939	0.0242	12.5
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	0.1877	0.0331	17.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	0.1094	0.0296	27.1
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	0.1321	0.0765	57.9
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	0.1350	0.0864	64.0
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	0.1250	0.0447	35.8
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	0.1296	0.0465	35.9
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	0.1519	0.0509	33.5
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	0.1515	0.0508	33.5
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	0.1485	0.0508	34.2


2009-2010 Eosinophils No.(10^3 cells/uL) (Abn II) Quality Control
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Eosinophils No.(10^3 cells/uL) (Normal)

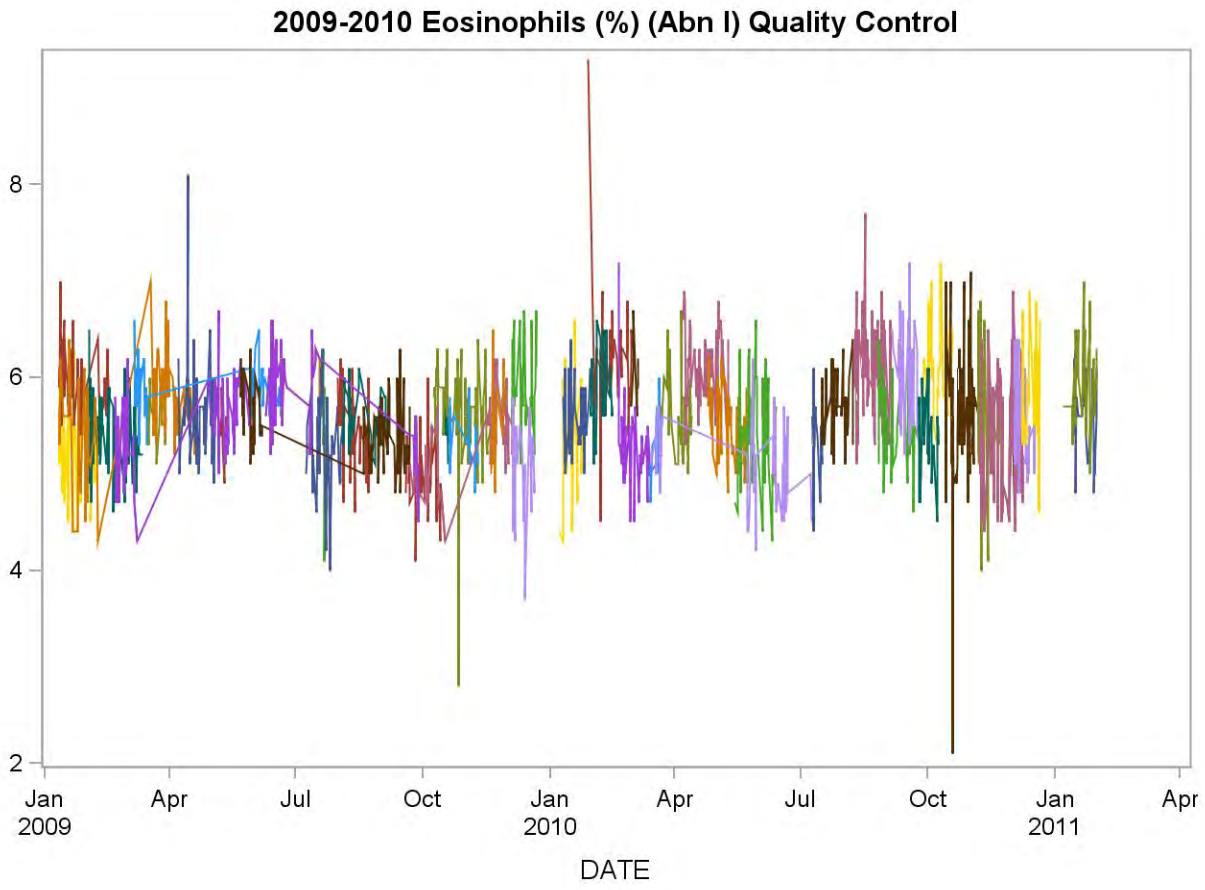
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	0.7213	0.0623	8.6
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	0.7381	0.0539	7.3
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	0.7042	0.0685	9.7
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	0.8105	0.2258	27.9
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	0.6960	0.0676	9.7
887900_09	114	20FEB09:09:55:00	12JUN09:13:46:00	0.6763	0.0628	9.3
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	0.7056	0.0236	3.3
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	0.7038	0.0277	3.9
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	0.7063	0.0574	8.1
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	0.5979	0.0729	12.2
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	0.6568	0.0974	14.8
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	0.6267	0.1033	16.5
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	0.6700	0.0659	9.8
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	0.5883	0.1059	18.0
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	0.5759	0.1045	18.1
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	0.7279	0.0591	8.1
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	0.6410	0.0637	9.9
889700_09	46	03AUG09:08:39:00	06SEP09:08:54:00	0.7326	0.0732	10.0
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	0.6415	0.0591	9.2
881400_09	42	20SEP09:11:46:00	05DEC09:08:41:00	0.6905	0.0617	8.9
881000_09	62	08OCT09:16:29:00	15NOV09:09:02:00	0.7129	0.0461	6.5
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	0.7000	0.0000	0.0
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	0.7270	0.0560	7.7
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	0.7357	0.0497	6.8
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	0.7091	0.0522	7.4
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	0.6290	0.0824	13.1
882900_10	66	07JAN10:09:20:00	29JAN10:12:11:00	0.7515	0.0685	9.1
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	0.7479	0.2129	28.5
884000_10	35	19FEB10:11:33:00	14MAR10:07:26:00	0.6800	0.0473	7.0
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	0.7000	0.0632	9.0
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	0.7077	0.0760	10.7
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	0.6677	0.0599	9.0
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	0.6980	0.0478	6.9
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	0.7694	0.0585	7.6
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	0.7857	0.0751	9.6
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	0.6861	0.0762	11.1
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	0.7000	0.0535	7.6
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	0.7220	0.0525	7.3
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	0.7125	0.0404	5.7
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	0.7565	0.0606	8.0
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	0.7537	0.1206	16.0
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	0.7180	0.0592	8.2
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	0.7083	0.0584	8.2
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	0.7135	0.0626	8.8
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	0.7188	0.0644	9.0
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	0.6837	0.0721	10.6
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	0.6839	0.0706	10.3
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	0.6842	0.0688	10.1
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	0.6414	0.0568	8.9
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	0.6862	0.0639	9.3
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	0.7333	0.0535	7.3
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	0.6917	0.0504	7.3


2009-2010 Eosinophils No.(10^3 cells/uL) (Normal) Quality Control
2.5
2.0
1.5
1.0
0.5
0.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Eosinophils (%) (Abn I)

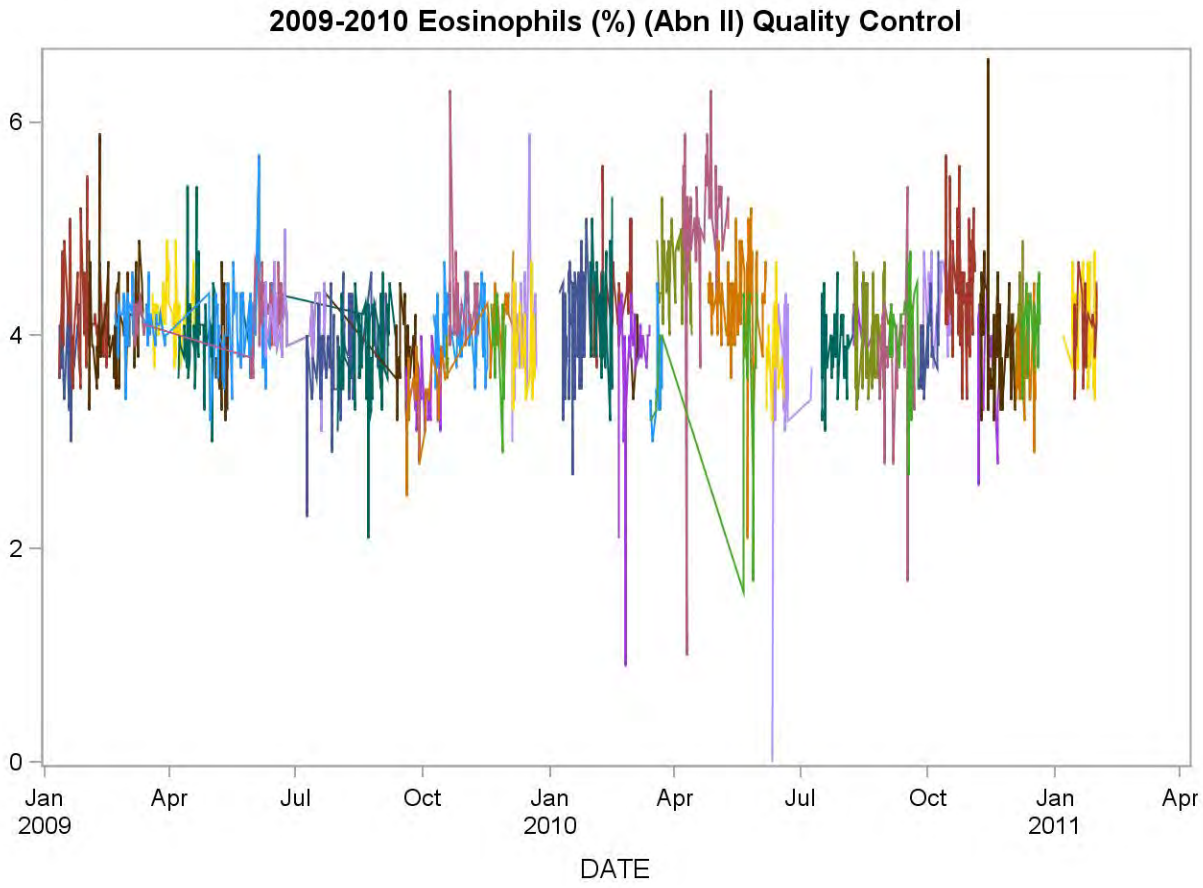
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	5.3074	0.5552	10.5
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	5.6667	0.4906	8.7
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	5.9423	0.3345	5.6
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	5.3288	0.4072	7.6
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	5.2679	0.4304	8.2
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	5.5653	0.3981	7.2
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	5.8238	0.3208	5.5
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	5.8836	0.2559	4.3
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	5.5889	0.2587	4.6
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	5.5961	0.4956	8.9
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	5.4000	0.2739	5.1
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	5.4564	0.3667	6.7
878400_09	39	09JUN09:18:19:00	18JUL09:13:54:00	5.9487	0.3684	6.2
879800_09	47	09JUN09:18:19:00	27SEP09:13:37:00	5.8277	0.4548	7.8
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	5.2342	0.4839	9.2
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	5.5600	0.6398	11.5
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	5.4537	0.3749	6.9
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	5.5787	0.2422	4.3
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	4.9696	0.3921	7.9
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	5.3349	0.4498	8.4
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	5.6483	0.4443	7.9
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	5.6000	0.3521	6.3
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	5.3227	0.3038	5.7
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	5.6000	0.4813	8.6
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	5.9406	0.4457	7.5
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	5.0355	0.5161	10.2
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	5.3810	0.6431	12.0
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	5.5650	0.3606	6.5
873000_10	49	28JAN10:13:28:00	01MAR10:09:18:00	6.1653	0.6068	9.8
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	5.8462	0.3765	6.4
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	5.2743	0.4617	8.8
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	6.0143	0.3671	6.1
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	5.3250	0.3642	6.8
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	5.0667	0.4467	8.8
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	5.5871	0.4248	7.6
874200_10	47	06APR10:18:24:00	09MAY10:13:22:00	6.1043	0.3867	6.3
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	5.5302	0.3770	6.8
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	5.4140	0.5536	10.2
875300_10	22	09JUL10:16:19:00	16JUL10:13:25:00	5.3636	0.3723	6.9
875900_10	39	16JUL10:11:37:00	07AUG10:13:39:00	5.6692	0.3342	5.9
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	6.1135	0.4576	7.5
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	5.5051	0.4365	7.9
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	5.9828	0.5332	8.9
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	5.3739	0.4392	8.2
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	6.1368	0.4245	6.9
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	5.6622	0.6814	12.0
877800_10	33	06NOV10:10:47:00	21NOV10:13:23:00	5.5667	0.5802	10.4
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	5.3450	0.6332	11.8
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	5.3614	0.6261	11.7
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	5.4000	0.6265	11.6
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	5.5818	0.4707	8.4
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	5.8296	0.5490	9.4
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	6.0118	0.4423	7.4
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	5.5846	0.4855	8.7

Summary Statistics for Eosinophils (%) (Abn I)



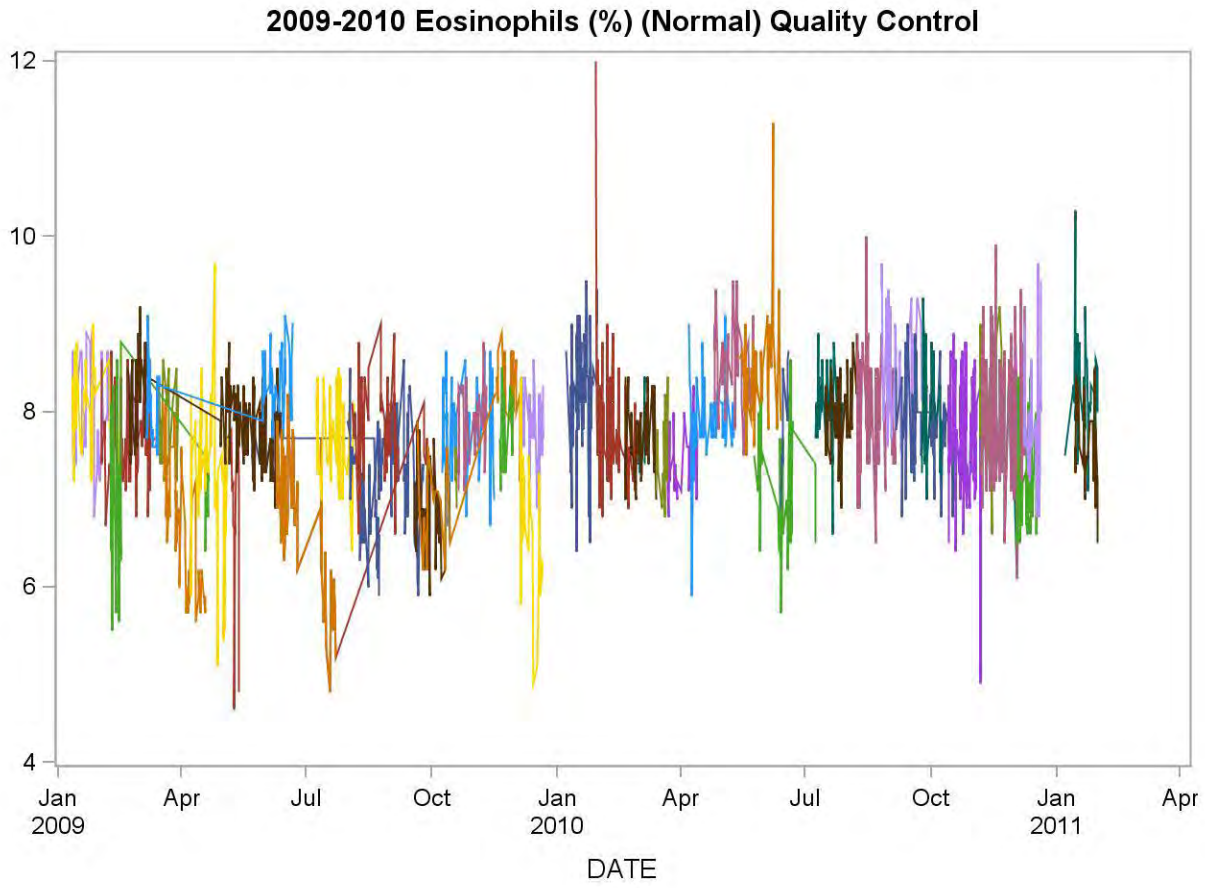
Summary Statistics for Eosinophils (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	3.8296	0.3111	8.1
866200_09	52	11JAN09:10:39:00	15FEB09:13:50:00	4.2154	0.4263	10.1
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	4.1119	0.4263	10.4
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	4.1300	0.2255	5.5
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	4.1297	0.3131	7.6
867100_09	13	06MAR09:16:06:00	14MAR09:13:25:00	4.1538	0.1561	3.8
868600_09	47	06MAR09:16:06:00	21JUN09:13:41:00	4.1936	0.2706	6.5
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	4.2128	0.2810	6.7
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	4.0525	0.4982	12.3
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	3.9250	0.4810	12.3
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	4.0949	0.3724	9.1
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	3.9775	0.3780	9.5
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	4.1156	0.3176	7.7
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	3.7465	0.3936	10.5
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	3.7350	0.4748	12.7
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	3.9870	0.2688	6.7
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	3.4386	0.3112	9.1
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	3.8156	0.4982	13.1
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	4.0892	0.2953	7.2
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	3.8833	0.2317	6.0
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	4.2973	0.4086	9.5
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	3.8938	0.4057	10.4
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	4.1606	0.4821	11.6
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	3.9267	0.3523	9.0
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	4.1231	0.4558	11.1
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	4.2920	0.5243	12.2
863400_10	48	01FEB10:11:51:00	01MAR10:09:44:00	4.3313	0.3508	8.1
863900_10	43	19FEB10:14:07:00	13MAR10:13:31:00	3.5163	0.8753	24.9
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	3.8500	0.2665	6.9
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	3.5500	0.4034	11.4
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	3.5905	0.7816	21.8
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	4.6063	0.3689	8.0
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	5.0200	0.7722	15.4
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	4.3000	0.4481	10.4
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	3.7889	0.3787	10.0
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	3.5714	0.8050	22.5
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	3.9150	0.3332	8.5
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	4.0952	0.2291	5.6
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	3.9756	0.4294	10.8
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	3.7975	0.5604	14.8
867100_10	31	02SEP10:18:05:00	23SEP10:13:56:00	3.9935	0.4404	11.0
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	3.9217	0.3316	8.5
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	4.3152	0.3438	8.0
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	4.5092	0.4496	10.0
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	3.6219	0.4233	11.7
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	3.9982	0.5613	14.0
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	3.9600	0.6275	15.8
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	4.0938	0.3435	8.4
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	3.7111	0.3651	9.8
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	3.9852	0.3231	8.1
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	4.1030	0.4035	9.8
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	4.0485	0.2917	7.2


2009-2010 Eosinophils (%) (Abn II) Quality Control
6
4
2
0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Eosinophils (%) (Normal)

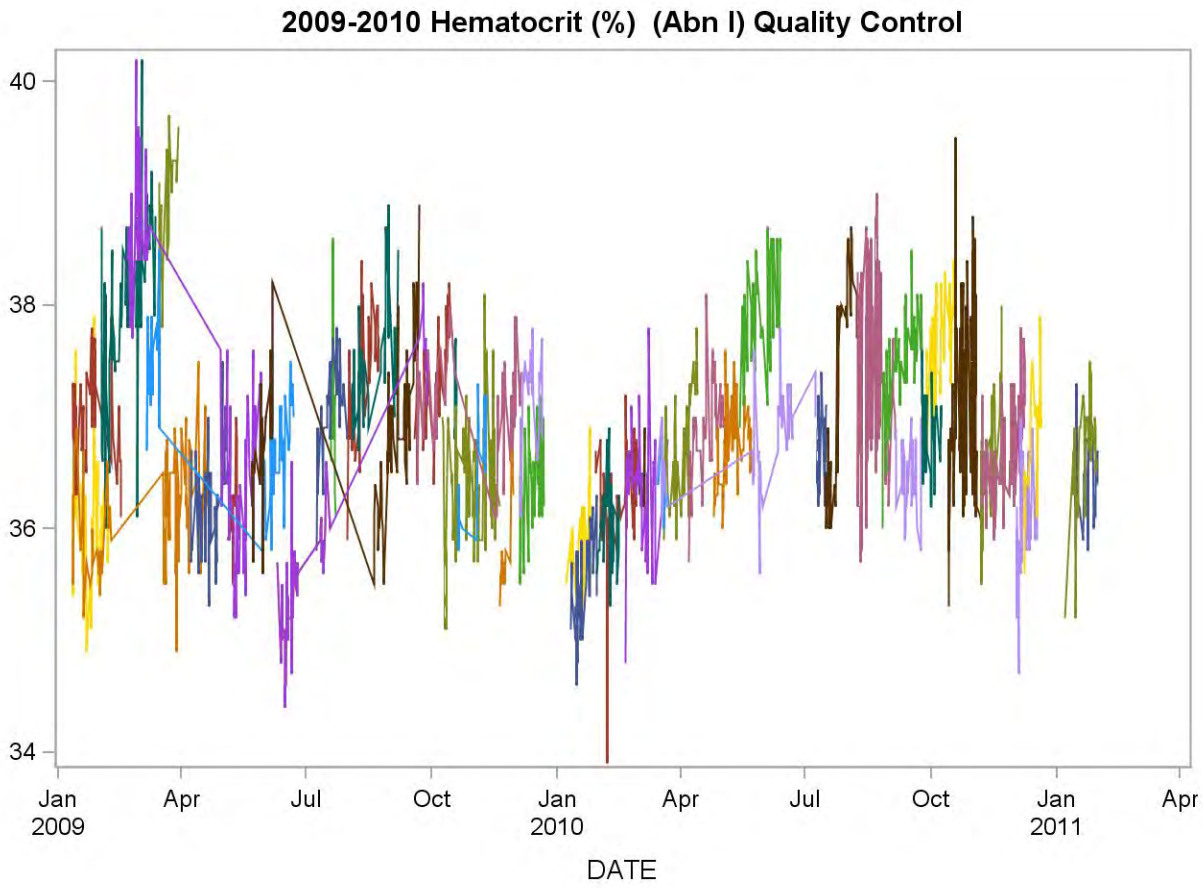
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	8.0340	0.5321	6.6
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	8.1071	0.4739	5.8
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	7.7197	0.5050	6.5
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	7.1842	1.0007	13.9
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	8.2720	0.4605	5.6
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	7.9183	0.4512	5.7
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	8.0611	0.4104	5.1
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	8.2788	0.4165	5.0
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	7.9688	0.4316	5.4
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	6.7375	0.6958	10.3
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	7.3568	0.7884	10.7
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	6.9118	0.9259	13.4
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	7.5560	0.5026	6.7
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	6.7867	0.8440	12.4
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	6.6981	0.8401	12.5
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	7.6953	0.4962	6.4
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	7.0026	0.5650	8.1
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	7.8468	0.5748	7.3
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	6.8610	0.5024	7.3
881400_09	43	20SEP09:11:46:00	05DEC09:08:41:00	7.6930	0.7793	10.1
881000_09	63	08OCT09:16:29:00	15NOV09:09:02:00	7.8032	0.4547	5.8
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	7.5667	0.4227	5.6
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	7.8405	0.4003	5.1
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	7.7929	0.4632	5.9
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	7.8758	0.3929	5.0
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	6.8355	0.8208	12.0
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	8.2088	0.6229	7.6
883200_10	72	28JAN10:13:09:00	01MAR10:09:15:00	7.8417	0.8536	10.9
884000_10	36	19FEB10:11:11:00	14MAR10:07:26:00	7.6944	0.3978	5.2
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	7.7333	0.3882	5.0
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	7.4923	0.5235	7.0
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	7.4774	0.3836	5.1
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	7.8959	0.4796	6.1
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	8.4592	0.4699	5.6
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	8.4810	0.6414	7.6
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	7.2056	0.6676	9.3
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	7.9375	0.6435	8.1
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	8.0195	0.4349	5.4
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	7.9725	0.4249	5.3
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	8.0449	0.5815	7.2
887200_10	40	25AUG10:15:43:00	24SEP10:08:32:00	8.4775	0.6318	7.5
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	7.8049	0.5343	6.8
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	7.9875	0.6081	7.6
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	7.7297	0.6662	8.6
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	8.1344	0.6266	7.7
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	7.9558	0.8045	10.1
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	8.0016	0.8048	10.1
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	8.1053	0.8175	10.1
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	7.2276	0.5946	8.2
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	7.8655	0.7088	9.0
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	8.2306	0.5429	6.6
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	7.6208	0.4952	6.5


2009-2010 Eosinophils (%) (Normal) Quality Control
12
10
8
6
4
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Hematocrit (%) (Abn I)

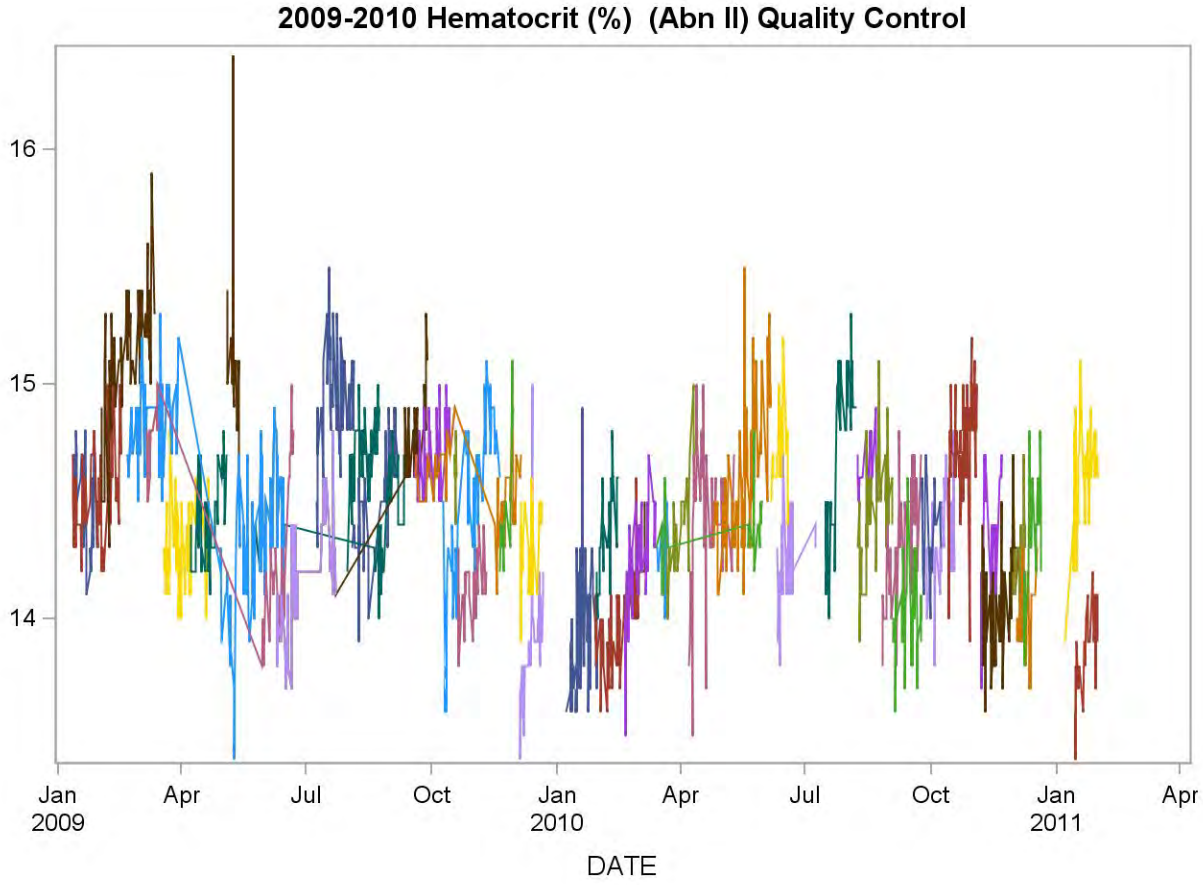
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	36.0648	0.5851	1.6
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	36.1987	0.4953	1.4
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	37.0019	0.4509	1.2
875800_09	64	01FEB09:15:25:00	12MAR09:13:25:00	38.0625	0.7054	1.9
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	38.7414	0.5382	1.4
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	37.1188	1.1474	3.1
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	37.5381	0.3993	1.1
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	37.0273	0.5662	1.5
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	38.7667	0.5891	1.5
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	36.2981	0.4386	1.2
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	36.2154	0.3826	1.1
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	36.8603	0.6743	1.8
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	35.4375	0.5217	1.5
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	35.8375	1.0016	2.8
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	37.1368	0.4016	1.1
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	36.9300	0.6750	1.8
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	37.3659	0.5233	1.4
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	37.5000	0.5489	1.5
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	37.2565	0.4172	1.1
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	37.1227	0.4559	1.2
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	36.2372	0.6037	1.7
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	37.1167	0.4579	1.2
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	36.4091	0.4849	1.3
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	35.8308	0.4516	1.3
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	36.4250	0.4370	1.2
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	37.0645	0.4192	1.1
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	35.9045	0.3811	1.1
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	35.4205	0.4231	1.2
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	36.2460	0.4735	1.3
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	35.9962	0.3725	1.0
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	36.3514	0.6147	1.7
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	36.4000	0.2828	0.8
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	36.3625	0.2446	0.7
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	36.7578	0.4372	1.2
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	36.8194	0.5437	1.5
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	36.8918	0.4112	1.1
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	36.7512	0.3801	1.0
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	37.9372	0.4680	1.2
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	36.8292	0.3355	0.9
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	37.2500	0.9134	2.5
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	37.2324	0.8289	2.2
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	37.4974	0.4614	1.2
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	36.4414	0.3301	0.9
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	36.8174	0.3927	1.1
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	37.6763	0.3989	1.1
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	36.9649	0.8084	2.2
877800_10	33	06NOV10:10:47:00	21NOV10:13:23:00	36.5303	0.5514	1.5
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	36.5350	0.3505	1.0
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	36.6915	0.4360	1.2
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	37.0211	0.4211	1.1
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	35.9800	0.4651	1.3
878600_10	28	08DEC10:14:29:00	20DEC10:13:34:00	36.6464	0.5501	1.5
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	36.6294	0.5114	1.4
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	36.3846	0.3916	1.1

Summary Statistics for Hematocrit (%) (Abn I)



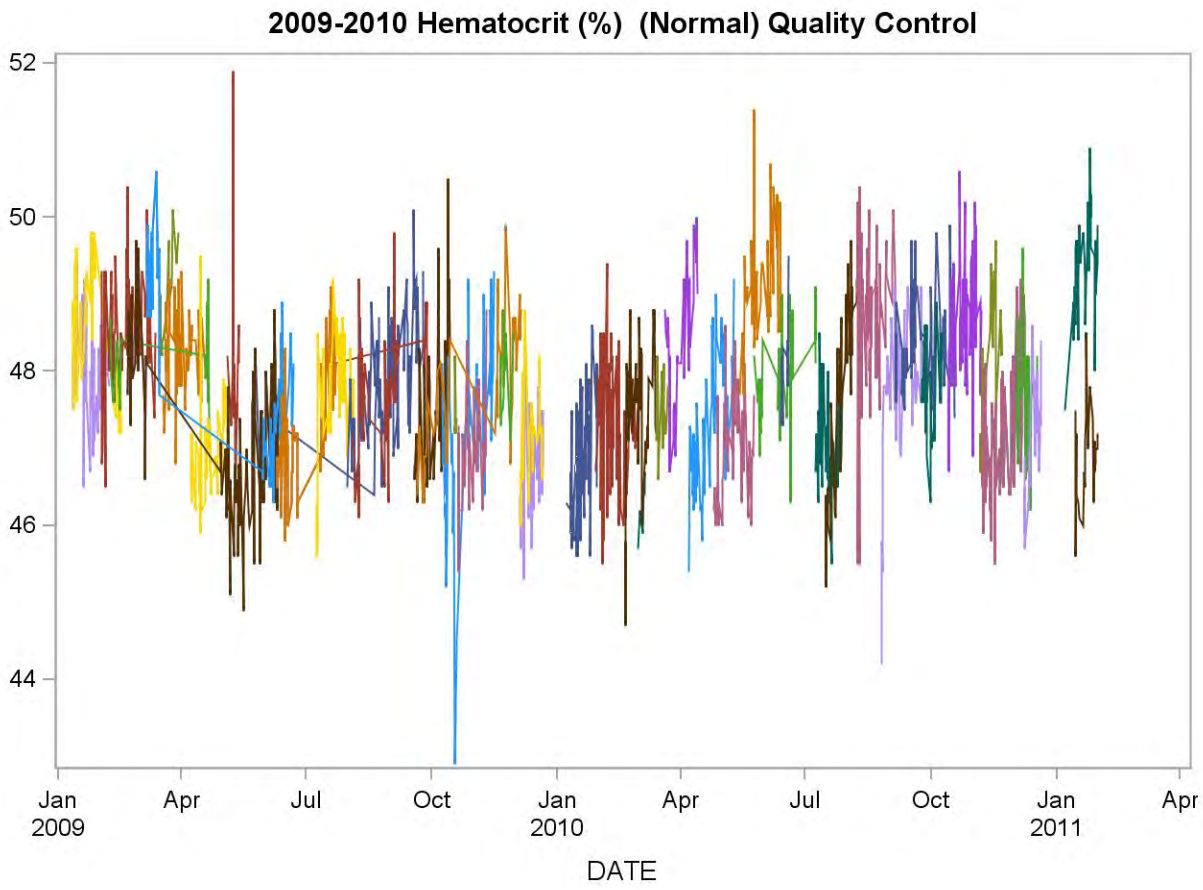
Summary Statistics for Hematocrit (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	14.5276	0.2068	1.4
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	14.5556	0.2025	1.4
866500_09	56	01FEB09:15:22:00	12MAR09:13:15:00	15.1321	0.2684	1.8
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	14.8575	0.1920	1.3
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	14.4992	0.3465	2.4
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	14.7571	0.1505	1.0
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	14.4000	0.3614	2.5
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	14.3383	0.1860	1.3
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	14.4146	0.1824	1.3
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	15.0813	0.4037	2.7
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	14.4392	0.2047	1.4
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	14.3831	0.4025	2.8
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	14.1400	0.2683	1.9
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	14.9548	0.2432	1.6
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	14.7026	0.1652	1.1
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	14.4532	0.2535	1.8
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	14.6884	0.1499	1.0
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	14.5705	0.1636	1.1
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	14.3848	0.4051	2.8
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	14.6167	0.1329	0.9
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	14.0946	0.1682	1.2
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	14.4813	0.2588	1.8
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	13.9152	0.2612	1.9
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	14.2967	0.1810	1.3
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	13.9179	0.2399	1.7
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	13.9673	0.1790	1.3
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	14.3846	0.2111	1.5
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	14.2128	0.2203	1.5
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	14.2500	0.1225	0.9
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	14.2857	0.1703	1.2
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	14.3818	0.1532	1.1
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	14.4688	0.2416	1.7
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	14.4380	0.2885	2.0
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	14.5829	0.3039	2.1
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	14.7111	0.1937	1.3
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	14.2357	0.1810	1.3
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	14.6756	0.3611	2.5
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	14.6571	0.1165	0.8
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	14.4640	0.2220	1.5
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	14.3405	0.2379	1.7
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	14.0000	0.1860	1.3
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	14.3913	0.1782	1.2
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	14.3314	0.1922	1.3
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	14.7162	0.2288	1.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	14.2250	0.3037	2.1
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	14.1036	0.2403	1.7
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	14.0487	0.2394	1.7
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	14.2375	0.1893	1.3
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	14.0481	0.1649	1.2
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	14.2926	0.2541	1.8
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	14.5970	0.2338	1.6
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	13.7758	0.2586	1.9


2009-2010 Hematocrit (%) (Abn II) Quality Control
16
15
14
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Hematocrit (%) (Normal)

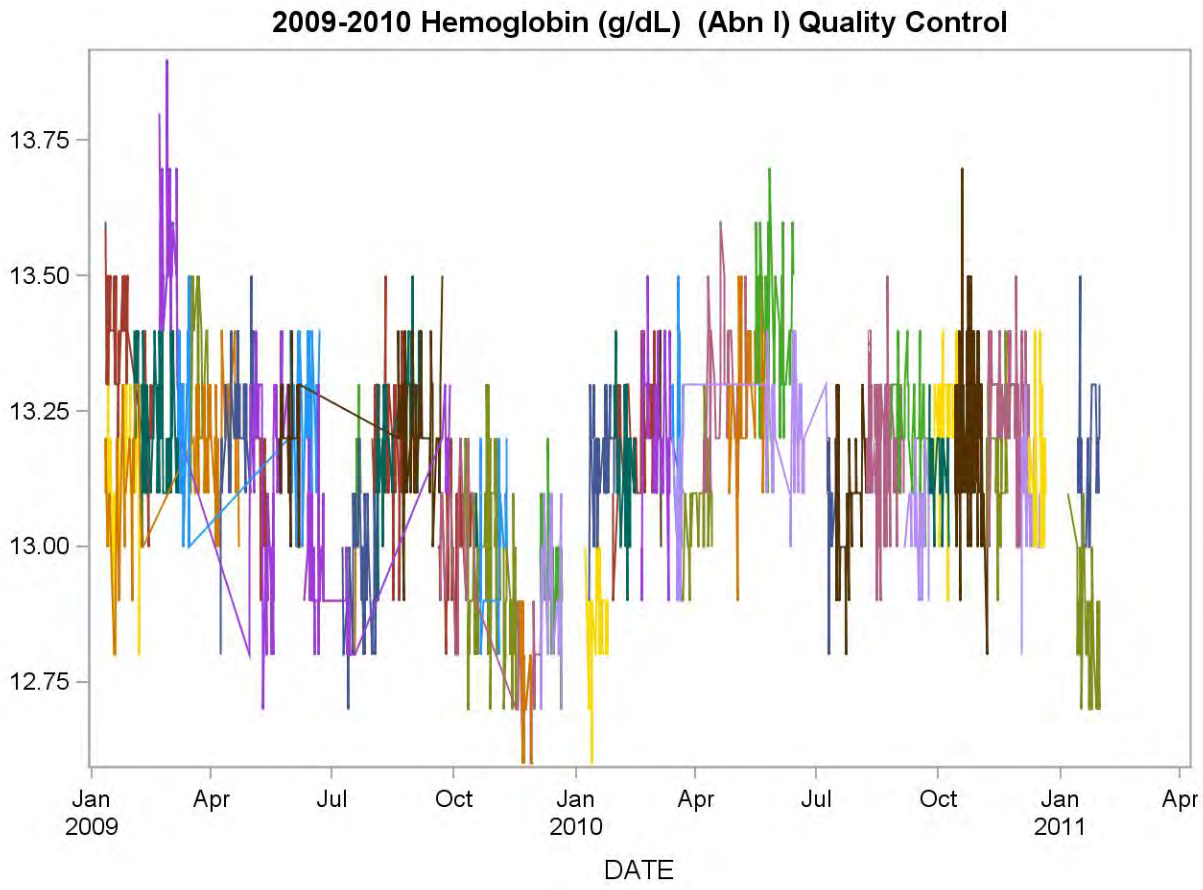
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	48.0149	0.6147	1.3
885800_09	42	11JAN09:10:33:00	15FEB09:13:48:00	48.5500	0.7520	1.5
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	48.5357	0.6918	1.4
887100_09	13	07FEB09:13:33:00	21APR09:08:37:00	48.1308	0.5750	1.2
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	48.2692	0.6950	1.4
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	47.1069	0.9651	2.0
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	49.3556	0.6308	1.3
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	48.0846	1.1220	2.3
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	48.9125	0.6376	1.3
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	48.1878	0.5566	1.2
887400_09	41	07APR09:16:59:00	04MAY09:10:24:00	46.9829	0.6249	1.3
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	48.0882	1.3313	2.8
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	47.6370	0.8735	1.8
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	47.3067	0.8067	1.7
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	47.1907	0.7492	1.6
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	47.7605	0.7461	1.6
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	47.6821	0.5848	1.2
889700_09	46	03AUG09:08:39:00	06SEP09:08:54:00	47.3717	0.8448	1.8
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	47.4146	0.9098	1.9
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	47.8341	0.8280	1.7
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	46.9609	1.3205	2.8
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	47.4833	0.3817	0.8
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	46.8811	0.7355	1.6
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	47.8714	0.4999	1.0
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	46.7515	0.6671	1.4
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	46.9903	0.6911	1.5
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	46.7382	0.7807	1.7
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	47.2575	0.7699	1.6
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	47.3692	1.0079	2.1
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	46.2333	0.3777	0.8
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	47.5000	0.4591	1.0
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	48.4065	0.9626	2.0
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	47.3700	0.8793	1.9
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	46.9961	0.6908	1.5
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	49.1214	0.7475	1.5
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	47.9105	0.5927	1.2
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	48.1250	0.7046	1.5
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	46.9488	0.6611	1.4
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	47.3927	1.3190	2.8
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	48.5565	1.0899	2.2
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	47.7122	0.9824	2.1
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	48.4348	0.6240	1.3
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	47.7125	0.6429	1.3
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	48.5568	0.7527	1.6
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	47.8844	0.9439	2.0
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	46.9659	0.7140	1.5
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	47.2492	0.8563	1.8
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	47.9053	0.8107	1.7
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	47.5267	0.7432	1.6
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	46.9500	0.7803	1.7
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	49.3056	0.6702	1.4
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	46.7846	0.6703	1.4


2009-2010 Hematocrit (%) (Normal) Quality Control
52
50
48
46
44
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Hemoglobin (g/dL) (Abn I)

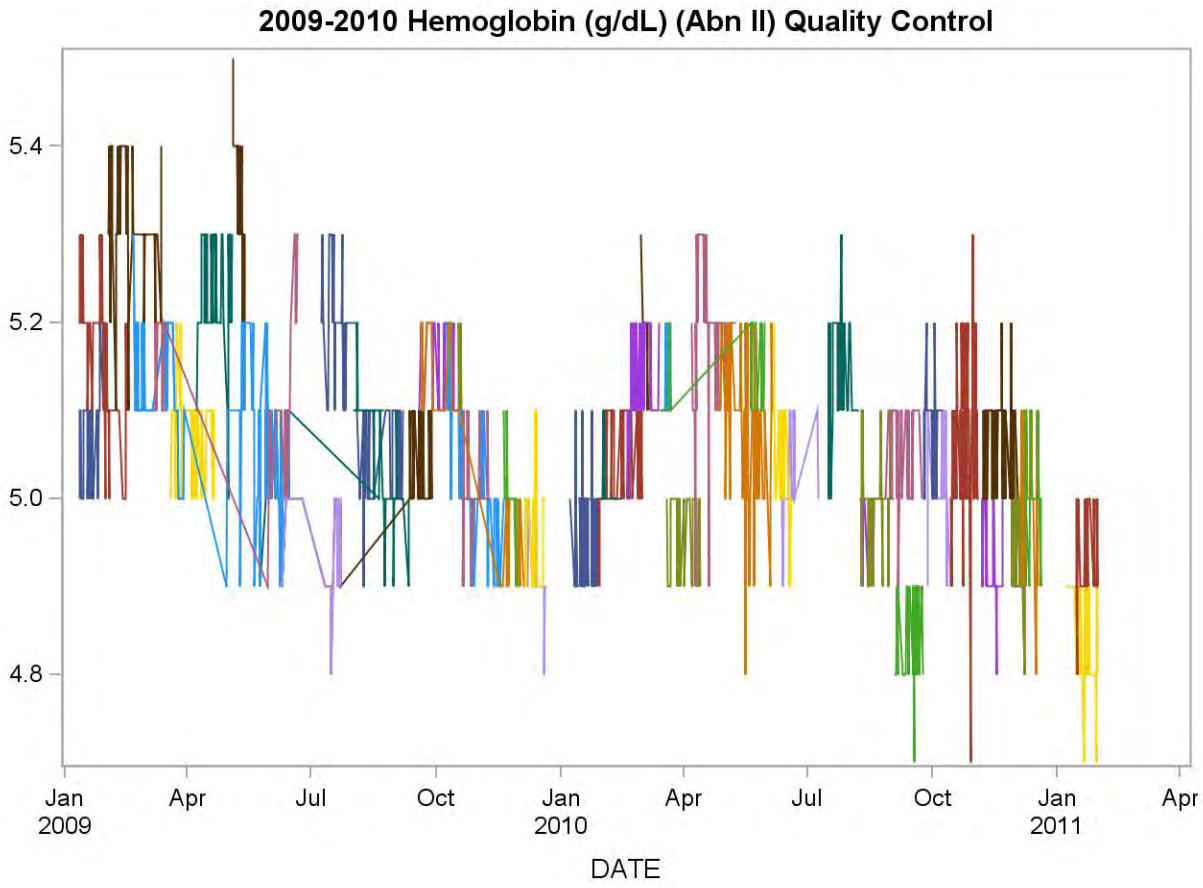
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	53	11JAN09:08:34:00	08FEB09:08:49:00	13.1094	0.1334	1.0
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	13.1628	0.1260	1.0
875400_09	49	11JAN09:10:43:00	15FEB09:13:49:00	13.3776	0.1195	0.9
875800_09	64	01FEB09:15:25:00	12MAR09:13:25:00	13.2234	0.1050	0.8
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	13.5379	0.1474	1.1
877500_09	95	21FEB09:08:34:00	06JUN09:13:24:00	13.2137	0.2167	1.6
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	13.2810	0.1365	1.0
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	13.2545	0.1230	0.9
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	13.3333	0.1328	1.0
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	13.2404	0.1089	0.8
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	13.1000	0.1000	0.8
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	13.2103	0.1088	0.8
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	12.9575	0.1196	0.9
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	13.0000	0.1473	1.1
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	12.9579	0.1177	0.9
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	13.1400	0.0843	0.6
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	13.1976	0.1151	0.9
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	13.2128	0.1244	0.9
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	13.0239	0.0993	0.8
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	12.8614	0.1742	1.4
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	12.9477	0.1469	1.1
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	13.0167	0.0753	0.6
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	13.0091	0.1151	0.9
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	12.7385	0.1193	0.9
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	12.9438	0.1134	0.9
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	12.8903	0.1221	0.9
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	12.8773	0.1066	0.8
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	13.1462	0.1022	0.8
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	13.2102	0.0918	0.7
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	13.1308	0.1158	0.9
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	13.2086	0.1401	1.1
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	13.2714	0.1380	1.0
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	13.1563	0.1672	1.3
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	13.1911	0.1258	1.0
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	13.0613	0.0882	0.7
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	13.2776	0.1123	0.8
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	13.2698	0.1206	0.9
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	13.3884	0.1313	1.0
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	13.0875	0.0992	0.8
875900_10	39	16JUL10:11:37:00	07AUG10:13:39:00	13.0718	0.1317	1.0
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	13.1811	0.1178	0.9
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	13.2308	0.0893	0.7
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	13.0586	0.0780	0.6
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	13.1391	0.0783	0.6
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	13.2421	0.1130	0.9
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	13.2164	0.1658	1.3
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	13.1441	0.1021	0.8
870300_10	33	07NOV10:13:07:00	30NOV10:14:35:00	13.2636	0.0653	0.5
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	13.2475	0.1135	0.9
870500_10	18	28NOV10:12:40:00	08DEC10:13:24:00	13.1444	0.1042	0.8
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	13.0914	0.0981	0.7
878600_10	28	08DEC10:14:29:00	20DEC10:13:34:00	13.1393	0.1100	0.8
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	12.8382	0.1101	0.9
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	13.1654	0.1164	0.9

Summary Statistics for Hemoglobin (g/dL) (Abn I)



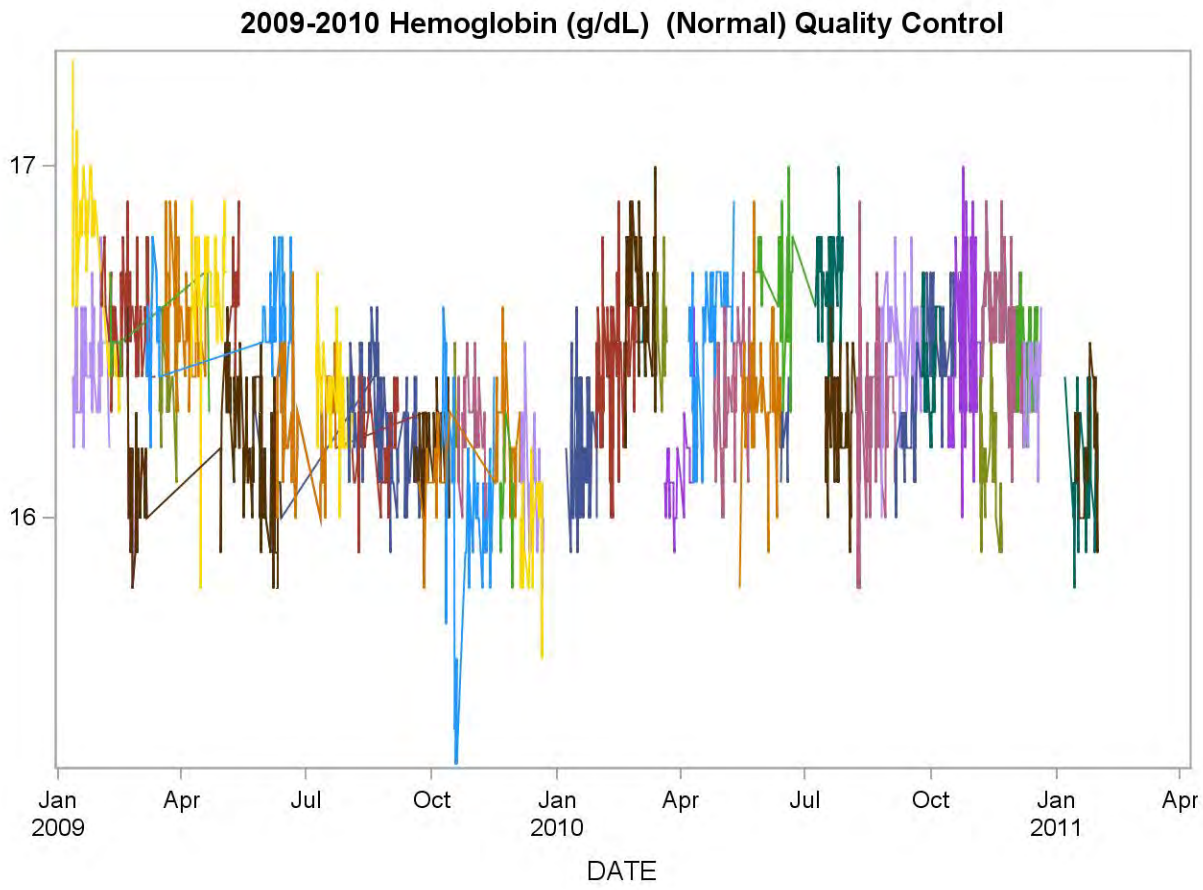
Summary Statistics for Hemoglobin (g/dL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	5.0621	0.0561	1.1
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	5.1500	0.0795	1.5
866500_09	56	01FEB09:15:22:00	12MAR09:13:15:00	5.3054	0.0672	1.3
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	5.1300	0.0648	1.3
868300_09	127	20FEB09:09:57:00	14JUN09:14:54:00	5.0858	0.0852	1.7
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	5.1429	0.0514	1.0
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	5.1271	0.0917	1.8
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	5.0766	0.0520	1.0
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	5.2341	0.0728	1.4
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	5.3313	0.0946	1.8
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	5.0203	0.0628	1.3
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	4.9831	0.0676	1.4
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	4.9511	0.0549	1.1
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	5.1952	0.0539	1.0
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	5.0974	0.0283	0.6
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	5.0404	0.0614	1.2
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	5.1535	0.0505	1.0
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	5.0341	0.1140	2.3
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	5.0227	0.0837	1.7
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	5.1333	0.0516	1.0
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	5.0054	0.0468	0.9
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	5.0000	0.0516	1.0
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	4.9182	0.0465	0.9
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	4.9800	0.0551	1.1
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	4.9657	0.0565	1.1
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	5.0558	0.0539	1.1
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	5.0038	0.0196	0.4
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	5.1255	0.0607	1.2
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	5.2000	0.0632	1.2
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	5.1357	0.0497	1.0
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	5.1500	0.0512	1.0
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	4.9594	0.0499	1.0
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	5.1840	0.0866	1.7
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	5.0750	0.0785	1.5
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	5.0389	0.0778	1.5
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	5.0222	0.0506	1.0
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	5.1317	0.0650	1.3
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	4.9810	0.0402	0.8
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	4.9980	0.0553	1.1
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	5.0619	0.0539	1.1
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	4.8421	0.0552	1.1
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	5.0870	0.0548	1.1
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	5.0086	0.0507	1.0
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	5.0662	0.0848	1.7
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	4.9313	0.0592	1.2
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	5.0236	0.0838	1.7
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	5.0615	0.0590	1.2
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	4.9313	0.0602	1.2
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	5.0074	0.0730	1.5
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	5.0148	0.0534	1.1
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	4.8394	0.0609	1.3
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	4.9364	0.0549	1.1


2009-2010 Hemoglobin (g/dL) (Abn II) Quality Control
5.4
5.2
5.0
4.8
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Hemoglobin (g/dL) (Normal)

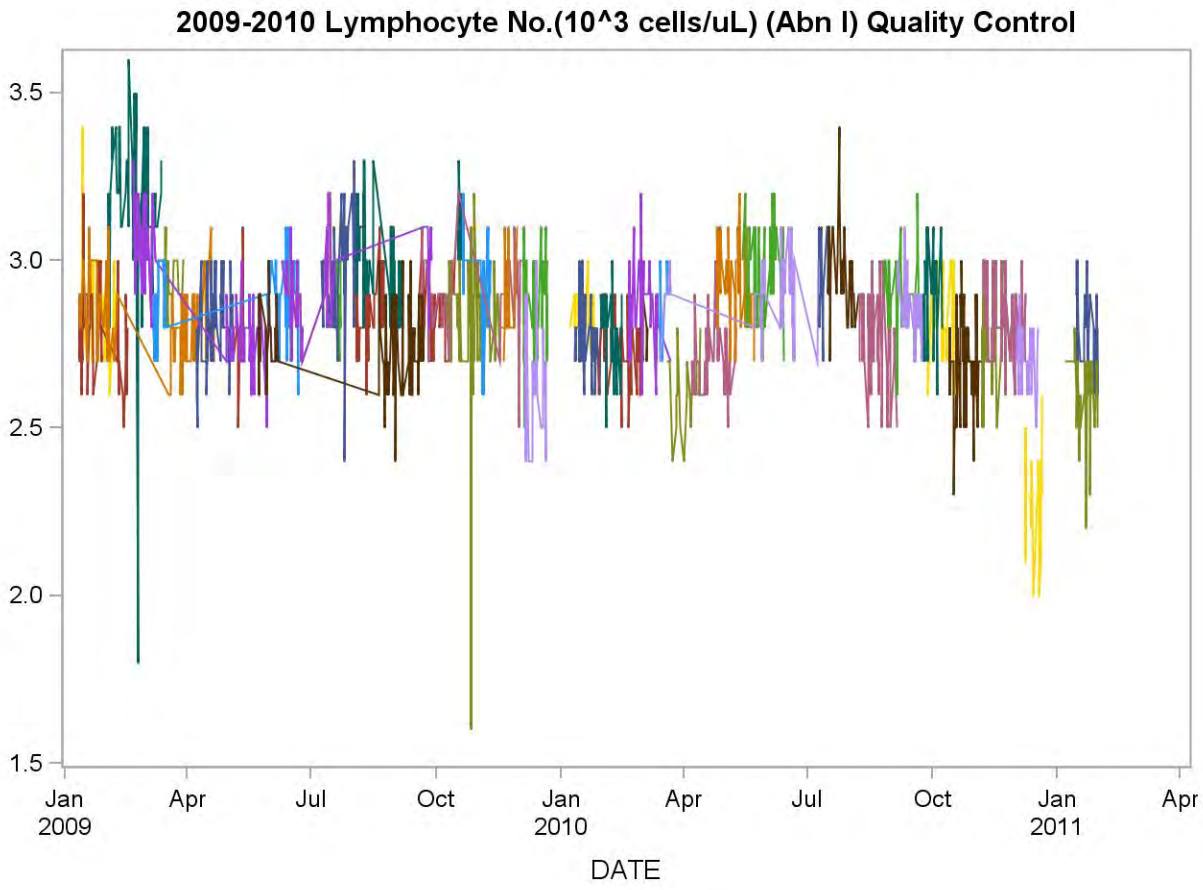
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	16.4319	0.1304	0.8
885800_09	43	11JAN09:10:33:00	15FEB09:13:48:00	16.7651	0.2477	1.5
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	16.5529	0.1305	0.8
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	16.5286	0.1204	0.7
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	16.0846	0.1567	1.0
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	16.1374	0.1889	1.2
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	16.5167	0.1465	0.9
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	16.5442	0.1320	0.8
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	16.3500	0.1155	0.7
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	16.5571	0.1443	0.9
887400_09	41	07APR09:16:59:00	04MAY09:10:24:00	16.6463	0.1845	1.1
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	16.6412	0.1121	0.7
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	16.1160	0.1587	1.0
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	16.2600	0.1417	0.9
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	16.2611	0.1472	0.9
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	16.3535	0.1369	0.8
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	16.3538	0.1253	0.8
889700_09	45	03AUG09:08:39:00	06SEP09:08:54:00	16.2089	0.1345	0.8
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	16.1854	0.1216	0.8
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	16.1727	0.1420	0.9
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	16.0375	0.2585	1.6
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	16.2833	0.1329	0.8
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	16.2622	0.1255	0.8
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	16.0857	0.1292	0.8
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	16.0636	0.1475	0.9
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	15.9548	0.1287	0.8
882900_10	67	07JAN10:09:20:00	29JAN10:12:11:00	16.1851	0.1588	1.0
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	16.4178	0.1719	1.0
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	16.6026	0.2032	1.2
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	16.5000	0.0632	0.4
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	16.5429	0.1284	0.8
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	16.1387	0.1358	0.8
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	16.5060	0.1910	1.2
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	16.3608	0.1537	0.9
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	16.3405	0.1849	1.1
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	16.6684	0.1378	0.8
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	16.2375	0.1061	0.7
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	16.6439	0.1566	0.9
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	16.2683	0.1474	0.9
886800_10	68	08AUG10:08:40:00	04SEP10:13:51:00	16.2853	0.2104	1.3
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	16.4951	0.1658	1.0
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	16.4000	0.1728	1.1
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	16.4375	0.1469	0.9
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	16.4811	0.2268	1.4
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	16.1469	0.1502	0.9
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	16.5818	0.1334	0.8
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	16.5317	0.1605	1.0
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	16.4158	0.1608	1.0
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	16.4633	0.1273	0.8
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	16.3900	0.1155	0.7
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	16.1306	0.1508	0.9
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	16.2192	0.1415	0.9


2009-2010 Hemoglobin (g/dL) (Normal) Quality Control
17
16
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Lymphocyte No.(10^3 cells/uL) (Abn I)

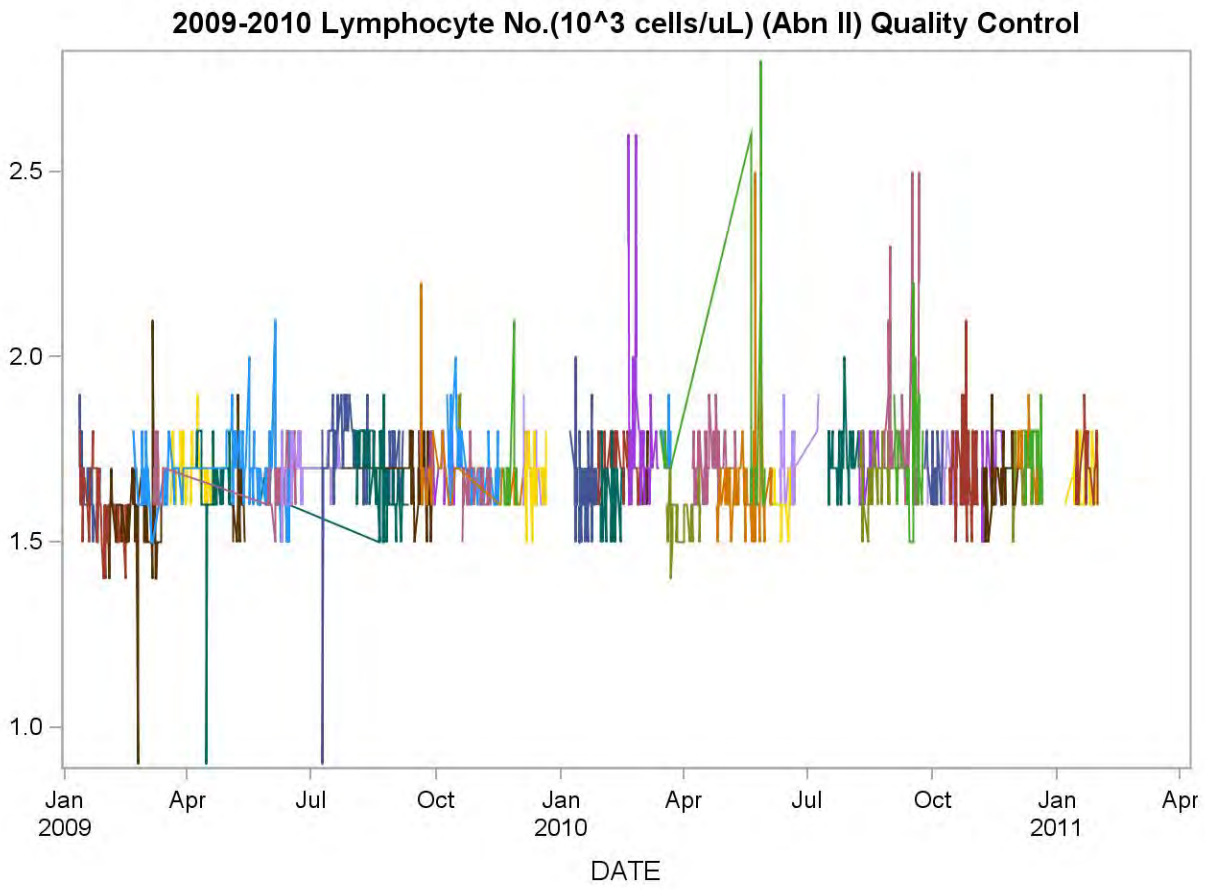
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	2.8722	0.1446	5.0
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	2.8167	0.1167	4.1
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	2.7962	0.1313	4.7
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	3.1667	0.2792	8.8
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	3.0571	0.1200	3.9
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	2.8495	0.1671	5.9
876300_09	20	06MAR09:16:04:00	15MAR09:13:31:00	2.8800	0.1056	3.7
878000_09	54	06MAR09:16:04:00	21JUN09:13:38:00	2.8833	0.1077	3.7
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	2.9611	0.0778	2.6
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	2.8078	0.1230	4.4
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	2.7462	0.1391	5.1
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	2.7487	0.1235	4.5
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	2.9125	0.1181	4.1
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	2.9292	0.1220	4.2
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	2.9763	0.1747	5.9
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	2.8900	0.0876	3.0
879100_09	40	31JUL09:11:08:00	23AUG09:13:37:00	2.8525	0.0960	3.4
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	2.9957	0.1367	4.6
870100_09	45	18SEP09:13:56:00	17OCT09:09:05:00	2.8756	0.1111	3.9
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	2.8907	0.1306	4.5
870700_09	85	08OCT09:16:31:00	19NOV09:09:12:00	2.8294	0.1765	6.2
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	3.1500	0.1225	3.9
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	2.9545	0.1438	4.9
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	2.8923	0.1441	5.0
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	2.8781	0.1385	4.8
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	2.6387	0.1585	6.0
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	2.8571	0.0676	2.4
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	2.7775	0.1050	3.8
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	2.7240	0.0981	3.6
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	2.7808	0.1201	4.3
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	2.8686	0.1323	4.6
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	2.7857	0.0690	2.5
873900_10	15	14MAR10:08:39:00	22MAR10:13:30:00	2.8933	0.0884	3.1
875000_10	44	14MAR10:08:39:00	08JUL10:16:00:00	2.9023	0.1045	3.6
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	2.6258	0.0965	3.7
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	2.7188	0.1065	3.9
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	2.9349	0.1232	4.2
874700_10	42	14MAY10:09:05:00	13JUN10:08:38:00	2.9714	0.1312	4.4
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	2.9826	0.1154	3.9
875900_10	38	16JUL10:11:37:00	07AUG10:08:43:00	2.9632	0.1384	4.7
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	2.7730	0.1264	4.6
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	2.8872	0.1151	4.0
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	2.8655	0.1010	3.5
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	2.8826	0.1497	5.2
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	2.8395	0.1242	4.4
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	2.6959	0.1285	4.8
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	2.7176	0.1466	5.4
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	2.8275	0.1037	3.7
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	2.8246	0.1040	3.7
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	2.8176	0.1074	3.8
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	2.7152	0.0870	3.2
878600_10	26	08DEC10:14:29:00	20DEC10:13:34:00	2.2808	0.1415	6.2
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	2.6029	0.1243	4.8
870000_11	25	14JAN11:10:08:00	30JAN11:13:48:00	2.8040	0.1306	4.7

Summary Statistics for Lymphocyte No.(10^3 cells/uL) (Abn I)



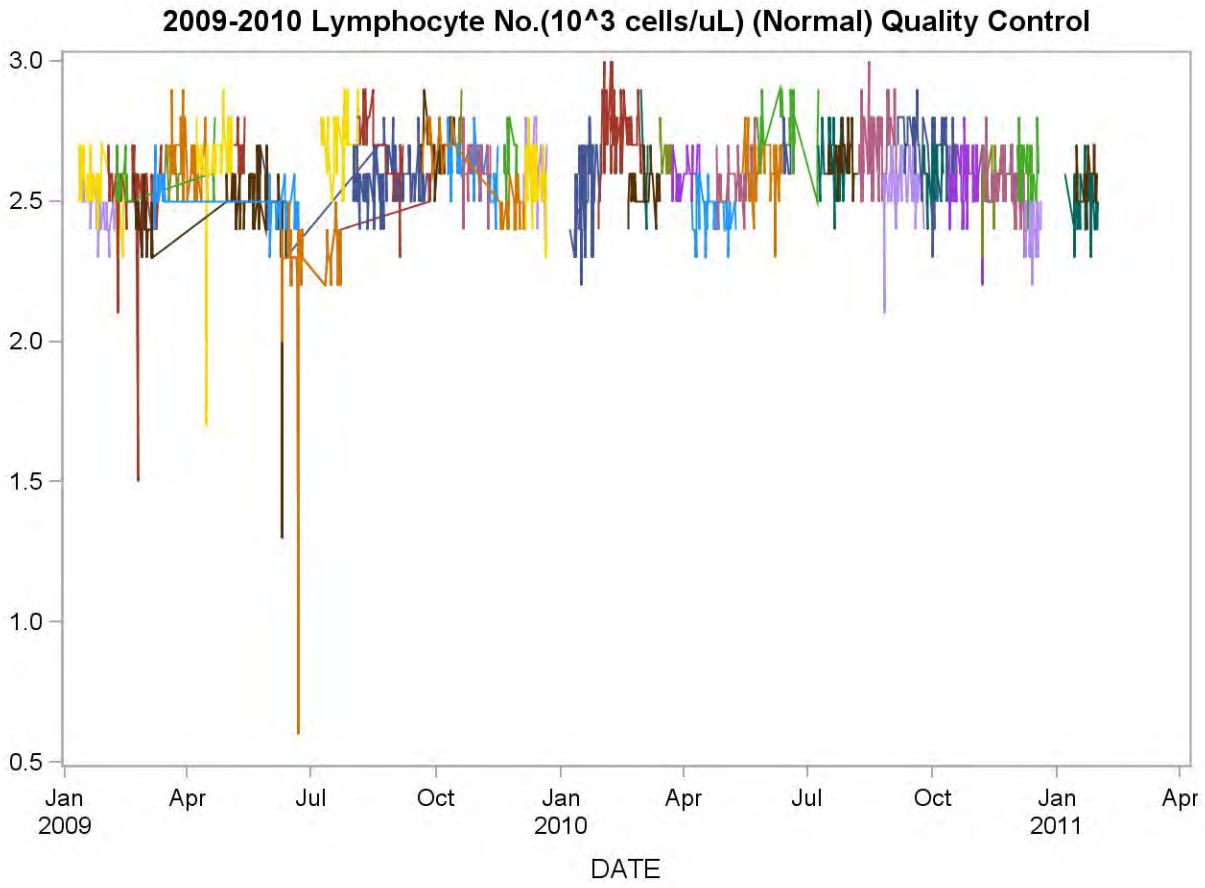
Summary Statistics for Lymphocyte No.(10^3 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	1.6444	0.0847	5.2
866200_09	51	11JAN09:10:39:00	15FEB09:13:50:00	1.5804	0.1020	6.5
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	1.5475	0.1535	9.9
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	1.6525	0.0816	4.9
868300_09	126	20FEB09:09:57:00	14JUN09:14:54:00	1.6675	0.0954	5.7
867100_09	12	06MAR09:16:06:00	14MAR09:13:25:00	1.6750	0.0754	4.5
868600_09	46	06MAR09:16:06:00	21JUN09:13:41:00	1.6783	0.0696	4.1
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	1.6851	0.0722	4.3
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	1.6350	0.1388	8.5
867800_09	14	04MAY09:10:30:00	12MAY09:17:39:00	1.6071	0.1072	6.7
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	1.6308	0.0944	5.8
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	1.6915	0.0824	4.9
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	1.7000	0.0707	4.2
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	1.7558	0.1532	8.7
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	1.7395	0.0755	4.3
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	1.7261	0.0801	4.6
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	1.6955	0.1011	6.0
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	1.6600	0.1009	6.1
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	1.6985	0.0910	5.4
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	1.8167	0.0983	5.4
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	1.6595	0.0599	3.6
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	1.6875	0.1258	7.5
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	1.6970	0.0728	4.3
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	1.6733	0.0785	4.7
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	1.6385	0.0979	6.0
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	1.7077	0.0621	3.6
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	1.6160	0.0943	5.8
863900_10	44	19FEB10:14:07:00	13MAR10:13:31:00	1.8318	0.2674	14.6
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	1.6833	0.0753	4.5
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	1.7500	0.0650	3.7
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	1.8000	0.3271	18.2
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	1.5656	0.0745	4.8
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	1.7200	0.0728	4.2
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	1.6408	0.1288	7.8
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	1.6000	0.0485	3.0
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	1.7000	0.0877	5.2
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	1.7075	0.0829	4.9
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	1.7000	0.0837	4.9
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	1.6878	0.1005	6.0
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	1.8400	0.2307	12.5
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	1.7469	0.1545	8.8
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	1.6957	0.0767	4.5
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	1.6970	0.0637	3.8
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	1.6877	0.1038	6.2
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	1.6906	0.0928	5.5
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	1.6636	0.0754	4.5
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	1.6615	0.0782	4.7
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	1.6688	0.0704	4.2
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	1.7481	0.0802	4.6
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	1.7222	0.0801	4.6
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	1.6818	0.0769	4.6
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	1.7152	0.0795	4.6


2009-2010 Lymphocyte No.(10^3 cells/uL) (Abn II) Quality Control
2.5
2.0
1.5
1.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Lymphocyte No.(10^3 cells/uL) (Normal)

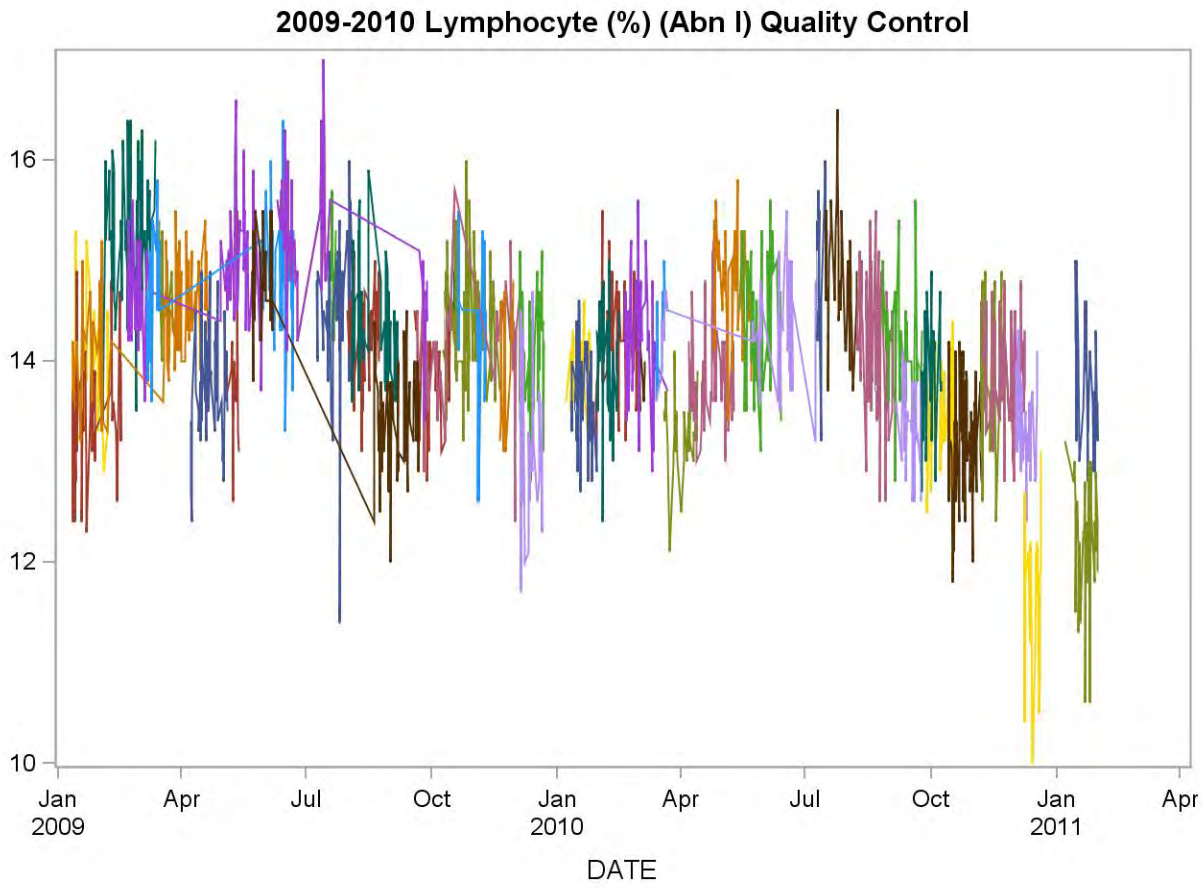
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	2.4830	0.0842	3.4
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	2.5548	0.0916	3.6
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	2.5070	0.1552	6.2
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	2.5895	0.0875	3.4
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	2.4320	0.0900	3.7
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	2.4791	0.1430	5.8
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	2.5333	0.0686	2.7
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	2.4904	0.0748	3.0
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	2.6063	0.0772	3.0
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	2.6500	0.1031	3.9
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	2.6068	0.2327	8.9
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	2.6933	0.0799	3.0
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	2.5550	0.1654	6.5
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	2.3033	0.2511	10.9
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	2.2741	0.2474	10.9
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	2.7186	0.0982	3.6
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	2.5513	0.0854	3.3
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	2.7064	0.1258	4.6
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	2.7098	0.0768	2.8
881400_09	42	20SEP09:11:46:00	05DEC09:08:41:00	2.5738	0.1345	5.2
881000_09	62	08OCT09:16:29:00	15NOV09:09:02:00	2.6210	0.0832	3.2
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	2.7333	0.1033	3.8
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	2.6108	0.0875	3.4
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	2.6643	0.0842	3.2
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	2.6121	0.1293	5.0
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	2.5677	0.1077	4.2
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	2.5206	0.1451	5.8
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	2.7548	0.1119	4.1
884000_10	35	19FEB10:11:33:00	14MAR10:07:26:00	2.5486	0.0702	2.8
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	2.6500	0.1643	6.2
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	2.6615	0.0650	2.4
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	2.6097	0.0700	2.7
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	2.4510	0.0794	3.2
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	2.5755	0.0830	3.2
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	2.6190	0.0969	3.7
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	2.7583	0.0996	3.6
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	2.6500	0.0756	2.9
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	2.6415	0.0921	3.5
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	2.6450	0.0714	2.7
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	2.6986	0.1219	4.5
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	2.5537	0.1164	4.6
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	2.6934	0.1167	4.3
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	2.5958	0.0751	2.9
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	2.5703	0.0989	3.8
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	2.5594	0.0911	3.6
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	2.5953	0.0722	2.8
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	2.5661	0.0886	3.5
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	2.5000	0.0882	3.5
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	2.6069	0.1132	4.3
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	2.4034	0.0865	3.6
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	2.5028	0.1000	4.0
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	2.5750	0.0794	3.1


2009-2010 Lymphocyte No.(10^3 cells/uL) (Normal) Quality Control
3.0
2.5
2.0
1.5
1.0
0.5
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Lymphocyte (%) (Abn I)

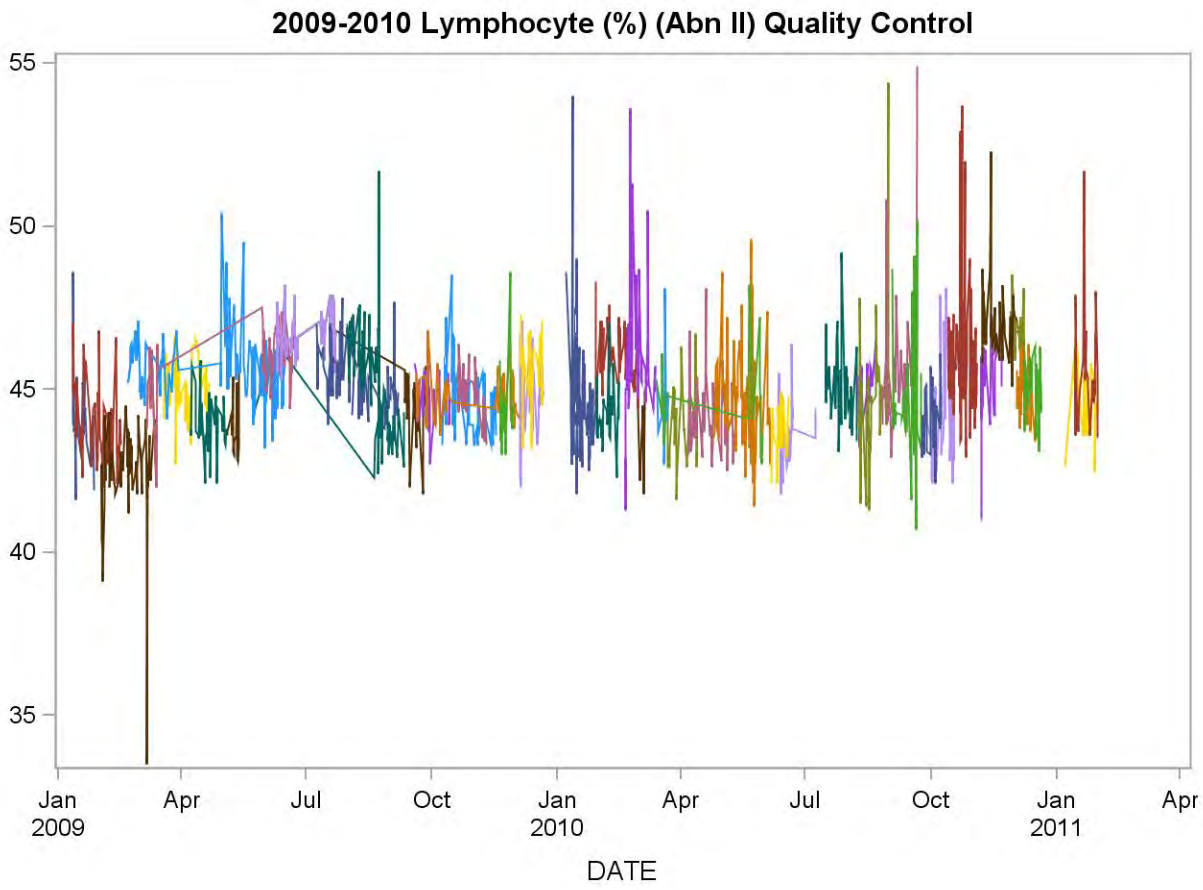
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	13.9722	0.5900	4.2
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	14.3654	0.5271	3.7
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	13.4673	0.5725	4.3
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	15.1833	0.6616	4.4
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	14.6714	0.4512	3.1
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	14.8554	0.5268	3.5
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	14.6952	0.5162	3.5
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	14.8564	0.5897	4.0
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	14.6500	0.4105	2.8
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	13.7706	0.5408	3.9
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	13.7385	0.6947	5.1
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	13.8628	0.8153	5.9
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	15.3100	0.5732	3.7
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	15.1625	0.6343	4.2
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	14.4921	0.7810	5.4
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	14.8200	0.4517	3.0
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	14.1537	0.4495	3.2
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	14.3553	0.5508	3.8
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	13.8826	0.5599	4.0
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	14.1442	0.5997	4.2
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	14.3965	0.5359	3.7
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	14.8167	0.3189	2.2
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	14.3409	0.7096	4.9
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	13.8308	0.6460	4.7
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	14.0438	0.6395	4.6
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	13.1032	0.7627	5.8
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	13.9333	0.3352	2.4
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	13.6950	0.5023	3.7
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	14.2184	0.4724	3.3
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	13.9577	0.5866	4.2
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	14.2343	0.6231	4.4
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	13.8857	0.2734	2.0
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	14.3813	0.3834	2.7
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	14.2911	0.4616	3.2
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	13.2484	0.3714	2.8
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	13.8354	0.5097	3.7
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	14.7744	0.4996	3.4
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	14.4000	0.5924	4.1
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	14.9565	0.6381	4.3
875900_10	39	16JUL10:11:37:00	07AUG10:13:39:00	14.8179	0.6181	4.2
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	14.1622	0.6408	4.5
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	14.1641	0.5484	3.9
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	13.4138	0.4274	3.2
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	13.8174	0.5929	4.3
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	13.5368	0.5289	3.9
877400_10	72	13OCT10:15:06:00	06NOV10:13:35:00	13.2597	0.5128	3.9
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	13.7529	0.6885	5.0
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	13.8450	0.4857	3.5
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	13.8702	0.4870	3.5
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	13.9294	0.4997	3.6
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	13.3939	0.4430	3.3
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	11.6222	0.6835	5.9
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	12.2500	0.6345	5.2
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	13.8769	0.6568	4.7

Summary Statistics for Lymphocyte (%) (Abn I)



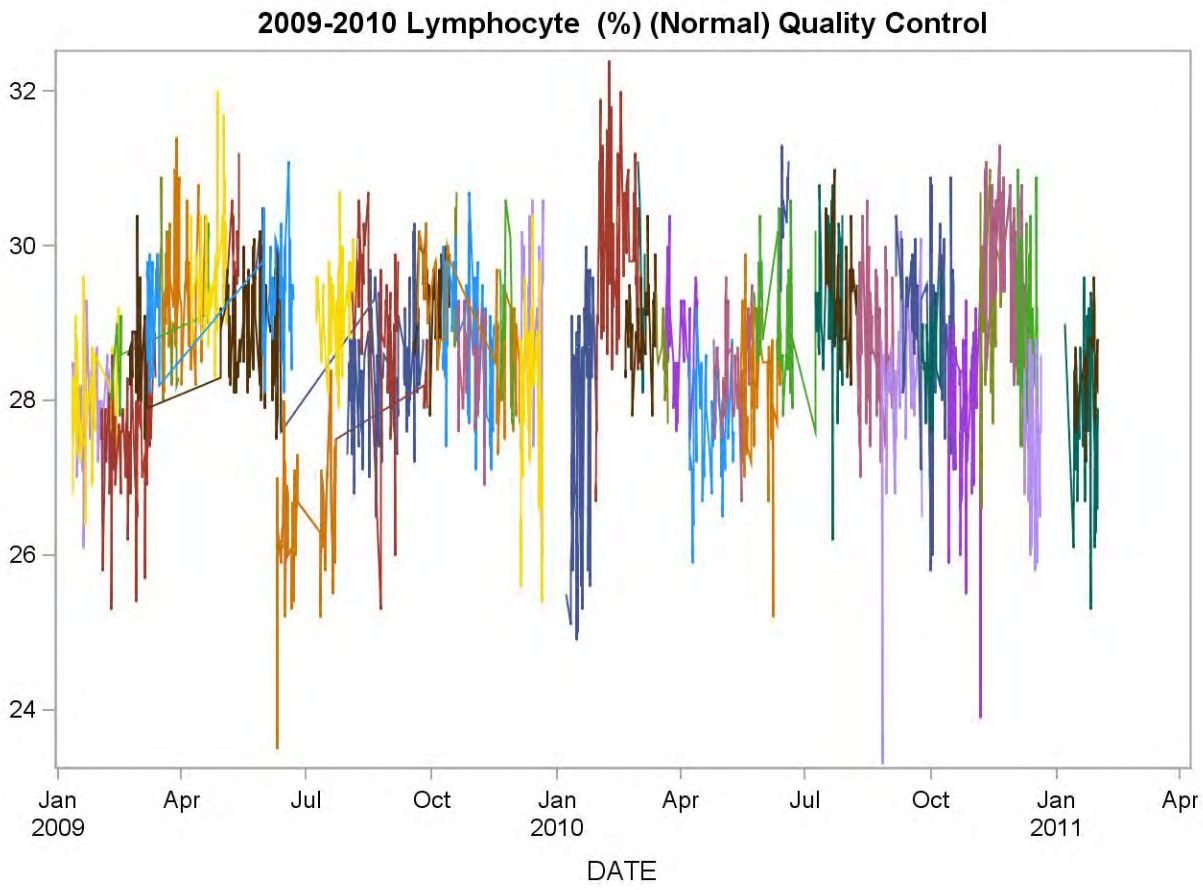
Summary Statistics for Lymphocyte (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	44.0370	1.2950	2.9
866200_09	52	11JAN09:10:39:00	15FEB09:13:50:00	44.0750	1.2416	2.8
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	42.5051	1.5350	3.6
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	45.6975	0.6978	1.5
868300_09	125	20FEB09:09:57:00	14JUN09:14:54:00	45.6304	1.0116	2.2
867100_09	13	06MAR09:16:06:00	14MAR09:13:25:00	45.0846	1.1796	2.6
868600_09	47	06MAR09:16:06:00	21JUN09:13:41:00	45.8213	1.0159	2.2
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	45.0489	0.8561	1.9
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	43.9350	0.8145	1.9
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	43.7688	0.8677	2.0
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	44.7192	1.3258	3.0
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	45.8620	1.3773	3.0
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	46.6978	0.7369	1.6
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	45.8786	0.8351	1.8
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	46.1711	0.8236	1.8
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	45.0022	0.7923	1.8
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	44.7535	0.7953	1.8
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	44.7659	0.7377	1.6
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	44.6846	1.1424	2.6
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	44.8833	0.6676	1.5
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	44.8919	0.7080	1.6
861900_09	15	19NOV09:10:15:00	29NOV09:14:03:00	44.5933	1.4155	3.2
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	44.8758	1.1014	2.5
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	45.8367	1.0364	2.3
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	44.4646	1.8125	4.1
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	46.1192	0.8315	1.8
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	44.2080	0.9699	2.2
863900_10	36	19FEB10:14:28:00	13MAR10:13:31:00	45.9083	2.3359	5.1
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	43.7500	1.3766	3.1
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	44.6214	1.3169	3.0
865200_10	18	14MAR10:08:40:00	30MAY10:13:42:00	44.6611	1.3882	3.1
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	44.1063	1.1054	2.5
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	44.1360	1.0834	2.5
864900_10	74	25APR10:02:52:00	05JUN10:13:56:00	44.6081	1.4622	3.3
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	43.6444	0.8305	1.9
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	43.8111	1.0143	2.3
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	45.1775	1.1537	2.6
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	45.0143	0.8064	1.8
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	44.8634	2.2327	5.0
867000_10	35	26AUG10:10:03:00	20SEP10:17:38:00	45.5914	2.2441	4.9
867100_10	30	02SEP10:18:05:00	23SEP10:13:56:00	44.7433	2.0512	4.6
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	44.1478	0.9903	2.2
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	44.1788	1.4922	3.4
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	45.9215	1.9746	4.3
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	45.4313	1.1751	2.6
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	46.9839	1.0625	2.3
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	47.0550	1.1514	2.4
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	46.8063	0.8037	1.7
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	44.9593	0.8125	1.8
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	45.2037	0.8433	1.9
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	44.7485	1.0186	2.3
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	45.6788	1.5459	3.4


2009-2010 Lymphocyte (%) (Abn II) Quality Control
55
50
45
40
35
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Lymphocyte (%) (Normal)

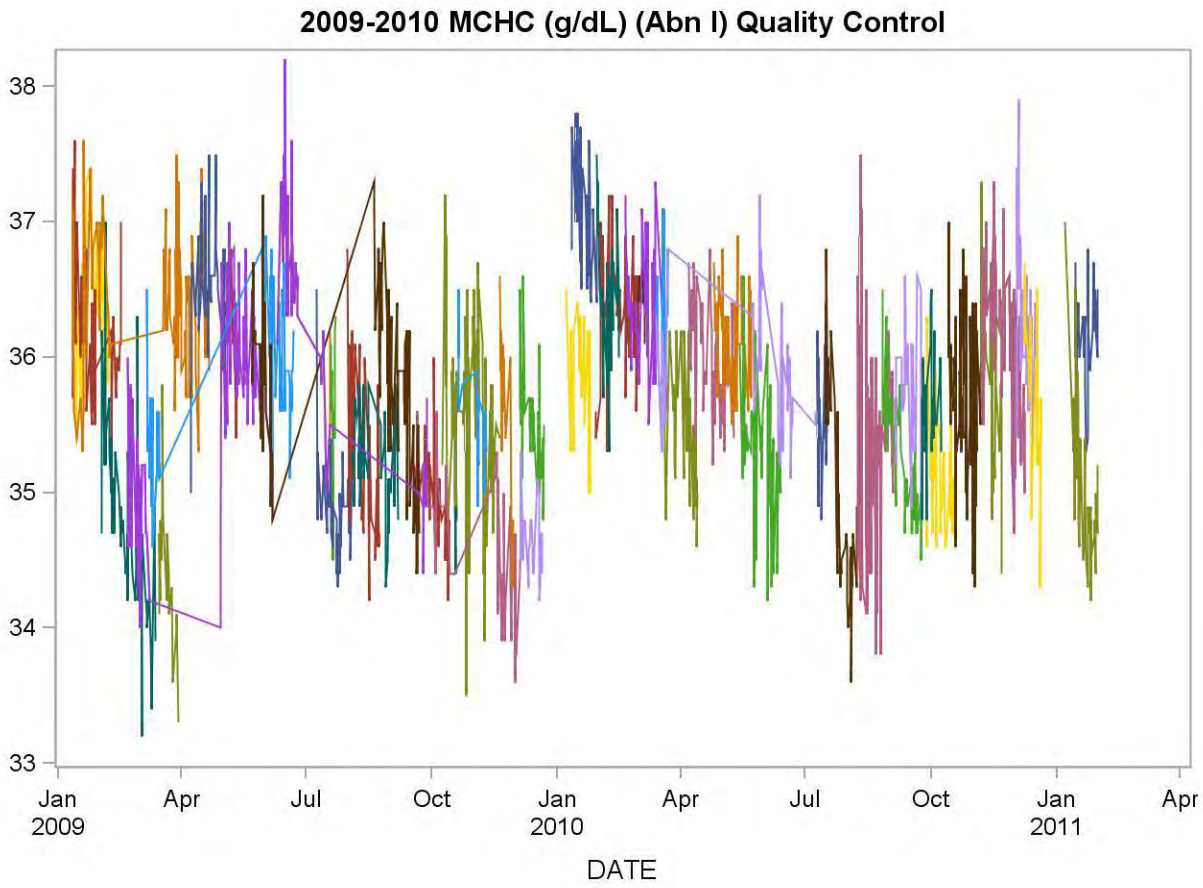
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	27.8383	0.5955	2.1
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	28.0476	0.7048	2.5
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	27.4155	0.7504	2.7
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	29.0429	0.8093	2.8
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	28.5760	0.5797	2.0
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	28.8661	0.6592	2.3
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	29.2333	0.5951	2.0
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	29.3385	0.6460	2.2
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	29.1750	0.8274	2.8
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	29.5208	0.7949	2.7
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	29.5773	0.7523	2.5
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	29.8588	0.5969	2.0
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	28.7240	0.7270	2.5
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	26.6200	0.9515	3.6
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	26.4444	0.8259	3.1
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	29.2209	0.6390	2.2
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	28.1205	0.6902	2.5
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	29.2617	1.0402	3.6
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	29.4098	0.5253	1.8
881400_09	43	20SEP09:11:46:00	05DEC09:08:41:00	28.8605	0.7722	2.7
881000_09	63	08OCT09:16:29:00	15NOV09:09:02:00	28.7698	0.8424	2.9
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	29.8500	0.7232	2.4
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	28.4757	0.5799	2.0
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	29.0786	0.8069	2.8
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	28.8697	1.2284	4.3
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	28.0419	1.0850	3.9
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	27.5324	1.4623	5.3
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	30.0288	1.0449	3.5
884000_10	36	19FEB10:11:11:00	14MAR10:07:26:00	28.9028	0.5412	1.9
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	29.6500	1.0766	3.6
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	28.5615	0.5059	1.8
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	28.7581	0.6771	2.4
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	27.6306	0.7024	2.5
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	28.3429	0.6117	2.2
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	28.1833	0.8213	2.9
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	29.0917	0.8062	2.8
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	30.5375	0.6070	2.0
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	29.3805	0.8922	3.0
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	29.5025	0.6265	2.1
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	28.6319	0.7964	2.8
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	28.1780	1.0755	3.8
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	29.0885	1.0712	3.7
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	28.6833	0.5451	1.9
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	27.9095	0.9222	3.3
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	29.1094	0.9542	3.3
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	29.9372	0.6782	2.3
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	29.7677	0.8028	2.7
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	29.3842	0.9418	3.2
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	28.9069	1.1129	3.8
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	27.5241	0.9207	3.3
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	27.7750	1.0421	3.8
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	28.3208	0.5610	2.0


2009-2010 Lymphocyte (%) (Normal) Quality Control
32
30
28
26
24
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for MCHC (g/dL) (Abn I)

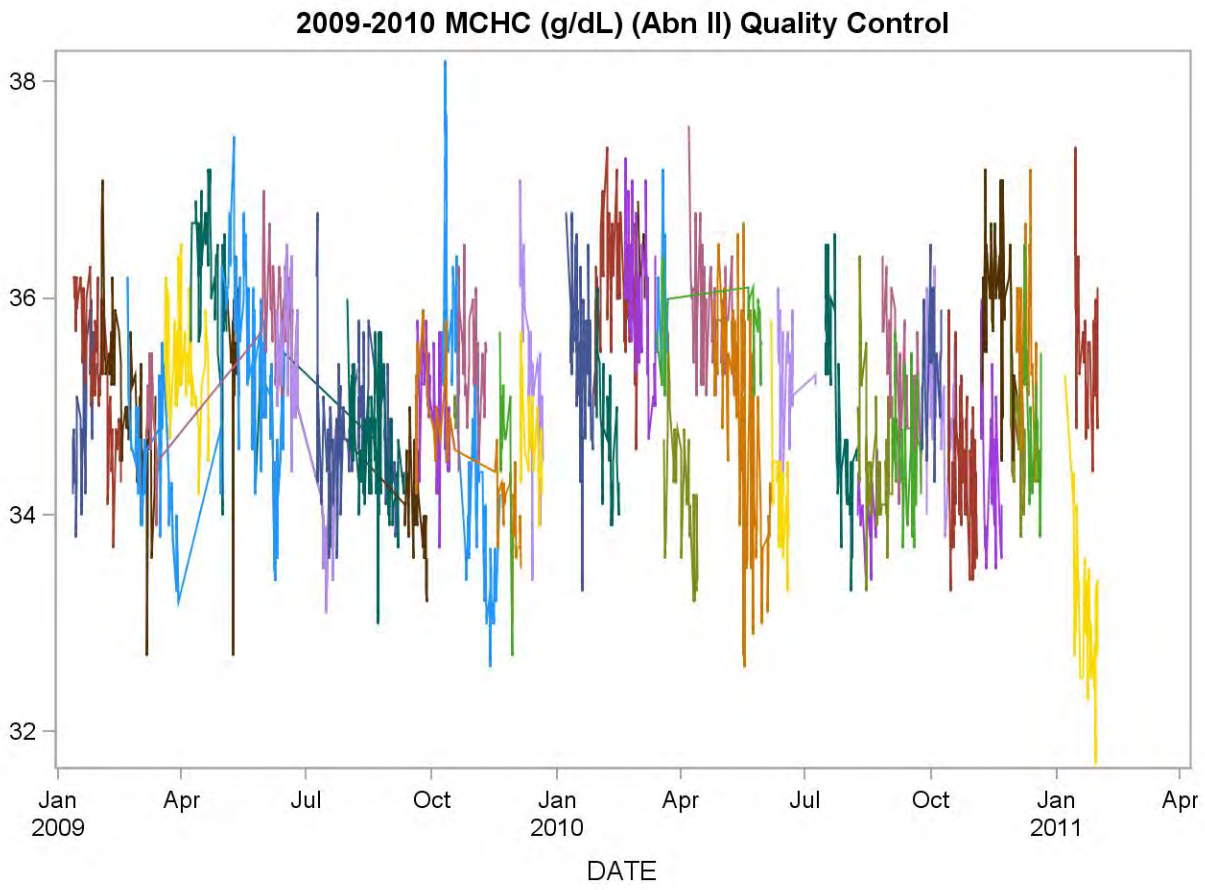
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	36.3667	0.5593	1.5
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	36.3718	0.5197	1.4
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	36.2308	0.5070	1.4
875800_09	64	01FEB09:15:25:00	12MAR09:13:25:00	34.7469	0.6427	1.8
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	34.9414	0.4982	1.4
877500_09	102	20FEB09:09:56:00	06JUN09:13:24:00	35.6853	0.7100	2.0
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	35.3381	0.3788	1.1
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	35.7909	0.5508	1.5
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	34.3889	0.5444	1.6
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	36.4731	0.4380	1.2
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	36.1692	0.3473	1.0
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	35.8590	0.6569	1.8
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	36.5825	0.6671	1.8
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	36.3104	0.8598	2.4
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	34.9237	0.3983	1.1
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	35.6200	0.5473	1.5
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	35.3195	0.5858	1.7
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	35.2340	0.3497	1.0
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	34.9652	0.3659	1.0
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	34.6409	0.4919	1.4
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	35.7218	0.6533	1.8
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	35.0333	0.3830	1.1
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	35.7500	0.4351	1.2
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	35.5846	0.6644	1.9
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	35.5469	0.4040	1.1
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	34.7387	0.2716	0.8
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	35.8545	0.4426	1.2
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	37.1325	0.4393	1.2
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	36.3700	0.4161	1.1
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	36.4500	0.4810	1.3
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	36.3543	0.4667	1.3
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	36.4143	0.1952	0.5
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	36.1688	0.5363	1.5
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	35.8889	0.4599	1.3
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	35.4581	0.5045	1.4
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	35.9796	0.3984	1.1
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	36.1140	0.3662	1.0
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	35.2860	0.5321	1.5
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	35.4917	0.3855	1.1
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	35.0825	0.7922	2.3
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	35.4081	0.8680	2.5
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	35.2744	0.4517	1.3
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	35.8276	0.4519	1.3
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	35.6609	0.4335	1.2
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	35.1632	0.4070	1.2
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	35.7446	0.5732	1.6
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	35.9853	0.6199	1.7
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	36.3375	0.4017	1.1
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	36.0831	0.5562	1.5
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	35.5474	0.4477	1.3
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	36.3857	0.5832	1.6
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	35.8296	0.5947	1.7
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	35.0500	0.6229	1.8
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	36.2038	0.3616	1.0

Summary Statistics for MCHC (g/dL) (Abn I)



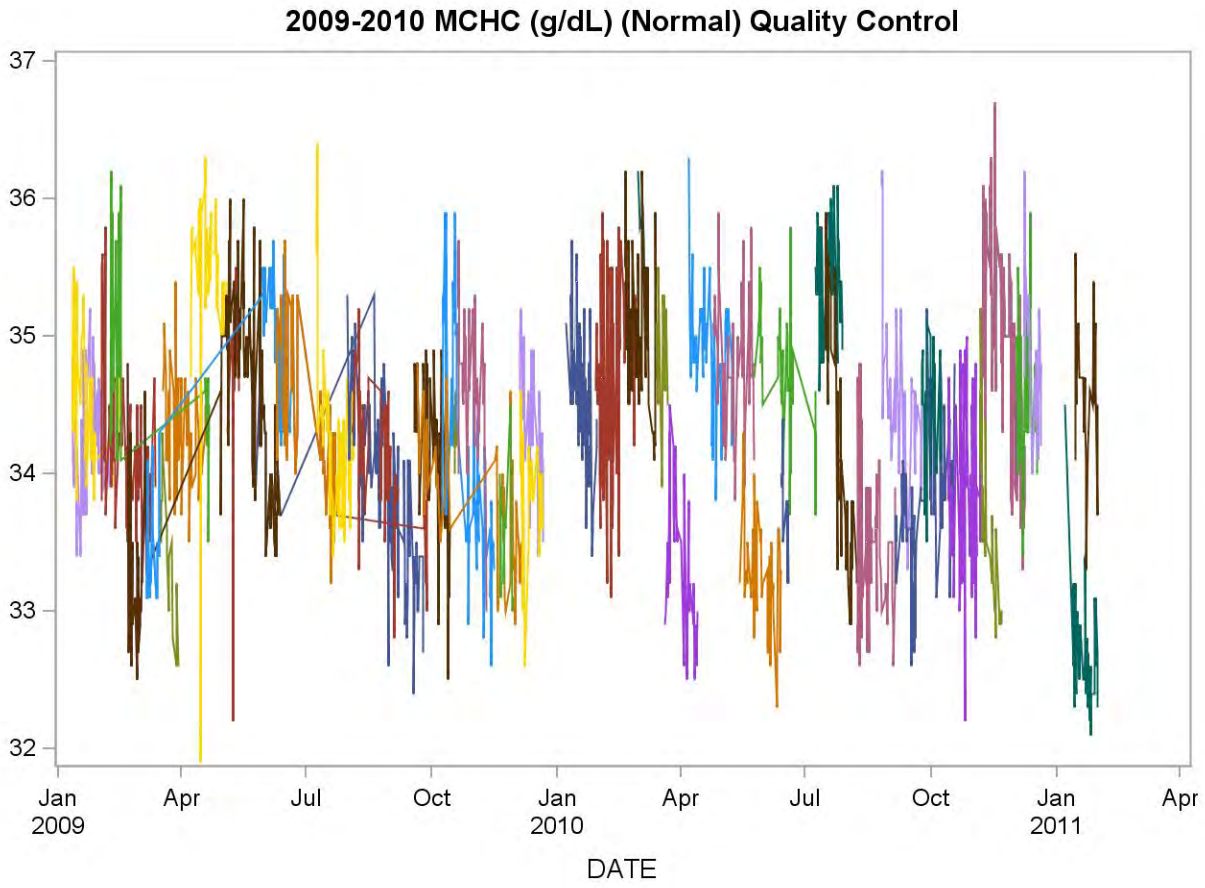
Summary Statistics for MCHC (g/dL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	34.8759	0.5780	1.7
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	35.3870	0.6434	1.8
866500_09	57	01FEB09:15:22:00	12MAR09:13:15:00	35.0246	0.6955	2.0
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	34.5250	0.5786	1.7
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	35.0891	0.8383	2.4
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	34.8714	0.4428	1.3
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	35.6063	0.6419	1.8
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	35.3723	0.4933	1.4
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	36.2951	0.6293	1.7
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	35.3813	0.7833	2.2
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	34.7835	0.6094	1.8
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	34.6225	0.8389	2.4
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	34.9622	0.8332	2.4
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	34.6767	0.5847	1.7
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	34.5650	0.5637	1.6
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	34.8426	0.5089	1.5
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	35.0364	0.5314	1.5
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	34.5311	0.6785	2.0
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	34.9455	1.4146	4.0
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	35.0000	0.1265	0.4
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	35.4865	0.5084	1.4
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	34.5500	0.7806	2.3
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	35.3515	0.7412	2.1
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	34.8233	0.4305	1.2
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	35.5836	0.6280	1.8
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	36.1827	0.5656	1.6
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	34.7615	0.5893	1.7
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	36.0489	0.6057	1.7
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	36.4000	0.3162	0.9
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	35.9714	0.5717	1.6
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	35.7636	0.3632	1.0
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	34.2781	0.6095	1.8
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	35.8420	0.5171	1.4
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	34.8316	1.0079	2.9
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	34.2333	0.5369	1.6
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	35.3074	0.4314	1.2
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	34.9707	0.8849	2.5
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	33.9905	0.3064	0.9
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	34.5840	0.6491	1.9
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	35.2333	0.5409	1.5
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	34.5974	0.4857	1.4
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	35.3522	0.5509	1.6
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	34.9343	0.5434	1.6
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	34.3892	0.5264	1.5
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	34.6313	0.7195	2.1
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	35.6161	0.8669	2.4
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	36.0025	0.6510	1.8
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	34.6500	0.5099	1.5
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	35.6148	0.6712	1.9
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	35.0444	0.7387	2.1
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	33.1697	0.6794	2.0
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	35.8364	0.8015	2.2


2009-2010 MCHC (g/dL) (Abn II) Quality Control
38
36
34
32
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for MCHC (g/dL) (Normal)

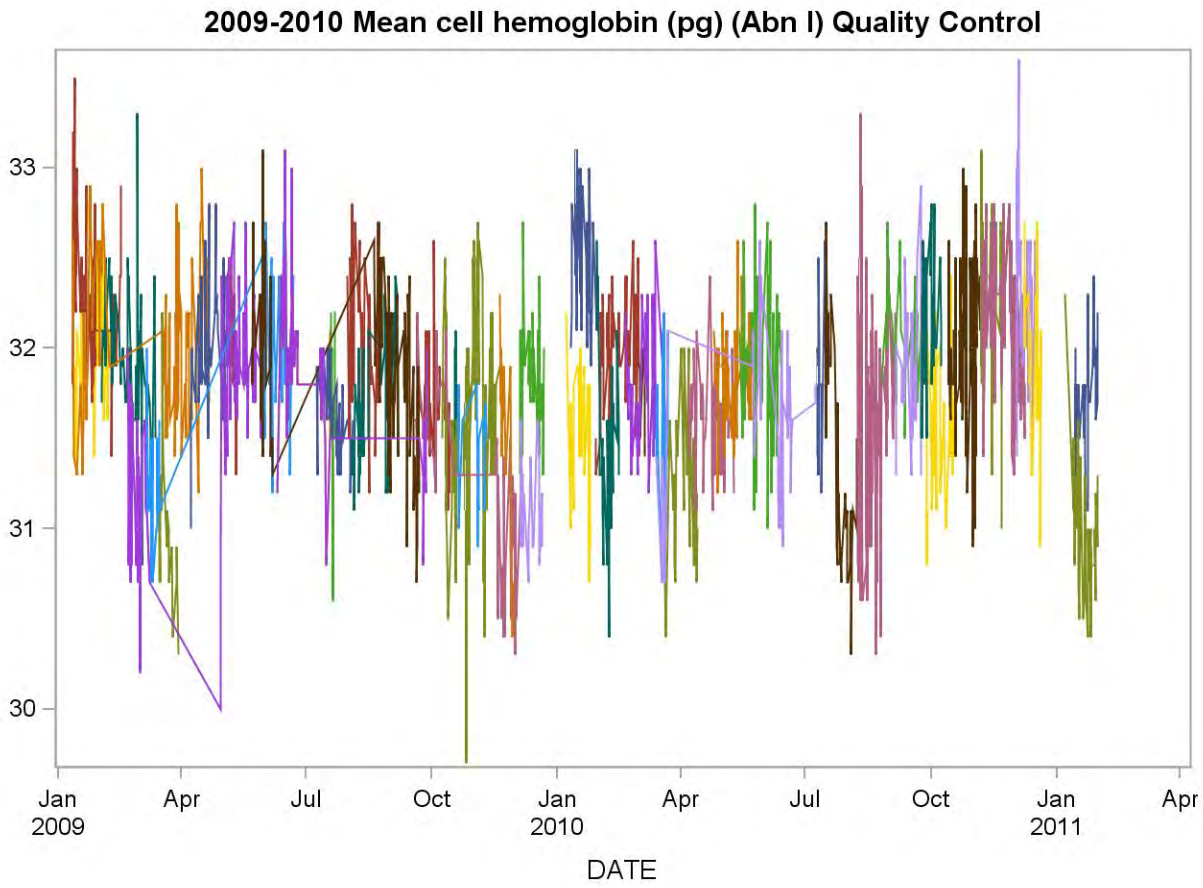
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	34.2319	0.4113	1.2
885800_09	42	11JAN09:10:33:00	15FEB09:13:48:00	34.5429	0.4538	1.3
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	34.1100	0.4572	1.3
887100_09	18	07FEB09:13:33:00	21APR09:08:37:00	34.8000	0.8000	2.3
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	33.3385	0.5906	1.8
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	34.2759	0.8196	2.4
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	33.4667	0.3896	1.2
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	34.4288	0.8221	2.4
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	33.4375	0.5005	1.5
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	34.3592	0.3947	1.1
887400_09	41	07APR09:16:59:00	04MAY09:10:24:00	35.4317	0.6620	1.9
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	34.6353	0.8162	2.4
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	33.8370	0.5348	1.6
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	34.3767	0.5782	1.7
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	34.4648	0.5263	1.5
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	34.2465	0.5993	1.8
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	34.3051	0.3940	1.1
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	34.2383	0.4932	1.4
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	34.1439	0.5644	1.7
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	33.8136	0.4986	1.5
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	34.1703	0.8668	2.5
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	34.2833	0.2229	0.7
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	34.6919	0.5272	1.5
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	33.6071	0.4047	1.2
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	34.3394	0.4401	1.3
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	33.9516	0.4456	1.3
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	34.6456	0.4685	1.4
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	34.7589	0.7045	2.0
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	35.0410	0.5933	1.7
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	35.6833	0.3764	1.1
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	34.8357	0.4272	1.2
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	33.3419	0.5542	1.7
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	34.8480	0.4437	1.3
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	34.8078	0.5031	1.4
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	33.2690	0.3904	1.2
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	34.7816	0.4471	1.3
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	33.7250	0.4097	1.2
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	35.4585	0.3827	1.1
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	34.3439	0.9592	2.8
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	33.5362	0.5552	1.7
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	34.5878	0.6365	1.8
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	33.8515	0.5344	1.6
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	34.4375	0.4292	1.2
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	33.9459	0.5623	1.7
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	33.7219	0.6469	1.9
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	35.2977	0.5700	1.6
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	34.9794	0.7421	2.1
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	34.2421	0.5470	1.6
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	34.6700	0.5547	1.6
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	34.8833	0.5127	1.5
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	32.7167	0.4417	1.4
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	34.6423	0.5368	1.5


2009-2010 MCHC (g/dL) (Normal) Quality Control
37
36
35
34
33
32
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Mean cell hemoglobin (pg) (Abn I)

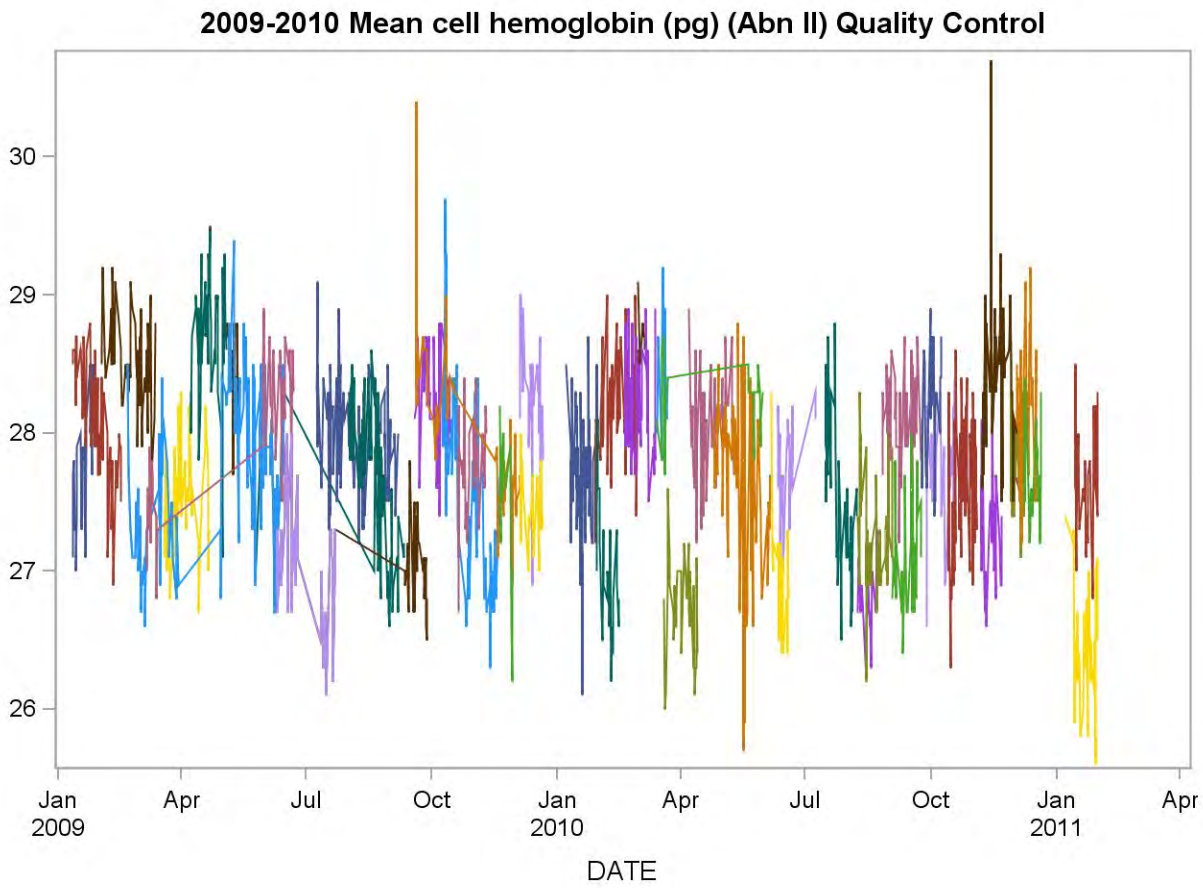
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	32.0333	0.4066	1.3
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	32.0295	0.4188	1.3
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	32.3250	0.3994	1.2
875800_09	64	01FEB09:15:25:00	12MAR09:13:25:00	31.9359	0.3657	1.1
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	31.1517	0.4137	1.3
877500_09	102	20FEB09:09:56:00	06JUN09:13:24:00	31.7363	0.5795	1.8
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	31.1905	0.3081	1.0
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	31.7218	0.5377	1.7
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	30.9944	0.4263	1.4
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	31.9808	0.3424	1.1
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	31.9769	0.3113	1.0
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	31.9128	0.4771	1.5
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	32.0175	0.4511	1.4
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	31.9104	0.4861	1.5
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	31.6237	0.2283	0.7
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	31.6800	0.5138	1.6
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	32.0439	0.3944	1.2
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	31.6511	0.3329	1.1
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	31.6696	0.2897	0.9
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	31.2432	0.4939	1.6
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	31.6115	0.5380	1.7
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	31.7333	0.3777	1.2
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	31.4864	0.2660	0.8
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	31.5154	0.5565	1.8
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	31.8875	0.3108	1.0
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	31.1419	0.2292	0.7
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	31.5273	0.3918	1.2
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	32.5282	0.3479	1.1
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	32.0100	0.2735	0.9
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	31.4962	0.4854	1.5
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	31.7657	0.3572	1.1
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	31.7857	0.2340	0.7
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	31.4000	0.4648	1.5
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	31.5978	0.4403	1.4
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	31.2387	0.4232	1.4
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	31.6490	0.2952	0.9
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	31.8349	0.2853	0.9
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	31.9372	0.4163	1.3
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	31.8417	0.3450	1.1
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	31.3950	0.5996	1.9
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	31.6243	0.6643	2.1
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	32.0615	0.2681	0.8
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	31.9207	0.3830	1.2
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	32.1957	0.3796	1.2
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	31.5921	0.3787	1.2
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	31.9784	0.4282	1.3
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	32.2647	0.4465	1.4
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	32.3175	0.3234	1.0
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	32.1610	0.3909	1.2
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	31.8316	0.3110	1.0
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	32.3429	0.4388	1.4
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	31.9630	0.4030	1.3
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	30.9853	0.4039	1.3
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	31.7346	0.3286	1.0

Summary Statistics for Mean cell hemoglobin (pg) (Abn I)



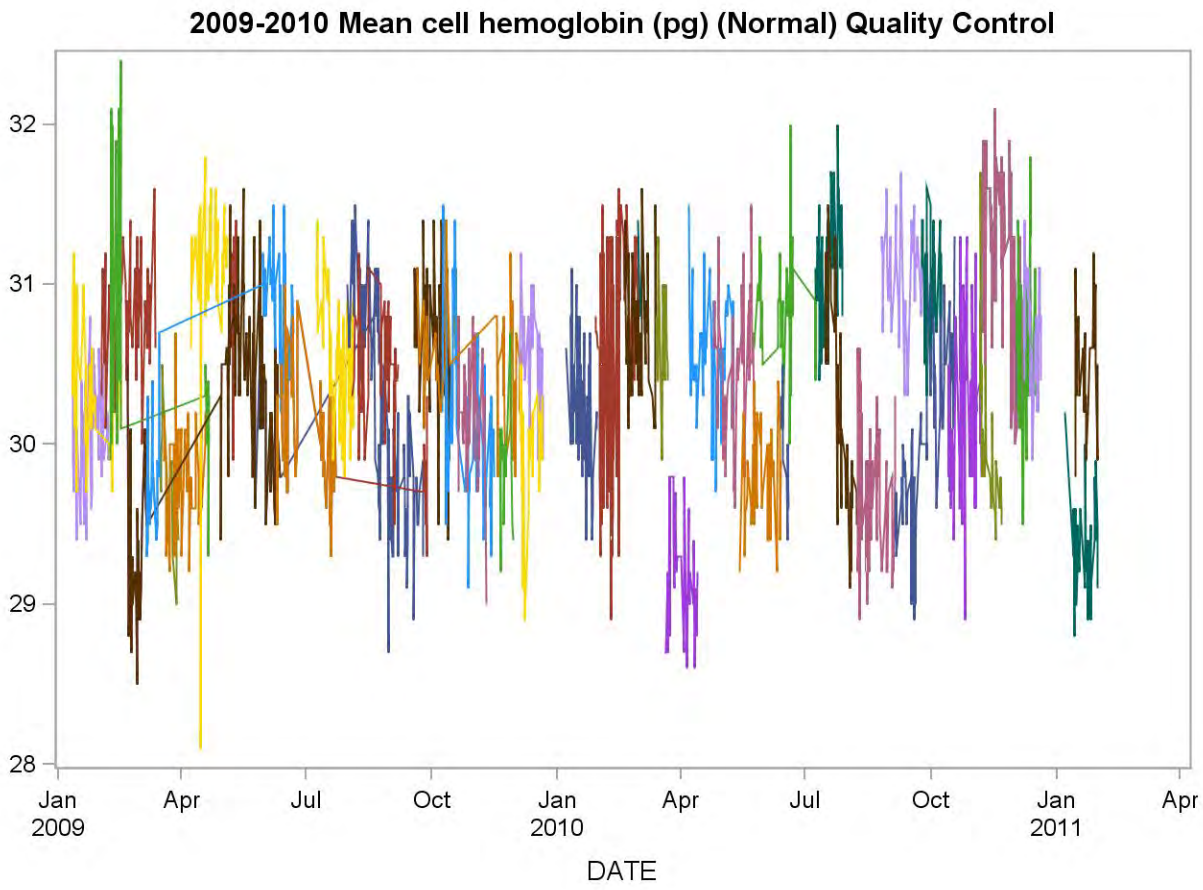
Summary Statistics for Mean cell hemoglobin (pg) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	27.7448	0.4076	1.5
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	28.0889	0.4364	1.6
866500_09	57	01FEB09:15:22:00	12MAR09:13:15:00	28.5175	0.3163	1.1
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	27.3450	0.4194	1.5
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	27.7625	0.5637	2.0
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	27.4214	0.3017	1.1
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	28.0250	0.5038	1.8
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	27.5149	0.3776	1.4
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	28.7146	0.4704	1.6
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	28.3938	0.3108	1.1
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	27.5342	0.5041	1.8
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	27.0465	0.3913	1.4
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	27.0578	0.4393	1.6
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	28.1326	0.3650	1.3
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	28.0325	0.2823	1.0
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	27.8149	0.3029	1.1
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	28.3295	0.4816	1.7
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	28.0089	0.5869	2.1
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	27.6439	0.7537	2.7
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	28.2833	0.0753	0.3
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	27.7622	0.3647	1.3
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	27.5000	0.5550	2.0
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	28.2485	0.4345	1.5
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	27.5067	0.2477	0.9
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	27.7373	0.4238	1.5
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	28.2192	0.3820	1.4
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	26.9462	0.4589	1.7
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	28.2021	0.3686	1.3
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	28.7333	0.2066	0.7
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	28.3929	0.4323	1.5
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	28.2409	0.2576	0.9
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	26.7313	0.3667	1.4
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	28.0480	0.3705	1.3
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	27.6513	0.5864	2.1
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	27.0000	0.4446	1.6
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	27.7667	0.3270	1.2
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	27.5585	0.5679	2.1
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	26.7714	0.2493	0.9
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	27.2820	0.4004	1.5
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	28.1429	0.3321	1.2
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	27.1842	0.3949	1.5
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	28.2043	0.4005	1.4
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	27.7029	0.4134	1.5
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	27.6257	0.4373	1.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	27.3250	0.3959	1.4
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	28.2071	0.6252	2.2
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	28.4325	0.5762	2.0
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	27.6438	0.3098	1.1
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	28.2111	0.4815	1.7
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	27.7889	0.3651	1.3
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	26.4606	0.4308	1.6
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	27.6788	0.3740	1.4


2009-2010 Mean cell hemoglobin (pg) (Abn II) Quality Control
30
29
28
27
26
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Mean cell hemoglobin (pg) (Normal)

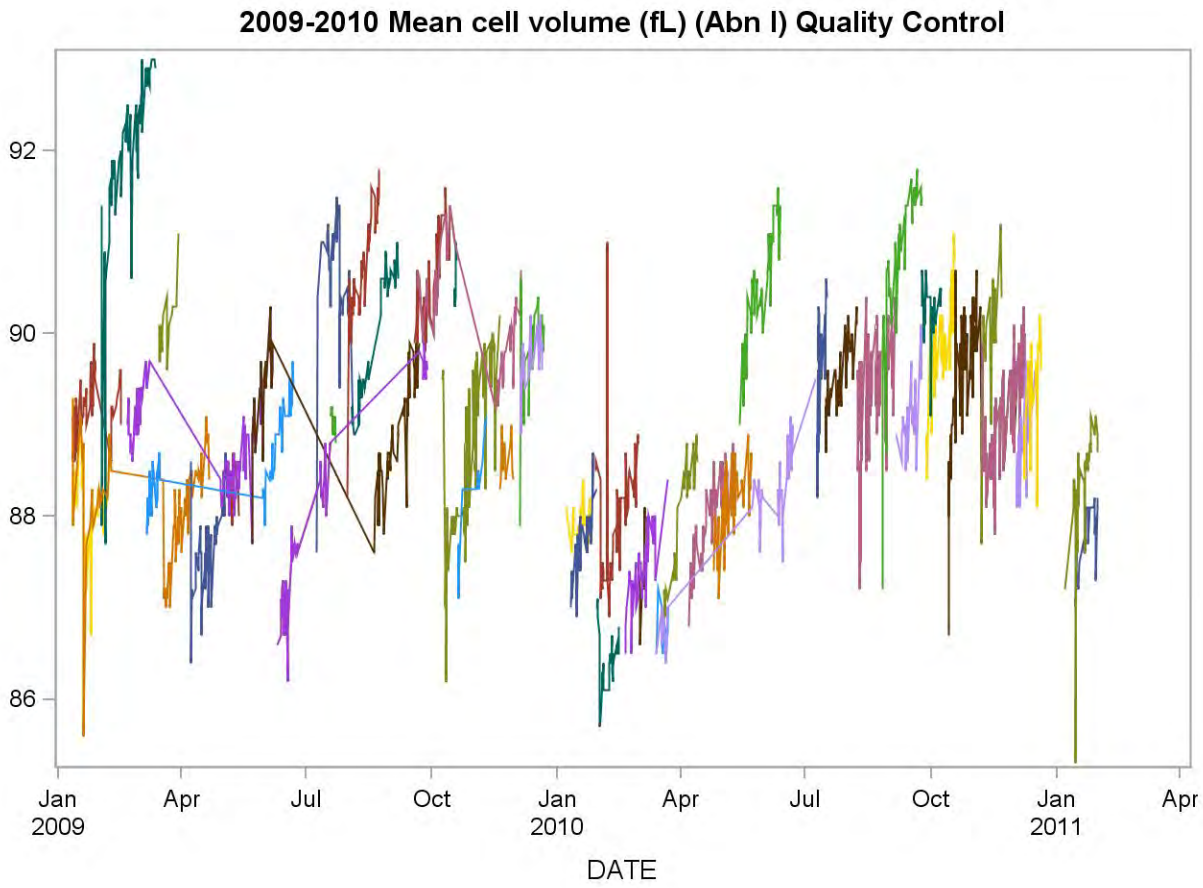
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	30.0383	0.3385	1.1
885800_09	42	11JAN09:10:33:00	15FEB09:13:48:00	30.3429	0.3644	1.2
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	30.8057	0.2997	1.0
887100_09	18	07FEB09:13:33:00	21APR09:08:37:00	30.6722	0.9517	3.1
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	29.3423	0.4835	1.6
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	30.1060	0.6416	2.1
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	29.7778	0.3719	1.2
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	30.4827	0.6154	2.0
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	29.7500	0.3812	1.3
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	29.7939	0.3256	1.1
887400_09	41	07APR09:16:59:00	04MAY09:10:24:00	31.1098	0.5567	1.8
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	30.8235	0.3666	1.2
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	29.8710	0.3836	1.3
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	30.0533	0.3643	1.2
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	30.0833	0.3554	1.2
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	30.5860	0.3739	1.2
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	30.8821	0.3060	1.0
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	30.5362	0.3523	1.2
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	30.6537	0.4680	1.5
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	30.5250	0.3661	1.2
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	30.2156	0.5475	1.8
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	30.7667	0.2582	0.8
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	30.1730	0.3754	1.2
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	29.8571	0.3736	1.3
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	30.5455	0.3153	1.0
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	30.0387	0.3721	1.2
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	30.2750	0.3409	1.1
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	30.6096	0.7128	2.3
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	30.6872	0.4238	1.4
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	30.9667	0.2875	0.9
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	30.6500	0.3568	1.2
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	29.1710	0.3743	1.3
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	30.5500	0.3489	1.1
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	30.5059	0.4211	1.4
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	29.8071	0.3188	1.1
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	30.8763	0.3552	1.2
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	29.9500	0.3586	1.2
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	31.2171	0.3598	1.2
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	30.3000	0.6697	2.2
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	29.7116	0.4150	1.4
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	31.0610	0.3137	1.0
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	30.1379	0.5859	1.9
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	31.0292	0.3420	1.1
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	30.2905	0.4743	1.6
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	30.0344	0.4790	1.6
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	31.3364	0.4346	1.4
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	31.1159	0.5401	1.7
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	30.6053	0.3993	1.3
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	30.6900	0.5215	1.7
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	30.7400	0.3430	1.1
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	29.3333	0.3162	1.1
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	30.5308	0.3685	1.2


2009-2010 Mean cell hemoglobin (pg) (Normal) Quality Control
32
31
30
29
28
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Mean cell volume (fL) (Abn I)

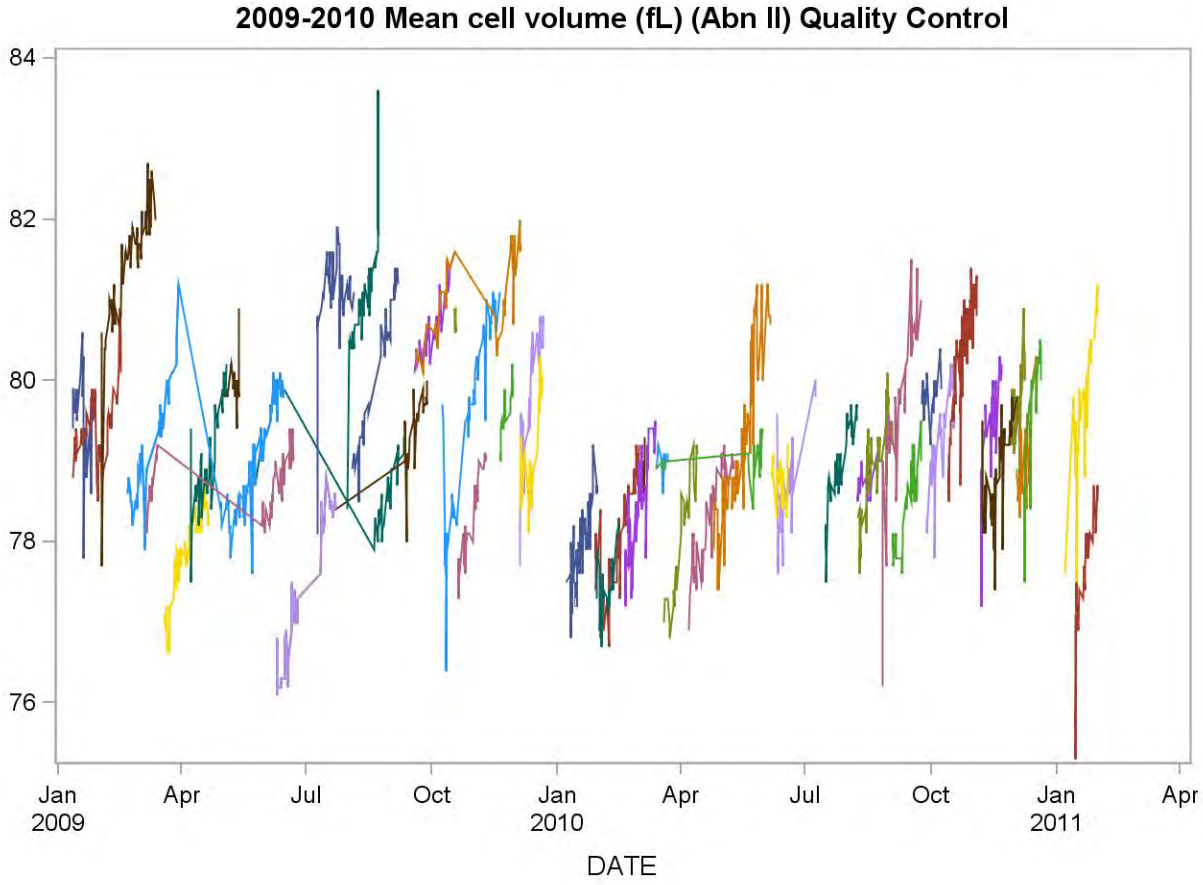
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	88.1148	0.5774	0.7
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	88.0808	0.5983	0.7
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	89.2115	0.3078	0.3
875800_09	65	01FEB09:15:25:00	12MAR09:13:25:00	91.9246	1.0177	1.1
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	89.1345	0.2979	0.3
877500_09	102	20FEB09:09:56:00	06JUN09:13:24:00	88.9363	0.4794	0.5
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	88.2571	0.2461	0.3
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	88.6236	0.4784	0.5
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	90.0944	0.3506	0.4
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	87.6865	0.4863	0.6
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	88.3692	0.2394	0.3
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	89.0103	0.6064	0.7
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	87.5550	0.6660	0.8
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	87.9271	1.0274	1.2
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	90.5658	0.7372	0.8
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	89.0100	0.1449	0.2
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	90.7195	0.6365	0.7
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	89.8213	0.7378	0.8
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	90.5978	0.4688	0.5
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	90.1886	0.5546	0.6
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	88.4989	1.0848	1.2
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	90.5500	0.2881	0.3
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	88.0773	0.6796	0.8
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	88.6231	0.2488	0.3
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	89.7219	0.5988	0.7
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	89.6194	0.2892	0.3
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	87.9364	0.2237	0.3
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	87.6050	0.4338	0.5
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	88.0160	0.6956	0.8
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	86.3923	0.3486	0.4
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	87.4143	0.4420	0.5
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	87.3143	0.4488	0.5
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	86.7563	0.2220	0.3
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	88.0667	0.7813	0.9
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	88.0677	0.6337	0.7
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	87.9510	0.4766	0.5
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	88.1372	0.4053	0.5
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	90.5209	0.5817	0.6
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	89.6833	0.5954	0.7
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	89.4700	0.4121	0.5
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	89.3297	0.6077	0.7
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	90.9000	0.8757	1.0
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	89.0966	0.3977	0.4
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	90.2696	0.3363	0.4
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	89.8421	0.5655	0.6
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	89.4554	0.7362	0.8
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	89.6706	0.7469	0.8
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	88.9075	0.4838	0.5
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	89.1220	0.5700	0.6
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	89.5737	0.4712	0.5
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	88.8943	0.4696	0.5
878600_10	26	08DEC10:14:29:00	20DEC10:13:34:00	89.2615	0.5845	0.7
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	88.3765	0.7148	0.8
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	87.6808	0.3919	0.4

Summary Statistics for Mean cell volume (fL) (Abn I)



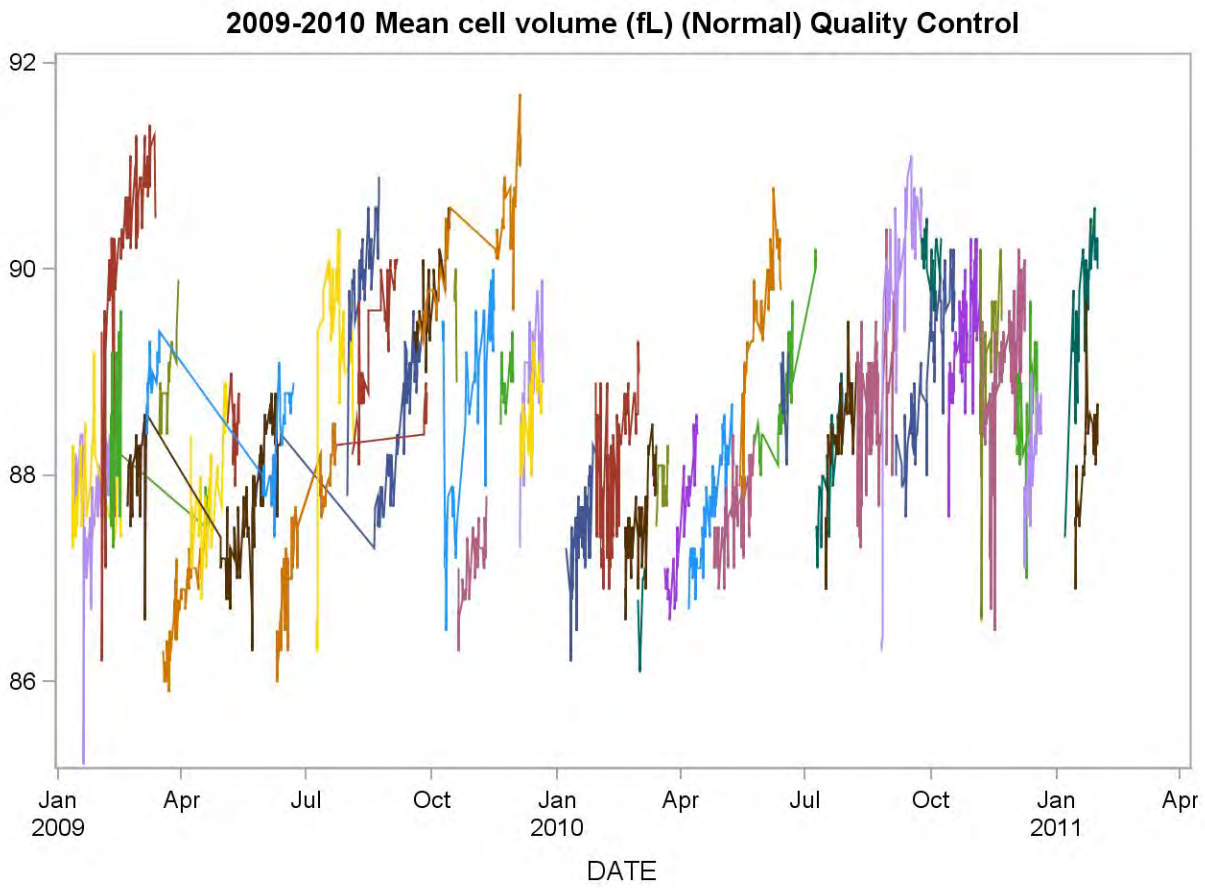
Summary Statistics for Mean cell volume (fL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	79.5621	0.5628	0.7
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	79.3944	0.4881	0.6
866500_09	56	01FEB09:15:22:00	12MAR09:13:15:00	81.3464	0.8444	1.0
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	79.1775	0.7044	0.9
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	79.1266	0.6605	0.8
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	78.7071	0.3245	0.4
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	78.7271	0.3356	0.4
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	77.7787	0.5250	0.7
867700_09	42	07APR09:16:50:00	03MAY09:13:33:00	79.0833	0.6100	0.8
867800_09	15	04MAY09:10:30:00	12MAY09:17:39:00	79.9800	0.3234	0.4
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	79.1772	0.6363	0.8
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	78.1352	1.2502	1.6
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	77.3956	0.9224	1.2
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	81.0405	0.7378	0.9
869700_09	39	31JUL09:11:09:00	23AUG09:13:39:00	81.0231	0.7361	0.9
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	79.8319	0.9383	1.2
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	80.6674	0.3877	0.5
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	80.9636	0.5296	0.7
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	79.1561	1.4214	1.8
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	80.7833	0.1472	0.2
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	78.2216	0.5553	0.7
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	79.5938	0.3151	0.4
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	79.9273	0.7555	0.9
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	78.9867	0.5412	0.7
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	77.9313	0.4659	0.6
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	78.0019	0.6890	0.9
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	77.5192	0.3774	0.5
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	78.2404	0.6675	0.9
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	78.8667	0.2875	0.4
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	78.9786	0.1424	0.2
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	79.0000	0.2268	0.3
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	77.9813	0.7651	1.0
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	78.2500	0.6185	0.8
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	79.3974	1.0191	1.3
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	78.8222	0.2798	0.4
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	78.6643	0.5485	0.7
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	78.8244	0.5665	0.7
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	78.7524	0.1721	0.2
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	78.8700	0.6018	0.8
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	79.8857	0.9807	1.2
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	78.5263	0.4677	0.6
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	79.8087	0.2811	0.4
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	79.2886	0.6009	0.8
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	80.3378	0.7012	0.9
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	78.9375	1.0111	1.3
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	79.1091	0.7354	0.9
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	78.8308	0.6049	0.8
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	79.7875	0.5726	0.7
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	79.2259	0.6017	0.8
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	79.3556	0.9366	1.2
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	79.7455	0.8452	1.1
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	77.2576	1.0946	1.4


2009-2010 Mean cell volume (fL) (Abn II) Quality Control
84
82
80
78
76
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Mean cell volume (fL) (Normal)

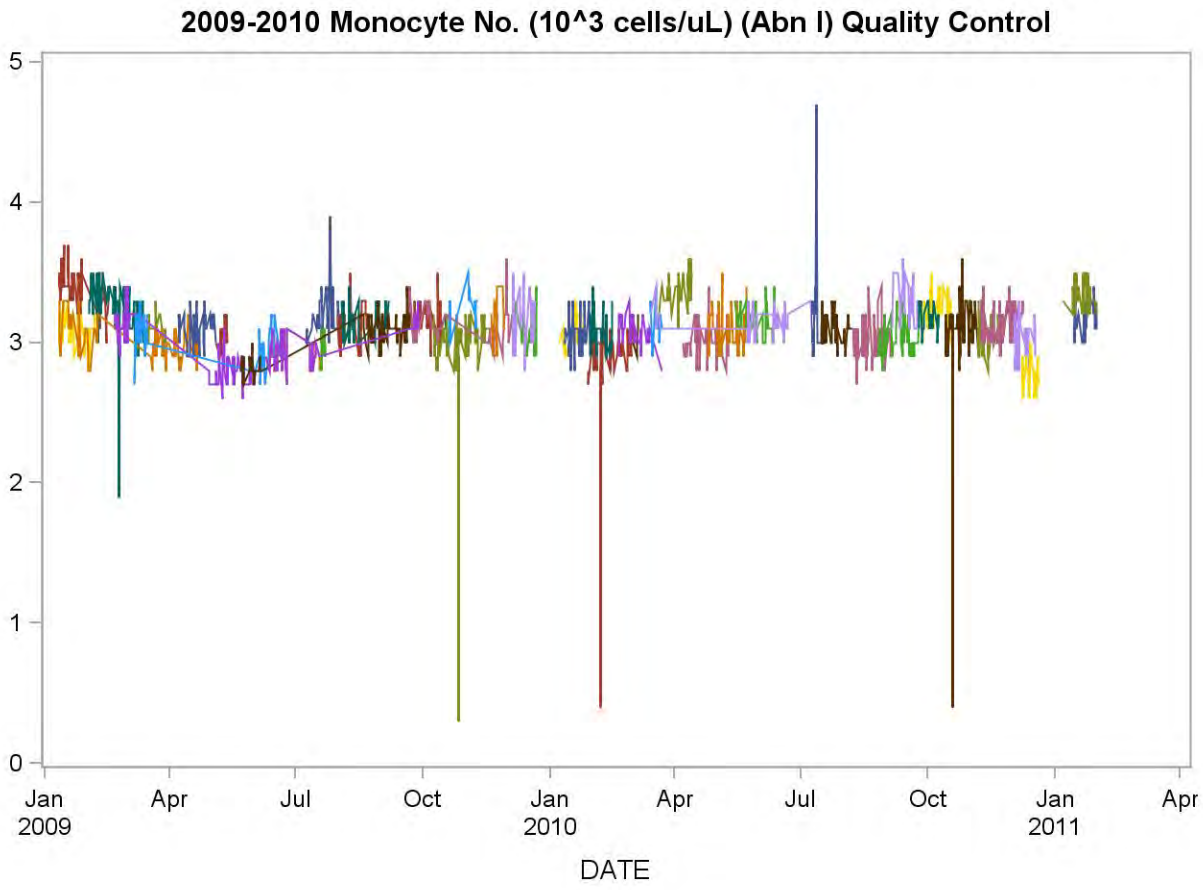
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	87.7468	0.5485	0.6
885800_09	42	11JAN09:10:33:00	15FEB09:13:48:00	87.8429	0.3964	0.5
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	90.2943	0.9445	1.0
887100_09	18	07FEB09:13:33:00	21APR09:08:37:00	88.1278	0.7379	0.8
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	88.0500	0.4179	0.5
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	87.8474	0.5406	0.6
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	88.9611	0.2500	0.3
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	88.5519	0.4763	0.5
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	88.9313	0.3995	0.4
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	86.7184	0.4211	0.5
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	87.8386	0.5195	0.6
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	88.5000	0.2903	0.3
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	88.2810	0.5829	0.7
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	87.4167	0.8085	0.9
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	87.2778	0.7262	0.8
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	89.3093	0.9337	1.0
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	90.0205	0.5172	0.6
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	89.2106	0.6301	0.7
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	89.7780	0.4047	0.5
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	90.2682	0.5685	0.6
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	88.4719	0.9972	1.1
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	89.7333	0.4227	0.5
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	86.9730	0.3949	0.5
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	88.8357	0.2735	0.3
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	88.9545	0.5579	0.6
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	88.4935	0.3642	0.4
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	87.3941	0.4263	0.5
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	88.0452	0.6028	0.7
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	87.5462	0.4564	0.5
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	86.8500	0.3834	0.4
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	87.9071	0.2303	0.3
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	87.4742	0.6309	0.7
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	87.6560	0.4908	0.6
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	87.6333	0.3861	0.4
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	89.5929	0.5969	0.7
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	88.7921	0.5706	0.6
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	88.7875	0.3758	0.4
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	88.0805	0.4400	0.5
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	88.2341	0.6609	0.7
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	88.6087	0.6539	0.7
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	89.8122	1.2291	1.4
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	89.0167	0.7585	0.9
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	90.0750	0.2658	0.3
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	89.2324	0.5952	0.7
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	89.0625	0.7325	0.8
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	88.7386	0.6838	0.8
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	88.9254	0.7034	0.8
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	89.3579	0.5521	0.6
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	88.5167	0.4928	0.6
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	88.0900	0.5708	0.6
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	89.6556	0.6263	0.7
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	88.1269	0.5848	0.7


2009-2010 Mean cell volume (fL) (Normal) Quality Control
92
90
88
86
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Monocyte No. (10^3 cells/uL) (Abn I)

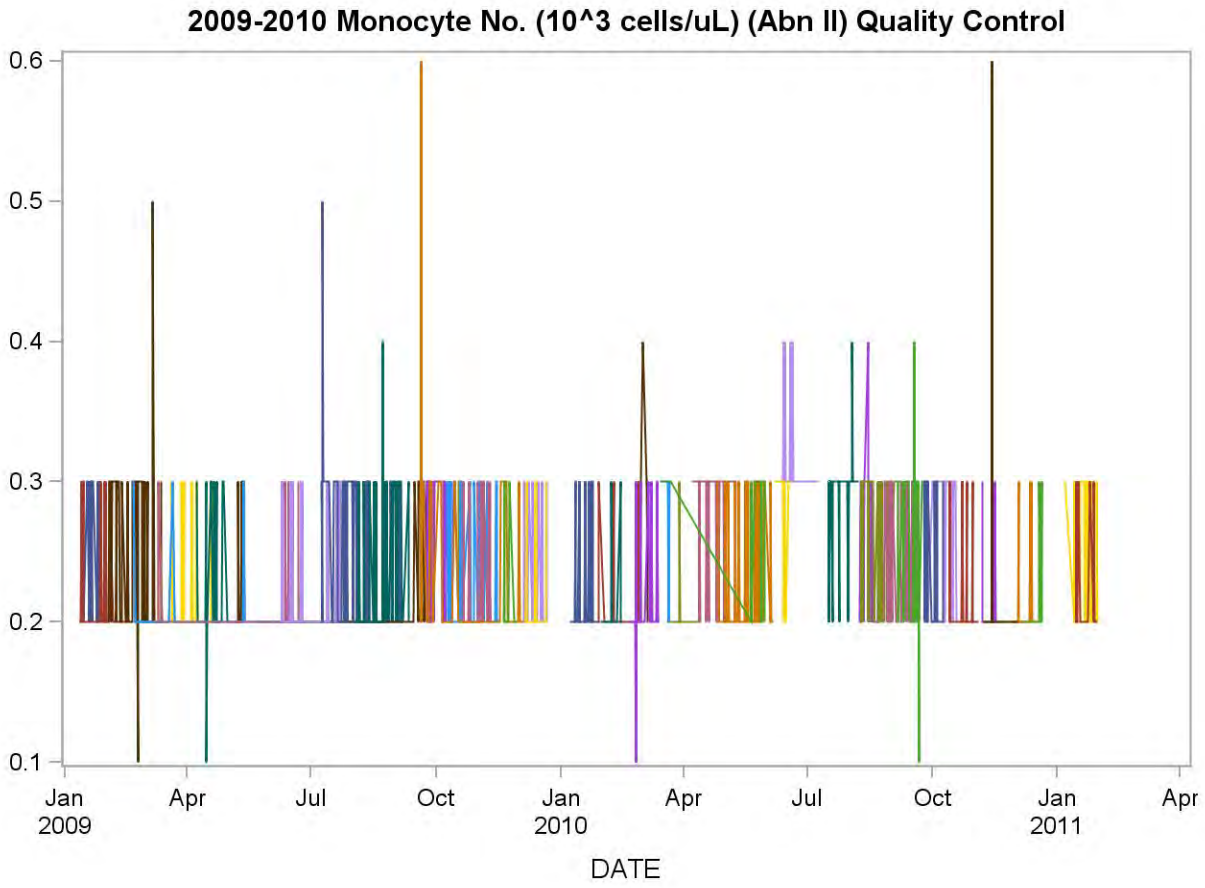
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	3.0870	0.1332	4.3
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	2.9987	0.1253	4.2
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	3.4058	0.1406	4.1
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	3.2212	0.2732	8.5
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	3.1643	0.1129	3.6
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	2.8960	0.1944	6.7
876300_09	20	06MAR09:16:04:00	15MAR09:13:31:00	3.0600	0.1392	4.5
878000_09	54	06MAR09:16:04:00	21JUN09:13:38:00	2.9778	0.1396	4.7
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	3.0944	0.0938	3.0
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	3.0902	0.1118	3.6
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	3.0462	0.0967	3.2
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	3.0051	0.1635	5.4
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	2.9225	0.1000	3.4
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	2.9667	0.1277	4.3
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	3.2079	0.1634	5.1
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	3.0000	0.1054	3.5
879100_09	40	31JUL09:11:08:00	23AUG09:13:37:00	3.1425	0.1318	4.2
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	3.1596	0.1077	3.4
870100_09	45	18SEP09:13:56:00	17OCT09:09:05:00	3.1711	0.1160	3.7
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	3.1302	0.1301	4.2
870700_09	85	08OCT09:16:31:00	19NOV09:09:12:00	2.9965	0.3141	10.5
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	3.0833	0.0983	3.2
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	3.2364	0.1217	3.8
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	3.1692	0.1653	5.2
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	3.0813	0.1306	4.2
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	3.1710	0.1811	5.7
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	3.0619	0.1203	3.9
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	3.0575	0.1299	4.2
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	2.8900	0.3754	13.0
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	3.0769	0.1394	4.5
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	3.0771	0.1060	3.4
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	3.0286	0.0951	3.1
873900_10	15	14MAR10:08:39:00	22MAR10:13:30:00	3.1467	0.1187	3.8
875000_10	44	14MAR10:08:39:00	08JUL10:16:00:00	3.1523	0.1000	3.2
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	3.3677	0.1222	3.6
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	3.0104	0.1259	4.2
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	3.0953	0.1447	4.7
874700_10	42	14MAY10:09:05:00	13JUN10:08:38:00	3.1452	0.1087	3.5
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	3.1522	0.3604	11.4
875900_10	37	16JUL10:11:37:00	07AUG10:08:43:00	3.0784	0.1058	3.4
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	3.0014	0.1298	4.3
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	3.0436	0.1252	4.1
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	3.3000	0.1439	4.4
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	3.1652	0.1027	3.2
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	3.2184	0.1249	3.9
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	3.0581	0.3420	11.2
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	3.0265	0.1214	4.0
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	3.1450	0.1280	4.1
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	3.1579	0.1179	3.7
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	3.1882	0.0857	2.7
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	3.0152	0.1302	4.3
878600_10	26	08DEC10:14:29:00	20DEC10:13:34:00	2.7615	0.1134	4.1
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	3.3382	0.1155	3.5
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	3.1615	0.1169	3.7

Summary Statistics for Monocyte No. (10^3 cells/uL) (Abn I)



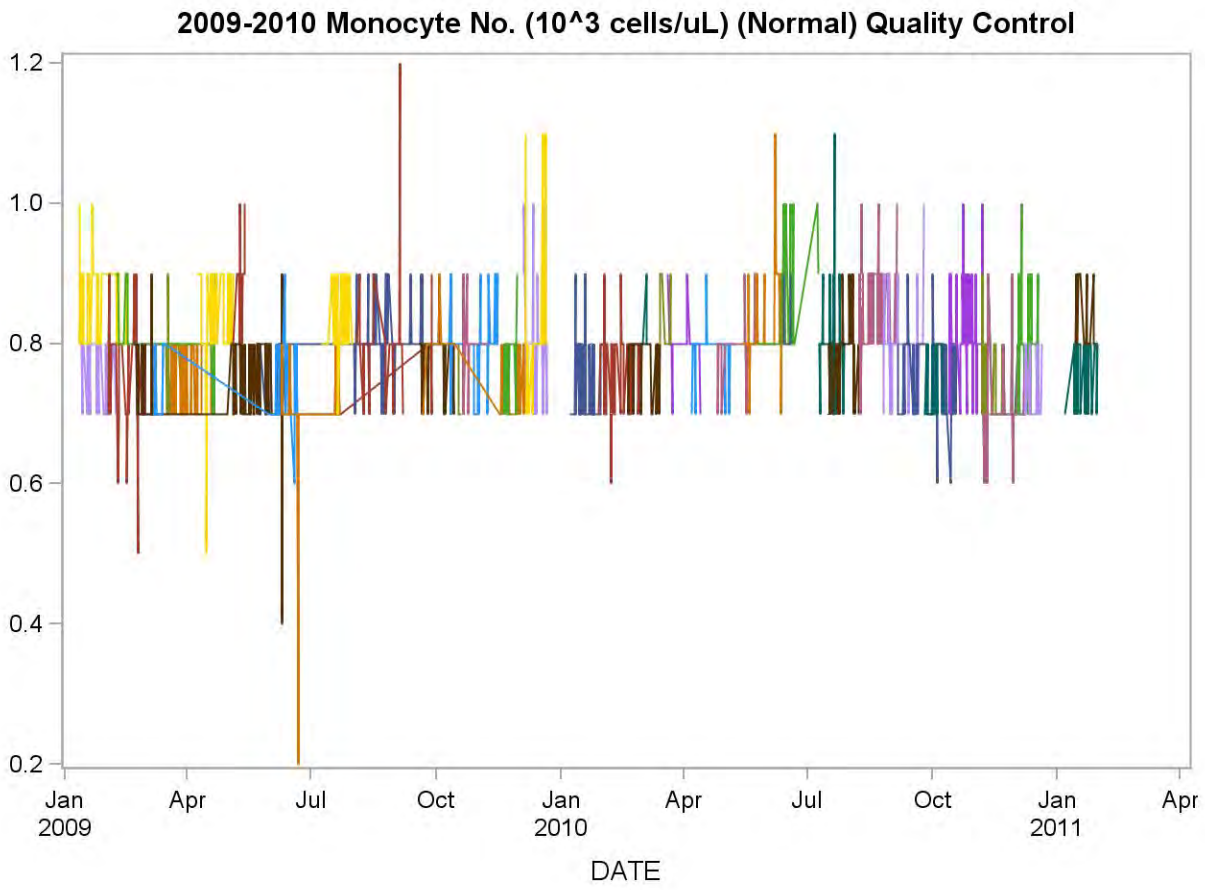
Summary Statistics for Monocyte No. (10^3 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	0.2481	0.0509	20.5
866200_09	51	11JAN09:10:39:00	15FEB09:13:50:00	0.2137	0.0348	16.3
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	0.2407	0.0619	25.7
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	0.2050	0.0221	10.8
868300_09	126	20FEB09:09:57:00	14JUN09:14:54:00	0.2024	0.0153	7.6
867100_09	12	06MAR09:16:06:00	14MAR09:13:25:00	0.2083	0.0289	13.9
868600_09	46	06MAR09:16:06:00	21JUN09:13:41:00	0.2087	0.0285	13.7
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	0.2170	0.0380	17.5
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	0.2225	0.0480	21.6
867800_09	14	04MAY09:10:30:00	12MAY09:17:39:00	0.2286	0.0469	20.5
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	0.2167	0.0375	17.3
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	0.2282	0.0453	19.9
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	0.2222	0.0420	18.9
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	0.2767	0.0571	20.6
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	0.2225	0.0530	23.8
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	0.2304	0.0465	20.2
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	0.2659	0.0713	26.8
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	0.2422	0.0723	29.8
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	0.2215	0.0414	18.7
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	0.2333	0.0516	22.1
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	0.2216	0.0417	18.8
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	0.2125	0.0342	16.1
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	0.2273	0.0452	19.9
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	0.2133	0.0346	16.2
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	0.2154	0.0364	16.9
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	0.2077	0.0269	13.0
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	0.2080	0.0277	13.3
863900_10	46	19FEB10:14:07:00	13MAR10:13:31:00	0.2087	0.0412	19.8
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	0.2833	0.0753	26.6
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	0.2929	0.0267	9.1
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	0.2762	0.0436	15.8
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	0.2063	0.0246	11.9
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	0.2860	0.0351	12.3
864900_10	75	25APR10:02:52:00	05JUN10:13:56:00	0.2320	0.0470	20.2
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	0.2889	0.0323	11.2
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	0.3148	0.0362	11.5
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	0.2875	0.0404	14.1
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	0.2524	0.0602	23.8
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	0.2610	0.0494	18.9
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	0.2475	0.0506	20.4
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	0.2750	0.0568	20.7
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	0.2435	0.0507	20.8
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	0.2788	0.0415	14.9
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	0.2077	0.0269	12.9
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	0.2094	0.0296	14.1
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	0.2071	0.0535	25.8
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	0.2100	0.0632	30.1
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	0.2000	0.0000	0.0
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	0.2111	0.0320	15.2
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	0.2074	0.0267	12.9
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	0.2333	0.0479	20.5
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	0.2121	0.0331	15.6


2009-2010 Monocyte No. (10^3 cells/uL) (Abn II) Quality Control
0.6
0.5
0.4
0.3
0.2
0.1
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Monocyte No. (10^3 cells/uL) (Normal)

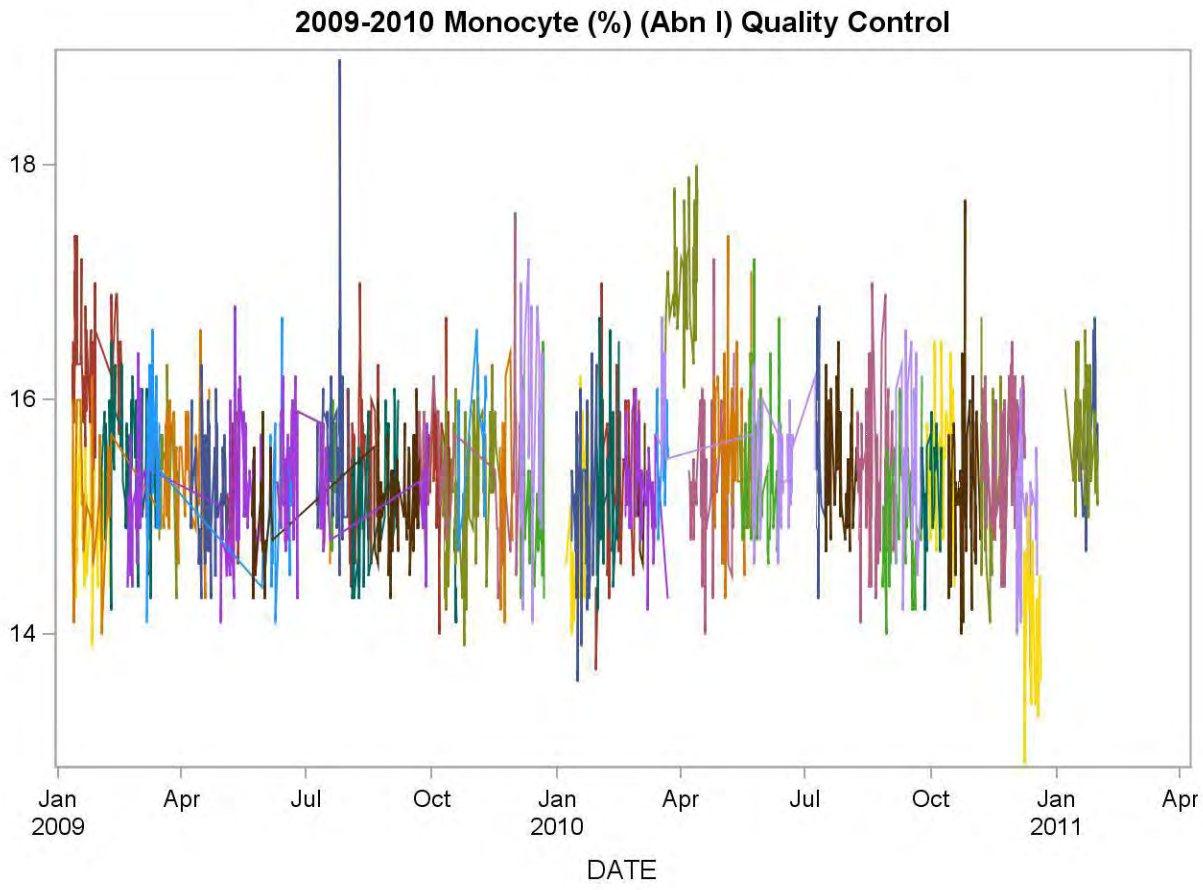
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	0.7723	0.0498	6.4
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	0.8595	0.0587	6.8
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	0.7690	0.0667	8.7
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	0.8143	0.0770	9.5
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	0.7400	0.0577	7.8
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	0.7435	0.0623	8.4
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	0.7389	0.0502	6.8
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	0.7269	0.0528	7.3
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	0.7625	0.0619	8.1
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	0.7625	0.0489	6.4
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	0.8386	0.0841	10.0
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	0.8867	0.0640	7.2
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	0.7770	0.0664	8.6
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	0.7083	0.0787	11.1
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	0.6981	0.0739	10.6
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	0.8209	0.0466	5.7
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	0.8026	0.0428	5.3
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	0.7979	0.0737	9.2
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	0.7854	0.0422	5.4
881400_09	42	20SEP09:11:46:00	05DEC09:08:41:00	0.7667	0.0526	6.9
881000_09	62	08OCT09:16:29:00	15NOV09:09:02:00	0.8032	0.0478	6.0
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	0.7333	0.0516	7.0
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	0.8000	0.0408	5.1
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	0.7643	0.0633	8.3
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	0.8121	0.0992	12.2
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	0.8290	0.1039	12.5
882900_10	67	07JAN10:09:20:00	29JAN10:12:11:00	0.7418	0.0581	7.8
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	0.7685	0.0550	7.2
884000_10	35	19FEB10:11:33:00	14MAR10:07:26:00	0.7800	0.0406	5.2
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	0.8167	0.0408	5.0
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	0.8231	0.0439	5.3
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	0.8000	0.0365	4.6
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	0.7939	0.0317	4.0
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	0.8000	0.0354	4.4
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	0.8214	0.0645	7.9
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	0.8556	0.0773	9.0
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	0.8250	0.0463	5.6
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	0.7976	0.0724	9.1
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	0.7825	0.0594	7.6
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	0.8609	0.0599	7.0
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	0.8000	0.0632	7.9
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	0.7590	0.0616	8.1
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	0.7292	0.0464	6.4
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	0.8135	0.0581	7.1
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	0.7438	0.0564	7.6
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	0.7093	0.0526	7.4
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	0.7065	0.0475	6.7
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	0.7000	0.0333	4.8
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	0.8103	0.0772	9.5
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	0.7448	0.0506	6.8
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	0.7667	0.0478	6.2
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	0.8208	0.0415	5.1


2009-2010 Monocyte No. (10^3 cells/uL) (Normal) Quality Control
1.2
1.0
0.8
0.6
0.4
0.2
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Monocyte (%) (Abn I)

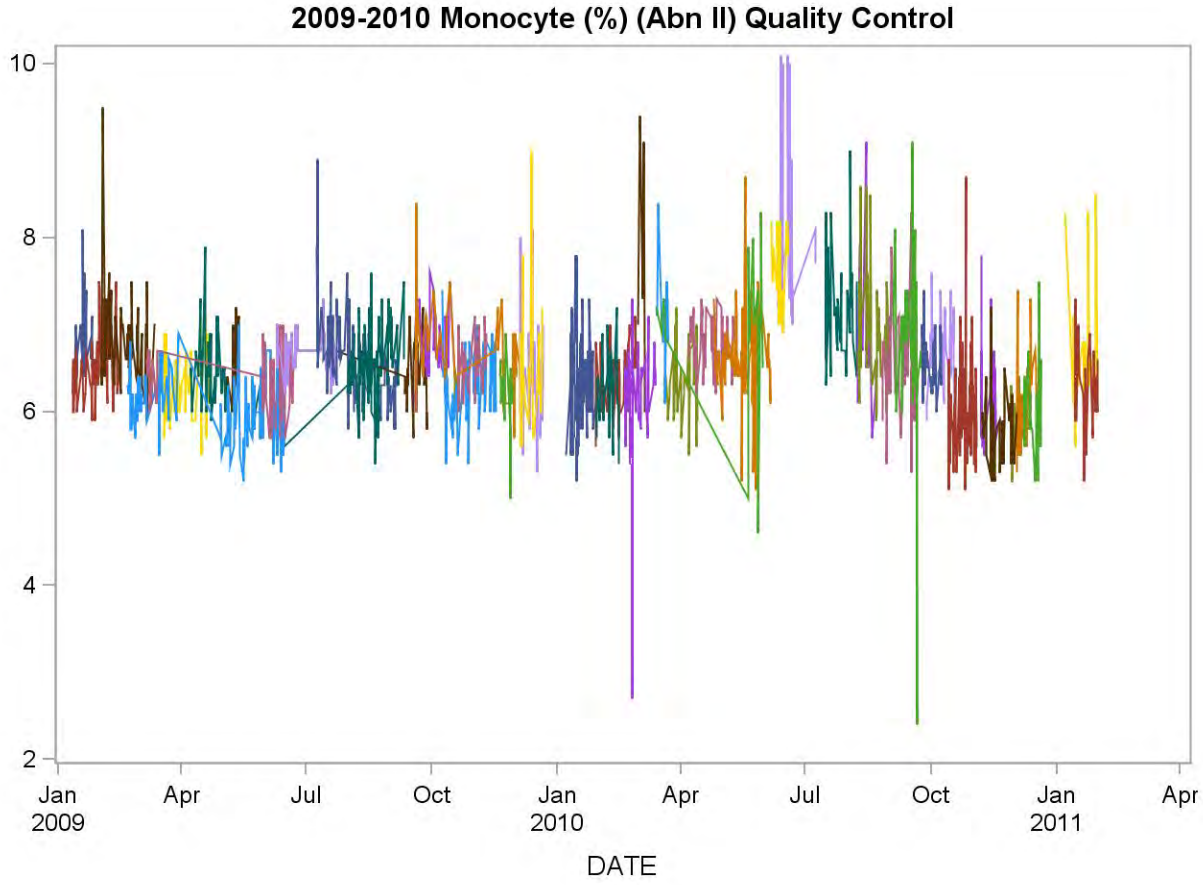
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	15.0463	0.5372	3.6
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	15.3103	0.4948	3.2
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	16.3865	0.4568	2.8
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	15.4303	0.4952	3.2
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	15.1786	0.4818	3.2
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	15.1178	0.4995	3.3
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	15.5000	0.5630	3.6
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	15.3109	0.5620	3.7
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	15.3389	0.4779	3.1
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	15.1549	0.4755	3.1
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	15.2231	0.4885	3.2
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	15.0923	0.3911	2.6
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	15.3600	0.4851	3.2
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	15.3417	0.4649	3.0
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	15.6316	0.7367	4.7
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	15.4400	0.3893	2.5
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	15.5341	0.5443	3.5
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	15.1319	0.5247	3.5
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	15.3739	0.4901	3.2
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	15.3372	0.6032	3.9
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	15.3070	0.4789	3.1
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	14.5333	0.3933	2.7
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	15.6727	0.4862	3.1
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	15.2615	0.7309	4.8
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	15.0344	0.5649	3.8
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	15.7806	0.8232	5.2
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	14.9095	0.6172	4.1
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	15.0550	0.6235	4.1
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	15.3694	0.5934	3.9
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	15.3346	0.6387	4.2
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	15.2314	0.4510	3.0
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	15.1143	0.4059	2.7
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	15.7125	0.4843	3.1
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	15.5356	0.4681	3.0
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	17.0065	0.5253	3.1
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	15.3063	0.5774	3.8
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	15.5767	0.6708	4.3
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	15.3256	0.5737	3.7
875300_10	22	09JUL10:16:19:00	16JUL10:13:25:00	15.4864	0.6073	3.9
875900_10	39	16JUL10:11:37:00	07AUG10:13:39:00	15.4051	0.4790	3.1
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	15.3216	0.5699	3.7
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	14.9564	0.5051	3.4
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	15.4655	0.6079	3.9
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	15.2000	0.4462	2.9
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	15.3684	0.5483	3.6
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	15.1986	0.5997	3.9
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	15.2882	0.5994	3.9
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	15.4250	0.5232	3.4
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	15.5123	0.5085	3.3
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	15.7176	0.4172	2.7
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	14.8879	0.5177	3.5
878600_10	26	08DEC10:14:29:00	20DEC10:13:34:00	13.9538	0.5846	4.2
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	15.6971	0.4569	2.9
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	15.6000	0.5185	3.3

Summary Statistics for Monocyte (%) (Abn I)



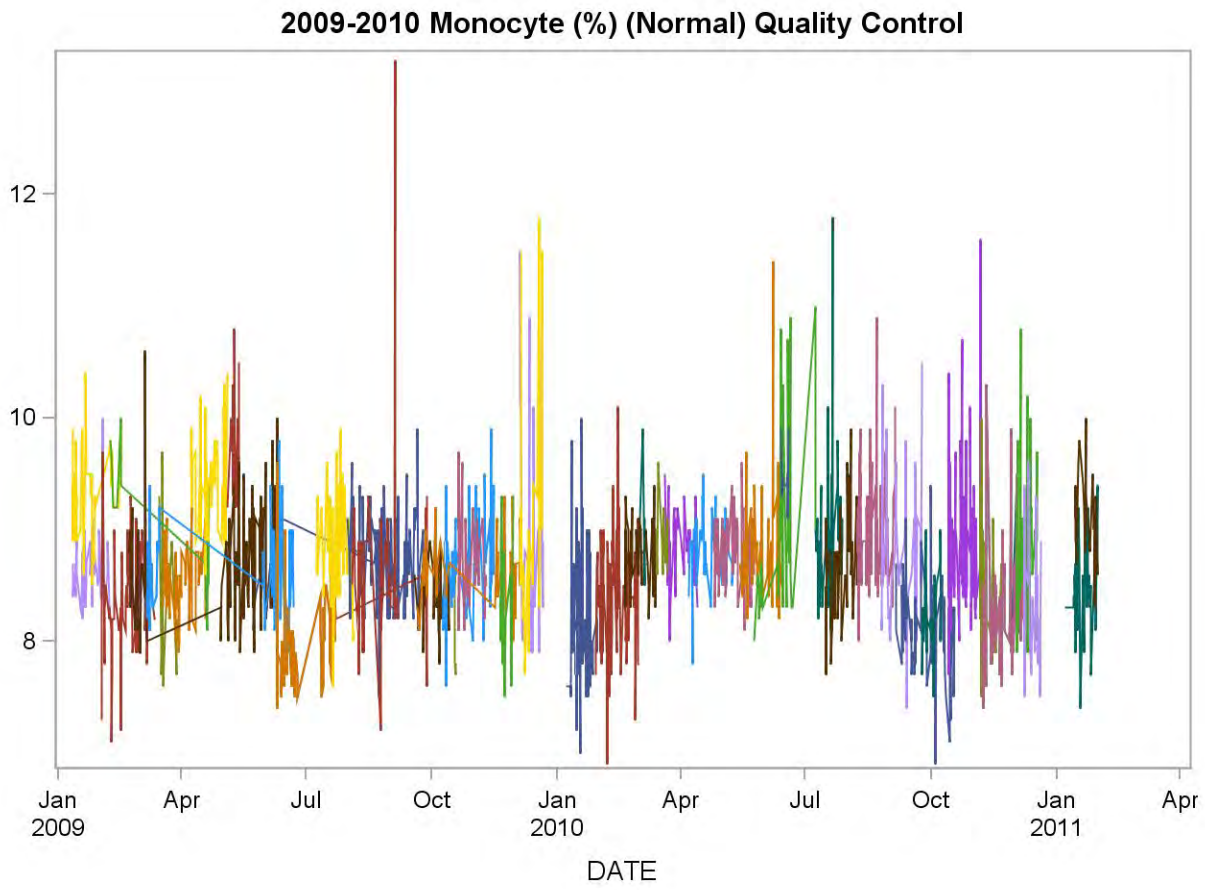
Summary Statistics for Monocyte (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	6.7630	0.4096	6.1
866200_09	52	11JAN09:10:39:00	15FEB09:13:50:00	6.5538	0.4137	6.3
866500_09	59	01FEB09:15:22:00	12MAR09:13:15:00	6.7627	0.5226	7.7
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	6.2150	0.3034	4.9
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	6.0391	0.3557	5.9
867100_09	13	06MAR09:16:06:00	14MAR09:13:25:00	6.4231	0.2455	3.8
868600_09	47	06MAR09:16:06:00	21JUN09:13:41:00	6.3043	0.3599	5.7
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	6.3128	0.3882	6.1
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	6.4900	0.3954	6.1
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	6.5125	0.4048	6.2
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	6.2772	0.5061	8.1
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	6.6310	0.3387	5.1
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	6.7089	0.2644	3.9
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	6.8628	0.5187	7.6
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	6.4400	0.3986	6.2
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	6.3652	0.3128	4.9
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	6.8182	0.4358	6.4
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	6.7000	0.4801	7.2
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	6.2769	0.4003	6.4
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	6.2000	0.2366	3.8
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	6.5676	0.3092	4.7
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	6.1938	0.4155	6.7
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	6.4273	0.6477	10.1
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	6.4433	0.6917	10.7
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	6.3508	0.5400	8.5
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	6.3827	0.3417	5.4
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	6.2200	0.4646	7.5
863900_10	46	19FEB10:14:07:00	13MAR10:13:31:00	6.0804	0.8765	14.4
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	7.5667	1.3779	18.2
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	7.1071	0.5015	7.1
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	6.9286	0.8379	12.1
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	6.3156	0.4049	6.4
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	6.8000	0.3162	4.7
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	6.6737	0.5237	7.8
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	7.6500	0.4618	6.0
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	7.9815	1.0221	12.8
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	7.1550	0.5584	7.8
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	6.8286	0.7444	10.9
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	6.9659	0.6628	9.5
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	6.5700	0.6321	9.6
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	6.8938	1.0571	15.3
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	6.5652	0.3563	5.4
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	6.6909	0.4267	6.4
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	6.0108	0.5750	9.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	6.0313	0.5045	8.4
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	5.7893	0.3788	6.5
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	5.7650	0.3919	6.8
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	5.8500	0.3483	6.0
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	6.2222	0.4838	7.8
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	5.9815	0.4780	8.0
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	6.5788	0.6363	9.7
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	6.2545	0.4101	6.6


2009-2010 Monocyte (%) (Abn II) Quality Control
10
8
6
4
2
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Monocyte (%) (Normal)

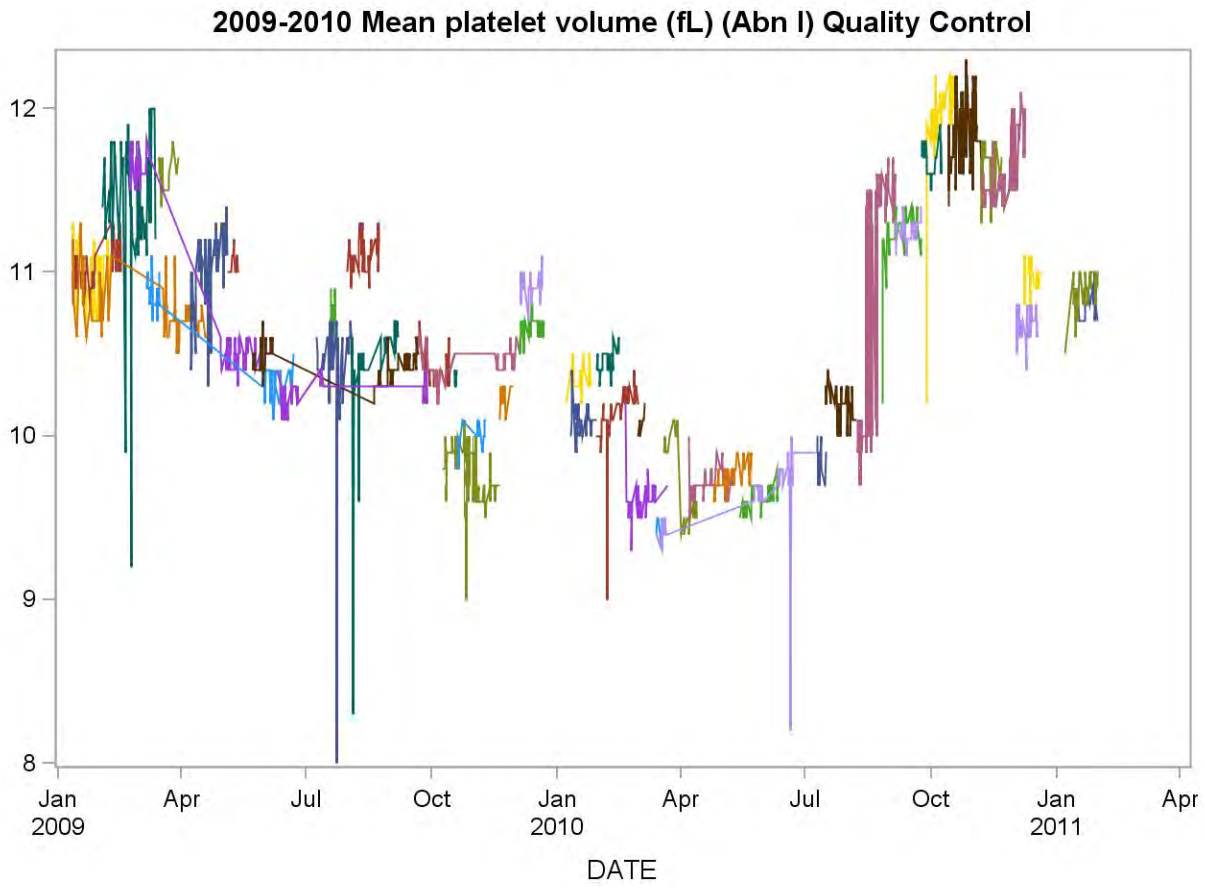
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	8.6574	0.2998	3.5
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	9.3833	0.4161	4.4
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	8.4113	0.4652	5.5
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	9.1357	0.5982	6.5
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	8.5920	0.5634	6.6
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	8.7078	0.4912	5.6
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	8.6222	0.3457	4.0
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	8.6115	0.4076	4.7
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	8.4063	0.5836	6.9
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	8.5458	0.3115	3.6
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	9.4477	0.4229	4.5
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	9.7765	0.4630	4.7
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	8.7730	0.4570	5.2
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	8.0433	0.4666	5.8
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	7.9852	0.4123	5.2
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	8.8326	0.4789	5.4
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	8.8513	0.3471	3.9
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	8.5957	0.7997	9.3
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	8.4951	0.3114	3.7
881400_09	43	20SEP09:11:46:00	05DEC09:08:41:00	8.6349	0.3101	3.6
881000_09	63	08OCT09:16:29:00	15NOV09:09:02:00	8.7302	0.4431	5.1
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	8.0500	0.4324	5.4
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	8.7189	0.3964	4.5
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	8.3571	0.5761	6.9
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	8.9758	1.0368	11.6
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	9.0677	1.0035	11.1
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	8.1765	0.5821	7.1
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	8.3904	0.5118	6.1
884000_10	36	19FEB10:11:11:00	14MAR10:07:26:00	8.7861	0.2987	3.4
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	9.0667	0.5007	5.5
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	8.9231	0.2833	3.2
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	8.8613	0.3565	4.0
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	8.8327	0.3058	3.5
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	8.8184	0.3154	3.6
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	8.8881	0.5518	6.2
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	8.9944	0.8461	9.4
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	9.5000	0.2777	2.9
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	8.9024	0.6521	7.3
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	8.6725	0.4739	5.5
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	9.0478	0.4585	5.1
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	8.7976	0.6311	7.2
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	8.1410	0.4391	5.4
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	8.2125	0.3591	4.4
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	8.8446	0.6321	7.1
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	8.4563	0.5248	6.2
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	8.2837	0.5597	6.8
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	8.2903	0.5040	6.1
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	8.3053	0.3597	4.3
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	8.9310	0.7522	8.4
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	8.4276	0.5756	6.8
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	8.5167	0.4736	5.6
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	9.1000	0.3956	4.3


2009-2010 Monocyte (%) (Normal) Quality Control
12
10
8
Jan
2009
Apr
Jul
Oct
Jan
2010
Apr
Jul
Oct
Jan
2011
Apr
DATE

Summary Statistics for Mean platelet volume (fL) (Abn I)

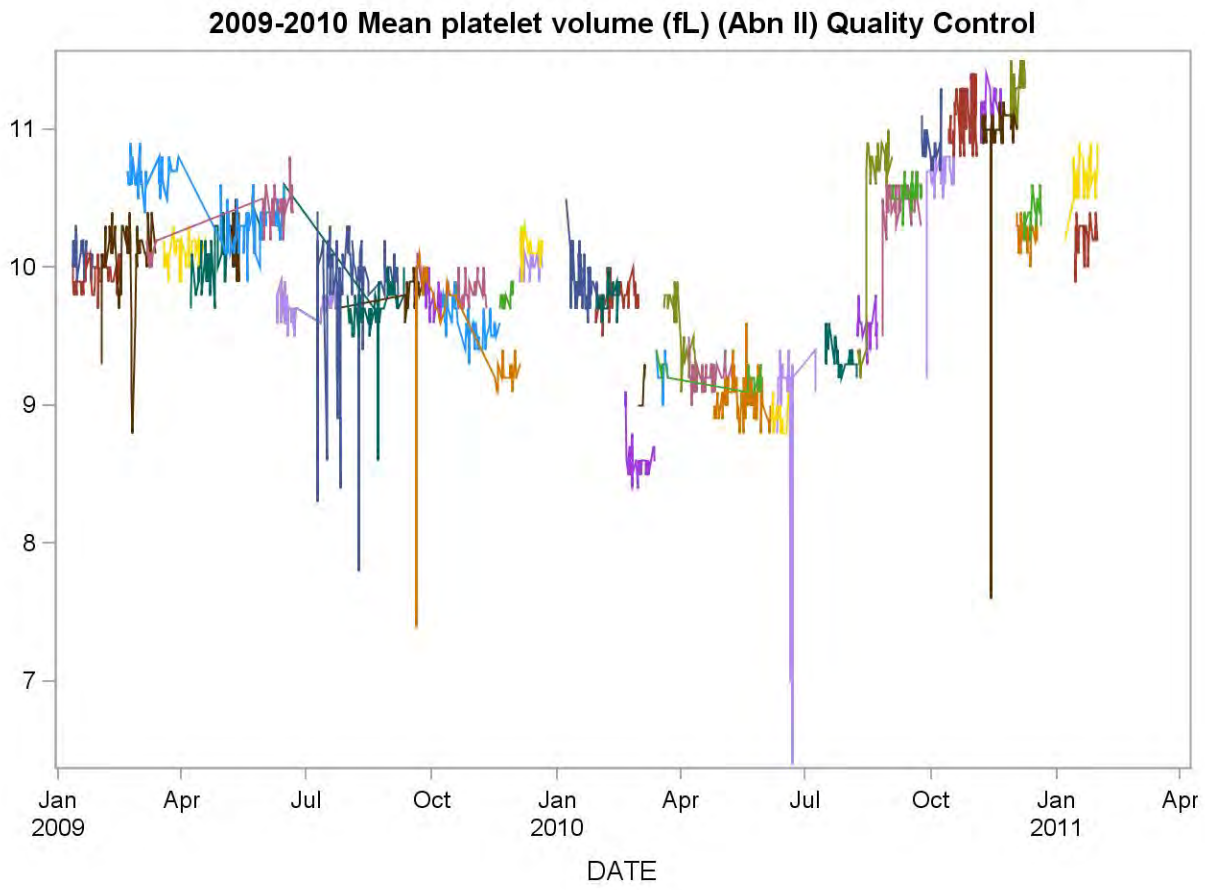
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	10.9148	0.1917	1.8
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	10.7410	0.1566	1.5
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	10.9962	0.1204	1.1
875800_09	57	01FEB09:16:46:00	12MAR09:13:25:00	11.4333	0.4537	4.0
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	11.6586	0.0983	0.8
877500_09	102	20FEB09:09:56:00	06JUN09:13:24:00	10.8235	0.5361	5.0
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	10.8810	0.0981	0.9
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	10.5145	0.2909	2.8
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	11.5833	0.1098	0.9
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	11.0192	0.2521	2.3
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	11.0615	0.0650	0.6
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	10.4308	0.0958	0.9
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	10.2500	0.0877	0.9
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	10.2625	0.0890	0.9
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	10.3579	0.4683	4.5
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	10.7400	0.1174	1.1
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	11.1171	0.1116	1.0
879400_09	46	03AUG09:08:40:00	06SEP09:08:55:00	10.4217	0.3639	3.5
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	10.4239	0.1233	1.2
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	10.4591	0.0871	0.8
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	9.7701	0.1664	1.7
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	10.3333	0.0516	0.5
870800_09	21	20OCT09:15:09:00	09NOV09:13:39:00	9.9905	0.0995	1.0
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	10.2462	0.0776	0.8
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	10.6594	0.0712	0.7
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	10.9097	0.0790	0.7
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	10.3636	0.0848	0.8
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	10.0795	0.0923	0.9
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	10.1400	0.1948	1.9
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	10.4500	0.0762	0.7
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	9.6371	0.1699	1.8
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	10.1000	0.0816	0.8
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	9.4188	0.0655	0.7
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	9.6178	0.3114	3.2
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	9.7065	0.2607	2.7
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	9.7286	0.0913	0.9
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	9.7605	0.0849	0.9
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	9.6465	0.0827	0.9
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	9.8375	0.0970	1.0
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	10.2000	0.1086	1.1
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	10.8135	0.7379	6.8
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	11.2282	0.1999	1.8
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	11.2621	0.0775	0.7
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	11.6870	0.1140	1.0
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	11.8974	0.4123	3.5
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	11.8370	0.2118	1.8
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	11.6088	0.1357	1.2
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	11.5075	0.0888	0.8
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	11.6373	0.2116	1.8
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	11.9105	0.1049	0.9
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	10.6800	0.0964	0.9
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	10.9407	0.0888	0.8
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	10.8676	0.1249	1.1
870000_11	25	14JAN11:10:08:00	30JAN11:13:48:00	10.7880	0.0881	0.8

Summary Statistics for Mean platelet volume (fL) (Abn I)



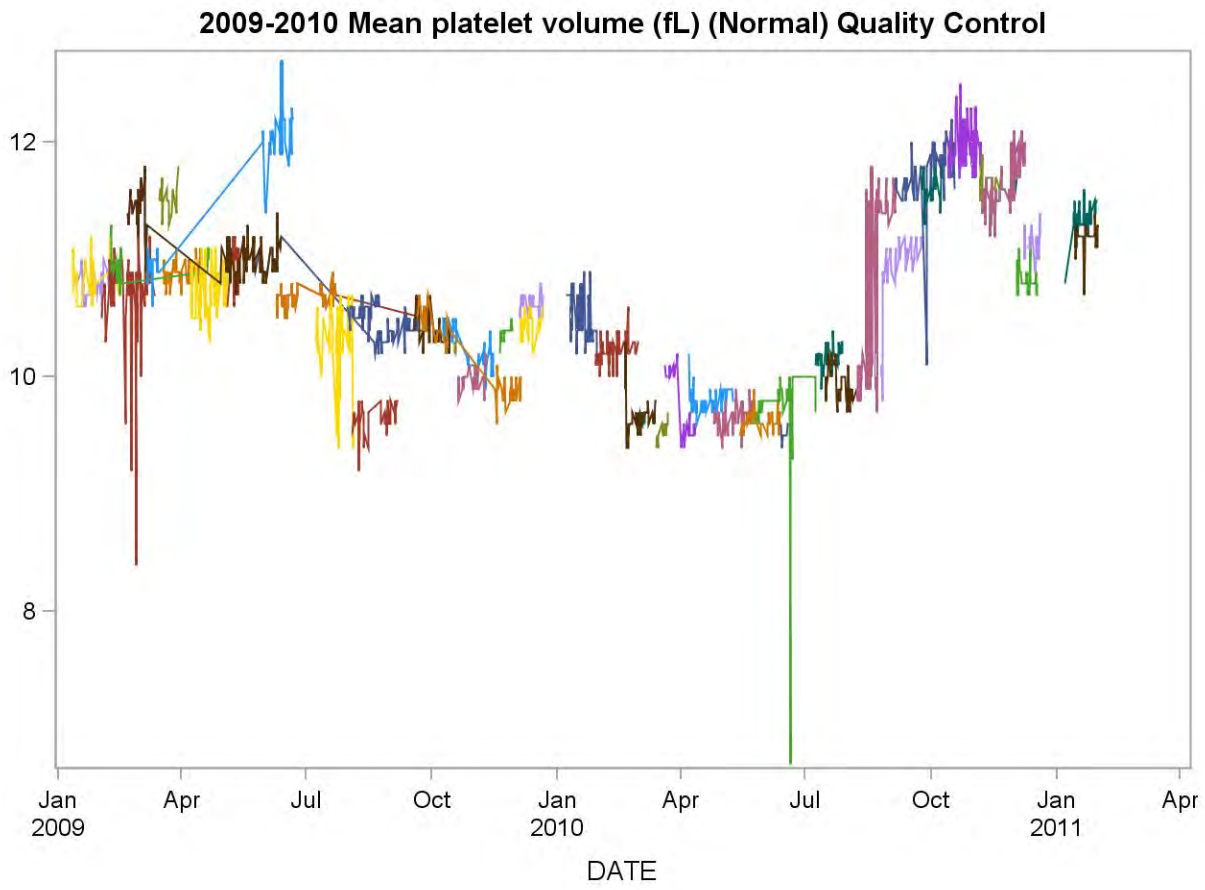
Summary Statistics for Mean platelet volume (fL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	10.0897	0.1145	1.1
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	9.9278	0.0960	1.0
866500_09	58	01FEB09:15:22:00	12MAR09:13:15:00	10.0776	0.2944	2.9
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	10.6625	0.1125	1.1
868300_09	127	20FEB09:09:57:00	14JUN09:14:54:00	10.4236	0.2076	2.0
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	10.1143	0.0770	0.8
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	10.3479	0.1879	1.8
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	10.0979	0.0967	1.0
867700_09	42	07APR09:16:50:00	03MAY09:13:33:00	10.0238	0.1845	1.8
867800_09	15	04MAY09:10:30:00	12MAY09:17:39:00	10.1933	0.1831	1.8
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	10.1443	0.3041	3.0
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	9.7549	0.1119	1.1
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	9.7089	0.0949	1.0
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	9.8977	0.4823	4.9
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	9.5875	0.2267	2.4
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	9.8468	0.4042	4.1
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	9.7818	0.3919	4.0
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	9.4689	0.4547	4.8
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	9.5985	0.1222	1.3
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	9.8000	0.0632	0.6
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	9.8378	0.0893	0.9
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	9.7813	0.0750	0.8
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	10.0212	0.0696	0.7
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	10.1400	0.0968	1.0
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	9.8910	0.1593	1.6
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	9.7846	0.0978	1.0
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	9.7808	0.0939	1.0
863900_10	46	19FEB10:14:02:00	13MAR10:13:31:00	8.6413	0.1916	2.2
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	9.1167	0.1329	1.5
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	9.2643	0.1008	1.1
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	9.2182	0.0795	0.9
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	9.5406	0.2474	2.6
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	9.2080	0.0922	1.0
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	9.0447	0.1418	1.6
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	8.9333	0.0970	1.1
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	8.9357	0.6988	7.8
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	9.3780	0.1107	1.2
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	9.5571	0.1207	1.3
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	10.4220	0.6335	6.1
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	10.4690	0.1867	1.8
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	10.5474	0.0797	0.8
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	10.8652	0.1369	1.3
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	10.6057	0.3646	3.4
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	11.0743	0.1806	1.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	11.1406	0.1214	1.1
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	11.1127	0.1846	1.7
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	10.9275	0.5477	5.0
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	11.3563	0.1031	0.9
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	10.2370	0.0967	0.9
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	10.3667	0.1109	1.1
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	10.6515	0.1482	1.4
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	10.1545	0.1543	1.5


2009-2010 Mean platelet volume (fL) (Abn II) Quality Control
11
10
9
8
7
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Mean platelet volume (fL) (Normal)

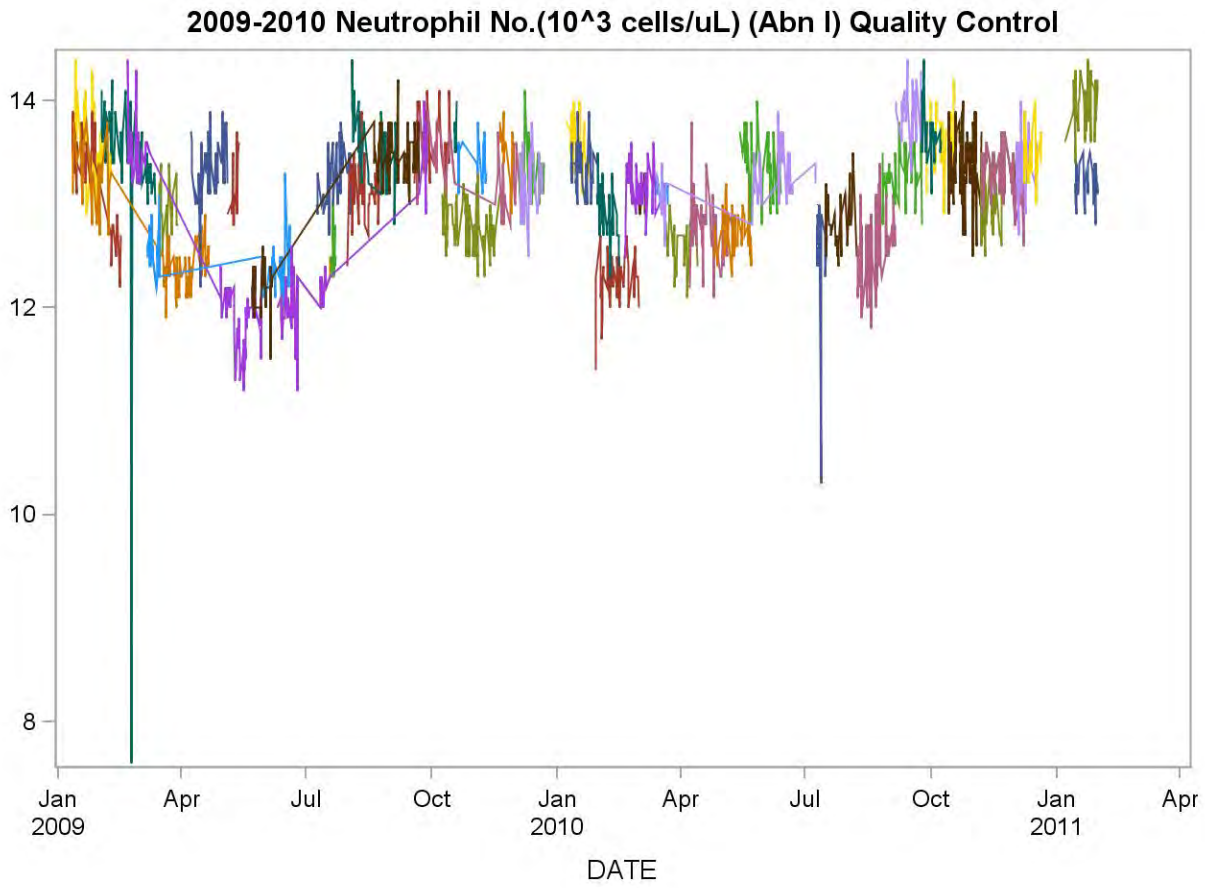
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	10.7936	0.1071	1.0
885800_09	43	11JAN09:10:33:00	15FEB09:13:48:00	10.8465	0.1517	1.4
886100_09	69	01FEB09:15:18:00	12MAR09:13:27:00	10.6029	0.6364	6.0
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	10.9684	0.1455	1.3
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	11.4462	0.1816	1.6
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	11.1155	0.2361	2.1
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	10.9111	0.1183	1.1
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	11.6654	0.5941	5.1
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	11.5250	0.1342	1.2
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	10.8878	0.0992	0.9
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	10.7295	0.2348	2.2
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	10.9800	0.1971	1.8
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	10.6940	0.3501	3.3
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	10.6500	0.1127	1.1
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	10.6741	0.0894	0.8
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	10.2953	0.3287	3.2
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	10.5590	0.0966	0.9
889700_09	46	03AUG09:08:39:00	06SEP09:08:54:00	9.6304	0.1364	1.4
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	10.4195	0.1364	1.3
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	10.0977	0.3107	3.1
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	10.2516	0.1623	1.6
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	10.2333	0.0516	0.5
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	9.9595	0.0956	1.0
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	10.3714	0.0726	0.7
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	10.6273	0.0876	0.8
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	10.4290	0.1131	1.1
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	10.5074	0.2047	1.9
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	10.2342	0.0989	1.0
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	9.7103	0.2125	2.2
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	9.6333	0.0816	0.8
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	9.5357	0.0842	0.9
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	9.8065	0.2658	2.7
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	9.8000	0.1050	1.1
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	9.6588	0.1169	1.2
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	9.6333	0.0874	0.9
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	9.5895	0.7218	7.5
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	9.5375	0.0744	0.8
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	10.1707	0.0929	0.9
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	9.9146	0.1315	1.3
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	10.7449	0.7792	7.3
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	10.9244	0.3367	3.1
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	11.7167	0.3251	2.8
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	11.6042	0.1268	1.1
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	11.9649	0.2057	1.7
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	11.6406	0.0946	0.8
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	11.5205	0.1424	1.2
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	11.6333	0.2200	1.9
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	11.8947	0.1224	1.0
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	10.8367	0.1159	1.1
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	11.1400	0.1163	1.0
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	11.3500	0.1424	1.3
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	11.1962	0.1341	1.2


2009-2010 Mean platelet volume (fL) (Normal) Quality Control
12
10
8
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Neutrophil No.(10^3 cells/uL) (Abn I)

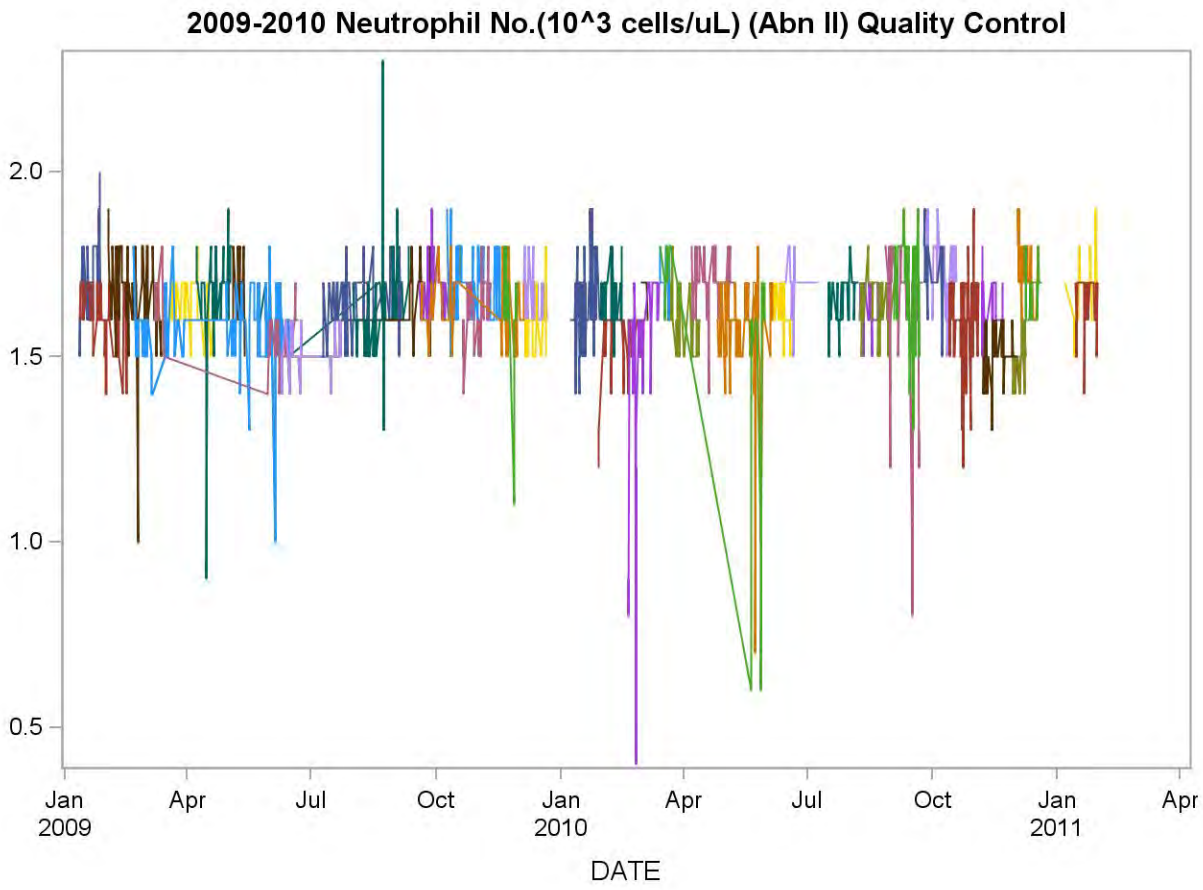
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	13.4907	0.3891	2.9
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	12.6641	0.4983	3.9
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	13.3442	0.4070	3.1
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	13.3803	1.0418	7.8
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	13.4929	0.2993	2.2
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	12.3713	0.7658	6.2
876300_09	20	06MAR09:16:04:00	15MAR09:13:31:00	12.5850	0.2277	1.8
878000_09	54	06MAR09:16:04:00	21JUN09:13:38:00	12.4222	0.2530	2.0
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	12.9667	0.2701	2.1
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	13.3569	0.2948	2.2
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	13.1385	0.3203	2.4
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	13.0526	0.6672	5.1
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	12.0450	0.2640	2.2
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	12.3021	0.6259	5.1
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	13.2737	0.2565	1.9
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	12.5300	0.2359	1.9
879100_09	40	31JUL09:11:08:00	23AUG09:13:37:00	13.1325	0.2654	2.0
879400_09	46	03AUG09:08:40:00	06SEP09:08:55:00	13.5630	0.3050	2.2
870100_09	45	18SEP09:13:56:00	17OCT09:09:05:00	13.5889	0.2870	2.1
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	13.3047	0.3109	2.3
870700_09	84	08OCT09:16:31:00	19NOV09:09:12:00	12.7845	0.2289	1.8
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	13.7000	0.1897	1.4
870800_09	21	20OCT09:15:09:00	09NOV09:13:39:00	13.4000	0.1975	1.5
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	13.5385	0.2663	2.0
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	13.3156	0.2604	2.0
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	13.2226	0.2918	2.2
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	13.5429	0.2599	1.9
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	13.3564	0.2125	1.6
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	12.2776	0.2477	2.0
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	12.8923	0.2741	2.1
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	13.1771	0.2510	1.9
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	13.0714	0.1704	1.3
873900_10	15	14MAR10:08:39:00	22MAR10:13:30:00	13.0600	0.2028	1.6
875000_10	44	14MAR10:08:39:00	08JUL10:16:00:00	13.2409	0.2609	2.0
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	12.6742	0.2463	1.9
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	12.7271	0.3079	2.4
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	12.7279	0.2197	1.7
874700_10	42	14MAY10:09:05:00	13JUN10:08:38:00	13.3857	0.2893	2.2
875300_10	23	09JUL10:16:19:00	16JUL10:13:25:00	12.6261	0.5512	4.4
875900_10	38	16JUL10:11:37:00	07AUG10:08:43:00	12.8289	0.2381	1.9
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	12.5622	0.3439	2.7
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	13.3026	0.2378	1.8
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	13.9034	0.2368	1.7
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	13.6652	0.2534	1.9
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	13.6053	0.2731	2.0
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	13.3973	0.3240	2.4
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	12.9118	0.2384	1.8
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	13.3250	0.2060	1.5
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	13.2649	0.2525	1.9
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	13.1235	0.2990	2.3
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	13.3727	0.2565	1.9
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	13.5222	0.2259	1.7
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	13.9853	0.2584	1.8
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	13.1769	0.1966	1.5

Summary Statistics for Neutrophil No.(10^3 cells/uL) (Abn I)



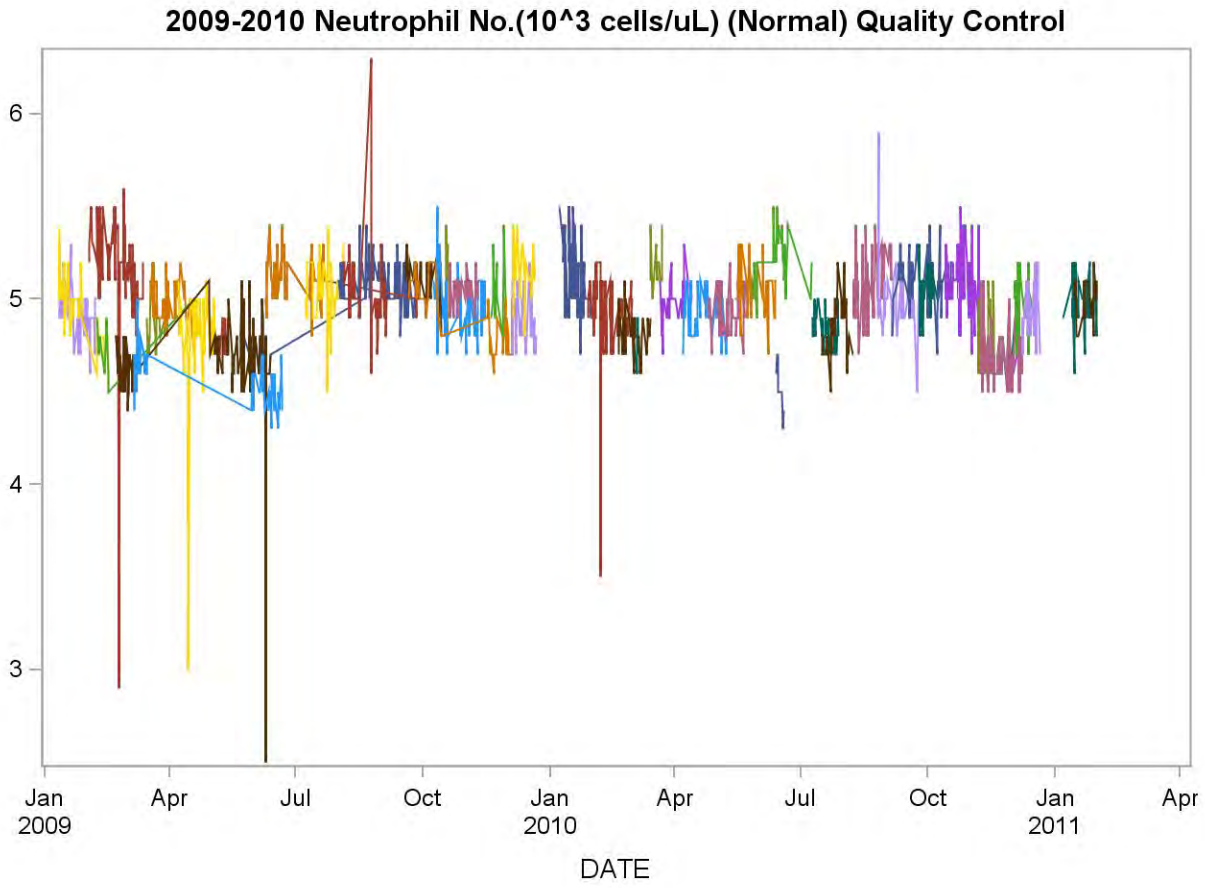
Summary Statistics for Neutrophil No.(10^3 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	1.6963	0.1126	6.6
866200_09	51	11JAN09:10:39:00	15FEB09:13:50:00	1.6020	0.0969	6.1
866500_09	58	01FEB09:15:22:00	12MAR09:13:15:00	1.6672	0.1560	9.4
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	1.5575	0.0874	5.6
868300_09	127	20FEB09:09:57:00	14JUN09:14:54:00	1.5780	0.0975	6.2
867100_09	12	06MAR09:16:06:00	14MAR09:13:25:00	1.6250	0.0754	4.6
868600_09	46	06MAR09:16:06:00	21JUN09:13:41:00	1.5630	0.0771	4.9
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	1.6404	0.0742	4.5
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	1.6675	0.1559	9.3
867800_09	14	04MAY09:10:30:00	12MAY09:17:39:00	1.6786	0.0975	5.8
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	1.6115	0.1139	7.1
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	1.5704	0.1061	6.8
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	1.5067	0.0539	3.6
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	1.6310	0.0780	4.8
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	1.6125	0.1588	9.8
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	1.6739	0.0648	3.9
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	1.6721	0.0797	4.8
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	1.6250	0.0892	5.5
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	1.6892	0.0904	5.3
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	1.7500	0.0548	3.1
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	1.6081	0.0894	5.6
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	1.6125	0.1668	10.3
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	1.6606	0.0659	4.0
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	1.5567	0.0728	4.7
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	1.6385	0.1026	6.3
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	1.5308	0.0961	6.3
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	1.6600	0.0764	4.6
863900_10	46	19FEB10:14:07:00	13MAR10:13:31:00	1.4174	0.3460	24.4
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	1.6667	0.0516	3.1
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	1.7429	0.0756	4.3
865200_10	21	14MAR10:08:40:00	30MAY10:13:42:00	1.5286	0.3523	23.1
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	1.5875	0.0793	5.0
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	1.7020	0.0714	4.2
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	1.5724	0.1484	9.4
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	1.6167	0.0618	3.8
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	1.6963	0.0587	3.5
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	1.6475	0.0716	4.3
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	1.6238	0.0625	3.8
866700_10	41	08AUG10:14:24:00	02SEP10:08:48:00	1.6439	0.0867	5.3
867000_10	40	26AUG10:10:03:00	20SEP10:17:38:00	1.5975	0.2337	14.6
867100_10	32	02SEP10:18:05:00	23SEP10:13:56:00	1.6813	0.1575	9.4
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	1.7261	0.0810	4.7
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	1.7364	0.0859	4.9
867600_10	65	13OCT10:15:01:00	03NOV10:13:30:00	1.5923	0.1136	7.1
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	1.6281	0.0683	4.2
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	1.5000	0.0720	4.8
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	1.5026	0.0743	4.9
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	1.4938	0.0680	4.6
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	1.7333	0.0832	4.8
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	1.6815	0.0681	4.1
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	1.6697	0.0770	4.6
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	1.6182	0.0882	5.5


2009-2010 Neutrophil No.(10^3 cells/uL) (Abn II) Quality Control
2.0
1.5
1.0
0.5
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Neutrophil No.(10^3 cells/uL) (Normal)

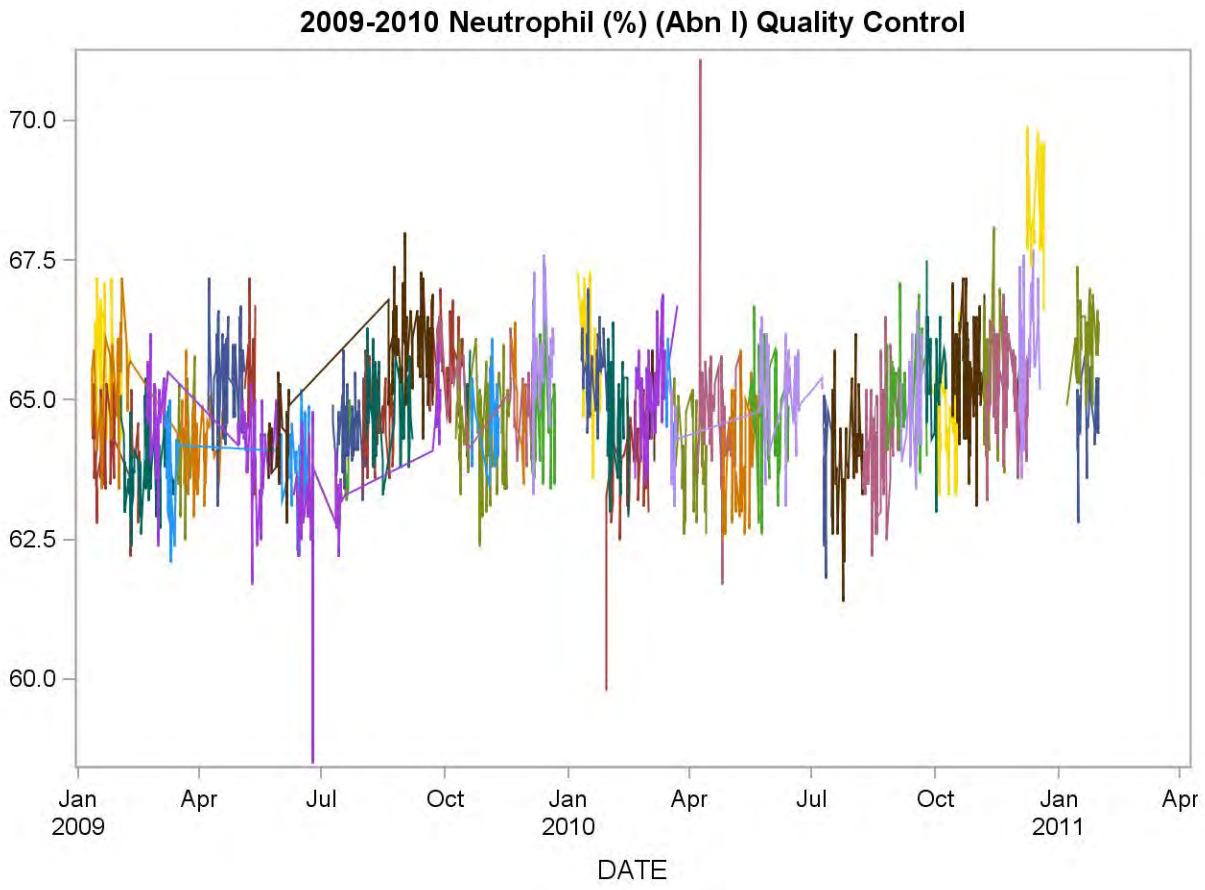
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	4.9362	0.1436	2.9
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	4.9405	0.1913	3.9
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	5.1817	0.3305	6.4
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	4.7714	0.1326	2.8
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	4.6280	0.1242	2.7
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	4.6739	0.2517	5.4
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	4.6722	0.1320	2.8
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	4.5654	0.1370	3.0
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	4.8375	0.1147	2.4
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	4.9729	0.1125	2.3
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	4.7318	0.3993	8.4
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	4.7933	0.0799	1.7
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	4.8950	0.3397	6.9
880100_09	59	09JUN09:18:44:00	27SEP09:13:38:00	5.1186	0.1167	2.3
888900_09	53	09JUN09:18:44:00	22JUL09:14:24:00	5.1245	0.1159	2.3
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	5.0302	0.1626	3.2
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	5.0846	0.1136	2.2
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	5.0383	0.2410	4.8
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	5.0976	0.1060	2.1
881400_09	42	20SEP09:11:46:00	05DEC09:08:41:00	4.9000	0.1711	3.5
881000_09	62	08OCT09:16:29:00	15NOV09:09:02:00	4.9677	0.1469	3.0
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	5.0500	0.2510	5.0
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	5.0541	0.0836	1.7
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	5.0786	0.1672	3.3
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	4.8788	0.1386	2.8
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	5.1452	0.1410	2.7
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	5.1382	0.1893	3.7
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	4.9205	0.2048	4.2
884000_10	35	19FEB10:11:33:00	14MAR10:07:26:00	4.8057	0.1162	2.4
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	4.7833	0.1169	2.4
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	5.1846	0.1214	2.3
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	4.9903	0.1165	2.3
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	4.9388	0.1169	2.4
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	4.9469	0.1157	2.3
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	5.0524	0.1383	2.7
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	5.1861	0.1477	2.8
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	4.5000	0.1604	3.6
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	4.8463	0.0977	2.0
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	4.8275	0.1519	3.1
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	5.1072	0.1657	3.2
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	4.9756	0.1908	3.8
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	5.1000	0.1390	2.7
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	5.0375	0.1313	2.6
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	5.0919	0.1577	3.1
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	4.7875	0.1476	3.1
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	4.6977	0.1472	3.1
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	4.6758	0.1422	3.0
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	4.6263	0.1195	2.6
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	4.9586	0.1452	2.9
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	4.9138	0.1481	3.0
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	5.0028	0.1444	2.9
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	5.0083	0.1139	2.3


2009-2010 Neutrophil No.(10^3 cells/uL) (Normal) Quality Control
6
5
4
3
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Neutrophil (%) (Abn I)

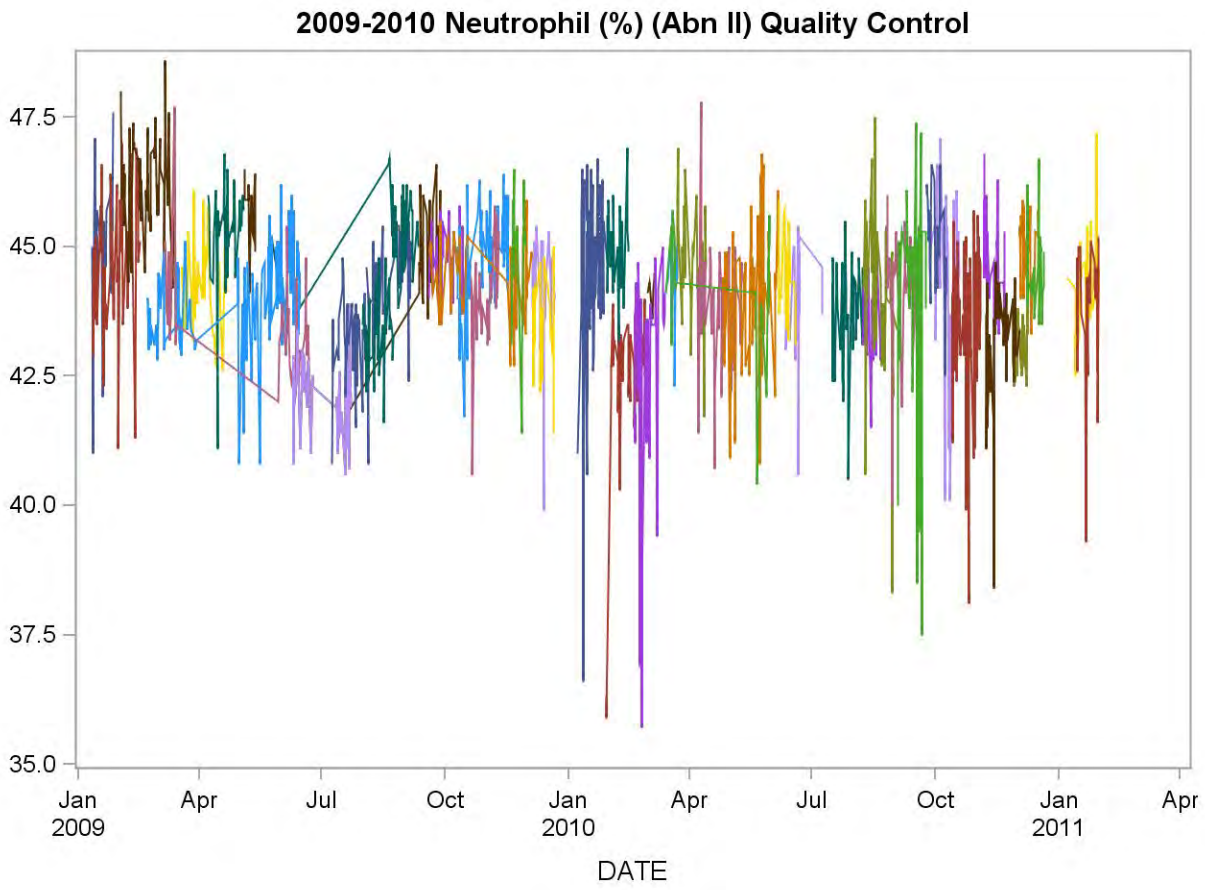
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	65.5389	0.9129	1.4
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	64.5474	0.8741	1.4
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	64.0808	0.6883	1.1
875800_09	66	01FEB09:15:25:00	12MAR09:13:25:00	63.8909	0.6818	1.1
876100_09	28	20FEB09:09:56:00	08MAR09:13:59:00	64.7107	0.7445	1.2
877500_09	101	20FEB09:09:56:00	06JUN09:13:24:00	64.2723	0.7898	1.2
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	63.8524	0.7633	1.2
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	63.7891	0.7380	1.2
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	64.2556	0.8283	1.3
877000_09	51	07APR09:16:58:00	04MAY09:10:23:00	65.3706	0.8379	1.3
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	65.5462	1.0453	1.6
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	65.4551	1.0551	1.6
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	63.1200	0.9677	1.5
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	63.4271	1.1422	1.8
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	64.4816	0.6238	1.0
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	64.0300	0.5755	0.9
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	64.7244	0.6587	1.0
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	64.7553	0.7324	1.1
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	65.6609	0.6665	1.0
871000_09	43	20SEP09:11:40:00	05DEC09:08:50:00	65.0535	0.7035	1.1
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	64.5360	0.7482	1.2
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	64.9167	0.7679	1.2
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	64.5545	0.6624	1.0
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	65.1769	0.8207	1.3
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	64.8969	0.9286	1.4
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	65.7806	0.8830	1.3
872600_10	21	07JAN10:09:21:00	24JAN10:13:49:00	65.6524	0.9988	1.5
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	65.5150	0.5825	0.9
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	63.9143	0.8860	1.4
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	64.5731	0.9340	1.4
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	65.1657	0.8931	1.4
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	64.8857	0.6517	1.0
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	64.4813	0.7556	1.2
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	64.9756	0.8127	1.3
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	64.0484	0.8414	1.3
874200_10	48	06APR10:18:24:00	09MAY10:13:22:00	64.7729	1.2010	1.9
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	63.9930	0.9205	1.4
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	64.7186	0.9093	1.4
875300_10	22	09JUL10:16:19:00	16JUL10:13:25:00	63.9455	0.8302	1.3
875900_10	39	16JUL10:11:37:00	07AUG10:13:39:00	64.0385	0.9740	1.5
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	64.2041	0.8755	1.4
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	65.2564	0.8172	1.3
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	64.9966	0.8060	1.2
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	65.4435	0.9014	1.4
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	64.8000	0.8187	1.3
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	65.6257	0.8085	1.2
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	65.2706	0.9895	1.5
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	65.2700	0.7981	1.2
878100_10	57	07NOV10:13:07:00	08DEC10:13:24:00	65.1298	0.7769	1.2
870500_10	17	28NOV10:12:40:00	08DEC10:13:24:00	64.8000	0.6285	1.0
878500_10	33	02DEC10:09:48:00	17DEC10:13:49:00	66.0121	0.9529	1.4
878600_10	27	08DEC10:14:29:00	20DEC10:13:34:00	68.4222	0.8173	1.2
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	65.9147	0.6924	1.1
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	64.7500	0.6725	1.0

Summary Statistics for Neutrophil (%) (Abn I)



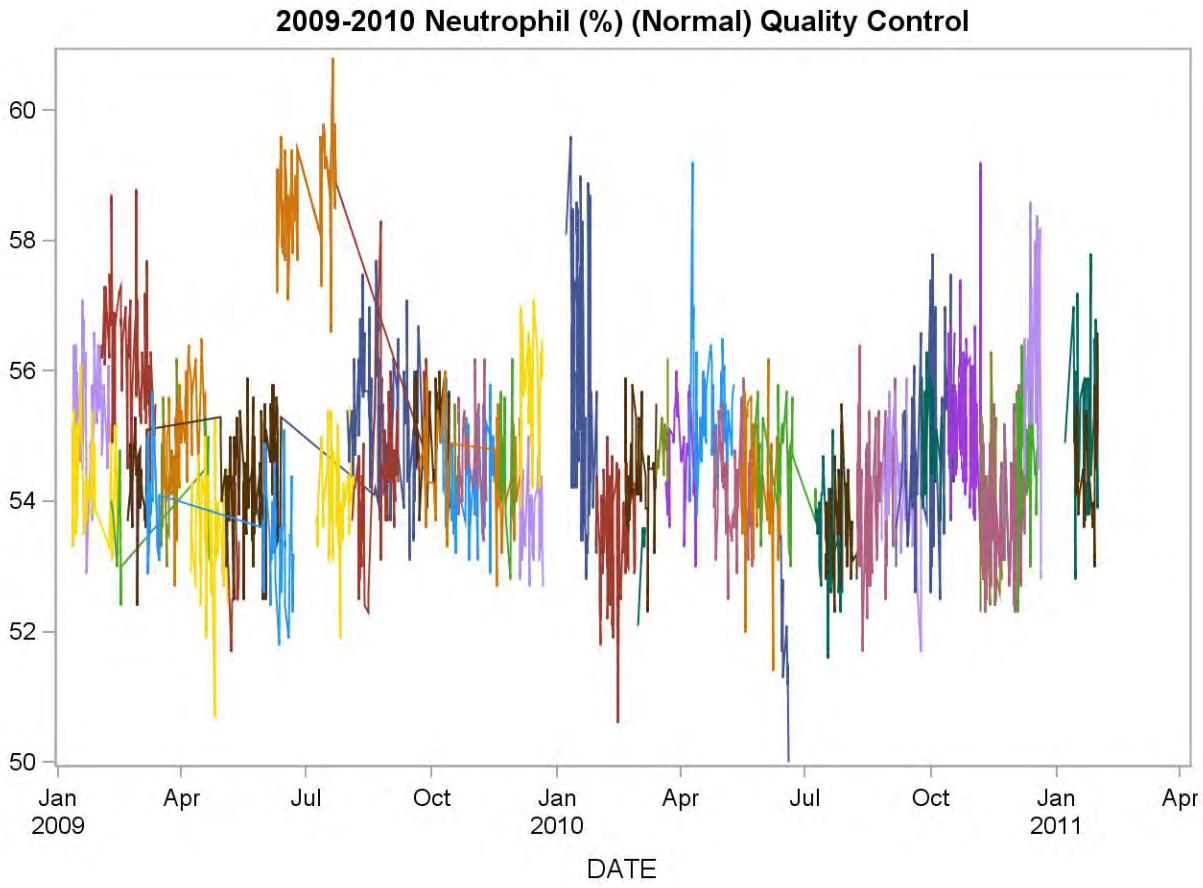
Summary Statistics for Neutrophil (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	27	11JAN09:08:39:00	26JAN09:17:40:00	44.8889	1.3526	3.0
866200_09	52	11JAN09:10:39:00	15FEB09:13:50:00	44.7135	1.3023	2.9
866500_09	58	01FEB09:15:22:00	12MAR09:13:15:00	46.2241	0.8974	1.9
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	43.6225	0.6062	1.4
868300_09	125	20FEB09:09:57:00	14JUN09:14:54:00	43.9624	0.8823	2.0
867100_09	13	06MAR09:16:06:00	14MAR09:13:25:00	44.1923	1.2189	2.8
868600_09	47	06MAR09:16:06:00	21JUN09:13:41:00	43.4170	1.0057	2.3
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	44.2681	0.7610	1.7
867700_09	40	07APR09:16:50:00	03MAY09:13:33:00	45.3100	0.9179	2.0
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	45.6063	0.6245	1.4
860300_09	77	22MAY09:09:33:00	10SEP09:17:28:00	44.7909	0.8430	1.9
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	43.1831	1.5877	3.7
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	42.1311	0.7397	1.8
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	43.1452	0.8662	2.0
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	43.2763	0.7061	1.6
860000_09	46	03AUG09:08:44:00	06SEP09:08:56:00	44.3370	0.7181	1.6
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	44.7279	0.6404	1.4
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	44.4318	0.7721	1.7
861300_09	65	08OCT09:16:33:00	16NOV09:17:49:00	44.7231	0.9101	2.0
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	44.4667	0.4082	0.9
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	43.9216	0.8502	1.9
861900_09	15	19NOV09:10:15:00	29NOV09:14:03:00	44.8733	1.3910	3.1
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	44.1788	0.9990	2.3
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	43.5067	0.8258	1.9
863000_10	65	07JAN10:09:22:00	29JAN10:09:08:00	44.7031	1.6140	3.6
863400_10	50	28JAN10:13:03:00	01MAR10:09:44:00	42.4120	1.4868	3.5
863500_10	25	29JAN10:12:25:00	14FEB10:13:41:00	44.9360	0.7994	1.8
863900_10	37	19FEB10:14:28:00	13MAR10:13:31:00	42.6946	2.0940	4.9
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	44.1833	0.3189	0.7
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	44.5000	0.9282	2.1
865200_10	18	14MAR10:08:40:00	30MAY10:13:42:00	44.0500	1.2890	2.9
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	44.7313	1.0539	2.4
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	43.8460	1.1550	2.6
864900_10	74	25APR10:02:52:00	05JUN10:13:56:00	44.0135	1.2640	2.9
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	44.4222	0.8755	2.0
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	43.9963	1.0173	2.3
866300_10	40	16JUL10:11:45:00	07AUG10:13:41:00	43.5750	0.9687	2.2
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	43.6048	0.7807	1.8
866700_10	40	08AUG10:14:24:00	02SEP10:08:48:00	44.0225	1.5443	3.5
867000_10	34	26AUG10:10:03:00	20SEP10:08:30:00	43.9765	1.2405	2.8
867100_10	30	02SEP10:18:05:00	23SEP10:13:56:00	43.8267	2.3427	5.3
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	45.1348	0.9787	2.2
867200_10	33	27SEP10:11:49:00	18OCT10:08:58:00	44.5515	1.6074	3.6
867600_10	63	13OCT10:15:01:00	03NOV10:13:30:00	43.5111	1.4205	3.3
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	44.6469	0.9890	2.2
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	43.0625	1.1229	2.6
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	43.0525	1.2671	2.9
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	43.0875	0.6692	1.6
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	44.9148	0.7004	1.6
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	44.5889	0.7546	1.7
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	44.2697	0.8897	2.0
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	43.7545	1.1906	2.7


2009-2010 Neutrophil (%) (Abn II) Quality Control
47.5
45.0
42.5
40.0
37.5
35.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Neutrophil (%) (Normal)

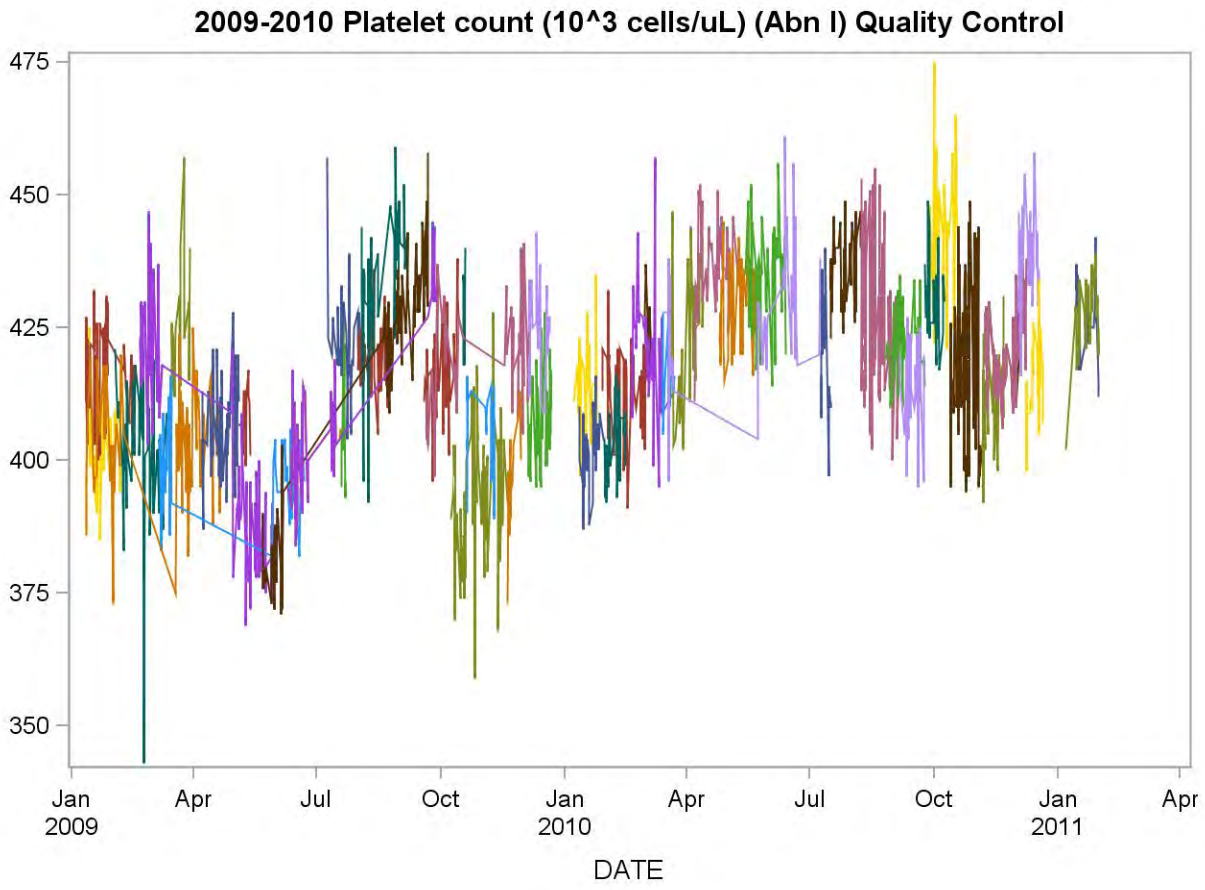
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	55.2936	0.8583	1.6
885800_09	42	11JAN09:10:35:00	15FEB09:13:48:00	54.2714	0.8107	1.5
886100_09	71	01FEB09:15:18:00	12MAR09:13:27:00	56.2676	0.9239	1.6
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	53.9857	0.8628	1.6
886500_09	25	20FEB09:09:55:00	06MAR09:09:12:00	54.1920	0.6068	1.1
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	54.3096	0.7635	1.4
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	53.8944	0.6584	1.2
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	53.5615	0.7675	1.4
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	54.2375	0.9062	1.7
887000_09	48	18MAR09:10:22:00	18APR09:10:52:00	55.0458	0.8384	1.5
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	53.5227	0.8567	1.6
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	53.3471	0.8719	1.6
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	54.7480	0.9212	1.7
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	58.3400	1.2575	2.2
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	58.6574	0.8381	1.4
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	54.0093	0.7718	1.4
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	55.8103	0.8419	1.5
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	54.0851	1.0768	2.0
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	54.9171	0.7433	1.4
881400_09	43	20SEP09:11:46:00	05DEC09:08:41:00	54.5326	0.7250	1.3
881000_09	63	08OCT09:16:29:00	15NOV09:09:02:00	54.4635	0.7263	1.3
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	54.2167	0.6911	1.3
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	54.8081	0.6309	1.2
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	54.6286	0.9118	1.7
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	53.7606	0.6955	1.3
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	55.6129	0.9398	1.7
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	55.9118	1.8992	3.4
883200_10	72	28JAN10:13:09:00	01MAR10:09:15:00	53.4361	0.8414	1.6
884000_10	36	19FEB10:11:11:00	14MAR10:07:26:00	54.4583	0.7450	1.4
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	53.1000	0.5899	1.1
884300_10	13	14MAR10:08:42:00	22MAR10:13:16:00	54.8538	0.5158	0.9
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	54.7484	0.7343	1.3
884600_10	49	06APR10:18:23:00	09MAY10:13:21:00	55.4755	0.9541	1.7
885000_10	49	25APR10:02:50:00	24MAY10:08:46:00	54.1939	0.7261	1.3
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	54.2643	0.9768	1.8
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	54.4556	0.7673	1.4
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	51.7625	1.0636	2.1
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	53.4634	0.7476	1.4
886400_10	40	16JUL10:11:12:00	07AUG10:13:38:00	53.5900	0.6702	1.3
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	54.0261	0.9115	1.7
887200_10	40	25AUG10:15:43:00	24SEP10:08:32:00	54.2600	0.8384	1.5
887400_10	61	05SEP10:08:40:00	18OCT10:08:57:00	54.7541	1.2437	2.3
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	54.9333	0.7215	1.3
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	55.2730	0.9453	1.7
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	54.0844	0.9409	1.7
880200_10	43	07NOV10:13:09:00	02DEC10:18:18:00	53.6442	0.8661	1.6
888500_10	62	07NOV10:13:09:00	08DEC10:13:23:00	53.7548	0.9147	1.7
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	54.0053	0.9947	1.8
888900_10	29	02DEC10:09:47:00	17DEC10:13:47:00	54.6034	1.0835	2.0
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	55.9414	1.3114	2.3
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	55.2222	1.1611	2.1
889900_11	24	14JAN11:10:06:00	30JAN11:13:48:00	54.6958	0.8222	1.5


2009-2010 Neutrophil (%) (Normal) Quality Control
60
58
56
54
52
50
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Platelet count (10^3 cells/uL) (Abn I)

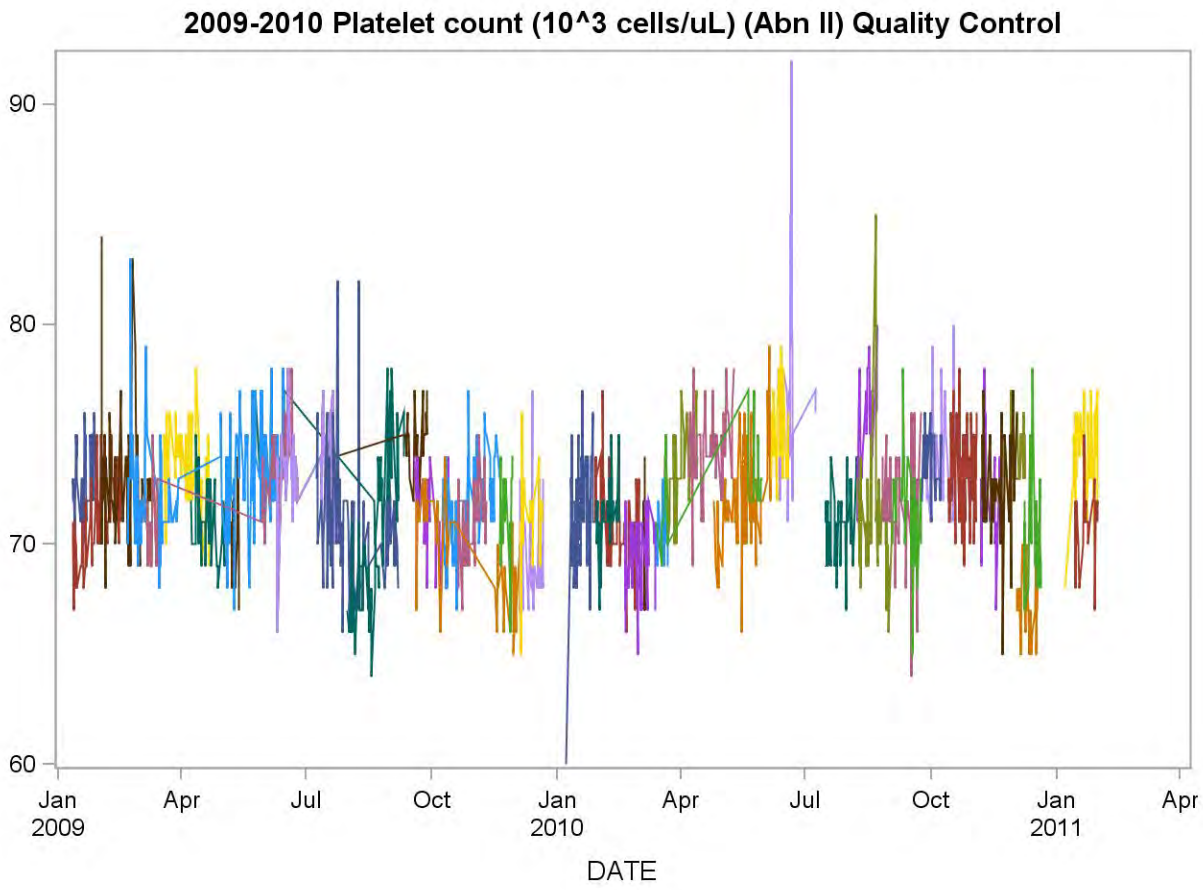
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	403.3889	10.5837	2.6
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	403.3846	10.0521	2.5
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	416.1731	7.8982	1.9
875800_09	55	01FEB09:16:46:00	12MAR09:13:25:00	402.0000	12.5403	3.1
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	423.7241	10.5522	2.5
877500_09	102	20FEB09:09:56:00	06JUN09:13:24:00	396.8725	19.7056	5.0
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	400.9524	8.9246	2.2
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	398.3636	7.4768	1.9
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	424.9444	11.5935	2.7
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	406.4423	8.2401	2.0
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	408.3077	5.9496	1.5
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	413.2821	23.9181	5.8
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	401.8250	8.6466	2.2
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	407.8750	15.3756	3.8
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	421.9737	8.9367	2.1
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	405.9000	11.5321	2.8
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	419.8293	6.9782	1.7
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	432.7660	13.3453	3.1
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	416.7826	9.4702	2.3
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	420.4545	10.5378	2.5
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	392.8837	12.2977	3.1
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	429.8333	9.4322	2.2
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	407.2273	7.7701	1.9
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	398.3077	10.7888	2.7
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	407.3438	9.0362	2.2
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	424.9677	8.3286	2.0
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	413.8182	8.7703	2.1
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	401.0000	7.3937	1.8
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	413.1224	7.3332	1.8
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	404.3077	7.0584	1.7
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	421.1143	11.7942	2.8
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	426.8571	7.6033	1.8
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	417.5625	10.7577	2.6
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	428.4667	12.1498	2.8
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	422.5484	12.7850	3.0
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	437.1224	7.9834	1.8
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	430.4884	8.0928	1.9
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	434.7674	9.4613	2.2
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	422.5417	10.2490	2.4
875900_10	39	16JUL10:11:37:00	07AUG10:13:39:00	435.6154	7.0919	1.6
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	427.5000	13.5447	3.2
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	420.5897	7.1918	1.7
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	413.2069	8.8293	2.1
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	430.1739	8.0094	1.9
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	443.8684	11.4471	2.6
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	418.2740	14.1699	3.4
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	411.0000	8.5280	2.1
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	417.5500	5.8614	1.4
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	421.3390	8.2913	2.0
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	429.3158	6.9286	1.6
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	437.0000	8.5474	2.0
878600_10	28	08DEC10:14:29:00	20DEC10:13:34:00	413.4286	8.8000	2.1
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	427.0294	7.1201	1.7
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	427.3462	7.2329	1.7

Summary Statistics for Platelet count (10^3 cells/uL) (Abn I)



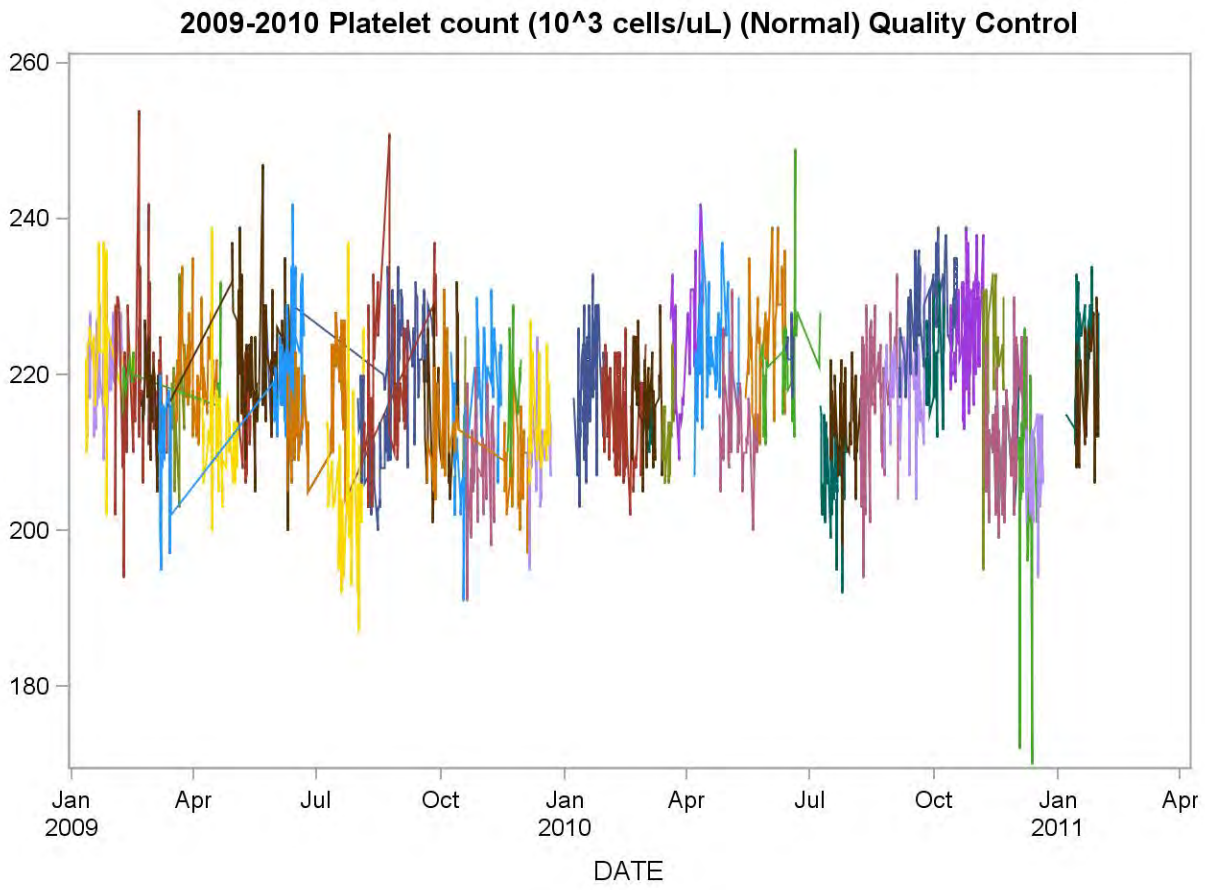
Summary Statistics for Platelet count (10^3 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	73.1034	1.7185	2.4
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	71.0000	2.0188	2.8
866500_09	56	01FEB09:15:22:00	12MAR09:13:15:00	72.8214	2.9549	4.1
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	72.3500	2.6751	3.7
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	73.0469	2.4232	3.3
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	70.7857	1.8884	2.7
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	72.8125	2.2565	3.1
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	73.6170	1.9622	2.7
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	71.0732	1.5065	2.1
867800_09	15	04MAY09:10:30:00	12MAY09:17:39:00	70.2000	1.8974	2.7
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	73.6582	2.1536	2.9
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	73.7465	2.2407	3.0
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	73.2222	2.4577	3.4
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	71.1429	2.9514	4.1
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	67.9474	1.6266	2.4
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	69.9149	2.5180	3.6
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	71.3023	1.8327	2.6
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	69.2273	2.4387	3.5
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	71.8333	2.1237	3.0
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	70.6667	0.8165	1.2
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	71.2162	1.7660	2.5
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	71.5000	2.3664	3.3
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	69.8182	2.2424	3.2
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	70.7333	2.1162	3.0
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	71.2836	2.4359	3.4
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	70.9615	2.0288	2.9
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	71.3462	1.6957	2.4
863900_10	46	19FEB10:14:02:00	13MAR10:13:31:00	69.0870	1.7991	2.6
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	70.6667	2.3381	3.3
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	70.8571	1.7478	2.5
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	72.5909	1.9678	2.7
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	73.3750	2.0596	2.8
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	74.4400	1.9604	2.6
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	71.9605	2.1996	3.1
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	75.3333	2.1693	2.9
865300_10	25	10JUN10:21:16:00	08JUL10:16:02:00	76.8400	4.3749	5.7
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	70.8049	1.6465	2.3
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	76.0000	2.1909	2.9
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	70.7600	2.7816	3.9
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	71.8333	2.4685	3.4
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	71.2895	2.0913	2.9
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	73.6087	1.4378	2.0
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	73.9429	2.1821	3.0
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	73.0811	1.8782	2.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	72.0625	2.1089	2.9
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	72.8727	2.2448	3.1
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	72.3846	2.3688	3.3
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	74.0625	1.3401	1.8
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	67.2963	1.7055	2.5
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	70.2963	2.5543	3.6
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	74.0000	2.0767	2.8
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	70.7879	1.5362	2.2


2009-2010 Platelet count (10^3 cells/uL) (Abn II) Quality Control
90
80
70
60
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Platelet count (10^3 cells/uL) (Normal)

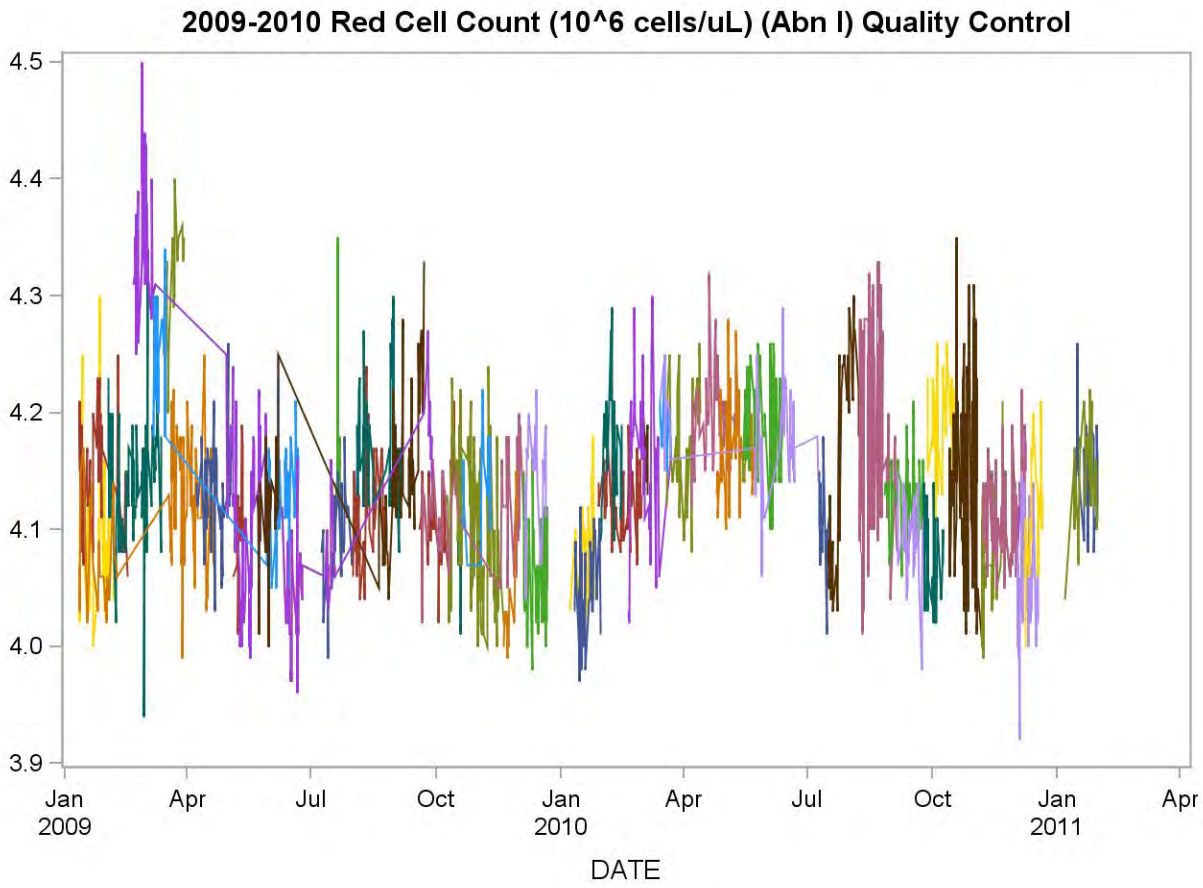
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	220.5319	4.9863	2.3
885800_09	43	11JAN09:10:33:00	15FEB09:13:48:00	222.0000	6.4991	2.9
886100_09	64	01FEB09:15:18:00	12MAR09:13:27:00	218.1094	9.0644	4.2
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	219.6429	4.3784	2.0
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	216.2308	5.1405	2.4
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	220.0609	7.5687	3.4
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	209.6111	7.4054	3.5
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	217.5769	9.5781	4.4
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	217.5625	7.4741	3.4
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	220.6735	5.3048	2.4
887400_09	42	07APR09:16:59:00	04MAY09:10:24:00	212.1190	6.2867	3.0
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	214.2667	5.4703	2.6
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	222.2800	7.1663	3.2
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	217.4167	7.0502	3.2
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	215.9630	5.6701	2.6
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	205.7442	8.9339	4.3
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	210.2821	5.3555	2.5
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	216.6809	9.0724	4.2
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	215.2927	8.0351	3.7
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	209.5000	6.7566	3.2
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	214.7969	8.1478	3.8
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	211.6667	7.7889	3.7
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	207.7568	6.9538	3.3
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	218.3571	6.2216	2.8
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	210.6970	5.7145	2.7
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	212.7419	5.3539	2.5
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	218.4853	6.5937	3.0
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	214.6438	5.6578	2.6
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	216.8205	5.9377	2.7
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	213.5000	3.2094	1.5
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	213.6429	5.4576	2.6
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	224.7097	8.7681	3.9
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	223.2000	6.4587	2.9
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	213.1373	5.4149	2.5
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	224.7143	6.8442	3.0
885400_10	36	24MAY10:17:39:00	08JUL10:15:59:00	221.9722	6.9467	3.1
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	223.2500	3.1960	1.4
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	207.0000	6.1278	3.0
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	213.6341	5.1418	2.4
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	216.6667	7.7662	3.6
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	218.9756	6.2309	2.8
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	228.4394	5.7730	2.5
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	220.9583	5.1031	2.3
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	225.3243	5.6933	2.5
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	221.5313	7.8370	3.5
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	210.5909	5.8759	2.8
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	213.0635	6.9465	3.3
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	218.7895	5.8460	2.7
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	206.1333	11.3190	5.5
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	207.7000	5.4021	2.6
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	223.0000	6.3065	2.8
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	217.0769	6.6988	3.1


2009-2010 Platelet count (10^3 cells/uL) (Normal) Quality Control
260
240
220
200
180
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Red Cell Count (10^6 cells/uL) (Abn I)

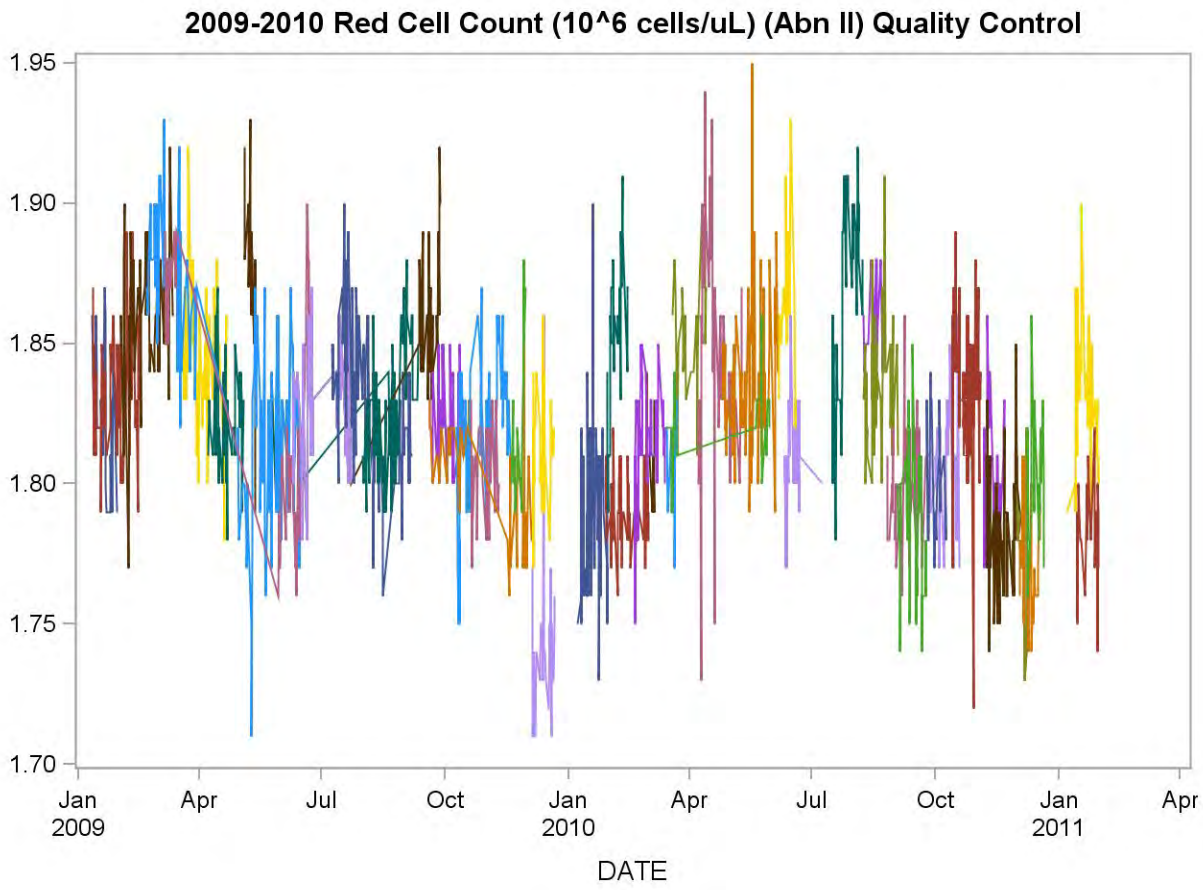
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	4.0926	0.0615	1.5
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	4.1092	0.0547	1.3
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	4.1477	0.0465	1.1
875800_09	64	01FEB09:15:25:00	12MAR09:13:25:00	4.1397	0.0535	1.3
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	4.3466	0.0565	1.3
877500_09	96	20FEB09:09:56:00	06JUN09:13:24:00	4.1614	0.1095	2.6
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	4.2533	0.0416	1.0
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	4.1787	0.0705	1.7
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	4.3050	0.0538	1.3
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	4.1392	0.0422	1.0
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	4.1023	0.0459	1.1
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	4.1400	0.0607	1.5
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	4.0470	0.0444	1.1
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	4.0748	0.0739	1.8
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	4.0995	0.0388	0.9
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	4.1470	0.0810	2.0
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	4.1178	0.0422	1.0
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	4.1753	0.0468	1.1
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	4.1120	0.0361	0.9
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	4.1155	0.0417	1.0
870700_09	86	08OCT09:16:31:00	19NOV09:09:12:00	4.0948	0.0601	1.5
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	4.1000	0.0576	1.4
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	4.1341	0.0363	0.9
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	4.0438	0.0520	1.3
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	4.0600	0.0464	1.1
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	4.1358	0.0430	1.0
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	4.0827	0.0428	1.0
872700_10	39	10JAN10:12:35:00	29JAN10:12:06:00	4.0426	0.0410	1.0
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	4.1259	0.0303	0.7
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	4.1673	0.0509	1.2
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	4.1574	0.0660	1.6
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	4.1686	0.0279	0.7
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	4.1894	0.0272	0.6
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	4.1740	0.0447	1.1
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	4.1794	0.0492	1.2
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	4.1943	0.0382	0.9
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	4.1691	0.0407	1.0
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	4.1907	0.0450	1.1
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	4.1063	0.0332	0.8
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	4.1633	0.0893	2.1
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	4.1680	0.0827	2.0
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	4.1249	0.0325	0.8
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	4.0900	0.0366	0.9
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	4.0778	0.0412	1.0
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	4.1934	0.0398	0.9
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	4.1319	0.0800	1.9
877800_10	33	06NOV10:10:47:00	21NOV10:13:23:00	4.0730	0.0425	1.0
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	4.1093	0.0366	0.9
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	4.1168	0.0389	0.9
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	4.1326	0.0397	1.0
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	4.0471	0.0465	1.1
878600_10	28	08DEC10:14:29:00	20DEC10:13:34:00	4.1068	0.0468	1.1
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	4.1429	0.0391	0.9
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	4.1469	0.0421	1.0

Summary Statistics for Red Cell Count (10^6 cells/uL) (Abn I)



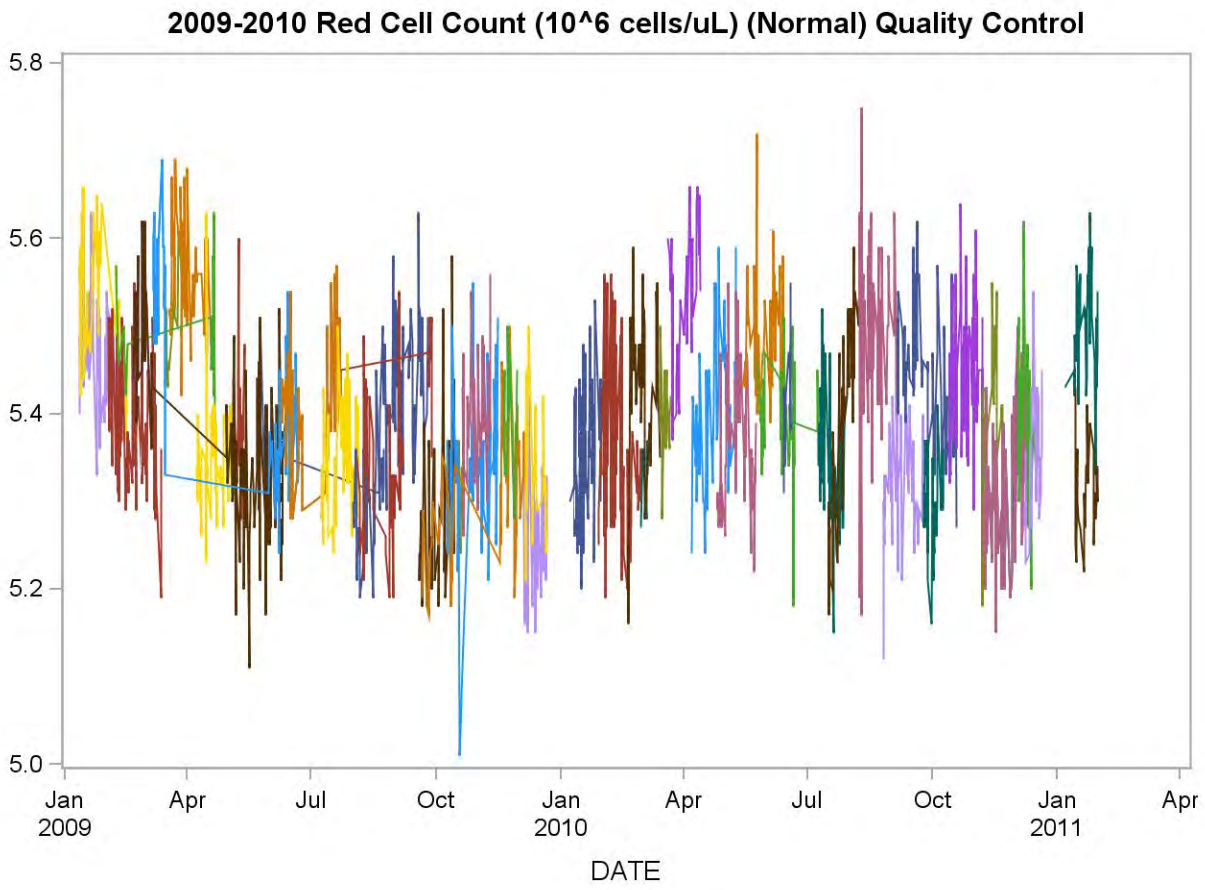
Summary Statistics for Red Cell Count (10^6 cells/uL) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	1.8255	0.0229	1.3
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	1.8331	0.0224	1.2
866500_09	56	01FEB09:15:22:00	12MAR09:13:15:00	1.8604	0.0233	1.3
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	1.8770	0.0242	1.3
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	1.8327	0.0401	2.2
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	1.8729	0.0154	0.8
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	1.8294	0.0421	2.3
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	1.8426	0.0246	1.3
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	1.8222	0.0188	1.0
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	1.8769	0.0311	1.7
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	1.8247	0.0245	1.3
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	1.8401	0.0299	1.6
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	1.8258	0.0231	1.3
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	1.8450	0.0227	1.2
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	1.8153	0.0162	0.9
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	1.8115	0.0200	1.1
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	1.8212	0.0155	0.8
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	1.7993	0.0200	1.1
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	1.8167	0.0269	1.5
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	1.8083	0.0147	0.8
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	1.8016	0.0166	0.9
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	1.8200	0.0280	1.5
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	1.7412	0.0265	1.5
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	1.8097	0.0201	1.1
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	1.7855	0.0273	1.5
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	1.7900	0.0153	0.9
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	1.8554	0.0283	1.5
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	1.8164	0.0192	1.1
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	1.8067	0.0151	0.8
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	1.8093	0.0209	1.2
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	1.8214	0.0155	0.9
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	1.8538	0.0208	1.1
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	1.8458	0.0399	2.2
864900_10	75	25APR10:02:52:00	05JUN10:13:56:00	1.8360	0.0255	1.4
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	1.8656	0.0275	1.5
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	1.8089	0.0183	1.0
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	1.8612	0.0364	2.0
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	1.8600	0.0161	0.9
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	1.8340	0.0218	1.2
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	1.7962	0.0196	1.1
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	1.7821	0.0240	1.3
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	1.8026	0.0196	1.1
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	1.8060	0.0223	1.2
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	1.8315	0.0243	1.3
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	1.8031	0.0207	1.1
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	1.7820	0.0238	1.3
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	1.7815	0.0247	1.4
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	1.7831	0.0221	1.2
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	1.7737	0.0188	1.1
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	1.8019	0.0213	1.2
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	1.8303	0.0247	1.3
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	1.7821	0.0163	0.9


2009-2010 Red Cell Count (10^6 cells/uL) (Abn II) Quality Control
1.95
1.90
1.85
1.80
1.75
1.70
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Red Cell Count (10^6 cells/uL) (Normal)

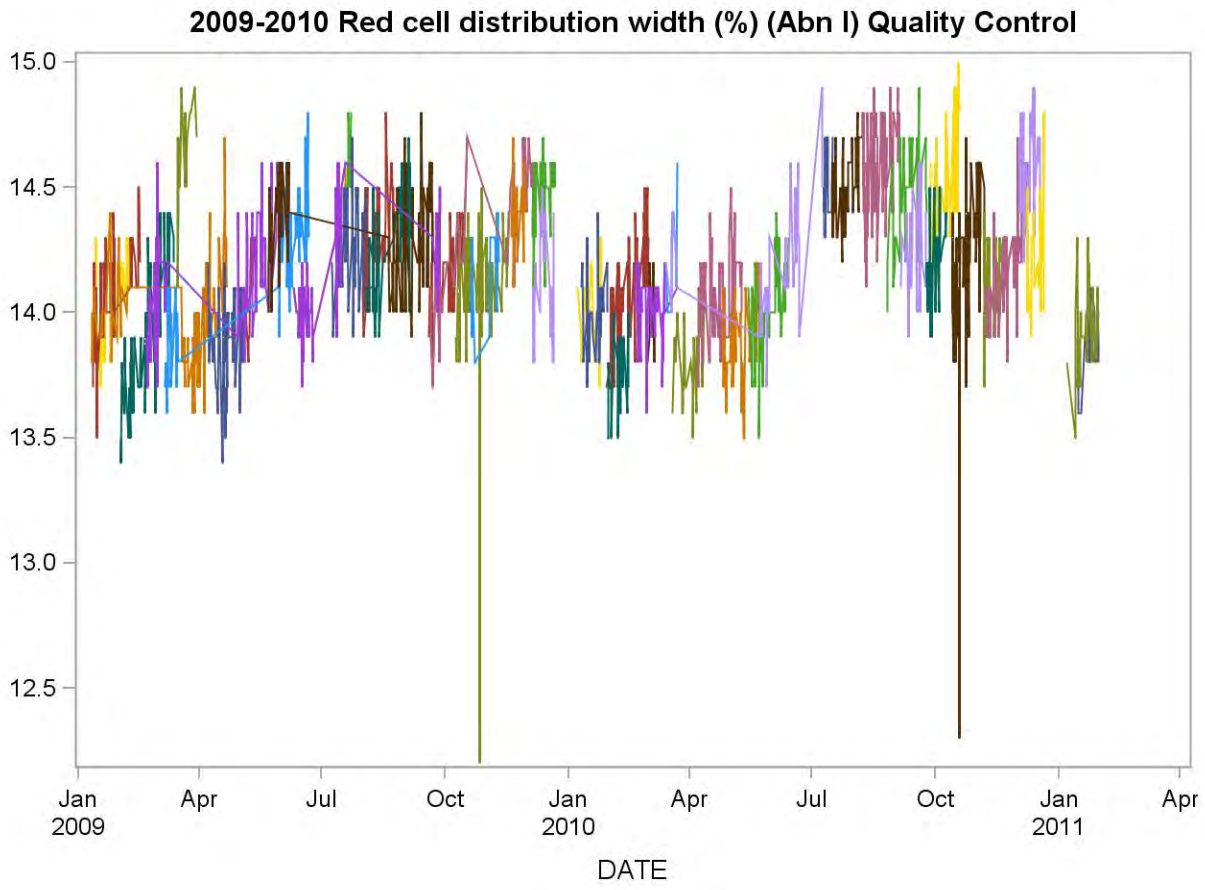
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	5.4730	0.0634	1.2
885800_09	42	11JAN09:10:33:00	15FEB09:13:48:00	5.5288	0.0750	1.4
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	5.3754	0.0704	1.3
887100_09	13	07FEB09:13:33:00	21APR09:08:37:00	5.4885	0.0705	1.3
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	5.4827	0.0724	1.3
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	5.3621	0.1013	1.9
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	5.5472	0.0773	1.4
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	5.4296	0.1096	2.0
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	5.5031	0.0545	1.0
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	5.5567	0.0655	1.2
887400_09	41	07APR09:16:59:00	04MAY09:10:24:00	5.3488	0.0631	1.2
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	5.4024	0.0789	1.5
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	5.3953	0.0857	1.6
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	5.4122	0.0688	1.3
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	5.4074	0.0685	1.3
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	5.3467	0.0624	1.2
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	5.2977	0.0569	1.1
889700_09	46	03AUG09:08:39:00	06SEP09:08:54:00	5.3113	0.0788	1.5
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	5.2807	0.0922	1.7
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	5.2993	0.0731	1.4
881000_09	62	08OCT09:16:29:00	15NOV09:09:02:00	5.3187	0.0939	1.8
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	5.2917	0.0527	1.0
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	5.3900	0.0713	1.3
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	5.3893	0.0611	1.1
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	5.2567	0.0623	1.2
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	5.3094	0.0720	1.4
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	5.3474	0.0746	1.4
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	5.3677	0.1013	1.9
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	5.4113	0.1027	1.9
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	5.3267	0.0423	0.8
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	5.4021	0.0521	1.0
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	5.5319	0.0830	1.5
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	5.4032	0.0836	1.5
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	5.3625	0.0764	1.4
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	5.4829	0.0713	1.3
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	5.3963	0.0592	1.1
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	5.4213	0.0775	1.4
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	5.3315	0.0809	1.5
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	5.3717	0.1176	2.2
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	5.4794	0.1098	2.0
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	5.3124	0.0652	1.2
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	5.4412	0.0758	1.4
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	5.2958	0.0612	1.2
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	5.4404	0.0704	1.3
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	5.3763	0.0834	1.6
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	5.2927	0.0727	1.4
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	5.3137	0.0812	1.5
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	5.3621	0.0808	1.5
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	5.3700	0.0886	1.7
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	5.3303	0.0717	1.3
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	5.4992	0.0607	1.1
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	5.3092	0.0531	1.0


2009-2010 Red Cell Count (10^6 cells/uL) (Normal) Quality Control
5.8
5.6
5.4
5.2
5.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Red cell distribution width (%) (Abn I)

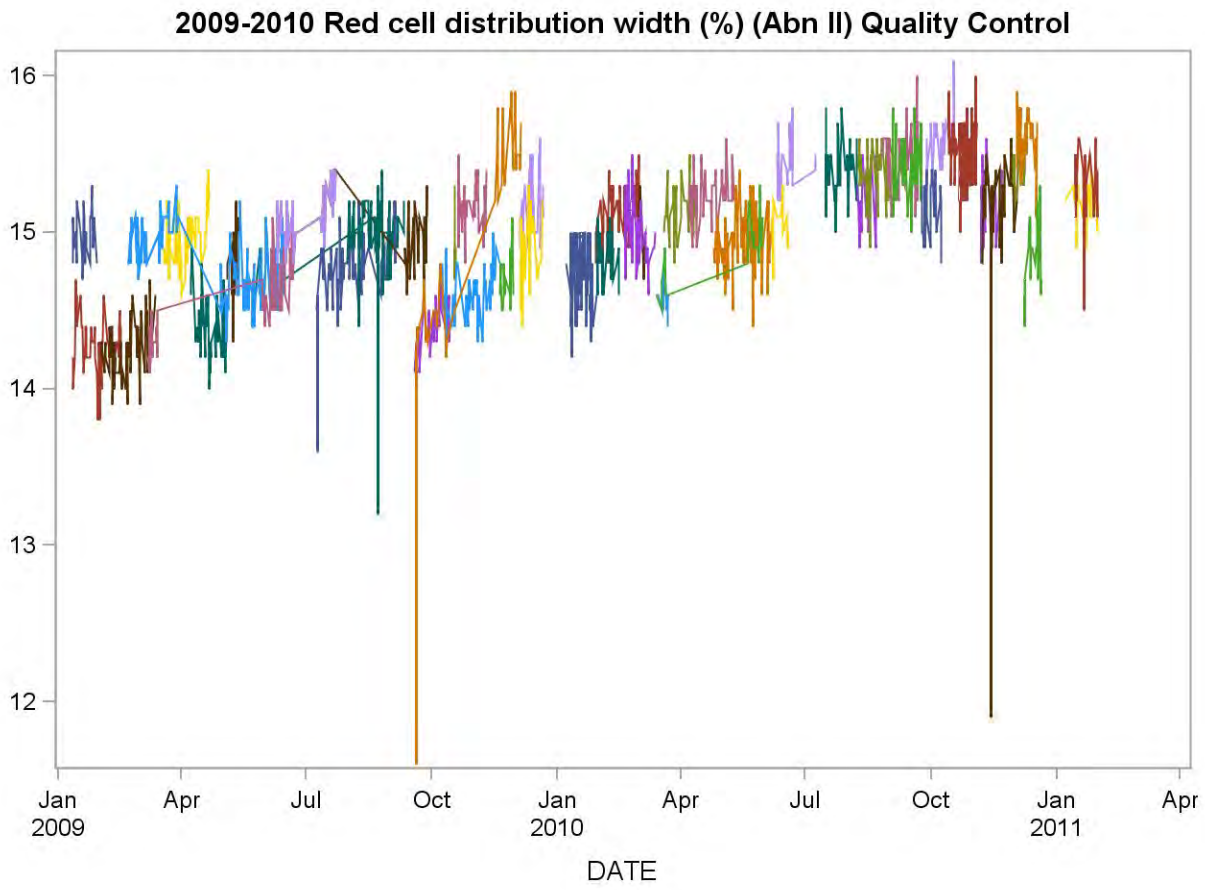
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	14.0185	0.1626	1.2
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	13.9833	0.2035	1.5
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	14.0442	0.1965	1.4
875800_09	65	01FEB09:15:25:00	12MAR09:13:25:00	13.9215	0.2559	1.8
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	14.0483	0.1993	1.4
877500_09	102	20FEB09:09:56:00	06JUN09:13:24:00	14.2039	0.2333	1.6
876300_09	21	06MAR09:16:04:00	15MAR09:13:31:00	13.8952	0.1564	1.1
878000_09	55	06MAR09:16:04:00	21JUN09:13:38:00	14.1600	0.2733	1.9
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	14.6444	0.2064	1.4
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	13.8635	0.1738	1.3
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	14.1308	0.1702	1.2
879600_09	78	22MAY09:09:31:00	21SEP09:17:23:00	14.3154	0.2102	1.5
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	14.0950	0.2342	1.7
879800_09	48	09JUN09:18:19:00	27SEP09:13:37:00	14.1250	0.2357	1.7
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	14.2632	0.1937	1.4
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	14.5800	0.1476	1.0
879100_09	41	31JUL09:11:08:00	23AUG09:13:37:00	14.3024	0.1877	1.3
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	14.2617	0.2006	1.4
870100_09	46	18SEP09:13:56:00	17OCT09:09:05:00	14.1500	0.1883	1.3
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	14.3341	0.2411	1.7
870700_09	87	08OCT09:16:31:00	19NOV09:09:12:00	14.1000	0.2619	1.9
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	14.1167	0.1169	0.8
870800_09	22	20OCT09:15:09:00	09NOV09:13:39:00	14.1773	0.1602	1.1
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	14.3846	0.1725	1.2
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	14.4531	0.1481	1.0
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	14.0581	0.2187	1.6
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	13.9864	0.1457	1.0
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	13.9900	0.1549	1.1
873000_10	50	28JAN10:13:05:00	01MAR10:09:18:00	14.0780	0.2197	1.6
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	13.7500	0.1556	1.1
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	14.0114	0.1430	1.0
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	13.9571	0.1718	1.2
873900_10	16	14MAR10:08:39:00	22MAR10:13:30:00	14.2250	0.1653	1.2
875000_10	45	14MAR10:08:39:00	08JUL10:16:00:00	14.1867	0.2128	1.5
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	13.8484	0.1860	1.3
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	14.0653	0.1866	1.3
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	13.8791	0.1740	1.3
874700_10	43	14MAY10:09:05:00	13JUN10:08:38:00	14.0186	0.1868	1.3
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	14.4958	0.1429	1.0
875900_10	40	16JUL10:11:37:00	07AUG10:13:39:00	14.4925	0.1559	1.1
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	14.5676	0.1866	1.3
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	14.4590	0.1970	1.4
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	14.2690	0.1775	1.2
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	14.2304	0.1845	1.3
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	14.5158	0.2138	1.5
877400_10	74	13OCT10:15:06:00	06NOV10:13:35:00	14.2270	0.3067	2.2
877800_10	34	06NOV10:10:47:00	21NOV10:13:23:00	14.1382	0.1577	1.1
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	14.1050	0.1484	1.1
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	14.1814	0.1969	1.4
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	14.3421	0.1924	1.3
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	14.6000	0.1680	1.2
878600_10	28	08DEC10:14:29:00	20DEC10:13:34:00	14.2357	0.1870	1.3
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	13.9618	0.1724	1.2
870000_11	25	14JAN11:10:08:00	30JAN11:13:48:00	13.8640	0.1411	1.0

Summary Statistics for Red cell distribution width (%) (Abn I)



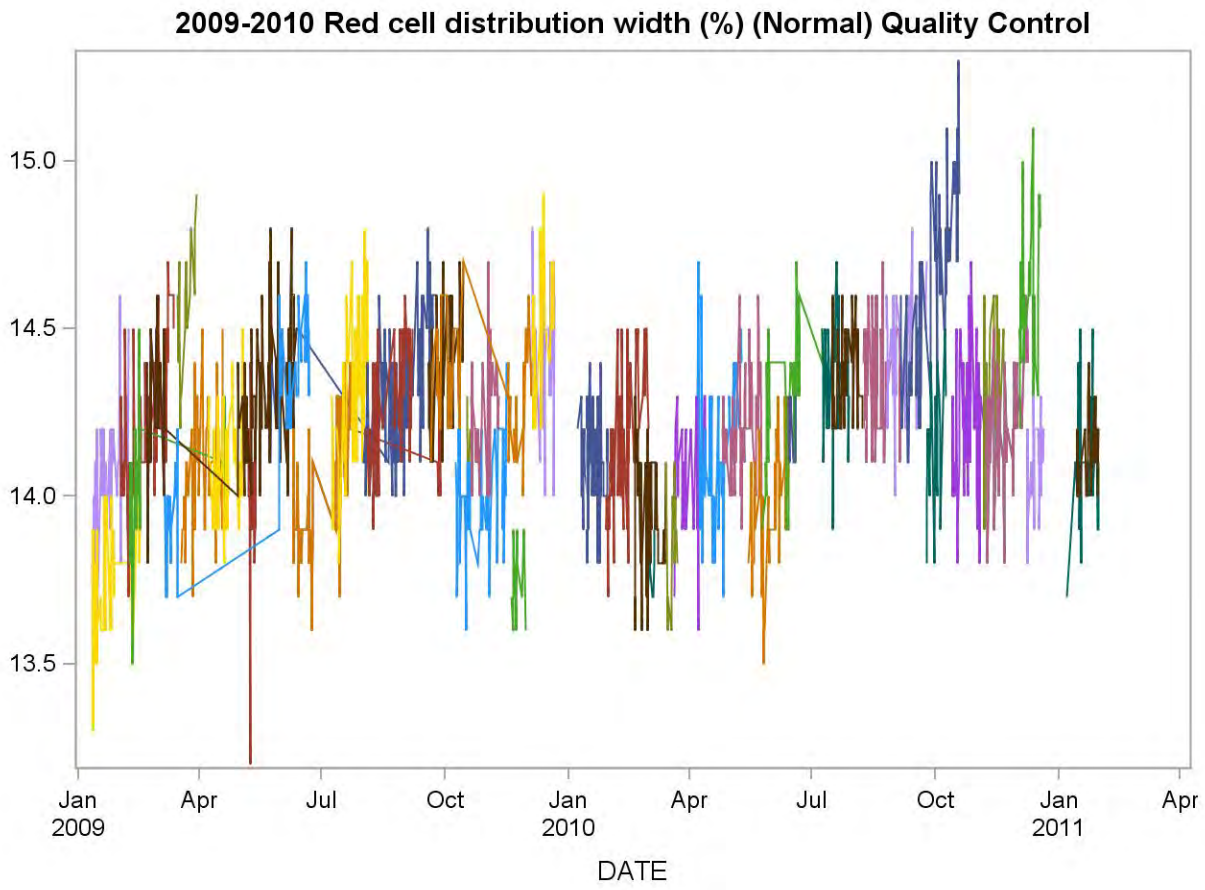
Summary Statistics for Red cell distribution width (%) (Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	14.9724	0.1556	1.0
866200_09	54	11JAN09:10:39:00	15FEB09:13:50:00	14.2648	0.1934	1.4
866500_09	58	01FEB09:15:22:00	12MAR09:13:15:00	14.2724	0.1862	1.3
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	14.9700	0.1363	0.9
868300_09	128	20FEB09:09:57:00	14JUN09:14:54:00	14.7742	0.2116	1.4
867100_09	14	06MAR09:16:06:00	14MAR09:13:25:00	14.2714	0.1326	0.9
868600_09	48	06MAR09:16:06:00	21JUN09:13:41:00	14.5688	0.2594	1.8
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	14.9511	0.1780	1.2
867700_09	42	07APR09:16:50:00	03MAY09:13:33:00	14.3952	0.1975	1.4
867800_09	16	04MAY09:10:30:00	12MAY09:17:39:00	14.8563	0.2337	1.6
860300_09	79	22MAY09:09:33:00	10SEP09:17:28:00	14.7911	0.2283	1.5
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	15.0507	0.1858	1.2
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	15.1044	0.1651	1.1
869600_09	43	08JUL09:14:14:00	04AUG09:17:32:00	14.7163	0.2487	1.7
869700_09	40	31JUL09:11:09:00	23AUG09:13:39:00	14.9275	0.4206	2.8
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	14.8638	0.1737	1.2
860700_09	44	18SEP09:13:57:00	17OCT09:09:06:00	14.3455	0.4495	3.1
861700_09	45	19SEP09:11:47:00	05DEC09:08:43:00	14.9533	0.7832	5.2
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	14.5939	0.1528	1.0
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	14.9000	0.2098	1.4
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	15.1784	0.1618	1.1
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	14.7125	0.1857	1.3
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	15.2030	0.1828	1.2
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	14.8167	0.2627	1.8
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	14.7209	0.2027	1.4
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	15.1173	0.1654	1.1
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	14.8462	0.1555	1.0
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	15.0383	0.2112	1.4
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	14.9667	0.1966	1.3
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	14.6214	0.1369	0.9
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	14.9000	0.2204	1.5
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	15.1375	0.1601	1.1
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	15.2620	0.1469	1.0
864900_10	76	25APR10:02:52:00	05JUN10:13:56:00	14.9461	0.1949	1.3
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	15.0611	0.1335	0.9
865300_10	28	10JUN10:10:44:00	08JUL10:16:02:00	15.4821	0.1634	1.1
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	15.4146	0.1740	1.1
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	15.2095	0.1921	1.3
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	15.3680	0.1684	1.1
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	15.4690	0.1814	1.2
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	15.4289	0.1916	1.2
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	15.1609	0.1852	1.2
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	15.5886	0.1510	1.0
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	15.4905	0.1974	1.3
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	15.1344	0.1753	1.2
868200_10	56	07NOV10:13:10:00	08DEC10:13:25:00	15.1929	0.4913	3.2
869900_10	40	07NOV10:13:10:00	02DEC10:18:20:00	15.1150	0.5568	3.7
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	15.3875	0.1500	1.0
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	15.6000	0.1776	1.1
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	14.8037	0.2210	1.5
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	15.2273	0.1353	0.9
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	15.3061	0.2221	1.5


2009-2010 Red cell distribution width (%) (Abn II) Quality Control
16
15
14
13
12
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for Red cell distribution width (%) (Normal)

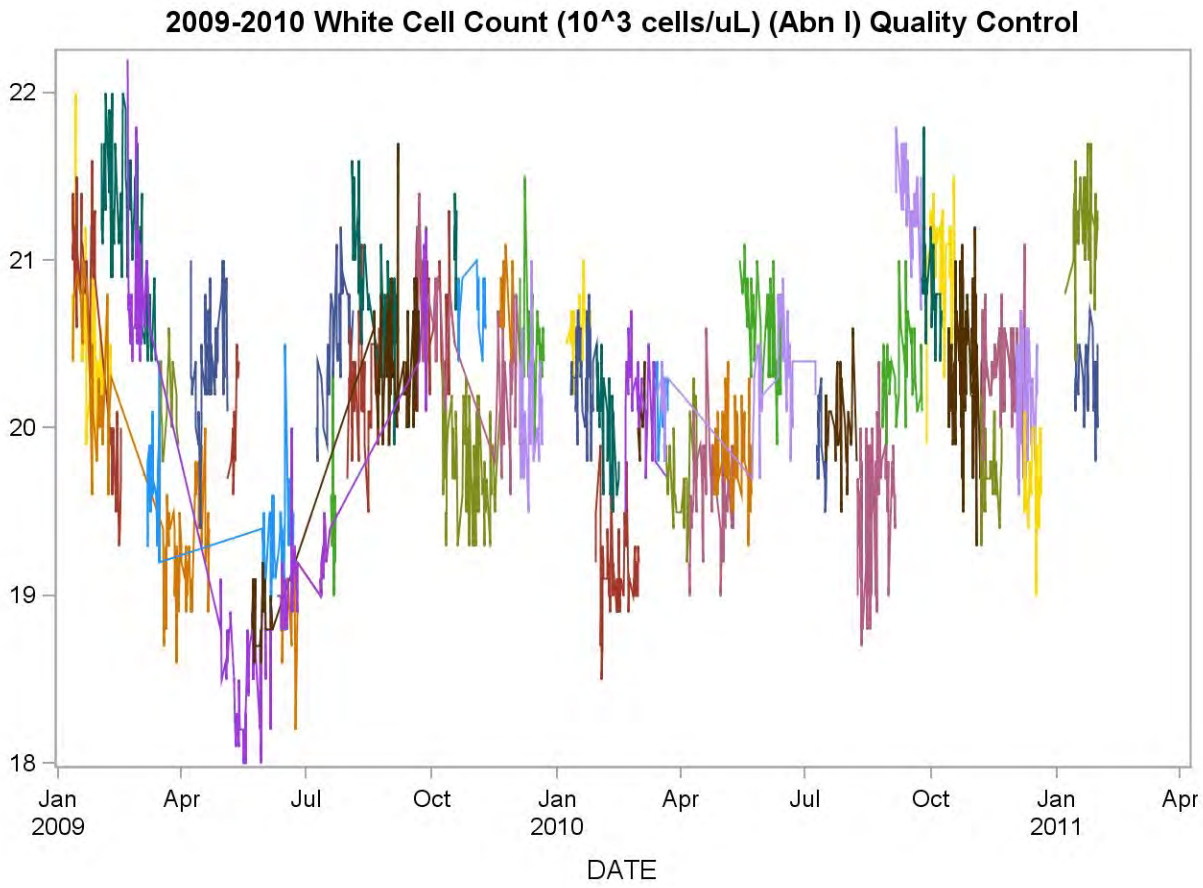
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	14.0447	0.1909	1.4
885800_09	43	11JAN09:10:33:00	15FEB09:13:48:00	13.7628	0.1719	1.2
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	14.2457	0.2069	1.5
887100_09	19	07FEB09:13:33:00	21APR09:08:37:00	14.0474	0.2170	1.5
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	14.2846	0.1804	1.3
887900_09	116	20FEB09:09:55:00	12JUN09:13:46:00	14.3319	0.1854	1.3
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	13.9278	0.1406	1.0
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	14.2308	0.2690	1.9
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	14.5625	0.1962	1.3
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	14.0653	0.1866	1.3
887400_09	44	07APR09:16:59:00	04MAY09:10:24:00	14.1023	0.1562	1.1
887500_09	17	04MAY09:17:41:00	12MAY09:17:33:00	13.9706	0.2664	1.9
880000_09	100	22MAY09:09:34:00	24SEP09:18:04:00	14.3770	0.1863	1.3
880100_09	60	09JUN09:18:44:00	27SEP09:13:38:00	14.0267	0.1885	1.3
888900_09	54	09JUN09:18:44:00	22JUL09:14:24:00	14.0130	0.1884	1.3
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	14.2953	0.2319	1.6
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	14.2718	0.1432	1.0
889700_09	47	03AUG09:08:39:00	06SEP09:08:54:00	14.2511	0.1780	1.2
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	14.4000	0.1803	1.3
881400_09	44	20SEP09:11:46:00	05DEC09:08:41:00	14.3227	0.1696	1.2
881000_09	64	08OCT09:16:29:00	15NOV09:09:02:00	13.9844	0.1525	1.1
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	14.1667	0.1033	0.7
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	14.2135	0.1669	1.2
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	13.7500	0.1225	0.9
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	14.4121	0.1867	1.3
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	14.4613	0.2124	1.5
882900_10	67	07JAN10:09:20:00	29JAN10:12:11:00	14.1000	0.1446	1.0
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	14.1685	0.1870	1.3
884000_10	39	19FEB10:11:08:00	14MAR10:07:26:00	13.9333	0.1811	1.3
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	13.7667	0.0816	0.6
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	13.8571	0.1651	1.2
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	14.0613	0.1726	1.2
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	14.1440	0.2052	1.5
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	14.2137	0.1575	1.1
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	13.9571	0.1876	1.3
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	14.3053	0.2241	1.6
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	14.1875	0.0991	0.7
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	14.3780	0.1573	1.1
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	14.3537	0.1343	0.9
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	14.3623	0.1456	1.0
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	14.4415	0.1643	1.1
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	14.6303	0.2717	1.9
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	14.1750	0.1894	1.3
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	14.2216	0.1769	1.2
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	14.3375	0.1581	1.1
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	14.1659	0.1539	1.1
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	14.2254	0.1685	1.2
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	14.3632	0.1116	0.8
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	14.6033	0.2173	1.5
889000_10	30	08DEC10:14:17:00	20DEC10:13:34:00	14.0667	0.1446	1.0
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	14.0917	0.1663	1.2
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	14.1154	0.1190	0.8


2009-2010 Red cell distribution width (%) (Normal) Quality Control
15.0
14.5
14.0
13.5
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for White Cell Count (10^3 cells/uL) (Abn I)

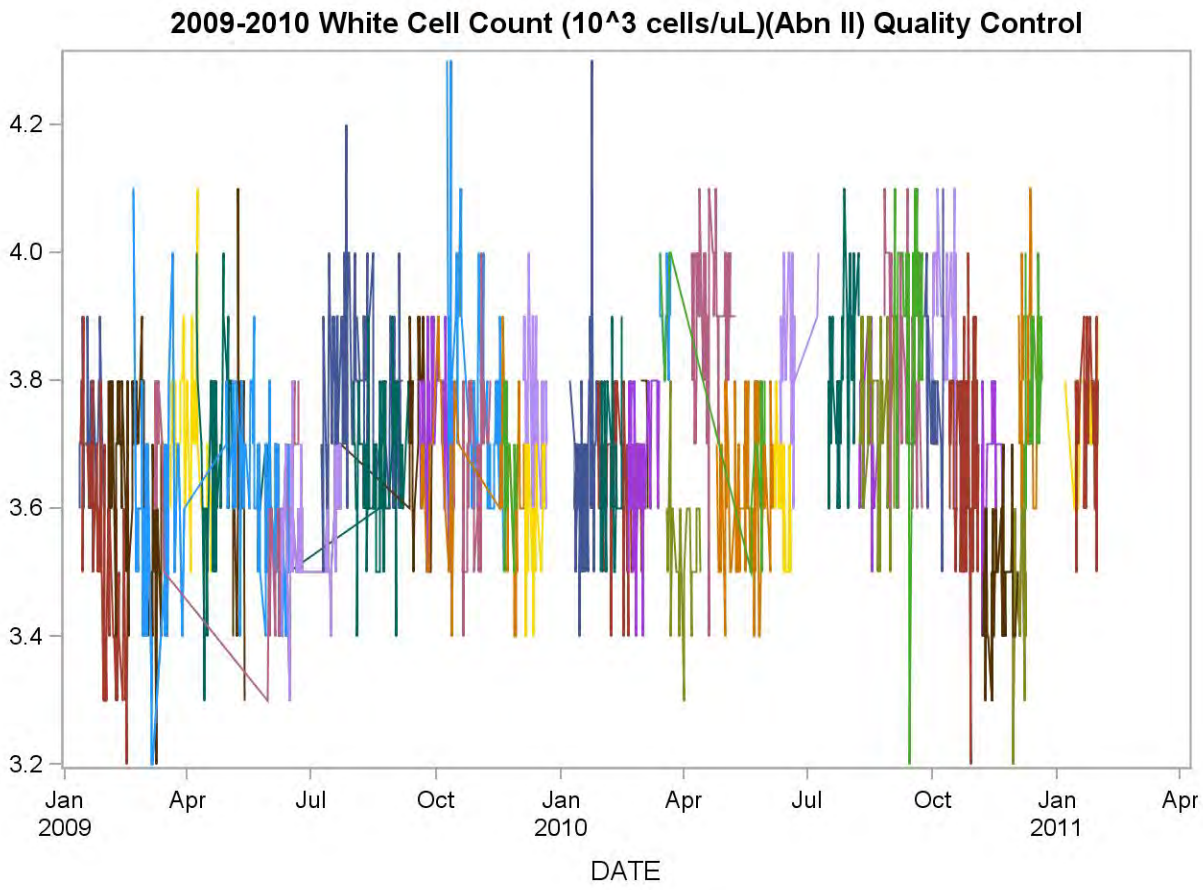
Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
875200_09	54	11JAN09:08:34:00	08FEB09:08:49:00	20.5444	0.4649	2.3
876600_09	78	11JAN09:08:34:00	21APR09:08:36:00	19.5897	0.6074	3.1
875400_09	52	11JAN09:10:37:00	15FEB09:13:49:00	20.7885	0.5707	2.7
875800_09	64	01FEB09:15:25:00	12MAR09:13:25:00	21.1734	0.4217	2.0
876100_09	29	20FEB09:09:56:00	08MAR09:13:59:00	20.8207	0.3986	1.9
877500_09	100	21FEB09:08:34:00	06JUN09:13:24:00	19.1510	1.0195	5.3
876300_09	20	06MAR09:16:04:00	15MAR09:13:31:00	19.6750	0.2989	1.5
878000_09	54	06MAR09:16:04:00	21JUN09:13:38:00	19.4333	0.3144	1.6
876200_09	18	15MAR09:13:39:00	29MAR09:15:08:00	20.1611	0.2547	1.3
877000_09	52	07APR09:16:58:00	04MAY09:10:23:00	20.4096	0.3225	1.6
877100_09	13	04MAY09:17:42:00	12MAY09:17:34:00	20.0231	0.2862	1.4
879600_09	75	22MAY09:09:31:00	21SEP09:17:23:00	19.9520	0.7622	3.8
878400_09	40	09JUN09:18:19:00	18JUL09:13:54:00	19.0425	0.2917	1.5
879800_09	45	09JUN09:18:19:00	27SEP09:13:37:00	19.4044	0.7113	3.7
878900_09	38	08JUL09:14:18:00	04AUG09:12:44:00	20.5342	0.3224	1.6
878500_09	10	19JUL09:08:43:00	22JUL09:14:25:00	19.5100	0.3446	1.8
879100_09	40	31JUL09:11:08:00	23AUG09:13:37:00	20.2325	0.3041	1.5
879400_09	47	03AUG09:08:40:00	06SEP09:08:55:00	20.8979	0.3638	1.7
870100_09	45	18SEP09:13:56:00	17OCT09:09:05:00	20.6689	0.3336	1.6
871000_09	44	20SEP09:11:40:00	05DEC09:08:50:00	20.4114	0.3829	1.9
870700_09	84	08OCT09:16:31:00	19NOV09:09:12:00	19.7810	0.2757	1.4
870300_09	6	17OCT09:10:17:00	19OCT09:10:57:00	21.1000	0.2530	1.2
870800_09	21	20OCT09:15:09:00	09NOV09:13:39:00	20.6952	0.1774	0.9
871200_09	13	19NOV09:10:14:00	29NOV09:14:05:00	20.7692	0.2097	1.0
871300_09	32	04DEC09:14:17:00	21DEC09:14:25:00	20.5000	0.2736	1.3
871600_09	31	05DEC09:10:02:00	20DEC09:13:04:00	20.1129	0.3041	1.5
872600_10	22	07JAN10:09:21:00	24JAN10:13:49:00	20.5682	0.1912	0.9
872700_10	40	10JAN10:12:35:00	29JAN10:12:06:00	20.3150	0.2402	1.2
873000_10	49	28JAN10:13:05:00	01MAR10:09:18:00	19.1531	0.2575	1.3
873100_10	26	29JAN10:13:24:00	14FEB10:13:43:00	19.9769	0.2930	1.5
873600_10	35	19FEB10:14:11:00	22MAR10:13:21:00	20.1829	0.2717	1.3
873400_10	7	28FEB10:16:11:00	05MAR10:13:40:00	20.0857	0.1864	0.9
873900_10	15	14MAR10:08:39:00	22MAR10:13:30:00	20.1667	0.1877	0.9
875000_10	44	14MAR10:08:39:00	08JUL10:16:00:00	20.3273	0.2848	1.4
873800_10	31	19MAR10:08:36:00	13APR10:09:11:00	19.7645	0.2702	1.4
874200_10	49	06APR10:18:24:00	09MAY10:13:22:00	19.6347	0.2962	1.5
874600_10	43	25APR10:02:51:00	22MAY10:13:33:00	19.8581	0.2461	1.2
874700_10	42	14MAY10:09:05:00	13JUN10:08:38:00	20.6190	0.2848	1.4
875300_10	24	09JUL10:16:19:00	16JUL10:13:25:00	19.8917	0.2062	1.0
875900_10	39	16JUL10:11:37:00	07AUG10:08:43:00	20.0051	0.2127	1.1
876300_10	74	08AUG10:08:42:00	04SEP10:13:52:00	19.5527	0.3739	1.9
876700_10	39	26AUG10:10:01:00	24SEP10:08:34:00	20.3513	0.2533	1.2
876800_10	29	05SEP10:08:41:00	23SEP10:13:54:00	21.3586	0.2585	1.2
877200_10	23	24SEP10:11:23:00	08OCT10:13:27:00	20.8478	0.2983	1.4
876900_10	38	27SEP10:11:50:00	18OCT10:08:56:00	20.9500	0.3294	1.6
877400_10	73	13OCT10:15:06:00	06NOV10:13:35:00	20.3658	0.3969	1.9
877800_10	33	06NOV10:10:47:00	21NOV10:13:23:00	19.7485	0.2002	1.0
870300_10	40	07NOV10:13:07:00	02DEC10:18:19:00	20.3875	0.2221	1.1
878100_10	59	07NOV10:13:07:00	08DEC10:13:24:00	20.3356	0.2631	1.3
870500_10	19	28NOV10:12:40:00	08DEC10:13:24:00	20.2263	0.3124	1.5
878500_10	35	02DEC10:09:48:00	17DEC10:13:49:00	20.2029	0.3005	1.5
878600_10	28	08DEC10:14:29:00	20DEC10:13:34:00	19.7143	0.2321	1.2
879800_11	34	06JAN11:12:36:00	30JAN11:14:32:00	21.2088	0.2832	1.3
870000_11	26	14JAN11:10:08:00	30JAN11:13:48:00	20.2923	0.2153	1.1

Summary Statistics for White Cell Count (10^3 cells/uL) (Abn I)



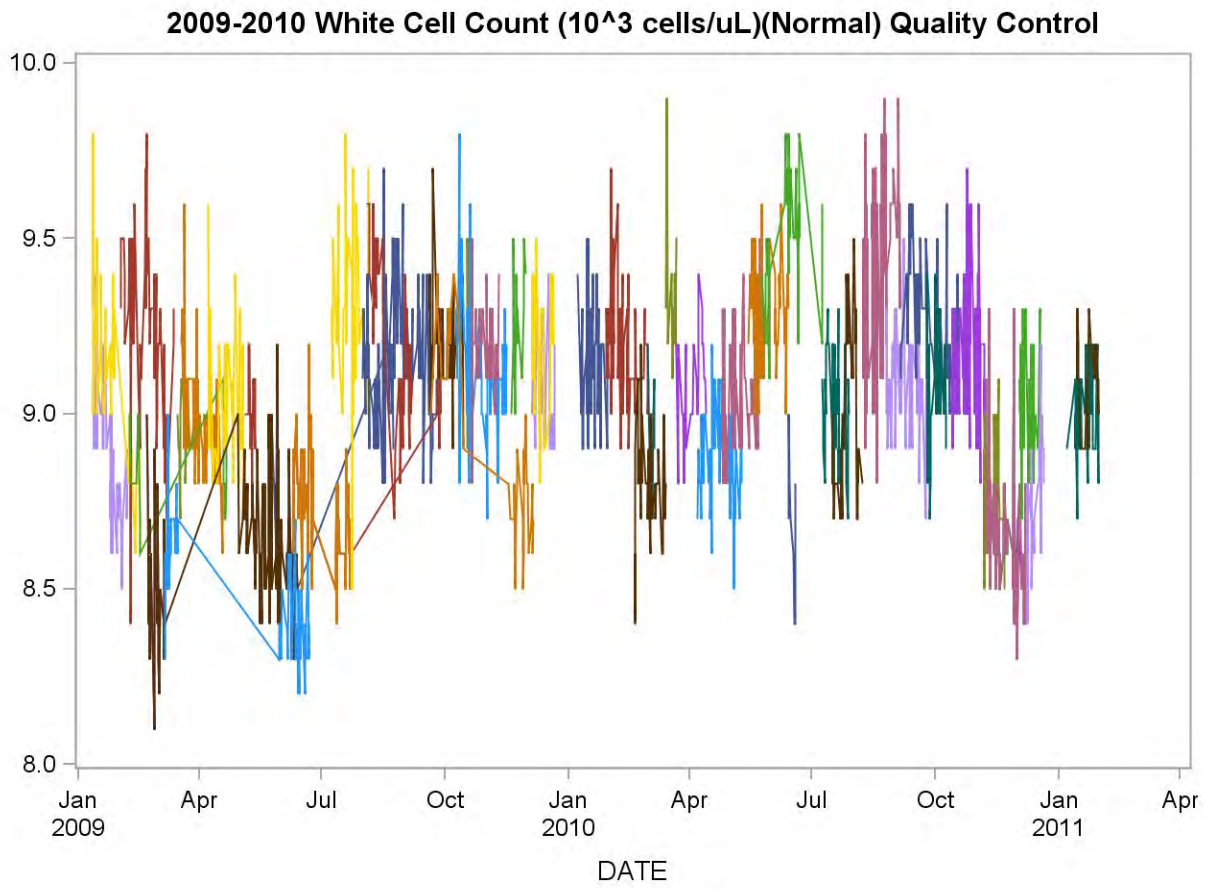
Summary Statistics for White Cell Count (10^3 cells/uL)(Abn II)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
865900_09	29	11JAN09:08:39:00	29JAN09:08:46:00	3.7069	0.1033	2.8
866200_09	53	11JAN09:10:39:00	15FEB09:13:50:00	3.5434	0.1749	4.9
866500_09	56	01FEB09:15:22:00	12MAR09:13:15:00	3.6321	0.1478	4.1
866900_09	40	20FEB09:09:57:00	29MAR09:15:09:00	3.5550	0.1839	5.2
868300_09	127	20FEB09:09:57:00	14JUN09:14:54:00	3.5976	0.1422	4.0
867100_09	13	06MAR09:16:06:00	14MAR09:13:25:00	3.6692	0.0947	2.6
868600_09	47	06MAR09:16:06:00	21JUN09:13:41:00	3.6085	0.1158	3.2
867300_09	47	19MAR09:08:04:00	21APR09:08:35:00	3.7106	0.1272	3.4
867700_09	41	07APR09:16:50:00	03MAY09:13:33:00	3.6927	0.1587	4.3
867800_09	14	04MAY09:10:30:00	12MAY09:17:39:00	3.6357	0.1985	5.5
860300_09	78	22MAY09:09:33:00	10SEP09:17:28:00	3.6103	0.1135	3.1
860400_09	71	09JUN09:17:53:00	27SEP09:13:36:00	3.6239	0.1368	3.8
869200_09	45	09JUN09:17:53:00	22JUL09:14:26:00	3.5667	0.1000	2.8
869600_09	42	08JUL09:14:14:00	04AUG09:17:32:00	3.8048	0.1431	3.8
869700_09	38	31JUL09:11:09:00	23AUG09:13:39:00	3.6553	0.0950	2.6
860000_09	47	03AUG09:08:44:00	06SEP09:08:56:00	3.7766	0.1165	3.1
860700_09	43	18SEP09:13:57:00	17OCT09:09:06:00	3.7163	0.1194	3.2
861700_09	44	19SEP09:11:47:00	05DEC09:08:43:00	3.6386	0.1224	3.4
861300_09	66	08OCT09:16:33:00	19NOV09:09:18:00	3.7621	0.1699	4.5
860900_09	6	17OCT09:10:18:00	19OCT09:10:59:00	3.9667	0.0816	2.1
861400_09	37	20OCT09:12:31:00	09NOV09:13:40:00	3.6568	0.1324	3.6
861900_09	16	19NOV09:10:15:00	29NOV09:14:03:00	3.6500	0.0966	2.6
862000_09	33	04DEC09:14:14:00	21DEC09:13:50:00	3.7515	0.1149	3.1
862300_09	30	05DEC09:09:30:00	20DEC09:13:05:00	3.5767	0.1006	2.8
863000_10	67	07JAN10:09:22:00	29JAN10:09:08:00	3.6463	0.1396	3.8
863400_10	52	28JAN10:13:00:00	01MAR10:09:44:00	3.6404	0.0995	2.7
863500_10	26	29JAN10:12:25:00	14FEB10:13:41:00	3.6462	0.1208	3.3
863900_10	47	19FEB10:14:02:00	13MAR10:13:31:00	3.6426	0.1098	3.0
863800_10	6	28FEB10:16:12:00	05MAR10:13:38:00	3.7500	0.0837	2.2
864200_10	14	14MAR10:08:40:00	22MAR10:13:22:00	3.9143	0.0770	2.0
865200_10	22	14MAR10:08:40:00	30MAY10:13:42:00	3.7500	0.1472	3.9
864100_10	32	19MAR10:08:37:00	13APR10:09:12:00	3.5375	0.0942	2.7
864500_10	50	06APR10:18:25:00	09MAY10:13:24:00	3.9000	0.1229	3.2
864900_10	75	25APR10:02:52:00	05JUN10:13:56:00	3.6173	0.1095	3.0
865700_10	18	06JUN10:08:55:00	18JUN10:13:28:00	3.6222	0.0878	2.4
865300_10	27	10JUN10:21:16:00	08JUL10:16:02:00	3.8444	0.1121	2.9
866300_10	41	16JUL10:11:45:00	07AUG10:13:41:00	3.7927	0.1292	3.4
866600_10	21	08AUG10:08:44:00	22AUG10:13:25:00	3.7333	0.1065	2.9
866700_10	50	08AUG10:14:24:00	02SEP10:17:47:00	3.7400	0.1050	2.8
867000_10	42	26AUG10:10:03:00	23SEP10:08:54:00	3.8262	0.1432	3.7
867100_10	38	02SEP10:18:05:00	23SEP10:13:56:00	3.8842	0.1620	4.2
867500_10	23	24SEP10:11:24:00	08OCT10:13:28:00	3.7957	0.1331	3.5
867200_10	35	27SEP10:11:49:00	18OCT10:08:58:00	3.8886	0.1207	3.1
867600_10	74	13OCT10:15:01:00	03NOV10:13:30:00	3.6676	0.1325	3.6
868000_10	32	06NOV10:10:58:00	21NOV10:13:24:00	3.6375	0.1070	2.9
868200_10	55	07NOV10:13:10:00	08DEC10:13:25:00	3.4873	0.1090	3.1
869900_10	39	07NOV10:13:10:00	02DEC10:18:20:00	3.4872	0.1031	3.0
860100_10	16	28NOV10:12:41:00	08DEC10:13:25:00	3.4875	0.1258	3.6
868700_10	27	02DEC10:09:50:00	17DEC10:13:48:00	3.8222	0.1281	3.4
868800_10	27	08DEC10:14:40:00	20DEC10:13:37:00	3.7630	0.1079	2.9
869400_11	33	06JAN11:12:38:00	30JAN11:14:33:00	3.7364	0.0822	2.2
869600_11	33	14JAN11:10:09:00	30JAN11:13:49:00	3.6939	0.1223	3.3


2009-2010 White Cell Count (10^3 cells/uL)(Abn II) Quality Control
4.2
4.0
3.8
3.6
3.4
3.2
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

Summary Statistics for White Cell Count (10^3 cells/uL)(Normal)

Lot	N	Start Date	End Date	Mean	Standard Deviation	Coefficient of Variation
885500_09	47	11JAN09:08:35:00	07FEB09:08:45:00	8.9128	0.2017	2.3
885800_09	43	11JAN09:10:33:00	15FEB09:13:48:00	9.1023	0.2632	2.9
886100_09	70	01FEB09:15:18:00	12MAR09:13:27:00	9.2171	0.2514	2.7
887100_09	14	07FEB09:13:33:00	21APR09:08:37:00	8.8429	0.1697	1.9
886500_09	26	20FEB09:09:55:00	06MAR09:09:12:00	8.4962	0.2163	2.5
887900_09	115	20FEB09:09:55:00	12JUN09:13:46:00	8.6078	0.1961	2.3
886800_09	18	06MAR09:16:01:00	15MAR09:09:29:00	8.6500	0.1543	1.8
888300_09	52	06MAR09:16:01:00	21JUN09:13:37:00	8.4865	0.1794	2.1
886600_09	16	15MAR09:13:40:00	29MAR09:15:06:00	8.9125	0.1147	1.3
887000_09	49	18MAR09:10:22:00	18APR09:10:52:00	8.9816	0.1764	2.0
887400_09	40	07APR09:16:59:00	04MAY09:10:24:00	9.0400	0.1985	2.2
887500_09	15	04MAY09:17:41:00	12MAY09:17:33:00	9.0000	0.1309	1.5
880000_09	99	22MAY09:09:34:00	24SEP09:18:04:00	8.9414	0.3443	3.9
880100_09	59	09JUN09:18:44:00	27SEP09:13:38:00	8.7661	0.1962	2.2
888900_09	53	09JUN09:18:44:00	22JUL09:14:24:00	8.7245	0.1492	1.7
889300_09	43	08JUL09:14:17:00	04AUG09:17:42:00	9.2977	0.2335	2.5
889400_09	39	31JUL09:11:07:00	23AUG09:13:37:00	9.0795	0.1780	2.0
889700_09	45	03AUG09:08:39:00	06SEP09:08:54:00	9.2400	0.2425	2.6
880400_09	41	18SEP09:13:40:00	14OCT09:08:38:00	9.2341	0.1493	1.6
881400_09	42	20SEP09:11:46:00	05DEC09:08:41:00	8.9310	0.2618	2.9
881000_09	63	08OCT09:16:29:00	15NOV09:09:02:00	9.1127	0.1818	2.0
880600_09	6	17OCT09:10:15:00	19OCT09:10:56:00	9.2333	0.2658	2.9
881200_09	37	20OCT09:12:27:00	09NOV09:13:38:00	9.1919	0.1341	1.5
881600_09	14	19NOV09:10:13:00	29NOV09:14:04:00	9.2429	0.1651	1.8
881700_09	33	04DEC09:14:18:00	21DEC09:13:48:00	9.0606	0.1676	1.8
882000_09	31	05DEC09:09:47:00	20DEC09:13:03:00	9.1871	0.1628	1.8
882900_10	68	07JAN10:09:20:00	29JAN10:12:11:00	9.1515	0.1440	1.6
883200_10	73	28JAN10:13:09:00	01MAR10:09:15:00	9.1932	0.1521	1.7
884000_10	38	19FEB10:11:08:00	14MAR10:07:26:00	8.8053	0.1643	1.9
883900_10	6	28FEB10:16:09:00	05MAR10:13:39:00	8.9667	0.1751	2.0
884300_10	14	14MAR10:08:42:00	22MAR10:13:16:00	9.3714	0.1899	2.0
884200_10	31	20MAR10:08:48:00	13APR10:09:07:00	9.0677	0.1492	1.6
884600_10	50	06APR10:18:23:00	09MAY10:13:21:00	8.8820	0.1424	1.6
885000_10	51	25APR10:02:50:00	24MAY10:08:46:00	9.0863	0.1744	1.9
885100_10	42	14MAY10:09:04:00	13JUN10:08:39:00	9.2810	0.1565	1.7
885400_10	38	24MAY10:17:39:00	08JUL10:15:59:00	9.4842	0.1717	1.8
885800_10	8	13JUN10:08:46:00	18JUN10:13:26:00	8.6750	0.2053	2.4
886300_10	41	08JUL10:17:56:00	28JUL10:09:40:00	9.0073	0.1618	1.8
886400_10	41	16JUL10:11:12:00	07AUG10:13:38:00	8.9659	0.2163	2.4
886800_10	69	08AUG10:08:40:00	04SEP10:13:51:00	9.4246	0.2598	2.8
887200_10	41	25AUG10:15:43:00	24SEP10:08:32:00	9.0829	0.1611	1.8
887400_10	66	05SEP10:08:40:00	18OCT10:08:57:00	9.2712	0.1567	1.7
887700_10	24	24SEP10:11:22:00	08OCT10:13:26:00	9.0708	0.1805	2.0
887900_10	74	13OCT10:14:46:00	06NOV10:13:34:00	9.1932	0.1954	2.1
888200_10	32	06NOV10:10:28:00	21NOV10:13:22:00	8.8125	0.1497	1.7
880200_10	44	07NOV10:13:09:00	02DEC10:18:18:00	8.6841	0.1791	2.1
888500_10	63	07NOV10:13:09:00	08DEC10:13:23:00	8.6317	0.1821	2.1
880500_10	19	28NOV10:12:38:00	08DEC10:13:23:00	8.5105	0.1243	1.5
888900_10	30	02DEC10:09:47:00	17DEC10:13:47:00	9.0133	0.1655	1.8
889000_10	29	08DEC10:14:17:00	20DEC10:13:34:00	8.7655	0.1587	1.8
889700_11	36	06JAN11:12:34:00	30JAN11:14:32:00	9.0056	0.1308	1.5
889900_11	26	14JAN11:08:47:00	30JAN11:13:48:00	9.1038	0.1183	1.3


2009-2010 White Cell Count (10^3 cells/uL)(Normal) Quality Control
10.0
9.5
9.0
8.5
8.0
Jan 2009
Apr
Jul
Oct
Jan 2010
Apr
Jul
Oct
Jan 2011
Apr
DATE

XIX. References

. Coulter® HMX Analyzer Operator's Guide. (1992, January 21). PN 4235935J.

. Coulter® HMX Analyzer Use and Function. (1995, January). PN 4235933H.

. Coulter® HMX Analyzer Special Procedures and Troubleshooting. (1995, December). PN 4235934J.

. Corash, L. (1983). Platelet Sizing: Techniques, Biological Significance, and Clinical Applications. Current Topics in Hematology. New York: Alan R. Wise, Inc.

. Geigy Scientific Tables. (1984). Vol. 3, 210.

. Jones, A.R., Twedl, D., Swaim, W., and Gottfried E. (1996). Diurnal change of blood count analytes in normal subjects. *Am J Clin Path*, 106, 723-7.

. NCCLS document H15-A. (1984). Reference procedure for the quantitative determination of hemoglobin in blood. National Committee for Clinical Laboratory Standards, Villanova, PA.

. NCCLS document H7-A. (1985). Procedure for determining packed cell volume by the micro hematocrit method. National Committee for Clinical Laboratory Standards, Villanova, PA.

. NCCLS document H18-A. (1990). Procedures for the handling and processing of blood specimens. National Committee for Clinical Laboratory Standards, Villanova, PA.

. NCCLS document H3-A3. (1991). Procedures for the collection of diagnostic blood specimens by venipuncture. National Committee for Clinical Laboratory Standards, Villanova, PA.

NCCLS document H4-A3. (1991). Procedures for the collection of diagnostic blood specimens by skin puncture. National Committee for Clinical Laboratory Standards, Villanova, PA.

NCCLS document H26-A. (1996). Performance goals for the internal quality control of multichannel hematology analyzers; Approved Standard. NCCLS, Wayne, PA.

Standard 493-1211. *Federal Register*, 57: 40, (1992, February 28). Rules and Regulations, p. 7164.

Threatte, G.A., Andrados, C., Ebbe, S., and Brecher, G. (1984). Mean platelet volume: The need for a reference method. *AJCP*, 81, 769-772.